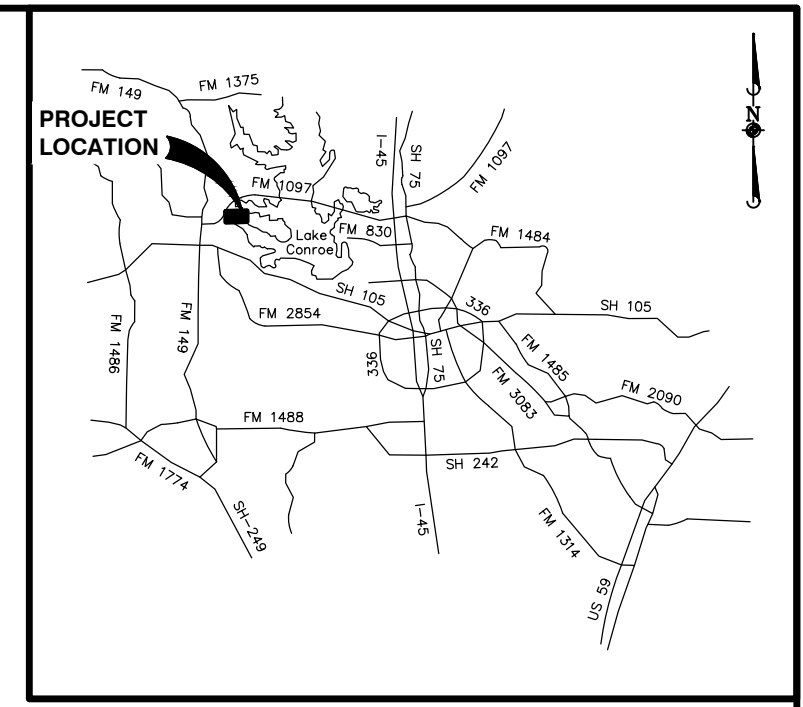


DEVELOPER:
 PULTE HOMES OF TEXAS
 1311 BROADFIELD BLVD, SUITE 100
 HOUSTON, TEXAS 77084
 (281) 749-8000

CONSTRUCTION OF WATER, SANITARY, DRAINAGE AND PAVING FACILITIES FOR

MONTGOMERY BEND SEC 1 & OFFSITE UTILITIES

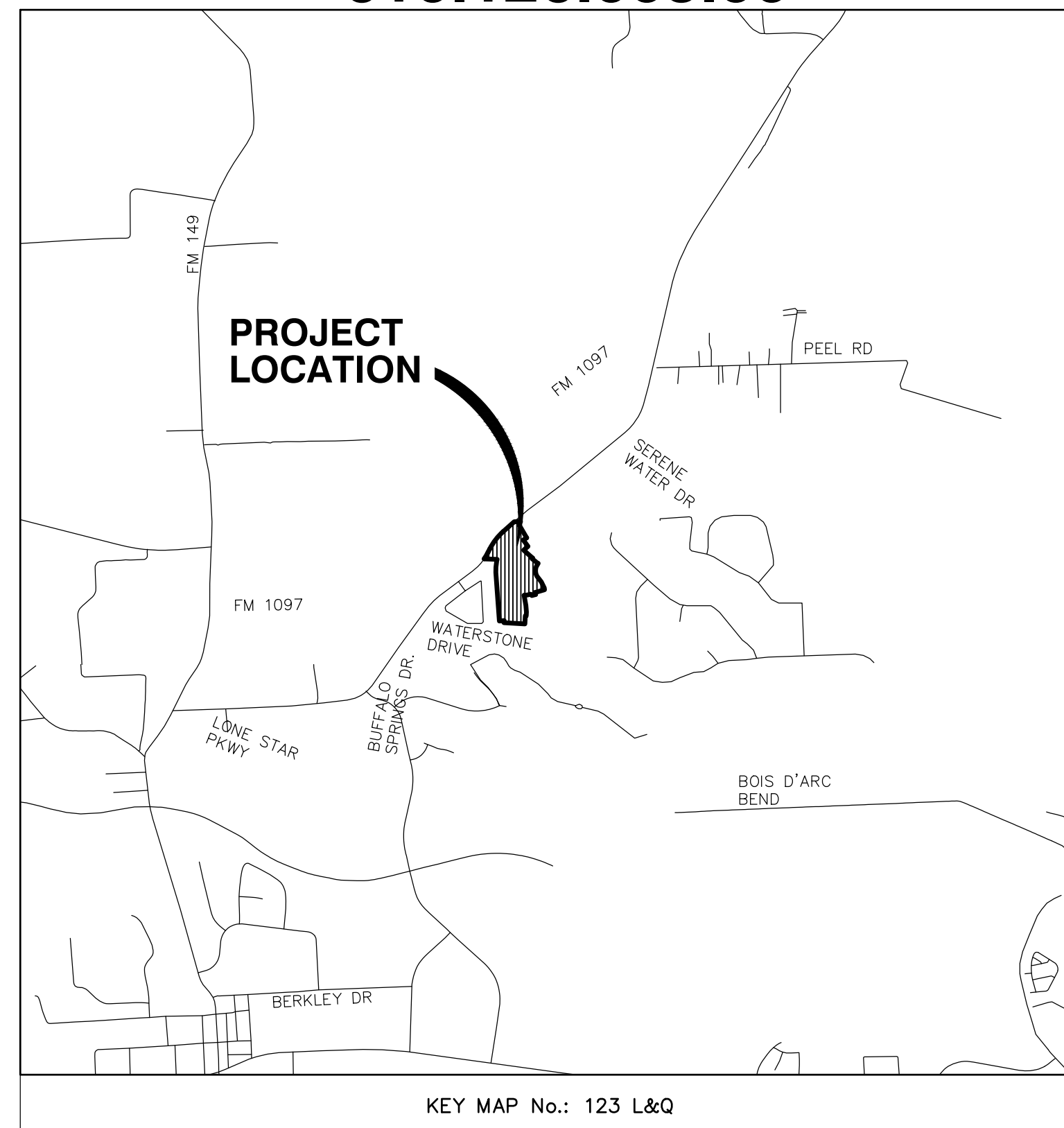
DEVELOPMENT No. 2203
 MONTGOMERY COUNTY MUNICIPAL UTILITY DISTRICT NO. 224
 CITY OF MONTGOMERY
 MONTGOMERY COUNTY, TX
 610.126.005.00



MONTGOMERY COUNTY AREA VICINITY MAP
 N.T.S.

SHEET LIST TABLE

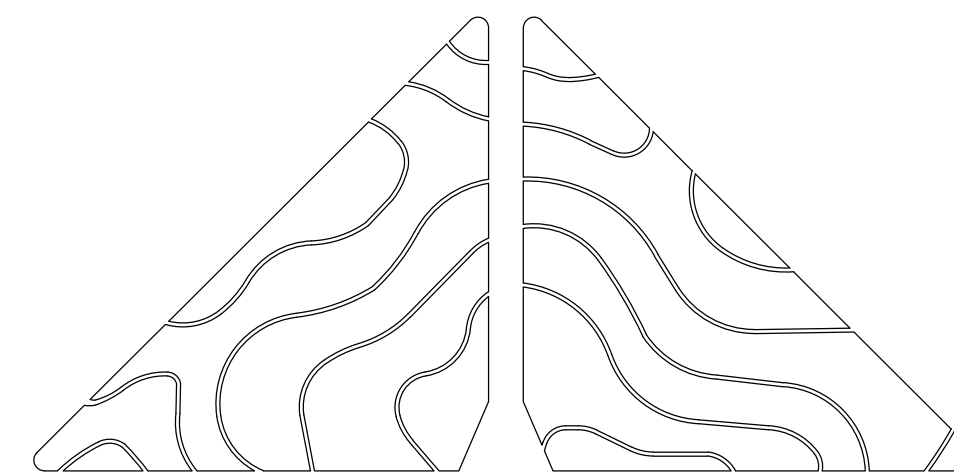
SHEET NO.	SHEET TITLE
1	COVER SHEET
2	GENERAL NOTES
3	WATER & SANITARY LAYOUT
4	DRAINAGE LAYOUT (1 OF 2)
5	DRAINAGE LAYOUT (2 OF 2)
6	DRAINAGE CALCULATIONS
7	GRADING LAYOUT
8	STORM WATER POLLUTION PREVENTION PLAN
9	TRAFFIC SIGNAGE & PAVEMENT MARKINGS
10	SILVER SPUR LANE
11	RED RIVER DRIVE (STA 0+00 TO 7+00)
12	RED RIVER DRIVE (STA 7+00 TO 14+00)
13	LONGHORN RUN DRIVE
14	PRAIRIE RIDGE LANE
15	BLUEBONNET BEND DRIVE (STA 0+00 TO 7+50)
16	BLUEBONNET BEND DRIVE (STA 7+50 TO 12+50)
17	CULVERT CROSSING
18	OFFSITE WATER
19	OFFSITE SANITARY & BASELINE A
20	WATER DETAILS (1 OF 2)
21	WATER DETAILS (2 OF 2)
22	SANITARY SEWER DETAILS
23	STORM SEWER DETAILS
24	STORM WATER POLLUTION PREVENTION PLAN DETAILS
25	PAVING DETAILS (1 OF 2)
26	PAVING DETAILS (2 OF 2)
27	CULVERT HEADWALL DETAILS
28	TRAFFIC CONTROL PLAN
29	LANDSCAPE PLAN



KEY MAP No.: 123 L&Q

LOCATION MAP

N.T.S.



ELEVATION
 land solutions
 TBPE REGISTRATION NUMBER F-22671

BENCHMARK:

SOURCE BENCHMARK:
 ELEVATIONS SHOWN HEREON ARE BASED ON NATIONAL
 GEODETIC SURVEY MONUMENT DESIGNATION HGCD 81, PID No.
 A16405
 HAVING PUBLISHED INFORMATION AS FOLLOWS:
 LATITUDE : 30° 21' 12.45392" NORTH
 LONGITUDE : 095° 34' 45.02514" WEST
 ORTHO HEIGHT : 212.4 FT. (64.74 METERS)
 HORIZONTAL DATUM : NAD83 (2011)
 VERTICAL DATUM : NAVD88

FLOODPLAIN INFORMATION:

ACCORDING TO MAP Nos. 483380200G OF THE FEDERAL
 EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE
 MAPS FOR MONTGOMERY COUNTY, DATED AUGUST 18, 2014,
 THE SUBJECT TRACT IS SITUATED WITHIN: UNSHADED ZONE "X",
 DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR
 FLOOD PLAIN.

THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY
 OR STRUCTURES THEREON WILL BE FREE FROM FLOODING OR
 FLOOD DAMAGE. ON RARE OCCASIONS FLOODS CAN AND WILL
 OCCUR AND FLOOD HEIGHTS MAY BE INCREASED BY MAN-MADE
 OR NATURAL CAUSES. THIS FLOOD STATEMENT SHALL NOT
 CREATE LIABILITY ON THE PART OF THE SURVEYOR.

DATE	REVISION	APP.

GARRET J. DUHON
 9709 LAKESIDE BLVD.
 SUITE 200
 THE WOODLANDS, TX 77381
 (832) 823-2200

TBPE NO. F-22671

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY CITY ENGINEER DATE
 SIGNATURE VALID FOR ONE (1) YEAR

PM: GD DFT: MAQ
 DSN:STM DATE: MAY 2023

SHEET 1 OF 29

P:\610.126.Mabry and Faulkner Tract\005.Sec.1.dwg - Plon Set Drawings\COVER SHEET.dwg, 6/9/2023, 3:59 PM

ELEVATION LAND SOLUTIONS - MONTGOMERY BEND SEC 1 - PROJECT NO. 610.126.005.00

GENERAL CONSTRUCTION NOTES

- 1. MATERIALS, CONSTRUCTION, AND TESTING TO BE IN ACCORDANCE WITH THE SPECIFICATIONS INDICATED IN THE PLANS AND CONTRACTS AND ARE TO BE INCLUDED IN ALL SETS OF CONSTRUCTION DRAWINGS.
2. CONTRACTOR TO OBTAIN ALL DEVELOPMENT AND CONSTRUCTION PERMITS REQUIRED BY CITY OF MONTGOMERY, TEXAS AT HIS EXPENSE PRIOR TO COMMENCEMENT OF WORK, WHERE APPLICABLE.
3. CONTRACTOR SHALL GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES OR RAILROADS AFFECTED BY HIS OPERATIONS 48 HOURS PRIOR TO COMMENCEMENT OF WORK LOCATED IN STREET RIGHT OF WAYS AND EASEMENTS.
4. ALL EXISTING UNDERGROUND UTILITIES ARE AN APPROXIMATE LOCATION ONLY AND ARE NOT GUARANTEED TO BE COMPLETED OR DEFINITE BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE. CONTRACTOR HAS SOLE RESPONSIBILITY FOR FIELD VERIFICATION TO DETERMINE EXACT LOCATIONS AND DEPTHS FOR ALL EXISTING FACILITIES SHOWN ON DRAWINGS BEFORE COMMENCING ANY WORK. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THEIR CONSTRUCTION ACTIVITIES WITH THE UTILITY COMPANIES AS TO THE RELOCATION OF THEIR FACILITIES, IF NEEDED. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UNDERGROUND UTILITIES.
5. THE LOCATION OF ALL UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL REQUEST THE EXACT LOCATION OF THESE FACILITIES BY CALLING THE UTILITY COMPANY, AT LEAST 48 HOURS BEFORE COMMENCING WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE WHICH OCCURS DUE TO HIS FAILURE TO REQUEST THE LOCATION AND PRESERVATION OF THESE UNDERGROUND UTILITIES. ANY DAMAGE TO EXISTING FACILITIES INCURRED AS A RESULT OF CONSTRUCTION OPERATIONS WILL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
6. TEXAS LAW ARTICLE 1436C, PROHIBITS ALL ACTIVITIES IN WHICH PERSONS OR EQUIPMENT MAY COME WITHIN 6 FEET OF ENERGIZED OVERHEAD POWER LINES. FEDERAL REGULATION TITLE 29, PART 1910.130(1) AND PART 1926.440(A)(15) REQUIRE A MINIMUM CLEARANCE OF 10 FEET FROM THESE FACILITIES. THE ABOVE LAWS CARRY BOTH CRIMINAL AND CIVIL LIABILITIES, WITH CONTRACTORS AND OWNERS BEING LEGALLY RESPONSIBLE FOR THE SAFETY OF WORKERS UNDER THESE LAWS. IF THE CONTRACTOR OR THE OWNER MUST WORK NEAR ENERGIZED OVERHEAD POWER LINES, CALL THE COMPANY FOR THE LINES TO BE DEENERGIZED AND/OR MOVED AT YOUR EXPENSE.
7. CONSTRUCTION SHALL COMPLY WITH THE LATEST REVISIONS OF OSHA REGULATIONS AND STATE OF TEXAS LAW CONCERNING TRENCHING AND SHORING. CONTRACTOR SHALL PROVIDE A TRENCH SAFETY SYSTEM TO MEET AS A MINIMUM, THE REQUIREMENTS OF OSHA SAFETY AND HEALTH REGULATION, PART 1926, SUB-PART B, AS PUBLISHED IN THE FEDERAL REGISTER, VOLUME 54, NO. 209, DATED OCTOBER 31, 1989.
8. DETAILS PRESENTED IN THESE PLANS DO NOT EXTEND TO OR INCLUDE DESIGNED OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONTRACTOR OR ITS EMPLOYEES, AGENTS, OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS, INCLUDING THE PLANS AND SPECIFICATIONS REQUIRED BY CHAPTER 756, SUBCHAPTER "C" OF THE TEXAS HEALTH AND SAFETY CODE.
9. CONTRACTOR SHALL COVER OPEN EXCAVATIONS WITH ANCHORED STEEL PLATES DURING NON-WORKING HOURS, ALONG EXISTING ROADWAYS AND TRAFFIC AREAS.
10. ADEQUATE DRAINAGE MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE PROJECT ENGINEER. ALL CONSTRUCTION RUNOFF SHALL COMPLY WITH STORM WATER MANAGEMENT FOR CONSTRUCTION ACTIVITIES AND THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE FLAGMEN, SIGNING, STRIPING AND WARNING TRAFFIC CONTROL DEVICES, ETC. DURING CONSTRUCTION IN ACCORDANCE WITH THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". CONTRACTOR SHALL MAINTAIN AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS AND PROVIDE ALL WEATHER DETOURS AROUND CONSTRUCTION SITE, PROVIDE PUBLIC NOTIFICATION, AND USE UNIFORMED POLICE OFFICERS TO CONTROL TRAFFIC, ESPECIALLY IN HEAVY TRAFFIC LOCATIONS.
12. EXISTING PAVEMENT, CURBS, SIDEWALKS, AND DRIVEWAYS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO CITY OF MONTGOMERY STANDARDS. ALL ASPHALT AND CONCRETE DRIVEWAYS EXCAVATED DURING CONSTRUCTION SHALL BE BACKFILLED WITH CEMENT STABILIZED SAND (CSS) AND RETURNED TO EXISTING CONDITIONS OR BETTER. ALL STATE AND COUNTY HIGHWAY PAVEMENT AND RAILROAD RIGHT-OF-WAYS TO BE BORED ACCORDING TO THE RULES, REGULATIONS, AND REQUIREMENTS FOR APPROVAL AND ACCEPTANCE BY SAID AGENCIES.
13. EXISTING ROADS AND/OR RIGHT OF WAYS DISTURBED DURING CONSTRUCTION SHALL BE AS GOOD OR BETTER THAN THE CONDITION PRIOR TO STARTING WORK, UPON COMPLETION OF THE PROJECT.
14. AFTER DISTURBED AREAS HAVE BEEN COMPLETED TO THE LINES, GRADES, AND CROSS SECTIONS SHOWN ON THE PLANS, SEEDING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS TO ESTABLISH ADEQUATE VEGETATION COVERAGE TO ELIMINATE EROSION. IF NOT, ACTIVITY MUST BE PERFORMED WITHIN THE DISTURBED CONSTRUCTION AREA. AFTER 14 DAYS OF INACTIVITY, THE AREA MUST BE HYDROMULCHED TO AVOID EROSION. IF NO PROVISION FOR PLANTING GRASS IS INCLUDED IN THE PLANS OR SPECIFICATIONS, THE MINIMUM REQUIREMENT FOR THIS ITEM SHALL BE IN ACCORDANCE WITH THE TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR "SODDING OR SEEDING FOR EROSION CONTROL".
15. ALL TRENCHES, INCLUDING TRENCHES FOR LEADS AND STUBS UNDER PAVEMENT AND TO A POINT ONE (1) FOOT BEHIND BACK OF CURB SHALL BE BACKFILLED WITH CEMENT STABILIZED SAND AS PER CITY OF MONTGOMERY SPECIFICATIONS TO A POINT IMMEDIATELY BELOW THE SUBGRADE. TRENCHES OTHER THAN UNDER PAVEMENT, SHALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL IN 6 INCH LAYERS AND MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR COMPACTION TEST (ASTM DESIGNATION D-698/AASHTO T99). MOISTURE CONTENT OF BACKFILL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CEMENT STABILIZED SAND SPECIFICATIONS. ATTACHED DETAILS IN PLANS ARE SPECIFIC FOR BEDDING AND BACKFILL.
16. CONTRACTOR IS TO INCLUDE PRICE OF ALL BEDDING AND BACKFILL OF PIPES REQUIRED, IN PRICE PER LINEAR FOOT OF PIPE.
17. CONTRACTOR IS TO INCLUDE SPREADING AND COMPACTION OF SPOILS INCIDENTAL TO CONSTRUCTION OF ALL UNDERGROUND UTILITIES IN PRICE PER LINEAR FOOT OF PIPE.
18. CONTRACTOR TO REMOVE EXISTING PLUGS AND CONNECT TO EXISTING UTILITY LINES AS INDICATED ON PLANS.
19. UNLESS OTHERWISE NOTED IN PLANS, WHERE MANHOLES ARE LOCATED WITHIN THE UTILITY EASEMENT, THE CONTRACTOR SHALL SET RIM ELEVATIONS TWO INCHES ABOVE FINISHED GROUND ELEVATIONS.
20. WHEN TRENCH CONDITIONS REQUIRE THE USE OF WELL POINTS, THIS IS TO BE REQUESTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
21. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING THE MUD, DIRT, AND DEBRIS DEPOSITED ON EXISTING PAVEMENT DUE TO HIS CONSTRUCTION ACTIVITY DAILY. ALL EXISTING STREETS AND ADJACENT PAVEMENT AREAS IMPACTED BY CONSTRUCTION ACTIVITIES SHALL BE CLEANED USING A STREET SWEEPER. THIS ACTIVITY WILL BE INCIDENTAL TO ALL OTHER ITEMS.
22. THE CONTRACTOR SHALL REMOVE ALL NON-PERMANENT SIGNS FROM THE ROW AND/OR EASEMENT LIMITS, AND RETURN THEM TO THE SIGN OWNER FOR THEM TO HAVE PLACED AT THEIR EXPENSE ON PROPERTY OTHER THAN THAT STATED ABOVE UNLESS OTHERWISE SPECIFIED.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING OR REPLACING ALL EXISTING FENCES INSIDE THE WORK ZONE, TO EXISTING OR BETTER CONDITIONS, EXCEPT FOR THOSE THAT FALL WITHIN A ROAD RIGHT OF WAY.
24. THE CONTRACTOR IS RESPONSIBLE FOR RELOCATING ALL EXISTING IRRIGATION OUTSIDE OF THE RIGHT OF WAY AND/OR EASEMENT UNLESS OTHERWISE SPECIFIED ON THE PLANS.
25. ALL EQUIPMENT SHALL BE REMOVED FROM THE PROJECT SITE ONCE THE PROJECT IS COMPLETED, AS WELL AS, ALL REMAINING DEBRIS WITHIN THE PROJECT SHALL BE REMOVED AND PROPERLY DISPOSED OF AT AN APPROVED DISPOSAL SITE.
26. CONTRACTOR SHALL BE RESPONSIBLE FOR MARKING ALL UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE TO UTILITIES, PAVEMENT, OR OTHER INFRASTRUCTURE AS A RESULT OF ANY WORK.

GRADING NOTES

- 1. BEFORE STARTING CONSTRUCTION, CONTRACTOR SHALL VERIFY BENCHMARK ELEVATION AND NOTIFY ENGINEER IF ANY DISCREPANCY AND/OR CONFLICT IS FOUND.
2. GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE STARTING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
3. AREAS THAT ARE TO RECEIVE FILL SHALL BE PREPARED AS FOLLOWS (NO SEPARATE PAY):
a. AREAS THAT ARE TO RECEIVE FILL WILL BE STRIPPED TO A DEPTH OF 6". STRIPPINGS SHALL BE STOCKPILED AND THEN SPREAD EVENLY ON SURFACE OF FILLED AREAS.
b. PRIOR TO PLACEMENT OF FILL ON STRIPPED AREAS, THE CONTRACTOR SHALL PROOF ROLL USING A PNEUMATIC ROLLER (12 TON OR APPROVED EQUAL) (NO SEPARATE PAY). SHOULD SOFT UNSTABLE AREAS APPEAR IN THE LOTS, THE CONTRACTOR SHALL REMOVE UNSUITABLE MATERIAL AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL REPLACE THIS WITH A SUITABLE MATERIAL COMPACTED AS REQUIRED.
4. ALL AREAS REQUIRING FILL SHALL BE FILLED IN 8" LIFTS, WITH TESTS TAKEN AT 100 FOOT INTERVALS IN EACH LIFT, AND MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR COMPACTION TEST (ASTM D-698/AASHTO T99). FINISH SURFACE SHALL BE LEFT LEVEL, SMOOTHED AND FINE GRADED.
5. FINAL PAYMENT SHALL BE CONTINGENT ON THE ENGINEER'S VERIFICATION THAT LOT GRADING IS IN ACCORDANCE WITH THE GRADING PLAN, AND THAT SOIL COMPACTION TESTS WERE PERFORMED AS REQUIRED.
6. CONTRACTOR SHALL ENSURE THERE IS POSITIVE DRAINAGE FROM THE PROPOSED BUILDINGS AND NO PONDING IN PAVED AREAS, AND SHALL NOTIFY ENGINEER IF ANY GRADING DISCREPANCIES ARE FOUND IN THE EXISTING AND PROPOSED GRADES PRIOR TO PLACEMENT OF PAVEMENT OR UTILITIES.
7. CONTRACTOR SHALL PROTECT ALL MANHOLE COVERS, VALVE COVERS, VAULT LIDS, FIRE HYDRANTS, POWER POLES, GUY WIRES, AND TELEPHONE BOXES THAT ARE TO REMAIN IN PLACE AND UNDISTURBED DURING CONSTRUCTION.
8. ALL EXISTING CONCRETE PAVING, SIDEWALK, AND CURB DEMOLITION SHALL BE REMOVED AND DISPOSED OF BY CONTRACTOR. DISPOSAL SHALL BE AT AN APPROVED OFF-SITE, LAWFUL LOCATION, UNLESS DIRECTED OTHERWISE BY THE OWNER.
9. EXISTING DRAINAGE SWALES: ALL EXISTING DRAINAGE SWALES SHALL BE FILLED AS SHOWN WITH MATERIAL FROM EXISTING ADJACENT SPOIL BANKS IN MAXIMUM 8: LOOSE LIFTS AND COMPACTED TO 95% PROCTOR DENSITY AS PER AASHTO TEST METHOD T-99.
10. EXISTING DRAINAGE SWALES: ALL EXISTING DRAINAGE SWALES UNDER PROPOSED CONCRETE PAVEMENT SHALL BE CLEANED, MUCKED OUT AND SCARIFIED TO A MINIMUM DEPTH OF 6" AND FILLED AS SPECIFIED ABOVE IN FILL NOTE NO. 9NO SEPARATE PAY.
11. ROADWAY EMBANKMENT: STRIP 6" OF VEGETATION FROM AREA TO BE FILLED AND RE-COMPACT SOIL TO 95% PROCTOR DENSITY, PLACE FILL MATERIAL AS SPECIFIED IN FILL NOTE NO. 9

STORM SEWER NOTES

- 1. STORM SEWER AND LEADS SHALL BE REINFORCED CONCRETE PIPE, ASTM C-76, CLASS III, WITH O-RING RUBBER GASKET JOINT, AND SHALL BE INSTALLED, BEDDED AND BACKFILLED IN ACCORDANCE WITH THE SPECIFICATIONS INDICATED IN THE PLANS AND CONTRACTS.
2. ALL PROPOSED PIPE STUB CUTS FROM MANHOLES OR INLETS ARE TO BE PLUGGED WITH 8 INCH BRICK WALLS UNLESS OTHERWISE NOTED.
3. ALL BOX CULVERTS INSTALLED SHALL BE PLACED ON A MINIMUM OF 6 INCHES OF CEMENT STABILIZED SAND (CEMENT STABILIZED SAND SHALL BE 2 SACK CEMENT PER TON). FOR INSTALLATION OF PRE-CAST CONCRETE BOX CULVERTS IN POOR SOIL CONDITIONS, A 7 INCH REINFORCED CONCRETE SLAB SHALL BE INSTALLED. FOR INSTALLATION OF MONOLITHIC REINFORCED CONCRETE BOX CULVERTS IN POOR SOIL CONDITIONS, A 4 INCH THICK CLASS "C" CONCRETE SEAL SLAB SHALL BE INSTALLED, PRIOR TO CONSTRUCTION OF BOX CULVERTS.
4. STORM SEWER MANHOLES, INLETS, AND JUNCTION BOXES SHALL BE STANDARD PRE-CAST, UNLESS OTHERWISE NOTED.
5. ALL INLETS TO BE TYPE "C" UNLESS OTHERWISE STATED ON PLANS
6. ALL STORM SEWER LEADS SHALL BE 24 INCH MINIMUM UNLESS OTHERWISE INDICATED.
7. GRADE DROP ON LEADS BETWEEN INLETS TO BE A MINIMUM OF 0.20 FOOT. GRADE DROP BETWEEN INLET AND MANHOLES TO BE 0.20 FOOT UNLESS OTHERWISE SHOWN.
8. WHEN MANHOLE FRAME AND COVER IS REQUIRED, USE VULCAN FOUNDRY V-1418-Z FRAME AND COVER (OR EQUAL), UNLESS OTHERWISE INDICATED ON THE PLANS.
9. FOR ADJUSTMENT OF MANHOLE LIDS USE STANDARD CONCRETE RINGS.
10. CONCRETE USED FOR ALL POURED-IN-PLACE MANHOLES, INLETS, WINGWALLS, HEADWALLS AND OTHER APPURTENANCES TO BE CLASS "A" CONCRETE WITH 3,000 P.S.I STRENGTH AT 28 DAYS.
11. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4".
12. ALL STORM SEWER PIPES UNDER OR WITHIN 1' OF PAVEMENT SHALL BE BACKFILLED WITH COMPACTED CEMENT STABILIZED SAND (2.0 SACKS PER TON OF SAND) TO THE BOTTOM OF 6" STABILIZED SUBGRADE.

