



**PERMIT APPLICATION REVIEW FORM FOR
CABLE, CONDUIT, AND POLE LINE ACTIVITY
IN FORT BEND COUNTY**

**Fort Bend County
Engineering Department**
301 Jackson Suite 401
Richmond, Texas 77469
281.633.7500
Permits@fortbendcountytexas.gov

- ☐ Right of Way Permit
☒ Commercial Driveway Permit

Permit No: 2018-22665

The following "Notice of Proposed Cable, Conduit, and/or Pole Line activity in Fort Bend County" and accompanying attachments have been reviewed and the notice conforms to appropriate regulations set by Commissioner's Court of Fort Bend County, Texas.

(1) COMPLETE APPLICATION FORM:

- ☒ a. Name of road, street, and/or drainage ditch affected.
☒ b. Vicinity map showing course of directions
☒ c. Plans and specifications

(2) BOND:

- ☐ County Attorney, approval when applicable.
- ☐ Perpetual bond currently posted. Bond No: _____ Amount: _____
- ☒ Performance bond submitted. Bond No: [REDACTED] Amount: \$5,000.00
- ☐ Cashier's Check Check No: _____ Amount: _____

(3) DRAINAGE DISTRICT APPROVAL (WHEN APPLICABLE):

Drainage District Approval

Date

We have reviewed this project and agree it meets minimum requirements.



Permit Administrator

10/1/2018

Date



**PERFORMANCE BOND COVERING ALL CABLE CONDUIT AND/OR POLE LINE
ACTIVITY IN UNDER ACROSS OR ALONG FORT BEND COUNTY ROAD
COMMERCIAL DRIVEWAY AND MEDIAN OPENINGS OR MODIFICATIONS
(AUTHORIZED)**

BOND N

THE STATE OF TEXAS

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF FORT BEND

THAT WE, Rodriguez Construction Group, LLC whose (address, phone) is 2647 Jo Ann Street
Stafford, TX 77477, (832) 539-6130 Texas, hereinafter called the Principal, and The Guarantee Company of North America USA,
a Corporation existing under and by virtue of the laws of the state of Michigan and authorized to do an indemnifying business
in the state of Texas, and whose principal office is located at (name/address/phone) The Guarantee Company of North America USA
26623 Oak Ridge Drive, The Woodlands, TX 77380 whose officer
residing in the State of Texas, authorized to accept service in all suits and actions brought whining said state is
Jillian McKenzie c/o Technical Assurance, L.L.C. and whose address is 26623 Oak Ridge Drive, The Woodlands, TX 77380

hereinafter called the Surety, and held and firmly bound unto, Robert E. Hebert, County Judge of Fort Bend County, Texas, or his successors in office, in the full sum of Five Thousand Dollars and 00/100 Dollars (\$5,000.00) current, lawful money of the United States of America, to be paid to said Robert E. Hebert, County Judge of Fort Bend County, Texas, or his successors in office, to which payment well and truly to be made and done, we, the undersigned, bind ourselves and each of us, our heirs, executors, administrators, successors, assigns, and legal representatives, jointly and severally, by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT, WHEREAS, the above bounden principal contemplates laying, constructing maintaining and/or repairing one or more cables, conduits, and/or pole lines in, under, across and/or along roads, streets and highways, commercial driveway and median openings or modifications in the County of Fort Bend, and the State of Texas, under the jurisdiction of the Commissioners' Court of Fort Bend County, Texas, pursuant to the Commissioners' Court order adopted on the 1st day of December, A.D. 1980, recorded in Volume 13, of the Commissioners' Court Minutes of Fort Bend County, Texas, regulating same, which Commissioners' Court order is hereby referred to and made a part hereof for all purposes as though fully set out herein;

AND WHEREAS, the principal desires to provide Fort Bend County with a performance bond covering all such cable, conduit and/or pole line activity, commercial driveway and median Openings or modifications;

NOW, THEREFORE, if the above bounden principal shall faithfully perform all its cable, conduit and/or pole line activity (including, but not limited to the laying, construction, maintenance and/or repair of cables, conduits and/or pole lines) in, under, across and/or along roads, streets and highways, commercial driveway and median openings or modifications in the County of Fort Bend and State of Texas, under the jurisdiction of the Commissioners Court of Fort Bend County, Texas, pursuant to and in accordance with minimum requirements and conditions of the above mentioned Commissioners' Court order set forth and specified to be by said principal done and performed, at the time and in the manner therein specified, and shaft pay over and make good and reimburse Fort Bend County, all loss and damages which Fort Bend County may sustain by reason of any failure or default on the part of said principal, then this obligation shall be null and void, otherwise to remain in full force and effect.

This bond is payable at the County Courthouse in the County of Fort Bend and State of Texas.

It is understood that at any time Fort Bend County deems itself insecure under this bond, it may require further and/or additional bonds of the principal.

EXECUTED this 10th day of August, 2018



Rodriguez Construction Group, LLC

PRINCIPAL

BY Roy Rodriguez President

The Guarantee Company of North America USA

SURETY

BY Jillian McKenzie, Attorney-in-Fact



The Guarantee Company of North America USA
Southfield, Michigan

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS: That THE GUARANTEE COMPANY OF NORTH AMERICA USA, a corporation organized and existing under the laws of the State of Michigan, having its principal office in Southfield, Michigan, does hereby constitute and appoint

Edward Arens, Philip Baker, Michele Bonnin, Jillian McKenzie, Erica A. Cox, Rebecca Garza
Technical Assurance, L.L.C.

its true and lawful attorney(s)-in-fact to execute, seal and deliver for and on its behalf as surety, any and all bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof, which are or may be allowed, required or permitted by law, statute, rule, regulation, contract or otherwise.

The execution of such instrument(s) in pursuance of these presents, shall be as binding upon THE GUARANTEE COMPANY OF NORTH AMERICA USA as fully and amply, to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at the principal office.

The Power of Attorney is executed and may be certified so, and may be revoked, pursuant to and by authority of Article IX, Section 9.03 of the By-Laws adopted by the Board of Directors of THE GUARANTEE COMPANY OF NORTH AMERICA USA at a meeting held on the 31st day of December, 2003. The President, or any Vice President, acting with any Secretary or Assistant Secretary, shall have power and authority:

1. To appoint Attorney(s)-in-fact, and to authorize them to execute on behalf of the Company, and attach the Seal of the Company thereto, bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof; and
2. To revoke, at any time, any such Attorney-in-fact and revoke the authority given, except as provided below
3. In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and authority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.
4. In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner – Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

Further, this Power of Attorney is signed and sealed by facsimile pursuant to resolution of the Board of Directors of the Company adopted at a meeting duly called and held on the 6th day of December 2011, of which the following is a true excerpt:

RESOLVED that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, contracts of indemnity and other writings obligatory in the nature thereof, and such signature and seal when so used shall have the same force and effect as though manually affixed.



IN WITNESS WHEREOF, THE GUARANTEE COMPANY OF NORTH AMERICA USA has caused this instrument to be signed and its corporate seal to be affixed by its authorized officer, this 2nd day of October, 2015.

THE GUARANTEE COMPANY OF NORTH AMERICA USA

Stephen C. Ruschak, President & Chief Operating Officer

Randall Musselman, Secretary

STATE OF MICHIGAN
County of Oakland

On this 2nd day of October, 2015 before me came the individuals who executed the preceding instrument, to me personally known, and being by me duly sworn, said that each is the herein described and authorized officer of The Guarantee Company of North America USA; that the seal affixed to said instrument is the Corporate Seal of said Company; that the Corporate Seal and each signature were duly affixed by order of the Board of Directors of



Cynthia A. Takai
Notary Public, State of Michigan
County of Oakland
My Commission Expires February 27, 2018
Acting in Oakland County

IN WITNESS WHEREOF, I have hereunto set my hand at The Guarantee Company of North America USA offices the day and year above written.

I, Randall Musselman, Secretary of THE GUARANTEE COMPANY OF NORTH AMERICA USA, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney executed by THE GUARANTEE COMPANY OF NORTH AMERICA USA, which is still in full force and effect.



IN WITNESS WHEREOF, I have thereunto set my hand and attached the seal of said Company this 10th day of August, 2018

Randall Musselman, Secretary



**RODRIGUEZ
CONSTRUCTION
GROUP LLC**
2647 Jo Ann Street
Stafford, TX 77477
832-539-6130
832-539-6124 (Fax)

LETTER OF TRANSMITTAL

Date: 8/14/2018 Job No: 1806

Attention:

RE: Project Number 2018-22665

TO: Fort Bend County Engineering Office
301 Jackson St., Suite 400
Richmond, TX 77469

We are sending you

☐ Shop drawings ☐ Prints ☐ Plans ☐ Contracts ☐ Specifications
☐ Copy of letter ☐ Change order ☒ Performance Bond

Copies	Date	No.	Description
1	8/14/2018		Performance Bond [REDACTED]

These are transmitted as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☒ As requested ☐ Returned for corrections ☐ Return _____ corrected prints
☐ For review and comment _____
☐ For bids due _____ ☐ Prints Returned after loan to us

REMARKS

Signed: Roy Rodriguez

If enclosures are not as noted, kindly notify us at once.

