Lewisville City Council

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A G E N D A

LEWISVILLE CITY COUNCIL MEETING
NOVEMBER 20, 2017

LEWISVILLE CITY HALL
151 WEST CHURCH STREET
LEWISVILLE, TEXAS 75057

WORKSHOP SESSION - 5:45 P.M.

REGULAR SESSION – 7:00 P.M.

Call to Order and Announce a Quorum is Present.

WORKSHOP SESSION – 5:45 P.M.

A. Review and Discuss Administrative Modifications and Alternative Standards Associated With the Draft I-35E Corridor Overlay District

B. Animal Services Volunteer Program

C. Discussion of Regular Agenda Items and Consent Agenda Items

REGULAR SESSION – 7:00 P.M.

A. **INVOCATION:** Councilman Troyer

B. **PLEDGE TO THE AMERICAN AND TEXAS FLAGS:** Deputy Mayor Pro Tem Jones

C. **Consideration of Items Relating to the November 7, 2017, City of Lewisville Charter Amendment Election:**

1. Canvass of the Election Returns for the City of Lewisville Charter Amendment Election

2. Consideration of a Resolution Declaring the Results of the City of Lewisville Charter Amendment Election

D. **PRESENTATION:** Certificate of Achievement for Planning Excellence

AGENDA
LEWISVILLE CITY COUNCIL
NOVEMBER 20, 2017

E. **PUBLIC HEARINGS:**

1. **Continued Public Hearing: Consideration of an Ordinance Granting a Zone Change Request From Light Industrial District (LI) to Warehouse District (WH), on Approximately 6.68 Acres Legally Described as Lots 11 & 12, Block A, ARTX Park Addition, Bounded by East Valley Ridge Boulevard on the Northeast Side and Mario Court on the West Side, and an Ordinance Granting a Special Use Permit and Four Associated Variances to Allow a Wholesale Establishment With Outside Storage on More Than 10% of the Platted Lot on the Above-Referenced Land, Both Requested by Richard DeOtte, DeOtte Inc., on Behalf of Jim Bedworth Jr., of REW Gray Properties, LLC, the Property Owner (Case No. PZ-2017-07-15 and Case No. SUP-2017-07-11).**

ADMINISTRATIVE COMMENTS:

The property owner, REW, is proposing to relocate from their current site on South Mill Street to the subject site in ARTX Park. The zone change is necessary to consider a Special Use Permit. The following four variances are requested: a) to allow a reduction in exterior material requirements from 80% brick veneer to 71% brick veneer on the west elevation of the main building and 100% stucco on the north, south and east elevations; b) to allow a reduction in exterior material requirements from 80% brick veneer to 0% brick veneer for the two three-sided storage sheds except for 100% stucco on the east elevation of the eastern storage building; c) to allow storage to exceed the height of the screening wall; and d) to allow precast panel screening wall within 25 feet of the street right-of-way in lieu of the required brick or stone screening wall. The Planning and Zoning Commission recommended unanimous approval (6-0) of the zone change request and the SUP request at their meeting on July 18, 2017.

RECOMMENDATION:

That the City Council continue the public hearing to the December 18, 2017 City Council meeting.

AVAILABLE FOR QUESTIONS: - Richard E. Luedke, Planning Director
- Richard DeOtte, DeOtte Inc.

2. **<u>Continued Public Hearing</u>: Consideration of an Ordinance Granting a Zone Change From Heavy Industrial District (HI) to Specific Use – Landfill Accessory Uses District (SU – Landfill Accessory Uses) and one Associated Variance; on a 15.0 Acre lot Legally Described as Lot 1, Block A, D/FW Recycling & Disposal Facility Addition, Located at 1600 South Railroad Street; as Requested by Richard A. Dormier, Freeman-Millican, Inc. on Behalf of Guy R. Campbell, Waste Management of Texas, Inc., the Property Owner (Case No. PZ-2017-10-18).**

<u>ADMINISTRATIVE COMMENTS</u>:

The 15.0-acre lot consists of supplementary structures for the adjacent landfill, including an office building, service shop, truck wash, gas plant, storage building, paint shop and maintenance building. The zone change is necessary to accommodate the construction of a new break room and an expansion of the truck wash and service shop. The variance is requested to allow a dead-end water line to exceed 600 feet. On October 3, 2017, the Planning and Zoning Commission recommended unanimous approval (6-0) of the zone change request.

<u>RECOMMENDATION</u>:

That the City Council approve the proposed ordinance and associated variance as set forth in the caption above.

AVAILABLE FOR - Richard E. Luedke, Planning Director
<u>QUESTIONS:</u> - Richard Dormier, Freeman-Millican, Inc.

3. **<u>Public Hearing:</u> Consideration of an Ordinance Granting Zone Change Request From Light Industrial District (LI) to Planned Development – Estate Townhouse District (PD-ETH) and Three Associated Variances for a Proposed Residential Development Consisting of 38 Single-Family Detached Units and Two Open Space Lots; on an Approximately 6.762-Acre Tract of Land out of the Frances Pearce Survey, Abstract No. 1016, Located on the East Side of Archer Way, Approximately 430 Feet North of Justin Road (FM 407); as Requested by Dale Ridinger, of Ridinger Associates, Inc., on Behalf of Unicla of America, Inc. the Property Owner (Case No. PZ-2017-10-20).**

ADMINISTRATIVE COMMENTS:

The proposed Planned Development will have a base zoning of Estate Townhouse and consists of 38 single-family detached lots with a front entry product. The following variances are requested: a) to allow front entry driveways, b) to allow non-radial lot lines along curved streets, and c) to allow a reduced lot width and reduced control of access for a single-family lot. The Planning and Zoning Commission recommended unanimous approval (7-0) of the zone change request at their meeting of October 17, 2017.

RECOMMENDATION:

That the City Council approve the proposed ordinance and three associated variances as set forth in the caption above.

AVAILABLE FOR QUESTIONS: - Richard E. Luedke, Planning Director
- Dale Ridinger, Ridinger and Associates, Inc.

4. Public Hearing: Consideration of an Ordinance Granting a Zone Change From Light Industrial District (LI) to Planned Development – Single Family Residential District (PD - R-5) and Five Associated Variances for a Proposed Residential Development Consisting of 30 Single-Family Detached Units on an Approximately 6.60-Acre Tract of Land out of the Levi N. Sparks Survey, Abstract No. 1135, Located on the West Side of McGee Lane, Approximately 125 Feet South of Daffodil Lane, as Requested by John Bezner of Civil Point Engineering, Inc., on Behalf of RJS Marine Inc., the Property Owner (Case No. PZ-2017-10-21).

ADMINISTRATIVE COMMENTS:

The proposed Planned Development will have a base zoning of R-5 and consists of 30 single-family detached lots with a front entry product. The following variances are requested: a) to allow a 62-foot lot width with a 40-foot control of access for Lot 2, in lieu of required 75-foot lot width with a 50-foot control of access, b) to allow a 737-foot long cul-de-sac in lieu of a 600-foot long cul-de-sac (measured from the center of McGee Lane to the center of the cul-de-sec), c) to allow front entry driveways, d) to allow non-radial lots in lieu of straight or radial lot lines and e) to allow a 50-foot right-of-way at the cul-de-sac with a 10-foot street, sidewalk, water and sanitary sewer easement, in lieu of the required 60-foot right-of-way. The Planning and Zoning Commission recommended unanimous approval (7-0) of the zone change request at their meeting of October 17, 2017.

RECOMMENDATION:

That the City Council approve the proposed ordinance and four associated variances as set forth in the caption above.

AVAILABLE FOR QUESTIONS: - Richard E. Luedke, Planning Director
- John Beznerm, Civil Point Engineering, Inc.

F. **VISITORS/CITIZENS FORUM:** At this time, any person with business before the Council not scheduled on the agenda may speak to the Council. No formal action can be taken on these items at this meeting.

G. **CONSENT AGENDA:** All of the following items on the Consent Agenda are considered to be self-explanatory by the Council and will be enacted with one motion. There will be no separate discussion of these items unless a Council Member or citizen so request. For a citizen to request removal of an item, a speaker card must be filled out and submitted to the City Secretary.

5. APPROVAL OF MINUTES: a) City Council Minutes of the October 2, 2017, Workshop Session and Regular Session; and b) City Council Minutes of the November 6, 2017, Workshop Session and Regular Session.

6. Approval of a Bid Award for the S.H. 121 Business 24-Inch Waterline From Valley Ridge Boulevard to Midway Road Pump Station Project to S & J Construction Company, Inc., Jacksonville, Arkansas, in the Amount of $3,751,274.53; and Authorization for the City Manager to Execute the Agreement.

ADMINISTRATIVE COMMENTS:

A total of twenty-six (26) bid invitations were downloaded from Bidsync.com. A total of ten (10) bids were received and opened October 12, 2017. The project consists of construction of approximately 16,500 feet of 24-inch water transmission line from Valley Ridge Boulevard to the Midway Pump Station including a river crossing at the Elm Fork Trinity River. Funding is available in the Midway West utility capital accounts.

RECOMMENDATION:

That the City Council approve the award as set forth in the caption above.

7. Approval of an Interlocal Cooperation Agreement for Library Services with Denton County; Designation of the Library Services Director as the Official Liaison for the City of Lewisville; and Authorization for the City Manager to Execute the Agreement.

ADMINISTRATIVE COMMENTS:

Denton County has requested that the Lewisville Public Library provide library services to all residents of Denton County. In exchange for such services October 1, 2017 – September 30, 2018, Denton County will pay the City of Lewisville $72,300 based upon Lewisville's population per North Central Texas Council of Governments figures and a proportionate share of unserved Denton County residents.

RECOMMENDATION:

That the City Council approve the agreement for Library Services with Denton County; designate the Director of Library Services as the official liaison for the City of Lewisville; and authorize the City Manager to execute the contract.

8. Approval of the Fiscal Year 2017-2018 Ambulance Service Interlocal Cooperation Agreement Between Denton County and the City of Lewisville; and Authorization for the City Manager or Her Designee to Execute the Agreement.

ADMINISTRATIVE COMMENTS:

The Lewisville Fire Department provides emergency ambulance service to Denton County through an annual interlocal cooperation agreement. By providing ambulance service to designated unincorporated areas of Denton County, fixed revenue for the City is $54,513, plus $257.1269 per ambulance transport. The 4.28 rural miles noted in the Agreement is the Castle Hills area, Lewisville Lake Bridge, as well as a small amount of property owned by the Corps of Engineers. The term of agreement is for the period of October 1, 2017 through September 30, 2018. The City Attorney's office has reviewed and approved the Agreement as to form.

RECOMMENDATION:

That the City Council approve the agreement as set forth in the caption above.

9. Approval of the Fiscal Year 2017-2018 Fire Protection Services Interlocal Cooperation Agreement Between Denton County and the City of Lewisville; and Authorization for the City Manager or Her Designee to Execute the Agreement.

ADMINISTRATIVE COMMENTS:

The Lewisville Fire Department provides fire protection services to Denton County through an annual interlocal cooperation agreement. By providing fire protection services to designated unincorporated areas of Denton County, revenue is generated for the City in the amount of $10,000 for a readiness fee, plus $550.00 per fire call. The 4.28 rural miles is the Castle Hills area, Lewisville Lake Bridge, as well as a small amount of property owned by the Corps of Engineers. The term of agreement is for the period of October 1, 2017 through September 30, 2018. The City Attorney's office has reviewed and approved the Agreement as to form.

RECOMMENDATION:

That the City Council approve the agreement as set forth in the caption above.

10. Approval of a Resolution of the City Council of the City of Lewisville, Texas, Authorizing the City Manager to Sign an Agreement for the Furnishing and Installing of Traffic Signals by a Municipality.

ADMINISTRATIVE COMMENTS:

The City of Lewisville is responsible for the maintenance of the signals on FM 544 within the City of Lewisville. The ongoing widening of FM 544 by TxDOT requires reconstruction or upgrade of the existing traffic signals along its length. TxDOT is offering to let the City of Lewisville provide the communication and network equipment at two (2) locations on F.M. 544, which will allow the City of Lewisville to continue to control, monitor, and maintain these signals in a manner compatible with the City's existing traffic signal system. The agreement will provide full reimbursement from TxDOT in the amount of $1,154 per each signal, for a total of $2,308.

RECOMMENDATION:

That the City Council approve the resolution as set forth in the above caption.

11. Approval of Amendment No. 6 to a Letter Agreement With KCS Railroad in the Amount of $13,195 for Additional Plan Review Services Associated With the Windhaven Parkway Railroad Underpass North of FM 544; and Providing Authorization for the City Manager or Her Designee to Execute the Amendment on Behalf of the City.

ADMINISTRATIVE COMMENTS:

The City of Lewisville entered into a letter agreement with KCS Railroad in 2011 for KCS to provide plan review services for the design of the Windhaven Parkway underpass north of FM 544. KCS Railroad's review has exceeded the original estimated cost and has required several amendments. Based on recent review comments, KCS is estimating additional review costs thus requiring another amendment to the original agreement to cover their extensive review process bringing the total fee to $71,926. Funding is available in the Corporate Drive (FM 544 to Josey) project accounts.

RECOMMENDATION:

That the City Council approve Amendment No. 6 as set forth in the caption above.

12. Approval of an Interlocal Agreement with Denton County Setting Forth the Terms and Conditions Under Which the Denton County Tax Assessor-Collector Shall Refuse to Register or Re-register Motor Vehicles Pursuant to Section 702.003 of the Texas Transportation Code.

ADMINISTRATIVE COMMENTS:

Section 702.003 of the Texas Transportation Code authorizes municipalities to enter into agreements with county tax assessor-collectors, upon receipt of information from the municipality by and through the Texas Department of Motor Vehicles motor vehicle registration system, to assist a municipality in the enforcement of outstanding warrants of arrest for the failure to appear or failure to pay a fine on a complaint that involves the violation of a traffic offense by refusing to register or re-register a motor vehicle. The program works by placing a "flag" on vehicle registration and in order to remove a "flag" the owner must contact the court and pay the fine.

RECOMMENDATION:

That the City Council approve the contract as set forth in the caption above.

13. Approval of Revisions to Administrative Policy 2.0 Human Resources – Section X – Military Leave Pay.

ADMINISTRATIVE COMMENTS:

The City established a policy in May 2004 to pay employees who were called to active duty in the military the difference between their military pay and their normal city pay to ensure no loss of wages for up to one year every five years. In December 2007, the policy was revised, allowing pay to be extended for up to two years per five-year period. Staff is recommending approval to maintain the current policy and removal of the requirement that the policy be reviewed by Council every two years.

RECOMMENDATION:

That the City Council approve the policy as set forth in the caption above.

14. Approval of a Resolution for the Acceptance of the 2017 Homeland Security Grant Program's Urban Area Security Initiative (UASI) Grant Award in the Amount of $130,000.

ADMINISTRATIVE COMMENTS:

The Office of Emergency Management received notice from the State of Texas Office of the Governor's Homeland Security Grants Division that the City of Lewisville has been awarded a grant in the amount $130,000 under the Urban Area Security Initiative (UASI) grant program. The intent of the UASI grant program is to support local efforts in preparing for threats and hazards that pose risk to our community, and to improve the regional ability to prevent, protect against, mitigate, respond to and recover from acts of terrorism. The amount of $130,000 is allocated at $65,000 to develop a city-wide unmanned aerial system program and $65,000 to develop a full-scale exercise focused on terrorism related scenarios.

RECOMMENDATION:

That the City Council accept the grant and approve the resolution as set forth in the caption above.

H. **REGULAR HEARINGS:**

15. Consideration of an Ordinance of the City Council of the City of Lewisville, Texas Amending the Lewisville Code of Ordinances, Chapter 2, Section 2-201 Fee Schedule By Repealing and Replacing Municipal Court Credit Card Convenience Fees.

ADMINISTRATIVE COMMENTS:

The City recently changed service providers for credit card processing for the Municipal Court operations. This item will change the fee ordinance for the new credit card fee structure charged to customers under the new payment processing solution.

RECOMMENDATION:

That the City Council approve the ordinance as set forth in the caption above.

16. Consideration of an Ordinance Updating the Service/Assessment Plan and Assessment Roll for Lewisville Castle Hills Public Improvement District No. 5 Project; Providing a Repealer; Providing For Severability; Providing an Effective Date; and Declaring an Emergency.

ADMINISTRATIVE COMMENTS:

City Council approved a resolution on May 6, 2013 authorizing the creation of Lewisville Castle Hills Public Improvement District (PID) No. 5. In conjunction with bonds being considered for approval, an update to the Service Plan and Assessment Roll must also be considered and approved by City Council. This plan identifies public improvement costs to be provided by the PID along with related information concerning the indebtedness to be incurred and the current outstanding assessments and indebtedness. PID5 occupies the same area as Denton County Fresh Water Supply District 1-G.

RECOMMENDATION:

That the City Council consider approval of the ordinance as stated in the caption above.

17. Consideration of an Ordinance Authorizing the Issuance of $11,395,000 City of Lewisville, Texas, Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Series 2017 Utility Bonds") in Accordance With the Terms of That Certain Master Trust Agreement and Third Supplemental Trust Agreement; Approving and Authorizing the Execution of the Third Supplemental Trust Agreement; Authorizing a Final Limited Offering Memorandum Pertaining to the Issuance of the Series 2017 Utility Bonds; Approving a Bond Placement Agreement; Providing a Repealer, Severability, and an Effective Date; and Containing Other Matters Related to the Series 2017 Utility Bonds.

ADMINISTRATIVE COMMENTS:

Denton County Fresh Water Supply District No 1-G has requested the City to authorize and approve the issuance of up to $11,395,000 of said bonds above for the purpose of acquiring certain water, sewer, and drainage facilities and to pay certain costs incurred in connection with the issuance of the bonds.

RECOMMENDATION:

That the City Council consider approval of the ordinance as set forth in the caption above.

AVAILABLE FOR QUESTIONS: - Ross Martin, Winstead, PC

18. Consideration of an Ordinance Authorizing the Issuance of $5,905,000 City of Lewisville, Texas, Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Series 2017 Road Bonds") in Accordance With the Terms of That Certain Master Trust Agreement and Second Supplemental Trust Agreement; Approving and Authorizing the Execution of the Second Supplemental Trust Agreement; Authorizing a Final Limited Offering Memorandum Pertaining to the Issuance of the Series 2017 Road Bonds; Approving a Bond Placement Agreement; Providing a Repealer, Severability, and an Effective Date; and Containing Other Matters Related to the Series 2017 Road Bonds.

ADMINISTRATIVE COMMENTS:

Denton County Fresh Water Supply District No 1-G has requested the City to authorize and approve the issuance of up to $5,905,000 of said bonds above for the purpose of acquiring and constructing certain streets and roads and to pay certain costs incurred in connection with the issuance of the bonds.

RECOMMENDATION:

That the City Council consider approval of the ordinance as set forth in the caption above.

AVAILABLE FOR QUESTIONS: - Ross Martin, Winstead, PC

19. Consideration of an Ordinance Amending the Lewisville City Code, Section 15-104, Truck Operation Restricted, on College Street Between Mill Street and Kealy Avenue Within the City of Lewisville; and Amending the Lewisville City Code, Section 15-126, Stopping, Standing or Parking Prohibited on Specific Streets, at the Cul-De-Sac on the South end of North Cowan Avenue Within the City of Lewisville.

ADMINISTRATIVE COMMENTS:

The opening of Valley Ridge Boulevard provides commercial trucks serving businesses on College Street access to Interstate Highway 35E and State Highway 121 Business. Thus, trucks from College Street no longer need to access Mill Street to get to I-35E. Staff is proposing to restrict trucks on College Street between Mill Street and Kealy Avenue. The Transportation Board considered this item at the October 17, 2017 meeting and voted unanimously (7) to (0) to recommend approval of the proposed ordinance. In addition to rerouting truck traffic, Valley Ridge construction also required closure of North Cowan Avenue from Mill Street and removal of a railroad crossing. A cul-de-sac is being constructed at the south end of N Cowan Ave just north of the DCTA railroad tracks. To allow large trucks serving businesses on N Cowan Ave and the school buses to freely turn around at the cul-de-sac, parking is to be prohibited at the cul-de-sac. The Transportation Board considered this item at the August 1, 2017 meeting and voted unanimously (7-0) to recommend approval of the proposed ordinance.

RECOMMENDATION:

That the City Council approve the ordinance as set forth in the caption above.

AVAILABLE FOR QUESTIONS: - David Salmon, City Engineer

I. **REPORTS**: Reports about items of community interest regarding which no action will be taken.

- Fourth Quarter Investment Report From July 1, 2017 – September 30, 2017

J. **CLOSED SESSION:** In Accordance with Texas Government Code, Subchapter D,

1. Section 551.072 (Real Estate): Property Acquisition

2. Section 551.087 (Economic Development): Deliberation Regarding Economic Development Negotiations

K. **RECONVENE** into Regular Session and Consider Action, if Any, on Items Discussed in Closed Session.

L. **ADJOURNMENT**

The City Council reserves the right to adjourn into closed session at any time during the course of this meeting to discuss any of the matters listed above, as authorized by Texas Government Code Section 551.071 (Consultation with Attorney), 551.072 (Deliberations about Real Property), 551.073 (Deliberations about Gifts and Donations), 551.074 (Personnel Matters), 551.076 (Deliberations about Security Devices) and 551.087 (Economic Development).

CITY OF LEWISVILLE, TEXAS
IH-35E Corridor Overlay District
Administrative Modifications and Alternative Standards table

Overlay District Section and Standard	Standard (Core Sub-District)	Administrative Modification	Alternative Standards (Overlay District Board)	Alternative Standards (City Council)
Building and Envelope Regulations				
(1) Building Placement • Setbacks & Build-to zones Primary Pedestrian Street: IH-35E Frontage Road: Arterial Roadway: Collector or Local Street: • Frontage build out	 0 feet – 10 feet 10 feet 10 feet 10 feet 80% along Primary Ped. Streets	 10% = 11 feet 10% = 11 feet 10% = 11 feet 10% = 11 feet 10% = 72 %	 Between 11% - 60% = 11 feet – 16 feet Between 11% - 60% (71%-32%)	 Over 60% = over 16 feet Over 60% (31% and below)
Specific Standard for Administrative Modification:		For properties fronting the IH-35E Frontage Road and Arterial Roadways, an Administrative Modification may be requested to allow an 80' maximum Build-to Zone to allow for a single drive aisle with parking between Street and Principal Building as long as the building placement meets the standard in Subsection (iv.) above.		
(2) Building Orientation (placement of parking between the building and street)		Allowed along IH-35E or Arterial Roadways	NA	NA
(3) Blocks and Lots • Block perimeter (Specific Administrative Modification) • Block face length	 1,600 feet max. 600 feet max.	 20% over the max. = 1,920 feet 10% over the max = 660 feet	 Between 21% and 60% (1,921 feet to 2,560 feet) Between 11% and 60% (661 feet- 960 feet)	 Over 60% (2,561 and above) Over 60% (961 feet and above)

Overlay District Section and Standard	Standard (Core Sub-District)	Administrative Modification	Alternative Standards (Overlay District Board)	Alternative Standards (City Council)
(4) Building height • Min. building height • Min. interior ground floor height	20 feet min. 12 feet min. clear	10% under the min = 18 feet 10% under the min = 10.8 feet	Between 11% and 60% (18'-12') Between 11% and 60% (10.7'-4.8')	Over 60% (12' and below) Over 60%m (4.7' & below)
(5) Driveways • Widths & radius • Spacing	24 feet max; 20' radius max. 300 feet min.	10% over the max = 26.4 feet 10% under the min = 270 feet	Between 11% and 60% (26.5'-38.4") Between 11% and 60% (271'-120')	Over 60% (38.5' & above) Over 60% (119' and below)
(6) On site pedestrian circulation • Internal walkway dimensions	6 feet min.	10% under the min = 5.4 feet	Between 11% and 60% (5.3'-2.28')	Over 60% (2.27' & below)
(7) Off-street parking • Non-residential parking ratio • Residential parking ratio	1 space per 300 sf min. 1.5 spaces per unit	1 space per 330 sf 1.35 spaces per unit	Between 330 and 480 Between 1.35 and 0.6/unit	Ratio over 480 sf Ratio under 0.6/unit
Specific Standard for Administrative Modification:		To allow credit for available public parking or shared Off-street Parking on another lot within 1,000 feet of the subject property to apply towards on-site parking requirements.	Over 1,000 feet	Over 1,000 feet
Architectural Regulations				
(1) Building Articulation and Facades • Façade rhythm	Between 20' and 30'	Between 22' and 33' feet	Between 23' and 48'	49' and above
• Balconies required upper floor units along streets and open space	Required on a min. of 25% of units	Requirement reduced to 22.5% of the units	Between 22.5% and 10%	Below 10% of the units with balconies

Overlay District Section and Standard	Standard (Core Sub-District)	Administrative Modification	Alternative Standards (Overlay District Board)	Alternative Standards (City Council)
• Ground Floor Windows	40% min. 60% - 80% for retail or restaurant use on ground floor	36% min. Between 54% and 88%	Between 36% and 16% Min. between 54% and 24%; Max. over 88%	Below 16% Min. under 24%
• Upper Floor Windows	25% - 60% along Primary Ped. Streets	Between 22.5% and 66%	Min. between 22.5% and 10%; max. between 66% and 96%	Min. under 10% and max. Over 96%
(2) Building Entrances • Spacing	Entrance req'd every 60' along primary pedestrian streets	Min. spacing raised to 66'	Spacing raised to 96'	Spacing over 96'
(3) Building materials • Exterior wall façade composition	Min. 80% masonry (brick or stone)	Min. reduced to 72%	Min. between 72% and 32%	Less than 32% masonry
• Exterior colors	Min. 80% shall utilize earth tones	Min. reduced to 72%	Min. between 72% and 32%	Less than 32% earth tones
(4) Awnings and Canopies • Req'd along primary ped. Streets	Min. 75% of the sidewalk shall have a canopy	Min. reduced to 67.5%	Min. between 67.5% and 30%	Min. less than 30%
(5) Windows (transparency)	Min. required transparency of 60%	Min. may be reduced if required to meet energy efficiency standards.		
(6) Parking structures (articulation requirement)	Articulation req'd every 40'	Articulation may be expanded to every 44'	Articulation between 44' and 64'	Articulation over 64'
Landscape Regulations				
(1) Trees and Plant Materials • Primary Ped. Street tree spacing	Req'd at 30' on center (avg.)	Avg. spacing at 33' with max. spacing not to exceed 44' feet between any two trees	Avg. spacing between 33' and 48'	Avg. spacing over 48'

Overlay District Section and Standard	Standard (Core Sub-District)	Administrative Modification	Alternative Standards (Overlay District Board)	Alternative Standards (City Council)
• All other streets tree spacing	Req'd at 40' on center along all other streets	Avg. spacing not to exceed 44'	Avg. spacing between 44' and 64'	Avg. spacing over 64'
• Min. caliper size and height at the time of planting	Min. 3" caliper and 10' height	Min. 2.7" caliper and 9' height	Caliper between 2.7" and 1.2" caliper Height between 9' and 4'	Under 1.2" caliper Height under 4'
• Parking lot screening along IH-35E Specific Standard for Administrative Modification:	Min. 10' wide landscape area with 24" high shrubs	Allow 9' min. wide landscape area. Allow for a masonry wall, berm or combination (min 36" height)	Allow between 9' and 4' wide landscape area	Allow less than 4' wide landscape area
• Parking lot screening along other streets	Min. 5' wide landscape area with 24" high shrubs or masonry wall	Allow 4.5' wide landscape area	Allow less than 4.5' wide landscape area	
• Parking lot landscape islands	Min. 10' wide island with 50% plant cover for every 8 spaces	9' wide landscape island or 45% plant cover for every 9 spaces	Allow landscape islands between 4' and 9' and plant cover less than 45% with a different ratio	No landscaping islands
• Parking lot trees	1 tree per eight spaces	1 tree per 9 spaces	1 tree per 9 - 13 spaces	1 tree per more than 13 spaces
(2) Open Space				
• Min. private open space	Min. 15% of the development	Min. reduced to 13.5% of the development	Min. between 13.5% and 6%	Less than 6%
• Min. publicly accessible open space	Min. 8% of the development	Min. reduced to 7.2%	Min. between 7.2% and 3.2%	Less than 3.2%
• Street frontage min. req'd for publicly accessible open space	25% min.	Min. reduced to 22.5%	Min. between 22.5% and 10%	Less than 10%

Overlay District Section and Standard	Standard (Core Sub-District)	Administrative Modification	Alternative Standards (Overlay District Board)	Alternative Standards (City Council)
• Enclosed open space width ratio	2:1 (height to width)	Width may be 55% of the height	Width may be between 55% and 80% of the height	Width over 80% of the height
• Non-enclosed open space	3:1 (height to width)	Width may be 36% of the height	Width between 36% and 52% of the height	Width over 52% of the height
Specific Standard for Administrative Modification (non-numerical):		In addition to the Approved Planting List (Appendix G), other species that are drought tolerant and adaptive may be used for planting within the Corridor District with approval of an Administrative Modification.		
Street and Streetscape Regulations				
(1) Street cross sections	Appendix F	Cross sections may be adjusted to fit utility locations, existing landscaping and development or the International Fire Code as adopted by the City.		
(2) Sidewalks				
• Streetscape zone along primary ped. streets	Min. 12' clear	Min. reduced to 10.8'	10.7'-4.56'	Below 4.56'
• Streetscape zone along all other streets	Min. 8' clear	Min. reduced to 7.2'	7.1'- 3.2'	Below 3.2'
(3) Street and Pedestrian Lighting Specific Standard for Administrative Modification (non-numerical): • Pedestrian scaled Street lighting max light pole height	15 feet 40 feet o.c.	Up-lighting of building walls may only be approved with an Administrative Modification. 10% = 16.5 feet 10% = 44 feet o.c.	11%-60% (16.6'-24')	Over 60% (Over 24 feet)

Overlay District Section and Standard	Standard (Core Sub-District)	Administrative Modification	Alternative Standards (Overlay District Board)	Alternative Standards (City Council)
• Street lights shall be placed at 40' on center			11%-60% (45'-64' o.c.)	Over 60% (over 64' o.c.)
(4) Exterior Building Lighting Specific Standard for Administrative Modification (non-numerical):		Neon lighting may be permitted subject to approval of an Administrative Modification.		
(5) Pedestrian Amenities Specific Standard for Administrative Modification (non-numerical):	Trash receptacles, bike racks, planters, benches, bollards and tree grates	Other optional Street Furnishing elements such as Public Art, water features, water fountains, newspaper racks, etc., may be proposed and approved through Administrative Modifications.		
Screening of Service Areas and Utilities				
(1) Loading area screening height	Min. 8' height	Min. height reduced to 7.2'	Less than 7.2' min. height	
(2) Screening walls for outdoor storage	Min. 6' height	Min. height reduced to 5.4'	Less than 5.4' min. height	
(3) Ground Mounted Utility Equipment Specific Standard for Alternative Standard (non-numerical):	Shall be located behind the rear line of the building or along alleys without frontage along any Streets.		If an Alternative Standard is approved allowing placement along a Street frontage, the screening shall be as tall as the equipment being screened. The screening may be evergreen shrubbery, or Masonry walls matching the Primary Building material and color (s) of the site.	

Note: Staff continues to consider minor changes to this ordinance and, thus variations to this chart may occur with the final draft.

Animal Services Volunteer Program

Council Workshop 11.20.17

Volunteer Program History

- 2012 Planning a volunteer program
- 2013 Volunteer program started
- 2014 Jog-a-dog
- 2015 Off-site adoptions
- 2016 Volgistics software to assist with volunteer management

Volunteer Program Current

- 164 active volunteers
- 4,000 hours worked by volunteers
- 25% hours completed by volunteer staff assist with shelter attendant duties
  - 1,000 * $12 = $12,000
  - Quality of life
  - Increased adoptions
  - Increase public exposure
- Approximately 15 consistent volunteers

VOLUNTEER PROGRAM REDESIGN

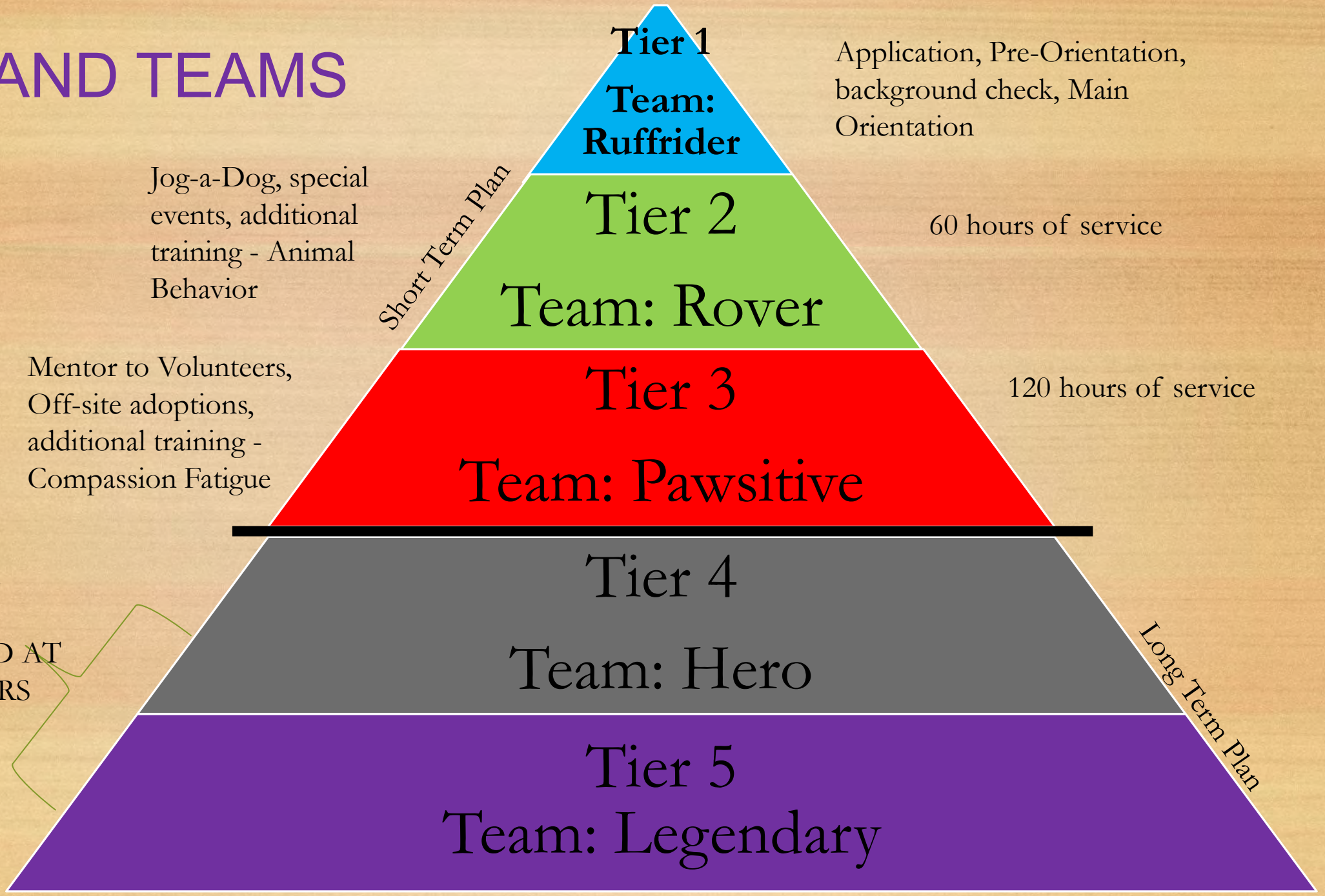
GOAL FOR REDESIGN:

- Increase staff efficiency
- Return on investment
- Increase overall training for volunteers
- A reward based structure to encourage and invest in volunteers who remain involved

PROPOSED STRUCTURE:

- Implemented tiers with reward for involvement
- Online application, pre-orientation video, and background check
- In house Main Orientation
- Training over time
- Creating an equal, transparent, and tangible structure for all volunteers to attain

TIERS AND TEAMS



SHORT TERM TIMELINE

- December – Pre-Orientation Video created, website restructured to include application, background check, and Pre-Orientations all offered online
- January – Go live with Online Volunteer Interest/Sign-up
- February – First set of Main Orientations

LONG TERM TIMELINE

- Add on additional programs for volunteers
  - dog/volunteer off-site field trips, off-site adoptions, youth volunteers
- Additional training beyond the initial videos.
- Line item for volunteer related costs

American Planning Association
Texas Chapter

Making Great Communities Happen

November 3, 2017

Honorable Mayor Rudy Durham
City of Lewisville
151 W. Church Street
Lewisville, Texas 75029

Dear Mayor Durham:

It is with great pleasure that the Texas Chapter of the American Planning Association presents the enclosed "Certificate of Achievement for Planning Excellence" to your Planning Department for 2017. This certificate recognizes the professional planning standards demonstrated by your planning staff and the funding and support exhibited by your City Council and Planning & Zoning Commission. More specifically, the City of Lewisville has met the Chapter's goals for:

- Increasing awareness of professional planning,
- Recognizing planning departments which meet certain professional requirements,
- Enhancing neighborhood and citizen recognition of planning efforts,
- Encouraging the funding of professional training for Commissioners and staff, and
- Aiding in economic development and community image.

I encourage you to share this award with your City Council and Commission at an appropriate time. The Board of Directors and the 2,000 members of the Chapter look forward to your continued success and your leadership in community planning in Texas.

Sincerely,

Kimberly Mickelson, JD, AICP
President
Texas Chapter of the American Planning Association

American Planning Association
Texas Chapter

Making Great Communities Happen

2017

CERTIFICATE OF ACHIEVEMENT
for
PLANNING EXCELLENCE

Presented to the

City of Lewisville

Recognizing a commitment to professional planning by City Administration, Elected and Appointed Officials and exemplary professional standards demonstrated by the Planning Staff

Awarded by
Texas Chapter of American Planning Association

Kimberley Mickelson, JD, AICP
President, APA Texas Chapter

MEMORANDUM

TO: Donna Barron, City Manager

FROM: Richard E. Luedke, Planning Director

DATE: November 20, 2017

SUBJECT: **Continued Public Hearing: Consideration of an Ordinance Granting a Zone Change Request From Light Industrial District (LI) to Warehouse District (WH), on Approximately 6.68 Acres Legally Described as Lots 11 & 12, Block A, ARTX Park Addition, Bounded by East Valley Ridge Boulevard on the Northeast Side and Mario Court on the West Side, and an Ordinance Granting a Special Use Permit and Four Associated Variances to Allow a Wholesale Establishment With Outside Storage on More Than 10% of the Platted Lot on the Above-Referenced Land, Both Requested by Richard DeOtte, DeOtte Inc., on Behalf of Jim Bedworth Jr., of REW Gray Properties, LLC, the Property Owner (Case No. PZ-2017-07-15 and Case No. SUP-2017-07-11).**

BACKGROUND:

REW, a national supplier of drywall and related building products, has been in operation for over 50 years, 17 of those at their current location in Lewisville at the northwest corner of Purnell Street and Mill Street. The company has outgrown this facility and needs a location that can accommodate current operations. REW proposes to relocate to ARTX Park and build a new office warehouse building along with additional outside storage sheds. This site is located on the north entrance of the industrial park and consists of two vacant lots. The zone change is necessary since a distribution warehouse establishment with outside storage on more than 10 percent of the platted lot is only allowed in the WH District with the approval of a special use permit (SUP). The proposed SUP shows approximately 17.4% of the area to be used for the outside storage of building material supplies. The Planning and Zoning Commission recommended unanimous approval (6-0) of the zone change request at their meeting of July 18, 2017.

ANALYSIS:

Zoning

The proposed zoning classification of Warehouse District (WH) is an appropriate use of the property as a wholesale establishment and allows for expanded outside storage. The location is surrounded by a combination of heavy industrial, warehouse and light industrial zoning and provides good access to SH 121.

Building

The proposed building consists of a 3,300-square foot office with an attached 31,000-square foot warehouse. The main office will face Mario Court and consist of a combination of split face block

with smooth face CMU accents on approximately 71% of the west elevation. The remainder of the building will consist of 100% stucco finish. The main entrance to the office will contain a cantilevered metal awning and the building will be covered by a metal roof.

Screening
The proposed office and warehouse building will act as screening along a portion of the western limits. A storage area located at the northern portion of the site will be screened with an earthen berm and an eight-foot tall concrete panel screening wall. The eight-foot tall concrete panel screening wall will wrap around the Valley Ridge Boulevard frontage and will be offset from the overhead powerlines. Additional landscaping along Valley Ridge Boulevard will screen the outside storage visible from the Valley Ridge Boulevard.

Landscape Improvements
The landscaping plan for this site illustrates a berm to be constructed at the northern tip of the site where Mario Court and Valley Ridge Boulevard intersect. A combination of crepe myrtle, cedar elm and maidengrass will provide a living screen adjacent to the ornamental fence proposed along the Mario Court frontage. Additional Cedar Elm trees are provided in the landscape buffer which is approximately 20 feet in width along the Mario Court frontage. Live oaks and crepe myrtles are also provided at the two front gates to the property. The Valley Ridge Boulevard frontage has major challenges since an existing 100-foot power line easement cuts through the eastern portion of the lot in a skewed configuration. The trees required along this frontage have been grouped towards the northern portion of the site and shorter (six-foot tall) evergreen species will be placed along the landscape strip beneath the overhead power lines. These will not only provide landscaping, but will also help screen the outside storage located behind the concrete panel wall that is located beyond the 100-foot electric easement as illustrated in the exhibit.

Signage
The applicant proposes a monument sign to be located at the Mario Court and Valley Ridge Boulevard intersection with a note stating that there will be no pole signs on site. Any additional wall signage must comply with the city sign ordinance. The sign is illustrated as a five-foot tall by five-foot wide monument sign with the company logo and background that matches the building colors.

Storage Areas
Four outdoor storage areas are proposed in addition to the 31,000-square foot warehouse. The northern portion of the site has a designated outside storage area of approximately 6,500 square feet behind a concrete panel wall with storage limited to the height of the wall. A second storage area will be located behind the warehouse building and is approximately 23,000 square feet in area. The applicant is requesting that the outdoor storage in this area be allowed to exceed the height of the 8-foot wall for a maximum height of 24 feet. To help minimize the visibility of the 24-foot tall storage materials; additional evergreen landscaping along Valley Ridge Boulevard has been added to help screen the outside storage as illustrated in the Site Cross Section Exhibit. The setback of the storage area, which ranges from approximately 35 feet to approximately 130 feet from Valley Ridge Boulevard, will also help minimize visibility of the storage area. Additional storage will be contained under two three-sided sheds located on the southern portion of the lot. These sheds are proposed to be clad with painted metal in colors matching the main building.

Variances
The following four variances are associated with this item:

a) to allow a reduction in exterior material requirements from 80% brick veneer to 71% brick veneer on the west elevation of the main building and 100% stucco on the north, south and east elevations;

Section 6-181(d)(1) Exterior Finish Requirements on Brick Veneer Gateways
The General Development Ordinance states that the aggregate total of all exterior wall elevations (excluding door, windows and glass) of all buildings shall consist of 80 percent brick veneer. The applicant has proposed a two-toned combination of split faced block CMU and stucco on the west elevation with a total finish of approximately 71% brick veneer. The applicant intended to meet the 80% brick veneer requirement on this elevation, but could only provide 71% due to the wall area above the roofline of the office being unable to support the weight of the split-faced block. The other 3 sides (north, south and east) will consist of 100% stucco since these elevations will have reduced visibility due to strategically placed landscaping, berms and screening walls. Staff has no objection to this request.

b) to allow a reduction in exterior material requirements from 80% brick veneer to 0% brick veneer for the two three-sided storage sheds except for the east wall of the eastern storage building, which will consist of 100% stucco;

Section 6-181(d)(1) Exterior Finish Requirements on Brick Veneer Gateways
The General Development Ordinance states that the aggregate total of all exterior wall elevations (excluding door, windows and glass) of all buildings shall consist of 80% brick veneer. The owner has proposed no brick veneer for the three-sided structures for outside storage; but instead, will use a Nucor silicone polyester paint system colored in "light stone" on exterior metal except for the east elevation of the eastern storage building, which will consist of 100% stucco. Since the majority of the three-sided structures will have limited visibility, staff has no objection to the use of exterior painted metal for all elevations except the eastern wall of the eastern storage building.

c) to allow storage to exceed the height of the screening wall;

Section 6-148 Screening Requirement for Outside Storage
The General Development Ordinance requires materials and supplies not to be stacked higher than the height of the screening wall. A variable width landscape buffer is proposed along Valley Ridge Boulevard over an existing 100-foot electrical easement. The additional landscaping along Valley Ridge Boulevard will help screen the outside storage as illustrated in the Site Cross Section Exhibit.

d) to allow precast panel screening wall within 25 feet of the street right-of-way in lieu of the required brick or stone screening wall.

Section 6-148 Screening Devices

The General Development Ordinance requires brick, stone or decorative block screening walls within 25 feet of a public street. Areas beyond 25 feet of a public street are allowed to be screened with a solid, opaque fence. The applicant proposes an eight-foot tall concrete panel wall along Valley Ridge Boulevard which will wrap around the site along Mario Court to screen the outside storage. Staff has no objection to the request since one consistent type of screening wall would improve site aesthetics compared to a short stretch of brick screening wall flanked with longer stretches of wood fence. The enhanced landscape area provided at the intersection will be placed in front of the proposed wall to enhance site aesthetics. The proposed evergreen plantings along Valley Ridge Boulevard will also be placed in front of the proposed screening wall to improve site aesthetics.

The applicant has requested in the attached letter that the public hearing be continued to the December 18, 2017 City Council meeting to allow more time to complete the cost estimate process for the project.

RECOMMENDATION:

It is City staff's recommendation that the City Council continue the public hearing to the December 18, 2017 City Council meeting.

THE MILTENBERGER LAW FIRM, PLLC

ATTORNEYS AT LAW

Lewis C. Miltenberger 817-251-4500 Ext. 201
lcm@miltenbergerlawfirm.com

November 10, 2017

Nika Z. Reinecke, AICP *Via E-Mail*
Director of Economic Development & Planning
City of Lewisville

RE: Application of Rew Materials for Zoning Change, Special Use Permit, Variances and Economic Development Proposal

Case No. PZ-2017-07-15 and Case No. SUP-2017-07-11

Dear Ms. Reinecke:

Please allow this letter to confirm REW Materials request that the above issues be heard at the City Council meeting scheduled for **December 18, 2017**. We continue to get estimates from general and sub-contractors to complete the project and are unavailable for the December 4 meeting. We may actually have the estimates in time for the November 20 meeting, but believe it would be more prudent to use the additional time.

Please confirm that we will be on the schedule for **December 18, 2017**. Thank you, again, for your continued assistance and cooperation.

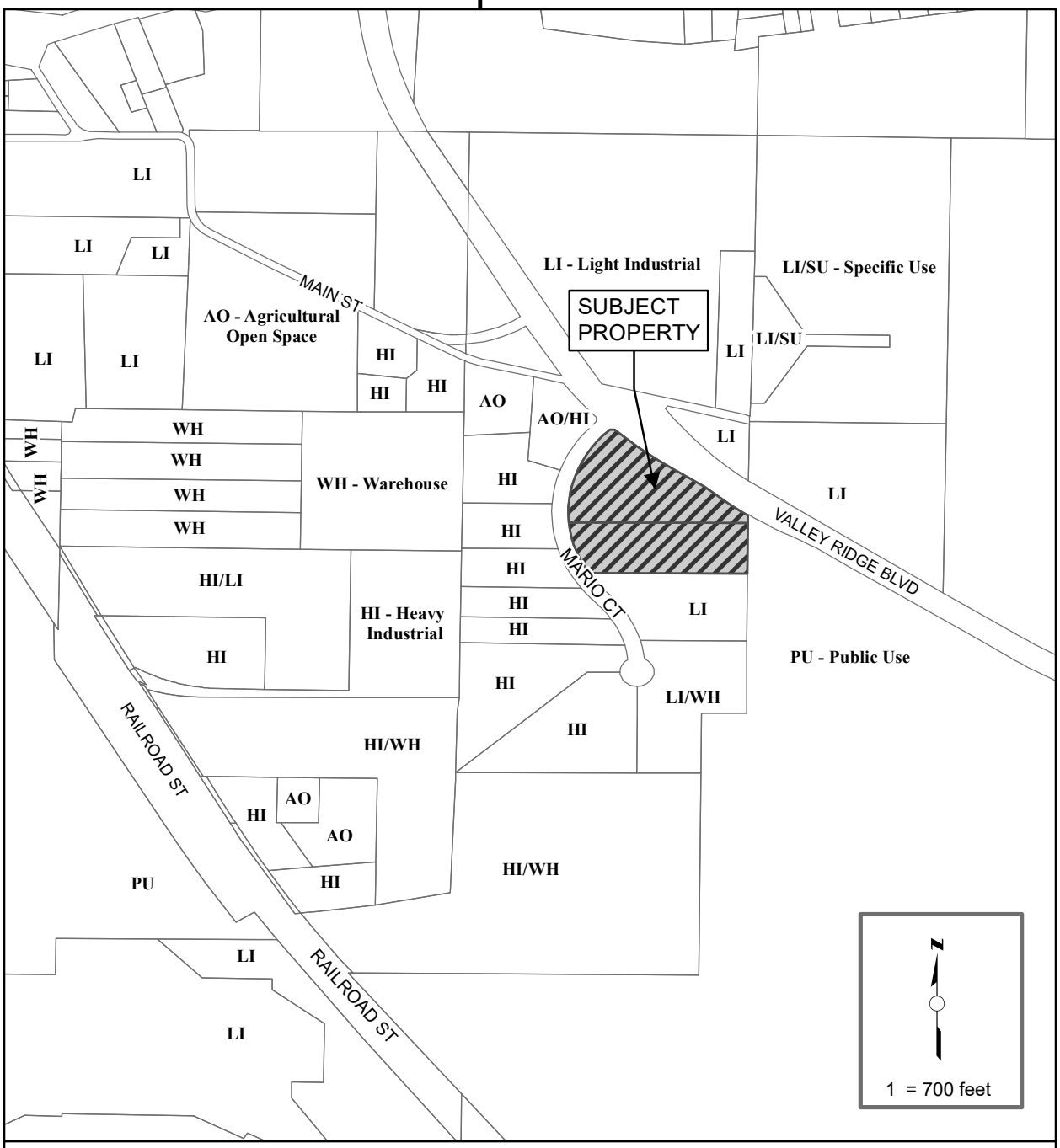
Sincerely,

/S/

Lewis C. Miltenberger

cc: Jeff Butts *via E-Mail*
Richard Luedke *via E-mail*
Richard DeOtte *via E-mail*

Location Map - REW Materials



CASE NO. PZ-2017-07-15

PROPERTY OWNER: JIM BEDSWORTH JR., REW GRAY PROPERTIES, LLC

APPLICANT NAME: RICHARD DEOTTE, DEOTTE INC.

PROPERTY LOCATION: LOTS 11 & 12, BLOCK A, ARTX PARK ADDITION, BOUNDED BY EAST VALLEY RIDGE BOULEVARD ON THE NORTHEAST SIDE AND MARIO COURT ON THE WEST SIDE (6.68 ACRES)

CURRENT ZONING: LIGHT INDUSTRIAL DISTRICT (LI)

REQUESTED ZONING: WAREHOUSE DISTRICT (WH)

Aerial Map - REW Materials

MINUTES
PLANNING AND ZONING COMMISSION
JULY 18, 2017

Item 1:
The Lewisville Planning and Zoning Commission meeting was called to order at 6:30 pm. Members present: William Meredith, John Lyng, MaryEllen Miksa, Kristin Green, Karen Locke and James Davis. Member Alvin Turner was absent.

Staff members present: Richard Luedke, Planning Director and Theresa Ernest, Planning Technician.

Item 4:
Public Hearings for Zoning and Special Use Permits were next on the agenda. There were three items for consideration:

A. **Public Hearing:** Consideration of a Zone Change Request From Light Industrial Zoning District (LI) to Warehouse Zoning District (WH); on an Approximately 6.68-Acre Tract of Land, Legally Described as Lots 11 & 12, Block A, ARTX Park Addition, Bounded by East Valley Ridge Boulevard on the Northeast Side and Mario Court on the West Side; as Requested by Richard DeOtte, DeOtte Inc., on Behalf of Jim Bedworth Jr., of REW Gray Properties, LLC, the Property Owner. (Case No. PZ-2017-07-15).

B. **Public Hearing:** Consideration of a Special Use Permit for a Wholesale Establishment With Outside Storage on More Than 10% of the Platted lot; on an Approximately 6.68-Acre Tract of Land, Legally Described as Lots 11 & 12, Block A of the ARTX Park Addition, Bounded by East Valley Ridge Boulevard on the Northeast Side and Mario Court on the West Side; as Requested by Richard DeOtte, of DeOtte Inc., on Behalf of Jim Bedsworth Jr., of REW Gray Properties, LLC, the Property Owner. (Case No. SUP-2017-07-11).

Items 4A and 4B were read and discussed together. Staff gave a brief overview of the proposed zone change request and special use permit request, recommending approval. Member James Davis asked if the company was relocating from an existing facility in the city. Staff confirmed that the current facility is located at the northwest corner of South Mill Street and West Purnell Street. Chairman Green asked for clarification on the requested height variance and expressed concern for the location of a storage area over a sewer easement. The applicant explained that any storage exceeding the height of the wall will be screened with vegetation. He further clarified that the storage over the sewer easement would not affect the maintenance or use of any sewer line located within the easement. Chairman Green opened the joint public hearing for items 4A and 4B. With no one coming forward to speak, the public hearing was then closed. *A motion was made by MaryEllen Miksa to recommend approval of item 4A, the zone change request from Light Industrial District (LI) zoning to Warehouse District (WH) zoning, which was seconded by Karen Locke. The motion passed unanimously (6-0). A motion was made by William Meredith to recommend approval of item 4B, the SUP request for a wholesale establishment with outside storage on more than 10% of the platted lot, which was seconded by John Lyng. The motion passed unanimously (6-0).* Staff indicated that items 4A and 4B would be going before the City Council on August 21st for a second public hearing and a final decision.

SECTION 17-23. - "LI" LIGHT INDUSTRIAL DISTRICT REGULATIONS

(a) *Use*. Buildings and premises may be used for retail, wholesale, office and service uses and campus style light manufacturing and industrial uses provided there is no dust, fumes, gas, noxious odor, smoke, glare, or other atmospheric influence beyond the boundaries of the property on which such use is located, and which produces no noise exceeding in intensity at the boundary of the property the average intensity of noise of street traffic at that point, and no more than ten percent (10%) of the total lot is used for outside storage, and further provided that such use does not create fire or explosive hazards on adjacent property.

(1) Any use permitted in districts "LC" and "GB" as regulated in said districts.
(2) Apparel and other products assembled from finished textiles.
(3) Bottling works.
(4) Warehouse distribution facilities.
(5) Airport/Heliport (SUP required).
(6) Auto repair shops including body shops (SUP required).
(7) Church worship facilities.
(8) Buildings and uses owned or operated by public governmental agencies.
(9) Cemetery, mausoleum, crematorium & accessory uses (SUP required).
(10) Cosmetic manufacturer.
(11) Drugs and pharmaceutical products manufacturing.
(12) Private Utility Plants or Sub-stations (including alternative energy) (SUP required).
(13) Electronic products manufacturing.
(14) Fur good manufacture, but not including tanning or dyeing (SUP required).
(15) Gas and oil drilling accessory uses (SUP required).
(16) Glass products, from previously manufactured glass.
(17) Heavy equipment – outdoor rental/sales/display/service (SUP required).
(18) Household appliance products assembly and manufacture from prefabricated parts.
(19) Industrial and manufacturing plants including the processing or assembling of parts for production of finished equipment.
(20) Musical instruments assembly and manufacture.
(21) Paint, shellac and varnish manufacture (SUP required).
(22) Plastic products manufacture, but not including the processing of raw materials.
(23) Racing facilities (SUP required).
(24) Recreational Vehicle (RV) Park. (Private) (SUP required).
(25) Self storage/mini warehouse facility (SUP required).
(26) Shooting Range (indoor or outdoor) (SUP required.).
(27) Sporting and athletic equipment manufacture.
(28) Testing and research laboratories.
(29) Auction yard (vehicle) (SUP required).
(30) Communication towers (SUP required).
(31) Temporary buildings for uses incidental to construction work on the premises, which buildings shall be removed upon the completion or abandonment of construction work.
(32) Accessory buildings and uses customarily incidental to any of the above uses, provided that such not be objectionable because of odor, smoke, noise, vibration or similar nuisance. Open storage shall be considered an accessory use but no more than ten percent (10%) of the platted lot may be used for outside storage, including access and maneuvering areas for moving the stored items.
(33) Cemetery, columbarium, mausoleum and accessory uses (SUP required).
(34) Other uses similar to the above listed uses are allowed by special use permit (SUP) only, except that the following uses are specifically prohibited:
    a. Acetylene gas manufacture or storage.
    b. Acid manufacture.
    c. Alcohol manufacture.
    d. Ammonia, bleaching powder or chlorine manufacture.
    e. Arsenal.
    f. Asphalt manufacture or refining.
    g. Blast furnace.
    h. Bag cleaning, unless clearly accessory to the manufacture of bags.

i. Boiler works.
j. Brick, tile, pottery or terra cotta manufacture other than the manufacture of handcraft or concrete products.
k. Reserved.
l. Celluloid manufacture or treatment.
m. Cement, lime, gypsum, or plaster of paris manufacture.
n. Central mixing plant for cement.
o. Coke ovens.
p. Cotton gins.
q. Cottonseed oil manufacture.
r. Creosote manufacture or treatment.
s. Disinfectants manufacture.
t. Distillation of bones, coal or wood.
u. Dyestuff manufacture.
v. Exterminator and insect poison manufacture.
w. Emery cloth and sandpaper manufacture.
x. Explosives or fireworks manufacture or storage.
y. Fat rendering.
z. Fertilizer manufacture.
aa. Fish smoking and curing.
bb. Forge plant.
cc. Garbage, offal or dead animals reduction or dumping.
dd. Gas manufacture or storage, for heating or illuminating purposes.
ee. Glue, size or gelatine manufacture.
ff. Hatchery.
gg. Iron, steel, brass or copper foundry or fabrication plant.
hh. Junk, iron or rag storage or baling.
ii. Match manufacture.
jj. Lampblack manufacture.
kk. Oilcloth or linoleum manufacture.
ll. Oiled rubber goods manufacture.
mm. Ore reduction.
nn. Oil or turpentine manufacture.
oo. Paper and pulp manufacture.
pp. Petroleum or its products, refining or wholesale storage of.
qq. Pickle manufacturing.
rr. Planing mills.
ss. Potash works.
tt. Pyroxline manufacture.
uu. Rock crusher.
vv. Rolling mill.
ww. Rubber or gutta-percha manufacture or treatment but not the making of articles out of rubber.
xx. Sauerkraut manufacture.
yy. Salt works.
zz. Shoe polish manufacture.
aaa. Smelting of tin, copper, zinc, or iron ores.
bbb. Soap manufacture other than liquid soap.
ccc. Soda and compound manufacture.
ddd. Stock yard or slaughter of animals or fowls.
eee. Stone mill or quarry.
fff. Storage yard.
ggg. Stove polish manufacture.
hhh. Tallow grease or lard manufacture or refining from or of animal fat.
iii. Tanning, curing or storage of raw hides or skins.
jjj. Tar distillation or manufacture.
kkk. Tar roofing or water-proofing manufacture.
lll. Tobacco (chewing) manufacture or treatment.
mmm. Vinegar manufacture.

nnn. Wool pulling or scouring.
ooo. Yeast plant.

(b) *Height*. No building shall exceed in height the width of the street right-of-way on which it faces plus the depth of the front yard. In no event, however, shall the portion of a building located within one hundred fifty (150) feet of any property zoned for residential purposes exceed the height allowed in that residential zoning district.

(c) *Area*.

(1) *Size of yards*.

a. *Front yard*. There shall be a front yard having a minimum depth of twenty-five (25) feet. No parking, storage or similar use shall be allowed in required front yards in district "LI", except that automobile parking (including automobile dealer display parking) will be permitted in such yards if separated by at least twenty-five (25) feet from any residential district.

b. *Side yard*. A side yard of not less than fifteen (15) feet in width shall be provided on the side of a lot adjoining a side street. A side yard of not less than ten (10) feet in width shall be provided on the side of a lot adjoining a residential district. The required side yard shall be waived when a screening device is installed in accordance with the city's general development ordinance. The building itself can serve as a portion of the screening device when that portion of the building exterior is constructed of the same materials as the screening device. No parking, storage or similar use shall be allowed in any required side yard or in any side street yard adjoining a residential district.

c. *Rear yard.* No rear yard is required except that a rear yard of not less than fifty (50) feet in depth shall be provided upon that portion of a lot abutting or across a rear street from a residential district, except that such yard requirement shall not apply where the property in the residential district also backs up to the rear street. No parking, storage or similar use shall be allowed in required rear yards in district "LI" within twenty-five (25) feet of the rear property line.

(2) *Reserved*.

(d) *Outside storage regulations*. In all zoning districts where outside storage yards are allowed, such storage yards shall be screened from view in accordance with the standards outlined in the city's general development ordinance. This provision applies to all outside storage which began after the original date of passage of this provision (April 4, 1994). Any variance request involving the requirements or standards relating to such required screening devices shall be considered by the city council in accordance with the city's general development ordinance. Areas which are used for infrequent and temporary storage for a period of thirty (30) days or less per year shall not be deemed as "storage yards".

SECTION 17-24. - "WH" WAREHOUSE DISTRICT REGULATIONS

(a) *Use*. A building or premises shall be used only for the following purposes:

(1) Bakery or bottling works, if fully enclosed in a building.
(2) Wholesale establishments, if fully enclosed in a building.
(3) Storage warehouses with open storage yards (SUP required).
(4) Contractor's yard (SUP required).
(5) Manufacturing uses - outside storage is limited to ten (10) percent of the lot for storage of equipment, materials or products.
(6) Truck parking lot (SUP required).
(7) Offices.
(8) Laboratory.
(9) Auto repair shops, including body shops (SUP required).
(10) Church worship facilities.
(11) Travel trailer/boat/RV storage (Outdoor) (SUP required).
(12) Private Utility Plants or Sub-stations (including alternative energy) (SUP required).
(13) Gas and oil drilling accessory uses (SUP required).
(14) Cemetery, mausoleum, crematorium and accessory uses (SUP required).
(15) Buildings and uses owned or operated by public governmental agencies.
(16) Communication towers (SUP required).
(17) Temporary buildings for uses incidental to construction work on the premises, which buildings shall be removed upon the completion or abandonment of construction work.
(18) Accessory buildings and uses customarily incidental to any of the above uses, provided that such not be objectionable because of odor, excessive light, smoke, dust, noise, vibration or similar nuisances. Open storage shall be considered an accessory use but no more than ten percent (10%) of the platted lot may be used for outside storage, including access and maneuvering areas for moving the stored items. Any use requiring more than 10% outside storage shall require a special use permit (SUP).
(19) Motor Freight Terminal (SUP required).

(b) *Height*. No building shall exceed in height the width of the street on which it faces plus the depth of the front yard. On a lot adjoining a residential district, no building shall exceed forty-five (45) feet in height, except that this height may be increased up to the maximum of twelve (12) stories, or one hundred eighty (180) feet, at the rate of two (2) feet of additional height for each one (1) foot of additional setback from required yard lines. In no event, however, shall any building exceed two (2) stories when any portion of the building is located within one hundred fifty (150) feet of any property zoned for residential purposes.

(c) *Area*.

(1) *Size of yards*.

a. *Front yard*. There shall be a front yard having a minimum depth of twenty-five (25) feet. No parking, storage or similar use shall be allowed in required front yards in district "WH", except that automobile parking (including automobile dealer display parking) will be permitted in such yards if separated by at least twenty-five (25) feet from any residential district.

b. *Side yard*. A side yard of not less than fifteen (15) feet in width shall be provided on the side of a lot adjoining a side street. A side yard of not less than ten (10) feet in width shall be provided on the side of a lot adjoining a residential district. The required side yard shall be waived when a screening device is installed in accordance with the city's general development ordinance. The building itself can serve as a portion of the screening device when that portion of the building exterior is constructed of the same materials as the screening device. No parking, storage or similar use shall be allowed in any required side yard or in any side street yard adjoining a residential district.

c. *Rear yard*. No rear yard is required except that a rear yard of not less than fifty (50) feet in depth shall be provided upon that portion of a lot abutting or across a rear street from a residential district, except that such yard requirement shall not apply where the property in the residential district also backs up to the rear street. No parking, storage or similar use shall be allowed in required rear yards in district "WH" within twenty-five (25) feet of the rear property line.

(2) *Reserved*.

(d) *Outside storage regulations*. In all zoning districts where outside storage yards are allowed, such storage yards shall be screened from view in accordance with the standards outlined in the city's general development ordinance. This provision applies to all outside storage which began after the original date of passage of this provision (April 4, 1994). Any variance request involving the requirements or standards relating to such required screening devices shall be considered by the city council in accordance with the city's general development ordinance. Areas which are used for infrequent and temporary storage for a period of thirty (30) days or less per year shall not be deemed as storage yards.

SECTION 17-29.5 - "SUP" SPECIAL USE PERMIT

(a) *Purpose.*

The special use permit (SUP) provides a means for evaluating land uses identified in this ordinance to ensure compatibility with adjacent properties. The intent of the special use permit process is to allow consideration of certain uses that would typically be incompatible or intensely dominate the area in which they are located, but may become compatible with the provision of certain conditions and restrictions.

(b) *Application submittal and approval process.*

(1) Application for an SUP shall be processed like an application for rezoning. An application shall not be complete and shall not be scheduled for a public hearing unless the following are submitted along with the application:

a. A scaled development plan depicting the items listed in Section 17-29.5(b)(2);
b. A meets and bounds description of the property boundary;
c. A narrative explaining how the property and use(s) will function;
d. Colored elevations of the building and other structures including dimensions and building materials;
e. A Landscaping Plan, meeting the requirements of Section 6-124 of the Lewisville Code of Ordinances;
f. A Tree Survey and Mitigation Plan if required by Section 6-125 of the Lewisville Code of Ordinances;
g. Detailed elevations and descriptions of proposed signage;
h. An exhibit illustrating any requested variances; and
i. Any other information, drawings, operating data or expert evaluations that city staff determines are necessary to evaluate the compatibility criteria for the proposed use and development.

(2) The development plan submitted along with an SUP application must include the following:

a. The layout of the site;
b. A north arrow;
c. A title block including project name, addition, lot, block, acreage, and zoning classification of the subject property;
d. Name, address, and phone number for applicant, developer, owner, builder, engineer, and/or surveyor;
e. Building location, property lines, and setbacks;
f. Summary tables listing building square footage, required parking, and required landscaping;
g. Locations of utility easements, if applicable;
h. Zoning and ownership of adjacent properties;
i. Easements, deed restrictions, or encumbrances that impact the property;
j. Median openings, traffic islands, turning lanes, traffic signals, and acceleration and deceleration lanes;
k. Streets, alleys, and easements adjacent to the site;
l. Driveways and sidewalks;
m. Parking configuration, including maneuvering lanes and loading areas;
n. Location and details of dumpsters and screening devices; and
o. Location of all proposed signage.

(3) Variances from the regulations of the city's General Development Ordinance may be granted at the discretion of the city council as part of the SUP approval. The granting of an SUP has no effect on uses permitted by right and does not waive the regulations of the underlying zoning district.

(4) The planning and zoning commission or the city council may require additional information or drawings, operating data or expert evaluation or testimony concerning the location and characteristics of any building or uses proposed.

(5) The planning and zoning commission, after holding a public hearing, shall recommend to the city council approval or denial of each SUP along with any recommended conditions. The city council shall review each case on its own merit, apply the compatibility criteria established herein, and if appropriate, grant the special use permit for said use(s).

(6) Completion of a development plan for the SUP does not waive the requirement to provide an engineering site plan in accordance with the General Development Ordinance.

(c) *Compatibility criteria for approval.*

The planning and zoning commission shall not recommend approval of, and the city council shall not grant an SUP for a use except upon a finding that the use will:

(1) complement or be compatible with the surrounding uses and community facilities and any adopted comprehensive plans or small area plans;

(2) contribute to, enhance, or promote the welfare of the area of request and adjacent properties;

(3) not be detrimental to the public health, safety, or general welfare; and

(4) conform in all other respects to all zoning regulations and standards.

(d) *SUP conditions.*

The planning and zoning commission may recommend and the city council may adopt reasonable conditions upon the granting of an SUP consistent with the purpose and compatibility criteria stated in this section. The development plan, however, shall always be attached to and made a condition of the SUP. The other documents submitted with the SUP application may also be made conditions of the SUP.

(e) *Amendments, enlargement, modifications or structural alterations.*

(1) Except for minor amendments, all amendments, enlargements, modifications or structural alterations or changes to the development plan shall require the approval of a new SUP. The city manager or his designee may authorize minor amendments to the development plan that otherwise comply with the SUP ordinance and the underlying zoning and do not:

a. Alter the basic relationship of the proposed development to adjacent property;
b. Increase the maximum density or height shown on the original development plan;
c. Decrease the number of off-street parking spaces shown on the original development plan; and/or
d. Reduce setbacks at the boundary of the site as specified by a building or setback line shown on the original development plan.

(2) For purposes of this subsection, "original development plan" means the earliest approved development plan that is still in effect, and does not mean a later amended development plan. For example, if a development plan was approved with the specific use permit and then amended through the minor amendment process, the original development plan would be the development plan approved with the specific use permit, not the development plan as amended through the minor amendment process. If, however, the development plan approved with the specific use permit was replaced through the zoning process, then the replacement development plan becomes the original development plan. The purpose of this definition is to prevent the use of several sequential minor amendments to circumvent the zoning amendment process.

(3) Although the city manager or his designee has the authority to grant minor amendments to the development plan, they are not obligated to do so. The city manager or his designee shall always maintain the discretion to require city council approval if he feels that it is within the public's interest that city council consider the amendment, enlargement, modifications, or structural changes at a public hearing.

(f) *Compliance mandatory with written requirements.*

(1) No special use permit shall be granted unless the applicant, owner, and grantee shall be willing to accept and agree to be bound by and comply with the written requirements attached to the development plan drawings and approved by the city council.

(2) A special use permit shall be transferable from one owner or owners of the subject property to a new owner or occupant of the subject property, however all regulations and conditions of the SUP shall remain in effect and shall be applicable to the new owner or occupant of the property.

(g) *Timing.*

All development plans submitted for review will be on the city's active list for a period of 90 days from the date of each submittal. After the 90-day period, a project will be considered abandoned and removed from the file. A building permit shall be applied for and secured within 180 days from the time of approval of the special use permit provided that the city may allow a one-time extension of the SUP for another 180 days. A SUP shall expire six months after its approval or extension date if no building permits have been issued for the site or if a building permit has been issued but has subsequently lapsed. Work must be completed and operations commenced within 18 months of approval.

(h) *Zoning map.*

When the city council authorizes granting of a special use permit the official zoning district map shall be amended according to its legend to indicate that the affected area has conditions and limited uses, said amendment to indicate the appropriate zoning district for the approved use, and suffixed by an "SUP" designation. A log of all special use permits shall be kept by the city.

(i) *Rescind and terminate a special use permit.*

City council may rescind and terminate an SUP after a public hearing if any of the following occur:

(1) That one or more of the conditions imposed by the SUP has not been met or has been violated.

(2) The SUP was obtained through fraud or deception.

(3) Ad valorem taxes on the property are delinquent by six months or more.

(4) Disconnection or discontinuance of water and/or electrical services to the property.

(5) Abandonment of the structure, lease space, lot, or tract of land for 180 days or more. (For the purpose of this section, "abandon" shall mean to surrender occupancy by vacating or ceasing to operate or inhabit such property.)

This Section (Office Use Only)	
Case:	
PZ:	CC:
Sign/s Picked Up By:	

LEWISVILLE

ZONE CHANGE APPLICATION

Owner/s (name): Jim Bedsworth, Jr.	
Company Name: REW Gray Properties, LLC	
Mailing Address: 15720 W. 108th St, Suite 100 Lenexa, Kansas 66219	
Work #: 913-438-4142	Cell #:
E-Mail: jbedsj@kcg-inc.com	
Owner Signature (Owner/s Must Sign or Submit Letter of Authorization):	Date: 4-6-2017
Printed Name: Jim Bedsworth, Jr.	

Applicant/Agent (name): Rich DeOtte	
Company Name: DeOtte, Inc.	
Mailing Address: 420 Johnson Rd, Suite 303 Keller, Tx 76248	
Work #: 817-337-8899	Cell #:
E-Mail: richdeotte@deotte.com	
Applicant/Agent Signature: Richard W DeOtte	Date: 4-6-2017
Printed Name: Richard W. DeOtte	

Current Zoning: HI + LI Requested Zoning: WH Acres: 6.68

Legal Description (Lot/ Block/Tract/Abstract): Lots 11+12, Block A ARTX Park Addition

Address/Location:

Application and Sign Fees:

	Less than 1/2 acre	$ 150.00
	1/2 acre up to 4.99 acres	$ 250.00
1	5 acres up to 24.99 acres	$ 400.00

	25 acres up to 49.99 acres	$ 750.00
	50 acres up to 99.99 acres	$1,000.00
	100 acres and more	$1,500.00

Qty: 2	Zone Change Signs - $35 each. 1 sign required for each 5 acres (max. 5 per site)	$ 70

Sign(s) must be posted a minimum of ten (10) days prior to the Planning & Zoning hearing date.

Amount Due (application & sign fee)	$ 470.00

April 6, 2017

Mr. Richard Luedke, AICP
Planning Manager
151 W. Church Street
Lewisville, Texas 75057

Re: REW Materials Site Relocation
Mario Court at East Valley Ridge Drive

Dear Mr. Luedke:

On behalf of our client, KCG, Inc. we are submitting this zoning change request and Special Use Permit to develop the site in a way to expand and improve the operations of the underlying existing business in Lewisville.

The site has two zoning classifications including LI (light industrial) and HI (Heavy Industrial). The proposed zoning is Warehouse and we are submitting an SUP for the City's consideration.

KCG, Inc has owned and operated REW Materials in Lewisville for 17 years. KCG, Inc is a family owned business that is over 50 years old. We are the 4th largest supplier of drywall and related building products in the US with our Lewisville location distributing more metal stud products than any other facility in the country, including our competition. This makes us a vital contributor to the growth in Lewisville and surrounding areas. With our sales volume, we're also a great support in the tax base for Lewisville. The one thing that stood out in our initial presentation is we employ approximately 30 employees with an average salary of approximately $90,000 per year.

The proposed zoning change and SUP allow for the site to develop in a way to expand their business operations and increase the efficiency of the operation as well.

REW has enjoyed a good relationship with the City of Lewisville for many years and we believe that this relocation/expansion will be good for the City as well as REW materials to continue to have a great relationship into the future.

Sincerely,

DeOtte, Inc.

Richard W. DeOtte, P.E., CFM

This Section (Office Use Only)	
Case:	
PZ:	CC:
Sign/s Picked Up By:	

LEWISVILLE

SPECIAL USE PERMIT (SUP) APPLICATION

Owner/s (name): Jim Bedsworth, Jr.	
Company Name: REW Gray Properties, LLC	
Mailing Address: 15720 W. 108th St., Suite 100 Lenexa, Kansas 66219	
Work #: 913-438-4142	Cell #:
E-Mail: jbedsj@kcg-inc.com	
Owner Signature (Owner/s Must Sign or Submit Letter of Authorization):	Date: 4-6-2017
Printed Name: Jim Bedsworth, Jr.	

Applicant/Agent (name): Rich DeOtte	
Company Name: DeOtte, Inc.	
Mailing Address: 420 Johnson Rd, Suite 303 Keller, Tx 76248	
Work #: 817-337-8899	Cell #:
E-Mail: richdeotte@deotte.com	
Applicant/Agent Signature	Date: 4/6-2017
Printed Name: Richard W. DeOtte	

Current Zoning: H1 & L1 Requested Zoning: WH Acres: 6.68

Legal Description (Lot/ Block/Tract/Abstract): Lots 11 + 12, Block A ARTX Park Addition

Address/Location:

Application and Sign Fees:

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Amount Due (application & sign fee)	$ 470.00

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Planning Manager
151 W. Church Street
Lewisville, Texas 75057

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Mario Court at East Valley Ridge Drive

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The proposed zoning change and SUP allow for the site to develop in a way to expand their business operations and increase the efficiency of the operation as well.

REW has enjoyed a good relationship with the City of Lewisville for many years and we believe that this relocation/expansion will be good for the City as well as REW materials to continue to have a great relationship into the future.

Sincerely,

DeOtte, Inc.

Richard W. DeOtte, P.E., CFM

June 28, 2017

Mr. Richard Luedke, AICP
Planning Manager
151 W. Church Street
Lewisville, Texas 75057

Re: REW Materials Site Relocation
Mario Court at East Valley Ridge Drive
Variance requests

Dear Mr. Luedke:

On behalf of our client, KCG, Inc. we are submitting this list of variance requests as part of the site's re-zoning and SUP submittal.

A. Variance from section 6-181. - Exterior Finish Requirements
To allow a reduction in exterior material requirements from the 80% brick veneer to 71% brick/stone veneer on the west elevation and 100% stucco on the north, south and east elevations.

Construction of two adjoining on-site structures that are shown on the site plan as the main warehouse and office for the business. This building, which is the main structure on the site, will be a stucco finish on the north, south and east faces of the building and 71% brick/stone veneer on the west face facing Mario Court. The percent coverage is 74% if the sides of the office extension, which will be finished with brick/masonry as well, is included in the calculation. Greater detail in the coverage and types are available on the elevations drawings provided with the overall submittal. We believe this variance request is consistent with the intent of the ordinance.

B. Variance from section 6-181. - Exterior Finish Requirements
To allow a reduction in exterior material requirements from the 80% brick veneer to 0% brick veneer on two outside storage three-sided sheds and 100% stucco on the eastern elevation of the eastern shed.

Construction of two three-sided structures to shelter outside storage. The two outside sheltered storage structures will be constructed of metal panels. One will be prefinished with Nucor silicone polyester paint system colored "light stone" and the roof panels will be prefinished with the same material colored "polar white" which will be colored to match the other structures on the site. The eastern face of the most eastern structure will be finished with stucco. Most of the exterior of these structures will face away from the main thoroughfare. We believe this variance request is consistent with the intent of the ordinance.

C. Variance from section 6-148. - Screening requirement for outside storage.
To allow storage above the height of the screening wall.

Screening shall be a decorative concrete panel wall running along the west edge of the 100-foot wide high-tension electric line easement and slightly within the existing 30-foot sewer easement along the property. Storage will be higher than the 8-foot height which is consistent with other uses in the area and is needed because of the restrictions placed on the property by the existing Oncor high voltage electric easement. Visually, the area's aesthetic is governed by the existing electric towers and power lines. The impact of this variance is mitigated by the open space provided on the property under the easement which severely restricts use of the underlying property. Since:

1. the site fronts on Mario Drive;
2. the site is distant from the thoroughfare due to the large electric easement;
3. frontage trees have been upgraded to provide year-round live screening with live oak trees where possible along the frontage of E. Valley Ridge outside the electric easement;
4. all other options for development that still allow expected use of the property have been exhausted;
5. the electric easement imposes extensive restriction on the use of the site and location of various screening options;

we believe this variance request substantially complies with the intent of the ordinance.

D. Variance from section 6-148. – Screening Wall Requirements
To allow precast panel screening wall within 25 feet of the street right-of-way construction

Most of the screening wall is precast panel since it is outside of a 25-foot setback from the right of way but a short portion is within that limit. This variance will allow the fence construction to be consistent throughout the project and we believe it is consistent with the intent of the ordinance.

Please call if you have any questions.

Sincerely,

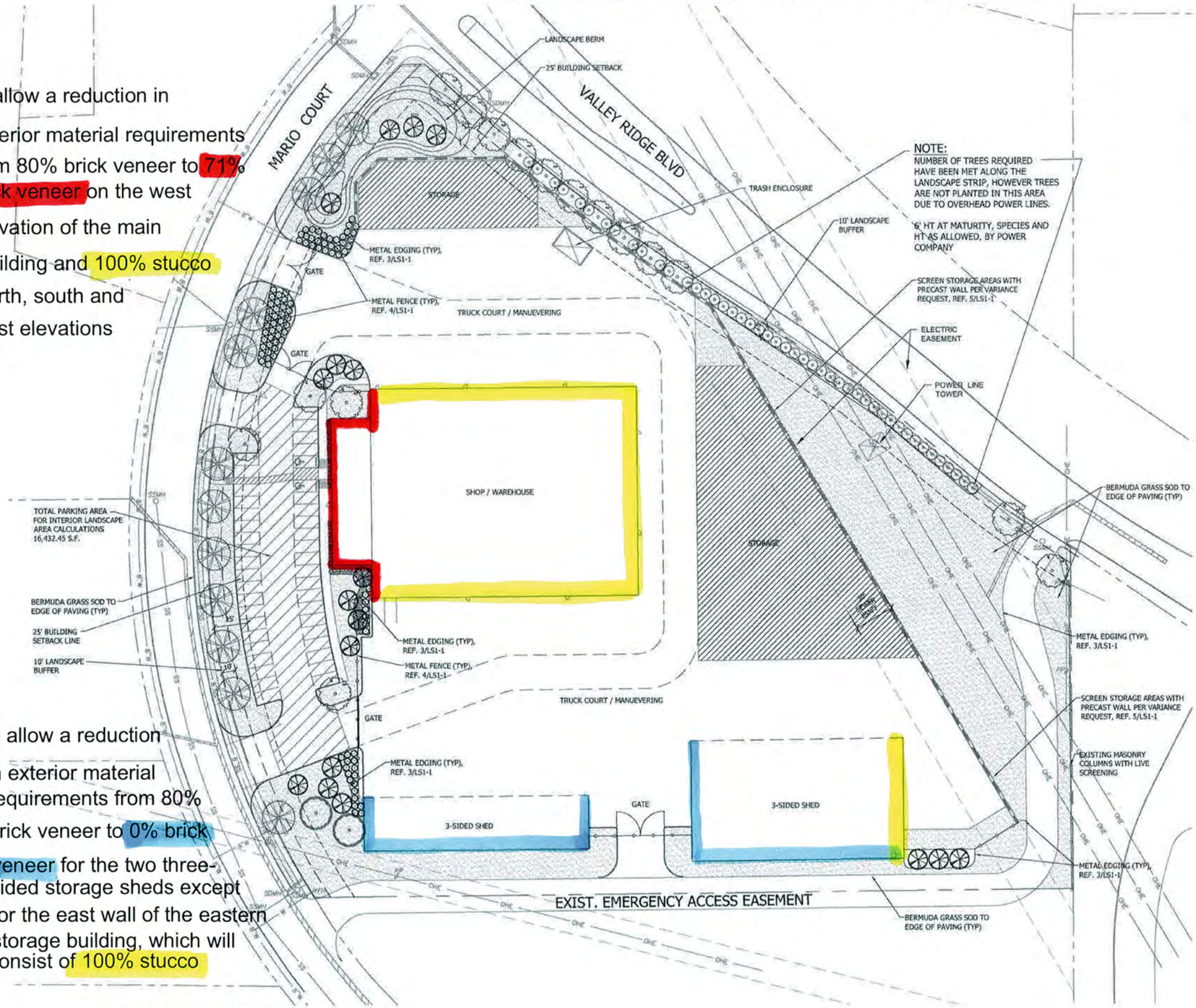
DeOtte, Inc.

Richard W. DeOtte, P.E., CFM

VARIANCE REQUEST EXHIBIT

a) to allow a reduction in exterior material requirements from 80% brick veneer to 71% brick veneer on the west elevation of the main building and 100% stucco north, south and east elevations

b) to allow a reduction in exterior material requirements from 80% brick veneer to 0% brick veneer for the two three-sided storage sheds except for the east wall of the eastern storage building, which will consist of 100% stucco



NOTE:
NUMBER OF TREES REQUIRED HAVE BEEN MET ALONG THE LANDSCAPE STRIP, HOWEVER TREES ARE NOT PLANTED IN THIS AREA DUE TO OVERHEAD POWER LINES.

6' HT AT MATURITY, SPECIES AND HT AS ALLOWED, BY POWER COMPANY

1 LANDSCAPE PLAN
PLAN

1' = 40'-0"

VICINITY MAP
SCALE: 1" = 1000'

LANDSCAPE REQUIREMENTS

1 - 2.5" CAL. TREE PER 50 LF OF 10' LANDSCAPE BUFFER
565 L.F. ALONG MARIO CT = 12 TREES REQUIRED
12 TREES PROVIDED
585 L.F. ALONG VALLEY RIDGE BLVD =
12 TREES REQUIRED
12 TREES PROVIDED

1 - 2.5" CAL. TREE PER 15 PARKING SPACES
42 PARKING SPACES = 3 TREES REQUIRED
4 TREES PROVIDED

INTERIOR LANDSCAPING REQUIREMENTS

TOTAL PARKING AREA = 16,432.45 S.F.
INTERIOR LANDSCAPE AREA = 5%

REQUIRED INTERIOR LANDSCAPE = 822 S.F.
PROVIDED INTERIOR LANDSCAPE = 2,634 S.F.

Landscape Legend

- Shumard Red Oak *Quercus shumardii*
- Live Oak *Quercus virginiana*
- Cedar Elm *Ulmus crassifolia*
- Crape Myrtle 'Natchez' *Lagerstromia indica 'Natchez'*
- 'Nellie R Stevens' Holly *Ilex x 'Nellie R Stevens'*
- Maidengrass *Miscanthus sinensis 'Gracillimus'*
- 'Gulf Stream' Nandina *Nandina domestica 'Gulf Stream'*
- 'Big Blue' Liriope *Liriope muscari 'Big Blue'*
- Bermudagrass sod *Cynodon dactylon*
- Decorative stone / gravel

NOTE:

ALL LANDSCAPED AREAS WILL BE IRRIGATED BY AN AUTOMATIC IRRIGATION SYSTEM, DESIGNED BY A LICENSED IRRIGATOR.

SAGE GROUP, INC.
1130 N. Carroll Ave., Ste. 200
Southlake, Texas 76092
TEL 817-424-2626

Master Planning
Urban Design
Architecture
Landscape Architecture

FOR BIDDING AND REVIEW PURPOSES ONLY. THESE DOCUMENTS ARE INCOMPLETE AND MAY NOT BE USED FOR REGULATORY APPROVAL, PERMIT OR CONSTRUCTION.

KELLEE D. LEE
RLA 2424

APPLICANT
DEOTTE, INC.
420 JOHNSON ROAD, SUITE 303
KELLER, TX 76248
Phone: 817-337-8899
Contact: RICH DEOTTE

REW MATERIALS
LEWISVILLE, TEXAS

Issued
MAR 31, 2017

Revisions
5/8/17 revised civil base
5/12/17 city comments
5/16/17 screening wall change
6/9/17 city comments
6/28/17 city comments

LANDSCAPE PLAN

SHEET
LS1-0

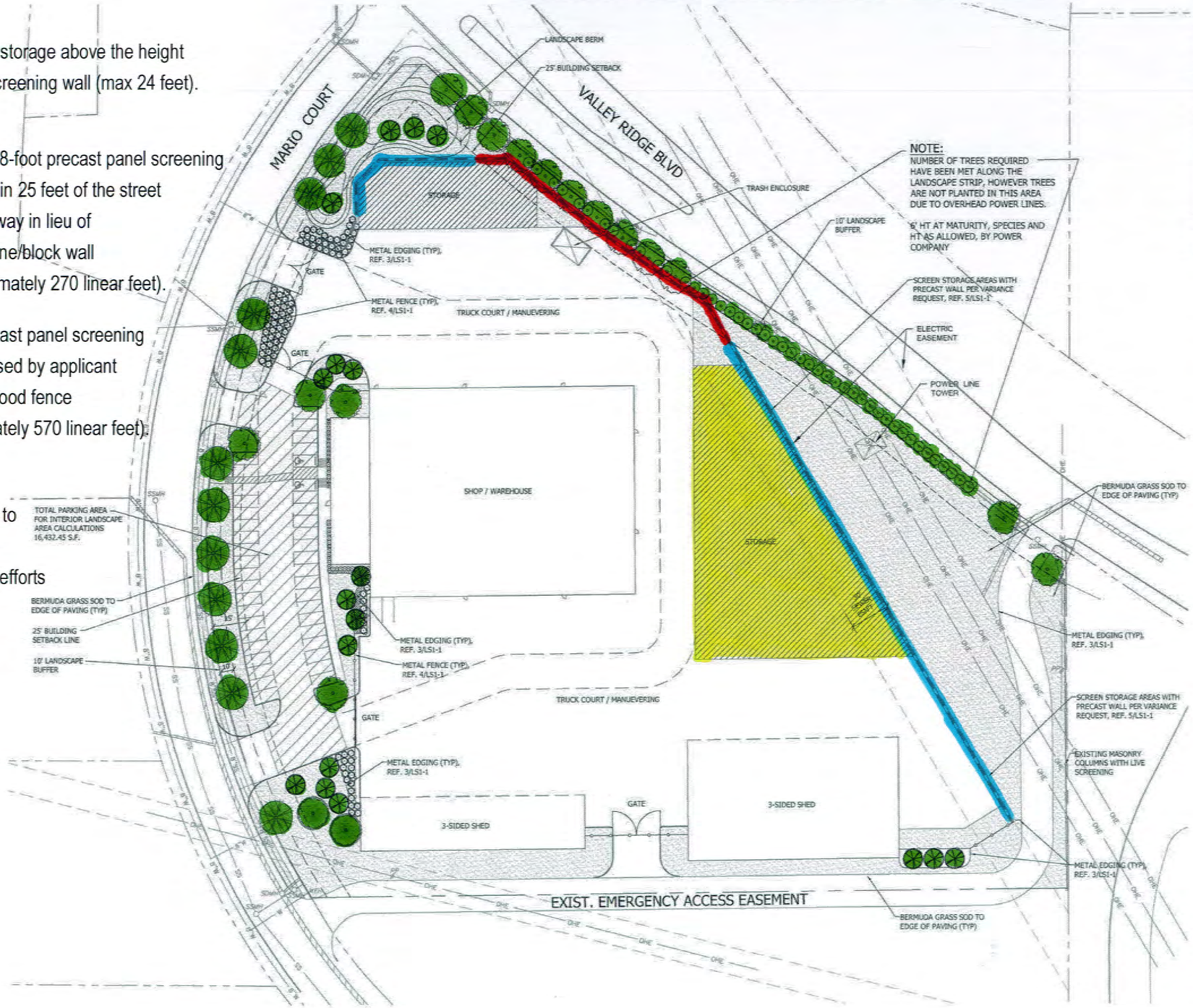
VARIANCE REQUEST EXHIBIT

c) to allow storage above the height of the screening wall (max 24 feet).

d) to allow 8-foot precast panel screening wall within 25 feet of the street right-of-way in lieu of brick/stone/block wall (approximately 270 linear feet).

8-foot precast panel screening wall proposed by applicant in lieu of wood fence (approximately 570 linear feet).

New trees to enhance screening efforts



VICINITY MAP
SCALE: 1" = 1000'

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1 LANDSCAPE PLAN
PLAN

0 40' 80 160'
1" = 40'-0"

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LEWISVILLE, TEXAS

Issued
MAR 31, 2017

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5/8/17 revised civil base
5/12/17 city comments
5/16/17 screening wall change
6/9/17 city comments
6/28/17 city comments

LANDSCAPE PLAN

SHEET
LS1-0

ORDINANCE NO. _____

AN ORDINANCE OF THE LEWISVILLE CITY COUNCIL, AMENDING THE ZONING ORDINANCE BY REZONING APPROXIMATELY 6.68 ACRES OUT OF THE L.N. SPARKS SURVEY, ABSTRACT NO. 1214, LEGALLY DESCRIBED AS LOTS 11 AND 12, BLOCK A, ARTX PARK ADDITION, BOUNDED BY EAST VALLEY RIDGE BOULEVARD ON THE NORTHEAST AND MARIO COURT ON THE WEST; FROM LIGHT INDUSTRIAL DISTRICT (LI) ZONING TO WAREHOUSE DISTRICT (WH) ZONING; CORRECTING THE OFFICIAL ZONING MAP; PRESERVING ALL OTHER PORTIONS OF THE ZONING ORDINANCE; DETERMINING THAT THE PUBLIC INTERESTS AND GENERAL WELFARE DEMAND THIS ZONING CHANGE AND AMENDMENT THEREIN MADE; PROVIDING FOR A REPEALER, SEVERABILITY, AND A PENALTY; AND DECLARING AN EMERGENCY.

WHEREAS, applications were made to amend the Official Zoning Map of Lewisville, Texas by making applications for same with the Planning and Zoning Commission of the City of Lewisville, Texas, as required by State statutes and the Zoning Ordinances of the City of Lewisville, Texas, said Planning and Zoning Commission has recommended that rezoning of the approximately 6.68-acre property described in the attached Exhibit "A" (the "Property") be **approved**, and all the legal requirements, conditions and prerequisites having been complied with, the case having come before the City Council of the City of Lewisville, Texas, after all legal notices, requirements, conditions and prerequisites having been complied with; and,

WHEREAS, the City Council of the City of Lewisville, Texas, at a public hearing called by the City Council of the City of Lewisville, Texas, did consider the following factors in making a determination as to whether this requested change should be granted or denied: effect on the congestion of the streets; the fire hazards, panics and other dangers possibly present in the securing

of safety from same; the effect on the promotion of health and the general welfare; effect on adequate light and air; the effect on the overcrowding of the land; the effect of the concentration on population; the effect on the transportation, water, sewerage, schools, parks and other public facilities; and,

WHEREAS, the City Council further considered among other things the character of the district and its peculiar suitability for particular uses and with the view to conserve the value of buildings, encourage the most appropriate use of land throughout this City; and,

WHEREAS, the City Council of the City of Lewisville, Texas, does find that there is a public necessity for the zoning change, that the public interest clearly requires the amendment, that the zoning changes do not unreasonably invade the rights of adjacent property owners; and,

WHEREAS, the City Council of the City of Lewisville, Texas, does find that the change in zoning lessens the congestion in the streets; helps secure safety from fire, panic and other dangers; promotes health and the general welfare; provides adequate light and air; prevents the overcrowding of land; avoids undue concentration of population; facilitates the adequate provisions of transportation, water, sewerage, schools, parks and other public requirements; and,

WHEREAS, the City Council of the City of Lewisville, Texas, has determined that there is a necessity and need for this change in zoning and has also found and determined that there has been a change in the conditions of the property surrounding and in close proximity to the Property since it was originally classified and, therefore, feels that a change in zoning classification for the Property is needed, is called for, and is in the best interest of the public at large, the citizens of the City of Lewisville, Texas, and helps promote the general health, safety, and welfare of this community.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, THAT:

SECTION 1. The Zoning Ordinance of the City of Lewisville, Texas, be, and the same is hereby amended and changed in that the zoning of the Property is hereby changed to **WAREHOUSE DISTRICT (WH) ZONING**.

SECTION 2. The City Manager, or her designee, is hereby directed to correct the official zoning map of the City of Lewisville, Texas, to reflect this change in zoning.

SECTION 3. That in all other respects the use of the tract or tracts of land hereinabove described shall be subject to all the applicable regulations contained in said City of Lewisville Zoning Ordinance and all other applicable and pertinent ordinances of the City of Lewisville, Texas.

SECTION 4. That the zoning regulations and districts as herein established have been made in accordance with the comprehensive plan for the purpose of promoting health, safety, and the general welfare of the community. They have been designed with respect to both present conditions and the conditions reasonably anticipated to exist in the foreseeable future, to lessen congestion in the streets; to secure safety from fire, panic, flood and other dangers; provide adequate light and air; to prevent overcrowding of land, to avoid undue concentration of population; facilitate the adequate provisions of transportation, water, sewage, parks and other public requirements, and to make adequate provisions for the normal business, commercial needs and development of the community. They have been made with reasonable consideration, among other things of the character of the district, and its peculiar suitability for the particular uses and with a view of conserving the value of buildings and encouraging the most appropriate use of land throughout the community.

SECTION 5. This Ordinance shall be cumulative of all other ordinances of the City of Lewisville, Texas, affecting zoning and shall not repeal any of the provisions of said ordinances, except in those instances where provisions of those ordinances which are in direct conflict with the provisions of this Ordinance.

SECTION 6. That the terms and provisions of this Ordinance shall be deemed to be severable and that if the validity of the zoning affecting any portion of the Property shall be declared to be invalid, the same shall not affect the validity of the zoning of the balance of the tract or tracts of land described herein.

SECTION 7. Any person, firm or corporation who violates any provision of this Ordinance shall be deemed guilty of a misdemeanor and, upon conviction thereof in the Municipal Court, shall be subject to a fine of not more than $2,000.00 for each offense, and each and every day such offense is continued shall constitute a new and separate offense.

SECTION 8. The fact that the present Zoning Ordinance and regulations of the City of Lewisville, Texas are inadequate to properly safeguard the health, safety, peace and general welfare of the inhabitants of the City of Lewisville, Texas, creates an emergency for the immediate preservation of the public business, property, health, safety and general welfare of the public which requires that this Ordinance shall become effective from and after the date of its final passage, and it is accordingly so ordained.

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, BY A VOTE OF _____ TO _____, ON THIS THE 20TH DAY OF NOVEMBER, 2017.

APPROVED:

_____
Rudy Durham, MAYOR

ATTEST:

_____
Julie Worster, CITY SECRETARY

APPROVED AS TO FORM:

_____
Lizbeth Plaster, CITY ATTORNEY

Exhibit A
Property Description

EXHIBIT A

LEGAL DESCRIPTION: Being a tract of land out of the J. H. Havens Survey, Abstract No. 541 and situated in the City of Lewisville, Dallas County, Texas, and surveyed by Miller Surveying, Inc. of Hurst, Texas in March 2017, said tract being Lot 11 and Lot 12, Block A, ARTX Park Addition, An Addition to the City of Lewisville, Texas according to the plat thereof recorded in Volume 2012, Page 56 of the Plat Records of Dallas County, Texas, and being more particularly described as follows:

BEGINNING at a cross in concrete found for the northeast corner of said Lot 12, said cross being in the southwesterly right-of-way line of Valley Ridge Boulevard;

THENCE South 00 degrees 33 minutes 45 seconds East with the easterly boundary line of said Block A a distance of 255.63 feet to a ½ inch capped steel rod found for the southeast corner of said Lot 11;

THENCE South 89 degrees 26 minutes 15 seconds West with the southerly boundary line of said Lot 11 a distance of 573.80 feet to a ½ inch capped steel rod found for the southwest corner thereof, said rod being in the easterly right-of-way line of Mario Court, and also being the beginning of a curve to the right with a radius of 495.00 feet and whose chord bears North 05 degrees 54 minutes 03 seconds East at 623.24 feet;

THENCE northerly with the westerly boundary line said of Block A and said easterly right-of-way and with said curve along an arc length of 674.15 feet to the end of said curve;

THENCE North 44 degrees 55 minutes 00 seconds East continuing with said westerly boundary line and said easterly right-of-way a distance of 3.72 feet to a ½ inch capped steel rod found for the westerly end of a corner clip for said easterly right-of-way line and said southwesterly right-of-way line;

THENCE North 89 degrees 12 minutes 19 seconds East with said corner clip a distance of 17.18 feet to a ½ inch capped steel rod found for the easterly end thereof, said rod being in the said southwesterly right-of-way, and also the beginning of a curve to the left with a radius of 1450.00 feet and whose chord bears South 51 degrees 56 minutes 18 seconds East at 262.59 feet;

THENCE Southeasterly with the northeasterly boundary line of said Lot 12 and said southwesterly right-of-way and with said curve along an arc length of 262.95 feet to a fence post found for the end of said curve;

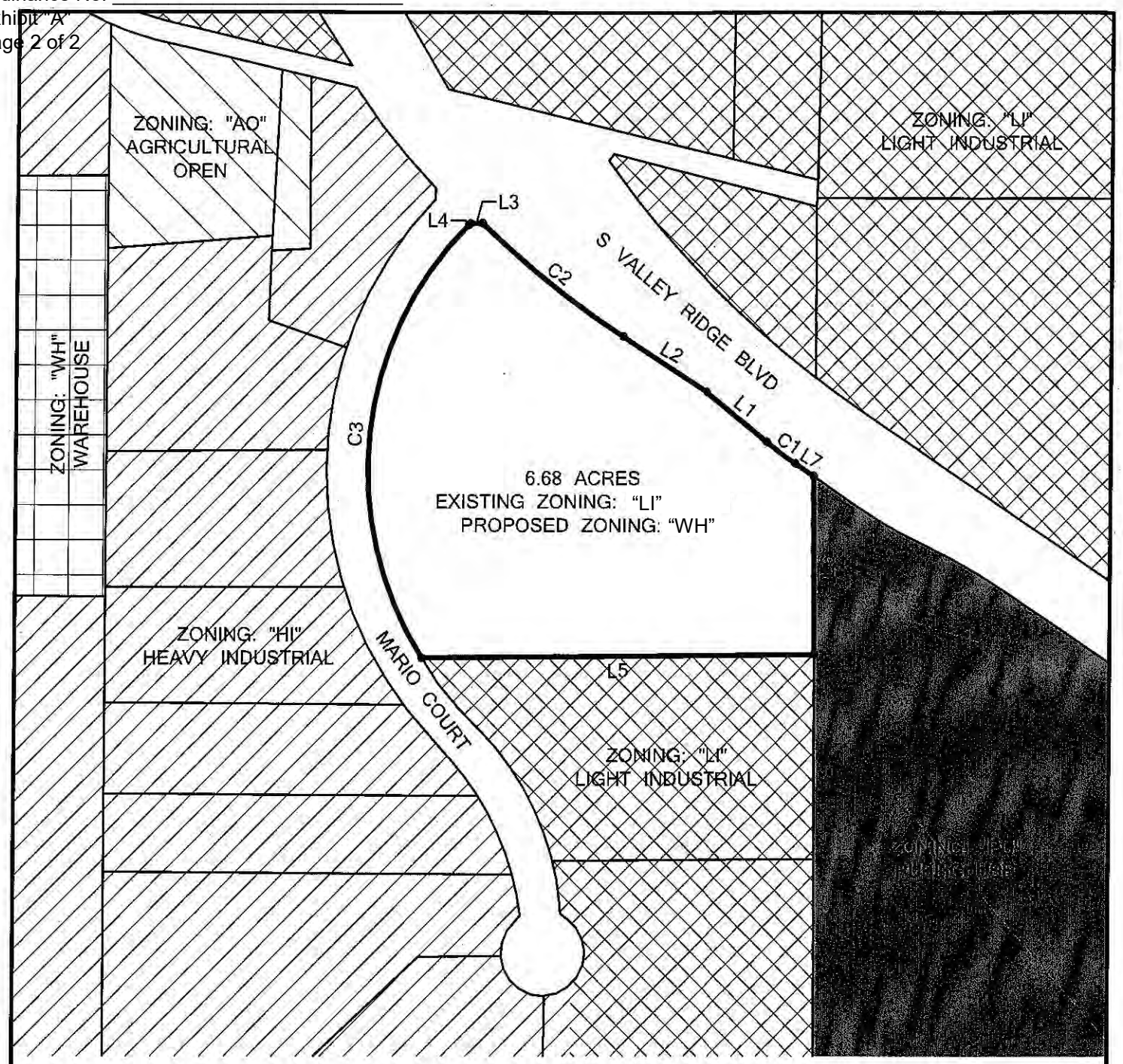
THENCE South 57 degrees 08 minutes 00 seconds East continuing with said northeasterly boundary line and said southwesterly right-of-way a distance of 146.07 feet to a cross in concrete found;

THENCE South 50 degrees 47 minutes 40 seconds East continuing with said northeasterly boundary line and said southwesterly right-of-way a distance of 113.30 feet to a cross in concrete found, for the beginning of a curve the left with the radius of 475.00 feet and whose chord bears South 53 degrees 57 minutes 50 seconds East at 52.52 feet;

THENCE Southeasterly with said northeasterly boundary line and said southwesterly right-of-way and with said curve along an arc of 52.55 feet to a cross in concrete found for the end of said curve;

THENCE South 57 degrees 08 minutes 00 seconds East continuing with said northeasterly boundary line and said southwesterly right-of-way a distance of 32.96 feet to the point of beginning and containing 6.6784 acres of land more or less.

Attachment to
Ordinance No. _____
Exhibit "A"
Page 2 of 2



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N

0 100 200

1" = 200'

THIS DOCUMENT IS FOR INTERIM REVIEW AND IS NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.
BY: Richard W. DeOtte
Reg. No.: 74232
Date: 04/03/2017

REW MATERIALS
ZONING EXHIBIT
LEWISVILLE, TEXAS

DEOTTE, INC.
CIVIL ENGINEERING
420 Johnson Road, Suite 303
Keller, Texas 76248
Fax 817-337-5133 Phone 817-337-8899
FIRM REGISTRATION # F-00116 (TX) WWW.DEOTTE.COM

DRAWN BY:	SCALE:	DATE:	PROJECT NO.:	SHEET:
DSM	1"=200'	4/03/2017	201710700	1 OF 1

ORDINANCE NO. _____

AN ORDINANCE OF THE LEWISVILLE CITY COUNCIL, AMENDING THE ZONING ORDINANCE BY GRANTING A SPECIAL USE PERMIT FOR A WHOLESALE ESTABLISHMENT WITH OUTSIDE STORAGE ON MORE THAN TEN PERCENT OF THE PLATTED LOT ON A 6.68-ACRE TRACT OF LAND OUT OF THE L.N. SPARKS SURVEY, ABSTRACT NO. 1214, LEGALLY DESCRIBED AS LOTS 11 AND 12, BLOCK A, ARTX PARK ADDITION, BOUNDED BY EAST VALLEY RIDGE BOULEVARD ON THE NORTHEAST AND MARIO COURT ON THE WEST; AND ZONED WAREHOUSE DISTRICT (WH); PROVIDING FOR A REPEALER, SEVERABILITY, PENALTY, AND AN EFFECTIVE DATE; AND DECLARING AN EMERGENCY.

WHEREAS, applications were made requesting approval of a Special Use Permit for a wholesale establishment with outside storage on more than ten percent (10%) of the platted lot by making applications for same with the Planning and Zoning Commission of the City of Lewisville, Texas, as required by state statutes and the Zoning Ordinances of the City of Lewisville, Texas; and said Planning and Zoning Commission has recommended that the Special Use Permit on the 6.68-acre tract, as described in the attached Exhibit "A" (the "Property"), be **approved**; and

WHEREAS, this application for a Special Use Permit comes before the City Council of the City of Lewisville, Texas (the "City Council") after all legal notices, requirements, conditions and prerequisites have been met; and

WHEREAS, the City Council at a public hearing has determined that the proposed use, subject to the condition(s) stated herein: (1) complements or is compatible with the surrounding uses and community facilities; (2) contributes to, enhances, or promotes the welfare of the area of request and adjacent properties; (3) is not detrimental to the public health, safety, or general welfare; and (4) conforms in all other respects to all zoning regulations and standards.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, THAT:

SECTION 1. FINDINGS INCORPORATED. The findings set forth above are incorporated into the body of this ordinance as if fully set forth herein.

SECTION 2. SPECIAL USE PERMIT GRANTED. Subject to the conditions provided for herein, applicant is granted a Special Use Permit to allow a warehouse distribution facility with outside storage on more than ten percent (10%) of the platted lot on the Property, which is zoned Warehouse District (WH).

SECTION 3. CONDITIONS OF SPECIAL USE PERMIT. The Property shall be developed and maintained:

1. in compliance with the narrative, development plan, landscape plan, building elevations, and site cross sections, attached hereto as Exhibit "B"; and
2. in accordance with all federal, state, and local laws and regulations; and
3. upon the completion of construction of a second sanitary sewer force main across the Property, the Property owner at the time shall be responsible for any concrete replacement within the existing 30-foot sanitary sewer easement; and
4. with no pole signs allowed.

SECTION 4. CORRECTING OFFICIAL ZONING MAP. The City Manager, or her designee, is hereby directed to correct the official zoning map of the City of Lewisville, Texas, to reflect this Special Use Permit.

SECTION 5. COMPLIANCE WITH ALL OTHER MUNICIPAL REGULATIONS. The Property shall comply with all applicable municipal ordinances, as amended. In no way shall this Special Use Permit be interpreted to be a variance to any municipal ordinance.

SECTION 6. RESCINDING AND TERMINATION. The City Council may rescind and terminate the Special Use Permit after a public hearing if any of the following occur:

1. One or more of the conditions imposed by the Special Use Permit have not been met or have been violated.
2. The Special Use Permit was obtained through fraud or deception.
3. Ad valorem taxes on the property are delinquent by six months or more.
4. Disconnection or discontinuance of water and/or electrical services to the property.
5. Abandonment of the structure, lease space, lot, or tract of land for 180 days or more.

SECTION 7. REPEALER. Every ordinance or parts of ordinances found to be in conflict herewith are here by repealed.

SECTION 8. SEVERABILITY. If any section, sentence, clause, or phrase of this ordinance shall for any reason be held to be invalid, such decision shall not affect the validity of the remaining sections, sentences, clauses, or phrases of this ordinance, but they shall remain in effect.

SECTION 9. PENALTY. Any person, firm or corporation who violates any provisions of this Ordinance shall be deemed guilty of a misdemeanor and, upon conviction thereof in the

Municipal Court, shall be subject to a fine of not more than $2,000.00 for each offense, and each and every day such offense is continued shall constitute a new and separate offense.

SECTION 10. EFFECTIVE DATE. This Ordinance shall take effect and be in full force and effect from and after the date of its passage and publication as required by law.

SECTION 11. EMERGENCY. It being for the public welfare that this Ordinance be passed creates an emergency and public necessity and the rule requiring this Ordinance be read on three separate occasions be, and the same is hereby, waived and this Ordinance shall be in full force and effect from and after its passage and approval and publication, as the law in such cases provides.

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, BY A VOTE OF _____ TO _____, ON THIS THE 20TH DAY OF NOVEMBER, 2017.

APPROVED:

_____
Rudy Durham, MAYOR

ATTEST:

_____
Julie Worster, CITY SECRETARY

APPROVED AS TO FORM:

_____
Lizbeth Plaster, CITY ATTORNEY

Exhibit A
Property Description

Exhibit B
Narrative
Development Plan
Landscape Plan
Building Elevations
Site Cross Sections

EXHIBIT A

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Attachment to
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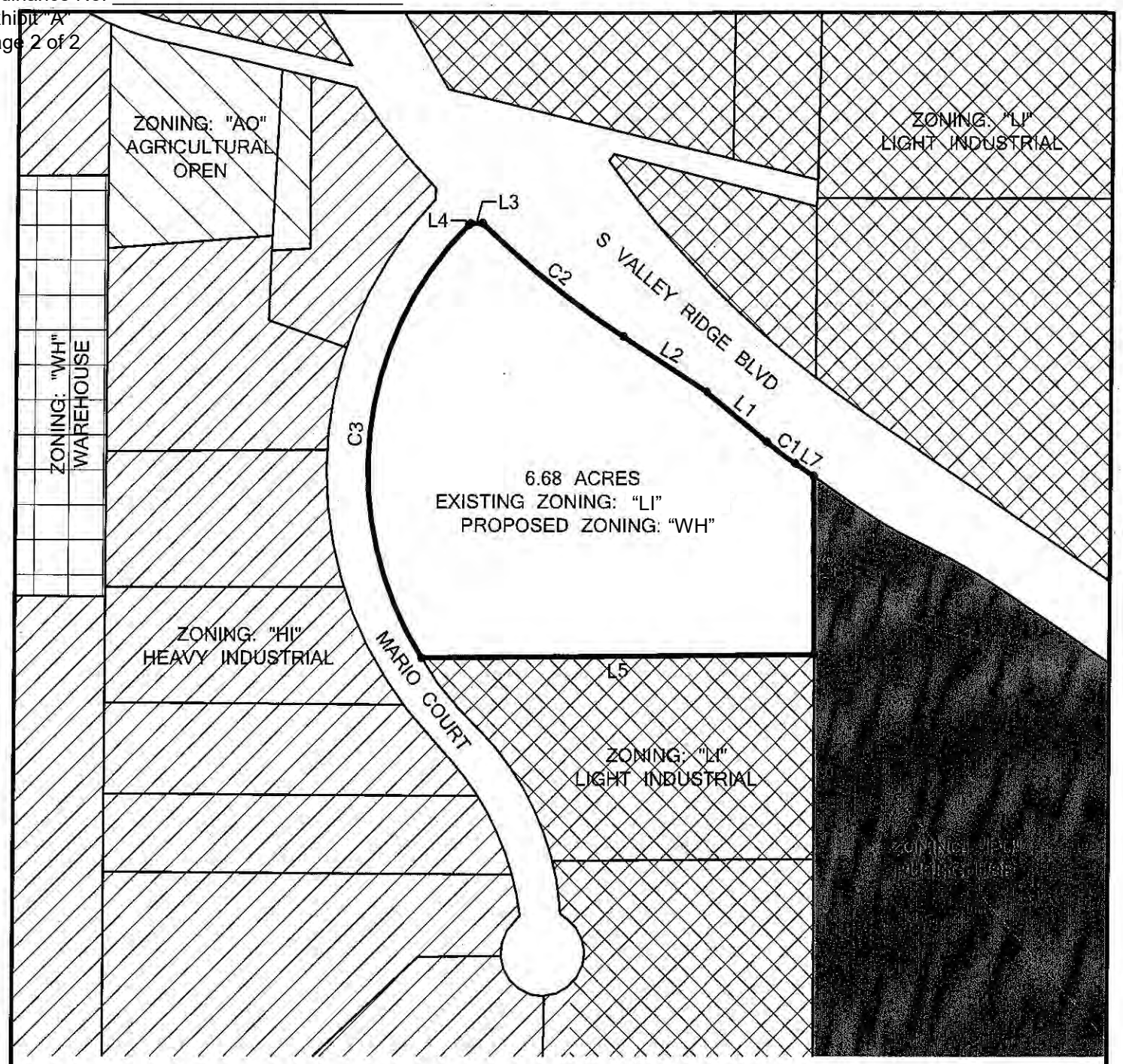
Page 2 of 2



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N

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THIS DOCUMENT IS FOR INTERIM REVIEW AND IS NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.
BY: Richard W. DeOtte
Reg. No.: 74232
Date: 04/03/2017

REW MATERIALS
ZONING EXHIBIT
LEWISVILLE, TEXAS

DEOTTE, INC.
CIVIL ENGINEERING
420 Johnson Road, Suite 303
Keller, Texas 76248
Fax 817-337-5133 Phone 817-337-8899
FIRM REGISTRATION # F-00116 (TX) WWW.DEOTTE.COM

DRAWN BY:	SCALE:	DATE:	PROJECT NO.:	SHEET:
DSM	1"=200'	4/03/2017	201710700	1 OF 1

EXHIBIT B

DEOTTE, INC.

CIVIL ENGINEERING

July 7, 2017

Mr. Richard Luedke, AICP
Planning Manager
151 W. Church Street
Lewisville, Texas 75057

Re: REW Materials Site Relocation
Mario Court at East Valley Ridge Drive

Dear Mr. Luedke:

On behalf of our client, KCG, Inc. we are submitting this zoning change request and Special Use Permit to develop the site in a way to expand and improve the operations of the underlying existing business in Lewisville.

The site is currently zoned LI (light industrial). The proposed zoning is Warehouse and we are submitting an SUP for the City's consideration.

KCG, Inc has owned and operated REW Materials in Lewisville for 17 years. KCG, Inc is a family owned business that is over 50 years old. They are the 4th largest supplier of drywall and related building products in the US with our Lewisville location distributing more metal stud products than any other facility in the country, including our competition. This makes us a vital contributor to the growth in Lewisville and surrounding areas. With our sales volume, we're also a great support in the tax base for Lewisville. The one thing that stood out in our initial presentation is we employ approximately 30 employees with an average salary of approximately $90,000 per year.

REW Materials is pleased to relocate within the City of Lewisville to a new location to improve their operation.

The proposed zoning change and SUP allow for the site to develop in a way to expand their business operations and increase the efficiency of the operation as well.

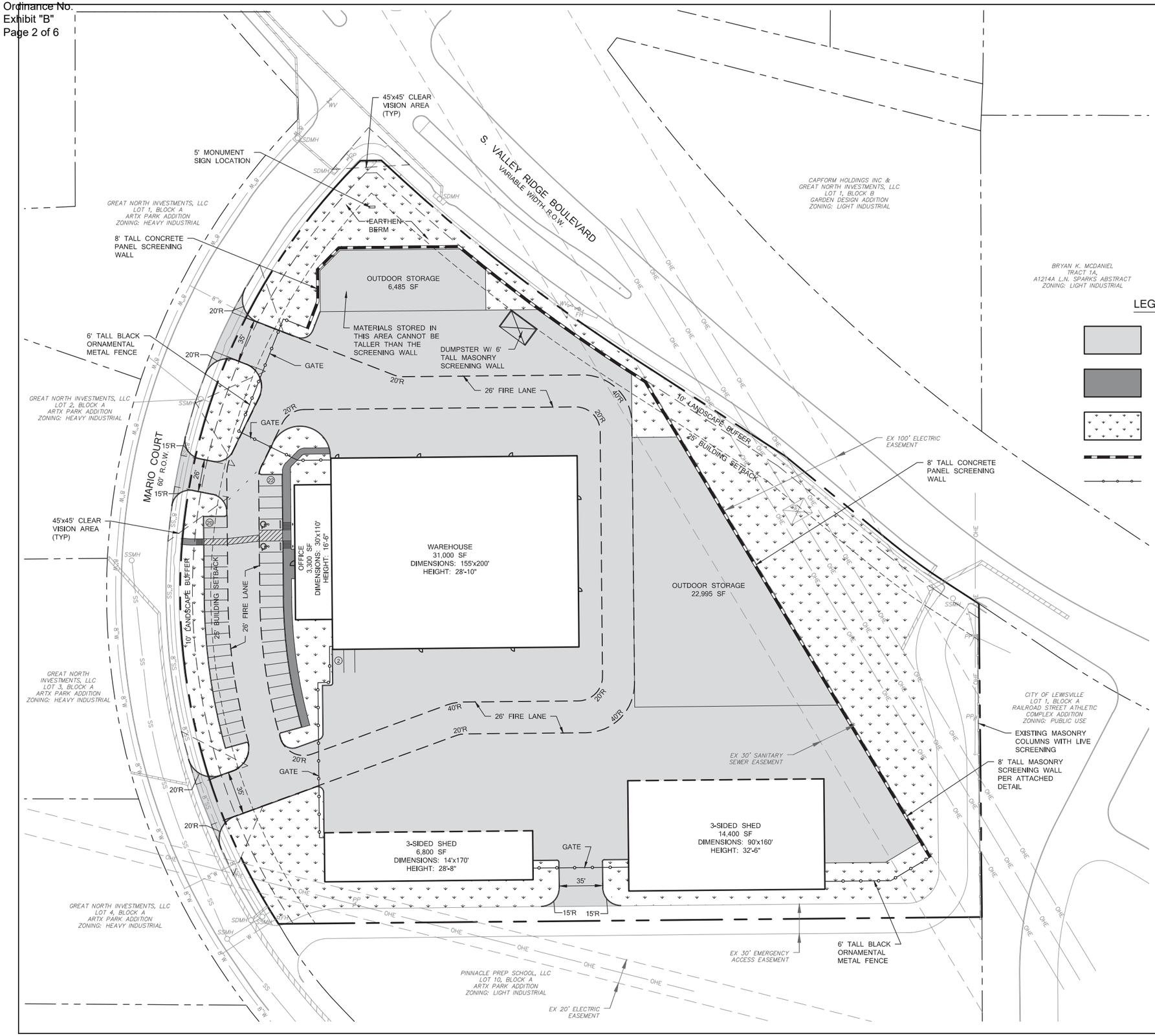
REW has enjoyed a good relationship with the City of Lewisville for many years and we believe that this relocation/expansion will be good for the City as well as REW materials to continue to have a great relationship into the future.

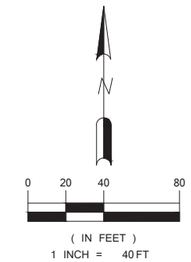
Sincerely,

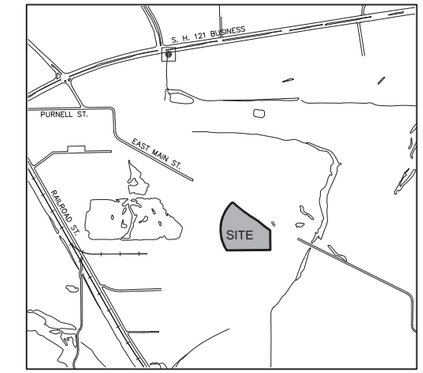
DeOtte, Inc.

Richard W. DeOtte, P.E., CFM

420 JOHNSON ROAD; SUITE 303 ~ KELLER, TEXAS 76248 PHONE (817) 337-8899
WWW.DEOTTE.COM







VICINITY MAP
SCALE: 1" = 1000'

LEGEND

- PROPOSED CONCRETE PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED LANDSCAPING
- 8' TALL CONCRETE PANEL SCREENING WALL
- 6' TALL BLACK ORNAMENTAL METAL FENCE

SITE DATA

LOT AREA	290,913 SF (6.68 AC)
EXISTING ZONING	LIGHT INDUSTRIAL (LI)
PROPOSED ZONING	WAREHOUSE (WH)
EXISTING USE	VACANT
PROPOSED USE	WAREHOUSE & OUTSIDE STORAGE
BUILDING AREA	3,300 SF OFFICE 31,000 SF WAREHOUSE
BUILDING HEIGHT OFFICE WAREHOUSE	 16'-6" 28'-10"
IMPERVIOUS AREA	218,490 SF (75.1%)
PARKING REQUIRED	33 SPACES (INCLUDING 2 ADA SPACES) OFFICE = 1/200 SF = 17 SPACES WAREHOUSE = 1/2,000 SF = 16 SPACES
PARKING PROVIDED	44 SPACES (42 REGULAR & 2 ADA)
OUTDOOR STORAGE	50,680 SF (17.4%)

NOTES:

1. ALL PARKING SPACES ARE 9' WIDE x 19' DEEP
2. ALL FIRE LANES ARE MINIMUM 26' WIDE WITH INSIDE RADII MEASURING 20' AND OUTSIDE RADII MEASURING 40'
3. NO POLE SIGNS ON SITE. 6' MONUMENT SIGN AND ALL WALL SIGNAGE WILL MEET SIGN ORDINANCE
4. THE OWNER WILL BE RESPONSIBLE FOR CONCRETE REPLACEMENT WITHIN THE 30-FOOT SANITARY SEWER EASEMENT AT THE TIME THE FUTURE SECOND SANITARY SEWER FORCE MAIN IS INSTALLED.

VARIANCES APPROVED BY CITY COUNCIL ON _____, 2017

A. TO ALLOW A REDUCTION IN EXTERIOR MATERIAL REQUIREMENTS FROM THE 80% BRICK VENEER TO 30% BRICK VENEER ON THE WEST ELEVATION AND 100% STUCCO ON THE NORTH, SOUTH AND EAST ELEVATIONS OF THE MAIN BUILDING.

B. TO ALLOW A REDUCTION IN EXTERIOR MATERIAL REQUIREMENTS FROM THE 80% BRICK VENEER TO 0% BRICK VENEER ON TWO OUTSIDE STORAGE THREE-SIDED SHEDS AND 100% STUCCO ON THE EASTERN ELEVATION OF THE EASTERN SHED.

C. TO ALLOW STORAGE ABOVE THE HEIGHT OF THE SCREENING WALL.

D. TO ALLOW PRECAST PANEL SCREENING WALL WITHIN 25 FEET OF THE STREET RIGHT-OF-WAY CONSTRUCTION.

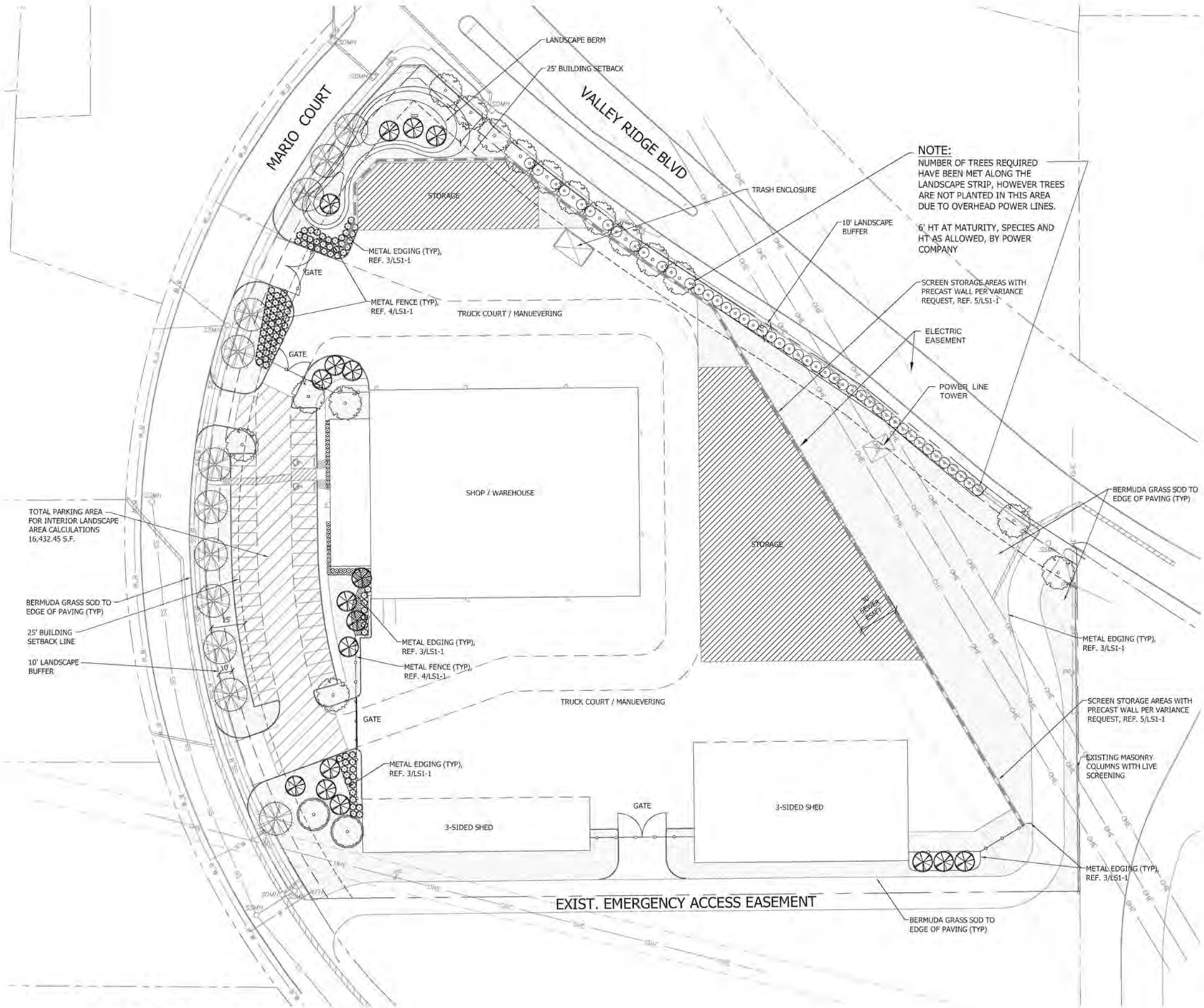
THIS DOCUMENT IS FOR INTERIM REVIEW AND IS NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.
BY: Richard W. DeOtte
Reg. No.: 74232
Date: 9/29/2017

OWNER:
REW GRAY PROPERTIES, LLC
15720 W 108TH STREET, SUITE 100
LENEXA, KANSAS 66219
(913) 438-4142
CONTACT: JIM BEDSWORTH, JR.

SITE PLAN PREPARER:
DEOTTE, INC.
420 JOHNSON RD. SUITE 303
KELLER, TEXAS 76248
(817) 337-8899

DEVELOPMENT PLAN FOR
R.E.W. MATERIALS

LOTS 11 & 12, BLOCK A
OF THE ARTX PARK ADDITION
6.68 ACRES
EXISTING ZONING: LI
PROPOSED ZONING - WH



NOTE:
NUMBER OF TREES REQUIRED HAVE BEEN MET ALONG THE LANDSCAPE STRIP, HOWEVER TREES ARE NOT PLANTED IN THIS AREA DUE TO OVERHEAD POWER LINES.

6' HT AT MATURITY, SPECIES AND HT AS ALLOWED, BY POWER COMPANY

VICINITY MAP
SCALE: 1" = 1000'

LANDSCAPE REQUIREMENTS

1 - 2.5" CAL. TREE PER 50 LF OF 10' LANDSCAPE BUFFER
565 L.F. ALONG MARIO CT = 12 TREES REQUIRED
12 TREES PROVIDED
585 L.F. ALONG VALLEY RIDGE BLVD =
12 TREES REQUIRED
12 TREES PROVIDED

1 - 2.5" CAL. TREE PER 15 PARKING SPACES
42 PARKING SPACES = 3 TREES REQUIRED
4 TREES PROVIDED

INTERIOR LANDSCAPING REQUIREMENTS

TOTAL PARKING AREA = 16,432.45 S.F.
INTERIOR LANDSCAPE AREA = 5%

REQUIRED INTERIOR LANDSCAPE = 822 S.F.
PROVIDED INTERIOR LANDSCAPE = 2,634 S.F.

Landscape Legend

- Shumard Red Oak *Quercus shumardii*
- Live Oak *Quercus virginiana*
- Cedar Elm *Ulmus crassifolia*
- Crape Myrtle 'Natchez' *Lagerstromia indica 'Natchez'*
- 'Nellie R Stevens' Holly *Ilex x 'Nellie R Stevens'*
- Maidengrass *Miscanthus sinensis 'Gracillimus'*
- 'Gulf Stream' Nandina *Nandina domestica 'Gulf Stream'*
- 'Big Blue' Liriope *Liriope muscari 'Big Blue'*
- Bermudagrass sod *Cynodon dactylon*
- Decorative stone / gravel

NOTE:

ALL LANDSCAPED AREAS WILL BE IRRIGATED BY AN AUTOMATIC IRRIGATION SYSTEM, DESIGNED BY A LICENSED IRRIGATOR.

1 LANDSCAPE PLAN
PLAN

0 40' 80 160'
1' = 40'-0"

SAGE GROUP, INC.
1130 N. Carroll Ave., Ste. 200
Southlake, Texas 76092
TEL 817-424-2626

Master Planning
Urban Design
Architecture
Landscape Architecture

FOR BIDDING AND REVIEW PURPOSES ONLY. THESE DOCUMENTS ARE INCOMPLETE AND MAY NOT BE USED FOR REGULATORY APPROVAL, PERMIT OR CONSTRUCTION.

KELLEE D. LEE
RLA 2424

APPLICANT
DEOTTE, INC.
420 JOHNSON ROAD, SUITE 303
KELLER, TX 76248
Phone: 817-337-8899
Contact: RICH DEOTTE

REW MATERIALS
LEWISVILLE, TEXAS

Issued
MAR 31, 2017

Revisions
5/8/17 revised civil base
5/12/17 city comments
5/16/17 screening wall change
6/9/17 city comments
6/28/17 city comments

LANDSCAPE PLAN

SHEET
LS1-0

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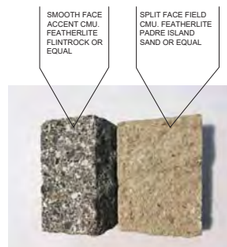
GRAPHIC EXAMPLE

WALL AREA BREAKDOWN



STK3000 Strukturoc Textured (stucco) panel

- 20 gauge, hidden fastener, 16" wide, 14'-28' length
- Tongue & Groove with stacking tab
- 24 standard color; custom colors available

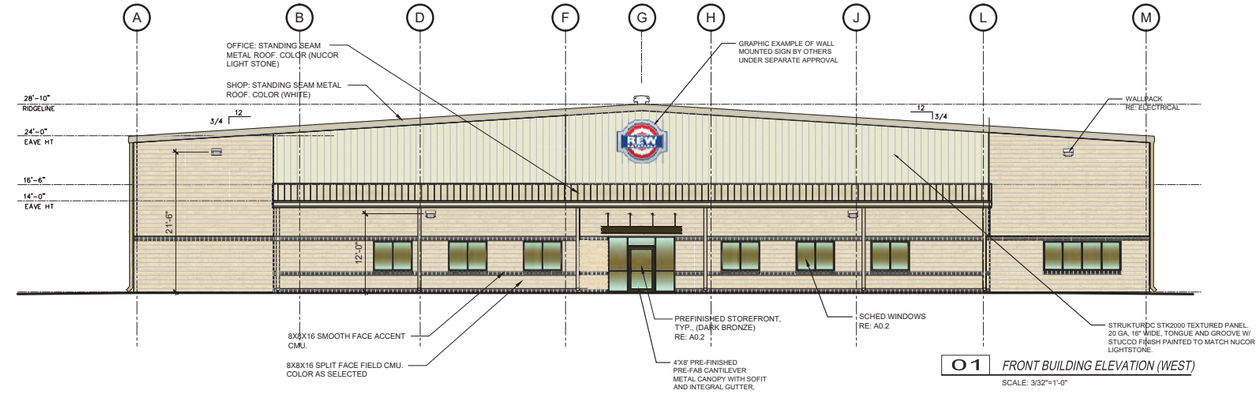
STUCCO SUBSTRATE

FOG

STUCCO TEXTURE

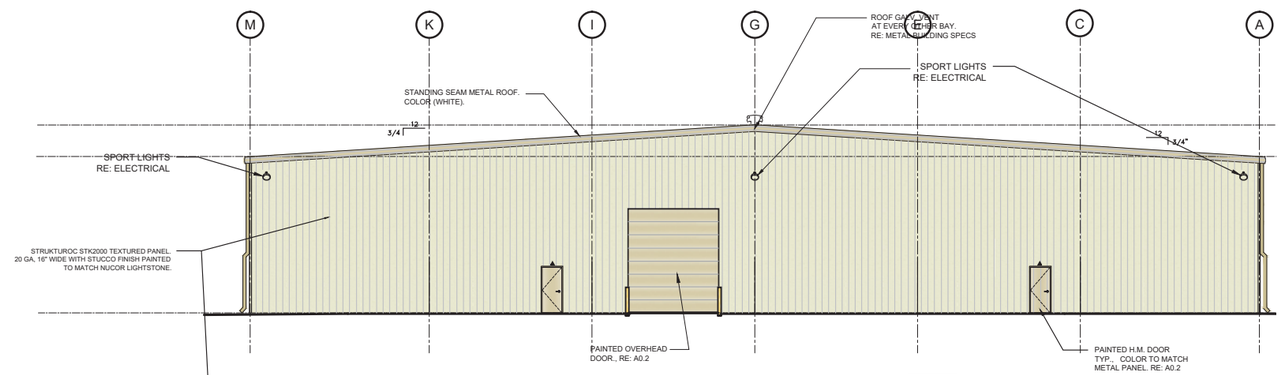
LIGHTSTONE (LS)

METAL TRIM



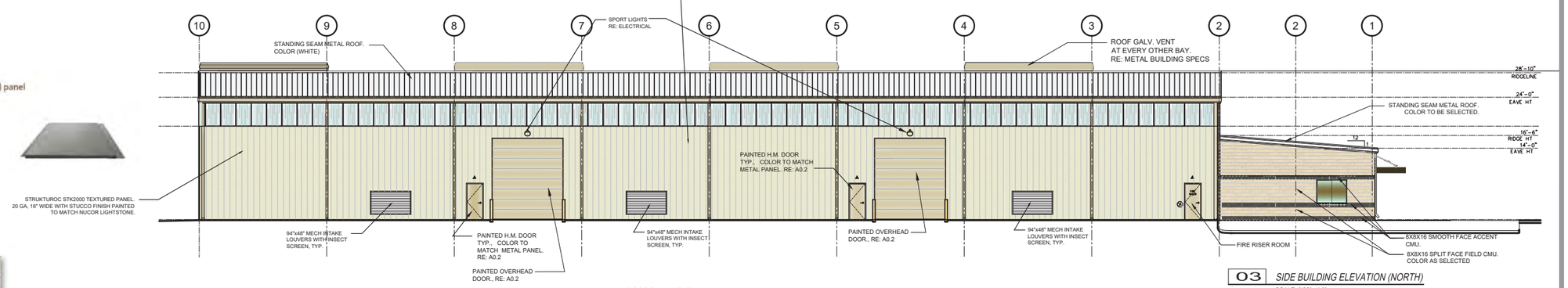
01 FRONT BUILDING ELEVATION (WEST)

SCALE: 3/32"=1'-0"



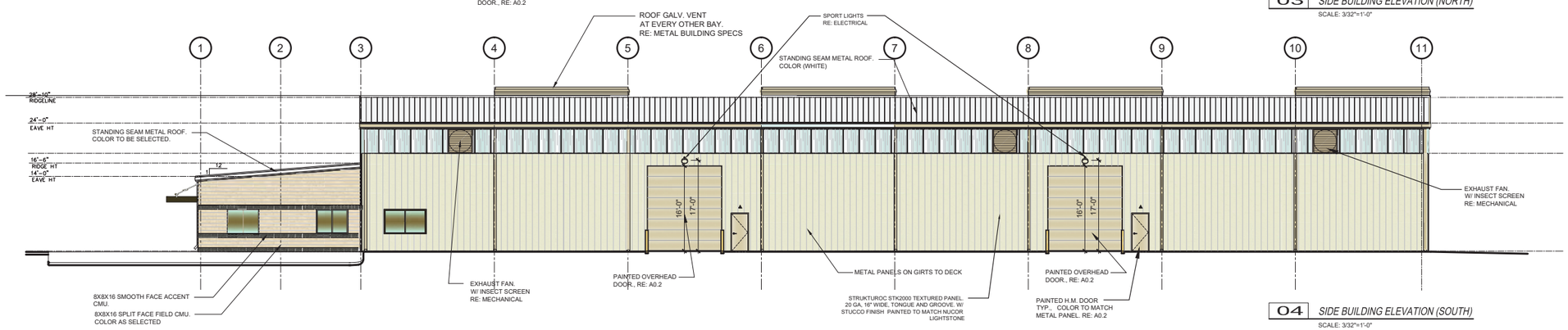
02 REAR BUILDING ELEVATION (EAST)

SCALE: 3/32"=1'-0"



03 SIDE BUILDING ELEVATION (NORTH)

SCALE: 3/32"=1'-0"



04 SIDE BUILDING ELEVATION (SOUTH)

SCALE: 3/32"=1'-0"

urban

URBAN CONSTRUCTION SOUTHWEST, Inc.

2537 S. Gessner, Suite 220
Houston, Texas 77063
713.339.5380 Ph 713.339.5389 Fx

ISSUE AND REVISION LOG

DATE	ACTIVITY
09-??-17	PERMIT ISSUE
5-9-17	CITY REVIEW RESPONSE
6-14-17	CITY REVIEW RESPONSE
9-26-17	CITY REVIEW RESPONSE

R.E.W.
Lewisville, TX

EXTERIOR ELEVATIONS

SCALE: AS NOTED

A3.1

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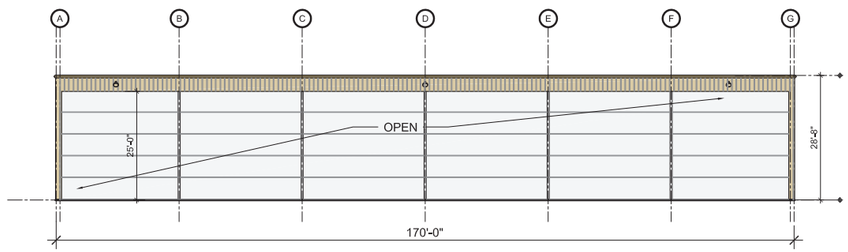
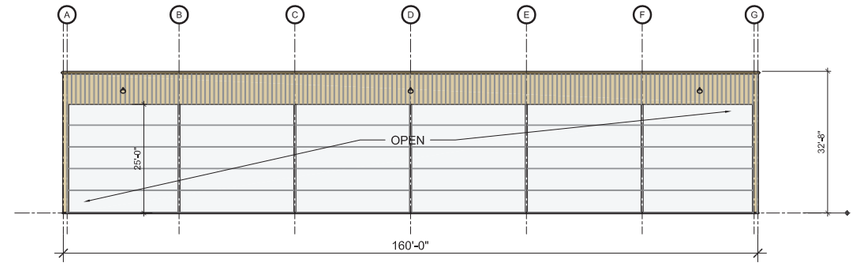
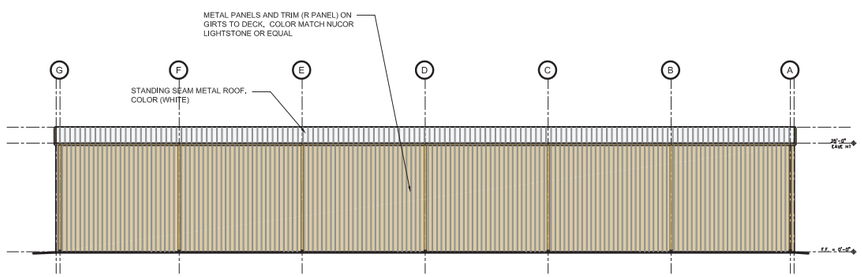


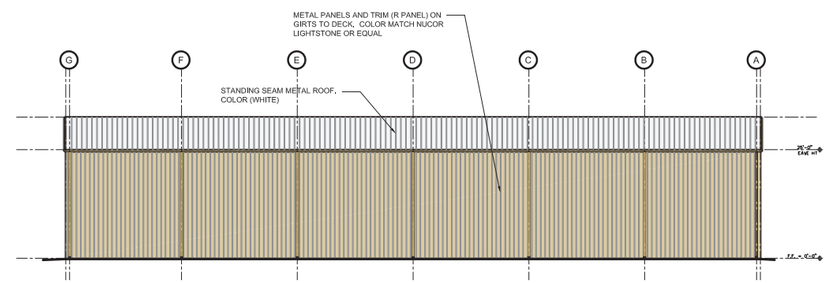
05 SHED 2 FRONT ELEVATION
SCALE: 1/16"=1'-0"



01 SHED 1 FRONT (NORTH) ELEVATION
SCALE: 1/16"=1'-0"



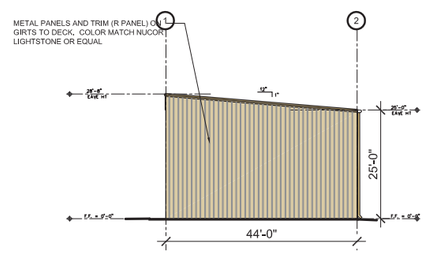
07 SHED 2 REAR ELEVATION
SCALE: 1/16"=1'-0"



02 SHED 1 REAR (SOUTH) ELEVATION
SCALE: 1/16"=1'-0"

MATERIAL CALCULATION:

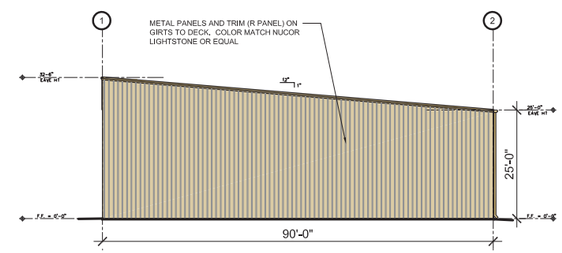
100% OF THE BUILDING CONSISTS OF PRE-FINISHED 24 GAUGE METAL "R" PANEL.



08 SHED 2 SIDE ELEVATION (TYP)
SCALE: 1/16"=1'-0"

MATERIAL CALCULATION:

100% OF THE BUILDING CONSISTS OF PRE-FINISHED 24 GAUGE METAL "R" PANEL.

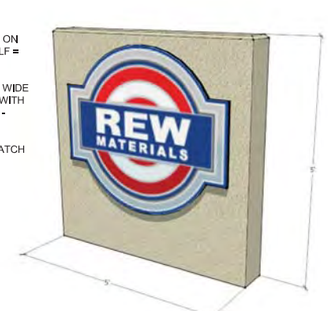


03 SHED 1 SIDE (WEST) ELEVATION (TYP)
SCALE: 1/16"=1'-0"

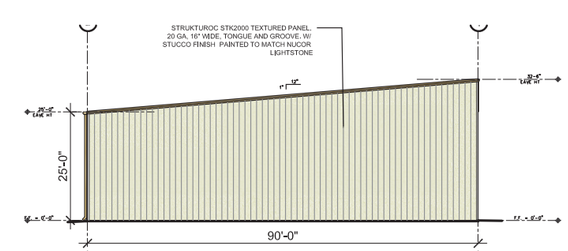
MONUMENT SIGN SIZE ALLOWED BASED ON 744' BUILDING PERIMETER X 1.5 SF PER LF = 1116 SF ALLOWED

PROPOSED MONUMENT CONSISTS OF 5' WIDE X 5' HIGH (20 SF) CONCRETE PEDESTAL WITH SURFACE MOUNTED CORPORATE LOGO - ILLUMINATION TO BE SELECTED

COLOR OF MONUMENT PEDESTAL TO MATCH BUILDING.



09 MONUMENT SIGNAGE
SCALE: N.T.S.



04 SHED 1 SIDE (EAST) ELEVATION (TYP)
SCALE: 1/16"=1'-0"

urban
URBAN CONSTRUCTION SOUTHWEST, Inc.
2537 S. Gessner, Suite 220
Houston, Texas 77063
713.339.5380 Ph 713.339.5389 Fx

ISSUE AND REVISION LOG

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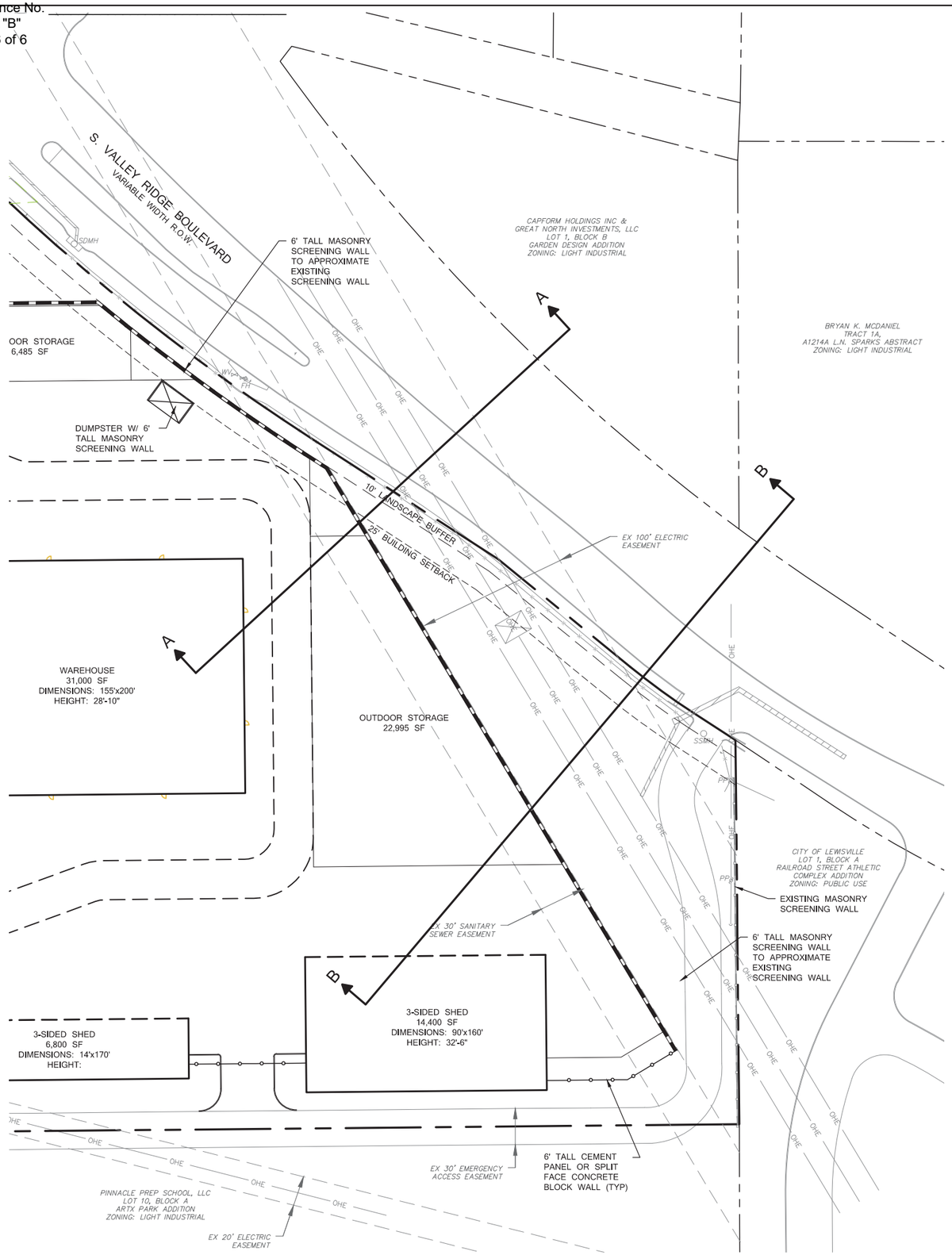
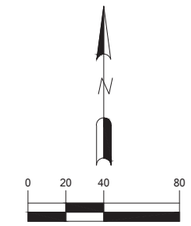
R.E.W.
Lewisville, TX

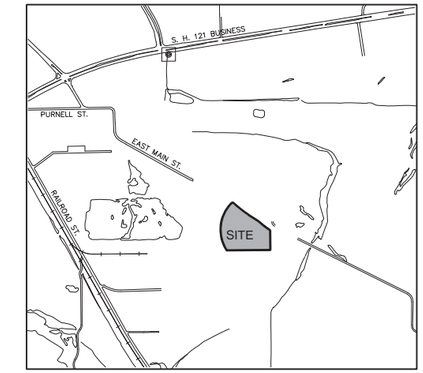
SHED 1 EXTERIOR ELEVATIONS

SCALE: AS NOTED

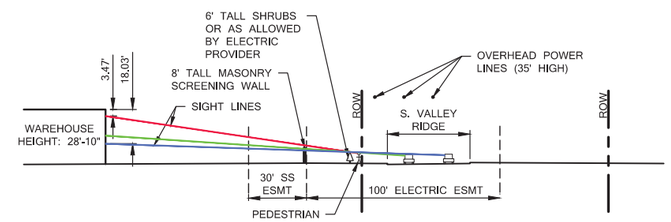
A3.2



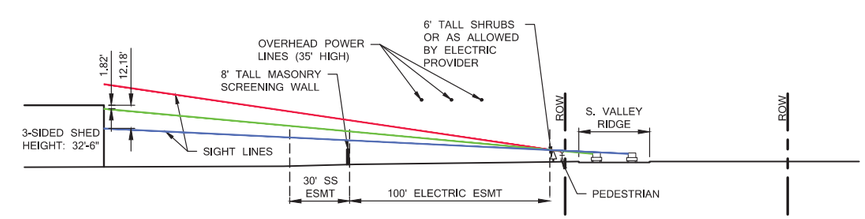




VICINITY MAP
SCALE: 1" = 1000'



SECTON A-A



SECTON B-B

THIS DOCUMENT IS FOR INTERIM REVIEW AND IS NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.
BY: Richard W. DeOtte
Reg. No.: 74232
Date: 07/07/2017

SITE CROSS SECTIONS FOR
R.E.W. MATERIALS
LOTS 11 & 12, BLOCK A
OF THE ARTX PARK ADDITION
6.68 ACRES
EXISTING ZONING: LI & HI
PROPOSED ZONING - WH

MEMORANDUM

TO: Donna Barron, City Manager

FROM: Richard E. Luedke, Planning Director

DATE: November 20, 2017

SUBJECT: **Continued Public Hearing: Consideration of an Ordinance Granting a Zone Change From Heavy Industrial District (HI) to Specific Use – Landfill Accessory Uses District (SU – Landfill Accessory Uses) and one Associated Variance; on a 15.0 Acre lot Legally Described as Lot 1, Block A, D/FW Recycling & Disposal Facility Addition, Located at 1600 South Railroad Street; as Requested by Richard A. Dormier, Freeman-Millican, Inc. on Behalf of Guy R. Campbell, Waste Management of Texas, Inc., the Property Owner (Case No. PZ-2017-10-18).**

BACKGROUND

Waste Management DFW Landfill serves the greater Dallas area and is located immediately east of the subject site. The 15.0-acre lot consists of supplementary structures for the landfill, such as an office building, service shop, truck wash, gas plant, storage building, paint shop and maintenance building. This request is for a change of zoning from Heavy Industrial (HI) to Specific Use – Landfill Accessory Use (SU-Landfill Accessory Use), which is in alignment with the existing uses on the site. The Planning and Zoning Commission recommended unanimous approval (6-0) of the zone change request on October 3, 2017.

ANALYSIS

The zone change request for Specific Use District incorporates the submittal of an engineering site plan to show various uses, setbacks and other zoning and development criteria proposed for the site. No variances were requested with the engineering site plan, which has been reviewed by staff and is attached as an exhibit to the zone change. The engineering site plan was submitted for construction of additional buildings to support the accessory use which serves the municipal landfill.

The site is located to the north of Hebron Parkway and east of Railroad Street. It currently houses 6,400 square feet of office building; 8,200 square feet of service shop; 2,160 square feet of truck wash; 11,674 square feet of gas plant; 2,360 feet of storage building; 3,502 square feet of paint shop; and 5,795 square feet of maintenance building. An additional 1,904 square feet of breakroom, 1,770 square feet of truck wash and 11,500 square feet of service shop are proposed. The aggregate total of all exterior walls shall be consisted of 80% masonry in accordance with City requirements. Twenty additional trees are proposed as required. No changes are proposed to existing 8-foot wood screening fence.

The proposed buildings will be located within the boundary of existing lot and will not involve any expansion or changes of boundary lines. The scope of work does not include any changes to the existing landfill.

The following variance is requested:

a) Allow a dead-end water line to exceed 600 feet.

Article V. Section 6-98(2)(a) Fire Protection

This section of the General Development Ordinance requires states that dead end fire protection water lines in commercial areas should not exceed 300 linear feet if they are 8-inches in size. Dead end lines over 300 linear feet up to 600 linear feet in length shall be 12-inch minimum size. Dead end lines over 600 linear feet will not be allowed. City ordinances require fire protection water lines to be looped if the dead-end length exceeds 600 linear feet.

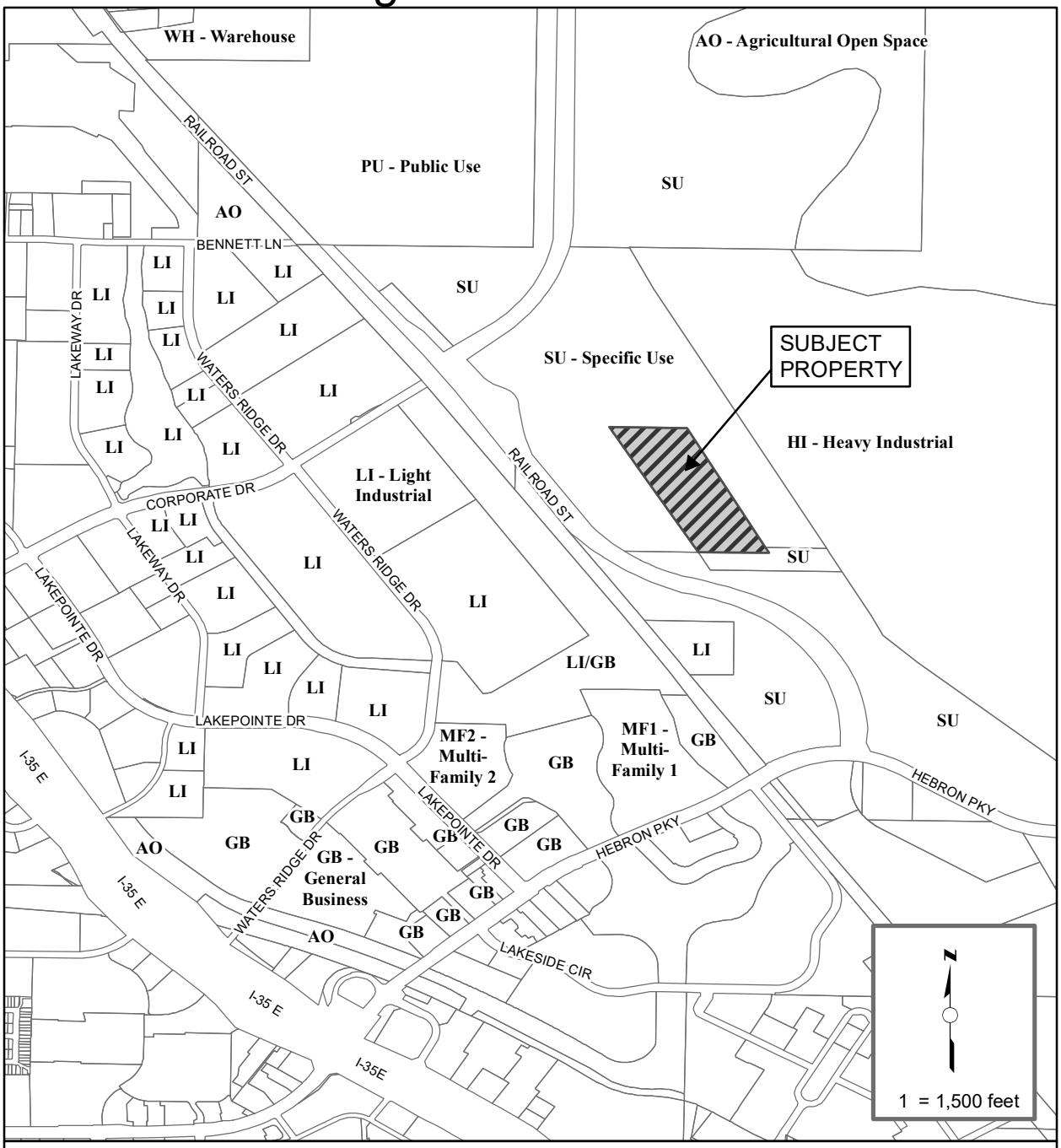
The Waste Management Landfill is currently served by an existing dead-end 12-inch treated water line with fire hydrants for fire protection purposes. Currently, the dead-end fire protection line exceeds approximately 1,750 linear feet. The landfill is asking for a variance to keep the current dead-end fire protection line as is. Previously on June 15, 1987 and June 15, 1992 the City Council approved variances to allow a dead-end water line to exceed 600 feet for the same subject property.

The Fire Marshal has consulted with the Fire Chief and both agree that there is minimal fire hazard for the existing and proposed structures being protected. Maintaining the existing dead-end fire protection water line poses no concerns and provides adequate fire protection for the existing and proposed buildings.

RECOMMENDATION

It is City staff's recommendation that the City Council approve the proposed ordinance and associated variance as set forth in the caption above.

D/FW Waste Management Breakroom - Location Map



ZONING CASE NO.PZ-2017-10-18

PROPERTY OWNER: WASTE MANAGEMENT OF TEXAS, INC

APPLICANT: RICHARD A. DORMIER, FREEMAN-MILLICAN, INC

PROPERTY LOCATION: LOT 1, BLOCK A, D/FW RECYCLING & DISPOSAL FACILITY ADDITION, LOCATED AT 1600 SOUTH RAILROAD STREET (15.00-ACRES)

CURRENT ZONING: HEAVY INDUSTRIAL DISTRICT (HI)

REQUESTED ZONING: SPECIFIC USE DISTRICT (SU) – LANDFILL ACCESSORY USES

D/FW Waste Management Breakroom - Aerial Map

MINUTES
PLANNING AND ZONING COMMISSION
OCTOBER 3, 2017

Item 1:

The Lewisville Planning and Zoning Commission meeting was called to order at 6:31 pm. Members present: William Meredith, John Lyng, MaryEllen Miksa, Kristin Green, Karen Locke and James Davis. Member Alvin Turner was absent.

Staff members present: Richard Luedke, Planning Director; Jonathan Beckham, Planner; and Theresa Ernest, Planning Technician.

Item 4:

Public Hearings for zoning and special use permits were next on the agenda. There were three items for consideration:

B. **Public Hearing:** Consideration of a Zone Change Request From Heavy Industrial (HI) to Specific Use – Landfill Accessory Uses District (SU – Landfill Accessory Uses); on a 15.0 Acre Lot, Legally Described as Lot 1, Block A, D/FW Recycling & Disposal Facility Addition, Located at 1600 South Railroad Street; as Requested by Richard A. Dormier, Freeman-Millican, Inc. on Behalf of Guy R. Campbell, Waste Management of Texas, Inc., the Property Owner. (Case No. PZ-2017-10-18)

Staff gave a brief overview of the proposed zone change request and recommended approval. Chairman Green then opened the public hearing, and with no one coming forward to speak, the public hearing was then closed. *A motion was made by William Meredith to recommend approval of the zone change request and was seconded by John Lyng. The motion passed unanimously (6-0).* Staff indicated that the item would be considered by the City Council on November 6th for a final decision.

SECTION 17-25. - "HI" HEAVY INDUSTRIAL DISTRICT REGULATIONS

(a) *Use*. Buildings and premises may be used for retail, office and service uses as well as manufacturing and industrial uses. Such uses which produce dust, fumes, gas, noxious odor, smoke, glare or other atmospheric influence beyond the boundaries of the property on which such use is located, and which produce noise exceeding in intensity at the boundary of the property the average intensity of noise of street traffic at that point, and which may create fire or explosive hazards are subject to conformance with all applicable local, state and federal regulations. Uses which fail to comply with such regulations may be required to cease operation. Allowable uses include:

(1) Any use permitted in district "LI" and "WH" as regulated in said districts.
(2) Wrecker service storage yards, auto salvage yards and junk yards, but only on condition that the storage is wholly within an enclosed building or surrounded by a structural screening wall of concrete or reinforced masonry. Such wall shall be a minimum of eight (8) feet in height (SUP required).
(3) Storage yards and contractor's yards (SUP required).
(4) Church worship facilities.
(5) Buildings and uses owned or operated by public governmental agencies.
(6) The following uses are permitted only when all portions of the operation or use are located a minimum of two hundred (200) feet from any residentially zoned property, and with a specific use permit (SUP required):
    a. Acid manufacturing.
    b. Cement, lime, gypsum or plaster of paris manufacturing.
    c. Glue manufacturing involving distilling of bones or other organic matter.
    d. Explosives manufacturing and storage.
    e. Magnesium manufacturing or processing.
    f. Fat rendering.
    g. Paper and pulp manufacturing.
    h. Refining of or bulk tank storage of petroleum or its products.
    i. Smelting of tin, copper, zinc or iron ores or other metals.
    j. Stockyards, slaughter or processing of animals.
    k. Permanent batch plant (concrete)
(7) Temporary buildings for uses incidental to construction work on the premises, which buildings shall be removed upon the completion or abandonment of construction work.
(8) Accessory buildings and uses customarily incidental to any of the above uses, provided that such not be objectionable because of odor, excessive light, smoke, dust, noise, vibration or similar nuisances. Open storage shall be considered an accessory use but no more than ten percent (10%) of the platted lot may be used for outside storage, including access and maneuvering areas for moving the stored items. Any use requiring more than 10% outside storage shall require a special use permit (SUP).
(9) Private Utility Plants or Sub-stations (including alternative energy) (SUP required).
(10) Cemetery, columbarium, mausoleum and accessory uses (SUP required).
(11) Recycling facility (SUP required).
(12) Uses specifically prohibited in zoning district “LI” (SUP required).

(b) *Height*. No building shall exceed in height the width of the street on which it faces plus the depth of the front yard. In no event, however, shall any building exceed two (2) stories when any portion of the building is located within one hundred fifty (150) feet of any property zoned for residential purposes.

(c) *Area*.

(1) *Size of yards*.
    a. *Front yard*. There shall be a front yard having a minimum depth of twenty-five (25) feet. No parking, storage or similar use shall be allowed in required front yards in District "HI", except that automobile parking (including automobile dealer display

parking) will be permitted in such yards if separated by at least twenty-five (25) feet from any residential district.

b. *Side yard*. No side yard is required except that a side yard or a side street yard of not less than fifty (50) feet in width shall be provided on the side of a lot adjoining or across the street from any zoning district except Heavy Industrial. No parking, storage or similar use shall be allowed in required side yards or side street yards within twenty-five (25) feet of the property line.

c. *Rear yard*. No rear yard is required except that a rear yard of not less than fifty (50) feet in depth shall be provided upon that portion of a lot abutting or across a rear street from a Residential, "LC" or "GB" District. No parking, storage or similar use shall be allowed in required side yards in District "HI" within twenty-five (25) feet of the property line.

(2) *Reserved*.

(d) *Outside storage regulations*. In all zoning districts where outside storage yards are allowed, such storage yards shall be screened from view in accordance with the standards outlined in the city's general development ordinance. This provision applies to all outside storage which began after the original date of passage of this provision (April 4, 1994). Any variance request involving the requirements or standards relating to such required screening devices shall be considered by the city council in accordance with the city's general development ordinance. Areas which are used for infrequent and temporary storage for a period of thirty (30) days or less per year shall not be deemed as storage yards.

SECTION 17-29. - "SU" SPECIFIC USE DISTRICT REGULATIONS

(a) *Use*. This district is for the purpose of the uses specifically listed and other unusual uses which are limited in number and which are clearly not allowed in any other zoning district. Zoning shall not be allowed under this district as a way of circumventing the standard provisions of this or any other ordinance of the city. Allowable uses shall include:

(1) Criminal or penal institutions.
(2) Landfill operations and accessory uses.
(3) Mining activities and storage, including sand and gravel mining, and stone quarries.

(b) All requests for specific use zoning shall be accompanied by an engineering site plan as outlined in the city's general development ordinance. Variances from the regulations in the city's general development ordinance may be granted at the discretion of the city council.

(c) Any proposed enlargement, structural modification or other significant change to any site which had been granted specific use zoning shall require approval of the city council following a public hearing. Such public hearing shall be conducted after a recommendation is received from the planning and zoning commission. The planning and zoning commission shall consider the request for an amendment after conducting a public hearing in accordance with requirements necessary for any proposed zone change.

(d) The zoning board of adjustment shall not have jurisdiction to hear, review, reverse, or modify any decision, determination, or ruling with respect to the granting, extension, revocation, modification or any other action taken relating to the granting of any specific use zoning.

(e) Building setbacks and heights shall be consistent with other structures in the immediate area, as determined by the city council.

This Section (Office Use Only)	
Case:	
PZ:	CC:
Sign/s Picked Up By:	

LEWISVILLE
Deep Roots. Broad Wings. Bright Future.

ZONE CHANGE APPLICATION

Owner/s (name): Waste Management of Texas	
Company Name: Same	
Mailing Address: 1600 South Railroad Street Lewisville TX 75057	
Work #: 972 459-1202 Johnny Smith	**Cell #:** 405 417-8124 Guy Campbell
E-Mail:	
Owner Signature (Owner/s Must Sign or Submit Letter of Authorization): See attached letter	**Date:**
Printed Name:	

Applicant/Agent (name): Richard A. Dormier	
Company Name: Freeman-Millican, Inc.	
Mailing Address: 12160 Abrams Rd. Suite 508 Dallas, TX 75243	
Work #: 214 503 0555 x 106	**Cell #:** 972 489-6523
E-Mail: richard@fmi-dallas.com	
Applicant/Agent Signature	**Date:** 11-11-16
Printed Name: Richard A. Dormier	

Current Zoning: HI **Requested Zoning:** SU- landfill accessory uses **Acres:** 15.0

Legal Description (Lot/ Block/Tract/Abstract): Lot 1 Block A D/FW Recycling & Disposal Facility Addition, City of Lewisville, Denton County Texas

Address/Location: 1600 South Railroad Street, Lewisville, Tx

Application and Sign Fees:

	Less than 1/2 acre	$ 150.00
	1/2 acre up to 4.99 acres	$ 250.00
✓	5 acres up to 24.99 acres	$ 400.00

	25 acres up to 99.99 acres	$ 750.00
	100 acres up to 99.99 acres	$1,000.00
	100 acres and more	$1,500.00

Qty: 3	**Zone Change Signs - $35 each.** 1 sign required for each 5 acres (max. 3 per site)	$ 105

Sign(s) must be posted a minimum of ten (10) days prior to the Planning & Zoning hearing date.

Amount Due (application & sign fee)	$ 505.00

LEWISVILLE
Deep Roots. Broad Wings. Bright Future.

REQUIRED:

Fully describe the plans for the property

This request for a zoning change is in response to staff review comments. This property was originally zoned H.I. and has been used to provide services in support of landfill operations and collection/hauling of municipal solid waste. Future plans for the property are to continue providing landfill accessory uses.

NOTE:

Items must be staff approved and deemed complete before they will be placed on an agenda.

DFW RECYCLING AND DISPOSAL FACILITY

1600 South Railroad Street
Lewisville, Texas 75057

WASTE MANAGEMENT

September 27, 2017

Mr. Richard Luedke
Planning Manager
City of Lewisville
151 W. Church Street
Lewisville, Texas 75057-3927

SUBJECT: Letter of Authorization (Richard Dormier, P.E.)
DFW Recycling and Disposal Facility

Mr. Luedke,

Waste Management of Texas, Inc. has authorized Richard Dormier, P.E. with Freeman-Millican, Inc. to act as our agent in matters related to rezoning and replatting of Lot 1 Block A of the D/FW Recycle & Disposal Facility Addition. This would also include applications for grading plans, Engineering Site Plans, and building permits. This authorization would expire on December 31, 2017 unless renewed by a new authorization.

Sincerely,

Guy R. Campbell
Engineering Manager-North Texas and Oklahoma
Waste Management of Texas, Inc.
1121 Riverside Dr.
Fort Worth TX 76111
1-405-417-8124

cc: Ross Boring, Waste Management of Texas, Inc.

FREEMAN-MILLICAN, INC.
ENGINEERS - ARCHITECTS - PLANNERS

TERRY MILLICAN, R.P.L.S.
VICTOR ACUY, P.E.
RICHARD A. DORMIER, P.E.
JOHN D. GATTIS, A.I.A.
DAMIR LULO, P.E.
MICHAEL K. STACEY, P.E.
LARRY J. FREEMAN, P.E.

November 8, 2017

Mr. Richard Luedke
Planning Director
City of Lewisville
P.O. Box 299002
Lewisville, TX 75029

Re: Request for Variance
Dead End Water Line in Excess of 600 Feet

Mr. Luedke:

Waste Management of Texas requests a variance from the City of Lewisville requirement to have no dead end water line longer than 600 feet. The referenced 12-inch water line is located in the private access road from Railroad Street to the hauling company and is over 30 years old. The water line has performed well during that time. There have been no know operating issues related to the non-looped condition. Looping of the water line is not practical due to the location of the facilities in the Trinity River floodway between the Trinity River and Railroad Street. The hauling facility is surrounded by floodway and ponds related to operation of the landfill.

Please consider our request at your earliest convenience. If you have any questions, please let me know.

Sincerely,

FREEMAN - MILLICAN, INC.

Richard A. Dormier, P.E.

Cc: Guy Campbell, WMTX

12160 N. ABRAMS ROAD, SUITE 508 DALLAS, TEXAS, 75243 (214) 503-0555 FAX (214) 503-1148

TEXAS ENGINEERING FIRM REGISTRATION NO. F – 2827 TEXAS PROFESSIONAL LAND SURVEYING FIRM REGISTRATION NO. 10116400

WASTE MANAGEMENT LEWISVILLE	SCALE: 1"=400'
	JOB: 14007
WATER LINE EXHIBIT	DATE: 11/09/2017
	SHEET: 1

FREEMAN-MILLICAN, INC.
ENGINEERS - ARCHITECTS - PLANNERS
12160 N. ABRAMS RD., SUITE 508 DALLAS, TEXAS 75243 PH: 214.503.0555 TX. REG FIRM NO. 2827

F:\14007 - WM Rezoning for Scalehouse\Lot 1 Blk A Rezone Case\Rezone Lot 1 Blk A\DFW Utilities\Water line length.dwg

ORDINANCE NO. _____

AN ORDINANCE OF THE LEWISVILLE CITY COUNCIL, AMENDING THE ZONING ORDINANCE BY REZONING 15.0 ACRES, LEGALLY DESCRIBED AS LOT 1, BLOCK A, D/FW RECYCLING & DISPOSAL FACILITY ADDITION, LOCATED ON THE EAST SIDE OF RAILROAD STREET APPROXIMATELY 2,500 FEET NORTH OF HEBRON PARKWAY, AT 1600 RAILROAD STREET, FROM HEAVY INDUSTRIAL DISTRICT (HI) ZONING TO SPECIFIC USE – LANDFILL ACCESSORY USES DISTRICT (SU – LANDFILL ACCESSORY USES) ZONING; CORRECTING THE OFFICIAL ZONING MAP; PRESERVING ALL OTHER PORTIONS OF THE ZONING ORDINANCE; DETERMINING THAT THE PUBLIC INTERESTS AND GENERAL WELFARE DEMAND THIS ZONING CHANGE AND AMENDMENT THEREIN MADE; PROVIDING FOR A REPEALER, SEVERABILITY, AND A PENALTY; AND DECLARING AN EMERGENCY.

WHEREAS, applications were made to amend the Official Zoning Map of Lewisville, Texas by making applications for same with the Planning and Zoning Commission of the City of Lewisville, Texas, as required by State statutes and the Zoning Ordinances of the City of Lewisville, Texas, said Planning and Zoning Commission has recommended that rezoning of the approximately 15.0-acre property described in the attached Exhibit "A" (the "Property") be **approved**, and all the legal requirements, conditions and prerequisites having been complied with, the case having come before the City Council of the City of Lewisville, Texas, after all legal notices, requirements, conditions and prerequisites having been complied with; and,

WHEREAS, the City Council of the City of Lewisville, Texas, at a public hearing called by the City Council of the City of Lewisville, Texas, did consider the following factors in making a determination as to whether this requested change should be granted or denied: effect on the congestion of the streets; the fire hazards, panics and other dangers possibly present in the securing

of safety from same; the effect on the promotion of health and the general welfare; effect on adequate light and air; the effect on the overcrowding of the land; the effect of the concentration on population; the effect on the transportation, water, sewerage, schools, parks and other public facilities; and,

WHEREAS, the City Council further considered among other things the character of the district and its peculiar suitability for particular uses and with the view to conserve the value of buildings, encourage the most appropriate use of land throughout this City; and,

WHEREAS, the City Council of the City of Lewisville, Texas, does find that there is a public necessity for the zoning change, that the public interest clearly requires the amendment, that the zoning changes do not unreasonably invade the rights of adjacent property owners; and,

WHEREAS, the City Council of the City of Lewisville, Texas, does find that the change in zoning lessens the congestion in the streets; helps secure safety from fire, panic and other dangers; promotes health and the general welfare; provides adequate light and air; prevents the overcrowding of land; avoids undue concentration of population; facilitates the adequate provisions of transportation, water, sewerage, schools, parks and other public requirements; and,

WHEREAS, the City Council of the City of Lewisville, Texas, has determined that there is a necessity and need for this change in zoning and has also found and determined that there has been a change in the conditions of the property surrounding and in close proximity to the Property since it was originally classified and, therefore, feels that a change in zoning classification for the Property is needed, is called for, and is in the best interest of the public at large, the citizens of the City of Lewisville, Texas, and helps promote the general health, safety, and welfare of this community.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, THAT:

SECTION 1. The Zoning Ordinance of the City of Lewisville, Texas, be, and the same is hereby amended and changed in that the zoning of the Property is hereby changed to **SPECIFIC USE – LANDFILL ACCESSORY USES DISTRICT (SU – LANDFILL ACCESSORY USES) ZONING**; in compliance with the engineering site plan attached hereto as Exhibit "B".

SECTION 2. The City Manager, or her designee, is hereby directed to correct the official zoning map of the City of Lewisville, Texas, to reflect this change in zoning.

SECTION 3. That in all other respects the use of the tract or tracts of land hereinabove described shall be subject to all the applicable regulations contained in said City of Lewisville Zoning Ordinance and all other applicable and pertinent ordinances of the City of Lewisville, Texas.

SECTION 4. That the zoning regulations and districts as herein established have been made in accordance with the comprehensive plan for the purpose of promoting health, safety, and the general welfare of the community. They have been designed with respect to both present conditions and the conditions reasonably anticipated to exist in the foreseeable future, to lessen congestion in the streets; to secure safety from fire, panic, flood and other dangers; provide adequate light and air; to prevent overcrowding of land, to avoid undue concentration of population; facilitate the adequate provisions of transportation, water, sewage, parks and other public requirements, and to make adequate provisions for the normal business, commercial needs and development of the community. They have been made with reasonable consideration, among other things of the character of the

district, and its peculiar suitability for the particular uses and with a view of conserving the value of buildings and encouraging the most appropriate use of land throughout the community.

SECTION 5. This Ordinance shall be cumulative of all other ordinances of the City of Lewisville, Texas, affecting zoning and shall not repeal any of the provisions of said ordinances, except in those instances where provisions of those ordinances which are in direct conflict with the provisions of this Ordinance.

SECTION 6. That the terms and provisions of this Ordinance shall be deemed to be severable and that if the validity of the zoning affecting any portion of the Property shall be declared to be invalid, the same shall not affect the validity of the zoning of the balance of the tract or tracts of land described herein.

SECTION 7. Any person, firm or corporation who violates any provision of this Ordinance shall be deemed guilty of a misdemeanor and, upon conviction thereof in the Municipal Court, shall be subject to a fine of not more than $2,000.00 for each offense, and each and every day such offense is continued shall constitute a new and separate offense.

SECTION 8. The fact that the present Zoning Ordinance and regulations of the City of Lewisville, Texas are inadequate to properly safeguard the health, safety, peace and general welfare of the inhabitants of the City of Lewisville, Texas, creates an emergency for the immediate preservation of the public business, property, health, safety and general welfare of the public which requires that this Ordinance shall become effective from and after the date of its final passage, and it is accordingly so ordained.

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, BY A VOTE OF _____ TO _____, ON THIS THE 20TH DAY OF NOVEMBER, 2017.

APPROVED:

_____
Rudy Durham, MAYOR

ATTEST:

_____
Julie Worster, CITY SECRETARY

APPROVED AS TO FORM:

_____
Lizbeth Plaster, CITY ATTORNEY

Exhibit A
Property Description

Exhibit B
Engineering Site Plan

Attachment to
Ordinance No.
Exhibit "A"
Page 1 of 1

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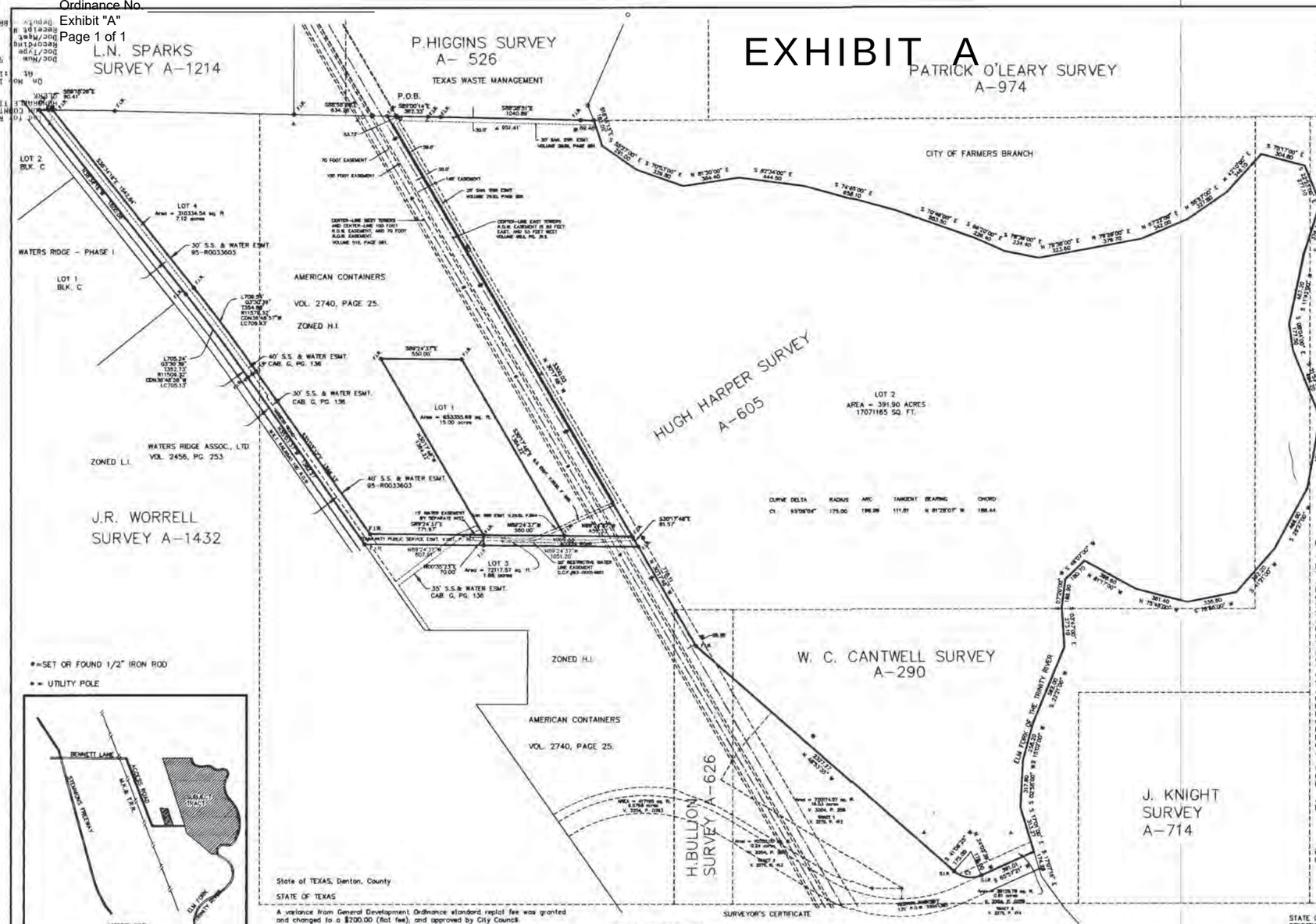
EXHIBIT A



CURVE	DELTA	RADIUS	ARC	TANGENT	BEARING	CHORD
C1	93°09'04"	175.00	196.99	111.81	N 81°28'07" W	188.44

*=SET OR FOUND 1/2" IRON ROD

• = UTILITY POLE

A 415.679 ACRE PARCEL OF LAND SITUATED IN THE HUGH HARPER SURVEY ABSTRACT NO. 605, THE HANES AND BULLION SURVEY ABSTRACT NO. 626, J.R. WORRALL SURVEY, ABSTRACT NO. 1432, JAMES CANTWELL SURVEY, ABSTRACT NO. 290, D. COOK SURVEY, ABSTRACT NO. 233, DENTON COUNTY, TEXAS, AND BEING ALL OF LOT 2, BLOCK A, T.W.M. ADDITION, PHASE TWO, AS RECORDED IN CABINET I, Page 195, SAID PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

Beginning at a 1/2" iron rod found for the northwest corner of said Lot 2, Block A;

THENCE South 89° 00' 14" East, 362.33 feet to a 1/2-inch found iron rod;

THENCE South 88° 38' 51" East, at 951.41 feet passing a 1/2-inch found iron rod and continuing a total distance of 1040.89 feet to the centerline of the Elm Fork of the Trinity River;

THENCE along the centerline of said Elm Fork of the Trinity River, the following courses and distances:

South 18° 16' 13" East, 182.02 feet;
South 55° 27' 00" East, 291.00 feet;
South 70° 53' 00" East, 329.80 feet;
North 81° 30' 00" East, 384.40 feet;
South 82° 34' 00" East, 444.50 feet;
South 74° 45' 00" East, 656.10 feet;
South 70° 49' 00" East, 553.50 feet;
South 65° 20' 00" East, 226.40 feet;
South 78° 36' 00" East, 234.40 feet;
North 79° 38' 00" East, 323.60 feet;
North 79° 29' 00" East, 379.70 feet;
North 67° 22' 00" East, 342.00 feet;
North 55° 27' 00" East, 327.80 feet;
North 42° 10' 00" East, 346.10 feet;
South 75° 17' 00" East, 304.80 feet;
South 22° 23' 00" East, 277.10 feet;
South 17° 49' 00" West, 376.30 feet;
South 11° 42' 00" West, 467.20 feet;
South 08° 04' 00" East, 177.50 feet;
South 21° 53' 00" East, 494.70 feet;
South 10° 05' 00" West, 486.10 feet;
South 28° 27' 00" West, 466.90 feet;
South 41° 21' 00" West, 392.20 feet;
South 78° 55' 00" West, 338.80 feet;
North 75° 46' 00" West, 361.40 feet;
North 61° 17' 00" West, 396.60 feet;
South 46° 07' 00" West, 180.70 feet;
South 07° 20' 00" West, 186.90 feet;
South 03° 47' 00" East, 273.10 feet;
South 22° 21' 00" West, 582.00 feet;
South 15° 02' 00" West, 258.20 feet;
South 02° 58' 00" West, 317.60 feet;
and South 17° 01' 00" East, 313.27 feet,
to a point for the southeast corner of said Lot 2, Block A.

THENCE South 65° 57' 21" West, 391.01 feet to a 1/2-inch found iron rod at the point of curvature of a curve to the right;

THENCE with the arc of said curve having a radius of 175.00 feet, a central angle of 65° 09' 04" whose chord bears North 81° 28' 07" West, 188.44 feet, an arc length of 198.99 feet to a 1/2-inch found iron rod;

THENCE North 48° 53' 35" West, 2327.27 feet to a found 1/2-inch iron rod;

THENCE North 30° 17' 48" West, a distance of 778.11 feet to a 1/2-inch iron rod found at the southerly southwest corner of said Lot 1, Block A, T.W.M. Addition, Phase One;

THENCE North 89° 24' 37" West, 1859.11 feet to an 1/2" iron rod found in the east line of the M.K.&T. Railroad right-of-way (100-feet wide);

THENCE North 35° 03' 57" West, 1382.27 feet along said east line to a 1/2" iron rod found for the beginning of a curve to the left;

THENCE along said curve and said east line having a central angle of 03° 30' 39", a radius of 11,509.32 feet, an arc length of 705.24 feet, and a chord bearing of North 36° 50' 57" West, 705.13 feet to a 1/2" iron rod found for a point of tangent;

THENCE North 38° 34' 16" West, 1600.06 feet along said line to an iron rod found for the northwest corner of said T.W.M. ADDITION, said point also being in the north line of Worrall Survey and the said east line of the M.K.&T. Railroad right-of-way (100-feet wide);

THENCE South 89° 18' 28" East, 90.41 feet along said north line to a 1/2 inch iron rod found for corner;

THENCE South 38° 34' 16" East, 1542.84 feet to a 1/2 inch iron rod found for the beginning of a curve to the right;

THENCE along said curve having a central angle of 03° 30' 39", a radius of 11,579.32 feet, an arc length of 709.54, and a chord bearing of South 36° 48' 57" East, 709.43 feet to a 1/2 inch iron rod found for a point of tangent;

THENCE South 35° 03' 37" East, 1346.33 feet to a 1/2 inch iron rod found for corner;

THENCE South 89° 24' 37" East, 771.97 feet to a 1/2" iron rod found for corner;

THENCE North 30° 17' 48" West, 1384.22 feet to a 1/2" iron rod found for corner;

THENCE South 89° 24' 37" East, 550.00 feet to an 1/2" iron rod found for corner;

THENCE South 30° 17' 48" East, 1384.22 feet to an 1/2" iron rod found for corner;

THENCE South 89° 24' 37" East, 459.33 feet to an 1/2" iron rod found for corner;

THENCE North 30° 17' 48" West a distance of 3300.03 feet to the POINT OF BEGINNING and containing 415.679 acres of land.

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS:

THAT WASTE MANAGEMENT OF TEXAS, INC., OWNER, THROUGH THE UNDERSIGNED AUTHORITY, DOES HEREBY ADOPT THIS PLAT, DESIGNATING THE HEREIN ABOVE DESCRIBED PROPERTY AS THE FINAL PLAT OF D/FW RECYCLING & DISPOSAL FACILITY ADDITION, A REPLAT OF T.W.M ADDITION PHASE ONE, AND PHASE TWO, AS RECORDED IN CABINET G, PAGE 136, AND CABINET I, PAGE 195 OF THE PLAT RECORDS OF DENTON COUNTY, TEXAS, AN ADDITION TO THE CITY OF LEWISVILLE, TEXAS, AND DOES HEREBY DEDICATE TO THE PUBLIC USE FOREVER, THE STREETS AND ALLEYS SHOWN HEREON; AND DOES HEREBY DEDICATE THE EASEMENT STRIPS SHOWN ON THE PLAT FOR MUTUAL USE AND ACCOMMODATION OF THE CITY OF LEWISVILLE AND ALL PUBLIC UTILITIES DESIREING TO USE, OR USEING SAME. NO BUILDINGS, FENCES, TREES, SHRUBS, SIGNS, OR OTHER IMPROVEMENTS SHALL BE CONSTRUCTED OR PLACED UPON, OVER OR ACROSS THE EASEMENT STRIPS ON SAID PLAT. THE CITY OF LEWISVILLE AND ANY PUBLIC UTILITY SHALL HAVE THE RIGHT TO REMOVE AND KEEP REMOVED ALL OR PART OF ANY BUILDINGS, FENCES, TREES, SHRUBS SIGNS, OR OTHER IMPROVEMENTS OR GROWTHS WHICH IN ANY WAY ENDANGER OR INTERFERE WITH THE CONSTRUCTION, MAINTENANCE OR EFFICIENCY OF ITS RESPECTIVE SYSTEM, ON ANY OF THESE EASEMENT STRIPS, AND THE CITY OF LEWISVILLE AND ANY PUBLIC UTILITY SHALL AT ALL TIMES HAVE THE RIGHT OF INGRESS AND EGRESS TO AND FROM AND UPON ANY OF SAID EASEMENTS STRIPS FOR THE PURPOSE OF CONSTRUCTING, RECONSTRUCTING, INSPECTING, PATROLLING, MAINTAINING AND ADDING TO OR REMOVING ALL OR PART OF ITS RESPECTIVE SYSTEM WITHOUT THE NECESSITY AT ANY TIME OF PROCURING THE PERMISSION OF ANYONE. A BLANKET EASEMENT OF A THREE (3) FOOT RADIUS FROM THE CENTER POINT OF ALL FIRE HYDRANTS AND A TWO (2) FOOT RADIUS FROM THE CENTER POINT OF ALL OTHER APPURTENANCES (FIRE HYDRANT VALVES, WATER METERS, METER BOXES) IS HEREBY GRANTED TO THE CITY OF LEWISVILLE FOR THE PURPOSE OF CONSTRUCTING, RECONSTRUCTING, INSPECTING AND MAINTAINING THE ABOVE NAMED APPURTENANCES.

WE DO FURTHER DEDICATE, SUBJECT TO THE EXCEPTIONS AND RESERVATIONS SET FORTH HEREINAFTER, TO THE PUBLIC USE FOREVER, ALL PUBLIC USE SPACES SHOWN ON THE FACE OF THE PLAT.

ALL LOTS IN THE SUBDIVISION SHALL BE SOLD AND DEVELOPED SUBJECT TO THE BUILDING LINES SHOWN ON THE PLAT.

WASTE MANAGEMENT OF TEXAS, INC.
Corporate Officer Vice President

FINAL PLAT
D/FW RECYCLING & DISPOSAL
FACILITY, ADDITION
LOTS, 1, 2, 3, AND 4, BLOCK A.
415.68 ACRES
ZONING H.I.
BEING A REPLAT OF T.W.M. ADDITION,
PHASE TWO, LOT 2, BLOCK A, AS REC.
IN CAB. I, PAGE 195, AND THE T.W.M.
ADDITION, PHASE ONE, LOT 1, BLK. A, AS REC.
IN CAB. G, PAGE 136, OF THE PLAT RECORDS
OF DENTON COUNTY, TEXAS, BEING PART
OF THE J.R. WORRALL SURVEY, A-1432,
HUGH HARPER SURVEY, A-605, JAMES CANTWELL
SURVEY, A-290, HAYNES & BULLION SURVEY,
A-626, D. COOK SURVEY, A-233,
CITY OF LEWISVILLE,
DENTON COUNTY, TEXAS

State of TEXAS, Denton, County

STATE OF TEXAS

A variance from General Development Ordinance standard replat fee was granted and changed to a $200.00 (flat fee), and approved by City Council. VARIANCE APPROVAL WAS GRANTED ON MAY 15, 1995.
APPROVED AND ACCEPTED

DEAN UECKERT
Chairman, Planning and Zoning Commission
City of Lewisville, Texas

The undersigned, the City Secretary of the City of Lewisville, Texas, hereby certifies that the foregoing final plat of DFW RECYCLING & DISPOSAL FACILITY ADDITION, an Addition to the City of Lewisville was submitted to the appropriate Planning and Zoning Commission or City Council as required by the ordinances of the City of Lewisville on the 7th day of NOVEMBER, 1995 and such body by formal action, then and there, accepted the dedication of streets, alleys, parks, easements, public places, and water and sewer lines, as shown and set forth in and upon said plat, and said body further authorized the acceptance thereof by signing as hereinabove subscribed in the capacity stated.

Witness my hand this 15th day of November, 1995

Marty Hendrix
City Secretary
City of Lewisville, Texas

SURVEYOR'S CERTIFICATE

KNOW ALL MEN BY THESE PRESENTS:

THAT I, ARTHUR DEAN HODDE, do hereby certify that I have prepared this plat from an actual and accurate survey of the land and that the corner monuments shown thereon were properly placed under my personal supervision in accordance with the Platting Rules and Regulations of the City of Lewisville, Texas.

Arthur Dean Hodde
Registered Professional Land Surveyor #4260

BEFORE ME, a Notary Public, the undersigned authority, a Notary Public in and for said County and State on this day personally appeared ARTHUR DEAN HODDE, known to me to be the persons whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same in the capacity therein stated and for the purposes and considerations therein expressed.

GIVEN UNDER MY HAND AND Seal of Office this 23 day of OCTOBER, 19 95

10-23-95
Notary Public - State of Texas Comm. Expires

STATE OF TEXAS
REGISTERED
ARTHUR DEAN HODDE
4260
PROFESSIONAL LAND SURVEYOR

LINDA KERR RICHEY
MY COMMISSION EXPIRES
August 7, 1997

TEXAS NATIONAL SURVEYING
P.O. BOX 293254
LEWISVILLE, TEXAS 75029
PH: 214-539-7676

STATE OF TEXAS
COUNTY OF Dallas

BEFORE ME, the undersigned authority, a Notary Public in and for said County and State on this day personally appeared Dale Sluder, known to me to be the persons whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same in the capacity therein stated and for the purposes and considerations therein expressed.

GIVEN UNDER MY HAND AND Seal of Office this 5th day of October, 1995

9-20-97
Comm. Expiration

Kelly A. Costello
Notary Public in and for Dallas County

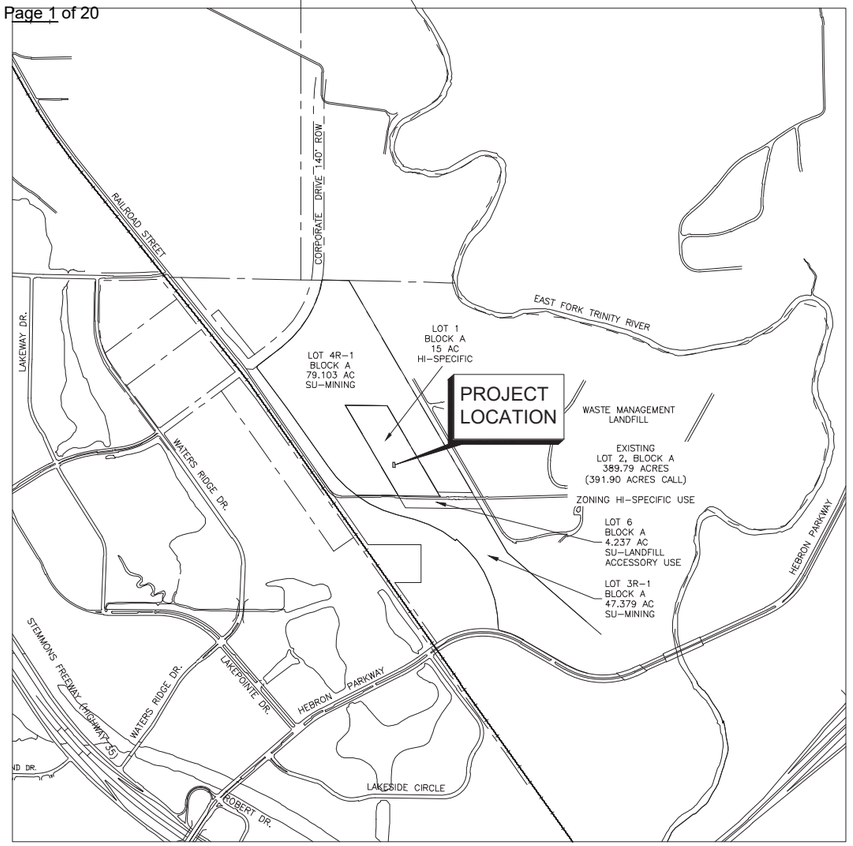
KELLY A. COSTELLO
MY COMMISSION EXPIRES
September 20, 1997

RECORDING INFORMATION

Scale 1" = 400 ft

DRAWN BY:	APPROVED BY:	REVISIONS:	PROJECT:
DATE: Plot date: 06/09/95 at 07:02	PROJ. NO.		SHT. NAME: FILED 11-17-95 CABINET L PAGE 346 W.R.D.C.T.
DWG. NO.	DWG: File name: D:/DEAN2/14219510		SHT. NO.

F-364



LOCATION MAP
1"=1000'

EXHIBIT B

WASTE MANAGEMENT

ENGINEERING SITE PLAN FOR
D/FW RECYCLING & DISPOSAL FACILITY ADDITION
BREAKROOM, TRUCK WASH AND MAINTENANCE SHOP ADDITIONS

LOT 1, BLOCK A
15.0 ACRES
ZONING - SPECIFIC USE - LANDFILL ACCESSORY USES

SHEET LIST TABLE

SHEET #	SHEET TITLE
G 1.0	COVER SHEET
FP1.0	FINAL PLAT
G 1.1	LEGEND & GENERAL NOTES
G 1.2	APPROVED VARIANCE
G 1.3	EXISTING CONDITIONS
G 1.4	TREE SURVEY
C 1.1	SITE PLAN
C 1.2	GRADING PLAN
C 1.3	PERVIOUS AND IMPERVIOUS AREA MAP
C 1.4	PROPOSED UTILITY PLAN
C 1.5	PROPOSED UTILITY PLAN
C 1.6	FLOOD ZONE MAP
D 1.1	DRAINAGE AREA MAP
L 1.1	LANDSCAPE PLAN NORTH
L 1.2	LANDSCAPE PLAN SOUTH
L 1.3	RECORD DRAWING - IRRIGATION PLAN ~ DETAILS SOUTH
L 1.4	RECORD DRAWING - IRRIGATION PLAN ~ DETAILS NORTH
L 1.5	RECORD DRAWING - IRRIGATION PLAN ~ DETAILS NORTH
L 2.1	RECORD DRAWING - LANDSCAPE DETAILS
L 2.2	RECORD DRAWING - LANDSCAPE DETAILS

ENGINEERING MANAGER - NORTH TEXAS
Guy R. Campbell
(405) 417-8124

SITE MANAGER D/FW LANDFILL
Ross Boring
(214) 980-5989

ENGINEER CONTACT
Richard A. Dormier, P.E.
FREEMAN-MILLICAN, INC.
12160 N. ABRAMS RD, SUITE 508
DALLAS, TEXAS 75243
(214) 503-0555 EXT. 106

FREEMAN-MILLICAN, INC.
ENGINEERS - ARCHITECTS - PLANNERS
12160 N. ABRAMS RD, SUITE 508 DALLAS, TX 75243 PH: 214.503.0555
TEXAS ENGINEERING FIRM REGISTRATION NO. F-2827

STATE OF TEXAS
RICHARD A. DORMIER
50570
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY RICHARD A. DORMIER, P.E. NO. 50570 ON 9.27.2017

APPROVED FOR CONSTRUCTION*		
CITY DEPARTMENT	DATE	SIGNATURE
PLANNING & ZONING		
ENGINEERING		
BUILDING INSPECTION		
FIRE PREVENTION		
PARKS & LEISURE		
PUBLIC WORKS		
ADA		

APPROVED FOR CONSTRUCTION*			
UTILITY	COMPANY NAME	DATE	SIGNATURE
ELECTRIC			
GAS			
PHONE			
CABLE			
SOLID WASTE			

* SIGNATURES NEEDED FOR APPLICABLE DEPARTMENTS AND COMPANIES ONLY

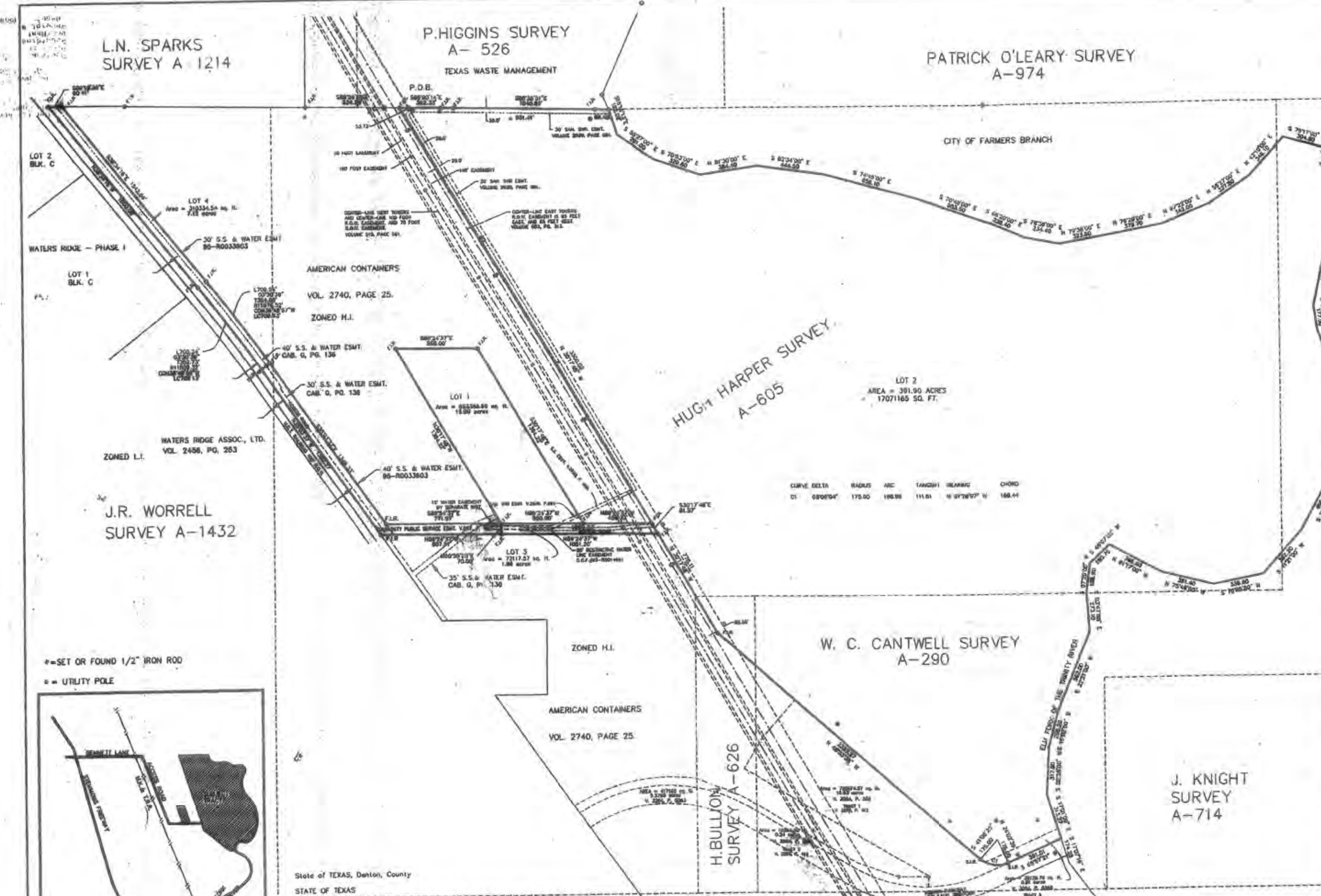
ENGINEERING SITE PLAN FOR
BREAKROOM, TRUCK WASH AND MAINTENANCE SHOP ADDITIONS
LOT 1 BLOCK A
D/FW RECYCLING & DISPOSAL FACILITY ADDITION
TOTAL ACREAGE: 15.00

ZONING – SPECIFIC USE – LANDFILL ACCESSORY USES

BEING PART OF THE P. HIGGINS SURVEY, A–526; L.N. SPARKS SURVEY, A–1214; HUGH HARPER SURVEY, A–605; W.C. CANTWELL SURVEY A–290; H. BULLON SURVEY, A–626; AND JR. WORRELL SURVEY, A–1232.

14007 - WASTE MANAGEMENT - ENGINEERING SITE PLAN - FOR PERMIT - SEPTEMBER 2017

Cab L Pg. 346



A 415.679 ACRE PARCEL OF LAND SITUATED IN THE HUGH HARPER SURVEY ABSTRACT NO. 605, THE HANES AND BULLION SURVEY ABSTRACT NO. 626, J.R. WORRALL SURVEY, ABSTRACT NO. 1432, JAMES CANTWELL SURVEY, ABSTRACT NO. 290, D. COOK SURVEY, ABSTRACT NO. 233, DENTON COUNTY, TEXAS, AND BEING ALL OF LOT 2, BLOCK A, T.W.M. ADDITION, PHASE TWO, AS RECORDED IN CABINET I, Page 195, SAID PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

Beginning at a 1/2" iron rod found for the northwest corner of said Lot 2, Block A;

THENCE South 89° 00' 14" East, 362.33 feet to a 1/2-inch found iron rod;

THENCE South 88° 38' 51" East, at 951.41 feet passing a 1/2-inch found iron rod and continuing a total distance of 1040.89 feet to the centerline of the Elm Fork of the Trinity River;

THENCE along the centerline of said Elm Fork of the Trinity River, the following courses and distances:

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THENCE North 48° 53' 35" West, 3327.27 feet to a found 1/2-inch iron rod;

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THENCE North 89° 24' 37" West, 1059.11 feet to an 1/2" iron rod found in the east line of the M.K.&T. Railroad right-of-way (100-feet wide);

THENCE North 35° 03' 37" West, 1362.27 feet along said east line to a 1/2" iron rod found for the beginning of a curve to the left,

THENCE along said curve and said east line having a central angle of 03° 30' 39", a radius of 11,509.32 feet, an arc length of 705.24 feet, and a chord bearing of North 36° 50' 57" West, 705.13 feet to a 1/2" iron rod found for a point of tangent;

THENCE North 38° 34' 16" West, 1600.08 feet along said line to an iron rod found for the northwest corner of said T.W.M. ADDITION, said point also being in the north line of Worrall Survey and the said east line of the M.K.&T. Railroad right-of-way (100-feet wide).

THENCE South 89° 18' 26" East, 90.41 feet along said north line to a 1/2 inch iron rod found for corner;

THENCE South 38° 34' 16" East, 1542.84 feet to a 1/2 inch iron rod found for the beginning of a curve to the right;

THENCE along said curve having a central angle of 03° 30' 39", a radius of 11,579.32 feet, an arc length of 709.54, and a chord bearing of South 36° 48' 57" East, 709.43 feet to a 1/2 inch iron rod found for a point of tangent;

THENCE South 35° 03' 37" East, 1346.33 feet to a 1/2 inch iron rod found for corner;

THENCE South 89° 24' 37" East, 771.97 feet to a 1/2" iron rod found for corner;

THENCE North 30° 17' 48" West, 1384.22 feet to a 1/2" iron rod found for corner;

THENCE South 89° 24' 37" East, 660.00 feet to an 1/2" iron rod found for corner;

THENCE South 30° 17' 48" East, 1384.22 feet to an 1/2" iron rod found for corner;

THENCE South 89° 24' 37" East, 459.33 feet to an 1/2" iron rod found for corner;

THENCE North 30° 17' 48" West a distance of 3300.05 feet to the POINT OF BEGINNING and containing 415.679 acres of land.

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS:

THAT WASTE MANAGEMENT OF TEXAS, INC., OWNER, THROUGH THE UNDERSIGNED AUTHORITY, DOES HEREBY ADOPT THIS PLAT, DESIGNATING THE HEREIN ABOVE DESCRIBED PROPERTY AS THE FINAL PLAT OF D/FW RECYCLING & DISPOSAL FACILITY ADDITION, A REPLAT OF T.W.M. ADDITION PHASE ONE, AND PHASE TWO, AS RECORDED IN CABINET G, PAGE 136, AND CABINET I, PAGE 195 OF THE PLAT RECORDS OF DENTON COUNTY, TEXAS, AN ADDITION TO THE CITY OF LEWISVILLE, TEXAS, AND DOES HEREBY DEDICATE TO THE PUBLIC USE FOREVER, THE STREETS AND ALLEYS SHOWN HEREON; AND DOES HEREBY DEDICATE THE EASEMENT STRIPS SHOWN ON THE PLAT FOR MUTUAL USE AND ACCOMMODATION OF THE CITY OF LEWISVILLE AND ALL PUBLIC UTILITIES DESIRING TO USE, OR USEING SAME. NO BUILDINGS, FENCES, TREES, SHRUBS, SIGNS, OR OTHER IMPROVEMENTS SHALL BE CONSTRUCTED OR PLACED UPON, OVER OR ACROSS THE EASEMENT STRIPS ON SAID PLAT. THE CITY OF LEWISVILLE AND ANY PUBLIC UTILITY SHALL HAVE THE RIGHT TO REMOVE AND KEEP REMOVED ALL OR PART OF ANY BUILDINGS, FENCES, TREES, SHRUBS SIGNS, OR OTHER IMPROVEMENTS OR GROWTHS WHICH IN ANY WAY ENDANGER OR INTERFERE WITH THE CONSTRUCTION, MAINTENANCE OR EFFICIENCY OF ITS RESPECTIVE SYSTEM, ON ANY OF THESE EASEMENT STRIPS, AND THE CITY OF LEWISVILLE AND ANY PUBLIC UTILITY SHALL AT ALL TIMES HAVE THE RIGHT OF INGRESS AND EGRESS TO AND FROM AND UPON ANY OF SAID EASEMENTS STRIPS FOR THE PURPOSE OF CONSTRUCTING, RECONSTRUCTING, INSPECTING, PATROLLING, MAINTAINING AND ADDING TO OR REMOVING ALL OR PART OF ITS RESPECTIVE SYSTEM WITHOUT THE NECESSITY AT ANY TIME OF PROCURING THE PERMISSION OF ANYONE. A BLANKET EASEMENT OF A THREE (3) FOOT RADIUS FROM THE CENTER POINT OF ALL FIRE HYDRANTS AND A TWO (2) FOOT RADIUS FROM THE CENTER POINT OF ALL OTHER APPURTENANCES (FIRE HYDRANT VALVES, WATER METERS, METER BOXES) IS HEREBY GRANTED TO THE CITY OF LEWISVILLE FOR THE PURPOSE OF CONSTRUCTING, RECONSTRUCTING, INSPECTING AND MAINTAINING THE ABOVE NAMED APPURTENANCES.

WE DO FURTHER DEDICATE, SUBJECT TO THE EXCEPTIONS AND RESERVATIONS SET FORTH HEREINAFTER, TO THE PUBLIC USE FOREVER, ALL PUBLIC USE SPACES SHOWN ON THE FACE OF THE PLAT.

ALL LOTS IN THE SUBDIVISION SHALL BE SOLD AND DEVELOPED SUBJECT TO THE BUILDING LINES SHOWN ON THE PLAT.

[signature]
WASTE MANAGEMENT OF TEXAS, INC.
Corporate Officer — Vice President

STATE OF TEXAS
COUNTY OF Dallas

BEFORE ME, the undersigned authority, a Notary Public in and for said County and State on this day personally appeared Dale Studer, known to me to be the persons whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same in the capacity therein stated and for the purposes and considerations therein expressed.

GIVEN UNDER MY HAND AND Seal of Office this 5th day of ______ 19__

Comm. Expiration [signature]

Notary Public in and for Dallas County

KELLY A. COSTELLO
MY COMMISSION EXPIRES
September 30, 1997

State of TEXAS, Denton, County

STATE OF TEXAS

A variance from General Development Ordinance standard replat fee was granted and changed to a $200.00 (flat fee), and approved by City Council. VARIANCE APPROVAL WAS GRANTED ON MAY 15, 1995.
APPROVED AND ACCEPTED

DEAN UECKERT
Chairman, Planning and Zoning Commission
City of Lewisville, Texas

The undersigned, the City Secretary of the City of Lewisville, Texas, hereby certifies that the foregoing final plat of DFW RECYCLING & DISPOSAL FACILITY ADDITION, an Addition to the City of Lewisville was submitted to the appropriate Planning and Zoning Commission or City Council as required by the ordinances of the City of Lewisville on the 7th day of November 1995 and such body by formal action, then and there, accepted the dedication of streets, alleys, parks, easements, public places, and water and sewer lines, as shown and set forth in and upon said plat, and said body further authorized the acceptance thereof by signing as hereinabove subscribed in the capacity stated.

Witness my hand this 15th day of November 1995.

[signature]
Marty Hendrix
City Secretary
City of Lewisville, Texas

SURVEYOR'S CERTIFICATE

KNOW ALL MEN BY THESE PRESENTS:

THAT I, ARTHUR DEAN HODDE, do hereby certify that I have prepared this plat from an actual and accurate survey of the land and that the corner monuments shown thereon were properly placed under my personal supervision in accordance with the Platting Rules and Regulations of the City of Lewisville, Texas.

[signature]
Arthur Dean Hodde
Registered Professional Land Surveyor #4260

REGISTERED PROFESSIONAL LAND SURVEYOR — ARTHUR DEAN HODDE 4260

BEFORE ME, a Notary Public, the undersigned authority, a Notary Public in and for said County and State on this day personally appeared ARTHUR DEAN HODDE, known to me to be the persons whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same in the capacity therein stated and for the purposes and considerations therein expressed.

GIVEN UNDER MY HAND AND Seal of Office this 25 day of October 1995

[signature] 10-23-95
Notary Public - State of Texas Comm. Expires

LINDA KERR RICHEY
MY COMMISSION EXPIRES
August 7, 1997

TEXAS NATIONAL SURVEYING
P.O. BOX 293254
LEWISVILLE, TEXAS 75029
PH: 214-539-7676

FINAL PLAT
D/FW RECYCLING & DISPOSAL FACILITY, ADDITION
LOTS, 1, 2, 3, AND 4, BLOCK A.
415.68 ACRES
ZONING H.I.
BEING A REPLAT OF T.W.M. ADDITION, PHASE TWO, LOT 2, BLOCK A, AS REC. IN CAB. I, PAGE 195, AND THE T.W.M. ADDITION, PHASE ONE, LOT 1, BLK. A, AS REC. IN CAB. G, PAGE 136, OF THE PLAT RECORDS OF DENTON COUNTY, TEXAS, BEING PART OF THE J.R. WORRALL SURVEY, A-1432, HUGH HARPER SURVEY, A-605, JAMES CANTWELL SURVEY, A-290, HAYNES & BULLION SURVEY, A-626, D. COOK SURVEY, A-233, CITY OF LEWISVILLE, DENTON COUNTY, TEXAS

RECORDING INFORMATION

DRAWN BY:	APPROVED BY:	REVISIONS	PROJECT	SHT. NAME	SHT. NO.
DATE: Plot date: 06/09/95 at 07:02	PROJ. NO.			FILED 11-17-95	
DWG. NO.	DWG File name: D:/DEAN2/14219510			CABINET L PAGE 346 M.R.D.C.T.	

FP1.0

F-364

f:\14007 - wm rezoning for scalehouse\lot 1 blk a rezone case\rezone lot 1 blk a\breakroom\FP1.0 FINAL PLAT.dwg

PROJECT NOTES

GENERAL

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE THIRD EDITION OF THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS (NCTCOG) "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" AND CITY OF LEWISVILLE REQUIREMENTS.
2. BEFORE BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL PREPARE A CONSTRUCTION SEQUENCE SCHEDULE. THE CONSTRUCTION SCHEDULE SHALL BE SUCH THAT THERE IS MINIMUM INTERFERENCE WITH TRAFFIC ALONG OR ADJACENT TO THE PROJECT. ACCESS TO THE LANDFILL AND HAULING COMPANY MUST BE MAINTAINED 24 HOURS A DAY SEVEN DAYS PER WEEK DURING THE LIFE OF THE PROJECT.
3. CONSTRUCTION MAY NOT BE BEGUN EARLIER THAN 7:00 A.M. ON WEEKDAYS NOR CONTINUED AFTER DARK WITHOUT PERMISSION FROM THE CITY OF LEWISVILLE. CONSTRUCTION ON SATURDAY MAY NOT BE BEGUN BEFORE 8:00 A.M. AND WORK ON SUNDAY IS PROHIBITED WITHOUT SPECIAL PERMISSION.
4. UTILITIES SHOWN ON THE PLANS WERE TAKEN FROM FIELD SURVEYS, RECORD DRAWINGS, AND INFORMATION PROVIDED BY UTILITY COMPANIES. THE COMPLETENESS AND ACCURACY OF THIS DATA IS NOT GUARANTEED. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES AND PROTECTING THEM FROM DAMAGE DURING CONSTRUCTION. COORDINATE WITH WASTE MANAGEMENT CONCERNING OWNER'S UTILITIES.
5. WORK MAY NOT BE BACKFILLED OR COVERED UNTIL IT HAS BEEN INSPECTED BY THE OWNER'S REPRESENTATIVE.
6. MATERIAL TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY. TESTING FREQUENCY SHALL BE AS INCLUDED IN NCTCOG SPECIFICATIONS REFERENCED IN NOTE 1, ABOVE.
7. A WARRANT WILL BE PROVIDED BY THE CONTRACTOR FOR ALL IMPROVEMENTS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

GRADING

1. GRADING TO BE PER FOUNDATION PLAN FOR THE PROPOSED BREAKROOM BUILDING.

DRAINAGE

1. FINISHED FLOOR ELEVATION OF PROPOSED BREAKROOM BUILDING TO BE 456.5 MINIMUM

FLOOD PLAIN ELEVATIONS

THE REFERENCED FLOOD PLAIN (100-YEAR WATER SURFACE ELEVATIONS) ARE THE ELEVATIONS BASED ON THE PROPOSED CONDITIONS OF THE FLOOD STUDY IN SUPPORT OF A CONDITIONAL LETTER OF MAP REVISION (CLOMR) FOR WASTE MANAGEMENT OF TEXAS DFW LAND FILL, ELM FORK TRINITY RIVER, CITY OF LEWISVILLE, TEXAS REPORT PREPARED BY R. W. MORRISON ON NOVEMBER 30, 2015.

BENCHMARK

THE BENCHMARK USED TO ESTABLISH THE ON-SITE ELEVATIONS IS LV-5, LOCATED AT:

N 496,357.50, E 2,155,665.76 (NAD27)
ELEVATION 536.65 MSL

LONGITUDE 096°59'31.429"
LATTITUDE 33°01'48.019"

WETLANDS MITIGATION

NO WETLANDS ARE IMPORTED BY THIS PROJECT.

EROSION CONTROL AND SWPPP

CONTRACTOR TO PREPARE SWPPP AND NOI AS REQUIRED TO PERFORM THE EXCAVATION AND FILL OPERATIONS.

PROJECT LEGEND

EXISTING FEATURES

- PAVEMENT ASPHALT
- PAVEMENT CONCRETE
- PAVEMENT GRAVEL
- LAKE EDGE OR FLOW LINE
- 8"SS — SANITARY SEWER LINE
- STORM MH — STORM SEWER MANHOLE
- SANITARY SEWER MANHOLE
- TRAFFIC SIGNS
- 24" RCP — CULVERT
- 12"W — WATER LINE
- FIRE HYDRANT
- WATER METER
- WATER VALVE
- OHT — OVERHEAD TELEPHONE LINE
- UGT — UNDERGROUND TELEPHONE LINE
- TELEPHONE PEDESTAL
- TELEPHONE MANHOLE
- 635 — CONTOUR – 5 FOOT INTERVAL
- 634 — CONTOUR – 1 FOOT INTERVAL
- OHE — OVERHEAD ELECTRIC LINE
- LIGHT POLE
- ELECTRIC VAULT
- GUY WIRE ANCHOR
- POWER POLE
- BOLLARDS — BOLLARDS
- CHAINLINK FENCE
- CONCRETE FENCE
- MASONARY FENCE
- PIPE FENCE
- WIRE FENCE
- WOODEN FENCE
- TREES
- OHFO — FIBER OPTIC CABLE, AERIAL
- FOC — FIBER OPTIC CABLE, BURIED
- FOC — FIBER OPTIC SIGN
- GAS — GAS LINE
- GUARDRAIL
- ELEC — ELECTRIC DEVICE
- IRRIGATION VALVE
- TREE LINE
- IRS — IRON ROD SET
- IRF — IRON ROD FOUND
- IR — IRON ROD
- PK — PK NAIL
- CONTROL POINT
- BENCHMARK
- 36"FM — SEWER FORCE MAIN
- MONITOR — MONITORING WELL
- RAILROAD TRACK
- TOP OF SLOPE

PROPOSED FEATURES

- TOP OF SLOPE
- CENTERLINE OR BASELINE
- FLOWLINE
- RIGHT OF WAY
- 635 — CONTOUR – 5 FOOT INTERVAL
- 634 — COUTOUR – 1 FOOT INTERVAL

ENGINEERING SITE PLAN FOR
BREAKROOM, TRUCK WASH AND MAINTENANCE SHOP ADDITIONS
LOT 1 BLOCK A
D/FW RECYCLING & DISPOSAL FACILITY ADDITION
TOTAL ACREAGE: 15.00

ZONING – SPECIFIC USE – LANDFILL ACCESSORY USES

BEING PART OF THE P. HIGGINS SURVEY, A-526; L.N. SPARKS SURVEY, A-1214; HUGH HARPER SURVEY, A-605; W.C. CANTWELL SURVEY A-290; H. BULLON SURVEY, A-626; AND JR. WORRELL SURVEY, A-1232.

No.	DATE	REVISION	BY
.	.	.	.
.	.	.	.
.	.	.	.

Freeman-Millican, Inc.
ENGINEERS - ARCHITECTS - PLANNERS
12160 N. ABRAMS RD., STE. 508 DALLAS, TX 75243 PH: 214.503.0555 TX REG ENG FIRM F-2627

D/FW RECYCLING & DISPOSAL FACILITY ADDITION
14007 - WASTE MANAGEMENT - ENGINEERING SITE PLAN - FOR PERMIT - JUNE - 2017

LEGEND & GENERAL NOTES

FOR PERMIT

STATE OF TEXAS
RICHARD A. DORMIER
50570
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY RICHARD A. DORMIER, P.E. NO. 50570 ON 9.27.2017

IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2 OF NOTED SCALE.

PROJECT No.	14007
DESIGNED:	FMI
DRAWN:	LLK
CHECKED:	RAD

SHEET
G 1.1

JUL 13 RECD

LEWISVILLE

SUMMARY OF ACTION
BOARD OF ADJUSTMENT
JULY 11, 2007

City Council Chambers
151 W. Church St.
Lewisville, Texas
6:30 P.M.

Consideration of a request to consider the following two (2) variances for Lot 1, Block A, of the DF/W Recycling & Disposal Facility Addition. The property is zoned Heavy Industrial (HI). The request is being made by Richard A. Dormier of Freeman-Millican Inc. with authorization from Waste Management of Texas, Inc., the property owner. (Case No. BA20070702)

1. To allow an encroachment into the side yard setback along the east property line for both buildings and parking.

Request Approved ☑

Request Not Approved ☐

This is an accurate record of the action regarding this variance request heard at the July 11, 2007 meeting of the City of Lewisville Zoning Board of Adjustment.

James W Davis — Date: July 11, 2007

JAMES DAVIS
VICE-Chairman

ENGINEERING SITE PLAN FOR
BREAKROOM, TRUCK WASH AND MAINTENANCE SHOP ADDITIONS
LOT 1 BLOCK A
D/FW RECYCLING & DISPOSAL FACILITY ADDITION
TOTAL ACREAGE: 15.00

ZONING – SPECIFIC USE – LANDFILL ACCESSORY USES

BEING PART OF THE P. HIGGINS SURVEY, A–526; L.N. SPARKS SURVEY, A–1214; HUGH HARPER SURVEY, A–605; W.C. CANTWELL SURVEY A–290; H. BULLON SURVEY, A–626; AND JR. WORRELL SURVEY, A–1232.

No.	DATE	REVISION	BY

FREEMAN-MILLICAN, INC.
ENGINEERS - ARCHITECTS - PLANNERS
13785 N. MIDDLEWOOD BLVD., STE. 206 DALLAS, TX 75243 PH: 214.503.0255 TX REG. ENG. FIRM F-2097

D/FW RECYCLING & DISPOSAL FACILITY ADDITION
14007 - WASTE MANAGEMENT - ENGINEERING SITE PLAN - FOR PERMIT - JUNE - 2017

APPROVED VARIANCE

FOR PERMIT

STATE OF TEXAS
RICHARD A. DORMIER
50570
LICENSED
PROFESSIONAL ENGINEER

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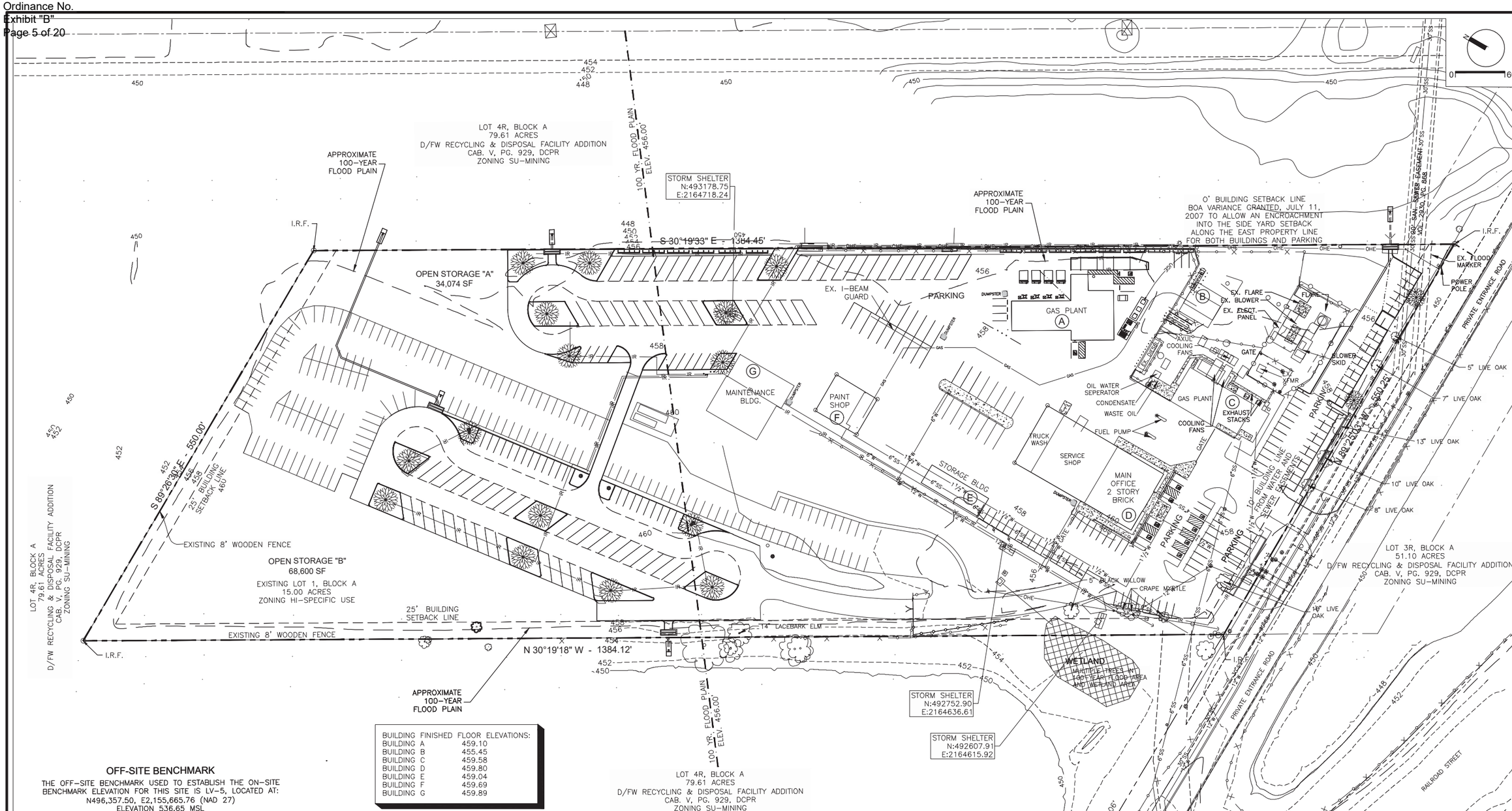
PROJECT No.	14007
DESIGNED:	FMI
DRAWN:	LLK
CHECKED:	RAD

SHEET
G 1.2

SHEET 4 OF 8

F:\14007 - wm scoping for clubhouse\01 Site plans\ site plans for 1 bld\breakroom\G 1.2 APPROVED VARIANCE.dwg



BUILDING FINISHED FLOOR ELEVATIONS:	
BUILDING A	459.10
BUILDING B	455.45
BUILDING C	459.58
BUILDING D	459.80
BUILDING E	459.04
BUILDING F	459.69
BUILDING G	459.89

OFF-SITE BENCHMARK

THE OFF-SITE BENCHMARK USED TO ESTABLISH THE ON-SITE BENCHMARK ELEVATION FOR THIS SITE IS LV-5, LOCATED AT:
N496,357.50, E2,155,665.76 (NAD 27)
ELEVATION 536.65 MSL
LONGITUDE 096°59'31.429"
LATITUDE 33°01'48.019"

LOCAL SITE BENCHMARK

BM-1
N 492,244.12
E 2,165,794.57
BRASS CAP IN CONCRETE STAMPED

ELEV. 454.43

SURFACE AREAS

IMPERVIOUS	PERVIOUS	TOTAL AREA
424,200 SF	229,200 SF	653,400 SF
TOTAL LOT AREA		653,400 SF

OPEN STORAGE

OPEN STORAGE "A"	34,074 SF
OPEN STORAGE "B"	68,600 SF
TOTAL	106,674 SF

FEMA PANEL NO: 48121C0565G
DATE: APRIL 18, 2011

BUILDING SUMMARY (EXISTING)

EXISTING	AREA	REQD PARKING	PROVIDED PARKING
OFFICE	6,400 SF		
SERVICE SHOP	8,200 SF		
TRUCK WASH	2,160 SF		
GAS PLANT	11,674 SF		
STORAGE BLDG.	2,360 SF		
PAINT SHOP	3,052 SF		
MAINTENANCE BLDG.	5,795 SF		
	39,641 SF @ 1 / 250 =	159 PARKING SPACES REQUIRED	
			303 PARKING SPACES PROVIDED

PARKING SUMMARY TABLE (EXISTING)

TOTAL BUILDING AREA	REQUIRED PARKING [GDO SEC. 6-162(a)(3)]	TOTAL PARKING (EXISTING)
39,641 S.F.	1 SPACE PER 250 BLDG S.F. = 159 CAR SPACES	303 CAR SPACES (9'x18')
	NONE	101 TRUCK SPACES (12'x30')
	8 HC SPACES	4 HC SPACES

ENGINEERING SITE PLAN FOR
BREAKROOM, TRUCK WASH AND MAINTENANCE SHOP ADDITIONS
LOT 1 BLOCK A
D/FW RECYCLING & DISPOSAL FACILITY ADDITION
TOTAL ACREAGE: 15.00

ZONING – SPECIFIC USE – LANDFILL ACCESSORY USES

BEING PART OF THE P. HIGGINS SURVEY, A-526; L.N. SPARKS SURVEY, A-1214; HUGH HARPER SURVEY, A-605; W.C. CANTWELL SURVEY A-290; H. BULLON SURVEY, A-626; AND JR. WORRELL SURVEY, A-1232.

No.	DATE	REVISION	BY

FREEMAN-MILLICAN, INC.
ENGINEERS - ARCHITECTS - PLANNERS
5700 W. ALBANY RD., STE. 005 DALLAS, TX 75240 PH: 214.503.0305 TX REG FIRM F-2007

D/FW RECYCLING & DISPOSAL FACILITY ADDITION
14007 - WASTE MANAGEMENT - ENGINEERING SITE PLAN - FOR PERMIT - JUNE - 2017

EXISTING CONDITIONS

FOR PERMIT

STATE OF TEXAS
RICHARD A. DORMIER
50570
LICENSED
PROFESSIONAL ENGINEER

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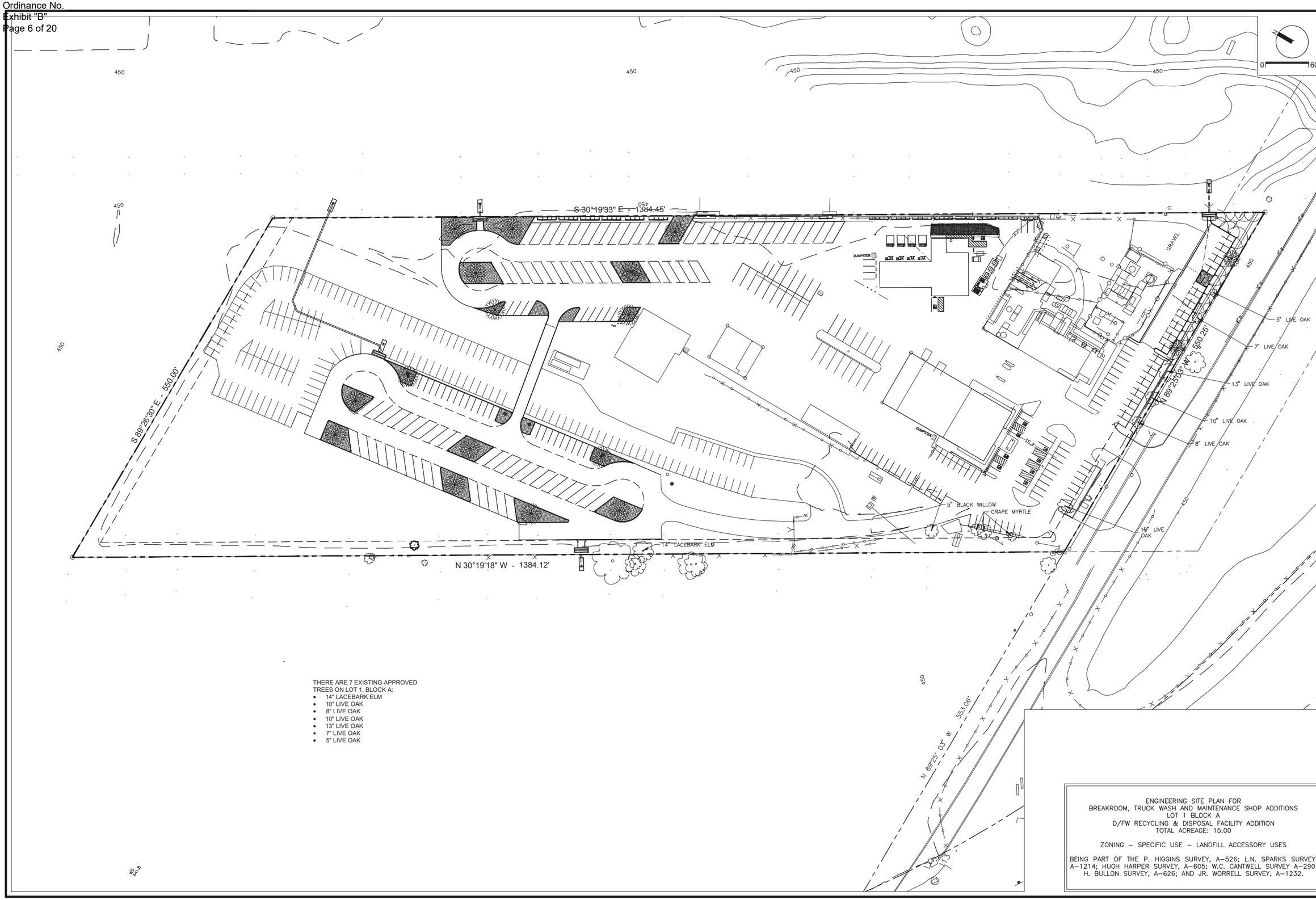
PROJECT No.	14007
DESIGNED:	FMI
DRAWN:	LLK
CHECKED:	RAD

SHEET
G 1.3

SHEET 5 OF 8



THERE ARE 7 EXISTING APPROVED TREES ON LOT 1, BLOCK A:

- 14" LACEBARK ELM
- 10" LIVE OAK
- 8" LIVE OAK
- 10" LIVE OAK
- 13" LIVE OAK
- 7" LIVE OAK
- 5" LIVE OAK

ENGINEERING SITE PLAN FOR
BREAKROOM, TRUCK WASH AND MAINTENANCE SHOP ADDITIONS
LOT 1 BLOCK A
D/FW RECYCLING & DISPOSAL FACILITY ADDITION
TOTAL ACREAGE: 15.00

ZONING – SPECIFIC USE – LANDFILL ACCESSORY USES

BEING PART OF THE P. HIGGINS SURVEY, A–526; L.N. SPARKS SURVEY, A–1214; HUGH HARPER SURVEY, A–605; W.C. CANTWELL SURVEY A–290; H. BULLON SURVEY, A–626; AND JR. WORRELL SURVEY, A–1232.

No.	DATE	REVISION	BY

FREEMAN-MILLICAN, INC.
ENGINEERS - ARCHITECTS - PLANNERS
5700 W. LAMBAR AVE., STE. 326 DALLAS, TX 75237 PH: 214.363.0205 TX REG FIRM F-2007

D/FW RECYCLING & DISPOSAL FACILITY ADDITION
14007 - WASTE MANAGEMENT - ENGINEERING SITE PLAN - FOR PERMIT - JUNE - 2017

TREE SURVEY

FOR PERMIT

STATE OF TEXAS
RICHARD A. DORMIER
50570
LICENSED
PROFESSIONAL ENGINEER

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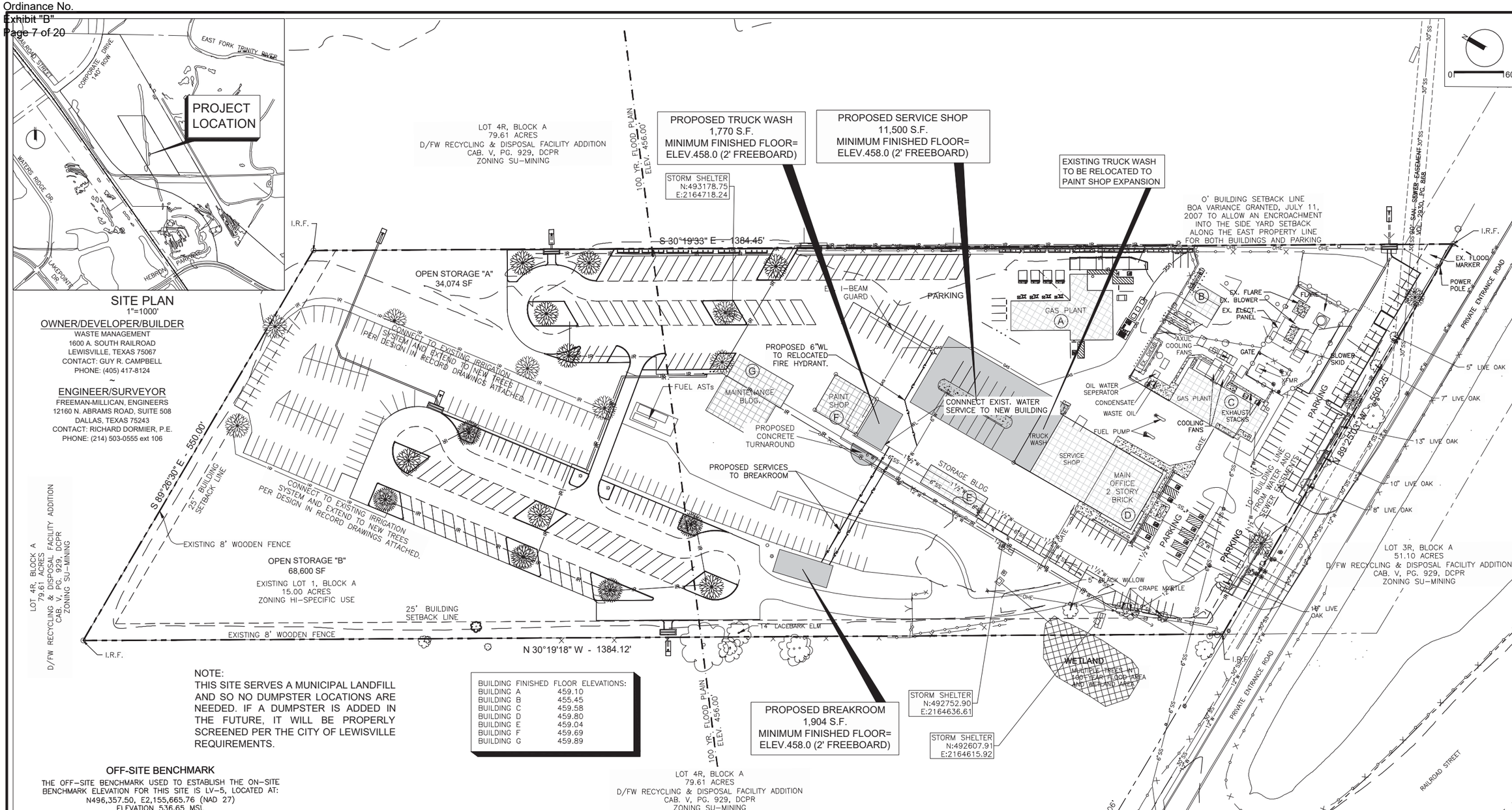
PROJECT No.	14007
DESIGNED:	FMI
DRAWN:	LLK
CHECKED:	RAD

SHEET
G 1.4

SHEET 5 OF 8



SITE PLAN
1"=1000'

OWNER/DEVELOPER/BUILDER
WASTE MANAGEMENT
1600 A. SOUTH RAILROAD
LEWISVILLE, TEXAS 75067
CONTACT: GUY R. CAMPBELL
PHONE: (405) 417-8124

~

ENGINEER/SURVEYOR
FREEMAN-MILLICAN, ENGINEERS
12160 N. ABRAMS ROAD, SUITE 508
DALLAS, TEXAS 75243
CONTACT: RICHARD DORMIER, P.E.
PHONE: (214) 503-0555 ext 106

NOTE:
THIS SITE SERVES A MUNICIPAL LANDFILL AND SO NO DUMPSTER LOCATIONS ARE NEEDED. IF A DUMPSTER IS ADDED IN THE FUTURE, IT WILL BE PROPERLY SCREENED PER THE CITY OF LEWISVILLE REQUIREMENTS.

BUILDING FINISHED FLOOR ELEVATIONS:	
BUILDING A	459.10
BUILDING B	455.45
BUILDING C	459.58
BUILDING D	459.80
BUILDING E	459.04
BUILDING F	459.69
BUILDING G	459.89

OFF-SITE BENCHMARK
THE OFF-SITE BENCHMARK USED TO ESTABLISH THE ON-SITE BENCHMARK ELEVATION FOR THIS SITE IS LV-5, LOCATED AT:
N496,357.50, E2,155,665.76 (NAD 27)
ELEVATION 536.65 MSL
LONGITUDE 096°59'31.429"
LATITUDE 33°01'48.019"

LOCAL SITE BENCHMARK

BM-1
N 492,244.12
E 2,165,794.57
BRASS CAP IN CONCRETE STAMPED

ELEV. 454.43

FEMA PANEL NO: 48121C0565G
DATE: APRIL 18, 2011

SURFACE AREAS

IMPERVIOUS	PERVIOUS	TOTAL AREA
426,104 SF	227,296 SF	653,400 SF
TOTAL LOT AREA		653,400 SF

OPEN STORAGE

OPEN STORAGE "A"	34,074 SF
OPEN STORAGE "B"	68,600 SF
TOTAL	106,674 SF

BUILDING SUMMARY

EXISTING	AREA		RATIO	REQ'D
OFFICE	6,400 SF		1/200	32
SERVICE SHOP	8,200 SF		1/200	41
TRUCK WASH	2,160 SF		NA	0
GAS PLANT	11,674 SF		1/300	39
STORAGE BLDG.	2,360 SF		1/100	3
PAINT SHOP	3,052 SF		1/200	15
MAINTENANCE BLDG.	5,795 SF		1/200	30
PROPOSED SERVICE SHOP	11,500 SF		1/200	58
PROPOSED BREAKROOM	1,904 SF		1/200	10
PROPOSED TRUCK WASH	1,770 SF		NA	0
TOTAL	56,615 SF	=	228 PARKING SPACES REQUIRED	
			303 PARKING SPACES PROVIDED	

PARKING SUMMARY TABLE (PROPOSED)

TOTAL BUILDING AREA	GDO SEC. 6-162 (a)(1)(3)(15)(28)(29)	TOTAL PARKING (PROPOSED)
56,615 S.F.	228 REQ'D	303 CAR SPACES (9'x18')
	NONE	87 TRUCK SPACES (12'x30')
	8 HC SPACES (MINIMUM 1 TO BE VAN ACCESSIBLE)	8 HC SPACES (ALL VAN ACCESSIBLE)

NOTE:
THE AGGREGATE TOTAL OF ALL EXTERIOR WALLS (EXCLUDING DOORS, WINDOWS AND GLASS) SHALL CONSIST OF A MIN 80% MASONRY VENEER GDO SEC 6-181(D)

LEGEND:

PROPOSED IMPROVEMENTS

EXISTING BUILDINGS

ENGINEERING SITE PLAN FOR
BREAKROOM, TRUCK WASH AND MAINTENANCE SHOP ADDITIONS
LOT 1 BLOCK A
D/FW RECYCLING & DISPOSAL FACILITY ADDITION
TOTAL ACREAGE: 15.00

ZONING – SPECIFIC USE – LANDFILL ACCESSORY USES

BEING PART OF THE P. HIGGINS SURVEY, A-526; L.N. SPARKS SURVEY, A-1214; HUGH HARPER SURVEY, A-605; W.C. CANTWELL SURVEY A-290; H. BULLON SURVEY, A-626; AND JR. WORRELL SURVEY, A-1232.

No.	DATE	REVISION	BY

FREEMAN-MILLICAN, INC.
ENGINEERS - ARCHITECTS - PLANNERS
5700 N. ABRAMS RD., STE. 508 DALLAS, TX 75243 PH: 214.503.0555 TX REG FIRM F-2097

D/FW RECYCLING & DISPOSAL FACILITY ADDITION
14007 - WASTE MANAGEMENT - ENGINEERING SITE PLAN - FOR PERMIT - JUNE - 2017

SITE PLAN

FOR PERMIT

STATE OF TEXAS
RICHARD A. DORMIER
50570
LICENSED
PROFESSIONAL ENGINEER

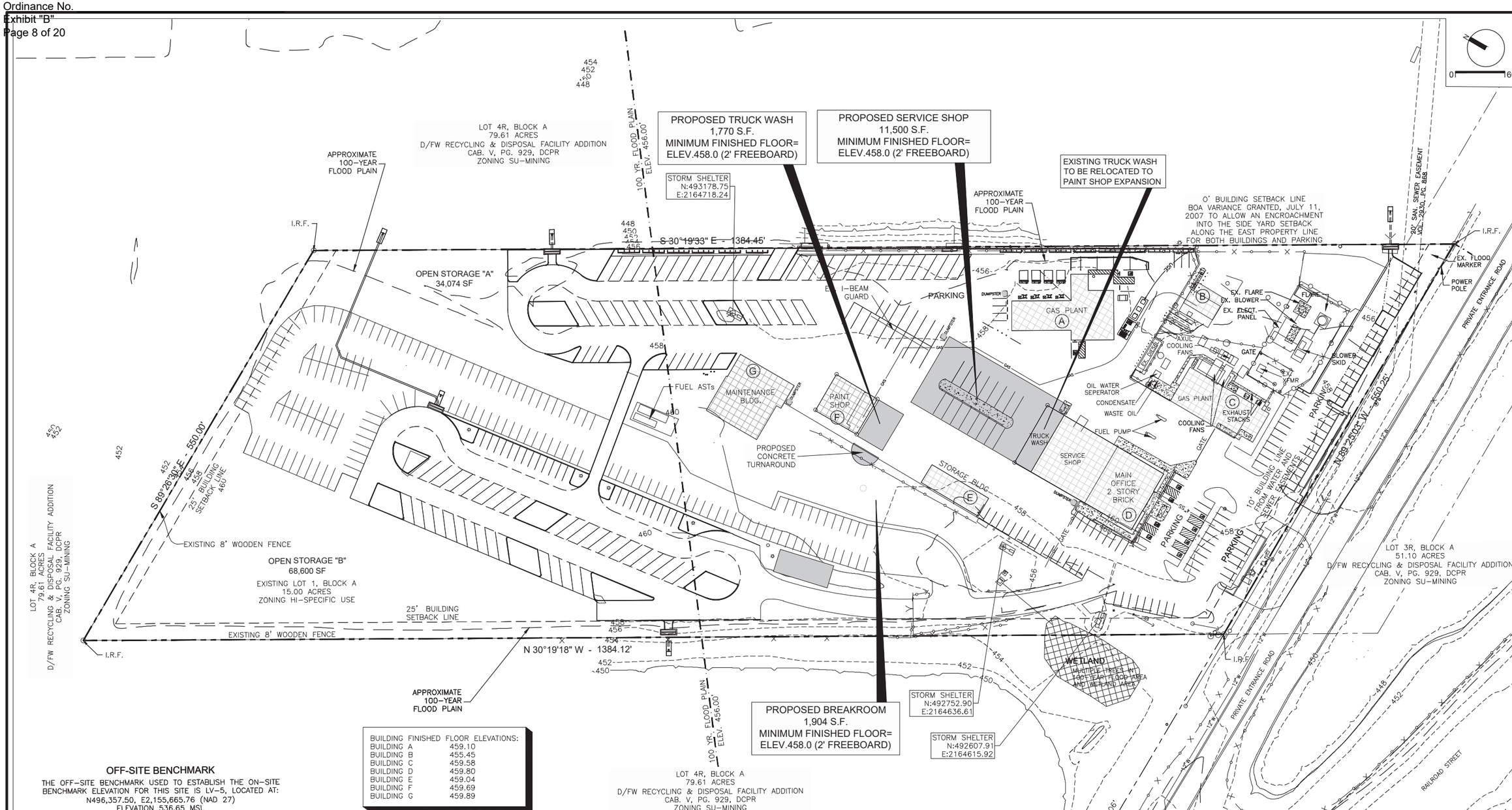
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY RICHARD A. DORMIER, P.E. NO. 50570 ON 9.27.2017

IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2 OF NOTED SCALE.

PROJECT No.	14007
DESIGNED:	FMI
DRAWN:	FMI
CHECKED:	FMI

SHEET
C 1.1

SHEET 6 OF 8



BUILDING FINISHED FLOOR ELEVATIONS:	
BUILDING A	459.10
BUILDING B	455.45
BUILDING C	459.58
BUILDING D	459.80
BUILDING E	459.04
BUILDING F	459.69
BUILDING G	459.89

OFF-SITE BENCHMARK

THE OFF-SITE BENCHMARK USED TO ESTABLISH THE ON-SITE BENCHMARK ELEVATION FOR THIS SITE IS LV-5, LOCATED AT:
N496,357.50, E2,155,665.76 (NAD 27)
ELEVATION 536.65 MSL
LONGITUDE 096°59'31.429"
LATITUDE 33°01'48.019"

LOCAL SITE BENCHMARK

BM-1
N 492,244.12
E 2,165,794.57
BRASS CAP IN
CONCRETE STAMPED

ELEV. 454.43

FEMA PANEL NO: 48121C0565G
DATE: APRIL 18, 2011

NOTE:
THE AGGREGATE TOTAL OF ALL EXTERIOR WALLS (EXCLUDING DOORS, WINDOWS AND GLASS) SHALL CONSIST OF A MIN 80% MASONRY VENEER GDO SEC 6-181(D)

LEGEND:

PROPOSED IMPROVEMENTS

EXISTING BUILDINGS

ENGINEERING SITE PLAN FOR
BREAKROOM, TRUCK WASH AND MAINTENANCE SHOP ADDITIONS
LOT 1 BLOCK A
D/FW RECYCLING & DISPOSAL FACILITY ADDITION
TOTAL ACREAGE: 15.00

ZONING – SPECIFIC USE – LANDFILL ACCESSORY USES

BEING PART OF THE P. HIGGINS SURVEY, A-526; L.N. SPARKS SURVEY, A-1214; HUGH HARPER SURVEY, A-605; W.C. CANTWELL SURVEY A-290; H. BULLON SURVEY, A-626; AND JR. WORRELL SURVEY, A-1232.

No.	DATE	REVISION	BY

FREEMAN-MILLICAN, INC.
ENGINEERS - ARCHITECTS - PLANNERS
5700 W. ALBANY ST., STE. 425 DALLAS, TX 75241 PH: 214.503.0055 TX REG FIRM F-2087

D/FW RECYCLING & DISPOSAL FACILITY ADDITION
14007 - WASTE MANAGEMENT - ENGINEERING SITE PLAN - FOR PERMIT - JUNE - 2017

GRADING PLAN

FOR PERMIT

STATE OF TEXAS
RICHARD A. DORMIER
50570
LICENSED
PROFESSIONAL ENGINEER

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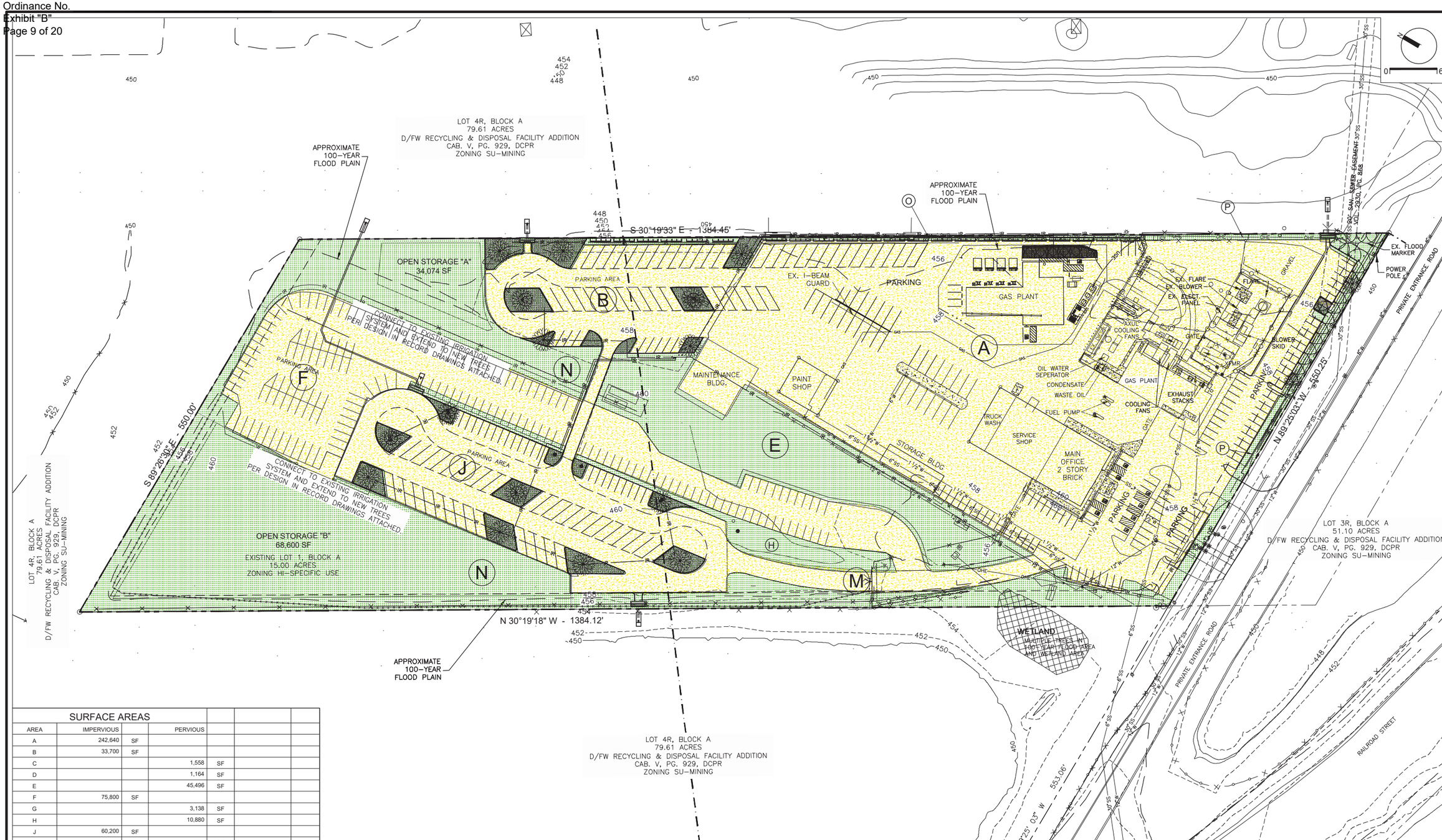
DRAWN:	FMI
CHECKED:	FMI

SHEET
C 1.2

SHEET 6 OF 8



SURFACE AREAS						
AREA	IMPERVIOUS		PERVIOUS			
A	242,640	SF				
B	33,700	SF				
C			1,558	SF		
D			1,164	SF		
E			45,496	SF		
F	75,800	SF				
G			3,138	SF		
H			10,880	SF		
J	60,200	SF				
K			958	SF		
L			1,251	SF		
M	10,510	SF				
N			143,628	SF		
O			10,151	SF		
P			12,326	SF		
TOTALS	422,850	SF	230,550	SF	653,400	SF
AREA OF LOT					653,400	SF

ENGINEERING SITE PLAN FOR
BREAKROOM, TRUCK WASH AND MAINTENANCE SHOP ADDITIONS
LOT 1 BLOCK A
D/FW RECYCLING & DISPOSAL FACILITY ADDITION
TOTAL ACREAGE: 15.00

ZONING – SPECIFIC USE – LANDFILL ACCESSORY USES

BEING PART OF THE P. HIGGINS SURVEY, A–526; L.N. SPARKS SURVEY, A–1214; HUGH HARPER SURVEY, A–605; W.C. CANTWELL SURVEY A–290; H. BULLON SURVEY, A–626; AND JR. WORRELL SURVEY, A–1232.

No.	DATE	REVISION	BY

FREEMAN-MILLICAN, INC.
ENGINEERS - ARCHITECTS - PLANNERS

D/FW RECYCLING & DISPOSAL FACILITY ADDITION
14007 - WASTE MANAGEMENT - ENGINEERING SITE PLAN - FOR PERMIT - JUNE - 2017

PERVIOUS AND IMPERVIOUS AREAS

FOR PERMIT

STATE OF TEXAS
RICHARD A. DORMIER
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LICENSED PROFESSIONAL ENGINEER

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PROJECT No.	14007
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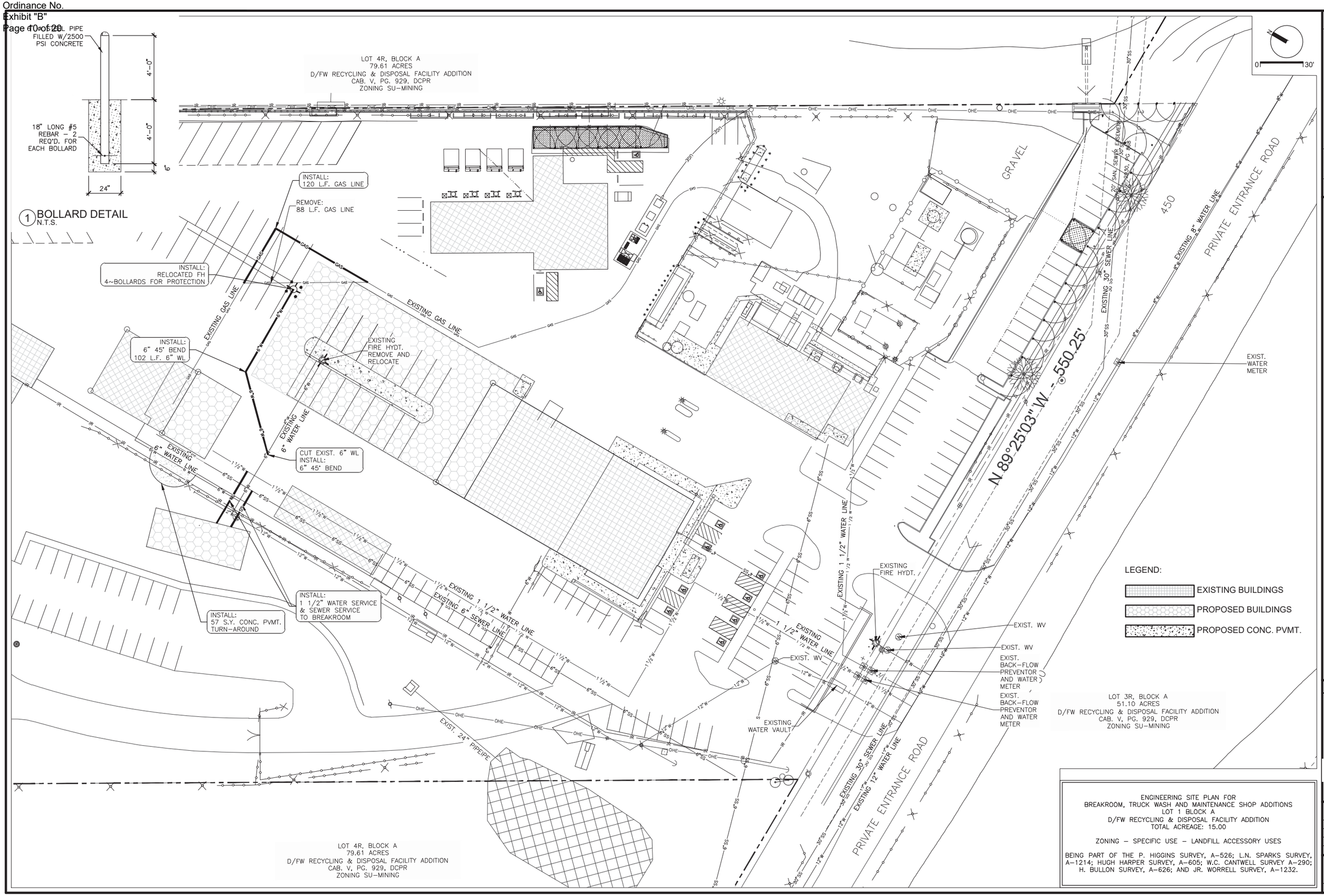
DRAWN:	LLK
CHECKED:	RAD

SHEET
C 1.3

SHEET 0 OF 0



ENGINEERING SITE PLAN FOR
BREAKROOM, TRUCK WASH AND MAINTENANCE SHOP ADDITIONS
LOT 1 BLOCK A
D/FW RECYCLING & DISPOSAL FACILITY ADDITION
TOTAL ACREAGE: 15.00

ZONING – SPECIFIC USE – LANDFILL ACCESSORY USES

BEING PART OF THE P. HIGGINS SURVEY, A–526; L.N. SPARKS SURVEY, A–1214; HUGH HARPER SURVEY, A–605; W.C. CANTWELL SURVEY A–290; H. BULLON SURVEY, A–626; AND JR. WORRELL SURVEY, A–1232.

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FREEMAN-MILLICAN, INC.
ENGINEERS - ARCHITECTS - PLANNERS
5700 W. ALBANY RD., STE. 006 DALLAS, TX 75241 PH: 214.503.0006 TX REG FIRM F-2007

D/FW RECYCLING & DISPOSAL FACILITY ADDITION
14007 - WASTE MANAGEMENT - ENGINEERING SITE PLAN - FOR PERMIT - JUNE - 2017

PROPOSED UTILITY PLAN

FOR PERMIT

STATE OF TEXAS
RICHARD A. DORMIER
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LICENSED
PROFESSIONAL ENGINEER

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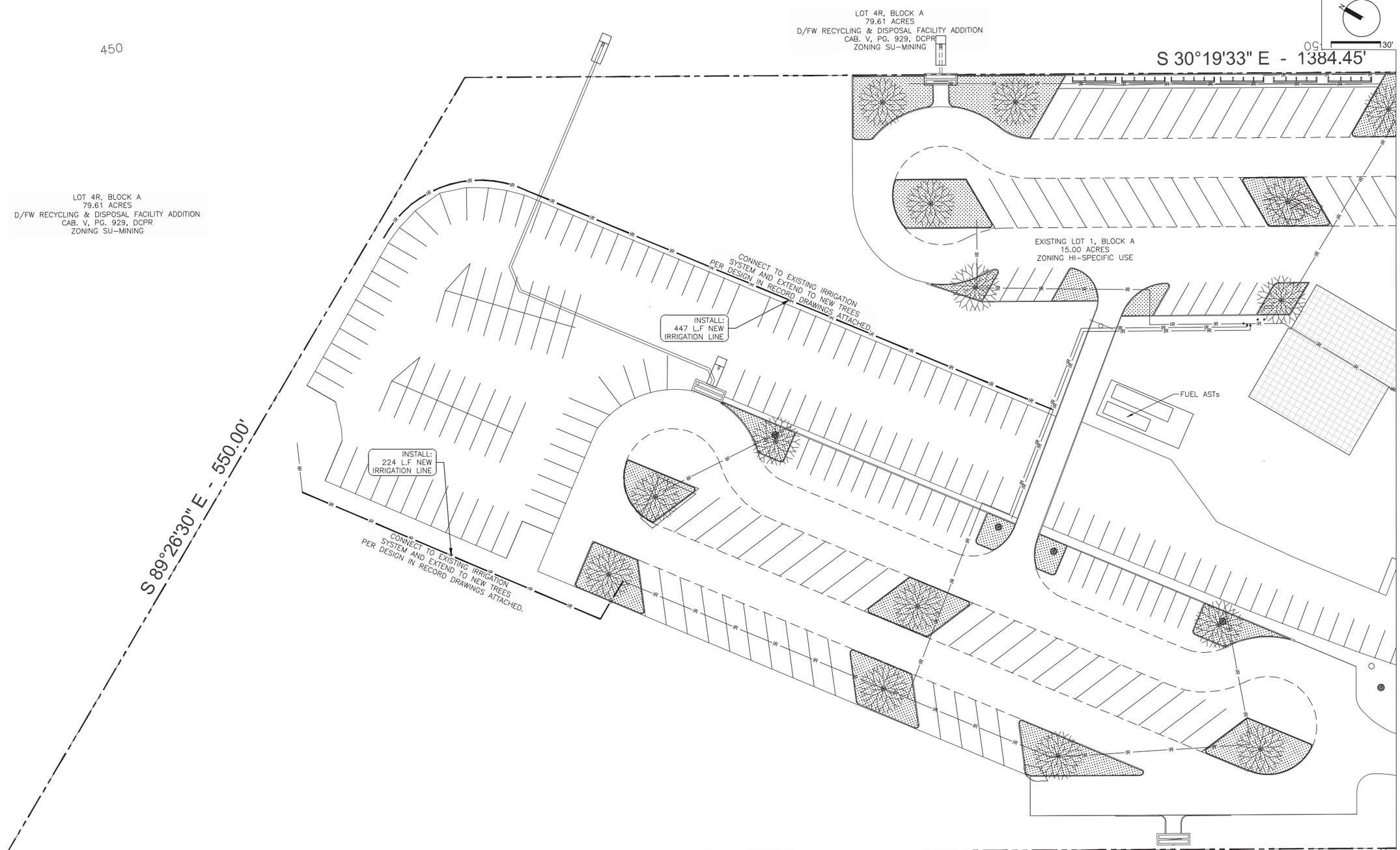
CHECKED:	RAD

SHEET
C 1.4

SHEET 9 OF 9



ENGINEERING SITE PLAN FOR
BREAKROOM, TRUCK WASH AND MAINTENANCE SHOP ADDITIONS
LOT 1 BLOCK A
D/FW RECYCLING & DISPOSAL FACILITY ADDITION
TOTAL ACREAGE: 15.00

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No.	DATE	REVISION	BY

FREEMAN-MILLICAN, INC.
ENGINEERS - ARCHITECTS - PLANNERS
13100 N. JUPITER RD., STE. 108 DALLAS, TX 75240 PH: 214.503.0555 TX REG ENG FIRM F-2507

D/FW RECYCLING & DISPOSAL FACILITY ADDITION
14007 - WASTE MANAGEMENT - ENGINEERING SITE PLAN - FOR PERMIT - JUNE - 2017

PROPOSED UTILITY PLAN

FOR PERMIT

STATE OF TEXAS
RICHARD A. DORMIER
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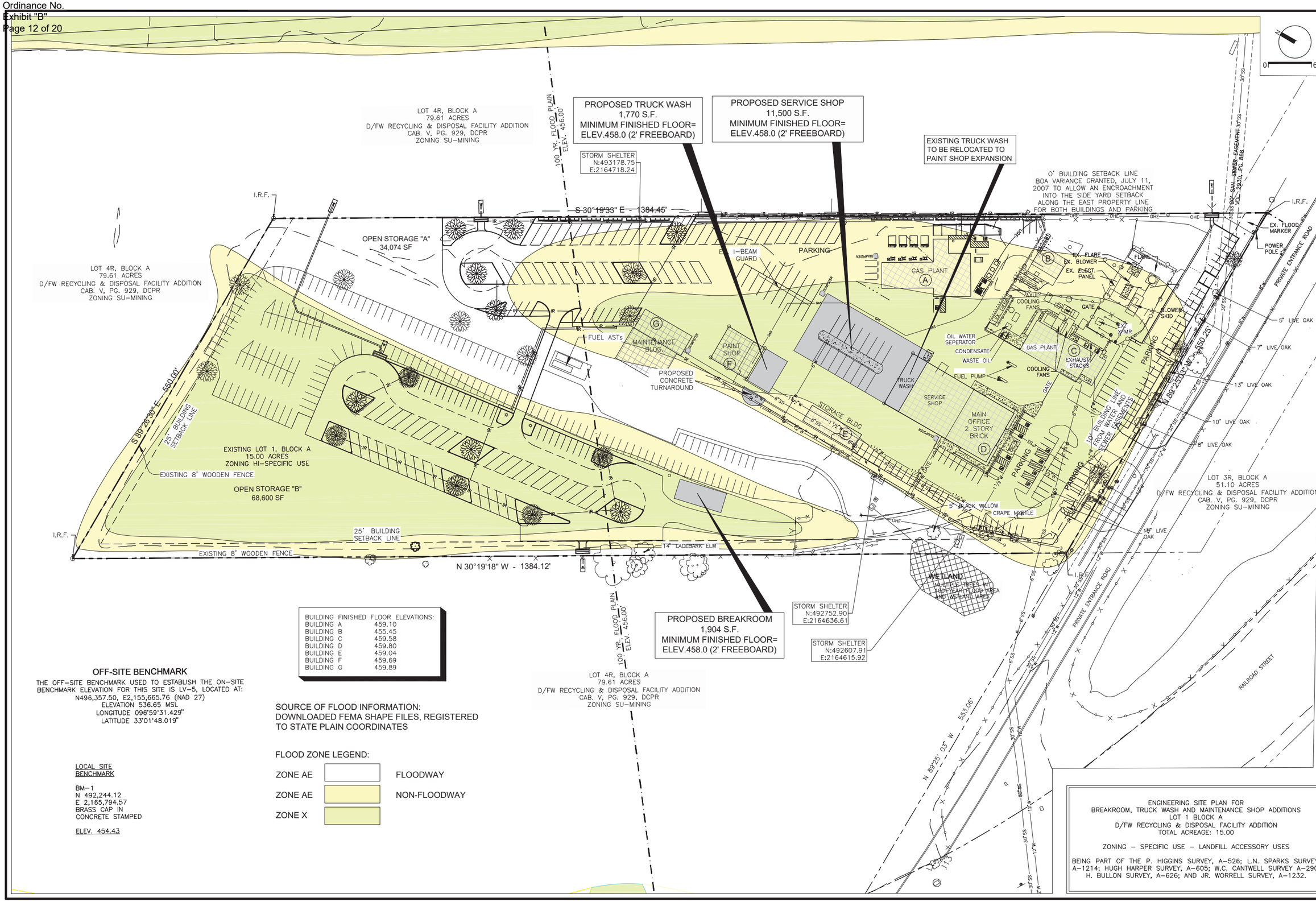
SHEET
C 1.5

SHEET 9 OF 9



BUILDING FINISHED FLOOR ELEVATIONS:

BUILDING A	459.10
BUILDING B	455.45
BUILDING C	459.58
BUILDING D	459.80
BUILDING E	459.04
BUILDING F	459.69
BUILDING G	459.89

OFF-SITE BENCHMARK

THE OFF-SITE BENCHMARK USED TO ESTABLISH THE ON-SITE BENCHMARK ELEVATION FOR THIS SITE IS LV-5, LOCATED AT:
N496,357.50, E2,155,665.76 (NAD 27)
ELEVATION 536.65 MSL
LONGITUDE 096°59'31.429"
LATITUDE 33°01'48.019"

LOCAL SITE BENCHMARK

BM-1
N 492,244.12
E 2,165,794.57
BRASS CAP IN
CONCRETE STAMPED

ELEV. 454.43

SOURCE OF FLOOD INFORMATION:
DOWNLOADED FEMA SHAPE FILES, REGISTERED
TO STATE PLAIN COORDINATES

FLOOD ZONE LEGEND:

ZONE AE		FLOODWAY
ZONE AE		NON-FLOODWAY
ZONE X		

ENGINEERING SITE PLAN FOR
BREAKROOM, TRUCK WASH AND MAINTENANCE SHOP ADDITIONS
LOT 1 BLOCK A
D/FW RECYCLING & DISPOSAL FACILITY ADDITION
TOTAL ACREAGE: 15.00

ZONING – SPECIFIC USE – LANDFILL ACCESSORY USES

BEING PART OF THE P. HIGGINS SURVEY, A-526; L.N. SPARKS SURVEY, A-1214; HUGH HARPER SURVEY, A-605; W.C. CANTWELL SURVEY A-290; H. BULLON SURVEY, A-626; AND JR. WORRELL SURVEY, A-1232.

No.	DATE	REVISION	BY

FREEMAN-MILLICAN, INC.
ENGINEERS - ARCHITECTS - PLANNERS
5700 W. LAMBAUGH RD., STE. 108 DALLAS, TX 75240 PH: 214.553.0055 TX REG FIRM F-2097

D/FW RECYCLING & DISPOSAL FACILITY ADDITION
14007 - WASTE MANAGEMENT - ENGINEERING SITE PLAN - FOR PERMIT - JUNE - 2017

FLOOD ZONE MAP

FOR PERMIT

STATE OF TEXAS
RICHARD A. DORMIER
50570
LICENSED
PROFESSIONAL ENGINEER

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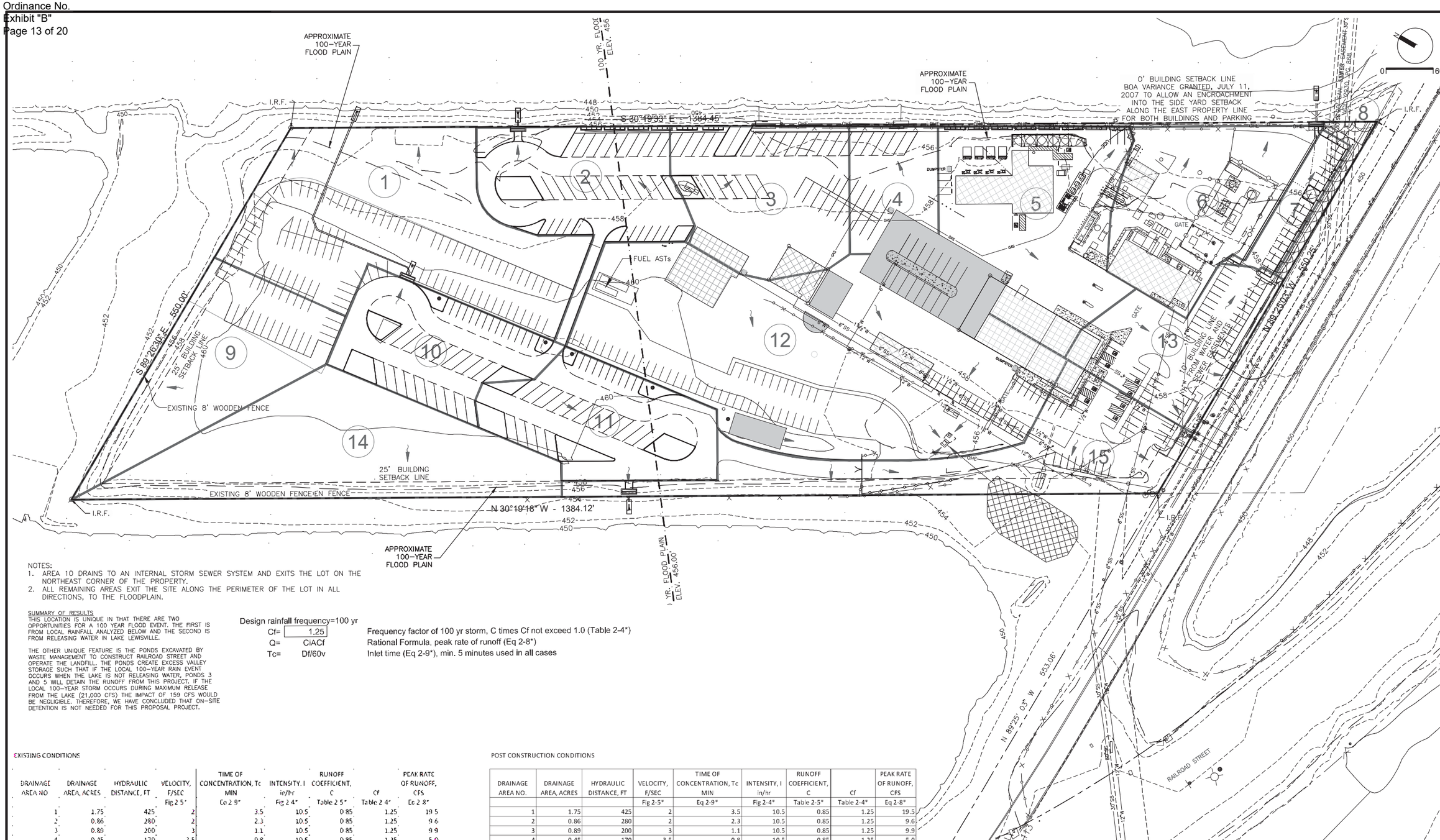
SHEET
C 1.6

SHEET 6 OF 8



NOTES:
1. AREA 10 DRAINS TO AN INTERNAL STORM SEWER SYSTEM AND EXITS THE LOT ON THE NORTHEAST CORNER OF THE PROPERTY.
2. ALL REMAINING AREAS EXIT THE SITE ALONG THE PERIMETER OF THE LOT IN ALL DIRECTIONS, TO THE FLOODPLAIN.

SUMMARY OF RESULTS
THIS LOCATION IS UNIQUE IN THAT THERE ARE TWO OPPORTUNITIES FOR A 100 YEAR FLOOD EVENT. THE FIRST IS FROM LOCAL RAINFALL ANALYZED BELOW AND THE SECOND IS FROM RELEASING WATER IN LAKE LEWISVILLE.

THE OTHER UNIQUE FEATURE IS THE PONDS EXCAVATED BY WASTE MANAGEMENT TO CONSTRUCT RAILROAD STREET AND OPERATE THE LANDFILL. THE PONDS CREATE EXCESS VALLEY STORAGE SUCH THAT IF THE LOCAL 100-YEAR RAIN EVENT OCCURS WHEN THE LAKE IS NOT RELEASING WATER, PONDS 3 AND 5 WILL DETAIN THE RUNOFF FROM THIS PROJECT. IF THE LOCAL 100-YEAR STORM OCCURS DURING MAXIMUM RELEASE FROM THE LAKE (21,000 CFS) THE IMPACT OF 159 CFS WOULD BE NEGLIGIBLE. THEREFORE, WE HAVE CONCLUDED THAT ON-SITE DETENTION IS NOT NEEDED FOR THIS PROPOSAL PROJECT.

Design rainfall frequency=100 yr

Cf=	1.25	Frequency factor of 100 yr storm, C times Cf not exceed 1.0 (Table 2-4*)
Q=	CiACf	Rational Formula, peak rate of runoff (Eq 2-8*)
Tc=	Df/60v	Inlet time (Eq 2-9*), min. 5 minutes used in all cases

EXISTING CONDITIONS

DRAINAGE AREA NO	DRAINAGE AREA, ACRES	HYDRAULIC DISTANCE, FT	VELOCITY, F/SEC	TIME OF CONCENTRATION, Tc MIN	INTENSITY, I in/hr	RUNOFF COEFFICIENT, C	Cf	PEAK RATE OF RUNOFF, CFS
			Fig 2-5*	Eq 2-9*	Fig 2-4*	Table 2-5*	Table 2-4*	Eq 2-8*
1	1.75	425	2	3.5	10.5	0.85	1.25	19.5
2	0.86	280	2	2.3	10.5	0.85	1.25	9.6
3	0.89	200	3	1.1	10.5	0.85	1.25	9.9
4	0.45	170	3.5	0.8	10.5	0.85	1.25	5.0
5	1.32	300	2	2.5	10.5	0.85	1.25	14.7
6	0.97	250	2	2.1	10.5	0.85	1.25	10.8
7	0.19	40	3.3	0.2	10.5	0.85	1.25	2.1
8	0.09	15	2.5	0.1	10.5	0.85	1.25	1.0
9	0.93	190	2.4	1.3	10.5	0.75	1.25	9.2
10	0.73	200	1.5	2.2	10.5	0.85	1.25	8.1
11	0.81	200	2	1.7	10.5	0.85	1.25	9.0
12	2.8	560	1.6	5.8	10.5	0.75	1.25	27.6
13	0.7	190	1.9	1.7	10.5	0.85	1.25	7.8
14	1.38	160	2.1	1.3	10.5	0.65	1.25	11.8
15	1.13	170	3.5	0.8	10.5	0.85	1.25	12.6
Total	15							158.8

POST CONSTRUCTION CONDITIONS

DRAINAGE AREA NO.	DRAINAGE AREA, ACRES	HYDRAULIC DISTANCE, FT	VELOCITY, F/SEC	TIME OF CONCENTRATION, Tc MIN	INTENSITY, I in/hr	RUNOFF COEFFICIENT, C	Cf	PEAK RATE OF RUNOFF, CFS
			Fig 2-5*	Eq 2-9*	Fig 2-4*	Table 2-5*	Table 2-4*	Eq 2-8*
1	1.75	425	2	3.5	10.5	0.85	1.25	19.5
2	0.86	280	2	2.3	10.5	0.85	1.25	9.6
3	0.89	200	3	1.1	10.5	0.85	1.25	9.9
4	0.45	170	3.5	0.8	10.5	0.85	1.25	5.0
5	1.32	300	2	2.5	10.5	0.85	1.25	14.7
6	0.97	250	2	2.1	10.5	0.85	1.25	10.8
7	0.19	40	3.3	0.2	10.5	0.85	1.25	2.1
8	0.09	15	2.5	0.1	10.5	0.85	1.25	1.0
9	0.93	190	2.4	1.3	10.5	0.75	1.25	9.2
10	0.73	200	1.5	2.2	10.5	0.85	1.25	8.1
11	0.81	200	2	1.7	10.5	0.85	1.25	9.0
12	2.8	560	1.6	5.8	10.5	0.75	1.25	27.6
13	0.7	190	1.9	1.7	10.5	0.85	1.25	7.8
14	1.38	160	2.1	1.3	10.5	0.65	1.25	11.8
15	1.13	170	3.5	0.8	10.5	0.85	1.25	12.6
Total	15							158.8

* Lewisville Drainage Criteria Manual, April 1988

ENGINEERING SITE PLAN FOR
BREAKROOM, TRUCK WASH AND MAINTENANCE SHOP ADDITIONS
LOT 1 BLOCK A
D/FW RECYCLING & DISPOSAL FACILITY ADDITION
TOTAL ACREAGE: 15.00

ZONING – SPECIFIC USE – LANDFILL ACCESSORY USES

BEING PART OF THE P. HIGGINS SURVEY, A-526; L.N. SPARKS SURVEY, A-1214; HUGH HARPER SURVEY, A-605; W.C. CANTWELL SURVEY A-290; H. BULLON SURVEY, A-626; AND JR. WORRELL SURVEY, A-1232.

No.	DATE	REVISION	BY

FREEMAN-MILLICAN, INC.
ENGINEERS - ARCHITECTS - PLANNERS
5700 LA AMBASSADOR BLVD, STE. 108 DALLAS, TX 75206 PH: 214.363.8386 TX REG FIRM F-2087

D/FW RECYCLING & DISPOSAL FACILITY ADDITION
14007 - WASTE MANAGEMENT - ENGINEERING SITE PLAN - FOR PERMIT - JUNE - 2017

DRAINAGE AREA MAP

FOR PERMIT

STATE OF TEXAS
RICHARD A. DORMIER
50570
LICENSED PROFESSIONAL ENGINEER

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PROJECT No.	14007
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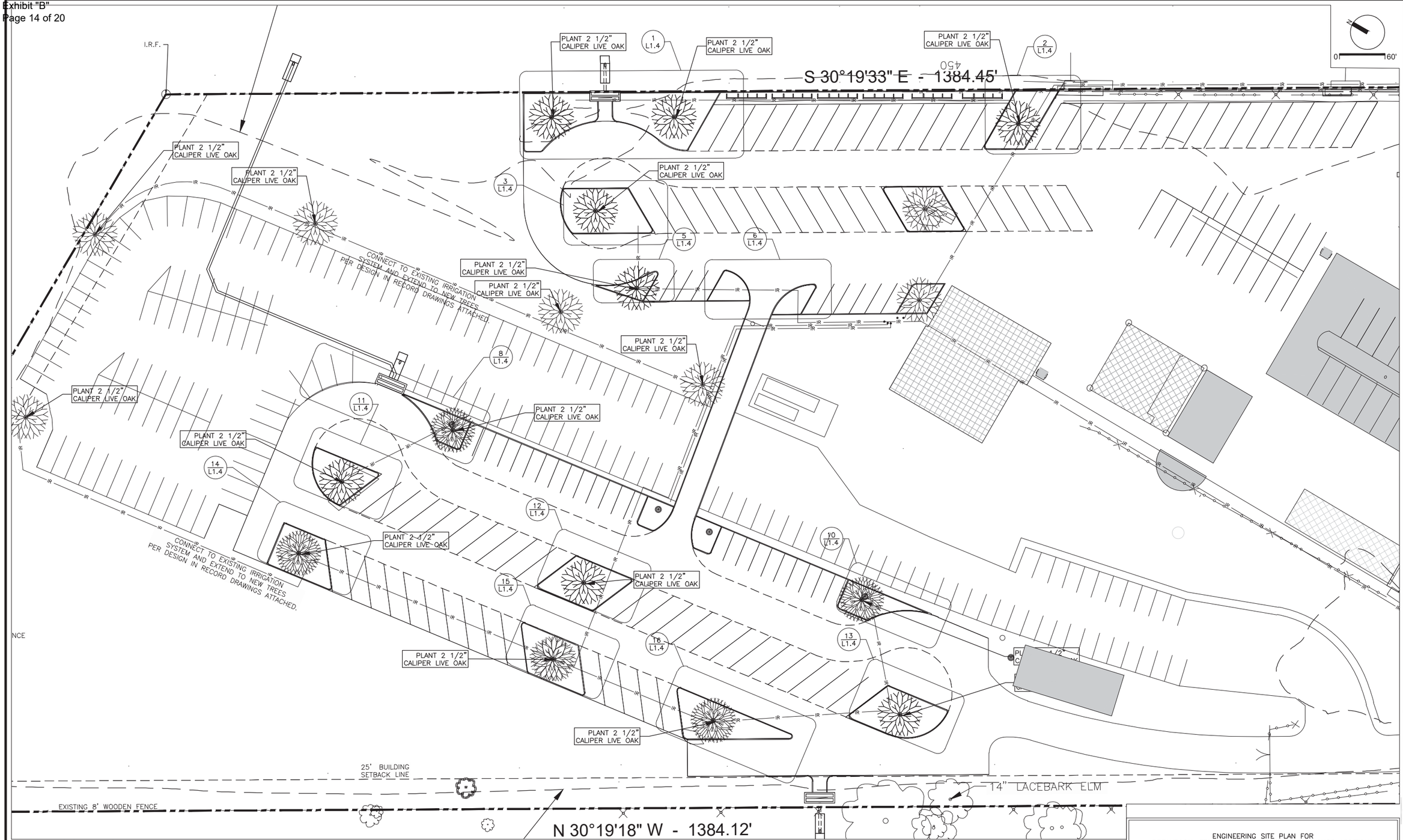
DRAWN:	FMI
CHECKED:	FMI

SHEET
D 1.1



LANDSCAPE SUMMARY TABLE

TOTAL BUILDING AREA	TOTAL PARKING AREA [GDO SEC. 6-123(f)]	PARKING PROVIDED	INTERIOR LANSCAPING AREA [GDO SEC. 6-123(d)]
50,820 S.F.	277,195 S.F.	303	27,720 S.F. (10% OF PARKING AREA) ONE SHADE TREE PER EACH 15 PARKING SPACES = 20 TREES

TREE SUMMARY TABLE

LOCATION	NUMBER OF PLANTS	SIZE	PLANT NAME
SOUTHEAST PARKING	2	2 1/2" CALIPER	LIVE OAK
NORTHEAST PARKING	5	2 1/2" CALIPER	LIVE OAK
NORTHWEST PARKING	13	2 1/2" CALIPER	LIVE OAK

NOTE:
OTHER LEWISVILLE APPROVED TREES MAYBE SUBSTITUTED IF LIVE OAK TREES ARE NOT AVAILABLE

ENGINEERING SITE PLAN FOR
BREAKROOM, TRUCK WASH AND MAINTENANCE SHOP ADDITIONS
LOT 1 BLOCK A
D/FW RECYCLING & DISPOSAL FACILITY ADDITION
TOTAL ACREAGE: 15.00

ZONING – SPECIFIC USE – LANDFILL ACCESSORY USES

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No.	DATE	REVISION	BY

FREEMAN-MILLICAN, INC.
ENGINEERS - ARCHITECTS - PLANNERS
5700 W. ALBANY RD., STE. 005 DALLAS, TX 75240 PH: 214.553.0055 TX REG FIRM F-2097

D/FW RECYCLING & DISPOSAL FACILITY ADDITION
14007 - WASTE MANAGEMENT - ENGINEERING SITE PLAN - FOR PERMIT - JUNE - 2017

LANDSCAPE PLAN ~ NORTH

FOR PERMIT

STATE OF TEXAS
RICHARD A. DORMIER
50570
LICENSED
PROFESSIONAL ENGINEER

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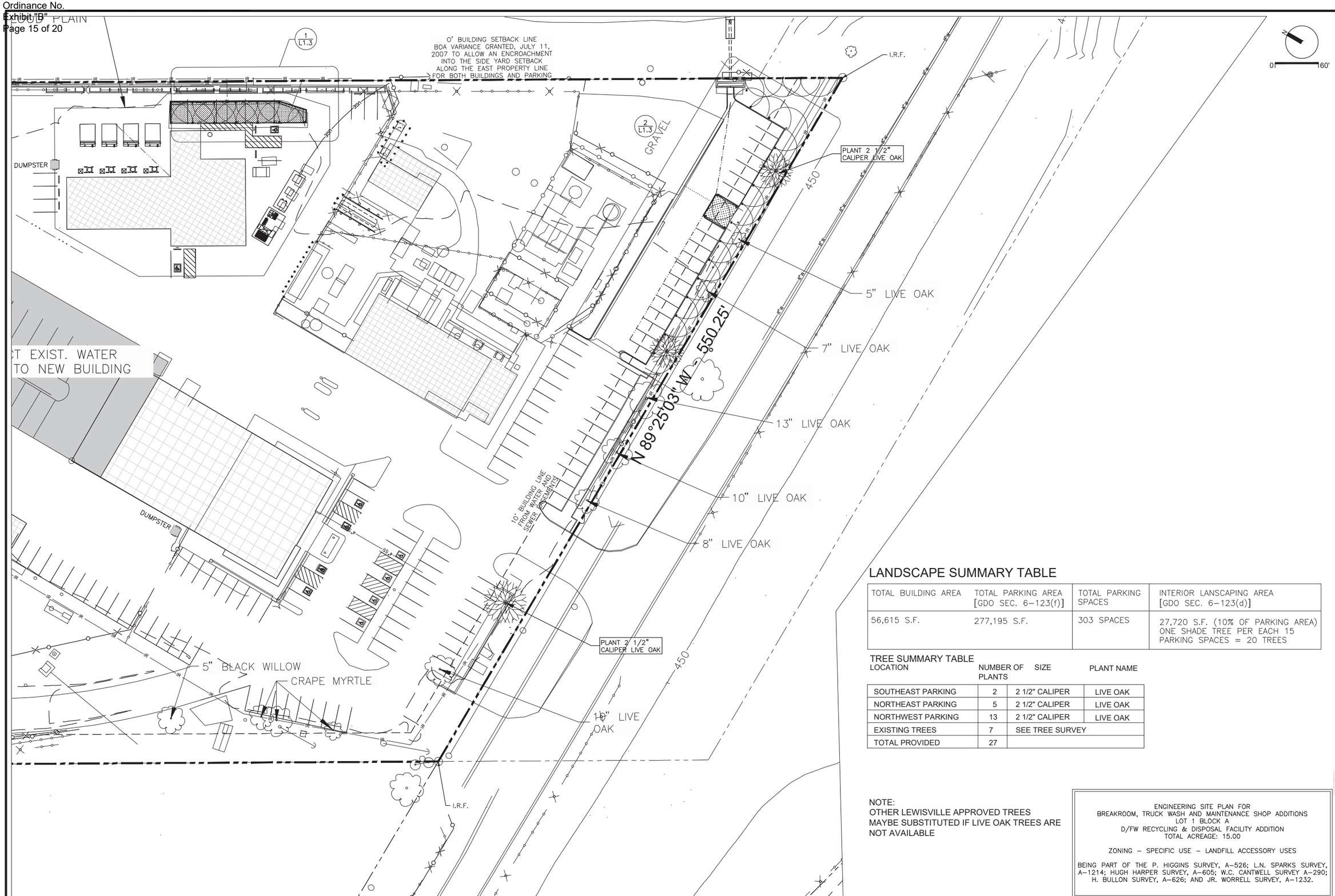
CHECKED:	RAD

SHEET
L 1.1

SHEET 5 OF 8



LANDSCAPE SUMMARY TABLE

TOTAL BUILDING AREA	TOTAL PARKING AREA [GDO SEC. 6-123(f)]	TOTAL PARKING SPACES	INTERIOR LANSCAPING AREA [GDO SEC. 6-123(d)]
56,615 S.F.	277,195 S.F.	303 SPACES	27,720 S.F. (10% OF PARKING AREA) ONE SHADE TREE PER EACH 15 PARKING SPACES = 20 TREES

TREE SUMMARY TABLE

LOCATION	NUMBER OF PLANTS	SIZE	PLANT NAME
SOUTHEAST PARKING	2	2 1/2" CALIPER	LIVE OAK
NORTHEAST PARKING	5	2 1/2" CALIPER	LIVE OAK
NORTHWEST PARKING	13	2 1/2" CALIPER	LIVE OAK
EXISTING TREES	7	SEE TREE SURVEY	
TOTAL PROVIDED	27		

NOTE:
OTHER LEWISVILLE APPROVED TREES MAYBE SUBSTITUTED IF LIVE OAK TREES ARE NOT AVAILABLE

ENGINEERING SITE PLAN FOR
BREAKROOM, TRUCK WASH AND MAINTENANCE SHOP ADDITIONS
LOT 1 BLOCK A
D/FW RECYCLING & DISPOSAL FACILITY ADDITION
TOTAL ACREAGE: 15.00

ZONING – SPECIFIC USE – LANDFILL ACCESSORY USES

BEING PART OF THE P. HIGGINS SURVEY, A-526; L.N. SPARKS SURVEY, A-1214; HUGH HARPER SURVEY, A-605; W.C. CANTWELL SURVEY A-290; H. BULLON SURVEY, A-626; AND JR. WORRELL SURVEY, A-1232.