CITY OF MONTGOMERY GENERAL CONSTRUCTION NOTES:

- 1. CONTRACTOR SHALL CONTACT CITY OF MONTGOMERY CITY ENGINEER, CHRIS ROZNOVSKY AT (713) 789-1900 A MINIMUM OF 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
2. CONTRACTOR SHALL CONTACT CITY OF MONTGOMERY DIRECTOR OF PUBLIC WORKS, MIKE MUCKLERROY AT (936) 597-6434 A MINIMUM OF 48 HOURS PRIOR TO COMMENCING CONSTRUCTION TO SET UP AN INSPECTION TO VERIFY CITY'S FACILITIES.
3. CONTRACTOR TO CONTACT CITY OF MONTGOMERY UTILITY OPERATOR, JACOB WILLIAMS OF H2O INNOVATIONS AT (281) 353-9809 A MINIMUM OF 48 HOURS PRIOR TO COMMENCING CONSTRUCTION TO SET UP AN INSPECTION TO VERIFY CITY'S FACILITIES.
4. THE CITY UTILITY OPERATOR AND PUBLIC WORKS FOREMAN SHALL BE NOTIFIED 24 HOURS IN ADVANCE TO WITNESS AND INSPECT ANY SANITARY SEWER LINE CONNECTION. NO SANITARY SEWER LINES SHALL BE BACKFILLED BEFORE THE CITY'S UTILITY OPERATOR OR PUBLIC WORKS FOREMAN HAS INSPECT THE CONNECTION.
5. CONTRACTOR SHALL CONTACT THE CITY'S OPERATOR OR PUBLIC WORKS FOREMAN TO OPERATE ANY VALVES. AT NO TIME IS THE CONTRACTOR OR CONTRACTOR'S REPRESENTATIVE TO OPERATE ANY PART OF THE CITY OF MONTGOMERY WATER SYSTEM.
6. THE OWNER OR CONTRACTOR SHALL INSTALL AND TEST APPROPRIATE BACKFLOW PREVENTION, PER THE CITY OF MONTGOMERY RULES & REGULATIONS.
7. ALL TAPS TO THE CITY'S SYSTEM SHALL BE MADE BY THE CITY'S OPERATOR AT THE OWNERS EXPENSE
8. IF THE ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS. A VARIANCE MUST BE RECEIVED FROM THE CITY COUNCIL.

CITY OF MONTGOMERY ORDINANCE NOTES:

- 1. REMAINING TREE COVERAGE MUST COMPLY WITH ALL APPLICABLE CITY OF MONTGOMERY ORDINANCES. A TREE PRESERVATION PLAN SHOWING COMPLIANCE WITH CANOPY COVERAGE REQUIREMENTS WILL BE SUBMITTED WITH THE CONSTRUCTION PLANS FOR THE DEVELOPMENT.

SANITARY SEWER NOTES:

- 1. ALL SANITARY SEWER MUST BE IN COMPLIANCE OF TCEQ CHAPTER 217.
2. SANITARY SEWERS SHALL BE CONSTRUCTED AND TESTED IN COMPLIANCE OF THE TCEQ REQUIREMENTS, UNLESS OTHERWISE SPECIFIED.
3. BACKFILL AND BEDDING FOR SANITARY SEWER MUST MEET THE MINIMUM REQUIREMENTS OF ASTM D-2321 AND IN ACCORDANCE WITH THE SPECIFICATIONS AND DETAILS FOUND IN THIS PLAN SET AND IN THE CONTRACTS.
4. SANITARY SEWER PIPE SHALL BE PVC SDR 26 OR PVC SDR 35 (WITH APPROVAL), IN ACCORDANCE WITH ASTM SPECIFICATIONS D-3034, FOR 4" THROUGH 15" AND ASTM F-879 FOR 18" THROUGH 27", UNLESS OTHERWISE SPECIFIED. MINIMUM SIZE SANITARY SEWER MAIN IS 6", SDR 35 MAY BE USED WHEN DEPTH IS MORE THAN 3 FEET AND LESS THAN 6 FEET.
5. SEWER LINES SHALL BE LOCATED ON THE OPPOSITE SIDE OF THE STREET FROM WHERE WATER IS LOCATED.
6. CONTRACTOR SHALL PROVIDE A MINIMUM HORIZONTAL CLEARANCE OF 9' (NINE FEET) BETWEEN WATER LINES AND SANITARY SEWER MANHOLES AND LINES PER TCEQ CHAPTER 290.
7. CONTRACTOR SHALL PROVIDE 24-INCHES OF CLEARANCE AT ALL SANITARY SEWERS CROSSING WATER LINES.
8. NO SEWER PIPE SHALL BE LAID ON AN UNSTABLE FOUNDATION. SELECTED MATERIAL SHALL BE USED AND/OR WET SAND CONSTRUCTION DETAILS, WHICHEVER APPLIES IN THE OPINION OF THE ENGINEER. NO PIPE SHALL BE COVERED WITHOUT APPROVAL OF THE ENGINEER OR HIS REPRESENTATIVE. SANITARY SEWERS CONSTRUCTED IN WET SAND SHALL HAVE A SPECIAL PROCEDURE.
9. WHEN THE NATURAL GROUND LEVEL AROUND MANHOLE LIES BELOW THE 100 YEAR FLOODPLAIN ELEVATION, THE MANHOLE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATION AND DETAILS FOUND IN THE PLAN SET AND IN THE CONTRACTS, FOR A SEALED AND VENTED MANHOLE
10. A DEFLECTION TEST SHALL BE PERFORMED AFTER THE BACKFILL HAS BEEN IN PLACE A MINIMUM OF 30 DAYS. THIS TEST SHALL BE DONE BY PULLING A HAND LINE WITH AN ATTACHED MANDREL FROM MANHOLE TO MANHOLE. THE MANDREL SHALL HAVE AN OUTSIDE DIAMETER THAT IS AT LEAST 95% OF THE ORIGINAL INSIDE DIAMETER OF THE PIPE MANDREL TO BE MANUFACTURED WITH A MINIMUM OF SEVEN (7) RUNNERS, WITH EACH RUNNER BEING A MINIMUM OF 5 INCHES LONG. ANY PIPE NOT MEETING TEST REQUIREMENTS TO BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.
11. WHERE A SEWER LINE HAS LESS THAN 2 FEET OF COVER, PROVIDE CEMENT STABILIZED SAND BACKFILL MATERIAL.
12. WHEN MANHOLE FRAME AND COVER IS REQUIRED, USE VULCAN FOUNDRY V-1418-2 FRAME AND COVER (OR EQUAL), UNLESS OTHERWISE INDICATED ON THE PLANS.
13. CONTRACTOR SHALL KEEP RECORD OF LOCATION OF ALL STACKS, STUBS, SEWER LEADS, ETC. THE AS-BUILT DRAWINGS MUST SHOW THE EXACT LOCATION.
14. IF SANITARY SERVICE LEADS ARE INSTALLED DURING CONSTRUCTION OF MAIN LINE, ALL LEADS TO HAVE A MINIMUM SLOPE OF 0.70% OR GREATER. ALL PVC LEADS TO BE THE SAME MATERIAL AS MAIN LINE. ALL DOUBLE SERVICE LEADS TO HAVE WYE LOCATED ON THE END OF THE LEAD. ALL SINGLE SERVICE LEADS TO BE 6 INCH, AND ALL DOUBLE SERVICE LEADS TO BE 6 INCH. IF AN 8 INCH LEAD IS REQUIRED, LEADS MUST HAVE A MINIMUM SLOPE OF 0.44%.
15. BYPASSING (DISCHARGING) OF RAW SEWAGE ON THE SURFACE OR TO ADJOINING WATERWAYS IS STRICTLY PROHIBITED.
16. CONTRACTOR SHALL PERFORM BYPASS PUMPING AS REQUIRED. THERE SHALL BE NO SEPARATE PAYMENT FOR BYPASS PUMPING PERFORMED ON THIS PROJECT.
17. CONTRACTOR TO VERIFY LOCATIONS OF EXISTING WATERLINES DURING CONSTRUCTION. IF THE REQUIRED SEPARATION DISTANCE BETWEEN PARALLEL WATER AND SEWER LINES, AS DETAILED IN TECHNICAL SPECIFICATION SECTION 33 31 13, CANNOT BE MAINTAINED, CONTRACTOR TO RELOCATE WATERLINE AS DIRECTED BY THE ENGINEER.
18. WHERE A WET CONNECTION TO AN EXISTING 6" OR 8" LINE IS TO BE MADE BY CUTTING THE EXISTING LINE, DR18 C-900 PVC PIPE SHALL BE USED TO REPLACE THE SECTION OF OLD ONE REMOVED AND SHALL BE COUPLED TO THE EXISTING ONE WITH A SOUND D.L. SLEEVE. SEPARATE COMPENSATION WILL BE MADE FOR THE REQUIRED DUCTILE IRON FITTINGS. THE BID PRICE FOR WET CONNECTION TO AN EXISTING ONE SHALL INCLUDE LABOR, TOOLS, PIPE, AND MISCELLANEOUS FITTINGS FOR SMALL DIAMETER PIPE NOT OTHERWISE PROVIDED FOR IN THE BID PROPOSAL.
19. ALL PENETRATIONS INTO A SANITARY SEWER MANHOLE, INCLUDING SERVICE LEADS SHALL BE SERVED BY AN INVERT. ALL INVERTS SHALL EXTEND ALL THE WAY TO THE WALLS OF THE MANHOLE.
20. INSTALLATION OF GRAVITY SANITARY SEWER PIPE AND FORCE MAIN BY TRENCHLESS CONSTRUCTION SHALL MEET ASTM, ANSI, AND AWWA STANDARDS. IF THERE IS A CONFLICT IN STANDARDS THE MOST STRINGENT SHALL GOVERN.
21. ALL SANITARY SEWER PIPES UNDER OR WITHIN 1' OF PAVEMENT SHALL BE BACKFILLED WITH COMPACTED CEMENT STABILIZED SAND (2.0 SACKS PER TON OF SAND) TO THE BOTTOM OF 6" STABILIZED SUBGRADE.
22. THE PROPOSED CONNECTION OF THE SANITARY SEWER LINE TO THE SANITARY SEWER MANHOLE SHALL BE BY MEANS OF CORE AND BOOT AT SPECIFIED FLOWLINE. THE OPENING IN THE SIDE OF THE MANHOLE SHALL NOT BE MORE THAN 3-INCHES NOR LESS THAN 1-INCH IN DIAMETER THAN THE OUTSIDE DIAMETER FOR THE PROPOSED PIPE. THE PROPOSED PIPE SHALL NOT PRODUCE MORE THAN 3-INCHES PAST THE INSIDE FACE OF THE MANHOLE WALL. FILL THE ENTIRE VOID AROUND THE EXISTING MANHOLE WITH CEMENT-SAND. CONNECTION TO EXISTING PUBLIC SANITARY SEWER MANHOLE SHALL BE COMPLETED BY THE CITY OF MONTGOMERY AT THE OWNER'S EXPENSE.

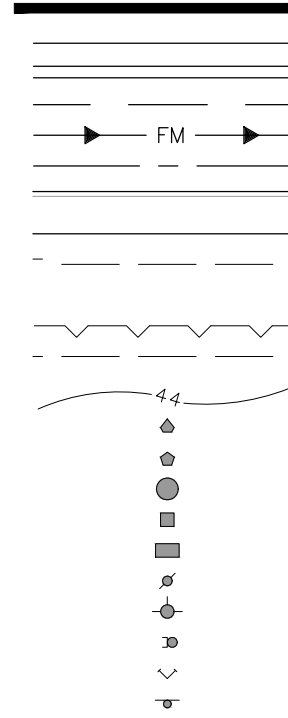
WATER CONSTRUCTION NOTES:

- 1. CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING TO WITHSTAND TEST PRESSURE AS SPECIFIED IN THE SPECIFICATIONS INDICATED IN THE PLANS AND CONTRACTS FOR WATER MAIN CONSTRUCTION AND MATERIALS.
2. ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE/NSF INTERNATIONAL (ANSI/NSF) STANDARD 61 AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI.
3. ALL PLASTIC PIPES FOR USE IN PUBLIC WATER SYSTEMS MUST ALSO BEAR THE NSF INTERNATIONAL SEAL OF APPROVAL (NSF-PW) AND HAVE AN ASTM DESIGN PRESSURE RATING OF AT LEAST 150 POUNDS PER SQUARE INCH (PSI) OR A STANDARD DIMENSION RATIO OF 26 OR LESS.
4. PRIOR TO INSTALLATION OF WATER METER, WATER METER LEAD OR UNMETERED FIRE SPRINKLER LINE, THE CONTRACTOR SHALL CONTACT THE PROVIDER.
5. PRIOR TO WATER MAIN CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE CITY ENGINEER NO LESS THAN 48 HOURS IN ADVANCE AND COMPLY WITH ALL REQUIREMENTS NECESSARY FOR APPROVAL OF THE WATER MAIN CONSTRUCTION.
6. ALL WATER LINE AND SEWER LINE CROSSINGS SHALL BE CONSTRUCTED PER TCEQ REGULATIONS.
7. TWELVE-INCH (12") AND SMALLER MAINS SHALL HAVE A MINIMUM COVER OF FOUR FEET (4') FROM THE TOP OF CURB OR FIVE FEET (5') FROM THE MEAN ELEVATION OF THE BOTTOM OF THE NEARBY DITCH AND NEARBY RIGHT-OF-WAY ELEVATION FOR OPEN DITCH SECTIONS.
8. MAINS LARGER THAN TWELVE-INCHES (12") SHALL HAVE A MINIMUM COVER OF FIVE FEET (5') FROM THE TOP OF THE CURB OR SIX FEET (6') FROM THE MEAN ELEVATION FOR OPEN DITCH SECTIONS.
9. ALL WATER MAINS SHALL BE HYDROSTATICALLY TESTED BEFORE BACTERIOLOGICAL TESTING IN ACCORDANCE WITH AWWA STANDARD C-600 FOR DI PIPE OR C-605 FOR PVC AS REQUIRED IN 30 TAC 290-44 (A) (5).
10. ALL WATER PIPING SHALL BE DISINFECTED AND BACTERIOLOGICALLY TESTED PRIOR TO USE IN ACCORDANCE WITH AWWA STANDARD C-651.
11. ALL WATER MAINS 4" AND LARGER SHALL BE C-900 (SDR-18), UNLESS OTHERWISE NOTED IN PLANS.
12. THE INSTALLATION OF ALL WATER LINES SHALL EXTEND ALONG THE ENTIRE LENGTH OF THE PROPERTY TO BE SERVED. WATER LINES THAT DEAD END SHALL EXTEND TO THE PROJECT LIMITS FOR FUTURE EXTENSIONS.
13. ALL WATER VALVES SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C-500 AND SHALL BE OF THE RESILIENT SEAT TYPE.
14. THE USE OF PIPES AND PIPE FITTINGS THAT CONTAIN MORE THAN 0.25% LEAD OR SOLDER AND FLUX THAT CONTAINS MORE THAN 0.2% LEAD IS PROHIBITED.
15. WATER MAINS CROSSING OR WITHIN 1' OF PAVEMENT SHALL HAVE A BANK SAND ENVELOPE OF 12" AND THE REMAINING TRENCH FILLED WITH COMPACTED CEMENT STABILIZED SAND (2.0 SACK PER TON SAND) TO BOTTOM OF 6" STABILIZED SUBGRADE.

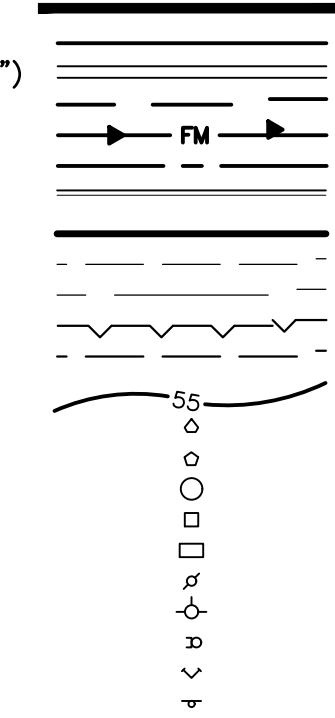


STANDARD SYMBOLS

EXISTING



PROPOSED



- STORM SEWER (24" & LESS)
STORM SEWER (GREATER THAN 24")
SANITARY SEWER
SANITARY FORCE MAIN
WATERLINE
CURB AND GUTTER
PROPERTY LINE/PLAT BOUNDARY
EASEMENT LINE
BUILDING SETBACK LINE
TOP OF BANK/DITCH
TOE/FL OF DITCH
1 FOOT CONTOURS
SANITARY STACK
SANITARY RISER
MANHOLE
AREA INLET
CURB INLET
GATE VALVE & BOX
FLUSH VALVE/FIRE HYDRANT
BLOW-OFF & BOX
SANITARY SERVICE WYE
SIGN
PAVEMENT HIGH POINT
STREET LIGHT
TOP OF CURB ELEVATION
FLOWLINE ELEVATION

WATER LINE-SANITARY SEWER CROSSING BLOCK

ABBREVIATIONS

Table with 2 columns: Abbreviation and Description. Includes ADJ (Adjacent), BOC (Back to Curb), CLR (Clearance), CONC (Concrete), CY (Cubic Yard), DE (Drainage Easement), E-E (Edge to Edge), ELEV (Elevation), ESMT (Easement), EX (Existing), FL (Flow Line), FM (Force Main), FV (Flush Valve), GV (Gate Valve), LT (Left), LF (Line Feet), MAX (Maximum), MH (Manhole), MIN (Minimum), PC (PC Point of Curvature), PCC (Point of Compound Curve), PI (Point of Intersection), PROP (Proposed), PT (Point of Tangency), PVC (Point of Vertical Intersection), PVT (Point of Vertical Tangency), PWMT (Pavement), PAE (Public Access Easement), PUE (Public Utility Easement), R (Radius), ROW (Right-of-Way), RCP (Reinforced Concrete Pipe), RT (Right), SAN (Sanitary), SF (Square Feet), STA (Station), STM (Storm), SY (Square Yards), TEMP (Temporary), TC (Top of Curb), TYP (Typical), UE (Utility Easement), WL (Waterline), WLE (Waterline Easement), WSE (Water Surface Elevation).

Table with 3 columns: DATE, REVISION, APP. Contains revision history entries.

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THE WOODLANDS, TX 77381
(832) 823-2200

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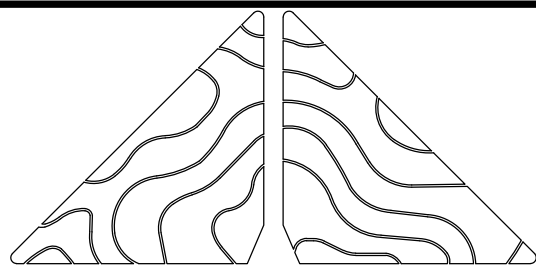
CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE VALID FOR ONE (1) YEAR DATE

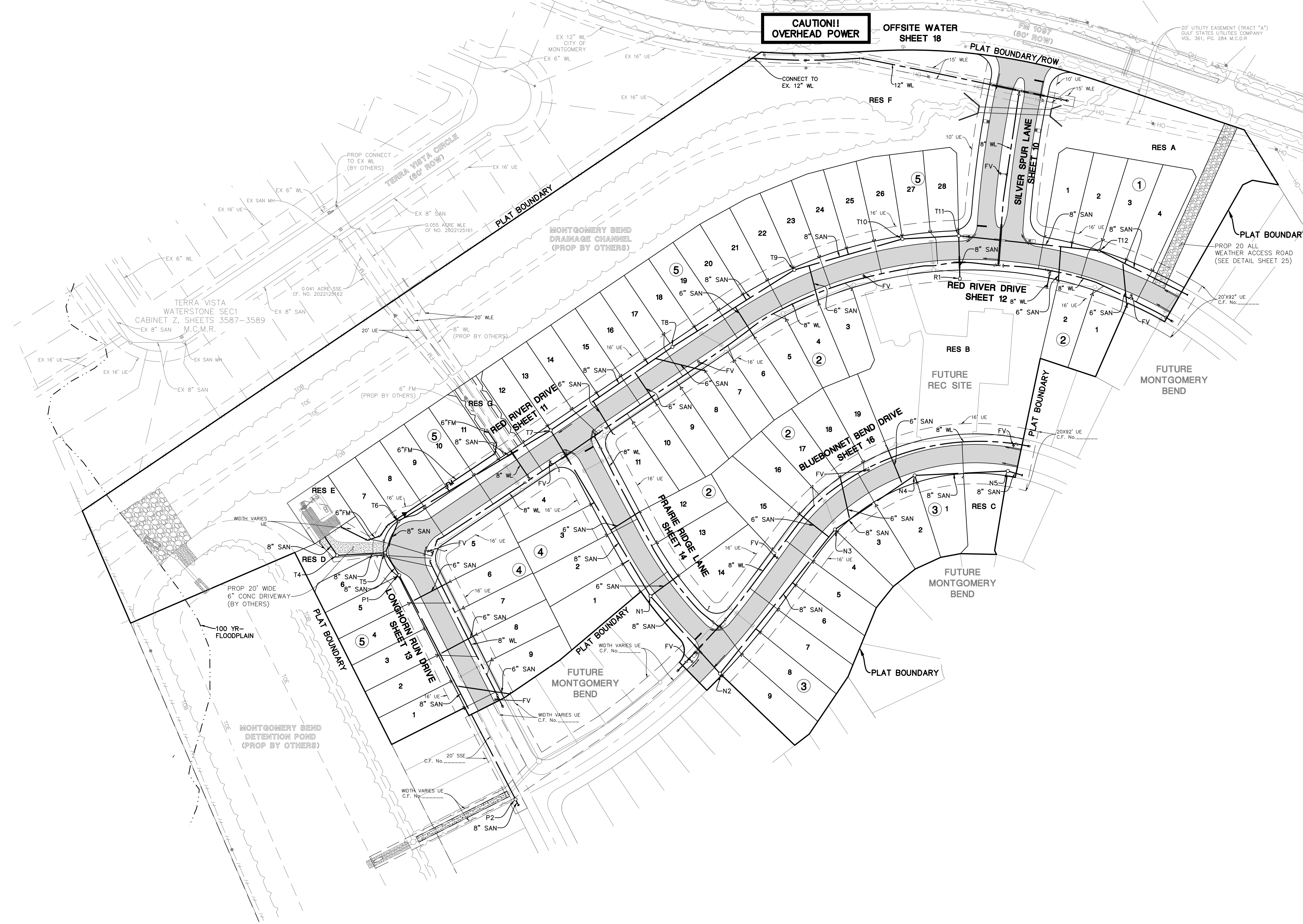
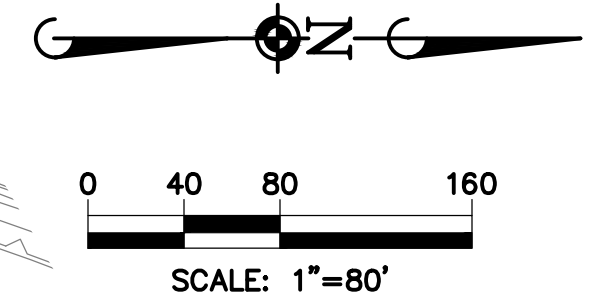
GENERAL NOTES

NOTE:
CITY OF MONTGOMERY WILL NOT BE RESPONSIBLE FOR MAINTAINING THE DETENTION POND FOR THIS DEVELOPMENT. MONTGOMERY COUNTY MUNICIPAL UTILITY DISTRICT NO. 224 WILL BE RESPONSIBLE FOR MAINTAINING THE DETENTION POND.

ACREAGE
CALLED 1.319 ACRES
SCOTT 2012 TRUST
FILE No. 201812224
O.P.R.M.C.



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SERVICE LEAD NOTE:

WATER: ALL SERVICE LEADS ARE 1" DIAMETER.

WATER LINE-SANITARY SEWER CROSSING NOTE:

POSITION ONE FULL SECTION OF RESTRAINED JOINT WATERLINE AND SANITARY SEWER PIPE CENTERED AT CROSSING. INSERT SANITARY SEWER PIPE WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS ONE FOOT BEYOND THE JOINTS ON EACH END. FOR CROSSINGS WHERE PROPOSED WATERLINE IS UNDER PROPOSED SANITARY SEWER, PUT RESTRAINED JOINT DUCTILE IRON PIPE WATERLINE (FOR DIAMETERS LESS THAN 24 INCHES) AND RESTRAINED JOINT PRESSURE RATED (MIN 150 PSI) SANITARY 24" MIN CLEARANCE. NO SEPARATE PAY.

BENCHMARK:

SOURCE BENCHMARK: ELEVATIONS SHOWN HEREON ARE BASED ON NATIONAL GEODETIC SURVEY MONUMENT DESIGNATION HGSD 81, PID No. A16405 HAVING PUBLISHED INFORMATION AS FOLLOWS:
LATITUDE : 30° 21' 12.45392" NORTH
LONGITUDE : 095° 34' 45.02514" WEST
ORTHO HEIGHT : 212.4 FT. (64.74 METERS)
HORIZONTAL DATUM : NAD83 (2011)
VERTICAL DATUM : NAVD88

FLOODPLAIN INFORMATION:

ACCORDING TO MAP Nos. 4833602006 OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAPS FOR MONTGOMERY COUNTY, DATED AUGUST 18, 2014, THE SUBJECT TRACT IS SITUATED WITHIN: UNSHADED ZONE "X", DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLAIN.

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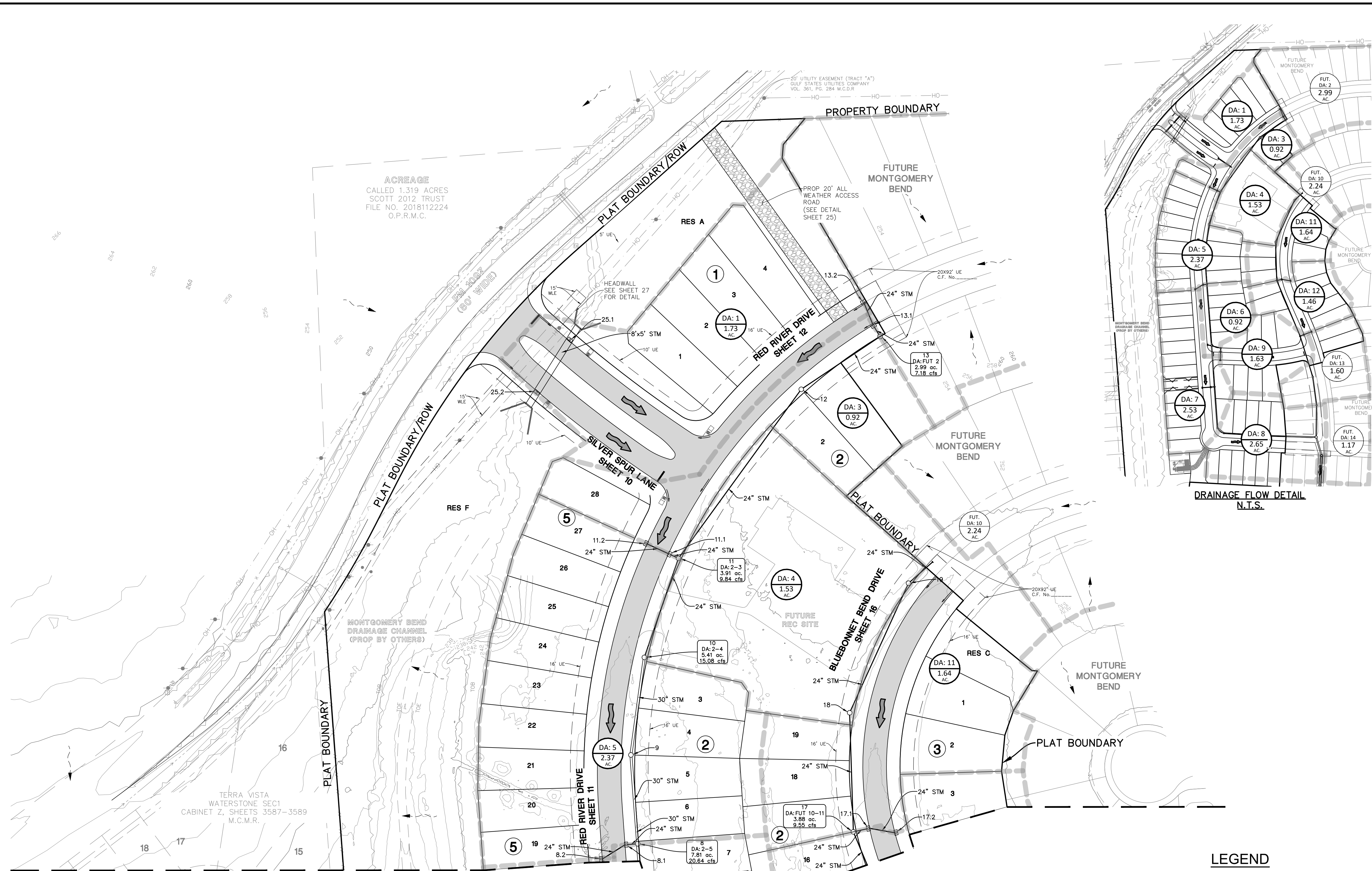
TBPE NO. F-22671
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CITY OF MONTGOMERY CITY ENGINEER DATE
SIGNATURE VALID FOR ONE (1) YEAR

WATER & SANITARY LAYOUT

SHEET 3 OF 29

P:\610.126 Mabry and Faulkner Tract\005_Sec.1.dwg - Plot Set Drawings\Drainage Overall.dwg_6/9/2023 4:00 PM STALAVEFAME.JVA



ACREAGE
CALLED 1.319 ACRES
SCOTT 2012 TRUST
FILE NO. 2018112224
O.P.R.M.C.