FILED AND RECORDED
OFFICIAL PUBLIC RECORDS

Laura Richard

Laura Richard, County Clerk

Fort Bend County Texas

October 11, 2018 02:52:25 PM



FEE: \$0.00

SG

2018115566

STILL CREEK RANCH LIFT STATION 16011300-01

JOB NO. 16-011-300

FORT BEND COUNTY ENGINEER

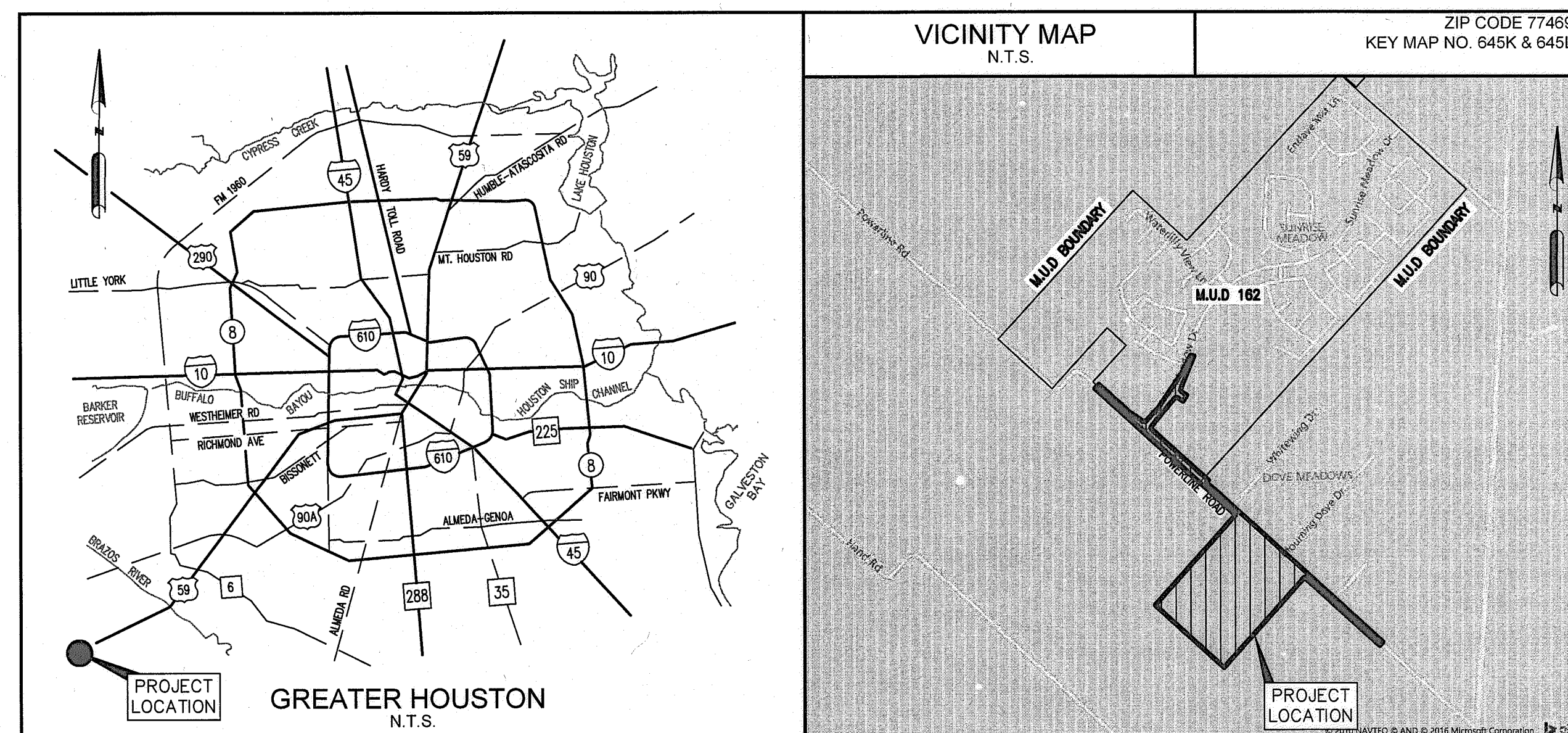
ENGINEER: Paul J. Staigh, PE, PTOE
for Richard W. Stolleis, P.E.

DATE: 6/8/18

THESE SIGNATURES ARE VOID IF CONSTRUCTION
HAS NOT COMMENCED IN (1) YEAR FROM DATE
OF APPROVAL.

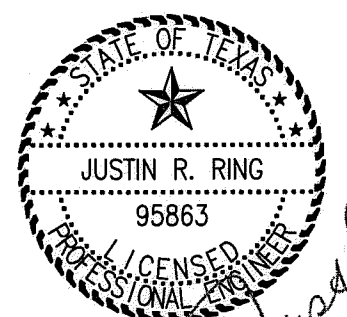
APPROVED: Maggie [Signature]
Development Coordinator

DATE: 6/8/18



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4-2018

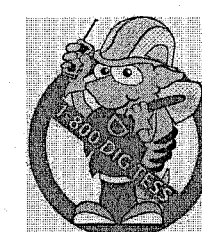
APPROVED
CITY OF ROSENBERG

CM Eastland
 CHARLES M. EASTLAND, P.E.
 CITY ENGINEER

ATE

RIGO CALZONCIN
EXECUTIVE DIRECTOR OF PUBLIC SERVICES

DATE



CALL BEFORE YOU DIG!
TEXAS ONE CALL PARTICIPANTS REQUEST
48 HOURS NOTICE BEFORE YOU DIG, DRILL
OR BLAST - STOP CALL
Texas One Call System



1-800-545-6005
(713)223-4567 (IN HOUSTON)



2500 Tanglewilde Street, Suite 240
Houston, Texas 77063
t: 281.306.0240 | www.odysseyeg.com
TBPE No. F-17637

TEXAS COMMISSION ON ENVIRONMENTAL
QUALITY WATER DISTRIBUTION SYSTEM
GENERAL CONSTRUCTION NOTES

REVISED JANUARY 10, 2014

- THIS WATER DISTRIBUTION SYSTEM MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS 30 TEXAS ADMINISTRATIVE CODE (TAC) CHAPTER 290 SUBCHAPTER D. WHEN CONFLICTS ARE NOTED WITH LOCAL STANDARDS, THE MORE STRINGENT REQUIREMENT SHALL BE APPLIED. CONSTRUCTION FOR PUBLIC WATER SYSTEMS MUST ALWAYS, AT A MINIMUM, MEET TCEQ'S RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS.
- AN APPOINTED ENGINEER SHALL NOTIFY IN WRITING THE LOCAL TCEQ'S REGIONAL OFFICE WHEN CONSTRUCTION WILL START. PLEASE KEEP IN MIND THAT UPON COMPLETION OF THE WATER WORKS PROJECT, THE ENGINEER OR OWNER SHALL NOTIFY THE COMMISSION'S WATER SUPPLY DIVISION, IN WRITING, AS TO ITS COMPLETION AND ATTEST TO THE FACT THAT THE WORK HAS BEEN COMPLETED ESSENTIALLY ACCORDING TO THE PLANS AND CHANGE ORDERS ON FILE WITH THE COMMISSION AS REQUIRED IN 30 TAC §290.39(H)(3).
- ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARD NATIONAL SANITATION FOUNDATION (ANSI/NSF) STANDARD 61-G AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI, AS REQUIRED BY 30 TAC §290.44(A)(1).
- PLASTIC PIPE FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL (NSF PW-G) AND HAVE AN ASTM DESIGN PRESSURE RATING OF AT LEAST 150 PSI OR A STANDARD DIMENSION RATIO OF 26 OR LESS, AS REQUIRED BY 30 TAC §290.44(A)(2).
- 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, AS REQUIRED BY 30 TAC §290.44(A)(3).
- WATER TRANSMISSION AND DISTRIBUTION LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. HOWEVER, THE TOP OF THE WATER LINE MUST BE LOCATED BELOW THE FROST LINE AND IN NO CASE SHALL THE TOP OF THE WATER LINE BE LESS THAN 24 INCHES BELOW GROUND SURFACE, AS REQUIRED BY 30 TAC §290.44(A)(4).
- PURSUANT TO 30 TAC §290.44(A)(5), THE HYDROSTATIC LEAKAGE RATE SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY THE MOST CURRENT AWWA FORMULAS FOR PVC PIPE, CAST IRON AND DUCTILE IRON PIPE. INCLUDE THE FORMULAS IN THE NOTES ON THE PLANS.
 - THE HYDROSTATIC LEAKAGE RATE FOR POLYVINYL CHLORIDE (PVC) PIPE AND APPURTENANCES SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY FORMULAS IN AMERICA WATER WORKS ASSOCIATION (AWWA) C-605 AS REQUIRED IN 30 TAC §290.44(A)(5). PLEASE ENSURE THAT THE FORMULA FOR THIS CALCULATION IS CORRECT AND MOST CURRENT FORMULA IS IN USE;

$$Q = \frac{LD^3}{148,000}$$

WHERE:

- Q = THE QUANTITY OF MAKEUP WATER IN GALLONS PER HOUR.
- L = THE LENGTH OF THE PIPE SECTION BEING TESTED, IN FEET,
- D = THE NOMINAL DIAMETER OF THE PIPE IN INCHES, AND
- P = THE AVERAGE TEST PRESSURE DURING THE HYDROSTATIC TEST IN POUNDS PER SQUARE INCH (PSI)

$$L = \frac{SQ^2}{148,000}$$

WHERE:

- L = THE QUANTITY OF MAKEUP WATER IN GALLONS PER HOUR.
- S = THE LENGTH OF THE PIPE SECTION BEING TESTED, IN FEET,
- D = THE NOMINAL DIAMETER OF THE PIPE IN INCHES, AND
- P = THE AVERAGE TEST PRESSURE DURING THE HYDROSTATIC TEST IN POUNDS PER SQUARE INCH (PSI).

- THE HYDROSTATIC LEAKAGE RATE FOR DUCTILE IRON (DI) PIPE AND APPURTENANCES SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY FORMULAS IN AMERICA WATER WORKS ASSOCIATION (AWWA) C-600 AS REQUIRED IN 30 TAC §290.44(A)(5). PLEASE ENSURE THAT THE FORMULA FOR THIS CALCULATION IS CORRECT AND MOST CURRENT FORMULA IS IN USE;
- PROJECTS CONSTRUCTED ON OR AFTER JANUARY 4, 2014 MUST COMPLY WITH CHANGES TO THE SAFE DRINKING WATER ACT THAT REDUCE THE MAXIMUM ALLOWABLE LEAD CONTENT OF PIPES, PIPE FITTINGS, PLUMBING FITTINGS, AND FIXTURES TO 0.25 PERCENT.
 - THE SYSTEM MUST BE DESIGNED TO MAINTAIN A MINIMUM PRESSURE OF 35 PSI AT ALL POINTS WITHIN THE DISTRIBUTION NETWORK AT FLOW RATES OF AT LEAST 1.5 GALLONS PER MINUTE PER CONNECTION. WHEN THE SYSTEM IS INTENDED TO PROVIDE FIREFIGHTING CAPABILITY, IT MUST ALSO BE DESIGNED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI UNDER COMBINED FIRE AND DRINKING WATER FLOW CONDITIONS AS REQUIRED BY 30 TAC §290.44(D).
 - THE CONTRACTOR SHALL INSTALL APPROPRIATE AIR RELEASE DEVICES IN THE DISTRIBUTION SYSTEM AT ALL POINTS WHERE TOPOGRAPHY OR OTHER FACTORS MAY CREATE AIR LOCKS IN THE LINES. ALL VENT ORDNINGS TO THE ATMOSPHERE SHALL BE COVERED WITH 16-MESH OR FINER, CORROSION RESISTANT SCREENING MATERIAL OR AN ACCEPTABLE EQUIVALENT AS REQUIRED BY 30 TAC §290.44(D)(1).
 - PURSUANT TO 30 TAC §290.44(D)(4), ACCURATE WATER METERS SHALL BE PROVIDED. SERVICE CONNECTIONS AND METER LOCATIONS SHOULD BE SHOWN ON THE PLANS.
 - PURSUANT TO 30 TAC §290.44(D)(5), SUFFICIENT VALVES AND BLOWOFFS TO MAKE REPAIRS. THE ENGINEERING REPORT SHALL ESTABLISH CRITERIA FOR THIS DESIGN.
 - PURSUANT TO 30 TAC §290.44(D)(6), THE SYSTEM SHALL BE DESIGNED TO AFFORD EFFECTIVE CIRCULATION OF WATER WITH A MINIMUM OF DEAD ENDS. ALL DEAD-END MAINS SHALL BE PROVIDED WITH ACCEPTABLE FLUSH VALVES AND DISCHARGE PIPING. ALL DEAD-END LINES LESS THAN TWO INCHES IN DIAMETER WILL NOT REQUIRE FLUSH VALVES IF THEY END AT A CUSTOMER SERVICE. WHERE DEAD ENDS ARE NECESSARY AS A STAGE IN THE GROWTH OF THE SYSTEM, THEY SHALL BE LOCATED AND ARRANGED TO ULTIMATELY CONNECT THE ENDS TO PROVIDE CIRCULATION.
 - THE CONTRACTOR SHALL MAINTAIN A MINIMUM SEPARATION DISTANCE IN ALL DIRECTIONS OF NINE FEET BETWEEN THE PROPOSED WATERLINE AND WASTEWATER COLLECTION FACILITIES INCLUDING MANHOLES AND SEPTIC TANK DRAINFIELDS. IF THIS DISTANCE CANNOT BE MAINTAINED, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROJECT ENGINEER FOR FURTHER DIRECTION. SEPARATION DISTANCES, INSTALLATION METHODS, AND MATERIALS UTILIZED MUST MEET 30 TAC §290.44(E)(1-4) OF THE CURRENT RULES.
 - PURSUANT TO 30 TAC §290.44(E)(5), THE SEPARATION DISTANCE FROM A POTABLE WATERLINE TO A WASTEWATER MAIN OR LATERAL MANHOLE OR CLEANOOUT SHALL BE A MINIMUM OF NINE FEET. WHERE THE NINE-FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE POTABLE WATERLINE SHALL BE ENCASED IN A JOINT OF AT LEAST 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE-FOOT INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. THE ENCASEMENT PIPE SHALL BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEALANT.
 - PURSUANT TO 30 TAC §290.44(E)(6), FIRE HYDRANTS SHALL NOT BE INSTALLED WITHIN NINE FEET VERTICALLY OR HORIZONTALLY OF ANY WASTEWATER LINE, WASTEWATER LATERAL, OR WASTEWATER SERVICE LINE REGARDLESS OF CONSTRUCTION.
 - PURSUANT TO 30 TAC §290.44(E)(7), SUCTION MAINS TO PUMPING EQUIPMENT SHALL NOT CROSS WASTEWATER MAINS, WASTEWATER LATERALS, OR WASTEWATER SERVICE LINES. RAW WATER SUPPLY LINES SHALL NOT BE INSTALLED WITHIN FIVE FEET OF ANY TILE OR CONCRETE WASTEWATER MAIN, WASTEWATER LATERAL, OR WASTEWATER SERVICE LINE.
 - PURSUANT TO 30 TAC §290.44(E)(8), WATERLINES SHALL NOT BE INSTALLED CLOSER THAN TEN FEET TO SEPTIC TANK DRAINFIELDS.
 - PURSUANT TO 30 TAC §290.44(F)(1), THE CONTRACTOR SHALL NOT PLACE THE PIPE IN WATER OR WHERE IT CAN BE FLOODED WITH WATER OR SEWAGE DURING ITS STORAGE OR INSTALLATION.
 - PURSUANT TO 30 TAC §290.44(F)(2), WHEN WATERLINES ARE LAID UNDER ANY FLOWING OR INTERMITTENT STREAM OR SEMI-PERMANENT BODY OF WATER THE WATER MAIN SHALL BE INSTALLED IN A SEPARATE WATERTIGHT PIPE ENCASEMENT. VALVES MUST BE PROVIDED ON EACH SIDE OF THE CROSSING WITH FACILITIES TO ALLOW THE UNDERWATER PORTION OF THE SYSTEM TO BE ISOLATED AND TESTED.