No.	DATE	REVISION	BY

FREEMAN-MILLICAN, INC.
ENGINEERS - ARCHITECTS - PLANNERS
5700 N. ABRAMS RD., STE. 106 DALLAS, TX 75231 PH: 214.503.0305 TX REG FIRM F-2057

D/FW RECYCLING & DISPOSAL FACILITY ADDITION
14007 - WASTE MANAGEMENT - ENGINEERING SITE PLAN - FOR PERMIT - JUNE - 2017

LANDSCAPE PLAN SOUTH

FOR PERMIT

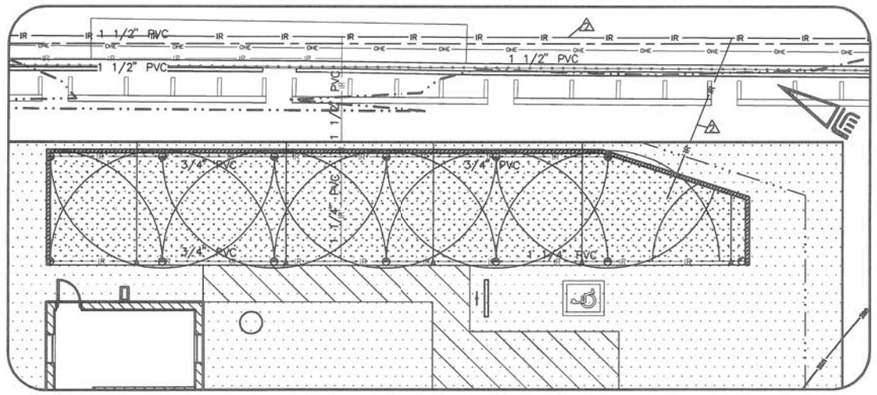
STATE OF TEXAS
RICHARD A. DORMIER
50570
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY RICHARD A. DORMIER, P.E. NO. 50570 ON 9.27.2017

IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2 OF NOTED SCALE.

PROJECT No.	14007
DESIGNED:	FMI
DRAWN:	LLK
CHECKED:	RAD

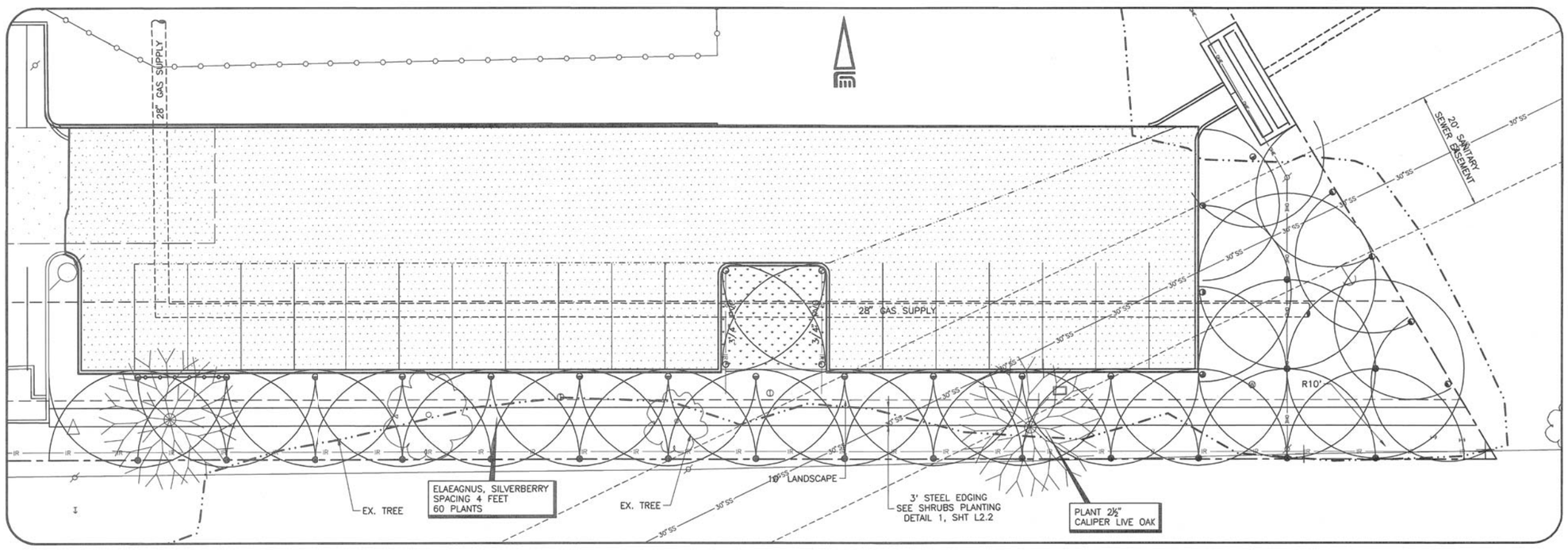
SHEET
L 1.2
SHEET 5 OF 8



1 IRRIGATION DETAIL
1"=10'

IRRIGATION LEGEND

SYMBOL	NUMBER	DISCRIPTION	SERIES	MODEL	PSI	GPM	ARC DEG	RADIUS FT
	10	HUNTER SPRINKER	5500	5520-18	30	2.9	180	15
	2	HUNTER SPRINKER	5500	5520-09	30	1.5	90	15



2 IRRIGATION DETAIL
1"=10'

IRRIGATION LEGEND

SYMBOL	NUMBER	DISCRIPTION	SERIES	MODEL	PSI	GPM	ARC DEG	RADIUS FT
	34	HUNTER SPRINKER	5500	5520-18	30	2.9	180	15
	3	HUNTER SPRINKER	5500	5520-36	30	5.0	180	15

IRRIGATION NOTE:
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RECORD DOCUMENTS
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FREEMAN-MILLICAN, INC.
BY: RAD
DATE: 10/5/09

ENGINEERING SITE PLAN FOR
PARKING IMPROVEMENTS AND
GAS RECOVERY PLANT EXPANSION
DFW RECYCLING &
DISPOSAL FACILITY ADDITION
LOT 1, BLOCK A
15.00 ACRES
ZONING HI-SPECIFIC USE

No.	DATE	REVISION	BY
1	7/3/08	ADDRESS CITY'S COMMENTS	FMI
2	7/18/09	RECORD DRAWINGS	FMI

Freeman-Millican, Inc.
ENGINEERS - ARCHITECTS - PLANNERS
12225 GREENVILLE AVE, SUITE 121 DALLAS, TX 75243 PH: 214.503.0966 TX ENG FIRM REG NO. 2827

WASTE MANAGEMENT
DFW FACILITY - PARKING IMPROVEMENTS ENGINEERING SITE PLAN
IRRIGATION PLAN - DETAILS
SOUTH

RECORD DRAWINGS

STATE OF TEXAS
RICHARD A. DORMIER
50570
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY RICHARD A. DORMIER, P.E. NO. 50570 ON 10.05.2009

SCALE: 1"=10'

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PROJECT No.	06139
DATE:	OCT. 2009
DESIGNED:	FMI
DRAWN:	FMI
CHECKED:	RAD

SHEET
L1.3
TOTAL SHEETS: 37

IRRIGATION NOTE:
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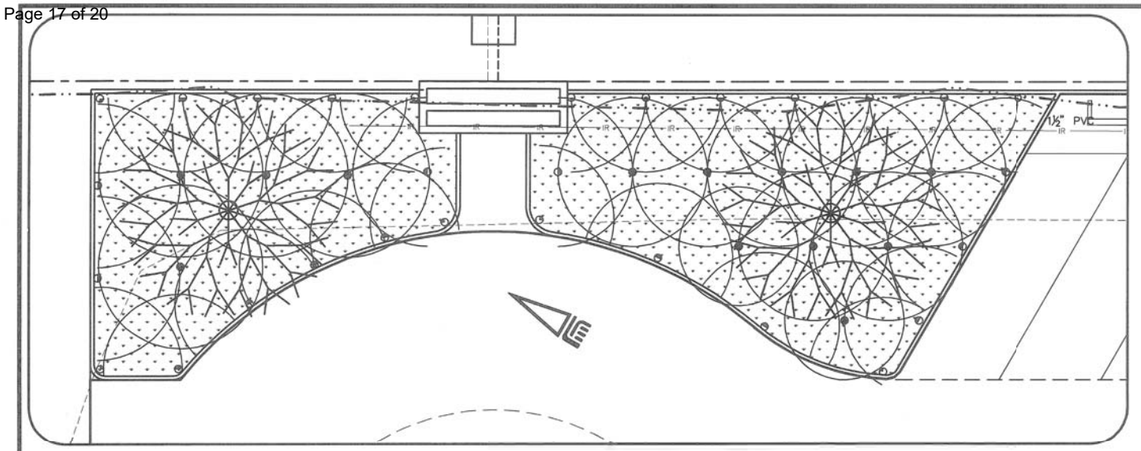
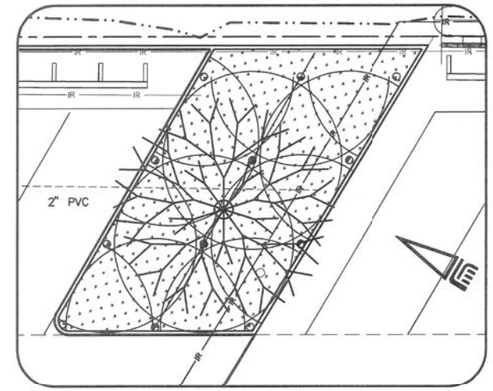


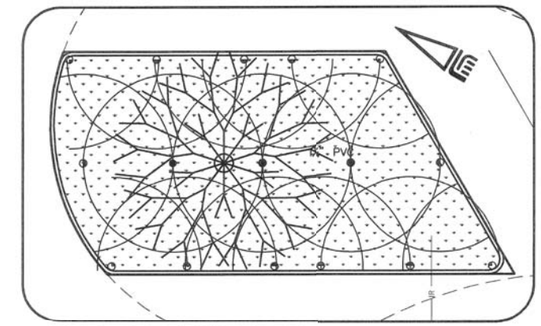
1 IRRIGATION DETAIL
1"=10'

SYMBOL	NUMBER	DISCRIPTION	SERIES	MODEL	PSI	GPM	ARC DEG	RADIUS FT
●	13	HUNTER SPRINKER	5500	5512-36	30	2.1	360	10
◓	21	HUNTER SPRINKER	5500	5512-18	30	1.2	180	10
◶	8	HUNTER SPRINKER	5500	5512-09	30	0.7	90	10



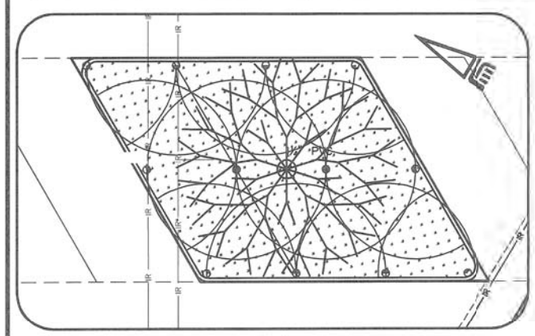
2 IRRIGATION DETAIL
1"=10'

SYMBOL	NUMBER	DISCRIPTION	SERIES	MODEL	PSI	GPM	ARC DEG	RADIUS FT
●	2	HUNTER SPRINKER	5500	5515-36	30	3.0	360	12
◓	6	HUNTER SPRINKER	5500	5515-18	30	1.8	180	12
◶	4	HUNTER SPRINKER	5500	5515-09	30	0.9	90	12



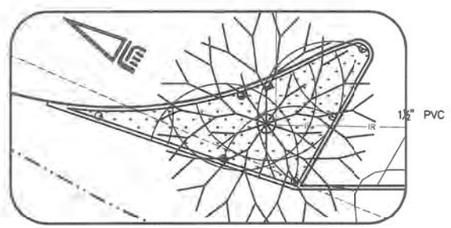
3 IRRIGATION DETAIL
1"=10'

SYMBOL	NUMBER	DISCRIPTION	SERIES	MODEL	PSI	GPM	ARC DEG	RADIUS FT
●	3	HUNTER SPRINKER	5500	5515-36	30	3.0	360	12
◓	9	HUNTER SPRINKER	5500	5515-18	30	1.8	180	12
◶	4	HUNTER SPRINKER	5500	5515-09	30	0.9	90	12



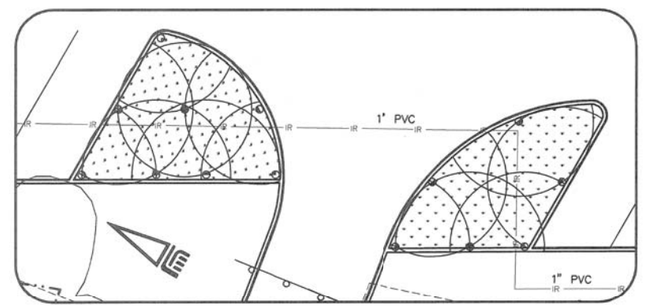
4 IRRIGATION DETAIL
1"=10'

SYMBOL	NUMBER	DISCRIPTION	SERIES	MODEL	PSI	GPM	ARC DEG	RADIUS FT
●	2	HUNTER SPRINKER	5500	5515-36	30	3.0	360	12
◓	6	HUNTER SPRINKER	5500	5515-18	30	1.8	180	12
◶	4	HUNTER SPRINKER	5500	5515-09	30	0.9	90	12



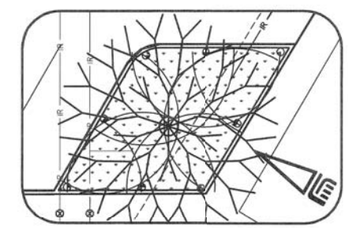
5 IRRIGATION DETAIL
1"=10'

SYMBOL	NUMBER	DISCRIPTION	SERIES	MODEL	PSI	GPM	ARC DEG	RADIUS FT
◓	4	HUNTER SPRINKER	5500	5512-18	30	1.2	180	10
◶	3	HUNTER SPRINKER	5500	5512-09	30	0.7	90	10



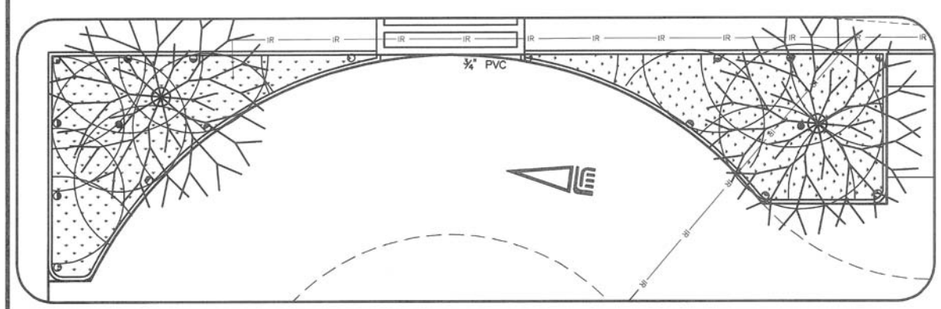
6 IRRIGATION DETAIL
1"=10'

SYMBOL	NUMBER	DISCRIPTION	SERIES	MODEL	PSI	GPM	ARC DEG	RADIUS FT
●	1	HUNTER SPRINKER	5500	5512-36	30	2.1	360	10
◓	8	HUNTER SPRINKER	5500	5512-18	30	1.2	180	10
◶	5	HUNTER SPRINKER	5500	5512-09	30	0.7	90	10



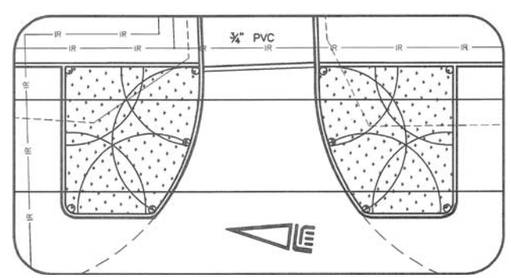
7 IRRIGATION DETAIL
1"=10'

SYMBOL	NUMBER	DISCRIPTION	SERIES	MODEL	PSI	GPM	ARC DEG	RADIUS FT
◓	4	HUNTER SPRINKER	5500	5512-18	30	1.2	180	10
◶	4	HUNTER SPRINKER	5500	5512-09	30	0.7	90	10



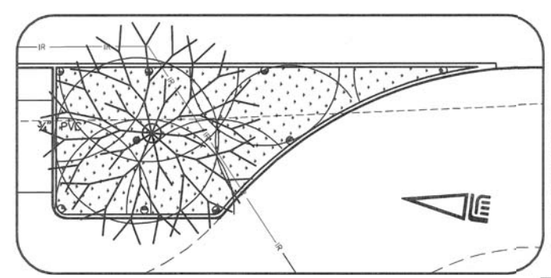
8 IRRIGATION DETAIL
1"=10'

SYMBOL	NUMBER	DISCRIPTION	SERIES	MODEL	PSI	GPM	ARC DEG	RADIUS FT
●	2	HUNTER SPRINKER	5500	5515-36	30	3.0	360	12
◓	9	HUNTER SPRINKER	5500	5515-18	30	1.8	180	12
◶	7	HUNTER SPRINKER	5500	5515-09	30	0.9	90	12



9 IRRIGATION DETAIL
1"=10'

SYMBOL	NUMBER	DISCRIPTION	SERIES	MODEL	PSI	GPM	ARC DEG	RADIUS FT
◓	2	HUNTER SPRINKER	5500	5512-18	30	1.2	180	10
◶	6	HUNTER SPRINKER	5500	5512-09	30	0.7	90	10



10 IRRIGATION DETAIL
1"=10'

SYMBOL	NUMBER	DISCRIPTION	SERIES	MODEL	PSI	GPM	ARC DEG	RADIUS FT
◓	3	HUNTER SPRINKER	5500	5515-18	30	1.8	180	12
◶	3	HUNTER SPRINKER	5500	5515-09	30	0.9	90	12

RECORD DOCUMENTS
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FREEMAN-MILLICAN, INC.
BY: _____
DATE: 10/5/09

ENGINEERING SITE PLAN FOR
PARKING IMPROVEMENTS AND
GAS RECOVERY PLANT EXPANSION
DFW RECYCLING &
DISPOSAL FACILITY ADDITION
LOT 1, BLOCK A
15.00 ACRES
ZONING HI-SPECIFIC USE

No.	DATE	REVISION	BY
1	7/3/08	ADDRESS CITY'S COMMENTS	FMI

FREEMAN-MILLICAN, INC.
ENGINEERS - ARCHITECTS - PLANNERS
9225 GREENVILLE AVE, SUITE 121 DALLAS, TX 75243 PH: 214.630.8366 TX ENG FIRM REG NO. 2627

WASTE MANAGEMENT
DFW FACILITY - PARKING IMPROVEMENTS ENGINEERING SITE PLAN
IRRIGATION PLAN - DETAILS
NORTH

RECORD DRAWINGS

STATE OF TEXAS
RICHARD A. DORMIER
50570
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY RICHARD A. DORMIER, P.E. NO. 50570 ON 10.05.2009

SCALE: 1"=10'
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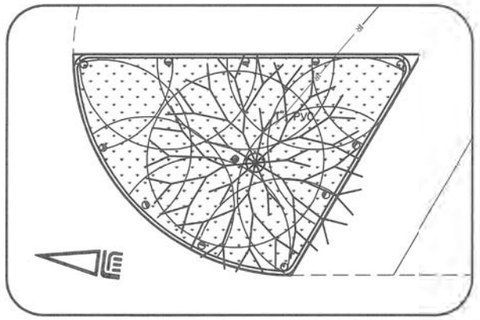
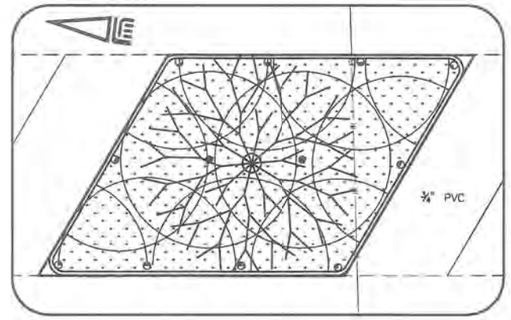
PROJECT No. 06139
DATE: OCT. 2009
DESIGNED: FMI
DRAWN: FMI
CHECKED: RAD

SHEET
L1.4
TOTAL SHEETS: 37



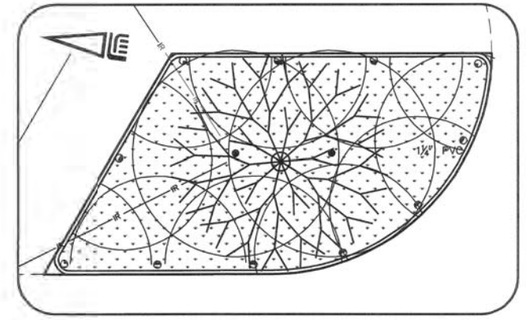
(11) IRRIGATION DETAIL
1"=10'

SYMBOL	NUMBER	DISCRIPTION	SERIES	MODEL	PSI	GPM	ARC DEG	RADIUS FT
●	1	HUNTER SPRINKER	5500	5512-36	30	2.1	360	10
⊖	8	HUNTER SPRINKER	5500	5512-18	30	1.2	180	10
◶	3	HUNTER SPRINKER	5500	5512-09	30	0.7	90	10



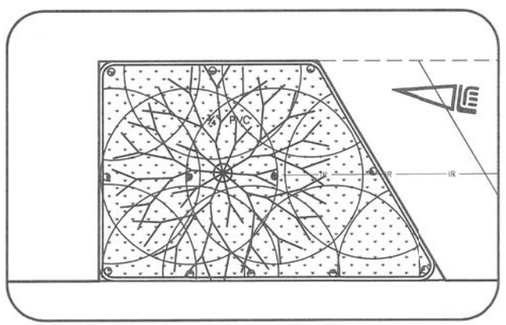
(12) IRRIGATION DETAIL
1"=10'

SYMBOL	NUMBER	DISCRIPTION	SERIES	MODEL	PSI	GPM	ARC DEG	RADIUS FT
●	3	HUNTER SPRINKER	5500	5515-36	30	3.0	360	12
⊖	8	HUNTER SPRINKER	5500	5515-18	30	1.8	180	12
◶	2	HUNTER SPRINKER	5500	5515-09	30	0.9	90	12



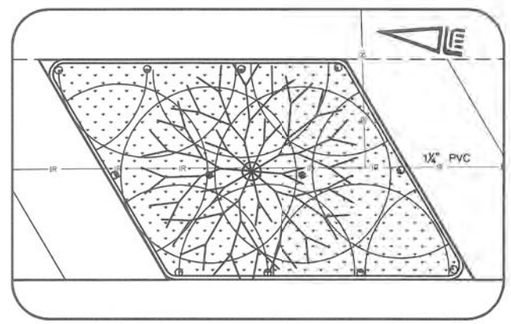
(13) IRRIGATION DETAIL
1"=10'

SYMBOL	NUMBER	DISCRIPTION	SERIES	MODEL	PSI	GPM	ARC DEG	RADIUS FT
●	3	HUNTER SPRINKER	5500	5515-36	30	3.0	360	12
⊖	8	HUNTER SPRINKER	5500	5515-18	30	1.8	180	12
◶	3	HUNTER SPRINKER	5500	5515-09	30	0.9	90	12



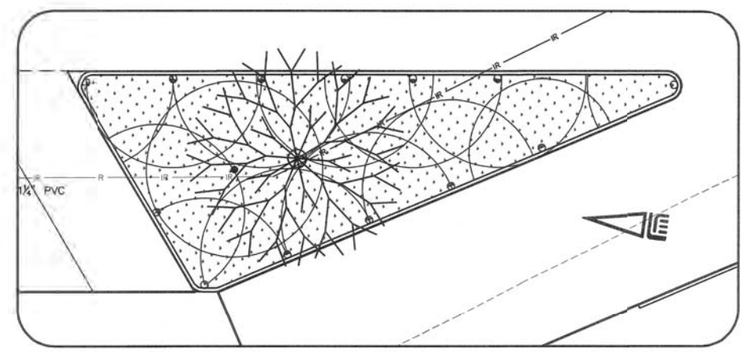
(14) IRRIGATION DETAIL
1"=10'

SYMBOL	NUMBER	DISCRIPTION	SERIES	MODEL	PSI	GPM	ARC DEG	RADIUS FT
●	2	HUNTER SPRINKER	5500	5515-36	30	3.0	360	12
⊖	6	HUNTER SPRINKER	5500	5515-18	30	1.8	180	12
◶	4	HUNTER SPRINKER	5500	5515-09	30	0.9	90	12



(15) IRRIGATION DETAIL
1"=10'

SYMBOL	NUMBER	DISCRIPTION	SERIES	MODEL	PSI	GPM	ARC DEG	RADIUS FT
●	3	HUNTER SPRINKER	5500	5515-36	30	3.0	360	12
⊖	8	HUNTER SPRINKER	5500	5515-18	30	1.8	180	12
◶	2	HUNTER SPRINKER	5500	5515-09	30	0.9	90	12



(16) IRRIGATION DETAIL
1"=10'

SYMBOL	NUMBER	DISCRIPTION	SERIES	MODEL	PSI	GPM	ARC DEG	RADIUS FT
●	1	HUNTER SPRINKER	5500	5515-36	30	3.0	360	12
⊖	10	HUNTER SPRINKER	5500	5515-18	30	1.8	180	12
◶	3	HUNTER SPRINKER	5500	5515-09	30	0.9	90	12

IRRIGATION NOTE:
ALTERNATE DESIGNS BY A LICENSED PROFESSIONAL MEETING THE CITY OF LEWISVILLE REQUIREMENTS MAY BE CONSIDERED. IF SUCH DESIGN IS APPROVED, IT MUST BE INCLUDED WITH THE CONTRACTOR MARKUPS FOR THE RECORD DRAWINGS.

RECORD DOCUMENTS
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FREEMAN-MILLICAN, INC.
BY: R. Dormier
DATE: 10/5/09

ENGINEERING SITE PLAN FOR
PARKING IMPROVEMENTS AND
GAS RECOVERY PLANT EXPANSION
DFW RECYCLING &
DISPOSAL FACILITY ADDITION
LOT 1, BLOCK A
15.00 ACRES
ZONING HI-SPECIFIC USE

No.	DATE	REVISION	BY
1	7/3/08	ADDRESS CITY'S COMMENTS	FMI

Freeman·Millican, Inc.
ENGINEERS - ARCHITECTS - PLANNERS
12225 GREEN VILLE AVE, SUITE 121 DALLAS, TX 75243 PH: 214.503.0566 TX ENG FIRM F-769 NO. 2007

WASTE MANAGEMENT
DFW FACILITY - PARKING IMPROVEMENTS ENGINEERING SITE PLAN
IRRIGATION PLAN - DETAILS
NORTH

RECORD DRAWINGS

STATE OF TEXAS
RICHARD A. DORMIER
50570
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY RICHARD A. DORMIER, P.E. NO. 50570 ON 10.05.2009

SCALE: 1"=10'
IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2 OF NOTED SCALE.

PROJECT No. 06139
DATE: OCT. 2009
DESIGNED: FMI
DRAWN: FMI
CHECKED: RAD

SHEET
L1.5
TOTAL SHEETS: 37

IRRIGATION NOTES:

1. THE IRRIGATION SYSTEM HAS BEEN DESIGNED TO OPERATE WITH A STATIC WATER PRESSURE OF 40 PSI (ROTORS) AND 20 PSI (DRIP IRRIGATION). NOTIFY THE ENGINEER PRIOR TO INSTALLATION IF FIELD CONDITIONS SUCH AS OBSTRUCTIONS OR GRADE DIFFERENCES ARE FOUND, OR WHERE DISCREPANCIES IN EQUIPMENT USAGE, AREA DIMENSIONS, OR STATIC WATER PRESSURE EXIST WHICH MAY AFFECT THE DESIGN. IF THE ENGINEER IS NOT NOTIFIED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NEEDED AT NO ADDITIONAL COST TO THE OWNER.

2. LOCATIONS OF EXISTING UTILITIES ARE NOT SHOWN ON THIS PLAN. CONTRACTOR IS RESPONSIBLE FOR CONTACTING UTILITY COMPANIES AS NEEDED TO LOCATE UTILITIES WHICH MAY CONFLICT WITH THE WORK.

3. HEAD LOCATIONS SHOWN ON THIS PLAN ARE APPROXIMATE. OBTAIN OWNER'S APPROVAL OF HEAD PLACEMENT PRIOR TO INSTALLATION. ADJUST HEADS AND NOZZLES TO PROVIDE 100% COVERAGE IN THE AREAS SHOWN. HEADS SHOWN ADJACENT TO CONCRETE PAVEMENT SHALL BE PLACED SIX INCHES FROM THE EDGE OF PAVEMENT.

4. PIPING ON THIS PLAN IS SHOWN IN DIAGRAMMATIC FORM. MINOR ADJUSTMENTS OF PIPE LOCATIONS TO AVOID CONFLICTS WITH EXISTING TREES OR OTHER SITE FEATURES ARE PERMITTED. DO NOT USE CROSS FITTINGS. OBTAIN ENGINEER'S APPROVAL FOR MAJOR REROUTING OF PIPE.

5. ALL MAINLINE PIPING SHALL BE BURIED WITH A MINIMUM 18" OF COVER. ALL LATERAL LINE PIPING DOWNSTREAM OF THE REMOTE CONTROL VALVES SHALL HAVE A MINIMUM COVER OF 12". INCREASE DEPTH OF BURIAL WHERE NECESSARY TO KEEP IRRIGATION LINES BELOW SITE ELECTRICAL CONDUIT OR WIRING.

6. UNLESS OTHERWISE INDICATED, PIPING TO A SINGLE SPRAY HEAD SHALL BE 3/4" PVC CL-200.

7. INSTALL RAIN AND FREEZE SENSORS PER MANUFACTURER'S INSTRUCTIONS WITH 3/4" RIGID CONDUIT FOR WIRING TO THE SPRINKLER CONTROLLER.

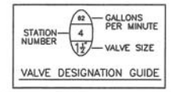
8. ALL WIRING FROM THE IRRIGATION CONTROLLER TO THE REMOTE CONTROL VALVES SHALL BE UF-14/1 DIRECT BURIAL CABLE. ALL WIRE SPLICES SHALL BE MADE IN VALVE BOXES ONLY, USING APPROVED CONNECTORS. INSTALL ADDITIONAL WIRES FROM THE CONTROLLER LOCATION TO THE AREAS NOTED ON THE PLAN.

9. PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, PROVIDE A RECORD DRAWING TO THE OWNER INDICATING "AS BUILT" CONDITIONS OF THE IRRIGATION SYSTEM. EXECUTE THIS DRAWING ON A MYLAR OR ELECTRONIC BASE MAP PROVIDED BY THE ARCHITECT. HARD COPY OF THE FINISHED RECORD DRAWING SHALL BE ON MYLAR MEDIA.

10. THE INSTALLED IRRIGATION SYSTEM SHALL CONFORM TO ALL APPLICABLE STATE AND LOCAL CODES AND REGULATIONS.

LANDSCAPE NOTES:

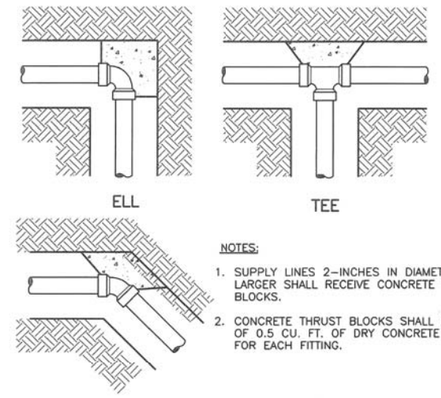
1. PLANT LOCATIONS
   REFER TO LANDSCAPE PLAN FOR PLANTING LOCATIONS OF SHRUBS AND TREES. SPECIFICATIONS.
2. COORDINATION
   LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUB-CONTRACTORS AS REQUIRED TO ACCOMPLISH ALL PLANTING OPERATIONS.
3. MAINTENANCE
   LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL SHRUB AND GROUND COVER AREAS IN A WEED AND DEBRIS FREE CONDITION UNTIL FINAL ACCEPTANCE.
4. BED AREAS
   ALL BED AREAS ARE TO BE LEFT 2" ABOVE FINISHED GRADE.
   ALL BED AREAS SHALL BE ROTOTILLED TO A DEPTH OF 6", ADD PREPARED SOIL MIXTURE, ROTOTILL, RAKE LEVEL, AND PLANT.
5. MULCH
   AFTER SETTLEMENT AND COMPACTION ALL PLANTING BEDS SHALL RECEIVE A MINIMUM 2" LAYER OF SHREDDED HARDWOOD MULCH.
6. PLANTING SOIL MIXTURE
   PLANTING SOIL MIXTURE TO BE AS FOLLOWS:
   SHRUBS AND GROUNDCOVER
   75% EXISTING SOIL
   25% BACK TO EARTH, VITA EARTH, OR
   10-15 LBS. FERTILIZER/C.Y. OR
   APPROVED EQUAL SOIL CONDITIONER
7. FERTILIZER
   AS RECOMMENDED
   APPLICATION RATE TO BE APPROVED BY ENGINEER FOR GROUND COVER, SHRUBS, AND TREES. REFER TO SPECIFICATIONS.
8. WARRANTY
   ALL PLANT MATERIAL, WITH THE EXCEPTION OF SEASONAL COLOR, TO BE GUARANTEED FOR A PERIOD OF ONE YEAR.
9. IRRIGATION
   ALL SEEDED AREAS TO BE WATERED BY AUTOMATIC IRRIGATION SYSTEM WITH 100% COVERAGE.
10. TOPSOIL
    TOPSOIL SHALL BE NATURAL, FERTILE, FRIABLE SOIL POSSESSING CHARACTERISTICS OF REPRESENTATIVE PRODUCTIVE SOILS IN THE VICINITY. IT SHALL NOT BE EXCESSIVELY ACID OR ALKALINE OR CONTAIN TOXIC SUBSTANCES WHICH MAY BE HARMFUL TO PLANT GROWTH. TOPSOIL SHALL BE WITHOUT ADMIXTURE OF SUBSOIL AND SHALL CONTAIN A MINIMUM OF LUMPS, STONE, STUMPS, ROOTS OF SIMILAR SUBSTANCES ONE INCH OR MORE IN DIAMETER. TOPSOIL SHALL BE FREE FROM WEEDS AND OTHER NOXIOUS MATERIALS. TOPSOIL SHALL NOT BE STRIPPED, COLLECTED OR DEPOSITED WHILE WET.
11. RYERSON STEEL EDGING
    LOCATE EDGING AS SHOWN ON PLANS AND ALONG ALL CURBS WHICH ARE ADJACENT TO BED AREAS. EDGING SHALL BE MANUFACTURED BY V.T. RYERSON, PAINTED GREEN-BLACK OR APPROVED EQUAL.
12. LAWN AREAS
    ALL IRRIGATED AREAS NOT IN TREES OR SHURBS SHALL BE COMMON BERMUDA GRASS.



IRRIGATION LEGEND

SYMBOLS	DESCRIPTION
⊗	GATE VALVE FOR MAINLINE ISOLATION (LINE SIZE)
———	CLASS 200 PVC PIPE
	BACKFLOW PREVENTION DEVICE (AS REQUIRED BY CODE AND/OR ORDINANCE AND FOR SAFETY)
Ⓒ	HUNTER CONTROLLER PSC-Z

NOTE: ALL BRAND NAMES SPECIFIED OR APPROVED EQUAL SHALL BE USED.

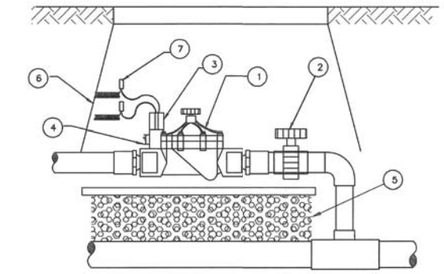


NOTES:

1. SUPPLY LINES 2-INCHES IN DIAMETER AND LARGER SHALL RECEIVE CONCRETE THRUST BLOCKS.
2. CONCRETE THRUST BLOCKS SHALL CONSIST OF 0.5 CU. FT. OF DRY CONCRETE MIX FOR EACH FITTING.

THIS DETAIL APPLIES TO IRRIGATION SYSTEM ONLY.

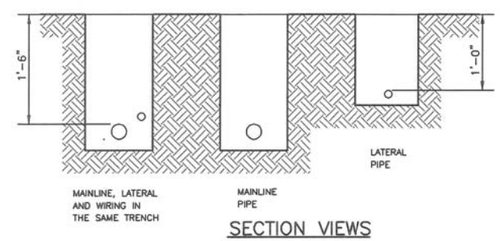
1 THRUST BLOCKING
NO SCALE



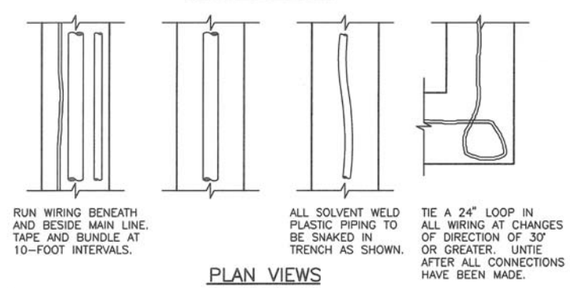
NO SCALE

1. REMOTE CONTROL VALVE
2. UNION BALL VALVE
3. SOLENOID
4. MANUAL BLEED LEVER
5. 3/4 INCH GRAVEL SUPPORT (3" MIN. DEPTH)
6. RECTANGULAR VALVE BOX
7. EXPANSION COIL AND WATERPROOF CONNECTOR

2 REMOTE CONTROL VALVE
NO SCALE



SECTION VIEWS

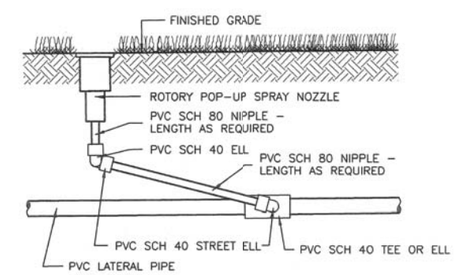


PLAN VIEWS

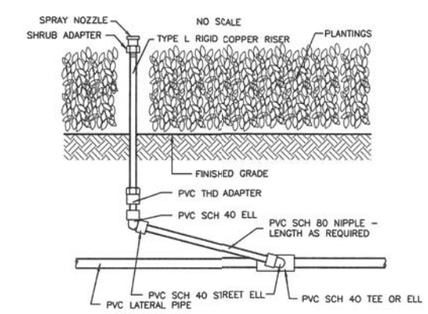
NOTES:

1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH CLASS 200 PVC TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.
2. FOR PIPE AND WIRE BURIAL DEPTHS SEE SPECIFICATIONS.

4 IRRIGATION SYSTEM
NO SCALE



3 ROTARY POP-UP INSTALLATION DETAIL
NO SCALE



NO SCALE

5 SHRUB SPRAY NOZZLE INSTALLATION
NO SCALE

RECORD DOCUMENTS
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FREEMAN-MILLICAN, INC.
BY: _____
DATE: 10/5/09

ENGINEERING SITE PLAN FOR
PARKING IMPROVEMENTS AND
GAS RECOVERY PLANT EXPANSION
DFW RECYCLING &
DISPOSAL FACILITY ADDITION
LOT 1, BLOCK A
15.00 ACRES
ZONING HI-SPECIFIC USE

No.	DATE	REVISION	BY

Freeman-Millican, Inc.
ENGINEERS - ARCHITECTS - PLANNERS
10225 GREENVILLE AVE, SUITE 121 DALLAS, TX 75243 PH 214.503.0866 TX ENGR FIRM F850 NO. 3837

WASTE MANAGEMENT
DFW FACILITY - PARKING IMPROVEMENTS ENGINEERING SITE PLAN

LANDSCAPE DETAILS

RECORD DRAWINGS

STATE OF TEXAS
RICHARD A. DORMIER
50570
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY RICHARD A. DORMIER, P.E. NO. 50570 ON 10.05.2009

SCALE:
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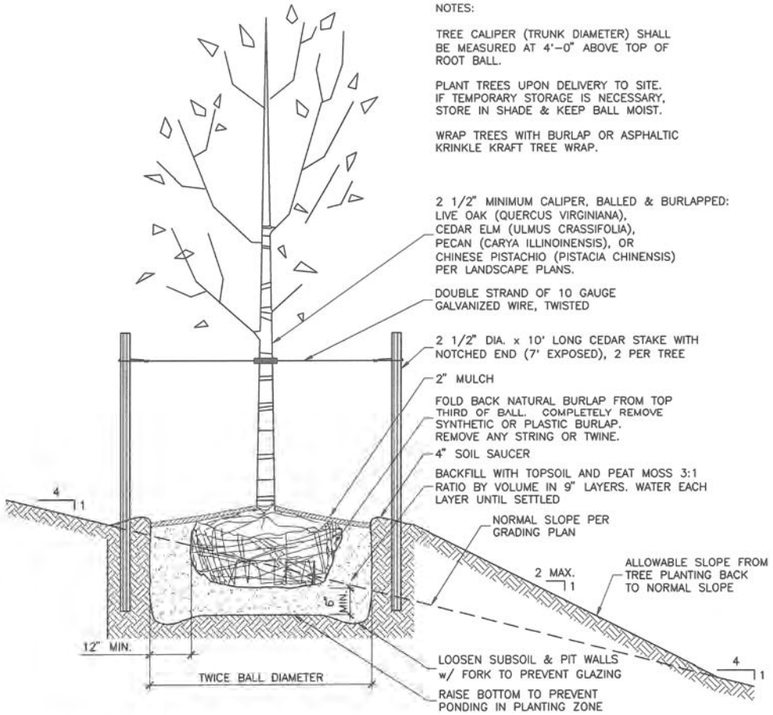
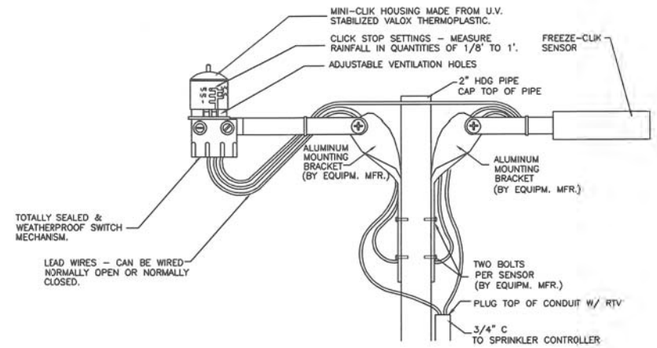
PROJECT No. 06139
DATE: OCT. 2009
DESIGNED: FMI
DRAWN: FMI
CHECKED: RAD

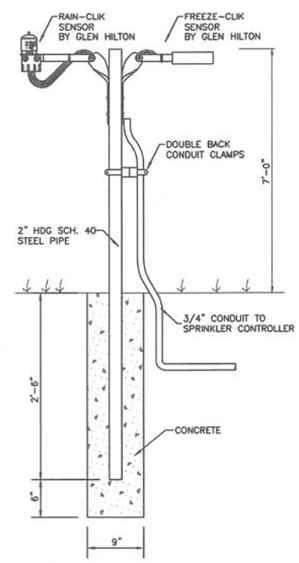
SHEET
L2.1
TOTAL SHEETS: 37



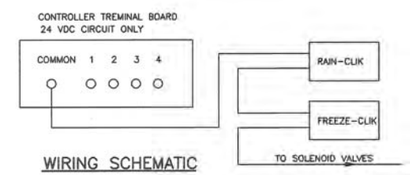
1 TREE PLANTING DETAIL
NO SCALE



2 FREEZE-CLIK & RAIN-CLIK SENSORS
NO SCALE



3 SENSOR MOUNTING DETAIL
NO SCALE



WIRING SCHEMATIC

CITY OF LEWISVILLE
GENERAL DEVELOPMENT ORDINANCE

Sec. 6-123. MULTI-FAMILY AND NON-RESIDENTIAL LANDSCAPING REQUIREMENTS.

(a) These standards shall apply to all commercial, industrial and multi-family zoning districts and to all non-residential uses allowed in single family detached and attached residential districts. These standards may be met by saving existing trees on the site or planting new trees from the approved list.

(b) A landscaped strip shall be provided adjacent to all public and private streets. The landscaped strip shall be a minimum of ten (10) feet, exclusive of street right-of-way. Within the landscaped strip, one (1) shade tree (2.5" caliper minimum) shall be provided per every five hundred (500) square feet, or any portion thereof, of landscaped strip. These trees shall be generally evenly spaced along the street frontage and shall not be clumped. All privacy and security fences must be placed beyond the required landscape strip.

(c) Where parking lots and drives abut the landscape strip along a street right-of-way, evergreen shrubs must be provided for screening. The shrubs must be a minimum of two (2) feet in height and planted according to the spacing shown below. The screening must extend along the entire street frontage of the parking lot, exclusive of driveways and visibility clips. A landscape berm may be provided in lieu of required shrubs. The berm must be a minimum of 36 inches above the average grade of the street and parking lot curbs with a slope not to exceed 3:1. If a parking lot is located a minimum of 50 feet from the street right-of-way line, no shrubs or berm will be required.

(1) *Recommended Shrubbery List:*

Botanical Name	Common Name	Spacing
Berberis thunbergi	Barberry, Red	Spacing 2' - 3'
Ilex cornuta 'Burfordii Nana'	Dwarf Burford Holly	Spacing 2' - 3'
Elaeagnus macrophylla	Elaeagnus, Silverberry (Ebbenji')	Spacing 3' - 4'
Myrica pusilla	Myrtle, Dwarf Wax	Spacing 2' - 3'
Rhapiolepis indica	Indian Hawthorn	Spacing 2' - 3'
Juniperus sabina 'Tamariscifolia'	Tam Juniper	Spacing 3'

Other varieties complying with height and spacing requirements may be acceptable when approved by the City of Lewisville.

(d) Interior parking areas shall be landscaped in addition to the required landscaped strip. Trees must be provided in each parking lot spaced at a ratio of one (1) shade tree (2.5" inch caliper minimum) for each fifteen (15) parking spaces provided; or any fraction thereof. These trees must be spaced a maximum of 15 parking spaces apart. In the case of mini warehouses, such parking spaces shall be determined by the number of parallel parking spaces contained in the required loading and unloading lanes. Additionally, interior parking lot landscaping shall be provided in accordance with the following table. Interior landscaping for mini warehouse parking may be planted on the interior or the perimeter of the property.

Total Parking Area	Interior Landscape Area
0 - 24,999 square feet	5%
25,000 - 49,999 square feet	8%
50,000 square feet and larger	10%

(e) Except for customer and employee parking, parking lot landscape requirements do not apply to storage or standing parking spaces incidental to uses, such as sales and rental of motor vehicles, mobile homes, boats, trailers or other similar uses.

(f) To calculate the total parking area and the subsequent percentage of required interior lot landscaping, total the square footage of parking spaces, planting islands, curbed areas and all interior driveways and aisles except those with no parking spaces located on either side. Landscaped areas located outside the parking lot may not be used to meet the interior landscaping requirement.

(g) The required landscaping for parking lots shall be more or less evenly distributed throughout the parking lot, although adjustments may be approved by the Community Development Department where the shape or size of the parking lot, the location of existing trees or other natural constraints reasonably prevent such distribution.

(h) All landscaped areas, including the permeable areas and drip lines around trees and planting beds used for visual screening which abut any parking lot or vehicular travel area, shall be protected with curbs, parking blocks or similar barriers sufficient to protect them from vehicular intrusion.

(i) An automatic irrigation system is required for all landscaping. Water conservation is encouraged.

RECORD DOCUMENTS
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FREEMAN-MILLICAN, INC.
BY: _____
DATE: 10/5/09

ENGINEERING SITE PLAN FOR
PARKING IMPROVEMENTS AND
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DFW RECYCLING &
DISPOSAL FACILITY ADDITION
LOT 1, BLOCK A
15.00 ACRES
ZONING HI-SPECIFIC USE

No.	DATE	REVISION	BY
1	7/3/08	ADDRESS CITY'S COMMENTS	FMI

Freeman-Millican, inc.
ENGINEERS - ARCHITECTS - PLANNERS
1020 GREENVILLE AVE, SUITE 121 DALLAS TX 75243 PH.214.503.0566 TX ENG FIRM REG NO. 2087

WASTE MANAGEMENT
DFW FACILITY - PARKING IMPROVEMENTS ENGINEERING SITE PLAN
LANDSCAPE DETAILS

RECORD DRAWINGS

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PROJECT No. 06139
DATE: OCT. 2009
DESIGNED: FMI
DRAWN: FMI
CHECKED: RAD

SHEET
L2.2
TOTAL SHEETS: 37

MEMORANDUM

TO: Donna Barron, City Manager

FROM: Richard E. Luedke, Planning Director

DATE: November 20, 2017

SUBJECT: **Public Hearing: Consideration of an Ordinance Granting a Zone Change From Light Industrial District (LI) to Planned Development – Estate Townhouse District (PD-ETH) and Three Associated Variances for a Proposed Residential Development Consisting of 38 Single-Family Detached Units and Two Open Space Lots; on an Approximately 6.762-Acre Tract of Land out of the Frances Pearce Survey, Abstract No. 1016, Located on the East Side of Archer Way, Approximately 430 Feet North of Justin Road (FM 407); as Requested by Dale Ridinger, of Ridinger Associates, Inc., on Behalf of Unicla of America, Inc. the Property Owner (Case No. PZ-2017-10-20).**

BACKGROUND

The Planned Development (PD) District allows for innovative community design concepts which may not meet all regulations of the City's standard zoning categories, but ensures a high quality development with enhanced amenities and a customized design tailored for a particular site. The property for the proposed PD is currently zoned Light Industrial (LI). The property is situated east of Archer Way and Moccasin Trial and is bounded by Townhouse (TH) zoning to the north and west; Estate Townhouse (ETH) zoning to the east; and Light Industrial (LI) zoning to the south. The Planning and Zoning Commission recommended unanimous approval (7-0) of the zone change request on October 17, 2017.

ANALYSIS

The proposed PD will have a base zoning of Estate Townhouse (ETH). The concept plan outlines a one-phased development with 38 single-family detached lots that are a front-entry product. The residential lots will have a minimum lot width of 20 feet with a minimum lot size of 4,000 square-feet. 10% of the development will have a minimum dwelling size of 1,550 square feet; 35% will have a minimum of 1,750 square feet; and 55% will have a minimum of 1,950 square feet. The houses will have a maximum height of 35 feet and lot coverage shall not exceed 80%. The aggregate total of all exterior elevations will be 80% brick veneer, excluding doors, windows, trim and other architectural features. No single elevation will be less than 60% brick veneer.

Screening
A six-foot masonry fence will be built adjacent to the commercial properties located to the south of the development. All the homes will have a stained wood fence with metal posts.

Landscaping
A minimum of one shade tree per lot will be provided for this development. The development will also include two open space lots with enhanced landscaping. The open space lot on the northeast

side of the development will function as a private pocket-park and will feature benches near the proposed cluster mailbox. A home owners association will maintain all the open space lots.

The following three variances are associated with this development:

a) to allow front entry driveways:

Section 6-92(k) of the General Development Ordinance requires alleys for all single family residential subdivisions. The developer is requesting to have 38 units with garages that front directly to a residential street without an alley. The irregular shape of the property limits the development potential for the property. Waving the alley requirements, and allowing a front entry product allows an efficient layout for the development. The surrounding developments, Hunters Glenn to the North and West, and Verona to the east, also feature a front entry product. This variance would allow Archer Way to extend consistent through surrounding residential developments. Staff has no objection to the waiver of the alley requirement and allowing front entry.

b) to allow non-radial lot lines along street curves:

Section 6-94 (a) of the General Development Ordinance requires that side lines of lots shall be approximately at right angles to straight street lines and radial to curved street lines, except for single-family attached townhouse developments (three (3) units or more attached). This variance request applies Lots 15 and 16, Block A on the northeast end of the development; and Lots 4-9, Block C, located at the south end of the development, which dead ends into a cul-de-sac. The southern section of the property features a drainage area on the eastern portion and lacks adequate depth for typical cul-de-sac lot layout. The applicant has provided an efficient layout on the irregular-shaped property. Staff has no objection to this variance request.

c) To allow a reduced lot width and reduced control of access for a single-family lot

Section 6-94 (e), of the General Development Ordinance requires corner lots for single family front entry developments to have a 75-foot lot width with a 50-foot control of access when located at the intersection of a collector street. The proposed development will have five lots adjacent to Moccasin Trail that will not meet the required lot width or control of access. The lot widths range from a frontage of 42 feet to 56 feet and a control of access of 17 feet to 31 feet. Moccasin Trail is classified as a collector street but is not expected to experience the same traffic volume as a typical collector street once constructed with the proposed development. Staff recommends approval of this variance request as the subdivision is small with two connections to Moccasin Trail, thus, it is not expected to have significant queuing at the entrances.

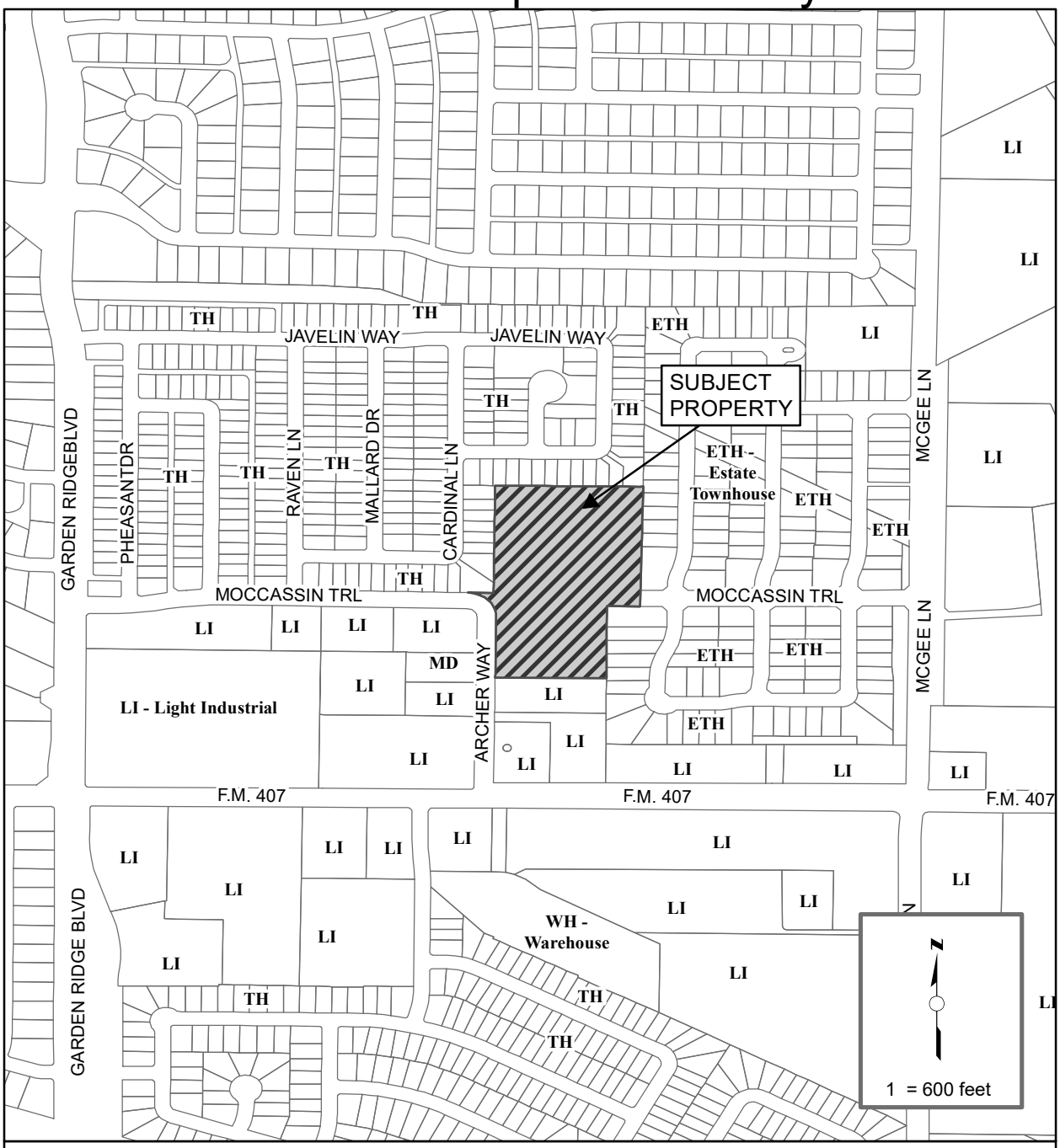
The purpose of the Planned Development District is to accommodate innovative design concepts and provide flexibility in order to achieve a more desirable development. The proposed development features a front-entry product with enhanced building materials and landscaped open

spaces on an infill property surrounded by established neighborhoods in accordance with Big Move #5, "New Housing Choices" of the Lewisville 2025 Vision Plan.

RECOMMENDATION

It is City staff's recommendation that City Council approve the proposed ordinance and associated variances as set forth in the caption above.

Location Map - Archer Way



CASE NO. PZ-2017-10-20

PROPERTY OWNER: UNICLA OF AMERICA, INC

APPLICANT NAME: DALE RIDINGER, RIDINGER ASSOCIATES, INC.

PROPERTY LOCATION: EAST SIDE OF ARCHER WAY, APPROXIMATELY 430 FEET NORTH OF JUSTIN ROAD (6.762 ACRES)

CURRENT ZONING: LIGHT INDUSTRIAL DISTRICT (LI)

REQUESTED ZONING: PLANNED DEVELOPMENT- ESTATE TOWNHOUSE DISTRICT (PD-ETH)

Aerial Map - Archer Way

MINUTES
PLANNING AND ZONING COMMISSION
OCTOBER 17, 2017

Item 1:

The Lewisville Planning and Zoning Commission meeting was called to order at 6:30 pm. Members present: William Meredith, John Lyng, MaryEllen Miksa, Kristin Green, Alvin Turner, Karen Locke and James Davis.

Staff members present: Richard Luedke, Planning Director; June Sin, Planner; Jonathan Beckham, Planner.

Item 6:

Public Hearing Zoning & Special Use Permits were next on the agenda. There were five items for consideration:

E. **Public Hearing:** Consideration of a Zone Change Request From Light Industrial District (LI) to Planned Development – Estate Townhouse District (PD-ETH) for a Proposed Residential Development Consisting of 38 Single-Family Detached Units and Two Open Space Lots; on an Approximately 6.762-Acre Tract of Land out of the Frances Pearce Survey, Abstract No. 1016, Located on the East Side of Archer Way, Approximately 430 Feet North of Justin Road (FM 407); as Requested by Dale Ridinger, of Ridinger Associates, Inc., on Behalf of Unicla of America, Inc. the Property Owner. (Case No. PZ-2017-10-20)

Staff gave a brief overview of the proposed zone change request and recommended approval. Dale Ridinger, the applicant, gave a brief presentation of the proposed development and was available to answer questions. Chairman Green then opened the public hearing, and with no one coming forward to speak, the public hearing was then closed. *A motion was made by James Davis to recommend approval of the zone change request, which was seconded by Karen Locke. The motion passed unanimously (7-0).* Staff indicated that the item would be considered by the City Council on November 20th for a second public hearing and a final decision.

SECTION 17-23. - "LI" LIGHT INDUSTRIAL DISTRICT REGULATIONS

(a) *Use*. Buildings and premises may be used for retail, wholesale, office and service uses and campus style light manufacturing and industrial uses provided there is no dust, fumes, gas, noxious odor, smoke, glare, or other atmospheric influence beyond the boundaries of the property on which such use is located, and which produces no noise exceeding in intensity at the boundary of the property the average intensity of noise of street traffic at that point, and no more than ten percent (10%) of the total lot is used for outside storage, and further provided that such use does not create fire or explosive hazards on adjacent property.

(1) Any use permitted in districts "LC" and "GB" as regulated in said districts.
(2) Apparel and other products assembled from finished textiles.
(3) Bottling works.
(4) Warehouse distribution facilities.
(5) Airport/Heliport (SUP required).
(6) Auto repair shops including body shops (SUP required).
(7) Church worship facilities.
(8) Buildings and uses owned or operated by public governmental agencies.
(9) Cemetery, mausoleum, crematorium & accessory uses (SUP required).
(10) Cosmetic manufacturer.
(11) Drugs and pharmaceutical products manufacturing.
(12) Private Utility Plants or Sub-stations (including alternative energy) (SUP required).
(13) Electronic products manufacturing.
(14) Fur good manufacture, but not including tanning or dyeing (SUP required).
(15) Gas and oil drilling accessory uses (SUP required).
(16) Glass products, from previously manufactured glass.
(17) Heavy equipment – outdoor rental/sales/display/service (SUP required).
(18) Household appliance products assembly and manufacture from prefabricated parts.
(19) Industrial and manufacturing plants including the processing or assembling of parts for production of finished equipment.
(20) Musical instruments assembly and manufacture.
(21) Paint, shellac and varnish manufacture (SUP required).
(22) Plastic products manufacture, but not including the processing of raw materials.
(23) Racing facilities (SUP required).
(24) Recreational Vehicle (RV) Park. (Private) (SUP required).
(25) Self storage/mini warehouse facility (SUP required).
(26) Shooting Range (indoor or outdoor) (SUP required.).
(27) Sporting and athletic equipment manufacture.
(28) Testing and research laboratories.
(29) Auction yard (vehicle) (SUP required).
(30) Communication towers (SUP required).
(31) Temporary buildings for uses incidental to construction work on the premises, which buildings shall be removed upon the completion or abandonment of construction work.
(32) Accessory buildings and uses customarily incidental to any of the above uses, provided that such not be objectionable because of odor, smoke, noise, vibration or similar nuisance. Open storage shall be considered an accessory use but no more than ten percent (10%) of the platted lot may be used for outside storage, including access and maneuvering areas for moving the stored items.
(33) Cemetery, columbarium, mausoleum and accessory uses (SUP required).
(34) Other uses similar to the above listed uses are allowed by special use permit (SUP) only, except that the following uses are specifically prohibited:
    a. Acetylene gas manufacture or storage.
    b. Acid manufacture.
    c. Alcohol manufacture.
    d. Ammonia, bleaching powder or chlorine manufacture.
    e. Arsenal.
    f. Asphalt manufacture or refining.
    g. Blast furnace.
    h. Bag cleaning, unless clearly accessory to the manufacture of bags.

i. Boiler works.
j. Brick, tile, pottery or terra cotta manufacture other than the manufacture of handcraft or concrete products.
k. Reserved.
l. Celluloid manufacture or treatment.
m. Cement, lime, gypsum, or plaster of paris manufacture.
n. Central mixing plant for cement.
o. Coke ovens.
p. Cotton gins.
q. Cottonseed oil manufacture.
r. Creosote manufacture or treatment.
s. Disinfectants manufacture.
t. Distillation of bones, coal or wood.
u. Dyestuff manufacture.
v. Exterminator and insect poison manufacture.
w. Emery cloth and sandpaper manufacture.
x. Explosives or fireworks manufacture or storage.
y. Fat rendering.
z. Fertilizer manufacture.
aa. Fish smoking and curing.
bb. Forge plant.
cc. Garbage, offal or dead animals reduction or dumping.
dd. Gas manufacture or storage, for heating or illuminating purposes.
ee. Glue, size or gelatine manufacture.
ff. Hatchery.
gg. Iron, steel, brass or copper foundry or fabrication plant.
hh. Junk, iron or rag storage or baling.
ii. Match manufacture.
jj. Lampblack manufacture.
kk. Oilcloth or linoleum manufacture.
ll. Oiled rubber goods manufacture.
mm. Ore reduction.
nn. Oil or turpentine manufacture.
oo. Paper and pulp manufacture.
pp. Petroleum or its products, refining or wholesale storage of.
qq. Pickle manufacturing.
rr. Planing mills.
ss. Potash works.
tt. Pyroxline manufacture.
uu. Rock crusher.
vv. Rolling mill.
ww. Rubber or gutta-percha manufacture or treatment but not the making of articles out of rubber.
xx. Sauerkraut manufacture.
yy. Salt works.
zz. Shoe polish manufacture.
aaa. Smelting of tin, copper, zinc, or iron ores.
bbb. Soap manufacture other than liquid soap.
ccc. Soda and compound manufacture.
ddd. Stock yard or slaughter of animals or fowls.
eee. Stone mill or quarry.
fff. Storage yard.
ggg. Stove polish manufacture.
hhh. Tallow grease or lard manufacture or refining from or of animal fat.
iii. Tanning, curing or storage of raw hides or skins.
jjj. Tar distillation or manufacture.
kkk. Tar roofing or water-proofing manufacture.
lll. Tobacco (chewing) manufacture or treatment.
mmm. Vinegar manufacture.

nnn. Wool pulling or scouring.
ooo. Yeast plant.

(b) *Height*. No building shall exceed in height the width of the street right-of-way on which it faces plus the depth of the front yard. In no event, however, shall the portion of a building located within one hundred fifty (150) feet of any property zoned for residential purposes exceed the height allowed in that residential zoning district.

(c) *Area*.

(1) *Size of yards*.

a. *Front yard*. There shall be a front yard having a minimum depth of twenty-five (25) feet. No parking, storage or similar use shall be allowed in required front yards in district "LI", except that automobile parking (including automobile dealer display parking) will be permitted in such yards if separated by at least twenty-five (25) feet from any residential district.

b. *Side yard*. A side yard of not less than fifteen (15) feet in width shall be provided on the side of a lot adjoining a side street. A side yard of not less than ten (10) feet in width shall be provided on the side of a lot adjoining a residential district. The required side yard shall be waived when a screening device is installed in accordance with the city's general development ordinance. The building itself can serve as a portion of the screening device when that portion of the building exterior is constructed of the same materials as the screening device. No parking, storage or similar use shall be allowed in any required side yard or in any side street yard adjoining a residential district.

c. *Rear yard.* No rear yard is required except that a rear yard of not less than fifty (50) feet in depth shall be provided upon that portion of a lot abutting or across a rear street from a residential district, except that such yard requirement shall not apply where the property in the residential district also backs up to the rear street. No parking, storage or similar use shall be allowed in required rear yards in district "LI" within twenty-five (25) feet of the rear property line.

(2) *Reserved*.

(d) *Outside storage regulations*. In all zoning districts where outside storage yards are allowed, such storage yards shall be screened from view in accordance with the standards outlined in the city's general development ordinance. This provision applies to all outside storage which began after the original date of passage of this provision (April 4, 1994). Any variance request involving the requirements or standards relating to such required screening devices shall be considered by the city council in accordance with the city's general development ordinance. Areas which are used for infrequent and temporary storage for a period of thirty (30) days or less per year shall not be deemed as "storage yards".

SECTION 17-13.5. - "ETH" ESTATE TOWNHOUSE RESIDENTIAL DISTRICT REGULATIONS

(a) *Use*. A building or premise shall be used only for the following purposes:

(1) Single-family detached or attached dwellings units, provided that no more than nine (9) dwelling units are attached in one continuous row or group, and provided that no dwelling unit is constructed above another dwelling unit.
(2) Church worship facilities.
(3) Buildings and uses owned or operated by public governmental agencies.
(4) Real estate sales offices during the development of residential subdivisions, but not to exceed two (2) years.
(5) Temporary buildings for uses incidental to construction work on the premises, which buildings shall be removed upon the completion or abandonment of construction work.
(6) Accessory buildings and uses, customarily incidental to the above uses and located on the same lot therewith, not involving the conduct of a retail business except as provided herein and for home occupations as defined by this chapter. Accessory building use includes a detached garage, storeroom, utility room, cabana, or similar use.
(7) A carport shall be permitted if it meets all requirements of a residential accessory building.
(8) Private Utility Plants or Sub-stations (including alternative energy) (SUP required).
(9) Gas and oil drilling accessory uses (SUP required).
(10) Cemetery, columbarium, mausoleum and accessory uses (SUP required).

(b) *Height*. No building shall exceed thirty-five (35) feet or two and one-half (2-1/2) stories in height.

(c) *Area*.

(1) *Size of yards.*

a. *Front yard.* There shall be a front yard having a depth of not less than five (5) feet. If the garage or carport entry is from the front and the entry side of the garage or carport faces the street, the garage or carport must be set back twenty (20) feet.

b. *Side yard.* No side yard setback is required, except a five (5) foot setback is required adjacent to a side street.

c. *Rear yard.* No rear yard setback is required. If the garage or carport entry is from the alley and the entry side of the garage or carport faces the alley, the garage or carport must be set back a minimum of twenty (20) feet.

(2) *Size of lot.*

a. *Lot area*. No building shall be constructed on any lot of less than four thousand (4,000) square feet.

b. *Lot width*. The minimum width of the lot shall not be less than twenty (20) feet at any point.

(3) *Minimum dwelling size*. The minimum floor area of any dwelling shall be two thousand (2,000) square feet, exclusive of garages, breezeways and porches.

(4) *Lot coverage.* In no case shall more than eighty percent (80%) of the total lot area be covered by the combined area of the main buildings and accessory buildings.

SECTION 17-26. – "PD" Planned Development District

(a) *General Purpose and Description.* The Planned Development District is a district which accommodates planned associations of uses developed as integral land use units such as industrial districts, offices, commercial or service centers, shopping centers, residential developments of multiple or mixed housing including attached single-family dwellings or any appropriate combination of uses which may be planned, developed, or operated as integral land use units either by a single owner or a combination of owners. A Planned Development (PD) District may be used to permit new or innovative concepts in land utilization not permitted by other zoning districts in this Ordinance. While greater flexibility is given to allow special conditions or restrictions, which would not otherwise allow the development to occur, procedures are established herein to ensure against misuse of increased flexibility. The minimum area for a Planned Development (PD) District shall be five (5) acres.

(b) *Permitted Uses.* An application for a PD District shall specify the base district(s), the use or the combination of uses proposed. Uses which may be permitted in a PD must be specified if not permitted in the base district. In the case of residential PD districts for single-family or duplex categories, the proposed lot area shall be no smaller than the lot sizes allowed in the base zoning district except for minor reductions in a small percentage of the lots in order to provide improved design. In selecting a base zoning district, the uses allowed in the base district must be similar or compatible with those allowed in the PD. PD designations shall not be attached to Special Use Permit (SUP) requirements. Special Use Permits allowed in a base zoning district are allowed in a PD only if specifically identified at the time of PD approval.

(c) *Planned Development Requirements*.

(1) Development requirements for each separate PD District shall be set forth in the amending Ordinance granting the PD District and shall include, but may not be limited to: uses, density, lot area, lot width, lot depth, yard depths and widths, building height, building elevations, building material coverage, floor area ratio, parking, access, screening, landscaping, accessory buildings, signs, lighting, hours of operation, project phasing or scheduling, management associations, and other requirements as the City Council and Planning and Zoning Commission may deem appropriate.

(2) In the PD District, uses shall conform to the standards and regulations of the base-zoning district to which it is most similar. The base zoning district shall be stated in the granting Ordinance. All applications to the City shall list all requested deviations from the standard requirements set forth throughout this Ordinance (applications without this list will be considered incomplete) specifically any deviation not requested is deemed to comply with this Ordinance even if shown graphically on a Site Plan. The Planned Development District shall conform to all other sections of this Ordinance unless specifically excluded in the granting Ordinance.

(3) The Ordinance granting a PD District shall include a statement as to the purpose and intent of the PD granted therein. A specific list is required of modifications in each district or districts and general statement citing the reason for the PD request.

(d) In establishing a Planned Development District in accordance with this section, the City Council shall approve and file as part of the amending Ordinance appropriate plans and standards for each Planned Development District. To facilitate understanding of the request during the review and public hearing process, the Planning and Zoning Commission and City Council shall require a Concept Plan. All PD applications shall have a written proposal explaining all aspects of the requested PD including any deviations from this Ordinance. The Concept Plan shall be submitted by the applicant at the time of the PD request. The plan shall show the applicant's intent for the use of the land within the proposed Planned Development District in a graphic manner and as may be required, supported by written documentation of proposals and standards for development. The City may prepare application form(s), which further describe and explain the following requirements:

(1) Residential Concept Plan - A Concept Plan for residential land use shall show the following:

a. General use
b. Thoroughfares
c. Preliminary lot arrangements
d. Size, type and location of buildings and building sites
e. Access
f. Density
g. Building height
h. Fire lanes
i. Screening
j. Landscaped areas
k. Project scheduling and phasing
l. Any other pertinent development data

(2) Non-Residential Concept Plan - A Concept Plan for uses other than residential uses shall set forth the land use proposals in a manner to adequately illustrate the type and nature of the proposed development. Data which may be submitted by the applicant, or required by the City staff, Planning and Zoning Commission, or City Council, may include but is not limited to the following:

a. Types of use(s)
b. Topography and boundary of PD area
c. Physical features of the site
d. Existing streets, alleys and easements
e. Location of future public facilities
f. Building height and location
g. Parking areas and ratios
h. Fire lanes
i. Project scheduling and phasing
j. Landscape plans
k. Screening
l. Building elevations
m. Any other information to adequately describe the proposed development and to provide data for approval which is to be used in drafting the required Engineering Site Plan.

(e) *Approval Process and Procedure*. The procedure for establishing a Planned Development District shall follow the procedure for zoning amendments as set forth in Section 17-37. This procedure is further expanded as follows for approval of Concept Plans.

(1) The Planning and Zoning Commission shall recommend and the City Council shall approve a Concept Plan in public hearings. One public hearing at the Planning and Zoning Commission and one at the City Council for the PD request is adequate when:

a. Information on the Concept Plan and attached application is sufficient to determine the appropriate use of the land and the required Engineering Site Plan and/or preliminary/final plat will not deviate substantially from it; or

b. The applicant submits adequate data with the request for the Planned Development District to fulfill the requirement for an Engineering Site Plan and/or preliminary/final plat.

(2) The amending Ordinance establishing the Planned Development District shall not be approved until the Concept Plan is approved.

(3) An Engineering Site Plan shall be submitted for approval within one (1) year from the date of approval of the Concept Plan for all or some portion of the Concept Plan. If an Engineering Site Plan is not submitted within one (1) year, the Concept Plan is subject to

review by the Planning and Zoning Commission and City Council. If some portion of the project is not started within two (2) years, the Planning and Zoning Commission and City Council may review the original Concept Plan to ensure its continued validity. If the City determines the Concept Plan is not valid, a new Concept Plan must be approved prior to submittal of an Engineering Site Plan for the PD District. Although a new Concept Plan may be required to be approved, this does not affect the validity of the PD in terms of uses, density, and other development standards permitted in the PD.

(4) When a PD District is being considered, a written report from the Director of Economic Development and Planning or his/her designated representative, discussing the impact on planning, engineering, water utilities, electric, sanitation, building inspection, tax, police, fire, and traffic, and written comments from the applicable public agencies shall be submitted to the Planning and Zoning Commission prior to the Commission making any recommendations to the City Council.

(f) All Planned Development Districts approved in accordance with the provisions of this Ordinance in its original form, or by subsequent amendments thereto, shall be referenced on the Zoning District Map, and a list of such Planned Development Districts together with the category of uses permitted therein, shall be maintained as part of this Ordinance.

(g) *Planned Unit Development Ordinances Continued*. Prior to adoption of this Ordinance, the City Council has established various Planned Unit Development Districts, all of which are to be continued in full force and effect. The ordinances or parts of ordinances approved prior to this Ordinance shall be carried forth in full force and effect as are the conditions, restrictions, regulations, and requirements which apply to the respective Planned Unit Development Districts shown on the Zoning Map at the date of adoption of this Ordinance.

This section (office use only)	
Case:	
PZ:	CC:
Sign/s Picked Up By:	

LEWISVILLE
Deep Roots. Broad Wings. Bright Future.

ZONE CHANGE APPLICATION

Owner's Name:	UNICLA OF AMERICA, INC.
Owner's Title:	
Mailing Address:	C/O Philip Hellich, CPA 3818 Vineccest Dr., Dallas, TX 75229-3931
Acres:	Zip:
E-Mail:	
Owner's Signature (Required):	Date:
Printed Name:	

Applicant/Agent Name:	Dale Ridinger
Company Name:	Ridinger Associates, Inc.
Mailing Address:	880 S. Edmonds Lane, Suite 101, Lewisville, TX 75067
Phone:	972-353-5000 Zip:
E-Mail:	dridinger@ridingerassociates.com
Applicant/Agent Signature:	Date: 2/14/17
Printed Name:	Dale Ridinger

Current Zoning: "LI" Light Industrial **Requested Zoning:** PD with "ETH" base zoning **Acres:** 6.762

Legal Description (Lot/ Block/Tract/Abstract): A1016 F.PEARCE, TR 30, ACRES 6.77

Address/Location: ARCHER WAY 4TH LOT NORTH OF FM 407AT MOCASSIN TRL. AND ARCHER WAY INTERSECTION

Application and Sign Fees:

	Less than 1/2 acre	$ 150.00
	1/2 acre up to 4.99 acres	$ 250.00
X	5 acres up to 24.99 acres	$ 400.00

	25 acres up to 49.99 acres	$ 750.00
	50 acres up to 99.99 acres	$1,000.00
	100 acres and more	$1,500.00

Qty: 2	Zone Change Signs - $35 each 1 sign required for each 5 acres (max. 5 per site)	$ 70.00

Sign(s) must be posted a minimum of ten (10) days prior to the Planning & Zoning hearing date.

Amount Due (application & sign fee)	$ 470.00

To: Planning Staff
City of Lewisville, Texas 75057

We seek to submit several submittals for a proposed subdivision generally located on Archer Road, north of FM 407, in the City of Lewisville, Texas.

Please accept this letter to serve as official authorization to allow Ridinger Associates, Inc. and/or Rembert Enterprises, Inc. to serve as "Applicant" for all submittals to the. City for this project. We will be submitting the following items:

- Zoning Planned Development Application
- Preliminary Record Plat
- Final Record Plat
- Any and all other documents related to the proposed subdivision;

subject to the following conditions contained in the ***Unimproved Pr$_{o}$ $_{p}$erty Contract*** currently in place:

"

7. **Zoning and Preliminary Plat.**

A. During the In pection Period described in Paragraph 6 of this Addendum, if Buyer does not deliver written notices to Seller within the Inspection Period to the effect that either (i) title to the Property is unacceptable to Buyer pursuant to Paragraph 6 of the printed Contract, or (ii) the Property is not satisfactory to the Buyer pursuant to Paragraph 6 of this Addendum, Buyer shall attempt, at Buyer's expense, to cause the zoning and preliminary platting of the Property for residential use; **provided, however,** that Buyer shall not cause or allow any zoning change to the Property or any preliminary platting of the Property to be become final and binding upon the Property or to be recorded in the Plat or Map Records of the County until after the Closing.

B. Seller agrees to reasonably support Buyer in all zoning and platting efforts and covenants and agrees to join in and support the Buyer's zoning and preliminary plat of the Property; **provided, however,** that Seller shall not be obligated to incur any costs or expenses in such support.

C. ***Intentionally Deleted.***

D. ***Intentionally Deleted.***

Thanks
Property Owner:

UNICLA of America, Inc.

Date: July 18, 2017

C:\CLIENTS\5564\018

Ridinger Associates, Inc.
Civil Engineers - Planners

September 29, 2017

VARIANCE REQUEST LETTER

Attn: Mr. David Salmon, City Engineer
City of Lewisville Engineering Department
151 W. Church St.
Lewisville, Texas 75057

Archer Way Planned Development

Location: At the intersection of Archer Way and Moccassin Trail

Requested Variances:

A.) To waive the alley requirement in Section 6-92 (k) for single family residential alleys. The variance is needed to allow front entry lots for the development.

B.) To waive the requirement of radial lots in Section 6-94 (a). Non-radial lots as shown on the attached exhibit and as shown on the Concept Plan are necessary for this development because of the unique size and shape of this property. Because this is a very small infill tract of land, radial lots would produce odd lot shapes and would decrease the efficiency of the project to an extent that this project would not be feasible for development.

C.) To waive the requirement in Section 6-94 (e) for a 75-foot lot width with a 50-foot control of access where a residential street intersects with a collector street. Because this subdivision is very small and traffic counts will be very low on the residential streets that intersect the collector (Moccassin Trail), the necessity for this code is minimized and in this particular situation could be considered non-applicable. In addition, because infill tracts are very difficult for develop it would eliminate too many lots for this project to be feasible to develop. We have maximized the size of the corner lots as much as possible providing varying controls of access from a minimum of 18' to a maximum of 37' as follows:

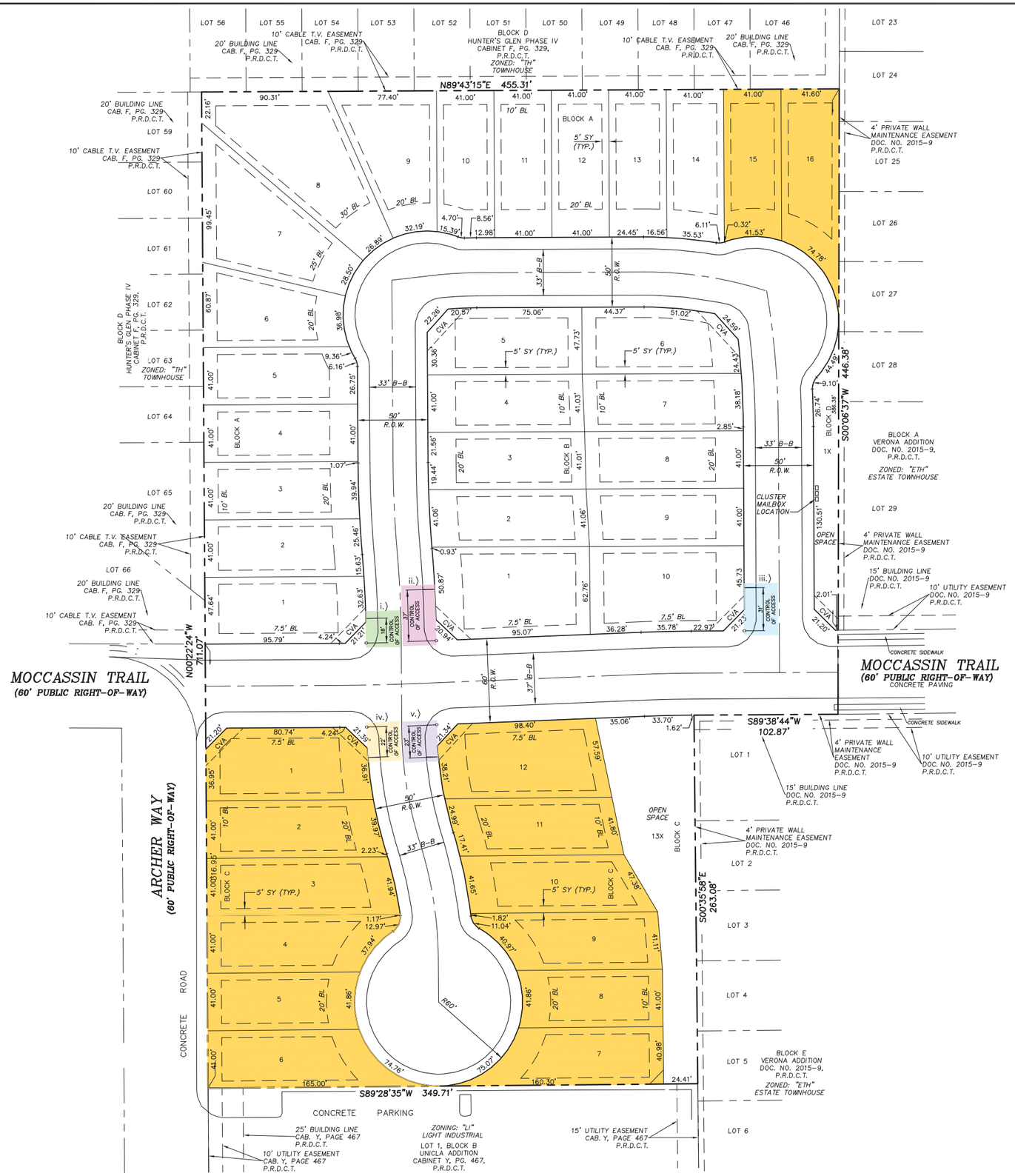
- Lot 1, Block A 18' control of access provided
- Lot 1, Block B 37' control of access provided
- Lot 10, Block B 31' control of access provided
- Lot 1, Block C 22' control of access provided
- Lot 12, Block C 23' control of access provided

Please also see the attached exhibit for reference. We appreciate your help on this project.

Thank you,

Ridinger Associates, Inc.

Dale Ridinger, President



40 0 40 80

1"=40'

REQUESTED VARIANCES

A. TO WAIVE THE ALLEY REQUIREMENT IN SECTION 6-92 (K) FOR SINGLE FAMILY RESIDENTIAL ALLEYS.

B. TO WAIVE THE REQUIREMENT OF RADIAL LOTS IN SECTION 6-94 (a.).

C. TO WAIVE THE REQUIREMENT IN SECTION 6-94 (e) FOR A 75-FOOT LOT WIDTH WITH A 50 FOOT CONTROL OF ACCESS WHERE A RESIDENTIAL STREET INTERSECTS WITH A COLLECTOR STREET.

i.) TO ALLOW AN 18' CONTROL OF ACCESS. (LOT 1, BLOCK A)

ii.) TO ALLOW A 37' CONTROL OF ACCESS. (LOT 1, BLOCK B)

iii.) TO ALLOW A 31' CONTROL OF ACCESS. (LOT 10, BLOCK B)

iv.) TO ALLOW A 22' CONTROL OF ACCESS. (LOT 1, BLOCK C)

v.) TO ALLOW A 23' CONTROL OF ACCESS. (LOT 12, BLOCK C)

VARIANCE REQUEST EXHIBIT FOR

ARCHER WAY

RESIDENTIAL SUBDIVISION
6.762 acres Situated in the
Francis Pearce Survey, Abstract No. 1016
in the
City of Lewisville
Denton County, Texas

Ridinger Associates, Inc.
Civil Engineers - Planners
Firm No. 1969
550 S. Edmonds Lane, Suite 101
Lewisville, Texas 75067
Tel. No. (972) 353-8000
Fax No. (972) 353-8011

ARCHER WAY
RESIDENTIAL SUBDIVISION
LEWISVILLE, TEXAS

VARIANCE REQUEST EXHIBIT

Scale:	1" = 40'
Designed by:	LDR
Drawn by:	MAB
Checked by:	LDR
Date:	SEPTEMBER 29, 2017
Project No.	035-026

SHEET
1

ORDINANCE NO. _____

AN ORDINANCE OF THE LEWISVILLE CITY COUNCIL, AMENDING THE ZONING ORDINANCE BY REZONING AN APPROXIMATELY 6.762-ACRE TRACT OF LAND OUT OF THE FRANCES PEARCE SURVEY, ABSTRACT NO. 1016, LOCATED ON THE EAST SIDE OF ARCHER WAY, APPROXIMATELY 430 FEET NORTH OF JUSTIN ROAD (FM 407), FROM LIGHT INDUSTRIAL DISTRICT (LI) ZONING TO PLANNED DEVELOPMENT-ESTATE TOWNHOUSE DISTRICT (PD-ETH) ZONING; CORRECTING THE OFFICIAL ZONING MAP; PRESERVING ALL OTHER PORTIONS OF THE ZONING ORDINANCE; DETERMINING THAT THE PUBLIC INTERESTS AND GENERAL WELFARE DEMAND THIS ZONING CHANGE AND AMENDMENT THEREIN MADE; PROVIDING FOR A REPEALER, SEVERABILITY, AND A PENALTY; AND DECLARING AN EMERGENCY.

WHEREAS, applications were made to amend the Official Zoning Map of Lewisville, Texas by making applications for same with the Planning and Zoning Commission of the City of Lewisville, Texas, as required by State statutes and the Zoning Ordinances of the City of Lewisville, Texas, said Planning and Zoning Commission has recommended that rezoning of the approximately 6.762-acre property described in the attached Exhibit "A" (the "Property") be **approved**, and all the legal requirements, conditions and prerequisites having been complied with, the case having come before the City Council of the City of Lewisville, Texas, after all legal notices, requirements, conditions and prerequisites having been complied with; and,

WHEREAS, the City Council of the City of Lewisville, Texas, at a public hearing called by the City Council of the City of Lewisville, Texas, did consider the following factors in making a determination as to whether this requested change should be granted or denied: effect on the congestion of the streets; the fire hazards, panics and other dangers possibly present in the securing

of safety from same; the effect on the promotion of health and the general welfare; effect on adequate light and air; the effect on the overcrowding of the land; the effect of the concentration on population; the effect on the transportation, water, sewerage, schools, parks and other public facilities; and,

WHEREAS, the City Council further considered among other things the character of the district and its peculiar suitability for particular uses and with the view to conserve the value of buildings, encourage the most appropriate use of land throughout this City; and,

WHEREAS, the City Council of the City of Lewisville, Texas, does find that there is a public necessity for the zoning change, that the public interest clearly requires the amendment, that the zoning changes do not unreasonably invade the rights of adjacent property owners; and,

WHEREAS, the City Council of the City of Lewisville, Texas, does find that the change in zoning lessens the congestion in the streets; helps secure safety from fire, panic and other dangers; promotes health and the general welfare; provides adequate light and air; prevents the overcrowding of land; avoids undue concentration of population; facilitates the adequate provisions of transportation, water, sewerage, schools, parks and other public requirements; and,

WHEREAS, the City Council of the City of Lewisville, Texas, has determined that there is a necessity and need for this change in zoning and has also found and determined that there has been a change in the conditions of the property surrounding and in close proximity to the Property since it was originally classified and, therefore, feels that a change in zoning classification for the Property is needed, is called for, and is in the best interest of the public at large, the citizens of the City of Lewisville, Texas, and helps promote the general health, safety, and welfare of this community.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, THAT:

SECTION 1. The Zoning Ordinance of the City of Lewisville, Texas, be, and the same is hereby amended and changed in that the zoning of the Property is hereby changed to **PLANNED DEVELOPMENT – ESTATE TOWNHOUSE DISTRICT (PD-ETH) ZONING** and in compliance with the proposed land use and development regulations, concept plan, landscape plan, screening wall plan, and conceptual elevations, attached hereto as Exhibit "B"; and

SECTION 2. The City Manager, or her designee, is hereby directed to correct the official zoning map of the City of Lewisville, Texas, to reflect this change in zoning.

SECTION 3. That in all other respects the use of the tract or tracts of land hereinabove described shall be subject to all the applicable regulations contained in said City of Lewisville Zoning Ordinance and all other applicable and pertinent ordinances of the City of Lewisville, Texas.

SECTION 4. That the zoning regulations and districts as herein established have been made in accordance with the comprehensive plan for the purpose of promoting health, safety, and the general welfare of the community. They have been designed with respect to both present conditions and the conditions reasonably anticipated to exist in the foreseeable future, to lessen congestion in the streets; to secure safety from fire, panic, flood and other dangers; provide adequate light and air; to prevent overcrowding of land, to avoid undue concentration of population; facilitate the adequate provisions of transportation, water, sewage, parks and other public requirements, and to make adequate provisions for the normal business, commercial needs and development of the community. They have been made with reasonable consideration, among other things of the character of the

district, and its peculiar suitability for the particular uses and with a view of conserving the value of buildings and encouraging the most appropriate use of land throughout the community.

SECTION 5. This Ordinance shall be cumulative of all other ordinances of the City of Lewisville, Texas, affecting zoning and shall not repeal any of the provisions of said ordinances, except in those instances where provisions of those ordinances which are in direct conflict with the provisions of this Ordinance.

SECTION 6. That the terms and provisions of this Ordinance shall be deemed to be severable and that if the validity of the zoning affecting any portion of the Property shall be declared to be invalid, the same shall not affect the validity of the zoning of the balance of the tract or tracts of land described herein.

SECTION 7. Any person, firm or corporation who violates any provision of this Ordinance shall be deemed guilty of a misdemeanor and, upon conviction thereof in the Municipal Court, shall be subject to a fine of not more than $2,000.00 for each offense, and each and every day such offense is continued shall constitute a new and separate offense.

SECTION 8. The fact that the present Zoning Ordinance and regulations of the City of Lewisville, Texas are inadequate to properly safeguard the health, safety, peace and general welfare of the inhabitants of the City of Lewisville, Texas, creates an emergency for the immediate preservation of the public business, property, health, safety and general welfare of the public which requires that this Ordinance shall become effective from and after the date of its final passage, and it is accordingly so ordained.

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, BY A VOTE OF _____ TO _____, ON THIS THE 20TH DAY OF NOVEMBER, 2017.

APPROVED:

_____
Rudy Durham, MAYOR

ATTEST:

_____
Julie Worster, CITY SECRETARY

APPROVED AS TO FORM:

_____
Lizbeth Plaster, CITY ATTORNEY

Exhibit A
Property Description

Exhibit B
Proposed Land Use and Development Regulations
Concept Plan
Landscape Plan
Screening Wall Plan
Conceptual Elevations

EXHIBIT A

PROPERTY DESCRIPTION

6.762 ACRES

Being tract of land situated in the Francis Pearce Survey, Abstract No. 1016, in Denton County, Texas, being a portion of that same tract of land conveyed to UNICLA of America, Inc. by deed recorded in Volume 1427, Page 249 of the Deed Records of Denton County, Texas, and being more particularly described by metes and bounds as follows:

Beginning at a 1/2 inch rebar found for corner in the East right-of-way line of Archer Way (60 foot public right-of-way), said point being the Northwest corner of Lot 1, Block B of UNICLA Addition, an addition to the City of Lewisville, Denton County, Texas, according to the Plat thereof recorded in Cabinet Y, Page 467 of the Plat Records of Denton County, Texas, same being the Southwest corner of the herein described tract;

Thence North 00 Degrees 22 Minutes 24 Seconds West, with the East right-of-way line of said Archer Way, passing at a distance of 316.95 feet the Southeast corner of Block D of Hunter's Glen Phase IV, an addition to the City of Lewisville, Denton County, Texas, according to the Plat thereof recorded in Cabinet F, Page 329 of the Plat Records of Denton County, Texas, and continuing with the southern most East line of said Hunter's Glen Phase IV, for a total distance of 711.07 feet to a 1/2 inch rebar found for corner, said point being an ell corner of said Block D, and being the Northwest corner of the herein described tract;

Thence North 89 Degrees 43 Minutes 15 Seconds East, with the easternmost South line of said Hunter's Glen Phase IV, a distance of 455.31 feet to a 1/2 inch rebar found for corner in the West line of Block A of Verona Addition, an addition to the City of Lewisville, Denton County, Texas, according to the Plat thereof recorded in Document No. 2015-9 of the Plat Records of Denton County, Texas, said point being the easternmost Southeast corner of said Hunter's Glen Phase IV, same being the Northeast corner of the herein described tract;

Thence South 00 Degrees 06 Minutes 37 Seconds West, with the West line of said Block A, Verona Addition, passing at a distance of 386.38 feet, the Southwest corner of said Block A, Verona Addition and the Northwest corner of Moccassin Trail (60 foot public right-of-way) and continuing with the West right-of-way line of said Moccassin Trail, for a total distance of 446.38 feet to an iron rod with cap stamped "Arthur Surveying Company" set for corner in the North line of Block E of said Verona Addition, said point being the Southwest corner of said Moccassin Trail, same being the easternmost Southeast corner of the herein described tract;

Thence South 89 Degrees 38 Minutes 44 Seconds West, with the North line of said Block E, Verona Addition, a distance of 102.87 feet to a 5/8 inch rebar found for corner at the Northwest corner of said Block E, and being an interior ell corner of the herein described tract;

Thence South 00 Degrees 35 Minutes 58 Seconds East, with the West line of said Block E Verona Addition, a distance of 263.08 feet to a 1/2 inch rebar found for corner at the Northeast corner of said Lot 1, and being the most southerly Southeast corner of the herein described tract;

Thence South 89 Degrees 28 Minutes 35 Seconds West, with the North line of said Lot 1, a distance of 349.71 feet to the POINT OF BEGINNING and containing 294,573 square feet or 6.762 acres of land.

EXHIBIT B

ARCHER WAY
RAI JOB NO. 035-026
10/11/17

PLANNED DEVELOPMENT (PD)
PROPOSED LAND USE AND DEVELOPMENT REGULATIONS
For the 6.762 Acre Tract
Lewisville, Texas

The Archer Way property is located on the east side of Archer Way approximately 458± feet north of the intersection of F.M. 407 and Archer Way. The subject tract shall adhere to the conditions set forth by the City of Lewisville, as it pertains to the "ETH" Estate Townhouse Residential District Regulations zoning district per the City of Lewisville Code of Ordinances, as it exists or amended, with the following exceptions stated herein:

1) Zoning District

a.) The subject property shall be developed generally in compliance with the conceptual plan attached hereto as Exhibit "C" Concept Plan.

b.) The proposed base zoning shall be "ETH" Estate Townhouse Residential District Regulations

2.) Zoning Exhibits

The development shall be generally in accordance with the following:

- **Exhibit "B"** – Legal Exhibit
- **Exhibit "C"** – Concept Plan
- **Exhibit "D-1" – "D-5"** – Architectural Concept Elevations
- **Exhibit "E1"** – Conceptual Landscape Plan
- **Exhibit "F-1"** – Screening Wall Plan

3.) Lot, Yard, and Space Regulations

a.) Front Yard:
There shall be a front yard having a depth of not less than 20 feet. If the garage entry is from the front and the entry side of the garage faces the street, the garage must be set back 20 feet.

b.) Side yard:
A 5 foot side yard setback is required, including all lots adjacent to a side street.

c.) Rear Yard:
All rear yard setbacks shall be 10 feet.

d.) Lot Area:
No building shall be constructed on any lot of less than 4,000 square feet.

e.) Lot Width:
The minimum width of the lot shall not be less than 20 feet measured at at any point.

f.) Minimum Dwelling Size:
The minimum living floor area of a maximum of 10% of the dwellings shall be 1,550 - 1,749 square feet, exclusive of garages, breezeways and porches. The minimum living floor area of a maximum of 35% of the dwellings shall be 1,750 – 1,949 square feet, exclusive of garages, breezeways and porches. The minimum living floor area of a minimum of 55% of the dwellings shall be 1,950+ square feet, exclusive of garages, breezeways and porches.

g.) Lot Coverage:
In no case shall more than 80 percent of the total lot area be covered by the combined area of main buildings and accessory buildings.

h.) Height:
Maximum height is 35 feet.

i.) Stories:
Maximum number of stories is 2.5.

j.) Density:
Total Density (total residential lots per overall site acreage) shall be 5.62 DU/AC. (38 Lots/ 7.762 Acres = 5.62 AC/DU)

4.) Streets, Alleys, and Easements

a.) Streets:
All residential street right-of-ways shall be 50 feet in width with a pavement width of 33 feet as measured from the back-of-curb to back-of-curb.
All collector streets right-of-ways shall be 60 feet in width with a pavement width of 37 feet as measured from the back-of-curb to back-of-curb.

b.) Alleys:

Alleys shall not be required with the proposed Zoning Planned Development (PD) for the subject property. This development shall be a front entry product.

5.) Building Elements

a.) Garages:

i. Lots shall be permitted to have front-entry garages.
ii. Garage doors shall be metal panel, clad in stained natural cedar or faux wood.
iii. Detached garages shall be prohibited.
iv. Minimum two (2) car garage shall be provided.

b.) Carports:

Carports shall not be permitted.

c.) Design of Homes:

The design and construction of homes within the subject property shall be similar in composition and architectural character to the concept elevations attached herein as Exhibit “D”.

d.) Driveways:

Driveways shall be wholly constructed of either decorative pavers, exposed aggregate, broomed concrete, stained and stamped concrete, or salt finished concrete.

e.) Construction Materials:

i.) Roofing material used on homes within the subject property shall be a minimum 30-year dimensional shingle.
ii.) Construction materials for exterior walls : The aggregate total of all exterior walls elevations (excluding doors and windows) of all buildings shall consist of not less than 80% brick veneer. No single wall elevation shall consist of less than 60% brick veneer.

f.) Fences:

All homes shall have 6’ stained wood fences with metal posts.

g.) Screening Walls & Fencing:

Screening Walls and Fencing shall be as depicted on Exhibit “F-1”.

6.) Landscaping and Common Areas

a.) Landscaping:

Except as proposed, one shade tree (three-inch caliper minimum) shall be provided for all single family residential lots. All lots shall be fully sodded, landscaped, and irrigated. Landscaping shall be installed and maintained in accordance with the landscaping plan attached herein as Exhibit “E-1”.

b.) Homeowner's Association Required:

A homeowner's association (the HOA) for the subject property shall be established and be responsible of the maintenance of all common areas. The HOA shall have the obligation to maintain the common areas to the same extent that the owners or occupants of individual lots have the obligation to maintain their lots and in accordance with all City of Lewisville Ordinances.

c) Default of Homeowner's Association:

Not withstanding anything to the contrary, in the event that the Association (without prior City approval) has ceased to operate, becomes defunct, and/or the City cannot reasonably identify an individual who represents the Association, the Association will be deemed dissolved in violation of these Covenants. At such time, the City shall provide written notice of the violation to the Owners. If the Owners fail to cure this violation and reestablish the Association in accordance with this Agreement within thirty days from the date of notice, the Common Properties shall Automatically vest in the City in fee simple title upon the City filing a copy of its notice and a copy of these Covenants in deed records. Any transfer of the Common Areas to the City shall be provided at no cost to the City.

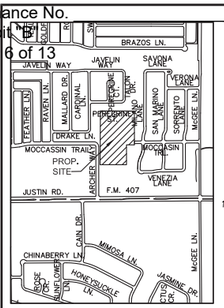
7.) Requested Variances

a.) To waive the alley requirement and allow front entry.

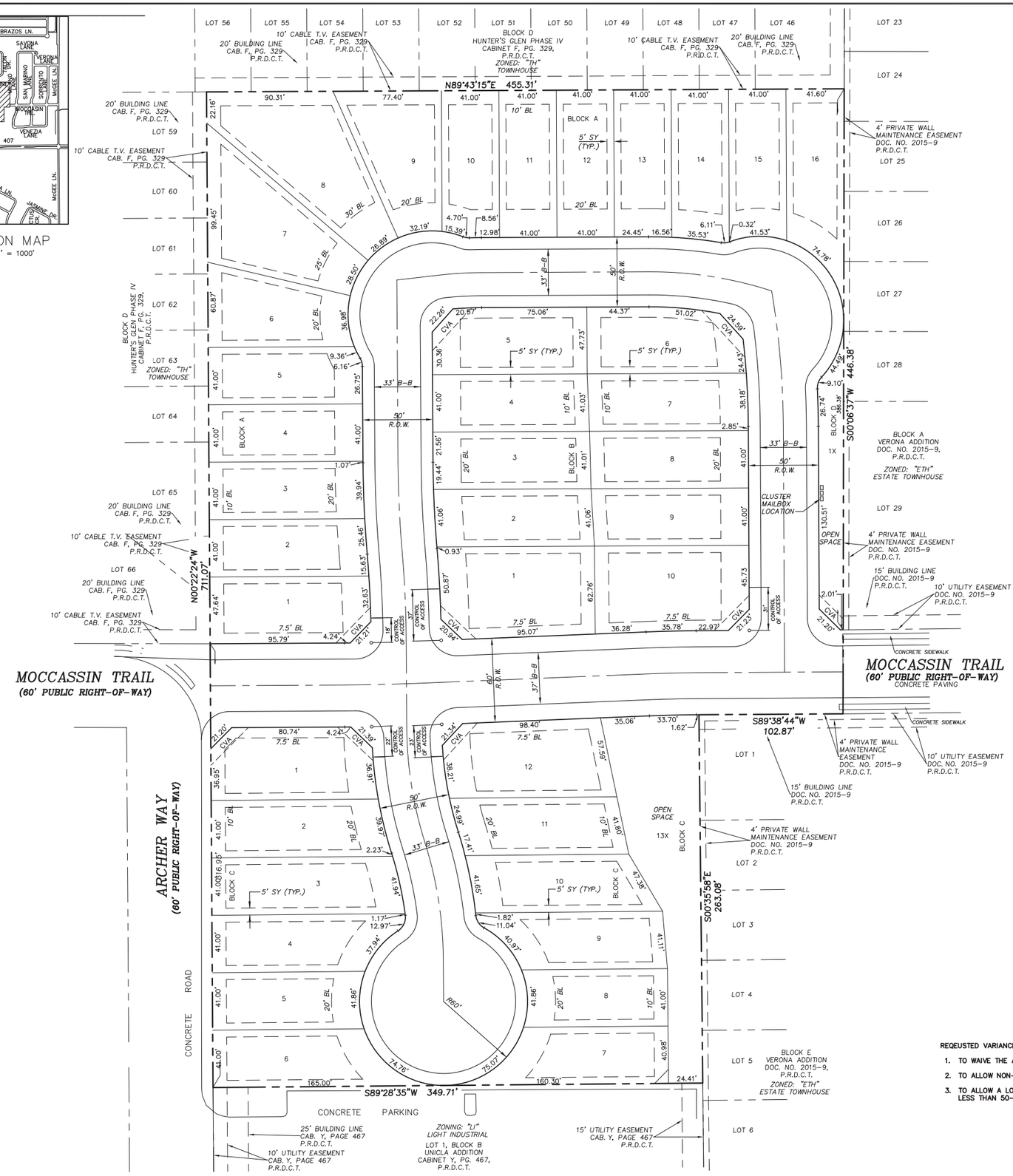
b.) To allow non-radial lot lines along street curves.

c.) To allow a lot width less than 75-feet and a control of access less than 50-foot.

	“ETH” ESTATE TOWNHOUSE RESIDENTIAL DISTRICT	ARCHER WAY PROPOSED PD
FRONT YARD SETBACK	5’ GARAGE 20’ (FRONT ENTRY)	20’
SIDE YARD SETBACK	0’ 5’ ADJACENT TO SIDE STREET	5’
REAR YARD SETBACK	0’	10’
LOT AREA	MIN. 4,000 S.F.	MIN 4,000 S.F.
LOT WIDTH	20’	20’
MIN. DWELLING SIZE (LIVING FLOOR AREA)	2,000 S.F.	MAX. OF 10% 1,550-1,749 S.F. MIN. MAX. OF 35% 1,750-1,949 S.F. MIN. MIN. OF 55% 1,950+ S.F. MIN.
LOT COVERAGE	80% MAX.	80% MAX.
MAX. HEIGHT	35’ / 2.5 STORIES	35’ / 2.5 STORIES



LOCATION MAP
SCALE = 1" = 1000'



LOT NO.	BLOCK	ACRES	SF
1	BLK A	0.123	5351
2	BLK A	0.106	4603
3	BLK A	0.104	4523
4	BLK A	0.104	4510
5	BLK A	0.103	4475
6	BLK A	0.113	4918
7	BLK A	0.163	7101
8	BLK A	0.188	8191
9	BLK A	0.129	5600
10	BLK A	0.098	4261
11	BLK A	0.099	4305
12	BLK A	0.099	4305
13	BLK A	0.099	4307
14	BLK A	0.101	4404
15	BLK A	0.100	4354
16	BLK A	0.117	5095
1	BLK B	0.162	7063
2	BLK B	0.106	4619
3	BLK B	0.106	4603
4	BLK B	0.105	4558
5	BLK B	0.118	5132
6	BLK B	0.115	5029
7	BLK B	0.107	4663
8	BLK B	0.106	4630
9	BLK B	0.105	4567
10	BLK B	0.152	6637
1	BLK C	0.133	5802
2	BLK C	0.117	5076
3	BLK C	0.126	5502
4	BLK C	0.117	5081
5	BLK C	0.100	4354
6	BLK C	0.116	5062
7	BLK C	0.112	4858
8	BLK C	0.095	4152
9	BLK C	0.111	4845
10	BLK C	0.117	5115
11	BLK C	0.111	4855
12	BLK C	0.145	6317
13X	BLK C	0.245	10665
1X	BLK D	0.075	3272

40 0 40 80
1"=40'

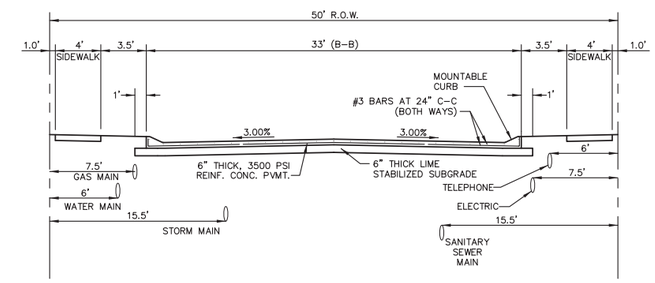
LEGEND

- LOT LINE
- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- PROPOSED R.O.W.
- PROPOSED BACK OF CURB

DEVELOPMENT DATA

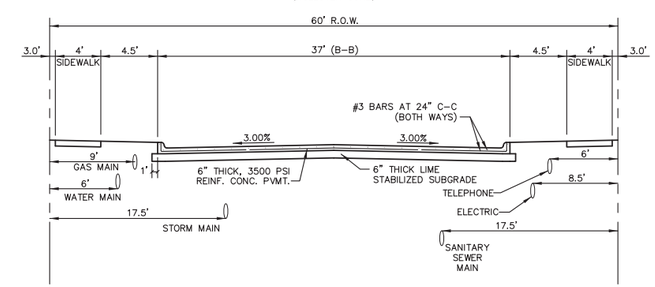
PROPOSED USE: SINGLE FAMILY RESIDENTIAL
CURRENT ZONING: "LI" LIGHT INDUSTRIAL
PROPOSED BASE ZONING: "ETH" ESTATE TOWNHOUSE

TOTAL LAND AREA: ±6.762 ACRES
MINIMUM DWELLING SIZE: 1,550–1,749 S.F. MAX OF 10%
MINIMUM DWELLING SIZE: 1,750–1,949 S.F. MAX OF 35%
MINIMUM DWELLING SIZE: 1,950+ S.F. MIN. OF 55%
DENSITY: 5.62 DU/AC
MAXIMUM BUILDING HEIGHT = 35 FEET
PROJECT TO BUILT IN SINGLE PHASE



SIDEWALKS TO BE CONSTRUCTED IN CONJUNCTION WITH AND BY CONTRACTORS OF INDIVIDUAL RESIDENCES AND TO THE CITY OF LEWISVILLE SPECIFICATIONS.

TYPICAL RESIDENTIAL STREET SECTION
(ROLLOVER CURB)



SIDEWALKS TO BE CONSTRUCTED IN CONJUNCTION WITH AND BY CONTRACTORS OF INDIVIDUAL RESIDENCES AND TO THE CITY OF LEWISVILLE SPECIFICATIONS.

TYPICAL COLLECTOR STREET SECTION
(CURB AND GUTTER)

REQEUSTED VARIANCES:

1. TO WAIVE THE ALLEY REQUIREMENT AND ALLOW FRONT ENTRY.
2. TO ALLOW NON-RADIAL LOT LINES ALONG STREET CURVES.
3. TO ALLOW A LOT WIDTH LESS THAN 75-FEET AND A CONTROL ACCESS LESS THAN 50-FOOT.

EXHIBIT C
ARCHER WAY
RESIDENTIAL SUBDIVISION
6.762 acres Situated in the
Francis Pearce Survey, Abstract No. 1016
in the
City of Lewisville
Denton County, Texas

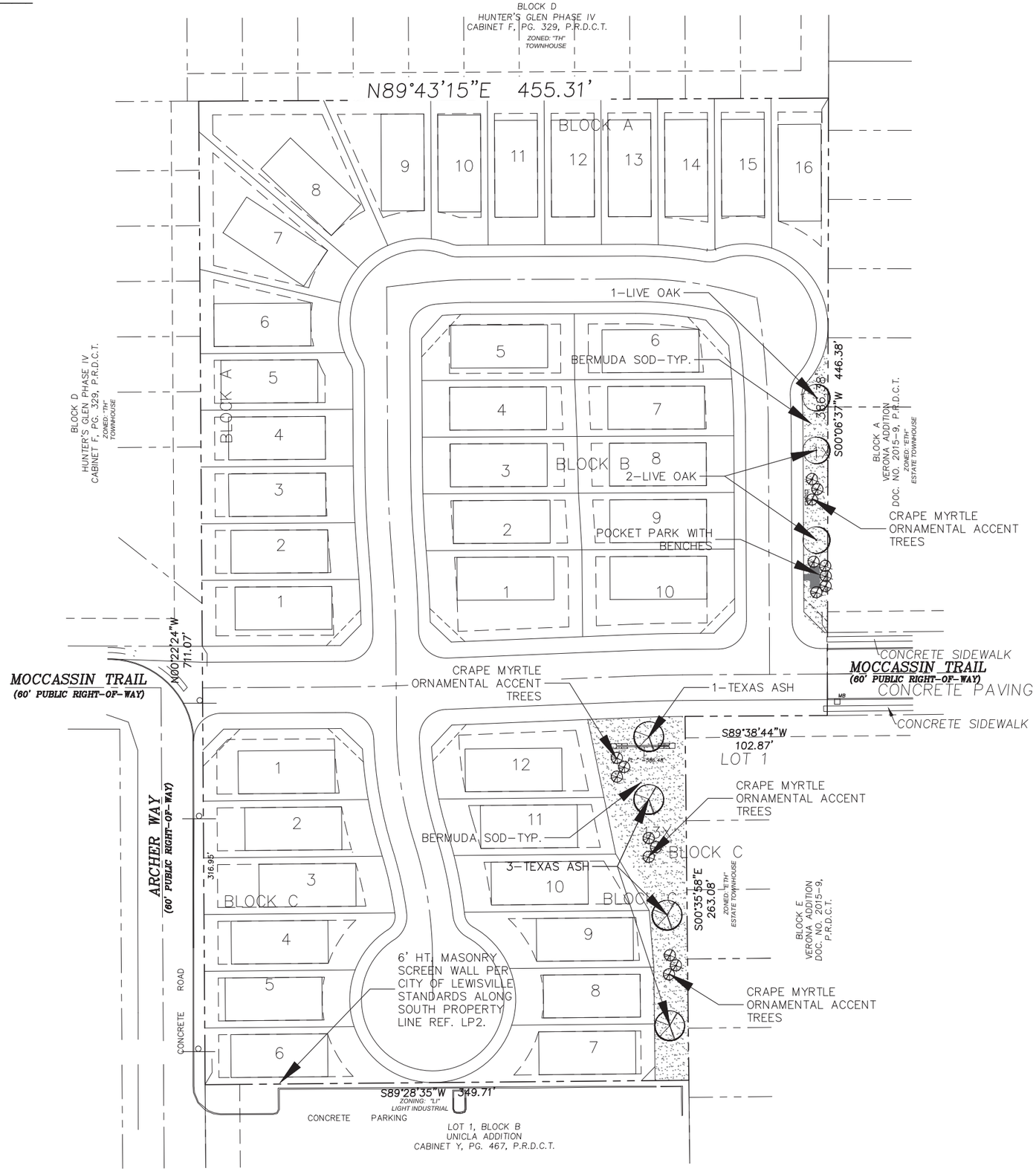
Ridinger Associates, Inc.
Civil Engineers - Planners
Firm No. 1969
550 S. Edmonds Lane, Suite 101
Lewisville, Texas 75067
Tel. No. (972) 353-8000
Fax No. (972) 353-8011

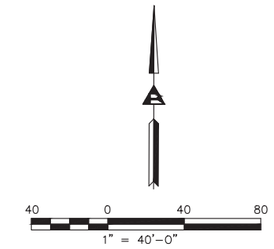
ARCHER WAY
RESIDENTIAL SUBDIVISION
LEWISVILLE, TEXAS

CONCEPT PLAN

Scale: 1" = 40'
Designed by: LDR
Drawn by: MAB
Checked by: LDR
Date: OCTOBER 11, 2017
Project No. 035-026

SHEET
1





GENERAL LANDSCAPE NOTES

1. All landscape areas are to be received within .1' of proposed finish grade and free from all trash and debris.
2. All trees are to be planted in pits twice the diameter of the tree ball and no deeper than the depth of the ball. Scarify all tree pit sides prior to planting. All trees are to be planted plumb and at or slightly above finish grade. All tree pits are to have a 3" watering saucer formed around the perimeter of the pit. All tree pits are to be top dressed with a 2" layer of shredded hardwood mulch. Stake and / or guy trees only at the direction of the landscape architect.
3. Rotovate the existing soil of all planting beds to a minimum depth of 6". Add a 3" layer of premium compost as supplied by Living Earth Technology and till into the top 3" of the existing soil. Install all shrubs 1" above finish grade and fertilize with Agri-form slow release fertilizer tablets at the manufacturer's recommended rates of application. Top dress all planting beds with a 2" layer of shredded hardwood mulch.
4. All planting beds not formed by a concrete curb or sidewalk are to edged with Steel Edging (1/8"x4" painted green) or an approved equal. All edging stakes are to be placed to the inside of the bed and the top of the edging is to be no less than 1" and no more than 1.5" above proposed finish grade.
5. All turf areas are to be hydromulch Bermudagrass, unless otherwise noted on the plan.
6. Hydromulch with Bermudagrass seed at a rate of two (2) pounds per one thousand (1,000) square feet. If installation occurs between September 1 and April 1, all hydromulch areas to be Winter Ryegrass at a rate of four (4) pounds per thousand square feet. Contractor shall be required to re-hydromulch with Bermudagrass the following growing season.
7. All sodded areas are to receive common bermuda sod laid parallel to the contour of the land. All sod on slopes greater than 1:4 is to be pinned with 1"x1"x12" wooden stakes. All sod is to be laid with tight joints and with all joints staggerd. Roll all sod with a water ballast lawn roller upon installation and fertilize with a complete fertilizer (13-13-13) at the rate of 1.5# actual nitrogen per 1000 square feet. Water all sod thoroughly.
8. All irrigation meter(s) are to be by utility contractors as per local codes. Irrigation sleeves to be installed by licensed irrigation contractor as per the plan.
9. All irrigation controllers are to have mini-click freeze and rain stats installed as per manufacturer's recommendations.
10. All irrigation sleeves to be by licensed irrigation contractor. All sleeves to be PVC schedule 40 with 90 degree elbows on both ends with extensions protruding 18" above proposed finish grade.
11. All turf and planting beds to be zoned separately. All planting bed heads to be on 12" pop-up risers. All turf heads to be on 4" pop-up risers. All valves to be plastic valves. All equipment to be Rainbird or approved equal.
12. All mainline and lateral line to have a minimum of 12" of cover and to be SDR (class 200) pipe.
13. Quantities shown on plant list are landscape architect's estimate only and should be verified prior to bidding. Contractor shall be responsible for bidding and providing quantity of plants required at spacing designated for bed sizes and configurations shown on the plans regardless of quantities designated on plant list.

IRRIGATION NOTES:

1. All landscaped areas shall be irrigated with an irrigation system capable of providing the proper amount of water for the particular for the particular type of plant material used. Irrigation will be provided by an underground sprinkler system, or a subterranean drip drip system as approved by the City Arborist.
2. Automatic underground irrigation system shall be equipped with freeze guard set at 38 degrees F.
3. Areas of open space which contain preserved trees need not be irrigated if the City Arborist determines irrigation would be harmful to the preserved trees.

PLANT LIST

2-Live Oak / Quercus virginina / 3" Cal. / 8'-10' ht. / Container Grown
3-Texas Ash / Fraxinus texansis/ 3" Cal. / 8' ht. / Container Grown
17-Crape Myrtle / Lagerstroemia indica 'Natchez' /3 trunks min. / Matched
Bermuda Grass / Cynodon dactylon / Solid sod

ST. CLAIR DESIGN GROUP, INC
Landscape Architecture
P. O. Box 12519
Dallas, Texas 75225
T. 214.284-3641

DATE SEALED: 09-20-17
DESIGN BY: JBS
DRAWN BY: JBS
CHECKED BY: SCDG
DATE: AUGUST 30, 2017

ARCHER WAY
RESIDENTIAL SUBDIVISION
6.762 acres Situated in the
Francis Pearce Survey, Abstract No. 1016
in the
City of Lewisville
Denton County, Texas

No.	Date	Revisions	App.

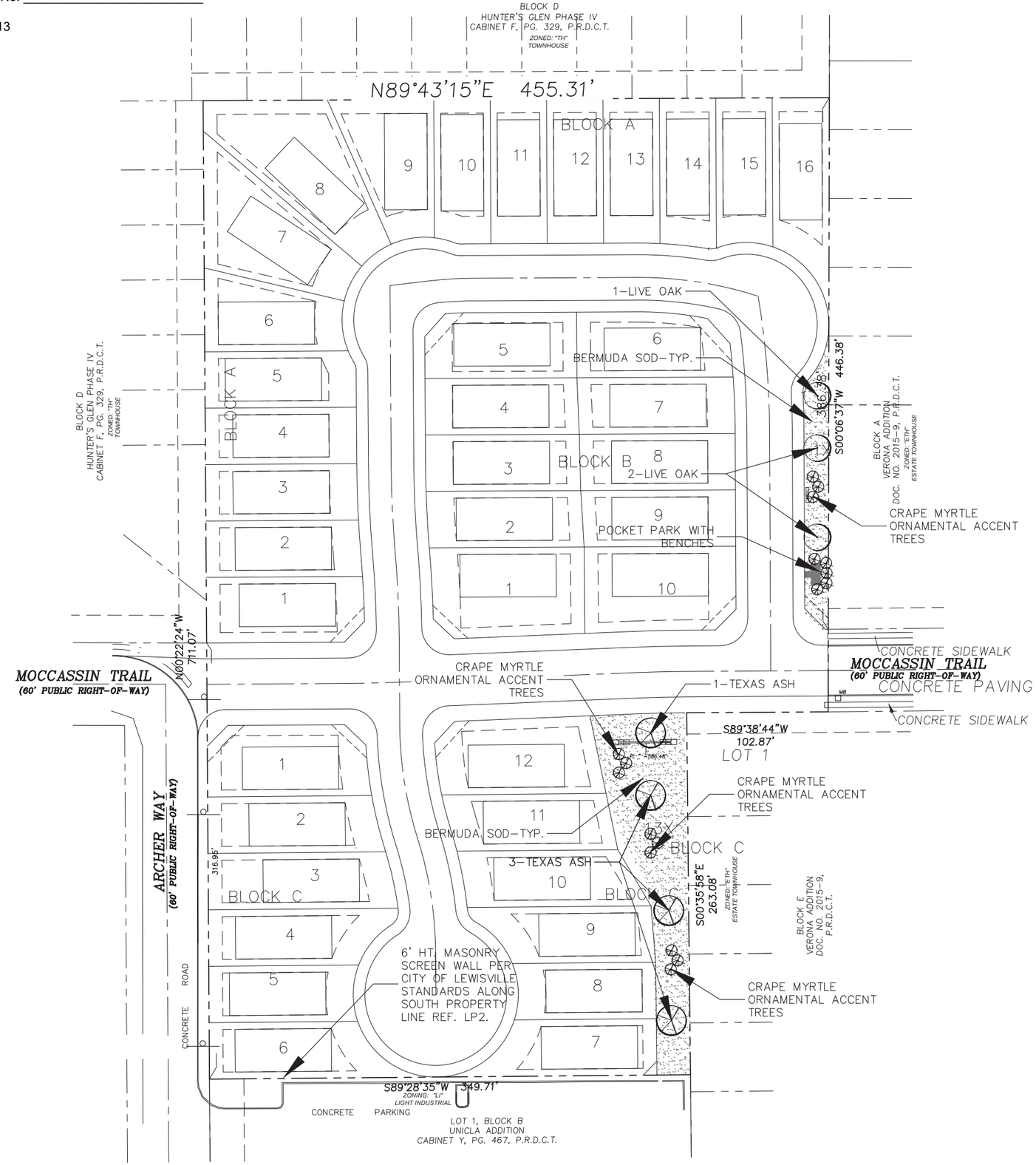
Ridinger Associates, Inc.
Civil Engineers - Planners
Firm No. 1969
550 S. Edmonds Lane, Suite 101
Lewisville, Texas 75067
Tel. No. (972) 353-8000
Fax No. (972) 353-8011

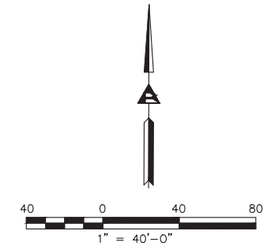
ARCHER WAY
RESIDENTIAL SUBDIVISION
LEWISVILLE, TEXAS

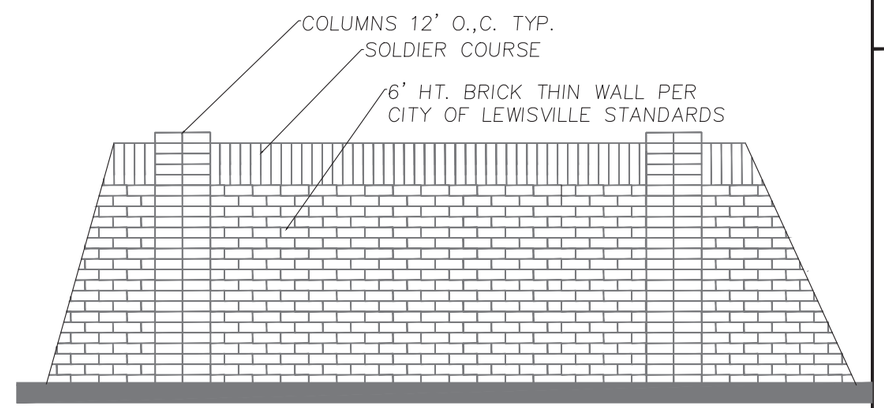
CONCEPTUAL LANDSCAPE PLAN

Scale: 1" = 40'
Designed by: JBS
Drawn by: JBS
Checked by: SCDG
Date: AUGUST 30, 2017
Project No. 035-026

SHEET
LP-1







SCREEN WALL ELEVATION N.T.S.

ST. CLAIR DESIGN GROUP, INC
Landscape Architecture
P. O. Box 12519
Dallas, Texas 75225
T. 214-394-3641

DATE SEALED: 09-28-17
DESIGN BY: JBS
DRAWN BY: JBS
CHECKED BY: SCDG
DATE: AUGUST 30, 2017

ARCHER WAY
RESIDENTIAL SUBDIVISION
6.762 acres Situated in the
Francis Pearce Survey, Abstract No. 1016
in the
City of Lewisville
Denton County, Texas

No.	Date	Revisions	App.

Ridinger Associates, Inc.
Civil Engineers - Planners
Firm No. 1969
550 S. Edmonds Lane, Suite 101
Lewisville, Texas 75067
Tel. No. (972) 353-8000
Fax No. (972) 353-8011

ARCHER WAY
RESIDENTIAL SUBDIVISION
LEWISVILLE, TEXAS

SCREENING WALL PLAN

Scale: 1" = 40'
Designed by: JBS
Drawn by: JBS
Checked by: SCDG
Date: AUGUST 30, 2017
Project No. 035-026

SHEET
LP-2

EXHIBIT "D-1"
ARCHER WAY

Conceptual Elevation

EXHIBIT "D-2"
ARCHER WAY

Conceptual Elevation

EXHIBIT "D-3"
ARCHER WAY

Conceptual Elevation

EXHIBIT "D-4"
ARCHER WAY

Conceptual Elevation

EXHIBIT "D-5"
ARCHER WAY

Conceptual Elevation

MEMORANDUM

TO: Donna Barron, City Manager

FROM: Richard E. Luedke, Planning Director

DATE: November 20, 2017

SUBJECT: **<u>Public Hearing</u>: Consideration of an Ordinance Granting a Zone Change From Light Industrial District (LI) to Planned Development – Single Family Residential District (PD-R5) and Five Associated Variances for a Proposed Residential Development Consisting of 30 Single-Family Detached Units on an Approximately 6.60-Acre Tract of Land out of the Levi N. Sparks Survey, Abstract No. 1135, Located on the West Side of McGee Lane, Approximately 125 Feet South of Daffodil Lane; as Requested by John Bezner of Civil Point Engineering, Inc., on Behalf of RJS Marine Inc., the Property Owner. (Case No. PZ-2017-10-21)**

BACKGROUND

The Planned Development (PD) district allows for innovative community design concepts which may not meet all regulations of the City's standard zoning categories, but ensures a high quality development with enhanced amenities and a customized design tailored for a particular site. The property for the proposed PD is currently zoned Light Industrial (LI). This triangular-shaped property is situated on the west side of McGee Lane bounded by existing Garden Ridge Addition zoned Townhouse District (TH) to the north and the Kansas City Southern Railroad to the southwest. The Planning and Zoning Commission recommended unanimous approval (7-0) of the zone change request on October 17, 2017.

ANALYSIS

The proposed PD will have a base zoning of Single-Family Residential (R-5) for a development consisting of two story single-family detached units. Thirty units are proposed for constructed in one phase. A home owner association (HOA) will maintain the various open spaces including the 15-foot utility easement along the railroad, common areas around a clustere mailbox and landscaping within the subdivision. The PD allows for deviations from the standard zoning categories, which are outlined in the comparison table on the development standards provided by the applicant.

<u>Residential Development</u>

A maximum height of 35 feet will apply to the two-story dwellings. While the proposed development will provide slightly reduced setbacks, the actual dwellings will be larger than the minimum 1,450 square feet required by R-5 with ten homes a minimum of 1,700 square feet, another ten a minimum of 1,900 square feet, and remaining ten homes a minimum of 2,000 square feet. The proposed development will have a minimum lot size of 5,000 square feet. The buildings

will consist of front elevations being 100% masonry and an aggregate total of 80% brick veneer on all other elevations. Residential units will have front entry with a decorative wooden garage door as illustrated on the conceptual elevations

Streets, Alleys and Parking
The homes will have a one-car garage with a covered carport for one additional tandem parking space. The street sections provided will meet City standards with 50-foot street right-of-way and rollover curbs for front entry development. At the Cul-de-sacs, a 50-foot right-of-way with a 10-foot street, sidewalk, water and sanitary sewer easement will be provided in lieu of typical 60-foot right-of way.

Screening
The development will contain a 6-foot masonry screening wall along the McGee Lane. Stained wood fences with steel posts will be provided in all other back yards.

Landscaping
Landscaping will comply with City standards. Additional landscaping will be provided at the entrance to the subdivision with planters which will double as signage. A cluster mailbox area will be provided at the southern boundary. Enhanced landscape will be provided around the mailbox area with additional amenities such as a park bench, and picnic tables. Landscaping and irrigation within the common areas shall be maintained by the HOA.

The following five variances are associated with this development:

a) to allow a 62-foot lot width with a 40-foot control of access for Lot 2, in lieu of required 75-foot lot width with a 50-foot control of access

Section 6-94 (e), of the General Development Ordinance requires corner lots for single family front entry developments to have a 75-foot lot width with a 50-foot control of access when located at the intersection of a collector street. Lot 2 of the development has a frontage of 52-feet with a 10-foot landscape buffer for a total of 62-feet of frontage from McGee Lane right-of-way. The available distance from McGee Lane will provide a 36-foot control of access in lieu of the required 50 feet. The variance is being requested so the development does not have to reduce the lot count. Staff recommends approval of this variance request as the shape of the overall property makes it difficult to get a cost effective lot count. This is a relatively small subdivision and will not have a high traffic count leading to a long queue at the subdivision entrance and the developer has attempted to minimize the magnitude of the variance.

b) to allow a 737-foot long cul-de-sac in lieu of a 600-foot long cul-de-sac (measured from the center of McGee Lane to the center of the cul-de-sec)

The Fire Marshal's office is in support of this variance as the fire hydrant spacing and the fire hydrant located at the end of the cul-de-sac provide an extra measure of fire protection. The Fire

Marshal has consulted with the Fire Chief and both agree that there is minimal fire hazard for the proposed structures being protected. Allowing a cul-de-sac of this lenth poses no concerns and provides adequate fire protection for the proposed residential structures. Staff recommends approval of this variance request.

c) to allow front entry driveways

Section 6-92(k) of the General Development Ordinance requires alleys for all single family residential subdivisions. The developer is requesting to have 30 units with garages that front directly to a residential street without an alley. The irregular shape of the property limits the development potential for the property. Waving the alley requirements, and allowing a front entry product allows an efficient layout for the development. The adjoining development to the north, the Garden Ridge Addition, also features a front entry product. Staff has no objection to the waiver of the alley requirement and allowing front entry.

d) to allow non-radial lots as shown in the development plan, in lieu of straight or radial lot lines

Section 6-94 (a) Lots, of the General Development Ordinance requires that side lines of lots shall be approximately at right angles to straight street lines and radial to curved street lines, except for single-family attached townhouse developments (three (3) units or more attached). This variance request applies to most of the lots in this development due to the triangular shape of the overall property. The applicant has situated the lots to provide as much consistency between lots as possible. Staff has no objection to this variance request.

e) to allow a 50-foot right-of-way at the cul-de-sac with a 10-foot street, sidewalk, water and sanitary sewer easement, in lieu of the required 60-foot right-of-way

Section 6-92 (b), of the General Development Ordinance requires a minimum 60-foot wide right-of-way for cul-de-sacs. For this subdivision the developer is proposing a 50-foot wide right-of-way with an additional 10-foot street, sidewalk, water, and sanitary sewer easement. The developer will also provide a 7.5-foot franchise utility easement beyond the 10-foot street, sidewalk, water, and sanitary sewer easement. The streets will meet City standards including a normal width. The variance is being requested as the property is very deep and narrow. Requiring a 60-foot right-of-way would reduce the lot size thus requiring a wider lot to meet the minimum square footage requirements proposed for the planned development and significantly reducing the number of possible lots. This variance has been granted for several of the recent single-family developments in Castle Hills. The combination of the proposed easement and right-of-way equates to the standard right-of-way requirement and results in a better lot configuration within the triangular-shaped property. Staff has no objection to this variance request.

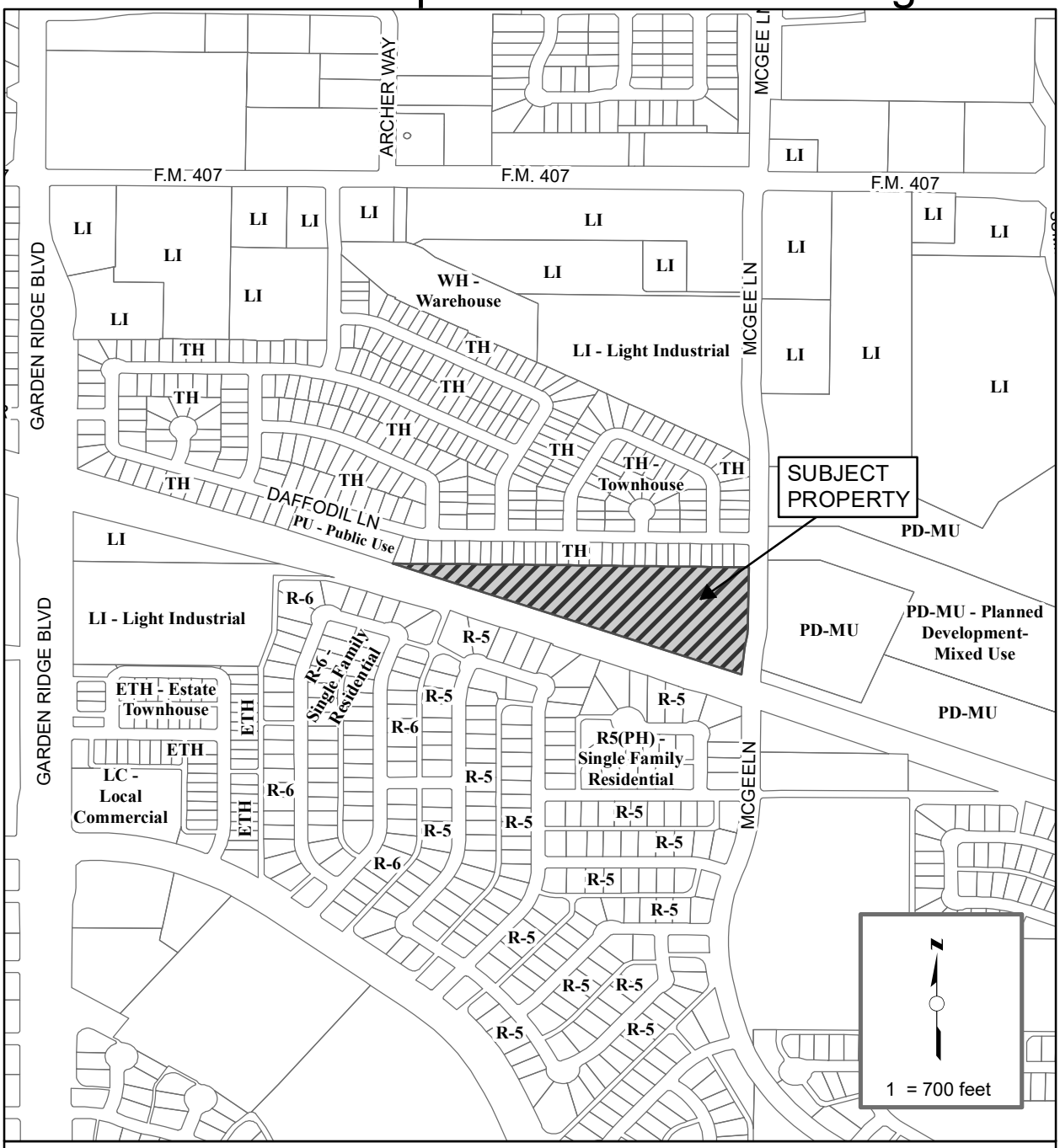
The purpose of the Planned Development zoning district is to accommodate innovative design concepts and provide flexibility in order to achieve a more desirable development. This proposal complies with the “Big Move #5 New Neighborhood Choices” of the Lewisville 2025 Plan and is

preferred over potential light industrial uses that may be incompatible with surrounding neighborhoods.

RECOMMENDATION

It is City staff's recommendation that City Council approve the proposed ordinance and associated variances as set forth in the caption above.

Location Map - Great Lake Crossing



CASE NO. PZ-2017-10-21

PROPERTY OWNER: ROBERT SUAREZ, RJS MARINE

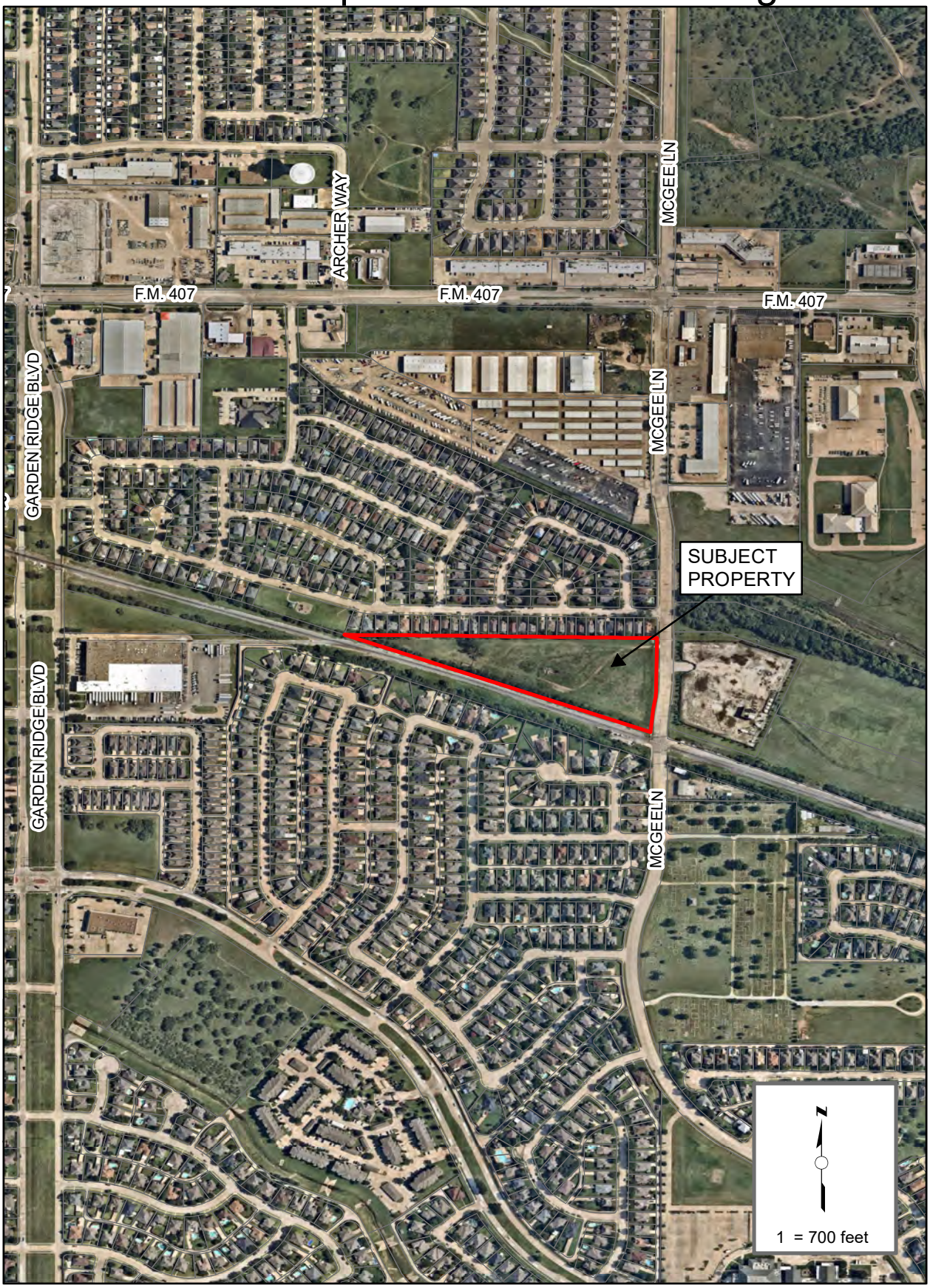
APPLICANT NAME: JOHN BEZNER, CIVIL POINT ENGINEERS, INC.

PROPERTY LOCATION: WEST SIDE OF MCGEE LN (6.60 ACRES)

CURRENT ZONING: LIGHT INDUSTRIAL DISTRICT (LI)

REQUESTED ZONING: PLANNED DEVELOPMENT- SINGLE FAMILY RESIDENTIAL DISTRICT (PD-R-5)

Aerial Map - Great Lake Crossing



MINUTES
PLANNING AND ZONING COMMISSION
OCTOBER 17, 2017

Item 1:

The Lewisville Planning and Zoning Commission meeting was called to order at 6:30 pm. Members present: William Meredith, John Lyng, MaryEllen Miksa, Kristin Green, Alvin Turner, Karen Locke and James Davis.

Staff members present: Richard Luedke, Planning Director; June Sin, Planner; Jonathan Beckham, Planner.

Item 6:

Public Hearing Zoning & Special Use Permits were next on the agenda. There were five items for consideration:

D. **Public Hearing:** Consideration of a Zone Change Request From Light Industrial District (LI) to Planned Development – Single Family Residential (PD-R5) for a Proposed Residential Development Consisting of 30 Single-Family Detached Units on an Approximately 6.60-Acre Tract of Land out of the Levi N. Sparks Survey, Abstract No. 1135; Located to the West Side of McGee Lane, Approximately 125 Feet South of Daffodil Lane; as Requested by John Bezner of Civil Point Engineering, Inc., on Behalf of RJS Marine Inc., the Property Owner. (Case No. PZ-2017-10-21)

Staff gave a brief overview of the proposed zone change request and recommended approval. John Bezner, Robert Suarez, and Tyler Adams gave a brief presentation of the proposed development and were available to answer questions. Chairman Green then opened the public hearing, and with no one coming forward to speak, the public hearing was then closed. *A motion was made by John Lyng to recommend approval of the zone change request, which was seconded by Alvin Turner. The motion passed unanimously (7-0).* Staff indicated that the item would be considered by the City Council on November 20th for a second public hearing and a final decision.

SECTION 17-23. - "LI" LIGHT INDUSTRIAL DISTRICT REGULATIONS

(a) *Use*. Buildings and premises may be used for retail, wholesale, office and service uses and campus style light manufacturing and industrial uses provided there is no dust, fumes, gas, noxious odor, smoke, glare, or other atmospheric influence beyond the boundaries of the property on which such use is located, and which produces no noise exceeding in intensity at the boundary of the property the average intensity of noise of street traffic at that point, and no more than ten percent (10%) of the total lot is used for outside storage, and further provided that such use does not create fire or explosive hazards on adjacent property.

(1) Any use permitted in districts "LC" and "GB" as regulated in said districts.
(2) Apparel and other products assembled from finished textiles.
(3) Bottling works.
(4) Warehouse distribution facilities.
(5) Airport/Heliport (SUP required).
(6) Auto repair shops including body shops (SUP required).
(7) Church worship facilities.
(8) Buildings and uses owned or operated by public governmental agencies.
(9) Cemetery, mausoleum, crematorium & accessory uses (SUP required).
(10) Cosmetic manufacturer.
(11) Drugs and pharmaceutical products manufacturing.
(12) Private Utility Plants or Sub-stations (including alternative energy) (SUP required).
(13) Electronic products manufacturing.
(14) Fur good manufacture, but not including tanning or dyeing (SUP required).
(15) Gas and oil drilling accessory uses (SUP required).
(16) Glass products, from previously manufactured glass.
(17) Heavy equipment – outdoor rental/sales/display/service (SUP required).
(18) Household appliance products assembly and manufacture from prefabricated parts.
(19) Industrial and manufacturing plants including the processing or assembling of parts for production of finished equipment.
(20) Musical instruments assembly and manufacture.
(21) Paint, shellac and varnish manufacture (SUP required).
(22) Plastic products manufacture, but not including the processing of raw materials.
(23) Racing facilities (SUP required).
(24) Recreational Vehicle (RV) Park. (Private) (SUP required).
(25) Self storage/mini warehouse facility (SUP required).
(26) Shooting Range (indoor or outdoor) (SUP required.).
(27) Sporting and athletic equipment manufacture.
(28) Testing and research laboratories.
(29) Auction yard (vehicle) (SUP required).
(30) Communication towers (SUP required).
(31) Temporary buildings for uses incidental to construction work on the premises, which buildings shall be removed upon the completion or abandonment of construction work.
(32) Accessory buildings and uses customarily incidental to any of the above uses, provided that such not be objectionable because of odor, smoke, noise, vibration or similar nuisance. Open storage shall be considered an accessory use but no more than ten percent (10%) of the platted lot may be used for outside storage, including access and maneuvering areas for moving the stored items.
(33) Cemetery, columbarium, mausoleum and accessory uses (SUP required).
(34) Other uses similar to the above listed uses are allowed by special use permit (SUP) only, except that the following uses are specifically prohibited:
    a. Acetylene gas manufacture or storage.
    b. Acid manufacture.
    c. Alcohol manufacture.
    d. Ammonia, bleaching powder or chlorine manufacture.
    e. Arsenal.
    f. Asphalt manufacture or refining.
    g. Blast furnace.
    h. Bag cleaning, unless clearly accessory to the manufacture of bags.

i. Boiler works.
j. Brick, tile, pottery or terra cotta manufacture other than the manufacture of handcraft or concrete products.
k. Reserved.
l. Celluloid manufacture or treatment.
m. Cement, lime, gypsum, or plaster of paris manufacture.
n. Central mixing plant for cement.
o. Coke ovens.
p. Cotton gins.
q. Cottonseed oil manufacture.
r. Creosote manufacture or treatment.
s. Disinfectants manufacture.
t. Distillation of bones, coal or wood.
u. Dyestuff manufacture.
v. Exterminator and insect poison manufacture.
w. Emery cloth and sandpaper manufacture.
x. Explosives or fireworks manufacture or storage.
y. Fat rendering.
z. Fertilizer manufacture.
aa. Fish smoking and curing.
bb. Forge plant.
cc. Garbage, offal or dead animals reduction or dumping.
dd. Gas manufacture or storage, for heating or illuminating purposes.
ee. Glue, size or gelatine manufacture.
ff. Hatchery.
gg. Iron, steel, brass or copper foundry or fabrication plant.
hh. Junk, iron or rag storage or baling.
ii. Match manufacture.
jj. Lampblack manufacture.
kk. Oilcloth or linoleum manufacture.
ll. Oiled rubber goods manufacture.
mm. Ore reduction.
nn. Oil or turpentine manufacture.
oo. Paper and pulp manufacture.
pp. Petroleum or its products, refining or wholesale storage of.
qq. Pickle manufacturing.
rr. Planing mills.
ss. Potash works.
tt. Pyroxline manufacture.
uu. Rock crusher.
vv. Rolling mill.
ww. Rubber or gutta-percha manufacture or treatment but not the making of articles out of rubber.
xx. Sauerkraut manufacture.
yy. Salt works.
zz. Shoe polish manufacture.
aaa. Smelting of tin, copper, zinc, or iron ores.
bbb. Soap manufacture other than liquid soap.
ccc. Soda and compound manufacture.
ddd. Stock yard or slaughter of animals or fowls.
eee. Stone mill or quarry.
fff. Storage yard.
ggg. Stove polish manufacture.
hhh. Tallow grease or lard manufacture or refining from or of animal fat.
iii. Tanning, curing or storage of raw hides or skins.
jjj. Tar distillation or manufacture.
kkk. Tar roofing or water-proofing manufacture.
lll. Tobacco (chewing) manufacture or treatment.
mmm. Vinegar manufacture.

nnn. Wool pulling or scouring.
ooo. Yeast plant.

(b) *Height*. No building shall exceed in height the width of the street right-of-way on which it faces plus the depth of the front yard. In no event, however, shall the portion of a building located within one hundred fifty (150) feet of any property zoned for residential purposes exceed the height allowed in that residential zoning district.

(c) *Area*.

(1) *Size of yards*.

a. *Front yard*. There shall be a front yard having a minimum depth of twenty-five (25) feet. No parking, storage or similar use shall be allowed in required front yards in district "LI", except that automobile parking (including automobile dealer display parking) will be permitted in such yards if separated by at least twenty-five (25) feet from any residential district.

b. *Side yard*. A side yard of not less than fifteen (15) feet in width shall be provided on the side of a lot adjoining a side street. A side yard of not less than ten (10) feet in width shall be provided on the side of a lot adjoining a residential district. The required side yard shall be waived when a screening device is installed in accordance with the city's general development ordinance. The building itself can serve as a portion of the screening device when that portion of the building exterior is constructed of the same materials as the screening device. No parking, storage or similar use shall be allowed in any required side yard or in any side street yard adjoining a residential district.

c. *Rear yard.* No rear yard is required except that a rear yard of not less than fifty (50) feet in depth shall be provided upon that portion of a lot abutting or across a rear street from a residential district, except that such yard requirement shall not apply where the property in the residential district also backs up to the rear street. No parking, storage or similar use shall be allowed in required rear yards in district "LI" within twenty-five (25) feet of the rear property line.

(2) *Reserved*.

(d) *Outside storage regulations*. In all zoning districts where outside storage yards are allowed, such storage yards shall be screened from view in accordance with the standards outlined in the city's general development ordinance. This provision applies to all outside storage which began after the original date of passage of this provision (April 4, 1994). Any variance request involving the requirements or standards relating to such required screening devices shall be considered by the city council in accordance with the city's general development ordinance. Areas which are used for infrequent and temporary storage for a period of thirty (30) days or less per year shall not be deemed as "storage yards".

SECTION 17-12. - "R-5" SINGLE FAMILY RESIDENTIAL DISTRICT REGULATIONS

(a) *Use*. A building or premise shall be used only for the following purposes:

(1) Single-family detached dwelling units.
(2) Church worship facilities.
(3) Buildings and uses owned or operated by public governmental agencies.
(4) Country clubs or golf courses, but not including miniature golf courses, driving ranges or similar forms of commercial amusement (indoor or outdoor).
(5) Farms, nurseries or truck gardens, limited to the propagation and cultivation of plants, provided no retail or wholesale business is conducted on the premises, and provided further that no poultry or livestock other than household pets shall not be located closer to any property line than allowed by city's animal control ordinances.
(6) Real estate sales offices during the development of residential subdivisions, but not to exceed two (2) years.
(7) Schools, private, with full curriculum accredited by the State of Texas equivalent to that of a public elementary or high school.
(8) Temporary buildings for uses incidental to construction work on the premises, which buildings shall be removed upon the completion or abandonment of construction work.
(9) Accessory buildings and uses, customarily incidental to the above uses and located on the same lot therewith, not involving the conduct of a retail business except as provided herein and for home occupations as defined by this ordinance.
(10) A detached private garage with or without storeroom and/or utility room shall be permitted as an accessory building if it meets all requirements of a residential accessory building.
(11) A carport shall be permitted as an accessory building if it meets all requirements of a residential accessory building.
(12) Private Utility Plants or Sub-stations (including alternative energy) (SUP required).
(13) Gas and oil drilling accessory uses (SUP required).
(14) Cemetery, columbarium, mausoleum and accessory uses (SUP required).

(b) *Height*. No building shall exceed thirty-five (35) feet or two and one-half (2-1/2) stories in height.

(c) *Area*.

(1) *Size of yards.*

a. *Front yard.* There shall be a front yard having a required depth of not less than twenty-five (25) feet, except where entrance to the automobile parking area is provided from an alley in the rear of the house in which case the minimum front yard shall be twenty (20) feet. Where lots have double frontage, running through from one street to another, the required twenty-five (25) foot front yard shall be provided on both streets.

b. *Side yard.* There shall be a side yard on each side of the lot having a width of not less than six and one-half (6-1/2) feet. A side yard adjacent to a side street shall not be less than fifteen (15) feet. No side yard for allowable non-residential uses shall be less than twenty-five (25) feet.

c. *Rear yard.* There shall be a rear yard having a depth of not less than twenty (20) feet if there is no rear entry from an alley, and a depth of not less than twenty-five (25) feet if there is rear entry from an alley.

(2) *Size of lot.*

a. *Lot area.* No building shall be constructed on any lot less than five thousand (5,000) square feet, or equivalent thereof, per dwelling unit.

b. *Lot width.* The minimum width of the lot shall not be less than fifty (50) feet at the required front and rear building setback lines. The minimum width at the front property line shall be forty (40) feet, or a minimum of fifty (50) feet if there is a driveway in the front.

(3) *Minimum dwelling size*. The minimum floor area of any dwelling unit shall be one thousand four hundred fifty (1,450) square feet, exclusive of garages, breezeways and porches.

(4) *Lot coverage*. In no case shall more than fifty percent (50%) of the total lot area be covered by the combined area of the main buildings and accessory buildings.

SECTION 17-26. – "PD" Planned Development District

(a) *General Purpose and Description.* The Planned Development District is a district which accommodates planned associations of uses developed as integral land use units such as industrial districts, offices, commercial or service centers, shopping centers, residential developments of multiple or mixed housing including attached single-family dwellings or any appropriate combination of uses which may be planned, developed, or operated as integral land use units either by a single owner or a combination of owners. A Planned Development (PD) District may be used to permit new or innovative concepts in land utilization not permitted by other zoning districts in this Ordinance. While greater flexibility is given to allow special conditions or restrictions, which would not otherwise allow the development to occur, procedures are established herein to ensure against misuse of increased flexibility. The minimum area for a Planned Development (PD) District shall be five (5) acres.

(b) *Permitted Uses.* An application for a PD District shall specify the base district(s), the use or the combination of uses proposed. Uses which may be permitted in a PD must be specified if not permitted in the base district. In the case of residential PD districts for single-family or duplex categories, the proposed lot area shall be no smaller than the lot sizes allowed in the base zoning district except for minor reductions in a small percentage of the lots in order to provide improved design. In selecting a base zoning district, the uses allowed in the base district must be similar or compatible with those allowed in the PD. PD designations shall not be attached to Special Use Permit (SUP) requirements. Special Use Permits allowed in a base zoning district are allowed in a PD only if specifically identified at the time of PD approval.

(c) *Planned Development Requirements*.

(1) Development requirements for each separate PD District shall be set forth in the amending Ordinance granting the PD District and shall include, but may not be limited to: uses, density, lot area, lot width, lot depth, yard depths and widths, building height, building elevations, building material coverage, floor area ratio, parking, access, screening, landscaping, accessory buildings, signs, lighting, hours of operation, project phasing or scheduling, management associations, and other requirements as the City Council and Planning and Zoning Commission may deem appropriate.

(2) In the PD District, uses shall conform to the standards and regulations of the base-zoning district to which it is most similar. The base zoning district shall be stated in the granting Ordinance. All applications to the City shall list all requested deviations from the standard requirements set forth throughout this Ordinance (applications without this list will be considered incomplete) specifically any deviation not requested is deemed to comply with this Ordinance even if shown graphically on a Site Plan. The Planned Development District shall conform to all other sections of this Ordinance unless specifically excluded in the granting Ordinance.

(3) The Ordinance granting a PD District shall include a statement as to the purpose and intent of the PD granted therein. A specific list is required of modifications in each district or districts and general statement citing the reason for the PD request.

(d) In establishing a Planned Development District in accordance with this section, the City Council shall approve and file as part of the amending Ordinance appropriate plans and standards for each Planned Development District. To facilitate understanding of the request during the review and public hearing process, the Planning and Zoning Commission and City Council shall require a Concept Plan. All PD applications shall have a written proposal explaining all aspects of the requested PD including any deviations from this Ordinance. The Concept Plan shall be submitted by the applicant at the time of the PD request. The plan shall show the applicant's intent for the use of the land within the proposed Planned Development District in a graphic manner and as may be required, supported by written documentation of proposals and standards for development. The City may prepare application form(s), which further describe and explain the following requirements:

(1) Residential Concept Plan - A Concept Plan for residential land use shall show the following:

a. General use
b. Thoroughfares
c. Preliminary lot arrangements
d. Size, type and location of buildings and building sites
e. Access
f. Density
g. Building height
h. Fire lanes
i. Screening
j. Landscaped areas
k. Project scheduling and phasing
l. Any other pertinent development data

(2) Non-Residential Concept Plan - A Concept Plan for uses other than residential uses shall set forth the land use proposals in a manner to adequately illustrate the type and nature of the proposed development. Data which may be submitted by the applicant, or required by the City staff, Planning and Zoning Commission, or City Council, may include but is not limited to the following:

a. Types of use(s)
b. Topography and boundary of PD area
c. Physical features of the site
d. Existing streets, alleys and easements
e. Location of future public facilities
f. Building height and location
g. Parking areas and ratios
h. Fire lanes
i. Project scheduling and phasing
j. Landscape plans
k. Screening
l. Building elevations
m. Any other information to adequately describe the proposed development and to provide data for approval which is to be used in drafting the required Engineering Site Plan.

(e) *Approval Process and Procedure*. The procedure for establishing a Planned Development District shall follow the procedure for zoning amendments as set forth in Section 17-37. This procedure is further expanded as follows for approval of Concept Plans.

(1) The Planning and Zoning Commission shall recommend and the City Council shall approve a Concept Plan in public hearings. One public hearing at the Planning and Zoning Commission and one at the City Council for the PD request is adequate when:

a. Information on the Concept Plan and attached application is sufficient to determine the appropriate use of the land and the required Engineering Site Plan and/or preliminary/final plat will not deviate substantially from it; or

b. The applicant submits adequate data with the request for the Planned Development District to fulfill the requirement for an Engineering Site Plan and/or preliminary/final plat.

(2) The amending Ordinance establishing the Planned Development District shall not be approved until the Concept Plan is approved.

(3) An Engineering Site Plan shall be submitted for approval within one (1) year from the date of approval of the Concept Plan for all or some portion of the Concept Plan. If an Engineering Site Plan is not submitted within one (1) year, the Concept Plan is subject to

review by the Planning and Zoning Commission and City Council. If some portion of the project is not started within two (2) years, the Planning and Zoning Commission and City Council may review the original Concept Plan to ensure its continued validity. If the City determines the Concept Plan is not valid, a new Concept Plan must be approved prior to submittal of an Engineering Site Plan for the PD District. Although a new Concept Plan may be required to be approved, this does not affect the validity of the PD in terms of uses, density, and other development standards permitted in the PD.

(4) When a PD District is being considered, a written report from the Director of Economic Development and Planning or his/her designated representative, discussing the impact on planning, engineering, water utilities, electric, sanitation, building inspection, tax, police, fire, and traffic, and written comments from the applicable public agencies shall be submitted to the Planning and Zoning Commission prior to the Commission making any recommendations to the City Council.

(f) All Planned Development Districts approved in accordance with the provisions of this Ordinance in its original form, or by subsequent amendments thereto, shall be referenced on the Zoning District Map, and a list of such Planned Development Districts together with the category of uses permitted therein, shall be maintained as part of this Ordinance.

(g) *Planned Unit Development Ordinances Continued*. Prior to adoption of this Ordinance, the City Council has established various Planned Unit Development Districts, all of which are to be continued in full force and effect. The ordinances or parts of ordinances approved prior to this Ordinance shall be carried forth in full force and effect as are the conditions, restrictions, regulations, and requirements which apply to the respective Planned Unit Development Districts shown on the Zoning Map at the date of adoption of this Ordinance.

This Section (Office Use Only)	
Case:	
PZ:	CC:
Sign/s Picked Up By:	

LEWISVILLE
Deep Roots. Broad Wings. Bright Future.

ZONE CHANGE APPLICATION

Owner/s (name):	Robert Suarez		
Company Name:	RJS Marine		
Mailing Address:	1800 N IH 35		
Work #:	Carrollton, TX 75006	Cell #:	
E-Mail:	vky63031@aol.com		
Owner Signature (Owner/s Must Sign or Submit Letter of Authorization):		Date:	7/20/17
Printed Name:	Robert Suarez		

Applicant/Agent (name):	John Bezner		
Company Name:	Civil Point Engineers, Inc.		
Mailing Address:	3102 Maple Ave, Ste 400, Dallas, TX 75201		
Work #:	972-554-1100	Cell #:	
E-Mail:	john@civilpt.com		
Applicant/Agent Signature		Date:	
Printed Name:	John Bezner		

Current Zoning: LI Requested Zoning: Planned Development Acres: 6.60

Legal Description (Lot/ Block/Tract/Abstract): Levi N. Sparks Survey, Abstract# 1135, Denton County, Texas
A Tract of Land Described in a Deed to RJS Marine, Inc., CCF# 2002-R0041566, R.P.R.D.C.T.

Address/Location:

Application and Sign Fees:

	Less than 1/2 acre	$ 150.00
	1/2 acre up to 4.99 acres	$ 250.00
x	5 acres up to 24.99 acres	$ 400.00

	25 acres up to 49.99 acres	$ 750.00
	50 acres up to 99.99 acres	$1,000.00
	100 acres and more	$1,500.00

Qty: 2	**Zone Change Signs - $35 each.** 1 sign required for each 5 acres (max. 5 per site)	$ 70

Sign(s) must be posted a minimum of ten (10) days prior to the Planning & Zoning hearing date.

Amount Due (application & sign fee)	$ 470.00

CIVIL POINT
ENGINEERS

September 22, 2017

City of Lewisville
Town Council
151 W Church St
Lewisville, TX 75029

RE: Variance Requests for Great Lakes Crossing Residential Planned Development

Dear Council Members:

This letter requests five (5) variances be granted for the Planned Development (PD) for Great Lakes Crossing Residential Subdivision. The site proposes 30 residential lots on a total of 6.60 acres. The site is currently zoned Industrial; however, we are asking for a zoning of PD R-5 Single Family Residential. What follows is a brief explanation of each variance requested.

Variance A: To Allow a 62-foot lot width with a 40-foot control of access for Lot 2, instead of a 75-foot lot width with a 50-foot control of access.

The Western lot line for Lot 2 is currently 76-foot off of the face of curb for McGee Ln, and 62.66-foot off of the McGee Ln ROW. There is a 10' LS Buffer open space Lot 1 in between McGee Ln and Lot 2. This should not have an adverse effect on safety since Lot 2 is on the south side of the proposed Court.

Variance B: To Allow a 737-foot long Cul-de-sac instead of a 600-foot long Cul-de-sac (measured from the Center of McGee Ln to the Center of the Cul-de-sac).

The extended cul-de-sac is required for the lot density to remain at 30 while providing a better layout with the curved street.

Variance C: To Allow Front Entry Driveways.

The front entry driveways will be for all of the lots.

Variance D: To Allow non-radial lots as shown in the development plan, instead of straight or radial lot lines.

The non-radial lots will not have a negative impact on the property and will not affect any standard homes.

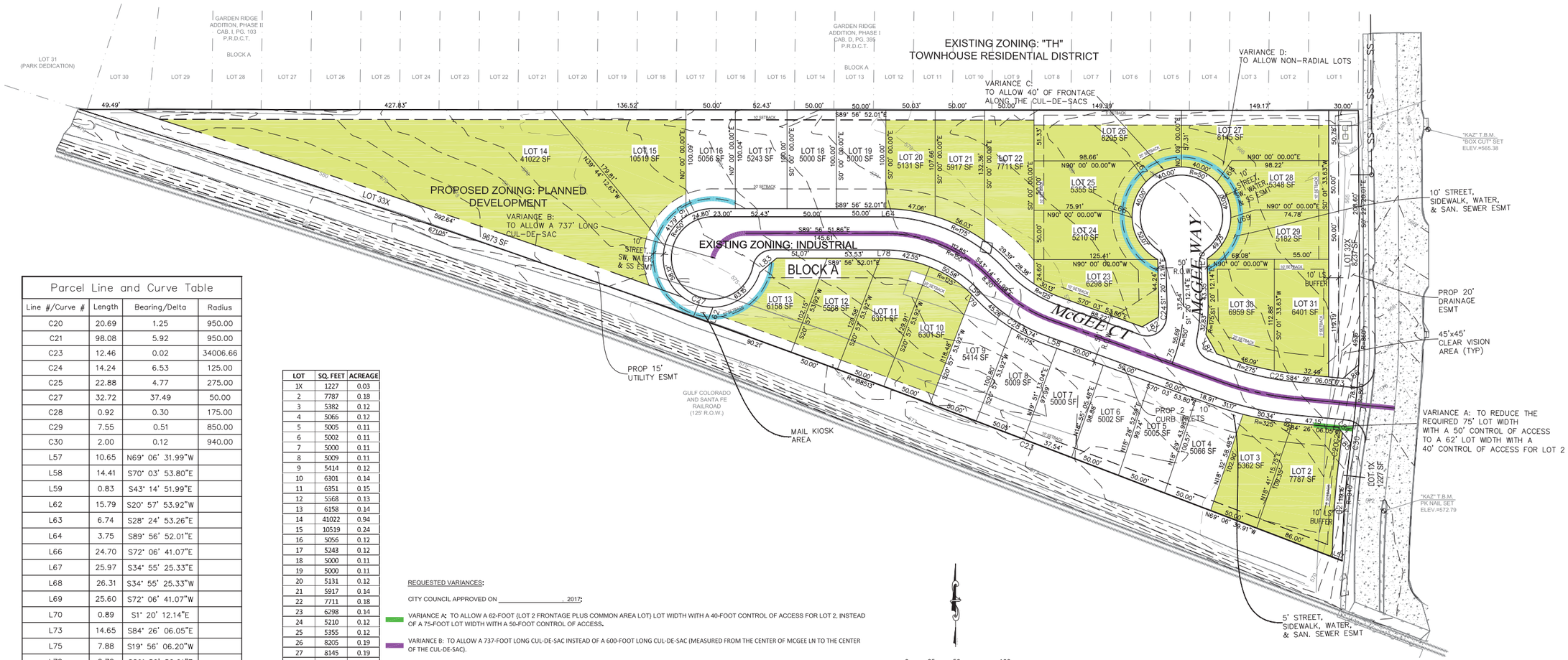
Variance E: T Allow a 50-foot Right-of-Way at the Cul-de-Sac with a 10-foot street, sidewalk, water and sanitary sewer easement, instead of a typical 60-foot Right-of-Way.

The 10-feet easement will provide the necessary room for City utilities that would have been located in the 60-foot radius. There will be an additional 7.5' easement along the Cul-de-Sac for the Franchise Utilities.

Thank you for your consideration on this matter.

Sincerely,

John H. Bezner, P.E.
Civil Point Engineers, Inc.
TBPE Firm #9723



Parcel Line and Curve Table			
Line #/Curve #	Length	Bearing/Delta	Radius
C20	20.69	1.25	950.00
C21	98.08	5.92	950.00
C23	12.46	0.02	34006.66
C24	14.24	6.53	125.00
C25	22.88	4.77	275.00
C27	32.72	37.49	50.00
C28	0.92	0.30	175.00
C29	7.55	0.51	850.00
C30	2.00	0.12	940.00
L57	10.65	N69° 06' 31.99"W	
L58	14.41	S70° 03' 53.80"E	
L59	0.83	S43° 14' 51.99"E	
L62	15.79	S20° 57' 53.92"W	
L63	6.74	S28° 24' 53.26"E	
L64	3.75	S89° 56' 52.01"E	
L66	24.70	S72° 06' 41.07"E	
L67	25.97	S34° 55' 25.33"E	
L68	26.31	S34° 55' 25.33"W	
L69	25.60	S72° 06' 41.07"W	
L70	0.89	S1° 20' 12.14"E	
L73	14.65	S84° 26' 06.05"E	
L75	7.88	S19° 56' 06.20"W	
L78	8.78	S89° 56' 52.01"E	
L79	6.97	S43° 14' 51.99"E	
L80	109.35	N18° 41' 15.75"E	
L81	22.65	S29° 06' 25.67"E	
L82	19.01	N59° 18' 05.54"E	
L83	22.65	N49° 26' 30.83"E	
L84	6.96	S38° 25' 19.93"E	
L85	13.87	S38° 25' 19.93"E	
L86	20.88	S49° 15' 45.99"W	

LOT	SQ. FEET	ACREAGE
1X	1227	0.03
2	7787	0.18
3	5382	0.12
4	5066	0.12
5	5005	0.11
6	5002	0.11
7	5000	0.11
8	5009	0.11
9	5414	0.12
10	6301	0.14
11	6351	0.15
12	5568	0.13
13	6158	0.14
14	41022	0.94
15	10519	0.24
16	5056	0.12
17	5243	0.12
18	5000	0.11
19	5000	0.11
20	5131	0.12
21	5917	0.14
22	7711	0.18
23	6298	0.14
24	5210	0.12
25	5355	0.12
26	8205	0.19
27	8145	0.19
28	5348	0.12
29	5182	0.12
30	6959	0.16
31	6401	0.15
32X	8237	0.19
33X	9673	0.22

REQUESTED VARIANCES:

CITY COUNCIL APPROVED ON _____, 2017:

VARIANCE A: TO ALLOW A 62-FOOT (LOT 2 FRONTAGE PLUS COMMON AREA LOT) LOT WIDTH WITH A 40-FOOT CONTROL OF ACCESS FOR LOT 2, INSTEAD OF A 75-FOOT LOT WIDTH WITH A 50-FOOT CONTROL OF ACCESS.

VARIANCE B: TO ALLOW A 737-FOOT LONG CUL-DE-SAC INSTEAD OF A 600-FOOT LONG CUL-DE-SAC (MEASURED FROM THE CENTER OF MCGEE LN TO THE CENTER OF THE CUL-DE-SAC).

VARIANCE C: TO ALLOW FRONT ENTRY DRIVEWAYS.

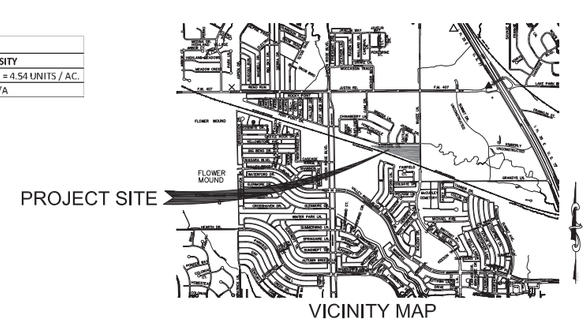
VARIANCE D: TO ALLOW NON-RADIAL LOTS AS SHOWN IN THE CONCEPT PLAN, INSTEAD OF STRAIGHT OR RADIAL LOT LINES.

VARIANCE E: TO ALLOW A 50-FOOT RIGHT-OF-WAY AT THE CUL-DE-SAC WITH A 10-FOOT STREET, SIDEWALK, WATER AND SANITARY SEWER EASEMENT, INSTEAD OF A TYPICAL 60-FOOT RIGHT-OF-WAY.

0 25 50 100

SCALE: 1" = 50'

SITE INFORMATION TABLE				
LAND USE	TOTAL ACREAGE	TOTAL NO. OF LOTS	LIST OF LOTS	DENSITY
SINGLE FAMILY - DETACHED	4.95	30	BLOCK A, LOTS 2 - 31	30 UNITS / 6.60 AC. = 4.54 UNITS / AC.
H.O.A. PRIVATE OPEN SPACE	0.44	3	BLOCK A, LOTS 1X, 32X, 33X	N/A



VICINITY MAP

SCALE: 1" = 2000'

CIVIL POINT ENGINEERS

PRELIMINARY

NOT FOR CONSTRUCTION

JOHN H BEZNER

PE # 98469

Owner/Developer:
R.J.S. Marine, Inc.
1800 I-35, Ste 200
Carrollton, TX 75006

Surveyor:
Eagle Surveying
210 S Elm St, Ste 104
Denton, TX 76201
(940) 222-3009

Engineer:
Civil Point Engineers, Inc.
3102 Maple Ave, Ste 400
Dallas, TX 75201
(972) 554-1100

VARIANCE EXHIBIT
(FOR REVIEW PURPOSES ONLY)

LOTS 2-31, 1X, 32X, 33X, BLOCK A

GREAT LAKES CROSSING

AN ADDITION TO THE CITY OF LEWISVILLE, DENTON COUNTY, TEXAS

AND BEING SITUATED IN THE LEVI N. SPARKS SURVEY, ABSTRACT #1135

30 RESIDENTIAL LOTS *3 HOA LOTS*

6.60 ACRES

REQUESTED ZONING: PLANNED DEVELOPMENT R5 (PD-R5)

OCTOBER 12, 2017

ORDINANCE NO. _____

AN ORDINANCE OF THE LEWISVILLE CITY COUNCIL, AMENDING THE ZONING ORDINANCE BY REZONING AN APPROXIMATELY 6.60-ACRE TRACT OF LAND OUT OF THE LEVI N. SPARKS SURVEY, ABSTRACT NO. 1135, LOCATED ON THE WEST SIDE OF MCGEE LANE, APPROXIMATELY 125 FEET SOUTH OF DAFFODIL LANE, FROM LIGHT INDUSTRIAL DISTRICT (LI) ZONING TO PLANNED DEVELOPMENT - SINGLE FAMILY RESIDENTIAL DISTRICT (PD-R-5) ZONING; CORRECTING THE OFFICIAL ZONING MAP; PRESERVING ALL OTHER PORTIONS OF THE ZONING ORDINANCE; DETERMINING THAT THE PUBLIC INTERESTS AND GENERAL WELFARE DEMAND THIS ZONING CHANGE AND AMENDMENT THEREIN MADE; PROVIDING FOR A REPEALER, SEVERABILITY, AND A PENALTY; AND DECLARING AN EMERGENCY.

WHEREAS, applications were made to amend the Official Zoning Map of Lewisville, Texas by making applications for same with the Planning and Zoning Commission of the City of Lewisville, Texas, as required by State statutes and the Zoning Ordinances of the City of Lewisville, Texas, said Planning and Zoning Commission has recommended that rezoning of the approximately 6.60-acre property described in the attached Exhibit "A" (the "Property") be **approved**, and all the legal requirements, conditions and prerequisites having been complied with, the case having come before the City Council of the City of Lewisville, Texas, after all legal notices, requirements, conditions and prerequisites having been complied with; and,

WHEREAS, the City Council of the City of Lewisville, Texas, at a public hearing called by the City Council of the City of Lewisville, Texas, did consider the following factors in making a determination as to whether this requested change should be granted or denied: effect on the congestion of the streets; the fire hazards, panics and other dangers possibly present in the securing

of safety from same; the effect on the promotion of health and the general welfare; effect on adequate light and air; the effect on the overcrowding of the land; the effect of the concentration on population; the effect on the transportation, water, sewerage, schools, parks and other public facilities; and,

WHEREAS, the City Council further considered among other things the character of the district and its peculiar suitability for particular uses and with the view to conserve the value of buildings, encourage the most appropriate use of land throughout this City; and,

WHEREAS, the City Council of the City of Lewisville, Texas, does find that there is a public necessity for the zoning change, that the public interest clearly requires the amendment, that the zoning changes do not unreasonably invade the rights of adjacent property owners; and,

WHEREAS, the City Council of the City of Lewisville, Texas, does find that the change in zoning lessens the congestion in the streets; helps secure safety from fire, panic and other dangers; promotes health and the general welfare; provides adequate light and air; prevents the overcrowding of land; avoids undue concentration of population; facilitates the adequate provisions of transportation, water, sewerage, schools, parks and other public requirements; and,

WHEREAS, the City Council of the City of Lewisville, Texas, has determined that there is a necessity and need for this change in zoning and has also found and determined that there has been a change in the conditions of the property surrounding and in close proximity to the Property since it was originally classified and, therefore, feels that a change in zoning classification for the Property is needed, is called for, and is in the best interest of the public at large, the citizens of the City of Lewisville, Texas, and helps promote the general health, safety, and welfare of this community.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, THAT:

SECTION 1. The Zoning Ordinance of the City of Lewisville, Texas, be, and the same is hereby amended and changed in that the zoning of the Property is hereby changed to **PLANNED DEVELOPMENT – SINGLE FAMILY RESIDENTIAL DISTRICT (PD-R-5) ZONING** and in compliance with the proposed narrative, concept plan, preliminary utility plan, preliminary drainage area map, landscape and screening illustrations, and conceptual elevations, attached hereto as Exhibit "B"; and

SECTION 2. The City Manager, or her designee, is hereby directed to correct the official zoning map of the City of Lewisville, Texas, to reflect this change in zoning.

SECTION 3. That in all other respects the use of the tract or tracts of land hereinabove described shall be subject to all the applicable regulations contained in said City of Lewisville Zoning Ordinance and all other applicable and pertinent ordinances of the City of Lewisville, Texas.

SECTION 4. That the zoning regulations and districts as herein established have been made in accordance with the comprehensive plan for the purpose of promoting health, safety, and the general welfare of the community. They have been designed with respect to both present conditions and the conditions reasonably anticipated to exist in the foreseeable future, to lessen congestion in the streets; to secure safety from fire, panic, flood and other dangers; provide adequate light and air; to prevent overcrowding of land, to avoid undue concentration of population; facilitate the adequate provisions of transportation, water, sewage, parks and other public requirements, and to make adequate provisions for the normal business, commercial needs and development of the community.

They have been made with reasonable consideration, among other things of the character of the district, and its peculiar suitability for the particular uses and with a view of conserving the value of buildings and encouraging the most appropriate use of land throughout the community.

SECTION 5. This Ordinance shall be cumulative of all other ordinances of the City of Lewisville, Texas, affecting zoning and shall not repeal any of the provisions of said ordinances, except in those instances where provisions of those ordinances which are in direct conflict with the provisions of this Ordinance.

SECTION 6. That the terms and provisions of this Ordinance shall be deemed to be severable and that if the validity of the zoning affecting any portion of the Property shall be declared to be invalid, the same shall not affect the validity of the zoning of the balance of the tract or tracts of land described herein.

SECTION 7. Any person, firm or corporation who violates any provision of this Ordinance shall be deemed guilty of a misdemeanor and, upon conviction thereof in the Municipal Court, shall be subject to a fine of not more than $2,000.00 for each offense, and each and every day such offense is continued shall constitute a new and separate offense.

SECTION 8. The fact that the present Zoning Ordinance and regulations of the City of Lewisville, Texas are inadequate to properly safeguard the health, safety, peace and general welfare of the inhabitants of the City of Lewisville, Texas, creates an emergency for the immediate preservation of the public business, property, health, safety and general welfare of the public which requires that this Ordinance shall become effective from and after the date of its final passage, and it is accordingly so ordained.

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, BY A VOTE OF _____ TO _____, ON THIS THE 20TH DAY OF NOVEMBER, 2017.

APPROVED:

_____
Rudy Durham, MAYOR

ATTEST:

_____
Julie Worster, CITY SECRETARY

APPROVED AS TO FORM:

_____
Lizbeth Plaster, CITY ATTORNEY

Exhibit A
Property Description

Exhibit B
Proposed Narrative
Concept Plan
Preliminary Utility Plan
Preliminary Drainage Area Map
Landscape and Screening Illustrations
Conceptual Elevations

EXHIBIT A

Property Description

Being all that certain lot, tract or parcel of land situated in the Levi N. Sparks Survey, Abstract Number 1135, City of Lewisville, Denton County, Texas, and being a part of that certain called 6.867 acres tract of land described in deed to Phil Randall Custom Homes, Inc. Recorded in Clerk's File Number 98-027054 of the Real Property Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a ½" capped rebar found on the north line of said Randall tract, from which point the northeast corner thereof bears S 89* 20' 54" E, 19.7 feet, said point being the southeast corner of Lot 1, Block A, Garden Ridge Addition Phase I, an addition to the City of Lewisville according to the plat thereof recorded in Cabinet D, Page 395 of the Plat Records of Denton County, Texas, and being on the west right -of-way line of McGee Lane according to a Right-of-Way Deed from Phil Randall Custom Homes, Inc., to the City of Lewisville, dated 01-08-02;

THENCE S 00*13'38" W, 208.60 feet, along the east right-of-way line of McGee Lane, to a ½" capped rebar (G&A) set at the point of curvature of a curve to the right;

THENCE Southwesterly, along the west right-of-way line of McGee Lane and with the arc of said curve having a radius of 860.00 feet, a central angle of 08*28'44", whose chord bears S 04*27'23" W, 127.15 feet, an arc length of 127.27 feet, to a ½" capped rebar (G&A) set at a point of reverse curvature;

THENCE Southwesterly, continuing along the west right-of-way line of McGee Lane, and with the arc of said curve having a radius of 940.00 feet, a central angle of 07*23'05" whose chord bears S 05*00'13" W, 121.07 feet, an arc length of 121.15 feet, to a ½" capped rebar (G&A) set on the south line of said Randall tract, being on the north line of the Gulf, Colorado and Santa Fe Railroad (125 foot R.O.W.);

THENCE N 68*28'01" W, 334.34 feet, along the south line of said Randall tract and the north right-of-way line of the Gulf, Colorado, and Santa Fe Railroad, to a ½" rebar found at the point of curvature of a curve to the left;

THENCE Northwesterly, continuing along said line and with the arc of said curve having a radius of 17525.22 feet, a central angle of 03*20'48", whose chord bears N 70*07'23" W, 1023.49 feet, an arc length of 1023.63 feet, to a capped rebar found at the northwest corner of said Randall tract, being on the south line of Garden Ridge Addition, an addition to the City of Lewisville according to the plat thereof recorded in Cabinet I, Page 103 of the Plat Records of Denton County, Texas;

THENCE S 89*20'54" E (Record), along the north line of said Randall tract and the south line of Garden Ridge Addition Phase II, passing the southeast corner thereof and a southwest corner of Garden Ridge Addition Phase I, and continuing a total distance of 1294.87 feet, to the POINT OF BEGINNING and containing approximately 6.599 acres of land.

CIVIL POINT
ENGINEERS

EXHIBIT B
NARRATIVE

October 13, 2017

City of Lewisville
Mayor and Town Council
151 W Church St
Lewisville, TX 75029

RE: Great Lakes Crossing Residential Planned Development and Preliminary Plat

Dear Mayor and Council Members:

Civil Point Engineers, Inc., on behalf of RJS Marine, is submitting a Planned Development (PD) and Preliminary Plat for Great Lakes Crossing Subdivision. The site proposes 30 residential lots on a total of 6.60 acres. The site is currently zoned Industrial; however, we are asking for a zoning of PD R-5 Single Family Residential. As part of the PD we are only asking 3 deviations from the standard R-5 regulations. First is to allow a 20-foot front yard setback instead of a 25-foot setback. Secondly, we request to allow a 5-foot side yard setback instead of the 6.5-feet. Thirdly, we ask that the side yard setback for a side street be allowed to change from 15 feet to 10 feet. Fourthly, we request a 10-foot rear yard setback instead of a 20-foot setback. Fifthly, we are offering to increase standards for the minimum dwelling size of 1,450sf to the breakdown shown below:

10 dwellings from 1,700 – 1,900sf
10 dwellings from 1,900 – 2,000sf
10 dwellings from 2,000 +

The PD Application and Concept Plan along with the Preliminary Utility, Drainage, and Variance Exhibit are submitted with this summary.

I respectfully ask that you support our application for this subdivision request. Thank you for your help.

Sincerely,

John H. Bezner, P.E.
Civil Point Engineers, Inc.
TBPE Firm #9723

Great Lakes Crossing Planned Development (PD)
Development Standards

I. Project Location

Great Lakes Crossing is a Planned Development for the property west of McGee Lane, just north of the railroad, and south of Daffodil Lane. The purpose of this district is to create a planned residential community with a base district of R-5. The project consists of 30 residential lots and three HOA lots, with a total area of 6.60 acres.

II. Purpose and Intent

Section 1 General Description and Purpose

The proposed Planned Development (PD) is based upon Zone "R-5" Single-Family Residential District regulations, as shown in Exhibit B. The purpose of this PD is to provide 30 residential lots for Single Family, detached residences and three HOA lots with Single Family uses within one (1) phase.

Exhibits:

a) Legal Description
b) Planned Development Standard
    C1. Concept Plan
    C2. Preliminary Utility Plan
    C3. Preliminary Drainage Plan
    CC&Rs. Declaration of Covenants, Conditions and Restrictions
    Great Lakes Crossing Elevations

Section 2 Permitted Uses

The following are permitted by the R-5 land use and the requested PD Section 17-26:

a) Use: Single family detached dwelling units in accordance with "R-5" Single Family Residential District. The subject property shall be developed generally in compliance with the conceptual plan attached hereto as the Concept Plan.
b) Height: No building shall exceed 35-feet or 2-1/2 stories in height.

Section 3 Conditional Uses

No conditional uses are suggested. Lots are for the general use of Single Family, detached residences.

Section 4 Planned Development Standards

1. Lot Regulations: All residences shall have access from the front of each lot. The minimum livable footage area will be 1,700 square feet with a minimum two (2)-car tandem garages. The dwelling unit sizing shall be defined as shown below:

10 dwellings from 1,700 – 1,900sf
10 dwellings from 1,900 – 2,000sf
10 dwellings from 2,000 +

2. Development and Design Standards:

		PD-R-5
1.	Minimum Size of Lot	5,000sf
2.	Maximum Lot Coverage	50%
3.	Minimum Dwelling Size	1,700sf
4.	Minimum Lot Width	50’
5.	Minimum Lot Depth	N/A
6.	Minimum Front Yard Setback	20’
7.	Minimum Rear Yard Setback	10’
8.	Minimum Side Yard Setback	5’
9.	Side Yard Setback, Side Street	10’
10.	Maximum Building Height	35’ or 2.5 stories
11.	Minimum Garage Size	2 stalls

12. Density: R-5 with 30 residences (and two HOA lots) on 6.60 acres for 2.2 units per acre
13. Park Fees will be paid for each lot at time of building permit

3. Residential Architectural Standards: Colors and materials will include neutral and natural earth tones and textures. Eighty percent (80%) of all exterior walls and 100% of the front façade will be composed of stone or brick, exclusive of doors, windows, trim and architectural features (i.e. shingles, moldings, shutters, dormers, awnings, sills, ext.). Garage Door shall be wood-clad as per elevation exhibits.

4. Fences: All residences shall have a stained wood fence with metal posts and comply with City Standard Section 4-453. Masonry walls shall be provided adjacent to any existing commercial properties per the Landscape and Fence Plan. A six (6)-foot brick screen wall will be provided along the east property lines along McGee Lane.

5. Landscaping: Landscaping will conform to City Standards within Article VI of the City Code. Front, side and back yards, along with corner side lots, will be fully sodded and landscaped with automatic irrigation. A minimum of one tree per lot shall be provided.

6. HOA: A Home Owners Association (HOA) will be required for the operations and maintenance of all open lots. Please refer to the CC&Rs, which requires the HOA.

a) Park and Open Spaces: Lots 1, 32, & 33 shall remain open-space lots maintained by the HOA.
b) Amenities: Mail box Area, Park Bench, Picnic Table
c) HOA Duty Default Regulations:

In the event the HOA consistently defaults on its obligations to maintain the common areas in compliance with the covenants or restrictions and the City receives a petition from 100% of the property owners within the subdivision to assume the maintenance responsibility of the common areas, the city may choose to assume the maintenance responsibilities upon approval from the City Council.

In such event that the City agrees to assume the maintenance responsibilities, all common areas shall be dedicated to the City as public right-of-way. The City shall maintain the common areas in a consistent manner as with other public right-of-ways, without having any obligation for a higher level of maintenance within the subdivision. Upon dedication of the common areas to the City, the City has a right to add or remove any appurtenances or structures that may impede the City's ability to perform its maintenance obligations. The City shall have the right to assess the property owners for any incurred demolition costs.

Section 5 Phasing

This project is proposed to be built in one (1) phase.

Section 6 Requested Variances

Alley access shall not be required with the proposed Zoning Planned Development (PD) for the subject property. This development will have a front entry product for the lots. Mountable curb shall be provided per City Standards. For this development two standards are being requested to be reduced.

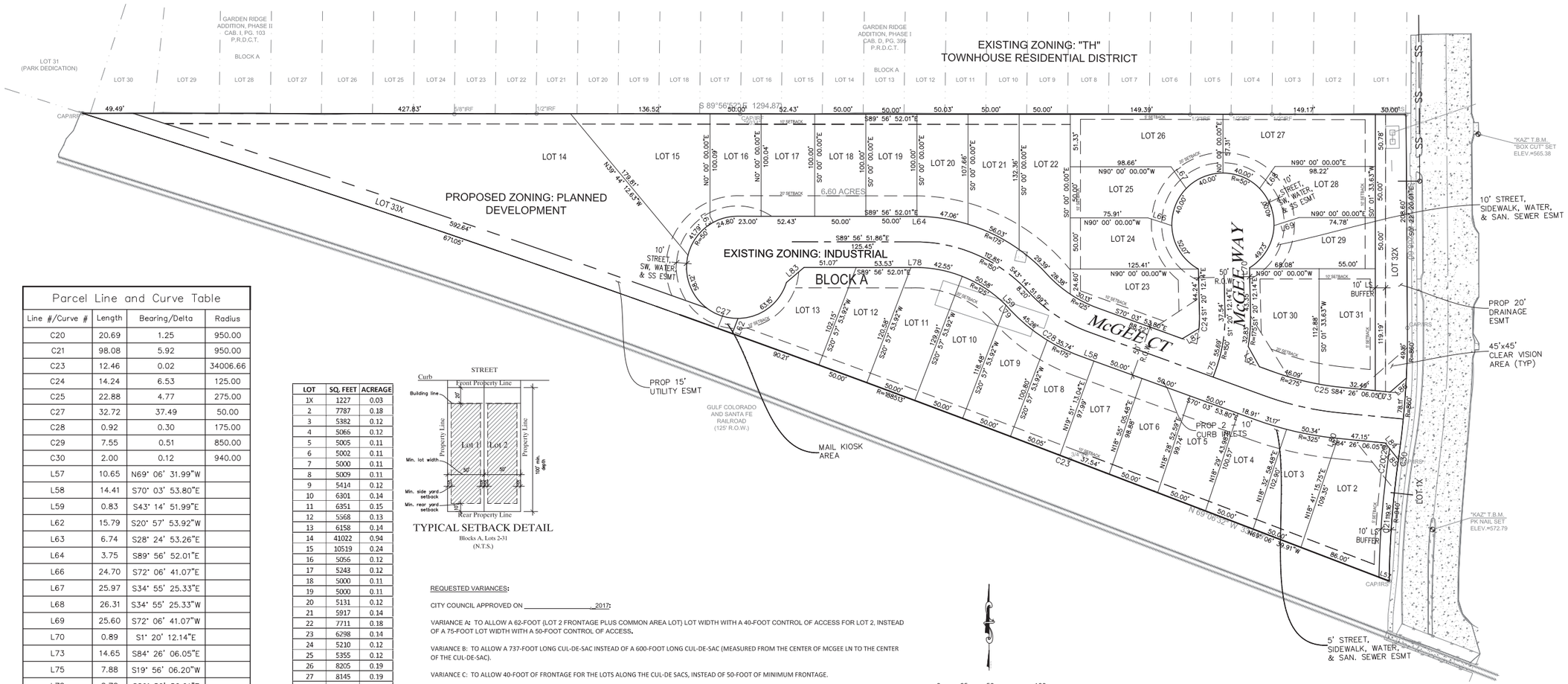
a) To allow a 62-foot {lot 2 frontage plus common area lot} lot width with a 40-foot Control of Access for Lot 2 instead of a 75-foot lot width with a 50-foot control of access.
b) To allow a 737-foot long Cul-de-sac.
c) To allow front entry driveways.
d) To allow non-radial lot lines as shown on the Concept Plan.
e) To allow a 50-foot row at the Cul-de-sac with a 10-foot street, sidewalk, water, and sanitary sewer easement.

Section 7 Miscellaneous Provisions

No provisions are provided other than the permitted uses. However, all other inherited rights and uses within the City of Lewisville's Zoning Ordinance, not listed in this planned development, shall be maintained.

Section 8 Deviation Table

	R-5	PD-R-5
Front Setback	25 feet	20 feet
Side Setback	6.5 feet, 15' adjacent to street	5 feet, 10' adjacent to street
Rear Setback	20'	10'
Min. Dwelling Size	1450sf	1700 sf



Parcel Line and Curve Table			
Line #/Curve #	Length	Bearing/Delta	Radius
C20	20.69	1.25	950.00
C21	98.08	5.92	950.00
C23	12.46	0.02	34006.66
C24	14.24	6.53	125.00
C25	22.88	4.77	275.00
C27	32.72	37.49	50.00
C28	0.92	0.30	175.00
C29	7.55	0.51	850.00
C30	2.00	0.12	940.00
L57	10.65	N69° 06' 31.99"W	
L58	14.41	S70° 03' 53.80"E	
L59	0.83	S43° 14' 51.99"E	
L62	15.79	S20° 57' 53.92"W	
L63	6.74	S28° 24' 53.26"E	
L64	3.75	S89° 56' 52.01"E	
L66	24.70	S72° 06' 41.07"E	
L67	25.97	S34° 55' 25.33"E	
L68	26.31	S34° 55' 25.33"W	
L69	25.60	S72° 06' 41.07"W	
L70	0.89	S1° 20' 12.14"E	
L73	14.65	S84° 26' 06.05"E	
L75	7.88	S19° 56' 06.20"W	
L78	8.78	S89° 56' 52.01"E	
L79	6.97	S43° 14' 51.99"E	
L80	109.35	N18° 41' 15.75"E	
L81	22.65	S29° 06' 25.67"E	
L82	19.01	N59° 18' 05.54"E	
L83	22.65	N49° 26' 30.83"E	
L84	6.96	S38° 25' 19.93"E	
L85	13.87	S38° 25' 19.93"E	
L86	20.88	S49° 15' 45.99"W	

LOT	SQ. FEET	ACREAGE
1X	1227	0.03
2	7787	0.18
3	5382	0.12
4	5066	0.12
5	5005	0.11
6	5002	0.11
7	5000	0.11
8	5009	0.11
9	5414	0.12
10	6301	0.14
11	6351	0.15
12	5568	0.13
13	6158	0.14
14	41022	0.94
15	10519	0.24
16	5056	0.12
17	5243	0.12
18	5000	0.11
19	5000	0.11
20	5131	0.12
21	5917	0.14
22	7711	0.18
23	6298	0.14
24	5210	0.12
25	5355	0.12
26	8205	0.19
27	8145	0.19
28	5348	0.12
29	5182	0.12
30	6959	0.16
31	6401	0.15
32X	8237	0.19
33X	9673	0.22

TYPICAL SETBACK DETAIL
Blocks A, Lots 2-31
(N.T.S.)

REQUESTED VARIANCES:

CITY COUNCIL APPROVED ON _____2017:

VARIANCE A: TO ALLOW A 62-FOOT (LOT 2 FRONTAGE PLUS COMMON AREA LOT) LOT WIDTH WITH A 40-FOOT CONTROL OF ACCESS FOR LOT 2, INSTEAD OF A 75-FOOT LOT WIDTH WITH A 50-FOOT CONTROL OF ACCESS.

VARIANCE B: TO ALLOW A 737-FOOT LONG CUL-DE-SAC INSTEAD OF A 600-FOOT LONG CUL-DE-SAC (MEASURED FROM THE CENTER OF MCGEE LN TO THE CENTER OF THE CUL-DE-SAC).

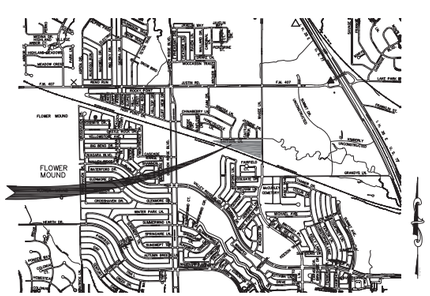
VARIANCE C: TO ALLOW 40-FOOT OF FRONTAGE FOR THE LOTS ALONG THE CUL-DE SACS, INSTEAD OF 50-FOOT OF MINIMUM FRONTAGE.

VARIANCE D: TO ALLOW NON-RADIAL LOTS AS SHOWN IN THE CONCEPT PLAN, INSTEAD OF STRAIGHT OR RADIAL LOT LINES.

VARIANCE E: TO ALLOW A 50-FOOT RIGHT-OF-WAY AT THE CUL-DE-SAC WITH A 10-FOOT STREET, SIDEWALK, WATER AND SANITARY SEWER EASEMENT, INSTEAD OF A TYPICAL 60-FOOT RIGHT-OF-WAY.

0 25 50 100
SCALE: 1" = 50'

SITE INFORMATION TABLE				
LAND USE	TOTAL ACREAGE	TOTAL NO. OF LOTS	LIST OF LOTS	DENSITY
SINGLE FAMILY - DETACHED	4.95	30	BLOCK A, LOTS 2 - 31	30 UNITS / 6.60 AC. = 4.54 UNITS / AC.
H.O.A. PRIVATE OPEN SPACE	0.44	3	BLOCK A, LOTS 1X, 32X, 33X	N/A



VICINITY MAP
SCALE: 1" = 2000'

CONCEPT PLAN
(FOR REVIEW PURPOSES ONLY)

LOTS 2-31, 1X, 32X, 33X, BLOCK A
GREAT LAKES CROSSING
AN ADDITION TO THE CITY OF LEWISVILLE, DENTON COUNTY, TEXAS
AND BEING SITUATED IN THE LEVI N. SPARKS SURVEY, ABSTRACT #1135
30 RESIDENTIAL LOTS *3 HOA LOTS*
6.60 ACRES
REQUESTED ZONING: PLANNED DEVELOPMENT R5 (PD-R5)
OCTOBER 13, 2017

CIVIL POINT ENGINEERS

PRELIMINARY
NOT FOR CONSTRUCTION

JOHN H BEZNER
PE # 98469

Owner/Developer:
R.J.S. Marine, Inc.
1800 I-35, Ste 200
Carrollton, TX 75006

Surveyor:
Eagle Surveying
210 S Elm St, Ste 104
Denton, TX 76201
(940) 222-3009

Engineer:
Civil Point Engineers, Inc.
3102 Maple Ave, Ste 400
Dallas, TX 75201
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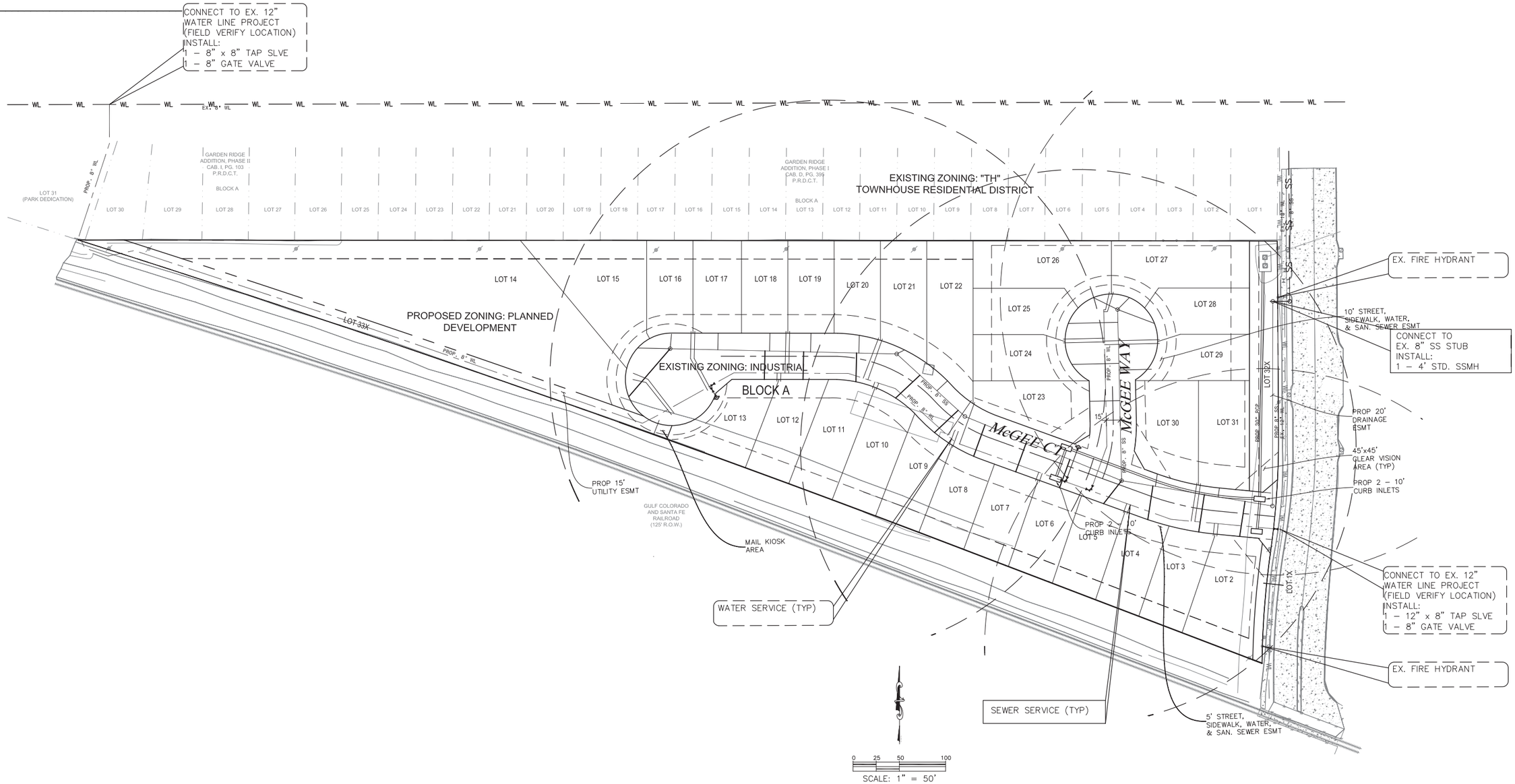

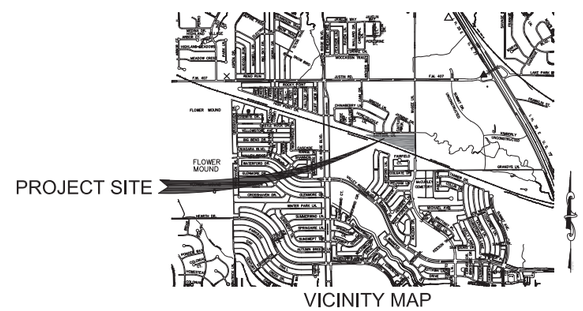

VICINITY MAP
SCALE: 1" = 2000'

PRELIMINARY UTILITY PLAN
(FOR REVIEW PURPOSES ONLY)

LOTS 1-33, BLOCK A
GREAT LAKES CROSSING
AN ADDITION TO THE CITY OF LEWISVILLE, DENTON COUNTY, TEXAS
AND BEING SITUATED IN THE LEVI N. SPARKS SURVEY, ABSTRACT #1135
30 RESIDENTIAL LOTS *3 HOA LOTS*
6.60 ACRES
REQUESTED ZONING: PLANNED DEVELOPMENT R5 (PD-R5)
OCTOBER 11, 2017

CIVIL POINT ENGINEERS

PRELIMINARY
NOT FOR CONSTRUCTION

JOHN H BEZNER
PE # 98469

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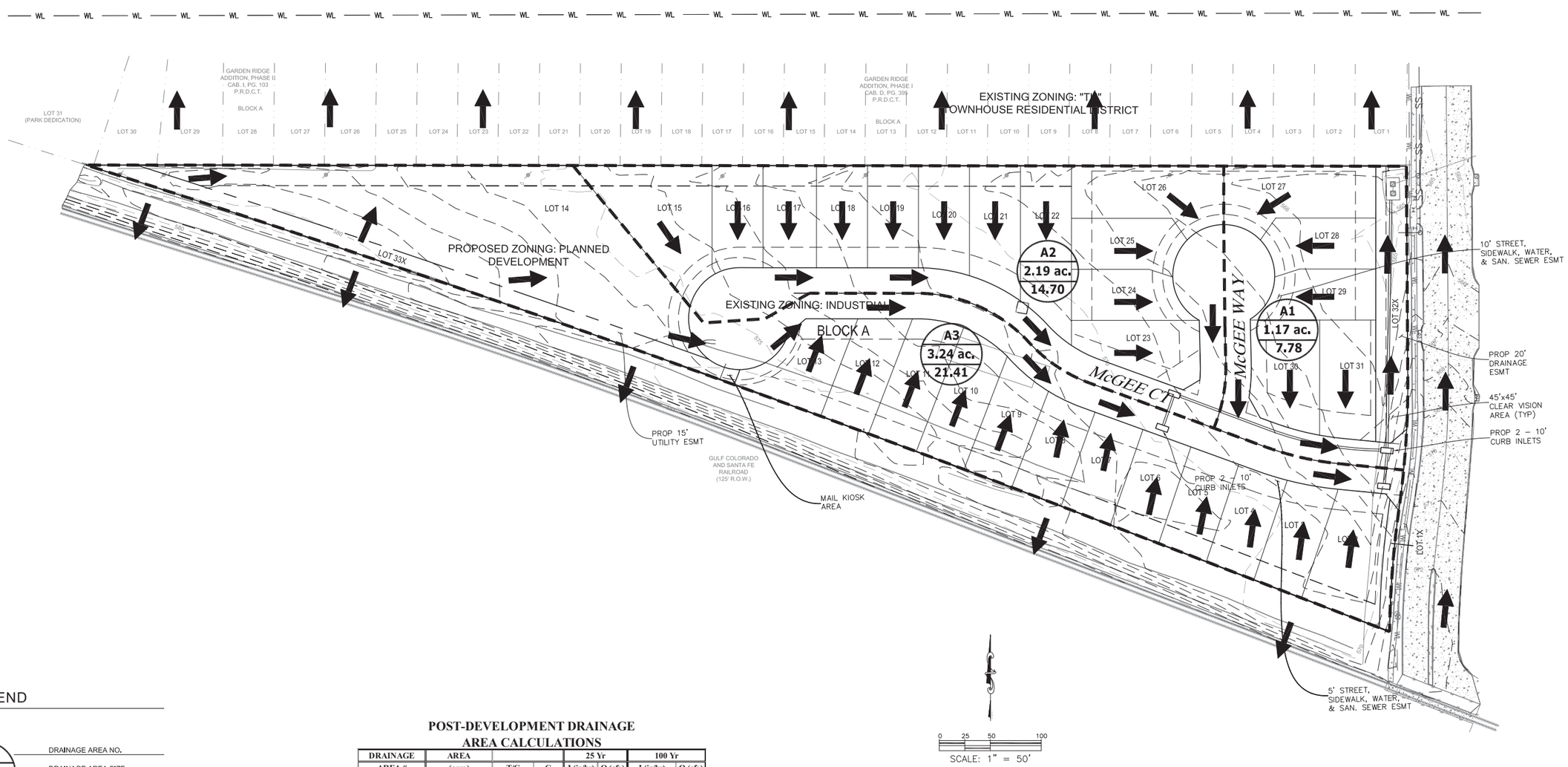


LEGEND

A1 / 5.71 ac. / 17.13 — DRAINAGE AREA NO. / DRAINAGE AREA SIZE / DRAINAGE FLOW 100YR (CFS)

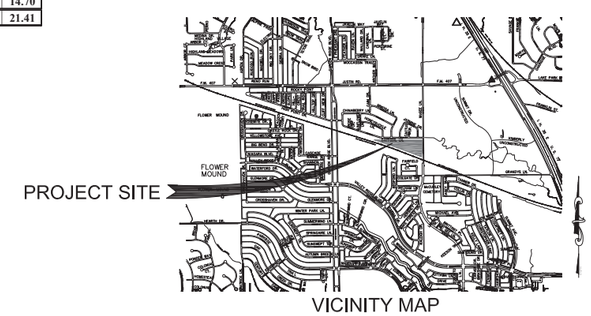
DRAINAGE FLOW DIRECTION

EXISTING CONTOUR

PROPOSED CONTOUR

POST-DEVELOPMENT DRAINAGE AREA CALCULATIONS

DRAINAGE	AREA			25 Yr		100 Yr	
AREA #	(acre)	T/C	C	I (in/hr)	Q (cfs)	I (in/hr)	Q (cfs)
A1	1.17	15	0.70	7.80	6.39	9.50	7.78
A2	2.21	15	0.70	7.80	12.07	9.50	14.70
A3	3.22	15	0.70	7.80	17.58	9.50	21.41



VICINITY MAP
SCALE: 1" = 2000'

PRELIMINARY DRAINAGE AREA MAP (FOR REVIEW PURPOSES ONLY)

LOTS 1-33, BLOCK A
GREAT LAKES CROSSING
AN ADDITION TO THE CITY OF LEWISVILLE, DENTON COUNTY, TEXAS
AND BEING SITUATED IN THE LEVI N. SPARKS SURVEY, ABSTRACT #1135
30 RESIDENTIAL LOTS *3 HOA LOTS*
6.60 ACRES
REQUESTED ZONING: PLANNED DEVELOPMENT R5 (PD-R5)
OCTOBER 11, 2017

CIVIL POINT ENGINEERS

PRELIMINARY
NOT FOR CONSTRUCTION

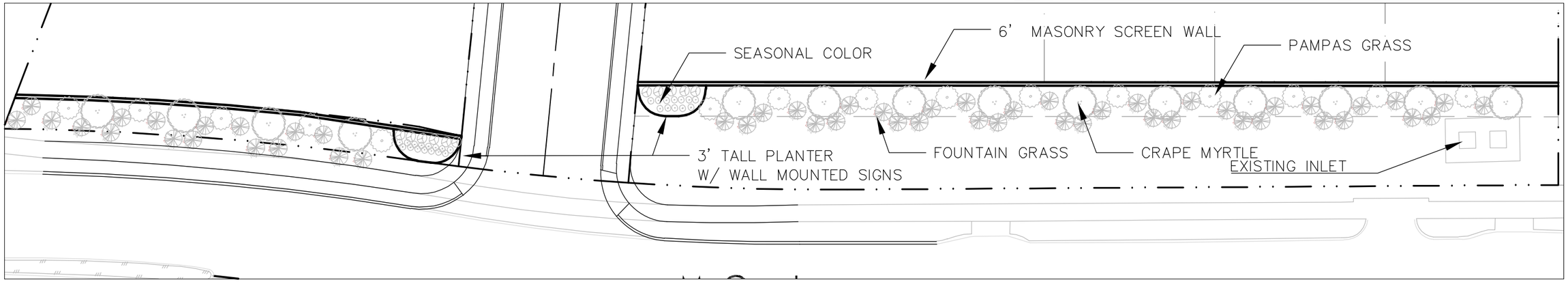
JOHN H BEZNER
PE # 98469

Owner/Developer:
R.J.S. Marine, Inc.
1800 I-35, Ste 200
Carrollton, TX 75006

Surveyor:
Eagle Surveying
210 S Elm St, Ste 104
Denton, TX 76201
(940) 222-3009

Engineer:
Civil Point Engineers, Inc.
3102 Maple Ave, Ste 400
Dallas, TX 75201
(972) 554-1100

LANDSCAPE AND SCREENING ILLUSTRATIONS



McGee Lane Screening

Architect and Planner
Greenlight Studio, LLC
100 N. Cottonwood Drive
Suite 104
Richardson, Texas 75080
214.810.4535

Copyright Greenlight Studio, LLC 2017
This representation was prepared under the authorization of Texas registered architect Tyler Adams, #21898 for preliminary review only.

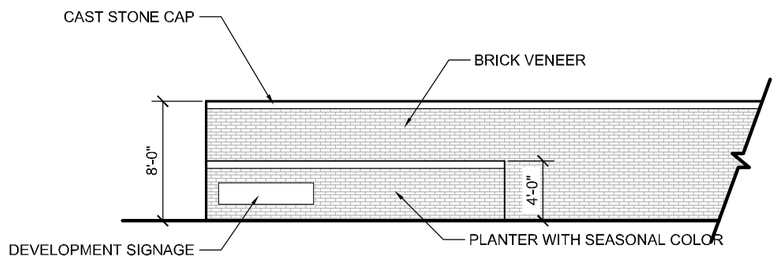
McGee Court| Lewisville, Texas

September 26, 2017

GREENLIGHT

REAL ESTATE DEVELOPMENT, DESIGN, AND ACQUISITION

LANDSCAPE AND SCREENING ILLUSTRATIONS



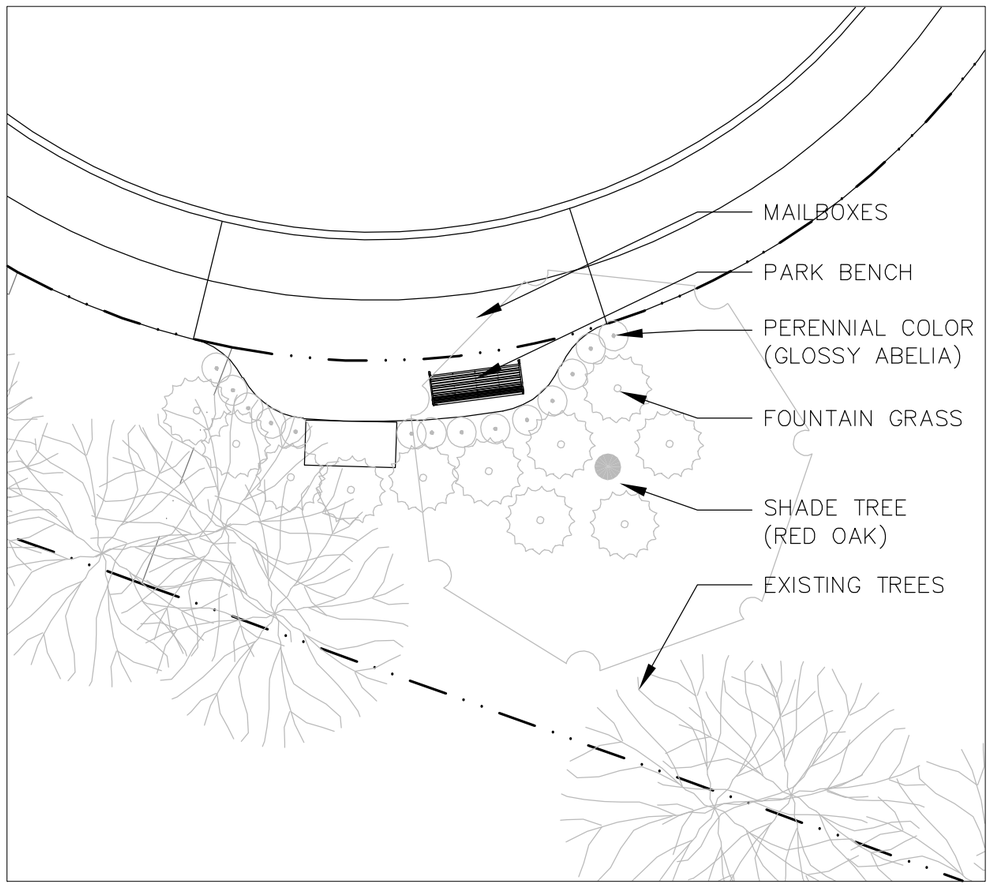
Screen Wall Detail

Planned Development Amenities:

- 8' Screen wall with integral seasonal planting
- Community mailbox area with ample parking at cul de sac
- park bench
- trash can
- picnic tables
- Scenario 4 of article VI - Some protected trees removed if required (will save as many as possible), unprotected trees removed as required.

Amenity plantings

- Crape Myrtles
- Fountain Grass
- Pampas Grass
- Red Oak Shade Tree
- Glossy Abelia
- Maintain as mush of existing tree screening as possible
- Added season color in plantings, accent at mailbox



Mailbox/Picnic Area

Architect and Planner
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100 N. Cottonwood Drive
Suite 104
Richardson, Texas 75080
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McGee Court| Lewisville, Texas

September 26, 2017

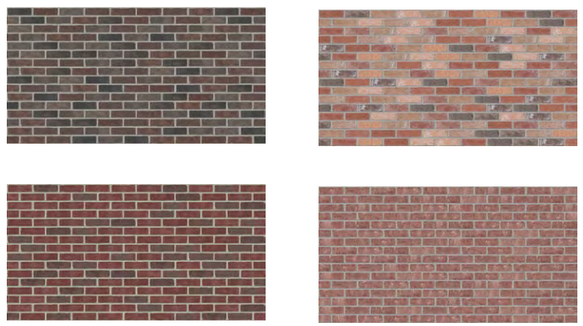
GREENLIGHT
REAL ESTATE DEVELOPMENT, DESIGN, AND ACQUISITION

CONCEPTUAL ELEVATIONS

Home Features:

- Single Car garage + 1 Covered Car port
- Covered entrances
- Some Covered front patios
- All Masonry exterior

Sample Brick Selections



Sample Stone Selections

Scheme A

Scheme B

Scheme C

Scheme D

Representative Home Design

Architect and Planner
Greenlight Studio, LLC
100 N. Cottonwood Drive
Suite 104
Richardson, Texas 75080
214.810.4535

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McGee Court| Lewisville, Texas

September 26, 2017

GREENLIGHT

REAL ESTATE DEVELOPMENT, DESIGN, AND ACQUISITION

MEMORANDUM

TO: Todd White, Purchasing Manager

FROM: David Salmon, P.E., City Engineer

DATE: October 16, 2017

SUBJECT: **Approval of a Bid Award for the S.H. 121 Business 24-Inch Waterline From Valley Ridge Boulevard to Midway Road Pump Station Project to S & J Construction Company, Inc., Jacksonville, Arkansas, in the Amount of $3,751,274.53; and Authorization for the City Manager to Execute the Agreement.**

BACKGROUND

Bids were received on October 12, 2017 for the construction of the S.H. 121 Business 24-Inch Waterline from Valley Ridge Boulevard to Midway Road Pump Station. The project consists of construction of approximately 16,500 feet of 24-inch water transmission line from Valley Ridge Boulevard to the Midway Pump Station including a river crossing at the Elm Fork Trinity River.

ANALYSIS

It is requested that this item be presented to the City Council on November 20, 2017 with a recommendation to award the Construction Agreement to S&J Construction Company, Inc., which offices in Jacksonville, Arkansas, in the Amount of $3,751,274.53; which includes $178,632.12 (approximately 5%) for Contingencies. The Engineers estimate for the water main improvements was $5,009,817.00.

Funding is available in the Midway West utility capital accounts. The contract time is 730 calendar days and liquidated damages are $500 per day. A location map is attached.

RECOMMENDATION

It is City staff's recommendation that the City Council approve the award as set forth in the caption above.

MEMORANDUM

TO: Donna Barron, City Manager

FROM: Todd White, Purchasing Manager

DATE: October 16, 2017

SUBJECT: **Approval of a Bid Award for the S.H. 121 Business 24-Inch Waterline From Valley Ridge Boulevard to Midway Road Pump Station Project to S & J Construction Company, Inc., Jacksonville, Arkansas, in the Amount of $3,751,274.53; and Authorization for the City Manager to Execute the Agreement.**

BACKGROUND

A bid invitation was created and posted on Bidsync.com September 15, 2017. Specifications were created in accordance with Texas Local Government Code Chapter 252.021, *Competitive Requirements for Purchases*. Specifications under this chapter of the law state the award is to be made on the basis of lowest responsible bidder.

ANALYSIS

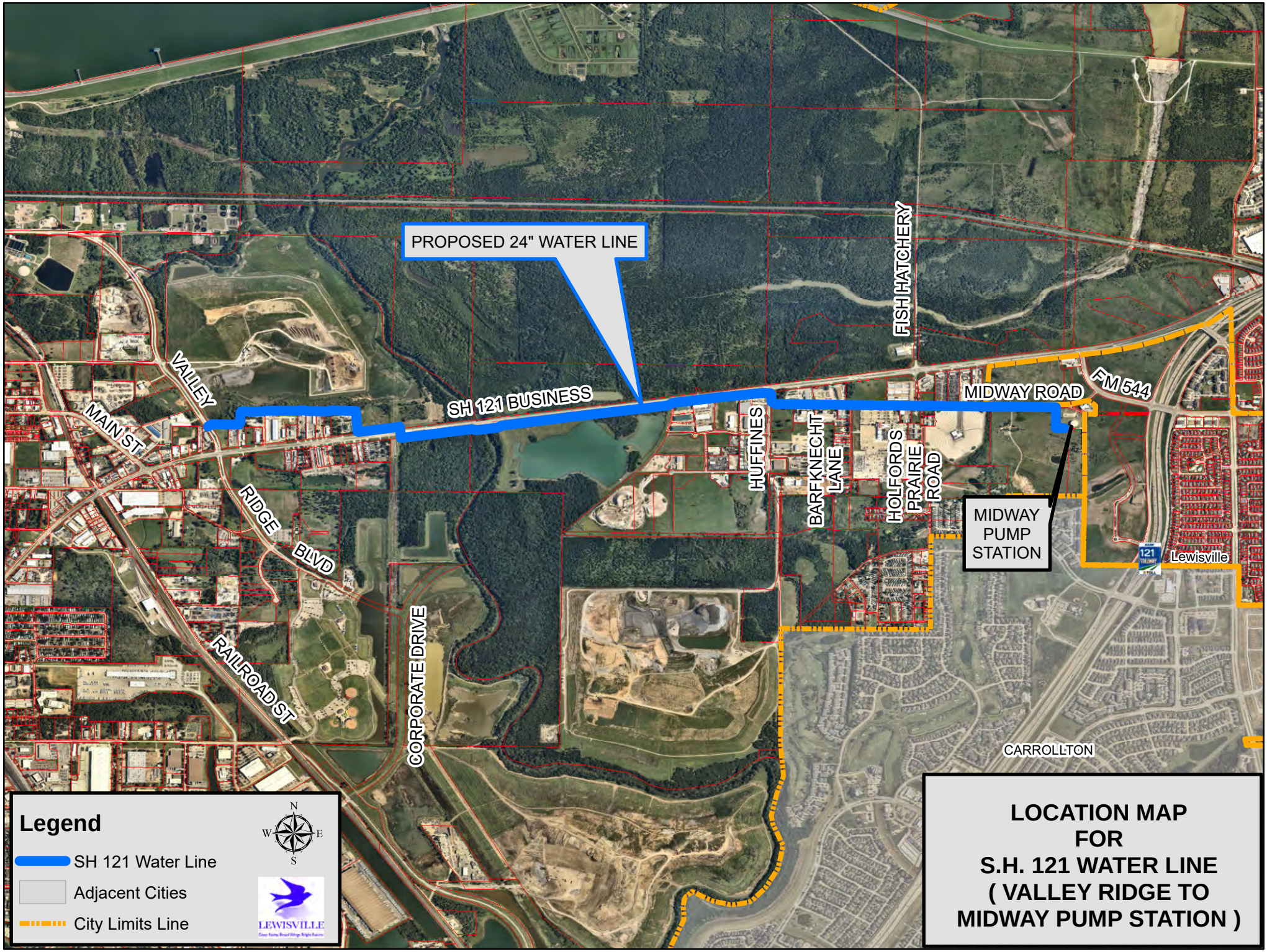
Sealed bids were due October 12, 2017 and ten (10) were received. A public bid opening was held and prices were read aloud. A bid tabulation was created indicating S & J Construction Company, Inc. as submitting the lowest bid and after evaluation of their offer, they are being recommended for award on the basis of lowest responsible bidder.

RECOMMENDATION

It is City staff's recommendation that the City Council approve the award as set forth in the caption above.

CITY OF LEWISVILLE
PURCHASING DIVISION
BID TABULATION
BID # 17-50-C
S.H. 121 BUSINESS 24-INCH WATER LINE

S & J CONSTRUCTION CO., INC. **JACKSONVILLE, ARKANSAS**	**$ 3,751,274.53**
MOUNTAIN CASCADE OF TEXAS, LLC ALVARADO, TEXAS	$ 4,589,186.18
McKEE UTILITY CONTRACTORS, INC. PRAGUE, OKLAHOMA	$ 4,658,047.91
WILDSTONE CONSTRUCTION, LLC FORT WORTH, TEXAS	$ 4,813,777.50
S.J. LOUIS CONSTRUCTION OF TEXAS, LTD MANSFIELD, TEXAS	$ 4,853,930.67
EXCEL TRENCHING SUNNYVALE, TEXAS	$ 5,066,377.05
NORTH TEXAS CONTRACTING FORT WORTH, TEXAS	$ 5,111,831.55
FLOW-LINE CONSTRUCTION, INC. DALLAS, TEXAS	$ 5,610,650.85
THALLE CONSTRUCTION CO., INC. HILLSBOROUGH, NORTH CAROLINA	$ 7,349,188.73
ATKINS BROS. EQUIPMENT CO., INC. MIDLOTHIAN, TEXAS	$10,199,784.00



LOCATION MAP FOR S.H. 121 WATER LINE (VALLEY RIDGE TO MIDWAY PUMP STATION)

CITY OF LEWISVILLE, TEXAS

CONSTRUCTION AGREEMENT

Project: construction of the S.H. 121 Business 24-inch waterline, Project No. U1305 (the "Project").

This Construction Agreement (the "Agreement") is made on this date, November ____, 2017, between the **City of Lewisville** (the "City") and **S&J Construction Co., Inc** (the "Contractor").

1. Services. The Contractor shall commence and complete the construction of the S.H. 121 Business 24-inch waterline, Project No. U1305 (the "Services"), and all extra work in connection with the Services, under the terms as stated in the Specifications and Contract Documents for the Construction of S.H. 121 Business 121 24-Inch Waterline (the "Specifications"), attached hereto as **Exhibit A**, the S.H. 121 Business 121 24-Inch Waterline Final Plans (the "Plans"), attached hereto as **Exhibit B**, and this Agreement, and at the Contractor's own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the Services, in accordance with the conditions and prices stated in the Contractor's Proposal (the "Proposal") attached hereto as **Exhibit C**, and in accordance with the Specifications (**Exhibit A**) and Plans (**Exhibit B**), as prepared by the City and attached hereto. The Contractor will perform all Services in a good and professional manner and in accordance with industry standards. The Contractor is responsible for constructing a final product that is fully functional and fit for its intended purposes, and meets all requirements set forth in the Agreement, the Specifications (**Exhibit A**), and the Plans (**Exhibit B**). The City will be the sole judge of the acceptability of all work and Services performed under this Agreement.

   The City shall perform such services as outlined in the Specifications (**Exhibit A**), if any.

2. Completion of Services. The Contractor hereby agrees to commence work within ten (10) calendar days after the date of the written notice to commence work and to fully complete the same within 730 consecutive calendar days after the date of the written notice to commence work, subject to such extensions of time as are provided by the Specifications (**Exhibit A**).

3. Agreement Documents. The Agreement shall include the following documents, and this Agreement does hereby expressly incorporate same herein as if set forth verbatim in this Agreement:
   A. This Agreement
   B. The Specifications (**Exhibit A**) and the Plans (**Exhibit B)**
   C. The Proposal (**Exhibit C**)

To the extent that any exhibit is in conflict with provisions of this Agreement or each other, the provisions of this Agreement, then the provisions of **Exhibit A** and **Exhibit B** jointly, then **Exhibit C** shall prevail in the order.

4. Confidential Information. To the extent allowed by law, the City will safeguard and keep from release any documents marked "proprietary" or information not generally available to the public. However, the City will, if required, comply with all requirements of the Texas Public Information Act with regard to any documents in its possession at the time of a request made under that Act.

5. Pricing. The City agrees to pay the Contractor in current funds the price or prices shown in the Proposal (**Exhibit C**).

6. Payment. Payments will be subject to the terms outlined in the Specifications (**Exhibit A**). The City shall remit payment within thirty (30) days after receipt of an invoice, in accordance with the Texas Prompt Payment Act (Tex. Gov't Code Ch. 2251). All original invoices are to be sent to the City of Lewisville, Attention: AP Division, 151 West Church Street, Lewisville, Texas 75057 or P.O. Box 299002, 75029-9002.

7. Change Orders. Any changes to the Services that change the Agreement price or the Agreement time, as specified herein, must be authorized by the City in writing PRIOR to commencement of said work. Any work performed without the City's prior written consent will be at the sole expense of the Contractor.

8. Subcontractors. If subcontractors are used, the subcontractor will be directed and supervised solely by the Contractor. The Contractor shall require the subcontractor to hold the same insurance as required of the Contractor under this Agreement.

9. Right of Inspection and Required Repairs. The City shall have the right to observe and check all ongoing work in sufficient detail to determine if the Services are proceeding satisfactorily. The City shall have the right to inspect all Services completed before accepting them and making payments in accordance with this Agreement. Should any portion of the completed Services fail to meet the requirements of the City, the Contractor shall repair or replace items failing to meet requirement until items can be demonstrated to comply.

10. Termination. This Agreement may be terminated by the City under the terms outlined in the Specifications (**Exhibit A**).

11. Insurance. During the period of this Agreement, the Contractor will maintain, at its expense, insurance with limits not less than those prescribed in the Specifications (**Exhibit A**). All insurance must be reviewed and approved by the City **prior to commencement of work.**

12. Bonds. The Contractor shall provide bonds as required by the Specifications (**Exhibit A**) **prior to commencement of work**.

13. Worker's Compensation. The Contractor shall abide by the workers compensation requirements outlined in the Specifications (**Exhibit A**).

14. Independent Contractor. Contractor shall be considered an independent contractor and not an agent, servant, employee, or representative of the City in the performance of the work and Services. No term or provision herein or act of the City shall be construed as changing that status.

15. Compliance with Laws. The Contractor shall comply with all applicable federal, state, and local statutes, regulations, ordinances, and other laws, including, but not limited to the Immigration Reform and Control Act (IRCA).

16. Governing Law and Venue. This Agreement is governed by the laws of the State of Texas. Exclusive venue for any dispute arising out of this Agreement is in Denton County, Texas.

17. Arbitration. In the event of a dispute which may arise under this Agreement, the City does not agree to arbitration.

18. Tax Exempt Status. The City is exempt from and shall not pay state and local sales and use taxes on labor and materials incorporated into the Project. If necessary, it is the responsibility of the Contractor to obtain from the State Comptroller's Office a sales tax permit, resale certificate, and exemption certificate that will enable the Contractor to buy any materials for the Services and then resell the aforementioned materials to the City without paying the tax on the materials at the time of purchase.

19. Entire Agreement. This Agreement and its exhibits contain the entire agreement of the parties with respect to the matter contained herein. All provisions of this Agreement shall be strictly complied with and conformed to by the Contractor, and no amendment to the Agreement shall be made except upon the written agreement of the parties, which shall not be construed to release either party from any obligation of the Agreement except as specifically provided for in such amendment.

20. Assignment. This Agreement may not be assigned except as provided for in the Specifications (**Exhibit A**).

21. Governmental Immunity. Unless otherwise required under the law, the Parties agree that the City has not waived its governmental immunity by entering into and performing their obligations under this Agreement.

22. Notice. Any notice provided or permitted to be given under this Agreement must be in writing and may be served by depositing same in the United States mail, addressed to the party to be notified, postage pre-paid and registered or certified with return receipt requested, or by delivering the same in person to such party via a hand-delivery service, Federal Express or any courier service that provides a return receipt showing the date of actual delivery of same, to the address thereof. Notice given in accordance herewith shall be effective upon receipt at the address of the addressee. For purposes of notification, the addresses of the parties shall be as follows:

If to Contractor, to: S&J Construction Co., Inc.
Attn: Jerry Smith, President
P.O. Box 5003
Jacksonville, Arkansas 72078

If to City, to: City of Lewisville
Attn: Todd White, C.P.M.
151 W. Church Street
Lewisville, Texas 75057

23. Severability. In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision thereof, and this Agreement shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

24. Representations. Each signatory represents this Agreement has been read by the party for which this Agreement is executed and that such party has had an opportunity to confer with its counsel.

25. Miscellaneous Drafting Provisions. This Agreement shall be deemed drafted equally by all parties hereto. The language of all parts of this Agreement shall be construed as a whole according to its fair meaning, and any presumption or principle that the language herein is to be construed against any party shall not apply. Headings in this Agreement are for the convenience of the parties and are not intended to be used in construing this document.

26. Force Majeure. If by reason of Force Majeure, either party hereto shall be rendered unable wholly or in part to carry out its obligations under this Agreement then such party shall give notice and full particulars of Force Majeure in writing to the other party within a reasonable time after occurrence of the event or cause relied upon, and the obligation of the party giving such notice, so far as it is affected by such Force Majeure, shall be suspended during the continuance of the inability then claimed, except as hereinafter provided, but for no longer period, and such party shall endeavor to remove or overcome such inability with all reasonable dispatch. The term Force Majeure as employed herein, shall mean acts of God, strikes, lockouts, or other industrial disturbances, act of public enemy, order of any kind of government of the United States or the

State of Texas or any civil military authority, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, hurricanes, storms, floods, washouts, droughts, arrests, restraint of government and people, civil disturbances, explosions, breakage or accidents to machinery, pipelines or canals, or other causes not reasonably within the control of the party claiming such inability.

27. Waiver. No claim or right arising out of a breach of this Agreement can be discharged in whole or in part by a waiver or renunciation of the claim or right unless the waiver or renunciation is supported by consideration and is in writing signed by the aggrieved.

28. **INDEMNIFICATION. IN ADDITION TO ANY OTHER INDEMNIFICATION ALLOWED FOR IN THIS AGREEMENT OR ITS ATTACHED EXHIBITS, CONTRACTOR AGREES TO DEFEND, INDEMNIFY AND HOLD THE CITY, ITS OFFICERS, AGENTS AND EMPLOYEES, HARMLESS AGAINST ANY AND ALL CLAIMS, LAWSUITS, JUDGMENTS, COSTS AND EXPENSES FOR PERSONAL INJURY (INCLUDING DEATH), PROPERTY DAMAGE OR OTHER HARM FOR WHICH RECOVERY OF DAMAGES IS SOUGHT, SUFFERED BY ANY PERSON OR PERSONS, THAT MAY ARISE OUT OF OR BE OCCASIONED BY CONTRACTOR'S BREACH OF ANY OF THESE TERMS AND CONDITIONS OR BY ANY NEGLIGENT OR STRICTLY LIABLE ACT OR OMISSION OF CONTRACTOR, ITS OFFICERS, AGENTS, EMPLOYEES OR SUBCONTRACTORS, IN THE PERFORMANCE OF THIS AGREEMENT; EXCEPT THAT THE INDEMNITY PROVIDED FOR IN THIS PARAGRAPH SHALL NOT APPLY TO ANY LIABILITY RESULTING FROM THE SOLE NEGLIGENCE OR FAULT OF THE CITY, ITS OFFICERS, AGENTS, EMPLOYEES OR SEPARATE CONTRACTORS, AND IN THE EVENT OF JOINT AND CONCURRING NEGLIGENCE OR FAULT OF THE CONTRACTOR AND THE CITY, RESPONSIBILITY AND INDEMNITY, IF ANY, SHALL BE APPORTIONED IN ACCORDANCE WITH THE LAW OF THE STATE OF TEXAS, WITHOUT WAIVING ANY GOVERNMENTAL IMMUNITY AVAILABLE TO THE CITY UNDER TEXAS LAW AND WITHOUT WAIVING ANY DEFENSES OF THE PARTIES UNDER TEXAS LAW. THE PROVISIONS OF THIS PARAGRAPH ARE SOLELY FOR THE BENEFIT OF THE PARTIES HERETO AND NOT INTENDED TO CREATE OR GRANT ANY RIGHTS, CONTRACTUAL OR OTHERWISE, TO ANY PERSON OR ENTITY. ANY INDEMNIFICATION AGREED TO BY THE CITY IS ONLY TO THE EXTENT ALLOWED BY LAW.**

29. Immigration Reform and Control Act (8 U.S.C. 1324a). The City of Lewisville supports the Immigration Reform and Control Act (IRCA) which is a comprehensive scheme prohibiting the employment of unauthorized aliens in the United States. The Contractor shall submit a declaration signed under penalty of perjury of the laws of the State of Texas stating that it has not been found in violation of IRCA by the United States Attorney General or Secretary of Homeland Security in the preceding five (5) years. The Contractor shall ensure that its

Subcontractors submit a declaration signed under penalty of perjury of the laws of the State of Texas stating that they have not been found in violation of IRCA by the United States Attorney General or Secretary of Homeland Security in the preceding five (5) years. The Contractor and its Subcontractors shall at all times during the term of the contract with the City comply with the requirements of IRCA and shall notify the City within fifteen (15) working days of receiving notice of a violation of IRCA. The City may terminate a contract with the Contractor if the City determines that (a) the Contractor or its Subcontractors have been untruthful regarding IRCA violations in the preceding five (5) years; (b) if the Contractor fails to ensure that its Subcontractors submit the aforementioned declaration; or (c) the Contractor or its Subcontractors fail to timely notify the City of an IRCA violation.

30. ADA Compliance. All goods and services provided to the City must be compliant with the Americans with Disabilities Act and any amendments thereto (the "ADA') and all regulations promulgated pursuant to the ADA. Contractor will be required to certify compliance, if required under the law or otherwise required by the City.

31. Protection of Resident Workers. The City actively supports the Immigration and Nationality Act (INA), which includes provisions addressing employment eligibility, employment verification, and nondiscrimination. Under the INA, employers may hire only persons who may legally work in the United States (i.e., citizens and nationals of the U.S.) and aliens authorized to work in the U.S. The employer must verify the identity and employment eligibility of anyone to be hired, which includes completing the Employment Eligibility Verification Form (I-9) for every worker performing services under the Agreement. be hired, which includes completing the Employment Eligibility Verification Form (I-9). The Contractor and its Subcontractors shall establish appropriate procedures and controls so no services or products under the Contract Documents will be performed or manufactured by any worker who is not legally eligible to perform such services or employment. The City reserves the right to audit Contractor's or Subcontractor's employment records to verify the existence of a completed Employment Eligibility Verification Form (I-9) for every worker performing services or manufacturing products under the Contract Documents. The audit will be at the City's expense.

32. Advertising. Contractor shall not advertise or publish, without the City's prior consent, the fact that the Contractor has entered into this Agreement, except to the extent necessary to comply with proper requests for information from an authorized representative of the federal, state or local government.

33. Disclosure. Pursuant to Chapter 176 of the Texas Local Government Code, a person, or agent of a person, who contracts or seeks to contract for the sale or purchase of property, good, or services with the City of Lewisville must file a completed conflict of interest questionnaire which is available online at www.ethics.state.tx.us. The conflict of interest questionnaire must be filed with the City Secretary of the City of Lewisville no later than the seventh business day after the person or agent begins contract discussions or negotiations with the City of Lewisville or submits

to the City of Lewisville an application, response to a request for proposal or bid, correspondence, or another writing related to a potential agreement with the City of Lewisville. An updated conflict of interest questionnaire must be filed in accordance with Chapter 176 of the Local Government Code. An offense under Chapter 176 is a Class C misdemeanor.

Contractor should consult with legal counsel if you have questions regarding its compliance with the requirements of Chapter 176. It is the responsibility of each person or agent who is contracting or seeking to contract with the City of Lewisville to comply with the filing requirement of Chapter 176.

34. Texas Government Code Chapter 2270. Pursuant to Texas Government Code Chapter 2270, Contractor affirms that execution of this Agreement serves as written verification that Contractor: (1) does not boycott Israel, as defined by Texas Government Code Section 808.001; and (2) will not boycott Israel during the term of the Agreement.

35. Texas Government Code Chapter 2252. Pursuant to Texas Government Code Chapter 2252, Subchapter F, Contractor affirms, by entering into this Agreement, that is it not identified on a list created by the Texas Comptroller of Public Accounts as a company known to have contracts with or provide supplies or services to Iran, Sudan, or a foreign terrorist organization.

(SIGNATURES ON FOLLOWING PAGE)

IN WITNESS, WHEREOF, we, the contracting parties, by our duly authorized agents, hereto affix our signatures as of the date listed above.

CITY OF LEWISVILLE

By: _____
Donna Barron, City Manager

Date: _____

CONTRACTOR:
S&J Construction Co., Inc.

By: _____
Jerry Smith, President

Date: _____

P.O. Box 5003
Jacksonville, AR 72078

(501) 985-2111
Telephone Number

cabulloch@gmail.com
Email Address

_____
Federal Tax ID Number

ATTEST:

By: _____
JULIE WORSTER, City Secretary

APPROVED AS TO FORM:

By: _____
LIZBETH PLASTER, City Attorney

EXHIBIT A

SPECIFICATIONS AND CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF

S.H. 121 BUSINESS 24-INCH WATERLINE

PROJECT NO. U1305

LEWISVILLE

Deep Roots. Broad Wings. Bright Future.

DEPARTMENT OF COMMUNITY DEVELOPMENT

ENGINEERING DIVISION

OCTOBER 2017

STATE OF TEXAS
MANJULA KRISHNAMURTHY
96701
LICENSED
PROFESSIONAL ENGINEER

09/25/17

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Aquatic Resource Relocation Plan Report	20 Sheets
Texas Department of Transportation Permit Approval	6 Sheets
Landfill Easement Agreement	47 Sheets
Geotechnical Investigation	45 Sheets
Construction Plan Set 1 of 2 for 24-inch Water Line	105 Sheets
Project Sign Detail	1 Sheet

CITY OF LEWISVILLE
S.H. 121 BUSINESS 24-INCH WATERLINE
PROJECT NO. U1305
BID NUMBER 17-50-C

ADDENDUM NO. 1
October 4, 2017

The bid document for S.H. Business 24-inch Water Line, for which bids are due October 12, 2017, is hereby amended as follows:

1. As a clarification, the construction contract duration is 730 consecutive calendar days.
2. As a clarification, if you have any questions regarding the project, please contact Manjula Krishnamurthy, P.E. at 972-219-3458 (mkrishnamurthy@cityoflewisville.com) before 10:00 am on October 9, 2017. The bidders can contact the office of the City Engineer within **72** hours prior to the bid opening to determine information about all addenda.

Revised pages T-1, P-10 to P-17 and SF-1 are attached hereto and shall be used for submission of your bid. Bidders are advised to acknowledge receipt of Addendum No. 1 by filling in the appropriate blanks contained in the Proposal and the outer envelope of their bid.

Sincerely,

Manjula Krishnamurthy, P.E.

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Payment Bond	PB-3, PB-4
Maintenance Bond	MB-1, MB-2
Standard Specifications, Special Provisions and Special Specifications	SS-1 - SS-33
Technical Specification for Aquatic Species Recovery and Relocation	4 Sheets
Aquatic Resource Relocation Plan Report	20 Sheets
Texas Department of Transportation Permit Approval	6 Sheets
Landfill Easement Agreement	47 Sheets
Geotechnical Investigation	45 Sheets
Construction Plan Set for 24-inch Water Line	105 Sheets
Project Sign Detail	1 Sheet

STATE RECIPROCAL REQUIREMENT

The City of Lewisville, as a governmental agency of the State of Texas, may not award a contract for general construction, improvements, services or public works projects or purchases of supplies, materials, or equipment to a non-resident bidder unless the non-resident's bid is lower than the lowest bid submitted by a responsible Texas resident bidder by the same amount that a Texas resident bidder would be required to underbid a non-resident bidder to obtain a comparable contract in the state in which the non-resident's principal place of business is located (Article 601g v.t.c.s.). Bidder shall answer all the following questions by encircling the appropriate response or completing the blank provided.

1. Where is your principal place of business? _____

2. Only if your principal place of business is not in the state of Texas, please indicate:

   A. In which state is your principal place of business located? _____

   B. Does that state favor resident bidders (bidders in your state) by some dollar increment or percentage? YES NO

   C. If "YES", what is that dollar increment or percentage? _____

NON-COLLUSION STATEMENT

The undersigned affirms that they are duly authorized to execute this contract, that this company, corporation, firm, partnership or individual has not prepared this bid in collusion with any other Bidder, and that the contents of this bid as to prices, terms or conditions of said bid have not been communicated by the undersigned nor by any employer or agent to any other person engaged in this type of business prior to the official opening of this bid.

Vendor: _____

Address: _____

City, State, Zip: _____

Phone _____

Email Address: _____

Bidder (Print name) _____

Bidder Signature _____

Position with Company _____

Signature of company official authorizing this bid: _____

Company Official (Print name): _____

Position with company: _____

CITY OF LEWISVILLE
DISCLOSURE OF INTEREST

Pursuant to Chapter 176 of the Texas Local Government Code, a person or agent of a person who contracts or seeks to contract with the City of Lewisville must complete a conflict of interest questionnaire if the person or agent has an affiliation or business relationship that might cause a conflict of interest with the City. The conflict of interest questionnaire, which is available online at ethics.state.tx.us, must be filed with the City Secretary of the City of Lewisville no later than the seventh business day after the person or agent begins contract discussions or negotiations with the City of Lewisville or submits to the City of Lewisville an application, response to a request for proposal or bid, correspondence, or another writing related to a potential agreement with the City of Lewisville. An updated conflict of interest questionnaire must be filed in accordance with Chapter 176 of the Local Government Code. An offense under Chapter 176 is a Class C misdemeanor.

Seller should consult with legal counsel if you have questions regarding its compliance with the requirements of Chapter 176. It is the responsibility of each person or agent who is contracting or seeking to contract with the City of Lewisville to comply with the filing requirements of Chapter 176.

CITY OF LEWISVILLE DISCLOSURE AND CONFLICT OF INTEREST STATEMENT

Name of person/entity ("the Filer") that contracts or seeks to contract for the sale or purchase of property, goods, or services with the City of Lewisville or who is an agent of any such person/entity:_____

Address:_____City_____State_____Zip_____

DISCLOSURE QUESTIONS

Name each City employee that has a financial interest in the Filer.

_____

_____

Name each City employee who will receive any compensation for or as a result of the desired business dealings.

_____

_____

CONFLICT OF INTEREST QUESTIONS

1. Describe each affiliation or business relationship with a City employee or contractor who makes recommendations to the City Manager or City Council regarding expenditures of money, including identifying the employee or contractor._____

_____

2. Describe each affiliation or business relationship with the City Manager, Mayor, or a City Councilmember who appoints or employs the City Manager or the City Council, including identifying the City Manager, Mayor, or individual Councilmember._____

_____

3. Identify the City Manager, Mayor, or City Councilmember with whom the Filer has an affiliation or business relationship. This question and its subparts must be completed for each person with whom an affiliation or other relationship exists._____

_____

   A. Is the person identified in question #3 receiving or likely to receive taxable income from the Filer? ____Yes _____No
   B. Is the Filer receiving or likely to receive taxable income from or at the direction of the person identified in question #3 which is not from the City? _____ Yes _____ No
   C. Is the Filer affiliated with a corporation or other business entity in which the City Manager, Mayor, or a City Councilmember serves as an officer or director, or holds an ownership of ten percent (10%) or more? _____Yes _____No
   D. Describe each affiliation or business relationship that the Filer has with the City Manager, Mayor, or City Council members._____Yes _____No

4. Describe any other affiliation or business relationship that might cause a conflict of interest.

_____

_____

CERTIFICATION

I certify that all information provided is true and correct, that I have not knowingly withheld disclosure of any information requested; and that supplemental statements will be promptly submitted to the City as changes occur.

_____

Print or Type Name

_____ _____

Signature Date

CITY OF LEWISVILLE
PURCHASING DIVISION
ADDITIONAL TERMS

ANTI-LOBBYING PROVISION

During the period between proposal/sealed bid submission date and the contract award, proposers, including their agents and representatives, shall not directly discuss or promote their proposal with any member of the City of Lewisville City Council or City staff except in the course of City-Sponsored inquiries, briefings, interviews, or presentations, unless requested by the City.

This provision is not meant to preclude offerors from discussing other matters with City Council members or City staff. This policy is intended to create a level playing field for all potential offerors, assure that contract decisions are made in public, and to protect the integrity of the RFP/Bid Evaluation process. Violation of this provision may result in rejection of the offeror's proposal.

LAWS AND ORDINANCES

Laws and Ordinances: The Contractor shall at all times observe and comply with all Federal, State and local laws, ordinances and regulations which in any manner affect the Contract or the work, and shall indemnify and save harmless the City against any claim arising from the violation of any such laws, ordinances and regulations whether by the Contractor or his employees.

PROTECTION OF RESIDENT WORKERS

Protection of Resident Workers: The City of Lewisville actively supports the Immigration and Nationality Act (INA) which includes provisions addressing employment eligibility, employment verification, and nondiscrimination. Under the INA, employers may hire only persons who may legally work in the United States (i.e., citizens and nationals of the U.S.) and aliens authorized to work in the U.S. The employer must verify the identity and employment eligibility of anyone to be hired, which includes completing the Employment Eligibility Verification Form (I-9). The Contractor and its Subcontractors shall establish appropriate procedures and controls so no services or products under the Contract Documents will be performed or manufactured by any worker who is not legally eligible to perform such services or employment. The City reserves the right to audit Contractor's or Subcontractor's employment records to verify the existence of a completed Employment Eligibility Verification Form (I-9) for every worker performing services or manufacturing products under the Contract Documents. The audit will be at the City's expense.

IMMIGRATION REFORM AND CONTROL ACT

Immigration Reform and Control Act (8 U.S.C. §1324a): The City of Lewisville supports the Immigration Reform and Control Act (IRCA) which is a comprehensive scheme prohibiting the employment of unauthorized aliens in the United States. The Contractor shall submit a declaration signed under penalty of perjury of the laws of the State of Texas stating that it has not been found in violation of IRCA by the United States Attorney General or Secretary of Homeland Security in the preceding five (5) years. The Contractor shall ensure that its Subcontractors submit a declaration signed under penalty of perjury of the laws of the State of Texas stating that they have not been found in violation of IRCA by the United States Attorney General or Secretary of Homeland Security in the preceding five (5) years. The Contractor and its Subcontractors shall at all times during the term of the contract with the City comply with the requirements of IRCA and shall notify the City within fifteen (15) working days of receiving notice of a violation of IRCA. The City may terminate a contract with the Contractor if the City determines that (a) the Contractor or its Subcontractors have been untruthful regarding IRCA violations in the preceding five (5) years; (b) if the Contractor fails to ensure that its Subcontractors submit the aforementioned declaration; or (c) the Contractor or its Subcontractors fail to timely notify the City of an IRCA violation.

Contractor Name _____

_____ _____

Authorized Signature Date

PROPOSED SUBCONTRACT BREAKDOWN

1. Subcontractor _____

   Address _____

   Phone # _____

   Description of Work _____

2. Subcontractor _____

   Address _____

   Phone # _____

   Description of Work _____

3. Subcontractor _____

   Address _____

   Phone # _____

   Description of Work _____

4. Subcontractor _____

   Address _____

   Phone # _____

   Description of Work _____

Reference is made to Item 21 on Page SS-11

LIST OF SUPPLIERS

1. Item Supplied _____

   Supplier _____

   Address _____

   Phone # _____

2. Item Supplied _____

   Supplier _____

   Address _____

   Phone # _____

3. Item Supplied _____

   Supplier _____

   Address _____

   Phone # _____

4. Item Supplied _____

   Supplier _____

   Address _____

   Phone # _____

The undersigned Bidder agrees to execute the Agreement and furnish the required Performance Bond and Payment Bond within fifteen calendar days from the date of award of a contract by the City; and agrees that any delay in furnishing the signed Agreement and Bonds will result in liquidated damages being applied in accordance with Item 108.8.1. of the Standard Specifications.

The undersigned Bidder has attached and made a part of this Proposal a bid security in conformance with Item 102.5. of the Standard Specifications and in accordance with the Notice to Bidders.

Submitted:

_____
(Signature)

_____
(Name - Typed or Printed)

_____
(Title)

(Seal, if corporation)

_____
(Firm Name)

_____
(Address)

_____
(City/County/State/Zip Code)

_____
(Telephone Number/Include Area Code)

_____
(Date)

_____
(Attest)

STANDARD FORM OF AGREEMENT

STATE OF TEXAS
COUNTY OF DENTON

THIS CONTRACT, made and entered into the _____ day of ____ A.D. 20-___, by and between the City of Lewisville of the County of Denton and State of Texas, hereinafter "the City", and _____ of the City of _____, County of _____ and State of _____, hereinafter "the Contractor".

In consideration of the mutual covenants, promises, and agreements herein contained, the City and the Contractor hereby agree that the Contractor will commence and complete the construction of certain improvements described as follows:

S.H. 121 BUSINESS 24-INCH WATER LINE
PROJECT NO. U1305

and all extra work in connection therewith, under the terms as stated in the General Conditions of the Agreement and at the Contractor's own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said construction, in accordance with the conditions and prices stated in the Proposal attached hereto, and in accordance with the Notice to Contractors, General and Special Conditions of Agreement, Plans and other drawings and printed or written explanatory matter thereof, and the Specifications and addenda therefore, as prepared by the City and attached hereto, together with the Contractor's written Proposal, the General Conditions of the Agreement, and the Performance and Payment Bonds hereto attached; all of which are made a part hereof and collectively evidence and constitute the entire contract.

The Contractor hereby agrees to commence work within ten (10) calendar days after the date of the written notice to commence work and to fully complete the same within 730 consecutive calendar days after the date of the written notice to commence work, subject to such extensions of time as are provided by the General and Specific Conditions.

The City agrees to pay the Contractor in current funds the price or prices shown in the proposal, which forms a part of this contract, such payments to be subject to the General and Special Conditions of the contract.

CITY OF LEWISVILLE
S.H. 121 BUSINESS 24-INCH WATERLINE
PROJECT NO. U1305
BID NUMBER 17-50-C

ADDENDUM NO. 2
October 9, 2017

The bid document for S.H. Business 24-inch Water Line, for which bids are due October 12, 2017, is hereby amended as follows:

1. As a clarification, the DIP shall be pressure class 200.
2. As a clarification, the valves shall have flange joints with 304 stainless steel bolts including the isolation kit including sleeves and washers for corrosion protection.
3. As a clarification, the DIP pipe inside the steel encasement shall be restrained.

Bidders are advised to acknowledge receipt of Addendum No. 2 by filling in the appropriate blanks contained in the Proposal and the outer envelope of their bid.

Sincerely,

Manjula Krishnamurthy, P.E.

INVITATION TO BID

BID NAME: S.H. 121 Business 24-Inch Water Line

PROJECT NO: U1305 **BID NUMBER: 17-50-C**

Sealed bids will be received by the Purchasing Division at **151 West Church Street, Lewisville, Texas 75057** or **mailed and received to P.O. Box 299002, Lewisville, Texas 75029-9002** until **2:00 p.m. local time, Thursday, October 12, 2017** and then publicly opened and read aloud by a Purchasing Division Representative for the construction project listed above. **Bid envelopes should be clearly marked with the bid number, bid opening date and company submitting the bid.**

The City will accept an Excel spreadsheet in lieu of a manual bid sheet. Please note that the spreadsheet needs to contain an authorized signature of the bidder, along with the name of the bidder. In addition, each bidder is to note that unit prices as recorded in the spreadsheet will prevail over any discrepancies with mathematical extension of total prices and the quantities and descriptions listed on the original bid sheets prevail over any discrepancies in regards to quantities or descriptions listed in the spreadsheet. The City is not able to provide an electronic spreadsheet to bidders at this time.

A pre-bid conference will be held at Purchasing Division at **151 W. Church Street, Lewisville, Texas 75057 in the Community Development Conference Room on the 2nd floor at 2:00p.m. on Tuesday, October 3, 2017.** While attendance of the pre-bid conference is not mandatory, it is recommended due to the nature of the project.

The scope of work for the project shall consist of construction of approximately 16,500 feet of 24-inch water transmission line from Valley Ridge Boulevard to the Midway Pump Station along with the Elm Fork Trinity River Crossing. In addition to the above, there will be other miscellaneous items of construction as defined in the plans and specifications.

BID BOND REQUIREMENTS

Bidders are required to submit a cashier's or certified check issued by a bank satisfactory to the City of Lewisville, or a Bid Bond (with proper Power of Attorney) from a surety licensed to do business in the State of Texas, payable without recourse to the City of Lewisville, in an amount not less than five (5%) percent of the total amount of the base bid submitted to insure that the successful bidder will enter into a contract and execute all necessary bonds within fifteen (15) days after notice of award of the contract to him. **This bid security must be included in the bid envelope along with the bid sheet for the bidder to be considered responsive.**
The successful bidder will be required to furnish the following bonds from a surety licensed to do business in the State of Texas. These bonds, along with proper insurance papers, will be incorporated as part of the final contract documents and will remain in effect until the completion and acceptance of the project. Maintenance bonds shall be in effect based on their stated term after final acceptance of the project:

A bid bond equal to 5% of the project amount is to be included with the sealed bid; a payment bond and performance bond at the project amount and a maintenance bond for two years from the date of the final acceptance.

All bidders are notified that the qualification statement provided in the bid documents must be completed and submitted with the bid proposal. Failure to include this completed form with your bid may cause your bid to be disqualified as non-responsive.

Specifications, instructions to bidders, and bidding documents may be examined at the Office of the Engineering Division and may be obtained for a non-refundable fee of **$40.00** per set from the office of the Engineering Division on the second floor of City Hall, 151 W. Church Street, Lewisville, Texas 75057. As a supplement to the plan set a copy of the plans on CD may be obtained for an additional non-refundable fee of **$3.00** per CD.

Any questions regarding procurement procedures should be addressed to Todd White, C.P.M., Purchasing Manager, at 151 West Church Street., Lewisville, Texas 75057, phone (972) 219-3764. Any technical questions should be addressed to Manjula Krishnamurthy, P.E. (972) 219-3458

The City is not responsible for any costs associated with the preparation of the bid from any vendor. Also, should a vendor bid an alternate; any test costs to prove equality of product will be at the expense of the vendor, not the City of Lewisville.

Each bidder is expected to inspect the site of the work and to inform himself regarding all local conditions. Ignorance of existing conditions of the site will not be a basis for any changes after the award of the bid.

Bid envelopes will be sealed and marked with bid number, name and opening time on the outside bottom left corner to avoid the opening of any bid before the prescribed time.

Bids cannot be altered or amended after the submission deadline. Any interlineation, alteration, or erasure made before opening time must be initialed by the signee of the bid, guaranteeing authenticity.

In conformance with applicable statutes utilizing Federal Davis Bacon Wage Rates as adopted by the General Services Commission, the general prevailing wage rates in the locality in which the work is to be performed have been ascertained and such rate shall be the minimum paid for labor employed on this project; unless federal monies are used, in which case, specific wage decisions will be listed as part of the overall bid documents.

The City of Lewisville reserves the right to reject any and all bids, in whole or in part; to waive any informality in any bid. Award will be issued on the basis of lowest responsible bidder.

CITY OF LEWISVILLE

Todd White

Todd White, C.P.M.

Purchasing Manager

ADVERTISEMENT DATES:

September 23, 2017 and September 30, 2017

Lewisville/Flower Mound Neighborhood Go

STANDARD SPECIFICATIONS

The Standard Specifications for this project are the "Public Works Construction Standards" as published under the authority of the North Central Texas Council of Governments.

A. Special Provisions to the General Provisions of the Standard Specifications:

1. Technical specifications (Special Specifications), if included, in the Contract document package shall supersede the standard specifications.
2. Prospective bidders may make written request to the City Engineer for clarification and alterations in the plans, specifications, and form of contract. Such request must be received by the City Engineer no later than 2:00 p.m. on the Wednesday first preceding the Thursday on which the bids are to be opened. The City Engineer will be the sole judge as to the necessity to an addendum or letter of clarification. Oral statements shall in no way be considered as part of the contract and will not be considered as binding.
3. Five (5) sets of the contract documents, exclusive of the "Public Works Construction Standards" referenced above will be furnished without charge to the CONTRACTOR for construction purposes. Additional copies may be obtained from the City at actual reproduction cost.
4. **Item 102.3 Examination of Plans, Specifications and Site of the Work:** Add the following paragraph after Paragraph 2:

   In preparation of Drawings and Specifications, The ENGINEER has established and relied upon the following report of explorations and tests of subsurface conditions at the site of the work: Report dated September 8, 2015 prepared by CMJ Engineering Inc., Fort Worth, Texas entitled: "Geotechnical Engineering Study 24-Inch Water Line Business SH 121 Lewisville, Texas". The technical data contained in such report is the log of borings shown for Borings B1 through B15 provided in the Appendix of the report and it represents the conditions only at the point of the borings at the time the borings were made and are furnished for general information only. A copy of this report is included in these documents. Variations from the conditions indicated by the borings shall not be used as a basis for a claim of changed conditions. The CONTRACTOR may take borings at the site to satisfy his self as to subsurface conditions prior to bidding.
5. **Item 102.4. Preparation of Proposal**: Sentence 4 shall be changed to read: "In the cases of discrepancy between unit prices and amounts, the unit price shown in figures shall stand and the amount and total will be adjusted to correspond to the unit price shown".
6. **Item 103.3.1.1. Performance Bonds:** Paragraph (a) Performance Bond. The last sentence of this paragraph is hereby deleted and replaced with: This Bond shall provide for the repair and/or replacement of all defects due to faulty materials and workmanship that appears within a period of two years from the date of acceptance of the improvements project by the Lewisville City Council.
7. **Item 103.3.3. Sureties: The following applies to Surety Bonds**:

Texas Government Code Title 10, Chapter 2253

"(d) A bond required by this section must be executed by corporate surety in accordance with Chapter 3503, Texas Insurance Code."

Texas Insurance Code Section 3503.005. Additional Requirements for Certain Bonds

"(a) A bond that is made, given, tendered, or filed under Chapter 53, Property Code, or Chapter 2253, Government Code, may be executed only by a surety company that is authorized to write surety bonds in this state. If the amount of the bond exceeds $100,000, the surety company must also:

(1) hold a certificate of authority from the United States secretary of the treasury to qualify as a surety on obligations permitted or required under federal law; or
(2) have obtained reinsurance for any liability in excess of $100,000 from a reinsurer that:
  (A) is an authorized reinsurer in this state; and
  (B) holds a certificate of authority from the United States secretary of the treasury to qualify as a surety or reinsurer on obligations permitted or required under federal law.

"(b) To determine whether the surety on the bond or the reinsurer holds a certificate of authority from the United States secretary of the treasury, a party may conclusively rely on the list published in the Federal Register by the United States Department of the Treasury, covering the date on which the bond was executed, of the companies holding certificates of authority as acceptable sureties on federal bonds and as acceptable reinsuring companies. A purchaser, insurer of title, or lender acquiring or insuring an interest in or title to real property may also conclusively rely on, and is protected by, a statement on a recorded bond or a sworn, recorded statement by the surety that refers to the specific recorded bond and states that, at the time the bond was executed, the surety complied with Subsection (a)(1) or (2)."

8. **Item 103.4. Insurance**: delete and replace with the following:

Vendor shall procure and maintain for the duration of the contract, insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the work hereunder by the vendor, his agents, representatives, employees or subcontractors. The cost of such insurance shall be included in the Vendor's bid.

A. **MINIMUM SCOPE OF INSURANCE**

Coverage shall be at least as broad as:

1. Insurance Services Office Commercial General Liability coverage "occurrence" form CG 00 01 (10 01). **Claims Made" for is unacceptable.**

2. Workers' Compensation insurance as required by the Labor Code of the State of Texas, including Employers' Liability Insurance.

3. Automobile Liability – as required by the State of Texas, covering all owned, hired, or non-owned vehicles. Automobile Liability is only required if vehicle(s) will be used under this contract. Coverage not required for delivery services.

B. MINIMUM LIMITS OF INSURANCE

Contractor shall maintain throughout contract limits not less than:

1. Commercial General Liability: $500,000 per occurrence/$1,000,000 aggregate for bodily injury, personal injury and property damage. Policy will include coverage for:
   a. Premises – Operations
   b. Broad Form Contractual Liability
   c. Products and Completed Operations
   d. Use of Contractors and Subcontractors
   e. Personal Injury
   f. Broad Form Property Damage
   g. If applicable, Explosion Collapse and Underground (XCU) Coverage, Fire Damage, and Medical Expenses.

NOTE: The aggregate loss limit applies to each project.

2. Workers' Compensation and Employer's Liability: Workers' Compensation Statutory limits as required by the Labor Code of the State of Texas and Employer's Liability minimum limits of $500,000 per injury, $500,000 per occurrence, and $500,000 per occupational disease.

3. Automobile Liability - $500,000 Combined Single Limit. Limits can only be reduced if approved by the HR Director or designee.

4. Builders' Risk Insurance (as applicable) – Completed value form, insurance carried must equal the completed value of structure.

C. DEDUCTIBLES AND SELF-INSURED RETENTIONS

Any deductible or self-insured retentions must be declared to and approved by the City.

D. OTHER INSURANCE PROVISIONS

The policies are to contain, or be endorsed to contain the following provisions:

1. General Liability and Automobile Liability Coverages

   a. The City, its officers, officials, employees, Boards/Commissions and volunteers are to be added as "Additional Insured" as respects liability arising out of activities performed by or on behalf of the vendor, products and completed operations of the vendor, premises owned, occupied or used by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the City, its officers, officials, employees or volunteers. It is

understood that the business auto policy under "Who is an Insured" automatically provides liability coverage in favor of the City. The coverage shall include defense of claims against the City as additional insured.

b. The vendor's insurance coverage shall be primary and non-contributory insurance as respects the City, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees or volunteers shall be excess of the contractor's insurance and shall not contribute with it.

c. Any failure to comply with reporting provisions of the policy shall not affect coverage provided to the City, its officers, officials, employees, Boards and Commissions or volunteers.

d. The vendor's insurance shall apply separately to each insured against whose claim is made or suit is brought, except to the limits of the insured's liability.

2. Waiver of Subrogation – All coverages
Each insurance policy required by this section shall waive all rights of subrogation against the City, its officers, officials, employees, and volunteers for losses arising from work performed by the vendor for the City.

3. Notice of Cancellation - All Coverages
Each insurance policy required by this section shall be endorsed to state that coverage shall not be suspended, voided, canceled or non-renewed by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given the City, or ten (10) days prior written notice for non-payment of premium.

E. <u>ACCEPTABILITY OF INSURERS</u>
The City prefers that Insurance be placed with insurers with an A.M. Best's rating of no less than **A-:VI, or, A or better** by Standard and Poors.

F. <u>VERIFICATION OF COVERAGE</u>
Contractor shall furnish the City with certificates of insurance affecting coverage required. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. Certificates of Insurance must be provided on forms approved by the Texas Department of Insurance. City will not accept Memorandums of Insurance or Binders as proof of insurance. The City reserves the right to require complete, certified copies of all required insurance policies at any time.

G. <u>HOLD HARMLESS AND INDEMNIFICATION</u>
THE CONSULTANT/CONTRACTOR AGREES TO DEFEND, INDEMNIFY AND HOLD THE CITY, ITS OFFICERS, AGENTS AND EMPLOYEES, HARMLESS AGAINST ANY AND ALL CLAIMS, LAWSUITS, JUDGEMENTS, COSTS AND

EXPENSES FOR PERSONAL INJURY (INCLUDING DEATH),PROPERTY DAMAGE OR OTHER HARM FOR WHICH RECOVERY OF DAMAGES IS SOUGHT, SUFFERED BY ANY PERSON OR PERSONS, THAT MAY ARISE OUT OF OR BE OCCASIONED BY CONSULTANT'S/CONTRACTOR'S BREACH OF ANY OF THESE TERMS AND CONDITIONS OR BY ANY NEGLIGENT OR STRICTLY LIABLE ACT OR OMISSION OR INTENTIONAL TORT OF CONSULTANT/CONTRACTOR, ITS OFFICERS, AGENTS, EMPLOYEES OR SUBCONTRACTORS, IN THE PERFORMANCE OF THIS AGREEMENT;EXCEPT THAT THE INDEMNITY PROVIDED FOR IN THE PARAGRAPH SHALL NOT APPLY TO ANY LIABILITY RESULTING FROM THE SOLE NEGLIGENCE OR FAULT OF THE CITY, IT'S OFFICERS, AGENTS, EMPLOYEES OR SEPARATE CONTRACTORS, AND IN THE EVENT OF JOINT AND CONCURRING NEGLIGENCE OR FAULT OF THE CONSULTANT/CONTRACTOR AND THE CITY, RESPONSIBILITY AND INDEMNIFY, IF ANY, SHALL BE APPORTIONED IN ACCORDANCE WITH THE LAW OF THE STATE OF TEXAS, WITHOUT WAIVING ANY GOVERNMENTAL IMMUNITY AVAILABLE TO THE CITY UNDER TEXAS LAW AND WITHOUT WAIVING ANY DEFENSES OF THE PARTIES UNDER TEXAS LAW AND THE CITY'S REASONABLE ATTORNEY'S FEESSHALL BE REIMBURSED IN PROPORTION TO THE CONSULTANT'S LIABILITY. THE PROVISIONS OF THIS PARAGRAPH ARE SOLEY FOR THE BENEFIT OF THE PARTIES HERETO AND NOT INTENDED TO CREATE OR GRANT ANY RIGHTS, CONTRACTUAL OR OTHERWISE, TO ANY OTHER PERSON OR ENTITY.

H. PROOF OF INSURANCE

Contractor is required to submit proof of insurance on a form acceptable to the City of Lewisville. Certificates of Insurance similar to the ACCORD form are acceptable. City will not accept Memorandums of Insurance or Binders as proof of insurance. City, at its own discretion, may require a copy of any policy presented to the City.

I. STATE REQUIREMENTS FOR WORKERS COMPENSATION INSURANCE

As required by: 28 Tex.Admin.code §110.110(c)(7):

A. Definitions:

Certificate of coverage ("certificate")- A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement (DWC-81, DWC-82, DWC-83, or DWC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

Duration of the project - includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

Persons providing services on the project ("subcontractor" in §406.096) - includes all persons or entities performing all or part of the services the contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

B. The contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the contractor providing services on the project, for the duration of the project.

C. The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract.

D. If the coverage period shown on the contractor's current certificate of coverage ends during the duration of the project, the contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

E. The contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

(1) a certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

(2) no later than seven days after receipt by the contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

F. The contractor shall retain all required certificates of coverage for the duration of the project and for one year thereafter.

G. The contractor shall notify the governmental entity in writing by certified mail or personal delivery, within 10 days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

H. The contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Department of Insurance, Division of Workers' Compensation,

informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

I. The contractor shall contractually require each person with whom it contracts to provide services on a project, to:

(1) provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all of its employees providing services on the project, for the duration of the project;

(2) provide to the contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project;

(3) provide the contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

(4) obtain from each other person with whom it contracts, and provide to the contractor:

(a) a certificate of coverage, prior to the other person beginning work on the project; and

(b) a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

(5) retain all required certificates of coverage on file for the duration of the project and for one year thereafter;

(6) notify the governmental entity in writing by certified mail or personal delivery, within 10 days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

(7) contractually require each person with whom it contracts, to perform as required by paragraphs (1) - (7), with the certificates of coverage to be provided to the person for whom they are providing services.

J. By signing this contract or providing or causing to be provided a certificate of coverage, the contractor is representing to the governmental entity that all employees of the contractor who will provide services on the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or

misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

K. The contractor's failure to comply with any of these provisions is a breach of contract by the contractor which entitles the governmental entity to declare the contract void if the contractor does not remedy the breach within ten days after receipt of notice of breach from the governmental entity.

J. ADDITIONAL INSURANCE REQUIRED

In addition to all insurance requirements outlined above, Vendor shall also secure and maintain insurance which meets the following minimum requirements in order to perform work across the Lewisville Landfill property as part of this project:

1. Workers' Compensation

Coverage A	Statutory
Coverage B - Employers Liability	$500,000 each Bodily Injury by Accident $500,000 policy limit Bodily Injury by Disease $500,000 each occurrence Bodily Injury by Disease

Coverage is required if Vendor employs individual on either a full or part-time basis to perform services.

2. Automobile Liability

Bodily Injury/Property Damage	$500,000 each Accident
Combined – Single Limit	Coverage is to apply to all owned, non-owned, hired and leased vehicles (including trailers)

3. Commercial General Liability

Bodily Injury/Property Damage	$500,000 each occurrence $1,000,000 general aggregate
Combined – Single Limit	$1,000,000 products/completed operations

The required coverages above may be provided in combination with excess or umbrella coverage in order to obtain required total liability limits.

Vendor shall provide the City with a certificate of insurance meeting the requirements of this "Additional Insurance Required" section and naming **Lewisville Landfill TX, LP**, its parents, affiliates, and all of its subsidiaries as additional insureds.

All such insurance policies will be primary without the right of contribution from any other insurance coverage maintained by **Lewisville Landfill TX, LP**. **Lewisville Landfill TX, LP** and its affiliates shall be shown as an additional insured as allowable by state law on all policies except the Workers' Compensation policy.

All policies required under this "Additional Insurance Required" section shall be written by insurance carriers with a rating of A.M. Bests of at least "A- VI" or a Standard and Poors

rating of A or better. Insurance certificates, and if required, the policy endorsement from the insurance carrier, evidencing the above requirements shall be furnished by Vendor to the City, and shall provide for not less than 30 days prior notice to a party of any cancellation or non-renewal of the policies. In addition, the following requirements apply:

(a) Any liability policy shall also contain a cross liability/severability of interests provision assuring that the acts of one insured do not affect the applicability of coverage to another insured.

(b) The general, auto, and excess liability policies shall be endorsed naming **Lewisville Landfill TX, LP**, its subsidiaries and affiliates as "ADDITIONAL INSUREDS", with a blanket "WAIVER OF SUBROGATION".

9. **Item 105.1.1. Priority of Contract Documents** is revised as follows: Insert the words "addenda (last over first)" between "Proposal" and "Special Provision".

10. **Item 105.1.3. Contract Drawings and Specifications**: Obtaining copies of NCTCOG Public Works Construction Standards is the responsibility of the CONTRACTOR.

11. **Item 105.2.2. Special Warranty**: The first sentence of this paragraph is hereby deleted and replaced with:
"If within two years after the final acceptance of the work by the OWNER, as evidenced by the final certificate of acceptance or within a longer or shorter period of time as may be prescribed by law or by the terms of any other special warranty on designated equipment, any of the work is found to be defective or not in accordance with the contract documents, the CONTRACTOR shall correct it promptly after receipt of a written notice from the OWNER to do so".

12. **Special Provision to Item 105.3. Shop Drawings, Product Data and Samples**: add the following:
"Review of Shop Drawings by the CITY and/or ENGINEER shall be for the sole purpose of determining the sufficiency of said drawings or schedules to result in finished improvements in conformance with the plans and specifications, and shall not relieve the CONTRACTOR of his duty as an independent contractor. It being understood and agreed that the Engineer does not assume any duty to pass upon the propriety or adequacy of such drawings or schedules or any means or methods reflected thereby in relation to the safety of either person or property during the contractor's performance hereunder."

13. **Item 105.4: "Construction Stakes" is amended to the extent that the** ENGINEER will provide initial horizontal and vertical control and construction staking for the project. The ENGINEER will provide the following construction staking:

    a. Verify and re-establish the design baseline and monuments set for horizontal and vertical control.

    b. Provide offset line and grade stakes at a minimum of 100-foot intervals for tangents, and at 50-foot intervals for curves. The ENGINEER will provide line and grade stakes for valves, points of intersection, points of curvature, points of tangency, bends, pipe size changes, and grade changes. The offset distance will be

determined by the CONTRACTOR. Lost or destroyed stakes will be replaced at the CONTRACTOR'S expense.

The CONTRACTOR shall provide any additional stakes and other materials and incidentals necessary for the correct construction of all facilities at no additional charge. It is the CONTRACTOR'S sole responsibility to ensure the correctness of all stakes and that the work is constructed to the lines and grades shown on the plans.

14. **Item 105.6 Supervision by Contractor:** The CONTRACTOR shall designate a **full-time superintendent who shall be on the job site at all times during construction including times when work is being performed by subcontractors**. The OWNER'S Representative will communicate only with the superintendent. The CONTRACTOR may replace the designated superintendent by written notification to the OWNER.

15. **Special Provision to Item 105.7.1. Authority of the Engineer**: add the following:

"The Engineer shall make periodic visits to the site to familiarize himself generally with the progress of the executed work and to determine if such work generally meets the essential performance and design features and the technical and functional engineering requirements of the Contract Documents; provided and except, however, that the Engineer shall not be responsible for making any detailed, exhaustive, comprehensive or continuous on-site inspection of the quality or quantity of the work or be in any way responsible, directly or indirectly, for the construction means, methods, techniques, sequences, quality, procedures, programs, safety precautions or lack of same incident thereto or in connection therewith. Notwithstanding any other provision of this agreement or any other Contract Document, the Engineer shall not be in any way responsible or liable for any acts, errors, omissions or negligence of the CONTRACTOR, any subcontractor or any of the CONTRACTOR'S or sub-contractor's agents, or employees or any other person, firm or corporation performing or attempting to perform any of the work."

16. **Item 106.5: Samples and Tests of Materials:** Delete the first and last paragraphs on Item 106.5 and replace with the following:

"The CONTRACTOR shall engage the services of an acceptable testing laboratory company to perform all required testing services. The CONTRACTOR (not the OWNER) shall pay all costs for these services, including any retesting after failure to pass tests. The CONTRACTOR shall obtain OWNER'S acceptance of the testing laboratory before having the services performed."

Written reports of tests and engineering data furnished by CONTRACTOR for OWNER'S review shall be submitted as specified in Item 105.3, "Shop Drawings, Product Data and Samples" and as modified by the Special Specifications.

17. **Special Provisions to Item 107.2. Indemnification**: delete Item 107.2. in its entirety and substitute the following:

"The CONTRACTOR and his sureties shall indemnify, defend and save harmless the OWNER and all of their officers, agents and employees, Engineer and all of its officers and employees from all suits, actions or claims of any character, name and description brought for or on

account of any injuries, including death or damages received or sustained by any person, persons or property on account of the operations of the CONTRACTOR, his agents, employees or subcontractors; or on account of any negligent act or fault of the CONTRACTOR, his agents, employees or subcontractors in the execution of said contract; or on account of the failure of the CONTRACTOR to provide the necessary barricades, warning lights or signs; and shall be required to pay any judgment, with cost, which may be obtained against the OWNER or Engineer growing out of such injury, including death or damage."

18. **Item 107.11. Supervision and Construction Procedures**: The CONTRACTOR'S attention is drawn to paragraphs 1 and 4 of this item and paragraphs 1 and 3 of Item 105.6.

19. **Item 107.24. Project Clean-Up**: All objectionable surplus and waste material due to construction shall be removed from the site at the CONTRACTOR'S expense.

20. **Item 108.1. Progress Schedule**: add the following paragraph:

    "The CONTRACTOR shall submit to the OWNER a construction schedule setting out items of construction, road closings, detours, utility interruptions, limits, times and actual dates. If the schedule is acceptable to the OWNER, the OWNER will approve it; if the schedule is unacceptable, it will be returned to the CONTRACTOR for revision and resubmittal. If the CONTRACTOR wants to deviate from the approved schedule, he must submit a revised schedule to the OWNER for consideration. The entire work shall be prosecuted in a continuous manner in accordance with the approved schedule. Proposed stockpile locations must be approved by the OWNER prior to depositing material. The CONTRACTOR shall update this schedule on a monthly basis."

21. **Item 108.5. Subcontracts**: add the following paragraph:

    "The CONTRACTOR shall perform with his own organization and with the assistance of workmen under his immediate superintendence, work of a value not less than 50 percent of the value of all work embraced in the contract exclusive of items not commonly found in contract for similar work and exclusive of items that require highly specialized knowledge, craftsman and/or equipment not ordinarily available in the organization of CONTRACTORS performing work of the character embraced in the contract". For the purpose of evaluating the percentage of work performed by subcontractors, the cost of all equipment, supplies, and materials used or installed on the project by subcontractors shall be considered as part of the work of subcontractors. This will apply even if the contractor supplies and pays for some or all equipment, supplies, or materials used by subcontractors.

22. **Item 108.8. Delays; Extension of Time; Liquidated Damages**: Delete the first paragraph of Section 108.8. and replace with the following:

    "The CONTRACTOR hereby agrees that no work will be performed on CITY holidays or on Sundays. In addition, he agrees that work will be performed between 7:00 a.m. and sunset on weekdays and between 8:00 a.m. and 6:00 p.m. on Saturdays. The only exception to the preceding will be the performance of work in response to emergency situations and/or when directed to work by the OWNER. Construction Work at the intersection of Surf Street and Main Street shall be performed between 11:00 p.m. and 5:00 a.m. after coordinating with the OWNER. Also, the CONTRACTOR hereby concurs that the preceding has been taken into

account in setting the contract time." The CONTRACTOR will be responsible for reimbursing the City of Lewisville for overtime charges for construction inspection services on Saturdays, Sundays and all City holidays. The overtime charges will be based on the top of range overtime rate for an Engineering Construction Inspector plus eighteen percent (18%) per hour and a minimum of four (4) hours will be charged for each occurrence of such service. The overtime charges will be billed on a monthly basis. Failure to pay for these services will result in delaying the final acceptance and payment.

"The CONTRACTOR shall be entitled to an extension of working time under this contract only when claim for such extension is submitted to the OWNER in writing by the CONTRACTOR within seven days from and after the time when any alleged cause of delay shall occur; and then only when such time is approved by the OWNER. In adjusting the working time for the completion of the project, the OWNER will consider delays due to acts of God, or the public enemy, acts of the OWNER, fires, floods, epidemics and quarantine restrictions. The OWNER may, but is not obligated to, take into account any unforeseeable causes of delay which the OWNER considers beyond the control and without the fault or negligence of the CONTRACTOR. It is anticipated that during the course of the contract, inclement weather (rain or freezing temperatures) will hinder or prevent work. The contract time has been established assuming that up to 20% of the contract days will be inclement weather days, during which no work can be performed. No extension of time will be granted for such inclement weather days. The OWNER may grant an extension of time for inclement weather days beyond 20% of the contract time, but is under no obligation to do so."

23. **Item 109.3. Payment for Extra Work**: Replace the first sentence of 109.3.1. General; with the following:

    "No work shall be undertaken which requires extra payment without having executed a change order or field change approved by the CONTRACTOR and the OWNER, except when specifically ordered to do so in writing."

24. **Item 109.5. Monthly Estimate, Partial Payments, Retainage, Final Inspection, Acceptance and Final Payment**

    Delete from the first paragraph of 109.5.1: "The monthly estimate may include acceptable non-perishable materials delivered to the work; such payment shall be allowed on same percentage basis of the net invoice value as provided hereinafter."

    Add in its place, the following:

    The OWNER will pay for materials on hand only under the following conditions:

    a. The CONTRACTOR shall provide proof of payment for the materials.

    b. The materials shall be secured in a manner acceptable to the OWNER.

    c. Payment will not be made for small items, and other items not easily measured.

d. No payment will be made for small quantities of material on hand (less than 0.5 percent of the contract amount).

e. No payment for materials on hand will be made for items such as paint, mastics, cement, and other similar materials.

25. Delays associated with delivery of materials of appurtenances by the manufactures will not be considered for any extension of contract time. It shall be the sole responsibility of the CONTRACTOR to insure that the materials are manufactured and delivered on time.

B. Special Provisions to the Materials and Construction Methods of the Standard Specifications:

Only items in the Proposal are Pay Items. Other specification items will be complied with; however, their measurement and payment provisions are hereby deleted.

The price bid shall cover all work required by the Contract Documents. All costs in connection with the proper and successful completion of the work, including furnishing all materials, equipment, supplies, and appurtenances; providing all construction plant, equipment, and tools; and performing all necessary labor and supervision to fully complete the work, shall be included in the unit and lump sum prices bid. All work not specifically set forth as a pay item in the Proposal shall be considered a subsidiary obligation of the CONTRACTOR and all costs in connection therewith shall be included in the prices bid.

Work that is subsidiary to pay items includes, but is not limited to the following: protection, adjustment, maintenance, repair or replacement of all underground public or franchise utilities and services, whether shown on the plans or not; cutting and removing and plugging existing utilities, as required; crushed stone base, embedment sand; modified flowable backfill; pipe fittings; bends; joint restraint and thrust blocks; valve stack risers, concrete valve boxes; valve extensions; grouting abandoned waterlines; cutting and plugging waterlines as required; removal or abandonment of existing valves; delivery of salvaged items to 1100 North Kealy Avenue; maintaining water and sanitary sewer service to all adjacent properties; adjustment of the existing water line to avoid conflicts; trench dewatering; preventive measures of pipe flotation; installation of temporary orange polyethylene construction fencing adjacent to residences and businesses in construction areas as required; removal of existing thrust blocks; repair and replacement of landscape irrigation systems damaged during construction by a licensed irrigator; topsoil and sodding in areas outside of pay limits; placement of sod in all remaining disturbed areas after contract time has expired; concrete and/or asphalt pavement replacement (in areas outside of pay limits damaged by contractor); protection against flooding; removal of waste material from the site; replacement of property markers or monuments disturbed; sawcut and removal of existing pavement; replacement of damaged fences; clean up; additional traffic control not in plans including message boards; temporary asphalt pavement; replacement of existing traffic buttons and striping; miscellaneous grading; all other work required to complete the project and restore the areas of construction to their preconstruction condition; disposal of heavily chlorinated water main flushing water and all required testing of all the of the components of the project.

Special provisions to the materials and construction methods of the Standard Specifications as applicable to the Proposal Pay Items are as follows:

1. Payment for "Start-Up" shall be on a lump sum basis. The amount bid for these items shall not exceed five (5) percent of the Total Amount Bid. If the bid for these items exceeds 5% of the total amount bid, the amount in excess of 5% shall be paid on the project progress estimates throughout the duration of the project, with the amount determined by the percent complete on all other bid items for the project.
2. Payment for "Traffic Control" shall be on a lump sum basis. This pay item shall consist of furnishing, installing, maintaining, and removing the required traffic control devices during each phase of construction in accordance with the approved traffic control plan and TMUTCD. Inclusive with this pay item is the requirement for adequate notification and

instruction to be given to adjacent businesses and property owners and to the traveling public regarding interruptions or changes to established traffic flow patterns to, from and along the work site. This item shall include detours, barrels, panels, arrow boards, removing striping, temporary lane lines and/or markers, construction signing and barricades, construction pavement markers, temporary asphalt, message boards and all other work required to provide for passage of vehicular traffic for all phases of construction. Access must be maintained at all times to all houses and businesses. The amount bid for this item shall be paid over the duration of the project with the amount paid on each monthly progress estimate determined by the percent complete on all other bid items.

3. Payment for "Prepare Right-of-Way" shall be per 100-foot station as measured along centerline of streets right-of-way from beginning of utility installation to end of utility installation. It will include the area within the right-of-way and easement limits shown on the plans. Work shall include, but not be limited to: all obstructions above ground or below such as trees, shrubs, stumps, brush, roots, vegetation, logs, trash concrete, concrete driveways, culverts, curb and gutter, asphalt pavement, fences, structures, foundations, lumber, scrap metal, abandoned appliances, sprinkler systems, abandoned utility pipes or conduits and any other items not included as pay items elsewhere in the contract documents but necessary for the preparation of the easement and/or permanent or temporary easements for construction. The maintenance/relocation of street signs shall be considered as part of this item. This item shall also include the protection of any trees, shrubs, fences, structures, signs or other items that are to be preserved and/or relocated as shown on the plans. This pay item will also include removal of improvements or obstructions not specifically provided for in other pay items of the bid proposal. This pay item will include the temporary relocation and reinstallation of mailboxes. All materials removed shall be properly disposed of offsite in a timely manner. **Disposal of materials in City of Lewisville City limits must be taken to Waste Management**.

4. Payment for "Trench Safety" for water line shall be made on the basis of price bid per linear foot (LF) for the actual implementation of the trench safety excavation and support system required for the actual construction activities and shall be total compensation for furnishing the design and all materials, tools, equipment, labor, and any other incidentals necessary to complete the work. This pay item shall consist of the design and implementation of a trench safety excavation and support system required for construction activities. The Contractor shall furnish a site-specific trench safety plan prior to construction. The system shall meet the requirements of the Occupational Safety and Health Administration (OSHA). The Contractor is directed to become knowledgeable with the standards as set forth by OSHA and to provide a viable trench safety system at all times during construction activities, and the Contractor is responsible for conforming to such regulations as prescribed by OSHA standards. This pay item includes all additional excavation, backfill, pavement reconstruction and repair made necessary by the protection system. No separate payment shall be made for excavation protection made necessary due to the selection of an optional design or sequence of work that creates the need for the protection system. The trench safety plan shall be signed and sealed by a Texas Licensed Professional Engineer.

5. Payment for "Sawcut, Remove and Replace 8-inch Concrete Pavement Including Curb" shall be made on the basis of price bid per square yard (SY) and shall be total compensation for furnishing all labor, materials, equipment, concrete, reinforcing steel, compaction, lime,

finishing, curing, and any other incidentals necessary to complete the work. All concrete for construction shall have a minimum of 8 sacks of cement per cubic yard and a minimum compressive strength of 4200 psi at 3 days. The cost for furnishing and placing reinforcement is subsidiary to the concrete. Work shall be in accordance with City of Lewisville specifications.

6. Payment for "Sawcut, Remove and Replace 6-Inch Concrete Driveways" shall include all costs associated with staged construction sequencing including constructing temporary pavement to permit access to driveways, and any additional work required to maintain access to properties during construction.

7. Payment for "Sawcut, Remove and Replace Asphalt Payment" shall be made on the basis of price bid per square yard (SY) and shall be total compensation for furnishing all labor, materials, equipment and any other incidentals necessary to complete the work. Removal of asphalt shall be done at a suitable disposal site at no additional cost to the owner.

8. Payment for "Emergency Access Panel" shall be made on the basis of price bid per event (EVT) and shall be total compensation for furnishing all labor, materials and equipment including removals, disposal and any other incidentals necessary to complete the work. Two wood privacy fence panels and one post shall be removed and replaced under emergency situations upon written request from the City.

9. Payment for "Remove and Replace Existing Chain Link Security Fence" and "Remove and Replace Existing Barbed Wire Fence" shall be made on basis of Linear foot (LF). Fencing shall be removed and replaced to the right of way line. All fencing material shall be of equal or better-quality materials. Temporary fencing shall be installed as required. Cost of temporary fencing is incidental to contract bid items. CONTRACTOR shall notify the property owner a minimum of 72 hours in advance of fence removal.

10. Payment for "Remove and Replace Existing Landfill Marker" shall be made on the basis of price bid per each (EA) and shall be total compensation for furnishing all labor, materials, equipment and any other incidentals necessary to complete the work. Landfill markers shall be surveyed prior to removal and all markers replaced to their original locations. If the Landfill markers are destroyed during construction, the CONTRACTOR shall replace them in kind at no additional pay.

11. Payment for "Erosion Control" shall be on a lump sum basis. The amount bid for this item shall be paid over the duration of the project with the amount paid on each monthly progress estimate determined by the percent complete on all other bid items. This item shall include installation and maintenance of silt fence, construction entrances, inlet protection, rock check dams, other erosion control features, and all costs for preparing, implementing and maintaining a Storm Water Pollution Prevention Plan (SWPPP), from the beginning of construction through final acceptance and establishment of grass coverage, including all fees and costs associated with submitting an NOI and NOT for both the CONTRACTOR and the CITY. It will be the responsibility of the CONTRACTOR to develop a SWPPP. The CONTRACTOR shall submit two (2) copies of the plan to the OWNER for general conformance review. Once the SWPPP is deemed acceptable, the CONTRACTOR shall obtain a National Pollutant Discharge Elimination System (NPDES) permit. The SWPPP is to be kept on the construction site and implemented throughout the construction duration. Once construction is complete, the system shall be dismantled and removed from the site.

12. Payment for Hydromulch, Seeding and block Sod with 4-inch Topsoil shall be made on the basis of price bid per square yard (SY) and shall be total compensation for furnishing all materials, equipment, labor including fine grading, placing the topsoil and hydromulch Seeding or solid sod, rolling and tamping, fertilizing, water, disposal of waste materials, and any other incidentals necessary to complete the work. These items will not be measured for payment. Payment will be made using the plan quantities given in the bid schedule for this item. Soil retention blanket shall be installed on all side slopes where specified immediately after seeding. Soil retention blanket shall be American Excelsior Company Curlex I or approved equal. Soil retention blanket shall be installed by rolling mat parallel to the direction of water flow and in accordance with manufacturer's recommendations. No more than 50% of this item shall be paid until 100% grass coverage has been established to the satisfaction of the Owner. This pay item shall consist of all work, materials and incidentals necessary to restore grass in all disturbed areas to an equal or better condition than prior to construction. Disturbed areas along the length of the project shall be fine graded and cut to receive grass as determined by the Owner. Topsoil shall be placed in low areas to bring them to grade and shall consist of a friable, dark clayey loam material free of lumps, stones, and other extraneous material obtained from borrow sources. Unless otherwise directed by the Owner, grass matching the species that existed prior to construction and/or the species adjacent to the disturbed areas shall be placed in all disturbed areas where improved lawn or established turf existed prior to construction. Contractor shall be required to water, establish growth, and protect and repair any damaged areas until completion and final acceptance of the project by the Owner. It is the intent of the Owner that all disturbed areas along the project be restored. If there are areas outside of the project limits that are disturbed by the Contractor during the performance of this work, those additional areas shall be restored in accordance with the requirements provided herein at the Contractor's sole expense. Work shall be in accordance with City of Lewisville and NCTCOG Item 202.5.

13. Payment for "24-inch Ductile Iron Water Line by Open Cut" shall be made on the basis of the price bid per linear foot (LF) and shall be the total compensation for furnishing all labor, materials and equipment including excavation, embedment, backfill, dewatering and any other incidentals necessary to complete the work. A partial payment of 30%, inclusive of the standard 5% retainage, for bid items for all water line will be withheld until the water line has been successfully tested. Water line test required include hydrostatic, disinfection and backfill compaction. The Ductile Iron Water line shall be cement mortar lined, bituminous coated, Pressure Class 200 with polyethylene encasement except where specified on the plans. Bid items for water line will be measured along the pipe centerline once in place. There shall be no separate payment for cement stabilized backfill where specified on the plans. All fittings and thrust restraint shall be subsidiary to water line bid items. The CONTRACTOR is responsible for taking any necessary precautions or construction measures necessary to protect and support existing utilities. Work shall be in accordance with the City of Lewisville Standard Construction Details and NCTCOG Division 500.

14. Payment for "24-inch Zinc coated Ductile Water Line in 36" O.D. x 3/8" thick steel casing pipe by other than open cut" shall be made on the basis of the price bid per linear foot (LF) and shall be the total compensation for furnishing all labor, materials and equipment including spacers and any other incidentals necessary to complete the work. The cost of the casing pipe along with the carrier pipe along with all appurtenances including dewatering shall be included in this bid item. Pipe installation inside casing shall be per the pipe manufacturer's

recommendation. Proposed water line shall not rest on its bells and shall be anchored inside the casing pipe with Racii casing spacers (or approved equal) to avoid movement in any direction. A partial payment of 30%, inclusive of the standard 5% retainage, for bid items for all water line will be withheld until the water line has been successfully tested. Water line test required include hydrostatic, disinfection and backfill compaction. The 24-inch Ductile Iron Water line inside the Steel Casing pipe shall be Pressure Class 200, coated with arc-sprayed Zinc on the exterior with a top coat of asphalt and encased in polyethylene encasement. The interior surface shall be cement mortar lined. The CONTRACTOR is responsible for taking any necessary precautions or construction measures necessary to protect and support existing utilities. Work shall be in accordance with the City of Lewisville Standard Construction Details and NCTCOG Division 500.