TERRA VISTA
WATERSTONE SEC1
CABINET Z, SHEETS 3587-3589
M.C.M.R.

20' UTILITY EASEMENT (TRACT "A")
GULF STATES UTILITIES COMPANY
VOL. 361, PG. 284 M.C.D.R.

PROPERTY BOUNDARY

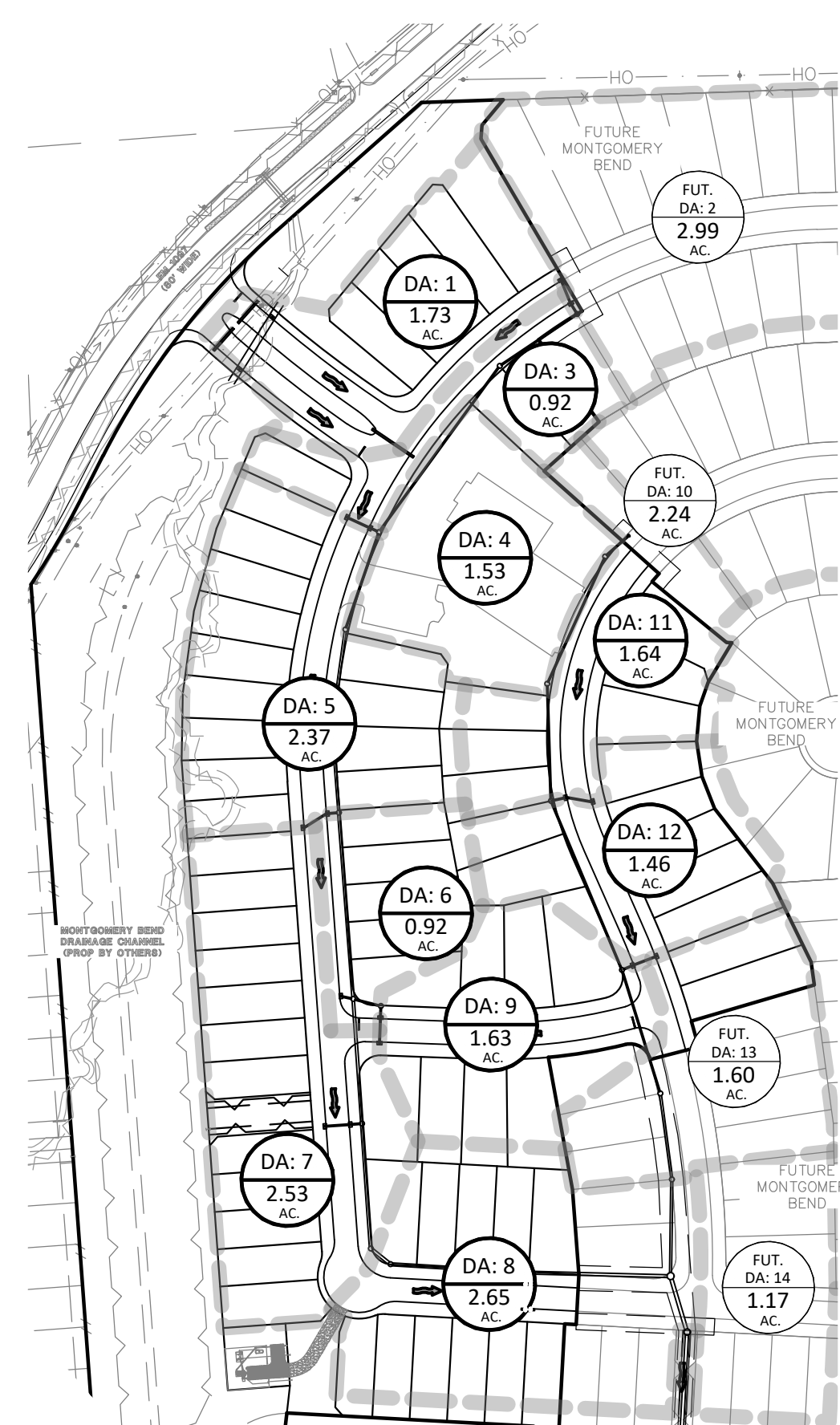
FUTURE MONTGOMERY BEND

FUTURE MONTGOMERY BEND

FUTURE MONTGOMERY BEND

PLAT BOUNDARY

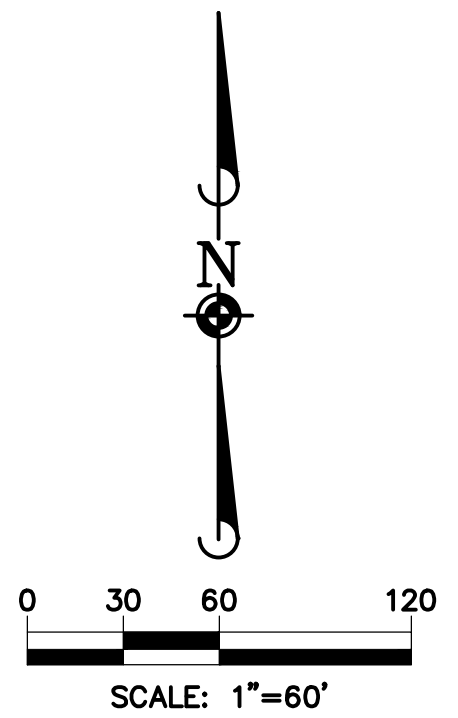
MATCHLINE SHEET 5



Drainage Flow Detail
N.T.S.

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KEY MAP



BENCHMARK:
SOURCE BENCHMARK:
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FLOODPLAIN INFORMATION:
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CITY OF MONTGOMERY CITY ENGINEER SIGNATURE VALID FOR ONE (1) YEAR

DRAINAGE LAYOUT
(1 OF 2)

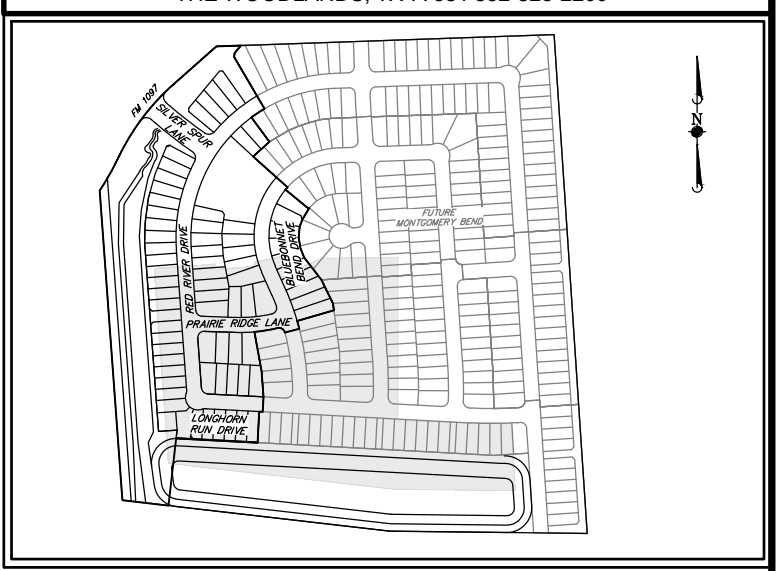
LEGEND

- INLET (DA:1 5.55 AC) → DRAINAGE AREA NUMBER
- (DA:1 5.55 AC) → DRAINAGE AREA IN ACRES
- STORM SEWER (DA:xx-yy 5.55 ac 9.99 cfs) → 5 YEAR FLOW IN C.F.S.
- DRAINAGE AREA BOUNDARY
- DIRECTION OF 100 YEAR FLOW
- OFFSITE DRAINAGE FLOW

ELEVATION LAND SOLUTIONS - MONTGOMERY BEND SEC 1 - PROJECT NO. 610.126.005.00

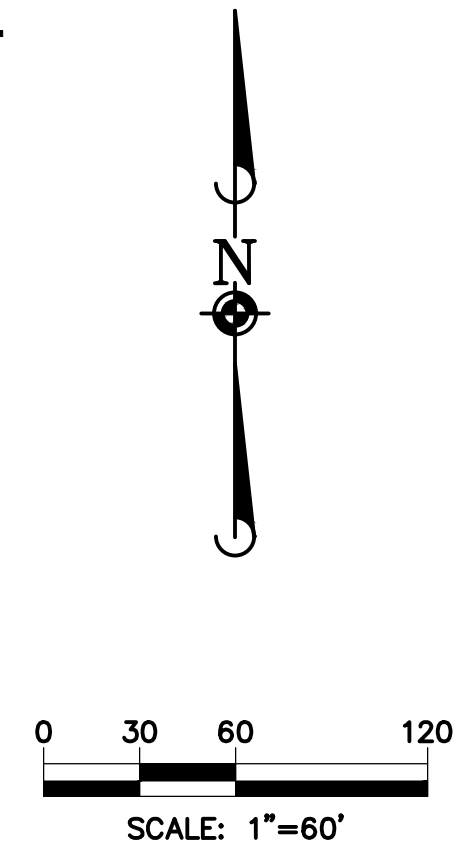


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LEGEND

- DRAINAGE AREA NUMBER
- DRAINAGE AREA IN ACRES
- 5 YEAR FLOW IN C.F.S.
- DRAINAGE AREA BOUNDARY
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CITY OF MONTGOMERY CITY ENGINEER DATE
SIGNATURE VALID FOR ONE (1) YEAR

DRAINAGE LAYOUT
(2 OF 2)

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ELEVATION LAND SOLUTIONS - MONTGOMERY BEND SEC 1 - PROJECT NO. 610.126.005.00



Project: Montgomery Bend Section 1
 Job Number: 610.126.005.00
 Design By: Salvador Talavera Last Updated: 5/23/2023
 Jurisdiction: Montgomery County Outside Houston ETJ
 Storm Year 1: 5-yr Design Event Ponding Limit: 0.00
 Storm Year 2: 100-yr Extreme Event Ponding Limit: 1.00
 Storm Year 3:

	End Conditions		
	Flowline	5-yr HGL	100-yr HGL
Outfall_1	220.47	226.00	228.00

$$Intensity (I) = \frac{b}{(d + T_c)^e} + C_f$$

$$Upstream T_c = 15 + 10 * (A_c^{0.1761})$$

Intensity Coefficients for:
 Montgomery County Outside Houston ETJ

5-yr		100-yr	
b	54	b	57
d	8.34	d	4.46
e	0.7051	e	0.5857
Cf	1	Cf	1.25

Alignment/Road	Pipe and Road Properties												Drainage Areas					Intensity & Flow				TOC			5-yr Hydraulic Grade Line						100-yr Hydraulic Grade Line													
	Node Upstream	Node Downstream	Pipe Length (ft.)	Pipe Diameter or Rise (in.)	Box Span (in.)	Slope	Mannings "n"	Design Capacity (cfs)	Design Velocity (ft./sec.)	Fall (ft.)	Top of Curb Upstream (ft.)	Gutter Elevation Upstream (ft.)	Gutter Elevation at Downstream High Point (ft.)	Node Drop Downstream (ft.)	Flowline Elevation Upstream (ft.)	Flowline Elevation Downstream (ft.)	Drainage Area Inlet Pipes	Contributing Area (ac.)	Total Area (ac.)	Runoff Coefficient "C"	Weighted C	Sum of C*A	5-yr Intensity (in./hr)	5-yr Flow (cfs)	100-yr Intensity (in./hr)	100-yr Flow (cfs)	Time of Concentration (mins)	Change in Time of Concentration (mins)	Total TOC (mins)	Actual Velocity (ft./sec.)	Hydraulic Gradient (%)	Change in Head (ft.)	Elevation of Hyd. Grad. Upstream (ft.)	Elevation of Hyd. Grad. Downstream (ft.)	Upstream HGL Below Gutter (Pass/Fail)	Actual Velocity (ft./sec.)	Hydraulic Gradient (%)	Change in Head (ft.)	Elevation of Hyd. Grad. Upstream (ft.)	Elevation of Hyd. Grad. Downstream (ft.)	Upstream HGL Below Gutter (Pass/Fail)			
Bluebonnet Bend	19.5	19	38	24		0.18	0.013	9.60	3.06	0.07	253.80	253.30			243.07	243.01	FUT 10	2.24	0.00	2.24	0.55	1.23	4.42	5.45	9.48	11.68	26.53	0.21	26.73	1.73	0.06	0.02	245.07	245.01	PASS	3.72	0.27	0.10	245.11	245.01	PASS			
	19	18	168	24		1.1	0.013	23.73	7.55	1.85	248.04	247.54		2.96	243.01	241.16		2.24	2.24	2.24	0.55	1.23	5.87	7.23	12.45	15.47	15.00	0.37	15.37	2.30	0.10	0.17	245.01	243.16	PASS	4.92	0.47	0.79	245.01	243.16	PASS			
	18	17	141	24		0.6	0.013	17.52	5.58	0.85	246.60	246.10			238.20	237.35		2.24	2.24	2.24	0.55	1.23	5.80	7.15	12.32	15.30	15.37	0.42	15.79	2.28	0.10	0.14	240.20	239.35	PASS	4.87	0.46	0.64	240.68	240.03	PASS			
	17	16	220	24		0.6	0.013	17.52	5.58	1.32	245.91	245.41		1.30	237.35	236.03		2.24	3.88	0.55	2.13	4.48	9.55	9.60	20.65	25.91	0.66	26.57	3.04	0.18	0.39	239.35	238.03	PASS	6.57	0.83	1.84	240.03	238.20	PASS				
	16	15	155	24		0.6	0.013	17.52	5.58	0.93	244.44	243.94		0.50	234.73	233.80		5.34	5.34	5.34	0.55	2.94	4.42	12.97	9.48	28.06	26.57	0.46	27.03	4.13	0.33	0.51	236.73	235.80	PASS	8.93	1.54	2.39	238.20	235.80	PASS			
	15	14	104	30		0.9	0.013	38.91	7.93	0.94	243.59	243.09		1.76	233.30	232.36		5.34	6.94	0.55	3.82	4.38	12.85	9.39	27.82	4.36	16.63	9.36	36.01	27.03	0.22	27.25	2.62	0.10	0.10	235.80	234.86	PASS	5.67	0.46	0.48	235.80	234.86	PASS
	14	2	116	30		0.9	0.013	38.91	7.93	1.05	241.58	241.08		3.56	230.60	229.55		5.34	6.94	0.55	3.82	4.36	16.63	9.36	36.01	27.25	0.24	27.50	3.39	0.16	0.19	233.10	232.05	PASS	7.34	0.77	0.90	233.10	232.05	PASS				
Prairie Ridge	21	7	34	24		0.2	0.013	10.12	3.22	0.07	239.63	239.13		5.73	234.17	234.10	9	1.63	0.00	1.63	0.55	0.90	4.48	4.01	9.60	8.68	25.90	0.18	26.08	1.28	0.03	0.01	236.17	236.10	PASS	2.76	0.15	0.05	236.17	236.10	PASS			
Red River	13	12	112	24		1.2	0.013	24.78	7.89	1.35	250.45	249.95		1.41	242.36	241.01	FUT 2	2.99	0.00	2.99	0.55	1.64	4.37	7.18	9.38	15.55	27.13	0.24	27.36	2.29	0.10	0.11	244.36	243.01	PASS	4.95	0.47	0.53	244.36	243.01	PASS			
Rec. Center	12	11	247	24		1	0.013	22.62	7.20	2.47	248.85	248.35		1.76	239.59	237.12		2.99	2.99	2.99	0.55	1.64	5.87	9.65	12.45	20.65	15.00	0.57	15.57	3.07	0.18	0.45	241.59	239.12	PASS	6.57	0.83	2.06	241.59	239.12	PASS			
	11	10	124	24		1	0.013	22.62	7.20	1.24	245.29	244.79		0.50	235.36	234.11	3	0.92	2.99	3.91	0.55	2.15	4.58	9.84	9.80	21.24	24.85	0.29	25.14	3.13	0.19	0.23	237.36	236.11	PASS	6.76	0.88	1.09	237.78	236.69	PASS			
	10	9	116	30		0.6	0.013	31.77	6.47	0.70	242.75	242.25			233.61	232.91	4	1.53	3.91	5.44	0.8	3.37	4.49	15.15	9.62	32.73	25.78	0.30	26.08	3.09	0.14	0.16	236.11	235.41	PASS	6.67	0.64	0.74	236.69	235.95	PASS			
	9	8	105	30		0.6	0.013	31.77	6.47	0.63	241.42	240.92		0.50	232.91	232.28		5.44	5.44	5.44	0.62	3.37	4.46	15.06	9.56	32.55	26.08	0.27	26.35	3.07	0.13	0.14	235.41	234.78	PASS	6.63	0.63	0.66	235.95	235.28	PASS			
	8	7	225	36		0.6	0.013	51.66	7.31	1.35	240.38	239.88		2.07	231.78	230.43	5	2.37	5.44	7.81	0.55	4.68	4.41	20.64	9.46	44.64	26.64	0.51	27.15	2.92	0.10	0.22	234.78	233.43	PASS	6.31	0.45	1.01	235.28	234.28	PASS			
	7	6	150	36		0.2	0.013	29.83	4.22	0.30	239.86	239.36		0.50	228.36	228.06	6	0.92	9.44	10.36	0.54	5.57	4.37	24.34	9.37	52.68	27.15	0.59	27.75	3.44	0.13	0.20	231.36	231.06	PASS	7.45	0.62	0.94	234.28	233.34	PASS			
	6	5	148	42		0.2	0.013	44.99	4.68	0.30	240.12	239.62			227.56	227.25	7	2.53	10.36	12.89	0.55	6.97	4.32	30.06	9.27	65.12	27.75	0.53	28.27	3.12	0.09	0.13	231.06	230.75	PASS	6.77	0.42	0.62	233.34	232.72	PASS			
	5	4	30	42		0.2	0.013	44.99	4.68	0.06	239.71	239.21			227.25	227.19		12.89	12.89	12.89	0.54	6.97	4.27	29.76	9.18	64.51	28.27	0.11	28.38	3.09	0.09	0.03	230.75	230.69	PASS	6.70	0.41	0.12	232.72	232.60	PASS			
	4	3	167	42		0.2	0.013	44.99	4.68	0.33	239.67	239.17			227.19	226.86		12.89	12.89	12.89	0.54	6.97	4.26	29.69	9.17	64.38	28.38	0.59	28.98	3.09	0.09	0.15	230.69	230.36	PASS	6.69	0.41	0.68	232.60	231.91	PASS			
	3	2	170	42		0.22	0.013	47.19	4.90	0.37	238.70	238.20		0.50	226.86	226.49	8	2.65	12.89	15.54	0.55	8.42	4.21	35.50	9.07	77.04	28.98	0.58	29.55	3.69	0.12	0.21	230.36	229.99	PASS	8.01	0.59	1.00	231.91	230.92	PASS			
	2	1.1	70	48		0.25	0.013	71.82	5.72	0.18	238.32	237.82			225.99	225.81	FUT 14	1.17	22.48	23.65	0.55	12.88	4.17	53.72	8.98	116.65	29.55	0.20	29.76	4.27	0.14	0.10	229.99	229.81	PASS	9.28	0.66	0.46	230.92	230.45	PASS			
	1.1	1	161	48		0.2	0.013	64.24	5.11	0.32	238.25	237.75		4.88	225.81	225.49		23.65	23.65	23.65	0.54	12.88	3.96	50.99	8.56	111.19	32.46	0.52	32.98	4.06	0.13	0.20	229.81	229.49	PASS	8.85	0.60	0.96	230.45	229.49	PASS			
	1	Outfall_1	68	48		0.2	0.013	64.24	5.11	0.14	234.63	234.13			220.61	220.47		23.65	23.65	23.65	0.54	12.88	3.92	50.54	8.49	110.28	32.98	0.22	33.20	4.02	0.12	0.08	226.08	226.00	PASS	8.78	0.59	0.40	228.40	228.00	PASS			

DATE	REVISION	APP.

GARRET J. DUHON
 9709 LAKESIDE BLVD.
 SUITE 200
 THE WOODLANDS, TX 77381
 (832) 823-2200

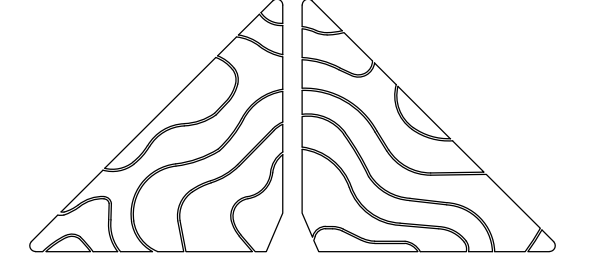
TBPE NO. F-22671

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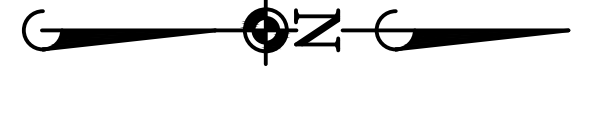
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DRAINAGE CALCULATIONS

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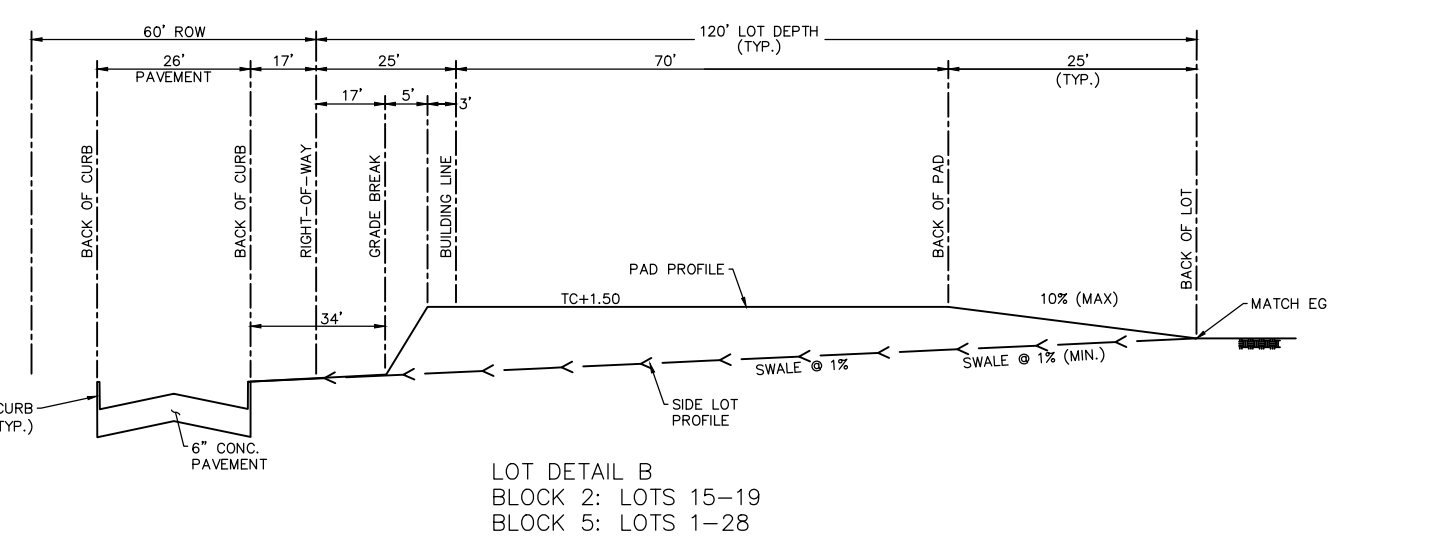
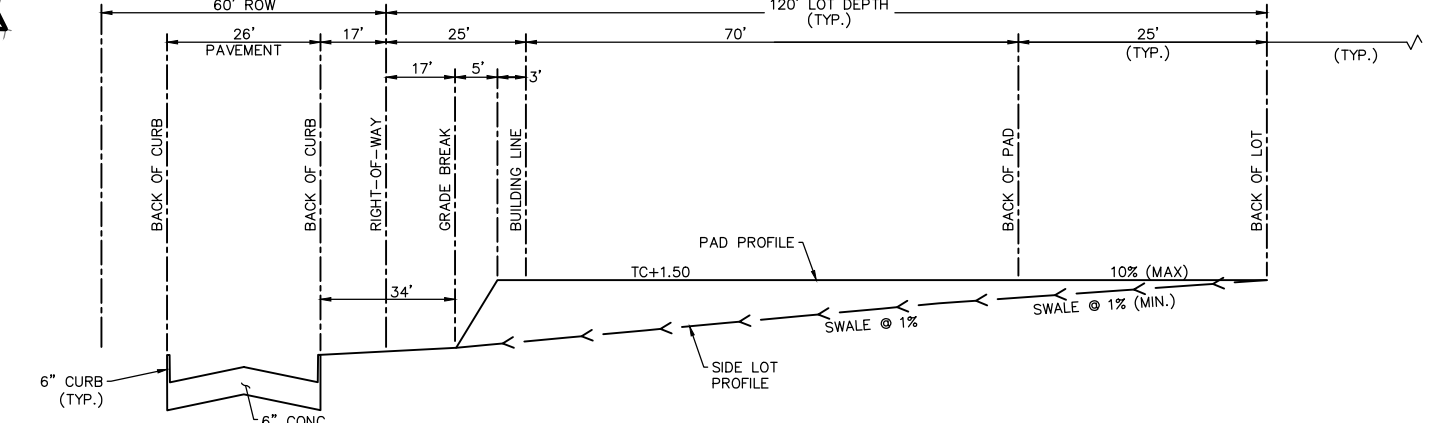
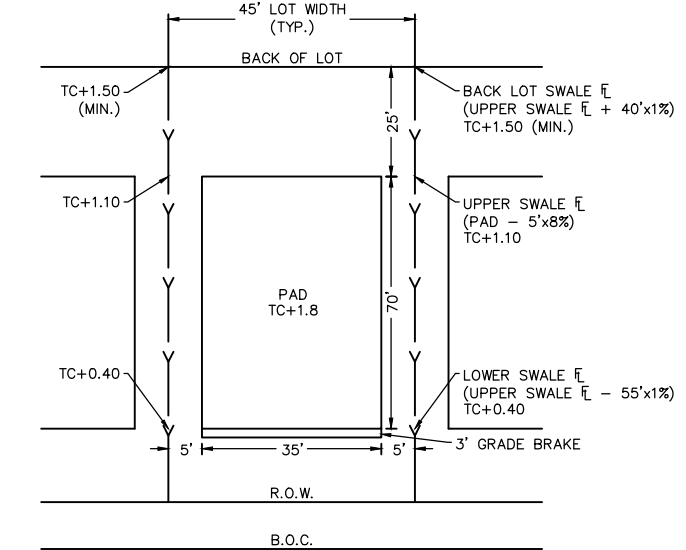
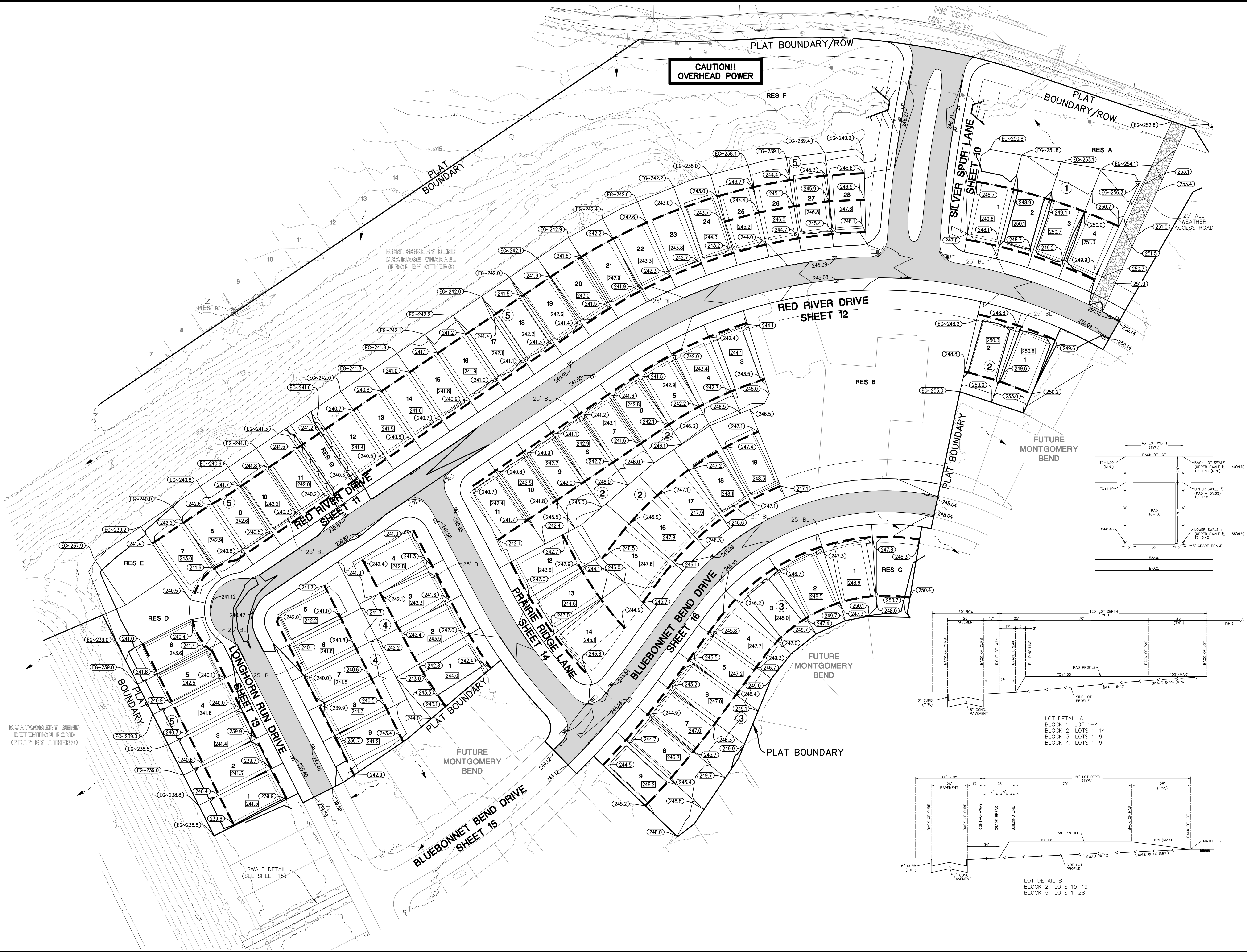
ELEVATION
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TBPB REGISTRATION NUMBER F-22671
9709 LAKESIDE BLVD, SUITE 200
THE WOODLANDS, TX 77381 832-823-2200



0 30 60 120
SCALE: 1"=60'

LEGEND

- EG-55.0 MATCH EXISTING GROUND ELEV.
- 55.0 LOT GRADE ELEVATION
- 55.55 TOP OF CURB ELEVATION
- 254.7 PAD ELEVATION
- PROPOSED GRADE BREAK
- OFFSITE DRAINAGE FLOW
- PAD AREA



BENCHMARK:
SOURCE BENCHMARK: ELEVATIONS SHOWN HEREON ARE BASED ON NATIONAL GEODETIC SURVEY MONUMENT DESIGNATION HGCSO 81, PID No. A16405
HAVING PUBLISHED INFORMATION AS FOLLOWS:
LATITUDE : 30° 21' 12.45392" NORTH
LONGITUDE : 095° 34' 45.02514" WEST
ORTHO HEIGHT : 212.4 FT. (64.74 METERS)
HORIZONTAL DATUM : NAD83 (2011)
VERTICAL DATUM : NAVD88

FLOODPLAIN INFORMATION:
ACCORDING TO MAP Nos. 483350200G OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAPS FOR MONTGOMERY COUNTY, DATED AUGUST 18, 2014, THE SUBJECT TRACT IS SITUATED WITHIN: UNSHADED ZONE "X", DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLAIN.