- THE CONTRACTOR SHALL DISINFECT THE NEW WATER MAINS IN ACCORDANCE WITH AWWA STANDARD C-651 AND THEN FLUSH AND SAMPLE THE LINES BEFORE BEING PLACED INTO SERVICE. SAMPLES SHALL BE COLLECTED FOR MICROBIOLOGICAL ANALYSIS TO CHECK THE 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 DESIGN ENGINEER, IN ACCORDANCE WITH 30 TAC §290.44(F)(3).

GENERAL CONSTRUCTION NOTES

- THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL CONTROL PRIOR TO CONSTRUCTION AND REPORT ANY CONFLICTS TO THE ENGINEER.
- THE LOCATION AND ELEVATIONS OF EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE IN THE FIELD THE EXACT LOCATION OF ALL EXISTING UTILITIES, NATURAL GROUND ELEVATIONS, AND VERIFY TOPOGRAPHIC INFORMATION BEFORE COMMENCING ANY WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL DAMAGES CAUSED BY HIS FAILURE TO LOCATE AND MAINTAIN THESE UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY CONFLICTS FOUND.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY CONSTRUCTION PERMITS REQUIRED FROM GOVERNING AGENCIES.
- ITEMS WITHIN THE EXISTING RIGHT-OF-WAY SUCH AS GRASSED AREAS, PAVEMENT, CURBS, SIDEWALKS AND DRIVEWAYS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED AT CONTRACTOR'S EXPENSE TO APPLICABLE AGENCY STANDARDS AND/OR BETTER CONDITION.
- CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES WHICH HAVE BEEN DESIGNATED TO REMAIN ALONG THE AREA OF EXCAVATION.
- PROJECT SHALL BE IN ACCORDANCE WITH THE CITY OF ROSENBERG "SUBDIVISION REGULATIONS AND DESIGN STANDARDS".
- NOTIFY SITE REPRESENTATIVE WITH ODYSSEY ENGINEERING GROUP BEFORE TAKING BACKFILL DENSITY TESTS.
- A SITE REPRESENTATIVE WITH ODYSSEY ENGINEERING GROUP SHALL SEE PIPE BEFORE SAID PIPE IS BACKFILLED.
- NOTIFY SITE REPRESENTATIVE WITH ODYSSEY ENGINEERING GROUP BEFORE ANY CONCRETE POUR IS DONE FOR STREET PLACEMENT
- NOTIFY SITE REPRESENTATIVE WITH ODYSSEY ENGINEERING GROUP BEFORE TAKING ANY CONCRETE PAVEMENT DENSITY TESTS.
- NO FIST-SIZED, OR LARGER, PIECES OF EARTH BACKFILL SHOULD BE IN THE INITIAL PIPE BACKFILL ZONE.
- FULL-BODIED TEES WILL NOT BE ALLOWED FOR USE FOR SANITARY SEWER SERVICES.
- INSTALL WYES WITH 45° ELBOWS. USE A WYE ON A STACK ALSO.
- A REPRESENTATIVE FROM THE CITY OF ROSENBERG SHALL BE PRESENT AT ALL TESTING PROCEDURES; WATER AND SANITARY SEWER.
- THE CITY OF ROSENBERG REQUIRES +/- THIRTY SIX (36) INCHES OF EARTH COVER ON TOP OF THE SANITARY SEWER SERVICE STACK.
- CONTRACTOR IS TO INSTALL WATER SERVICES AFTER STREETS HAVE BEEN CONSTRUCTED.
- CITY OF ROSENBERG CONSTRUCTION PERMITS WILL BE REQUIRED FOR ALL WORK TO BE PERFORMED.
- ALL ELECTRICAL INSPECTIONS WILL BE PERFORMED BY CITY OF ROSENBERG CODE ENFORCEMENT DIVISION.
- SANITARY SEWER SERVICE CONNECTIONS DIRECTLY INTO SANITARY SEWER MANHOLES WILL NOT REQUIRE DROPS.
- PLACE AND COMPACT EIGHTEEN (18) INCHES OF CEMENT STABILIZED SAND AROUND ALL STORM SEWER AND SANITARY SEWER MANHOLES TO FOUR (4) FEET BELOW THE TOP OF MANHOLE.
- PLACE AND COMPACT EIGHTEEN (18) INCHES OF CEMENT STABILIZED SAND AROUND ALL STORM SEWER AND SANITARY SEWER MANHOLES TO FOUR (4) FEET BELOW THE TOP OF MANHOLE.
- TRENCH SAFETY SYSTEMS ARE REQUIRED FOR THE CONSTRUCTION OF ALL TRENCH EXCAVATION UTILIZED ON THIS PROJECT. TRENCH SAFETY SYSTEMS SHALL MEET THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS: SUBPART P-"EXCAVATIONS, TRENCHING AND SHORING" PROPOSED RULE (29 CFR PART 1926) AS PUBLISHED IN THE FEDERAL REGISTER VOL. 52, NO. 72, DATED APRIL 15, 1987 OR LATEST AMENDMENTS THERETO.
- THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE CITY OF ROSENBERG AND THE ENGINEER FROM ANY AND ALL DAMAGES AND COSTS, INCLUDING WITHOUT LIMITATION, LEGAL FEES, COURT COSTS, AND THE COST OF INVESTIGATION, JUDGEMENTS OR CLAIMS BY ANYONE FOR THE INJURY OR DEATH OF PERSONS RESULTING FROM THE COLLAPSE OR FAILURE OF TRENCHES CONSTRUCTED FOR THIS PROJECT.

SANITARY SEWER NOTES

- CONTRACTOR IS RESPONSIBLE FOR ALL BY-PASS PUMPING REQUIRED DURING CONSTRUCTION TO PREVENT SIGNIFICANT AND/OR INJURIOUS BACKUP AND/OR SURCHARGING IN PIPES AND MANHOLES AS WELL AS ANY SIGNIFICANT INCREASE IN SEWAGE ODOR AND BODs.
- ALL SANITARY SEWER PIPE TO BE SDR 26 P.V.C. PIPE MEETING ASTM SPECIFICATION D3034 WITH RUBBER GASKET JOINTS.
- LOCATION OF ALL SERVICE LEADS SHALL BE PROVIDED WITH A SAW CUT IN CURB PAINTED IN GREEN OR APPROVED EQUAL.

PAVING NOTES

- THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL CONTROL PRIOR TO CONSTRUCTION AND REPORT ANY CONFLICTS TO ENGINEER IMMEDIATELY.
- SAW CUTTING FOR THE REMOVAL OF CONCRETE PAVEMENT, ASPHALT PAVEMENT, MEDIAN ETC. WILL NOT BE PAID FOR DIRECTLY, BUT CONSIDERED INCIDENTAL TO THE VARIOUS REMOVAL ITEMS.
- GUIDELINES SET FORTH IN THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES SHALL BE OBSERVED.
- ALL STOP SIGNS SHALL BE T.M.U.T.C.D. STANDARD. STOP SIGNS SHALL BE PLACED AS SHOWN APPROXIMATELY TWO FEET BEHIND CURB, UNLESS OTHERWISE NOTED.

WATER CONSTRUCTION NOTES

- WATER LINES SHALL HAVE A MINIMUM 6" CLEARANCE WITH OTHER EXISTING OR PROPOSED UTILITIES.
- CONSTRUCTION SHALL PROVIDE ADEQUATE THRUST BLOCKING TO WITHSTAND TEST PRESSURE AS SPECIFIED IN CITY OF ROSENBERG SPECIFICATIONS FOR WATER MAIN CONSTRUCTION AND MATERIALS.
- THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING PUBLIC AND/OR PRIVATE WATER LINES DURING CONSTRUCTION AT NO COST TO THE CITY OF ROSENBERG OR FORT BEND COUNTY M.U.D. NO. 162.
- 4" THRU 12" WATERLINES SHALL BE P.V.C. CLASS 150, DR-18, AWWA C-900 UNLESS OTHERWISE NOTED.
- ALL WATER LINE FITTINGS SHALL BE MECHANICAL JOINT.
- ALL WATER VALVES SHALL OPEN LEFT (COUNTERCLOCKWISE).
- ALL FIRE HYDRANTS SHALL BE PAINTED AS PER CITY OF ROSENBERG STANDARDS.
- LOCATION OF ALL SERVICE LEADS SHALL BE PROVIDED WITH A NEW CUT IN CURB PAINTED IN BLUE OR APPROVED EQUAL. METERS SHALL BE SET 1-FOOT INSIDE ROW OR WLE AS DIRECTED BY ENGINEER.

