



July 19, 2024

City of Trent, TX
TXDOT I-20 Water Line Relocation
Addendum No. 1

Attention is called to the following modifications to the Plans, Specifications and Contract Documents for the above referenced project. The City of Trent will receive sealed Bids for the TXDOT I-20 Water Line Relocation Project until 11:00 a.m. local time on Wednesday, July 24, 2024 at City Hall, located at 101 N. Main St., Trent, Texas. Bids will be publicly opened and read aloud. We hereby modify the documents as follows:

BIDDING DOCUMENTS:

Make the following **CHANGES** to the Bid Form:

1. **REPLACE** the Bid Form, in its entirety, with the **ATTACHED** Bid Form.
 - a. Base Bid - Item 5 has been **CHANGED** to include the clearing of brush for the entire 40' (wide) permanent utility easement and all brush piles are to be mulched or hauled off site. The easement also includes a 100' (wide) temporary construction easement (clearing not required).
 - b. Add Alternate - Item A6 has been **INCORPORATED** into **BASE BID** as **Item 9** and stationing has been updated. All other items and quantities have been adjusted.

SPECIFICATIONS:

Make the following **CHANGES** to the Project Specifications:

1. Specification 15067 Pipe: Polyethylene (HDPE) Section 2.2.A.3: **CHANGE** to read:
"DIPS Sized."

PLANS:

CHANGES to the Project Plans:

1. Plans have been updated to show a 40' wide permanent utility easement adjacent to new TXDOT fence. This easement is to begin at the existing TXDOT fence with the proposed water line installed at the center of the 40' permanent utility easement (20' from existing fence).

This addendum consists of twenty two (22) pages. This addendum becomes a part of the Bid Documents and **SHALL BE ACKNOWLEDGED** by the bidder on the Bid Form submitted.



By: Sage Diller, P.E.
Project Engineer



BID FORM FOR CONSTRUCTION CONTRACT

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 1—OWNER AND BIDDER

1.01 This Bid is submitted to: **City of Trent**
101 N Main St
Trent, Texas 79561

Project Name: TXDOT I-20 Water Line Relocation
Project Number: 8640

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2—ATTACHMENTS TO THIS BID

2.01 The following documents are submitted with and made a condition of this Bid:

- A. Required Bid security;
- B. List of Proposed Subcontractors;
- C. List of Proposed Suppliers;
- D. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such authority within the time for acceptance of Bids;
- E. Contractor's license number as evidence of Bidder's State Contractor's License or a covenant by Bidder to obtain said license within the time for acceptance of Bids;
- F. Required Bidder Qualification Statement with supporting data; and

ARTICLE 3—BASIS OF BID—LUMP SUM BID AND UNIT PRICES

3.01 *Unit Price Bids*

- A. Bidder will perform the following Work at the indicated unit prices:

BASE BID

Item No.	Estimated Quantity Total	Description and Unit Price (Price to be written in words)	Unit Price	Total Amount
1	1 LS	Mobilization, bonds and insurance (not to exceed 5 percent of bid) for _____ Dollars and _____ Cents per lump sum.		\$ _____
2	1 LS	Furnish and install Traffic Control Plan, complete and in place, for _____ Dollars and _____ Cents per lump sum.		\$ _____

Item No.	Estimated Quantity Total	Description and Unit Price (Price to be written in words)	Unit Price	Total Amount
3	1 LS	Prepare and Obtain applicable approval(s) for, and Implement Stormwater Pollution Prevention Plan and all related work as shown and as specified, _____ _____ _____ Dollars and _____ Cents per lumps sum.		\$ _____
4	5,781 LF	Furnish and install Trench and Excavation Safety Plan) all related appurtenances, as shown and as specified, complete and in place, for _____ _____ _____ Dollars and _____ Cents per linear foot.	\$ _____ /LF	\$ _____
5	1 LS	Clearing for ROW preparation to include grubbing, grading, tree removal, mulching or hauling off brush and all associated activities necessary for a 40' (minimum) wide permanent utility easement, and a 100' (minimum) temporary construction easement, as specified, for _____ _____ _____ Dollars and _____ Cents per lump sum.		\$ _____
6	5,781 LF	Furnish and install Class I or II Granular Bedding Material and all related appurtenances, as shown and as specified, complete and in place, for _____ _____ _____ Dollars and _____ Cents per linear foot.	\$ _____ /LF	\$ _____
7	5,731 LF	Furnish and install 10" DR-11 HDPE (DIPS) water line via open-cut, all related appurtenances, as shown and as specified, complete and in place, for _____ _____ _____ Dollars and _____ Cents per linear foot.	\$ _____ /LF	\$ _____
8	50 LF	Furnish and install 4" DR-11 HDPE (DIPS) water line via open-cut, all related appurtenances, as shown and as specified, complete and in place, for _____ _____ _____ Dollars and _____ Cents per linear foot.	\$ _____ /LF	\$ _____
9	500 LF	Furnish and install 10" DR-11 HDPE (DIPS) water line by hydraulic directional drilling (HDD) (STA 5+85 to STA 10+85), and all related appurtenances, as shown and as specified, complete and in place, for _____ _____ _____ Dollars and _____ Cents per linear foot.	\$ _____ /LF	\$ _____

Item No.	Estimated Quantity Total	Description and Unit Price (Price to be written in words)	Unit Price	Total Amount
10	2 EA	Furnish and install 6" Gate Valve, all related appurtenances, as shown and as specified, complete and in place, for _____ _____ _____ Dollars and _____ Cents per each.	\$ _____ /EA	\$ _____
11	6,281 LF	Furnish and install Detectable Tape and Tracer Wire and all related appurtenances, as shown and as specified, complete and in place, for _____ _____ _____ Dollars and _____ Cents per linear foot.	\$ _____ /LF	\$ _____
12	3 EA	Furnish and install Combination Air Relief Valve and all related appurtenances, as shown and as specified, complete and in place, for _____ _____ _____ Dollars and _____ Cents per each.	\$ _____ /EA	\$ _____
13	1 LS	Furnish and Water Meter Assembly, including concrete vault, gate valves, and all related appurtenances, as shown and as specified, complete and in place, for _____ _____ _____ Dollars and _____ Cents per lump sum.		\$ _____
14	1 LS	Furnish and install Backflow Prevention Assembly, including concrete vault, double check valve and all related appurtenances, as shown and as specified, complete and in place, for _____ _____ _____ Dollars and _____ Cents per lump sum.		\$ _____
15	2 EA	Connect proposed 10" water line to existing 6" water line, all related appurtenances, as shown and as specified, complete and in place, for _____ _____ _____ Dollars and _____ Cents per each.	\$ _____ /EA	\$ _____
16	5,225 LF	Removal of existing 6" Water Line, all related appurtenances, as shown and as specified, complete and in place, for _____ _____ _____ Dollars and _____ Cents per linear foot.	\$ _____ /LF	\$ _____

Item No.	Estimated Quantity Total	Description and Unit Price (Price to be written in words)	Unit Price	Total Amount
17	1 LS	Flushing and Hydrostatic Disinfection Testing, all related appurtenances, as shown and as specified, complete and in place, for _____ _____ _____ Dollars and _____ Cents per lump sum.	\$ _____ /LS	\$ _____
TOTAL BASE BID (Items 1 thru 17)			\$ _____	

Bidder acknowledges that:

- Each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and
- Estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Work will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 4—TIME OF COMPLETION

- Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 5—BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

5.01 *Bid Acceptance Period*

- This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

5.02 *Instructions to Bidders*

- Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.

5.03 *Receipt of Addenda*

- Bidder hereby acknowledges receipt of the following Addenda:

Addendum Number	Addendum Date

ARTICLE 6—BIDDER’S REPRESENTATIONS AND CERTIFICATIONS

6.01 Bidder’s Representations

- A. In submitting this Bid, Bidder represents the following:
1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
 2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
 4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
 5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
 6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder’s (Contractor’s) safety precautions and programs.
 7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
 8. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
 9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
 10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
 11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

6.02 Bidder's Certifications

A. The Bidder certifies the following:

1. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.
2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
3. Bidder has not solicited or induced any individual or entity to refrain from bidding.
4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:
 - a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.
 - b. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.
 - c. Collusive practice means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels.
 - d. Coercive practice means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

BIDDER hereby submits this Bid as set forth above:

Bidder:

(typed or printed name of organization)

By: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Date: _____
(typed or printed)

If Bidder is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.

Attest: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Date: _____
(typed or printed)

Address for giving notices:

Bidder's Contact:

Name: _____
(typed or printed)

Title: _____
(typed or printed)

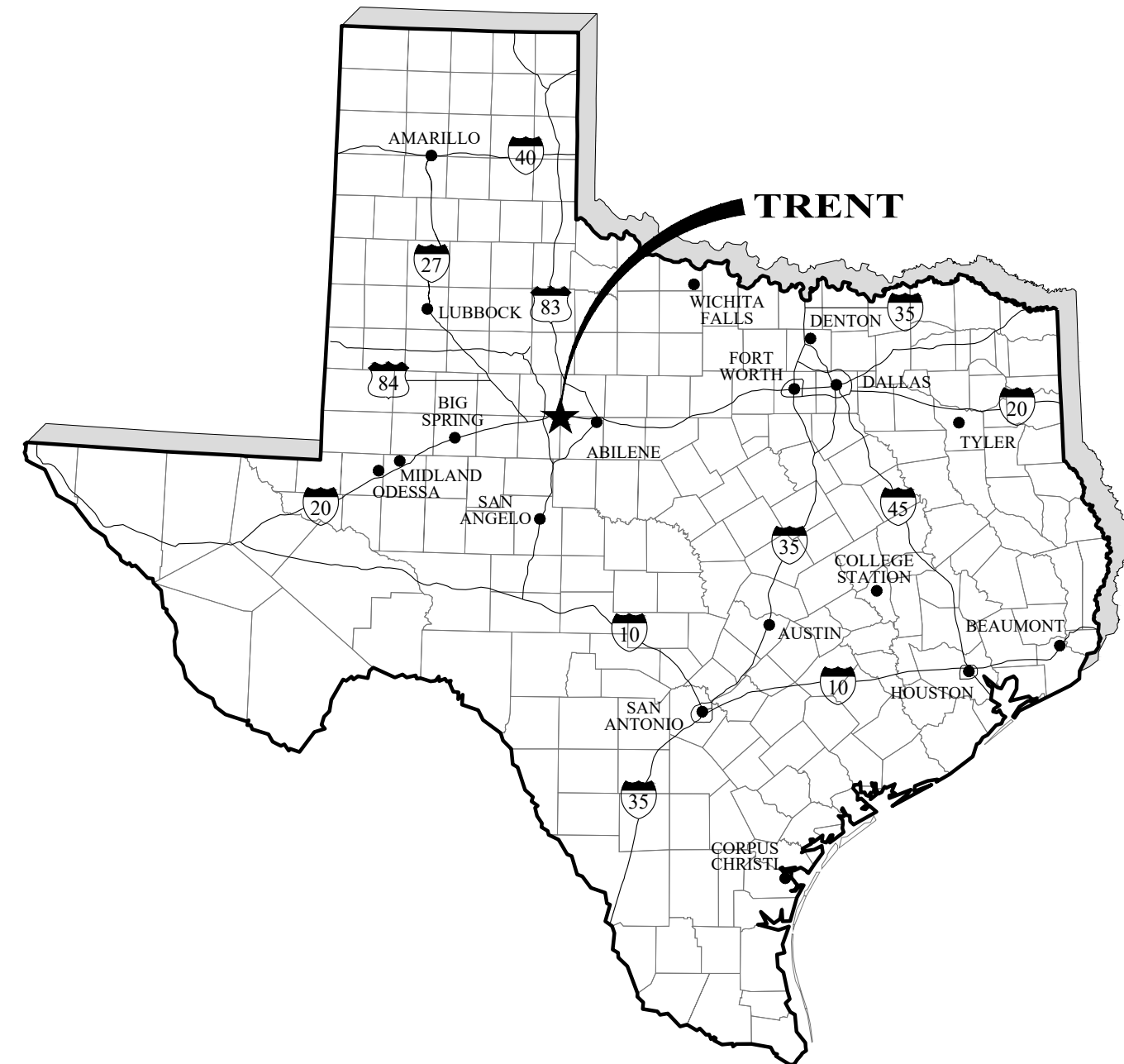
Phone: _____

Email: _____

Address: _____

Bidder's Contractor License No.: (if applicable) _____

CONSTRUCTION PLANS FOR TXDOT I-20 WATER LINE RELOCATION TRENT, TAYLOR COUNTY, TEXAS



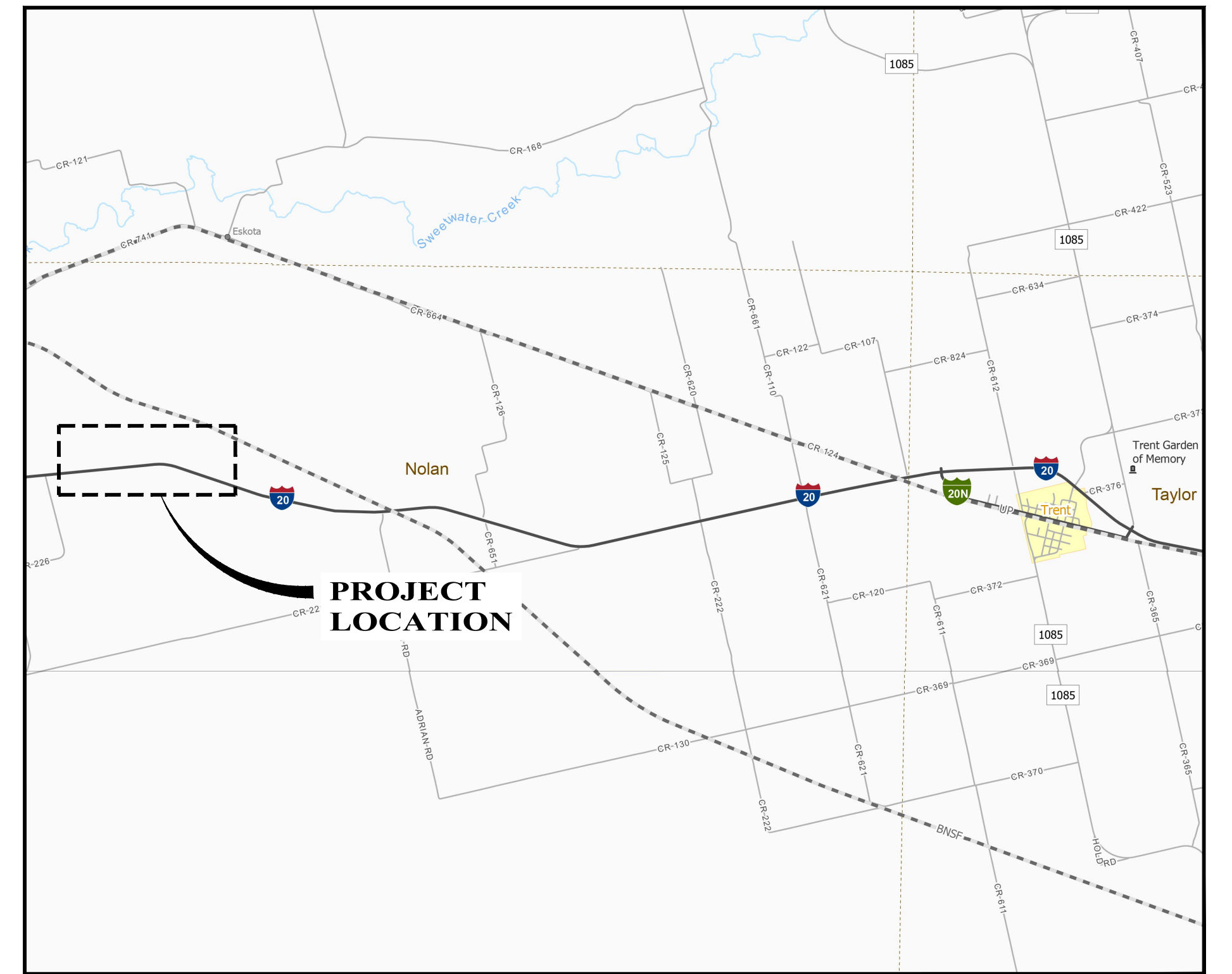
 **VICINITY MAP**
NO SCALE

MAYOR
LEANNA WEST

MAYOR PRO-TEM
ROBERT REED

CITY COUNCIL MEMBERS
ORVILLE RAY PATTERSON
WAYNE ROBERTSON
GEOFF GOODNOUGH

CITY SECRETARY
DEBBIE BOLES



 **LOCATION MAP**
SCALE: 1" = 6000'




SAGE DILLER, P.E.






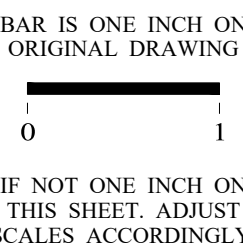



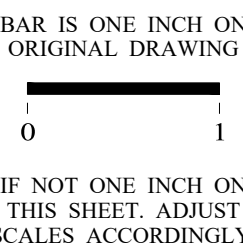



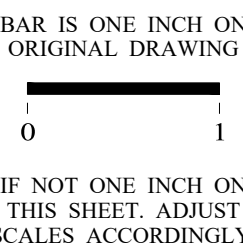



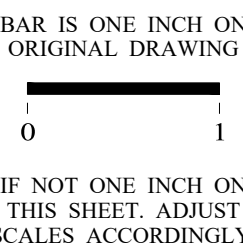



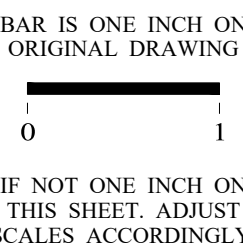



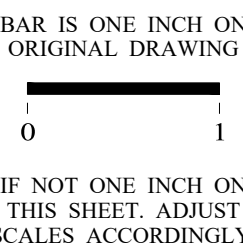
Enprotec | Hibbs & Todd
402 Cedar Street • Abilene, Texas 79601 • T: (325) 698-5560 • F: (325) 690-3240 • www.e-ht.com
PE Firm Registration No. 1151 • PG Firm Registration No. 50103 • RPLS Firm Registration No. 10011900