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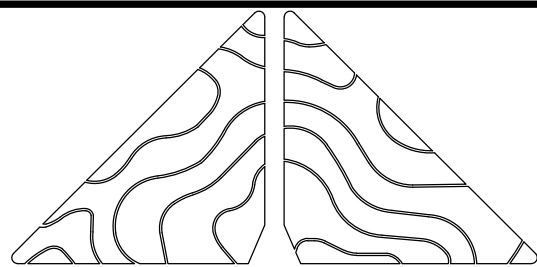
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CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY CITY ENGINEER DATE
SIGNATURE VALID FOR ONE (1) YEAR

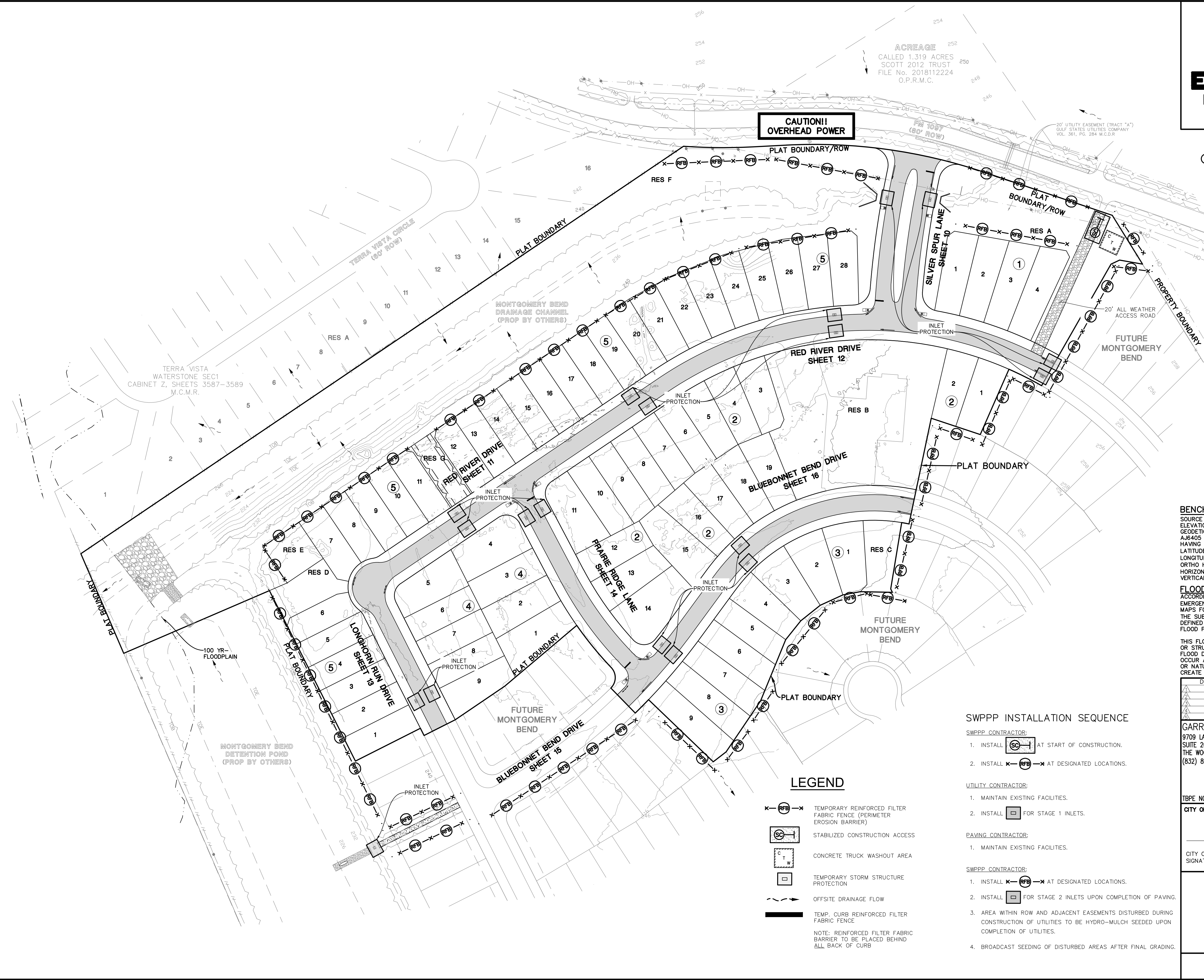
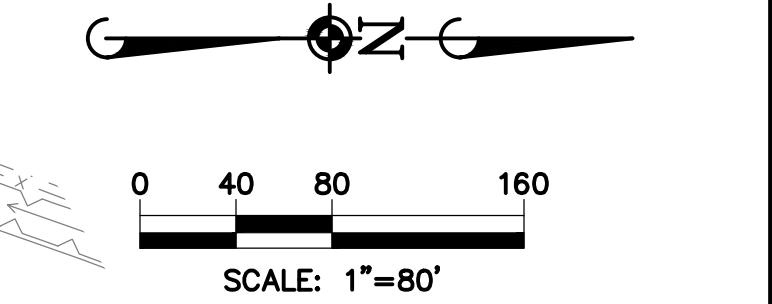
GRADING LAYOUT

SHEET 7 OF 29

ELEVATION LAND SOLUTIONS - MONTGOMERY BEND SEC 1 - PROJECT NO. 610.126.005.00



ELEVATION
land solutions
TBPE REGISTRATION NUMBER F-22671
9709 LAKESIDE BLVD, SUITE 200
THE WOODLANDS, TX 77381 832-823-2200



BENCHMARK:
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STORM WATER POLLUTION PREVENTION PLAN

SWPPP INSTALLATION SEQUENCE

- SWPPP CONTRACTOR:**
1. INSTALL [SC] AT START OF CONSTRUCTION.
 2. INSTALL [RFB] AT DESIGNATED LOCATIONS.

- UTILITY CONTRACTOR:**
1. MAINTAIN EXISTING FACILITIES.
 2. INSTALL [] FOR STAGE 1 INLETS.

- PAVING CONTRACTOR:**
1. MAINTAIN EXISTING FACILITIES.

- SWPPP CONTRACTOR:**
1. INSTALL [RFB] AT DESIGNATED LOCATIONS.
 2. INSTALL [] FOR STAGE 2 INLETS UPON COMPLETION OF PAVING.
 3. AREA WITHIN ROW AND ADJACENT EASEMENTS DISTURBED DURING CONSTRUCTION OF UTILITIES TO BE HYDRO-MULCH SEEDED UPON COMPLETION OF UTILITIES.
 4. BROADCAST SEEDING OF DISTURBED AREAS AFTER FINAL GRADING.

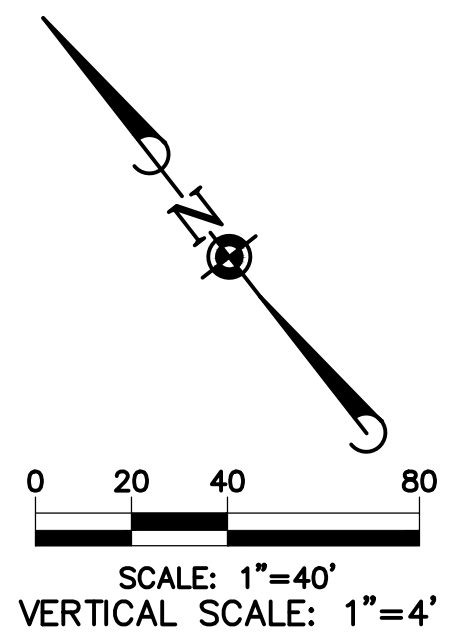
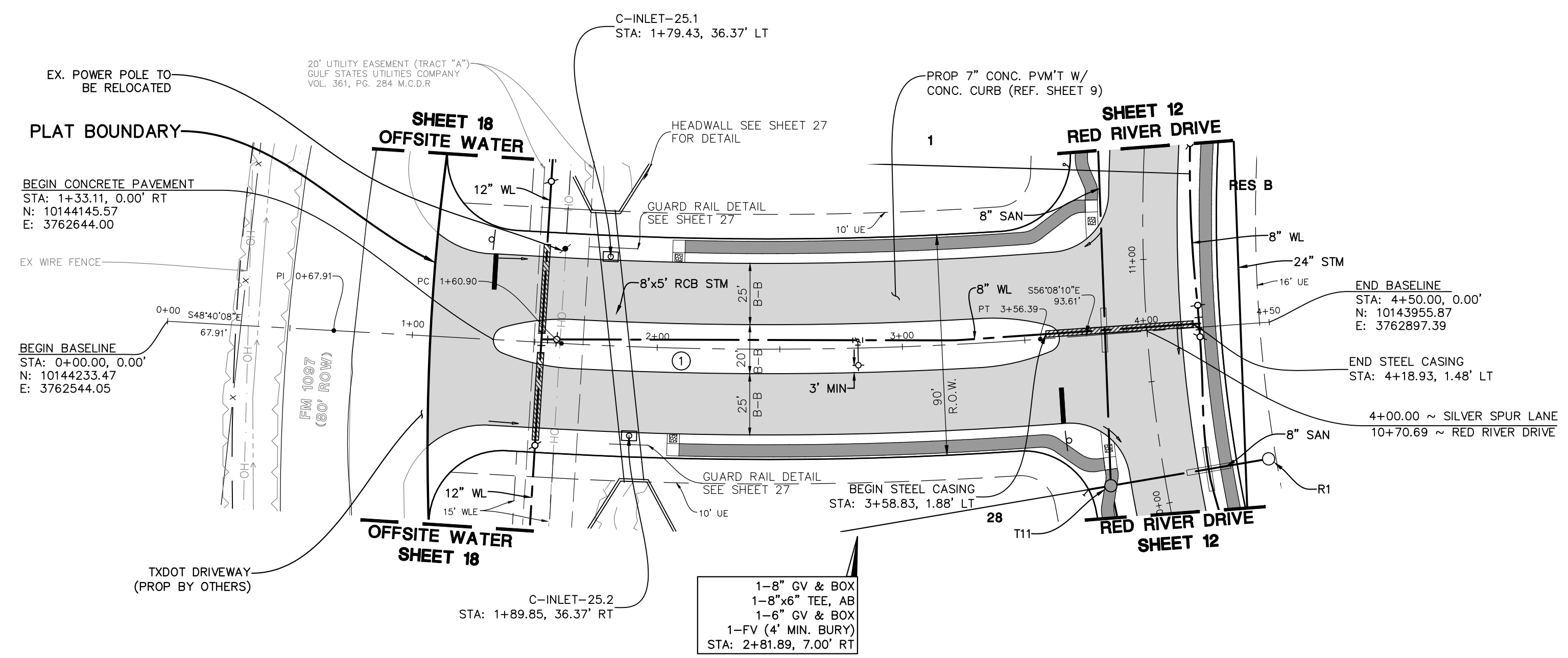
LEGEND

- [RFB] TEMPORARY REINFORCED FILTER FABRIC FENCE (PERIMETER EROSION BARRIER)
- [SC] STABILIZED CONSTRUCTION ACCESS
- [C W] CONCRETE TRUCK WASHOUT AREA
- [] TEMPORARY STORM STRUCTURE PROTECTION
- [] OFFSITE DRAINAGE FLOW
- [] TEMP. CURB REINFORCED FILTER FABRIC FENCE

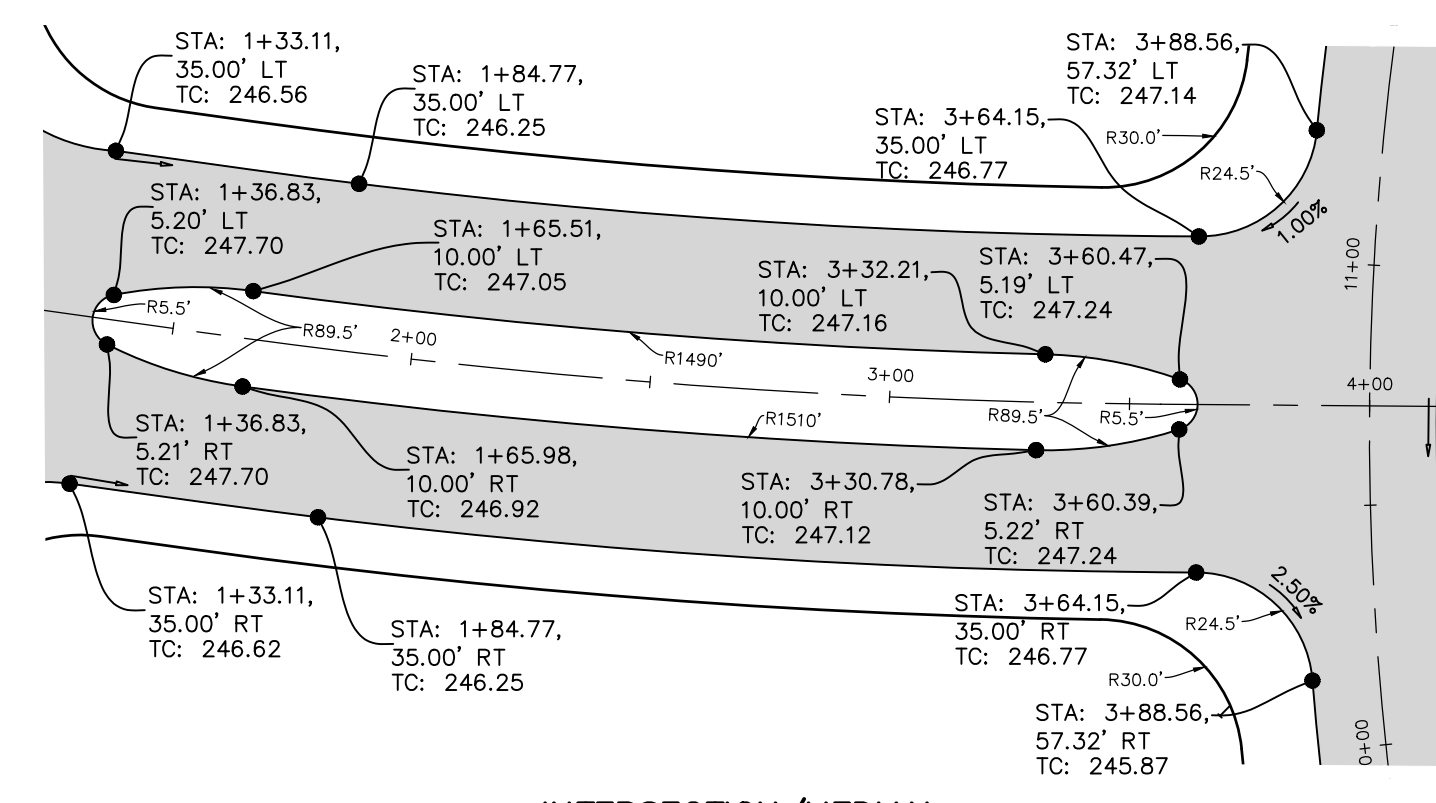
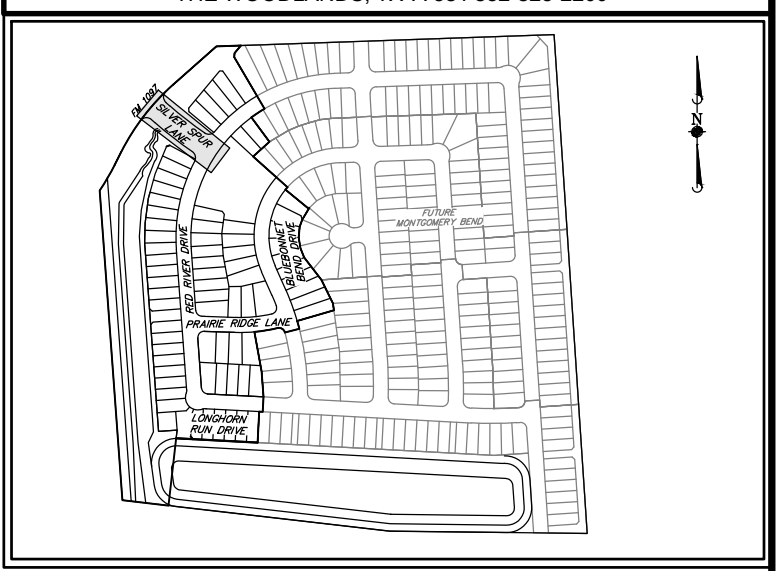
NOTE: REINFORCED FILTER FABRIC BARRIER TO BE PLACED BEHIND ALL BACK OF CURB

① CURVE DATA
 STA=1+60.90' TO
 STA=3+56.39'
 Δ=007°28'01"
 L=195.49'
 R=1500.00'
 T=97.88'

**CAUTION!!
OVERHEAD POWER**



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**INTERSECTION/MEDEAN
DETAIL**
SCALE: 1"=40'

WATER LINE-SANITARY SEWER CROSSING NOTE:

POSITION ONE FULL SECTION OF RESTRAINED JOINT WATERLINE AND SANITARY SEWER PIPE CENTERED AT CROSSING. INSERT SANITARY SEWER PIPE WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS ONE FOOT BEYOND THE JOINTS ON EACH END. FOR CROSSINGS WHERE PROPOSED WATERLINE IS UNDER PROPOSED SANITARY SEWER, PUT RESTRAINED JOINT DUCTILE IRON PIPE WATERLINE (FOR DIAMETERS LESS THAN 24 INCHES) AND RESTRAINED JOINT PRESSURE RATED (MIN 150 PSI) SANITARY 24" MIN CLEARANCE. NO SEPARATE PAY.

- FILL NOTES:**
- EXISTING DRAINAGE SWALES: ALL EXISTING DRAINAGE SWALES SHALL BE FILLED AS SHOWN WITH MATERIAL FROM EXISTING ADJACENT SPOIL BANKS IN MAXIMUM 8" LOOSE LIFTS AND COMPACTED TO 95% PROCTOR DENSITY AS PER AASHTO TEST METHOD T-99.
 - EXISTING DRAINAGE SWALES: ALL EXISTING DRAINAGE SWALES UNDER PROPOSED CONCRETE PAVEMENT SHALL BE CLEANED, MUCKED OUT AND SCARIFIED TO A MINIMUM DEPTH OF 6" AND FILLED AS SPECIFIED ABOVE IN FILL NOTE NO. 1. NO SEPARATE PAY.
 - ROADWAY EMBANKMENT: STRIP 3" OF VEGETATION FROM AREA TO BE FILLED AND RE-COMPACT SOIL TO 95% PROCTOR DENSITY. PLACE FILL MATERIAL AS SPECIFIED IN FILL NOTE NO. 1.

BENCHMARK:
 SOURCE BENCHMARK:
 ELEVATIONS SHOWN HEREON ARE BASED ON NATIONAL GEODETIC SURVEY MONUMENT DESIGNATION HGCD 81, PID No. A16405
 HAVING PUBLISHED INFORMATION AS FOLLOWS:
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FLOODPLAIN INFORMATION:
 ACCORDING TO MAP Nos. 4833002006 OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAPS FOR MONTGOMERY COUNTY, DATED AUGUST 18, 2014, THE SUBJECT TRACT IS SITUATED WITHIN: UNSHADED ZONE "X", DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLAIN.

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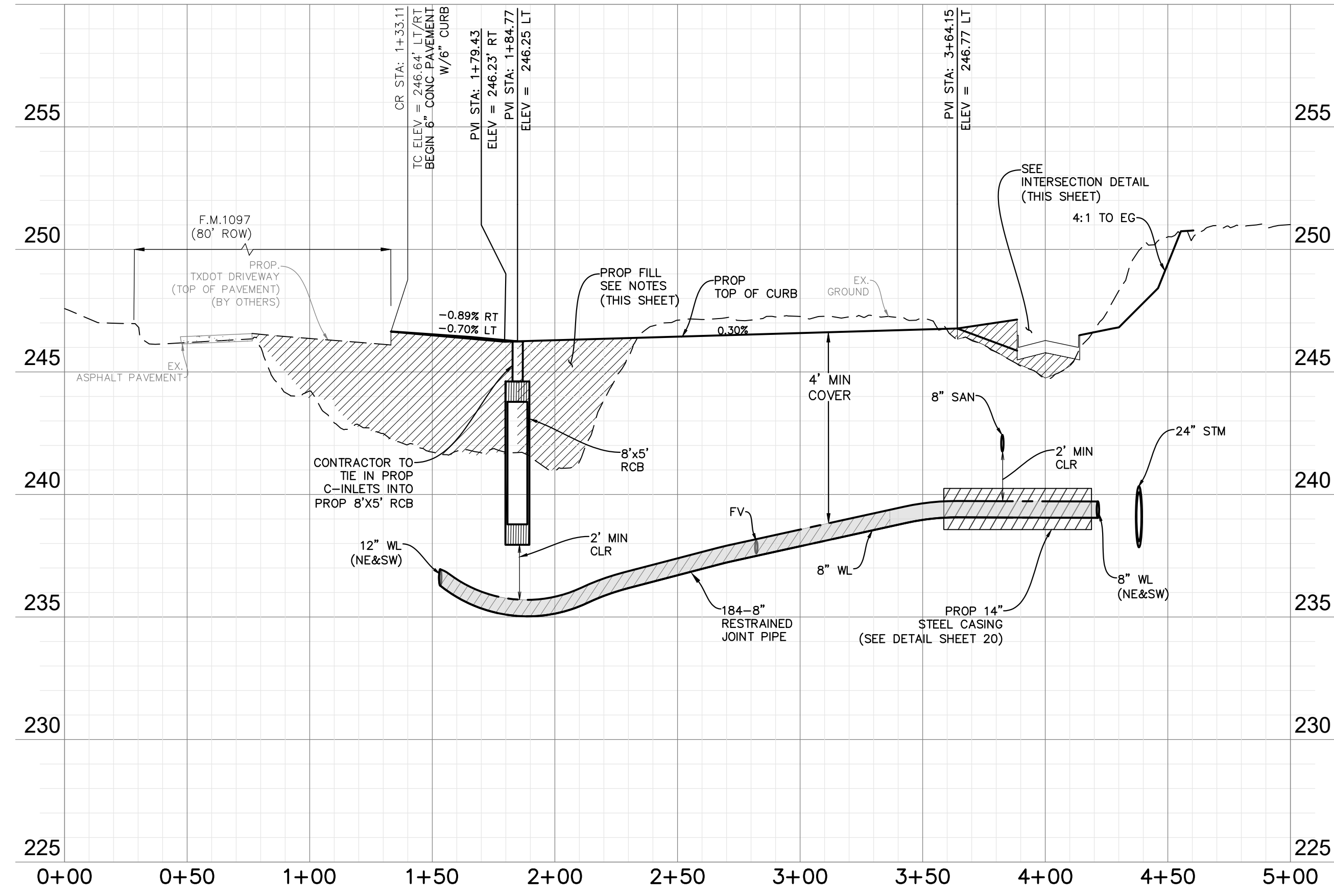
TBPE NO. F-22671

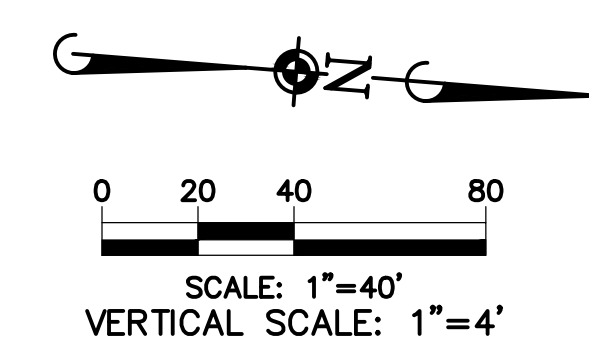
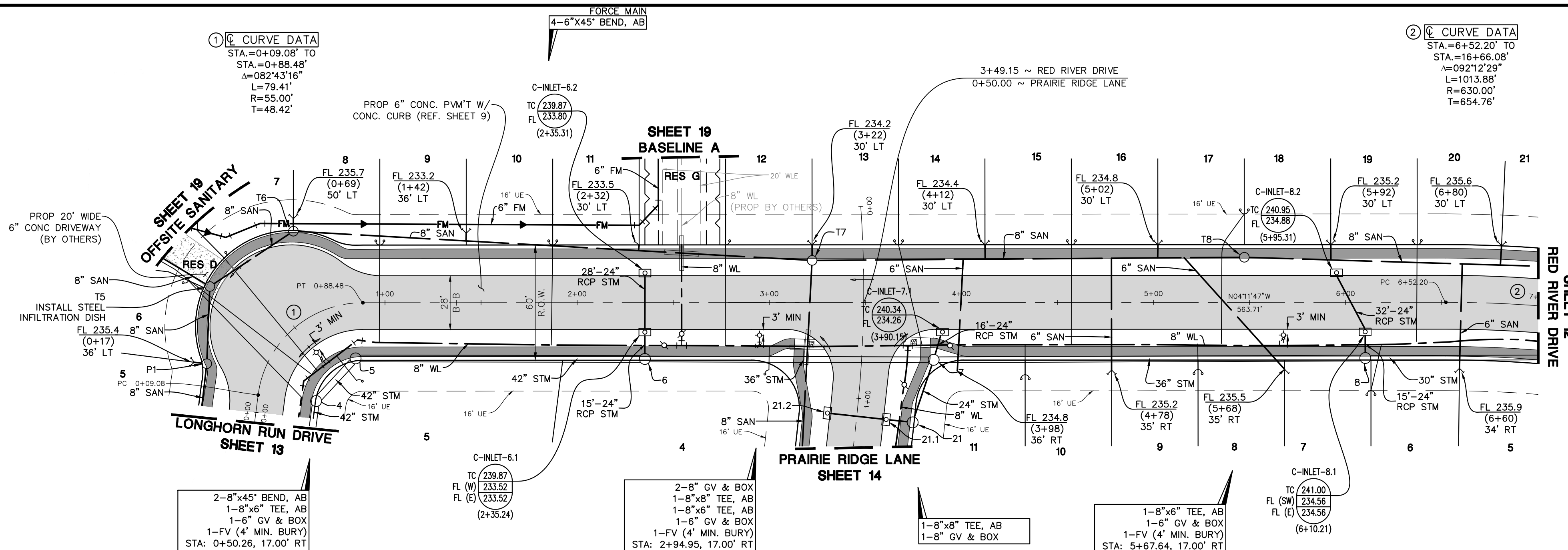
CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY CITY ENGINEER DATE
 SIGNATURE VALID FOR ONE (1) YEAR