EARTHWORK TECHNICAL SPECIFICATIONS

- ALL AREAS TO BE EXCAVATED AND FILLED ARE TO BE STRIPPED OF ALL VEGETATION, ORGANICS AND TOPSOIL TO A MINIMUM DEPTH OF 4-INCHES BELOW NATURAL GROUND.
- ALL FILL AREAS ARE TO BE MUCKED OUT AND CLEANED OUT OF ALL WET AND UNSUITABLE SOILS, VEGETATION, ORGANIC AND DELETERIOUS MATERIAL.
- ALL AREAS TO BE FILLED ARE TO BE PROOF-ROLL TESTED, UTILIZING A FULLY LOADED SCRAPER, A FULLY LOADED WHEELED FRONT END LOADER, A FULLY LOADED, STREET LEGAL, TANDEM AXLE DUMP TRUCK OR A FULLY LOADED OFF ROAD DUMP TRUCK FOR SOIL STABILITY PRIOR TO PLACEMENT OF FILL MATERIAL (ALL PROOF-ROLL TESTING IS TO BE WITNESSED BY A REPRESENTATIVE FROM THE ENGINEER OR BY A REPRESENTATIVE FROM THE CONSTRUCTION MATERIALS TESTING SERVICE PROVIDER).
- ALL SOFT OR WEAK AREAS ARE TO BE EXCAVATED TO A DEPTH OF STABLE AND SUITABLE MATERIAL, PROOF ROLL TESTED FOR SOIL STABILITY AND BACKFILLED WITH SUITABLE MATERIAL, BACK TO THE ORIGINAL NATURAL GROUND ELEVATION (IN 8-INCH MAXIMUM LOOSE LIFTS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY (SPD), AT OR 2% ABOVE OPTIMUM MOISTURE (OM), PRIOR TO THE PLACEMENT, GRADING AND COMPACTION OF ANY FILL MATERIAL.
- THE PLACEMENT OF ANY FILL OR THE DISPOSAL OF ANY EXCESS MATERIAL ON ANY PORTION OF THIS PROJECT SHALL BE MADE IN 8" LOOSE LIFTS, UNIFORMLY SPACED AND COMPACTED TO 95% STANDARD PROCTOR DENSITY AND AT A MOISTURE CONTENT BETWEEN ZERO AND TWO POINTS WET OF THE OPTIMUM MOISTURE CONTENT (ASTM D 698).
- ALL FILL MATERIAL PLACED, GRADED AND COMPACTED IS TO BE TESTED FOR COMPACTION EFFORT AND MOISTURE CONTENT ON EVERY OTHER LOT (ALTERNATING LOTS), EACH LIFT, FOR LOTS FRONTING STRAIGHT STREETS AND EVERY LOT, EACH LIFT, FOR LOTS FRONTING CUL-DE-SAC STREETS.
- ALL STRIPPINGS ARE TO BE PLACED AND EVENLY GRADED ON FILLED LOTS, AND OTHER FILLED AREAS, AND ON THE SIDE SLOPES OF ALL BORROW PITS, DETENTION BASINS, LAKES, DRAINAGE CHANNELS, DRAINAGE SWALES, ETC.
- ALL BORROW PIT, DETENTION BASIN, LAKE, DRAINAGE CHANNEL, DRAINAGE SWALE, ETC. SIDE SLOPES, BACKSLOPES SWALES, MAINTENANCE BERMS, ETC. ARE TO BE DRY STRAW HYDRO MULCH SEEDED OR DRILL SEEDED. THE CONTRACTOR IS TO GUARANTEE A "STAND" OF GRASS AND THAT COMPLETE TURF ESTABLISHMENT HAS BEEN ACHIEVED AS DETERMINED BY ODYSSEY ENGINEERING GROUP, LLC.
- FINAL GRADE ELEVATIONS INDICATED IN THE FILL AREAS ON THE SPOIL AND/OR GRADING PLANS ARE TO THE TOP OF THE FINAL PLACED FILL MATERIAL AND GRADED STRIPPINGS.

SBC NOTES

THE LOCATIONS OF SBC TELEPHONE CO. FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.

THE CONTRACTOR SHALL CALL 1-800-344-8377 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.

WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF SBC TELEPHONE FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES, WHEN BORING THE CONTRACTOR SHALL EXPOSE THE SOUTHWESTERN BELL TELEPHONE FACILITIES.

WHEN SBC TELEPHONE FACILITIES ARE EXPOSED, THE CONTRACTOR SHOULD PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES THE CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.

CENTERPOINT ENERGY NOTES

CAUTION: UNDERGROUND GAS FACILITIES
LOCATION OF ENTEK MAIN LINES (TO INCLUDE UNITED GAS TRANSMISSION, AND/OR INDUSTRIAL GAS SUPPLY CORPORATION WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE NOT SHOWN. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT 713-223-4567 OR 1-800-669-8344 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.

CONTRACTOR TO NOTIFY JAMES LOESCH AT THE W.A. PARISH COAL PLANT (281) 343-2102 OF THE CONSTRUCTION STARTING AND COMPLETION SCHEDULE. IT IS IMPERATIVE THAT THE CONSTRUCTION BE COORDINATED WITH PLANT IN ORDER TO ENSURE THAT MAKE-UP OPERATIONS ARE NOT AFFECTED.


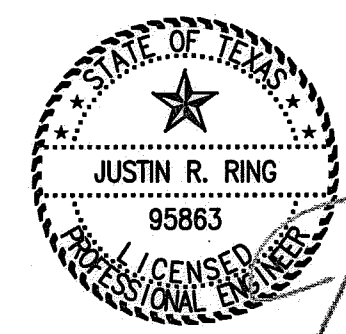

OVERHEAD LINES MAY EXIST ON THE PROPERTY. WE HAVE NOT ATTEMPTED TO MARK THOSE LINES SINCE THEY ARE CLEARLY VISIBLE. BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 732, HEALTH AND SAFETY CODE, FORBIDS ALL ACTIVITIES IN WHICH PERSONS OR THINGS MAY COME WITHIN (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE OF LINES. CONTRACTORS AND OWNERS ARE LEGALLY RESPONSIBLE FOR SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR MOVED CALL HL&P AT 713-223-4567 OR 1-800-669-8344.

FORT BEND COUNTY – GENERAL NOTES

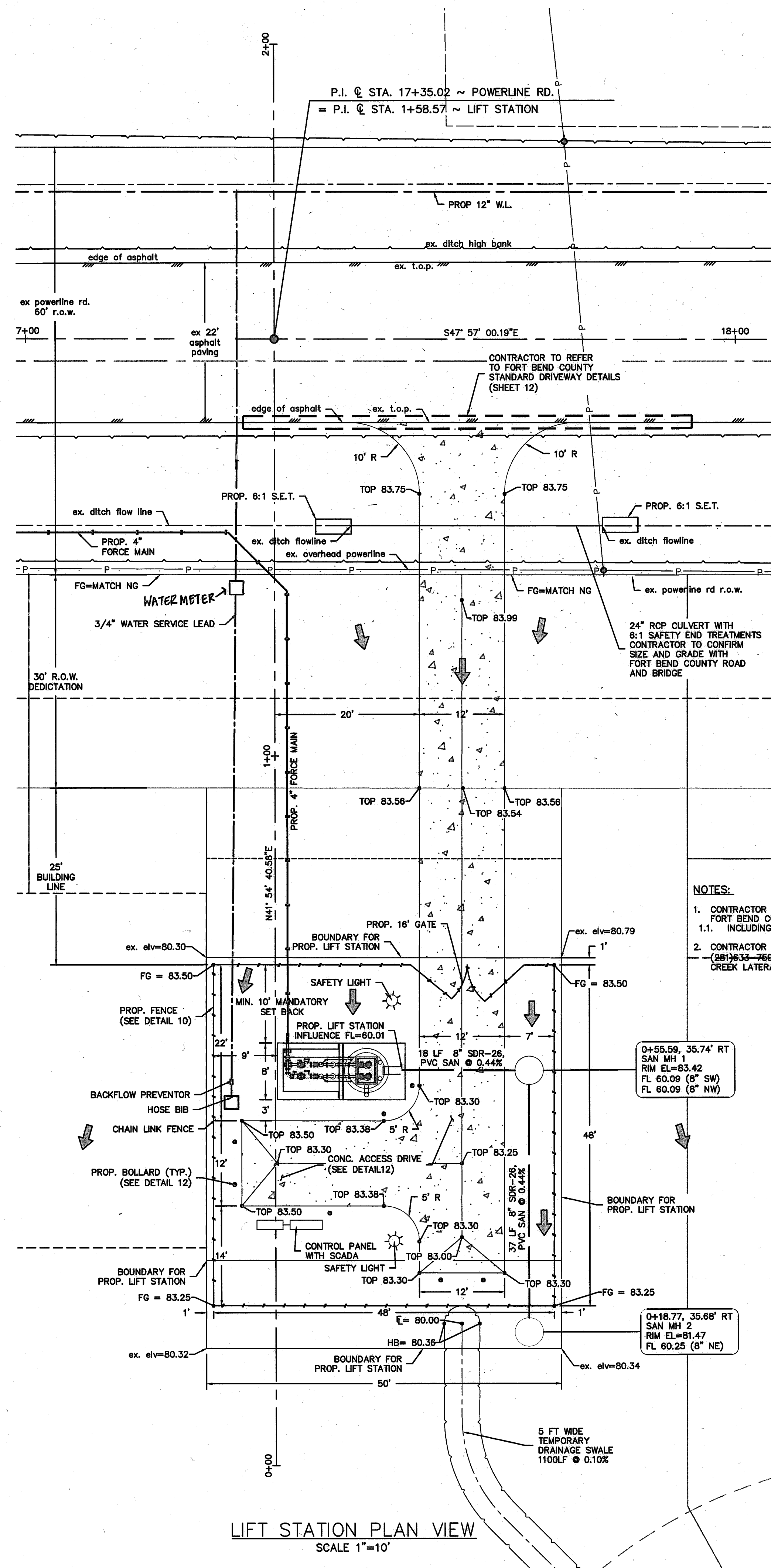
- FORT BEND COUNTY MUST BE INVITED TO THE PRE-CONSTRUCTION MEETING
- CONTRACTOR SHALL NOTIFY FORT BEND COUNTY ENGINEERING DEPARTMENT 48HOURS PRIOR TO COMMENCING CONSTRUCTION AND 48 HOUR NOTICE TO ANY CONSTRUCTION ACTIVITY WITHIN THE LIMITS OF THE PAVING AT CONSTRUCTION@FORTBENDCOUNTYTX.GOV
- CONTRACTOR RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FROM FORT BEND COUNTY PRIOR TO COMMENCING CONSTRUCTION OF ANY IMPROVEMENTS WITHIN COUNTY RIGHT OF WAY.
- ALL PAVING IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FORT BEND COUNTY RULES, REGULATIONS AND REQUIREMENTS RELATING TO THE APPROVAL AND ACCEPTANCE OF IMPROVEMENTS IN SUBDIVISIONS AS CURRENTLY AVOIDED.
- ALL ROAD WIDTHS CURB RADI AND CURB ALIGNMENT SHOWN INDICATES BACK OF CURB.
- A CONTINUOUS LONGITUDINAL REINFORCING BAR SHALL BE USED IN ALL CURBS.
- ALL CONCRETE PAVEMENT SHALL BE 5 1/2 SACK CEMENT WITH A MINIMUM COMPRESSIVE STRENGTH OF 3500PSI AT 28 DAYS. TRANSVERSE EXPANSION JOINTS SHALL BE INSTALLED AT EACH CURB RETURN AND AT A MAXIMUM SPACING OF 60FT.
- ALL WEATHER ACCESS TO ALL EXISTING STREETS AND DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES
- 4"x12" REINFORCED CONCRETE CURB SHALL BE PLACED IN FRONT OF SINGLE FAMILY LOTS ONLY. ALL OTHER AREAS SHALL BE 6" REINFORCED CONCRETE CURB.
- AT ALL INTERSECTION LOCATIONS, TYPE 7 RAMPS SHALL BE PLACED IN ACCORDANCE WITH TxDOT PED-12a STANDARD DETAIL SHEET. A.D.A.-HANDICP RAMPS SHALL BE INSTALLED WITH STREET PAVING AT THE ALL INTERSECTIONS AND COMPLY WITH CURRENT A.D.A. REGULATIONS
- CURB HEADERS ARE REQUIRED AT CURB CONNECTIONS TO HANDICAP RAMPS, WITH NO CONSTRUCTION JOINT WITHIN 5' OF RAMPS.
- ALL INTERSECTIONS UTILIZING TRAFFIC CONTROL MEASURES SHALL HAVE A.D.A. WHEEL CHAIR RAMPS INSTALLED
- GUIDELINES ARE SET FORTH IN THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". AS CURRENTLY AMENDED, SHALL BE OBSERVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE FLAGMEN, SIGNING, STRIPING AND WARNING DEVICES ETC., DURING CONSTRUCTION--BOTH DAY AND NIGHT
- ALL R1-1 STOP SIGNS SHALL BE 30"x30" WITH DIAMOND GRADE SHEETING PER TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- STREET NAME SIGNAGE SHALL BE ON A 9" HIGH SIGN FLAT BLADE W/REFLECTIVE GREEN BACKGROUND. STREET NAMES SHALL BE UPPER AND LOWERCASE LETTERING WITH UPPERCASE OF 6" MINIMUM AND LOWERCASE LETTER OF 4.5 MINIMUM. THE LETTER SHALL BE REFLECTIVE WHITE. STREET NAME SIGNS SHALL BE MOUNTED ON STOP SIGN POST.
- A BLUE DOUBLE REFLECTORIZED BUTTON SHALL BE PLACED AT ALL FIRE HYDRANT LOCATIONS. THE BUTTON SHALL BE PLACED 12INCHES OFF THE CENTERLINE OF THE STREET ON THE SAME SIDE AS THE HYDRANT.
- THE PROJECT AND ALL PARTS THEREOF SHALL BE SUBJECT TO INSPECTION FROM TIME TO TIME BY INSPECTORS DESIGNATED BY FORT BEND COUNTY. NO SUCH INSPECTIONS SHALL RELIEVE THE CONTRACTOR OF ANY OF ITS OBLIGATIONS HEREAUNDER. NEITHER FAILURE TO INSPECT NOR FAILURE TO DISCOVER OR REJECT ANY OF THE WORK AS NOT IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, REQUIREMENTS AND SPECIFICATIONS OF FORT BEND COUNTY OR ANY PROVISION OF THIS PROJECT SHALL BE CONSTRUED TO IMPLY AN ACCEPTANCE OF SUCH WORK OR TO RELIEVE THE CONTRACTOR OF ANY OF ITS OBLIGATIONS HERUNDER.