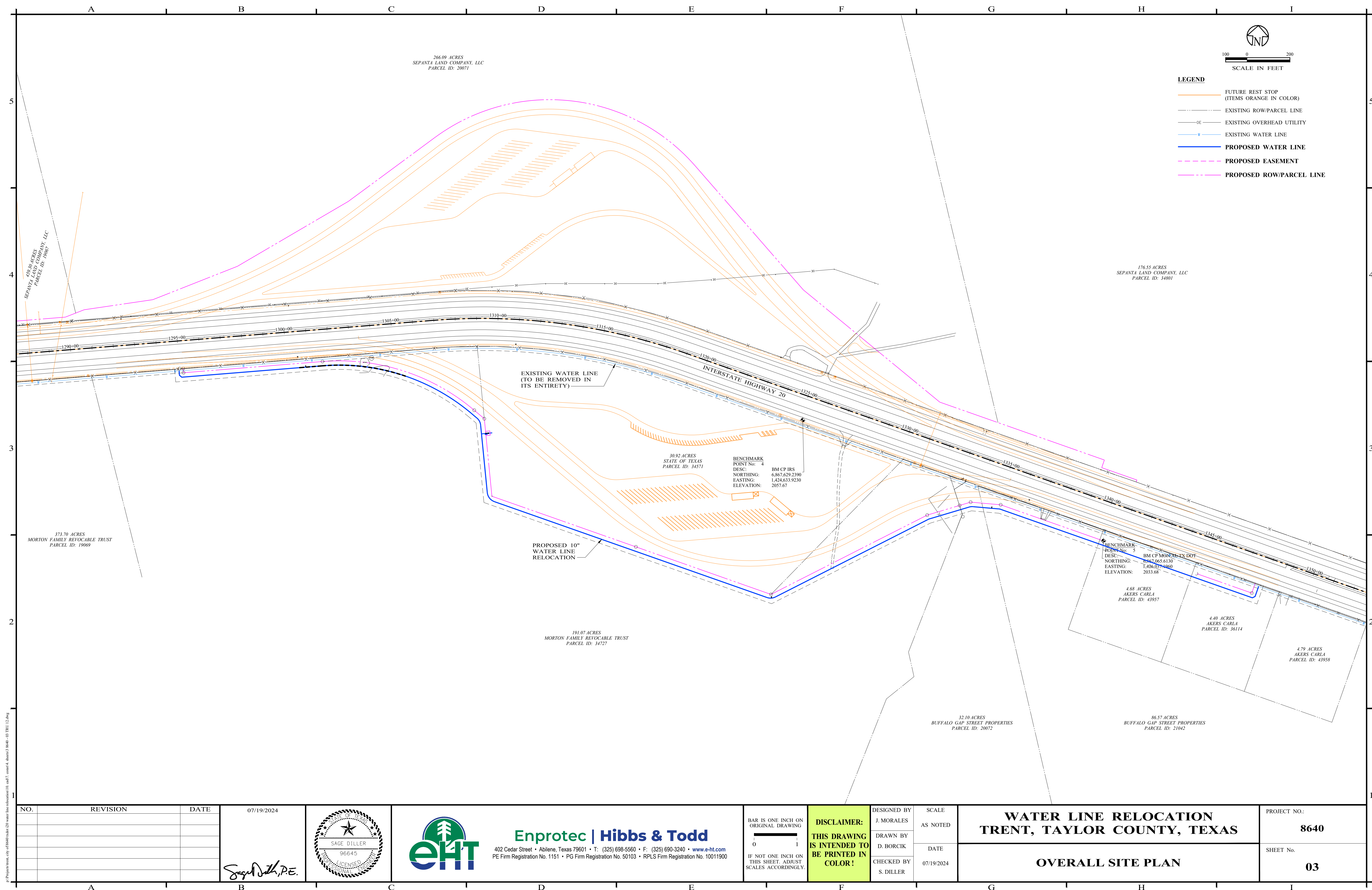
CONTRACT NO.
8640

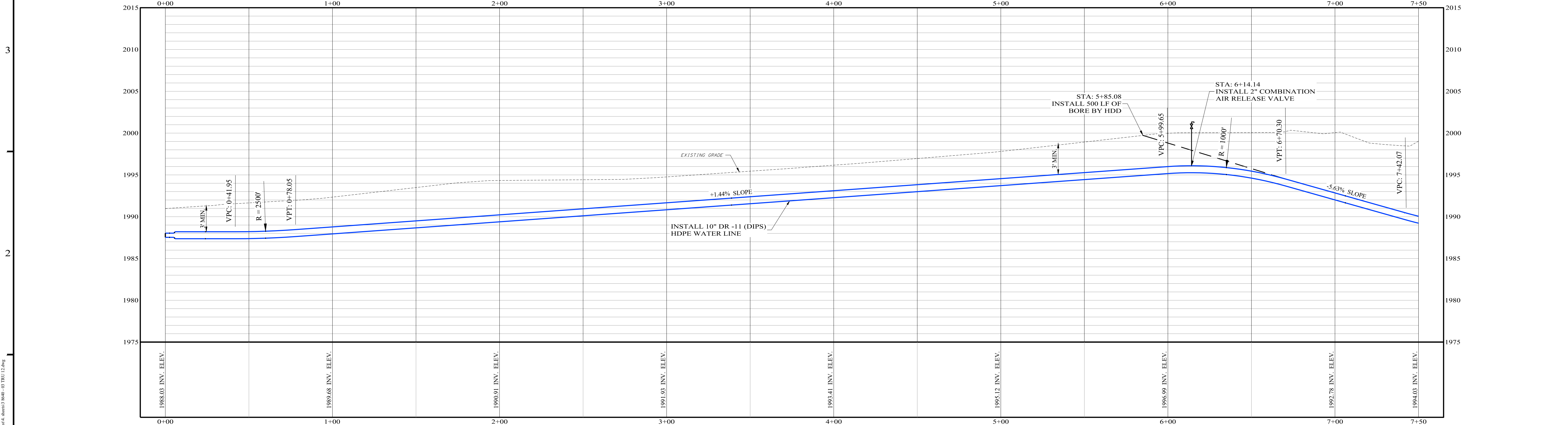
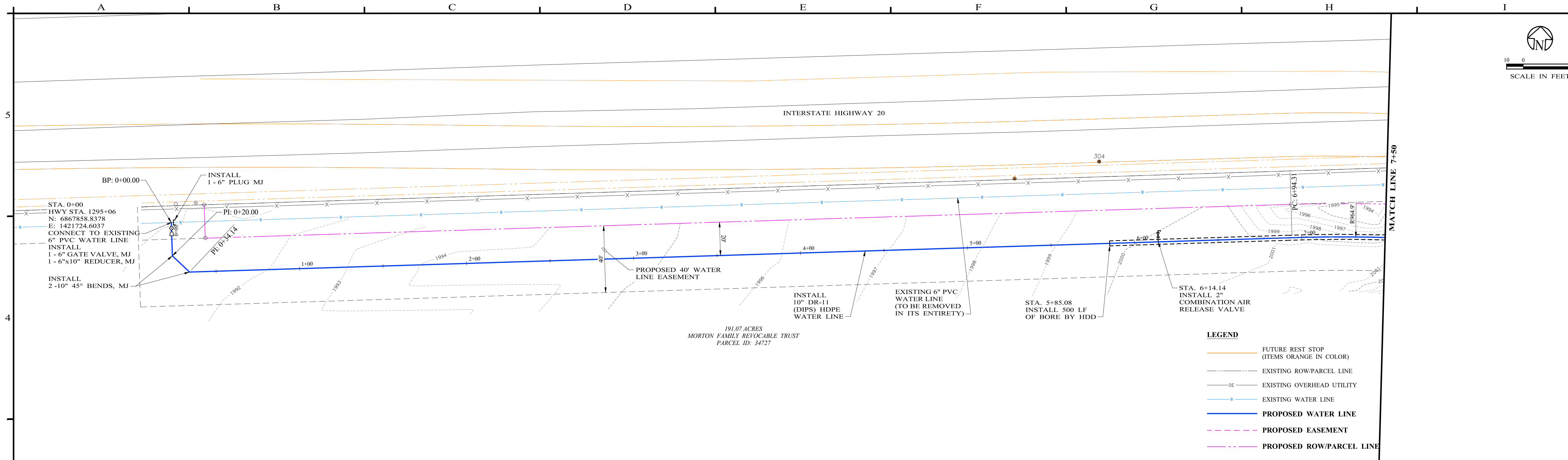
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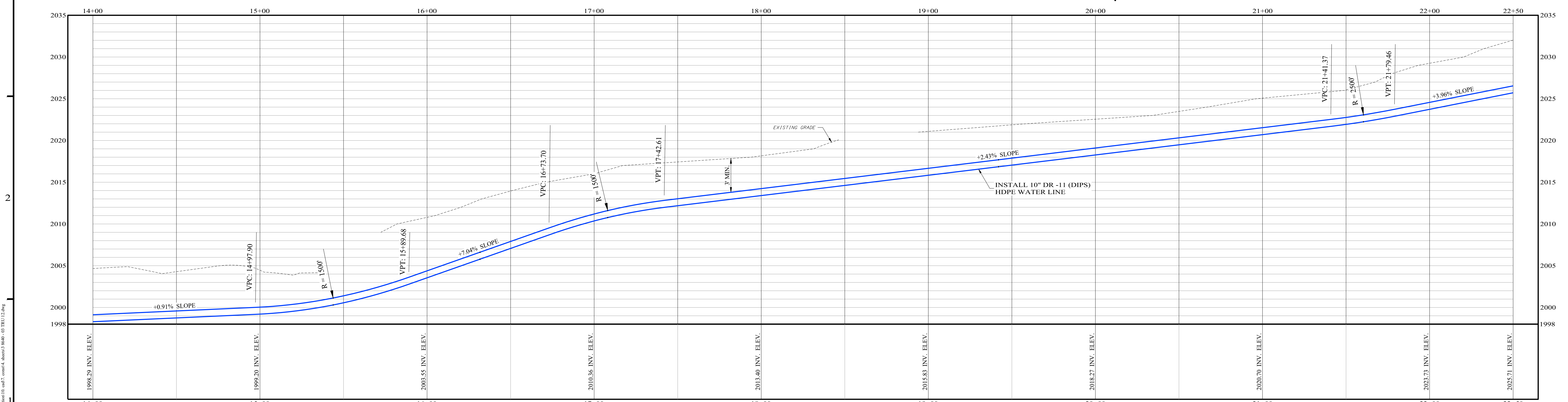
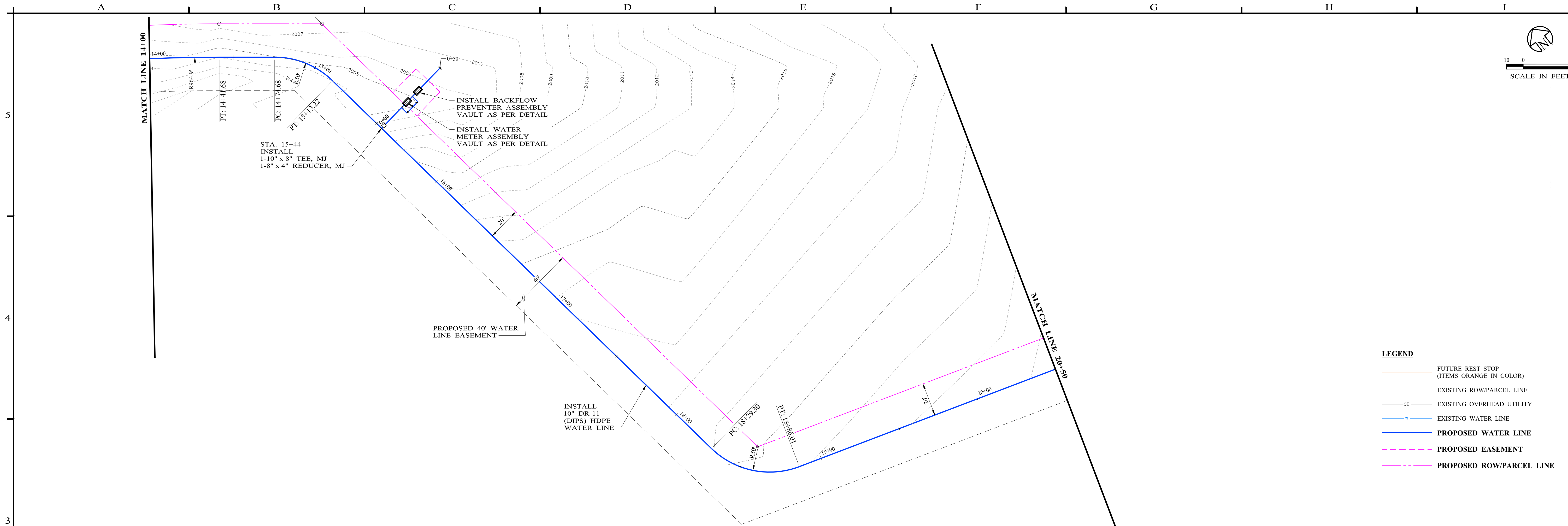
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<div><div><div><div>GENERAL CONSTRUCTION NOTES</div><div><div>1. ALL EXISTING UNDERGROUND UTILITIES SHOWN ON DRAWINGS WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE BUT ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE. CONTRACTOR HAS SOLE RESPONSIBILITY FOR FIELD VERIFICATION OF ALL EXISTING FACILITIES IN THE AREA. CONTRACTOR TO CONTACT ALL UTILITY COMPANIES IN THE AREA AND COORDINATE CONFLICTS WITH THE APPROPRIATE OWNER/AGENCY.</div><div>2. CONTRACTOR SHALL REQUEST THE EXACT LOCATION OF EXISTING FACILITIES BY CALLING THE TEXAS ONE-CALL LOCATE SERVICE (811) AT LEAST 48 HOURS BEFORE COMMENCING WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH OCCUR DUE TO HIS FAILURE TO EXACTLY LOCATE AND PRESERVE UNDERGROUND UTILITIES.</div><div>3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ADJACENT PROJECT/CONTRACTOR(S) PRIOR TO AND DURING CONSTRUCTION.</div><div>4. CONTRACTOR SHALL "POTHOLE" ALL FIBER OPTIC AND GAS LINES AHEAD OF THE CONSTRUCTION CREWS TO LOCATE AND VERIFY EXISTING VERTICAL ELEVATIONS PRIOR TO START OF CONSTRUCTION. ALL COSTS ASSOCIATED WITH POTHOLES SHALL BE PAID FOR BY THE CONTRACTOR. ONE-CALL SHALL MARK LINE PRIOR TO POTHOLES.</div><div>5. ANY EXISTING UTILITY (WATER/SEWER) IN CONFLICT WITH PROPOSED CONSTRUCTION SHALL BE TEMPORARILY RELOCATED AS REQUIRED SO AS TO PROVIDE CONTINUOUS SERVICE BY THE UTILITY. AFTER CONSTRUCTION, UTILITY SHALL BE RETURNED TO ORIGINAL LOCATION AT NO ADDITIONAL COST TO THE OWNER.</div><div>6. ANY PERMANENT RELOCATION OF AN EXISTING UTILITY NOT SHOWN ON THE DRAWINGS SHALL BE APPROVED BY THE OWNER PRIOR TO RELOCATION AND SHALL CONFORM TO ALL APPLICABLE GOVERNING STANDARDS AND SPECIFICATIONS.</div><div>7. UTILITY SERVICE LINES ARE NOT GENERALLY SHOWN ON DRAWINGS. ANTICIPATE THAT SUCH SERVICE LINES EXIST AND PROTECT/REPAIR THEM IF DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.</div><div>8. ALL DIMENSIONS SHOWN ARE APPROXIMATE AND ARE TO BE VERIFIED BY THE CONTRACTOR. HORIZONTAL OR VERTICAL ALIGNMENT CHANGES ARE TO BE APPROVED BY THE OWNER.</div><div>9. CONTRACTOR SHALL BE RESPONSIBLE FOR SAFEGUARDING AND PROTECTING ALL MATERIALS AND EQUIPMENT STORED ON THE JOB-SITE IN A SAFE AND WORKMAN-LIKE MANNER, DURING AND AFTER WORKING HOURS, UNTIL JOB COMPLETION.</div><div>10. ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL OR BETTER CONDITION.</div><div>11. CONTRACTOR SHALL PROMPTLY REMOVE AND LEGALLY DISPOSE OF ALL CUT VEGETATION, STUMPS, ROCKS LARGER THAN 2" DIAMETER, AND OTHER DEBRIS NOT DESIGNATED TO REMAIN ON THE PROJECT SITE.</div><div>12. CONTRACTOR SHALL NOT STORE MATERIALS OR EQUIPMENT OR PLACE EXCESS EXCAVATED MATERIAL ON PRIVATE PROPERTY WITHOUT PRIOR WRITTEN AGREEMENT WITH THE PROPERTY OWNER.</div><div>13. EXISTING IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO LANDSCAPING, FENCES, MAILBOXES, CULVERTS, HEADWALLS, SIDEWALKS, CURBS, UTILITY PIPELINES AND DRAINAGE STRUCTURES, WHICH ARE DAMAGED, REMOVED OR ALTERED TO PERMIT INSTALLATION OF THE WORK SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR, IN THE SAME LOCATION AND IN A CONDITION AS GOOD OR BETTER THAN FOUND, AT NO ADDITIONAL COST TO THE OWNER.</div><div>14. IN AREAS WHERE EXISTING LANDSCAPING REQUIRES REMOVAL, CONTRACTOR SHALL CONTACT RESIDENT AND OBTAIN DESIRED LOCATION TO RELOCATE.</div><div>15. CONTRACTOR SHALL REPLACE TOPSOIL AND RESEED ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES AND NOT SPECIFIED FOR PAVEMENT REPLACEMENT.</div><div>16. CONTRACTOR SHALL RESTORE PAVEMENT TO AS GOOD OR BETTER THAN THE CONDITION PRIOR TO CONSTRUCTION, TO THE SATISFACTION OF THE OWNER.</div><div>17. CONTRACTOR SHALL PROVIDE SHEETING, SHORING AND BRACING AS NECESSARY TO ADEQUATELY PROTECT WORKMEN AND EXISTING STRUCTURES AND UTILITIES DURING ALL PHASES OF CONSTRUCTION IN ACCORDANCE WITH O.S.H.A. REQUIREMENTS.</div><div>18. CONTRACTOR SHALL COVER OPEN EXCAVATIONS WITH ANCHORED ½" STEEL PLATES DURING NON-WORKING HOURS. OPEN EXCAVATIONS LEFT UNCOVERED REQUIRE APPROVAL BY THE ENGINEER AND SHALL BE FULLY PROTECTED.</div><div>19. USE APPROPRIATE COMPACTION EQUIPMENT FOR THE TYPE OF SOIL ENCOUNTERED. CLAY BACKFILLS NORMALLY REQUIRE CONSOLIDATION BY SHEEPS-FOOT ROLLER WHEREAS SAND AND GRAVEL CAN BE COMPACTED WITH VIBRATORY EQUIPMENT. THE OWNER MAY REJECT SPECIFIC TYPES OF EQUIPMENT ON SITE AS SOIL CONDITIONS MAY VARY AND AS LOCATION WARRANTS (IE. PROXIMITY TO EXISTING STRUCTURES).</div><div>20. IF GROUNDWATER IS ENCOUNTERED THE CONTRACTOR SHALL USE WELL POINTS TO DEWATER THE AREA TO ALLOW UNDERGROUND CONSTRUCTION. PRICE FOR DEWATER SHALL BE INCLUDED IN THE UNIT BID FOR INSTALLATION OF PROPOSED LINE OR STRUCTURE.</div><div>21. TEST MATERIALS TO BE USED FOR BACKFILL AND ADJUST MOISTURE CONTENT TO SPECIFIED LEVELS BY ADDING WATER OR DRYING SOILS AS NECESSARY AND AS SPECIFIED.</div><div>22. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING CONSTRUCTION MATERIALS TESTING THROUGH THE DESIGNATED FIELD REPRESENTATIVE 24 HOURS PRIOR TO TESTING. CONTRACTOR IS RESPONSIBLE FOR ADHERING CLOSELY TO TESTING SCHEDULE TO AVOID ANY DELAYS IN THE FIELD.</div><div>23. CONTRACTOR SHALL VERIFY THAT BENCH MARKS HAVE NOT BEEN DISTURBED. IF ANY DISCREPANCY IS FOUND, CONTACT THE ENGINEER IMMEDIATELY.</div><div>24. CONTRACTOR SHALL KEEP STREETS, RIGHTS-OF-WAY AND THE WORK AREA CLEAN OF DIRT, MUD AND OTHER OBJECTIONABLE DEBRIS.</div><div>25. CONTRACTOR SHALL KEEP ACCURATE RECORDS OF AS-BUILT CONDITIONS AND PROVIDE TO THE ENGINEER TO AID IN THE PREPARATION OF AS-BUILT RECORD DRAWINGS. AS-BUILT RECORD DRAWINGS WILL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF ALL CONSTRUCTION.</div></div></div><div>LIMITS OF CONSTRUCTION</div><div><div>1. LIMIT OPERATIONS TO WITHIN THE CONFINES OF THE CONSTRUCTION WORK LIMITS SHOWN ON THE DRAWINGS.</div><div>2. LIMIT THE STORAGE OF EQUIPMENT, MATERIALS, STOCK PILES, ETC. TO ONE (1) CONSTRUCTION WEEK ALONG CONSTRUCTION ROUTE AND WITHIN THE PUBLIC RIGHT OF WAY.</div><div>3. WHEN TUNNELING OR AUGURING IS SHOWN IN PLANS, ACCESS (OPEN CUT) FROM SURFACE IS DENIED. THE EXCEPTION TO THIS RESTRICTION IS FOR EMERGENCY SITUATIONS WHERE ACTION IS REQUIRED TO SAFE GUARD THE WORK IN PROGRESS OR OTHER EXISTING UTILITIES. IN THIS CASE, OWNER IS TO BE IMMEDIATELY NOTIFIED OF ADDITIONAL TRAFFIC CONTROL PROCEDURES AND ANY OTHER NECESSARY ACTIONS THAT WILL BE TAKEN UNTIL THE SITUATION HAS BEEN RECTIFIED.</div></div></div><tr><td colspan="10"><div><div><div><div>TRAFFIC NOTES (WHERE APPLICABLE)</div><div><div>1. CONTRACTOR MUST NOTIFY BUSINESSES AND RESIDENTS IMPACTED BY CONSTRUCTION AT LEAST ONE WEEK PRIOR TO CONSTRUCTION START IN THEIR AREA.</div><div>2. A NOTICE, PREPARED BY THE CONTRACTOR AND APPROVED BY THE OWNER, SHALL BE HAND DELIVERED BY THE CONTRACTOR TO ALL RESIDENTS WITHIN THE VICINITY OF CONSTRUCTION NOTIFYING THEM OF THE PROPOSED CONSTRUCTION AND POSSIBLE DISRUPTIONS IN SERVICE TO WATER, SEWER, ROADS, ACCESS, ETC. NOTICE SHALL INCLUDE DATES AND NUMBERS TO CONTACT IN CASE OF ANY QUESTIONS.</div><div>3. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS TO DETERMINE AN APPROPRIATE TIME TO CROSS DRIVEWAYS AND PROVIDE ALTERNATE MEANS OF ACCESS DURING CONSTRUCTION ACTIVITIES IN ONE OR MORE OF THE FOLLOWING METHODS: (1) ANCHORED ½" STEEL PLATES (2) BACKFILLING IMMEDIATELY AFTER CONSTRUCTION AND PLACING CALICHE SURFACE FOR TEMPORARY DRIVEWAY PURPOSES. COST FOR MAINTAINING ACCESS SHALL BE CONSIDERED INCIDENTAL TO THE PRICE BID PER LINEAR FOOT OF UTILITY LINE CONSTRUCTION.</div><div>4. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD), LATEST EDITION, DURING CONSTRUCTION.</div><div>5. WHEN APPLICABLE, CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS SIGNAL OPERATION AT SIGNALIZED INTERSECTIONS, FOR ADJUSTING AND/OR RELOCATING EXISTING TRAFFIC SIGNAL EQUIPMENT OR PROVIDING, INSTALLING, AND MAINTAINING TEMPORARY SIGNAL EQUIPMENT AS NEEDED FOR CONSTRUCTION AND TO PROVIDE LINE-OF-SIGHT SIGNAL INDICATIONS, AND FOR IMMEDIATELY REPLACING AND/OR REPAIRING ANY TRAFFIC SIGNAL EQUIPMENT, CABLES, OR CONDUIT THAT IS CUT OR DAMAGED.</div><div>6. WHEN APPLICABLE, THE CONTRACTOR SHALL REMOVE EXISTING PAVEMENT MARKINGS WHICH COULD CAUSE DRIVERS CONFUSION IN DIVERSION AND MERGING ZONES BY GRINDING, BLAST CLEANING, OR OTHER METHOD APPROVED BY THE OWNER. THE CONTRACTOR SHALL RESTORE THESE MARKINGS WHEN TEMPORARY DIVERSIONS ARE NO LONGER NEEDED. THE NEW PAVEMENT MARKINGS SHALL BE DURABLE AND REFLECTIVE, AND SHALL MATCH THE LOCATION OF THE MARKINGS REMOVED, UNLESS OTHERWISE SPECIFIED.</div><div>7. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN SAFETY FENCES AND BARRICADES AT ALL TIMES AT EACH SITE WHERE PEDESTRIAN TRAFFIC IS EVIDENT.</div><div>8. CONSTRUCTION WARNING SIGNS AND END OF CONSTRUCTION SIGNS SHALL BE PLACED AT PROJECT LIMITS AND SHALL REMAIN IN PLACE THROUGHOUT THE DURATION OF THE CONSTRUCTION.</div><div>9. CONTRACTOR SHALL MAINTAIN TRAFFIC IN EACH DIRECTION BY MEANS OF FLAGMEN OR DETOUR DURING WORKING HOURS.</div><div>10. FLAGMEN ARE REQUIRED TO DIRECT TRAFFIC WHERE TRAFFIC LANES ARE BLOCKED.</div><div>11. CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER SUCH THAT TRUCKS AND OTHER VEHICLES DO NOT CREATE A DIRT/DUST NUISANCE OR SAFETY HAZARD IN ANY STREETS, PUBLIC OR PRIVATE.</div><div>12. CONTRACTOR SHALL NOTIFY TXDOT PRIOR TO BEGINNING WORK ALONG ALL TXDOT RIGHT-OF-WAYS.</div></div></div><div>DRAINAGE NOTES (WHERE APPLICABLE)</div><div><div>1. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE OWNER.</div><div>2. NO EXCESS EXCAVATED MATERIAL SHALL BE DEPOSITED IN LOW AREAS OR ALONG NATURAL DRAINAGE WAYS, UNLESS SPECIFICALLY AUTHORIZED BY OWNER IN WRITING.</div></div><div>STREET AND BRIDGE NOTES (WHERE APPLICABLE)</div><div><div>1. CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY, UPON COMPLETION OF THE JOB, SHALL BE AS GOOD AS OR BETTER THAN PRIOR TO STARTING WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ALL EXCAVATED MATERIAL AND DEBRIS FROM THE SITE AT NO ADDITIONAL EXPENSE TO THE OWNER.</div><div>2. EXISTING PAVEMENTS, CURBS, SIDEWALKS AND DRIVEWAYS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO ORIGINAL OR BETTER CONDITION.</div><div>3. SAW CUT WHEN EXCAVATING ANY EXISTING ASPHALT OR CONCRETE PAVEMENT, OR CURB AND GUTTER AT NO ADDITIONAL COST TO THE OWNER.</div></div><div>WATER LINE REQUIREMENTS</div><div><div>1. THE WATER DISTRIBUTION SYSTEM MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT TEXAS COMMISSION OF ENVIRONMENTAL QUALITY (TCEQ) RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS 30 TEXAS ADMINISTRATIVE CODE (TAC) CHAPTER 290 SUBCHAPTER D.</div><div>2. ALL WORK DEFINED AS "PROCESS CONTROL DUTIES" PER 30 TAC 290.38(67) SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A COMPETENT INDIVIDUAL WITH A TCEQ WATER LICENSE, CLASS D OR HIGHER. "PROCESS CONTROL DUTIES" ARE GENERALLY DEFINED AS ANY ACTIVITIES ON AN EXISTING OR PROPOSED POTABLE WATER SYSTEM THAT COULD AFFECT THE POTABILITY OF THE PUBLIC DRINKING WATER, AND INCLUDE BUT ARE NOT LIMITED TO: DISINFECTION, SAMPLING AND HOT CONNECTIONS.</div><div>3. WATER MAINS SHALL HAVE A MINIMUM TYPICAL COVER OF 36" AT ALL LOCATIONS. SERVICE LINES SHALL HAVE A MINIMUM TYPICAL COVER OF 36" UNDER PAVEMENT AND 30" IN OTHER AREAS.</div><div>4. ALL NEWLY INSTALLED PIPE AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE/NATIONAL SANITATION FOUNDATION (ANSI/NSF) STANDARD 61 AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI.</div><div>5. NEW WATER MAINS SHALL BE C-900 PVC, DR 18 PIPE. 3" DETECTABLE MARKING TAPE (BLUE, "CAUTION BURIED WATER LINE") SHALL BE PLACED ABOVE NEW WATER MAINS AT 12"-18" COVER. TRACER WIRE SHALL BE PLACED ALONG THE PIPE AS DETAILED IN THE CONSTRUCTION PLAN DRAWINGS.</div><div>6. NEW SINGLE SERVICE LINES SHALL BE 1" HDPE, DR 9. NEW DOUBLE SERVICES SHALL BE 2" HDPE, DR 9, WITH TWO 1" SINGLE SERVICES.</div><div>7. PLASTIC PIPE FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR THE NATIONAL FOUNDATION SEAL OF APPROVAL (NSF-PW) AND HAVE AN ASTM DESIGN PRESSURE RATING OF AT LEAST 150 PSI OR 8 STANDARD DIMENSION RATIO OF 26 OR LESS.</div><div>8. NO PIPE WHICH HAS BEEN USED FOR ANY PURPOSE OTHER THAN THE CONVEYANCE OF DRINKING WATER SHALL BE ACCEPTED OR RELOCATED FOR USE IN ANY PUBLIC DRINKING WATER SUPPLY.