SILVER SPUR LANE

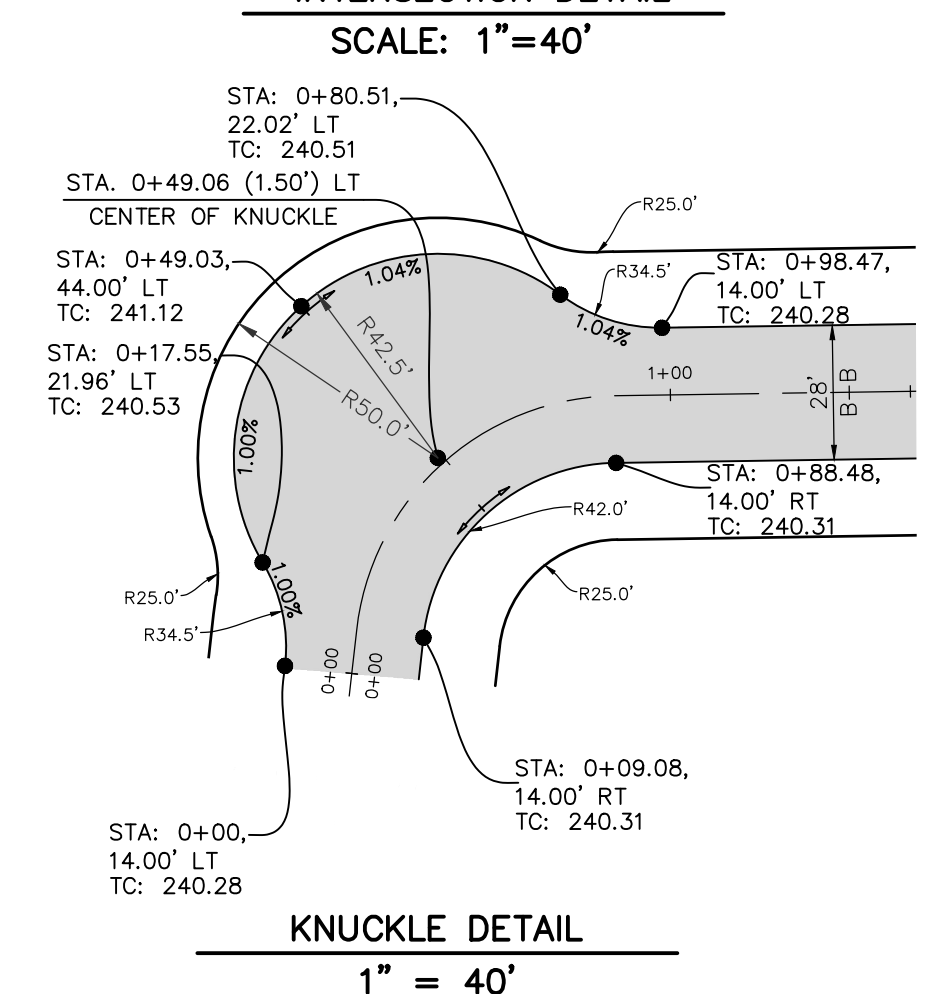
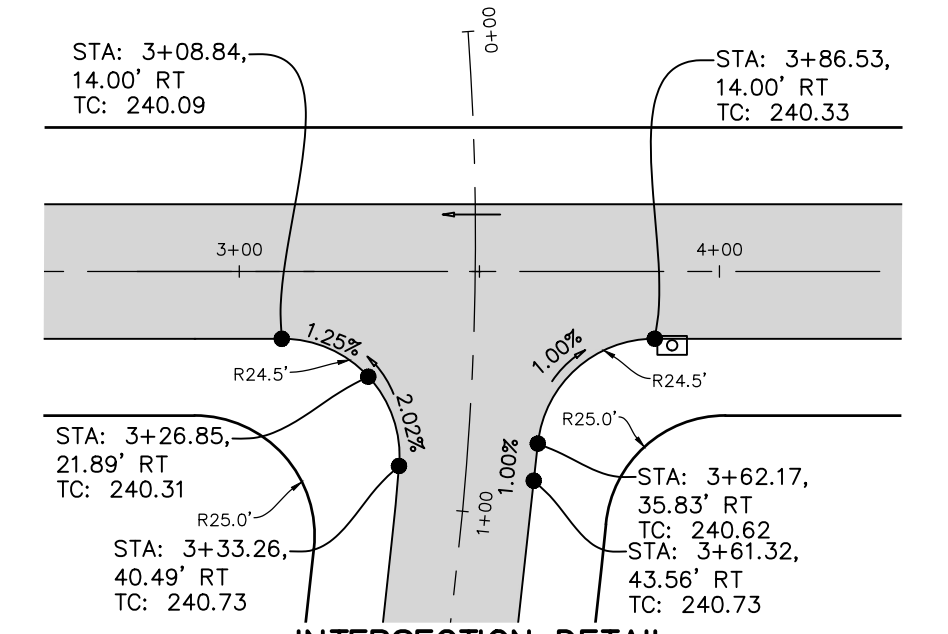
SILVER SPUR LANE



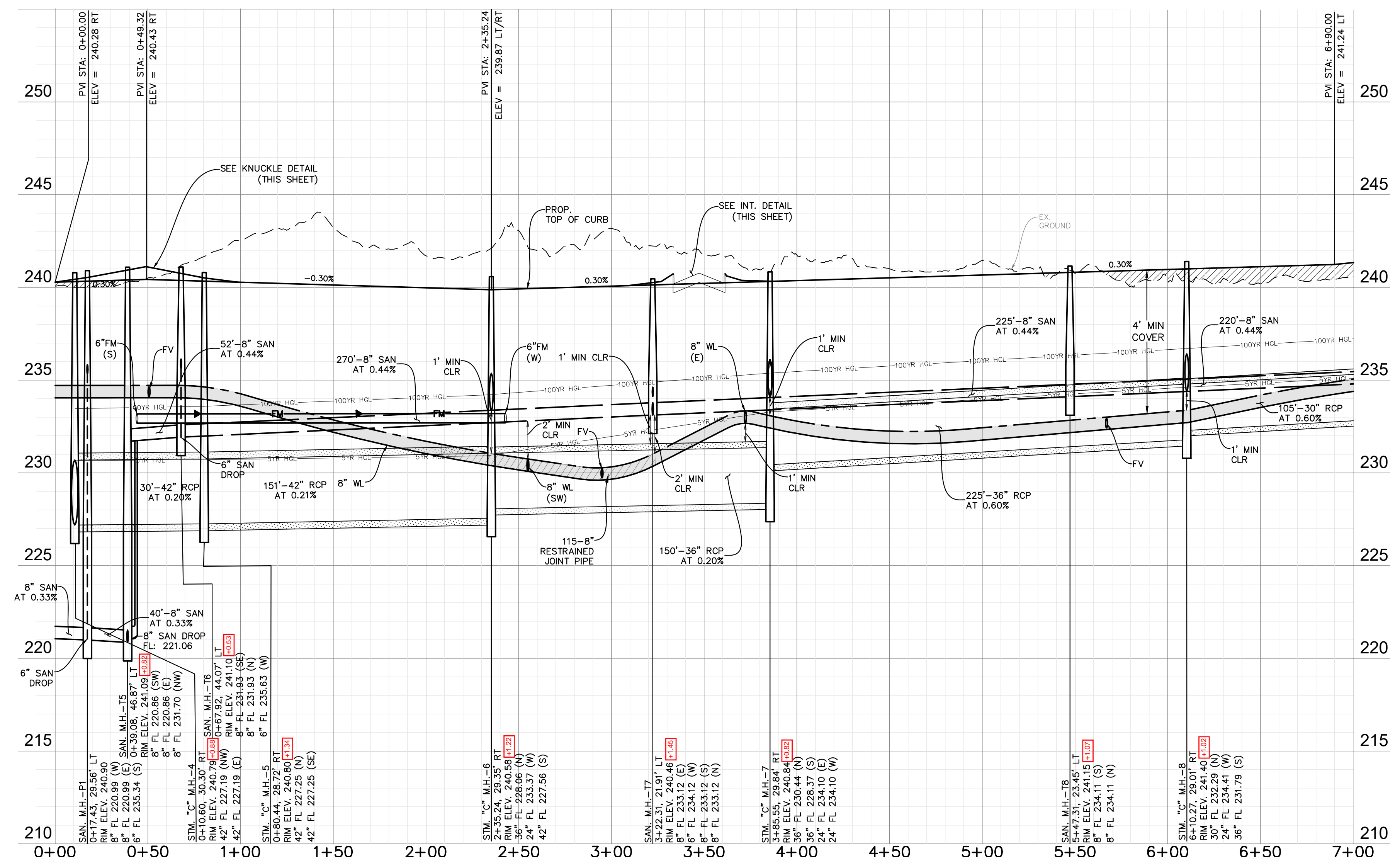


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 9709 LAKESIDE BLVD, SUITE 200
 THE WOODLANDS, TX 77381 832-823-2200

KEY MAP



RED RIVER DRIVE



WATER LINE-SANITARY SEWER CROSSING NOTE:

POSITION ONE FULL SECTION OF RESTRAINED JOINT WATERLINE AND SANITARY SEWER PIPE CENTERED AT CROSSING. INSERT SANITARY SEWER PIPE WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS ONE FOOT BEYOND THE JOINTS ON EACH END. FOR CROSSINGS WHERE PROPOSED WATERLINE IS UNDER PROPOSED SANITARY SEWER, PUT RESTRAINED JOINT DUCTILE IRON PIPE WATERLINE (FOR DIAMETERS LESS THAN 24 INCHES) AND RESTRAINED JOINT PRESSURE RATED (MIN 150 PS) SANITARY 24" MIN CLEARANCE. NO SEPARATE PAY.

FILL NOTES:

- EXISTING DRAINAGE SWALES: ALL EXISTING DRAINAGE SWALES SHALL BE FILLED AS SHOWN WITH MATERIAL FROM EXISTING ADJACENT SPOIL BANKS IN MAXIMUM 8" LOOSE LIFTS AND COMPACTED TO 95% PROCTOR DENSITY AS PER AASHTO TEST METHOD T-99.
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SOURCE BENCHMARK: ELEVATIONS SHOWN HEREON ARE BASED ON NATIONAL GEODETIC SURVEY MONUMENT DESIGNATION HGCD 81, PID No. A186405 HAVING PUBLISHED INFORMATION AS FOLLOWS:
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 ORTHO HEIGHT : 212.4 FT. (64.74 METERS)
 HORIZONTAL DATUM : NAD83 (2011)
 VERTICAL DATUM : NAVD88

FLOODPLAIN INFORMATION:

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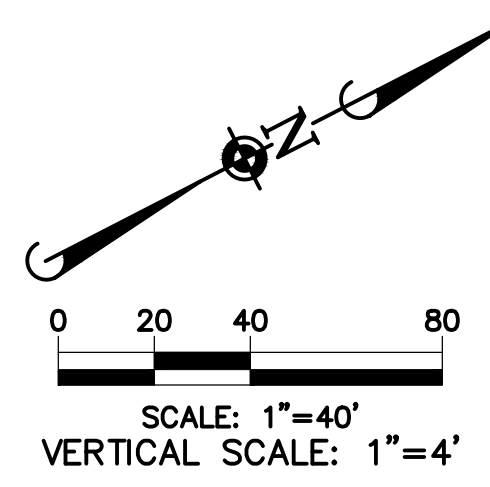
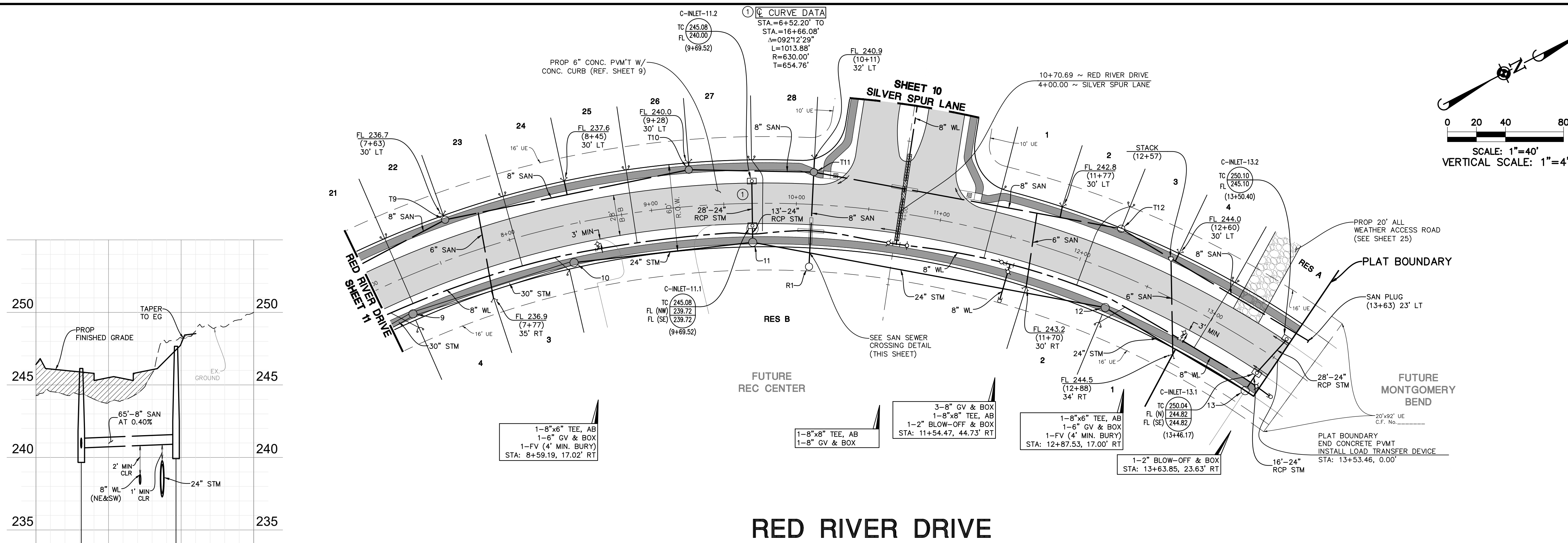
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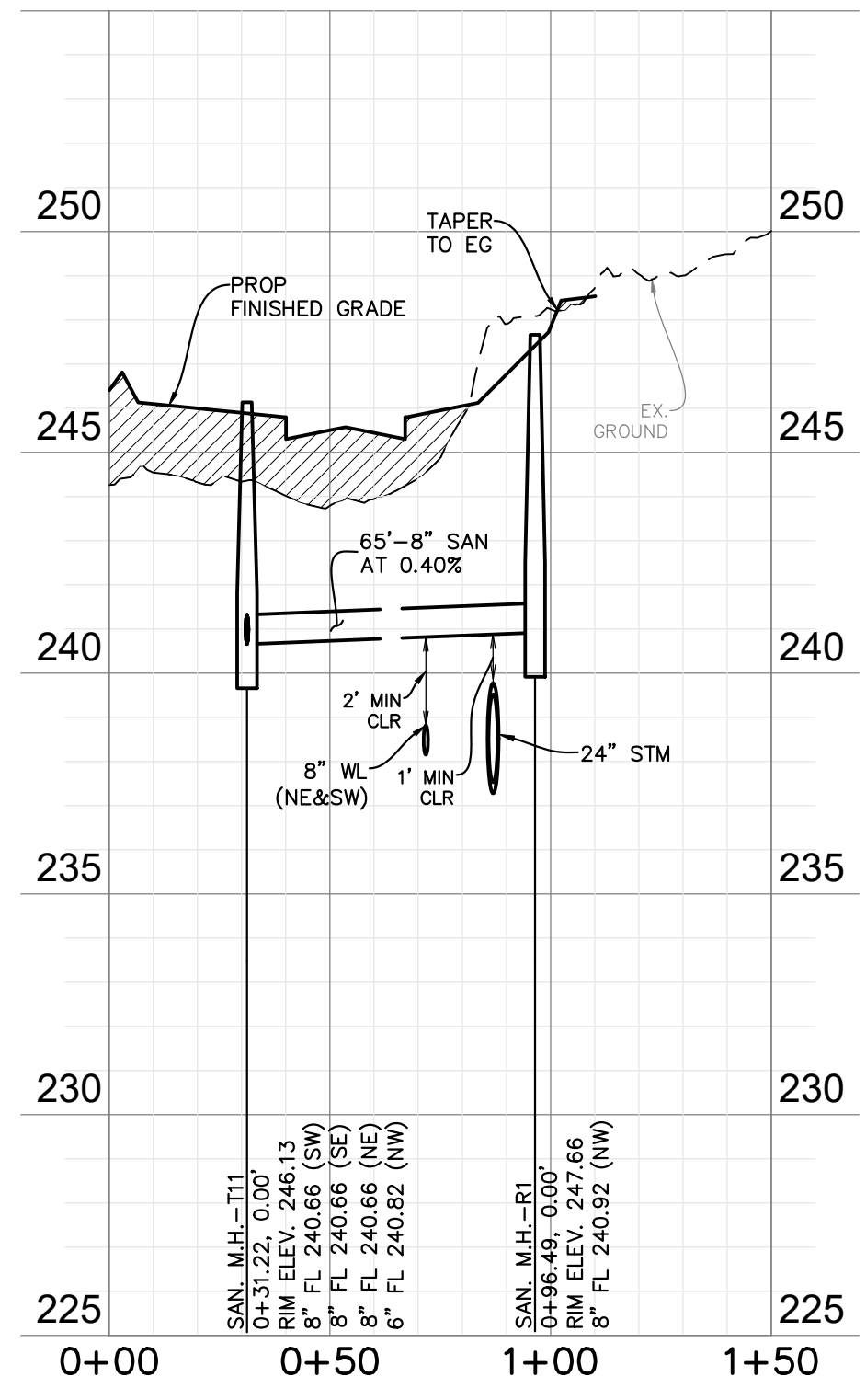
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RED RIVER DRIVE
 (STA 0+00 TO 7+00)

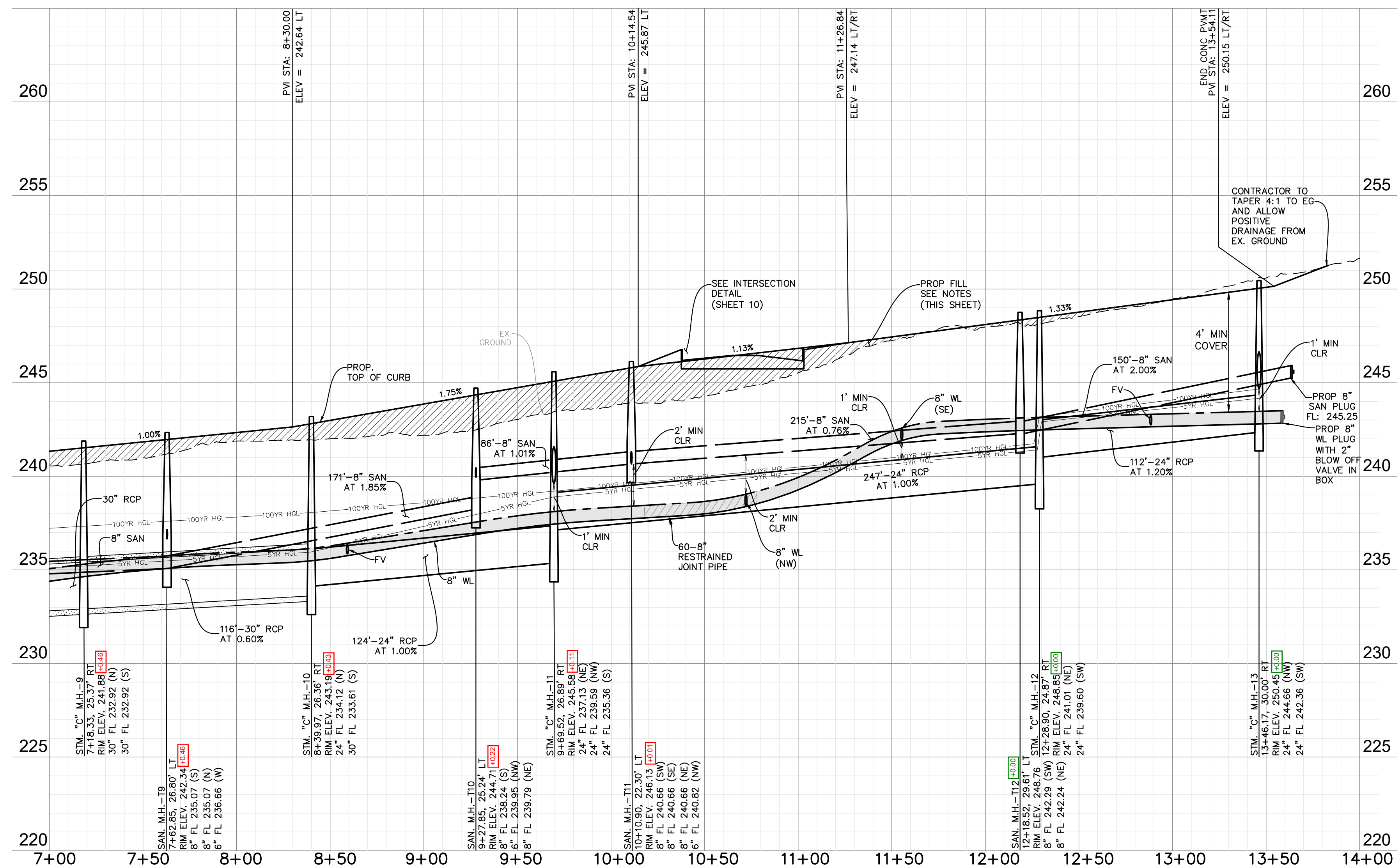


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THE WOODLANDS, TX 77381 832-823-2200

KEY MAP



RED RIVER DRIVE



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VERTICAL DATUM : NAVD88

FLOODPLAIN INFORMATION:
ACCORDING TO MAP No. 4833602006 OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAPS FOR MONTGOMERY COUNTY, DATED AUGUST 18, 2014, THE SUBJECT TRACT IS SITUATED WITHIN: UNSHADED ZONE "X", DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLAIN.

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DATE	REVISION	APP.

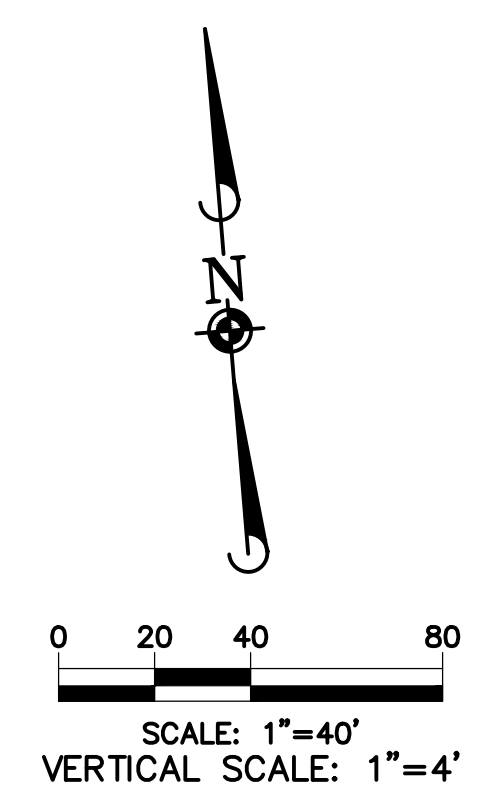
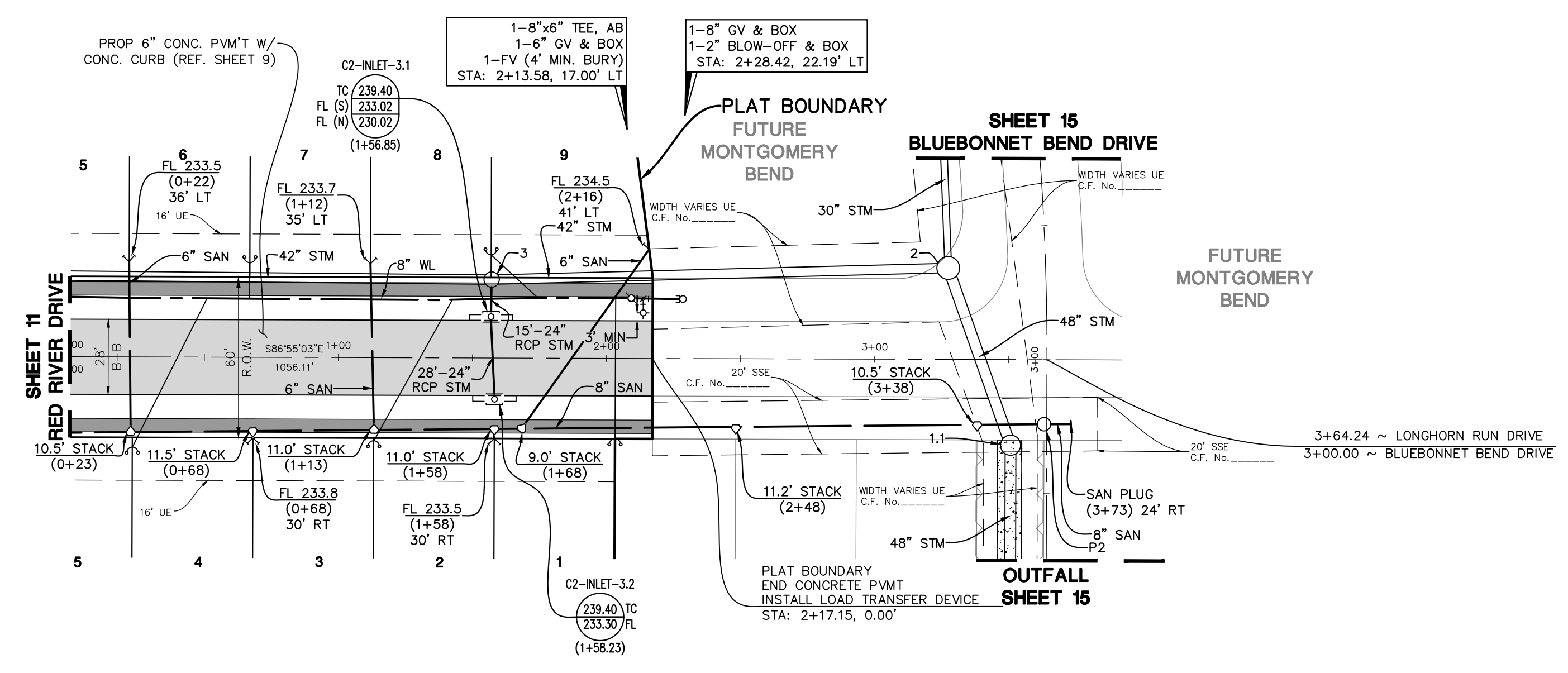
GARRET J. DUHON
9709 LAKESIDE BLVD.
SUITE 200
THE WOODLANDS, TX 77381
(832) 823-2200

TBPE NO. F-22671
CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY CITY ENGINEER DATE
SIGNATURE VALID FOR ONE (1) YEAR

RED RIVER DRIVE
(STA 7+00 TO 14+00)

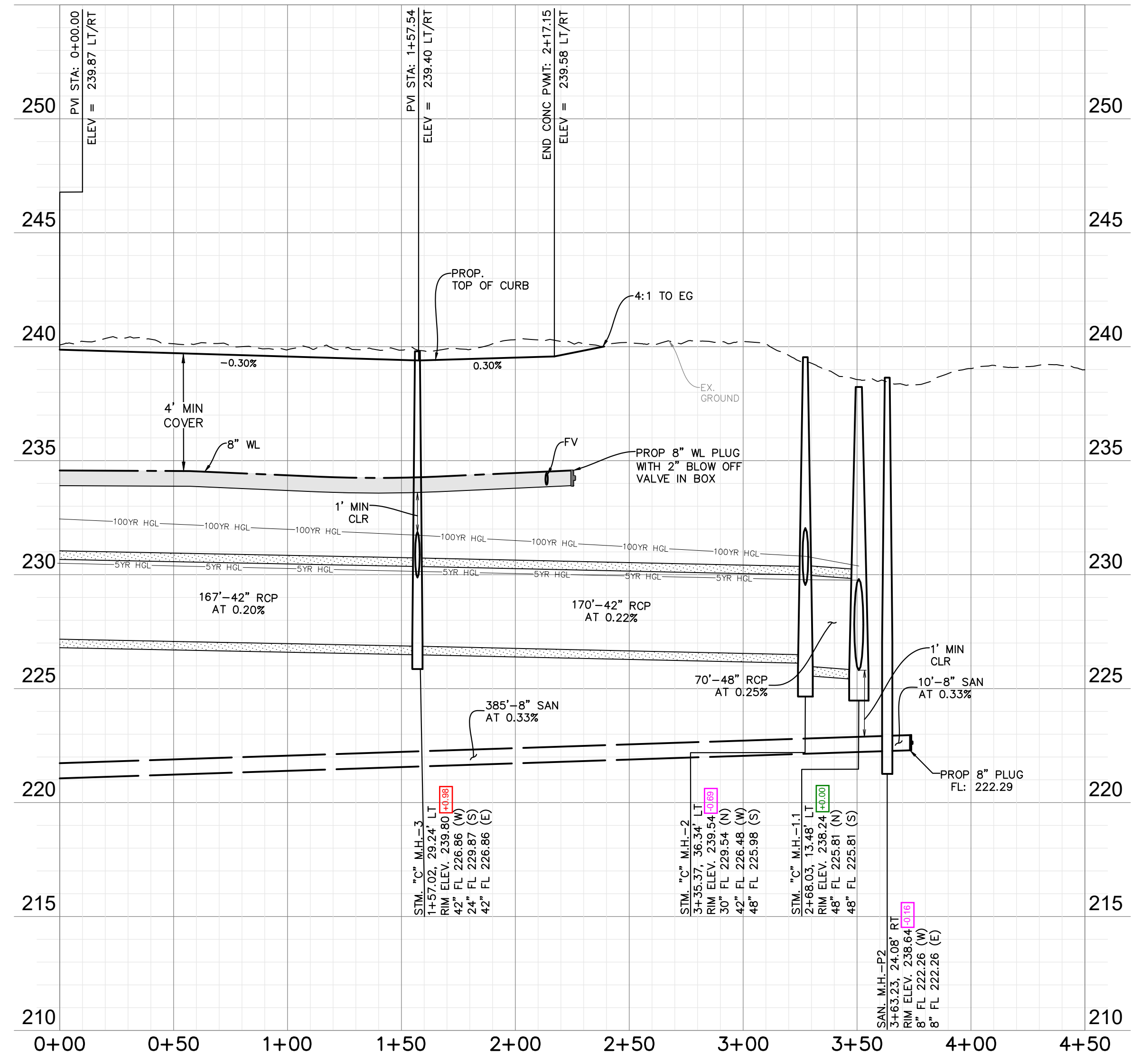
P:\610.126 Mabry and Faulkner Tract\005_Sec 1.dwg - Plan Set Drawings\LONGHORN RUN DRIVE.dwg 6/9/2023 4:59 PM STALAVEFAME\JA



ELEVATION
land solutions
TBPE REGISTRATION NUMBER F-22671
9709 LAKESIDE BLVD, SUITE 200
THE WOODLANDS, TX 77381 832-823-2200

KEY MAP

LONGHORN RUN DRIVE



WATER LINE-SANITARY SEWER CROSSING NOTE:

POSITION ONE FULL SECTION OF RESTRAINED JOINT WATERLINE AND SANITARY SEWER PIPE CENTERED AT CROSSING. INSERT SANITARY SEWER PIPE WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS ONE FOOT BEYOND THE JOINTS ON EACH END. FOR CROSSINGS WHERE PROPOSED WATERLINE IS UNDER PROPOSED SANITARY SEWER, PUT RESTRAINED JOINT DUCTILE IRON PIPE WATERLINE (FOR DIAMETERS LESS THAN 24 INCHES) AND RESTRAINED JOINT PRESSURE RATED (MIN 150 PSI) SANITARY 24" MIN CLEARANCE. NO SEPARATE PAY.