CONTRACTOR TO NOTIFY THE FOLLOWING ENTITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION:

CITY OF ROSENBERG – (832) 595-3500
COBB, FENDLEY AND ASSOCIATES – (713) 485-8290
SI ENVIRONMENTAL – (832) 490-1513
ODYSSEY ENGINEERING GROUP, LLC – (281) 306-8290
FORT BEND COUNTY – CONSTRUCTION@FORTBENDCOUNTYTX.GOV

BENCHMARK(S) / FLOODPLAIN		
NGS W 865, DISK 0.6 MILES EAST OF CRABB, 0.6 MILES EAST ALONG THE GULF, COLORADO AND SANTA FE RAILWAY FROM THE STATION AT CRABB FORT BEND COUNTY, NEAR MILE POLE 58, OPPOSITE RAILROAD BRIDGE 58 A, AT A CONCRETE BRIDGE ON PAVED ROAD PARALLELING THE TRACK, IN TOP OF THE SOUTH WALL, 2.2 FEET WEST OF THE EAST END, 1.5 FEET SOUTH OF THE CENTERLINE OF THE ROAD, 1.5 FEET HIGHER THAN THE ROAD.		
ELEV.=81.66 FEET, NGVD 29 1992 ADJ.		
FIRM PANEL FOR PROPERTY: 48157C0400L		
DATED: APRIL 2, 2014		
APPR.	REVISION	DATE
APPROVED:  Development Coordinator		
DATE: 6/8/18		
		
 2500 Tanglewilde Street, Suite 240 Houston, Texas 77063 t: 281.306.0240 www.odysseyeg.com TBPE No. F-17637		
CITY OF ROSENBERG FORT BEND COUNTY, TEXAS		
FORT BEND COUNTY M.U.D. NO. 162 STILL CREEK RANCH LIFT STATION & OFFSITE UTILITIES		
GENERAL NOTES		
SURV. FHRA DSGN. JRR OWN. RS CHD. APPR. =====	DATE 06/16 DATE 08/17 DATE 08/17 DATE DATE	JOB NO. 16-011-300 FILE: 16011300-GE-02 PLOT SCALE: 1:1 DWG. NO. 16011300-01 SHEET 2 OF 19 SHEETS

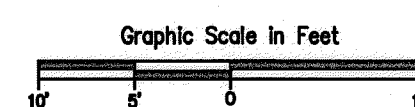
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WARNING

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IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES IN THE VICINITY OF THE PROJECT PRIOR TO BEGINNING CONSTRUCTION.



LEGEND

FG = FINISH GRADE
T.O.P. = TOP OF PAVEMENT
 = FLOW ARROWS

T.O.P. = TOP OF PAVEMENT

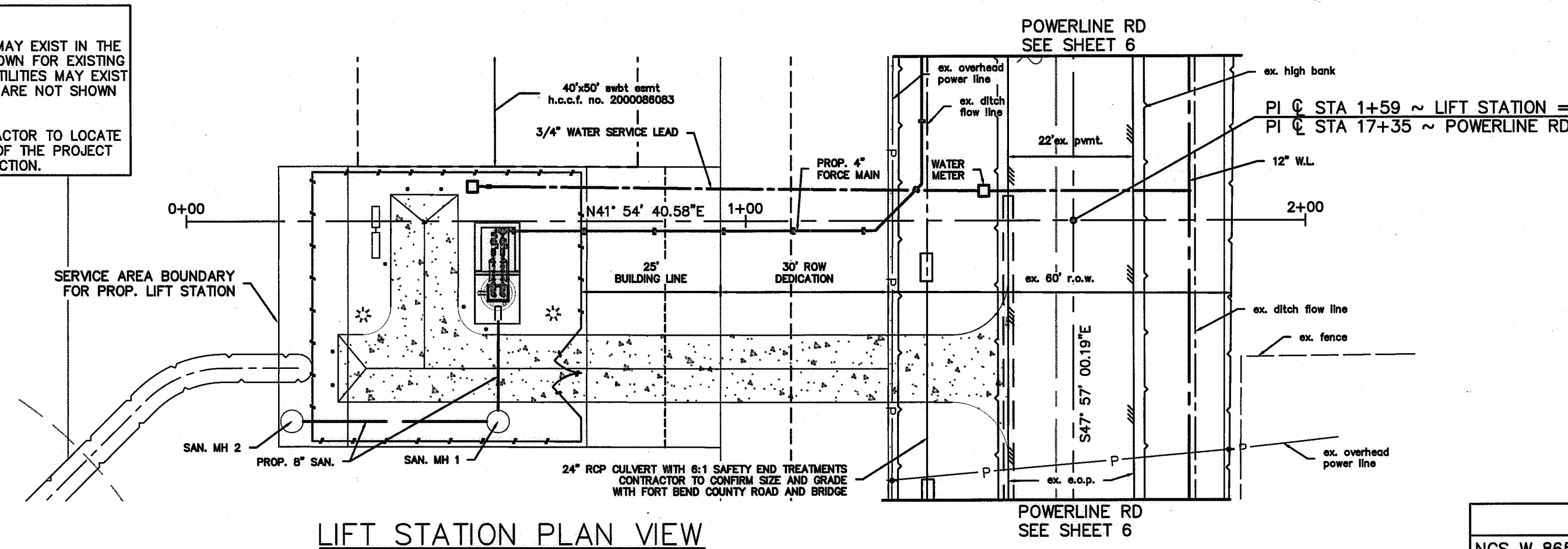
 = FLOW ARROWS

NOTES:

1. CONTRACTOR SHALL COORDINATE ALL WORK WITHIN THE POWERLINE RD. RIGHT OF WAY WITH THE FORT BEND COUNTY ROAD AND BRIDGE DEPARTMENT AT 281-342-4513.
 - 1.1. INCLUDING PROPOSED CULVERT SIZE, TYPE AND GRADES OF THE NEW DRIVEWAY ENTRANCE.
2. CONTRACTOR SHALL OBTAIN A PERMIT FROM FORT BEND COUNTY ENGINEERING DEPARTMENT, (281)633-7600 PRIOR TO ANY WORK WITH IN THE FORT BEND COUNTY DRAINAGE DISTRICT'S BIG CREEK LATERAL II-B-7 RIGHT OF WAY.