15. Payment for "24-Inch Ductile Iron Pipe Water Line in Concrete Encasement by Open Cut across Trinity River" shall be made on the basis of price bid per linear foot (LF) shall be total compensation for furnishing all labor, materials, equipment including excavation, backfill, supporting the pipe and any other incidentals necessary to complete the work. Concrete encasement shall be installed in accordance with the plan details. Concrete for encasement shall be Type "B" – 2000 psi compressive strength at 28 days. The Ductile Iron Water line shall be cement mortar lined, bituminous coated, Pressure Class 200 with polyethylene encasement.

16. Payment for "48-Inch Diameter, ½" Thick Steel Casing Pipe with plugs on both ends by open cut" shall be made on the basis of price bid per linear foot (LF) shall be total compensation for furnishing all labor, materials, equipment including excavation, backfill, supporting the pipe, plugs and any other incidentals necessary to complete the work.

17. Payment for "Remove Plug and Connect to Existing 30" Water Main" shall be made on the basis of price bid per each (EA) and shall be total compensation for furnishing all labor, materials, equipment including cutting, tapping, plugging, sleeves, fittings, polyethylene wrap, blocking, and disposal of waste materials and any other incidentals necessary to complete the work. This pay item shall consist of connecting the proposed water line to the existing water line at the locations shown on the plans. Work shall be in accordance with City of Lewisville and NCTCOG Division 500.

18. Payment for "Cut-In Tee 30"x24" and 30-Inch Butterfly Valve" shall be made on the basis of price bid per (EA) and shall be total compensation for furnishing all labor, materials, equipment including cutting, fittings, blocking, and disposal of waste materials and any other incidentals necessary to complete the work. This item shall govern for the installation of new tee and direct bury butterfly valve on the existing 30-inch Ductile Iron water main. All work shall be done with the City of Lewisville Water Department's and pipe manufacturer's recommendations. Contractor shall field locate pipeline at the connection point prior to ordering or fabricating proposed pipe. Contractor shall verify pipe size, pipe type, elevations, and horizontal location. Contractor shall make all necessary adjustments to connect to existing line after approval from the Engineer.

19. Payment for "24-Inch Butterfly Valve" and "6-Inch Blow Off Valve" shall be made on the basis of price bid per each (EA) shall be total compensation for furnishing all labor, materials, equipment including excavation, backfill and any other incidentals necessary to complete the

work. Blow off valve shall be installed in accordance with the plan details and shall include valve, piping, concrete pads and valve block.

20. Payment for "Combination Air/Vacuum Valve" for various sizes shall be made on the basis of price bid per each (EA) shall be total compensation for furnishing all labor, materials, equipment including excavation, backfill and any other incidentals necessary to complete the work. Combination air/vacuum valve shall be installed in accordance with the plan details and shall include valve, underground piping and vent piping. Vent piping shall be installed at existing fence/property lines. When located in the floodplain the vent piping shall extend a minimum two feet above the FEMA effective 100-year water surface elevation.

21. Payment for "Large Stone Rock Riprap" shall be made on the basis of price bid per cubic yard (CY) shall be total compensation for furnishing all labor, materials, equipment including excavation, backfill, embedment, geotextile, and any other incidentals necessary to complete the work. Stone riprap shall be installed in accordance with the plan details

22. Payment for "Cement Stabilized Sand" shall be made on the basis of price bid per cubic yard (CY) shall be total compensation for furnishing all labor, materials, equipment including excavation, backfill, and any other incidentals necessary to complete the work. Sand shall be clean, durable sand meeting grading requirements for fine aggregates of ASTM C33 and classified as SW, SP, or SM by the United Soil Classification System of ASTM D2487. Minimum of 4 percent cement content of Type I/II Portland cement. Mix in a stationary pug mill, weigh-batch or continuous mixing plant. Strength shall be 50 to 150 psi compressive strength at 2 days and 200 to 250 psi compressive strength at 28 days in accordance with ASTM D1633, Method A. The maximum compressive strength in 7 days shall be 400 psi.

23. Payment for "Pipeline Marker" shall be made on the basis of price bid per each (EA) and shall be total compensation for furnishing all labor, materials, equipment and any other incidentals necessary to complete the work. Pipeline markers shall be installed in accordance with the plan details. Pipeline markers shall be positioned over the centerline of the utility every 400 feet, at horizontal angle points, at valves, street crossings and where directed by the engineer. When located in the floodplain the marker shall extend a minimum two feet above the FEMA effective 100-year water surface elevation. Inside the Landfill property, the Pipeline markers shall be placed closer to the boundary/fence.

24. Payment for "Lower Existing Water Main" shall be made on the basis of price bid per each (EA) and shall be total compensation for furnishing all labor, materials, equipment and any other incidentals necessary to complete the work. Water main lowering shall be performed in accordance with the plan details. Water main lowering shall only be performed when necessary to avoid a conflict with the proposed utility.

25. Payment for "Trinity River Crossing Measures" shall be made on a lump sum basis. This pay item is intended to include all items of cost required for crossing the Elm Fork of the Trinity River that are not included in other pay items. Such items of cost include care of water, construction of cofferdams and temporary dewatering facilities, construction of temporary access ramps, coordination for the Aquatic Resource Relocation Plan (ARRP) and any other measures necessary to install the river crossing. A Technical Specification for Aquatic Species Recovery and Relocation for S.H. 121 Business 24-inch Water Line is included in these documents. The Contractor shall provide a construction plan for the river crossing that conforms to the rules and regulations of the U.S. Army Corps of Engineers for in-stream

modifications. Coffer dams, shoring and/or other approved construction techniques shall be used to divert stream flow or otherwise keep the flow away from the construction activity and reduce sediment pollution. The river crossing plan shall be signed and sealed by a Texas Licensed Professional Engineer. The Contractor shall contact Rob Jordan at the USACE Lewisville Lake Location, 469-645-9100, hours 8:00am to 4:30pm for lake operations coordination. The construction area is within the floodway and floodplain of the river and at risk for flooding. Contractor shall be solely responsible for the safety of the workers at all times. Under threatening weather conditions where flooding is possible, obstructions in the floodplain shall be immediately removed by the Contractor.

C. Special Specifications

1. Shop Drawings:

   The CONTRACTOR shall submit four copies of shop drawings to the OWNER for all proposed materials. CONTRACTOR shall keep one (1) set of prints for making construction notes and mark-ups for submittal of as-built drawings.

2. **Property Owner Notification/Approval:**

   The Contractor must notify all affected property owners 30 days prior to accessing the property. Notification must be made by certified mail with a copy of the letter, certified mail receipt and domestic return receipt submitted to the City. The CONTRACTOR shall obtain a written letter of approval from the affected property owners prior to city acceptance of the work.

3. Inspection:

   The word "inspection" or other forms of the word, as used in the contract documents for this project shall be understood as meaning the OWNER'S Representative will observe the construction on behalf of the OWNER. The OWNER'S Representative will observe and check the construction in sufficient detail to satisfy himself that the work is proceeding in general accordance with the contract documents, but he will not be a guarantor of the CONTRACTOR'S performance.

4. Construction signing shall be placed on new 4" X 4" wooden posts (two required except "Street Construction Ahead" may be on one post). Upon post removal, the holes shall be filled and compacted. Signs shall be new.

5. Street signs shall be mounted in accordance with TxDOT standard details. All posts and hardware shall be galvanized in accordance with Item 445 – Galvanizing, contained in the Standard Specifications for Construction of Highways, Streets, and Bridges, published by the Texas Department of Transportation.

6. The CONTRACTOR shall provide detour signs, barricades, barrels, vertical panels, flashing lights, construction pavement markers, construction and maintenance signs, construction lights, construction speed limit signs, channelizing devices, and flagmen as required providing for the safety of the traveling public. These items shall be in accordance with the traffic control plan and the recommended practices of the "Texas Manual on Uniform Traffic Control Devices for Streets and Highways", latest edition. The installation of "Street Construction Ahead," "Utility Construction Ahead" and "End Construction" signs shall be made and such approved at least 48 hours prior to any construction or the moving of any equipment or materials onto or nearby the site.

7. The CONTRACTOR shall provide a project sign at that site with active construction, the cost of which will be subsidiary to the various bid items. Signs will be installed as directed by the City. The City will provide the CONTRACTOR with information with regards to the size of lettering, content, and size of signs (see detail at back of spec book). The two project signs shall be relocated, as directed by the City, as the work locations progress within each stage of construction.

8. Construction signing shall not be removed from the project until approved by the OWNER.

9. No existing street shall be closed except upon written authority from the OWNER.

10. The CONTRACTOR shall remove all trees, stumps, vegetation, roots, brush, logs, shrubs, plants, and landscaping within the right-of-way. All trees, stumps, slashings, brush, other debris or deleterious material generated as a part of this work shall be removed from the project. Any required disposal permits shall be in the sole responsibility of the CONTRACTOR. All stumps shall be grounded to below the finished grade, using a stump grinder. Tree branches that overhang into the right-of-way shall be trimmed by the CONTRACTOR, if required, to facilitate the construction. Tree removal or trimming shall be paid for as a part of the bid item "Prepare Right of Way".

    Trees to remain outside the right-of-way or easement on private property will be protected from damage by the CONTRACTOR. Employees of the CONTRACTOR (his subcontractors) will not part closer than ten (10) feet to any tree that is to remain.

11. The CONTRACTOR shall coordinate his activities with other CONTRACTOR'S working within, and close proximity to the project. To facilitate cooperation, regular progress meetings will be held among all CONTRACTOR'S.

12. Water and sanitary sewer service shall be maintained for all properties during construction. This includes the construction of temporary connections, if required. Temporary connections shall be considered subsidiary to the various bid items.

13. At the end of each day, the CONTRACTOR shall prepare the work to the satisfaction of the OWNER.

14. Prior to beginning construction, the CONTRACTOR shall contact all utility companies with utilities in the area and the property owners, 48 hours in advance of starting work. If necessary, test ditches will be dug to verify actual locations and conditions.

    Verizon (Attn: Darren Box) 972-318-0203
    Texas-New Mexico Power Company (Attn: Carlos Estrada) 972-353-5006
    Coserv (Attn: Jody Padron) 940-321-7800
    AT&T (Attn: James McKee) 214-745-2976
    Time Warner Cable (Attn: Patrick Sauls) 214-422-1537
    Grande Communications (Attn: Mike Bowden) 972-410-0592
    United Private Networks (Attn: Beau Poteet) 214-974-0678
    City of Lewisville Public Services
    Attn: James Wallingsford 972-219-3517
    United States Post Office ..... (Fax) 972-436-7230
    Atmos Energy (Attn: Gary Woolsey) 214-206-2717
    For line locates, call 1-800-DIG-TESS (1-800-233-8377)

15. Information shown on these plans concerning type and location of underground utilities is not guaranteed to be accurate or all-inclusive. The CONTRACTOR is responsible for making his own determination as to type and location of underground utilities as may be necessary to avoid damage thereto. The CONTRACTOR shall verify location of underground pipelines, conduits and structures by contacting the owners of the underground facilities and prospecting in advance of excavation operations. The CONTRACTOR shall pay for all repairs of damaged of utilities resulting from the construction of this project and no additional payment will be made by the CITY.

Furthermore, whenever the OWNER requests the CONTRACTOR to uncover any water line, sewer line or pipe line, or any other underground utility line well in advance of his construction activity in order to confirm locations of utilities, the CONTRACTOR shall comply with the OWNER'S request.

16. Boundary fences or other improvements removed to permit this construction shall be replaced in the same location as specified on the plans. Temporary fencing shall be installed as required and subsidiary to contract.

17. The CONTRACTOR shall at all times keep the job site as free from all material, debris and rubbish as is practical and shall remove same from any portion of the job site as construction of that portion is completed. No item of work will be considered complete for payment purposes until required cleanup has been performed.

    Upon completion of the work, the CONTRACTOR shall remove from the site all plants, materials, tools and equipment belonging to him and leave the site with an acceptable appearance.

18. No material, which has been used by the CONTRACTOR for any temporary purpose whatever, is to be incorporated in the permanent structure without written consent of the CITY.

    Where materials or equipment are specified by a trade or brand name, it is not the intention of the OWNER to discriminate against an equal product of another manufacturer, but rather to set a definite standard of quality of performance, and to establish an equal basis for the evaluation of bids. Where words "equivalent", "proper", or "equal to" are used, they shall be understood to mean that the thing referred to shall be proper, the equivalent to, or equal to some other thing, in the opinion or judgment of the ENGINEER. Unless otherwise specified, all materials shall be the best of their respective kinds and shall be in all cases fully equal to approved samples. Notwithstanding that the words "or equal to" or other such expressions may be used in the specifications in connection with a material, article or process specifically designated shall be used, unless a substitute shall be approved in writing by the ENGINEER, and the ENGINEER shall have the right to require the use of such specifically designated material, article or process.

19. <u>Tree Protection</u>

    The CONTRACTOR shall be responsible for taking measures to minimize damage to tree limbs, tree trunks, and tree roots adjacent to the project unless otherwise specified in the plans to remove trees. CONTRACTOR shall inspect the work site in advance and arrange to have any tree limbs pruned that might be damaged by equipment operations. The City shall be notified at least 24 hours prior to any tree trimming work. Nothing shall be stored or parked over the tree root system within the drip line area of any tree. The CONTRACTOR shall employ a qualified landscaper for all the work required for tree care to ensure utilization of the best agricultural practices and procedures.

20. The CONTRACTOR'S attention is directed to the requirement by Item 505.1 Open Cut – General Conduit Installation in the Standard Specifications for Public Works Construction. Specifically the last paragraph of 505.1.6 the CONTRACTOR is required

to provide, and to install at the end of each working day or when work is suspended, a temporary plug or watertight seal in the end of the utility main being installed under this contract. All caps (plugs) used shall be manufactured by the supplier of the pipe being used, or approved equal.

21. The following material tests will be required for the project:

    a. Trench Backfill Compaction: All trench backfill under roadbed areas shall be mechanically compacted as required by North Central Texas Council of Governments Specifications and these special site specific specifications. The testing laboratory will make tests of in-place density in accordance with ASTM D 698 of points selected by the City Inspector. All trenches shall be compacted to 95% of standard Proctor maximum dry density within the range of 1% below and 3% above the material's optimum moisture content. A minimum of one density test will be made for each 100 linear feet of every 8 inch loose lift of fill for water, storm drain and sanitary sewer construction. When backfill tested fails to meet the required density, trench backfill in the vicinity of the test, i.e. for a minimum of 50 feet in both directions from the test location, shall be removed and replaced with compaction. Thereafter, three tests shall be performed on the material removed and replaced, to determine if it is in accordance with the project compaction requirements.

    b. Pavement Subgrade: The testing laboratory will make tests of in-place subgrade density in accordance with ASTM D 2922-81 at points selected by the City Inspector. A minimum of one field density test shall be conducted per lift for each 5,000 square feet of pavement subgrade.

    c. Concrete: Four standard 6-inch test cylinders shall be made from each type or strength of concrete for each pouring operation, but not less than five cylinders from each 100 yards of concrete placed. For twenty-eight (28) day concrete test cylinders shall be made and cured, as prescribed by ASTM Specification C-31, and broken, one at seven (7) days, two at twenty-eight (28) days, and hold one, as prescribed by ASTM Specification C-39. For three (3) day concrete test cylinders shall be made and cured, as prescribed by ASTM Specification C-31, and broken, two at three (3) days, one at seven (7) days, and hold one, as prescribed by ASTM Specification C-39.

    d. Pavement Thickness Test: The CONTRACTOR shall have any repaired pavement cored (1 inch diameter) for thickness testing. One core shall be required at each area that is hand-poured pavement. The CONTRACTOR shall pay the cost of coring pavement. A City inspector must be present when coring is performed. The OWNER shall determine the locations for taking cores.

22. Existing concrete pavement, sidewalks, driveways, curb, asphalt pavement, curb and gutter, or concrete channel paving to be removed, shall be sawed along neat lines where portions are to be left in place. When sidewalks must be removed, full panels shall be removed and then replaced.

23. The CONTRACTOR shall furnish and install permanent pavement markings at locations as shown on the plans. The elimination of existing raised pavement markers and

markings, and the surface preparation required prior to installation of new signs and markings shall be considered subsidiary to the bid item for "Pavement Markings and Signage". All pavement markings and signs will be in accordance with the Texas Department of Transportation (TxDOT) Standard Specifications for the Construction of Highways, Streets, and Bridges, as well as in accordance with TxDOT standard drawings for signs. Wood shall not be used in the construction of permanent signs or their supports.

All excavated earth in excess of that required for backfilling shall be removed from the project site and disposed of in a satisfactory manner. All materials removed shall be properly disposed of offsite in a timely manner. **Excess spoil from the Lewisville Landfill TX LP Property shall be placed inside the Lewisville Landfill TX LP Property as directed by the City Inspector.** Disposal of materials in City of Lewisville City limits other than the spoil from the Lewisville Landfill TX LP Property must be taken to Waste Management.

24. Valves, fire hydrants, meter boxes, and cleanout shall be located outside the future sidewalk areas.

25. Positive drainage shall be established during the initial phase of grading and maintained throughout construction. Any softening or saturation of any lift will necessitate removal and replacement of the affected area. Where surface drainage channels are blocked during construction, they shall be restored to their original grade and cross-section.

26. Delays associated with delivery of materials by the manufacturer will not be considered for any extension of contract time. It shall be the sole responsibility of the CONTRACTOR to assure that the materials are manufactured and delivered on time.

27. **Construction Sequencing and Temporary Traffic Control**

The following is the construction sequence for this project:

a. Water line construction on Midway Road from Huffines to Pumpstation and Pressure Testing along with the construction of the 48-inch diameter steel casing pipe at the intersection of Midway Road and Holfords Prairie.

b. Water line construction inside Landfill Property, along S.H. 121 Business and Trinity River Crossing.

The traffic control plans shown on the construction plans shall be considered the minimum requirements necessary to construct the project. Additional measures may be needed to address local traffic control issues and additional sequencing not covered by the construction plans. Prior to construction, the CONTRACTOR will be required to submit a detailed construction sequencing and temporary traffic control plan to address all issues not covered by the construction plans. A schedule shall also be submitted to address times of completion of each stage of the construction sequence and projected dates of road closings, detours, and utility interruptions. The CONTRACTOR shall update this schedule on a monthly basis.

The construction schedule shall address measures to be taken in the event of heavy rain or wet weather during construction. If, in the opinion of the City, wet weather renders unpaved streets or driveways impassable to traffic or prevents access to adjacent property by residents, the Contractor shall place gravel or crushed stone in the streets. The cost of furnishing or placing such materials shall be incidental to the unit cost of the various items of construction. Contractor's personnel shall be on call 24 hours a day to handle wet weather problems.

Proper notification must be given to all affected property owners at least 48 hours in advance of all construction operations **including saw cutting**.

No street shall be closed except upon written authority from the OWNER.

The Contractor shall provide all barricades, signing, and traffic control devices required for maintaining traffic flow.

At the end of each day, trenches shall be backfilled and streets maintained in an all-weather condition by the addition of asphalt millings, crushed stone or other means approved by the Engineer when permanent pavement is not in place. The temporary surface shall be maintained until permanent pavement is placed. This work shall be subsidiary to the Proposal Bid Items.

Construction signing shall not be removed from the project until approved by the OWNER. **Construction signing shall be maintained in good working condition throughout the duration of the project**.

28. **Block Sodding with 4-Inch Depth Topsoil**

Item 202.2 Topsoil and Item 202.5 Sodding of the Standard Specifications area hereby deleted and replaced with this specification. Item 202.4 Fertilizer is hereby revised as indicated below.

a. Description – The CONTRACTOR shall provide topsoil and block sod to all designated areas. The CONTRACTOR shall water, mow and protect the seeded areas until acceptance. Acceptance will not be made until all seeded areas are in full growth with a well established root system. No on-site topsoil shall be used for establishing grass. **The CONTRACTOR shall provide imported topsoil obtained from a commercial source**.

b. Preparation of Areas – All areas to receive topsoil and sod shall be graded to the lines, grades and cross-sections shown on the plans and as provided for in other items of this contract, with the surface grade set four (4) inches low to allow for the placement of 4-inch depth topsoil plus sod. All rocks and foreign material shall be raked off the surface prior to the placement of topsoil.

c. **Imported Topsoil - Imported topsoil shall be obtained from an approved commercial source. Topsoil shall consist of natural, fertile, friable, screened, dark-colored sandy loam. It shall contain no acidity or alkalinity detrimental to plant growth. It shall contain no subsoil, lumps, stones, roots or other foreign matter**.

d. Grass Type –Sod shall be of the same type as on areas adjacent to the area being sodded.

e. Block Sodding – Sod blocks shall be carefully placed on the prepared areas. Sod shall be so placed that the entire designated area and disturbed areas shall be covered. Any voids left in the block sod shall be filled with additional sod and tamped. The entire sodded areas shall be rolled and tamped to form a thoroughly compact solid mass. When necessary the sodded areas shall be smoothed after planting has been completed and shaped to conform to the cross-section. Any excess dirt shall be removed to give a neat appearance.

f. Fertilizer – Fertilizer shall conform to the requirements of Item 202.4, Fertilizer of the Standard Specifications. Fertilizer shall be applied at the rate of 400 pounds/acre and be considered subsidiary to bid item "4-Inch Topsoil and Sodding". Section 202.4.4, Measurement and Payment is hereby deleted.

g. Watering – Sodded areas shall be watered by the CONTRACTOR as required to promote rapid growth of grass without unnecessary delay. The CONTRACTOR shall install a temporary irrigation system to water the grass in areas not covered by the permanent irrigation systems. Re-sodding shall be performed immediately, when required, without delay. Temporary irrigation, re-sodding, and replacing eroded topsoil are incidental to the contract.

h. Acceptance – The CITY will accept sodding as complete upon establishment of a growth of grass covering all areas requiring seeding. The CONTRACTOR shall mow and maintain the grass until accepted.

i. Payment – Payment will be per plan quantity. No measurement will be made.

Topsoil, sod and fertilizer required in areas disturbed by the CONTRACTOR outside of the designated areas shall be incidental to the project and not paid for separately. The CONTRACTOR shall pay for all water costs until grass is accepted by the CITY

29. **Reinforced Concrete Paving for City Streets and Sidewalk**

Reinforced concrete pavement shall be installed in accordance with the construction plans and Item 303 of the Standard Specifications. Sidewalks shall have a minimum compressive strength of 3,000 PSI @ 28 days. No super plasticizers will be allowed in concrete mixes. The minimum cement ratio shall be 8.0 sacks per cubic yard for 4,200 PSI @ 3 days concrete. Fly ash will not be permitted in street and sidewalk concrete on the project. Bar chairs area required to support reinforcing steel and dowel bars. Hand finish of concrete pavement will not be a separate pay item on the project.

Reinforcing steel shall be 60-ksi steel, No. 4 bars placed on 18-inch center-to-center spacing each way. All work required for joints (including anchor joints), sawcutting joints and joint sealant is included in these items.

Maximum joint spacing shall be 15 feet.

The CONTRACTOR shall submit mix designs and concrete break histories for approval prior to construction.

30. **Storm Water Prevention Pollution Plan (SWPPP)**

It shall be the full responsibility of the CONTRACTOR to acquire and comply with any and all permits as may be required to avoid delay of the project.

Prior to construction, the CONTRACTOR shall comply with Federal and State storm water management regulations. The plan shall employ measures to prevent erosion and siltation from the construction disturbance from reaching stream beds, channels, storm water structures, ponds, etc. The plan shall comply with the requirements of the "Integrated Storm Water Management Design Manual for Construction" published by NCTCOG. In the event of a conflict between these requirements and Federal and State pollution control laws, rules, and regulations or other Federal, State or Local agency laws, rules, and regulations, the more restrictive shall apply. The release of the plan for construction by the CITY in no way relinquishes the CONTRACTOR of all responsibility and liability for the pollution control. The CONTRACTOR shall be solely responsible and liable for all activities at the construction site necessary for compliance with Federal and State storm water regulations and the Storm Water Pollution Prevention Plan for the site.

The SWPPP shall conform to the following City of Lewisville requirements:

a. All site specific information required by the TCEQ Construction General Permit (Part III, Section F) must be included in the SWPPP. Restatement of information directly from the Construction General Permit is not acceptable. The CONTRACTOR must describe specifically what measures are planned at the construction site.

b. All signature documents must be signed and dated prior to submittal for review. This includes SWPPP certifications, Notices of Intent (NOI), Construction Site Notices, and Inspector Delegation Letters. If there are multiple Operators for the project, each Operator's signature documents must be signed and dated. The City of Lewisville will complete its own signature documents during the review process. All forms must be signed by an appropriate signatory authority, and include the person's job title, where required. SWPPPS without the proper signatures will be returned without review.

c. The specific inspection schedule must be described in the SWPPP. The CONTRACTOR must clearly state whether he will be implementing the 14-day (and within 24 hours after a ½ inch rainfall) schedule, or the 7-day schedule.

d. The CONTRACTOR must include a copy of the inspection form that will be used. The form must include the required certification statement and allow for signature by the inspector, as required by the Construction General Permit.

e. The SWPPP must include a section in which to document the dates of the following activities: when major grading activities occur; when construction activities temporarily or permanently cease on a portion of the site; the dates when stabilization measures are initiated. If there is no section for this information, the CONTRACTOR must document the information on the inspection reports, and the CONTRACTOR must state in the SWPPP that the information will be documented in this manner.

f. The SWPPP must describe what types of temporary and/or permanent stabilization will be implemented at the site. For example, if the plan is to seed the disturbed area

and maintain it until a uniform, established vegetative growth is achieved, then this must be detailed in the SWPPP.

g. The CONTRACTOR must identify the erosion and sediment controls that are planned at the site, including sweeping activities. All structural controls (i.e. silt fence, check dams, rock entrances) must be shown on the site map. The CONTRACTOR must also describe how he plans to maintain those erosion and sediment controls in proper working order.

h. The SWPPP must include both a General Vicinity Map and a Detailed Site Map. The site map must include all of the information listed in Part III, Section F (g) of the Construction General Permit. The CONTRACTOR may use the Erosion Control map from the Construction Plans, provided that it includes all of the necessary information. It is recommended that a separate site map be developed for the SWPPP, to avoid deficiencies.

i. The SWPPP must clearly state whether or not any support activities, such as concrete or batch plants, are planned. This is because support activities do not always qualify for coverage under the Construction General Permit, and separate permit coverage may be necessary.

j. If the project disturbs 10 acres or more with a common drainage location, and a sediment basin is not employed, the rationale for this decision must be documented in the SWPPP. The equivalent erosion and sediment control devices that are to be used must be described.

k. Allow a minimum of 2 days for review of the SWPPP.

l. The City of Lewisville does not currently utilize electronic submittal of Notices of Intent. **Construction will not be allowed to begin until 7 days after the NOI has been signed by the signatory authority and postmarked for delivery**. For this reason, early submission of the SWPPP and NOI are highly recommended.

m. At least two copies of the completed SWPPP must be submitted to the City. One copy will be maintained by the Storm Water Division, and one other copy will be reviewed and returned to the CONTRACTOR.

The cost to the CONTRACTOR for the preparation of the SWPPP for the project shall be incidental to the various items of erosion control. The erosion control plan included in the project construction plans shall be incorporated into the SWPPP. Items required by the SWPPP that are not included as bid items are subsidiary to the various items of erosion control. The various bid items for erosion control shall include all costs for implementing and maintaining the Storm Water Pollution Prevention Plan, from the beginning of construction through final acceptance and establishment of grass coverage.

Any disturbed areas, whether inside or outside the project limits, where construction activities are complete or won't be worked on for 14 days, must be permanently or temporarily stabilized. **Stabilization measures must be initiated no later than one day after completing work in an area or determining that work will be temporarily stopped for more than 14 days in that area**. Temporary stabilization can include the use of erosion blankets such as Curlex or other methods approved by the City inspector.

Permanent stabilization will require topsoil and sod, unless otherwise shown on the project landscaping plans.

Final acceptance of sodded areas will be granted when sod has taken root. Placement of temporary or permanent erosion control measures in unstabilized areas after contract time has expired will be considered subsidiary to this bid item. Once final acceptance of permanent stabilized areas is granted, **the Contractor shall notify the City inspector prior to removing the Construction Site Notice sign and submit the final copy to the City within one week of removal.**

31. The following water pipe is acceptable for this project in accordance with the assigned NCTCOG Standard Specifications, item number and AWWA Standard:

    a. 24-Inch Diameter, Pressure Class 200 Ductile Iron Pressure Pipe (DIP) and Fittings, NCTCOG Item 501.7, AWWA C151, Cement Mortar Lined Interior AWWA C104 Bituminous Coated Exterior with Polyethylene encasement.

Coatings & Linings:

Ductile iron pipe and fittings shall have an exterior asphaltic sealcoat in accordance with ANSI/AWWA- C151/A21.51 and shall be lined with cement mortar in accordance with ANSI/AWWA C 104/A21.4.

DIP encased in Steel Casing Pipe:

The exterior of Ductile iron pipe encased in steel casing shall be coated with a layer of arc-sprayed zinc per ISO 8179. The mass of the zinc applied shall be 200 g/sq.m of pipe surface area. A finishing layer topcoat shall be applied to the zinc. The mean dry film thickness of the finishing layer shall not be less than 3 mils with a local minimum not less than 2 mils. The zinc coating system shall conform to ISO 8179-1 "Ductile Iron Pipes – External zinc-based coating – Part 1: Metallic zinc with finishing layer. Second edition 2004-06-01." The CONTRACTOR shall require the MANUFACTURER to legibly mark specials in accordance with the laying schedule and marking diagram. All other cast marks shall be in accordance with applicable standards.

Fabricated Outlet Pipes:

Fabricated outlet pipes may be used in lieu of tees for branch lines, blow-off connections fire hydrant leads. Provisions for differential settlement may require inclusion of a non-rigid joint between the outlet and adjacent appurtenances.

32. **Valves**

Valves for water lines 12-inch or smaller shall be Resilient Seated Gate Valves, NCTCOG Item 502.6.2. AWWA C509. Valves for water lines greater than 12-inch shall be Butterfly Valves, NCTCOG Item 502.6.2. AWWA C504. All valves shall be flanged.

33. Waterline shall pass hydrostatic testing per the requirements of Item 506.5.

34. Waterline shall be purged and disinfected per the requirements of Item 506.7.

35. Valve boxes shall be equipped with devices to prevent debris from falling within the valve boxes.

36. Grout shall be controlled low-strength material (minimum 1000 psi concrete) consisting of fluid mixture of cement, fly ash, aggregate, water and with admixtures as necessary to provide workable properties to flow into and fill the pipe, with no voids.

37. **Encasement Pipe**

    Steel Casing for use on this project shall be new steel confirming to ANSI B36.10 and the following:

    - Yield Strength: 35,000 psi minimum
    - Wall thickness: as specified on plans
    - Diameter: As shown on the drawings (minimum size requirements)
    - Joints: Continuous circumferential weld in accordance with ANSI/AWS Section B2.1-1-206-96 or approved equivalent (AREMA 5.3.4.a - Steel Casing Pipe).

    All steel encasement shall have smooth walls. No corrugated pipe shall be permitted. All voids between the encasement pipe and earth or embankment materials bored through shall be grouted with a grout consisting of one (1) part Portland Cement and three (3) parts sand thoroughly mixed with water.

38. Fire hydrants and other salvaged appurtenances shall be delivered to the City of Lewisville Public Services storage yard at 1100 North Kealy in the City of Lewisville. Salvaging existing fire hydrant assemblies is subsidiary to various bid items.

39. **Water Services**

    Water service lines shall be type "K" copper. These service lines shall be paid for at the cost bid per each. Corporation stops shall be Mueller or approved equal. Brass saddles are required on all service connections. All fittings shall be of the compression type; flares shall not be allowed.

    The price bid for water services includes making connection to water main, copper lateral, tap, saddle and curb stop.

    If the CONTRACTOR damages existing meter boxes being adjusted to final grade, he shall install new meter boxes.

40. **Water for Construction**

    Water will be furnished free of charge by the OWNER to the CONTRACTOR in the amounts needed to properly fill and test the water line. The owner reserves the right, however, to charge the prevailing rate for water wasted through carelessness or neglect on the part of the CONTRACTOR. All other water required for the project will be at the CONTRACTOR'S expense. The CONRACTOR shall obtain a temporary water meter

(deposit reimbursed when the meter is returned) from the OWNER and meter all water used for the project.

41. **Construction inside the Lewisville Landfill TX LP Property**

The waterline easement and the water and sanitary sewer easement in the Landfill property serves as the emergency access road as required by TCEQ. During Construction CONTRACTOR shall endeavor never to block the access road in such a way that emergency vehicles cannot use the access road as an emergency entrance to landfill. In the event that CONTRACTOR must temporarily block the access road for any period of time during which emergency access to the landfill via access road is needed while CONTRACTOR has personnel present at the easement area, CONTRACTOR shall provide emergency access to the landfill via Valley Ridge Boulevard by assisting with the removal of fence panel as shown in the plans and the easement agreement.

CONTRACTOR shall survey the Landfill markers prior to removal and replace all markers at their exact original locations.

Excess spoil from the Lewisville Landfill TX LP Property shall be placed inside the Lewisville Landfill TX LP Property as directed by the City Inspector. During Emergency Situations in the Landfill property, CONTRACTOR shall coordinate with Levi Plumley at 972-261-9625.

42. **Prevailing Wage Rate Determination**

The General Services Commission has adopted the Federal Davis-Bacon wage rates for our use.

General Services Commission
1711 San Jacinto - P.O. Box 13047
Austin, Texas 78711-3047
Web Site: www.gsc.state.tx.us
(512) 463-3035

CHAIRMAN
Alphonso Jackson
VICE-CHAIRMAN
Ramiro "Ram" Guzman
COMMISSIONERS
Ofelia de los Santos
Dionicio Vidal Flores, P.E.
Barbara Rusling
Gene Shull
EXECUTIVE DIRECTOR
Tom Treadway

Prevailing Wage Rate Determination Information

The following information from Chapter 2258 Texas Government Code Title 10 should be included in your bid specification documents and contract documents:

2258.021. Duty of Governmental Entity to Pay Prevailing Wage Rates

(a) The state or any political subdivision of the state shall pay a worker employed by it or on behalf of it:
  (1) not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the work is performed; and
  (2) not less than the general prevailing rate of per diem wages for legal holiday and overtime work.
(b) Subsection (a) does not apply to maintenance work.
(c) A worker is employed on a public work for the purposes of this section if the worker is employed by a contractor or subcontractor in the execution of a contract for the public work with the state, a political subdivision of the state, or any officer or public body of the state or a political subdivision of the state.

2258.023. Prevailing Wage Rates to be Paid by Contractor and Subcontractor; Penalty

(a) The contractor who is awarded a contract by a public body or a subcontractor of the contractor shall pay not less than the rates determined under Section 2258.022 to a worker employed by it in the execution of the contract.
(b) A contractor or subcontractor who violates this section **shall** pay to the state or a political subdivision of the state on whose behalf the contract is made, $60 for each worker employed for each calendar day or part of the day that the worker is paid less than the wage rates stipulated in the contract. A public body awarding a contract shall specify this penalty in the contract.
Note: This penalty applies even if the contractor or subcontractor and the worker come to an agreement on the underpaid wages (see Attorney General Opinion DM-469).

(c) A contractor or subcontractor does not violate this section if a public body awarding a contract does not determine the prevailing wage rates and specify the rates in the contract as provided by Section 2258.022.
(d) The public body shall use any money collected under this section to offset the costs incurred in the administration of this chapter.
(e) A municipality is entitled to collect a penalty under this section only if the municipality has a population of more than 10,000.

2258.051. Duty of Public Body to Hear Complaints and Withhold Payment

(a) A public body awarding a contract, and an agent or officer of the public body, shall:
  (1) take cognizance of complaints of all violations of this chapter committed in the execution of the contract; and
  (2) withhold money forfeited or required to be withheld under this chapter from the payments to the contractor under the contract, except that the public body may not withhold money from other than the final payment without determination by the public body that there is good cause to believe that the contractor has violated this chapter.

TECHNICAL SPECIFICATION

Aquatic Species Recovery and Relocation for
S.H. 121 Business 24-Inch Water Line
Lewisiville, Texas

PART I

General Information

In accordance with Texas Parks and Wildlife Department (TPWD) *Aquatic Resource Relocation Guidelines*, Chapters 67 and 68 (Sections 68.002 and 68.015) of the TPWD Code, and 31 Texas Administrative Code (TAC) §65.175 & 176, an *Aquatic Resource Relocation Plan* (ARRP) has been prepared by Halff Associates, Inc. (Halff) on behalf of the responsible party (City of Lewisville and approved by TPWD prior to dewatering and/or construction activities within the Elm Fork of the Trinity River. The ARRP details how the responsible party (City of Lewisville) plans to control and limit the impacts of dewatering within the Elm Fork of the Trinity River.

PART II - EXECUTION

The ARRP includes information on 10 specific elements, in accordance with TPWD Guidelines. Per TPWD *Aquatic Resource Relocation Plan Guidelines*, the 10 elements to be included in the ARRP are as follows:

1. A description of the project and associated aquatic/instream activities with sufficient detail for department staff to evaluate the risk to aquatic resources.
2. A computer generated map showing the project location and the relocation site, including the county, GPS coordinates, and the Texas Commission on Environmental Quality (TCEQ) water body segment number.
3. Expected start dates of the project and the aquatic resource relocation. An applicant must submit any changes to the start date of aquatic resource relocation activities at least 72 hours prior to the revised start date.
4. Identify any state or federally threatened or endangered species that may occur. Explain what methods will be used to protect these species.
5. List all shellfish that may become stranded due to the operation. Explain what methods will be used to protect these shellfish including freshwater mussels.
6. Identify all known exotic and invasive species in the project area. Describe decontamination procedures for preventing the spread of exotic and invasive species.
7. The methods of collecting and relocating aquatic resources, including the types and sizes of containers used, the mode of transportation, and best management practices (BMPs) to protect aquatic resources. Provide an estimate of the time expected to complete the collection and relocation.
8. Describe how the receiving waters will be protective of aquatic life (i.e., sufficient dissolved oxygen levels, water body size and flow, and similar habitat as the source water).
9. Describe how dead fish and shellfish, as well as exotic and invasive species, will be disposed of and documented. Documentation should include no less than the species and number of individuals found dead, or disposed of, including the lengths (inches) of all fish for both native and non-native species.
10. Identify BMPs to be used to prevent or minimize the risk of transporting any species, including aquatic invasive species (AIS) to new locations on

equipment, boats, trailers and vehicles. These BMPs should also ensure compliance with regulations that prohibit the possession and transport of certain AIS.

The Construction Contractor shall be required to coordinate with Halff regarding the timing of the dewatering and construction activities so that accurate and up to date information can be provided by Halff to TPWD in accordance with the approved ARRP and the Permit to Introduce Fish, Shellfish or Aquatic Plants into Public Waters. All aquatic species recovery and relocation activities will be completed by Halff during and/or after the dewatering process and must be conducted in accordance with both the TPWD-approved ARRP and Permit to Introduce Fish, Shellfish or Aquatic Plants into Public Waters. The Construction Contractor shall be required to perform the dewatering activities in accordance with the TPWD-approved ARRP.

Tasks to be Completed Prior to the Dewatering Process

The below is a table including information on general tasks and meetings to be held prior to the beginning of the construction process, the estimated timeframe for each task, and the responsible entity. The Construction Contractor shall be required to attend one coordination meeting and shall also be required to coordinate with Halff and the City of Lewisville as necessary prior to the initiation of dewatering activities as shown in the table below. During this meeting, the dewatering activities will be scheduled and detailed coordination regarding the timing of the aquatic species recovery and relocation activities will occur.

Task	Estimated Timeframe	Responsible Entity
Coordination meeting to schedule the dewatering and ARRP activities	1 week prior to dewatering	Halff will organize; Construction Contractor, Halff, City of Lewisville and/or TPWD will attend
Begin dewatering process per coordination with Halff & the TPWD-approved ARRP	As per coordinated schedule	Construction Contractor

The Construction Contractor must notify Halff at least 10 days prior to the initiation of the dewatering process so that staff may be scheduled to conduct aquatic species recovery and relocation activities in accordance with the TPWD-approved ARRP. Halff will then notify TPWD of the schedule for ARRP activities, per the Permit to Introduce Fish, Shellfish or Aquatic Plants into Public Waters requirements.

Tasks to be Completed During the Dewatering Process

The Construction Contractor shall be required to be familiar with the TPWD-approved ARRP and must complete the dewatering process in a manner so that Halff may perform ARRP activities in accordance with the TPWD-approved ARRP.

- Construction Contractor shall not completely dewater the work area until Halff has arrived on-site to commence aquatic species recovery and relocation activities.
- Construction Contractor shall restrict public access to the work area during aquatic resource relocation activities.
- Construction Contractor, as requested by the TPWD, must equip suction screens on any water pumps utilized during the dewatering activities. Suction screen mesh should be of a diameter to minimize the opportunity of aquatic organisms (i.e., fish, mussels, turtles) from entering the pump.

Fish and Turtle Recovery and Relocation Activities
Halff will develop the appropriate methodology and conduct fish and turtle recovery and relocation efforts during the dewatering process. Fish recovery and relocation activities will be managed by Halff and conducted via electrofishing and/or seining. Turtle recovery and relocation activities will be conducted via dip netting and/or seining. Collected fish and turtles will be placed within buckets and/or coolers containing fresh water from the stream, and aerators will be used to maintain adequate dissolved oxygen levels. Recovered, native fish and turtle species will then be relocated by Halff to the pre-selected relocation site, as determined by Halff. Fish and turtle recovery and relocation activities will be conducted in accordance with the TPWD-approved ARRP.

The exact timing of these activities will be dependent upon the Construction Contractor schedule, staff availability, conditions within the stream (i.e., flow levels, etc.), and weather-related conditions. The Construction Contractor shall be required to assist Halff, as needed, with access to the work area. In addition, the Construction Contractor must allow Halff to complete the required aquatic species relocation activities prior to the initiation of construction activities within the Elm Fork of the Trinity River.

Mussel Recovery and Relocation Activities
In accordance with Chapters 67 and 68 (Sections 68.002 and 68.015) of the TPWD Code and 31 TAC §65.175 & 176, a presence/absence survey for state-listed threatened mussels was conducted by Halff on July 7, 2016 within the project area. The work area will be surveyed by Halff again during and/or upon completion of the dewatering process. A TPWD-permitted malacologist and other experienced biologists from Halff will be on site to survey the dewatered stream for mussels that may have become stranded as a result of the dewatering process. Should any mussels be recovered, Halff will relocate native mussels in accordance with the TPWD-approved ARRP. Mussels will be transported by Halff to an appropriate relocation site in coolers to maintain their temperature as close as possible to pond temperature, and the location of the relocated mussels will be documented. All recovery and relocation activities will be conducted by Halff in accordance with the TPWD-approved ARRP.

The exact timing of these activities will be dependent upon the Construction Contractor schedule, staff availability, conditions within the stream (i.e., flow levels, etc.), and weather-related conditions. The Construction Contractor must allow Halff to complete the required aquatic species relocation activities prior to the initiation of construction activities within the Elm Fork of the Trinity River.

Appropriate BMPs will be utilized by Halff to prevent the transfer of invasive species. Throughout the mussel relocation process and upon completion of these activities, all equipment used by Halff to perform such tasks will be visually inspected by Halff for zebra mussels and/or other invasive species. Halff will remove plant material, mud, and other debris from equipment utilized throughout the relocation activities (i.e., boots, buckets, nets, coolers, etc.) and will properly clean the equipment with a high pressure hose to be supplied by Halff. This equipment will then be allowed to dry completely before use in another water body in accordance with the TPWD rules currently in effect within Collin County, Texas as well as the TPWD-approved ARRP.

Upon completion of ARRP activities, the Construction Contractor may work within the Elm Fork of the Trinity River as necessary. The Construction Contractor shall be required to notify Halff and the City of Lewisville if there is a flood event that requires additional dewatering or if additional aquatic species including fish, turtles, and/or freshwater mussels are encountered within the stream during construction activities performed by the Construction Contractor following the

completion of aquatic species recovery and relocation activities performed by Halff during the dewatering process.

AQUATIC RESOURCE RELOCATION PLAN FOR THE 24-INCH WATERLINE CROSSING OF THE ELM FORK TRINITY RIVER PROJECT

DENTON COUNTY, TEXAS

View of the location of the 24-Inch waterline crossing of the Elm Fork Trinity River facing downstream. (Photo taken September 15, 2015).

Prepared for:
City of Lewisville
151 West Church Street
Lewisville, Texas 75057

October 2015
AVO 29456

INTRODUCTION

The City of Lewisville is planning to install a 24-inch waterline which will cross the Elm Fork Trinity River approximately 31 meters (m) (100 feet [ft]) south of the existing Business 121 bridge crossing (**Figures 1** and **2, Attachment A; Photos 1** and **2, Attachment B**). The construction and installation of the waterline is anticipated to include cofferdamming and dewatering activities within this portion of the river.

In 2010, the Texas Parks and Wildlife Department (TPWD) listed 15 native freshwater mussel species as "Threatened", and state law prohibits the "take" of state-listed threatened or endangered species. Recently, several state-listed threatened mussel species were recovered from nearby locations within the Elm Fork Trinity River (Zara Environmental LLC [Zara], 2012a & 2012b; Halff Associates, Inc. [Halff], 2014) in Dallas, Texas.

Based on these findings and the anticipated cofferdamming and dewatering activities required for the project, there is the potential to negatively impact state-listed threatened mussel species. Therefore, mussel recovery and relocation activities will be conducted in accordance with Chapters 67 and 68 (Sections 68.002 and 68.015) of the TPWD Code and 31 Texas Administrative Code (TAC) §65.175 and 176. In addition, fish and other aquatic species will be recovered and relocated in accordance with the TPWD *Aquatic Resource Relocation Plan Guidelines*. The following 11 items address the TPWD requirements, per the TPWD *Aquatic Resource Relocation Plan Guidelines*.

1. Exact Location

See **Attachment A** (**Figures 1-3**), for the project location map, and aerial photographs of the river and the pre-Selected relocation sites for recovered aquatic species. See **Attachment B** (**Photos 3** and **4**) for site photos and **Table 1** below for project location coordinates.

Table 1: Coordinates of the 24-Inch Waterline Crossing and the Pre-Selected Relocation Sites.

Site	Latitude	Longitude
24-Inch Waterline Crossing (Upstream Limit)	33.045653	-96.961544
24-Inch Waterline Crossing (Downstream Limit)	33.045140	-96.961262
Fish/Other Aquatic Species Relocation Site	The Elm Fork Trinity River downstream of cofferdam area	
Mussel Relocation Site (Upstream Limit)	33.042069	-96.961638
Mussel Relocation Site (Downstream Limit)	33.041867	-96.961868

To complete the installation of the waterline, the Elm Fork Trinity River will be cofferdammed and dewatered during two separate events, with approximately one-half of the river cofferdammed and dewatered at a time (**Figure 3, Attachment A**). For both events, a cofferdam will be placed upon one-half of the river and approximately 31 m (100 ft) of the channel will be dewatered. For both events, fish and other aquatic species (turtles) trapped within the dewatered areas will be recovered and relocated into the Elm Fork Trinity River, downstream of the cofferdammed areas.

On September 29, 2015, an experienced malacologist with a TPWD-issued Scientific Research Permit surveyed approximately 157 m^2 (1,690 ft^2) of the Elm Fork Trinity River to identify a suitable relocation site for recovered mussels. During this survey work, 10 mussel species were recovered, including Threeridge (*Amblema plicata*), Louisiana Fatmucket (*Lampsilis hydiana*), Yellow Sandshell (*Lampsilis teres*), Fragile Papershell (*Leptodea fragilis*), Threehorn Wartyback (*Obliquaria reflexa*), Bleufer (*Potamilus purpuratus*), Giant Floater (*Pyganodon grandis*), Western Pimpleback (*Quadrula mortoni*), Pistolgrip (*Quadrula verrucosa*), and Deertoe (*Truncilla truncata*) (**Photos 5** and **6, Attachment B**). The relocation site is located approximately 380 m (1,250 ft) downstream of the proposed waterline crossing (**Figure 2, Attachment A**), and is far enough downstream to protect relocated mussels from any impacts. Based on these results, this location will provide suitable habitat for any recovered mussels.

2. Purpose of Activity

The City of Lewisville is planning to install a 24-inch waterline which will cross the Elm Fork Trinity River, south of Business 121 in Denton County, Texas. Cofferdamming and dewatering activities are necessary to complete the installation and will occur during two separate events, with one-half of the river channel dewatered at a time. Because several state-listed threatened mussel species have been recovered from the Elm Fork Trinity River (Zara, 2012a & 2012b; Halff, 2014), there is the potential for these species within the project area.

Mussel survey and relocation activities are proposed within the area of direct impacts (**Figure 3, Attachment A**). These activities will occur during two phases: an initial phase before the dewatering process and a final phase upon completion of each dewatering event. An experienced malacologist will be on site to recover and relocate mussels from the dewatered portions of the river during each event. In addition, fish recovery and relocation will occur within the cofferdammed areas of the river during the dewatering process. The proposed recovery and relocation activities are an attempt to avoid direct impacts to aquatic organisms.

3. Notification and expected start date

At this time, the initial mussel survey and relocation activities are anticipated to occur within the late October 2015 timeframe before the dewatering and construction process begins. Once the exact date for these activities has been determined, this information will be provided to TPWD.

At this time, the City of Lewisville is scheduling the exact start date of the two cofferdamming and dewatering events. These events are anticipated to occur in the early to mid-Spring 2016 timeframe, after completion of the initial phase of mussel survey and relocation work (**Figure 3, Attachment A**). Once the exact start date for the dewatering events has been determined, this information will be provided to TPWD.

4. Method of collecting and moving mussels and fishes

Mussels

During the initial phase of the survey and relocation activities, an experienced malacologist and other biologists will survey the anticipated areas of direct impact prior to the placement of the

cofferdam and the dewatering activities. Survey activities will be conducted from approximately 15 m (50 ft) upstream to approximately 45 m (150 ft) downstream of the proposed waterline crossing (**Figure 2, Attachment A**). This will account for any in-stream impacts associated with the installation of the cofferdams, other necessary in-stream construction activities, and potential sedimentation impacts associated with the installation of the cofferdams. Live mussels will be identified and transported to the pre-selected relocation site in coolers maintained at approximately the same temperature as the collection site (**Table 1; Figures 2** and **3, Attachment A; Photos 3** and **4, Attachment B**).

During the final phase of mussel survey and relocation activities, the dewatered portions of the river channel will be surveyed upon completion of the dewatering process. The malacologist and other biologists will be on site to survey the dewatered areas for mussels. All recovered mussels will be identified, and live native mussels will be transported to the pre-selected relocation site in coolers maintained at approximately the same temperature as the collection site (**Table 1; Figures 2** and **3, Attachment A; Photo 2** and **3, Attachment B**).

Fish

Magnolia Fisheries, an aquatic resource management company, will conduct electrofishing activities using a Smith-Root GPP electrofisher via boat in the areas to be dewatered immediately after cofferdam installation (**Figure 3, Attachment A**). Electrofishing will continue until biologists begin to receive diminishing returns. Seines will be utilized, as necessary, to recover fish from shallow areas not accessible via boat. Live fish will be collected and temporarily stored on the boat in a livewell tank with aerators to ensure that dissolved oxygen levels remain adequate. Once the tank is filled, fish will be relocated into the river immediately downstream of the cofferdam. Fish will be handled as little as possible to minimize stress.

5. Types and sizes of containers to be used

Mussels

Mesh bags will be 1 to 5 gallons in capacity. Buckets will be 3 to 5 gallons in capacity. Coolers will be 5 to 20 gallons in capacity.

Fish

The Smith-Root GPP electrofisher boat is equipped with a 150-gallon aerated livewell tank. All recovered fish will be stored in this tank during electrofishing activities.

Turtles

Buckets will be 3 to 5 gallons in capacity. Coolers will be 5 to 20 gallons in capacity. Aeration will be provided if necessary.

6. Transportation methods and destination

Mussels

All live mussels will be transported to the pre-selected relocation site in coolers maintained at approximately the same temperature as the collection site (**Table 1; Figures 2** and **3,**

Attachment A; **Photos 3** and **4, Attachment B**). Transportation will be via kayak and boat between the collection site and the pre-selected relocation site.

Fish

Fish will be stored on the electrofishing boat within a 150-gallon aerated livewell tank for the two dewatering events. Once the tank is filled, fish will be relocated to the river immediately downstream of the cofferdammed areas; therefore, no transportation by vehicle will be required. If fish must be transported, they would be moved via a 500-gallon insulated transport tank manufactured by Boatcycle and fitted with bottled oxygen and ceramic micro bubble diffusers.

Turtles

All recovered turtles will be returned to the river outside of the cofferdam area immediately upon recovery; therefore, no transportation by vehicle will be required. If recovered turtles must be transported, they would be moved via a 500-gallon insulated transport tank manufactured by Boatcycle and fitted with bottled oxygen and ceramic micro bubble diffusers.

7. **How the documentation and disposal of dead and non-native mussels and fishes will be handled**

Mussels

Zebra mussels (*Dreissena polymorpha*) were initially discovered in Texas waters in 2009, and have since been found in several additional water bodies, and could be present at the project location. If zebra mussels are observed during the aquatic species recovery and relocation efforts, the City of Lewisville, TPWD (Brian Van Zee [brian.vanzee@tpwd.texas.gov; 254-495-8341] and Monica McGarrity [monica.mcgarrity@tpwd.texas.gov; 512-389-8292]), and the U.S. Geological Survey (USGS) will be verbally notified, and individual mussels will be kept for verification. It is anticipated that TPWD personnel would then notify the appropriate U.S. Fish and Wildlife Service (USFWS) and U.S. Army Corps of Engineers (USACE) personnel. In addition, any zebra mussels observed attached to any live native mussels will be removed via scraping methodology and disposed of prior to transporting the native mussels to the pre-selected relocation site and/or returning them to the substrate.

Best management practices will be utilized during all project activities in order to prevent the transfer of invasive species between water bodies. All equipment will be visually inspected for any invasive species upon the completion of each phase of recovery and relocation activities. Plant material, mud, and other debris will be removed, and all equipment utilized throughout the project will be properly cleaned with a high pressure hose, and allowed to dry completely before use in another water body. All activities regarding the disposal of dead and non-native mussels will be written up in a final report, and any dead shells and valves of native mussels that are recovered during the project will be either returned to the site or kept as voucher specimens.

Fish

It is not anticipated that non-native fish will be recovered during the project activities; however, should any be recovered, they will be removed from the river and this information will be

reported to TPWD. All dead and/or non-native fish will be collected, enumerated, measured by inch class, and disposed of on property owned by Magnolia Fisheries.

8. The best management practices (BMPs) to be used to ensure that relocated mussels/fishes and those organisms awaiting relocation have best possible water quality and have adequate carrying capacity for additional biomass (i.e., aerators, water depth at which mussel relocation activities will begin)

Mussels

All recovered mussels will be maintained in coolers with thermometers so that biologists can monitor temperature fluctuations and minimize them. The number of mussels in any cooler will be minimized as much as practical.

On September 29, 2015, an experienced malacologist and other biologists surveyed the Elm Fork Trinity River to identify a suitable relocation site for recovered mussels. The pre-selected relocation site provides suitable habitat for any mussels recovered during the survey and relocation activities and is located approximately 380 m (1,250 ft) downstream of the proposed waterline crossing (**Table 1; Figure 2, Attachment A**).

Fish

All recovered fish will be placed in a 150-gallon aerated livewell tank on board the Smith-Root GPP electrofisher boat, at a temperature similar to that of the collection site. Once the tank is filled, fish will be relocated back into the Elm Fork Trinity River, downstream of the cofferdammed area. Aerators will be used to ensure that dissolved oxygen levels remain adequate in the tank, and fish will be handled as little as possible to minimize stress on the fish.

Turtles

All recovered turtles will be returned to the Elm Fork Trinity River outside of the cofferdam area upon recovery. Turtles will be handled as little as possible to minimize stress on the organism.

9. Provide an estimation of the time expected to complete the mussel and fish removal operation

The initial phase of the mussel survey and relocation activities will take place over an approximately one week period in the late October 2015 timeframe. The exact time necessary for these efforts is dependent upon the abundance of mussels recovered during the survey process as well as other factors such as weather.

As previously discussed, for the second phase of the aquatic species recovery efforts, the Elm Fork Trinity River will be cofferdammed in two separate events, with approximately one-half of the river dammed and dewatered at a time (**Figure 3, Attachment A**). Recovery and relocation activities for aquatic species (mussels, fish and turtles) will take place during each dewatering event. The exact time necessary for these efforts is dependent upon the abundance of aquatic species recovered, and other factors such as weather. These activities are currently anticipated

to occur in the early mid-spring 2016 timeframe, and once the exact start dates for each of these events is determined, this information will be provided to TPWD.

10. Identify any state or federally threatened or endangered species that may occur. Explain what methods will be used to protect these species

Biologists obtained the following information from the TPWD Annotated County List of Rare Species for Denton County, Texas (**Attachment C**) and from recent mussel surveys conducted near the project (Zara, 2012a & 2012b; Halff, 2014).

Mussels

There are no federally-listed threatened or endangered mussel species known to occur in Denton County, Texas. The following state-listed threatened mussels have the potential to occur in Denton County: Louisiana Pigtoe (*Pleurobema riddellii*), and Texas Heelsplitter (*Potamilus amphichaenus*) per the TPWD Annotated County List for Denton County (**Attachment C**). In addition, the state-listed threatened Texas Pigtoe (*Fusconaia askewi*) and Sandbank Pocketbook (*Lampsilis satura*) have the potential to occur within the Elm Fork Trinity River, per nearby recent findings (Zara, 2012a & 2012b; Halff, 2013 & 2014). All recovered state-listed threatened mussels will be taken to the pre-selected relocation site (**Table 1**; **Figure 2, Attachment A**).

Fish

There are no state or federally-listed threatened or endangered fish species known to occur in Denton County, Texas (**Attachment C**).

Turtles

There are no state or federally-listed threatened or endangered aquatic turtle species known to occur in Denton County, Texas (**Attachment C**).

11. Identify all freshwater mussels that may become stranded due to the operation. Explain what methods will be used to protect the mussels

A list of the mussel species that may be encountered during the aquatic species recovery and relocation activities is provided in **Table 2**.

Table 2: Summary of the mussel species that may be encountered.

Common Name	Scientific Name	State Status
Threeridge	*Amblema plicata*	--
Flat Floater	*Anodonta suborbiculata*	--
Rock Pocketbook	*Arcidens confragosus*	--
Texas Pigtoe	*Fusconaia askewi*	T
Louisiana Fatmucket	*Lampsilis hydiana*	--
Sandbank Pocketbook	*Lampsilis satura*	T
Yellow Sandshell	*Lampsilis teres*	--
Fragile Papershell	*Leptodea fragilis*	--

Common Name	Scientific Name	State Status
Pond Mussel	*Ligumia subrostrata*	--
Washboard	*Megalonaias nervosa*	--
Threehorn Wartyback	*Obliquaria reflexa*	--
Bankclimber	*Plectomerus dombeyanus*	--
Louisiana Pigtoe	*Pleurobema riddellii*	T
Texas Heelsplitter	*Potamilus amphichaenus*	T
Bleufer	*Potamilus purpuratus*	--
Giant Floater	*Pyganodon grandis*	--
Southern Mapleleaf	*Quadrula apiculata*	--
Western Pimpleback	*Quadrula mortoni*	--
Gulf Mapleleaf	*Quadrula nobilis*	--
Pistolgrip	*Quadrula verrucosa*	--
Deertoe	*Truncilla truncata*	--
Paper Pondshell	*Utterbackia imbecillis*	--

Note: "T" indicates that the species is considered threatened by the State of Texas.

As previously stated, because there is the potential for state-listed threatened mussel species to occur within the project area, an in-water SCUBA/tactile survey will be performed during the initial phase of mussel recovery and relocation activities prior to the dewatering process. A second phase of mussel survey and relocation activities will then be completed during each of the cofferdamming and dewatering events (**Figure 3, Attachment A**). During both phases mussels will be collected and identified by an experienced malacologist, and all live specimens will be transported to the pre-selected relocation site (**Table 1**).

REFERENCES

Halff Associates, Inc. (Halff), 2013. Continental Bridge Improvement Project: Presence/absence survey and relocation of state-listed threatened mussel species, Continental Bridge Improvement Project, Trinity River, Dallas County, Texas. 69 pp.

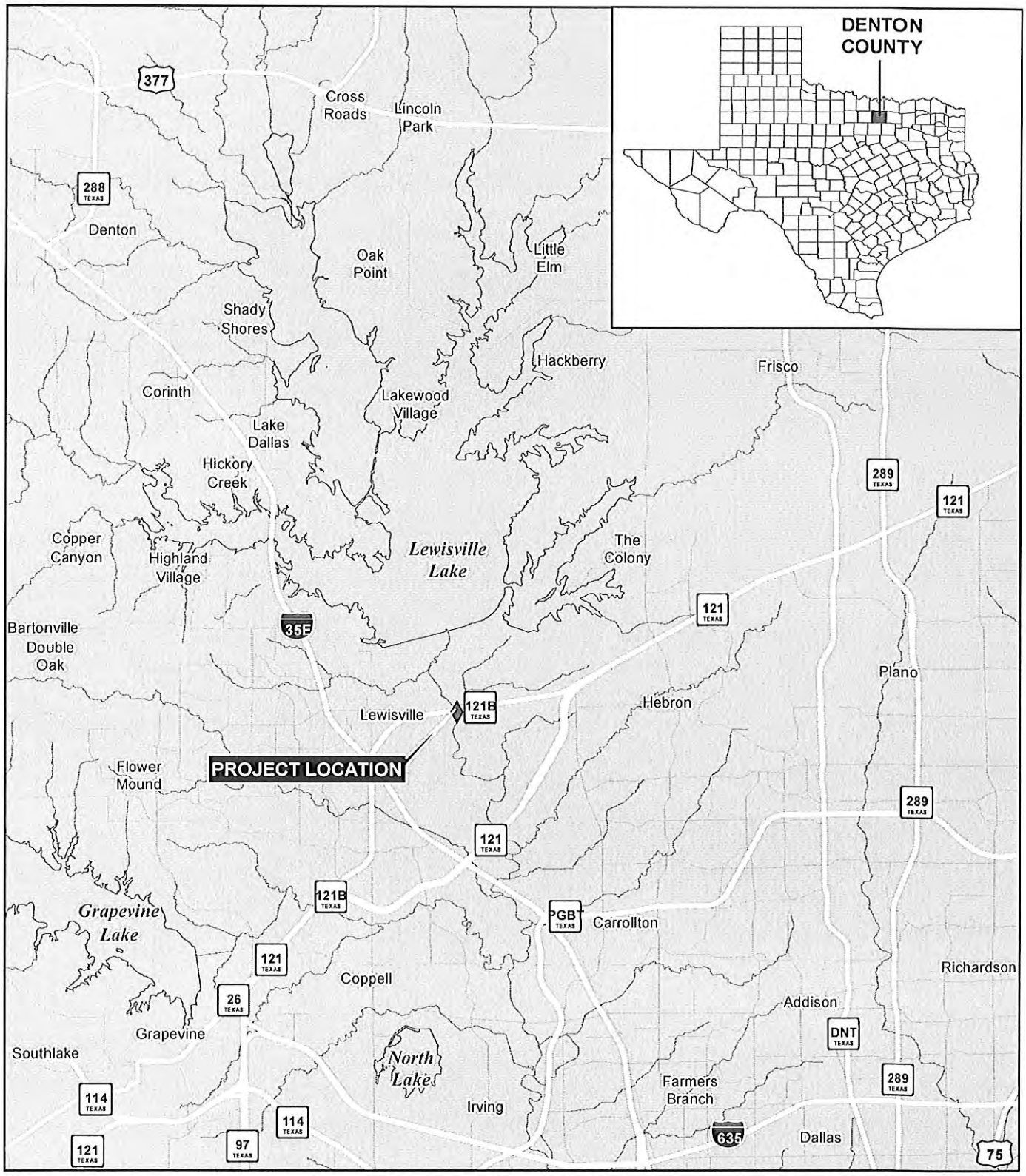
Halff, 2014. Presence/Absence Survey and Relocation of State-listed Threatened Mussels and Fish Recovery and Relocation for the Dallas Water Utilities, Western Dams Rehabilitation Project, Elm Fork Trinity River, Dallas County, Texas. 74 pp.

Zara Environmental LLC (Zara), 2012a. Habitat Assessment and Presence/Absence Survey for Protected Mussels in the Elm Fork Trinity River at California Crossing Road, City of Dallas, Dallas County, Texas. 39 pp.

Zara, 2012b. Relocation and Monitoring for Protected Mussels in the Elm Fork Trinity River at the California Crossing Bridge, Dallas County, Texas. Report prepared for TxDOT, Austin, Texas.

ATTACHMENT A

PROJECT FIGURES



Legend

24 Inch Waterline Crossing Location

N W E S

0 3 6

SCALE IN MILES

Data Source: NCTCOG

Figure 1
Project Location Map

City of Lewisville
Denton County, Texas

Legend

Mussel Survey Area

Pre-Selected Relocation Area for Mussels

N
W E
S

0 400 800

SCALE IN FEET

Source / Year of Aerial Photograph: NCTCOG / 2015

Figure 2
Mussel Survey Area and The Pre-Selected Relocation Area for Mussels

City of Lewisville
Denton County, Texas

Legend

- Proposed Cofferdam
- First Dewatering Area
- Second Dewatering Area

N
W E
S

0 100 200
SCALE IN FEET

Source / Year of Aerial Photograph: NCTCOG / 2015

Figure 3
Areas to Be Cofferdammed and Dewatered

City of Lewisville
Denton County, Texas

ATTACHMENT B

SITE PHOTOS

Site Photos

Photo 1: Location of the 24 inch waterline crossing facing downstream. Photo taken September 15, 2015.

Photo 2: Location of the 24 inch waterline crossing facing upstream. Photo taken September 15, 2015.

Site Photos

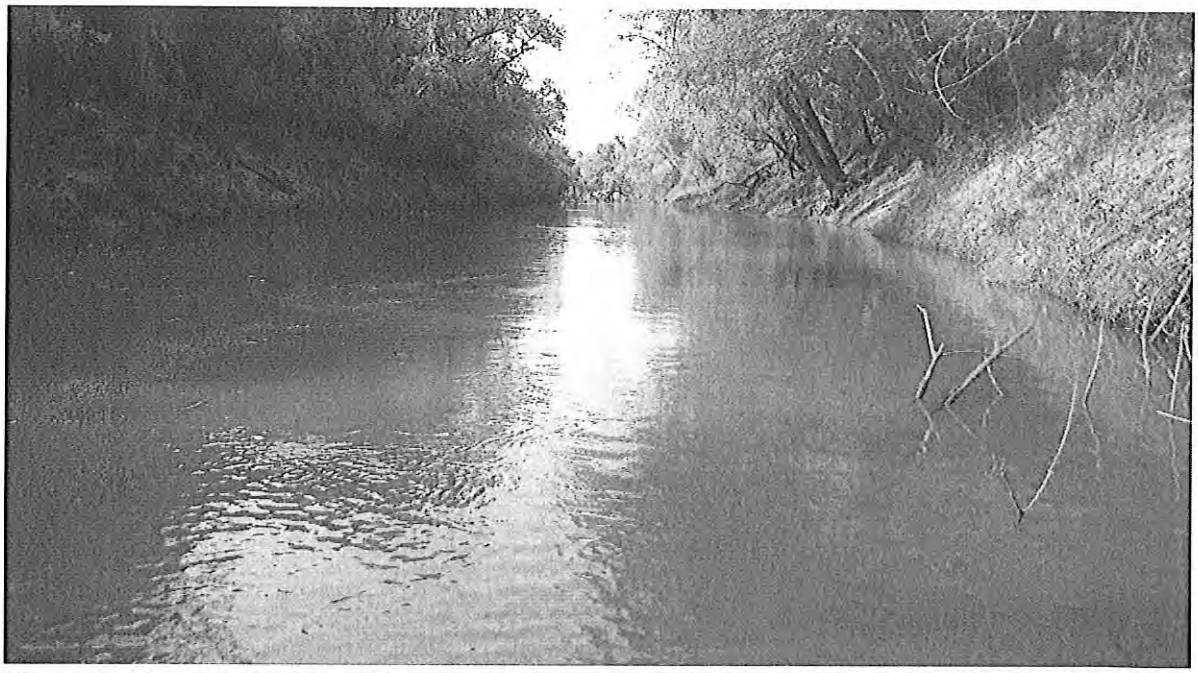


Photo 3: **View of the pre-selected relocation site within the Elm Fork Trinity River facing downstream. Photo taken September 29, 2015.**

Photo 4: **View of the pre-selected relocation site within the Elm Fork Trinity River facing upstream. Photo taken September 29, 2015.**

Site Photos

Photo 5: Photo of several threehorn wartyback mussels recovered from the pre-selected relocation site. Photo taken September 29, 2015.

Photo 6: Photo of several mussel species located at the pre-selected relocation site. Photo taken September 29, 2015.

ATTACHMENT C

TPWD Annotated County List of Rare Species for Denton County, Texas

DENTON COUNTY

BIRDS

		Federal Status	State Status
American Peregrine Falcon	*Falco peregrinus anatum*	DL	T

year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Arctic Peregrine Falcon	*Falco peregrinus tundrius*	DL	

migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Bald Eagle	*Haliaeetus leucocephalus*	DL	T

found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds

Henslow's Sparrow	*Ammodramus henslowii*		

wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking

Peregrine Falcon	*Falco peregrinus*	DL	T

both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.

Red Knot	*Calidris canutus rufa*	T	

Red knots migrate long distances in flocks northward through the contiguous United States mainly April-June, southward July-October. A small plump-bodied, short-necked shorebird that in breeding plumage, typically held from May through August, is a distinctive and unique pottery orange color. Its bill is dark, straight and, relative to other shorebirds, short-to-medium in length. After molting in late summer, this species is in a drab gray-and-white non-breeding plumage, typically held from September through April. In the non-breeding plumage, the knot might be confused with the omnipresent Sanderling. During this plumage, look for the knot's prominent pale eyebrow and whitish flanks with dark barring. The Red Knot prefers the shoreline of coast and bays and also uses mudflats during rare inland encounters. Primary prey items include coquina clam (Donax spp.) on beaches and dwarf surf clam (Mulinia lateralis) in bays, at least in the Laguna Madre. Wintering Range includes- Aransas, Brazoria, Calhoun, Cameron, Chambers, Galveston, Jefferson, Kennedy, Kleberg, Matagorda, Nueces, San Patricio, and Willacy. Habitat: Primarily seacoasts on tidal flats and beaches, herbaceous wetland, and Tidal flat/shore.

DENTON COUNTY

BIRDS

		Federal Status	State Status
Sprague's Pipit	*Anthus spragueii*	C	

only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.

Western Burrowing Owl *Athene cunicularia hypugaea*

open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows

White-faced Ibis	*Plegadis chihi*		T

prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats

Whooping Crane	*Grus americana*	LE	E

potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties

Wood Stork	*Mycteria americana*		T

forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960

MAMMALS

		Federal Status	State Status
Plains spotted skunk	*Spilogale putorius interrupta*		

catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie

Red wolf	*Canis rufus*	LE	E

extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies

MOLLUSKS

		Federal Status	State Status
Louisiana pigtoe	*Pleurobema riddellii*		T

streams and moderate-size rivers, usually flowing water on substrates of mud, sand, and gravel; not generally known from impoundments; Sabine, Neches, and Trinity (historic) River basins

Texas heelsplitter	*Potamilus amphichaenus*		T

quiet waters in mud or sand and also in reservoirs. Sabine, Neches, and Trinity River basins

DENTON COUNTY

REPTILES

		Federal Status	State Status
Texas garter snake	*Thamnophis sirtalis annectens*		

wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August

Texas horned lizard	*Phrynosoma cornutum*		T

open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September

Timber rattlesnake	*Crotalus horridus*		T

swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto

PLANTS

		Federal Status	State Status
Glen Rose yucca	*Yucca necopina*		

Texas endemic; grasslands on sandy soils and limestone outcrops; flowering April-June

Approval Form
Online version 11/2005

APPROVAL

To Jeff Kelly
City of Lewisville
151 West Church Street
Lewisville, TX 75057

Date 5/16/2017
Application No. DAL20170503140001
District App. No. DAL20170503140001
Highway BS 0121
Control Section 036403
Maintenance Section Denton County Maintenance
County Denton

TxDOT offers no objection to the location on the right-of-way of your proposed utility installation, as described by Notice of Proposed Utility Installation No. DAL20170503140001 (District Application No. DAL20170503140001) dated 5/16/2017 and accompanying documentation, except as noted below.

It is understood that it is the responsibility of the utility owner to contact TxDOT 48 hrs prior to the start of construction using the UIR System. It is also the owners to responsibility to contact TxDOT once the construction is complete.

When installing utility lines on controlled access highways, your attention is directed to governing laws, especially to Texas Transportation Code, Title 6, Chapter 203, pertaining to Modernization of State Highways; Controlled Access Highways. Access for serving this installation shall be limited to access via (a) frontage roads where provided, (b) nearby or adjacent public roads or streets, (c) trails along or near the highway right-of-way lines, connecting only to an intersecting roads; from any one or all of which entry may be made to the outer portion of the highway right-of-way for normal service and maintenance operations. The Installation Owner's rights of access to the through-traffic roadways and ramps shall be subject to the same rules and regulations as apply to the general public except, however, if an emergency situation occurs and usual means of access for normal service operations will not permit the immediate action required by the Utility Installation Owner in making emergency repairs as required for the safety and welfare of the public, the Utility Owners shall have a temporary right of access to and from the through-traffic roadways and ramps as necessary to accomplish the required emergency repairs, provided TxDOT is immediately notified by the Utility Installation Owner when such repairs are initiated and adequate provision is made by the Utility Installation Owner for convenience and safety of highway traffic.

The installation shall not damage any part of the highway and adequate provisions must be made to cause minimum inconveniences to traffic and adjacent property owners. In the event the Installation Owner fails to comply with any or all of the requirements as set forth herein, the State may take such action as it deems appropriate to compel compliance.

It is expressly understood that the TxDOT does not purport, hereby, to grant any right, claim, title, or easement in or upon this highway; and it is further understood that the TxDOT may require the Installation Owner to relocate this line, subject to provisions of governing laws, by giving thirty (30) days written notice.

If construction has not started within six (6) months of the date of this approval, the approval will automatically expire and you will be required to submit a new application. You are also requested to notify this office prior to commencement of any routine or periodic maintenance which requires pruning of trees within the highway right-of-way, so that we may provide specifications for the extent and methods to govern in trimming, topping, tree balance, type of cuts, painting cuts and clean up. These specifications are intended to preserve our considerable investment in highway planting and beautification, by reducing damage due to trimming.

Special Provisions:
Bore water sewer lines General Trench Pit Location Backfill

You are required to notify TxDOT 48 hours (2 business days) before you start construction to allow for proper inspection and coordination of work days and traffic control plans. Use the UIR website for the 48-hour notification. DO NOT start construction until you have coordinated the construction start date and inspection with TxDOT. You are also required to keep a copy of this Approval, the Notice of Proposed Installation, and any approved amendments at the job site at all times.

Texas Department of Transportation
By Terry Carter
Title Permit Approval
District Dallas

Construction of Highway Crossing by Bore

1. **GENERAL** - WATER JETTING OR JACKING WILL NOT BE PERMITTED. All paved streets which are maintained by TxDOT must be bored & encased unless it is specifically stated on the permit that an exception for open cutting and/or no encasement is granted.

   At no time shall the boring operation interfere with the traveling public. The safety of the traveling public and maintaining the integrity of the roadway is the primary concern.

2. **BORE PIT LOCATIONS** - No excavations for bore pits will be allowed to be any closer to the edge of the pavement (travel lane) than as outlined in the "TRENCH EXCAVATIONS AND PIT LOCATION" specification. If the required clear zoned distance is closer than outlined in the above mentioned specification, then appropriate traffic control devices such as barricades, signs, barrel mounted guard fence and/or concrete traffic barriers will be required as deemed necessary by the TxDOT inspector.

   No excavated material will be stored closer to the traveled way than the bore pit. All pits and trenches shall be backfilled immediately after the encasement and carrier pipes have been installed. Upon completion of the backfill, all excess material will be removed from the right of way.

3. **METHOD OF INSTALLATION** - Crossings are to be installed by the AUGER or "DRY" BORE method and shall be accomplished by use of a laser sighted bore machine or a bore machine requiring a pilot hole. The pilot hole will serve as the centerline of the large diameter hole to be bored. The user of water or fluids in the boring operation will only be allowed for lubricating the cutting head.

   The boring operation shall be performed from the low or downstream end. Lateral or vertical variation of the encasement pipe from the proposed line and grade will be permitted only to the extent of one (1) inch in ten (10) feet, provided that such a variation shall be regular and only in one direction.

   The encasement pipe shall be approximately the same diameter as the bore hole. Over cutting in excess of one (1) inch shall be remedied by pressure grouting the entire length of the installation with a mixture consisting of two (2) sacks of cement per yard of sand.

4. **OPTIONAL WET BORE** - The utility or contractor may request installation by the Slurry or "Wet" bore method. The approval to wet bore is granted by the Area Engineer or his designated representative on an individual permit basis. If the area office allows wet bores in their designated area, approval will be based on bore size and soil conditions. Wet bores should be restricted to areas of rock or other suitable material which will prevent the sides of the bore hole from "caving in". A geotechnical report may be required prior to approval. In no instance will wet bores be allowed to exceed eighteen (18) inches in diameter.

   The amount of water used for creating the slurry will be such that little or no runoff is encountered. If, in the opinion of the TxDOT inspector, at any time during the boring operation inadequate conditions are encountered for performing the wet bore, the process will be stopped and the bore will be completed by Auger bore.

   The slurry material removed from the bore may not be used in the backfilling of the bore pit.

Water & Sanitary Sewer Lines

1. **GENERAL** - Longitudinal water and sanitary sewer pipelines shall be placed on uniform alignment three (3) to ten (10) feet from the right of way line. The minimum depth of cover shall be twenty-four (24) inches for non-plastic lines and thirty (30) inches for plastic lines. If a nonmetallic line is installed, a durable metal wire or other device shall be concurrently installed for detection purposes.

   Each line may be installed with enough vertical flexibility to prevent stresses; however, horizontal "snaking" of the line is prohibited.

   The utility agency shall place identification markers at the right of way line in sufficient number for longitudinal installations and at each highway crossing.

   All paved side streets crossed by a longitudinal line within TxDOT right of way must be installed as outlined in item #2 below.

2. **CROSSING** - Highway crossings are to be installed at or near right angles to highway and must be installed with an encasement pipe. Encasement pipe is also to be installed under normal center medians, extend from the top of back slope for cut sections, and five (5) feet beyond the toe of slope for fill sections, unless an additional length is required as outlined in the "TRENCH EXCAVATION AND PIT LOCATION" specification.

   All crossings under existing pavement must be installed as outlined in the "CONSTRUCTION OF HIGHWAY CROSSINGS BY BORE" specification.

   The depth of cover for crossings shall be twenty-four (24) inches for non-plastic pipe and thirty (30) inches for plastic pipe under ditches. The encasement pipe must be a minimum of eighteen (18) inches or ½ the diameter of the pipe, whichever is greater, below the bottom of the pavement structure.

   The encasement shall consist of a steel pipe around and outside the carrier pipe and support the load of the ground above the pipe, the highway, and the superimposed loads there on, including construction equipment. HDPE pipe with a SDR ratio of 11 or greater may be used for encasement of water service lines. The HDPE pipe must be a single continuous piece with no joints. The strength of the encasement pipe shall equal or exceed the structural requirements for highway drainage culverts covered under ASTM specifications.

3. **ABOVE GROUND APPURTENANCES** - Fire hydrants, air release valves, and other similar appurtenances should be located at or near the right of way line. All fire hydrants will be equipped with breakaway bases and should not be located in the sidewalk. Any appurtenances may not be located any closer than 3 ft from back of curb.

   Pumps, wells, and other structures associated with lift stations and pump stations will not be permitted within the limits of TxDOT right of way.

4. **MANHOLES** - The outside diameter of the manhole chimney at ground level shall not exceed thirty-six (36) inches. The inside diameter of the manhole for lines up to twelve (12) inches shall not exceed four (4) feet. For any increase in line size greater than twelve (12) inches the manhole may be increased a like amount. The manhole cover shall be installed flush with the ground, meet HS-20 load requirements, and weigh at least 175 pounds.

General Utility Installations

1. GENERAL - A copy of the approved notice must be kept onsite at all times during construction. Unless other arrangements are made with the designated Texas Department (TxDOT) Inspector, no work will be performed on Saturday, Sunday, Holidays, or hours other than standard working hours. Utility lines shall be located to avoid or minimize the need for adjustments to accommodate future highway improvements.

All utility installations will be made without excavation or longitudinal placement being made any closer than three (3) feet from the back of curb. No pavement cuts are permitted unless specifically stated on the permit that approval is given to open cut the pavement.

No explosives shall be used within the limits of the TxDOT highway right of way for utility installations.

2. COORDINATION OF WORK - ***Prior to the start of construction the local TxDOT Office MUST BE NOTIFIED at the number listed on the approval notice. Traffic control plans must be approved by the Area Office before work can begin.*** If the installation is within the limits of an active highway construction project, the utility work must be coordinated with the TxDOT Contractor and Inspectors. The utility work shall not cause any delay or disruption to the TxDOT contractor or construction.

Location existing utility facilities and coordination with the owners is the responsibility of the utility agency.

3. TRAFFIC SAFETY, BARRICADES, WARNING DEVICES - Traffic control and protective devices shall be used and must conform to the TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES for streets and highways. All barricades, warning devices, signs, flashers, and flag persons shall be provided by the utility agency or contractor.

Traffic shall not be stopped at any time without the use of a flag person. Prior to beginning work, the traffic control plans must be approved by the Area Engineer or his designated representative. Lane closures for any utility work will not be permitted without prior approval of Area Engineer or his designated representative. Lane closures are not permitted during peak "rush hour" traffic times.

Vehicles, equipment, construction material and personnel not necessary to the timely installation of the facility shall be kept as far as possible from the traveling public. Any above ground obstruction or bore pit located closer than the clear zone distances outlined in the "Trench Excavation and Pit Locations" specification shall be protected by barricades, metal beam guard fence and/or concrete traffic barriers as deemed necessary by the TxDOT Inspector. At the end of every construction day, all equipment and materials shall be removed as far from the roadway edge as possible.

4. SURVEYING AND STAKING OF UTILITIES - All utility installations shall be staked by utility agency so that TxDOT may inspect the alignment prior to start of construction. The ROW line is to be staked and the utility installed based on a set distance from the ROW line. The utility is ultimately responsible for the accuracy of the installation.

5. TIME PERIOD ALLOWED FOR INSTALLATION - If the installation of the work covered by this utility permit has not started within twelve (12) months from the approval date, a written request for an extension must be submitted to the District Office. It is expected that the installation will progress to completion in an efficient manner. However, if the work is delayed or abandoned for a period of one (1) month or more, a written request must be submitted to continue under the authority of the original permit.

6. FULL TIME SUPERVISION and INSPECTION - The utility agency shall provide competent, full time inspectors or supervisors to be present on-site during the installation. Also, the utility may be required to provide a telephone number at which someone may be contacted 24 hours in case of an emergency. The utility construction may be delayed of stopped when it is observed by the TxDOT Inspector that there is not an agency inspector or supervisor present on the job site.

7. DEPARTMENT INTERVENTION - TxDOT has the right to take charge of an to remedy any immediate hazard to the traveling public when it is obvious the utility agency will not do so. Any costs associated with TxDOT's action will be charged to the utility agency.

8. UTILITY ACCOMMODATION RULES - Utility installations within the TxDOT Right of Way shall conform to the requirements contained in the TxDOT Utility Accommodation Rules, dated February 2, 2005, the Dallas District Utility Specifications and the following industry policies.

A. Safety rules for the installation and maintenance of electric and communication lines - National Electrical Safety Code.
B. Latest edition of the Rules and Regulations for Public Water Systems, published by the Texas Department of Health, Water Hygiene Division.
C. Gas Pipelines - Title 49, C.F.R., Part 195, Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards and amendments.
D. Liquid Petroleum Pipelines - Title 49, C.F.R., Part 195, Transportation of Liquids by Pipelines and amendments.
E. Latest edition of the American Society for Testing and Materials (ASTM) Specifications.
F. Latest edition of the AASHTO policy entitled "A Policy on the Accommodations of Utilities within Freeway Right of Way".
G. Latest edition of the Occupational Safety and Health Administration (OSHA) Standards and Interpretations.

Trench Excavation and Pit Location

1. **GENERAL** - No dirt from a trench or pit excavation shall be placed on the roadway or shoulders. All equipment and stockpiled dirt shall meet the safety clear zone distances listed below or have adequate barricades and warning devices to protect the traveling public.

   Topsoil shall be kept separate from other excavation material, and be replaced in accordance with "BACKFILLING" specification.

   All pits and trenches shall be kept free from standing water. if trenches and/or bore pits are left open for extended periods of time without a continuous progression of work, the utility will be required to backfill the trench and/or bore pits. Any other pit will not be left open for more than a forty eight (48) hour period.

   In all excavations where sloughing is likely to occur, shoring will be utilized to prevent damage to the highway structure(s). The utility agency or contractor shall be responsible for maintaining trench excavation protections as required by provisions of Part 1926, Subpart P - Excavations, Trenching and Shoring of OSHA Standards.

2. **TRENCHING** - Longitudinal installations must be placed as near a uniform alignment to the right of way line as possible. Trenching machine or backhoe may be used. A backhoe will be required if a uniform alignment can't be maintained by use of a trenching machine.

3. **SAFETY CLEAR ZONE DISTANCES** - Minimum clear zone distances required for trench excavations and bore pit locations are as follows:

   For UNCURBED Highways

   A. Thirty (30) ft. from the edge of pavement (traveled lane) of high-speed (more than 40 mph), high volume (more than 750 vehicles per day) highways.
   B. Sixteen (16) ft* from edge of pavement of high-speed, low volume (less than 750 vehicles per day) highways.
   C. Sixteen (16) ft* from ramps.
   D. Ten (10) ft* for low-speed (40 mph or less) highways.
   E. Ten (10) ft* for any paved intersections side streets.

   * Five (5) ft MINIMUM from edge of any shoulder.

   For CURBED Highways

   A. Thirty (30) ft from the back of curb for high-speed highways
   B. Five (5) ft from the back of curb, plus any additional distance to clear sidewalks, for low-speed highways
   C. Five (5) ft from the back of curb for intersecting side street.

Backfill Specifications

1. **GENERAL** - As soon as practical, all portions of the excavation shall be backfilled. Trenches and pits shall be backfilled with the material obtained from the excavation or from other sources. Backfill material will be free from stones of such size as to interfere with compactions; free from large lumps which will not break down readily under compaction; and free from frozen lumps, wood or other extraneous material. The TxDOT inspector may reject any material containing more than twenty (20) percent by weight of material retained on a three (3) inch sieve.

   The portion of top soil removed from the original excavation shall be replaced, as nearly as feasible, in its original position.

2. **DEPTH OF LIFTS** - The portion of backfill below the top of pipe shall be placed in uniform layers not to exceed eight (8) inches in depth (loose measurement). Backfill above the top of the pipe shall be placed in layers not to exceed ten (10) inches in depth (loose measurement). If the backfill is to support a portion of roadway or embankment, then the material will be placed in uniform layers not to exceed eight (8) inches in depth (loose measurement).

3. **PROCEDURE FOR COMPACTION** - Each layer of backfill material, if dry, shall be wetted uniformly to the moisture content required to obtain a density comparable with the adjacent undisturbed soil and shall be compacted to that density by means of mechanical tampers or rammers. The use of rolling equipment of the type generally used in compacting embankments will be permitted on portions that are accessible to such equipment. Water jetting or ponding will not be permitted.

   Special care shall be taken to ensure thorough compaction of material placed under the haunches of the pipe.

   Cohesionless materials, such as sand, may be used for general backfilling purposes. Compaction of cohesionless materials shall be done with vibratory equipment.

4. **RESTORATION OF RIGHT OF WAY** - Prompt replacement of sod, removal of debris, and any other restoration necessary to restore the right of way to a condition equal to that which existed prior to the utility installation will be required. In areas of erosion, the use of stabilized backfill may be required. Should settlement or erosion occur within six (6) months of the utility installation, the utility agency will be required to reshape, reseed, and/or resod the area.

GEOTECHNICAL ENGINEERING STUDY
24-INCH WATER LINE
BUSINESS SH 121
LEWISVILLE, TEXAS

Presented To:

Halff Associates, Inc.

September 2015

PROJECT NO. 117-14-173 (Revision 2)

CMJ ENGINEERING, INC.

7636 Pebble Drive
Fort Worth, Texas 76118
www.cmjengr.com

September 8, 2015
Report No. 117-14-173 (Revision 2)

Halff Associates, Inc.
4000 Fossil Creek Boulevard
Fort Worth, Texas 76137

Attn: Mr. Benjamin L. McGahey, P.E.

GEOTECHNICAL ENGINEERING STUDY
24-INCH WATER LINE
BUSINESS SH 121
LEWISVILLE, TEXAS

Dear Mr. McGahey:

Submitted here are the results of a geotechnical engineering study for the referenced project. This study was performed in general accordance with CMJ Proposal 12-3938 dated August 31, 2012. The geotechnical services were authorized via Standard Subcontract with Halff Associates, Inc. with Project Number 29456 effective January 8, 2014.

Engineering analyses and recommendations are contained in the text section of the report. Results of our field and laboratory services are included in the appendix of the report. We would appreciate the opportunity to be considered for providing the materials engineering and geotechnical observation services during the construction phase of this project.

We appreciate the opportunity to be of service to Halff Associates, Inc. Please contact us if you have any questions or if we may be of further service at this time.

Respectfully submitted,
CMJ ENGINEERING, INC.
TEXAS FIRM REGISTRATION NO. F-9177

STATE OF TEXAS
JAMES P. SAPPINGTON, IV
97402
LICENSED
PROFESSIONAL ENGINEER
9.8.15

James P. Sappington IV, P.E.
Senior Engineer
Texas No. 97402

copies submitted: (2) Mr. Benjamin L. McGahey, P.E.; Halff Associates, Inc.

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APPENDIX A

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1.0 INTRODUCTION

1.1 General

This report presents the results of a geotechnical engineering study for a 24-inch water line along the south side of Business Highway 121 from Valley Ridge eastward to the pump station located on the south side of Midway Road, west of SH 121 and FM 544 in Lewisville, Texas. The water line is anticipated to be situated on the order of 5 feet deep, with the exception of the Elm Fork Trinity River crossing. The crossing may be either open cut or directional bore. The project vicinity and approximate location of exploration borings are illustrated on Plates A.1A and A.1B, Plan of Borings.

1.2 Purpose and Scope

The purpose of this geotechnical engineering study has been to determine the general subsurface conditions, evaluate the engineering characteristics of the subsurface materials encountered, and develop comments on general excavation.

To accomplish its intended purposes, the study has been conducted in the following phases: (1) drilling sample borings to determine the general subsurface conditions and to obtain samples for testing; (2) performing laboratory tests on appropriate samples to determine pertinent engineering properties of the subsurface materials; and (3) performing engineering analyses, using the field and laboratory data to develop geotechnical recommendations for the proposed construction.

The design is currently in progress and the locations and/or elevations of the structure could change. Once the final design is near completion (80-percent to 90-percent stage), it is recommended that CMJ Engineering, Inc. be retained to review those portions of the construction documents pertaining to the geotechnical recommendations, as a means to determine that our recommendations have been interpreted as intended.

1.3 Report Format

The text of the report is contained in Sections 1 through 7. All plates and large tables are contained in Appendix A. The alpha-numeric plate and table numbers identify the appendix in which they appear. Small tables of less than one page in length may appear in the body of the text and are numbered according to the section in which they occur.

Units used in the report are based on the English system and may include tons per square foot (tsf), kips (1 kip = 1,000 pounds), kips per square foot (ksf), pounds per square foot (psf), pounds per cubic foot (pcf), and pounds per square inch (psi).

2.0 FIELD EXPLORATION AND LABORATORY TESTING

2.1 Field Exploration

Subsurface materials at the project site were explored by fifteen (15) vertical soil borings. Borings B-1 through B-4 and B-7 through B-15 were drilled to depths of 12 feet along the proposed water line alignment. Borings B-5 and B-6 were initially drilled to a depth of 40 feet in the vicinity of the Elm Fork Trinity River crossing in January and February 2014. Borings B-5 and B-6 were subsequently extended to a depth of 70 feet in December 2014. In addition, Borings B-1 through B-3 were initially drilled to a depth of 12 feet in January 2014 and were subsequently extended to a depth of 20 feet in August 2015. The borings were drilled using continuous flight augers at the approximate locations shown on the Plan of Borings, Plates A.1A – A.1B. The boring logs are included on Plates A.4 through A.18 and keys to classifications and symbols used on the logs are provided on Plates A.2 and A.3.

Undisturbed samples of cohesive soils were obtained with nominal 3-inch diameter thin-walled (Shelby) tube samplers at the locations shown on the logs of borings. The Shelby tube sampler consists of a thin-walled steel tube with a sharp cutting edge connected to a head equipped with a ball valve threaded for rod connection. The tube is pushed into the soil by the hydraulic pulldown of the drilling rig. The soil specimens were extruded from the tube in the field, logged, tested for consistency with a hand penetrometer, sealed, and packaged to limit loss of moisture.

The consistency of cohesive soil samples was evaluated in the field using a calibrated hand penetrometer. In this test a 0.25-inch diameter piston is pushed into the relatively undisturbed sample at a constant rate to a depth of 0.25 inch. The results of these tests, in tsf, are tabulated at respective sample depths on the logs. When the capacity of the penetrometer is exceeded, the value is tabulated as 4.5+.

Disturbed samples of the noncohesive granular or stiff to hard cohesive materials were obtained utilizing a nominal 2-inch O.D. split-barrel (split-spoon) sampler in conjunction with the Standard Penetration Test (ASTM D 1586). This test employs a 140-pound hammer that drops a free fall

vertical distance of 30 inches, driving the split-spoon sampler into the material. The number of blows required for 18 inches of penetration is recorded and the value for the last 12 inches, or the penetration obtained from 50 blows, is reported as the Standard Penetration Value (N) at the appropriate depth on the logs of borings.

Ground-water observations during and after completion of the borings are shown on the upper right of the boring log. Upon completion of the borings, the bore holes were backfilled with soil cuttings and plugged at the surface by hand tamping or with asphalt as appropriate.

2.2 Laboratory Testing

Laboratory soil tests were performed on selected representative samples recovered from the borings. In addition to the classification tests (liquid limits, plastic limits, gradations), moisture content, unconfined compressive strength, and unit weight tests were performed. Results of the laboratory classification tests, moisture content, unconfined compressive strength, and unit weight tests conducted for this project are included on the boring logs. Gradation analyses are presented on Plates A.19 through A.23, Particle Size Distribution Reports.

The above laboratory tests were performed in general accordance with applicable ASTM procedures or generally accepted practice.

3.0 SUBSURFACE CONDITIONS

3.1 Site Geology

The Sherman Sheet of the Geologic Atlas of Texas indicates the project site is located in Alluvium and Fluviatile Terrace Deposits of the Elm Fork Trinity River overlying the Eagle Ford Formation. The alluvial and terrace deposits are generally a mixture of fine-grained and coarse materials, which are typically layered with grain sizes increasing with depth. At the surface the clay portions of these deposits can be moderately to highly active. Ground-water is typically present in these deposits, especially in the proximity of a river or creek.

The Eagle Ford Formation is composed primarily of dark shales with an occasional very thin sandstone or limestone stratum. Calcareous concretions, roughly spherical and up to 18 inches in diameter are found throughout this formation. The Eagle Ford weathers to a tan or tan and gray shaly clay with a dark brown to black residual soil, both of which are highly active.

3.2 Soil Conditions

Specific types and depths of subsurface strata encountered at the boring locations are shown on the boring logs in Appendix A. The generalized subsurface stratigraphy encountered in the borings is discussed below. Note that depths on the borings refer to the depth from the existing grade or ground surface present at the time of the investigation, and the boundaries between the various soil types are approximate.

Pavement is present at the surface in Borings B-11 through B-15 consisting of 4 inches of hot-mix asphalt. Gravel base is present beneath the asphalt in Boring B-12 with a thickness of 9 inches. Fill materials are present to depths of 1 to 4 feet in Borings B-1 and B-13 through B-15. The various fills consist of brown sandy clays with gravel. Asphalt fragments are present within the fill in Boring B-14.

A wide degree of variability is noted along the project alignment, as is typical in alluvial-type deposits. Natural overburden soils encountered consist of various brown, light brown, tan, dark brown, reddish brown, light reddish brown, grayish brown, and gray silty clays, sandy silty clays, sandy clays, shaly clays, clays, clayey sands, silty sands, sands, and cemented sands. Sand seams are noted within the clay soils in Boring B-5 from 3 to 23 feet and in B-6 below 18 feet. The various clayey sands, silty sands, sands, and cemented sands range from loose to very dense, with Standard Penetration (N) values ranging from 4 blows per foot of penetration to 4 inches of penetration for 50 hammer blows. Gravel is noted within the sands below 16 feet in Borings B-2 and B-3 and within the various clays below depths of 42 to 44 feet in Borings B-5 and B-6, with increased gravel content below 50 feet in Boring B-6.

The soils encountered had tested Liquid Limits (LL) of 23 to 78 with Plasticity Indices (PI) of 9 to 53, and classify as SM, SP, SC, CL and CH according to the USCS. Tested unit weight and unconfined compressive strength values range from 93 to 118 pcf and 1,210 to 6,460 psf, respectively. Select strength tests reflect more granular soils, indicating in-situ strengths to be higher than the tested value. Moisture content values range from 4 to 34 percent.

Gray shale is next present at depths of 12 to 19 feet in Borings B-1 through B-3 and 49 and 55 feet in Borings B-5 and B-6, respectively. The gray shale is moderately hard to hard (rock basis), with Texas Cone Penetrometer (THD) test values of 1¾ to 4 inches of penetration for 100 hammer blows. Borings B-5 and B-6 were terminated within the gray shale at a depth of 70 feet.

3.3 Ground-water Observations

The borings were drilled using continuous flight augers in order to observe ground-water seepage during drilling. Ground-water seepage was encountered during drilling in Borings B-1 through B-3, B-5, B-6, B-11, and B-14 at depths of 3 to 42 feet. Water levels of 1½ to 30 feet were measured in Borings B-1 through B-3, B-5, B-6, and B-11 at drilling completion. Borehole cave-in was observed in Borings B-2 and B-3 at a depth of 16 feet. Boring B-14 was dry at completion. Water levels of 20 to 30 feet were measured in Borings B-5 and B-6 one hour after drilling completion. All other borings were dry during drilling and dry at completion of drilling operations. Table 3.3-1 summarizes water level data. While it is not possible to accurately predict the magnitude of subsurface water fluctuation that might occur based upon these short-term observations, it should be recognized that ground-water conditions will vary with fluctuations in rainfall. Seepage near the observed levels should be anticipated throughout the year.

TABLE 3.3.1
Ground-Water Observations

Boring No.	Seepage During Drilling (ft.)	Water at Completion (ft.)
B-1	3	1½
B-2	18	16 w/ borehole cave-in at 16
B-3	18	16 w/ borehole cave-in at 16
B-4	Dry	Dry
B-5	42	20 20 one hour after completion
B-6	28	30 30 one hour after completion
B-7	Dry	Dry
B-8	Dry	Dry
B-9	Dry	Dry
B-10	Dry	Dry
B-11	11	11
B-12	Dry	Dry
B-13	Dry	Dry
B-14	4	Dry
B-15	Dry	Dry

Fluctuations of the ground-water level can occur due to seasonal variations in the amount of rainfall; site topography and runoff; hydraulic conductivity of soil strata; and other factors not evident at the time the borings were performed. Water may perch atop less permeable shaly clays,

or may be encountered in sand seams/layers, joints, fractures, or permeable seams within the clays.

Due to the variable subsurface conditions, long-term observations would be necessary to more accurately evaluate the ground-water level. Such observations would require installation of piezometer or observation wells which are sealed to prevent the influence of surface water.

4.0 TRENCH / BORE EXCAVATIONS

4.1 Expected Subsurface Conditions

The proposed water line will be constructed through Alluvial and Fluviatile geological formation soils. The depositional composition of this geological formation is varied from sands and clayey sands to silty clays and clays. This general variability can be seen in the majority of the borings. Near the eastern end of the alignment, evidence of the underlying Eagle Ford clays and shaly clays are evident in Borings B-14 and B-15. The gray shale present in Borings B-1 through B-3, B-5 and B-6 is also likely the parent Eagle Ford shale.

No hard rock was encountered in most borings to their completion depths, except Borings B-1 through B-3 with gray shale present below 12 to 19 feet and Borings B-5 and B-6 with gray shale present below 49 to 55 feet. However, selected zones of cemented sands and sands/gravel materials are present in somewhat non-uniform fashion. In addition, selected zones of thin shale, limestone, or gravel seams can be present within this geology, and can be difficult to remove or excavate and readers should understand these materials do pose a potential threat of difficulty in excavation. The gray shale is considered moderately hard (rock basis), and will present moderately difficulty with rippability using normal excavation equipment. Very hard limestone seams or lenses can be present within the Eagle Ford shale which may require special techniques for ripping/rock removal.

The excavatability of the sand soils in various borings may pose challenges. Select near-surface sands are loose in upper reaches, and water was encountered in selected borings. Even sands which exhibit medium dense to very dense relatively density or slightly cemented sand materials can experience significant caving and quick conditions subjected to vibrations and general excavation below the ground-water table. These soils also can experience collapsing with vibrations due to little to few fines.

The sandy clays, silty clays, clays, and shaly clays onsite generally are what the writer would consider normal excavation materials in the north central Texas area. No unusual conditions in the clay soils were noted at the boring locations.

4.2 Open Cut

The trench excavations should be performed in accordance with OSHA Safety and Health Standards (29 CFR 1926/1919), Subpart P. For excavations less than 5 feet deep through the various clays, it is expected that near vertical excavation walls will be possible. However, excavations which occur through soft clays, granular soils, non-compacted fill, or submerged soils it will be necessary to either slope the excavation sidewalls or provide temporary bracing to control excavation wall instability. In addition, for excavations deeper than 5 feet, the excavation sidewalls must be sloped or temporary bracing must be provided, regardless of the soil conditions encountered.

4.3 Trench / Bore Pit Dewatering

As discussed in Section 3.3, Ground-water Observations, ground-water conditions can vary with seasonal fluctuations in rainfall. In the case that ground-water is encountered, controlling the ground-water is essential to construction of the proposed water line. Failure to control any encountered ground-water could result in trench wall collapse, trench bottom heave, an unstable trench bottom and detrimental pipeline settlement and pipe deflections after backfilling. Ground-water levels should be maintained at two feet below the bases of the excavations for the full term of construction. Protection of the open excavations should be provided during periods of moderate to heavy rainfall, as surface water will most likely channel and collect in the excavations. The water level should be lowered prior to excavating and should be maintained at this lowered level until the pipe trench is backfilled. In the event that water infiltration rates are high, as may be the case where sand or gravel strata are encountered, it may be necessary to install a more elaborate dewatering system. The design of any dewatering system required is the contractor's responsibility.

4.4 Soft Trench Bottom Conditions

Soft trench bottom conditions are unlikely where the trench bottom is situated in the natural clays, but soft conditions may occur, especially in areas where ground-water is present. Unstable trench bottoms are considered to be unsuitable for support of the pipe. Soft clays could occur where

ground-water is present. In any areas where unsuitable bearing materials are encountered at the planned invert elevation, the trench bottom can be prepared using the following method:

- Under-cut to a suitable bearing subgrade and replace with a structural compacted fill. The over-excavation should extend laterally a distance of at least 1 foot beyond the edges of the pipe, and then at least 1 foot laterally for every 1.5 feet of fill required beneath the pipe. The over-excavation backfill should be completely surrounded with a geotextile consisting of Mirafi 140N, Amoco Propex 4545, or equivalent. The backfill should consist of a free draining aggregate (i.e., sands, gravels, crushed limestone, or crushed concrete) approved by the geotechnical engineer. The backfill should be placed in maximum 9-inch loose lifts and uniformly compacted to a minimum relative density of 65 percent as determined by test methods ASTM D 4253 and D 4254.

4.5 Excavation Considerations

If open trench cuts are performed within 1.25 times the trench depth of any surface structure, trench shoring (not trench boxes) should be used within open trench cuts performed within this distance. Hydraulic shoring struts should be used and installed during excavation as needed to provide full lateral support to vertical trench sidewalls and thereby help reduce lateral ground movements near existing structures. A pre-construction condition survey should be performed prior to beginning excavation near any structure that could be affected by the trench excavation to verify existing conditions (existing distress) prior to construction. Construction monitoring should be performed to verify that existing structures are not impacted or damaged by construction operations.

Any pavement structure (concrete, asphalt, base course material or stabilized subgrade) should extend a minimum of 12 inches beyond the edge of the excavation trench. This additional width of pavement structure greatly reduces the potential for reflective cracking upwards into the pavement.

4.6 Trench Backfill

To assure adequate base support for the pipe, it is recommended that bedding/embedment material be placed around the pipe, 6 inches below the pipe, and 12 inches above the pipe. If concern exists of native backfill above the embedment migrating into the more coarse embedment (and causing backfill settlement), a filter cloth is recommended at the embedment/native soil interface. The filter cloth should cover the entire interface and up through the sidewall a minimum of 1 foot.

Bedding material may consist of gravel/stone from 1" to No. 10 sieve size. Gravel should be consolidated upon placement by rodding or pneumatic vibration methods. Such methods should not cause harm or distress to the pipe. The filter cloth should be TenCate Geosynthetics Marifi 140N or equivalent.

Site excavated materials are generally considered suitable for use as backfill above the pipe bedding materials. All trench backfill should be free of deleterious materials. Use of rock fragments greater than 4 inches in any dimension should be prohibited, since attaining a uniform moisture and density without voids would be difficult. Backfill should be compacted in maximum 8-inch loose lifts at a minimum of 95 percent of the Standard Proctor density (ASTM D 698). The uncompacted lift thickness should be reduced to 4 inches for structure backfill zones requiring hand-operated power compactors or small self-propelled compactors.

Clay soils having a Plasticity Index greater than 20 should be compacted at a moisture content ranging from 0 to plus 4 percentage points above the optimum moisture content. Granular soils having a PI less than 20 should be compacted at a moisture content ranging from minus 3 to plus 3 percentage points of the optimum moisture content. Jetting to compact the pipe backfill should not be allowed. In areas where settlement of the backfill must be closely controlled, the trench excavation should be backfilled with either cement stabilized sand or flowable concrete having a 28-day compressive strength ranging between 50 and 200 psi.

4.7 Trench Backfill Settlement

Settlement of the backfill soils should be anticipated. It is anticipated that properly compacted on-site clay fill soils will settle between about 1 and 2 percent of the fill thickness. For example, 10 feet of fill would be expected to settle on the order of 1.2 to 2.4 inches.

The trench backfill could be over-built in order to reduce the potential for a surface depression along the trench centerline. We recommend the backfill be crowned. The centerline of the excavation should be over-built by one foot and sloped down to match grade at the edge of the excavation.

4.8 Provisions to Reduce Backfill Settlement

Field testing will be a critical element in controlling the compaction of the backfill to limit settlement. All trench backfilling in these critical areas shall include full-time observation of soil compaction by

an experienced geotechnician under the supervision of the geotechnical engineer. The contractor should provide protection for the testing/inspection personnel while working in the trenches, and shall move the protective shield/shoring such that areas to be tested are readily accessible. The compacted moisture/density of all backfill soils should be tested at a rate of one test per 100 linear feet of trench, for each lift of fill placed, during compaction. Digging through existing lifts of backfill to access and test underlying lifts should not be allowed.

In addition, to limit settlement, where crushed stone materials are used as pipe bedding materials, they should be wrapped with a suitable geotextile to limit the intrusion of fines into the crushed stone material.

4.9 Bore/Tunnel Considerations

Materials encountered in the upper 18 and 42 feet in Borings B-5 and B-6, respectively, conducted in the vicinity of the Elm Fork Trinity River crossing consist predominately of clay materials. These clays should provide a relatively easy material to bore/tunnel. The underlying gray shale is also anticipated to consist of relatively good materials for boring and tunneling. However, materials below 18 feet in Boring B-6 and below 42 feet in Boring B-5 and above the shale consist of sandy clays with sand seams or silty clays and shaly clays with gravel and significant ground-water. Should the bore/tunnel depth encompass zones of sands or gravel, cave-in of these non-plastic materials should be expected. In addition, water seepage within sands/gravels can complicate tunnel drilling/drilling and cave-in. Sand or gravel seams/zones within the clays can serve as conduits to direct water towards the bore excavation. Water seepage can decrease the stability of the bore/tunnel excavation and result in ground subsidence.

Alluvial and Fluviatile deposits are well-known for variability with vertical and lateral extent. The sandy soils will vary in depth, and the potential for water seepage in more granular zones also will vary with climate, rainfall events, and depths/thickness of more permeable soils.

It is recommended that the bore/ tunnel contractor be made aware of these potential variabilities. A contractor experienced in tunneling in the alluvial deposit (granular) materials will understand the ramifications of the above discussion.

5.0 EARTHWORK

5.1 Site Preparation & Field Testing

The subgrade should be firm and able to support the construction equipment without displacement. Soft or yielding subgrade should be corrected and made stable before construction proceeds. The subgrade should be proof rolled to detect soft spots, which if exist, should be excavated to provide a firm and otherwise suitable subgrade. Proof rolling should be performed using a heavy pneumatic tired roller, loaded dump truck, or similar piece of equipment. The proof rolling operations should be observed by the project geotechnical engineer or his/her representative. Prior to fill placement, the subgrade should be scarified to a minimum depth of 6 inches, its moisture content adjusted, and recompacted to the moisture and density recommended for fill.

Fill materials should be uniform with respect to material type and moisture content. Clods and chunks of material should be broken down and the fill material mixed by disking, blading, or plowing, as necessary, so that a material of uniform moisture and density is obtained for each lift. Water required for sprinkling to bring the fill material to the proper moisture content should be applied evenly through each layer.

The on-site soils are suitable for use in general site grading. Imported fill material under the structures should be flexible base or graded stone and no rock greater than 4 inches in maximum dimension. The fill materials should be free of vegetation and debris.

Soil fill material should be compacted to a minimum density of 95 percent of maximum dry density as determined by ASTM D 698, Standard Proctor. Graded stone should be compacted to a minimum of 70 percent relative density per ASTM D 4253 and D 4254. In conjunction with the compacting operation, the fill material should be brought to the proper moisture content. The moisture content for general earth fill should range from 2 percentage points below optimum to 5 percentage points above optimum (-2 to +5). These ranges of moisture contents are given as maximum recommended ranges. For some soils and under some conditions, the contractor may have to maintain a more narrow range of moisture content (within the recommended range) in order to consistently achieve the recommended density.

Field density tests should be taken as each lift of fill material is placed. As a guide, one field density test per lift for each 5,000 square feet of compacted area is recommended. For small areas or critical areas the frequency of testing may need to be increased to one test per 2,500

square feet. A minimum of 2 tests per lift should be required. The earthwork operations should be observed and tested on a continuing basis by an experienced geotechnician working in conjunction with the project geotechnical engineer.

Each lift should be compacted, tested, and approved before another lift is added. The purpose of the field density tests is to provide some indication that uniform and adequate compaction is being obtained. The actual quality of the fill, as compacted, should be the responsibility of the contractor and satisfactory results from the tests should not be considered as a guarantee of the quality of the contractor's filling operations.

5.2 Excavation

The side slopes of excavations through the overburden soils should be made in such a manner to provide for their stability during construction. Existing structures, pipelines or other facilities, which are constructed prior to or during the currently proposed construction and which require excavation, should be protected from loss of end bearing or lateral support.

Temporary construction slopes and/or permanent embankment slopes should be protected from surface runoff water. Site grading should be designed to allow drainage at planned areas where erosion protection is provided, instead of allowing surface water to flow down unprotected slopes.

Permanent slopes should be as flat as practical to reduce creep and occurrence of shallow slides. The following slope angles are recommended as maximums. The shown angles refer to the total height of a slope. Site improvement should be maintained away from the top of the slope to reduce the possibility of damage due to creep or shallow slides.

TABLE 5.2-1 Maximum Slope Angles

Height (ft.)	Horizontal to Vertical
0 – 3	1:1
3 – 6	2:1
6 – 9	3:1
> 9	4:1

Trench safety recommendations are beyond the scope of this report. The contractor must comply with all applicable safety regulations concerning trench safety and excavations including, but not limited to, OSHA regulations.

5.3 Soil Corrosion Potential

Specific testing for soil corrosion potential was not included in the scope of this study. However, based upon past experience on other projects in the vicinity, the soils at this site may be corrosive. Standard construction practices for protecting metal pipe and similar facilities in contact with these soils should be used.

5.4 Erosion and Sediment Control

All disturbed areas should be protected from erosion and sedimentation during construction, and all permanent slopes and other areas subject to erosion or sedimentation should be provided with permanent erosion and sediment control facilities. All applicable ordinances and codes regarding erosion and sediment control should be followed.

6.0 CONSTRUCTION OBSERVATIONS

In any geotechnical investigation, the design recommendations are based on a limited amount of information about the subsurface conditions. In the analysis, the geotechnical engineer must assume the subsurface conditions are similar to the conditions encountered in the borings. However, quite often during construction anomalies in the subsurface conditions are revealed. Therefore, it is recommended that CMJ Engineering, Inc. be retained to observe earthwork and foundation installation and perform materials evaluation during the construction phase of the project. This enables the geotechnical engineer to stay abreast of the project and to be readily available to evaluate unanticipated conditions, to conduct additional tests if required and, when necessary, to recommend alternative solutions to unanticipated conditions. Until these construction phase services are performed by the project geotechnical engineer, the recommendations contained in this report on such items as final foundation bearing elevations, proper soil moisture condition, and other such subsurface related recommendations should be considered as preliminary.

It is proposed that construction phase observation and materials testing commence by the project geotechnical engineer at the outset of the project. Experience has shown that the most suitable

method for procuring these services is for the owner or the owner's design engineers to contract directly with the project geotechnical engineer. This results in a clear, direct line of communication between the owner and the owner's design engineers and the geotechnical engineer.

7.0 REPORT CLOSURE

The locations and elevations of the borings should be considered accurate only to the degree implied by the methods used in their determination. The boring logs shown in this report contain information related to the types of soil encountered at specific locations and times and show lines delineating the interface between these materials. The logs also contain our field representative's interpretation of conditions that are believed to exist in those depth intervals between the actual samples taken. Therefore, these boring logs contain both factual and interpretive information. Laboratory soil classification tests were also performed on samples from selected depths in the borings. The results of these tests, along with visual-manual procedures were used to generally classify each stratum. Therefore, it should be understood that the classification data on the logs of borings represent visual estimates of classifications for those portions of each stratum on which the full range of laboratory soil classification tests were not performed. It is not implied that these logs are representative of subsurface conditions at other locations and times.

With regard to ground-water conditions, this report presents data on ground-water levels as they were observed during the course of the field work. In particular, water level readings have been made in the borings at the times and under conditions stated in the text of the report and on the boring logs. It should be noted that fluctuations in the level of the ground-water table can occur with passage of time due to variations in rainfall, temperature and other factors. Also, this report does not include quantitative information on rates of flow of ground water into excavations, on pumping capacities necessary to dewater the excavations, or on methods of dewatering excavations. Unanticipated soil conditions at a construction site are commonly encountered and cannot be fully predicted by mere soil samples, test borings or test pits. Such unexpected conditions frequently require that additional expenditures be made by the owner to attain a properly designed and constructed project. Therefore, provision for some contingency fund is recommended to accommodate such potential extra cost.

The analyses, conclusions and recommendations contained in this report are based on site conditions as they existed at the time of our field investigation and further on the assumption that

the exploratory borings are representative of the subsurface conditions throughout the site; that is, the subsurface conditions everywhere are not significantly different from those disclosed by the borings at the time they were completed. If, during construction, different subsurface conditions from those encountered in our borings are observed, or appear to be present in excavations, we must be advised promptly so that we can review these conditions and reconsider our recommendations where necessary. If there is a substantial lapse of time between submission of this report and the start of the work at the site, if conditions have changed due either to natural causes or to construction operations at or adjacent to the site, or if structure locations, structural loads or finish grades are changed, we urge that we be promptly informed and retained to review our report to determine the applicability of the conclusions and recommendations, considering the changed conditions and/or time lapse.

Further, it is urged that CMJ Engineering, Inc. be retained to review those portions of the plans and specifications for this particular project that pertain to earthwork and foundations as a means to determine whether the plans and specifications are consistent with the recommendations contained in this report. In addition, we are available to observe construction, particularly the compaction of structural fill, or backfill and the construction of foundations as recommended in the report, and such other field observations as might be necessary.

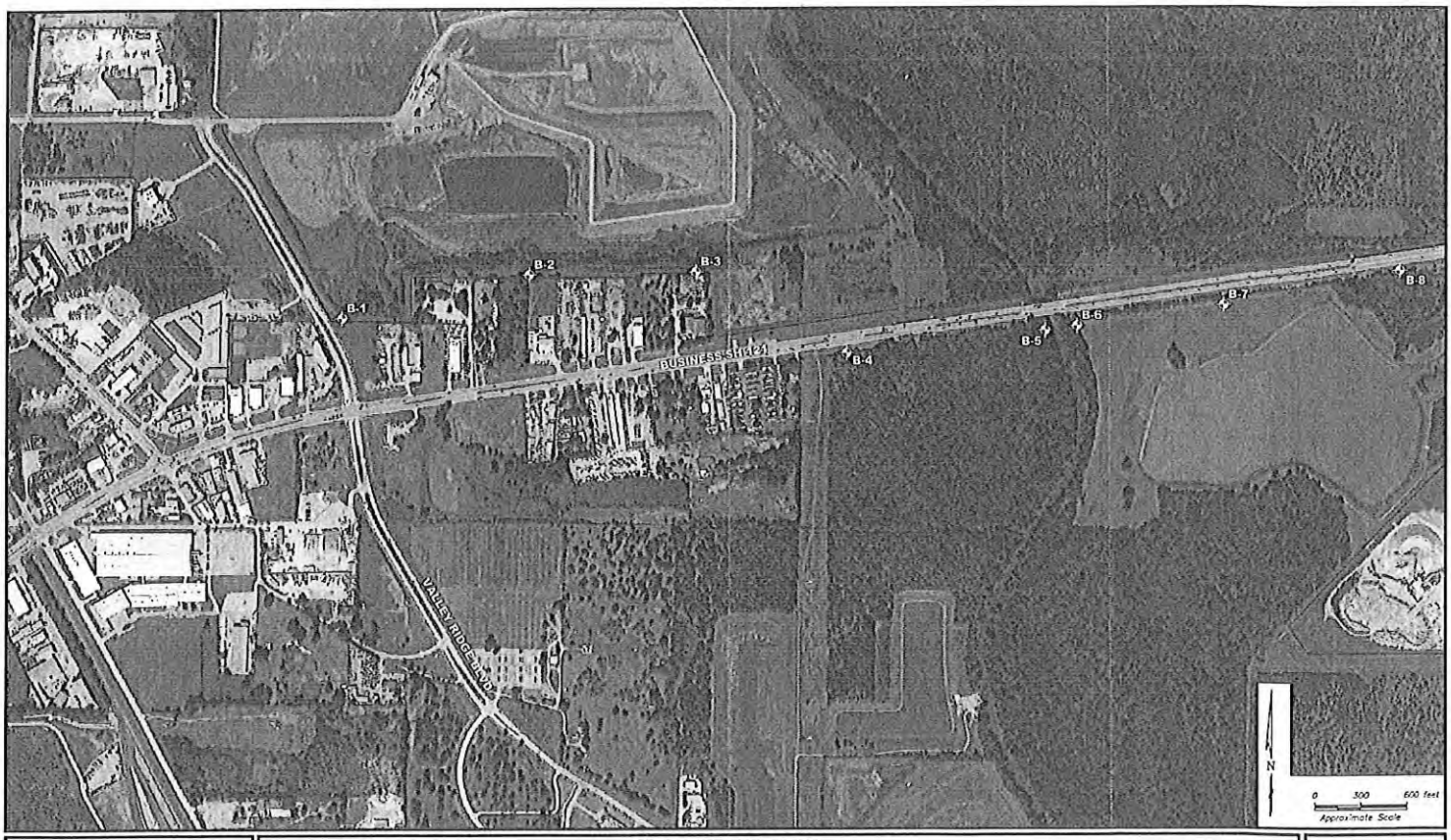
The scope of our services did not include any environmental assessment or investigation for the presence or absence of wetlands or hazardous or toxic materials in the soil, surface water, ground water or air, on or below or around the site.

This report has been prepared for use in developing an overall design concept. Paragraphs, statements, test results, boring logs, diagrams, etc. should not be taken out of context, nor utilized without a knowledge and awareness of their intent within the overall concept of this report. The reproduction of this report, or any part thereof, supplied to persons other than the owner, should indicate that this study was made for design purposes only and that verification of the subsurface conditions for purposes of determining difficulty of excavation, trafficability, etc. are responsibilities of the contractor.

This report has been prepared for the exclusive use of Halff Associates, Inc. for specific application to design of this project. The only warranty made by us in connection with the services provided is that we have used that degree of care and skill ordinarily exercised under similar conditions by

reputable members of our profession practicing in the same or similar locality. No other warranty, expressed or implied, is made or intended.

* * * *



CMJ ENGINEERING, INC.

CMJ PROJECT No. 117-14-173 (REVISION 2)

PLAN OF BORINGS

24-INCH WATER LINE
BUSINESS HIGHWAY 121
LEWISVILLE, TEXAS

PLATE
A.1A

CMJ ENGINEERING, INC.

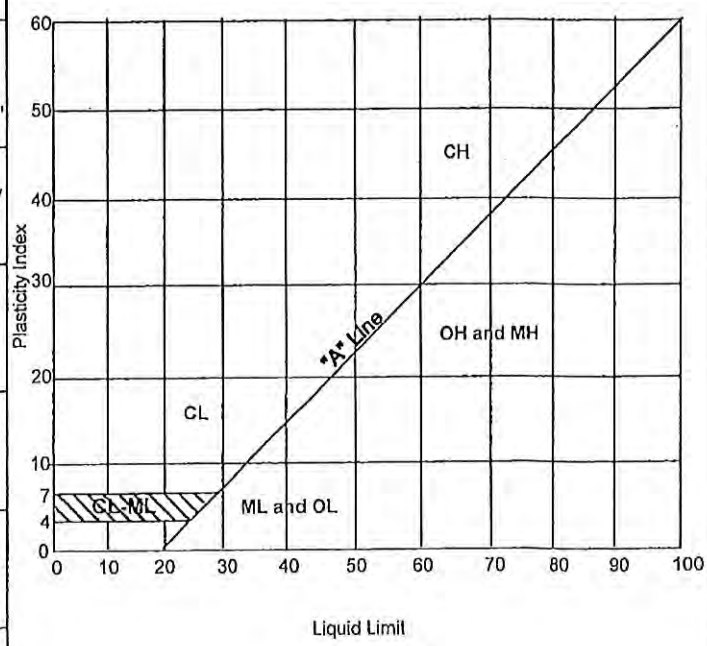
CMJ PROJECT NO. 117-14-173 (REVISION 2)

PLAN OF BORINGS

24-INCH WATER LINE
BUSINESS HIGHWAY 121
LEWISVILLE, TEXAS

PLATE
A.1B

Major Divisions			Grp. Sym.	Typical Names	Laboratory Classification Criteria		
Coarse-grained soils (more than half of the material is larger than No. 200 sieve size)	Gravels (More than half of coarse fraction is larger than No. 4 sieve size)	Clean gravels (Little or no fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines	Determine percentages of sand and gravel from grain size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows: Less than 5 percent ..... GW, GP, SW, SP; More than 12 percent ..... GM, GC, SM, SC; 5 to 12 percent ..... *Borderline* cases requiring dual symbols	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4: $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3	
			GP	Poorly graded gravels, gravel-sand mixtures, little or no fines		Not meeting all gradation requirements for GW	
		Gravels with fines (Appreciable amount of fines)	GM	Silty gravels, gravel-sand-silt mixtures		Liquid and Plastic limits below "A" line or P.I. greater than 4	Liquid and plastic limits plotting in hatched zone between 4 and 7 are borderline cases requiring use of dual symbols
			GC	Clayey gravels, gravel-sand-clay mixtures		Liquid and Plastic limits above "A" line with P.I. greater than 7	
	Sands (More than half of coarse fraction is smaller than No. 4 sieve size)	Clean sands (Little or no fines)	SW	Well-graded sands, gravelly sands, little or no fines		$C_u = \frac{D_{60}}{D_{10}}$ greater than 6: $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3	
			SP	Poorly graded sands; gravelly sands, little or no fines		Not meeting all gradation requirements for SW	
		Sands with fines (Appreciable amount of fines)	SM	Silty sands, sand-silt mixtures		Liquid and Plastic limits below "A" line or P.I. less than 4	Liquid and plastic limits plotting between 4 and 7 are borderline cases requiring use of dual symbols
			SC	Clayey sands, sand-clay mixtures		Liquid and Plastic limits above "A" line with P.I. greater than 7	
Fine-grained soils (More than half of material is smaller than No. 200 sieve)	Silts and clays (Liquid limit less than 50)		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, or clayey silts with slight plasticity			
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, and lean clays			
			OL	Organic silts and organic silty clays of low plasticity			
	Silts and clays (Liquid limit greater than 50)		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts			
			CH	Inorganic clays of high plasticity, fat clays			
			OH	Organic clays of medium to high plasticity, organic silts			
	Highly Organic soils		Pt	Peat and other highly organic soils			



Plasticity Chart

UNIFIED SOIL CLASSIFICATION SYSTEM **PLATE A.2**

SOIL OR ROCK TYPES

GRAVEL	LEAN CLAY	LIMESTONE	Shelby Tube	Auger	Split Spoon
SAND	SANDY	SHALE	Rock Core	Cone Pen	No Recovery
SILT	SILTY	SANDSTONE			
CLAYEY	HIGHLY PLASTIC CLAY	CONGLOMERATE			

TERMS DESCRIBING CONSISTENCY, CONDITION, AND STRUCTURE OF SOIL

Fine Grained Soils (More than 50% Passing No. 200 Sieve)

Descriptive Item	Penetrometer Reading, (tsf)
Soft	0.0 to 1.0
Firm	1.0 to 1.5
Stiff	1.5 to 3.0
Very Stiff	3.0 to 4.5
Hard	4.5+

Coarse Grained Soils (More than 50% Retained on No. 200 Sieve)

Penetration Resistance (blows/foot)	Descriptive Item	Relative Density
0 to 4	Very Loose	0 to 20%
4 to 10	Loose	20 to 40%
10 to 30	Medium Dense	40 to 70%
30 to 50	Dense	70 to 90%
Over 50	Very Dense	90 to 100%

Soil Structure

Calcareous	Contains appreciable deposits of calcium carbonate; generally nodular
Slickensided	Having inclined planes of weakness that are slick and glossy in appearance
Laminated	Composed of thin layers of varying color or texture
Fissured	Containing cracks, sometimes filled with fine sand or silt
Interbedded	Composed of alternate layers of different soil types, usually in approximately equal proportions

TERMS DESCRIBING PHYSICAL PROPERTIES OF ROCK

Hardness and Degree of Cementation

Very Soft or Plastic	Can be remolded in hand; corresponds in consistency up to very stiff in soils
Soft	Can be scratched with fingernail
Moderately Hard	Can be scratched easily with knife; cannot be scratched with fingernail
Hard	Difficult to scratch with knife
Very Hard	Cannot be scratched with knife
Poorly Cemented or Friable	Easily crumbled
Cemented	Bound together by chemically precipitated material; Quartz, calcite, dolomite, siderite, and iron oxide are common cementing materials. and iron oxide are common cementing materials.

Degree of Weathering

Unweathered	Rock in its natural state before being exposed to atmospheric agents
Slightly Weathered	Noted predominantly by color change with no disintegrated zones
Weathered	Complete color change with zones of slightly decomposed rock
Extremely Weathered	Complete color change with consistency, texture, and general appearance approaching soil

CMJ ENGINEERING INC.

Project No.	Boring No.	Project
117-14-173	B-1	24-Inch Water Line Business SH 121 - Lewisville, Texas

Location	Water Observations
See Plate A.1	Seepage at 3' during drilling; water at 1.5' at completion

Completion Depth	Completion Date
20.0'	8-4-15

Surface Elevation

Type: B-47, w/ CFA

Depth, Ft.	Symbol	Samples	Stratum Description	REC %	RQD %	Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Unit Dry Wt. Lbs./Cu. Ft.	Unconfined Compression Pounds/Sq. Ft.
			CLAYEY SAND, brown, w/ occasional clay (FILL)			1.0					15		
						1.0	35	27	13	14	12		
						1.0					13		
						1.0					14		
			CLAYEY SAND, brown and reddish brown, loose			7					10		
5													
						37					13		
			SAND / CLAYEY SAND, light reddish brown, medium dense to dense										
						20							
10													
			-very dense below 11'			52					11		
			SHALE, gray, moderately hard to hard										
						100/2"					21		
15													
						100/1.75"							
20													

LOG OF BORING 117-14-173.GPJ CMJ.GDT 9/1/15

LOG OF BORING NO. B-1

PLATE A.4

Project No.	Boring No.	Project
117-14-173	B-2	24-Inch Water Line Business SH 121 - Lewisville, Texas

CMJ ENGINEERING INC.

Location	Water Observations
See Plate A.1	Seepage at 18' during drilling; water at 16' and borehole cave-in at 16' at completion

Completion Depth	Completion Date	Surface Elevation	Type
20.0'	8-4-15		B-47, w/ CFA

Depth, Ft.	Symbol	Samples	Stratum Description	REC %	RQD %	Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Unit Dry Wt. Lbs./Cu. Ft.	Unconfined Compression Pounds/Sq. Ft.
			SAND, light brown and light reddish brown, w/ occasional clayey sand seams, loose			0.5					7		
						0.5					8		
						5							
			-dense to very dense below 4'										
5						30							
						39							
10						32							
						52							
15						40	15				14		
			SAND, tan, w/ gravel										
			SHALE, gray										
20											28		

LOG OF BORING 117-14-173.GPJ CMJ.GDT 9/1/15

LOG OF BORING NO. **B-2**

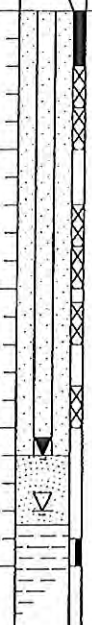
PLATE A.5

CMJ ENGINEERING INC.

Project No.	Boring No.	Project
117-14-173	B-3	24-Inch Water Line Business SH 121 - Lewisville, Texas

Location	Water Observations
See Plate A.1	Seepage at 18' during drilling; water at 16' and borehole cave-in at 16' at completion

Completion Depth	Completion Date	Surface Elevation	Type
20.0'	8-4-15		B-47, w/ CFA



Depth, Ft.	Stratum Description	REC %	RQD %	Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Unit Dry Wt. Lbs./Cu. Ft.	Unconfined Compression Pounds/Sq. Ft.
	SILTY SAND / SAND, brown and light brown, loose to medium dense			0.75					8		
				0.5	30				12		
				5					6		
5				15					4		
	- grades reddish brown, dense to very dense below 7'			28							
10				38	21						
				56							
15				33	7						
	SAND, tan, w/ gravel										
	SHALE, gray										
20											

LOG OF BORING 117-14-173.GPJ CMJ.GDT 9/1/15

LOG OF BORING NO. **B-3**

PLATE A.6

CMJ ENGINEERING INC.

Project No.	Boring No.	Project
117-14-173	B-4	24-Inch Water Line Business SH 121 - Lewisville, Texas

Location	Water Observations
See Plate A.1	Dry during drilling; dry at completion

Completion Depth	Completion Date
12.0'	1-23-14

Surface Elevation

Type: ATV-47, w/ CFA

Depth, Ft.	Symbol	Samples	Stratum Description	REC %	RQD %	Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Unit Dry Wt. Lbs./Cu. Ft.	Unconfined Compression Pounds/Sq. Ft.
			SAND, brown to light brown			0.5					7		
											4		
			SILTY SAND / SAND, light reddish brown, loose to medium dense			4							
5						12	23						
			-dense below 7'			36							
						40							
10													
			CEMENTED SAND, light reddish brown, very dense			50/4"							

LOG OF BORING 117-14-173.GPJ CMJ.GDT 3/3/14

CMJ ENGINEERING INC.

Project No.	Boring No.	Project
117-14-173	B-5	24-Inch Water Line Business SH 121 - Lewisville, Texas

Location	Water Observations
See Plate A.1	Seepage at 42' during drilling; water at 20' at completion; water at 20' one hour after completion

Completion Depth	Completion Date	Surface Elevation	Type
70.0'	12-4-14		ATV-47, w/ CFA

Depth, Ft.	Symbol	Samples	Stratum Description	REC %	RQD %	Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Unit Dry Wt. Lbs./Cu. Ft.	Unconfined Compression Pounds/Sq. Ft.
			SILTY CLAY, dark brown to brown, stiff to hard			2.5					32		
						1.5					20		
						4.5+					15		
			SANDY CLAY, brown to light brown, w/ occasional sand seams, hard			4.5+					12		
						4.5+					7		
5													
						4.5+		33	14	19	10		
						4.5+					10		
10													
						4.5+					12		
15													
			SANDY SILTY CLAY, brown, dark brown, and gray, w/ iron seams and occasional sand seams, hard										
						4.5+					14		
20													
						4.5+	69	37	13	24	17	113	3410
25													
			SILTY CLAY, gray and light brown, very stiff to hard										
						4.5+					23		
30													
						4.5+					25	101	3580
35													
						4.0					23		
40			-w/ gravel seams below 42'										
			SHALY CLAY, tan and dark gray, w/ sand seams and calcareous nodules, stiff			2.0	38	33	16	17	13		
45													
			SHALE, gray, moderately hard			100/4"							
50													

LOG OF BORING 117-14-173.GPJ CMJ.GDT 12/17/14

LOG OF BORING NO. B-5

Continued Next Page

CMJ ENGINEERING INC.

Project No.	Boring No.	Project
117-14-173	B-5	24-Inch Water Line Business SH 121 - Lewisville, Texas

Location	Water Observations
See Plate A.1	Seepage at 42' during drilling; water at 20' at completion; water at 20' one hour after completion

Completion Depth	Completion Date
70.0'	12-4-14

Surface Elevation

Type: ATV-47, w/ CFA

Depth, Ft.	Symbol	Samples	Stratum Description	REC %	RQD %	Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Unit Dry Wt. Lbs./Cu. Ft.	Unconfined Compression Pounds/Sq. Ft.
			SHALE, gray, moderately hard *(continued)*										
						100/2.5"							
55													
						100/2.75'							
60													
						100/2.5"							
65													
						100/2.5"							
70													

LOG OF BORING NO. B-5

PLATE A.8b

LOG OF BORING 117-14-173.GPJ CMJ.GDT 12/17/14

CMJ ENGINEERING INC.

Project No.	Boring No.	Project
117-14-173	B-6	24-Inch Water Line Business SH 121 - Lewisville, Texas

Location	Water Observations
See Plate A.1	Seepage at 28' during drilling; water at 30' at completion; water at 30' one hour after completion

Completion Depth	Completion Date	Surface Elevation	Type
70.0'	12-11-14		ATV-47, w/ CFA

Depth, Ft.	Symbol	Samples	Stratum Description	REC %	RQD %	Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Unit Dry Wt. Lbs./Cu. Ft.	Unconfined Compression Pounds/Sq. Ft.
			SILTY CLAY / SANDY SILTY CLAY, brown, very stiff to hard			3.75					20		
						3.0					19		
						3.0					16		
						4.5+					14		
			-dark brown, 4' to 10'			4.5+					16		
5													
						4.5+					17		
						4.5+					17		
10													
						4.5+	81	50	15	35	15		
15													
			SANDY CLAY, light reddish brown, light brown, and gray, w/ sand seams and clay seams, firm to stiff			2.0					12	110	1330
20													
						1.5					16		
25													
						1.0	54	32	14	18	19		
30													
						2.5					18	115	3710
35													
						2.0					19		
40													
			-w/ gravel below 44'			2.0	38	44	22	22	20		
45													
						49							
50													

LOG OF BORING NO. B-6

Continued Next Page

PLATE A.9a

CMJ ENGINEERING INC.

Project No.	Boring No.	Project
117-14-173	B-6	24-Inch Water Line Business SH 121 - Lewisville, Texas

Location	Water Observations
See Plate A.1	Seepage at 28' during drilling; water at 30' at completion; water at 30' one hour after completion

Completion Depth	Completion Date	Surface Elevation	Type
70.0'	12-11-14		ATV-47, w/ CFA

Depth, Ft.	Symbol	Samples	Stratum Description	REC %	RQD %	Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Unit Dry Wt. Lbs./Cu. Ft.	Unconfined Compression Pounds/Sq. Ft.
			SANDY CLAY, light reddish brown, light brown, and gray, w/ sand seams and clay seams, firm to stiff *(continued)* -w/ increasing gravel below 50'										
						50							
55			**SHALE**, gray, moderately hard										
						100/3.75"							
60													
						100/3.25"							
65													
						100/2.5"							
70													

LOG OF BORING 117-14-173.GPJ CMJ.GDT 12/17/14

CMJ ENGINEERING INC.

Project No.	Boring No.	Project
117-14-173	B-7	24-Inch Water Line Business SH 121 - Lewisville, Texas

Location	Water Observations
See Plate A.1	Dry during drilling; dry at completion

Completion Depth	Completion Date	Surface Elevation	Type
12.0'	1-19-14		B-24, w/ CFA

Depth, Ft.	Symbol	Samples	Stratum Description	REC %	RQD %	Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Unit Dry Wt. Lbs./Cu. Ft.	Unconfined Compression Pounds/Sq. Ft.
			CLAY / SILTY CLAY, dark brown, very stiff to hard			3.5					25		
						3.5					22		
			-w/ ironstone nodules, 2' to 3'			3.75					20		
			-w/ calcareous nodules below 3'			4.5+					20		
						4.5+					20		
5													
						4.5+					18		
						4.5+		51	20	31	18		
10													
						4.5+					18		

LOG OF BORING 117-14-173.GPJ CMJ.GDT 3/3/14

CMJ ENGINEERING INC.

Project No.	Boring No.	Project
117-14-173	B-8	24-Inch Water Line Business SH 121 - Lewisville, Texas

Location	Water Observations
See Plate A.1	Dry during drilling; dry at completion

Completion Depth	Completion Date
12.0'	1-19-14

Surface Elevation

Type: B-24, w/ CFA

Depth, Ft.	Symbol	Samples	Stratum Description	REC %	RQD %	Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Unit Dry Wt. Lbs./Cu. Ft.	Unconfined Compression Pounds/Sq. Ft.
			CLAY / SILTY CLAY, brown and grayish brown, stiff			1.5					34		
						1.5					25		
						2.5					27		
						2.5		59	22	37	29		
						2.0					26		
5													
			-very stiff to hard below 7'			4.25					28		
			-w/ calcareous nodules below 9'			4.5+					28		
10													
						4.5+					26		

LOG OF BORING 117-14-173.GPJ CMJ.GDT 3/3/14

LOG OF BORING NO. B-8

PLATE A.11

CMJ ENGINEERING INC.

Project No.	Boring No.	Project
117-14-173	B-9	24-Inch Water Line Business SH 121 - Lewisville, Texas

Location	Water Observations
See Plate A.1	Dry during drilling; dry at completion

Completion Depth	Completion Date
12.0'	1-19-14

Surface Elevation

Type: B-24, w/ CFA

Depth, Ft.	Symbol	Samples	Stratum Description	REC %	RQD %	Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Unit Dry Wt. Lbs./Cu. Ft.	Unconfined Compression Pounds/Sq. Ft.
			CLAY / SILTY CLAY, brown, w/ calcareous nodules, stiff			1.5					34		
						2.0					31		
			-hard, 2' to 8'			4.5+					26		
			-dark brown below 3'			4.5+					25		
						4.5+					28		
5													
						4.5+					27		
						2.0					32		
10													
						2.75		72	23	49	31	93	4390

LOG OF BORING 117-14-173.GPJ CMJ.GDT 3/3/14

LOG OF BORING NO. B-9

PLATE A.12

CMJ ENGINEERING INC.

Project No.	Boring No.	Project
117-14-173	B-10	24-Inch Water Line Business SH 121 - Lewisville, Texas

Location	Water Observations
See Plate A.1	Dry during drilling; dry at completion

Completion Depth	Completion Date
12.0'	1-19-14

Surface Elevation

Type: B-24, w/ CFA

Depth, Ft.	Symbol	Samples	Stratum Description	REC %	RQD %	Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Unit Dry Wt. Lbs./Cu. Ft.	Unconfined Compression Pounds/Sq. Ft.
			CLAYEY SAND, brown, w/ gravel			1.5					15		
			SANDY CLAY, reddish brown, very stiff			3.75					14		
						3.75					12	118	1360
			CLAYEY SAND, reddish brown, w/ clay seams			1.0	20	40	13	27	10		
						0.5					6		
5			SAND, reddish brown, medium dense										
						26							
						25							
10													
						28							

LOG OF BORING NO. B-10

PLATE A.13

LOG OF BORING 117-14-173.GPJ CMJ.GDT 3/3/14

CMJ ENGINEERING INC.

Project No.	Boring No.	Project
117-14-173	B-11	24-Inch Water Line Business SH 121 - Lewisville, Texas

Location	Water Observations
See Plate A.1	Seepage at 11' during drilling; water at 11' at completion

Completion Depth	Completion Date	Surface Elevation	Type
12.0'	2-4-14		CME-55, w/ CFA

Depth, Ft.	Symbol	Samples	Stratum Description	REC %	RQD %	Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Unit Dry Wt. Lbs./Cu. Ft.	Unconfined Compression Pounds/Sq. Ft.
			ASPHALT, 4 inches thick										
			SANDY CLAY, reddish brown, w/ ironstones, stiff to hard			2.0					10		
						3.5					7		
						4.5+					14	101	6460
5						4.5+		33	13	20	14		
						4.5+					14		
			CLAYEY SAND, tan, w/ occasional clay seams										
						1.0					17	113	1210
10													
						0.5	15	24	13	11	17		

LOG OF BORING NO. B-11

PLATE A.14

CMJ ENGINEERING INC.

Project No.	Boring No.	Project
117-14-173	B-12	24-Inch Water Line Business SH 121 - Lewisville, Texas

Location	Water Observations
See Plate A.1	Dry during drilling; dry at completion

Completion Depth	Completion Date	Surface Elevation	Type
12.0'	2-4-14		CME-55, w/ CFA

Depth, Ft.	Symbol	Samples	Stratum Description	REC %	RQD %	Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Unit Dry Wt. Lbs./Cu. Ft.	Unconfined Compression Pounds/Sq. Ft.
			ASPHALT, 4 inches thick										
			GRAVEL, 9 inches thick			4.0					14		
			SILTY CLAY / CLAY, brown to dark brown, stiff to very stiff			3.5					20		
						3.25					21		
						2.75					23		
5													
						2.0					23	103	2280
			SANDY CLAY / CLAYEY SAND, brown and light brown, w/ occasional gravel, stiff to very stiff			3.0	54	35	17	18	19		
10													
			CLAYEY SAND, brown			0.5					14		

LOG OF BORING NO. B-12

PLATE A.15

LOG OF BORING 117-14-173.GPJ CMJ.GDT 3/3/14

CMJ ENGINEERING INC.

Project No.	Boring No.	Project
117-14-173	B-13	24-Inch Water Line Business SH 121 - Lewisville, Texas

Location	Water Observations
See Plate A.1	Dry during drilling; dry at completion

Completion Depth	Completion Date	Surface Elevation	Type
12.0'	1-19-14		B-24, w/ CFA

Depth, Ft.	Symbol	Samples	Stratum Description	REC %	RQD %	Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Unit Dry Wt. Lbs./Cu. Ft.	Unconfined Compression Pounds/Sq. Ft.
			ASPHALT, 4 inches thick			4.5+					9		
			SANDY CLAY, brown, w/ gravel, stiff to hard (FILL)			2.75					7		
						4.0					10		
			SILTY CLAY, brown to dark brown, hard			4.5+					25		
						4.5+					22		
5													
			CLAY, brown, light brown, and gray, stiff to hard			3.0		60	22	38	26		
						2.0					27		
10													
						4.5+					20		

LOG OF BORING NO. B-13

PLATE A.16

LOG OF BORING 117-14-173.GPJ CMJ.GDT 3/3/14

CMJ ENGINEERING INC.

Project No.	Boring No.	Project
117-14-173	B-14	24-Inch Water Line Business SH 121 - Lewisville, Texas

Location	Water Observations
See Plate A.1	Seepage at 4'; dry at completion

Completion Depth	Completion Date	Surface Elevation	Type
12.0'	1-19-14		B-24, w/ CFA

Depth, Ft.	Symbol	Samples	Stratum Description	REC %	RQD %	Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Unit Dry Wt. Lbs./Cu. Ft.	Unconfined Compression Pounds/Sq. Ft.
			ASPHALT, 4 inches thick								8		
			SANDY CLAY, brown, w/ gravel and asphalt fragments, hard (FILL)			4.5+					9		
											10		
			CLAYEY SAND, brown and dark brown, w/ sand seams			4.0					12		
5						2.75	30	23	14	9	11		
			SILTY CLAY, dark brown, w/ ironstone nodules, very stiff			3.5					24		
			CLAY, light brown, w/ calcareous nodules and crystal deposits, stiff			2.5					30	96	3460
10						2.75					32		

LOG OF BORING 117-14-173.GPJ CMJ.GDT 3/3/14

LOG OF BORING NO. B-14

PLATE A.17

CMJ ENGINEERING INC.

Project No.	Boring No.	Project
117-14-173	B-15	24-Inch Water Line Business SH 121 - Lewisville, Texas

Location	Water Observations
See Plate A.1	Dry during drilling; dry at completion

Completion Depth	Completion Date	Surface Elevation	Type
12.0'	1-19-14		B-24, w/ CFA

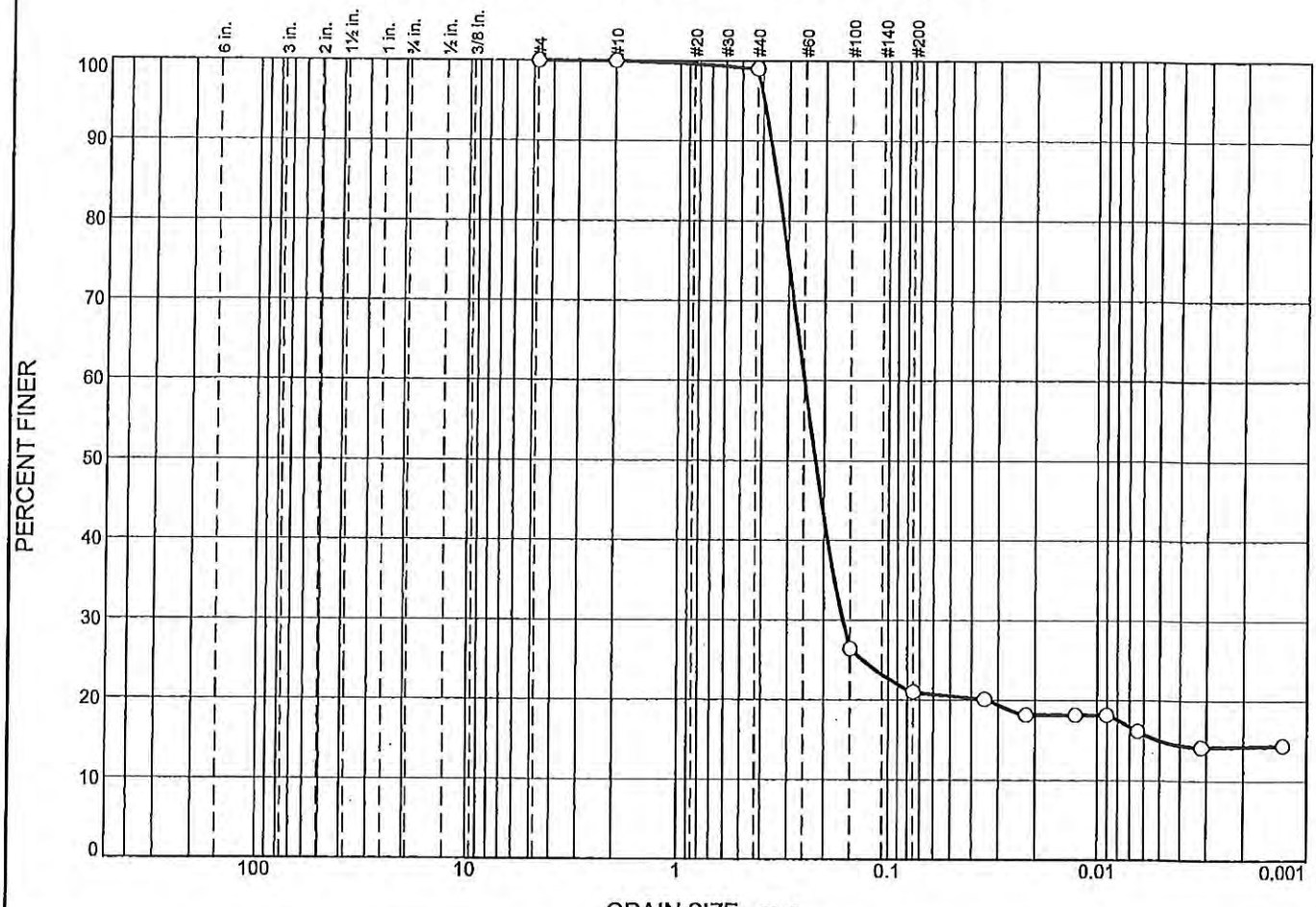
Depth, Ft.	Symbol	Samples	Stratum Description	REC %	RQD %	Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Unit Dry Wt. Lbs./Cu. Ft.	Unconfined Compression Pounds/Sq. Ft.
			ASPHALT, 4 inches thick								7		
			SANDY CLAY, brown, w/ gravel (FILL)			2.0					11		
			CLAY / SILTY CLAY, dark brown and brown, w/ calcareous nodules, stiff			2.5					30		
						1.5					31		
			CLAY, brown and gray, w/ iron seams, calcareous nodules, and crystal deposits, stiff			2.25					32		
5													
			SHALY CLAY, brown and gray, w/ iron seams and crystal deposits, stiff to very stiff			2.75					31	93	1910
						3.5		78	25	53	30		
10													
						3.0					26		

LOG OF BORING NO. B-15

PLATE A.18

LOG OF BORING 117-14-173.GPJ CMJ.GDT 3/3/14

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
O	0.0	0.0	0.0	0.0	1.0	78.0	6.0	15.0

X	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
O			0.3419	0.2496	0.2201	0.1624	0.0050			

	Material Description	USCS	AASHTO
O			

Project No. 117-14-173 **Client:** Halff Associates, Inc.
Project: 24-Inch Water Line - Bus. SH 121 - Lewisville

O **Location:** B-3 **Depth:** 8.5-10

Remarks:

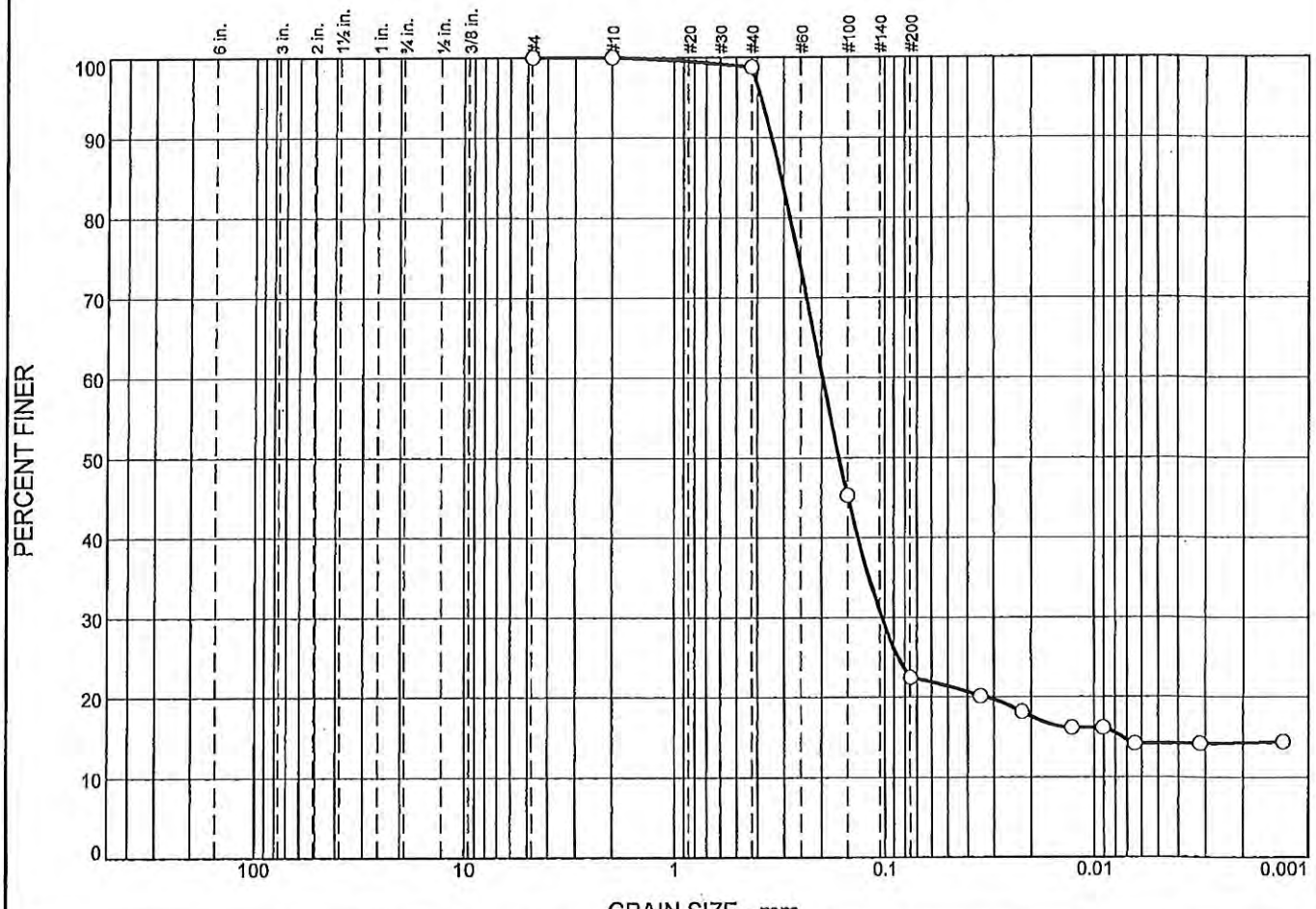
CMJ ENGINEERING, INC.

Fort Worth, Texas

Tested By: AM

PLATE A.19

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	1.2	76.3	8.3	14.2

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.3085	0.1971	0.1644	0.1031	0.0073			

	Material Description	USCS	AASHTO
○			

Project No. 117-14-173 **Client:** Halff Associates, Inc.
Project: 24-Inch Water Line - Bus. SH 121 - Lewisville

○ **Depth:** 4-5 **Sample Number:** B-4

Remarks:

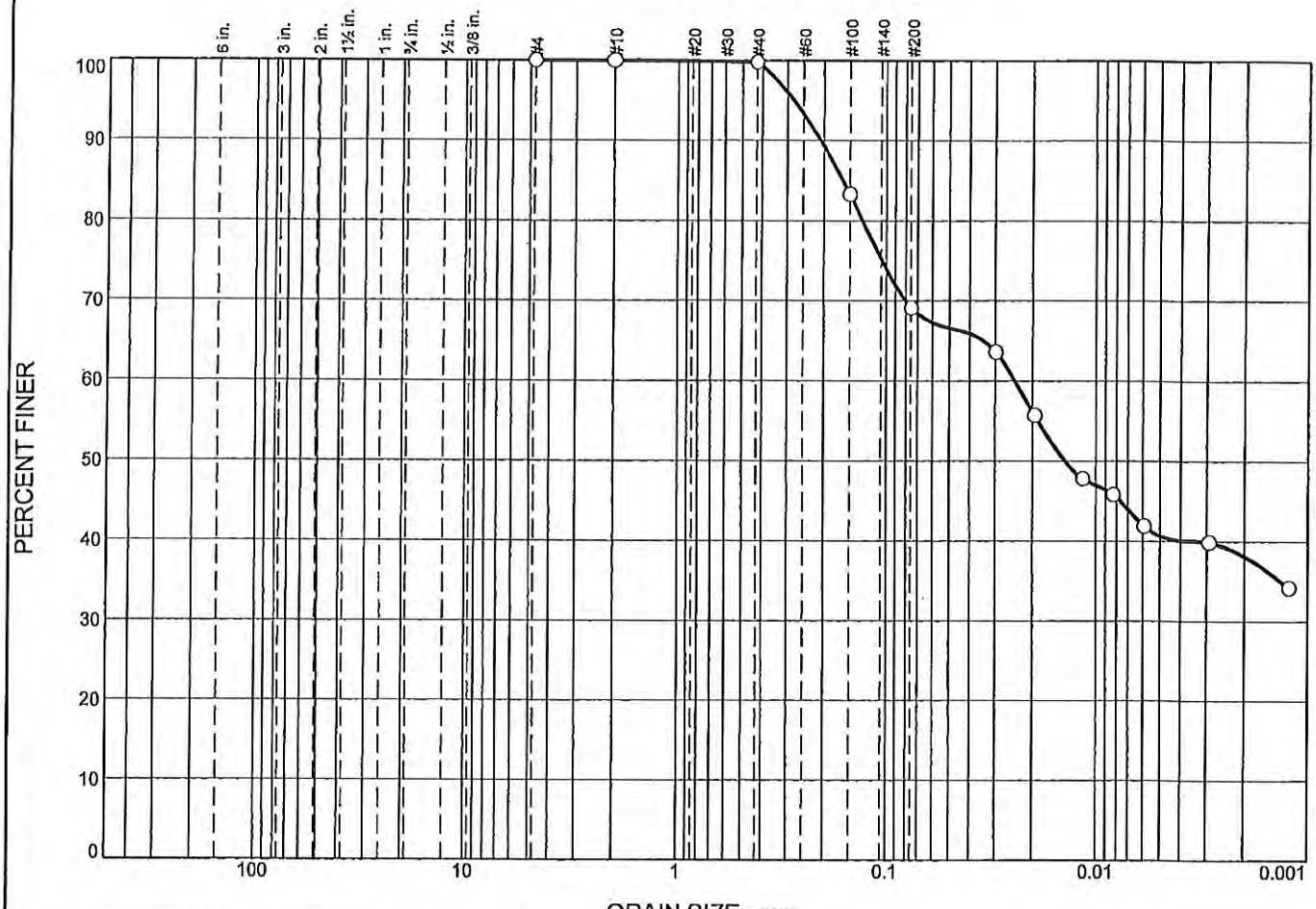
CMJ ENGINEERING, INC.

Fort Worth, Texas

Tested By: AM

PLATE A.20

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
O	0.0	0.0	0.0	0.0	0.2	30.7	28.4	40.7

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
O	37	13	0.1619	0.0240	0.0141					

	Material Description	USCS	AASHTO
O			

Project No. 117-14-173 **Client:** Halff Associates, Inc.
Project: 24-Inch Water Line - Bus. SH 121 - Lewisville

O **Location:** B-5 **Depth:** 24-25

Remarks:

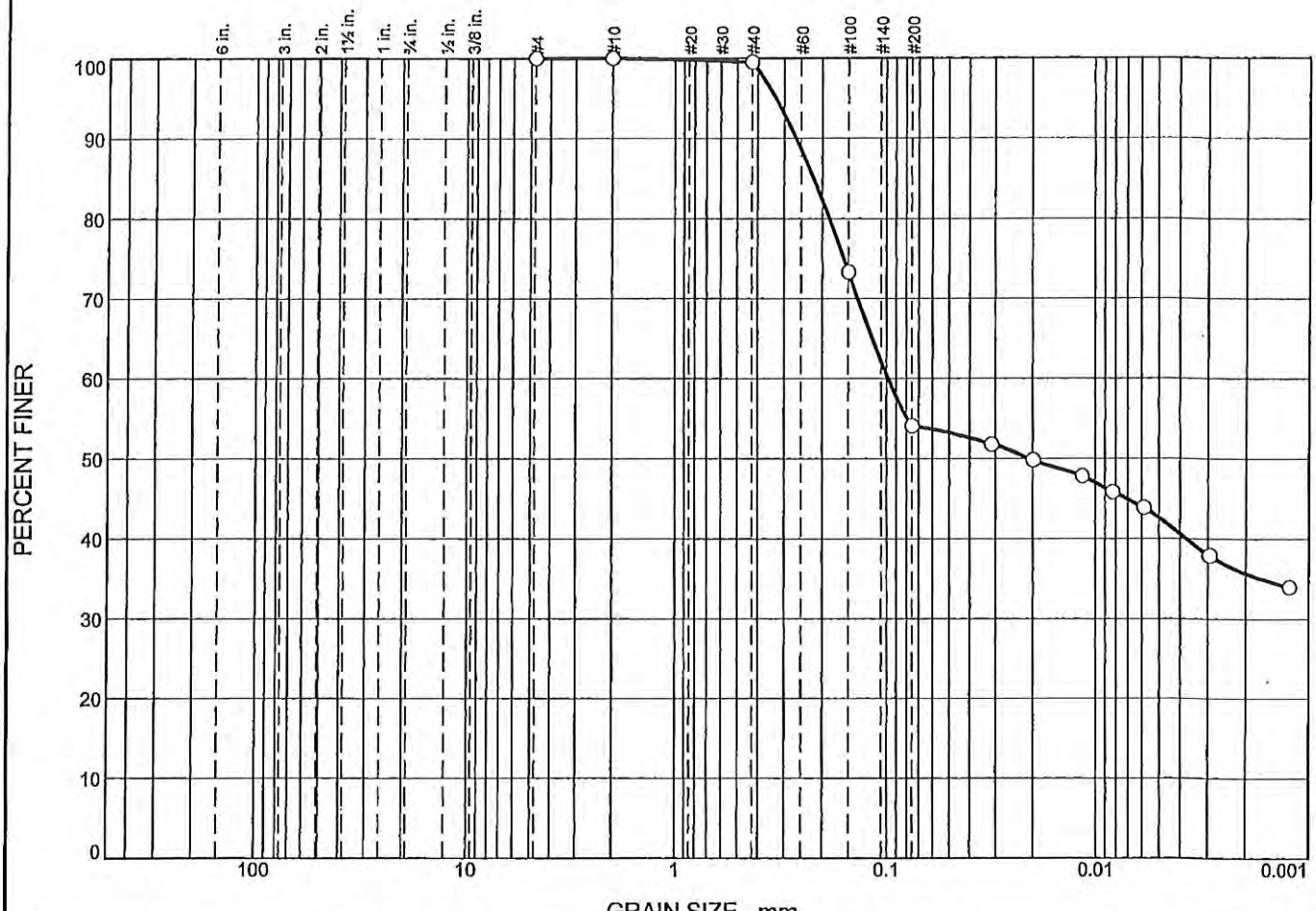
CMJ ENGINEERING, INC.

Fort Worth, Texas

Tested By: AM

PLATE A.21

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
o	0.0	0.0	0.0	0.0	0.5	45.4	11.5	42.6

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
o	32	14	0.2191	0.0981	0.0208					

	Material Description	USCS	AASHTO
o			

Project No. 117-14-173 **Client:** Halff Associates, Inc.
Project: 24-Inch Water Line - Bus. SH 121 - Lewisville

o **Location:** B-6 **Depth:** 29-30

Remarks:

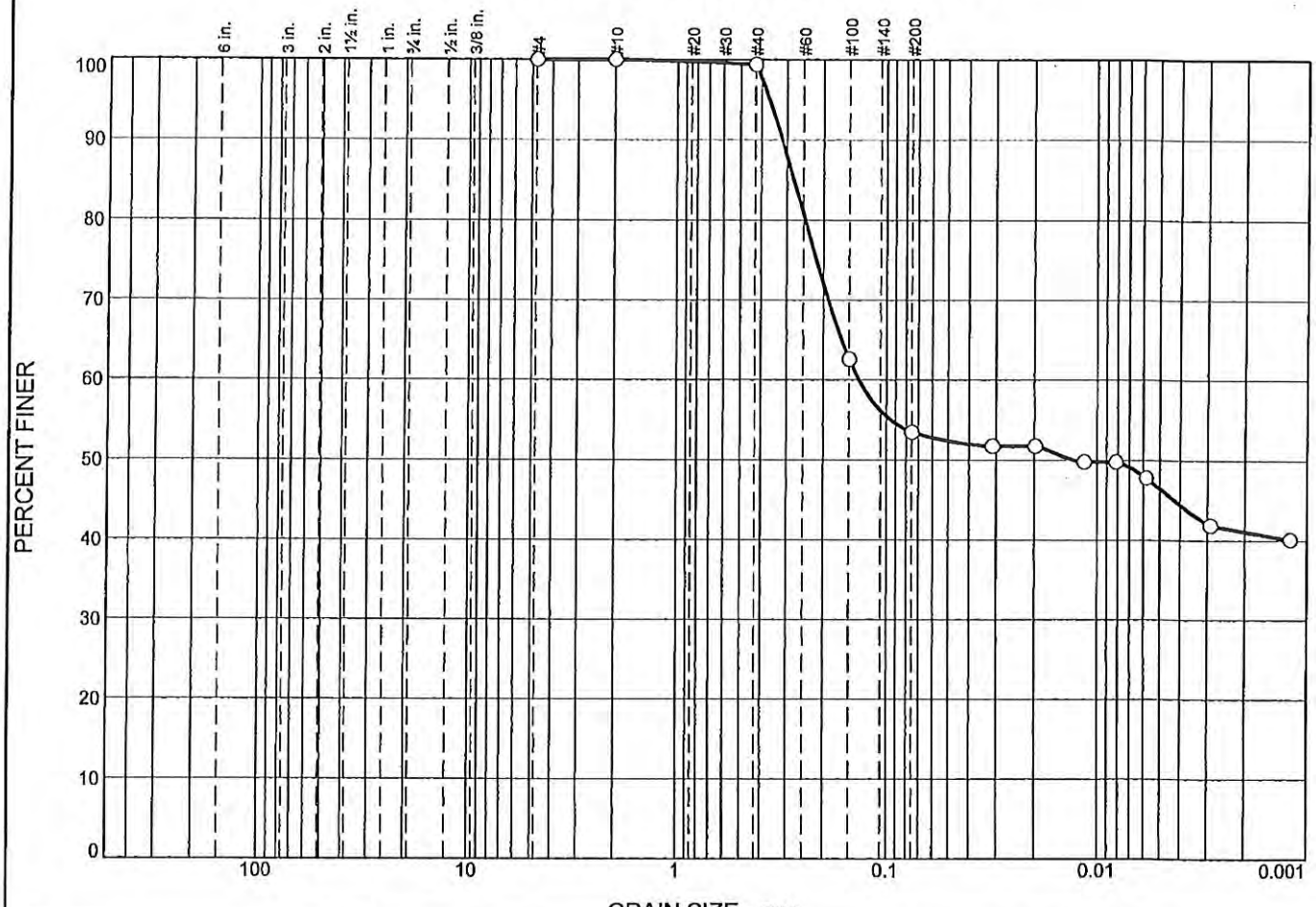
CMJ ENGINEERING, INC.

Fort Worth, Texas

Tested By: AM

PLATE A.22

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	0.6	45.9	7.0	46.5

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	35	17	0.2778	0.1344	0.0127					

	Material Description	USCS	AASHTO
○			

Project No. 117-14-173 **Client:** Halff Associates, Inc.
Project: 24-Inch Water Line - Bus. SH 121 - Lewisville

○ **Location:** B-12 **Depth:** 9-10

Remarks:

CMJ ENGINEERING, INC.

Fort Worth, Texas

Tested By: AM

PLATE A.23

TRACT NO. _____

NOTICE OF CONFIDENTIALITY RIGHTS. IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM THIS INSTRUMENT BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

WATER LINE EASEMENT AGREEMENT

STATE OF TEXAS §
§ **KNOW ALL MEN BY THESE PRESENTS:**
COUNTY OF DENTON §

This Easement Agreement (the "Agreement"), dated the 10th day of July, 2017 (the "Effective Date"), is between **LEWISVILLE LANDFILL TX, LP**, a Delaware limited partnership ("Grantor"), and **CITY OF LEWISVILLE, TEXAS OF THE COUNTY OF DENTON, STATE OF TEXAS**, a municipal corporation ("Grantee"). For the consideration of $10.00 and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor does hereby GRANT, BARGAIN, SELL and CONVEY unto Grantee a non-exclusive variable width easement (the "Easement") to construct, operate and maintain one underground waterline, not to exceed 36 inches in nominal pipe diameter (the "Facilities"), and any appurtenant facilities in, over, through, across, under, and along land owned by the Grantor, which land is more particularly described on Exhibit "A" (the "Easement Area").

It is further agreed as follows:

1. Grantee shall have the right to select the exact location of the Facilities within the Easement Area. Grantee shall also have the right of ingress, egress, entry and access in, to, through, on, over, under, and across the Easement Area for any and all purposes necessary and/or incident to the exercise by the Grantee of the rights granted to it by this Agreement.

2. Grantee will, insofar as reasonably practicable, restore the ground disturbed by the Grantee's use of the Easement Area. Grantee shall leave the surface as nearly as reasonably

possible as it was prior to the construction of the Facilities and will restore all fences as nearly as possible to as good, or better, condition as they were prior to the construction of the Facilities.

3. Except as otherwise set forth herein, Grantor may use the Easement Area for any and all purposes not inconsistent with the purposes set forth in this Agreement. Grantee acknowledges that, notwithstanding anything to the contrary set forth in this Agreement, Grantor shall have the right to construct and maintain an access road along the surface grade of the Easement Area (the "Access Road"), which Access Road will be used by trucks, vehicles, heavy equipment, containers and other property of Grantor. Grantee therefore agrees, except as otherwise approved by Grantor in writing, to locate all of its Facilities at a depth of at least 4 feet below the surface grade of the Easement Area, which depth Grantee agrees is sufficient to prevent damage to the Facilities resulting from the construction and maintenance of the Access Road and use thereof by Grantor. Grantee shall provide Grantor with reasonable prior notice of any work to be conducted in, on or under the Easement Area and Access Road and shall conduct all such activities in such areas in a manner consistent with the reasonable requirements of Grantor and so as to minimize any interference with Grantor's use thereof. Grantee also acknowledges that Grantor shall have the right to construct and maintain passive trench vents for monitoring purposes within the Easement Area at locations near where the Facilities cross the property line, as required by the Texas Commission on Environmental Quality.

4. Grantee acknowledges that the Access Road serves as an emergency access road for Grantor's landfill, as required by the Texas Commission on Environmental Quality. During and after Grantee's installation of the Facilities, Grantee shall endeavor never to block the Access Road in such a way that emergency vehicles cannot use the Access Road as an emergency entrance to the landfill. In the event that Grantee must temporarily block the Access Road for any period of time during which emergency access to the landfill via the Access Road is needed while Grantee has personnel present at the Easement Area, Grantee shall cause its personnel to work with Grantor and/or emergency personnel to provide emergency access to the landfill via Valley Ridge Boulevard by assisting with the removal of a panel from the landfill fence located at the southwest corner of Grantor's property in the area labeled "Emergency Access Panel", shown on the attached Exhibit "A".

In the event Grantee's access to the Easement Area is through Grantor's property, Grantor shall provide access to Grantee to the property for any and all purposes necessary and/or incident to the exercise by the Grantee of the rights granted to it by this Agreement. Grantee shall provide reasonable prior notice of any access by Grantee (except in the case of an emergency, then only such notice as is reasonable under the circumstances), and Grantee shall use its best efforts to prevent unauthorized access to Grantor's property.

5. Grantee has the right to trim or cut down or eliminate trees or shrubbery in the Easement Area, in the reasonable judgment of Grantee and its successors, as may be necessary to prevent possible interference with the operation of the Facilities and to remove possible hazard thereto. All trees, brush and other debris caused by or result from construction or Grantee's activities hereunder shall be removed, or if vegetative debris, chipped and spread on the Easement Area.

6. All construction debris shall be cleaned up and removed from Grantor's lands upon completion of installation and construction of the Facilities.

7. Prior to Grantee or any employee, contractor, agent or invitee of Grantee (collectively, "Grantee Parties") accessing the Easement Area, Grantee shall provide to Grantor a certificate of insurance with the following minimum insurance:

<u>Workers' Compensation</u>

Coverage A	Statutory
Coverage B - Employers Liability	$500,000 each Bodily Injury by Accident $500,000 policy limit Bodily Injury by Disease $500,000 each occurrence Bodily Injury by Disease

Grantor recognizes that Grantee is self-insured for workers' compensation in compliance with Texas state law. Coverage is required if party employs individual on either a full or part-time basis to perform services.

<u>Automobile Liability</u>

Bodily Injury/Property Damage	$500,000 each Accident
Combined – Single Limit	Coverage is to apply to all owned, non-owned, hired and leased vehicles (including trailers)

<u>Commercial General Liability</u>

Bodily Injury/Property Damage	$500,000 each occurrence $1,000,000 general aggregate
Combined – Single Limit	$1,000,000 products/completed operations

The required coverages above may be provided in combination with excess or umbrella coverage in order to obtain required total liability limits.

Grantee shall require all of its contractors to maintain the above-referenced insurance, and Grantee shall provide Grantor a certificate of insurance from each such contractor naming Grantor, its parents, affiliates, and all of its subsidiaries as additional insureds.

All such insurance policies will be primary without the right of contribution from any other insurance coverage maintained by Grantor. Grantor and its affiliates shall be shown as an

additional insured as allowable by state law on all policies except the Workers' Compensation policy. The fact that insurance is obtained by Grantee shall not release or diminish the liability of Grantee.

All policies required of the Grantee's contractors herein shall be written by insurance carriers with a rating of A.M. Bests of at least "A- VI" or a Standard and Poors rating of A or better. Grantor recognizes that Grantee is a member of an intergovernmental risk pool which is not rated by A.M. Best's or Standard and Poors. Insurance certificates, including those required from contractors and subcontractors, and if required by Grantor the policy endorsement from the insurance carrier, evidencing the above requirements shall be furnished by Grantee to Grantor before commencing work and provide for not less than 30 days prior notice to a party of any cancellation or non-renewal of the policies. In addition, the following requirements apply:

(a) For any contractor, any liability policy shall also contain a cross liability/severability of interests provision assuring that the acts of one insured do not affect the applicability of coverage to another insured.

(b) All contractors of Grantee shall have the general, auto, and excess liability policies endorsed naming Grantor, its subsidiaries and affiliates as "ADDITIONAL INSUREDS", with a blanket "WAIVER OF SUBROGATION".

Insurance similar to that required for Grantee shall be required by Grantee of any Grantee Parties to cover their operations performed under this Agreement. Grantee acknowledges and accepts that it shall be held responsible for compliance by all Grantee Parties with these insurance requirements and any deficiency/non-compliance is the sole responsibility of Grantee and not Grantor.

8. GRANTEE SHALL, TO THE EXTENT ALLOWED FOR BY LAW, DEFEND, INDEMNITY, PROTECT AND HOLD HARMLESS GRANTOR, ITS PARENTS AND AFFILIATES, THEIR OFFICERS, SUCCESSORS, ASSIGNS, TRANSFEREES, EMPLOYEES, AGENTS, LESSEES, CONTRACTORS, SUBCONTRACTORS, AS WELL AS TRUSTEES, BENEFICIARIES, RELATIVES, PARTNERS, DIRECTORS AND RELATED OR AFFILIATED ENTITIES (COLLECTIVELY THE "INDEMNIFIED PARTIES") FROM AND AGAINST ANY AND ALL RISKS, LIABILITIES, LIENS, CLAIMS, DEMANDS, COSTS (INCLUDING BUT NOT LIMITED TO ATTORNEYS' FEES, ACCOUNTANT'S FEES, ENGINEER'S FEES, CONSULTANT'S FEES AND EXPERT'S FEES), EXPENSES, DAMAGES, LOSSES AND CAUSES OF ACTION FOR DAMAGES BECAUSE OF INJURY TO PERSONS (INCLUDING DEATH) AND INJURY OR DAMAGE TO OR LOSS OF ANY PROPERTY OR IMPROVEMENTS IN ANY WAY RESULTING FROM OR RELATED TO ANY GRANTEE PARTIES' ACTIVITIES ON THE EASEMENT AREA. THE INTENT OF THIS INDEMNITY PROVISION IS TO PROVIDE INDEMNITY FOR THE INDEMNIFIED PARTIES SO THAT NEITHER GRANTOR NOR ANY OF THE

INDEMNIFIED PARTIES SHALL BE LIABLE FOR ANY RISKS, LIABILITIES, CLAIMS, DEMANDS, COSTS, EXPENSES, DAMAGES, LOSSES, CAUSES OF ACTION OR SUITS FOR DAMAGES BECAUSE OF INJURY TO PERSONS OR PROPERTY TO THE EXTENT ARISING FROM OR CAUSED BY THE NEGLIGENCE, GROSS NEGLIGENCE, STRICT LIABILITY OR ANY OTHER ACTS OR OMISSIONS OF GRANTEE OR ANY OF THE GRANTEE PARTIES UPON THE EASEMENT AREA. NOTWITHSTANDING ANYTHING HEREIN TO THE CONTRARY, THIS INDEMNITY IS NOT INTENDED TO AND DOES NOT PROVIDE FOR INDEMNIFICATION ARISING FROM OR CAUSED BY ANY OF GRANTOR'S OR INDEMNIFIED PARTIES NEGLIGENCE OR WILLFUL MISCONDUCT.

GRANTEE SHALL ALSO, TO THE EXTENT ALLOWED FOR BY LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS GRANTOR AND THE INDEMNIFIED PARTIES FROM AND AGAINST ANY LOSS, LIABILITY, COST, EXPENSE OR CLAIM ARISING FROM THE IMPOSITION OR RECORDING OF A LIEN ARISING FROM AND/OR IN CONNECTION WITH OR RESULTING FROM GRANTEE'S OR ANY GRANTEE PARTIES' ACTIVITIES ON THE EASEMENT AREA, THE INCURRING OF COSTS OF REQUIRED REPAIRS, CLEAN-UP, OR DETOXIFICATION AND REMOVAL UNDER ANY HAZARDOUS MATERIAL LAW WHICH MAY RESULT FROM GRANTEE'S OR ANY GRANTEE PARTIES' ACTS OR OMISSIONS ON THE EASEMENT AREA. NEITHER GRANTEE NOR ANY GRANTEE PARTIES IS AN AGENT OR AN EMPLOYEE OF GRANTOR, AND GRANTOR SHALL HAVE NO RESPONSIBILITY TO INSPECT OR OVERSEE GRANTEE'S OR ANY GRANTEE PARTIES' ACTIVITIES OR OMISSIONS UPON THE EASEMENT AREA NOR TO CORRECT ANY POTENTIALLY HARMFUL, DANGEROUS OR DAMAGING CONDITIONS.

9. GRANTEE ACKNOWLEDGES AND AGREES THAT THE EASEMENT AREA AND EASEMENT ARE DELIVERED "AS IS" WITH ALL FAULTS AND DEFECTS, LATENT AND PATENT, AND GRANTEE ACKNOWLEDGES AND AGREES THAT GRANTOR HAS NOT MADE, DOES NOT MAKE AND SPECIFICALLY DISCLAIMS ANY REPRESENTATIONS, WARRANTIES, PROMISES, COVENANTS, AGREEMENTS, OR GUARANTIES OF ANY KIND OR CHARACTER WHATSOEVER, WHETHER EXPRESS OR IMPLIED, ORAL OR WRITTEN, PAST, PRESENT OR FUTURE, OF, AS TO, CONCERNING OR WITH RESPECT TO (A) THE NATURE, QUALITY OR CONDITION OF THE EASEMENT AREA OR EASEMENT, INCLUDING, WITHOUT LIMITATION, THE WATER, SOIL, AND GEOLOGY, OR THE PRESENCE OR ABSENCE OF ANY POLLUTANT, HAZARDOUS WASTE, GAS OR SUBSTANCE OR SOLID WASTE ON OR ABOUT THE EASEMENT AREA OR EASEMENT; (B) THE SUITABILITY OF THE EASEMENT AREA OR EASEMENT FOR ANY AND ALL ACTIVITIES AND USES WHICH

GRANTEE MAY INTEND TO CONDUCT THEREON, (C) THE COMPLIANCE OF OR BY THE EASEMENT AREA OR EASEMENT WITH ANY LAWS, RULES, ORDINANCES OR REGULATIONS OF ANY GOVERNMENTAL AUTHORITY OR BODY HAVING JURISDICTION INCLUDING WITHOUT LIMITATION, ALL APPLICABLE ZONING LAWS, (D) THE HABITABILITY, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE EASEMENT AREA OR EASEMENT, OR (E) ANY OTHER MATTER RELATED TO OR CONCERNING THE EASEMENT AREA OR EASEMENT. GRANTEE SHALL NOT SEEK RECOURSE AGAINST GRANTOR ON ACCOUNT OF ANY LOSS, COST OR EXPENSE SUFFERED OR INCURRED BY GRANTEE WITH REGARD TO ANY OF THE MATTER DESCRIBED IN CLAUSES (A) THROUGH (E) ABOVE AND HEREBY ASSUMES THE RISK OF ANY ADVERSE MATTERS RELATED TO THE MATTERS DESCRIBED IN CLAUSES (A) THROUGH (E) ABOVE. GRANTEE ACKNOWLEDGES THAT GRANTEE, HAVING BEEN GIVEN THE OPPORTUNITY TO INSPECT THE EASEMENT AREA AND EASEMENT, IS RELYING SOLELY ON ITS OWN INVESTIGATION THEREOF AND NOT ON ANY INFORMATION PROVIDED OR TO BE PROVIDED BY OR ON BEHALF OF GRANTOR OR ANY STATEMENT, REPRESENTATION OR OTHER ASSERTION MADE BY GRANTOR WITH RESPECT THERETO. GRANTEE FURTHER ACKNOWLEDGES THAT NO INDEPENDENT INVESTIGATION OR VERIFICATION HAS BEEN OR WILL BE MADE BY GRANTOR WITH RESPECT TO ANY INFORMATION SUPPLIED BY OR ON BEHALF OF GRANTOR, AND GRANTOR MAKES NO REPRESENTATION AS TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION, IT BEING INTENDED BY THE PARTIES THAT GRANTEE SHALL VERIFY THE ACCURACY AND COMPLETENESS OF SUCH INFORMATION ITSELF.

10. This Agreement may be executed in several counterparts, each of which shall be an original of this Agreement but all of which, taken together, shall constitute one and the same Agreement and be binding upon the parties who executed any counterpart, regardless of whether it is executed by all parties named herein.

This Agreement shall not be construed to create any joint venture or partnership between Grantor and Grantee, and no such relationship is intended by the parties.

11. This Agreement may be amended only by a writing signed by the party against whom such amendment is sought to be enforced.

12. All notices under this Agreement must be in writing in order to be effective. All notices shall be sent by certified mail, return receipt requested, or by overnight courier via a nationally recognized delivery service, or by messenger delivery, and in each case, addressed to the party at the following addresses (or to such change of address as shall have been theretofore received in a

notice from the party whose address has changed in accordance withthis Agreement):

If to Grantor:	Lewisville Landfill TX, LP 801 East College Street Lewisville, TX 75057 Attn: General Manager
With copy to:	Lewisville Landfill TX, LP 18500 N. Allied Way Phoenix, AZ 85054 Attn: General Counsel
If to Grantee:	City of Lewisville Attn: City Manager P.O. Box 299002 Lewisville, TX 75029
With a copy to:	City of Lewisville Attn: City Engineer P.O. Box 299002 Lewisville, TX 75029

All such notices sent by certified mail, return receipt requested, shall be deemed delivered on the earlier to occur of actual delivery, or three (3) business days after the deposit of such notices in the custody of the United States Postal Service. All such notices sent by overnight delivery via a nationally recognized courier service shall be deemed delivered on the next business day. All other notices shall be deemed delivered upon actual receipt.

13. This Agreement shall be governed by and construed in accordance with the laws of the state in which the Easement Area is located (excluding, however, such state's choice of law rules).

The parties have caused this Agreement to be executed as of the date first written above.

[Signatures appear on the pages following]

GRANTOR:

LEWISVILLE LANDFILL TX, LP, a Delaware limited partnership

By: ALLIED WASTE LANDFILL HOLDINGS, INC., a Delaware corporation, its General Partner

By: _____ 7/10/17
Name: Bryan Boyer
Title: Area President

GRANTEE:

CITY OF LEWISVILLE, TEXAS OF THE COUNTY OF DENTON, STATE OF TEXAS, a municipal corporation

By: _____ 6/26/17
Name: DAVID SALMON, P.E.
Title: City Engineer

GRANTOR ACKNOWLEDGEMENT

STATE OF Texas §
§
COUNTY OF Harris §

BEFORE ME, the undersigned authority, on this day personally appeared Bryan Boyer, known to me to be the Area President of Allied Waste Landfill Holdings, Inc., a Delaware corporation, the General Partner of Lewisville Landfill TX, LP, a Delaware limited partnership, and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this 10th day of July 2017.

Ana L. Gallardo
Notary Public in and for the State of Texas

Ana L. Gallardo
(Print Name of Notary Public Here)

ANA L. GALLARDO NOTARY PUBLIC STATE OF TEXAS EXPIRES NOVEMBER 1, 2020 NOTARY ID: 129160804

GRANTEE ACKNOWLEDGEMENT

STATE OF Texas §
§
COUNTY OF Denton §

BEFORE ME, the undersigned authority, on this day personally appeared David Salmon, known to me to be the City Engineer of the City of Lewisville, Texas of the County of Denton, State of Texas, a municipal corporation and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this 26th day of June 2017

Charla Reeves
Notary Public in and for the State of Texas

Charla Reeves
(Print Name of Notary Public Here)

CHARLA REEVES
Notary Public, State of Texas
My Commission Expires
November 21, 2017

Exhibit "A"

Description of Water Line Easement Area

TRACT NO. _____

NOTICE OF CONFIDENTIALITY RIGHTS. IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM THIS INSTRUMENT BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

WATER LINE AND SANITARY SEWER LINE EASEMENT AGREEMENT

STATE OF TEXAS §
§ **KNOW ALL MEN BY THESE PRESENTS:**
COUNTY OF DENTON §

This Easement Agreement (the "Agreement"), dated the 10th day of July, 2017 (the "Effective Date"), is between **LEWISVILLE LANDFILL TX, LP**, a Delaware limited partnership ("Grantor"), and **CITY OF LEWISVILLE, TEXAS OF THE COUNTY OF DENTON, STATE OF TEXAS**, a municipal corporation ("Grantee"). For the consideration of $10.00 and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor does hereby GRANT, BARGAIN, SELL and CONVEY unto Grantee a non-exclusive variable width easement (the "Easement") to construct, operate and maintain one underground water line, not to exceed 36 inches in nominal pipe diameter and one underground sewer line, not to exceed 36 inches in nominal pipe diameter (the "Facilities"), and any appurtenant facilities in, over, through, across, under, and along land owned by the Grantor, which land is more particularly described on Exhibit "A" (the "Easement Area").

It is further agreed as follows:

1. Grantee shall have the right to select the exact location of the Facilities within the Easement Area. Grantee shall also have the right of ingress, egress, entry and access in, to, through, on, over, under, and across the Easement Area for any and all purposes necessary and/or incident to the exercise by the Grantee of the rights granted to it by this Agreement.

2. Grantee will, insofar as reasonably practicable, restore the ground disturbed by the Grantee's

use of the Easement Area. Grantee shall leave the surface as nearly as reasonably possible as it was prior to the construction of the Facilities and will restore all fences as nearly as possible to as good, or better, condition as they were prior to the construction of the Facilities.

3. Except as otherwise set forth herein, Grantor may use the Easement Area for any and all purposes not inconsistent with the purposes set forth in this Agreement. Grantee acknowledges that, notwithstanding anything to the contrary set forth in this Agreement, Grantor shall have the right to construct and maintain an access road along the surface grade of the Easement Area (the "Access Road"), which Access Road will be used by trucks, vehicles, heavy equipment, containers and other property of Grantor. Grantee therefore agrees, except as otherwise approved by Grantor in writing, to locate all of its Facilities at a depth of at least 4 feet below the surface grade of the Easement Area, which depth Grantee agrees is sufficient to prevent damage to the Facilities resulting from the construction and maintenance of the Access Road and use thereof by Grantor. Grantee shall provide Grantor with reasonable prior notice of any work to be conducted in, on or under the Easement Area and Access Road and shall conduct all such activities in such areas in a manner consistent with the reasonable requirements of Grantor and so as to minimize any interference with Grantor's use thereof. Grantee also acknowledges that Grantor shall have the right to construct and maintain passive trench vents for monitoring purposes within the Easement Area at locations near where the Facilities cross the property line, as required by the Texas Commission on Environmental Quality.

4. Grantee acknowledges that the Access Road serves as an emergency access road for Grantor's landfill, as required by the Texas Commission on Environmental Quality. During and after Grantee's installation of the Facilities, Grantee shall endeavor never to block the Access Road in such a way that emergency vehicles cannot use the Access Road as an emergency entrance to the landfill. In the event that Grantee must temporarily block the Access Road for any period of time during which emergency access to the landfill via the Access Road is needed while Grantee has personnel present at the Easement Area, Grantee shall cause its personnel to work with Grantor and/or emergency personnel to provide emergency access to the landfill via Valley Ridge Boulevard by assisting with the removal of a panel from the landfill fence located at the southwest corner of Grantor's property in the area labeled "Emergency Access Panel", shown on the attached Exhibit "A".

In the event Grantee's access to the Easement Area is through Grantor's property, Grantor shall provide access to Grantee to the property for any and all purposes necessary and/or incident to the exercise by the Grantee of the rights granted to it by this Agreement. Grantee shall provide reasonable prior notice of any access by Grantee (except in the case of an emergency, then only such notice as is reasonable under the circumstances), and Grantee shall use its best efforts to prevent unauthorized access to Grantor's property.

5. Grantee has the right to trim or cut down or eliminate trees or shrubbery in the Easement Area, in the reasonable judgment of Grantee and its successors, as may be necessary to prevent possible interference with the operation of the Facilities and to remove possible hazard thereto. All trees, brush and other debris caused by or result from construction or Grantee's activities hereunder shall be removed, or if vegetative debris, chipped and spread on the Easement Area.

6. All construction debris shall be cleaned up and removed from Grantor's lands upon completion of installation and construction of the Facilities.

7. Prior to Grantee or any employee, contractor, agent or invitee of Grantee (collectively, "Grantee Parties") accessing the Easement Area, Grantee shall provide to Grantor a certificate of insurance with the following minimum insurance:

<u>Workers' Compensation</u>

Coverage A	Statutory
Coverage B - Employers Liability	$500,000 each Bodily Injury by Accident $500,000 policy limit Bodily Injury by Disease $500,000 each occurrence Bodily Injury by Disease

Grantor recognizes that Grantee is self-insured for workers' compensation in compliance with Texas state law. Coverage is required if party employs individual on either a full or part-time basis to perform services.

<u>Automobile Liability</u>

Bodily Injury/Property Damage	$500,000 each Accident
Combined – Single Limit	Coverage is to apply to all owned, non-owned, hired and leased vehicles (including trailers)

<u>Commercial General Liability</u>

Bodily Injury/Property Damage	$500,000 each occurrence $1,000,000 general aggregate
Combined – Single Limit	$1,000,000 products/completed operations

The required coverages above may be provided in combination with excess or umbrella coverage in order to obtain required total liability limits.

Grantee shall require all of its contractors to maintain the above-referenced insurance, and Grantee shall provide Grantor a certificate of insurance from each such contractor naming Grantor, its parents, affiliates, and all of its subsidiaries as additional insureds.

All such insurance policies will be primary without the right of contribution from any other insurance coverage maintained by Grantor. Grantor and its affiliates shall be shown as an

additional insured as allowable by state law on all policies except the Workers' Compensation policy. The fact that insurance is obtained by Grantee shall not release or diminish the liability of Grantee.

All policies required of the Grantee's contractors herein shall be written by insurance carriers with a rating of A.M. Bests of at least "A- VI" or a Standard and Poors rating of A or better. Grantor recognizes that Grantee is a member of an intergovernmental risk pool which is not rated by A.M. Best's or Standard and Poors. Insurance certificates, including those required from contractors and subcontractors, and if required by Grantor the policy endorsement from the insurance carrier, evidencing the above requirements shall be furnished by Grantee to Grantor before commencing work and provide for not less than 30 days prior notice to a party of any cancellation or non-renewal of the policies. In addition, the following requirements apply:

(a) For any contractor, any liability policy shall also contain a cross liability/severability of interests provision assuring that the acts of one insured do not affect the applicability of coverage to another insured.

(b) All contractors of Grantee shall have the general, auto, and excess liability policies endorsed naming Grantor, its subsidiaries and affiliates as "ADDITIONAL INSUREDS", with a blanket "WAIVER OF SUBROGATION".

Insurance similar to that required for Grantee shall be required by Grantee of any Grantee Parties to cover their operations performed under this Agreement. Grantee acknowledges and accepts that it shall be held responsible for compliance by all Grantee Parties with these insurance requirements and any deficiency/non-compliance is the sole responsibility of Grantee and not Grantor.

8. GRANTEE SHALL, TO THE EXTENT ALLOWED FOR BY LAW, DEFEND, INDEMNITY, PROTECT AND HOLD HARMLESS GRANTOR, ITS PARENTS AND AFFILIATES, THEIR OFFICERS, SUCCESSORS, ASSIGNS, TRANSFEREES, EMPLOYEES, AGENTS, LESSEES, CONTRACTORS, SUBCONTRACTORS, AS WELL AS TRUSTEES, BENEFICIARIES, RELATIVES, PARTNERS, DIRECTORS AND RELATED OR AFFILIATED ENTITIES (COLLECTIVELY THE "INDEMNIFIED PARTIES") FROM AND AGAINST ANY AND ALL RISKS, LIABILITIES, LIENS, CLAIMS, DEMANDS, COSTS (INCLUDING BUT NOT LIMITED TO ATTORNEYS' FEES, ACCOUNTANT'S FEES, ENGINEER'S FEES, CONSULTANT'S FEES AND EXPERT'S FEES), EXPENSES, DAMAGES, LOSSES AND CAUSES OF ACTION FOR DAMAGES BECAUSE OF INJURY TO PERSONS (INCLUDING DEATH) AND INJURY OR DAMAGE TO OR LOSS OF ANY PROPERTY OR IMPROVEMENTS IN ANY WAY RESULTING FROM OR RELATED TO ANY GRANTEE PARTIES' ACTIVITIES ON THE EASEMENT AREA. THE INTENT OF THIS INDEMNITY PROVISION IS TO PROVIDE INDEMNITY FOR THE INDEMNIFIED PARTIES SO THAT NEITHER GRANTOR NOR ANY OF THE INDEMNIFIED PARTIES SHALL BE LIABLE FOR ANY RISKS, LIABILITIES, CLAIMS, DEMANDS, COSTS,

EXPENSES, DAMAGES, LOSSES, CAUSES OF ACTION OR SUITS FOR DAMAGES BECAUSE OF INJURY TO PERSONS OR PROPERTY TO THE EXTENT ARISING FROM OR CAUSED BY THE NEGLIGENCE, GROSS NEGLIGENCE, STRICT LIABILITY OR ANY OTHER ACTS OR OMISSIONS OF GRANTEE OR ANY OF THE GRANTEE PARTIES UPON THE EASEMENT AREA. NOTWITHSTANDING ANYTHING HEREIN TO THE CONTRARY, THIS INDEMNITY IS NOT INTENDED TO AND DOES NOT PROVIDE FOR INDEMNIFICATION ARISING FROM OR CAUSED BY ANY OF GRANTOR'S OR INDEMNIFIED PARTIES NEGLIGENCE OR WILLFUL MISCONDUCT.

GRANTEE SHALL ALSO, TO THE EXTENT ALLOWED FOR BY LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS GRANTOR AND THE INDEMNIFIED PARTIES FROM AND AGAINST ANY LOSS, LIABILITY, COST, EXPENSE OR CLAIM ARISING FROM THE IMPOSITION OR RECORDING OF A LIEN ARISING FROM AND/OR IN CONNECTION WITH OR RESULTING FROM GRANTEE'S OR ANY GRANTEE PARTIES' ACTIVITIES ON THE EASEMENT AREA, THE INCURRING OF COSTS OF REQUIRED REPAIRS, CLEAN-UP, OR DETOXIFICATION AND REMOVAL UNDER ANY HAZARDOUS MATERIAL LAW WHICH MAY RESULT FROM GRANTEE'S OR ANY GRANTEE PARTIES' ACTS OR OMISSIONS ON THE EASEMENT AREA. NEITHER GRANTEE NOR ANY GRANTEE PARTIES IS AN AGENT OR AN EMPLOYEE OF GRANTOR, AND GRANTOR SHALL HAVE NO RESPONSIBILITY TO INSPECT OR OVERSEE GRANTEE'S OR ANY GRANTEE PARTIES' ACTIVITIES OR OMISSIONS UPON THE EASEMENT AREA NOR TO CORRECT ANY POTENTIALLY HARMFUL, DANGEROUS OR DAMAGING CONDITIONS.

9. GRANTEE ACKNOWLEDGES AND AGREES THAT THE EASEMENT AREA AND EASEMENT ARE DELIVERED "AS IS" WITH ALL FAULTS AND DEFECTS, LATENT AND PATENT, AND GRANTEE ACKNOWLEDGES AND AGREES THAT GRANTOR HAS NOT MADE, DOES NOT MAKE AND SPECIFICALLY DISCLAIMS ANY REPRESENTATIONS, WARRANTIES, PROMISES, COVENANTS, AGREEMENTS, OR GUARANTIES OF ANY KIND OR CHARACTER WHATSOEVER, WHETHER EXPRESS OR IMPLIED, ORAL OR WRITTEN, PAST, PRESENT OR FUTURE, OF, AS TO, CONCERNING OR WITH RESPECT TO (A) THE NATURE, QUALITY OR CONDITION OF THE EASEMENT AREA OR EASEMENT, INCLUDING, WITHOUT LIMITATION, THE WATER, SOIL, AND GEOLOGY, OR THE PRESENCE OR ABSENCE OF ANY POLLUTANT, HAZARDOUS WASTE, GAS OR SUBSTANCE OR SOLID WASTE ON OR ABOUT THE EASEMENT AREA OR EASEMENT, (B) THE SUITABILITY OF THE EASEMENT AREA OR EASEMENT FOR ANY AND ALL ACTIVITIES AND USES WHICH GRANTEE MAY INTEND TO CONDUCT THEREON, (C) THE COMPLIANCE OF OR BY THE EASEMENT AREA OR EASEMENT

WITH ANY LAWS, RULES, ORDINANCES OR REGULATIONS OF ANY GOVERNMENTAL AUTHORITY OR BODY HAVING JURISDICTION INCLUDING WITHOUT LIMITATION, ALL APPLICABLE ZONING LAWS, (D) THE HABITABILITY, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE EASEMENT AREA OR EASEMENT, OR (E) ANY OTHER MATTER RELATED TO OR CONCERNING THE EASEMENT AREA OR EASEMENT. GRANTEE SHALL NOT SEEK RECOURSE AGAINST GRANTOR ON ACCOUNT OF ANY LOSS, COST OR EXPENSE SUFFERED OR INCURRED BY GRANTEE WITH REGARD TO ANY OF THE MATTER DESCRIBED IN CLAUSES (A) THROUGH (E) ABOVE AND HEREBY ASSUMES THE RISK OF ANY ADVERSE MATTERS RELATED TO THE MATTERS DESCRIBED IN CLAUSES (A) THROUGH (E) ABOVE. GRANTEE ACKNOWLEDGES THAT GRANTEE, HAVING BEEN GIVEN THE OPPORTUNITY TO INSPECT THE EASEMENT AREA AND EASEMENT, IS RELYING SOLELY ON ITS OWN INVESTIGATION THEREOF AND NOT ON ANY INFORMATION PROVIDED OR TO BE PROVIDED BY OR ON BEHALF OF GRANTOR OR ANY STATEMENT, REPRESENTATION OR OTHER ASSERTION MADE BY GRANTOR WITH RESPECT THERETO. GRANTEE FURTHER ACKNOWLEDGES THAT NO INDEPENDENT INVESTIGATION OR VERIFICATION HAS BEEN OR WILL BE MADE BY GRANTOR WITH RESPECT TO ANY INFORMATION SUPPLIED BY OR ON BEHALF OF GRANTOR, AND GRANTOR MAKES NO REPRESENTATION AS TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION, IT BEING INTENDED BY THE PARTIES THAT GRANTEE SHALL VERIFY THE ACCURACY AND COMPLETENESS OF SUCH INFORMATION ITSELF.

10. This Agreement may be executed in several counterparts, each of which shall be an original of this Agreement but all of which, taken together, shall constitute one and the same Agreement and be binding upon the parties who executed any counterpart, regardless of whether it is executed by all parties named herein.

This Agreement shall not be construed to create any joint venture or partnership between Grantor and Grantee, and no such relationship is intended by the parties.

11. This Agreement may be amended only by a writing signed by the party against whom such amendment is sought to be enforced.

12. All notices under this Agreement must be in writing in order to be effective. All notices shall be sent by certified mail, return receipt requested, or by overnight courier via a nationally recognized delivery service, or by messenger delivery, and in each case, addressed to the party at the following addresses (or to such change of address as shall have been theretofore received in a notice from the party whose address has changed in accordance with this Agreement):

If to Grantor:	Lewisville Landfill TX, LP 801 East College Street Lewisville, TX 75057 Attn: General Manager
With copy to:	Lewisville Landfill TX, LP 18500 N. Allied Way Phoenix, AZ 85054 Attn: General Counsel
If to Grantee:	City of Lewisville Attn: City Manager P.O. Box 299002 Lewisville, TX 75029
With a copy to:	City of Lewisville Attn: City Engineer P.O. Box 299002 Lewisville, TX 75029

All such notices sent by certified mail, return receipt requested, shall be deemed delivered on the earlier to occur of actual delivery, or three (3) business days after the deposit of such notices in the custody of the United States Postal Service. All such notices sent by overnight delivery via a nationally recognized courier service shall be deemed delivered on the next business day. All other notices shall be deemed delivered upon actual receipt.

13. This Agreement shall be governed by and construed in accordance with the laws of the state in which the Easement Area is located (excluding, however, such state's choice of law rules).

The parties have caused this Agreement to be executed as of the date first written above.

[Signatures appear on the pages following]

GRANTOR:

LEWISVILLE LANDFILL TX, LP, a Delaware limited partnership

By: ALLIED WASTE LANDFILL HOLDINGS, INC., a Delaware corporation, its General Partner

By: _____ 7/10/17
Name: Bryan Boyer
Title: Area President

GRANTEE:

CITY OF LEWISVILLE, TEXAS OF THE COUNTY OF DENTON, STATE OF TEXAS, a municipal corporation

By: _____ 6/26/17
Name: DAVID SALMON, P.E.
Title: City Engineer

GRANTOR ACKNOWLEDGEMENT

STATE OF Texas §
§
COUNTY OF Harris §

BEFORE ME, the undersigned authority, on this day personally appeared Bryan Boyer, known to me to be the Area President of Allied Waste Landfill Holdings, Inc., a Delaware corporation, the General Partner of Lewisville Landfill TX, LP, a Delaware limited partnership, and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this 10th day of July, 2017.

Ana L. Gallardo
Notary Public in and for the State of Texas

Ana L. Gallardo
(Print Name of Notary Public Here)

ANA L. GALLARDO NOTARY PUBLIC STATE OF TEXAS EXPIRES NOVEMBER 4, 2020 NOTARY ID: 125104664

GRANTEE ACKNOWLEDGEMENT

STATE OF Texas §
§
COUNTY OF Denton §

BEFORE ME, the undersigned authority, on this day personally appeared David Salmon, known to me to be the City Engineer of the City of Lewisville, Texas of the County of Denton, State of Texas, a municipal corporation and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this 26th day of June 2017.

Charla Reeves
Notary Public in and for the State of Texas

Charla Reeves
(Print Name of Notary Public Here)

CHARLA REEVES Notary Public, State of Texas My Commission Expires November 21, 2017

Exhibit "A"

Description of Water/Sewer Easement Area

TRACT NO. _____

NOTICE OF CONFIDENTIALITY RIGHTS. IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM THIS INSTRUMENT BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

TEMPORARY CONSTRUCTION EASEMENT AGREEMENT

STATE OF TEXAS §
§ **KNOW ALL MEN BY THESE PRESENTS:**
COUNTY OF DENTON §

This Easement Agreement (the "Agreement"), dated the 10th day of July, 2017 (the "Effective Date"), is between **LEWISVILLE LANDFILL TX, LP**, a Delaware limited partnership ("Grantor"), and **CITY OF LEWISVILLE, TEXAS OF THE COUNTY OF DENTON, STATE OF TEXAS**, a municipal corporation ("Grantee"). For the consideration of $10.00 and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor does hereby GRANT, BARGAIN, SELL and CONVEY unto Grantee a variable width non-exclusive temporary construction easement (the "Easement") adjacent to and contiguous with the side of the water line easement area as described in Exhibit "A" and the water/sewer easement area as described in Exhibit "B" for the purposes of providing access and staging area for, and actual construction of, the Water Line Facilities and the Sewer Line Facilities (the "Facilities") in, over, through, across, under, and along the property in the area described on Exhibit "C" (the "Easement Area"). The term of the Easement shall be for a period to extend 24 months from the start of construction on the Facilities. If Grantee is unable to complete construction of the Facilities within such 24-month period due to documented weather delays, Grantee may request from Grantor, in writing, an extension of the term of the Easement for a period not to exceed an additional 12 months (the "Extension Term"); provided, however, that in no event shall the Extension Term of the Easement extend beyond 36 months from the start of construction on the Facilities. If Grantee has completed construction of the Facilities prior to the 24-month period (or prior to the conclusion of the Extension Term, if extended), then the Easement shall terminate immediately upon completion of such construction. All rights, duties

and/or obligations arising by or under this Agreement shall only apply to the Easement while same is in effect.

It is further agreed as follows:

1. Grantee shall have the right of ingress, egress, entry and access in, to, through, on, over, under, and across the Easement Area for any and all purposes necessary and/or incident to the exercise by the Grantee of the rights granted to it by this Agreement.

2. Grantee will, insofar as reasonably practicable, restore the ground disturbed by the Grantee's use of the Easement Area. Grantee shall leave the surface as nearly as reasonably possible as it was prior to the construction of the Facilities and will restore all fences as nearly as possible to as good, or better, condition as they were prior to the construction of the Facilities.

3. Except as otherwise set forth herein, Grantor may use the Easement Area for any and all purposes not inconsistent with the purposes set forth in this Agreement. Grantee acknowledges that, notwithstanding anything to the contrary set forth in this Agreement, Grantor shall have the right to construct and maintain an access road along the surface grade of the Easement Area (the "Access Road"), which Access Road will be used by trucks, vehicles, heavy equipment, containers and other property of Grantor. Grantee shall provide Grantor with reasonable prior notice of any work to be conducted in, on or under the Easement Area and Access Road and shall conduct all such activities in such areas in a manner consistent with the reasonable requirements of Grantor and so as to minimize any interference with Grantor's use thereof.

4. Grantee acknowledges that the Access Road serves as an emergency access road for Grantor's landfill, as required by the Texas Commission on Environmental Quality. During the term of this Easement, Grantee shall endeavor never to block the Access Road in such a way that emergency vehicles cannot use the Access Road as an emergency entrance to the landfill. In the event that Grantee must temporarily block the Access Road for any period of time during which emergency access to the landfill via the Access Road is needed while Grantee has personnel present at the Easement Area, Grantee shall cause its personnel to work with Grantor and/or emergency personnel to provide emergency access to the landfill via Valley Ridge Boulevard by assisting with the removal of a panel from the landfill fence located at the southwest corner of Grantor's property in the area labeled "Emergency Access Panel", shown on the attached Exhibit "C".

In the event Grantee's access to the Easement Area is through Grantor's property, Grantor shall provide access to Grantee to the property for any and all purposes necessary and/or incident to the exercise by the Grantee of the rights granted to it by this Agreement. Grantee shall provide reasonable prior notice of any access by Grantee (except in the case of an emergency, then only such notice as is reasonable under the circumstances), and Grantee shall use its best efforts to

prevent unauthorized access to Grantor's property.

5. Grantee has the right to trim or cut down or eliminate trees or shrubbery in the Easement Area, in the reasonable judgment of Grantee and its successors, as may be necessary to prevent possible interference with the operation of the Facilities and to remove possible hazard thereto. All trees, brush and other debris caused by or result from construction or Grantee's activities hereunder shall be removed, or if vegetative debris, chipped and spread on the Easement Area.

6. All construction debris shall be cleaned up and removed from Grantor's lands upon completion of installation and construction of the Facilities.

7. Prior to Grantee or any employee, contractor, agent or invitee of Grantee (collectively, "Grantee Parties") accessing the Easement Area, Grantee shall provide to Grantor a certificate of insurance with the following minimum insurance:

Workers' Compensation	
Coverage A	Statutory
Coverage B - Employers Liability	$500,000 each Bodily Injury by Accident $500,000 policy limit Bodily Injury by Disease $500,000 each occurrence Bodily Injury by Disease

Grantor recognizes that Grantee is self-insured for workers' compensation in compliance with Texas state law. Coverage is required if party employs individual on either a full or part-time basis to perform services.

Automobile Liability	
Bodily Injury/Property Damage	$500,000 each Accident
Combined – Single Limit	Coverage is to apply to all owned, non-owned, hired and leased vehicles (including trailers)

Commercial General Liability	
Bodily Injury/Property Damage	$500,000 each occurrence $1,000,000 general aggregate
Combined – Single Limit	$1,000,000 products/completed operations

The required coverages above may be provided in combination with excess or umbrella coverage in order to obtain required total liability limits.

Grantee shall require all of its contractors to maintain the above-referenced insurance, and Grantee shall provide Grantor a certificate of insurance from each such contractor naming Grantor, its parents, affiliates, and all of its subsidiaries as additional insureds.

All such insurance policies will be primary without the right of contribution from any other

insurance coverage maintained by Grantor. Grantor and its affiliates shall be shown as an additional insured as allowable by state law on all policies except the Workers' Compensation policy. The fact that insurance is obtained by Grantee shall not release or diminish the liability of Grantee.

All policies required of the Grantee's contractors herein shall be written by insurance carriers with a rating of A.M. Bests of at least "A- VI" or a Standard and Poors rating of A or better. Grantor recognizes that Grantee is a member of an intergovernmental risk pool which is not rated by A.M. Best's or Standard and Poors. Insurance certificates, including those required from contractors and subcontractors, and if required by Grantor the policy endorsement from the insurance carrier, evidencing the above requirements shall be furnished by Grantee to Grantor before commencing work and provide for not less than 30 days prior notice to a party of any cancellation or non-renewal of the policies. In addition, the following requirements apply:

(a) For any contractor, any liability policy shall also contain a cross liability/severability of interests provision assuring that the acts of one insured do not affect the applicability of coverage to another insured.

(b) All contractors of Grantee shall have the general, auto, and excess liability policies endorsed naming Grantor, its subsidiaries and affiliates as "ADDITIONAL INSUREDS", with a blanket "WAIVER OF SUBROGATION".

Insurance similar to that required for Grantee shall be required by Grantee of any Grantee Parties to cover their operations performed under this Agreement. Grantee acknowledges and accepts that it shall be held responsible for compliance by all Grantee Parties with these insurance requirements and any deficiency/non-compliance is the sole responsibility of Grantee and not Grantor.

8. GRANTEE SHALL, TO THE EXTENT ALLOWED FOR BY LAW, DEFEND, INDEMNITY, PROTECT AND HOLD HARMLESS GRANTOR, ITS PARENTS AND AFFILIATES, THEIR OFFICERS, SUCCESSORS, ASSIGNS, TRANSFEREES, EMPLOYEES, AGENTS, LESSEES, CONTRACTORS, SUBCONTRACTORS, AS WELL AS TRUSTEES, BENEFICIARIES, RELATIVES, PARTNERS, DIRECTORS AND RELATED OR AFFILIATED ENTITIES (COLLECTIVELY THE "INDEMNIFIED PARTIES") FROM AND AGAINST ANY AND ALL RISKS, LIABILITIES, LIENS, CLAIMS, DEMANDS, COSTS (INCLUDING BUT NOT LIMITED TO ATTORNEYS' FEES, ACCOUNTANT'S FEES, ENGINEER'S FEES, CONSULTANT'S FEES AND EXPERT'S FEES), EXPENSES, DAMAGES, LOSSES AND CAUSES OF ACTION FOR DAMAGES BECAUSE OF INJURY TO PERSONS (INCLUDING DEATH) AND INJURY OR DAMAGE TO OR LOSS OF ANY PROPERTY OR IMPROVEMENTS IN ANY WAY RESULTING FROM OR RELATED TO ANY GRANTEE PARTIES' ACTIVITIES ON THE EASEMENT AREA. THE INTENT OF THIS INDEMNITY PROVISION IS TO PROVIDE INDEMNITY FOR THE INDEMNIFIED PARTIES SO THAT NEITHER GRANTOR NOR ANY OF THE INDEMNIFIED PARTIES

SHALL BE LIABLE FOR ANY RISKS, LIABILITIES, CLAIMS, DEMANDS, COSTS, EXPENSES, DAMAGES, LOSSES, CAUSES OF ACTION OR SUITS FOR DAMAGES BECAUSE OF INJURY TO PERSONS OR PROPERTY TO THE EXTENT ARISING FROM OR CAUSED BY THE NEGLIGENCE, GROSS NEGLIGENCE, STRICT LIABILITY OR ANY OTHER ACTS OR OMISSIONS OF GRANTEE OR ANY OF THE GRANTEE PARTIES UPON THE EASEMENT AREA. NOTWITHSTANDING ANYTHING HEREIN TO THE CONTRARY, THIS INDEMNITY IS NOT INTENDED TO AND DOES NOT PROVIDE FOR INDEMNIFICATION ARISING FROM OR CAUSED BY ANY OF GRANTOR'S OR INDEMNIFIED PARTIES NEGLIGENCE OR WILLFUL MISCONDUCT.

GRANTEE SHALL ALSO, TO THE EXTENT ALLOWED FOR BY LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS GRANTOR AND THE INDEMNIFIED PARTIES FROM AND AGAINST ANY LOSS, LIABILITY, COST, EXPENSE OR CLAIM ARISING FROM THE IMPOSITION OR RECORDING OF A LIEN ARISING FROM AND/OR IN CONNECTION WITH OR RESULTING FROM GRANTEE'S OR ANY GRANTEE PARTIES' ACTIVITIES ON THE EASEMENT AREA, THE INCURRING OF COSTS OF REQUIRED REPAIRS, CLEAN-UP, OR DETOXIFICATION AND REMOVAL UNDER ANY HAZARDOUS MATERIAL LAW WHICH MAY RESULT FROM GRANTEE'S OR ANY GRANTEE PARTIES' ACTS OR OMISSIONS ON THE EASEMENT AREA. NEITHER GRANTEE NOR ANY GRANTEE PARTIES IS AN AGENT OR AN EMPLOYEE OF GRANTOR, AND GRANTOR SHALL HAVE NO RESPONSIBILITY TO INSPECT OR OVERSEE GRANTEE'S OR ANY GRANTEE PARTIES' ACTIVITIES OR OMISSIONS UPON THE EASEMENT AREA NOR TO CORRECT ANY POTENTIALLY HARMFUL, DANGEROUS OR DAMAGING CONDITIONS.

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THEREON, (C) THE COMPLIANCE OF OR BY THE EASEMENT AREA OR EASEMENT WITH ANY LAWS, RULES, ORDINANCES OR REGULATIONS OF ANY GOVERNMENTAL AUTHORITY OR BODY HAVING JURISDICTION INCLUDING WITHOUT LIMITATION, ALL APPLICABLE ZONING LAWS, (D) THE HABITABILITY, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE EASEMENT AREA OR EASEMENT, OR (E) ANY OTHER MATTER RELATED TO OR CONCERNING THE EASEMENT AREA OR EASEMENT. GRANTEE SHALL NOT SEEK RECOURSE AGAINST GRANTOR ON ACCOUNT OF ANY LOSS, COST OR EXPENSE SUFFERED OR INCURRED BY GRANTEE WITH REGARD TO ANY OF THE MATTER DESCRIBED IN CLAUSES (A) THROUGH (E) ABOVE AND HEREBY ASSUMES THE RISK OF ANY ADVERSE MATTERS RELATED TO THE MATTERS DESCRIBED IN CLAUSES (A) THROUGH (E) ABOVE. GRANTEE ACKNOWLEDGES THAT GRANTEE, HAVING BEEN GIVEN THE OPPORTUNITY TO INSPECT THE EASEMENT AREA AND EASEMENT, IS RELYING SOLELY ON ITS OWN INVESTIGATION THEREOF AND NOT ON ANY INFORMATION PROVIDED OR TO BE PROVIDED BY OR ON BEHALF OF GRANTOR OR ANY STATEMENT, REPRESENTATION OR OTHER ASSERTION MADE BY GRANTOR WITH RESPECT THERETO. GRANTEE FURTHER ACKNOWLEDGES THAT NO INDEPENDENT INVESTIGATION OR VERIFICATION HAS BEEN OR WILL BE MADE BY GRANTOR WITH RESPECT TO ANY INFORMATION SUPPLIED BY OR ON BEHALF OF GRANTOR, AND GRANTOR MAKES NO REPRESENTATION AS TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION, IT BEING INTENDED BY THE PARTIES THAT GRANTEE SHALL VERIFY THE ACCURACY AND COMPLETENESS OF SUCH INFORMATION ITSELF.

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12. All notices under this Agreement must be in writing in order to be effective. All notices shall be sent by certified mail, return receipt requested, or by overnight courier via a nationally recognized delivery service, or by messenger delivery, and in each case, addressed to the party at the following addresses (or to such change of address as shall have been theretofore received in a notice from the party whose address has changed in accordance with this Agreement):

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With copy to:	Lewisville Landfill TX, LP 18500 N. Allied Way Phoenix, AZ 85054 Attn: General Counsel
If to Grantee:	City of Lewisville Attn: City Manager P.O. Box 299002 Lewisville, TX 75029
With a copy to:	City of Lewisville Attn: City Engineer P.O. Box 299002 Lewisville, TX 75029

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13. This Agreement shall be governed by and construed in accordance with the laws of the state in which the Easement Area is located (excluding, however, such state's choice of law rules).

The parties have caused this Agreement to be executed as of the date first written above.

[Signatures appear on the pages following]

GRANTOR:

LEWISVILLE LANDFILL TX, LP, a Delaware limited partnership

By: ALLIED WASTE LANDFILL HOLDINGS, INC., a Delaware corporation, its General Partner

By: _____ 7/10/17
Name: Bryan Boyer
Title: Area President

GRANTEE:

CITY OF LEWISVILLE, TEXAS OF THE COUNTY OF DENTON, STATE OF TEXAS, a municipal corporation

By: _____ 6/26/17
Name: DAVID SALMON, P.E.
Title: City Engineer

GRANTOR ACKNOWLEDGEMENT

STATE OF Texas §
§
COUNTY OF Harris §

BEFORE ME, the undersigned authority, on this day personally appeared Bryan Boyer, known to me to be the Area President of Allied Waste Landfill Holdings, Inc., a Delaware corporation, the General Partner of Lewisville Landfill TX, LP, a Delaware limited partnership, and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this 10th day of July, 2017.

Ana L. Gallardo
Notary Public in and for the State of Texas

Ana L. Gallardo
(Print Name of Notary Public Here)

ANA L. GALLARDO
NOTARY PUBLIC
STATE OF TEXAS
EXPIRES
NOVEMBER 1, 2020
NOTARY ID: 125160054

GRANTEE ACKNOWLEDGEMENT

STATE OF Texas §
§
COUNTY OF Denton §

BEFORE ME, the undersigned authority, on this day personally appeared David Salmon, known to me to be the City Engineer of the City of Lewisville, Texas of the County of Denton, State of Texas, a municipal corporation and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this 26th day of June 2017.

Charla Reeves
Notary Public in and for the State of Texas

Charla Reeves
(Print Name of Notary Public Here)

CHARLA REEVES
Notary Public, State of Texas
My Commission Expires
November 21, 2017

Exhibit "A"

Description of Water Line Easement Area

Exhibit "B"

Description of Water/Sewer Easement Area

Exhibit "C"

Description of Temporary Construction Easement Area

EXHIBIT "A"
LEWISVILLE LANDFILL TX, LP
WATER AND SANITARY SEWER LINE EASEMENT
PART 2

BEING a tract of land in the Vincent R. Sutton Survey, Abstract No. 1153 in the City of Lewisville, Denton County, Texas, being a part of that called 208.916 acre tract of land described in Special Warranty Deed to Lewisville Landfill TX, LP as recorded in Volume 5260, Page 614 in the Deed Records of Denton County, Texas, being a part of Lewisville Landfill Addition, Lot 1, Block A, as recorded in Cabinet V, Page 645 in the Plat Records of Denton County, Texas (P.R.D.C.T.), and being more particularly described as follows:

BEGINNING at a found nail in top of a fence post for a common ell corner of said Lot 1 and the northwest corner of Lot 1, Block A, Cajun Addition, Phase 1, an addition to the City of Lewisville, Denton County, Texas, as recorded in Cabinet N, Page 307 P.R.D.C.T.

THENCE South 02 degrees 47 minutes 47 seconds East, along the common line between said Lewisville Landfill Addition, Lot 1 and said Lot 1 Cajun Addition, a distance of 20.74 feet to a point for corner;

THENCE South 89 degrees 41 minutes 27 seconds West, departing said common line, a distance of 583.94 feet to a 1/2-inch set iron rod with blue plastic cap stamped "HALFF ESMT" (hereinafter referred to as "with blue cap") for corner;

THENCE North 67 degrees 48 minutes 33 seconds West, a distance of 26.13 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 89 degrees 41 minutes 27 seconds West, a distance of 75.03 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 67 degrees 11 minutes 27 seconds West, a distance of 26.13 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 89 degrees 41 minutes 27 seconds West, a distance of 459.50 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE North 01 degree 21 minutes 24 seconds West, a distance of 30.01 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE North 89 degrees 41 minutes 27 seconds East, a distance of 454.09 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE North 67 degrees 11 minutes 27 seconds East, a distance of 26.13 feet to a 1/2-inch set iron rod with blue cap for corner;

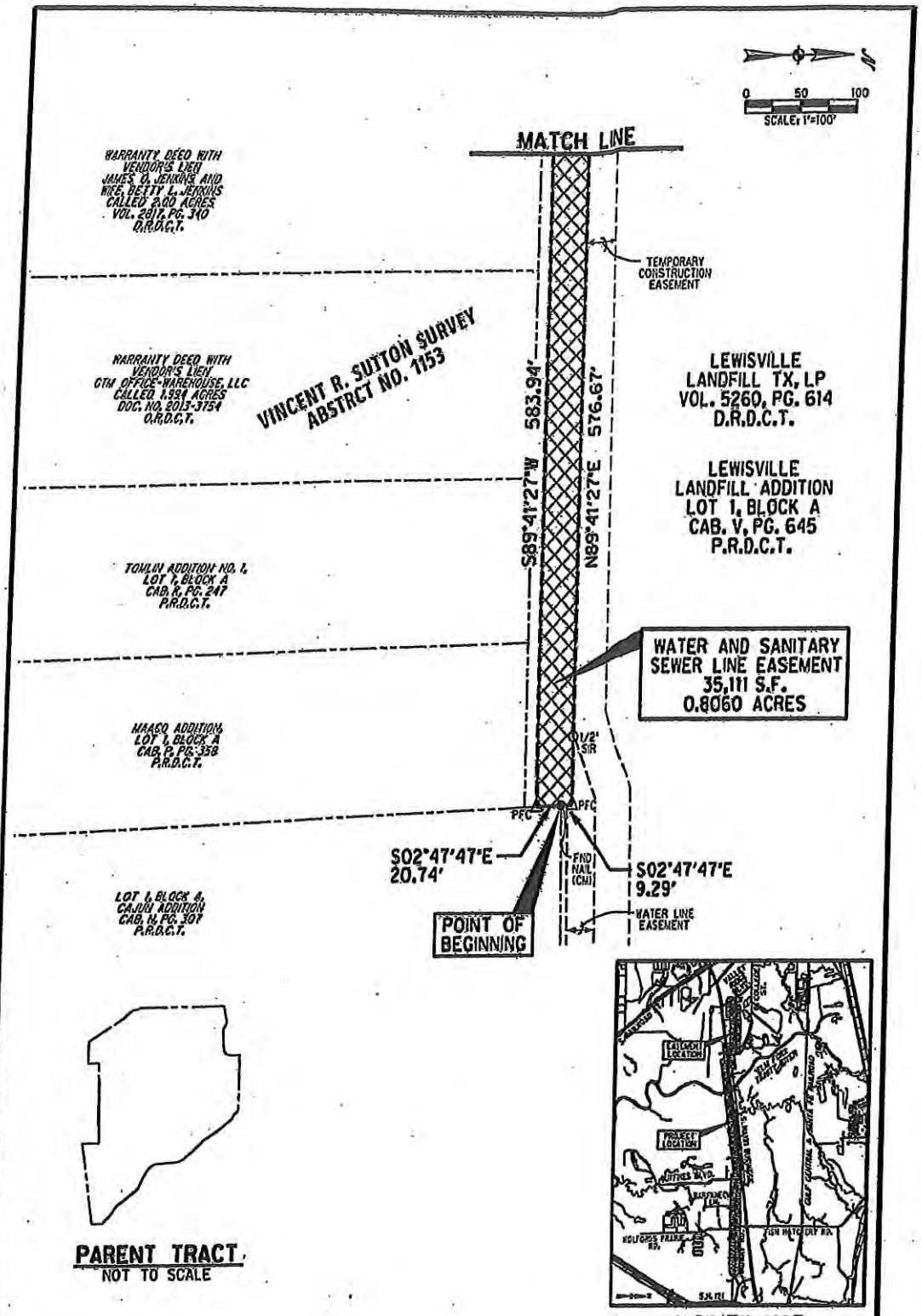
THENCE North 89 degrees 41 minutes 27 seconds East, a distance of 86.96 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 67 degrees 48 minutes 33 seconds East, a distance of 26.13 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE North 89 degrees 41 minutes 27 seconds East, a distance of 576.67 feet to a point for corner;

THENCE South 02 degrees 47 minutes 47 seconds East, a distance of 9.29 feet to the POINT OF BEGINNING AND CONTAINING 35,111 square feet or 0.8060 acres of land, more or less.

A plat accompanies this legal description.



A LEGAL DESCRIPTION ACCOMPANIES THIS PLAT.

EXHIBIT "B"

LEWISVILLE LANDFILL TX, LP WATER AND SANITARY SEWER LINE EASEMENT PART 2

OUT OF THE

VINCENT R. SUTTON SURVEY, ABSTRACT NO. 1153

CITY OF LEWISVILLE
DENTON COUNTY, TEXAS

LEGEND

	PROPOSED EASEMENT
	EXISTING PROPERTY LINE
(CM)	CONTROL MONUMENT
FIR ●	FOUND IRON ROD (UNLESS NOTED OTHERWISE)
1/2" SIR ○	1/2" SET IRON ROD WITH BLUE CAP STAMPED "HALFF ESMT."
PFC △	POINT FOR CORNER

BASIS OF BEARING IS THE TEXAS COORDINATE SYSTEM NAD 83, NORTH CENTRAL ZONE (4202), BASED ON CITY OF LEWISVILLE MONUMENTS 13 AND 33 OBSERVED BY GPS USING WESTERN DATA SYSTEMS DALLAS/FORT WORTH AREA RTK COOPERATIVE NETWORK ON 7/22/2013. CONVERGENCE ANGLE FOR CITY OF LEWISVILLE MONUMENT 13 IS 00 DEGREES 51 MINUTES 21.5416 SECONDS, ACCORDING TO CORPSCON V6.0.1 AS PROVIDED BY THE U.S. ARMY CORPS OF ENGINEERS. COORDINATES SHOWN ARE GRID COORDINATES, DISTANCES SHOWN ARE SURFACE DISTANCES, SCALE FACTOR IS 1.00015063.

STATE OF TEXAS REGISTERED DOUGLAS A. CALHOUN 5619 PROFESSIONAL LAND SURVEYOR

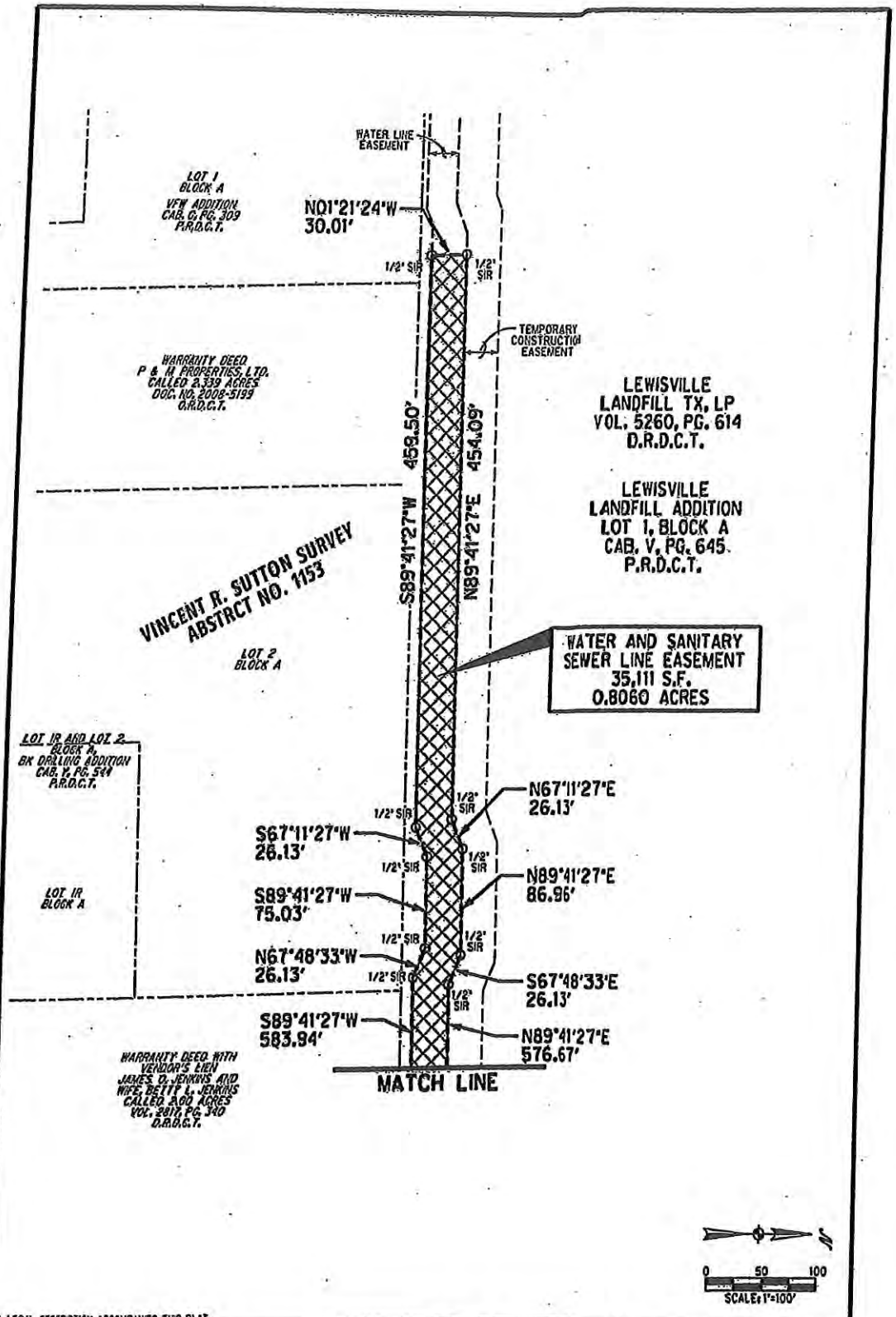
10/24/19

HALFF
TBPLS FIRM NO. 10021103

WATER AND SANITARY SEWER LINE EASEMENT

FILE: 29456-EXH-0.8060 WLSSE-1.dgn

© HALFF 2019 10:55:43 AM akuntz HALFF V:\29000\29456\CAD\DGN\exhibit\Land\Exh0.8060WLSSE-1.dgn Sheet



A LEGAL DESCRIPTION ACCOMPANIES THIS PLAT.

EXHIBIT "B"

LEWISVILLE LANDFILL TX, LP WATER AND SANITARY SEWER LINE EASEMENT PART 2

OUT OF THE

VINCENT R. SUTTON SURVEY, ABSTRACT NO. 1153

CITY OF LEWISVILLE
DENTON COUNTY, TEXAS

LEGEND

XXXXX	PROPOSED EASEMENT
———	EXISTING PROPERTY LINE
(CM)	CONTROL MONUMENT
FIR ●	FOUND IRON ROD (UNLESS NOTED OTHERWISE)
1/2" SIR ○	1/2" SET IRON ROD WITH BLUE CAP STAMPED "HALFF ESMT."
PFC △	POINT FOR CORNER

BASIS OF BEARING IS THE TEXAS COORDINATE SYSTEM NAD 83, NORTH CENTRAL ZONE (4202) BASED ON CITY OF LEWISVILLE MONUMENTS 13 AND 33 OBSERVED BY GPS USING WESTERN DATA SYSTEMS DALLAS/FORT WORTH AREA RTK COOPERATIVE NETWORK ON 7/22/2013. CONVERGENCE ANGLE FOR CITY OF LEWISVILLE MONUMENT 13 IS 00 DEGREES 51 MINUTES 24.45416 SECONDS, ACCORDING TO CORPSCON V6.0.1 AS PROVIDED BY THE U.S. ARMY CORPS OF ENGINEERS. COORDINATES SHOWN ARE GRID COORDINATES, DISTANCES SHOWN ARE SURFACE DISTANCES, SCALE FACTOR IS 1.00015063.

10/29/16
STATE OF TEXAS REGISTERED DOUGLAS A. CALHOUN 5619 PROFESSIONAL LAND SURVEYOR

HALFF
TBPLS FIRM NO. 10011905
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9764

WATER AND SANITARY SEWER LINE EASEMENT

FILE: 29456-EXH-0.8060 WLSSE-2.dgn

DATE: OCTOBER 2016 | AVO: 29456 | PAGE 3 of 3

I, Douglas A. Calhoun, Registered Professional Land Surveyor, do hereby certify that this parcel was prepared from a survey made on the ground under my supervision and direction.

© IRCSRAD MON. FOR FIW CR 67

10/29/2016 10:45:37 AM dhd09 HALFF 10/29/2016 10:45:37 AM dhd09 HALFF

EXHIBIT "A"
LEWISVILLE LANDFILL TX, LP
WATER LINE EASEMENT
PART 2

BEING a tract of land in the Vincent R. Sutton Survey, Abstract No. 1153 and the John Bartram Survey, Abstract No. 53 in the City of Lewisville, Denton County, Texas, being a part of that called 208.916 acre tract of land described in Special Warranty Deed to Lewisville Landfill TX, LP as recorded in Volume 5260, Page 614 in the Deed Records of Denton County, Texas, being a part of Lewisville Landfill Addition, Lot 1, Block A, as recorded in Cabinet V, Page 645 in the Plat Records of Denton County, Texas (P.R.D.C.T.), and being more particularly described as follows:

COMMENCING at a 1-inch found iron rod for the southeast corner of said Lot 1 and being on the north right-of-way line of State Highway 121 (variable width right-of-way);

THENCE South 81 degrees 08 minutes 42 seconds West, along said north right-of-way line, a distance of 1,136.32 feet to a 1/2-inch set iron rod with blue plastic cap stamped "HALFF ESMT" (hereinafter referred to as "with blue cap") for the POINT OF BEGINNING;

THENCE South 81 degrees 08 minutes 42 seconds West, continuing along said north right-of-way line, a distance of 853.90 feet to a 1/2-inch found iron rod for a common ell corner of said Lewisville Landfill Addition, Lot 1 and the southeast corner of Lot 1, Block A, Cajun Addition, Phase 1, an addition to the City of Lewisville, Denton County, Texas, as recorded in Cabinet N, Page 307 P.R.D.C.T.;

THENCE North 02 degrees 36 minutes 07 seconds West, departing said north right-of-way line, passing a 1-inch found iron rod for an ell corner of said Lewisville Landfill Addition, Lot 1 and the northeast corner of said Lot 1 Cajun Addition, at a distance of 452.14 feet and continuing for a total distance of 457.14 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 89 degrees 01 minute 14 seconds West, a distance of 452.04 feet to a point for corner;

THENCE North 02 degrees 47 minutes 47 seconds West, a distance of 4.29 feet to a point for corner;

THENCE South 89 degrees 41 minutes 27 seconds West, a distance of 53.35 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE North 66 degrees 31 minutes 14 seconds East, a distance of 52.51 feet to a point for corner;

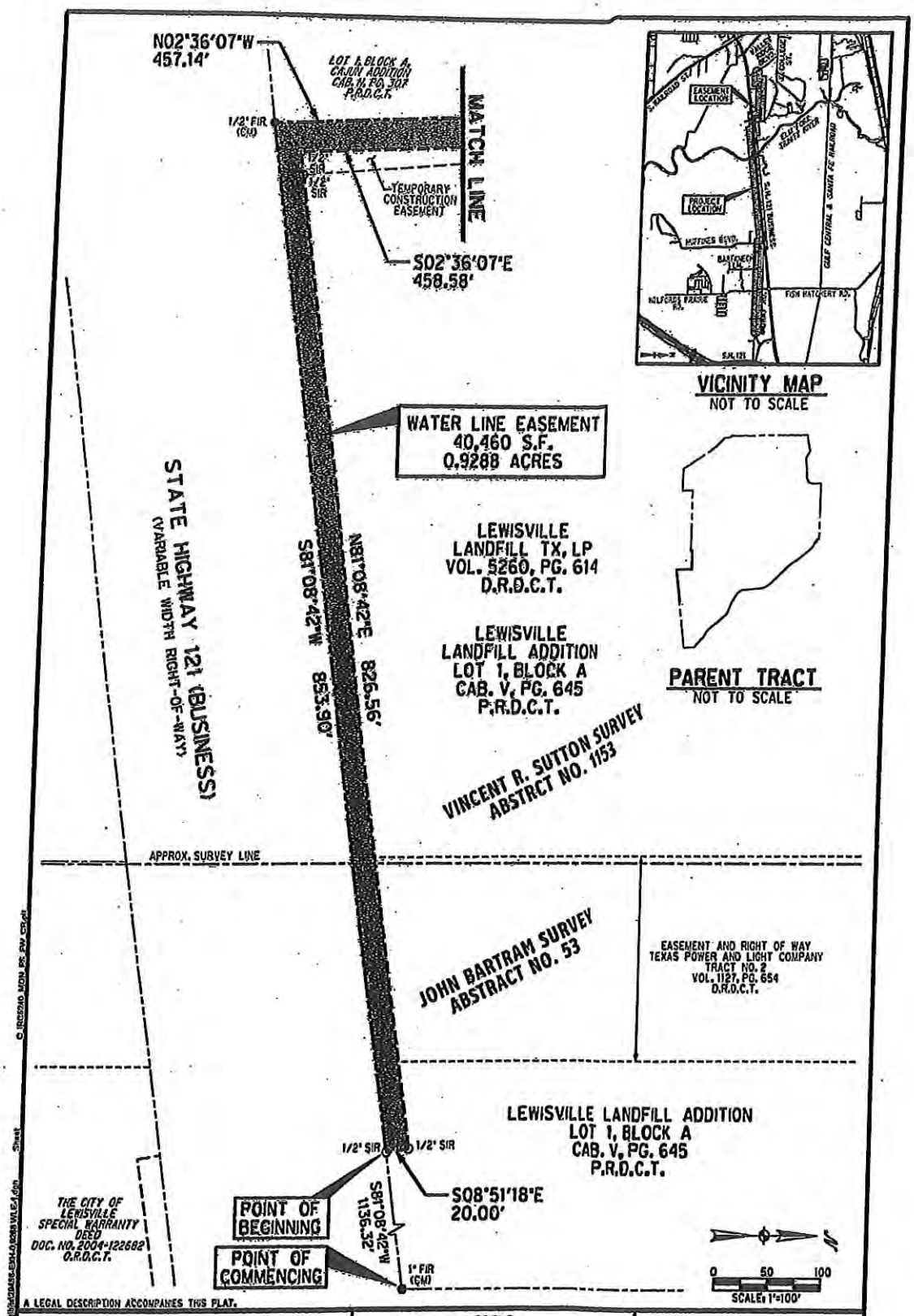
THENCE North 89 degrees 01 minute 14 seconds East, a distance of 481.31 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 02 degrees 36 minutes 07 seconds East, a distance of 458.58 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE North 81 degrees 08 minutes 42 seconds East, a distance of 826.56 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 08 degrees 51 minutes 18 seconds East, a distance of 20.00 feet to the POINT OF BEGINNING AND CONTAINING 40,460 square feet or 0.9288 acres of land, more or less.

A plat accompanies this legal description.



A LEGAL DESCRIPTION ACCOMPANIES THIS PLAT.

EXHIBIT "B"

LEWISVILLE LANDFILL TX, LP
WATER LINE EASEMENT
PART 2

OUT OF THE

VINCENT R. SUTTON SURVEY, ABSTRACT NO. 1153
JOHN BARTRAM SURVEY, ABSTRACT NO. 53

CITY OF LEWISVILLE
DENTON COUNTY, TEXAS

LEGEND

	PROPOSED EASEMENT
	EXISTING PROPERTY LINE
(CM)	CONTROL MONUMENT
FIR ●	FOUND IRON ROD (UNLESS NOTED OTHERWISE)
1/2" SIR ○	1/2" SET IRON ROD WITH BLUE CAP STAMPED "HALFF ESMT."
PFC △	POINT FOR CORNER

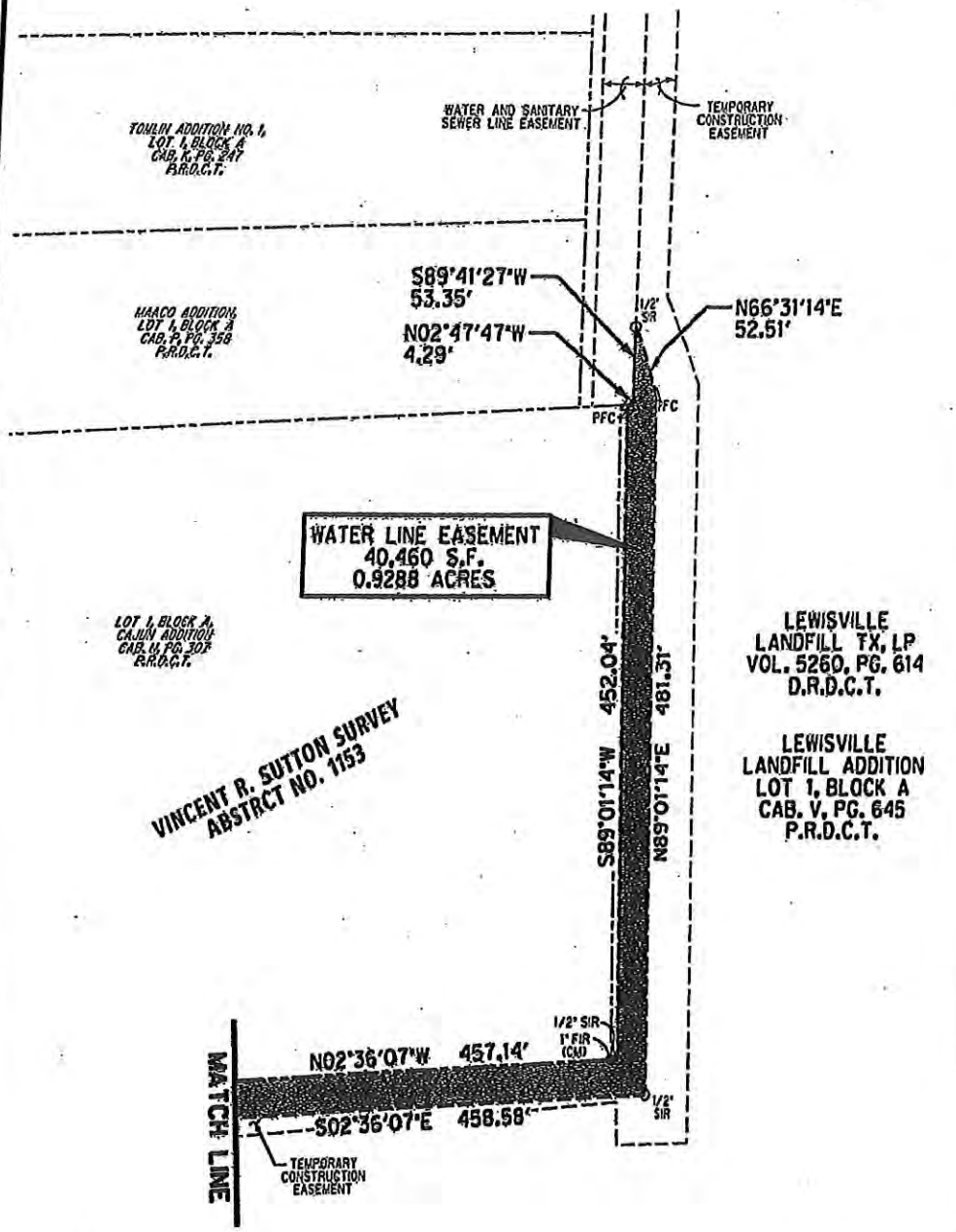
BASIS OF BEARING IS THE TEXAS COORDINATE SYSTEM NAD 83, NORTH CENTRAL ZONE (4202), BASED ON CITY OF LEWISVILLE MONUMENTS 13 AND 33 OBSERVED BY GPS USING WESTERN DATA SYSTEMS DALLAS/FORT WORTH AREA RTK COOPERATIVE NETWORK ON 7/22/2013. CONVERGENCE ANGLE FOR CITY OF LEWISVILLE MONUMENT 13 IS 00 DEGREES 51 MINUTES 28.4646 SECONDS, ACCORDING TO CORPSCON V6.0.1 AS PROVIDED BY THE U.S. ARMY CORPS OF ENGINEERS. COORDINATES SHOWN ARE GRID COORDINATES, DISTANCES SHOWN ARE SURFACE DISTANCES, SCALE FACTOR IS 1.00015063.

10/24/16
STATE OF TEXAS
REGISTERED
DOUGLAS A. CALHOUN
5619
PROFESSIONAL
LAND SURVEYOR

I, Douglas A. Calhoun, Registered Professional Land Surveyor, do hereby certify that this parcel was prepared from a survey made on the ground under my supervision and direction.

HALFF
TBPLS FIRM NO. 10064600
2000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TB: (817) 847-1422
FAX: (817) 232-9191

WATER LINE EASEMENT		
FILE: 29456-EXH-0.9288 WLE-1.dgn		
DATE: OCTOBER 2016	AVO: 29456	PAGE 2 of 3



A LEGAL DESCRIPTION ACCOMPANIES THIS PLAT.

EXHIBIT "B"

LEWISVILLE LANDFILL TX, LP WATER LINE EASEMENT PART 2

OUT OF THE

VINCENT R. SUTTON SURVEY, ABSTRACT NO. 1153
JOHN BARTRAM SURVEY, ABSTRACT NO. 53

CITY OF LEWISVILLE
DENTON COUNTY, TEXAS

LEGEND

	PROPOSED EASEMENT
	EXISTING PROPERTY LINE
(CM)	CONTROL MONUMENT
FIR ●	FOUND IRON ROD (UNLESS NOTED OTHERWISE)
1/2" SIR ○	1/2" SET IRON ROD WITH BLUE CAP STAMPED "HALFF ESMT."
PFC △	POINT FOR CORNER

BASIS OF BEARING IS THE TEXAS COORDINATE SYSTEM NAD 83, NORTH CENTRAL ZONE (4202), BASED ON CITY OF LEWISVILLE MONUMENTS 13 AND 33 OBSERVED BY GPS USING WESTERN DATA SYSTEMS DALLAS/FORT WORTH AREA RTK COOPERATIVE NETWORK ON 7/22/2013. CONVERGENCE ANGLE FOR CITY OF LEWISVILLE MONUMENT 13 IS 00 DEGREES 51 MINUTES 24.6486 SECONDS, ACCORDING TO CORPSCON V6.0.1 AS PROVIDED BY THE U.S. ARMY CORPS OF ENGINEERS. COORDINATES SHOWN ARE GRID COORDINATES. DISTANCES SHOWN ARE SURFACE DISTANCES. SCALE FACTOR IS 1.00015063.

10/24/16
STATE OF TEXAS REGISTERED DOUGLAS A. CALHOUN 5619 PROFESSIONAL LAND SURVEYOR

I, Douglas A. Calhoun, Registered Professional Land Surveyor, do hereby certify that this parcel was prepared from a survey made on the ground under my supervision and direction.

HALFF
TBPLS FIRM NO. 10028600
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2727
TEL (817) 847-1422
FAX (817) 232-9784

WATER LINE EASEMENT

FILE: 29456-EXH-0.9288 WLE-2.dgn

DATE: OCTOBER 2016 | AVO: 29456 | PAGE 3 of 3

EXHIBIT "A"
LEWISVILLE LANDFILL TX, LP
WATER AND SANITARY SEWER LINE EASEMENT
PART 1

BEING a tract of land in the Augustus G. King Survey, Abstract No. 698 in the City of Lewisville, Denton County, Texas, being a part of that called 208.916 acre tract of land described in Special Warranty Deed to Lewisville Landfill TX, LP, as recorded in Volume 5260, Page 614 in the Deed Records of Denton County, Texas, being a part of Lewisville Landfill Addition, Lot 1, Block A, as recorded in Cabinet V, Page 645 in the Plat Records of Denton County, Texas (P.R.D.C.T.), and being more particularly described as follows:

COMMENCING at a found nail in top of a fence post for a common ell corner of said Lewisville Landfill Addition, Lot 1and the northwest corner of Lot 1, Block A, Cajun Addition, Phase 1, an addition to the City of Lewisville, Denton County, Texas, as recorded in Cabinet N, Page 307 P.R.D.C.T.

THENCE South 02 degrees 47 minutes 47 seconds East, along the common line between said Lewisville Landfill Addition, Lot 1 and said Lot 1 Cajun Addition, a distance of 20.74 feet to a 1/2-inch set iron rod with blue plastic cap stamped "HALFF ESMT" (hereinafter referred to as "with blue cap");

THENCE South 89 degrees 41 minutes 27 seconds West, departing said common line, a distance of 1,191.70 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 67 degrees 11 minutes 27 seconds West, a distance of 13.07 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 89 degrees 41 minutes 27 seconds West, a distance of 350.20 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 00 degrees 14 minutes 47 seconds West, passing an ell corner of said Lot 1 and the northwest corner of Lot 1, Block A of the VFW Addition, an addition to the City of Lewisville, Denton County, Texas, as recorded in Cabinet G, Page 309 P.R.D.C.T., at a distance of 5.00 feet and continuing for a total distance of 263.96 feet for the POINT OF BEGINNING;

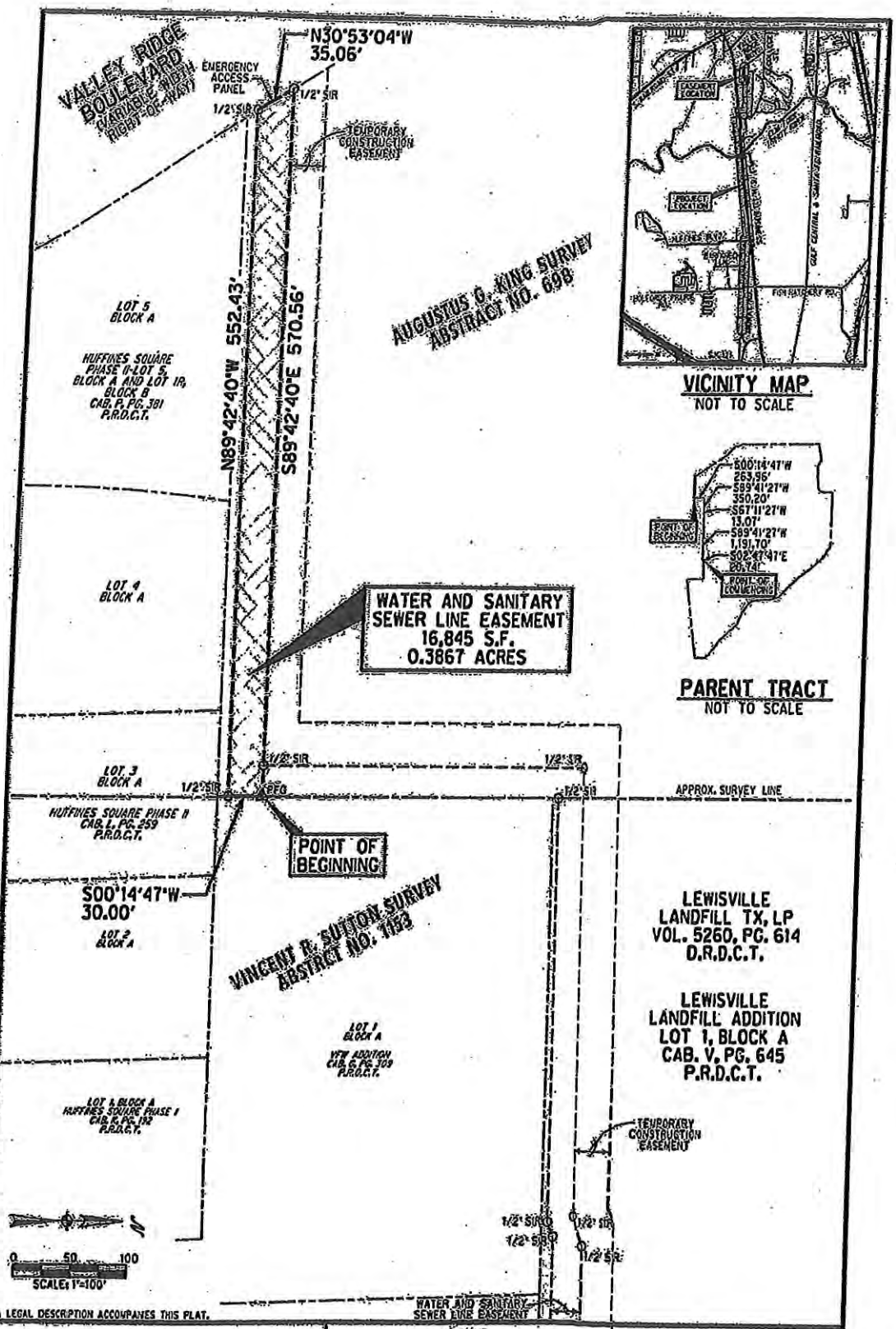
THENCE South 00 degrees 14 minutes 47 seconds West, along the west line of said VFW Addition, a distance of 30.00 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE North 89 degrees 42 minutes 40 seconds West, a distance of 552.43 feet to a 1/2-inch set iron rod with blue cap for corner on the east right-of-way line of Valley Ridge Boulevard (variable width right-of-way);

THENCE North 30 degrees 53 minutes 04 seconds West, along said east right-of-way line, a distance of 35.06 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 89 degrees 42 minutes 40 seconds East, departing said east right-of-way line, a distance of 570.56 feet to the POINT OF BEGINNING AND CONTAINING 16,845 square feet or 0.3867 acres of land, more or less.

A plat accompanies this legal description.



A LEGAL DESCRIPTION ACCOMPANIES THIS PLAT.

EXHIBIT "B"

LEWISVILLE LANDFILL TX, LP
WATER AND SANITARY SEWER LINE EASEMENT
PART 1

OUT OF THE

AUGUSTUS G. KING SURVEY, ABSTRACT NO. 698
VINCENT R. SUTTON SURVEY, ABSTRACT NO. 1153

CITY OF LEWISVILLE
DENTON COUNTY, TEXAS

LEGEND

	PROPOSED EASEMENT
	EXISTING PROPERTY LINE
(CM)	CONTROL MONUMENT
FIR ●	FOUND IRON ROD (UNLESS NOTED OTHERWISE)
1/2" SIR ○	1/2" SET IRON ROD WITH BLUE CAP STAMPED "HALFF ESMT."
PFC △	POINT FOR CORNER

BASIS OF BEARING IS THE TEXAS COORDINATE SYSTEM NAD 83, NORTH CENTRAL ZONE 4202, BASED ON CITY OF LEWISVILLE MONUMENTS (CM) 101 AND 103 OBSERVED BY GPS USING TRIMBLE DATA SYSTEMS DALLAS/FORT WORTH AREA RTK COOPERATIVE NETWORK. ON 7/22/2015. CONVERGENCE ANGLE FOR CITY OF LEWISVILLE MONUMENT 103 IS 00 DEGREES 51 MINUTES 21.4566 SECONDS ACCORDING TO CORPSCON V6.01 AS PROVIDED BY THE U.S. ARMY CORPS OF ENGINEERS. COORDINATES SHOWN ARE GRID COORDINATES. DISTANCES SHOWN ARE SURFACE DISTANCES. SCALE FACTOR IS 0.00015063.

STATE OF TEXAS REGISTERED DOUGLAS A. CALHOUN 5619 PROFESSIONAL LAND SURVEYOR

A Licensed State of Texas Registered Professional Land Surveyor or Engineer certifies that this survey was made on the ground under my supervision and direction.

HALFF
TBPLS FIRM NO. 10064402
4000 CONE CREEK BLVD
FORT WORTH, TEXAS 76137-2217
TEL (817) 847-1422
FAX (817) 847-9784

WATER AND SANITARY SEWER LINE EASEMENT

FILE: 29456-EXH-0.3867 WLSSE-1.dgn

DATE: OCTOBER 2016 | AVO: 29456 | PAGE 2 of 2

EXHIBIT "A"
LEWISVILLE LANDFILL TX, LP
TEMPORARY CONSTRUCTION EASEMENT

BEING a tract of land in the Augustus G. King Survey, Abstract No. 698 and the Vincent R. Sutton Survey, Abstract No. 1153 in the City of Lewisville, Denton County, Texas, being a part of that called 208.916 acre tract of land described in Special Warranty Deed to Lewisville Landfill TX, LP, as recorded in Volume 5260, Page 614 in the Deed Records of Denton County, Texas, being a part of Lewisville Landfill Addition, Lot 1, Block A as recorded in Cabinet V, Page 645 in the Plat Records of Denton County, Texas (P.R.D.C.T.), and being more particularly described as follows:

COMMENCING at a 1-inch found iron rod for the southeast corner of said Lot 1 and being on the north right-of-way line of State Highway 121 (variable width right-of-way);

THENCE South 81 degrees 08 minutes 42 seconds West, along said north right-of-way line, a distance of 1,945.77 feet to a point for corner;

THENCE North 04 degrees 27 minutes 16 seconds West, departing said north right-of-way line, a distance of 20.06 feet to a 1/2-inch set iron rod with blue plastic cap stamped "HALFF ESMT" (hereinafter referred to as "with blue cap") for the POINT OF BEGINNING;

THENCE South 81 degrees 08 minutes 42 seconds West, a distance of 18.64 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE North 02 degrees 36 minutes 07 seconds West, a distance of 458.58 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 89 degrees 01 minute 14 seconds West, a distance of 481.31 feet to a point for corner;

THENCE South 66 degrees 31 minutes 14 seconds West, a distance of 52.51 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 89 degrees 41 minutes 27 seconds West, a distance of 523.32 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE North 67 degrees 48 minutes 33 seconds West, a distance of 26.13 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 89 degrees 41 minutes 27 seconds West, a distance of 86.96 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 67 degrees 11 minutes 27 seconds West, a distance of 26.13 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 89 degrees 41 minutes 27 seconds West, a distance of 471.39 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 67 degrees 11 minutes 27 seconds West, a distance of 26.13 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 89 degrees 41 minutes 27 seconds West, a distance of 369.99 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 00 degrees 14 minutes 47 seconds West, a distance of 288.70 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE North 89 degrees 42 minutes 40 seconds West, a distance of 545.56 feet to a 1/2-inch set iron rod with blue cap for corner on the east right-of-way line of Valley Ridge Boulevard (variable width right-of-way);

THENCE North 30 degrees 53 minutes 04 seconds West, along said east right-of-way line, a distance of 35.06 feet to a point for corner;

THENCE South 89 degrees 42 minutes 40 seconds East, departing said east right-of-way line, a distance of 528.69 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE North 00 degrees 14 minutes 47 seconds East, a distance of 293.34 feet to a point for corner;

THENCE North 89 degrees 41 minutes 27 seconds East, a distance of 397.69 feet to a point for corner;

THENCE North 67 degrees 11 minutes 27 seconds East, a distance of 13.07 feet to a point for corner;

THENCE North 89 degrees 41 minutes 27 seconds East, a distance of 484.46 feet to a point for corner;

THENCE North 67 degrees 11 minutes 27 seconds East, a distance of 26.13 feet to a point for corner;

THENCE North 89 degrees 41 minutes 27 seconds East, a distance of 98.90 feet to a point for corner;

THENCE South 67 degrees 48 minutes 33 seconds East, a distance of 26.13 feet to a point for corner;

THENCE North 89 degrees 41 minutes 27 seconds East, a distance of 498.49 feet to a point for corner;

THENCE North 66 degrees 31 minutes 14 seconds East, a distance of 65.00 feet to a point for corner;

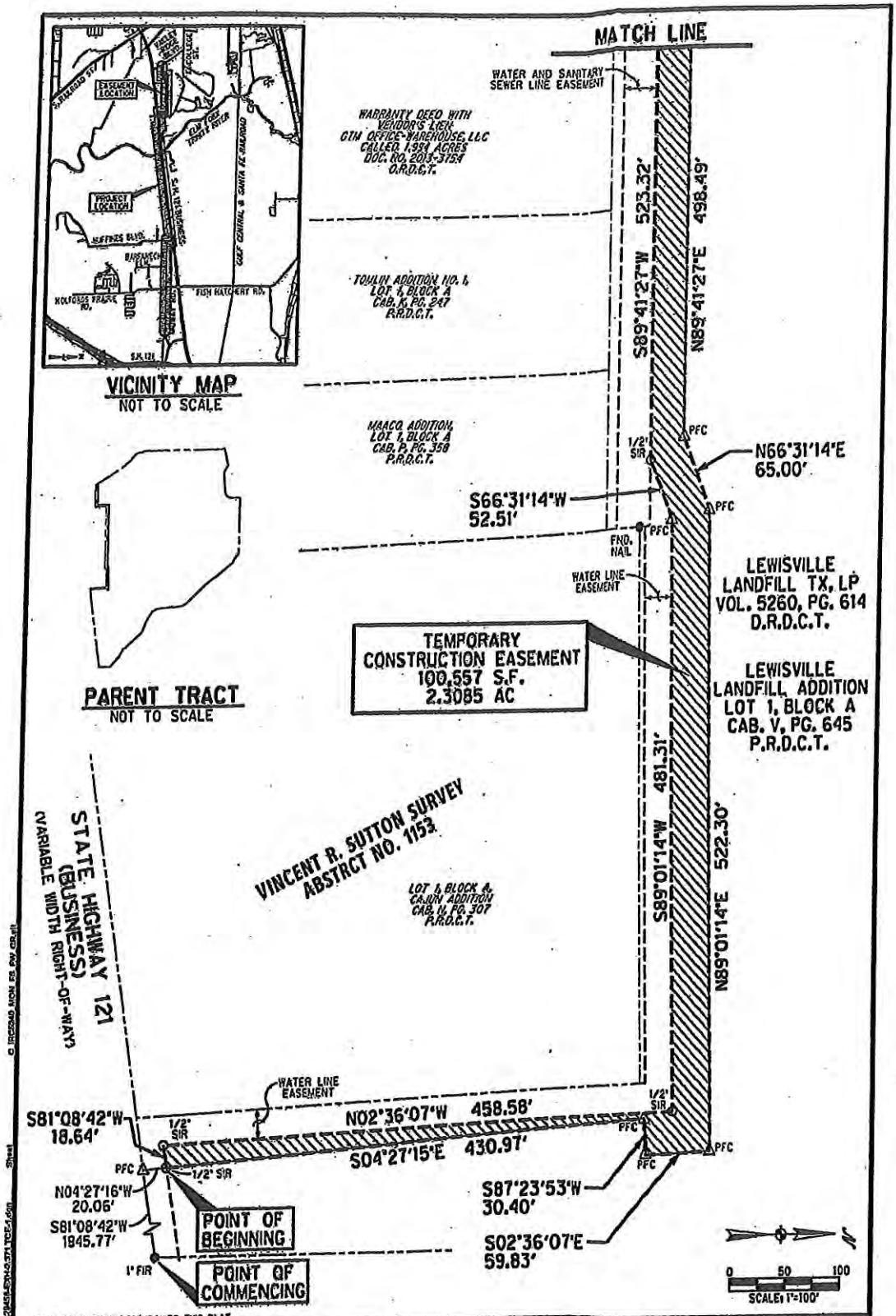
THENCE North 89 degrees 01 minute 14 seconds East, a distance of 522.30 feet to a point for corner;

THENCE South 02 degrees 36 minutes 07 seconds East, a distance of 59.83 feet to a point for corner;

THENCE South 87 degrees 23 minutes 53 seconds West, a distance of 30.40 feet to a point for corner;

THENCE South 04 degrees 27 minutes 15 seconds East, a distance of 430.97 feet to the POINT OF BEGINNING AND CONTAINING 100,557 square feet or 2.3085 acres of land, more or less.

A plat accompanies this legal description.



A LEGAL DESCRIPTION ACCOMPANIES THIS PLAT.

EXHIBIT "B"

LEWISVILLE LANDFILL TX, LP TEMPORARY CONSTRUCTION EASEMENT

OUT OF THE

AUGUSTUS G. KING SURVEY, ABSTRACT NO. 698
VINCENT R. SUTTON SURVEY, ABSTRACT NO. 1153

CITY OF LEWISVILLE
DENTON COUNTY, TEXAS

LEGEND

	PROPOSED EASEMENT
	EXISTING PROPERTY LINE
(CM)	CONTROL MONUMENT
FIR●	FOUND IRON ROD (UNLESS NOTED OTHERWISE)
1/2" SIR ○	1/2" SET IRON ROD WITH BLUE CAP STAMPED "HALFF ESMT."
PFC △	POINT FOR CORNER

BASIS OF BEARING IS THE TEXAS COORDINATE SYSTEM NAD 83, NORTH CENTRAL ZONE (4202), BASED ON CITY OF LEWISVILLE MONUMENTS 13 AND 33 OBSERVED BY CRS USING WESTERN DATA SYSTEMS DALLAS/FORT WORTH AREA RTK COOPERATIVE NETWORK ON 7/22/2013. CONVERGENCE ANGLE FOR CITY OF LEWISVILLE MONUMENT 13 IS 00 DEGREES 51 MINUTES 24.45486 SECONDS, ACCORDING TO CORPSCON V6.0.1 AS PROVIDED BY THE U.S. ARMY CORPS. OF ENGINEERS. COORDINATES SHOWN ARE GRID COORDINATES, DISTANCES SHOWN ARE SURFACE DISTANCES, SCALE FACTOR IS 1.00015063.

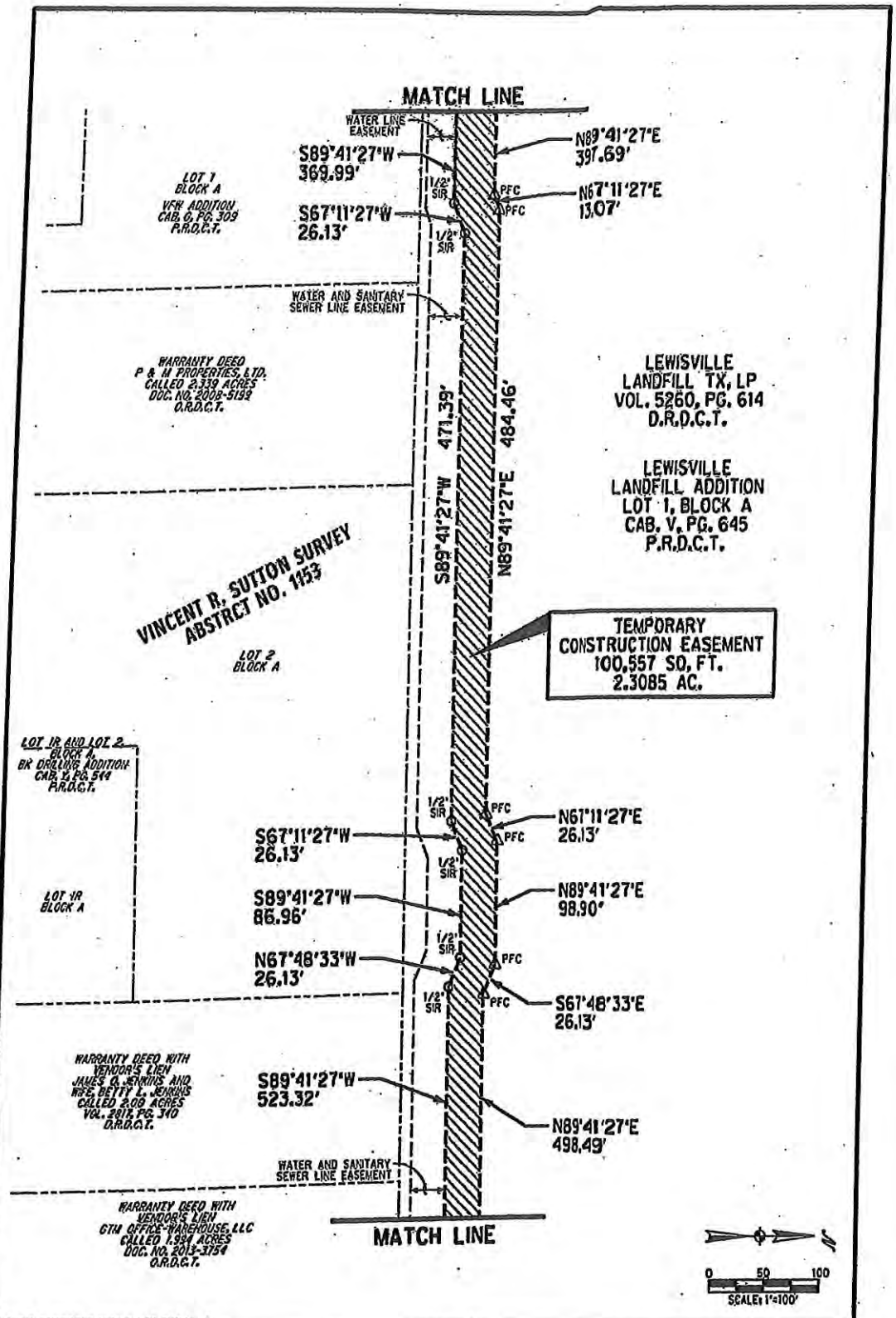
10/24/16
STATE OF TEXAS
REGISTERED
DOUGLAS A. CALHOUN
5619
PROFESSIONAL
LAND SURVEYOR

I, Douglas A. Calhoun, Registered Professional Land Surveyor, do hereby certify that this parcel was prepared from a survey made on the ground under my supervision and direction.

HALFF
TBPLS FIRM NO. 10029600
4000 FOSSIL CREEK BLVD.

TEMPORARY CONSTRUCTION EASEMENT

FILE: 29456-EXH-2.371 TCE-1.dgn



A LEGAL DESCRIPTION ACCOMPANIES THIS PLAT.

EXHIBIT "B"

LEWISVILLE LANDFILL TX, LP TEMPORARY CONSTRUCTION EASEMENT

OUT OF THE

AUGUSTUS O. KING SURVEY, ABSTRACT NO. 698
VINCENT R. SUTTON SURVEY, ABSTRACT NO. 1153

CITY OF LEWISVILLE
DENTON COUNTY, TEXAS

LEGEND

	PROPOSED EASEMENT
	EXISTING PROPERTY LINE
(CM)	CONTROL MONUMENT
FIR ●	FOUND IRON ROD (UNLESS NOTED OTHERWISE)
1/2" SIR ○	1/2" SET IRON ROD WITH BLUE CAP STAMPED "HALFF ESMT."
PFC △	POINT FOR CORNER

BASIS OF BEARING IS THE TEXAS COORDINATE SYSTEM NAD 83, NORTH CENTRAL ZONE (4202), BASED ON CITY OF LEWISVILLE MONUMENTS 13 AND 33 OBSERVED BY GPS USING WESTERN DATA SYSTEMS DALLAS/FORT WORTH AREA RTK COOPERATIVE NETWORK ON 7/22/2013. CONVERGENCE ANGLE FOR CITY OF LEWISVILLE MONUMENT 13 IS 00 DEGREES 51 MINUTES 19.4686 SECONDS, ACCORDING TO CORPSCON V6.0.1 AS PROVIDED BY THE U.S. ARMY CORPS OF ENGINEERS. COORDINATES SHOWN ARE GRID COORDINATES, DISTANCES SHOWN ARE SURFACE DISTANCES, SCALE FACTOR IS 1.00015063.

10/24/16

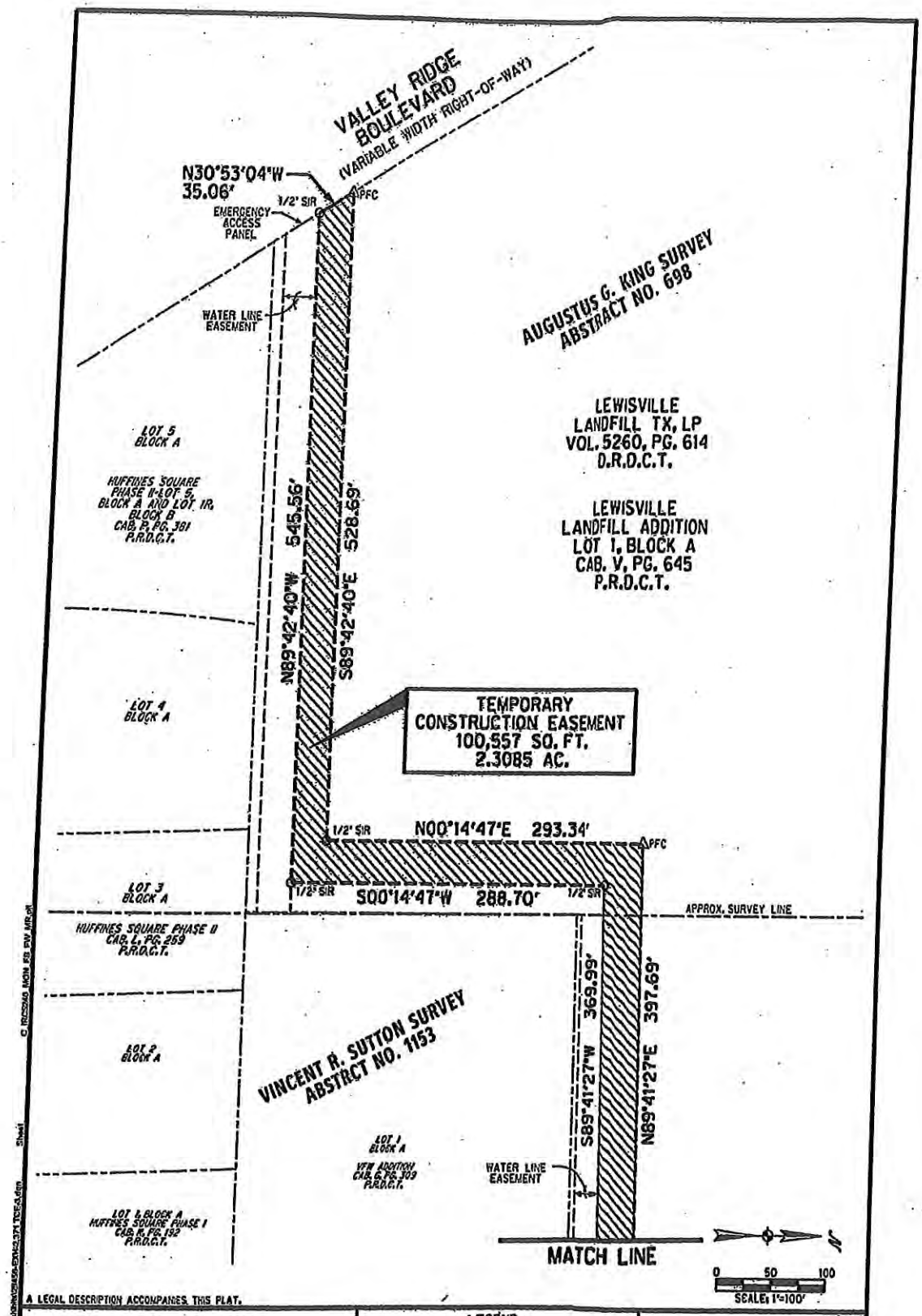
STATE OF TEXAS REGISTERED DOUGLAS A. CALHOUN 5619 PROFESSIONAL LAND SURVEYOR

HALFF
TBPLS FIRM NO. 10064503
4000 FOSSIL CREEK BLVD

TEMPORARY CONSTRUCTION EASEMENT

FILE: 29456-EXH-2.371 TCE-2.dgn

I, Douglas A. Calhoun, Registered Professional Land Surveyor do hereby certify that this parcel was prepared from a survey made on the ground



A LEGAL DESCRIPTION ACCOMPANIES THIS PLAT.

EXHIBIT "B"

LEWISVILLE LANDFILL TX, LP TEMPORARY CONSTRUCTION EASEMENT

OUT OF THE

AUGUSTUS G. KING SURVEY, ABSTRACT NO. 698
VINCENT R. SUTTON SURVEY, ABSTRACT NO. 1153

CITY OF LEWISVILLE
DENTON COUNTY, TEXAS

LEGEND

	PROPOSED EASEMENT
	EXISTING PROPERTY LINE
(CM)	CONTROL MONUMENT
FIR ●	FOUND IRON ROD (UNLESS NOTED OTHERWISE)
1/2" SIR ○	1/2" SET IRON ROD WITH BLUE CAP STAMPED "HALFF ESMT."
PFC △	POINT FOR CORNER

BASIS OF BEARING IS THE TEXAS COORDINATE SYSTEM NAD 83, NORTH CENTRAL ZONE (4202), BASED ON CITY OF LEWISVILLE MONUMENTS 13 AND 33 OBSERVED BY GPS USING WESTERN DATA SYSTEMS-DALLAS/FORT WORTH AREA RTK COOPERATIVE NETWORK ON 7/22/2013. CONVERGENCE ANGLE FOR CITY OF LEWISVILLE MONUMENT 13 IS 00 DEGREES 51 MINUTES 38.45486 SECONDS, ACCORDING TO CORPSCON V6.0.1 AS PROVIDED BY THE U.S. ARMY CORPS OF ENGINEERS. COORDINATES SHOWN ARE GRID COORDINATES, DISTANCES SHOWN ARE SURFACE DISTANCES, SCALE FACTOR IS 1.00015063.

10/24/16
STATE OF TEXAS
REGISTERED
DOUGLAS A. CALHOUN
5619
PROFESSIONAL
LAND SURVEYOR

I, Douglas A. Calhoun, Registered Professional Land Surveyor do hereby certify that this parcel was prepared from a survey made on the ground under my supervision and direction.

HALFF
TBPLS FIRM NO. 10029600
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9164

TEMPORARY CONSTRUCTION EASEMENT

FILE: 29456-EXH-2.371 TCE-3.dgn

DATE: OCTOBER 2016 | AVO: 29456 | PAGE 5 of 5

EXHIBIT "A"
LEWISVILLE LANDFILL TX, LP
WATER LINE EASEMENT
PART 1

BEING a tract of land in the Augustus G. King Survey, Abstract No. 698 and the Vincent R. Sutton Survey Abstract No. 1153 in the City of Lewisville, Denton County, Texas, being a part of that called 208.916 acre tract of land described in Special Warranty Deed to Lewisville Landfill TX, LP, as recorded in Volume 5260, Page 614 in the Deed Records of Denton County, Texas, being a part of Lewisville Landfill Addition, Lot 1, Block A, as recorded in Cabinet V, Page 645 in the Plat Records of Denton County, Texas (P.R.D.C.T.), and being more particularly described as follows:

COMMENCING at a found nail in top of a fence post for a common ell corner of said Lewisville Landfill Addition, Lot 1and the northwest corner of Lot 1, Block A, Cajun Addition, Phase 1, an addition to the City of Lewisville, Denton County, Texas, as recorded in Cabinet N, Page 307 P.R.D.C.T.

THENCE South 02 degrees 47 minutes 47 seconds East, along the common line between said Lewisville Landfill Addition, Lot 1and said Lot 1 Cajun Addition, a distance of 20.74 feet to a 1/2-inch set iron rod with blue plastic cap stamped "HALFF ESMT" (hereinafter referred to as "with blue cap");

THENCE South 89 degrees 41 minutes 27 seconds West, departing said common line, a distance of 1,166.75 feet to a 1/2-inch set iron rod with blue cap for the POINT OF BEGINNING;

THENCE South 89 degrees 41 minutes 27 seconds West, a distance of 24.95 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 67 degrees 11 minutes 27 seconds West, a distance of 13.07 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 89 degrees 41 minutes 27 seconds West, a distance of 350.20 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 00 degrees 14 minutes 47 seconds West, passing an ell corner of said Lot 1 and the northwest corner of Lot 1, Block A of the VFW Addition, an addition to the City of Lewisville, Denton County, Texas, as recorded in Cabinet G, Page 309 P.R.D.C.T. at a distance of 5.00 feet and continuing for a total distance of 263.96 feet to a point for corner;

THENCE North 89 degrees 42 minutes 40 seconds West, a distance of 25.00 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE North 00 degrees 14 minutes 47 seconds East, a distance of 288.70 feet to a 1/2-inch set iron rod with blue cap for corner;

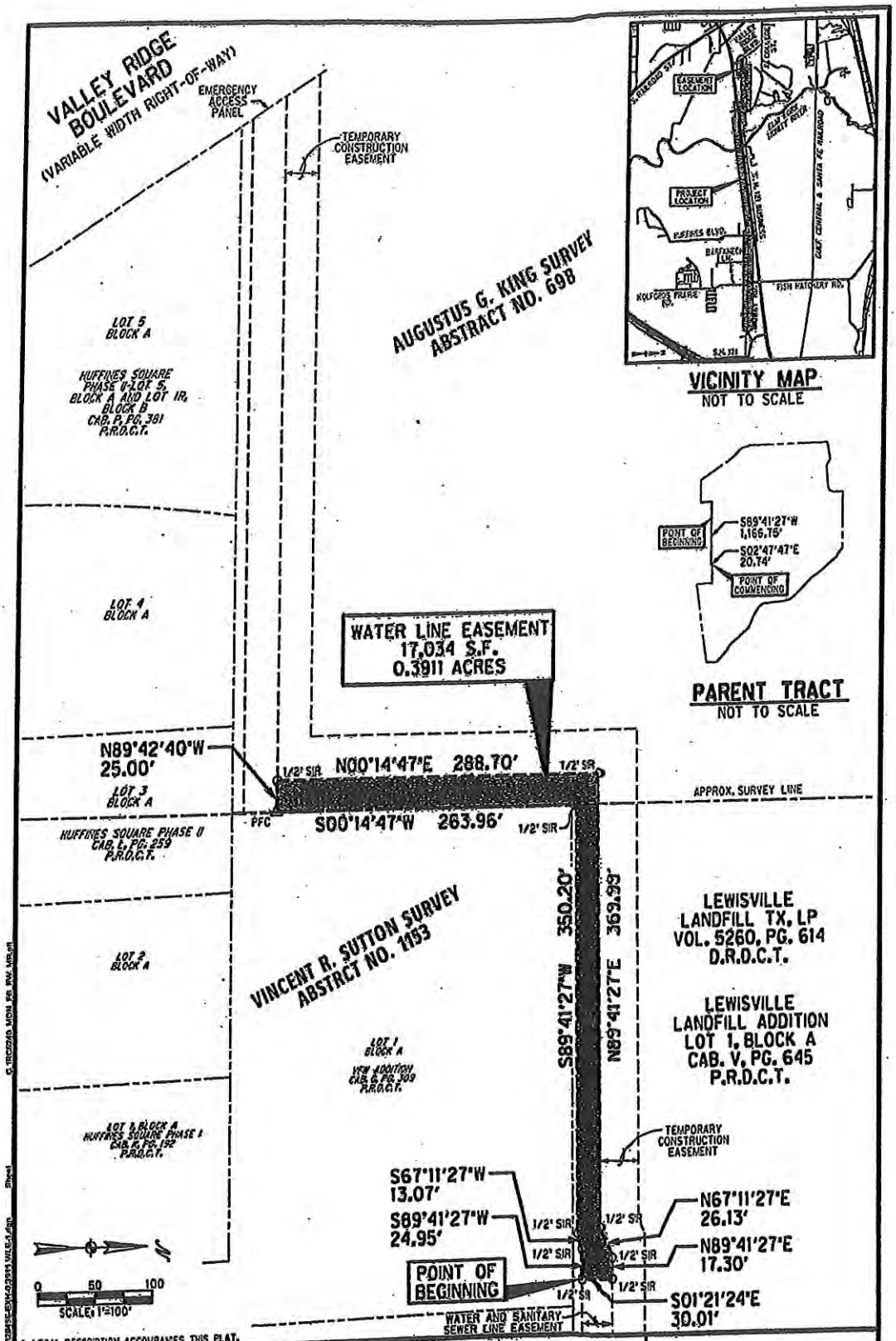
THENCE North 89 degrees 41 minutes 27 seconds East, a distance of 369.99 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE North 67 degrees 11 minutes 27 seconds East, a distance of 26.13 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE North 89 degrees 41 minutes 27 seconds East, a distance of 17.30 feet to a 1/2-inch set iron rod with blue cap for corner;

THENCE South 01 degree 21 minutes 24 seconds East, a distance of 30.01 feet to the POINT OF BEGINNING AND CONTAINING 17,034 square feet or 0.3911 acres of land, more or less.

A plat accompanies this legal description.



A LEGAL DESCRIPTION ACCOMPANIES THIS PLAT.

EXHIBIT "B"

LEWISVILLE LANDFILL TX, LP WATER LINE EASEMENT PART 1

OUT OF THE

AUGUSTUS G. KING SURVEY, ABSTRACT NO. 698
VINCENT R. SUTTON SURVEY, ABSTRACT NO. 1153

CITY OF LEWISVILLE
DENTON COUNTY, TEXAS

LEGEND

	PROPOSED EASEMENT
	EXISTING PROPERTY LINE
(CM)	CONTROL MONUMENT
FIR ●	FOUND IRON ROD (UNLESS NOTED OTHERWISE)
1/2" SIR ○	1/2" SET IRON ROD WITH BLUE CAP STAMPED "HALFF ESMT."
PFC △	POINT FOR CORNER

BASIS OF BEARING IS THE TEXAS COORDINATE SYSTEM NAD 83, NORTH CENTRAL ZONE (4202), BASED ON CITY OF LEWISVILLE MONUMENTS 13 AND 33 OBSERVED BY GPS USING WESTERN DATA SYSTEMS DALLAS/FORT WORTH AREA RTK COOPERATIVE NETWORK ON 7/22/2013. CONVERGENCE ANGLE FOR CITY OF LEWISVILLE MONUMENT 13 IS 00 DEGREES 51 MINUTES 28.45186 SECONDS, ACCORDING TO CORPSCON V6.0.1 AS PROVIDED BY THE U.S. ARMY CORPS OF ENGINEERS. COORDINATES SHOWN ARE GRID COORDINATES, DISTANCES SHOWN ARE SURFACE DISTANCES, SCALE FACTOR IS 1.00015063.

10/26/16
STATE OF TEXAS REGISTERED DOUGLAS A. CALHOUN 5619 PROFESSIONAL LAND SURVEYOR

HALFF
TBPLS FIRM NO. 10029600
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797

WATER LINE EASEMENT

FILE: 29456-EXH-0.3911 WLE-1.dgn

DATE: OCTOBER 2016 | AVO: 29456 | PAGE 2 of 2

I, Douglas A. Calhoun, Registered Professional Land Surveyor, do hereby certify that this parcel was prepared from a survey made on the ground under my supervision and direction.

8'

NOT TO SCALE

4'

12"

LEWISVILLE

Deep Roots, Broad Wings, Bright Futures

3"

S.H. 121 BUSINESS 24–INCH WATER LINE

PROJECT NO. G11008

6"

1"

CITY COUNCIL

MAYOR: RUDY DURHAM

DEPUTY MAYOR PRO TEM: T.J. GILMORE

BRENT DANIELS

R. NEIL FERGUSON

BRANDON JONES

BOB TROYER

CONTRACTOR

3"

"YOUR BOND MONEY AT WORK"

EXHIBIT B

CITY OF LEWISVILLE

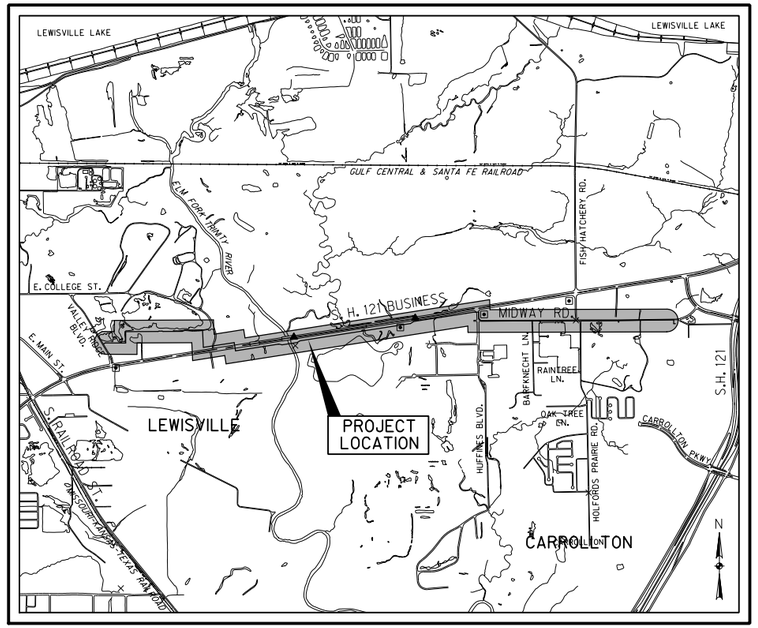
S.H. 121 BUSINESS 24-INCH WATER LINE (VALLEY RIDGE BOULEVARD TO MIDWAY PUMP STATION)

PROJECT No. U1305

MAYOR
RUDY DURHAM

CITY MANAGER
DONNA BARRON

CITY COUNCIL
R NEIL FERGUSON
TJ GILMORE
BRENT DANIELS
BRANDON JONES
BOB TROYER



VICINITY MAP
SCALE: 1" = 2000'

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots. Broad Wings. Bright Future.

SEPTEMBER 2017
AVO 29456

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM NO. F-312
PROJECT MANAGER:
BENJAMIN L. McGAHEY, P.E.

S.H. 121 BUSINESS 24 INCH WATER LINE

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STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED
PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: SHEET INDEX

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

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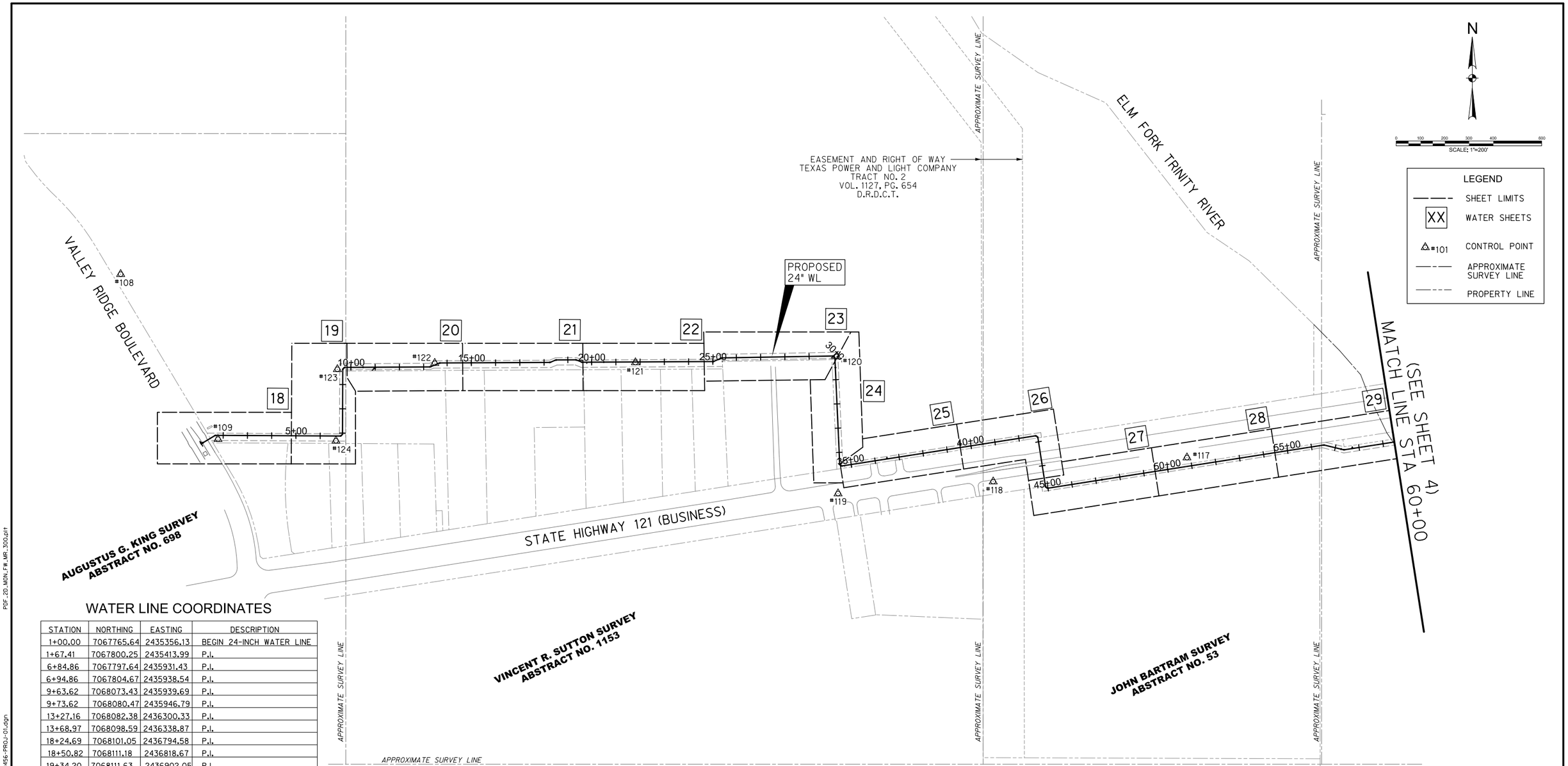

WATER LINE COORDINATES

STATION	NORTHING	EASTING	DESCRIPTION
1+00.00	7067765.64	2435356.13	BEGIN 24-INCH WATER LINE
1+67.41	7067800.25	2435413.99	P.I.
6+84.86	7067797.64	2435931.43	P.I.
6+94.86	7067804.67	2435938.54	P.I.
9+63.62	7068073.43	2435939.69	P.I.
9+73.62	7068080.47	2435946.79	P.I.
13+27.16	7068082.38	2436300.33	P.I.
13+68.97	7068098.59	2436338.87	P.I.
18+24.69	7068101.05	2436794.58	P.I.
18+50.82	7068111.18	2436818.67	P.I.
19+34.20	7068111.63	2436902.05	P.I.
19+60.33	7068101.76	2436926.24	P.I.
25+02.53	7068104.68	2437468.44	P.I.
25+39.88	7068119.56	2437502.69	P.I.
29+99.26	7068127.42	2437962.00	P.I.
30+09.26	7068120.47	2437969.19	P.I.
34+49.69	7067680.48	2437989.19	P.I.
34+59.69	7067673.74	2437996.57	P.I.
42+70.74	7067798.59	2438797.95	P.I.
42+80.74	7067792.69	2438806.03	P.I.
44+87.95	7067587.94	2438837.92	P.I.
44+97.95	7067582.04	2438846.00	P.I.
56+51.93	7067760.53	2439986.08	P.I.
57+36.88	7067740.50	2440068.64	P.I.