- FILL NOTES:**
- EXISTING DRAINAGE SWALES: ALL EXISTING DRAINAGE SWALES SHALL BE FILLED AS SHOWN WITH MATERIAL FROM EXISTING ADJACENT SPOIL BANKS IN MAXIMUM 8" LOOSE LIFTS AND COMPACTED TO 95% PROCTOR DENSITY AS PER AASHTO TEST METHOD T-99.
 - EXISTING DRAINAGE SWALES: ALL EXISTING DRAINAGE SWALES UNDER PROPOSED CONCRETE PAVEMENT SHALL BE CLEANED, MUCKED OUT AND SCARIFIED TO A MINIMUM DEPTH OF 6" AND FILLED AS SPECIFIED ABOVE IN FILL NOTE NO. 1. NO SEPARATE PAY.
 - ROADWAY EMBANKMENT: STRIP 3" OF VEGETATION FROM AREA TO BE FILLED AND RE-COMPACT SOIL TO 95% PROCTOR DENSITY. PLACE FILL MATERIAL AS SPECIFIED IN FILL NOTE NO. 1.

BENCHMARK:
SOURCE BENCHMARK: ELEVATIONS SHOWN HEREON ARE BASED ON NATIONAL GEODETIC SURVEY MONUMENT DESIGNATION HGCD 81, PID No. A18405
HAVING PUBLISHED INFORMATION AS FOLLOWS:
LATITUDE : 30° 21' 12.45392" NORTH
LONGITUDE : 095° 34' 45.02514" WEST
ORTHO HEIGHT : 212.4 FT. (64.74 METERS)
HORIZONTAL DATUM : NAD83 (2011)
VERTICAL DATUM : NAVD88

FLOODPLAIN INFORMATION:
ACCORDING TO MAP No. 4833602006 OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAPS FOR MONTGOMERY COUNTY, DATED AUGUST 18, 2014, THE SUBJECT TRACT IS SITUATED WITHIN: UNSHADED ZONE "X", DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLAIN.

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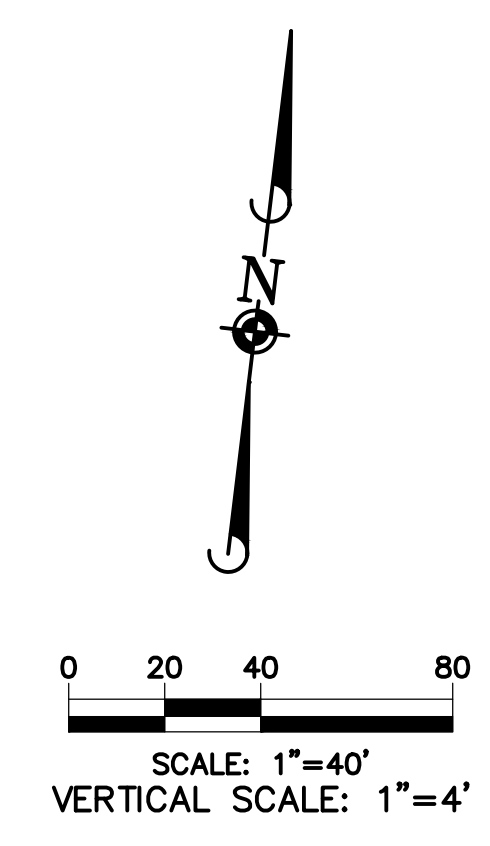
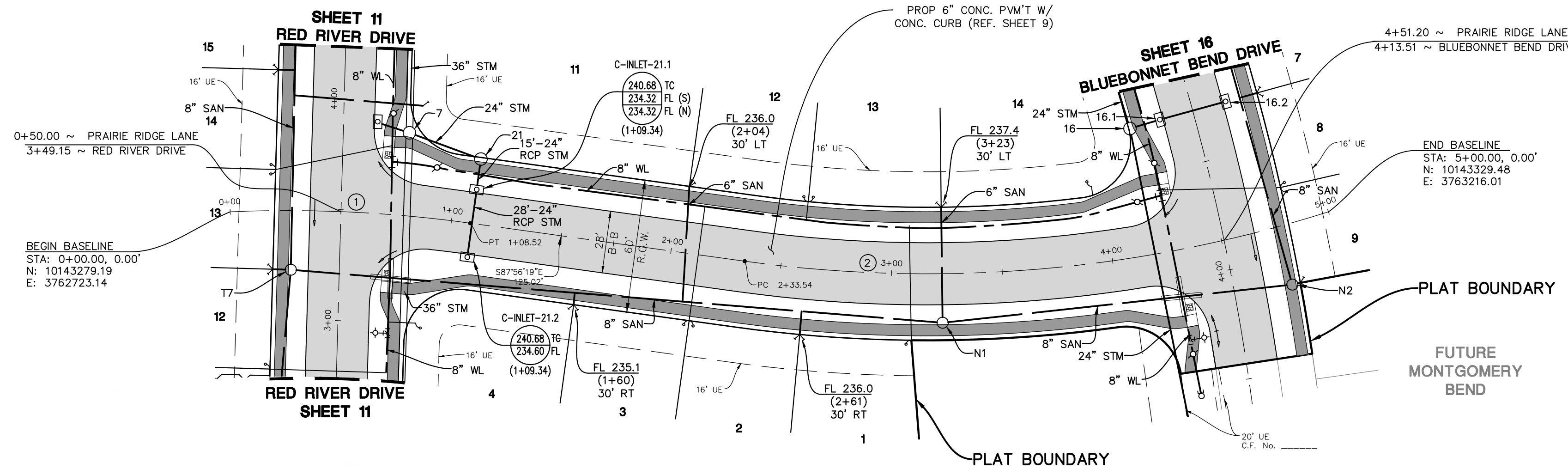
LONGHORN RUN DRIVE

SHEET 13 OF 29

ELEVATION LAND SOLUTIONS - MONTGOMERY BEND SEC 1 - PROJECT NO. 610.126.005.00

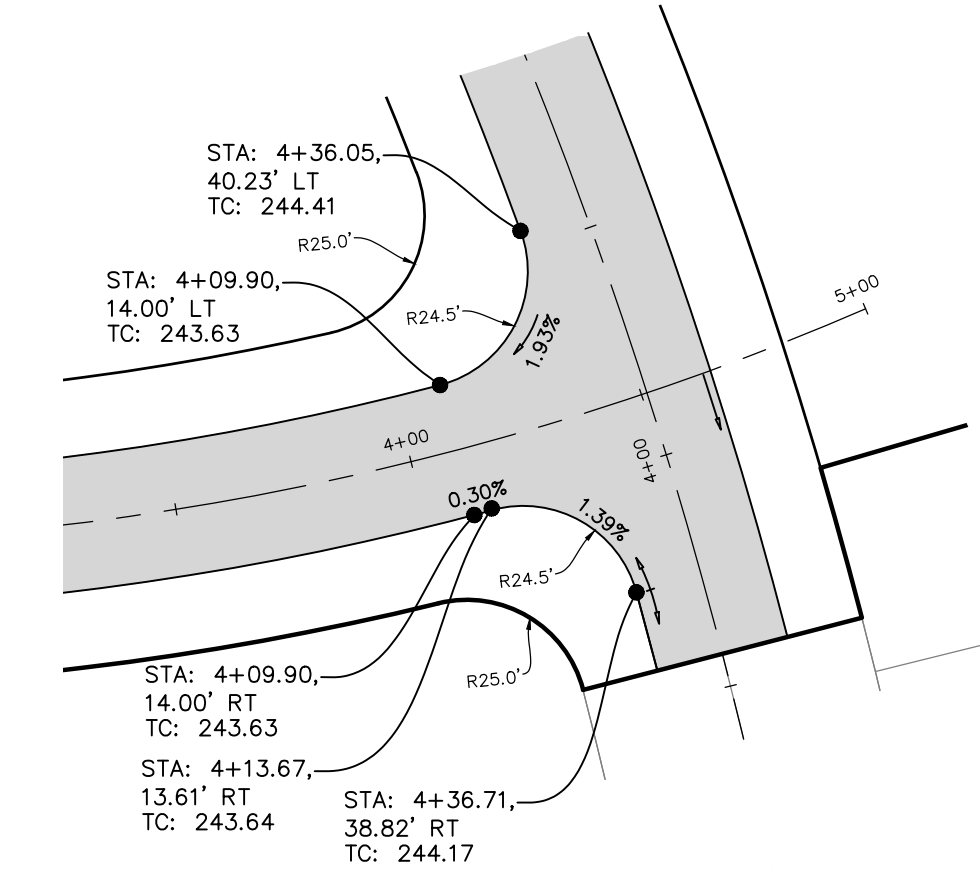
① CURVE DATA
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 STA.=1+08.52'
 Δ=010°21'48"
 L=108.52'
 R=600.00'
 T=54.41'

② CURVE DATA
 STA.=2+33.54' TO
 STA.=5+00.00'
 Δ=025°26'42"
 L=266.46'
 R=600.00'
 T=135.46'



ELEVATION
 land solutions
 TBPE REGISTRATION NUMBER F-22671
 9709 LAKESIDE BLVD, SUITE 200
 THE WOODLANDS, TX 77381 832-823-2200

KEY MAP

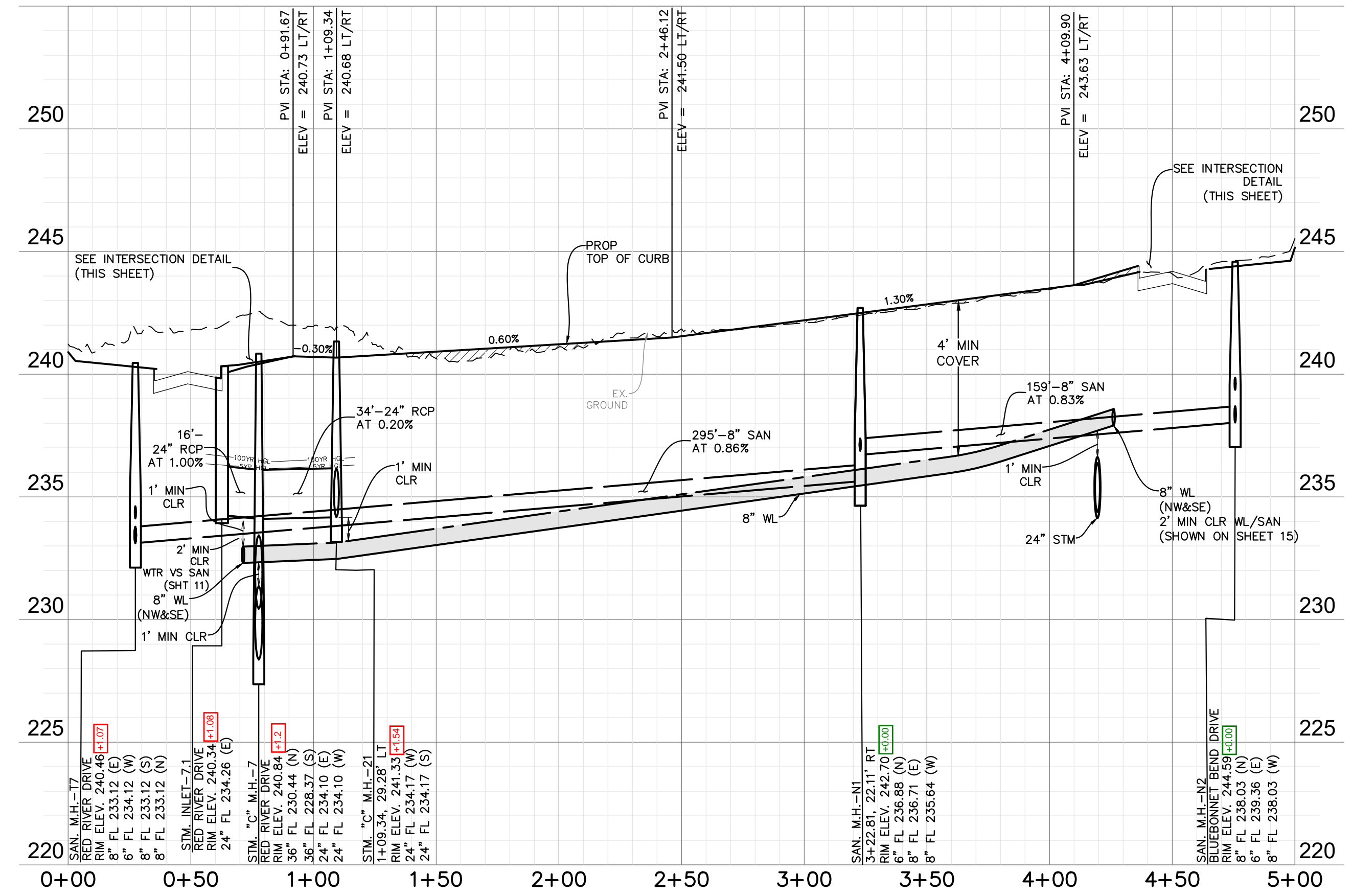


INTERSECTION DETAIL
 SCALE: 1"=40'

WATER LINE-SANITARY SEWER CROSSING NOTE:
 POSITION ONE FULL SECTION OF RESTRAINED JOINT WATERLINE AND SANITARY SEWER PIPE CENTERED AT CROSSING. INSERT SANITARY SEWER PIPE WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS ONE FOOT BEYOND THE JOINTS ON EACH END. FOR CROSSINGS WHERE PROPOSED WATERLINE IS UNDER PROPOSED SANITARY SEWER, PUT RESTRAINED JOINT DUCTILE IRON PIPE WATERLINE (FOR DIAMETERS LESS THAN 24 INCHES) AND RESTRAINED JOINT PRESSURE RATED (MIN 150 PSI) SANITARY 24" MIN CLEARANCE. NO SEPARATE PAY.

FILL NOTES:
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 2) EXISTING DRAINAGE SWALES: ALL EXISTING DRAINAGE SWALES UNDER PROPOSED CONCRETE PAVEMENT SHALL BE CLEANED, MUCKED OUT AND SCARIFIED TO A MINIMUM DEPTH OF 6" AND FILLED AS SPECIFIED ABOVE IN FILL NOTE NO. 1 NO SEPARATE PAY.
 3) ROADWAY EMBANKMENT: STRIP 3" OF VEGETATION FROM AREA TO BE FILLED AND RE-COMPACT SOIL TO 95% PROCTOR DENSITY. PLACE FILL MATERIAL AS SPECIFIED IN FILL NOTE NO. 1

PRAIRIE RIDGE LANE



BENCHMARK:
 SOURCE BENCHMARK:
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 HAVING PUBLISHED INFORMATION AS FOLLOWS:
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 LONGITUDE : 095° 34' 45.02514" WEST
 ORTHO HEIGHT : 212.4 FT. (64.74 METERS)
 HORIZONTAL DATUM : NAD83 (2011)
 VERTICAL DATUM : NAVD88

FLOODPLAIN INFORMATION:
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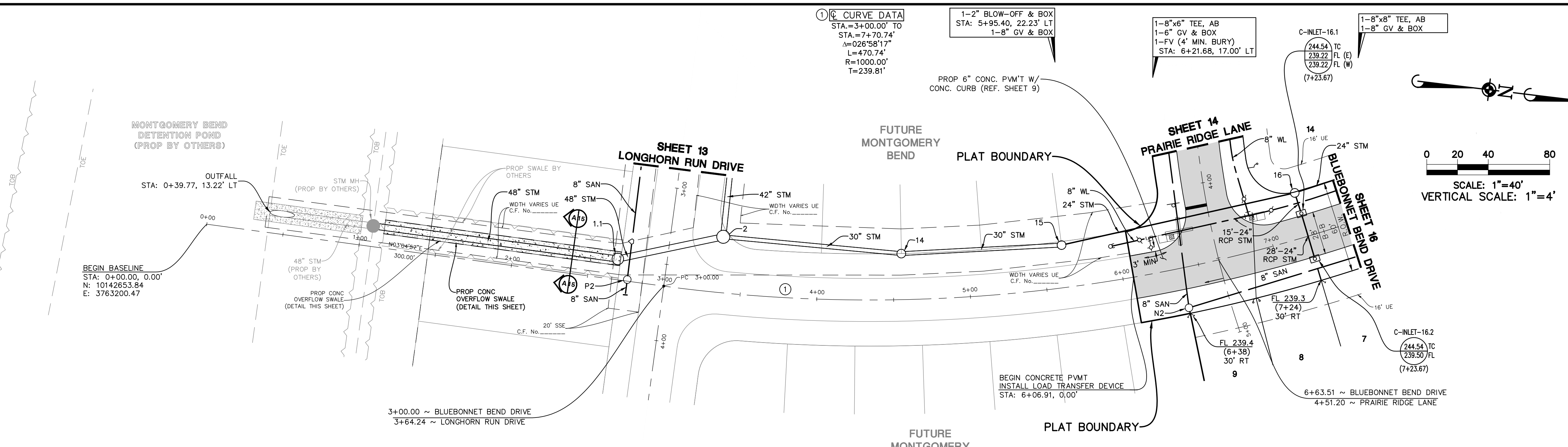
DATE	REVISION	APP.

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 SUITE 200
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 (832) 823-2200

TBPE NO. F-22671
 CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

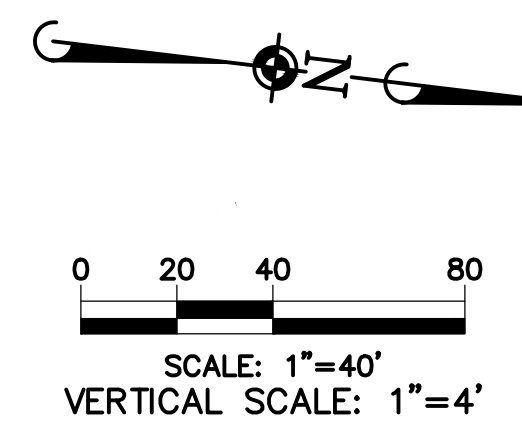
CITY OF MONTGOMERY CITY ENGINEER DATE
 SIGNATURE VALID FOR ONE (1) YEAR

PRAIRIE RIDGE LANE
SHEET 14 OF 29

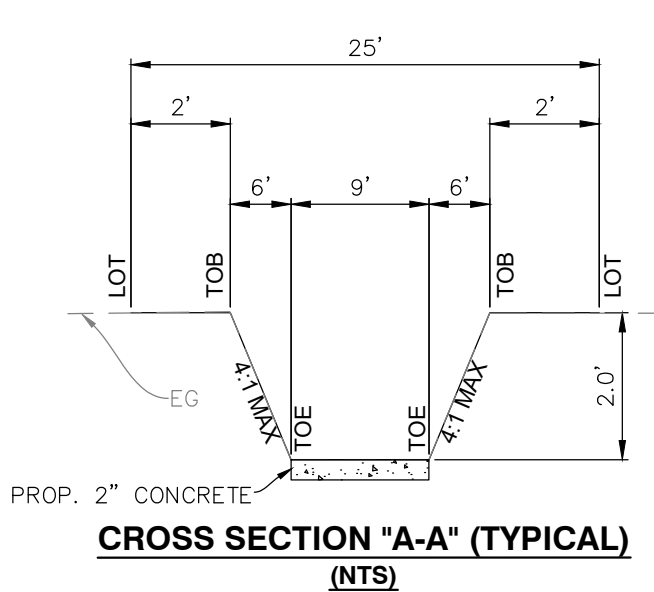


ELEVATION
land solutions
TBPB REGISTRATION NUMBER F-22671
9709 LAKESIDE BLVD, SUITE 200
THE WOODLANDS, TX 77381 832-823-2200

KEY MAP



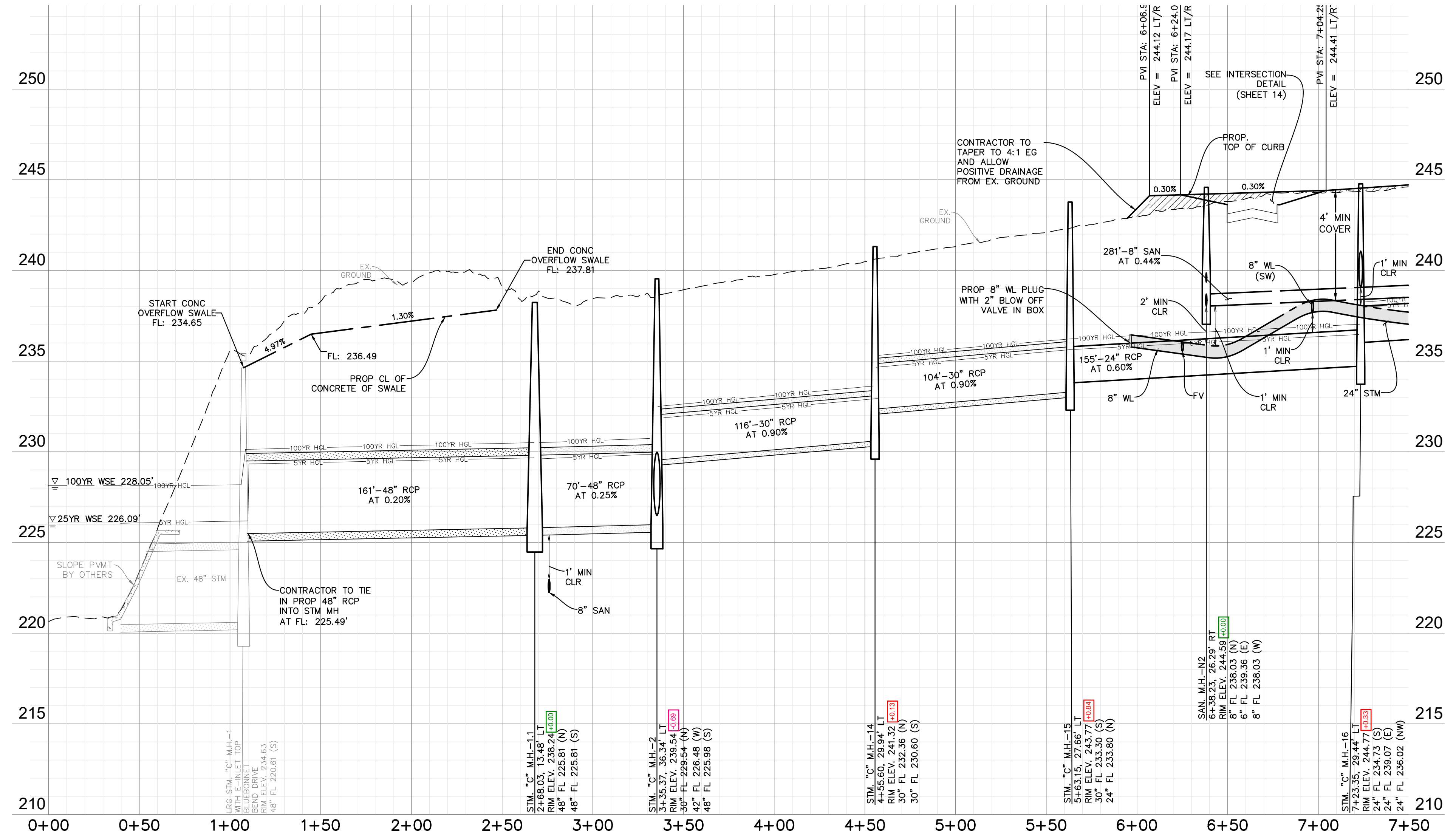
BLUEBONNET BEND DRIVE



CROSS SECTION "A-A" (TYPICAL)
(NTS)

SWALE CAPACITY CALCULATION
 $Q = 1.49 * A * R * (2/3) * S^{1/2}$

MANNING'S COEFFICIENT	SLOPE	DEPTH	FREE BOARD	BOTTOM WIDTH	TOP WIDTH	CAPACITY (CFS)	100-YR OVERFLOW (CFS)	VELOCITY (ft/s)
0.013	1.30%	2.0'	1.20'	9'	25'	60.48	44.21	6.20



WATER LINE-SANITARY SEWER CROSSING NOTE:

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 - EXISTING DRAINAGE SWALES: ALL EXISTING DRAINAGE SWALES UNDER PROPOSED CONCRETE PAVEMENT SHALL BE CLEANED, MUCKED OUT AND SCARIFIED TO A MINIMUM DEPTH OF 6\"/>
 - ROADWAY EMBANKMENT: STRIP 3\"/>

BENCHMARK:
SOURCE BENCHMARK: ELEVATIONS SHOWN HEREON ARE BASED ON NATIONAL GEODETIC SURVEY MONUMENT DESIGNATION HGSD 81, PID No. A18405 HAVING PUBLISHED INFORMATION AS FOLLOWS:
LATITUDE : 30° 21' 12.45392\"/>

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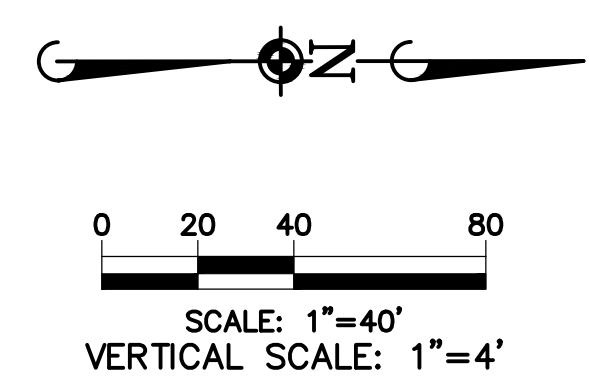
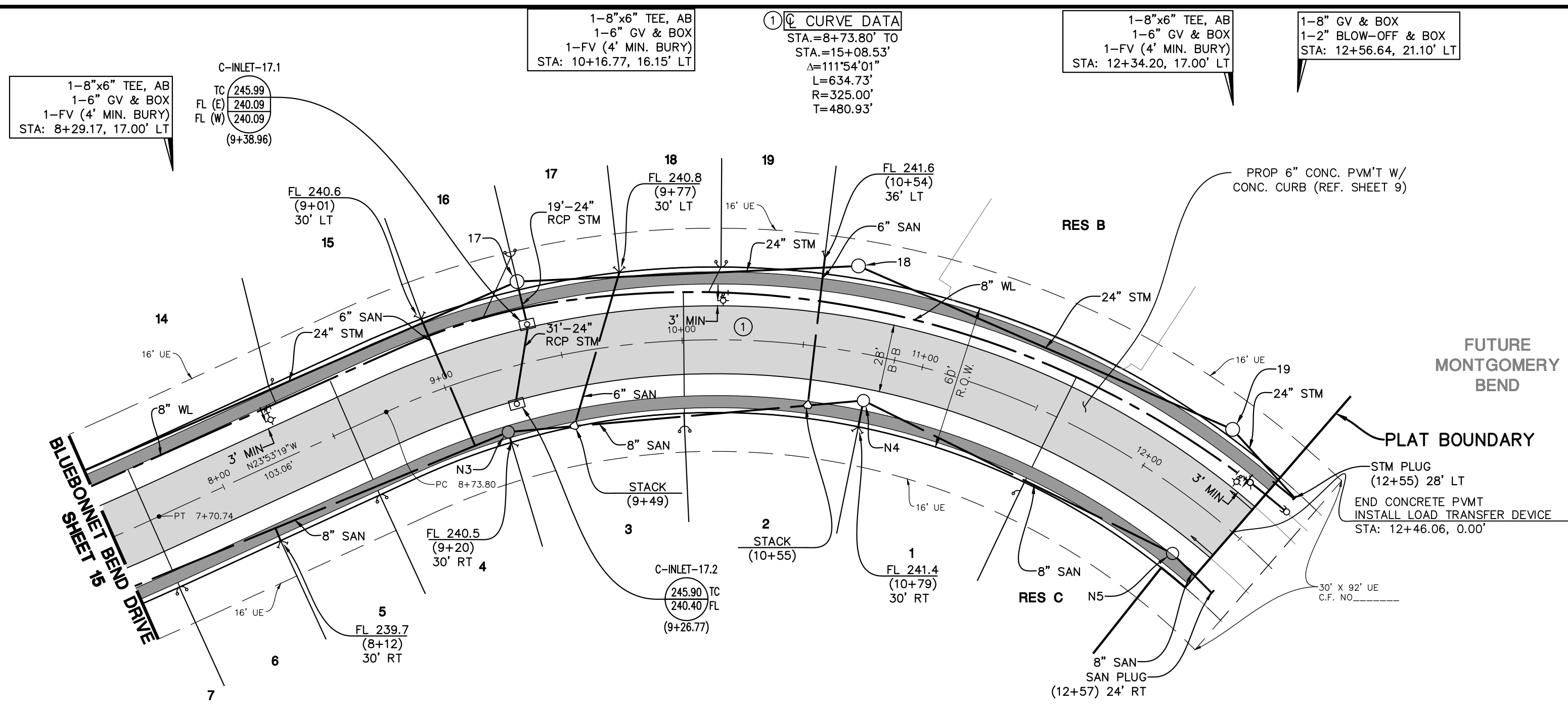
DATE	REVISION	APP.