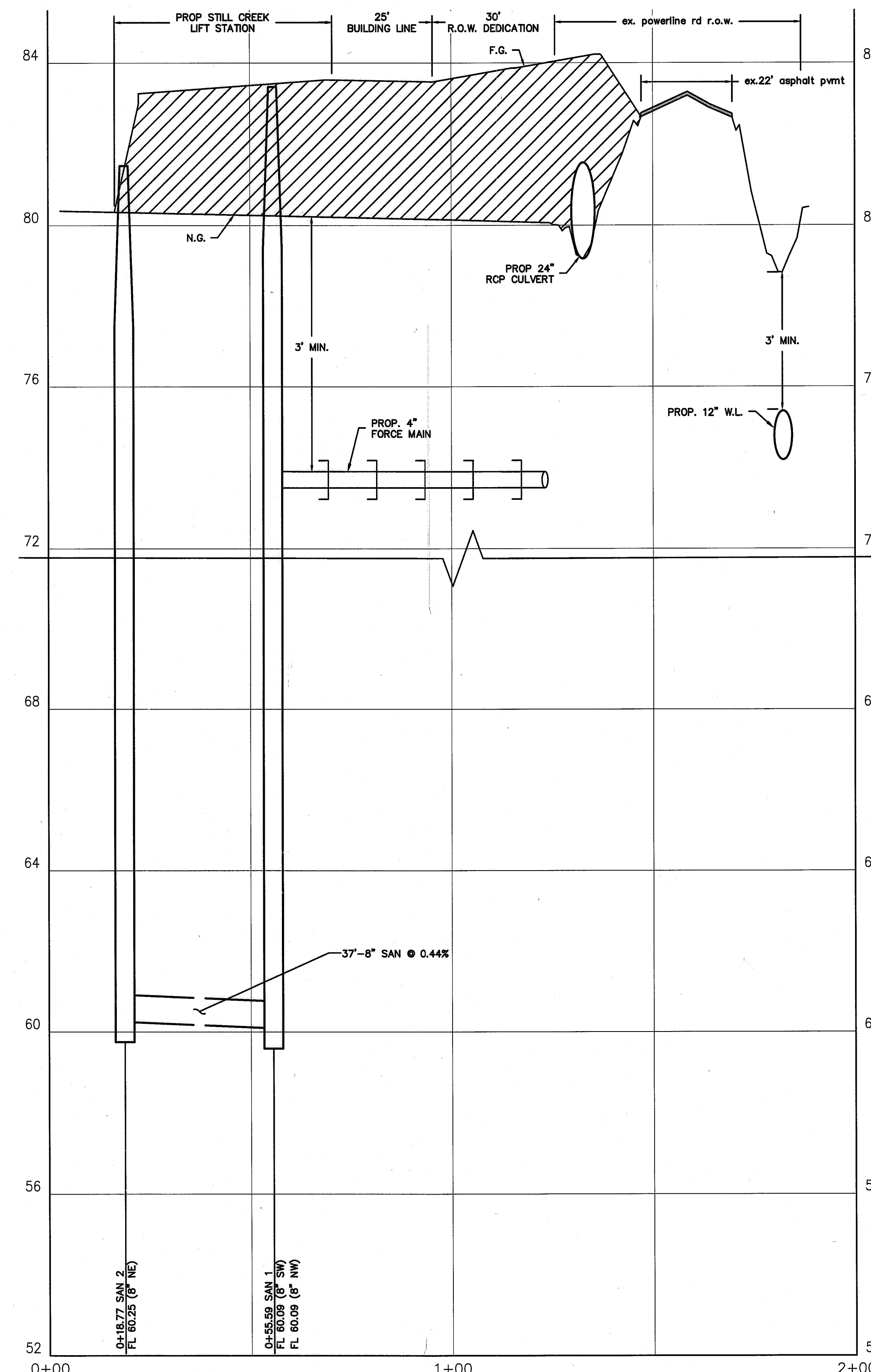
2. CONTRACTOR SHALL OBTAIN A PERMIT FROM FORT BEND COUNTY ENGINEERING DEPARTMENT, (281)633-7500 PRIOR TO ANY WORK WITH IN THE FORT BEND COUNTY DRAINAGE DISTRICT'S BIG CREEK LATERAL II-B-7 RIGHT OF WAY.

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LIFT STATION PLAN VIEW

SCALE 1"=20'



LIFT STATION PROFILE VIEW

HORIZ. SCALE 1"=20'
VERT. SCALE 1"=4'

VERT. SCALE 1"=4'

BENCHMARK(S) / FLOODPLAIN

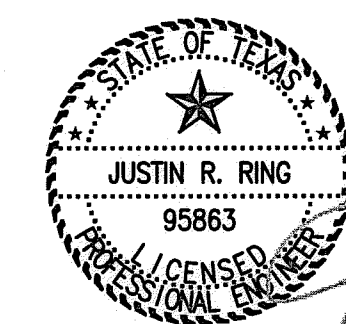
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0.6 MILES EAST ALONG THE GULF, COLORADO AND
SANTA FE RAILWAY FROM THE STATION AT CRABB,
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RAILROAD BRIDGE 58 A, AT A CONCRETE BRIDGE ON
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FEET HIGHER THAN THE ROAD.

ELEV.=81.66 FEET, NGVD 29 1992 ADJ.
FIRM PANEL FOR PROPERTY: 48157C0400L
DATED: APRIL 2, 2014

APPR.	REVISION	DATE
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APPROVED: [Signature]
Development Coordinator

DATE: 6/8/18



ODYSSEY
ENGINEERING GROUP

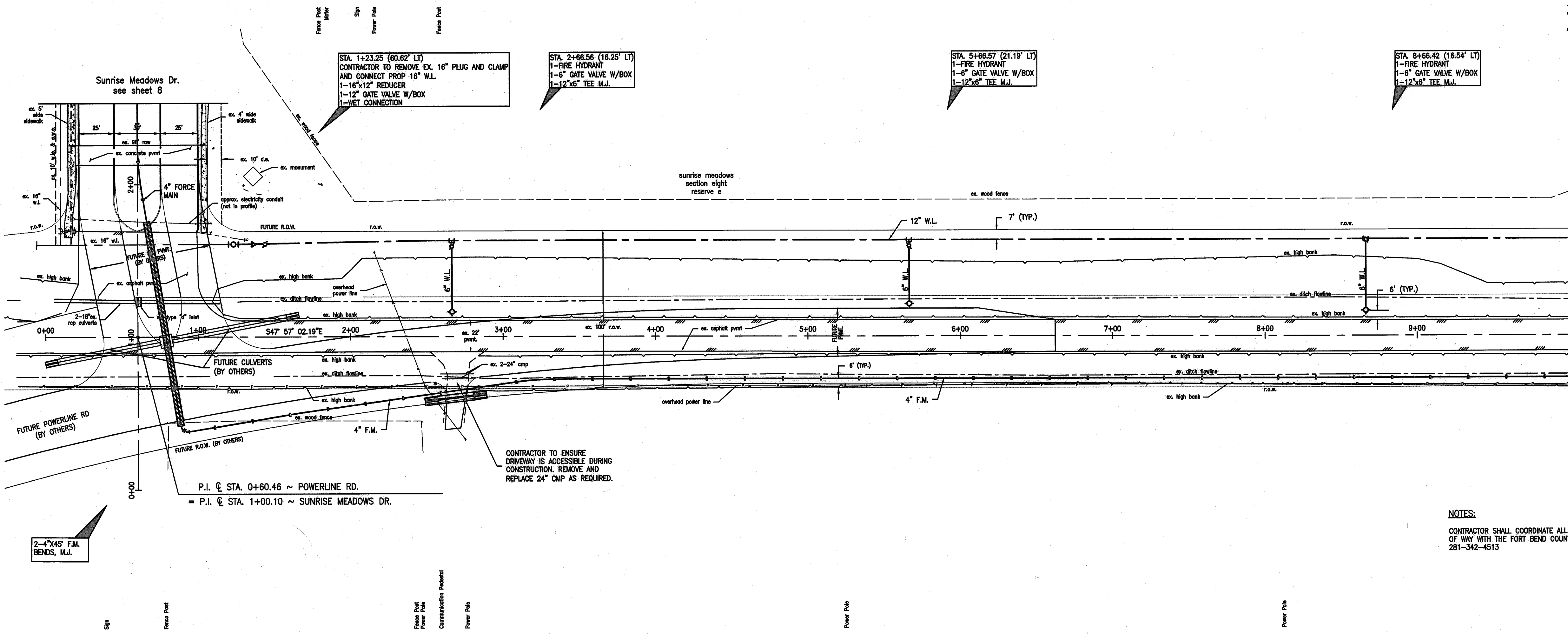
2500 Tanglewilde Street, Suite 240
Houston, Texas 77063
t: 281.306.0240 | www.odysseyeg.com
TBPE No. F-17637

CITY OF ROSENBERG
FORT BEND COUNTY, TEXAS

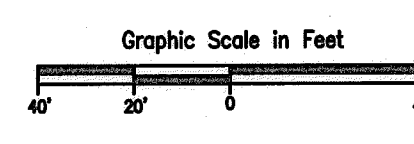
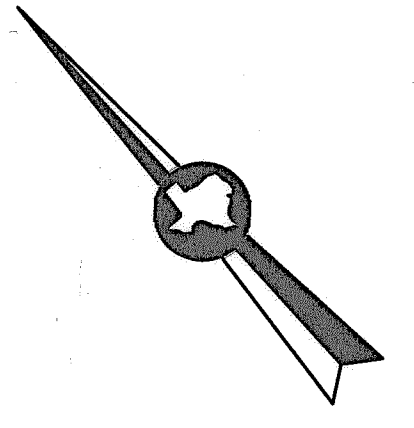
FORT BEND COUNTY M.U.D. NO. 162
STILL CREEK RANCH LIFT STATION
& OFFSITE UTILITIES

PLAN & PROFILE
LIFT STATION GEOMETRIC LAYOUT
FROM STA. 1+00 TO STA 2+00

SURV. <u>EHBA</u>	DATE <u>06/16</u>	JOB NO. 16-011-300
DSGN. <u>JBR</u>	DATE <u>08/17</u>	
DWN. <u>RS</u>	DATE <u>08/17</u>	
CHKD. <u>_____</u>	DATE <u>_____</u>	
APPR. <u>_____</u>	DATE <u>_____</u>	
SCALE:		FILE: 16011300-PP-LS
		PLOT SCALE: 1:1
		DWG. NO.
		16011300-01
HORIZ. AS NOTED		SHEET 4 OF 10 SHEETS
VERT. AS NOTED		



WARNING
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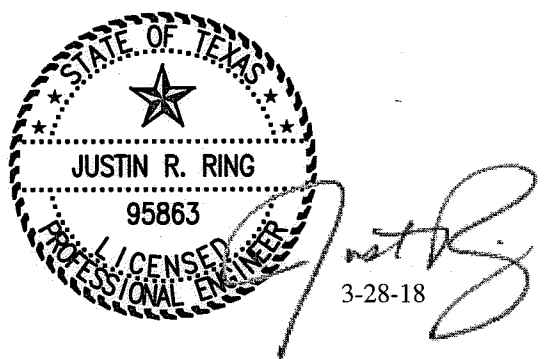


BENCHMARK(S) / FLOODPLAIN
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ELEV.=81.66 FEET, NGVD 29 1992 ADJ.
FIRM PANEL FOR PROPERTY: 48157C0400L
DATED: APRIL 2, 2014

APPR.	REVISION	DATE

NOTES:
CONTRACTOR SHALL COORDINATE ALL WORK WITHIN THE POWERLINE RD. RIGHT OF WAY WITH THE FORT BEND COUNTY ROAD AND BRIDGE DEPARTMENT AT 281-342-4513