</div></div><div>THE HYDROSTATIC LEAKAGE RATE SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY AWWA FORMULA FOR PVC PIPE: $L=(N)(D)(c/P)^{7/400}$.</div><div>10. THE CONTRACTOR SHALL NOT PLACE THE PIPE IN WATER OR WHERE IT CAN BE FLOODED WITH WATER OR SEWAGE DURING ITS STORAGE OR INSTALLATION.</div><div>11. ALIGNMENT AND VERTICAL DEFLECTIONS SHALL BE LIMITED TO 75% OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION, AFTER WHICH MECHANICALLY RESTRAINED DUCTILE IRON FITTINGS SHALL BE USED.</div><div>12. CONTRACTOR IS EXPECTED TO VARY DEPTH OF COVER ON THE PIPE TO PROVIDE SMOOTH TRANSITIONS IN ELEVATION ADJUSTMENT.</div><div>13. THE CONTRACTOR SHALL DISINFECT THE NEW WATER MAINS IN ACCORDANCE WITH AWWA STANDARD C651 AND THEN FLUSH AND SAMPLE THE LINES BEFORE BEING PLACED INTO SERVICE. SAMPLES SHALL BE COLLECTED FOR MICROBIOLOGICAL ANALYSIS TO CHECK EFFECTIVENESS OF THE DISINFECTION PROCEDURE WHICH SHALL BE REPEATED IF CONTAMINATION PERSISTS. A MINIMUM OF ONE SAMPLE FOR EACH 1,000 FEET OF COMPLETED WATER LINE WILL BE REQUIRED OR AT THE NEXT AVAILABLE SAMPLING POINT BEYOND 1,000 FEET AS DESIGNATED BY THE ENGINEER.</div><div>WATER LINE - SANITARY SEWER SEPARATION REQUIREMENTS (WHERE APPLICABLE)</div><div><div>1. THE CONTRACTOR SHALL MAINTAIN A MINIMUM SEPARATION DISTANCE IN ALL DIRECTION OF NINE FEET BETWEEN THE PROPOSED WATER LINE AND WASTEWATER COLLECTION FACILITIES INCLUDING MANHOLES AND SEPTIC TANK DRAIN FIELDS. IF THIS DISTANCE CANNOT BE MAINTAINED, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER FOR FURTHER DIRECTION. SEPARATION DISTANCES, INSTALLATION METHODS, AND MATERIALS UTILIZED MUST MEET §290.44(E) OF THE CURRENT RULES.</div></div><div>ENVIRONMENTAL NOTES</div><div><div>1. IN ACCORDANCE WITH SECTION 404 OF THE CLEAN WATER ACT, THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE UNITED STATES ARMY CORPS OF ENGINEERS NATIONWIDE PERMIT 12 FOR UTILITY LINE ACTIVITIES.</div><div>2. NO ACTIVITY WHICH MAY AFFECT PROPERTIES LISTED OR PROPERTIES ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES OR ELIGIBLE FOR DESIGNATION AS A STATE ARCHEOLOGICAL LANDMARK IS AUTHORIZED UNTIL THE OWNER HAS COMPLIED WITH THE PROVISIONS OF THE NATIONAL HISTORIC PRESERVATION ACT AND THE ANTIQUITIES CODE OF TEXAS. THE OWNER HAS PREVIOUSLY COORDINATED WITH THE APPROPRIATE AGENCIES AND IMPACTS TO KNOWN CULTURAL OR ARCHEOLOGICAL DEPOSITS HAVE BEEN AVOIDED OR MITIGATED. HOWEVER, THE CONTRACTOR MAY ENCOUNTER UNANTICIPATED CULTURAL OR ARCHEOLOGICAL DEPOSITS DURING CONSTRUCTION. IF ARCHEOLOGICAL SITES OR HISTORIC STRUCTURES WHICH MAY QUALIFY FOR DESIGNATION AS A STATE ARCHEOLOGICAL LANDMARK ACCORDING TO THE CRITERIA IN 13 TAC 41.6 - 41.10, OR THAT MAY BE ELIGIBLE FOR LISTING ON THE NATIONAL REGISTER OF HISTORIC PLACES IN ACCORDANCE WITH 36 CFR PART 800, ARE DISCOVERED AFTER CONSTRUCTION OPERATIONS ARE BEGUN, THE CONTRACTOR SHALL IMMEDIATELY CEASE OPERATIONS IN THAT PARTICULAR AREA AND NOTIFY THE OWNER, AND THE TEXAS HISTORICAL COMMISSION (THC), 1511 N. COLORADO ST., P.O. BOX 12276, CAPITOL STATION, AUSTIN, TEXAS 78711-2276. THE CONTRACTOR SHALL TAKE REASONABLE STEPS TO PROTECT AND PRESERVE THE DISCOVERIES UNTIL THEY HAVE BEEN INSPECTED BY THE OWNER'S REPRESENTATIVE. THE OWNER WILL PROMPTLY COORDINATE WITH THE THC'S STATE HISTORIC PRESERVATION OFFICER AND ANY OTHER APPROPRIATE AGENCIES TO OBTAIN ANY NECESSARY APPROVALS OR PERMITS TO ENABLE THE WORK TO CONTINUE. THE CONTRACTOR SHALL NOT RESUME WORK IN THE AREA OF THE DISCOVERY UNTIL AUTHORIZED TO DO SO BY THE OWNER.</div><div>3. NO ACTIVITY IS AUTHORIZED THAT IS LIKELY TO JEOPARDIZE THE CONTINUED EXISTENCE OF A THREATENED OR ENDANGERED SPECIES AS LISTED OR PROPOSED FOR LISTING UNDER THE FEDERAL ENDANGERED SPECIES ACT (ESA), AND/OR THE STATE OF TEXAS PARKS AND WILDLIFE CODE ON ENDANGERED SPECIES, OR TO DESTROY OR ADVERSELY MODIFY THE HABITAT OF SUCH SPECIES. IF A THREATENED OR ENDANGERED SPECIES IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY CEASE WORK IN THE AREA OF THE ENCOUNTER AND NOTIFY THE OWNER, WHO WILL IMMEDIATELY IMPLEMENT ACTIONS IN ACCORDANCE WITH THE ESA AND APPLICABLE STATE STATUTES. THESE ACTIONS SHALL INCLUDE REPORTING THE ENCOUNTER TO THE U. S. FISH AND WILDLIFE SERVICE, AND THE TEXAS PARKS AND WILDLIFE DEPARTMENT. OBTAINING ANY NECESSARY APPROVALS OR PERMITS TO ENABLE THE WORK TO CONTINUE, OR IMPLEMENT OTHER MITIGATION ACTIONS, THE CONTRACTOR SHALL NOT RESUME CONSTRUCTION IN THE AREA OF THE ENCOUNTER UNTIL AUTHORIZED TO DO SO BY THE OWNER.</div></div><div>ELECTRICAL NOTES (WHERE APPLICABLE)</div><div><div>1. WARNING: OVERHEAD LINES MAY EXIST WITHIN THE PROJECT LIMITS. SINCE THEY ARE CLEARLY VISIBLE, NOT ALL MAY BE MARKED ON THE PLANS. THE CONTRACTOR SHOULD LOCATE ALL OVERHEAD UTILITIES PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, FORBIDS ALL ACTIVITIES IN WHICH PERSONS OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES. CONTRACTORS ARE LEGALLY RESPONSIBLE FOR SAFETY AND CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR MOVED CALL THE APPROPRIATE UTILITY OWNER.</div><div>2. HAND DIG WITHIN ONE (1) FOOT OF UNDERGROUND CONDUIT OR CABLE.</div></div><div>GAS NOTES (WHERE APPLICABLE)</div><div><div>1. CAUTION: UNDERGROUND GAS FACILITIES; LOCATION OF GAS LINES (TO INCLUDE UNIT GAS TRANSMISSION, AND/OR INDUSTRIAL GAS SUPPLY CORPORATION WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN. THE CONTRACTOR SHALL CONTACT TEXAS ONE-CALL AT 1-800-645-6005 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK AND AGREE TO BE FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES. HAND DIG WITHIN ONE (1) FOOT OF UNDERGROUND GAS LINES.</div></div><div>TELEPHONE (WHERE APPLICABLE)</div><div><div>1. THE LOCATIONS OF TELEPHONE CO. UTILITIES ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.</div><div>2. HAND DIG WITHIN ONE (1) FOOT OF UNDERGROUND CONDUIT CABLE SYSTEMS OR MANHOLES.</div><div>3. TAKE EXTRA PRECAUTION WHEN EXCAVATING NEAR TELEPHONE POLES TO PREVENT LOSS OF SOIL SUPPORT FOR POLE STRUCTURE.</div><div>4. COORDINATE ANY CONFLICT WITH TELEPHONE COMPANY REPRESENTATIVES AND PROVIDE NECESSARY SUPPORT FOR TELEPHONE CABLE AS INSTRUCTED BY TELEPHONE COMPANY. NO SEPARATE PAYMENT WILL BE MADE FOR SUCH WORK.</div></div><div>DEMOLITION NOTES (WHERE APPLICABLE)</div><div><div>1. UNLESS OTHERWISE NOTED, VAULTS AND VALVE BOXES TO BE REMOVED MAY BE REMOVED TO 3'-0" BELOW FINISHED GRADE, WITH THE REMAINDER BEING LEFT IN PLACE, BACKFILL WITH SAND OR SOIL IN 8" LIFTS, COMPACTING TO MATCH SURROUNDING GRADE. RESTORE GROUND SURFACE TO MATCH SURROUNDINGS.</div></div></div><tr><td>NO.</td><td>REVISION</td><td>DATE</td><td>07/19/2024</td><td> </td><td> Enprotec Hibbs & Todd 402 Cedar Street • Abilene, Texas 79601 • T: (325) 698-5560 • F: (325) 690-3240 • www.e-h-t.com PE Firm Registration No. 1151 • PG Firm Registration No. 50103 • RPLS Firm Registration No. 10011900</td><td> BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.</td><td>DESIGNED BY J. MORALES</td><td>SCALE NO SCALE</td><td colspan="2">WATER LINE RELOCATION TRENT, TAYLOR COUNTY, TEXAS</td><td>PROJECT NO.: 8640</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>DRAWN BY D. BORCIK</td><td>DATE 07/19/2024</td><td colspan="2">GENERAL NOTES</td><td>SHEET No. 02</td></tr><tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td><td>G</td><td>H</td><td>I</td><td></td></tr></div></td></tr></div>										<div><div><div><div>TRAFFIC NOTES (WHERE APPLICABLE)</div><div><div>1. CONTRACTOR MUST NOTIFY BUSINESSES AND RESIDENTS IMPACTED BY CONSTRUCTION AT LEAST ONE WEEK PRIOR TO CONSTRUCTION START IN THEIR AREA.</div><div>2. A NOTICE, PREPARED BY THE CONTRACTOR AND APPROVED BY THE OWNER, SHALL BE HAND DELIVERED BY THE CONTRACTOR TO ALL RESIDENTS WITHIN THE VICINITY OF CONSTRUCTION NOTIFYING THEM OF THE PROPOSED CONSTRUCTION AND POSSIBLE DISRUPTIONS IN SERVICE TO WATER, SEWER, ROADS, ACCESS, ETC. NOTICE SHALL INCLUDE DATES AND NUMBERS TO CONTACT IN CASE OF ANY QUESTIONS.</div><div>3. 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WHEN APPLICABLE, CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS SIGNAL OPERATION AT SIGNALIZED INTERSECTIONS, FOR ADJUSTING AND/OR RELOCATING EXISTING TRAFFIC SIGNAL EQUIPMENT OR PROVIDING, INSTALLING, AND MAINTAINING TEMPORARY SIGNAL EQUIPMENT AS NEEDED FOR CONSTRUCTION AND TO PROVIDE LINE-OF-SIGHT SIGNAL INDICATIONS, AND FOR IMMEDIATELY REPLACING AND/OR REPAIRING ANY TRAFFIC SIGNAL EQUIPMENT, CABLES, OR CONDUIT THAT IS CUT OR DAMAGED.</div><div>6. WHEN APPLICABLE, THE CONTRACTOR SHALL REMOVE EXISTING PAVEMENT MARKINGS WHICH COULD CAUSE DRIVERS CONFUSION IN DIVERSION AND MERGING ZONES BY GRINDING, BLAST CLEANING, OR OTHER METHOD APPROVED BY THE OWNER. THE CONTRACTOR SHALL RESTORE THESE MARKINGS WHEN TEMPORARY DIVERSIONS ARE NO LONGER NEEDED. THE NEW PAVEMENT MARKINGS SHALL BE DURABLE AND REFLECTIVE, AND SHALL MATCH THE LOCATION OF THE MARKINGS REMOVED, UNLESS OTHERWISE SPECIFIED.</div><div>7. 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NO PIPE WHICH HAS BEEN USED FOR ANY PURPOSE OTHER THAN THE CONVEYANCE OF DRINKING WATER SHALL BE ACCEPTED OR RELOCATED FOR USE IN ANY PUBLIC DRINKING WATER SUPPLY.</div></div><div>THE HYDROSTATIC LEAKAGE RATE SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY AWWA FORMULA FOR PVC PIPE: $L=(N)(D)(c/P)^{7/400}$.</div><div>10. THE CONTRACTOR SHALL NOT PLACE THE PIPE IN WATER OR WHERE IT CAN BE FLOODED WITH WATER OR SEWAGE DURING ITS STORAGE OR INSTALLATION.</div><div>11. ALIGNMENT AND VERTICAL DEFLECTIONS SHALL BE LIMITED TO 75% OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION, AFTER WHICH MECHANICALLY RESTRAINED DUCTILE IRON FITTINGS SHALL BE USED.</div><div>12. CONTRACTOR IS EXPECTED TO VARY DEPTH OF COVER ON THE PIPE TO PROVIDE SMOOTH TRANSITIONS IN ELEVATION ADJUSTMENT.</div><div>13. THE CONTRACTOR SHALL DISINFECT THE NEW WATER MAINS IN ACCORDANCE WITH AWWA STANDARD C651 AND THEN FLUSH AND SAMPLE THE LINES BEFORE BEING PLACED INTO SERVICE. SAMPLES SHALL BE COLLECTED FOR MICROBIOLOGICAL ANALYSIS TO CHECK EFFECTIVENESS OF THE DISINFECTION PROCEDURE WHICH SHALL BE REPEATED IF CONTAMINATION PERSISTS. A MINIMUM OF ONE SAMPLE FOR EACH 1,000 FEET OF COMPLETED WATER LINE WILL BE REQUIRED OR AT THE NEXT AVAILABLE SAMPLING POINT BEYOND 1,000 FEET AS DESIGNATED BY THE ENGINEER.</div><div>WATER LINE - SANITARY SEWER SEPARATION REQUIREMENTS (WHERE APPLICABLE)</div><div><div>1. THE CONTRACTOR SHALL MAINTAIN A MINIMUM SEPARATION DISTANCE IN ALL DIRECTION OF NINE FEET BETWEEN THE PROPOSED WATER LINE AND WASTEWATER COLLECTION FACILITIES INCLUDING MANHOLES AND SEPTIC TANK DRAIN FIELDS. IF THIS DISTANCE CANNOT BE MAINTAINED, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER FOR FURTHER DIRECTION. SEPARATION DISTANCES, INSTALLATION METHODS, AND MATERIALS UTILIZED MUST MEET §290.44(E) OF THE CURRENT RULES.</div></div><div>ENVIRONMENTAL NOTES</div><div><div>1. IN ACCORDANCE WITH SECTION 404 OF THE CLEAN WATER ACT, THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE UNITED STATES ARMY CORPS OF ENGINEERS NATIONWIDE PERMIT 12 FOR UTILITY LINE ACTIVITIES.</div><div>2. NO ACTIVITY WHICH MAY AFFECT PROPERTIES LISTED OR PROPERTIES ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES OR ELIGIBLE FOR DESIGNATION AS A STATE ARCHEOLOGICAL LANDMARK IS AUTHORIZED UNTIL THE OWNER HAS COMPLIED WITH THE PROVISIONS OF THE NATIONAL HISTORIC PRESERVATION ACT AND THE ANTIQUITIES CODE OF TEXAS. THE OWNER HAS PREVIOUSLY COORDINATED WITH THE APPROPRIATE AGENCIES AND IMPACTS TO KNOWN CULTURAL OR ARCHEOLOGICAL DEPOSITS HAVE BEEN AVOIDED OR MITIGATED. HOWEVER, THE CONTRACTOR MAY ENCOUNTER UNANTICIPATED CULTURAL OR ARCHEOLOGICAL DEPOSITS DURING CONSTRUCTION. IF ARCHEOLOGICAL SITES OR HISTORIC STRUCTURES WHICH MAY QUALIFY FOR DESIGNATION AS A STATE ARCHEOLOGICAL LANDMARK ACCORDING TO THE CRITERIA IN 13 TAC 41.6 - 41.10, OR THAT MAY BE ELIGIBLE FOR LISTING ON THE NATIONAL REGISTER OF HISTORIC PLACES IN ACCORDANCE WITH 36 CFR PART 800, ARE DISCOVERED AFTER CONSTRUCTION OPERATIONS ARE BEGUN, THE CONTRACTOR SHALL IMMEDIATELY CEASE OPERATIONS IN THAT PARTICULAR AREA AND NOTIFY THE OWNER, AND THE TEXAS HISTORICAL COMMISSION (THC), 1511 N. COLORADO ST., P.O. BOX 12276, CAPITOL STATION, AUSTIN, TEXAS 78711-2276. THE CONTRACTOR SHALL TAKE REASONABLE STEPS TO PROTECT AND PRESERVE THE DISCOVERIES UNTIL THEY HAVE BEEN INSPECTED BY THE OWNER'S REPRESENTATIVE. THE OWNER WILL PROMPTLY COORDINATE WITH THE THC'S STATE HISTORIC PRESERVATION OFFICER AND ANY OTHER APPROPRIATE AGENCIES TO OBTAIN ANY NECESSARY APPROVALS OR PERMITS TO ENABLE THE WORK TO CONTINUE. THE CONTRACTOR SHALL NOT RESUME WORK IN THE AREA OF THE DISCOVERY UNTIL AUTHORIZED TO DO SO BY THE OWNER.