CONTROL POINT COORDINATES

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
108	7068464.73	2435023.59	464.16	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
109	7067784.57	2435424.89	460.03	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
117	7067708.67	2439421.15	460.78	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
118	7067609.51	2438622.10	467.68	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
119	7067560.36	2437982.23	469.07	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
120	7068125.41	2437976.44	465.55	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
121	7068100.78	2437146.69	462.34	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
122	7068098.07	2436318.89	466.51	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
123	7068072.62	2435917.44	466.27	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
124	7067777.88	2435911.44	466.08	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."

NOTE:
BASIS OF BEARING IS THE TEXAS COORDINATE SYSTEM NAD 83, NORTH CENTRAL ZONE (4202), BASED ON CITY OF LEWISVILLE MONUMENTS 13 AND 33 OBSERVED BY GPS USING WESTERN DATA SYSTEMS DALLAS/ FORT WORTH AREA RTK COOPERATIVE NETWORK ON 7/22/2013, CONVERGENCE ANGLE FOR CITY OF LEWISVILLE MONUMENT 13 IS 00 DEGREES 51 MINUTES 28.46486 SECONDS, ACCORDING TO CORPSCON V6.0.1 AS PROVIDED BY THE U.S. ARMY CORPS OF ENGINEERS. COORDINATES SHOWN ARE GRID COORDINATES, DISTANCE SHOWN ARE SURFACE DISTANCES, SCALE FACTOR IS 1.00015063.

DOUGLAS A. CALHOUN, RPLS NO. 5619

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED
PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: PROJECT LAYOUT (SHEET 1 OF 3)

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 3 OF 106

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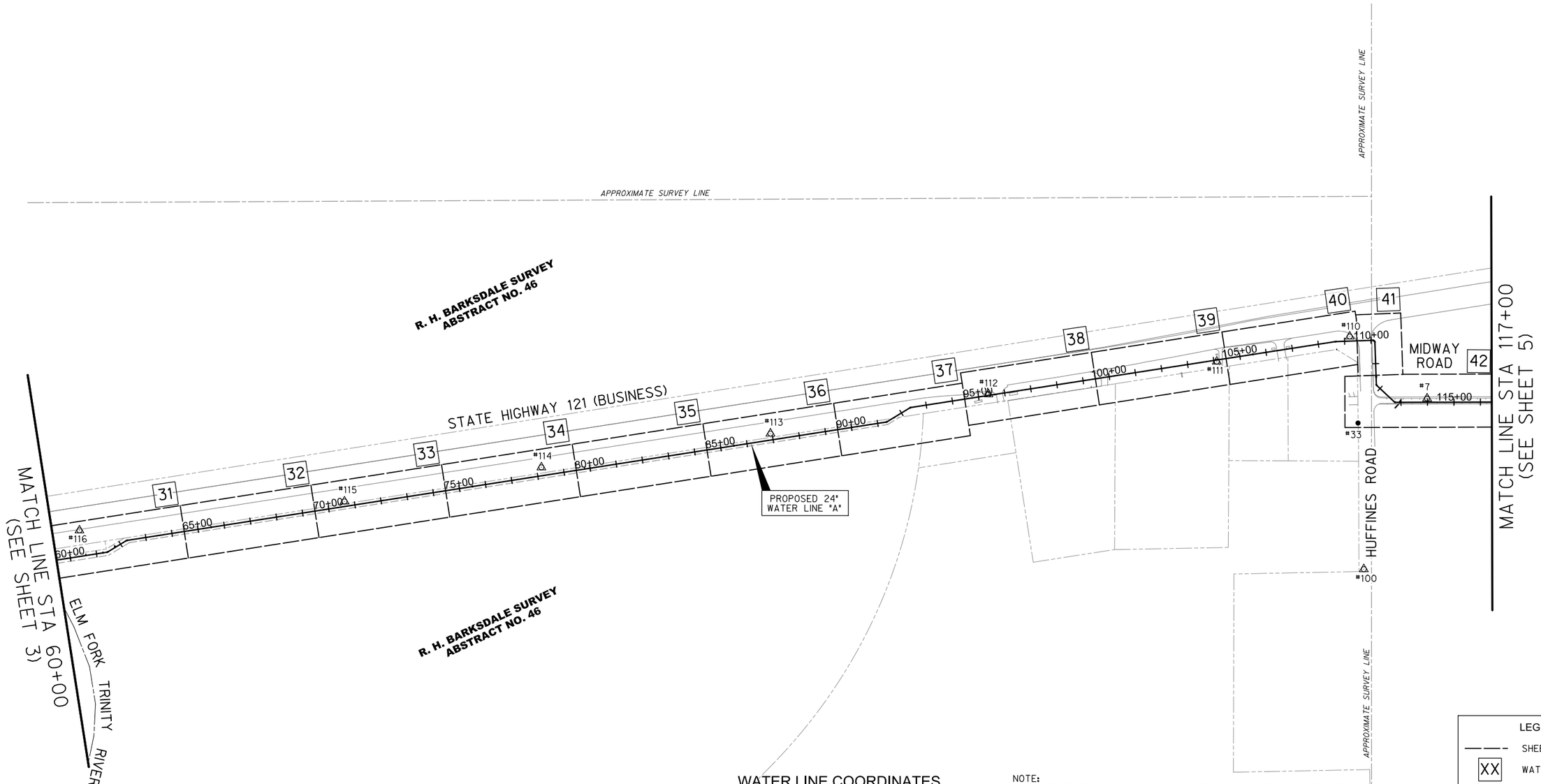

CONTROL POINT COORDINATES

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
7	7068383.92	2445457.04	473.98	SET MAG NAIL
33	7068291.21	2445195.96	476.38	FOUND CITY OF LEWISVILLE GPS MONUMENT
100	7067738.51	2445217.95	477.14	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
110	7068618.39	2445164.66	471.86	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
111	7068523.60	2444662.18	470.17	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
112	7068399.86	2443799.22	468.18	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
113	7068251.48	2442975.02	458.73	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
114	7068123.69	2442109.06	461.19	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
115	7067994.57	2441364.85	459.77	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
116	7067885.12	2440362.96	469.80	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."

WATER LINE COORDINATES

STATION	NORTHING	EASTING	DESCRIPTION
61+41.85	7067802.90	2440468.78	P.I.
62+26.78	7067847.10	2440541.30	P.I.
91+34.63	7068295.13	2443414.43	P.I.
92+39.16	7068349.53	2443503.68	P.I.
94+77.47	7068386.24	2443739.15	P.I.
96+53.03	7068413.26	2443912.62	P.I.
100+19.21	7068469.39	2444274.47	P.I.
104+54.61	7068536.14	2444704.72	P.I.
106+79.00	7068570.54	2444926.47	P.I.
108+65.59	7068599.14	2445110.85	P.I.
110+09.25	7068604.12	2445254.42	P.I.
110+16.42	7068599.23	2445259.66	P.I.
111+81.09	7068434.66	2445265.37	P.I.
112+76.66	7068369.46	2445335.25	P.I.

NOTE:
BASIS OF BEARING IS THE TEXAS COORDINATE SYSTEM NAD 83, NORTH CENTRAL ZONE (4202), BASED ON CITY OF LEWISVILLE MONUMENTS 13 AND 33 OBSERVED BY GPS USING WESTERN DATA SYSTEMS DALLAS/ FORT WORTH AREA RTK COOPERATIVE NETWORK ON 7/22/2013, CONVERGENCE ANGLE FOR CITY OF LEWISVILLE MONUMENT 13 IS 00 DEGREES 51 MINUTES 28.46486 SECONDS, ACCORDING TO CORPSCON V6.0.1 AS PROVIDED BY THE U.S. ARMY CORPS OF ENGINEERS. COORDINATES SHOWN ARE GRID COORDINATES, DISTANCE SHOWN ARE SURFACE DISTANCES, SCALE FACTOR IS 1.00015063.

DOUGLAS A. CALHOUN, RPLS NO. 5619

APPROXIMATE SURVEY LINE

N

0 100 200 300 400 600
SCALE: 1"=200'

LEGEND

———	SHEET LIMITS
XX	WATER SHEETS
△#101	CONTROL POINT
—·—·—	APPROXIMATE SURVEY LINE
— — —	PROPERTY LINE

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED
PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots. Broad Wings. Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: PROJECT LAYOUT (SHEET 2 OF 3)

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

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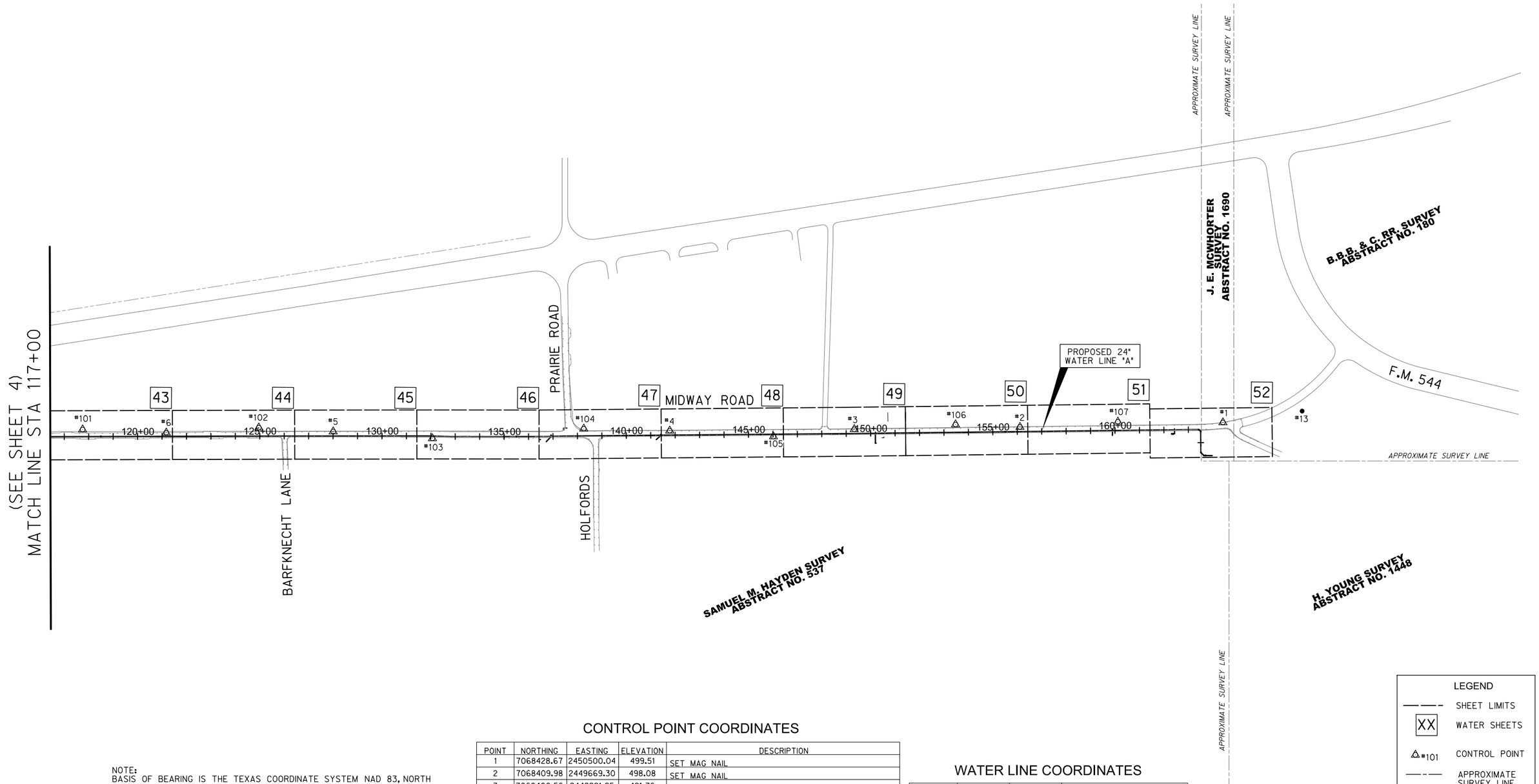

NOTE:
BASIS OF BEARING IS THE TEXAS COORDINATE SYSTEM NAD 83, NORTH CENTRAL ZONE (4202), BASED ON CITY OF LEWISVILLE MONUMENTS 13 AND 33 OBSERVED BY GPS USING WESTERN DATA SYSTEMS DALLAS/ FORT WORTH AREA RTK COOPERATIVE NETWORK ON 7/22/2013, CONVERGENCE ANGLE FOR CITY OF LEWISVILLE MONUMENT 13 IS 00 DEGREES 51 MINUTES 28.46486 SECONDS, ACCORDING TO CORPSCON V6.0.1 AS PROVIDED BY THE U.S. ARMY CORPS OF ENGINEERS. COORDINATES SHOWN ARE GRID COORDINATES, DISTANCE SHOWN ARE SURFACE DISTANCES, SCALE FACTOR IS 1.00015063.

DOUGLAS A. CALHOUN, RPLS NO. 5619

APPROXIMATE SURVEY LINE

CONTROL POINT COORDINATES

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	7068428.67	2450500.04	499.51	SET MAG NAIL
2	7068409.98	2449669.30	498.08	SET MAG NAIL
3	7068400.56	2448991.25	491.76	SET MAG NAIL
4	7068394.85	2448236.26	498.26	SET MAG NAIL
5	7068391.49	2446859.18	485.48	SET MAG NAIL
6	7068386.64	2446176.04	477.57	SET MAG NAIL
13	7068475.24	2450824.09	509.89	FOUND CITY OF LEWISVILLE GPS MONUMENT
101	7068399.58	2445833.70	473.95	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
102	7068407.35	2446554.61	481.02	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
103	7068363.52	2447265.19	491.39	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
104	7068402.90	2447884.39	497.13	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
105	7068371.13	2448660.64	496.35	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
106	7068420.20	2449405.86	495.11	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."
107	7068431.19	2450070.05	498.40	1/2" SET IRON ROD W/ RED CAP STAMPED "TRAV. PT."

WATER LINE COORDINATES

STATION	NORTHING	EASTING	DESCRIPTION
125+64.79	7068373.07	2446623.38	P.I.
131+84.38	7068373.52	2447242.96	P.I.
132+84.99	7068371.02	2447343.54	P.I.
136+73.88	7068370.94	2447732.43	P.I.
137+44.38	7068372.88	2447802.91	P.I.
149+01.70	7068382.90	2448960.18	P.I.
163+43.34	7068399.57	2450401.72	P.I.
163+53.34	7068392.58	2450408.88	P.I.
164+40.78	7068305.14	2450409.89	P.I.
164+57.99	7068293.12	2450422.19	P.I.
164+92.01	7068292.88	2450456.21	END 24-INCH WATER LINE

N

0 100 200 300 400 600
SCALE: 1"=200'

LEGEND
- SHEET LIMITS
- XX WATER SHEETS
- #101 CONTROL POINT
- APPROXIMATE SURVEY LINE
- PROPERTY LINE

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
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ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: PROJECT LAYOUT (SHEET 3 OF 3)

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
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DATE: SEPTEMBER 2017

SHEET 5 OF 106

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GENERAL NOTES:

1. All construction, materials and workmanship shall conform to City of Lewisville Standard Details, latest edition, and Public Works Construction Standards, North Central Texas Council of Governments (NCTCOG Standard Specifications), fourth edition, unless otherwise noted.

2. The Contractor shall submit a construction schedule, detailed construction sequencing plan, and detailed traffic control plan to the Engineer prior to construction. The plans shall address utility work, paving, and temporary traffic control. The plan may employ temporary street closures and temporary one-way traffic as indicated on the construction sequence. The plans shall be reviewed and approved by the Owner.

   The construction sequence and schedule shall address measures to be taken in the event of heavy rain or wet weather during construction. If, in the opinion of the City, wet weather renders unpaved streets or driveways impassable to traffic or prevents access to adjacent property by residents, the Contractor shall place gravel or crushed stone on the unpaved areas. The cost of furnishing or placing such materials shall be incidental to the unit cost of the various pay items for paving. Contractor's personnel shall be on call 24 hours per day to handle wet weather problems.

3. General traffic control measures are shown in the plans. See Sheets 70-74 and general notes on this sheet.

4. The Contractor shall provide temporary drainage measures during construction.

5. Access to private driveways and adjacent properties shall be maintained (by vehicle and foot) at all times except for a short period of time when excavations and equipment actually block driveway or when concrete is curing. The Contractor shall place gravel or take other means to ensure all-weather access to properties after working hours and during weekends and holidays. This cost shall be considered subsidiary to various bid items. Closure shall be coordinated with adjacent property owners. The contractor shall notify property owners at least 48 hours in advance and shall designate all areas to be closed. For residents or businesses with multiple driveways, one driveway may be closed as long as the other(s) are left open.

6. Bracing of utility poles may be required by utility companies when trenching or excavation is in close proximity to the poles. The cost of bracing poles will be borne by the Contractor. There is no separate pay item for this work. The cost shall be considered incidental work included in the Contract Unit Price bid for applicable pipe or structure installation.

7. The locations, elevations and dimensions of all existing utilities shown on the plans were obtained from available utility company records and plans and are considered approximate. It shall be the Contractor's responsibility to verify locations, elevations, and dimensions of adjacent and/or conflicting utilities sufficiently in advance of construction in order that adjustments can be made to provide adequate clearances. The Contractor shall preserve and protect public utilities at all times during construction. Any damage to utilities resulting from Contractor's operations shall be restored at his expense. The Engineer shall be notified when proposed facility grades conflict with existing utility grades. The following utility companies shall be notified at least ten (10) days in advance of construction:

Verizon	(972) 318-5276
Texas-New Mexico Company	(972) 317-5110
TXU Electric and Gas	(940) 380-7475
AT&T / SBC	(214) 464-4095
Co-Serv	(940) 321-7800
City of Lewisville Public Services	(972) 219-3521
United States Post Office	(800) 275-8777
Atmos	(940) 380-7475
Time Warner Cable	(972) 318-5276

8. The Contractor shall immediately repair or replace any physical damage to private property, including, but not limited to fences, walls, pavement, grass, trees, planters and lawn sprinkler and irrigation systems at no cost to the owner. This work shall be subsidiary to the contract, unless otherwise noted, and is not a separate pay item.

9. The Contractor shall remove surplus material from the project area. This work shall be subsidiary to the contract and is not a separate pay item.

10. No onsite materials shall be used as topsoil. All topsoil shall be imported from a commercial source for topsoil and must meet specifications for imported topsoil.

11. The Contractor shall sawcut, remove and dispose of existing pavements, curb and gutter, driveways and riprap offsite.

12. The Contractor shall topsoil, seed and fertilize all areas disturbed by construction. The Contractor shall provide whatever measures are needed including temporary irrigation to insure full coverage of grassing. Unless otherwise noted, private lawn areas and parkways disturbed by construction shall be replaced with block sod of a similar grass to that existing. All seeded or sodded areas shall receive four (4) inches of topsoil. All grass areas shall be fertilized at the rate of 400 lbs. per acre.

13. The Contractor shall be responsible for taking measures to minimize damage to tree limbs, tree trunks, and tree roots along the route of the project. All such measures shall be considered incidental work included in the Contract unit Price bid for applicable pipe or structure installation. Contractor shall inspect each work site in advance and arrange to have any tree limbs pruned that might be damaged by equipment operations. The Engineer shall be notified at least 24 hours prior to any tree trimming work. Nothing shall be stored over the tree root system within the drip line limits of any tree. The Contractor shall employ a qualified landscaper for all work required for tree care to ensure utilization of the best agricultural practices and procedures.

14. A Stormwater Pollution Prevention Plan shall be implemented and maintained during construction. See Sheets 63-69 for information on Erosion Control Measures and Stormwater Pollution Prevention Plan.

15. All fences, planters and edging to remain unless otherwise noted.

16. Contractor shall field locate pipelines at connection points prior to ordering or fabricating proposed pipe. Contractor shall verify pipe size, type, elevation and horizontal location. Contractor shall make all necessary adjustments to connect to existing line after approval from the engineer.

17. The Contractor shall install temporary fence as necessary on all tracts to receive permanent fence as shown on these plans. Temporary fence shall be substantial enough to contain any livestock that may be on the property. Temporary fence payment is incidental to the permanent fence bid item.

18. Portions of waterline construction are in the flood plain of the Elm Fork of the Trinity River. The Contractor is responsible for protecting equipment and installed work from flooding. The Contractor shall contact and coordinate with USACE on lake operations and anticipated lake discharges. Contact Rob Jordan, USACE Lewisville Lake Location, 469-645-9100, hours 8AM to 4:30PM.

19. The Contractor shall be responsible for providing a two (2) year, 100% Maintenance Bond to the City of Lewisville for all public improvements (water, sanitary sewer, storm drainage, pavement, sidewalk, screening walls, traffic signals, pavement markings, and excavation/fill) within right-of-ways or easements.

20. All trenches that are excavated to a depth in excess of five (5) feet shall be excavated and maintained in a manner that meets all Occupational Safety and Health Administration (OSHA) standards. Prior to the excavation and construction of the trench(es), the Contractor shall be responsible for submitting two (2) copies of the trench safety plans prepared by a Licensed Professional Engineer in the State of Texas in accordance with OSHA standards.

21. All embedment and backfill shall be wetted to approximate optimum moisture and compacted in maximum eight (8) inch loose lifts to 95% Standard Proctor density. Density tests shall be obtained for each lift and for each 150 lineal feet of trench or increment thereof. The Contractor shall be responsible for submitting a copy of all geotechnical laboratory reports/test results to the City of Lewisville.

22. No water jetting is allowed for water, sanitary sewer and storm sewer backfill.

23. There shall be no filling in the floodplain or dumping within the City of Lewisville without an approved grading plan and/or fill permit.

24. The Contractor shall be responsible for recording all field changes to the plans. The project engineer shall incorporate these changes in "Record Drawings".

25. The Contractor shall be responsible for providing erosion control in accordance with the Erosion Control Plan prepared by the engineer and/or as identified on the Storm Water Pollution Prevention Plan (S.W.P.P.P.). The Contractor shall install additional erosion control devices when field conditions warrant or as directed by the City of Lewisville or the Engineer.

26. The permitted operator shall submit copies of the Notice of Intent (N.O.I.) and the Notice of Termination (N.O.T.) to the City of Lewisville Engineering Division as part of the submittal to the Texas Commission on Environmental Quality (TCEQ).

27. The Contractor shall remove and replace any concrete pavement (drive approaches/street panels) within five (5) days of saw cutting the pavement. Concrete pavement subject to vehicular traffic shall have a compressive strength of 4,200 PSI at 3 days.

28. The use of fly ash is not allowed in the concrete mix design.

29. Subsurface Utility Engineering (SUE) services were conducted in October 2013, with follow-up service occurring in May 2014 to provide updates.

GENERAL NOTES FOR WATER LINES:

1. Water lines larger than 12 inches (nominal) diameter shall be the following:
   - Ductile iron pipe, cement lined, bituminous coated class 50, with polyethylene encasement.

   (Note: Concrete pipe manufacturers shall make all proposed pipe connections.)

2. Water line "A" shall have a 60 inch minimum cover from finished grade to top of pipe.

3. All water main pipe fittings will be in accordance with the City of Lewisville Standards Details and specifications.

4. Fittings shall be either gray or ductile cast iron and shall be cement lined inside and bituminous coated on the outside.

5. Pipe joints shall be of the push-on type unless otherwise noted.

6. Valves and vault lids shall be located outside of sidewalk areas.

7. All trenching, embedment, and backfill will be incidental to the unit cost of pipe.

8. Water line sections crossing wastewater mains or laterals shall be a minimum of 18 feet long and shall be centered over the wastewater main or lateral such that the joints of the water line are equidistance and at least nine feet horizontally from the center line of the wastewater main or lateral. Whenever possible, the crossing shall be centered between the joints of the wastewater main or lateral and at a minimum vertical clearance of two feet. When the horizontal distance between the water line joint and wastewater main or lateral is less than nine feet, the wastewater pipe and joints shall be constructed with pipe material having a minimum pressure rating of 150 psi. Water services shall be adjusted so that there is a minimum of 10 feet of clearance between the water service and adjacent sanitary sewer services.

9. Pipe fabrication time or material deliver delays will not be considered justification for additional Calendar Days.

10. Steel casing pipe shall conform to AWWA C200. Unless otherwise shown on the plans the minimum wall thickness shall be 1/2-inch thick. Steel casing pipe shall be coated in accordance with AWWA C203.

11. Portions of water line "A" will be installed below groundwater elevations. The Contractors attention is directed to Item 203.5.4., which states:

    "The Contractor shall remove all water from any source which may accumulate in the excavation. The embedment of pipe shall not be installed in water. No water will be allowed to flow through or over unset concrete or through the completed line. All water removed from excavations shall be disposed of in an approved manner, so as not to create unsanitary conditions, injure persons or property, damage the work in progress, on/or interfere unduly with the use of streets, private driveways or entrances. Pumping, bailing and draining, underdrains, ditches, etc. shall be considered as incidental work and shall not be paid for as separate items, but their cost shall be included in such contract prices as are provided for in the contract."

    Well point systems are included in the list of measures to be taken, if required, and will be considered as incidental to the cost of pipe.

12. Contractor is responsible for any measures necessary to prevent flotation of the pipe. The Contractor's attention is directed to item 203.5.6.4., which states:

    "The Owner shall have the right to limit the amount of trenches that shall be opened, or partly opened, in advance of or following the pipe laying operation. Unless otherwise directed by the Owner, the completion of backfill shall immediately follow the pipe laying. In the event the Contractor fails to comply with the requirement, the Owner may stop the pipe laying until the requirements are met."

    In the event that flotation occurs, the Contractor is responsible for re-installing or replacing the floated pipe.

LEGEND

- PROPOSED WATER LINE
- PROPOSED BUTTERFLY VALVE
- PROPOSED AIR VALVE
- PROPOSED BLOW-OFF VALVE
- PROPOSED STEEL CASING
- FUTURE STORM DRAIN MANHOLE
- FUTURE STANDARD INLET
- FUTURE STORM DRAIN
- EXISTING STORM DRAIN
- 6" SS — EXISTING SANITARY SEWER LINE
- SSMH — EXISTING SANITARY SEWER MANHOLE
- CO — EXISTING SANITARY SEWER CLEAN OUT
- Ex 8"W — EXISTING WATER LINE
- WV — EXISTING WATER VALVE
- FH — EXISTING FIRE HYDRANT
- WM — EXISTING WATER METER
- Ex Gas — EXISTING GAS LINE
- GM — EXISTING GAS METER
- GTS — EXISTING GAS TEST STATION
- Ex UGE — EXISTING UNDERGROUND ELECTRIC
- Ex OHE — EXISTING OVERHEAD ELECTRIC
- PP — EXISTING POWER POLE
- LP — EXISTING LIGHT POLE
- GW — EXISTING GUY WIRE
- Ex CATV — EXISTING CABLE TV
- Ex F/O — EXISTING FIBER OPTIC
- Ex UG Tel — EXISTING UNDERGROUND TELEPHONE CABLE
- BOL — EXISTING BOLLARD
- EXISTING TREE
- UPN — UNITE PRIVATE NETWORKS
- EXISTING CONCRETE PAVEMENT
- EXISTING ASPHALT PAVEMENT
- EXISTING BARBED WIRE FENCE
- EXISTING WOODEN FENCE
- EXISTING PIPE FENCE
- BH 1 — BORE HOLE
- 1/2" FIR — FOUND IRON RODS
- EXISTING PROPERTY LINE
- EXISTING EASEMENT LINE

GENERAL NOTES FOR TRAFFIC CONTROL:

1. All traffic control measures shall be installed and maintained in accordance with the Texas Manual on Uniform Traffic Control Devices (TMUTCD), latest edition.

2. The Contractor shall notify the City before covering, uncovering, relocating or removing any regulatory signs.

3. The Contractor shall cover existing signs and obliterate existing pavement markings that are in conflict with the intent of these traffic control plans and which may cause confusion to the traveling public.

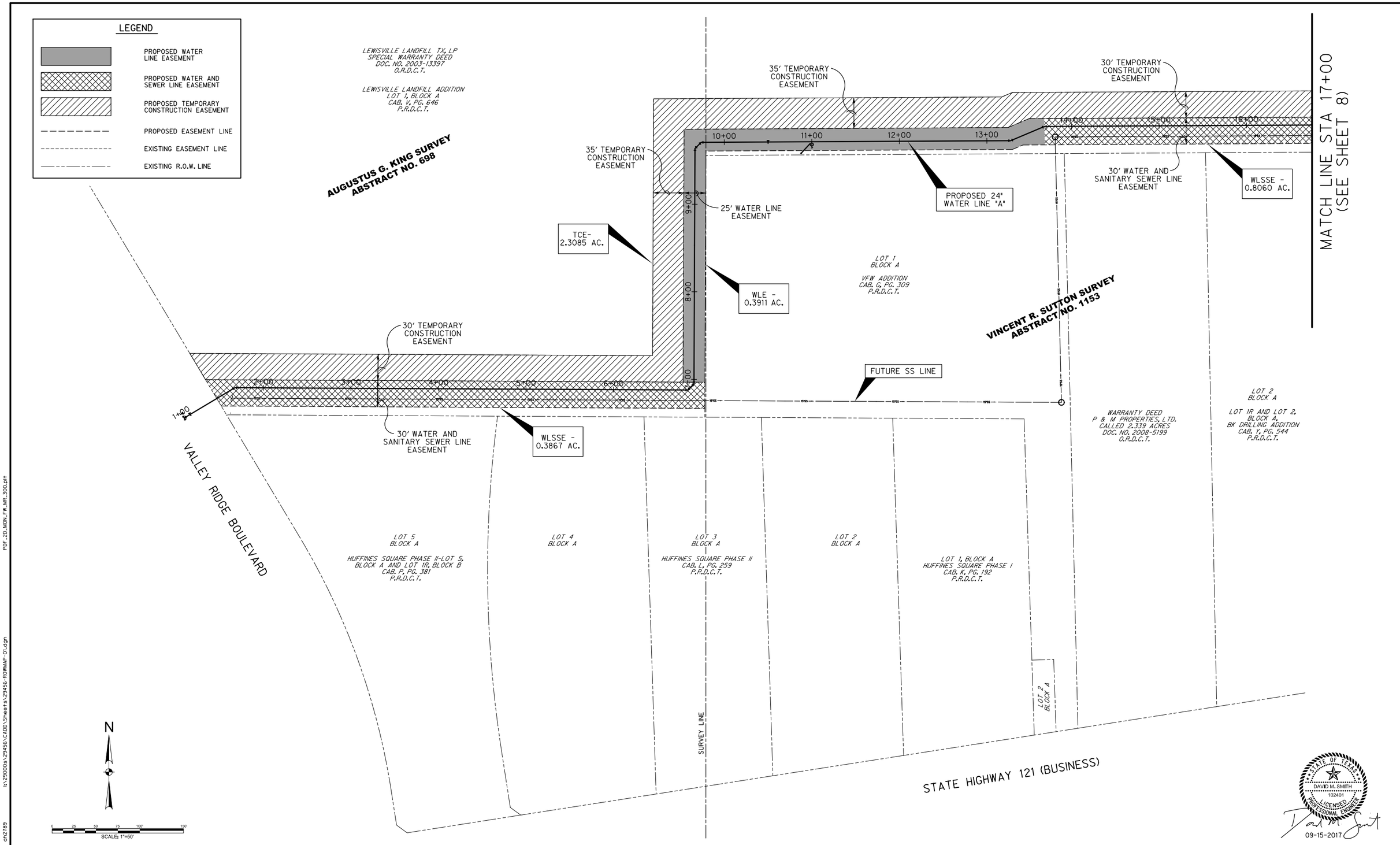
4. The Contractor shall uncover existing signs and replace pavement markings in-kind, and as originally configured, at the end of construction operations and prior to final acceptance by the Owner.

5. All temporary signs, barricades, warning lights and other miscellaneous traffic control measures shall be removed and original traffic control measures replaced at the end of the Contractor's construction operations.

6. The temporary traffic control measures shown on these plans are to be considered an established minimum. Additional signs, barricades, or other warning devices shall be furnished when necessary to safely guide traffic through the construction area.

7. All Street Construction Ahead and End Construction signs shall be placed before construction begins and shall not be removed until the City directs the Contractor to do so.

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017



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LEWISVILLE
Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: RIGHT-OF-WAY MAP
STA 1+00 TO STA 17+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
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SHEET 7 OF 106

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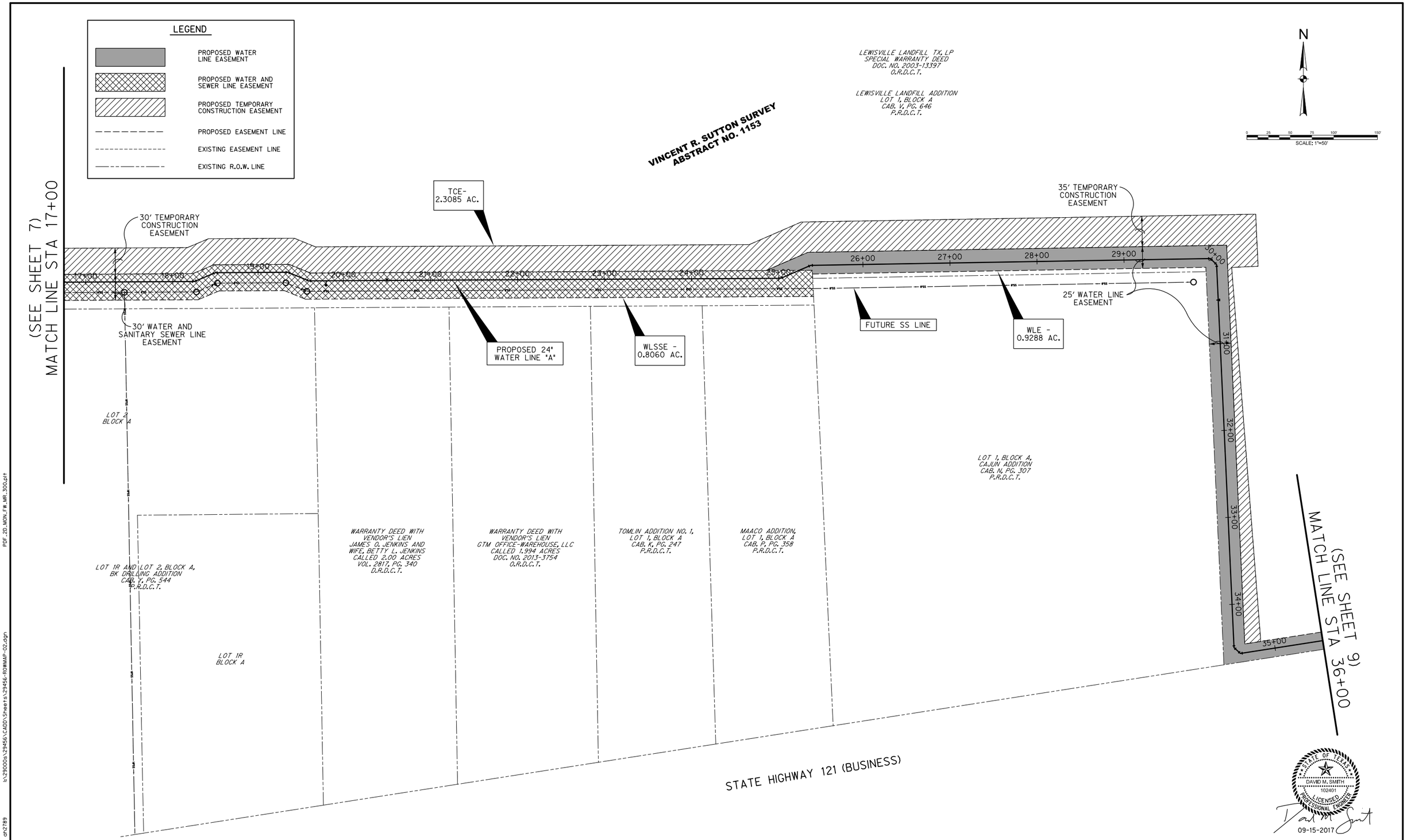

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LEWISVILLE
Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: RIGHT-OF-WAY MAP
STA 17+00 TO STA 36+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
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SHEET 8 OF 106

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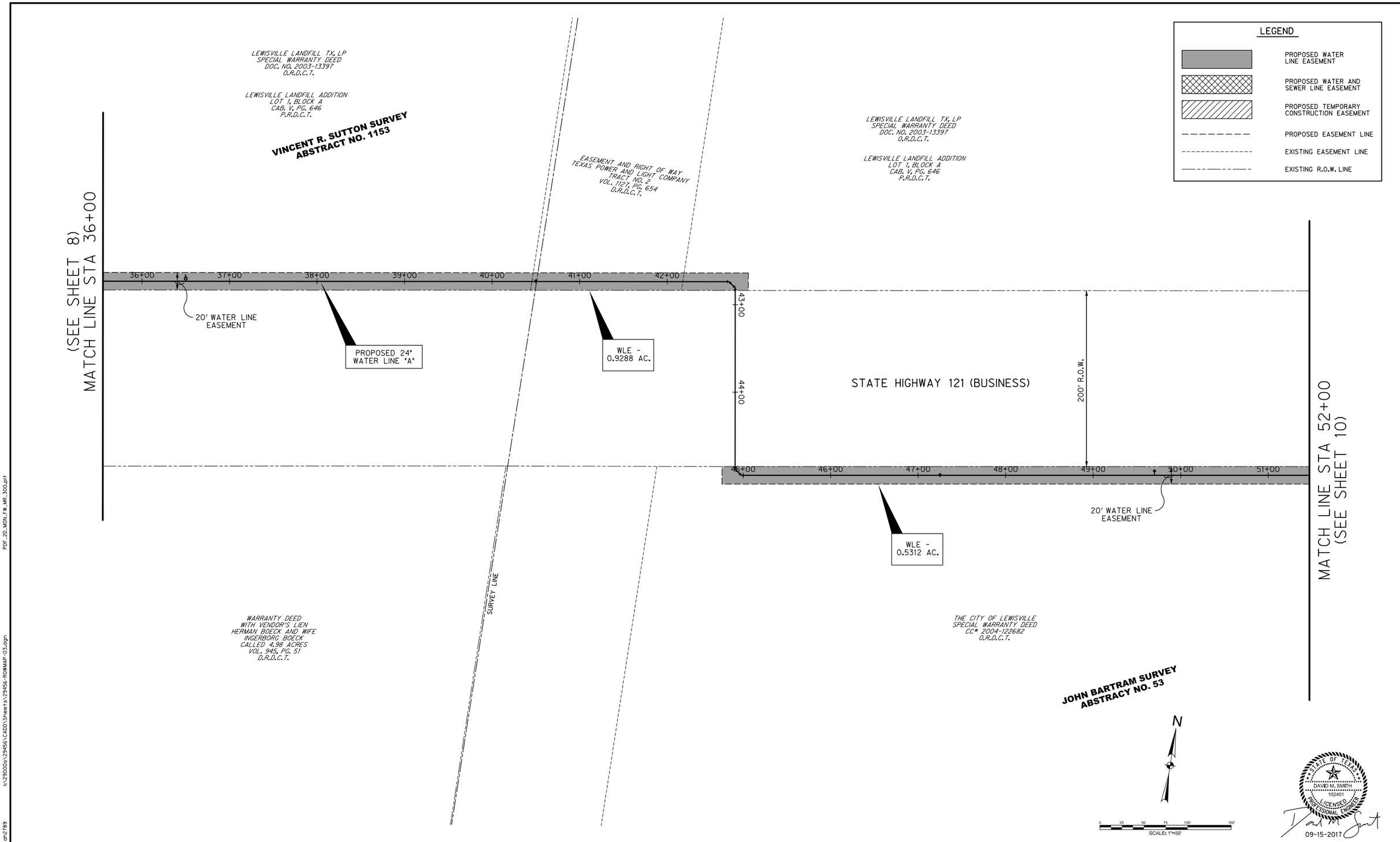

LEWISVILLE
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ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: RIGHT-OF-WAY MAP
STA 36+00 TO STA 52+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
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FAX (817) 232-9784
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DATE: SEPTEMBER 2017

SHEET 9 OF 106

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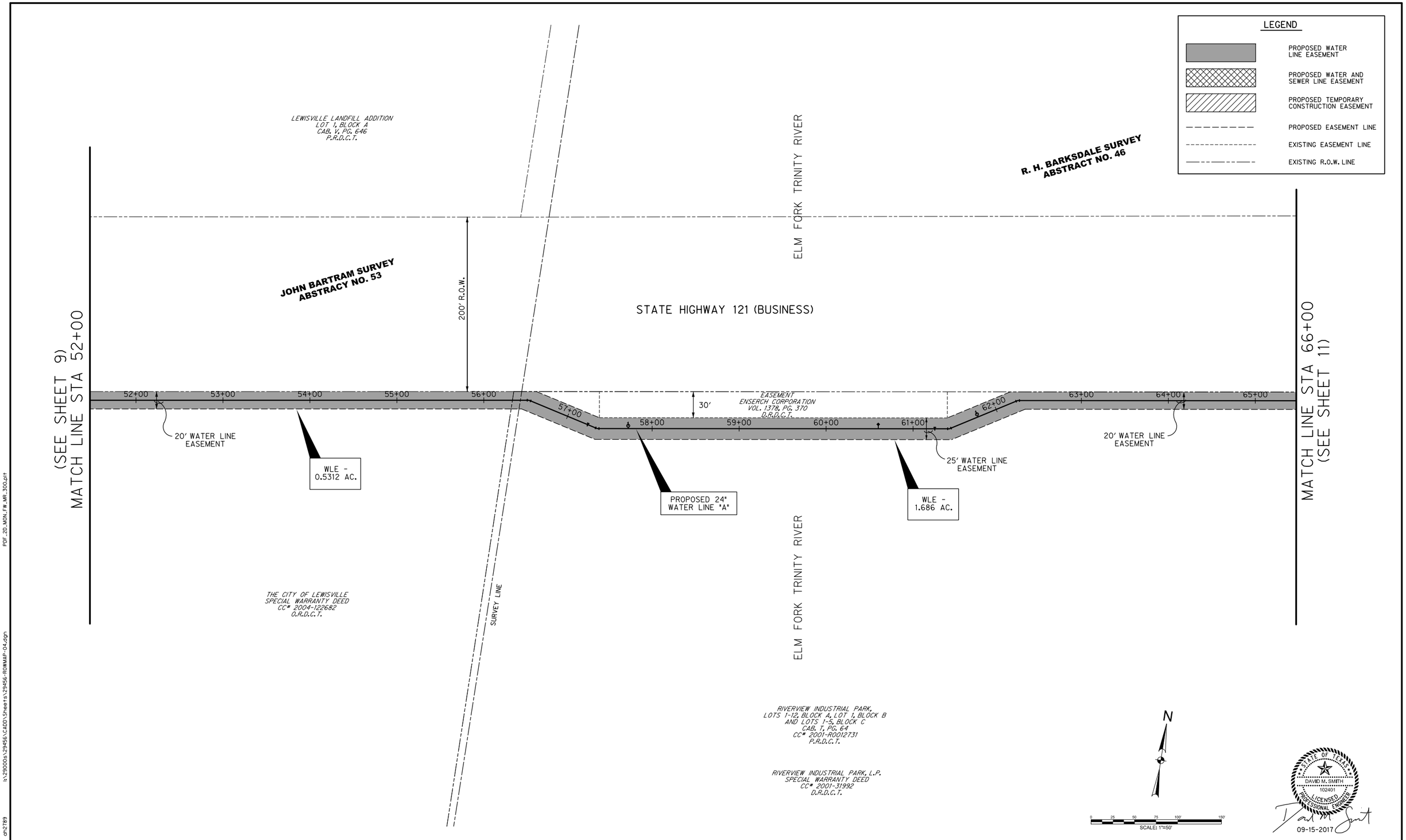

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LEWISVILLE
Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: RIGHT-OF-WAY MAP
STA 52+00 TO STA 66+00

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4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
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TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 10 OF 106

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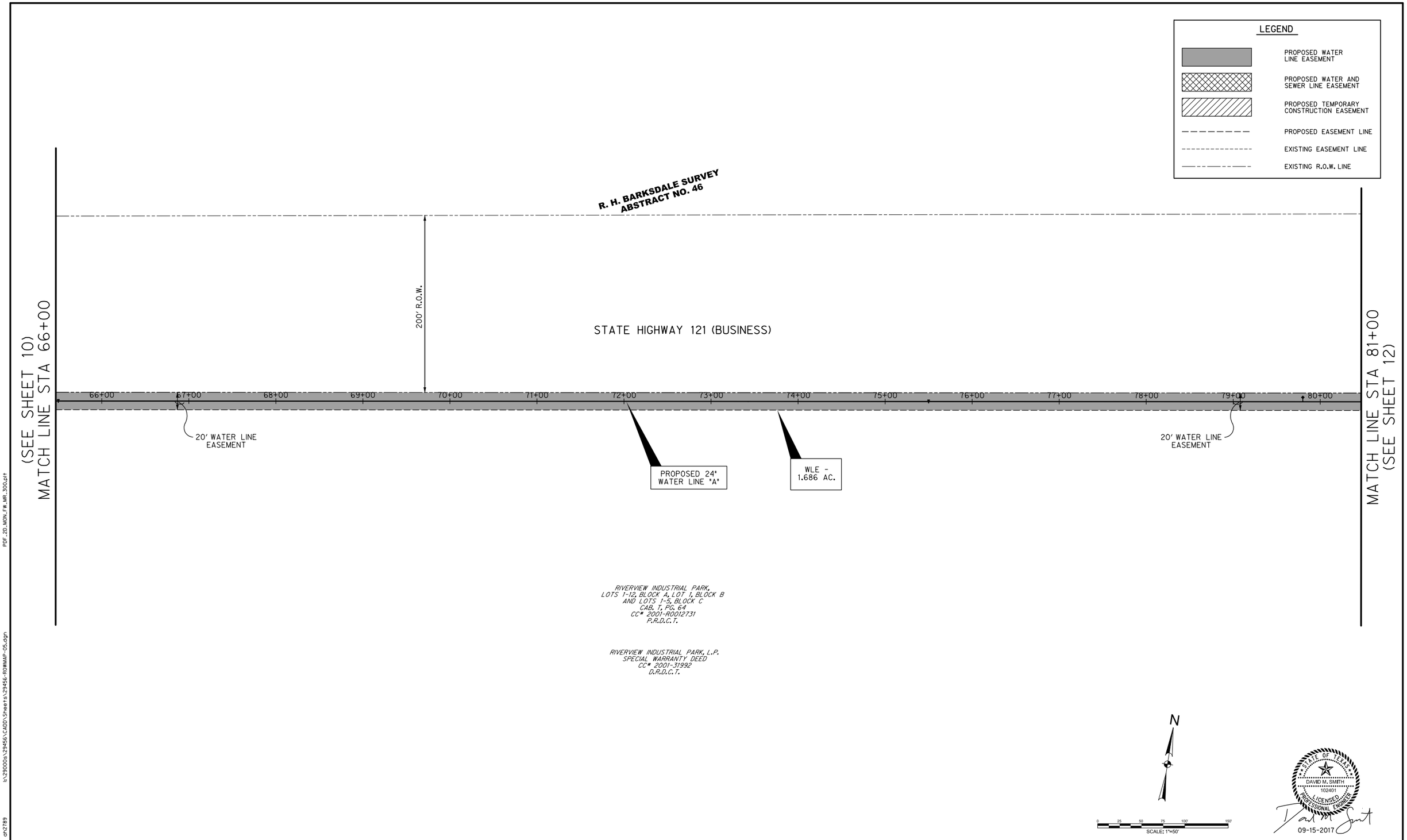

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CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: RIGHT-OF-WAY MAP
STA 66+00 TO STA 81+00

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DATE: SEPTEMBER 2017

SHEET 11 OF 106

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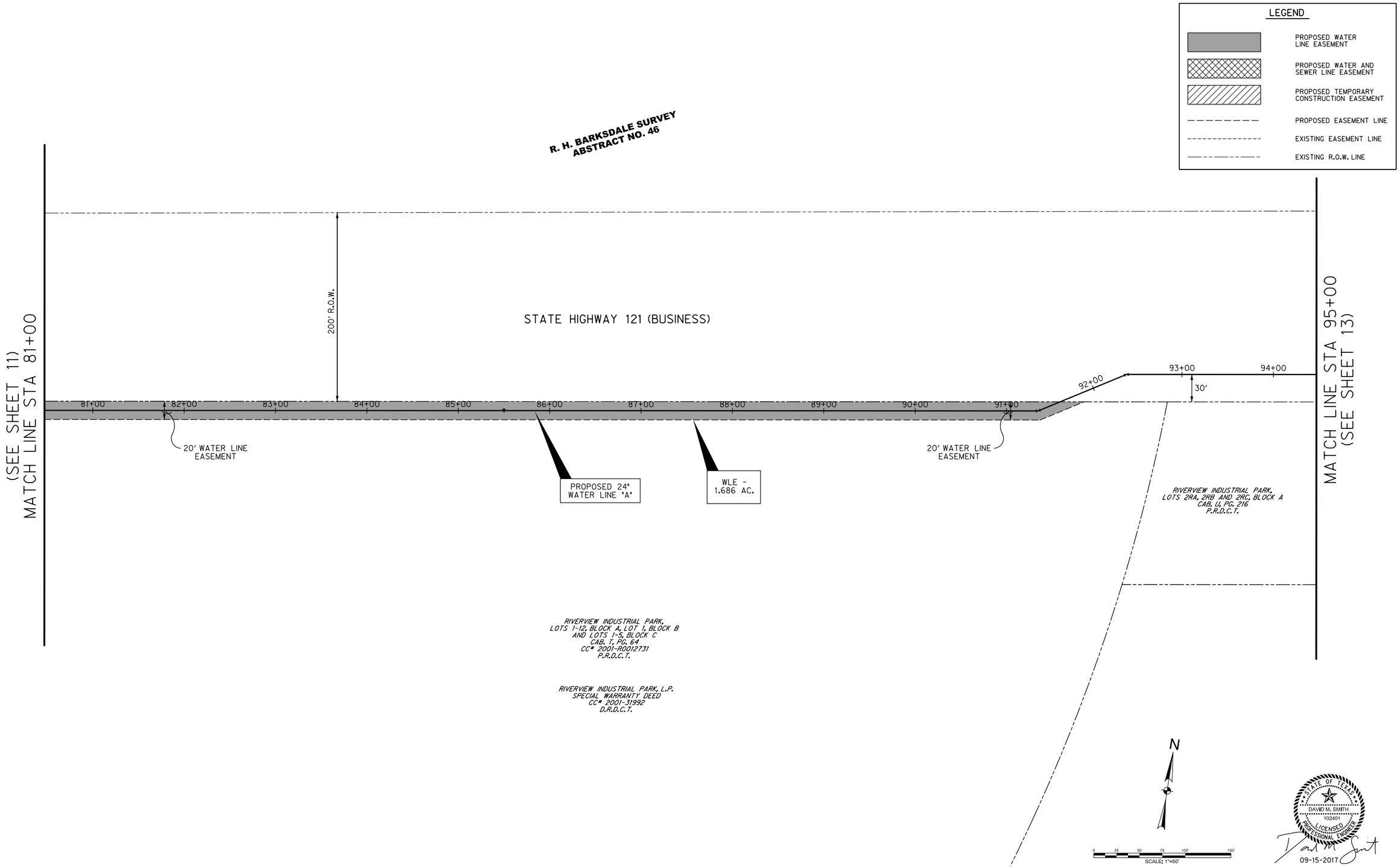

LEWISVILLE
Deep Roots. Broad Wings. Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: RIGHT-OF-WAY MAP
STA 81+00 TO STA 95+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 12 OF 106

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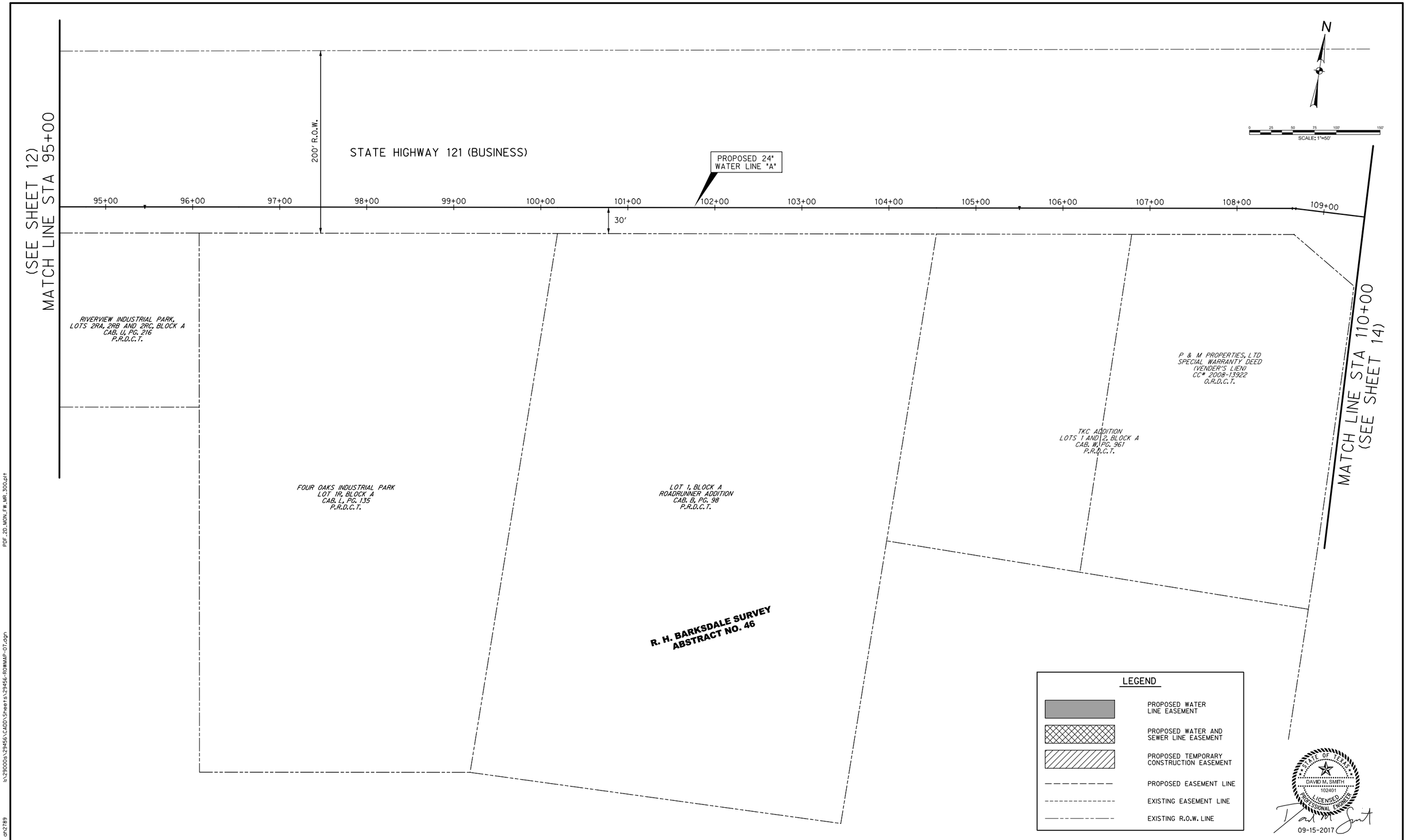

LEWISVILLE
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ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: RIGHT-OF-WAY MAP
STA 95+00 TO STA 110+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
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FAX (817) 232-9784
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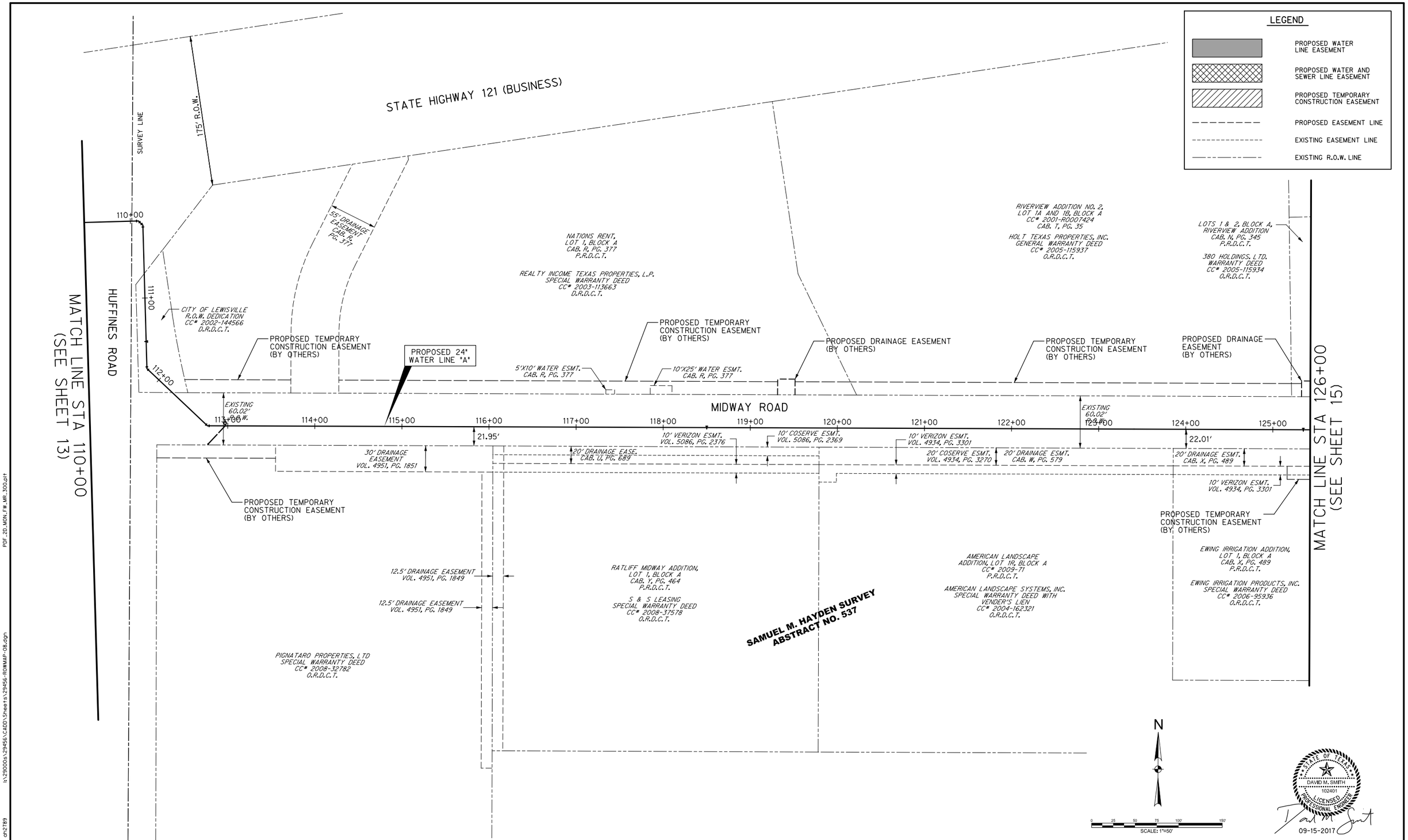

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CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: RIGHT-OF-WAY MAP
STA 110+00 TO STA 126+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
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FAX (817) 232-9784
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DATE: SEPTEMBER 2017

SHEET 14 OF 106

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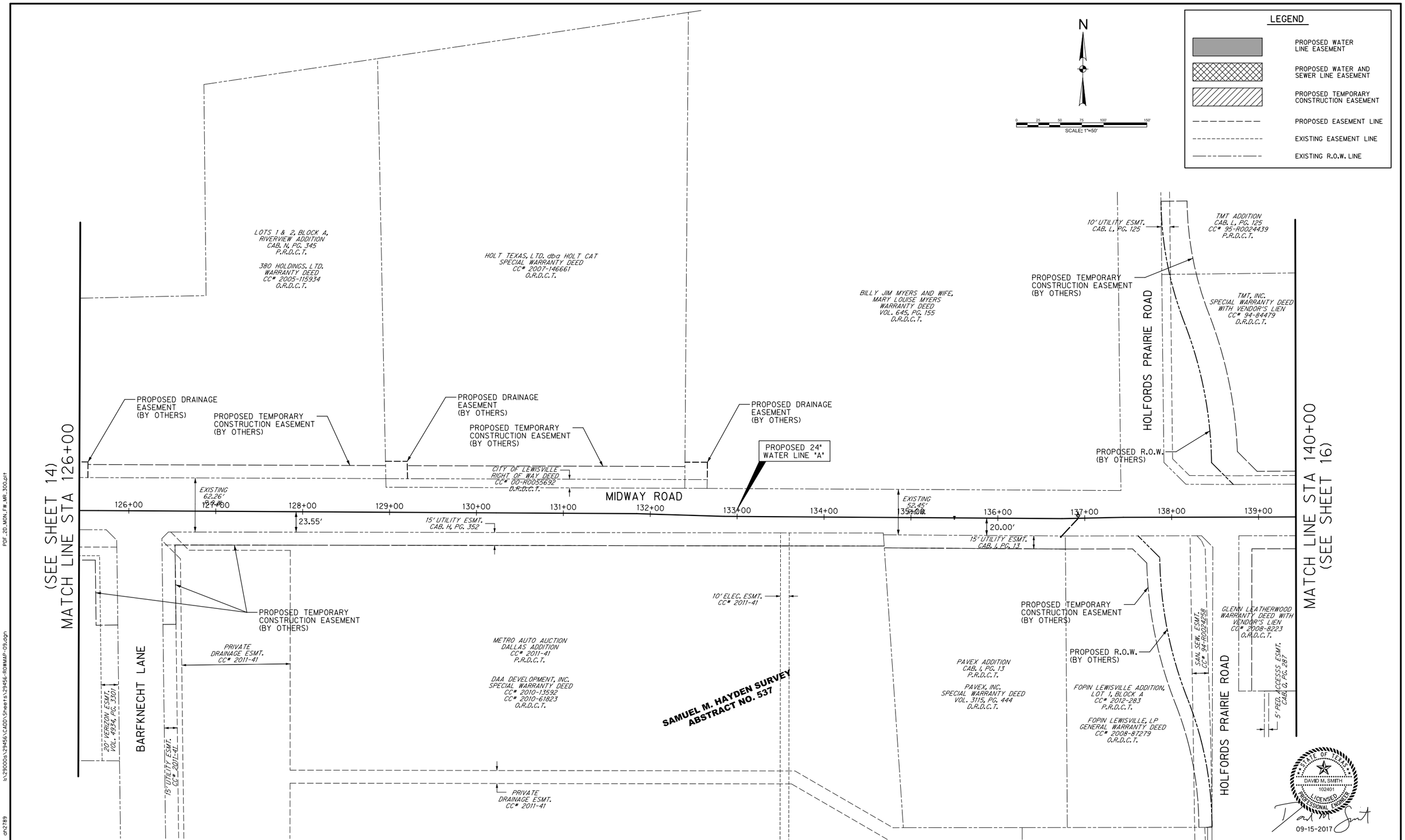

LEWISVILLE
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CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: RIGHT-OF-WAY MAP
STA 126+00 TO STA 140+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
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FAX (817) 232-9784
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DATE: SEPTEMBER 2017

SHEET 15 OF 106

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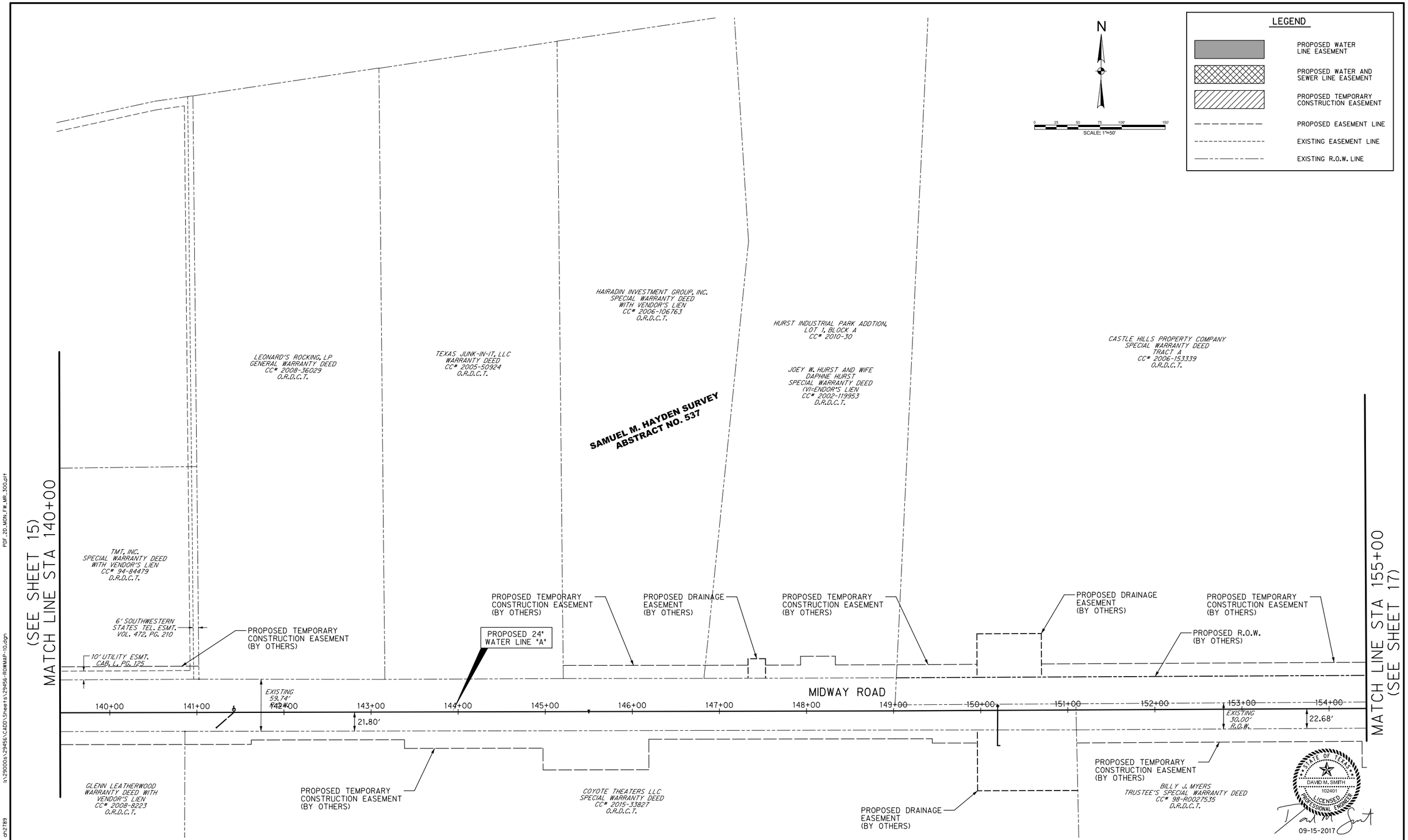

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: RIGHT-OF-WAY MAP
STA 140+00 TO STA 155+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
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SHEET 16 OF 106

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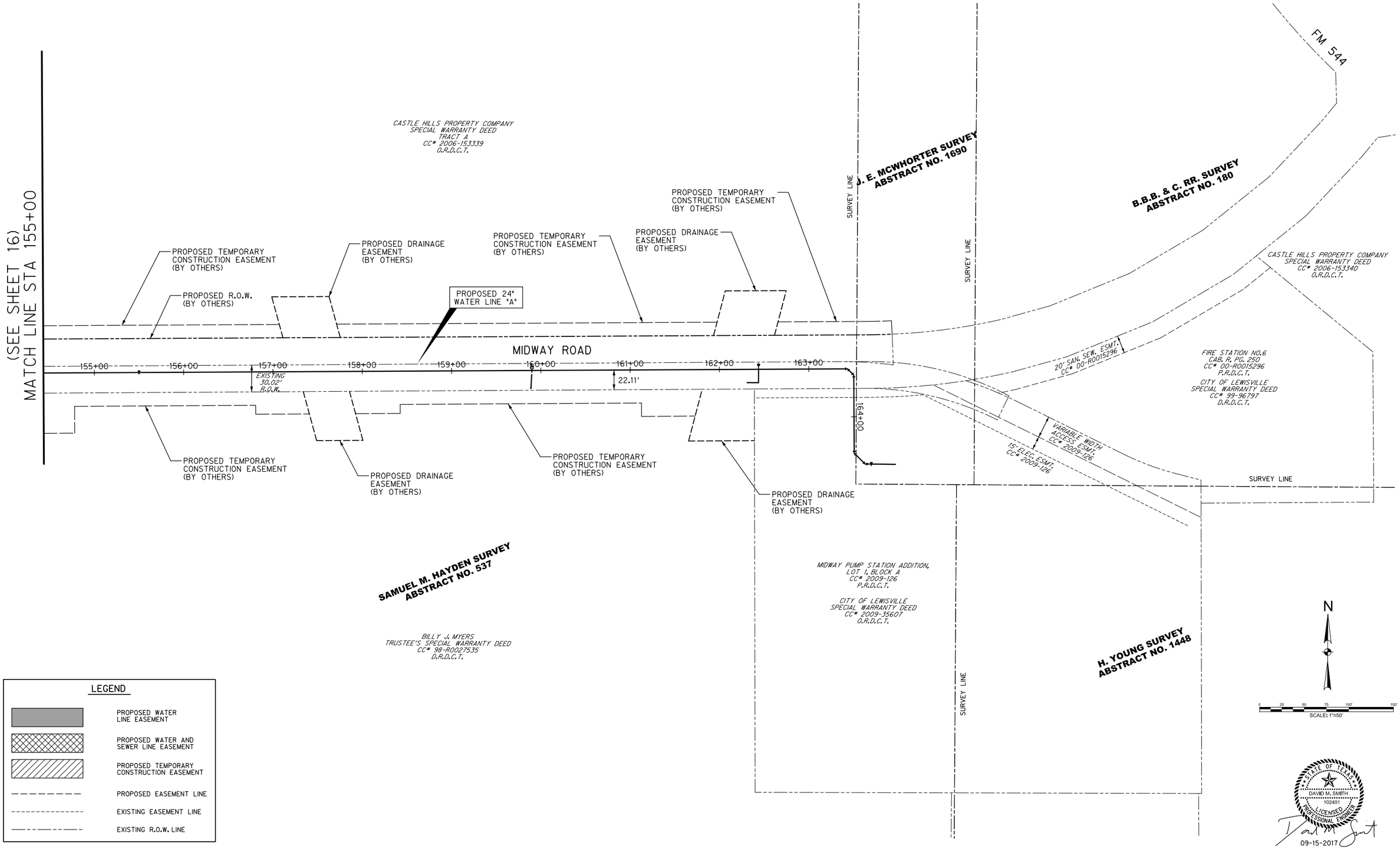

LEWISVILLE
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CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: RIGHT-OF-WAY MAP
STA 155+00 TO END

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FORT WORTH, TEXAS 76137-2797
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FAX (817) 232-9784
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CAUTION!!!
UNDERGROUND AND OVERHEAD UTILITIES IN VICINITY. CONTRACTOR SHALL LOCATE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES IN THE VICINITY OF CONSTRUCTION PRIOR TO COMMENCING WORK.

NOTES:

1. CONTRACTOR SHALL COORDINATE WITH CITY FORCES TO SCHEDULE AND DEVELOP SHUTDOWN PLAN PRIOR TO CONSTRUCTION.

2. CONTRACTOR SHALL FIELD LOCATE PIPELINES AT CONNECTION POINTS PRIOR TO ORDERING OR FABRICATING PROPOSED PIPE. CONTRACTOR SHALL VERIFY PIPE SIZE, TYPE, ELEVATION AND HORIZONTAL LOCATION. CONTRACTOR SHALL MAKE ALL NECESSARY ADJUSTMENTS TO CONNECT TO EXISTING LINE AFTER APPROVAL FROM THE ENGINEER.

STA 1+00.00, PROP. W.L. "A"
CONNECT TO EXIST. 30" D.I. WATER LINE
BEGIN PROP. W.L. "A"
INSTALL 30" X 24" CUT-IN TEE W/ HORIZ. BLOCKING
INSTALL 30" DIRECT BURY BUTTERFLY VALVE
N = 7067765.64
E = 2435356.13

STA 1+08.00, PROP. W.L. "A"
INSTALL 24" DIRECT BURY BUTTERFLY VALVE
N = 7067769.75
E = 2435363.00

CONTRACTOR TO REMOVE & REPLACE TWO FENCE PANELS AND ONE FENCE POST UNDER EMERGENCY SITUATIONS UPON WRITTEN REQUEST

STA 1+67.41, PROP. W.L. "A"
P.I. DEFLECT 31°10'24" RT,
INSTALL HORIZONTAL BLOCKING
N = 7067800.25
E = 2435413.99

LEWISVILLE LANDFILL ADDITION
LOT 1, BLOCK A
CAB. V, PG. 646
P.R.D.C.T.

PROPOSED 24" WATER LINE "A"

FUTURE LANDFILL IMPROVEMENTS

30' TEMPORARY CONSTRUCTION EASEMENT

REMOVE AND REPLACE MARKER SEE NOTE 1

REMOVE AND REPLACE MARKER SEE NOTE 1

30' WATER AND SANITARY SEWER LINE EASEMENT

FURNISH & INSTALL PIPELINE MARKER AT PROPERTY LINE 2 FEET ABOVE 100-YR WSE = 462.00
SEE PIPELINE MARKER DETAIL

STA 1+48.28 22.30' RT, PROP. W.L. "A"
FUTURE 6" GAS VENT PIPE TO BE INSTALLED BY OTHERS
N = 7067771.29
E = 2435409.02

36 LF OF 36" O.D. X 3/8" THK WALL STEEL CASING

REMOVE AND REPLACE 28 SY CONCRETE PAVEMENT

SUE TEST HOLE #1
30" DUCTILE IRON
SURFACE ELEVATION=460.95
MEASURED DEPTH=13.3'
N=7067760.68
E=2435359.08

FUTURE SEWER LINE BY OTHERS

LOT 5
BLOCK A

HUFFINES SQUARE PHASE II-LOT 5, BLOCK A AND LOT 1R, BLOCK B
CAB. P, PG. 381
P.R.D.C.T.

VALLEY RIDGE BOULEVARD

470 FT. TO NEXT VALVE

R.O.W.

MATCH LINE STA 5+00

NOTE:

1. LANDFILL MARKERS SHALL BE SURVEYED PRIOR TO REMOVAL AND ALL MARKERS SHALL BE REPLACE TO THEIR ORIGINAL LOCATIONS

2. LANDFILL RETAINS RIGHTS TO CONSTRUCTION SPOILS WITHIN THEIR PROPERTY

N

SCALE: 1"=20'

PROFILE SCALE
HORIZ. 1"=20'
VERT. 1"=4'

VALLEY RIDGE BLVD ℄

BOREHOLE B1

CLAYEY SAND

CLAYEY SAND

SAND/ CLAYEY SAND

SHALE

APPROX. FEMA EFFECTIVE 100-YR WSEL 462.00

EXISTING GROUND LINE @ PIPE C.L.

FUTURE GROUND LINE @ PIPE C.L.

FUTURE 15" SS LINE

INSTALL 36 LF OF 36" O.D. X 3/8" THK WALL STEEL CASING BY OTHER THAN OPEN CUT

PROPOSED 30"x24" CUT-IN TEE

30" DIRECT BURY BUTTERFLY VALVE

EXISTING 30" WATER

EXIST. 30" WL @ 1.32%

24" WATER LINE @ -1.28%

24" WATER LINE @ +0.53%

DETAIL "A"

STA 1+00.00, PROP. WL "A"
BEGIN PROP. WL "A"
CONNECT TO EXIST. 30" D.I. WL
INSTALL 30" X 24" CUT-IN TEE AND 30" DIRECT BURY BUTTERFLY VALVE
FL 24" WL = 445.40+/-
FL 30" WL = 445.15+/-

STA 1+08.00, PROP. WL "A"
INSTALL 24" DIRECT BURY BUTTERFLY VALVE
FL 24" WL =445.30

STA 1+12.00,
PROP. WL "A"
BEGIN STEEL CASING PIPE
FL 24" WL =445.25

STA 1+48.00,
PROP. WL "A"
END STEEL CASING PIPE
FL 24" WL =444.78

FL 24" WL =444.12

STA 2+35.00,
PROP. WL "A"
DEFLECT UP 01°02'3"
FL 24" WL =443.67

FL 24" WL =444.01

FL 24" WL =444.27

FL 24" WL =444.54

FL 24" WL =444.80

FL 24" WL =445.06

MATCH LINE STA 5+00

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

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CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A" PLAN AND PROFILE STA 1+00 TO STA 5+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
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FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 18 OF 106

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NOTE:

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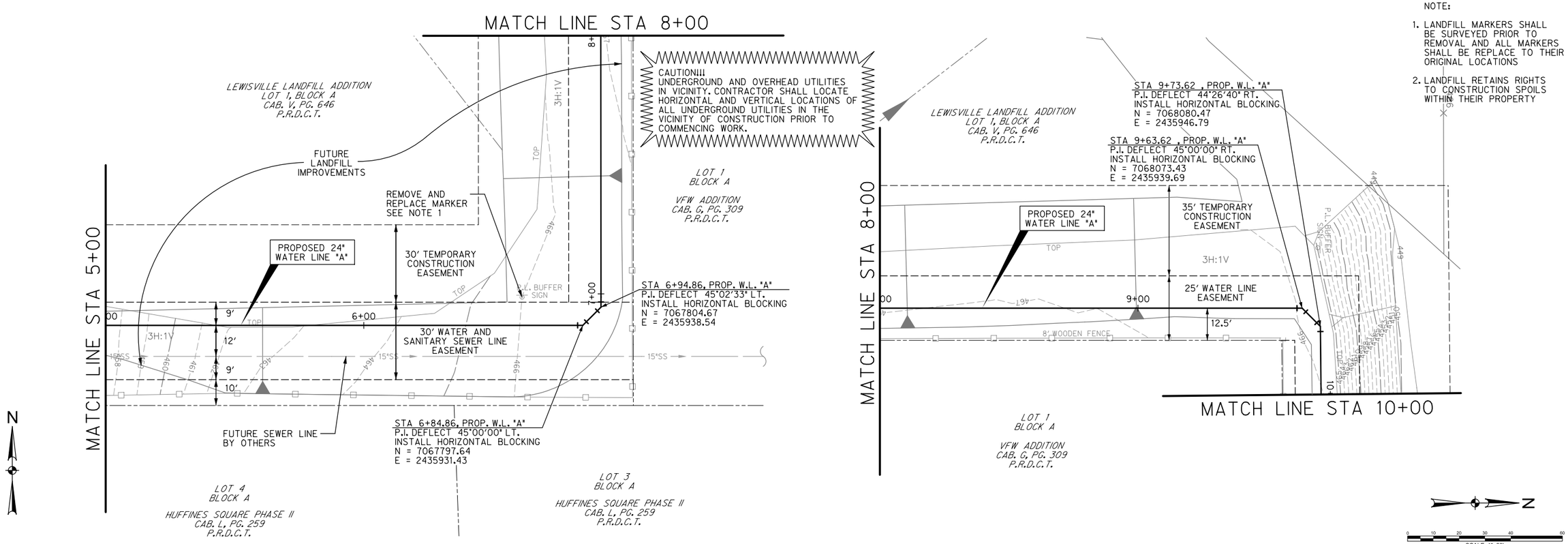

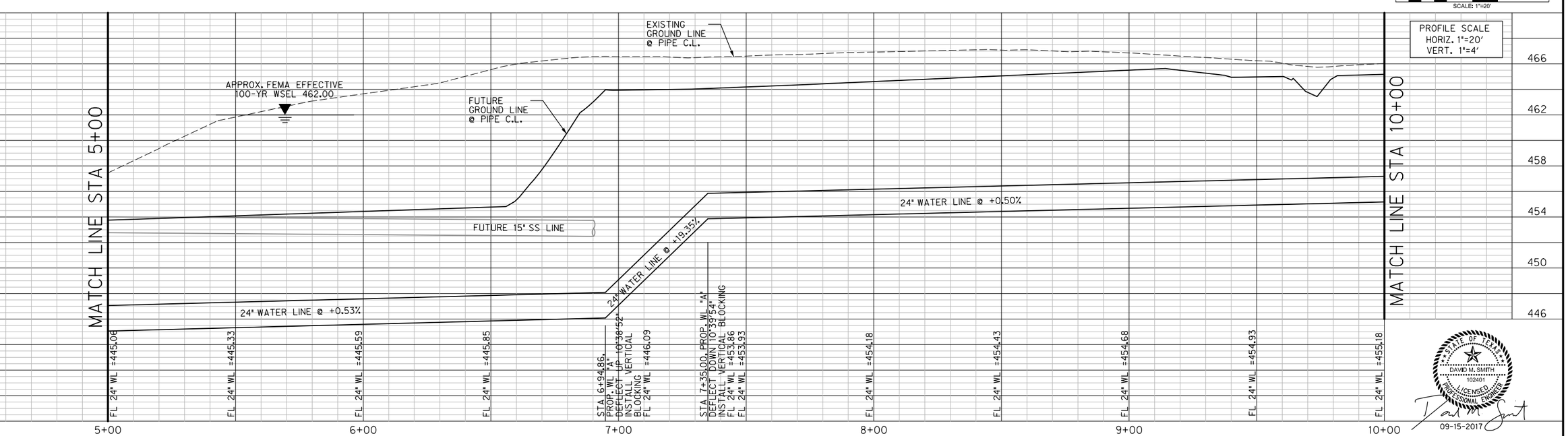

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DAVID M. SMITH
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09-15-2017

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CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A" PLAN AND PROFILE STA 5+00 TO STA 10+00

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FORT WORTH, TEXAS 76137-2797
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SHEET 19 OF 106

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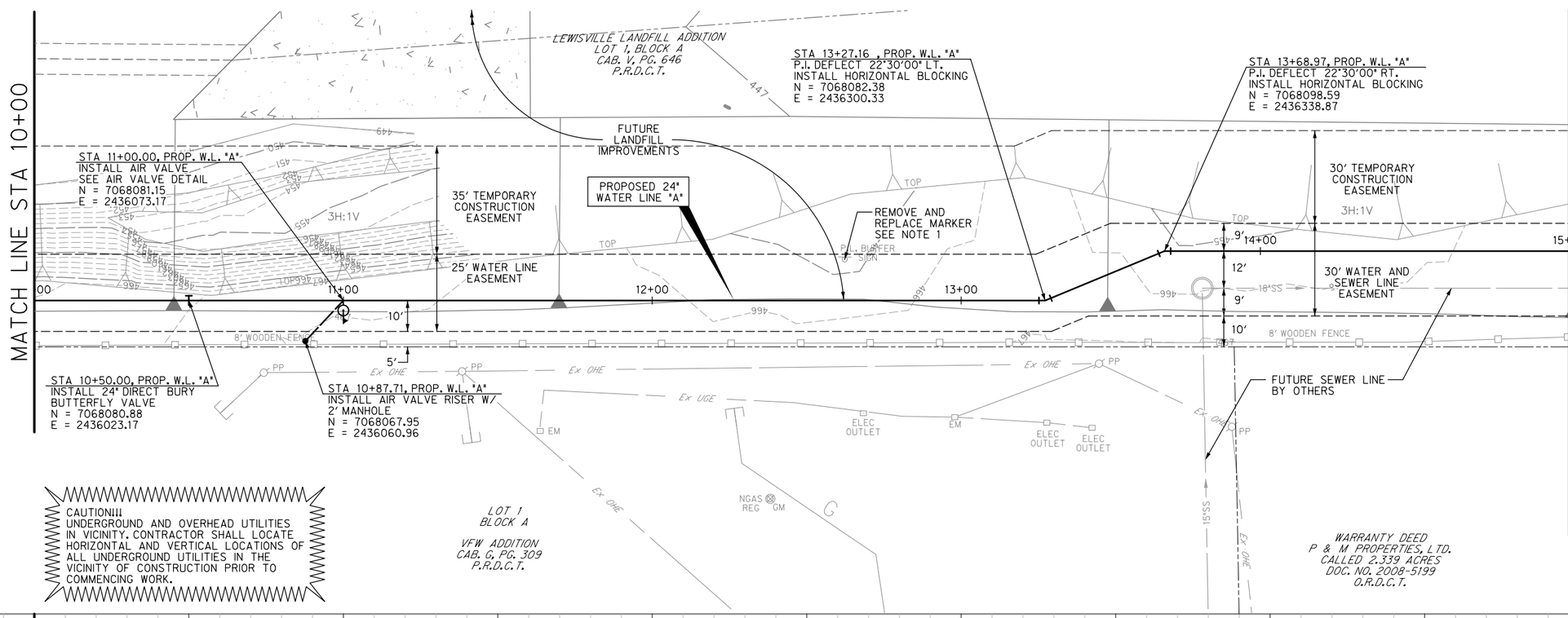

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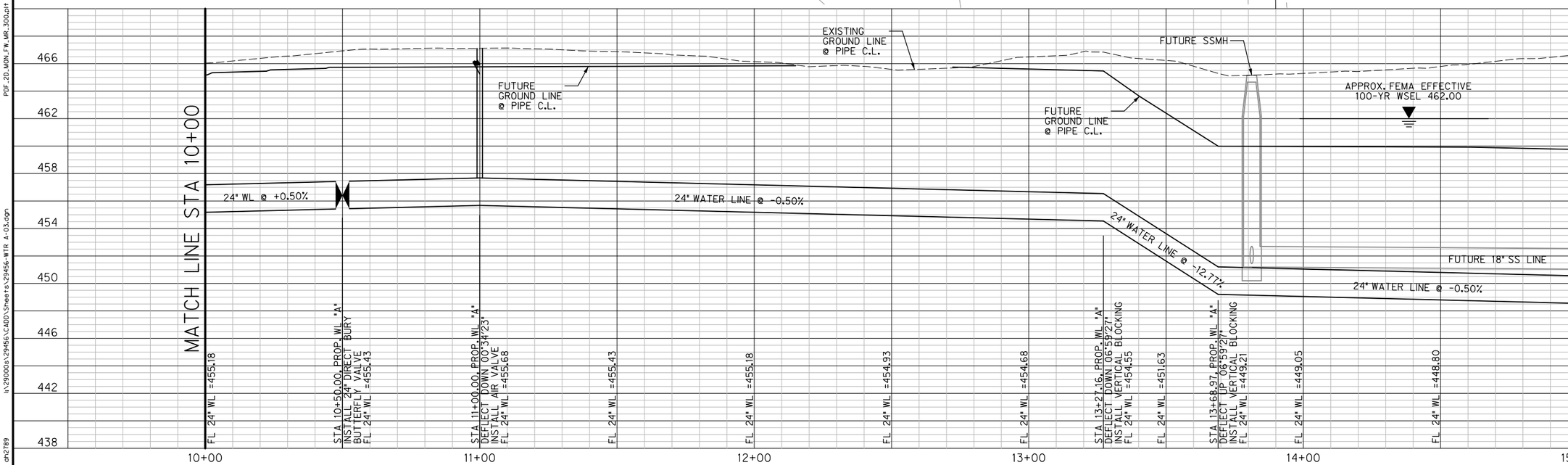

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102401
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09-15-2017

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CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A" PLAN AND PROFILE STA 10+00 TO STA 15+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
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FAX (817) 232-9784
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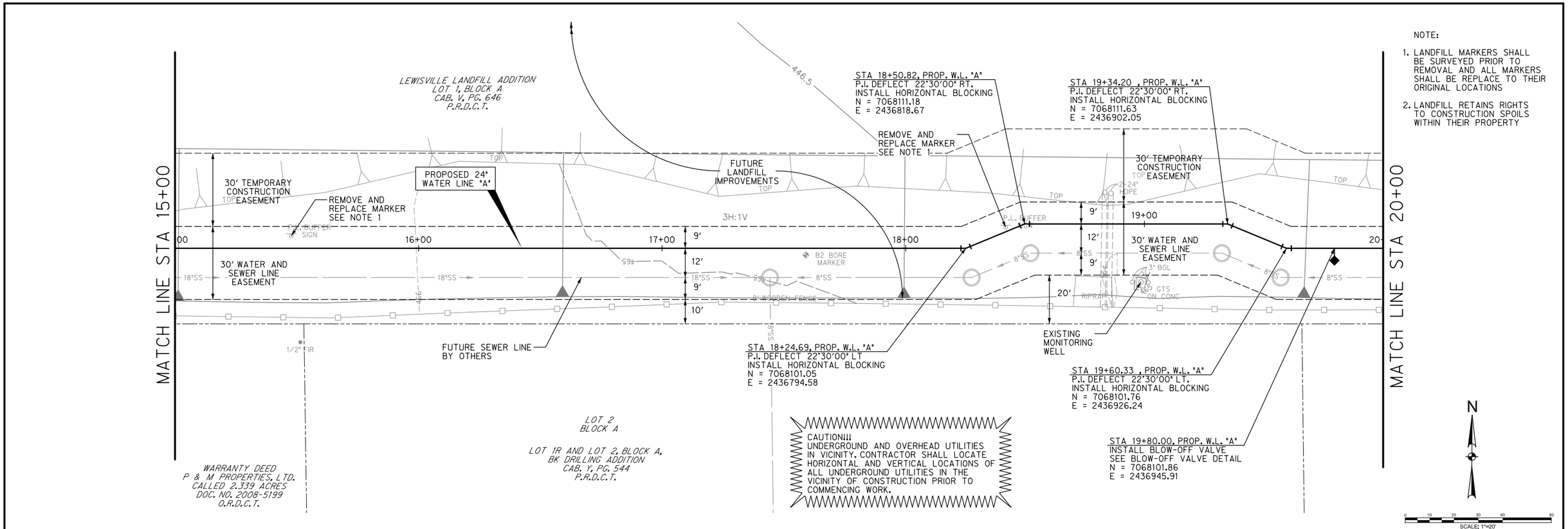

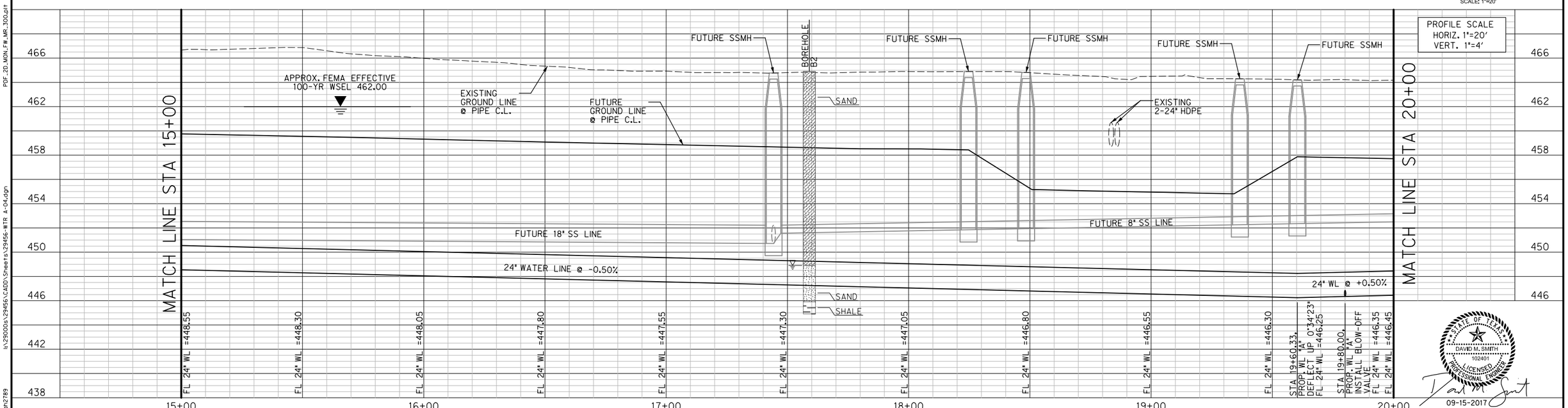

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09-15-2017

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ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A"
PLAN AND PROFILE
STA 15+00 TO STA 20+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
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DATE: SEPTEMBER 2017

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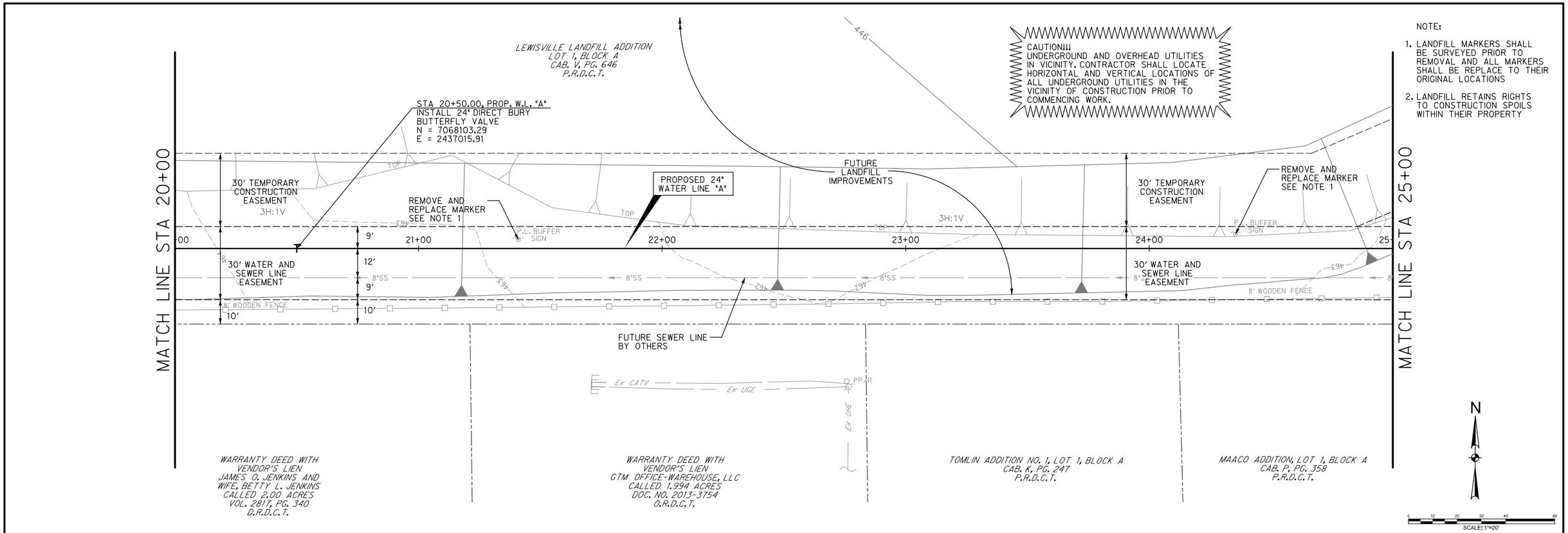

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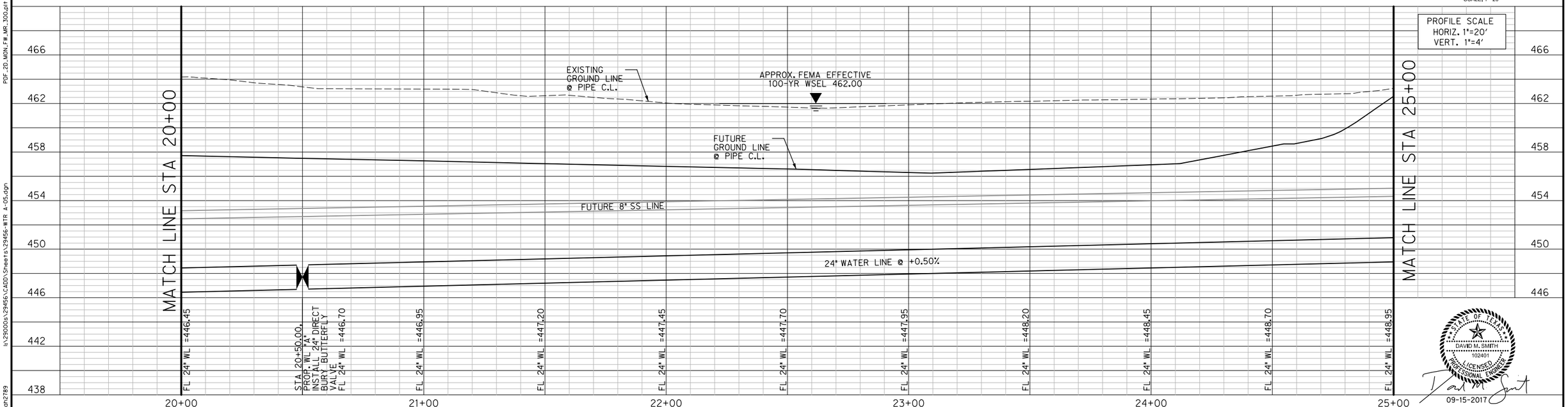

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09-15-2017

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A"
PLAN AND PROFILE
STA 20+00 TO STA 25+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
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DATE: SEPTEMBER 2017

SHEET 22 OF 106

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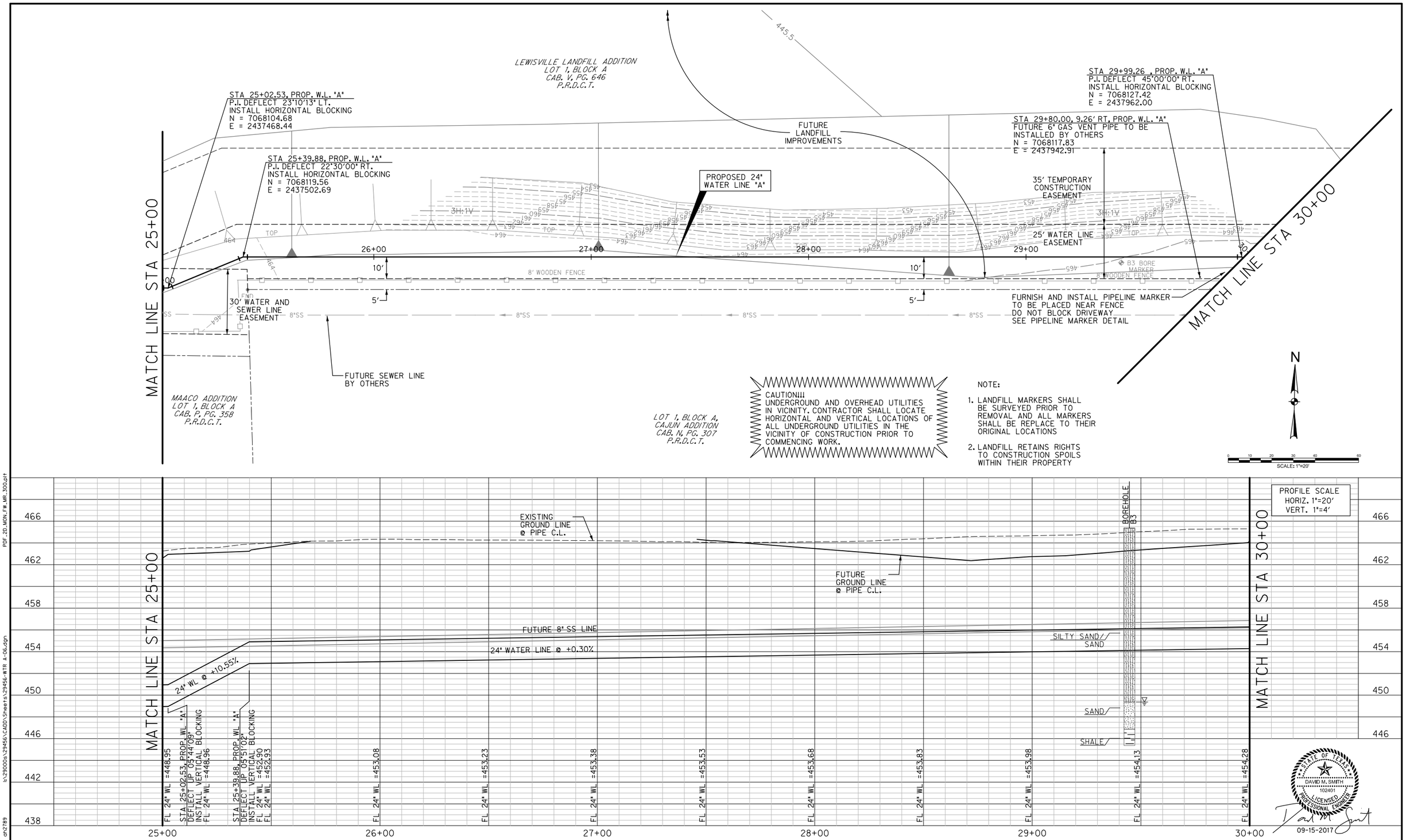

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CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A"
PLAN AND PROFILE
STA 25+00 TO STA 30+00

HALFF
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SHEET 23 OF 106

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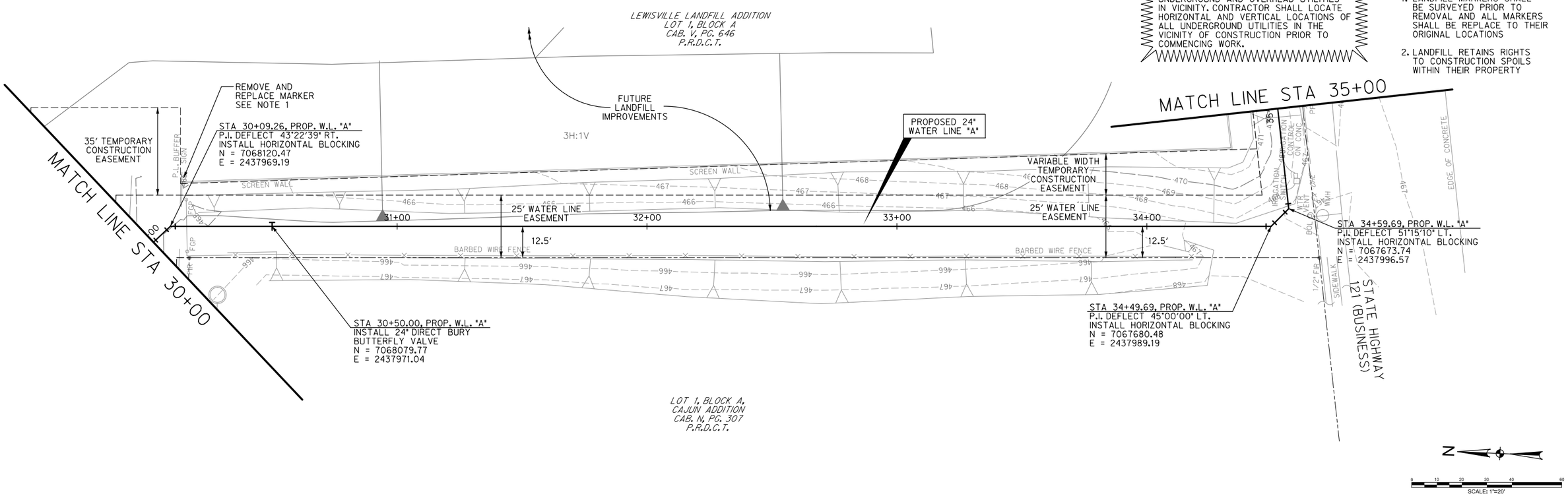

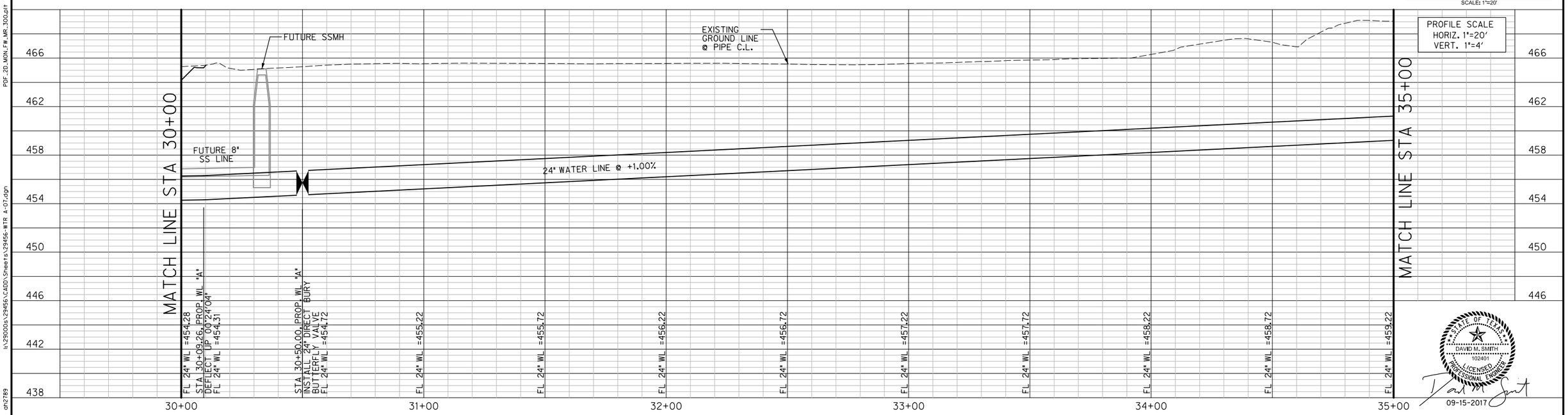

STATE OF TEXAS
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09-15-2017

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CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A" PLAN AND PROFILE STA 30+00 TO STA 35+00

HALFF
4000 FOSSIL CREEK BLVD
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TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 24 OF 106

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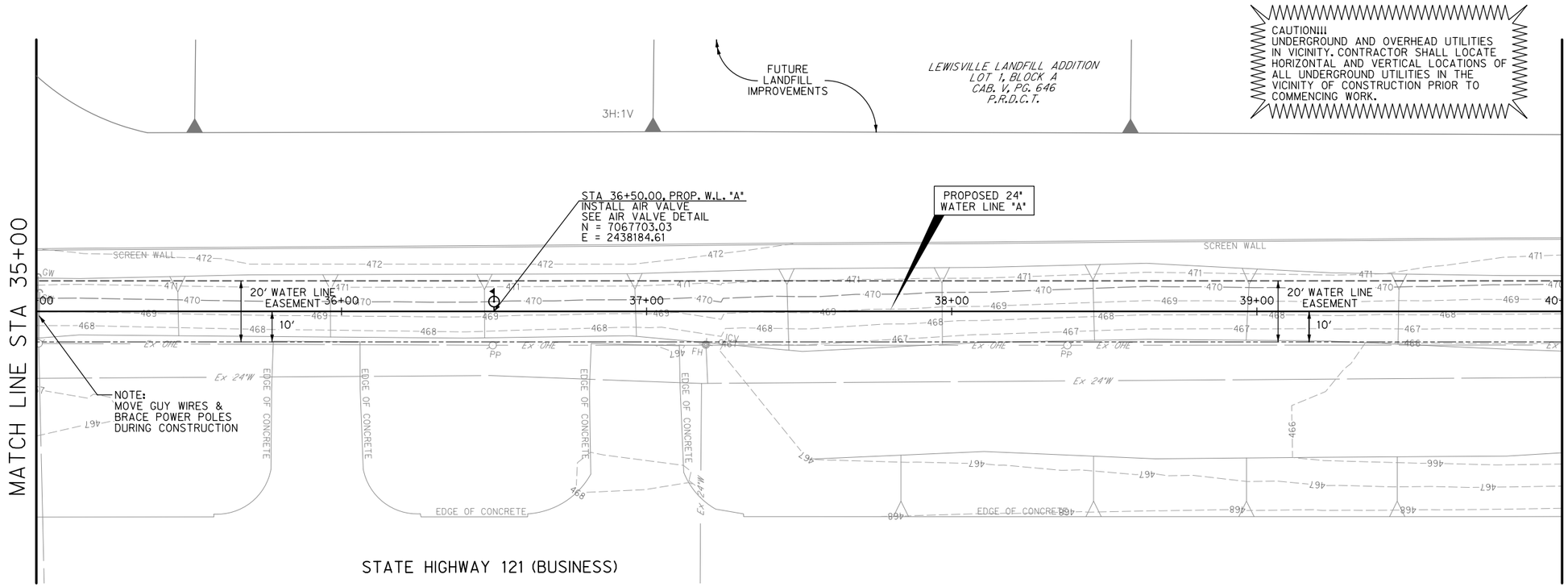

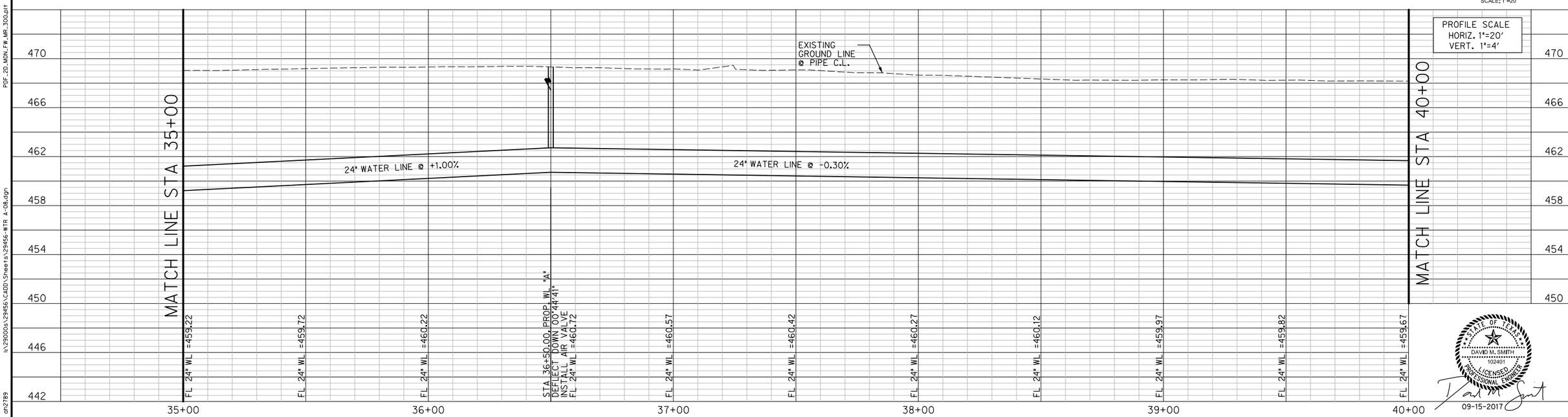

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09-15-2017

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A" PLAN AND PROFILE STA 35+00 TO STA 40+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
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DATE: SEPTEMBER 2017

SHEET 25 OF 106

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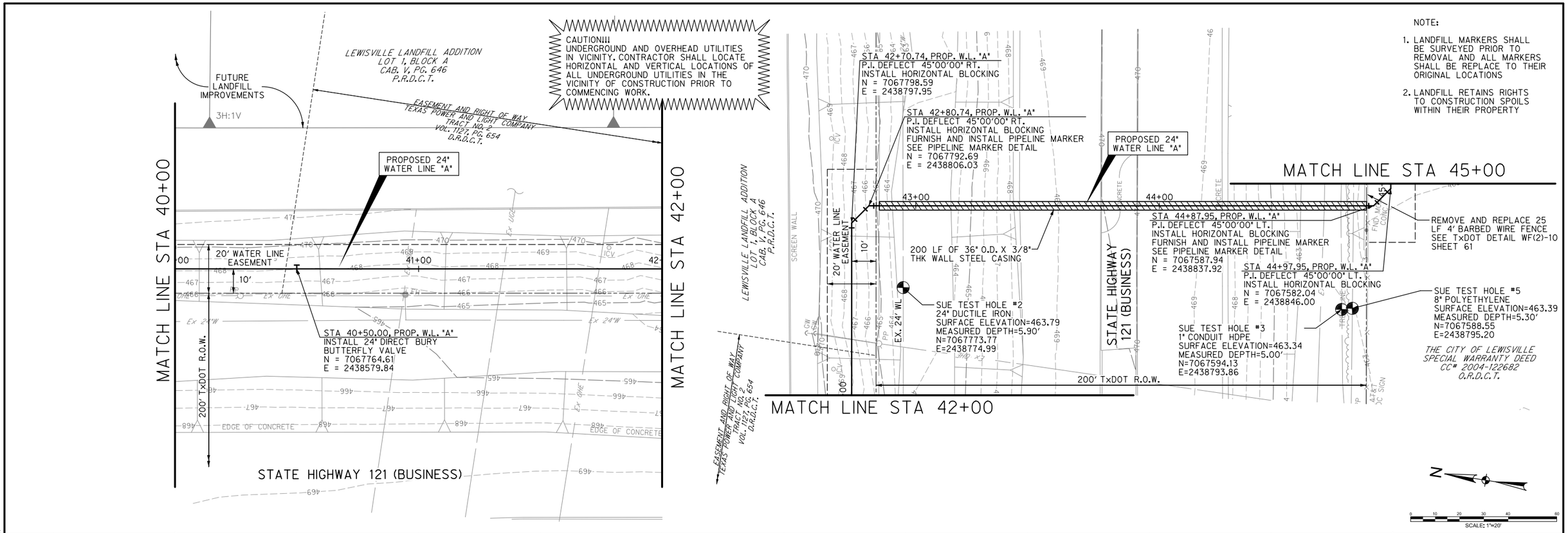

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CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A"
PLAN AND PROFILE
STA 40+00 TO STA 45+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
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FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 26 OF 106

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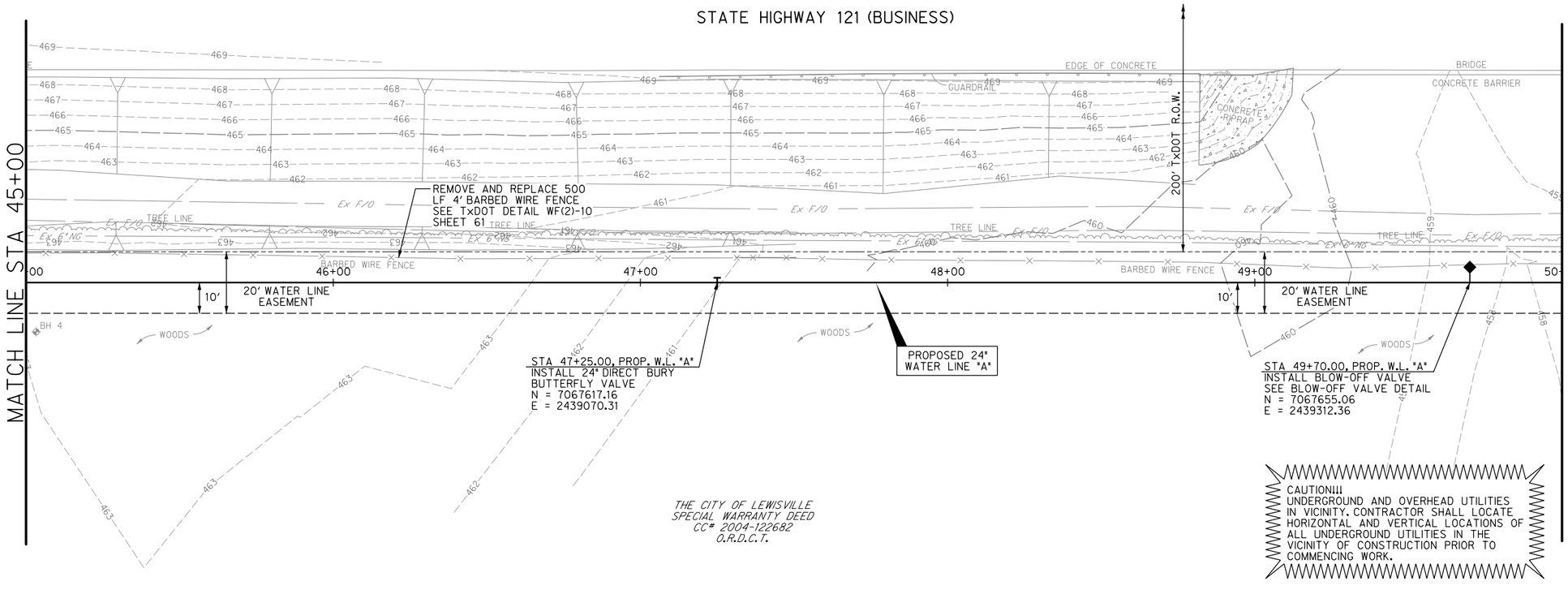

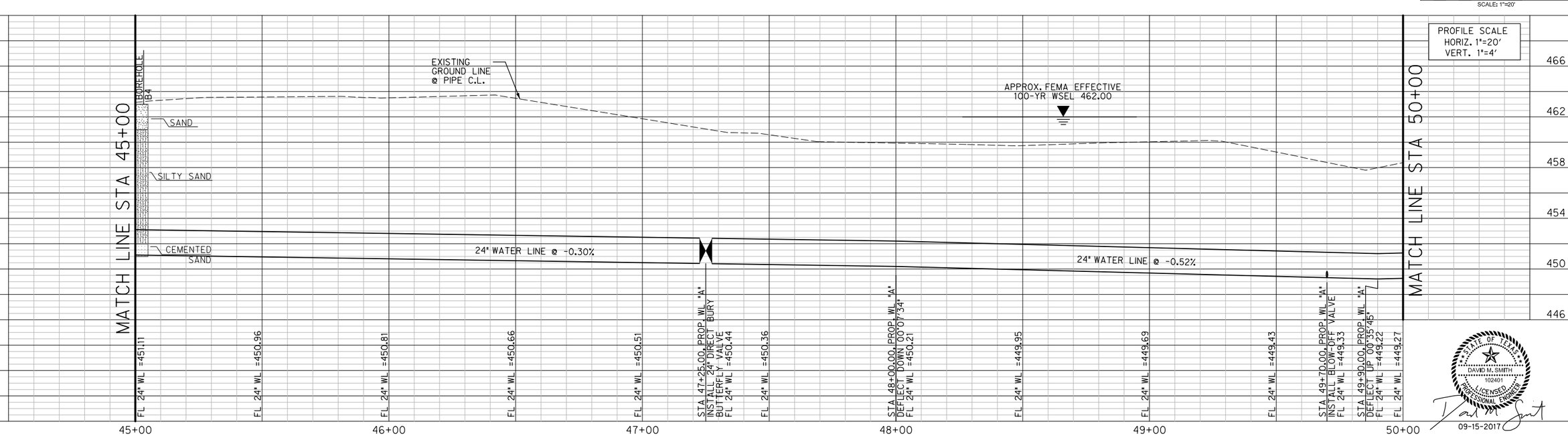

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102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A" PLAN AND PROFILE STA 45+00 TO STA 50+00

HALFF
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FORT WORTH, TEXAS 76137-2797
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FAX (817) 232-9784
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SHEET 27 OF 106

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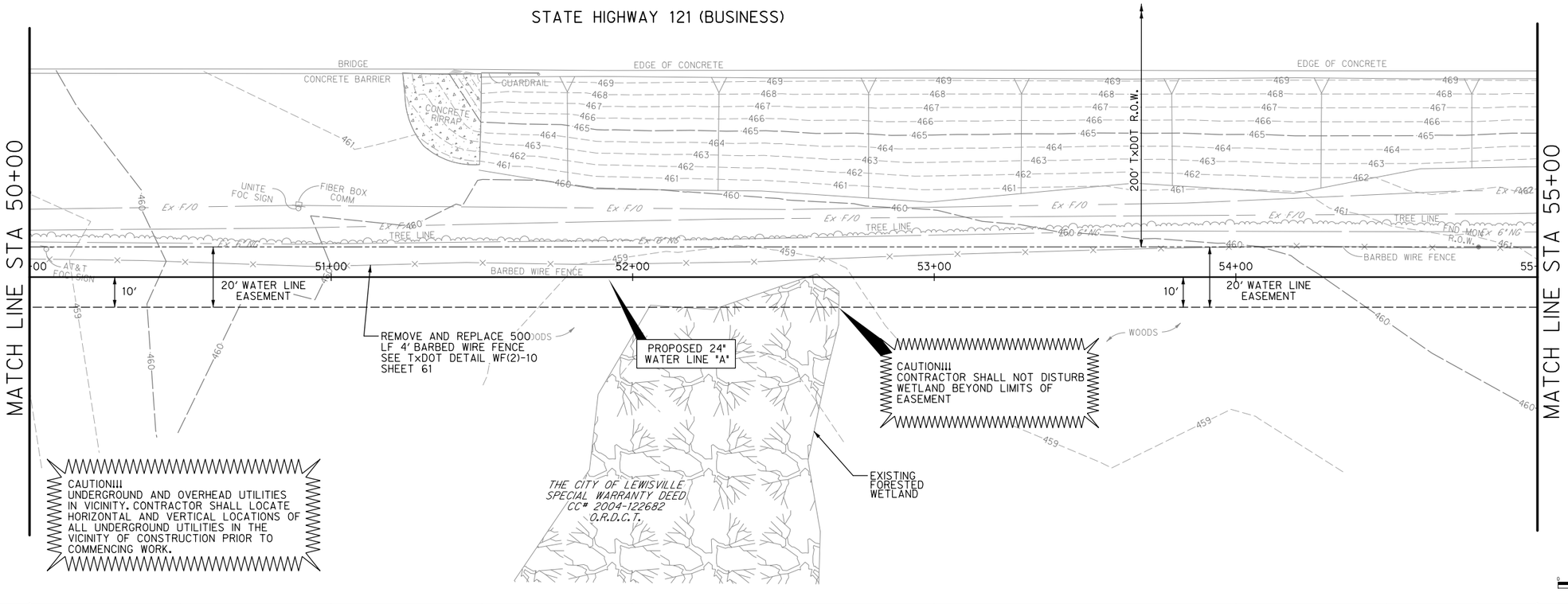

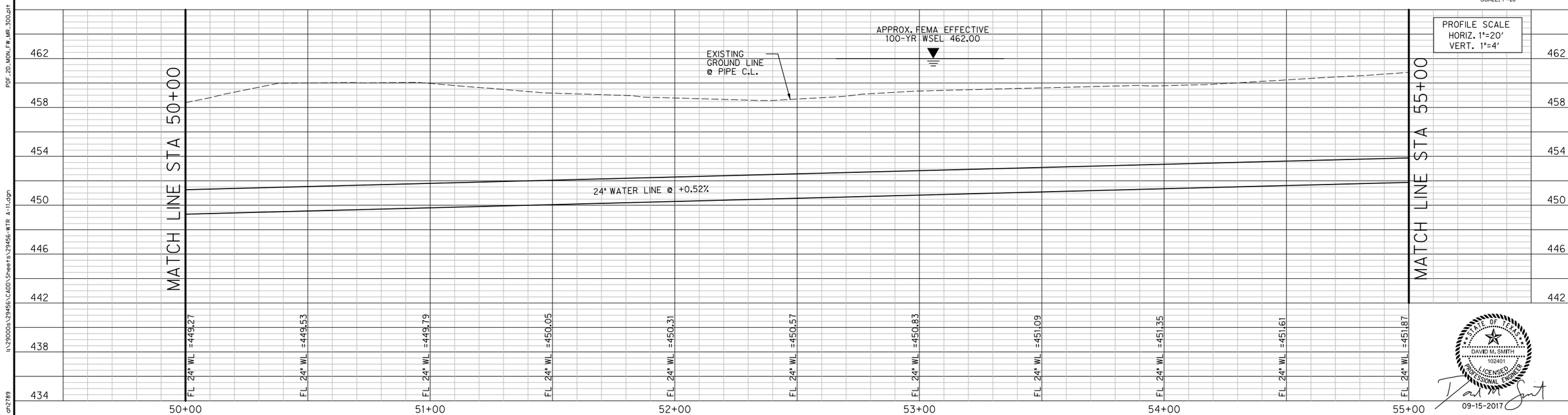

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A" PLAN AND PROFILE STA 50+00 TO STA 55+00

HALFF
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FORT WORTH, TEXAS 76137-2797
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FAX (817) 232-9784
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DATE: SEPTEMBER 2017

SHEET 28 OF 106

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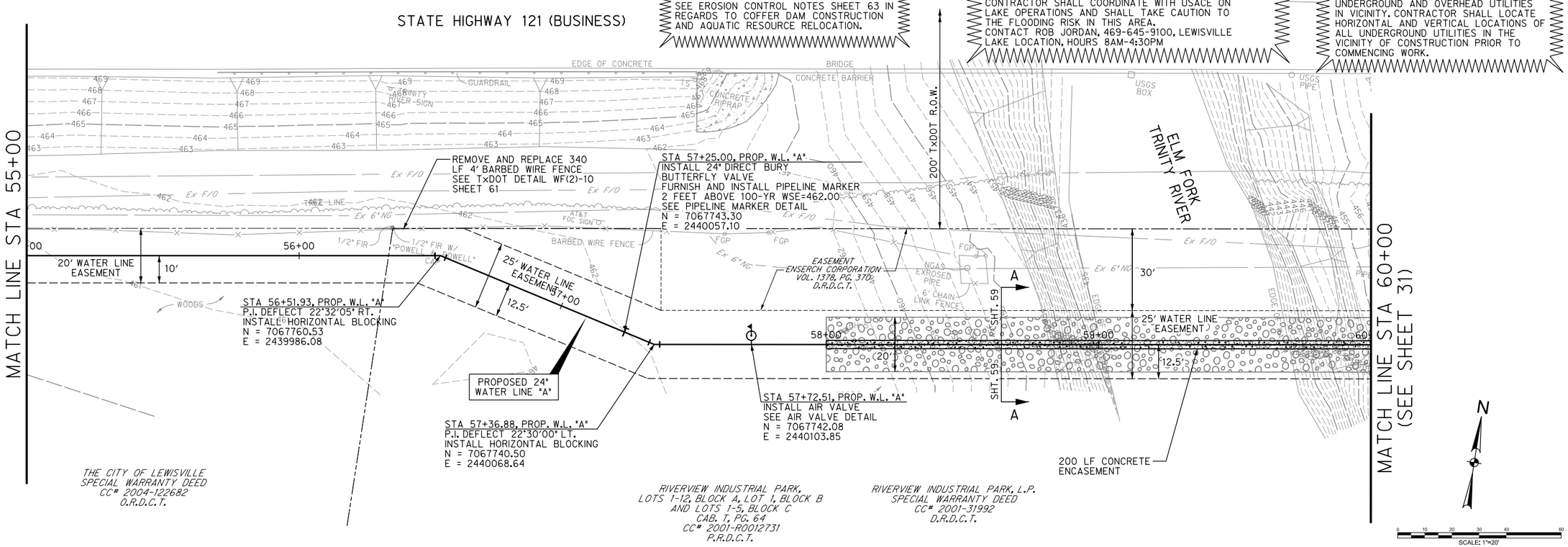
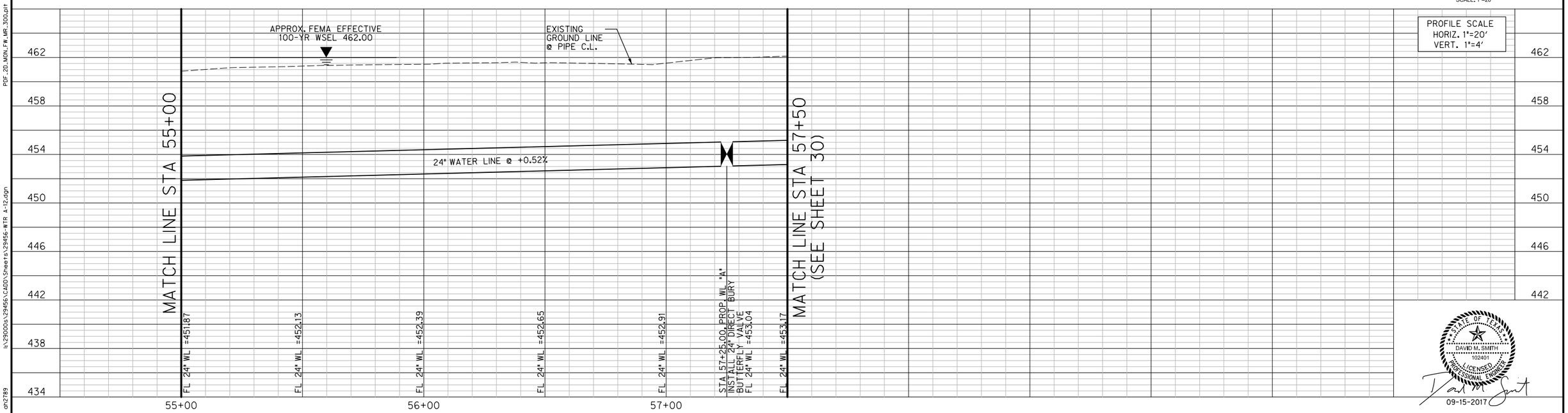
CAUTION!!!
SEE EROSION CONTROL NOTES SHEET 63 IN REGARDS TO COFFER DAM CONSTRUCTION AND AQUATIC RESOURCE RELOCATION.

CAUTION!!!
CONTRACTOR SHALL COORDINATE WITH USACE ON LAKE OPERATIONS AND SHALL TAKE CAUTION TO THE FLOODING RISK IN THIS AREA. CONTACT ROB JORDAN, 469-645-9100, LEWISVILLE LAKE LOCATION, HOURS 8AM-4:30PM.

CAUTION!!!
UNDERGROUND AND OVERHEAD UTILITIES IN VICINITY. CONTRACTOR SHALL LOCATE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES IN THE VICINITY OF CONSTRUCTION PRIOR TO COMMENCING WORK.





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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A" PLAN AND PROFILE STA 55+00 TO STA 60+00

HALFF
4000 FOSSIL CREEK BLVD
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DATE: SEPTEMBER 2017

SHEET 29 OF 106

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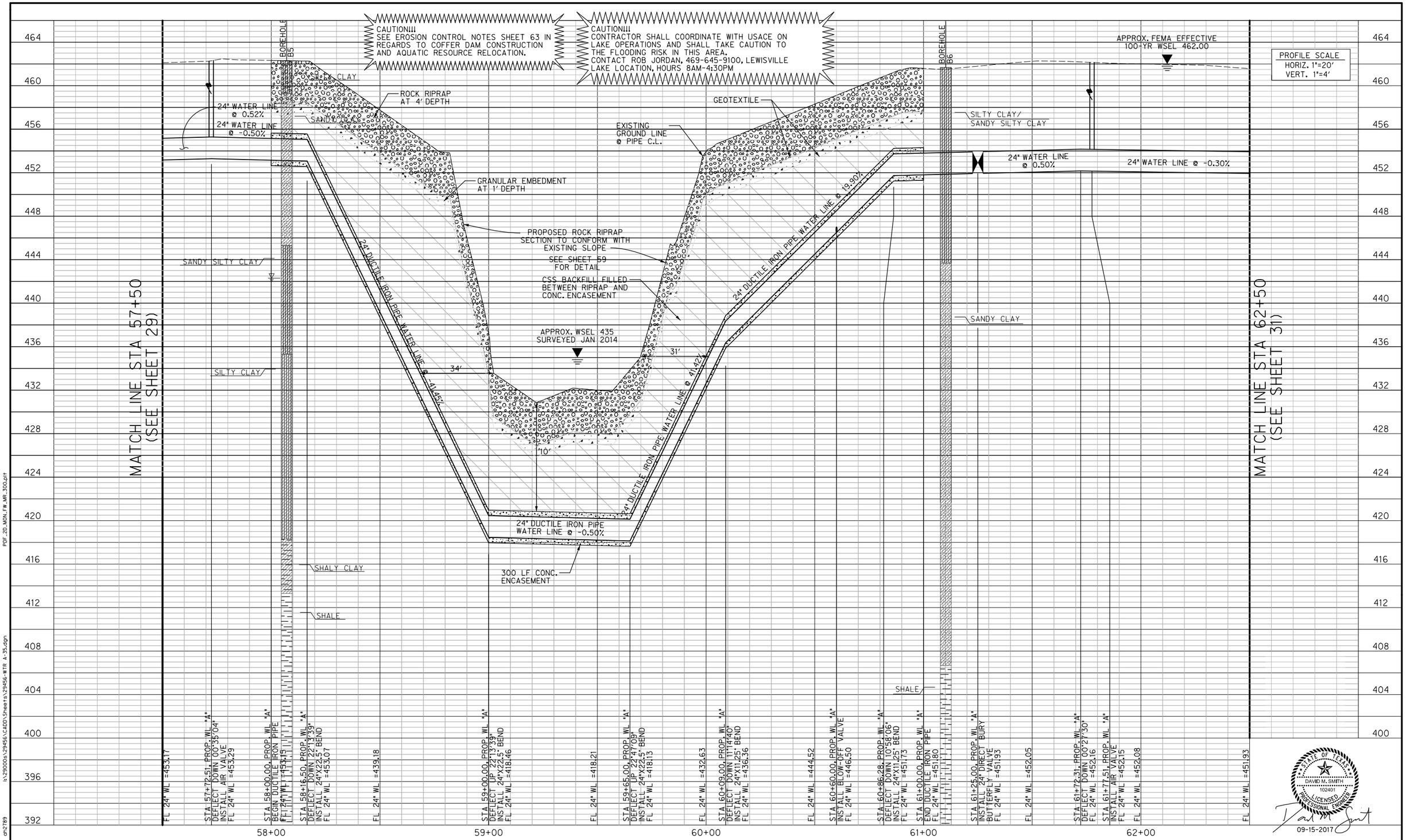

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A" PROFILE
STA 57+50 TO STA 62+50

HALFF
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SHEET 30 OF 106

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CAUTION!!!
SEE EROSION CONTROL NOTES SHEET 63 IN REGARDS TO COFFER DAM CONSTRUCTION AND AQUATIC RESOURCE RELOCATION.

CAUTION!!!
CONTRACTOR SHALL COORDINATE WITH USACE ON LAKE OPERATIONS AND SHALL TAKE CAUTION TO THE FLOODING RISK IN THIS AREA.
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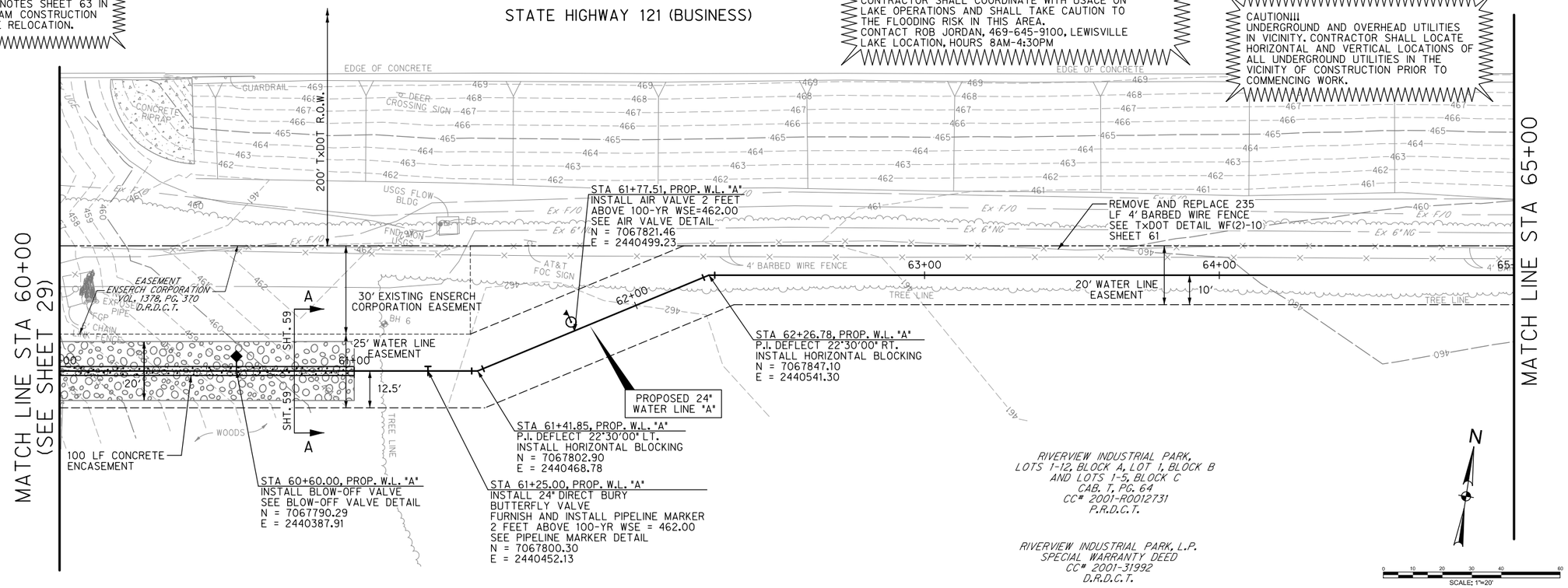

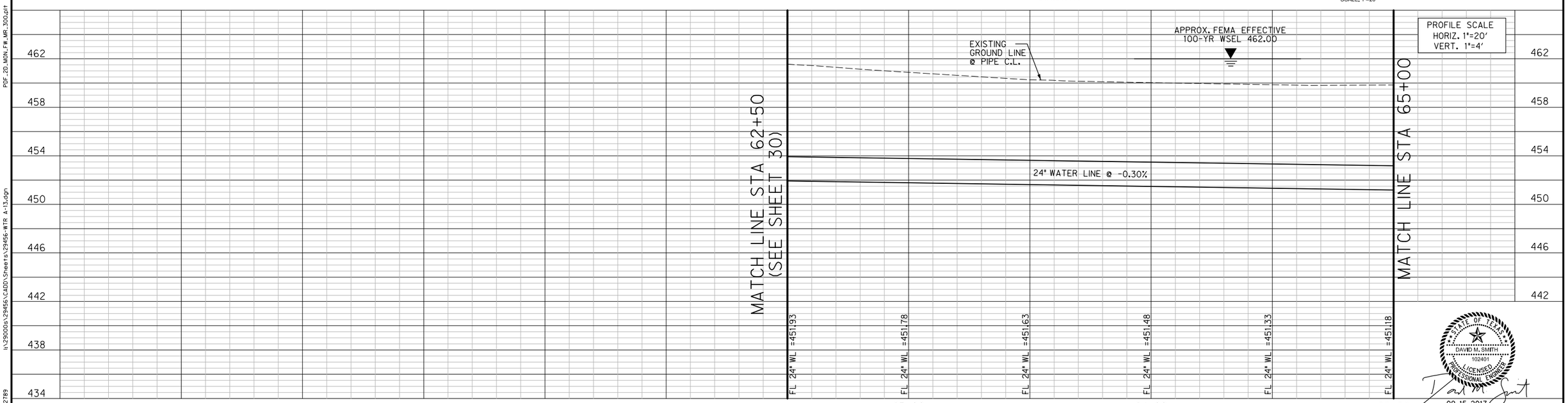

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A" PLAN AND PROFILE STA 60+00 TO STA 65+00

HALFF
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SHEET 31 OF 106

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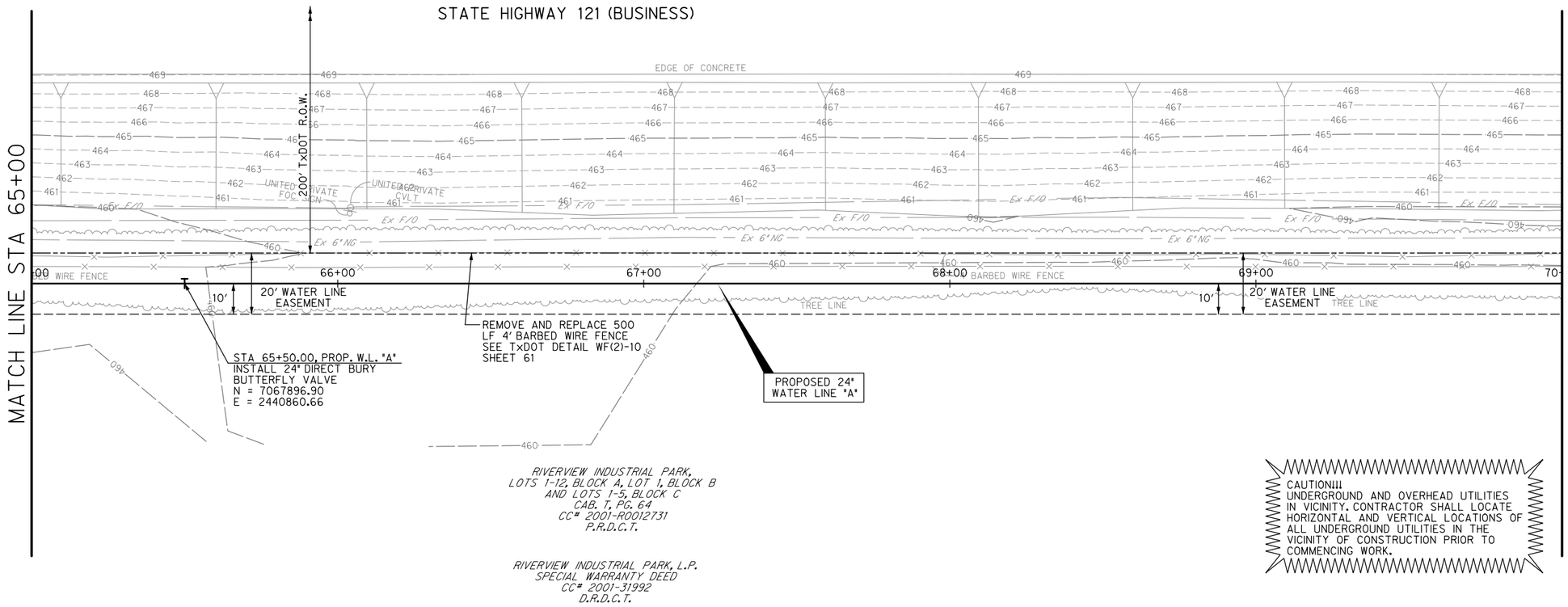

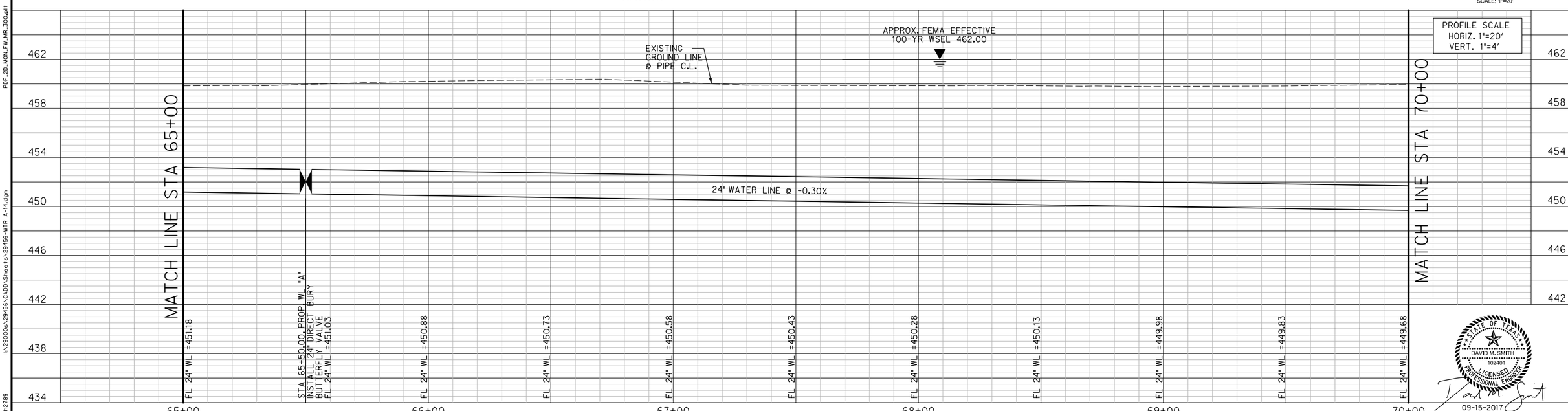

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A"
PLAN AND PROFILE
STA 65+00 TO STA 70+00

HALFF
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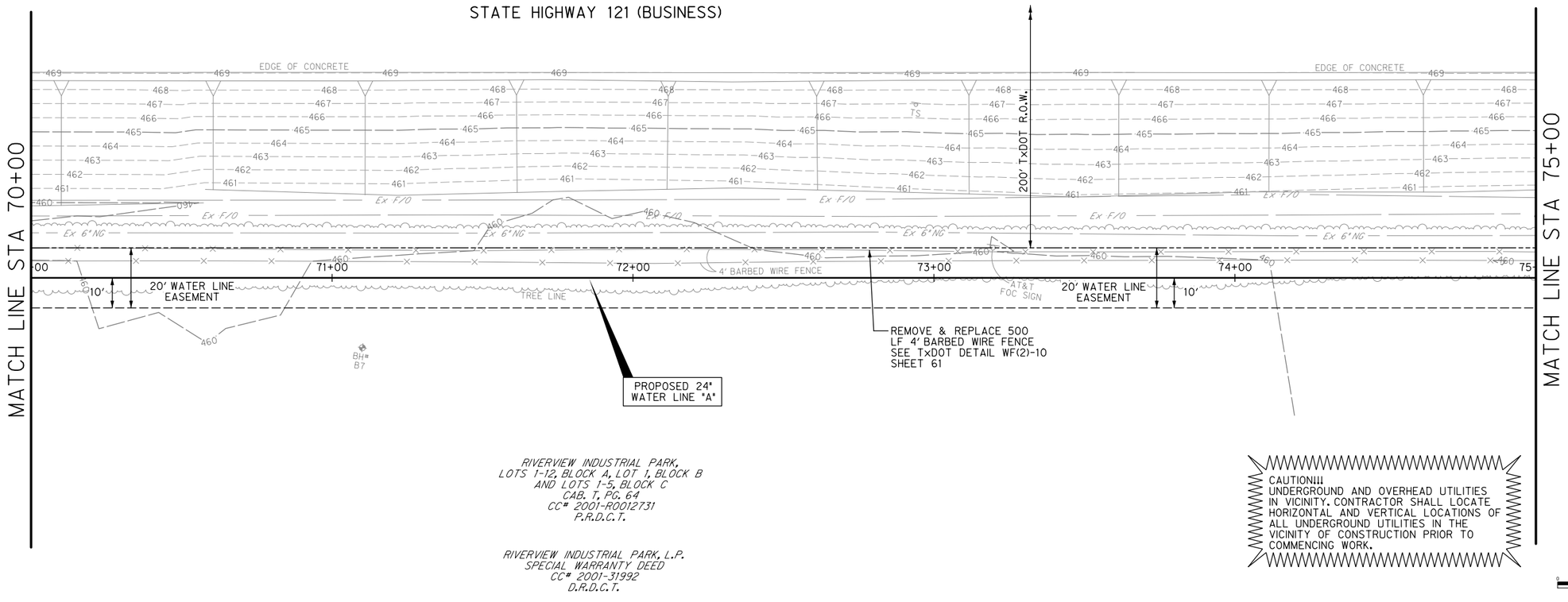

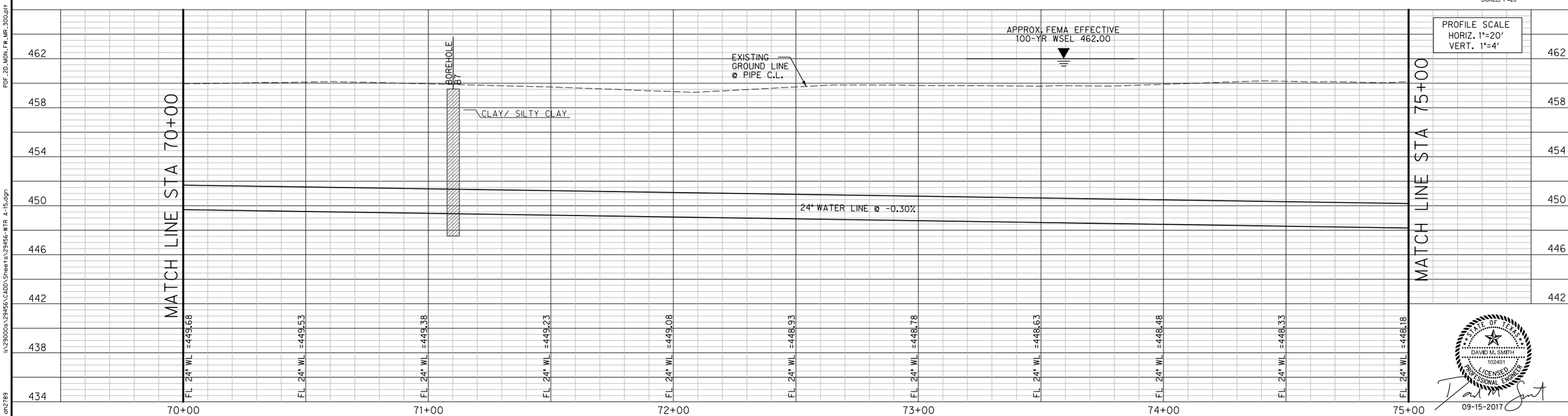

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A" PLAN AND PROFILE STA 70+00 TO STA 75+00

HALFF
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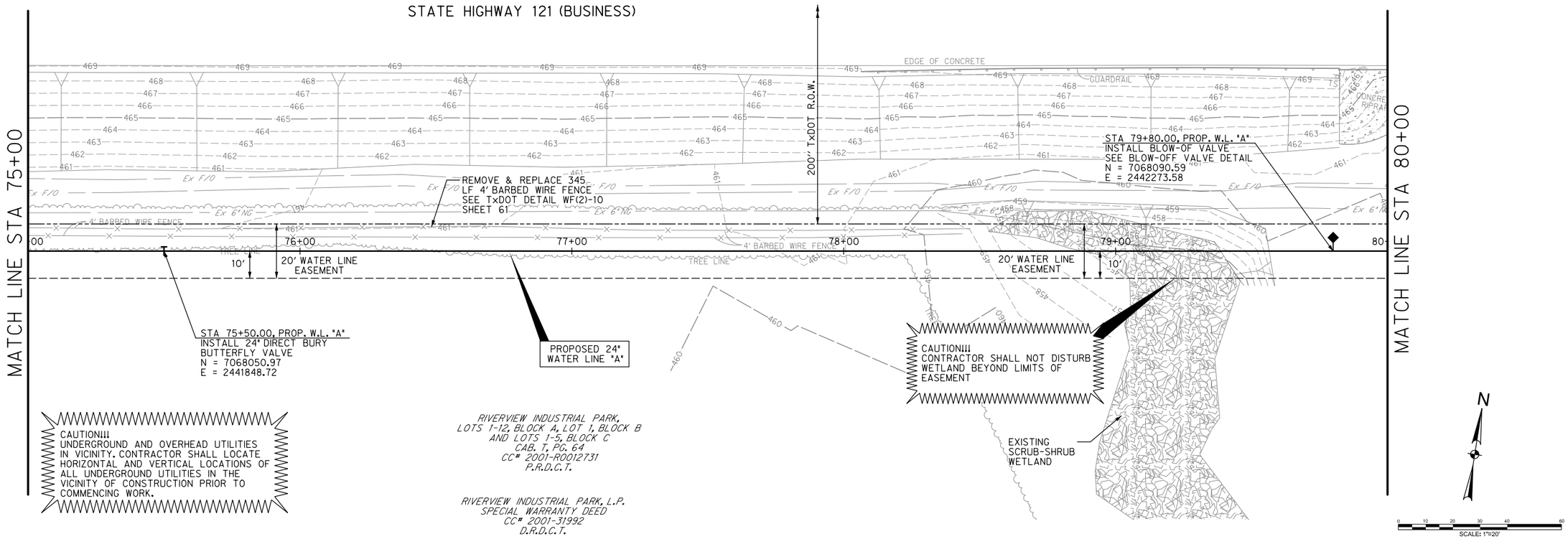

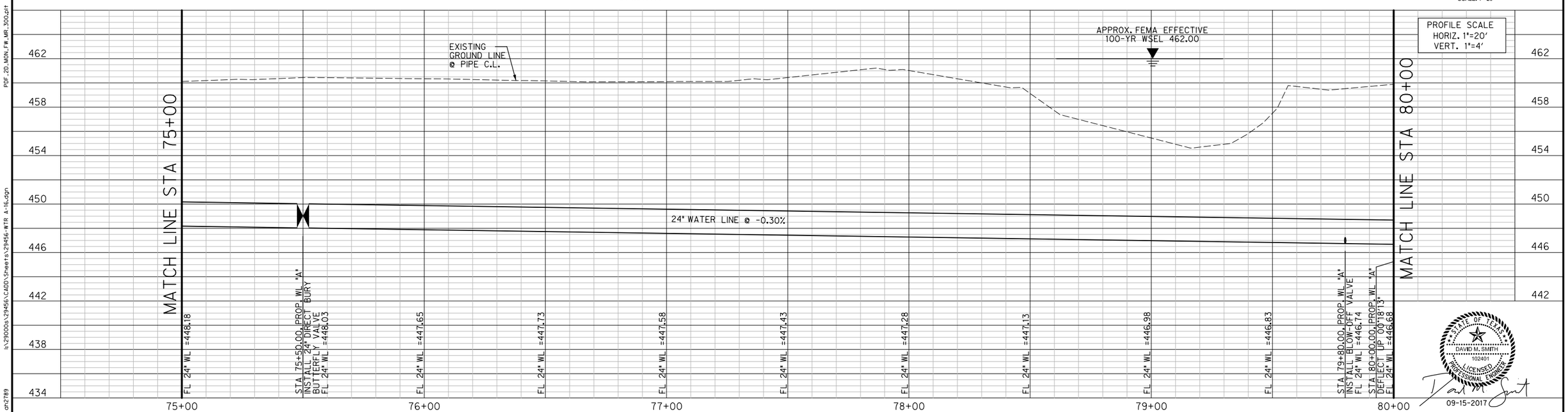

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A" PLAN AND PROFILE STA 75+00 TO STA 80+00

HALFF
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FAX (817) 232-9784
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SHEET 34 OF 106

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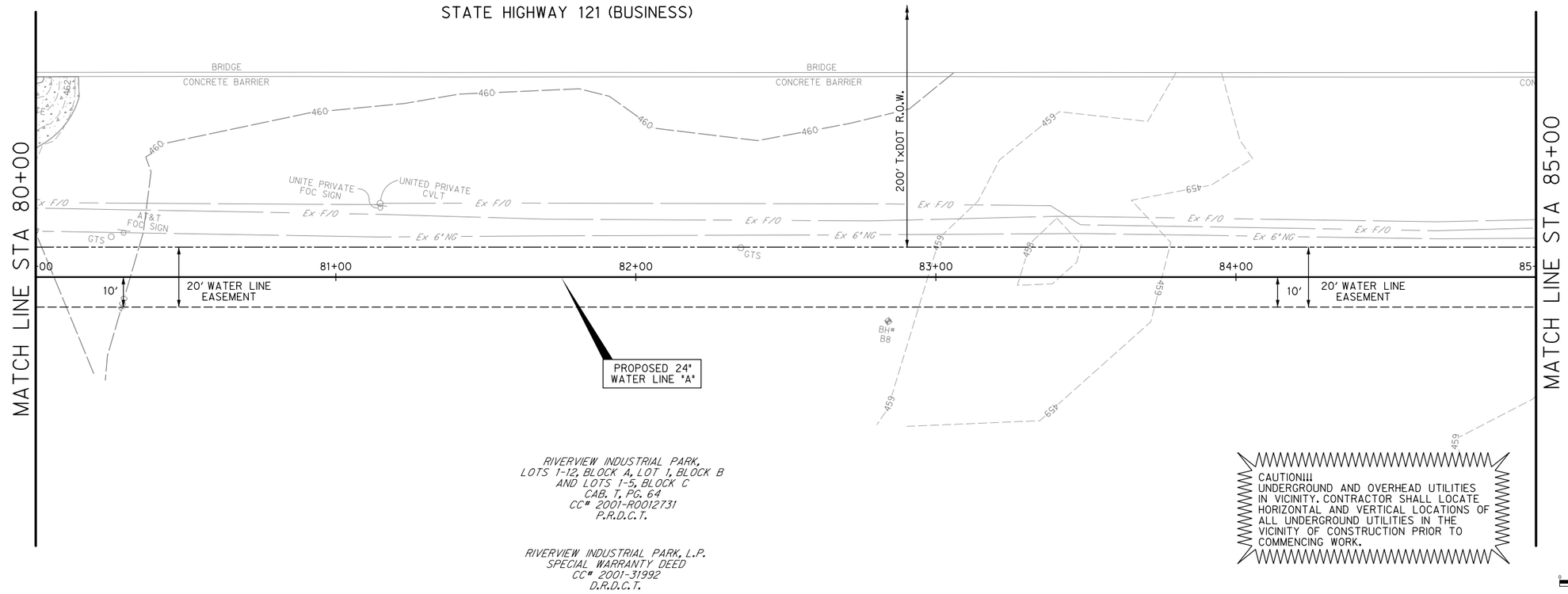

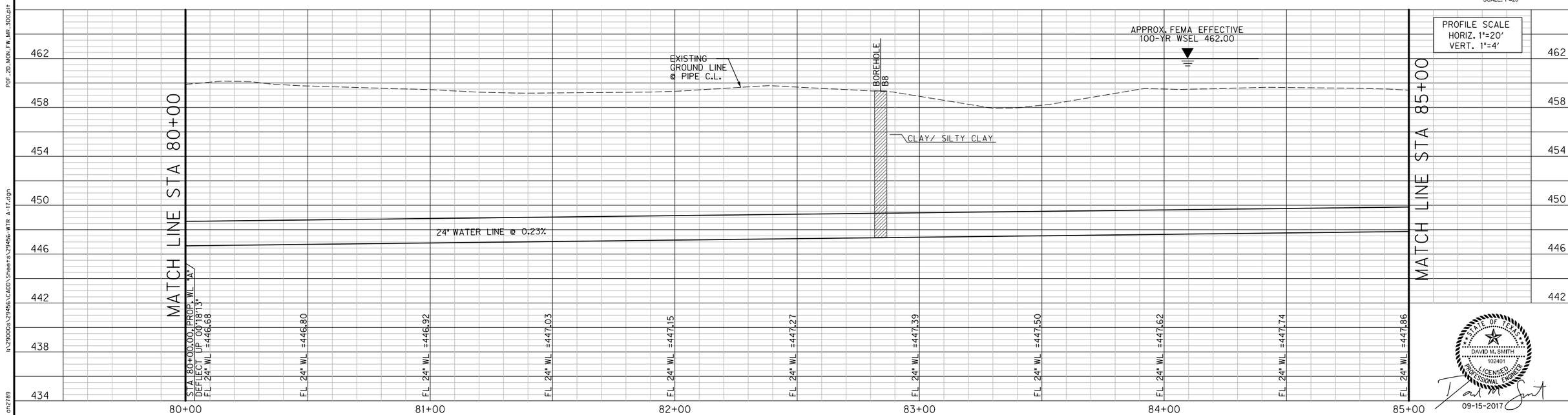

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A"
PLAN AND PROFILE
STA 80+00 TO STA 85+00

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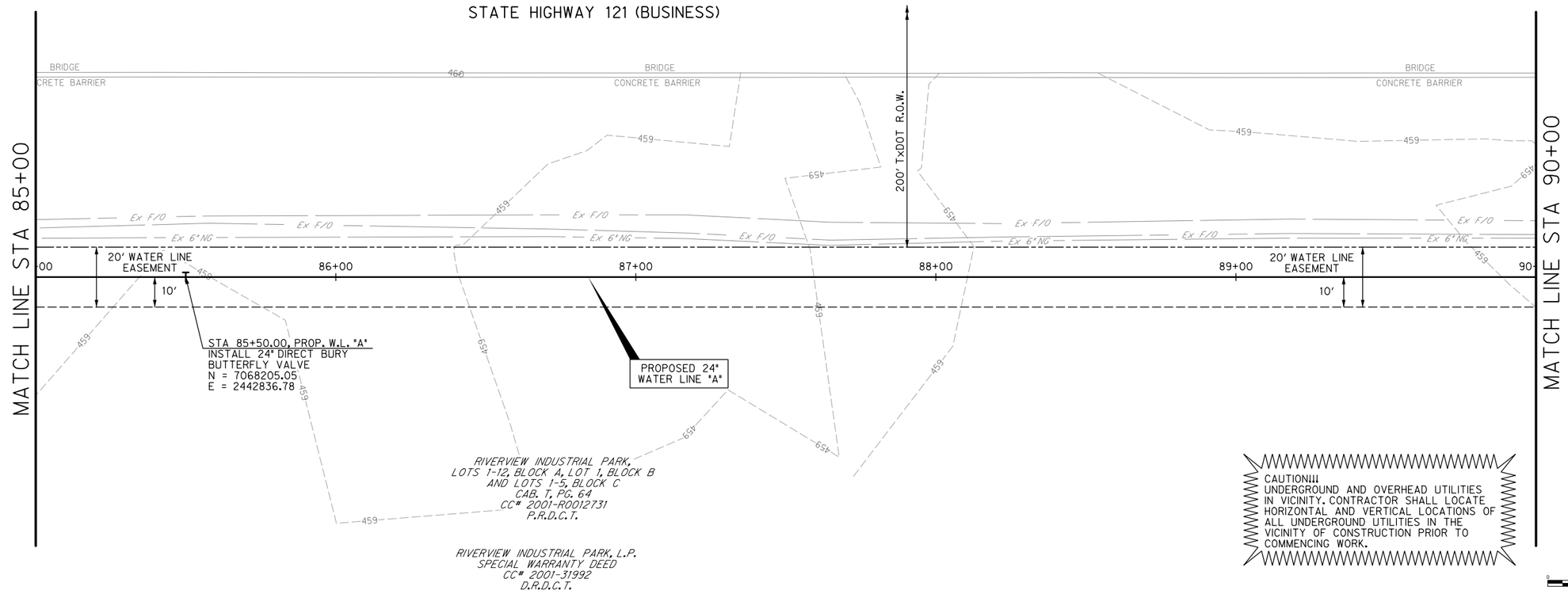

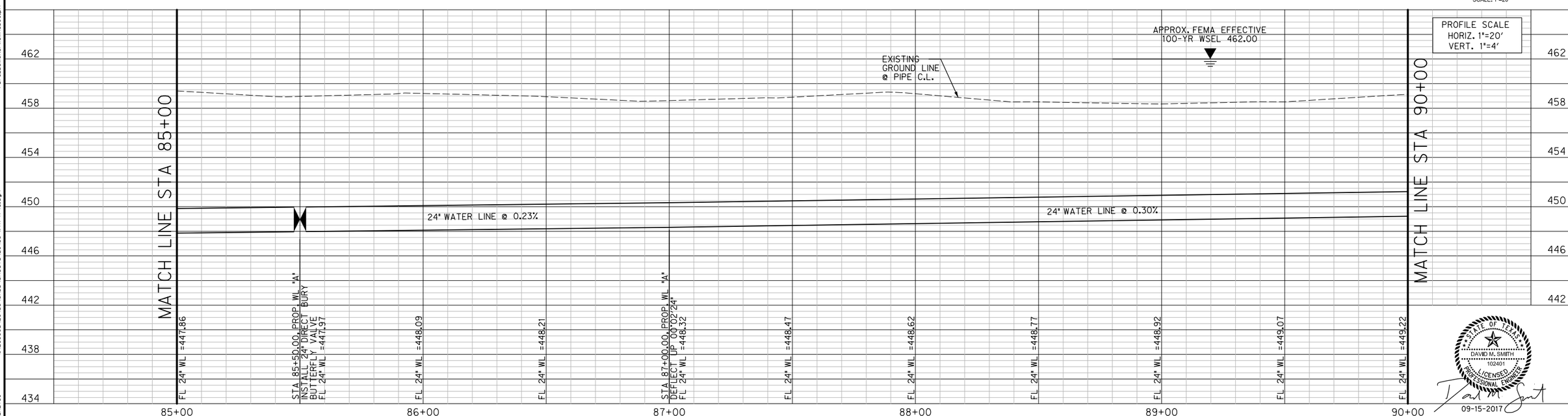

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A"
PLAN AND PROFILE
STA 85+00 TO STA 90+00

HALFF
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TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 36 OF 106

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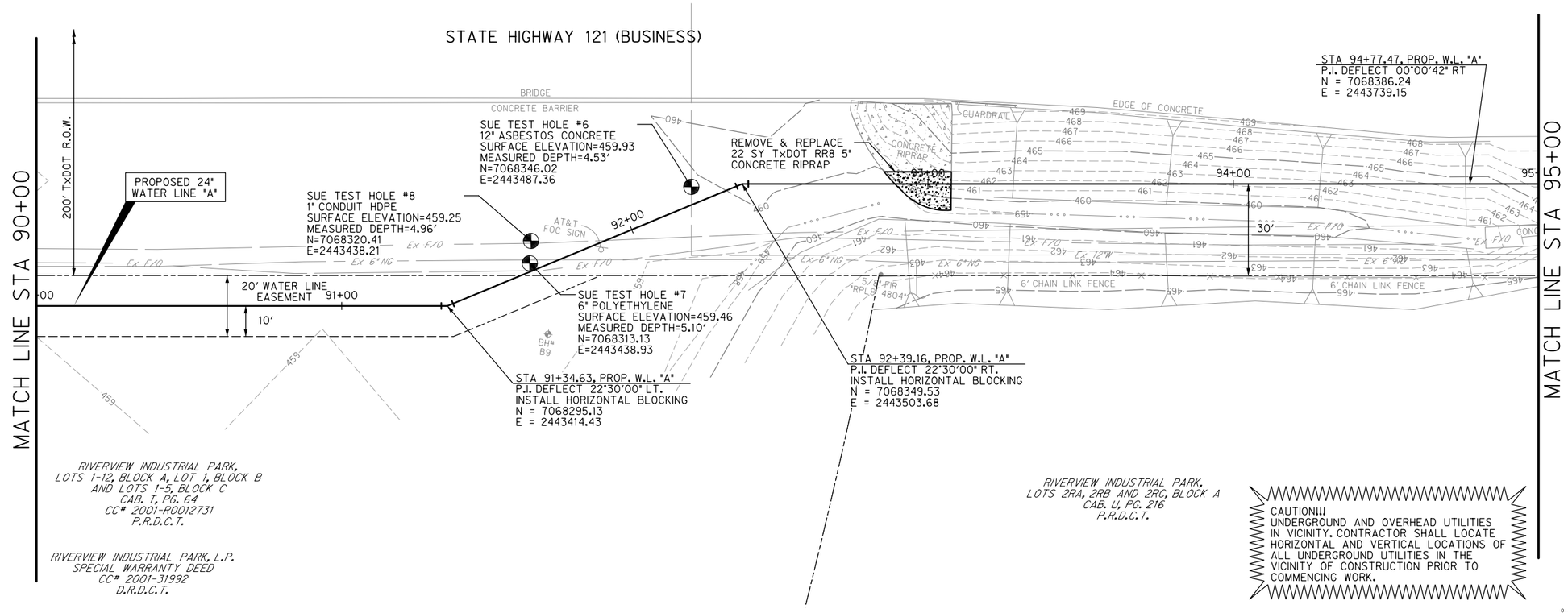

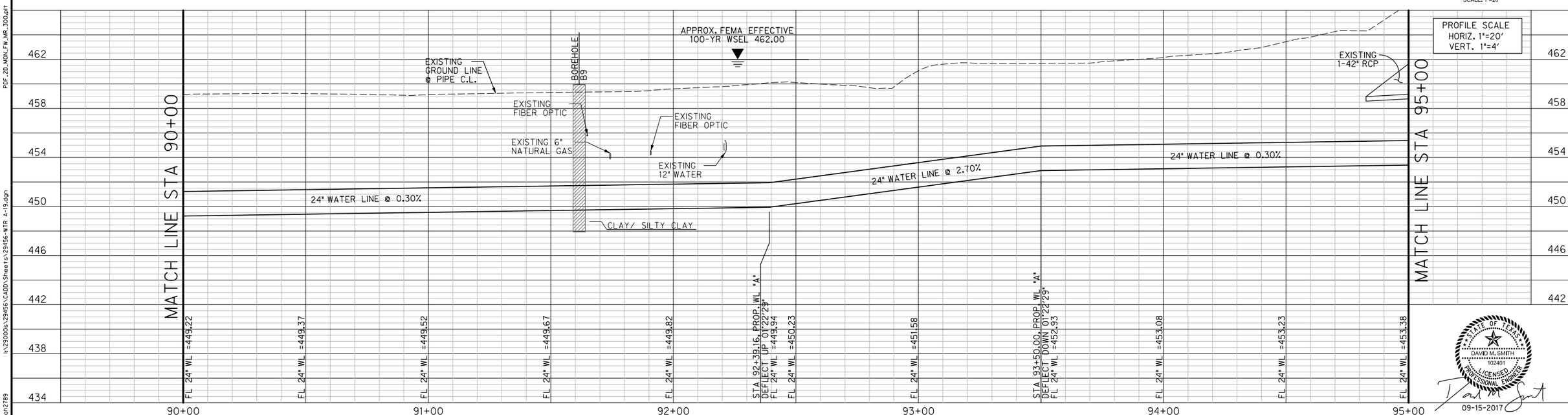

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A"
PLAN AND PROFILE
STA 90+00 TO STA 95+00

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DATE: SEPTEMBER 2017

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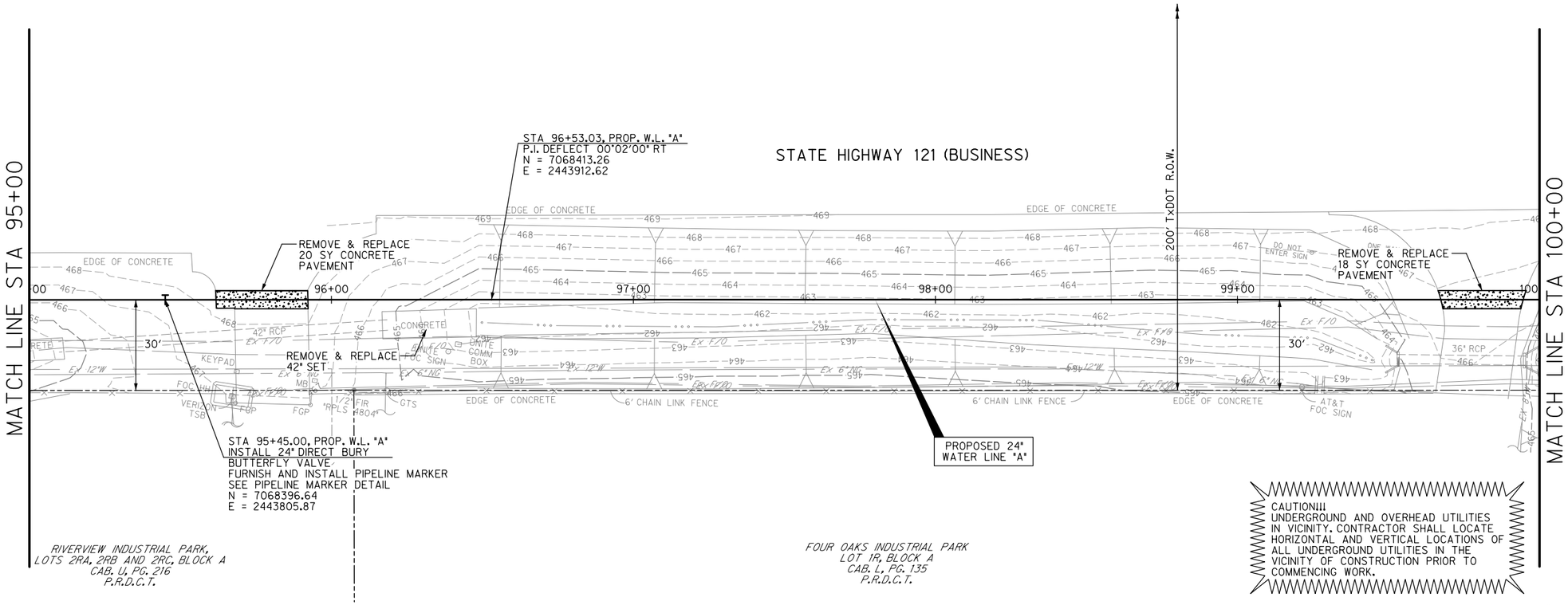

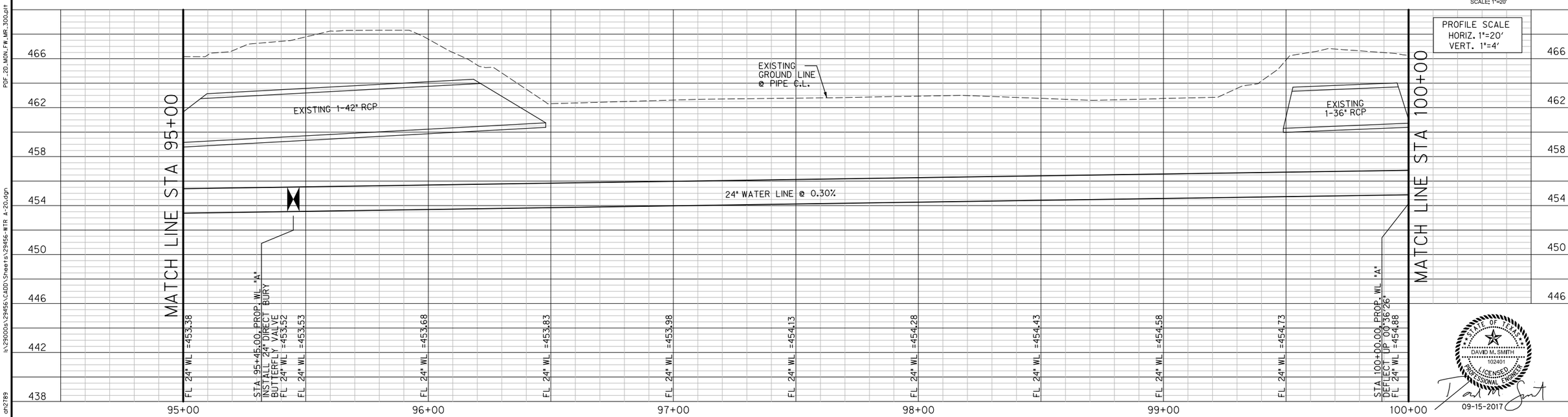

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A"
PLAN AND PROFILE
STA 95+00 TO STA 100+00

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DATE: SEPTEMBER 2017

SHEET 38 OF 106

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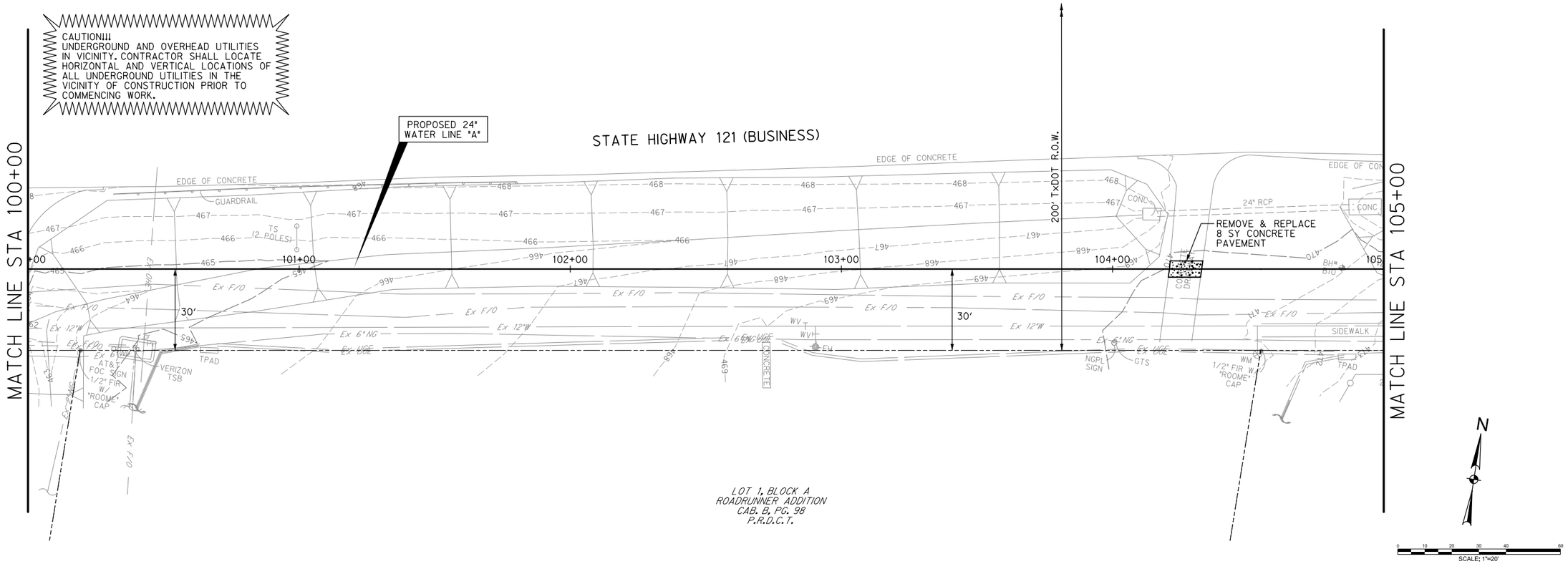

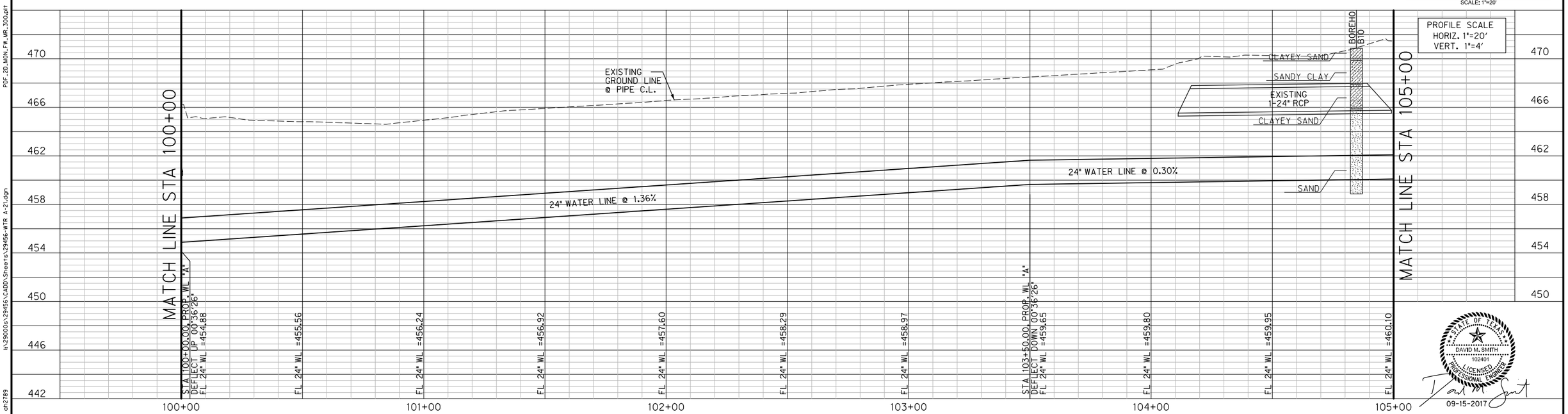

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A"
PLAN AND PROFILE
STA 100+00 TO STA 105+00

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4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
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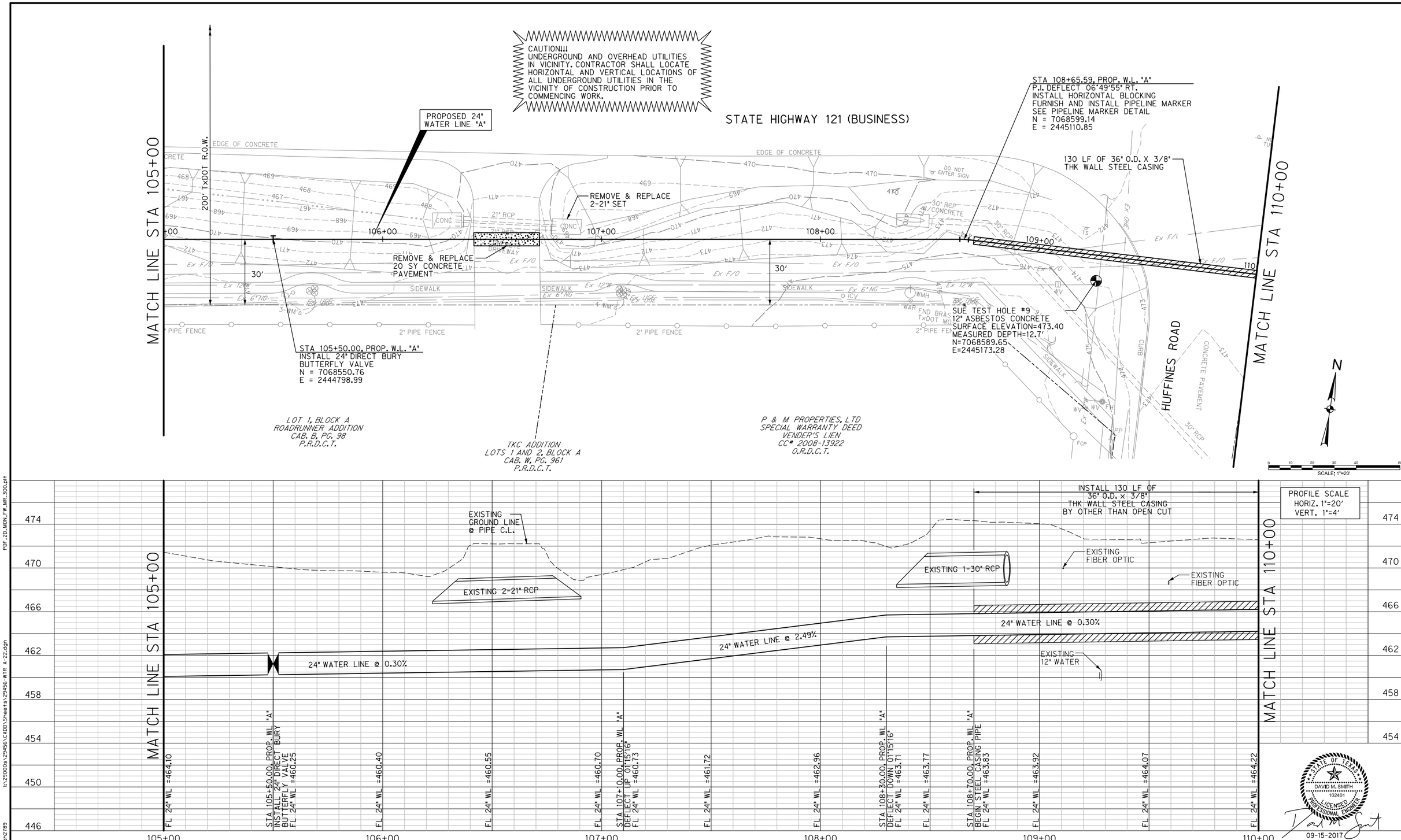
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 39 OF 106



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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A" PLAN AND PROFILE STA 105+00 TO STA 110+00

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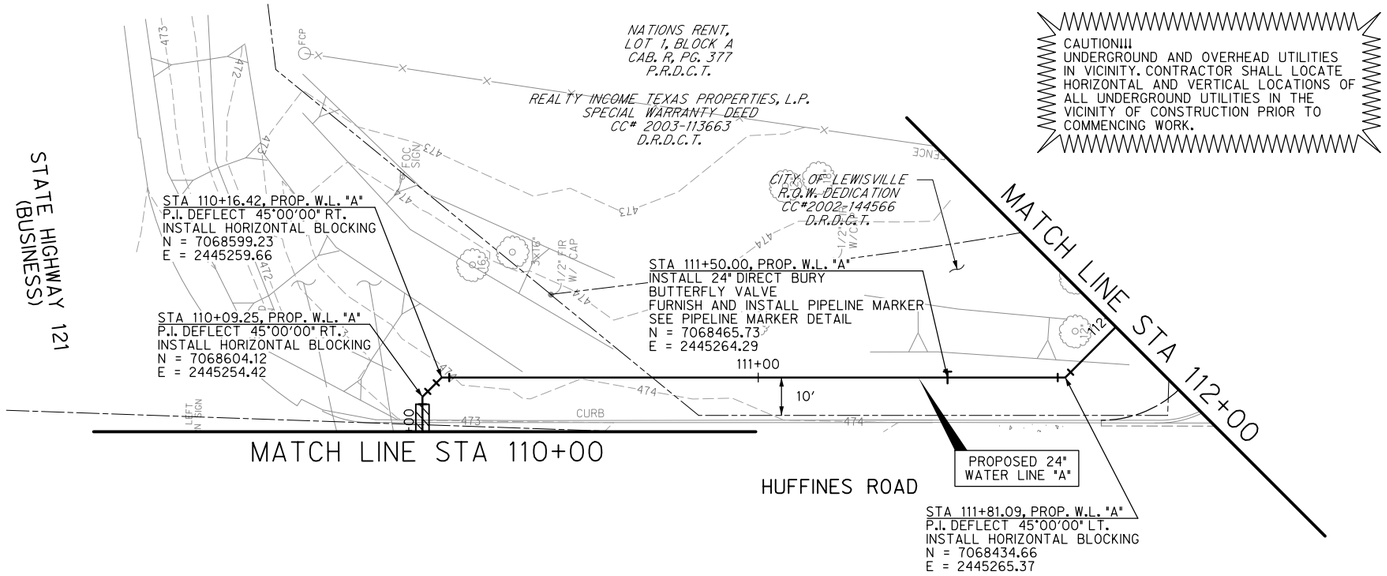

CAUTION!!!
UNDERGROUND AND OVERHEAD UTILITIES IN VICINITY. CONTRACTOR SHALL LOCATE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES IN THE VICINITY OF CONSTRUCTION PRIOR TO COMMENCING WORK.

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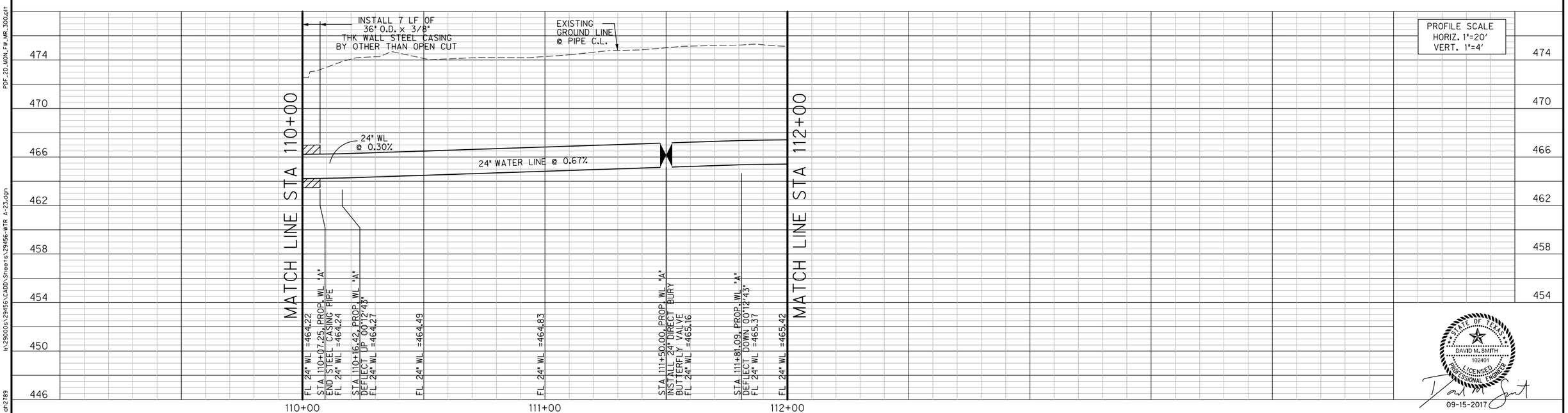

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots. Broad Wings. Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE
24-INCH WATER LINE

SHEET TITLE
WATER LINE "A"
PLAN AND PROFILE
STA 110+00 TO STA 112+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE
SEPTEMBER 2017

SHEET 41 OF 106

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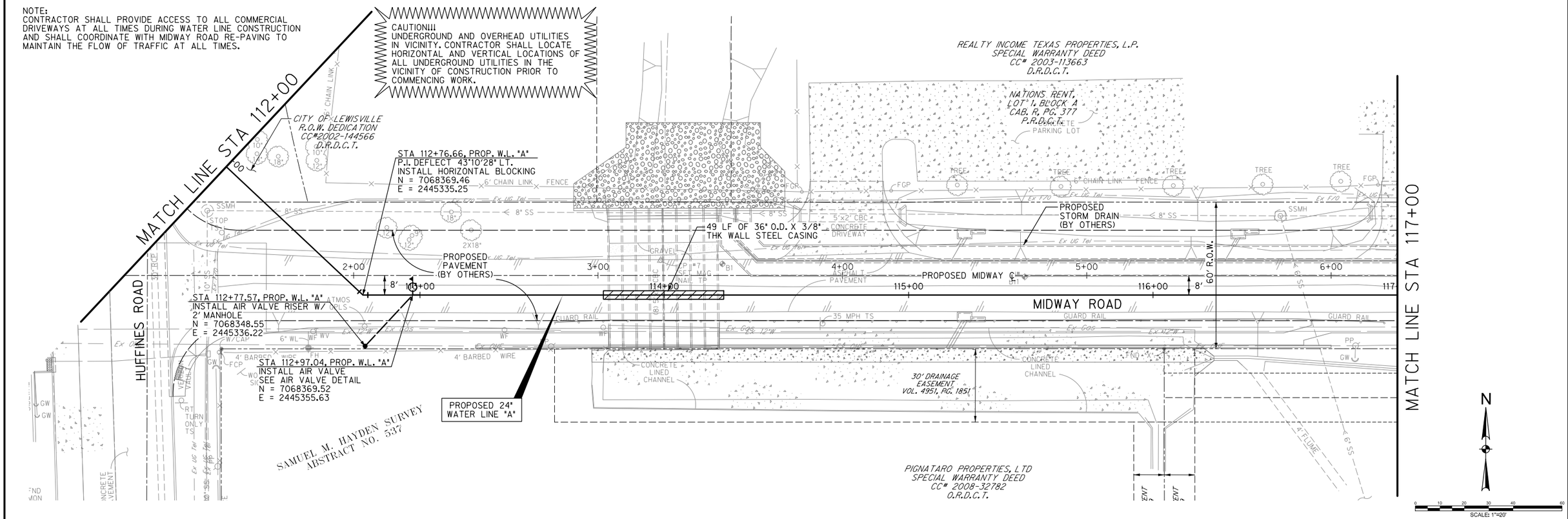
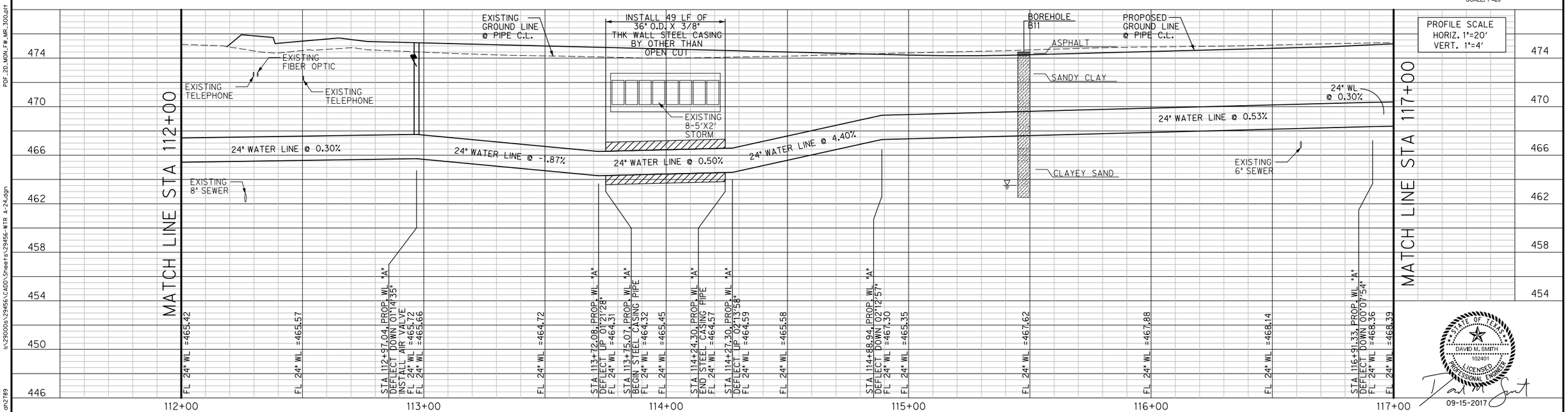
NOTE:
CONTRACTOR SHALL PROVIDE ACCESS TO ALL COMMERCIAL DRIVEWAYS AT ALL TIMES DURING WATER LINE CONSTRUCTION AND SHALL COORDINATE WITH MIDWAY ROAD RE-PAVING TO MAINTAIN THE FLOW OF TRAFFIC AT ALL TIMES.

CAUTION!!!
UNDERGROUND AND OVERHEAD UTILITIES IN VICINITY. CONTRACTOR SHALL LOCATE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES IN THE VICINITY OF CONSTRUCTION PRIOR TO COMMENCING WORK.





STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A" PLAN AND PROFILE STA 112+00 TO STA 117+00

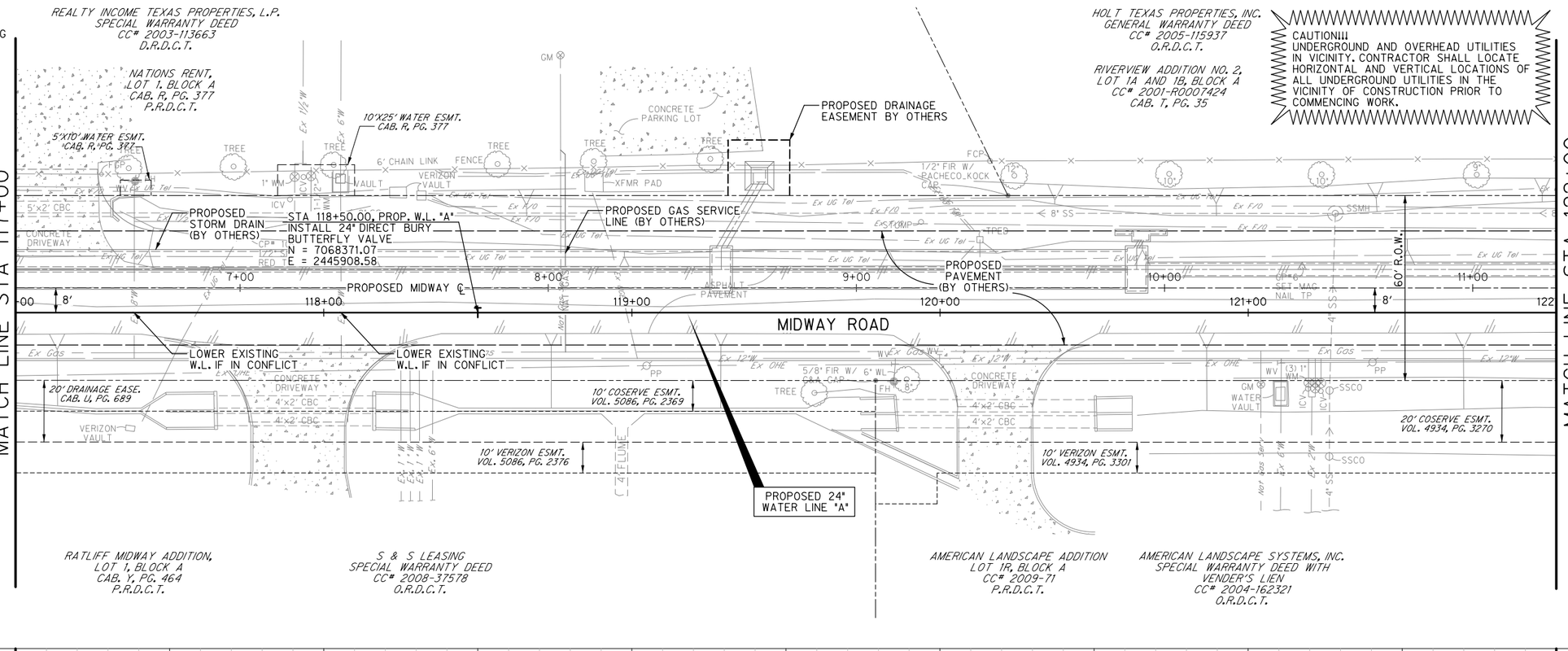
HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

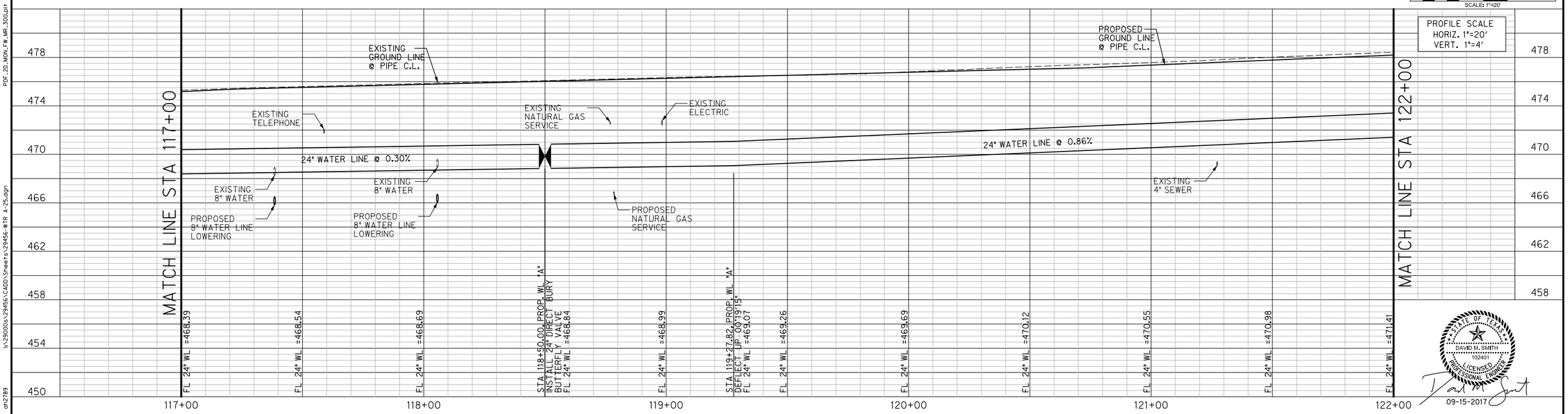
DATE: SEPTEMBER 2017

SHEET 42 OF 106

9/15/2017 1:46:57 PM ah2789 HALFF I:\29000s\29456\CADD\Sheets\29456-WTR A-24.dgn

NOTE:
CONTRACTOR SHALL PROVIDE ACCESS TO ALL COMMERCIAL DRIVEWAYS AT ALL TIMES DURING WATER LINE CONSTRUCTION AND SHALL COORDINATE WITH MIDWAY ROAD RE-PAVING TO MAINTAIN THE FLOW OF TRAFFIC AT ALL TIMES.





STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
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ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

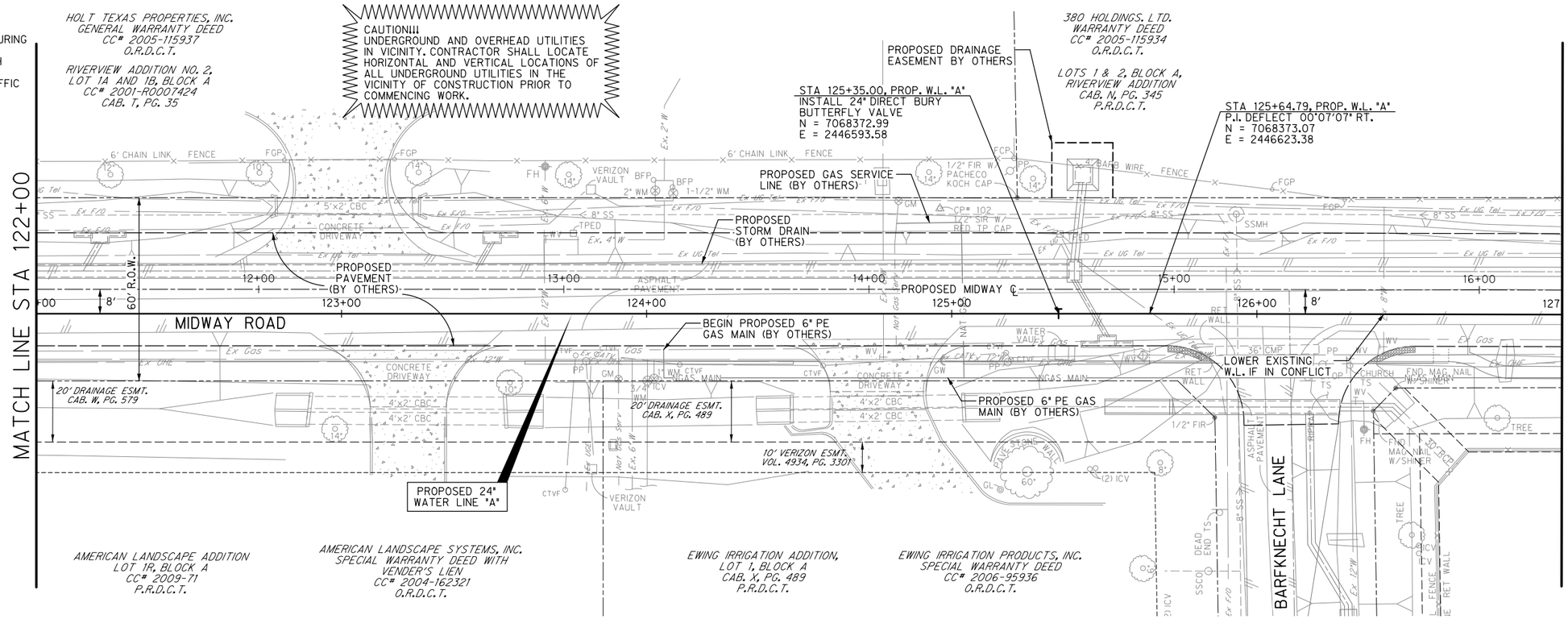
SHEET TITLE: WATER LINE "A"
PLAN AND PROFILE
STA 117+00 TO STA 122+00

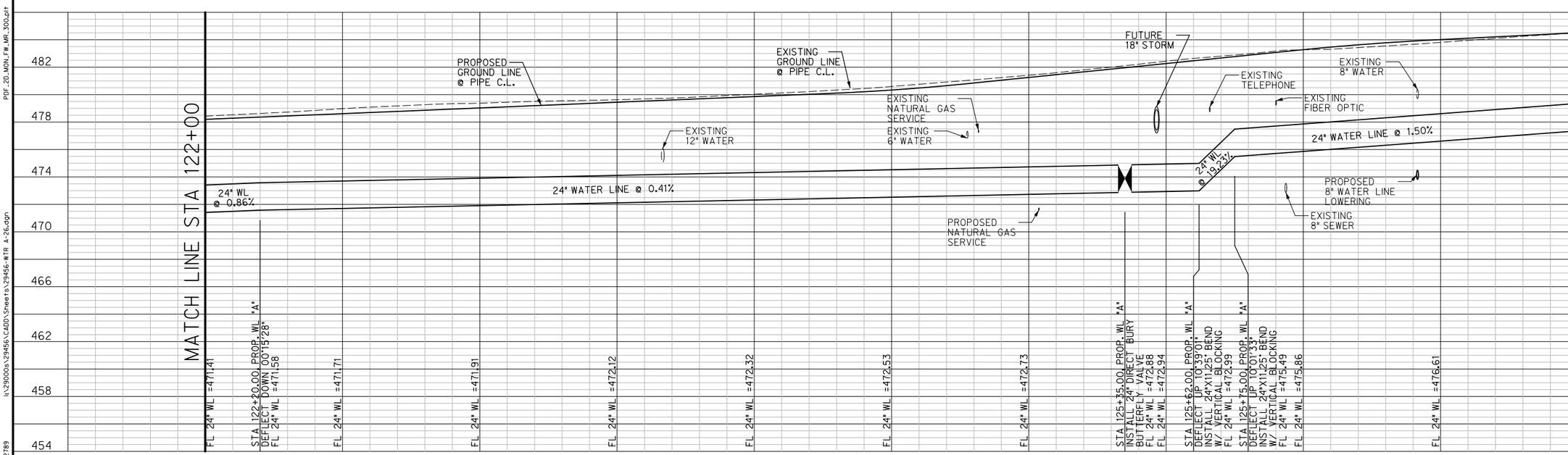
HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 43 OF 106

NOTE:
CONTRACTOR SHALL PROVIDE ACCESS TO ALL COMMERCIAL DRIVEWAYS AT ALL TIMES DURING WATER LINE CONSTRUCTION AND SHALL COORDINATE WITH MIDWAY ROAD RE-PAVING TO MAINTAIN THE FLOW OF TRAFFIC AT ALL TIMES.





STATE OF TEXAS
DAVID M. SMITH
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09-15-2017

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ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A"
PLAN AND PROFILE
STA 122+00 TO 127+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 44 OF 106

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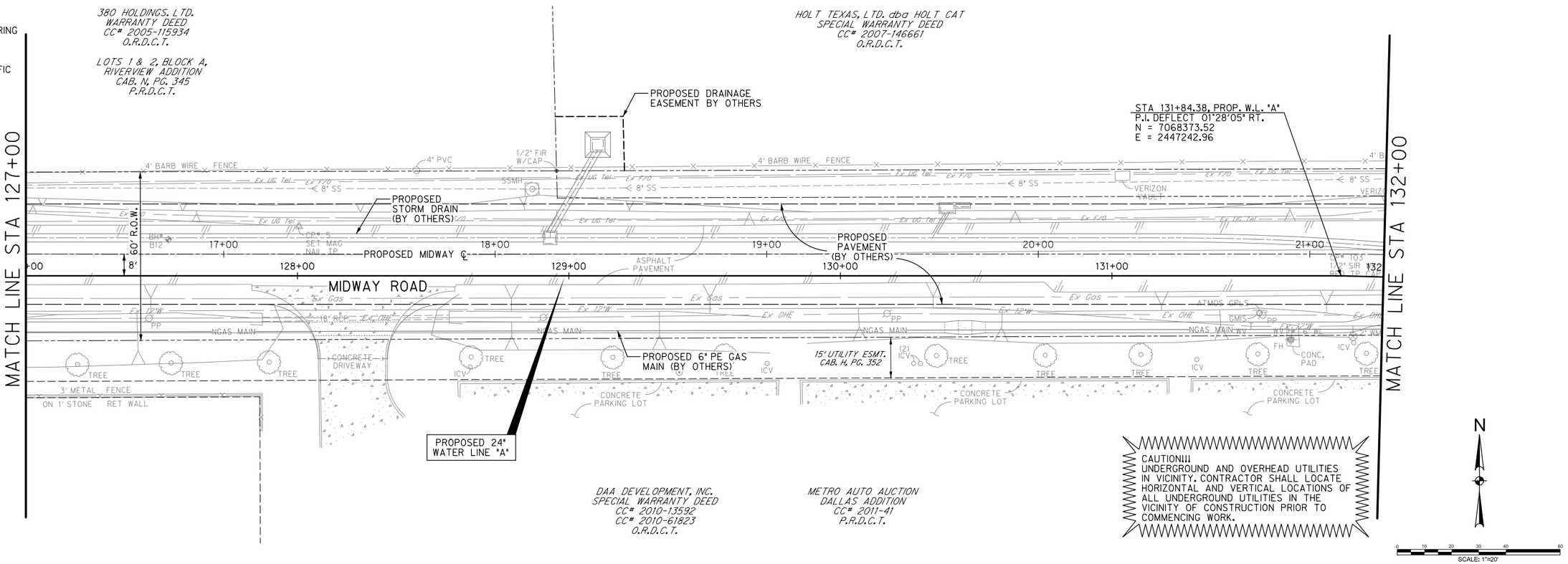
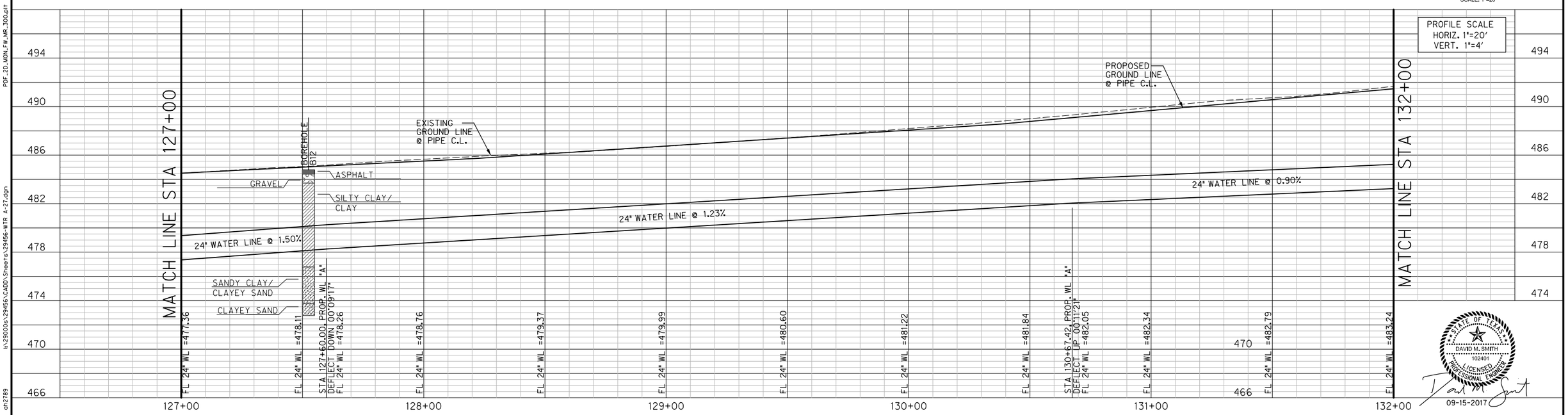
NOTE:
CONTRACTOR SHALL PROVIDE ACCESS TO ALL COMMERCIAL DRIVEWAYS AT ALL TIMES DURING WATER LINE CONSTRUCTION AND SHALL COORDINATE WITH MIDWAY ROAD RE-PAVING TO MAINTAIN THE FLOW OF TRAFFIC AT ALL TIMES.





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DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

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CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A" PLAN AND PROFILE STA 127+00 TO STA 132+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

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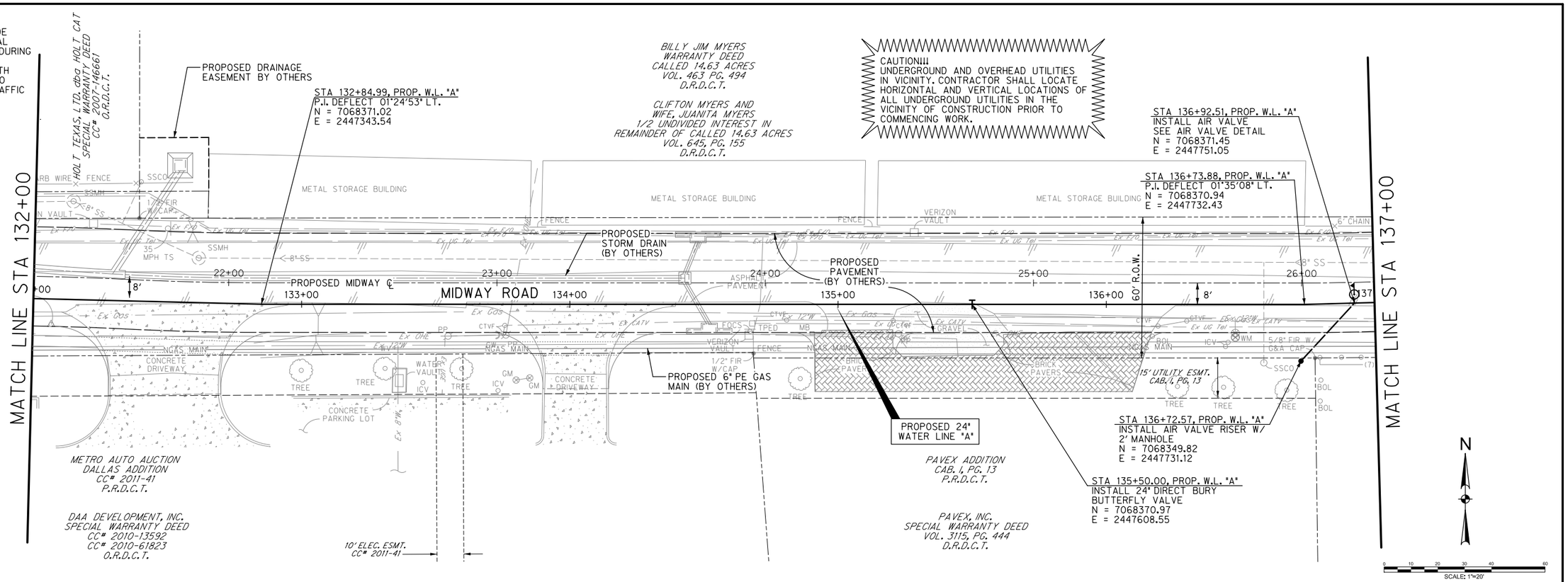
9/15/2017 1:46:59 PM ah2789

NOTE:
CONTRACTOR SHALL PROVIDE ACCESS TO ALL COMMERCIAL DRIVEWAYS AT ALL TIMES DURING WATER LINE CONSTRUCTION AND SHALL COORDINATE WITH MIDWAY ROAD RE-PAVING TO MAINTAIN THE FLOW OF TRAFFIC AT ALL TIMES.



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DAVID M. SMITH
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LICENSED PROFESSIONAL ENGINEER
09-15-2017

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CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A"
PLAN AND PROFILE
STA 132+00 TO STA 137+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 46 OF 106

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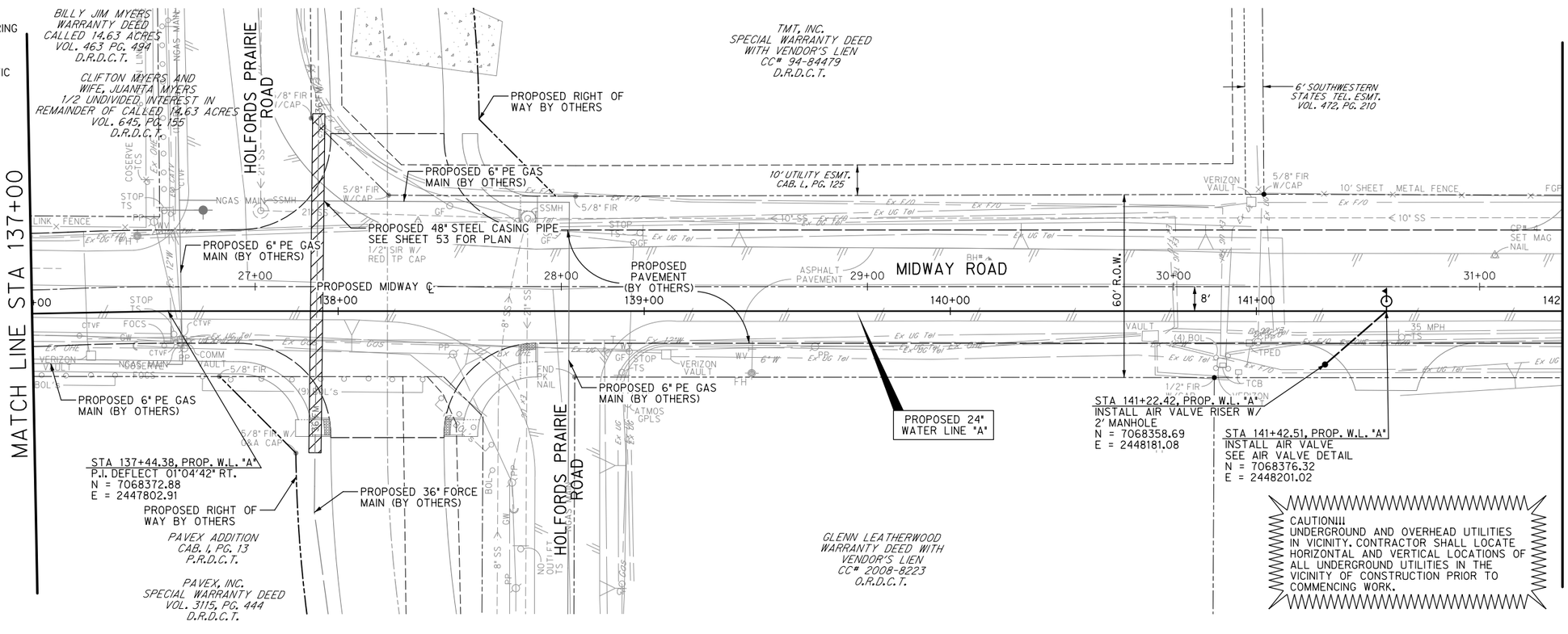
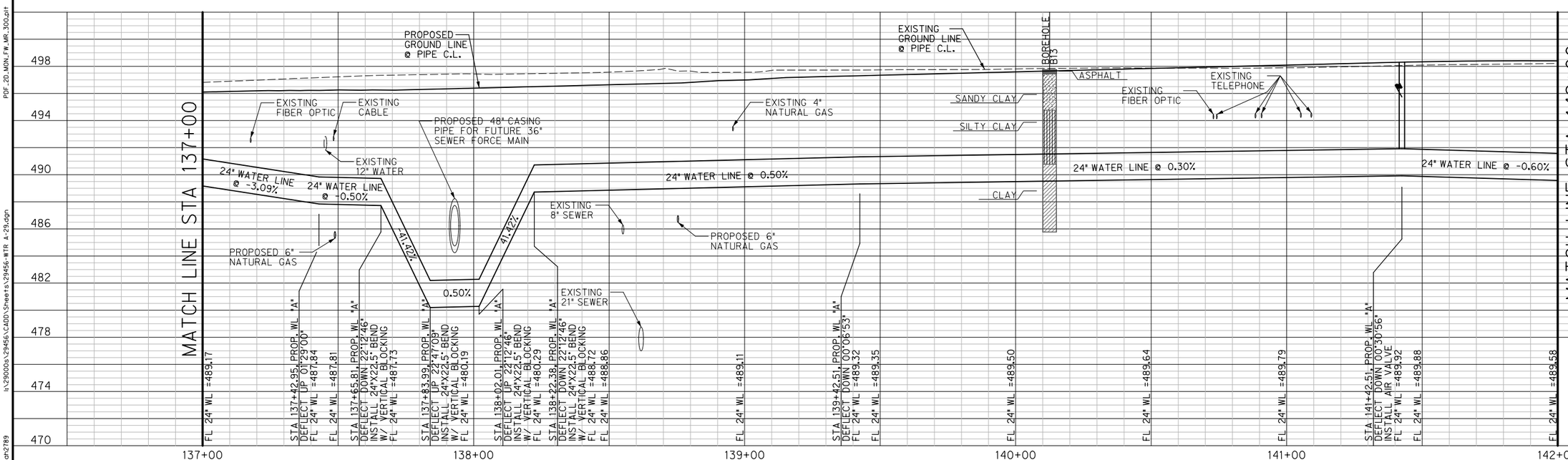
NOTE:
CONTRACTOR SHALL PROVIDE ACCESS TO ALL COMMERCIAL DRIVEWAYS AT ALL TIMES DURING WATER LINE CONSTRUCTION AND SHALL COORDINATE WITH MIDWAY ROAD RE-PAVING TO MAINTAIN THE FLOW OF TRAFFIC AT ALL TIMES.





STATE OF TEXAS
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LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
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ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A"
PLAN AND PROFILE
STA 137+00 TO STA 142+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 47 OF 106

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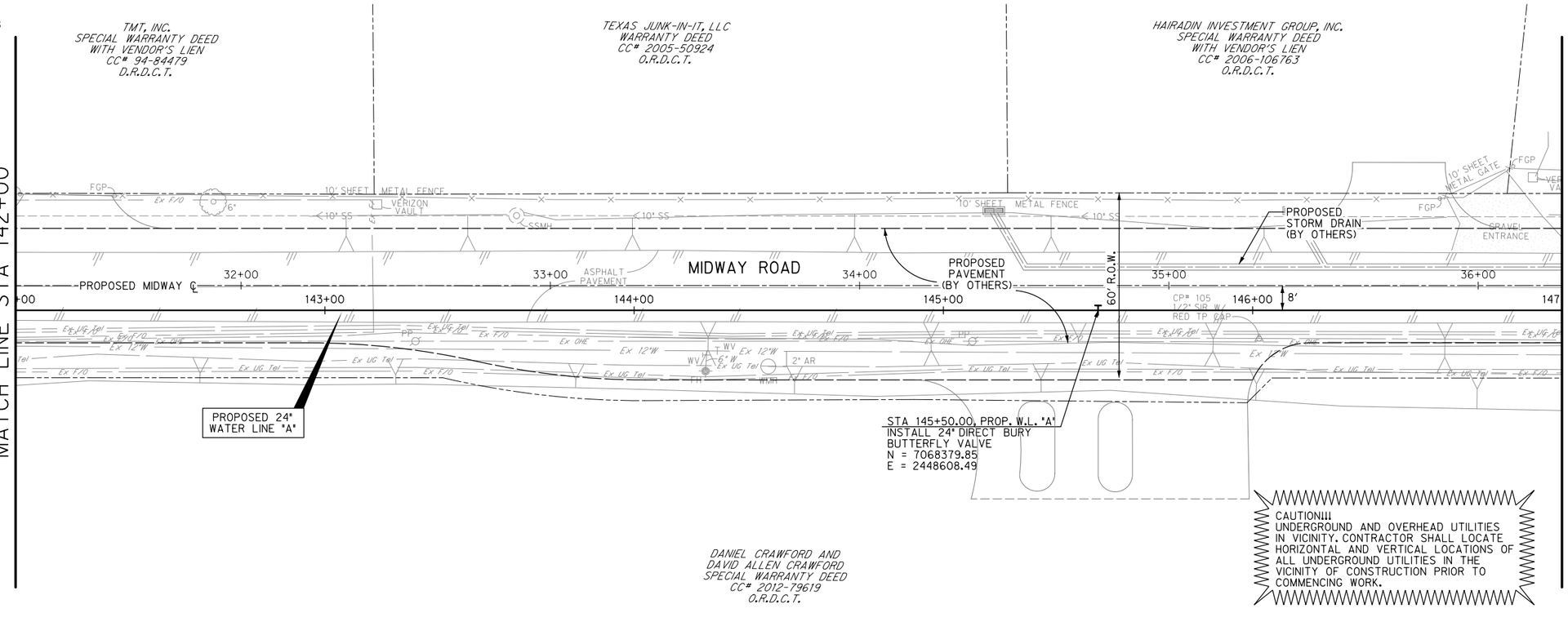
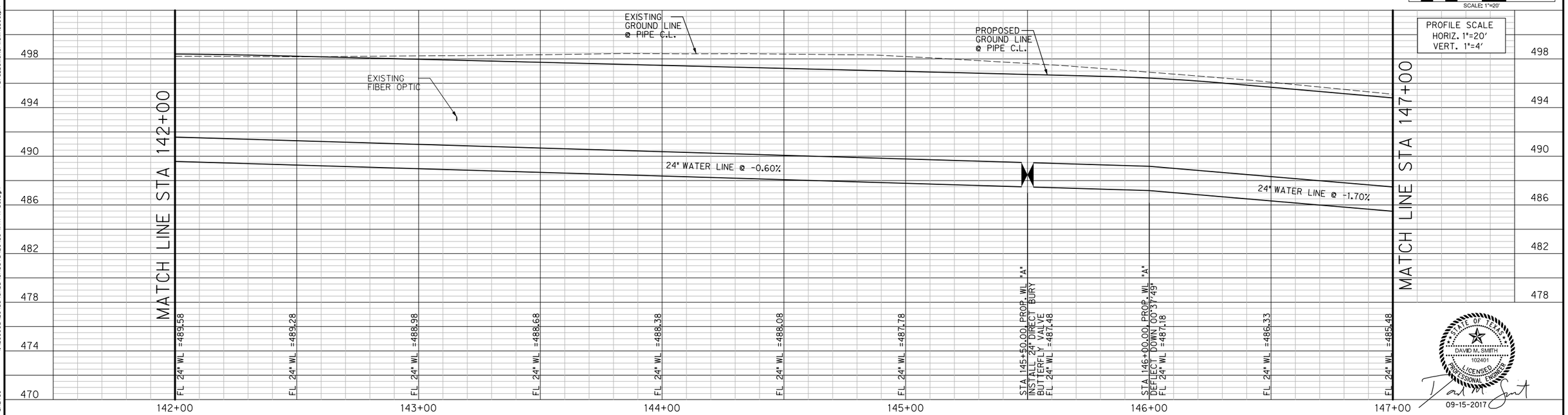
NOTE:
CONTRACTOR SHALL PROVIDE ACCESS TO ALL COMMERCIAL DRIVEWAYS AT ALL TIMES DURING WATER LINE CONSTRUCTION AND SHALL COORDINATE WITH MIDWAY ROAD RE-PAVING TO MAINTAIN THE FLOW OF TRAFFIC AT ALL TIMES.





STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

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ENGINEERING DIVISION
CITY OF LEWISVILLE

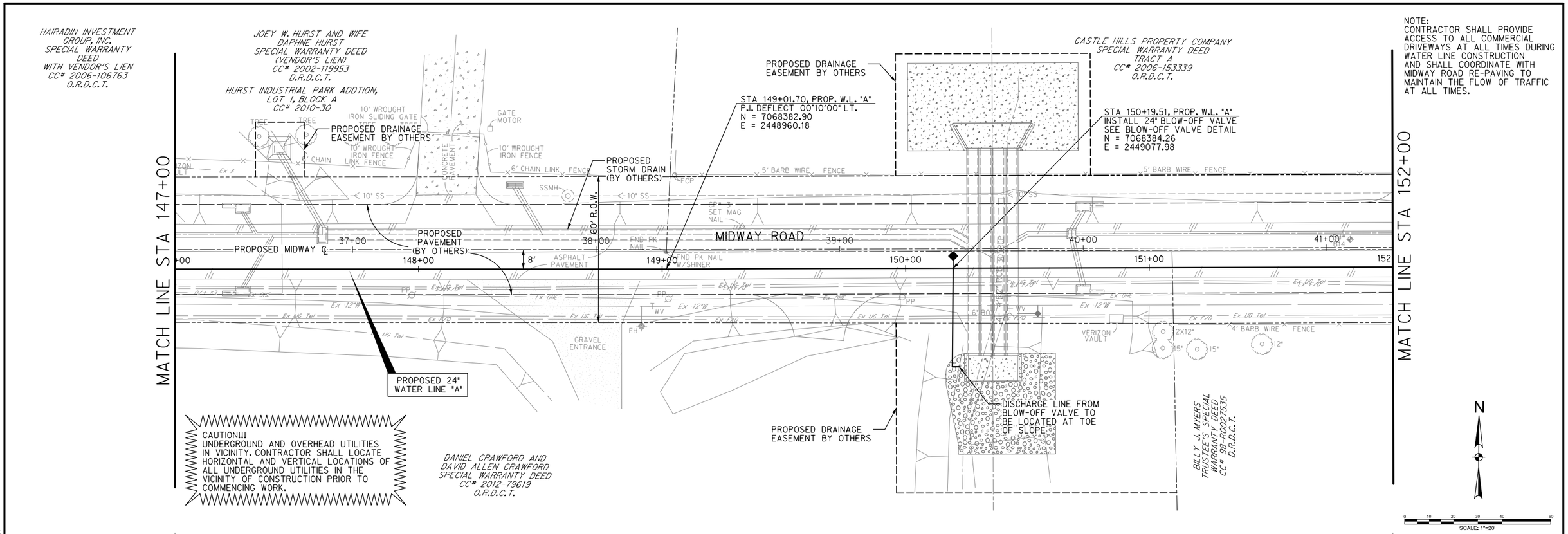
PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A"
PLAN AND PROFILE
STA 142+00 TO STA 147+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 48 OF 106



LEWISVILLE
Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

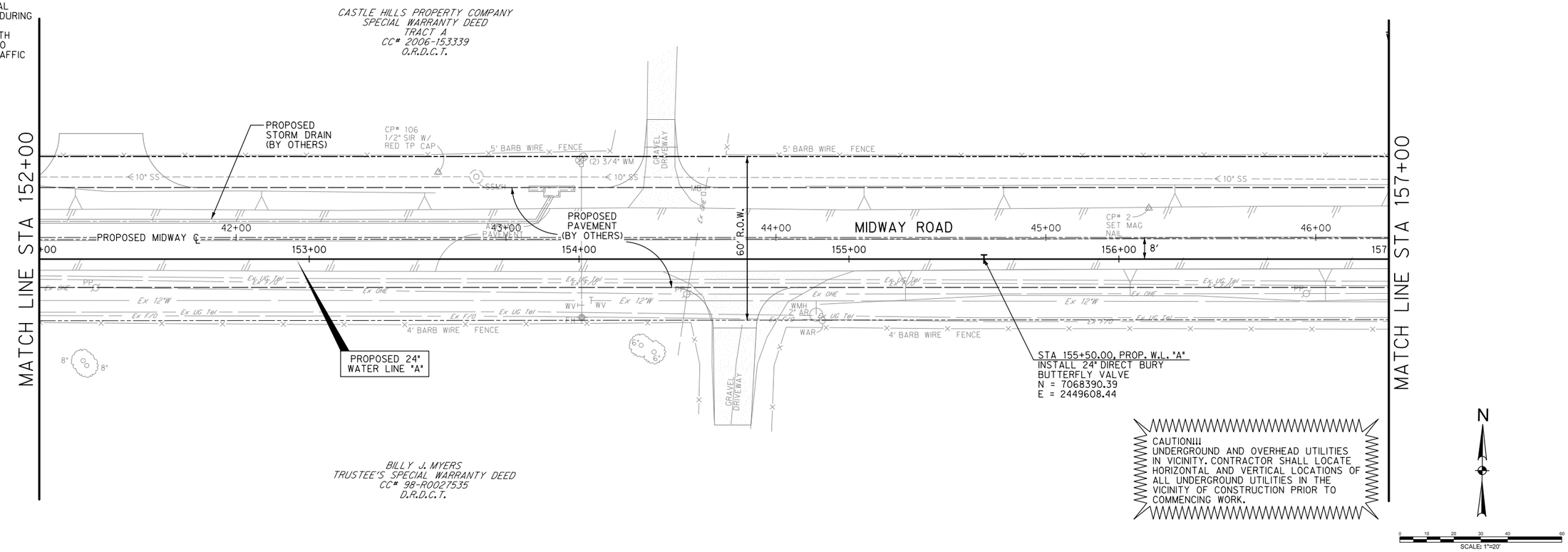
SHEET TITLE: WATER LINE "A" PLAN AND PROFILE STA 147+00 TO STA 152+00

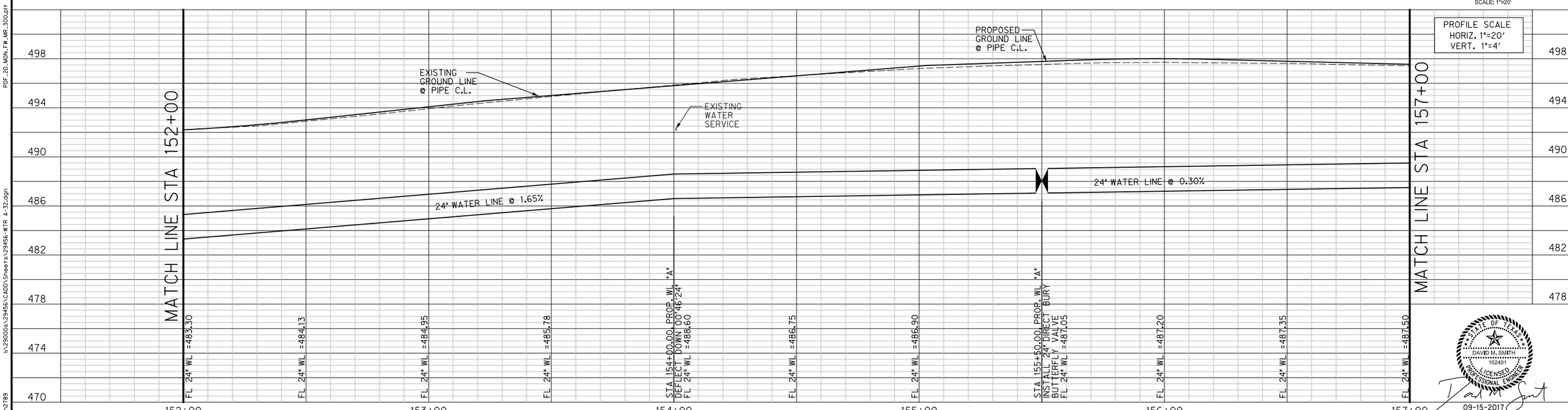
HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 49 OF 106

NOTE:
CONTRACTOR SHALL PROVIDE ACCESS TO ALL COMMERCIAL DRIVEWAYS AT ALL TIMES DURING WATER LINE CONSTRUCTION AND SHALL COORDINATE WITH MIDWAY ROAD RE-PAVING TO MAINTAIN THE FLOW OF TRAFFIC AT ALL TIMES.





STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots. Broad Wings. Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A"
PLAN AND PROFILE
STA 152+00 TO STA 157+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 50 OF 106

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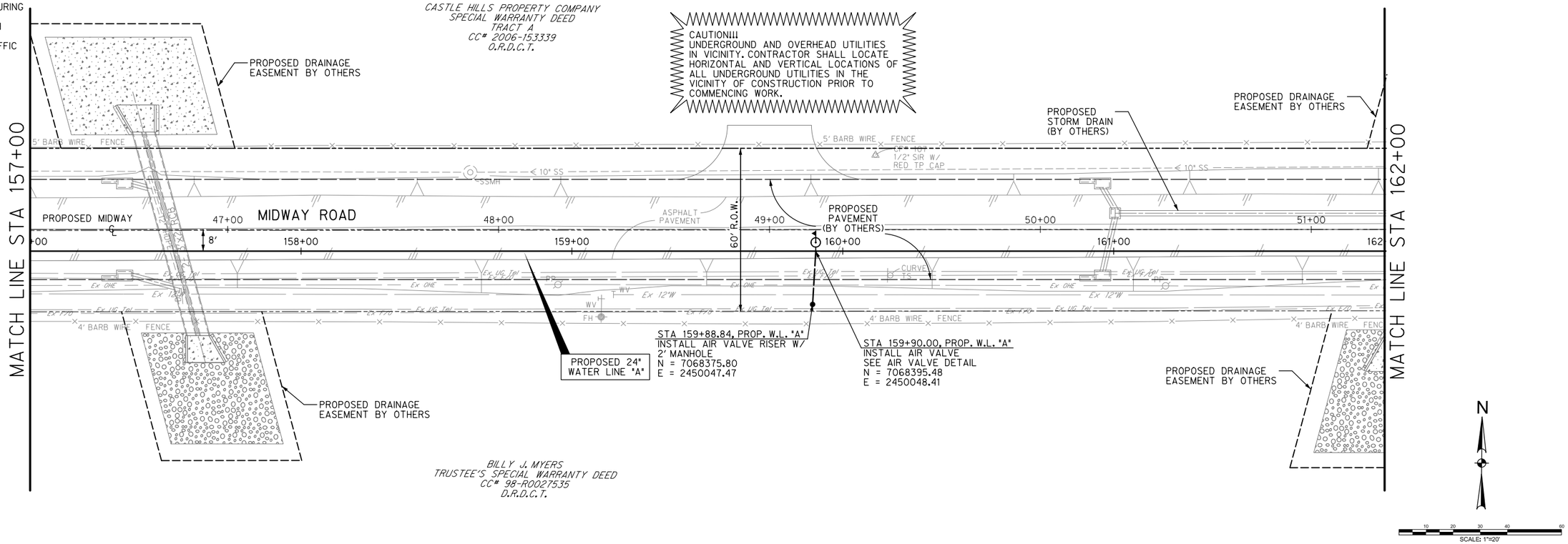
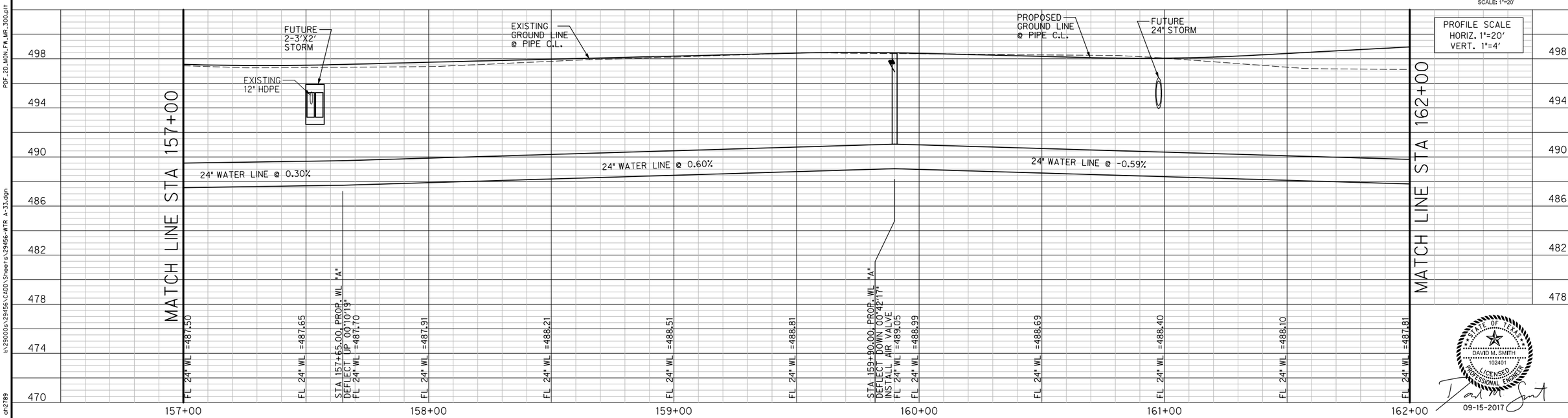
NOTE:
CONTRACTOR SHALL PROVIDE ACCESS TO ALL COMMERCIAL DRIVEWAYS AT ALL TIMES DURING WATER LINE CONSTRUCTION AND SHALL COORDINATE WITH MIDWAY ROAD RE-PAVING TO MAINTAIN THE FLOW OF TRAFFIC AT ALL TIMES.





STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots. Broad Wings. Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

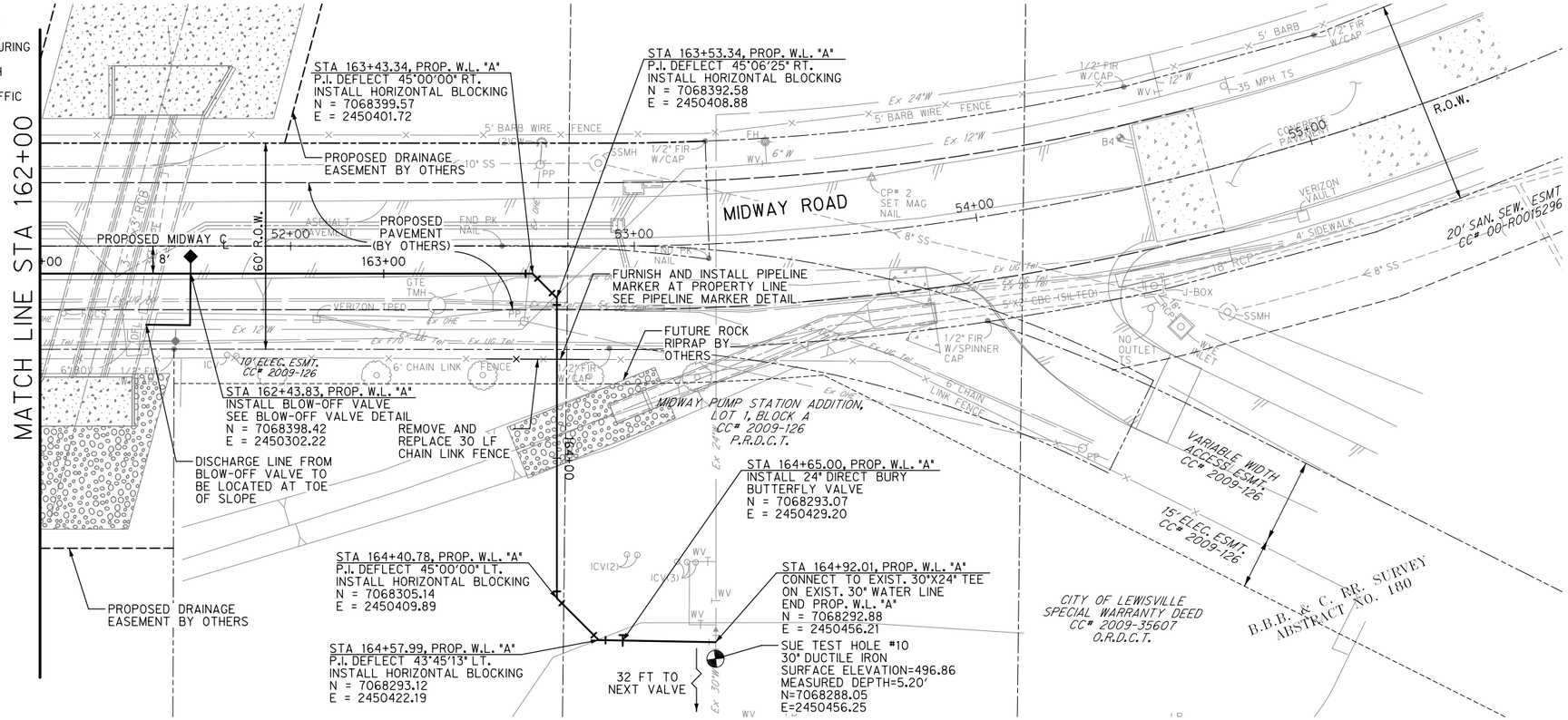
SHEET TITLE: WATER LINE "A"
PLAN AND PROFILE
STA 157+00 TO STA 162+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 51 OF 106

NOTE:
CONTRACTOR SHALL PROVIDE ACCESS TO ALL COMMERCIAL DRIVEWAYS AT ALL TIMES DURING WATER LINE CONSTRUCTION AND SHALL COORDINATE WITH MIDWAY ROAD RE-PAVING TO MAINTAIN THE FLOW OF TRAFFIC AT ALL TIMES.

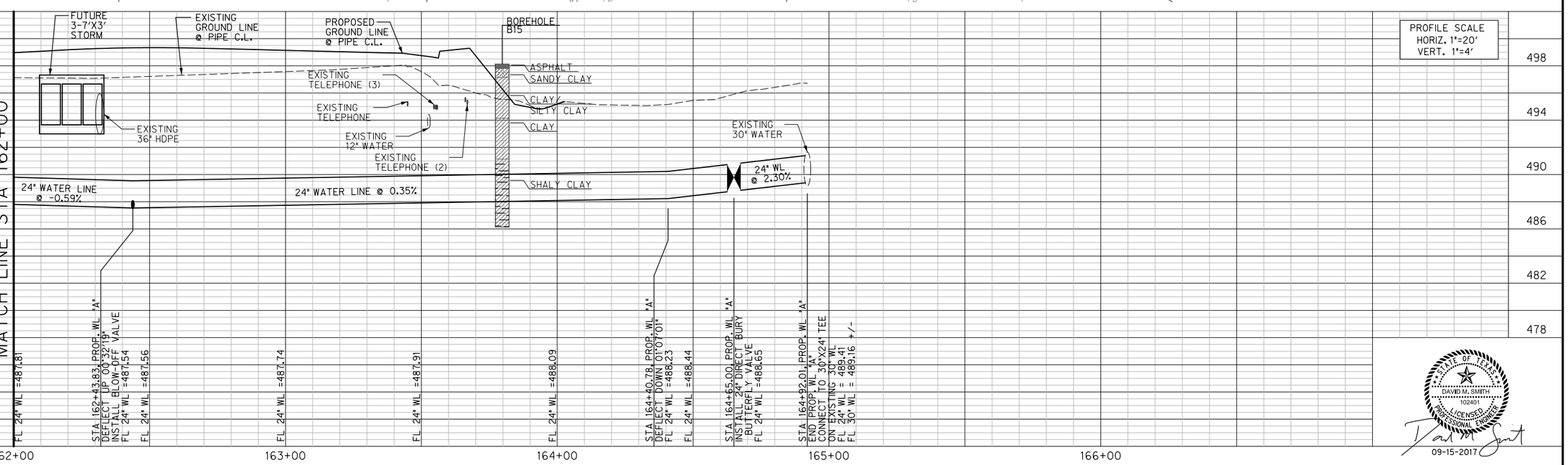


CAUTION!!!
UNDERGROUND AND OVERHEAD UTILITIES IN VICINITY. CONTRACTOR SHALL LOCATE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES IN THE VICINITY OF CONSTRUCTION PRIOR TO COMMENCING WORK.

NOTES:

1. CONTRACTOR SHALL COORDINATE WITH CITY FORCES TO SCHEDULE AND DEVELOP SHUTDOWN PLAN PRIOR TO CONSTRUCTION.

2. CONTRACTOR SHALL FIELD LOCATE PIPELINES AT CONNECTION POINTS PRIOR TO ORDERING OR FABRICATING PROPOSED PIPE. CONTRACTOR SHALL VERIFY PIPE SIZE, TYPE, ELEVATION AND HORIZONTAL LOCATION. CONTRACTOR SHALL MAKE ALL NECESSARY ADJUSTMENTS TO CONNECT TO EXISTING LINE AFTER APPROVAL FROM THE ENGINEER.



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DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

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ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE "A" PLAN AND PROFILE STA 162+00 TO END

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 52 OF 106

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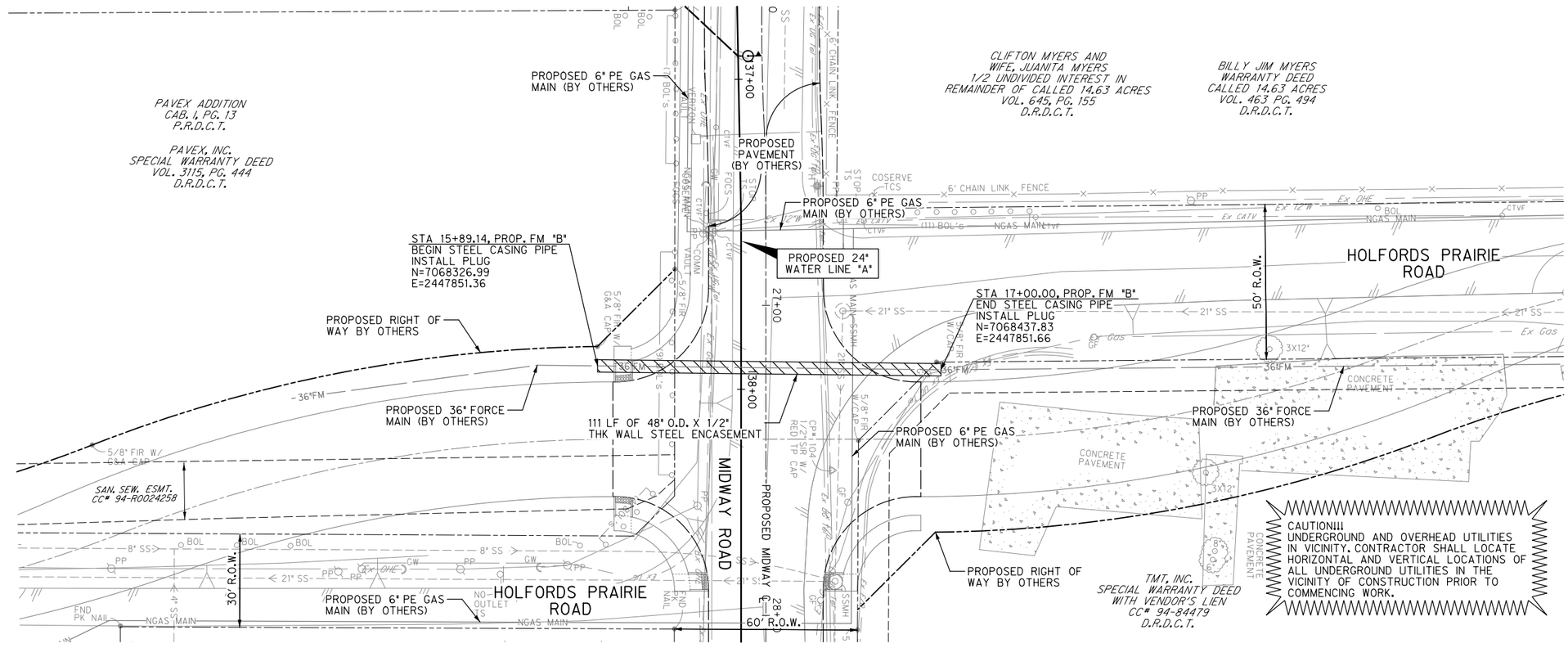
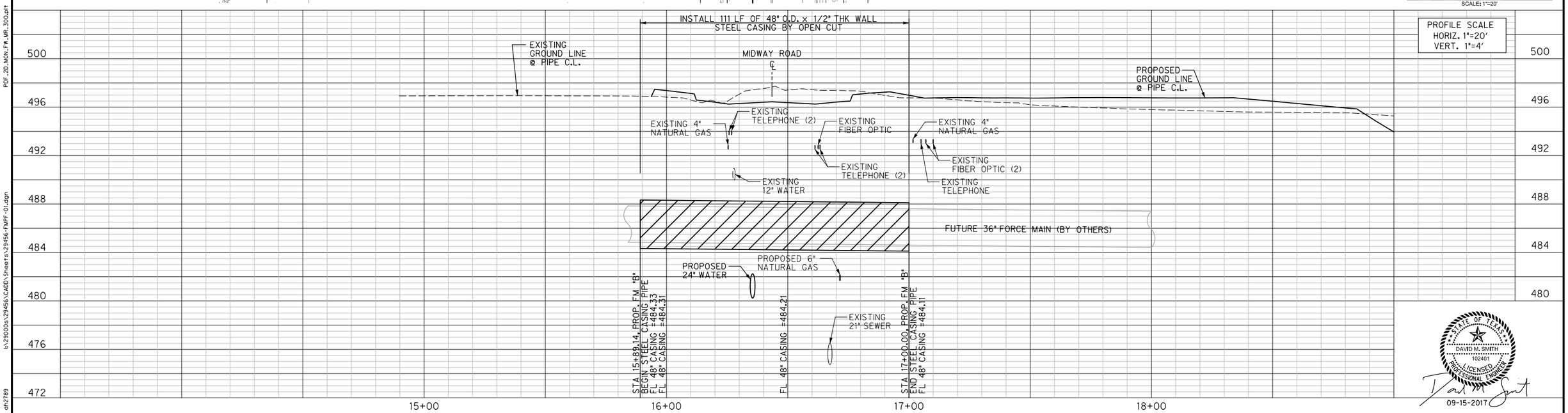
NOTE:
CONTRACTOR SHALL PROVIDE ACCESS TO ALL COMMERCIAL DRIVEWAYS AT ALL TIMES DURING WATER LINE CONSTRUCTION AND SHALL COORDINATE WITH MIDWAY ROAD RE-PAVING TO MAINTAIN THE FLOW OF TRAFFIC AT ALL TIMES.





STATE OF TEXAS
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102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

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CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

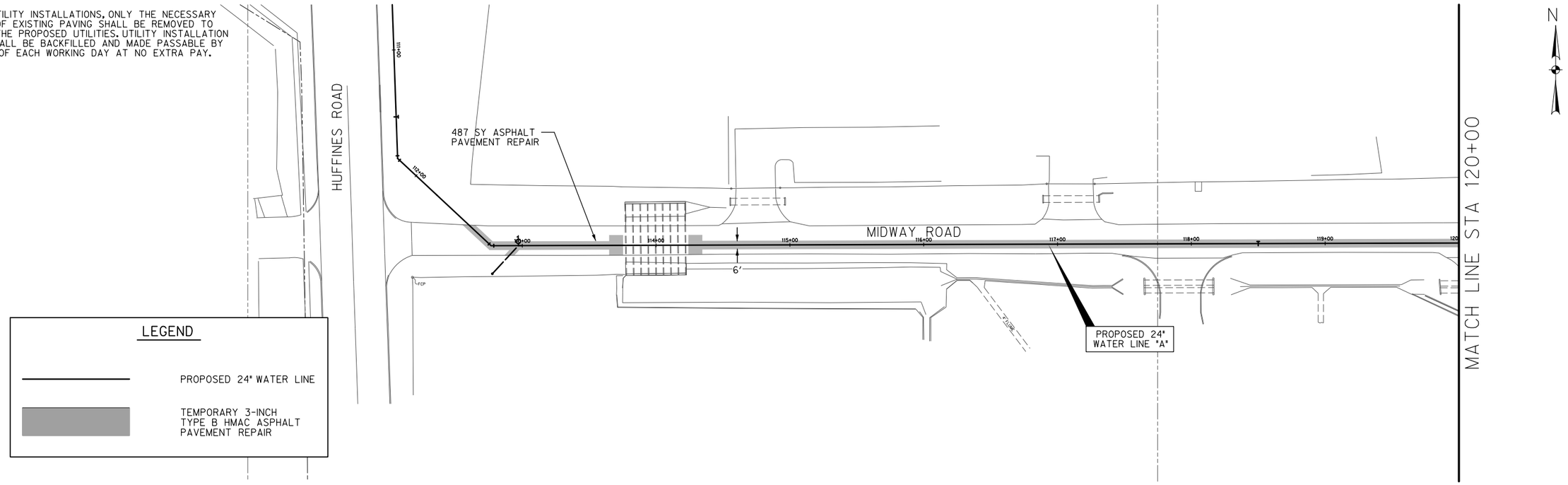
SHEET TITLE: FORCE MAIN CASING PIPE PLAN AND PROFILE

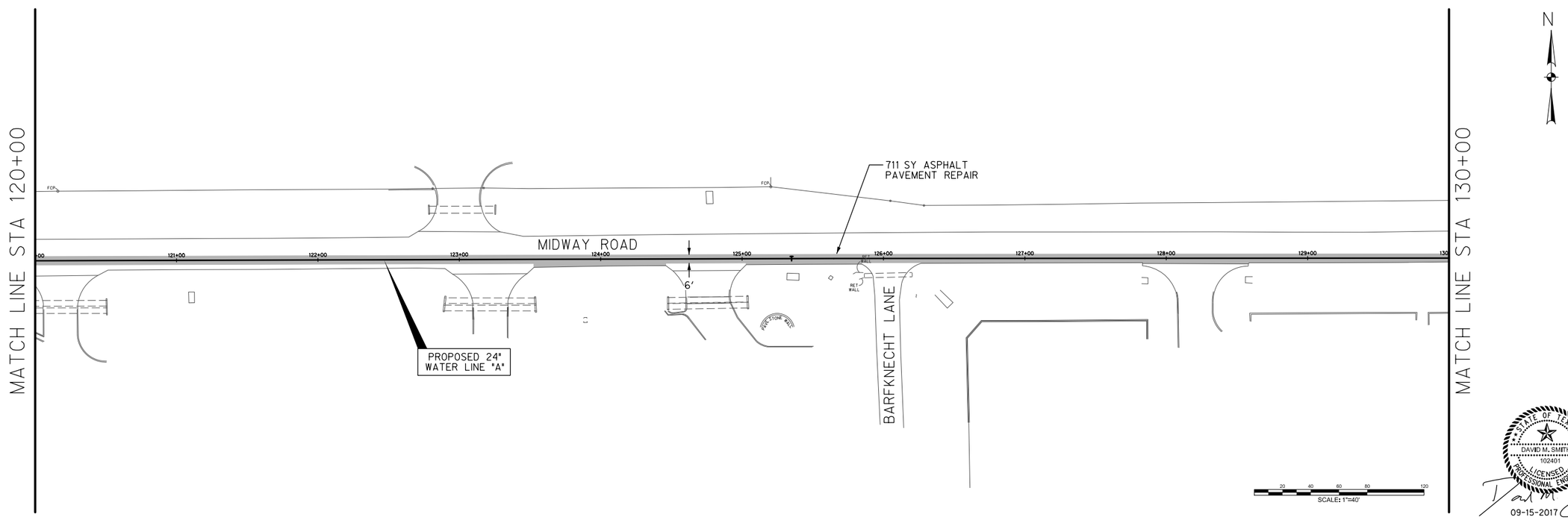
HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 53 OF 106

NOTE:
DURING UTILITY INSTALLATIONS, ONLY THE NECESSARY AMOUNT OF EXISTING PAVING SHALL BE REMOVED TO INSTALL THE PROPOSED UTILITIES. UTILITY INSTALLATION AREAS SHALL BE BACKFILLED AND MADE PASSABLE BY THE END OF EACH WORKING DAY AT NO EXTRA PAY.





STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED
PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: PAVEMENT REPAIR PLAN (SHEET 1 OF 3)

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 54 OF 106

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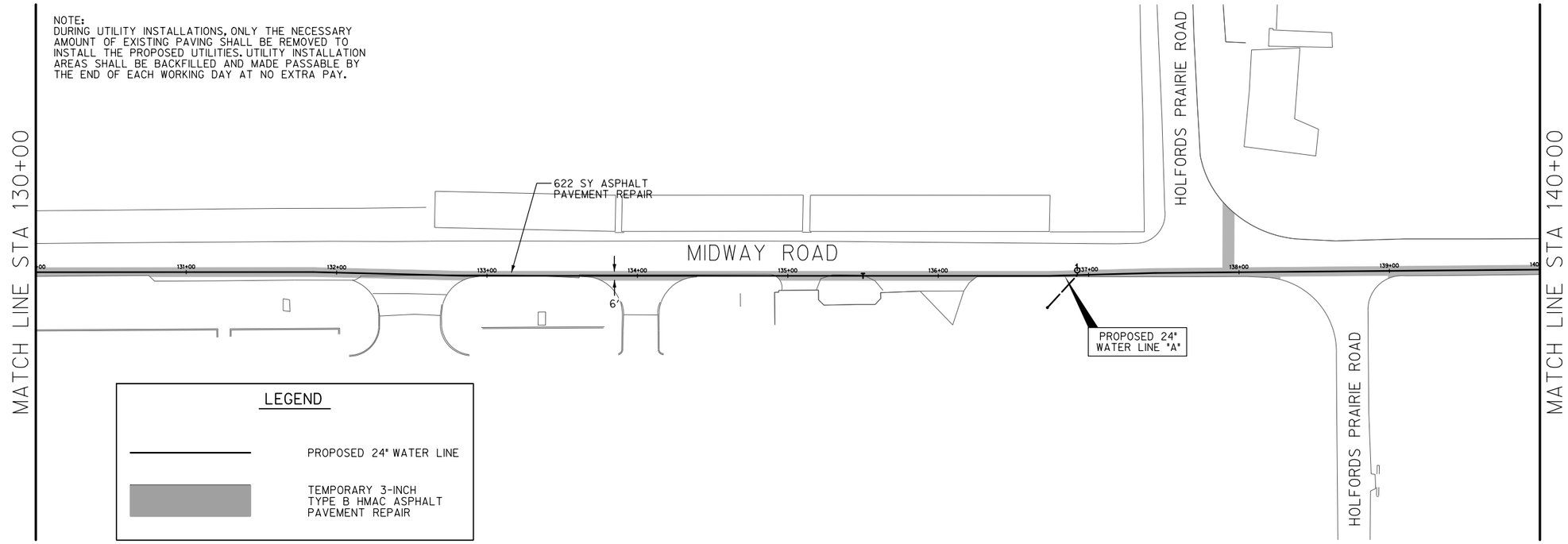
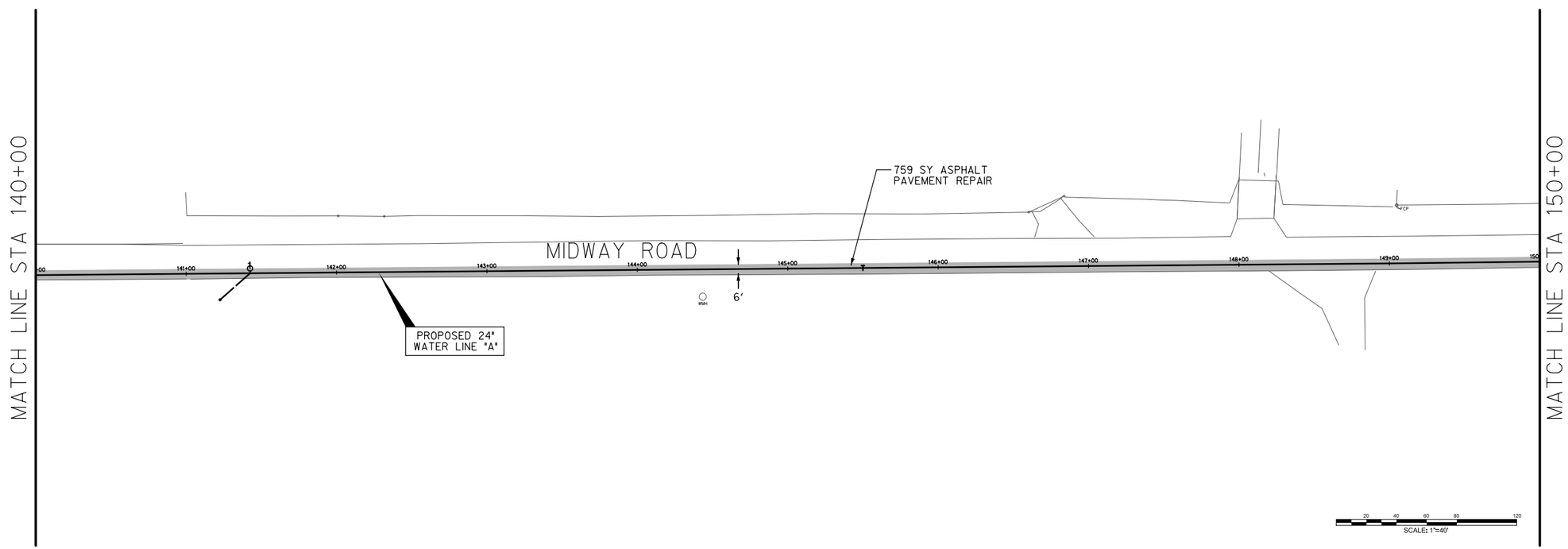
NOTE:
DURING UTILITY INSTALLATIONS, ONLY THE NECESSARY AMOUNT OF EXISTING PAVING SHALL BE REMOVED TO INSTALL THE PROPOSED UTILITIES. UTILITY INSTALLATION AREAS SHALL BE BACKFILLED AND MADE PASSABLE BY THE END OF EACH WORKING DAY AT NO EXTRA PAY.





STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

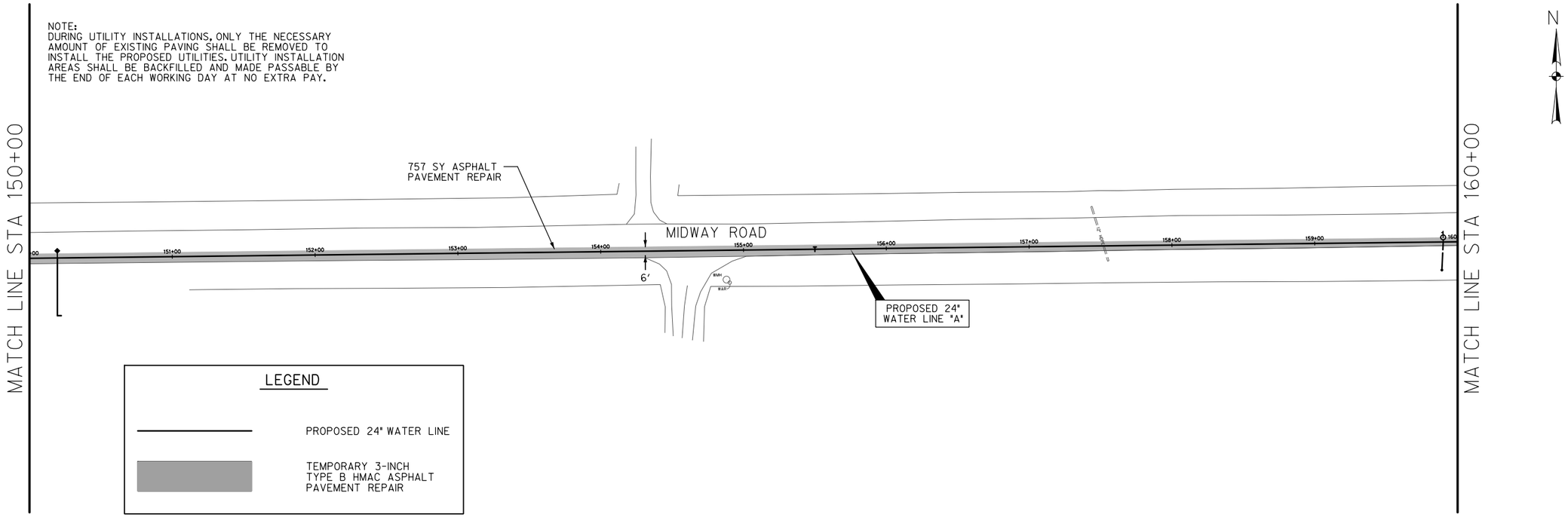
SHEET TITLE: PAVEMENT REPAIR PLAN (SHEET 2 OF 3)

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 55 OF 106

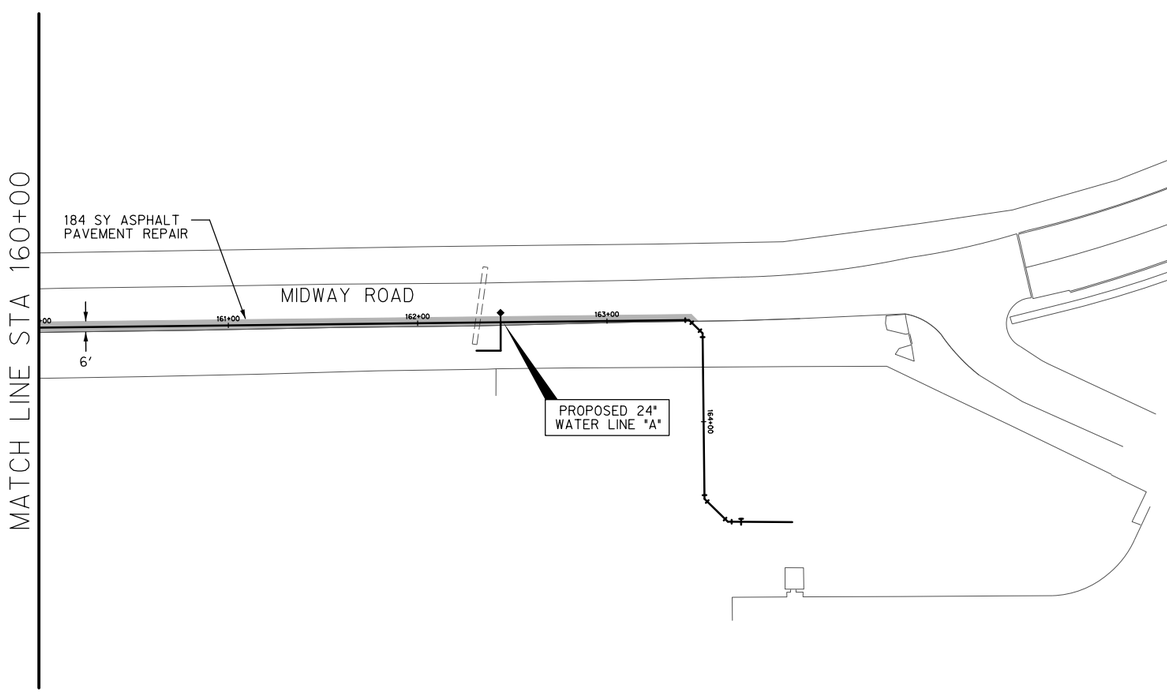
NOTE:
DURING UTILITY INSTALLATIONS, ONLY THE NECESSARY AMOUNT OF EXISTING PAVING SHALL BE REMOVED TO INSTALL THE PROPOSED UTILITIES. UTILITY INSTALLATION AREAS SHALL BE BACKFILLED AND MADE PASSABLE BY THE END OF EACH WORKING DAY AT NO EXTRA PAY.

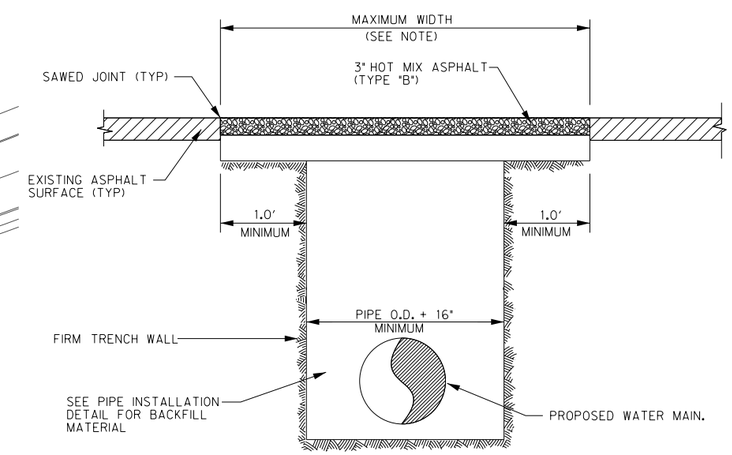


LEGEND

PROPOSED 24" WATER LINE

TEMPORARY 3-INCH TYPE B HMAC ASPHALT PAVEMENT REPAIR





NOTE:
1. PAYMENT TO THE CONTRACTOR FOR THE REPLACEMENT OF PAVEMENT AND/OR DRIVEWAYS WILL BE BASED UPON THE ACTUAL MEASURMENTS UP TO A MAXIMUM WIDTH EQUAL TO THE SPECIFIED MAXIMUM TRENCH WIDTH PLUS TWO (2) FEET. ANY EXISTING PAVEMENT THAT IS DAMAGED OR REMOVED IN EXCESS OF THE MAXIMUM LIMITS, SHALL BE AT THE EXPENSE OF THE CONTRACTOR.

Asphalt Pavement
Repair Detail

N

SCALE: 1"=40'

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09-15-2017

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CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: PAVEMENT REPAIR PLAN (SHEET 3 OF 3)

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
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TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 56 OF 106

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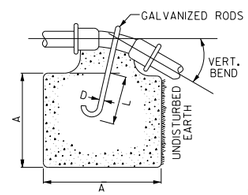
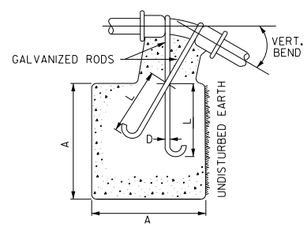
NOTES:
1. THRUST IS BASED ON A WORKING PRESSURE OF 150 PSI.
2. VOLUME OF CONCRETE IS BASED ON 140 LBS PER CUBIC FOOT.
3. MEGA LUGS (OR APPROVED EQUAL) ARE REQUIRED ON ALL M.J. FITTINGS.

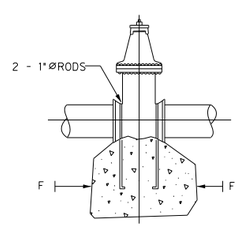
PIPE SIZE	VERT. BEND	CUBIC FEET	A (FT)	D (IN)	L (FT)
4"	11 1/4	3	1.0	3/4	0.5
	22 1/2	6	2.0		1.5
	45°	10	2.2		2.0
	90°	19	2.7		
6"	11 1/4	6	1.5	3/4	1.0
	22 1/2	12	2.3		2.0
	45°	23	3.0		
	90°	43	3.5		
8"	11 1/4	11	2.5	3/4	2.0
	22 1/2	21	2.8		
	45°	41	3.5		2.5
	90°	76	4.3		
10"	11 1/4	17	2.7	3/4	2.0
	22 1/2	33	3.3		
	45°	64	4.0		3.5
	90°	119	5.0		
12"	11 1/4	24	3.0	3/4	2.5
	22 1/2	47	3.7		
	45°	93	4.6		4.0
	90°	172	5.6		
14"	11 1/4	32	3.3	1	2.5
	22 1/2	64	4.0		
	45°	126	5.1		4.5
	90°	233	6.2		
16"	11 1/4	43	3.5	1	3.0
	22 1/2	84	4.4		
	45°	166	5.5		4.5
	90°	305	6.8		
18"	11 1/4	54	3.8	1	3.0
	22 1/2	107	4.8		
	45°	209	5.9		4.5
	90°	386	7.3		
20"	11 1/4	66	4.0	1	3.5
	22 1/2	132	5.1		
	45°	258	6.4		5.0
	90°	477	7.8		
24"	11 1/4	95	4.6	1 1/4	4.0
	22 1/2	190	5.8		
	45°	371	7.2		6.0
	90°	686	8.8		
30"	11 1/4	149	5.3	1 1/2	4.5
	22 1/2	296	6.7		
	45°	580	8.3		7.0
	90°	1071	10.2		



VERTICAL BLOCKING FOR 11 1/4°, 22 1/2° & 30° BENDS



VERTICAL BLOCKING FOR 45° & 90° BENDS



GATE VALVE 8" OR LARGER

VERTICAL THRUST BLOCKING

NOTE: DETAIL SUBJECT TO CHANGE PER DIRECTION OF CITY OF LEWISVILLE ENGINEERING DIVISION

Dated: 8-13-07

Department of Community Development

Office No. 972-219-3490
Fax No. 972-219-3491
www.cityoflewisville.com

Sheet: 8.13

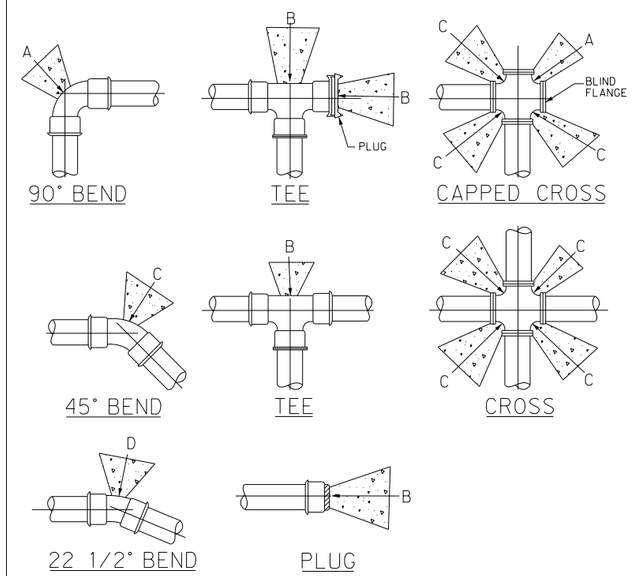
Revisions: No. | Description | Date

Standard Details
Vertical Thrust Blocking

CITY OF LEWISVILLE

PIPE SIZE (IN.)	MINIMUM BEARING AREA AGAINST UNDISTURBED SOIL (SQ. FT.)					
	A	B	C	D	E	F
4	2	2	1	1	1	2
6	4	3	3	1	1	3
8	8	5	4	2	1	5
10	12	8	6	3	2	8
12	16	12	9	5	2	12
14	22	15	12	6	3	15
16	29	20	16	8	4	20
18	36	25	20	10	5	25
20	44	32	24	12	6	32
24	64	45	35	18	9	45
30	100	71	54	28	14	71

NOTES:
1. THRUST IS BASED ON A WORKING PRESSURE OF 150 PSI.
2. BEARING AREA IS BASED ON A SAFE SOIL BEARING LOAD OF 1500 PSF.
3. BLOCKING SHALL BEAR AGAINST FITTINGS ONLY AND SHALL BE CLEAR OF THE JOINT.
4. MEGA LUGS (OR APPROVED EQUAL) ARE REQUIRED ON ALL M.J. FITTINGS.



FORM MATERIAL REQUIRED FOR POURING AND BLOCKING AT FITTINGS AND BENDS OR FOR BLOCKING AT FIRE HYDRANT.

HORIZONTAL THRUST BLOCKING

NOTE: DETAIL SUBJECT TO CHANGE PER DIRECTION OF CITY OF LEWISVILLE ENGINEERING DIVISION

Dated: 8-13-07

Department of Community Development

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Fax No. 972-219-3491
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Sheet: 8.14

Revisions: No. | Description | Date

Standard Details
Horizontal Thrust Blocking

CITY OF LEWISVILLE

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE DETAILS (SHEET 1 OF 5)

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 57 OF 106

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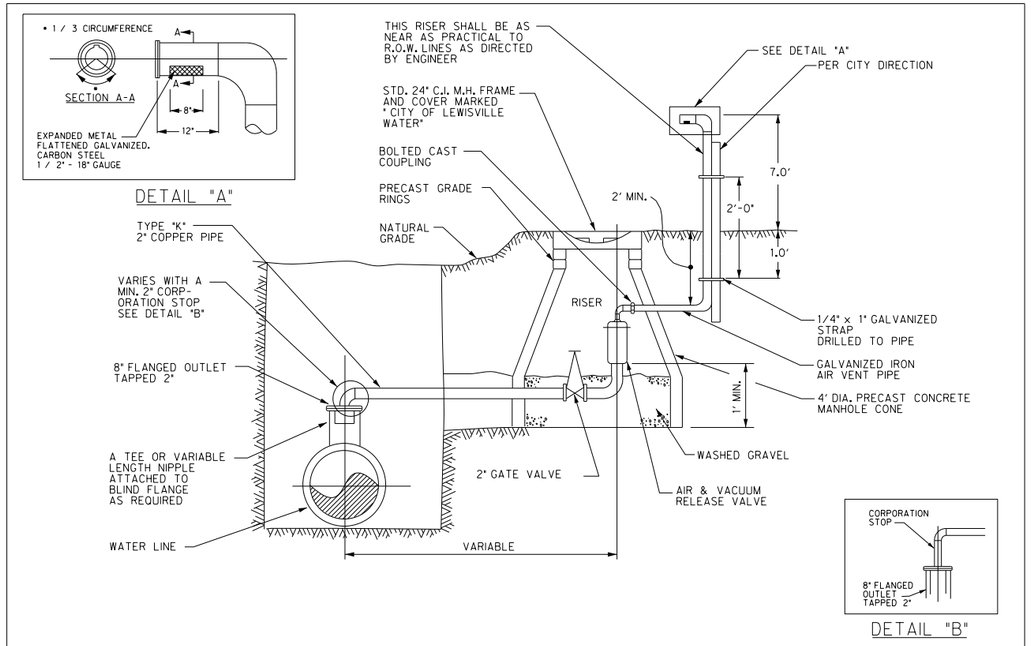
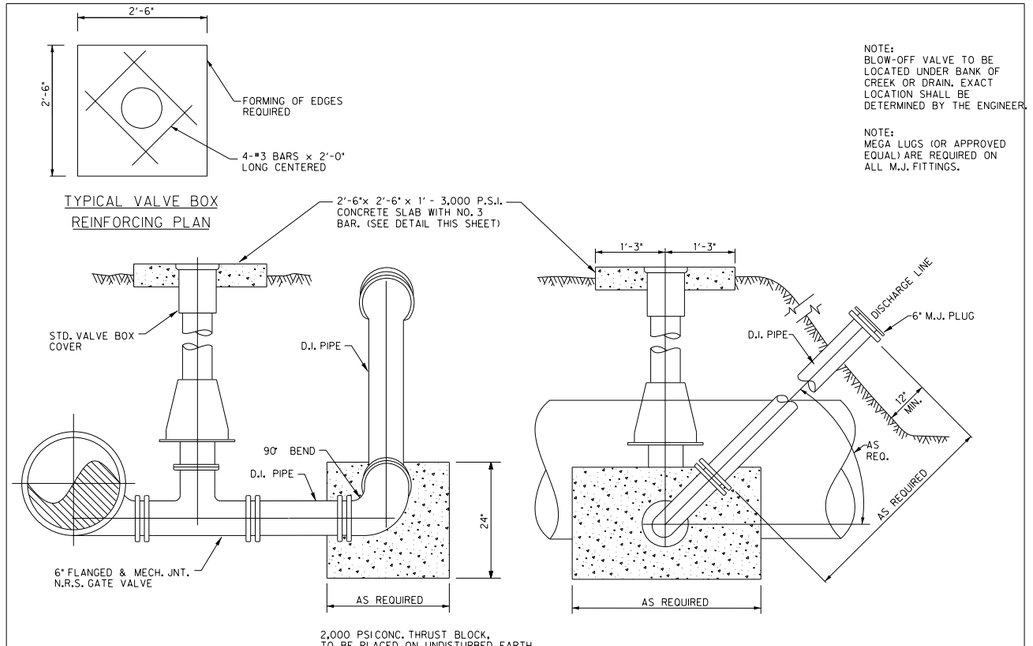


NOTE:
ALL COPPER FITTINGS SHALL BE COMPRESSION FITTINGS

NOTE:
DETAIL SUBJECT TO CHANGE PER DIRECTION OF CITY OF LEWISVILLE ENGINEERING DIVISION

CITY OF LEWISVILLE	Standard Details Typical Air Valve Installation Waterlines 16" Dia. or Larger	Revisions: No. / Description / Date	Department of Community Development Office No. 972-219-3490 Fax No. 972-219-3487 www.cityoflewisville.com	Dated: 8-13-07 Sheet: 8.5



NOTE:
DETAIL SUBJECT TO CHANGE PER DIRECTION OF CITY OF LEWISVILLE ENGINEERING DIVISION

CITY OF LEWISVILLE	Standard Details Typical Blow-Off Valve Installation	Revisions: No. / Description / Date	Department of Community Development OFFICE NO. 972-219-3490 FAX NO. 972-219-3487 WWW.CITYOFLEWISVILLE.COM	Dated: 8-13-07 Sheet: 8.3

STATE OF TEXAS
DAVID M. SMITH
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09-15-2017

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CITY OF LEWISVILLE

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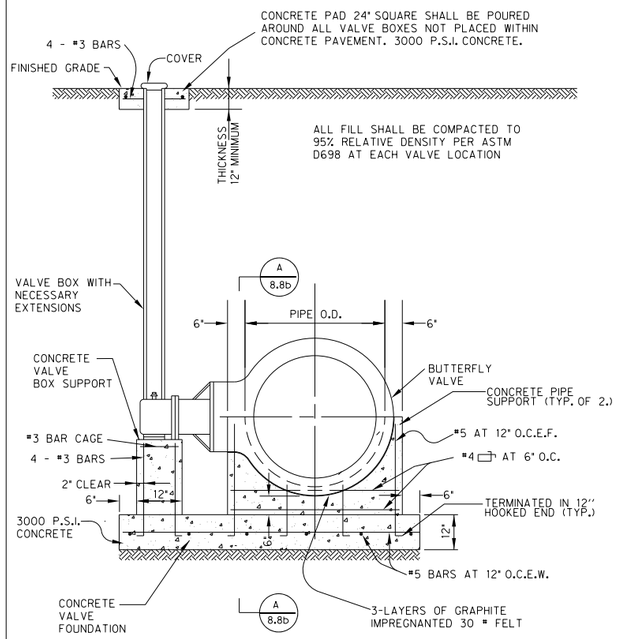
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 58 OF 106

MUELLER,PRATT & AFC ARE
APPROVED VALVE MANUFACTURERS
USE APPROVED VALVE MANUFACTURERS
OR APPROVED EQUIVALENT

- FOR 16" VALVE AND LARGER
- DIRECT BURY ONLY, UNLESS OTHERWISE APPROVED
- WRAP IN 15-MIL POLY WITH ALL JOINTS TAPED
- USE ONLY STAINLESS STEEL FASTENERS
- 3/8" RUBBER GASKET ALL FLANGED CONNECTIONS OR AS MANUFACTURER SPECIFIED



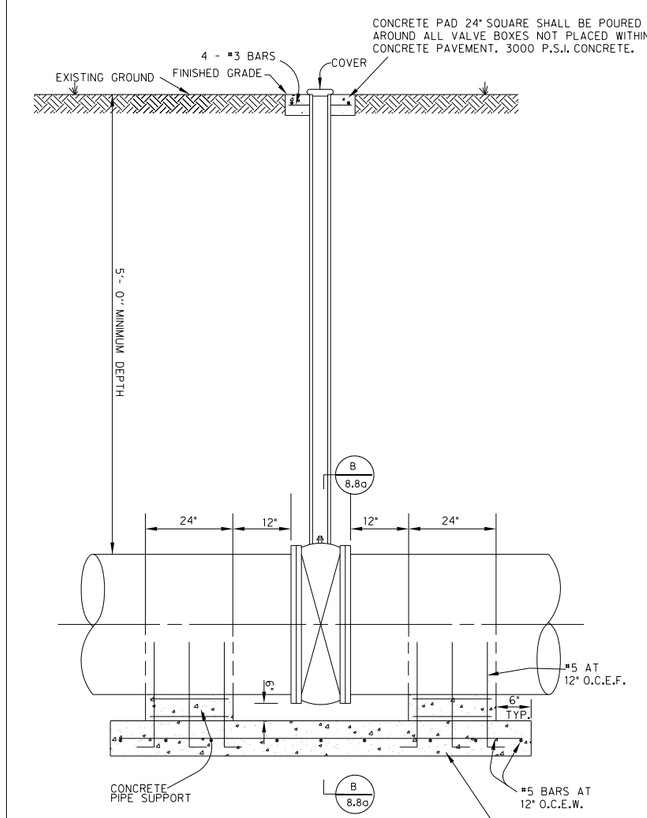
SECTION B-B
NTS

NOTE:
A PERMANENTLY ATTACHED VALVE EXTENSION STEM SHALL BE REQUIRED FOR ANY VALVE WHERE THE OPERATOR NUT IS LOCATED IN EXCESS OF 48" BELOW FINISH GRADE. THIS EXTENSION SHALL BE SUFFICIENT LENGTH TO INSURE THAT THE OPERATOR NUT IS WITHIN 48" OF THE FINISH GRADE.

NOTE:
DETAIL SUBJECT TO CHANGE PER DIRECTION OF CITY OF LEWISVILLE ENGINEERING DIVISION

Dated: 10-23-13
Sheet: 8.8a
Department of Community Development
Office No. 972-219-3490
Fax No. 972-219-3487
www.cityofLewisville.com
Revisions:
No. | Description | Date
Standard Details
Butterfly Valve Detail
LEWISVILLE

CONCRETE PAD 24" SQUARE SHALL BE POURED AROUND ALL VALVE BOXES NOT PLACED WITHIN CONCRETE PAVEMENT. 3000 P.S.I. CONCRETE.



SECTION A-A
NTS

NOTE:
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NOTE:
DETAIL SUBJECT TO CHANGE PER DIRECTION OF CITY OF LEWISVILLE ENGINEERING DIVISION

Dated: 10-23-13
Sheet: 8.8b
Department of Community Development
Office No. 972-219-3490
Fax No. 972-219-3487
www.cityofLewisville.com
Revisions:
No. | Description | Date
Standard Details
Butterfly Valve Detail
LEWISVILLE

STATE OF TEXAS
DAVID M. SMITH
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LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE DETAILS (SHEET 3 OF 5)

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 59 OF 106

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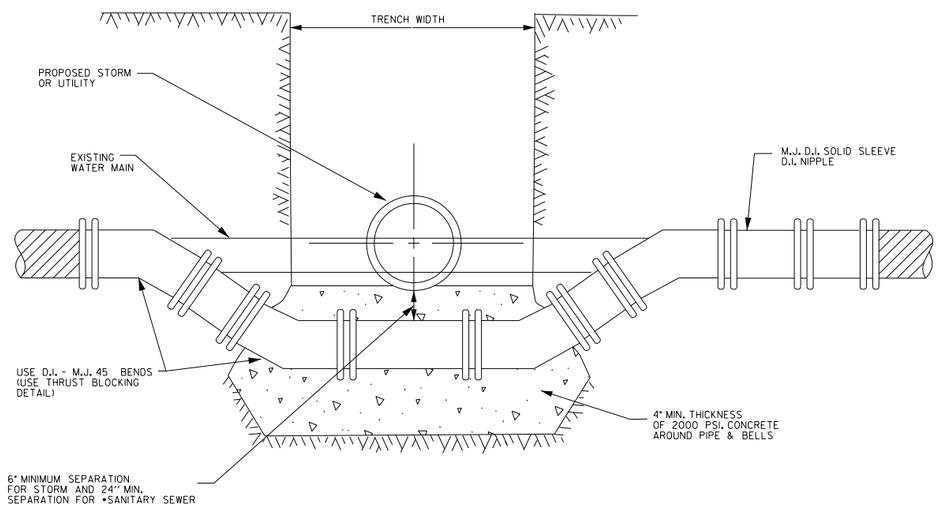
NOTES:

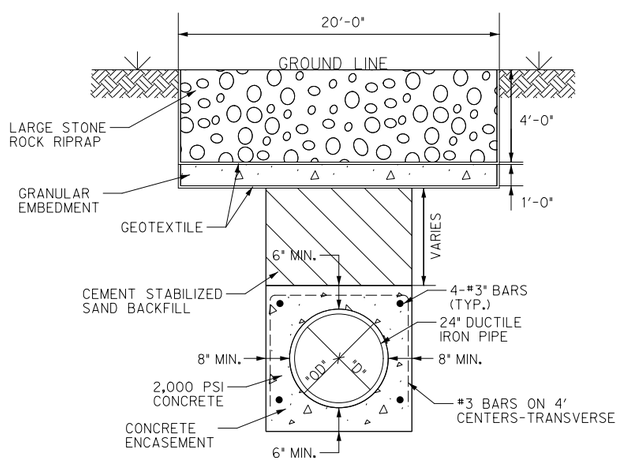
1. MEGA LUGS (OR APPROVED EQUAL) ARE REQUIRED ON ALL M.J. FITTINGS.



* FOR SANITARY SEWER, PREFERENCE IS TO RAISE WATERLINE OVER THE SEWER IF POSSIBLE

NOTE:
DETAIL SUBJECT TO CHANGE PER DIRECTION OF CITY OF LEWISVILLE ENGINEERING DIVISION

CITY OF LEWISVILLE	Standard Details	Revisions: No. / Description / Date	Department of Community Development	Dated: 4-27-10
	Water Main Lowering		Office No. 972-219-3490 Fax No. 972-219-3487 www.cityofLewisville.com	Sheet: 8.7
	4200			

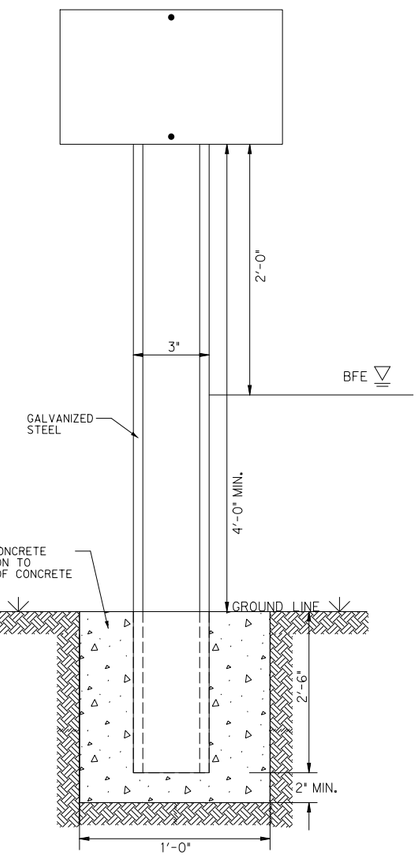


SECTION A-A
(NOT TO SCALE)

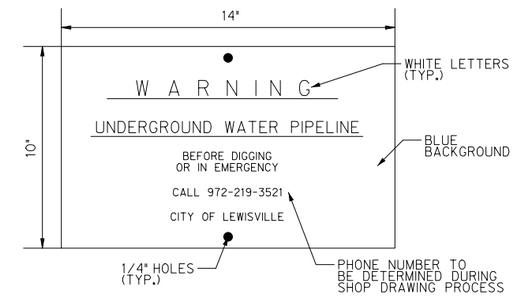
RIPRAP
STONE FOR RIPRAP SHALL BE SOUND, HARD, AND DURABLE ROCK, FREE FROM CRACKS, SEAMS, SHALE PARTINGS, AND OVERBURDEN SPOIL. STONE SHALLBE APPROXIMATELY RECTANGULAR IN CROSS SECTION, FREE FROM THIN, SLABBY PIECES HAVING AN ELONGATION RATIO GREATER THAN 4. THE QUALITY OF STONE HAVING AN ELONGATION RATIO GREATER THAN 3 SHALL NOT EXCEED 20 PERCENT BY WEIGHT. STONE SHALL HAVE A UNIT WEIGHT OF AT LEAST 140 LB/FT³. DELETERIOUS SUBSTANCES SUCH AS SHALE AND CLAY BALLS (IN MATERIAL RETAINED ON THE 1/2 INCH SIEVE) SHALL NOT EXCEED 7 PERCENT BY WEIGHT.

RIPRAP SHALL CONFORM TO THE GRADATION THAT FOLLOWS:

WEIGHT IN POUNDS	PERCENT OF TOTAL WEIGHT LIGHTER THAN
700	MAX. ALLOWABLE SIZE
600	70-95
400	50-70
150	35-50
10	2-10



BFV/PIPELINE MARKER
(NOT TO SCALE)



NOTES:

1. POSITION MARKERS OVER CENTERLINE OF WATER LINE WHERE DIRECTED BY THE ENGINEER.

2. POST SHALL BE GALVANIZED 10 BWG TUBING 3" OUTSIDE DIAMETER.

3. USE 1/4" DIAMETER STAINLESS STEEL BOLTS, NUTS, FLAT WASHERS, AND LOCK WASHERS TO ATTACH SIGN TO POST.

4. MARKERS TO BE PAINTED, 0.080" THICK ALUMINUM, WITH STANDARD NO-DIG SYMBOL.

5. COLORS AND LABELS SHOWN ARE FOR POTABLE WATER. FOR RECLAIMED CHANGE BACKGROUND TO PURPLE AND CHANGE "WATER" TO "RECLAIMED".

STATE OF TEXAS
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102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
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ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE DETAILS (SHEET 4 OF 5)

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 60 OF 106

A COMPACTION BY FLOODING OR JETTING IS NOT PERMITTED.

B 95% STANDARD PROCTOR DENSITY, HAND OPERATED MECHANICAL TAMPERS MAY BE USED.

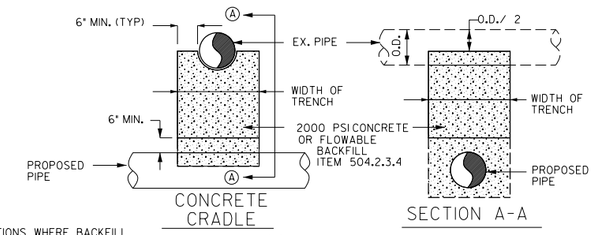
C CLASS B+ EMBEDMENT, NOTE: SEE ITEM 504.5.2.4 OF THE "PUBLIC WORKS CONSTRUCTION STANDARDS"

D EMBEDMENT BACKFILL

E TRENCH BACKFILL

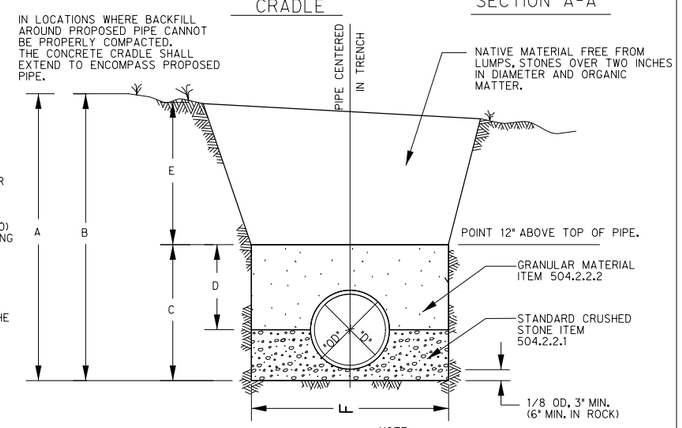
F OD + 16" MINIMUM

MAX. TRENCH WIDTH = OD + 24" (D=42" OR LESS)
= OD + 48" (D OVER 42")



CONCRETE CRADLE

SECTION A-A



NOTES:

1. A COMMERCIALLY-AVAILABLE MAGNETIC TAPE SHALL BE PLACED 12" ABOVE TOP OF PIPE FOR ALL WATER AND SEWER MAINS.

2. A 3-FOOT LONG (+1 FOOT) CLAY BARRIER (30<P.I.<40) SHALL BE PLACED AT 200 - FOOT INTERVALS ALONG ALL MAINS. THIS CLAY BARRIER SHALL BE PLACED 24" ABOVE THE TOP OF PIPE AND FOR THE FULL WIDTH OF THE TRENCH (REPLACING ALL BEDDING, EMBEDMENT AND BACKFILL MATERIALS) AND SHALL BE PLACED AT THE MID POINT OF A LENGTH OF PIPE BEING PLACED, BUT NOT AT A LOCATION WHERE A LATERAL OR SERVICE CONNECTS WITH THE MAIN.