APPROVED: *[Signature]*
Development Coordinator
DATE: 6/8/18

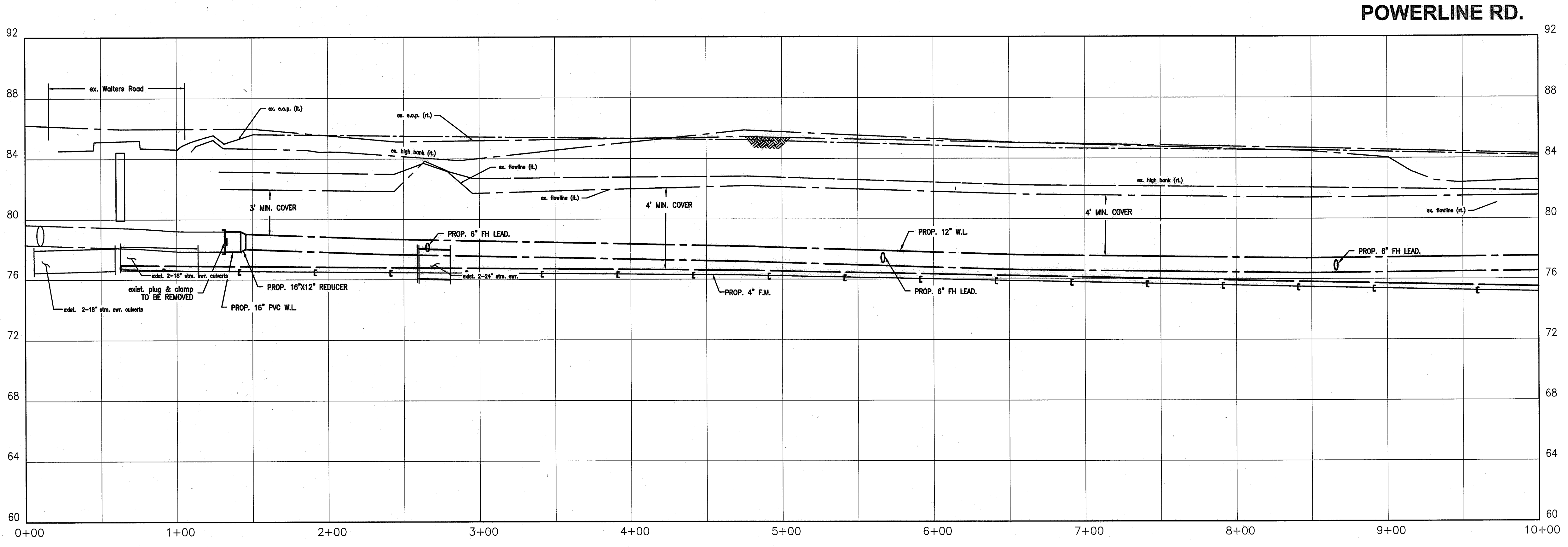


ODYSSEY
ENGINEERING GROUP
2500 Tanglewilde Street, Suite 240
Houston, Texas 77063
t: 281.306.0240 | www.odysseyeg.com
TBPE No. F-17637

CITY OF ROSENBERG
FORT BEND COUNTY, TEXAS
FORT BEND COUNTY M.U.D. NO. 162
STILL CREEK RANCH LIFT STATION
& OFFSITE UTILITIES

PLAN & PROFILE
POWERLINE RD.
FROM STA 0+00 TO STA 10+00

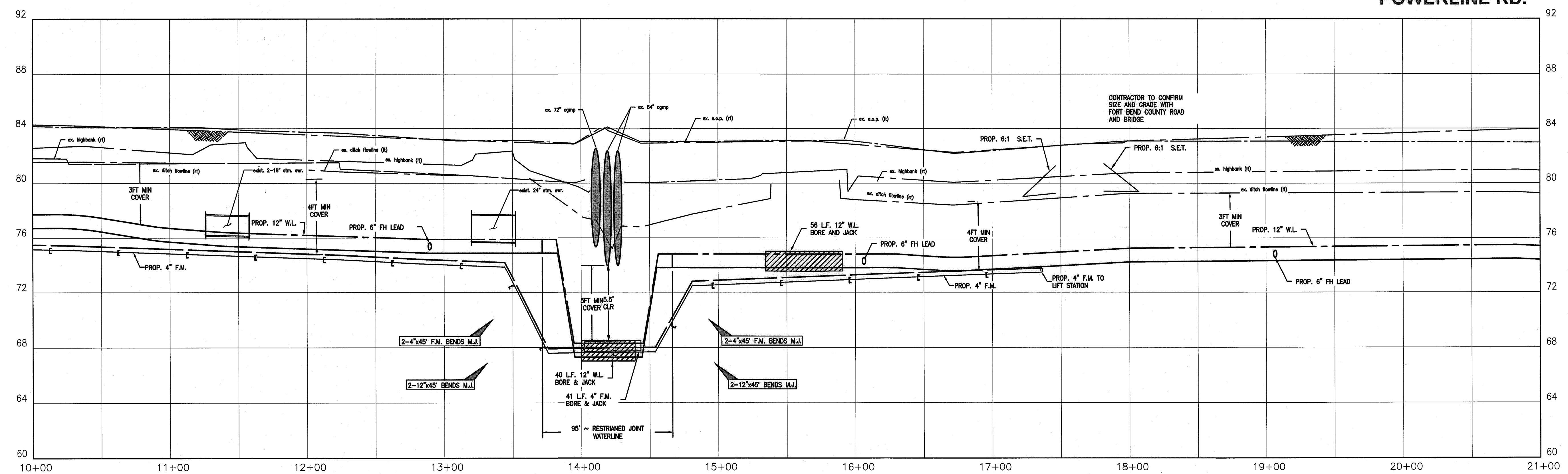
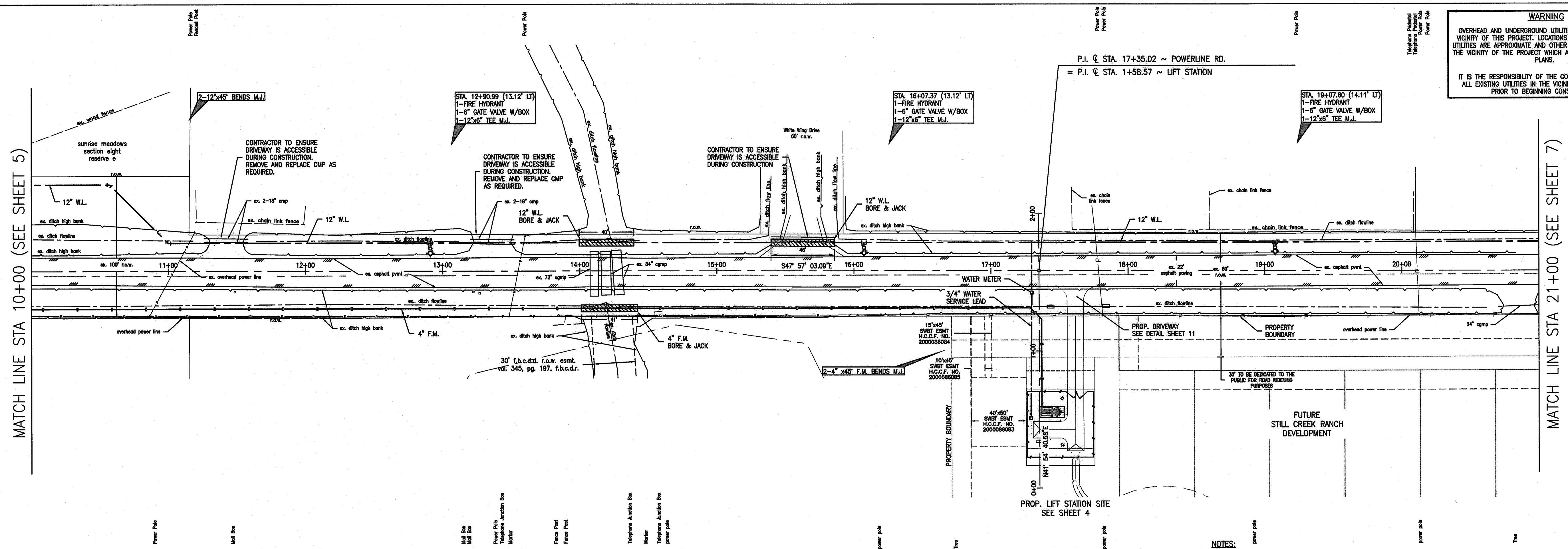
SURV. CHRA	DATE 06/16	JOB NO. 16-011-300
DSGN. JRR	DATE 08/17	FILE: 16011300-PP-POWRL
DWN. JRR	DATE 08/17	PLOT SCALE: 1:1
CHKD. JRR	DATE	DWG. NO.
APPR. JRR	DATE	16011300-01
SCALE:	1" = 40'	SHEET 5 OF 19 SHEETS
HORIZ.	1" = 4'	
VERT.		



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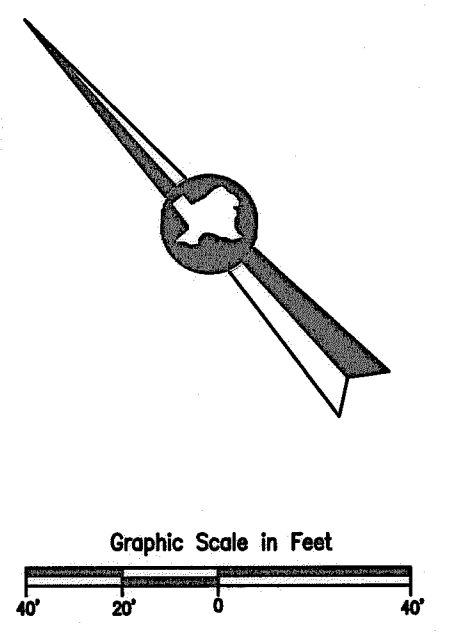
MATCH LINE STA 10+00 (SEE SHEET 5)

MATCH LINE STA 21+00 (SEE SHEET 7)



POWERLINE RD.

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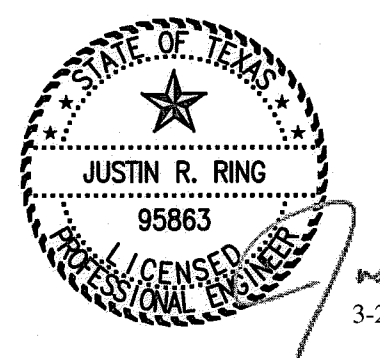


- NOTES:**
- CONTRACTOR SHALL COORDINATE ALL WORK WITHIN THE POWERLINE RD. RIGHT OF WAY WITH THE FORT BEND COUNTY ROAD AND BRIDGE DEPARTMENT AT 281-342-4513.
 - CONTRACTOR SHALL OBTAIN A PERMIT FROM FORT BEND COUNTY ENGINEERING DEPARTS, (281)633-7500 PRIOR TO ANY WORK WITHIN THE FORT BEND COUNTY DRAINAGE DISTRICT'S BIG CREEK LATERAL II-B-7 RIGHT OF WAY.