</div><div>3. NO ACTIVITY IS AUTHORIZED THAT IS LIKELY TO JEOPARDIZE THE CONTINUED EXISTENCE OF A THREATENED OR ENDANGERED SPECIES AS LISTED OR PROPOSED FOR LISTING UNDER THE FEDERAL ENDANGERED SPECIES ACT (ESA), AND/OR THE STATE OF TEXAS PARKS AND WILDLIFE CODE ON ENDANGERED SPECIES, OR TO DESTROY OR ADVERSELY MODIFY THE HABITAT OF SUCH SPECIES. IF A THREATENED OR ENDANGERED SPECIES IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY CEASE WORK IN THE AREA OF THE ENCOUNTER AND NOTIFY THE OWNER, WHO WILL IMMEDIATELY IMPLEMENT ACTIONS IN ACCORDANCE WITH THE ESA AND APPLICABLE STATE STATUTES. THESE ACTIONS SHALL INCLUDE REPORTING THE ENCOUNTER TO THE U. S. FISH AND WILDLIFE SERVICE, AND THE TEXAS PARKS AND WILDLIFE DEPARTMENT. OBTAINING ANY NECESSARY APPROVALS OR PERMITS TO ENABLE THE WORK TO CONTINUE, OR IMPLEMENT OTHER MITIGATION ACTIONS, THE CONTRACTOR SHALL NOT RESUME CONSTRUCTION IN THE AREA OF THE ENCOUNTER UNTIL AUTHORIZED TO DO SO BY THE OWNER.</div></div><div>ELECTRICAL NOTES (WHERE APPLICABLE)</div><div><div>1. WARNING: OVERHEAD LINES MAY EXIST WITHIN THE PROJECT LIMITS. SINCE THEY ARE CLEARLY VISIBLE, NOT ALL MAY BE MARKED ON THE PLANS. THE CONTRACTOR SHOULD LOCATE ALL OVERHEAD UTILITIES PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, FORBIDS ALL ACTIVITIES IN WHICH PERSONS OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES. CONTRACTORS ARE LEGALLY RESPONSIBLE FOR SAFETY AND CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR MOVED CALL THE APPROPRIATE UTILITY OWNER.</div><div>2. HAND DIG WITHIN ONE (1) FOOT OF UNDERGROUND CONDUIT OR CABLE.</div></div><div>GAS NOTES (WHERE APPLICABLE)</div><div><div>1. CAUTION: UNDERGROUND GAS FACILITIES; LOCATION OF GAS LINES (TO INCLUDE UNIT GAS TRANSMISSION, AND/OR INDUSTRIAL GAS SUPPLY CORPORATION WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN. THE CONTRACTOR SHALL CONTACT TEXAS ONE-CALL AT 1-800-645-6005 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK AND AGREE TO BE FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES. HAND DIG WITHIN ONE (1) FOOT OF UNDERGROUND GAS LINES.</div></div><div>TELEPHONE (WHERE APPLICABLE)</div><div><div>1. THE LOCATIONS OF TELEPHONE CO. UTILITIES ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. 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RESTORE GROUND SURFACE TO MATCH SURROUNDINGS.</div></div></div><tr><td>NO.</td><td>REVISION</td><td>DATE</td><td>07/19/2024</td><td> </td><td> Enprotec Hibbs & Todd 402 Cedar Street • Abilene, Texas 79601 • T: (325) 698-5560 • F: (325) 690-3240 • www.e-h-t.com PE Firm Registration No. 1151 • PG Firm Registration No. 50103 • RPLS Firm Registration No. 10011900</td><td> BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.</td><td>DESIGNED BY J. MORALES</td><td>SCALE NO SCALE</td><td colspan="2">WATER LINE RELOCATION TRENT, TAYLOR COUNTY, TEXAS</td><td>PROJECT NO.: 8640</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>DRAWN BY D. BORCIK</td><td>DATE 07/19/2024</td><td colspan="2">GENERAL NOTES</td><td>SHEET No. 02</td></tr><tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td><td>G</td><td>H</td><td>I</td><td></td></tr></div>										NO.	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<div><div><div><div>TRAFFIC NOTES (WHERE APPLICABLE)</div><div><div>1. CONTRACTOR MUST NOTIFY BUSINESSES AND RESIDENTS IMPACTED BY CONSTRUCTION AT LEAST ONE WEEK PRIOR TO CONSTRUCTION START IN THEIR AREA.</div><div>2. A NOTICE, PREPARED BY THE CONTRACTOR AND APPROVED BY THE OWNER, SHALL BE HAND DELIVERED BY THE CONTRACTOR TO ALL RESIDENTS WITHIN THE VICINITY OF CONSTRUCTION NOTIFYING THEM OF THE PROPOSED CONSTRUCTION AND POSSIBLE DISRUPTIONS IN SERVICE TO WATER, SEWER, ROADS, ACCESS, ETC. NOTICE SHALL INCLUDE DATES AND NUMBERS TO CONTACT IN CASE OF ANY QUESTIONS.</div><div>3. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS TO DETERMINE AN APPROPRIATE TIME TO CROSS DRIVEWAYS AND PROVIDE ALTERNATE MEANS OF ACCESS DURING CONSTRUCTION ACTIVITIES IN ONE OR MORE OF THE FOLLOWING METHODS: (1) ANCHORED ½" STEEL PLATES (2) BACKFILLING IMMEDIATELY AFTER CONSTRUCTION AND PLACING CALICHE SURFACE FOR TEMPORARY DRIVEWAY PURPOSES. COST FOR MAINTAINING ACCESS SHALL BE CONSIDERED INCIDENTAL TO THE PRICE BID PER LINEAR FOOT OF UTILITY LINE CONSTRUCTION.</div><div>4. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD), LATEST EDITION, DURING CONSTRUCTION.</div><div>5. WHEN APPLICABLE, CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS SIGNAL OPERATION AT SIGNALIZED INTERSECTIONS, FOR ADJUSTING AND/OR RELOCATING EXISTING TRAFFIC SIGNAL EQUIPMENT OR PROVIDING, INSTALLING, AND MAINTAINING TEMPORARY SIGNAL EQUIPMENT AS NEEDED FOR CONSTRUCTION AND TO PROVIDE LINE-OF-SIGHT SIGNAL INDICATIONS, AND FOR IMMEDIATELY REPLACING AND/OR REPAIRING ANY TRAFFIC SIGNAL EQUIPMENT, CABLES, OR CONDUIT THAT IS CUT OR DAMAGED.</div><div>6. WHEN APPLICABLE, THE CONTRACTOR SHALL REMOVE EXISTING PAVEMENT MARKINGS WHICH COULD CAUSE DRIVERS CONFUSION IN DIVERSION AND MERGING ZONES BY GRINDING, BLAST CLEANING, OR OTHER METHOD APPROVED BY THE OWNER. THE CONTRACTOR SHALL RESTORE THESE MARKINGS WHEN TEMPORARY DIVERSIONS ARE NO LONGER NEEDED. THE NEW PAVEMENT MARKINGS SHALL BE DURABLE AND REFLECTIVE, AND SHALL MATCH THE LOCATION OF THE MARKINGS REMOVED, UNLESS OTHERWISE SPECIFIED.</div><div>7. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN SAFETY FENCES AND BARRICADES AT ALL TIMES AT EACH SITE WHERE PEDESTRIAN TRAFFIC IS EVIDENT.</div><div>8. CONSTRUCTION WARNING SIGNS AND END OF CONSTRUCTION SIGNS SHALL BE PLACED AT PROJECT LIMITS AND SHALL REMAIN IN PLACE THROUGHOUT THE DURATION OF THE CONSTRUCTION.</div><div>9. CONTRACTOR SHALL MAINTAIN TRAFFIC IN EACH DIRECTION BY MEANS OF FLAGMEN OR DETOUR DURING WORKING HOURS.</div><div>10. FLAGMEN ARE REQUIRED TO DIRECT TRAFFIC WHERE TRAFFIC LANES ARE BLOCKED.</div><div>11. CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER SUCH THAT TRUCKS AND OTHER VEHICLES DO NOT CREATE A DIRT/DUST NUISANCE OR SAFETY HAZARD IN ANY STREETS, PUBLIC OR PRIVATE.</div><div>12. CONTRACTOR SHALL NOTIFY TXDOT PRIOR TO BEGINNING WORK ALONG ALL TXDOT RIGHT-OF-WAYS.</div></div></div><div>DRAINAGE NOTES (WHERE APPLICABLE)</div><div><div>1. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE OWNER.</div><div>2. NO EXCESS EXCAVATED MATERIAL SHALL BE DEPOSITED IN LOW AREAS OR ALONG NATURAL DRAINAGE WAYS, UNLESS SPECIFICALLY AUTHORIZED BY OWNER IN WRITING.</div></div><div>STREET AND BRIDGE NOTES (WHERE APPLICABLE)</div><div><div>1. CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY, UPON COMPLETION OF THE JOB, SHALL BE AS GOOD AS OR BETTER THAN PRIOR TO STARTING WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ALL EXCAVATED MATERIAL AND DEBRIS FROM THE SITE AT NO ADDITIONAL EXPENSE TO THE OWNER.</div><div>2. EXISTING PAVEMENTS, CURBS, SIDEWALKS AND DRIVEWAYS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO ORIGINAL OR BETTER CONDITION.</div><div>3. SAW CUT WHEN EXCAVATING ANY EXISTING ASPHALT OR CONCRETE PAVEMENT, OR CURB AND GUTTER AT NO ADDITIONAL COST TO THE OWNER.</div></div><div>WATER LINE REQUIREMENTS</div><div><div>1. THE WATER DISTRIBUTION SYSTEM MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT TEXAS COMMISSION OF ENVIRONMENTAL QUALITY (TCEQ) RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS 30 TEXAS ADMINISTRATIVE CODE (TAC) CHAPTER 290 SUBCHAPTER D.</div><div>2. ALL WORK DEFINED AS "PROCESS CONTROL DUTIES" PER 30 TAC 290.38(67) SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A COMPETENT INDIVIDUAL WITH A TCEQ WATER LICENSE, CLASS D OR HIGHER. "PROCESS CONTROL DUTIES" ARE GENERALLY DEFINED AS ANY ACTIVITIES ON AN EXISTING OR PROPOSED POTABLE WATER SYSTEM THAT COULD AFFECT THE POTABILITY OF THE PUBLIC DRINKING WATER, AND INCLUDE BUT ARE NOT LIMITED TO: DISINFECTION, SAMPLING AND HOT CONNECTIONS.</div><div>3. WATER MAINS SHALL HAVE A MINIMUM TYPICAL COVER OF 36" AT ALL LOCATIONS. SERVICE LINES SHALL HAVE A MINIMUM TYPICAL COVER OF 36" UNDER PAVEMENT AND 30" IN OTHER AREAS.</div><div>4. ALL NEWLY INSTALLED PIPE AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE/NATIONAL SANITATION FOUNDATION (ANSI/NSF) STANDARD 61 AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI.</div><div>5. NEW WATER MAINS SHALL BE C-900 PVC, DR 18 PIPE. 3" DETECTABLE MARKING TAPE (BLUE, "CAUTION BURIED WATER LINE") SHALL BE PLACED ABOVE NEW WATER MAINS AT 12"-18" COVER. TRACER WIRE SHALL BE PLACED ALONG THE PIPE AS DETAILED IN THE CONSTRUCTION PLAN DRAWINGS.</div><div>6. NEW SINGLE SERVICE LINES SHALL BE 1" HDPE, DR 9. NEW DOUBLE SERVICES SHALL BE 2" HDPE, DR 9, WITH TWO 1" SINGLE SERVICES.</div><div>7. PLASTIC PIPE FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR THE NATIONAL FOUNDATION SEAL OF APPROVAL (NSF-PW) AND HAVE AN ASTM DESIGN PRESSURE RATING OF AT LEAST 150 PSI OR 8 STANDARD DIMENSION RATIO OF 26 OR LESS.</div><div>8. NO PIPE WHICH HAS BEEN USED FOR ANY PURPOSE OTHER THAN THE CONVEYANCE OF DRINKING WATER SHALL BE ACCEPTED OR RELOCATED FOR USE IN ANY PUBLIC DRINKING WATER SUPPLY.</div></div><div>THE HYDROSTATIC LEAKAGE RATE SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY AWWA FORMULA FOR PVC PIPE: $L=(N)(D)(c/P)^{7/400}$.</div><div>10. THE CONTRACTOR SHALL NOT PLACE THE PIPE IN WATER OR WHERE IT CAN BE FLOODED WITH WATER OR SEWAGE DURING ITS STORAGE OR INSTALLATION.</div><div>11. ALIGNMENT AND VERTICAL DEFLECTIONS SHALL BE LIMITED TO 75% OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION, AFTER WHICH MECHANICALLY RESTRAINED DUCTILE IRON FITTINGS SHALL BE USED.</div><div>12. CONTRACTOR IS EXPECTED TO VARY DEPTH OF COVER ON THE PIPE TO PROVIDE SMOOTH TRANSITIONS IN ELEVATION ADJUSTMENT.</div><div>13. THE CONTRACTOR SHALL DISINFECT THE NEW WATER MAINS IN ACCORDANCE WITH AWWA STANDARD C651 AND THEN FLUSH AND SAMPLE THE LINES BEFORE BEING PLACED INTO SERVICE. SAMPLES SHALL BE COLLECTED FOR MICROBIOLOGICAL ANALYSIS TO CHECK EFFECTIVENESS OF THE DISINFECTION PROCEDURE WHICH SHALL BE REPEATED IF CONTAMINATION PERSISTS. A MINIMUM OF ONE SAMPLE FOR EACH 1,000 FEET OF COMPLETED WATER LINE WILL BE REQUIRED OR AT THE NEXT AVAILABLE SAMPLING POINT BEYOND 1,000 FEET AS DESIGNATED BY THE ENGINEER.</div><div>WATER LINE - SANITARY SEWER SEPARATION REQUIREMENTS (WHERE APPLICABLE)</div><div><div>1. THE CONTRACTOR SHALL MAINTAIN A MINIMUM SEPARATION DISTANCE IN ALL DIRECTION OF NINE FEET BETWEEN THE PROPOSED WATER LINE AND WASTEWATER COLLECTION FACILITIES INCLUDING MANHOLES AND SEPTIC TANK DRAIN FIELDS. IF THIS DISTANCE CANNOT BE MAINTAINED, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER FOR FURTHER DIRECTION. SEPARATION DISTANCES, INSTALLATION METHODS, AND MATERIALS UTILIZED MUST MEET §290.44(E) OF THE CURRENT RULES.</div></div><div>ENVIRONMENTAL NOTES</div><div><div>1. IN ACCORDANCE WITH SECTION 404 OF THE CLEAN WATER ACT, THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE UNITED STATES ARMY CORPS OF ENGINEERS NATIONWIDE PERMIT 12 FOR UTILITY LINE ACTIVITIES.</div><div>2. NO ACTIVITY WHICH MAY AFFECT PROPERTIES LISTED OR PROPERTIES ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES OR ELIGIBLE FOR DESIGNATION AS A STATE ARCHEOLOGICAL LANDMARK IS AUTHORIZED UNTIL THE OWNER HAS COMPLIED WITH THE PROVISIONS OF THE NATIONAL HISTORIC PRESERVATION ACT AND THE ANTIQUITIES CODE OF TEXAS. THE OWNER HAS PREVIOUSLY COORDINATED WITH THE APPROPRIATE AGENCIES AND IMPACTS TO KNOWN CULTURAL OR ARCHEOLOGICAL DEPOSITS HAVE BEEN AVOIDED OR MITIGATED. HOWEVER, THE CONTRACTOR MAY ENCOUNTER UNANTICIPATED CULTURAL OR ARCHEOLOGICAL DEPOSITS DURING CONSTRUCTION. IF ARCHEOLOGICAL SITES OR HISTORIC STRUCTURES WHICH MAY QUALIFY FOR DESIGNATION AS A STATE ARCHEOLOGICAL LANDMARK ACCORDING TO THE CRITERIA IN 13 TAC 41.6 - 41.10, OR THAT MAY BE ELIGIBLE FOR LISTING ON THE NATIONAL REGISTER OF HISTORIC PLACES IN ACCORDANCE WITH 36 CFR PART 800, ARE DISCOVERED AFTER CONSTRUCTION OPERATIONS ARE BEGUN, THE CONTRACTOR SHALL IMMEDIATELY CEASE OPERATIONS IN THAT PARTICULAR AREA AND NOTIFY THE OWNER, AND THE TEXAS HISTORICAL COMMISSION (THC), 1511 N. COLORADO ST., P.O. BOX 12276, CAPITOL STATION, AUSTIN, TEXAS 78711-2276. THE CONTRACTOR SHALL TAKE REASONABLE STEPS TO PROTECT AND PRESERVE THE DISCOVERIES UNTIL THEY HAVE BEEN INSPECTED BY THE OWNER'S REPRESENTATIVE. 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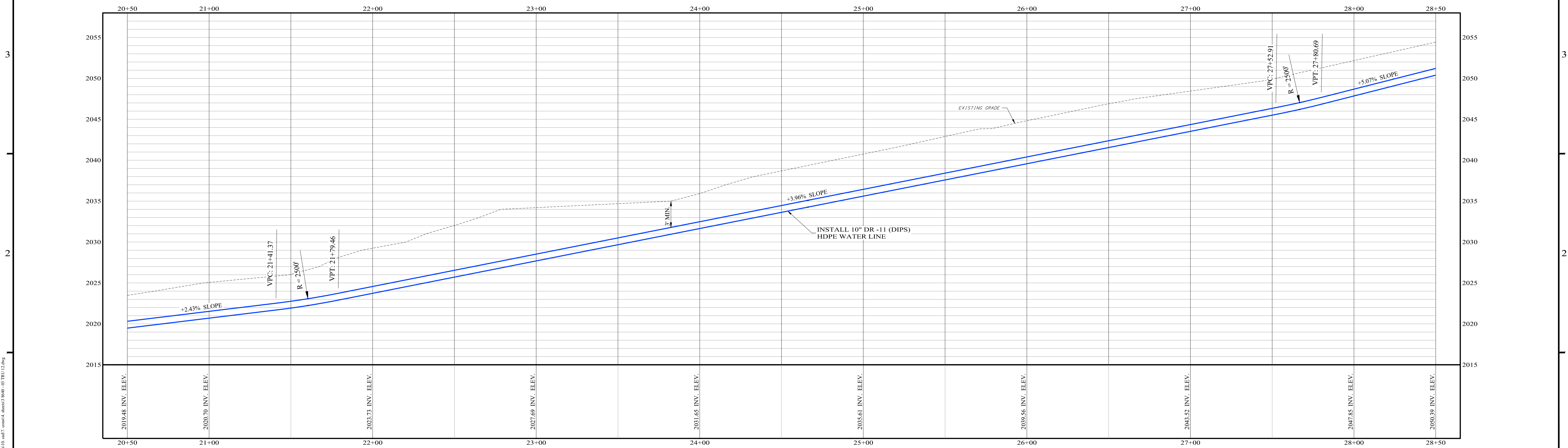
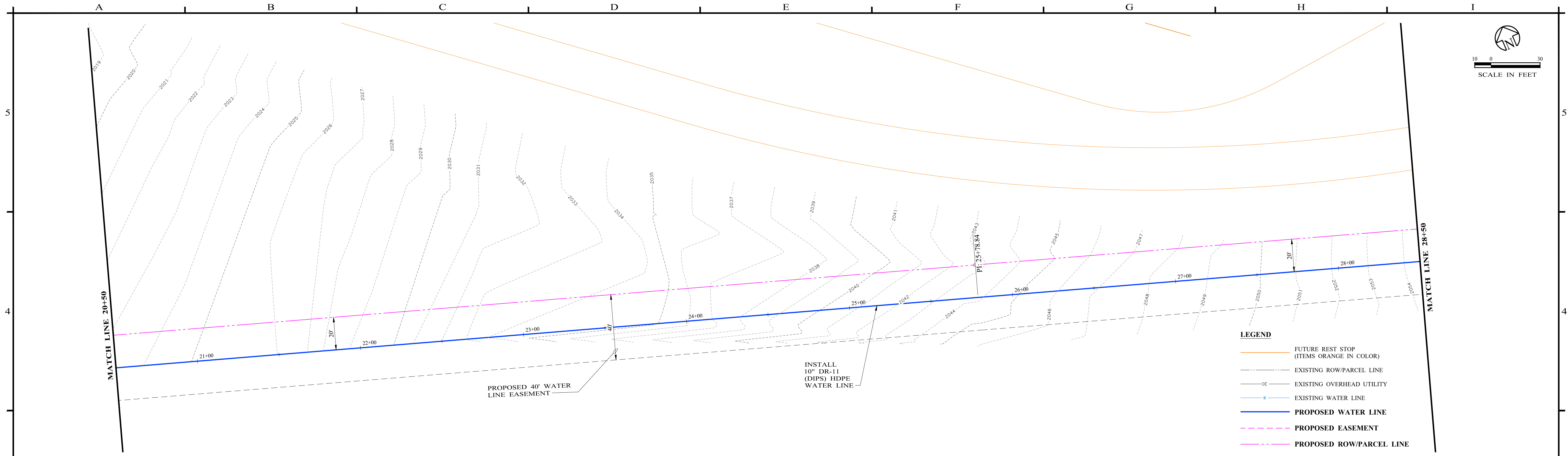