REFERENCE NORTH CENTRAL TEXAS C.O.G. BOOK

NOTE:
DETAIL SUBJECT TO CHANGE PER DIRECTION OF CITY OF LEWISVILLE ENGINEERING DIVISION

CITY OF LEWISVILLE

Standard Details

Pipe Installation Detail Typical

Revisions:

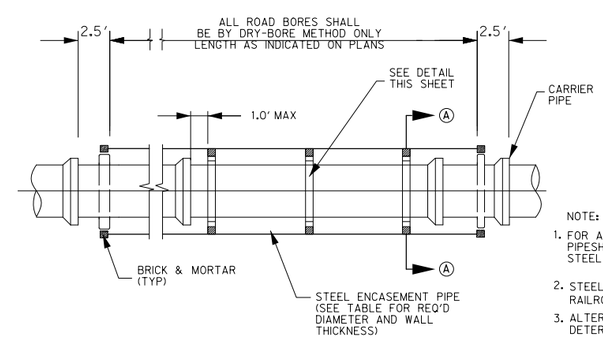
No.	Description	Date

Department of Community Development

Office No. 972-219-3490
Fax No. 972-219-3487
www.cityoflewisville.com

Dated: 4-27-10

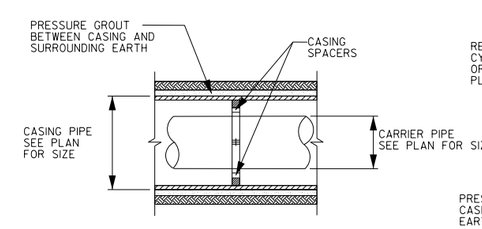
Sheet: 7.12



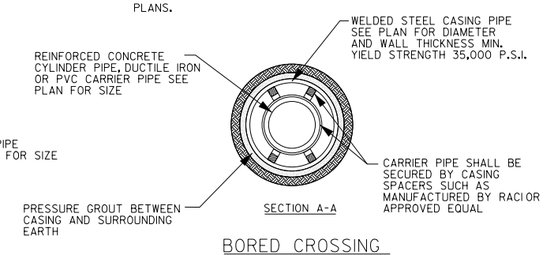
CARRIER PIPE SIZE (IN)	STEEL ENCASEMENT O.D. (IN)	STEEL ENCASEMENT WALL THICKNESS (IN)
6	14	1/4
8	18	1/4
12	21	1/4
18	27	3/8
21	30	3/8
24	36	3/8
27	39	1/2

NOTE:

1. FOR ALL CARRIER PIPES OVER 27": THE STEEL ENCASEMENT PIPESHALL BE 12" LARGER THAN THE CARRIER PIPE AND THE STEEL ENCASEMENT WALL THICKNESS SHALL BE 1/2".
2. STEEL ENCASEMENT PIPE THICKNESS FOR BORE UNDER ALL RAILROAD SHALL BE 1/2" MINIMUM.
3. ALTERNATE CONCRETE ENCASEMENT PIPE MAY BE USED AS DETERMINED BY CITY.
4. ALL PIPE SHALL BE LAID TO GRADE AS SHOWN ON THE PLANS.



CUT AWAY LONGITUDINAL SECTION
BORED CROSSING WITH ENCASEMENT DETAIL



BORED CROSSING
WITH ENCASEMENT DETAIL

NOTE:
DETAIL SUBJECT TO CHANGE PER DIRECTION OF CITY OF LEWISVILLE ENGINEERING DIVISION

CITY OF LEWISVILLE

Standard Details

Encasement Pipe Requirements

Revisions:

No.	Description	Date

Department of Community Development

Office No. 972-219-3490
Fax No. 972-219-3487
www.cityoflewisville.com

Dated: 4-27-10

Sheet: 7.15

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots. Broad Wings. Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

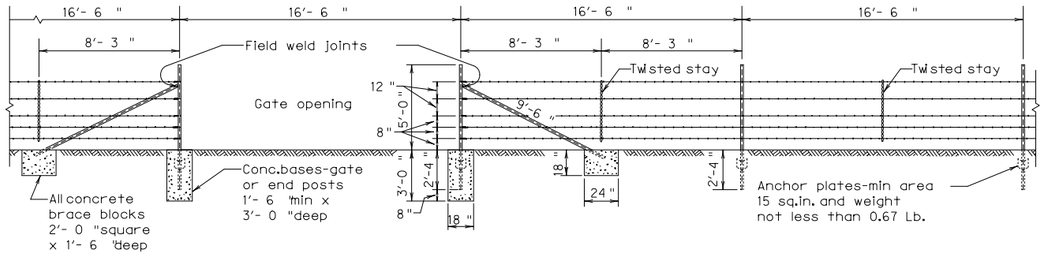
PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: WATER LINE DETAILS (SHEET 5 OF 5)

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 61 OF 106



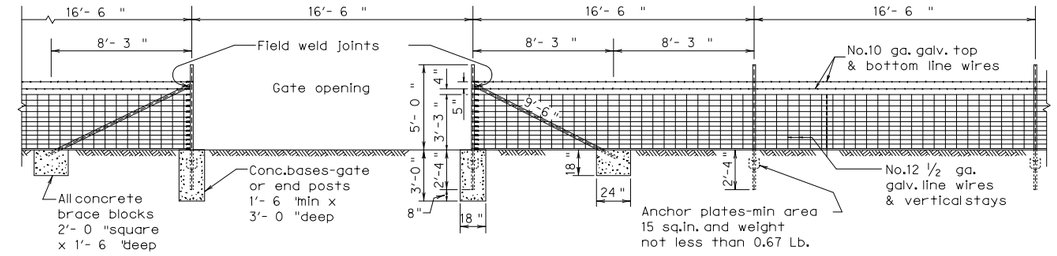
SECTION GALVANIZED BARBED WIRE FENCE WITH METAL POSTS

BRACING DETAIL USED AT ENDS AND GATES

TYPE "C" FENCE

(See General Note 8)

Note:
For Steel pipe and
T-Post requirements.
(See General Notes 6 & 7)



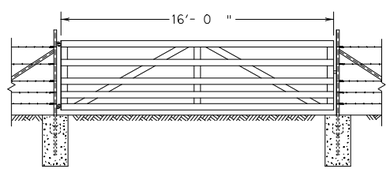
SECTION GALVANIZED WOVEN WIRE FENCE WITH METAL POSTS

BRACING DETAIL USED AT ENDS AND GATES

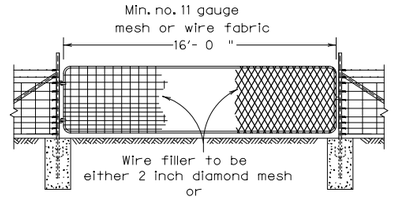
TYPE "D" FENCE

(See General Note 8)

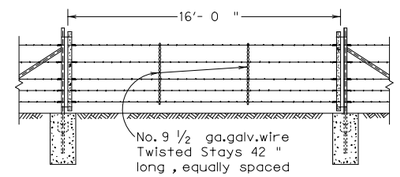
Metal gate shall consist of 5 panels not less than 4'- 4 "high and shall be aluminum or galvanized metal and of good quality. Gate and hardware shall meet the approval of the engineer.



DETAIL TYPE 1 GATE



DETAIL TYPE 2 GATE

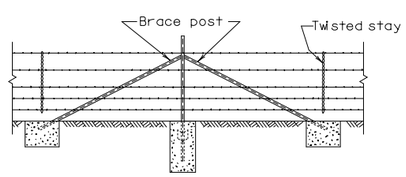


DETAIL TYPE 3 GATE

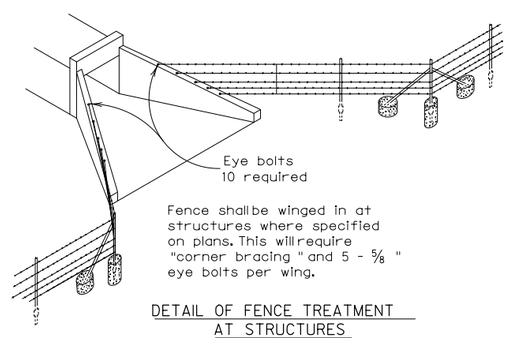
GENERAL NOTES

1. Any high point which interferes with the placing of wire mesh shall be excavated to provide a 2 inch clearance.
2. Latches for Type 1 and Type 2 gates shall be good commercial quality and design latch of the spring , fork or chain type. All latches shall be suitable to the gate and shall be approved by the Engineer.
3. Hinges for Type 2 gates shall be a commercial design approved by the Engineer suitable for post and gate.
4. Concrete shall be of the design and consistency approved by the Engineer and shall contain not less than 4 sacks of cement per cubic yard. Concrete footings are to be crowned at the top to shed water.
5. Steel anchor plates shall be of a design and thickness sufficient to prevent turning of the post in firm soil.
6. Steel pipe end posts, corner and pull posts shall be a minimum of 2" Std. pipe (2.375" O.D., 0.154" wall thickness) with a 1¼" Std. pipe brace (1.660" O.D., 0.140" wall thickness), with a 2"x2"x1/4" angle, or other as approved by the Engineer. Fasteners for securing barbed wire or woven wire fence to metal posts shall be a minimum of 11 gauge galvanized steel wire. Tubular posts shall be fitted with water malleable iron caps.
7. If Steel pipe is used for posts and braces, use standard pipe in accordance with ASTM A 53, Class B or A 501. For T-Posts use steel that meets ASTM A 702. Metal line posts shall be not less than 6'-6" in length and shall weigh not less than (1.33 lbs./lin.ft.). These items shall be in accordance with Item 552, "Wire Fence."
8. Barbed Wire shall be in accordance with ASTM A 121, Class 1 Design designation 12-2-4-1 4R or 12-2-5-1 4R, or as approved by the Engineer.

   Woven Wire Fence (Type D) shall be in accordance with ASTM A 116, Class 1 No. 12-1/2 Grade 60 (See Table 1 ASTM A 116) to the height and design shown on the plans, or as approved by the Engineer.
9. The location of gates and corner posts will be as indicated elsewhere in these plans.

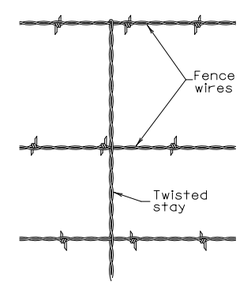


CORNER OR PULL POST ASSEMBLY



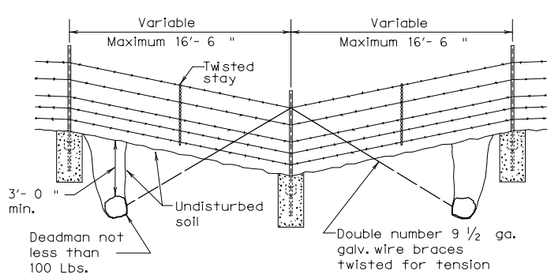
Fence shall be winged in at structures where specified on plans. This will require "corner bracing" and 5 - ⅝ " eye bolts per wing.

DETAIL OF FENCE TREATMENT AT STRUCTURES

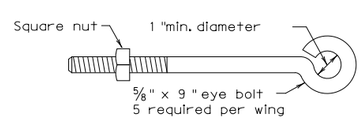


DETAIL OF STAY

(Barbed Wire Fence)



DETAIL OF FENCE SAG



DETAIL OF EYE BOLT

Texas Department of Transportation — Design Division Standard

BARBED WIRE AND
WOVEN WIRE FENCE
(STEEL POSTS)

WF(2)-10

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REVISIONS	DIST		COUNTY	SHEET NO.

STATE OF TEXAS — DAVID M. SMITH — 102401 — LICENSED PROFESSIONAL ENGINEER — 09-15-2017

LEWISVILLE — Deep Roots. Broad Wings. Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: BARBED WIRE FENCE WITH STEEL POSTS DETAILS

HALFF — 4000 FOSSIL CREEK BLVD, FORT WORTH, TEXAS 76137-2797, TEL (817) 847-1422, FAX (817) 232-9784, TBPE FIRM #F-312

DATE: SEPTEMBER 2017

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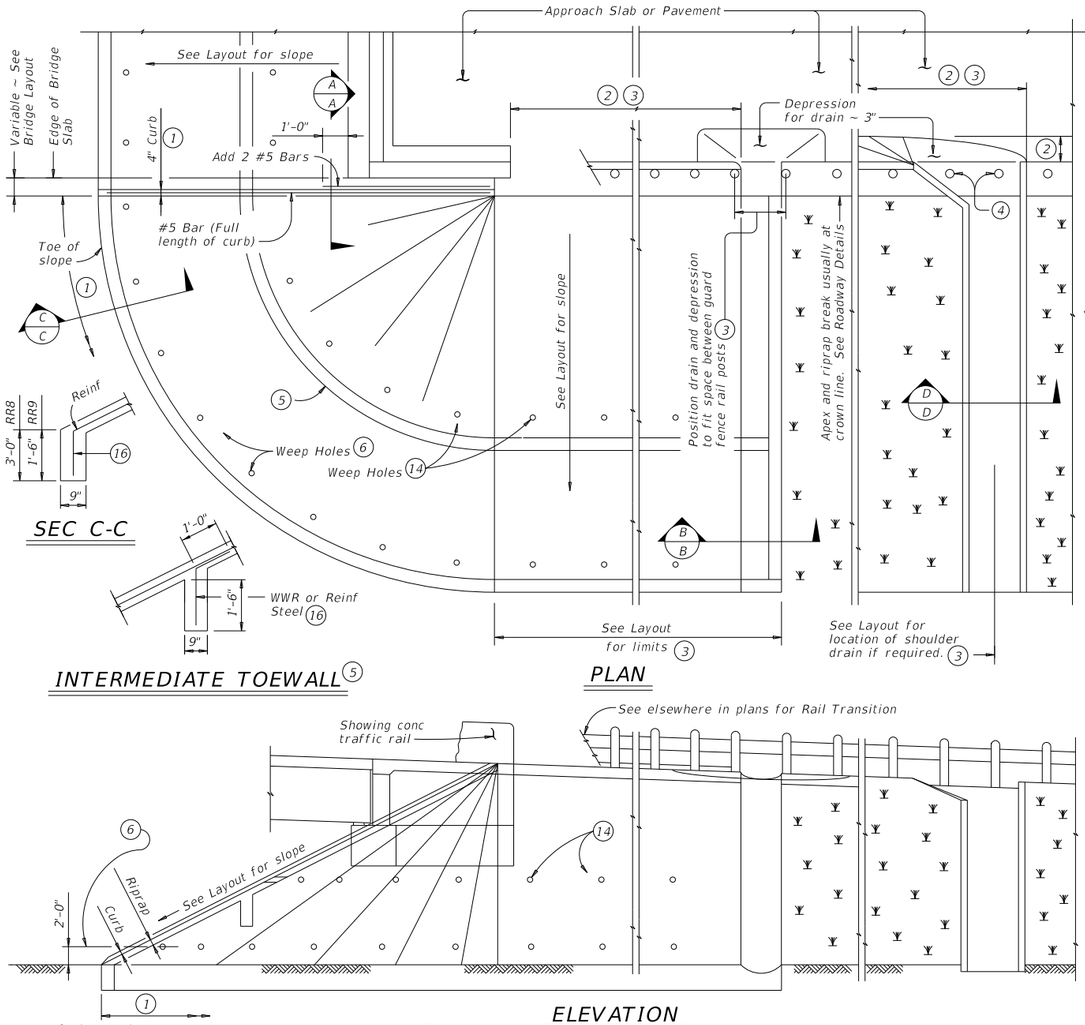
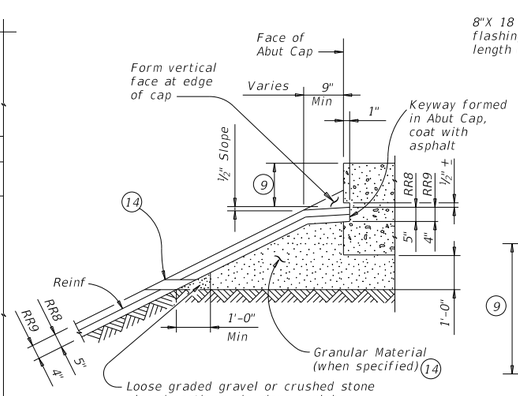


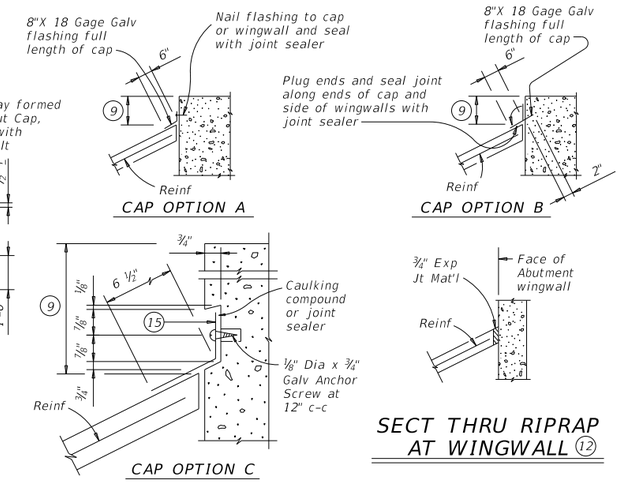
PLAN

SEC C-C

INTERMEDIATE TOEWALL



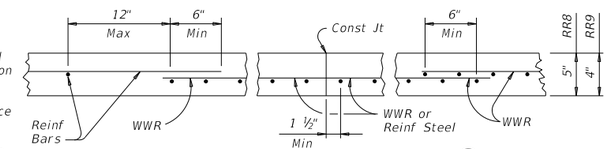
SHOWING KEYWAY OPTION



SECTIONS THRU RIPRAP AT CAP

SECT THRU RIPRAP AT WINGWALL

1. When riprap is shown extended around header on layout, extend slab and toewall as shown and eliminate 4" curb.
2. Limits and configuration of drains and depressions are as shown elsewhere in plans or as directed by the Engineer.
3. Location of shoulder drain must consider limitations imposed by rail transition. Do not locate shoulder drains at expansion joints between approach slab and concrete pavement.
4. See details elsewhere in plans for installation of guard fence posts through concrete riprap.
5. Provide intermediate toewall only when designated elsewhere in the plans or included in the specifications.
6. Provide lower level of 2" Dia weep holes at 10' c-c backed by 1 CF packet of gravel and galvanized hardware cloth at all locations unless directed by the Engineer to eliminate.
7. Use wider or other drain configurations if shown elsewhere in plans or if directed by the Engineer.
8. Wall extension may be reduced or modified if approved by the Engineer. Increase wall extension to 1'-6" whenever the optional intermediate toewall is called for in the plans.
9. Top of cap to top of riprap dimension varies as directed by the Engineer. Should be 9" Min for beam/slab type bridges and 1'-6" for slab span, box beam, or slab beam bridges.
10. #5 bars shown are required even when synthetic fiber reinforcing option is selected.
11. Provide sealing option for joint between the face of cap and riprap as designated by the Engineer or as shown elsewhere on plans.
12. Flashing (shown in Cap Option A) may be used at wingwall in addition to Exp Jt Mat'l if shown on plans or directed by the Engineer.
13. Provide #3 reinforcing bars at 18" Spa c-c. Provide Welded Wire Reinforcement (WWR) as 6x6-D3xD3. Combinations of WWR and reinforcing bars may be used if both are permitted. Use lap splices of a minimum 6 inches, measured from the transverse wire of WWR, and the ends of reinforcing bars.
14. If granular material is specified, provide upper level of 2" Dia weep holes at 10' c-c backed by galvanized hardware cloth.
15. 8" x 18 Gage Galv Sheet Metal
16. Provide WWR or #3 bars, with 1'-0" extension into slope.



REINFORCEMENT DETAILS

See General Notes for optional sythetic fiber reinforcement.

ELEVATION

GENERAL NOTES:

Provide Class "B" concrete with a minimum compressive strength of 2,000 psi unless noted elsewhere in plans.

Provide Grade 60 reinforcing steel.

Provide synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) in lieu of steel reinforcing in riprap concrete unless noted otherwise.

Install construction joints or grooved joints extending the full slant slope height at intervals of approximately 20 feet unless otherwise directed by the Engineer.

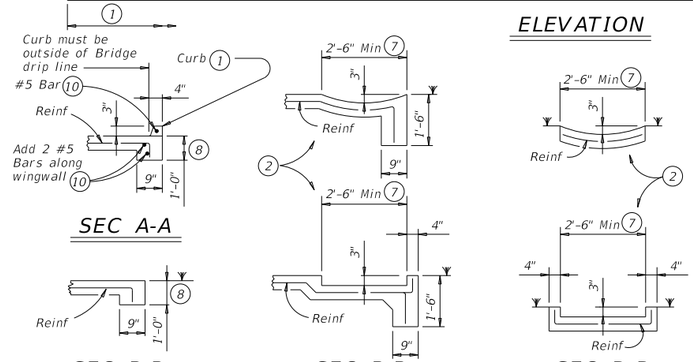
Hardware cloth, loose grade stone behind weep holes, flashing, or other sealing material are subsidiary to the bid item "Riprap".

Use reinforcing bars, deformed Welded Wire Reinforcing (WWR), or any suitable combination of both types for riprap reinforcing, unless specified elsewhere in the plans.

See Layout for limits of riprap.

RR8 is to be used on stream crossings.

RR9 is to be used on other embankments.

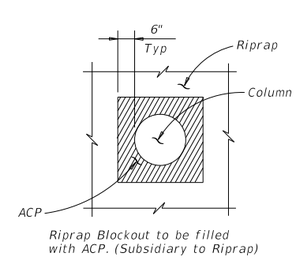


SEC A-A

SEC B-B (No Drain)

SEC B-B (Shoulder Drain integral with riprap)

SEC D-D (Shoulder Drain)



RIPRAP DETAIL AT COLUMNS

(As directed by the Engineer)

FOR CONTRACTOR'S INFORMATION ONLY:
5" of RR8 = 0.015 CY/SF
4" of RR9 = 0.012 CY/SF
#3 Reinf at 18" c-c = 0.501 Lbs/SF
6x6-D3xD3 = 0.408 Lbs/SF

Texas Department of Transportation — Bridge Division Standard

CONCRETE RIPRAP AND SHOULDER DRAINS
EMBANKMENTS AT BRIDGE ENDS (TYPES RR8 & RR9)

CRR

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REVISIONS	DIST		COUNTY	SHEET NO.

STATE OF TEXAS — DAVID M. SMITH — 102401 — LICENSED PROFESSIONAL ENGINEER — 09-15-2017

LEWISVILLE — Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: CONCRETE RIPRAP AND SHOULDER DRAINS DETAIL

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

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Erosion Controls

1. Stabilization shall be performed for all disturbed natural vegetation. If weather conditions are unfavorable for revegetation, temporary stabilization will be ensured on all areas.

2. As the site work is completed, stabilization shall begin within 14 days of completion of work in the area, or as soon as weather conditions allow. If revegetation is not possible then temporary stabilization measures must be implemented within 14 days of completion of work. If construction activities temporarily cease on an area and are not scheduled to begin work in that location for more than 21 days, temporary stabilization measures must be put in place. Temporary stabilization may be achieved using the following BMP's: temporary seeding, soil retention blankets, fibrous mulches, hydro-mulches and other techniques that cover 100 percent of the disturbed areas until final stabilization can be achieved or until further construction activities take place.

3. Final stabilization measures must provide a perennial vegetative cover with a uniform density of 70% of the native background vegetative cover or equivalent permanent measures (riprap, gabion, or geotextiles).

4. Hydro-mulch will not be allowed in vegetated swales, channels or other drainage ways.

5. Temporary BMP's shall be removed within 30 days of establishing final stabilization.

Slope Protection

1. Temporary berms and or swales shall be provided to direct storm water away from the slope until the slope is stabilized.

2. Temporary terraces shall be provided at regular intervals to break up slopes longer than 50 feet until the slope is stabilized.

3. Final stabilization measures shall be initiated within 12 days of completing work on the slope.

4. Soil retention blanket shall be provided on all slopes steeper than one vertical on five horizontal (5H:1V).

Stream Crossing

1. The Contractor shall provide a construction plan for the water line stream crossing that conforms to the rules and regulations of the U.S. Army Corps of Engineers for in-stream modifications. Coffer dams, shoring and/or other approved construction techniques shall be used to divert stream flow or otherwise keep the flow away from the construction activity and reduce sediment pollution. The Contractor shall contact Rob Jordan at the USACE Lewisville Lake Location, 469-645-9100, hours 8AM to 4:30PM, for lake operations coordination.

2. The Engineer shall conduct aquatic resource relocations activities during dewatering of the stream crossing. The Contractor shall coordinate all dewatering activities with the Engineer and the City in order to develop the appropriate methodology for the aquatic resource relocation.

3. The time between initial disturbance of the channel and final stabilization should be kept to a minimum.

4. The only temporary fill permitted in the channel shall be clean aggregate, stone or rock. No soil or other fine erodible material shall be placed in the channel.

5. Stream banks shall be restored to their original line and grade. Restoration must not result in a narrower channel or flow restriction. Stabilization of the area shall be conducted immediately upon completion of the bridge.

6. Dewatering or pumping water containing sediment shall not be discharged directly into the stream. The flow shall be routed through a settling pond, silt sack, dewatering sump or other approved BMP.

Aquatic Resource Relocation Plan (ARRP)

1. Contractor shall coordinate with specialty owner employed consultant, Halff Associates for ARRP procedure approved for the project.

2. Refer to Specifications for information on Aquatic Resource Relocation Plan (ARRP) requirements, associated construction contractor requirements, and activities to be performed before the initiation of dewatering and/or construction activites.

3. The Contractor shall be required to coordinate with Halff Associates regarding the dewatering and/or construction activities so that accurate and up to date information can be provided by Halff Associates to TPWD for the ARRP approval and the issuance of the permit to introduce fish, shellfish or aquatic plants into public waters.

4. The construction contractor shall notify Owner and Engineer at least 10 days prior to the initiation of the dewatering process so that staff may be scheduled to conduct aquatic species recovery and relocation activities in accordance with the ARRP to be approved by TPWD.

5. The Contractor is required to be familiar with the TPWD-approved ARRP and to complete the dewatering process in a manner so the Halff Associates may perform aquatic species recovery and relocation activities in accordance with the TPWD-approved ARRP.

Requirements for Materials and Wastes

1. Sanitary facilities shall be provided on the site at a location approved by the City. The facilities shall be regularly serviced at the frequency recommended by the supplier for the number of people using the facility.

2. Store all trash and debris in covered bins or other enclosures. Trash and debris shall be removed from the site at regular intervals. Containers shall not be allowed to overflow.

3. The amount of chemicals and hazardous materials stored on-site shall be minimized and limited to the materials necessary for the current phase of construction. Chemicals and hazardous materials shall be stored in their original, manufacturer's containers inside of a shelter that prevents contact with rainfall and runoff. Hazardous material storage shall be in accordance with all Federal, state and local laws and regulations. Storage locations shall have appropriate placards and secondary containment equivalent to 110% of the largest container in storage. If an earthen pit or berm is used for secondary containment, it shall be lined with plastic. Containers shall be kept closed except when materials are added or removed. Materials shall be dispensed using drip pans or within a lined, bermed area or using other spill/overflow protection measures.

4. On-site fuel tanks shall be provided with a secondary enclosure equivalent to 110% of the tank's volume. If the enclosure is an earthen pit or berm, the area shall be lined with plastic. The location of fuel tanks and their secondary containment shall be approved by the City.

5. A designated area for concrete wash-out shall be provided. A pit or bermed area, lined with plastic, or an equivalent containment measure shall be provided for concrete wash-out water. The containment shall be a minimum of 6 CF for every 10 CY of concrete placed plus a one foot freeboard. The discharge of wash-out water to drainage ways or storm drain infrastructure shall be prohibited.

6. Hyper-chlorinated water shall not be discharged to the environment unless the chlorine concentration is reduced to 4 ppm or less by chemically treating to dechlorinate or by on-site retention until natural attenuation occurs. Natural attenuation may be aided by aeration. Water with measurable chlorine concentration of less than 4 ppm is prohibited from being discharged directly to surface water. It shall be discharged onto vegetation or through a conveyance system for further attenuation of the chlorine before it reaches surface water. Alternatively, permission from the sanitary sewer operator may be obtained to discharge directly to the sanitary sewer.

7. Vehicle and equipment washing is prohibited on the site unless a lined basin is provided to capture 100% of the wash water. The wash water may be allowed to evaporate or hauled-off for disposal.

8. Lime or other chemical stabilizers shall be limited to the amount that can be mixed and compacted by the end of each working day. Stabilizers shall be applied at rates that result in no runoff. Stabilization shall not occur immediately before and during rainfall events. Soil stabilizers stored on-site shall be considered a hazardous material and shall meet all the requirements for chemicals and hazardous materials.

9. Slurry from concrete cutting shall be vacuumed or otherwise recovered and not be allowed to discharge from the site. If the pavement to be cut is near a storm drain inlet, the inlet shall be protected by sandbags or equivalent temporary measures to prevent the slurry from entering the inlet.

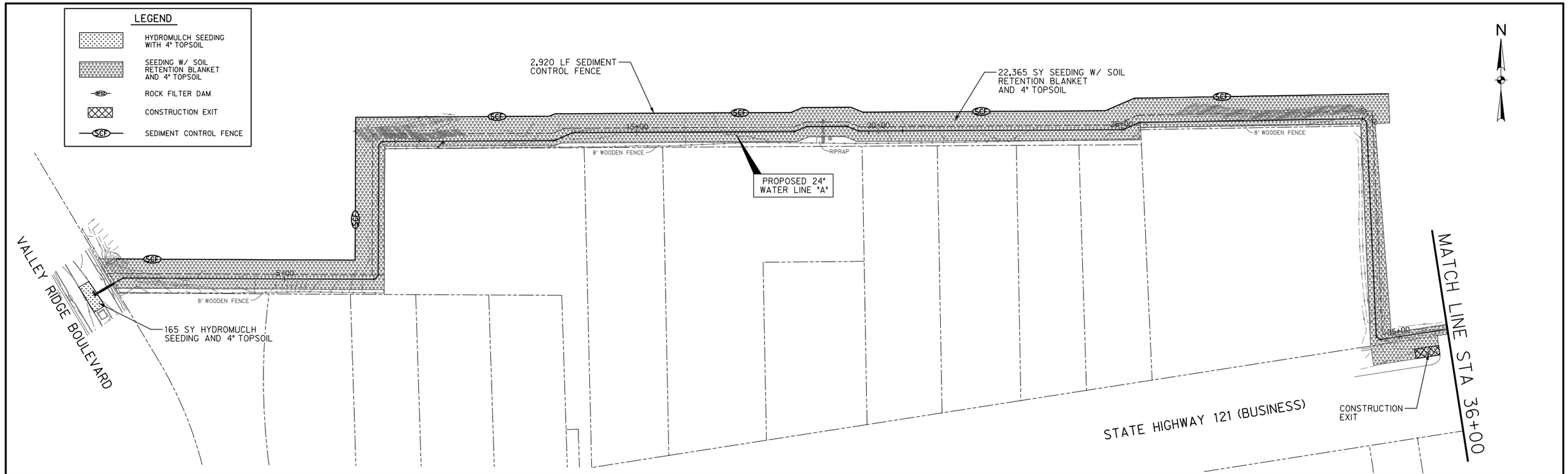
Inspection and Maintenance

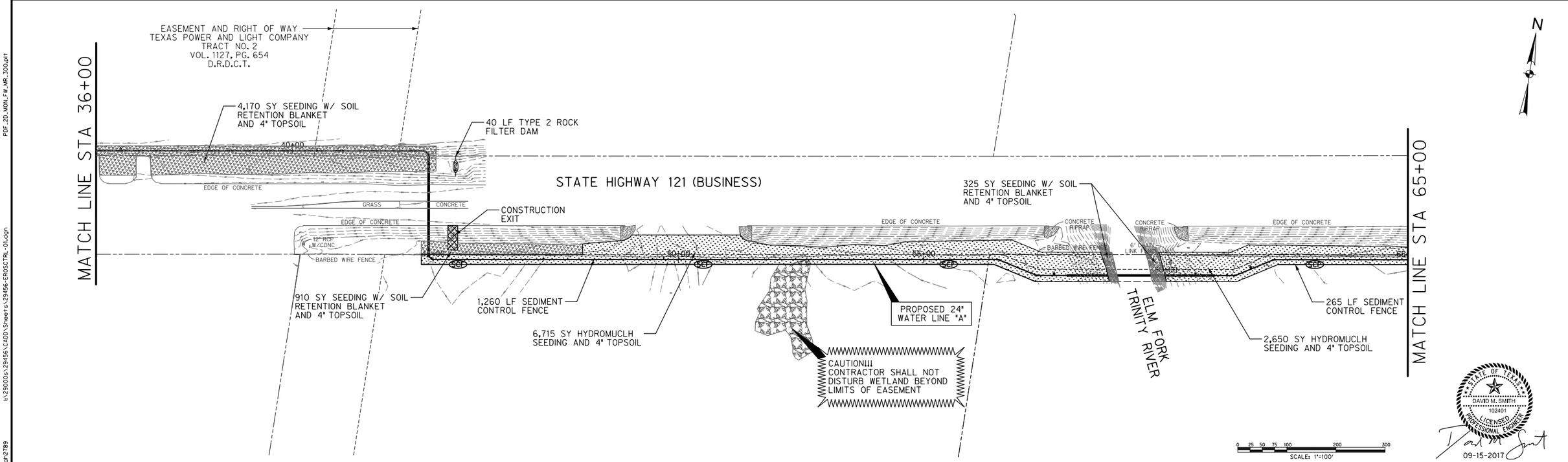
1. Inspections shall be performed on construction areas once every 14 days and within 24 hours of a rainfall of 0.5 inches or greater, (or once every 7 days regardless of rainfall) to insure that all of the sediment and erosion control measures are operating correctly. Areas to inspect include but are not limited to:
   - Disturbed areas that have not been finally stabilized
   - Areas used for storage of materials that are exposed to precipitation
   - Control measures outlined in this SWP3 plan
   - Discharge points for visible signs of erosion and impact to receiving waters

2. Erosion, sediment, and material and waste controls shall be repaired, replaced, modified and/or added if inspections reveal the controls were not installed correctly, are damaged, or are inadequate or ineffective in controlling their targeted pollutant.

3. Sediment shall be removed from BMPs when the sediment reaches half of the BMP's capacity or more frequently. Sediment discharged from the site shall be removed prior to the next rain event, where feasible, and in no case later than seven days after it is discovered. Upon completion of construction, sediment shall be removed from all storm drain infrastructure and permanent BMPs before the temporary BMPs are removed from the site.

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017





STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: EROSION CONTROL PLAN (SHEET 1 OF 3)

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

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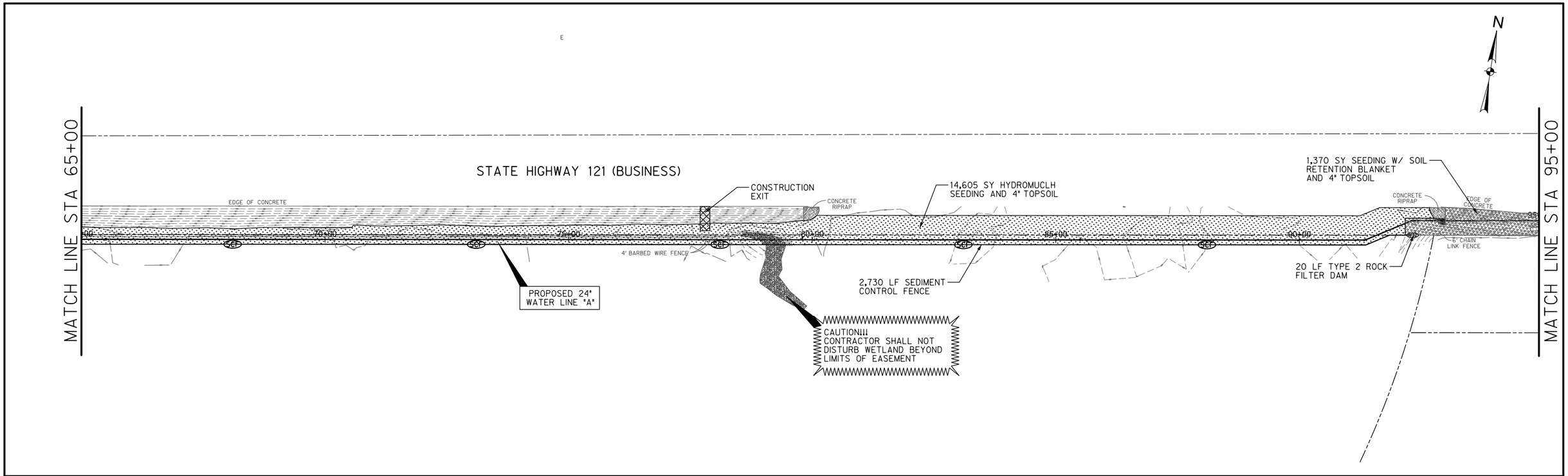

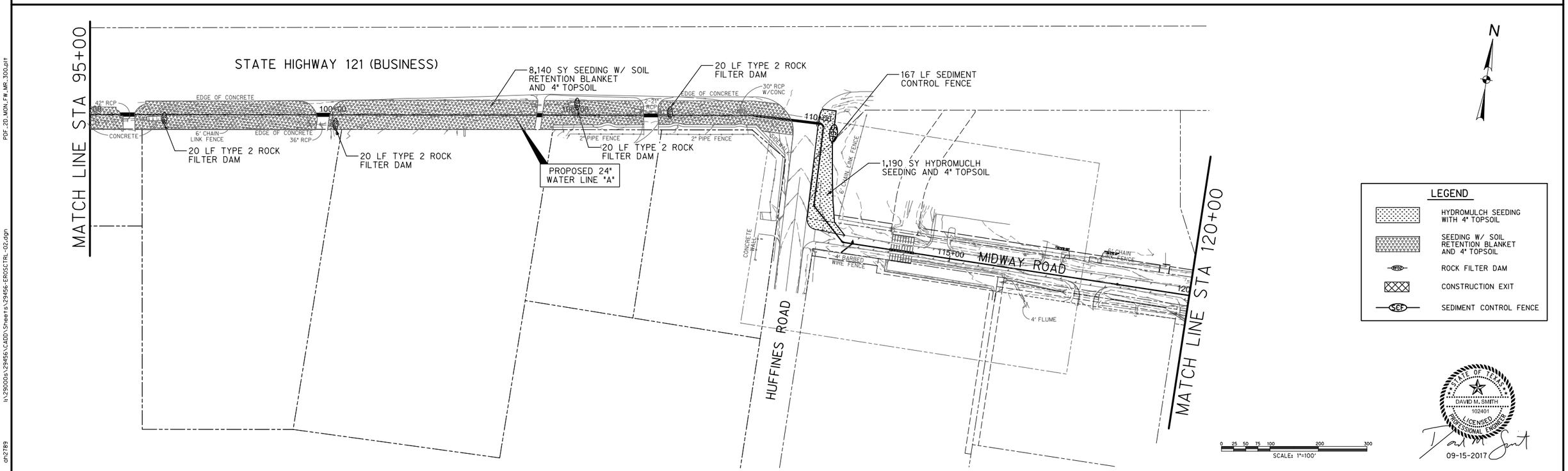

LEWISVILLE
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CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: EROSION CONTROL PLAN (SHEET 2 OF 3)

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

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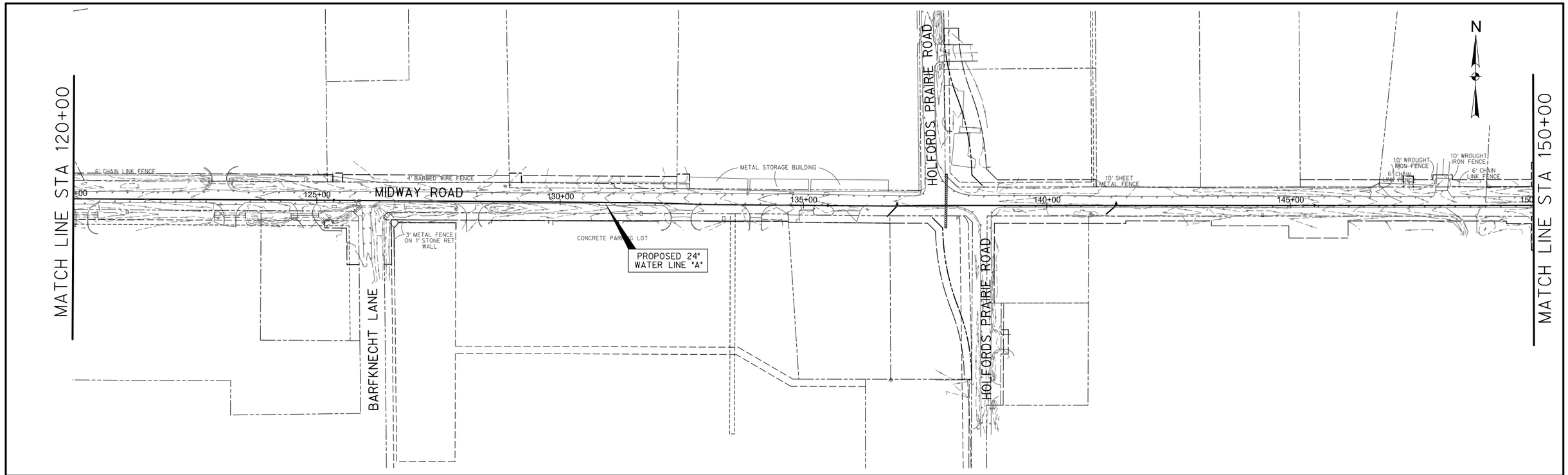

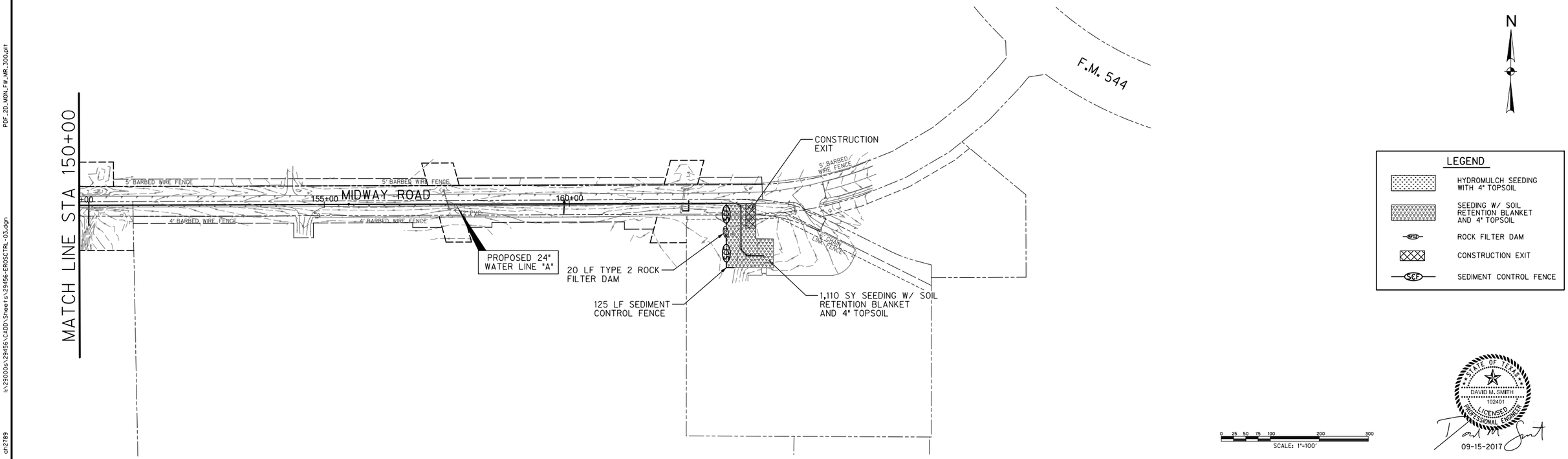

LEWISVILLE
Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

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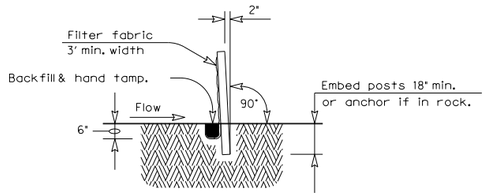


SECTION A-A

GENERAL NOTES

1. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

PLAN SHEET LEGEND

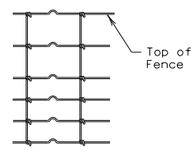
Sediment Control Fence —— SCF ——

SEDIMENT CONTROL FENCE USAGE GUIDELINES

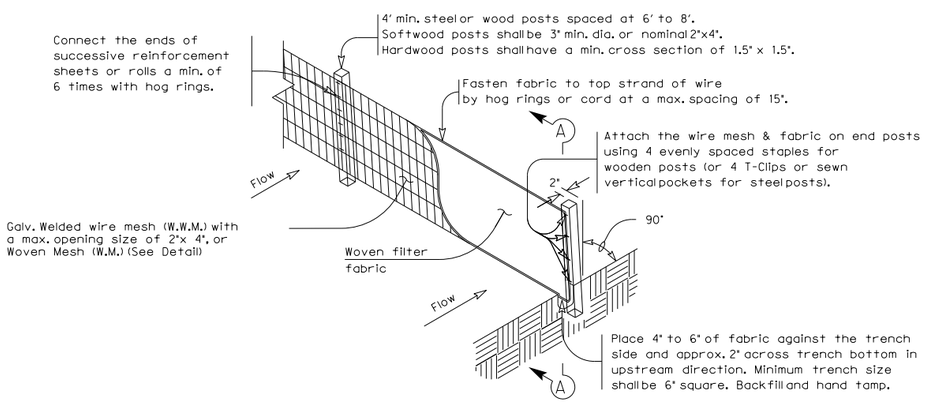
A sediment control fence may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A 2 year storm frequency may be used to calculate the flow rate to be filtered.

Sediment control fence should be sized to filter a max. flow through rate of 100 GPM/FT ? Sediment control fence is not recommended to control erosion from a drainage area larger than 2 acres.

Galv. Hinge joint knot woven mesh (12.5 Ga. Min.) requires a minimum of five horizontal wires spaced at a max. 12 inches apart and all vertical wires spaced at a max. 12 inches apart.

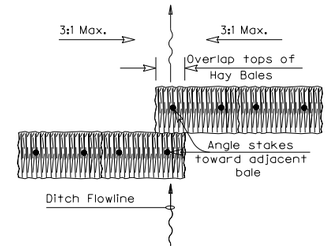


Hinge Joint Knot Woven Mesh (Option)

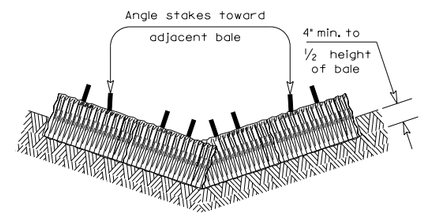


TEMPORARY SEDIMENT CONTROL FENCE

—— SCF ——



PLAN VIEW



PROFILE VIEW

PLANS SHEET LEGEND

Baled Hay —— BH ——

BALED HAY USAGE GUIDELINES

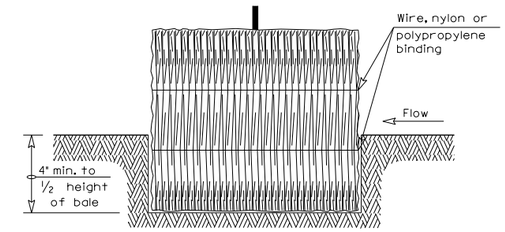
A Baled Hay installation may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A two year storm frequency may be used to calculate the flow rate to be filtered. The installation should be sized to filter a maximum flow thru rate of 5 GPM/FT ^{2} of cross sectional area. Baled hay may be used at the following locations:

1. Where the runoff approaching the baled hay flows over disturbed soil for less than 100'. If the slope of the disturbed soil exceeds 10%, the length of slope upstream the baled hay should be less than 50'.
2. Where the installation will be required for less than 3 months.
3. Where the contributing drainage area is less than ½ acre.

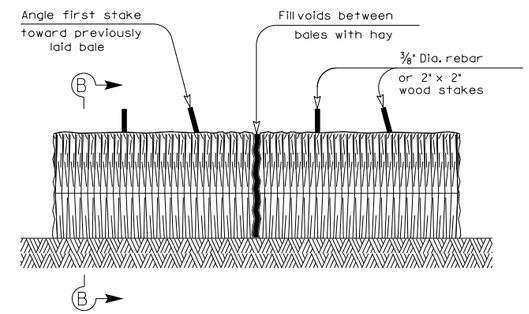
For Baled Hay installations in small ditches, the additional following considerations apply:

1. The ditch sideslopes should be graded as flat as possible to maximize the drainage flowrate thru the hay.
2. The ditch should be graded large enough to contain the overtopping drainage when sediment has filled to the top of the baled hay.

Bales should be replaced usually every 2 months or more often during wet weather when loss of structural integrity is accelerated.



SECTION B-B



BALED HAY FOR EROSION CONTROL

—— BH ——

GENERAL NOTES

1. Hay bales shall be a minimum of 30" in length and weigh a minimum of 50 Lbs.
2. Hay bales shall be bound by either wire or nylon or polypropylene string. The bales shall be composed entirely of vegetative matter.
3. Hay bales shall be embedded in the soil a minimum of 4" and where possible ½ the height of the bale.
4. Hay bales shall be placed in a row with ends tightly abutting the adjacent bales. The bales shall be placed with bindings parallel to the ground.
5. Hay bales shall be securely anchored in place with ⅜" Dia. rebar or 2" x 2" wood stakes, driven through the bales. The first stake shall be angled towards the previously laid bale to force the bales together.
6. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

Texas Department of Transportation — Design Division Standard

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES

FENCE & BALED HAY

EC(1)-09

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STATE OF TEXAS — DAVID M. SMITH 102401 — LICENSED PROFESSIONAL ENGINEER

09-15-2017

DATE:
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LEWISVILLE — Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: EROSION CONTROL DETAILS (SHEET 1 OF 3)

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
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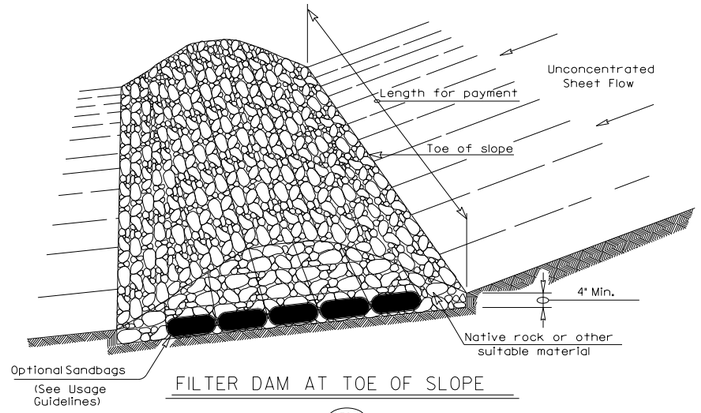
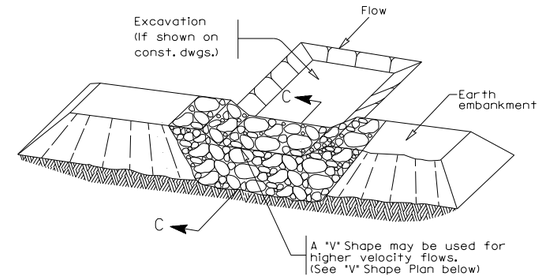
SHEET 68 OF 106



FILTER DAM AT TOE OF SLOPE

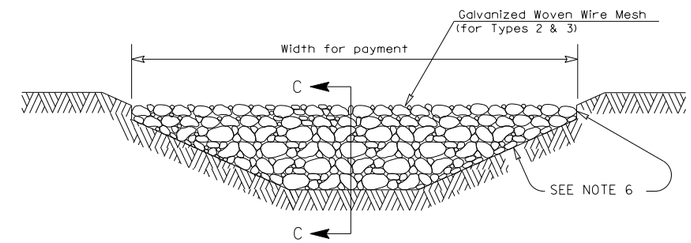
RFD1 — TYPE 1



FILTER DAM AT SEDIMENT TRAP

RFD1 OR RFD2

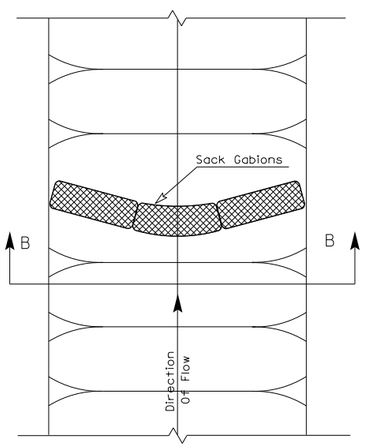
TYPE 1 OR TYPE 2



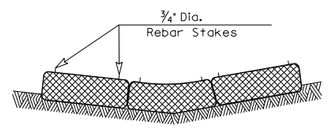
FILTER DAM AT CHANNEL SECTIONS

RFD1 OR RFD2 OR RFD3

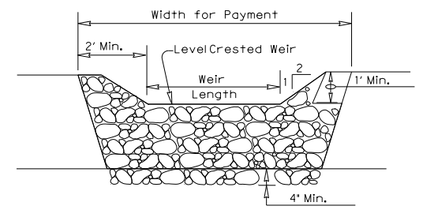
TYPE 1 OR TYPE 2



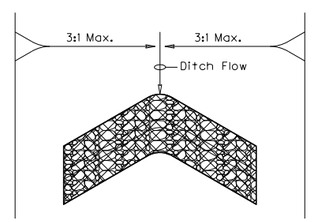
PLAN VIEW



SECTION B-B

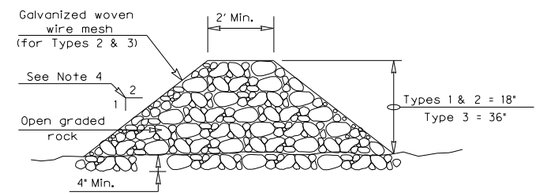


PROFILE



"V" SHAPE

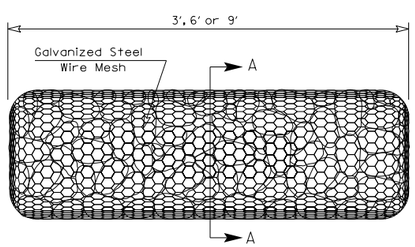
(Plan View)



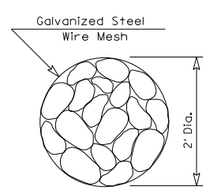
SECTION C-C

PLANS SHEET LEGEND

Type 1 Rock Filter Dam	RFD1
Type 2 Rock Filter Dam	RFD2
Type 3 Rock Filter Dam	RFD3



TYPE 4 (SACK GABIONS)



SECTION A-A

ROCK FILTER DAM USAGE GUIDELINES

Rock Filter Dams should be constructed downstream from disturbed areas to intercept sediment from overland runoff and/or concentrated flow. The dams should be sized to filter a maximum flow through rate of 60 GPM/FT ^{2} of cross sectional area. A 2 year storm frequency may be used to calculate the flow rate.

Type 1 (18" high with no wire mesh): Type 1 may be used at the toe of slopes, around inlets, in small ditches, and at dike or swale outlets. This type of dam is recommended to control erosion from a drainage area of 5 acres or less. Type 1 may not be used in concentrated high velocity flows (approx. 8 Ft/Sec or more) in which aggregate wash out may occur. Sandbags may be used at the embedded foundation (4" deep min.) for better filtering efficiency of low flows if called for on the plans or directed by the Engineer.

Type 2 (18" high with wire mesh): Type 2 may be used in ditches and at dike or swale outlets.

Type 3 (36" high with wire mesh): Type 3 may be used in stream flow and should be secured to the stream bed.

Type 4 (Sack gabions): Type 4 May be used in ditches and smaller channels to form an erosion control dam.

GENERAL NOTES

1. If shown on the plans or directed by the Engineer, filter dams should be placed near the toe of slopes where erosion is anticipated, upstream and/or downstream at drainage structures, and in roadway ditches and channels to collect sediment.
2. Materials (aggregate, wire mesh, sandbags, etc.) shall be as indicated by the specification for "Rock Filter Dams for Erosion and Sedimentation Control".
3. The rock filter dam dimensions shall be as indicated on the SW3P plans.
4. Side slopes should be 2:1 or flatter. Dams within the safety zone shall have sideslopes of 6:1 or flatter.
5. Maintain a minimum of 1' between top of rock filter dam weir and top of embankment for filter dams at sediment traps.
6. Filter dams should be embedded a minimum of 4" into existing ground.
7. The sediment trap for ponding of sediment laden runoff shall be of the dimensions shown on the plans.
8. Rock filter dam types 2 & 3 shall be secured with 20 gauge galvanized woven wire mesh with 1" diameter hexagonal openings. The aggregate shall be placed on the mesh to the height & slopes specified. The mesh shall be folded at the upstream side over the aggregate and tightly secured to itself on the downstream side using wire ties or hog rings. In stream use the mesh should be secured or staked to the stream bed prior to aggregate placement.
9. Sack Gabions should be staked down with ¾" dia. rebar stakes.
10. Flow outlet should be onto a stabilized area (vegetation, rock, etc.).
11. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

Texas Department of Transportation — Design Division Standard

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES

ROCK FILTER DAMS

EC(2)-93

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LEWISVILLE — Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: EROSION CONTROL DETAILS (SHEET 2 OF 3)

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SHEET 69 OF 106

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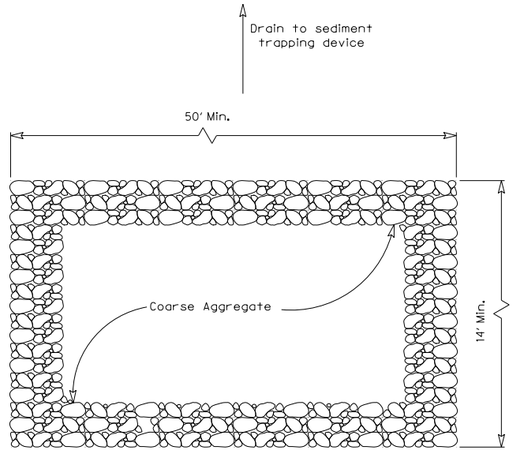

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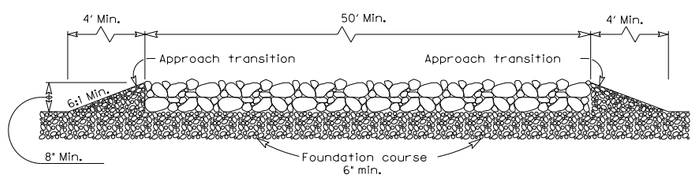
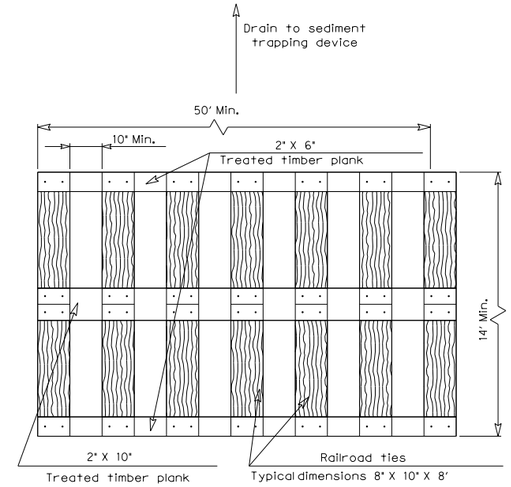


PROFILE

CONSTRUCTION EXIT (TYPE 1)

GENERAL NOTES

1. The length of the type 1 construction exit shall be as indicated on the plans, but not less than 50'.
2. The coarse aggregate should be open graded with a size of 4" to 8".
3. The approach transitions should be no steeper than 6:1 and constructed as directed by the Engineer.
4. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other material as approved by the Engineer.
5. The construction exit shall be graded to allow drainage to a sediment trapping device.
6. The guidelines shown hereon are suggestions only and may be modified by the Engineer.



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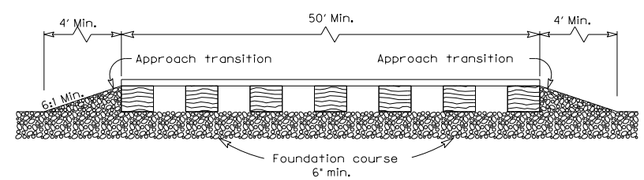
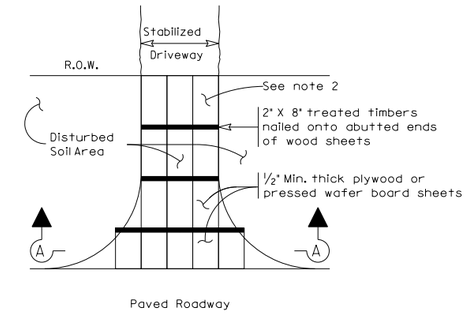


PROFILE

CONSTRUCTION EXIT (TYPE 2)

GENERAL NOTES

1. The length of the type 2 construction exit shall be as indicated on the plans, but not less than 50'.
2. The treated timber planks shall be attached to the railroad ties with ½"x 6" min. lag bolts. Other fasteners may be used as approved by the Engineer.
3. The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
4. The approach transitions shall be no steeper than 6:1 and constructed as directed by the Engineer.
5. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other material as approved by the Engineer.
6. The construction exit should be graded to allow drainage to a sediment trapping device.
7. The guidelines shown hereon are suggestions only and may be modified by the Engineer.



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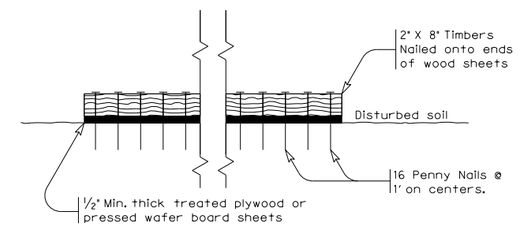

SECTION A-A

CONSTRUCTION EXIT (TYPE 3)

GENERAL NOTES

1. The length of the type 3 construction exit shall be as shown on the plans, or as directed by the Engineer.
2. The type 3 construction exit may be constructed from open graded crushed stone with a size of two to four inches spread a min. of 4" thick to the limits shown on the plans.
3. The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
4. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

Texas Department of Transportation — Design Division Standard

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES

CONSTRUCTION EXITS

EC(3)-93

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CITY OF LEWISVILLE

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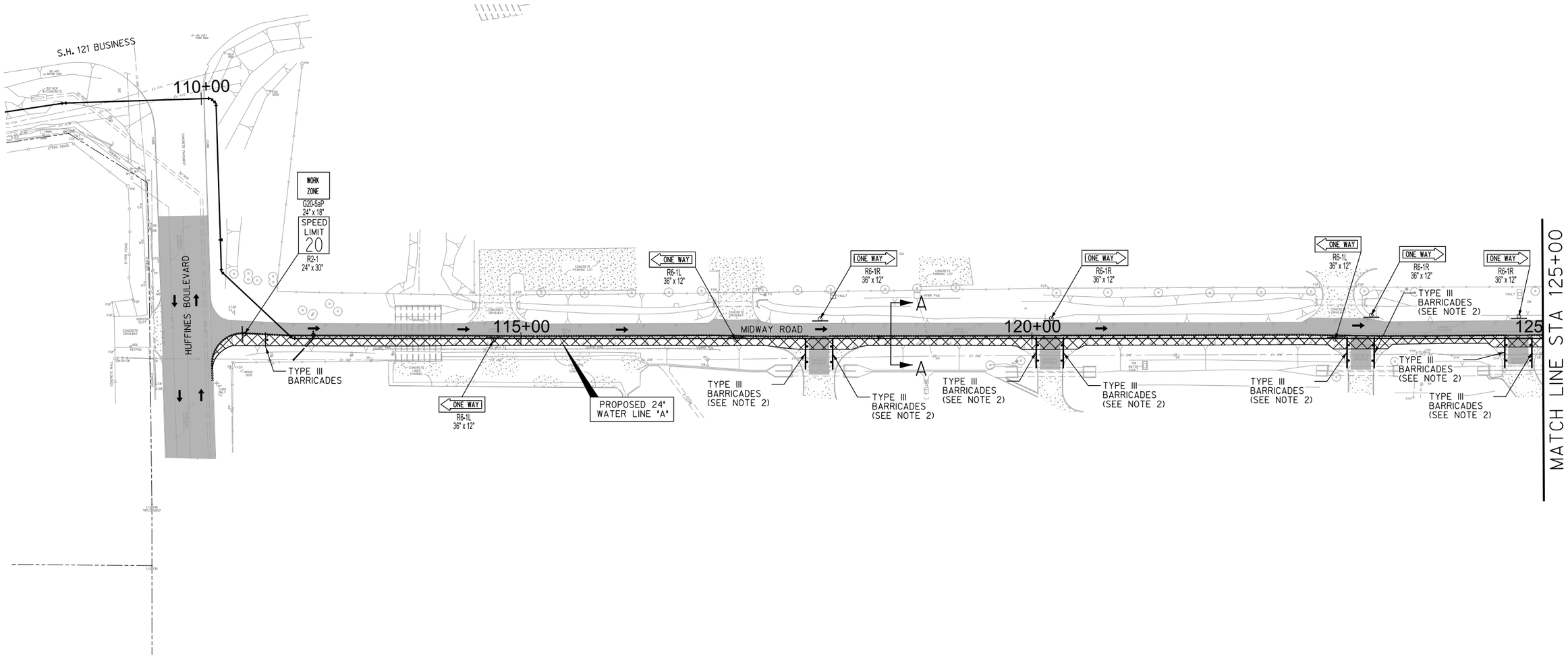
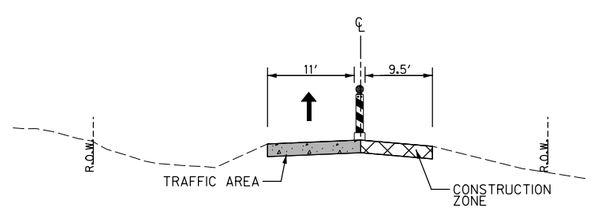
SHEET 70 OF 106



LEGEND

- CHANNELIZING DEVICE WITH VERTICAL PANEL
- SIGN
- TYPE 3 BARRICADE
- TRAFFIC AREA
- CONSTRUCTION ZONE



NARROWED LANES
TYPICAL SECTION A-A
NOT TO SCALE

TRAFFIC CONTROL NOTES:

1. SEE GENERAL NOTES FOR ADDITIONAL TRAFFIC CONTROL NOTES
2. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION. SHOULD AN ADJACENT PROPERTY HAVE MULTIPLE DRIVES, THE CONTRACTOR MAY CLOSE ONE OR MORE DRIVEWAYS WITH THE PERMISSION OF THE CITY, PROVIDED THAT ACCESS TO THE PROPERTY IS MAINTAINED, AND PROPERTY OWNER IS NOTIFIED ONE WEEK IN ADVANCE. ANY TEMPORARY GRAVEL AND/OR ASPHALT PAVEMENT REQUIRED TO MAINTAIN ACCESS TO DRIVEWAYS SHALL BE SUBSIDIARY TO TRAFFIC CONTROL.

N

0 25 50 75 100 150
SCALE: 1"=50'

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

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SHEET TITLE: TRAFFIC CONTROL PLAN (SHEET 1 OF 5)

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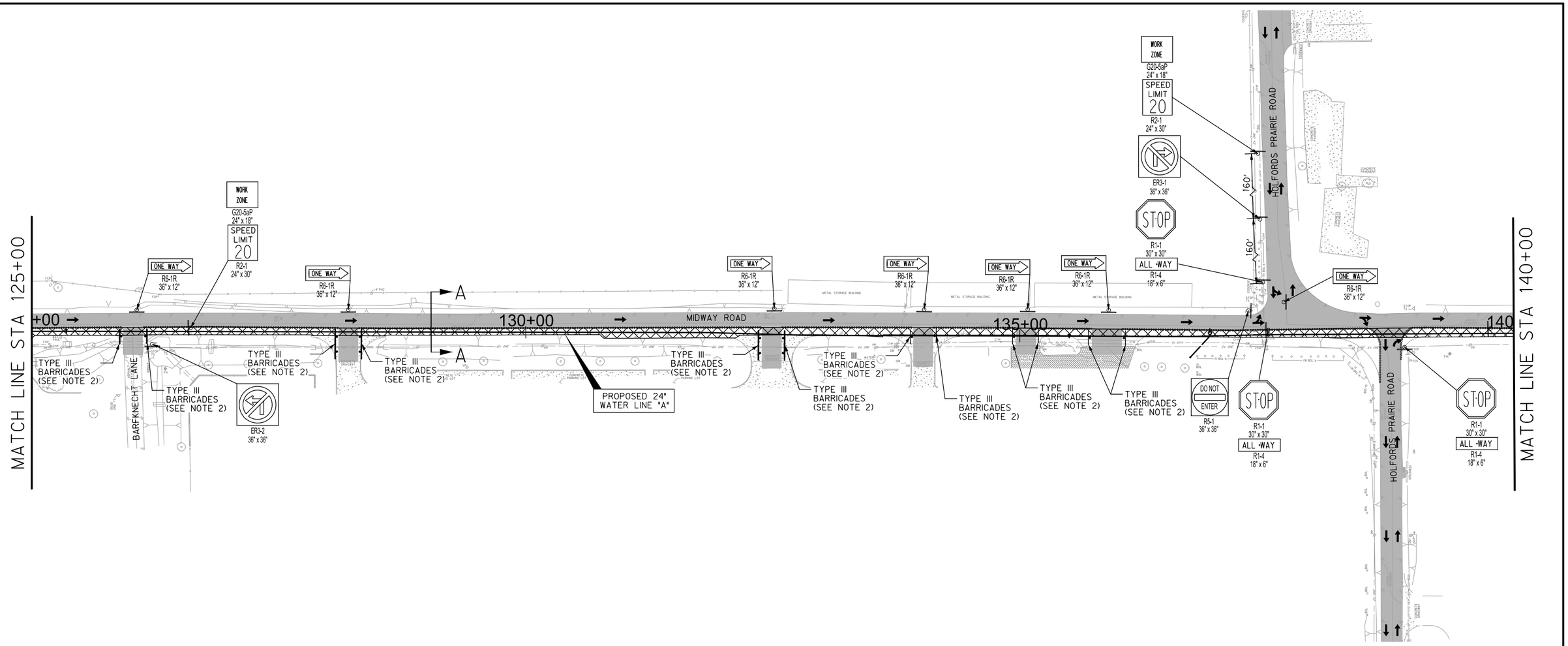
SHEET 71 OF 106



LEGEND

- CHANNELIZING DEVICE WITH VERTICAL PANEL
- SIGN
- TYPE 3 BARRICADE
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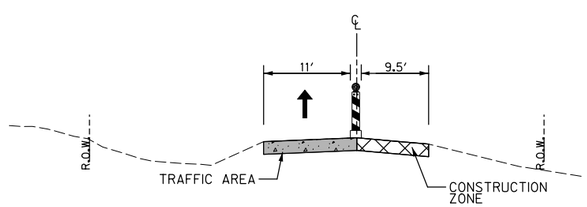
- CONSTRUCTION ZONE



NARROWED LANES
TYPICAL SECTION A-A
NOT TO SCALE

TRAFFIC CONTROL NOTES:

1. SEE GENERAL NOTES FOR ADDITIONAL TRAFFIC CONTROL NOTES
2. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION. SHOULD AN ADJACENT PROPERTY HAVE MULTIPLE DRIVES, THE CONTRACTOR MAY CLOSE ONE OR MORE DRIVEWAYS WITH THE PERMISSION OF THE CITY, PROVIDED THAT ACCESS TO THE PROPERTY IS MAINTAINED, AND PROPERTY OWNER IS NOTIFIED ONE WEEK IN ADVANCE. ANY TEMPORARY GRAVEL AND/OR ASPHALT PAVEMENT REQUIRED TO MAINTAIN ACCESS TO DRIVEWAYS SHALL BE SUBSIDIARY TO TRAFFIC CONTROL.

STATE OF TEXAS
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102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

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ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: TRAFFIC CONTROL PLAN (SHEET 2 OF 5)

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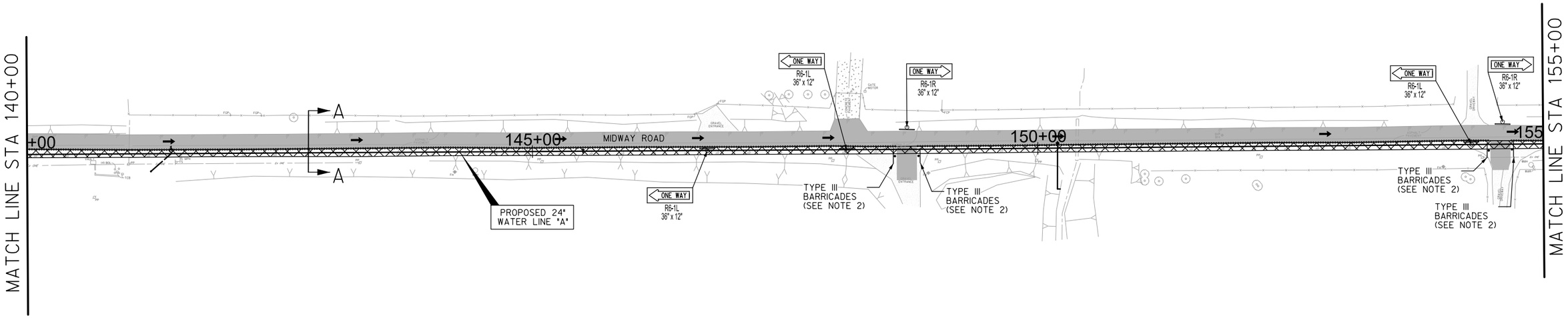
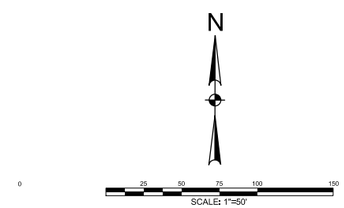
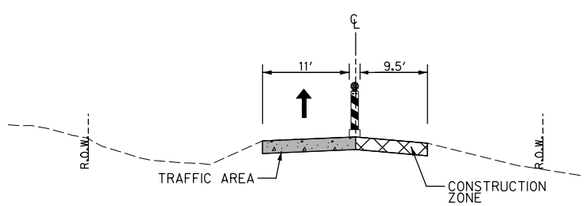




LEGEND

- CHANNELIZING DEVICE WITH VERTICAL PANEL
- SIGN
- TYPE 3 BARRICADE
- TRAFFIC AREA
- CONSTRUCTION ZONE



NARROWED LANES
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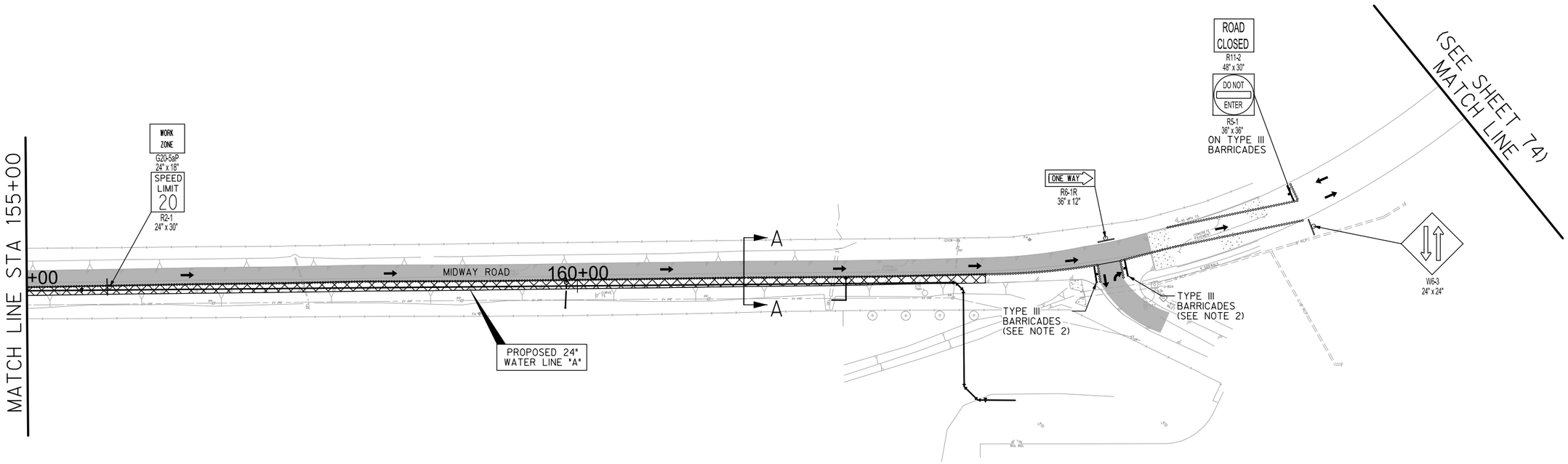
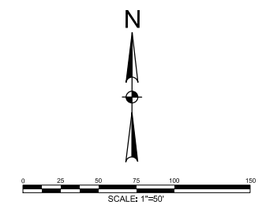
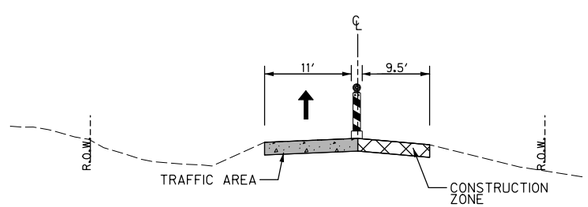




LEGEND

- CHANNELIZING DEVICE WITH VERTICAL PANEL
- SIGN
- TYPE 3 BARRICADE
- TRAFFIC AREA
- CONSTRUCTION ZONE



NARROWED LANES
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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: TRAFFIC CONTROL PLAN (SHEET 4 OF 5)

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SHEET 74 OF 106

TRAFFIC CONTROL NOTES:

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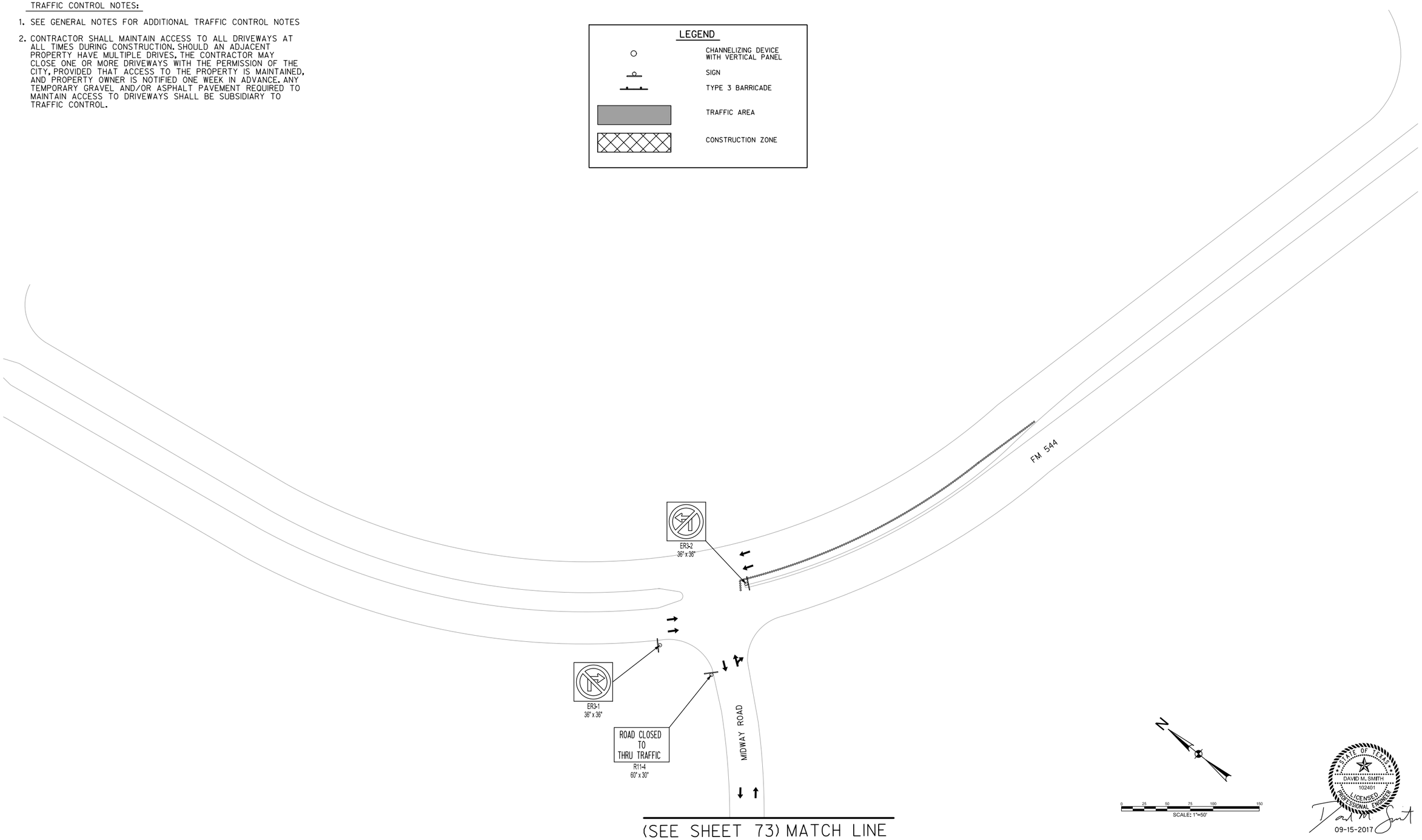

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BARRICADE AND CONSTRUCTION (BC) STANDARD SHEETS GENERAL NOTES:

1. The Barricade and Construction Standard Sheets (BC sheets) are intended to show typical examples for placement of temporary traffic control devices, construction pavement markings, and typical work zone signs. The information contained in these sheets meet or exceed the requirements shown in the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).

2. The development and design of the Traffic Control Plan (TCP) is the responsibility of the Engineer.

3. The Contractor may propose changes to the TCP that are signed and sealed by a licensed professional engineer for approval. The Engineer may develop, sign and seal Contractor proposed changes.

4. The Contractor is responsible for installing and maintaining the traffic control devices as shown in the plans. The Contractor may not move or change the approximate location of any device without the approval of the Engineer.

5. Geometric design of lane shifts and detours should, when possible, meet the applicable design criteria contained in manuals such as the American Association of State Highway and Transportation Officials (AASHTO), "A Policy on Geometric Design of Highways and Streets", the TxDOT "Roadway Design Manual" or engineering judgment.

6. When projects abut, the Engineer(s) may omit the END ROAD WORK, TRAFFIC FINES DOUBLE, and other advance warning signs if the signing would be redundant and the work areas appear continuous to the motorists. If the adjacent project is completed first, the Contractor shall erect the necessary warning signs as shown on these sheets, the TCP sheets or as directed by the Engineer. The BEGIN ROAD WORK NEXT X MILES sign shall be revised to show appropriate work zone distance.

7. The Engineer may require duplicate warning signs on the median side of divided highways where median width will permit and traffic volumes justify the signing.

8. All signs shall be constructed in accordance with the details found in the "Standard Highway Sign Designs for Texas," latest edition. Sign details not shown in this manual shall be shown in the plans or the Engineer shall provide a detail to the Contractor before the sign is manufactured.

9. The temporary traffic control devices shown in the illustrations of the BC sheets are examples. As necessary, the Engineer will determine the most appropriate traffic control devices to be used.

10. As shown on BC(2), the OBEY WARNING SIGNS STATE LAW sign and the WORK ZONE TRAFFIC FINES DOUBLE sign with plaque shall be erected in advance of the CSJ limits. However, the TRAFFIC FINES DOUBLE sign will not be required on projects consisting solely of mobile operation work, such as striping or milling edgeline rumble strips. The BEGIN ROAD WORK NEXT X MILES, CONTRACTOR and END ROAD WORK signs shall be erected at or near the CSJ limits.

11. Except for devices required by Note 10, traffic control devices should be in place only while work is actually in progress or a definite need exists.

12. The Engineer has the final decision on the location of all traffic control devices.

13. Inactive equipment and work vehicles, including workers' private vehicles must be parked away from travel lanes. They should be as close to the right-of-way line as possible, or located behind a barrier or guardrail, or as approved by the Engineer.

WORKER SAFETY APPAREL NOTES:

1. Workers on foot who are exposed to traffic or to construction equipment within the right-of-way shall wear high-visibility safety apparel meeting the requirements of ISEA "American National Standard for High-Visibility Apparel" labeled as ANSI 107-2004 standard performance for Class 2 or 3 risk exposure. Class 3 garments should be considered for high traffic volume work areas or night time work.

Only pre-qualified products shall be used. The "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources and may be found on-line at the web address given below or by contacting:

Texas Department of Transportation
Traffic Operations Division - TE
Phone (512) 416-3118

THE DOCUMENTS BELOW CAN BE FOUND ON-LINE AT http://www.txdot.gov
COMPLIANT WORK ZONE TRAFFIC CONTROL DEVICES LIST (CWZTCD)
DEPARTMENTAL MATERIAL SPECIFICATIONS (DMS)
MATERIAL PRODUCER LIST (MPL)
ROADWAY DESIGN MANUAL - SEE "MANUALS (ONLINE MANUALS)"
STANDARD HIGHWAY SIGN DESIGNS FOR TEXAS (SHSD)
TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD)
TRAFFIC ENGINEERING STANDARD SHEETS

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Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION GENERAL NOTES AND REQUIREMENTS

BC(1)-13

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REVISIONS 4-03 5-10 9-07 7-13	DIST		COUNTY	SHEET NO.
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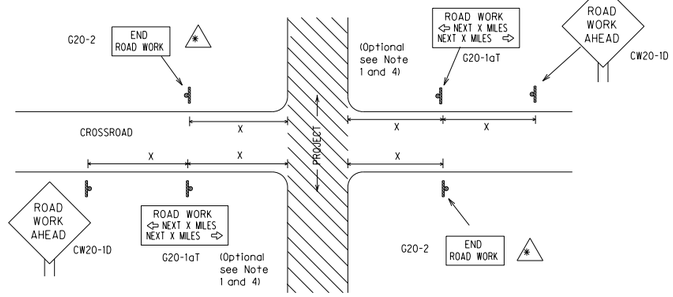
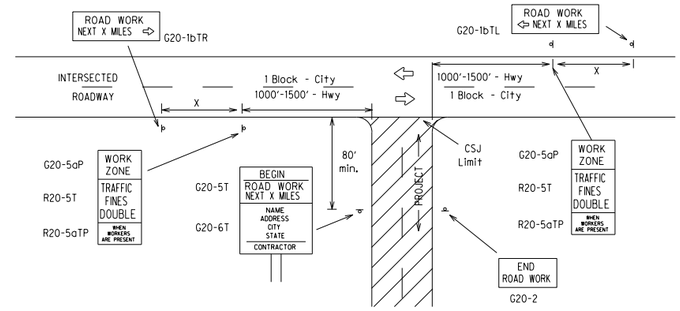
TYPICAL LOCATION OF CROSSROAD SIGNS



✱ May be mounted on back of "ROAD WORK AHEAD"(CW20-1D) sign with approval of engineer. (See note 2 below)

1. The typical minimum signing on a crossroad approach should be a "ROAD WORK AHEAD" (CW20-1D) sign and a (G20-2) "END ROAD WORK" sign, unless noted otherwise in plans.
2. The Engineer may use the reduced size 36" x 36" ROAD WORK AHEAD (CW20-1D) sign mounted back to back with the reduced size 36" x 18" "END ROAD WORK"(G20-2) sign on low volume crossroads (see Note 4 under "Typical Construction Warning Sign Size and Spacing"). See the "Standard Highway Sign Designs for Texas" manual for sign details. The Engineer may omit the advance warning signs on low volume crossroads. The Engineer will determine whether a road is low volume. This information shall be shown in the plans.
3. Based on existing field conditions, the Engineer/Inspector may require additional signs such as FLAGGER AHEAD, LOOSE GRAVEL, or other appropriate signs. When additional signs are required, these signs will be considered part of the minimum requirements. The Engineer/Inspector will determine the proper location and spacing of any sign not shown on the BC sheets, Traffic Control Plan sheets or the Work Zone Standard Sheets.
4. The "ROAD WORK NEXT X MILES"(G20-1aT) sign shall be required at high volume crossroads to advise motorists of the length of construction in either direction from the intersection. The Engineer will determine whether a roadway is considered high volume.
5. Additional traffic control devices may be shown elsewhere in the plans for higher volume crossroads.
6. When work occurs in the intersection area, appropriate traffic control devices, as shown elsewhere in the plans or as determined by the Engineer/Inspector, shall be in place.

T-INTERSECTION



CSJ LIMITS AT T-INTERSECTION

1. The Engineer will determine the types and location of any additional traffic control devices, such as a flagger and accompanying signs, or other signs, that should be used when work is being performed at or near an intersection.
2. If construction closes the road at a T-intersection the Contractor shall place the "CONTRACTOR NAME"(G20-6T) sign behind the Type 3 Barricades for the road closure (see BC(10) also). The "ROAD WORK NEXT X MILES" left arrow(G20-1bTL) and "ROAD WORK NEXT X MILES" right arrow (G20-1bTR)" signs shall be replaced by the detour signing called for in the plans.

TYPICAL CONSTRUCTION WARNING SIGN SIZE AND SPACING

1.5.6

SIZE

Sign Number or Series	Conventional Road	Expressway/ Freeway
CW20 [4], CW21, CW22, CW23, CW25	48" x 48"	48" x 48"
CW1, CW2, CW7, CW8, CW9, CW11, CW14	36" x 36"	48" x 48"
CW3, CW4, CW5, CW6, CW8-3, CW10, CW12	48" x 48"	48" x 48"

SPACING

Posted Speed	Sign Spacing "X" △
MPH	Feet (Apprx.)
30	120
35	160
40	240
45	320
50	400
55	500 [2]
60	600 [2]
65	700 [2]
70	800 [2]
75	900 [2]
80	1000 [2]
x	x [3]

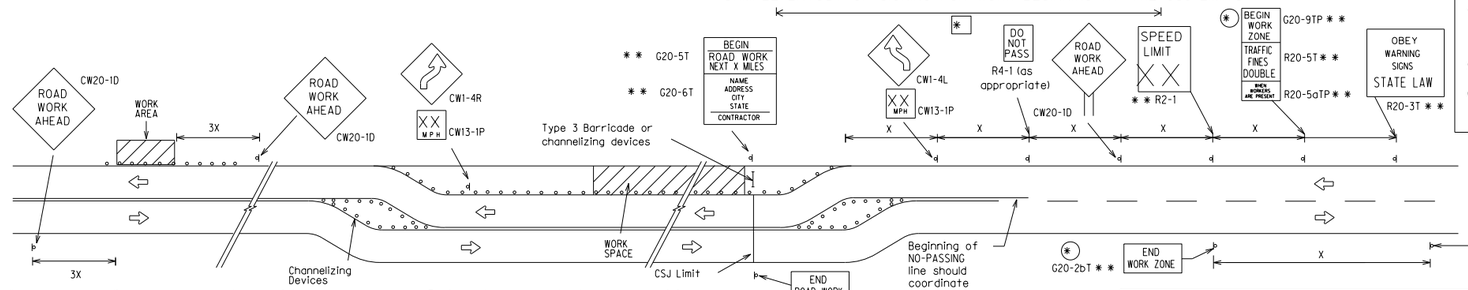
x For typical sign spacings on divided highways, expressways and freeways, see Part 6 of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) typical application diagrams or TCP Standard Sheets.

△ Minimum distance from work area to first Advance Warning sign nearest the work area and/or distance between each additional sign.

GENERAL NOTES

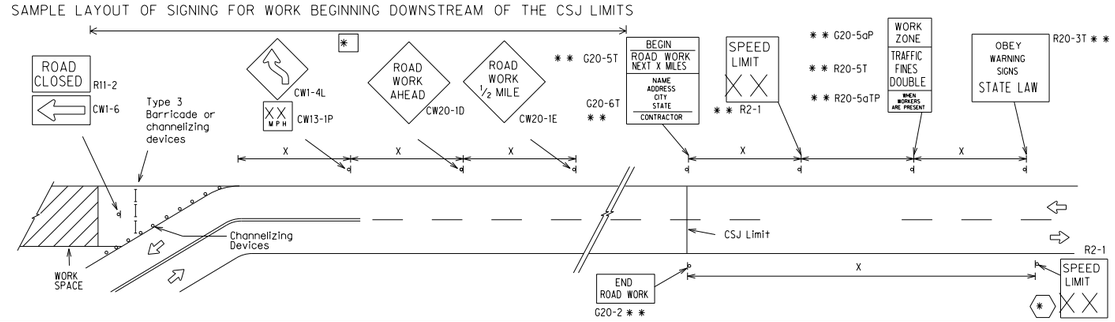
1. Special or larger size signs may be used as necessary.
2. Distance between signs should be increased as required to have 1500 feet advance warning.
3. Distance between signs should be increased as required to have 1/2 mile or more advance warning.
4. 36" x 36" "ROAD WORK AHEAD" (CW20-1D) signs may be used on low volume crossroads at the discretion of the Engineer. See Note 2 under "Typical Location of Crossroad Signs".
5. Only diamond shaped warning sign sizes are indicated.
6. See sign size listing in "TMUTCD", Sign Appendix or the "Standard Highway Sign Designs for Texas" manual for complete list of available sign design sizes.

WORK AREAS IN MULTIPLE LOCATIONS WITHIN CSJ LIMITS



When extended distances occur between minimal work spaces, the Engineer/Inspector should ensure additional "ROAD WORK AHEAD"(CW20-1D) signs are placed in advance of these work areas to remind drivers they are still within the project limits. See the applicable TCP sheets for exact location and spacing of signs and channelizing devices.

SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING DOWNSTREAM OF THE CSJ LIMITS



SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING AT THE CSJ LIMITS

NOTES

The Contractor shall determine the appropriate distance to be placed on the G20-1 series signs and "BEGIN ROAD WORK NEXT X MILES"(G20-5T)sign for each specific project. This distance shall replace the "X" and shall be rounded to the nearest whole mile with the approval of the Engineer. No decimals shall be used.

✱ The "BEGIN WORK ZONE"(G20-9TP) and "END WORK ZONE" (G20-2bT) shall be used as shown on the sample layout when advance signs are required outside the CSJ Limits. They inform the motorist of entering or leaving a part of the work zone lying outside the CSJ Limits where traffic fines may double if workers are present.

✱✱ Required CSJ Limit signing. See Note 10 on BC(1). TRAFFIC FINES DOUBLE signs will not be required on projects consisting solely of mobile operations work.

✱ Area for placement of "ROAD WORK AHEAD" (CW20-1D)sign and other signs or devices as called for on the Traffic Control Plan.

✱ Contractor will install a regulatory speed limit sign at the end of the work zone.

LEGEND

⊢⊣	Type 3 Barricade
○ ○ ○	Channelizing Devices
▬	Sign
X	See Typical Construction Warning Sign Size and Spacing chart or the TMUTCD for sign spacing requirements.

SHEET 2 OF 12

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION PROJECT LIMIT

BC(2)-13

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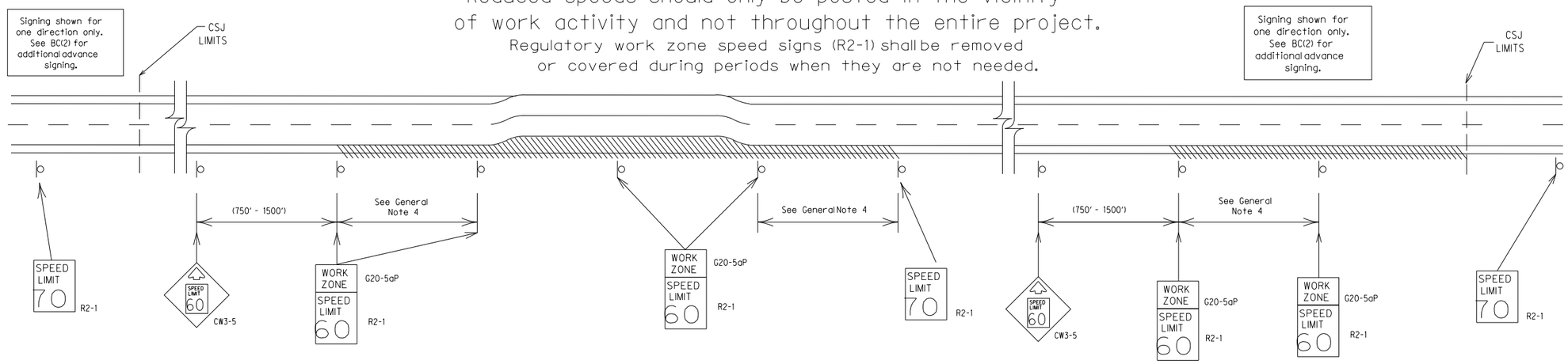
TYPICAL APPLICATION OF WORK ZONE SPEED LIMIT SIGNS

Work zone speed limits shall be regulatory, established in accordance with the "Procedures for Establishing Speed Zones," and approved by the Texas Transportation Commission, or by City Ordinance when within Incorporated City Limits.

Reduced speeds should only be posted in the vicinity of work activity and not throughout the entire project.

Regulatory work zone speed signs (R2-1) shall be removed or covered during periods when they are not needed.



GUIDANCE FOR USE:

LONG/INTERMEDIATE TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit should be included on the design of the traffic control plans when restricted geometrics with a lower design speed are present in the work zone and modification of the geometrics to a higher design speed is not feasible.

Long/Intermediate Term Work Zone Speed Limit signs, when approved as described above, should be posted and visible to the motorist when work activity is present. Work activity may also be defined as a change in the roadway that requires a reduced speed for motorists to safely negotiate the work area, including:

a) rough road or damaged pavement surface
b) substantial alteration of roadway geometrics (diversions)
c) construction detours
d) grade
e) width
f) other conditions readily apparent to the driver

As long as any of these conditions exist, the work zone speed limit signs should remain in place.

SHORT TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit may be included on the design of the traffic control plans when workers or equipment are not behind concrete barrier, when work activity is within 10 feet of the traveled way or actually in the travelled way.

Short Term Work Zone Speed Limit signs should be posted and visible to the motorists only when work activity is present. When work activity is not present, signs shall be removed or covered. (See Removing or Covering on BC(4)).

GENERAL NOTES

1. Regulatory work zone speed limits should be used only for sections of construction projects where speed control is of major importance.
2. Regulatory work zone speed limit signs shall be placed on supports at a 7 foot minimum mounting height.
3. Speed zone signs are illustrated for one direction of travel and are normally posted for each direction of travel.
4. Frequency of work zone speed limit signs should be:
   40 mph and greater 0.2 to 2 miles
   35 mph and less 0.2 to 1 mile
5. Regulatory speed limit signs shall have black legend and border on a white reflective background (See "Reflective Sheeting" on BC(4)).
6. Fabrication, erection and maintenance of the "ADVANCE SPEED LIMIT" (CW3-5) sign, "WORK ZONE" (G20-5aP) plaque and the "SPEED LIMIT" (R2-1) signs shall not be paid for directly, but shall be considered subsidiary to Item 502.
7. Turning signs from view, laying signs over or down will not be allowed, unless as otherwise noted under "REMOVING OR COVERING" on BC(4).
8. Techniques that may help reduce traffic speeds include but are not limited to:
   A. Law enforcement.
   B. Flagger stationed next to sign.
   C. Portable changeable message sign (PCMS).
   D. Low-power (drone) radar transmitter.
   E. Speed monitor trailers or signs.
9. Speeds shown on details above are for illustration only. Work Zone Speed Limits should only be posted as approved for each project.
10. For more specific guidance concerning the type of work, work zone conditions and factors impacting allowable regulatory construction speed zone reduction see TxDOT form "1204 in the TxDOT e-form system.

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BARRICADE AND CONSTRUCTION WORK ZONE SPEED LIMIT

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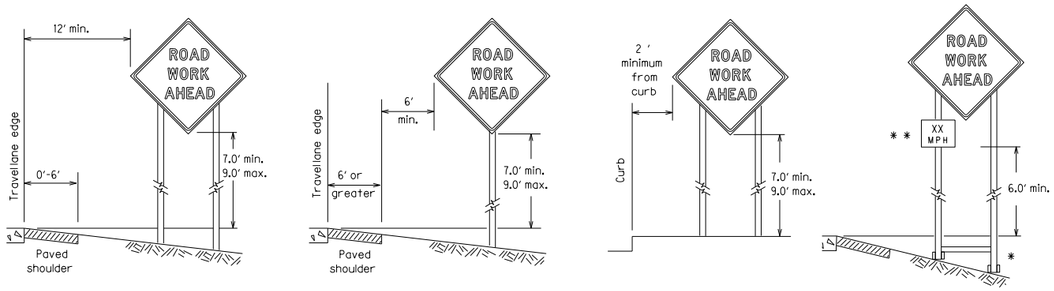
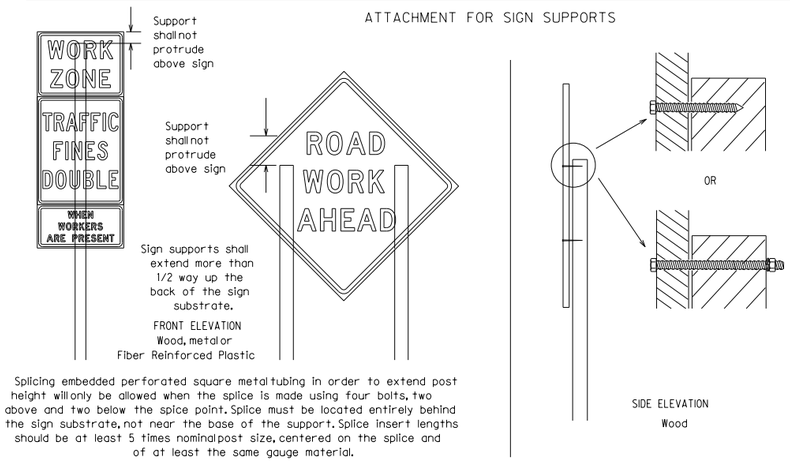
TYPICAL MINIMUM CLEARANCES FOR LONG TERM AND INTERMEDIATE TERM SIGNS



* When placing skid supports on unlevel ground, the leg post lengths must be adjusted so the sign appears straight and plumb. Objects shall NOT be placed under skids as a means of leveling.

* * When plaques are placed on dual-leg supports, they should be attached to the upright nearest the travel lane. Supplemental plaques (advisory or distance) should not cover the surface of the parent sign.

ATTACHMENT FOR SIGN SUPPORTS



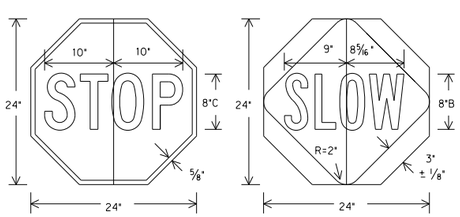
Attachment to wooden supports will be by bolts and nuts or screws. Use TxDOT's or manufacturer's recommended procedures for attaching sign substrates to other types of sign supports

Nails shall NOT be allowed. Each sign shall be attached directly to the sign support. Multiple signs shall not be joined or spliced by any means. Wood supports shall not be extended or repaired by splicing or other means.

Splicing embedded perforated square metal tubing in order to extend post height will only be allowed when the splice is made using four bolts, two above and two below the spice point. Splice must be located entirely behind the sign substrate, not near the base of the support. Splice insert lengths should be at least 5 times nominal post size, centered on the splice and of at least the same gauge material.

STOP/SLOW PADDLES

1. STOP/SLOW paddles are the primary method to control traffic by flaggers. The STOP/SLOW paddle size should be 24" x 24" as detailed below.
2. When used at night, the STOP/SLOW paddle shall be retroreflectorized.
3. STOP/SLOW paddles may be attached to a staff with a minimum length of 6' to the bottom of the sign.
4. Any lights incorporated into the STOP or SLOW paddle faces shall only be as specifically described in Section 6E.03 Hand Signaling Devices in the TMUTCD.



CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS

1. Permanent signs are used to give notice of traffic laws or regulations, call attention to conditions that are potentially hazardous to traffic operations, show route designations, destinations, directions, distances, services, points of interest, and other geographical, recreational, or cultural information. Drivers proceeding through a work zone need the same, if not better route guidance as normally installed on a roadway without construction.
2. When permanent regulatory or warning signs conflict with work zone conditions, remove or cover the permanent signs until the permanent sign message matches the roadway condition.
3. When existing permanent signs are moved and relocated due to construction purposes, they shall be visible to motorists at all times.
4. If existing signs are to be relocated on their original supports, they shall be installed on crashworthy bases as shown on the SMD Standard sheets. The signs shall meet the required mounting heights shown on the BC Sheets or the SMD Standards. This work should be paid for under the appropriate pay item for relocating existing signs.
5. If permanent signs are to be removed and relocated using temporary supports, the Contractor shall use crashworthy supports as shown on the BC sheets or the CWZTCD. The signs shall meet the required mounting heights shown on the BC Sheets or the SMD Standards during construction. This work should be paid for under the appropriate pay item for relocating existing signs.
6. Any sign or traffic control device that is struck or damaged by the Contractor or his/her construction equipment shall be replaced as soon as possible by the Contractor to ensure proper guidance for the motorists. This will be subsidiary to Item 502.

GENERAL NOTES FOR WORK ZONE SIGNS

1. Contractor shall install and maintain signs in a straight and plumb condition and/or as directed by the Engineer.
2. Wooden sign posts shall be painted white.
3. Barricades shall NOT be used as sign supports.
4. All signs shall be installed in accordance with the plans or as directed by the Engineer. Signs shall be used to regulate, warn, and guide the traveling public safely through the work zone.
5. The Contractor may furnish either the sign design shown in the plans or in the "Standard Highway Sign Designs for Texas" (SHSD). The Engineer/Inspector may require the Contractor to furnish other work zone signs that are shown in the TMUTCD but may have been omitted from the plans. Any variation in the plans shall be documented by written agreement between the Engineer and the Contractor's Responsible Person. All changes must be documented in writing before being implemented. This can include documenting the changes in the Inspector's TxDOT diary and having both the Inspector and Contractor initial and date the agreed upon changes.
6. The Contractor shall furnish sign supports listed in the "Compliant Work Zone Traffic Control Device List" (CWZTCD). The Contractor shall install the sign support in accordance with the manufacturer's recommendations. If there is a question regarding installation procedures, the Contractor shall furnish the Engineer a copy of the manufacturer's installation recommendations so the Engineer can verify the correct procedures are being followed.
7. The Contractor is responsible for installing signs on approved supports and replacing signs with damaged or cracked substrates and/or damaged or marred reflective sheeting as directed by the Engineer/Inspector.
8. Identification markings may be shown only on the back of the sign substrate. The maximum height of letters and/or company logos used for identification shall be 1 inch.
9. The Contractor shall replace damaged wood posts. New or damaged wood sign posts shall not be spliced.

DURATION OF WORK (as defined by the "Texas Manual on Uniform Traffic Control Devices" Part 6)

1. The types of sign supports, sign mounting height, the size of signs, and the type of sign substrates can vary based on the type of work being performed. The Engineer is responsible for selecting the appropriate size sign for the type of work being performed. The Contractor is responsible for ensuring the sign support, sign mounting height and substrate meets manufacturer's recommendations in regard to crashworthiness and duration of work requirements.
   a. Long-term stationary - work that occupies a location more than 3 days.
   b. Intermediate-term stationary - work that occupies a location more than one daylight period up to 3 days, or nighttime work lasting more than one hour.
   c. Short-term stationary - daytime work that occupies a location for more than 1 hour in a single daylight period.
   d. Short, duration - work that occupies a location up to 1 hour.
   e. Mobile - work that moves continuously or intermittently (stopping for up to approximately 15 minutes.)

SIGN MOUNTING HEIGHT

1. The bottom of Long-term/Intermediate-term signs shall be at least 7 feet, but not more than 9 feet, above the paved surface, except as shown for supplemental plaques mounted below other signs.
2. The bottom of Short-term/Short Duration signs shall be a minimum of 1 foot above the pavement surface but no more than 2 feet above the ground.
3. Long-term/Intermediate-term Signs may be used in lieu of Short-term/Short Duration signing.
4. Short-term/Short Duration signs shall be used only during daylight and shall be removed at the end of the workday or raised to appropriate Long-term/Intermediate sign height.
5. Regulatory signs shall be mounted at least 7 feet, but not more than 9 feet, above the paved surface regardless of work duration.

SIZE OF SIGNS

1. The Contractor shall furnish the sign sizes shown on BC (2) unless otherwise shown in the plans or as directed by the Engineer.

SIGN SUBSTRATES

1. The Contractor shall ensure the sign substrate is installed in accordance with the manufacturer's recommendations for the type of sign support that is being used. The CWZTCD lists each substrate that can be used on the different types and models of sign supports.
2. "Mesh" type materials are NOT an approved sign substrate, regardless of the tightness of the weave.
3. All wooden individual sign panels fabricated from 2 or more pieces shall have one or more plywood cleat, 1/2" thick by 6" wide, fastened to the back of the sign and extending fully across the sign. The cleat shall be attached to the back of the sign using wood screws that do not penetrate the face of the sign panel. The screws shall be placed on both sides of the splice and spaced at 6" centers. The Engineer may approve other methods of splicing the sign face.

REFLECTIVE SHEETING

1. All signs shall be retroreflective and constructed of sheeting meeting the color and retro-reflectivity requirements of DMS-8300 for rigid signs or DMS-8310 for roll-up signs. The web address for DMS specifications is shown on BC(1).
2. White sheeting, meeting the requirements of DMS-8300 Type A, shall be used for signs with a white background.
3. Orange sheeting, meeting the requirements of DMS-8300 Type B or FL Type C , shall be used for rigid signs with orange backgrounds.

SIGN LETTERS

1. All sign letters and numbers shall be clear, and open rounded type uppercase alphabet letters as approved by the Federal Highway Administration (FHWA) and as published in the "Standard Highway Sign Design for Texas" manual. Signs, letters and numbers shall be of first class workmanship in accordance with Department Standards and Specifications.

REMOVING OR COVERING

1. When sign messages may be confusing or do not apply, the signs shall be removed or completely covered.
2. Long-term stationary or intermediate stationary signs installed on square metal tubing may be turned away from traffic 90 degrees when the sign message is not applicable. This technique may not be used for signs installed in the median of divided highways or near any intersections where the sign may be seen from approaching traffic.
3. Signs installed on wooden skids shall not be turned at 90 degree angles to the roadway. These signs should be removed or completely covered when not required.
4. When signs are covered, the material used shall be opaque, such as heavy mil black plastic, or other materials which will cover the entire sign face and maintain their opaque properties under automobile headlights at night, without damaging the sign sheeting.
5. Burlap shall NOT be used to cover signs.
6. Duct tape or other adhesive material shall NOT be affixed to a sign face.
7. Signs and anchor stubs shall be removed and holes backfilled upon completion of work.

SIGN SUPPORT WEIGHTS

1. Where sign supports require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand should be used.
2. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight.
3. Rock, concrete, iron, steel or other solid objects shall not be permitted for use as sign support weights.
4. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs.
5. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall NOT be used.
6. Rubber ballasts designed for channelizing devices should not be used for ballast on portable sign supports. Sign supports designed and manufactured with rubber bases may be used when shown on the CWZTCD list.
7. Sandbags shall only be placed along or laid over the base supports of the traffic control device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners. Sandbags shall be placed along the length of the skids to weigh down the sign support.
8. Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

FLAGS ON SIGNS

1. Flags may be used to draw attention to warning signs. When used the flag shall be 16 inches square or larger and shall be orange or fluorescent red-orange in color. Flags shall not be allowed to cover any portion of the sign face.

SHEET 4 OF 12

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION TEMPORARY SIGN NOTES

BC(4)-13

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LEWISVILLE — Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: BARRICADE AND CONSTRUCTION DETAILS (TxDOT BC(4)-13) (SHEET 4 OF 12)

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

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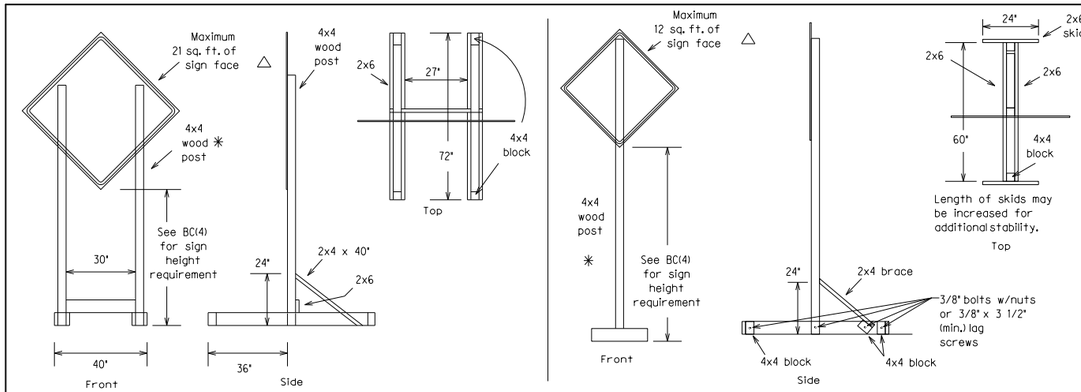
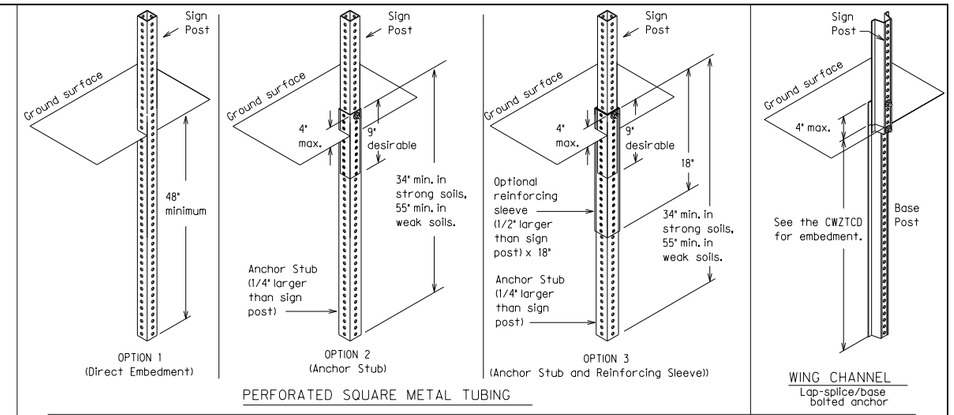


SKID MOUNTED WOOD SIGN SUPPORTS

LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS □

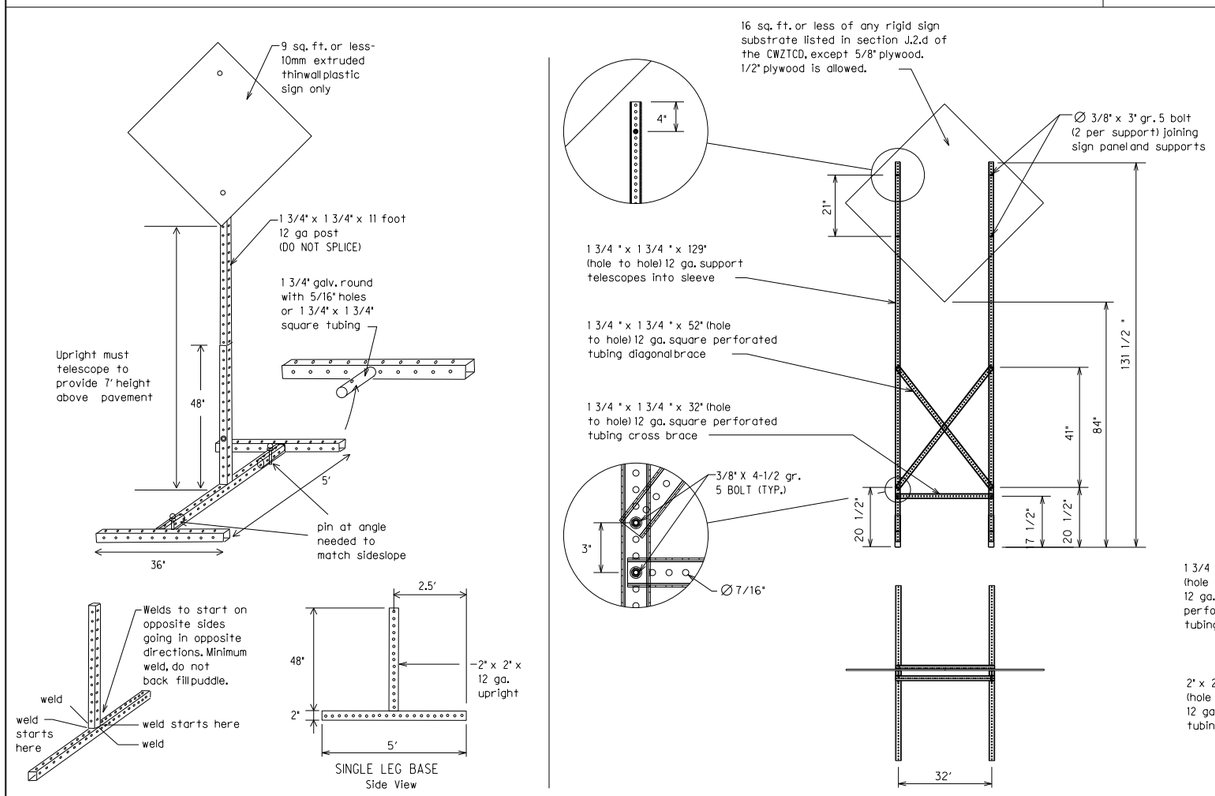


PERFORATED SQUARE METAL TUBING

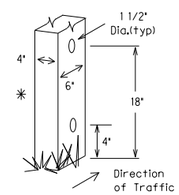
WING CHANNEL
Lap-splice/base bolted anchor

GROUND MOUNTED SIGN SUPPORTS

Refer to the CWZTCD and the manufacturer's installation procedure for each type sign support.
The maximum sign square footage shall adhere to the manufacturer's recommendation.
Two post installations can be used for larger signs.



SKID MOUNTED PERFORATED SQUARE STEEL TUBING SIGN SUPPORTS



Nominal Post Size	Number of Posts	Maximum Sq. feet of Sign Face	Minimum Soil Embedment	Drilled Hole(s) Required
4 x 4	1	12	36"	NO
4 x 4	2	21	36"	NO
4 x 6	1	21	36"	YES
4 x 6	2	36	36"	YES

WOOD POST SYSTEM FOR GROUND MOUNTED SIGN SUPPORTS

WEDGE ANCHORS

Both steel and plastic Wedge Anchor Systems as shown on the SMD Standard Sheets may be used as temporary sign supports for signs up to 10 square feet of sign face. They may be set in concrete or in sturdy soils if approved by the Engineer. (See web address for "Traffic Engineering Standard Sheets" on BC(1)).

OTHER DESIGNS

MORE DETAILS OF APPROVED LONG/INTERMEDIATE AND SHORT TERM SUPPORTS CAN BE FOUND ON THE CWZTCD LIST. SEE BC(1) FOR WEBSITE LOCATION.

GENERAL NOTES

1. Nails may be used in the assembly of wooden sign supports, but 3/8" bolts with nuts or 3/8" x 3 1/2" lag screws must be used on every joint for final connection.
2. No more than 2 sign posts shall be placed within a 7 ft. circle, except for specific materials noted on the CWZTCD List.
3. When project is completed, all sign supports and foundations shall be removed from the project site. This will be considered subsidiary to Item 502.

□ See BC(4) for definition of "Work Duration."

✳ Wood sign posts MUST be one piece. Splicing will NOT be allowed. Posts shall be painted white.

△ See the CWZTCD for the type of sign substrate that can be used for each approved sign support.

SHEET 5 OF 12

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION TYPICAL SIGN SUPPORT

BC(5)-13

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LEWISVILLE — Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: BARRICADE AND CONSTRUCTION DETAILS (TxDOT BC(5)-13) (SHEET 5 OF 12)

HALFF
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TBPE FIRM #F-312

DATE: SEPTEMBER 2017

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WHEN NOT IN USE, REMOVE THE PCMS FROM THE RIGHT-OF-WAY OR PLACE THE PCMS BEHIND BARRIER OR GUARDRAIL WITH SIGN PANEL TURNED PARALLEL TO TRAFFIC

PORTABLE CHANGEABLE MESSAGE SIGNS

1. The Engineer/Inspector shall approve all messages used on portable changeable message signs (PCMS).
2. Messages on PCMS should contain no more than 8 words (about four to eight characters per word), not including simple words such as "TO," "FOR," "AT," etc.
3. Messages should consist of a single phase, or two phases that alternate. Three-phase messages are not allowed. Each phase of the message should convey a single thought, and must be understood by itself.
4. Use the word "EXIT" to refer to an exit ramp on a freeway; i.e., "EXIT CLOSED." Do not use the term "RAMP."
5. Always use the route or interstate designation (IH, US, SH, FM) along with the number when referring to a roadway.
6. When in use the bottom of a stationary PCMS message panel should be a minimum 7 feet above the roadway, where possible.
7. The message term "WEEKEND" should be used only if the work is to start on Saturday morning and end by Sunday evening at midnight. Actual days and hours of work should be displayed on the PCMS if work is to begin on Friday evening and/or continue into Monday morning.
8. The Engineer/Inspector may select one of two options which are available for displaying a two-phase message on a PCMS. Each phase may be displayed for either four seconds each or for three seconds each.
9. Do not "flash" messages or words included in a message. The message should be steady burn or continuous while displayed.
10. Do not present redundant information on a two-phase message; i.e., keeping two lines of the message the same and changing the third line.
11. Do not use the word "Danger" in message.
12. Do not display the message "LANES SHIFT LEFT" or "LANES SHIFT RIGHT" on a PCMS. Drivers do not understand the message.
13. Do not display messages that scroll horizontally or vertically across the face of the sign.
14. The following table lists abbreviated words and two-word phrases that are acceptable for use on a PCMS. Both words in a phrase must be displayed together. Words or phrases not on this list should not be abbreviated, unless shown in the TMUTCD.
15. PCMS character height should be at least 18 inches for trailer mounted units. They should be visible from at least 1/2 (.5) mile and the text should be legible from at least 600 feet at night and 800 feet in daylight. Truck mounted units must have a character height of 10 inches and must be legible from at least 400 feet.
16. Each line of text should be centered on the message board rather than left or right justified.
17. If disabled, the PCMS should default to an illegible display that will not alarm motorists and will only be used to alert workers that the PCMS has malfunctioned. A pattern such as a series of horizontal solid bars is appropriate.

WORD OR PHRASE	ABBREVIATION
Access Road	ACCS RD
Alternate	ALT
Avenue	AVE
Best Route	BEST RTE
Boulevard	BLVD
Bridge	BRDG
Cannot	CANT
Center	CTR
Construction Ahead	CONST AHD
CROSSING	XING
Detour Route	DETOUR RTE
Do Not	DONT
East	E
Eastbound	(route) E
Emergency	EMER
Emergency Vehicle	EMER VEH
Entrance, Enter	ENT
Express Lane	EXP LN
Expressway	EXPWY
XXXX Feet	XXXX FT
Fog Ahead	FOG AHD
Freeway	FRWY, FWY
Freeway Blocked	FWY BLKD
Friday	FRI
Hazardous Driving	HAZ DRIVING
Hazardous Material	HAZMAT
High-Occupancy	HOV
Vehicle Highway	HWY
Hour(s)	HR, HRS
Information	INFO
It Is	ITS
Junction	JCT
Left	LFT
Left Lane	LFT LN
Lane Closed	LN CLOSED
Lower Level	LWR LEVEL
Maintenance	MAINT

WORD OR PHRASE	ABBREVIATION
Major	MAJ
Miles	MI
Miles Per Hour	MPH
Minor	MNR
Monday	MON
Normal	NORM
North	N
Northbound	(route) N
Parking	PKING
Road	RD
Right Lane	RT LN
Saturday	SAT
Service Road	SERV RD
Shoulder	SHLDR
Slippery	SLIP
South	S
Southbound	(route) S
Speed	SPD
Street	ST
Sunday	SUN
Telephone	PHONE
Temporary	TEMP
Thursday	THURS
To Downtown	TO DWNTN
Traffic	TRAF
Travelers	TRVLRS
Tuesday	TUES
Time Minutes	TIME MIN
Upper Level	UPR LEVEL
Vehicles (s)	VEH, VEHS
Warning	WARN
Wednesday	WED
Weight Limit	WT LIMIT
West	W
Westbound	(route) W
Wet Pavement	WET PVMT
Will Not	WONT

Roadway designation = IH-number, US-number, SH-number, FM-number

RECOMMENDED PHASES AND FORMATS FOR PCMS MESSAGES DURING ROADWORK ACTIVITIES

(The Engineer may approve other messages not specifically covered here.)

Phase 1: Condition Lists

Road/Lane/Ramp Closure List

FREEWAY CLOSED X MILE	FRONTAGE ROAD CLOSED
ROAD CLOSED AT SH XXX	SHOULDER CLOSED XXX FT
ROAD CLSD AT FM XXXX	RIGHT LN CLOSED XXX FT
RIGHT X LANES CLOSED	RIGHT X LANES OPEN
CENTER LANE CLOSED	DAYTIME LANE CLOSURES
NIGHT LANE CLOSURES	I-XX SOUTH EXIT CLOSED
VARIOUS LANES CLOSED	EXIT XXX CLOSED X MILE
EXIT CLOSED	RIGHT LN TO BE CLOSED
MALL DRIVEWAY CLOSED	X LANES CLOSED TUE - FRI
XXXXXXXX BLVD CLOSED	

Other Condition List

ROADWORK XXX FT	ROAD REPAIRS XXXX FT
FLAGGER XXXX FT	LANE NARROWS XXXX FT
RIGHT LN NARROWS XXXX FT	TWO-WAY TRAFFIC XX MILE
MERGING TRAFFIC XXXX FT	CONST TRAFFIC XXX FT
LOOSE GRAVEL XXXX FT	UNEVEN LANES XXXX FT
DETOUR X MILE	ROUGH ROAD XXXX FT
ROADWORK PAST SH XXXX	ROADWORK NEXT FRI-SUN
BUMP XXXX FT	US XXX EXIT X MILES
TRAFFIC SIGNAL XXXX FT	LANES SHIFT *

* LANES SHIFT in Phase 1 must be used with STAY IN LANE in Phase 2.

Phase 2: Possible Component Lists

Action to Take/Effect on Travel List

MERGE RIGHT	FORM X LINES RIGHT
DETOUR NEXT X EXITS	USE XXXXX RD EXIT
USE EXIT XXX	USE EXIT I-XX NORTH
STAY ON US XXX SOUTH	USE I-XX E TO I-XX N
TRUCKS USE US XXX N	WATCH FOR TRUCKS
WATCH FOR TRUCKS	EXPECT DELAYS
EXPECT DELAYS	PREPARE TO STOP
REDUCE SPEED XXX FT	END SHOULDER USE
USE OTHER ROUTES	WATCH FOR WORKERS
STAY IN LANE *	

Location List

AT FM XXXX
BEFORE RAILROAD CROSSING
NEXT X MILES
PAST US XXX EXIT
XXXXXXX TO XXXXXXX
US XXX TO FM XXXX

Warning List

SPEED LIMIT XX MPH
MAXIMUM SPEED XX MPH
MINIMUM SPEED XX MPH
ADVISORY SPEED XX MPH
RIGHT LANE EXIT
USE CAUTION
DRIVE SAFELY
DRIVE WITH CARE

** Advance Notice List

TUE-FRI XX AM- X PM
APR XX- XX X PM-X AM
BEGINS MONDAY
BEGINS MAY XX
MAY X-X XX PM - XX AM
NEXT FRI-SUN
XX AM TO XX PM
NEXT TUE AUG XX
TONIGHT XX PM- XX AM

** See Application Guidelines Note 6.

APPLICATION GUIDELINES

1. Only 1 or 2 phases are to be used on a PCMS.
2. The 1st phase (or both) should be selected from the "Road/Lane/Ramp Closure List" and the "Other Condition List".
3. A 2nd phase can be selected from the "Action to Take/Effect on Travel, Location, General Warning, or Advance Notice Phase Lists".
4. A Location Phase is necessary only if a distance or location is not included in the first phase selected.
5. If two PCMS are used in sequence, they must be separated by a minimum of 1000 ft. Each PCMS shall be limited to two phases, and should be understandable by themselves.
6. For advance notice, when the current date is within seven days of the actual work date, calendar days should be replaced with days of the week. Advance notification should typically be for no more than one week prior to the work.

WORDING ALTERNATIVES

1. The words RIGHT, LEFT and ALL can be interchanged as appropriate.
2. Roadway designations IH, US, SH, FM and LP can be interchanged as appropriate.
3. EAST, WEST, NORTH and SOUTH (or abbreviations E, W, N and S) can be interchanged as appropriate.
4. Highway names and numbers replaced as appropriate.
5. ROAD, HIGHWAY and FREEWAY can be interchanged as needed.
6. AHEAD may be used instead of distances if necessary.
7. FT and MI, MILE and MILES interchanged as appropriate.
8. AT, BEFORE and PAST interchanged as needed.
9. Distances or AHEAD can be eliminated from the message if a location phase is used.

PCMS SIGNS WITHIN THE R.O.W. SHALL BE BEHIND GUARDRAIL OR CONCRETE BARRIER OR SHALL HAVE A MINIMUM OF FOUR (4) PLASTIC DRUMS PLACED PERPENDICULAR TO TRAFFIC ON THE UPSTREAM SIDE OF THE PCMS, WHEN EXPOSED TO ONE DIRECTION OF TRAFFIC. WHEN EXPOSED TO TWO WAY TRAFFIC, THE FOUR DRUMS SHOULD BE PLACED WITH ONE DRUM AT EACH OF THE FOUR CORNERS OF THE UNIT.

FULL MATRIX PCMS SIGNS

1. When Full Matrix PCMS signs are used, the character height and legibility/visibility requirements shall be maintained as listed in Note 15 under "PORTABLE CHANGEABLE MESSAGE SIGNS" above.
2. When symbol signs, such as the "Flagger Symbol" (CW20-7) are represented graphically on the Full Matrix PCMS sign and, with the approval of the Engineer, it shall maintain the legibility/visibility requirement listed above.
3. When symbol signs are represented graphically on the Full Matrix PCMS, they shall only supplement the use of the static sign represented, and shall not substitute for, or replace that sign.
4. A full matrix PCMS may be used to simulate a flashing arrow board provided it meets the visibility, flash rate and dimming requirements on BC(7), for the same size arrow.

SHEET 6 OF 12

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

BC(6)-13

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STATE OF TEXAS — DAVID M. SMITH 102401 — LICENSED PROFESSIONAL ENGINEER — 09-15-2017

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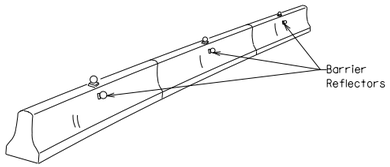
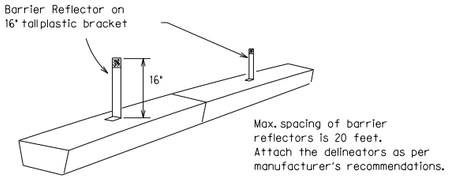
1. Barrier Reflectors shall be pre-qualified, and conform to the color and reflectivity requirements of DMS-8600. A list of prequalified Barrier Reflectors can be found at the Material Producer List web address shown on BC(1).
2. Color of Barrier Reflectors shall be as specified in the TMUTCD. The cost of the reflectors shall be considered subsidiary to Item 512.

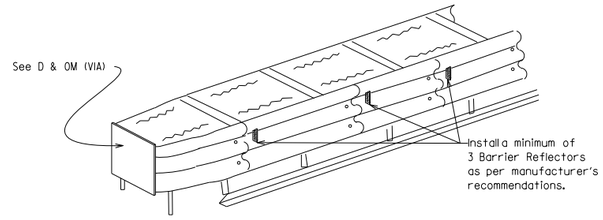


CONCRETE TRAFFIC BARRIER (CTB)

3. Where traffic is on one side of the CTB, two (2) Barrier Reflectors shall be mounted in approximately the midsection of each section of CTB. An alternate mounting location is uniformly spaced at one end of each CTB. This will allow for attachment of a barrier grapple without damaging the reflector. The Barrier Reflector mounted on the side of the CTB shall be located directly below the reflector mounted on top of the barrier, as shown in the detail above.
4. Where CTB separates two-way traffic, three barrier reflectors shall be mounted on each section of CTB. The reflector unit on top shall have two yellow reflective faces (Bi-Directional) while the reflectors on each side of the barrier shall have one yellow reflective face, as shown in the detail above.
5. When CTB separates traffic traveling in the same direction, no barrier reflectors will be required on top of the CTB.
6. Barrier Reflector units shall be yellow or white in color to match the edgeline being supplemented.
7. Maximum spacing of Barrier Reflectors is forty (40) feet.
8. Pavement markers or temporary flexible-reflective roadway marker tabs shall NOT be used as CTB delineation.
9. Attachment of Barrier Reflectors to CTB shall be per manufacturer's recommendations.
10. Missing or damaged Barrier Reflectors shall be replaced as directed by the Engineer.
11. Single slope barriers shall be delineated as shown on the above detail.



LOW PROFILE CONCRETE BARRIER (LPCB)

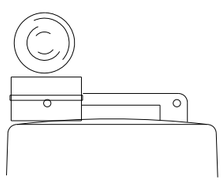


DELINEATION OF END TREATMENTS

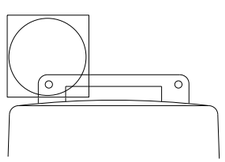
END TREATMENTS FOR
CTB'S USED
IN WORK ZONES

End treatments used on CTB's in work zones shall meet crashworthy standards as defined in the National Cooperative Highway Research Report 350. Refer to the CWZTCD List for approved end treatments and manufacturers.

BARRIER REFLECTORS FOR CONCRETE TRAFFIC BARRIER AND ATTENUATORS



Type C Warning Light or approved substitute mounted on a drum adjacent to the travelway.



Warning reflector may be round or square. Must have a yellow reflective surface area of at least 30 square inches

WARNING LIGHTS

1. Warning lights shall meet the requirements of the TMUTCD.
2. Warning lights shall NOT be installed on barricades.
3. Type A-Low Intensity Flashing Warning Lights are commonly used with drums. They are intended to warn of or mark a potentially hazardous area. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation 'FL'. The Type A Warning Lights shall not be used with signs manufactured with Type B or C sheeting meeting the requirements of Departmental Material Specification DMS-8300.
4. Type-C and Type D 360 degree Steady Burn Lights are intended to be used in a series for delineation to supplement other traffic control devices. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation 'SB'.
5. The Engineer/Inspector or the plans shall specify the location and type of warning lights to be installed on the traffic control devices.
6. When required by the Engineer, the Contractor shall furnish a copy of the warning lights certification. The warning light manufacturer will certify the warning lights meet the requirements of the latest ITE Purchase Specifications for Flashing and Steady-Burn Warning Lights.
7. When used to delineate curves, Type-C and Type D Steady Burn Lights should only be placed on the outside of the curve, not the inside.
8. The location of warning lights and warning reflectors on drums shall be as shown elsewhere in the plans.

WARNING LIGHTS MOUNTED ON PLASTIC DRUMS

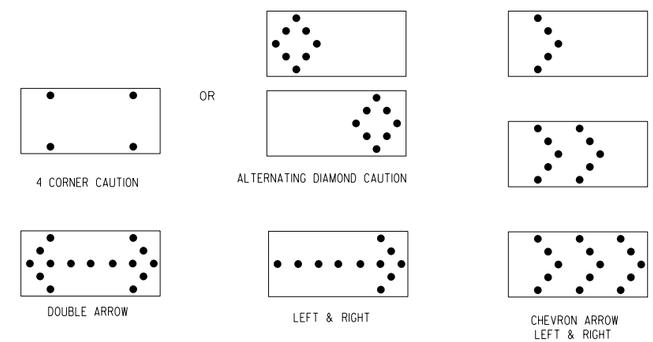
1. Type A flashing warning lights are intended to warn drivers that they are approaching or are in a potentially hazardous area.
2. Type A random flashing warning lights are not intended for delineation and shall not be used in a series.
3. A series of sequential flashing warning lights placed on channelizing devices to form a merging taper may be used for delineation. If used, the successive flashing of the sequential warning lights should occur from the beginning of the taper to the end of the merging taper in order to identify the desired vehicle path. The rate of flashing for each light shall be 65 flashes per minute, plus or minus 10 flashes.
4. Type C and D steady-burn warning lights are intended to be used in a series to delineate the edge of the travel lane on detours, on lane changes, on lane closures, and on other similar conditions.
5. Type A, Type C and Type D warning lights shall be installed at locations as detailed on other sheets in the plans.
6. Warning lights shall not be installed on a drum that has a sign, chevron or vertical panel.
7. The maximum spacing for warning lights on drums should be identical to the channelizing device spacing.

WARNING REFLECTORS MOUNTED ON PLASTIC DRUMS AS A SUBSTITUTE FOR TYPE C (STEADY BURN) WARNING LIGHTS

1. A warning reflector or approved substitute may be mounted on a plastic drum as a substitute for a Type C, steady burn warning light at the discretion of the Contractor unless otherwise noted in the plans.
2. The warning reflector shall be yellow in color and shall be manufactured using a sign substrate approved for use with plastic drums listed on the CWZTCD.
3. The warning reflector shall have a minimum retroreflective surface area (one-side) of 30 square inches.
4. Round reflectors shall be fully reflectorized, including the area where attached to the drum.
5. Square substrates must have a minimum of 30 square inches of reflectorized sheeting. They do not have to be reflectorized where it attaches to the drum.
6. The side of the warning reflector facing approaching traffic shall have sheeting meeting the color and retroreflectivity requirements for DMS 8300-Type B or Type C.
7. When used near two-way traffic, both sides of the warning reflector shall be reflectorized.
8. The warning reflector should be mounted on the side of the handle nearest approaching traffic.
9. The maximum spacing for warning reflectors should be identical to the channelizing device spacing requirements.

Arrow Boards may be located behind channelizing devices in place for a shoulder taper or merging taper, otherwise they shall be delineated with four (4) channelizing devices placed perpendicular to traffic on the upstream side of traffic.

1. The Flashing Arrow Board should be used for all lane closures on multi-lane roadways, or slow moving maintenance or construction activities on the travel lanes.
2. Flashing Arrow Boards should not be used on two-lane, two-way roadways, detours, diversions or work on shoulders unless the 'CAUTION' display (see detail below) is used.
3. The Engineer/Inspector shall choose all appropriate signs, barricades and/or other traffic control devices that should be used in conjunction with the Flashing Arrow Board.
4. The Flashing Arrow Board should be able to display the following symbols:



5. The 'CAUTION' display consists of four corner lamps flashing simultaneously, or the Alternating Diamond Caution mode as shown.
6. The straight line caution display is NOT ALLOWED.
7. The Flashing Arrow Board shall be capable of minimum 50 percent dimming from rated lamp voltage. The flashing rate of the lamps shall not be less than 25 nor more than 40 flashes per minute.
8. Minimum lamp 'on time' shall be approximately 50 percent for the flashing arrow and equal intervals of 25 percent for each sequential phase of the flashing chevron.
9. The sequential arrow display is NOT ALLOWED.
10. The flashing arrow display is the TxDOT standard; however, the sequential Chevron display may be used during daylight operations.
11. The Flashing Arrow Board shall be mounted on a vehicle, trailer or other suitable support.
12. A Flashing Arrow Board SHALL NOT BE USED to laterally shift traffic.
13. A full matrix PCMS may be used to simulate a Flashing Arrow Board provided it meets visibility, flash rate and dimming requirements on this sheet for the same size arrow.
14. Minimum mounting height of trailer mounted Arrow Boards should be 7 feet from roadway to bottom of panel.

REQUIREMENTS			
TYPE	MINIMUM SIZE	MINIMUM NUMBER OF PANEL LAMPS	MINIMUM VISIBILITY DISTANCE
B	30 x 60	13	3/4 mile
C	48 x 96	15	1 mile

ATTENTION

Flashing Arrow Boards shall be equipped with automatic dimming devices.

WHEN NOT IN USE, REMOVE THE ARROW BOARD FROM THE RIGHT-OF-WAY OR PLACE THE ARROW BOARD BEHIND CONCRETE TRAFFIC BARRIER OR GUARDRAIL.

FLASHING ARROW BOARDS

TRUCK-MOUNTED ATTENUATORS

1. Truck-mounted attenuators (TMA) used on TxDOT facilities must meet the requirements outlined in the National Cooperative Highway Research Report No. 350 (NCHRP 350) or the Manual for Assessing Safety Hardware (MASH).
2. Refer to the CWZTCD for the requirements of Level 2 or Level 3 TMAs.
3. Refer to the CWZTCD for a list of approved TMAs.
4. TMAs are required on freeways unless otherwise noted in the plans.
5. A TMA should be used anytime that it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the work performance.
6. The only reason a TMA should not be required is when a work area is spread down the roadway and the work crew is an extended distance from the TMA.

SHEET 7 OF 12

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION ARROW PANEL, REFLECTORS, WARNING LIGHTS & ATTENUATOR

BC(7)-13

FILE: bc-13.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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REVISIONS 9-07 7-13	DIST		COUNTY	SHEET NO.
101				

STATE OF TEXAS — DAVID M. SMITH — 102401 — LICENSED PROFESSIONAL ENGINEER — 09-15-2017

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LEWISVILLE — Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: BARRICADE AND CONSTRUCTION DETAILS (TxDOT BC(7)-13) (SHEET 7 OF 12)

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

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GENERAL NOTES

1. For long term stationary work zones on freeways, drums shall be used as the primary channelizing device.
2. For intermediate term stationary work zones on freeways, drums should be used as the primary channelizing device but may be replaced in tangent sections by vertical panels, or 42" two-piece cones. In tangent sections one-piece cones may be used with the approval of the Engineer but only if personnel are present on the project at all times to maintain the cones in proper position and location.
3. For short term stationary work zones on freeways, drums are the preferred channelizing device but may be replaced in tapers, transitions and tangent sections by vertical panels, two-piece cones or one-piece cones as approved by the Engineer.
4. Drums and all related items shall comply with the requirements of the current version of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
5. Drums, bases, and related materials shall exhibit good workmanship and shall be free from objectionable marks or defects that would adversely affect their appearance or serviceability.
6. The Contractor shall have a maximum of 24 hours to replace any plastic drums identified for replacement by the Engineer/Inspector. The replacement device must be an approved device.

GENERAL DESIGN REQUIREMENTS

Pre-qualified plastic drums shall meet the following requirements:

1. Plastic drums shall be a two-piece design; the "body" of the drum shall be the top portion and the "base" shall be the bottom.
2. The body and base shall lock together in such a manner that the body separates from the base when impacted by a vehicle traveling at a speed of 20 MPH or greater but prevents accidental separation due to normal handling and/or air turbulence created by passing vehicles.
3. Plastic drums shall be constructed of lightweight flexible, and deformable materials. The Contractor shall NOT use metal drums or single piece plastic drums as channelization devices or sign supports.
4. Drums shall present a profile that is a minimum of 18 inches in width at the 36 inch height when viewed from any direction. The height of drum unit (body installed on base) shall be a minimum of 36 inches and a maximum of 42 inches.
5. The top of the drum shall have a built-in handle for easy pickup and shall be designed to drain water and not collect debris. The handle shall have a minimum of two widely spaced 9/16 inch diameter holes to allow attachment of a warning light, warning reflector unit or approved compliant sign.
6. The exterior of the drum body shall have a minimum of four alternating orange and white retroreflective circumferential stripes not less than 4 inches nor greater than 8 inches in width. Any non-reflectorized space between any two adjacent stripes shall not exceed 2 inches in width.
7. Bases shall have a maximum width of 36 inches, a maximum height of 4 inches, and a minimum of two footholds of sufficient size to allow base to be held down while separating the drum body from the base.
8. Plastic drums shall be constructed of ultra-violet stabilized, orange, high-density polyethylene (HDPE) or other approved material.
9. Drum body shall have a maximum unballasted weight of 11 lbs.
10. Drum and base shall be marked with manufacturer's name and model number.

RETROREFLECTIVE SHEETING

1. The stripes used on drums shall be constructed of sheeting meeting the color and retroreflectivity requirements of Departmental Materials Specification DMS-8300, "Sign Face Materials." Type A reflective sheeting shall be supplied unless otherwise specified in the plans.
2. The sheeting shall be suitable for use on and shall adhere to the drum surface such that, upon vehicular impact, the sheeting shall remain adhered in-place and exhibit no delaminating, cracking, or loss of retroreflectivity other than that loss due to abrasion of the sheeting surface.

BALLAST

1. Unballasted bases shall be large enough to hold up to 50 lbs. of sand. This base, when filled with the ballast material, should weigh between 35 lbs (minimum) and 50 lbs (maximum). The ballast may be sand in one to three sandbags separate from the base, sand in a sand-filled plastic base, or other ballasting devices as approved by the Engineer. Stacking of sandbags will be allowed, however height of sandbags above pavement surface may not exceed 12 inches.
2. Bases with built-in ballast shall weigh between 40 lbs. and 50 lbs. Built-in ballast can be constructed of an integral crumb rubber base or a solid rubber base.
3. Recycled truck tire sidewalls may be used for ballast on drums approved for this type of ballast on the CWZTCD list.
4. The ballast shall not be heavy objects, water, or any material that would become hazardous to motorists, pedestrians, or workers when the drum is struck by a vehicle.
5. When used in regions susceptible to freezing, drums shall have drainage holes in the bottoms so that water will not collect and freeze becoming a hazard when struck by a vehicle.
6. Ballast shall not be placed on top of drums.
7. Adhesives may be used to secure base of drums to pavement.

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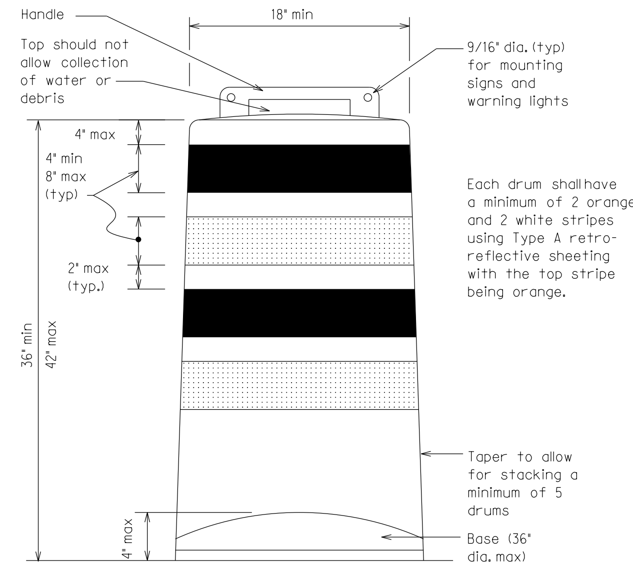
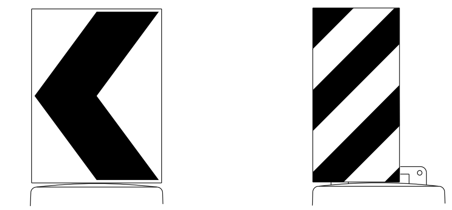




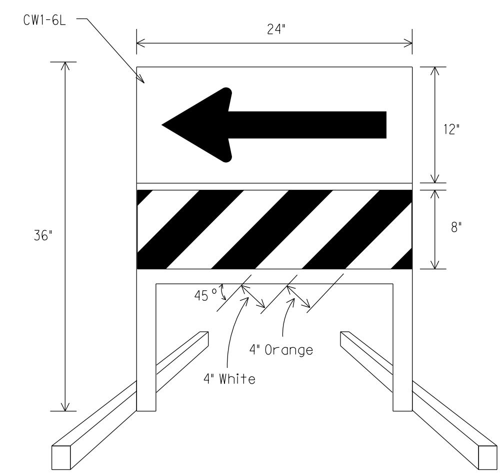
18" x 24" Sign
(Maximum Sign Dimension)
Chevron CW1-8, Opposing Traffic Lane Divider, Driveway sign D70a, Keep Right R4 series or other signs as approved by Engineer

12" x 24"
Vertical Panel
mount with diagonals sloping down towards travel way

Plywood, Aluminum or Metal sign substrates shall NOT be used on plastic drums

SIGNS, CHEVRONS, AND VERTICAL PANELS MOUNTED ON PLASTIC DRUMS

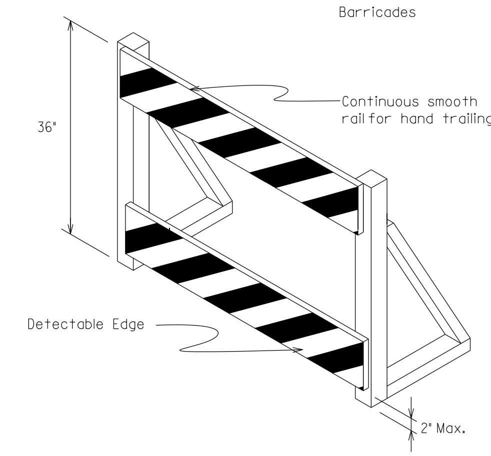
1. Signs used on plastic drums shall be manufactured using substrates listed on the CWZTCD.
2. Chevrons and other work zone signs with an orange background shall be manufactured with Type B_{FL} or Type C_{FL} Orange sheeting meeting the color and retroreflectivity requirements of DMS-8300, "Sign Face Material," unless otherwise specified in the plans.
3. Vertical Panels shall be manufactured with orange and white sheeting meeting the requirements of DMS-8300 Type A Diagonal stripes on Vertical Panels shall slope down toward the intended traveled lane.
4. Other sign messages (text or symbolic) may be used as approved by the Engineer. Sign dimensions shall not exceed 18 inches in width or 24 inches in height, except for the R9 series signs discussed in note 8 below.
5. Signs shall be installed using a 1/2 inch bolt (nominal) and nut, two washers, and one locking washer for each connection.
6. Mounting bolts and nuts shall be fully engaged and adequately torqued. Bolts should not extend more than 1/2 inch beyond nuts.
7. Chevrons may be placed on drums on the outside of curves, on merging tapers or on shifting tapers. When used in these locations they may be placed on every drum or spaced not more than on every third drum. A minimum of three (3) should be used at each location called for in the plans.
8. R9-9, R9-10, R9-11 and R9-11a Sidewalk Closed signs which are 24 inches wide may be mounted on plastic drums, with approval of the Engineer.



DIRECTION INDICATOR BARRICADE

1. The Direction Indicator Barricade may be used in tapers, transitions, and other areas where specific directional guidance to drivers is necessary.
2. If used, the Direction Indicator Barricade should be used in series to direct the driver through the transition and into the intended travel lane.
3. The Direction Indicator Barricade shall consist of One-Direction Large Arrow (CW1-6) sign in the size shown with a black arrow on a background of Type B_{FL} or Type C_{FL} Orange retroreflective sheeting above a rail with Type A retroreflective sheeting in alternating 4" white and orange stripes sloping downward at an angle of 45 degrees in the direction road users are to pass. Sheeting types shall be as per DMS 8300.
4. Double arrows on the Direction Indicator Barricade will not be allowed.
5. Approved manufacturers are shown on the CWZTCD List. Ballast shall be as approved by the manufacturers instructions.

This detail is not intended for fabrication. See note 3 and the CWZTCD list for providers of approved Detectable Pedestrian Barricades



DETECTABLE PEDESTRIAN BARRICADES

1. When existing pedestrian facilities are disrupted, closed, or relocated in a TTC zone, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility.
2. Where pedestrians with visual disabilities normally use the closed sidewalk, a device that is detectable by a person with a visual disability traveling with the aid of a long cane shall be placed across the full width of the closed sidewalk.
3. Detectable pedestrian barricades similar to the one pictured above, longitudinal channelizing devices, some concrete barriers, and wood or chain link fencing with a continuous detectable edging can satisfactorily delineate a pedestrian path.
4. Tape, rope, or plastic chain strung between devices are not detectable, do not comply with the design standards in the "Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG)" and should not be used as a control for pedestrian movements.
5. Warning lights shall not be attached to detectable pedestrian barricades.
6. Detectable pedestrian barricades may use 8" nominal barricade rails as shown on BC(10) provided that the top rail provides a smooth continuous rail suitable for hand trailing with no splinters, burrs, or sharp edges.

SHEET 8 OF 12

Texas Department of Transportation | Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(8)-13

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102

DAVID M. SMITH 102401 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS
09-15-2017

ENGINEERING DIVISION
CITY OF LEWISVILLE

LEWISVILLE
Deep Roots. Broad Wings. Bright Future.

24-INCH WATER LINE
PROJECT TITLE

BARRICADE AND CONSTRUCTION DETAILS (TxDOT BC(8)-13) (SHEET 8 OF 12)
SHEET TITLE

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TBPE FIRM #F-312

SEPTEMBER 2017
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SHEET 83 OF 106

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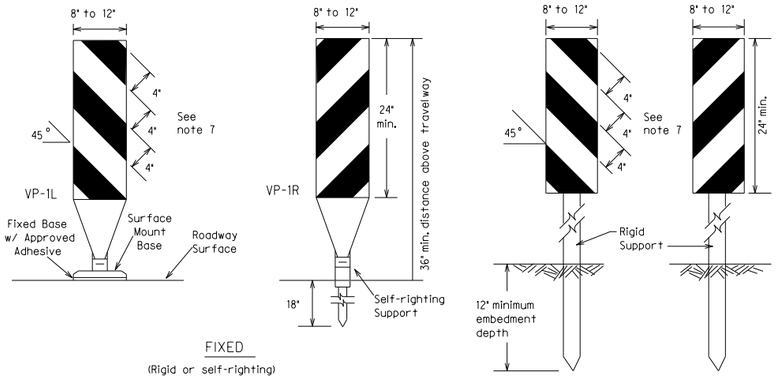
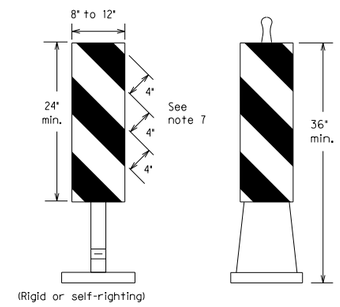


FIXED

(Rigid or self-righting)

DRIVEABLE

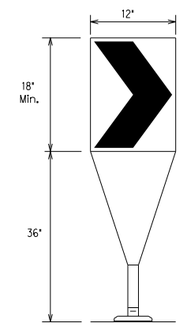


(Rigid or self-righting)

PORTABLE

1. Vertical Panels (VP's) are normally used to channelize traffic or divide opposing lanes of traffic.
2. VP's may be used in daytime or nighttime situations. They may be used at the edge of shoulder drop-offs and other areas such as lane transitions where positive daytime and nighttime delineation is required. The Engineer/Inspector shall refer to the Roadway Design Manual Appendix B "Treatment of Pavement Drop-offs in Work Zones" for additional guidelines on the use of VP's for drop-offs.
3. VP's should be mounted back to back if used at the edge of cuts adjacent to two-way two lane roadways. Stripes are to be reflective orange and reflective white and should always slope downward toward the travellane.
4. VP's used on expressways and freeways or other high speed roadways, may have more than 270 square inches of retroreflective area facing traffic.
5. Self-righting supports are available with portable base. See "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
6. Sheeting for the VP's shall be retroreflective Type A conforming to Departmental Material Specification DMS-8300, unless noted otherwise.
7. Where the height of reflective material on the vertical panel is 36 inches or greater, a panel stripe of 6 inches shall be used.

VERTICAL PANELS (VPs)



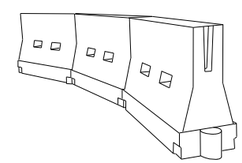
Fixed Base w/ Approved Adhesive (Driveable Base, or Flexible Support can be used)

1. The chevron shall be a vertical rectangle with a minimum size of 12 by 18 inches.
2. Chevrons are intended to give notice of a sharp change of alignment with the direction of travel and provide additional emphasis and guidance for vehicle operators with regard to changes in horizontal alignment of the roadway.
3. Chevrons, when used, shall be erected on the outside of a sharp curve or turn, or on the far side of an intersection. They shall be in line with and at right angles to approaching traffic. Spacing should be such that the motorist always has three in view, until the change in alignment eliminates its need.
4. To be effective, the chevron should be visible for at least 500 feet.
5. Chevrons shall be orange with a black nonreflective legend. Sheeting for the chevron shall be retroreflective Type B or Type C conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.
6. For Long Term Stationary use on tapers or transitions on freeways and divided highways self-righting chevrons may be used to supplement plastic drums but not to replace plastic drums.

CHEVRONS

GENERAL NOTES

1. Work Zone channelizing devices illustrated on this sheet may be installed in close proximity to traffic and are suitable for use on high or low speed roadways. The Engineer/Inspector shall ensure that spacing and placement is uniform and in accordance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
2. Channelizing devices shown on this sheet may have a driveable, fixed or portable base. The requirement for self-righting channelizing devices must be specified in the General Notes or other plan sheets.
3. Channelizing devices on self-righting supports should be used in work zone areas where channelizing devices are frequently impacted by errant vehicles or vehicle related wind gusts making alignment of the channelizing devices difficult to maintain. Locations of these devices shall be detailed elsewhere in the plans. These devices shall conform to the TMUTCD and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
4. The Contractor shall maintain devices in a clean condition and replace damaged, nonreflective, faded, or broken devices and bases as required by the Engineer/Inspector. The Contractor shall be required to maintain proper device spacing and alignment.
5. Portable bases shall be fabricated from virgin and/or recycled rubber. The portable bases shall weigh a minimum of 30 lbs.
6. Pavement surfaces shall be prepared in a manner that ensures proper bonding between the adhesives, the fixed mount bases and the pavement surface. Adhesives shall be prepared and applied according to the manufacturer's recommendations.
7. The installation and removal of channelizing devices shall not cause detrimental effects to the final pavement surfaces, including pavement surface discoloration or surface integrity. Driveable bases shall not be permitted on final pavement surfaces. The Engineer/Inspector shall approve all application and removal procedures of fixed bases.



LONGITUDINAL CHANNELIZING DEVICES (LCD)

1. LCDs are crashworthy, lightweight, deformable devices that are highly visible, have good target value and can be connected together. They are not designed to contain or redirect a vehicle on impact.
2. LCDs may be used instead of a line of cones or drums.
3. LCDs shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
4. LCDs should not be used to provide positive protection for obstacles, pedestrians or workers.
5. LCDs shall be supplemented with retroreflective delineation as required for temporary barriers on BC(7) when placed roughly parallel to the travellanes.
6. LCDs used as barricades placed perpendicular to traffic should have at least one row of reflective sheeting meeting the requirements for barricade rails as shown on BC(10) placed near the top of the LCD along the full length of the device.

WATER BALLASTED SYSTEMS USED AS BARRIERS

1. Water ballasted systems used as barriers shall not be used solely to channelize road users, but also to protect the work space per the appropriate NCHRP 350 crashworthiness requirements based on roadway speed and barrier application.
2. Water ballasted systems used to channelize vehicular traffic shall be supplemented with retroreflective delineation or channelizing devices to improve daytime/nighttime visibility. They may also be supplemented with pavement markings.
3. Water ballasted systems used as barriers shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
4. Water ballasted systems used as barriers should not be used for a merging taper except in low speed (less than 45 MPH) urban areas. When used on a taper in a low speed urban area, the taper shall be delineated and the taper length should be designed to optimize road user operations considering the available geometric conditions.
5. When water ballasted systems used as barriers have blunt ends exposed to traffic, they should be attenuated as per manufacturer recommendations or flared to a point outside the clear zone.

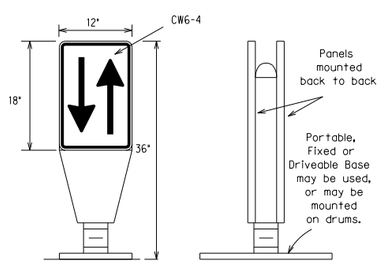
If used to channelize pedestrians, longitudinal channelizing devices or water ballasted systems must have a continuous detectable bottom for users of long canes and the top of the unit shall not be less than 32 inches in height.

HOLLOW OR WATER BALLASTED SYSTEMS USED AS LONGITUDINAL CHANNELIZING DEVICES OR BARRIERS

Posted Speed *	Formula	Minimum Desirable Taper Lengths * * 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices On a Taper	On a Tangent
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'
35		205'	225'	245'	35'	70'
40		265'	295'	320'	40'	80'
45	L = WS	450'	495'	540'	45'	90'
50		500'	550'	600'	50'	100'
55		550'	605'	660'	55'	110'
60		600'	660'	720'	60'	120'
65		650'	715'	780'	65'	130'
70		700'	770'	840'	70'	140'
75		750'	825'	900'	75'	150'
80		800'	880'	960'	80'	160'

* * Taper lengths have been rounded off.
L=Length of Taper (FT.) W=Width of Offset (FT.)
S=Posted Speed (MPH)

SUGGESTED MAXIMUM SPACING OF CHANNELIZING DEVICES AND MINIMUM DESIRABLE TAPER LENGTHS



1. Opposing Traffic Lane Dividers (OTLD) are delineation devices designed to convert a normal one-way roadway section to two-way operation. OTLD's are used on temporary centerlines. The upward and downward arrows on the sign's face indicate the direction of traffic on either side of the divider. The base is secured to the pavement with an adhesive or rubber weight to minimize movement caused by a vehicle impact or wind gust.
2. The OTLD may be used in combination with 42" cones or VPs.
3. Spacing between the OTLD shall not exceed 500 feet. 42" cones or VPs placed between the OTLD's should not exceed 100 foot spacing.
4. The OTLD shall be orange with a black nonreflective legend. Sheeting for the OTLD shall be retroreflective Type B or Type C conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.

OPPOSING TRAFFIC LANE DIVIDERS (OTLD)

SHEET 9 OF 12

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(9)-13

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LEWISVILLE — Deep Roots. Broad Wings. Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: BARRICADE AND CONSTRUCTION DETAILS (TxDOT BC(9)-13) (SHEET 9 OF 12)

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

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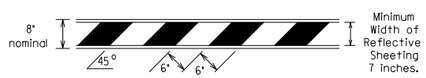
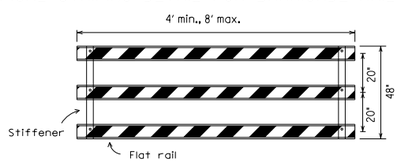
TYPE 3 BARRICADES

1. Refer to the Compliant Work Zone Traffic Control Devices List (CWZTCD) for details of the Type 3 Barricades and a list of all materials used in the construction of Type 3 Barricades.
2. Type 3 Barricades shall be used at each end of construction projects closed to all traffic.
3. Barricades extending across a roadway should have stripes that slope downward in the direction toward which traffic must turn in detouring. When both right and left turns are provided, the chevron striping may slope downward in both directions from the center of the barricade. Where no turns are provided at a closed road striping should slope downward in both directions toward the center of roadway.
4. Striping of rails, for the right side of the roadway, should slope downward to the left. For the left side of the roadway, striping should slope downward to the right.
5. Identification markings may be shown only on the back of the barricade rails. The maximum height of letters and/or company logos used for identification shall be 1".
6. Barricades shall not be placed parallel to traffic unless an adequate clear zone is provided.
7. Warning lights shall NOT be installed on barricades.
8. Where barricades require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand is recommended. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight. Sand bags shall not be stacked in a manner that covers any portion of a barricade rails reflective sheeting. Rock, concrete, iron, steel or other solid objects will NOT be permitted. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall not be used for sandbags. Sandbags shall only be placed along or upon the base supports of the device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners.
9. Sheeting for barricades shall be retroreflective Type A conforming to Departmental Material Specification DMS-8300 unless otherwise noted.

Barricades shall NOT be used as a sign support.



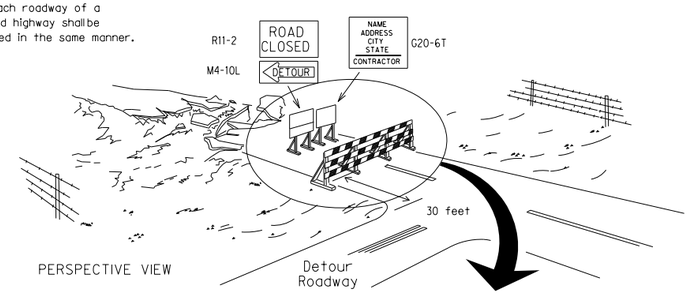
TYPICAL STRIPING DETAIL FOR BARRICADE RAIL



Stiffener may be inside or outside of support, but no more than 2 stiffeners shall be allowed on one barricade.

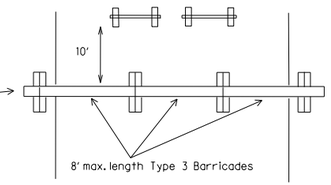
TYPICAL PANEL DETAIL
FOR SKID OR POST TYPE BARRICADES

Each roadway of a divided highway shall be barricaded in the same manner.



PERSPECTIVE VIEW

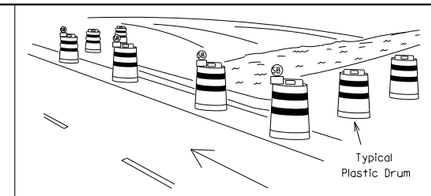
The three rails on Type 3 barricades shall be reflectorized orange and reflective white stripes on one side facing one-way traffic and both sides for two-way traffic.
Barricade striping should slant downward in the direction of detour.



PLAN VIEW

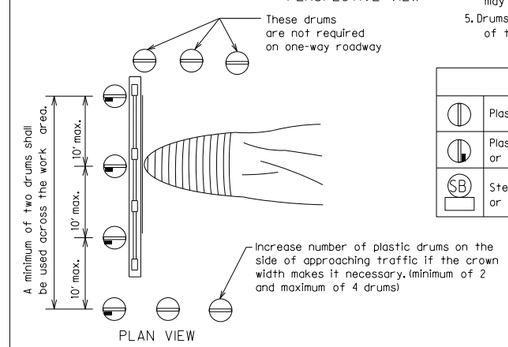
1. Signs should be mounted on independent supports at a 7 foot mounting height in center of roadway. The signs should be a minimum of 10 feet behind Type 3 Barricades.
2. Advance signing shall be as specified elsewhere in the plans.

TYPE 3 BARRICADE (POST AND SKID) TYPICAL APPLICATION



PERSPECTIVE VIEW

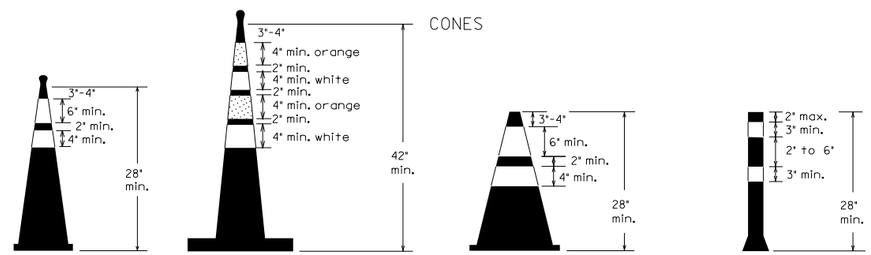
1. Where positive redirectional capability is provided, drums may be omitted.
2. Plastic construction fencing may be used with drums for safety as required in the plans.
3. Vertical Panels on flexible support may be substituted for drums when the shoulder width is less than 4 feet.
4. When the shoulder width is greater than 12 feet, steady-burn lights may be omitted if drums are used.
5. Drums must extend the length of the culvert widening.



PLAN VIEW

LEGEND	
	Plastic drum
	Plastic drum with steady burn light or yellow warning reflector
SB	Steady burn warning light or yellow warning reflector

CULVERT WIDENING OR OTHER ISOLATED WORK WITHIN THE PROJECT LIMITS



Two-Piece cones

One-Piece cones

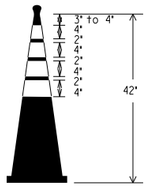
Tubular Marker

28" Cones shall have a minimum weight of 9 1/2 lbs.

42" 2-piece cones shall have a minimum weight of 30 lbs. including base.

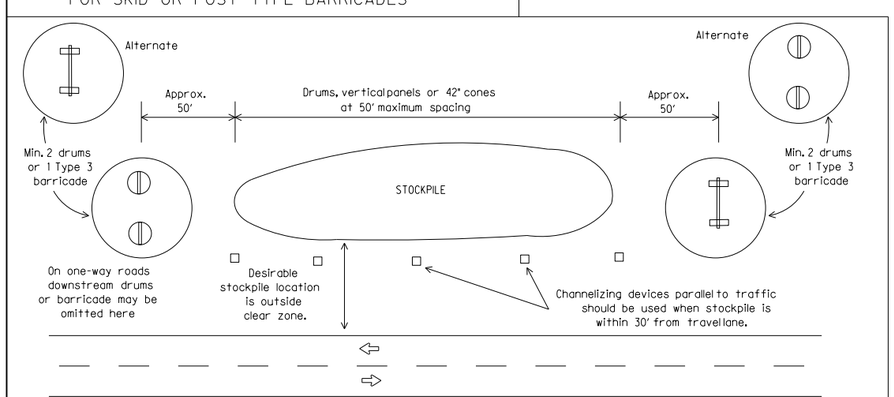
1. Traffic cones and tubular markers shall be predominantly orange, and meet the height and weight requirements shown above.
2. One-piece cones have the body and base of the cone molded in one consolidated unit. Two-piece cones have a cone shaped body and a separate rubber base, or ballast, that is added to keep the device upright and in place.
3. Two-piece cones may have a handle or loop extending up to 8" above the minimum height shown, in order to aid in retrieving the device.
4. Cones or tubular markers used at night shall have white or white and orange reflective bands as shown above. The reflective bands shall have a smooth, sealed outer surface and meet the requirements of Departmental Material Specification DMS-8300 Type A.
5. 28" cones and tubular markers are generally suitable for short duration and short-term stationary work as defined on BC(4). These should not be used for intermediate-term or long-term stationary work unless personnel is on-site to maintain them in their proper upright position.
6. 42" two-piece cones, vertical panels or drums are suitable for all work zone durations.
7. Cones or tubular markers used on each project should be of the same size and shape.

THIS DEVICE SHALL NOT BE USED ON PROJECTS LET AFTER MARCH 2014.



EDGELINE CHANNELIZER

1. This device is intended only for use in place of a vertical panel to channelize traffic by indicating the edge of the travel lane. It is not intended to be used in transitions or tapers.
2. This device shall not be used to separate lanes of traffic (opposing or otherwise) or warn of objects.
3. This device is based on a 42 inch, two-piece cone with an alternate striping pattern: four 4 inch retroreflective bands, with an approximate 2 inch gap between bands. The color of the band should correspond to the color of the edgeline (yellow for left edgeline, white for right edgeline) for which the device is substituted or for which it supplements. The reflectorized bands shall be retroreflective Type A conforming to Departmental Material Specification DMS-8300, unless otherwise noted.
4. The base must weigh a minimum of 30 lbs.



TRAFFIC CONTROL FOR MATERIAL STOCKPILES

DATE:
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SHEET 10 OF 12

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(10)-13

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09-15-2017

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LEWISVILLE — Deep Roots. Broad Wings. Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: BARRICADE AND CONSTRUCTION DETAILS (TxDOT BC(10)-13) (SHEET 10 OF 12)

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SHEET 85 OF 106

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WORK ZONE PAVEMENT MARKINGS

GENERAL

1. The Contractor shall be responsible for maintaining work zone and existing pavement markings, in accordance with the standard specifications and special provisions, on all roadways open to traffic within the CSJ limits unless otherwise stated in the plans.
2. Color, patterns and dimensions shall be in conformance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
3. Additional supplemental pavement marking details may be found in the plans or specifications.
4. Pavement markings shall be installed in accordance with the TMUTCD and as shown on the plans.
5. When short term markings are required on the plans, short term markings shall conform with the TMUTCD, the plans and details as shown on the Standard Plan Sheet WZ(STPM).
6. When standard pavement markings are not in place and the roadway is opened to traffic, DO NOT PASS signs shall be erected to mark the beginning of the sections where passing is prohibited and PASS WITH CARE signs at the beginning of sections where passing is permitted.
7. All work zone pavement markings shall be installed in accordance with Item 662, "Work Zone Pavement Markings."

RAISED PAVEMENT MARKERS

1. Raised pavement markers are to be placed according to the patterns on BC(12).
2. All raised pavement markers used for work zone markings shall meet the requirements of Item 672, "RAISED PAVEMENT MARKERS" and Departmental Material Specification DMS-4200 or DMS-4300.

PREFABRICATED PAVEMENT MARKINGS

1. Removable prefabricated pavement markings shall meet the requirements of DMS-8241.
2. Non-removable prefabricated pavement markings (foil back) shall meet the requirements of DMS-8240.

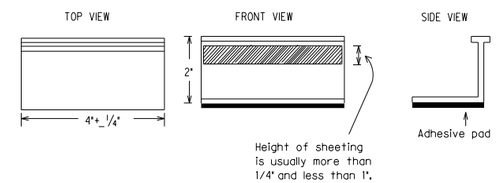
MAINTAINING WORK ZONE PAVEMENT MARKINGS

1. The Contractor will be responsible for maintaining work zone pavement markings within the work limits.
2. Work zone pavement markings shall be inspected in accordance with the frequency and reporting requirements of work zone traffic control device inspections as required by Form 599.
3. The markings should provide a visible reference for a minimum distance of 300 feet during normal daylight hours and 160 feet when illuminated by automobile low-beam headlights at night, unless sight distance is restricted by roadway geometrics.
4. Markings failing to meet this criteria within the first 30 days after placement shall be replaced at the expense of the Contractor as per Specification Item 662.

REMOVAL OF PAVEMENT MARKINGS

1. Pavement markings that are no longer applicable, could create confusion or direct a motorist toward or into the closed portion of the roadway shall be removed or obliterated before the roadway is opened to traffic.
2. The above shall not apply to detours in place for less than three days, where flaggers and/or sufficient channelizing devices are used in lieu of markings to outline the detour route.
3. Pavement markings shall be removed to the fullest extent possible, so as not to leave a discernable marking. This shall be by any method approved by TxDOT Specification Item 677 for "Eliminating Existing Pavement Markings and Markers".
4. The removal of pavement markings may require resurfacing or seal coating portions of the roadway as described in Item 677.
5. Subject to the approval of the Engineer, any method that proves to be successful on a particular type pavement may be used.
6. Blast cleaning may be used but will not be required unless specifically shown in the plans.
7. Over-painting of the markings SHALL NOT BE permitted.
8. Removal of raised pavement markers shall be as directed by the Engineer.
9. Removal of existing pavement markings and markers will be paid for directly in accordance with Item 677, "ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS," unless otherwise stated in the plans.
10. Black-out marking tape may be used to cover conflicting existing markings for periods less than two weeks when approved by the Engineer.

Temporary Flexible-Reflective Roadway Marker Tabs



STAPLES OR NAILS SHALL NOT BE USED TO SECURE TEMPORARY FLEXIBLE-REFLECTIVE ROADWAY MARKER TABS TO THE PAVEMENT SURFACE

1. Temporary flexible-reflective roadway marker tabs used as guidemarks shall meet the requirements of DMS-8242.
2. Tabs detailed on this sheet are to be inspected and accepted by the Engineer or designated representative. Sampling and testing is not normally required, however at the option of the Engineer, either "A" or "B" below may be imposed to assure quality before placement on the roadway.
   A. Select five (5) or more tabs at random from each lot or shipment and submit to the Construction Division, Materials and Pavement Section to determine specification compliance.
   B. Select five (5) tabs and perform the following test. Affix five (5) tabs at 24 inch intervals on an asphaltic pavement in a straight line. Using a medium size passenger vehicle or pickup, run over the markers with the front and rear tires at a speed of 35 to 40 miles per hour, four (4) times in each direction. No more than one (1) out of the five (5) reflective surfaces shall be lost or displaced as a result of this test.
3. Small design variances may be noted between tab manufacturers.
4. See Standard Sheet WZ(STPM) for tab placement on new pavements. See Standard Sheet TCP(7-1) for tab placement on seal coat work.

RAISED PAVEMENT MARKERS USED AS GUIDEMARKS

1. Raised pavement markers used as guidemarks shall be from the approved product list, and meet the requirements of DMS-4200.
2. All temporary construction raised pavement markers provided on a project shall be of the same manufacturer.
3. Adhesive for guidemarks shall be bituminous material hot applied or butyl rubber pad for all surfaces, or thermoplastic for concrete surfaces.

Guidemarks shall be designated as:
YELLOW - (two amber reflective surfaces with yellow body).
WHITE - (one silver reflective surface with white body).

DEPARTMENTAL MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
TRAFFIC BUTTONS	DMS-4300
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240
TEMPORARY REMOVABLE, PREFABRICATED PAVEMENT MARKINGS	DMS-8241
TEMPORARY FLEXIBLE, REFLECTIVE ROADWAY MARKER TABS	DMS-8242

A list of prequalified reflective raised pavement markers, non-reflective traffic buttons, roadway marker tabs and other pavement markings can be found at the Material Producer List web address shown on BC(1).

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Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION PAVEMENT MARKINGS

BC(11)-13

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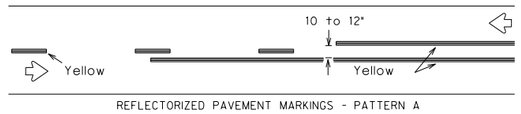
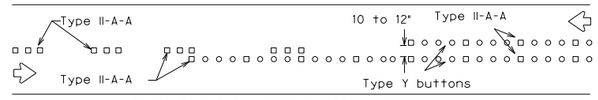
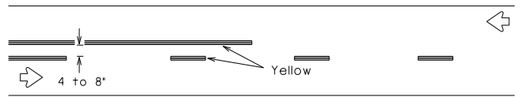
PAVEMENT MARKING PATTERNS



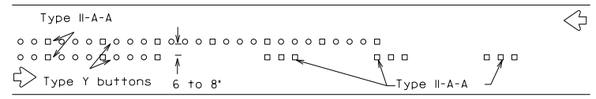
REFLECTORIZED PAVEMENT MARKINGS - PATTERN A



RAISED PAVEMENT MARKERS - PATTERN A



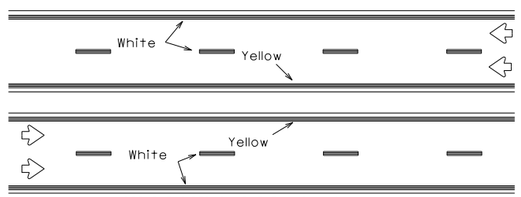
REFLECTORIZED PAVEMENT MARKINGS - PATTERN B



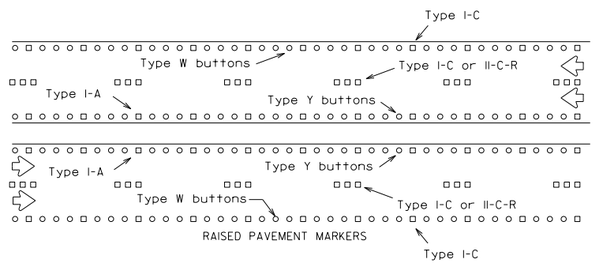
RAISED PAVEMENT MARKERS - PATTERN B

Pattern A is the TXDOT Standard, however Pattern B may be used if approved by the Engineer.
Prefabricated markings may be substituted for reflectorized pavement markings.

CENTER LINE & NO-PASSING ZONE BARRIER LINES FOR TWO-LANE, TWO-WAY HIGHWAYS



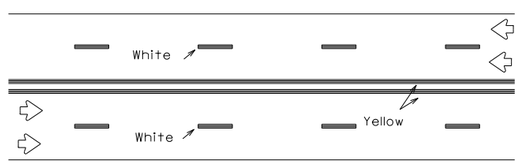
REFLECTORIZED PAVEMENT MARKINGS



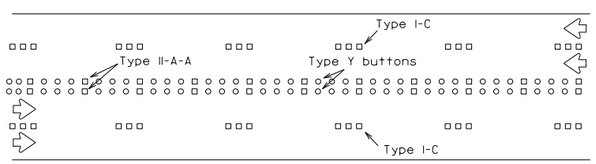
RAISED PAVEMENT MARKERS

Prefabricated markings may be substituted for reflectorized pavement markings.

EDGE & LANE LINES FOR DIVIDED HIGHWAY



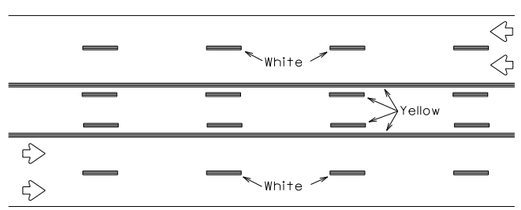
REFLECTORIZED PAVEMENT MARKINGS



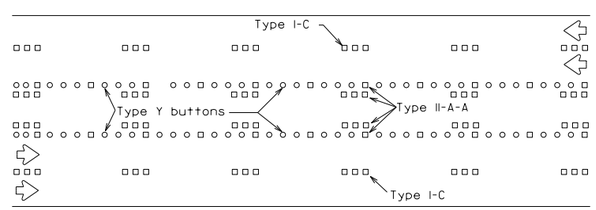
RAISED PAVEMENT MARKERS

Prefabricated markings may be substituted for reflectorized pavement markings.

LANE & CENTER LINES FOR MULTILANE UNDIVIDED HIGHWAYS



REFLECTORIZED PAVEMENT MARKINGS

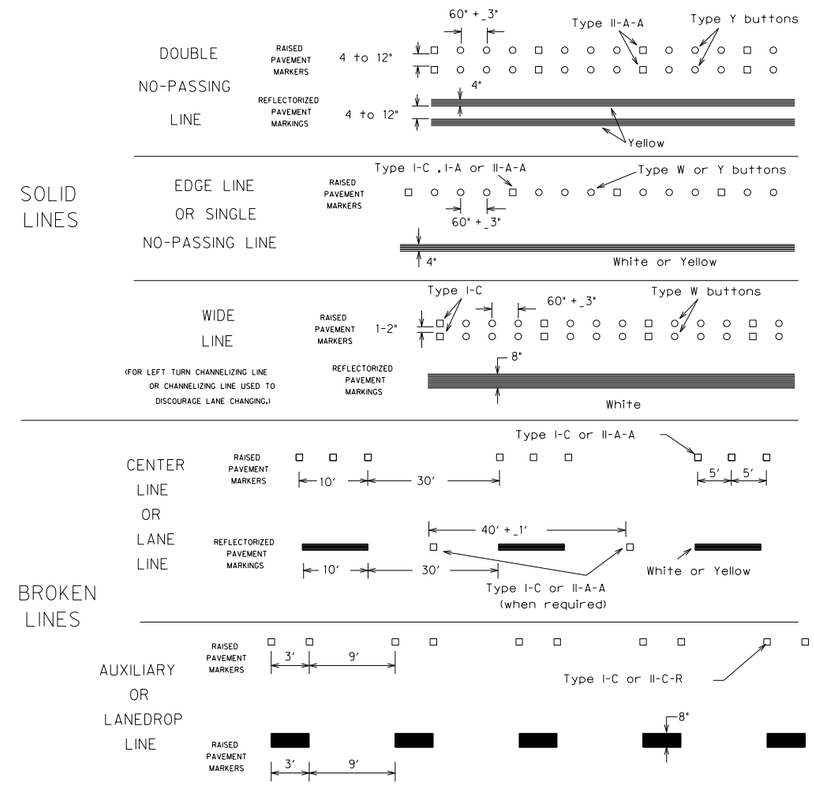


RAISED PAVEMENT MARKERS

Prefabricated markings may be substituted for reflectorized pavement markings.

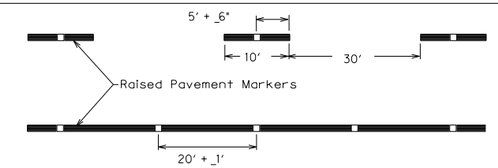
TWO-WAY LEFT TURN LANE

STANDARD WORK ZONE PAVEMENT MARKINGS DETAILS



REMOVABLE MARKINGS WITH RAISED PAVEMENT MARKERS

If raised pavement markers are used to supplement REMOVABLE markings, the markers shall be applied to the top of the tape at the approximate mid length of tape used for broken lines or at 20 foot spacing for solid lines. This allows an easier removal of raised pavement markers and tape.



Centerline only - not to be used on edge lines

SHEET 12 OF 12

Raised pavement markers used as standard pavement markings shall be from the approved products list and meet the requirements of Item 672 "RAISED PAVEMENT MARKERS."

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION PAVEMENT MARKING PATTERNS

BC(12)-13

FILE: bc-13.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT February 1998	CONT	SECT	JOB	HIGHWAY
REVISIONS 1-97 11-02 7-13 2-98 9-07	DIST		COUNTY	SHEET NO.
106				

STATE OF TEXAS — DAVID M. SMITH 102401 — LICENSED PROFESSIONAL ENGINEER — 09-15-2017

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LEWISVILLE — Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: BARRICADE AND CONSTRUCTION DETAILS (TxDOT BC(12)-13) (SHEET 12 OF 12)

HALFF
4000 FOSSIL CREEK BLVD
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DATE: SEPTEMBER 2017

SHEET 87 OF 106

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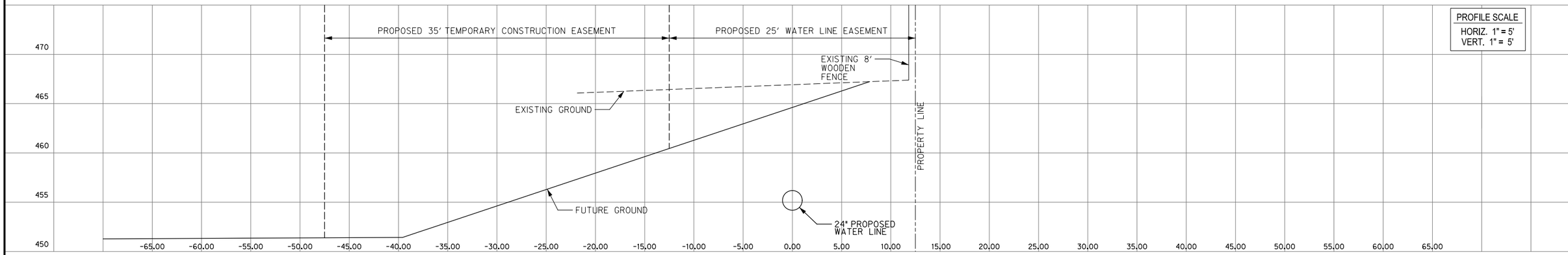

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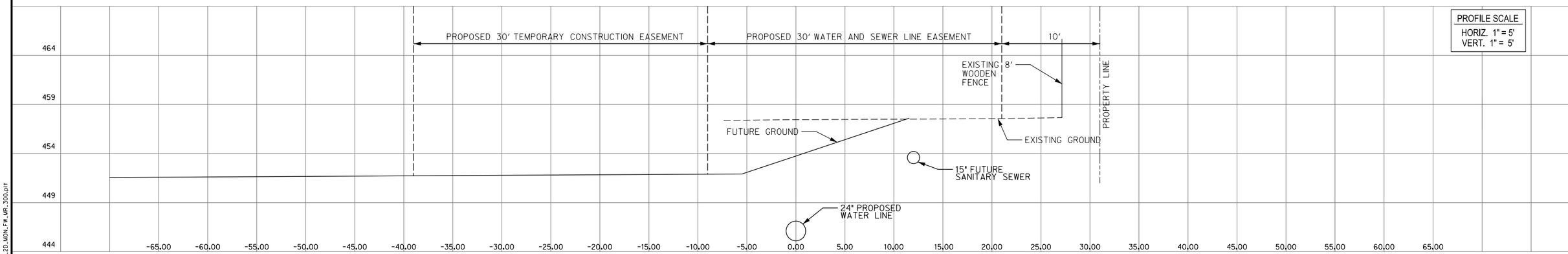

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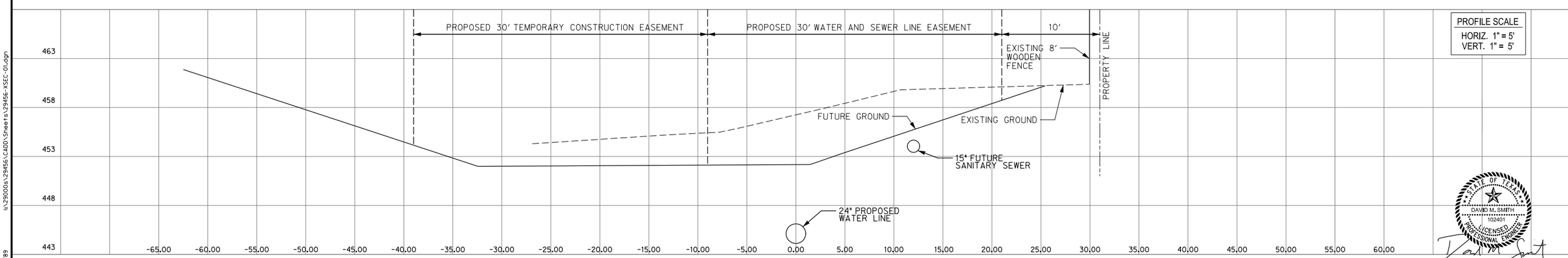

SECTION 2+00

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09-15-2017

LEWISVILLE
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ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: CROSS SECTIONS
WATER LINE "A"
STA 2+00 TO STA 8+00

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SHEET 88 OF 106

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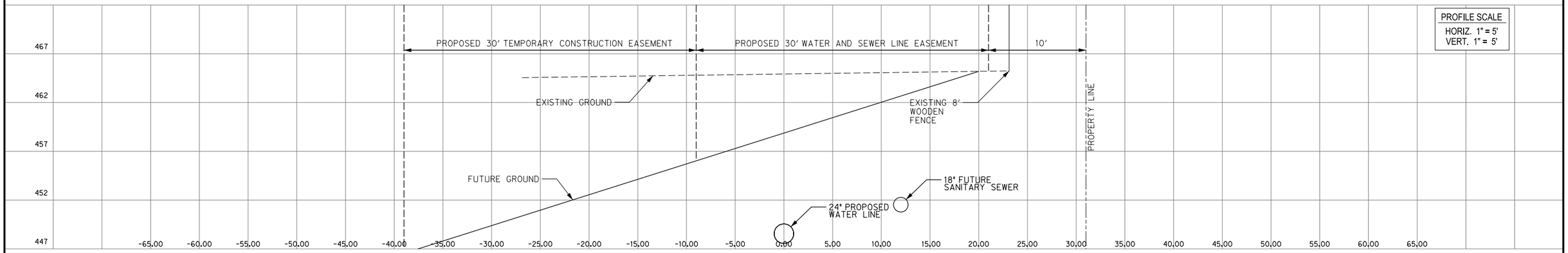

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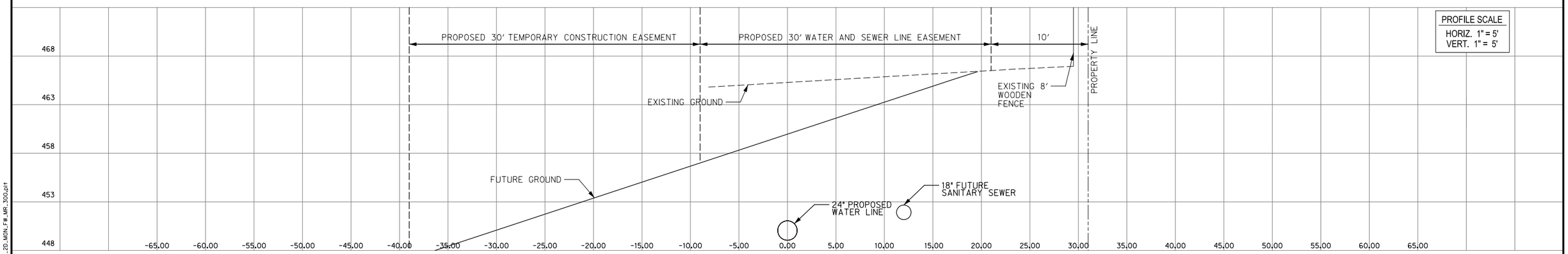

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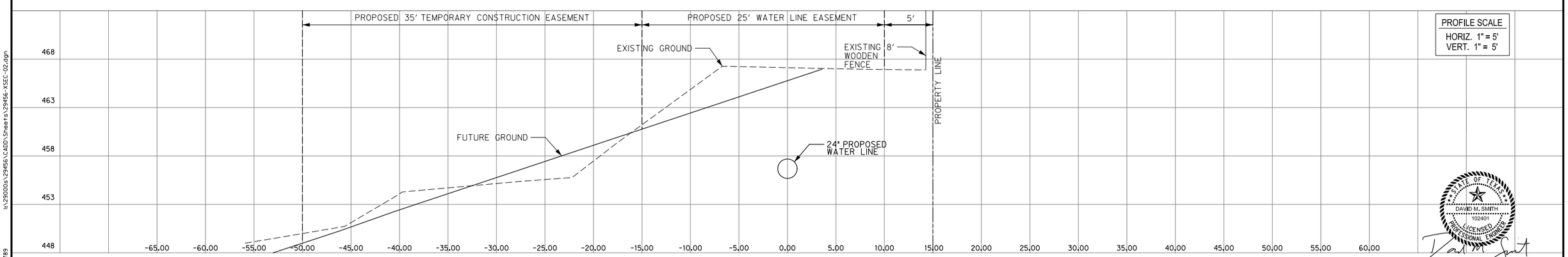

SECTION 11+00

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09-15-2017

LEWISVILLE
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ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: CROSS SECTIONS
WATER LINE "A"
STA 11+00 TO STA 17+00

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SHEET 89 OF 106

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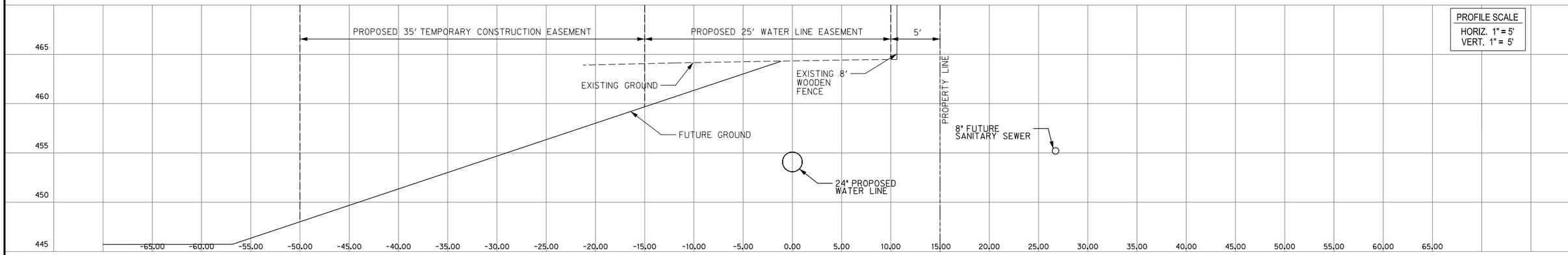

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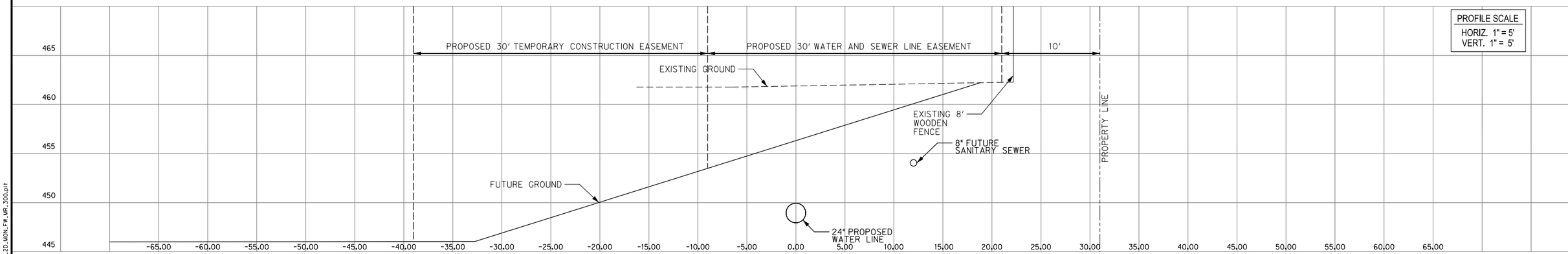

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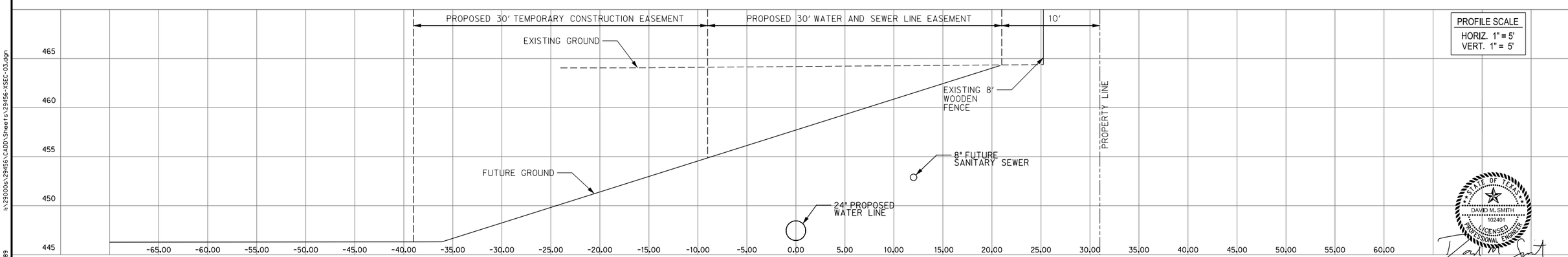

SECTION 20+00

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LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
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CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: CROSS SECTIONS
WATER LINE "A"
STA 20+00 TO STA 26+00

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SHEET 90 OF 106

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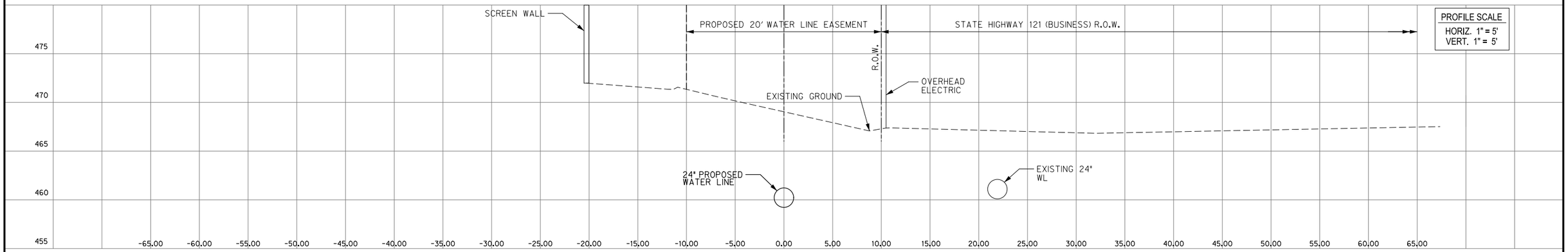

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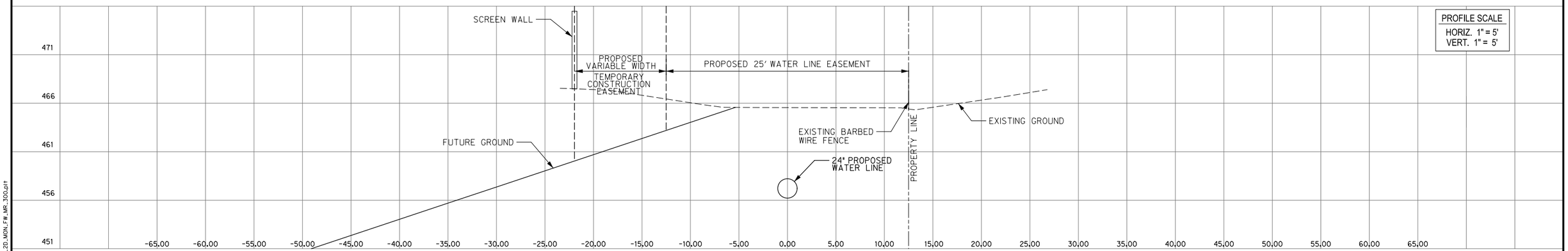

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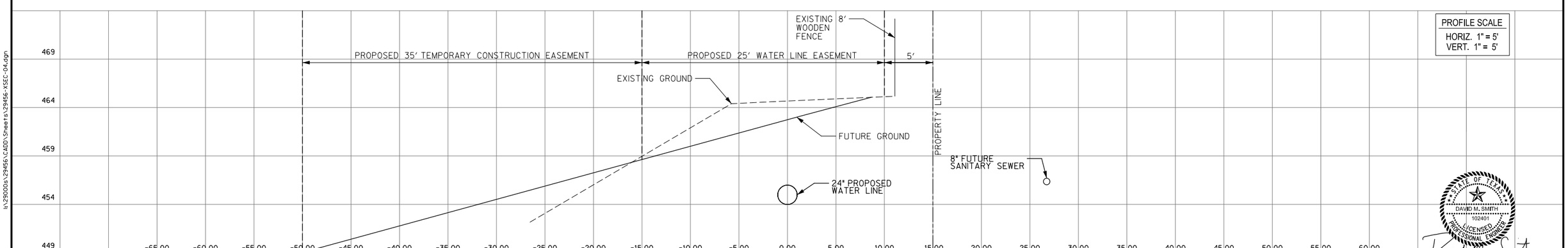

SECTION 29+00

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: CROSS SECTIONS
WATER LINE "A"
STA 29+00 TO STA 35+00

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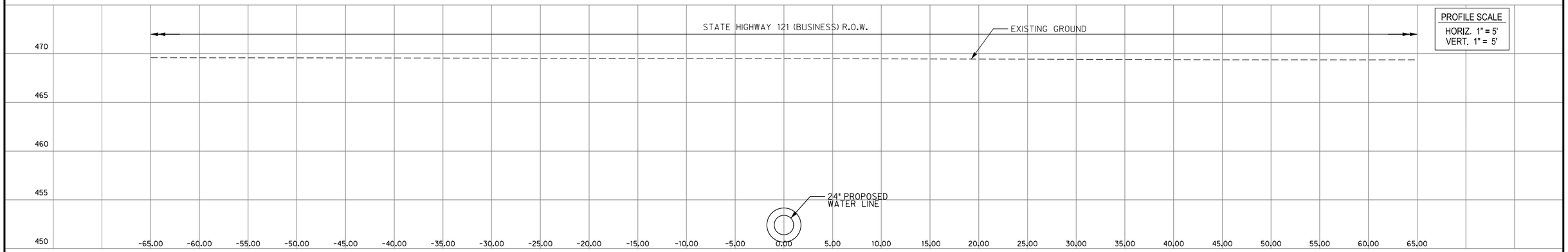
DATE: SEPTEMBER 2017

SHEET 91 OF 106



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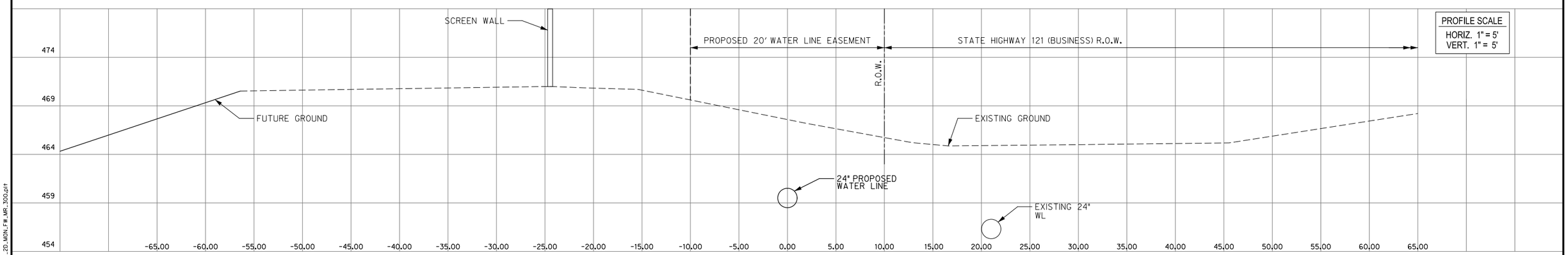

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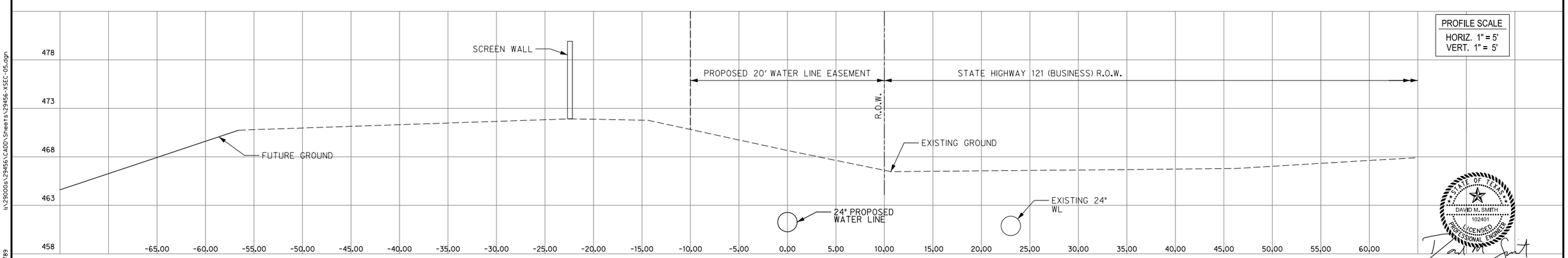

SECTION 38+00

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CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: CROSS SECTIONS
WATER LINE "A"
STA 38+00 TO STA 44+00

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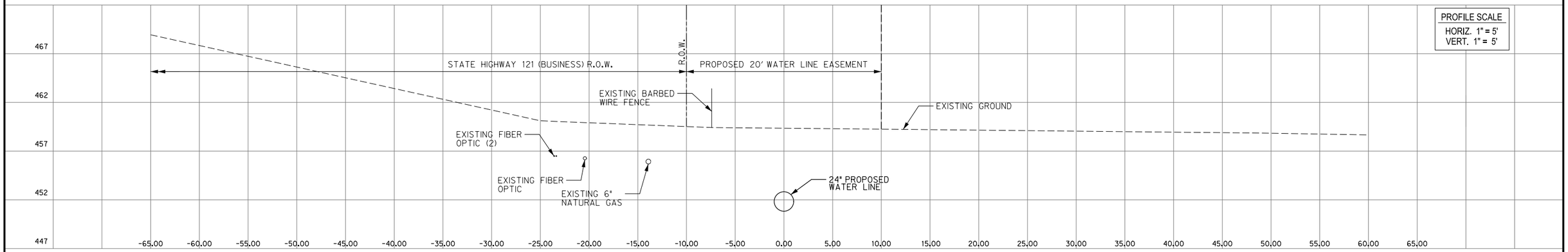
SHEET 92 OF 106



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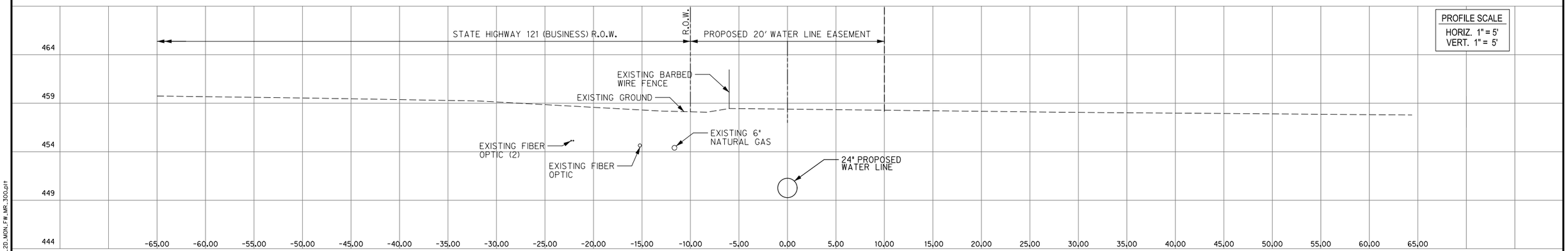

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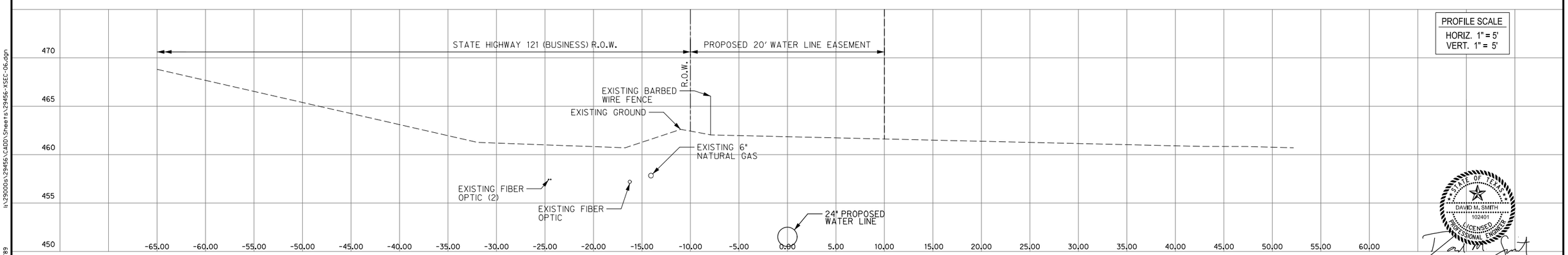

SECTION 47+00

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: CROSS SECTIONS
WATER LINE "A"
STA 47+00 TO STA 53+00

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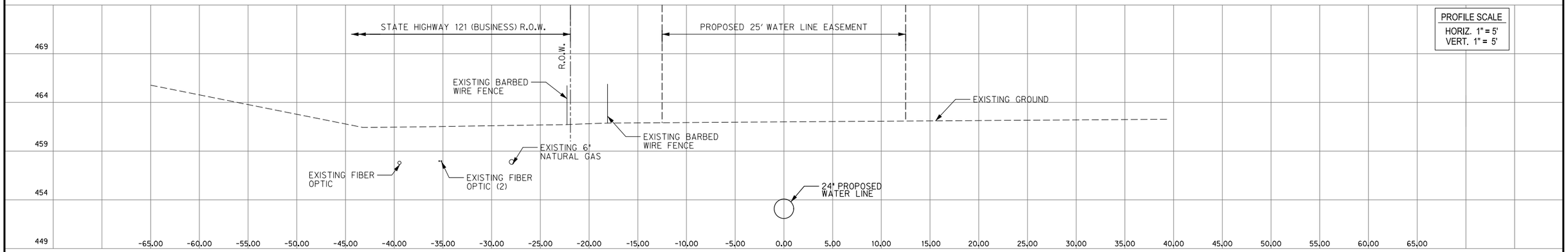

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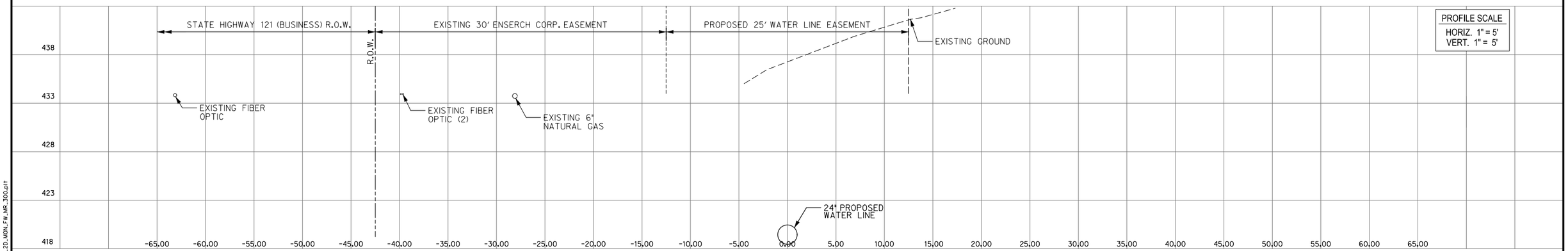

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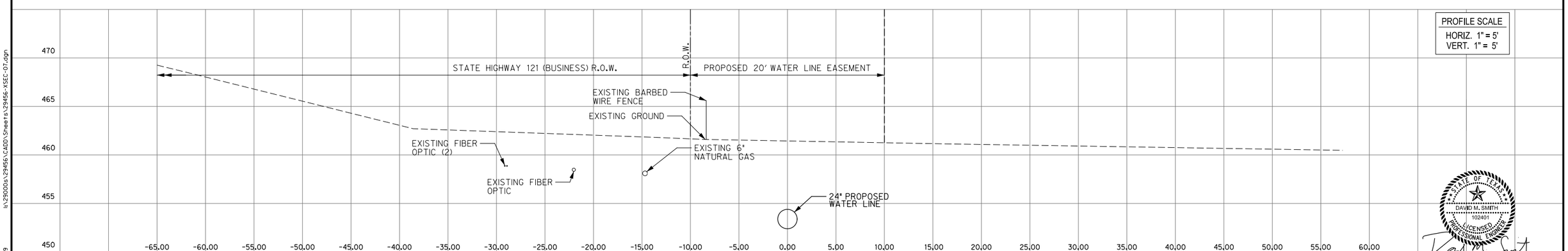

SECTION 56+00

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09-15-2017

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: CROSS SECTIONS
WATER LINE "A"
STA 56+00 TO STA 61+00

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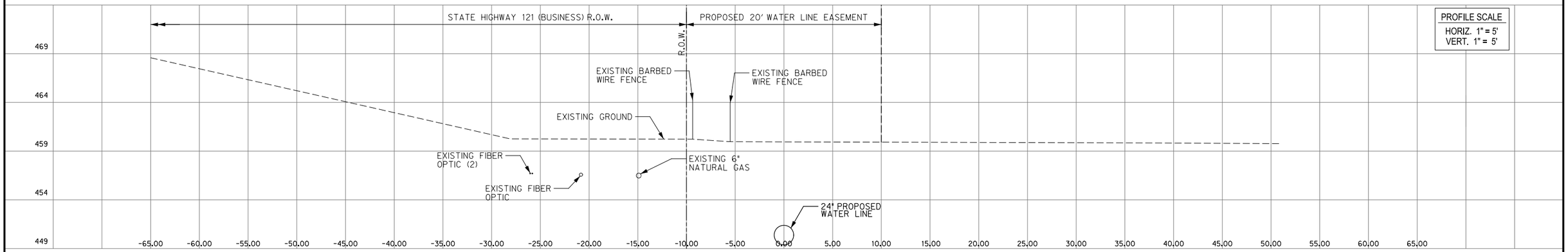

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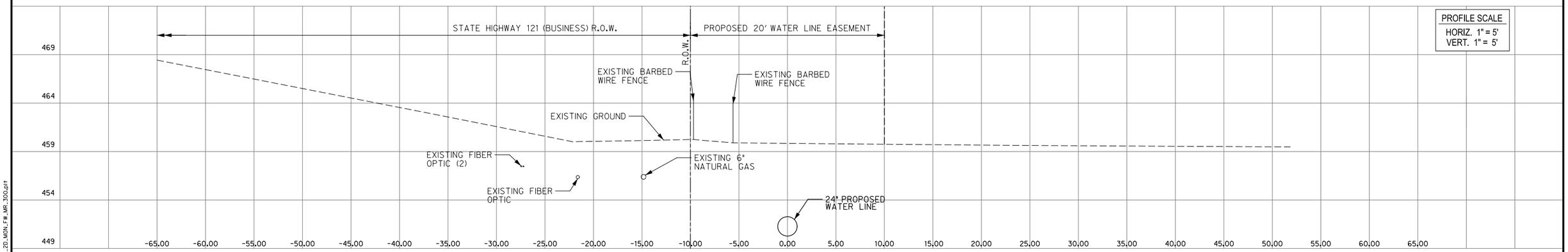

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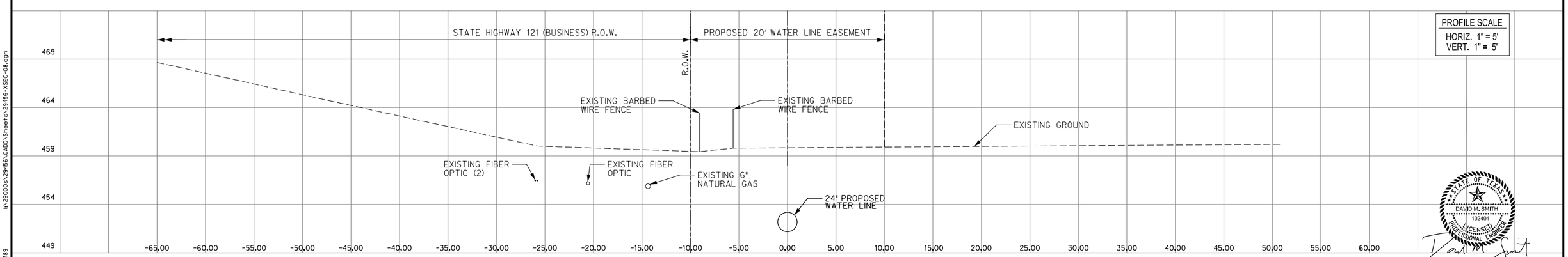

SECTION 65+00

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09-15-2017

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PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: CROSS SECTIONS
WATER LINE "A"
STA 65+00 TO STA 71+00

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SHEET 95 OF 106

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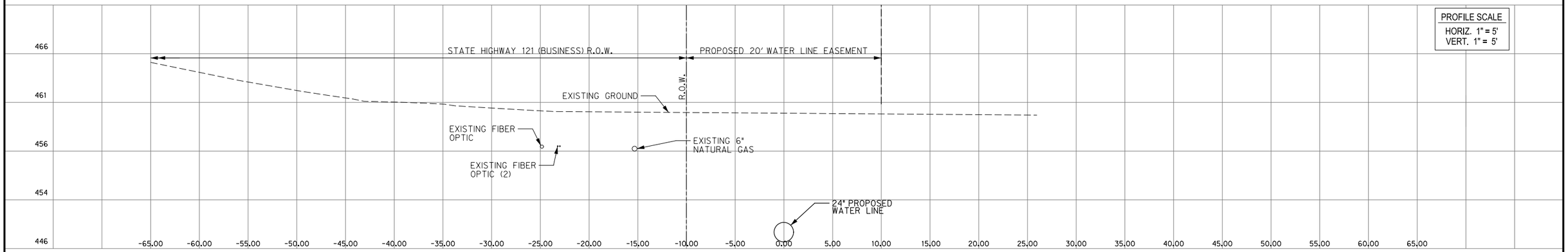

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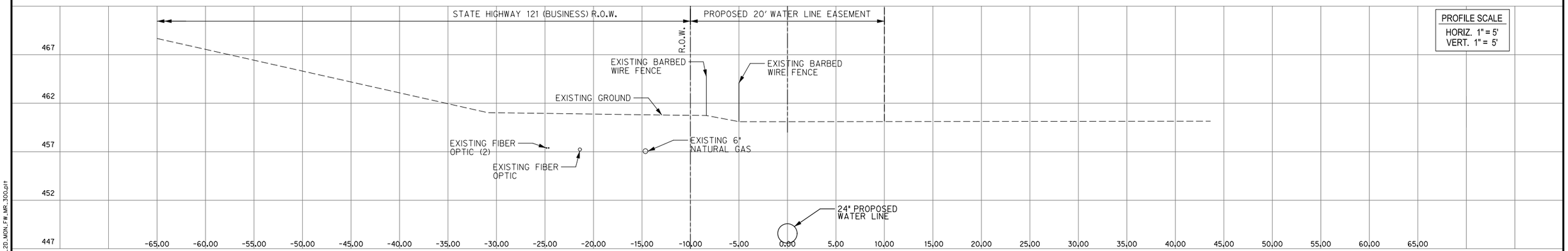

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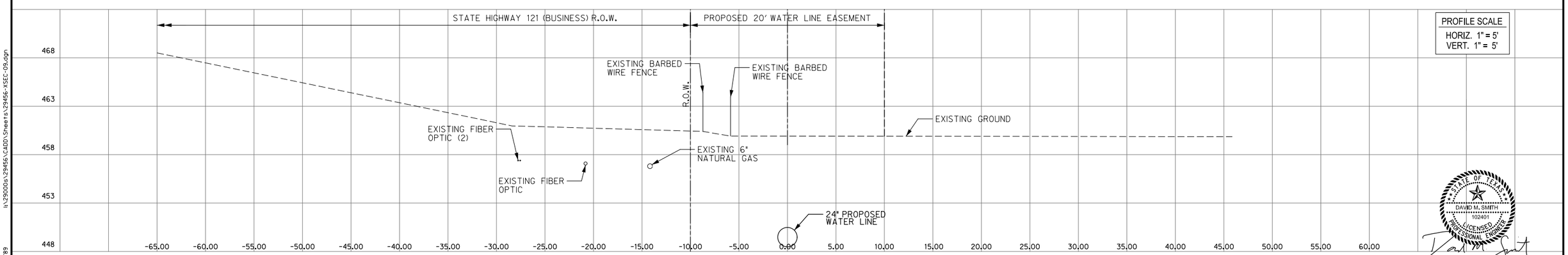

SECTION 74+00

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09-15-2017

LEWISVILLE
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ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE
24-INCH WATER LINE

SHEET TITLE
CROSS SECTIONS
WATER LINE "A"
STA 74+00 TO STA 80+00

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4000 FOSSIL CREEK BLVD
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SHEET 96 OF 106

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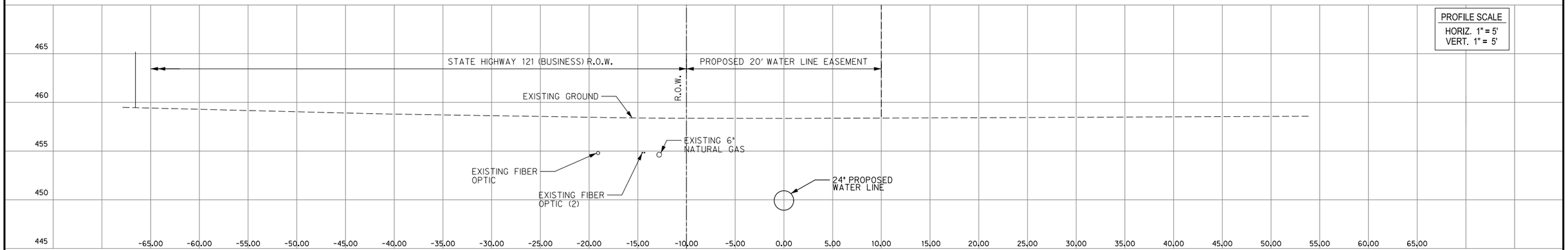

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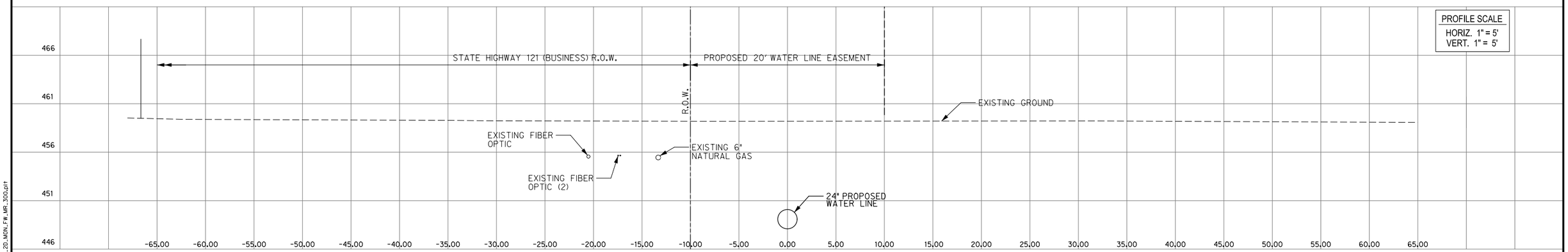

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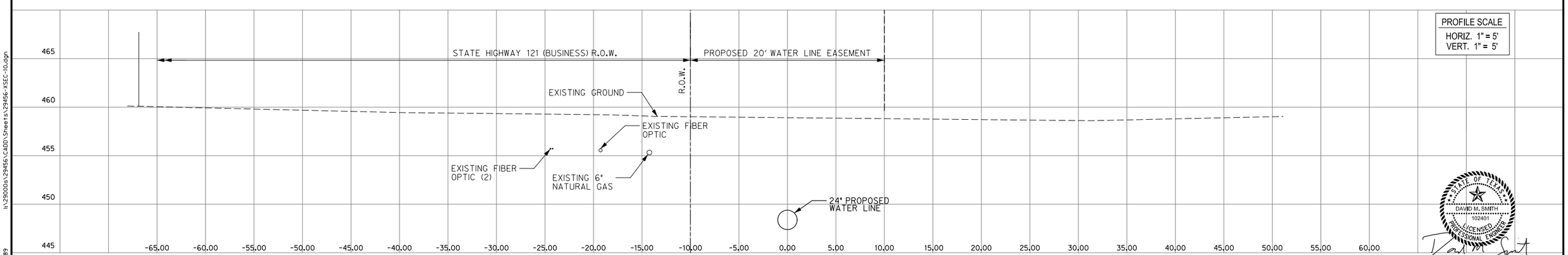

STATE OF TEXAS
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09-15-2017

SECTION 83+00

LEWISVILLE
Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: CROSS SECTIONS
WATER LINE "A"
STA 83+00 TO STA 89+00

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4000 FOSSIL CREEK BLVD
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DATE: SEPTEMBER 2017

SHEET 97 OF 106

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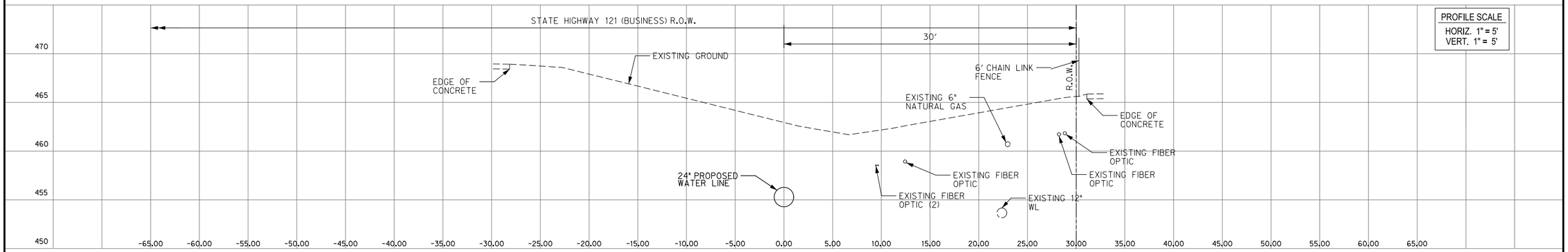
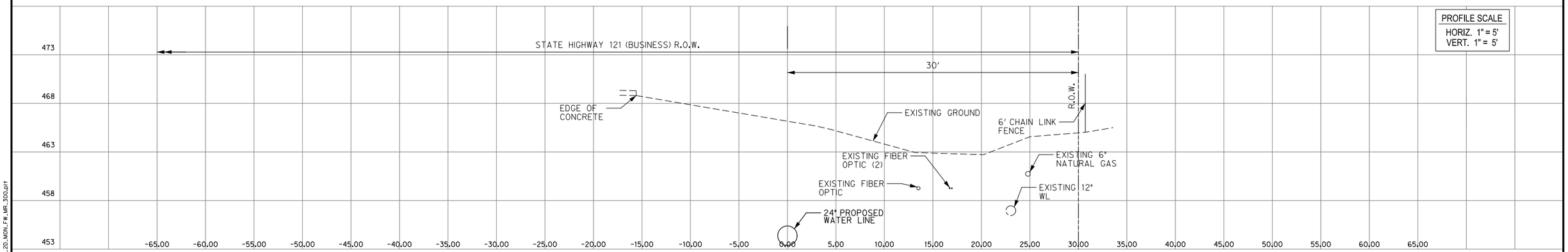


SECTION 98+00



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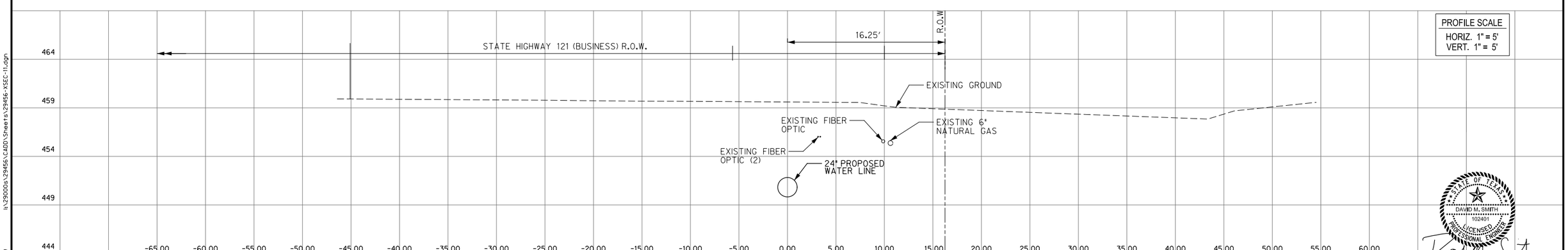

SECTION 92+00

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots. Broad Wings. Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: CROSS SECTIONS
WATER LINE "A"
STA 92+00 TO STA 98+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

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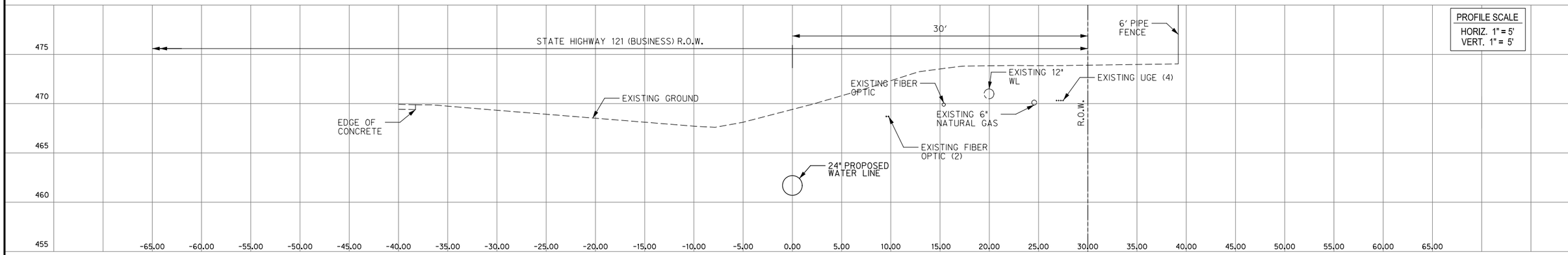

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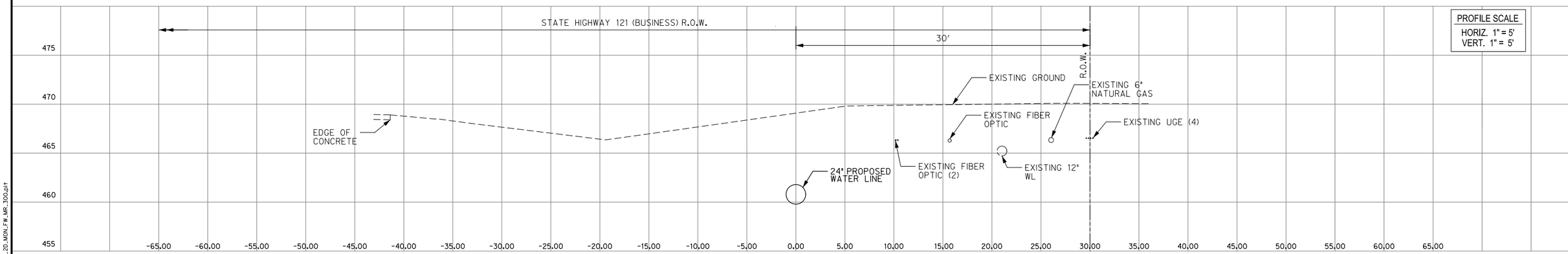
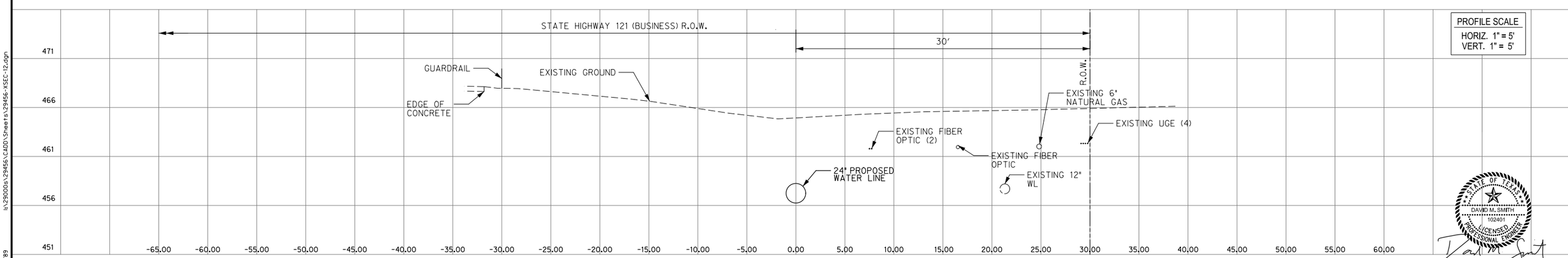


SECTION 104+00



SECTION 101+00

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots. Broad Wings. Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: CROSS SECTIONS
WATER LINE "A"
STA 101+00 TO STA 107+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 99 OF 106

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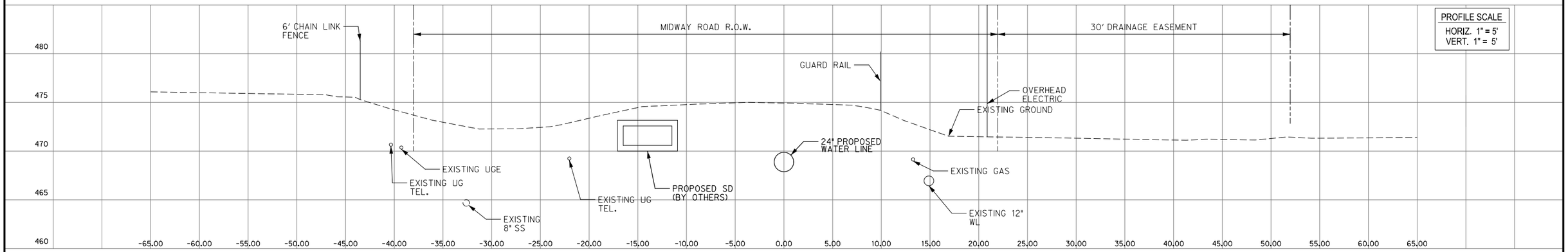

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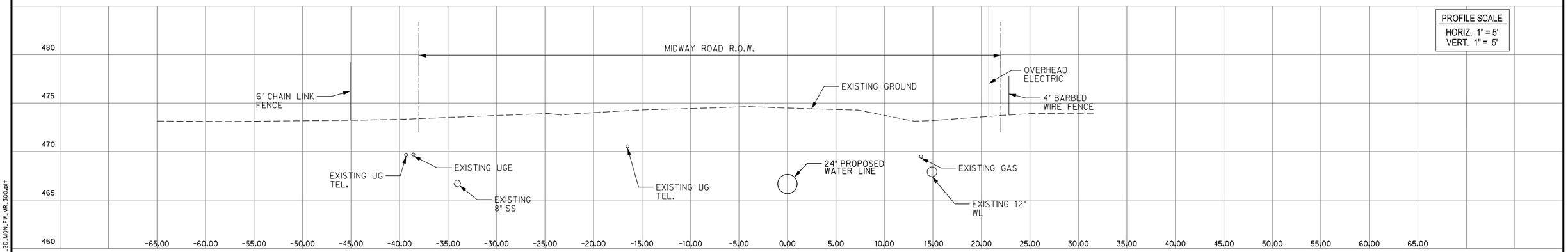

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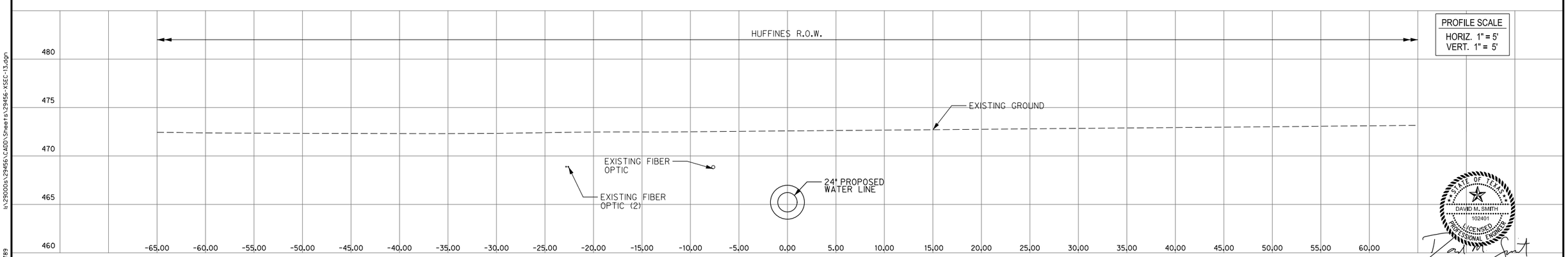


SECTION 110+00

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots. Broad Wings. Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

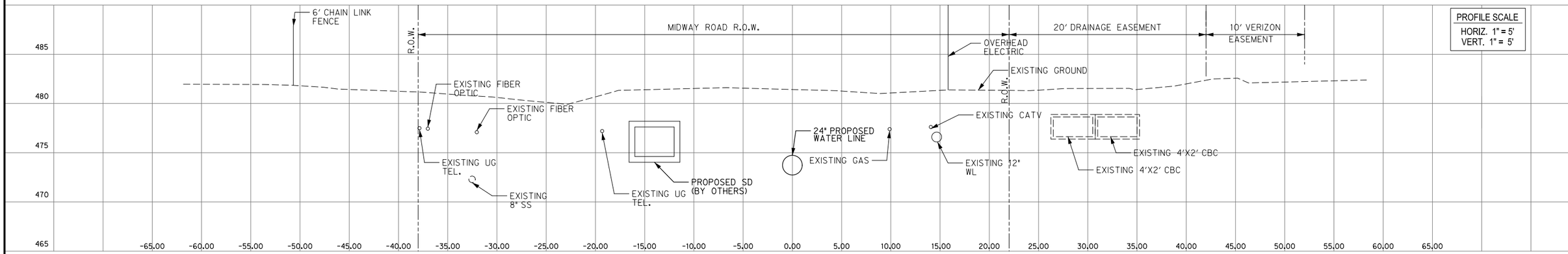
PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: CROSS SECTIONS
WATER LINE "A"
STA 110+00 TO STA 116+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 100 OF 106



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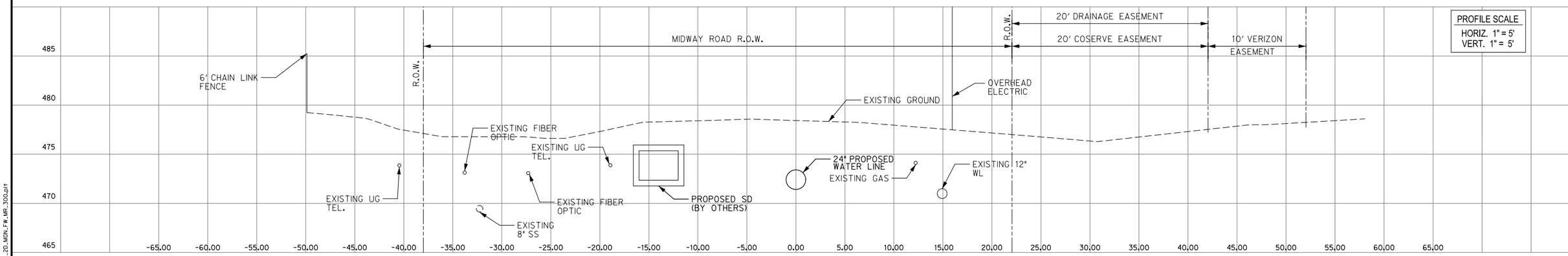

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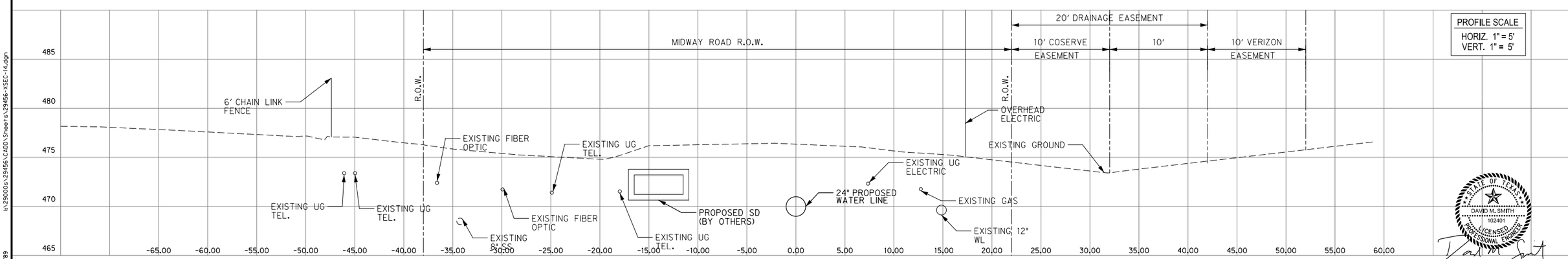

SECTION 119+00

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED
PROFESSIONAL ENGINEER

09-15-2017

LEWISVILLE
Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: CROSS SECTIONS
WATER LINE "A"
STA 119+00 TO STA 125+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

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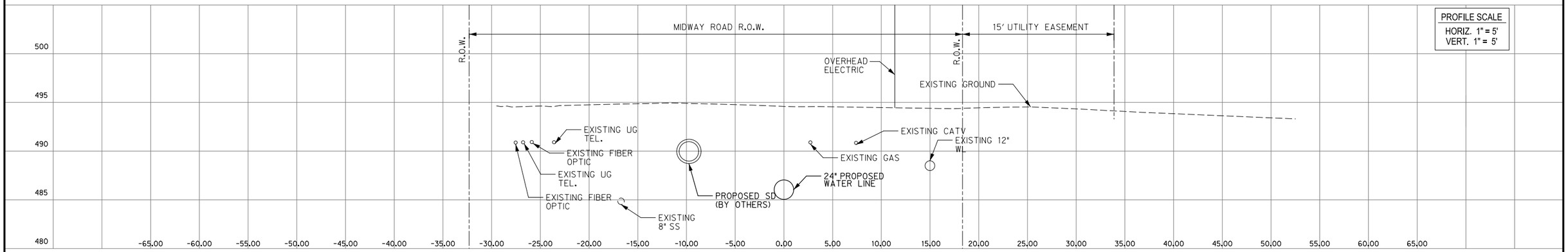

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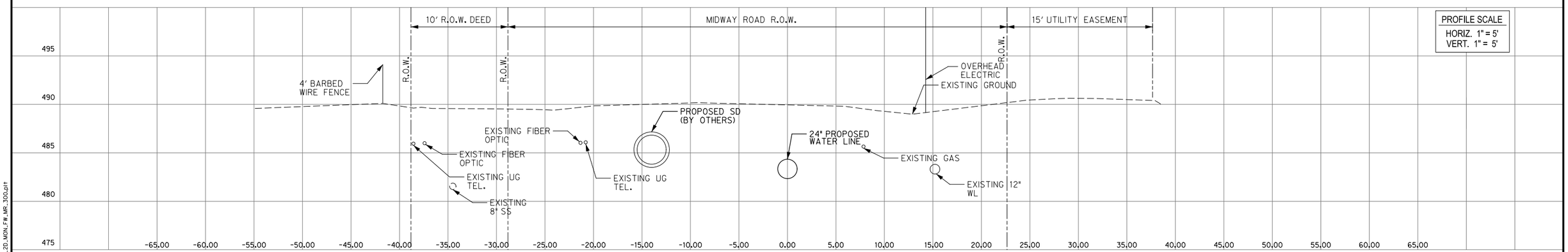

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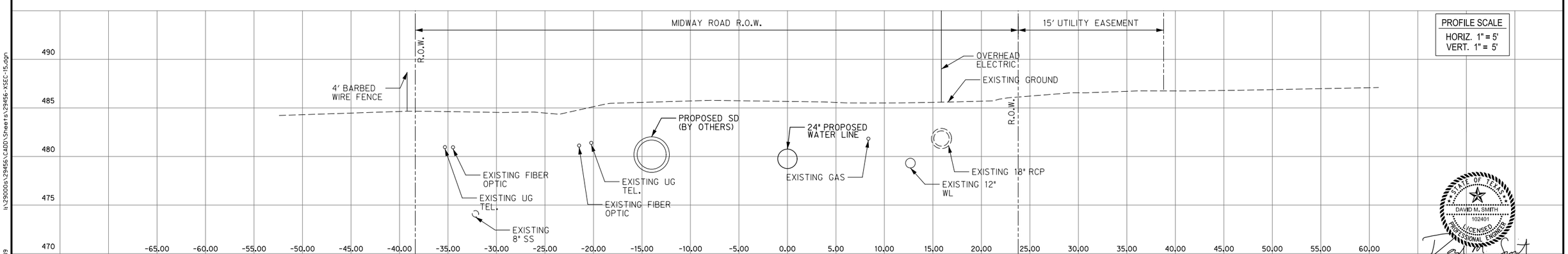

SECTION 128+00

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: CROSS SECTIONS
WATER LINE "A"
STA 128+00 TO STA 134+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 102 OF 106

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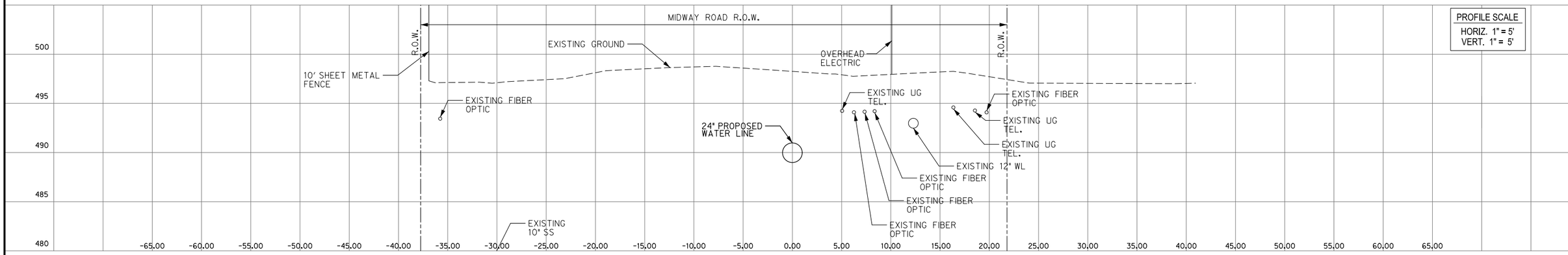

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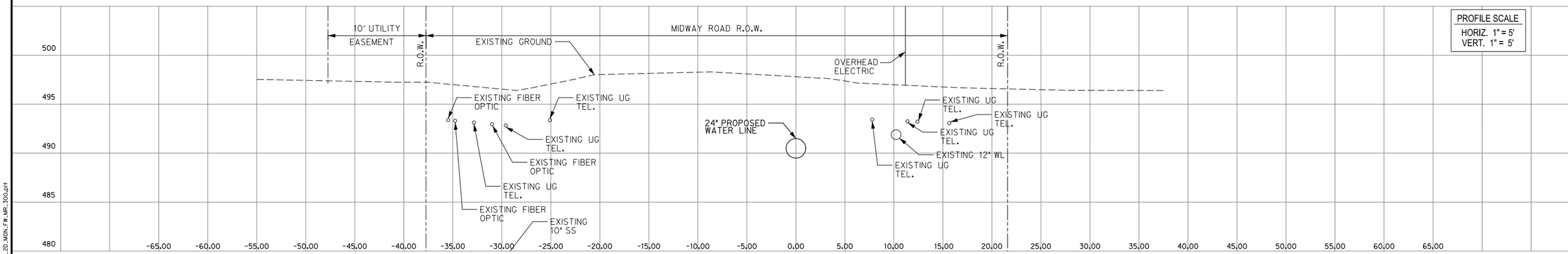

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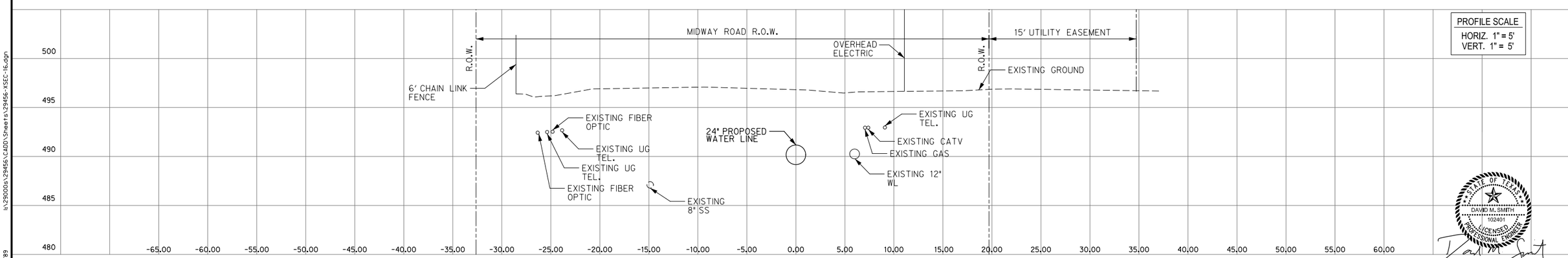

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

SECTION 137+00

LEWISVILLE
Deep Roots. Broad Wings. Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE
24-INCH WATER LINE

SHEET TITLE
CROSS SECTIONS
WATER LINE "A"
STA 137+00 TO STA 143+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE
SEPTEMBER 2017

SHEET 103 OF 106

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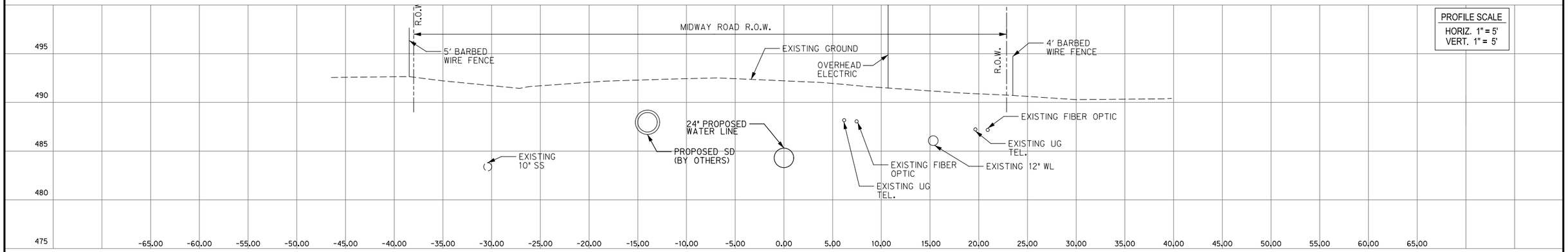

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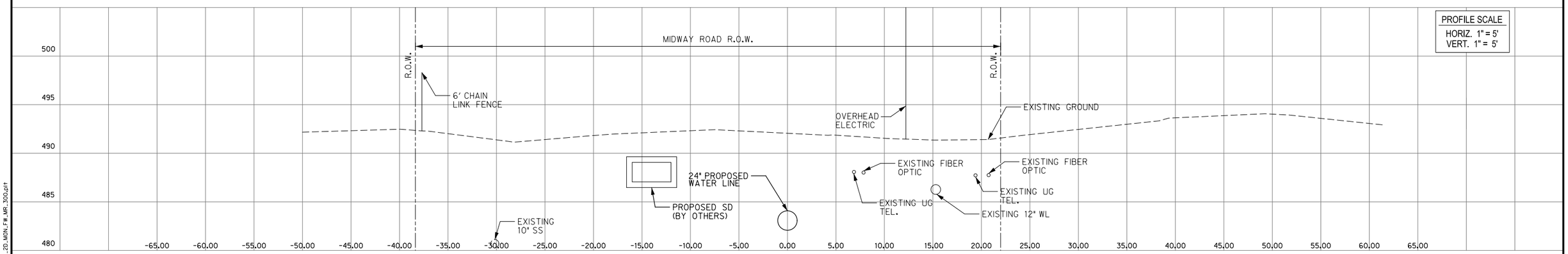

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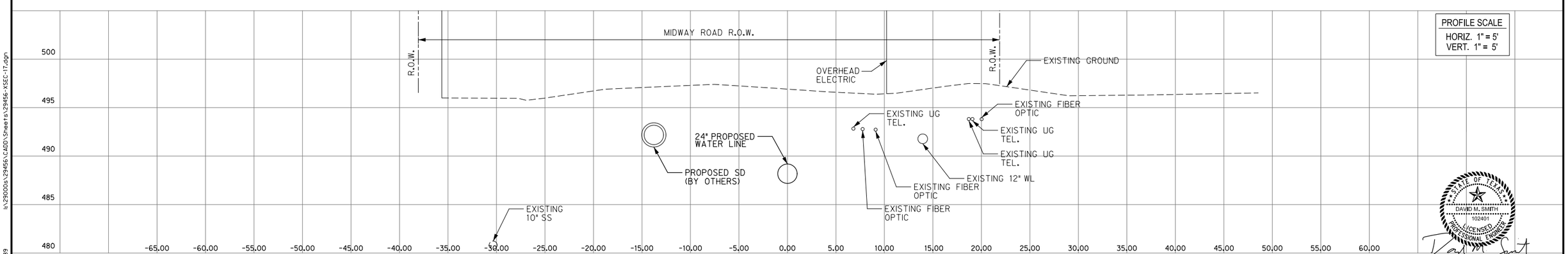

SECTION 146+00

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots. Broad Wings. Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: CROSS SECTIONS
WATER LINE "A"
STA 146+00 TO STA 152+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 104 OF 106

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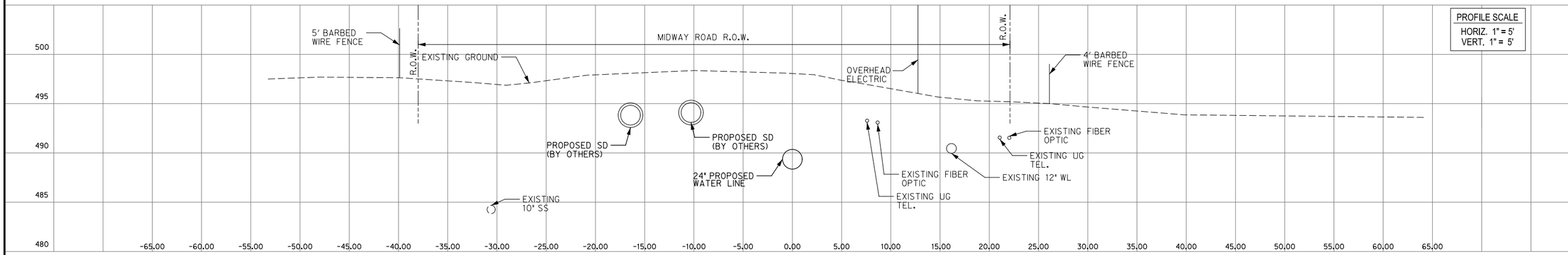

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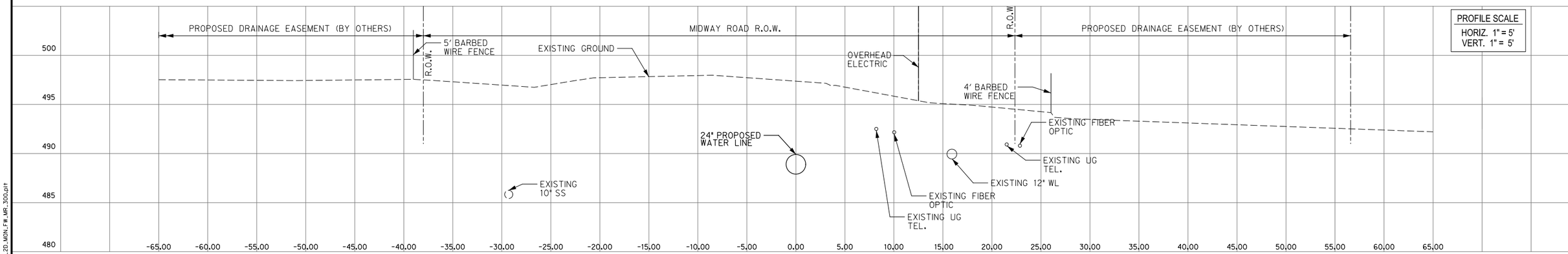

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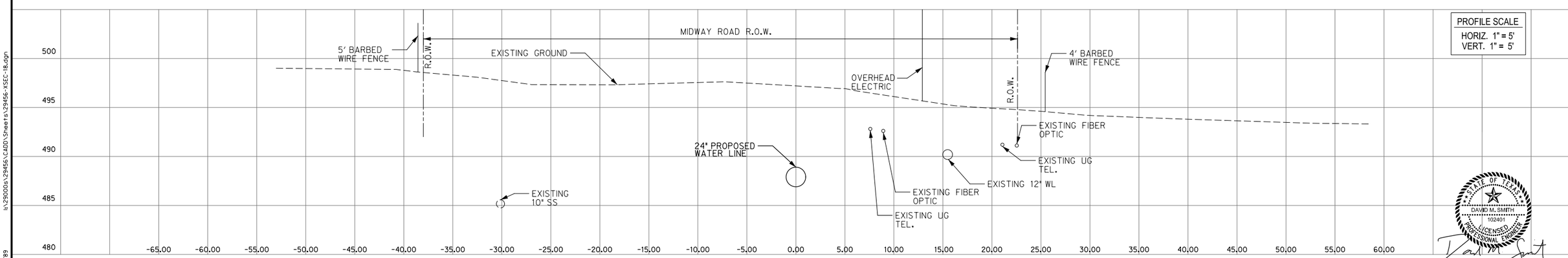


STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

SECTION 155+00

LEWISVILLE
Deep Roots. Broad Wings. Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

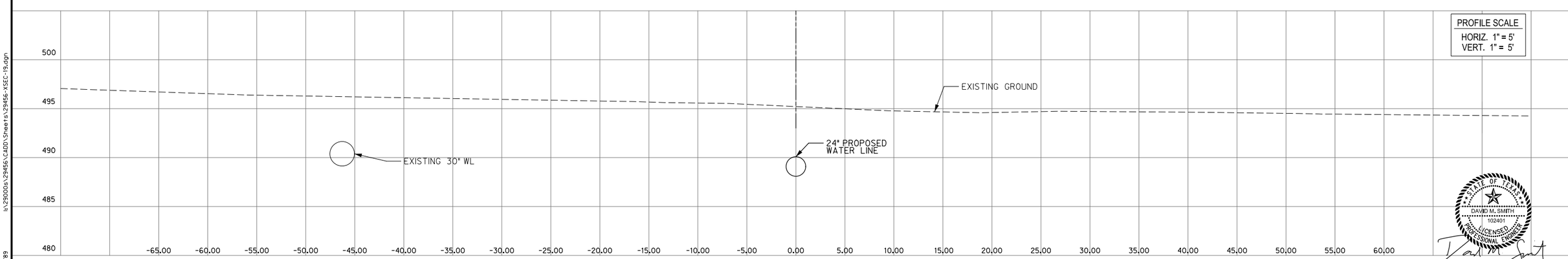
PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: CROSS SECTIONS
WATER LINE "A"
STA 155+00 TO STA 161+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 105 OF 106



SECTION 164+00

STATE OF TEXAS
DAVID M. SMITH
102401
LICENSED PROFESSIONAL ENGINEER
09-15-2017

LEWISVILLE
Deep Roots, Broad Wings, Bright Future.

ENGINEERING DIVISION
CITY OF LEWISVILLE

PROJECT TITLE: 24-INCH WATER LINE

SHEET TITLE: CROSS SECTIONS
WATER LINE "A"
STA 164+00

HALFF
4000 FOSSIL CREEK BLVD
FORT WORTH, TEXAS 76137-2797
TEL (817) 847-1422
FAX (817) 232-9784
TBPE FIRM #F-312

DATE: SEPTEMBER 2017

SHEET 106 OF 106

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9/15/2017

EXHIBIT C

Bidder: S & J Construction Co., Inc. dba
Jerry Allen Smith Construction Co., Inc.
P. O. Box 5003
Jacksonville, AR 72078
Texas Charter No: 00093422-06

Bid: S.H. 121 Business 24-Inch Waterline
Bid No.: U1305
Bid Opening Location: Attn: Purchasing Division
151 W. Church St.
Lewisville, TX 75057
Bid Opening Date & Time: 10-12-2017 @ 2:00PM

Addendum #1 (10-4-17) [illegible]
" #2 (10-9-17) [illegible]

10/12/17
Received
1:29 p.m.

RECEIVED
OCT 12 2017
FINANCE

SPECIFICATIONS AND CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF

S.H. 121 BUSINESS 24-INCH WATERLINE

PROJECT NO. U1305

LEWISVILLE

Deep Roots. Broad Wings. Bright Future.

DEPARTMENT OF COMMUNITY DEVELOPMENT

ENGINEERING DIVISION

OCTOBER 2017

STATE OF TEXAS
MANJULA KRISHNAMURTHY
96701
LICENSED
PROFESSIONAL ENGINEER

09/25/17

THE AMERICAN INSTITUTE OF ARCHITECTS

AIA Document A310

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we S & J Construction Co, Inc.

as Principal, hereinafter called the Principal, and Travelers Casualty and Surety Company of America

a corporation duly organized under the laws of the State of Connecticut
as Surety, hereinafter called the Surety, are held and firmly bound unto City of Lewisville, Texas

as Obligee, hereinafter called the Obligee, in the sum of Five Percent of Bid (5% of Bid), for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for S.H. 121 Business 24-Inch Water Line Project No. U1305

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this 12th day of October, 2017.

C Bullock
(Witness) CHRIS BULLOCK

S & J Construction Co, Inc.
(Principal)

(Title) Jerry Smith, President

Travelers Casualty and Surety Company of America
(Surety) *(Seal)*

(Witness)

David F. Feild, Attorney-in-fact *(Title)*

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

TRAVELERS

POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 231960

Certificate No. 007323812

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Steven C. Russell, David F. Feild, Karen J. Payne, Sherry L. Burgener, Jack Ramer, Bradley D. Johnson, and Ryan McClafferty

of the City of Little Rock, State of Arkansas, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 8th day of August, 2017.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

State of Connecticut
City of Hartford ss.

By: _____
Robert L. Raney, Senior Vice President

On this the 8th day of August, 2017, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.
My Commission expires the 30th day of June, 2021.

MARIE C. TETREAULT NOTARY PUBLIC CONNECTICUT

Marie C. Tetreault
Marie C. Tetreault, Notary Public

58440-5-16 Printed in U.S.A.

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 12th day of October, 20 17.

Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.

The State of Texas

Secretary of State

CERTIFICATE OF AUTHORITY

OF

S & J CONSTRUCTION CO., INC.
CHARTER NUMBER 00093422

THE UNDERSIGNED, AS SECRETARY OF STATE OF THE STATE OF TEXAS, HEREBY CERTIFIES THAT THE ATTACHED APPLICATION OF THE ABOVE ENTITY FOR A CERTIFICATE OF AUTHORITY TO TRANSACT BUSINESS IN THIS STATE HAS BEEN RECEIVED IN THIS OFFICE AND IS FOUND TO CONFORM TO LAW.

ACCORDINGLY THE UNDERSIGNED, AS SUCH SECRETARY OF STATE, AND BY VIRTUE OF THE AUTHORITY VESTED IN THE SECRETARY BY LAW, HEREBY ISSUES THIS CERTIFICATE OF AUTHORITY TO TRANSACT BUSINESS IN THIS STATE FROM AND AFTER THIS DATE, FOR THOSE PURPOSES SET FORTH IN THE APPLICATION, UNDER THE NAME OF

JERRY ALLEN SMITH CONSTRUCTION CO., INC.

DATED NOV. 16, 1992

EFFECTIVE NOV. 16, 1992

John Hannah Jr
Secretary of State

Corporations Section
P.O.Box 13697
Austin, Texas 78711-3697

Rolando B. Pablos
Secretary of State

Office of the Secretary of State

Certificate of Fact

The undersigned, as Secretary of State of Texas, does hereby certify that the document, Application For Certificate Of Authority for S & J CONSTRUCTION CO., INC., authorized under the name JERRY ALLEN SMITH CONSTRUCTION CO., INC. (file number 9342206), a ARKANSAS, USA, Foreign For-Profit Corporation, was filed in this office on November 16, 1992.

It is further certified that the entity status in Texas is in existence.

In testimony whereof, I have hereunto signed my name officially and caused to be impressed hereon the Seal of State at my office in Austin, Texas on July 12, 2017.

Rolando B. Pablos
Secretary of State

S & J CONSTRUCTION CO. INC.
P. O. Box 5003
Jacksonville, AR 72078

Jerry Smith
President

Office 501-985-2111
Fax 501-982-6750
Email: sandjconstr@aol.com

CORPORATE RESOLUTION

RESOLVED, that the President, Jerry Smith, is authorized by the By-Laws of the Corporation to sign and execute any documents or contacts and control all of the business and affairs of the corporation.

I, Karen Linder, Secretary of S & J Construction Co., Inc. incorporated under the laws of the State of Arkansas hereby certify that the foregoing is a true copy of a resolution duly adopted by the Board of Directors of said Corporation at a meeting duly held the 1st day of October, 1986, at which a quorum was present and voting, and that the same has not been repealed or amended and remains in full force and effect.

Date: October 12, 2017

BY: _____
Karen Linder, Secretary

Seal

S & J Construction Co., Inc.

P. O. Box 5003
Jacksonville, AR 72078

Jerry Smith, President
Email sandjconstr@aol.com

Phone 501-985-2111
Fax 501-982-6750

Arkansas has no law that provides a preference to Arkansas resident contractors over out of state contractors for bids on construction contracts.

Jerry Smith, President

Office Location ~ 1014 S. Redmond Rd., Jacksonville, AR 72076

Subject: **preference law for construction bids**
From: Vicki Pickering
Date Wednesday, July 16, 2008 9:36 AM
To: sandjconstr@aol.com

Dear Brian,

Based on my knowledge and research, as attorney for the Arkansas Contractors Licensing Board, there is no law in Arkansas that provides a preference for bids by Arkansas residents on construction projects.

Arkansas Code Ann. § 19-11-259 does not apply to actual construction bids. That statute is found in the Arkansas Purchasing Law and sets out a procedure for the awarding of bids when state agencies need to purchase commodities.

If you need anything further, please do not hesitate to contact me.

Sincerely,

Vicki M. Pickering
Attorney
Arkansas Contractors Licensing Board
4100 Richards Road
North Little Rock, Arkansas 72117
(501) 371-1504

As Engrossed: 2/26/92

State of Arkansas
78th General Assembly
First Extraordinary Session, 1992
By: Senator Yates

A Bill ACT 9 OF 1992

Call Item 53

SENATE BILL 47

For An Act To Be Entitled

"AN ACT TO AMEND SUBCHAPTER 2 OF CHAPTER 9 OF TITLE 22 OF THE ARKANSAS CODE TO PROVIDE THAT THE BID PREFERENCE FOR ARKANSAS CONTRACTORS SHALL NOT BE APPLICABLE TO CONTRACT BIDS FOR PUBLIC IMPROVEMENTS, OTHER THAN HIGHWAY PROJECTS; AND FOR OTHER PURPOSES."

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF ARKANSAS:

SECTION 1. Subchapter 2 of Chapter 9 of Title 22 of the Arkansas Code is hereby amended by adding at the end thereof a new section to read as follows:

"22-9-211. The three percent (3%) bid preference for Arkansas bidders provided for in this subchapter shall not be applicable with respect to contracts for public improvements, other than highway projects."

SECTION 2. All provisions of this act of a general and permanent nature are amendatory to the Arkansas Code of 1987 Annotated and the Arkansas Code Revision Commission shall incorporate the same in the Code.

SECTION 3. If any provision of this act or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of the act which can be given effect without the invalid provision or application, and to this end the provisions of this act are declared to be severable.

SECTION 4. All laws and parts of laws in conflict with this act are hereby repealed.

SECTION 5. EMERGENCY. It is hereby found and determined by the General

Assembly that the public improvement bid preference for Arkansas bidders creates serious hardship in some instances where the magnitude of the public improvement project is such that the three percent preference results in substantially increased costs to state agencies and institutions and that this act is designed to correct this problem by excepting those exceptionally large contracts from the three percent preference law and should be given effect immediately. Therefore, an emergency is hereby declared to exist and this act being necessary for the preservation of the public peace, health and safety shall be in full force and effect from and after its passage and approval.

/s/Sen. Yates

APPROVED: 3-2-92

State
of
Arkansas
CONTRACTORS LICENSING BOARD

April 6, 2006

4100 Richards Road
North Little Rock, Arkansas 72117
501/372-4661
Fax 501/372-2247

To Whom It May Concern:

To my knowledge Arkansas does not have any type of preference law for construction projects. It is my understanding that in the past Arkansas did have such a law but all preferences were repealed in the early 1990's.

If you have any questions, please do not hesitate to contact my office.

Very truly yours,

Gregory L. Crow
Attorney
Arkansas Contractors Licensing Board

GLC/ rkg

CITY OF LEWISVILLE
S.H. 121 BUSINESS 24-INCH WATERLINE
PROJECT NO. U1305
BID NUMBER 17-50-C

ADDENDUM NO. 1
October 4, 2017

The bid document for S.H. Business 24-inch Water Line, for which bids are due October 12, 2017, is hereby amended as follows:

1. As a clarification, the construction contract duration is 730 consecutive calendar days.
2. As a clarification, if you have any questions regarding the project, please contact Manjula Krishnamurthy, P.E. at 972-219-3458 (mkrishnamurthy@cityoflewisville.com) before 10:00 am on October 9, 2017. The bidders can contact the office of the City Engineer within **72** hours prior to the bid opening to determine information about all addenda.

Revised pages T-1, P-10 to P-17 and SF-1 are attached hereto and shall be used for submission of your bid. Bidders are advised to acknowledge receipt of Addendum No. 1 by filling in the appropriate blanks contained in the Proposal and the outer envelope of their bid.

Sincerely,

Manjula Krishnamurthy, P.E.

CITY OF LEWISVILLE
S.H. 121 BUSINESS 24-INCH WATERLINE
PROJECT NO. U1305
BID NUMBER 17-50-C

ADDENDUM NO. 2
October 9, 2017

The bid document for S.H. Business 24-inch Water Line, for which bids are due October 12, 2017, is hereby amended as follows:

1. As a clarification, the DIP shall be pressure class 200.
2. As a clarification, the valves shall have flange joints with 304 stainless steel bolts including the isolation kit including sleeves and washers for corrosion protection.
3. As a clarification, the DIP pipe inside the steel encasement shall be restrained.

Bidders are advised to acknowledge receipt of Addendum No. 2 by filling in the appropriate blanks contained in the Proposal and the outer envelope of their bid.

Sincerely,

Manjula Krishnamurthy, P.E.

PROPOSAL

City of Lewisville
Purchasing Office
151 West Church Street
P.O. Box 299002
Lewisville, Texas 75029-9002

S.H. 121 BUSINESS 24-INCH WATER LINE
PROJECT NO. U1305

Proposal of S&J Construction CO, Inc.
(hereinafter called Bidder), a corporation organized and existing under the laws of the State of Arkansas, ~~a partnership~~, or an ~~individual doing business~~ as

_____

(Strike out inapplicable terms).

To the City of Lewisville, Texas (Owner)

The undersigned Bidder, in response to the Notice to Bidders for the construction of the above project and in conformity with the bidding documents; having examined the plans, specifications, related documents and the site of the proposed work; being familiar with all of the conditions relating to the construction of the proposed project, including the availability of materials and labor, hereby proposes to furnish all labor, materials, supplies, equipment, staking, testing, traffic control, superintendence, etc., for the construction of the project in accordance with the plans, specifications, and contract documents at the unit prices proposed herein.

The undersigned Bidder proposes, acknowledges and agrees to construct the entire project as shown on the plans, fully in accordance with the requirements of the plans, specifications, and the contract documents for the prices included in this Proposal and fully understands and agrees that the various items of material, labor and construction not specifically enumerated and provided for herein are considered subsidiary to the several items for which direct payment is specifically provided. Further, the undersigned agrees that one such subsidiary item is the protection, adjustment, maintenance, repair or replacement of all underground lines and services, whether shown on the plans or not, all to the full satisfaction of the City Engineer in a timely manner.

The undersigned Bidder agrees to begin work under the contract on or before the date specified in the written Notice to Proceed, and to fully complete the project within **730 calendar days**. It is specifically stated and understood that the entire construction including clean up shall be completed within the above stated time.

The undersigned Bidder has contacted, within 72 hours prior to the bid opening, the Office of the City Engineer (972) 219-3490, and has determined that all Addenda are as follows:

Addendum No. 1 dated 10-4-17 (Signature) Jerry Smith

Addendum No. 2 dated 10-9-17 (Signature) JERRY SMITH

Addendum No. 3 dated _____ (Signature)

The undersigned Bidder acknowledges that the Owner reserves the right to waive any informality and to reject any or all proposals.

The undersigned Bidder acknowledges and agrees that this Proposal shall be good and may not be withdrawn for 60 days from the date of bid opening.

The undersigned Bidder has shown unit prices and amounts and agrees that in the case of discrepancy, the unit prices shown in figures shall stand and that the amounts and total will be adjusted to correspond to the unit prices shown.

ATTN PAT FLOWERS SR.

PROPOSAL:

S.H. 121 BUSINESS 24-INCH WATER LINE
Project No. U1305

Item No.	Description	Unit	Quantity	Unit Price	Amount
1.	Start-Up (Mobilization, Bonds, Insurance, Move-In, Sanitary Facilities, etc.) Note: This item may not exceed 5% of the Sub Total Bid Amount	LS	1	$ 116,100.00	$ 116,100.00
2.	Traffic Control Including Barriers, Barricades, Detour Signs, Temporary Traffic Control, etc.	LS	1	$ 60,000.00	$ 60000.00
3.	Prepare Right-of-Way (General Site Preparation and Removal of Unsuitable Material)	STA	164	$ 329.50	$ 54,038.00
4.	Trench Safety for Water Lines	LF	16,111	$ 2.00	$ 32,222.00
5.	Sawcut, Remove and Replace 8-inch Concrete Pavement Including Curb	SY	28	$ 345.00	$ 9,660.00
6.	Sawcut, Remove and Replace 6-inch Concrete Driveways	SY	66	$ 175.00	$ 11,550.00
7.	Sawcut, Remove and Replace Asphalt Pavement (Temporary 3-inch Type "B")	SY	3,520	$ 55.00	$ 193,600.00
8.	Emergency Access Panel: Remove and Replace Two Wood Privacy Fence Panels and One Post Under Emergency Situations	EVT	1	$ 8000.00	$ 8,000.00
9.	Remove and Replace Existing Chain Link Security Fence	LF	30	$ 175.00	$ 5,250.00
10.	Remove and Replace Existing Barbed Wire Fence	LF	2,945	$ 11.00	$ 32,395.00
11.	Remove and Replace Existing Landfill Markers	EA	9	$ 650.00	$ 5,850.00
12.	Erosion Control (SWPPP) and Removal	LS	1	$ 62,173.00	$ 62,173.00
13.	Hydromulch with 4-inch Top Soil	SY	25,325	$ 2.00	$ 50,650.00
14.	Seeding and Soil Retention Blanket with 4-inch Top Soil	SY	38,390	$ 3.00	$ 115,170.00
15.	24-Inch Ductile Iron Water Line by Open Cut	LF	15,700	$ 114.65	$ 1,800,005.00
16.	24-inch Zinc Coated Ductile Iron Water Line in 36" O.D. x 3/8" Thick Wall Steel Casing Pipe By Other Than Open Cut	LF	422	$ 574.35	$ 242,375.70
17.	24-Inch Ductile Iron Pipe Water Line in concrete encasement by Open Cut across Trinity River	LF	300	$ 375.00	$ 112,500.00
18.	48-Inch Diameter, 1/2" Thick Steel Casing Pipe with plugs on both ends by Open Cut	LF	111	$ 483.11	$ 53,625.21

PROPOSAL:

S.H. 121 BUSINESS 24-INCH WATER LINE
Project No. U1305

Item No.	Description	Unit	Quantity	Unit Price	Amount
19.	Remove Plug and Connect to Existing 30" Water Main	EA	1	$ 4529.00	$ 4529.00
20.	Cut-In Tee 30"x24" and Install 30-Inch Butterfly Valve	EA	1	$ ~~37,7~~ P.O. 37,438.00	$ 37,438.00
21.	24-Inch Butterfly Valve	EA	20	$ 10,808.15	$ 216,163.00
22.	6-Inch Blow Off Valve	EA	6	$ 9,123.00	$ 54,738.00
23.	2-Inch Combination Air/Vacuum Valve	EA	9	$ 5,604.70	$ 50,442.30
24.	Large Stone Rock Riprap	CY	895	$ 40.00	$ 35,800.00
25.	Cement Stabilized Sand (CSS) Backfill	CY	450	$ 25.00	$ 11,250.00
26.	Pipeline Marker	EA	10	$ 395.00	$ 3,950.00
27.	Lower Existing Water Main (up to 12-inch) to Avoid Proposed Water Line	EA	3	$ 14,584.00	$ 43,752.00
28.	Trinity River Crossing Measures Including Coffer Dam, Access, Dewatering and Coordination for ARRP	LS	1	$ 140,000.00	$ 140,000.00
29.	Remove and Replace 5-Inch Concrete Riprap	SY	22	$ 192.10	$ 4226.20
30.	Remove and Replace 42-Inch Safety End Treatment	EA	1	$ 2595.00	$ 2595.00
31.	Remove and Replace 2-21-Inch Safety End Treatment	EA	1	$ 2595.00	$ 2595.00

BASE BID $3,572,642.41

* 5% CONTINGENCY $178,632.12

TOTAL AMOUNT BASE BID $3,751,274.53

* "The City will calculate and include a 5% contingency for this project. The contingency will be calculated on the total award (base bid with or without any accepted alternate bid items). A contingency line item will be included with the resulting contract and purchase order for this project. The contingency shall be used at the City's discretion and only upon written approval from the City. The amount listed as a contingency is not an obligation for payment from the City. Any unused contingency is retained by the City and is not payable to the Contractor.

ALL BIDDERS ARE NOTIFIED THAT THE FOLLOWING QUALIFICATION STATEMENT MUST BE COMPLETED AND SUBMITTED WITH THE BID PROPOSAL.

Contractor's Qualifications

The contractor shall show that he has experience with similar projects that require working in confined areas in close proximity to many physical features (fences, utility poles, guy lines, gas lines and meters, sewer manholes and cleanouts etc.) which requires the contractor to plan work efforts and equipment needs with these limitations in mind. The contractor shall submit a list of similar Public Works Projects successfully completed within the last five years. This list shall include the names of supervisors and type of equipment used to perform this work.

BIDDER'S QUALIFICATION STATEMENT

Project: S.H. 121 Business 24 Inch Waterline Project No. U1305

Contractor: S&J Construction CO., Inc

Indicate One: ___ Sole Proprietor ___ Partnership ___ Other
X Corporation ___ Joint Venture

Name: Jerry Smith

Title: President

Address: 1014 S. Redmond Rd. | P.O. BOX 5003

City: Jacksonville

State & Zip: AR 72078

Phone: (501) 985-2111

State and Date of Incorporation, Partnership, Ownership, Etc. AR. 10-1-1986, Corporation

Location of Principal Office: Jacksonville, AR

Contact and Phone at Principal Office: Chris Bulloch, Vice President (501) 985-2111

Liability Insurance Provided and Limits of Coverage: United Fire & Casualty CO.
GL $2,000,000 / $10,000,000 umbrella

Workers Compensation Insurance Provider: Accident Fund

Surety Bonding Company (Performance, Payment, & Maintenance) Travelers Casualty & Surety Co. of America

Insurance Agency Name: Risk Services of Arkansas

Insurance Agency Address: 1501 Mart Drive, Little Rock, AR 72202

Contact Person: David Feild

Phone Number: (501) 666-6653

Total Number of Employees to be Associated with this Job:

___ Managerial 5 Administrative ___ Professional
5 Skilled 5 Semi-Skilled 3 Other

Percentage of Work to be Done by Bidder's Employees (Based on Dollars Bid): 100%

Proposal: S.H. 121 Business 24-Inch Water Line

Project No.: U1305

Type(s) of Work to be Done by Bidder's Employees (Examples: Concrete Paving, Structural Concrete, Water Lines, Sanitary Sewer Lines, Storm Pipe, Storm Inlets, Excavation, Lime, Bridge, Fencing, etc.)

Waterlines, Excavation, Boring, Creek Crossing, Concrete, Hydroseeding Erosion Control

Access to Tools and Equipment: Percent Owned 95% Percent Rented 5%

Number of Years in Business as a Contractor on Above Types of Work: 31

Type(s) of Work to be Done by Sub-Contractors:

Include Name, Address, and Phone Number of Sub-Contractor. (Use Additional Sheets, if needed.)

Type of Work	Sub-Contractor

List your most current completed projects, with information, similar to the type of work bid. (Use Additional Sheets, if necessary.)

Project: Permanent Indirect Potable Reuse System Pipeline

Project Description: 28,109 LF - 36" DIP / 60,881 LF 30" HDPE / Butterfly Valves

Owner/Agency: City of Wichita Falls, Texas

Year Built: 2016-2017 Contract Price: 10,060,618.45

Contact Person: Chad Bartruff P.E. Phone: (817) 332-8727

Project: Rainbow City Water Supply

Project Description: 29,285 LF - 16" DIP, Bridge Crossing, Bores, Water tank, Butterfly Valves

Owner/Agency: Odenville Utility Board

Year Built: 2016 Contract Price: $4,093,868.17

Contact Person: Brent Shepherd, P.E. Phone: (205) 822-0387

Proposal: S.H. 121 Business 24-Inch Water Line Project No.: U1305

Project: Contract A - Sewer Force Main

Project Description: 37,000 LF - 30" PVC Force Main, 840 LF Jack+Bore, 2,000 HDD

Owner/Agency: Consolidated Waterworks Sewerage District No. 1 of the Parish of Bossier

Year Built: 2016 Contract Price: $8,451,207.46

Contact Person: Butch Ford Phone: 318-455-1046

Project: 4th/6th Pressure Plane (Hwy 84)

Project Description: 18,000 LF 24" DIP Waterline

Owner/Agency: City of Waco Texas

Year Built: 2015 Contract Price: $3,576,754.30

Contact Person: Terry Casper Phone: 254-299-2489

Project: North South Transmission Mains - Contract 4

Project Description: 18,000 LF - 18" DIP Waterline, 540 LF Jack+Bore, Butterfly Valves

Owner/Agency: Jacksonville Water Utility (Jacksonville, AR)

Year Built: 2015 Contract Price: $3,000,613.64

Contact Person: Sal Pappalardo Phone: 501-940-3588

Project: Water Transmission Facilities - Contract 2

Project Description: 189,000 LF - 24" DIP, 9,000 LF - 36" DIP, 3500 LF Jack+Bore

Owner/Agency: Lonoke White Public Water Authority

Year Built: 2015 Contract Price: $22,012,296.17

Contact Person: Woody Bryant Phone: 501-941-1021

Proposal: S.H. 121 Business 24-Inch Water Line

Project No.: U1305

Trade References (List Company, Address, Contact Person, and Phone):

① Ronnie Shrader - 501-681-4777 - Southern Pipe - 10504 Maumelle Blvd., North Little Rock, AR 72113

② Steve Barnett - 903-932-6022 - Hayes Pipe & Supply - 1004 W. Cotton ST. Longview, Tx 75604

③ Jeff Peterson - 405-821-3428 - US Pipe - 2 Chase Corporate Dr. Birmingham, AL 35244

Bank References (List Institution, Address, Contact Person, and Phone):

Will Watson - 501-982-4511 - First AR Bank + Trust - 600 W. Main ST., Jacksonville, AR 72076

Claims and Suits (If the answer to any of the questions is yes, please attach details):

Has your organization ever failed to complete any work awarded to it?

NO

Are there any judgments, claims, arbitration proceedings, or suits pending or outstanding against your organization or its officers? NO

Has your organization filed any lawsuits or requested arbitration with regard to construction contracts within the last five years? NO

Within the last five years, has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract?

NO

STATE RECIPROCAL REQUIREMENT

The City of Lewisville, as a governmental agency of the State of Texas, may not award a contract for general construction, improvements, services or public works projects or purchases of supplies, materials, or equipment to a non-resident bidder unless the non-resident's bid is lower than the lowest bid submitted by a responsible Texas resident bidder by the same amount that a Texas resident bidder would be required to underbid a non-resident bidder to obtain a comparable contract in the state in which the non-resident's principal place of business is located (Article 601g v.t.c.s.). Bidder shall answer all the following questions by encircling the appropriate response or completing the blank provided.

1. Where is your principal place of business? Jacksonville, AR

2. Only if your principal place of business is not in the state of Texas, please indicate:

   A. In which state is your principal place of business located? Jacksonville, AR

   B. Does that state favor resident bidders (bidders in your state) by ~~some~~ dollar increment or percentage? YES (NO)

   C. If "YES", what is that dollar increment or percentage? _____

NON-COLLUSION STATEMENT

The undersigned affirms that they are duly authorized to execute this contract, that this company, corporation, firm, partnership or individual has not prepared this bid in collusion with any other Bidder, and that the contents of this bid as to prices, terms or conditions of said bid have not been communicated by the undersigned nor by any employer or agent to any other person engaged in this type of business prior to the official opening of this bid.

Vendor:	S&J Construction CO., Inc.
Address:	P.O. Box 5003
City, State, Zip:	Jacksonville, AR 72078 501-985-2111
Phone	caballoch@gmail.com
Email Address:	Jerry Smith
Bidder (Print name)	
Bidder Signature	President
Position with Company	
Signature of company official authorizing this bid:	
Company Official (Print name):	Jerry Smith
Position with company:	President

STATE RECIPROCAL REQUIREMENT

The City of Lewisville, as a governmental agency of the State of Texas, may not award a contract for general construction, improvements, services or public works projects or purchases of supplies, materials, or equipment to a non-resident bidder unless the non-resident's bid is lower than the lowest bid submitted by a responsible Texas resident bidder by the same amount that a Texas resident bidder would be required to underbid a non-resident bidder to obtain a comparable contract in the state in which the non-resident's principal place of business is located (Article 601g v.t.c.s.). Bidder shall answer all the following questions by encircling the appropriate response or completing the blank provided.

1. Where is your principal place of business? Jacksonville, Arkansas

2. Only if your principal place of business is not in the state of Texas, please indicate:

   A. In which state is your principal place of business located? Jacksonville, ARkansas

   B. Does that state favor resident bidders (bidders in your state) by some dollar increment or percentage? YES (NO)

   C. If "YES", what is that dollar increment or percentage? _____

NON-COLLUSION STATEMENT

The undersigned affirms that they are duly authorized to execute this contract, that this company, corporation, firm, partnership or individual has not prepared this bid in collusion with any other Bidder, and that the contents of this bid as to prices, terms or conditions of said bid have not been communicated by the undersigned nor by any employer or agent to any other person engaged in this type of business prior to the official opening of this bid.

Vendor:	S&J Construction Co., Inc.
Address:	1014 S. Redmond Rd. / P.O. Box 5003
City, State, Zip:	Jacksonville, AR 72078
Phone	501-985-2111
Email Address:	cabulloch@gmail.com
Bidder (Print name)	Jerry Smith
Bidder Signature	
Position with Company	President
Signature of company official authorizing this bid:	
Company Official (Print name):	Jerry Smith
Position with company:	President

Proposal: S.H. 121 Business 24-Inch Water Line

Project No.: U1305

CITY OF LEWISVILLE DISCLOSURE AND CONFLICT OF INTEREST STATEMENT

Name of person/entity ("the Filer") that contracts or seeks to contract for the sale or purchase of property, goods, or services with the City of Lewisville or who is an agent of any such person/entity: S&J Construction Co, Inc.

Address: P.O. Box 5003 City Jacksonville State AR Zip 72078

DISCLOSURE QUESTIONS

Name each City employee that has a financial interest in the Filer.

NONE

Name each City employee who will receive any compensation for or as a result of the desired business dealings.

NONE

CONFLICT OF INTEREST QUESTIONS

1. Describe each affiliation or business relationship with a City employee or contractor who makes recommendations to the City Manager or City Council regarding expenditures of money, including identifying the employee or contractor. NONE

2. Describe each affiliation or business relationship with the City Manager, Mayor, or a City Councilmember who appoints or employs the City Manager or the City Council, including identifying the City Manager, Mayor, or individual Councilmember. NONE

3. Identify the City Manager, Mayor, or City Councilmember with whom the Filer has an affiliation or business relationship. This question and its subparts must be completed for each person with whom an affiliation or other relationship exists. NONE

   A. Is the person identified in question #3 receiving or likely to receive taxable income from the Filer? ___Yes X No
   B. Is the Filer receiving or likely to receive taxable income from or at the direction of the person identified in question #3 which is not from the City? ___Yes X No
   C. Is the Filer affiliated with a corporation or other business entity in which the City Manager, Mayor, or a City Councilmember serves as an officer or director, or holds an ownership of ten percent (10%) or more? ___Yes X No
   D. Describe each affiliation or business relationship that the Filer has with the City Manager, Mayor, or City Council members. ___Yes X No

4. Describe any other affiliation or business relationship that might cause a conflict of interest.

NONE

CERTIFICATION

I certify that all information provided is true and correct, that I have not knowingly withheld disclosure of any information requested; and that supplemental statements will be promptly submitted to the City as changes occur.

Jerry Smith, President
Print or Type Name

Signature

10-12-17
Date

Proposal: S.H. 121 Business 24-Inch Water Line

Project No.: U1305

IMMIGRATION REFORM AND CONTROL ACT

Immigration Reform and Control Act (8 U.S.C. §1324a): The City of Lewisville supports the Immigration Reform and Control Act (IRCA) which is a comprehensive scheme prohibiting the employment of unauthorized aliens in the United States. The Contractor shall submit a declaration signed under penalty of perjury of the laws of the State of Texas stating that it has not been found in violation of IRCA by the United States Attorney General or Secretary of Homeland Security in the preceding five (5) years. The Contractor shall ensure that its Subcontractors submit a declaration signed under penalty of perjury of the laws of the State of Texas stating that they have not been found in violation of IRCA by the United States Attorney General or Secretary of Homeland Security in the preceding five (5) years. The Contractor and its Subcontractors shall at all times during the term of the contract with the City comply with the requirements of IRCA and shall notify the City within fifteen (15) working days of receiving notice of a violation of IRCA. The City may terminate a contract with the Contractor if the City determines that (a) the Contractor or its Subcontractors have been untruthful regarding IRCA violations in the preceding five (5) years; (b) if the Contractor fails to ensure that its Subcontractors submit the aforementioned declaration; or (c) the Contractor or its Subcontractors fail to timely notify the City of an IRCA violation.

Contractor Name S&J Construction Co., Inc

Authorized Signature Jerry Smith, President

Date 10-12-17

PROPOSED SUBCONTRACT BREAKDOWN

1. Subcontractor _____

   Address _____

   Phone # _____

   Description of Work _____

2. Subcontractor _____

   Address _____

   Phone # _____

   Description of Work _____

3. Subcontractor _____

   Address _____

   Phone # _____

   Description of Work _____

4. Subcontractor _____

   Address _____

   Phone # _____

   Description of Work _____

Reference is made to Item 21 on Page SS-11

LIST OF SUPPLIERS

1. Item Supplied: Ductile Iron Pipe
   Supplier: U. S. Pipe
   Address: 2 Chase Dr. Suite 500 Birmingham, AL. 35234
   Phone #: 866-347-7473

2. Item Supplied: Water Main Fittings + accessories
   Supplier: Hayes Pipe
   Address: 1004 W. Cotton St. Longview, TX. 75604
   Phone #: 903-753-5533

3. Item Supplied: _____
   Supplier: _____
   Address: _____
   Phone #: _____

4. Item Supplied: _____
   Supplier: _____
   Address: _____
   Phone #: _____

The undersigned Bidder agrees to execute the Agreement and furnish the required Performance Bond and Payment Bond within fifteen calendar days from the date of award of a contract by the City; and agrees that any delay in furnishing the signed Agreement and Bonds will result in liquidated damages being applied in accordance with Item 108.8.1. of the Standard Specifications.

The undersigned Bidder has attached and made a part of this Proposal a bid security in conformance with Item 102.5. of the Standard Specifications and in accordance with the Notice to Bidders.

Submitted:

(Signature)

Jerry Smith
(Name - Typed or Printed)

President
(Title)

(Seal, if corporation)

S&J Construction Co, Inc.
(Firm Name)

P.O. BOX 5003
(Address)

Jacksonville, AR 72078
(City/County/State/Zip Code)

501-985-2111
(Telephone Number/Include Area Code)

10-12-2017
(Date)

(Attest) CHRIS BULLOCH

MEMORANDUM

TO: Donna Barron, City Manager

FROM: Carolyn Booker, Director of Library Services

DATE: November 15, 2017

SUBJECT: **Approval of an Interlocal Cooperation Agreement for Library Services with Denton County; Designation of the Library Services Director as the Official Liaison for the City of Lewisville; and Authorization for the City Manager to Execute the Agreement.**

BACKGROUND

The City of Lewisville has worked cooperatively with Denton County to provide library service to residents of Denton County since 1991, with Council authorizing an Interlocal Cooperation Agreement for Library Services each year. The proposed agreement states that in return for one or more listed programs of library service, the County agrees to provide $72,300 during FY2017/2018. The appropriation is based on the City population per North Central Texas Council of Governments figures and by an allocation of Denton County residents who do not have a library.

ANALYSIS

Lewisville's funding amount for FY 2016-17 was $73,300. The per capita funding from Denton County lowered from $0.342840 in FY 2016-17 to $.319110 in FY 2017-18 which results in a total allocation of $72,300.

Library card registration as of 10-26-2017:

Lewisville:	36,133 – 75%
Denton County outside Lewisville:	10,535 – 22%
Texas outside Denton County:	1,692 – 3.5%
Total cards:	48,360

RECOMMENDATION

It is City staff's recommendation that the City Council approve the agreement for Library Services with Denton County; designate the Director of Library Services as the official liaison for the City of Lewisville; and authorize the City Manager to execute the contract.

THE STATE OF TEXAS §
§ **LEWISVILLE PUBLIC LIBRARY**
COUNTY OF DENTON §

INTERLOCAL COOPERATION AGREEMENT FOR LIBRARY SERVICES

THIS AGREEMENT is made and entered into by and between Denton County, a political subdivision of the State of Texas, hereinafter referred to as ("the **COUNTY**"), and the City of Lewisville, a municipality of Denton County, Texas, hereinafter referred to as ("the **MUNICIPALITY**"), and has an effective date of October 1, 2017.

WHEREAS, the **COUNTY** is a duly organized political subdivision of the State of Texas engaged in the administration of county government and related services for the benefit of the citizens of the **COUNTY**; and

WHEREAS, the **MUNICIPALITY** is a duly organized municipality in Denton County, Texas, engaged in the provision of library and related services for the benefit of the citizens of the **MUNICIPALITY**; and

WHEREAS, the **COUNTY** has requested, and the **MUNICIPALITY** has agreed to provide library services for all residents of the **COUNTY**; and

WHEREAS, the **COUNTY** and the **MUNICIPALITY** mutually desire to be subject to the provisions of Chapter 791 of the Texas Government Code, the Interlocal Cooperation Act and Chapter 323 of the Texas Local Government Code, regarding County Libraries.

NOW, THEREFORE, the **COUNTY** and the **MUNICIPALITY**, for the mutual consideration hereinafter stated, agree and understand as follows:

I.

The term of this Agreement shall be for the period from October 1, 2017, through September 30, 2018.

II.

For the purposes and consideration herein stated and contemplated, the **MUNICIPALITY** shall provide library services for the residents of the **COUNTY** without regard to race, religion, color, age, disability and/or national origin. Upon proper proof by individual(s) of residence in the **COUNTY**, Texas, such individual(s) shall be entitled issuance, at no cost, a library card to be used in connection with said library services.

The **MUNICIPALITY** shall develop and maintain through the Library one or more of the following programs of service:

1. Educational and reading incentive programs and materials for youth.
2. Functional literacy materials and/or tutoring programs for adults.
3. Job training/career development programs and/or materials for all ages.
4. Outreach services to eliminate barriers to library services.
5. Educational programs designed to enhance quality of life for adults.