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9709 LAKESIDE BLVD.
SUITE 200
THE WOODLANDS, TX 77381
(832) 823-2200

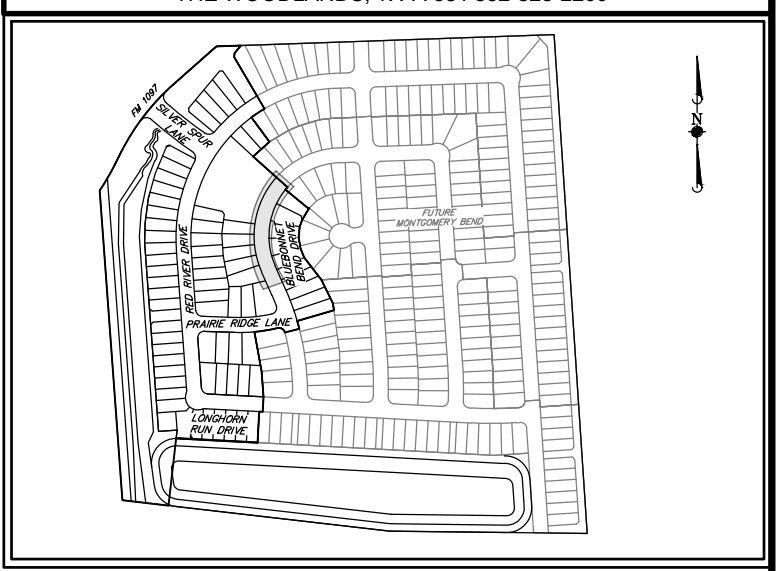
TBPB NO. F-22671
CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE VALID FOR ONE (1) YEAR

BLUEBONNET BEND DRIVE (STA 0+00 TO 7+50)



ELEVATION
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TBPE REGISTRATION NUMBER F-22671
9709 LAKESIDE BLVD, SUITE 200
THE WOODLANDS, TX 77381 832-823-2200



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FLOODPLAIN INFORMATION:
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DATE	REVISION	APP.

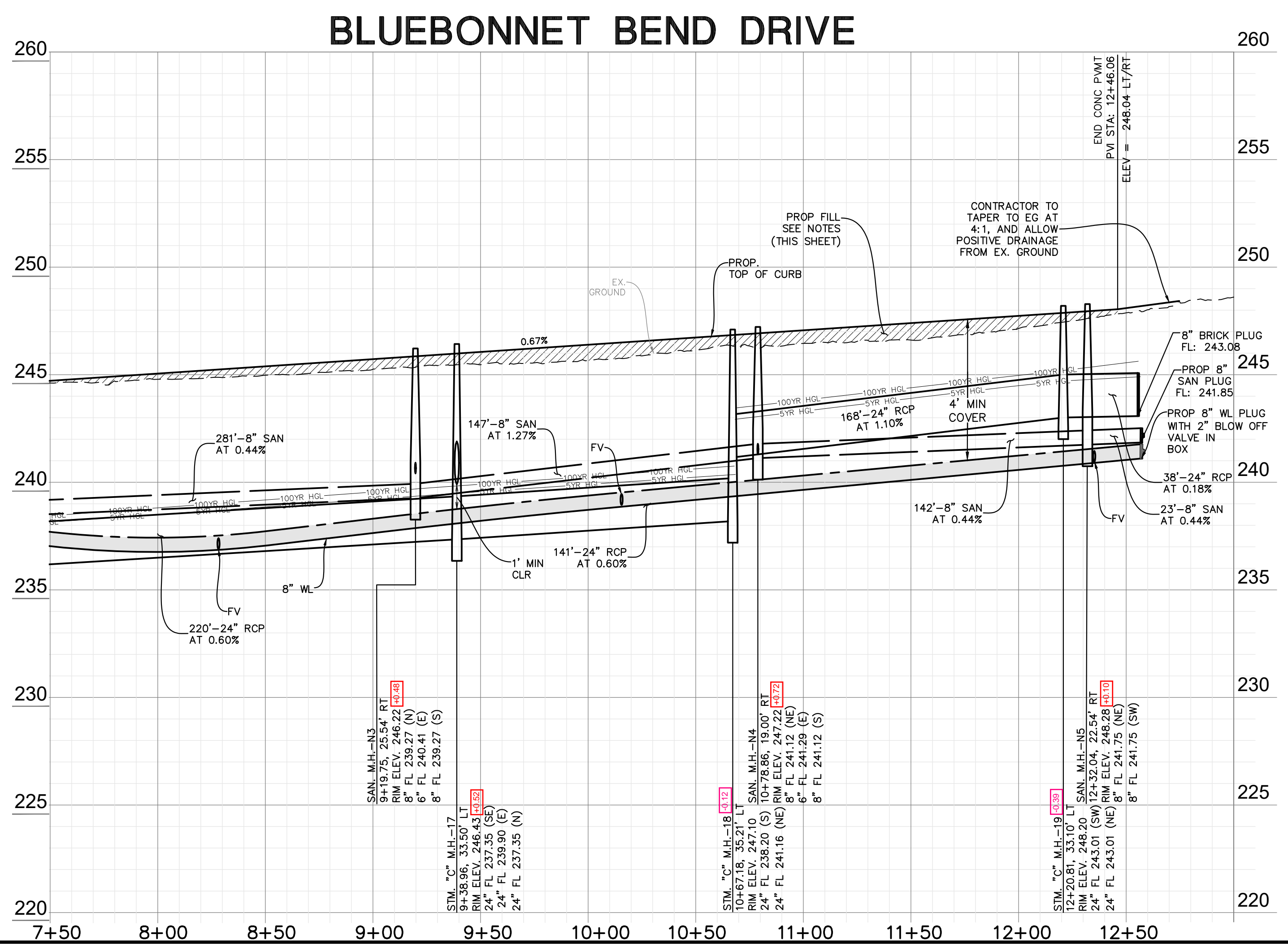
GARRET J. DUHON
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THE WOODLANDS, TX 77381
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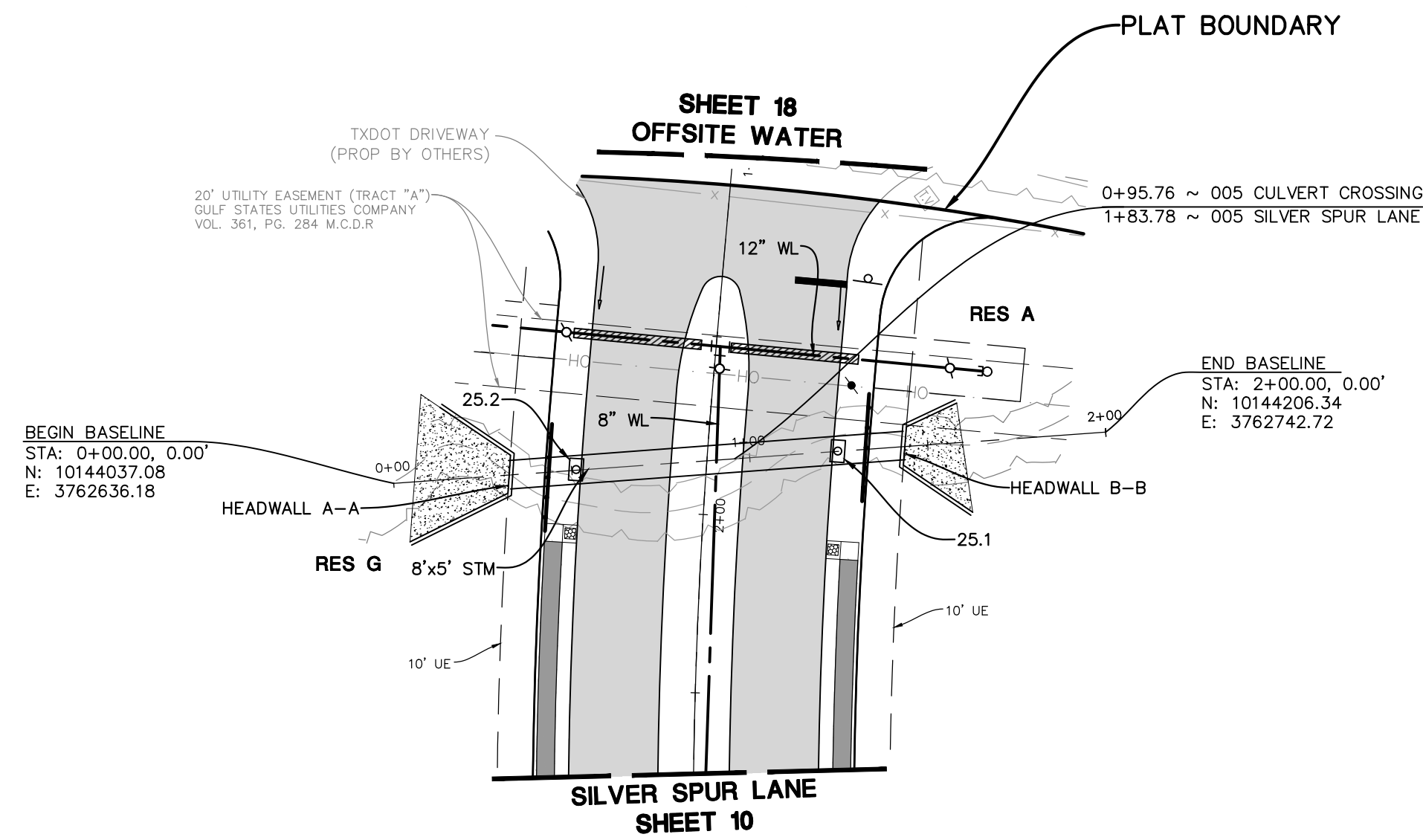
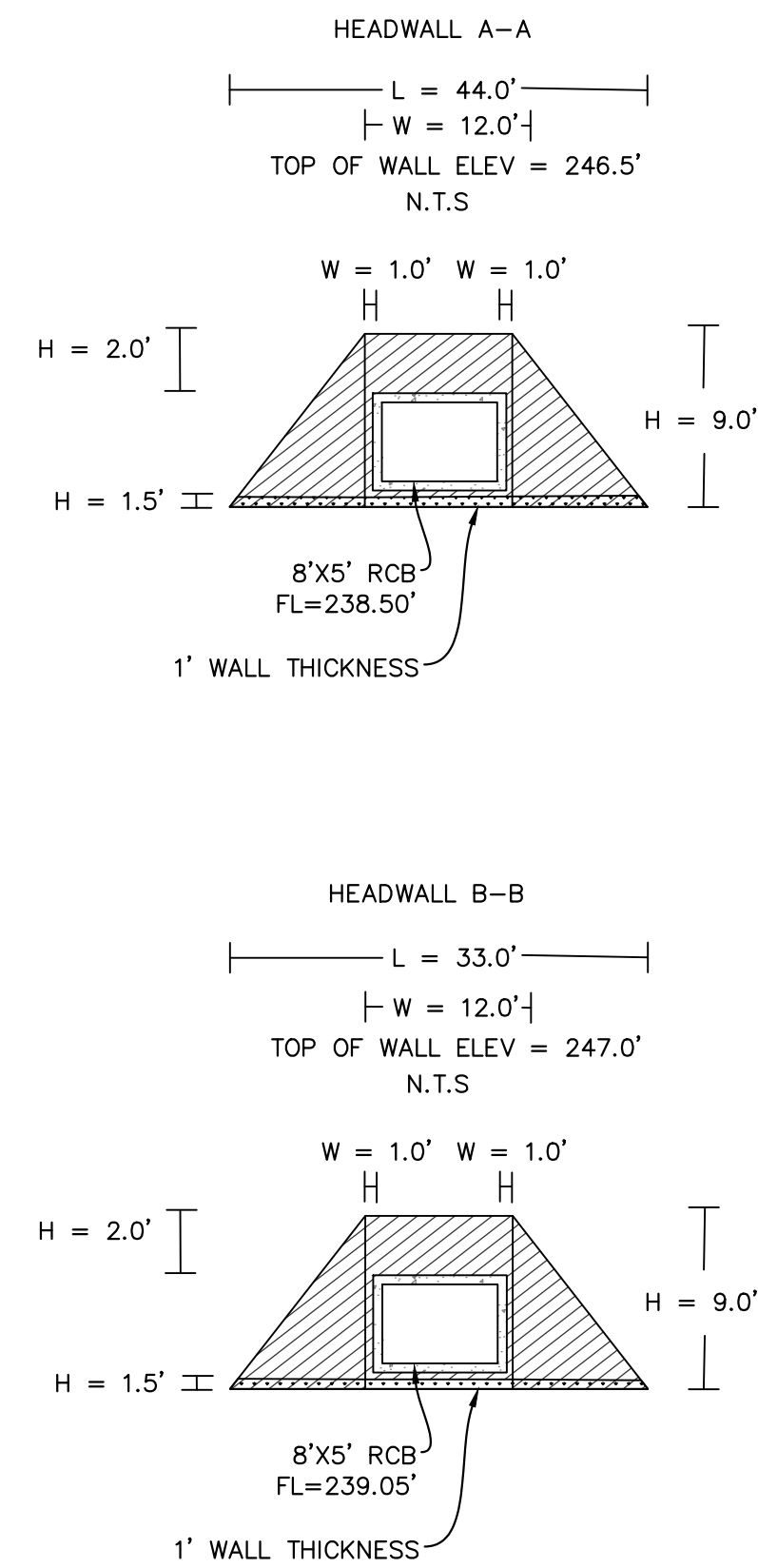
TBPE NO. F-22671

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

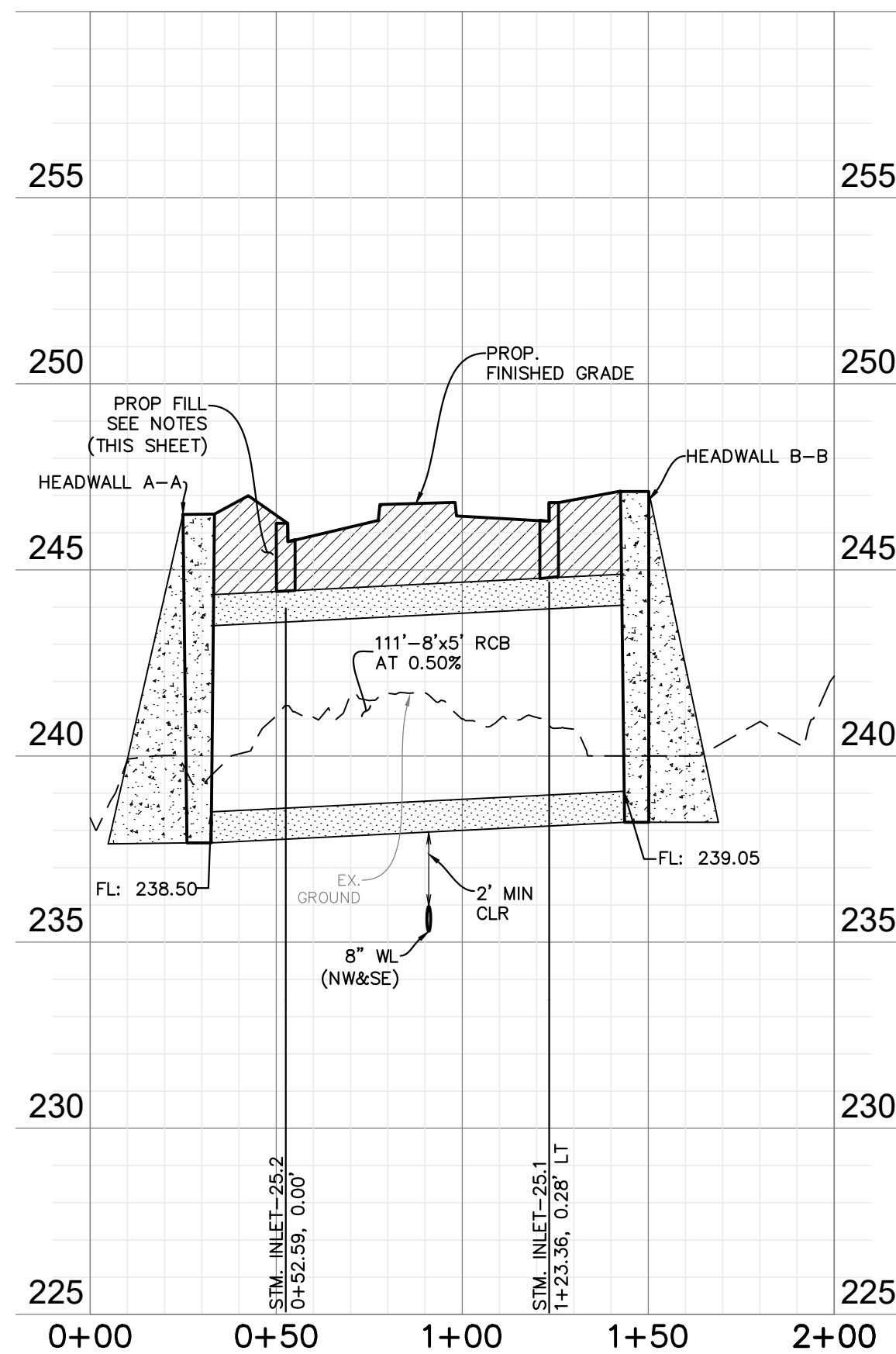
CITY OF MONTGOMERY CITY ENGINEER DATE
SIGNATURE VALID FOR ONE (1) YEAR

BLUEBONNET BEND DRIVE (STA 7+50 TO 12+50)

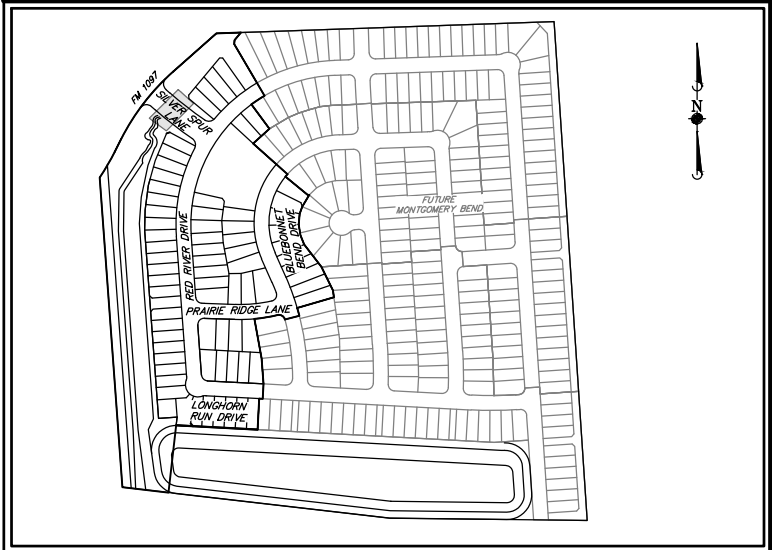




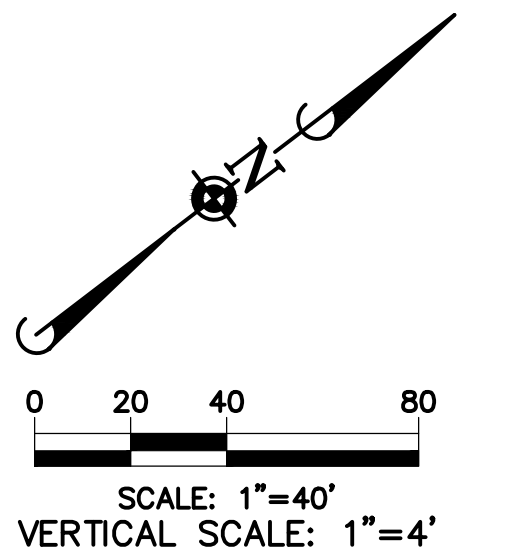
CULVERT CROSSING



ELEVATION
land solutions
TBPE REGISTRATION NUMBER F-22671
9709 LAKESIDE BLVD, SUITE 200
THE WOODLANDS, TX 77381 832-823-2200



KEY MAP



BENCHMARK:
SOURCE BENCHMARK:
ELEVATIONS SHOWN HEREON ARE BASED ON NATIONAL GEODETIC SURVEY MONUMENT DESIGNATION HGCD 81, PID No. A16405
HAVING PUBLISHED INFORMATION AS FOLLOWS:
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HORIZONTAL DATUM : NAD83 (2011)
VERTICAL DATUM : NAVD88

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DATE	REVISION	APP.

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(832) 823-2200

TBPE NO. F-22671
CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY CITY ENGINEER DATE
SIGNATURE VALID FOR ONE (1) YEAR

CULVERT CROSSING

SHEET 17 OF 29

22x34

① CURVE DATA
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 STA.=1+73.46'
 Δ=010°27'50"
 L=173.46'
 R=949.80'
 T=86.97'

1-12"x22.5' BEND, AB

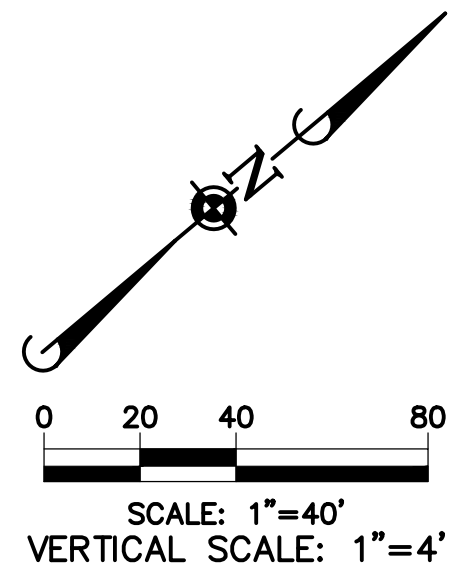
② CURVE DATA
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 STA.=3+78.88'
 Δ=009°14'43"
 L=147.65'
 R=915.00'
 T=73.98'

1-12" GV & BOX

③ CURVE DATA
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 STA.=5+34.15'
 Δ=009°43'23"
 L=155.27'
 R=915.00'
 T=77.82'

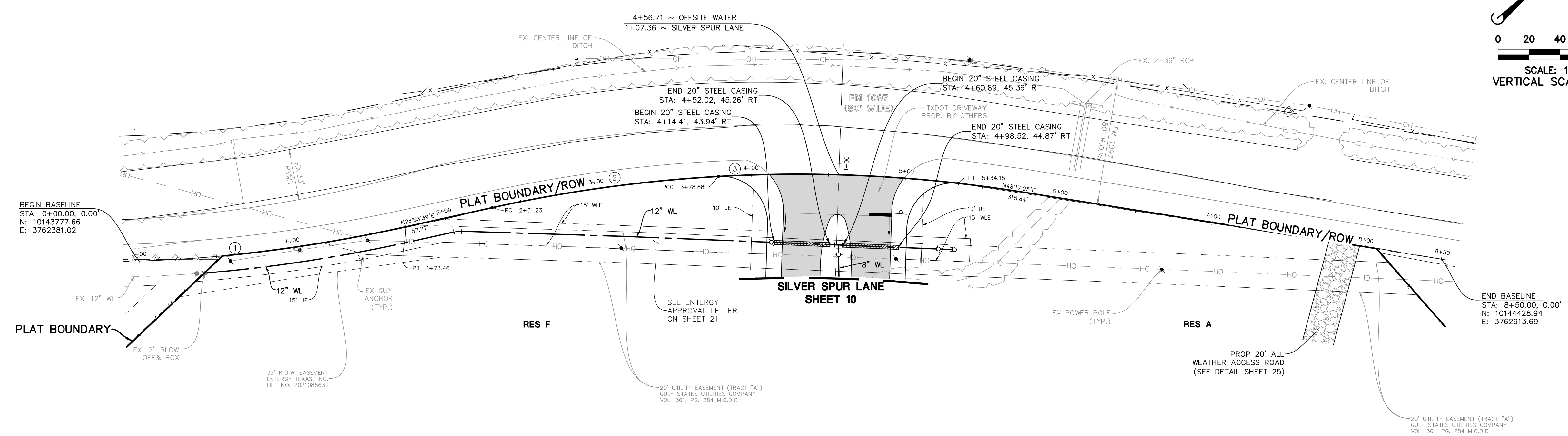
1-12"x8" TEE, AB

1-12" GV & BOX
 1-2" BLOW-OFF & BOX
 STA: 5+37.00, 42.89' RT

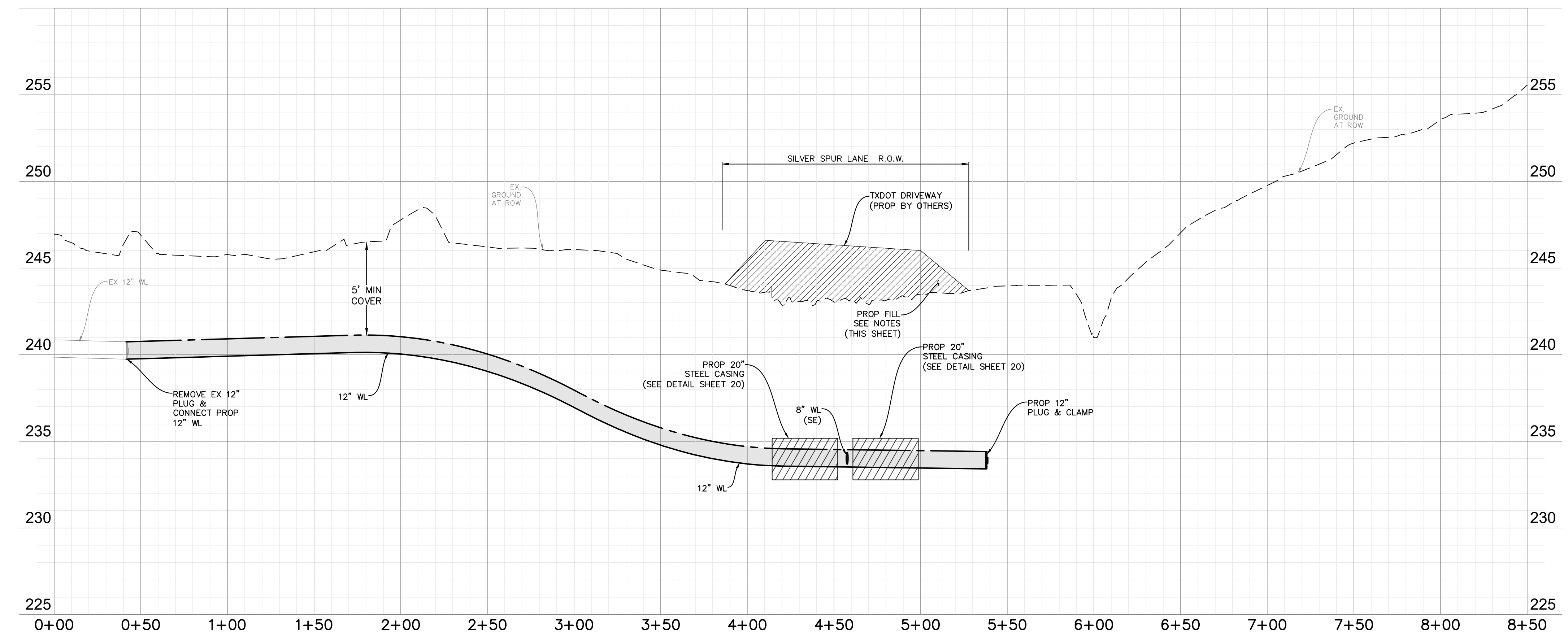


ELEVATION
 land solutions
 TBPE REGISTRATION NUMBER F-22671
 9709 LAKESIDE BLVD, SUITE 200
 THE WOODLANDS, TX 77381 832-823-2200