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APPROVED:
Development Coordinator
DATE: 6/8/18



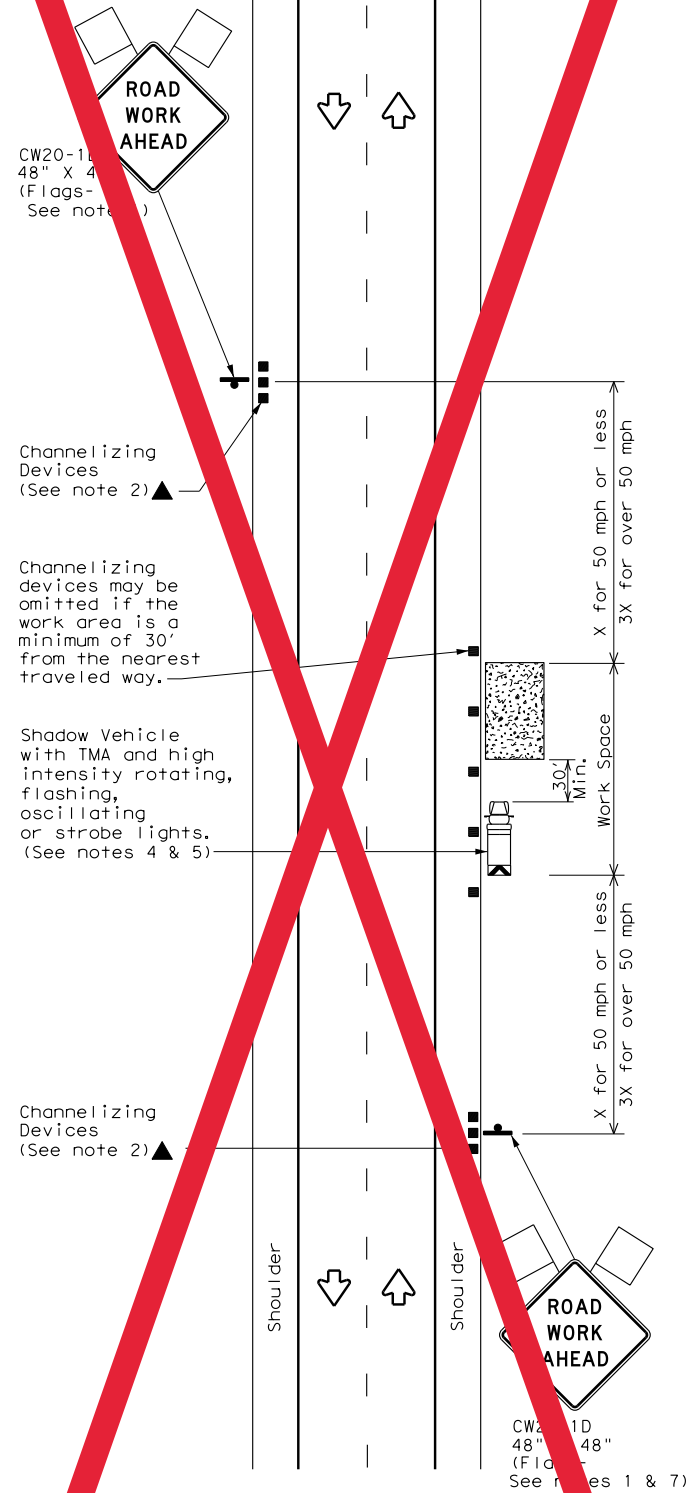
ODYSSEY
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CITY OF ROSENBERG
FORT BEND COUNTY, TEXAS
FORT BEND COUNTY M.U.D. NO. 162
STILL CREEK RANCH LIFT STATION
& OFFSITE UTILITIES

PLAN & PROFILE
POWERLINE RD.
FROM STA 10+00 TO STA 21+00

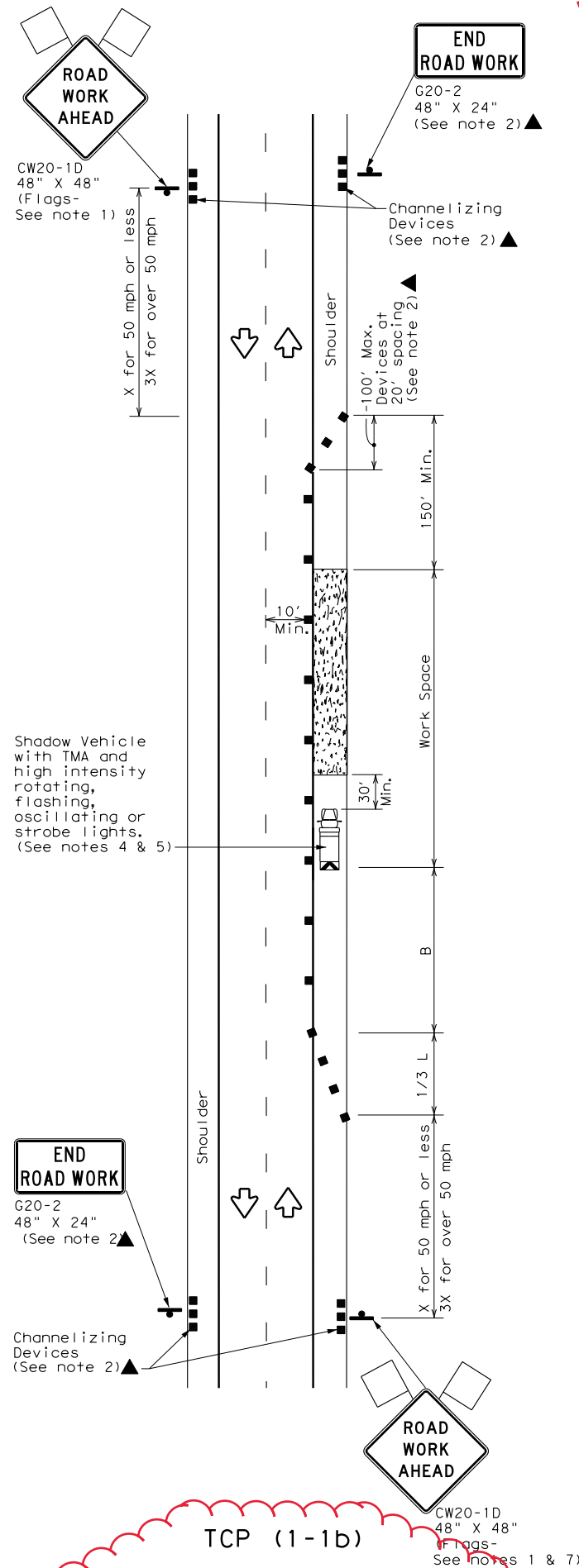
SURV. E.H.R.A.	DATE 06/16	JOB NO. 16-011-300
DSGN. J.R.R.	DATE 08/17	FILE: 16011300-PP-POWRL
DWN. R.S.	DATE 08/17	PLOT SCALE: 1:1
CHD. _____	DATE _____	DWG. NO.
APPR. _____	DATE _____	16011300-01
SCALE: HORIZ. 1" = 40'		SHEET 6 OF 19 SHEETS
VERT. 1" = 4'		

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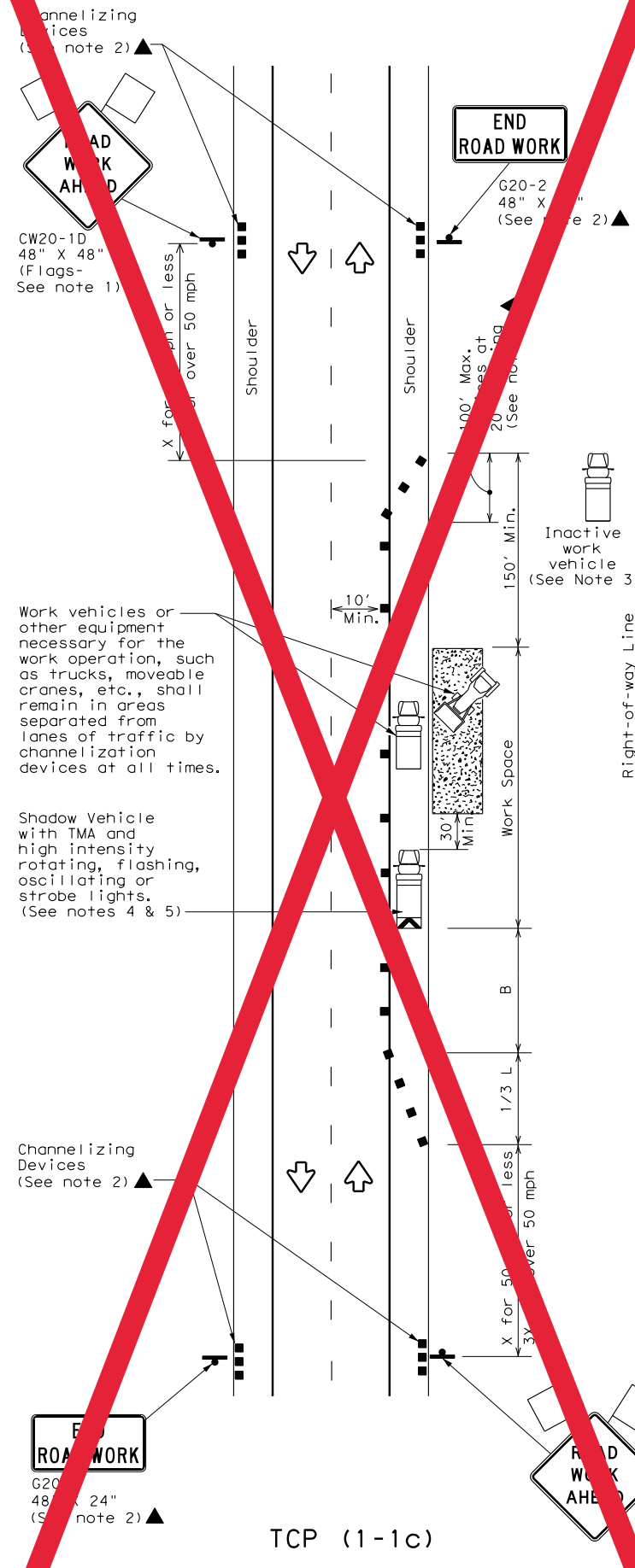
TCP (1-1a)

WORK SPACE NEAR SHOULDER
Conventional Roads



TCP (1-1b)

WORK SPACE ON SHOULDER
Conventional Roads



TCP (1-1c)

WORK VEHICLES ON SHOULDER
Conventional Roads

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L = WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only

** Taper lengths have been rounded off.

L=Length of Taper (FT) W=Width of Offset (FT) S=Posted Speed (MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

GENERAL NOTES

- Flags attached to signs where shown are REQUIRED.
- All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
- Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
- A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
- Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
- See TCP(5-1) for shoulder work on divided highways, expressways and freeways.
- CW21-5 "SHOULDER WORK" signs may be used in place of CW20-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

TRAFFIC CONTROL PLAN CONVENTIONAL ROAD SHOULDER WORK

TCP (1-1) - 18

FILE: tcp1-1-18.dgn	DN:	CK:	DW:	CK:
© TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST	COUNTY	SHEET NO.	
2-94 4-98				
8-95 2-12				
1-97 2-18				