III.

The **COUNTY** designates the County Judge to act on behalf of the **COUNTY** and serve as liaison officer for the **COUNTY** with and between the **COUNTY** and the **MUNICIPALITY**. The County Judge or his designated substitute shall ensure the performance of all duties and obligations of the **COUNTY** herein stated and shall devote sufficient time and attention to the execution of said duties on behalf of the **COUNTY** in full compliance with the terms and conditions of this Agreement. The County Judge shall provide immediate and direct supervision of the **COUNTY'S** employees, agents, contractors, sub-contractors, and/or laborers, if any, in the furtherance of the purposes, terms and conditions of this Agreement for the mutual benefit of the **COUNTY** and the **MUNICIPALITY**.

IV.

The **MUNICIPALITY** shall designate Director of Library Services to act on behalf of the **MUNICIPALITY** and to serve as liaison officer for the **MUNICIPALITY** with and between the **MUNICIPALITY** and the **COUNTY** to ensure the performance of all duties and obligations of the **MUNICIPALITY** as herein stated and shall devote sufficient time and attention to the execution of said duties on behalf of the **MUNICIPALITY** in full compliance with the terms and conditions of this Agreement. Director of Library Services shall provide management of the **MUNICIPALITY'S** employees, agents, contractors, sub-contractors, and/or laborers, if any, in the furtherance of the purposes, terms and conditions of this Agreement for the mutual benefit of the **MUNICIPALITY** and the **COUNTY.**

The **MUNICIPALITY** shall provide the **COUNTY** with a copy of the annual report submitted to the Texas State Library and shall respond to the **COUNTY'S** annual questionnaire as documentation of the **MUNICIPALITY'S** expenditures and provision of service.

V.

The **MUNICIPALITY** shall be solely responsible for all techniques, sequences, procedures and coordination of all work performed under the terms and conditions of this Agreement. The **MUNICIPALITY** shall ensure, dedicate and devote the full time and attention of those employees necessary for the proper execution and completion of the duties and obligations of the **MUNICIPALITY** as stated in this Agreement and shall give all attention required for proper supervision and direction of their employees.

VI.

The **MUNICIPALITY** agrees that its established library shall assume the functions of a county library within Denton County, Texas, and to provide a librarian who meets the requirements of the **MUNICIPALITY'S** job description.

VII.

The **COUNTY** and the **MUNICIPALITY** agree and acknowledge that each entity is not an agent of the other entity and that each entity is responsible for its own acts, forbearance, negligence and deeds and for those of its agents or employees. This Agreement does not and shall not be construed to entitle either party or any of their respective employees, if applicable, to any benefit, privilege or other amenities of employment applicable to the other party. The **MUNICIPALITY** understands and agrees that the **MUNICIPALITY**, its employees, servants, agents and representatives shall not represent themselves to be employees, servants, agents and/or representatives of the **COUNTY**.

To the fullest extent permitted by law, the MUNICIPALITY agrees to hold harmless and indemnify the COUNTY from and against any and all claims and for all liability arising out of, resulting from or occurring in connection with the performance of the work hereunder, including but not limited to, any negligent act or omission of the MUNICIPALITY, its officers, agents or employees.

The **COUNTY** and the **MUNICIPALITY** acknowledge and agree that the **COUNTY** does not waive any sovereign or governmental immunity available to the **COUNTY** under Texas law and does not waive any available defenses under Texas law. Nothing in this paragraph shall be construed to create or grant any rights, contractual or otherwise, in or to any third persons or entities.

VIII.

This Agreement is not intended to extend the liability of the parties beyond that provided by law. Neither the **MUNICIPALITY** nor the **COUNTY** waives any immunity or defense that would otherwise be available to it against claims by third parties.

IX.

Any notice required by this Agreement shall be delivered, in writing, by either the **COUNTY** or the **MUNICIPALITY** to the following addresses:

The address of the **COUNTY** is:
County Judge, Denton County
110 West Hickory Street, 2nd Floor
Denton, Texas 76201
Telephone: 940-349-2820

The address of the **MUNICIPALITY** is:
The City of Lewisville through
Lewisville Public Library
P.O. Box 299002
Lewisville, Texas 75029-9002
Attention: Director of Library Services
Telephone: 972-219-3570

X.

For the full performance of the services above stated the **COUNTY** agrees to pay the **MUNICIPALITY** fees as described herein from current revenues available for such payment. The **COUNTY** shall pay the **MUNICIPALITY** fees in the amount of **SEVENTY-TWO THOUSAND THREE HUNDRED AND NO/100 DOLLARS ($72,300.00)**, based upon North Central Texas Council of Governments service population allocation figures provided to the **COUNTY** by the Library Advisory Board, payable in equal quarterly installments to the **MUNICIPALITY** commencing on October 1, 2017. The Allocation chart setting forth said figures is attached hereto and incorporated herein for all intents and purposes as Exhibit "A."

Payment by the **COUNTY** to the **MUNICIPALITY** shall be made in accordance with the normal and customary processes and business procedures of the **COUNTY** and payment shall be satisfied from current revenues of the **COUNTY**.

All funding by the COUNTY to the MUNICIPALITY is subject to the condition that the MUNICIPALITY shall have in place technology protection measures (commonly referred to as "filters") with respect to any computers used by the public that have Internet access which are designed to block access through such computers to visual depictions that are (1) obscene, as defined by Section 43.21 of the Texas Penal Code, or (2) contain pornography.

The technology protection measures shall be in compliance with the Children's Internet Protection Act.

The MUNICIPALITY hereby certifies that its libraries have either installed and are using the required technology protection measures during use of its computers that have Internet access by the public at the present time or will have such protection measures in place and operational by October 1, 2017.

XI.

This Agreement may be terminated, at any time, by either party by giving sixty (60) days advance written notice to the other party. In the event of such termination by either party, the **MUNICIPALITY** shall be compensated pro rata for all services performed to the termination date, together with reimbursable expenses then due and as authorized by this Agreement. In the event of such termination, should the **MUNICIPALITY** be overcompensated on a pro rata basis for all services performed to the termination date or be overcompensated for reimbursable expenses as authorized by this Agreement, the **COUNTY** shall be reimbursed pro rata for all such overcompensation. Acceptance of such reimbursement shall not constitute a waiver of any claim that may otherwise arise out of this Agreement.

XII.

This Agreement represents the entire integrated Agreement between the **MUNICIPALITY** and the **COUNTY** and supersedes all prior negotiations, representations and/or Agreements, either oral or written. This Agreement may be amended only by written instrument signed by both the **MUNICIPALITY** and the **COUNTY**.

XIII.

The validity of this Agreement and any of its terms or provisions, as well as the rights and duties of the parties hereto, shall be governed by the laws of the State of Texas. Further, this Agreement shall be performable and all compensation payable in Denton County, Texas.

XIV.

In the event any portion of this Agreement shall be found to be contrary to law it is the intent of the parties hereto that the remaining portions shall remain valid and in full force and effect to the fullest extent possible.

XV.

The undersigned officers and/or agents of the parties hereto are the properly authorized officials and have the necessary authority to execute this Agreement on behalf of the parties hereto and each party hereby certifies to the other that any necessary orders or resolutions extending said authority have been duly passed and are now in full force and effect.

EXECUTED in triplicate originals on the dates set forth below.

The **COUNTY**

By: _____
Mary Horn, County Judge
Denton County, Texas

Acting on behalf of and by the authority of the Commissioners Denton County, Texas

DATED:_____

ATTEST:

By:_____
Denton County Clerk

APPROVED AS TO FORM:

By:_____
Assistant District Attorney

The **MUNICIPALITY**

By:_____
Name:_____
Title:_____

Acting on behalf of and by the authority of the City Council of Lewisville, Court of Texas

DATED:_____

ATTEST:

By:_____
City Secretary

APPROVED AS TO FORM:

By:_____
City Attorney

APPROVED AS TO CONTENT:

By:_____
Director, Library Services

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of $_____ to accomplish and pay the obligation of Denton County under this agreement.

_____
James Wells, Denton County Auditor

DENTON COUNTY LIBRARY'S FUNDING REQUEST (2017-2018)

PER CAPITA: $ 0.319110
MATCHING: $ 10,000.00

DENTON COUNTY POPULATION:	814,567
POPULATION OF CITIES WITH LIBRARIES	369,689
REMAINING POPULATION	444,878

LIBRARY	TOTAL POP	CITY POP	COUNTY allocation	PER CAPITA ALLOCATION	MATCHING FUNDS	TOTAL	ROUNDED
AUBREY	28,768	13,060	15,708	$ 9,180	$ 10,000	$ 19,180	19,200
CARROLLTON	177,062	80,383	96,679	$ 56,502	$ -	$ 56,502	56,500
FLOWER MOUND	157,487	71,496	85,991	$ 50,256	$ -	$ 50,256	50,200
JUSTIN	8,018	3,640	4,378	$ 2,559	$ 10,000	$ 12,559	12,600
KRUM	10,771	4,890	5,881	$ 3,437	$ 10,000	$ 13,437	13,400
LAKE CITIES	-	-	-	$ -	$ -	$ -	
LEWISVILLE	226,441	102,800	123,641	$ 72,260	$ -	$ 72,260	72,300
LITTLE ELM	84,255	38,250	46,005	$ 26,886	$ 10,000	$ 36,886	36,900
PILOT POINT	9,097	4,130	4,967	$ 2,903	$ 10,000	$ 12,903	12,900
PONDER	4,361	1,980	2,381	$ 1,392	$ 10,000	$ 11,392	11,400
SANGER	17,842	8,100	9,742	$ 5,694	$ 10,000	$ 15,694	15,700
THE COLONY	90,665	41,160	49,505	$ 28,932	$ 10,000	$ 38,932	38,900
TOTAL	**814,767**	**369,889**	**444,878**	**$ 260,000**	**$ 80,000**	**$ 340,000**	**$ 340,000**

Aubrey Population:	
Aubrey	3,110
Crossroads	1,950
Krugerville	1,690
Providence	6,310
Total	13,060

Ponder Population:	1,780
Dish (Interlocal Agreement	200
Total	1,980

Exhibit A

MEMORANDUM

TO: Donna Barron, City Manager

FROM: Tim Tittle, Fire Chief

DATE: November 20, 2017

SUBJECT: **Approval of the Fiscal Year 2017-2018 Ambulance Service Interlocal Cooperation Agreement Between Denton County and the City of Lewisville; and Authorization for the City Manager or Her Designee to Execute the Agreement.**

BACKGROUND

The Lewisville Fire Department provides emergency ambulance service to unincorporated areas of Denton County through an interlocal cooperation agreement. This agreement has been in effect for many years and is approved annually for the period of October 1 through September 30.

The Ambulance Service Agreement provides for Denton County to pay an estimated fee based on a funding formula as follows: 1) a population-based readiness sum based on per capita; 2) a designated sum per ambulance run; 3) a fixed sum based on area covered. Each year the Denton County Fire Marshal supplies data and recommendations for the proposed Agreement. The per capita and square mileage information is obtained from the North Central Texas Council of Governments and GIS. The 4.28 rural miles referenced is the Castle Hills area, Lewisville Lake bridge, as well as a small amount of property owned by the Corps of Engineers.

For last fiscal year, the funding formula specifics were as follows: 1) a population-based readiness sum based on .4815 per capita of $50,218.83; 2) the sum of $250.9870 per ambulance run. The Denton County Fire Marshal estimated 0 runs for $0; 3) a fixed sum based on 4.28 rural miles in the agreed operating territory of $2,933.45. The estimated total was $53,152.

The reason that the Denton County Fire Marshal estimates 0 ambulance runs in the proposed agreement is that we choose not to bill Denton County. It is more beneficial to bill the patients and their insurance companies, while still receiving the fixed, readiness fees from Denton County.

ANALYSIS

The proposed 17-18 Ambulance Service Agreement is estimated at a fee of $54,513.00 based on the funding formula as follows: 1) a population-based readiness sum based on .4944 per capita of $51,567.48; 2) the sum of $257.1269 per ambulance run. The Denton County Fire Marshal has estimated 0 runs for us based on our billing history; 3) a fixed sum based on 4.28 rural miles in the agreed operating territory of $2,945.76. To summarize, in FY 17-18 Denton County will pay a fixed provider fee of $54,513.00 plus $257.1269 per ambulance run billed by the Lewisville Fire Department.

The City Attorney has approved the Agreement as to form, and I have approved it as to content.

RECOMMENDATION

It is City staff's recommendation that the City Council approve the agreement as set forth in the caption above.

THE COUNTY OF DENTON	§	
	§	**CITY OF LEWISVILLE**
	§	**AMBULANCE SERVICES**
STATE OF TEXAS	§	

INTERLOCAL COOPERATION AGREEMENT
AMBULANCE SERVICE

THIS AGREEMENT, which has an effective date of October 1, 2017, is made and entered into by and between Denton County a political subdivision of the State of Texas, hereinafter referred to as "the **COUNTY,**" and the City of Lewisville, a municipal corporation, located in Denton County, Texas, hereinafter referred to as "the **AGENCY**".

WHEREAS, the **COUNTY** is a duly organized political subdivision of the State of Texas engaged in the administration of county government and related services for the benefit of the citizens of Denton County; and

WHEREAS, the **AGENCY** is a municipal corporation, duly organized and operating under the laws of the State of Texas and engaged in the provision of ambulance services and related services for the benefit of the citizens of the City of Lewisville; and

WHEREAS, the **AGENCY** is an owner and operator of certain ambulance vehicles and other equipment designed for the transportation of persons who are sick, infirmed or injured and has in its employ trained personnel whose duties are related to the treatment of said individuals and the use of such vehicles and equipment; and

WHEREAS, the **COUNTY** desires to obtain emergency ambulance and related services for the benefit of residents of the **COUNTY** living in unincorporated areas of the **COUNTY** which the **AGENCY** is capable of providing; and

WHEREAS, the provision of emergency ambulance and related services is a governmental function that serves the public health and welfare and is of mutual concern to both the **COUNTY** and the **AGENCY;** and

WHEREAS, the **COUNTY** desires to expend County funds to defray the expense of establishing, operating and maintaining emergency ambulance services in the County; and

WHEREAS, the **COUNTY** and the **AGENCY** mutually desire to be subject to and contract pursuant to the provisions of Texas Government Code, Chapter 791 and Texas Health and Safety Code, Section 774.003, and

NOW THEREFORE, the **COUNTY** and the **AGENCY,** in consideration of the mutual promises, covenants, and Agreements stated herein, agree as follows:

I.
TERM

The term of this Agreement shall be for the period beginning of October 1, 2017, and ending on September 30, 2018.

II.
DEFINITIONS

As used herein, the words and phrases hereinafter set forth shall have the meanings as follows:

A. "Emergency" shall mean any circumstance that calls for immediate action and in which the element of time in transporting the sick, wounded or injured for medical treatment is essential to the health or life of a person or persons. Whether an emergency, in fact, exists is solely up to the discretion of the **AGENCY**. For dispatch purposes only, "emergency" shall include, but not be limited to:

1. The representation by the individual requesting ambulance service that an immediate need exists for the transportation of a person from any location within the agreed operating area of the **AGENCY** to a place where emergency medical treatment may be obtained; or

2. The representation by the individual requesting ambulance service that an immediate need exists for the transportation of a person from any location within the agreed operating area of the **AGENCY** to the closest medical facility.

B. "Rural area" means any area within the boundaries of the **COUNTY,** but outside the corporate limits of all incorporated cities, towns and villages within the **COUNTY.**

C. "Urban area" means any area within the corporate limits of an incorporated city, town or village within the **COUNTY.**

D. "Emergency ambulance call" means a response to a request for ambulance service by the personnel of the **AGENCY** in a situation involving an emergency, as defined above, by an ambulance vehicle. A single response to a call may involve the transportation of more than one person at a time, but shall be considered as only one call.

III.
SERVICES

The services to be rendered under this Agreement by the **AGENCY** are the ambulance services normally rendered by the **AGENCY** to citizens of City of Lewisville in circumstances of emergency, but which services will now be extended to all citizens of the **COUNTY** residing

in the unincorporated areas of the **COUNTY** within the operating territory or jurisdiction of the **AGENCY,** as agreed to by the **AGENCY** and the **COUNTY** in this Agreement and as set forth in "Exhibit A," attached hereto and incorporated herein by reference.

It is recognized that the officers and employees of the **AGENCY** have the duty and responsibility of rendering ambulance services to citizens of the **AGENCY** and citizens of the **COUNTY** residing in the agreed area. In the performance of these duties and responsibilities, it shall be within the sole responsibility and discretion of the officers and employees of the **AGENCY** to determine priorities in the dispatching and use of such equipment and personnel and the judgment of said officers or employees shall be final.

The **COUNTY** shall designate the County Judge to act on behalf of the **COUNTY** and to serve as "Liaison Officer" between the **COUNTY** and the **AGENCY**. The County Judge, or her designated substitute, shall devote sufficient time and attention to insure the performance of all duties and obligations of the **COUNTY** under this Agreement and shall provide for the immediate and direct supervision of employees, agents, contractors, sub-contractors and/or laborers of the **COUNTY** engaged in the performance of this Agreement.

IV.
PERFORMANCE OF SERVICES

The **AGENCY** shall devote sufficient time and attention to insure the performance of all duties and obligations of the **AGENCY** under this Agreement and shall provide immediate and direct supervision of the **AGENCY's** employees, agents, contractors, sub-contractors and/or laborers engaged in the performance of this Agreement.

V.
COMPENSATION

COUNTY agrees to pay to the **AGENCY** an estimated fee of $54,513.00 (amount rounded to the nearest dollar) based on a funding formula as follows:

1. A fixed sum based on a population percentage .4944 per capita; said sum computes to $51,567.48.

2. A fixed sum of $257.1269 per ambulance transport. There were no transports made by **AGENCY** in fiscal year 2017.

3. A fixed sum based on 4.28 rural miles in the agreed operating territory; said sum computes to $2,945.76.

The first and third sums are based upon population and mileage figures obtained from the North Central Texas Council of Governments. The second sum is based upon the definition of an

"emergency ambulance call" for purposes of this Agreement. Payment shall not be allowed for any instance in which a patient is not transported. Consistent with the reporting procedures described below, the **AGENCY** shall receive payment for transporting the patient regardless of the service delivery area in which the call originated.

Requests for payment shall be submitted on the standardized ambulance transportation reporting form approved and provided by the **COUNTY.** It shall be the responsibility of the **AGENCY** to fully complete the forms and to provide complete and accurate patient information. Requests for payment shall be submitted within five (5) days of the performance of service by the **AGENCY**. Requests not timely submitted shall not be considered for payment. Requests for payment may be submitted by personal delivery, U.S. Mail, facsimile or computer telephone link to the office of the Denton County Fire Marshal. The date of submission shall be the date the fully documented request is received in said office.

VI.

FINANCIAL RECORDS

The **AGENCY** agrees to make its financial records available for audit and/or review by the **COUNTY,** upon request by the **COUNTY**.

VII.

RESPONSIBILITY OF THE COUNTY

The **COUNTY,** to the extent permitted by law, shall be responsible for the acts, omissions and negligence of all officers, employees and agents of the **COUNTY** who are engaged in the performance of this Agreement.

VIII.

RESPONSIBILITY OF THE AGENCY

The **AGENCY,** to the extent permitted by law, shall be responsible for the acts, omissions and negligence of all officers, employees and agents of the **AGENCY** who are engaged in the performance of this Agreement.

IX.

APPLICABLE LAW

The **COUNTY** and the **AGENCY** understand and agree that liability under this contract is governed by Texas Government Code, Chapter 791 and Texas Health and Safety Code, Section 774.003. This Agreement is made in contemplation of the applicability of these laws to the Agreement. Insofar as legally possible the **COUNTY** and the **AGENCY** agree to be bound by the above mentioned statutes as they exist as of the date of this Agreement.

X.
DEFAULT

In the event of default of any of the covenants herein contained, this Agreement may be terminated at the discretion of the non-defaulting party if such default continues for a period of ten (10) days after notice to the other party in writing of such default and the intent to terminate this Agreement due to the default. Unless the default is cured, this Agreement shall terminate.

XI.
TERMINATION

This Agreement may be terminated at any time by either the **COUNTY** or the **AGENCY** by giving sixty (60) days advance written notice to the other party. In the event of termination by either party, the **AGENCY** shall be compensated pro rata for all services performed to termination date together with reimbursable expenses then due as authorized by this Agreement. In the event of such termination, should the **AGENCY** be overcompensated on a pro rata basis for all services performed to the termination date and/or be overcompensated for reimbursable expenses, the **COUNTY** shall be reimbursed pro rata for all such overcompensation. Acceptance of such reimbursement shall not constitute a waiver of any claim that may otherwise arise out of this Agreement.

XII.
GOVERNMENTAL IMMUNITY

The fact that the **COUNTY** and the **AGENCY** accept certain responsibilities relating to the rendering of ambulance services under this Agreement as a part of their responsibility for providing protection for the public health makes it imperative that the performance of these vital services be recognized as a governmental function and that the doctrine of governmental immunity shall be, and is hereby, invoked to the extent permitted under the law. Neither the **AGENCY**, nor the **COUNTY** waive, nor shall be deemed to have hereby waived any immunity or defense that would otherwise be available to it against claims arising from the exercise of governmental powers and functions.

XIII.
ENTIRE AGREEMENT

This Agreement represents the entire Agreement between the **COUNTY** and the **AGENCY** and supersedes all prior negotiations, representations and Agreements, either written or oral. This Agreement may be amended only by written instrument signed by both parties.

XIV.
LAW OF CONTRACT

This Agreement and any of its terms or provisions, as well as the rights and duties of the parties hereto, shall be governed by the laws of the State of Texas. The venue for any dispute, or matter, arising under this Agreement shall lie in Denton County, Texas.

XV.
SEVERABILITY

In the event that any portion of this Agreement shall be found to be contrary to law, it is the intent of the parties hereto that the remaining portions of this Agreement shall remain valid and in full force and effect to the fullest extent possible.

XVI.
AUTHORITY

The undersigned officer or agents of the parties are the properly authorized officials and have the necessary authority to execute this Agreement on behalf of the Parties.

XVII.
SERVICE AREA

Acceptance of this Agreement constitutes approval of the service area set out in attached Exhibit "A".

EXECUTED in triplicate originals on the dates set forth below.

COUNTY:

Denton County, Texas
110 West Hickory Street, 2nd Floor
Denton, Texas 76201

By:_____
Mary Horn
Denton County Judge

AGENCY:

City of Lewisville
P.O. Box 299002
Lewisville, Texas 75029-9002

By:_____
Name _____
Title _____

Acting on behalf of and by
the authority of Denton County
Commissioners Court of Denton, Texas

DATED:_____

ATTEST:

BY:_____
Denton County Clerk

Acting on behalf of and by the
authority of the City of Lewisville

DATED:_____

ATTEST:

BY:_____
City Secretary, Lewisville

APPROVED AS TO CONTENT:

_____
Denton County Fire Marshal

APPROVED AS TO CONTENT:

_____
Chief, Lewisville Fire Department

APPROVED AS TO FORM:

_____
Assistant District Attorney

APPROVED AS TO FORM:

_____
City Attorney

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of $_____ to accomplish and pay the obligation of Denton County under this Agreement.

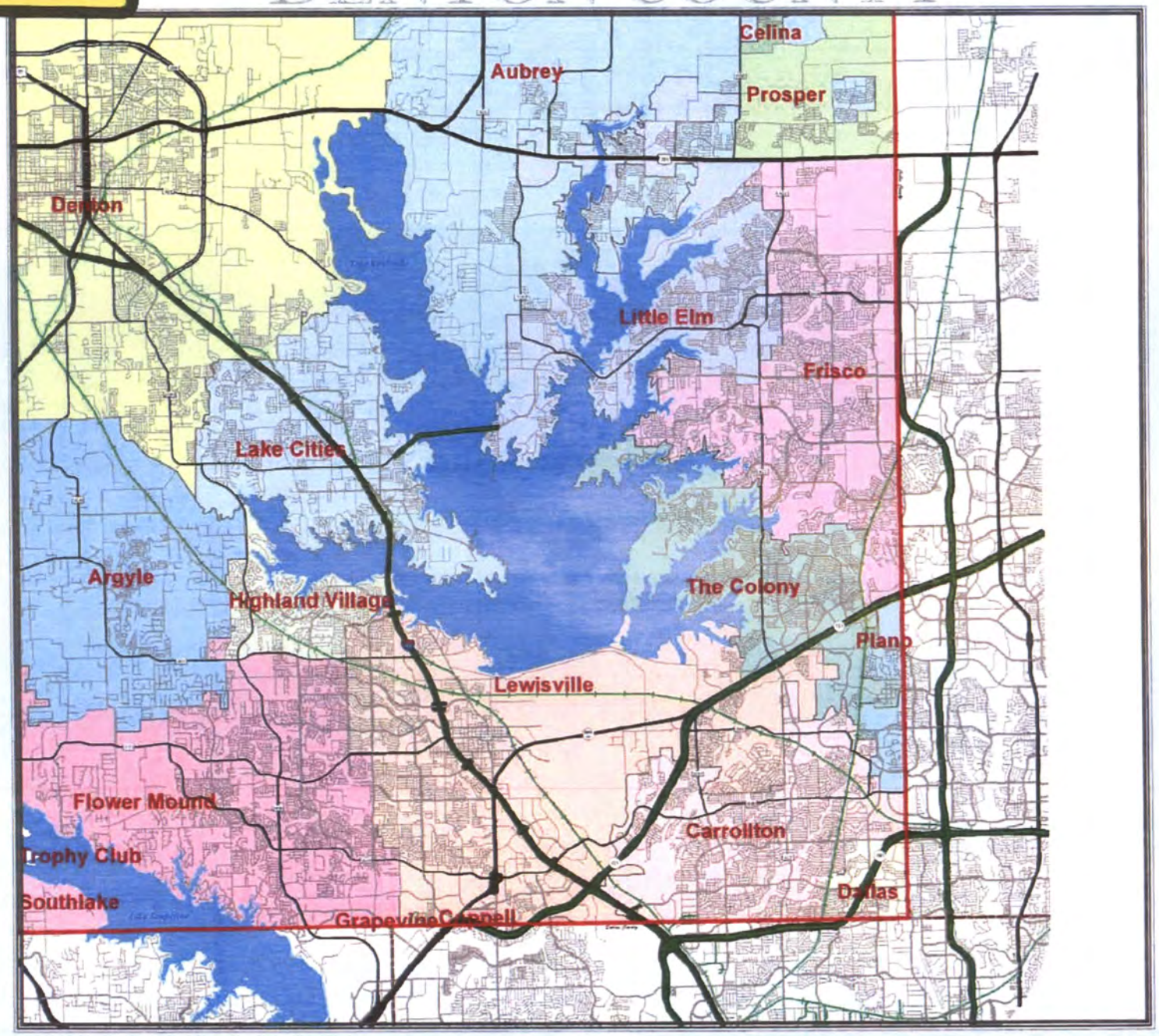
_____
James Wells, Denton County Auditor

EXHIBIT

A

DENTON COUNTY

Lewisville EMS District



DENTON COUNTY TEXAS 1846

INTERSTATE
U.S. HIGHWAY
STATE HIGHWAY
FARM TO MARKET
MAJOR THOROUGHFARES
MINOR ROADS
CEMETERY
RAILROADS
AIRPORTS
STREAMS
LAKES & PONDS

City Population

N W E S

1 inch = 2.9 miles

CONTACT INFORMATION

Overview Map

DEPARTMENT OF TECHNOLOGY SERVICES

DTS

DENTON COUNTY

MEMORANDUM

TO: Donna Barron, City Manager

FROM: Tim Tittle, Fire Chief

DATE: November 20, 2017

SUBJECT: **Approval of the Fiscal Year 2017-2018 Fire Protection Services Interlocal Cooperation Agreement Between Denton County and the City of Lewisville; and Authorization for the City Manager or Her Designee to Execute the Agreement.**

BACKGROUND

The Lewisville Fire Department provides fire protection service to unincorporated areas of Denton County through an interlocal cooperation agreement. This agreement has been in effect for many years and is approved annually for the period of October 1 through September 30.

The Fire Protection Service Agreement provides for Denton County to pay a fixed readiness fee, and a sum per fire call in designated unincorporated areas of Denton County, Texas. The 4.28 rural miles is the Castle Hills area, Lewisville Lake bridge, as well as a small amount of property owned by the Corps of Engineers. Each year the Denton County Fire Marshal supplies data and recommendations for the proposed Agreement.

For last fiscal year the fixed readiness fee was $10,000 and the fee per fire call was $525. The Fire Marshal had estimated 25 calls based on our billing history. We billed for 22 calls, resulting in $11,500 being paid by the county for fire calls.

ANALYSIS

The proposed Fire Protection Services Agreement for Fiscal Year 17-18 provides for Denton County to pay for the full performance of this agreement the sum of Ten Thousand Dollars ($10,000.00) upon execution of this agreement and the sum of Five Hundred and Fifty 00/100 Dollars ($550.00) per fire call in designated unincorporated areas of Denton County, Texas The Denton County Fire Marshal has estimated 21 runs ($11,550), projecting a total payment of $21,550 for FY 17-18.

The City Attorney has approved the Agreement as to form, and I have approved it as to content.

RECOMMENDATION

It is City staff's recommendation that the City Council approve the agreement as set forth in the caption above.

THE COUNTY OF DENTON	§	
	§	**CITY OF LEWISVILLE**
	§	**FIRE DEPARTMENT**
STATE OF TEXAS	§	

INTERLOCAL COOPERATION AGREEMENT
FIRE PROTECTION SERVICES

THIS AGREEMENT, which has an effective date of October 1, 2017, is made and entered into by and between Denton County, a political subdivision of the State of Texas, hereinafter referred to as "the **COUNTY,**" and the City of Lewisville, a municipal corporation, located in Denton County, Texas, hereinafter referred to as "the **AGENCY**".

WHEREAS, the **COUNTY** is a duly organized political subdivision of the State of Texas engaged in the administration of county government and related services for the benefit of the citizens of Denton County; and

WHEREAS, the **AGENCY** is a municipal corporation, duly organized and operating under the laws of the State of Texas and engaged in the provision of fire protection services and related services for the benefit of the citizens of the City of Lewisville; and

WHEREAS, the **AGENCY** is the owner and operator of certain fire protection vehicles and other equipment designed for the extinguishing of fire and prevention of damage to property and injury to persons from fire and has in its employ trained personnel whose duties are related to the use of such vehicles and equipment; and

WHEREAS, the **COUNTY** and the **AGENCY** mutually desire to be subject to and contract pursuant to provisions of the Texas Government Code, Chapter 791 and the Texas Local Government Code, Chapter 352, and

NOW, THEREFORE, the **COUNTY** and the **AGENCY**, for the mutual promises, covenants, Agreements and consideration stated herein, agree as follows:

I.
TERM

The term of this Agreement shall be for the period beginning of October 1, 2017, and ending September 30, 2018.

II.
SERVICES

The services to be rendered in accordance with this Agreement by the **AGENCY** are the fire protection services normally rendered by the **AGENCY** to citizens of the City of Lewisville in circumstances of emergency, but which services will now be extended to all citizens of the

COUNTY residing in the unincorporated areas of the **COUNTY** within the operating territory or jurisdiction of the **AGENCY,** as agreed to by the **AGENCY** and the **COUNTY** in this Agreement and as set forth in "Exhibit A," attached hereto and incorporated herein by reference. These services are rendered in consideration of the basic funding and the separate per call fee set forth in this Agreement for the common good and benefit and to serve the public convenience and necessity of the citizens of the **COUNTY** who are not otherwise protected with respect to fire prevention, extinguishment, safety and rescue services. The services to be rendered are as follows:

A. The **AGENCY** shall make available and provide emergency fire prevention, extinguishment, safety and rescue services within the agreed or specified territory or jurisdiction of the **AGENCY**.

B. The **AGENCY** shall respond to requests for fire protection services made within the portion of the **COUNTY** designated as *"**Lewisville**"* as set out in Exhibit "A".

C. The **COUNTY** agrees that, in the event a fire in the **AGENCY**'s unincorporated designated area which the **AGENCY** considers to be of an incendiary nature and upon request by the **AGENCY**, the County Fire Marshal will dispatch investigation personnel to the fire scene within a response time sufficient to legally maintain and protect all evidence of said fire and will conduct all appropriate investigation and assist in the prosecution of any case of arson. The **AGENCY** shall not be responsible for investigations of suspected incendiary fires in the unincorporated areas, but shall cooperate with the County Fire Marshal in immediately relating all pertinent information possible to the investigator(s).

D. The **COUNTY** agrees that the County Fire Marshal may assist in the conduct of appropriate investigations of a fire which the **AGENCY** considers to be of incendiary nature in the **AGENCY**'s incorporated area upon request of the **AGENCY**.

E. The **AGENCY** shall submit monthly statements on the Texas Fire Incident Reporting System's standardized forms to the Denton County Fire Marshal, 9060 Teasley Lane, Denton, Texas 76210-4010. This form will serve as the billing statement to the **COUNTY** for reimbursement of calls made in the unincorporated area. The Denton County Fire Marshal shall provide the forms upon request from the **AGENCY**.

F. The **AGENCY,** in the performance of its duties and responsibilities under this Agreement, shall have the responsibility, within the sole discretion of the officers and employees of the **AGENCY,** to determine priorities in the dispatching and use of the **AGENCY's** equipment and personnel, and the judgment of any such officer or employee as to such matters shall be the final determination.

The **COUNTY** shall designate the County Judge to act on behalf of the **COUNTY** and to serve as "Liaison Officer" between the **COUNTY** and the **AGENCY**. The County Judge, or her designated substitute, shall devote sufficient time and attention to insure the performance of all duties and obligations of the **COUNTY** under this Agreement and shall provide immediate and direct supervision of employees, agents, contractors, sub-contractors and/or laborers of the **COUNTY** engaged in the performance of this Agreement for the mutual benefit of the **COUNTY** and the **AGENCY**.

III.

PERFORMANCE OF SERVICE

The **AGENCY** shall devote sufficient time and attention to insure the performance of all duties and obligations of the **AGENCY** under this Agreement and shall provide immediate and direct supervision of the **AGENCY's** employees, agents, contractors, sub-contractors and/or laborers engaged in the performance of this Agreement for the mutual benefit of the **AGENCY** and the **COUNTY**.

IV.

COMPENSATION

The **COUNTY** agrees to pay to the **AGENCY** for the full performance of services as provided in this Agreement the sum of **$10,000.00,** payable upon execution of this Agreement, and further agrees to pay the sum of **$550.00** per fire call in the designated unincorporated areas of the **COUNTY** from October 1, 2017, to September 30, 2018. The **COUNTY** anticipates the **AGENCY** to run approximately **21** fire calls for a total funding of **$11,550.00** for fire calls. The total payments by the **COUNTY** to the **AGENCY** pursuant to this Agreement are estimated to be **$21,550.00**. The **COUNTY** will make no payment to the **AGENCY** for service provided outside the agreed service district whether by Mutual Aid Agreement or otherwise. The **AGENCY** understands and agrees that payment by the **COUNTY** to the **AGENCY** shall be made in accordance with the normal and customary processes and business procedures of the **COUNTY** and in conformance with applicable state law.

V.

FINANCIAL RECORDS

The **AGENCY** agrees to make its financial records available for audit and/or review by the **COUNTY**, upon request by the **COUNTY**.

VI.
RESPONSIBILITY OF THE COUNTY

The **COUNTY**, to the extent permitted by law, shall be responsible for the acts, negligence and omissions of all officers, employees and agents of the **COUNTY** who are engaged in the performance of this Agreement.

VII.
RESPONSIBILITY OF THE AGENCY

The **AGENCY,** to the extent permitted by law, shall be responsible for the acts, negligence and omissions of all officers, employees and agents of the **AGENCY** who are engaged in the performance of this Agreement.

VIII.
APPLICABLE LAW

The **COUNTY** and the **AGENCY** understand and agree that liability under this contract is governed by the Texas Government Code, Chapter 791 and the Texas Local Government Code, Chapter 352. This Agreement is made in contemplation of the applicability of these laws to the Agreement. Insofar as legally possible the **COUNTY** and the **AGENCY** agree to be bound by the above mentioned statutes as they exist as of the date of this Agreement.

IX.
DEFAULT

In the event of default of any of the covenants herein contained, this Agreement may be terminated at the discretion of the non-defaulting party if such default continues for a period of ten (10) days after notice to the other party in writing of such default and the intent to terminate this Agreement due to the default. Unless the default is cured, this Agreement shall terminate.

X.
TERMINATION

This Agreement may be terminated any time, by either the **COUNTY** or the **AGENCY** by giving sixty (60) days advance written notice to the other party. In the event of termination by either party, the **AGENCY** shall be compensated pro rata for all services performed to the termination date together with reimbursable expenses then due as authorized by this Agreement. In the event of such termination, should the **AGENCY** be overcompensated on a pro rata basis for all services performed to the termination date and/or be overcompensated reimbursable expenses, the **COUNTY** shall be reimbursed pro rata for all such overcompensation.

Acceptance of such reimbursement shall not constitute a waiver of any claim that may otherwise arise out of this Agreement.

XI.
GOVERNMENTAL IMMUNITY

The fact that the **COUNTY** and the **AGENCY** accept certain responsibilities relating to the rendition of fire protection services under this Agreement as part of their responsibility for providing protection for the public health makes it imperative that the performance of these vital services be recognized as a governmental function and that the doctrine of governmental immunity shall be, and it is hereby, invoked to the extent permitted by law. Neither the **AGENCY,** nor the **COUNTY** waive, nor shall be deemed to have hereby waived, any immunity or defense that would otherwise be available to it against claims arising from the exercise of government powers and functions.

XII.
ENTIRE AGREEMENT

This Agreement represents the entire Agreement between the **COUNTY** and the **AGENCY** and supersedes all prior negotiations representations and Agreements, either written or oral. This Agreement may be amended only by written instrument signed by both parties.

XIII.
LAW OF CONTRACT

This Agreement and any of its terms or provisions, as well as the rights and duties of the parties hereto, shall be governed by the laws of the State of Texas. The venue for any dispute, or matter, arising under this Agreement shall lie in Denton County, Texas.

XIV.
SEVERABILITY

In the event that any portion of this Agreement shall be found to be contrary to law, it is the intent of the parties hereto that the remaining portions shall remain valid and in full force and effect to the fullest extent possible.

XV.
AUTHORITY

The undersigned officer or agents of the parties hereto are the properly authorized officials and have the necessary authority to execute this Agreement on behalf of the parties.

XVI.

SERVICE AREA

Acceptance of this Agreement constitutes approval of the service area set out in attached Exhibit "A".

EXECUTED in triplicate originals on the dates set forth below.

COUNTY

Denton County, Texas
110 West Hickory Street, 2nd Floor
Denton, Texas 76201

By _____
Mary Horn
Denton County Judge

Acting on behalf of and by the authority of Denton County Commissioners Court of Denton County, Texas.

DATED: _____

ATTEST:

BY:_____
Denton County Clerk

APPROVED AS TO CONTENT:

_____
Denton County Fire Marshal

APPROVED AS TO FORM:

_____
Assistant District Attorney
Denton County

AGENCY

City of Lewisville
P.O. Box 299002
Lewisville, Texas 75029

By _____
Name _____
Title _____

Acting on behalf of and by the authority of the City of Lewisville

DATED: _____

ATTEST:

BY:_____
City Secretary

APPROVED AS TO CONTENT:

_____
Chief, Lewisville Fire Department

APPROVED AS TO FORM:

_____
City Attorney

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of $_____ to accomplish and pay the obligation of Denton County under this Contract/Agreement.

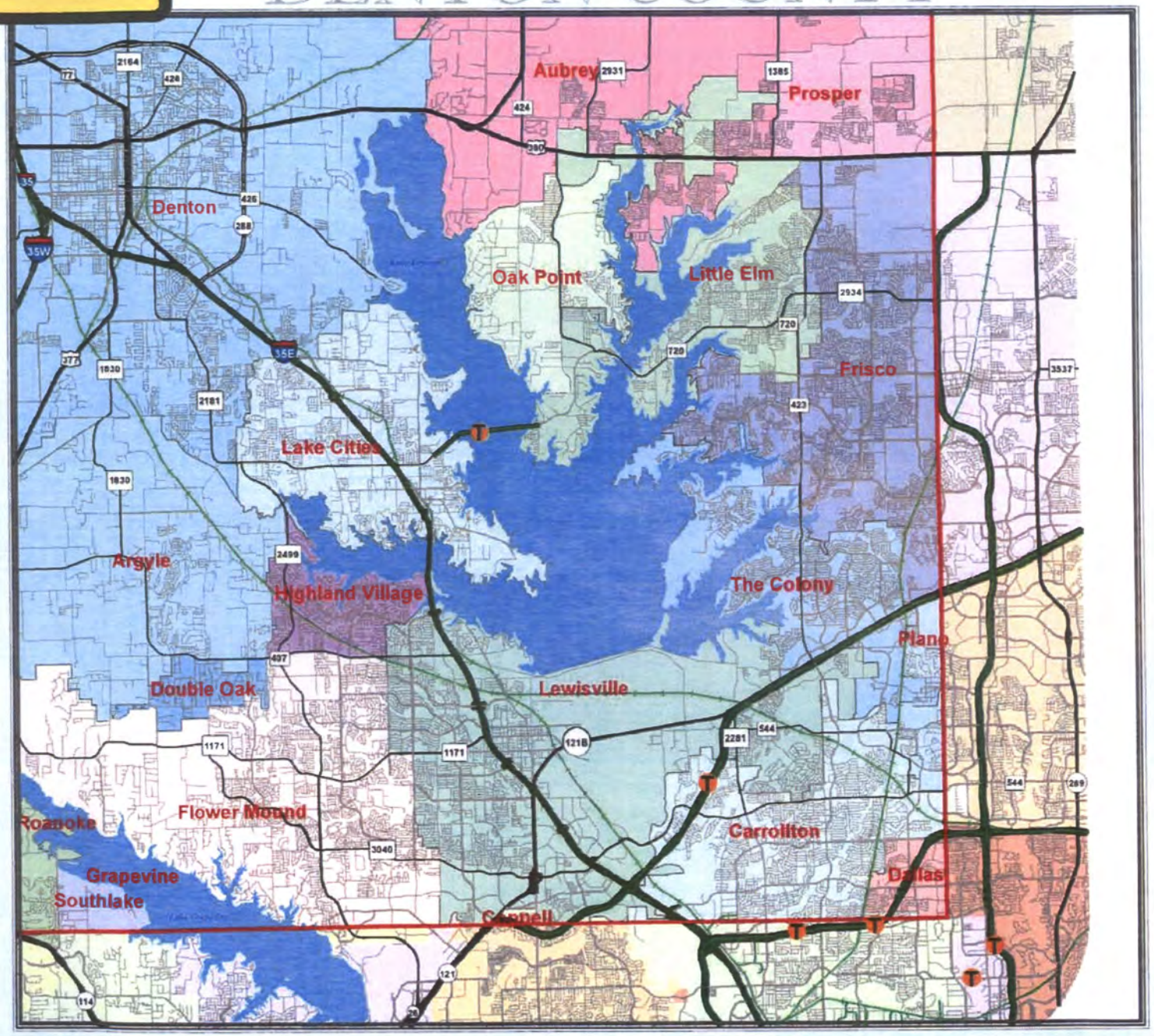
_____
James Wells, Denton County Auditor

EXHIBIT

A

DENTON COUNTY

Lewisville Fire District



MEMORANDUM

TO: Donna Barron, City Manager

FROM: David Salmon, P.E., City Engineer

VIA: Eric Ferris, Deputy City Manager

DATE: October 18, 2017

SUBJECT: **Approval of a Resolution of the City Council of the City of Lewisville, Texas, Authorizing the City Manager to Sign an Agreement for the Furnishing and Installing of Traffic Signals by a Municipality.**

BACKGROUND

The City of Lewisville maintains all traffic signals, whether on or off-system, within the city limits. This includes signals on F.M. 544. The City uses a broadband radio system and digital network to monitor and control the signals throughout the City. The Texas Department of Transportation (TxDOT) does not provide specific communication or networking equipment as part of any new on-system signal construction, however it will provide reimbursement for communication equipment provided by the City needed to allow the new signals to operate within an existing maintenance and control system.

ANALYSIS

The TxDOT project to reconstruct and widen F.M. 544 from F.M. 2281 (Old Denton Road) to Dozier Road is ongoing. As part of that project, the traffic signals at the intersections of F.M. 544 and F.M. 2281 (Old Denton Road) and at F.M. 544 and Windhaven Parkway will be rebuilt and upgraded. TxDOT will allow the City to provide the radios and network switches compatible with the City's existing network and to receive reimbursement for that equipment as part of the project. As both of the subject signals are existing and only being upgraded to accommodate the expanded roadway, they are already covered by the City's existing maintenance agreement with TXDOT.

The radios will cost $393 each and the network switches will cost $761 each with one of each needed per intersection. The total cost per intersection will be $1,154 with a total for both intersections of $2,308.

RECOMMENDATION

It is City staff's recommendation that the City Council approve the Resolution as set forth in the caption above.

LOCATION MAP
FOR
TRAFFIC SIGNAL UPGRADES
IN LEWISVILLE ON FM 544

Texas Department of Transportation
4777 E. HWY 80, MESQUITE, TEXAS 75150 | WWW.TXDOT.GOV

October 2, 2017

CSJ: 0619-05-036, etc.
FM 544 at FM 2281 and at Windhaven Pkwy
City of Lewisville
Denton County

Sagar Medisetty, P.E.
Traffic Engineer
Engineering Department
City of Lewisville
151 West Church Street
Lewisville, TX 75057

Dear Mr. Medisetty:

Please find attached, two (2) original *Agreements for Furnishing and Installing of Traffic Signal Equipment by a Municipality* for your review and approval. If all is satisfactory, please obtain authorized signatures and a City Council Resolution for both originals and return to me for further processing. A fully executed original will be returned for your files and use.

Feel free to contact Angela Green at 214-320-4432, if needed.

Sincerely,

Felicia R Cortez P.E.

For Andrew R. Oberlander, P.E.
District Transportation Operations Engineer

Attachment

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, AUTHORIZING THE CITY MANAGER TO SIGN AN AGREEMENT FOR THE FURNISHING AND INSTALLING OF TRAFFIC SIGNALS BY A MUNICIPALITY.

WHEREAS, the State owns and maintains a system of highways and roadways, including FM 544 within the City of Lewisville; and,

WHEREAS, the City of Lewisville, hereinafter called the "City", and the State of Texas, acting through the Texas Department of Transportation, hereinafter called the "State", entered into a Municipal Maintenance Agreement on January 5th, 1995; and,

WHEREAS, under that Municipal Maintenance Agreement, the State bears the burden of installing all traffic signals on certain non-controlled access state highways within the City, including FM 544 and FM 2281; and

WHEREAS, the City has requested that the State reimburse the cost of furnishing and installing traffic signal equipment at the intersection of FM 544 at FM 2281 and at FM 544 at Windhaven Parkway, hereinafter called the "Project"; and,

WHEREAS, the City desires that equipment be provided that is compatible with standard signal operation and existing City equipment; and,

WHEREAS, it is in the best interest of the City and the State for the City to assist the State by furnishing and installing traffic signal equipment on the Project; and,

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, THAT:

SECTION 1. The recitations and findings contained in the preamble of this resolution are incorporated herein by reference.

SECTION 2. The Lewisville City Council hereby approves the Agreement for the Furnishing and Installing of Traffic Signals by a Municipality in substantially the same form as the agreement attached hereto and made a part hereof by reference.

SECTION 3. The Lewisville City Council hereby authorizes the City Manager to execute the Agreement with the State of Texas on behalf of the City of Lewisville and to exercise the rights and duties of the City there under including the expenditure of funds as provided therein.

SECTION 4. This Resolution shall be effective from and after its passage.

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, ON THIS THE 20TH DAY OF NOVEMBER, 2017.

APPROVED:

_____
Rudy Durham, MAYOR

ATTEST:

_____
Julie Worster, CITY SECRETARY

APPROVED AS TO FORM:

_____
Lizbeth Plaster, CITY ATTORNEY

CSJ: 0619-05-036, etc.
District: 18/Dallas
Code Chart 64: 24500
CFDA: 20.205

STATE OF TEXAS §

COUNTY OF TRAVIS §

AGREEMENT FOR FURNISHING AND INSTALLING OF TRAFFIC SIGNAL EQUIPMENT BY A MUNICIPALITY

THIS AGREEMENT is made by and between the State of Texas, acting through the Texas Department of Transportation, hereinafter called the "State," and the City of Lewisville, Denton County, Texas, hereinafter called the "City," acting by and through its duly authorized officers as evidenced by Resolution/Ordinance No. _____, hereinafter acknowledged by reference.

WITNESSETH

WHEREAS, the State owns and maintains a system of highways and roadways, including FM 544 in the City of Lewisville; and

WHEREAS, the City has requested the State to reimburse the cost of furnishing and installing traffic signal equipment at the intersection(s) of FM 544 at FM 2281 and FM 544 at Windhaven Parkway, hereinafter called the "Project," and

WHEREAS, the State and City wish to cooperate in the construction of this Project; and

WHEREAS, The City desires that equipment be provided that is compatible with standard signal operation and/or existing City equipment; and

WHEREAS, it is in the best interest of the City and the State for the City to assist the State by furnishing and installing traffic signal equipment on the Project; and

WHEREAS, the Texas Transportation Commission passed Minute Order No.114027, approving the Project; and

WHEREAS, the State is authorized to enter into an agreement with the City for the Project pursuant to Transportation Code, §221.002;

NOW THEREFORE, in consideration of the premises and of the mutual covenants and agreements of the parties hereto to be by them respectively kept and performed, as hereinafter set forth, it is agreed as follows:

AGREEMENT

Article 1. CONTRACT PERIOD

This agreement becomes effective on final execution by the State and shall remain in effect as long as said traffic signal equipment is in operation at the described location and the signal project is incomplete, or unless otherwise terminated or modified as hereinafter provided.

Article 2. CONSTRUCTION RESPONSIBILITIES

A. For all items of construction other than furnishing and installing specific traffic signal equipment, the State will prepare the construction plans, advertise for bids, and let the construction contract, or otherwise provide for the construction and will supervise the construction as required by said plans. The State will secure the City's approval of construction plans prior to award of contract.

B. The furnishing and installing of specific traffic signal equipment will be part of the construction to be undertaken by the City, and the State will reimburse the City for its contribution to the Project, as prescribed under Article 3, "Compensation."

Article 3. COMPENSATION

A. The maximum amount under this agreement without modification is **$2,308.00**. A cost estimate of the work authorized under this agreement is marked "Exhibit A," attached hereto and made a part of this agreement.

B. The State will reimburse the City the cost of furnishing and installing the traffic signal equipment according to the location and manner of construction as shown and described in the plans and specifications.

C. The State will reimburse the City for properly supported costs incurred under the terms and conditions of this agreement. Costs incurred prior to the issuance of a written "Work Order" by the State will not be reimbursed. Reimbursement will be made by the State to the City for labor, equipment use, materials, supplies, travel expenses, and warehouse or material handling charges provided the City has paid from City funds their obligations covering items of costs previously billed.

Article 4. PAYMENTS

A. The City shall submit an invoice acceptable to the State upon completion of the Project and the State's acceptance thereof.

B. An original invoice should be submitted to the following address:

Texas Department of Transportation
Attn: Director of Operations
4777 E. Highway 80
Dallas, TX 75150

All billing statements shall be properly documented, summarizing the costs by description of work performed, quantity of materials and devices, unit price, labor costs, and extensions.

C. The State shall make payment to the City within thirty (30) days from receipt of the City's request for payment, provided that the request is properly prepared, executed, and documented.

D. Unsupported charges or charges after final acceptance by the State will not be considered eligible for reimbursement. The State will prepare a final audit upon completion of the work authorized or at any time an audit is deemed to be in the best interest of the State.

Article 5. PERSONNEL, EQUIPMENT, AND MATERIAL

A. The City will use labor and supervisory personnel employed directly by the City, and use City-owned machinery, equipment, and vehicles necessary for the work. In the event that the City does not have the necessary machinery, equipment, and vehicles necessary to

perform the work, the machinery, equipment, and vehicles may be rented or leased as necessary at the low bid price submitted by at least two approved bidders.

B. Reimbursement for the use of materials purchased by other than competitive bid procedures will be made only if such procedures are shown to be in the public interest and provided the State shall have given prior approval for the use of said materials. All materials used for the work shall be new and undepreciated.

Article 6. INSPECTION OF WORK

A. The State shall make suitable, frequent, and complete inspection of all materials and equipment, and the work of installation to determine and permit certification that the Project and its components meet all applicable requirements of the plans and specifications in suitable condition for operation and maintenance by the City after its completion.

B. The City will provide opportunities, facilities, and representative samples, as may be required, to enable the State to carry on suitable, frequent, and complete inspection of all materials and application methods, sufficient to afford determination and certification by the State that all parts of the installation and the component materials comply with the requirements of the approved plans and specifications. The State will promptly notify the City of any failure of materials, equipment, or installation methods, and the City will take such measures as necessary to obtain acceptable systems components and installation procedures without delay.

Article 7. TERMINATION

A. This agreement may be terminated by one of the following conditions:

(1) By mutual agreement and consent of both parties.

(2) By the State giving written notice to the City as a consequence of failure by the City to perform the services and obligations set forth in a satisfactory manner and within the limits provided, with proper allowances being made for circumstances beyond the control of the City.

(3) By either party, upon thirty (30) days written notice to the other.

B. If, at any time, the City fails to assume the construction responsibilities as prescribed herein or the maintenance and operation responsibilities for the City's portion of the traffic signal equipment in a satisfactory manner as determined by the State, the State reserves the right to assume the construction responsibilities and/or to arrange for the maintenance and operation responsibilities at the expense of the City.

Article 8. INDEMNIFICATION

The City acknowledges that it is not an agent, servant, or employee of the State and thus is responsible for its own acts and deeds and for those of its agents or employees during the performance of the work defined in this agreement.

Article 9. REMEDIES

Violation or breach of contract terms by the City shall be grounds for termination of the agreement, and any increased cost arising from the City's default, breach of contract, or violation of terms shall be paid by the City. This agreement shall not be considered as specifying the exclusive remedy for any default, but all remedies existing at law and in equity may be availed of by either party and shall be cumulative.

Article 10. DISPUTES
Should disputes arise as to responsibilities and obligations as set forth in this agreement, the State's decision shall be final and binding.

Article 11. SUBLETTING
The City shall not sublet or transfer any portion of its responsibilities and obligations under this agreement unless specifically authorized in writing by the State. In the event subcontracts are entered into by the City, the subcontractors must adhere to the provisions of this agreement.

Article 12. AMENDMENTS
Changes in the time frame, character, responsibilities, or obligations authorized herein shall be enacted by written amendment. Any amendment to this agreement must be executed by both parties.

Article 13. INSURANCE (Mark out the following paragraph that is not applicable)

A. Outside Insurance
Prior to the City performing any work on this Project, the City shall furnish to the State a completed Certificate of Insurance (Form 1560, latest version) and shall maintain the insurance in full force and effect as long as this Project lasts and the City is responsible for the furnishing, installing, maintenance, and operation of the herein mentioned traffic signal equipment.

B. Self Insured
Prior to the City performing any work on this Project, the City shall furnish to the State a completed Certificate of Insurance (Form 1560, latest version) and shall maintain its self-insurance program in full force and effect as long as this Project lasts and the City is responsible for the furnishing, installing, maintenance, and operation of the traffic signal equipment. The State understands that the City is a self-insured entity for public liability purposes.

Article 14. SUCCESSORS AND ASSIGNS
The City shall not assign or otherwise transfer its rights or obligations under this agreement except with the prior written consent of the State.

Article 15. NOTICES
All notices to either party by the other required under this Agreement shall be delivered personally or sent by certified or U.S. mail, postage prepaid, addressed to such party at the following respective addresses:

City:	State:
City of Lewisville	Texas Department of Transportation
ATTN: Traffic Engineer	Attn: Director of Operations
151 W. Church Street	4777 E. Highway 80
Lewisville, TX 75057	Mesquite, TX 75150

All notices shall be deemed given on the date so delivered or so deposited in the mail, unless otherwise provided herein. Either party hereto may change the above address by sending written notice of such change to the other in the manner provided herein.

Article 16. INSPECTION OF CITY'S BOOKS AND RECORDS

A. The State shall, for purpose of termination of the agreement prior to completion, examine the books and records of the City for the purpose of checking the amount of the work performed and/or materials furnished by the City at the time of contract termination. The City shall maintain all books, documents, papers, accounting records, and other documentation pertaining to costs incurred under this contract and shall make such materials available to the State or its duly authorized representatives for review and inspection at its office during the contract period and for four (4) years from the date of final payment under this contract or until impending litigation is resolved. Additionally, the State and its duly authorized representatives shall have access to all records of the City which are directly applicable to this contract for the purpose of making audits, examinations, excerpts, and transcriptions. At the request of the State, the Local Government shall submit any information required by the State in the format directed by the State

B. The state auditor may conduct an audit or investigation of any entity receiving funds from the state directly under the contract or indirectly through a subcontract under the contract. Acceptance of funds directly under the contract or indirectly through a subcontract under this contract acts as acceptance of the authority of the state auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds. An entity that is the subject of an audit or investigation must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

Article 17. LEGAL CONSTRUCTION

In case any one or more of the provisions contained in this agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision thereof and this agreement shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

Article 18. GOVERNING LAWS AND VENUE
This agreement shall be construed under and in accordance with the laws of the State of Texas. Any legal actions regarding the parties' obligations under this agreement must be filed in Travis County, Texas.

Article 19. PRIOR AGREEMENTS SUPERSEDED
This agreement constitutes the sole and only agreement of the parties hereto and supersedes any prior understanding or written or oral agreements between the parties respecting the within subject matter.

IN WITNESS WHEREOF, the State and the City have signed duplicate counterparts of the agreement.

THE CITY OF LEWISVILLE
Executed on behalf of the City by:

By_____ Date_____

Typed or Printed Name and Title _____

_____

THE STATE OF TEXAS
Executed for the Executive Director and approved for the Texas Transportation Commission for the purpose and effect of activating and/or carrying out the orders, established policies or work programs heretofore approved and authorized by the Texas Transportation Commission.

By_____ Date_____
James K. Selman, P.E.
Dallas District Engineer

Exhibit A

FM 544 at FM 2281

Communication equipment	$393.00
Managed Edge Networking switch	$761.00

Total for this intersection is $1,154.00

FM 544 at Windhaven Pkwy

Communication equipment	$393.00
Managed Edge Networking switch	$761.00

Total for this intersection is $1,154.00

Grand Total $2,308.00

MEMORANDUM

TO: Donna Barron, City Manager

FROM: David Salmon, P.E., City Engineer

VIA: Eric Ferris, Assistant City Manager

DATE: November 1, 2017

SUBJECT: **Approval of Amendment No. 6 to a Letter Agreement With KCS Railroad in the Amount of $13,195 for Additional Plan Review Services Associated With the Windhaven Parkway Railroad Underpass North of FM 544; and Providing Authorization for the City Manager or Her Designee to Execute the Amendment on Behalf of the City.**

BACKGROUND

The City of Lewisville entered into a letter agreement with KCS Railroad in 2011 for KCS to provide plan review services through TranSystems Inc., a third-party engineering firm for the design of the Windhaven Parkway underpass north of FM544. KCS Railroad's review costs have exceeded the original estimated cost of $18,462.00 and has required five previous amendments. Based on recent review comments, KCS is estimating additional review fees at $13,195 thus requiring another amendment to the original agreement bringing the total fee to $71,926.

To date, the bridge plans have been reviewed by TranSystems Inc. eight times. After the lengthy revision process and minimal impact of the most recent review comments, both KCS and TranSystems Inc. have confirmed that this amount will be sufficient to complete plan review, approval for the design and bid phases of the bridge project. KCS approval is needed for the project to proceed.

The utility relocation plans were approved by KCS and the construction was completed in December 2016. The Bridge Plans are at a final stage pending an additional review cycle and KCS approval. The final plans were last submitted in May 2017 and staff just received the latest comments. The formal KCS review process has been taking 6 months or more per review cycle, so staff anticipates review completion and plan approval in early spring assuming there are no more comments. The large number of reviews is mainly attributed to a change of review teams at TranSystems resulting in three nearly complete redesigns of the railroad bridge. Although most of the right of way and easements have been obtained, staff has been holding off on obtaining the last few easements required for construction until the plans are approved as the size and configuration of those easements could change depending on the final bridge and underpass design. Once the bridge plans are approved, the final easements can be obtained and the bridge construction bid. Railroad bridge construction is estimated to take 18 months.

The final phase (phase 3) of construction includes the road underpass and drainage system. Those plans are 90% complete. Additional work on those plans have been suspended until the bridge plans are approved. Phase three construction can't occur until phase 2 construction has been completed, shoofly removed and the trains are running on the new bridge so there is sufficient time

to complete the roadway and drainage plans and obtain approval for those. Underpass construction will take another 18-24 months to complete, so staff is anticipating a roadway opening date in 2022. Per the original letter agreement, the city will need to enter into an entirely new agreement with KCS to pay for Construction Phase services once the plans are approved.

ANALYSIS

The original agreement for $18,462 has been amended over time to cover additional review costs due to multiple reviews more than what was anticipated. Based on recent review comments, KCS estimates a total fee of $71,926 requiring Council approval. KCS will not approve the plans until all review is complete and payment for the review has been made. Funding is available in project (Corporate Drive – 544 to Josey) accounts.

RECOMMENDATION

It is City staff's recommendation that the City Council approve and authorize the City Manager to execute the amendment as set forth in the caption above.

AMENDMENT NUMBER 6 TO THE AGREEMENT BETWEEN THE CITY OF LEWISVILLE AND KANSAS CITY SOUTHERN RAILWAY FOR WINDHAVEN PARKWAY AT KCS RAILROAD

Amendment No.6 dated November 20, 2017, to the original agreement between The City of Lewisville, Texas, hereinafter called "City", and Kansas City Southern Railway, hereinafter called "KCS", dated January 20, 2011, in reference to Windhaven Parkway at KCS RR- MP D84.11 on KCS' Alliance Subdivision, the "Project"-is hereby amended as follows:

KCS has entered into an Agreement with the City for KCS to perform engineering review of the subject project as provided by TranSystems, a third-party consultant to KCS, including administrative fees incurred by KCS during the plan review process for items such as invoice processing, delivery costs, and document preparation. KCS agrees to complete engineering review and issue a letter of approval to the City utilizing additional funds from the City as follows:

Original Agreement Amount	$18,462
Amendment No.1	$ 4,000
Amendment No.2	$ 8,048
Amendment No.3	$ 9,000
Amendment No.4	$ 4,221
Amendment No.5	$15,000
Amendment No.6	$13,195
Revised Total Agreement Amount	**$71,926**

CITY OF LEWISVILLE, TEXAS
Approved by the Lewisville City Council _____

By: _____
Donna Barron, City Manager

Date: _____

Attest: _____
Julie Worster

KANSAS CITY SOUTHERN RAILWAY

By: Srikanth M
Srikanth Honnur, P.E.

Date: Oct. 31st, 2017

Attest: Gloria Marshall

CITY OF LEWISVILLE
151 West Church Street
Lewisville, Texas 75057

APPROVED AS TO FORM:

_____
Lizbeth Plaster, City Attorney

TranSystems
2400 Pershing Road
Suite 400
Kansas City, MO 64108
Tel 816 329 8600
Fax 816 329 8602
www.transystems.com

June 8, 2017

Mr. Srikanth Honnur, PE
Director of Track and Bridge Construction
The Kansas City Southern Railway Company
427 West 12th Street
Kansas City, MO 64105

Re: Proposal for Document Review and Pre-Construction Coordination Services
KCS over Windhaven Parkway, MP 84.11, Alliance Sub, Lewisville, Texas
KCS File No. 4863

Dear Mr. Honnur:

We are pleased to continue to assist The Kansas City Southern Railway Company (KCS) with the Windhaven Parkway project under the KCS, in Lewisville, Texas.

Project Description

The project involves the construction of Windhaven Parkway by City of Lewisville, Texas. This work will include construction of a new KCS rail bridge over Windhaven Parkway at MP 84.11 on the Alliance Sub. The project design and plans for the bridge and track work are being prepared by the City's consultant, Bridgefarmer and Associates, and TranSystems has reviewed preliminary plan submittals since 2011.

As previously contracted, TranSystems has conducted a review of five submissions of the Exhibit A (preliminary) plans for the proposed grade separation at MP 84.11 as prepared by the City's consultant. Per our discussion, KCS would like TranSystems to perform a review of the final plans to ensure all TranSystems and KCS comments to-date have been adequately addressed and coordinate with Bridgefarmer to have the Exhibit 'A' plans finalized and signed and sealed. In addition, TranSystems will participate in the project bidding process to look out for KCS's best interests including review of bid documents, KCS and City coordination, and attendance at the pre-bid meeting. Finally, TranSystems will attend the pre-construction meeting with the selected contractor, KCS, and the City of Lewisville to provide input and answer questions related the KCS requirements and interests for construction of the project. As a result, we request a supplement to our existing contract.

Personnel

Adam Houk, PE will continue to be the TranSystems' Project Manager for the project. In addition to this project, Adam worked with the KCS as the project manager for the design of storage track 402 at KCS's IFG facility in 2016 and for the partial design of the Mt. Leanard, MO siding track in 2015 as well as construction manager at KCS' IFG facility from November 2007 through March 2008. Adam will also

be the technical lead for reviewing the plans and bid documents and attending the pre-bid and pre-construction meetings. Jay Hyland, PE, will provide technical assistance with the review of the bridge plans.

Estimated Fee

The history of the authorized plan reviews to date is as follows:

PO Issuance Date	Description	Breakdown	Amount	Total Fee
4/29/11	Original request	Exhibit A (preliminary) plan review (once)	$5,783	**$18,462**
		Exhibit B (final) plan review (once)	$10,307	
		Project management	$2,372	
2/13/14	First amendment	Exhibit A (three additional reviews)	$8,048	**$8,048**
5/21/2015	Second amendment	Exhibit A (one additional review)	$8,221	**$8,221**
Total approved to date				**$34,731**

TranSystems will invoice the KCS for actual services rendered in the execution of this scope pursuant to our master contract (4700000112) dated April 19, 2007. KCS may add the fee for supplemental plan review and coordination to its existing purchase order 5800002657 for this public project. A summary of the additional hours and fees are listed below.

Staff	**Hours**	**Rate**	**Mult.**	**Fee**
Project Management and Track – Houk	60	$58.32	2.89	$10,113
Bridge – Hyland	8	$67.32	2.89	$1,556
Reimbursable Expenses	**Qty**	**Rate**	**Units**	**Fee**
Travel (Airfare, Rental Car, Fuel, etc.)	2	$750	Trips	$1,500
Lodging and Per Diem	4	$175	Days	$700
Supplemental Services Total				**$13,195**

Combined with our previous PO #5800002657 authorized amounts, the new total PO amount will be **$47,926**.

We appreciate the opportunity to assist KCS with plan review on this project and look forward to assisting you with the construction observation, as well. Please do not hesitate to call me at (816) 329-8743, if you have any questions or would like to discuss our supplement request. If this is acceptable, we request you sign and date this letter as indicated below, and return it for our files.

Sincerely,
TranSystems

Adam Houk, PE
Project Manager

Paul R. Hentschke
Principal

LEWISVILLE

Deep Roots. Broad Wings. Bright Future.

January 20, 2011

RECEIVED

FEB 10 2011

CD/ENGINEERING

Mr. Srikanth Honnur, P.E.
Director of Track and Bridge Construction
The Kansas City Southern Railway Company
427 West 12th Street
Kansas City, Missouri 64105

Re: KCS Engineering Review Reimbursement Fees
Windhaven Parkway at KCS RR – MP 84.11

Dear Mr. Honnur:

The City of Lewisville is in receipt of the Engineering Review Reimbursement fee services to be provided for the above referenced through your third-party consultant, Transystems.

It is our request at this time that the KCS review of the subject project be conducted in a phased manner – Phase (1): Exhibit "A" – Preliminary Review and Exhibit "B" – Final Review in the amount of $18,462 as proposed by Transystems.

The construction submittal and inspection services can be negotiated at a later date when the project has gone through the plan review phase. KCS, the City, and the City's consultant, Bridgefarmer and Associates, Inc., will have a better handle on the construction scope of services upon the completion of the plan review.

If this proposal is acceptable to you, please execute this letter agreement (two originals enclosed) and return one to our City Engineer, T. S. Kumar, P.E., for our City.

Sincerely,

Claude E. King
City Manager

TSK/jbs

Enclosure

c: T. S. Kumar, P.E., City Engineer
File

Date: Feb 7, 2011

Srikanth Honnur, P.E.
KCS Railway Co.

151 West Church Street • P.O. Box 299002 • Lewisville, Texas 75029-9002
[V] 972.219.3400 • [F] 972.219.3410
www.cityoflewisville.com

LOCATION MAP
FOR
WINDHAVEN PKWY @
KCS RAILROAD

MEMORANDUM

LEWISVILLE

Deep Roots. Broad Wings. Bright Future.

TO: Mayor Rudy Durham
Mayor Pro Tem Brent Daniels
Deputy Mayor Pro Tem Brandon Jones
Councilman R Neil Ferguson
Councilman TJ Gilmore
Councilman Bob Troyer

FROM: Judge Brian Holman

DATE: November 15, 2017

SUBJECT: **Approval of an Interlocal Agreement with Denton County Setting Forth the Terms and Conditions Under Which the Denton County Tax Assessor-Collector Shall Refuse to Register or Re-register Motor Vehicles Pursuant to Section 702.003 of the Texas Transportation Code.**

BACKGROUND

In 1995, the State legislature passed a bill known as the "Scofflaw Program", which created Section 702.003 of the Texas Transportation Code. This bill authorizes a county tax assessor-collector, in conjunction with TxDOT, to refuse to register or re-register a motor vehicle if the department receives information from a municipality that the owner of the vehicle has an outstanding warrant issued by that municipality for failure to appear or failure to pay a fine on a complaint that involves the violation of a traffic law.

On August of 2010, the City signed a contract with TxDOT to "flag" motor vehicle records of vehicles owned by persons who have failed to appear or failed to pay a fine on a complaint that involves the violation of a traffic law. Although not a contractual requirement, TxDOT recommended that a city seek an agreement of cooperation with the county or counties in which they are located to confirm that they will agree to deny vehicle registration on their behalf. On December of 2010, an Interlocal Agreement between the City and Denton County was signed.

In order to place or remove "flags" from motor vehicle records, a City must submit their files to TxDOT in a specific file format. The submissions cost the City $23 (Twenty-Three dollars) per request plus $0.12 (twelve cents) for each file name in the transmission and the payment is remitted through a non-interest bearing escrow account that the city has established.

ANALYSIS

Denton County has terminated the original "Scofflaw" agreement signed on December 28, 2010 and has requested we enter into a revised "Scofflaw" agreement. The new interlocal "Scofflaw" agreement submitted by Denton County eliminates the use of the "Scofflaw Program" for offenses relating to the Photographic Traffic Signal Enforcement System (Red Light Cameras). Since the

LEWISVILLE
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City does not participate in the Red Light Camera system, this revision is not applicable to the City nor will it affect any of the current procedures.

A new contract with TXDOT will not be required. All fees and procedures cotinue as previously defined in the original interlocal agreement signed in 2010.

This program has proven to be an additional tool to assist in collecting past due fine and court costs.

RECOMMENDATION

It is City staff's recommendation that the City Council approve the contract as set forth in the caption above.

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, AUTHORIZING AN INTERLOCAL AGREEMENT WITH DENTON COUNTY SETTING FORTH THE TERMS AND CONDITIONS UNDER WHICH THE DENTON COUNTY TAX ASSESSOR-COLLECTOR SHALL REFUSE TO REGISTER OR RE-REGISTER MOTOR VEHICLES PURSUANT TO SECTION 702.003 OF THE TEXAS TRANSPORTATION CODE

WHEREAS, chapter 791 of the Texas Government Code allows local governments to enter into contracts for governmental functions and services to increase their efficiency and effectiveness; and

WHEREAS, Denton County and the City of Lewisville are local governments as defined by chapter 791 of the Texas Government Code; and

WHEREAS, section 702.003 of the Texas Transportation Code allows a county tax assessor-collector, upon receipt of specific information, to assist a municipality in the enforcement of outstanding warrants of arrest for the failure to appear or failure to pay a fine on a complaint that involves the violation of a traffic offense by refusing to register or re-register a motor vehicle; and

WHEREAS, Denton County and the City of Lewisville desire to enter into an interlocal agreement which sets forth the terms and conditions of such refusal to register or re-register a motor vehicle; and

WHEREAS, said interlocal agreement will increase the effectiveness and efficiency of both Denton County and the City of Lewisville.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, THAT:

SECTION 1. The recitations and findings contained in the preamble of this resolution are incorporated herein by reference.

SECTION 2. The Lewisville City Council approves the agreement attached hereto as Exhibit 1 and made a part hereof by reference.

SECTION 3. This resolution shall be effective from and after its passage.

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, ON THIS THE 20TH DAY OF NOVEMBER, 2017.

APPROVED:

_____
Rudy Durham, Mayor

ATTEST:

_____
Julie Worster, City Secretary

APPROVED AS TO FORM:

_____
Lizbeth Plaster, City Attorney

STATE OF TEXAS §
§ INTERLOCAL AGREEMENT
COUNTY OF DENTON §

This Agreement made and entered into by and between the County of Denton, hereinafter referred to as "County", with the agreement, consent, and participation of the Denton County Tax Assessor-Collector, hereinafter referred to as the "County or County Tax Assessor-Collector", and the City of Lewisville, a Texas home-rule municipal corporation hereinafter referred to as "City", under the authority and in accordance with the Interlocal Cooperation Act, as set out in Chapter 791, Texas Government Code, and as authorized by Texas Transportation Code, Chapter 702

WITNESSETH

WHEREAS, Texas Government Code, Chapter 791, authorizes local governments of the state to enter into contracts for governmental functions and services to increase their efficiency and effectiveness, and

WHEREAS, the County and the City are local governments as defined in Texas Government Code, Section 791 003(4), have the authority to enter into this agreement, and have each entered into this agreement by the action of its governing body in the appropriate manner prescribed by law; and

WHEREAS, Transportation Code §702.003 allows a county tax assessor-collector, upon receipt of information from a municipality by and through the Texas Department of Motor Vehicles (hereinafter "Department") motor vehicle registration system, to refuse to register or re-register a motor vehicle for which a municipality has notified the Department of outstanding warrants of arrest for the failure to appear or the failure to pay a fine on a complaint that involves the violation of a traffic offense , and

WHEREAS, Transportation Code §702.003 further allows a municipality to contract to provide the necessary information to the Department for the above determination under which the county tax assessor-collector may deny motor vehicle registration or re-registration to certain persons, and

WHEREAS, such a consolidated effort in the effectuation of Texas Transportation Code Chapter 702 is in each party's best interest and that of the public and that this agreement will increase the effective and efficient functioning of each party, and

WHEREAS, both the City and County represent to one another that each respective party has the authority to enter into this agreement and perform the obligations and duties stated herein, and

WHEREAS, the County and the City specify that each party paying for the performance of said functions of government shall make those payments from current funds available to the paying party

NOW THEREFORE, this contract is made and entered into by County and City in consideration of the aforementioned recitals and for the mutual consideration stated herein ("the Agreement")

1 PURPOSE OF AGREEMENT.

The purpose of the Agreement is to state the terms and conditions under which the County Tax Assessor-Collector will refuse to register or re-register certain motor vehicles when the County Tax Assessor-Collector receives information from the Texas Department of Motor Vehicles registration system that the owner of the vehicle has an outstanding warrant from the City for failure to appear or failure to pay a fine on a complaint that involves a violation of a traffic law, as defined by section 702 001 of the Transportation Code, as authorized and specifically set out under section 702.003 of the Texas Transportation Code

2 DUTIES OF THE CITY.

2 1 City ~~shall enter~~ has entered into the attached Interlocal Agreement with the Department to transmit all necessary vehicle information received from the City to the Department which will enable the Department to flag eligible vehicle records in the Department motor vehicle registration system so that the County may withhold registration pursuant to the Agreement.

2.2 The City shall notify the Department within fifteen (15) days when a traffic law matter is cleared regarding a person.

- 2.2 1 Against whom a judgment has been entered and who has paid the municipal court the full amount of the fine or civil penalty and all court costs, or
- 2.2.2 Who has perfected an appeal of the case for which the arrest warrant was issued, or
- 2.2.3 Whose charge for which the arrest warrant was issued has been dismissed, or
- 2.2 4 Whose charge for which the arrest warrant was issued has been cleared through judicial action or clerical correction.

2 3 The City shall provide owners cleared for registration with a "cleared" receipt that may be presented by the owner to the County Tax Assessor-Collector Written instructions shall be included on the receipt directing the cleared owner to maintain it for 30 days. City shall enable the generation of the cleared receipt through its online payment system as well

2 4 City shall designate Elizabeth Labori, Court Manager to aid County in providing kiosk access to City's online payment system.

2 5 City shall be solely responsible for placing or clearing registration flags The City shall be solely liable for any damages that arise out of any registration or refusal to register vehicles based on the absence or appearance of registration flags.

2 6 The City has the sole discretion to flag vehicle records. However, the County may refuse registration only for vehicle records that involve a violation of a "traffic law" as defined by section 702 001 of the Texas Transportation Code.

2 7 The City ~~shall enter~~ has entered into the attached and included Interlocal Agreement with the Department to (included herein as Exhibit A)

3 DUTIES OF THE COUNTY

3 1 The County Tax Assessor-Collector shall

3 1 1 Review the Department of Motor Vehicle registration system for traffic violation flags for all individuals who attempt to register any vehicle

3 1.2 Refuse to register or re-register all motor vehicles which are flagged in the Department of Motor Vehicle registration system as having outstanding City warrants for traffic violations, unless the receipt described in Section 2.3 is presented.

3 1 3 Provide flagged owners with access to a computer terminal at the Tax Office that is linked to the City's online payment system.

3 1 4 Provide owners who pay online via the Tax Office terminal with printouts of any clearance receipts generated by the City's online payment system.

3.2 The County Tax Assessor-Collector shall at any time have the sole authority and prerogative to register or re-register a motor vehicle

4 TERM AND TERMINATION.

This Interlocal Agreement shall be effective upon execution by the last party to execute the Agreement and shall terminate one year from that date The agreement shall automatically renew for successive one-year terms. This agreement may be terminated at any time by either party upon sixty (60) days written notice to the other parties.

5. NOTICE.

Official notice shall be by written notice and delivery to all of the parties to this Agreement. Delivery shall be by fax or deposit in the United States Postal Service, first class, return receipt requested to

TO THE COUNTY TAX ASSESSOR-COLLECTOR.

Michelle French
Denton County Tax Assessor/Collector
1505 E. McKinney St.
Denton, Texas 76209-4525

TO THE CITY

The City of Lewisville
Address 151 W. Church St.
Lewisville, TX 75057

6 INDEMNIFICATION.

County and City agree that both County and City shall each be responsible for their own negligent acts or omissions or other tortious conduct in the course of performance of this Agreement, without waiving any sovereign or governmental immunity available to either County or City under Texas law and without waiving any available defenses under Texas law Nothing in this paragraph shall be construed to create or grant any rights, contractual or otherwise, in or to any third persons or entities.

7 FISCAL FUNDING.

Notwithstanding anything to the contrary herein, this Agreement is expressly contingent upon the availability of county funding for each item and obligation contained herein. City shall have no right of action against the County as regards this Agreement, specifically including any funding by County of this Agreement in the event that the County is unable to fulfill its obligations under this Agreement as a result of the lack of sufficient funding for any item or obligation from any source utilized to fund this Agreement or failure of any funding party to budget or authorize funding for this Agreement during the current or future fiscal years In the event of insufficient funding, or if funds become unavailable in whole or part, the County, at its sole discretion, may provide funds from a separate source or terminate this Agreement. In the event that

payments or expenditures are made, they shall be made from current funds as required by Chapter 791, Texas Government Code

Notwithstanding anything to the contrary herein, this Agreement is expressly contingent upon the availability of City funding for each item and obligation contained herein. County shall have no right of action against the City as regards this Agreement, specifically including any funding by City of this Agreement in the event that the City is unable to fulfill its obligations under this Agreement as a result of the lack of sufficient funding for any item or obligation from any source utilized to fund this Agreement or failure of any funding party to budget or authorize funding for this Agreement during the current or future fiscal years. In the event of insufficient funding, or if funds become unavailable in whole or part, the City, as its sole discretion, may provide funds from a separate source or terminate this Agreement. In the event that payments or expenditures are made, they shall be made from current funds as required by Chapter 791, Texas Government Code

8 **VENUE.**

Venue to enforce this Agreement shall lie exclusively in Denton County, Texas.

9 **NONDISCRIMINATION**

Parties to this Agreement shall not discriminate on the basis of race, color, national origin, sex, religion, age, disability, sexual orientation.

10 **ENTIRE AGREEMENT**

This Agreement constitutes the entire agreement between the parties hereto and may not be modified except by an instrument in writing executed by the parties hereto as herein provided.

11 **SEVERABILITY**

If any provision of this Agreement shall be held invalid, void or unenforceable, the remaining provisions hereof shall not be affected or impaired, and such remaining provisions shall remain in full force and effect.

12 **DEFAULT/WAIVER/MITIGATION**

It is not a waiver of default if the non-defaulting party fails to declare immediately a default or delays in taking any action. Pursuit of any remedies set forth in this Agreement does not preclude pursuit of other remedies in this Agreement or provided by law

13 **FEDERAL OR STATE OF TEXAS FUNDING**

In the event that any work or part thereof is funded by State of Texas or U S Government funding and any statute, rule, regulation, grant, contract provision or other State of Texas or U S Government law, rule, regulation or other provision imposes additional or greater requirement(s) than stated herein, City agrees to timely comply therewith without additional cost or expense to County

14 **HEADINGS**

The titles which are used following the number of each paragraph are only for convenience in locating various provisions of this AGREEMENT and shall not be deemed to affect the interpretation or construction of such provision.

15 **NUMBER AND GENDER**.

Words of any gender used in this Agreement shall be held and construed to include any other gender; and words in the singular shall include the plural and vice versa, unless the text clearly requires otherwise.

16 **COUNTERPARTS.**

This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same instrument.

17 **REMEDIES.**

This Agreement shall not be considered as specifying the exclusive remedy for any agreement default, but all remedies existing at law and in equity may be availed of by either party to this Agreement and shall be cumulative

18. **APPROVAL**

This agreement is expressly subject to and contingent upon formal approval by the Denton Commissioners Court and by resolution of the respective City Council

IN WITNESS WHEREOF this Agreement has been executed on behalf of the County of Denton and the City of Lewisville in the manner provided by law

THE CITY OF Lewisville

By_____
Mayor _____
Date _____

ATTEST

_____
City Secretary

APPROVED AS TO FORM.

By_____
Assistant City Attorney

THE COUNTY OF DENTON

By_____
Mary Horn, County Judge
Date _____

APPROVED AS TO FORM

By_____
Michelle French, Tax Assessor/Collector

APPROVED AS TO FORM.

_____
Assistant District Attorney

THE STATE OF TEXAS § Exhibit A

THE COUNTY OF TRAVIS §

INTERLOCAL AGREEMENT

THIS CONTRACT is entered into by the Contracting Parties under Government Code, Chapter 791

I. CONTRACTING PARTIES

The Texas Department of Transportation (TxDOT)

City of Lewisville (Local Government)

II PURPOSE: Scofflaw Services contract for marking Texas Motor Vehicle Registration Records.

III. STATEMENT OF SERVICES TO BE PERFORMED TxDOT will undertake and carry out services described in **Attachment A**, Scope of Services.

IV CONTRACT PAYMENT Contract payment shall conform to the provisions of **Attachment B**, Budget.

V TERM OF CONTRACT This contract begins when fully executed by both parties and terminates on 08/15/2015 or when otherwise terminated as provided in **Attachment C**, Article 5 of this Agreement.

VI. LEGAL AUTHORITY.
THE PARTIES certify that the services provided under this contract are services that are properly within the legal authority of the Contracting Parties.

TxDOT further certifies that it has the authority to perform the services by authority granted in Section 702.003 and in Section 707 017 of the Texas Transportation Code

The governing body, by resolution or ordinance, dated **June 21, 2010,** has authorized the Local Government to obtain the services described in **Attachment A**.

This contract incorporates the provisions of **Attachment A,** Scope of Services**, Attachment B,** Budget, **Attachment C,** General Terms and Conditions, **Attachment D,** Resolution or Ordinance, **Attachment E,** Contact Information, **Attachment F,** Account Information and **Attachment G,** City Scofflaw Input File Requirements.

CITY OF LEWISVILLE (Name of Local Government)

By _____ Date 7-22-10
AUTHORIZED SIGNATURE

Claude King, City Manager
TYPED OR PRINTED NAME AND TITLE

Title City Manager

FOR THE STATE OF TEXAS
Executed for the Executive Director and approved for the Texas Transportation Commission for the purpose and effect of activating and/or carrying out the orders, established policies or work programs heretofore approved and authorized by the Texas Transportation Commission.

By _____ Date 8/16/10
Rebecca Davio, Ph D
Director, Vehicle Titles and Registration Division
Texas Department of Transportation

ATTACHMENT A

Scope of Services

TxDOT will

1 On initial probes (inquiries) of data submissions received from the local government, generate an output file containing matching license plates If no vehicle record is found, such factual information will be indicated on the output file together with the input data Input and output files will be returned to the Local Government after completion of the computer run.

2 Place 'flags" on vehicle records based on data submissions received from Local Government containing "flag" request codes.

A flagged record will cause

A. A "scofflaw" remark to be displayed on inquiry devices and point-of-sale workstations as part of the vehicle record when an inquiry is made on a "flagged" record

B The printing of registration renewal notices with a "scofflaw" remark ("City Scofflaw LEWISVILLE (City Name)") so the Local Government may deny registration Explanation on the back of the registration renewal notice form directs the registrant to the county tax office, or the municipal court in the indicated city

3 Remove "flags" from vehicle records based on data submissions received from Local Government containing "clear" request codes

Local Government shall

1 Provide data submissions to TxDOT via CD-ROMs or e-mail attachments in accordance with TxDOT specifications (see Attachment G) for computer run of initial probes (inquiry), flags (marking) of vehicle records and clears (removal) of flags.

2. Label CD-ROMs externally with the type of run to be made ("probe", "flag" and/or "clear") and the number of logical records. Note. Files containing probes must be exclusively probes Files containing flags or clears can be exclusively flags or clears, or a combination of flags and clears

3 Submit an application to establish the method of payment (see Attachment F), and establish account prior to submitting inquiries.

ATTACHMENT B

Budget

The Local Government shall pay to TxDOT the amount of $23 00 per computer run (file submission) plus $ 12 (twelve cents) for each transaction ("probe", "flag", or "clear") submitted to TxDOT

Payments shall be made to the following address.

Texas Department of Transportation
Vehicle Titles and Registration Division
PO Box 5020
Austin, TX 78763-5020

A. If the Local Government chooses to submit their input file via CD-ROM, the attached "Account Information" form must be completed, indicating that the Local Government wishes to establish a "Pay Upon Request" Account. The applicable payment shall be made each time a request to probe (search/inquiry), place or remove "flags" from motor vehicle records is submitted to TxDOT

B As an alternative, if the Local Government chooses to send their input file as an e-mail attachment, the Account Information" form must be completed, indicating that the Local Government wishes to establish a non-interest bearing escrow account ("Prepaid Account") with TxDOT Upon agreement between the Local Government and TxDOT and payment of applicable fees, as described below, TxDOT will establish an account in the name of the Local Government. Charges will be deducted from the escrow account until the balance of that account reaches the minimum required balance for the Local Government, as determined by TxDOT and provided herein

A deposit of <u>at least $500.00</u> must be <u>maintained</u> in a non-interest bearing escrow account. This initial deposit is to cover estimated service use. The escrow account must be established with TxDOT prior to submission of probes (inquiries), or placing or removing "flags" from motor vehicle records for the Local Government. Payment of the deposit shall be made by check or warrant, payable to the "Texas Department of Transportation" and is due upon execution of this contract. The $500 00 minimum balance to be maintained in the escrow account may increase depending on established monthly usage by the Local Government. The Local Government may deposit additional funds into the escrow account in excess of the stated minimum balance When it becomes necessary to increase the Local Government's escrow account minimum balance, as determined by TxDOT, the Local Government agrees to pay the sum in increments of $500 00 This additional funding is payable within fifteen (15) days from receipt of notification from TxDOT

TxDOT will provide a statement to the Local Government which indicates the remaining balance in the Local Government's escrow account. A statement will be provided by TxDOT each time a probe or a request to place or remove "flags" from motor vehicle records is submitted

If the balance in the non-interest bearing escrow account falls below the $500 00 minimum balance, TxDOT will suspend processing probes, or placing or removing "flags" from motor vehicle records for the Local Government until such time as a deposit is made by the Local Government, in an amount sufficient to increase the balance in the escrow account to the $500 00 minimum balance

ATTACHMENT C

General Terms and Conditions

Article 1. Amendments
This contract may only be amended by written agreement executed by both parties before the contract is terminated

Article 2. Conflicts Between Agreements
If the terms of this contract conflict with the terms of any other contract between the parties, the most recent contract shall prevail

Article 3. Disputes
TxDOT shall be responsible for the settlement of all contractual and administrative issues

Article 4. Ownership of Equipment
Except to the extent that a specific provision of this contract states to the contrary, all equipment purchased by TxDOT under this contract shall be owned by TxDOT

Article 5. Termination
This contract may be terminated by mutual written agreement, or 30 days after either party gives notice to the other party, whichever occurs first.

Article 6. Gratuities
Any person who is doing business with or who reasonably speaking may do business with TxDOT under this contract may not make any offer of benefits, gifts, or favors to employees of TxDOT The only exceptions allowed are ordinary business lunches and items that have received the advanced written approval of the Executive Director of the Texas Department of Transportation

Article 7. Responsibilities of the Parties
Each party acknowledges that it is not an agent, servant, or employee of the other party Each party is responsible for its own acts and deeds and for those of its agents, servants, or employees

Article 8. Compliance with Laws
The parties shall comply with all federal, state, and local laws, statutes, ordinances, rules, and regulations and with the orders and decrees of any courts or administrative bodies or tribunals in any manner affecting the performance of this agreement.

Article 9 State Auditor's Provision
The state auditor may conduct an audit or investigation of any entity receiving funds from TxDOT directly under the contract or indirectly through a subcontract under the contract. Acceptance of funds directly under the contract or indirectly through a subcontract under this contract acts as acceptance of the authority of the state auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds An entity that is the subject of an audit or investigation must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

Article 10. Signatory Warranty
Each signatory warrants that the signatory has necessary authority to execute this agreement on behalf of the entity represented

ATTACHMENT D

Resolution or Ordinance

On the 21st day of June, 2010, the Lewisville City Council passed Resolution No *See Council approval reflected in the minutes attached hereinafter identified by reference, authorizing the City's participation in the Program

ATTACHMENT E

Contact Information

Technical assistance regarding probes, placing and removing of "flags" from motor vehicle records or information regarding payments for your account may be obtained by contacting the Vehicle Titles and Registration Division, Technology Support Branch, at (512) 467-5983 or (512) 465-7950 (Monday through Friday 8·00 AM - 5 00 PM)

ATTACHMENT F

ACCOUNT INFORMATION

VEHICLE TITLES AND REGISTRATION DIVISION **4000 JACKSON AVENUE, AUSTIN, TEXAS 78731-6007** **PLEASE PRINT OR TYPE**	Contract Number For Department Use Only

Type of Account Requested:

___X___ "Prepaid" Account **_____ "Pay Upon Request" Account**

DATE: 7-22-10	**ATTN** *(Name and Telephone Number of Person Responsible For Account)* *Tracie Glaeser, Court Manager* *972-219-3437*
ACCOUNT NAME.	City of Lewisville, Municipal Court

BILLING ADDRESS
PO Box 299002
Lewisville, Texas 75029-9002

ATTENTION *(Name and Mailing Address of the Person Responsible for Sending and Receiving Files.)*
Tracie Glaeser, Court Manager

MAILING ADDRESS **Same as above**

E-MAIL ADDRESS *(For Output File Returns By E-mail)*
tglaeser@cityoflewisville.com

BUSINESS TELEPHONE NUMBER. **972-219-3437 Direct** **972-219-3436 Public**	**BUSINESS FAX NUMBER** **972-219-3708**

For Department Use Only

Escrow Amount _____

Date Agreement Signed 08/16/2010 FM

Account Terminated/Canceled *Account Number*

Non-Payment *User Request*

ATTACHMENT G

CITY SCOFFLAW
INPUT FILE REQUIREMENTS

1 There are three (3) processes available within the RTS CITY SCOFFLAW processing program The available processes are as follows.

A. 'P' – PROBE (inquiry)
B 'F' – FLAG (set CITY SCOFFLAW data)
C 'C' - CLEAR (lift CITY SCOFFLAW data)

2 The following input file format is required to process any of the three (3) options available with the RTS CITY SCOFFLAW process

INPUT			
REG-YR	4 bytes	Position 1-4	/*License Registration Year
PLTNO	7 bytes	Position 5-11	/*License Plate Number
DOCNO	17 bytes	Position 12-28	/*Document Number
FILLER	51 bytes	Position 29-79	/*City Optional Data (Data is returned on output file)
CODE	1 byte	Position 80	/*P=Probe (inquiry) /*F=Flag (set SCOFFLAW) /*C=Clear (lift SCOFFLAW)
TOTAL	**80 bytes**		

NOTE A 'P'robe request requires REG-YR (Registration Year), PLTNO (License Plate Number) and CODE All other information is optional

Both 'F'lag or 'C'lear requests require DOCNO (Document Number) and CODE All other information is optional

MEMORANDUM

TO: Donna Barron, City Manager

FROM: Melinda Galler, Assistant City Manager

DATE: November 15, 2017

SUBJECT: APPROVAL OF REVISIONS TO ADMINISTRATIVE POLICY 2.0, HUMAN RESOURCES - SECTION X – MILITARY LEAVE PAY

BACKGROUND

In May of 2004, because of the Iraq War, the City established a policy to pay employees who were called to active duty in the military the difference between their military pay and their normal city pay to ensure no loss of wages for up to one year every five years. In December of 2007, the Council revised the policy to allow for the pay to be extended for up to two years per five-year period after a police officer was called to serve a second tour in five years which would have resulted in his loss of pay.

The last time the policy was reviewed and adopted by Council was in August of 2010. The current policy still provides employees who are called to active duty the difference in their military pay and their normal city pay for up to two years every five years. The current policy also requires that Council review and approve the policy every two years which means the policy should have been brought back in 2012, 2014 and 2016. Staff believes that this is an unnecessary administrative burden and should be removed.

ANALYSIS

Since 2010, four employees have received the benefit when they were called to active duty:

Employee	Time	Number of Days	Cost to the City
Police Officer	5/18/16 thru 2/26/17	105	$25,816
Police Officer	09/07/17 thru present	17	$6,248
Police Sergeant	7/2/14 thru 2/15/16	133	$44,192
Firefighter	9/22/2017	0.5	$10

Staff recommends that the City maintain the current benefit of ensuring that no employees suffer a loss of wages while serving on active duty for up to two years in a five-year period. In addition, staff recommends the removal of the requirement that the policy be reviewed every two

years by Council. However, the Human Resources Department will continue to track the use and cost of the benefit which will be available on request.

RECOMMENDATION

It is City staff's recommendation that the City Council approve the policy as set forth in the caption above.

Effective Date: 08/16/10
Approval: _____

CITY OF LEWISVILLE
POLICY STATEMENTS

TOPIC: **2.0 – HUMAN RESOURCES**
REFERENCE: **SECTION X – MILITARY LEAVE PAY**

I. MILITARY LEAVE PAY

A. The City will comply with all federal and state laws regarding military leave.

B. Extended military leave:

1. The City of Lewisville shall provide authorized military leave of absence for all regular full time employees who participate in the United States Armed Forces Reserve, States Military Forces, Public Health Services or National Guard. Furthermore, no person shall be discriminated against because of his service in the United States Armed Forces Reserve, State Military Forces, Public Health Services or National Guard.

2. Employees who are called to active duty will be paid military leave pay in an amount necessary to ensure no loss in wages between their military pay and their normal city pay for a period not to exceed two years during a five year period. In addition, active duty employees will continue to accrue their paid leave benefits. They may use their accrued leave balances including vacation, holiday, and sick leave to supplement the difference between military leave pay and normal city salary once all military leave is utilized. Once all accrued benefits are exhausted, the employee will be placed in an unpaid leave status.

3. ~~This policy must be reviewed and approved every two years by the City Council.~~

II. GENERAL PROVISIONS

The City of Lewisville reserves the right to change, modify, amend, revoke, or rescind all or part of this policy in the future.

Effective Date: 11/20/17
Approval: _____

CITY OF LEWISVILLE
POLICY STATEMENTS

TOPIC: **2.0 – HUMAN RESOURCES**
REFERENCE: **SECTION X – MILITARY LEAVE PAY**

I. MILITARY LEAVE PAY

A. The City will comply with all federal and state laws regarding military leave.

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II. GENERAL PROVISIONS

The City of Lewisville reserves the right to change, modify, amend, revoke, or rescind all or part of this policy in the future.

MEMORANDUM

TO: Donna Barron, City Manager

FROM: Thomas Quinn, Emergency Administration Manager

VIA: Melinda Galler, Assistant City Manager

DATE: November 7, 2017

SUBJECT: **Approval of a Resolution for the Acceptance of the 2017 Homeland Security Grant Program's Urban Area Security Initiative (UASI) Grant Award in the Amount of $130,000.**

BACKGROUND

The Office of Emergency Management received notice from the State of Texas Office of the Governor's Homeland Security Grants Division that the City of Lewisville has been awarded a grant in the amount $130,000 under the Urban Area Security Initiative (UASI) grant program. The intent of the UASI grant program is to support local efforts in preparing for threats and hazards that pose risk to the community, and to improve the regional ability to prevent, protect against, mitigate, respond to and recover from acts of terrorism.

The City has been a recipient of a UASI grant annually since 2004. As per grant guidelines, the jurisdiction receives reimbursement of funds after authorized expenditure. The UASI grant is 100% federally funded and does not require the city to match any costs. The performance period for the FY 2017 UASI grant is through August 31, 2019.

ANALYSIS

The amount of $130,000 is allocated at $65,000 to develop a city-wide small unmanned aerial system (sUAS/Drone) program and $65,000 to develop a full-scale exercise focused on terrorism-related scenarios. Both projects will be developed simultaneously by a consulting firm hired by the city.

Currently, the City has no policy or administrative directives guiding the use of a sUAS system. Developing such a program would require human resources and time that the city currently does not have to devote to such a project. This grant will allow staff to hire a consultant to develop a plan that details all applicable legal or statutory requirements, insurance and risk management, and the compilation of all documentation required for the appropriate Certificate of Authorization (COA) from the Federal Aviation Administration (FAA). This grant would also fund analysis of options and recommendations for the most appropriate manner of sUAS program design and administration (i.e. staffing, organization, costs and budgetary impacts, documentation, and record-keeping, etc.), thorough advisement on equipment needs and crafting standard operating procedures (SOPs) for the program. Once the project is completed staff will have a template that can be shared with other regional jurisdictions looking to start a sUAS program and begin operating and purchasing sUAS equipment for various city departments looking to operate the systems.

In addition to hiring a consultant to develop the sUAS program, the city will are hire another firm to develop and conduct a full-scale exercise. The city has not had a full-scale exercise since 2016 when staff held a railroad accident exercise with the DCTA and MCL hospital. The goal of this project would be to hire a consultant to plan, design, conduct, and evaluate a full-scale exercise (with a terrorism-related scenario) for the City of Lewisville in accordance with Homeland Security Exercise and Evaluation Protocols (HSEEP). The goal of this project is for city staff and partner agencies to participate in a "turn-key" style full-scale exercise. The full-scale exercise will be an opportunity for Lewisville to test activation of the emergency operations center and the emergency operations center team as well as tactical dispatch and unified command between police and fire departments. In disasters, such as a terrorist attack or severe weather, it is imperative for a city to have practiced where to report and when, and what to expect in an activated EOC, and how the EOC will interface with Dispatch and on-scene incident command organizations. A full-scale disaster exercise will provide practice, identify gaps, and improvements which will create a more resilient community.

RECOMMENDATION

It is City staff's recommendation that the City Council accept the grant and approve the resolution as set forth in the caption above.

GOVERNOR GREG ABBOTT

Dear Grantee:

Congratulations on your award! To activate your agency's grant, the Authorized Official must log on to eGrants at https://eGrants.gov.texas.gov and go to the 'My Home' tab. In the 'Pending Applications' section, locate the application with a 'Current Status' of "Pending AO Acceptance of Award". Click on the grant number and proceed to the 'Accept Award' tab. From this tab, click on the 'Accept' button. Grants must be accepted within 45 calendar days of the date the award was issued.

Be sure to review the Subrecipient Responsibilities Memo for a quick overview of general items every grantee should be aware of. You can also find more detailed information on the eGrants website including helpful resources, links, and tools needed to properly administer HSGD grants. The Guide to Grants, also on the website, contains answers to questions frequently asked by grantees.

If you have any questions regarding this award, feel free to contact your grant manager, whose name is referenced in the Statement of Grant Award or you may always contact our office via the eGrants Help Desk at eGrants@gov.texas.gov.

We look forward to working with you to ensure the success of your program.

Aimee Snoddy
Director
Homeland Security Grants Division

Statement of Grant Award (SOGA)

The Statement of Grant Award is the official notice of award from the Office of the Governor (OOG). This Grant Agreement and all terms, conditions, provisions and obligations set forth herein shall be binding upon and shall inure to the benefit of the Parties and their respective successors and assigns and all other State of Texas agencies and any other agencies, departments, divisions, governmental entities, public corporations, and other entities which shall be successors to each of the Parties or which shall succeed to or become obligated to perform or become bound by any of the covenants, agreements or obligations hereunder of each of the Parties hereto.

The approved project narrative and budget for this award are reflected in eGrants on the 'Narrative' and 'Budget/Details' tabs. By accepting the Grant Award in eGrants, the Grantee agrees to strictly comply with the requirements and obligations of this Grant Agreement including any and all applicable federal and state statutes, regulations, policies, guidelines and requirements. In instances where conflicting requirements apply to a Grantee, the more restrictive requirement applies.

The Grant Agreement includes the Statement of Grant Award; the OOG Grantee Conditions and Responsibilities; the Grant Application in eGrants; and the other identified documents in the Grant Application and Grant Award, including but not limited to: 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards; Chapter 783 of the Texas Government Code, Title 34, Part 1, Chapter 20, Subchapter I of the Texas Administrative Code, and the Uniform Grant Management Standards (UGMS) developed by the Comptroller of Public Accounts; the state Funding Announcement or Solicitation under which the grant application was made, and for federal funding, the Funding Announcement or Solicitation under which the OOG was awarded funds; and any applicable documents referenced in the documents listed above. For grants awarded from the U.S. Department of Justice, the current applicable version of the Department of Justice Grants Financial Guide and any applicable provisions in Title 28 of the CFR apply. For grants awarded from the Federal Emergency Management Agency (FEMA), all Information Bulletins and Policies published by the FEMA Grants Program Directorate apply. The OOG reserves the right to add additional responsibilities and requirements, with or without advance notice to the Grantee.

By clicking on the 'Accept' button within the 'Accept Award' tab, the Grantee accepts the responsibility for the grant project, agrees and certifies compliance with the requirements outlined in the Grant Agreement, including all provisions incorporated herein, and agrees with the following conditions of grant funding. The grantee's funds will not be released until the grantee has satisfied the requirements of the following Condition(s) of Funding and Other Fund-Specific Requirement(s), if any, cited below:

Grant Number:	3416301	**Award Amount:**	$65,000.00
Date Awarded:	10/10/2017	**Grantee Cash Match:**	$0.00
Grant Period:	09/01/2017 - 08/31/2019	**Grantee In Kind Match:**	$0.00
Liquidation Date:	11/29/2019	**Total Project Cost:**	$65,000.00
Program Fund:	HS-Homeland Security Grant Program (HSGP)		
Grantee Name:	Lewisville, City of		
Project Title:	Small Unmanned Aerial System (sUAS) Program Research and Proposal		
Grant Manager:	Daisy Saenz-Rodriguez		
DUNS Number:	078364312		

CFDA:	97.067 - Homeland Security Grant Program (HSGP)
Federal Awarding Agency:	U.S. Department of Homeland Security, Federal Emergency Management Agency
Federal Award Date:	9/5/2017
Federal/State Award ID Number:	EMW-2017-SS-00005
Total Federal Award/State	$80,206,000.00

Funds Appropriated:	
Pass Thru Entity Name:	Texas Office of the Governor – Homeland Security Grants Division (HSGD)
Is the Award R&D:	No
Federal/State Award Description:	The purpose of the HSGP is to support state and local efforts to prevent terrorism and other catastrophic events and to prepare the Nation for the threats and hazards that pose the greatest risk to the security of the United States. The HSGP provides funding to implement investments that build, sustain, and deliver the 31 core capabilities essential to achieving the National Preparedness Goal (the Goal) of a secure and resilient Nation. The building, sustainment, and delivery of these core capabilities are not exclusive to any single level of government, organization, or community, but rather, require the combined effort of the whole community.

List of Post-Award Conditions of Funding and Other Fund-Specific Requirements

Condition of Funding / Project Requirement	Date Created	Date Met	Hold Project Funds	Hold Line Item Funds
Resolution: Applications from nonprofit corporations, local units of governments, and other political subdivisions must submit a resolution electronically using the 'Upload' function in the eGrants system. The resolution must contain the following: • Authorization by your governing body for the submission of the application to OOG that clearly identifies the name of the project for which funding is requested; • A commitment to provide all applicable matching funds; • A designation of the name and/or title of an authorized official who is given the authority to apply for, accept, reject, alter, or terminate a grant (Note: If a name is provided, you must update OOG should the official change during the grant period.); and • A written assurance that, in the event of loss or misuse of grant funds, the governing body will return all funds to OOG.	6/7/2017		☑	☐

GOVERNOR GREG ABBOTT

Dear Grantee:

Congratulations on your award! To activate your agency's grant, the Authorized Official must log on to eGrants at https://eGrants.gov.texas.gov and go to the 'My Home' tab. In the 'Pending Applications' section, locate the application with a 'Current Status' of "Pending AO Acceptance of Award". Click on the grant number and proceed to the 'Accept Award' tab. From this tab, click on the 'Accept' button. Grants must be accepted within 45 calendar days of the date the award was issued.

Be sure to review the Subrecipient Responsibilities Memo for a quick overview of general items every grantee should be aware of. You can also find more detailed information on the eGrants website including helpful resources, links, and tools needed to properly administer HSGD grants. The Guide to Grants, also on the website, contains answers to questions frequently asked by grantees.

If you have any questions regarding this award, feel free to contact your grant manager, whose name is referenced in the Statement of Grant Award or you may always contact our office via the eGrants Help Desk at eGrants@gov.texas.gov.

We look forward to working with you to ensure the success of your program.

Aimee Snoddy
Director
Homeland Security Grants Division

Statement of Grant Award (SOGA)

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The approved project narrative and budget for this award are reflected in eGrants on the 'Narrative' and 'Budget/Details' tabs. By accepting the Grant Award in eGrants, the Grantee agrees to strictly comply with the requirements and obligations of this Grant Agreement including any and all applicable federal and state statutes, regulations, policies, guidelines and requirements. In instances where conflicting requirements apply to a Grantee, the more restrictive requirement applies.

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Grant Number:	3419901	**Award Amount:**	$65,000.00
Date Awarded:	10/10/2017	**Grantee Cash Match:**	$0.00
Grant Period:	09/01/2017 - 08/31/2019	**Grantee In Kind Match:**	$0.00
Liquidation Date:	11/29/2019	**Total Project Cost:**	$65,000.00
Program Fund:	HS-Homeland Security Grant Program (HSGP)		
Grantee Name:	Lewisville, City of		
Project Title:	Full Scale Exercise		
Grant Manager:	Daisy Saenz-Rodriguez		
DUNS Number:	078364312		

CFDA:	97.067 - Homeland Security Grant Program (HSGP)
Federal Awarding Agency:	U.S. Department of Homeland Security, Federal Emergency Management Agency
Federal Award Date:	9/5/2017
Federal/State Award ID Number:	EMW-2017-SS-00005
Total Federal Award/State Funds Appropriated:	$80,206,000.00
Pass Thru Entity Name:	Texas Office of the Governor – Homeland Security Grants Division (HSGD)

Is the Award R&D:	No
Federal/State Award Description:	The purpose of the HSGP is to support state and local efforts to prevent terrorism and other catastrophic events and to prepare the Nation for the threats and hazards that pose the greatest risk to the security of the United States. The HSGP provides funding to implement investments that build, sustain, and deliver the 31 core capabilities essential to achieving the National Preparedness Goal (the Goal) of a secure and resilient Nation. The building, sustainment, and delivery of these core capabilities are not exclusive to any single level of government, organization, or community, but rather, require the combined effort of the whole community.

List of Post-Award Conditions of Funding and Other Fund-Specific Requirements

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Resolution: Applications from nonprofit corporations, local units of governments, and other political subdivisions must submit a resolution electronically using the 'Upload' function in the eGrants system. The resolution must contain the following: • Authorization by your governing body for the submission of the application to OOG that clearly identifies the name of the project for which funding is requested; • A commitment to provide all applicable matching funds; • A designation of the name and/or title of an authorized official who is given the authority to apply for, accept, reject, alter, or terminate a grant (Note: If a name is provided, you must update OOG should the official change during the grant period.); and • A written assurance that, in the event of loss or misuse of grant funds, the governing body will return all funds to OOG.	6/7/2017		☑	☐

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, ACCEPTING THE FEDERAL FISCAL YEAR 2017 URBAN AREA SECURITY INITIATIVE (UASI) GRANT AWARD.

WHEREAS, the City Council of the City of Lewisville finds it in the best interest of the citizens of Lewisville, that the Small Unmanned Aerial System (sUAS) Program Research and Proposal project and the Full-Scale Exercise project be operated for the federal fiscal year of 2017; and,

WHEREAS, the City Council of the City of Lewisville agrees that in the event of loss or misuse of the Office of the Governor funds, the City of Lewisville assures that the funds will be returned to the Office of the Governor in full; and,

WHEREAS, the City Council of the City of Lewisville designates the Emergency Management Coordinator as the grantee's authorized official. The authorized official is given the power to apply for, accept, reject, alter or terminate the grant on behalf of the applicant agency; and,

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, THAT the City Council approves the submission of the grant application to the Office of the Governor, and accepts the grant award for the Small Unmanned Aerial System (sUAS) Program Research and Proposal project and the Full-Scale Exercise project.

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, ON THIS THE _____DAY OF _____, 2017.

APPROVED:

_____
Rudy Durham, MAYOR

ATTEST:

_____
Julie Worster, CITY SECRETARY

APPROVED AS TO FORM:

_____
Lizbeth Plaster, CITY ATTORNEY

Ref. Grant Number: 3416301 (Small Unmanned Aerial System) and 3419901 (Full-Scale Exercise)

MEMORANDUM

TO: Donna Barron, City Manager

THROUGH: Judge Brian Holman

FROM: Brenda Martin, Director of Finance

DATE: October 31, 2017

SUBJECT: **Consideration of an Ordinance of the City Council of the City of Lewisville, Texas Amending the Lewisville Code of Ordinances, Chapter 2, Section 2-201 Fee Schedule By Repealing and Replacing Municipal Court Credit Card Convenience Fees.**

BACKGROUND

The City recently changed service providers for credit card processing for the Municipal Court operations. The new service provider enabled online payment processing that ensured service delivery met all governing requirements with respect to PCI (Payment Card Industry) compliance. For the customer, the new service provider's product is also easy to use and allows for partial payments of municipal fines which was not available within the prior product.

ANALYSIS

The new payment processing solution has a different credit card fee structure than has been used previously by the City. The fee ordinance is being updated for these changes.

RECOMMENDATION

It is City staff's recommendation that the City Council approve the ordinance as set forth in the caption above.

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS AMENDING THE LEWISVILLE CODE OF ORDINANCES, CHAPTER 2, SECTION 2-201 FEE SCHEDULE BY REPEALING AND REPLACING MUNICIPAL COURT CREDIT CARD CONVENIENCE FEES; PROVIDING A REPEALER; PROVIDING FOR SEVERABILITY; PROVIDING AN EFFECTIVE DATE; AND DECLARING AN EMERGENCY.

WHEREAS, the City Council of the City of Lewisville, Texas, has determined that for the health, welfare, and safety of its citizens, it is desirable that certain amendments to Chapter 2, Section 2-201 of the Code of Ordinances of the City of Lewisville, Texas, are necessary.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, THAT:

SECTION I. REPEAL

A. Code of Ordinances, Chapter 2, Section 2-201, Fee Schedule, is hereby amended by repealing the following fees and language:

Municipal Court:

Municipal Court: Credit Card Convenience Fees:	
$0—49.99	0.00
$50.00—99.99	2.50
$100.00—199.99	5.00
$200.00—299.99	10.00
$300.00—499.99	15.00
$500.00—799.99	20.00
$800.00—higher	25.00

SECTION II. AMENDMENTS.

A. Code of Ordinances, Chapter 2, Section 2-201, Fee Schedule, is hereby amended by adding the following fees and language:

Municipal Court:

Municipal Court: Credit Card Convenience Fees:	
In Person Transactions	2.95% of transaction amount
Internet and Interactive Voice Recognition (IVR) Transactions	$5 for transactions < $100 5% of transactions $100 or greater

SECTION III. REPEALER. Every ordinance or parts of ordinances found to be in conflict herewith are hereby repealed.

SECTION IV. SEVERABILITY. If any section, sentence, clause, or phrase of this ordinance shall for any reason be held to be invalid, such decision shall not affect the validity of the remaining sections, sentences, clauses, or phrases of this ordinance, but they shall remain in effect.

SECTION V. EFFECTIVE DATE. This ordinance shall become effective immediately upon its passage and publication as required by law.

SECTION VI. EMERGENCY. It being for the public welfare that this ordinance be passed creates an emergency and public necessity, and the rule requiring this ordinance be read on three separate occasions be, and the same is hereby waived, and this ordinance shall be in full force and effect from and after its passage and approval.

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, BY A VOTE OF _____ TO _____, ON THIS THE 20th DAY OF NOVEMBER, 2017.

APPROVED:

_____
Rudy Durham, MAYOR

ATTEST:

_____
Julie Worster, CITY SECRETARY

APPROVED AS TO FORM:

_____
Lizbeth Plaster, CITY ATTORNEY

MEMORANDUM

TO: Donna Barron, City Manager

FROM: Brenda Martin, Director of Finance

DATE: November 7, 2017

SUBJECT: **Consideration of an Ordinance Updating the Service/Assessment Plan and Assessment Roll for Lewisville Castle Hills Public Improvement District No. 5 Project; Providing a Repealer; Providing For Severability; Providing an Effective Date; and Declaring an Emergency.**

BACKGROUND

Chapter 372 of the Local Government Code authorizes the creation of Public Improvement Districts (PIDs) to provide a tool by which a city can levy and collect special assessments on property that is within the city or within the city's extraterritorial jurisdiction (ETJ) for designated purposes including the construction of street and water/wastewater improvements. In 1996, the city entered into a development agreement with Denton County Fresh Water Supply Districts (DCFWSD) No. 1-A and No. 1-B and Bright Farm Partnerships to create PIDs to provide the financing necessary for infrastructure development in the city's ETJ.

Since the approval of the 1996 agreement, DCFWSD 1-A divided into additional districts—1-C, 1-D, 1-E, 1-F, 1-G and 1-H. PIDs have been approved by the City Council as follows:

PID No. 1	DCFWSD 1-B
PID No. 2	DCFWSD 1-D
PID No. 3	DCFWSD 1-E
PID No. 4	DCFWSD 1-F
PID No. 5	DCFWSD 1-G
PID No. 6	DCFWSD 1-H
PID No. 7	DCFWSD 1-C

Combination Contract Revenue and Special Assessment bonds have been issued in the districts which are paid via property tax collections in the respective district (an assessment on property owners in the districts would only occur if tax collections were insufficient to cover debt payments). Total outstanding debt for these PIDs (No. 1-7) is currently $131.17M. This debt is strictly a liability of the districts and not the City of Lewisville.

ANALYSIS

The Service and Assessment Plan identifies the public improvements to be provided by the PID, the cost of the public improvements, the indebtedness to be incurred for the public improvements, and the manner of assessing the property in the PID for the costs of the public improvements. The Assessment Roll identifies the assessment on each parcel, based on the method of assessment identified in the Plan.

The Plan and Roll for PID No. 5 encompasses DCFWSD 1-G and is made up of approximately 307 acres subdivided into 155 residential lots and 266 acres of commercial tracts, which include commercial and multifamily development.

RECOMMENDATION

It is City staff's recommendation that the City Council consider approval of the ordinance as set forth in the caption above.

CERTIFICATE FOR ORDINANCE

THE STATE OF TEXAS §

COUNTIES OF DENTON AND DALLAS §

CITY OF LEWISVILLE §

I, the undersigned City Secretary of the City of Lewisville, Texas, hereby certify as follows:

1. The City Council of the City of Lewisville, Texas (the "City Council") convened in a regular session on November 20, 2017 in the Council Chambers of the Lewisville City Hall, 151 West Church Street, Lewisville, Texas (the "Meeting"), and the roll was called of the duly constituted Council Members of the City of Lewisville, Texas to-wit:

Rudy Durham	Mayor
Brent Daniels	Mayor Pro-Tem
Brandon Jones	Deputy Mayor Pro-Tem
TJ Gilmore	Council Member
R. Neil Ferguson	Council Member
Bob Troyer	Council Member

And all of the persons were present except _____, thus constituting a quorum. Whereupon, among other business, the following was transacted at the Meeting:

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, UPDATING THE ASSESSMENT/SERVICE PLAN AND ASSESSMENT ROLL FOR LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT, PROVIDING A REPEALER; PROVIDING FOR SEVERABILITY; PROVIDING AN EFFECTIVE DATE; AND DECLARING AN EMERGENCY

(the "Ordinance") was duly introduced for the consideration of the City Council. It was then duly moved and seconded that the Ordinance be passed; and, after due discussion, said motion carrying with it the passage of the Ordinance, prevailed and carried by the following vote:

Aye: ___ No:___

2. A true, full and correct copy of the Ordinance passed at the Meeting described in the above and foregoing paragraph is attached to and follows this Certificate; that the Ordinance has been duly recorded in the City Council's minutes of the Meeting; that the above and foregoing paragraph is a true, full and correct excerpt from the City Council's minutes of the Meeting pertaining to the passage of the Ordinance; that the persons named in the above and foregoing paragraph are the duly chosen, qualified and acting city officials as indicated therein; that each of the elected officials and members of the City Council was duly and sufficiently notified, officially and personally, in advance, of the time, place and purpose of the Meeting, and that the Ordinance would be introduced and considered for passage at the Meeting, and each of the elected officials and members consented, in advance, to the holding of the Meeting for such purpose, and that the

Meeting was open to the public and public notice of the time, place and purpose of the meeting was given, all as required by Chapter 551, Texas Government Code, as amended.

3. The City Council has approved the aforementioned attached Ordinance and the Mayor and the City Secretary of the City of Lewisville, Texas have duly signed the Ordinance; and that the City Secretary hereby declares that the attached Ordinance is a true and correct copy of the Ordinance for all purposes.

SIGNED AND SEALED this November 20, 2017.

_____
Julie Worster, City Secretary
City of Lewisville, Texas

[City Seal]

ORDINANCE NO. ____ - -2017

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, UPDATING THE ASSESSMENT/SERVICE PLAN AND ASSESSMENT ROLL FOR LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT; PROVIDING A REPEALER; PROVIDING FOR SEVERABILITY; PROVIDING AN EFFECTIVE DATE; AND DECLARING AN EMERGENCY

RECITALS

WHEREAS, a petition was submitted to the governing body of the City of Lewisville, Texas (the "City" or "Issuer")), pursuant to the Public Improvement District Assessment Act, Chapter 372, Texas Local Government Code (the "Act" or the "P.I.D. Act"), requesting the creation of a public improvement district over a portion of territory to be known as Lewisville Castle Hills Public Improvement District No. 5 ("P.I.D. No. 5" or the "P.I.D.");

WHEREAS, all capitalized terms utilized in this ordinance and not otherwise defined herein shall have the meanings set forth in that certain Master Trust Agreement, dated as of May 1, 2014, relating to the City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds (Lewisville Castle Hills Public Improvement District No. 5 Project);

WHEREAS, pursuant to Section 372.009(b) of the Act, the governing body of the Issuer, on the 6th day of May, 2013, passed and approved Resolution No. 3991-05-2013, making certain findings as to the advisability of the improvements, the nature of the improvements, the boundaries of the proposed public improvement district, the method of assessment, and the apportionment of the costs between the proposed public improvement district and the Issuer as a whole and authorizing the creation of P.I.D. No. 5 and thereby establishing the exact boundaries of P.I.D. No. 5;

WHEREAS, on the 19th day of May, 2014, the governing body of the Issuer adopted an Ordinance (the "Assessment Ordinance") approving the Assessment/Service Plan for P.I.D. No. 5 and levied assessments as Special Assessments on each parcel of property within P.I.D. No. 5, all as provided in Section 372.017 of the Act;

WHEREAS, Section 372.013 of the P.I.D. Act and the Assessment/Service Plan require that the Assessment/Service Plan and Assessment Roll be annually reviewed and updated;

WHEREAS, the City desires to adopt an Annual Assessment/Service Plan Update for 2017, prior to the issuance of the City of Lewisville, Texas, Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) and City of Lewisville, Texas, Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (collectively, the "Series 2017 Bonds");

WHEREAS, this update to the Assessment/Service Plan (the "Assessment/Service Plan Update"), including an updated Assessment Roll, attached as Exhibit A hereto conforms the

original Assessment Roll to the principal and interest payment schedule required for outstanding bonds of the City attributable to the P.I.D., thereby reducing the amounts listed on the original Assessment Roll, and updates the Assessment Roll to reflect prepayments, reallocation of lot types and assessments, issuance of the Series 2017 Bonds and changes to the budget allocation for public improvements to and in the P.I.D. that occur during the year, if any; and

WHEREAS, the City Council of the City now desires to proceed with the adoption of this Ordinance which updates the Assessment Ordinance and approves and adopts the Annual Assessment/Service Plan Update and the updated Assessment Roll attached thereto, in conformity with the requirements of the P.I.D. Act.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS:

Section 1. The findings and determinations set forth in the preambles are hereby incorporated by reference for all purposes.

Section 2. The Assessment/Service Plan Update, including the updated Assessment Roll, attached hereto as Exhibit A, is hereby accepted and approved.

Section 3. Every ordinance or parts of ordinances found to be in conflict herewith are hereby repealed.

Section 4. If any section, sentence, clause, or phrase of this Ordinance shall for any reason be held to be invalid, such decision shall not affect the validity of the remaining sections, sentences, clauses, or phrases of this Ordinance, but they shall remain in effect.

Section 5. It being for the public welfare that this Ordinance be passed creates an emergency and public necessity and the rule requiring this Ordinance be read on three separate occasions be, and the same is hereby, waived and this Ordinance shall be in full force and effect from and after its passage and approval and publication, as the law in such cases provides.

[Remainder of Page Intentionally Left Blank.]

DULY PASSED AND APPROVED ON November 20, 2017.

APPROVED:

_____
Mayor, City of Lewisville, Texas

ATTEST:

_____
City Secretary, City of Lewisville, Texas

APPROVED AS TO FORM:

_____
City Attorney, City of Lewisville, Texas

EXHIBIT “A”

ANNUAL ASSESSMENT/SERVICE PLAN UPDATE

DAVID TAUSSIG & ASSOCIATES, INC.

CITY OF LEWISVILLE
PUBLIC IMPROVEMENT DISTRICT NO. 5
(CASTLE HILLS)

ANNUAL SERVICE PLAN UPDATE
TO THE
ASSESSMENT/SERVICE PLAN

NOVEMBER 20, 2017

Public Finance
Public Private Partnerships
Urban Economics

MCKINNEY, TEXAS
NEWPORT BEACH, CALIFORNIA

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EXHIBIT A – 2017 ASSESSMENT ROLL

I. INTRODUCTION

The Castle Hills Public Improvement District No. 5 (the "PID") was created by the City Council of the City of Lewisville (the "City") by Resolution No. 03989-05-2013 (the "Resolution") on May 6, 2013 in accordance with the Public Improvement District Act, being Chapter 372 of the Texas Local Government Code (the "PID Act") to finance the costs of certain public improvements (the "Authorized Improvements") for the benefit of the property in the PID (the "Assessed Property"). The PID is located in the extraterritorial jurisdiction of the City. The PID contains approximately 307.074 acres of land, subdivided into 155 residential lots and 265.8109 acres of commercial tracts, which include commercial and multifamily development.

An Assessment/Service Plan (the "Plan") was prepared at the direction of the City, identifying the Authorized Improvements and their estimated costs, the manner of assessing the property in the PID for the costs of the Authorized Improvements, and the indebtedness to be incurred. In addition, an assessment roll (the "Assessment Roll") was prepared identifying the assessments on each Parcel of Assessed Property, based on the method of assessment identified in the Plan. Following a public hearing, the Plan was adopted by the City on May 19, 2014.

Pursuant to Sections 372.013 and 372.014 of the PID Act, the Service Plan is to be reviewed and updated annually and is to include an Assessment Plan. This Annual Service Plan Update to the Assessment/Service Plan (the "Annual Plan Update") for 2017 is comprised of the following three parts:

- Definitions;
- Service Plan Update;
- Assessment Plan; and
- Assessment Roll.

II. DEFINITIONS

The following capitalized terms shall have the meanings provided below, unless otherwise defined or the context clearly requires otherwise. For purposes of this Annual Plan Update, the words "shall" and "will" are mandatory, and the word "may" is permissive.

"Annual Interest Installment" means, with respect to each Parcel, each annual payment of annual interest on the Assessment, as shown on the Assessment Roll attached hereto, and calculated as provided in Section IV of this Annual Plan Update.

"Annual Service and Assessment Plan Update" means an annual update to the Service and Assessment Plan approved by the City pursuant to Section 372.013 of the PID Act.

"Assessed Property" means, for any year, Parcels within the PID upon which an Assessment has been levied.

"Assessment" means the assessment levied against a Parcel imposed pursuant to the Assessment Ordinance and the provisions herein, as shown on the Assessment Roll, subject to reallocation up the subdivision of such Parcel created by such subdivision or reduction according to the provisions herein and the PID Act.

"Assessment Ordinance" means Ordinance No. 4075-05-2014 approved by the City on May 19, 2014 levying Assessments on the Lots within the PID.

"Bonds" mean all bonds secured by Contract Revenues and Assessments, issued by the City in one or more series.

"Contract Revenues" mean those revenues received by the City from District 1-G pursuant to the Joint Utility Contracts for the payment of debt service on the Bonds.

"Delinquent Collection Costs" mean interest, penalties and expenses incurred or imposed with respect to any delinquent installments of an Assessment in accordance with 372.018(f) of the PID Act and the costs related to pursuing collection of a delinquent Assessment and foreclosing the lien against the Assessed Property, including attorneys' fees to the extent permitted under Texas law.

"Joint Utility Contracts" mean the 2008 Joint Utility Contract and 2008 Joint Road Contract among the City, Denton County Fresh Water Supply District No. 1-A ("District 1-A") and the PID providing for the issuance of up to $36,000,000 in Bonds secured in part by Contract Revenues.

"Lot" means a tract of land described as a lot in a subdivision plat recorded in the Official Public Records of Denton County, Texas.

"Lot Type" means the type of Lot for purposes of allocation of special benefit.

"Non-Benefited Property" means Parcels within the boundaries of the PID that accrue no special benefit from the Authorized Improvements. Properties identified as Non-Benefited Property at the time the Assessments (i) are imposed or (ii) are reallocated pursuant to a subdivision of a Parcel are not assessed. If when Assessed Property is converted to Non-Benefited Property the Assessments may not be reallocated pursuant to the Assessment Plan herein because it would cause other landowners to bear an increased assessment, such property shall remain subject to the Assessments and shall prepay the Assessments as provided for in the Plan prior to conversion to Non-Benefited Property.

"Parcel" means a parcel identified by either a tax map identification number assigned by the Denton County Appraisal District for real property tax purposes or by lot and block number in a final subdivision plat recorded in the real property records of Denton County. Each Lot described herein is a separate Parcel.

"PID Costs" mean the actual or budgeted costs, as applicable, of all or any portion of the Authorized Improvements that provide a special benefit to the Assessed Property and are allocated to the PID.

"Subdivision Plat" means a subdivision plat recorded in the Official Public Records of Denton County, Texas and subdividing a tract of land within the PID into Lots for assessment and/or development purposes.

III. ANNUAL SERVICE PLAN UPDATE

Section 372.013 of the PID Act requires that the Annual Service Plan Update (i) define the annual indebtedness and the projected costs of the Projects and (ii) cover a period of at least five (5) years.

A. PID BONDED INDEBTEDNESS

On June 2, 2014, the City issued Combination Contract Revenue and Special Assessment bonds in the aggregate amount of $7,750,000 (the "Series 2014 Bonds"). These included $3,255,000 of Utility System Bonds (the "2014 Utility Bonds") and $4,495,000 of Road System Bonds (the "2014 Road Bonds"). On December 7, 2015, the City issued additional Combination Contract Revenue and Special Assessment Utility Bonds (the "Series 2015 Bonds") in the aggregate amount of $10,950,000 (the "2015 Utility Bonds"). Both the Series 2014 Bonds and Series 2015 Bonds are secured by Contract Revenues, and by Assessments levied pursuant to the Plan, for the payment of debt service on the Bonds. The City currently estimates that one percent (1%) of the debt service on the Bonds will be secured by and paid from Assessments.

The sources and uses of funds for the Series 2014 and Series 2015 Bonds are shown in Table III-1 below.

TABLE III-1

PUBLIC IMPROVEMENT DISTRICT NO. 5
(CASTLE HILLS)

SOURCES AND USES OF FUNDS
SERIES 2014 AND 2015 BONDS

	TOTAL	2015 UTILITY BONDS	2014 UTILITY BONDS	2014 ROAD BONDS
SOURCES OF FUNDS				
BONDS PROCEEDS	$18,700,000	$10,950,000	$3,255,000	$4,495,000
CASH ADVANCE FROM DEVELOPER	$726,575	$0	$305,725	$420,850
TOTAL SOURCES OF FUNDS	**$19,426,575**	**$10,950,000**	**$3,560,725**	**$4,915,850**
USE OF FUNDS				
IMPROVEMENT FUND	$16,472,840	$9,200,000	$3,083,300	$4,189,540
DEBT SERVICE RESERVE FUND	$1,821,675	$1,095,000	$305,725	$420,950
PLACEMENT AGENT'S FEES	$373,900	$219,000	$65,000	$89,900
ISSUANCE COSTS	$758,160	$436,000	$106,700	$215,460
TOTAL USES OF FUNDS	**$19,426,575**	**$10,950,000**	**$3,560,725**	**$4,915,850**

The City anticipates the issuance of a Series 2017 Combination Contract Revenue and Special Assessment bonds in the currently estimated aggregate amount of $17,300,000 to finance a portion of the Authorized Improvements (described below) that provide a special benefit to the Assessed Property within the PID. A five year projection of the anticipated phased issuance of PID bonds is shown in Table III-2 below.

TABLE III-2

PUBLIC IMPROVEMENT DISTRICT NO. 5
(CASTLE HILLS)

PROJECTED ANNUAL PID BOND ISSUANCE
AND
AGGREGATE INDEBTEDNESS

YEAR	ANNUAL INDEBTEDNESS	AGGREGATE INDEBTEDNESS
2014	$7,750,000	$7,750,000
2015	$10,950,000	$18,700,000
2016	$0	$18,700,000
2017	$17,300,000	$36,000,000
2018	$0	$36,000,000
2019	$0	$36,000,000
PROJECTED TOTAL	**$36,000,000**	**N/A**

B. DESCRIPTION OF AUTHORIZED IMPROVEMENTS

The Authorized Improvements include the following items:

1. WATER SYSTEM IMPROVEMENTS

The water system improvements will consist of the construction of a water distribution system which benefits the PID, connecting to the Upper Trinity Regional Water District's water supply system.

2. WASTEWATER IMPROVEMENTS

The acquisition or construction of a wastewater collection system which benefits the PID, connecting to the City's sanitary sewer collection and treatment system

3. DRAINAGE

The drainage improvements will consist of the acquisition or construction of a stormwater drainage system which benefits the PID.

4. STREETS AND ROADWAYS

The acquisition or construction of streets or roadways and improvements thereto which benefits the PID.

5. ESTIMATED COST OF AUTHORIZED IMPROVEMENTS

The estimated total cost of the Authorized Improvements is $28,100,000. Table III-3 shows the estimated costs of the Authorized Improvements by category.

TABLE III-3

PUBLIC IMPROVEMENT DISTRICT NO. 5
(CASTLE HILLS)

ESTIMATED COSTS OF AUTHORIZED IMPROVEMENT BY CATEGORY

CATEGORY	ESTIMATED COST
WATER FACILITIES	$5,630,000
SEWER FACILITIES	$5,200,000
DRAINAGE FACILITIES	$6,200,000
STREET AND ROADWAY FACILITIES	$6,630,000
DESIGN, ENGINEERING & ADMINISTRATION	$2,074,000
CONTINGENCY	2,366,000
PROJECTED TOTAL EXPENDITURES	**$28,100,000**

The Authorized Improvements will be financed or reimbursed in part from the payment of the Assessments in periodic installments. The remainder of the Authorized Improvements not financed or reimbursed from Assessments will be financed or reimbursed by Contract Revenues.

Table III-4 shows the estimated sources and uses of the Bonds.

TABLE III-4

PUBLIC IMPROVEMENT DISTRICT NO. 5
(CASTLE HILLS)

ESTIMATED SOURCES AND USES OF FUNDS
ALL AUTHORIZED IMPROVEMENTS

	TOTAL	FUNDED BY PID ASSESSMENTS	FUNDED BY CONTRACT REVENUES
SOURCES OF FUNDS			
UTILITY SYSTEM BOND PROCEEDS	$25,600,000	$256,000	$25,344,000
ROAD SYSTEM BOND PROCEEDS	$10,400,000	$104,000	$10,296,000
TOTAL SOURCES OF FUNDS	**$36,000,000**	**$360,000**	**$35,640,000**
USE OF FUNDS			
CONSTRUCTION COSTS:			
CONSTRUCTION FUNDS: UTILITY	$19,983,000	$199,830	$19,783,170
CONSTRUCTION FUNDS: ROAD	$8,117,000	$81,170	$8,035,830
SUB-TOTAL: ALL CONSTRUCTION FUNDS	**$28,100,000**	**$281,000**	**$27,819,000**
NON-CONSTRUCTION COSTS:			
LEGAL FEES	$720,000	$7,200	$712,800
UNDERWRITER'S FEES	$720,000	$7,200	$712,800
CAPITALIZED INTEREST	$4,680,000	$46,800	$4,633,200
LOC FEES AND CREDIT ENHANCEMENTS	$1,350,000	$13,500	$1,336,500
ORGANIZATION & ADDITIONAL ISSUANCE COSTS	$430,000	$4,300	$425,700
SUB-TOTAL: NON-CONSTRUCTION COSTS	**$7,890,000**	**$79,000**	**$7,821,000**
TOTAL USES OF FUNDS	**$36,000,000**	**$360,000**	**$35,640,000**

IV. ASSESSMENT PLAN

Section 372.015 of the PID Act states that the governing body of the municipality shall apportion the cost of an improvement to be assessed against property in an improvement district, and the apportionment shall be made on the basis of special benefits accruing to the property because of the improvement. More specifically, the PID Act provides that the costs of the improvements may be assessed (i) equally per front foot or square foot; (ii) according to the value of the property as determined by the governing body, with or without regard to improvements on the property; or (iii) in any other manner that results in imposing equal shares of the cost on property similarly benefited.

A. METHOD OF ASSESSMENT

The City Council determined that the PID Costs should be allocated to the Assessed Property on the basis of the benefit received by each Parcel without regard to which Authorized Improvements have been completed and installed, and that such method of allocation will result in the imposition of equal shares of the costs of the Authorized Improvements allocated to the PID on Parcels similarly benefited. In determining the relative value of Parcels, the City Council has taken into consideration (i) the type, size and number of lots and commercial parcels; (ii) current and projected home prices; (iii) the costs of the Authorized Improvements, and (iv) the ability of different property types to utilize and benefit from the Authorized Improvements. Two lot types have been established: Lot Type A – Residential and Lot Type B – Commercial/Multi-Family.

The total Assessments are equal to $363,263. The Assessments have been allocated based on current platting and development projections to reflect the allocation shown in Table IV-1 on the following page. The Assessment for residential property (Lot Type A) is $200 per lot. The Assessment for commercial/multi-family property (Lot Type B) was reallocated in the Annual Service and Assessment Plan Update, adopted by the City on December 21, 2015, from $1,250.00 to $1,247.96 per acre.

TABLE IV-1 PUBLIC IMPROVEMENT DISTRICT NO. 5 (CASTLE HILLS) ASSESSMENT BY LOT TYPE				
LOT TYPE	LOTS	ACRES	ASSESSMENT AMOUNT	TOTAL ASSESSMENTS
RESIDENTIAL:				
LOT TYPE A – SINGLE FAMILY	155		$200	$31,000.00
COMMERCIAL:				
LOT TYPE B – COMMERCIAL/MULTI-FAMILY		266.2460	$1,247.96	$332,263.63
TOTAL				**$363,263.63**

B. TERMS OF THE ASSESSMENTS

1. AMOUNT OF ASSESSMENTS

The Assessment for each Parcel is shown on the Assessment Roll, and no Assessment shall be changed except as authorized by the Plan, this Annual Plan Update, or the PID Act. The Assessments shall not exceed the amount required to repay the portion of the principal amount of the Bonds payable from Assessments and shall be collected with interest in an amount to pay a portion of the principal and interest on the Bonds.

2. REDUCTION OF ASSESSMENTS

If after all Authorized Improvements have been constructed and acquired the actual PID Costs are less than the PID Costs used to calculate the Assessments, resulting in excess Bond proceeds being available to redeem Bonds, then the Assessment for each Parcel shall be reduced by an equal percentage such that the sum of the resulting reduced Assessments for all Parcels equals the actual reduced PID Costs and such excess Bond proceeds shall be applied to redeem Bonds. The Assessments shall not be reduced to an amount less than the amount required to repay the portion of the outstanding Bonds secured by Assessments.

3. REALLOCATION OF ASSESSMENTS FOR PARCELS LOCATED WITHIN THE PID

a. UPON SUBDIVISION PRIOR TO RECORDING OF SUBDIVISION PLAT

Upon the subdivision of any Assessed Property without the recording of a Subdivision Plat, the Assessments shall be reallocated for the Assessed Property prior to the subdivision equally among the new subdivided Lots by dividing the outstanding principal amount of the Assessments for each Parcel existing prior to the subdivision among the newly created Parcels based on the Lot Type of the newly created Parcel. Newly divided Parcels that are categorized as Lot Type A will bear the Lot Type A assessment and any Parcels categorized as Lot Type B will bear the Lot Type B per acre assessments. The Assessment on the newly divided Parcels shall not exceed the Assessment amount for the applicable Lot Type. The City will approve an updated Assessment Roll in the Annual Plan Update each year showing the reallocation of assessments.

The calculation of the estimated number of Lots or acreage by Lot Type shall be confirmed by the City Council in an update to the Plan. The estimate as confirmed shall be conclusive.

The reallocation of an Assessment for any Parcel may not exceed the Assessment prior to the reallocation and, to the extent the reallocation would exceed such amount, it shall be prepaid by such amount by the party requesting the subdivision of the Parcels. Any reallocation pursuant to this section shall be reflected in the Annual Plan Update approved by the City Council.

b. UPON SUBDIVISION BY A RECORDED SUBDIVISION PLAT

Upon the subdivision of any Assessed Property by the recording of a Subdivision Plat, the Assessments shall be reallocated for the Assessed Property prior to the subdivision among the new subdivided Lots by dividing the outstanding principal amount of the Assessments for each Parcel existing prior to the subdivision among the newly created Parcels based on the Lot Type of the newly created Parcel. Newly divided Parcels that are categorized as Lot Type A will bear the Lot Type A assessment and any Parcels categorized as Lot Type B will bear the Lot Type B per acre assessments. The City will approve an updated Assessment Roll in the Annual Plan Update each year showing the reallocation of assessments.

The calculation of the estimated number of Lots or acreage by Lot Type shall be confirmed by the City Council in an update to the Plan. The estimate as confirmed shall be conclusive.

The reallocation of an Assessment for any Parcel may not exceed the Assessment prior to the reallocation and to the extent the reallocation would exceed such amount, it shall be prepaid by such amount by the party requesting the subdivision of the Parcels. Any reallocation pursuant to this section shall be reflected in an Annual Plan Update approved by the City Council.

c. UPON CONSOLIDATION

Upon the consolidation of two or more Parcels, the Assessment for the consolidated Parcel shall be the sum of the Assessments for the Parcels prior to consolidation. The reallocation of an Assessment for an Assessed Property may not exceed the Assessment prior to the reallocation and to the extent the reallocation would exceed such amount, it shall be prepaid by such amount by the party requesting the consolidation of the Parcels. Any reallocation pursuant to this section shall be calculated and reflected in an Annual Plan Update approved by the City Council.

d. UPON CHANGE IN USE OR LOT TYPE

Upon a change in land use from single-family residential to multifamily/commercial and therefore from Lot Type A to Lot Type B for Assessed Property, the Assessments shall be reallocated for the Assessed Property upon the change in land use by assessing the new Lot Type B acreage created as a result of the change in use an Assessment equal to, but not to exceed, the $1,250 per acre assessment assessed for Lot Type B pursuant to the Plan and issuing an updated Assessment Roll showing the reallocation of Assessments. The number of Lot Type A Lots, amount of acreage in Lot Type B and total Assessment for each Lot Type will then be revised accordingly in the next Annual Plan Update.

Upon a change in land use from multifamily/commercial to single-family residential and therefore from Lot Type B to Lot Type A for Assessed Property, the Assessments shall be reallocated for the Assessed Property upon the change in land use by assessing each new Lot created as a result of the change in use an Assessment equal to, but not to exceed, the $200 per lot assessment assessed for Lot Type A pursuant to the Plan and issuing an updated Assessment Roll showing the reallocation of Assessments. Any acreage that is not divided into a Lot Type A shall remain in Lot Type B and shall be assessed on a per acre basis. The number of Lot Type A Lots, amount of acreage in Lot Type B and total Assessment for each Lot Type will then be revised accordingly in the next Annual Plan Update.

The calculation of the estimated number of Lots or acreage by Lot Type shall be confirmed by the City Council in an Annual Plan Update. The estimate as confirmed shall be conclusive.

The reallocation of an Assessment for any Parcel may not exceed the Assessment prior to the reallocation and to the extent the reallocation of Assessments would cause the Assessment per lot to exceed the Lot Type A per lot amount or the Assessment per acre to exceed the Lot Type B per acre amount, the amount exceeding the Assessments prior to the change in land use or subdivision of the Parcel shall be prepaid by such amount by the party requesting the change in land use or subdivision of the Parcel. Any reallocation pursuant to this section shall be reflected in an Annual Plan Update approved by the City Council.

C. PAYMENT OF ASSESSMENTS

1. PAYMENT IN FULL OR IN PART

Pursuant to the provision of Section 372.018(f) of the Act, an Assessment may be prepaid at any time by paying the unpaid amount of the Assessment plus the interest accrued and penalties that have been imposed prior to the date of payment of the Assessment. An Assessment must be prepaid in full at the time an owner of a lot subject to the Assessment applies for a building permit to construct a structure on such lot and prior to the issuance of a certificate of occupancy for such lot. An Annual Interest Installment shall be billed in each year as reflected in the most recent Assessment Roll.

If an Annual Interest Installment has been billed prior to payment in full of an Assessment, the Annual Interest Installment shall be due and payable and shall be credited against the payment-in-full amount.

Upon payment in full of an Assessment, the City shall deposit the payment in accordance with the Trust Agreement; whereupon, the Assessment shall be reduced to zero, and the owner's obligation to pay the Assessment and Annual Interest Installments thereof shall automatically terminate.

Once an Assessment is paid in full, the City is hereby authorized to grant a release relating to the Parcel subject to the Assessment. The form of such release shall be as determined by the City to comply with state law and shall effectuate the release of the City's lien on such Parcel subject to the Assessment upon payment in full of the Assessment.

2. PAYMENT IN ANNUAL INSTALLMENTS

Prior to the payment in full of any Assessment for a Parcel, Annual Interest Installments will be collected in the amounts shown in the Assessment Roll (as updated), which include interest on the outstanding Assessments. It is anticipated that the Denton County Tax Assessor/Collector or Denton County Fresh Water Supply District No. 1-A will bill and collect the Annual Interest Installments on behalf of the City of Lewisville. Payment of the Annual Interest Installments began with tax bills mailed in 2014.

Each Assessment shall bear interest of no more than the actual interest rate paid on the Bonds or, after issuance of multiple series of bonds, the interest on Assessments shall be calculated as a weighted average of the interest paid on the Bonds.

The Annual Interest Installments as levied shall be reduced to equal the actual costs of repaying the Bonds attributable to repayment from Assessments, when issued, taking into consideration any other available funds for these costs, such as interest income on account balances.

The City, Denton Tax Assessor/Collector, or Denton County Fresh Water Supply District No. 1-A will invoice each owner of property for the Annual Interest Installment at the same time as the City's annual property tax bill, and the Annual Interest Installments shall be due and payable, and incur penalty and interest for unpaid Annual Interest Installments in the same manner as provided for the City's property taxes. Thereafter, subsequent Annual Interest Installments shall be due in the same manner in each succeeding calendar year until the Assessment together with interest as provided herein has been paid in full. Failure of an owner to receive an Annual Interest Installment, either on the property tax bill or via a separate bill from the Denton County Fresh Water Supply District No. 1-A, shall not relieve the owner of the responsibility for the Assessment and Annual Interest Installments. Delinquent Assessments and Annual Interest Installments shall incur Delinquent Collection Costs. The City may provide for other means of collecting the Assessments and Annual Interest Installments to the extent permitted under the PID Act.

Assessments are personal obligations of the person owning the property assessed in the year an Assessment and/or Annual Interest Installment becomes due, and only to the extent of such Assessment and/or Annual Interest Installment(s). Any sale of property for nonpayment of the Assessment and/or Annual Interest Installments shall be subject to the lien established for the remaining unpaid Assessment and Annual Interest Installments against such property and such property may again be sold at a judicial foreclosure sale if the purchaser thereof

fails to make timely payment of the non-delinquent Assessment and/or Annual Interest Installments against such property as they become due and payable.

If a Parcel or portion thereof is transferred to a party that is exempt from the payment of the Assessment under applicable law, or if an owner causes a Parcel or portion thereof to become Non-Benefited Property, the owner of such Parcel or portion thereof shall pay to the District the full amount of the Assessment, plus all interest due thereon, for such Parcel or portion thereof prior to any such transfer or act.

If an Annual Installment has been billed prior to payment in full of an Assessment, the Annual Interest Installment shall be due and payable and, as applicable, shall be credited against the payment-in-full amount. Upon payment in full of an Assessment and all interest on the Assessment to the date of payment in full, the City shall deposit the payment to a separate account whereupon, the Assessment shall be reduced to zero, and the owner's obligation to pay the Assessment and Annual Interest Installments thereof shall automatically terminate. The principal amount of the Annual Interest Installments may not exceed the principal amounts shown on the Assessment Roll (as updated) as finally adopted by the City.

D. UPDATE OF ASSESSMENT ROLL

The Assessment Roll is to be updated each year to reflect (i) the Assessments and Annual Interest Installments for each Parcel of Assessed Property, (ii) current platting, including reallocations based on changes in the number of Lot Type A lots and/or Lot Type B acres, and (iii) prepayments of the Assessments, if any.

The 2017 update to the Assessment Roll (the "2017 Assessment Roll") is attached as Exhibit A. All Lot Type A (Single Family Residential) Parcels have fully prepaid the principal amount of their Assessments along with interest. Of the 44 Lot Type B Parcels (Commercial/Multi-Family), 8 Parcels totaling 46.488 acres have fully prepaid the principal amount of their Assessments along with interest.

EXHIBIT A

CITY OF LEWISVILLE
PUBLIC IMPROVEMENT DISTRICT NO. 5
(CASTLE HILLS)

2017 ASSESSMENT ROLL

CITY OF LEWISVILLE
CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5

ASSESSMENT ROLL

												ASSESSMENT AND PRIOR YEARS' ANNUAL INTEREST INSTALLMENT SUMMARY						2017 INTEREST INSTALLMENT DETAIL SCHEDULED INVOICE FOR ANNUAL INTERST PERIOD 1.1.17 - 12.31.17						
												ASSESSMENT SUMMARY			INTEREST SUMMARY									
DCAD ID	OWNER	LAND USE	PHASE	BLOCK	LOT	PID	FWSD	SITUS ADDRESS	ACRES	ASSESSMENT CATEGORY	BUILDING PERMIT DATE	ASSESSMENT	ASSESSMENT PAID	ASSESSMENT BALANCE	INTEREST PAYABLE	TOTAL INTEREST PAID	REMITTANCE TO TRUSTEE (SHORTFALL)/ OVERAGE	INTEREST INVOICED	INTEREST COLLECTED	INTEREST REMITTED TO TRUSTEE	INTEREST ACCRUAL START DATE	INTEREST DAYS	INTEREST CALCULATION	REMITTANCE TO TRUSTEE (SHORTFALL)/ OVERAGE
631702	Welch, Mark Hamilton	RESIDENTIAL	8A	E	59	PID 5	1-G	913 Warwick Blvd		LOT TYPE A	3/3/2015	$ 200.00	$ 200.00	$ -	$ 9.90	$ 9.90	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631709	Banka, Mounika & Dirisanapu,	RESIDENTIAL	8A	E	66	PID 5	1-G	936 Warwick Blvd		LOT TYPE A	3/9/2015	$ 200.00	$ 200.00	$ -	$ 10.12	$ 10.12	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631716	Johnson, Roshan & Thomas, Jul	RESIDENTIAL	8A	E	73	PID 5	1-G	900 Warwick Blvd		LOT TYPE A	3/9/2015	$ 200.00	$ 200.00	$ -	$ 10.12	$ 10.12	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631726	Le, David	RESIDENTIAL	8A	E	85	PID 5	1-G	825 Winehart St		LOT TYPE A	3/9/2015	$ 200.00	$ 200.00	$ -	$ 10.12	$ 10.12	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631515	Kosuda, Robert M	RESIDENTIAL	8A	A	2	PID 5	1-G	708 Highwood Trl		LOT TYPE A	1/26/2015	$ 200.00	$ 200.00	$ -	$ 8.56	$ 8.56	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631689	Vadysirisack, Pang & Nguyen, L	RESIDENTIAL	8A	E	44	PID 5	1-G	701 Warwick Blvd		LOT TYPE A	2/11/2015	$ 200.00	$ 200.00	$ -	$ 9.10	$ 9.10	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631703	Stauffer, Scott & Lisa	RESIDENTIAL	8A	E	60	PID 5	1-G	917 Warwick Blvd		LOT TYPE A	1/22/2015	$ 200.00	$ 200.00	$ -	$ 8.42	$ 8.42	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631708	Chandran, Vinod	RESIDENTIAL	8A	E	65	PID 5	1-G	937 Warwick Blvd		LOT TYPE A	1/8/2015	$ 200.00	$ 200.00	$ -	$ 7.91	$ 7.91	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631710	Natti, Satish	RESIDENTIAL	8A	E	78	PID 5	1-G	804 Warwick Blvd		LOT TYPE A	2/26/2015	$ 200.00	$ 200.00	$ -	$ 9.65	$ 9.65	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631817	Johnson, Kyle P & Katherine A V	RESIDENTIAL	8A	J	13	PID 5	1-G	705 Winehart St		LOT TYPE A	11/26/2014	$ 200.00	$ 200.00	$ -	$ 6.39	$ 6.39	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631818	Ross, Jerome & Chiquatia	RESIDENTIAL	8A	J	14	PID 5	1-G	709 Winehart St		LOT TYPE A	12/8/2014	$ 200.00	$ 200.00	$ -	$ 6.83	$ 6.83	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631821	Vajrapu, Pramodh Kumar & Na	RESIDENTIAL	8A	J	17	PID 5	1-G	708 Warwick Blvd		LOT TYPE A	12/2/2014	$ 200.00	$ 200.00	$ -	$ 6.61	$ 6.61	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631822	Brown, Jeffery & Asheley Kathe	RESIDENTIAL	8A	J	18	PID 5	1-G	704 Warwick Blvd		LOT TYPE A	12/2/2014	$ 200.00	$ 200.00	$ -	$ 6.61	$ 6.61	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631825	Dhulipala, Srikanth V R & Kotha	RESIDENTIAL	8A	J	21	PID 5	1-G	616 Warwick Blvd		LOT TYPE A	1/25/2015	$ 200.00	$ 200.00	$ -	$ 8.53	$ 8.53	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631813	Bhatla, Sunny & Sawhney, Nidh	RESIDENTIAL	8A	J	9	PID 5	1-G	613 Winehart St		LOT TYPE A	3/23/2015	$ 200.00	$ 200.00	$ -	$ 10.62	$ 10.62	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631715	Vindurthy, Dheeraj Kumar Redc	RESIDENTIAL	8A	E	72	PID 5	1-G	912 Warwick Blvd		LOT TYPE A	3/24/2015	$ 200.00	$ 200.00	$ -	$ 10.66	$ 10.66	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631719	Padala, Kishore Venkata & Basa	RESIDENTIAL	8A	E	76	PID 5	1-G	812 Warwick Blvd		LOT TYPE A	3/24/2015	$ 200.00	$ 200.00	$ -	$ 10.66	$ 10.66	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631725	So, Nicole Soohyun	RESIDENTIAL	8A	E	84	PID 5	1-G	821 Winehart St		LOT TYPE A	3/24/2015	$ 200.00	$ 200.00	$ -	$ 10.66	$ 10.66	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631819	Luu, Jennifer Pham	RESIDENTIAL	8A	J	15	PID 5	1-G	713 Winehart St		LOT TYPE A	3/24/2015	$ 200.00	$ 200.00	$ -	$ 10.66	$ 10.66	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631718	Neela, Kruthi & Noothi, Dhanur	RESIDENTIAL	8A	E	75	PID 5	1-G	816 Warwick Blvd		LOT TYPE A	2/25/2015	$ 200.00	$ 200.00	$ -	$ 9.61	$ 9.61	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631699	Deshazo, Daran Greg & Susan	RESIDENTIAL	8A	E	54	PID 5	1-G	821 Warwick Blvd		LOT TYPE A	3/30/2015	$ 200.00	$ 200.00	$ -	$ 10.87	$ 10.87	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631826	Yarlagadda, Ravi Chandra & Na	RESIDENTIAL	8A	J	22	PID 5	1-G	612 Warwick Blvd		LOT TYPE A	3/30/2015	$ 200.00	$ 200.00	$ -	$ 10.87	$ 10.87	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631688	Lee, Shawn Michael & Coulter,	RESIDENTIAL	8A	E	58	PID 5	1-G	909 Warwick Blvd		LOT TYPE A	4/21/2015	$ 200.00	$ 200.00	$ -	$ 11.63	$ 11.63	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631704	Jones, Heather & Robert	RESIDENTIAL	8A	E	61	PID 5	1-G	921 Warwick Blvd		LOT TYPE A	4/13/2015	$ 200.00	$ 200.00	$ -	$ 11.34	$ 11.34	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631722	Reynolds, Larry D & Robbie J	RESIDENTIAL	8A	E	81	PID 5	1-G	809 Winehart St		LOT TYPE A	4/14/2015	$ 200.00	$ 200.00	$ -	$ 11.38	$ 11.38	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631713	Charanya, Danish & Farheen	RESIDENTIAL	8A	E	70	PID 5	1-G	920 Warwick Blvd		LOT TYPE A	4/15/2015	$ 200.00	$ 200.00	$ -	$ 11.42	$ 11.42	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631700	Mula, Srinivas & Karra, Jyotshna	RESIDENTIAL	8A	E	55	PID 5	1-G	825 Warwick Blvd		LOT TYPE A	4/23/2015	$ 200.00	$ 200.00	$ -	$ 11.70	$ 11.70	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631707	Vogelman, Michelle & Christop	RESIDENTIAL	8A	E	64	PID 5	1-G	933 Warwick Blvd		LOT TYPE A	4/23/2015	$ 200.00	$ 200.00	$ -	$ 11.70	$ 11.70	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631841	Jackson, Brandon W & Camille	RESIDENTIAL	8A	K	7	PID 5	1-G	605 Proud Knight Ln		LOT TYPE A	5/4/2015	$ 200.00	$ 200.00	$ -	$ 12.10	$ 12.10	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631863	Putnam, Christopher D & Hong	RESIDENTIAL	8A	K	29	PID 5	1-G	512 Winehart St		LOT TYPE A	5/4/2015	$ 200.00	$ 200.00	$ -	$ 12.10	$ 12.10	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631811	Aitharaju, Chandra Shekhar & Y	RESIDENTIAL	8A	J	7	PID 5	1-G	605 Winehart St		LOT TYPE A	5/20/2015	$ 200.00	$ 200.00	$ -	$ 12.68	$ 12.68	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631827	Kotu, Gangadhar, & Jyothi	RESIDENTIAL	8A	J	23	PID 5	1-G	608 Warwick Blvd		LOT TYPE A	5/20/2015	$ 200.00	$ 200.00	$ -	$ 12.68	$ 12.68	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631855	Park, Jong C & Hwang, Young S	RESIDENTIAL	8A	K	21	PID 5	1-G	704 Raunald Dr		LOT TYPE A	5/20/2015	$ 200.00	$ 200.00	$ -	$ 12.68	$ 12.68	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631888	Ahmed, Maqsood & Afshani	RESIDENTIAL	8A	N	1	PID 5	1-G	5124 Engleswood Trl		LOT TYPE A	5/20/2015	$ 200.00	$ 200.00	$ -	$ 12.68	$ 12.68	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631893	Thomas, Deepa & Mathew	RESIDENTIAL	8A	N	6	PID 5	1-G	5104 Engleswood Trl		LOT TYPE A	5/20/2015	$ 200.00	$ 200.00	$ -	$ 12.68	$ 12.68	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631862	Edula, Sreekanth Reddy & Dada	RESIDENTIAL	8A	K	28	PID 5	1-G	516 Winehart St		LOT TYPE A	6/1/2015	$ 200.00	$ 200.00	$ -	$ 13.08	$ 13.08	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631717	Kanala, Obula	RESIDENTIAL	8A	E	74	PID 5	1-G	820 Warwick Blvd		LOT TYPE A	6/5/2015	$ 200.00	$ 200.00	$ -	$ 13.22	$ 13.22	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631831	Cho, Jang Hee	RESIDENTIAL	8A	J	27	PID 5	1-G	516 Warwick Blvd		LOT TYPE A	6/12/2015	$ 200.00	$ 200.00	$ -	$ 13.47	$ 13.47	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631851	Walker, Brian Robert	RESIDENTIAL	8A	K	17	PID 5	1-G	720 Raunald Dr		LOT TYPE A	6/12/2015	$ 200.00	$ 200.00	$ -	$ 13.47	$ 13.47	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631854	Ali, Adnan & Fatima	RESIDENTIAL	8A	K	20	PID 5	1-G	708 Raunald Dr		LOT TYPE A	6/12/2015	$ 200.00	$ 200.00	$ -	$ 13.47	$ 13.47	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631690	Lad, Bhavi & Lad, Sanjeev	RESIDENTIAL	8A	E	45	PID 5	1-G	705 Warwick Blvd		LOT TYPE A	6/17/2015	$ 200.00	$ 200.00	$ -	$ 13.65	$ 13.65	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631720	Sankalia, Nikhil S	RESIDENTIAL	8A	E	79	PID 5	1-G	801 Winehart St		LOT TYPE A	6/17/2015	$ 200.00	$ 200.00	$ -	$ 13.65	$ 13.65	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631683	Willis, James & Lesley	RESIDENTIAL	8A	E	38	PID 5	1-G	601 Warwick Blvd		LOT TYPE A	6/18/2015	$ 200.00	$ 200.00	$ -	$ 13.69	$ 13.69	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631808	Kosuda, Robert Michael	RESIDENTIAL	8A	J	4	PID 5	1-G	513 Winehart St		LOT TYPE A	6/18/2015	$ 200.00	$ 200.00	$ -	$ 13.69	$ 13.69	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631812	Kang, Dong H & Kim, Sangryun	RESIDENTIAL	8A	J	8	PID 5	1-G	609 Winehart St		LOT TYPE A	6/18/2015	$ 200.00	$ 200.00	$ -	$ 13.69	$ 13.69	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631838	Dean, Labarbara & Richard E	RESIDENTIAL	8A	K	4	PID 5	1-G	513 Proud Knight Ln		LOT TYPE A	6/18/2015	$ 200.00	$ 200.00	$ -	$ 13.69	$ 13.69	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631686	Le, Man & Tran, My	RESIDENTIAL	8A	E	41	PID 5	1-G	613 Warwick Blvd		LOT TYPE A	1/14/2015	$ 200.00	$ 200.00	$ -	$ 8.13	$ 8.13	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631687	Thomas, Asha G & George P	RESIDENTIAL	8A	E	42	PID 5	1-G	617 Warwick Blvd		LOT TYPE A	2/12/2015	$ 200.00	$ 200.00	$ -	$ 9.14	$ 9.14	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631691	Le, Hien	RESIDENTIAL	8A	E	46	PID 5	1-G	709 Warwick Blvd		LOT TYPE A	12/2/2015	$ 200.00	$ 200.00	$ -	$ 19.61	$ 19.61	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631692	Uwakwe, David & Okafor, Sheil	RESIDENTIAL	8A	E	47	PID 5	1-G	713 Warwick Blvd		LOT TYPE A	2/18/2015	$ 200.00	$ 200.00	$ -	$ 9.36	$ 9.36	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631695	Alam, Mohammed Fazal & Ahm	RESIDENTIAL	8A	E	50	PID 5	1-G	805 Warwick Blvd		LOT TYPE A	1/14/2015	$ 200.00	$ 200.00	$ -	$ 8.13	$ 8.13	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631815	Harrington, Doris Jane & Brian	RESIDENTIAL	8A	J	11	PID 5	1-G	621 Winehart St		LOT TYPE A	1/14/2015	$ 200.00	$ 200.00	$ -	$ 8.13	$ 8.13	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631816	Park, Stephen J & Esther K	RESIDENTIAL	8A	J	12	PID 5	1-G	701 Winehart St		LOT TYPE A	1/14/2015	$ 200.00	$ 200.00	$ -	$ 8.13	$ 8.13	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631820	Main, Harish Ramchandra & Se	RESIDENTIAL	8A	J	16	PID 5	1-G	712 Warwick Blvd		LOT TYPE A	1/6/2015	$ 200.00	$ 200.00	$ -	$ 7.84	$ 7.84	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631823	Newcomer-simmons, Patricia	RESIDENTIAL	8A	J	19	PID 5	1-G	700 Warwick Blvd		LOT TYPE A	1/6/2015	$ 200.00	$ 200.00	$ -	$ 7.84	$ 7.84	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631824	Tran, Chau Dinh & Bach-Lien	RESIDENTIAL	8A	J	20	PID 5	1-G	620 Warwick Blvd		LOT TYPE A	12/23/2014	$ 200.00	$ 200.00	$ -	$ 7.37	$ 7.37	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631846	Chen, Zhenghao & Liu, Xiao	RESIDENTIAL	8A	K	12	PID 5	1-G	709 Proud Knight Ln		LOT TYPE A	12/1/2014	$ 200.00	$ 200.00	$ -	$ 6.57	$ 6.57	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631675	Lee, Will & Young Ok	RESIDENTIAL	8A	E	30	PID 5	1-G	413 Warwick Blvd		LOT TYPE A	6/24/2015	$ 200.00	$ 200.00	$ -	$ 13.91	$ 13.91	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631705	Swarup, Anil, Etux, Tina Patel	RESIDENTIAL	8A	E	77	PID 5	1-G	808 Warwick Blvd		LOT TYPE A	1/14/2015	$ 200.00	$ 200.00	$ -	$ 8.13	$ 8.13	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631721	Vargas, Juan & Esmeralda	RESIDENTIAL	8A	E	80	PID 5	1-G	805 Winehart St		LOT TYPE A	1/14/2015	$ 200.00	$ 200.00	$ -	$ 8.13	$ 8.13	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631698	Nguyen, Christopher & Teresa	RESIDENTIAL	8A	E	53	PID 5	1-G	817 Warwick Blvd		LOT TYPE A	7/13/2015	$ 200.00	$ 200.00	$ -	$ 14.59	$ 14.59	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631814	Mathew, Meenu J & Johny	RESIDENTIAL	8A	J	10	PID 5	1-G	617 Winehart St		LOT TYPE A	7/13/2015	$ 200.00	$ 200.00	$ -	$ 14.59	$ 14.59	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -

CITY OF LEWISVILLE
CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5

ASSESSMENT ROLL

												ASSESSMENT AND PRIOR YEARS' ANNUAL INTEREST INSTALLMENT SUMMARY						2017 INTEREST INSTALLMENT DETAIL SCHEDULED INVOICE FOR ANNUAL INTERST PERIOD 1.1.17 - 12.31.17						
												ASSESSMENT SUMMARY			INTEREST SUMMARY									
DCAD ID	OWNER	LAND USE	PHASE	BLOCK	LOT	PID	FWSD	SITUS ADDRESS	ACRES	ASSESSMENT CATEGORY	BUILDING PERMIT DATE	ASSESSMENT	ASSESSMENT PAID	ASSESSMENT BALANCE	INTEREST PAYABLE	TOTAL INTEREST PAID	REMITTANCE TO TRUSTEE (SHORTFALL)/ OVERAGE	INTEREST INVOICED	INTEREST COLLECTED	INTEREST REMITTED TO TRUSTEE	INTEREST ACCRUAL START DATE	INTEREST DAYS	INTEREST CALCULATION	REMITTANCE TO TRUSTEE (SHORTFALL)/ OVERAGE
631516	Varghese, Vineetha & Mathew,	RESIDENTIAL	8A	A	3	PID 5	1-G	704 Highwood Trl		LOT TYPE A	7/13/2015	$ 200.00	$ 200.00	$ -	$ 14.59	$ 14.59	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631672	American Legend	RESIDENTIAL	8A	E	27	PID 5	1-G	401 Warwick Blvd		LOT TYPE A	6/6/2017	$ 200.00	$ 200.00	$ -	$ 38.41	$ 38.41	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631673	American Legend	RESIDENTIAL	8A	E	28	PID 5	1-G	405 Warwick Blvd		LOT TYPE A	5/25/2017	$ 200.00	$ 200.00	$ -	$ 38.03	$ 38.03	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631674	Poole, Reginald L & Dixon, Shar	RESIDENTIAL	8A	E	29	PID 5	1-G	409 Warwick Blvd		LOT TYPE A	3/1/2016	$ 200.00	$ 200.00	$ -	$ 22.73	$ 22.73	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631676	Braden, Andrew & Ashley	RESIDENTIAL	8A	E	31	PID 5	1-G	417 Warwick Blvd		LOT TYPE A	11/12/2015	$ 200.00	$ 200.00	$ -	$ 18.89	$ 18.89	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631677	Rayford, Rodgerick & Latasha	RESIDENTIAL	8A	E	32	PID 5	1-G	501 Warwick Blvd		LOT TYPE A	5/13/2016	$ 200.00	$ 200.00	$ -	$ 25.21	$ 25.21	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631678	Madikonda, Kiran Kumar & Vas	RESIDENTIAL	8A	E	33	PID 5	1-G	505 Warwick Blvd		LOT TYPE A	3/4/2016	$ 200.00	$ 200.00	$ -	$ 22.83	$ 22.83	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631679	Trotter, Gregory C & Doris M	RESIDENTIAL	8A	E	34	PID 5	1-G	509 Warwick Blvd		LOT TYPE A	5/12/2016	$ 200.00	$ 200.00	$ -	$ 25.18	$ 25.18	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631680	Conrad, Amanda & Josh	RESIDENTIAL	8A	E	35	PID 5	1-G	513 Warwick Blvd		LOT TYPE A	8/18/2015	$ 200.00	$ 200.00	$ -	$ 15.86	$ 15.86	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631681	Luu, Joey & Kim M	RESIDENTIAL	8A	E	36	PID 5	1-G	517 Warwick Blvd		LOT TYPE A	8/18/2015	$ 200.00	$ 200.00	$ -	$ 15.86	$ 15.86	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631682	Karri, Sarada Krishna Kapil & Sa	RESIDENTIAL	8A	E	37	PID 5	1-G	521 Warwick Blvd		LOT TYPE A	3/28/2016	$ 200.00	$ 200.00	$ -	$ 23.66	$ 23.66	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631684	Zagrebin, Larisa V & Artem A	RESIDENTIAL	8A	E	39	PID 5	1-G	605 Warwick Blvd		LOT TYPE A	4/5/2016	$ 200.00	$ 200.00	$ -	$ 23.90	$ 23.90	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631685	American Legend	RESIDENTIAL	8A	E	40	PID 5	1-G	609 Warwick Blvd		LOT TYPE A	12/1/2016	$ 200.00	$ 200.00	$ -	$ 32.04	$ 32.04	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631693	Modeer, David V & Connie J Tr	RESIDENTIAL	8A	E	48	PID 5	1-G	717 Warwick Blvd		LOT TYPE A	3/4/2016	$ 200.00	$ 200.00	$ -	$ 22.83	$ 22.83	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631694	Wallace, Linda	RESIDENTIAL	8A	E	49	PID 5	1-G	801 Warwick Blvd		LOT TYPE A	10/15/2015	$ 200.00	$ 200.00	$ -	$ 17.92	$ 17.92	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631696	Matlock, David	RESIDENTIAL	8A	E	51	PID 5	1-G	809 Warwick Blvd		LOT TYPE A	2/19/2016	$ 200.00	$ 200.00	$ -	$ 22.32	$ 22.32	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631697	Surampally, Sateesh C & Dara, I	RESIDENTIAL	8A	E	52	PID 5	1-G	813 Warwick Blvd		LOT TYPE A	2/8/2016	$ 200.00	$ 200.00	$ -	$ 21.94	$ 21.94	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631701	Errabally, Rishikanth	RESIDENTIAL	8A	E	56	PID 5	1-G	901 Warwick Blvd		LOT TYPE A	10/19/2016	$ 200.00	$ 200.00	$ -	$ 30.59	$ 30.59	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631669	Watson, Joel David & Foote, An	RESIDENTIAL	8A	E	57	PID 5	1-G	905 Warwick Blvd		LOT TYPE A	11/15/2016	$ 200.00	$ 200.00	$ -	$ 31.48	$ 31.48	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631706	Ko, Man Sze & Zhong, Le Yi	RESIDENTIAL	8A	E	63	PID 5	1-G	929 Warwick Blvd		LOT TYPE A	11/24/2015	$ 200.00	$ 200.00	$ -	$ 19.32	$ 19.32	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631711	Punnose, Alias P & Alias, Anna F	RESIDENTIAL	8A	E	68	PID 5	1-G	928 Warwick Blvd		LOT TYPE A	1/23/2017	$ 200.00	$ 200.00	$ -	$ 33.83	$ 33.83	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631712	Franklin, Adam & Shelly	RESIDENTIAL	8A	E	69	PID 5	1-G	924 Warwick Blvd		LOT TYPE A	3/28/2016	$ 200.00	$ 200.00	$ -	$ 23.66	$ 23.66	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631714	Dennis, Mitchell & Partee, Krist	RESIDENTIAL	8A	E	71	PID 5	1-G	916 Warwick Blvd		LOT TYPE A	6/2/2016	$ 200.00	$ 200.00	$ -	$ 25.87	$ 25.87	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631723	Elliott, Dustin & Dekeatra	RESIDENTIAL	8A	E	82	PID 5	1-G	813 Winehart St		LOT TYPE A	1/15/2016	$ 200.00	$ 200.00	$ -	$ 21.14	$ 21.14	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631724	Kandala, Krishna Chaitanya & P	RESIDENTIAL	8A	E	83	PID 5	1-G	817 Winehart St		LOT TYPE A	9/28/2016	$ 200.00	$ 200.00	$ -	$ 29.86	$ 29.86	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631758	Dugirala, Naga Deepthi	RESIDENTIAL	8A	G	8	PID 5	1-G	413 Winehart St		LOT TYPE A	2/25/2016	$ 200.00	$ 200.00	$ -	$ 22.52	$ 22.52	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631759	Jayachandran, Ganesh Prabhu &	RESIDENTIAL	8A	G	9	PID 5	1-G	417 Winehart St		LOT TYPE A	11/24/2015	$ 200.00	$ 200.00	$ -	$ 19.32	$ 19.32	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631760	Bielski, Jonathan & Callaway, El	RESIDENTIAL	8A	G	10	PID 5	1-G	412 Warwick Blvd		LOT TYPE A	2/23/2016	$ 200.00	$ 200.00	$ -	$ 22.45	$ 22.45	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631761	Palanisamy, Vinodh & Chandra	RESIDENTIAL	8A	G	11	PID 5	1-G	408 Warwick Blvd		LOT TYPE A	1/11/2016	$ 200.00	$ 200.00	$ -	$ 21.00	$ 21.00	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631805	Penumatsa, Praveen Varma & I	RESIDENTIAL	8A	J	1	PID 5	1-G	501 Winehart St		LOT TYPE A	10/3/2016	$ 200.00	$ 200.00	$ -	$ 30.04	$ 30.04	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631806	Yen, Tai-Chen & Li, Shu Lan	RESIDENTIAL	8A	J	2	PID 5	1-G	505 Winehart St		LOT TYPE A	7/7/2016	$ 200.00	$ 200.00	$ -	$ 27.07	$ 27.07	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631807	Teague, Jonathan A & Michelle	RESIDENTIAL	8A	J	3	PID 5	1-G	509 Winehart St		LOT TYPE A	5/27/2016	$ 200.00	$ 200.00	$ -	$ 25.69	$ 25.69	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631809	American Legend	RESIDENTIAL	8A	J	5	PID 5	1-G	517 Winehart St		LOT TYPE A	3/20/2017	$ 200.00	$ 200.00	$ -	$ 35.79	$ 35.79	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631810	Boda, Uttam & Bangaru, Aneela	RESIDENTIAL	8A	J	6	PID 5	1-G	601 Winehart St		LOT TYPE A	10/19/2016	$ 200.00	$ 200.00	$ -	$ 30.59	$ 30.59	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631828	Tasupalli, Govindaraju & Boddu	RESIDENTIAL	8A	J	24	PID 5	1-G	604 Warwick Blvd		LOT TYPE A	6/23/2016	$ 200.00	$ 200.00	$ -	$ 26.59	$ 26.59	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631829	Kumar, Venkata Kiran & Kalimil	RESIDENTIAL	8A	J	25	PID 5	1-G	600 Warwick Blvd		LOT TYPE A	9/19/2016	$ 200.00	$ 200.00	$ -	$ 29.55	$ 29.55	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631830	Pamidimukkala, Sampath & Tal	RESIDENTIAL	8A	J	26	PID 5	1-G	520 Warwick Blvd		LOT TYPE A	6/23/2016	$ 200.00	$ 200.00	$ -	$ 26.59	$ 26.59	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631832	Dey, Tirthankar P & Jayeeta	RESIDENTIAL	8A	J	28	PID 5	1-G	512 Warwick Blvd		LOT TYPE A	5/17/2016	$ 200.00	$ 200.00	$ -	$ 25.35	$ 25.35	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631833	Katanguri, Roopesh Reddy & Gu	RESIDENTIAL	8A	J	29	PID 5	1-G	508 Warwick Blvd		LOT TYPE A	4/25/2016	$ 200.00	$ 200.00	$ -	$ 24.59	$ 24.59	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631834	Palanimuthu, Saravanakumar	RESIDENTIAL	8A	J	30	PID 5	1-G	504 Warwick Blvd		LOT TYPE A	6/2/2016	$ 200.00	$ 200.00	$ -	$ 25.87	$ 25.87	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631835	Dippold, Ronald & Maria M	RESIDENTIAL	8A	K	1	PID 5	1-G	501 Proud Knight Ln		LOT TYPE A	4/20/2016	$ 200.00	$ 200.00	$ -	$ 24.42	$ 24.42	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631836	Li, Danny Chieh Wen	RESIDENTIAL	8A	K	2	PID 5	1-G	505 Proud Knight Ln		LOT TYPE A	8/10/2016	$ 200.00	$ 200.00	$ -	$ 28.21	$ 28.21	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631837	Sadasivuni, Vijaya Bhaskar	RESIDENTIAL	8A	K	3	PID 5	1-G	509 Proud Knight Ln		LOT TYPE A	7/7/2016	$ 200.00	$ 200.00	$ -	$ 27.07	$ 27.07	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631839	Mathew, James Cherian & Anu	RESIDENTIAL	8A	K	5	PID 5	1-G	517 Proud Knight Ln		LOT TYPE A	11/24/2015	$ 200.00	$ 200.00	$ -	$ 19.32	$ 19.32	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631840	Ku, Sunkyung & Kim, Jin Young	RESIDENTIAL	8A	K	6	PID 5	1-G	601 Proud Knight Ln		LOT TYPE A	8/1/2016	$ 200.00	$ 200.00	$ -	$ 27.90	$ 27.90	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631842	Mettes, Brandy Michelle & Rob	RESIDENTIAL	8A	K	8	PID 5	1-G	609 Proud Knight Ln		LOT TYPE A	1/28/2016	$ 200.00	$ 200.00	$ -	$ 21.59	$ 21.59	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631843	Kathman, Jason & Katie	RESIDENTIAL	8A	K	9	PID 5	1-G	613 Proud Knight Ln		LOT TYPE A	2/25/2016	$ 200.00	$ 200.00	$ -	$ 22.52	$ 22.52	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631844	Baker, Lewis D & Pirani, Anishta	RESIDENTIAL	8A	K	10	PID 5	1-G	701 Proud Knight Ln		LOT TYPE A	4/4/2016	$ 200.00	$ 200.00	$ -	$ 23.87	$ 23.87	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631845	American Legend	RESIDENTIAL	8A	K	11	PID 5	1-G	705 Proud Knight Ln		LOT TYPE A	2/23/2017	$ 200.00	$ 200.00	$ -	$ 34.86	$ 34.86	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631847	American Legend	RESIDENTIAL	8A	K	13	PID 5	1-G	713 Proud Knight Ln		LOT TYPE A	10/31/2014	$ 200.00	$ 200.00	$ -	$ 5.49	$ 5.49	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631848	Kesterson, Calei J	RESIDENTIAL	8A	K	14	PID 5	1-G	717 Proud Knight Ln		LOT TYPE A	10/30/2014	$ 200.00	$ 200.00	$ -	$ 5.45	$ 5.45	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631849	American Legend	RESIDENTIAL	8A	K	15	PID 5	1-G	721 Proud Knight Ln		LOT TYPE A	3/10/2017	$ 200.00	$ 200.00	$ -	$ 35.45	$ 35.45	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631850	Chimalakonda, Sai & Sirisha	RESIDENTIAL	8A	K	16	PID 5	1-G	724 Raunald Dr		LOT TYPE A	3/24/2016	$ 200.00	$ 200.00	$ -	$ 23.52	$ 23.52	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631852	Soper, Charles Timothy & More	RESIDENTIAL	8A	K	18	PID 5	1-G	716 Raunald Dr		LOT TYPE A	2/17/2016	$ 200.00	$ 200.00	$ -	$ 22.25	$ 22.25	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631853	Jewell, Steven L	RESIDENTIAL	8A	K	19	PID 5	1-G	712 Raunald Dr		LOT TYPE A	1/16/2017	$ 200.00	$ 200.00	$ -	$ 33.59	$ 33.59	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631856	George, Sunil & Jisha Jacob	RESIDENTIAL	8A	K	22	PID 5	1-G	700 Raunald Dr		LOT TYPE A	9/19/2016	$ 200.00	$ 200.00	$ -	$ 29.55	$ 29.55	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631857	Waltzer, Howard M & Kari L	RESIDENTIAL	8A	K	23	PID 5	1-G	616 Winehart St		LOT TYPE A	2/3/2017	$ 200.00	$ 200.00	$ -	$ 34.17	$ 34.17	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631858	Baxter, Matthew Bryant & Lind	RESIDENTIAL	8A	K	24	PID 5	1-G	612 Winehart St		LOT TYPE A	1/28/2016	$ 200.00	$ 200.00	$ -	$ 21.59	$ 21.59	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631859	Addula, Rajendar & Yanala, Shi	RESIDENTIAL	8A	K	25	PID 5	1-G	608 Winehart St		LOT TYPE A	9/1/2015	$ 200.00	$ 200.00	$ -	$ 16.33	$ 16.33	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631860	Surapaneni, Chaitanya K & Ling	RESIDENTIAL	8A	K	26	PID 5	1-G	604 Winehart St		LOT TYPE A	2/8/2016	$ 200.00	$ 200.00	$ -	$ 21.94	$ 21.94	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631861	Khadka, Anil & Sharma, Sony	RESIDENTIAL	8A	K	27	PID 5	1-G	600 Winehart St		LOT TYPE A	3/24/2016	$ 200.00	$ 200.00	$ -	$ 23.52	$ 23.52	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631864	Kumar, Nitin & Nagpaul, Ankita	RESIDENTIAL	8A	K	30	PID 5	1-G	508 Winehart St		LOT TYPE A	3/23/2016	$ 200.00	$ 200.00	$ -	$ 23.49	$ 23.49	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -

CITY OF LEWISVILLE
CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5

ASSESSMENT ROLL

												ASSESSMENT AND PRIOR YEARS' ANNUAL INTEREST INSTALLMENT SUMMARY						2017 INTEREST INSTALLMENT DETAIL SCHEDULED INVOICE FOR ANNUAL INTERST PERIOD 1.1.17 - 12.31.17						
												ASSESSMENT SUMMARY			INTEREST SUMMARY									
DCAD ID	OWNER	LAND USE	PHASE	BLOCK	LOT	PID	FWSD	SITUS ADDRESS	ACRES	ASSESSMENT CATEGORY	BUILDING PERMIT DATE	ASSESSMENT	ASSESSMENT PAID	ASSESSMENT BALANCE	INTEREST PAYABLE	TOTAL INTEREST PAID	REMITTANCE TO TRUSTEE (SHORTFALL)/ OVERAGE	INTEREST INVOICED	INTEREST COLLECTED	INTEREST REMITTED TO TRUSTEE	INTEREST ACCRUAL START DATE	INTEREST DAYS	INTEREST CALCULATION	REMITTANCE TO TRUSTEE (SHORTFALL)/ OVERAGE
631865	Devuni, Mownehswar & Reddy	RESIDENTIAL	8A	K	31	PID 5	1-G	504 Winehart St		LOT TYPE A	2/8/2016	$ 200.00	$ 200.00	$ -	$ 21.94	$ 21.94	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631866	Rani, Swaroop	RESIDENTIAL	8A	K	32	PID 5	1-G	500 Winehart St		LOT TYPE A	3/28/2016	$ 200.00	$ 200.00	$ -	$ 23.66	$ 23.66	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631877	Lee, Cheukho & Miu, Kei Ching	RESIDENTIAL	8A	L	11	PID 5	1-G	5021 Cyndur Dr		LOT TYPE A	5/5/2016	$ 200.00	$ 200.00	$ -	$ 24.94	$ 24.94	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631878	Qiu, Zichuan	RESIDENTIAL	8A	L	12	PID 5	1-G	5025 Cyndur Dr		LOT TYPE A	11/2/2016	$ 200.00	$ 200.00	$ -	$ 31.04	$ 31.04	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631879	Bodepudi, Anusha	RESIDENTIAL	8A	M	1	PID 5	1-G	5024 Cyndur Dr		LOT TYPE A	8/18/2015	$ 200.00	$ 200.00	$ -	$ 15.86	$ 15.86	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631880	Bhosale, Pravin & Ashwini	RESIDENTIAL	8A	M	2	PID 5	1-G	5020 Cyndur Dr		LOT TYPE A	11/25/2015	$ 200.00	$ 200.00	$ -	$ 19.36	$ 19.36	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631881	Hunter, Michelle Zerbe & Tracy	RESIDENTIAL	8A	M	3	PID 5	1-G	5016 Cyndur Dr		LOT TYPE A	8/27/2015	$ 200.00	$ 200.00	$ -	$ 16.18	$ 16.18	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631882	Buzzard, Jacob Taylor	RESIDENTIAL	8A	M	4	PID 5	1-G	5012 Cyndur Dr		LOT TYPE A	6/23/2016	$ 200.00	$ 200.00	$ -	$ 26.59	$ 26.59	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631883	Vorapunpisuit, Rattapol P & Ga	RESIDENTIAL	8A	M	5	PID 5	1-G	5008 Cyndur Dr		LOT TYPE A	9/15/2015	$ 200.00	$ 200.00	$ -	$ 16.83	$ 16.83	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631884	Kalagara, Sai J	RESIDENTIAL	8A	M	6	PID 5	1-G	5004 Cyndur Dr		LOT TYPE A	3/24/2016	$ 200.00	$ 200.00	$ -	$ 23.52	$ 23.52	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631885	Rajnalkar, Shradhanand S & Pra	RESIDENTIAL	8A	M	7	PID 5	1-G	5000 Cyndur Dr		LOT TYPE A	9/15/2015	$ 200.00	$ 200.00	$ -	$ 16.83	$ 16.83	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631889	Marathe, Sai Satish & Patil, Son	RESIDENTIAL	8A	N	2	PID 5	1-G	5120 Englewood Trl		LOT TYPE A	6/15/2016	$ 200.00	$ 200.00	$ -	$ 26.32	$ 26.32	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631890	Narsing, Shravan Kumar Dubba	RESIDENTIAL	8A	N	3	PID 5	1-G	5116 Englewood Trl		LOT TYPE A	7/21/2016	$ 200.00	$ 200.00	$ -	$ 27.56	$ 27.56	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631891	Tanneru, Madhav	RESIDENTIAL	8A	N	4	PID 5	1-G	5112 Englewood Trl		LOT TYPE A	9/15/2015	$ 200.00	$ 200.00	$ -	$ 16.83	$ 16.83	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631892	Raghunathan, Sharadha & Jana	RESIDENTIAL	8A	N	5	PID 5	1-G	5108 Englewood Trl		LOT TYPE A	8/5/2015	$ 200.00	$ 200.00	$ -	$ 15.39	$ 15.39	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631894	Naidu, Avinash Noothan & Chai	RESIDENTIAL	8A	N	7	PID 5	1-G	5100 Englewood Trl		LOT TYPE A	9/10/2015	$ 200.00	$ 200.00	$ -	$ 16.65	$ 16.65	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631895	American Legend	RESIDENTIAL	8A	N	8	PID 5	1-G	5028 Englewood Trl		LOT TYPE A	5/23/2017	$ 200.00	$ 200.00	$ -	$ 37.96	$ 37.96	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631896	Ganta, Parikshith Reddy & Moil	RESIDENTIAL	8A	N	9	PID 5	1-G	5024 Englewood Trl		LOT TYPE A	5/19/2016	$ 200.00	$ 200.00	$ -	$ 25.42	$ 25.42	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631897	Nakkala, Anoop Noel & Athota,	RESIDENTIAL	8A	N	11	PID 5	1-G	5016 Englewood Trl		LOT TYPE A	9/8/2016	$ 200.00	$ 200.00	$ -	$ 29.18	$ 29.18	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631898	Akula, Venkateshwara Rao & Sa	RESIDENTIAL	8A	N	12	PID 5	1-G	5012 Englewood Trl		LOT TYPE A	9/15/2015	$ 200.00	$ 200.00	$ -	$ 16.83	$ 16.83	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631899	Phan, Carolyn Yen Thu	RESIDENTIAL	8A	N	13	PID 5	1-G	5008 Englewood Trl		LOT TYPE A	6/30/2016	$ 200.00	$ 200.00	$ -	$ 26.83	$ 26.83	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631900	Shirsekar, Sanjay & Swapnita	RESIDENTIAL	8A	N	14	PID 5	1-G	5004 Englewood Trl		LOT TYPE A	1/4/2016	$ 200.00	$ 200.00	$ -	$ 20.76	$ 20.76	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631903	Magallon, Priscilla	RESIDENTIAL	8A	O	1	PID 5	1-G	5109 Englewood Trl		LOT TYPE A	6/27/2016	$ 200.00	$ 200.00	$ -	$ 26.73	$ 26.73	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631904	Meyer, Jaclyn & Timothy	RESIDENTIAL	8A	O	2	PID 5	1-G	5113 Englewood Trl		LOT TYPE A	5/17/2016	$ 200.00	$ 200.00	$ -	$ 25.35	$ 25.35	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631905	Craven, James E & Amy R	RESIDENTIAL	8A	O	3	PID 5	1-G	5117 Englewood Trl		LOT TYPE A	6/2/2016	$ 200.00	$ 200.00	$ -	$ 25.87	$ 25.87	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631906	Korankyi, Edward Kwame & Du	RESIDENTIAL	8A	O	4	PID 5	1-G	5121 Englewood Trl		LOT TYPE A	9/28/2016	$ 200.00	$ 200.00	$ -	$ 29.86	$ 29.86	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631907	Chan, Ho Man	RESIDENTIAL	8A	O	5	PID 5	1-G	5125 Englewood Trl		LOT TYPE A	1/23/2017	$ 200.00	$ 200.00	$ -	$ 33.83	$ 33.83	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631908	Kircher, Daniel & Thalia	RESIDENTIAL	8A	O	6	PID 5	1-G	812 Winehart St		LOT TYPE A	2/19/2016	$ 200.00	$ 200.00	$ -	$ 22.32	$ 22.32	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631909	Clemmens, Casey Carl & Ulyana	RESIDENTIAL	8A	O	7	PID 5	1-G	800 Winehart St		LOT TYPE A	2/23/2016	$ 200.00	$ 200.00	$ -	$ 22.45	$ 22.45	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631910	Blank, Brian & Almasi, Jamak N	RESIDENTIAL	8A	O	8	PID 5	1-G	712 Winehart St		LOT TYPE A	10/11/2016	$ 200.00	$ 200.00	$ -	$ 30.31	$ 30.31	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
631911	Pitta, Srikanth & Madishetty, Va	RESIDENTIAL	8A	O	9	PID 5	1-G	708 Winehart St		LOT TYPE A	3/31/2016	$ 200.00	$ 200.00	$ -	$ 23.76	$ 23.76	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
632288	Ch Ph 8 Llc	COMMON / PUBLIC SPACE	8A	M	9X	PID 5	1-G	700 Proud Knight Ln		LOT TYPE EXEMP		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	1/1/2017	360	$ -	$ -
82967	BRECO	COMMERCIAL			4	PID 5	1-G	Midway Rd	0.11400	LOT TYPE B		$ 142.27	$ -	$ 142.27	$ 32.36	$ 32.36	$ -	$ 8.83	$ 8.83	$ 8.83	1/1/2017	360	$ 8.83	$ -
82970	BRECO	COMMERCIAL			7	PID 5	1-G	Midway Rd	0.11400	LOT TYPE B		$ 142.27	$ -	$ 142.27	$ 32.36	$ 32.36	$ -	$ 8.83	$ 8.83	$ 8.83	1/1/2017	360	$ 8.83	$ -
98194	BRECO	COMMERCIAL			5	PID 5	1-G	Midway Rd	0.11400	LOT TYPE B		$ 142.27	$ -	$ 142.27	$ 32.36	$ 32.36	$ -	$ 8.83	$ 8.83	$ 8.83	1/1/2017	360	$ 8.83	$ -
308431	BRECO	COMMERCIAL			15E	PID 5	1-G		0.80230	LOT TYPE B		$ 1,001.24	$ -	$ 1,001.24	$ 227.68	$ 227.68	$ -	$ 62.12	$ 62.12	$ 62.12	1/1/2017	360	$ 62.12	$ -
308445	BRECO	COMMERCIAL			16B	PID 5	1-G		1.45760	LOT TYPE B		$ 1,819.02	$ -	$ 1,819.02	$ 413.63	$ 413.63	$ -	$ 112.85	$ 112.85	$ 112.85	1/1/2017	360	$ 112.85	$ -
18881	BRECO	COMMERCIAL			2	PID 5	1-G	SH 121 BUS & Midway Rd	2.57500	LOT TYPE B		$ 3,213.49	$ -	$ 3,213.49	$ 730.72	$ 730.72	$ -	$ 199.36	$ 199.36	$ 199.36	1/1/2017	360	$ 199.36	$ -
20011	BRECO	COMMERCIAL			3	PID 5	1-G	2019 Midway Rd	29.74970	LOT TYPE B		$ 37,126.35	$ -	$ 37,126.35	$ 8,442.08	$ 8,442.08	$ -	$ 2,303.25	$ 2,303.25	$ 2,303.25	1/1/2017	360	$ 2,303.25	$ -
82971	BRECO	COMMERCIAL			6	PID 5	1-G	Midway Rd	0.11400	LOT TYPE B		$ 142.27	$ -	$ 142.27	$ 32.36	$ 32.36	$ -	$ 8.83	$ 8.83	$ 8.83	1/1/2017	360	$ 8.83	$ -
136297	BRECO	COMMERCIAL			2	PID 5	1-G	SH 121 Bypass & Carrollton Pkwy	69.64050	LOT TYPE B		$ 86,908.37	$ -	$ 86,908.37	$ 19,761.92	$ 19,761.92	$ -	$ 5,391.63	$ 5,391.63	$ 5,391.63	1/1/2017	360	$ 5,391.63	$ -
136297-1	BRECO	COMMERCIAL				PID 5	1-G	SH 121 Bypass & Carrollton Pkwy-	3.31200	LOT TYPE B	2/11/2016	$ 4,133.23	$ 4,133.23	$ -	$ 455.38	$ 455.38	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
136297-2	BRECO	COMMERCIAL				PID 5	1-G	SH 121 Bypass & Carrollton Pkwy-	4.46900	LOT TYPE B	3/27/2017	$ 5,577.12	$ 5,577.12	$ -	$ 1,004.82	$ 1,004.82	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
307730	BRECO	COMMERCIAL			7A	PID 5	1-G	Midway Rd	4.20430	LOT TYPE B		$ 5,246.79	$ -	$ 5,246.79	$ 1,193.06	$ 1,193.06	$ -	$ 325.50	$ 325.50	$ 325.50	1/1/2017	360	$ 325.50	$ -
308824	BRECO	COMMERCIAL			7B	PID 5	1-G	SH 121 Bypass & SH 121 BUS	32.09900	LOT TYPE B		$ 40,058.18	$ -	$ 40,058.18	$ 9,108.75	$ 9,108.75	$ -	$ 2,485.13	$ 2,485.13	$ 2,485.13	1/1/2017	360	$ 2,485.13	$ -
17144	BRECO	COMMERCIAL			7	PID 5	1-G	SH 121 Bypass & FM 544	5.04380	LOT TYPE B		$ 6,294.45	$ -	$ 6,294.45	$ 1,431.29	$ 1,431.29	$ -	$ 390.50	$ 390.50	$ 390.50	1/1/2017	360	$ 390.50	$ -
634182	Swc 121/423 Lp	COMMERCIAL		A	5	PID 5	1-G	E SH 121	0.97910	LOT TYPE B		$ 1,221.87	$ -	$ 1,221.87	$ 277.83	$ 277.83	$ -	$ 75.80	$ 75.80	$ 75.80	1/1/2017	360	$ 75.80	$ -
634183	Swc 121/423 Lp	COMMERCIAL		A	6	PID 5	1-G	E SH 121	1.06320	LOT TYPE B		$ 1,326.83	$ -	$ 1,326.83	$ 301.70	$ 301.70	$ -	$ 82.31	$ 82.31	$ 82.31	1/1/2017	360	$ 82.31	$ -
634184	Swc 121/423 Lp	COMMERCIAL		A	7	PID 5	1-G	E SH 121	2.24240	LOT TYPE B		$ 2,798.42	$ -	$ 2,798.42	$ 636.33	$ 636.33	$ -	$ 173.61	$ 173.61	$ 173.61	1/1/2017	360	$ 173.61	$ -
634185	Swc 121/423 Lp	COMMERCIAL		A	8	PID 5	1-G	4570 E SH 121	1.25410	LOT TYPE B		$ 1,565.06	$ -	$ 1,565.06	$ 355.88	$ 355.88	$ -	$ 97.09	$ 97.09	$ 97.09	1/1/2017	360	$ 97.09	$ -
634186	Swc 121/423 Lp	COMMERCIAL		A	9	PID 5	1-G	4600 E SH 121	1.59520	LOT TYPE B		$ 1,990.74	$ -	$ 1,990.74	$ 452.67	$ 452.67	$ -	$ 123.50	$ 123.50	$ 123.50	1/1/2017	360	$ 123.50	$ -
634187	Swc 121/423 Lp	COMMERCIAL		A	10	PID 5	1-G	4640 E SH 121	1.47280	LOT TYPE B		$ 1,837.99	$ -	$ 1,837.99	$ 417.94	$ 417.94	$ -	$ 114.03	$ 114.03	$ 114.03	1/1/2017	360	$ 114.03	$ -
634188	Swc 121/423 Lp	COMMERCIAL		A	11	PID 5	1-G	4650 E SH 121	1.24650	LOT TYPE B		$ 1,555.58	$ -	$ 1,555.58	$ 353.72	$ 353.72	$ -	$ 96.51	$ 96.51	$ 96.51	1/1/2017	360	$ 96.51	$ -
634189	Swc 121/423 Lp	COMMERCIAL		A	1	PID 5	1-G	4620-4630 E SH 121	14.80350	LOT TYPE B		$ 18,474.14	$ -	$ 18,474.14	$ 4,200.80	$ 4,294.92	$ 94.12	$ 1,146.10	$ 1,146.10	$ 1,146.10	1/1/2017	360	$ 1,146.10	$ -
634190	Swc 121/423 Lp	COMMERCIAL		A	2	PID 5	1-G	4550 E SH 121	10.73620	LOT TYPE B		$ 13,398.32	$ -	$ 13,398.32	$ 3,046.62	$ 3,115.54	$ 68.92	$ 831.21	$ 831.21	$ 831.21	1/1/2017	360	$ 831.21	$ -
634191	Swc 121/423 Lp	COMMERCIAL		A	3	PID 5	1-G	E SH 121	2.25030	LOT TYPE B		$ 2,808.28	$ -	$ 2,808.28	$ 638.57	$ 653.02	$ 14.45	$ 174.22	$ 174.22	$ 174.22	1/1/2017	360	$ 174.22	$ -
634192	Swc 121/423 Lp	COMMERCIAL		A	12	PID 5	1-G	6225 N Josey LN	1.84090	LOT TYPE B		$ 2,297.36	$ -	$ 2,297.36	$ 522.39	$ 534.20	$ 11.81	$ 142.52	$ 142.52	$ 142.52	1/1/2017	360	$ 142.52	$ -
634193	Swc 121/423 Lp	COMMERCIAL		A	13	PID 5	1-G	6201 N Josey LN	1.16570	LOT TYPE B		$ 1,454.74	$ -	$ 1,454.74	$ 330.79	$ 338.28	$ 7.49	$ 90.25	$ 90.25	$ 90.25	1/1/2017	360	$ 90.25	$ -
634194	Swc 121/423 Lp	COMMERCIAL		A	14	PID 5	1-G	Windhaven Pkwy	1.27550	LOT TYPE B		$ 1,591.77	$ -	$ 1,591.77	$ 361.95	$ 370.13	$ 8.18	$ 98.75	$ 98.75	$ 98.75	1/1/2017	360	$ 98.75	$ -
634195	Swc 121/423 Lp	COMMERCIAL		A	15	PID 5	1-G	Windhaven Pkwy	4.22340	LOT TYPE B		$ 5,270.62	$ -	$ 5,270.62	$ 1,198.48	$ 1,225.59	$ 27.11	$ 326.98	$ 326.98	$ 326.98	1/1/2017	360	$ 326.98	$ -
671363	Aldi (Texas) Llc	COMMERCIAL		A	1	PID 5	1-G	6150 N Josey Ln	1.80900	LOT TYPE B	9/8/2017	$ 2,257.55	$ 2,257.55	$ -	$ 469.40	$ 469.40	$ -	$ 140.05	$ -	$ -	1/1/2017	360	$ 140.05	$ (140.05)
682818	Ph Castle Hills Plaza Lc	COMMERCIAL		A	2R-1	PID 5	1-G	4720 Windhaven Pkwy	1.02900	LOT TYPE B		$ 1,284.15	$ -	$ 1,284.15	$ 292.00	$ 305.09	$ 13.09	$ 79.67	$ 79.67	$ 79.67	1/1/2017	360	$ 79.67	$ -

CITY OF LEWISVILLE
CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5

ASSESSMENT ROLL

												ASSESSMENT AND PRIOR YEARS' ANNUAL INTEREST INSTALLMENT SUMMARY						2017 INTEREST INSTALLMENT DETAIL SCHEDULED INVOICE FOR ANNUAL INTERST PERIOD 1.1.17 - 12.31.17						
												ASSESSMENT SUMMARY			INTEREST SUMMARY									
DCAD ID	OWNER	LAND USE	PHASE	BLOCK	LOT	PID	FWSD	SITUS ADDRESS	ACRES	ASSESSMENT CATEGORY	BUILDING PERMIT DATE	ASSESSMENT	ASSESSMENT PAID	ASSESSMENT BALANCE	INTEREST PAYABLE	TOTAL INTEREST PAID	REMITTANCE TO TRUSTEE (SHORTFALL)/ OVERAGE	INTEREST INVOICED	INTEREST COLLECTED	INTEREST REMITTED TO TRUSTEE	INTEREST ACCRUAL START DATE	INTEREST DAYS	INTEREST CALCULATION	REMITTANCE TO TRUSTEE (SHORTFALL)/ OVERAGE
682819	KKSLRM Properties LLC	COMMERCIAL		A	2R-2	PID 5	1-G	4740 Windhaven Pkwy	0.75500	LOT TYPE B		$ 942.21	$ -	$ 942.21	$ 214.25	$ 223.86	$ 9.61	$ 58.45	$ 58.45	$ 58.45	1/1/2017	360	$ 58.45	$ -
682820	Sec Jwh Llc	COMMERCIAL		A	3	PID 5	1-G	Windhaven Pkwy	1.09600	LOT TYPE B		$ 1,367.76	$ -	$ 1,367.76	$ 311.00	$ 324.96	$ 13.96	$ 84.85	$ 84.85	$ 84.85	1/1/2017	360	$ 84.85	$ -
678420	Brookwood Windhaven LLC	COMMERCIAL		A	4R	PID 5	1-G	4880 Windhaven Pkwy	1.96600	LOT TYPE B		$ 2,453.48	$ -	$ 2,453.48	$ 557.89	$ 712.08	$ 154.19	$ 152.21	$ 152.21	$ 152.21	1/1/2017	360	$ 152.21	$ -
678421	Sec Jwh Llc	COMMERCIAL		A	5R	PID 5	1-G	Windhaven Pkwy	1.33100	LOT TYPE B		$ 1,661.03	$ -	$ 1,661.03	$ 377.70	$ 394.60	$ 16.90	$ 103.05	$ 103.05	$ 103.05	1/1/2017	360	$ 103.05	$ -
671368	Roli Holdings LP	COMMERCIAL		A	6	PID 5	1-G	4750 Windhaven Pkwy	2.00400	LOT TYPE B	2/5/2016	$ 2,500.91	$ 2,500.91	$ -	$ 272.95	$ 272.95	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
671369	NLKH Ventures 2 LLC	COMMERCIAL		A	7	PID 5	1-G	6100 Josey Ln	1.52500	LOT TYPE B	5/12/2016	$ 1,903.13	$ 1,903.13	$ -	$ 239.54	$ 239.54	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
678422	Sec Jwh Llc	COMMERCIAL		A	8XR	PID 5	1-G	Windhaven Pkwy	1.47600	LOT TYPE B	2/11/2016	$ 1,841.98	$ 1,841.98	$ -	$ 202.94	$ 202.94	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
560164	EGW Castle Hill Investment Lp	COMMERCIAL		A	1	PID 5	1-G	5500 S SH 121	15.71700	LOT TYPE B	5/10/2017	$ 19,614.14	$ 19,614.14	$ -	$ 3,679.23	$ 3,679.23	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
560165	HCK Breckenridge Center Llc	COMMERCIAL		A	2	PID 5	1-G	FM 544/ FM 2281	2.96630	LOT TYPE B		$ 3,701.82	$ -	$ 3,701.82	$ 841.75	$ 870.31	$ 28.56	$ 229.65	$ 229.65	$ 229.65	1/1/2017	360	$ 229.65	$ -
623855	MREF II Windhaven Llc	COMMERCIAL		A	2	PID 5	1-G	4900 Windhaven Pkwy	16.17600	LOT TYPE B	5/30/2017	$ 20,186.96	$ 20,186.96	$ -	$ 3,856.25	$ 3,856.25	$ -	$ -	$ -	$ -	1/1/2017	0	$ -	$ -
496975	CAF TPEG CASTLE HILLS, LLC	COMMERCIAL		A	1	PID 5	1-G	5200 Windhaven Pkwy	15.60800	LOT TYPE B		$ 19,478.12	$ -	$ 19,478.12	$ 4,429.10	$ 4,577.45	$ 148.35	$ 1,208.39	$ 1,208.39	$ 1,208.39	1/1/2017	360	$ 1,208.39	$ -
623582	MOUNTAINPRIZE	COMMERCIAL		A	1	PID 5	1-G	1100 FM 544	1.88000	LOT TYPE B		$ 2,346.16	$ -	$ 2,346.16	$ 533.49	$ 551.36	$ 17.87	$ 145.55	$ 145.55	$ 145.55	1/1/2017	360	$ 145.55	$ -
216819	BRIGHT FARMS	COMMERCIAL			13	PID 5	1-G	SH 121 Bypass	0.43460	LOT TYPE B		$ 542.36	$ -	$ 542.36	$ 123.33	$ 128.85	$ 5.52	$ 33.65	$ 33.65	$ 33.65	1/1/2017	360	$ 33.65	$ -
216820	BRIGHT FARMS	COMMERCIAL			12	PID 5	1-G	SH 121 Bypass	0.51510	LOT TYPE B		$ 642.82	$ -	$ 642.82	$ 146.17	$ 152.71	$ 6.54	$ 39.88	$ 39.88	$ 39.88	1/1/2017	360	$ 39.88	$ -
GRAND TOTAL									**266.24600**			**$ 363,263.62**	**$ 89,015.02**	**$ 274,248.60**	**$ 75,484.07**	**$ 76,130.75**	**$ 646.67**	**$ 17,153.94**	**$ 17,013.89**	**$ 17,013.89**			**$ 17,153.94**	**$ (140.05)**

MEMORANDUM

TO: Donna Barron, City Manager

FROM: Brenda Martin, Director of Finance

DATE: November 8, 2017

SUBJECT: **Consideration of an Ordinance Authorizing the Issuance of $11,395,000 City of Lewisville, Texas, Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Series 2017 Utility Bonds") in Accordance With the Terms of That Certain Master Trust Agreement and Third Supplemental Trust Agreement; Approving and Authorizing the Execution of the Third Supplemental Trust Agreement; Authorizing a Final Limited Offering Memorandum Pertaining to the Issuance of the Series 2017 Utility Bonds; Approving a Bond Placement Agreement; Providing a Repealer, Severability, and an Effective Date; and Containing Other Matters Related to the Series 2017 Utility Bonds.**

BACKGROUND

The City of Lewisville entered into a development agreement with Bright Farm Partnership, Denton County Freshwater Supply District 1-A (DCFWSD) and Denton County Fresh Water Supply District 1-B in 1996. This agreement laid out the methodology for annexation of the DCFWSDs that make up what is known as "Castle Hills" as well as various other operational issues. This agreement allows the DCFWSDs to contract with the City of Lewisville to create Public Improvement Districts (PIDs) to issue Combination Contract Revenue and Special Assessment Bonds secured by an annual ad valorem tax without legal limitation as to the rate or amount. As such, the city provides a financing conduit for infrastructure for the districts.

The bonds are not general obligations of the City and are not payable from any funds raised or to be raised by taxation or any other revenue sources of the City. The proceeds from the sale of the debt are limited to street and roadway improvements and water, sewer and drainage improvements. At this point, eight DCFWSDs have been formed (1-A through 1-H). Of these, seven PIDs have been formed and have total current outstanding debt of $131.17M. DCFWSD 1-A is the managing district and does not have a PID established for it.

PID No. 5 encompasses DCFWSD 1-G and is made up of approximately 307 acres with an estimated cost of improvements of $36M. This district is made up of commercial, office, multi-family and single-family development. The improvements of the districts include the acquisition, construction and improvement of water, wastewater and drainage facilities and the acquisition and construction of streets.

ANALYSIS

Bonds for the first phase of PID5 were approved in May of 2014. Bonds for the second phase of PID5 were approved in December 2015. The purpose of the proposed 2017 Utility bonds is to finance the final phase of public improvements within the District, which includes acquiring and constructing certain water, sewer, and drainage facilities and to pay certain costs incurred in connection with the issuance of the bonds. This bond issuance along with the Road Bonds being considered, will complete the $36M of total voted authorization for this district.

As with previously issued bonds, these bonds include a prepaid assessment provision which is required by the Attorney General. The assessments are 1% of the total voted bond authority for District 1-G. The assessments are structured such that when a certificate of occupancy is issued, the builder or developer pre-pays the total amount of the assessment so that no assessments are outstanding when the homes are sold to end users. These assessments accumulate in a City's trustee account until which time the deposits are sufficient to redeem $25,000 in principal amount of bonds.

Given the tax base concentration, the relatively low current tax values in PID5 and the fact that the bonds are not rated, it was recommended by the City's financial advisor that selling the associated bonds directly to an institutional investor would provide the most economical funding. Institutional investors are usually larger organizations who invest their assets routinely and specialize in making investments in various markets.

These bonds are being purchased by the same group who purchased the 2015 PID5 bonds—Orix USA, an investor company that provides debt, mezzanine, and equity capital to a variety of public and private financings. The term of the bonds is 20 years and the interest rate is being negotiated for a call feature by 2021. This will enable the bonds to be called to be refinanced at the City's much lower interest rate should the City decide to annex Castle Hills at that time.

As is the case with the sale of the City's general obligation and revenue bonds, documents for the agenda packet are in preliminary form with final documents prepared on the day of the sale.

RECOMMENDATION

It is City staff's recommendation that the City Council consider approval of the ordinance as set forth in the caption above.

CERTIFICATE FOR ORDINANCE NO. ____-__-2017

THE STATE OF TEXAS §

COUNTIES OF DENTON AND DALLAS §

CITY OF LEWISVILLE §

I, the undersigned City Secretary of the City of Lewisville, Texas, hereby certify as follows:

1. The City Council of the City of Lewisville, Texas (the "City Council") convened in a regular session on November 20, 2017 in the Council Chambers of the Lewisville City Hall, 151 West Church Street, Lewisville, Texas (the "Meeting"), and the roll was called of the duly constituted Council Members of the City of Lewisville, Texas to-wit:

Rudy Durham	Mayor
Brent Daniels	Mayor Pro-Tem
Brandon Jones	Deputy Mayor Pro-Tem
TJ Gilmore	Council Member
R. Neil Ferguson	Council Member
Bob Troyer	Council Member

And all of the persons were present except _____, thus constituting a quorum. Whereupon, among other business, the following was transacted at the Meeting:

> AN ORDINANCE AUTHORIZING THE ISSUANCE OF $11,395,000 CITY OF LEWISVILLE, TEXAS, COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT UTILITY SYSTEM BONDS, SERIES 2017 (LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT) (THE "SERIES 2017 UTILITY BONDS") IN ACCORDANCE WITH THE TERMS OF THAT CERTAIN MASTER TRUST AGREEMENT AND THIRD SUPPLEMENTAL TRUST AGREEMENT; APPROVING AND AUTHORIZING THE EXECUTION OF THE THIRD SUPPLEMENTAL TRUST AGREEMENT; AUTHORIZING A FINAL LIMITED OFFERING MEMORANDUM PERTAINING TO THE ISSUANCE OF THE SERIES 2017 UTILITY BONDS; APPROVING A BOND PLACEMENT AGREEMENT; PROVIDING A REPEALER, SEVERABILITY, AND AN EFFECTIVE DATE; AND CONTAINING OTHER MATTERS RELATED TO THE SERIES 2017 UTILITY BONDS

(the "Ordinance") was duly introduced for the consideration of the City Council. It was then duly moved and seconded that the Ordinance be passed; and, after due discussion, said motion carrying with it the passage of the Ordinance, prevailed and carried by the following vote:

Aye: ___ No:___

2. A true, full and correct copy of the Ordinance passed at the Meeting described in the above and foregoing paragraph is attached to and follows this Certificate; that the Ordinance has been duly recorded in the City Council's minutes of the Meeting; that the above and foregoing paragraph is a true, full and correct excerpt from the City Council's minutes of the Meeting pertaining to the passage of the Ordinance; that the persons named in the above and foregoing paragraph are the duly chosen, qualified and acting city officials as indicated therein; that each of the elected officials and members of the City Council was duly and sufficiently notified, officially and personally, in advance, of the time, place and purpose of the Meeting, and that the Ordinance would be introduced and considered for passage at the Meeting, and each of the elected officials and members consented, in advance, to the holding of the Meeting for such purpose, and that the Meeting was open to the public and public notice of the time, place and purpose of the meeting was given, all as required by Chapter 551, Texas Government Code, as amended.

3. The City Council has approved the aforementioned attached Ordinance and the Mayor and the City Secretary of the City of Lewisville, Texas have duly signed the Ordinance; and that the City Secretary hereby declares that the attached Ordinance is a true and correct copy of the Ordinance for all purposes.

SIGNED AND SEALED November 20, 2017.

_____
Julie Worster, City Secretary
City of Lewisville, Texas

[City Seal]

CITY OF LEWISVILLE, TEXAS

ORDINANCE NO. - -2017

Adopted November 20, 2017

AUTHORIZING THE ISSUANCE OF
$11,395,000
CITY OF LEWISVILLE, TEXAS
COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT
UTILITY SYSTEM BONDS
SERIES 2017
(LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT)

Ordinance No. - -2017

AN ORDINANCE AUTHORIZING THE ISSUANCE OF $11,395,000 CITY OF LEWISVILLE, TEXAS, COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT UTILITY SYSTEM BONDS, SERIES 2017 (LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT) (THE "SERIES 2017 UTILITY BONDS") IN ACCORDANCE WITH THE TERMS OF THAT CERTAIN MASTER TRUST AGREEMENT AND THIRD SUPPLEMENTAL TRUST AGREEMENT; APPROVING AND AUTHORIZING THE EXECUTION OF THE THIRD SUPPLEMENTAL TRUST AGREEMENT; AUTHORIZING A FINAL LIMITED OFFERING MEMORANDUM PERTAINING TO THE ISSUANCE OF THE SERIES 2017 UTILITY BONDS; APPROVING A BOND PLACEMENT AGREEMENT; PROVIDING A REPEALER, SEVERABILITY, AND AN EFFECTIVE DATE; AND CONTAINING OTHER MATTERS RELATED TO THE SERIES 2017 UTILITY BONDS

RECITALS

WHEREAS, all capitalized terms utilized in this ordinance (the "Ordinance") and not otherwise defined herein shall have the meanings set forth in that certain Master Trust Agreement, dated as of May 1, 2014, relating to the City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Master Trust Agreement"), First Supplemental Trust Agreement, dated as of May 1, 2014 (the "First Supplemental Trust Agreement"), Second Supplemental Trust Agreement, dated as of December 1, 2015 (the "Second Supplemental Trust Agreement"), and Third Supplemental Trust Agreement, dated as of December 1, 2017 (the "Third Supplemental Trust Agreement" and, collectively with the Master Trust Agreement, First Supplemental Trust Agreement, and Second Supplemental Trust Agreement, the "Trust Agreement") by and among the City of Lewisville, Texas (the "Issuer" or "City") and Wilmington Trust, National Association, Dallas, Texas (the "Trustee") relating to the Series 2017 Utility Bonds (defined herein). A full and correct copy of the Third Supplemental Trust Agreement is attached hereto as Exhibit "A" and made a part hereof for all purposes;

WHEREAS, at an election conducted on January 17, 1983, the voters within the boundaries of Denton County Fresh Water Supply District No. 1 ("District No. 1") approved the creation of District No. 1 and elected the Governing Body of District No. l;

WHEREAS, on August 8, 1987, the voters within District No. 1 approved an election by which District No. 1 was authorized to assume the rights, authority, privileges and functions of a road district under Article III, Section 52(b)(3) of Texas Constitution, in the manner provided by Section 53.029(c) of Texas Water Code, as amended;

WHEREAS, at the same election on August 8, 1987, the voters within District No. 1 authorized District No. 1 to purchase, construct, acquire, own, operate, repair, improve and extend

sanitary sewer systems to control wastes;

WHEREAS, on December 21, 1993, following a hearing conducted in accordance with Sections 51.040 through 51.044 of Texas Water Code, as amended, the Governing Body of District No. 1 entered an Order Setting Out Findings On Conversion And Ordering Conversion To A Water Control And Improvement District by which District No. 1 converted into a district operating under Chapter 51 of Texas Water Code, as amended, and exercising all the powers, authority, functions and privileges provided in Chapter 51 and District No. 1 specifically reserved in the manner specified in Section 51.044 of Texas Water Code, as amended, the powers specified in Sections 53.029, 53.030 through 53.035, 53.037 through 53.041, 53.111, 53.112, 53.121 and 53.125 of Texas Water Code, as amended from time to time;

WHEREAS, District No. 1 entered into a contract with the Upper Trinity Regional Water District, by which District No. 1 will receive a supply of potable fresh water for all areas located within the boundaries of District No. 1;

WHEREAS, pursuant to the specific authority retained by District No. 1 under Sections 53.029 through 53.035 and Sections 53.037 through 53.041, Texas Water Code, as amended, and granted to District No. 1 by Chapter 51 of Texas Water Code, as amended, the voters within District No. 1 approved, on May 6, 1995, an election by which District No. 1 was divided into Denton County Fresh Water Supply District No. 1-A ("District No. 1-A"), consisting of 2,339 acres, more or less and Denton County Fresh Water Supply District No. 1-B ("District No. l-B"), consisting of 291 acres, more or less;

WHEREAS, pursuant to the specific authority set forth under Sections 53.029 through 53.035 and Sections 53.037 through 53.041 of Texas Water Code, as amended, the voters within District No. 1-A approved on August 9, 1997 an election by which District No. 1-A divided itself into District No. 1-A and Denton County Fresh Water Supply District No. 1-C ("District No. 1-C");

WHEREAS, the voters within District No. 1-A thereafter approved the division of District No. 1-A into District No. 1-A and District No. 1-C, Denton County Fresh Water Supply District No. 1-E ("District No. 1-E"), Denton County Fresh Water Supply District No. 1-F ("District No. l-F"), and Denton County Fresh Water Supply District No. 1-G ("District No. 1-G" or the "District") and Denton County Fresh Water Supply District No. 1-H ("District No. 1-H") and District No. 1-C divided itself into District No. 1-C and Denton County Fresh Water Supply District No. 1-D ("District No. 1-D");

WHEREAS, on the 21st day of March, 2013, a petition signed by the requisite owners of taxable real property representing more than fifty percent (50%) of the appraised value of taxable real property liable for assessment and owners of real property who constitute more than fifty percent (50%) of all record owners of property that is liable for assessment within the proposed Lewisville Castle Hills Public Improvement District No. 5 ("P.I.D. No. 5") was submitted to and filed with the Governing Body of the Issuer requesting that a public improvement district be created within the extraterritorial jurisdiction of the Issuer pursuant to the provisions of the Public Improvement District Assessment Act, Chapter 372, Texas Local Government Code, as amended (the "Act");

WHEREAS, the aforementioned petition was submitted in compliance with the provisions of Section 372.005 of the Act;

WHEREAS, notice of a public hearing to consider the advisability of the improvements was published in a newspaper of general circulation on the 12th day of April, 2013, disclosing the Governing Body of the Issuer's intention to consider the creation of a public improvement district;

WHEREAS, written notice of the scheduled public hearing was delivered on the 12th day of April, 2013, to each property owner located within the proposed public improvement district;

WHEREAS, on the 6th day of May, 2013, the Governing Body of the Issuer held a public hearing conforming to the requirements of Section 372.009 of the Act on the advisability of the improvements;

WHEREAS, pursuant to Section 372.009(b) of the Act, the Governing Body of the Issuer, on the 6th day of May, 2013, passed and approved Resolution No. 3991-05-2013 (R), making certain findings as to the advisability of the improvements, the nature of the improvements, the boundaries of the proposed public improvement district, the method of assessment, and the apportionment of the costs between the proposed public improvement district and the Issuer as a whole and authorizing creation of P.I.D. No. 5 thereby establishing the exact boundaries of P.I.D. No. 5;

WHEREAS, P.I.D. No. 5 is located within the extraterritorial jurisdiction of the Issuer;

WHEREAS, such authorization took effect on the 17th day of May, 2013, the date on which notice of the creation of P.I.D. No. 5 was published in the Lewisville Neighbors Go section of the Dallas Morning News, a newspaper of general circulation in the extraterritorial jurisdiction of the Issuer;

WHEREAS, an Assessment/Service Plan was prepared and reviewed by the staff of the Issuer and submitted on March 3, 2014 to the Governing Body of the Issuer for review and, on March 3, 2014, the Governing Body authorized publication of a notice of public hearing on the Assessment/Service Plan;

WHEREAS, a notice was published on the 6th day of March, 2014, in the Lewisville Neighbors Go section of the Dallas Morning News, a newspaper of general circulation within the city limits and extraterritorial jurisdiction of the Issuer, evidencing the intention of the Governing Body of the Issuer to consider the Special Assessments at a public hearing;

WHEREAS, written notice of the scheduled public hearings have been delivered as required by law, to each property owner residing within P.I.D. No. 5;

WHEREAS, the Assessment/Service Plan provided that one hundred percent (100%) of the cost of the improvements authorized by Section 372.003 of the Act (the "Authorized Utility Improvements") will be paid by Special Assessments levied against property located within P.I.D. No. 5 or will be paid by taxes collected by the District and paid to the Issuer in accordance with the provisions of the Joint Utility Contract entered into between the Issuer, District No. 1-A, and

the District (the "Joint Utility Contract"), a copy of which is attached hereto as Exhibit "C" and made a part hereof for all purposes;

WHEREAS, the Assessment/Service Plan recommended that the Governing Body of the Issuer apportion the cost of the Authorized Utility Improvements on the basis of the value of the property in P.I.D. No. 5 as determined by the Governing Body, without regard to improvements on the property, as set out in the Assessment/Service Plan, with such an apportionment resulting in the imposition of equal shares of the cost on property similarly benefited within P.I.D. No. 5;

WHEREAS, based upon the aforementioned method of apportionment, the Governing Body of the Issuer prepared and filed an Assessment Roll establishing the Special Assessment against each parcel of property within P.I.D. No. 5, all as provided in Section 372.016 of the Act;

WHEREAS, on the 19th day of May, 2014 the Governing Body of the Issuer conducted public hearings to hear and pass on any objections to the Special Assessments, Assessment/Service Plan and Assessment Roll;

WHEREAS, the Governing Body of the Issuer adopted the Assessment Ordinance approving the Assessment/Service Plan for P.I.D. No. 5 and levied assessments as Special Assessments on each parcel of property within P.I.D. No. 5 pursuant to the Assessment/Service Plan and Assessment Roll;

WHEREAS, contemporaneously with the issuance of the Series 2017 Utility Bonds, the Governing Body of the Issuer is adopting an ordinance updating the Assessment/Service Plan and Assessment Roll;

WHEREAS, pursuant to the Assessment Ordinance, the Issuer permitted the Special Assessments to be paid in installments, fixed the rate of interest on installment payments, established the penalties and interest on delinquent installments, and established the procedure for collection of the Special Assessments. The Assessment Ordinance provides the mechanism and procedure that will be utilized to collect and enforce the Special Assessments in periodic installments;

WHEREAS, the Act provides that an assessment or any reassessment, the expense of collection, and reasonable attorney's fees, if incurred, are a first and prior lien against the property assessed, superior to all other liens and claims except liens or claims for ad valorem taxes by other governmental entities, and are a personal liability of and charge against the owners of the property regardless of whether the owners are named. The lien is effective from the date of the Assessment Ordinance levying the Special Assessments until the Special Assessments are paid, and may be enforced in the same manner that an ad valorem tax levied against real property is enforced. The owner of any property assessed may pay the entire Special Assessment against any lot or parcel with accrued interest to the date of payment at any time;

WHEREAS, Section 372.026 of the Act authorizes the Issuer to pledge Special Assessments and all or part of the revenue or income received from any public or private source, pursuant to an agreement or otherwise, to the payment of revenue bonds;

WHEREAS, in the adoption of this Ordinance, the Issuer is exercising the authority granted

by Section 372.026 of the Act by issuing revenue bonds payable from Special Assessments and from the Contract Revenues derived from the Joint Utility Contract;

WHEREAS, on November 4, 2008, the District conducted an election that authorized the issuance of bonds and refunding bonds and approved the Joint Utility Contract and the imposition of an annual tax on all taxable property within the boundaries of the District, unlimited in rate or amount, sufficient to make payment under the Joint Utility Contract;

WHEREAS, on May 19, 2014, the Governing Body of the Issuer adopted Ordinance No. 4086-06-2014 approving the Joint Utility Contract;

WHEREAS, the District and the Issuer are authorized by Chapters 49 and 51 of Texas Water Code, as amended, to enter into contracts for the provision of the facilities, improvements and services which the District has lawful authority to provide and to cover the expenses necessary to administer, maintain and operate the improvements and facilities;

WHEREAS, under Section 51.149 of Texas Water Code, said contract needs no approval other than approval by a majority of the electors voting at an election conducted in the manner of a bond election in order for the contract between the District and the Issuer to be valid, binding, and enforceable against all parties to the contract;

WHEREAS, under Section 49.108 of Texas Water Code and subject to any limitation imposed by the Texas Constitution, said contract may be modified or amended by the District without voter approval;

WHEREAS, the terms and conditions of the Series 2017 Utility Bonds and the pledge of the Contract Revenues derived from the Joint Utility Contract which are authorized to be collected on an annual basis while any of the Series 2017 Utility Bonds remain Outstanding and revenues derived from Special Assessments will be controlled by the provisions of this Ordinance and Sections 372.025 and 372.026 of the Act;

WHEREAS, Section 372.026 of the Act authorizes the Issuer to issue revenue bonds payable from Special Assessments and from all or part of revenue or income received from any public or private source, pursuant to an agreement or otherwise;

WHEREAS, on November 4, 2008, the District conducted elections that authorized the issuance of $25,600,000 of utility bonds and refunding bonds and approved the Joint Utility Contract and the imposition of an annual tax on all taxable property within the boundaries of the District, unlimited in rate or amount, sufficient to make payment under such Joint Utility Contract;

WHEREAS, District No. 1-A, the District and the Issuer are authorized by Chapters 49 and 51 of the Texas Water Code, to enter into contracts for the provision of the joint construction, finance, ownership and operation of any works, improvements, facilities, plants, equipment and appliances necessary to accomplish any function that District No. 1-A, the District and the Issuer have lawful authority to provide and to cover the expenses necessary to administer, maintain and operate the improvements and facilities;

WHEREAS, the Issuer has determined to pay the cost of the Authorized Utility

Improvements by the issuance of revenue bonds designated as the "City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project)" (the "Series 2017 Utility Bonds"), in the original principal amount of $11,395,000;

WHEREAS, the Issuer has previously issued the (i) "City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2014 (Lewisville Castle Hills Public Improvement District No. 5 Project)" in the principal amount of $3,255,000 (the "Series 2014 Utility Bonds") pursuant to the terms of the Master Trust Agreement and a First Supplemental Trust Agreement, dated as of May 1, 2014, by and between the Issuer and the Trustee (the "First Supplemental Trust Agreement") and the (ii) "City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2015 (Lewisville Castle Hills Public Improvement District No. 5)" in the principal amount of $10,650,000 (the "Series 2015 Utility Bonds") pursuant to the terms of the Master Trust Agreement and a Second Supplemental Trust Agreement, dated as of December 1, 2015, by and between the Issuer and the Trustee (the "Second Supplemental Trust Agreement");

WHEREAS, following the sale and delivery of the Series 2017 Utility Bonds the Issuer shall have the right to issue no additional utility bonds pursuant to the voted authority of the election held on November 4, 2008 approving the Joint Utility Contract, not including refunding bonds;

WHEREAS, the terms and conditions of the Series 2017 Utility Bonds and the pledge of the Contract Revenues derived from the Joint Utility Contract and revenues derived from Special Assessments which are authorized to be collected on an annual basis while any of the Series 2017 Utility Bonds remain Outstanding will be controlled by the provisions of this Ordinance, the Joint Utility Contract, and Sections 372.025 and 372.026 of the Act, Chapter 1371, Texas Government Code, the Trust Agreement, and any other applicable law;

WHEREAS, the Trust Agreement relating to the Series 2017 Utility Bonds has been submitted to the Issuer for its approval along with a Bond Placement Agreement;

WHEREAS, the Governing Body of the Issuer has determined that the Series 2017 Utility Bonds should be issued in accordance with this Ordinance and the Trust Agreement.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS:

Section 1. The City Council of the City of Lewisville, Texas (the "City Council") hereby authorizes the issuance of $11,395,000 City of Lewisville, Texas, Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project), upon the terms and conditions set forth in the Trust Agreement and this Ordinance, and at an initial interest rate from the date of delivery to the initial purchasers of the Series 2017 Utility Bonds, of _____% per annum.

Section 2. The Third Supplemental Trust Agreement, together with all Exhibits thereto, is hereby approved in all particulars, in substantially the form attached hereto as Exhibit "A", subject to such changes as may be approved by the City Manager and the City Attorney or

such changes as may be approved by Bond Counsel to satisfy the requirements of the Attorney General of the State of Texas. This Ordinance hereby specifies that the Series 2017 Utility Bonds shall be issued under the terms and conditions set forth in the Trust Agreement. The Mayor, Mayor Pro-Tem, or Deputy Mayor Pro-Tem of the Issuer is hereby authorized and directed to execute the Trust Agreement and the City Secretary is hereby authorized and directed to attest such signature.

Section 3. The form and substance of the Preliminary Limited Offering Memorandum for the Series 2017 Utility Bonds and any addenda, supplement or amendment thereto (the "Preliminary Limited Offering Memorandum") and the Limited Offering Memorandum (the "Limited Offering Memorandum") presented to and considered at this meeting, are hereby in all respects approved and adopted, and the Preliminary Limited Offering Memorandum is hereby deemed final as of its date (except for the omission of pricing and related information) within the meaning and for the purposes of paragraph (b)(1) of Rule 15c2-12 under the Securities Exchange Act of 1934, as amended. The Mayor and the City Secretary are hereby authorized and directed to execute the Limited Offering Memorandum and deliver appropriate numbers of copies thereof to the purchaser (the "Purchaser") of the Series 2017 Utility Bonds. The Limited Offering Memorandum as thus approved, executed, and delivered, with such appropriate variations as shall be approved by the Mayor of the Issuer and the Purchaser of the Series 2017 Utility Bonds, may be used by the Issuer in the offering of the Series 2017 Utility Bonds and sale thereof. The City Secretary of the Issuer is hereby authorized and directed to include and maintain a copy of the Preliminary Limited Offering Memorandum and the Limited Offering Memorandum and any addenda, supplement or amendment thereto thus approved among the permanent records of this meeting. The use and distribution of the Preliminary Limited Offering Memorandum in the offering of the Series 2017 Utility Bonds is hereby ratified, approved and confirmed.

Section 4. The City Council hereby authorizes the expenditures identified in the description of the Authorized Utility Improvements, which is attached as Exhibit "C" to the Third Supplemental Trust Agreement, and further authorizes all parties named in this Ordinance and the Trust Agreement to take all action necessary or appropriate to the issuance and sale of the Series 2017 Utility Bonds in conformity with the provisions of this Ordinance, the Trust Agreement and the other agreements identified in the Trust Agreement, subject to such changes as may be approved by Winstead PC, Bond Counsel; Hilltop Securities Inc., the City's Financial Advisor; Bracewell LLP, as special counsel to the City; the City's City Attorney, and the City's Finance Director.

Section 5. The Bond Placement Agreement is hereby approved in all particulars, in substantially the form attached hereto as Exhibit "B", subject to such changes as may be approved by the City Manager, Bond Counsel, or the City Attorney.

Section 6. The recitation of facts in the preamble to this Ordinance are found to be true and correct and are incorporated herein by reference.

Section 7. The City Council will adopt, make, execute, and deliver any and all such further ordinances, resolutions, instruments, and assurances as may be reasonably necessary or proper to carry out the intention or to facilitate the implementation of this Ordinance, the Trust Agreement, and the Bond Placement Agreement.

Section 8. The Series 2017 Utility Bonds shall be issued in generally the form set forth in the Third Supplemental Trust Agreement, with such appropriate insertions, omissions,

substitutions, and other variations as are permitted or required by this Ordinance and the Trust Agreement.

Section 9. The Mayor of the Issuer is hereby authorized to have control of the Series 2017 Utility Bonds and all necessary records and proceedings pertaining thereto pending investigation, examination, and approval of the Attorney General of the State of Texas, registration by the Comptroller of Public Accounts of the State of Texas (the "Comptroller of Public Accounts") and registration with, and initial exchange or transfer by, the Paying Agent/Registrar.

After registration by the Comptroller of Public Accounts, delivery of the Series 2017 Utility Bonds shall be made to the Purchaser under and subject to the general supervision and direction of the Mayor of the Issuer, against receipt by the Issuer of all amounts due to the Issuer under the terms of sale.

In the event the Mayor of the Issuer or City Secretary is absent, the Mayor Pro-Tem or Deputy Mayor Pro-Tem and the Assistant City Secretary, respectively, shall be authorized to execute such documents and take such actions, and the performance of such duties by the Mayor Pro-Tem or Deputy Mayor Pro-Tem and the Assistant City Secretary shall for the purposes of this Ordinance have the same force and effect as if such duties were performed by the Mayor of the Issuer or City Secretary, respectively.

Section 10. The requirement that this Ordinance be read on 3 separate days does not apply to a public security authorization.

Section 11. This Ordinance shall be effective immediately upon its final passage in accordance with Section 1201.028, Texas Government Code.

Section 12. Nothing in this Ordinance, expressed or implied, is intended or shall be construed to confer upon any person other than the Issuer, and its employees, the Trustee, Bond Counsel, and the Owners any right, remedy, or claim, legal or equitable, under or by reason of this Ordinance or any provision hereof, this Ordinance and all its provisions being intended to be and being for the sole and exclusive benefit of the Issuer and its employees, the Trustee, Bond Counsel, and the Owners.

Section 13. If any Section, paragraph, clause or provision of this Ordinance shall for any reason be held to be invalid or unenforceable, the invalidity or unenforceability of such Section, paragraph, clause or provision shall not affect any of the remaining provisions of this Ordinance.

Section 14. It is hereby found, determined and declared that a sufficient written notice of the date, hour, place and subject of the regular meeting of the Governing Body of the City Council at which this Ordinance was adopted was posted at a place convenient and readily accessible at all times to the general public for the time required by law preceding this meeting, as required by the Open Meetings Law, Chapter 551, Texas Government Code, and that this meeting has been open to the public as required by law at all times during which this Ordinance and the subject matter thereof has been discussed, considered and formally acted upon. The City Council further ratifies, approves and confirms such written notice and the contents and posting thereof.

Section 15. Every ordinance or parts of ordinances found to be in conflict herewith are

hereby repealed.

Section 16. The issuance of the Series 2017 Utility Bonds is in the best interests of the Issuer.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

PASSED AND APPROVED NOVEMBER 20, 2017.

_____
Mayor, City of Lewisville, Texas

ATTEST:

_____
City Secretary, City of Lewisville, Texas

APPROVED AS TO FORM & LEGALITY:

_____
City Attorney, City of Lewisville, Texas

EXHIBIT A
THIRD SUPPLEMENTAL TRUST AGREEMENT

EXHIBIT B
BOND PLACEMENT AGREEMENT

EXHIBIT C
JOINT UTILITY CONTRACT

THIRD SUPPLEMENTAL TRUST AGREEMENT

between

THE CITY OF LEWISVILLE, TEXAS (the "ISSUER")

and

WILMINGTON TRUST, NATIONAL ASSOCIATION, as Trustee (the "TRUSTEE")

Dated as of December 1, 2017

Relating to

$11,395,000

CITY OF LEWISVILLE, TEXAS
COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT
UTILITY SYSTEM BONDS,
SERIES 2017

(LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT)

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THIRD SUPPLEMENTAL TRUST AGREEMENT

THIS THIRD SUPPLEMENTAL TRUST AGREEMENT (this "Third Supplemental Trust Agreement"), dated as of December 1, 2017, is between THE CITY OF LEWISVILLE, TEXAS, a home rule city organized and operating pursuant to Article XI, Section 5 of the Constitution of the State of Texas (the "Issuer") and WILMINGTON TRUST, NATIONAL ASSOCIATION, a national banking association authorized to do business in the State of Texas, as trustee (the "Trustee"), and supplements and amends the Master Trust Agreement for the "City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds (Lewisville Castle Hills Public Improvement District No. 5 Project)" dated as of May 1, 2014 (the "Master Trust Agreement"), between the Issuer and the Trustee, the First Supplemental Trust Agreement for the $3,255,000 "City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2014 (Lewisville Castle Hills Public Improvement District No. 5 Project)", dated as of May 1, 2014, between the Issuer and the Trustee (the "First Supplemental Trust Agreement"), and the Second Supplemental Trust Agreement for the $10,950,000 "City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2015 (Lewisville Castle Hills Public Improvement District No. 5 Project)", dated as of December 1, 2015, between the Issuer and the Trustee (the "Second Supplemental Trust Agreement" and, together with the Master Trust Agreement, the First Supplemental Trust Agreement, and this Third Supplemental Trust Agreement, the "Trust Agreement").

W I T N E S S E T H:

WHEREAS, the City of Lewisville, Texas, Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Series 2017 Utility Bonds") are "Bonds", as defined in Section 1.1 of the Master Trust Agreement, and the Issuer certifies that issuance of the Series 2017 Utility Bonds is authorized and permitted under Section 2.1 of the Master Trust Agreement;

WHEREAS, this Third Supplemental Trust Agreement amends and supplements the Master Trust Agreement pursuant to Section 2.1 of the Master Trust Agreement;

WHEREAS, on November 20, 2017, the City Council of the Issuer duly adopted that certain Ordinance No. ____-__- 2017 (the "Bond Ordinance") authorizing the issuance of the Series 2017 Utility Bonds and approving the form, substance, and use of a Preliminary Limited Offering Memorandum;

WHEREAS, the Issuer desires to issue Series 2017 Utility Bonds sufficient to make the Series 2017 Authorized Utility Expenditures set forth in Exhibit "C" of this Third Supplemental Trust Agreement and pay the costs of issuing the Series 2017 Utility Bonds;

WHEREAS, the Issuer has duly filed a certified copy of the Bond Ordinance with the Trustee;

WHEREAS, the Trustee has accepted the trusts created by the Master Trust Agreement, First Supplemental Trust Agreement, and Second Supplemental Trust Agreement, and accepts

the trusts described in this Third Supplemental Trust Agreement, and evidences such acceptance by joining in the execution hereof; and

WHEREAS, all capitalized terms, unless otherwise defined herein, have the meanings ascribed to them in the Master Trust Agreement;

NOW, THEREFORE, the Issuer, in consideration (i) of the premises and the acceptance by the Trustee of the trusts created in the Master Trust Agreement, the First Supplemental Trust Agreement, the Second Supplemental Trust Agreement, and this Third Supplemental Trust Agreement, (ii) of the purchase and acceptance of the Series 2017 Utility Bonds by the purchasers thereof, and (iii) for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby confirm and agree that the grant in the Master Trust Agreement to the Trustee for the benefit of the Owners of the Bonds of the Trust Estate (as defined in the Master Trust Agreement) shall constitute a lien on and security interest in such Trust Estate for the benefit of the Owners of the Series 2017 Utility Bonds on an equal and ratable basis with the Owners of the Outstanding Bonds under the Master Trust Agreement and any supplement or amendment thereto and of any Additional Bonds issued under the Master Trust Agreement and any subsequent supplements thereto, and in addition to the foregoing, the parties hereto agree as follows:

ARTICLE 1. DEFINITIONS AND INTERPRETATIONS.

Section 1.01 Definitions.

(a) For all purposes of this Third Supplemental Trust Agreement, except as otherwise expressly provided or unless the context otherwise requires:

(1) This "Third Supplemental Trust Agreement" means this instrument as originally executed or as it may from time to time be supplemented or amended by one or more trust agreements supplemental hereto entered into pursuant to the applicable provisions of the Master Trust Agreement.

(2) All references in this instrument to designated "Articles", "Sections", and other subdivisions are to the designated Articles, Sections, and other subdivisions of this instrument as originally executed. The words "herein", "hereof", and "hereunder", and other words of similar import, refer to this Third Supplemental Trust Agreement as a whole and not to any particular Article, Section, or other subdivision.

(3) All terms used in this Third Supplemental Trust Agreement that are defined in the Master Trust Agreement have the same meanings assigned to such terms in the Master Trust Agreement unless otherwise specified herein. Except where the context otherwise requires, words imparting the singular number shall include the plural number and vice versa. Reference to any document means that document as amended or supplemented from time to time. Reference to any party to a document means that party and its successors and assigns.

(b) The following terms have the meanings assigned to them below whenever they are used in or with respect to this Third Supplemental Trust Agreement:

Additional Bonds – means the Additional Bonds payable from Special Assessment Revenues and payable from Contract Payments in accordance with the 2008 Joint Utility Contract. After issuance of the Series 2017 Utility Bonds, no Additional Bonds will remain authorized but unissued pursuant to the 2008 Joint Utility Contract, not including refunding bonds.

Administrative Expenses – means the administrative, organization, maintenance, and operation costs payable from the proceeds of the Series 2017 Utility Bonds associated with, or incident to, the administration, organization, maintenance, and operation of the P.I.D., including, but not limited to, the costs of (a) administering the P.I.D., including conducting hearings, preparing notices and petitions, preparing assessment rolls, and all costs incident thereto, including engineering fees, legal fees, and consultant fees, (b) levying and collecting Special Assessments or the installments thereof, (c) negotiating and implementing the 2008 Joint Utility Contract and the other agreements, (d) maintaining the record of installments of the Special Assessments and the system of registration and transfer of the Series 2017 Utility Bonds, (e) paying and redeeming the Series 2017 Utility Bonds, (f) investing or depositing of monies, (g) complying with the Code with respect to the Series 2017 Utility Bonds, and (h) the Trustee and Series 2017 Utility Bonds Bondholder Representative fees and expenses, including attorneys' fees relating to the Series 2017 Utility Bonds.

Authorized Investments or Permitted Investments – means any investment authorized by the Public Funds Investment Act, Chapter 2256, Texas Government Code.

Bond Ordinance – means the City of Lewisville Ordinance adopted by the City Council of the City of Lewisville on November 20, 2017, authorizing the issuance of the Series 2017 Utility Bonds.

Date of Closing – means the date of physical delivery of the Initial Bond for payment in full by the initial purchasers thereof.

Debt Service Requirements – means, as of any particular date of computation, with respect to any Series 2017 Utility Bonds and with respect to any period, the aggregate of the amounts to be paid or set aside from the Interest and Sinking Fund by the Trustee on behalf of the Issuer as of such date or in such period for the payment of the Principal Installment, redemption premium, if any, and interest (to the extent not capitalized) on such Series 2017 Utility Bonds.

Debt Service Reserve Amount – means the lesser of (i) 10% of the principal amount of the Outstanding Assessment Bonds, (ii) the maximum annual debt service requirement of the Outstanding Assessment Bonds, or (iii) 125% of the average annual debt service of the Outstanding Assessment Bonds.

Initial Bond – means the Series 2017 Utility Bond authorized, issued and initially delivered as provided in Section Section 2.03 of this Third Supplemental Trust Agreement, the form of which is set forth in Exhibit “B”, which is attached hereto and made a part hereof for all purposes.

Mandatory Sinking Fund Payments or Mandatory Sinking Fund Redemptions – means the mandatory sinking fund payments on the dates, and in the amounts, set forth in Section Section 3.01(c) herein.

Outstanding – means, as of the date of determination, and with respect to any Outstanding Assessment Bonds, including the Series 2017 Utility Bonds, all such Outstanding Assessment Bonds theretofore issued and delivered under the Master Trust Agreement and any supplemental trust agreement, including the First Supplemental Trust Agreement, the Second Supplemental Trust Agreement, and this Third Supplemental Trust Agreement, except:

(1) Outstanding Assessment Bonds theretofore cancelled by the Trustee or delivered to the Trustee for cancellation;

(2) Outstanding Assessment Bonds for whose purchase, payment or redemption money in the necessary amount has been theretofore deposited in an account, other than the "Collection Fund" identified in Section 4.1 of the Master Trust Agreement, with the Trustee in trust for the holders of the Outstanding Assessment Bonds;

(3) Outstanding Assessment Bonds in exchange for or in lieu of which other Outstanding Assessment Bonds have been registered and delivered pursuant to the Trust Agreement; and

(4) Outstanding Assessment Bonds alleged to have been mutilated, destroyed, lost, or stolen that have been paid as provided in the Trust Agreement.

Outstanding Assessment Bonds – means any Outstanding Bonds of the Issuer containing a pledge of Special Assessments levied pursuant to the Assessment Ordinance, including the Series 2017 Utility Bonds and any Additional Bonds.

P.I.D. – means Lewisville Castle Hills Public Improvement District No. 5.

Series 2017 Authorized Utility Expenditures – means the authorized expenditures related to the Series 2017 Utility Bonds as described in Exhibit "C" to this Third Supplemental Trust Agreement payable from Contract Revenues and Special Assessments.

Series 2017 Utility Bonds Bondholder Representative – means the Bondholder Representative for the Owners of not less than a majority in principal amount of the Series 2017 Utility Bonds then Outstanding, initially ORIX Public Finance, LLC, or other designated representative of the majority of the Owners.

Special Assessments – means the assessments levied against properties in the P.I.D. to pay Debt Service Requirements on the Outstanding Assessment Bonds as set forth in the Assessment/Service Plan that are payable in periodic installments as provided in the Assessment Ordinance; all as provided in the Assessment/Service Plan, the Assessment Ordinance and the Bond Ordinance. Special Assessments also include any supplemental assessments or reassessments levied in accordance with Sections 372.019 and 372.020 of the Act.

Section 1.02 Effect of Headings and Table of Contents. The Article and Section headings herein and the Table of Contents are for convenience only and shall not affect the construction hereof.

Section 1.03 Trust Agreement to Remain in Force. Except as amended by this Third Supplemental Trust Agreement or any subsequent supplemental trust agreements, the Master Trust Agreement shall remain in full force and effect as to the matters covered therein.

Section 1.04 Authority. This Third Supplemental Trust Agreement is executed and delivered pursuant to the Act and the Master Trust Agreement.

Section 1.05 Notices, etc., to Parties. Any request, demand, authorization, direction, notice, consent, waiver, or act of Owners of Series 2017 Utility Bonds or other document provided or permitted by the Master Trust Agreement to be made upon, given or furnished to, or filed with any party hereto shall be given in the manner prescribed in the Master Trust Agreement.

Section 1.06 Successors and Assigns. All covenants and agreements in this Third Supplemental Trust Agreement by the Issuer and the Trustee shall bind their respective successors and assigns, whether so expressed or not.

Section 1.07 Separability Clause. If any provision in this Third Supplemental Trust Agreement shall be invalid, illegal, or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

Section 1.08 Benefits of Third Supplemental Trust Agreement. Nothing in this Third Supplemental Trust Agreement or in the Series 2017 Utility Bonds, express or implied, shall give to any Person, other than the parties hereto and their successors hereunder and the Owners of the Series 2017 Utility Bonds, any benefit or any legal or equitable right, remedy or claim under this Third Supplemental Trust Agreement.

Section 1.09 Governing Law. This Third Supplemental Trust Agreement shall be construed in accordance with and governed by the laws of the State of Texas.

ARTICLE 2. AUTHORIZATION AND TERMS OF SERIES 2017 UTILITY BONDS.

Section 2.01 Authorization of Series 2017 Utility Bonds. The Series 2017 Utility Bonds shall be issued in fully registered form in the total authorized aggregate amount of $11,395,000.00 for the purpose of paying costs of issuance of the Series 2017 Utility Bonds in accordance with the Act and making the Series 2017 Authorized Utility Expenditures. The Series 2017 Utility Bonds are hereby sold on this date to the initial purchaser, ORIX Public Finance, LLC, at a price of par plus accrued interest on the Series 2017 Utility Bonds from their date to the date of their delivery.

Section 2.02 Designation, Date, and Interest Payment Dates. The Series 2017 Utility Bonds shall be designated as $11,395,000 "City of Lewisville, Texas, Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project)" and shall be dated as of December 1, 2017. The Series 2017 Utility Bonds shall bear interest from the Date of Closing, or the most recent Interest Payment Date to which interest has been paid or duly provided for, calculated on the basis of a 360-day year of twelve 30-day months, payable on September 1, 2018, and semiannually thereafter on September 1 and March 1 of each year until maturity or prior redemption.

Section 2.03 Initial Bond; Numbers and Denomination. The Series 2017 Utility Bonds shall be initially issued in the form set forth in Exhibit "A" which is attached hereto; provided, however, that the Initial Bond delivered to the Attorney General of the State of Texas shall be numbered T-1 and shall be in the form set forth in Exhibit "B" which is attached hereto, and issued as a Term Bond in the principal amount of $11,395,000, which shall mature September 1, 2057 and shall be subject to a mandatory sinking fund redemption in the following manner on September 1 in the following years indicated below, and may be transferred and exchanged as set out in the Trust Agreement.

Year	Principal Amount

The Series 2017 Utility Bonds shall be subject to prior redemption as provided in Article III below. Series 2017 Utility Bonds delivered on transfer of or in exchange for other Series 2017 Utility Bonds shall be numbered (with appropriate prefix) in order of their authentication by the Trustee, and shall be in the denomination of $5,000.00 or integral multiples of $50 in excess thereof. The Series 2017 Utility Bonds shall mature on the same date and bear interest at the same rate as the Series 2017 Utility Bonds in lieu of which they are delivered.

Section 2.04 Interest Rate. The Series 2017 Utility Bonds shall bear interest from the Date of Closing at the rate of _____% per annum.

Section 2.05 Application of Proceeds. Simultaneously with the delivery of the Series 2017 Utility Bonds, the Trustee shall apply the proceeds derived from the sale to pay for the Series 2017 Authorized Utility Expenditures and costs of issuance of the Series 2017 Utility Bonds, pursuant to a requisition requesting disbursement in the form described in Exhibit "C" to the Master Trust Agreement.

Section 2.06 Execution of Bonds; Seal. The Series 2017 Utility Bonds shall be signed on behalf of the Issuer by the City Mayor and countersigned by the City Secretary, by their manual, lithographed, or facsimile signatures, and the official seal of the Issuer shall be impressed or placed in facsimile thereon. Such facsimile signatures on the Series 2017 Utility Bonds shall have the same effect as if each of the Series 2017 Utility Bonds had been signed manually and in person by each of said officers, and such facsimile seal on the Series 2017 Utility Bonds shall have the same effect as if the official seal of the Issuer had been manually impressed upon each of the Series 2017 Utility Bonds. If any officer of the Issuer whose manual or facsimile signature shall appear on the Series 2017 Utility Bonds shall cease to be such officer before the authentication of such Series 2017 Utility Bonds on or before the delivery of such Series 2017 Utility Bonds, such manual or facsimile signature shall nevertheless be valid and sufficient for all purposes as if such officer had remained in such office.

ARTICLE 3. REDEMPTION OF BONDS.

Section 3.01 Amendment. The terms of 6 of the Master Trust Agreement are in full force and effect except with respect to the provisions below which shall amend such provisions of the Master Trust Agreement with respect to the Series 2017 Utility Bonds, and such provisions as set forth below shall be applicable to the Series 2017 Utility Bonds. In the event of a conflict between the provisions of the Master Trust Agreement and this Third Supplemental Trust Agreement, the provisions of this Third Supplemental Trust Agreement shall control with respect to the Series 2017 Utility Bonds.

(a) The provisions of Section 6.1 of the Master Trust Agreement are hereby amended by adding the following paragraphs:

"From, and after September 1, ____, the Series 2017 Utility Bonds may be redeemed by the Issuer, in whole or in part prior to maturity, on any business day at the option of the Issuer, after notice as provided herein at a redemption price equal to the percentage of their principal amount set forth below plus accrued interest to the date fixed for redemption:

Redemption Date	Redemption Prices
September 1, 2022 through August 31, 2023	103%
September 1, 2023 through August 31, 2024	102½%
September 1, 2024 through August 31, 2025	102%
September 1, 2025 through August 31, 2026	101½%
September 1, 2026 through August 31, 2027	101%
September 1, 2027 and thereafter	100%"

(b) The provisions of Section 6.2 of the Master Trust Agreement are hereby amended by adding the following paragraphs:

"Series 2017 Utility Bonds in an amount not to exceed $113,950 shall be redeemed, in whole or in part, prior to maturity at a redemption price equal to 100% of the principal amount of the Series 2017 Utility Bonds, together with interest accrued to the date of redemption or purchased, in whole or in part at a purchase price equal to 100% of the principal amount of the Series 2017 Utility Bonds from amounts transferred to the Series 2017 Utility Bonds Redemption Account established pursuant to Section Section 4.01(f) of the Third Supplemental Trust Agreement from the City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds (Lewisville Castle Hills Public Improvement District No. 5 Project) Collection Fund and the Prepayment Fund pursuant to Sections Section 4.01 and Section 4.03, respectively, on _____, ____.

In lieu of redeeming Series 2017 Utility Bonds with the funds described in this Section, the Issuer may purchase the Series 2017 Utility Bonds in the open market of the maturity to be redeemed at the price not in excess of that provided in Section Section 3.01(a) of the Third Supplemental Trust Agreement."

(c) The provisions of Section 6.3 of the Master Trust Agreement are hereby amended by adding the following paragraphs:

"Prior to their Maturity Date, the Series 2017 Utility Bonds shall be redeemed as Term Bonds (the "Series 2017 Utility Term Bonds") from amounts on deposit in the Interest and Sinking Fund, pursuant to the following mandatory redemption schedule:

Redemption Date	Amount ($)
September 1, 2019	$ 265,000
September 1, 2020	285,000
September 1, 2021	300,000
September 1, 2022	320,000
September 1, 2023	335,000
September 1, 2024	355,000
September 1, 2025	380,000
September 1, 2026	400,000
September 1, 2027	425,000
September 1, 2028	450,000
September 1, 2029	475,000
September 1, 2030	505,000
September 1, 2031	535,000
September 1, 2032	570,000
September 1, 2033	605,000
September 1, 2034	640,000
September 1, 2035	675,000
September 1, 2036	1,880,000
September 1, 2037	1,995,000

*final maturity

On each Mandatory Redemption Date, the Trustee shall make the Mandatory Sinking Fund Payment from the Series 2017 Utility Bonds Interest and Sinking Account established pursuant to Section Section 4.01(b) of the Third Supplemental Trust Agreement. The Series 2017 Utility Term Bonds shall be prepaid in principal amounts of $5,000 or integral multiples of $50 in excess thereof. The principal amount of the Series 2017 Utility Term Bonds required to be prepaid on each Mandatory Redemption Date shall be reduced, at the option of the Issuer, by the principal amount of any Series 2017 Utility Term Bonds which, at least forty-five (45) days prior to the Mandatory Redemption Date, have been acquired by the Issuer and delivered to the Trustee for cancellation or have been redeemed (otherwise than through mandatory sinking fund redemption) and canceled by the Trustee and not theretofore credited against a scheduled mandatory redemption. Each such Series 2017 Utility Term Bond so delivered or previously purchased or redeemed shall be credited by the Trustee at 100% of the principal amount thereof on the obligation of the Issuer on such Mandatory Redemption Date, and any excess shall be credited at future mandatory redemption in inverse order of maturity, and the principal amount of such Series 2017 Utility Term Bonds to be redeemed by operation of mandatory prepayment shall be reduced accordingly.

Redemptions pursuant to this provision of the Third Supplemental Trust Agreement shall be made by lot or other customary random method, rounded to the nearest $5,000, among the Owners of each date of maturity. In connection with any such redemption prior to maturity, the Trustee shall make appropriate entries in the Bond Register to reflect a portion of any Series 2017 Utility Bond so redeemed and the amount of the principal remaining Outstanding. The Trustee's notation in the Bond Register shall be conclusive as to the principal amount of any Outstanding Bond at any time."

ARTICLE 4. AMENDMENTS TO THE MASTER TRUST AGREEMENT.

Section 4.01 Amendments to Article 4 of the Master Trust Agreement. The terms of Article 4 of the Master Trust Agreement are in full force and effect except with respect to the provisions below that shall amend such provisions of the Master Trust Agreement with respect to the Series 2017 Utility Bonds, and such provisions as set forth below shall be applicable to the Series 2017 Utility Bonds. In the event of a conflict between the provisions of the Master Trust Agreement, the First Supplemental Trust Agreement, the Second Supplemental Trust Agreement, and this Third Supplemental Trust Agreement, the provisions of this Third Supplemental Trust Agreement shall control with respect to the Series 2017 Utility Bonds.

(a) The provisions of Section 4.1 of the Master Trust Agreement, Section 4.01 of the First Supplemental Trust Agreement, and Section 4.01 of the Second Supplemental Trust Agreement are hereby amended as follows:

"The Issuer hereby covenants and agrees that all Contract Revenues and Special Assessment Revenues (other than interest and investment earnings, and revenues received as a Prepayment of a Special Assessment), have been and shall be deposited, as collected and received, into a separate account previously created, established, and maintained with the Trustee known as the "City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds (Lewisville Castle Hills Public Improvement District No. 5 Project) Collection Fund" (the "Collection Fund") and that the Contract Revenues and Special Assessment Revenues have been and shall be kept separate and apart from all other funds of the Issuer. All Contract Revenues and Special Assessment Revenues deposited into the Collection Fund pursuant to this Section shall, upon receipt, be transferred to the following Funds in the following order of priority:

FIRST: To the Series 2014 Utility Bonds Interest and Sinking Fund Account, Series 2015 Utility Bonds Interest and Sinking Fund Account, and the Series 2017 Utility Bonds Interest and Sinking Fund Account, amounts necessary, if any, to increase the balance in such account to an amount equal to the aggregate amount of all remaining scheduled Debt Service Requirements during the next Fiscal Year for the Bonds, as provided herein, or a greater amount designated by the Issuer with the prior written approval of District No. 1-G;

SECOND: To the Series 2014 Utility Bonds Redemption Account, Series 2015 Utility Bonds Redemption Account, and the Series 2017 Utility Bonds Redemption Account, any amounts required for optional redemptions of the Series 2014 Utility Bonds, Series 2015 Utility Bonds, and Series 2017 Utility Bonds, respectively, (other than mandatory sinking fund redemptions) during the Fiscal Year in which the Contract Revenues or Special Assessment Revenues are deposited into the Collection Fund;

THIRD: To the Series 2014 Utility Bonds Administrative Expense Account, Series 2015 Utility Bonds Administrative Expense Account, and Series 2017 Utility Bonds Administrative Expense Account, amounts necessary, if any, to increase the balance in the Series 2014 Utility Bonds Administrative Expense Account, Series 2015 Utility Bonds Administrative Expense Account, and Series 2017 Utility Bonds Administrative Expense Account to the amount expended from the Administrative Expense Fund, Series 2014 Utility Bonds Administrative Expense Account, Series 2015 Utility Bonds Administrative Expense Account, and Series 2017 Utility Bonds Administrative Expense Account, respectively, on average during the previous 3 Fiscal Years of the Issuer; and

FOURTH: To the Debt Service Reserve Fund; until the Debt Service Reserve Fund has a balance equal to the Debt Service Reserve Amount.

FIFTH: To the Issuer to be used for any lawful purpose, including the payment or redemption of Outstanding Bonds."

(b) The provisions of Section 4.2 of the Master Trust Agreement are hereby amended by adding the following paragraph:

"For purposes of providing funds to pay the Debt Service Requirements on the Series 2017 Utility Bonds as the same become due and payable, the Issuer agrees to maintain at the Trustee, a separate and special account to be created and known as the "Series 2017 Utility Bonds Interest and Sinking Account." There shall also be deposited into the Series 2017 Utility Bonds Interest and Sinking Account no later than the 10th day prior to each Interest Payment Date on the Series 2017 Utility Bonds, from the available Contract Revenues and Special Assessment Revenues in the Collection Fund, an amount which, together with sums on deposit in the Series 2017 Utility Bonds Interest and Sinking Account, shall be equal to 100% of the amount required to fully pay the principal of, premium, if any, and interest on the Series 2017 Utility Bonds payable at such Interest Payment Date, at maturity, if applicable, or as a Mandatory Sinking Fund Redemption."

(c) The provisions of Section 4.3 of the Master Trust Agreement are hereby amended by adding the following paragraph:

"There is hereby established with the Trustee a special account within the Prepayment Fund established pursuant to Section 4.3 of the Master Trust Agreement to be known as the "Series 2017 Utility Bond Prepayment Account". Upon receiving a Prepayment of Special Assessments for the payment of the Debt Service Requirements on the Outstanding Bonds (which Prepayments shall be identified in writing by the Issuer), the Trustee shall deposit the amount of such Prepayment into the Prepayment Fund under the Master Trust Agreement to be distributed to the Series 2017 Utility Bond Prepayment Account and any other account created under the Prepayment Fund by a Supplemental Trust Agreement, including the Series 2014 Utility Bond Prepayment Account and Series 2015 Utility Bond Prepayment Account, on a pro rata basis based upon the principal amount of any bonds outstanding under the Master Trust Agreement pursuant to a Supplemental Trust Agreement and the Series 2017 Utility Bonds outstanding. Promptly following the deposit of any such Prepayment, the Trustee shall transfer such amounts representing unpaid principal of the Special Assessment as set forth in Section 4.8 of the Master Trust Agreement directly into the Redemption Fund to be deposited to the Series 2017 Utility Bonds Redemption Account to be used

to redeem or purchase Outstanding Assessment Bonds on a pro rata basis and such pro rata amounts representing unpaid interest as set forth in Section 4.8 of the Master Trust Agreement and Section Section 4.01(f) of the Third Supplemental Trust Agreement to the Series 2017 Utility Bonds Interest and Sinking Account (as defined herein)."

(d) The provisions of Section 4.4 of the Master Trust Agreement are hereby amended by adding the following paragraph:

"There is hereby created with the Trustee a special account within the Administrative Expense Fund established in Section 4.4 of the Master Trust Agreement, herein called the "Series 2017 Utility Bonds Administrative Expense Account," to be designated and maintained by the Trustee as a separate account, distinct from all other accounts of the Issuer with the Trustee. The Trustee has deposited into the Series 2017 Utility Bonds Administrative Expense Account from the proceeds of the Series 2017 Utility Bonds an amount equal to non-construction costs, fees for professional services, including attorneys, engineers, financial service professionals and costs of issuance of the above-referenced Series 2017 Utility Bonds. The Issuer may draw monies from this Fund to pay costs of issuance of the above-referenced Series 2017 Utility Bonds by delivery to the Trustee of a Request for Disbursement in the form set out as Exhibit "C" to the Master Trust Agreement, executed by the Issuer and District No. 1-G. Any surplus money remaining in the Series 2017 Utility Bonds Administrative Expense Account on _____, _____ shall be transferred into the Series 2017 Utility Bonds Interest and Sinking Account. Thereafter, the Trustee shall deposit into the Series 2017 Utility Bonds Administrative Expense Account from Contract Revenues and Special Assessment Revenues all amounts due the Series 2017 Utility Bonds Administrative Expense Account pursuant to Section 4.1 of the Master Trust Agreement and Section Section 4.01 of the Third Supplemental Trust Agreement. Such amounts shall be applied by the Trustee to pay Administrative Expenses as they become due, and unexpended balances remaining after the payment of Administrative Expenses in Fiscal Years following the Fiscal Year ending September 30, ____ shall be transferred to the Series 2017 Utility Bonds Redemption Account for redemption of Series 2017 Utility Bonds."

(e) The provisions of Section 4.5 of the Master Trust Agreement are hereby amended by adding the following paragraph:

"At closing, a portion of the proceeds of the Series 2017 Utility Bonds shall be deposited to the Debt Service Reserve Fund in an amount sufficient to meet the Debt Service Reserve Amount for the Series 2017 Utility Bonds. The Debt Service Reserve Fund shall be used for the purpose of paying principal of and interest on Outstanding Assessment Bonds, including the Series 2017 Utility Bonds, as they become due in the event there should be insufficient funds for said payment in the Interest and Sinking Fund. Subject to the flow of funds in Section Section 4.01 of the Third Supplemental Trust Agreement and Section 4.1 of the Master Trust Agreement, the Issuer shall deposit Contract Revenues and Special Assessment Revenues to the Debt Service Reserve Fund that is designated for such purposes by the Issuer. The Debt Service Reserve Fund shall be funded up to an amount not less than the Debt Service Reserve Amount from any lawfully available funds in the following manner:

(1) Each deposit shall be credited with earnings from the investment of the balance of the Debt Service Reserve Fund.

(2) Contract Revenues and Special Assessment Revenues shall be deposited to the Debt Service Reserve Fund pursuant to Section 4.1 of the Master Trust Agreement and Section Section 4.01 of the Third Supplemental Trust Agreement.

(3) Upon payment default with respect to any Outstanding Assessment Bonds, payments from the Debt Service Reserve Fund shall be made on a pro rata basis based upon the principal amount of each series of Outstanding Assessment Bonds in default.

(4) Upon any shortfall in the Debt Service Reserve Fund, District No. 1-G must make payments sufficient to restore the Debt Service Reserve Fund to the Debt Service Reserve Amount (a) in 12 consecutive equal monthly installments beginning in the month following any withdrawal from the Debt Service Reserve Fund or (b) in 4 consecutive equal monthly installments beginning in the month following any calculation of the value of the Debt Service Reserve Fund at any amount less than the Debt Service Reserve Amount.

(5) The Issuer shall not, under any circumstances, have an obligation to provide funds for the purpose outlined in this Section Section 4.05 or any other provision of the Master Trust Agreement or of any supplemental trust agreement, including the Third Supplemental Trust Agreement, or any of the discounts relevant to the transaction contemplated by the Third Supplemental Trust Agreement."

(f) The provisions of Section 4.8 of the Master Trust Agreement are hereby amended by adding the following paragraph as follows:

"There is hereby created a special account with the Trustee to be called the "Series 2017 Utility Bonds Redemption Account" within the Redemption Fund created by Section 4.8 of the Master Trust Agreement. The Trustee shall deposit into the Series 2017 Utility Bonds Redemption Account all amounts required to be transferred to such Account from the Collection Fund and the Series 2017 Utility Bond Prepayment Account pursuant to Sections 4.1 and 4.3 of the Master Trust Agreement, respectively. The Trustee shall apply all such amounts in the Series 2017 Utility Bonds Redemption Account, to redeem or purchase the Outstanding Series 2017 Utility Bonds, on a pro rata basis, in accordance with Section 6.1 or 6.2 hereof. Accrued interest on any Outstanding Series 2017 Utility Bonds redeemed shall be paid from the Series 2017 Utility Bonds Interest and Sinking Account. The redemption premium shall be paid from amounts transferred to the Series 2017 Utility Bonds Redemption Account."

Section 4.02 Amendments to Section 5.2 of the Master Trust Agreement. The terms of Section 5.2 of the Master Trust Agreement are in full force and effect except with respect to the provisions below which shall amend such provisions of the Master Trust Agreement with respect to the Series 2017 Utility Bonds, and such provisions as set forth below shall be applicable to the Series 2017 Utility Bonds. In the event of a conflict between the provisions of the Master Trust Agreement, the First Supplemental Trust Agreement, the Second Supplemental Trust Agreement, and this Third Supplemental Trust Agreement, the provisions of this Third Supplemental Trust Agreement shall control with respect to the Series 2017 Utility Bonds. The provisions of Section 5.2 of the Master Trust Agreement are hereby amended by adding the following paragraphs:

"(a) Actions Taken by Series 2017 Utility Bonds Bondholder Representative. Notwithstanding anything in the Third Supplemental Trust Agreement to the contrary, if an Event of Default, as set forth in Section 5.1 of this Master Trust Agreement, shall have occurred and be continuing, the Series 2017 Utility Bonds Bondholder Representative, in its sole discretion as evidenced by written notice delivered to the Trustee, may (but shall not be required to), (i) in lieu of the Trustee, exercise one or more of the rights and powers conferred on the Trustee by Article 10 of this Master Trust Agreement; and (ii) exercise such rights and powers granted to Issuer under this Master Trust Agreement, and exercise such rights of the Owners under this Master Trust Agreement, either by a suit or suits in equity or in law for the enforcement of any appropriate equitable or legal remedy the Series 2017 Utility Bonds Bondholder Representative shall deem appropriate.

(b) Appointment of Series 2017 Utility Bonds Bondholder Representative.

(1) The Owners of not less than a majority in aggregate principal amount of the Series 2017 Utility Bonds then Outstanding may, but shall not be required to, from time to time, appoint a representative or agent, by giving signed, written notice of such appointment to the Trustee, to act on behalf of the Owners to give any consents, authorizations, or approvals; exercise any rights; or take any other action as may be taken by the Owners under this Master Trust Agreement on such terms and conditions as such Owners may deem advisable (a "Bondholder Representative"). Upon such appointment, the Trustee shall accept the consent, authorization, or direction of such Bondholder Representative to the extent specified in such notice, as it would accept such action from the Owners of not less than a majority in aggregate principal amount of the Series 2017 Utility Bonds then Outstanding. A Bondholder Representative may be an Owner.

(2) Unless otherwise specified in the written notice delivered to the Trustee by the Owners of not less than a majority in aggregate principal amount of the Series 2017 Utility Bonds then Outstanding appointing a Bondholder Representative pursuant to Section 5.2 hereof, such Bondholder Representative shall be the sole representative of such Owners with respect to all matters specifically listed in such notice for which such Owners are authorized to act under the Master Trust Agreement, as amended, until a signed, written notice of the removal of the Bondholder Representative shall be delivered to the Trustee by the Owners of not less than a majority in aggregate principal amount of the Series 2017 Utility Bonds then Outstanding. A Bondholder Representative may resign at any time by delivering written notice thereof to the Trustee. Any notice of removal or resignation meeting the foregoing requirements shall be effective immediately upon receipt thereof by the Trustee. In no event shall more than one Bondholder Representative be appointed to represent the Owners of not less than a majority in aggregate principal amount of the Series 2017 Utility Bonds then Outstanding.

(c) Bondholder Representative Expenses. The Trustee shall pay the reasonable fees and expenses (including reasonable fees and expenses of counsel) of any Bondholder Representative, upon invoice, incurred in connection with the acceptance or administration of its rights and duties (on behalf of the Owners) under the Master Trust Agreement, as supplemented, and in connection with any amendment, modification, supplement, consent or waiver with respect to or required under the Bonds, or in connection with the enforcement thereof, except any such

expense, disbursement or advance as may arise from the Bondholder Representative's gross negligence, bad faith, or willful misconduct. Unless the Trustee receives written notice to the contrary, the Trustee may assume that there is no claim that any such expense, disbursement or advance may arise from the Bondholder Representative's gross negligence, bad faith, or willful misconduct and that such expenses, disbursements or advances are reasonable.

(d) Notices and Reporting Obligations. The appointment of a Bondholder Representative shall in no way affect any reporting or notice requirements of the Owners hereunder, except that such Bondholder Representative shall also receive copies of all such reports and notices."

Section 4.03 Amendments to Section 2.9 of the Master Trust Agreement. The terms of Section 2.9 of the Master Trust Agreement are in full force and effect except with respect to the provisions below which shall amend such provisions of the Master Trust Agreement with respect to the Series 2017 Utility Bonds, and such provisions as set forth below shall be applicable to the Series 2017 Utility Bonds. In the event of a conflict between the provisions of the Master Trust Agreement, the First Supplemental Trust Agreement, the Second Supplemental Trust Agreement, and this Third Supplemental Trust Agreement, the provisions of this Third Supplemental Trust Agreement shall control with respect to the Series 2017 Utility Bonds. The provisions of Section 2.9 of the Master Trust Agreement are hereby amended by adding the following paragraphs:

"(a) The Series 2017 Utility Bonds are transferable only to a transferee who is a Qualified Institutional Buyer as defined by Rule 144A of the Securities and Exchange Commission and an Institutional Investor as defined by applicable state securities law, except that:

(1) At any time on and after the date on which the Assessed Value first equals or exceeds $_____, the Series 2017 Utility Bonds shall be transferable to accredited investors and/or qualified institutional buyers without delivery of an investor letter; and

(2) At any time on and after the date on which the Series 2017 Utility Bonds or any other Bonds issued by the P.I.D. are first rated "BBB-" or higher by Standard & Poor's (now S&P Global Ratings) or Fitch or "Baa3" or higher by Moody's, then the Series 2017 Utility Bonds shall be transferable to any type of investor without delivery of an investor letter.

Section 4.04 Execution.

This Third Supplemental Trust Agreement may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, but all such counterparts shall together constitute but one and the same instrument.

Section 4.05 No Terrorist Organization.

Pursuant to Subchapter F, Chapter 2252, Texas Government Code, Trustee represents that it is not a company engaged in business with Iran, Sudan, or a foreign terrorist organization (as defined in Section 2252.151(2), Texas Government Code) and that it is not on a list prepared and maintained by the Comptroller of Public Accounts of the State of Texas under Section 806.051, 807.051, or 2252.153, Texas Government Code.

Section 4.06 No Israel Boycott.

Pursuant to Section 2270.002, Texas Government Code, Trustee hereby (a) represents that it does not boycott Israel, and (b) subject to or as otherwise required by applicable federal law, including without limitation 50 U.S.C. Section 4607, agrees it will not boycott Israel during this transaction. As used in the immediately preceding sentence, "boycott Israel" shall have the meaning given such term in Section 2270.001, Texas Government Code.

Section 4.07 Final Agreement.

This written Third Supplemental Trust Agreement represents the final agreement between the parties and may not be contradicted by evidence of prior, contemporaneous, or subsequent oral agreements of the parties.

There are no unwritten oral agreements between the parties.

IN WITNESS WHEREOF, the parties hereto have caused this Third Supplemental Trust Agreement to be executed on their behalf by their duly authorized officers all as of the day and year first above written.

EXECUTED as of December 1, 2017.

THE CITY OF LEWISVILLE, TEXAS ("Issuer")

By:_____
Name: _____
Title: _____

ATTEST:
By:_____
Name: Julie Worster
Title: City Secretary

WILMINGTON TRUST, NATIONAL ASSOCIATION
("Trustee")

By:_____
Name: Camilla J. Lindsey
Title: Vice President

EXHIBIT A

FORM OF SERIES 2017 UTILITY BONDS

EXHIBIT B

FORM OF INITIAL SERIES 2017 UTILITY BOND

EXHIBIT C

SERIES 2017 AUTHORIZED UTILITY EXPENDITURES

This Preliminary Limited Offering Memorandum and the information contained herein are subject to completion or amendment. Under no circumstances shall this Preliminary Limited Offering Memorandum constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of these securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction.

IN THE OPINION OF BOND COUNSEL (DEFINED HEREIN), INTEREST ON THE BONDS IS EXCLUDABLE FROM GROSS INCOME FOR PURPOSES OF FEDERAL INCOME TAXATION UNDER EXISTING STATUTES, REGULATIONS, PUBLISHED RULINGS AND COURT DECISIONS AS DESCRIBED UNDER "TAX EXEMPTION" HEREIN. SEE "LEGAL MATTERS" AND "TAX EXEMPTION" HEREIN FOR A DISCUSSION OF BOND COUNSEL'S OPINION, INCLUDING A DESCRIPTION OF CERTAIN ALTERNATIVE MINIMUM TAX CONSEQUENCES FOR CORPORATIONS.

NEW ISSUE

$11,395,000*
CITY OF LEWISVILLE, TEXAS
COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT UTILITY SYSTEM BONDS, SERIES 2017
(LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT)

$5,905,000*
CITY OF LEWISVILLE, TEXAS
COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT ROAD SYSTEM BONDS, SERIES 2017
(LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT)

Dated: December 1, 2017
Interest Accrues: Date of Initial Delivery

Due: September 1, 2037
(See as shown on inside front cover)

The $11,395,000* City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Utility Bonds") and the $5,905,000* City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Road Bonds" and with the Utility Bonds, the "Bonds") will be issued by the City of Lewisville, Texas (the "Issuer") in fully registered form. The Bonds will be in authorized denominations of $25,000 and integral multiples of $5,000 in excess thereof. The Trustee and Paying Agent/Registrar for the Bonds is Wilmington Trust, National Association, in Dallas, Texas. Interest on the Bonds will be paid by check mailed by the Paying Agent/Registrar on or before each interest payment date to the registered owners of the Bonds at the addresses shown on the Bond registration books kept by the Paying Agent/Registrar. Principal of the Bonds is payable to the registered owners at maturity or earlier redemption only upon presentation and surrender of the Bonds at the corporate trust office of the Paying Agent/Registrar in Dallas, Texas.

Interest on the Bonds accrues from the date of initial delivery thereof, is calculated on the basis of a 360-day year comprised of twelve 30-day months, and is payable on September 1, 2018, and on each March 1 and September 1 thereafter until maturity or prior redemption. The Bonds are subject to optional [and] special mandatory [and mandatory sinking fund] redemption as more fully described herein. Upon redemption, the Bonds will be payable at prices described herein, plus accrued interest to the date of redemption. See "THE BONDS - Redemption Provisions."

The proceeds of the Bonds will be applied to pay the costs of acquiring and constructing certain water, sewer, and drainage facilities, and streets and roads within the Improvement District (hereinafter defined) and to pay certain costs of issuance of the Bonds. See "USE OF PROCEEDS."

The Bonds, when issued, constitute valid and legally binding special obligations of the Issuer. An amount, on a cumulative basis, not less than one percent (1%) of the original principal amount of the Bonds, together with interest thereon, is payable from and secured by a pledge of and lien on certain Special Assessment Revenues (as defined herein) levied by the Issuer against benefitted property within the Lewisville Castle Hills Public Improvement District No. 5 (the "Improvement District"), a public improvement district of the Issuer, all of which is located within the Issuer's extraterritorial jurisdiction and all of which is located within the District (hereinafter defined), all to the extent and upon the conditions described herein. An amount equal to the balance of the original principal amount of the Bonds, together with interest thereon, but in no event to exceed, on a cumulative basis, ninety-nine percent (99%) of the original principal amount of the Bonds, together with interest thereon, is payable from certain Contract Revenues (as defined herein) paid by Denton County Fresh Water Supply District No. 1-G (the "District"), which Contract Revenues are payable from the proceeds of an annual ad valorem tax, without legal limitation as to rate or amount, levied against all taxable property located within the District. See "THE BONDS - Sources of Payment."

THE BONDS ARE SPECIAL REVENUE OBLIGATIONS OF THE ISSUER AND ARE NOT OBLIGATIONS OF DENTON COUNTY, THE STATE OF TEXAS, OR ANY POLITICAL SUBDIVISION OTHER THAN THE ISSUER AND THE DISTRICT. THE BONDS ARE NOT PAYABLE FROM ANY FUNDS RAISED OR TO BE RAISED BY TAXATION BY THE ISSUER OR FROM ANY OTHER SOURCE OF FUNDS OF THE ISSUER OTHER THAN CONTRACT REVENUES AND SPECIAL ASSESSMENT REVENUES.

THE BONDS ARE SUBJECT TO SPECIAL RISK FACTORS DESCRIBED HEREIN. See "RISK FACTORS" herein.

THIS LIMITED OFFERING MEMORANDUM IS FURNISHED WITH THE EXPRESS UNDERSTANDING THAT IT IS SOLELY FOR THE PURPOSE OF CONSIDERATION BY PROSPECTIVE PURCHASERS OF THE BONDS WHO ARE BOTH (i) "QUALIFIED INSTITUTIONAL BUYERS" (WITHIN THE MEANING OF RULE 144A OF THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION (THE "SEC")) AND (ii) "INSTITUTIONAL INVESTORS" WITHIN THE MEANING OF APPLICABLE STATE SECURITIES LAWS, AND IS NOT TO BE USED FOR ANY OTHER PURPOSE OR MADE AVAILABLE TO ANYONE NOT DIRECTLY CONCERNED WITH THE DECISION REGARDING SUCH PURCHASE. PURCHASERS OF THE BONDS WILL BE REQUIRED TO EXECUTE AN INVESTMENT LETTER IN THE FORM SET FORTH IN APPENDIX H HERETO.

THE TRANSFER OF THE BONDS IS RESTRICTED SOLELY TO TRANSFEREES WHO ARE "QUALIFIED INSTITUTIONAL BUYERS" (WITHIN THE MEANING OF RULE 144A OF THE SEC) AND WHO ARE "INSTITUTIONAL INVESTORS" WITHIN THE MEANING OF APPLICABLE STATE SECURITIES LAWS. TRANSFEREES OF THE BONDS WILL BE REQUIRED TO PROVIDE TO THE PAYING AGENT/REGISTRAR A LETTER IN THE FORM SET FORTH IN APPENDIX I HERETO PRIOR TO ANY SUCH TRANSFER. See "THE BONDS - Limitations on Transfers."

The Bonds will be delivered when, as and if issued, subject to, among other things, the approval of the Bonds by the Attorney General of Texas and the opinion of Winstead PC, Dallas, Texas, Bond Counsel. Certain legal matters will be passed upon for Raymond James & Associates, Inc., as placement agent (the "Placement Agent') by its counsel McCall, Parkhurst & Horton L.L.P., Dallas, Texas. The Bonds in definitive form are expected to be available for delivery through the facilities of DTC on or about December 14, 2017.

RAYMOND JAMES

_____ 2017

*Preliminary; subject to change.

PRINCIPAL AMOUNTS, MATURITIES, INTEREST RATES AND PRICES

UTILITY BONDS

$11,395,000* ____% Term Bonds Due September 1, 2037 (a)(b) CUSIP _____ (d)
Price _____% (c)

ROAD BONDS

$5,905,000* ____% Term Bonds Due September 1, 2037 (a)(b) CUSIP _____ (d)
Price _____ (c)

(a) Subject to optional redemption as described under the caption "THE BONDS - Redemption Provisions - *Optional Redemption*."

(b) Subject to mandatory sinking fund redemption on September 1 in each of the years and in the amounts set forth herein under the caption "THE BONDS - Redemption Provisions - *Mandatory Sinking Fund Redemption*."

(c) The initial reoffering yield has been provided by the Placement Agent (defined herein) and represents the initial offering price of a substantial amount of the Bonds.

(d) CUSIP Numbers have been assigned to the Bonds by CUSIP Global Services, managed by S&P Global Market Intelligence, on behalf of the America Bankers Association, and are included solely for the convenience of purchasers of the Bonds. Neither the Issuer nor the Placement Agent shall be responsible for the selection or correctness of the CUSIP Numbers set forth herein.

*Preliminary; subject to change.

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USE OF INFORMATION IN LIMITED OFFERING MEMORANDUM

General

For purposes of compliance with Rule 15c2-12 of the United States Securities and Exchange Commission, this document constitutes an "official statement" of the Issuer with respect to the Bonds that has been deemed "final" by the Issuer as of its date except for the omission of no more than the information permitted by Rule 15c2-12.

None of the Issuer, its Financial Advisor, the Purchaser (as defined herein) or the Placement Agent makes any representation regarding the information contained in this Limited Offering Memorandum regarding The Depository Trust Company, or its book-entry-only system, as such information has been furnished by the Depository Trust Company.

The cover page contains certain information for general reference only and is not intended as a summary of this offering. Investors should read the entire Limited Offering Memorandum, including all schedules and appendices attached hereto, to obtain information essential to making an informed investment decision.

THIS LIMITED OFFERING MEMORANDUM CONTAINS "FORWARD-LOOKING" STATEMENTS WITHIN THE MEANING OF SECTION 21E OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED. SUCH STATEMENTS MAY INVOLVE KNOWN AND UNKNOWN RISKS, UNCERTAINTIES AND OTHER FACTORS WHICH MAY CAUSE THE ACTUAL RESULTS, PERFORMANCE AND ACHIEVEMENTS TO BE DIFFERENT FROM THE FUTURE RESULTS, PERFORMANCE AND ACHIEVEMENTS EXPRESSED OR IMPLIED BY SUCH FORWARD-LOOKING STATEMENTS. INVESTORS ARE CAUTIONED THAT THE ACTUAL RESULTS COULD DIFFER MATERIALLY FROM THOSE SET FORTH IN THE FORWARD-LOOKING STATEMENTS.

No dealer, broker, salesman or other person has been authorized by the Issuer or the Placement Agent to give any information or to make any representations other than those contained in this Limited Offering Memorandum, and, if given or made, such other information or representations must not be relied upon as having been authorized by the Issuer or the Placement Agent.

This Limited Offering Memorandum does not constitute, and is not authorized by the Issuer for use in connection with, an offer to sell or the solicitation of an offer to buy in any state in which such offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to any person to whom it is unlawful to make such offer or solicitation.

All of the summaries of the statutes, resolutions, orders, contracts, audits, engineering and other related reports set forth in this Limited Offering Memorandum are made subject to all of the provisions of such documents. These summaries do not purport to be complete statements of such provisions, and reference is made to such documents, copies of which are available from the Issuer.

This Limited Offering Memorandum contains, in part, estimates, assumptions and matters of opinion which are not intended as statements of fact, and no representation is made as to the correctness of such estimates, assumptions or matters of opinion, or as to the likelihood that they will be realized. Any information and expressions of opinion herein contained are subject to change without notice, and neither the delivery of this Limited Offering Memorandum nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the condition of the Issuer or other matters described herein since the date hereof. However, the Issuer has agreed to keep this Limited Offering Memorandum current by amendment or sticker to reflect material changes in the affairs of the Issuer, and to the extent that information

actually comes to its attention, the other matters described in this Limited Offering Memorandum, until delivery of the Bonds to the Purchasers thereof.

The Placement Agent has reviewed the information in this Limited Offering Memorandum in accordance with, and as part of, its responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Placement Agent does not guarantee the accuracy or completeness of such information.

THE TRUSTEE ASSUMES NO RESPONSIBILITY FOR THIS LIMITED OFFERING MEMORANDUM AND HAS NOT REVIEWED OR UNDERTAKEN TO VERIFY ANY INFORMATION CONTAINED HEREIN.

Securities Laws

No registration statement relating to the Bonds has been filed with the United States Securities and Exchange Commission under the Securities Act of 1933, as amended, in reliance upon the exemptions provided thereunder. The Bonds have not been registered or qualified under the Securities Act of Texas in reliance upon various exemptions contained therein, nor have the Bonds been registered or qualified under the securities laws of any other jurisdiction. The Issuer assumes no responsibility for registration or qualification of the Bonds under the securities laws of any other jurisdiction in which the Bonds may be offered, sold or otherwise transferred. This disclaimer of responsibility for registration or qualification for sale or other disposition of the Bonds shall not be construed as an interpretation of any kind with regard to the availability of any exemption from securities registration or qualification provisions in such other jurisdictions.

MUNICIPAL BOND RATING

The Issuer has not applied for a municipal bond rating on the Bonds and it is not expected that an investment grade rating would have been obtained had such application been made.

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LIMITED OFFERING MEMORANDUM SUMMARY

The following summary of certain information contained herein is qualified in its entirety by the detailed information appearing elsewhere in this Limited Offering Memorandum. The reader should refer particularly to sections that are indicated for more detailed information.

THE BONDS

The Issuer	City of Lewisville, Denton County, Texas (the "Issuer" or the "City"), a home rule city existing under the Constitution and laws of the State of Texas. See "THE ISSUER."
The District	Denton County Fresh Water Supply District No. 1-G (the "District"), a political subdivision of the State of Texas and a conservation and reclamation district under Article XVI, Section 59 of the Texas Constitution, located wholly within the extraterritorial jurisdiction of the Issuer, operating under Chapters 49 and 51, Texas Water Code, as amended, with certain rights, powers, privileges, authority, and functions derived from Chapter 53, Texas Water Code, as amended. See "THE DISTRICT."
The Improvement District	Lewisville Castle Hills Public Improvement District No. 5 (the "Improvement District"), a public improvement district under Chapter 372, Texas Local Government Code, all of which is located within the extraterritorial jurisdiction of the Issuer and all of which is also located within the boundaries of the District. See "THE IMPROVEMENT DISTRICT."
Description	City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Utility Bonds") in the aggregate principal amount of $11,395,000* and City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Road Bonds" and, with the Utility Bonds, the "Bonds"), in the aggregate principal amount of $5,905,000*, are dated December 1, 2017, and mature on September 1 in each of the years and in the amounts set forth on the inside cover page hereof. Interest on the Bonds accrues at the respective rates shown on the inside cover hereof from the date of initial delivery thereof to the Purchaser (as defined herein) and is payable on September 1, 2018, and on each March 1 and September 1 thereafter until maturity or prior redemption. The Bonds are issued pursuant to ordinances adopted by the City Council of the Issuer on November 20,

*Preliminary; subject to change.

2017 (collectively, the "Bond Ordinances"), two separate Master Trust Agreements, each dated as of May 1, 2014, and each as supplemented by First Supplemental Trust Agreements, dated as of May 1, 2014, a Second Supplemental Trust Agreement (Utility), dated as of December 1, 2015, and a Second Supplemental Trust Agreement (Roads), dated as of December 1, 2017, and a Third Supplemental Trust Agreement (Utility), dated as of December 1, 2017 (collectively, the "Trust Agreements"), between the Issuer and Wilmington Trust, National Association in Dallas, Texas (the "Trustee," "Paying Agent/Registrar," or "Paying Agent").

Optional Redemption . . . . . The Bonds are subject to redemption prior to maturity, in whole or in part from time to time, on September 1, 2022, or on any date thereafter at the option of the District. Upon redemption, the Bonds will be payable at the prices set forth under "THE BONDS - Redemption Provisions - Optional Redemption." If fewer than all the Bonds are optionally redeemed at any time, the amounts to be redeemed shall be designated by the Issuer and the particular Bonds shall be selected by the Trustee by lot or other customary method of random selection (or by DTC in accordance with its procedures while the Bonds are in book-entry-only form). See "THE BONDS - Redemption Provisions - Optional Redemption."

Special Mandatory Redemption . . . . . Utility Bonds not exceeding $113,950 in principal amount and Road Bonds not exceeding $59,050 in principal amount are subject to special mandatory redemption prior to maturity on any date, at a price equal to the principal amount of the Bonds, or portions thereof, to be redeemed, plus accrued interest thereon, to the date fixed for redemption from Special Assessment Revenues resulting from prepayments of Special Assessments (credited pro rata among the Bonds, and any Additional Bonds (as defined herein) based upon respective amounts outstanding). The maturities and amounts of Bonds to be redeemed shall be designated by the Issuer and the particular Bonds shall be selected by the Trustee by lot or other customary method of random selection (or by DTC in accordance with its procedures while the Bonds are in book-entry-only form).

Mandatory Sinking Fund Redemption . The Bonds are also subject to mandatory sinking fund redemption, by lot or other customary method of random selection designated by the Trustee, at a price equal to the principal amount thereof plus accrued interest to the date of redemption as described herein under "THE BONDS - Redemption Provisions - Mandatory Sinking Fund Redemption."

Source of Payment	Principal of and interest on the Bonds are payable from certain Contract Revenues (as defined herein) paid by the District pursuant to a 2008 Joint Utility Contract and the 2008 Joint Road Contract (collectively, the "Contracts") among the Issuer, the District and Denton County Fresh Water Supply District No. 1-A ("District No. 1-A") and Special Assessment Revenues (as defined herein) collected by the Issuer from within the Improvement District. An amount, on a cumulative basis, not less than one percent (1%) of the original principal amount of the Bonds, together with interest thereon, is payable from Special Assessment Revenues and an amount equal to the balance of the original principal amount of the Bonds, together with interest thereon, but in no event to exceed, on a cumulative basis, ninety-nine percent (99%) of the original principal amount of the Bonds is payable from Contract Revenues. Special Assessment Revenues are payable from Special Assessments (as defined in the Trust Agreements) levied by the Issuer within the Improvement District against benefitted property within the Improvement District, to the extent and upon the conditions described herein. Contract Revenues are payable from the proceeds of an annual ad valorem tax, without legal limitation as to rate or amount, levied by the District upon all taxable property located within the District. **The Bonds are special revenue obligations of the Issuer and are not obligations of Denton County, Texas, the State of Texas or any political subdivision other than the Issuer and the District. The Bonds are not payable from any funds raised or to be raised by taxation by the Issuer or from any source of funds of the Issuer other than Contract Revenues and Special Assessment Revenues.** See "THE BONDS - Sources of Payment," "DISTRICT TAX DATA - Tax Rate Calculations," and "RISK FACTORS - Maximum Impact on District Tax Rates."
Other Characteristics	The Bonds will be issued in fully registered form in the denomination of $25,000 and in integral multiples of $5,000 in excess thereof, and will be in book-entry-only form. See 'THE BONDS - Book-Entry Only System."
Use of Proceeds	Proceeds of the sale of the Bonds will be used to pay the costs of acquiring and constructing certain water, sewer, and drainage facilities, and street and roads, within the Improvement District and to pay the costs of issuance of the Bonds. See "USE OF PROCEEDS."

Outstanding Bonds and Payment Record	The Bonds constitute the fourth and fifth series of bonds issued by the Issuer pursuant to the Contracts. The Issuer has previously issued its City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2014 (Lewisville Castle Hills Public Improvement District No. 5 Project), in the original principal amount of $3,255,000 (the "Outstanding 2014 Utility Bonds"), its City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds, Series 2014 (Lewisville Castle Hills Public Improvement District No. 5 Project), in the original principal amount of $4,495,000 (the "Outstanding Road Bonds"), and its City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2015, in the original principal amount of $10,950,000 (the "Outstanding 2015 Utility Bonds" and with the Outstanding 2014 Utility Bonds and Outstanding Road Bonds, collectively, the "Outstanding Bonds"), a portion of which remain outstanding. The Issuer has timely paid all debt service due on the Outstanding Bonds.
Municipal Bond Ratings	The Issuer has not applied for a municipal bond rating on the Bonds and it is not expected that an investment grade rating would have been obtained had such application been made.
Authorized but Unissued Bonds	After issuance of the Bonds, the Issuer will have no authorized but unissued bonds (other than refunding bonds) remaining under the Contracts (as defined herein). See "THE BONDS - Legal Ability of the Issuer to Issue Additional Debt."
Legal Opinion	Winstead PC, Dallas, Texas, Bond Counsel.

THE ISSUER

Description	The City of Lewisville, Texas (the "Issuer" or the "City") is a home rule city under the Constitution and laws of the State of Texas. The City, incorporated in 1925, is located in the southeastern portion of Denton County on Interstate Highway 35-E, 20 miles north of Dallas, 34 miles northeast of Fort Worth, 15 miles southeast of Denton and 8 miles north of Dallas-Fort Worth International Airport. See "THE ISSUER" and "APPENDIX A - AERIAL PHOTOGRAPH."

Authority . . . . . The rights, powers, privileges, authority and functions of the Issuer are established by the Constitution and laws of the State of Texas pertaining to home rule municipal corporations and the Issuer's home rule charter.

THE DISTRICT

Description . . . . . Denton County Fresh Water Supply District No. 1-G (the "District") is a political subdivision of the State of Texas and a conservation and reclamation district under Article XVI, Section 59 of the Texas Constitution, containing approximately 307.074 acres, and located entirely within the extraterritorial jurisdiction of the Issuer.

Authority . . . . . The rights, powers, privileges, authority and functions of the District are established by the general law of the State of Texas, pertaining to water control and improvement districts, particularly, Chapters 49 and 51, Texas Water Code, as amended. In addition, certain reserved rights, powers, privileges, authority and functions of the District are derived from Chapter 53, Texas Water Code, as amended.