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			DATE 07/19/2024					SHEET No. 04			
			CHECKED BY S. DILLER								

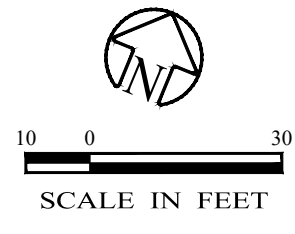
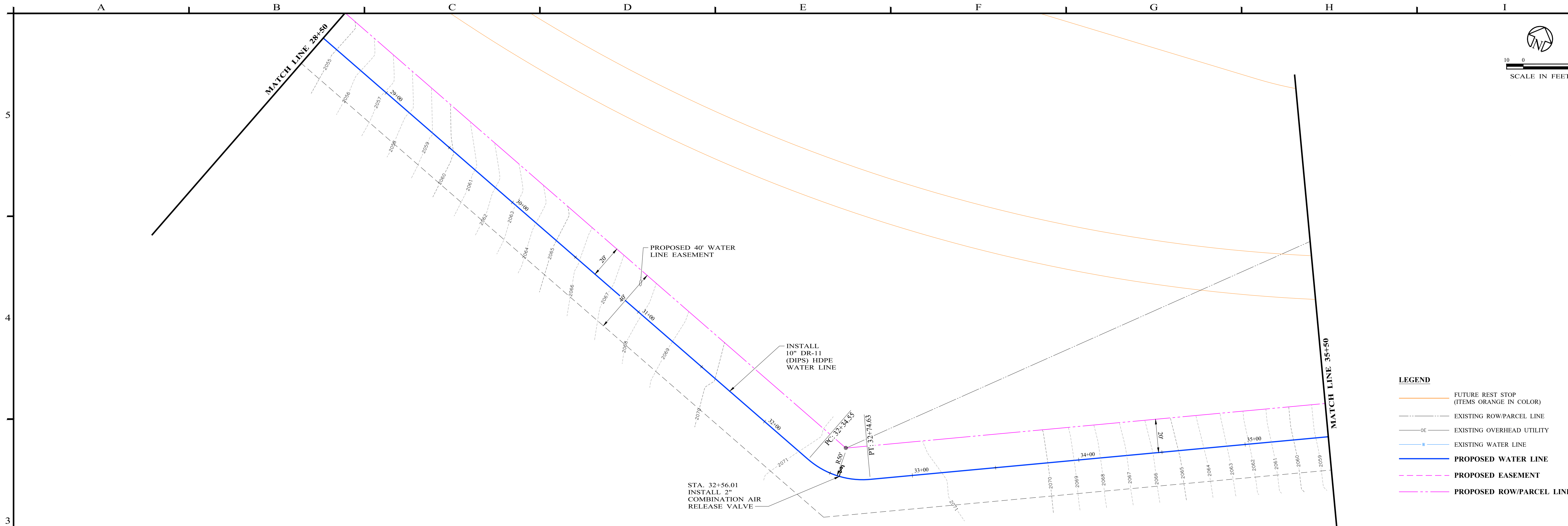


NO.	REVISION	DATE	07/19/2024			DESIGNED BY J. MORALES	SCALE AS NOTED	PROJECT NO.: 8640	
								SHEET No.: 06	
						DRAWN BY D. BORCIK	DATE 07/19/2024	WATER LINE RELOCATION TRENT, TAYLOR COUNTY, TEXAS	

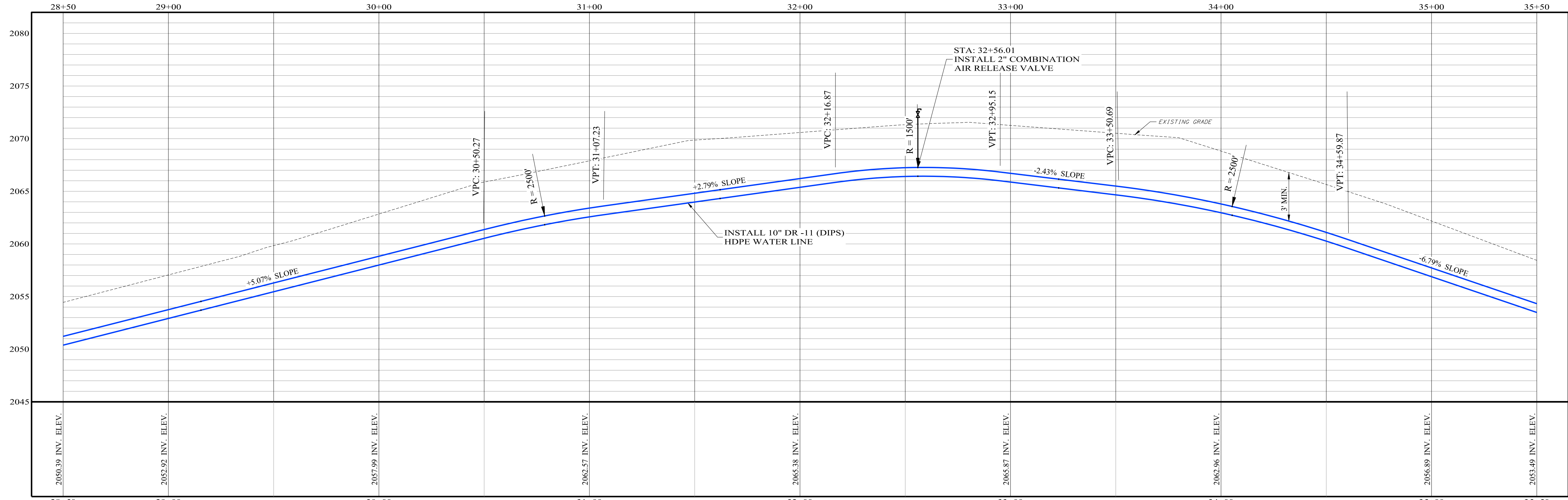
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									DATE 07/19/2024	SHEET No. 07		
WATER LINE RELOCATION TRENT, TAYLOR COUNTY, TEXAS												
PROPOSED UTILITY RELOCATION PLAN AND PROFILE												

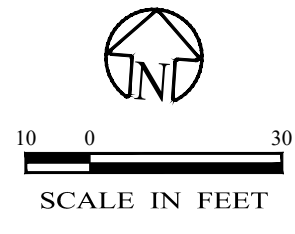
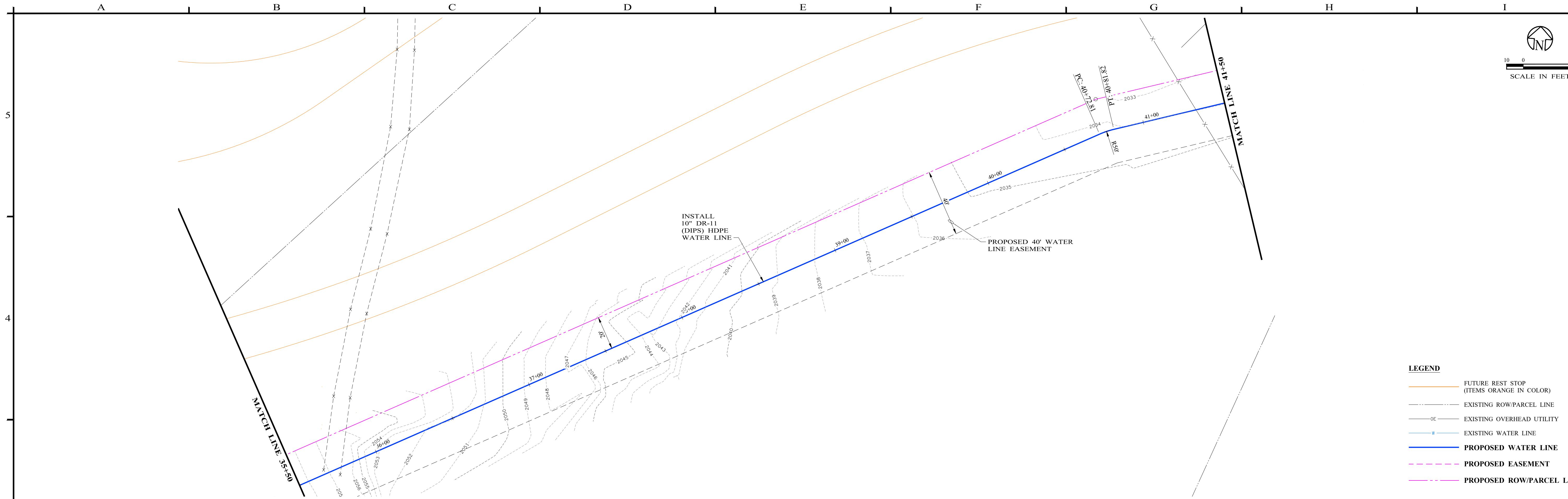


- LEGEND**
- FUTURE REST STOP (ITEMS ORANGE IN COLOR)
 - EXISTING ROW/PARCEL LINE
 - EXISTING OVERHEAD UTILITY
 - EXISTING WATER LINE
 - PROPOSED WATER LINE
 - PROPOSED EASEMENT
 - PROPOSED ROW/PARCEL LINE