Development of the District . . . . . Land within the District is being developed for single-family and commercial mixed-use projects. Proceeds of the Bonds will be used to pay the costs of acquiring and constructing certain water, sewer, and drainage facilities (the "Utility System") and certain streets and roads (the "Road System") (the Utility System and the Road System, collectively, the "System") to serve a 640 unit apartment complex (100% complete), known as Platinum Castle Hills, on 31.8 acres, a 316 unit apartment complex (100% complete), known as Aura Castle Hills, on 15.8 acres, and 155 single-family lots, known as Castle Hills, Phase 8 (the balance of which is in District No. 1-F). Castle Hills Marketplace, a 50 acre shopping center anchored by a Kroger Signature grocery store and other commercial sites, has approximately 8 acres left to be developed into commercial property. All land projected to be developed as single-family has been completely developed and homes built on all lots. There remains approximately 162.7 additional undeveloped but developable acres within the District, with plans for approximately 145 acres to be developed as a business park with frontage along Highway 121 and Business 121. Approximately 3.5 acres of padsites have been provided with water, sewer, and drainage and are expected to be utilized for future commercial development. The remaining undeveloped acreage, approximately 14.2 acres, is expected to be commercial property once built-out. There is no assurance that proceeds of the Bonds will be sufficient to complete construction of the System. The Developer is under no obligation to complete construction of the System if proceeds of the Bonds are insufficient for such purpose. See "RISK FACTORS - Construction Risks

and Facilities Costs" and "THE SYSTEM - Status of Construction.

THE IMPROVEMENT DISTRICT

Description . . . . . Lewisville Castle Hills Public Improvement District No. 5 (the "Improvement District") is a public improvement district authorized under Chapter 372, Texas Local Government Code, containing approximately 309.634 acres. The Improvement District is located wholly within the extraterritorial jurisdiction of the Issuer and within the boundaries of the District.

Authority . . . . . The Improvement District is a public improvement district of the Issuer under the provisions of Chapter 372, Texas Local Government Code.

THE CASTLE HILLS PROJECT

Description . . . . . The District is a part of the master planned community known as Castle Hills (the "Castle Hills Project"). Castle Hills Project is a development of Bright Realty (hereinafter defined). See "THE DEVELOPER" below. Castle Hills Project consists of approximately 2,400 acres of land, approximately 307.074 acres of which are located within the District, approximately 1.659 acres which are located within the boundaries of District No. 1-A, 309.2 acres of which are located within District No. 1-B, 261.4 acres of which are located within District No. 1-C, approximately 490.69 acres of which are located within District No. 1-D, approximately 259.46 acres of which are located within the boundaries of District No. 1-E, approximately 368.942 acres are located within the boundaries of District No. 1-F, and 386.44 acres of which are located within District No. 1-H. According to the Developer, the ultimate land use within the Castle Hills Project is currently projected as follows: approximately 1,526 acres will be subdivided into approximately 4,300 single family lots, approximately 455 acres will be used for the development of commercial mixed-use projects, approximately 207 acres will be developed as multi-family communities, and approximately 212 acres have been developed as an 18 hole golf course and country club known as The Lakes at Castle Hills. Swimming and tennis facilities, drainage, easements, streets rights-of-way, utility easements, open space, lakes, parks and greenbelts are included in the single-family acreage.

Status of Development	As of October 31, 2017, a total of 4,012 lots on approximately 1,222 acres had been developed within the Castle Hills Project. 3,466 homes were occupied, and 106 homes were under construction or permitted for construction. Also completed are 210 acres of commercial development, 212 acres for the 18-hole golf course and country club (The Lakes at Castle Hills), with swimming and tennis facilities and 67 acres of multi-family development. Approximately 10 acres for commercial development, 8 acres for multi-family development, and 71 acres for single-family development are to be constructed on, while approximately 235 acres are available for commercial development and 140 acres are available for multi-family development. All of the current development within the Castle Hills Project has occurred within District No. 1-B, District No. 1-C, District No. 1-D, District No. 1-E, District No. 1-F, District 1-H, and the District.

THE DEVELOPER

General	The developer of land within the District has been Bright Realty, which is owned by certain members of the family of the late H.R. ("Bum") Bright and trusts for the benefit of such family members. Bright Realty is acquiring land in the District from a related company, BRECO Lands CH, LLC ("BRECO Lands"), as dictated by development needs. Bright Realty and BRECO Lands are collectively referred to herein as the "Developer." See "THE DEVELOPER."

RISK FACTORS

THE BONDS ARE SUBJECT TO SPECIAL RISK FACTORS AS SET FORTH IN THIS LIMITED OFFERING MEMORANDUM. PROSPECTIVE PURCHASERS SHOULD CAREFULLY EXAMINE THE ENTIRE LIMITED OFFERING MEMORANDUM BEFORE MAKING THEIR INVESTMENT DECISIONS, ESPECIALLY THE PORTION OF THE LIMITED OFFERING MEMORANDUM ENTITLED "RISK FACTORS."

*Preliminary; subject to change.

SELECTED FINANCIAL INFORMATION
CONCERNING THE DISTRICT*
(Unaudited)

2017 Assessed Valuation	$280,786,530	(a)
Estimated Valuation at September 1, 2017	_____	(b)
Direct Debt: The Outstanding Bonds	$17,950,000	
The Utility Bonds	11,395,000*	
The Road Bonds	5,905,000*	
Total	$35,250,000*	
Estimated Overlapping Debt	$8,767,735	(c)
Direct and Estimated Overlapping Debt	$44,017,735	(c)
Ratio of Direct Debt to:		
2017 Assessed Valuation	12.55	%
Estimated Valuation at September 1, 2017	____	%
Ratio of Direct and Estimated Overlapping Debt to:		
2017 Assessed Valuation	15.68	%
Estimated Valuation at September 1, 2017	____	%
Utility Interest and Sinking Fund Balance	$77.58	(d)
Road Interest and Sinking Fund Balance	$32.72	(d)
Utility Debt Service Reserve Fund Balance	$1,401,062.36	(e)
Road Debt Service Reserve Fund Balance	$420,951.27	(e)
2017 Tax Rate per $100 of Assessed Valuation	$ 1.00	(f)
Contract Tax $0.63		
Maintenance Tax 0.37		
Average Annual Debt Service Requirements of the Bonds (2018-2037)	$3,094,523	
Maximum Annual Debt Service Requirements of the Bonds (2025)	$3,136,325	
Tax Rate per $100 of Assessed Valuation within the District required to pay Average Annual and Maximum Annual Debt Service Requirements at 95% Tax Collections		
Based Upon 2017 Assessed Valuation	$1.18	
Based Upon Estimated Valuation at September 1, 2017	$____	

_____

(a) Provided by the Denton County Appraisal District (the "Appraisal District"), this amount is the certified value of all taxable property located within the District as of January 1, 2017. This amount constitutes the District's 2017 tax roll. See "TAXING PROCEDURES" and "RISK FACTORS - Factors Affecting Taxable Values and Payments."

(b) Provided by the Appraisal District for informational purposes only, this amount is an estimate of the value of all taxable property located within the District as of September 1, 2017, and includes an estimate of values resulting from the construction of taxable improvements from January 1, 2017, through August 31, 2017. The ultimate assessed valuation of any improvements added from January 1, 2017, through

*Preliminary; subject to change.

August 31, 2017, will not be included on the District's 2017 tax roll but will be placed on the District's 2018 tax roll, and may vary significantly from such estimate once the Appraisal Review Board certifies the value thereof in 2018.

(c) See "DISTRICT DEBT - Estimated Direct and Overlapping Debt Statement of the District."

(d) Neither the Bond Ordinances, the Trust Agreements, nor Texas law requires that any particular amount be maintained in the Interest and Sinking Fund at any time.

(e) After issuance of the Bonds. Amounts represents an amount equal to maximum annual debt service on the Bonds. See "THE BONDS - Source of Payment - Debt Service Reserve Funds."

(f) The District expects to levy a tax of $1.00 per $100 of assessed valuation during the year 2017 of which $0.63 was to pay its obligations under the Contracts and $0.37 was for operation and maintenance purposes. As indicated herein, a tax rate of $0.63 is insufficient to pay either the Average Annual or the Maximum Annual Debt Service Requirements of the Bonds based upon the 2017 Assessed Valuation or Preliminary Taxable Valuation at September 1, 2017. In order for a $0.63 tax rate to be sufficient to pay the Average Annual Debt Service Requirement and the Maximum Annual Debt Service Requirement, assessed values in the District would have to increase to approximately $524,031,000.

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SELECTED FINANCIAL INFORMATION
CONCERNING THE IMPROVEMENT DISTRICT

Special Assessment Roll

Lot Type	Lots	Acres	Assessment Amount	Total Assessments
Residential				
Lot Type A - Single Family	155		$ 200	$ 31,000.00
Commercial				
Lot Type B - Commercial/Multi-family		266.2460	$1,247.96	332,263.63
Total				$363,263.63

*Preliminary; subject to change.

LIMITED OFFERING MEMORANDUM

$11,395,000*
CITY OF LEWISVILLE, TEXAS
COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT UTILITY SYSTEM BONDS, SERIES 2017
(LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT)

$5,905,000*
CITY OF LEWISVILLE, TEXAS
COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT ROAD SYSTEM BONDS, SERIES 2017
(LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT)

INTRODUCTION

This Limited Offering Memorandum provides certain information with respect to the issuance by the City of Lewisville, Texas (the "Issuer"), of its Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Utility Bonds") and its Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Road Bonds" and, with the Utility Bonds the "Bonds").

There follows in this Limited Offering Memorandum descriptions of the Bonds and certain information about the Issuer, Lewisville Castle Hills Public Improvement District No. 5 (the "Improvement District") and Denton County Fresh Water Supply District No. 1-G (the "District"). All descriptions of documents contained herein are only summaries and are qualified in their entirety by reference to each such document. Copies of such documents may be obtained from Winstead PC, Dallas, Texas, upon request and payment of the costs of duplication therefor. Certain capitalized terms used in this Limited Offering Memorandum have the same meanings assigned to such terms in the Bond Ordinances (hereinafter defined) and the Trust Agreements (hereinafter defined), except as otherwise indicated herein.

THE BONDS

General

The following is a description of certain terms and conditions of the Bonds, which description is qualified in its entirety by reference to the ordinances of the City Council (the "Governing Body") of the Issuer authorizing the issuance of the Bonds (collectively, the "Bond Ordinances") and two separate Master Trust Agreements, each dated as of May 1, 2014, , and each as supplemented by First Supplemental Trust Agreements, dated as of May 1, 2014, a Second Supplemental Trust Agreement (Utility), dated as of December 1, 2015, and a Second Supplemental Trust Agreement (Roads), dated as of December 1, 2017, and a Third Supplemental Trust Agreement (Utility), dated as of December 1, 2017 (collectively, the "Trust Agreements") between the Issuer and Wilmington Trust, National Association, in Dallas, Texas (the "Trustee"). The Bond Ordinances and Trust Agreements authorize the issuance and sale of the Bonds and prescribe the terms, conditions and provisions for the payment of the principal of and interest on the Bonds by the Issuer.

The Bonds are dated December 1, 2017, and will mature on September 1 in each of the years and in the amounts set forth on the inside cover hereof. The Bonds will be issued as fully registered bonds in the denomination of $25,000 and integral multiples of $5,000 in excess thereof. Principal of the Bonds will be payable to the Registered Owners at maturity or earlier redemption upon presentation of Bonds at the principal corporate trust office of the Trustee as paying agent/registrar (the "Paying Agent/Registrar," "Paying Agent," or "Registrar"). The Bonds are subject to optional and mandatory sinking fund redemption as described below under "Redemption Provisions."

*Preliminary; subject to change.

The Bonds constitute the third series for Bonds for utility purposes and secnd series of Bonds for road purposes issued by the Issuer pursuant to the Contracts (hereinafter defined). Proceeds of the Bonds will be used to pay the costs of acquiring and constructing certain water, sewer, and drainage facilities, and streets and roads within the Improvement District, to make a deposit into the Debt Service Reserve Funds for the Bonds, and pay the costs of issuance of the Bonds.

The Bonds will be issued in fully registered form and will be registered only in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"), which will act as securities depository for the Bonds. Individual purchases in authorized denominations will be made only through the book-entry system maintained by DTC through brokers and dealers who are, or act through, DTC participants. The purchasers of the Bonds will not receive certificates representing their interest in the Bonds. Ownership interest in the Bonds will be shown on, and transfer of the Bonds will be effected only through, records maintained by DTC and its participants. Payments of the principal of and interest on the Bonds are required to be made to owners by DTC through its participants. See "Book-Entry Only."

For so long as DTC is the securities depository for the Bonds, then "Owner" or "Registered Owner" shall refer solely to DTC. In the event that DTC is no longer the securities depository for the Bonds, the term "Owner" or "Registered Owner" shall refer to a successor securities depository or the Owners of the Bonds which are shown as Registered Owners on the registration books of the Paying Agent/Registrar.

Interest

Interest on the Bonds will accrue from the date of delivery to the Placement Agent (as defined herein) at the respective rates per annum set forth on the inside cover hereof. Interest on the Bonds is payable on September 1, 2018, and on each March 1 and September 1 thereafter until maturity or prior redemption.

Interest is calculated on the basis of a 360-day year comprised of twelve 30-day months. Interest on each Bond shall be payable by check payable on the interest payment date, mailed by the Paying Agent/Registrar on or before each interest payment date to the Registered Owner of record as of the Record Date to the address of such Registered Owner as shown on the bond registration books (the "Register") kept by the Paying Agent/Registrar, or by other such customary banking arrangements as may be acceptable to the Paying Agent/Registrar and the Registered Owner at the expense and risk of the Registered Owner.

If the date for the payment of the principal of or interest on the Bonds shall be a Saturday, Sunday, a legal holiday, or a day on which the Paying Agent/Registrar is authorized by law or executive order to close, then the date for such payment shall be the next succeeding day which is not such a Saturday, Sunday, legal holiday, or day on which banking institutions in Dallas, Texas are authorized to close; and payment on such date shall have the same force and effect as if made on the original date payment was due.

Redemption Provisions

Optional Redemption

The Bonds are subject to redemption and payment prior to their scheduled maturities at the option of the Issuer, in whole or in part, on the dates and at the redemption prices (expressed as a percentage of the principal amount of the Bonds to be redeemed, plus accrued interest to the date of redemption, from funds transferred from the Collection Fund or from other available money provided by the Issuer as set forth below:

Redemption Date	Redemption Prices
September 1, 2022 through August 31, 2023	103%
September 1, 2023 through August 31, 2024	102½%
September 1, 2024 through August 31, 2025	102%
September 1, 2025 through August 31, 2026	101½%
September 1, 2026 through August 31, 2027	101%
September 1, 2027 and thereafter	100%

If fewer than all of the Bonds are optionally redeemed at any time, the amounts of Bonds to be redeemed shall be designated by the Issuer and the particular Bonds within a maturity shall be selected by the Trustee by lot or other customary method of random selection (or by DTC in accordance with its procedures while the Bonds are in book-entry-only form).

Special Mandatory Redemption

Utility Bonds not exceeding $113,950 in principal amount and Road Bonds not exceeding $59,050 in principal amount are subject to special mandatory redemption prior to maturity, on any date, at a price equal to the principal amount of the Bonds, or portions thereof, to be redeemed, plus accrued interest thereon, to the date fixed for redemption from Special Assessment Revenues resulting from Prepayments of Special Assessments, when such Prepayments have accumulated in the Special Assessments Prepayment Fund (credited pro rata among the Bonds and any Additional Bonds based upon respective amounts outstanding) in an amount sufficient to redeem $113,950 in principal amount in Utility Bonds, or $59,050 in principal amount of Road Bonds, as applicable, plus accrued interest thereon, and such funds have been transferred to the applicable account of Redemption Fund. The maturities and amounts of Bonds to be so redeemed shall be designated by the Issuer and the particular Bonds within a maturity shall be selected by the Trustee by lot or other customary random method (or by DTC in accordance with its procedures while the Bonds are in book-entry-only form).

Mandatory Sinking Fund Redemption

The Bonds are subject to mandatory sinking fund redemption by the Issuer prior to their scheduled maturities, by lot or other customary method of random selection designated by the Trustee, on the dates and in the amounts set forth below at a redemption price equal to the principal amount redeemed plus accrued interest to the redemption date:

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UTILITY BONDS

Redemption Dates	Principal Amounts
September 1, 2019	$ 265,000
September 1, 2020	285,000
September 1, 2021	300,000
September 1, 2022	320,000
September 1, 2023	335,000
September 1, 2024	355,000
September 1, 2025	380,000
September 1, 2026	400,000
September 1, 2027	425,000
September 1, 2028	450,000
September 1, 2029	475,000
September 1, 2030	505,000
September 1, 2031	535,000
September 1, 2032	570,000
September 1, 2033	605,000
September 1, 2034	640,000
September 1, 2035	675,000
September 1, 2036	1,880,000
September 1, 2037 (maturity)	1,995,000

ROAD BONDS

Redemption Dates	Principal Amounts
September 1, 2019	$ 145,000
September 1, 2020	150,000
September 1, 2021	160,000
September 1, 2022	170,000
September 1, 2023	180,000
September 1, 2024	190,000
September 1, 2025	205,000
September 1, 2026	215,000
September 1, 2027	230,000
September 1, 2028	245,000
September 1, 2029	255,000
September 1, 2030	275,000
September 1, 2031	290,000
September 1, 2032	305,000
September 1, 2033	325,000
September 1, 2034	345,000
September 1, 2035	365,000
September 1, 2036	900,000
September 1, 2037 (maturity)	955,000

The particular Bonds to be so redeemed shall be selected by lot or other customary method of random selection. However, if during any period in which ownership of the Bonds is determined only by a book-entry-only system at a securities depository, if fewer than all of the Bonds of the same maturity are to be redeemed, the particular Term Bonds shall be selected in accordance with arrangement between the Issuer and the securities depository. The principal amounts shown above are subject to reduction, at the option and direction of the Issuer, by the amount of (i) any prior optional redemption of Bonds of such series at a redemption price of par plus accrued interest to the date fixed for redemption or (ii) any Bonds of such series and maturity acquired by the Issuer prior to maturity and delivered to the Trustee for cancellation and application.

Notice of Redemption

Notice of any redemption shall be given at least thirty (30) days and no more than sixty (60) days prior to the date fixed for redemption by first-class mail, postage prepaid, to the Registered Owners of the Bonds to be redeemed in whole or in part at the address shown on the Register.

Any notice mailed as provided in the Trust Agreements shall be conclusively presumed to have been duly given, whether or not the Owner receives such notice. By the redemption date, due provision shall be made with the Trustee for the payment of the redemption price of the Bonds to be redeemed, plus accrued interest thereon to the redemption date. When such Bonds have been called for redemption, in whole or in part, as provided above, and due provision has been made to redeem same, such Bonds, or portions thereof, shall no longer be regarded as outstanding except for the purpose of receiving payment from the funds provided for redemption, and the right of the owners to collect interest on such Bonds or portions thereof which would otherwise accrue after the redemption date shall be terminated.

The Issuer reserves the right, in the case of an optional redemption, to give notice of its election or direction to redeem Bonds conditioned upon the occurrence of subsequent events. Such notice may state (i) that the redemption is conditioned upon the deposit of moneys and/or authorized securities, in an amount equal to the amount necessary to effect the redemption, with the Paying Agent/Registrar, or such other entity as may be authorized by law, no later than the redemption date, or (ii) that the Issuer retains the right to rescind such notice at any time on or prior to the scheduled redemption date if the Issuer delivers a certificate of the Issuer to the Paying Agent/Registrar instructing the Paying Agent/Registrar to rescind the redemption notice, and such notice and redemption shall be of no effect if such moneys and/or authorized securities are not so deposited or if the notice is rescinded. The Paying Agent/Registrar shall give prompt notice of any such rescission of a conditional notice of redemption to the affected Owners. Any Bonds subject to conditional redemption and such redemption has been rescinded shall remain Outstanding, and the rescission of such redemption shall not constitute an Event of Default. Further, in the case of a conditional redemption, the failure of the Issuer to make moneys and/or authorized securities available in part or in whole on or before the redemption date shall not constitute an Event of Default.

Partial Redemption

If a portion of a Bond is to be redeemed, such portion may be redeemed, but only in integral multiples of $5,000. Upon surrender of any Bond for redemption in part, the Paying Agent/Registrar shall authenticate and deliver in exchange therefor a Bond or Bonds of like maturity and interest rate in an aggregate principal amount of the unredeemed portion of the Bond so surrendered.

Registration and Exchange

The Trust Agreements provide that, so long as any Bonds remain outstanding, the Paying Agent/Registrar shall keep the Register at its principal corporate trust office and, subject to such reasonable regulations as it may

prescribe, the Paying Agent/Registrar shall provide for the registration and transfer of Bonds in accordance with the terms of the Trust Agreements.

Each Bond shall be transferable only upon the presentation and surrender thereof at the corporate trust office of the Paying Agent/Registrar in Dallas, Texas, duly endorsed for transfer, or accompanied by an assignment duly executed by the Registered Owner or his authorized representative in form satisfactory to the Paying Agent/Registrar. Upon due presentation of any Bond in proper form for transfer, the Paying Agent/Registrar shall authenticate and deliver in exchange therefor, within three (3) business days after such presentation, a new Bond or Bonds, registered in the name of the transferee or transferees, in authorized denominations and of the same maturity and aggregate principal amount and bearing interest at the same rate as the Bond or Bonds so presented.

All Bonds are exchangeable upon presentation and surrender thereof at the corporate trust office of the Paying Agent/Registrar in Dallas, Texas, for a Bond or Bonds of like maturity and interest rate and in any authorized denomination, in an aggregate amount equal to the unpaid principal amount of the Bond or Bonds presented for exchange. Neither the Issuer nor the Paying Agent/Registrar shall be required to transfer or exchange any Bond during the fifteen (15) day period next preceding any interest payment date. The Issuer or the Paying Agent/Registrar may require the Owner of any Bond to pay a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with the transfer or exchange of such Bond. Any fee or charge of the Paying Agent/Registrar for such transfer or exchange shall be paid by the Issuer.

See "Book-Entry Only System" herein for a description of the system to be utilized initially in regard to ownership and transferability of the Bonds.

Limitations on Transfers

Unless either (i) the Bonds shall then have an Investment Grade Rating or (ii) the certified Taxable Assessed Valuation within the District shall be at least $_____, any transfer of the Bonds is restricted solely to transferees who are both (i) Qualified Institutional Buyers, as defined by Rule 144A of the General Rules and Regulations promulgated under the Securities Act of 1933 and (ii) Institutional Investors, as defined by applicable state securities laws and transferees of the Bonds will be required to provide to the Trustee a Transferee Letter in the form set forth in APPENDIX G hereto prior to any transfer.

Book-Entry Only System

This section describes how ownership of the Bonds is to be transferred and how the principal of and interest on the Bonds are to be paid to and credited by The Depository Trust Company, New York, New York, ("DTC") while the Bonds are registered in its nominee name. The information in this section concerning DTC and the Book-Entry-Only System has been provided by DTC for use in disclosure documents such as this Official Statement. The Issuer, the District, the Financial Advisor, and the Placement Agent believe the source of such information to be reliable, but none of the Issuer, the District, the Financial Advisor, nor the Placement Agent takes any responsibility for the accuracy or completeness thereof.

The District cannot and does not give any assurance that (1) DTC will distribute payments of debt service on the Bonds, or redemption or other notices, to DTC Participants, (2) DTC Participants or others will distribute debt service payments paid to DTC or its nominee (as the registered owner of the Bonds), or redemption or other notices, to the Beneficial Owners, or that they will do so on a timely basis, or (3) DTC will serve and act in the manner described in this Official Statement. The current rules applicable to DTC are on file with the Securities and Exchange Commission, and the current procedures of DTC to be followed in dealing with DTC Participants are on file with DTC.

The Depository Trust Company ("DTC"), New York, New York, will act as securities depository for the Bonds. The Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered certificate will be issued for the Bonds, in the aggregate principal amount of such issue, and will be deposited with DTC.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing companies, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing companies that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has a Standard & Poor's rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com and www.dtc.org.

Purchases of Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Bonds on DTC's records. The ownership interest of each actual purchaser of each Bond ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in Bonds, except in the event that use of the book-entry system for the Bonds is discontinued.

To facilitate subsequent transfers, all Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Bonds, such as redemptions, tenders, defaults, and proposed

amendments to the Bond documents. For example, Beneficial Owners of Bonds may wish to ascertain that the nominee holding the Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the Registrar and request that copies of notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the Bonds within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Payments on the Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Issuer or Paying Agent/Registrar, on payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, Paying Agent/Registrar, or the Issuer, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Issuer or Paying Agent/Registrar, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the Bonds at any time by giving reasonable notice to the Issuer or Paying Agent/Registrar. Under such circumstances, in the event that a successor depository is not obtained, Bond certificates are required to be printed and delivered.

The Issuer may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository). In that event, Bond certificates will be printed and delivered to DTC.

Sources of Payment

The Bonds, when issued and delivered, are valid and legally binding special revenue obligations of the Issuer, with an amount not less than one percent (1%) of the original principal amount of the Bonds, together with interest thereon, being payable, together with the Outstanding Bonds, from and secured by a pledge of and lien on certain Special Assessment Revenues and with an amount equal to the balance of the original principal amount of the Bonds, together with interest thereon, but in no event to exceed, on a cumulative basis, ninety-nine percent (99%) of the original principal amount of the Bonds, together with interest thereon, being payable, together with the Outstanding Bonds, from certain Contract Revenues to be paid by the District pursuant to a 2008 Joint Utility Contract and a 2008 Joint Road Contract, each effective as of May 19, 2014 (collectively, the "Contracts") among the Issuer, the District and District No. 1-A. See "APPENDIX D - SUMMARY OF THE CONTRACTS."

- Special Assessment Revenues -

Special Assessment Revenues are to be derived from Special Assessments levied by the Issuer against benefitted property within the Improvement District pursuant to an Assessment/Service Plan adopted by the Issuer pursuant to Section 372, Texas Local Government Code, including updates thereto approved by the Issuer. See "ASSESSMENT PROCEDURES." Such Special Assessments are payable pursuant to the assessment ordinance (the "Assessment Ordinance") adopted by the Issuer for the Improvement District. Special Assessment Revenues are to be collected in an amount sufficient to pay an amount not less than one percent (1%) of the original principal amount of the Bonds, together with interest thereon, when due.

- Contract Revenues -

Contract Revenues are payable from the levy by the District of ad valorem taxes, without legal limitation as to rate or amount on all taxable property within the District, to pay the principal and the interest on the Bonds and such additional bonds of the Issuer as may hereafter be issued pursuant to the terms of the Contracts. The Trust Agreements create an Interest and Sinking Fund and create a Series 2017 Utility Bonds Interest and Sinking Fund Account and a Series 2017 Road Bonds Interest and Sinking Fund Account therein, and the proceeds from all taxes levied, assessed and collected for and on account of the Contract Revenues shall be deposited in such Fund to pay debt service on the Utility Bonds and the Road Bonds, respectively. While the Bonds or any part of the principal thereof or interest thereon remain outstanding and unpaid, the District covenants to levy and annually assess and collect in due time, form and manner, and at the same time as other District taxes are assessed, levied and collected, in each year, an annual ad valorem tax, without legal limit as to rate or amount, upon all taxable property in the District, sufficient to pay an amount equal to the balance of the original principal amount of the Bonds, together with interest thereon, that is not paid from Special Assessment Revenues, but in no event to exceed, on a cumulative basis, ninety-nine percent (99%) of the original principal amount of the Bonds, together with interest thereon, when due.

The Contracts provide that the District shall, prior to setting its tax rate each year, calculate the total amount of the payments to be made by the Issuer pursuant to the Bonds, after the application of the available reserves established with the proceeds of such Bonds and any Special Assessment Revenues, and shall establish a tax rate on all taxable property within its boundaries which, if 95% of such taxes are collected in a timely fashion, would be sufficient to make the annual payment of Contract Revenues to the Issuer. See "APPENDIX D - SUMMARY OF THE CONTRACTS."

- Debt Service Reserve Funds -

The Trust Agreements create Debt Service Reserve Funds. The Trust Agreements require such Debt Service Reserve Funds to be in an amount (the "Debt Service Reserve Amount"), equal to the lesser of (i) ten percent (10%) of the principal amount of the applicable series of the Bonds, (ii) the maximum annual debt service on the applicable series of Bonds, and (iii) 125% of the average annual debt service requirements on the applicable series of Bonds. Out of funds advanced by the Developer on the Closing Date for the Bonds, an amount equal to maximum annual debt service on the Utility Bonds and the Road Bonds, respectively, will be deposited into the applicable Debt Service Reserve Fund.

The Debt Service Reserve Funds are to be used solely (i) to pay principal of and interest on the applicable series of Bonds in the event and to the extent that funds on deposit in the applicable Interest and Sinking Fund are insufficient for such purpose and (ii) to the extent of funds available therein, to pay the last maturity or maturities of the Bonds. The District is required to replenish any deficiencies in the Debt Service Reserve Funds resulting from a withdrawal therefrom in twelve consecutive equal monthly installments. Any deficiency in the Debt Service Reserve Funds resulting from a determination that the value of the Authorized Investments credited to the applicable Debt Service Reserve Fund is less than the Debt Service Reserve Amount, must also be replenished in twelve consecutive equal monthly installments.

Defeasance

The Issuer may defease the provisions of the Bond Ordinances and the Trust Agreements and discharge its obligations to the Registered Owners of any or all of the Bonds to pay principal and interest thereon in the manner provided by Section 1207.062, Texas Government Code, as amended. Under Section 1207.062, such discharge may be accomplished either (i) by depositing with the Comptroller of Public Accounts of the State of Texas a sum of money equal to the principal of, premium, if any, and all interest to accrue on the Bonds to

maturity or redemption or (ii) by depositing with any place of payment (paying agent) for obligations of the Issuer payable from the Contracts, or with a commercial bank or trust company designated in the proceedings authorizing such discharge, amounts sufficient to provide for the payment and/or redemption of the Bonds; provided that such deposits may be invested and reinvested only in (a) direct noncallable obligations of the United States of America, including obligations that are unconditionally guaranteed by the United States of America, (b) noncallable obligations of an agency or instrumentality of the United States, including obligations that are unconditionally guaranteed or insured by the agency or instrumentality and that, on the date the governing body of the Issuer adopts or approves the proceedings authorizing the issuance of refunding bonds, are rated as to investment quality by a nationally recognized investment rating firm not less than AAA or its equivalent; and (c) noncallable obligations of a state or an agency or a county, municipality, or other political subdivision of a state that have been refunded and that, on the date the governing body of the Issuer adopts or approves the proceedings authorizing the issuance of refunding bonds, are rated as to investment quality by a nationally recognized investment rating firm not less than AAA or its equivalent. The foregoing obligations may be in book entry form, and shall mature and/or bear interest payable at such times and in such amounts as will be sufficient to provide for the scheduled payment and/or redemption of the Bonds. If any of such Bonds are to be redeemed prior to their respective dates of maturity, provision must have been made for giving notice of redemption as provided in the Bond Ordinances and Trust Agreements.

Upon such deposit as described above, such Bonds shall no longer be regarded to be outstanding or unpaid and thereafter the Issuer will have no further responsibility with respect to amounts available to such paying agent (or other financial institution permitted by applicable law) for the payment of such defeased bonds, including any insufficiency therein caused by the failure of such paying agent (or other financial institution permitted by applicable law) to receive payment when due on the defeasance securites. After firm banking and financial arrangements for the discharge and final payment or redemption of the Bonds have been made as described above, all rights of the Issuer to initiate proceedings to call the Bonds for redemption or take any other action amending the terms of the Bonds are extinguished; provided, however, that the right to call the Bonds for redemption is not extinguished if the Issuer: (i) in the proceedings providing for the firm banking and financial arrangements, expressly reserves the right to call the Bonds for redemption; (ii) gives notice of the reservation of that right to the owners of the Bonds immediately following the making of the firm banking and financial arrangements; and (iii) directs that notice of the reservation be included in any redemption notices that it authorizes.
There is no assurance that the current law will not be changed in a manner which would permit investments other than those described above to be made with amounts deposited to defease the Bonds. Because neither the Bond Ordinances nor the Trust Agreements contractually limits such investments, owners of the Bonds may be deemed to have consented to defeasance with such other investments, notwithstanding the fact that such investments may not be of the same investment quality as those currently permitted under Texas law.

Annexation

Under existing Texas law, since the District lies wholly within the extraterritorial jurisdiction of the Issuer, the District may be annexed by the Issuer, subject to compliance by the Issuer with various requirements of Chapter 43 of the Texas Local Government Code, as amended. If the District is annexed, the Issuer must assume the District's assets and obligations (including the Contracts) and abolish the District within 90 days of the date of annexation except as provided under "Strategic Partnership Agreement" below. Annexation of territory by the Issuer is a policy-making matter within the discretion of the Mayor and City Council of the Issuer, and therefore, the District and the Issuer make no representation that the Issuer will ever annex the District and assume its debt. Moreover, no representation is made concerning the ability of the Issuer to make Contract Payments to pay debt service on the Bonds should annexation occur. Under the terms of the SPA (as herein defined) between the District and the Issuer, however, the Issuer has agreed not to annex the District for full purposes (a traditional municipal annexation) for at least ten (10) years from the date of execution of the SPA. See "Strategic Partnership Agreement" below.

Strategic Partnership Agreement

In June, 2009, the District, together with District No. 1-A, District No. 1-B, District No. 1-C, District No. 1-D, District No. 1-E, District No. 1-F, and District No. 1-H, entered into a Strategic Partnership Agreement with the City as authorized by Texas Local Government Code, Chapter 43 (the "SPA"). The SPA provides for a "limited purpose annexation" of that portion of the District developed for retail and commercial purposes for purposes of applying the City sales tax. The portion of the District consisting of residential development is not subject to the SPA. The SPA also provides that the City will not annex the District for "full purposes" (a traditional municipal annexation) for the ten (10)-year term of the SPA.

As a result of the SPA, the City is authorized to impose a one percent (1%) retail City sales tax within the portion of the District included in the limited purpose annexation. Pursuant to the SPA, the City pays to the District through District No. 1-A, an amount, if any, over and above an amount retained by the City for its cost to provide public safety services to the District, equal to one-half of all retail sales tax revenues within such area of the District and received by the City from the Texas Comptroller of Public Accounts (herein defined as the "Sales Tax Revenue"). The SPA requires that amounts received by the District under the SPA be used first to reimburse any developer for any outstanding maintenance and operating advances. Thereafter, the District is authorized to use the Sales Tax Revenue generated pursuant to the SPA for any lawful purpose.

None of the Sales Tax Revenue is pledged toward the payment of principal and interest on the Bonds and none is expected to be used for such purpose.

Consolidation

The District has the legal authority to consolidate with any other districts and, in connection therewith, to provide for the consolidation of its assets (such as cash and the utility system) and liabilities (such as its obligations under the Contracts), with the assets and liabilities of districts with which it is consolidating. Although no consolidation is presently contemplated by the District, no representation is made concerning the likelihood of consolidation in the future.

Authorization of the Bonds

The Bonds are issued pursuant to the authority of the Bond Ordinances, the Trust Agreements, and Chapter 372 of the Texas Local Government Code, as amended. The Contracts have been entered into in accordance with Chapters 49, 51, and, for limited purposes, 53, Texas Water Code, as amended. Each of the Contracts were approved at an election held within the District on November 4, 2008, by a vote of 3 "For" to 0 "Against". See "THE BONDS - Legal Ability of the Issuer to Issue Additional Debt" and "Legal Ability of the District to Issue Additional Debt."

Legal Ability of the Issuer to Issue Additional Debt

After issuance of the Bonds, there will be no remaining authorized but unissued bonds (other than refunding bonds) under the Contracts. Additional Bonds may be issued in such amounts as are necessary for the refunding of any outstanding obligations issued pursuant to the Contracts. Such Additional Bonds may be issued with the approval of the governing body of the Issuer, but without the necessity of authorization by the voters within the Issuer or further authorization by voters within the District.

The Issuer also has the right to issue such bonds, notes or other obligations as are authorized to be issued by municipal corporations by and subject to the requirements of, the provisions of the constitution and laws of the

State of Texas applicable to municipal corporations. Any such obligations issued by the Issuer other than pursuant to the Contracts will be payable from sources other than the Contract Revenues.

Legal Ability of the District to Issue Additional Debt

In addition to the Bonds and any Additional Bonds issued pursuant to the Contracts, the District has the right to issue such unlimited tax bonds as may be hereafter approved by the voters of the District. The District also has the right to issue revenue bonds, revenue notes, bond anticipation notes and tax anticipation notes without voter approval. In addition, the District has the right to enter into other contracts similar to the Contracts and to pledge its taxing power to secure any payments the District is required to make under such a contract, provided the provisions of the contract are approved by the voters of the District. The District further has the right, without further voter approval, to issue bonds to refund outstanding bonds of the District.

The District is also authorized by law to engage in fire-fighting activities and is authorized to issue bonds payable from District ad valorem taxes for such purpose. Before the District may issue bonds for fire-fighting activities payable from District ad valorem taxes, the following actions would be required: (1) authorization of a detailed master plan and bonds for such purpose by the qualified voters in the District; (2) approval of the master plan and bonds by the Texas Commission on Environmental Quality (the "TCEQ"); and (3) approval of bonds by the Attorney General of Texas. The Board of Directors of the District has not considered calling an election at this time for such purposes.

Notwithstanding the foregoing, the District has agreed in its resolution approving the issuance of the Bonds that it will not issue any bonds payable from ad valorem taxes unless the Assessed Value within the District is at least 3.5 times the sum of the then outstanding bonds, and the proposed additional bonds after deducting any amounts on deposit in any debt service reserve fund with respect to any outstanding bonds and any amounts to be deposited to any debt service reserve fund out of proceeds of the proposed additional bonds. The term "Assessed Value" shall be defined as follows: as determined by the Denton Central Appraisal District, the greater of (I) the total assessed valuation certified by the Appraisal District or (ii) the most recent preliminary total assessed valuation certified by the Appraisal District.

If additional debt obligations are issued in the future by the District, such issuance may increase gross debt/property valuation ratios and might adversely affect the investment security of the Bonds. See "RISK FACTORS - Future Debt."

Events of Default

The Trust Agreements define each of the following to be an "Event of Default":

(a) if default occurs in the timely payment of a Principal Installment (whether mandatory prepayment amount or the principal amount due at maturity) of any of the Bonds of a series; or

(b) if default occurs in the timely payment of any installment of interest or premium, if any, on any of the respective series of Bonds of a series; or

(c) the Bankruptcy or Insolvency of the Issuer; or

(d) if the Issuer shall default in the due and punctual performance of any of the covenants, conditions, agreements and provisions contained in the respective series of Bonds or in the respective Bond Ordinances or Trust Agreements, other than as specified in (a), (b), or (c) above, on the part of the Issuer to be performed, and such default shall continue for thirty (30) days after written notice specifying such default and requiring same to be remedied shall have been given to the Issuer by the Trustee, which may give such notice

in its discretion and shall give such notice at the written request of the Owners of not less than ten percent (10%) in principal amount of the respective series of Bonds then outstanding; or

(e) if the Issuer or the District shall default in the due and prompt performance of any of the covenants, conditions, agreements and provisions contained in the respective Contract on the part of the Issuer or the District, as the case may be, to be performed, and such default shall continue for thirty (30) days after written notice specifying such default and requiring the same to be remedied shall have been given by the Trustee, which notice the Trustee may give in its discretion.

Remedies in Event of Default

Upon the happening and continuance of any Event of Default, the Trustee may proceed, and upon the written request of the Registered Owners of not less than fifty-one percent (51%) in principal amount of the Bonds and any Additional Bonds then Outstanding shall proceed to protect and enforce its rights and the rights of the Owners of the Bonds under the Act and under the applicable Trust Agreement by such suits, actions or special proceedings in equity or at law, or by proceedings in the office of any board or officer having jurisdiction, either for the specific performance of any covenant or agreement contained in the applicable Trust Agreement or in aid or execution of any power granted in the applicable Trust Agreement or for the enforcement of any proper legal or equitable remedy, as the Trustee, being advised by counsel, shall deem most effectual to protect and enforce such rights.

In the enforcement of any remedy under a Trust Agreement the Trustee shall be entitled to sue for, enforce payment of and receive any and all amounts then or during any default becoming, and at any time remaining, due from the Issuer for Principal Installments, interest or otherwise under any of the provisions of the Trust Agreements or of the Bonds and unpaid, with interest on overdue payments at the rate or rates of interest specified in such Bonds, together with any and all costs and expenses of collection and of all proceedings therewith and under such Bonds, without prejudice to any other right or remedy of the Trustee or of the Owners of the Bonds, and to recover and enforce judgment or decree against the Issuer, but solely as provided in the Trust Agreements and in such Bonds, for any portion of such amounts remaining unpaid, with interest, costs and expenses, and to collect (but solely from Contract Payments and Special Assessment Revenues or other moneys available for such purposes) specifically permitted by the Trust Agreements) in any manner provided by law, the moneys adjudged or decreed to be payable from said sources.

The Registered Owners of not less than a majority in principal amount of the applicable series of Bonds then Outstanding shall have the right, by an instrument or concurrent instruments in writing executed and delivered to the Trustee, to direct the method and place of conducting all remedial actions to be taken by the Trustee hereunder, provided that such direction shall not be otherwise than in accordance with law or the provisions of the Trust Agreements and that the Trustee shall have the right to decline to follow any such direction which in the opinion of the Trustee would be unjustly prejudicial to Registered Owners of the Bonds not parties to such direction.

No Registered Owners of any of the Bonds then Outstanding shall have any right to institute any suit, action, mandamus or other proceeding in equity or at law for the execution of any trust hereunder or the protection or enforcement of any right under the Trust Agreements or the Bond Ordinances, or any right under the act or the laws of Texas, excepting only an action for the recovery of overdue and unpaid principal installments, interest or redemption premium, unless such Registered Owner previously shall have given to the Trustee written notice of the event of default or breach of trust or duty on account of which such suit or action is to be taken, and unless the Registered Owners of not less than twenty percent (20%) in principal amount of the applicable series of Bonds and any Additional Bonds then Outstanding shall have made written request of the Trustee after the right to exercise such powers or right of action, as the case may be, shall have accrued, and shall have afforded the Trustee a reasonable opportunity either to proceed to exercise the powers herein granted or granted by the laws of Texas, or to institute such action, suit or proceeding in its or their name, and unless, also, there shall have been

offered to the Trustee reasonable security and indemnity against the costs, expenses and liabilities to be incurred therein or thereby, and the Trustee shall have refused or neglected to comply with such request within a reasonable time.

Notwithstanding the foregoing, if an Event of Default shall have occurred and be continuing, the Series 2017 Road Bonds Bondholder Representative or the Series 2017 Utility Bonds Bondholder Representative, as applicable, in its sole discretion as evidenced by written notice delivered to the Trustee, may (but shall not be required to), (i) in lieu of the Trustee, exercise such one or more of the rights and powers conferred on the Trustee; and (ii) such rights and powers granted to Issuer under the Trust Agreement, and such rights of the Owners under the Trust Agreement, either by a suit or suits in equity or in law for the enforcement of any appropriate equitable or legal remedy the applicable Bondholder Representative shall deem most expedient in the interest of the Owners.

Any delay or omission to exercise any right or power occurring upon any default shall not impair any such default or acquiescence therein, and every such right and power may be exercised from time to time and as often as may be deemed expedient.

There is no acceleration of maturity of the Bonds in the event of default. Consequently, the remedy of specific performance is a remedy which may have to be relied upon from year to year by the Registered Owners. Based on recent Texas court decisions, it is unclear whether certain legislation effectively waives governmental immunity of governmental entities for suits for money damages. Even if the Registered Owners could obtain a judgment against the Issuer, such judgment could not be enforced by levy and execution against the Issuer's property or the District's property or the property subject to assessment. Further, the Registered Owners cannot themselves foreclose on property within the District or sell property within the District or the Improvement District, as the case may be, in order to pay the principal of and interest on the Bonds. Certain traditional legal remedies also may not be available.

The enforceability of the rights and remedies of the Registered Owners may be further limited by federal bankruptcy laws related to bankruptcy, reorganization, or other similar laws of general application affecting the rights of creditors of political subdivisions such as the Issuer and the District. Specifically, the Issuer or the District may voluntarily file a petition for protection from creditors under the federal bankruptcy laws. During the pendency of the bankruptcy proceedings the remedy for mandamus would not be available to the Registered Owners unless authorized by a federal bankruptcy judge. Additionally, the right of the District to seek judicial foreclosure of any tax lien or special assessment lien upon property within such District may be stayed. See "RISK FACTORS - Bankruptcy Limitation to Registered Owners' Rights."

Legal Investment and Eligibility to Secure Public Funds in Texas

Chapter 372, Texas Local Government Code, as amended, pursuant to which the Bonds are issued, provides as follows:

(a) Bonds issued under this subchapter are legal and authorized investments for:

(1) banks, trust companies, and savings and loan associations;

(2) all insurance companies;

(3) fiduciaries, trustees, and guardians; and

(4) interest funds, sinking funds, and other public funds of the state or of an agency, subdivision, or instrumentality of the state, including a county, municipality, school district, or other district, public agency or body politic.

(b) Bonds issued under this subchapter may be security for deposits of public funds of the state or of an agency, subdivision, or instrumentality of the state, including a county, municipality, school district, or other district, public agency or body politic, to the extent of the market value of the Bonds, if accompanied by any appurtenant unmatured interest coupons.

The Issuer makes no representation that the Bonds will be acceptable to banks, savings and loan associations or public entities for investment purposes or to secure deposits of public funds. The Issuer has made no investigation of other laws, regulations or investment criteria which might apply to or otherwise limit the availability of the Bonds for investment or collateral purposes. Prospective purchasers are urged to carefully evaluate the investment quality of the Bonds as to the acceptability of the Bonds for investment or collateral purposes.

USE OF PROCEEDS

Sources and Uses of Funds

UTILITY BONDS

The proceeds from the sale of the Utility Bonds will be applied as follows:

Sources of Funds

Principal Amount of Bonds	$11,395,000
Original Issue Discount [Premium]	
Total Sources of Funds	$

Uses of Funds

Utility Improvement Fund	$
Utility Debt Service Reserve Fund	
Placement Agent's Fee	
Issuance Costs	
Total Uses of Funds	$

ROAD BONDS

The proceeds from the sale of the Road Bonds will be applied as follows:

Sources of Funds

Principal Amount of Bonds	$5,905,000
Original Issue Discount [Premium]	
Total Sources of Funds	$

Uses of Funds

Road Improvement Fund	$
Road Debt Service Reserve Fund	
Placement Agent's Fee	
Issuance Costs	
Total Uses of Funds	$

Use of Bond Proceeds for Construction Purposes

A portion of the proceeds of the Utility Bonds ($_____) will be deposited to the Issuer's Utility Improvement Fund to be used to pay the costs of acquiring and constructing certain water, sewer, and drainage facilities and a portion of the proceeds of the Road Bonds ($_____) will be deposited to the Issuer's Road Improvement Fund to be used to pay the costs of acquiring and constructing certain streets and roads generally to serve areas within the Improvement District.

In the instance that the above estimated amounts exceed actual costs, the difference comprises a surplus which may be expended for other authorized purposes. In the instance that actual costs exceed previously estimated amounts, the issuance of Additional Bonds may be required. The District's Engineer has advised the Issuer that the proceeds of the sale of the Bonds should be sufficient to pay the costs of the above-described facilities. However, the Issuer cannot and does not guarantee the sufficiency of such funds for such purposes.

RISK FACTORS

General

The Bonds, which are special revenue obligations of the Issuer and not of the State of Texas or Denton County, will be secured by Contract Revenues to be paid by the District to the Issuer pursuant to the Contracts, and by Special Assessment Revenues. Contract Revenues are payable from an annual ad valorem tax, without legal limitation as to rate or amount, levied by the District on all taxable property within the District. Special Assessment Revenues are payable from Special Assessments levied by the Improvement District against benefitted property within the Issuer. AN AMOUNT ON A CUMULATIVE BASIS NOT LESS THAN ONE PERCENT (1%) OF THE ORIGINAL PRINCIPAL AMOUNT OF THE BONDS, TOGETHER WITH INTEREST THEREON, IS PAYABLE FROM SPECIAL ASSESSMENTS AND AN AMOUNT EQUAL TO THE BALANCE OF THE ORIGINAL PRINCIPAL AMOUNT OF THE BONDS, TOGETHER WITH INTEREST THEREON, BUT IN NO EVENT TO EXCEED, ON A CUMULATIVE BASIS, NINETY-NINE PERCENT (99%) OF THE ORIGINAL PRINCIPAL AMOUNT OF THE BONDS, TOGETHER WITH INTEREST THEREON, IS PAYABLE FROM CONTRACT REVENUES. The ultimate security for payment of the principal of and interest on the Bonds depends upon (i) the ability of the District to pay Contract Revenues from the collection from the property owners within the District of taxes levied against all taxable property located within the District, or, in the event taxes are not collected and foreclosure proceedings are instituted by the District, upon the value of the taxable property with respect to taxes levied by the District and by other taxing authorities, and (ii) the ability of the Issuer to collect Special Assessment Revenues within the Improvement District or, in the event Special Assessments are not collected and foreclosure proceedings are instituted on behalf of the Issuer, upon the value of the property which is subject to such Special Assessments. Neither the Issuer nor the District makes any representations that over the life of the Bonds the property within the District will maintain values sufficient to justify continued payment of taxes or Special Assessments by the property owners. The potential increase in taxable valuation of property within the District is directly related to the economics of the residential housing and commercial products industry, not only due to general economic conditions, but also due to the particular factors discussed below.

Factors Affecting Taxable Values and Tax Payments

Economic Factors: The rate of development of the District is directly related to the vitality of the residential housing industry and the demand for commercial projects. Such development and construction can be significantly affected by factors such as interest rates, construction costs, availability of liquidity and credit in the financial markets, and consumer demand. Decreased levels of home construction activity would restrict the growth of property values in the District. Because a significant number of the homes being constructed and planned for construction within the District are considered to be in such higher end market, slowdown or worsening of the market for such higher end homes could adversely effect the growth of taxable values within the District. Neither the Issuer nor the District can predict the pace or magnitude of any future development or home construction in the District.

Development of land within the District is contingent upon construction or acquisition of major public improvements such as arterial streets, water distribution facilities, sewage collection and transmission facilities and street lighting, as well as local in-tract improvements that may include substantial site grading. While these improvements in the District are expected to be constructed with proceeds of the Outstanding Bonds and the Bonds, there can be no assurance that any or all of these improvements will be constructed. See "DEVELOPMENT OF THE DISTRICT AND FUTURE DEVELOPMENT" herein. The cost of these public and private in-tract and off-site improvements could increase the public and private debt for which the land within the District provides security. This increased debt could reduce the ability or desire of the property owners to pay taxes or the Special Assessments levied against their property.

The development of land within the District is subject to a number of contingencies which could slow or prevent future development of the undeveloped land. Consequently, no assurance can be given that such development will be partially or fully completed, and in assessing the investment quality of the Bonds, prospective purchasers should evaluate such risks. In addition to potentially reducing the ability and willingness of the landowners to pay taxes and Special Assessments, a slowdown of the economic development process in the region could adversely affect land values and reduce the proceeds received at a foreclosure sale in the event taxes or Special Assessments are not paid when due.

Developer and Major Landowner's Obligation to the Issuer: The top five principal taxpayers comprise approximately 59.34% of the District's tax roll. ESW Castle Hills Investment LP owns commercial property which currently comprises approximately 17.34% of the 2017 tax roll of the District, SWC 121/423 LP, the owner of certain commercial property, currently comprises approximately 15.29% of the 2017 tax roll of the District, CAF TPEG Castle Hills LLC comprises approximately 14.42 of the 2017 tax roll of the District, MREF II Windhaven LLC owns commercial property which currently comprises 12.29% of the District's 2017 tax roll and BRECO Lands CH LLC owns undeveloped land which currently comprises 9.85% of the District's 2017 tax roll. The ability of Bright Realty to make full and timely payments of taxes levied against their properties by the District will directly affect the District's ability to meet its obligations to make payments under the Contracts. Only owners of property located in the District are legally responsible for payment of ad valorem taxes to the District and other taxing authorities and for payment of Special Assessments to the Issuer. Failure of Bright Realty to make timely payment of their taxes could result in defaults under the Trust Agreements and ultimately could adversely affect the investment security of the Bonds.

There is no commitment by or legal requirement of the Developer or any other landowner to the District to proceed at any particular rate or according to any specified plan with the development of land or the construction of homes in the District, and there is no restriction on any landowners' right to sell its land. Therefore, neither the Issuer nor the District can make any representation about the probability of future development, if any, or the rate of home construction activity in the District. Moreover, although the Developer has been involved with some mixed-use developments, it has had no previous experience in the development of primarily single-family developments other than the Castle Hills Project.

Maximum Impact on District Tax Rates: Assuming no further development, the value of the land and improvements currently within the District will be the major determinant of the ability or willingness of District property owners to pay their taxes. The District's 2017 Assessed Valuation is $280,786,530 and Estimated Valuation at September 1, 2017 is $_____. The average annual debt service requirement on the Bonds is $3,094,523 and the maximum annual debt service requirement on the Bonds is $3,136,325. Assuming no increase to nor decrease from the 2017 Assessed Valuation, and no use of funds on hand to augment tax receipts, tax rates of $1.18 per $100 of 2017 Assessed Valuation and $____ per 100 of Estimated Valuation at September 1, 2017, at 95% collection rates would be necessary to pay both the average annual debt service requirements and maximum annual debt service requirements.

The District has levied a tax in 2017 of $1.00 per $100 of Assessed Valuation consisting of $0.37 for operation and maintenance purposes and $0.63 for purposes of making payments under the Contracts and for operation and maintenance purposes. If assessed values within the District do not increase beyond the 2017 Assessed Valuation of $280,786,530, a tax rate of $0.63 will be insufficient to pay debt service on the Bonds based upon the 2017 Assessed Valuation and the Estimated Valuation at September 1, 2017. In order for a tax rate of $0.63 to be sufficient to pay both the average annual and maximum annual debt service requirements on the Bonds, the assessed valuation in the District must increase to approximately $524,031,000. With the continued development of property and construction of homes on the lots developed by the Developer, the District anticipates that increases in the taxable values will enable the District to make payments of Contract Revenues sufficient to meet debt service requirements on the Bonds without increasing the tax rate above a rate of $0.63. However, the District can make no representation that the taxable property values in the District will increase in the future or will maintain a value sufficient to support the aforementioned tax rate or to justify continued payment of taxes or Special Assessments by property owners.

Increases in the District's tax rate to higher levels than the $0.63 per $100 of Assessed Valuation rate anticipated for 2017 may have an adverse impact upon future development of the District, the sale and construction of homes within the District and the ability of the District to collect, and the willingness of owners of property located within the District to pay, ad valorem taxes levied by the District. In addition, the collection by the District of delinquent taxes owed to it and the enforcement by a Registered Owner of the District's obligations to collect sufficient taxes may be a costly and lengthy process.

The combination of the District's 2017 levy of $1.00 per $100 of Assessed Valuation, plus the aggregate of the 2017 tax levies of all other units of government which levy taxes against the property located within the District, would be $2.7619 per $100 of Assessed Valuation. See "TAX DATA - Estimated Overlapping Taxes."

Tax Collection Limitations

The District's ability to make payments of Contract Revenues may be adversely affected by its inability to collect ad valorem taxes. Under Texas law, the levy of ad valorem taxes by the District constitutes a lien in favor of the District on a parity with the liens of all other state and local taxing authorities on the property against which taxes are levied, and such lien may be enforced by foreclosure. The District's ability to collect ad valorem taxes through such foreclosure may be impaired by (a) cumbersome, time-consuming and expensive collection procedures, (b) a bankruptcy court's stay of tax collection procedures against a taxpayer, (c) market conditions affecting the marketability of taxable property within the District and limitation of the proceeds from a foreclosure sale of such property, (d) adverse effects on the proceeds of a foreclosure sale resulting from a taxpayer's limited right to redeem its foreclosed property as set forth below, or (e) insufficient foreclosure bids to satisfy the tax liens of all state and local taxing authorities which have parity liens on the property. While the District has a lien on taxable property within the District for taxes levied against such property, such lien can be foreclosed only in a judicial proceeding. Moreover, the value of the property to be sold for delinquent taxes and thereby the potential sales proceeds available to pay debt service on the Bonds, may be limited by among

other factors, the existence of other tax liens on the property, by the current aggregate tax rate being levied against the property, or by the taxpayers' right to redeem residential or agricultural use property within two (2) years of foreclosure and all other property within six (6) months of foreclosure. See "TAX PROCEDURES."

Special Assessment Limitations

Special Assessments are due and payable in the same manner as, and bear the same penalties and interest for non-payment, as do regular property tax installments. Additionally, Special Assessments are payable in annual installments established by the Assessment Ordinance to correspond in number and proportionate amount to the number of installments and principal amounts of the Bonds and any Additional Bonds maturing in each year. See "ASSESSMENT PROCEDURES - Priority of Lien" herein. It should be noted that the unwillingness or inability of a property owner to pay regular property tax bills as evidenced by property tax delinquencies may also indicate an unwillingness or inability to make regular assessment installment payments in the future.

Although Special Assessments are secured by a lien on the parcels within the Improvement District and the Issuer has covenanted to institute foreclosure proceedings to sell parcels with delinquent assessment installments for amounts sufficient to cover such delinquent installments in order to obtain funds to pay debt service on the Bonds, there can be no assurance that foreclosure proceedings will occur in a timely manner so as to avoid delay in payments of debt service on the Bonds. In addition the pledge of Special Assessments to the Bonds is not sufficient to pay the full amount of debt service due on the Bonds. Upon an ad valorem tax lien foreclosure event of a property within the District, an installment of Special Assessments that is also delinquent will be foreclosed in the same manner as the ad valorem tax lien (assuming all conditions and procedures for foreclosure are duly satisfied). The foreclosure of accrued installments of Special Assessments does not eliminate the outstanding principal balance of the Special Assessment and any purchaser of the property in foreclosure takes the property subject to the Special Assessment lien and any associated obligations.

Failure by owners of the parcels to pay installments of Special Assessments when due, delay in foreclosure proceedings, or the inability of the Issuer to sell parcels which have been subject to foreclosure for amounts sufficient to cover the delinquent installments of Special Assessments levied against such parcels may result in the inability of the Issuer to make full or punctual payments of debt service on the Bonds.

Construction Risks and Facilities Costs

Although the District's Engineer estimates that proceeds of the Bonds will be sufficient to pay the costs of acquiring and constructing certain water, sewer, drainage facilities, and streets and roads, there can be no assurance that such proceeds will be sufficient to acquire and construct such facilities. The Developer is under no obligation and has made no commitment to the District to complete any of such facilities should proceeds of the Bonds be insufficient for such purpose. Failure to complete all of such facilities could result in an inability to construct taxable improvements within the District and could adversely impact the security for the Bonds.

Hazardous Substance

While governmental taxes, assessments and charges are a common claim against the value of a parcel, other less common claims may be relevant. One of the most serious in terms of the potential reduction in the value that may be realized to the assessment is a claim with regard to a hazardous substance. In general, the owners and operators of a parcel may be required by law to remedy conditions relating to releases or threatened releases of hazardous substances. The federal Comprehensive Environmental Response, Compensation and Liability Act of 1980, sometimes referred to as "CERCLA" or "Superfund Act," is the most well known and widely applicable of these laws. It is likely that, should any of the parcels of land located in the District be affected by a hazardous substance, the marketability and value of parcels would be reduced by the costs of remedying the condition, because the purchaser, upon becoming owner, will become obligated to remedy the condition just as is the seller.

The value of the land within the District does not take into account the possible liability of the owner (or operator) for the remedy of a hazardous substance condition of the parcel. The Issuer has not independently verified, and is not aware, whether the owner (or operator) of any of the parcels within the District has such a current liability with respect to such parcel, however, it is possible that such liabilities do currently exist and that the Issuer is not aware of them.

Further, it is possible that liabilities may arise in the future with respect to any of the land within the District resulting from the existence, currently, of a substance presently classified as hazardous but which has not been released or the release of which is not presently threatened, or may arise in the future resulting from the existence, currently, on the parcel of a substance not presently classified as hazardous but which may in the future be so classified. Further, such liabilities may arise not simply from the existence of a hazardous substance but from the method of handling it. All of these possibilities could significantly affect the value of a parcel that is realizable upon a delinquency.

Regulation

Development within the District may be subject to future federal, state and local regulations. Approval may be required from various agencies from time to time in connection with the layout and design of development in the District, the nature and extent of public improvements, land use, zoning and other matters. Failure to meet any such regulations or obtain any such approvals in a timely manner could delay or adversely affect development in the District and property values.

Registered Owners' Remedies and Bankruptcy

In the event of default in the payment of principal of or interest on the Bonds, the Trustee may proceed, and upon the written request of the Registered Owners of not less than fifty-one percent (51%) in principal amount of the Outstanding Bonds and Bonds then Outstanding shall proceed to protect and enforce its rights and the rights of the Owners of the Bonds under the Bond Ordinances and the Trust Agreements by such suits, actions or special proceedings in equity or at law, or by proceedings in the office of any board or officer having jurisdiction, either for the specific performance of any covenant or agreement contained therein or in aid or execution of any power granted or for the enforcement of any proper legal or equitable remedy, as the Trustee, being advised by counsel, shall deem most effectual to protect and enforce such rights. There is no acceleration of maturity of the Bonds in the event of default and, consequently, the remedy of specific performance has to be relied upon from year to year. Based on recent Texas court decisions, it is unclear whether certain legislation effectively waives governmental immunity of governmental entities for suits for money damages. Even if the Registered Owners could obtain a judgment against the Issuer, such a judgment could not be enforced by a direct levy and execution against the Issuer's or the District's property. Further, the Registered Owners cannot themselves foreclose on property within the Issuer or sell property within the Issuer in order to pay the principal of and interest on the Bonds. The enforceability of the rights and remedies of the Registered Owners further may be limited laws relating to bankruptcy, reorganization or other similar laws of general application affecting the rights of creditors of political subdivisions such as the Issuer. In this regard, should the Issuer or the District file a petition for protection from creditors under federal bankruptcy laws, the remedy of mandamus or the right of the Issuer to seek judicial foreclosure of its tax lien would be automatically stayed and could not be pursued unless authorized a federal bankruptcy judge. See "RISK FACTORS - Bankruptcy Limitation to Registered Owners' Rights."

Bankruptcy Limitation to Registered Owners' Rights

The enforceability of the rights and remedies of the Registered Owners may be limited by laws relating to bankruptcy, reorganization or other similar laws of general application affecting the rights of creditors of political subdivisions such as the Issuer and the District. Subject to the requirements of Texas law, the Issuer

or the District may voluntarily proceed under Chapter 9 of the Federal Bankruptcy Code, 11 U.S.C. 901-946, if the Issuer or the District (1) is generally authorized to file for federal bankruptcy protection by Texas law, (2) is insolvent or unable to meet its debts as they mature, (3) desires to effect a plan to adjust such debts, and (4) has either obtained the agreement of or negotiated in good faith with its creditors or is unable to negotiate with its creditors because negotiation is impracticable. Under Texas law, a water control and improvement district, such as the District, must also obtain the approval of the TCEQ prior to filing for bankruptcy. Such legislation requires that the TCEQ investigate the financial condition of such district and authorize the district to proceed only if the district has fully exercised its rights and powers under Texas law and remains unable to meet its debts and other obligations as they mature.

If the Issuer or the District, as the case may be, decides in the future to proceed voluntarily under the Federal Bankruptcy Code, the Issuer or the District, as the case may be, would develop and file a plan for the adjustment of its debts, and the Bankruptcy Court would confirm the plan if (1) the plan complies with the applicable provisions of the Federal Bankruptcy Code, (2) all payments to be made in connection with the plan are fully disclosed and reasonable, (3) the Issuer or the District, as the case may be, is not prohibited by law from taking any action necessary to carry out the plan, (4) administrative expenses are paid in full, and (5) the plan is in the best interests of creditors and is feasible. The rights and remedies of the Registered Owners would be adjusted in accordance with the confirmed plan of adjustment of the Issuer's or the District's, as the case may be, debt.

The District may not be placed into bankruptcy involuntarily.

The Effect of the Financial Institutions Act of 1989 on Tax Collections of the District

The Financial Institutions Reform, Recovery and Enforcement Act of 1989 ("FIRREA"), contains certain provisions which affect the time for protesting property valuations, the fixing of tax liens and the collection of penalties and interest on delinquent taxes on real property owned by the Federal Deposit Insurance Corporation ("FDIC") when the FDIC is acting as the conservator or receiver of an insolvent financial institution.

Under FIRREA (i) real property held by the FDIC shall be subject to foreclosure or sale without the consent of the FDIC and no involuntary liens shall attach to such property, (ii) the FDIC shall not be liable for any penalties, interest, or fines, including those arising from the failure to pay any real or personal property tax when due and (iii) notwithstanding failure of a person to challenge an appraisal in accordance with state law, such value shall be determined as of the period for which such tax is imposed.

There has been no definitive determination of the validity of these provisions of FIRREA or how they are to be construed and reconciled with respect to conflicting state laws. It is also not known whether the FDIC will attempt to claim the FIRREA exemptions as to the time for contesting valuations and tax assessments made prior to and after the enactment of FIRREA. Accordingly, to the extent of FIRREA provisions are valid and applicable to any property in the District or the Improvement District, and to the extent that the FDIC attempts to enforce the same, these provisions may affect the timeliness of collection of taxes on property, if any, owned by the FDIC in the District or the Improvement District, and may prevent the collection of penalties and interest on such taxes.

Future Debt

The Issuer has the right to issue bonds pursuant to the terms of the Contracts, up to an aggregate maximum outstanding amount of $36,000,000 (not including refunding bonds) as specified in the Contracts, for the purposes set forth in the Contracts. In addition, the District may issue such tax bonds as may hereafter be approved by voters within such District. After issuance of the Bonds, except for refunding bonds, no Additional Bonds will remain authorized but unissued pursuant to the Contracts. See "THE BONDS - Legal Ability of the Issuer to Issue Additional Debt" and "- Legal Ability of the District to Issue Additional Debt."

If Additional Bonds are issued by the Issuer pursuant to the Contracts or additional debt is issued by the District secured by taxes in the future and property values have not increased proportionately, such issuance may increase gross debt/property valuation ratios and thereby adversely affect the investment quality or security of the Bonds.

Competitive Nature of Dallas-Fort Worth Residential Housing Market

The housing industry in the Dallas-Fort Worth area is very competitive, and neither the Issuer nor the District can give any assurance that the current building programs will continue, and, if so, at what pace. The competitive position of the Developer in the sale of developed lots or of any other home builder in the construction and sale of single-family residential units is affected by most of the factors discussed in this section, and such competitive position is directly related to tax revenues received by the District and the growth and maintenance of taxable values in the District. In the Dallas/Fort Worth area in the general vicinity of the District, there is currently one directly comparable master planned community in operation, and three developments in the construction or early sales phase whose focus is on residential properties. The closest comparable planned development is Lone Star Ranch in Frisco, Texas, approximately three miles north of the Castle Hills Project, consisting of approximately 6,000 acres, in which homebuilding has commenced. The next closest master planned community is an approximate 2,000 acre development called Twin Creeks in Allen, Texas, approximately five miles north of the Castle Hills Project. Other master planned communities include Stonebridge, an approximate 7,000 acre planned community project in McKinney, Texas and Lantana, an approximate 1,600 acre development north of Flower Mound.

Continuing Compliance with Certain Covenants

The Bond Ordinances and the Trust Agreements contain covenants by the Issuer intended to preserve the exclusion from gross income of interest on the Bonds. Failure by the Issuer to comply with such covenants on a continuous basis prior to maturity of the Bonds could result in interest on the Bonds become taxable retroactively to the date of original issuance. See "TAX EXEMPTION."

Future and Proposed Legislation

Tax legislation, administrative actions taken by tax authorities, or court decisions, whether at the Federal or state level, may adversely affect the tax-exempt status of interest on the Bonds under Federal or state law and could affect the market price or marketability of the Bonds. Any such proposal could limit the value of certain deductions and exclusions, including the exclusion for tax-exempt interest. The likelihood of any such proposal being enacted cannot be predicted. Prospective purchasers of the Bonds should consult their own tax advisors regarding the foregoing matters.

DISTRICT DEBT

General

The following tables and calculations relate to the Bonds. The District is empowered to incur debt to be paid from revenues raised by taxation against all taxable property located within the District, and various other political subdivision of government which overlap all or a portion of the District are empowered to incur debt to be paid from revenues raised or to be raised by taxation against all or a portion of the property within the District.

Bonded Indebtedness*

2017 Assessed Valuation	$280,786,530	(a)
Estimated Valuation at September 1, 2017	_____	(b)
Direct Debt: The Outstanding Bonds	$17,950,000	
The Utility Bonds	11,395,000*	
The Road Bonds	5,905,000*	
Total	$35,250,000*	
Estimated Overlapping Debt	$8,767,735	(c)
Direct and Estimated Overlapping Debt	$44,017,735	(c)
Ratio of Direct Debt to:		
2017 Assessed Valuation	12.55	%
Estimated Valuation at September 1, 2017	____	%
Ratio of Direct and Estimated Overlapping Debt to:		
2017 Assessed Valuation	15.68	%
Estimated Valuation at September 1, 2017	____	%
Utility Interest and Sinking Fund Balance	$77.58	(d)
Road Interest and Sinking Fund Balance	$32.72	(d)
Utility Debt Service Reserve Fund Balance	$1,401,062.36	(e)
Road Debt Service Reserve Fund Balance	$420,951.27	(e)
2017 Tax Rate per $100 of Assessed Valuation	$ 1.00	(f)
Contract Tax $0.63		
Maintenance Tax 0.37		
Average Annual Debt Service Requirements of the Bonds (2018-2037)	$3,094,523	
Maximum Annual Debt Service Requirements of the Bonds (2025)	$3,136,325	
Tax Rate per $100 of Assessed Valuation within the District required to pay Average Annual and Maximum Annual Debt Service Requirements at 95% Tax Collections		
Based Upon 2017 Assessed Valuation	$1.18	
Based Upon Estimated Valuation at September 1, 2017	$____	

(a) Provided by the Denton County Appraisal District (the "Appraisal District"), this amount is the certified value of all taxable property located within the District as of January 1, 2017. This amount constitutes the District's 2017 tax roll. See "TAXING PROCEDURES" and "RISK FACTORS - Factors Affecting Taxable Values and Payments."

(b) Provided by the Appraisal District for informational purposes only, this amount is an estimate of the value of all taxable property located within the District as of September 1, 2017, and includes an estimate of values resulting from the construction of taxable improvements from January 1, 2017, through August 31, 2017. The ultimate assessed valuation of any improvements added from January 1, 2017, through August 31, 2017, will not be included on the District's 2017 tax roll but will be placed on the District's 2018 tax roll, and may vary significantly from such estimate once the Appraisal Review Board certifies the value thereof in 2018.

* Preliminary; subject to change.

(c) See "DISTRICT DEBT - Estimated Direct and Overlapping Debt Statement of the District."

(d) Neither the Bond Ordinances, the Trust Agreements, nor Texas law requires that any particular amount be maintained in the Interest and Sinking Fund at any time.

(e) After issuance of the Bonds. Amounts represents an amount equal to maximum annual debt service on the Bonds. See "THE BONDS - Source of Payment - Debt Service Reserve Funds."

(f) The District expects to levy a tax of $1.00 per $100 of assessed valuation during the year 2017 of which $0.63 was to pay its obligations under the Contracts and $0.37 was for operation and maintenance purposes. As indicated herein, a tax rate of $0.63 is insufficient to pay either the Average Annual or the Maximum Annual Debt Service Requirements of the Bonds based upon the 2017 Assessed Valuation but will be sufficient based upon the Preliminary Taxable Valuation at September 1, 2017. In order for a $0.63 tax rate to be sufficient to pay the Average Annual Debt Service Requirement and the Maximum Annual Debt Service Requirement, assessed values in the District would have to increase to approximately $524,031,000.

Estimated Direct and Overlapping Debt Statement for the District

The following statement indicates the direct and estimated overlapping debt of the District. The table includes the estimated amount of indebtedness of governmental entities overlapping the District, defined as outstanding bonds payable from ad valorem taxes, and the estimated percentages and amounts of such indebtedness attributable to the property located within the District. This information is based upon data secured from the individual jurisdictions and/or the Texas Municipal Reports published by the Municipal Advisory Council of Texas. The calculations by which the statement was derived were made in part by comparing the reported assessed valuation of the property in the overlapping taxing jurisdictions with the Assessed Valuation of property within the District. No effect has been given to the tax burden levied by any applicable taxing jurisdiction for maintenance and operation or other purposes.

Taxing Jurisdiction	Outstanding Debt	As of	Percent	Amount
Denton County	$ 645,305,000	09/30/17	0.23%	$1,484,202
Lewisville ISD	1,213,922,216	09/30/17	0.60	7,283,533
Total Estimated Overlapping Debt				$8,767,735
Total Direct Debt (including the Bonds)				35,250,500
Total Direct Debt and Overlapping Debt				$44,017,735
Ratio of Total Direct and Estimated Overlapping Debt to 2017 Assessed Valuation ($200,786,530)				15.68%

Under Texas law ad valorem taxes levied by each taxing authority other than the District create a lien which is on a parity with the lien in favor of the District on all taxable property within the District. In addition to the ad valorem taxes required to retire the foregoing direct and overlapping debt, the various taxing authorities mentioned above are also authorized by Texas law to assess, levy and collect ad valorem taxes for operation, maintenance, administration and/or general revenue purposes. Certain of the jurisdictions have in the past levied such taxes. The District has the power to assess, levy and collect ad valorem taxes for operation and maintenance purposes if authorized by the District's voters at an election held for such purpose. Voters within the District have authorized a maintenance tax without legal limit as to rate or amount. See "DISTRICT TAX DATA - Maintenance Tax."

Debt Service Requirements*

The following schedule sets forth the principal and interest requirements on the Bonds.

Year	Outstanding Debt Service	The Utility Bonds Principal	The Utility Bonds Interest[1]	The Road Bonds Principal	The Road Bonds Interest[1]	Total Resulting Debt Service
2018	$1,683,500		$488,086		$252,931	$2,424,517
2019	1,683,050	$ 265,000	683,700	$ 145,000	354,300	3,131,050
2020	1,680,425	285,000	667,800	150,000	345,600	3,128,825
2021	1,680,625	300,000	650,700	160,000	336,600	3,127,925
2022	1,683,325	320,000	632,700	170,000	327,000	3,133,025
2023	1,683,225	335,000	614,500	180,000	316,800	3,128,525
2024	1,680,325	355,000	593,400	190,000	306,000	3,124,725
2025	1,684,625	380,000	572,100	205,000	294,600	3,136,325
2026	1,680,500	400,000	549,300	215,000	282,300	3,127,100
2027	1,683,275	425,000	525,300	230,000	269,400	3,132,975
2028	1,682,275	450,000	499,800	245,000	255,600	3,132,675
2029	1,682,550	475,000	472,800	255,000	240,900	3,126,250
2030	1,683,775	505,000	444,300	275,000	225,600	3,133,675
2031	1,680,650	535,000	414,000	290,000	209,100	3,128,750
2032	1,683,150	570,000	381,900	305,000	191,700	3,131,750
2033	1,680,675	605,000	347,700	325,000	173,400	3,131,775
2034	1,683,200	640,000	311,400	345,000	153,900	3,133,500
2035	1,680,100	675,000	273,000	365,000	133,200	3,126,300
2036		1,880,000	232,500	900,000	111,300	3,123,800
2037		1,995,000	119,700	955,000	57,300	3,127,000
Totals	$30,279,250	$11,395,000	$ 9,473,686	$5,905,000	$4,837,531	$61,890,467

Average Annual Requirements (2018-2037) $3,094,523
Maximum Annual Requirements (2025) $3,136,325

(1) Interest estimated at an average rate of 6.00%.

TAX PROCEDURES

AN AMOUNT NOT MORE THAN NINETY-NINE PERCENT (99%) OF THE ORIGINAL PRINCIPAL AMOUNT OF THE BONDS, TOGETHER WITH INTEREST THEREON, IS PAYABLE FROM CONTRACT REVENUES, WHICH ARE PAYABLE FROM THE PROCEEDS OF AN ANNUAL AD VALOREM TAX, WITHOUT LIMITATION AS TO RATE OR AMOUNT, LEVIED AGAINST ALL TAXABLE PROPERTY WITHIN THE DISTRICT. THE FOLLOWING IS A SUMMARY OF CERTAIN PROCEDURES APPLICABLE TO SUCH TAXES.

Preliminary; subject to change.

County-Wide Appraisal District

The Texas Property Tax Code (the "Property Tax Code") establishes an Appraisal District and an appraisal review board in each county of the State of Texas. The Appraisal District is governed by a board of directors elected by the governing bodies of cities, towns and schools that participate in the Appraisal District and of the county. Conservation and reclamation districts such as the District may participate, to a limited extent, in such election. The board of directors selects a chief appraiser to manage the appraisal office of the Appraisal District. All taxing units within Denton County, including the District, are included in the Appraisal District. The Appraisal District is responsible for appraising property within the District, subject to review by the county appraisal review board. The appraisal roll as approved by the county appraisal review board must be used by the District in establishing their tax rolls and tax rate. The valuation and assessment of taxable property within the District is governed by the Texas Property Tax Code.

Under current Texas law, the District is responsible for the levy and collection of its taxes and will continue to be so responsible unless the Board, or the qualified voters of the respective District or of Denton County, at an election held for such purpose determines to transfer such functions to the Appraisal District or another taxing unit.

Exempt Property

Except for certain exemptions provided by Texas law, all real property and tangible personal property held or used for the production of income, mobile homes, and certain categories of intangible personal property with a tax situs in the District are subject to taxation by the District. Principal categories of exempt real property include: property owned by the State of Texas or its political subdivisions, if the property is used for public purposes; property exempt from ad valorem taxation by federal law; nonprofit cemeteries; and certain property owned by qualified charitable, religious, veterans, fraternal, or education organizations. Partially exempt to the maximum extent of $5,000 to $12,000 of assessed value, depending upon the disability rating of the veteran, is property owned by a disabled veteran or by the spouse or certain children of a deceased disabled veteran or a veteran who died while on active duty. A veteran who receives a disability rating of 100% is entitled to the exemption for the full amount of the veteran's residential homestead. Additionally, subject to certain conditions, the surviving spouse of a disabled veteran who is entitled to an exemption for the full value of the veteran's residence homestead is also entitled to an exemption from taxation of the total appraised value of the same property to which the disabled veteran's exemption applied. A partially disabled veteran or certain surviving spouses of partially disabled veterans are entitled to an exemption from taxation of a percentage of the appraised value of their residence homestead in an amount equal to the partially disabled veteran's disability rating if the residence homestead was donated by a charitable organization. Also, the surviving spouse of a member of the armed forces who was killed in action is, subject to certain conditions, entitled to an exemption of the total appraised value of the surviving spouse's residence homestead, and subject to certain conditions, an exemption up to the same amount may be transferred to a subsequent residence homestead of the surviving spouse. Also partially exempt, if approved by the Board or at an election called by the Board upon petition of a least 20% of the number of the qualified voters who voted in such District's preceding election, are residence homesteads of certain persons who are disabled or at least 65 years old to the extent of $3,000 of appraised value or such higher amount as the Board or the District's voters may approve. Each District's tax assessor is authorized by statute to disregard exemptions for the disabled and elderly if granting the exemption would impair such District's obligation to pay tax-supported debt incurred prior to adoption of the exemption by such District.

Residential Homestead Exemptions: The Property Tax Code authorizes the governing body of each political subdivision in the State to exempt up to twenty percent (20%) of the appraised market value of residential homesteads from ad valorem taxation. Where ad valorem taxes have previously been pledged for the payment of debt, the governing body of a political subdivision may continue to levy and collect taxes against the exempt value of the homesteads until the debt is discharged, if the cessation of the levy

would impair the obligations of the contract by which the debt was created. The adoption of a homestead exemption may be considered each year, but must be adopted by June 30. To date, the District has not granted a general homestead exemption.

Freeport Goods Exemption: Freeport goods are goods, wares, merchandise, other tangible personal property and ores, other than oil, natural gas and other petroleum products, which have been acquired or brought into the state for assembling, storing, manufacturing, repair, maintenance, processing or fabricating or used to repair or maintain aircraft of a certified air carrier and shipped out the state within 175 days. Freeport goods are exempted from taxation by the District.

Goods-In-Transit: Article VIII, Section 1-n of the Texas Constitution provides for the exemption from taxation of "goods-in-transit." "Goods-in-transit" is defined by a provision of the Property Tax Code, which is effective for tax years 2008 and thereafter, as personal property acquired or imported into Texas and transported to another location in the State or outside the State within 175 days of the date the property was acquired or imported into Texas. The exemptions excludes oil, natural gas, petroleum products, aircraft and special inventory, including motor vehicle, vessel and out-board motor, heavy equipment and manufactured housing inventory. For tax year 2012 and subsequent years, such Goods-in-Transit Exemption is tangible personal property acquired in or imported into Texas for storage purposes and which is stored under a contract of bailment by a public warehouse operator at one or more public warehouse facilities in Texas that are not in any way owned or controlled by the owner of such property for the account of the person who acquired or imported such property. The Property Tax Code provision permits local governmental entities, on a local option basis, to take official action by January 1 of the year preceding a tax year, after holding a public hearing, to tax goods-in-transit during the following tax year. A taxpayer may receive only one of the freeport exemptions or the goods-in-transit exemptions for items of personal property.

Tax Abatement

The Issuer and Denton County may designate all or part of the area within the District as a reinvestment zone, and Denton County, the Issuer, and the District may thereafter enter into tax abatement agreements with owners of real property within the zone with each taxing jurisdictions' agreement affecting its own tax roll. The tax abatement agreements exempt from ad valorem taxation by the applicable taxing jurisdiction for a period of up to 10 years, all or any part of any increase in the assessed valuation of property covered by the agreement over its assessed valuation in the year in which the agreement is executed, on the condition that the property owner make specified improvements or repairs to the property in conformity with a comprehensive plan. In certain instances, personal property also may be eligible for tax abatement. Currently, none of the area within the District has been designated for tax abatement.

Assessment and Levy

Generally, all taxable property in the District (other than any qualifying agricultural, open space, and timber land) must be appraised at 100% of market value as of January 1 of each tax year, subject to review and approval by the appraisal district appraisal review board. State law requires the appraised value of a residence homestead to be based solely on the property's value as a residence homestead, regardless of whether residential use is considered to be the highest and best use of the property. State law further limits the appraised value of a residence homestead for a tax year to an amount not to exceed the lesser of (1) the property's market value in the most recent tax year in which the market value was determined by the Appraisal District or (2) the sum of (a) 10% of the property's appraised value for the preceding tax year, (b) the appraised value of the property for the preceding tax year; and (c) the market value of all new improvements to the property. However, houses held for sale by a developer or builder which remain unoccupied, are not leased or rented and produce no income, are required to be assessed at the price for which they would sell as a unit to a purchaser who would continue

the owner's business. The Property Tax Code requires each appraisal district to implement a plan providing for reappraisal of all real property in the appraisal district at least once every three years. It is not known what frequency of reappraisal will be utilized by the Appraisal District or whether reappraisals will be conducted on a zone or county-wide basis.

The chief appraiser must give written notice before the appraisal review board meeting to each owner whose property value is recommended for an increase or if the recommended value is greater than the value rendered by the property owner. The appraisal review board has the ultimate responsibility for determining the value of all taxable property within the District; however, any owner who has timely filed notice to the appraisal review board may appeal the final determination by the appraisal review board of the owner's protest by filing suit in Texas district court. Prior to such appeal, however, the owner must pay the tax due on the amount of value of the property involved that is not in dispute or the amount of tax paid in the prior year, whichever is greater, but not to exceed the amount of tax due under the order from which the appeal is taken. In the event of such suit, the value of the property is determined by the court, or a jury if requested by any party. Additionally, the District is entitled to challenge certain matters before the appraisal review board, including the level of appraisals of a certain category of property, the exclusion of property from the appraisal records, or the grant in whole or in part of a partial exemption. The District may not, however, protest a valuation of individual property.

By September 1 of each year, or as soon thereafter as possible, the rate of taxation within the District is set by the respective Board based upon the valuation of property within the District as of January 1 and the amount required to be raised for debt service, maintenance purposes and authorized contractual obligations. Under certain circumstances the Board may be required to advertise and hold a public hearing within the District on a proposed tax rate before the Board can hold a public meeting to vote on the tax rate. If the tax rate adopted exceeds by more than 8% the rate needed to pay debt service and certain contractual obligations and to produce, when applied to the property which was on the prior year's roll, the prior year's total taxes levied for purposes other than debt service and such contractual obligations, such portion of the levy in excess of 3% more than the above-described rate may be repealed at an election within the District held upon petition of 10% of the District's qualified voters.

Agricultural, Open Space, or Timberland Deferment

The Property Tax Code permits land designated for agricultural use or timberland to be appraised at its value based on the land's capacity to produce agricultural or timber products rather than at its fair market value. Provisions of the Property Tax Code are complex and are not fully summarized here. Landowners wishing to avail themselves of the agricultural use designation must apply for the designation, and the appraiser is required by the Property Tax Code to act on each claimant's right to the designation individually. If a claimant receives the designation and later loses it by changing the use of the property or selling it to an unqualified owner, the District can collect "rollback" taxes based on the new use, in some cases, up to five years. A property owner may receive these special exemptions but waive such in particular taxing jurisdictions of the property owner's choice. Hence, a large landowner in a district could enjoy the benefit of the special exemptions with respect to county and school taxes without reducing his obligation to pay district property taxes. The waiver is effective for twenty-five (25) consecutive years, runs with the land and is binding on the owner who executed the waiver and any successor in interest. A governing body can revoke a waiver upon request by the property owner only upon finding that such revocation would not materially impair an obligation payable from property taxes.

As of January 1, 2017, none of the land within the District had been designated for agricultural use, open space or timberland.

District and Taxpayer Remedies

Under certain circumstances, taxpayers and taxing units, including the District, may appeal orders of the Appraisal Review Board by filing a petition for review in district court within forty-five (45) days after notice is received that a final order has been entered. In such event, the property value in question may be determined by the court, or by a jury, if requested by any party. Additionally, taxing units may bring suit against the Appraisal District to compel compliance with the Property Tax Code.

The Property Tax Code establishes a procedure for notice to property owners of reappraisals reflecting increased property values, appraisals that are higher than renditions and appraisals of property not previously on an appraisal roll.

Rollback of Operation and Maintenance Tax Rate

The qualified voters of the District have the right to petition for a rollback of the District's operation and maintenance tax rate only if the total tax bill on the average residence homestead increases by more than eight percent (8%). If a rollback election is called and passes, the rollback tax rate is the current year's debt service and contract tax rates plus 1.08 times the previous year's operation and maintenance tax rate. However, debt service and contract tax rates cannot be changed by a rollback election.

Collection

The District is responsible for the collection of its taxes, unless it elects to transfer such functions to another governmental entity. By September 1 of each year, or as soon thereafter as practicable, the rate of taxation is set by the Board of Directors of the District based upon the valuation of property within the District as of the preceding January 1. Taxes are due on receipt of the tax bill and become delinquent after January 31 of the following year. The date of the delinquency may be postponed by the District if the tax bills are mailed after September 30 (if the Board has authorized discounts for early payment) or otherwise after January 10. The Board may approve a discount for early payment of taxes. Delinquent taxes are subject to 6% penalty for the first month of delinquency, 1% for each month thereafter to August 1 and 12% total if any taxes are unpaid on August 1. Delinquent taxes also accrue interest at the rate of 1% per month during the period they remain outstanding. In addition, in the instance in which a district must engage an attorney for collection of delinquent taxes, the Board may impose a further penalty not to exceed 15% on all taxes unpaid on August 1.

District's Rights in the Event of Tax Delinquencies

Taxes levied by the District are a personal obligation of the person who owns the property on January 1 of the year for which the tax is imposed. On January 1 of each year, a tax lien attaches to property to secure the payment of all taxes, penalties, and interest ultimately imposed for the year upon the property. The District's tax lien is on a parity with the tax liens of the other state and local jurisdictions levying taxes on property within the District. Whether a lien of the United States is on a parity with or takes priority over a tax lien of the District is determined by applicable federal law. In the absence of such federal law, a district's tax lien takes priority over a lien of the United States. In the event a taxpayer fails to make timely payment of taxes due a District, the District may file suit at any time after taxes become delinquent to foreclose its lien securing payment of the tax, to enforce personal liability for the tax, or both. In filing a suit to foreclose a tax lien on real property, the District must join other taxing units that have claims for delinquent taxes against all or part of the same property. Property owners over 65 years of age may defer the payment of property taxes, or abate a suit for their collection, levied against their homesteads. The exercise of such deferrals or abatements could significantly delay the collection of property taxes by the District. See "RISK FACTORS - Factors Affecting Taxable Values and Tax Payments." Collection of delinquent taxes may also be adversely affected by the amount of taxes owed to other federal, state and local taxing jurisdictions, by the effects of market conditions on the foreclosure sales price, by

the taxpayer's right to redeem the property within two years of foreclosure, or by bankruptcy proceedings which may delay the collection of a taxpayer's debts.

ASSESSMENT PROCEDURES

AN AMOUNT AT LEAST EQUAL TO ONE PERCENT (1%) OF THE ORIGINAL PRINCIPAL AMOUNT OF THE BONDS, TOGETHER WITH INTEREST THEREON, IS PAYABLE FROM AND SECURED BY A PLEDGE OF AND LIEN ON SPECIAL ASSESSMENT REVENUES LEVIED BY THE ISSUER ON BENEFITTED PROPERTY WITHIN THE IMPROVEMENT DISTRICT. THE FOLLOWING IS A SUMMARY OF CERTAIN PROCEDURES APPLICABLE TO THE SPECIAL ASSESSMENTS.

Levy of Special Assessments

By ordinance duly adopted (the "Assessment Ordinance"), the Issuer has levied special assessments against all property (except road rights-of-way) located within the boundaries of the Improvement District (the "Special Assessments"). Pursuant to the Assessment Ordinance, the Issuer has levied the Special Assessments in the total amount of $360,000 on the basis of the proportion of the value borne by each tract of land (without regard to any improvements thereon) within the Improvement District to the total value of property within the Improvement District, to be payable in full, at any time, or to be payable in annual installments as set forth in the Service/Assessment Plan and the Assessment Roll. The aggregate amount of Special Assessments assessed to pay a portion (not less than 1%) of the debt service on the Bonds and any Additional Bonds, together with interest thereon, are payable in annual installments which have been established to correspond as nearly as practicable to the debt service on all Outstanding Bonds, the Bonds and any Additional Bonds. Installments of Special Assessments bear interest at a weighted average interest rate based upon the rate borne by the Bonds, subject to adjustment based upon the rate borne by any Additional Bonds. Installments are due when billed and become delinquent on the following February.

Prepayment of Special Assessments

The owner of any property assessed may voluntarily prepay all of part of any Special Assessment levied against any lot or parcel, together with accrued interest to the date of payment, at any time. The Assessment Ordinance requires that each Special Assessment, together with interest accrued thereon, be prepaid in full at such time as the owner of the tract subject to the Special Assessment applies for a building permit to construct a structure on such tract.

Priority of Lien

The assessment or any reassessment, the expense of collection, and reasonable attorney's fees, if incurred, constitute a first and prior lien against the property assessed, superior to all other liens and claims except liens or claims for state, county, city, school districts, or other political subdivision (such as the District), ad valorem taxes, and are a personal liability of and charge against the owners of the property regardless of whether the owners are named. The lien is effective from the date of the Assessment Ordinance until the Special Assessment is paid, and may be enforced by the Issuer in the same manner as an ad valorem tax levied against real property may be enforced by the Issuer. The lien of the Special Assessment runs with the land and any installments of Special Assessments that have not yet come due are not eliminated by foreclosure of an ad valorem tax lien.

Covenant to Commence Foreclosure Proceedings

In the event of delinquency in the payment of any installment of an unpaid Special Assessment, the Issuer is empowered to order institution of an action in state district court to foreclose the lien of such delinquent Special

Assessment. In such action the real property subject to the delinquent unpaid Special Assessment may be sold at judicial foreclosure sale for the amount of such delinquent installments, plus penalties and interest.

Pursuant to the provisions of the Trust Agreements, the Issuer has covenanted to determine or cause to be determined, no later than February 1 of each year, whether or not any installment or installments of Special Assessments are delinquent and, if such delinquencies exist, the Issuer has covenanted to order and cause to be commenced, or cause the Trustee to do so on behalf of the Issuer, on or before June 1, or immediately thereafter, and thereafter diligently prosecute an action in district court to foreclose the currently delinquent lien for the amount of any delinquent installment or installments of Special Assessments. See "APPENDIX C - SUMMARY OF THE TRUST AGREEMENTS."

To the extent it may legally do so, and taking into account the prior liens on assessed land for ad valorem taxes, the Issuer covenants that property will not be sold in a judicial foreclosure for less than the amount of a currently delinquent Special Assessment installment due on the property, including delinquent penalties, interest, and attorney fees, without the consent of the owners of a majority in principal amount of the Bonds, and any Additional Bonds . Any sale of property for nonpayment of an installment or installments of a Special Assessment shall be subject to the lien established for remaining unpaid installments of the Special Assessment against such property and such property may again be sold at a judicial foreclosure sale if the purchaser thereof fails to make timely payment of the nondelinquent installments of Special Assessments against such property as they become due and payable pursuant to the terms of the Assessment Ordinance and the Bond Ordinance.

Judicial foreclosure proceedings are not mandatory; however, the Issuer has covenanted to order and cause such actions to be commenced. In the event a foreclosure is necessary, there could be a delay in payments to owners of the Bonds pending prosecution of the foreclosure proceedings and receipt by the Issuer of the proceeds of the foreclosure sale. It is possible that no bid would received at the foreclosure sale, and in such event there could be an additional delay in payment of the principal of and interest on Bonds or such payment may not be made in full.

DISTRICT TAX DATA

Contract Tax

The Board of Directors of the District is authorized to levy an annual ad valorem tax, without legal limitation as to rate or amount, on all taxable property within the District in sufficient amount to pay amounts due to the Issuer under the Contracts, including principal of and interest on the Bonds and any Additional Bonds payable from taxes which the Issuer may hereafter issue under the Contracts. The District agrees in the Contracts to levy such a tax from year to year as described more fully above under the caption "THE BONDS - Sources of Payment."

Maintenance Tax

The Board of Directors of the District has the statutory authority to levy and collect an annual ad valorem tax for maintenance of the District's improvements and operation of the District, if such maintenance tax is authorized by a vote of the District's electorate. Pursuant to an election held in the District on November 4, 2008, voters within the District authorized the Board to levy a maintenance tax unlimited as to rate or amount and the District has levied such a tax for 2017 at the rate of $1.00 per $100 assessed valuation. Such tax is in addition to taxes which the District is authorized to levy for paying principal of and interest on the Bonds and any tax supported bonds which may be issued in the future. See "DISTRICT TAX DATA - Tax Rate Distribution."

Historical Values and Tax Collection History

The following statement of tax collections sets forth in condensed form the historical assessed valuation and tax collections of the District. Such summary has been prepared for inclusion herein based upon information obtained from District records. Reference is made to such records, including the District's annual audited financial statements, for more complete information. See "APPENDIX G - DISTRICT'S AUDITED FINANCIAL STATEMENTS FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2016."

Tax Year	Assessed Valuation	Tax Rate(a)	Adjusted Levy	% Collections Current & Prior Years(b)	Year Ending 9/30
2013	$ 58,922,795	$1.00	$ 589,227.95	100.00	2014
2014	99,495,449	1.00	994,954.49	100.00	2015
2015	165,646,677	1.00	1,656,466.77	100.00	2016
2016	235,425,698	1.00	2,354,256.98	100.00	2017
2017	280,786,530	1.00	2,807,865.30	99.96	2018

(a) Per $100 of Assessed Valuation.
(b) Such percentages reflect cumulative total collections for each year from the time each respective annual tax was levied through September 30, 2017. The amount of tax collected for each levy on a current basis (by September 30 of the year following each respective levy) is not reflected in this statement.
(c) In process of collection.

Tax Rate Distribution

	2017	2016	2015	2014	2013
Contract Tax	$0.6311	$0.7520	$0.4566	$0.6500	$---
Maintenance Tax	0.3689	0.2480	0.5434	0.3500	1.0000
Total	$1.0000	$1.0000	$1.0000	$1.0000	$1.0000

Analysis of Tax Base

The following table illustrates the composition of property located within the District during the past five years.

Type of Property	2017 Assessed Valuation	2016 Assessed Valuation	2015 Assessed Valuation	2014 Assessed Valuation
Land	$93,569,597	$ 91,879,964	$ 80,155,860	$58,767,730
Improvements	178,876,801	133,133,531	84,652,669	40,450,741
Personal Property	12,386,932	10,855,242	852,125	290,608
Exempt	(4,046,800)	($443,039)	(13,977)	$13,630)
Total	$280,786,530	$235,425,698	$165,646,677	$99,495,449

Exemptions

To date, the Board has not granted any general residence homestead exemption or any exemptions for homesteads of those over sixty-five (65) years of age or disabled. It cannot be predicted what actions future boards may take regarding exemptions.

Principal Taxpayers

Based upon information supplied by the Appraisal District, the following table lists principal taxpayers within the District, type of property owned by such taxpayers, and the Valuation of such property as of January 1, 2017. The information reflects the composition of the Appraisal District's record of property ownership as of January 1, 2017. Information with respect to the composition of property ownership as of January 1, 2017, is not yet available from the Appraisal District.

Taxpayer	Type of Property	2017 Assessed Valuation	As a Percentage of 2017 Assessed Valuation
EGW Castle Hill Investment LP	Land - Commercial	$48,687,500	17.34%
SWC 121/423 LP	Land - Commercial	42,934,605	15.29
CAF TPEG Castle Hills LLC	Land - Commercial	40,492,273	14.42
MREF II Windhaven LLC	Land - Commercial	34,500,000	12.29
BRECO Lands, CH, LLC	Real Estate	27,669,409	9.85
Brookwood Windhaven LLC	Land - Commercial	3,519,092	1.25
Kroger Texas LP	Grocery Store	3,431,849	1.22
Roli Holdings LP	Land - Commercial	2,784,839	0.99
Mountainprize Inc.	Land - Commercial	2,759,752	0.98
NLKH Ventures 2 LLC	Carwashes	1,588,864	0.57
TOTAL		$208,368,183	74.21%

Tax Rate Calculations

The tax rate calculations set forth below are presented to indicate the tax rates per $100 of Assessed Valuation which would be required to meet the maximum debt service requirements on the Bonds payable from Contract Revenues from the District if no growth in the District occurs beyond the 2017 Assessed Valuation or beyond the Preliminary Taxable Valuation as of September 1, 2017. The calculations also assume collection of 95% of taxes levied, the sale of no Additional Bonds by the Issuer other than the Bonds, and no use of funds on hand. Debt service requirements have been calculated based upon the rate borne by the Bonds.

Average Annual Debt Service Requirements $3,094,523
Maximum Annual Debt Service Requirements $3,136,325
Tax Rate of $1.18 on the 2017 Assessed Valuation produces $3,137,617
Tax Rate of $_____ of the Estimated Valuation at September 1, 2017 produces $_____

As the above indicates, a tax rate of $0.63 per $100 of Assessed Valuation will be insufficient to pay the District's share of either Average Annual or Maximum Debt Service Requirements on the Bonds unless taxable values in the District increase beyond the 2017 Assessed Valuation. Assessed values within the District would have to increase to approximately $524,031,000, in order for a tax rate of $0.63 to be sufficient to pay the

District's share of Average Annual Debt Service Requirements and Annual Debt Service Requirements on the Bonds. Any such increase in taxable values depends on the continuing construction and/or sale of residential and commercial projects and other taxable improvements within the District. See "TAX PROCEDURES" and "RISK FACTORS - Factors Affecting Taxable Values and Tax Payments."

Estimated Overlapping Taxes

Property located within the District is subject to taxation by several taxing authorities in addition to the District. Set forth below is a compilation of all 2017 taxes levied upon property located within the District, together with the tax rate for the District for 2017. Under Texas law, ad valorem taxes levied by each taxing authority other than the District entitled to levy taxes against property located within the District create a lien which is on a parity with the tax lien of the District. In addition to the ad valorem taxes required to make the debt service payments on bonded debt of the District and of such other jurisdictions (see "DISTRICT DEBT - Estimated Direct and Overlapping Debt Statement"), certain taxing jurisdictions are authorized by Texas law to assess, levy and collect ad valorem taxes for operation, maintenance, administrative and/or general revenue purposes.

Taxing Jurisdictions	2017 Tax Rate Per $100 of Assessed Valuation
Lewisville Independent School District	$1.4770
Denton County	0.2849
The District	1.0000
Estimated Total Tax Rate	$2.7619

THE ISSUER

The City of Lewisville, Texas (the "Issuer") is a home rule city under the Constitution and laws of the State of Texas. The City, incorporated in 1925, is located in the southeastern portion of Denton County on Interstate Highway 35-E, 20 miles north of Dallas, 34 miles northeast of Fort Worth, 15 miles southeast of Denton and 8 miles north of Dallas-Fort Worth International Airport.

The individuals involved in the administration of the City as are follows:

Elected Officials

City Council	Length of Service	Term Expires	Occupation
Rudy Durham, Mayor	22 years	May, 2018	Chief Appraiser, Denton Central Appraisal District
Brent Daniels, Mayor Pro-Tem	1 year	May, 2018	Owner and Manager, Bahama Buck's
Brandon Jones, Deputy Mayor Pro-Tem	1 year	May, 2018	Senior Internal Auditor, Dallas ISD
R. Neil Ferguson, Councilman	5 years	May, 2018	Technology Consultant
T.J. Gilmore, Councilman	5 years	May, 2019	Public Sector Sales Manager. Waste Management
Bob Troyer	newly elected	May, 2019	Director of Customer Projects, Autosig Systems

Selected Administrative Staff

Name	Position	Length of Service with City
Donna Barron	City Manager	26 years
Brenda Martin	Director of Finance	10 years
Julie Heinze	City Secretary	16 years
Lizbeth Plaster	City Attorney	11 years

THE DISTRICT

Authority

The District was originally part of a district (the "Original District") created as a fresh water supply district by the Commissioners Court of Denton County pursuant to Chapter 53, Texas Water Code and Article XVI, Section 59 of the Texas Constitution. The creation of the Original District was confirmed at an election held within the District on January 17, 1983, by a vote of 10 "For" to 0 "Against." On December 21, 1993, the Original District was converted to a water control and improvement district by actions of its Board of Directors, retaining certain powers under Chapter 53 of the Texas Water Code and operating under the provisions of Chapters 49 and 51, Texas Water Code. On May 6, 1995, pursuant to an election held within the Original District, the Original District was subdivided into Denton County Fresh Water Supply District No. 1-A ("District No. 1-A") and Denton County Fresh Water Supply District No. 1-B (the "District No. 1-B") by a vote of 5 "For" to 0 "Against". Thereafter, on August 9, 1997, the voters within District No. 1-A approved the subdivision of District No. 1-A into District No. 1-A and Denton County Fresh Water Supply District No. 1-C ("District No. 1-C") and on May 11, 1999, the voters within District No. 1-C approved the division of District No. 1-C into District No 1-C and District No. 1-D. In addition, on May 11, 1999, voters within District No. 1-A approved the further division of District No. 1-A into District No. 1-A and Denton County Fresh Water Supply District No. 1-E ("District No. 1-E"). Thereafter, on November 5, 2002, voters within District No. 1-A approved the further division of District No. 1-A into District No. 1-A and Denton County Fresh Water Supply District No. 1-F. In addition, on May 3, 2003, voters within District No. 1-A approved the further division of District No. 1-A into District No. 1-A and the District and on May 10, 2008, voters within District No. 1-A approved the further division of District No. 1-A into District No. 1-A and District No. 1-H. District No. 1-A, District No. 1-B, District No. 1-C, District No. 1-D, District No. 1-E, District 1-F, District No. 1-H and the District, are referred to collectively herein as the "Districts." The rights, powers, privileges, authority, and functions of the District are established by the general laws of the State of Texas pertaining to water control and improvement districts, particularly Chapters 49 and 51, Texas Water Code, as amended. Pursuant to an election passed by a vote of 7 "For" and 0 "Against" on August 8, 1987, the Original District was authorized to exercise sanitary sewer powers and to assume the privileges and functions of a road district under Article III, Section 52 of the Texas Constitution. The principal functions of the District are to finance, construct, own, and operate waterworks, wastewater, drainage facilities, streets and roads and to provide such facilities and services to the customers of the District. If approved by the voters within the District, the TCEQ, and other governmental entities having jurisdiction, the District may establish, operate, and maintain a fire department, independently or with one or more other conservation and reclamation districts, and provide such facilities and services to the customers of the District. The District is subject to the continuing supervision of the TCEQ in certain matters.

Description

As a consequence of the subdivision of the Original District and subsequent additions and exclusions of land, District No. 1-A now contains approximately 1.659 acres and the District contains approximately 307.074 acres.

The remainder of the land comprising the Castle Hills Project lies within District No. 1-B, District No. 1-C, District No. 1-D, District No. 1-E, District No. 1-F, and District No. 1-H. The District is located approximately 25 miles from the central business district of Dallas, Texas in the southeastern portion of Denton County, Texas. The District lies entirely within the extraterritorial jurisdiction of the City of Lewisville. The District is located approximately 11 miles northeast of Dallas/Fort Worth International Airport. Highway 544 is located less than 1/4 mile to the north of the District, Josey Lane is located approximately 1/4 mile to the east of the District, and Hebron Parkway is located approximately 1/4 mile to the south of the District. The District is approximately 5 miles from Lake Lewisville, a 23,280 acre recreational lake adjacent to a 720 acre state park. In addition, the District is approximately two miles from the border of Legacy Business Park, which includes the corporate headquarters of J.C. Penney, Frito-Lay, Dr. Pepper, Beal Bank and other large corporate office complexes. The District lies within the Lewisville Independent School District. See "APPENDIX A - AERIAL PHOTOGRAPH."

Management of the District

The District is governed by the Board, consisting of five directors. The Board has control over and management supervision of all affairs of the respective District. Directors serve four-year staggered terms, and elections are held within the respective District on the first Saturday in May in even-numbered years. The current members and officers of the Board, along with their respective terms of office, are listed below. Director Taylor resides in the District. All other Directors own property located in the District subject to separate notes and deeds of trust in favor of the Developer.

Name	Title	Term Expires
Mark Crouch	President	May, 2020
Michael Raquet	Vice President	May, 2018
Melissa Brand-Vokey	Secretary	May, 2020
Carol Upchurch	Treasurer/Assistant Secretary	May, 2018
Marcus O'Con	Assistant Secretary	May, 2018

The District does not have a general manager or any other employee, but has contracted, or expects to contract, for services as follows:

Tax Assessor/Collector - Land and improvements within the District are appraised for ad valorem taxation purposes by the Denton County Appraisal District. The District contracts with the Denton County Tax Assessor-Collector to perform tax collection services for the District.

Bookkeeper - The District has contracted with District No. 1-A for bookkeeping services. District No. 1-A also provides such services for District No. 1-C, District No. 1-D, District No. 1-E, District No. 1-F, and District No. 1-H.

Auditor - The District's financial statements for the fiscal year ended September 30, 2016, were audited by McCall Gibson Swedlund & Barfoot PLLC, Certified Public Accountants. See APPENDIX F for a copy of the District's September 30, 2016 audited financial statements.

Operations Manager - The District has contracted with District No. 1-A to manage and operate its facilities and bill and collect for the District’s services. District No. 1-A currently employs approximately 32 persons, including 8 licensed operators, to carry out its functions.

Consulting Engineers - The District has employed the firm of Land Design, Inc. Dallas, Texas as Consulting Engineer (the "Engineer") in connection with the design of the System.

Legal Counsel - The District has engaged Winstead PC, Dallas, Texas, as general counsel and as Bond Counsel in connection with the issuance of the Bonds. Such firm also acts as general counsel and Bond Counsel for District No. 1-A, District No. 1-C, District No. 1-D, District No. 1-E, District No. 1-F, and District No. 1-H. Payment to Bond Counsel by the Issuer of legal fees for services rendered in connection with the issuance of the Bonds is based upon a percentage of the Bonds actually issued and sold and therefore such fees are contingent on the issuance, sale and delivery of the Bonds. See "LEGAL MATTERS."

A pension plan has not been established by the District. The District has funded payroll costs to District No. 1-A. District No. 1-A handles pension provisions for its employees.

THE IMPROVEMENT DISTRICT

The Issuer has created and authorized the Improvement District in accordance with the provisions of Chapter 372 of the Texas Local Government Code (the "Improvement District Act"). This statute authorizes municipalities to create public improvement districts within the boundaries or the extraterritorial jurisdiction of the municipality, and to levy assessments within the public improvement district to pay for certain improvements.

On March 21, 2013, the Issuer received a petition signed by the requisite number of landowners, requesting the creation of a public improvement district. The Issuer published a notice as required by Chapter 372 of the Local Government Code and on May 6, 2013, after a hearing, adopted a resolution creating the Improvement District. On March 17, 2014, after published notice and a public hearing, the Issuer also adopted an ordinance approving the Assessment/Service Plan (the "Assessment/Service Plan").

The land within the Improvement District is located within the District. The Improvement District is not a political subdivision of the State of Texas and is governed by the governing body of the Issuer.

Authorized Public Improvements

The Issuer may undertake improvement projects and/or services that confer a special benefit on property located within the Improvement District as provided by the Improvement District Act. The Issuer may levy and collect Special Assessments on property in the Improvement District, payable in periodic installments based on the benefit conferred by the Improvement Project to pay all or part of it cost of improvement projects or services.

A public improvement project may include:

(1) landscaping; the erection of fountains, distinctive lighting and signs; the acquiring, constructing, improving, widening, narrowing, closing or rerouting of sidewalks or of streets, any other roadways or their rights-of-way; acquisition, construction or improvement of water, wastewater or drainage facilities or improvements; acquisition, construction or improvement of libraries; the construction or improvement of pedestrian malls, the establishment or improvement of parks; the acquisition and installation of pieces of art; the acquisition, construction or improvement of off-street parking facilities; and the acquisition, construction improvement or rerouting of mass transportation facilities.

(2) other improvements similar to those described in (1) above;

(3) the acquisition, by purchase or otherwise, of real property in connection with an authorized improvement;

(4) special supplemental services for improvement and promotion of the District, including advertising, promotion, health and sanitation, water and wastewater, public safety, security, business recruitment, development, recreation and cultural enhancements;

(5) payment of expenses incurred in the establishment, administration and operation of the District; and

(6) development, rehabilitation, or expansion of affordable housing.

Assessment/Service Plan

Pursuant to the Improvement District Act, the Assessment/Service Plan has been approved by the Issuer, setting forth a plan for services and activities to be provided in the Improvement District, and setting forth the plan for apportioning the cost of the improvements to be assessed against properties in the Improvement District and for payment of the assessments against exempt municipal property in the Improvement District. The improvements contemplated by the Assessment/Service Plan include:

1. Acquisition or construction of a water distribution system which benefits the Improvement District, connecting to the Upper Trinity Regional Water District's water supply system.

2. Acquisition or construction of a wastewater collection system which benefits the Improvement District, connecting to the Issuer's sanitary sewer collection and treatment system.

3. Acquisition or construction of a stormwater drainage system which benefits the Improvement District.

4. Acquisition or construction of streets or roadways and improvements thereto to provide access to and through all property within the Improvement District.

Under the Improvement District Act, the cost of the improvements may be assessed equally per square foot against all property within the Improvement District, or it may be assessed against property according to the value of the property as determined by the Issuer, with or without regard to structures or other improvements on the property, or it may be assessed on the basis of any other reasonable assessment plant that results in imposing equal shares of the cost on property similarly benefitted. The Issuer has elected to levy an assessment rate based on the valuation method, the proportion of value borne by each tract of land (without regard to any improvements thereon) within the Improvement District to the total value of property in the Improvement District.

The Assessment/Service Plan is updated annually pursuant to Chapter 372, Texas Local Government Code.

Preparing Assessment Roll and Notices

The Issuer has caused the Special Assessments against each parcel of land (except road rights-of-way) within the Improvement District to be determined in accordance with the provisions of the Assessment/Service Plan. The Issuer has also adopted an Assessment Roll. The Issuer has prepared an updated Assessment Roll in connection with the issuance of the Bonds. The update projects the annual indebtedness of the Improvement District and the current lien on property within the Improvement District. The Assessment Roll and all subsequent updates to the Assessment Roll have been filed with the City Secretary and are available for public inspection.

Assessments, Hearing, Levy and Payment

After published notice and public hearing, on March 17, 2014, the Issuer adopted an ordinance (the "Assessment Ordinance") levying the assessments as Special Assessments on the property and specifying the method of payment of the Special Assessments and providing that they be payable in periodic installments and shall continue for the number of years required to retire indebtedness or until the Special Assessments are prepaid in full, whichever occurs first.

Supplemental Assessments

After notice and hearing in the manner required for original assessments or as authorized by Section 372.020 of the Improvement District Act, the Issuer may make supplemental assessments to correct omissions or mistakes in the assessment relating to the total cost of the Authorized Improvements and/or services.

Ownership of Authorized Improvements

In accordance with the Improvement District Act, the Issuer has acquired and constructed, and will acquire the Authorized Improvements. All such Authorized Improvements, including the land and the facilities and infrastructure thereon, have been acquired and constructed and shall be acquired pursuant to the provisions of the Contracts. The Authorized Improvements will become facilities owned by the Issuer and will constitute a portion of the Issuer's infrastructure improvements.

Maintenance of Authorized Improvements

The Issuer will provide for the ongoing maintenance and repair of the Authorized Improvements constructed and conveyed, as outlined in the Assessment/Service Plan, from the date of receipt and acceptance of title to the Authorized Improvements. The cost of such maintenance and repair is required to be paid by the District pursuant to the Contracts.

DEVELOPMENT OF THE DISTRICT AND FUTURE DEVELOPMENT

Development of the District

Land within the District is being developed for single-family and commercial mixed-use projects. Proceeds of the Bonds will be used to pay the costs of acquiring and constructing certain water, sewer, and drainage facilities (the "Utility System") and certain streets and roads (the "Road System") (the Utility System and the Road System, collectively, the "System") to serve a 640 unit apartment complex (100% complete), known as Platinum Castle Hills, on 31.8 acres, a 316 unit apartment complex (100% complete), known as Aura Castle Hills, on 15.8 acres, and 155 single-family lots, known as Castle Hills, Phase 8 (the balance of which is in District No. 1-F). Castle Hills Marketplace, a 50 acre shopping center anchored by a Kroger Signature grocery store and other commercial sites, has approximately 8 acres left to be developed into commercial property. All land projected to be developed as single-family has been completely developed as homes built on all lots. There remains approximately 162.7 additional undeveloped but developable acres within the District, with plans for approximately 145 acres to be developed as a business park with frontage along Highway 121 and Business 121. Approximately 3.5 acres of padsites have been provided with water, sewer, and drainage and are expected to be utilized for future commercial development. The remaining undeveloped acreage, approximately 14.2 acres, is expected to be commercial property once built-out. There is no assurance that proceeds of the Bonds will be sufficient to complete construction of the System. The Developer is under no obligation to complete construction of the System if proceeds of the Bonds are insufficient for such purpose. See "RISK FACTORS - Construction Risks and Facilities Costs" and "THE SYSTEM - Status of Construction."

Community Facilities

Community facilities available to the District and its general geographic area are set forth below:

Churches: There are no churches in the District, however, churches of most denominations are located in the immediate vicinity of the District.

Fire and Police Protection and Emergency Medical Services: Fire and police protection and emergency medical services are provided by the City and a City fire station is located within the Castle Hills Project.

Medical Facilities: Baylor Medical Center is located approximately one mile from the District in the City of Carrollton.

Other Utilities: Electric and gas service are being provided by COSERV and its subsidiaries and telephone and cable service are provided by Grande Communications and Verizon.

Schools: Residents of the District attend Lewisville Independent School District which currently has three elementary schools located in or near the District. A middle school is located contiguous to the western boundary of the Castle Hills Project. Lewisville Independent School District has acquired an additional middle school site approximately 1/4 mile from the District. Hebron High School is approximately 2 miles northeast of the District.

Shopping Facilities: Five grocery stores and several convenience centers are located within a ½ mile radius of the District. Lewisville Towne Crossing, 343,000 square feet of retail development, is located within District 1-F and Vista Ridge Mall, a regional shopping mall, is approximately 4 miles west of the District. In addition, The Shops at Willow Bend, a new regional mall, is located approximately 4 miles east of the District. Stonebriar Mall, a regional mall, is located approximately 5 1/2 miles northeast of the District. A 24,500 square foot village center is located in the District and was completed in November, 2004. Located in District No. 1-D, Castle Hills Village Shops and Plaza Center consists of 48,000 sq. ft. of retail space (79% leased) and approximately 64,000 sq. ft. of office space (100% leased). Four phases of the Castle Hills Village Shops and Plaza Center are complete with one more planned at this location.

Future Development

After the construction of the portions of the Utility System and the Road System to be constructed with proceeds of the Bonds, there remains approximately 170.7 undeveloped but developable acreage within the District. It is expected that such acreage will be developed into commercial mixed-use projects and multi-family projects. The instigation of construction of new taxable improvements will be dependent on several factors including, to a great extent, the general demand for housing and commercial projects in the Dallas/Fort Worth metropolitan area as well as the vicinity of the District and other economic conditions which would affect the Developer's or any other party's ability to sell lots and/or other property and of any home builder to sell completed homes or any commercial developer to construct above-ground improvements. See "RISK FACTORS."

THE CASTLE HILLS PROJECT

Description

The Districts are part of the master planned community known as Castle Hills (the "Castle Hills Project"). Castle Hills Project is a development of Bright Realty (hereinafter defined). See "THE DEVELOPER" below. Castle Hills Project consists of approximately 2,400 acres of land, approximately 307.074 acres of which are located

within the District, approximately 1.659 acres which are located within the boundaries of District No. 1-A, 309.2 acres of which are located within District No. 1-B, 261.4 acres of which are located within District No. 1-C, approximately 490.69 acres of which are located within District No. 1-D, approximately 259.46 acres of which are located within the boundaries of District No. 1-E, approximately 368.942 acres are located within the boundaries of District No. 1-F, and 386.44 acres of which are located within District No. 1-H. According to the Developer, the ultimate land use within the Castle Hills Project is currently projected as follows: approximately 1,526 acres will be subdivided into approximately 4,300 single family lots, approximately 455 acres will be used for the development of commercial mixed-use projects, approximately 207 acres will be developed as multi-family communities, and approximately 212 acres have been developed as an 18 hole golf course and country club known as The Lakes at Castle Hills. Swimming and tennis facilities, drainage, easements, streets rights-of-way, utility easements, open space, lakes, parks and greenbelts are included in the single-family acreage.

Status of Development

As of October 31, 2017, a total of 4,012 lots on approximately 1,222 acres had been developed within the Castle Hills Project. 3,466 homes were occupied, and 106 homes were under construction or permitted for construction. Also completed are 210 acres of commercial development, 212 acres for the 18-hole golf course and country club (The Lakes at Castle Hills), with swimming and tennis facilities and 67 acres of multi-family development. Approximately 10 acres for commercial development, 8 acres for multi-family development, and 71 acres for single-family development are to be constructed on, while approximately 235 acres are available for commercial development and 140 acres are available for multi-family development. All of the current development within the Castle Hills Project has occurred within District No. 1-B, District No. 1-C, District No. 1-D, District No. 1-E, District No. 1-F, District 1-H, and the District.

Funding for the improvements located within the District will be through the issuance of bonds by Lewisville Castle Hills Public Improvement District No. 5, funding for the improvements located within District No. 1-B has been through the issuance of bonds by Castle Hills Public Improvement District No. 1, funding for the improvements located within District No. 1-C will be funded through the issuance of bonds by Lewisville Castle Hills Public Improvement District No. 7, funding the improvements within District No. 1-D has been through the issuance of bonds by Lewisville Castle Hills Public Improvement District No. 2, funding for the improvements with District No. 1-E has been through the issuance of bonds by Lewisville Castle Hills Public Improvement District No. 3, funding for the improvements within District No. 1-F will be through the issuance of bonds by Lewisville Castle Hills Public Improvement District No. 4, and funding for the improvements with District No. 1-H is expected to be through the issuance of bonds by Lewisville Castle Hills Public Improvement District No. 6.

The Lakes at Castle Hills now operates as a private club facility which consists of an 18 hole championship golf course designed by Jay Morrish, along with an approximately 25,000 square foot clubhouse resort style pool, tennis facilities with a tennis pro shop, among other amenities.

Major roadways in or adjacent to the Castle Hills Project which have been completed are: (i) S.H. 121 Sam Rayburn Toll Road; (ii) FM 2281 (Old Denton Road); and (iii) extension of FM 423 (Josey Lane).

A District's tax is levied only on property located within such District, therefore, the investment, security and quality of the Bonds is dependent on the successful development of property within each District, and the payment and collection of taxes levied thereon. Neither the faith and credit nor the taxing power of any of the balance of the Castle Hills Project is pledged to the payment of any obligations of any District or the Issuer, including the Bonds. See "RISK FACTORS."

THE DEVELOPER

Role of the Developer

In general, the activities of a developer in a development such as the District include purchasing the land within the Districts, designing the subdivision, designing the utilities and streets to be emplaced in the subdivision, designing any community facilities to be built, defining a marketing program and building schedule, securing necessary governmental approvals and permits for development, arranging for the construction of roads and the installation of utilities (including, in some cases, water, sewer, and drainage facilities, as well as gas, telephone, and electric service) and selling improved lots and commercial reserves to builders, developers, or other third parties. The relative success or failure of a developer to perform such activities in development of the property within a development may have a profound effect on the security of the combination unlimited tax and revenue bonds issued by a development. A developer is generally under no obligation to a district to develop the property which its owns in a development. Furthermore, there is no restriction on the developer's right to sell any or all of the land which the developer owns within a development. In addition, a developer is ordinarily the major taxpayer within a development during the development phase of the property.

The Developer in the District

The developer of land within the Castle Hills Project and within the District is Bright Realty, LLC (together with certain predecessors and subsidiaries, collectively, "Bright Realty"), which is owned by certain members of the family of the late H.R. ("Bum") Bright and trusts for the benefit of such family members. Bright Realty is acquiring land in the District from a related company, BRECO Lands CH, LLC ("BRECO Lands") as dictated by development needs. Bright Realty and BRECO Lands are collectively referred to as the "Developer."

In addition to being former owners of the Dallas Cowboys football team, the Bright family has been active in real estate, oil & gas, banking, trucking and other areas of business both as an investor and a principal acting as owner/manager of operations.

Beginning in the early 1960's, entities owned by the Bright family built and acquired apartments, developed numerous mixed use subdivisions and built and operated a nursing home. Bright Realty and its predecessors substantially expanded its activities into office buildings and land development projects. A major component of its activities became fee management of distressed properties. Managing its own apartment properties was expanded into managing problems properties for various lending institutions, through Bright Realty's wholly owned subsidiary, Bright Management. At its height, Bright Management was managing real estate properties valued at over $500 million. The types of properties managed ranged from small retail pad sites to apartment complexes, twenty-five office buildings, numerous retail, warehouse and miscellaneous commercial buildings.

Bright Realty and its predecessors has been involved in land acquisition and real estate development for over 40 years. They have been involved as developer, builder and lender in numerous projects during that period of time. These projects have included:

<u>Mixed Use Developments</u>:

500 acre mixed use development in Arlington, Texas
250 acre mixed use development in DeSoto, Texas
200 acre mixed use development in Arlington, Texas

Apartment Complexes:

204 unit apartment complex in Arlington, Texas
300 unit apartment complex in Plano, Texas in Joint Venture with Seafield Capital
130 unit apartment complex in Fort Worth, Texas

Commercial Office Buildings:

143,000 s.f. office building in Dallas, Texas
160,000 s.f. office building in Dallas, Texas
50,000 s.f. office building in Dallas, Texas

Other Developments:

100 unit townhouse project in Plano, Texas with Seafield Capital
60 unit nursing home in Dallas, Texas
50,000 s.f. mixed use development in Lewisville, Texas

Prior to the commencement of the Castle Hills Project, the Developer had no prior experience in the development of single-family subdivisions. The Issuer cautions that the prior development experience described above was, in some instances, undertaken during market conditions which existed in the past and in different geographical locations than the Issuer. Consequently, the prior land development experience of the Developer is no assurance that the development program in the Issuer will be successful.

Developer Principals

Chris Bright (65), Partner. Chris Bright oversees Bright Realty and its parent company Bright Industries. Dallas based Bright Industries includes real estate development (Castle Hills), home building operations (American Legend Homes, Belclaire Homes, Avanti Custom Homes), real estate marketing (Bright Marketing, LLC), hospitality, club and golf operations (The Lakes at Castle Hills) and corporate hospitality (TresMil, LLC). Mr. Bright is a Dallas native who was born and raised in Highland Park. He holds a B.A. from the University of Dallas. He began his career with STM Mortgage Company, where he supervised STM's real estate construction lending operations as well as its commercial loan placement and underwriting. He was served as Vice President of operations for Bright Management. Mr. Bright is active in several Dallas charitable and civic organizations and serves on the board of directors for the University of Dallas, A Weekend to Wipe Out Cancer, Big Brothers Big Sisters of North Texas and the McKinney Avenue Trolley Association. He also serves on the boards of Bright Industries, Bright Realty, Bright & Co. Marketing and American Legend Homes.

Clay Bright (63), Partner. Clay Bright is a member of in Bright Realty's Board of Managers, he also oversees Bright Industries. As president of Bright Industries, Mr. Bright oversees real estate investing, commercial banking, mortgage banking, insurance and home building, and farming and ranching operations, with a focus on operational structure, asset and cash management, strategic planning, tax optimization, safety and soundness. Mr. Bright holds a B.S. in Industrial Distribution from Texas A&M University. He serves on the board of directors for Bright Industries and American Legend Homes. He is involved in local charitable organizations and serves on the board of directors for the Easterwood Foundation and previously on the Association of Former Students of Texas A&M University. He has also been actively involved in Boy Scouts of America.

Development Financing

Certain financial information with respect to Bright Realty is included in Exhibit G hereto. Bright Realty is not responsible for, liable for, and has not made any commitment for payment of the Bonds or other obligations of the District or the Issuer. Bright Realty has no legal commitment to the District, the Issuer, or owners of the

Bonds to continue development of land within the District and may sell or otherwise dispose of its property within the District, or any other assets, at any time. Further, Bright Realty's financial condition is subject to change at any time.

THE SYSTEM

Regulation

According to the District's Engineer, water supply and distribution, wastewater collection, and storm drainage facilities (collectively, the "System") to serve the Castle Hills Project is and will be designed in accordance with accepted engineering practices and the current requirements of various agencies having regulatory or supervisory jurisdiction over the construction and operation of such facilities. The construction of the System is required to be accomplished in accordance with the standards and specifications of such entities and are subject to inspection by each such entity. Operation of the System must be accomplished in accordance with the standards and requirements of such entities. TCEQ exercises continuing supervisory authority over the District. Collection and transmission of the sewage to the City of Lewisville, Texas (the "City") plant and subsequent treatment and discharge is all subject to the regulatory authority of TCEQ and the U.S. Environmental Protection Agency. Construction of drainage facilities is subject to regulation by Denton County and, in some instances, the TCEQ. Denton County, the TCEQ, and the City also exercise certain regulatory jurisdiction over the System. The regulations and requirements of entities exercising regulatory jurisdiction over the System are subject to further development and revision which, in turn, could require additional expenditures in order to achieve compliance. In particular, additional or revised requirements in connection with any permit wastewater collection and transmission system beyond the criteria existing at the time of construction of the system could result in the need to construct additional facilities in the future. The following descriptions are based upon information supplied by the Districts' Engineer.

Water and Sanitary Sewer System

Water Supply Facilities: There are multiple sources of water to serve the District. It is served by the Upper Trinity Regional Water District which delivers to a site immediately south of FM 544, in the vicinity of the Texas Utility transmission lines, treated water at an average daily rate in excess of 14,000,000 gallons per day upon build out and a presently contracted amount of 2,700,000 gallons per day. In addition, the City of Lewisville provides water to serve the District, at an average daily rate of 4,500,000 gallons per day upon build out and a presently contracted amount of 300,000 gallons per day. The System currently has a pumping capacity of 8,000 gallons per minute, with current ground storage of 500,000 gallons, and with elevated storage of 1,500,000 gallons. This system will be adequate for the current and future service to approximately 3,500 single family equivalent connections. In addition to the foregoing, District No. 1-A has an emergency water interconnect with the City of Lewisville and Dallas Water Utilities.

Wastewater Treatment Facilities: Wastewater treatment is provided by the City. A wastewater treatment agreement has been reached among District No. 1-A, District No. 1-B, the Developer and the City by which the City agrees to provide sewage treatment capacity to District No. 1-B and District No. 1-A up to a maximum average of 10,500,000 g.p.d., or approximately 52,500 single-family equivalent connections. In turn, District No. 1-A and District No. 1-B make sewage treatment capacity available to the District out of such capacity.

Drainage Facilities

Drainage facilities to serve the developed areas within the District and a portion of the remaining developable acreage have been designed to outfall into Indian Creek, which traverses the Castle Hills Project and outfalls into the Elm Fork of the Trinity River approximately two miles from the District.

100-Year Flood Plain

According to the Engineer, the Federal Emergency Management Agency ("FEMA") Flood Insurance Rate Map effective April 2, 1997, which covers land located within the District, indicates that approximately no land in the District is within the 100-year floodplain designation.

PURCHASE OF THE BONDS

Raymond James & Associates, Inc., as Placement Agent (the "Placement Agent") has agreed to use its best efforts to place the Bonds with purchasers who are both (i) "Qualified Institutional Buyers" within the meaning of Rule 144A of the United States Securities and Exchange Commission (the "SEC") and (ii) "Institutional Investors" within the meaning of applicable state securities laws (collectively, the "Purchasers") pursuant to a Bond Placement Agreement (the "Bond Placement Agreement") with the Issuer at a price equal to the principal amount thereof. See "PLAN OF FINANCING – Sources and Uses of Funds." The Bond Placement Agreement provides, among other things, that the Purchaser's obligation to make such purchase is subject to the terms and conditions of the Bond Placement Agreement, including approval of certain legal matters by counsel to the Purchaser. For its services as Placement Agent, the Placement Agent is to receive a fee of $_____, payable from proceeds of the Bonds.

The Placement Agent has provided the following sentence for inclusion in this Official Statement. The Placement Agent has reviewed the information in this Official Statement in accordance with, and as a part of, its responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Placement Agent does not guarantee the accuracy or completeness of such information.

LEGAL MATTERS

Legal Opinions

The Issuer will furnish the Purchaser a transcript of certain certified proceedings incident to the authorization and issuance of the Bonds. Such transcript will include a certified copy of the approving opinion of the Attorney General of Texas, as recorded in the Bond Register of the Comptroller of Public Accounts of the State of Texas, to the effect that the Bonds are valid and binding obligations of the Issuer. The Issuer will also furnish the legal opinion of Winstead PC, Bond Counsel, to the effect that, based upon an examination of such transcript, the Bonds are valid and binding obligations of the Issuer under the Constitution and laws of the State of Texas. The legal opinion of Bond Counsel will further state an amount, on a cumulative basis, not less than one percent (1%) of the original principal amount of the Bonds, together with interest thereon, is payable from and secured by a pledge of and lien on the Special Assessment Revenues and that an amount equal to the balance of the original principal amount of the Bonds, together with interest thereon, but in no event to exceed, on a cumulative basis, not more than ninety-nine percent (99%) of the original principal amount of the Bonds, together with interest thereon, is payable from Contract Revenues to be paid by the District pursuant to the Contracts from the levy of ad valorem taxes, without legal limitation as to rate or amount, upon all taxable property located within the District. Bond Counsel's opinion will also address the matters described below under the caption "TAX EXEMPTION." A copy of the opinion of Bond Counsel is attached hereto as "APPENDIX E." Bond Counsel's fees for services rendered with respect to the sale of the Bonds are contingent upon the issuance and delivery of the Bonds. Bond Counsel acts as counsel for the District on matters other than the issuance of Bonds.

In its capacity as Bond Counsel, Winstead PC, has reviewed the information appearing in this Limited Offering Memorandum under the captions "THE BONDS," "THE ISSUER," "THE DISTRICT," "THE IMPROVEMENT DISTRICT,""TAX PROCEDURES," "ASSESSMENT PROCEDURES," "LEGAL MATTERS," "TAX EXEMPTION," "CONTINUING DISCLOSURE OF INFORMATION," "APPENDIX B - DEFINITIONS," "APPENDIX C - SUMMARY OF TRUST AGREEMENTS" "APPENDIX D - SUMMARY OF THE CONTRACTS," and "APPENDIX E - FORM OF BOND COUNSEL OPINION" solely to determine whether such information fairly summarizes the procedures, law and documents referred to therein. Bond Counsel has not, however, independently verified any of the other factual information contained in this Limited Offering Memorandum, nor has Bond Counsel conducted an investigation of the affairs of the Issuer or the District for the purpose of passing upon the accuracy or completeness of the information contained in this Limited Offering Memorandum. Certain legal matters will be passed upon for the Placement Agent by its counsel, McCall, Parkhurst & Horton L.L.P., Dallas, Texas.

The various legal opinions to be delivered concurrently with the delivery of the Bonds express the professional judgment of the attorneys rendering the opinions as to the legal issues explicitly addressed therein. In rendering a legal opinion, the attorney does not become an insurer or guarantor of that expression of professional judgment, of the transaction opined upon, or of the future performance of the parties to the transaction. Nor does the rendering of an opinion guarantee the outcome of any legal dispute that may arise out of the transaction.

No Arbitrage

The Issuer will certify on the date the Bonds are delivered and paid for that based upon all facts and estimates now known or reasonably expected to be in existence, the Issuer reasonably expects that the proceeds of the Bonds will not be used in a manner that would cause the Bonds, or any portion of the Bonds, to be "arbitrage bonds" under Section 148 of the Internal Revenue Code of 1986 (the "Code") and the regulations prescribed from time to time thereunder. Furthermore, all officers, employees and agents of the Issuer have been authorized and directed to provide certifications of facts and estimates that are material to the reasonable expectations of the Issuer as of the date the Bonds are delivered and paid for. In particular, all or any officers of the Issuer have been authorized to certify to the facts, circumstances and reasonable expectations of the Issuer on the date the Bonds are delivered and paid for regarding the amount and use of the proceeds of the Bonds. Moreover, the Issuer will covenant in the Bond Ordinances that it will make such use of the proceeds of the Bonds, regulate investments of proceeds of the Bonds and take such other and further actions and follow such procedures, including without limitation, calculation of the yield on the Bonds, as may be required so that the Bonds will not become "arbitrage bonds" under the Code and the regulations prescribed from time to time thereunder.

No-Litigation Certificate

The Issuer and the District will furnish to the Purchaser a certificate, dated as of the date of delivery of the Bonds, executed by both their authorized officers, to the effect that no litigation of any nature has been filed or is then pending or threatened, of which either has notice, either in state or federal courts, contesting or attacking the Bonds; to restrain or enjoin the issuance, execution or delivery of the Bonds; which would affect the provisions made for the payment of or security for the Bonds; which would in any manner question the authority or proceedings for the issuance, execution, or delivery of the Bonds; or which would affect the validity of the Bonds.

No Material Adverse Change

The agreement of the Purchaser to purchase the Bonds pursuant to the Bond Placement Agreement, and the obligation of the Issuer to deliver the Bonds, are subject to the condition that, up to the time of delivery of and receipt of payment for the Bonds, there shall have been no material adverse change in the financial condition of the Issuer or the District from that set forth or contemplated in the Preliminary Limited Offering Memorandum, as it may have been supplemented or amended, through the date of sale of the Bonds.

TAX EXEMPTION

In the opinion of Winstead PC, Bond Counsel, under existing statutes, regulations, published rulings and court decisions, interest on the Bonds is excludable from the gross income of the Registered Owners of the Bonds for federal income tax purposes. In expressing its opinion that interest on the Bonds is excludable from gross income of the Registered Owners of the Bonds, Bond Counsel will rely on the Issuer's no-arbitrage certificate, and will assume compliance by the Issuer with certain covenants of the Issuer and the District relating to the use of the facilities financed with the proceeds of the Bonds and the use and investment of the proceeds of the Bonds and other funds of the Issuer. Failure of the Issuer or the District to comply with these covenants may cause the interest on the Bonds to become includable in gross income retroactively to the date of issuance of the Bonds.

The law upon which Bond Counsel has based its opinion is subject to change by the Congress, administrative interpretation by the Department of Treasury and to subsequent judicial interpretation. There can be no assurance that such law or the interpretation thereof will not be changed in a manner which would adversely affect the tax treatment of ownership of the Bonds.

Interest on the Bonds for federal income tax purposes (i) will be excludable from gross income, as defined in section 61 of the Internal Revenue Code of 1986, as amended to the date hereof, of the owners thereof pursuant to section 103 of such Code, existing regulations, published rulings, and court decisions thereunder, and (ii) will not be included in computing the alternative minimum taxable income of individuals or, except as hereinafter described, corporations. Interest on the Bonds owned by a corporation will be included in such corporation's adjusted current earnings for purposes of calculating the alternative minimum taxable income of such corporations, other than an S corporation, a qualified mutual fund, a real estate mortgage investment conduit, a real estate investment trust, or a financial asset securitization investment trust (FASIT). A corporation's alternative minimum taxable income is the basis on which the alternative minimum tax imposed by Section 55 of the Code will be compute.

Except as stated above with respect to the exclusion of the interest on the Bonds from gross income, Bond Counsel expresses no opinion as to any federal, state or local tax consequences of acquiring, carrying, owning or disposing of the Bonds.

Prospective purchasers of the Bonds should be aware that the ownership of tax-exempt obligations may result in collateral federal income tax consequences to financial institutions, property and casualty insurance companies, individual recipients of Social Security or Railroad Retirement benefits and taxpayers who may be deemed to have incurred or continued indebtedness to purchase or carry tax-exempt obligations. Prospective purchasers failing within any of these categories should consult their own tax advisors as to the applicability of these consequences.

A copy of the opinion of Bond Counsel is attached hereto as APPENDIX E.

Tax Accounting Treatment of Original Issue Discount Bonds

The initial public offering price to be paid for one or more maturities of the Bonds may be less than the principal amount thereof or one or more periods for the payment of interest on the bonds may not be equal to the accrual period or be in excess of one year (the "Original Issue Discount Bonds"). In such event, the difference between (i) the "stated redemption price at maturity" of each Original Issue Discount Bond, and (ii) the initial offering price to the public of such Original Issue Discount Bond would constitute original issue discount. The "stated redemption price at maturity" means the sum of all payments to be made on the bonds less the amount of all periodic interest payments. Periodic interest payments are payments which are made during equal accrual

periods (or during any unequal period if it is the initial or final period) and which are made during accrual periods which do not exceed one year.

Under existing law, any owner who has purchased such Original Issue Discount Bond in the initial public offering is entitled to exclude from gross income (as defined in section 61 of the Code) an amount of income with respect to such Original Issue Discount Bond equal to that portion of the amount of such original issue discount allocable to the accrual period. For a discussion of certain collateral federal tax consequences, see discussion set forth below.

In the event of the redemption, sale or other taxable disposition of such Original Issue Discount Bond prior to stated maturity, however, the amount realized by such owner in excess of the basis of such Original Issue Discount Bond in the hands of such owner (adjusted upward by the portion of the original issue discount allocable to the period for which such Original Issue Discount Bond was held by such initial owner) is includable in gross income.

Under existing law, the original issue discount on each Original Issue Discount Bond is accrued daily to the stated maturity thereof (in amounts calculated as described below for each six-month period ending on the date before the semiannual anniversary dates of the date of the Bonds and ratably within each such six-month period) and the accrued amount is added to an initial owner's basis for such Original Issue Discount Bond for purposes of determining the amount of gain or loss recognized by such owner upon the redemption, sale or other disposition thereof. The amount to be added to basis for each accrual period is equal to (a) the sum of the issue price and the amount of original issue discount accrued in prior periods multiplied by the yield to stated maturity (determined on the basis of compounding at the close of each accrual period and properly adjusted for the length of the accrual period) less (b) the amounts payable as current interest during such accrual period on such Original Issue Discount Bond.

The federal income tax consequences of the purchase, ownership, redemption, sale or other disposition of Original Issue Discount Bonds which are not purchased in the initial offering at the initial offering price may be determined according to rules which differ from those described above. All owners of Original Issue Discount Bonds should consult their own tax advisors with respect to the determination for federal, state and local income tax purposes of the treatment of interest accrued upon redemption, sale or other disposition of such Original Issue Discount Bonds and with respect to the federal, state, local and foreign tax consequences of the purchase, ownership, redemption, sale or other disposition of such Original Issue Discount Bonds.

SOURCES OF INFORMATION

General

The information contained in this Limited Offering Memorandum has been obtained primarily from the Issuer's and the District's records, the District's Engineer, District No. 1-A, the Developer, the Denton County Appraisal District and other sources believed to be reliable; however, no representation is made by the Issuer or the District as to the accuracy or completeness of the information contained herein, except as described below under "Certification of Limited Offering Memorandum." The information and expressions of opinion herein are subject to change without notice, and neither the delivery of this Limited Offering Memorandum or any sale hereunder shall create any implication that there has been no change in the financial condition or operations of the Issuer described herein since the date hereof. This Limited Offering Memorandum contains, in part, estimates and matters of opinion that are not intended as statements of fact, and no representation or warranty is made as to the correctness of such estimates and opinions or that they will be realized. The summaries of the statutes, resolutions and engineering and other related reports set forth herein are included subject to all of the provisions of such documents. These summaries do not purport to be complete statements of such provisions and reference is made to such documents for further information.

Experts

The information contained in this Limited Offering Memorandum relating to engineering, to the description of the System generally and, in particular, the engineering information included in the sections captioned "THE ISSUER," "DEVELOPMENT OF THE DISTRICT AND FUTURE DEVELOPMENT," "THE CASTLE HILLS PROJECT," and "THE SYSTEM" has been provided by Land Design, Inc. Such information has been included herein in reliance upon the authority of said firm as experts in the field of civil engineering.

The information contained in this Limited Offering Memorandum relating to assessed valuations of property generally and, in particular, that information concerning valuations contained in the sections captioned "TAX DATA" and "DISTRICT DEBT" has been provided by the Denton County Appraisal District.

The audited financial statements of the District for the year ended September 30, 2016, included in APPENDIX F hereto, were prepared by McCall Gibson Swedlund & Barfoot PLLC, Certified Public Accountants, which has consented to the publication of such financial statements in this Limited Offering Memorandum.

Certification of Limited Offering Memorandum

At the time of payment for and delivery of the Bonds, the Issuer will furnish the Purchaser a certificate, executed by the Mayor and City Secretary, acting in their official capacities, to the effect that to their knowledge and belief (a) the information, descriptions and statements of or pertaining to the Issuer contained in this Limited Offering Memorandum, on the date thereof and on the date of delivery were and are true and correct in all material respects; (b) insofar as the Issuer and its affairs, including its financial affairs, are concerned, this Limited Offering Memorandum did not and does not contain an untrue statement of a material fact or omit to state a material fact required to be stated herein or necessary to make the statements herein, in the light of the circumstances under which they were made, not misleading; and (c) insofar as the descriptions and statements, including financial data contained in this Limited Offering Memorandum, of or pertaining to entities other than the Issuer and their activities are concerned, such statements and data have been obtained from sources which the Issuer believes to be reliable and that the Issuer has no reason to believe are untrue in any material respect or omit to state any material fact necessary to make the statements herein, in the light of the circumstances under which they were made, not misleading; however, the Issuer has made no independent investigation as to the accuracy or completeness of the information derived from sources other than the Issuer.

At the time of payment for and delivery of the Bonds, the District will furnish the Purchaser a certificate, executed by the President and Secretary of the Board of the District, acting in their official capacities, to the effect that the best of their knowledge and belief (a) the information, descriptions and statements of or pertaining to the District contained in this Limited Offering Memorandum, on the date thereof and on the date of delivery were and are true and correct in all material respects; (b) insofar as the District and its affairs, including its financial affairs, are concerned, this Limited Offering Memorandum did not and does not contain an untrue statement of a material fact or omit to state a material fact required to be stated herein or necessary to make the statements herein, in the light of the circumstances under which they were made, not misleading; and (c) insofar as the descriptions and statements, including financial data contained in this Limited Offering Memorandum, of or pertaining to entities other than the District and their activities are concerned, such statements and data have been obtained from sources which the District believes to be reliable and that the District has no reason to believe are untrue in any material respect or omit to state any material fact necessary to make the statements herein, in the light of the circumstances under which they were made, not misleading; however, the District has made no independent investigation as to the accuracy or completeness of the information derived from sources other than the District.

Continuing Availability of Financial Information

Pursuant to Texas law, the District will have its financial statements prepared in accordance with generally accepted accounting principles, and will have its financial statements audited by a certified public accountant in accordance with generally accepted auditing standards within 120 days after the close of its fiscal year. The District audit report is filed with the TCEQ within 135 days after the close of its fiscal year. Copies of each audit report are also filed in the office of the District.

The District's financial records and audit reports are available for public inspection during regular business hours at the office of the District and copies will be provided on written request, to the extent permitted by law, upon payment of copying charges. Request for copies should be addressed to the District in care of Bond Counsel.

FORWARD-LOOKING STATEMENTS DISCLAIMER

The statements contained in this Limited Offering Memorandum, and in any other information provided by the Issuer, the District, or the Developer that are not purely historical, are forward-looking statements, including statements regarding the Issuer's, the District's or the Developer's expectations, hopes, intentions, or strategies regarding the future. Readers should not place undue reliance on forward-looking statements. All forward-looking statements included in this Limited Offering Memorandum are based on information available on the date hereof, and none of the Issuer, the District or the Developer assumes any obligation to update any such forward-looking statements. The actual results could differ materially from those discussed in such forward-looking statements.

The forward-looking statements included herein are necessarily based on various assumptions and estimates and are inherently subject to various risks and uncertainties, including risks and uncertainties relating to the possible invalidity of the underlying assumptions and estimates and possible changes or developments in social, economic, business, industry, market, legal, and regulatory circumstances and conditions and actions taken or omitted to be taken by third parties, including customers, suppliers, business partners and competitors, and legislative, judicial, and other governmental authorities and officials. Assumptions related to the foregoing involve judgements with respect to, among other things, future economic, competitive, and market conditions and future business decisions, all of which are difficult or impossible to predict accurately and many of which are beyond the control of the Issuer, the District, or the Developer, as the case may be. Any of such assumptions could be inaccurate and, therefore, there can be no assurance that the forward-looking statements included in this Limited Offering Memorandum will prove to be accurate.

CONTINUING DISCLOSURE OF INFORMATION

The Issuer has, in the Trust Agreements, undertaken (the "Undertaking") for the benefit of the owners and beneficial owners of the Bonds, to provide certain updated financial information and operating data annually, and timely notice of specified material events, to the Municipal Securities Rulemaking Board (the "MSRB") through its Electronic Municipal Market Access ("EMMA") system. In order to obtain from the District the information necessary for the Issuer to comply with the Undertaking, the Issuer has entered into an "Agreement to Provide Certain Information" with the District pursuant to which the District has agreed to provide such information concerning the District and the Developer. The District has entered into a "Continuing Disclosure Agreement" with the Developer pursuant to which the Developer has agreed to provide such information. The Issuer is required to observe the Undertaking for so long as it is obligated to advance funds to pay the Bonds.

Annual Reports

The Issuer shall provide, or cause to be provided, annually to the MSRB, in an electronic format as prescribed by the MSRB, within six months after the end of each fiscal year of the District ending in or after 2017, financial information and operating data with respect to the District of the general type included in the final Limited Offering Memorandum under the headings "DISTRICT DEBT,""DISTRICT TAX DATA, and in APPENDIX F hereto (District's Audited Financial Statements). The Issuer may provide updated information in full text or may incorporate by reference certain other publicly available documents, as permitted by SEC Rule 15c2-12 (the "Rule"). Any financial statements so to be provided shall be (1) prepared in accordance with the accounting principles described in the Bond Ordinances or Trust Agreements, or such other accounting principles as the District may be required to employ from time to time pursuant to state law or regulation, and (2) audited, if the District commissions an audit of such statements and the audit is completed within the period during which they must be provided. If the audit of such financial statements is not complete within such period, then the Issuer shall provide, or cause to be provided, unaudited financial statements of the District by the required time, and shall provide, or cause to be provided, audited financial statements of the District for the applicable fiscal year to the MSRB, when and if the audit report on such statements become available.

In addition, the Issuer has agreed to provide financial information with respect to the Developer, any person or entity to whom the Developer voluntarily assigns (except as collateral) the right to receive a payment out of the proceeds from the sale of the bonds of the Issuer, and each other person or entity, if any, to whom the Issuer voluntarily makes or agrees or has agreed to make a payment out of such proceeds of the general type. The Issuer will be obligated to provide information concerning the Developer and any such other person or entity only if and so long as (1) such person owns more than 20% of the taxable property within the Issuer by value, as reflected by the most recently certified tax rolls (and without effect to special valuation provisions), (2) such person has made tax or other payments to the Issuer which were used or available to pay more than 20% of the Issuer's debt service requirements in the applicable fiscal year of the Issuer, or (3) at the end of such fiscal year of the Issuer such person is obligated to the Issuer to provide or pay for Issuer facilities in an amount which exceeds 20% of the construction costs of said facilities to be financed with proceeds of the Bonds or any future bonds. The financial information to be provided with respect to the Developer is information of the type described in APPENDIX G hereto.

If the District changes its fiscal year, the Issuer will notify the MSRB, or cause the MSRB to be notified, of the change (and of the date of the new fiscal year end) prior to the next date by which the Issuer otherwise would be required to provide financial information and operating data pursuant to this Section. All documents provided to the MSRB pursuant to this Section shall be accompanied by identifying information as prescribed by the MSRB.

Event Notices

Notice of Occurrence of Certain Events, Whether or Not Material . The District will notify the MSRB through EMMA (in an electronic format as prescribed by the MSRB) within ten business days following the occurrence of any of the following events with respect to the Bonds, without regard to whether such event is material within the meaning of the federal securities laws: (1) principal and interest payment delinquencies; (2) unscheduled draws on debt service reserves reflecting financial difficulties; (3) unscheduled draws on credit enhancements reflecting financial difficulties; (4) substitution of credit or liquidity providers, or their failure to perform; (5) adverse tax opinions or the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax-exempt status of the Bonds, or other events affecting the tax-exempt status of the Bonds; (6) tender offers; (7) defeasances; (8) rating changes; and (9) bankruptcy, insolvency, receivership or similar event of an obligated person. (Neither the Bonds nor the Bond Ordinances make any provision for credit enhancement - unless a municipal bond insurance policy is obtained - or liquidity enhancement.)

Notice of Occurrence of Certain Events, If Material. The District also will notify the MSRB through EMMA (in an electronic format as prescribed by the MSRB) within ten business days following the occurrence of any of the following events with respect to the Bonds, if such event is material within the meaning of the federal securities laws: (1) non-payment related defaults; (2) modifications to rights of holders; (3) redemption calls; (4) release, substitution, or sale of property securing repayment of the Bonds; (5) the consummation of a merger, consolidation, or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms; and (6) appointment of a successor or additional trustee or the change of name of a trustee.

Notice of Failure to Timely File. The District also will notify the MSRB through EMMA, in a timely manner, of any failure by the District to provide financial information or operating data in accordance with the provisions described above.

Availability of Information

The Issuer has agreed to provide the foregoing information only to the MSRB. The MSRB intends to make the information available to the public without charge through the EMMA internet portal at www.emma.msrb.org.

Limitations, Disclaimers, and Amendments

The Issuer has agreed to update information and to provide notices of material events only as described above. The Issuer has not agreed to provide, or cause to be provided, other information that may be relevant or material to a complete presentation of the financial results of operations, condition, or prospects of the District, the Developer or agreed to update any information that is provided, except as described above. The Issuer makes no representation or warranty concerning such information or concerning its usefulness to a decision to invest in or sell Bonds at any future date. The Issuer disclaims any contractual or tort liability for damages resulting in whole or in part from any breach of its continuing disclosure agreement or from any statement made pursuant to its agreement, although holders or beneficial owners of Bonds may seek a writ of mandamus to compel the Issuer to comply with its agreement.

The Issuer may amend its continuing disclosure agreement from time to time to adapt to changed circumstances that arise from a change in legal requirements, a change in law, or a change in the identity, nature, status, or type of operations of the Issuer or the District, if but only if the agreement, as amended, would have permitted a purchaser to purchase or sell Bonds in the offering made hereby in compliance with the Rule, taking into account any amendments or interpretations of the Rule to the date of such amendment, as well as such changed circumstances, and either the holders of a majority in aggregate principal amount of the outstanding Bonds consent to the amendment or any person unaffiliated with the Issuer (such as nationally recognized bond counsel) determines that the amendment will not materially impair the interests of the holders and beneficial owners of the Bonds. The Issuer may amend or repeal the agreement if the SEC amends or repeals the applicable provisions of the Rule or a court of final jurisdiction determines that such provisions are invalid or unenforceable, but only to the extent that its right to do so would not prevent the Purchaser from lawfully purchasing the Bonds. If the Issuer so amends the agreement, it has agreed to include with any financial information or operating data next provided in accordance with its agreement described above under "Annual Reports" an explanation, in narrative form, of the reasons for the amendment and of the impact of any change in the type of financial information and operating data so provided.

Compliance with Prior Undertakings

The Issuer has entered into certain undertakings under SEC Rule 15c2-12 with respect to obligations issued by the Issuer for the benefit of Castle Hills Public Improvement District Nos. 2, 3, 4, 5, 6 and 7, the security for which include payments made by Denton County Fresh Water Supply Districts Nos. 1-B, 1-D, 1-E,

1-F, 1-G, 1-H, and 1-C, respectively (collectively, the "Castle Hills Districts"). In those undertakings, the Issuer undertook to provide, or cause to be provided, certain financial and operating information relating to the Castle Hills Districts. In turn, the Castle Hills Districts entered into agreements with the Issuer agreeing to provide to the Issuer such financial and operating information as well as to give notice of any events described above under "Event Notices." During the last five years, the Issuer and the Castle Hills Districts have been in compliance in all material respect with such undertakings and agreements except as follows:

> The audits of District Nos. 1-C, 1-H, and 1-G, for the fiscal year ended 9/30/14 were filed late with unaudited financial statements being filed on 7/16/15, together with a notice of late filing, and audited financial statements being filed on 9/01/15.
>
> The underlying rating on District No. 1-D was upgraded by S&P on 4/21/15 from BBB+ to A- but notice of such upgrade was not timely filed. Such filing has now been made.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK.]

This Limited Offering Memorandum is duly approved by the Governing Body of the Issuer and the Board of Directors of the District as of the date specified on the first page hereof.

CITY OF LEWISVILLE, TEXAS

/s/ _____
Mayor

ATTEST:

/s/ _____
City Secretary

DENTON COUNTY FRESH WATER SUPPLY DISTRICT NO. 1-G

/s/ _____
President, Board of Directors

ATTEST:

/s/ _____
Secretary, Board of Directors

APPENDIX A

AERIAL PHOTOGRAPH
(_____)

SEE ATTACHED

APPENDIX B

DEFINITIONS

The following words and terms, whenever the same appear in the Bond Ordinances, the Trust Agreements or the Joint Utility Contract without qualifying language, and, unless otherwise defined herein, in this Limited Offering Memorandum, are defined to have the meanings set out below, unless the context requires a different interpretation:

Act - means, collectively, the Public Improvement District Assessment Act, as amended, Texas Local Government Code, Chapter 372, as amended.

Additional Bonds - means the additional parity bonds payable from Special Assessment Revenues and payable from Contract Payments in accordance with the Joint Utility Contract which the Issuer reserved the right to issue in the Trust Agreements.

Administrative Expense Fund - means the fund established in the Trust Agreements.

Assessment Ordinance - means, Ordinance No. _____, adopted by the governing body of the Issuer on November 20, 2017, and any amendment or supplement thereto that may be hereafter adopted by the governing body of the Issuer, levying annual Special Assessments to pay the Debt Service Requirements on the Bonds against each eligible parcel of land in the P.I.D. and providing that such Special Assessments together with the Contract Revenues received from the Districts in accordance with the Contracts be paid in periodic installments in amounts necessary to pay the Debt Service Requirements on the Bonds.

Assessment Roll - means the Assessment Roll which is attached to the Assessment/Service Plan as Exhibit "A" to the Assessment Ordinance as amended from time to time in accordance with the Act, which shows, among other things, the properties within the P.I.D. subject to Special Assessments, the amount assessed, and the installment payments on the Special Assessments.

Assessment/Service Plan - means the Assessment/Service Plan prepared in accordance with the Act and approved by the governing body of the Issuer, as part of the Assessment Ordinance, on May 19, 2014, setting for the plan for services and activities to be provided in the P.I.D. and setting for the plan for apportioning the cost of the improvements to be assessed against properties in the P.I.D.

Authorized Expenditures - means the expenditures made for facilities and improvements set forth in Exhibit "A" to the Trust Agreements, but shall not include: (i) any part of the water or sewer system of the City of Lewisville, secured under the outstanding obligations of the City of Lewisville; or (ii) certain facilities which, while owned by the Issuer, are constructed or acquired to perform certain contracts between the Issuer and other entities, including private corporations, municipalities and political subdivisions and are financed by the proceeds of the Issuer's revenue bonds issued particularly to finance facilities needed to perform such contract.

Authorized Improvements - means those improvements acquired with Authorized Expenditures.

Authorized or Permitted Investments - means any investment authorized by the Public Funds Investment Act, Chapter 2256, Texas Government Code.

Bankruptcy or Insolvency of a Person - means commencement by a Person of any voluntary case under any applicable bankruptcy, insolvency or similar law now or hereafter in effect, or any consent by the Issuer to the appointment of or taking of possession by a receiver, liquidator, assignee, trustee, custodian, sequestrator (or other similar official) of a Person or any substantial part of its property, or any general assignment by the Issuer for the benefit of creditors, or failure by a Person generally to pay its debts as they become due.

Bondholder Representative - means, collectively, the Series 2017 Road Bonds Bondholder Representative and the Series 2017 Utility Bonds Bondholder Representative.

Bond Ordinances - means the City of Lewisville ordinances, adopted on November 20, 2017, authorizing the issuance of the Bonds.

Bonds - means, collectively, the Utility Bonds and the Road Bonds authorized by the Bond Ordinances and issued in accordance with the Trust Agreements.

Business Day - means any day which is not a Saturday, Sunday, or a day on which the Trustee is authorized by law or executive order to close, or a legal holiday.

Cede & Co. - means the nominee of DTC in whose name the initial Bonds are to be registered.

City - means the City of Lewisville, Texas, a home rule city organized and operating under Article XI, Section 5 of the Constitution of the State of Texas.

Closing Date - means the date of physical delivery of the initial Bonds for payment in full by the Placement Agent.

Code - means the Internal Revenue Code of 1986, as amended.

Collection Fund - means the fund established in Section 5.1 of the Trust Agreements.

Comptroller - means the Comptroller of Public Accounts of the State of Texas.

Contracts - means, collectively, the Joint Utility Contract and the Joint Road Contract.

Contract Payments or District Contract Payments - means the payments required to be made by the District under the Contracts.

Contract Revenues - means the revenue paid to the Issuer by the District in accordance with the provisions of the Contracts.

Debt Service Requirements - means, as of any particular date of computation, with respect to any Parity Bonds and with respect to any period, the aggregate of the amounts to be paid or set aside from the Interest and Sinking Fund by the Trustee on behalf of the Issuer as of such date or in such period for the payment of the Principal Installment, redemption premium, if any, and interest (to the extent not capitalized) on such Parity Bonds.

Debt Service Reserve Amount - means the lesser of (i) 10% of the principal amount of the Bonds, (ii) the maximum annual debt service requirement of the Bonds, and (iii) 125% of the average annual debt service of the Bonds.

Debt Service Reserve Funds - means the funds so designated and established to Section 5.5 of the Trust Agreements.

District - means Denton County Fresh Water Supply District No. 1-G.

Districts - means, collectively, Denton County Fresh Water Supply District No. 1-A and the District.

DTC - means The Depository Trust Company, New York, New York.

Electronic Means - means telecopy, email, or facsimile transmission or other similar means of communication approved in writing by the Trustee.

EMMA - means the Electronic Municipal Market Access system, a service of the MSRB.

Event of Default - means those events of default provided for in the Trust Agreements.

Fiscal Year - means the twelve (12) month accounting period used by the Issuer which currently ends on September 30, the Fiscal Year may be any twelve (12) consecutive month period established by the Issuer.

Foreclosure Proceeds - means the amounts received from the judicial sale of assessed property within the P.I.D. as a result of the nonpayment of Special Assessments.

Funds - means the Collection Fund, the Interest and Sinking Fund, the Administrative Expense Fund, the Prepayment Fund, the Utility Improvement Fund, the Road Improvement Fund, the Debt Service Reserve Fund, the Special Assessments Prepayment Fund, and the Redemption Fund, but not including the Rebate Fund, created by the Trust Agreements and any accounts in such Funds or Subaccounts.

Governing Body - means the City Council of the City of Lewisville, Texas.

Improvement Funds - means the funds established in the Trust Agreements.

Interest and Sinking Fund - means the interest and sinking fund and accounts created or confirmed in the Trust Agreements.

Interest Payment Date - when used in connection with any Bond, means September 1, 2018, and each March 1 and September 1 thereafter until maturity or prior redemption.

Investment Grade Rating - means a rating on the Bonds, assigned by a Rating Agency in one of such Rating Agency's four highest categories for long-term debt instruments (without regard for gradation within a rating category and without regard for credit enhancement unless such credit enhancement extends through the final maturity date of the Bonds.

Issue Date - means the Closing Date.

Issuer - means the City of Lewisville, Texas, a home rule city organized and operating pursuant to Article XI, Section 5 of the Constitution of the State of Texas.

Joint Road Contract - means that certain 2008 Joint Road Contract effective as of May 19, 2014, by and among the District, District No. 1-A and the Issuer.

Joint Utility Contract - means that certain 2008 Joint Utility Contract effective as of May 19, 2014, by and among the District, District No. 1-A and the Issuer.

Maturity Date - means the date or dates on which principal of the Bonds is scheduled to be paid, as provided in the Bond Ordinance.

MSRB - means the Municipal Securities Rulemaking Board.

Outstanding - as of the date of determination, all Bonds theretofore issued and delivered under the Trust Agreements, except: (i) Bonds theretofore cancelled by the Trustee or delivered to the Trustee for cancellation; (ii) Bonds for whose purchase, payment or redemption money in the necessary amount has been theretofore deposited in an account, other than the Collection Fund with the Trustee in trust for the holders of such Bond; (iii) Bonds in exchange for or in lieu of which other Bonds have been registered and delivered pursuant to the Trust Agreements; and (iv) Bonds alleged to have been mutilated, destroyed, lost or stolen which have been paid as provided in the Trust Agreements.

Owner or Registered Owner - means the Person or entity who is the registered owner of any Outstanding Bond.

Paying Agent/Registrar - means the entity serving as the Trustee when serving as Paying Agent/Registrar.

Person or Person - mean any individual, corporation, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, or government or any agency or political subdivision thereof or any other entity recognized by the laws of the State of Texas.

Placement Agent - means Raymond James & Associates, Inc.

Prepayments - means amounts received as a result of the payment, more than 6 months in advance of the due date thereof, of Special Assessments or Contract Revenues.

Principal Installment - means as of any particular date of computation and with respect to the Bonds, an amount of money equal to the aggregate of (a) the principal amount of Outstanding Parity Bonds of said series which mature on a single future date, reduced by the aggregate principal amount of such Outstanding Parity Bonds, which would at or before said future date be retired by reason of the payment when due and application in accordance with the Bond Ordinances of Sinking Fund Payments payable at or before said future date for the retirement of such Outstanding Parity Bonds, plus (b) the amount of any Sinking Fund Payment payable on said future date for the retirement of any Outstanding Parity Bonds of said series, and said future date is deemed to be the date when such Principal Installment is payable and the date of such Principal Installment.

Principal Office - when used with respect to the Trustee, means the principal office of the Trustee situated in Dallas, Texas, at which the Trustee conducts its corporate business.

Public Improvement District or P.I.D. - means the Lewisville Castle Hills Public Improvement District No. 5.

Rating Agency - mean each of Moody's Investors Service, Standard and Poor's Ratings Services, a Standard & Poor's Financial Services business, Fitch Ratings Inc., and any other Nationally Recognized Statistical Rating Organization recognized as such by the SEC.

Rebate Funds - means the rebate funds created or confirmed in the Bond Ordinances.

Record Date - means, for any Interest Payment Date, the fifteenth (15th) calendar day of the month next preceding such Interest Payment Date.

Redemption Funds - means the redemption funds established or confirmed in the Bond Ordinances.

Register - means the books of registration kept by the Paying Agent/Registrar/Registrar in which are maintained the names and addresses of, and the principal amounts registered to, the Registered Owners.

Road Bonds - means any or all bonds of the $5,905,000*City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project).

Rule - means SEC Rule 15c2-12, as amended from time to time.

SEC - means the United States Securities and Exchange Commission.

Securities Depository - means The Depository Trust Company, New York, New York, or any successor to DTC who serves as a securities depository.

Series 2017 Road Bonds Bondholder Representative – means the Bondholder Representative for the Owners of not less than a majority in principal amount of the Series 2017 Road Bonds then Outstanding, initially ORIX Public Finance, LLC ("ORIX"); provided, however, that if Orix no longer owns a majority of the Series 2017 Road Bonds Outstanding, then such term shall be replaced with a majority of the Owners.

Series 2017 Utility Bonds Bondholder Representative - means the Bondholder Representative for the Owners of not less than a majority in principal amount of the Series 2017 Utility Bonds then Outstanding, initially ORIX; provided, however, that if Orix no longer owns a majority of the Series 2017 Utility Bonds Outstanding, then such term shall be replaced with a majority of the Owners.

Sinking Fund Payment - means the annual payments in the years and amounts provided in the Trust Agreements which are to be made into the Interest and Sinking Fund for the purpose of redeeming the Bonds prior to maturity.

Sinking Fund Payment Date - means the date on which a Sinking Fund Payment is due.

Special Assessments - means the assessments levied against properties in the P.I.D. to pay Debt Service Requirements on the Parity Bonds as set forth in the Assessment/Service Plan which are payable in periodic installments, and may and shall be prepaid, all as provided in the Assessment Ordinance and the Bond Ordinances. Special Assessments also include any supplemental assessments or reassessments levied in accordance with the Act.

Special Assessments Prepayment Fund - means the fund by that name created by the Trust Agreements.

Special Assessment Revenues - means the monies collected from Special Assessments levied against properties in the P.I.D., including interest on Special Assessments during the period a Special Assessment or any installment thereof is current or delinquent, prepayments, foreclosure proceeds, proceeds from a guarantor of the Special Assessments, penalties for non-timely payment of Special Assessments, earnings and income derived from the investment or deposit of moneys in the special funds or accounts created and established for the payment and security of the Bonds shall also constitute Special Assessment Revenues unless required to be deposited into the Rebate Fund for payment to the federal government, in which case, such earnings and investment income will not be Special Assessment Revenues.

Standard & Poor's - means Standard & Poor's Ratings Services, a Standard & Poor's Financial Services LLC business.

Trust Agreements - means, collectively, two separate Master Trust Agreements, each dated as of May 1, 2014, , and each as supplemented by First Supplemental Trust Agreements, dated as of May 1, 2014, a Second Supplemental Trust Agreement (Utility), dated as of December 1, 2015, a Second Supplemental Trust Agreement

*Preliminary; subject to change.

(Roads), dated as of December 1, 2017, and a Third Supplemental Trust Agreement (Utility), dated as of December 1, 2017.

Trust Estate - means the property and assets conveyed to the Trustee pursuant to the granting clauses of the Trust Agreements.

Trustee - means Wilmington Trust, National Association, in Dallas, Texas, a national banking association, and any successor trustee hereunder.

Utility Bonds - means any or all bonds of the $11,395,000*City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project).

*Preliminary; subject to change.

*Preliminary; subject to change.

APPENDIX C

SUMMARY OF TRUST AGREEMENTS

The following is a brief summary of certain provisions of the Trust Agreements and is not intended to be definitive. The summary does not purport to be a complete explanation of all provisions of the Trust Agreements and reference is directed to such document, which is available from the Issuer for the complete text thereof.

General.

The Trust Agreements authorize the issuance of the Bonds, pledge the Contract Payments and Special Assessment Revenues to the repayment of the Outstanding Bonds, and establish separate funds for the disbursement of the proceeds from the Bonds and the repayment (including mandatory tender for purchase and redemption) of the Outstanding Bonds.

Funds.

All Special Assessment Revenues from the P.I.D. (other than interest and investment earnings and those received as a Prepayment of Special Assessments) and all Contract Payments are to be deposited in the Collection Fund. From the Collection Fund the monies are to be transferred upon receipt, as follows:

FIRST: To the Interest and Sinking Fund to meet Debt Service Requirements on the outstanding Bonds for the following year or a greater amount designated by the Issuer with the prior written approval of the District;

SECOND: To the Redemption Fund, any amounts required for redemptions (other than scheduled mandatory sinking fund redemptions) for the year; and

THIRD: To the Debt Service Reserve Fund, an amount necessary, if any, to increase the balance in the Debt Service Reserve Fund to the amount required to be on deposit therein as of the next succeeding Interest Payment Date.

FOURTH: To the Issuer to be used pursuant to the Joint Utility Contract or Joint Road Contract.

All Special Assessment Revenues received as Prepayments of Special Assessments are to be transferred upon receipt to the Special Assessments Prepayment Fund.

After the initial deposits required into the Interest and Sinking Fund and the Debt Service Reserve Fund, all remaining proceeds of the sale of the Bonds which will be deposited into the Improvement Funds established in the Trust Agreements and will be applied to payment of the costs of acquiring and constructing the Facilities together with all expenses incidental thereto, the costs incident to the organization and initial administration of the P.I.D., and the costs of issuance of the Bonds.

Accrued interest, if any, on the Bonds together with capitalized interest on the Bonds from the proceeds of the sale of the Bonds, shall be delivered at closing to the Interest and Sinking Fund. Thereafter, prior to each Interest Payment Date, an amount equal to the full amount of the interest on and principal of the Bonds then falling due shall be transferred from the Collection Fund to the Interest and Sinking Fund and utilized to make the payments to the Bondholders.

The Redemption Funds are the funds into which funds to be used to pay the redemption price in connection with a redemption of the Outstanding Bonds are to be transferred from the Collection Fund as provided in the Trust Agreements.

Investment of Funds.

Money held by the Trustee in any of the accounts established pursuant to the Trust Agreements will be invested in Authorized Investments as defined in the Trust Agreements pursuant to written instructions of the Issuer with the approval of the District.

Trustee Responsibility.

The Trustee may rely and shall be protected in acting, or refraining from acting upon any written notice, instruction, or request furnished to it under the Trust Agreements and believed by it to be genuine and to have been presented by the proper party or parties. The Trustee will not be liable for any action taken by it in good faith and believed by it to be authorized within the rights or powers conferred upon it by the Trust Agreements shall be answerable only for its own negligence and willful misconduct and may consult counsel of its own choice, and shall have full and complete authorization and protection for any action taken or suffered by it under the Trust Agreements in accordance with the opinion of such counsel.

Successor Trustee.

A bank or trust company authorized to perform corporate trust services may be substituted to act as Trustee under the Trust Agreements, if the Trustee resigns, or is removed, dissolved or otherwise becomes incapable of duty. The Trustee or any successor trustee may at any time resign by giving not less than 60 days prior written notice to the owners of all of the outstanding Bonds of the applicable series, and such resignation shall take effect at the end of such sixty (60) days or upon the earlier appointment of a successor trustee approved in writing by the Holders of a majority in aggregate principal amount of the Bonds of the applicable series then outstanding. The holder of any the Bonds of the applicable series outstanding, may apply to any court of competent jurisdiction to appoint a successor trustee. No resignation or removal of the Trustee shall be effective until acceptance of appointment by the successor trustee. Any successor Trustee shall have capital and surplus exclusive of borrowed capital aggregating at least $50,000,000 and shall be subject to examination or supervision by a federal or state banking authority.

If the Trustee consolidates with, merges or converts into, or transfers all or substantially all of its corporate trust business to, another corporation or national banking association, the resulting, surviving, or transferee corporation or national banking association without further act shall be the successor Trustee wit the same effect as if it had been named as the Trustee herein.

Amendment.

The Issuer, without the consent of the Bondholders, may amend the Trust Agreements for any of the following purposes:

a) To grant to or confer upon the Trustee for the benefit of the Bondholders any additional rights, remedies, powers or authority that may be lawfully be granted to or conferred upon the Bondholders or the Trustee or either of them;

b) to authorize the Trustee to perform any and all of the duties of the Trustee under the Trust Agreements;

c) To cure any ambiguity, inconsistency or formal defect or omission in the Bond Ordinance; and

d) To make such additions, deletions or modifications as may be necessary for compliance with Section 148(f) of the Code.

Exclusive of the aforementioned types of amendment, the owners of not less than a majority in aggregate principal amount of the Bonds of the applicable series then outstanding have the right, from time to time, anything contained in the Trust Agreements to the contrary notwithstanding, to consent to and approve the execution by the Trustee, the Issuer of such other amendments as shall be deemed necessary and desirable by the Trustee and the Issuer for the purpose of modifying, altering, amending, adding to, or rescinding, in any particular, any of the terms or provisions contained in the Trust Agreements or in any amendment thereto; provided, however, that no amendment shall permit or be construed as permitting: (i) without the consent of each Bondholder so affected, an extension of the maturity of the principal of or interest on any Bond or any scheduled mandatory redemption; (ii) a reduction in the principal amount of any Bond, or a reduction in the rate of interest thereon or a Sinking Fund Payment; (iii) without the consent of all the Bondholders, a privilege or priority of any Bond over any other Bond; or (iv) a reduction in the aggregate principal amount of the Bonds of the applicable series required for consent to such amendment. Notice of an amendment under this provision must be sent, in writing, to all Bondholders and to the District, and consent must be obtained from 51% in aggregate principal amount of the Bonds of the applicable series outstanding within 90 days following such notice, or a longer period of time prescribed by the Issuer up to 6 months.

Defeasance.

Upon payment of all outstanding Bonds, either at or before maturity, or upon deposit of moneys, or deposit into an adequate escrow of non-callable obligations backed by the full faith and credit of the United States Government, with the Trustee sufficient (together with interest earnings on such investments) with other available funds to redeem all the Bonds at or before maturity, the Bonds will be considered defeased.

APPENDIX D

SUMMARY OF THE CONTRACTS

The following is a brief summary of certain provisions of the 2008 Joint Utility Contract and the 2008 Joint Road Contract (collectively, the "Contracts") and is not intended to be definitive. The summary does not purport to be a complete explanation of all provisions of the Contracts, and reference is directed to the Contracts, which is available from the Issuer for the complete text thereof.

General

The Contracts are agreements among the City of Lewisville (the "Issuer"), Denton County Fresh Water Supply District No. 1-A ("District 1-A") and Denton County Fresh Water Supply District No. 1-C (the "District"). The Contracts contains the terms and conditions under which the Facilities will be financed, constructed and operated.

Terms of Contracts

The Contracts are effective as of May 19, 2014, and continue for so long as any of the Parity Bonds and any Additional Bonds remain outstanding and unpaid, but in no event longer than 40 years from the date thereof.

Responsibilities of Parties

The Issuer is obligated to issue the Bonds to finance, acquire, construct, own, or operate the Facilities. The Issuer agrees to submit a draft of any resolution authorizing the issuance of the Bonds to the District, and obtain its approval before issuing the Bonds and any Additional Bonds.

District 1-A has the primary responsibility as project manager in connection with the construction, acquisition and operation of the Facilities. This responsibility entails designing the Facilities, acquiring easements and sites for the Facilities, awarding and supervising construction contracts.

For each year while the Bonds and any Additional Bonds, or any part of the principal and interest on the Bonds and any Additional Bonds, remain outstanding and unpaid, the District agrees to levy, assess and collect a continuing direct annual ad valorem tax, without limit as to rate or amount on all taxable property within the boundaries of the District to make all payments under the Contracts. The taxes shall be sufficient to make all payments on the Bonds and any Additional Bonds, all charges and fees of the Paying Agent/Registrar or trustee, all costs incident to the Facilities or the Parity Bonds, all payments to special funds or reserve funds established by the Bond Ordinances and Trust Agreements, and all operations and maintenance expenses of the Facilities.

Procedure for Calculating Annual Tax Rate

Under the Contracts, the District shall, prior to setting its tax rate each year, calculate the amount of the payments to be made to the Issuer during the forthcoming year.

Subject to any limitation imposed by the Bond Ordinances or the Trust Agreements, the District has the right to acquire the Facilities at any time during the term of the Contracts by paying to the Issuer the amount necessary to repay, redeem, refund or defease the Bonds and any Additional Bonds, together with all costs incident thereto. The District is required to furnish written notice to the Issuer no less than 60 days prior to the exercise of this right.

Remedies

In addition to all remedies provided by the laws of the State of Texas, the District covenants and agrees that, if that the District defaults in the payment of any of the amounts required to be paid under the Contracts or defaults in the performance of any of the obligations of the Contracts, the Issuer or the Trustee shall be entitled to a writ of mandamus requiring performance of the obligation.

Approved by Voters

At an election conducted on November 4, 2008, the Contracts were approved by the voters within the District.

APPENDIX E

FORM OF BOND COUNSEL'S OPINION

APPENDIX F

DISTRICT'S AUDITED FINANCIAL STATEMENTS FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2016

APPENDIX G

FINANCIAL INFORMATION CONCERNING THE DEVELOPER

The Developer has delivered the financial information included in this APPENDIX G (the "Financial Information") to the District for publication in connection with the District's offer and sale of the Bonds. The Financial Information has been included herein solely as additional information concerning the financial condition and capability of the Developer. Such Financial Information is relevant, among other reasons, to the Developer's ability to continue developing its land within the District and to pay ad valorem taxes thereon, and to preserve its financial investment in the District. See "THE DEVELOPER". The Developer is not responsible for, liable for, and has not made any commitment for payment of the Bonds or other obligations of the District or the Issuer and the inclusion of the Financial Information herein should not be construed as an implication to that effect. The Developer has no legal commitment to the District, the Issuer, or holders of the Bonds to continue development of land within the District and may sell or otherwise dispose of property within the District, or any other assets, at any time. Further, the Developer's financial condition is subject to change, and, except as stated in this Limited Offering Memorandum under the section captioned "CONTINUING DISCLOSURE OF INFORMATION," financial information concerning the Developer will not be provided by the District after the sale of the Bonds. Therefore, the District cautions that the Financial Information should not be construed or interpreted as an indication of the investment security of the Bonds.

The Developer has represented to the District that the Financial Information has been prepared from its books and records, has been prepared in accordance with generally accepted accounting principles, fairly represents the financial condition of the Developer as the date indicated, and does not fail to disclose any material fact or omit to state any material facts necessary to make such Financial information not misleading and that there has not been any material adverse change in the financial condition of the Developer since the date on which the financial information is presented.

The following financial information of the Developer is included in this Appendix G:

Bright Realty

1. Audited Financial Statements as of December 31, 2016 and 2015
2. Unaudited Balance Sheet as of _____, 2017

APPENDIX H

FORM OF INVESTMENT LETTER

_____, 2017

City of Lewisville, Texas
Lewisville, Texas

Denton County Fresh Water Supply District No. 1-G
Lewisville, Texas

Raymond James & Associates, Inc.
Dallas, Texas

City of Lewisville, Texas
Combination Contract Revenue and Special Assessment
Utility System Bonds,
Series 2017
(Lewisville Castle Hills Public Improvement District No. 5 Project)

and

City of Lewisville, Texas
Combination Contract Revenue and Special Assessment
Road System Bonds,
Series 2017
(Lewisville Castle Hills Public Improvement District No. 5 Project)

Ladies and Gentlemen:

In connection with our purchase of $_____ Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Utility Bonds") and $_____ Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Road Bonds", and together with the Utility Bonds, , the "Bonds:), issued by the City of Lewisville, Texas (the "Issuer"), pursuant and subject to the terms and provisions of that certain Master Trust Agreement, First Supplemental Trust Agreement, Second Supplemental Trust Agreement, and Third Supplemental Trust Agreement relating to the Utility Bonds, by and between the City of Lewisville, Texas and Wilmington Trust, N.A., as Trustee and the Ordinance of the City authorizing the issuance of the Utility Bonds, and pursuant to the Master Trust Agreement, First Supplemental Trust Agreement, and Second Supplemental Trust Agreement relating to the Road Bonds, by and between the City of Lewisville, Texas and Wilmington Trust, N.A., as Trustee, we certify, represent and warrant to you as follows:

1. We acknowledge that we have agreed to purchase the Bonds directly from the Issuer.

2. We are (a) a "qualified institutional buyer" within the meaning of Rule 144A promulgated under the Securities Act of 1933, as amended (the "Act") and (b) an "institutional investor" within the meaning of applicable state securities laws. We have experience and expertise in the purchase and ownership of obligations similar to the Bonds. We are duly and validly organized under the laws of our jurisdiction of incorporation or organization. We are capable of evaluating the merits and risks of the purchase of the Bonds on the bases of the information and review of the materials described in paragraph (3) below. We understand fully the nature of

this particular investment in the Bonds and the risks associated with the investment, including the risks that no secondary market may exist with respect to the Bonds. We can bear the economic risk of the purchase of the Bonds.

3. We have (a) received and thoroughly read and evaluated the Limited Offering Memorandum, including the appendices thereto, dated _____, 2017, relating to the offering of the Bonds, and (b) been given the opportunity (i) to ask questions of, and receive answers from, the management of the Issuer, Denton County Fresh Water Supply District No. 1-A, Denton County Fresh Water Supply District No. 1-C, and Bright Realty, LLC concerning their operations and financial conditions and the terms and conditions of the Bonds and (ii) to obtain such additional information (including, without limitation, financial information, appraisals, and projections) as we have requested and that we deem necessary in our decision to purchase the Bonds. We recognize that the Limited Offering Memorandum may not contain all information necessary or desirable for analyzing the risks involved in the purchase of the Bonds. We have relied on information contained in the Limited Offering Memorandum as part of our decision to purchase the Bonds. We are able and willing to bear the economic risks of the purchase and ownership of the Bonds.

4. We are purchasing the Bonds for our own account and not for the account of others or for resale. In any event, if we sell, or issue a participation in, any Bonds, we will comply with all applicable federal and state securities laws and, unless the Bonds are then rated in one of the four highest rating categories by a nationally recognized rating service, will offer and sell the Bonds only to one or more "qualified institutional buyers" as defined in Rule 144A promulgated under the Act. We have no current intention of reselling or disposing of the Bonds or engaging in any "distribution" thereof, but retain the right to do so in the future.

5. We recognize that, except (i) as set forth in the Limited Offering Memorandum and (ii) as otherwise set forth in the Bond Purchase Agreement and the documents delivered pursuant thereto in connection with the issuance of the Bonds, no representations or warranties as to the accuracy or the adequacy of the information in the Limited Offering Memorandum or otherwise provided to us have been made by the Issuer, Winstead PC, as bond counsel, Hilltop Securities Inc., as financial advisor to the Issuer, or Bracewell & Giuliani LLP, as counsel to the Issuer, Raymond James & Associates, Inc. as the underwriter, or McCall, Parkhurst & Horton, LLP, as counsel to the underwriter.

6. To the extent this Investment Letter is a contract for goods or services within the meaning of Section 2270.002 of the Texas Government Code, as amended, and pursuant to Chapter 2270, Texas Government Code, and solely for purposes relating to Chapter 2270, Texas Government Code, the Purchaser verifies that it does not boycott Israel and agrees that it will not boycott Israel through the delivery date of the Bonds. Additionally, pursuant to Chapter 2252, Texas Government Code, the Purchaser certifies that it is not a company that contracts with or provides supplies or services to a foreign terrorist organization, as defined by Section 2252.151(2), Texas Government Code, and has not been identified as a company known to have contracts with or provide supplies or services to a foreign terrorist organization as identified on a list prepared and maintained under Section 2270.0201 or 2252.153, Texas Government Code. At the request of the Issuer, the Purchaser agrees to execute further written certifications as may be necessary or convenient for the Issuer to establish compliance with these laws.

7. We recognize that the statements set forth in this letter are being relied upon by the parties involved in the issuance and sale of the Bonds and such statements shall survive the execution and delivery to us of the Bonds and the instruments and documents contemplated thereby.

8. Purchaser understands that the Bonds are not rated by any nationally recognized rating service.

Sincerely,

[PURCHASER]

By _____

Name: _____

Title: _____

APPENDIX I

[FORM OF TRANSFEREE LETTER]

City of Lewisville, Texas
1197 W. Main at Civic Center
Lewisville, Texas 75209

Wilmington Trust, National Association
15950 North Dallas Parkway, Suite 550
Dallas, Texas 75248

City of Lewisville, Texas
Combination Contract Revenue and Special Assessment
[Utility System] [Road System] Bonds,
Series 2017
(Lewisville Castle Hills Public Improvement District No. 5 Project)

Ladies and Gentlemen:

In connection with the purchase of $_____ par amount of the City of Lewisville, Texas Combination Contract Revenue and Special Assessment [Utility System] [Road System] Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Bonds"), the undersigned purchaser of the Bonds (the "Purchaser") hereby acknowledges, represents and warrants to, and agrees with the City of Lewisville, Texas and Wilmington Trust, National Association, as Paying Agent/Registrar for the Bonds, as follows:

(i) The Purchaser is a "Qualified Institutional Buyer" within the meaning of Rule 144A of the United States Securities and Exchange Commission and is an "Institutional Investor" within the meaning of applicable state securities laws; and

(ii) The Purchaser is not acquiring the Bonds for more than one account or with a view to distribution thereof, provided that the Purchaser reserves the right to sell, pledge, dispose, convey or otherwise transfer the Bonds at some future date determined by the Purchaser, provided that any such transferee shall be required to execute a Transferee Letter in the form of this letter as a condition to any transfer of the Bonds.

Very truly yours,

[PURCHASER]

By: _____

$_____
CITY OF LEWISVILLE, TEXAS
COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT
UTILITY SYSTEM BONDS
SERIES 2017
(LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT)

AND

$_____
CITY OF LEWISVILLE, TEXAS
COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT
ROAD SYSTEM BONDS
SERIES 2017
(LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT)

BOND PLACEMENT AGREEMENT

_____, 2017

Honorable Mayor and City Council
City of Lewisville, Texas
c/o Winstead PC
500 Winstead Building
2728 N. Harwood Street
Dallas, Texas 75201

Dear Mayor and City Council Members:

The undersigned (the "Placement Agent") offers to enter into this Bond Placement Agreement with the City of Lewisville, Texas (the "Issuer") and Denton County Fresh Water Supply District No. 1-G (the "District"). This offer is made subject to the Issuer's acceptance of this Bond Placement Agreement on or before 10:00 p.m., Dallas Time on the date hereof.

1. **Offering of the Bonds**. Upon the terms and conditions and upon the basis of the representations set forth herein, the Placement Agent hereby agrees to use its best efforts to assist the Issuer in placing the referenced bonds consisting of $_____ City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Utility Bonds") and $_____ City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Road Bonds") (the Utility Bonds and the Road Bonds, collectively, the "Bonds") with sophisticated investors. As compensation for its services, the Placement Agent will receive a total fee of $_____ upon the delivery of the Bonds to the initial purchasers thereof, Orix USA (the

"Purchaser"), against payment of the purchase price thereof, as specified in Section 6 hereof (the "Closing"). The Bonds shall have the dated date, the maturities and bear interest from the dates at the rate or rates per annum as shown on the cover page of the Limited Offering Memorandum (hereinafter defined), such interest being payable as shown on the cover page of the Limited Offering Memorandum. The Issuer acknowledges and agrees that (i) the placement of the Bonds pursuant to this Bond Placement Agreement is an arm's-length commercial transaction between the Issuer and the Placement Agent, (ii) in connection with such transaction, the Placement Agent is acting solely as a principal and not as an advisor, including, without limitation, a Municipal Advisor (as such term is defined in Section 975(e) of the Dodd-Frank Wall Street Reform and Consumer Protection Act), agent or a fiduciary of the Issuer, (iii) the Placement Agent has not assumed (individually or collectively) a fiduciary responsibility in favor of the Issuer with respect to the placement of the Bonds or the process leading thereto (whether or not the Placement Agent has advised or is currently advising the Issuer on other matters) or any other obligation to the Issuer except the obligations expressly set forth in this Agreement, (iv) the Placement Agent has financial and other interests that differ from those of the Issuer and (v) the Issuer has consulted with its own legal and financial advisors to the extent it deemed appropriate in connection with the offering of the Bonds.

2. **Bond Ordinance**. The Bonds shall be authorized and issued pursuant to two separate Bond Ordinances each adopted by the Issuer on November 20, 2017 (the "Bond Ordinance"). The Bonds shall be as described in and shall be secured and payable as provided in the Bond Ordinance, two separate Master Trust Agreements, each dated as of May 1, 2014, and each as supplemented by First Supplemental Trust Agreements, dated as of May 1, 2014, a Second Supplemental Trust Agreement (Utility), dated as of December 1, 2015, and a Second Supplemental Trust Agreement (Roads), dated as of December 1, 2017, and a Third Supplemental Trust Agreement (Utility), dated as of December 1, 2017 (collectively, the "Trust Agreements"), between the Issuer and Wilmington Trust, National Association (the "Trustee"), and a 2008 Joint Utility Contract and a 2008 Joint Road Contract, each dated May 19, 2014 (collectively, the "Contracts") among the Issuer, Denton County Fresh Water Supply District No. 1A ("District No. 1A"), and the District.

3. **Limited Offering Memorandum**. Exhibit A hereto is the Limited Offering Memorandum, including the cover page and Appendices thereto, of the District, dated November __, 2017 (together with the Preliminary Limited Offering Memorandum, dated November __, 2017 (the "Limited Offering Memorandum"), with respect to the Bonds. The District hereby authorizes the Placement Memorandum and the information therein contained to be used by the Placement Agent in connection with the placement of the Bonds.

4. **Representations, Warranties and Agreements of the Issuer**. On the date hereof, the Issuer represents, warrants and agrees as follows:

(a) The Issuer is a home rule city created pursuant to the Constitution and laws of the State of Texas and has full legal right, power and authority (i) to issue the Bonds described in the Bond Ordinance, the Contracts, the Trust Agreements and this Bond Placement Agreement, (ii) to authorize and approve the Preliminary Limited Offering Memorandum and the Limited Offering Memorandum and to authorize and approve their distribution by the Placement Agent,(iii) to adopt the Bond Ordinance and to carry out and

consummate the actions contemplated thereby, and (iv) to carry out and consummate all other transactions contemplated by each of the aforesaid documents;

(b) The Issuer has duly created and established the Lewisville Castle Hills Public Improvement District No. 5 (the "Improvement District") pursuant to Chapter 372, Texas Local Government Code and the Issuer has full legal right, power, and authority to levy, assess, and collect the special assessments in accordance with City of Lewisville Ordinance No. _____ (the "Assessment Ordinance").

(c) The Issuer has complied, and will be at the date of Closing in compliance, in all material respects, with the Constitution and laws of the State of Texas in connection with the authorization, issuance and sale of the Bonds;

(d) By official action of the Issuer prior to or concurrently with the acceptance hereof, the Issuer has duly adopted the Bond Ordinance, has duly authorized and approved the execution and delivery of the Bonds, the Trust Agreements, the Contracts and this Bond Placement Agreement, and has duly authorized and approved the performance of its obligations contained in the Bond Ordinance, the Trust Agreements, the Contracts, and this Bond Placement Agreement;

(e) To the knowledge of the Issuer, the Issuer is not in breach of or default in any material respect under any applicable law or administrative regulation of the State of Texas or the United States or any applicable judgment or decree or any loan agreement, note, resolution, agreement or other instrument, except as may be disclosed in the Limited Offering Memorandum, to which the Issuer is a party or is otherwise subject, which would have a material and adverse effect upon the Bonds; and the execution and delivery of the Contracts, the Trust Agreements, and this Bond Placement Agreement by the Issuer and the execution and delivery of the Bonds and the adoption of the Bond Ordinance by the Issuer and compliance with the provisions of each thereof will not violate or constitute a material breach of or default under any existing law, administrative regulation, judgment, decree or any agreement or other instrument to which the Issuer is a party or, to the knowledge of the Issuer, is otherwise subject;

(f) All approvals, consents and orders of any governmental authority or agency having jurisdiction which approval, consent or order would constitute a condition precedent to the performance by the Issuer of its obligation to issue the Bonds hereunder will have been obtained prior to the Closing;

(g) The Preliminary Limited Offering Memorandum did not, and at the time of the Issuer's acceptance hereof, insofar as the Issuer and its affairs, including its financial affairs, are concerned, the Limited Offering Memorandum does not, and at the time of the Closing, the Limited Offering Memorandum will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading;

(h) Between the date of this Bond Placement Agreement and Closing, the Issuer will not, without the prior written consent of the Placement Agent, issue any additional bonds, notes or other obligations for borrowed money payable in whole or in part from payments under the Contracts or special assessments on the property located within the District;

(i) No litigation is pending or, to the knowledge of the Issuer, threatened in any court affecting the existence of the Issuer, the title of its officers to their respective offices, or seeking to restrain or enjoin the issuance or delivery of the Bonds, the levy or the collection of the special assessments pledged or to be pledged to make payments on the Bonds, or in any way contesting or affecting the issuance, execution, delivery, payment, security or validity of the Bonds, or in any way contesting or affecting the validity or enforceability of the Bond Ordinance, the Trust Agreements, the Contracts, or this Bond Placement Agreement, or contesting the powers of the Issuer, or any authority for the Bonds, the Bond Ordinance, the Trust Agreements, the Contracts, or this Bond Placement Agreement or contesting in any way the completeness, accuracy or fairness of the Limited Offering Memorandum;

(j) The descriptions contained in the Limited Offering Memorandum of the Issuer and the Improvement District are true and correct in all material respects; and

(k) If after the date of this Bond Placement Agreement to and including the date of Closing, an event occurs of which the Issuer has knowledge and which would cause the Limited Offering Memorandum to contain any untrue statement of a material fact or to omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, the Issuer shall notify the Placement Agent, and if in the opinion of the Issuer or the Placement Agent such event requires a supplement or amendment to the Limited Offering Memorandum, or if it is necessary to amend or supplement the Limited Offering Memorandum to comply with laws, the Issuer will supplement or amend the Limited Offering Memorandum in a form and in a manner jointly approved by the Issuer and the Placement Agent, such that the Limited Offering Memorandum as so supplemented or amended will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which made, not misleading. If such supplement or amendment shall be subsequent to the Closing, the Issuer shall furnish such certificates, instruments and other documents as the Placement Agent may deem necessary to evidence the truth and accuracy of such supplement or amendment to the Limited Offering Memorandum.

5. **Representations, Warranties and Agreements of the District**. On the date hereof, the District represents, warrants and agrees as follows:

(a) The District was created by an election held on May 3, 2003, and operates as a water control and improvement district pursuant to Article XVI, Section 59 of the Texas Constitution and Chapters 49 and 51, Texas Water Code, as amended, with certain reserved powers under Chapter 53, Texas Water Code, as amended, and has full legal right, power and authority (i) to enter into the Contracts and this Bond Placement Agreement, (ii) to authorize

and approve the Preliminary Limited Offering Memorandum and the Limited Offering Memorandum and to authorize and approve its distribution by the Placement Agent, (iii) to approve the form of the Bond Ordinance, (iv) to enter into this Bond Placement Agreement, and (v) to carry out and consummate all other transactions contemplated by each of the aforesaid documents;

(b) The District has complied, and will be at the date of Closing in compliance, in all material respects, with the Constitution and laws of the State of Texas in connection with the Contracts and the performance of its obligations thereunder;

(c) By official action of the District prior to or concurrently with the acceptance hereof, the District has duly authorized and approved the execution and delivery of the Contracts and this Bond Placement Agreement, and has duly authorized and approved the performance by the District of its obligations contained in the Contracts and this Bond Placement Agreement;

(d) To the knowledge of the District, the District is not in breach of or default under any applicable law or administrative regulation of the State of Texas or the United States or any applicable judgment or decree or any loan agreement, note, resolution, agreement or other instrument, except as may be disclosed in the Limited Offering Memorandum, to which the District is a party or is otherwise subject, which would have a material and adverse effect upon the business or financial condition of the District; and the execution and delivery of the Contracts and this Bond Placement Agreement by the District and compliance with the provisions of each thereof will not violate or constitute a material breach of or default under any existing law, administrative regulation, judgment, decree or any agreement or other instrument to which the District is a party or, to the knowledge of the District, is otherwise subject;

(e) The Preliminary Limited Offering Memorandum did not and, at the time of the District's acceptance hereof, the Limited Offering Memorandum does not, and at the time of the Closing, the Limited Offering Memorandum will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading insofar as information within the knowledge of the District is concerned;

(f) The audited financial statements of the District as of September 30, 2016, contained in the Limited Offering Memorandum present fairly the financial position as of such date, and the results of its operations for the year then ended, in conformity with generally accepted accounting principles, and there has been no material adverse change in the financial condition of the District since September 30, 2016;

(g) Between the date of this Bond Placement Agreement and Closing, the District will not, without the prior written consent of the Placement Agent, issue any additional bonds, notes or other obligations for borrowed money payable in whole or in part from ad valorem taxes;

(h) No litigation is pending or, to the knowledge of the District, threatened in any court affecting the existence of the District, the title of its officers to their respective offices, or seeking to restrain or enjoin the issuance or delivery of the Bonds, the levy or the collection of taxes pledged or to be pledged to make payments under the Contracts, the levy or collection of special assessments to make payments under the Bonds or in any way contesting or affecting the issuance, execution, delivery, payment, security or validity of the Bonds, or in any way contesting or affecting the validity or enforceability of the Bond Ordinance, the Trust Agreements, the Contracts, this Bond Placement Agreement, or contesting the powers of the District, or any authority for the Bonds, the Bond Ordinance, the Trust Agreements, the Contracts, or this Bond Placement Agreement or contesting in any way the completeness, accuracy or fairness of the Limited Offering Memorandum;

(i) The descriptions contained in the Limited Offering Memorandum of the District are true and correct in all material respects, and the descriptions of the Bonds, the Trust Agreements, the Contracts, and the Bond Ordinance accurately reflect the provisions of such instruments; and

(j) If after the date of this Bond Placement Agreement to and including the date of Closing, an event occurs of which the District has knowledge and which would cause the Limited Offering Memorandum to contain any untrue statement of a material fact or to omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, the District shall notify the Placement Agent, and if in the opinion of the District or the Placement Agent such event requires a supplement or amendment to the Limited Offering Memorandum, or if it is necessary to amend or supplement the Limited Offering Memorandum to comply with laws, the District will request the Issuer to supplement or amend the Limited Offering Memorandum in a form and in a manner jointly approved by the Issuer, the District and the Placement Agent, such that the Limited Offering Memorandum as so supplemented or amended will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which made, not misleading. If such supplement or amendment shall be subsequent to the Closing, the District shall furnish such certificates, instruments and other documents as the Placement Agent may deem necessary to evidence the truth and accuracy of such supplement or amendment to the Limited Offering Memorandum.

6. **Closing**. At 10:00 A.M., Dallas Time, on December 14, 2017 (the "Closing"), or such other date as agreed to by the Issuer and the Placement Agent, the Issuer will deliver the initial Bond and other documents hereinafter mentioned to or under the direction of the Placement Agent and the Placement Agent will accept delivery and cause the purchase price of the Bonds to be paid by the Purchaser as set forth in Paragraph 1 hereof. The purchase price shall be paid in immediately available funds. Delivery and payment as aforesaid shall be made at the offices of Winstead, P.C., 500 Winstead Building, 2728 N. Harwood, Dallas, Texas 75201, or such other place as shall have been mutually agreed upon by the Issuer and the Placement Agent. The Bonds shall be delivered in fully registered form, bearing CUSIP numbers without coupons, with one Bond for each maturity of each series of the Bonds, registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York, all as provided in the Bond Ordinance, and shall be made available

to the Placement Agent or its designee at least one business day before the Closing for purposes of inspection in Fort Worth, Texas, or such other place as shall be mutually satisfactory to the Issuer and the Placement Agent.

7. **Conditions**. The Placement Agent has entered into this Bond Placement Agreement in reliance upon the representations and warranties of the Issuer and the District contained herein and to be contained in the documents and instruments to be delivered at the Closing, and upon the performance by the Issuer and the District, of their respective obligations hereunder, both as of the date hereof and as of the date of Closing. Accordingly, the Placement Agent's obligations under this Bond Placement Agreement to privately place the Bonds shall be subject to the performance by the Issuer and the District of their respective obligations to be performed hereunder and under such documents and instruments executed at or prior to the Closing, and shall also be subject to the following conditions:

(a) The representations and warranties of Issuer and the District contained herein shall be true, complete and correct in all material respects on the date hereof and on and as of the date of Closing, as if made on the date of Closing;

(b) At the time of the Closing, the Bond Ordinance, the Trust Agreements, and the Contracts shall be in full force and effect, and the Bond Ordinance, the Trust Agreements, and the Contracts shall not have been amended, modified or supplemented and the Limited Offering Memorandum shall not have been amended, modified or supplemented, except as may have been agreed to by the Placement Agent;

(c) At the time of the Closing, all official actions of the Issuer and the District related to the Contracts, the Bond Ordinance, the Trust Agreements, this Bond Placement Agreement and the Limited Offering Memorandum shall be in full force and effect and shall not have been amended, modified or supplemented;

(d) Neither the Issuer nor the District shall have failed to pay principal or interest when due on any of its outstanding obligations for borrowed money;

(e) At or prior to the Closing, the Placement Agent shall have received each of the following documents:

(1) The Limited Offering Memorandum executed on behalf of the Issuer by the Mayor and City Secretary of the Issuer and by the President and Secretary of the Board of Directors of the District;

(2) The Bond Ordinance certified by the City Secretary of the Issuer under its seal as having been duly adopted by the Issuer and as being in effect, with such changes or amendments as may have been agreed to by the Placement Agent and evidence of official action of the District approving the form of the Bond Ordinance;

(3) The Trust Agreements executed on behalf of the Issuer by the Mayor and City Secretary of the Issuer and by authorized officers of the Trustee;

(4) The opinion or opinions, dated the date of Closing, of Winstead, PC, Bond Counsel, in form and substance acceptable to the Placement Agent concerning the validity of the Bonds under Texas law, the excludability from gross income, for purposes of federal income taxes, of interest on the Bonds;

(5) The opinions, dated on or prior to the date of Closing, of the Attorney General of Texas, approving the Bonds and evidence of the registration of the Bonds by the Comptroller of Public Accounts of the State of Texas, all as required by law;

(6) The supplemental opinion, dated the date of Closing, of Winstead, PC, addressed to the Issuer, the Trustee, and the Placement Agent (i) with respect to the enforceability of the Trust Agreements and the Contracts, and (ii) to the effect that, in its capacity as Bond Counsel, such firm has reviewed the information contained under the captions "THE BONDS," "TAX PROCEDURES," "ASSESSMENT PROCEDURES," "THE ISSUER," "THE DISTRICT," "THE IMPROVEMENT DISTRICT," "LEGAL MATTERS," "TAX EXEMPTION," "CONTINUING DISCLOSURE OF INFORMATION," "APPENDIX B DEFINITIONS," "APPENDIX C - SUMMARY OF TRUST AGREEMENTS" "APPENDIX D - SUMMARY OF THE CONTRACTS" and "APPENDIX E - FORM OF BOND COUNSEL OPINION" contained in the Limited Offering Memorandum, and such firm is of the opinion that such information, fairly summarizes the procedures, law and documents referred to therein. The opinion of such firm shall also state that, based upon its participation in the preparation of the Limited Offering Memorandum, such Counsel has no reason to believe that the Limited Offering Memorandum (except for the financial statements and other financial and statistical data contained therein, as to which no view need be expressed), as of the date thereof, contained any untrue statement of a material fact or omitted to state any material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading;

(7) An opinion or opinions from Winstead, PC, Bond Counsel, dated the date of the Closing, addressed to the Issuer and the Placement Agent to the effect that the Bonds are exempted securities as described in Section 3(a)(2) of the Securities Act of 1933, as amended, and Section 304(a)(4) of the Trust Indenture Act of 1939, as amended, to the extent provided in such Acts, and it is not necessary in connection with the sale of the Bonds to the public to register the Bonds under the Securities Act of 1933, as amended, or to qualify the Bond Ordinance and the Trust Agreements under the Trust Indenture Act of 1939, as amended;

(8) An opinion or opinions of McCall, Parkhurst & Horton L.L.P., Placement Agent's Counsel, dated the date of Closing, in form and substance satisfactory to the Placement Agent.

(9) An opinion of Norton Rose Fulbright US LLP, counsel to the Trustee, addressed to the Issuer and the Placement Agent, concerning the validity of the Trust Agreements;

(10) A certificate, dated the date of Closing, signed by the Mayor of the Issuer, to the knowledge of the Issuer, in his official capacity, to the effect that to his knowledge or belief (i) the representations and warranties of the Issuer contained herein are true and correct in all material respects on and as of the date of Closing, as if made on the date of Closing; (ii) no litigation is pending or, to the knowledge of the Issuer, threatened in any court to restrain or enjoin the issuance or delivery of the Bonds, the payments under the Contracts, or the levy or collection of special assessments to pay the Special Assessment Revenues, respectively, or the pledge thereof, or in any way contesting or affecting the validity of the Bonds, the Bond Ordinance, the Trust Agreements, the Contracts, or this Bond Placement Agreement, or contesting the powers of the Issuer or contesting the authorization of the Bonds, the Contracts, the Bond Ordinance, or the Trust Agreements, or contesting in any way the accuracy, completeness or fairness of the Preliminary Limited Offering Memorandum or the Limited Offering Memorandum (but in lieu of or in conjunction with such certificate, the Placement Agent may, in its sole discretion, accept certificates or opinions of counsel of the Issuer that, in his or her opinion, the issues raised in any such pending or threatened litigation are without substance or that the contentions of all plaintiffs therein are without merit); (iii) the information, descriptions and statements of or pertaining to the Issuer contained in the Limited Offering Memorandum, on the date thereof and on the date of delivery were and are true and correct in all material respects; (iv) insofar as the Issuer and its affairs, including its financial affairs, are concerned, the Limited Offering Memorandum did not and does not contain an untrue statement of a material fact or omit to state a material fact required to be stated herein or necessary to make the statements herein, in the light of the circumstances under which they were made, not misleading; (v) insofar as the descriptions and statements, including financial data contained in the Limited Offering Memorandum, of or pertaining to entities other than the Issuer and their activities are concerned, such statements and data have been obtained from sources which the Issuer believes to be reliable and that the Issuer has no reason to believe are untrue in any material respect or omit to state any material fact necessary to make the statements herein, in the light of the circumstances under which they were made, not misleading; however, the Issuer has made no independent investigation as to the accuracy or completeness of the information derived from sources other than the Issuer; and (vi) no event affecting the Issuer has occurred since the date of the Limited Offering Memorandum which should be disclosed in the Limited Offering Memorandum for the purpose for which it is to be used or which it is necessary to disclose therein in order to make the statements and information therein not misleading in any respect;

(11) A certificate, dated the date of Closing, signed by the President or Vice President of the Board of Directors of the District, in their official capacities, to the effect that to their knowledge or belief (i) the representations and warranties of the District contained herein are true and correct in all material respects on and as of the date of Closing, as if made on the date of Closing; (ii) no litigation is pending or, to the knowledge of the District, threatened in any court to restrain or enjoin the issuance or delivery of the Bonds, or the levy or collection of the taxes pledged or to be

pledged pursuant to the Contracts to pay Contract Revenues and on the levy or collection of special assessments to pay the Special Assessment Revenues, respectively, or the pledge thereof, or in any way contesting or affecting the validity of the Bonds, the Bond Ordinance, the Trust Agreements, the Contracts, or this Bond Placement Agreement, or contesting the powers of the District or contesting the authorization of the Bonds, the Contracts, the Bond Ordinance, or the Trust Agreements, or contesting in any way the accuracy, completeness or fairness of the Preliminary Limited Offering Memorandum or the Limited Offering Memorandum (but in lieu of or in conjunction with such certificate, the Placement Agent may, in its sole discretion, accept certificates or opinions of counsel of the District that, in their opinion, the issues raised in any such pending or threatened litigation are without substance or that the contentions of all plaintiffs therein are without merit); (iii) the information, descriptions and statements of or pertaining to the District contained in the Limited Offering Memorandum, on the date thereof and on the date of delivery were and are true and correct in all material respects; (iv) insofar as the District and its affairs, including its financial affairs, are concerned, the Limited Offering Memorandum did not and does not contain an untrue statement of a material fact or omit to state a material fact required to be stated herein or necessary to make the statements herein, in the light of the circumstances under which they were made, not misleading; (v) insofar as the descriptions and statements, including financial data contained in the Limited Offering Memorandum, of or pertaining to entities other than the District and their activities are concerned, such statements and data have been obtained from sources which the District believes to be reliable and that the District has no reason to believe are untrue in any material respect or omit to state any material fact necessary to make the statements herein, in the light of the circumstances under which they were made, not misleading; however, the District has made no independent investigation as to the accuracy or completeness of the information derived from sources other than the District; (vii) to the best of their knowledge, no event affecting the District has occurred since the date of the Limited Offering Memorandum which should be disclosed in the Limited Offering Memorandum for the purpose for which it is to be used or which it is necessary to disclose therein in order to make the statements and information therein not misleading in any respect, and (viii) there has not been any material and adverse change in the financial condition of the District since September 30, 2016, the latest date as to which audited financial information is available.

(12) A certificate, dated the date of Closing, of an appropriate official of the Issuer to the effect that, on the basis of the facts, estimates and circumstances in effect on the date of delivery of the Bonds, it is not expected that the proceeds of the Bonds will be used in a manner that would cause the Bonds to be arbitrage bonds within the meaning of Section 148 of the Internal Revenue Code of 1986, as amended (the "Code");

(13) An Investment Letter, dated on or before the date of Closing, substantially in the form attached to the Limited Offering Memorandum as Exhibit H, executed by an authorized officer of the Purchaser.

(14) A Certificate of Purchaser, dated on or before the date of Closing, in substantially the form set forth in Exhibit B hereto, executed by an authorized officer of the Purchaser.

(15) A certificate or letter of representation from the Developer (as defined in the Limited Offering Memorandum) to the effect that the information in the Limited Offering Memorandum under the captions "DEVELOPMENT OF THE DISTRICT AND FUTURE DEVELOPMENT," "THE CASTLE HILLS PROJECT," and "THE DEVELOPER" are true and correct in all material respects and do not omit to state any material fact necessary to make the statements therein, in the light of the circumstance under which they were made, not misleading; and

(16) Such additional legal opinions, certificates, instruments and other documents as Bond Counsel or Placement Agent's Counsel may reasonably request to evidence the truth, accuracy and completeness, as of the date hereof and as of the date of Closing, of the Issuer's and District's representations and warranties contained herein and of the statements and information contained in the Limited Offering Memorandum and the due performance and satisfaction by the Issuer and the District at or prior to the date of Closing of all agreements then to be performed and all conditions then to be satisfied by the Issuer and the District.

All of the opinions, letters, certificates, instruments and other documents mentioned above or elsewhere in this Bond Placement Agreement shall be in form and substance satisfactory to Bond Counsel and Counsel to the Placement Agent.

8. **Termination**. The Placement Agent, by written notice to the Issuer, may terminate its obligation to place the Bonds at any time before Closing between the date of this Agreement and the Closing, if the market price or marketability of the Bonds or the ability of the Placement Agent to enforce contracts for the sale of the Bonds shall be materially adversely affected, in the sole judgment of the Placement Agent, reasonably exercised, by the occurrence of any of the following:

(a) (i) Legislation shall have been introduced in or enacted by the Congress of the United States, or recommended to the Congress for passage by the President of the United States, or favorably reported for passage to either House of the Congress by any Committee of such House, or (ii) a decision shall have been rendered by a court established under Article III of the Constitution of the United States or by the United States Tax Court, or (iii) an order, ruling or regulation shall have been issued or proposed by or on behalf of the Treasury Department of the United States or the Internal Revenue Service or any other agency of the United States, or (iv) a release or Limited Offering Memorandum shall have been issued by the President of the United States or by the Treasury Department of the United States or by the Internal Revenue Service, the effect of which, in any such case described in clause (i), (ii), (iii), or (iv), would be to impose, directly or indirectly, federal income taxation upon interest

received on obligations of the general character of the Bonds or upon income of the general character to be derived by the Issuer, other than any imposition of federal income taxes upon interest received on obligations of the general character as the Bonds on the date hereof and other than as disclosed in the Limited Offering Memorandum.

(b) Any action shall have been taken by the Securities and Exchange Commission or by a court of competent jurisdiction which would require registration of any security under the Securities Act of 1933, as amended, or qualification of any indenture under the Trust Indenture Act of 1939, as amended, in connection with the public offering of the Bonds, or any action shall have been taken by any court or by any governmental authority of competent jurisdiction suspending the use of the Preliminary Limited Offering Memorandum or the Limited Offering Memorandum or any amendment or supplement thereto, or any proceeding for that purpose shall have been initiated or threatened in any such court or by any such authority.

(c) (i) The Constitution of the State of Texas shall be amended or an amendment shall be proposed, or (ii) legislation shall be enacted, or (iii) a decision shall have been rendered as to matters of Texas law, or (iv) any order, ruling or regulation shall have been issued or proposed by or on behalf of the State of Texas by an official, agency or department thereof, affecting the tax status of the Issuer, the District, their respective property or income, its bonds (including the Bonds) or the interest thereon.

(d) A general suspension of trading in securities on the New York Stock Exchange, the establishment of material restrictions (not in force as of the date hereof) upon trading securities generally by any governmental authority or any national securities exchange, or a general banking moratorium declared by federal, State of New York, or State officials authorized to do so or a material disruption in securities settlement, payment or clearance services in the United States shall have occurred.

(e) A national securities exchange or any governmental authority shall impose, as to the Bonds or as to obligations of the general character of the Bonds, any material restrictions not now in force, or increase materially those now in force, with respect to the extension of credit by, or the charge to the net capital requirements of, the Placement Agent.

(f) There shall have occurred any financial crisis or a default with respect to the debt obligations of, or the institution of proceedings under the federal or the state bankruptcy laws by or against the State or any agency of the State;

(g) There shall have occurred (whether or not foreseeable) any (a) new material outbreak of hostilities (including, without limitation, an act of terrorism) or (b) new material other national or international calamity or crisis including, but not limited to, an escalation of hostilities that existed prior to the date hereof, or (c) material financial crisis or adverse change in the financial or economic conditions affecting the United States government or the securities markets in the United States;

(h) An event described in Paragraph 6(j) hereof occurs which requires a supplement or amendment to the Limited Offering Memorandum, and such supplement or amendment is not agreed to by the Placement Agent.

(i) A general banking moratorium shall have been declared by authorities of the United States, the State of New York or the State of Texas.

(j) There shall have occurred any materially adverse change in the financial condition of the Issuer or the District, except for changes which the Limited Offering Memorandum discloses are expected to occur.

(k) There shall have occurred or any notice shall have been given of any intended review, downgrading, suspension, withdrawal, or negative change in credit watch status by any national rating service to any of the Issuer's or the District's obligations.

9. **Expenses**. The Placement Agent shall be under no obligation to pay and the Issuer shall pay any expenses incident to the performance of the Issuer's obligations hereunder, including but not limited to: (i) the cost of the preparation, printing and distribution of the Preliminary Limited Offering Memorandum and the Limited Offering Memorandum (including amendments or supplements thereto); (ii) the cost of the preparation and printing of the Bonds; (iii) the fees and expenses of Bond Counsel; (iv) the fees and disbursements of the Attorney General of Texas and the Issuer's and the District's accountants, advisors, and any other experts or consultants retained by the Issuer or the District; (v) issuance costs associated with CUSIP and DTC filing; (vi) the fees and expenses of the Trustee and Trustee's counsel; and (vii) the fees and expenses of Placement Agent's Counsel.

10. **Notices**. Any notice or other communication to be given to the Issuer under this Bond Placement Agreement may be given by delivering the same in writing at the address for the Issuer set forth above, and any notice or other communication to be given to the Placement Agent under this Bond Placement Agreement may be given by delivering the same in writing to Raymond James & Associates, Inc., 5956 Sherry Lane, Suite 1900, Dallas, Texas 75225, Attention: Lori Sullivan. The approval of the Placement Agent when required hereunder or the determination of its satisfaction as to any document referred to herein shall be in writing, signed by the Placement Agent and delivered to the Issuer.

11. **Parties in Interest**. This Bond Placement Agreement is made solely for the benefit of the Issuer, the District and the Placement Agent (including the successors or assigns of the Placement Agent) and no other person shall acquire or have any right hereunder or by virtue hereof. The representations, warranties and agreements contained in this Bond Placement Agreement shall remain operative and in full force and effect, regardless of (i) any investigations made by or on behalf of the Placement Agent and (ii) delivery of any payment for the Bonds hereunder; and the Issuer's representations and warranties contained in Section 4 hereof and the District's representations and warranties contained in Section 5 hereof shall remain operative and in full force and effect regardless of any termination of the Bond Placement Agreement.

12. **Source of Payment**. All obligations of the Issuer hereunder shall be payable solely from the proceeds of the Bonds or the Contract Revenues and Special Assessments identified in the Trust Agreements.

13. **Choice of Law**. This Agreement shall be governed by and construed in accordance with the laws of the State of Texas.

14. **Severability**. If any provision of this Agreement shall be held or deemed to be or shall, in fact, be invalid, inoperative or unenforceable as applied in any particular case in any jurisdiction or jurisdictions, or in all jurisdictions because it conflicts with any provision or provisions of any Constitution, statute, rule of public policy, or any other reason, such circumstances shall not have the effect of rendering the provision in question invalid, inoperative or unenforceable in any other case or circumstance, or of rendering any other provision or provisions of this Agreement invalid, inoperative or unenforceable to any extent whatever.

15. **Business Day**. For purposes of this Agreement, "business day" means any day on which the New York Stock Exchange is open for trading.

16. **Counterparts**. This Agreement may be executed in several counterparts each of which shall be regarded as an original (with the same effect as if the signatures thereto and hereto were upon the same document) and all of which shall constitute one and the same document.

17. **No Personal Liability**. None of the members of the City Council, nor any officer, agent, or employee of the Issuer, shall be charged personally by the Placement Agent with any liability, or be held liable to the Placement Agent under any term or provision of this Agreement, or because of execution or attempted executing, or because of any breach or attempted or alleged breach, of the Agreement.

18. **Compliance With Laws Prohibiting Contracts With Companies Boycotting Israel and Certain Companies Engaged in Business With Iran, Sudan or Foreign Terrorist Organizations.** To the extent this Bond Placement Agreement is a contract for goods or services within the meaning of Section 2270.002 of the Texas Government Code, as amended, and pursuant to Chapter 2270, Texas Government Code, and solely for purposes relating to Chapter 2270, Texas Government Code, the Placement Agent verifies that it does not boycott Israel and agrees that itwill not boycott Israel through the delivery date of the Bonds. Additionally, pursuant to Chapter 2252, Texas Government Code, the Placement Agent certifies that it is not a company that contracts with or provides supplies or services to a foreign terrorist organization, as defined by Section 2252.151(2), Texas Government Code, and has not been identified as a company known to have contracts with or provide supplies or services to a foreign terrorist organization as identified on a list prepared and maintained under Section 2270.0201 or 2252.153, Texas Government Code. At the request of the District, the Placement Agent agrees to execute further written certifications as may be necessary or convenient for the District to establish compliance with these laws.

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18. **Effective Date**. Upon the execution of the acceptance hereof by the Issuer and the District the Bond Placement Agreement shall be effective as of the date set forth on the first page hereof, and shall be valid and enforceable as of the time of such effectiveness.

Very truly yours,

RAYMOND JAMES & ASSOCIATES, INC.

By: _____

Title: _____

Accepted at ____ a.m./p.m. CST this ____ day of _____, 2017

CITY OF LEWISVILLE, TEXAS

By:_____
City Manager

DENTON COUNTY FRESH WATER SUPPLY DISTRICT NO. 1-G

By: _____
President

EXHIBIT A

LIMITED OFFERING MEMORANDUM

EXHIBIT B

CERTIFICATE OF THE PURCHASER*

The undersigned, on behalf of ORIX, USA ("Purchaser"), hereby certifies as set forth below with respect to the purchase of the $_____ City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) and $_____ City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (collectively, the "Bonds").

The Purchaser is purchasing the Bonds as the first buyer of the Bonds at a purchase price equal to the principal amount thereof. The Purchaser is not acting as an Underwriter with respect to the Bonds. The Purchaser has no present intention to sell, reoffer, or otherwise dispose of the Bonds (or any portion of the Bonds or any interest in the Bonds). The Purchaser is not acquiring the Bonds from the Issuer in consideration for the payment of property, other than money.

For purposes of this Certificate, the term "Underwriter" means (1) (i) a person that agrees pursuant to a written contract with the Issuer (or with the lead underwriter to form an underwriting syndicate) to participate in the initial sale of the Bonds to a person (including an individual, trust, estate, partnership, association, company, or corporation) that is not an Underwriter, or (ii) any person that agrees pursuant to a written contract directly or indirectly with a person described in clause (i) of this paragraph to participate in the initial sale of the Bonds to a person (including an individual, trust, estate, partnership, association, company, or corporation) that is not an Underwriter (including a member of a selling group or a party to a retail distribution agreement participating in the initial sale of the Bonds to the public) and (2) any person who has more than 50 percent common ownership, directly or indirectly, with a person described in clause (1) of this paragraph.

The undersigned understands that the foregoing information will be relied upon by the Issuer with respect to certain of the representations set forth in the Federal Tax Certificate and with respect to compliance with the federal income tax rules affecting the Bonds, and by Winstead, P.C. in connection with rendering its opinion that the interest on the Bonds is excluded from gross income for federal income tax purposes, the preparation of the Internal Revenue Service Form 8038-G, and other federal income tax advice that it may give to the Issuer from time to time relating to the Bonds.

EXECUTED and DELIVERED as of this _____, 2017.

ORIX, USA, as Purchaser

By:_____
Name:_____

* Bond Counsel may substitute its preferred form.

MEMORANDUM

TO: Donna Barron, City Manager

FROM: Brenda Martin, Director of Finance

DATE: November 8, 2017

SUBJECT: **Consideration of an Ordinance Authorizing the Issuance of $5,905,000 City of Lewisville, Texas, Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Series 2017 Road Bonds") in Accordance With the Terms of That Certain Master Trust Agreement and Second Supplemental Trust Agreement; Approving and Authorizing the Execution of the Second Supplemental Trust Agreement; Authorizing a Final Limited Offering Memorandum Pertaining to the Issuance of the Series 2017 Road Bonds; Approving a Bond Placement Agreement; Providing a Repealer, Severability, and an Effective Date; and Containing Other Matters Related to the Series 2017 Road Bonds.**

BACKGROUND

The City of Lewisville entered into a development agreement with Bright Farm Partnership, Denton County Freshwater Supply District 1-A (DCFWSD) and Denton County Fresh Water Supply District 1-B in 1996. This agreement laid out the methodology for annexation of the DCFWSDs that make up what is known as "Castle Hills" as well as various other operational issues. This agreement allows the DCFWSDs to contract with the City of Lewisville to create Public Improvement Districts (PIDs) to issue Combination Contract Revenue and Special Assessment Bonds secured by an annual ad valorem tax without legal limitation as to the rate or amount. As such, the city provides a financing conduit for infrastructure for the districts.

The bonds are not general obligations of the City and are not payable from any funds raised or to be raised by taxation or any other revenue sources of the City. The proceeds from the sale of the debt are limited to street and roadway improvements and water, sewer and drainage improvements. At this point, eight DCFWSDs have been formed (1-A through 1-H). Of these, seven PIDs have been formed and have total current outstanding debt of $131.17M. DCFWSD 1-A is the managing district and does not have a PID established for it.

PID No. 5 encompasses DCFWSD 1-G and is made up of approximately 307 acres with an estimated cost of improvements of $36M. This district is made up of commercial, office, multi-family and single-family development. The improvements of the districts include the acquisition, construction and improvement of water, wastewater and drainage facilities and the acquisition and construction of streets.

ANALYSIS

Bonds for the first phase of PID5 were approved in May of 2014. Bonds for the second phase of PID5 were approved in December 2015. The purpose of the proposed 2017 Road bonds is to finance the final phase of public improvements within the District, which includes acquiring and constructing certain streets and roads and to pay certain costs incurred in connection with the issuance of the bonds. This bond issuance along with the Utility Bonds being considered, will complete the $36M of total voted authorization for this district.

As with previously issued bonds, these bonds include a prepaid assessment provision which is required by the Attorney General. The assessments are 1% of the total voted bond authority for District 1-G. The assessments are structured such that when a certificate of occupancy is issued, the builder or developer pre-pays the total amount of the assessment so that no assessments are outstanding when the homes are sold to end users. These assessments accumulate in a City's trustee account until which time the deposits are sufficient to redeem $25,000 in principal amount of bonds.

Given the tax base concentration, the relatively low current tax values in PID5 and the fact that the bonds are not rated, it was recommended by the City's financial advisor that selling the associated bonds directly to an institutional investor would provide the most economical funding. Institutional investors are usually larger organizations who invest their assets routinely and specialize in making investments in various markets.

These bonds are being purchased by the same group who purchased the 2015 PID5 bonds—Orix USA, an investor company that provides debt, mezzanine, and equity capital to a variety of public and private financings. The term of the bonds is 20 years and the interest rate is being negotiated for a call feature by 2021. This will enable the bonds to be called to be refinanced at the City's much lower interest rate should the City decide to annex Castle Hills at that time.

As is the case with the sale of the City's general obligation and revenue bonds, documents for the agenda packet are in preliminary form with final documents prepared on the day of the sale.

RECOMMENDATION

It is City staff's recommendation that the City Council consider approval of the ordinance as set forth in the caption above.

CERTIFICATE FOR ORDINANCE NO. ____-__-2017

THE STATE OF TEXAS §

COUNTIES OF DENTON AND DALLAS §

CITY OF LEWISVILLE §

I, the undersigned City Secretary of the City of Lewisville, Texas, hereby certify as follows:

1. The City Council of the City of Lewisville, Texas (the "City Council") convened in a regular session on November 20, 2017 in the Council Chambers of the Lewisville City Hall, 151 West Church Street, Lewisville, Texas (the "Meeting"), and the roll was called of the duly constituted Council Members of the City of Lewisville, Texas to-wit:

Rudy Durham	Mayor
Brent Daniels	Mayor Pro-Tem
Brandon Jones	Deputy Mayor Pro-Tem
TJ Gilmore	Council Member
R. Neil Ferguson	Council Member
Bob Troyer	Council Member

And all of the persons were present except _____, thus constituting a quorum. Whereupon, among other business, the following was transacted at the Meeting:

> AN ORDINANCE AUTHORIZING THE ISSUANCE OF $5,905,000 CITY OF LEWISVILLE, TEXAS, COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT ROAD SYSTEM BONDS, SERIES 2017 (LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT) (THE "SERIES 2017 ROAD BONDS") IN ACCORDANCE WITH THE TERMS OF THAT CERTAIN MASTER TRUST AGREEMENT AND SECOND SUPPLEMENTAL TRUST AGREEMENT; APPROVING AND AUTHORIZING THE EXECUTION OF THE SECOND SUPPLEMENTAL TRUST AGREEMENT; AUTHORIZING A FINAL LIMITED OFFERING MEMORANDUM PERTAINING TO THE ISSUANCE OF THE SERIES 2017 ROAD BONDS; APPROVING A BOND PLACEMENT AGREEMENT; PROVIDING A REPEALER, SEVERABILITY, AND AN EFFECTIVE DATE; AND CONTAINING OTHER MATTERS RELATED TO THE SERIES 2017 ROAD BONDS

(the "Ordinance") was duly introduced for the consideration of the City Council. It was then duly moved and seconded that the Ordinance be passed; and, after due discussion, said motion carrying with it the passage of the Ordinance, prevailed and carried by the following vote:

Aye: ___ No: __

2. A true, full and correct copy of the Ordinance passed at the Meeting described in the above and foregoing paragraph is attached to and follows this Certificate; that the Ordinance has been duly recorded in the City Council's minutes of the Meeting; that the above and foregoing paragraph is a true, full and correct excerpt from the City Council's minutes of the Meeting pertaining to the passage of the Ordinance; that the persons named in the above and foregoing paragraph are the duly chosen, qualified and acting city officials as indicated therein; that each of the elected officials and members of the City Council was duly and sufficiently notified, officially and personally, in advance, of the time, place and purpose of the Meeting, and that the Ordinance would be introduced and considered for passage at the Meeting, and each of the elected officials and members consented, in advance, to the holding of the Meeting for such purpose, and that the Meeting was open to the public and public notice of the time, place and purpose of the meeting was given, all as required by Chapter 551, Texas Government Code.

3. The City Council has approved the aforementioned attached Ordinance and the Mayor and the City Secretary of the City of Lewisville, Texas have duly signed the Ordinance; and that the City Secretary hereby declares that the attached Ordinance is a true and correct copy of the Ordinance for all purposes.

SIGNED AND SEALED November 20, 2017.

_____
Julie Worster, City Secretary
City of Lewisville, Texas

[City Seal]

CITY OF LEWISVILLE, TEXAS

ORDINANCE NO. - -2017

Adopted November 20, 2017

AUTHORIZING THE ISSUANCE OF
$5,905,000
CITY OF LEWISVILLE, TEXAS
COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT
ROAD SYSTEM BONDS
SERIES 2017
(LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT)

Ordinance No. - -2017

AN ORDINANCE AUTHORIZING THE ISSUANCE OF $5,905,000 CITY OF LEWISVILLE, TEXAS, COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT ROAD SYSTEM BONDS, SERIES 2017 (LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT) (THE "SERIES 2017 ROAD BONDS") IN ACCORDANCE WITH THE TERMS OF THAT CERTAIN MASTER TRUST AGREEMENT AND SECOND SUPPLEMENTAL TRUST AGREEMENT; APPROVING AND AUTHORIZING THE EXECUTION OF THE SECOND SUPPLEMENTAL TRUST AGREEMENT; AUTHORIZING A FINAL LIMITED OFFERING MEMORANDUM PERTAINING TO THE ISSUANCE OF THE SERIES 2017 ROAD BONDS; APPROVING A BOND PLACEMENT AGREEMENT; PROVIDING A REPEALER, SEVERABILITY, AND AN EFFECTIVE DATE; AND CONTAINING OTHER MATTERS RELATED TO THE SERIES 2017 ROAD BONDS

RECITALS

WHEREAS, all capitalized terms utilized in this ordinance (the "Ordinance") and not otherwise defined herein shall have the meanings set forth in that certain Master Trust Agreement, dated as of May 1, 2014, relating to the City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Master Trust Agreement"), First Supplemental Trust Agreement, dated as of May 1, 2014 (the "First Supplemental Trust Agreement"), and Second Supplemental Trust Agreement, dated as of December 1, 2017 (the "Second Supplemental Trust Agreement" and, collectively with the Master Trust Agreement and First Supplemental Trust Agreement, the "Trust Agreement") by and among the City of Lewisville, Texas (the "Issuer" or "City") and Wilmington Trust, National Association, Dallas, Texas (the "Trustee") relating to the Series 2017 Road Bonds (defined herein). A full and correct copy of the Second Supplemental Trust Agreement is attached hereto as Exhibit "A" and made a part hereof for all purposes;

WHEREAS, at an election conducted on January 17, 1983, the voters within the boundaries of Denton County Fresh Water Supply District No. 1 ("District No. 1") approved the creation of District No. 1 and elected the Governing Body of District No. l;

WHEREAS, on August 8, 1987, the voters within District No. 1 approved an election by which District No. 1 was authorized to assume the rights, authority, privileges and functions of a road district under Article III, Section 52(b)(3) of Texas Constitution, in the manner provided by Section 53.029(c) of Texas Water Code, as amended;

WHEREAS, at the same election on August 8, 1987, the voters within District No. 1 authorized District No. 1 to purchase, construct, acquire, own, operate, repair, improve and extend sanitary sewer systems to control wastes;

WHEREAS, on December 21, 1993, following a hearing conducted in accordance with Sections 51.040 through 51.044 of Texas Water Code, as amended, the Governing Body of District No. 1 entered an Order Setting Out Findings On Conversion And Ordering Conversion To A Water Control And Improvement District by which District No. 1 converted into a district operating under Chapter 51 of Texas Water Code, as amended, and exercising all the powers, authority, functions and privileges provided in Chapter 51 and District No. 1 specifically reserved in the manner specified in Section 51.044 of Texas Water Code, as amended, the powers specified in Sections 53.029, 53.030 through 53.035, 53.037 through 53.041, 53.111, 53.112, 53.121 and 53.125 of Texas Water Code, as amended from time to time;

WHEREAS, District No. 1 entered into a contract with the Upper Trinity Regional Water District, by which District No. 1 will receive a supply of potable fresh water for all areas located within the boundaries of District No. 1;

WHEREAS, pursuant to the specific authority retained by District No. 1 under Sections 53.029 through 53.035 and Sections 53.037 through 53.041, Texas Water Code, as amended, and granted to District No. 1 by Chapter 51 of Texas Water Code, as amended, the voters within District No. 1 approved, on May 6, 1995, an election by which District No. 1 was divided into Denton County Fresh Water Supply District No. 1-A ("District No. 1-A"), consisting of 2,339 acres, more or less, and Denton County Fresh Water Supply District No. 1-B ("District No. l-B"), consisting of 291 acres, more or less;

WHEREAS, pursuant to the specific authority set forth under Sections 53.029 through 53.035 and Sections 53.037 through 53.041 of Texas Water Code, as amended, the voters within District No. 1-A approved on August 9, 1997 an election by which District No. 1-A divided itself into District No. 1-A and Denton County Fresh Water Supply District No. 1-C ("District No. 1-C");

WHEREAS, the voters within District No. 1-A hereafter approved the division of District No. 1-A into District No. 1-A and Denton County Fresh Water Supply District No. 1-C ("District No. 1-C"), Denton County Fresh Water Supply District No. 1-E ("District No. 1-E"), Denton County Fresh Water Supply District No. 1-F ("District No. l-F"), and Denton County Fresh Water Supply District No. 1-G ("District No. 1-G" or the "District") and Denton County Fresh Water Supply District No. 1-H ("District No. 1-H") and District No. 1-C divided itself into District No. 1-C and Denton County Fresh Water Supply District No. 1-D ("District No. 1-D");

WHEREAS, on the 21st day of March, 2013, a petition signed by the requisite owners of taxable real property representing more than fifty percent (50%) of the appraised value of taxable real property liable for assessment and owners of real property who constitute more than fifty percent (50%) of all record owners of property that is liable for assessment within the proposed Lewisville Castle Hills Public Improvement District No. 5 ("P.I.D. No. 5") was submitted to and filed with the Governing Body of the Issuer requesting that a public improvement district be created within the extraterritorial jurisdiction of the Issuer pursuant to the provisions of the Public Improvement District Assessment Act, Chapter 372, Texas Local Government Code, as amended (the "Act");

WHEREAS, the aforementioned petition was submitted in compliance with the provisions of Section 372.005 of the Act;

WHEREAS, notice of a public hearing to consider the advisability of the improvements was published in a newspaper of general circulation on the 12th day of April, 2013, disclosing the Governing Body of the Issuer's intention to consider the creation of a public improvement district;

WHEREAS, written notice of the scheduled public hearing was delivered on the 12th day of April, 2013, to each property owner located within the proposed public improvement district;

WHEREAS, on the 6th day of May, 2013, the Governing Body of the Issuer held a public hearing conforming to the requirements of Section 372.009 of the Act on the advisability of the improvements;

WHEREAS, pursuant to Section 372.009(b) of the Act, the Governing Body of the Issuer, on the 6th day of May, 2013, passed and approved Resolution No. 3991-05-2013 (R), making certain findings as to the advisability of the improvements, the nature of the improvements, the boundaries of the proposed public improvement district, the method of assessment, and the apportionment of the costs between the proposed public improvement district and the Issuer as a whole and authorizing creation of P.I.D. No. 5 thereby establishing the exact boundaries of P.I.D. No. 5;

WHEREAS, P.I.D. No. 5 is located within the extraterritorial jurisdiction of the Issuer;

WHEREAS, such authorization took effect on the 17th day of May, 2013, the date on which notice of the creation of P.I.D. No. 5 was published in the Lewisville Neighbors Go section of the Dallas Morning News, a newspaper of general circulation in the extraterritorial jurisdiction of the Issuer;

WHEREAS, an Assessment/Service Plan was prepared and reviewed by the staff of the Issuer and submitted on March 3, 2014 to the Governing Body of the Issuer for review and, on March 3, 2014, the Governing Body authorized publication of a notice of public hearing on the Assessment/Service Plan;

WHEREAS, a notice was published on the 6th day of March, 2014, in the Lewisville Neighbors Go section of the Dallas Morning News, a newspaper of general circulation within the city limits and extraterritorial jurisdiction of the Issuer, evidencing the intention of the Governing Body of the Issuer to consider the Special Assessments at a public hearing;

WHEREAS, written notice of the scheduled public hearings have been delivered as required by law, to each property owner residing within P.I.D. No. 5;

WHEREAS, the Assessment/Service Plan provided that one hundred percent (100%) of the cost of the improvements authorized by Section 372.003 of the Act (the "Authorized Road Improvements") will be paid by Special Assessments levied against property located within P.I.D.

No. 5 or will be paid by taxes collected by the District and paid to the Issuer in accordance with the provisions of the Joint Road Contract entered into between the Issuer, District No. 1-A and the District (the "Joint Road Contract"), a copy of which is attached hereto as Exhibit "C" and made a part hereof for all purposes;

WHEREAS, the Assessment/Service Plan recommended that the Governing Body of the Issuer apportion the cost of the Authorized Road Improvements on the basis of the value of the property in P.I.D. No. 5 as determined by the Governing Body, without regard to improvements on the property, as set out in the Assessment/Service Plan, with such an apportionment resulting in the imposition of equal shares of the cost on property similarly benefited within P.I.D. No. 5;

WHEREAS, based upon the aforementioned method of apportionment, the Governing Body of the Issuer prepared and filed an Assessment Roll establishing the Special Assessment against each parcel of property within P.I.D. No. 5, all as provided in Section 372.016 of the Act;

WHEREAS, on the 19th day of May, 2014 the Governing Body of the Issuer conducted public hearings to hear and pass on any objections to the Special Assessments, Assessment/Service Plan and Assessment Roll;

WHEREAS, the Governing Body of the Issuer has adopted the Assessment Ordinance approving the Assessment/Service Plan for P.I.D. No. 5 and levied assessments as Special Assessments on each parcel of property within P.I.D. No. 5 pursuant to the Assessment/Service Plan and Assessment Roll;

WHEREAS, contemporaneously with the issuance of the Series 2017 Road Bonds, the Governing Body of the Issuer is adopting an ordinance updating the Assessment/Service Plan and Assessment Roll;

WHEREAS, pursuant to the Assessment Ordinance, the Issuer permitted the Special Assessments to be paid in installments, fixed the rate of interest on installment payments, established the penalties and interest on delinquent installments, and established the procedure for collection of the Special Assessments. The Assessment Ordinance provides the mechanism and procedure that will be utilized to collect and enforce the Special Assessments in periodic installments;

WHEREAS, the Act provides that an assessment or any reassessment, the expense of collection, and reasonable attorney's fees, if incurred, are a first and prior lien against the property assessed, superior to all other liens and claims except liens or claims for ad valorem taxes by other governmental entities, and are a personal liability of and charge against the owners of the property regardless of whether the owners are named. The lien is effective from the date of the Assessment Ordinance levying the Special Assessments until the Special Assessments are paid, and may be enforced in the same manner that an ad valorem tax levied against real property is enforced. The owner of any property assessed may pay the entire Special Assessment against any lot or parcel with accrued interest to the date of payment at any time;

WHEREAS, Section 372.026 of the Act authorizes the Issuer to pledge Special Assessments and all or part of revenue or income received from any public or private source, pursuant to an agreement or otherwise, to the payment of revenue bonds;

WHEREAS, in the adoption of this Ordinance, the Issuer is exercising the authority granted by Section 372.026 of the Act by issuing revenue bonds payable from Special Assessments and from the Contract Revenues derived from the Joint Road Contract;

WHEREAS, on November 4, 2008, the District conducted elections which authorized the issuance of bonds and refunding bonds and approved the Joint Road Contract and the imposition of an annual tax on all taxable property within the boundaries of the District, unlimited in rate or amount, sufficient to make payment under the Joint Road Contract;

WHEREAS, on May 19, 2014, the Governing Body of the Issuer adopted Ordinance No. 4077-05-2014 approving the Joint Road Contract;

WHEREAS, the District and the Issuer are authorized by Chapters 49 and 51 of Texas Water Code, as amended, to enter into contracts for the provision of the facilities, improvements and services which the District has lawful authority to provide and to cover the expenses necessary to administer, maintain and operate the improvements and facilities;

WHEREAS, under Section 51.149 of Texas Water Code, said contract needs no approval other than approval by a majority of the electors voting at an election conducted in the manner of a bond election in order for the contract between the District and the Issuer to be valid, binding, and enforceable against all parties to the contract;

WHEREAS, under Section 49.108 of Texas Water Code and subject to any limitation imposed by the Texas Constitution, said contract may be modified or amended by the District without voter approval;

WHEREAS, the terms and conditions of the Series 2017 Road Bonds and the pledge of the Contract Revenues derived from the Joint Road Contract which are authorized to be collected on an annual basis while any of the Series 2017 Road Bonds remain Outstanding and revenues derived from Special Assessments will be controlled by the provisions of this Ordinance and Sections 372.025 and 372.026 of the Act;

WHEREAS, Section 372.026 of the Act authorizes the Issuer to issue revenue bonds payable from Special Assessments and from all or part of revenue or income received from any public or private source, pursuant to an agreement or otherwise;

WHEREAS, on November 4, 2008, District No. 1-G conducted an election that authorized the issuance of $10,400,000 of road bonds and refunding bonds and approved the Joint Road Contract and the imposition of an annual tax on all taxable property within the boundaries of District No. 1-G, unlimited in rate or amount, sufficient to make payment under such Joint Road Contract;

WHEREAS, District No. 1-A, District No. 1-G and the Issuer are authorized by Chapters 49 and 51 of the Texas Water Code to enter into contracts for the provision of the joint construction, finance, ownership and operation of any works, improvements, facilities, plants, equipment and appliances necessary to accomplish any function that District No. 1-A, District No. 1-G and the Issuer have lawful authority to provide and to cover the expenses necessary to administer, maintain and operate the improvements and facilities;

WHEREAS, the Issuer has determined to pay the cost of the Authorized Road Improvements by the issuance of revenue bonds designated as the "City of Lewisville, Texas, Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project)" (the "Series 2017 Road Bonds"), in the original principal amount of $5,905,000;

WHEREAS, the Issuer has previously issued the "City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds, Series 2014 (Lewisville Castle Hills Public Improvement District No. 5 Project)" in the principal amount of $4,495,000 (the "Series 2014 Road Bonds") pursuant to the terms of the Master Trust Agreement and a First Supplemental Trust Agreement, dated as of May 1, 2014, by and between the Issuer and the Trustee (the "First Supplemental Trust Agreement");

WHEREAS, following the sale and delivery of the Series 2017 Road Bonds the Issuer shall have the right to issue no additional road bonds pursuant to the voted authority of the election held on November 4, 2008 approving the Joint Road Contract, not including refunding bonds;

WHEREAS, the terms and conditions of the Series 2017 Road Bonds and the pledge of the Contract Revenues derived from the Joint Road Contract and revenues derived from Special Assessments which are authorized to be collected on an annual basis while any of the Series 2017 Road Bonds remain Outstanding will be controlled by the provisions of this Ordinance, the Joint Road Contract, and Sections 372.025 and 372.026 of the Act, Chapter 1371, Texas Government Code, the Trust Agreement, and any other applicable law;

WHEREAS, the Trust Agreement relating to the Series 2017 Road Bonds has been submitted to the Issuer for its approval along with a Bond Placement Agreement;

WHEREAS, the Governing Body of the Issuer has determined that the Series 2017 Road Bonds should be issued in accordance with this Ordinance and the Trust Agreement.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS:

Section 1. The City Council of the City of Lewisville, Texas (the "City Council") hereby authorizes the issuance of $5,905,000 City of Lewisville, Texas, Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project), upon the terms and conditions set forth in the Trust Agreement and this Ordinance, and at an initial interest rate from the date of delivery to the

initial purchasers of the Series 2017 Road Bonds, of _____% per annum.

Section 2. The Second Supplemental Trust Agreement, together with all Exhibits thereto, is hereby approved in all particulars, in substantially the form attached hereto as Exhibit "A", subject to such changes as may be approved by the City Manager and the City Attorney or such changes as may be approved by Bond Counsel to satisfy the requirements of the Attorney General of the State of Texas. This Ordinance hereby specifies that the Series 2017 Road Bonds shall be issued under the terms and conditions set forth in the Trust Agreement. The Mayor, Mayor Pro-Tem, or Deputy Mayor Pro-Tem of the Issuer is hereby authorized and directed to execute the Trust Agreement and the City Secretary is hereby authorized and directed to attest such signature.

Section 3. The form and substance of the Preliminary Limited Offering Memorandum for the Series 2017 Road Bonds and any addenda, supplement or amendment thereto (the "Preliminary Limited Offering Memorandum") and the Limited Offering Memorandum (the "Limited Offering Memorandum") presented to and considered at this meeting, are hereby in all respects approved and adopted, and the Preliminary Limited Offering Memorandum is hereby deemed final as of its date (except for the omission of pricing and related information) within the meaning and for the purposes of paragraph (b)(1) of Rule 15c2-12 under the Securities Exchange Act of 1934, as amended. The Mayor, Mayor Pro-Tem or Deputy Mayor Pro-Tem and the City Secretary are hereby authorized and directed to execute the Limited Offering Memorandum and deliver appropriate numbers of copies thereof to the purchaser (the Purchaser") of the Series 2017 Road Bonds. The Limited Offering Memorandum as thus approved, executed and delivered, with such appropriate variations as shall be approved by the Mayor of the Issuer and the Purchaser of the Series 2017 Road Bonds, may be used by the Issuer in the offering of the Series 2017 Road Bonds and sale thereof. The City Secretary of the Issuer is hereby authorized and directed to include and maintain a copy of the Preliminary Limited Offering Memorandum and the Limited Offering Memorandum and any addenda, supplement or amendment thereto thus approved among the permanent records of this meeting. The use and distribution of the Preliminary Limited Offering Memorandum in the offering of the Series 2017 Road Bonds is hereby ratified, approved, and confirmed.

Section 4. The City Council hereby authorizes the expenditures identified in the description of the Authorized Road Improvements, which is attached as Exhibit "C" to the Second Supplemental Trust Agreement, and further authorizes all parties named in this Ordinance and the Trust Agreement to take all action necessary or appropriate to the issuance and sale of the Series 2017 Road Bonds in conformity with the provisions of this Ordinance, the Trust Agreement and the other agreements identified in the Trust Agreement, subject to such changes as may be approved by Bond Counsel; Hilltop Securities Inc., the City's Financial Advisor; Bracewell LLP, as special counsel to the City; the City's City Attorney and the City's Finance Director.

Section 5. The Bond Placement Agreement is hereby approved in all particulars, in substantially the form attached hereto as Exhibit "B" subject to such changes as may be approved by the City Manager, Bond Counsel, and the City Attorney.

Section 6. The recitation of facts in the preamble to this Ordinance are found to be true and correct and are incorporated herein by reference.

Section 7. The City Council will adopt, make, execute, and deliver any and all such further ordinances, resolutions, instruments and assurances as may be reasonably necessary or proper to carry out the intention or to facilitate the implementation of this Ordinance, the Trust Agreement, and the Bond Placement Agreement.

Section 8. The Series 2017 Road Bonds shall be issued in generally the form set forth in the Second Supplemental Trust Agreement, with such appropriate insertions, omissions, substitutions, and other variations as are permitted or required by this Ordinance and the Trust Agreement.

Section 9. The Mayor of the Issuer is hereby authorized to have control of the Series 2017 Road Bonds and all necessary records and proceedings pertaining thereto pending investigation, examination, and approval of the Attorney General of the State of Texas, registration by the Comptroller of Public Accounts of the State of Texas (the "Comptroller of Public Accounts") and registration with, and initial exchange or transfer by, the Paying Agent/Registrar.

After registration by the Comptroller of Public Accounts, delivery of the Series 2017 Road Bonds shall be made to the Purchaser under and subject to the general supervision and direction of the Mayor of the Issuer, against receipt by the Issuer of all amounts due to the Issuer under the terms of sale.

In the event the Mayor of the Issuer or City Secretary is absent, the Mayor Pro-Tem or Deputy Mayor Pro-Tem and the Assistant City Secretary, respectively, shall be authorized to execute such documents and take such actions, and the performance of such duties by the Mayor Pro-Tem or Deputy Mayor Pro-Tem and the Assistant City Secretary shall for the purposes of this Ordinance have the same force and effect as if such duties were performed by the Mayor of the Issuer or City Secretary, respectively.

Section 10. The requirement that this Ordinance be read on 3 separate days does not apply to a public security authorization.

Section 11. This Ordinance shall be effective immediately upon its final passage in accordance with Section 1201.028, Texas Government Code.

Section 12. Nothing in this Ordinance, expressed or implied, is intended or shall be construed to confer upon any person other than the Issuer, and its employees, the Trustee, Bond Counsel, and the Owners any right, remedy, or claim, legal or equitable, under or by reason of this Ordinance or any provision hereof, this Ordinance and all its provisions being intended to be and being for the sole and exclusive benefit of the Issuer and its employees, the Trustee, Bond Counsel, and the Owners.

Section 13. If any Section, paragraph, clause or provision of this Ordinance shall for any reason be held to be invalid or unenforceable, the invalidity or unenforceability of such Section, paragraph, clause or provision shall not affect any of the remaining provisions of this Ordinance.

Section 14. It is hereby found, determined and declared that a sufficient written notice

of the date, hour, place and subject of the regular meeting of the Governing Body of the City Council at which this Ordinance was adopted was posted at a place convenient and readily accessible at all times to the general public for the time required by law preceding this meeting, as required by the Open Meetings Law, Chapter 551, Texas Government Code, and that this meeting has been open to the public as required by law at all times during which this Ordinance and the subject matter thereof has been discussed, considered and formally acted upon. The City Council further ratifies, approves, and confirms such written notice and the contents and posting thereof.

Section 15. Every ordinance or parts of ordinances found to be in conflict herewith are hereby repealed.

Section 16. The issuance of the Series 2017 Road Bonds is in the best interests of the Issuer.

[Remainder of Page Left Blank Intentionally]

PASSED AND APPROVED NOVEMBER 20, 2017.

_____
Mayor, City of Lewisville, Texas

ATTEST:

_____
City Secretary, City of Lewisville, Texas

APPROVED AS TO FORM & LEGALITY:

_____
City Attorney, City of Lewisville, Texas

EXHIBIT A
SECOND SUPPLEMENTAL TRUST AGREEMENT

EXHIBIT B
BOND PLACEMENT AGREEMENT

EXHIBIT C
JOINT ROAD CONTRACT

SECOND SUPPLEMENTAL TRUST AGREEMENT

between

THE CITY OF LEWISVILLE, TEXAS (the "ISSUER")

and

WILMINGTON TRUST, NATIONAL ASSOCIATION, as Trustee (the "TRUSTEE")

Dated as of December 1, 2017

Relating to

$5,905,000

CITY OF LEWISVILLE, TEXAS
COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT
ROAD SYSTEM BONDS,
SERIES 2017

(LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT)

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SECOND SUPPLEMENTAL TRUST AGREEMENT

THIS SECOND SUPPLEMENTAL TRUST AGREEMENT (the "Second Supplemental Trust Agreement"), dated as of December1, 2017, is between THE CITY OF LEWISVILLE, TEXAS, a home rule city organized and operating pursuant to Article XI, Section 5 of the Constitution of the State of Texas (the "Issuer") and WILMINGTON TRUST, NATIONAL ASSOCIATION, a national banking association authorized to do business in the State of Texas, as trustee (the "Trustee"), and supplements and amends the Master Trust Agreement for the "City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds (Lewisville Castle Hills Public Improvement District No. 5 Project) " dated as of May 1, 2014 (the "Master Trust Agreement"), between the Issuer and the Trustee, and the First Supplemental Trust Agreement for the $4,495,000 "City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds, Series 2014 (Lewisville Castle Hills Public Improvement District No. 5 Project)", dated as of May 1, 2014, between the Issuer and the Trustee (the "First Supplemental Trust Agreement" and, together with the Master Trust Agreement and this Second Supplemental Trust Agreement, the "Trust Agreement").

W I T N E S S E T H:

WHEREAS, the City of Lewisville, Texas, Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Series 2017 Road Bonds") are "Bonds", as defined in Section 1.1 of the Master Trust Agreement, and the Issuer certifies that issuance of the Series 2017 Road Bonds is authorized and permitted under Section 2.1 of the Master Trust Agreement;

WHEREAS, this Second Supplemental Trust Agreement amends and supplements the Master Trust Agreement pursuant to Section 2.1 of the Master Trust Agreement;

WHEREAS, on November 20, 2017, the City Council of the Issuer duly adopted that certain Ordinance No. ____-__-2017 (the "Bond Ordinance") authorizing the issuance of the Series 2017 Road Bonds and approving the form, substance, and use of a Preliminary Limited Offering Memorandum;

WHEREAS, the Issuer desires to issue Series 2017 Road Bonds sufficient to make the Series 2017 Authorized Road Expenditures set forth in Exhibit "C" of this Second Supplemental Trust Agreement and pay the costs of issuing the Series 2017 Road Bonds;

WHEREAS, the Issuer has duly filed a certified copy of the Bond Ordinance with the Trustee;

WHEREAS, the Trustee has accepted the trusts created by the Master Trust Agreement and First Supplemental Trust Agreement, and accepts the trusts described in this Second Supplemental Trust Agreement, and evidences such acceptance by joining in the execution hereof; and

WHEREAS, all capitalized terms, unless otherwise defined herein, have the meanings ascribed to them in the Master Trust Agreement.

NOW, THEREFORE, the Issuer, in consideration (i) of the premises and the acceptance by the Trustee of the trusts created in the Master Trust Agreement, the First Supplemental Trust Agreement, and this Second Supplemental Trust Agreement, (ii) of the purchase and acceptance of the Series 2017 Road Bonds by the purchasers thereof, and (iii) for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby confirm and agree that the grant in the Master Trust Agreement to the Trustee for the benefit of the Owners of the Bonds of the Trust Estate (as defined in the Master Trust Agreement) shall constitute a lien on and security interest in such Trust Estate for the benefit of the Owners of the Series 2017 Road Bonds on an equal and ratable basis with the Owners of the Outstanding Bonds under the Master Trust Agreement and of any Additional Bonds issued under the Master Trust Agreement and any subsequent supplements thereto, and in addition to the foregoing, the parties hereto agree as follows:

ARTICLE I

DEFINITIONS AND INTERPRETATIONS

Section 1.01 Definitions.

(a) For all purposes of this Second Supplemental Trust Agreement, except as otherwise expressly provided or unless the context otherwise requires:

(1) This "Second Supplemental Trust Agreement" means this instrument as originally executed or as it may from time to time be supplemented or amended by one or more trust agreements supplemental hereto entered into pursuant to the applicable provisions of the Master Trust Agreement.

(2) All references in this instrument to designated "Articles", "Sections" and other subdivisions are to the designated Articles, Sections and other subdivisions of this instrument as originally executed. The words "herein", "hereof" and "hereunder" and other words of similar import refer to this Second Supplemental Trust Agreement as a whole and not to any particular Article, Section or other subdivision.

(3) All terms used in this Second Supplemental Trust Agreement that are defined in the Master Trust Agreement have the same meanings assigned to such terms in the Master Trust Agreement unless otherwise specified herein. Except where the context otherwise requires, words imparting the singular number shall include the plural number and vice versa. Reference to any document means that document as amended or supplemented from time to time. Reference to any party to a document means that party and its successors and assigns.

(b) The following terms have the meanings assigned to them below whenever they are used in or with respect to this Second Supplemental Trust Agreement:

Additional Bonds – means the Additional Bonds payable from Special Assessment Revenues and payable from Contract Payments in accordance with the 2008 Joint Road Contract. After issuance of the Series 2017 Road Bonds, no Additional Bonds will remain authorized but unissued pursuant to the 2008 Joint Road Contract, not including refunding bonds.

Administrative Expenses – means the administrative, organization, maintenance and operation costs payable from the proceeds of the Series 2017 Road Bonds associated with, or incident to, the administration, organization, maintenance and operation of the P.I.D., including, but not limited to, the costs of (a) administering the P.I.D., including conducting hearings, preparing notices and petitions, preparing assessment rolls and all costs incident thereto, including engineering fees, legal fees and consultant fees, (b) levying and collecting Special Assessments or the installments thereof, (c) negotiating and implementing the 2008 Joint Road Contract and the other agreements, (d) maintaining the record of installments of the Special Assessments and the system of registration and transfer of the Series 2017 Road Bonds, (e) paying and redeeming the Series 2017 Road Bonds, (f) investing or depositing of monies, (g) complying with the Code with respect to the Series 2017 Road Bonds, and (h) the Trustee and Series 2017 Road Bonds Bondholder Representative fees and expenses, including attorneys' fees relating to the Series 2017 Road Bonds.

Authorized Investments or Permitted Investments – means any investment authorized by the Public Funds Investment Act, Chapter 2256, Texas Government Code.

Bond Ordinance – means the City of Lewisville Ordinance adopted by the City Council of the City of Lewisville on November 20, 2017, authorizing the issuance of the Series 2017 Road Bonds.

Date of Closing – means the date of physical delivery of the Initial Bond for payment in full by the initial purchasers thereof.

Debt Service Requirements – means, as of any particular date of computation, with respect to any Series 2017 Road Bonds and with respect to any period, the aggregate of the amounts to be paid or set aside from the Interest and Sinking Fund by the Trustee on behalf of the Issuer as of such date or in such period for the payment of the Principal Installment, redemption premium, if any, and interest (to the extent not capitalized) on such Series 2017 Road Bonds.

Debt Service Reserve Amount – means the lesser of (i) 10% of the principal amount of the Outstanding Assessment Bonds, (ii) the maximum annual debt service requirement of the Outstanding Assessment Bonds, or (iii) 125% of the average annual debt service of the Outstanding Assessment Bonds.

Initial Bond – means the Series 2017 Road Bond authorized, issued and initially delivered as provided in Section 2.03 of this Second Supplemental Trust Agreement, the form of which is set forth in Exhibit "B", which is attached hereto and made a part hereof for all purposes.

Mandatory Sinking Fund Payments or Mandatory Sinking Fund Redemptions – means the mandatory sinking fund payments on the dates, and in the amounts, set forth in Section 3.01(c) herein.

Outstanding – means, as of the date of determination, and with respect to any Outstanding Assessment Bonds, including the Series 2017 Road Bonds, all such Outstanding Assessment Bonds theretofore issued and delivered under the Master Trust Agreement and any supplemental trust agreement, including the First Supplemental Trust Agreement and this Second Supplemental Trust Agreement, except:

(1) Outstanding Assessment Bonds theretofore cancelled by the Trustee or delivered to the Trustee for cancellation;

(2) Outstanding Assessment Bonds for whose purchase, payment or redemption money in the necessary amount has been theretofore deposited in an account, other than the "Collection Fund" identified in Section 4.1 of the Master Trust Agreement, with the Trustee in trust for the holders of the Outstanding Assessment Bonds;

(3) Outstanding Assessment Bonds in exchange for or in lieu of which other Outstanding Assessment Bonds have been registered and delivered pursuant to the Trust Agreement; and

(4) Outstanding Assessment Bonds alleged to have been mutilated, destroyed; lost or stolen that have been paid as provided in the Trust Agreement.

Outstanding Assessment Bonds – means any Outstanding Bonds of the Issuer containing a pledge of Special Assessments levied pursuant to the Assessment Ordinance, including the Series 2017 Road Bonds and any Additional Bonds.

P.I.D. – means Lewisville Castle Hills Public Improvement District No. 5.

Series 2014 Road Bonds – means the $4,495,000 "City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds, Series 2014.

Series 2017 Authorized Road Expenditures – means the authorized expenditures related to the Series 2017 Road Bonds as described in Exhibit "C" to this Second Supplemental Trust Agreement payable from Contract Revenues and Special Assessments.

Series 2017 Road Bonds Bondholder Representative – means the Bondholder Representative for the Owners of not less than a majority in principal amount of the Series 2017 Road Bonds then Outstanding, initially ORIX Public Finance, LLC, or other designated representative of the majority of the Owners.

Special Assessments – means the assessments levied against properties in the P.I.D. to pay Debt Service Requirements on the Outstanding Assessment Bonds as set forth in the Assessment/Service Plan that are payable in periodic installments as provided in the Assessment Ordinance; all as provided in the Assessment/Service Plan, the Assessment Ordinance and the Bond Ordinance. Special Assessments also include any supplemental assessments or reassessments levied in accordance with Sections 372.019 and 372.020 of the Act.

Section 1.02 Effect of Headings and Table of Contents. The Article and Section headings herein and the Table of Contents are for convenience only and shall not affect the construction hereof.

Section 1.03 Trust Agreement to Remain in Force. Except as amended by this Second Supplemental Trust Agreement or any subsequent supplemental trust agreements, the Master Trust Agreement shall remain in full force and effect as to the matters covered therein.

Section 1.04 Authority. This Second Supplemental Trust Agreement is executed and delivered pursuant to the Act and the Master Trust Agreement.

Section 1.05 Notices, etc., to Parties. Any request, demand, authorization, direction, notice, consent, waiver or act of Owners of Series 2017 Road Bonds or other document provided or permitted by the Master Trust Agreement to be made upon, given or furnished to, or filed with any party hereto shall be given in the manner prescribed in the Master Trust Agreement.

Section 1.06 Successors and Assigns. All covenants and agreements in this Second Supplemental Trust Agreement by the Issuer and the Trustee shall bind their respective successors and assigns, whether so expressed or not.

Section 1.07 Separability Clause. If any provision in this Second Supplemental Trust Agreement shall be invalid, illegal, or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

Section 1.08 Benefits of Second Supplemental Trust Agreement. Nothing in this Second Supplemental Trust Agreement or in the Series 2017 Road Bonds, express or implied, shall give to any Person, other than the parties hereto and their successors hereunder and the Owners of the Series 2017 Road Bonds, any benefit or any legal or equitable right, remedy or claim under this Second Supplemental Trust Agreement.

Section 1.09 Governing Law. This Second Supplemental Trust Agreement shall be construed in accordance with and governed by the laws of the State of Texas.

ARTICLE II

AUTHORIZATION AND TERMS OF SERIES 2017 ROAD BONDS

Section 2.01 Authorization of Series 2017 Road Bonds. The Series 2017 Road Bonds shall be issued in fully registered form in the total authorized aggregate amount of $5,905,000.00 for the purpose of paying costs of issuance of the Series 2017 Road Bonds in accordance with the Act and making the Series 2017 Authorized Road Expenditures. The Series 2017 Road Bonds are hereby sold on this date to the initial purchaser, ORIX Public Finance, LLC, at a price of par plus accrued interest on the Series 2017 Road Bonds from their date to the date of their delivery

Section 2.02 Designation, Date, and Interest Payment Dates. The Series 2017 Road Bonds shall be designated as $5,905,000 "City of Lewisville, Texas, Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project)" and shall be dated as of December 1, 2017. The Series 2017 Road Bonds shall bear interest from the Date of Closing, or the most recent Interest Payment Date to which interest has been paid or duly provided for, calculated on the basis of a 360-day year of twelve 30-day months, payable on _____, 201_, and semiannually thereafter on September 1 and March 1 of each year until maturity or prior redemption.

Section 2.03 Initial Bond; Numbers and Denomination. The Series 2017 Road Bonds shall be initially issued in the form set forth in Exhibit "A" which is attached hereto; provided, however, that the Initial Bond delivered to the Attorney General of the State of Texas shall be

numbered T-1 and shall be in the form set forth in Exhibit "B" which is attached hereto, and issued as a Term Bond in the principal amount of $5,905,000, which shall mature September 1, 2057 and shall be subject to a mandatory redemption in the following manner on September 1 in the following years indicated below, and may be transferred and exchanged as set out in the Trust Agreement.

Year	Principal Amount

The Series 2017 Road Bonds shall be subject to prior redemption as provided in Article III below. Series 2017 Road Bonds delivered on transfer of or in exchange for other Series 2017 Road Bonds shall be numbered (with appropriate prefix) in order of their authentication by the Trustee, and shall be in the denomination of $5,000.00 integral multiples of $50 in excess thereof. The Series 2017 Road Bonds shall mature on the same date and bear interest at the same rate as the Series 2017 Road Bonds in lieu of which they are delivered.

Section 2.04 Interest Rate. The Series 2017 Road Bonds shall bear interest from the Date of Closing at the rate of _____% per annum.

Section 2.05 Application of Proceeds. Simultaneously with the delivery of the Series 2017 Road Bonds, the Trustee shall apply the proceeds derived from the sale to pay for Authorized Road Expenditures and costs of issuance of the Series 2017 Road Bonds, pursuant to a requisition requesting disbursement in the form described in Exhibit "C" to the Master Trust Agreement.

Section 2.06 Execution of Bonds; Seal. The Series 2017 Road Bonds shall be signed on behalf of the Issuer by the City Mayor and countersigned by the City Secretary, by their manual, lithographed, or facsimile signatures, and the official seal of the Issuer shall be impressed or placed in facsimile thereon. Such facsimile signatures on the Series 2017 Road Bonds shall have the same effect as if each of the Series 2017 Road Bonds had been signed manually and in person by each of said officers, and such facsimile seal on the Series 2017 Road Bonds shall have the same effect as if the official seal of the Issuer had been manually impressed upon each of the Series 2017 Road Bonds. If any officer of the Issuer whose manual or facsimile signature shall appear on the Series 2017 Road Bonds shall cease to be such officer before the authentication of such Series 2017 Road Bonds on or before the delivery of such Series 2017 Road Bonds, such manual or facsimile signature shall nevertheless be valid and sufficient for all purposes as if such officer had remained in such office.

ARTICLE III

REDEMPTION OF BONDS

Section 3.01 Amendment. The terms of Article 6 of the Master Trust Agreement are in full force and effect except with respect to the provisions below which shall amend such provisions of the Master Trust Agreement and First Supplemental Trust Agreement with respect to the Series 2017 Road Bonds, and such provisions as set forth below shall be applicable to the Series 2017

Road Bonds. In the event of a conflict between the provisions of the Master Trust Agreement, the First Supplemental Trust Agreement, and this Second Supplemental Trust Agreement, the provisions of this Second Supplemental Trust Agreement shall control with respect to the Series 2017 Road Bonds.

(a) The provisions of Section 6.1 of the Master Trust Agreement are hereby amended by adding the following paragraphs:

"From, and after September 1, ____, the Series 2017 Road Bonds may be redeemed by the Issuer, in whole or in part prior to maturity, on any business day at the option of the Issuer, after notice as provided herein at a redemption price equal to the percentage of their principal amount set forth below plus accrued interest to the date fixed for redemption:

Redemption Date	Redemption Prices
September 1, 2022 through August 31, 2023	103%
September 1, 2023 through August 31, 2024	102½%
September 1, 2024 through August 31, 2025	102%
September 1, 2025 through August 31, 2026	101½%
September 1, 2026 through August 31, 2027	101%
September 1, 2027 and thereafter	100%"

(b) The provisions of Section 6.2 of the Master Trust Agreement are hereby amended by adding the following paragraphs:

"Series 2017 Road Bonds in an amount not to exceed $59,050 shall be redeemed, in whole or in part, prior to maturity at a redemption price equal to 100% of the principal amount of the Series 2017 Road Bonds, together with interest accrued to the date of redemption or purchased, in whole or in part, at a purchase price equal to 100% of the principal amount of the Series 2017 Road Bonds from amounts transferred to the Series 2017 Road Bonds Redemption Account established pursuant to Section 4.01(f) of the Second Supplemental Trust Agreement from the City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds (Lewisville Castle Hills Public Improvement District No. 5 Project) Collection Fund and the Prepayment Fund pursuant to Sections 4.1 and 4.3 of the Master Trust Agreement, respectively, on _____, ____.

In lieu of redeeming Series 2017 Road Bonds with the funds described in this Section, the Issuer may purchase the Series 2017 Road Bonds in the open market of the maturity to be redeemed at the price not in excess of that provided in Section 3.01(a) of the Second Supplemental Trust Agreement."

(c) The provisions of Section 6.3 of the Master Trust Agreement are hereby amended by adding the following paragraphs:

"Prior to their Maturity Date, the Series 2017 Road Bonds shall be redeemed, in part, as term bonds (the "Series 2017 Road Term Bonds") from amounts on deposit in the Interest and

Sinking Fund, on the Mandatory Redemption Dates and in the Mandatory Sinking Fund Payment Amounts set forth below:

Redemption Date	Amount ($)
September 1, 2019	145,000
September 1, 2020	150,000
September 1, 2021	160,000
September 1, 2022	170,000
September 1, 2023	180,000
September 1, 2024	190,000
September 1, 2025	205,000
September 1, 2026	215,000
September 1, 2027	230,000
September 1, 2028	245,000
September 1, 2029	255,000
September 1, 2030	275,000
September 1, 2031	290,000
September 1, 2032	305,000
September 1, 2033	325,000
September 1, 2034	345,000
September 1, 2035	365,000
September 1, 2036	900,000
September 1, 2037	955,000

* final maturity

On each Mandatory Redemption Date, the Trustee shall make the Mandatory Sinking Fund Payment from the Series 2017 Road Bonds Interest and Sinking Account established pursuant to Section 4.01(b) of the Second Supplemental Trust Agreement. The Series 2017 Road Term Bonds shall be prepaid in principal amounts of $5,000 or integral multiples of $50 in excess thereof. The principal amount of the Series 2017 Road Term Bonds required to be prepaid on each Mandatory Redemption Date shall be reduced, at the option of the Issuer, by the principal amount of any Series 2017 Road Term Bonds which, at least forty-five (45) days prior to the Mandatory Redemption Date, have been acquired by the Issuer and delivered to the Trustee for cancellation or have been redeemed (otherwise than through mandatory sinking fund redemption) and canceled by the Trustee and not theretofore credited against a scheduled mandatory redemption. Each such Series 2017 Road Term Bond so delivered or previously purchased or redeemed shall be credited by the Trustee at 100% of the principal amount thereof on the obligation of the Issuer on such Mandatory Redemption Date, and any excess shall be credited at future mandatory redemption in inverse order of maturity, and the principal amount of such Series 2017 Road Term Bonds to be redeemed by operation of mandatory prepayment shall be reduced accordingly.

Redemptions pursuant to this provision of the Second Supplemental Trust Agreement shall be made by lot or other customary random method, rounded to the nearest $5,000, among the Owners of each date of maturity. In connection with any such redemption prior to maturity, the

Trustee shall make appropriate entries in the Bond Register to reflect a portion of any Series 2017 Road Bond so redeemed and the amount of the principal remaining Outstanding. The Trustee's notation in the Bond Register shall be conclusive as to the principal amount of any Outstanding Bond at any time."

ARTICLE IV

AMENDMENTS TO THE MASTER TRUST AGREEMENT

Section 4.01 Amendments to Article 4 of the Master Trust Agreement. The terms of Article 4 of the Master Trust Agreement are in full force and effect except with respect to the provisions below that shall amend such provisions of the Master Trust Agreement with respect to the Series 2017 Road Bonds, and such provisions as set forth below shall be applicable to the Series 2017 Road Bonds. In the event of a conflict between the provisions of the Master Trust Agreement, the First Supplemental Trust Agreement, and this Second Supplemental Trust Agreement, the provisions of this Second Supplemental Trust Agreement shall control with respect to the Series 2017 Road Bonds.

(a) The provisions of Section 4.1 of the Master Trust Agreement and Section 4.01(a) of the First Supplemental Trust Agreement are hereby amended as follows:

"The Issuer hereby covenants and agrees that all Contract Revenues and Special Assessment Revenues (other than interest and investment earnings, and revenues received as a Prepayment of a Special Assessment), have been and shall be deposited, as collected and received, into a separate account previously created, established, and maintained with the Trustee known as the "City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds (Lewisville Castle Hills Public Improvement District No. 5 Project) Collection Fund" (the "Collection Fund") and that the Contract Revenues and Special Assessment Revenues have been and shall be kept separate and apart from all other funds of the Issuer. All Contract Revenues and Special Assessment Revenues deposited into the Collection Fund pursuant to this Section shall, upon receipt, be transferred to the following Funds in the following order of priority:

FIRST: To the Series 2014 Road Bonds Interest and Sinking Account and Series 2017 Road Bonds Interest and Sinking Account, amounts necessary, if any, to increase the balance in such accounts to an amount equal to the aggregate amount of all remaining scheduled Debt Service Requirements during the next Fiscal Year for the Bonds, as provided herein, or a greater amount designated by the Issuer with the prior written approval of District No. 1-G;

SECOND: To the Series 2014 Road Bonds Redemption Account and the Series 2017 Road Bonds Redemption Account, any amounts required for optional redemptions of the Series 2014 Road Bonds and Series 2017 Road Bonds, respectively, (other than mandatory sinking fund redemptions) during the Fiscal Year in which the Contract Revenues or Special Assessment Revenues are deposited into the Collection Fund;

THIRD: To the Series 2014 Road Bonds Administrative Expense Account and Series 2017 Road Bonds Administrative Expense Account, amounts necessary, if any, to increase the balance in the Series 2014 Road Bonds Administrative Expense Account and Series 2017 Road Bonds

Administrative Expense Account to the amount expended from the Administrative Expense Fund, Series 2014 Road Bonds Administrative Expense Account, and Series 2017 Road Bonds Administrative Expense Account on average during the previous 3 Fiscal Years of the Issuer; and

FOURTH: To the Debt Service Reserve Fund; until the Debt Service Reserve Fund has a balance equal to the Debt Service Reserve Amount.

FIFTH: To the Issuer to be used for any lawful purpose, including the payment or redemption of Outstanding Bonds.

(b) The provisions of Section 4.2 of the Master Trust Agreement are hereby amended by adding the following paragraph:

"For purposes of providing funds to pay the Debt Service Requirements on the Series 2017 Road Bonds as the same become due and payable, the Issuer agrees to maintain at the Trustee, a separate and special account to be created and known as the "Series 2017 Road Bonds Interest and Sinking Account." There shall also be deposited into the Series 2017 Road Bonds Interest and Sinking Account no later than the 10th day prior to each Interest Payment Date on the Series 2017 Road Bonds, from the available Contract Revenues and Special Assessment Revenues in the Collection Fund, an amount which, together with sums on deposit in the Series 2017 Road Bonds Interest and Sinking Account, shall be equal to 100% of the amount required to fully pay the principal of, premium, if any and interest on the Series 2017 Road Bonds payable at such Interest Payment Date, at maturity, if applicable, or as a Mandatory Sinking Fund Redemption."

(c) The provisions of Section 4.3 of the Master Trust Agreement are hereby amended by adding the following paragraph:

"There is hereby established with the Trustee a special account within the Prepayment Fund established pursuant to Section 4.3 of the Master Trust Agreement to be known as the "Series 2017 Road Bond Prepayment Account". Upon receiving a Prepayment of Special Assessments for the payment of the Debt Service Requirements on the Outstanding Series 2017 Bonds (which Prepayments shall be identified in writing by the Issuer), the Trustee shall deposit the amount of such Prepayment into the Prepayment Fund under the Master Trust Agreement to be distributed to the Series 2017 Road Bond Prepayment Account and any other account created under the Prepayment Fund by a Supplemental Trust Agreement, including the Series 2014 Road Bond Prepayment Account, on a pro rata basis based upon the principal amount of any bonds outstanding under the Master Trust Agreement pursuant to a Supplemental Trust Agreement and the Series 2017 Road Bonds outstanding. Promptly following the deposit of any such Prepayment, the Trustee shall transfer such amounts representing unpaid principal of the Special Assessment as set forth in Section 4.8 of the Master Trust Agreement directly into the Redemption Fund to be deposited to the Series 2017 Road Bonds Redemption Account to be used to redeem or purchase Outstanding Assessment Bonds on a pro rata basis and such pro rata amounts representing unpaid interest as set forth in Section 4.8 of the Master Trust Agreement and Section 4.01(f) of the Second Supplemental Trust Agreement to the Series 2017 Road Bonds Interest and Sinking Account (as defined herein)."

(d) The provisions of Section 4.4 of the Master Trust Agreement are hereby amended by adding the following paragraph:

"There is hereby created with the Trustee a special account within the Administrative Expense Fund established in Section 4.4 of the Master Trust Agreement, herein called the "Series 2017 Road Bonds Administrative Expense Account, " to be designated and maintained by the Trustee as a separate account, distinct from all other accounts of the Issuer with the Trustee. The Trustee has deposited into the Series 2017 Road Bonds Administrative Expense Account from the proceeds of the Series 2017 Road Bonds an amount equal to non-construction costs, fees for professional services, including attorneys, engineers, financial service professionals and costs of issuance of the above-referenced Series 2017 Road Bonds. The Issuer may draw monies from this Fund to pay costs of issuance of the above-referenced Series 2017 Road Bonds by delivery to the Trustee of a Request for Disbursement in the form set out as Exhibit "C" to the Master Trust Agreement, executed by the Issuer and District No. 1-G. Any surplus money remaining in the Series 2017 Road Bonds Administrative Expense Account on _____, 20__ shall be transferred into the Series 2017 Road Bonds Interest and Sinking Account. Thereafter, the Trustee shall deposit into the Series 2017 Road Bonds Administrative Expense Account from Contract Revenues and Special Assessment Revenues all amounts due the Series 2017 Road Bonds Administrative Expense Account pursuant to Section 4.1 of the Master Trust Agreement and Section 4.01 of the Second Supplemental Trust Agreement. Such amounts shall be applied by the Trustee to pay Administrative Expenses as they become due, and unexpended balances remaining after the payment of Administrative Expenses in Fiscal Years following the Fiscal Year ending September 30, 20__ shall be transferred to the Series 2017 Road Bonds Redemption Account for redemption of Series 2017 Road Bonds."

(e) The provisions of Section 4.5 of the Master Trust Agreement are hereby amended by adding the following paragraph:

"At closing, a portion of the proceeds of the Series 2017 Road Bonds shall be deposited to the Debt Service Reserve Fund in an amount sufficient to meet the Debt Service Reserve Amount for the Series 2017 Road Bonds. The Debt Service Reserve Fund shall be used for the purpose of paying principal of and interest on Outstanding Assessment Bonds, including the Series 2017 Road Bonds, as they become due in the event there should be insufficient funds for said payment in the Interest and Sinking Fund. Subject to the flow of funds in Section 4.01 of the Second Supplemental Trust Agreement and Section 4.1 of the Master Trust Agreement, the Issuer shall deposit Contract Revenues and Special Assessment Revenues to the Debt Service Reserve Fund that is designated for such purposes by the Issuer. The Debt Service Reserve Fund shall be funded up to an amount not less than the Debt Service Reserve Amount from any lawfully available funds in the following manner:

(1) Each deposit shall be credited with earnings from the investment of the balance of the Debt Service Reserve Fund.

(2) Contract Revenues and Special Assessment Revenues shall be deposited to the Debt Service Reserve Fund pursuant to Section 4.1 of the Master Trust Agreement and Section 4.01 of the Second Supplemental Trust Agreement.

(3) Upon payment default with respect to any Outstanding Assessment Bonds, payments from the Debt Service Reserve Fund shall be made on a pro rata basis based upon the principal amount of each series of Outstanding Assessment Bonds in default.

(4) Upon any shortfall in the Debt Service Reserve Fund, District No. 1-G must make payments sufficient to restore the Debt Service Reserve Fund to the Debt Service Reserve Amount (a) in 12 consecutive equal monthly installments beginning in the month following any withdrawal from the Debt Service Reserve Fund or (b) in four consecutive equal monthly installments beginning in the month following any calculation of the value of the Debt Service Reserve Fund at any amount less than the Debt Service Reserve Amount.

(5) The Issuer shall not, under any circumstances, have an obligation to provide funds for the purpose outlined in this Section 4.5 or any other provision of the Master Trust Agreement or of any supplemental trust agreement, including the Second Supplemental Trust Agreement, or any of the discounts relevant to the transaction contemplated by the Second Supplemental Trust Agreement."

(f) The provisions of Section 4.8 of the Master Trust Agreement are hereby amended by adding the following paragraph:

"There is hereby created a special account with the Trustee to be called the "Series 2017 Road Bonds Redemption Account" within the Redemption Fund created by Section 4.8 of the Master Trust Agreement. The Trustee shall deposit into the Series 2017 Road Bonds Redemption Account all amounts required to be transferred to such Account from the Collection Fund and the Series 2017 Road Bond Prepayment Account pursuant to Sections 4.1 and 4.3 of the Master Trust Agreement, respectively. The Trustee shall apply all such amounts in the Series 2017 Road Bonds Redemption Account, to redeem or purchase the Outstanding Series 2017 Road Bonds, on a pro rata basis, in accordance with Section 6.1 or 6.2 hereof. Accrued interest on any Outstanding Series 2017 Road Bonds redeemed shall be paid from the Series 2017 Road Bonds Interest and Sinking Account. The redemption premium shall be paid from amounts transferred to the Series 2017 Road Bonds Redemption Account."

Section 4.02 Amendments to Section 5.2 of the Master Trust Agreement. The terms of Section 5.2 of the Master Trust Agreement are in full force and effect except with respect to the provisions below which shall amend such provisions of the Master Trust Agreement with respect to the Series 2017 Road Bonds, and such provisions as set forth below shall be applicable to the Series 2017 Road Bonds. In the event of a conflict between the provisions of the Master Trust Agreement, the First Supplemental Trust Agreement, and this Second Supplemental Trust Agreement, the provisions of this Second Supplemental Trust Agreement shall control with respect to the Series 2017 Road Bonds. The provisions of Section 5.2 of the Master Trust Agreement are hereby amended by adding the following paragraphs:

"(a) Actions Taken by Series 2017 Road Bonds Bondholder Representative. Notwithstanding anything in the Second Supplemental Trust Agreement to the contrary, if an Event of Default, as set forth in Section 5.1 of this Master Trust Agreement, shall have occurred and be continuing, the Series 2017 Road Bonds Bondholder Representative, in its sole discretion

as evidenced by written notice delivered to the Trustee, may (but shall not be required to), (i) in lieu of the Trustee, exercise one or more of the rights and powers conferred on the Trustee by Article 10 of this Master Trust Agreement; and (ii) exercise such rights and powers granted to Issuer under this Master Trust Agreement, and exercise such rights of the Owners under this Master Trust Agreement, either by a suit or suits in equity or in law for the enforcement of any appropriate equitable or legal remedy the Series 2017 Road Bonds Bondholder Representative shall deem most expedient in the interest of the Owners.

(b) Appointment of Series 2017 Road Bonds Bondholder Representative.

(1) The Owners of not less than a majority in aggregate principal amount of the Series 2017 Road Bonds then Outstanding may, but shall not be required to, from time to time, appoint a representative or agent, by giving signed, written notice of such appointment to the Trustee, to act on behalf of the Owners to give any consents, authorizations, or approvals; exercise any rights; or take any other action as may be taken by the Owners under this Master Trust Agreement on such terms and conditions as such Owners may deem advisable (a "Bondholder Representative"). Upon such appointment, the Trustee shall accept the consent, authorization, or direction of such Bondholder Representative to the extent specified in such notice, as it would accept such action from the Owners of not less than a majority in aggregate principal amount of the Series 2017 Road Bonds then Outstanding. A Bondholder Representative may be an Owner.

(2) Unless otherwise specified in the written notice delivered to the Trustee by the Owners of not less than a majority in aggregate principal amount of the Series 2017 Road Bonds then Outstanding appointing a Bondholder Representative pursuant to Section 5.2 hereof, such Bondholder Representative shall be the sole representative of such Owners with respect to all matters specifically listed in such notice for which such Owners are authorized to act under this Second Supplemental Trust Agreement, as supplemented, until a signed, written notice of the removal of the Bondholder Representative shall be delivered to the Trustee by the Owners of not less than a majority in aggregate principal amount of the Series 2017 Road Bonds then Outstanding. A Bondholder Representative may resign at any time by delivering written notice thereof to the Trustee. Any notice of removal or resignation meeting the foregoing requirements shall be effective immediately upon receipt thereof by the Trustee. In no event shall more than one Bondholder Representative be appointed to represent the Owners of not less than a majority in aggregate principal amount of the Series 2017 Road Bonds then Outstanding.

(c) Bondholder Representative Expenses. The Trustee shall pay the reasonable fees and expenses (including reasonable fees and expenses of counsel) of any Bondholder Representative, upon invoice, incurred in connection with the acceptance or administration of its rights and duties (on behalf of the Owners) under this Second Supplemental Trust Agreement, and in connection with any amendment, modification, supplement, consent or waiver with respect to or required under the Bonds, or in connection with the enforcement thereof, except any such expense, disbursement or advance as may arise from the Bondholder Representative's gross negligence, bad faith, or willful misconduct. Unless the Trustee receives written notice to the contrary, the Trustee may assume that there is no claim that any such expense, disbursement or advance may arise from its gross negligence, bad faith, or willful misconduct of a Bondholder Representative and that such expenses, disbursements or advances are reasonable.

(d) Notices and Reporting Obligations. The appointment of a Bondholder Representative shall in no way affect any reporting or notice requirements of the Owners hereunder, except that such Bondholder Representative shall also receive copies of all such reports and notices."

Section 4.03 Amendments to Section 2.9 of the Master Trust Agreement. The terms of Section 2.9 of the Master Trust Agreement are in full force and effect except with respect to the provisions below which shall amend such provisions of the Master Trust Agreement with respect to the Series 2017 Road Bonds, and such provisions as set forth below shall be applicable to the Series 2017 Road Bonds. In the event of a conflict between the provisions of the Master Trust Agreement, the First Supplemental Trust Agreement, and this Second Supplemental Trust Agreement, the provisions of this Second Supplemental Trust Agreement shall control with respect to the Series 2017 Road Bonds. The provisions of Section 2.9 of the Master Trust Agreement are hereby amended by adding the following paragraphs:

"(a) The Series 2017 Road Bonds are transferable only to a transferee who is a Qualified Institutional Buyer as defined by Rule 144A of the Securities and Exchange Commission and an Institutional Investor as defined by applicable state securities law, except that:

(1) At any time on and after the date on which the Assessed Value first equals or exceeds $_____, the Series 2017 Road Bonds shall be transferable to accredited investors and/or qualified institutional buyers without delivery of an investor letter; and

(2) At any time on and after the date on which the Series 2017 Road Bonds or any other Bonds issued by the P.I.D. are first rated "BBB-" or higher by Standard & Poor's (now S&P Global Ratings) or Fitch or "Baa3" or higher by Moody's, then the Series 2017 Road Bonds shall be transferable to any type of investor without delivery of an investor letter."

Section 4.04 Execution.

This Second Supplemental Trust Agreement may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, but all such counterparts shall together constitute but one and the same instrument.

Section 4.05 No Terrorist Organization.

Pursuant to Subchapter F, Chapter 2252, Texas Government Code, Trustee represents that it is not a company engaged in business with Iran, Sudan, or a foreign terrorist organization (as defined in Section 2252.151(2), Texas Government Code) and that it is not on a list prepared and maintained by the Comptroller of Public Accounts of the State of Texas under Section 806.051, 807.051, or 2252.153, Texas Government Code.

Section 4.06 No Israel Boycott.

Pursuant to Section 2270.002, Texas Government Code, Trustee hereby (a) represents that it does not boycott Israel, and (b) subject to or as otherwise required by applicable federal law, including without limitation 50 U.S.C. Section 4607, agrees it will not boycott Israel during this

transaction. As used in the immediately preceding sentence, "boycott Israel" shall have the meaning given such term in Section 2270.001, Texas Government Code.

Section 4.07 Final Agreement.

This written Second Supplemental Trust Agreement represents the final agreement between the parties and may not be contradicted by evidence of prior, contemporaneous, or subsequent oral agreements of the parties.

There are no unwritten oral agreements between the parties.

IN WITNESS WHEREOF, the parties hereto have caused this Second Supplemental Trust Agreement to be executed on their behalf by their duly authorized officers all as of the day and year first above written.

EXECUTED as of December 1, 2017.

THE CITY OF LEWISVILLE ("Issuer")

By:_____
Name: _____
Title: _____

ATTEST:

By:_____
Name: Julie Worster
Title: City Secretary

WILMINGTON TRUST, NATIONAL ASSOCIATION
("Trustee")

By:_____
Name: Camilla J. Lindsey
Title: Assistant Vice President

EXHIBIT A

FORM OF SERIES 2017 ROAD BONDS

EXHIBIT B

FORM OF INITIAL SERIES 2017 ROAD BOND

EXHIBIT C

SERIES 2017 AUTHORIZED ROAD EXPENDITURES

This Preliminary Limited Offering Memorandum and the information contained herein are subject to completion or amendment. Under no circumstances shall this Preliminary Limited Offering Memorandum constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of these securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction.

IN THE OPINION OF BOND COUNSEL (DEFINED HEREIN), INTEREST ON THE BONDS IS EXCLUDABLE FROM GROSS INCOME FOR PURPOSES OF FEDERAL INCOME TAXATION UNDER EXISTING STATUTES, REGULATIONS, PUBLISHED RULINGS AND COURT DECISIONS AS DESCRIBED UNDER "TAX EXEMPTION" HEREIN. SEE "LEGAL MATTERS" AND "TAX EXEMPTION" HEREIN FOR A DISCUSSION OF BOND COUNSEL'S OPINION, INCLUDING A DESCRIPTION OF CERTAIN ALTERNATIVE MINIMUM TAX CONSEQUENCES FOR CORPORATIONS.

NEW ISSUE

$11,395,000*
CITY OF LEWISVILLE, TEXAS
COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT UTILITY SYSTEM BONDS, SERIES 2017
(LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT)

$5,905,000*
CITY OF LEWISVILLE, TEXAS
COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT ROAD SYSTEM BONDS, SERIES 2017
(LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT)

Dated: December 1, 2017
Interest Accrues: Date of Initial Delivery

Due: September 1, 2037
(See as shown on inside front cover)

The $11,395,000* City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Utility Bonds") and the $5,905,000* City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Road Bonds" and with the Utility Bonds, the "Bonds") will be issued by the City of Lewisville, Texas (the "Issuer") in fully registered form. The Bonds will be in authorized denominations of $25,000 and integral multiples of $5,000 in excess thereof. The Trustee and Paying Agent/Registrar for the Bonds is Wilmington Trust, National Association, in Dallas, Texas. Interest on the Bonds will be paid by check mailed by the Paying Agent/Registrar on or before each interest payment date to the registered owners of the Bonds at the addresses shown on the Bond registration books kept by the Paying Agent/Registrar. Principal of the Bonds is payable to the registered owners at maturity or earlier redemption only upon presentation and surrender of the Bonds at the corporate trust office of the Paying Agent/Registrar in Dallas, Texas.

Interest on the Bonds accrues from the date of initial delivery thereof, is calculated on the basis of a 360-day year comprised of twelve 30-day months, and is payable on September 1, 2018, and on each March 1 and September 1 thereafter until maturity or prior redemption. The Bonds are subject to optional [and] special mandatory [and mandatory sinking fund] redemption as more fully described herein. Upon redemption, the Bonds will be payable at prices described herein, plus accrued interest to the date of redemption. See "THE BONDS - Redemption Provisions."

The proceeds of the Bonds will be applied to pay the costs of acquiring and constructing certain water, sewer, and drainage facilities, and streets and roads within the Improvement District (hereinafter defined) and to pay certain costs of issuance of the Bonds. See "USE OF PROCEEDS."

The Bonds, when issued, constitute valid and legally binding special obligations of the Issuer. An amount, on a cumulative basis, not less than one percent (1%) of the original principal amount of the Bonds, together with interest thereon, is payable from and secured by a pledge of and lien on certain Special Assessment Revenues (as defined herein) levied by the Issuer against benefitted property within the Lewisville Castle Hills Public Improvement District No. 5 (the "Improvement District"), a public improvement district of the Issuer, all of which is located within the Issuer's extraterritorial jurisdiction and all of which is located within the District (hereinafter defined), all to the extent and upon the conditions described herein. An amount equal to the balance of the original principal amount of the Bonds, together with interest thereon, but in no event to exceed, on a cumulative basis, ninety-nine percent (99%) of the original principal amount of the Bonds, together with interest thereon, is payable from certain Contract Revenues (as defined herein) paid by Denton County Fresh Water Supply District No. 1-G (the "District"), which Contract Revenues are payable from the proceeds of an annual ad valorem tax, without legal limitation as to rate or amount, levied against all taxable property located within the District. See "THE BONDS - Sources of Payment."

THE BONDS ARE SPECIAL REVENUE OBLIGATIONS OF THE ISSUER AND ARE NOT OBLIGATIONS OF DENTON COUNTY, THE STATE OF TEXAS, OR ANY POLITICAL SUBDIVISION OTHER THAN THE ISSUER AND THE DISTRICT. THE BONDS ARE NOT PAYABLE FROM ANY FUNDS RAISED OR TO BE RAISED BY TAXATION BY THE ISSUER OR FROM ANY OTHER SOURCE OF FUNDS OF THE ISSUER OTHER THAN CONTRACT REVENUES AND SPECIAL ASSESSMENT REVENUES.

THE BONDS ARE SUBJECT TO SPECIAL RISK FACTORS DESCRIBED HEREIN. See "RISK FACTORS" herein.

THIS LIMITED OFFERING MEMORANDUM IS FURNISHED WITH THE EXPRESS UNDERSTANDING THAT IT IS SOLELY FOR THE PURPOSE OF CONSIDERATION BY PROSPECTIVE PURCHASERS OF THE BONDS WHO ARE BOTH (i) "QUALIFIED INSTITUTIONAL BUYERS" (WITHIN THE MEANING OF RULE 144A OF THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION (THE "SEC")) AND (ii) "INSTITUTIONAL INVESTORS" WITHIN THE MEANING OF APPLICABLE STATE SECURITIES LAWS, AND IS NOT TO BE USED FOR ANY OTHER PURPOSE OR MADE AVAILABLE TO ANYONE NOT DIRECTLY CONCERNED WITH THE DECISION REGARDING SUCH PURCHASE. PURCHASERS OF THE BONDS WILL BE REQUIRED TO EXECUTE AN INVESTMENT LETTER IN THE FORM SET FORTH IN APPENDIX H HERETO.

THE TRANSFER OF THE BONDS IS RESTRICTED SOLELY TO TRANSFEREES WHO ARE "QUALIFIED INSTITUTIONAL BUYERS" (WITHIN THE MEANING OF RULE 144A OF THE SEC) AND WHO ARE "INSTITUTIONAL INVESTORS" WITHIN THE MEANING OF APPLICABLE STATE SECURITIES LAWS. TRANSFEREES OF THE BONDS WILL BE REQUIRED TO PROVIDE TO THE PAYING AGENT/REGISTRAR A LETTER IN THE FORM SET FORTH IN APPENDIX I HERETO PRIOR TO ANY SUCH TRANSFER. See "THE BONDS - Limitations on Transfers."

The Bonds will be delivered when, as and if issued, subject to, among other things, the approval of the Bonds by the Attorney General of Texas and the opinion of Winstead PC, Dallas, Texas, Bond Counsel. Certain legal matters will be passed upon for Raymond James & Associates, Inc., as placement agent (the "Placement Agent') by its counsel McCall, Parkhurst & Horton L.L.P., Dallas, Texas. The Bonds in definitive form are expected to be available for delivery through the facilities of DTC on or about December 14, 2017.

RAYMOND JAMES

_____ 2017

*Preliminary; subject to change.

PRINCIPAL AMOUNTS, MATURITIES, INTEREST RATES AND PRICES

UTILITY BONDS

$11,395,000* ____% Term Bonds Due September 1, 2037 (a)(b) CUSIP _____ (d)
Price _____% (c)

ROAD BONDS

$5,905,000* ____% Term Bonds Due September 1, 2037 (a)(b) CUSIP _____ (d)
Price _____ (c)

(a) Subject to optional redemption as described under the caption "THE BONDS - Redemption Provisions - *Optional Redemption*."

(b) Subject to mandatory sinking fund redemption on September 1 in each of the years and in the amounts set forth herein under the caption "THE BONDS - Redemption Provisions - *Mandatory Sinking Fund Redemption*."

(c) The initial reoffering yield has been provided by the Placement Agent (defined herein) and represents the initial offering price of a substantial amount of the Bonds.

(d) CUSIP Numbers have been assigned to the Bonds by CUSIP Global Services, managed by S&P Global Market Intelligence, on behalf of the America Bankers Association, and are included solely for the convenience of purchasers of the Bonds. Neither the Issuer nor the Placement Agent shall be responsible for the selection or correctness of the CUSIP Numbers set forth herein.

*Preliminary; subject to change.

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USE OF INFORMATION IN LIMITED OFFERING MEMORANDUM

General

For purposes of compliance with Rule 15c2-12 of the United States Securities and Exchange Commission, this document constitutes an "official statement" of the Issuer with respect to the Bonds that has been deemed "final" by the Issuer as of its date except for the omission of no more than the information permitted by Rule 15c2-12.

None of the Issuer, its Financial Advisor, the Purchaser (as defined herein) or the Placement Agent makes any representation regarding the information contained in this Limited Offering Memorandum regarding The Depository Trust Company, or its book-entry-only system, as such information has been furnished by the Depository Trust Company.

The cover page contains certain information for general reference only and is not intended as a summary of this offering. Investors should read the entire Limited Offering Memorandum, including all schedules and appendices attached hereto, to obtain information essential to making an informed investment decision.

THIS LIMITED OFFERING MEMORANDUM CONTAINS "FORWARD-LOOKING" STATEMENTS WITHIN THE MEANING OF SECTION 21E OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED. SUCH STATEMENTS MAY INVOLVE KNOWN AND UNKNOWN RISKS, UNCERTAINTIES AND OTHER FACTORS WHICH MAY CAUSE THE ACTUAL RESULTS, PERFORMANCE AND ACHIEVEMENTS TO BE DIFFERENT FROM THE FUTURE RESULTS, PERFORMANCE AND ACHIEVEMENTS EXPRESSED OR IMPLIED BY SUCH FORWARD-LOOKING STATEMENTS. INVESTORS ARE CAUTIONED THAT THE ACTUAL RESULTS COULD DIFFER MATERIALLY FROM THOSE SET FORTH IN THE FORWARD-LOOKING STATEMENTS.

No dealer, broker, salesman or other person has been authorized by the Issuer or the Placement Agent to give any information or to make any representations other than those contained in this Limited Offering Memorandum, and, if given or made, such other information or representations must not be relied upon as having been authorized by the Issuer or the Placement Agent.

This Limited Offering Memorandum does not constitute, and is not authorized by the Issuer for use in connection with, an offer to sell or the solicitation of an offer to buy in any state in which such offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to any person to whom it is unlawful to make such offer or solicitation.

All of the summaries of the statutes, resolutions, orders, contracts, audits, engineering and other related reports set forth in this Limited Offering Memorandum are made subject to all of the provisions of such documents. These summaries do not purport to be complete statements of such provisions, and reference is made to such documents, copies of which are available from the Issuer.

This Limited Offering Memorandum contains, in part, estimates, assumptions and matters of opinion which are not intended as statements of fact, and no representation is made as to the correctness of such estimates, assumptions or matters of opinion, or as to the likelihood that they will be realized. Any information and expressions of opinion herein contained are subject to change without notice, and neither the delivery of this Limited Offering Memorandum nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the condition of the Issuer or other matters described herein since the date hereof. However, the Issuer has agreed to keep this Limited Offering Memorandum current by amendment or sticker to reflect material changes in the affairs of the Issuer, and to the extent that information

actually comes to its attention, the other matters described in this Limited Offering Memorandum, until delivery of the Bonds to the Purchasers thereof.

The Placement Agent has reviewed the information in this Limited Offering Memorandum in accordance with, and as part of, its responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Placement Agent does not guarantee the accuracy or completeness of such information.

THE TRUSTEE ASSUMES NO RESPONSIBILITY FOR THIS LIMITED OFFERING MEMORANDUM AND HAS NOT REVIEWED OR UNDERTAKEN TO VERIFY ANY INFORMATION CONTAINED HEREIN.

Securities Laws

No registration statement relating to the Bonds has been filed with the United States Securities and Exchange Commission under the Securities Act of 1933, as amended, in reliance upon the exemptions provided thereunder. The Bonds have not been registered or qualified under the Securities Act of Texas in reliance upon various exemptions contained therein, nor have the Bonds been registered or qualified under the securities laws of any other jurisdiction. The Issuer assumes no responsibility for registration or qualification of the Bonds under the securities laws of any other jurisdiction in which the Bonds may be offered, sold or otherwise transferred. This disclaimer of responsibility for registration or qualification for sale or other disposition of the Bonds shall not be construed as an interpretation of any kind with regard to the availability of any exemption from securities registration or qualification provisions in such other jurisdictions.

MUNICIPAL BOND RATING

The Issuer has not applied for a municipal bond rating on the Bonds and it is not expected that an investment grade rating would have been obtained had such application been made.

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LIMITED OFFERING MEMORANDUM SUMMARY

The following summary of certain information contained herein is qualified in its entirety by the detailed information appearing elsewhere in this Limited Offering Memorandum. The reader should refer particularly to sections that are indicated for more detailed information.

THE BONDS

The Issuer	City of Lewisville, Denton County, Texas (the "Issuer" or the "City"), a home rule city existing under the Constitution and laws of the State of Texas. See "THE ISSUER."
The District	Denton County Fresh Water Supply District No. 1-G (the "District"), a political subdivision of the State of Texas and a conservation and reclamation district under Article XVI, Section 59 of the Texas Constitution, located wholly within the extraterritorial jurisdiction of the Issuer, operating under Chapters 49 and 51, Texas Water Code, as amended, with certain rights, powers, privileges, authority, and functions derived from Chapter 53, Texas Water Code, as amended. See "THE DISTRICT."
The Improvement District	Lewisville Castle Hills Public Improvement District No. 5 (the "Improvement District"), a public improvement district under Chapter 372, Texas Local Government Code, all of which is located within the extraterritorial jurisdiction of the Issuer and all of which is also located within the boundaries of the District. See "THE IMPROVEMENT DISTRICT."
Description	City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Utility Bonds") in the aggregate principal amount of $11,395,000* and City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Road Bonds" and, with the Utility Bonds, the "Bonds"), in the aggregate principal amount of $5,905,000*, are dated December 1, 2017, and mature on September 1 in each of the years and in the amounts set forth on the inside cover page hereof. Interest on the Bonds accrues at the respective rates shown on the inside cover hereof from the date of initial delivery thereof to the Purchaser (as defined herein) and is payable on September 1, 2018, and on each March 1 and September 1 thereafter until maturity or prior redemption. The Bonds are issued pursuant to ordinances adopted by the City Council of the Issuer on November 20,

*Preliminary; subject to change.

2017 (collectively, the "Bond Ordinances"), two separate Master Trust Agreements, each dated as of May 1, 2014, and each as supplemented by First Supplemental Trust Agreements, dated as of May 1, 2014, a Second Supplemental Trust Agreement (Utility), dated as of December 1, 2015, and a Second Supplemental Trust Agreement (Roads), dated as of December 1, 2017, and a Third Supplemental Trust Agreement (Utility), dated as of December 1, 2017 (collectively, the "Trust Agreements"), between the Issuer and Wilmington Trust, National Association in Dallas, Texas (the "Trustee," "Paying Agent/Registrar," or "Paying Agent").

Optional Redemption . . . . . The Bonds are subject to redemption prior to maturity, in whole or in part from time to time, on September 1, 2022, or on any date thereafter at the option of the District. Upon redemption, the Bonds will be payable at the prices set forth under "THE BONDS - Redemption Provisions - Optional Redemption." If fewer than all the Bonds are optionally redeemed at any time, the amounts to be redeemed shall be designated by the Issuer and the particular Bonds shall be selected by the Trustee by lot or other customary method of random selection (or by DTC in accordance with its procedures while the Bonds are in book-entry-only form). See "THE BONDS - Redemption Provisions - Optional Redemption."

Special Mandatory Redemption . . . . . Utility Bonds not exceeding $113,950 in principal amount and Road Bonds not exceeding $59,050 in principal amount are subject to special mandatory redemption prior to maturity on any date, at a price equal to the principal amount of the Bonds, or portions thereof, to be redeemed, plus accrued interest thereon, to the date fixed for redemption from Special Assessment Revenues resulting from prepayments of Special Assessments (credited pro rata among the Bonds, and any Additional Bonds (as defined herein) based upon respective amounts outstanding). The maturities and amounts of Bonds to be redeemed shall be designated by the Issuer and the particular Bonds shall be selected by the Trustee by lot or other customary method of random selection (or by DTC in accordance with its procedures while the Bonds are in book-entry-only form).

Mandatory Sinking Fund Redemption . The Bonds are also subject to mandatory sinking fund redemption, by lot or other customary method of random selection designated by the Trustee, at a price equal to the principal amount thereof plus accrued interest to the date of redemption as described herein under "THE BONDS - Redemption Provisions - Mandatory Sinking Fund Redemption."

Source of Payment	Principal of and interest on the Bonds are payable from certain Contract Revenues (as defined herein) paid by the District pursuant to a 2008 Joint Utility Contract and the 2008 Joint Road Contract (collectively, the "Contracts") among the Issuer, the District and Denton County Fresh Water Supply District No. 1-A ("District No. 1-A") and Special Assessment Revenues (as defined herein) collected by the Issuer from within the Improvement District. An amount, on a cumulative basis, not less than one percent (1%) of the original principal amount of the Bonds, together with interest thereon, is payable from Special Assessment Revenues and an amount equal to the balance of the original principal amount of the Bonds, together with interest thereon, but in no event to exceed, on a cumulative basis, ninety-nine percent (99%) of the original principal amount of the Bonds is payable from Contract Revenues. Special Assessment Revenues are payable from Special Assessments (as defined in the Trust Agreements) levied by the Issuer within the Improvement District against benefitted property within the Improvement District, to the extent and upon the conditions described herein. Contract Revenues are payable from the proceeds of an annual ad valorem tax, without legal limitation as to rate or amount, levied by the District upon all taxable property located within the District. **The Bonds are special revenue obligations of the Issuer and are not obligations of Denton County, Texas, the State of Texas or any political subdivision other than the Issuer and the District. The Bonds are not payable from any funds raised or to be raised by taxation by the Issuer or from any source of funds of the Issuer other than Contract Revenues and Special Assessment Revenues.** See "THE BONDS - Sources of Payment," "DISTRICT TAX DATA - Tax Rate Calculations," and "RISK FACTORS - Maximum Impact on District Tax Rates."
Other Characteristics	The Bonds will be issued in fully registered form in the denomination of $25,000 and in integral multiples of $5,000 in excess thereof, and will be in book-entry-only form. See 'THE BONDS - Book-Entry Only System."
Use of Proceeds	Proceeds of the sale of the Bonds will be used to pay the costs of acquiring and constructing certain water, sewer, and drainage facilities, and street and roads, within the Improvement District and to pay the costs of issuance of the Bonds. See "USE OF PROCEEDS."

Outstanding Bonds and Payment Record	The Bonds constitute the fourth and fifth series of bonds issued by the Issuer pursuant to the Contracts. The Issuer has previously issued its City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2014 (Lewisville Castle Hills Public Improvement District No. 5 Project), in the original principal amount of $3,255,000 (the "Outstanding 2014 Utility Bonds"), its City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds, Series 2014 (Lewisville Castle Hills Public Improvement District No. 5 Project), in the original principal amount of $4,495,000 (the "Outstanding Road Bonds"), and its City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2015, in the original principal amount of $10,950,000 (the "Outstanding 2015 Utility Bonds" and with the Outstanding 2014 Utility Bonds and Outstanding Road Bonds, collectively, the "Outstanding Bonds"), a portion of which remain outstanding. The Issuer has timely paid all debt service due on the Outstanding Bonds.
Municipal Bond Ratings	The Issuer has not applied for a municipal bond rating on the Bonds and it is not expected that an investment grade rating would have been obtained had such application been made.
Authorized but Unissued Bonds	After issuance of the Bonds, the Issuer will have no authorized but unissued bonds (other than refunding bonds) remaining under the Contracts (as defined herein). See "THE BONDS - Legal Ability of the Issuer to Issue Additional Debt."
Legal Opinion	Winstead PC, Dallas, Texas, Bond Counsel.

THE ISSUER

Description	The City of Lewisville, Texas (the "Issuer" or the "City") is a home rule city under the Constitution and laws of the State of Texas. The City, incorporated in 1925, is located in the southeastern portion of Denton County on Interstate Highway 35-E, 20 miles north of Dallas, 34 miles northeast of Fort Worth, 15 miles southeast of Denton and 8 miles north of Dallas-Fort Worth International Airport. See "THE ISSUER" and "APPENDIX A - AERIAL PHOTOGRAPH."

Authority . . . . . The rights, powers, privileges, authority and functions of the Issuer are established by the Constitution and laws of the State of Texas pertaining to home rule municipal corporations and the Issuer's home rule charter.

THE DISTRICT

Description . . . . . Denton County Fresh Water Supply District No. 1-G (the "District") is a political subdivision of the State of Texas and a conservation and reclamation district under Article XVI, Section 59 of the Texas Constitution, containing approximately 307.074 acres, and located entirely within the extraterritorial jurisdiction of the Issuer.

Authority . . . . . The rights, powers, privileges, authority and functions of the District are established by the general law of the State of Texas, pertaining to water control and improvement districts, particularly, Chapters 49 and 51, Texas Water Code, as amended. In addition, certain reserved rights, powers, privileges, authority and functions of the District are derived from Chapter 53, Texas Water Code, as amended.

Development of the District . . . . . Land within the District is being developed for single-family and commercial mixed-use projects. Proceeds of the Bonds will be used to pay the costs of acquiring and constructing certain water, sewer, and drainage facilities (the "Utility System") and certain streets and roads (the "Road System") (the Utility System and the Road System, collectively, the "System") to serve a 640 unit apartment complex (100% complete), known as Platinum Castle Hills, on 31.8 acres, a 316 unit apartment complex (100% complete), known as Aura Castle Hills, on 15.8 acres, and 155 single-family lots, known as Castle Hills, Phase 8 (the balance of which is in District No. 1-F). Castle Hills Marketplace, a 50 acre shopping center anchored by a Kroger Signature grocery store and other commercial sites, has approximately 8 acres left to be developed into commercial property. All land projected to be developed as single-family has been completely developed and homes built on all lots. There remains approximately 162.7 additional undeveloped but developable acres within the District, with plans for approximately 145 acres to be developed as a business park with frontage along Highway 121 and Business 121. Approximately 3.5 acres of padsites have been provided with water, sewer, and drainage and are expected to be utilized for future commercial development. The remaining undeveloped acreage, approximately 14.2 acres, is expected to be commercial property once built-out. There is no assurance that proceeds of the Bonds will be sufficient to complete construction of the System. The Developer is under no obligation to complete construction of the System if proceeds of the Bonds are insufficient for such purpose. See "RISK FACTORS - Construction Risks

and Facilities Costs" and "THE SYSTEM - Status of Construction.

THE IMPROVEMENT DISTRICT

Description . . . . . Lewisville Castle Hills Public Improvement District No. 5 (the "Improvement District") is a public improvement district authorized under Chapter 372, Texas Local Government Code, containing approximately 309.634 acres. The Improvement District is located wholly within the extraterritorial jurisdiction of the Issuer and within the boundaries of the District.

Authority . . . . . The Improvement District is a public improvement district of the Issuer under the provisions of Chapter 372, Texas Local Government Code.

THE CASTLE HILLS PROJECT

Description . . . . . The District is a part of the master planned community known as Castle Hills (the "Castle Hills Project"). Castle Hills Project is a development of Bright Realty (hereinafter defined). See "THE DEVELOPER" below. Castle Hills Project consists of approximately 2,400 acres of land, approximately 307.074 acres of which are located within the District, approximately 1.659 acres which are located within the boundaries of District No. 1-A, 309.2 acres of which are located within District No. 1-B, 261.4 acres of which are located within District No. 1-C, approximately 490.69 acres of which are located within District No. 1-D, approximately 259.46 acres of which are located within the boundaries of District No. 1-E, approximately 368.942 acres are located within the boundaries of District No. 1-F, and 386.44 acres of which are located within District No. 1-H. According to the Developer, the ultimate land use within the Castle Hills Project is currently projected as follows: approximately 1,526 acres will be subdivided into approximately 4,300 single family lots, approximately 455 acres will be used for the development of commercial mixed-use projects, approximately 207 acres will be developed as multi-family communities, and approximately 212 acres have been developed as an 18 hole golf course and country club known as The Lakes at Castle Hills. Swimming and tennis facilities, drainage, easements, streets rights-of-way, utility easements, open space, lakes, parks and greenbelts are included in the single-family acreage.

Status of Development	As of October 31, 2017, a total of 4,012 lots on approximately 1,222 acres had been developed within the Castle Hills Project. 3,466 homes were occupied, and 106 homes were under construction or permitted for construction. Also completed are 210 acres of commercial development, 212 acres for the 18-hole golf course and country club (The Lakes at Castle Hills), with swimming and tennis facilities and 67 acres of multi-family development. Approximately 10 acres for commercial development, 8 acres for multi-family development, and 71 acres for single-family development are to be constructed on, while approximately 235 acres are available for commercial development and 140 acres are available for multi-family development. All of the current development within the Castle Hills Project has occurred within District No. 1-B, District No. 1-C, District No. 1-D, District No. 1-E, District No. 1-F, District 1-H, and the District.

THE DEVELOPER

General	The developer of land within the District has been Bright Realty, which is owned by certain members of the family of the late H.R. ("Bum") Bright and trusts for the benefit of such family members. Bright Realty is acquiring land in the District from a related company, BRECO Lands CH, LLC ("BRECO Lands"), as dictated by development needs. Bright Realty and BRECO Lands are collectively referred to herein as the "Developer." See "THE DEVELOPER."

RISK FACTORS

THE BONDS ARE SUBJECT TO SPECIAL RISK FACTORS AS SET FORTH IN THIS LIMITED OFFERING MEMORANDUM. PROSPECTIVE PURCHASERS SHOULD CAREFULLY EXAMINE THE ENTIRE LIMITED OFFERING MEMORANDUM BEFORE MAKING THEIR INVESTMENT DECISIONS, ESPECIALLY THE PORTION OF THE LIMITED OFFERING MEMORANDUM ENTITLED "RISK FACTORS."

*Preliminary; subject to change.

SELECTED FINANCIAL INFORMATION
CONCERNING THE DISTRICT*
(Unaudited)

2017 Assessed Valuation	$280,786,530	(a)
Estimated Valuation at September 1, 2017	_____	(b)
Direct Debt: The Outstanding Bonds	$17,950,000	
The Utility Bonds	11,395,000*	
The Road Bonds	5,905,000*	
Total	$35,250,000*	
Estimated Overlapping Debt	$8,767,735	(c)
Direct and Estimated Overlapping Debt	$44,017,735	(c)
Ratio of Direct Debt to:		
2017 Assessed Valuation	12.55	%
Estimated Valuation at September 1, 2017	____	%
Ratio of Direct and Estimated Overlapping Debt to:		
2017 Assessed Valuation	15.68	%
Estimated Valuation at September 1, 2017	____	%
Utility Interest and Sinking Fund Balance	$77.58	(d)
Road Interest and Sinking Fund Balance	$32.72	(d)
Utility Debt Service Reserve Fund Balance	$1,401,062.36	(e)
Road Debt Service Reserve Fund Balance	$420,951.27	(e)
2017 Tax Rate per $100 of Assessed Valuation	$ 1.00	(f)
Contract Tax $0.63		
Maintenance Tax 0.37		
Average Annual Debt Service Requirements of the Bonds (2018-2037)	$3,094,523	
Maximum Annual Debt Service Requirements of the Bonds (2025)	$3,136,325	
Tax Rate per $100 of Assessed Valuation within the District required to pay Average Annual and Maximum Annual Debt Service Requirements at 95% Tax Collections		
Based Upon 2017 Assessed Valuation	$1.18	
Based Upon Estimated Valuation at September 1, 2017	$____	

_____

(a) Provided by the Denton County Appraisal District (the "Appraisal District"), this amount is the certified value of all taxable property located within the District as of January 1, 2017. This amount constitutes the District's 2017 tax roll. See "TAXING PROCEDURES" and "RISK FACTORS - Factors Affecting Taxable Values and Payments."

(b) Provided by the Appraisal District for informational purposes only, this amount is an estimate of the value of all taxable property located within the District as of September 1, 2017, and includes an estimate of values resulting from the construction of taxable improvements from January 1, 2017, through August 31, 2017. The ultimate assessed valuation of any improvements added from January 1, 2017, through

*Preliminary; subject to change.

August 31, 2017, will not be included on the District's 2017 tax roll but will be placed on the District's 2018 tax roll, and may vary significantly from such estimate once the Appraisal Review Board certifies the value thereof in 2018.

(c) See "DISTRICT DEBT - Estimated Direct and Overlapping Debt Statement of the District."

(d) Neither the Bond Ordinances, the Trust Agreements, nor Texas law requires that any particular amount be maintained in the Interest and Sinking Fund at any time.

(e) After issuance of the Bonds. Amounts represents an amount equal to maximum annual debt service on the Bonds. See "THE BONDS - Source of Payment - Debt Service Reserve Funds."

(f) The District expects to levy a tax of $1.00 per $100 of assessed valuation during the year 2017 of which $0.63 was to pay its obligations under the Contracts and $0.37 was for operation and maintenance purposes. As indicated herein, a tax rate of $0.63 is insufficient to pay either the Average Annual or the Maximum Annual Debt Service Requirements of the Bonds based upon the 2017 Assessed Valuation or Preliminary Taxable Valuation at September 1, 2017. In order for a $0.63 tax rate to be sufficient to pay the Average Annual Debt Service Requirement and the Maximum Annual Debt Service Requirement, assessed values in the District would have to increase to approximately $524,031,000.

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SELECTED FINANCIAL INFORMATION
CONCERNING THE IMPROVEMENT DISTRICT

Special Assessment Roll

Lot Type	Lots	Acres	Assessment Amount	Total Assessments
Residential				
Lot Type A - Single Family	155		$ 200	$ 31,000.00
Commercial				
Lot Type B - Commercial/Multi-family		266.2460	$1,247.96	332,263.63
Total				$363,263.63

*Preliminary; subject to change.

LIMITED OFFERING MEMORANDUM

$11,395,000*
CITY OF LEWISVILLE, TEXAS
COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT UTILITY SYSTEM BONDS, SERIES 2017
(LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT)

$5,905,000*
CITY OF LEWISVILLE, TEXAS
COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT ROAD SYSTEM BONDS, SERIES 2017
(LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT)

INTRODUCTION

This Limited Offering Memorandum provides certain information with respect to the issuance by the City of Lewisville, Texas (the "Issuer"), of its Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Utility Bonds") and its Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Road Bonds" and, with the Utility Bonds the "Bonds").

There follows in this Limited Offering Memorandum descriptions of the Bonds and certain information about the Issuer, Lewisville Castle Hills Public Improvement District No. 5 (the "Improvement District") and Denton County Fresh Water Supply District No. 1-G (the "District"). All descriptions of documents contained herein are only summaries and are qualified in their entirety by reference to each such document. Copies of such documents may be obtained from Winstead PC, Dallas, Texas, upon request and payment of the costs of duplication therefor. Certain capitalized terms used in this Limited Offering Memorandum have the same meanings assigned to such terms in the Bond Ordinances (hereinafter defined) and the Trust Agreements (hereinafter defined), except as otherwise indicated herein.

THE BONDS

General

The following is a description of certain terms and conditions of the Bonds, which description is qualified in its entirety by reference to the ordinances of the City Council (the "Governing Body") of the Issuer authorizing the issuance of the Bonds (collectively, the "Bond Ordinances") and two separate Master Trust Agreements, each dated as of May 1, 2014, , and each as supplemented by First Supplemental Trust Agreements, dated as of May 1, 2014, a Second Supplemental Trust Agreement (Utility), dated as of December 1, 2015, and a Second Supplemental Trust Agreement (Roads), dated as of December 1, 2017, and a Third Supplemental Trust Agreement (Utility), dated as of December 1, 2017 (collectively, the "Trust Agreements") between the Issuer and Wilmington Trust, National Association, in Dallas, Texas (the "Trustee"). The Bond Ordinances and Trust Agreements authorize the issuance and sale of the Bonds and prescribe the terms, conditions and provisions for the payment of the principal of and interest on the Bonds by the Issuer.

The Bonds are dated December 1, 2017, and will mature on September 1 in each of the years and in the amounts set forth on the inside cover hereof. The Bonds will be issued as fully registered bonds in the denomination of $25,000 and integral multiples of $5,000 in excess thereof. Principal of the Bonds will be payable to the Registered Owners at maturity or earlier redemption upon presentation of Bonds at the principal corporate trust office of the Trustee as paying agent/registrar (the "Paying Agent/Registrar," "Paying Agent," or "Registrar"). The Bonds are subject to optional and mandatory sinking fund redemption as described below under "Redemption Provisions."

*Preliminary; subject to change.

The Bonds constitute the third series for Bonds for utility purposes and secnd series of Bonds for road purposes issued by the Issuer pursuant to the Contracts (hereinafter defined). Proceeds of the Bonds will be used to pay the costs of acquiring and constructing certain water, sewer, and drainage facilities, and streets and roads within the Improvement District, to make a deposit into the Debt Service Reserve Funds for the Bonds, and pay the costs of issuance of the Bonds.

The Bonds will be issued in fully registered form and will be registered only in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"), which will act as securities depository for the Bonds. Individual purchases in authorized denominations will be made only through the book-entry system maintained by DTC through brokers and dealers who are, or act through, DTC participants. The purchasers of the Bonds will not receive certificates representing their interest in the Bonds. Ownership interest in the Bonds will be shown on, and transfer of the Bonds will be effected only through, records maintained by DTC and its participants. Payments of the principal of and interest on the Bonds are required to be made to owners by DTC through its participants. See "Book-Entry Only."

For so long as DTC is the securities depository for the Bonds, then "Owner" or "Registered Owner" shall refer solely to DTC. In the event that DTC is no longer the securities depository for the Bonds, the term "Owner" or "Registered Owner" shall refer to a successor securities depository or the Owners of the Bonds which are shown as Registered Owners on the registration books of the Paying Agent/Registrar.

Interest

Interest on the Bonds will accrue from the date of delivery to the Placement Agent (as defined herein) at the respective rates per annum set forth on the inside cover hereof. Interest on the Bonds is payable on September 1, 2018, and on each March 1 and September 1 thereafter until maturity or prior redemption.

Interest is calculated on the basis of a 360-day year comprised of twelve 30-day months. Interest on each Bond shall be payable by check payable on the interest payment date, mailed by the Paying Agent/Registrar on or before each interest payment date to the Registered Owner of record as of the Record Date to the address of such Registered Owner as shown on the bond registration books (the "Register") kept by the Paying Agent/Registrar, or by other such customary banking arrangements as may be acceptable to the Paying Agent/Registrar and the Registered Owner at the expense and risk of the Registered Owner.

If the date for the payment of the principal of or interest on the Bonds shall be a Saturday, Sunday, a legal holiday, or a day on which the Paying Agent/Registrar is authorized by law or executive order to close, then the date for such payment shall be the next succeeding day which is not such a Saturday, Sunday, legal holiday, or day on which banking institutions in Dallas, Texas are authorized to close; and payment on such date shall have the same force and effect as if made on the original date payment was due.

Redemption Provisions

Optional Redemption

The Bonds are subject to redemption and payment prior to their scheduled maturities at the option of the Issuer, in whole or in part, on the dates and at the redemption prices (expressed as a percentage of the principal amount of the Bonds to be redeemed, plus accrued interest to the date of redemption, from funds transferred from the Collection Fund or from other available money provided by the Issuer as set forth below:

Redemption Date	Redemption Prices
September 1, 2022 through August 31, 2023	103%
September 1, 2023 through August 31, 2024	102½%
September 1, 2024 through August 31, 2025	102%
September 1, 2025 through August 31, 2026	101½%
September 1, 2026 through August 31, 2027	101%
September 1, 2027 and thereafter	100%

If fewer than all of the Bonds are optionally redeemed at any time, the amounts of Bonds to be redeemed shall be designated by the Issuer and the particular Bonds within a maturity shall be selected by the Trustee by lot or other customary method of random selection (or by DTC in accordance with its procedures while the Bonds are in book-entry-only form).

Special Mandatory Redemption

Utility Bonds not exceeding $113,950 in principal amount and Road Bonds not exceeding $59,050 in principal amount are subject to special mandatory redemption prior to maturity, on any date, at a price equal to the principal amount of the Bonds, or portions thereof, to be redeemed, plus accrued interest thereon, to the date fixed for redemption from Special Assessment Revenues resulting from Prepayments of Special Assessments, when such Prepayments have accumulated in the Special Assessments Prepayment Fund (credited pro rata among the Bonds and any Additional Bonds based upon respective amounts outstanding) in an amount sufficient to redeem $113,950 in principal amount in Utility Bonds, or $59,050 in principal amount of Road Bonds, as applicable, plus accrued interest thereon, and such funds have been transferred to the applicable account of Redemption Fund. The maturities and amounts of Bonds to be so redeemed shall be designated by the Issuer and the particular Bonds within a maturity shall be selected by the Trustee by lot or other customary random method (or by DTC in accordance with its procedures while the Bonds are in book-entry-only form).

Mandatory Sinking Fund Redemption

The Bonds are subject to mandatory sinking fund redemption by the Issuer prior to their scheduled maturities, by lot or other customary method of random selection designated by the Trustee, on the dates and in the amounts set forth below at a redemption price equal to the principal amount redeemed plus accrued interest to the redemption date:

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UTILITY BONDS

Redemption Dates	Principal Amounts
September 1, 2019	$ 265,000
September 1, 2020	285,000
September 1, 2021	300,000
September 1, 2022	320,000
September 1, 2023	335,000
September 1, 2024	355,000
September 1, 2025	380,000
September 1, 2026	400,000
September 1, 2027	425,000
September 1, 2028	450,000
September 1, 2029	475,000
September 1, 2030	505,000
September 1, 2031	535,000
September 1, 2032	570,000
September 1, 2033	605,000
September 1, 2034	640,000
September 1, 2035	675,000
September 1, 2036	1,880,000
September 1, 2037 (maturity)	1,995,000

ROAD BONDS

Redemption Dates	Principal Amounts
September 1, 2019	$ 145,000
September 1, 2020	150,000
September 1, 2021	160,000
September 1, 2022	170,000
September 1, 2023	180,000
September 1, 2024	190,000
September 1, 2025	205,000
September 1, 2026	215,000
September 1, 2027	230,000
September 1, 2028	245,000
September 1, 2029	255,000
September 1, 2030	275,000
September 1, 2031	290,000
September 1, 2032	305,000
September 1, 2033	325,000
September 1, 2034	345,000
September 1, 2035	365,000
September 1, 2036	900,000
September 1, 2037 (maturity)	955,000

The particular Bonds to be so redeemed shall be selected by lot or other customary method of random selection. However, if during any period in which ownership of the Bonds is determined only by a book-entry-only system at a securities depository, if fewer than all of the Bonds of the same maturity are to be redeemed, the particular Term Bonds shall be selected in accordance with arrangement between the Issuer and the securities depository. The principal amounts shown above are subject to reduction, at the option and direction of the Issuer, by the amount of (i) any prior optional redemption of Bonds of such series at a redemption price of par plus accrued interest to the date fixed for redemption or (ii) any Bonds of such series and maturity acquired by the Issuer prior to maturity and delivered to the Trustee for cancellation and application.

Notice of Redemption

Notice of any redemption shall be given at least thirty (30) days and no more than sixty (60) days prior to the date fixed for redemption by first-class mail, postage prepaid, to the Registered Owners of the Bonds to be redeemed in whole or in part at the address shown on the Register.

Any notice mailed as provided in the Trust Agreements shall be conclusively presumed to have been duly given, whether or not the Owner receives such notice. By the redemption date, due provision shall be made with the Trustee for the payment of the redemption price of the Bonds to be redeemed, plus accrued interest thereon to the redemption date. When such Bonds have been called for redemption, in whole or in part, as provided above, and due provision has been made to redeem same, such Bonds, or portions thereof, shall no longer be regarded as outstanding except for the purpose of receiving payment from the funds provided for redemption, and the right of the owners to collect interest on such Bonds or portions thereof which would otherwise accrue after the redemption date shall be terminated.

The Issuer reserves the right, in the case of an optional redemption, to give notice of its election or direction to redeem Bonds conditioned upon the occurrence of subsequent events. Such notice may state (i) that the redemption is conditioned upon the deposit of moneys and/or authorized securities, in an amount equal to the amount necessary to effect the redemption, with the Paying Agent/Registrar, or such other entity as may be authorized by law, no later than the redemption date, or (ii) that the Issuer retains the right to rescind such notice at any time on or prior to the scheduled redemption date if the Issuer delivers a certificate of the Issuer to the Paying Agent/Registrar instructing the Paying Agent/Registrar to rescind the redemption notice, and such notice and redemption shall be of no effect if such moneys and/or authorized securities are not so deposited or if the notice is rescinded. The Paying Agent/Registrar shall give prompt notice of any such rescission of a conditional notice of redemption to the affected Owners. Any Bonds subject to conditional redemption and such redemption has been rescinded shall remain Outstanding, and the rescission of such redemption shall not constitute an Event of Default. Further, in the case of a conditional redemption, the failure of the Issuer to make moneys and/or authorized securities available in part or in whole on or before the redemption date shall not constitute an Event of Default.

Partial Redemption

If a portion of a Bond is to be redeemed, such portion may be redeemed, but only in integral multiples of $5,000. Upon surrender of any Bond for redemption in part, the Paying Agent/Registrar shall authenticate and deliver in exchange therefor a Bond or Bonds of like maturity and interest rate in an aggregate principal amount of the unredeemed portion of the Bond so surrendered.

Registration and Exchange

The Trust Agreements provide that, so long as any Bonds remain outstanding, the Paying Agent/Registrar shall keep the Register at its principal corporate trust office and, subject to such reasonable regulations as it may

prescribe, the Paying Agent/Registrar shall provide for the registration and transfer of Bonds in accordance with the terms of the Trust Agreements.

Each Bond shall be transferable only upon the presentation and surrender thereof at the corporate trust office of the Paying Agent/Registrar in Dallas, Texas, duly endorsed for transfer, or accompanied by an assignment duly executed by the Registered Owner or his authorized representative in form satisfactory to the Paying Agent/Registrar. Upon due presentation of any Bond in proper form for transfer, the Paying Agent/Registrar shall authenticate and deliver in exchange therefor, within three (3) business days after such presentation, a new Bond or Bonds, registered in the name of the transferee or transferees, in authorized denominations and of the same maturity and aggregate principal amount and bearing interest at the same rate as the Bond or Bonds so presented.

All Bonds are exchangeable upon presentation and surrender thereof at the corporate trust office of the Paying Agent/Registrar in Dallas, Texas, for a Bond or Bonds of like maturity and interest rate and in any authorized denomination, in an aggregate amount equal to the unpaid principal amount of the Bond or Bonds presented for exchange. Neither the Issuer nor the Paying Agent/Registrar shall be required to transfer or exchange any Bond during the fifteen (15) day period next preceding any interest payment date. The Issuer or the Paying Agent/Registrar may require the Owner of any Bond to pay a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with the transfer or exchange of such Bond. Any fee or charge of the Paying Agent/Registrar for such transfer or exchange shall be paid by the Issuer.

See "Book-Entry Only System" herein for a description of the system to be utilized initially in regard to ownership and transferability of the Bonds.

Limitations on Transfers

Unless either (i) the Bonds shall then have an Investment Grade Rating or (ii) the certified Taxable Assessed Valuation within the District shall be at least $_____, any transfer of the Bonds is restricted solely to transferees who are both (i) Qualified Institutional Buyers, as defined by Rule 144A of the General Rules and Regulations promulgated under the Securities Act of 1933 and (ii) Institutional Investors, as defined by applicable state securities laws and transferees of the Bonds will be required to provide to the Trustee a Transferee Letter in the form set forth in APPENDIX G hereto prior to any transfer.

Book-Entry Only System

This section describes how ownership of the Bonds is to be transferred and how the principal of and interest on the Bonds are to be paid to and credited by The Depository Trust Company, New York, New York, ("DTC") while the Bonds are registered in its nominee name. The information in this section concerning DTC and the Book-Entry-Only System has been provided by DTC for use in disclosure documents such as this Official Statement. The Issuer, the District, the Financial Advisor, and the Placement Agent believe the source of such information to be reliable, but none of the Issuer, the District, the Financial Advisor, nor the Placement Agent takes any responsibility for the accuracy or completeness thereof.

The District cannot and does not give any assurance that (1) DTC will distribute payments of debt service on the Bonds, or redemption or other notices, to DTC Participants, (2) DTC Participants or others will distribute debt service payments paid to DTC or its nominee (as the registered owner of the Bonds), or redemption or other notices, to the Beneficial Owners, or that they will do so on a timely basis, or (3) DTC will serve and act in the manner described in this Official Statement. The current rules applicable to DTC are on file with the Securities and Exchange Commission, and the current procedures of DTC to be followed in dealing with DTC Participants are on file with DTC.

The Depository Trust Company ("DTC"), New York, New York, will act as securities depository for the Bonds. The Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered certificate will be issued for the Bonds, in the aggregate principal amount of such issue, and will be deposited with DTC.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing companies, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing companies that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has a Standard & Poor's rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com and www.dtc.org.

Purchases of Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Bonds on DTC's records. The ownership interest of each actual purchaser of each Bond ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in Bonds, except in the event that use of the book-entry system for the Bonds is discontinued.

To facilitate subsequent transfers, all Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Bonds, such as redemptions, tenders, defaults, and proposed

amendments to the Bond documents. For example, Beneficial Owners of Bonds may wish to ascertain that the nominee holding the Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the Registrar and request that copies of notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the Bonds within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Payments on the Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Issuer or Paying Agent/Registrar, on payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, Paying Agent/Registrar, or the Issuer, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Issuer or Paying Agent/Registrar, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the Bonds at any time by giving reasonable notice to the Issuer or Paying Agent/Registrar. Under such circumstances, in the event that a successor depository is not obtained, Bond certificates are required to be printed and delivered.

The Issuer may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository). In that event, Bond certificates will be printed and delivered to DTC.

Sources of Payment

The Bonds, when issued and delivered, are valid and legally binding special revenue obligations of the Issuer, with an amount not less than one percent (1%) of the original principal amount of the Bonds, together with interest thereon, being payable, together with the Outstanding Bonds, from and secured by a pledge of and lien on certain Special Assessment Revenues and with an amount equal to the balance of the original principal amount of the Bonds, together with interest thereon, but in no event to exceed, on a cumulative basis, ninety-nine percent (99%) of the original principal amount of the Bonds, together with interest thereon, being payable, together with the Outstanding Bonds, from certain Contract Revenues to be paid by the District pursuant to a 2008 Joint Utility Contract and a 2008 Joint Road Contract, each effective as of May 19, 2014 (collectively, the "Contracts") among the Issuer, the District and District No. 1-A. See "APPENDIX D - SUMMARY OF THE CONTRACTS."

- Special Assessment Revenues -

Special Assessment Revenues are to be derived from Special Assessments levied by the Issuer against benefitted property within the Improvement District pursuant to an Assessment/Service Plan adopted by the Issuer pursuant to Section 372, Texas Local Government Code, including updates thereto approved by the Issuer. See "ASSESSMENT PROCEDURES." Such Special Assessments are payable pursuant to the assessment ordinance (the "Assessment Ordinance") adopted by the Issuer for the Improvement District. Special Assessment Revenues are to be collected in an amount sufficient to pay an amount not less than one percent (1%) of the original principal amount of the Bonds, together with interest thereon, when due.

- Contract Revenues -

Contract Revenues are payable from the levy by the District of ad valorem taxes, without legal limitation as to rate or amount on all taxable property within the District, to pay the principal and the interest on the Bonds and such additional bonds of the Issuer as may hereafter be issued pursuant to the terms of the Contracts. The Trust Agreements create an Interest and Sinking Fund and create a Series 2017 Utility Bonds Interest and Sinking Fund Account and a Series 2017 Road Bonds Interest and Sinking Fund Account therein, and the proceeds from all taxes levied, assessed and collected for and on account of the Contract Revenues shall be deposited in such Fund to pay debt service on the Utility Bonds and the Road Bonds, respectively. While the Bonds or any part of the principal thereof or interest thereon remain outstanding and unpaid, the District covenants to levy and annually assess and collect in due time, form and manner, and at the same time as other District taxes are assessed, levied and collected, in each year, an annual ad valorem tax, without legal limit as to rate or amount, upon all taxable property in the District, sufficient to pay an amount equal to the balance of the original principal amount of the Bonds, together with interest thereon, that is not paid from Special Assessment Revenues, but in no event to exceed, on a cumulative basis, ninety-nine percent (99%) of the original principal amount of the Bonds, together with interest thereon, when due.

The Contracts provide that the District shall, prior to setting its tax rate each year, calculate the total amount of the payments to be made by the Issuer pursuant to the Bonds, after the application of the available reserves established with the proceeds of such Bonds and any Special Assessment Revenues, and shall establish a tax rate on all taxable property within its boundaries which, if 95% of such taxes are collected in a timely fashion, would be sufficient to make the annual payment of Contract Revenues to the Issuer. See "APPENDIX D - SUMMARY OF THE CONTRACTS."

- Debt Service Reserve Funds -

The Trust Agreements create Debt Service Reserve Funds. The Trust Agreements require such Debt Service Reserve Funds to be in an amount (the "Debt Service Reserve Amount"), equal to the lesser of (i) ten percent (10%) of the principal amount of the applicable series of the Bonds, (ii) the maximum annual debt service on the applicable series of Bonds, and (iii) 125% of the average annual debt service requirements on the applicable series of Bonds. Out of funds advanced by the Developer on the Closing Date for the Bonds, an amount equal to maximum annual debt service on the Utility Bonds and the Road Bonds, respectively, will be deposited into the applicable Debt Service Reserve Fund.

The Debt Service Reserve Funds are to be used solely (i) to pay principal of and interest on the applicable series of Bonds in the event and to the extent that funds on deposit in the applicable Interest and Sinking Fund are insufficient for such purpose and (ii) to the extent of funds available therein, to pay the last maturity or maturities of the Bonds. The District is required to replenish any deficiencies in the Debt Service Reserve Funds resulting from a withdrawal therefrom in twelve consecutive equal monthly installments. Any deficiency in the Debt Service Reserve Funds resulting from a determination that the value of the Authorized Investments credited to the applicable Debt Service Reserve Fund is less than the Debt Service Reserve Amount, must also be replenished in twelve consecutive equal monthly installments.

Defeasance

The Issuer may defease the provisions of the Bond Ordinances and the Trust Agreements and discharge its obligations to the Registered Owners of any or all of the Bonds to pay principal and interest thereon in the manner provided by Section 1207.062, Texas Government Code, as amended. Under Section 1207.062, such discharge may be accomplished either (i) by depositing with the Comptroller of Public Accounts of the State of Texas a sum of money equal to the principal of, premium, if any, and all interest to accrue on the Bonds to

maturity or redemption or (ii) by depositing with any place of payment (paying agent) for obligations of the Issuer payable from the Contracts, or with a commercial bank or trust company designated in the proceedings authorizing such discharge, amounts sufficient to provide for the payment and/or redemption of the Bonds; provided that such deposits may be invested and reinvested only in (a) direct noncallable obligations of the United States of America, including obligations that are unconditionally guaranteed by the United States of America, (b) noncallable obligations of an agency or instrumentality of the United States, including obligations that are unconditionally guaranteed or insured by the agency or instrumentality and that, on the date the governing body of the Issuer adopts or approves the proceedings authorizing the issuance of refunding bonds, are rated as to investment quality by a nationally recognized investment rating firm not less than AAA or its equivalent; and (c) noncallable obligations of a state or an agency or a county, municipality, or other political subdivision of a state that have been refunded and that, on the date the governing body of the Issuer adopts or approves the proceedings authorizing the issuance of refunding bonds, are rated as to investment quality by a nationally recognized investment rating firm not less than AAA or its equivalent. The foregoing obligations may be in book entry form, and shall mature and/or bear interest payable at such times and in such amounts as will be sufficient to provide for the scheduled payment and/or redemption of the Bonds. If any of such Bonds are to be redeemed prior to their respective dates of maturity, provision must have been made for giving notice of redemption as provided in the Bond Ordinances and Trust Agreements.

Upon such deposit as described above, such Bonds shall no longer be regarded to be outstanding or unpaid and thereafter the Issuer will have no further responsibility with respect to amounts available to such paying agent (or other financial institution permitted by applicable law) for the payment of such defeased bonds, including any insufficiency therein caused by the failure of such paying agent (or other financial institution permitted by applicable law) to receive payment when due on the defeasance securites. After firm banking and financial arrangements for the discharge and final payment or redemption of the Bonds have been made as described above, all rights of the Issuer to initiate proceedings to call the Bonds for redemption or take any other action amending the terms of the Bonds are extinguished; provided, however, that the right to call the Bonds for redemption is not extinguished if the Issuer: (i) in the proceedings providing for the firm banking and financial arrangements, expressly reserves the right to call the Bonds for redemption; (ii) gives notice of the reservation of that right to the owners of the Bonds immediately following the making of the firm banking and financial arrangements; and (iii) directs that notice of the reservation be included in any redemption notices that it authorizes.
There is no assurance that the current law will not be changed in a manner which would permit investments other than those described above to be made with amounts deposited to defease the Bonds. Because neither the Bond Ordinances nor the Trust Agreements contractually limits such investments, owners of the Bonds may be deemed to have consented to defeasance with such other investments, notwithstanding the fact that such investments may not be of the same investment quality as those currently permitted under Texas law.

Annexation

Under existing Texas law, since the District lies wholly within the extraterritorial jurisdiction of the Issuer, the District may be annexed by the Issuer, subject to compliance by the Issuer with various requirements of Chapter 43 of the Texas Local Government Code, as amended. If the District is annexed, the Issuer must assume the District's assets and obligations (including the Contracts) and abolish the District within 90 days of the date of annexation except as provided under "Strategic Partnership Agreement" below. Annexation of territory by the Issuer is a policy-making matter within the discretion of the Mayor and City Council of the Issuer, and therefore, the District and the Issuer make no representation that the Issuer will ever annex the District and assume its debt. Moreover, no representation is made concerning the ability of the Issuer to make Contract Payments to pay debt service on the Bonds should annexation occur. Under the terms of the SPA (as herein defined) between the District and the Issuer, however, the Issuer has agreed not to annex the District for full purposes (a traditional municipal annexation) for at least ten (10) years from the date of execution of the SPA. See "Strategic Partnership Agreement" below.

Strategic Partnership Agreement

In June, 2009, the District, together with District No. 1-A, District No. 1-B, District No. 1-C, District No. 1-D, District No. 1-E, District No. 1-F, and District No. 1-H, entered into a Strategic Partnership Agreement with the City as authorized by Texas Local Government Code, Chapter 43 (the "SPA"). The SPA provides for a "limited purpose annexation" of that portion of the District developed for retail and commercial purposes for purposes of applying the City sales tax. The portion of the District consisting of residential development is not subject to the SPA. The SPA also provides that the City will not annex the District for "full purposes" (a traditional municipal annexation) for the ten (10)-year term of the SPA.

As a result of the SPA, the City is authorized to impose a one percent (1%) retail City sales tax within the portion of the District included in the limited purpose annexation. Pursuant to the SPA, the City pays to the District through District No. 1-A, an amount, if any, over and above an amount retained by the City for its cost to provide public safety services to the District, equal to one-half of all retail sales tax revenues within such area of the District and received by the City from the Texas Comptroller of Public Accounts (herein defined as the "Sales Tax Revenue"). The SPA requires that amounts received by the District under the SPA be used first to reimburse any developer for any outstanding maintenance and operating advances. Thereafter, the District is authorized to use the Sales Tax Revenue generated pursuant to the SPA for any lawful purpose.

None of the Sales Tax Revenue is pledged toward the payment of principal and interest on the Bonds and none is expected to be used for such purpose.

Consolidation

The District has the legal authority to consolidate with any other districts and, in connection therewith, to provide for the consolidation of its assets (such as cash and the utility system) and liabilities (such as its obligations under the Contracts), with the assets and liabilities of districts with which it is consolidating. Although no consolidation is presently contemplated by the District, no representation is made concerning the likelihood of consolidation in the future.

Authorization of the Bonds

The Bonds are issued pursuant to the authority of the Bond Ordinances, the Trust Agreements, and Chapter 372 of the Texas Local Government Code, as amended. The Contracts have been entered into in accordance with Chapters 49, 51, and, for limited purposes, 53, Texas Water Code, as amended. Each of the Contracts were approved at an election held within the District on November 4, 2008, by a vote of 3 "For" to 0 "Against". See "THE BONDS - Legal Ability of the Issuer to Issue Additional Debt" and "Legal Ability of the District to Issue Additional Debt."

Legal Ability of the Issuer to Issue Additional Debt

After issuance of the Bonds, there will be no remaining authorized but unissued bonds (other than refunding bonds) under the Contracts. Additional Bonds may be issued in such amounts as are necessary for the refunding of any outstanding obligations issued pursuant to the Contracts. Such Additional Bonds may be issued with the approval of the governing body of the Issuer, but without the necessity of authorization by the voters within the Issuer or further authorization by voters within the District.

The Issuer also has the right to issue such bonds, notes or other obligations as are authorized to be issued by municipal corporations by and subject to the requirements of, the provisions of the constitution and laws of the

State of Texas applicable to municipal corporations. Any such obligations issued by the Issuer other than pursuant to the Contracts will be payable from sources other than the Contract Revenues.

Legal Ability of the District to Issue Additional Debt

In addition to the Bonds and any Additional Bonds issued pursuant to the Contracts, the District has the right to issue such unlimited tax bonds as may be hereafter approved by the voters of the District. The District also has the right to issue revenue bonds, revenue notes, bond anticipation notes and tax anticipation notes without voter approval. In addition, the District has the right to enter into other contracts similar to the Contracts and to pledge its taxing power to secure any payments the District is required to make under such a contract, provided the provisions of the contract are approved by the voters of the District. The District further has the right, without further voter approval, to issue bonds to refund outstanding bonds of the District.

The District is also authorized by law to engage in fire-fighting activities and is authorized to issue bonds payable from District ad valorem taxes for such purpose. Before the District may issue bonds for fire-fighting activities payable from District ad valorem taxes, the following actions would be required: (1) authorization of a detailed master plan and bonds for such purpose by the qualified voters in the District; (2) approval of the master plan and bonds by the Texas Commission on Environmental Quality (the "TCEQ"); and (3) approval of bonds by the Attorney General of Texas. The Board of Directors of the District has not considered calling an election at this time for such purposes.

Notwithstanding the foregoing, the District has agreed in its resolution approving the issuance of the Bonds that it will not issue any bonds payable from ad valorem taxes unless the Assessed Value within the District is at least 3.5 times the sum of the then outstanding bonds, and the proposed additional bonds after deducting any amounts on deposit in any debt service reserve fund with respect to any outstanding bonds and any amounts to be deposited to any debt service reserve fund out of proceeds of the proposed additional bonds. The term "Assessed Value" shall be defined as follows: as determined by the Denton Central Appraisal District, the greater of (I) the total assessed valuation certified by the Appraisal District or (ii) the most recent preliminary total assessed valuation certified by the Appraisal District.

If additional debt obligations are issued in the future by the District, such issuance may increase gross debt/property valuation ratios and might adversely affect the investment security of the Bonds. See "RISK FACTORS - Future Debt."

Events of Default

The Trust Agreements define each of the following to be an "Event of Default":

(a) if default occurs in the timely payment of a Principal Installment (whether mandatory prepayment amount or the principal amount due at maturity) of any of the Bonds of a series; or

(b) if default occurs in the timely payment of any installment of interest or premium, if any, on any of the respective series of Bonds of a series; or

(c) the Bankruptcy or Insolvency of the Issuer; or

(d) if the Issuer shall default in the due and punctual performance of any of the covenants, conditions, agreements and provisions contained in the respective series of Bonds or in the respective Bond Ordinances or Trust Agreements, other than as specified in (a), (b), or (c) above, on the part of the Issuer to be performed, and such default shall continue for thirty (30) days after written notice specifying such default and requiring same to be remedied shall have been given to the Issuer by the Trustee, which may give such notice

in its discretion and shall give such notice at the written request of the Owners of not less than ten percent (10%) in principal amount of the respective series of Bonds then outstanding; or

(e) if the Issuer or the District shall default in the due and prompt performance of any of the covenants, conditions, agreements and provisions contained in the respective Contract on the part of the Issuer or the District, as the case may be, to be performed, and such default shall continue for thirty (30) days after written notice specifying such default and requiring the same to be remedied shall have been given by the Trustee, which notice the Trustee may give in its discretion.

Remedies in Event of Default

Upon the happening and continuance of any Event of Default, the Trustee may proceed, and upon the written request of the Registered Owners of not less than fifty-one percent (51%) in principal amount of the Bonds and any Additional Bonds then Outstanding shall proceed to protect and enforce its rights and the rights of the Owners of the Bonds under the Act and under the applicable Trust Agreement by such suits, actions or special proceedings in equity or at law, or by proceedings in the office of any board or officer having jurisdiction, either for the specific performance of any covenant or agreement contained in the applicable Trust Agreement or in aid or execution of any power granted in the applicable Trust Agreement or for the enforcement of any proper legal or equitable remedy, as the Trustee, being advised by counsel, shall deem most effectual to protect and enforce such rights.

In the enforcement of any remedy under a Trust Agreement the Trustee shall be entitled to sue for, enforce payment of and receive any and all amounts then or during any default becoming, and at any time remaining, due from the Issuer for Principal Installments, interest or otherwise under any of the provisions of the Trust Agreements or of the Bonds and unpaid, with interest on overdue payments at the rate or rates of interest specified in such Bonds, together with any and all costs and expenses of collection and of all proceedings therewith and under such Bonds, without prejudice to any other right or remedy of the Trustee or of the Owners of the Bonds, and to recover and enforce judgment or decree against the Issuer, but solely as provided in the Trust Agreements and in such Bonds, for any portion of such amounts remaining unpaid, with interest, costs and expenses, and to collect (but solely from Contract Payments and Special Assessment Revenues or other moneys available for such purposes) specifically permitted by the Trust Agreements) in any manner provided by law, the moneys adjudged or decreed to be payable from said sources.

The Registered Owners of not less than a majority in principal amount of the applicable series of Bonds then Outstanding shall have the right, by an instrument or concurrent instruments in writing executed and delivered to the Trustee, to direct the method and place of conducting all remedial actions to be taken by the Trustee hereunder, provided that such direction shall not be otherwise than in accordance with law or the provisions of the Trust Agreements and that the Trustee shall have the right to decline to follow any such direction which in the opinion of the Trustee would be unjustly prejudicial to Registered Owners of the Bonds not parties to such direction.

No Registered Owners of any of the Bonds then Outstanding shall have any right to institute any suit, action, mandamus or other proceeding in equity or at law for the execution of any trust hereunder or the protection or enforcement of any right under the Trust Agreements or the Bond Ordinances, or any right under the act or the laws of Texas, excepting only an action for the recovery of overdue and unpaid principal installments, interest or redemption premium, unless such Registered Owner previously shall have given to the Trustee written notice of the event of default or breach of trust or duty on account of which such suit or action is to be taken, and unless the Registered Owners of not less than twenty percent (20%) in principal amount of the applicable series of Bonds and any Additional Bonds then Outstanding shall have made written request of the Trustee after the right to exercise such powers or right of action, as the case may be, shall have accrued, and shall have afforded the Trustee a reasonable opportunity either to proceed to exercise the powers herein granted or granted by the laws of Texas, or to institute such action, suit or proceeding in its or their name, and unless, also, there shall have been

offered to the Trustee reasonable security and indemnity against the costs, expenses and liabilities to be incurred therein or thereby, and the Trustee shall have refused or neglected to comply with such request within a reasonable time.

Notwithstanding the foregoing, if an Event of Default shall have occurred and be continuing, the Series 2017 Road Bonds Bondholder Representative or the Series 2017 Utility Bonds Bondholder Representative, as applicable, in its sole discretion as evidenced by written notice delivered to the Trustee, may (but shall not be required to), (i) in lieu of the Trustee, exercise such one or more of the rights and powers conferred on the Trustee; and (ii) such rights and powers granted to Issuer under the Trust Agreement, and such rights of the Owners under the Trust Agreement, either by a suit or suits in equity or in law for the enforcement of any appropriate equitable or legal remedy the applicable Bondholder Representative shall deem most expedient in the interest of the Owners.

Any delay or omission to exercise any right or power occurring upon any default shall not impair any such default or acquiescence therein, and every such right and power may be exercised from time to time and as often as may be deemed expedient.

There is no acceleration of maturity of the Bonds in the event of default. Consequently, the remedy of specific performance is a remedy which may have to be relied upon from year to year by the Registered Owners. Based on recent Texas court decisions, it is unclear whether certain legislation effectively waives governmental immunity of governmental entities for suits for money damages. Even if the Registered Owners could obtain a judgment against the Issuer, such judgment could not be enforced by levy and execution against the Issuer's property or the District's property or the property subject to assessment. Further, the Registered Owners cannot themselves foreclose on property within the District or sell property within the District or the Improvement District, as the case may be, in order to pay the principal of and interest on the Bonds. Certain traditional legal remedies also may not be available.

The enforceability of the rights and remedies of the Registered Owners may be further limited by federal bankruptcy laws related to bankruptcy, reorganization, or other similar laws of general application affecting the rights of creditors of political subdivisions such as the Issuer and the District. Specifically, the Issuer or the District may voluntarily file a petition for protection from creditors under the federal bankruptcy laws. During the pendency of the bankruptcy proceedings the remedy for mandamus would not be available to the Registered Owners unless authorized by a federal bankruptcy judge. Additionally, the right of the District to seek judicial foreclosure of any tax lien or special assessment lien upon property within such District may be stayed. See "RISK FACTORS - Bankruptcy Limitation to Registered Owners' Rights."

Legal Investment and Eligibility to Secure Public Funds in Texas

Chapter 372, Texas Local Government Code, as amended, pursuant to which the Bonds are issued, provides as follows:

(a) Bonds issued under this subchapter are legal and authorized investments for:

(1) banks, trust companies, and savings and loan associations;

(2) all insurance companies;

(3) fiduciaries, trustees, and guardians; and

(4) interest funds, sinking funds, and other public funds of the state or of an agency, subdivision, or instrumentality of the state, including a county, municipality, school district, or other district, public agency or body politic.

(b) Bonds issued under this subchapter may be security for deposits of public funds of the state or of an agency, subdivision, or instrumentality of the state, including a county, municipality, school district, or other district, public agency or body politic, to the extent of the market value of the Bonds, if accompanied by any appurtenant unmatured interest coupons.

The Issuer makes no representation that the Bonds will be acceptable to banks, savings and loan associations or public entities for investment purposes or to secure deposits of public funds. The Issuer has made no investigation of other laws, regulations or investment criteria which might apply to or otherwise limit the availability of the Bonds for investment or collateral purposes. Prospective purchasers are urged to carefully evaluate the investment quality of the Bonds as to the acceptability of the Bonds for investment or collateral purposes.

USE OF PROCEEDS

Sources and Uses of Funds

UTILITY BONDS

The proceeds from the sale of the Utility Bonds will be applied as follows:

Sources of Funds

Principal Amount of Bonds	$11,395,000
Original Issue Discount [Premium]	
Total Sources of Funds	$

Uses of Funds

Utility Improvement Fund	$
Utility Debt Service Reserve Fund	
Placement Agent's Fee	
Issuance Costs	
Total Uses of Funds	$

ROAD BONDS

The proceeds from the sale of the Road Bonds will be applied as follows:

Sources of Funds

Principal Amount of Bonds	$5,905,000
Original Issue Discount [Premium]	
Total Sources of Funds	$

Uses of Funds

Road Improvement Fund	$
Road Debt Service Reserve Fund	
Placement Agent's Fee	
Issuance Costs	
Total Uses of Funds	$

Use of Bond Proceeds for Construction Purposes

A portion of the proceeds of the Utility Bonds ($_____) will be deposited to the Issuer's Utility Improvement Fund to be used to pay the costs of acquiring and constructing certain water, sewer, and drainage facilities and a portion of the proceeds of the Road Bonds ($_____) will be deposited to the Issuer's Road Improvement Fund to be used to pay the costs of acquiring and constructing certain streets and roads generally to serve areas within the Improvement District.

In the instance that the above estimated amounts exceed actual costs, the difference comprises a surplus which may be expended for other authorized purposes. In the instance that actual costs exceed previously estimated amounts, the issuance of Additional Bonds may be required. The District's Engineer has advised the Issuer that the proceeds of the sale of the Bonds should be sufficient to pay the costs of the above-described facilities. However, the Issuer cannot and does not guarantee the sufficiency of such funds for such purposes.

RISK FACTORS

General

The Bonds, which are special revenue obligations of the Issuer and not of the State of Texas or Denton County, will be secured by Contract Revenues to be paid by the District to the Issuer pursuant to the Contracts, and by Special Assessment Revenues. Contract Revenues are payable from an annual ad valorem tax, without legal limitation as to rate or amount, levied by the District on all taxable property within the District. Special Assessment Revenues are payable from Special Assessments levied by the Improvement District against benefitted property within the Issuer. AN AMOUNT ON A CUMULATIVE BASIS NOT LESS THAN ONE PERCENT (1%) OF THE ORIGINAL PRINCIPAL AMOUNT OF THE BONDS, TOGETHER WITH INTEREST THEREON, IS PAYABLE FROM SPECIAL ASSESSMENTS AND AN AMOUNT EQUAL TO THE BALANCE OF THE ORIGINAL PRINCIPAL AMOUNT OF THE BONDS, TOGETHER WITH INTEREST THEREON, BUT IN NO EVENT TO EXCEED, ON A CUMULATIVE BASIS, NINETY-NINE PERCENT (99%) OF THE ORIGINAL PRINCIPAL AMOUNT OF THE BONDS, TOGETHER WITH INTEREST THEREON, IS PAYABLE FROM CONTRACT REVENUES. The ultimate security for payment of the principal of and interest on the Bonds depends upon (i) the ability of the District to pay Contract Revenues from the collection from the property owners within the District of taxes levied against all taxable property located within the District, or, in the event taxes are not collected and foreclosure proceedings are instituted by the District, upon the value of the taxable property with respect to taxes levied by the District and by other taxing authorities, and (ii) the ability of the Issuer to collect Special Assessment Revenues within the Improvement District or, in the event Special Assessments are not collected and foreclosure proceedings are instituted on behalf of the Issuer, upon the value of the property which is subject to such Special Assessments. Neither the Issuer nor the District makes any representations that over the life of the Bonds the property within the District will maintain values sufficient to justify continued payment of taxes or Special Assessments by the property owners. The potential increase in taxable valuation of property within the District is directly related to the economics of the residential housing and commercial products industry, not only due to general economic conditions, but also due to the particular factors discussed below.

Factors Affecting Taxable Values and Tax Payments

Economic Factors: The rate of development of the District is directly related to the vitality of the residential housing industry and the demand for commercial projects. Such development and construction can be significantly affected by factors such as interest rates, construction costs, availability of liquidity and credit in the financial markets, and consumer demand. Decreased levels of home construction activity would restrict the growth of property values in the District. Because a significant number of the homes being constructed and planned for construction within the District are considered to be in such higher end market, slowdown or worsening of the market for such higher end homes could adversely effect the growth of taxable values within the District. Neither the Issuer nor the District can predict the pace or magnitude of any future development or home construction in the District.

Development of land within the District is contingent upon construction or acquisition of major public improvements such as arterial streets, water distribution facilities, sewage collection and transmission facilities and street lighting, as well as local in-tract improvements that may include substantial site grading. While these improvements in the District are expected to be constructed with proceeds of the Outstanding Bonds and the Bonds, there can be no assurance that any or all of these improvements will be constructed. See "DEVELOPMENT OF THE DISTRICT AND FUTURE DEVELOPMENT" herein. The cost of these public and private in-tract and off-site improvements could increase the public and private debt for which the land within the District provides security. This increased debt could reduce the ability or desire of the property owners to pay taxes or the Special Assessments levied against their property.

The development of land within the District is subject to a number of contingencies which could slow or prevent future development of the undeveloped land. Consequently, no assurance can be given that such development will be partially or fully completed, and in assessing the investment quality of the Bonds, prospective purchasers should evaluate such risks. In addition to potentially reducing the ability and willingness of the landowners to pay taxes and Special Assessments, a slowdown of the economic development process in the region could adversely affect land values and reduce the proceeds received at a foreclosure sale in the event taxes or Special Assessments are not paid when due.

Developer and Major Landowner's Obligation to the Issuer: The top five principal taxpayers comprise approximately 59.34% of the District's tax roll. ESW Castle Hills Investment LP owns commercial property which currently comprises approximately 17.34% of the 2017 tax roll of the District, SWC 121/423 LP, the owner of certain commercial property, currently comprises approximately 15.29% of the 2017 tax roll of the District, CAF TPEG Castle Hills LLC comprises approximately 14.42 of the 2017 tax roll of the District, MREF II Windhaven LLC owns commercial property which currently comprises 12.29% of the District's 2017 tax roll and BRECO Lands CH LLC owns undeveloped land which currently comprises 9.85% of the District's 2017 tax roll. The ability of Bright Realty to make full and timely payments of taxes levied against their properties by the District will directly affect the District's ability to meet its obligations to make payments under the Contracts. Only owners of property located in the District are legally responsible for payment of ad valorem taxes to the District and other taxing authorities and for payment of Special Assessments to the Issuer. Failure of Bright Realty to make timely payment of their taxes could result in defaults under the Trust Agreements and ultimately could adversely affect the investment security of the Bonds.

There is no commitment by or legal requirement of the Developer or any other landowner to the District to proceed at any particular rate or according to any specified plan with the development of land or the construction of homes in the District, and there is no restriction on any landowners' right to sell its land. Therefore, neither the Issuer nor the District can make any representation about the probability of future development, if any, or the rate of home construction activity in the District. Moreover, although the Developer has been involved with some mixed-use developments, it has had no previous experience in the development of primarily single-family developments other than the Castle Hills Project.

Maximum Impact on District Tax Rates: Assuming no further development, the value of the land and improvements currently within the District will be the major determinant of the ability or willingness of District property owners to pay their taxes. The District's 2017 Assessed Valuation is $280,786,530 and Estimated Valuation at September 1, 2017 is $_____. The average annual debt service requirement on the Bonds is $3,094,523 and the maximum annual debt service requirement on the Bonds is $3,136,325. Assuming no increase to nor decrease from the 2017 Assessed Valuation, and no use of funds on hand to augment tax receipts, tax rates of $1.18 per $100 of 2017 Assessed Valuation and $____ per 100 of Estimated Valuation at September 1, 2017, at 95% collection rates would be necessary to pay both the average annual debt service requirements and maximum annual debt service requirements.

The District has levied a tax in 2017 of $1.00 per $100 of Assessed Valuation consisting of $0.37 for operation and maintenance purposes and $0.63 for purposes of making payments under the Contracts and for operation and maintenance purposes. If assessed values within the District do not increase beyond the 2017 Assessed Valuation of $280,786,530, a tax rate of $0.63 will be insufficient to pay debt service on the Bonds based upon the 2017 Assessed Valuation and the Estimated Valuation at September 1, 2017. In order for a tax rate of $0.63 to be sufficient to pay both the average annual and maximum annual debt service requirements on the Bonds, the assessed valuation in the District must increase to approximately $524,031,000. With the continued development of property and construction of homes on the lots developed by the Developer, the District anticipates that increases in the taxable values will enable the District to make payments of Contract Revenues sufficient to meet debt service requirements on the Bonds without increasing the tax rate above a rate of $0.63. However, the District can make no representation that the taxable property values in the District will increase in the future or will maintain a value sufficient to support the aforementioned tax rate or to justify continued payment of taxes or Special Assessments by property owners.

Increases in the District's tax rate to higher levels than the $0.63 per $100 of Assessed Valuation rate anticipated for 2017 may have an adverse impact upon future development of the District, the sale and construction of homes within the District and the ability of the District to collect, and the willingness of owners of property located within the District to pay, ad valorem taxes levied by the District. In addition, the collection by the District of delinquent taxes owed to it and the enforcement by a Registered Owner of the District's obligations to collect sufficient taxes may be a costly and lengthy process.

The combination of the District's 2017 levy of $1.00 per $100 of Assessed Valuation, plus the aggregate of the 2017 tax levies of all other units of government which levy taxes against the property located within the District, would be $2.7619 per $100 of Assessed Valuation. See "TAX DATA - Estimated Overlapping Taxes."

Tax Collection Limitations

The District's ability to make payments of Contract Revenues may be adversely affected by its inability to collect ad valorem taxes. Under Texas law, the levy of ad valorem taxes by the District constitutes a lien in favor of the District on a parity with the liens of all other state and local taxing authorities on the property against which taxes are levied, and such lien may be enforced by foreclosure. The District's ability to collect ad valorem taxes through such foreclosure may be impaired by (a) cumbersome, time-consuming and expensive collection procedures, (b) a bankruptcy court's stay of tax collection procedures against a taxpayer, (c) market conditions affecting the marketability of taxable property within the District and limitation of the proceeds from a foreclosure sale of such property, (d) adverse effects on the proceeds of a foreclosure sale resulting from a taxpayer's limited right to redeem its foreclosed property as set forth below, or (e) insufficient foreclosure bids to satisfy the tax liens of all state and local taxing authorities which have parity liens on the property. While the District has a lien on taxable property within the District for taxes levied against such property, such lien can be foreclosed only in a judicial proceeding. Moreover, the value of the property to be sold for delinquent taxes and thereby the potential sales proceeds available to pay debt service on the Bonds, may be limited by among

other factors, the existence of other tax liens on the property, by the current aggregate tax rate being levied against the property, or by the taxpayers' right to redeem residential or agricultural use property within two (2) years of foreclosure and all other property within six (6) months of foreclosure. See "TAX PROCEDURES."

Special Assessment Limitations

Special Assessments are due and payable in the same manner as, and bear the same penalties and interest for non-payment, as do regular property tax installments. Additionally, Special Assessments are payable in annual installments established by the Assessment Ordinance to correspond in number and proportionate amount to the number of installments and principal amounts of the Bonds and any Additional Bonds maturing in each year. See "ASSESSMENT PROCEDURES - Priority of Lien" herein. It should be noted that the unwillingness or inability of a property owner to pay regular property tax bills as evidenced by property tax delinquencies may also indicate an unwillingness or inability to make regular assessment installment payments in the future.

Although Special Assessments are secured by a lien on the parcels within the Improvement District and the Issuer has covenanted to institute foreclosure proceedings to sell parcels with delinquent assessment installments for amounts sufficient to cover such delinquent installments in order to obtain funds to pay debt service on the Bonds, there can be no assurance that foreclosure proceedings will occur in a timely manner so as to avoid delay in payments of debt service on the Bonds. In addition the pledge of Special Assessments to the Bonds is not sufficient to pay the full amount of debt service due on the Bonds. Upon an ad valorem tax lien foreclosure event of a property within the District, an installment of Special Assessments that is also delinquent will be foreclosed in the same manner as the ad valorem tax lien (assuming all conditions and procedures for foreclosure are duly satisfied). The foreclosure of accrued installments of Special Assessments does not eliminate the outstanding principal balance of the Special Assessment and any purchaser of the property in foreclosure takes the property subject to the Special Assessment lien and any associated obligations.

Failure by owners of the parcels to pay installments of Special Assessments when due, delay in foreclosure proceedings, or the inability of the Issuer to sell parcels which have been subject to foreclosure for amounts sufficient to cover the delinquent installments of Special Assessments levied against such parcels may result in the inability of the Issuer to make full or punctual payments of debt service on the Bonds.

Construction Risks and Facilities Costs

Although the District's Engineer estimates that proceeds of the Bonds will be sufficient to pay the costs of acquiring and constructing certain water, sewer, drainage facilities, and streets and roads, there can be no assurance that such proceeds will be sufficient to acquire and construct such facilities. The Developer is under no obligation and has made no commitment to the District to complete any of such facilities should proceeds of the Bonds be insufficient for such purpose. Failure to complete all of such facilities could result in an inability to construct taxable improvements within the District and could adversely impact the security for the Bonds.

Hazardous Substance

While governmental taxes, assessments and charges are a common claim against the value of a parcel, other less common claims may be relevant. One of the most serious in terms of the potential reduction in the value that may be realized to the assessment is a claim with regard to a hazardous substance. In general, the owners and operators of a parcel may be required by law to remedy conditions relating to releases or threatened releases of hazardous substances. The federal Comprehensive Environmental Response, Compensation and Liability Act of 1980, sometimes referred to as "CERCLA" or "Superfund Act," is the most well known and widely applicable of these laws. It is likely that, should any of the parcels of land located in the District be affected by a hazardous substance, the marketability and value of parcels would be reduced by the costs of remedying the condition, because the purchaser, upon becoming owner, will become obligated to remedy the condition just as is the seller.

The value of the land within the District does not take into account the possible liability of the owner (or operator) for the remedy of a hazardous substance condition of the parcel. The Issuer has not independently verified, and is not aware, whether the owner (or operator) of any of the parcels within the District has such a current liability with respect to such parcel, however, it is possible that such liabilities do currently exist and that the Issuer is not aware of them.

Further, it is possible that liabilities may arise in the future with respect to any of the land within the District resulting from the existence, currently, of a substance presently classified as hazardous but which has not been released or the release of which is not presently threatened, or may arise in the future resulting from the existence, currently, on the parcel of a substance not presently classified as hazardous but which may in the future be so classified. Further, such liabilities may arise not simply from the existence of a hazardous substance but from the method of handling it. All of these possibilities could significantly affect the value of a parcel that is realizable upon a delinquency.

Regulation

Development within the District may be subject to future federal, state and local regulations. Approval may be required from various agencies from time to time in connection with the layout and design of development in the District, the nature and extent of public improvements, land use, zoning and other matters. Failure to meet any such regulations or obtain any such approvals in a timely manner could delay or adversely affect development in the District and property values.

Registered Owners' Remedies and Bankruptcy

In the event of default in the payment of principal of or interest on the Bonds, the Trustee may proceed, and upon the written request of the Registered Owners of not less than fifty-one percent (51%) in principal amount of the Outstanding Bonds and Bonds then Outstanding shall proceed to protect and enforce its rights and the rights of the Owners of the Bonds under the Bond Ordinances and the Trust Agreements by such suits, actions or special proceedings in equity or at law, or by proceedings in the office of any board or officer having jurisdiction, either for the specific performance of any covenant or agreement contained therein or in aid or execution of any power granted or for the enforcement of any proper legal or equitable remedy, as the Trustee, being advised by counsel, shall deem most effectual to protect and enforce such rights. There is no acceleration of maturity of the Bonds in the event of default and, consequently, the remedy of specific performance has to be relied upon from year to year. Based on recent Texas court decisions, it is unclear whether certain legislation effectively waives governmental immunity of governmental entities for suits for money damages. Even if the Registered Owners could obtain a judgment against the Issuer, such a judgment could not be enforced by a direct levy and execution against the Issuer's or the District's property. Further, the Registered Owners cannot themselves foreclose on property within the Issuer or sell property within the Issuer in order to pay the principal of and interest on the Bonds. The enforceability of the rights and remedies of the Registered Owners further may be limited laws relating to bankruptcy, reorganization or other similar laws of general application affecting the rights of creditors of political subdivisions such as the Issuer. In this regard, should the Issuer or the District file a petition for protection from creditors under federal bankruptcy laws, the remedy of mandamus or the right of the Issuer to seek judicial foreclosure of its tax lien would be automatically stayed and could not be pursued unless authorized a federal bankruptcy judge. See "RISK FACTORS - Bankruptcy Limitation to Registered Owners' Rights."

Bankruptcy Limitation to Registered Owners' Rights

The enforceability of the rights and remedies of the Registered Owners may be limited by laws relating to bankruptcy, reorganization or other similar laws of general application affecting the rights of creditors of political subdivisions such as the Issuer and the District. Subject to the requirements of Texas law, the Issuer

or the District may voluntarily proceed under Chapter 9 of the Federal Bankruptcy Code, 11 U.S.C. 901-946, if the Issuer or the District (1) is generally authorized to file for federal bankruptcy protection by Texas law, (2) is insolvent or unable to meet its debts as they mature, (3) desires to effect a plan to adjust such debts, and (4) has either obtained the agreement of or negotiated in good faith with its creditors or is unable to negotiate with its creditors because negotiation is impracticable. Under Texas law, a water control and improvement district, such as the District, must also obtain the approval of the TCEQ prior to filing for bankruptcy. Such legislation requires that the TCEQ investigate the financial condition of such district and authorize the district to proceed only if the district has fully exercised its rights and powers under Texas law and remains unable to meet its debts and other obligations as they mature.

If the Issuer or the District, as the case may be, decides in the future to proceed voluntarily under the Federal Bankruptcy Code, the Issuer or the District, as the case may be, would develop and file a plan for the adjustment of its debts, and the Bankruptcy Court would confirm the plan if (1) the plan complies with the applicable provisions of the Federal Bankruptcy Code, (2) all payments to be made in connection with the plan are fully disclosed and reasonable, (3) the Issuer or the District, as the case may be, is not prohibited by law from taking any action necessary to carry out the plan, (4) administrative expenses are paid in full, and (5) the plan is in the best interests of creditors and is feasible. The rights and remedies of the Registered Owners would be adjusted in accordance with the confirmed plan of adjustment of the Issuer's or the District's, as the case may be, debt.

The District may not be placed into bankruptcy involuntarily.

The Effect of the Financial Institutions Act of 1989 on Tax Collections of the District

The Financial Institutions Reform, Recovery and Enforcement Act of 1989 ("FIRREA"), contains certain provisions which affect the time for protesting property valuations, the fixing of tax liens and the collection of penalties and interest on delinquent taxes on real property owned by the Federal Deposit Insurance Corporation ("FDIC") when the FDIC is acting as the conservator or receiver of an insolvent financial institution.

Under FIRREA (i) real property held by the FDIC shall be subject to foreclosure or sale without the consent of the FDIC and no involuntary liens shall attach to such property, (ii) the FDIC shall not be liable for any penalties, interest, or fines, including those arising from the failure to pay any real or personal property tax when due and (iii) notwithstanding failure of a person to challenge an appraisal in accordance with state law, such value shall be determined as of the period for which such tax is imposed.

There has been no definitive determination of the validity of these provisions of FIRREA or how they are to be construed and reconciled with respect to conflicting state laws. It is also not known whether the FDIC will attempt to claim the FIRREA exemptions as to the time for contesting valuations and tax assessments made prior to and after the enactment of FIRREA. Accordingly, to the extent of FIRREA provisions are valid and applicable to any property in the District or the Improvement District, and to the extent that the FDIC attempts to enforce the same, these provisions may affect the timeliness of collection of taxes on property, if any, owned by the FDIC in the District or the Improvement District, and may prevent the collection of penalties and interest on such taxes.

Future Debt

The Issuer has the right to issue bonds pursuant to the terms of the Contracts, up to an aggregate maximum outstanding amount of $36,000,000 (not including refunding bonds) as specified in the Contracts, for the purposes set forth in the Contracts. In addition, the District may issue such tax bonds as may hereafter be approved by voters within such District. After issuance of the Bonds, except for refunding bonds, no Additional Bonds will remain authorized but unissued pursuant to the Contracts. See "THE BONDS - Legal Ability of the Issuer to Issue Additional Debt" and "- Legal Ability of the District to Issue Additional Debt."

If Additional Bonds are issued by the Issuer pursuant to the Contracts or additional debt is issued by the District secured by taxes in the future and property values have not increased proportionately, such issuance may increase gross debt/property valuation ratios and thereby adversely affect the investment quality or security of the Bonds.

Competitive Nature of Dallas-Fort Worth Residential Housing Market

The housing industry in the Dallas-Fort Worth area is very competitive, and neither the Issuer nor the District can give any assurance that the current building programs will continue, and, if so, at what pace. The competitive position of the Developer in the sale of developed lots or of any other home builder in the construction and sale of single-family residential units is affected by most of the factors discussed in this section, and such competitive position is directly related to tax revenues received by the District and the growth and maintenance of taxable values in the District. In the Dallas/Fort Worth area in the general vicinity of the District, there is currently one directly comparable master planned community in operation, and three developments in the construction or early sales phase whose focus is on residential properties. The closest comparable planned development is Lone Star Ranch in Frisco, Texas, approximately three miles north of the Castle Hills Project, consisting of approximately 6,000 acres, in which homebuilding has commenced. The next closest master planned community is an approximate 2,000 acre development called Twin Creeks in Allen, Texas, approximately five miles north of the Castle Hills Project. Other master planned communities include Stonebridge, an approximate 7,000 acre planned community project in McKinney, Texas and Lantana, an approximate 1,600 acre development north of Flower Mound.

Continuing Compliance with Certain Covenants

The Bond Ordinances and the Trust Agreements contain covenants by the Issuer intended to preserve the exclusion from gross income of interest on the Bonds. Failure by the Issuer to comply with such covenants on a continuous basis prior to maturity of the Bonds could result in interest on the Bonds become taxable retroactively to the date of original issuance. See "TAX EXEMPTION."

Future and Proposed Legislation

Tax legislation, administrative actions taken by tax authorities, or court decisions, whether at the Federal or state level, may adversely affect the tax-exempt status of interest on the Bonds under Federal or state law and could affect the market price or marketability of the Bonds. Any such proposal could limit the value of certain deductions and exclusions, including the exclusion for tax-exempt interest. The likelihood of any such proposal being enacted cannot be predicted. Prospective purchasers of the Bonds should consult their own tax advisors regarding the foregoing matters.

DISTRICT DEBT

General

The following tables and calculations relate to the Bonds. The District is empowered to incur debt to be paid from revenues raised by taxation against all taxable property located within the District, and various other political subdivision of government which overlap all or a portion of the District are empowered to incur debt to be paid from revenues raised or to be raised by taxation against all or a portion of the property within the District.

Bonded Indebtedness*

2017 Assessed Valuation	$280,786,530	(a)
Estimated Valuation at September 1, 2017	_____	(b)
Direct Debt: The Outstanding Bonds	$17,950,000	
The Utility Bonds	11,395,000*	
The Road Bonds	5,905,000*	
Total	$35,250,000*	
Estimated Overlapping Debt	$8,767,735	(c)
Direct and Estimated Overlapping Debt	$44,017,735	(c)
Ratio of Direct Debt to:		
2017 Assessed Valuation	12.55	%
Estimated Valuation at September 1, 2017	____	%
Ratio of Direct and Estimated Overlapping Debt to:		
2017 Assessed Valuation	15.68	%
Estimated Valuation at September 1, 2017	____	%
Utility Interest and Sinking Fund Balance	$77.58	(d)
Road Interest and Sinking Fund Balance	$32.72	(d)
Utility Debt Service Reserve Fund Balance	$1,401,062.36	(e)
Road Debt Service Reserve Fund Balance	$420,951.27	(e)
2017 Tax Rate per $100 of Assessed Valuation	$ 1.00	(f)
Contract Tax $0.63		
Maintenance Tax 0.37		
Average Annual Debt Service Requirements of the Bonds (2018-2037)	$3,094,523	
Maximum Annual Debt Service Requirements of the Bonds (2025)	$3,136,325	
Tax Rate per $100 of Assessed Valuation within the District required to pay Average Annual and Maximum Annual Debt Service Requirements at 95% Tax Collections		
Based Upon 2017 Assessed Valuation	$1.18	
Based Upon Estimated Valuation at September 1, 2017	$____	

(a) Provided by the Denton County Appraisal District (the "Appraisal District"), this amount is the certified value of all taxable property located within the District as of January 1, 2017. This amount constitutes the District's 2017 tax roll. See "TAXING PROCEDURES" and "RISK FACTORS - Factors Affecting Taxable Values and Payments."

(b) Provided by the Appraisal District for informational purposes only, this amount is an estimate of the value of all taxable property located within the District as of September 1, 2017, and includes an estimate of values resulting from the construction of taxable improvements from January 1, 2017, through August 31, 2017. The ultimate assessed valuation of any improvements added from January 1, 2017, through August 31, 2017, will not be included on the District's 2017 tax roll but will be placed on the District's 2018 tax roll, and may vary significantly from such estimate once the Appraisal Review Board certifies the value thereof in 2018.

* Preliminary; subject to change.

(c) See "DISTRICT DEBT - Estimated Direct and Overlapping Debt Statement of the District."

(d) Neither the Bond Ordinances, the Trust Agreements, nor Texas law requires that any particular amount be maintained in the Interest and Sinking Fund at any time.

(e) After issuance of the Bonds. Amounts represents an amount equal to maximum annual debt service on the Bonds. See "THE BONDS - Source of Payment - Debt Service Reserve Funds."

(f) The District expects to levy a tax of $1.00 per $100 of assessed valuation during the year 2017 of which $0.63 was to pay its obligations under the Contracts and $0.37 was for operation and maintenance purposes. As indicated herein, a tax rate of $0.63 is insufficient to pay either the Average Annual or the Maximum Annual Debt Service Requirements of the Bonds based upon the 2017 Assessed Valuation but will be sufficient based upon the Preliminary Taxable Valuation at September 1, 2017. In order for a $0.63 tax rate to be sufficient to pay the Average Annual Debt Service Requirement and the Maximum Annual Debt Service Requirement, assessed values in the District would have to increase to approximately $524,031,000.

Estimated Direct and Overlapping Debt Statement for the District

The following statement indicates the direct and estimated overlapping debt of the District. The table includes the estimated amount of indebtedness of governmental entities overlapping the District, defined as outstanding bonds payable from ad valorem taxes, and the estimated percentages and amounts of such indebtedness attributable to the property located within the District. This information is based upon data secured from the individual jurisdictions and/or the Texas Municipal Reports published by the Municipal Advisory Council of Texas. The calculations by which the statement was derived were made in part by comparing the reported assessed valuation of the property in the overlapping taxing jurisdictions with the Assessed Valuation of property within the District. No effect has been given to the tax burden levied by any applicable taxing jurisdiction for maintenance and operation or other purposes.

Taxing Jurisdiction	Outstanding Debt	As of	Percent	Amount
Denton County	$ 645,305,000	09/30/17	0.23%	$1,484,202
Lewisville ISD	1,213,922,216	09/30/17	0.60	7,283,533
Total Estimated Overlapping Debt				$8,767,735
Total Direct Debt (including the Bonds)				35,250,500
Total Direct Debt and Overlapping Debt				$44,017,735
Ratio of Total Direct and Estimated Overlapping Debt to 2017 Assessed Valuation ($200,786,530)				15.68%

Under Texas law ad valorem taxes levied by each taxing authority other than the District create a lien which is on a parity with the lien in favor of the District on all taxable property within the District. In addition to the ad valorem taxes required to retire the foregoing direct and overlapping debt, the various taxing authorities mentioned above are also authorized by Texas law to assess, levy and collect ad valorem taxes for operation, maintenance, administration and/or general revenue purposes. Certain of the jurisdictions have in the past levied such taxes. The District has the power to assess, levy and collect ad valorem taxes for operation and maintenance purposes if authorized by the District's voters at an election held for such purpose. Voters within the District have authorized a maintenance tax without legal limit as to rate or amount. See "DISTRICT TAX DATA - Maintenance Tax."

Debt Service Requirements*

The following schedule sets forth the principal and interest requirements on the Bonds.

Year	Outstanding Debt Service	The Utility Bonds Principal	The Utility Bonds Interest[1]	The Road Bonds Principal	The Road Bonds Interest[1]	Total Resulting Debt Service
2018	$1,683,500		$488,086		$252,931	$2,424,517
2019	1,683,050	$ 265,000	683,700	$ 145,000	354,300	3,131,050
2020	1,680,425	285,000	667,800	150,000	345,600	3,128,825
2021	1,680,625	300,000	650,700	160,000	336,600	3,127,925
2022	1,683,325	320,000	632,700	170,000	327,000	3,133,025
2023	1,683,225	335,000	614,500	180,000	316,800	3,128,525
2024	1,680,325	355,000	593,400	190,000	306,000	3,124,725
2025	1,684,625	380,000	572,100	205,000	294,600	3,136,325
2026	1,680,500	400,000	549,300	215,000	282,300	3,127,100
2027	1,683,275	425,000	525,300	230,000	269,400	3,132,975
2028	1,682,275	450,000	499,800	245,000	255,600	3,132,675
2029	1,682,550	475,000	472,800	255,000	240,900	3,126,250
2030	1,683,775	505,000	444,300	275,000	225,600	3,133,675
2031	1,680,650	535,000	414,000	290,000	209,100	3,128,750
2032	1,683,150	570,000	381,900	305,000	191,700	3,131,750
2033	1,680,675	605,000	347,700	325,000	173,400	3,131,775
2034	1,683,200	640,000	311,400	345,000	153,900	3,133,500
2035	1,680,100	675,000	273,000	365,000	133,200	3,126,300
2036		1,880,000	232,500	900,000	111,300	3,123,800
2037		1,995,000	119,700	955,000	57,300	3,127,000
Totals	$30,279,250	$11,395,000	$ 9,473,686	$5,905,000	$4,837,531	$61,890,467

Average Annual Requirements (2018-2037) $3,094,523
Maximum Annual Requirements (2025) $3,136,325

(1) Interest estimated at an average rate of 6.00%.

TAX PROCEDURES

AN AMOUNT NOT MORE THAN NINETY-NINE PERCENT (99%) OF THE ORIGINAL PRINCIPAL AMOUNT OF THE BONDS, TOGETHER WITH INTEREST THEREON, IS PAYABLE FROM CONTRACT REVENUES, WHICH ARE PAYABLE FROM THE PROCEEDS OF AN ANNUAL AD VALOREM TAX, WITHOUT LIMITATION AS TO RATE OR AMOUNT, LEVIED AGAINST ALL TAXABLE PROPERTY WITHIN THE DISTRICT. THE FOLLOWING IS A SUMMARY OF CERTAIN PROCEDURES APPLICABLE TO SUCH TAXES.

Preliminary; subject to change.

County-Wide Appraisal District

The Texas Property Tax Code (the "Property Tax Code") establishes an Appraisal District and an appraisal review board in each county of the State of Texas. The Appraisal District is governed by a board of directors elected by the governing bodies of cities, towns and schools that participate in the Appraisal District and of the county. Conservation and reclamation districts such as the District may participate, to a limited extent, in such election. The board of directors selects a chief appraiser to manage the appraisal office of the Appraisal District. All taxing units within Denton County, including the District, are included in the Appraisal District. The Appraisal District is responsible for appraising property within the District, subject to review by the county appraisal review board. The appraisal roll as approved by the county appraisal review board must be used by the District in establishing their tax rolls and tax rate. The valuation and assessment of taxable property within the District is governed by the Texas Property Tax Code.

Under current Texas law, the District is responsible for the levy and collection of its taxes and will continue to be so responsible unless the Board, or the qualified voters of the respective District or of Denton County, at an election held for such purpose determines to transfer such functions to the Appraisal District or another taxing unit.

Exempt Property

Except for certain exemptions provided by Texas law, all real property and tangible personal property held or used for the production of income, mobile homes, and certain categories of intangible personal property with a tax situs in the District are subject to taxation by the District. Principal categories of exempt real property include: property owned by the State of Texas or its political subdivisions, if the property is used for public purposes; property exempt from ad valorem taxation by federal law; nonprofit cemeteries; and certain property owned by qualified charitable, religious, veterans, fraternal, or education organizations. Partially exempt to the maximum extent of $5,000 to $12,000 of assessed value, depending upon the disability rating of the veteran, is property owned by a disabled veteran or by the spouse or certain children of a deceased disabled veteran or a veteran who died while on active duty. A veteran who receives a disability rating of 100% is entitled to the exemption for the full amount of the veteran's residential homestead. Additionally, subject to certain conditions, the surviving spouse of a disabled veteran who is entitled to an exemption for the full value of the veteran's residence homestead is also entitled to an exemption from taxation of the total appraised value of the same property to which the disabled veteran's exemption applied. A partially disabled veteran or certain surviving spouses of partially disabled veterans are entitled to an exemption from taxation of a percentage of the appraised value of their residence homestead in an amount equal to the partially disabled veteran's disability rating if the residence homestead was donated by a charitable organization. Also, the surviving spouse of a member of the armed forces who was killed in action is, subject to certain conditions, entitled to an exemption of the total appraised value of the surviving spouse's residence homestead, and subject to certain conditions, an exemption up to the same amount may be transferred to a subsequent residence homestead of the surviving spouse. Also partially exempt, if approved by the Board or at an election called by the Board upon petition of a least 20% of the number of the qualified voters who voted in such District's preceding election, are residence homesteads of certain persons who are disabled or at least 65 years old to the extent of $3,000 of appraised value or such higher amount as the Board or the District's voters may approve. Each District's tax assessor is authorized by statute to disregard exemptions for the disabled and elderly if granting the exemption would impair such District's obligation to pay tax-supported debt incurred prior to adoption of the exemption by such District.

Residential Homestead Exemptions: The Property Tax Code authorizes the governing body of each political subdivision in the State to exempt up to twenty percent (20%) of the appraised market value of residential homesteads from ad valorem taxation. Where ad valorem taxes have previously been pledged for the payment of debt, the governing body of a political subdivision may continue to levy and collect taxes against the exempt value of the homesteads until the debt is discharged, if the cessation of the levy

would impair the obligations of the contract by which the debt was created. The adoption of a homestead exemption may be considered each year, but must be adopted by June 30. To date, the District has not granted a general homestead exemption.

Freeport Goods Exemption: Freeport goods are goods, wares, merchandise, other tangible personal property and ores, other than oil, natural gas and other petroleum products, which have been acquired or brought into the state for assembling, storing, manufacturing, repair, maintenance, processing or fabricating or used to repair or maintain aircraft of a certified air carrier and shipped out the state within 175 days. Freeport goods are exempted from taxation by the District.

Goods-In-Transit: Article VIII, Section 1-n of the Texas Constitution provides for the exemption from taxation of "goods-in-transit." "Goods-in-transit" is defined by a provision of the Property Tax Code, which is effective for tax years 2008 and thereafter, as personal property acquired or imported into Texas and transported to another location in the State or outside the State within 175 days of the date the property was acquired or imported into Texas. The exemptions excludes oil, natural gas, petroleum products, aircraft and special inventory, including motor vehicle, vessel and out-board motor, heavy equipment and manufactured housing inventory. For tax year 2012 and subsequent years, such Goods-in-Transit Exemption is tangible personal property acquired in or imported into Texas for storage purposes and which is stored under a contract of bailment by a public warehouse operator at one or more public warehouse facilities in Texas that are not in any way owned or controlled by the owner of such property for the account of the person who acquired or imported such property. The Property Tax Code provision permits local governmental entities, on a local option basis, to take official action by January 1 of the year preceding a tax year, after holding a public hearing, to tax goods-in-transit during the following tax year. A taxpayer may receive only one of the freeport exemptions or the goods-in-transit exemptions for items of personal property.

Tax Abatement

The Issuer and Denton County may designate all or part of the area within the District as a reinvestment zone, and Denton County, the Issuer, and the District may thereafter enter into tax abatement agreements with owners of real property within the zone with each taxing jurisdictions' agreement affecting its own tax roll. The tax abatement agreements exempt from ad valorem taxation by the applicable taxing jurisdiction for a period of up to 10 years, all or any part of any increase in the assessed valuation of property covered by the agreement over its assessed valuation in the year in which the agreement is executed, on the condition that the property owner make specified improvements or repairs to the property in conformity with a comprehensive plan. In certain instances, personal property also may be eligible for tax abatement. Currently, none of the area within the District has been designated for tax abatement.

Assessment and Levy

Generally, all taxable property in the District (other than any qualifying agricultural, open space, and timber land) must be appraised at 100% of market value as of January 1 of each tax year, subject to review and approval by the appraisal district appraisal review board. State law requires the appraised value of a residence homestead to be based solely on the property's value as a residence homestead, regardless of whether residential use is considered to be the highest and best use of the property. State law further limits the appraised value of a residence homestead for a tax year to an amount not to exceed the lesser of (1) the property's market value in the most recent tax year in which the market value was determined by the Appraisal District or (2) the sum of (a) 10% of the property's appraised value for the preceding tax year, (b) the appraised value of the property for the preceding tax year; and (c) the market value of all new improvements to the property. However, houses held for sale by a developer or builder which remain unoccupied, are not leased or rented and produce no income, are required to be assessed at the price for which they would sell as a unit to a purchaser who would continue

the owner's business. The Property Tax Code requires each appraisal district to implement a plan providing for reappraisal of all real property in the appraisal district at least once every three years. It is not known what frequency of reappraisal will be utilized by the Appraisal District or whether reappraisals will be conducted on a zone or county-wide basis.

The chief appraiser must give written notice before the appraisal review board meeting to each owner whose property value is recommended for an increase or if the recommended value is greater than the value rendered by the property owner. The appraisal review board has the ultimate responsibility for determining the value of all taxable property within the District; however, any owner who has timely filed notice to the appraisal review board may appeal the final determination by the appraisal review board of the owner's protest by filing suit in Texas district court. Prior to such appeal, however, the owner must pay the tax due on the amount of value of the property involved that is not in dispute or the amount of tax paid in the prior year, whichever is greater, but not to exceed the amount of tax due under the order from which the appeal is taken. In the event of such suit, the value of the property is determined by the court, or a jury if requested by any party. Additionally, the District is entitled to challenge certain matters before the appraisal review board, including the level of appraisals of a certain category of property, the exclusion of property from the appraisal records, or the grant in whole or in part of a partial exemption. The District may not, however, protest a valuation of individual property.

By September 1 of each year, or as soon thereafter as possible, the rate of taxation within the District is set by the respective Board based upon the valuation of property within the District as of January 1 and the amount required to be raised for debt service, maintenance purposes and authorized contractual obligations. Under certain circumstances the Board may be required to advertise and hold a public hearing within the District on a proposed tax rate before the Board can hold a public meeting to vote on the tax rate. If the tax rate adopted exceeds by more than 8% the rate needed to pay debt service and certain contractual obligations and to produce, when applied to the property which was on the prior year's roll, the prior year's total taxes levied for purposes other than debt service and such contractual obligations, such portion of the levy in excess of 3% more than the above-described rate may be repealed at an election within the District held upon petition of 10% of the District's qualified voters.

Agricultural, Open Space, or Timberland Deferment

The Property Tax Code permits land designated for agricultural use or timberland to be appraised at its value based on the land's capacity to produce agricultural or timber products rather than at its fair market value. Provisions of the Property Tax Code are complex and are not fully summarized here. Landowners wishing to avail themselves of the agricultural use designation must apply for the designation, and the appraiser is required by the Property Tax Code to act on each claimant's right to the designation individually. If a claimant receives the designation and later loses it by changing the use of the property or selling it to an unqualified owner, the District can collect "rollback" taxes based on the new use, in some cases, up to five years. A property owner may receive these special exemptions but waive such in particular taxing jurisdictions of the property owner's choice. Hence, a large landowner in a district could enjoy the benefit of the special exemptions with respect to county and school taxes without reducing his obligation to pay district property taxes. The waiver is effective for twenty-five (25) consecutive years, runs with the land and is binding on the owner who executed the waiver and any successor in interest. A governing body can revoke a waiver upon request by the property owner only upon finding that such revocation would not materially impair an obligation payable from property taxes.

As of January 1, 2017, none of the land within the District had been designated for agricultural use, open space or timberland.

District and Taxpayer Remedies

Under certain circumstances, taxpayers and taxing units, including the District, may appeal orders of the Appraisal Review Board by filing a petition for review in district court within forty-five (45) days after notice is received that a final order has been entered. In such event, the property value in question may be determined by the court, or by a jury, if requested by any party. Additionally, taxing units may bring suit against the Appraisal District to compel compliance with the Property Tax Code.

The Property Tax Code establishes a procedure for notice to property owners of reappraisals reflecting increased property values, appraisals that are higher than renditions and appraisals of property not previously on an appraisal roll.

Rollback of Operation and Maintenance Tax Rate

The qualified voters of the District have the right to petition for a rollback of the District's operation and maintenance tax rate only if the total tax bill on the average residence homestead increases by more than eight percent (8%). If a rollback election is called and passes, the rollback tax rate is the current year's debt service and contract tax rates plus 1.08 times the previous year's operation and maintenance tax rate. However, debt service and contract tax rates cannot be changed by a rollback election.

Collection

The District is responsible for the collection of its taxes, unless it elects to transfer such functions to another governmental entity. By September 1 of each year, or as soon thereafter as practicable, the rate of taxation is set by the Board of Directors of the District based upon the valuation of property within the District as of the preceding January 1. Taxes are due on receipt of the tax bill and become delinquent after January 31 of the following year. The date of the delinquency may be postponed by the District if the tax bills are mailed after September 30 (if the Board has authorized discounts for early payment) or otherwise after January 10. The Board may approve a discount for early payment of taxes. Delinquent taxes are subject to 6% penalty for the first month of delinquency, 1% for each month thereafter to August 1 and 12% total if any taxes are unpaid on August 1. Delinquent taxes also accrue interest at the rate of 1% per month during the period they remain outstanding. In addition, in the instance in which a district must engage an attorney for collection of delinquent taxes, the Board may impose a further penalty not to exceed 15% on all taxes unpaid on August 1.

District's Rights in the Event of Tax Delinquencies

Taxes levied by the District are a personal obligation of the person who owns the property on January 1 of the year for which the tax is imposed. On January 1 of each year, a tax lien attaches to property to secure the payment of all taxes, penalties, and interest ultimately imposed for the year upon the property. The District's tax lien is on a parity with the tax liens of the other state and local jurisdictions levying taxes on property within the District. Whether a lien of the United States is on a parity with or takes priority over a tax lien of the District is determined by applicable federal law. In the absence of such federal law, a district's tax lien takes priority over a lien of the United States. In the event a taxpayer fails to make timely payment of taxes due a District, the District may file suit at any time after taxes become delinquent to foreclose its lien securing payment of the tax, to enforce personal liability for the tax, or both. In filing a suit to foreclose a tax lien on real property, the District must join other taxing units that have claims for delinquent taxes against all or part of the same property. Property owners over 65 years of age may defer the payment of property taxes, or abate a suit for their collection, levied against their homesteads. The exercise of such deferrals or abatements could significantly delay the collection of property taxes by the District. See "RISK FACTORS - Factors Affecting Taxable Values and Tax Payments." Collection of delinquent taxes may also be adversely affected by the amount of taxes owed to other federal, state and local taxing jurisdictions, by the effects of market conditions on the foreclosure sales price, by

the taxpayer's right to redeem the property within two years of foreclosure, or by bankruptcy proceedings which may delay the collection of a taxpayer's debts.

ASSESSMENT PROCEDURES

AN AMOUNT AT LEAST EQUAL TO ONE PERCENT (1%) OF THE ORIGINAL PRINCIPAL AMOUNT OF THE BONDS, TOGETHER WITH INTEREST THEREON, IS PAYABLE FROM AND SECURED BY A PLEDGE OF AND LIEN ON SPECIAL ASSESSMENT REVENUES LEVIED BY THE ISSUER ON BENEFITTED PROPERTY WITHIN THE IMPROVEMENT DISTRICT. THE FOLLOWING IS A SUMMARY OF CERTAIN PROCEDURES APPLICABLE TO THE SPECIAL ASSESSMENTS.

Levy of Special Assessments

By ordinance duly adopted (the "Assessment Ordinance"), the Issuer has levied special assessments against all property (except road rights-of-way) located within the boundaries of the Improvement District (the "Special Assessments"). Pursuant to the Assessment Ordinance, the Issuer has levied the Special Assessments in the total amount of $360,000 on the basis of the proportion of the value borne by each tract of land (without regard to any improvements thereon) within the Improvement District to the total value of property within the Improvement District, to be payable in full, at any time, or to be payable in annual installments as set forth in the Service/Assessment Plan and the Assessment Roll. The aggregate amount of Special Assessments assessed to pay a portion (not less than 1%) of the debt service on the Bonds and any Additional Bonds, together with interest thereon, are payable in annual installments which have been established to correspond as nearly as practicable to the debt service on all Outstanding Bonds, the Bonds and any Additional Bonds. Installments of Special Assessments bear interest at a weighted average interest rate based upon the rate borne by the Bonds, subject to adjustment based upon the rate borne by any Additional Bonds. Installments are due when billed and become delinquent on the following February.

Prepayment of Special Assessments

The owner of any property assessed may voluntarily prepay all of part of any Special Assessment levied against any lot or parcel, together with accrued interest to the date of payment, at any time. The Assessment Ordinance requires that each Special Assessment, together with interest accrued thereon, be prepaid in full at such time as the owner of the tract subject to the Special Assessment applies for a building permit to construct a structure on such tract.

Priority of Lien

The assessment or any reassessment, the expense of collection, and reasonable attorney's fees, if incurred, constitute a first and prior lien against the property assessed, superior to all other liens and claims except liens or claims for state, county, city, school districts, or other political subdivision (such as the District), ad valorem taxes, and are a personal liability of and charge against the owners of the property regardless of whether the owners are named. The lien is effective from the date of the Assessment Ordinance until the Special Assessment is paid, and may be enforced by the Issuer in the same manner as an ad valorem tax levied against real property may be enforced by the Issuer. The lien of the Special Assessment runs with the land and any installments of Special Assessments that have not yet come due are not eliminated by foreclosure of an ad valorem tax lien.

Covenant to Commence Foreclosure Proceedings

In the event of delinquency in the payment of any installment of an unpaid Special Assessment, the Issuer is empowered to order institution of an action in state district court to foreclose the lien of such delinquent Special

Assessment. In such action the real property subject to the delinquent unpaid Special Assessment may be sold at judicial foreclosure sale for the amount of such delinquent installments, plus penalties and interest.

Pursuant to the provisions of the Trust Agreements, the Issuer has covenanted to determine or cause to be determined, no later than February 1 of each year, whether or not any installment or installments of Special Assessments are delinquent and, if such delinquencies exist, the Issuer has covenanted to order and cause to be commenced, or cause the Trustee to do so on behalf of the Issuer, on or before June 1, or immediately thereafter, and thereafter diligently prosecute an action in district court to foreclose the currently delinquent lien for the amount of any delinquent installment or installments of Special Assessments. See "APPENDIX C - SUMMARY OF THE TRUST AGREEMENTS."

To the extent it may legally do so, and taking into account the prior liens on assessed land for ad valorem taxes, the Issuer covenants that property will not be sold in a judicial foreclosure for less than the amount of a currently delinquent Special Assessment installment due on the property, including delinquent penalties, interest, and attorney fees, without the consent of the owners of a majority in principal amount of the Bonds, and any Additional Bonds . Any sale of property for nonpayment of an installment or installments of a Special Assessment shall be subject to the lien established for remaining unpaid installments of the Special Assessment against such property and such property may again be sold at a judicial foreclosure sale if the purchaser thereof fails to make timely payment of the nondelinquent installments of Special Assessments against such property as they become due and payable pursuant to the terms of the Assessment Ordinance and the Bond Ordinance.

Judicial foreclosure proceedings are not mandatory; however, the Issuer has covenanted to order and cause such actions to be commenced. In the event a foreclosure is necessary, there could be a delay in payments to owners of the Bonds pending prosecution of the foreclosure proceedings and receipt by the Issuer of the proceeds of the foreclosure sale. It is possible that no bid would received at the foreclosure sale, and in such event there could be an additional delay in payment of the principal of and interest on Bonds or such payment may not be made in full.

DISTRICT TAX DATA

Contract Tax

The Board of Directors of the District is authorized to levy an annual ad valorem tax, without legal limitation as to rate or amount, on all taxable property within the District in sufficient amount to pay amounts due to the Issuer under the Contracts, including principal of and interest on the Bonds and any Additional Bonds payable from taxes which the Issuer may hereafter issue under the Contracts. The District agrees in the Contracts to levy such a tax from year to year as described more fully above under the caption "THE BONDS - Sources of Payment."

Maintenance Tax

The Board of Directors of the District has the statutory authority to levy and collect an annual ad valorem tax for maintenance of the District's improvements and operation of the District, if such maintenance tax is authorized by a vote of the District's electorate. Pursuant to an election held in the District on November 4, 2008, voters within the District authorized the Board to levy a maintenance tax unlimited as to rate or amount and the District has levied such a tax for 2017 at the rate of $1.00 per $100 assessed valuation. Such tax is in addition to taxes which the District is authorized to levy for paying principal of and interest on the Bonds and any tax supported bonds which may be issued in the future. See "DISTRICT TAX DATA - Tax Rate Distribution."

Historical Values and Tax Collection History

The following statement of tax collections sets forth in condensed form the historical assessed valuation and tax collections of the District. Such summary has been prepared for inclusion herein based upon information obtained from District records. Reference is made to such records, including the District's annual audited financial statements, for more complete information. See "APPENDIX G - DISTRICT'S AUDITED FINANCIAL STATEMENTS FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2016."

Tax Year	Assessed Valuation	Tax Rate(a)	Adjusted Levy	% Collections Current & Prior Years(b)	Year Ending 9/30
2013	$ 58,922,795	$1.00	$ 589,227.95	100.00	2014
2014	99,495,449	1.00	994,954.49	100.00	2015
2015	165,646,677	1.00	1,656,466.77	100.00	2016
2016	235,425,698	1.00	2,354,256.98	100.00	2017
2017	280,786,530	1.00	2,807,865.30	99.96	2018

(a) Per $100 of Assessed Valuation.
(b) Such percentages reflect cumulative total collections for each year from the time each respective annual tax was levied through September 30, 2017. The amount of tax collected for each levy on a current basis (by September 30 of the year following each respective levy) is not reflected in this statement.
(c) In process of collection.

Tax Rate Distribution

	2017	2016	2015	2014	2013
Contract Tax	$0.6311	$0.7520	$0.4566	$0.6500	$---
Maintenance Tax	0.3689	0.2480	0.5434	0.3500	1.0000
Total	$1.0000	$1.0000	$1.0000	$1.0000	$1.0000

Analysis of Tax Base

The following table illustrates the composition of property located within the District during the past five years.

Type of Property	2017 Assessed Valuation	2016 Assessed Valuation	2015 Assessed Valuation	2014 Assessed Valuation
Land	$93,569,597	$ 91,879,964	$ 80,155,860	$58,767,730
Improvements	178,876,801	133,133,531	84,652,669	40,450,741
Personal Property	12,386,932	10,855,242	852,125	290,608
Exempt	(4,046,800)	($443,039)	(13,977)	$13,630)
Total	$280,786,530	$235,425,698	$165,646,677	$99,495,449

Exemptions

To date, the Board has not granted any general residence homestead exemption or any exemptions for homesteads of those over sixty-five (65) years of age or disabled. It cannot be predicted what actions future boards may take regarding exemptions.

Principal Taxpayers

Based upon information supplied by the Appraisal District, the following table lists principal taxpayers within the District, type of property owned by such taxpayers, and the Valuation of such property as of January 1, 2017. The information reflects the composition of the Appraisal District's record of property ownership as of January 1, 2017. Information with respect to the composition of property ownership as of January 1, 2017, is not yet available from the Appraisal District.

Taxpayer	Type of Property	2017 Assessed Valuation	As a Percentage of 2017 Assessed Valuation
EGW Castle Hill Investment LP	Land - Commercial	$48,687,500	17.34%
SWC 121/423 LP	Land - Commercial	42,934,605	15.29
CAF TPEG Castle Hills LLC	Land - Commercial	40,492,273	14.42
MREF II Windhaven LLC	Land - Commercial	34,500,000	12.29
BRECO Lands, CH, LLC	Real Estate	27,669,409	9.85
Brookwood Windhaven LLC	Land - Commercial	3,519,092	1.25
Kroger Texas LP	Grocery Store	3,431,849	1.22
Roli Holdings LP	Land - Commercial	2,784,839	0.99
Mountainprize Inc.	Land - Commercial	2,759,752	0.98
NLKH Ventures 2 LLC	Carwashes	1,588,864	0.57
TOTAL		$208,368,183	74.21%

Tax Rate Calculations

The tax rate calculations set forth below are presented to indicate the tax rates per $100 of Assessed Valuation which would be required to meet the maximum debt service requirements on the Bonds payable from Contract Revenues from the District if no growth in the District occurs beyond the 2017 Assessed Valuation or beyond the Preliminary Taxable Valuation as of September 1, 2017. The calculations also assume collection of 95% of taxes levied, the sale of no Additional Bonds by the Issuer other than the Bonds, and no use of funds on hand. Debt service requirements have been calculated based upon the rate borne by the Bonds.

Average Annual Debt Service Requirements $3,094,523
Maximum Annual Debt Service Requirements $3,136,325
Tax Rate of $1.18 on the 2017 Assessed Valuation produces $3,137,617
Tax Rate of $_____ of the Estimated Valuation at September 1, 2017 produces $_____

As the above indicates, a tax rate of $0.63 per $100 of Assessed Valuation will be insufficient to pay the District's share of either Average Annual or Maximum Debt Service Requirements on the Bonds unless taxable values in the District increase beyond the 2017 Assessed Valuation. Assessed values within the District would have to increase to approximately $524,031,000, in order for a tax rate of $0.63 to be sufficient to pay the

District's share of Average Annual Debt Service Requirements and Annual Debt Service Requirements on the Bonds. Any such increase in taxable values depends on the continuing construction and/or sale of residential and commercial projects and other taxable improvements within the District. See "TAX PROCEDURES" and "RISK FACTORS - Factors Affecting Taxable Values and Tax Payments."

Estimated Overlapping Taxes

Property located within the District is subject to taxation by several taxing authorities in addition to the District. Set forth below is a compilation of all 2017 taxes levied upon property located within the District, together with the tax rate for the District for 2017. Under Texas law, ad valorem taxes levied by each taxing authority other than the District entitled to levy taxes against property located within the District create a lien which is on a parity with the tax lien of the District. In addition to the ad valorem taxes required to make the debt service payments on bonded debt of the District and of such other jurisdictions (see "DISTRICT DEBT - Estimated Direct and Overlapping Debt Statement"), certain taxing jurisdictions are authorized by Texas law to assess, levy and collect ad valorem taxes for operation, maintenance, administrative and/or general revenue purposes.

Taxing Jurisdictions	2017 Tax Rate Per $100 of Assessed Valuation
Lewisville Independent School District	$1.4770
Denton County	0.2849
The District	1.0000
Estimated Total Tax Rate	$2.7619

THE ISSUER

The City of Lewisville, Texas (the "Issuer") is a home rule city under the Constitution and laws of the State of Texas. The City, incorporated in 1925, is located in the southeastern portion of Denton County on Interstate Highway 35-E, 20 miles north of Dallas, 34 miles northeast of Fort Worth, 15 miles southeast of Denton and 8 miles north of Dallas-Fort Worth International Airport.

The individuals involved in the administration of the City as are follows:

Elected Officials

City Council	Length of Service	Term Expires	Occupation
Rudy Durham, Mayor	22 years	May, 2018	Chief Appraiser, Denton Central Appraisal District
Brent Daniels, Mayor Pro-Tem	1 year	May, 2018	Owner and Manager, Bahama Buck's
Brandon Jones, Deputy Mayor Pro-Tem	1 year	May, 2018	Senior Internal Auditor, Dallas ISD
R. Neil Ferguson, Councilman	5 years	May, 2018	Technology Consultant
T.J. Gilmore, Councilman	5 years	May, 2019	Public Sector Sales Manager. Waste Management
Bob Troyer	newly elected	May, 2019	Director of Customer Projects, Autosig Systems

Selected Administrative Staff

Name	Position	Length of Service with City
Donna Barron	City Manager	26 years
Brenda Martin	Director of Finance	10 years
Julie Heinze	City Secretary	16 years
Lizbeth Plaster	City Attorney	11 years

THE DISTRICT

Authority

The District was originally part of a district (the "Original District") created as a fresh water supply district by the Commissioners Court of Denton County pursuant to Chapter 53, Texas Water Code and Article XVI, Section 59 of the Texas Constitution. The creation of the Original District was confirmed at an election held within the District on January 17, 1983, by a vote of 10 "For" to 0 "Against." On December 21, 1993, the Original District was converted to a water control and improvement district by actions of its Board of Directors, retaining certain powers under Chapter 53 of the Texas Water Code and operating under the provisions of Chapters 49 and 51, Texas Water Code. On May 6, 1995, pursuant to an election held within the Original District, the Original District was subdivided into Denton County Fresh Water Supply District No. 1-A ("District No. 1-A") and Denton County Fresh Water Supply District No. 1-B (the "District No. 1-B") by a vote of 5 "For" to 0 "Against". Thereafter, on August 9, 1997, the voters within District No. 1-A approved the subdivision of District No. 1-A into District No. 1-A and Denton County Fresh Water Supply District No. 1-C ("District No. 1-C") and on May 11, 1999, the voters within District No. 1-C approved the division of District No. 1-C into District No 1-C and District No. 1-D. In addition, on May 11, 1999, voters within District No. 1-A approved the further division of District No. 1-A into District No. 1-A and Denton County Fresh Water Supply District No. 1-E ("District No. 1-E"). Thereafter, on November 5, 2002, voters within District No. 1-A approved the further division of District No. 1-A into District No. 1-A and Denton County Fresh Water Supply District No. 1-F. In addition, on May 3, 2003, voters within District No. 1-A approved the further division of District No. 1-A into District No. 1-A and the District and on May 10, 2008, voters within District No. 1-A approved the further division of District No. 1-A into District No. 1-A and District No. 1-H. District No. 1-A, District No. 1-B, District No. 1-C, District No. 1-D, District No. 1-E, District 1-F, District No. 1-H and the District, are referred to collectively herein as the "Districts." The rights, powers, privileges, authority, and functions of the District are established by the general laws of the State of Texas pertaining to water control and improvement districts, particularly Chapters 49 and 51, Texas Water Code, as amended. Pursuant to an election passed by a vote of 7 "For" and 0 "Against" on August 8, 1987, the Original District was authorized to exercise sanitary sewer powers and to assume the privileges and functions of a road district under Article III, Section 52 of the Texas Constitution. The principal functions of the District are to finance, construct, own, and operate waterworks, wastewater, drainage facilities, streets and roads and to provide such facilities and services to the customers of the District. If approved by the voters within the District, the TCEQ, and other governmental entities having jurisdiction, the District may establish, operate, and maintain a fire department, independently or with one or more other conservation and reclamation districts, and provide such facilities and services to the customers of the District. The District is subject to the continuing supervision of the TCEQ in certain matters.

Description

As a consequence of the subdivision of the Original District and subsequent additions and exclusions of land, District No. 1-A now contains approximately 1.659 acres and the District contains approximately 307.074 acres.

The remainder of the land comprising the Castle Hills Project lies within District No. 1-B, District No. 1-C, District No. 1-D, District No. 1-E, District No. 1-F, and District No. 1-H. The District is located approximately 25 miles from the central business district of Dallas, Texas in the southeastern portion of Denton County, Texas. The District lies entirely within the extraterritorial jurisdiction of the City of Lewisville. The District is located approximately 11 miles northeast of Dallas/Fort Worth International Airport. Highway 544 is located less than 1/4 mile to the north of the District, Josey Lane is located approximately 1/4 mile to the east of the District, and Hebron Parkway is located approximately 1/4 mile to the south of the District. The District is approximately 5 miles from Lake Lewisville, a 23,280 acre recreational lake adjacent to a 720 acre state park. In addition, the District is approximately two miles from the border of Legacy Business Park, which includes the corporate headquarters of J.C. Penney, Frito-Lay, Dr. Pepper, Beal Bank and other large corporate office complexes. The District lies within the Lewisville Independent School District. See "APPENDIX A - AERIAL PHOTOGRAPH."

Management of the District

The District is governed by the Board, consisting of five directors. The Board has control over and management supervision of all affairs of the respective District. Directors serve four-year staggered terms, and elections are held within the respective District on the first Saturday in May in even-numbered years. The current members and officers of the Board, along with their respective terms of office, are listed below. Director Taylor resides in the District. All other Directors own property located in the District subject to separate notes and deeds of trust in favor of the Developer.

Name	Title	Term Expires
Mark Crouch	President	May, 2020
Michael Raquet	Vice President	May, 2018
Melissa Brand-Vokey	Secretary	May, 2020
Carol Upchurch	Treasurer/Assistant Secretary	May, 2018
Marcus O'Con	Assistant Secretary	May, 2018

The District does not have a general manager or any other employee, but has contracted, or expects to contract, for services as follows:

Tax Assessor/Collector - Land and improvements within the District are appraised for ad valorem taxation purposes by the Denton County Appraisal District. The District contracts with the Denton County Tax Assessor-Collector to perform tax collection services for the District.

Bookkeeper - The District has contracted with District No. 1-A for bookkeeping services. District No. 1-A also provides such services for District No. 1-C, District No. 1-D, District No. 1-E, District No. 1-F, and District No. 1-H.

Auditor - The District's financial statements for the fiscal year ended September 30, 2016, were audited by McCall Gibson Swedlund & Barfoot PLLC, Certified Public Accountants. See APPENDIX F for a copy of the District's September 30, 2016 audited financial statements.

Operations Manager - The District has contracted with District No. 1-A to manage and operate its facilities and bill and collect for the District’s services. District No. 1-A currently employs approximately 32 persons, including 8 licensed operators, to carry out its functions.

Consulting Engineers - The District has employed the firm of Land Design, Inc. Dallas, Texas as Consulting Engineer (the "Engineer") in connection with the design of the System.

Legal Counsel - The District has engaged Winstead PC, Dallas, Texas, as general counsel and as Bond Counsel in connection with the issuance of the Bonds. Such firm also acts as general counsel and Bond Counsel for District No. 1-A, District No. 1-C, District No. 1-D, District No. 1-E, District No. 1-F, and District No. 1-H. Payment to Bond Counsel by the Issuer of legal fees for services rendered in connection with the issuance of the Bonds is based upon a percentage of the Bonds actually issued and sold and therefore such fees are contingent on the issuance, sale and delivery of the Bonds. See "LEGAL MATTERS."

A pension plan has not been established by the District. The District has funded payroll costs to District No. 1-A. District No. 1-A handles pension provisions for its employees.

THE IMPROVEMENT DISTRICT

The Issuer has created and authorized the Improvement District in accordance with the provisions of Chapter 372 of the Texas Local Government Code (the "Improvement District Act"). This statute authorizes municipalities to create public improvement districts within the boundaries or the extraterritorial jurisdiction of the municipality, and to levy assessments within the public improvement district to pay for certain improvements.

On March 21, 2013, the Issuer received a petition signed by the requisite number of landowners, requesting the creation of a public improvement district. The Issuer published a notice as required by Chapter 372 of the Local Government Code and on May 6, 2013, after a hearing, adopted a resolution creating the Improvement District. On March 17, 2014, after published notice and a public hearing, the Issuer also adopted an ordinance approving the Assessment/Service Plan (the "Assessment/Service Plan").

The land within the Improvement District is located within the District. The Improvement District is not a political subdivision of the State of Texas and is governed by the governing body of the Issuer.

Authorized Public Improvements

The Issuer may undertake improvement projects and/or services that confer a special benefit on property located within the Improvement District as provided by the Improvement District Act. The Issuer may levy and collect Special Assessments on property in the Improvement District, payable in periodic installments based on the benefit conferred by the Improvement Project to pay all or part of it cost of improvement projects or services.

A public improvement project may include:

(1) landscaping; the erection of fountains, distinctive lighting and signs; the acquiring, constructing, improving, widening, narrowing, closing or rerouting of sidewalks or of streets, any other roadways or their rights-of-way; acquisition, construction or improvement of water, wastewater or drainage facilities or improvements; acquisition, construction or improvement of libraries; the construction or improvement of pedestrian malls, the establishment or improvement of parks; the acquisition and installation of pieces of art; the acquisition, construction or improvement of off-street parking facilities; and the acquisition, construction improvement or rerouting of mass transportation facilities.

(2) other improvements similar to those described in (1) above;

(3) the acquisition, by purchase or otherwise, of real property in connection with an authorized improvement;

(4) special supplemental services for improvement and promotion of the District, including advertising, promotion, health and sanitation, water and wastewater, public safety, security, business recruitment, development, recreation and cultural enhancements;

(5) payment of expenses incurred in the establishment, administration and operation of the District; and

(6) development, rehabilitation, or expansion of affordable housing.

Assessment/Service Plan

Pursuant to the Improvement District Act, the Assessment/Service Plan has been approved by the Issuer, setting forth a plan for services and activities to be provided in the Improvement District, and setting forth the plan for apportioning the cost of the improvements to be assessed against properties in the Improvement District and for payment of the assessments against exempt municipal property in the Improvement District. The improvements contemplated by the Assessment/Service Plan include:

1. Acquisition or construction of a water distribution system which benefits the Improvement District, connecting to the Upper Trinity Regional Water District's water supply system.

2. Acquisition or construction of a wastewater collection system which benefits the Improvement District, connecting to the Issuer's sanitary sewer collection and treatment system.

3. Acquisition or construction of a stormwater drainage system which benefits the Improvement District.

4. Acquisition or construction of streets or roadways and improvements thereto to provide access to and through all property within the Improvement District.

Under the Improvement District Act, the cost of the improvements may be assessed equally per square foot against all property within the Improvement District, or it may be assessed against property according to the value of the property as determined by the Issuer, with or without regard to structures or other improvements on the property, or it may be assessed on the basis of any other reasonable assessment plant that results in imposing equal shares of the cost on property similarly benefitted. The Issuer has elected to levy an assessment rate based on the valuation method, the proportion of value borne by each tract of land (without regard to any improvements thereon) within the Improvement District to the total value of property in the Improvement District.

The Assessment/Service Plan is updated annually pursuant to Chapter 372, Texas Local Government Code.

Preparing Assessment Roll and Notices

The Issuer has caused the Special Assessments against each parcel of land (except road rights-of-way) within the Improvement District to be determined in accordance with the provisions of the Assessment/Service Plan. The Issuer has also adopted an Assessment Roll. The Issuer has prepared an updated Assessment Roll in connection with the issuance of the Bonds. The update projects the annual indebtedness of the Improvement District and the current lien on property within the Improvement District. The Assessment Roll and all subsequent updates to the Assessment Roll have been filed with the City Secretary and are available for public inspection.

Assessments, Hearing, Levy and Payment

After published notice and public hearing, on March 17, 2014, the Issuer adopted an ordinance (the "Assessment Ordinance") levying the assessments as Special Assessments on the property and specifying the method of payment of the Special Assessments and providing that they be payable in periodic installments and shall continue for the number of years required to retire indebtedness or until the Special Assessments are prepaid in full, whichever occurs first.

Supplemental Assessments

After notice and hearing in the manner required for original assessments or as authorized by Section 372.020 of the Improvement District Act, the Issuer may make supplemental assessments to correct omissions or mistakes in the assessment relating to the total cost of the Authorized Improvements and/or services.

Ownership of Authorized Improvements

In accordance with the Improvement District Act, the Issuer has acquired and constructed, and will acquire the Authorized Improvements. All such Authorized Improvements, including the land and the facilities and infrastructure thereon, have been acquired and constructed and shall be acquired pursuant to the provisions of the Contracts. The Authorized Improvements will become facilities owned by the Issuer and will constitute a portion of the Issuer's infrastructure improvements.

Maintenance of Authorized Improvements

The Issuer will provide for the ongoing maintenance and repair of the Authorized Improvements constructed and conveyed, as outlined in the Assessment/Service Plan, from the date of receipt and acceptance of title to the Authorized Improvements. The cost of such maintenance and repair is required to be paid by the District pursuant to the Contracts.

DEVELOPMENT OF THE DISTRICT AND FUTURE DEVELOPMENT

Development of the District

Land within the District is being developed for single-family and commercial mixed-use projects. Proceeds of the Bonds will be used to pay the costs of acquiring and constructing certain water, sewer, and drainage facilities (the "Utility System") and certain streets and roads (the "Road System") (the Utility System and the Road System, collectively, the "System") to serve a 640 unit apartment complex (100% complete), known as Platinum Castle Hills, on 31.8 acres, a 316 unit apartment complex (100% complete), known as Aura Castle Hills, on 15.8 acres, and 155 single-family lots, known as Castle Hills, Phase 8 (the balance of which is in District No. 1-F). Castle Hills Marketplace, a 50 acre shopping center anchored by a Kroger Signature grocery store and other commercial sites, has approximately 8 acres left to be developed into commercial property. All land projected to be developed as single-family has been completely developed as homes built on all lots. There remains approximately 162.7 additional undeveloped but developable acres within the District, with plans for approximately 145 acres to be developed as a business park with frontage along Highway 121 and Business 121. Approximately 3.5 acres of padsites have been provided with water, sewer, and drainage and are expected to be utilized for future commercial development. The remaining undeveloped acreage, approximately 14.2 acres, is expected to be commercial property once built-out. There is no assurance that proceeds of the Bonds will be sufficient to complete construction of the System. The Developer is under no obligation to complete construction of the System if proceeds of the Bonds are insufficient for such purpose. See "RISK FACTORS - Construction Risks and Facilities Costs" and "THE SYSTEM - Status of Construction."

Community Facilities

Community facilities available to the District and its general geographic area are set forth below:

Churches: There are no churches in the District, however, churches of most denominations are located in the immediate vicinity of the District.

Fire and Police Protection and Emergency Medical Services: Fire and police protection and emergency medical services are provided by the City and a City fire station is located within the Castle Hills Project.

Medical Facilities: Baylor Medical Center is located approximately one mile from the District in the City of Carrollton.

Other Utilities: Electric and gas service are being provided by COSERV and its subsidiaries and telephone and cable service are provided by Grande Communications and Verizon.

Schools: Residents of the District attend Lewisville Independent School District which currently has three elementary schools located in or near the District. A middle school is located contiguous to the western boundary of the Castle Hills Project. Lewisville Independent School District has acquired an additional middle school site approximately 1/4 mile from the District. Hebron High School is approximately 2 miles northeast of the District.

Shopping Facilities: Five grocery stores and several convenience centers are located within a ½ mile radius of the District. Lewisville Towne Crossing, 343,000 square feet of retail development, is located within District 1-F and Vista Ridge Mall, a regional shopping mall, is approximately 4 miles west of the District. In addition, The Shops at Willow Bend, a new regional mall, is located approximately 4 miles east of the District. Stonebriar Mall, a regional mall, is located approximately 5 1/2 miles northeast of the District. A 24,500 square foot village center is located in the District and was completed in November, 2004. Located in District No. 1-D, Castle Hills Village Shops and Plaza Center consists of 48,000 sq. ft. of retail space (79% leased) and approximately 64,000 sq. ft. of office space (100% leased). Four phases of the Castle Hills Village Shops and Plaza Center are complete with one more planned at this location.

Future Development

After the construction of the portions of the Utility System and the Road System to be constructed with proceeds of the Bonds, there remains approximately 170.7 undeveloped but developable acreage within the District. It is expected that such acreage will be developed into commercial mixed-use projects and multi-family projects. The instigation of construction of new taxable improvements will be dependent on several factors including, to a great extent, the general demand for housing and commercial projects in the Dallas/Fort Worth metropolitan area as well as the vicinity of the District and other economic conditions which would affect the Developer's or any other party's ability to sell lots and/or other property and of any home builder to sell completed homes or any commercial developer to construct above-ground improvements. See "RISK FACTORS."

THE CASTLE HILLS PROJECT

Description

The Districts are part of the master planned community known as Castle Hills (the "Castle Hills Project"). Castle Hills Project is a development of Bright Realty (hereinafter defined). See "THE DEVELOPER" below. Castle Hills Project consists of approximately 2,400 acres of land, approximately 307.074 acres of which are located

within the District, approximately 1.659 acres which are located within the boundaries of District No. 1-A, 309.2 acres of which are located within District No. 1-B, 261.4 acres of which are located within District No. 1-C, approximately 490.69 acres of which are located within District No. 1-D, approximately 259.46 acres of which are located within the boundaries of District No. 1-E, approximately 368.942 acres are located within the boundaries of District No. 1-F, and 386.44 acres of which are located within District No. 1-H. According to the Developer, the ultimate land use within the Castle Hills Project is currently projected as follows: approximately 1,526 acres will be subdivided into approximately 4,300 single family lots, approximately 455 acres will be used for the development of commercial mixed-use projects, approximately 207 acres will be developed as multi-family communities, and approximately 212 acres have been developed as an 18 hole golf course and country club known as The Lakes at Castle Hills. Swimming and tennis facilities, drainage, easements, streets rights-of-way, utility easements, open space, lakes, parks and greenbelts are included in the single-family acreage.

Status of Development

As of October 31, 2017, a total of 4,012 lots on approximately 1,222 acres had been developed within the Castle Hills Project. 3,466 homes were occupied, and 106 homes were under construction or permitted for construction. Also completed are 210 acres of commercial development, 212 acres for the 18-hole golf course and country club (The Lakes at Castle Hills), with swimming and tennis facilities and 67 acres of multi-family development. Approximately 10 acres for commercial development, 8 acres for multi-family development, and 71 acres for single-family development are to be constructed on, while approximately 235 acres are available for commercial development and 140 acres are available for multi-family development. All of the current development within the Castle Hills Project has occurred within District No. 1-B, District No. 1-C, District No. 1-D, District No. 1-E, District No. 1-F, District 1-H, and the District.

Funding for the improvements located within the District will be through the issuance of bonds by Lewisville Castle Hills Public Improvement District No. 5, funding for the improvements located within District No. 1-B has been through the issuance of bonds by Castle Hills Public Improvement District No. 1, funding for the improvements located within District No. 1-C will be funded through the issuance of bonds by Lewisville Castle Hills Public Improvement District No. 7, funding the improvements within District No. 1-D has been through the issuance of bonds by Lewisville Castle Hills Public Improvement District No. 2, funding for the improvements with District No. 1-E has been through the issuance of bonds by Lewisville Castle Hills Public Improvement District No. 3, funding for the improvements within District No. 1-F will be through the issuance of bonds by Lewisville Castle Hills Public Improvement District No. 4, and funding for the improvements with District No. 1-H is expected to be through the issuance of bonds by Lewisville Castle Hills Public Improvement District No. 6.

The Lakes at Castle Hills now operates as a private club facility which consists of an 18 hole championship golf course designed by Jay Morrish, along with an approximately 25,000 square foot clubhouse resort style pool, tennis facilities with a tennis pro shop, among other amenities.

Major roadways in or adjacent to the Castle Hills Project which have been completed are: (i) S.H. 121 Sam Rayburn Toll Road; (ii) FM 2281 (Old Denton Road); and (iii) extension of FM 423 (Josey Lane).

A District's tax is levied only on property located within such District, therefore, the investment, security and quality of the Bonds is dependent on the successful development of property within each District, and the payment and collection of taxes levied thereon. Neither the faith and credit nor the taxing power of any of the balance of the Castle Hills Project is pledged to the payment of any obligations of any District or the Issuer, including the Bonds. See "RISK FACTORS."

THE DEVELOPER

Role of the Developer

In general, the activities of a developer in a development such as the District include purchasing the land within the Districts, designing the subdivision, designing the utilities and streets to be emplaced in the subdivision, designing any community facilities to be built, defining a marketing program and building schedule, securing necessary governmental approvals and permits for development, arranging for the construction of roads and the installation of utilities (including, in some cases, water, sewer, and drainage facilities, as well as gas, telephone, and electric service) and selling improved lots and commercial reserves to builders, developers, or other third parties. The relative success or failure of a developer to perform such activities in development of the property within a development may have a profound effect on the security of the combination unlimited tax and revenue bonds issued by a development. A developer is generally under no obligation to a district to develop the property which its owns in a development. Furthermore, there is no restriction on the developer's right to sell any or all of the land which the developer owns within a development. In addition, a developer is ordinarily the major taxpayer within a development during the development phase of the property.

The Developer in the District

The developer of land within the Castle Hills Project and within the District is Bright Realty, LLC (together with certain predecessors and subsidiaries, collectively, "Bright Realty"), which is owned by certain members of the family of the late H.R. ("Bum") Bright and trusts for the benefit of such family members. Bright Realty is acquiring land in the District from a related company, BRECO Lands CH, LLC ("BRECO Lands") as dictated by development needs. Bright Realty and BRECO Lands are collectively referred to as the "Developer."

In addition to being former owners of the Dallas Cowboys football team, the Bright family has been active in real estate, oil & gas, banking, trucking and other areas of business both as an investor and a principal acting as owner/manager of operations.

Beginning in the early 1960's, entities owned by the Bright family built and acquired apartments, developed numerous mixed use subdivisions and built and operated a nursing home. Bright Realty and its predecessors substantially expanded its activities into office buildings and land development projects. A major component of its activities became fee management of distressed properties. Managing its own apartment properties was expanded into managing problems properties for various lending institutions, through Bright Realty's wholly owned subsidiary, Bright Management. At its height, Bright Management was managing real estate properties valued at over $500 million. The types of properties managed ranged from small retail pad sites to apartment complexes, twenty-five office buildings, numerous retail, warehouse and miscellaneous commercial buildings.

Bright Realty and its predecessors has been involved in land acquisition and real estate development for over 40 years. They have been involved as developer, builder and lender in numerous projects during that period of time. These projects have included:

<u>Mixed Use Developments</u>:

500 acre mixed use development in Arlington, Texas
250 acre mixed use development in DeSoto, Texas
200 acre mixed use development in Arlington, Texas

Apartment Complexes:

204 unit apartment complex in Arlington, Texas
300 unit apartment complex in Plano, Texas in Joint Venture with Seafield Capital
130 unit apartment complex in Fort Worth, Texas

Commercial Office Buildings:

143,000 s.f. office building in Dallas, Texas
160,000 s.f. office building in Dallas, Texas
50,000 s.f. office building in Dallas, Texas

Other Developments:

100 unit townhouse project in Plano, Texas with Seafield Capital
60 unit nursing home in Dallas, Texas
50,000 s.f. mixed use development in Lewisville, Texas

Prior to the commencement of the Castle Hills Project, the Developer had no prior experience in the development of single-family subdivisions. The Issuer cautions that the prior development experience described above was, in some instances, undertaken during market conditions which existed in the past and in different geographical locations than the Issuer. Consequently, the prior land development experience of the Developer is no assurance that the development program in the Issuer will be successful.

Developer Principals

Chris Bright (65), Partner. Chris Bright oversees Bright Realty and its parent company Bright Industries. Dallas based Bright Industries includes real estate development (Castle Hills), home building operations (American Legend Homes, Belclaire Homes, Avanti Custom Homes), real estate marketing (Bright Marketing, LLC), hospitality, club and golf operations (The Lakes at Castle Hills) and corporate hospitality (TresMil, LLC). Mr. Bright is a Dallas native who was born and raised in Highland Park. He holds a B.A. from the University of Dallas. He began his career with STM Mortgage Company, where he supervised STM's real estate construction lending operations as well as its commercial loan placement and underwriting. He was served as Vice President of operations for Bright Management. Mr. Bright is active in several Dallas charitable and civic organizations and serves on the board of directors for the University of Dallas, A Weekend to Wipe Out Cancer, Big Brothers Big Sisters of North Texas and the McKinney Avenue Trolley Association. He also serves on the boards of Bright Industries, Bright Realty, Bright & Co. Marketing and American Legend Homes.

Clay Bright (63), Partner. Clay Bright is a member of in Bright Realty's Board of Managers, he also oversees Bright Industries. As president of Bright Industries, Mr. Bright oversees real estate investing, commercial banking, mortgage banking, insurance and home building, and farming and ranching operations, with a focus on operational structure, asset and cash management, strategic planning, tax optimization, safety and soundness. Mr. Bright holds a B.S. in Industrial Distribution from Texas A&M University. He serves on the board of directors for Bright Industries and American Legend Homes. He is involved in local charitable organizations and serves on the board of directors for the Easterwood Foundation and previously on the Association of Former Students of Texas A&M University. He has also been actively involved in Boy Scouts of America.

Development Financing

Certain financial information with respect to Bright Realty is included in Exhibit G hereto. Bright Realty is not responsible for, liable for, and has not made any commitment for payment of the Bonds or other obligations of the District or the Issuer. Bright Realty has no legal commitment to the District, the Issuer, or owners of the

Bonds to continue development of land within the District and may sell or otherwise dispose of its property within the District, or any other assets, at any time. Further, Bright Realty's financial condition is subject to change at any time.

THE SYSTEM

Regulation

According to the District's Engineer, water supply and distribution, wastewater collection, and storm drainage facilities (collectively, the "System") to serve the Castle Hills Project is and will be designed in accordance with accepted engineering practices and the current requirements of various agencies having regulatory or supervisory jurisdiction over the construction and operation of such facilities. The construction of the System is required to be accomplished in accordance with the standards and specifications of such entities and are subject to inspection by each such entity. Operation of the System must be accomplished in accordance with the standards and requirements of such entities. TCEQ exercises continuing supervisory authority over the District. Collection and transmission of the sewage to the City of Lewisville, Texas (the "City") plant and subsequent treatment and discharge is all subject to the regulatory authority of TCEQ and the U.S. Environmental Protection Agency. Construction of drainage facilities is subject to regulation by Denton County and, in some instances, the TCEQ. Denton County, the TCEQ, and the City also exercise certain regulatory jurisdiction over the System. The regulations and requirements of entities exercising regulatory jurisdiction over the System are subject to further development and revision which, in turn, could require additional expenditures in order to achieve compliance. In particular, additional or revised requirements in connection with any permit wastewater collection and transmission system beyond the criteria existing at the time of construction of the system could result in the need to construct additional facilities in the future. The following descriptions are based upon information supplied by the Districts' Engineer.

Water and Sanitary Sewer System

Water Supply Facilities: There are multiple sources of water to serve the District. It is served by the Upper Trinity Regional Water District which delivers to a site immediately south of FM 544, in the vicinity of the Texas Utility transmission lines, treated water at an average daily rate in excess of 14,000,000 gallons per day upon build out and a presently contracted amount of 2,700,000 gallons per day. In addition, the City of Lewisville provides water to serve the District, at an average daily rate of 4,500,000 gallons per day upon build out and a presently contracted amount of 300,000 gallons per day. The System currently has a pumping capacity of 8,000 gallons per minute, with current ground storage of 500,000 gallons, and with elevated storage of 1,500,000 gallons. This system will be adequate for the current and future service to approximately 3,500 single family equivalent connections. In addition to the foregoing, District No. 1-A has an emergency water interconnect with the City of Lewisville and Dallas Water Utilities.

Wastewater Treatment Facilities: Wastewater treatment is provided by the City. A wastewater treatment agreement has been reached among District No. 1-A, District No. 1-B, the Developer and the City by which the City agrees to provide sewage treatment capacity to District No. 1-B and District No. 1-A up to a maximum average of 10,500,000 g.p.d., or approximately 52,500 single-family equivalent connections. In turn, District No. 1-A and District No. 1-B make sewage treatment capacity available to the District out of such capacity.

Drainage Facilities

Drainage facilities to serve the developed areas within the District and a portion of the remaining developable acreage have been designed to outfall into Indian Creek, which traverses the Castle Hills Project and outfalls into the Elm Fork of the Trinity River approximately two miles from the District.

100-Year Flood Plain

According to the Engineer, the Federal Emergency Management Agency ("FEMA") Flood Insurance Rate Map effective April 2, 1997, which covers land located within the District, indicates that approximately no land in the District is within the 100-year floodplain designation.

PURCHASE OF THE BONDS

Raymond James & Associates, Inc., as Placement Agent (the "Placement Agent") has agreed to use its best efforts to place the Bonds with purchasers who are both (i) "Qualified Institutional Buyers" within the meaning of Rule 144A of the United States Securities and Exchange Commission (the "SEC") and (ii) "Institutional Investors" within the meaning of applicable state securities laws (collectively, the "Purchasers") pursuant to a Bond Placement Agreement (the "Bond Placement Agreement") with the Issuer at a price equal to the principal amount thereof. See "PLAN OF FINANCING – Sources and Uses of Funds." The Bond Placement Agreement provides, among other things, that the Purchaser's obligation to make such purchase is subject to the terms and conditions of the Bond Placement Agreement, including approval of certain legal matters by counsel to the Purchaser. For its services as Placement Agent, the Placement Agent is to receive a fee of $_____, payable from proceeds of the Bonds.

The Placement Agent has provided the following sentence for inclusion in this Official Statement. The Placement Agent has reviewed the information in this Official Statement in accordance with, and as a part of, its responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Placement Agent does not guarantee the accuracy or completeness of such information.

LEGAL MATTERS

Legal Opinions

The Issuer will furnish the Purchaser a transcript of certain certified proceedings incident to the authorization and issuance of the Bonds. Such transcript will include a certified copy of the approving opinion of the Attorney General of Texas, as recorded in the Bond Register of the Comptroller of Public Accounts of the State of Texas, to the effect that the Bonds are valid and binding obligations of the Issuer. The Issuer will also furnish the legal opinion of Winstead PC, Bond Counsel, to the effect that, based upon an examination of such transcript, the Bonds are valid and binding obligations of the Issuer under the Constitution and laws of the State of Texas. The legal opinion of Bond Counsel will further state an amount, on a cumulative basis, not less than one percent (1%) of the original principal amount of the Bonds, together with interest thereon, is payable from and secured by a pledge of and lien on the Special Assessment Revenues and that an amount equal to the balance of the original principal amount of the Bonds, together with interest thereon, but in no event to exceed, on a cumulative basis, not more than ninety-nine percent (99%) of the original principal amount of the Bonds, together with interest thereon, is payable from Contract Revenues to be paid by the District pursuant to the Contracts from the levy of ad valorem taxes, without legal limitation as to rate or amount, upon all taxable property located within the District. Bond Counsel's opinion will also address the matters described below under the caption "TAX EXEMPTION." A copy of the opinion of Bond Counsel is attached hereto as "APPENDIX E." Bond Counsel's fees for services rendered with respect to the sale of the Bonds are contingent upon the issuance and delivery of the Bonds. Bond Counsel acts as counsel for the District on matters other than the issuance of Bonds.

In its capacity as Bond Counsel, Winstead PC, has reviewed the information appearing in this Limited Offering Memorandum under the captions "THE BONDS," "THE ISSUER," "THE DISTRICT," "THE IMPROVEMENT DISTRICT,""TAX PROCEDURES," "ASSESSMENT PROCEDURES," "LEGAL MATTERS," "TAX EXEMPTION," "CONTINUING DISCLOSURE OF INFORMATION," "APPENDIX B - DEFINITIONS," "APPENDIX C - SUMMARY OF TRUST AGREEMENTS" "APPENDIX D - SUMMARY OF THE CONTRACTS," and "APPENDIX E - FORM OF BOND COUNSEL OPINION" solely to determine whether such information fairly summarizes the procedures, law and documents referred to therein. Bond Counsel has not, however, independently verified any of the other factual information contained in this Limited Offering Memorandum, nor has Bond Counsel conducted an investigation of the affairs of the Issuer or the District for the purpose of passing upon the accuracy or completeness of the information contained in this Limited Offering Memorandum. Certain legal matters will be passed upon for the Placement Agent by its counsel, McCall, Parkhurst & Horton L.L.P., Dallas, Texas.

The various legal opinions to be delivered concurrently with the delivery of the Bonds express the professional judgment of the attorneys rendering the opinions as to the legal issues explicitly addressed therein. In rendering a legal opinion, the attorney does not become an insurer or guarantor of that expression of professional judgment, of the transaction opined upon, or of the future performance of the parties to the transaction. Nor does the rendering of an opinion guarantee the outcome of any legal dispute that may arise out of the transaction.

No Arbitrage

The Issuer will certify on the date the Bonds are delivered and paid for that based upon all facts and estimates now known or reasonably expected to be in existence, the Issuer reasonably expects that the proceeds of the Bonds will not be used in a manner that would cause the Bonds, or any portion of the Bonds, to be "arbitrage bonds" under Section 148 of the Internal Revenue Code of 1986 (the "Code") and the regulations prescribed from time to time thereunder. Furthermore, all officers, employees and agents of the Issuer have been authorized and directed to provide certifications of facts and estimates that are material to the reasonable expectations of the Issuer as of the date the Bonds are delivered and paid for. In particular, all or any officers of the Issuer have been authorized to certify to the facts, circumstances and reasonable expectations of the Issuer on the date the Bonds are delivered and paid for regarding the amount and use of the proceeds of the Bonds. Moreover, the Issuer will covenant in the Bond Ordinances that it will make such use of the proceeds of the Bonds, regulate investments of proceeds of the Bonds and take such other and further actions and follow such procedures, including without limitation, calculation of the yield on the Bonds, as may be required so that the Bonds will not become "arbitrage bonds" under the Code and the regulations prescribed from time to time thereunder.

No-Litigation Certificate

The Issuer and the District will furnish to the Purchaser a certificate, dated as of the date of delivery of the Bonds, executed by both their authorized officers, to the effect that no litigation of any nature has been filed or is then pending or threatened, of which either has notice, either in state or federal courts, contesting or attacking the Bonds; to restrain or enjoin the issuance, execution or delivery of the Bonds; which would affect the provisions made for the payment of or security for the Bonds; which would in any manner question the authority or proceedings for the issuance, execution, or delivery of the Bonds; or which would affect the validity of the Bonds.

No Material Adverse Change

The agreement of the Purchaser to purchase the Bonds pursuant to the Bond Placement Agreement, and the obligation of the Issuer to deliver the Bonds, are subject to the condition that, up to the time of delivery of and receipt of payment for the Bonds, there shall have been no material adverse change in the financial condition of the Issuer or the District from that set forth or contemplated in the Preliminary Limited Offering Memorandum, as it may have been supplemented or amended, through the date of sale of the Bonds.

TAX EXEMPTION

In the opinion of Winstead PC, Bond Counsel, under existing statutes, regulations, published rulings and court decisions, interest on the Bonds is excludable from the gross income of the Registered Owners of the Bonds for federal income tax purposes. In expressing its opinion that interest on the Bonds is excludable from gross income of the Registered Owners of the Bonds, Bond Counsel will rely on the Issuer's no-arbitrage certificate, and will assume compliance by the Issuer with certain covenants of the Issuer and the District relating to the use of the facilities financed with the proceeds of the Bonds and the use and investment of the proceeds of the Bonds and other funds of the Issuer. Failure of the Issuer or the District to comply with these covenants may cause the interest on the Bonds to become includable in gross income retroactively to the date of issuance of the Bonds.

The law upon which Bond Counsel has based its opinion is subject to change by the Congress, administrative interpretation by the Department of Treasury and to subsequent judicial interpretation. There can be no assurance that such law or the interpretation thereof will not be changed in a manner which would adversely affect the tax treatment of ownership of the Bonds.

Interest on the Bonds for federal income tax purposes (i) will be excludable from gross income, as defined in section 61 of the Internal Revenue Code of 1986, as amended to the date hereof, of the owners thereof pursuant to section 103 of such Code, existing regulations, published rulings, and court decisions thereunder, and (ii) will not be included in computing the alternative minimum taxable income of individuals or, except as hereinafter described, corporations. Interest on the Bonds owned by a corporation will be included in such corporation's adjusted current earnings for purposes of calculating the alternative minimum taxable income of such corporations, other than an S corporation, a qualified mutual fund, a real estate mortgage investment conduit, a real estate investment trust, or a financial asset securitization investment trust (FASIT). A corporation's alternative minimum taxable income is the basis on which the alternative minimum tax imposed by Section 55 of the Code will be compute.

Except as stated above with respect to the exclusion of the interest on the Bonds from gross income, Bond Counsel expresses no opinion as to any federal, state or local tax consequences of acquiring, carrying, owning or disposing of the Bonds.

Prospective purchasers of the Bonds should be aware that the ownership of tax-exempt obligations may result in collateral federal income tax consequences to financial institutions, property and casualty insurance companies, individual recipients of Social Security or Railroad Retirement benefits and taxpayers who may be deemed to have incurred or continued indebtedness to purchase or carry tax-exempt obligations. Prospective purchasers failing within any of these categories should consult their own tax advisors as to the applicability of these consequences.

A copy of the opinion of Bond Counsel is attached hereto as APPENDIX E.

Tax Accounting Treatment of Original Issue Discount Bonds

The initial public offering price to be paid for one or more maturities of the Bonds may be less than the principal amount thereof or one or more periods for the payment of interest on the bonds may not be equal to the accrual period or be in excess of one year (the "Original Issue Discount Bonds"). In such event, the difference between (i) the "stated redemption price at maturity" of each Original Issue Discount Bond, and (ii) the initial offering price to the public of such Original Issue Discount Bond would constitute original issue discount. The "stated redemption price at maturity" means the sum of all payments to be made on the bonds less the amount of all periodic interest payments. Periodic interest payments are payments which are made during equal accrual

periods (or during any unequal period if it is the initial or final period) and which are made during accrual periods which do not exceed one year.

Under existing law, any owner who has purchased such Original Issue Discount Bond in the initial public offering is entitled to exclude from gross income (as defined in section 61 of the Code) an amount of income with respect to such Original Issue Discount Bond equal to that portion of the amount of such original issue discount allocable to the accrual period. For a discussion of certain collateral federal tax consequences, see discussion set forth below.

In the event of the redemption, sale or other taxable disposition of such Original Issue Discount Bond prior to stated maturity, however, the amount realized by such owner in excess of the basis of such Original Issue Discount Bond in the hands of such owner (adjusted upward by the portion of the original issue discount allocable to the period for which such Original Issue Discount Bond was held by such initial owner) is includable in gross income.

Under existing law, the original issue discount on each Original Issue Discount Bond is accrued daily to the stated maturity thereof (in amounts calculated as described below for each six-month period ending on the date before the semiannual anniversary dates of the date of the Bonds and ratably within each such six-month period) and the accrued amount is added to an initial owner's basis for such Original Issue Discount Bond for purposes of determining the amount of gain or loss recognized by such owner upon the redemption, sale or other disposition thereof. The amount to be added to basis for each accrual period is equal to (a) the sum of the issue price and the amount of original issue discount accrued in prior periods multiplied by the yield to stated maturity (determined on the basis of compounding at the close of each accrual period and properly adjusted for the length of the accrual period) less (b) the amounts payable as current interest during such accrual period on such Original Issue Discount Bond.

The federal income tax consequences of the purchase, ownership, redemption, sale or other disposition of Original Issue Discount Bonds which are not purchased in the initial offering at the initial offering price may be determined according to rules which differ from those described above. All owners of Original Issue Discount Bonds should consult their own tax advisors with respect to the determination for federal, state and local income tax purposes of the treatment of interest accrued upon redemption, sale or other disposition of such Original Issue Discount Bonds and with respect to the federal, state, local and foreign tax consequences of the purchase, ownership, redemption, sale or other disposition of such Original Issue Discount Bonds.

SOURCES OF INFORMATION

General

The information contained in this Limited Offering Memorandum has been obtained primarily from the Issuer's and the District's records, the District's Engineer, District No. 1-A, the Developer, the Denton County Appraisal District and other sources believed to be reliable; however, no representation is made by the Issuer or the District as to the accuracy or completeness of the information contained herein, except as described below under "Certification of Limited Offering Memorandum." The information and expressions of opinion herein are subject to change without notice, and neither the delivery of this Limited Offering Memorandum or any sale hereunder shall create any implication that there has been no change in the financial condition or operations of the Issuer described herein since the date hereof. This Limited Offering Memorandum contains, in part, estimates and matters of opinion that are not intended as statements of fact, and no representation or warranty is made as to the correctness of such estimates and opinions or that they will be realized. The summaries of the statutes, resolutions and engineering and other related reports set forth herein are included subject to all of the provisions of such documents. These summaries do not purport to be complete statements of such provisions and reference is made to such documents for further information.

Experts

The information contained in this Limited Offering Memorandum relating to engineering, to the description of the System generally and, in particular, the engineering information included in the sections captioned "THE ISSUER," "DEVELOPMENT OF THE DISTRICT AND FUTURE DEVELOPMENT," "THE CASTLE HILLS PROJECT," and "THE SYSTEM" has been provided by Land Design, Inc. Such information has been included herein in reliance upon the authority of said firm as experts in the field of civil engineering.

The information contained in this Limited Offering Memorandum relating to assessed valuations of property generally and, in particular, that information concerning valuations contained in the sections captioned "TAX DATA" and "DISTRICT DEBT" has been provided by the Denton County Appraisal District.

The audited financial statements of the District for the year ended September 30, 2016, included in APPENDIX F hereto, were prepared by McCall Gibson Swedlund & Barfoot PLLC, Certified Public Accountants, which has consented to the publication of such financial statements in this Limited Offering Memorandum.

Certification of Limited Offering Memorandum

At the time of payment for and delivery of the Bonds, the Issuer will furnish the Purchaser a certificate, executed by the Mayor and City Secretary, acting in their official capacities, to the effect that to their knowledge and belief (a) the information, descriptions and statements of or pertaining to the Issuer contained in this Limited Offering Memorandum, on the date thereof and on the date of delivery were and are true and correct in all material respects; (b) insofar as the Issuer and its affairs, including its financial affairs, are concerned, this Limited Offering Memorandum did not and does not contain an untrue statement of a material fact or omit to state a material fact required to be stated herein or necessary to make the statements herein, in the light of the circumstances under which they were made, not misleading; and (c) insofar as the descriptions and statements, including financial data contained in this Limited Offering Memorandum, of or pertaining to entities other than the Issuer and their activities are concerned, such statements and data have been obtained from sources which the Issuer believes to be reliable and that the Issuer has no reason to believe are untrue in any material respect or omit to state any material fact necessary to make the statements herein, in the light of the circumstances under which they were made, not misleading; however, the Issuer has made no independent investigation as to the accuracy or completeness of the information derived from sources other than the Issuer.

At the time of payment for and delivery of the Bonds, the District will furnish the Purchaser a certificate, executed by the President and Secretary of the Board of the District, acting in their official capacities, to the effect that the best of their knowledge and belief (a) the information, descriptions and statements of or pertaining to the District contained in this Limited Offering Memorandum, on the date thereof and on the date of delivery were and are true and correct in all material respects; (b) insofar as the District and its affairs, including its financial affairs, are concerned, this Limited Offering Memorandum did not and does not contain an untrue statement of a material fact or omit to state a material fact required to be stated herein or necessary to make the statements herein, in the light of the circumstances under which they were made, not misleading; and (c) insofar as the descriptions and statements, including financial data contained in this Limited Offering Memorandum, of or pertaining to entities other than the District and their activities are concerned, such statements and data have been obtained from sources which the District believes to be reliable and that the District has no reason to believe are untrue in any material respect or omit to state any material fact necessary to make the statements herein, in the light of the circumstances under which they were made, not misleading; however, the District has made no independent investigation as to the accuracy or completeness of the information derived from sources other than the District.

Continuing Availability of Financial Information

Pursuant to Texas law, the District will have its financial statements prepared in accordance with generally accepted accounting principles, and will have its financial statements audited by a certified public accountant in accordance with generally accepted auditing standards within 120 days after the close of its fiscal year. The District audit report is filed with the TCEQ within 135 days after the close of its fiscal year. Copies of each audit report are also filed in the office of the District.

The District's financial records and audit reports are available for public inspection during regular business hours at the office of the District and copies will be provided on written request, to the extent permitted by law, upon payment of copying charges. Request for copies should be addressed to the District in care of Bond Counsel.

FORWARD-LOOKING STATEMENTS DISCLAIMER

The statements contained in this Limited Offering Memorandum, and in any other information provided by the Issuer, the District, or the Developer that are not purely historical, are forward-looking statements, including statements regarding the Issuer's, the District's or the Developer's expectations, hopes, intentions, or strategies regarding the future. Readers should not place undue reliance on forward-looking statements. All forward-looking statements included in this Limited Offering Memorandum are based on information available on the date hereof, and none of the Issuer, the District or the Developer assumes any obligation to update any such forward-looking statements. The actual results could differ materially from those discussed in such forward-looking statements.

The forward-looking statements included herein are necessarily based on various assumptions and estimates and are inherently subject to various risks and uncertainties, including risks and uncertainties relating to the possible invalidity of the underlying assumptions and estimates and possible changes or developments in social, economic, business, industry, market, legal, and regulatory circumstances and conditions and actions taken or omitted to be taken by third parties, including customers, suppliers, business partners and competitors, and legislative, judicial, and other governmental authorities and officials. Assumptions related to the foregoing involve judgements with respect to, among other things, future economic, competitive, and market conditions and future business decisions, all of which are difficult or impossible to predict accurately and many of which are beyond the control of the Issuer, the District, or the Developer, as the case may be. Any of such assumptions could be inaccurate and, therefore, there can be no assurance that the forward-looking statements included in this Limited Offering Memorandum will prove to be accurate.

CONTINUING DISCLOSURE OF INFORMATION

The Issuer has, in the Trust Agreements, undertaken (the "Undertaking") for the benefit of the owners and beneficial owners of the Bonds, to provide certain updated financial information and operating data annually, and timely notice of specified material events, to the Municipal Securities Rulemaking Board (the "MSRB") through its Electronic Municipal Market Access ("EMMA") system. In order to obtain from the District the information necessary for the Issuer to comply with the Undertaking, the Issuer has entered into an "Agreement to Provide Certain Information" with the District pursuant to which the District has agreed to provide such information concerning the District and the Developer. The District has entered into a "Continuing Disclosure Agreement" with the Developer pursuant to which the Developer has agreed to provide such information. The Issuer is required to observe the Undertaking for so long as it is obligated to advance funds to pay the Bonds.

Annual Reports

The Issuer shall provide, or cause to be provided, annually to the MSRB, in an electronic format as prescribed by the MSRB, within six months after the end of each fiscal year of the District ending in or after 2017, financial information and operating data with respect to the District of the general type included in the final Limited Offering Memorandum under the headings "DISTRICT DEBT,""DISTRICT TAX DATA, and in APPENDIX F hereto (District's Audited Financial Statements). The Issuer may provide updated information in full text or may incorporate by reference certain other publicly available documents, as permitted by SEC Rule 15c2-12 (the "Rule"). Any financial statements so to be provided shall be (1) prepared in accordance with the accounting principles described in the Bond Ordinances or Trust Agreements, or such other accounting principles as the District may be required to employ from time to time pursuant to state law or regulation, and (2) audited, if the District commissions an audit of such statements and the audit is completed within the period during which they must be provided. If the audit of such financial statements is not complete within such period, then the Issuer shall provide, or cause to be provided, unaudited financial statements of the District by the required time, and shall provide, or cause to be provided, audited financial statements of the District for the applicable fiscal year to the MSRB, when and if the audit report on such statements become available.

In addition, the Issuer has agreed to provide financial information with respect to the Developer, any person or entity to whom the Developer voluntarily assigns (except as collateral) the right to receive a payment out of the proceeds from the sale of the bonds of the Issuer, and each other person or entity, if any, to whom the Issuer voluntarily makes or agrees or has agreed to make a payment out of such proceeds of the general type. The Issuer will be obligated to provide information concerning the Developer and any such other person or entity only if and so long as (1) such person owns more than 20% of the taxable property within the Issuer by value, as reflected by the most recently certified tax rolls (and without effect to special valuation provisions), (2) such person has made tax or other payments to the Issuer which were used or available to pay more than 20% of the Issuer's debt service requirements in the applicable fiscal year of the Issuer, or (3) at the end of such fiscal year of the Issuer such person is obligated to the Issuer to provide or pay for Issuer facilities in an amount which exceeds 20% of the construction costs of said facilities to be financed with proceeds of the Bonds or any future bonds. The financial information to be provided with respect to the Developer is information of the type described in APPENDIX G hereto.

If the District changes its fiscal year, the Issuer will notify the MSRB, or cause the MSRB to be notified, of the change (and of the date of the new fiscal year end) prior to the next date by which the Issuer otherwise would be required to provide financial information and operating data pursuant to this Section. All documents provided to the MSRB pursuant to this Section shall be accompanied by identifying information as prescribed by the MSRB.

Event Notices

Notice of Occurrence of Certain Events, Whether or Not Material . The District will notify the MSRB through EMMA (in an electronic format as prescribed by the MSRB) within ten business days following the occurrence of any of the following events with respect to the Bonds, without regard to whether such event is material within the meaning of the federal securities laws: (1) principal and interest payment delinquencies; (2) unscheduled draws on debt service reserves reflecting financial difficulties; (3) unscheduled draws on credit enhancements reflecting financial difficulties; (4) substitution of credit or liquidity providers, or their failure to perform; (5) adverse tax opinions or the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax-exempt status of the Bonds, or other events affecting the tax-exempt status of the Bonds; (6) tender offers; (7) defeasances; (8) rating changes; and (9) bankruptcy, insolvency, receivership or similar event of an obligated person. (Neither the Bonds nor the Bond Ordinances make any provision for credit enhancement - unless a municipal bond insurance policy is obtained - or liquidity enhancement.)

Notice of Occurrence of Certain Events, If Material. The District also will notify the MSRB through EMMA (in an electronic format as prescribed by the MSRB) within ten business days following the occurrence of any of the following events with respect to the Bonds, if such event is material within the meaning of the federal securities laws: (1) non-payment related defaults; (2) modifications to rights of holders; (3) redemption calls; (4) release, substitution, or sale of property securing repayment of the Bonds; (5) the consummation of a merger, consolidation, or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms; and (6) appointment of a successor or additional trustee or the change of name of a trustee.

Notice of Failure to Timely File. The District also will notify the MSRB through EMMA, in a timely manner, of any failure by the District to provide financial information or operating data in accordance with the provisions described above.

Availability of Information

The Issuer has agreed to provide the foregoing information only to the MSRB. The MSRB intends to make the information available to the public without charge through the EMMA internet portal at www.emma.msrb.org.

Limitations, Disclaimers, and Amendments

The Issuer has agreed to update information and to provide notices of material events only as described above. The Issuer has not agreed to provide, or cause to be provided, other information that may be relevant or material to a complete presentation of the financial results of operations, condition, or prospects of the District, the Developer or agreed to update any information that is provided, except as described above. The Issuer makes no representation or warranty concerning such information or concerning its usefulness to a decision to invest in or sell Bonds at any future date. The Issuer disclaims any contractual or tort liability for damages resulting in whole or in part from any breach of its continuing disclosure agreement or from any statement made pursuant to its agreement, although holders or beneficial owners of Bonds may seek a writ of mandamus to compel the Issuer to comply with its agreement.

The Issuer may amend its continuing disclosure agreement from time to time to adapt to changed circumstances that arise from a change in legal requirements, a change in law, or a change in the identity, nature, status, or type of operations of the Issuer or the District, if but only if the agreement, as amended, would have permitted a purchaser to purchase or sell Bonds in the offering made hereby in compliance with the Rule, taking into account any amendments or interpretations of the Rule to the date of such amendment, as well as such changed circumstances, and either the holders of a majority in aggregate principal amount of the outstanding Bonds consent to the amendment or any person unaffiliated with the Issuer (such as nationally recognized bond counsel) determines that the amendment will not materially impair the interests of the holders and beneficial owners of the Bonds. The Issuer may amend or repeal the agreement if the SEC amends or repeals the applicable provisions of the Rule or a court of final jurisdiction determines that such provisions are invalid or unenforceable, but only to the extent that its right to do so would not prevent the Purchaser from lawfully purchasing the Bonds. If the Issuer so amends the agreement, it has agreed to include with any financial information or operating data next provided in accordance with its agreement described above under "Annual Reports" an explanation, in narrative form, of the reasons for the amendment and of the impact of any change in the type of financial information and operating data so provided.

Compliance with Prior Undertakings

The Issuer has entered into certain undertakings under SEC Rule 15c2-12 with respect to obligations issued by the Issuer for the benefit of Castle Hills Public Improvement District Nos. 2, 3, 4, 5, 6 and 7, the security for which include payments made by Denton County Fresh Water Supply Districts Nos. 1-B, 1-D, 1-E,

1-F, 1-G, 1-H, and 1-C, respectively (collectively, the "Castle Hills Districts"). In those undertakings, the Issuer undertook to provide, or cause to be provided, certain financial and operating information relating to the Castle Hills Districts. In turn, the Castle Hills Districts entered into agreements with the Issuer agreeing to provide to the Issuer such financial and operating information as well as to give notice of any events described above under "Event Notices." During the last five years, the Issuer and the Castle Hills Districts have been in compliance in all material respect with such undertakings and agreements except as follows:

> The audits of District Nos. 1-C, 1-H, and 1-G, for the fiscal year ended 9/30/14 were filed late with unaudited financial statements being filed on 7/16/15, together with a notice of late filing, and audited financial statements being filed on 9/01/15.
>
> The underlying rating on District No. 1-D was upgraded by S&P on 4/21/15 from BBB+ to A- but notice of such upgrade was not timely filed. Such filing has now been made.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK.]

This Limited Offering Memorandum is duly approved by the Governing Body of the Issuer and the Board of Directors of the District as of the date specified on the first page hereof.

CITY OF LEWISVILLE, TEXAS

/s/ _____
Mayor

ATTEST:

/s/ _____
City Secretary

DENTON COUNTY FRESH WATER SUPPLY DISTRICT NO. 1-G

/s/ _____
President, Board of Directors

ATTEST:

/s/ _____
Secretary, Board of Directors

APPENDIX A

AERIAL PHOTOGRAPH
(_____)

SEE ATTACHED

APPENDIX B

DEFINITIONS

The following words and terms, whenever the same appear in the Bond Ordinances, the Trust Agreements or the Joint Utility Contract without qualifying language, and, unless otherwise defined herein, in this Limited Offering Memorandum, are defined to have the meanings set out below, unless the context requires a different interpretation:

Act - means, collectively, the Public Improvement District Assessment Act, as amended, Texas Local Government Code, Chapter 372, as amended.

Additional Bonds - means the additional parity bonds payable from Special Assessment Revenues and payable from Contract Payments in accordance with the Joint Utility Contract which the Issuer reserved the right to issue in the Trust Agreements.

Administrative Expense Fund - means the fund established in the Trust Agreements.

Assessment Ordinance - means, Ordinance No. _____, adopted by the governing body of the Issuer on November 20, 2017, and any amendment or supplement thereto that may be hereafter adopted by the governing body of the Issuer, levying annual Special Assessments to pay the Debt Service Requirements on the Bonds against each eligible parcel of land in the P.I.D. and providing that such Special Assessments together with the Contract Revenues received from the Districts in accordance with the Contracts be paid in periodic installments in amounts necessary to pay the Debt Service Requirements on the Bonds.

Assessment Roll - means the Assessment Roll which is attached to the Assessment/Service Plan as Exhibit "A" to the Assessment Ordinance as amended from time to time in accordance with the Act, which shows, among other things, the properties within the P.I.D. subject to Special Assessments, the amount assessed, and the installment payments on the Special Assessments.

Assessment/Service Plan - means the Assessment/Service Plan prepared in accordance with the Act and approved by the governing body of the Issuer, as part of the Assessment Ordinance, on May 19, 2014, setting for the plan for services and activities to be provided in the P.I.D. and setting for the plan for apportioning the cost of the improvements to be assessed against properties in the P.I.D.

Authorized Expenditures - means the expenditures made for facilities and improvements set forth in Exhibit "A" to the Trust Agreements, but shall not include: (i) any part of the water or sewer system of the City of Lewisville, secured under the outstanding obligations of the City of Lewisville; or (ii) certain facilities which, while owned by the Issuer, are constructed or acquired to perform certain contracts between the Issuer and other entities, including private corporations, municipalities and political subdivisions and are financed by the proceeds of the Issuer's revenue bonds issued particularly to finance facilities needed to perform such contract.

Authorized Improvements - means those improvements acquired with Authorized Expenditures.

Authorized or Permitted Investments - means any investment authorized by the Public Funds Investment Act, Chapter 2256, Texas Government Code.

Bankruptcy or Insolvency of a Person - means commencement by a Person of any voluntary case under any applicable bankruptcy, insolvency or similar law now or hereafter in effect, or any consent by the Issuer to the appointment of or taking of possession by a receiver, liquidator, assignee, trustee, custodian, sequestrator (or other similar official) of a Person or any substantial part of its property, or any general assignment by the Issuer for the benefit of creditors, or failure by a Person generally to pay its debts as they become due.

Bondholder Representative - means, collectively, the Series 2017 Road Bonds Bondholder Representative and the Series 2017 Utility Bonds Bondholder Representative.

Bond Ordinances - means the City of Lewisville ordinances, adopted on November 20, 2017, authorizing the issuance of the Bonds.

Bonds - means, collectively, the Utility Bonds and the Road Bonds authorized by the Bond Ordinances and issued in accordance with the Trust Agreements.

Business Day - means any day which is not a Saturday, Sunday, or a day on which the Trustee is authorized by law or executive order to close, or a legal holiday.

Cede & Co. - means the nominee of DTC in whose name the initial Bonds are to be registered.

City - means the City of Lewisville, Texas, a home rule city organized and operating under Article XI, Section 5 of the Constitution of the State of Texas.

Closing Date - means the date of physical delivery of the initial Bonds for payment in full by the Placement Agent.

Code - means the Internal Revenue Code of 1986, as amended.

Collection Fund - means the fund established in Section 5.1 of the Trust Agreements.

Comptroller - means the Comptroller of Public Accounts of the State of Texas.

Contracts - means, collectively, the Joint Utility Contract and the Joint Road Contract.

Contract Payments or District Contract Payments - means the payments required to be made by the District under the Contracts.

Contract Revenues - means the revenue paid to the Issuer by the District in accordance with the provisions of the Contracts.

Debt Service Requirements - means, as of any particular date of computation, with respect to any Parity Bonds and with respect to any period, the aggregate of the amounts to be paid or set aside from the Interest and Sinking Fund by the Trustee on behalf of the Issuer as of such date or in such period for the payment of the Principal Installment, redemption premium, if any, and interest (to the extent not capitalized) on such Parity Bonds.

Debt Service Reserve Amount - means the lesser of (i) 10% of the principal amount of the Bonds, (ii) the maximum annual debt service requirement of the Bonds, and (iii) 125% of the average annual debt service of the Bonds.

Debt Service Reserve Funds - means the funds so designated and established to Section 5.5 of the Trust Agreements.

District - means Denton County Fresh Water Supply District No. 1-G.

Districts - means, collectively, Denton County Fresh Water Supply District No. 1-A and the District.

DTC - means The Depository Trust Company, New York, New York.

Electronic Means - means telecopy, email, or facsimile transmission or other similar means of communication approved in writing by the Trustee.

EMMA - means the Electronic Municipal Market Access system, a service of the MSRB.

Event of Default - means those events of default provided for in the Trust Agreements.

Fiscal Year - means the twelve (12) month accounting period used by the Issuer which currently ends on September 30, the Fiscal Year may be any twelve (12) consecutive month period established by the Issuer.

Foreclosure Proceeds - means the amounts received from the judicial sale of assessed property within the P.I.D. as a result of the nonpayment of Special Assessments.

Funds - means the Collection Fund, the Interest and Sinking Fund, the Administrative Expense Fund, the Prepayment Fund, the Utility Improvement Fund, the Road Improvement Fund, the Debt Service Reserve Fund, the Special Assessments Prepayment Fund, and the Redemption Fund, but not including the Rebate Fund, created by the Trust Agreements and any accounts in such Funds or Subaccounts.

Governing Body - means the City Council of the City of Lewisville, Texas.

Improvement Funds - means the funds established in the Trust Agreements.

Interest and Sinking Fund - means the interest and sinking fund and accounts created or confirmed in the Trust Agreements.

Interest Payment Date - when used in connection with any Bond, means September 1, 2018, and each March 1 and September 1 thereafter until maturity or prior redemption.

Investment Grade Rating - means a rating on the Bonds, assigned by a Rating Agency in one of such Rating Agency's four highest categories for long-term debt instruments (without regard for gradation within a rating category and without regard for credit enhancement unless such credit enhancement extends through the final maturity date of the Bonds.

Issue Date - means the Closing Date.

Issuer - means the City of Lewisville, Texas, a home rule city organized and operating pursuant to Article XI, Section 5 of the Constitution of the State of Texas.

Joint Road Contract - means that certain 2008 Joint Road Contract effective as of May 19, 2014, by and among the District, District No. 1-A and the Issuer.

Joint Utility Contract - means that certain 2008 Joint Utility Contract effective as of May 19, 2014, by and among the District, District No. 1-A and the Issuer.

Maturity Date - means the date or dates on which principal of the Bonds is scheduled to be paid, as provided in the Bond Ordinance.

MSRB - means the Municipal Securities Rulemaking Board.

Outstanding - as of the date of determination, all Bonds theretofore issued and delivered under the Trust Agreements, except: (i) Bonds theretofore cancelled by the Trustee or delivered to the Trustee for cancellation; (ii) Bonds for whose purchase, payment or redemption money in the necessary amount has been theretofore deposited in an account, other than the Collection Fund with the Trustee in trust for the holders of such Bond; (iii) Bonds in exchange for or in lieu of which other Bonds have been registered and delivered pursuant to the Trust Agreements; and (iv) Bonds alleged to have been mutilated, destroyed, lost or stolen which have been paid as provided in the Trust Agreements.

Owner or Registered Owner - means the Person or entity who is the registered owner of any Outstanding Bond.

Paying Agent/Registrar - means the entity serving as the Trustee when serving as Paying Agent/Registrar.

Person or Person - mean any individual, corporation, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, or government or any agency or political subdivision thereof or any other entity recognized by the laws of the State of Texas.

Placement Agent - means Raymond James & Associates, Inc.

Prepayments - means amounts received as a result of the payment, more than 6 months in advance of the due date thereof, of Special Assessments or Contract Revenues.

Principal Installment - means as of any particular date of computation and with respect to the Bonds, an amount of money equal to the aggregate of (a) the principal amount of Outstanding Parity Bonds of said series which mature on a single future date, reduced by the aggregate principal amount of such Outstanding Parity Bonds, which would at or before said future date be retired by reason of the payment when due and application in accordance with the Bond Ordinances of Sinking Fund Payments payable at or before said future date for the retirement of such Outstanding Parity Bonds, plus (b) the amount of any Sinking Fund Payment payable on said future date for the retirement of any Outstanding Parity Bonds of said series, and said future date is deemed to be the date when such Principal Installment is payable and the date of such Principal Installment.

Principal Office - when used with respect to the Trustee, means the principal office of the Trustee situated in Dallas, Texas, at which the Trustee conducts its corporate business.

Public Improvement District or P.I.D. - means the Lewisville Castle Hills Public Improvement District No. 5.

Rating Agency - mean each of Moody's Investors Service, Standard and Poor's Ratings Services, a Standard & Poor's Financial Services business, Fitch Ratings Inc., and any other Nationally Recognized Statistical Rating Organization recognized as such by the SEC.

Rebate Funds - means the rebate funds created or confirmed in the Bond Ordinances.

Record Date - means, for any Interest Payment Date, the fifteenth (15th) calendar day of the month next preceding such Interest Payment Date.

Redemption Funds - means the redemption funds established or confirmed in the Bond Ordinances.

Register - means the books of registration kept by the Paying Agent/Registrar/Registrar in which are maintained the names and addresses of, and the principal amounts registered to, the Registered Owners.

Road Bonds - means any or all bonds of the $5,905,000*City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project).

Rule - means SEC Rule 15c2-12, as amended from time to time.

SEC - means the United States Securities and Exchange Commission.

Securities Depository - means The Depository Trust Company, New York, New York, or any successor to DTC who serves as a securities depository.

Series 2017 Road Bonds Bondholder Representative – means the Bondholder Representative for the Owners of not less than a majority in principal amount of the Series 2017 Road Bonds then Outstanding, initially ORIX Public Finance, LLC ("ORIX"); provided, however, that if Orix no longer owns a majority of the Series 2017 Road Bonds Outstanding, then such term shall be replaced with a majority of the Owners.

Series 2017 Utility Bonds Bondholder Representative - means the Bondholder Representative for the Owners of not less than a majority in principal amount of the Series 2017 Utility Bonds then Outstanding, initially ORIX; provided, however, that if Orix no longer owns a majority of the Series 2017 Utility Bonds Outstanding, then such term shall be replaced with a majority of the Owners.

Sinking Fund Payment - means the annual payments in the years and amounts provided in the Trust Agreements which are to be made into the Interest and Sinking Fund for the purpose of redeeming the Bonds prior to maturity.

Sinking Fund Payment Date - means the date on which a Sinking Fund Payment is due.

Special Assessments - means the assessments levied against properties in the P.I.D. to pay Debt Service Requirements on the Parity Bonds as set forth in the Assessment/Service Plan which are payable in periodic installments, and may and shall be prepaid, all as provided in the Assessment Ordinance and the Bond Ordinances. Special Assessments also include any supplemental assessments or reassessments levied in accordance with the Act.

Special Assessments Prepayment Fund - means the fund by that name created by the Trust Agreements.

Special Assessment Revenues - means the monies collected from Special Assessments levied against properties in the P.I.D., including interest on Special Assessments during the period a Special Assessment or any installment thereof is current or delinquent, prepayments, foreclosure proceeds, proceeds from a guarantor of the Special Assessments, penalties for non-timely payment of Special Assessments, earnings and income derived from the investment or deposit of moneys in the special funds or accounts created and established for the payment and security of the Bonds shall also constitute Special Assessment Revenues unless required to be deposited into the Rebate Fund for payment to the federal government, in which case, such earnings and investment income will not be Special Assessment Revenues.

Standard & Poor's - means Standard & Poor's Ratings Services, a Standard & Poor's Financial Services LLC business.

Trust Agreements - means, collectively, two separate Master Trust Agreements, each dated as of May 1, 2014, , and each as supplemented by First Supplemental Trust Agreements, dated as of May 1, 2014, a Second Supplemental Trust Agreement (Utility), dated as of December 1, 2015, a Second Supplemental Trust Agreement

*Preliminary; subject to change.

(Roads), dated as of December 1, 2017, and a Third Supplemental Trust Agreement (Utility), dated as of December 1, 2017.

Trust Estate - means the property and assets conveyed to the Trustee pursuant to the granting clauses of the Trust Agreements.

Trustee - means Wilmington Trust, National Association, in Dallas, Texas, a national banking association, and any successor trustee hereunder.

Utility Bonds - means any or all bonds of the $11,395,000*City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project).

*Preliminary; subject to change.

*Preliminary; subject to change.

APPENDIX C

SUMMARY OF TRUST AGREEMENTS

The following is a brief summary of certain provisions of the Trust Agreements and is not intended to be definitive. The summary does not purport to be a complete explanation of all provisions of the Trust Agreements and reference is directed to such document, which is available from the Issuer for the complete text thereof.

General.

The Trust Agreements authorize the issuance of the Bonds, pledge the Contract Payments and Special Assessment Revenues to the repayment of the Outstanding Bonds, and establish separate funds for the disbursement of the proceeds from the Bonds and the repayment (including mandatory tender for purchase and redemption) of the Outstanding Bonds.

Funds.

All Special Assessment Revenues from the P.I.D. (other than interest and investment earnings and those received as a Prepayment of Special Assessments) and all Contract Payments are to be deposited in the Collection Fund. From the Collection Fund the monies are to be transferred upon receipt, as follows:

FIRST: To the Interest and Sinking Fund to meet Debt Service Requirements on the outstanding Bonds for the following year or a greater amount designated by the Issuer with the prior written approval of the District;

SECOND: To the Redemption Fund, any amounts required for redemptions (other than scheduled mandatory sinking fund redemptions) for the year; and

THIRD: To the Debt Service Reserve Fund, an amount necessary, if any, to increase the balance in the Debt Service Reserve Fund to the amount required to be on deposit therein as of the next succeeding Interest Payment Date.

FOURTH: To the Issuer to be used pursuant to the Joint Utility Contract or Joint Road Contract.

All Special Assessment Revenues received as Prepayments of Special Assessments are to be transferred upon receipt to the Special Assessments Prepayment Fund.

After the initial deposits required into the Interest and Sinking Fund and the Debt Service Reserve Fund, all remaining proceeds of the sale of the Bonds which will be deposited into the Improvement Funds established in the Trust Agreements and will be applied to payment of the costs of acquiring and constructing the Facilities together with all expenses incidental thereto, the costs incident to the organization and initial administration of the P.I.D., and the costs of issuance of the Bonds.

Accrued interest, if any, on the Bonds together with capitalized interest on the Bonds from the proceeds of the sale of the Bonds, shall be delivered at closing to the Interest and Sinking Fund. Thereafter, prior to each Interest Payment Date, an amount equal to the full amount of the interest on and principal of the Bonds then falling due shall be transferred from the Collection Fund to the Interest and Sinking Fund and utilized to make the payments to the Bondholders.

The Redemption Funds are the funds into which funds to be used to pay the redemption price in connection with a redemption of the Outstanding Bonds are to be transferred from the Collection Fund as provided in the Trust Agreements.

Investment of Funds.

Money held by the Trustee in any of the accounts established pursuant to the Trust Agreements will be invested in Authorized Investments as defined in the Trust Agreements pursuant to written instructions of the Issuer with the approval of the District.

Trustee Responsibility.

The Trustee may rely and shall be protected in acting, or refraining from acting upon any written notice, instruction, or request furnished to it under the Trust Agreements and believed by it to be genuine and to have been presented by the proper party or parties. The Trustee will not be liable for any action taken by it in good faith and believed by it to be authorized within the rights or powers conferred upon it by the Trust Agreements shall be answerable only for its own negligence and willful misconduct and may consult counsel of its own choice, and shall have full and complete authorization and protection for any action taken or suffered by it under the Trust Agreements in accordance with the opinion of such counsel.

Successor Trustee.

A bank or trust company authorized to perform corporate trust services may be substituted to act as Trustee under the Trust Agreements, if the Trustee resigns, or is removed, dissolved or otherwise becomes incapable of duty. The Trustee or any successor trustee may at any time resign by giving not less than 60 days prior written notice to the owners of all of the outstanding Bonds of the applicable series, and such resignation shall take effect at the end of such sixty (60) days or upon the earlier appointment of a successor trustee approved in writing by the Holders of a majority in aggregate principal amount of the Bonds of the applicable series then outstanding. The holder of any the Bonds of the applicable series outstanding, may apply to any court of competent jurisdiction to appoint a successor trustee. No resignation or removal of the Trustee shall be effective until acceptance of appointment by the successor trustee. Any successor Trustee shall have capital and surplus exclusive of borrowed capital aggregating at least $50,000,000 and shall be subject to examination or supervision by a federal or state banking authority.

If the Trustee consolidates with, merges or converts into, or transfers all or substantially all of its corporate trust business to, another corporation or national banking association, the resulting, surviving, or transferee corporation or national banking association without further act shall be the successor Trustee wit the same effect as if it had been named as the Trustee herein.

Amendment.

The Issuer, without the consent of the Bondholders, may amend the Trust Agreements for any of the following purposes:

a) To grant to or confer upon the Trustee for the benefit of the Bondholders any additional rights, remedies, powers or authority that may be lawfully be granted to or conferred upon the Bondholders or the Trustee or either of them;

b) to authorize the Trustee to perform any and all of the duties of the Trustee under the Trust Agreements;

c) To cure any ambiguity, inconsistency or formal defect or omission in the Bond Ordinance; and

d) To make such additions, deletions or modifications as may be necessary for compliance with Section 148(f) of the Code.

Exclusive of the aforementioned types of amendment, the owners of not less than a majority in aggregate principal amount of the Bonds of the applicable series then outstanding have the right, from time to time, anything contained in the Trust Agreements to the contrary notwithstanding, to consent to and approve the execution by the Trustee, the Issuer of such other amendments as shall be deemed necessary and desirable by the Trustee and the Issuer for the purpose of modifying, altering, amending, adding to, or rescinding, in any particular, any of the terms or provisions contained in the Trust Agreements or in any amendment thereto; provided, however, that no amendment shall permit or be construed as permitting: (i) without the consent of each Bondholder so affected, an extension of the maturity of the principal of or interest on any Bond or any scheduled mandatory redemption; (ii) a reduction in the principal amount of any Bond, or a reduction in the rate of interest thereon or a Sinking Fund Payment; (iii) without the consent of all the Bondholders, a privilege or priority of any Bond over any other Bond; or (iv) a reduction in the aggregate principal amount of the Bonds of the applicable series required for consent to such amendment. Notice of an amendment under this provision must be sent, in writing, to all Bondholders and to the District, and consent must be obtained from 51% in aggregate principal amount of the Bonds of the applicable series outstanding within 90 days following such notice, or a longer period of time prescribed by the Issuer up to 6 months.

Defeasance.

Upon payment of all outstanding Bonds, either at or before maturity, or upon deposit of moneys, or deposit into an adequate escrow of non-callable obligations backed by the full faith and credit of the United States Government, with the Trustee sufficient (together with interest earnings on such investments) with other available funds to redeem all the Bonds at or before maturity, the Bonds will be considered defeased.

APPENDIX D

SUMMARY OF THE CONTRACTS

The following is a brief summary of certain provisions of the 2008 Joint Utility Contract and the 2008 Joint Road Contract (collectively, the "Contracts") and is not intended to be definitive. The summary does not purport to be a complete explanation of all provisions of the Contracts, and reference is directed to the Contracts, which is available from the Issuer for the complete text thereof.

General

The Contracts are agreements among the City of Lewisville (the "Issuer"), Denton County Fresh Water Supply District No. 1-A ("District 1-A") and Denton County Fresh Water Supply District No. 1-C (the "District"). The Contracts contains the terms and conditions under which the Facilities will be financed, constructed and operated.

Terms of Contracts

The Contracts are effective as of May 19, 2014, and continue for so long as any of the Parity Bonds and any Additional Bonds remain outstanding and unpaid, but in no event longer than 40 years from the date thereof.

Responsibilities of Parties

The Issuer is obligated to issue the Bonds to finance, acquire, construct, own, or operate the Facilities. The Issuer agrees to submit a draft of any resolution authorizing the issuance of the Bonds to the District, and obtain its approval before issuing the Bonds and any Additional Bonds.

District 1-A has the primary responsibility as project manager in connection with the construction, acquisition and operation of the Facilities. This responsibility entails designing the Facilities, acquiring easements and sites for the Facilities, awarding and supervising construction contracts.

For each year while the Bonds and any Additional Bonds, or any part of the principal and interest on the Bonds and any Additional Bonds, remain outstanding and unpaid, the District agrees to levy, assess and collect a continuing direct annual ad valorem tax, without limit as to rate or amount on all taxable property within the boundaries of the District to make all payments under the Contracts. The taxes shall be sufficient to make all payments on the Bonds and any Additional Bonds, all charges and fees of the Paying Agent/Registrar or trustee, all costs incident to the Facilities or the Parity Bonds, all payments to special funds or reserve funds established by the Bond Ordinances and Trust Agreements, and all operations and maintenance expenses of the Facilities.

Procedure for Calculating Annual Tax Rate

Under the Contracts, the District shall, prior to setting its tax rate each year, calculate the amount of the payments to be made to the Issuer during the forthcoming year.

Subject to any limitation imposed by the Bond Ordinances or the Trust Agreements, the District has the right to acquire the Facilities at any time during the term of the Contracts by paying to the Issuer the amount necessary to repay, redeem, refund or defease the Bonds and any Additional Bonds, together with all costs incident thereto. The District is required to furnish written notice to the Issuer no less than 60 days prior to the exercise of this right.

Remedies

In addition to all remedies provided by the laws of the State of Texas, the District covenants and agrees that, if that the District defaults in the payment of any of the amounts required to be paid under the Contracts or defaults in the performance of any of the obligations of the Contracts, the Issuer or the Trustee shall be entitled to a writ of mandamus requiring performance of the obligation.

Approved by Voters

At an election conducted on November 4, 2008, the Contracts were approved by the voters within the District.

APPENDIX E

FORM OF BOND COUNSEL'S OPINION

APPENDIX F

DISTRICT'S AUDITED FINANCIAL STATEMENTS FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2016

APPENDIX G

FINANCIAL INFORMATION CONCERNING THE DEVELOPER

The Developer has delivered the financial information included in this APPENDIX G (the "Financial Information") to the District for publication in connection with the District's offer and sale of the Bonds. The Financial Information has been included herein solely as additional information concerning the financial condition and capability of the Developer. Such Financial Information is relevant, among other reasons, to the Developer's ability to continue developing its land within the District and to pay ad valorem taxes thereon, and to preserve its financial investment in the District. See "THE DEVELOPER". The Developer is not responsible for, liable for, and has not made any commitment for payment of the Bonds or other obligations of the District or the Issuer and the inclusion of the Financial Information herein should not be construed as an implication to that effect. The Developer has no legal commitment to the District, the Issuer, or holders of the Bonds to continue development of land within the District and may sell or otherwise dispose of property within the District, or any other assets, at any time. Further, the Developer's financial condition is subject to change, and, except as stated in this Limited Offering Memorandum under the section captioned "CONTINUING DISCLOSURE OF INFORMATION," financial information concerning the Developer will not be provided by the District after the sale of the Bonds. Therefore, the District cautions that the Financial Information should not be construed or interpreted as an indication of the investment security of the Bonds.

The Developer has represented to the District that the Financial Information has been prepared from its books and records, has been prepared in accordance with generally accepted accounting principles, fairly represents the financial condition of the Developer as the date indicated, and does not fail to disclose any material fact or omit to state any material facts necessary to make such Financial information not misleading and that there has not been any material adverse change in the financial condition of the Developer since the date on which the financial information is presented.

The following financial information of the Developer is included in this Appendix G:

Bright Realty

1. Audited Financial Statements as of December 31, 2016 and 2015
2. Unaudited Balance Sheet as of _____, 2017

APPENDIX H

FORM OF INVESTMENT LETTER

_____, 2017

City of Lewisville, Texas
Lewisville, Texas

Denton County Fresh Water Supply District No. 1-G
Lewisville, Texas

Raymond James & Associates, Inc.
Dallas, Texas

City of Lewisville, Texas
Combination Contract Revenue and Special Assessment
Utility System Bonds,
Series 2017
(Lewisville Castle Hills Public Improvement District No. 5 Project)

and

City of Lewisville, Texas
Combination Contract Revenue and Special Assessment
Road System Bonds,
Series 2017
(Lewisville Castle Hills Public Improvement District No. 5 Project)

Ladies and Gentlemen:

In connection with our purchase of $_____ Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Utility Bonds") and $_____ Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Road Bonds", and together with the Utility Bonds, , the "Bonds:), issued by the City of Lewisville, Texas (the "Issuer"), pursuant and subject to the terms and provisions of that certain Master Trust Agreement, First Supplemental Trust Agreement, Second Supplemental Trust Agreement, and Third Supplemental Trust Agreement relating to the Utility Bonds, by and between the City of Lewisville, Texas and Wilmington Trust, N.A., as Trustee and the Ordinance of the City authorizing the issuance of the Utility Bonds, and pursuant to the Master Trust Agreement, First Supplemental Trust Agreement, and Second Supplemental Trust Agreement relating to the Road Bonds, by and between the City of Lewisville, Texas and Wilmington Trust, N.A., as Trustee, we certify, represent and warrant to you as follows:

1. We acknowledge that we have agreed to purchase the Bonds directly from the Issuer.

2. We are (a) a "qualified institutional buyer" within the meaning of Rule 144A promulgated under the Securities Act of 1933, as amended (the "Act") and (b) an "institutional investor" within the meaning of applicable state securities laws. We have experience and expertise in the purchase and ownership of obligations similar to the Bonds. We are duly and validly organized under the laws of our jurisdiction of incorporation or organization. We are capable of evaluating the merits and risks of the purchase of the Bonds on the bases of the information and review of the materials described in paragraph (3) below. We understand fully the nature of

this particular investment in the Bonds and the risks associated with the investment, including the risks that no secondary market may exist with respect to the Bonds. We can bear the economic risk of the purchase of the Bonds.

3. We have (a) received and thoroughly read and evaluated the Limited Offering Memorandum, including the appendices thereto, dated _____, 2017, relating to the offering of the Bonds, and (b) been given the opportunity (i) to ask questions of, and receive answers from, the management of the Issuer, Denton County Fresh Water Supply District No. 1-A, Denton County Fresh Water Supply District No. 1-C, and Bright Realty, LLC concerning their operations and financial conditions and the terms and conditions of the Bonds and (ii) to obtain such additional information (including, without limitation, financial information, appraisals, and projections) as we have requested and that we deem necessary in our decision to purchase the Bonds. We recognize that the Limited Offering Memorandum may not contain all information necessary or desirable for analyzing the risks involved in the purchase of the Bonds. We have relied on information contained in the Limited Offering Memorandum as part of our decision to purchase the Bonds. We are able and willing to bear the economic risks of the purchase and ownership of the Bonds.

4. We are purchasing the Bonds for our own account and not for the account of others or for resale. In any event, if we sell, or issue a participation in, any Bonds, we will comply with all applicable federal and state securities laws and, unless the Bonds are then rated in one of the four highest rating categories by a nationally recognized rating service, will offer and sell the Bonds only to one or more "qualified institutional buyers" as defined in Rule 144A promulgated under the Act. We have no current intention of reselling or disposing of the Bonds or engaging in any "distribution" thereof, but retain the right to do so in the future.

5. We recognize that, except (i) as set forth in the Limited Offering Memorandum and (ii) as otherwise set forth in the Bond Purchase Agreement and the documents delivered pursuant thereto in connection with the issuance of the Bonds, no representations or warranties as to the accuracy or the adequacy of the information in the Limited Offering Memorandum or otherwise provided to us have been made by the Issuer, Winstead PC, as bond counsel, Hilltop Securities Inc., as financial advisor to the Issuer, or Bracewell & Giuliani LLP, as counsel to the Issuer, Raymond James & Associates, Inc. as the underwriter, or McCall, Parkhurst & Horton, LLP, as counsel to the underwriter.

6. To the extent this Investment Letter is a contract for goods or services within the meaning of Section 2270.002 of the Texas Government Code, as amended, and pursuant to Chapter 2270, Texas Government Code, and solely for purposes relating to Chapter 2270, Texas Government Code, the Purchaser verifies that it does not boycott Israel and agrees that it will not boycott Israel through the delivery date of the Bonds. Additionally, pursuant to Chapter 2252, Texas Government Code, the Purchaser certifies that it is not a company that contracts with or provides supplies or services to a foreign terrorist organization, as defined by Section 2252.151(2), Texas Government Code, and has not been identified as a company known to have contracts with or provide supplies or services to a foreign terrorist organization as identified on a list prepared and maintained under Section 2270.0201 or 2252.153, Texas Government Code. At the request of the Issuer, the Purchaser agrees to execute further written certifications as may be necessary or convenient for the Issuer to establish compliance with these laws.

7. We recognize that the statements set forth in this letter are being relied upon by the parties involved in the issuance and sale of the Bonds and such statements shall survive the execution and delivery to us of the Bonds and the instruments and documents contemplated thereby.

8. Purchaser understands that the Bonds are not rated by any nationally recognized rating service.

Sincerely,

[PURCHASER]

By _____

Name: _____

Title: _____

APPENDIX I

[FORM OF TRANSFEREE LETTER]

City of Lewisville, Texas
1197 W. Main at Civic Center
Lewisville, Texas 75209

Wilmington Trust, National Association
15950 North Dallas Parkway, Suite 550
Dallas, Texas 75248

City of Lewisville, Texas
Combination Contract Revenue and Special Assessment
[Utility System] [Road System] Bonds,
Series 2017
(Lewisville Castle Hills Public Improvement District No. 5 Project)

Ladies and Gentlemen:

In connection with the purchase of $_____ par amount of the City of Lewisville, Texas Combination Contract Revenue and Special Assessment [Utility System] [Road System] Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Bonds"), the undersigned purchaser of the Bonds (the "Purchaser") hereby acknowledges, represents and warrants to, and agrees with the City of Lewisville, Texas and Wilmington Trust, National Association, as Paying Agent/Registrar for the Bonds, as follows:

(i) The Purchaser is a "Qualified Institutional Buyer" within the meaning of Rule 144A of the United States Securities and Exchange Commission and is an "Institutional Investor" within the meaning of applicable state securities laws; and

(ii) The Purchaser is not acquiring the Bonds for more than one account or with a view to distribution thereof, provided that the Purchaser reserves the right to sell, pledge, dispose, convey or otherwise transfer the Bonds at some future date determined by the Purchaser, provided that any such transferee shall be required to execute a Transferee Letter in the form of this letter as a condition to any transfer of the Bonds.

Very truly yours,

[PURCHASER]

By: _____

$_____
CITY OF LEWISVILLE, TEXAS
COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT
UTILITY SYSTEM BONDS
SERIES 2017
(LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT)

AND

$_____
CITY OF LEWISVILLE, TEXAS
COMBINATION CONTRACT REVENUE AND SPECIAL ASSESSMENT
ROAD SYSTEM BONDS
SERIES 2017
(LEWISVILLE CASTLE HILLS PUBLIC IMPROVEMENT DISTRICT NO. 5 PROJECT)

BOND PLACEMENT AGREEMENT

_____, 2017

Honorable Mayor and City Council
City of Lewisville, Texas
c/o Winstead PC
500 Winstead Building
2728 N. Harwood Street
Dallas, Texas 75201

Dear Mayor and City Council Members:

The undersigned (the "Placement Agent") offers to enter into this Bond Placement Agreement with the City of Lewisville, Texas (the "Issuer") and Denton County Fresh Water Supply District No. 1-G (the "District"). This offer is made subject to the Issuer's acceptance of this Bond Placement Agreement on or before 10:00 p.m., Dallas Time on the date hereof.

1. **Offering of the Bonds**. Upon the terms and conditions and upon the basis of the representations set forth herein, the Placement Agent hereby agrees to use its best efforts to assist the Issuer in placing the referenced bonds consisting of $_____ City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Utility Bonds") and $_____ City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (the "Road Bonds") (the Utility Bonds and the Road Bonds, collectively, the "Bonds") with sophisticated investors. As compensation for its services, the Placement Agent will receive a total fee of $_____ upon the delivery of the Bonds to the initial purchasers thereof, Orix USA (the

"Purchaser"), against payment of the purchase price thereof, as specified in Section 6 hereof (the "Closing"). The Bonds shall have the dated date, the maturities and bear interest from the dates at the rate or rates per annum as shown on the cover page of the Limited Offering Memorandum (hereinafter defined), such interest being payable as shown on the cover page of the Limited Offering Memorandum. The Issuer acknowledges and agrees that (i) the placement of the Bonds pursuant to this Bond Placement Agreement is an arm's-length commercial transaction between the Issuer and the Placement Agent, (ii) in connection with such transaction, the Placement Agent is acting solely as a principal and not as an advisor, including, without limitation, a Municipal Advisor (as such term is defined in Section 975(e) of the Dodd-Frank Wall Street Reform and Consumer Protection Act), agent or a fiduciary of the Issuer, (iii) the Placement Agent has not assumed (individually or collectively) a fiduciary responsibility in favor of the Issuer with respect to the placement of the Bonds or the process leading thereto (whether or not the Placement Agent has advised or is currently advising the Issuer on other matters) or any other obligation to the Issuer except the obligations expressly set forth in this Agreement, (iv) the Placement Agent has financial and other interests that differ from those of the Issuer and (v) the Issuer has consulted with its own legal and financial advisors to the extent it deemed appropriate in connection with the offering of the Bonds.

2. **Bond Ordinance**. The Bonds shall be authorized and issued pursuant to two separate Bond Ordinances each adopted by the Issuer on November 20, 2017 (the "Bond Ordinance"). The Bonds shall be as described in and shall be secured and payable as provided in the Bond Ordinance, two separate Master Trust Agreements, each dated as of May 1, 2014, and each as supplemented by First Supplemental Trust Agreements, dated as of May 1, 2014, a Second Supplemental Trust Agreement (Utility), dated as of December 1, 2015, and a Second Supplemental Trust Agreement (Roads), dated as of December 1, 2017, and a Third Supplemental Trust Agreement (Utility), dated as of December 1, 2017 (collectively, the "Trust Agreements"), between the Issuer and Wilmington Trust, National Association (the "Trustee"), and a 2008 Joint Utility Contract and a 2008 Joint Road Contract, each dated May 19, 2014 (collectively, the "Contracts") among the Issuer, Denton County Fresh Water Supply District No. 1A ("District No. 1A"), and the District.

3. **Limited Offering Memorandum**. Exhibit A hereto is the Limited Offering Memorandum, including the cover page and Appendices thereto, of the District, dated November __, 2017 (together with the Preliminary Limited Offering Memorandum, dated November __, 2017 (the "Limited Offering Memorandum"), with respect to the Bonds. The District hereby authorizes the Placement Memorandum and the information therein contained to be used by the Placement Agent in connection with the placement of the Bonds.

4. **Representations, Warranties and Agreements of the Issuer**. On the date hereof, the Issuer represents, warrants and agrees as follows:

(a) The Issuer is a home rule city created pursuant to the Constitution and laws of the State of Texas and has full legal right, power and authority (i) to issue the Bonds described in the Bond Ordinance, the Contracts, the Trust Agreements and this Bond Placement Agreement, (ii) to authorize and approve the Preliminary Limited Offering Memorandum and the Limited Offering Memorandum and to authorize and approve their distribution by the Placement Agent,(iii) to adopt the Bond Ordinance and to carry out and

consummate the actions contemplated thereby, and (iv) to carry out and consummate all other transactions contemplated by each of the aforesaid documents;

(b) The Issuer has duly created and established the Lewisville Castle Hills Public Improvement District No. 5 (the "Improvement District") pursuant to Chapter 372, Texas Local Government Code and the Issuer has full legal right, power, and authority to levy, assess, and collect the special assessments in accordance with City of Lewisville Ordinance No. _____ (the "Assessment Ordinance").

(c) The Issuer has complied, and will be at the date of Closing in compliance, in all material respects, with the Constitution and laws of the State of Texas in connection with the authorization, issuance and sale of the Bonds;

(d) By official action of the Issuer prior to or concurrently with the acceptance hereof, the Issuer has duly adopted the Bond Ordinance, has duly authorized and approved the execution and delivery of the Bonds, the Trust Agreements, the Contracts and this Bond Placement Agreement, and has duly authorized and approved the performance of its obligations contained in the Bond Ordinance, the Trust Agreements, the Contracts, and this Bond Placement Agreement;

(e) To the knowledge of the Issuer, the Issuer is not in breach of or default in any material respect under any applicable law or administrative regulation of the State of Texas or the United States or any applicable judgment or decree or any loan agreement, note, resolution, agreement or other instrument, except as may be disclosed in the Limited Offering Memorandum, to which the Issuer is a party or is otherwise subject, which would have a material and adverse effect upon the Bonds; and the execution and delivery of the Contracts, the Trust Agreements, and this Bond Placement Agreement by the Issuer and the execution and delivery of the Bonds and the adoption of the Bond Ordinance by the Issuer and compliance with the provisions of each thereof will not violate or constitute a material breach of or default under any existing law, administrative regulation, judgment, decree or any agreement or other instrument to which the Issuer is a party or, to the knowledge of the Issuer, is otherwise subject;

(f) All approvals, consents and orders of any governmental authority or agency having jurisdiction which approval, consent or order would constitute a condition precedent to the performance by the Issuer of its obligation to issue the Bonds hereunder will have been obtained prior to the Closing;

(g) The Preliminary Limited Offering Memorandum did not, and at the time of the Issuer's acceptance hereof, insofar as the Issuer and its affairs, including its financial affairs, are concerned, the Limited Offering Memorandum does not, and at the time of the Closing, the Limited Offering Memorandum will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading;

(h) Between the date of this Bond Placement Agreement and Closing, the Issuer will not, without the prior written consent of the Placement Agent, issue any additional bonds, notes or other obligations for borrowed money payable in whole or in part from payments under the Contracts or special assessments on the property located within the District;

(i) No litigation is pending or, to the knowledge of the Issuer, threatened in any court affecting the existence of the Issuer, the title of its officers to their respective offices, or seeking to restrain or enjoin the issuance or delivery of the Bonds, the levy or the collection of the special assessments pledged or to be pledged to make payments on the Bonds, or in any way contesting or affecting the issuance, execution, delivery, payment, security or validity of the Bonds, or in any way contesting or affecting the validity or enforceability of the Bond Ordinance, the Trust Agreements, the Contracts, or this Bond Placement Agreement, or contesting the powers of the Issuer, or any authority for the Bonds, the Bond Ordinance, the Trust Agreements, the Contracts, or this Bond Placement Agreement or contesting in any way the completeness, accuracy or fairness of the Limited Offering Memorandum;

(j) The descriptions contained in the Limited Offering Memorandum of the Issuer and the Improvement District are true and correct in all material respects; and

(k) If after the date of this Bond Placement Agreement to and including the date of Closing, an event occurs of which the Issuer has knowledge and which would cause the Limited Offering Memorandum to contain any untrue statement of a material fact or to omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, the Issuer shall notify the Placement Agent, and if in the opinion of the Issuer or the Placement Agent such event requires a supplement or amendment to the Limited Offering Memorandum, or if it is necessary to amend or supplement the Limited Offering Memorandum to comply with laws, the Issuer will supplement or amend the Limited Offering Memorandum in a form and in a manner jointly approved by the Issuer and the Placement Agent, such that the Limited Offering Memorandum as so supplemented or amended will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which made, not misleading. If such supplement or amendment shall be subsequent to the Closing, the Issuer shall furnish such certificates, instruments and other documents as the Placement Agent may deem necessary to evidence the truth and accuracy of such supplement or amendment to the Limited Offering Memorandum.

5. **Representations, Warranties and Agreements of the District**. On the date hereof, the District represents, warrants and agrees as follows:

(a) The District was created by an election held on May 3, 2003, and operates as a water control and improvement district pursuant to Article XVI, Section 59 of the Texas Constitution and Chapters 49 and 51, Texas Water Code, as amended, with certain reserved powers under Chapter 53, Texas Water Code, as amended, and has full legal right, power and authority (i) to enter into the Contracts and this Bond Placement Agreement, (ii) to authorize

and approve the Preliminary Limited Offering Memorandum and the Limited Offering Memorandum and to authorize and approve its distribution by the Placement Agent, (iii) to approve the form of the Bond Ordinance, (iv) to enter into this Bond Placement Agreement, and (v) to carry out and consummate all other transactions contemplated by each of the aforesaid documents;

(b) The District has complied, and will be at the date of Closing in compliance, in all material respects, with the Constitution and laws of the State of Texas in connection with the Contracts and the performance of its obligations thereunder;

(c) By official action of the District prior to or concurrently with the acceptance hereof, the District has duly authorized and approved the execution and delivery of the Contracts and this Bond Placement Agreement, and has duly authorized and approved the performance by the District of its obligations contained in the Contracts and this Bond Placement Agreement;

(d) To the knowledge of the District, the District is not in breach of or default under any applicable law or administrative regulation of the State of Texas or the United States or any applicable judgment or decree or any loan agreement, note, resolution, agreement or other instrument, except as may be disclosed in the Limited Offering Memorandum, to which the District is a party or is otherwise subject, which would have a material and adverse effect upon the business or financial condition of the District; and the execution and delivery of the Contracts and this Bond Placement Agreement by the District and compliance with the provisions of each thereof will not violate or constitute a material breach of or default under any existing law, administrative regulation, judgment, decree or any agreement or other instrument to which the District is a party or, to the knowledge of the District, is otherwise subject;

(e) The Preliminary Limited Offering Memorandum did not and, at the time of the District's acceptance hereof, the Limited Offering Memorandum does not, and at the time of the Closing, the Limited Offering Memorandum will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading insofar as information within the knowledge of the District is concerned;

(f) The audited financial statements of the District as of September 30, 2016, contained in the Limited Offering Memorandum present fairly the financial position as of such date, and the results of its operations for the year then ended, in conformity with generally accepted accounting principles, and there has been no material adverse change in the financial condition of the District since September 30, 2016;

(g) Between the date of this Bond Placement Agreement and Closing, the District will not, without the prior written consent of the Placement Agent, issue any additional bonds, notes or other obligations for borrowed money payable in whole or in part from ad valorem taxes;

(h) No litigation is pending or, to the knowledge of the District, threatened in any court affecting the existence of the District, the title of its officers to their respective offices, or seeking to restrain or enjoin the issuance or delivery of the Bonds, the levy or the collection of taxes pledged or to be pledged to make payments under the Contracts, the levy or collection of special assessments to make payments under the Bonds or in any way contesting or affecting the issuance, execution, delivery, payment, security or validity of the Bonds, or in any way contesting or affecting the validity or enforceability of the Bond Ordinance, the Trust Agreements, the Contracts, this Bond Placement Agreement, or contesting the powers of the District, or any authority for the Bonds, the Bond Ordinance, the Trust Agreements, the Contracts, or this Bond Placement Agreement or contesting in any way the completeness, accuracy or fairness of the Limited Offering Memorandum;

(i) The descriptions contained in the Limited Offering Memorandum of the District are true and correct in all material respects, and the descriptions of the Bonds, the Trust Agreements, the Contracts, and the Bond Ordinance accurately reflect the provisions of such instruments; and

(j) If after the date of this Bond Placement Agreement to and including the date of Closing, an event occurs of which the District has knowledge and which would cause the Limited Offering Memorandum to contain any untrue statement of a material fact or to omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, the District shall notify the Placement Agent, and if in the opinion of the District or the Placement Agent such event requires a supplement or amendment to the Limited Offering Memorandum, or if it is necessary to amend or supplement the Limited Offering Memorandum to comply with laws, the District will request the Issuer to supplement or amend the Limited Offering Memorandum in a form and in a manner jointly approved by the Issuer, the District and the Placement Agent, such that the Limited Offering Memorandum as so supplemented or amended will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which made, not misleading. If such supplement or amendment shall be subsequent to the Closing, the District shall furnish such certificates, instruments and other documents as the Placement Agent may deem necessary to evidence the truth and accuracy of such supplement or amendment to the Limited Offering Memorandum.

6. **Closing**. At 10:00 A.M., Dallas Time, on December 14, 2017 (the "Closing"), or such other date as agreed to by the Issuer and the Placement Agent, the Issuer will deliver the initial Bond and other documents hereinafter mentioned to or under the direction of the Placement Agent and the Placement Agent will accept delivery and cause the purchase price of the Bonds to be paid by the Purchaser as set forth in Paragraph 1 hereof. The purchase price shall be paid in immediately available funds. Delivery and payment as aforesaid shall be made at the offices of Winstead, P.C., 500 Winstead Building, 2728 N. Harwood, Dallas, Texas 75201, or such other place as shall have been mutually agreed upon by the Issuer and the Placement Agent. The Bonds shall be delivered in fully registered form, bearing CUSIP numbers without coupons, with one Bond for each maturity of each series of the Bonds, registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York, all as provided in the Bond Ordinance, and shall be made available

to the Placement Agent or its designee at least one business day before the Closing for purposes of inspection in Fort Worth, Texas, or such other place as shall be mutually satisfactory to the Issuer and the Placement Agent.

7. **Conditions**. The Placement Agent has entered into this Bond Placement Agreement in reliance upon the representations and warranties of the Issuer and the District contained herein and to be contained in the documents and instruments to be delivered at the Closing, and upon the performance by the Issuer and the District, of their respective obligations hereunder, both as of the date hereof and as of the date of Closing. Accordingly, the Placement Agent's obligations under this Bond Placement Agreement to privately place the Bonds shall be subject to the performance by the Issuer and the District of their respective obligations to be performed hereunder and under such documents and instruments executed at or prior to the Closing, and shall also be subject to the following conditions:

(a) The representations and warranties of Issuer and the District contained herein shall be true, complete and correct in all material respects on the date hereof and on and as of the date of Closing, as if made on the date of Closing;

(b) At the time of the Closing, the Bond Ordinance, the Trust Agreements, and the Contracts shall be in full force and effect, and the Bond Ordinance, the Trust Agreements, and the Contracts shall not have been amended, modified or supplemented and the Limited Offering Memorandum shall not have been amended, modified or supplemented, except as may have been agreed to by the Placement Agent;

(c) At the time of the Closing, all official actions of the Issuer and the District related to the Contracts, the Bond Ordinance, the Trust Agreements, this Bond Placement Agreement and the Limited Offering Memorandum shall be in full force and effect and shall not have been amended, modified or supplemented;

(d) Neither the Issuer nor the District shall have failed to pay principal or interest when due on any of its outstanding obligations for borrowed money;

(e) At or prior to the Closing, the Placement Agent shall have received each of the following documents:

(1) The Limited Offering Memorandum executed on behalf of the Issuer by the Mayor and City Secretary of the Issuer and by the President and Secretary of the Board of Directors of the District;

(2) The Bond Ordinance certified by the City Secretary of the Issuer under its seal as having been duly adopted by the Issuer and as being in effect, with such changes or amendments as may have been agreed to by the Placement Agent and evidence of official action of the District approving the form of the Bond Ordinance;

(3) The Trust Agreements executed on behalf of the Issuer by the Mayor and City Secretary of the Issuer and by authorized officers of the Trustee;

(4) The opinion or opinions, dated the date of Closing, of Winstead, PC, Bond Counsel, in form and substance acceptable to the Placement Agent concerning the validity of the Bonds under Texas law, the excludability from gross income, for purposes of federal income taxes, of interest on the Bonds;

(5) The opinions, dated on or prior to the date of Closing, of the Attorney General of Texas, approving the Bonds and evidence of the registration of the Bonds by the Comptroller of Public Accounts of the State of Texas, all as required by law;

(6) The supplemental opinion, dated the date of Closing, of Winstead, PC, addressed to the Issuer, the Trustee, and the Placement Agent (i) with respect to the enforceability of the Trust Agreements and the Contracts, and (ii) to the effect that, in its capacity as Bond Counsel, such firm has reviewed the information contained under the captions "THE BONDS," "TAX PROCEDURES," "ASSESSMENT PROCEDURES," "THE ISSUER," "THE DISTRICT," "THE IMPROVEMENT DISTRICT," "LEGAL MATTERS," "TAX EXEMPTION," "CONTINUING DISCLOSURE OF INFORMATION," "APPENDIX B DEFINITIONS," "APPENDIX C - SUMMARY OF TRUST AGREEMENTS" "APPENDIX D - SUMMARY OF THE CONTRACTS" and "APPENDIX E - FORM OF BOND COUNSEL OPINION" contained in the Limited Offering Memorandum, and such firm is of the opinion that such information, fairly summarizes the procedures, law and documents referred to therein. The opinion of such firm shall also state that, based upon its participation in the preparation of the Limited Offering Memorandum, such Counsel has no reason to believe that the Limited Offering Memorandum (except for the financial statements and other financial and statistical data contained therein, as to which no view need be expressed), as of the date thereof, contained any untrue statement of a material fact or omitted to state any material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading;

(7) An opinion or opinions from Winstead, PC, Bond Counsel, dated the date of the Closing, addressed to the Issuer and the Placement Agent to the effect that the Bonds are exempted securities as described in Section 3(a)(2) of the Securities Act of 1933, as amended, and Section 304(a)(4) of the Trust Indenture Act of 1939, as amended, to the extent provided in such Acts, and it is not necessary in connection with the sale of the Bonds to the public to register the Bonds under the Securities Act of 1933, as amended, or to qualify the Bond Ordinance and the Trust Agreements under the Trust Indenture Act of 1939, as amended;

(8) An opinion or opinions of McCall, Parkhurst & Horton L.L.P., Placement Agent's Counsel, dated the date of Closing, in form and substance satisfactory to the Placement Agent.

(9) An opinion of Norton Rose Fulbright US LLP, counsel to the Trustee, addressed to the Issuer and the Placement Agent, concerning the validity of the Trust Agreements;

(10) A certificate, dated the date of Closing, signed by the Mayor of the Issuer, to the knowledge of the Issuer, in his official capacity, to the effect that to his knowledge or belief (i) the representations and warranties of the Issuer contained herein are true and correct in all material respects on and as of the date of Closing, as if made on the date of Closing; (ii) no litigation is pending or, to the knowledge of the Issuer, threatened in any court to restrain or enjoin the issuance or delivery of the Bonds, the payments under the Contracts, or the levy or collection of special assessments to pay the Special Assessment Revenues, respectively, or the pledge thereof, or in any way contesting or affecting the validity of the Bonds, the Bond Ordinance, the Trust Agreements, the Contracts, or this Bond Placement Agreement, or contesting the powers of the Issuer or contesting the authorization of the Bonds, the Contracts, the Bond Ordinance, or the Trust Agreements, or contesting in any way the accuracy, completeness or fairness of the Preliminary Limited Offering Memorandum or the Limited Offering Memorandum (but in lieu of or in conjunction with such certificate, the Placement Agent may, in its sole discretion, accept certificates or opinions of counsel of the Issuer that, in his or her opinion, the issues raised in any such pending or threatened litigation are without substance or that the contentions of all plaintiffs therein are without merit); (iii) the information, descriptions and statements of or pertaining to the Issuer contained in the Limited Offering Memorandum, on the date thereof and on the date of delivery were and are true and correct in all material respects; (iv) insofar as the Issuer and its affairs, including its financial affairs, are concerned, the Limited Offering Memorandum did not and does not contain an untrue statement of a material fact or omit to state a material fact required to be stated herein or necessary to make the statements herein, in the light of the circumstances under which they were made, not misleading; (v) insofar as the descriptions and statements, including financial data contained in the Limited Offering Memorandum, of or pertaining to entities other than the Issuer and their activities are concerned, such statements and data have been obtained from sources which the Issuer believes to be reliable and that the Issuer has no reason to believe are untrue in any material respect or omit to state any material fact necessary to make the statements herein, in the light of the circumstances under which they were made, not misleading; however, the Issuer has made no independent investigation as to the accuracy or completeness of the information derived from sources other than the Issuer; and (vi) no event affecting the Issuer has occurred since the date of the Limited Offering Memorandum which should be disclosed in the Limited Offering Memorandum for the purpose for which it is to be used or which it is necessary to disclose therein in order to make the statements and information therein not misleading in any respect;

(11) A certificate, dated the date of Closing, signed by the President or Vice President of the Board of Directors of the District, in their official capacities, to the effect that to their knowledge or belief (i) the representations and warranties of the District contained herein are true and correct in all material respects on and as of the date of Closing, as if made on the date of Closing; (ii) no litigation is pending or, to the knowledge of the District, threatened in any court to restrain or enjoin the issuance or delivery of the Bonds, or the levy or collection of the taxes pledged or to be

pledged pursuant to the Contracts to pay Contract Revenues and on the levy or collection of special assessments to pay the Special Assessment Revenues, respectively, or the pledge thereof, or in any way contesting or affecting the validity of the Bonds, the Bond Ordinance, the Trust Agreements, the Contracts, or this Bond Placement Agreement, or contesting the powers of the District or contesting the authorization of the Bonds, the Contracts, the Bond Ordinance, or the Trust Agreements, or contesting in any way the accuracy, completeness or fairness of the Preliminary Limited Offering Memorandum or the Limited Offering Memorandum (but in lieu of or in conjunction with such certificate, the Placement Agent may, in its sole discretion, accept certificates or opinions of counsel of the District that, in their opinion, the issues raised in any such pending or threatened litigation are without substance or that the contentions of all plaintiffs therein are without merit); (iii) the information, descriptions and statements of or pertaining to the District contained in the Limited Offering Memorandum, on the date thereof and on the date of delivery were and are true and correct in all material respects; (iv) insofar as the District and its affairs, including its financial affairs, are concerned, the Limited Offering Memorandum did not and does not contain an untrue statement of a material fact or omit to state a material fact required to be stated herein or necessary to make the statements herein, in the light of the circumstances under which they were made, not misleading; (v) insofar as the descriptions and statements, including financial data contained in the Limited Offering Memorandum, of or pertaining to entities other than the District and their activities are concerned, such statements and data have been obtained from sources which the District believes to be reliable and that the District has no reason to believe are untrue in any material respect or omit to state any material fact necessary to make the statements herein, in the light of the circumstances under which they were made, not misleading; however, the District has made no independent investigation as to the accuracy or completeness of the information derived from sources other than the District; (vii) to the best of their knowledge, no event affecting the District has occurred since the date of the Limited Offering Memorandum which should be disclosed in the Limited Offering Memorandum for the purpose for which it is to be used or which it is necessary to disclose therein in order to make the statements and information therein not misleading in any respect, and (viii) there has not been any material and adverse change in the financial condition of the District since September 30, 2016, the latest date as to which audited financial information is available.

(12) A certificate, dated the date of Closing, of an appropriate official of the Issuer to the effect that, on the basis of the facts, estimates and circumstances in effect on the date of delivery of the Bonds, it is not expected that the proceeds of the Bonds will be used in a manner that would cause the Bonds to be arbitrage bonds within the meaning of Section 148 of the Internal Revenue Code of 1986, as amended (the "Code");

(13) An Investment Letter, dated on or before the date of Closing, substantially in the form attached to the Limited Offering Memorandum as Exhibit H, executed by an authorized officer of the Purchaser.

(14) A Certificate of Purchaser, dated on or before the date of Closing, in substantially the form set forth in Exhibit B hereto, executed by an authorized officer of the Purchaser.

(15) A certificate or letter of representation from the Developer (as defined in the Limited Offering Memorandum) to the effect that the information in the Limited Offering Memorandum under the captions "DEVELOPMENT OF THE DISTRICT AND FUTURE DEVELOPMENT," "THE CASTLE HILLS PROJECT," and "THE DEVELOPER" are true and correct in all material respects and do not omit to state any material fact necessary to make the statements therein, in the light of the circumstance under which they were made, not misleading; and

(16) Such additional legal opinions, certificates, instruments and other documents as Bond Counsel or Placement Agent's Counsel may reasonably request to evidence the truth, accuracy and completeness, as of the date hereof and as of the date of Closing, of the Issuer's and District's representations and warranties contained herein and of the statements and information contained in the Limited Offering Memorandum and the due performance and satisfaction by the Issuer and the District at or prior to the date of Closing of all agreements then to be performed and all conditions then to be satisfied by the Issuer and the District.

All of the opinions, letters, certificates, instruments and other documents mentioned above or elsewhere in this Bond Placement Agreement shall be in form and substance satisfactory to Bond Counsel and Counsel to the Placement Agent.

8. **Termination**. The Placement Agent, by written notice to the Issuer, may terminate its obligation to place the Bonds at any time before Closing between the date of this Agreement and the Closing, if the market price or marketability of the Bonds or the ability of the Placement Agent to enforce contracts for the sale of the Bonds shall be materially adversely affected, in the sole judgment of the Placement Agent, reasonably exercised, by the occurrence of any of the following:

(a) (i) Legislation shall have been introduced in or enacted by the Congress of the United States, or recommended to the Congress for passage by the President of the United States, or favorably reported for passage to either House of the Congress by any Committee of such House, or (ii) a decision shall have been rendered by a court established under Article III of the Constitution of the United States or by the United States Tax Court, or (iii) an order, ruling or regulation shall have been issued or proposed by or on behalf of the Treasury Department of the United States or the Internal Revenue Service or any other agency of the United States, or (iv) a release or Limited Offering Memorandum shall have been issued by the President of the United States or by the Treasury Department of the United States or by the Internal Revenue Service, the effect of which, in any such case described in clause (i), (ii), (iii), or (iv), would be to impose, directly or indirectly, federal income taxation upon interest

received on obligations of the general character of the Bonds or upon income of the general character to be derived by the Issuer, other than any imposition of federal income taxes upon interest received on obligations of the general character as the Bonds on the date hereof and other than as disclosed in the Limited Offering Memorandum.

(b) Any action shall have been taken by the Securities and Exchange Commission or by a court of competent jurisdiction which would require registration of any security under the Securities Act of 1933, as amended, or qualification of any indenture under the Trust Indenture Act of 1939, as amended, in connection with the public offering of the Bonds, or any action shall have been taken by any court or by any governmental authority of competent jurisdiction suspending the use of the Preliminary Limited Offering Memorandum or the Limited Offering Memorandum or any amendment or supplement thereto, or any proceeding for that purpose shall have been initiated or threatened in any such court or by any such authority.

(c) (i) The Constitution of the State of Texas shall be amended or an amendment shall be proposed, or (ii) legislation shall be enacted, or (iii) a decision shall have been rendered as to matters of Texas law, or (iv) any order, ruling or regulation shall have been issued or proposed by or on behalf of the State of Texas by an official, agency or department thereof, affecting the tax status of the Issuer, the District, their respective property or income, its bonds (including the Bonds) or the interest thereon.

(d) A general suspension of trading in securities on the New York Stock Exchange, the establishment of material restrictions (not in force as of the date hereof) upon trading securities generally by any governmental authority or any national securities exchange, or a general banking moratorium declared by federal, State of New York, or State officials authorized to do so or a material disruption in securities settlement, payment or clearance services in the United States shall have occurred.

(e) A national securities exchange or any governmental authority shall impose, as to the Bonds or as to obligations of the general character of the Bonds, any material restrictions not now in force, or increase materially those now in force, with respect to the extension of credit by, or the charge to the net capital requirements of, the Placement Agent.

(f) There shall have occurred any financial crisis or a default with respect to the debt obligations of, or the institution of proceedings under the federal or the state bankruptcy laws by or against the State or any agency of the State;

(g) There shall have occurred (whether or not foreseeable) any (a) new material outbreak of hostilities (including, without limitation, an act of terrorism) or (b) new material other national or international calamity or crisis including, but not limited to, an escalation of hostilities that existed prior to the date hereof, or (c) material financial crisis or adverse change in the financial or economic conditions affecting the United States government or the securities markets in the United States;

(h) An event described in Paragraph 6(j) hereof occurs which requires a supplement or amendment to the Limited Offering Memorandum, and such supplement or amendment is not agreed to by the Placement Agent.

(i) A general banking moratorium shall have been declared by authorities of the United States, the State of New York or the State of Texas.

(j) There shall have occurred any materially adverse change in the financial condition of the Issuer or the District, except for changes which the Limited Offering Memorandum discloses are expected to occur.

(k) There shall have occurred or any notice shall have been given of any intended review, downgrading, suspension, withdrawal, or negative change in credit watch status by any national rating service to any of the Issuer's or the District's obligations.

9. **Expenses**. The Placement Agent shall be under no obligation to pay and the Issuer shall pay any expenses incident to the performance of the Issuer's obligations hereunder, including but not limited to: (i) the cost of the preparation, printing and distribution of the Preliminary Limited Offering Memorandum and the Limited Offering Memorandum (including amendments or supplements thereto); (ii) the cost of the preparation and printing of the Bonds; (iii) the fees and expenses of Bond Counsel; (iv) the fees and disbursements of the Attorney General of Texas and the Issuer's and the District's accountants, advisors, and any other experts or consultants retained by the Issuer or the District; (v) issuance costs associated with CUSIP and DTC filing; (vi) the fees and expenses of the Trustee and Trustee's counsel; and (vii) the fees and expenses of Placement Agent's Counsel.

10. **Notices**. Any notice or other communication to be given to the Issuer under this Bond Placement Agreement may be given by delivering the same in writing at the address for the Issuer set forth above, and any notice or other communication to be given to the Placement Agent under this Bond Placement Agreement may be given by delivering the same in writing to Raymond James & Associates, Inc., 5956 Sherry Lane, Suite 1900, Dallas, Texas 75225, Attention: Lori Sullivan. The approval of the Placement Agent when required hereunder or the determination of its satisfaction as to any document referred to herein shall be in writing, signed by the Placement Agent and delivered to the Issuer.

11. **Parties in Interest**. This Bond Placement Agreement is made solely for the benefit of the Issuer, the District and the Placement Agent (including the successors or assigns of the Placement Agent) and no other person shall acquire or have any right hereunder or by virtue hereof. The representations, warranties and agreements contained in this Bond Placement Agreement shall remain operative and in full force and effect, regardless of (i) any investigations made by or on behalf of the Placement Agent and (ii) delivery of any payment for the Bonds hereunder; and the Issuer's representations and warranties contained in Section 4 hereof and the District's representations and warranties contained in Section 5 hereof shall remain operative and in full force and effect regardless of any termination of the Bond Placement Agreement.

12. **Source of Payment**. All obligations of the Issuer hereunder shall be payable solely from the proceeds of the Bonds or the Contract Revenues and Special Assessments identified in the Trust Agreements.

13. **Choice of Law**. This Agreement shall be governed by and construed in accordance with the laws of the State of Texas.

14. **Severability**. If any provision of this Agreement shall be held or deemed to be or shall, in fact, be invalid, inoperative or unenforceable as applied in any particular case in any jurisdiction or jurisdictions, or in all jurisdictions because it conflicts with any provision or provisions of any Constitution, statute, rule of public policy, or any other reason, such circumstances shall not have the effect of rendering the provision in question invalid, inoperative or unenforceable in any other case or circumstance, or of rendering any other provision or provisions of this Agreement invalid, inoperative or unenforceable to any extent whatever.

15. **Business Day**. For purposes of this Agreement, "business day" means any day on which the New York Stock Exchange is open for trading.

16. **Counterparts**. This Agreement may be executed in several counterparts each of which shall be regarded as an original (with the same effect as if the signatures thereto and hereto were upon the same document) and all of which shall constitute one and the same document.

17. **No Personal Liability**. None of the members of the City Council, nor any officer, agent, or employee of the Issuer, shall be charged personally by the Placement Agent with any liability, or be held liable to the Placement Agent under any term or provision of this Agreement, or because of execution or attempted executing, or because of any breach or attempted or alleged breach, of the Agreement.

18. **Compliance With Laws Prohibiting Contracts With Companies Boycotting Israel and Certain Companies Engaged in Business With Iran, Sudan or Foreign Terrorist Organizations.** To the extent this Bond Placement Agreement is a contract for goods or services within the meaning of Section 2270.002 of the Texas Government Code, as amended, and pursuant to Chapter 2270, Texas Government Code, and solely for purposes relating to Chapter 2270, Texas Government Code, the Placement Agent verifies that it does not boycott Israel and agrees that itwill not boycott Israel through the delivery date of the Bonds. Additionally, pursuant to Chapter 2252, Texas Government Code, the Placement Agent certifies that it is not a company that contracts with or provides supplies or services to a foreign terrorist organization, as defined by Section 2252.151(2), Texas Government Code, and has not been identified as a company known to have contracts with or provide supplies or services to a foreign terrorist organization as identified on a list prepared and maintained under Section 2270.0201 or 2252.153, Texas Government Code. At the request of the District, the Placement Agent agrees to execute further written certifications as may be necessary or convenient for the District to establish compliance with these laws.

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18. **Effective Date**. Upon the execution of the acceptance hereof by the Issuer and the District the Bond Placement Agreement shall be effective as of the date set forth on the first page hereof, and shall be valid and enforceable as of the time of such effectiveness.

Very truly yours,

RAYMOND JAMES & ASSOCIATES, INC.

By: _____

Title: _____

Accepted at ____ a.m./p.m. CST this ____ day of _____, 2017

CITY OF LEWISVILLE, TEXAS

By:_____
City Manager

DENTON COUNTY FRESH WATER SUPPLY DISTRICT NO. 1-G

By: _____
President

EXHIBIT A

LIMITED OFFERING MEMORANDUM

EXHIBIT B

CERTIFICATE OF THE PURCHASER*

The undersigned, on behalf of ORIX, USA ("Purchaser"), hereby certifies as set forth below with respect to the purchase of the $_____ City of Lewisville, Texas Combination Contract Revenue and Special Assessment Utility System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) and $_____ City of Lewisville, Texas Combination Contract Revenue and Special Assessment Road System Bonds, Series 2017 (Lewisville Castle Hills Public Improvement District No. 5 Project) (collectively, the "Bonds").

The Purchaser is purchasing the Bonds as the first buyer of the Bonds at a purchase price equal to the principal amount thereof. The Purchaser is not acting as an Underwriter with respect to the Bonds. The Purchaser has no present intention to sell, reoffer, or otherwise dispose of the Bonds (or any portion of the Bonds or any interest in the Bonds). The Purchaser is not acquiring the Bonds from the Issuer in consideration for the payment of property, other than money.

For purposes of this Certificate, the term "Underwriter" means (1) (i) a person that agrees pursuant to a written contract with the Issuer (or with the lead underwriter to form an underwriting syndicate) to participate in the initial sale of the Bonds to a person (including an individual, trust, estate, partnership, association, company, or corporation) that is not an Underwriter, or (ii) any person that agrees pursuant to a written contract directly or indirectly with a person described in clause (i) of this paragraph to participate in the initial sale of the Bonds to a person (including an individual, trust, estate, partnership, association, company, or corporation) that is not an Underwriter (including a member of a selling group or a party to a retail distribution agreement participating in the initial sale of the Bonds to the public) and (2) any person who has more than 50 percent common ownership, directly or indirectly, with a person described in clause (1) of this paragraph.

The undersigned understands that the foregoing information will be relied upon by the Issuer with respect to certain of the representations set forth in the Federal Tax Certificate and with respect to compliance with the federal income tax rules affecting the Bonds, and by Winstead, P.C. in connection with rendering its opinion that the interest on the Bonds is excluded from gross income for federal income tax purposes, the preparation of the Internal Revenue Service Form 8038-G, and other federal income tax advice that it may give to the Issuer from time to time relating to the Bonds.

EXECUTED and DELIVERED as of this _____, 2017.

ORIX, USA, as Purchaser

By:_____
Name:_____

* Bond Counsel may substitute its preferred form.

MEMORANDUM

TO: Donna Barron, City Manager

FROM: David Salmon, P.E., City Engineer

VIA Eric Ferris, Deputy City Manager

DATE: November 6, 2017

SUBJECT: **Consideration of an Ordinance Amending the Lewisville City Code, Section 15-104, Trucks Operation Restricted, on College Street Between Mill Street and Kealy Avenue Within the City of Lewisville; and Amending the Lewisville City Code, Section 15-126, Stopping, Standing or Parking Prohibited on Specific Streets, at the Cul-De-Sac on the South end of North Cowan Avenue Within the City of Lewisville.**

BACKGROUND

a) With the opening of the new section of Valley Ridge Boulevard, trucks serving businesses on College Street east of Mill Street now have access to two major highways via Valley Ridge Boulevard: Interstate Highway 35E and State Highway 121 Business. As a result, trucks on College Street do not have to access Mill Street to get to I-35E. In addition, trucks passing through Old Town now have an alternate route to avoid Old Town congestion. This agenda item proposes to restrict trucks on College Street between Mill Street and Kealy Avenue.

b) The opening of a new DCTA railroad crossing on Valley Ridge Boulevard required the closure of the existing DCTA railroad crossing on North Cowan Avenue resulting in a dead end on North Cowan. A cul-de-sac is being constructed at the south end of N Cowan Avenue just north of the railroad tracks to allow for vehicle turn-around. To allow large trucks and school buses on N Cowan Avenue to be able to turn around at the cul-de-sac, parking is to be prohibited within the cul-de-sac of N Cowan Avenue.

ANALYSIS

a. Trucks Restriction on College Street between Mill Street and Kealy Avenue

The Valley Ridge Boulevard extension project between Mill Street and College Street created an alternative truck access route between two major highways in Lewisville viz. Interstate Highway 35E and State Highway 121 Business. On October 10th, 2017, the new section of Valley Ridge Boulevard between Mill Street and College Street, a 4-lane divided principal arterial roadway, was opened to vehicular traffic. Large trucks serving businesses on College Street now have direct access to I-35E and SH 121 Business via Valley Ridge Boulevard. These trucks no longer

need to access Mill Street to get to I-35E. In addition, pass through trucks traveling between SH 121 Business North and I-35E no longer need to pass through Old Town. Therefore, it is proposed to restrict trucks on College Street between Mill Street and Kealy Avenue. Currently, trucks are restricted on College Street between the northbound frontage road of I-35E and Mill Street. The proposed restriction will extend the No Trucks zone to Kealy Avenue.

Another positive result of restricting trucks on the subject section of College Street is the ability to reconfigure the intersection of Mill Street and College Street. Since the traffic signal was installed at Mill & College, the inside lane of southbound Mill Street at the intersection of College Street is closed to traffic. The reason for this was to prevent the large trucks turning right from westbound College Street onto northbound Mill Street from colliding with any vehicles waiting in the inside lane of southbound Mill St at the traffic light as the large trucks require a wide turning radius. When through trucks are prohibited on College St between Mill St and Kealy Ave, the wide turning radius would no longer be required on westbound College St at the intersection and the inside lane of southbound Mill St can be opened to traffic again. Although there is noticeably less traffic during peak hours on Mill Street since Valley Ridge opened, reopening the southbound inside lane along with retiming the signal will help relieve some of the congestion experienced on southbound Mill St during the peak hours.

The property owners on College Street from Mill Street to Valley Ridge Boulevard have been notified of the proposed restriction with no negative response. Signs and pavement markings will be installed by City personnel.

At the October 17th, 2017 meeting, the Transportation Board considered this item and voted unanimously (7) to (0) to approve the item.

b. No Parking at the cul-de-sac on the south end of North Cowan Avenue

The Valley Ridge Blvd construction project between Mill St and College St involved the construction of a new DCTA railroad crossing near Mill St. The railroad regulations require that for every new railroad crossing granted, two existing railroad crossings must be closed. After lengthy negotiation, the DCTA agreed to exchange the N Cowan Ave railroad crossing for the new Valley Ridge Blvd railroad crossing due to the proximity of the two crossings. With the opening of the new section of Valley Ridge Blvd to vehicular traffic, N Cowan Ave has been permanently closed to traffic at Mill St.

A cul-de-sac has been constructed at the south end of N Cowan Ave just north of the DCTA railroad crossing. The large trucks serving the businesses on N Cowan Ave south of Jones St and the school buses serving the Village North Community on N Cowan Ave need to be able to turn around at the cul-de-sac and go back north to Jones St. To allow large trucks and the school

buses to freely turn around at the cul-de-sac, parking must be prohibited at the cul-de-sac of N Cowan Ave.

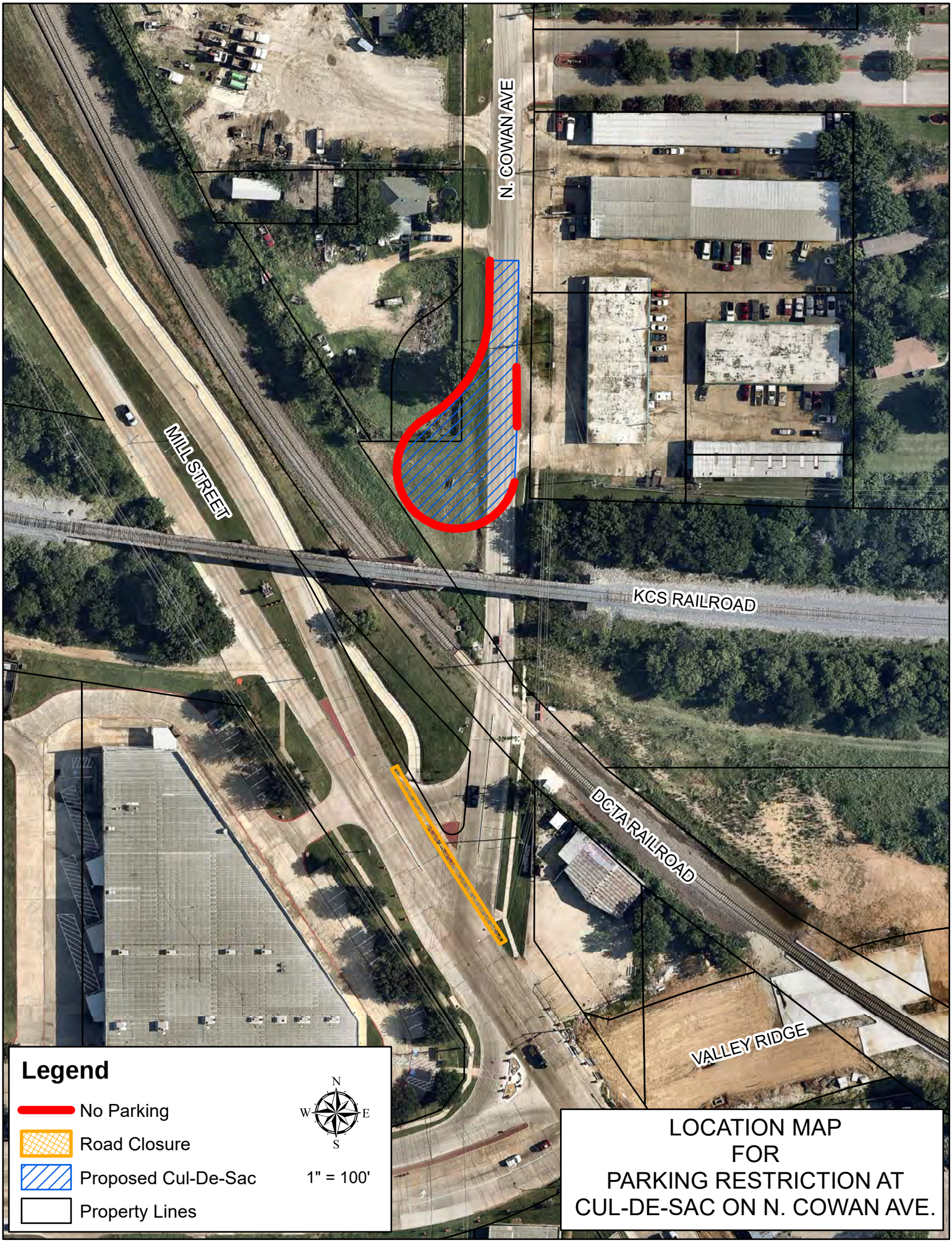
'No Parking' Signs will be installed by City Personnel.

At the October 17th, 2017 meeting, the Transportation Board considered this item and voted unanimously (7) to (0) to approve the item.

RECOMMENDATION

It is City staff's recommendation that the City Council approve the ordinance as set forth in the caption above.

LOCATION MAP FOR
TRUCKS RESTRICTION ON COLLEGE STREET
BETWEEN MILL STREET AND KEALY AVENUE



LOCATION MAP
FOR
PARKING RESTRICTION AT
CUL-DE-SAC ON N. COWAN AVE.

MINUTES
TRANSPORTATION BOARD

October 17, 2017

Item No. 1 Call to Order and Announce a Quorum is Present

Chairman James Davis called the Lewisville Transportation Board meeting to order at 7:26 p.m. and announced that a quorum was present with the following members in attendance:

Mary Ellen Miksa	_____	Alvin Turner	_____
William Meredith	_____	Karen Locke	_____
John Lyng	_____		_____
Kristin Green	_____		_____
James Davis	_____		

Members absent: 0

Staff Present: Sagar Medisetty, Kevin Nims, Daphne Adair

Item No. 2 Minutes

A motion was made by Kristin Green and seconded by Mary Ellen Miksa to approve the minutes of the August 01, 2017 meeting as submitted. All members present voted aye (7-0).

Item No. 3 Visitors/Citizens Forum

At this time, Chairman James Davis invited any visitors/citizens who wanted to speak to the Board to come forward, stating that no formal action could be taken because this item was not on the agenda.

No visitors were present.

Item No. 4 Consideration of Restricting Trucks on College Street between Mill Street and Kealy Avenue and Make a Recommendation to the City Council in Regard to the Amendment.

Sagar Medisetty presented this item to the Board. Mr. Medisetty explained with the opening of Valley Ridge Blvd., through truck traffic between Interstate 35E and State Highway 121 Business, no longer have to travel through Old Town. Trucks using College Street to do business no longer have to access Mill Street to get to I-35E. With the truck restriction on College St between Mill and Kealy, t~~t~~he City can reconfigure Mill and College Street intersection in efforts to alleviate congestion.

Council member Kristen Green asked if the traffic signal at Mill and College intersection would be retimed. Medisetty stated "yes."

Council member Kristen Green asked if all trucks would be restricted and how the 'No Trucks' restriction would be enforced. Medisetty explained that trucks for this purpose is considered as vehicles with more than 2 axles. Trucks doing business in the area would be allowed, but trucks would not be allowed for through travel. Medisetty added that signage will be posted.

A motion was made by Kristin Green and seconded by William Meredith to approve Consideration of Restricting Trucks on College Street between Mill Street and Kealy Avenue and Make a Recommendation to the City Council in Regard to the Amendment.

The vote was 7 ayes and 0 nay. The motion passed.

Item No. 5 Consideration of Prohibiting Parking on North Cowan Avenue at the newly constructed cul-de-sac just north of the DCTA Railroad Crossing and Make a Recommendation to the City Council in Regard to the Amendment.

Kevin Nims presented this item. Nims stated that with the opening of a new DCTA railroad crossing on the new Valley Ridge Blvd., an existing railroad would have to close. DCTA agreed to close the railroad crossing on North Cowan. A cul-de-sac is being built for large trucks and buses to turn around on this street; prohibited parking is needed at the cul-de-sac to allow large vehicles to freely turn around.

A motion was made by Karen Locke and seconded by Alvin Turner to approve Consideration of Prohibiting Parking on North Cowan Avenue at the newly constructed cul-de-sac just north of the DCTA Railroad Crossing and Make a Recommendation to the City Council in Regard to the Amendment.

The vote was 7 ayes and 0 nay. The motion passed.

A motion to adjourn was made by Mary Ellen Miksa, seconded by John Lyng. The meeting adjourned at 7:38 p.m.

Respectfully submitted,

David Salmon P.E.
City Engineer

THESE MINUTES APPROVED BY THE LEWISVILLE TRANSPORTATION BOARD.

_____ _____
CHAIRMAN **DATE**

ORDINANCE NO. _____

AN ORDINANCE OF THE LEWISVILLE CITY COUNCIL AMENDING THE LEWISVILLE CITY CODE CHAPTER 15, SECTION 15-104 BY PROHIBITING THE OPERATION OF TRUCKS ON COLLEGE STREET BETWEEN INTERSTATE HIGHWAY 35E AND KEALY AVE; AND AMENDING SECTION 15-126 BY PROHIBITING PARKING ON A CERTAIN SEGMENT OF NORTH COWAN AVENUE SOUTH OF JONES STREET; PROVIDING FOR A REPEALER, SEVERABILITY, AND A PENALTY; PROVIDING AN EFFECTIVE DATE; AND DECLARING AN EMERGENCY.

WHEREAS, the City Council of the City of Lewisville, Texas, has determined that for the health, welfare, and safety of its citizens, amending Chapter 15, Sections 15-104, and 15-126 of the Lewisville City Code is necessary.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, THAT:

SECTION 1. Chapter 15, Section 15-104 of the Lewisville City Code is hereby amended by deleting the following:

Street Segment	***Extent***
College Street	Between the service road of Interstate Highway 35E and Mill Street

SECTION 2. Chapter 15, Section 15-104 of the Lewisville City Code is hereby amended by adding the following:

Street	***Extent***
College Street	Between the service road of Interstate Highway 35E and Kealy Ave

SECTION 3. Chapter 15, Section 15-126 of the Lewisville City Code is hereby amended by adding the following:

Street	***Extent***
North Cowan Avenue	From a point 400 feet south of the south curb line of Morningside Drive on the west side of North Cowan Ave, continuing around the cul-de-sac, to a point 490 feet south of the south curb line of Morningside Drive on the east side of North Cowan Avenue

SECTION 4. REPEALER. Every ordinance or parts of ordinances found to be in conflict herewith are hereby repealed.

SECTION 5. SEVERABILITY. If any section, sentence, clause, or phrase of this ordinance shall for any reason be held to be invalid, such decision shall not affect the validity of the remaining sections, sentences, clauses, or phrases of this ordinance, but they shall remain in effect.

SECTION 6. PENALTY. Any person, firm or corporation who violates any provisions of this ordinance shall be deemed guilty of a misdemeanor and, upon conviction thereof in the Municipal Court of Lewisville, Texas, shall be subject to a fine of not more than five hundred ($500.00) dollars for each offense.

SECTION 7. EFFECTIVE DATE. This ordinance shall become effective immediately upon its passage and publication as required by law.

SECTION 8. EMERGENCY. It being for the public welfare that this ordinance be passed creates an emergency and public necessity, and the rule requiring this ordinance be read on three separate occasions be, and the same is hereby waived, and this ordinance shall be in full force

and effect from and after its passage and approval and publication, as the law in such cases provides.

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF LEWISVILLE, TEXAS, BY A VOTE OF ____ TO ____, ON THIS THE 20th DAY OF NOVEMBER 2017.

APPROVED:

_____
Rudy Durham, MAYOR

ATTEST:

_____
Julie Worster, CITY SECRETARY

APPROVED AS TO FORM:

_____
Lizbeth Plaster, CITY ATTORNEY

LEWISVILLE

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MEMORANDUM

TO: Rudy Durham, Mayor
Mayor Pro Tem Brent Daniels
Deputy Mayor Pro Tem Brandon Jones
Councilman Bob Troyer
Councilman R. Neil Ferguson
Councilman TJ Gilmore

FROM: Brenda Martin, Director of Finance
Clifford J. Howard, Fiscal Services Manager

DATE: November 15, 2017

SUBJECT: **QUARTERLY INVESTMENT REPORT**
July 1, 2017 –September 30, 2017

The attached quarterly investment report for the period from July 1, 2017 through September 30, 2017 is provided as required by an amendment to the Public Funds Investment Act.

Each of the Investment Officers has reviewed the report, and by virtue of their signature, represent that the investments making up the report are in compliance with the investment policy of the City of Lewisville and meet the requirements of the amended Public Funds Investment Act.

Brenda Martin, Director of Finance

Clifford J. Howard, Fiscal Services Manager

Attached is the City's quarterly investment report for the quarter ended June 30, 2017 as required by the Amended Public Funds Investment Act.

The report must:

1. Describe in detail the investment position of the entity on the date of the report.
2. Be prepared jointly by all investment officers of the entity.
3. Be signed by each investment officer of the entity.
4. Contain a summary statement of each pooled group that states the:
   a. Beginning market value of the reporting period.
   b. Additions and changes to the market value during the period.
   c. Ending market value for the period.
5. State the book value and market value of each separately invested asset at the beginning and end of the reporting period by the type of asset and fund type invested.
6. State the maturity date of each separately invested asset that has a maturity date.
7. State the account, fund or pooled group fund for which each individual investment was acquired.
8. State the compliance of that investment portfolio as it relates to the investment strategy expressed in the investment policy.

As required, the attached report presents the individual investments by type including par value, book value, i.e. (cost), market values - both beginning and ending, purchase and maturity dates, and rate and yield information.

Par value is the value of the investment at the maturity date. In other words, investments held and kept until the maturity date will be redeemed at the par value.

Cost is the same as book value and represents the amount the City paid for the investment. It may be at par value, but in most instances will be at an amount either more or less than par value. This is the result of the investment being purchased either at a premium or discount depending on current interest rate levels on the purchase date compared to the fixed rate of the particular investment.

Market value varies inversely with current interest rate levels. Generally as interest rates increase, the market value of a fixed rate security declines. Conversely, as interest rates decrease, market value of a fixed rate security increases.

Rate represents the stated annual rate of return on the investment. The yield rate represents the effective rate of return, taking into account any premium or discount.

The City's investment strategy is safety, liquidity, and yield in that order. Consequently, investments are purchased in a manner whereby cash flow requirements are planned for, and as a result, usually eliminates the need to sell investments to provide cash prior to maturity.

City of Lewisville, Texas

Quarterly Investment Report
September 30, 2017

Report Highlights

- City uses consolidated bank, investment, and safekeeping accounts. Staff continues to monitor the Earned Income Credit Rates (ECR) which are essentially interest earnings paid by our depository bank which can be applied toward bank fee offset. The city evaluates this rate versus the short term interest rates as to which is more beneficial to the city to use as an offset to fees versus paying fees and receiving actual interest earnings.

- The 'Change in Market Value' column on the attached detail portfolio is a comparison of only the past quarter. Also on this report is the total net change associated with the Fair Market Value as of the report date, compared to the original cost of the portfolio. Fair Market Value (FMV) of an investment represents what the city would receive if we were to sell the security as of the reporting date. Depending on whether interest rates are rising or falling, the FMV will fluctuate. If held to maturity, a security is redeemed at par, (no gain or loss). As a rule, the city holds all securities until maturity.

- For purposes of Weighted Average Maturity, Cash is considered as same day liquidity and TexPool is calculated using the pool's average day calculation.

- Agency credit ratings are listed on page two of the report as a method of monitoring security types within the city's portfolio as directed by the Public Funds Investment Act.

News in the Markets

- President Trump has officially nominated current Federal Reserve Board Governor Jerome Powell as next Fed Chair. Compared with Chair Yellen, Governor Powell is like-minded on monetary policy and will likely maintain consistency and continuity, but support a lighter regulatory stance. – Morgan Stanley Update
- FOMC minutes point to likely December rate hike. – FTN Financial
- Hurricane Harvey made landfall in Texas on August 25 resulting in severe damage in Texas and other areas of the Gulf Coast. Hurricane Irma made landfall in Florida on September 10 causing severe damage in Florida and other parts of the Southeast.
- Employment falls, but so does unemployment, both reflecting storm effects. The unemployment rate for September for Texas was 4.0% vs the U.S at 4.2%.
- GDP post back to back 3% Increases. The US economy grew at a 3.0% real annualized pace in the third quarter after 3.1% annualized growth in the second, about a half-point faster than expected and the best back to back quarters since 2014.

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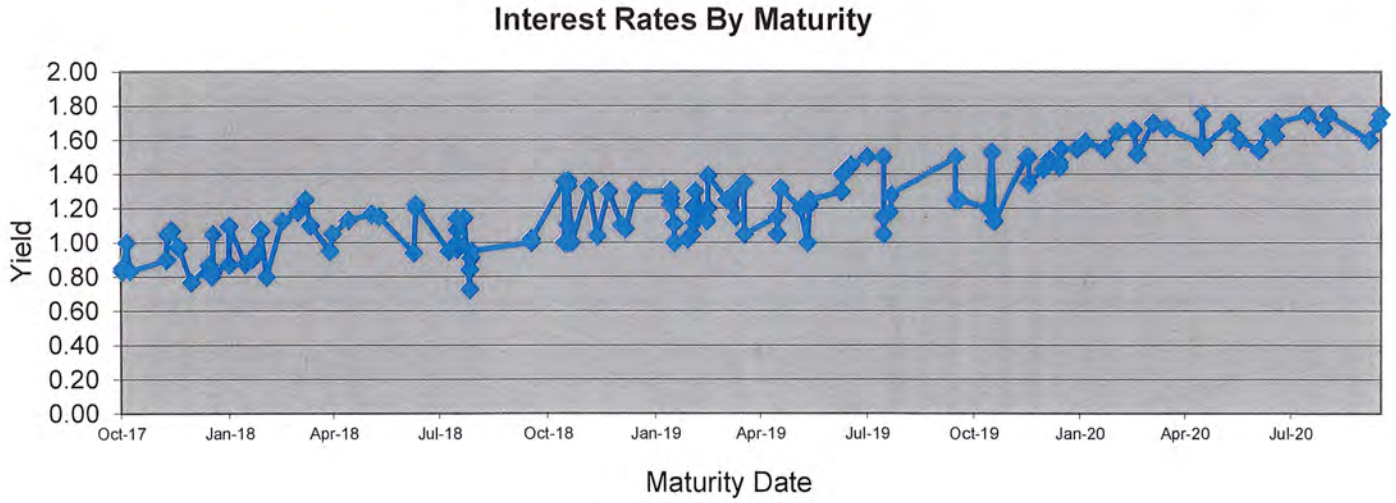
Portfolio Investment Report
for Quarter Ending September 30, 2017 ***(Unaudited)***

Consolidated Investment Report

Cash and Investment Balances		Same Quarter Last Year
Cash Balances	$ 31,627,602.05	$ 36,781,805.78
TexPool Balance	$ 20,256,318.48	$ 35,043,464.90
Other Investment Portfolio Balance	$ 192,475,291.12	$ 154,159,623.38
Total Cash, Texpool & Investment Amount	$ 244,359,211.65	$ 225,984,894.06
Investment Yields, Maturities, and Interest		
TexPool Average Quarter Yield	0.99%	0.37%
TexPool End of Qtr Weighted Maturity	34 Days	44 Days
Bank Earned Income Credit	0.40%	0.35%
13 Week Treasury - Benchmark	1.03%	0.27%
Other Investment Average Weighted Yield	1.25%	0.95%
Average Weighted Maturity: Agency / Total	539 / 427 Days	532 / 370 Days
Other Investment Accrued Interest	$ 491,040.33	$ 308,168.55

Outstanding Portfolio (excluding TexPool)				
Distribution by Maturity	Number	Amount	Percent	Market Value
1 to 365 days	47	$ 62,087,019.12	32.26%	$ 62,044,926.13
366 to 730 days	54	$ 70,606,815.00	36.68%	$ 70,416,675.61
Over 730 days	35	$ 59,781,457.00	31.06%	$ 59,736,352.65
Total	136	$ 192,475,291.12	100.00%	$ 192,197,954.39



LEWISVILLE
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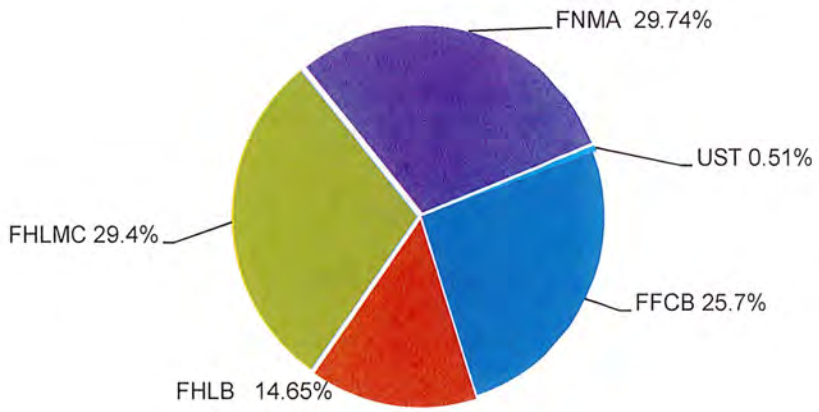
Portfolio Investment Report
for Quarter Ending September 30, 2017 *(Unaudited)*

Consolidated Investments - continued

Outstanding Portfolio (excluding TexPool)				
Distribution by Investment type	Number	Amount	Percent	Market Value
Federal Farm Credit Bank	30	$ 49,473,370.00	25.70%	$ 49,405,438.10
Federal Home Loan Bank	22	$ 28,193,110.00	14.65%	$ 28,114,283.52
Federal Home Loan Mortgage Corp	46	$ 56,584,124.12	29.40%	$ 56,522,835.12
Federal National Mortgage Assoc.	37	$ 57,234,787.00	29.74%	$ 57,156,217.95
U S Treasuries	1	$ 989,900.00	0.51%	$ 999,179.70
Total	136	$ 192,475,291.12	100.00%	$ 192,197,954.39

Distribution by Type



Agencies Credit Ratings

	S & P	Moody's
Federal Farm Credit Bank	AA+	Aaa
Federal Home Loan Bank	AA+	Aaa
Federal Home Loan Mortgage Corp	AA+	Aaa
Federal National Mortgage Assoc.	AA+	Aaa

LEWISVILLE
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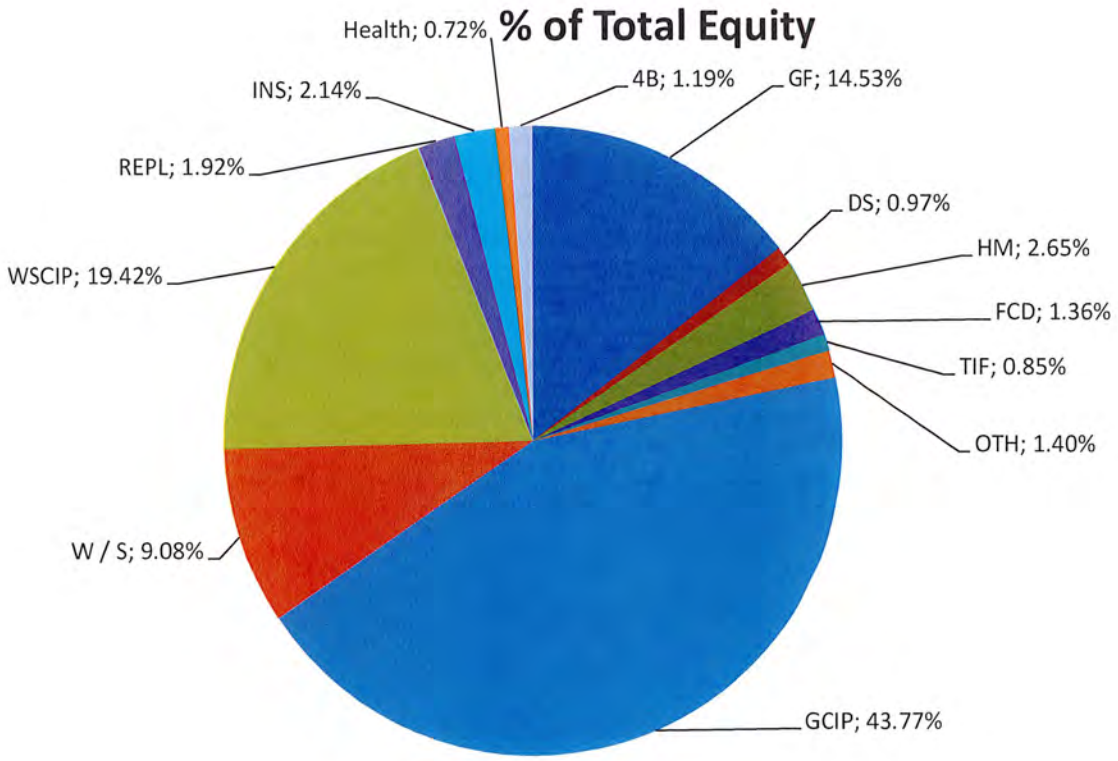
Portfolio Investment Report
for Quarter Ending September 30, 2017 ***(Unaudited)***

Outstanding Portfolio - Major Funds

	Chart Key		Equity Balance	% of Total Equity
GENERAL	GF	$	35,505,495	14.53%
DEBT SERVICE	DS	$	2,363,393	0.97%
HOTEL/MOTEL	HM	$	6,485,317	2.65%
FIRE & CRIME DISTRICTS	FCD	$	3,315,298	1.36%
TIF & TIRZ	TIF	$	2,088,258	0.85%
Funds under 1 million	OTH	$	3,422,474	1.40%
G O CIP	GCIP	$	106,944,824	43.77%
W&S Operating	W / S	$	22,177,355	9.08%
W&S CIP	WSCIP	$	47,461,646	19.42%
EQUIP REPLACEMENT	REPL	$	4,702,820	1.92%
INSURANCE RISK	INS	$	5,229,798	2.14%
HEALTH INS	Health	$	1,766,678	0.72%
4-B SALES TAX	4B	$	2,895,855	1.19%
Total		$	244,359,212	100.00%



City of Lewisville
Consolidated Account

Security Type	Par Value	Cost	6/30/2017 Beg. Market Value	9/30/2017 End. Market Value	Change in Market Value	Cusip	Purchase Date	Maturity Date	Rate	Yield	Accrued Interest
Federal Farm Credit bank	$ 1,000,000.00	$ 996,510.00	$ 998,374.10	$ 999,778.30	$ 1,404.20	3133EFHY6	11/6/2015	10/13/2017	0.65	0.83205	$ 3,027.40
Federal Home Loan Mortgage Corp. Note	$ 1,500,000.00	$ 1,500,000.00	$ 1,498,625.40	$ 1,499,783.40	$ 1,158.00	3134G8WC9	4/13/2016	10/13/2017	0.85	0.85000	$ 5,938.36
Federal Home Loan Bank Bond	$ 1,000,000.00	$ 1,000,000.00	$ 999,335.50	$ 999,884.90	$ 549.40	3130A3CU6	10/17/2014	10/17/2017	1.00	1.00000	$ 4,547.95
Federal Farm Credit bank	$ 1,000,000.00	$ 997,600.00	$ 998,579.40	$ 999,740.80	$ 1,161.40	3133EFKM8	11/5/2015	10/20/2017	0.71	0.83378	$ 3,170.68
Federal Home Loan Bank Bond	$ 1,000,000.00	$ 1,000,000.00	$ 998,690.60	$ 999,438.40	$ 747.80	3130A6D87	8/20/2015	11/20/2017	0.90	0.90011	$ 3,279.45
Federal Farm Credit bank	$ 1,000,000.00	$ 1,000,000.00	$ 999,261.90	$ 999,642.20	$ 380.30	3133EECQ1	11/21/2014	11/21/2017	1.05	1.05000	$ 3,797.26
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 998,980.00	$ 998,618.40	$ 999,316.80	$ 698.40	3134G74Q1	6/7/2017	11/24/2017	0.85	1.07064	$ 2,678.08
U S Treasury	$ 1,000,000.00	$ 989,900.00	$ 997,859.40	$ 999,179.70	$ 1,320.30	912828UA6	12/16/2014	11/30/2017	0.63	0.97242	$ 2,106.16
Federal Farm Credit bank	$ 1,000,000.00	$ 1,000,630.00	$ 997,903.50	$ 999,063.00	$ 1,159.50	3133EFYM3	2/11/2016	12/11/2017	0.80	0.76542	$ 2,432.88
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 1,000,000.00	$ 998,259.40	$ 998,998.60	$ 739.20	3136G14R7	2/7/2017	12/26/2017	0.87	0.86914	$ 2,288.22
Federal Home Loan Mortgage Corp. Note	$ 1,500,000.00	$ 1,500,000.00	$ 1,496,878.20	$ 1,498,200.60	$ 1,322.40	3134G9WU7	6/28/2016	12/28/2017	0.80	0.80000	$ 3,090.41
Federal Home Loan Bank Bond	$ 1,000,000.00	$ 1,000,000.00	$ 998,894.80	$ 999,653.70	$ 758.90	3130A3N83	12/29/2014	12/29/2017	1.05	1.05000	$ 2,675.34
Federal Home Loan Bank Bond	$ 1,000,000.00	$ 1,002,440.00	$ 999,141.80	$ 999,777.90	$ 636.10	3130A3MJ0	2/7/2017	12/29/2017	1.10	0.82542	$ 2,802.74
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 997,360.00	$ 997,293.70	$ 998,747.30	$ 1,453.60	3137EADN6	11/6/2015	1/12/2018	0.75	0.87225	$ 1,643.84
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 997,950.00	$ 997,293.70	$ 998,747.30	$ 1,453.60	3137EADN6	6/7/2017	1/12/2018	0.75	1.09505	$ 1,643.84
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 997,856.40	$ 999,113.60	$ 1,257.20	3134G92J5	7/26/2016	1/26/2018	0.88	0.87500	$ 1,582.19
Federal Farm Credit bank	$ 1,500,000.00	$ 1,499,220.00	$ 1,496,126.25	$ 1,498,117.05	$ 1,990.80	3133ECE83	3/2/2016	2/1/2018	0.88	0.90239	$ 2,157.53
Federal Farm Credit bank	$ 5,000,000.00	$ 5,000,000.00	$ 4,989,843.00	$ 4,994,930.00	$ 5,087.00	3133EFXR3	2/5/2016	2/5/2018	0.94	0.94000	$ 7,210.96
Federal National Mortgage Assn. Bond	$ 2,000,000.00	$ 1,989,000.00	$ 1,994,947.40	$ 1,996,721.60	$ 1,774.20	3135G0TG8	3/4/2015	2/8/2018	0.88	1.06625	$ 2,541.10
Federal National Mortgage Assn. Bond	$ 2,000,000.00	$ 1,989,680.00	$ 1,994,947.40	$ 1,996,721.60	$ 1,774.20	3135G0TG8	3/4/2015	2/8/2018	0.88	1.07251	$ 2,541.10
Federal Home Loan Bank Bond	$ 2,000,000.00	$ 1,999,000.00	$ 1,992,924.60	$ 1,996,133.20	$ 3,208.60	3130AAT32	2/13/2017	2/13/2018	0.75	0.80030	$ 1,972.60
Federal Home Loan Bank Bond	$ 1,000,000.00	$ 1,000,440.00	$ 998,702.10	$ 999,382.60	$ 680.50	3130A4AJ1	2/27/2015	2/27/2018	1.14	1.12504	$ 1,061.92
Federal Farm Credit bank	$ 1,000,000.00	$ 998,440.00	$ 998,548.90	$ 999,309.30	$ 760.40	3133EETE0	3/12/2015	3/12/2018	1.13	1.17808	$ 554.79
Federal Farm Credit bank	$ 1,000,000.00	$ 998,000.00	$ 998,000.00	$ 998,734.00	$ 734.00	3133ECA79	7/27/2017	3/19/2018	0.94	1.25210	$ 283.29
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 999,249.70	$ 999,450.10	$ 200.40	3134G65U3	6/23/2015	3/23/2018	1.10	1.10014	$ 210.96
Federal Home Loan Mortgage Corp. Note	$ 1,500,000.00	$ 1,496,505.00	$ 1,493,809.05	$ 1,496,084.10	$ 2,275.05	3137EAEA3	2/7/2017	4/9/2018	0.75	0.95018	$ 5,363.01
Federal Farm Credit bank	$ 2,000,000.00	$ 1,998,600.00	$ 1,995,081.40	$ 1,997,239.20	$ 2,157.80	3133ECL44	11/21/2016	4/11/2018	1.00	1.05074	$ 9,424.66
Federal Home Loan Bank Bond	$ 1,000,000.00	$ 999,800.00	$ 998,627.00	$ 998,910.70	$ 283.70	3130A4GJ5	6/12/2015	4/25/2018	1.13	1.13200	$ 4,869.86
Federal National Mortgage Assn. Bond	$ 2,000,000.00	$ 1,997,580.00	$ 1,995,570.80	$ 1,996,393.20	$ 822.40	3136G02V2	4/26/2017	5/15/2018	1.05	1.16584	$ 7,939.73
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 992,000.00	$ 996,180.00	$ 996,755.80	$ 575.80	3135G0WJ8	6/12/2015	5/21/2018	0.88	1.15233	$ 3,164.38
Federal Farm Credit bank	$ 2,000,000.00	$ 2,000,000.00	$ 1,992,118.60	$ 1,994,523.20	$ 2,404.60	3133EGUX1	9/29/2016	6/20/2018	0.94	0.93978	$ 5,253.70
Federal Home Loan Mortgage Corp. Note	$ 2,000,000.00	$ 2,000,000.00	$ 1,996,277.00	$ 1,997,118.40	$ 841.40	3134G67C1	6/22/2015	6/22/2018	1.20	1.20000	$ 6,575.34
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 998,300.00	$ 997,759.70	$ 998,039.70	$ 280.00	3134G9VF1	5/26/2017	6/22/2018	1.06	1.21988	$ 2,904.11
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 1,004,680.00	$ 997,719.00	$ 998,509.30	$ 790.30	3135G0E33	10/30/2015	7/20/2018	1.13	0.95032	$ 2,219.18
Federal Farm Credit bank	$ 1,000,000.00	$ 1,000,000.00	$ 996,588.00	$ 996,854.40	$ 266.40	3133EGNU5	7/27/2016	7/27/2018	0.96	0.96000	$ 1,709.59
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 997,033.20	$ 997,132.40	$ 99.20	3134G73Q2	10/30/2015	7/27/2018	1.00	1.00011	$ 1,780.82
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 997,033.20	$ 997,132.40	$ 99.20	3134G9N60	7/27/2016	7/27/2018	1.00	1.00000	$ 1,780.82
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 997,942.00	$ 997,033.20	$ 997,132.40	$ 99.20	3134G9X51	2/2/2017	7/27/2018	1.00	1.14003	$ 1,780.82
Federal Home Loan Mortgage Corp. Note	$ 1,160,000.00	$ 1,158,732.12	$ 1,156,558.51	$ 1,156,673.58	$ 115.07	3134G9X51	2/7/2017	7/27/2018	1.00	1.07498	$ 2,065.75
Federal Farm Credit bank	$ 2,000,000.00	$ 1,993,500.00	$ 1,994,414.80	$ 1,994,328.20	$ (86.60)	3133EFMV6	11/10/2015	8/2/2018	1.02	1.14146	$ 3,297.53
Federal Home Loan Bank Bond	$ 1,000,000.00	$ 997,920.00	$ 991,940.00	$ 993,411.60	$ 1,471.60	3130A8PK3	7/8/2016	8/7/2018	0.63	0.72586	$ 924.66
Federal Home Loan Bank Bond	$ 1,000,000.00	$ 996,310.00	$ 991,940.00	$ 993,411.60	$ 1,471.60	3130A8PK3	11/14/2016	8/7/2018	0.63	0.84013	$ 924.66
Federal Farm Credit bank	$ 1,000,000.00	$ 1,000,000.00	$ 995,830.70	$ 996,091.10	$ 260.40	3133EGPY5	8/8/2016	8/8/2018	0.91	0.91000	$ 1,321.37
Federal Home Loan Bank Bond	$ 1,000,000.00	$ 1,000,000.00	$ 996,323.80	$ 995,762.10	$ (561.70)	3130A8WT6	8/8/2016	8/8/2018	0.95	0.95000	$ 1,379.45
Federal Home Loan Bank Bond	$ 1,000,000.00	$ 1,000,000.00	$ 996,255.00	$ 996,131.40	$ (123.60)	3130A9FQ9	9/28/2016	9/28/2018	1.00	1.00000	$ 54.79
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 996,481.10	$ 996,241.80	$ (239.30)	3134GAPQ1	9/30/2016	9/28/2018	1.02	1.02000	$ 55.89
Federal Home Loan Mortgage Corp. Note	$ 2,000,000.00	$ 2,000,000.00	$ 1,992,962.20	$ 1,992,483.60	$ (478.60)	3134GAPQ1	9/30/2016	9/28/2018	1.02	1.02000	$ 111.78
Federal Home Loan Bank Bond	$ 1,000,000.00	$ 997,500.00	$ 999,265.80	$ 999,518.70	$ 252.90	3130AAM47	3/13/2017	10/26/2018	1.20	1.35667	$ 5,161.64
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 995,824.50	$ 997,614.60	$ 1,790.10	3134G9Z42	7/26/2016	10/26/2018	1.00	1.00000	$ 4,301.37
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 1,000,000.00	$ 996,908.80	$ 997,608.00	$ 699.20	3135G0G64	10/30/2015	10/29/2018	1.10	1.10000	$ 4,641.10
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 1,000,000.00	$ 999,698.60	$ 999,794.20	$ 95.60	3136G2SK4	10/30/2015	10/29/2018	0.75	1.00000	$ 3,164.38

Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 996,680.00	$ 997,129.90	$ 997,844.80	$ 714.90	3136G2PF8	3/10/2017	10/29/2018	1.13	1.33058	$ 4,746.58
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 995,330.00	$ 995,330.00	$ 997,561.80	$ 2,231.80	3136G0X22	7/7/2017	10/29/2018	1.00	1.36030	$ 2,328.77
Federal Farm Credit bank	$ 2,000,000.00	$ 1,998,800.00	$ 1,990,273.80	$ 1,992,195.00	$ 1,921.20	3133EGA70	11/2/2016	11/1/2018	0.97	1.00042	$ 8,078.90
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 995,310.00	$ 996,861.30	$ 996,739.10	$ (122.20)	3135G0G49	12/28/2015	11/16/2018	1.16	1.32621	$ 4,353.97
Federal Home Loan Mortgage Corp. Note	$ 1,500,000.00	$ 1,498,395.00	$ 1,493,526.00	$ 1,495,244.70	$ 1,718.70	3134G8LV9	3/2/2016	11/23/2018	1.00	1.04002	$ 5,342.47
Federal Farm Credit bank	$ 2,000,000.00	$ 2,000,000.00	$ 1,999,687.20	$ 2,000,824.60	$ 1,137.40	3133EFRQ2	12/3/2015	12/3/2018	1.30	1.30000	$ 8,476.71
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 996,905.70	$ 997,900.90	$ 995.20	3134G8NB1	3/14/2016	12/14/2018	1.10	1.10014	$ 3,254.79
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 996,562.20	$ 997,616.30	$ 1,054.10	3134G8MY2	3/17/2016	12/17/2018	1.08	1.08013	$ 3,106.85
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 995,440.00	$ 996,267.80	$ 997,479.90	$ 1,212.10	3136G16Y0	12/21/2016	12/26/2018	1.07	1.30012	$ 2,814.25
Federal Home Loan Bank Bond	$ 1,000,000.00	$ 995,120.00	$ 995,343.10	$ 996,457.60	$ 1,114.50	3130A8VZ3	2/2/2017	1/25/2019	1.05	1.30035	$ 1,927.40
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 998,594.80	$ 999,202.10	$ 607.30	3134G8HN2	1/25/2016	1/25/2019	1.26	1.26000	$ 2,312.88
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 1,000,000.00	$ 997,975.50	$ 998,679.40	$ 703.90	3136G2WV5	1/29/2016	1/25/2019	1.22	1.22001	$ 2,239.45
Federal Farm Credit bank	$ 1,000,000.00	$ 1,000,000.00	$ 995,347.20	$ 996,316.90	$ 969.70	3133EGNY7	7/28/2016	1/28/2019	1.11	1.11000	$ 1,946.30
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 994,502.60	$ 995,747.80	$ 1,245.20	3134GAQU1	10/28/2016	1/28/2019	1.00	1.00014	$ 1,753.42
Federal Home Loan Bank Bond	$ 3,000,000.00	$ 3,000,000.00	$ 2,982,475.20	$ 2,984,952.90	$ 2,477.70	3130A8XU2	8/8/2016	2/8/2019	1.02	1.02000	$ 4,443.29
Federal Home Loan Bank Bond	$ 2,000,000.00	$ 2,000,000.00	$ 1,988,717.40	$ 1,990,545.40	$ 1,828.00	3130A8V26	8/12/2016	2/12/2019	1.05	1.05000	$ 2,819.18
Federal Home Loan Bank Bond	$ 2,000,000.00	$ 2,000,000.00	$ 1,988,717.40	$ 1,990,545.40	$ 1,828.00	3130A8V26	11/14/2016	2/12/2019	1.05	1.04972	$ 2,819.18
Federal Farm Credit bank	$ 1,000,000.00	$ 999,840.00	$ 997,297.00	$ 998,141.00	$ 844.00	3133EG6Z3	2/13/2017	2/13/2019	1.20	1.20812	$ 1,578.08
Federal Home Loan Mortgage Corp. Note	$ 2,945,000.00	$ 2,945,000.00	$ 2,937,039.66	$ 2,939,525.24	$ 2,485.58	3134G9EB9	5/13/2016	2/13/2019	1.20	1.20017	$ 4,647.45
Federal Home Loan Bank Bond	$ 2,200,000.00	$ 2,208,580.00	$ 2,195,774.90	$ 2,197,373.42	$ 1,598.52	3133824V2	3/2/2016	2/14/2019	1.25	1.11519	$ 3,541.10
Federal Home Loan Mortgage Corp. Note	$ 2,000,000.00	$ 2,000,000.00	$ 1,998,435.00	$ 1,999,316.00	$ 881.00	3134GA2X1	2/15/2017	2/15/2019	1.30	1.30000	$ 3,276.71
Federal Farm Credit bank	$ 1,000,000.00	$ 1,000,000.00	$ 995,653.60	$ 996,554.50	$ 900.90	3133EFYS0	2/22/2016	2/22/2019	1.15	1.15000	$ 1,228.77
Federal Home Loan Bank Bond	$ 1,000,000.00	$ 1,000,000.00	$ 995,654.00	$ 996,942.40	$ 1,288.40	3130A7XH3	5/25/2016	2/25/2019	1.13	1.12500	$ 1,109.59
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 1,000,000.00	$ 996,187.00	$ 995,771.70	$ (415.30)	3136G2ZF7	2/26/2016	2/26/2019	1.20	1.20000	$ 1,150.68
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 1,000,000.00	$ 999,666.20	$ 1,000,207.60	$ 541.40	3136G2ZX8	2/26/2016	2/26/2019	1.00	1.39000	$ 958.90
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 996,902.10	$ 997,467.50	$ 565.40	3134GAA79	12/14/2016	3/14/2019	1.25	1.25000	$ 547.95
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 1,000,000.00	$ 995,881.60	$ 996,933.70	$ 1,052.10	3136G3BQ7	3/22/2016	3/22/2019	1.15	1.15000	$ 252.05
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 1,000,000.00	$ 997,672.80	$ 996,996.00	$ (676.80)	3136G3BR5	3/22/2016	3/22/2019	1.30	1.30000	$ 284.93
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 997,583.50	$ 998,395.20	$ 811.70	3134G9SB4	6/22/2016	3/29/2019	1.35	1.35000	$ 36.99
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 994,042.50	$ 995,247.00	$ 1,204.50	3134GANF7	9/29/2016	3/29/2019	1.05	1.05000	$ 28.77
Federal Home Loan Bank Bond	$ 1,000,000.00	$ 1,000,000.00	$ 994,968.30	$ 995,450.50	$ 482.20	3130A8UK7	7/26/2016	4/26/2019	1.15	1.15015	$ 4,946.58
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 993,367.30	$ 994,782.70	$ 1,415.40	3134GAQX5	10/26/2016	4/26/2019	1.05	1.05000	$ 4,516.44
Federal National Mortgage Assn. Bond	$ 2,000,000.00	$ 1,994,860.00	$ 1,991,993.00	$ 1,994,118.60	$ 2,125.60	3136G02P5	1/30/2017	4/29/2019	1.20	1.31622	$ 10,126.03
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 1,000,000.00	$ 995,611.50	$ 996,659.80	$ 1,048.30	3136G3LD5	5/16/2016	5/16/2019	1.20	1.20000	$ 4,504.11
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 999,090.00	$ 999,788.20	$ 698.20	3134GBLF7	5/22/2017	5/22/2019	1.00	1.00000	$ 3,589.04
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 998,750.00	$ 995,004.10	$ 995,844.10	$ 840.00	3134G9NL7	5/31/2016	5/24/2019	1.18	1.22282	$ 4,170.41
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 1,000,000.00	$ 994,036.30	$ 994,948.60	$ 912.30	3136G3ML6	5/24/2016	5/24/2019	1.13	1.25000	$ 3,976.03
Federal National Mortgage Assn. Bond	$ 2,000,000.00	$ 2,000,000.00	$ 1,993,449.60	$ 1,995,152.20	$ 1,702.60	3136G3RQ0	6/20/2016	6/20/2019	1.30	1.30000	$ 7,265.75
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 1,000,000.00	$ 998,390.90	$ 997,349.30	$ (1,041.60)	3136G3RM9	6/21/2016	6/21/2019	1.40	1.40000	$ 3,873.97
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 999,150.00	$ 999,474.80	$ 324.80	3134GBVG4	6/30/2017	6/28/2019	1.45	1.45000	$ 3,654.79
Federal Farm Credit bank	$ 1,000,000.00	$ 991,650.00	$ 991,650.00	$ 992,711.20	$ 1,061.20	3133EGLC7	7/7/2017	7/12/2019	1.08	1.50245	$ 2,367.12
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 1,000,000.00	$ 999,916.50	$ (83.50)	3134GBWP3	7/26/2017	7/26/2019	1.50	1.50000	$ 2,712.33
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 1,000,000.00	$ 990,233.60	$ 991,396.60	$ 1,163.00	3136G3R56	7/26/2016	7/26/2019	1.05	1.05000	$ 1,898.63
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 1,000,000.00	$ 994,204.00	$ 994,121.30	$ (82.70)	3136G3U29	7/29/2016	7/26/2019	1.15	1.15000	$ 2,079.45
Federal Farm Credit bank	$ 1,000,000.00	$ 1,000,000.00	$ 993,891.40	$ 994,200.75	$ 309.35	3133EGPD1	8/1/2016	8/1/2019	1.18	1.18000	$ 1,939.73
Federal Farm Credit bank	$ 3,000,000.00	$ 3,000,000.00	$ 2,981,674.20	$ 2,982,602.70	$ 928.50	3133EGPD1	8/1/2016	8/1/2019	1.18	1.18000	$ 5,819.18
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 999,500.00	$ 995,219.70	$ 995,509.20	$ 289.50	3136G3K38	11/15/2016	8/2/2019	1.26	1.27863	$ 2,036.71
Federal Home Loan Bank Bond	$ 1,000,000.00	$ 1,000,000.00	$ 999,327.80	$ 999,316.20	$ (11.60)	3130ABJH0	6/27/2017	9/27/2019	1.50	1.50000	$ 1,150.68
Federal National Mortgage Assn. Bond	$ 2,000,000.00	$ 1,996,060.00	$ 1,984,132.20	$ 1,985,753.80	$ 1,621.60	3135G0Q30	11/15/2016	9/27/2019	1.18	1.25005	$ 193.97
Federal National Mortgage Assn. Bond	$ 2,000,000.00	$ 2,000,000.00	$ 1,988,617.80	$ 1,988,317.20	$ (300.60)	3135G0P98	9/30/2016	9/30/2019	1.25	1.25000	$ -
Federal National Mortgage Assn. Bond	$ 1,000,000.00	$ 1,000,000.00	$ 993,165.70	$ 993,024.30	$ (141.40)	3136G4DZ3	10/25/2016	10/25/2019	1.20	1.20000	$ 5,194.52
Federal National Mortgage Assn. Bond	$ 1,700,000.00	$ 1,691,755.00	$ 1,691,630.05	$ 1,690,772.57	$ (857.48)	3135G0J95	1/25/2017	10/28/2019	1.35	1.53000	$ 9,745.89
Federal National Mortgage Assn. Bond	$ 2,000,000.00	$ 2,000,000.00	$ 1,984,479.20	$ 1,983,549.80	$ (929.40)	3136G4EE9	10/28/2016	10/30/2019	1.13	1.12497	$ 9,431.51
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 1,000,023.30	$ 1,000,118.40	$ 95.10	3134GA4E1	2/27/2017	11/27/2019	1.50	1.50026	$ 5,178.08
Federal Farm Credit bank	$ 2,000,000.00	$ 2,000,000.00	$ 1,997,496.40	$ 1,997,272.20	$ (224.20)	3133EGM77	11/29/2016	11/29/2019	1.50	1.50000	$ 10,191.78
Federal National Mortgage Assn. Bond	$ 2,000,000.00	$ 2,000,000.00	$ 1,992,317.80	$ 1,991,774.60	$ (543.20)	3136G4HF3	11/29/2016	11/29/2019	1.35	1.35000	$ 9,172.60

Federal Farm Credit bank	$ 1,000,000.00	$ 1,000,580.00	$ 997,962.60	$ 997,494.20	$ (468.40)	3133EGT88	12/12/2016	12/12/2019	1.45	1.43018	$ 4,369.86
Federal Home Loan Bank Bond	$ 1,000,000.00	$ 996,000.00	$ 993,814.80	$ 993,172.80	$ (642.00)	313381EZ4	12/19/2016	12/17/2019	1.35	1.48706	$ 4,068.49
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,750.00	$ 999,118.10	$ 998,427.40	$ (690.70)	3134G3L73	4/27/2017	12/26/2019	1.50	1.47129	$ 3,945.21
Federal Home Loan Mortgage Corp. Note	$ 500,000.00	$ 500,700.00	$ 500,700.00	$ 499,213.70	$ (1,486.30)	3134G3L73	7/17/2017	12/26/2019	1.50	1.44145	$ 1,541.10
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 998,350.00	$ 999,199.80	$ 849.80	3134GBVU3	6/30/2017	12/27/2019	1.55	1.55000	$ 3,906.85
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 998,980.00	$ 999,199.80	$ 219.80	3134GBXG2	6/30/2017	12/27/2019	1.55	1.55000	$ 3,906.85
Federal Farm Credit bank	$ 3,000,000.00	$ 3,000,000.00	$ 3,000,781.50	$ 2,998,230.60	$ (2,550.90)	3133EG3J2	1/10/2017	1/10/2020	1.55	1.55000	$ 10,446.58
Federal Home Loan Mortgage Corp. Note	$ 2,000,000.00	$ 1,994,760.00	$ 1,997,624.20	$ 1,995,648.00	$ (1,976.20)	3137EAEE5	1/20/2017	1/17/2020	1.50	1.59001	$ 6,164.38
Federal Farm Credit bank	$ 3,000,000.00	$ 3,000,000.00	$ 2,999,810.40	$ 2,997,114.30	$ (2,696.10)	3133EG6C4	2/3/2017	2/3/2020	1.55	1.55000	$ 6,115.07
Federal National Mortgage Assn. Bond	$ 5,000,000.00	$ 5,000,000.00	$ 5,004,064.50	$ 5,004,694.00	$ 629.50	3136G4KW2	2/14/2017	2/14/2020	1.65	1.65000	$ 10,623.29
Federal National Mortgage Assn. Bond	$ 2,000,000.00	$ 2,000,000.00	$ 2,002,105.60	$ 2,001,665.20	$ (440.40)	3136G4LV3	2/28/2017	2/28/2020	1.66	1.66000	$ 3,001.64
Federal Farm Credit bank	$ 2,000,000.00	$ 2,000,000.00	$ 1,997,945.40	$ 1,996,512.40	$ (1,433.00)	3133EHBA0	3/2/2017	3/2/2020	1.52	1.52000	$ 2,332.05
Federal Farm Credit bank	$ 1,000,000.00	$ 1,000,000.00	$ 1,003,666.30	$ 1,002,591.70	$ (1,074.60)	3133EHCS0	3/16/2017	3/16/2020	1.70	1.70000	$ 652.05
Federal Home Loan Mortgage Corp. Note	$ 2,000,000.00	$ 2,000,000.00	$ 2,002,149.80	$ 2,002,587.00	$ 437.20	3134GBAB8	3/27/2017	3/27/2020	1.67	1.67000	$ 274.52
Federal Home Loan Mortgage Corp. Note	$ 2,000,000.00	$ 2,000,000.00	$ 1,998,715.80	$ 1,999,651.40	$ 935.60	3134GBHX3	4/27/2017	4/27/2020	1.58	1.58000	$ 13,505.75
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 1,000,000.00	$ 1,000,244.40	$ 244.40	3134GBYV8	7/27/2017	4/27/2020	1.75	1.75000	$ 3,116.44
Federal National Mortgage Assn. Bond	$ 1,600,000.00	$ 1,596,912.00	$ 1,596,480.00	$ 1,595,471.68	$ (1,008.32)	3136G2GR2	4/26/2017	4/28/2020	1.50	1.56598	$ 10,191.78
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 1,003,122.20	$ 1,001,988.80	$ (1,133.40)	3134GBPB2	5/30/2017	5/22/2020	1.70	1.70005	$ 5,728.77
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 996,550.00	$ 999,331.60	$ 2,781.60	3134GBRJ3	5/30/2017	5/29/2020	1.60	1.60001	$ 5,391.78
Federal Farm Credit bank	$ 2,000,000.00	$ 2,000,000.00	$ 1,992,380.00	$ 1,995,595.00	$ 3,215.00	3133EHNK5	6/15/2017	6/15/2020	1.54	1.54000	$ 9,029.04
Federal Farm Credit bank	$ 1,000,000.00	$ 1,000,000.00	$ 999,119.50	$ 998,880.10	$ (239.40)	3133EHPD9	6/22/2017	6/22/2020	1.67	1.67000	$ 4,575.34
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 996,920.00	$ 999,774.80	$ 2,854.80	3134GBUG5	6/29/2017	6/29/2020	1.63	1.62500	$ 4,140.41
Federal Home Loan Mortgage Corp. Note	$ 1,000,000.00	$ 1,000,000.00	$ 1,000,000.00	$ 999,331.50	$ (668.50)	3134GBVT6	6/30/2017	6/29/2020	1.70	1.70000	$ 4,284.93
Federal Home Loan Mortgage Corp. Note	$ 2,000,000.00	$ 2,000,000.00	$ 2,000,000.00	$ 2,003,637.40	$ 3,637.40	3134GBYR7	7/27/2017	7/27/2020	1.75	1.75000	$ 6,232.88
Federal National Mortgage Assn. Bond	$ 3,000,000.00	$ 3,000,000.00	$ 3,000,000.00	$ 3,000,920.10	$ 920.10	3136G4NU3	8/10/2017	8/10/2020	1.67	1.67000	$ 7,000.27
Federal National Mortgage Assn. Bond	$ 3,000,000.00	$ 3,000,000.00	$ 3,000,000.00	$ 2,999,883.00	$ (117.00)	3136G4NT6	8/14/2017	8/14/2020	1.75	1.75000	$ 6,760.27
Federal Home Loan Bank Bond	$ 1,000,000.00	$ 1,000,000.00	$ 1,000,000.00	$ 998,110.10	$ (1,889.90)	3130ACD92	9/18/2017	9/18/2020	1.60	1.60000	$ 526.03
Federal Farm Credit bank	$ 2,000,000.00	$ 2,000,000.00	$ 2,000,000.00	$ 1,999,850.20	$ (149.80)	3133EHZV8	9/25/2017	9/25/2020	1.70	1.70000	$ 465.75
Federal National Mortgage Assn. Bond	$ 2,000,000.00	$ 2,000,000.00	$ 2,000,000.00	$ 2,001,419.80	$ 1,419.80	3136G4PK3	9/28/2017	9/28/2020	1.75	1.75000	$ 191.78
Sub-Total	$ 192,605,000.00	$ 192,475,291.12	$ 192,106,881.32	$ 192,197,954.39	$ 91,073.07						
outstanding	$ 192,605,000.00	$ 192,475,291.12		$ 192,197,954.39	$ (277,336.73)						$ 491,040.33
		$ 212,731,609.60									
	G/L	212,731,609.60	-		-						
		TexPool	20,256,318.48								