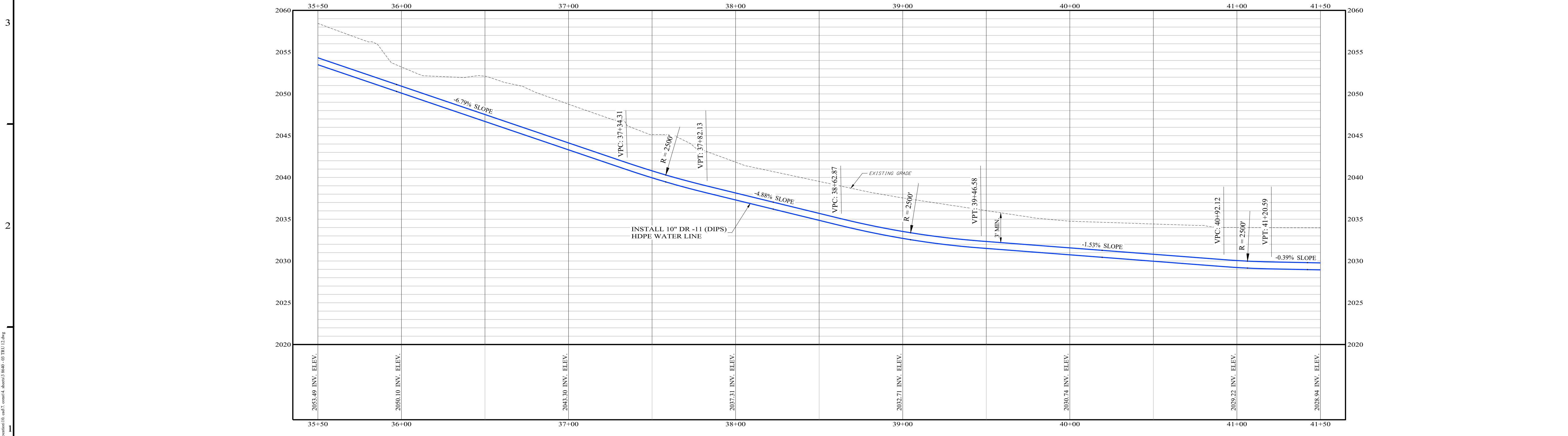


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PROPOSED UTILITY RELOCATION PLAN AND PROFILE											SHEET No. 08	

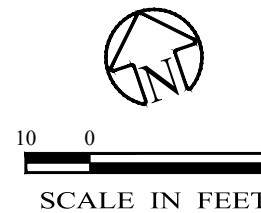
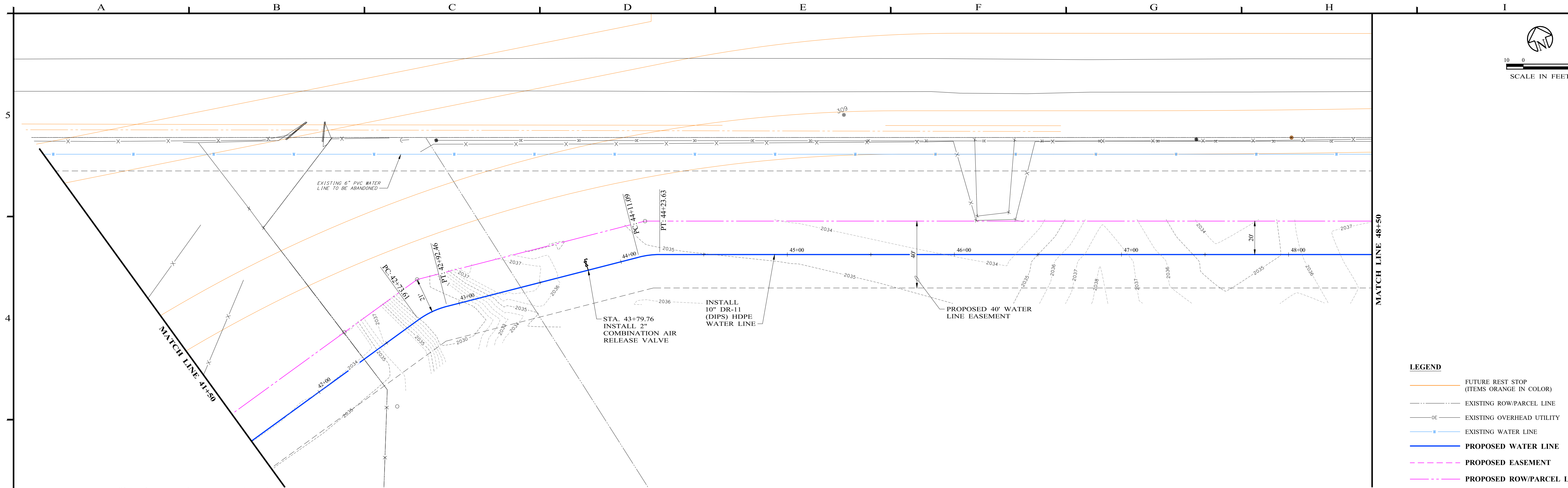
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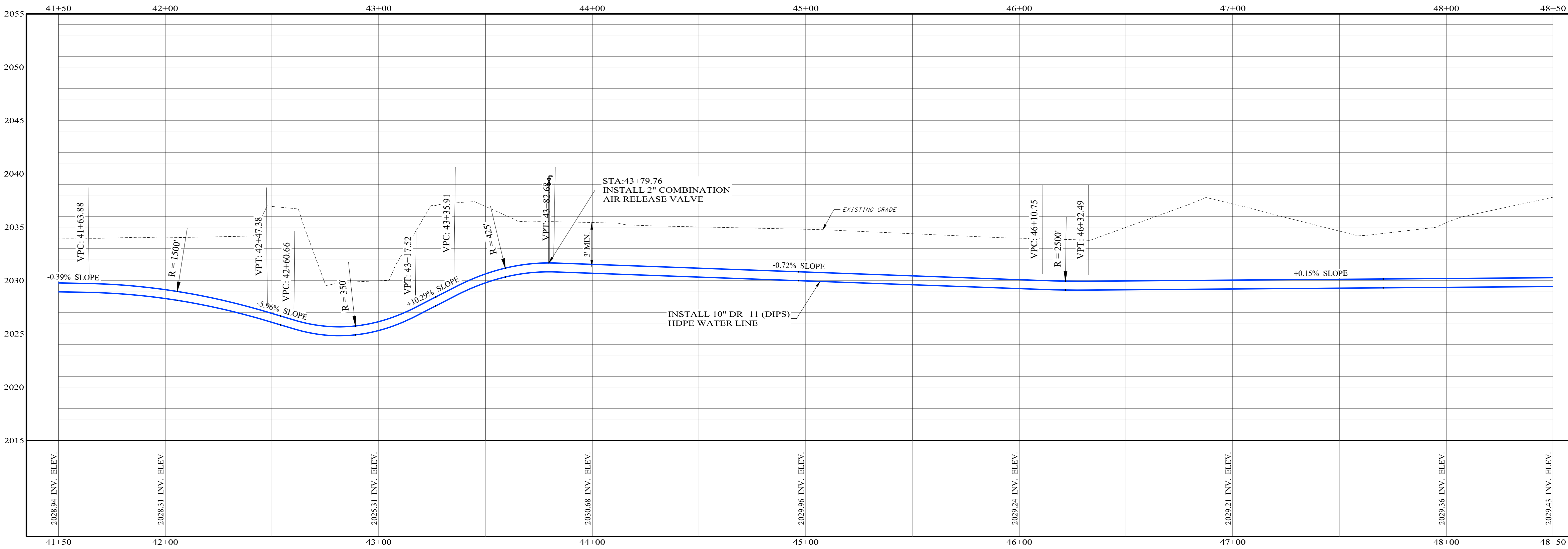
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<table><tr><td>NO.</td><td>REVISION</td><td>DATE</td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table>			NO.	REVISION	DATE																07/19/2024						<p>Enprotec Hibbs & Todd</p> <p>402 Cedar Street • Abilene, Texas 79601 • T: (325) 698-5560 • F: (325) 690-3240 • www.e-ht.com</p> <p>PE Firm Registration No. 1151 • PG Firm Registration No. 50103 • RPLS Firm Registration No. 10011900</p>		<p>BAR IS ONE INCH ON ORIGINAL DRAWING</p> <p>0 1</p> <p>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.</p>		<p>DISCLAIMER:</p> <p>THIS DRAWING IS INTENDED TO BE PRINTED IN COLOR!</p>		<table><tr><td>DESIGNED BY</td><td>SCALE</td></tr><tr><td>J. MORALES</td><td>AS NOTED</td></tr><tr><td>DRAWN BY</td><td>DATE</td></tr><tr><td>D. BORCIK</td><td>07/19/2024</td></tr><tr><td>CHECKED BY</td><td> </td></tr><tr><td>S. DILLER</td><td> </td></tr></table>		DESIGNED BY	SCALE	J. MORALES	AS NOTED	DRAWN BY	DATE	D. BORCIK	07/19/2024	CHECKED BY		S. DILLER		<table><tr><td colspan="2">WATER LINE RELOCATION</td></tr><tr><td colspan="2">TRENT, TAYLOR COUNTY, TEXAS</td></tr><tr><td colspan="2">PROPOSED UTILITY RELOCATION</td></tr><tr><td colspan="2">PLAN AND PROFILE</td></tr></table>		WATER LINE RELOCATION		TRENT, TAYLOR COUNTY, TEXAS		PROPOSED UTILITY RELOCATION		PLAN AND PROFILE		<table><tr><td>PROJECT NO.:</td></tr><tr><td>8640</td></tr><tr><td>SHEET No.</td></tr><tr><td>09</td></tr></table>		PROJECT NO.:	8640	SHEET No.	09
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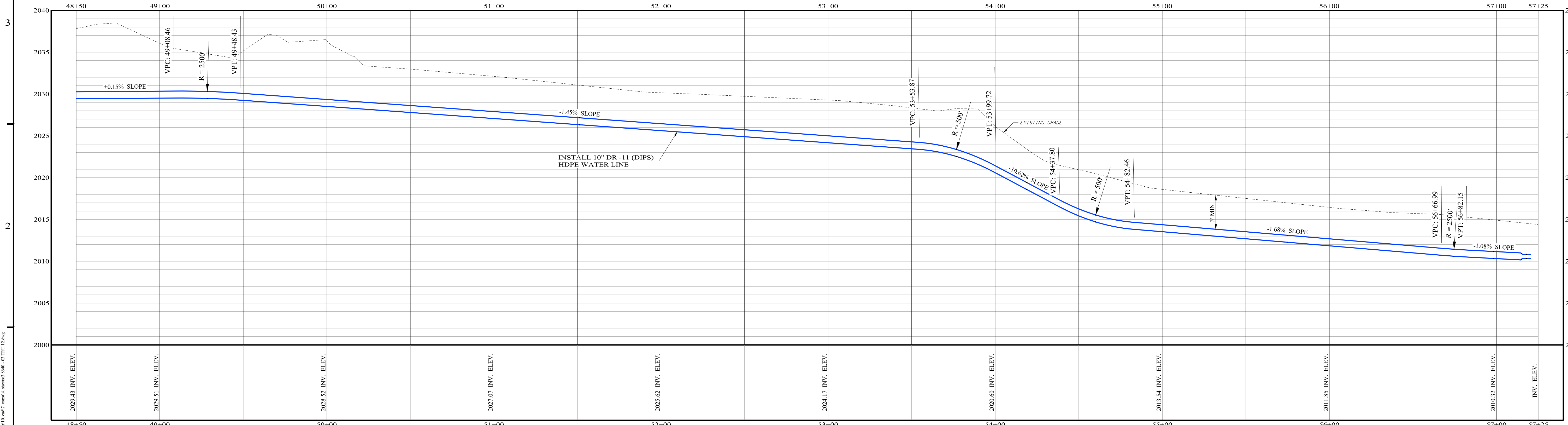
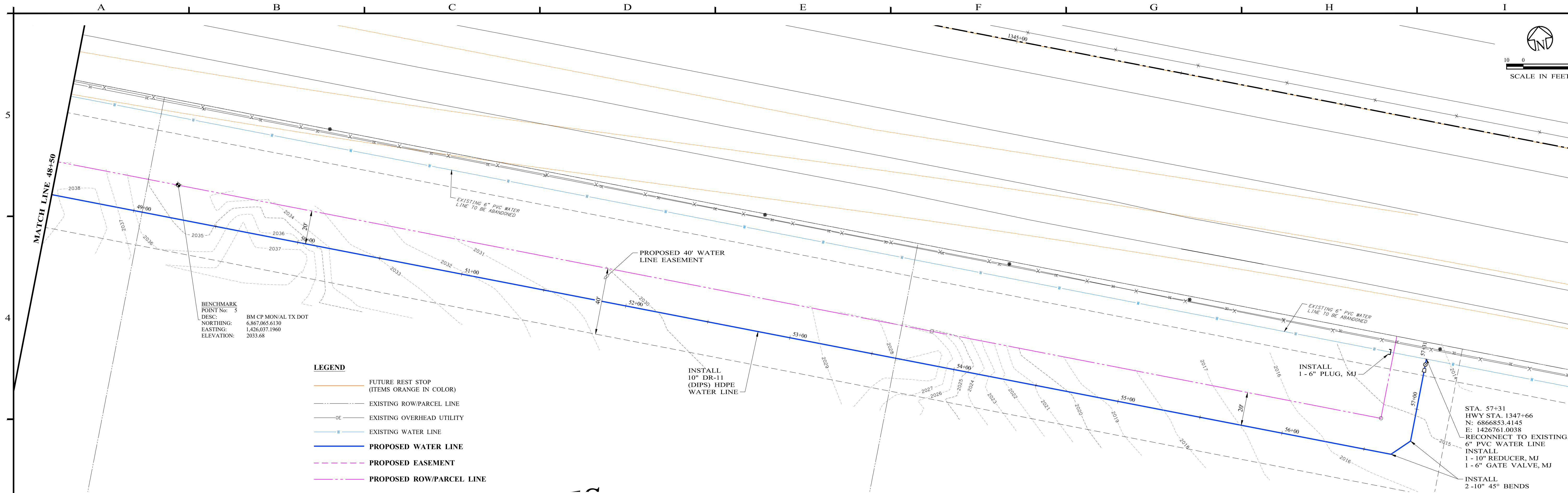


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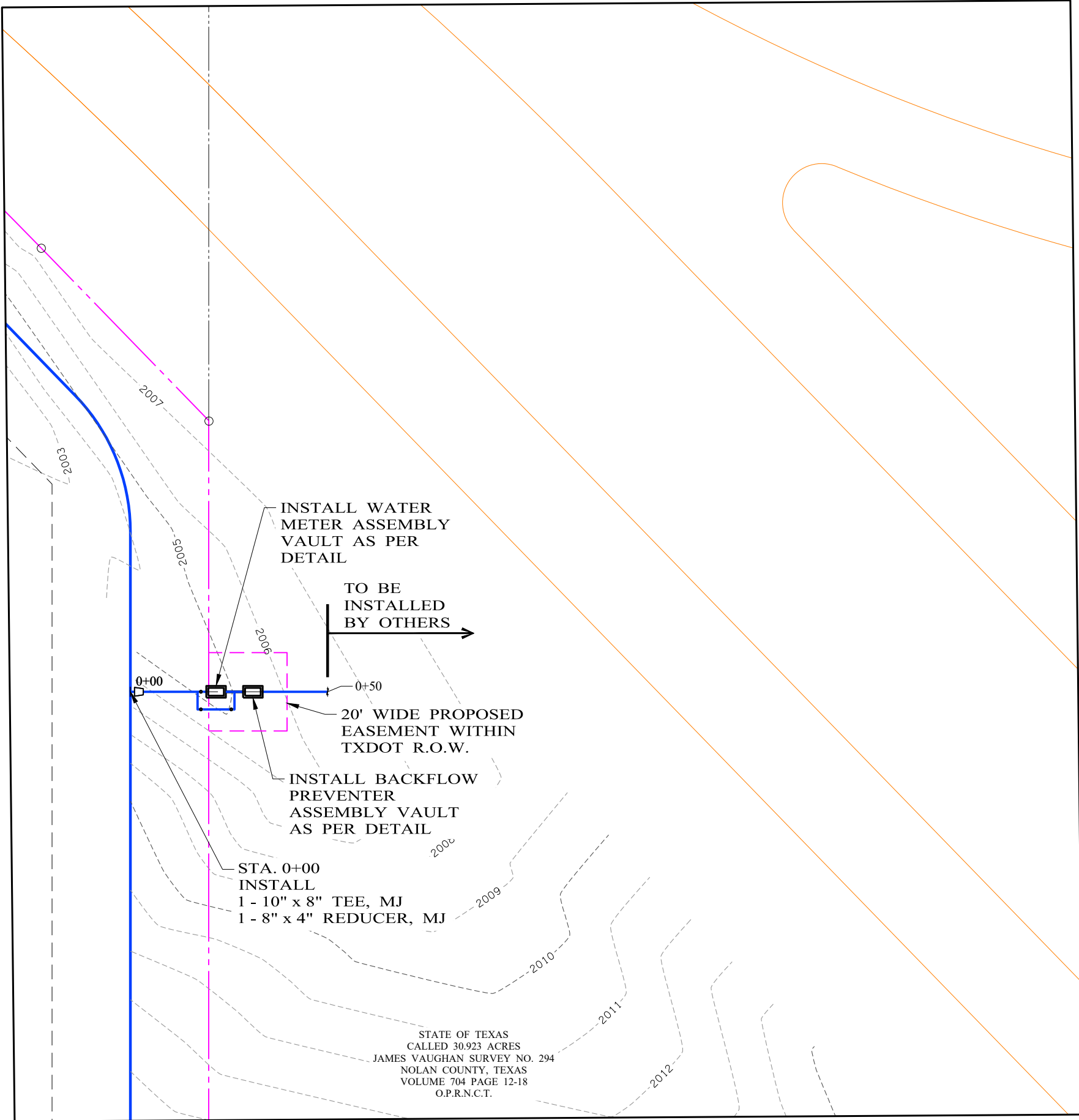


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NO.			REVISION		DATE		07/19/2024		SAGE DILLER 96645 LICENSED PROFESSIONAL ENGINEER		 Enprotec Hibbs & Todd 402 Cedar Street • Abilene, Texas 79601 • T: (325) 698-5560 • F: (325) 690-3240 • www.e-ht.com PE Firm Registration No. 1151 • PG Firm Registration No. 50103 • RPLS Firm Registration No. 10011900		BAR IS ONE INCH ON ORIGINAL DRAWING 0 1 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.		DISCLAIMER: THIS DRAWING IS INTENDED TO BE PRINTED IN COLOR!		DESIGNED BY J. MORALES DRAWN BY D. BORCIK CHECKED BY S. DILLER		SCALE AS NOTED DATE 07/19/2024		WATER LINE RELOCATION TRENT, TAYLOR COUNTY, TEXAS		PROPOSED UTILITY RELOCATION PLAN AND PROFILE		PROJECT NO.: 8640		SHEET No. 10	
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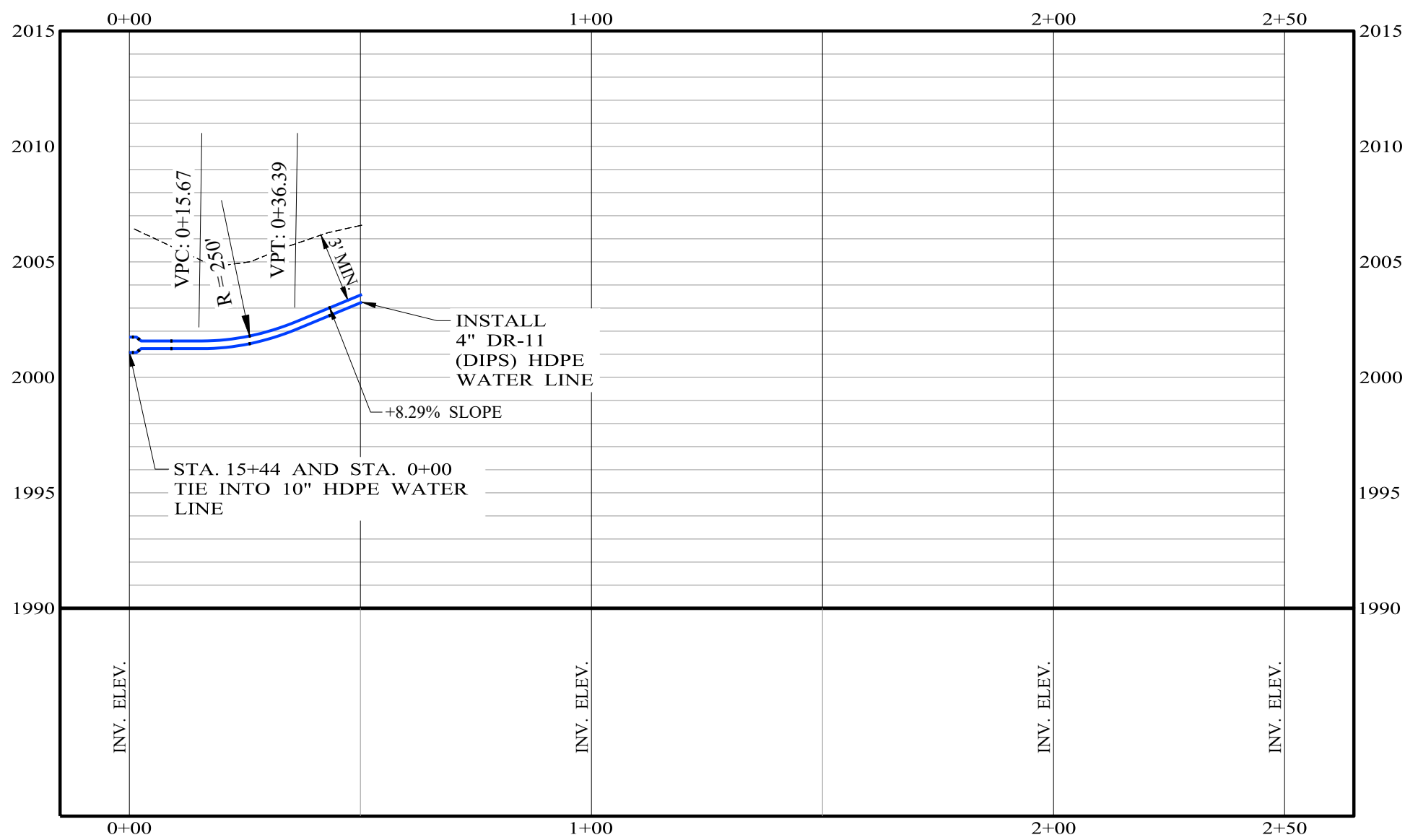
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								CHECKED BY S. DILLER	DATE 07/19/2024	PROPOSED UTILITY RELOCATION PLAN AND PROFILE	SHEET No. 11



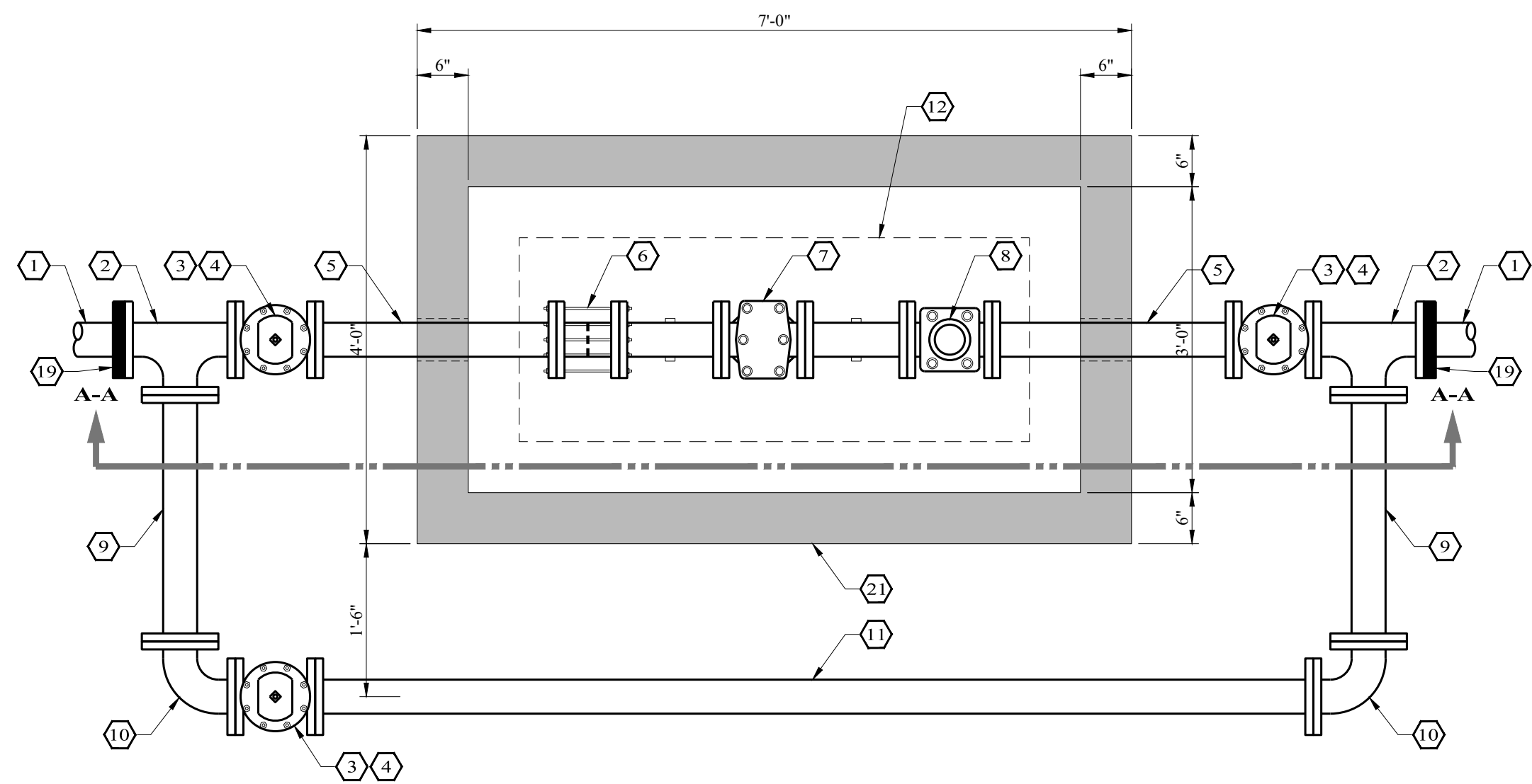
SCALE IN FEET

LEGEND

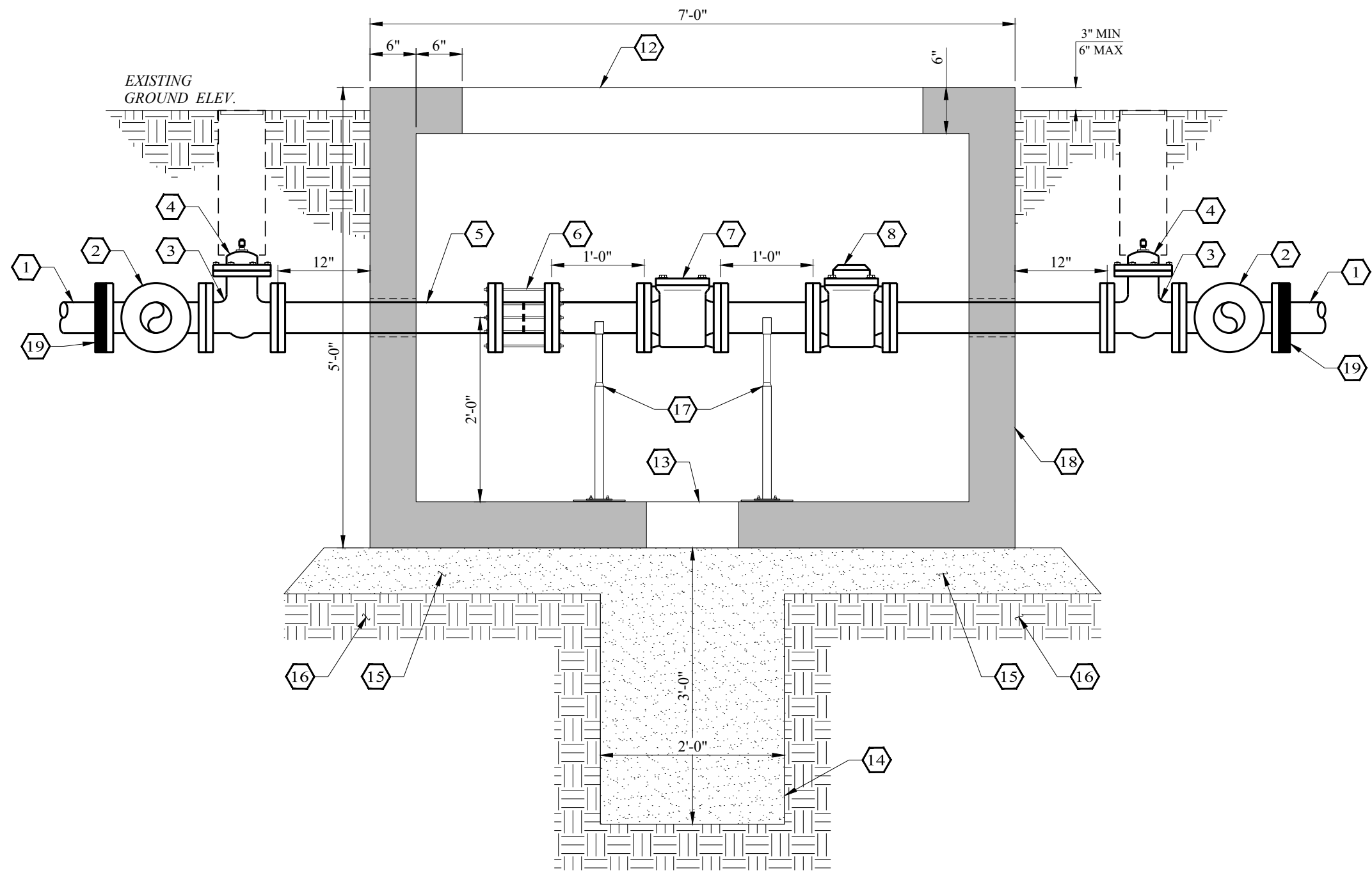
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


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									CHECKED BY S. DILLER	DATE 07/19/2024	PROPOSED WATER SERVICE LINE PLAN & PROFILE	SHEET No. 12	

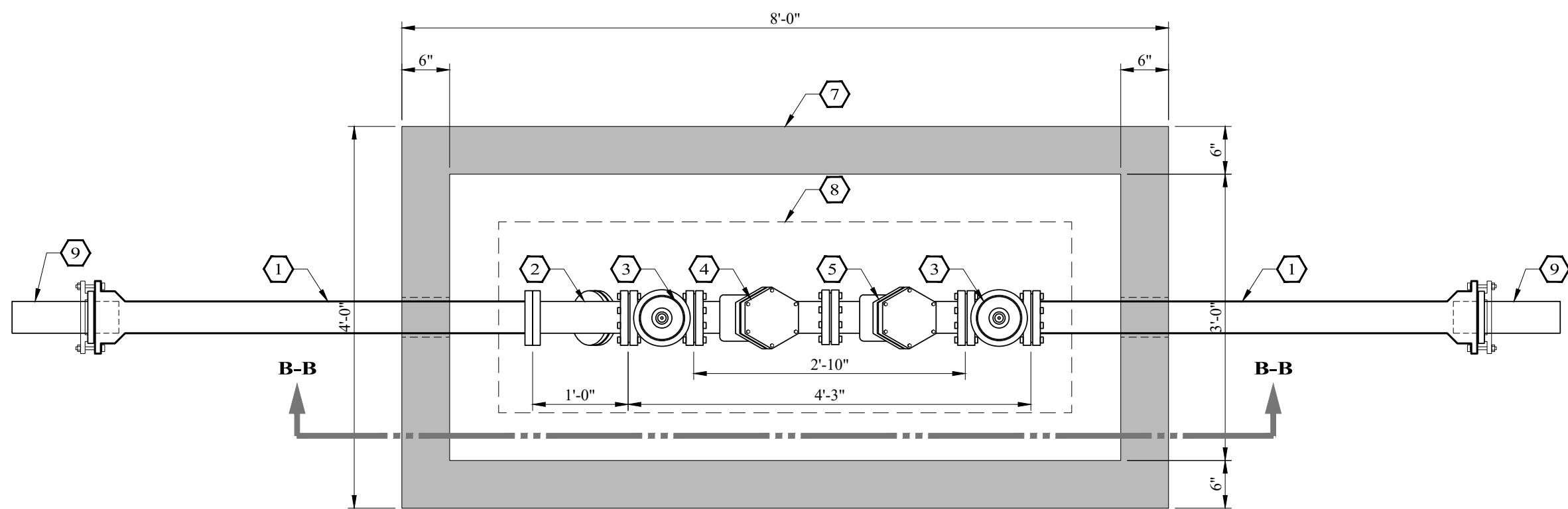


**WATER METER ASSEMBLY
PLAN VIEW**
SCALE: 3/4" = 1'-0"

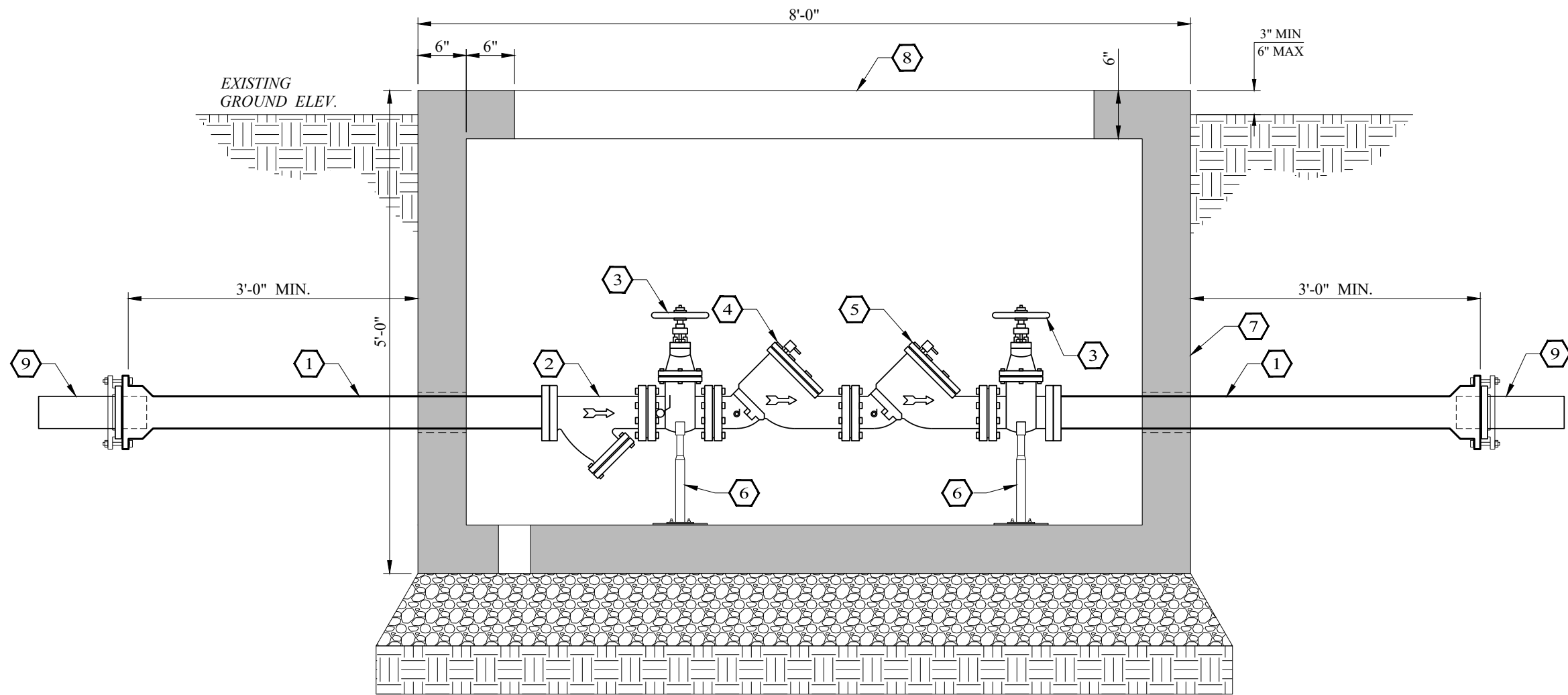



- NOTES INDICATED BY NUMBER IN :
- 4" HDPE PIPE
 - 4" x 4" TEE FL x FL
 - 4" GATE VALVE FL x FL
 - VALVE STACK RISER COVER & LID
 - 4" FL x FL D.I. PIPE SPOOL, LENGTH AS REQ'D
 - 4" FLANGE COUPLING ADAPTER
 - 4" U.L. APPROVED STRAINER (FOR TURBINE)
 - 4" WATER METER AS SPECIFIED
 - 4" FL x FL D.I. PIPE SPOOL, LENGTH AS REQ'D
 - 4" 90° BEND FL x FL
 - 4" FL x FL D.I. PIPE SPOOL, LENGTH AS REQ'D
 - ACCESS HATCH
 - 12" x 12" x 6" SUMP WITH GRATE
 - PEA GRAVEL COLUMN, POSITIONED DIRECTLY BELOW VAULT DRAIN
 - 6" BEDDING SAND
 - COMPACTED SUBGRADE MATERIAL
 - PIPE SUPPORT
 - CONCRETE VAULT
 - HDPE FLANGE ADAPTER

**WATER METER ASSEMBLY
SECTION A-A**
SCALE: 3/4" = 1'-0"



**BACKFLOW PREVENTION ASSEMBLY
PLAN VIEW**
SCALE: 3/4" = 1'-0"



- NOTES INDICATED BY NUMBER IN :
- 4" HDPE PIPE
 - 4" STRAINER
 - 4" GATE VALVE
 - FIRST CHECK ASSEMBLY
 - SECOND CHECK ASSEMBLY
 - PIPE SUPPORT
 - CONCRETE VAULT
 - ACCESS HATCH
 - 4" MJ SLEEVE

**BACKFLOW PREVENTION ASSEMBLY
SECTION B-B**
SCALE: 3/4" = 1'-0"


NO.	REVISION	DATE

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DESIGNED BY
J. MORALES
DRAWN BY
D. BORCIK
CHECKED BY
S. DILLER

SCALE
AS NOTED
DATE
07/19/2024

**WATER LINE RELOCATION
TRENT, TAYLOR COUNTY, TEXAS**

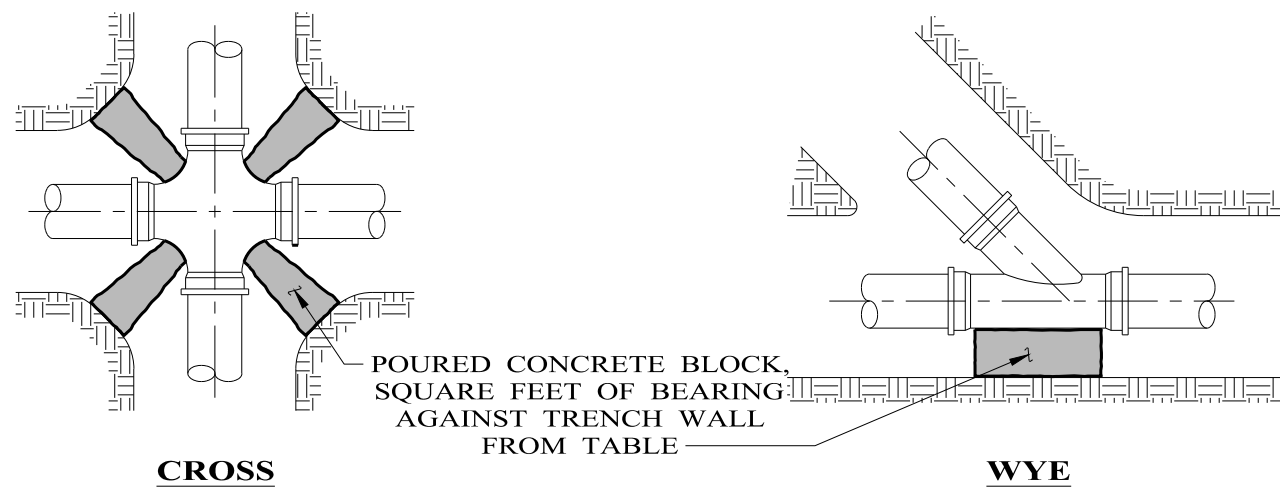
VAULT ASSEMBLY

PROJECT NO.:
8640
SHEET No.
13

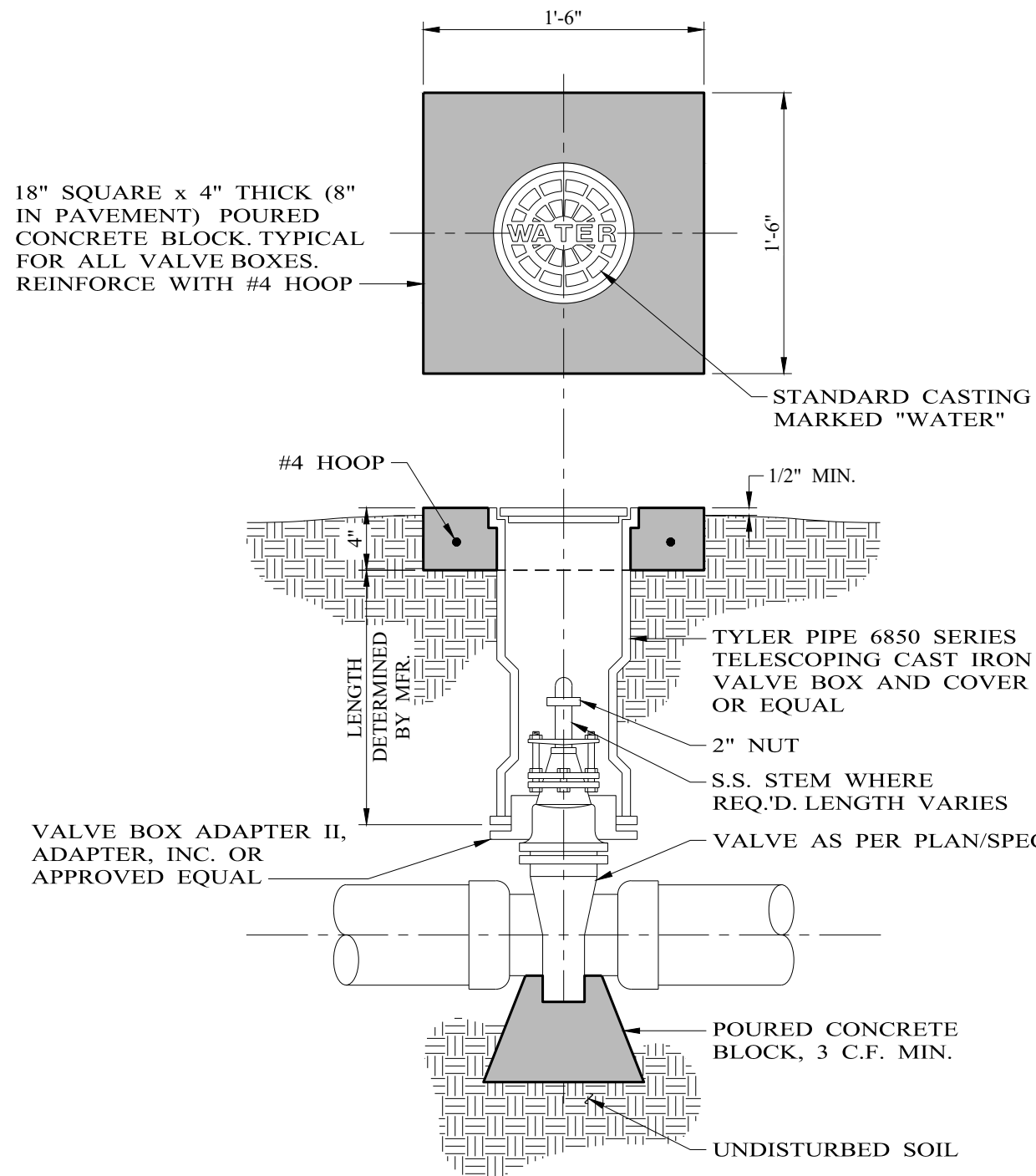
BLOCKING DETAILS TABLE						
PIPE SIZE	CROSS	WYE	TEE	90° BEND	45° BEND	22 1/2° BEND
4"	1.8	1.8	1.8	2.5	1.4	0.7
6"	3.8	3.8	3.8	5.4	2.9	1.5
8"	6.5	6.5	6.5	9.2	4.9	2.5
10"	10.7	10.7	10.7	15.1	8.1	4.2
12"	15.2	15.2	15.2	21.4	11.6	5.9
14"	20.7	20.7	20.7	29.2	15.7	8.1
16"	26.8	26.8	26.8	37.8	20.4	10.5
18"	38.6	38.6	38.6	54.4	29.3	15.1
20"	47.8	47.8	47.8	67.4	36.3	18.6
24"	68.9	68.9	68.9	97.2	52.4	26.9

REQUIRED SQUARE FEET OF BEARING AGAINST TRENCH WALL

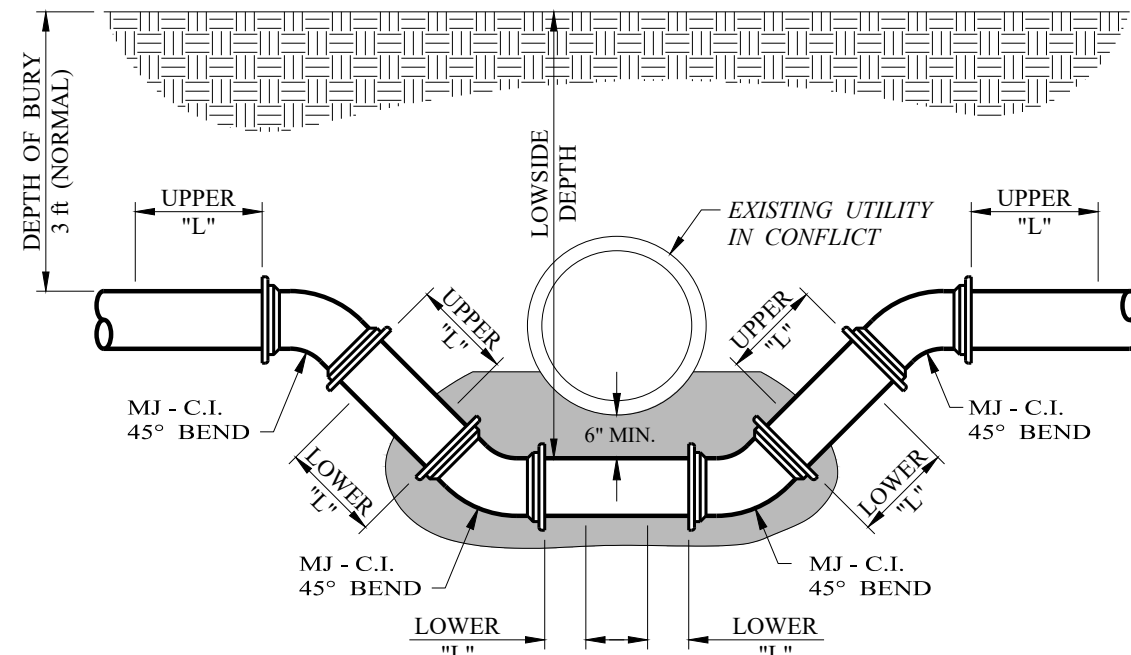
NOTE
ALL CONCRETE SHALL CONTAIN EITHER TYPE I OR TYPE III PORTLAND CEMENT (ASTM C-150), WITH MINIMUM CONTENT OF 5 SACKS PER CUBIC YARD (3000 PSI MINIMUM COMPRESSIVE STRENGTH)



BLOCKING DETAILS

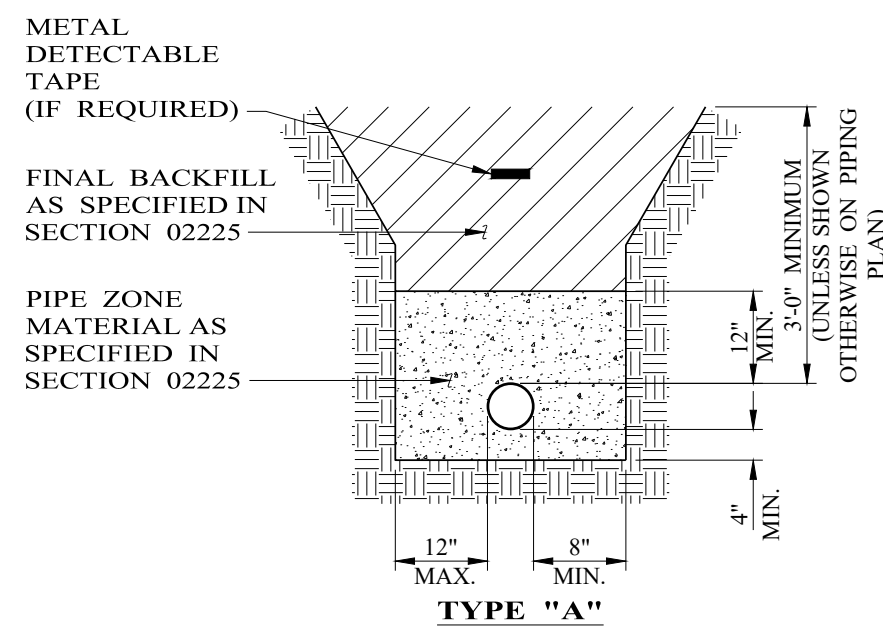


TYPICAL VALVE BOX AND BLOCKING DETAIL
NO SCALE

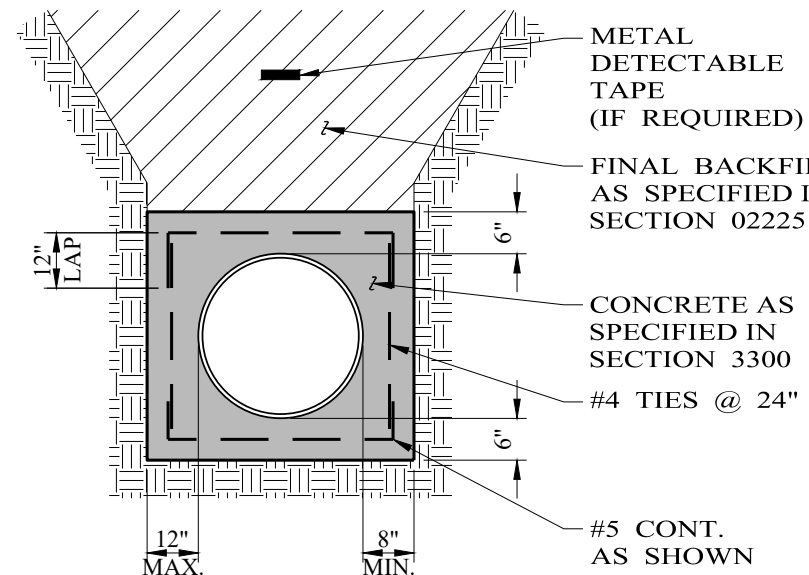


PIPE SIZE		THRUST RESTRAINT TABLE							
		LOWSIDE DEPTH							
		6'	8'	10'	12'	14'	16'	18'	20'
8"	UPPER "L"	16'	16'	16'	16'	16'	16'	16'	16'
	LOWER "L"	4'	3'	3'	2'	2'	2'	2'	2'
10"	UPPER "L"	40'	40'	40'	40'	40'	40'	40'	40'
	LOWER "L"	7'	6'	5'	4'	4'	3'	3'	3'
12"	UPPER "L"	23'	23'	23'	23'	23'	23'	23'	23'
	LOWER "L"	6'	4'	4'	3'	3'	2'	2'	2'
14"	UPPER "L"	27'	27'	27'	27'	27'	27'	27'	27'
	LOWER "L"	6'	5'	4'	4'	3'	3'	3'	2'
18"	UPPER "L"	33'	33'	33'	33'	33'	33'	33'	33'
	LOWER "L"	8'	6'	5'	4'	4'	3'	3'	3'
20"	UPPER "L"	36'	36'	36'	36'	36'	36'	36'	36'
	LOWER "L"	8'	7'	5'	5'	4'	4'	3'	3'
24"	UPPER "L"	42'	42'	42'	42'	42'	42'	42'	42'
	LOWER "L"	10'	8'	6'	5'	5'	4'	4'	4'
30"	UPPER "L"	51'	51'	51'	51'	51'	51'	51'	51'
	LOWER "L"	12'	9'	8'	7'	6'	5'	5'	4'
36"	UPPER "L"	59'	59'	59'	59'	59'	59'	59'	59'
	LOWER "L"	13'	11'	9'	8'	7'	6'	5'	5'

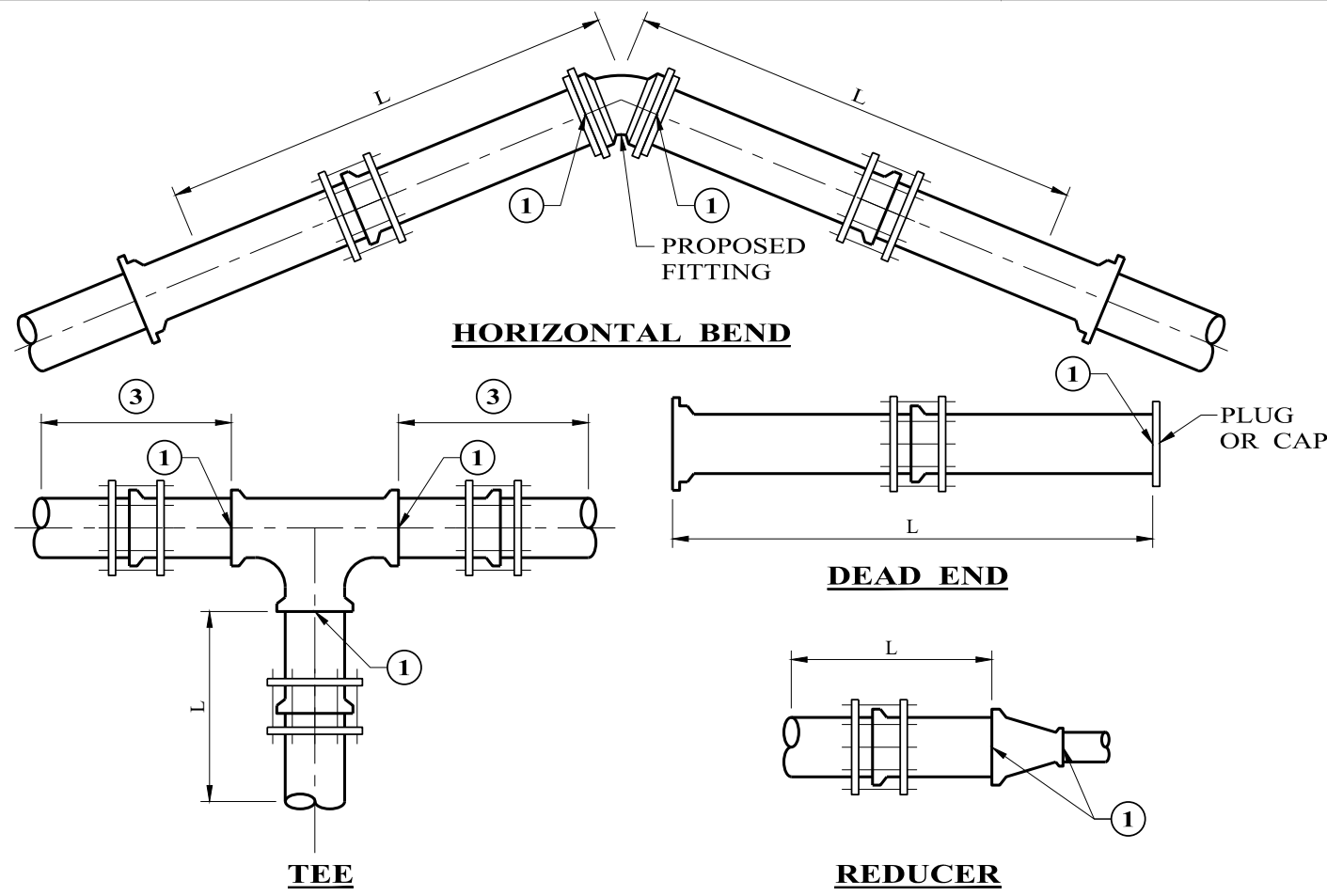
WATER MAIN VERTICAL OFFSET DETAIL



PIPE BEDDING DETAILS



TYPE "B"
(TO BE USED AT ALL LOCATIONS WHERE DEPTH OF COVER IS LESS THAN 3'-0")



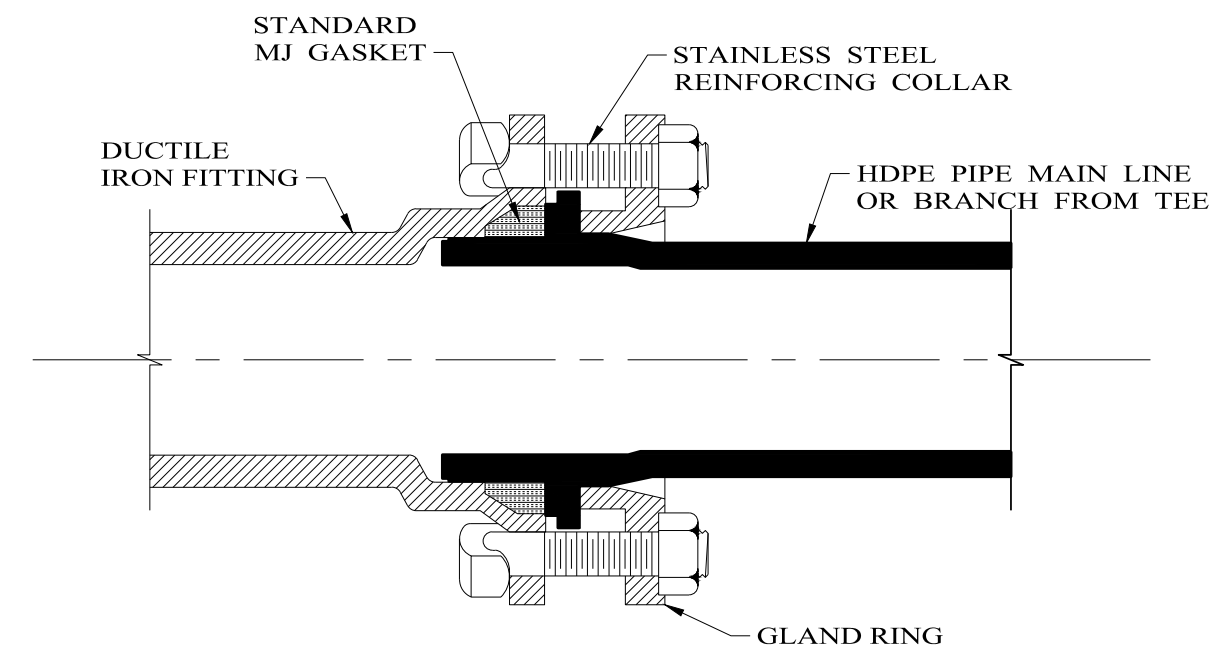
TYPE FITTING	THRUST RESTRAINT TABLE									
	VIA MECHANICAL RETAINER GLAND									
	TOTAL FEET OF PIPE (L) REQUIRING RESTRAINT UPSTREAM OF FITTING FOR MECHANICAL JOINT RESTRAINTS ON PRESSURE PIPE, (INCLUDING FITTING JOINT)									
	8"	10"	12"	14"	18"	20"	24"	30"	36"	
90° BEND	13	23	18	21	25	28	32	38	44	
45° BEND	6	10	8	9	11	12	14	16	18	
22 1/2° BEND	3	5	4	5	5	6	7	8	9	
11 1/4° BEND	2	3	2	2	3	3	4	4	5	
DEAD END	39	75	55	63	N/A	N/A	122	N/A		
TEE	18"x18"	-	20"x8"	24"x20"	36"x30"					
	14"	1'	1'	6'	38'					
REDUCER	18"x12"	-	18"x14"	20"x18"	24"x12"	36"x30"				
	43'	46'	31'	16'	75'	43'				

FOR ADDITIONAL RESTRAINT AT BELL AND SPIGOT CONNECTIONS ALONG STRAIGHT RUN OF PIPE.

NOTES:

- INSTALL MECHANICAL THRUST RESTRAINT GLANDS AT ALL FITTINGS.
- ALL RESTRAINED LENGTHS HAVE BEEN CALCULATED AT THE MINIMUM COVER OF 3'. AT LOCATIONS WHERE FITTINGS ARE TO BE INSTALLED DEEPER THAN 3' THE RESTRAINED LENGTHS MAY BE REDUCED. CONTRACTOR SHALL SUBMIT ANY REDUCTIONS IN RESTRAINED LENGTH TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
- RESTRAINED LENGTHS FOR TEES HAVE BEEN CALCULATED ASSUMING A FULL JOINT OF PIPE WILL BE INSTALLED ON EACH SIDE OF THE TEE ALONG THE RUN. IF A JOINT WILL BE INSTALLED CLOSER THAN 20' TO THE TEE, THE CONTRACTOR MUST SUBMIT AN ALTERNATE RESTRAINT PLAN TO THE ENGINEER PRIOR TO CONSTRUCTION.

TRUST RESTRAINT DETAIL



HDPE MJ ADAPTER



TYPICAL UTILITY/VALVE MARKER DETAIL

NO.	REVISION	DATE

07/19/2024

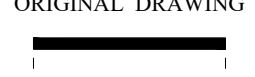
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DRAWN BY
D. BORCIK
CHECKED BY
S. DILLER

SCALE
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DATE
07/19/2024

**WATER LINE RELOCATION
TRENT, TAYLOR COUNTY, TEXAS**

DETAILS

PROJECT NO.:

8640

SHEET No.

14