KEY MAP



OFFSITE WATER



BENCHMARK:
 SOURCE BENCHMARK:
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FLOODPLAIN INFORMATION:
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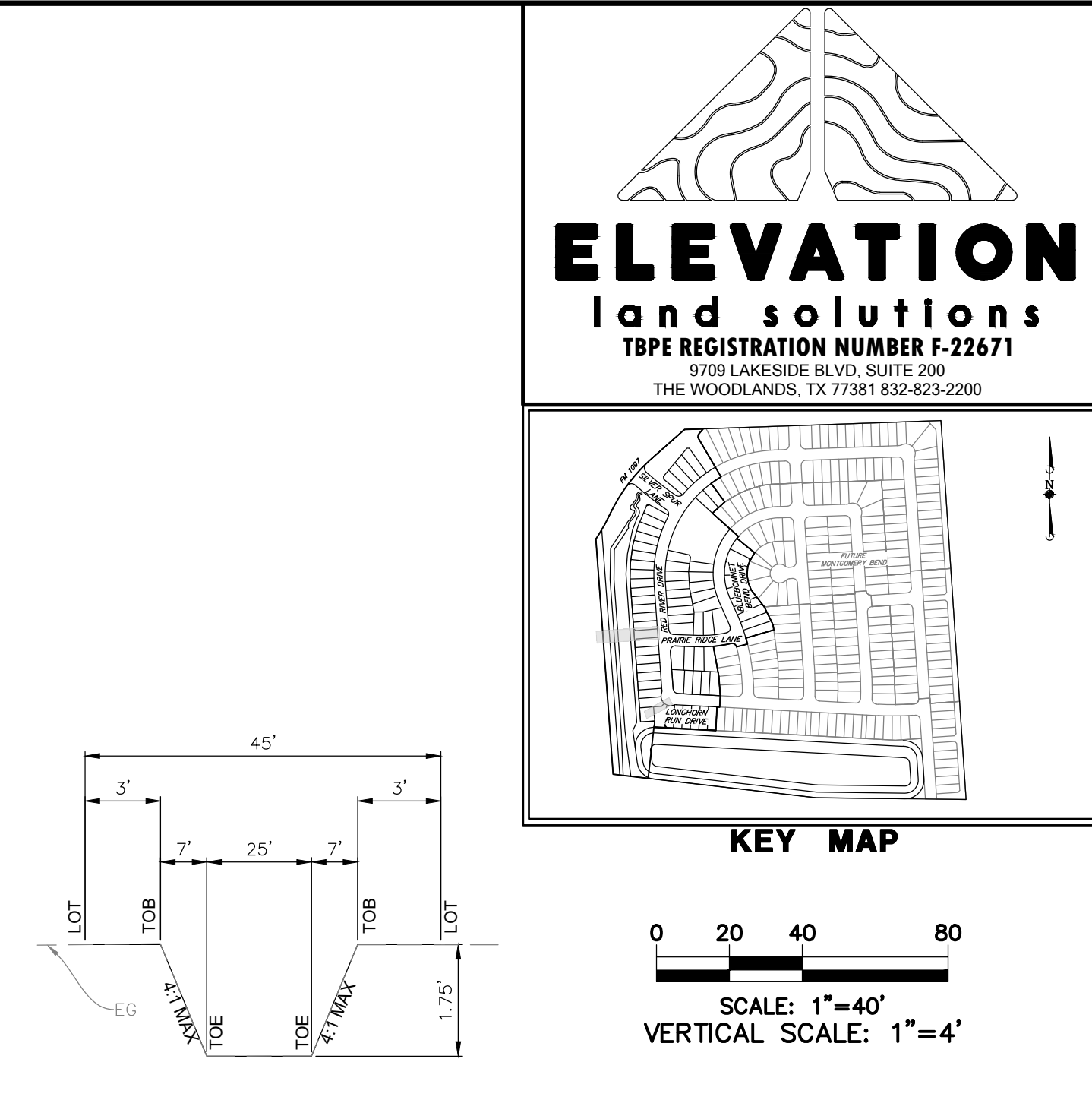
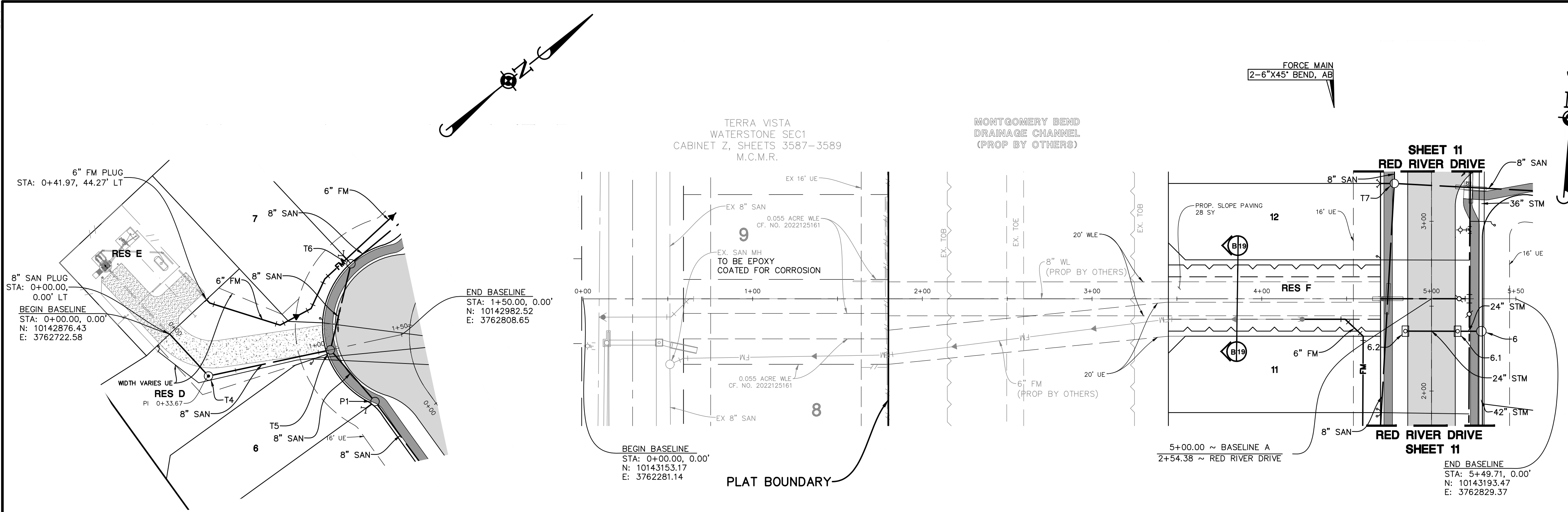
CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY CITY ENGINEER DATE
 SIGNATURE VALID FOR ONE (1) YEAR

OFFSITE WATER

P:\610.126 Mabry and Faulkner Tract\005_Sec 1.dwg_Plan_Sect Drawings\OFFSITE WATER.dwg_6/9/2023 5:07 PM INFODRIBUEZ

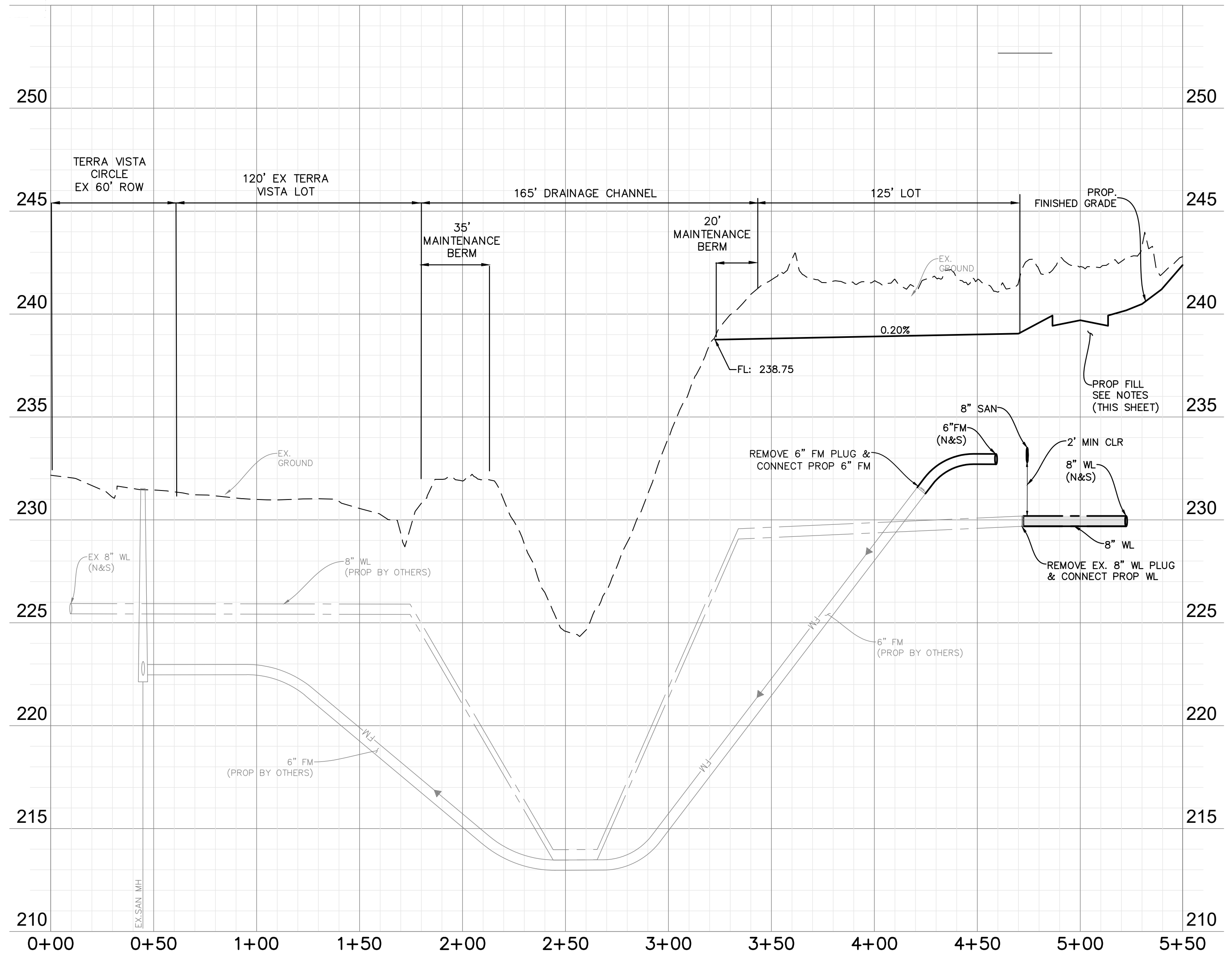
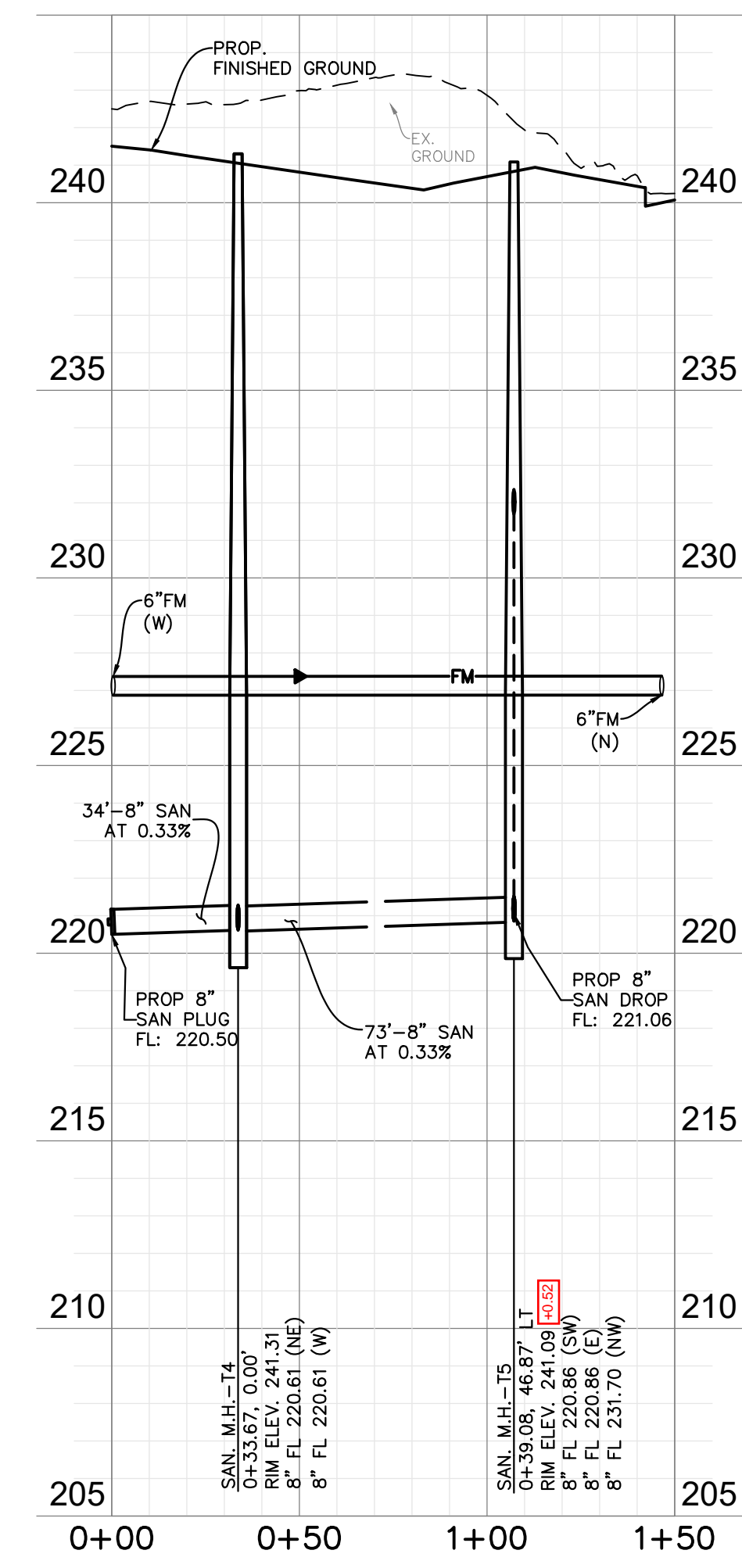
ELEVATION LAND SOLUTIONS - MONTGOMERY BEND SEC 1 - PROJECT NO. 610.126.005.00



SWALE CAPACITY CALCULATION
 $Q = 1.49 * A * R^{(2/3)} * S^{(1/2)}$

MANNING'S COEFFICIENT	SLOPE	DEPTH	BOTTOM WIDTH	TOP WIDTH	CAPACITY (GFS)	100-YR OVERFLOW (GFS)	VELOCITY (FPA)
0.04	0.2%	1.75'	25'	39'	34.93	31.78	1.40

OFFSITE SANITARY



BENCHMARK:
 SOURCE BENCHMARK: ELEVATIONS SHOWN HEREON ARE BASED ON NATIONAL GEODETIC SURVEY MONUMENT DESIGNATION HGSD 81, PID No. AUB405
 HAVING PUBLISHED INFORMATION AS FOLLOWS:
 LATITUDE : 30° 21' 12.45392" NORTH
 LONGITUDE : 095° 34' 45.02514" WEST
 ORTHO HEIGHT : 212.4 FT. (64.74 METERS)
 HORIZONTAL DATUM : NAD83 (2011)
 VERTICAL DATUM : NAVD88

FLOODPLAIN INFORMATION:
 ACCORDING TO MAP Nos. 483360200G OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAPS FOR MONTGOMERY COUNTY, DATED AUGUST 18, 2014, THE SUBJECT TRACT IS SITUATED WITHIN: UNSHADED ZONE "X", DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLAIN.

THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY OR STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE ON RARE OCCASIONS FLOODS CAN AND WILL OCCUR AND FLOOD HEIGHTS MAY BE INCREASED BY MAN-MADE OR NATURAL CAUSES. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR.

DATE	REVISION	APP.

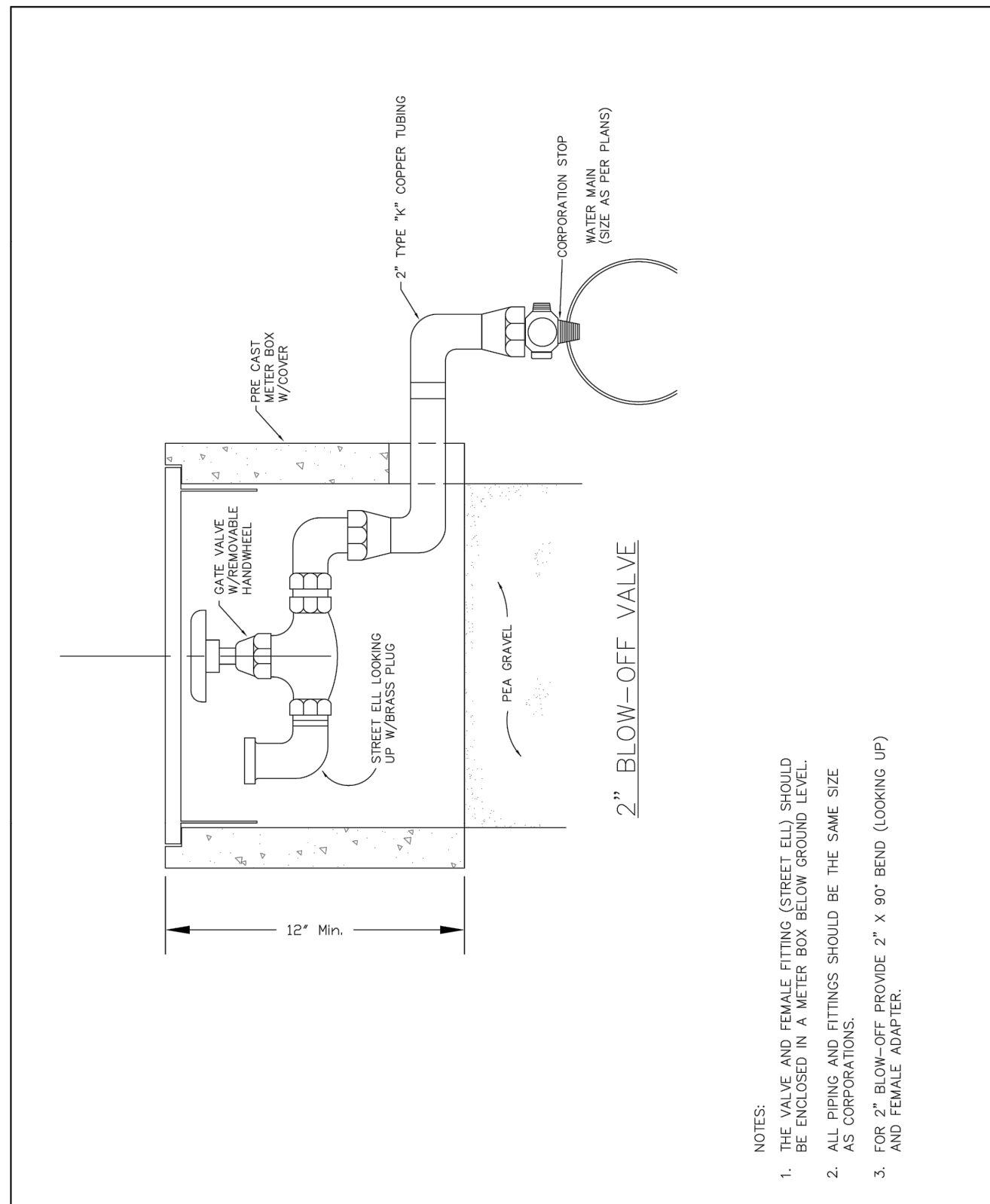
GARRET J. DUHON
 9709 LAKESIDE BLVD.
 SUITE 200
 THE WOODLANDS, TX 77381
 (832) 823-2200

TBPE NO. F-22671
 CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE VALID FOR ONE (1) YEAR

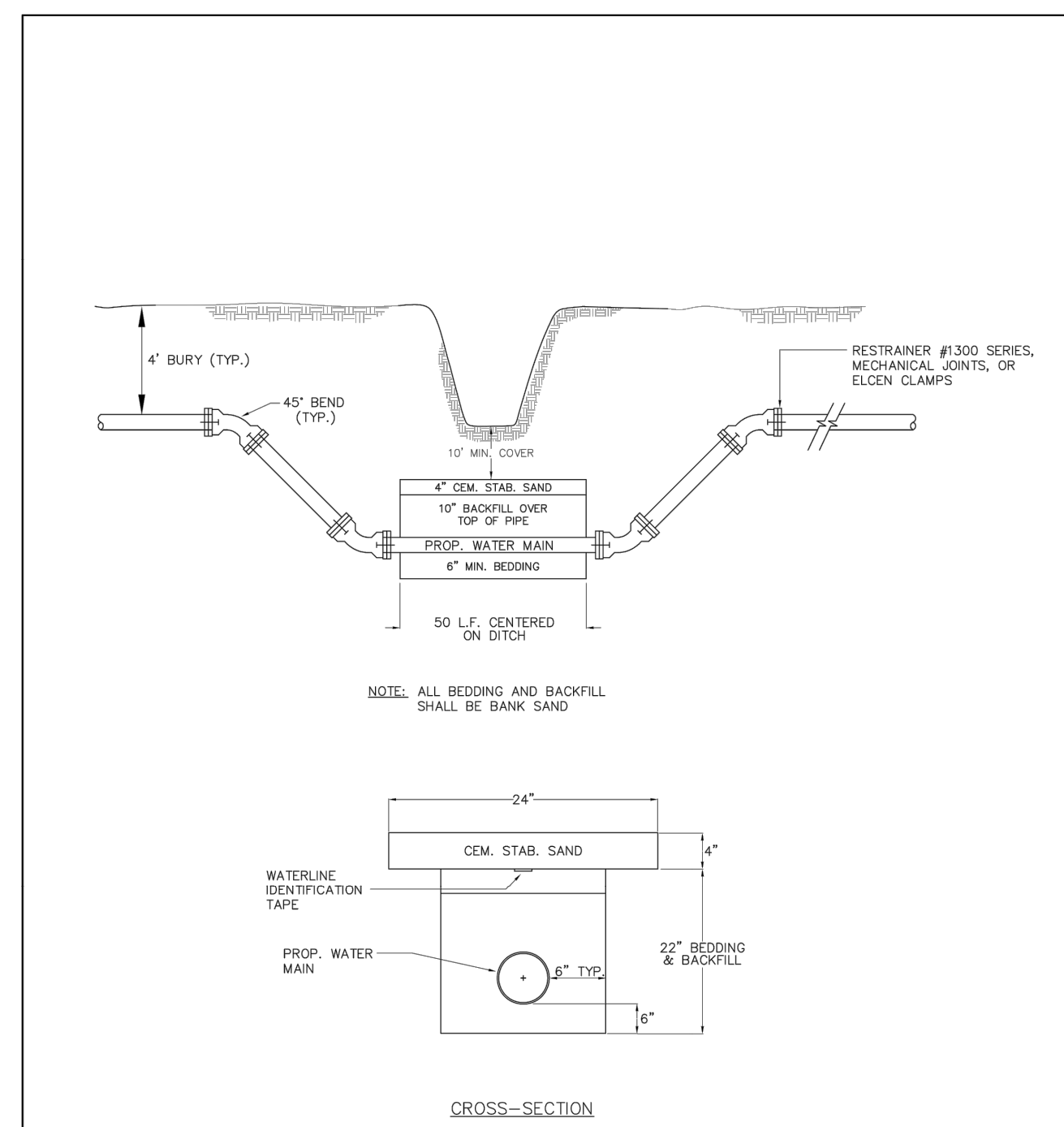
OFFSITE SANITARY & BASELINE A

SHEET 19 OF 29



- NOTES:
1. THE VALVE AND FEMALE FITTING (STREET ELL) SHOULD BE ENCLOSED IN A METER BOX BELOW GROUND LEVEL.
 2. ALL PIPING AND FITTINGS SHOULD BE THE SAME SIZE AS CORPORATIONS.
 3. FOR 2" BLOW-OFF PROVIDE 2" X 90° BEND (LOOKING UP) AND FEMALE ADAPTER.

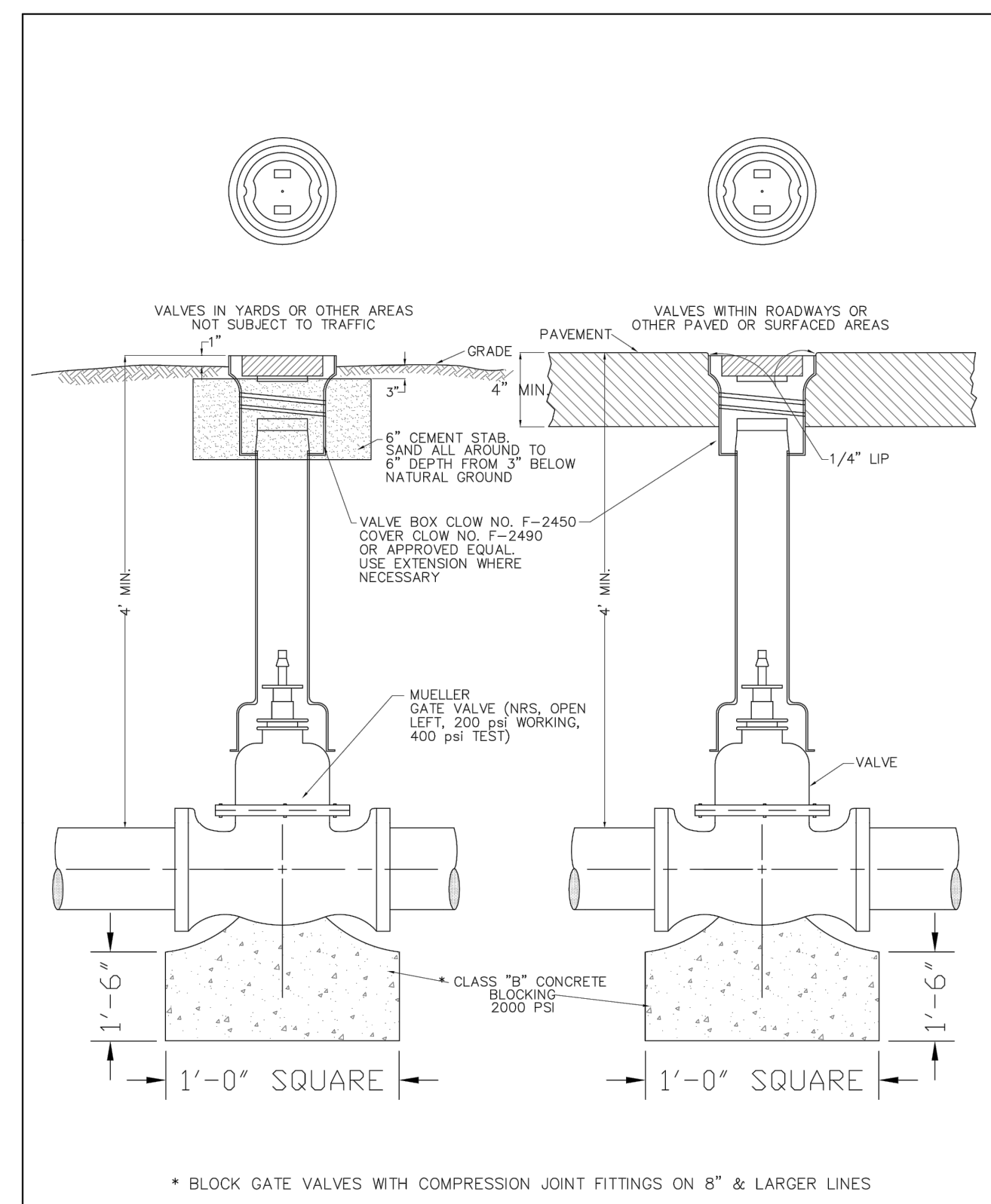
REVISIONS	CITY OF MONTGOMERY 2" BLOW-OFF VALVE FOR WATERLINE	WATER W-13
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NOTE: ALL BEDDING AND BACKFILL SHALL BE BANK SAND

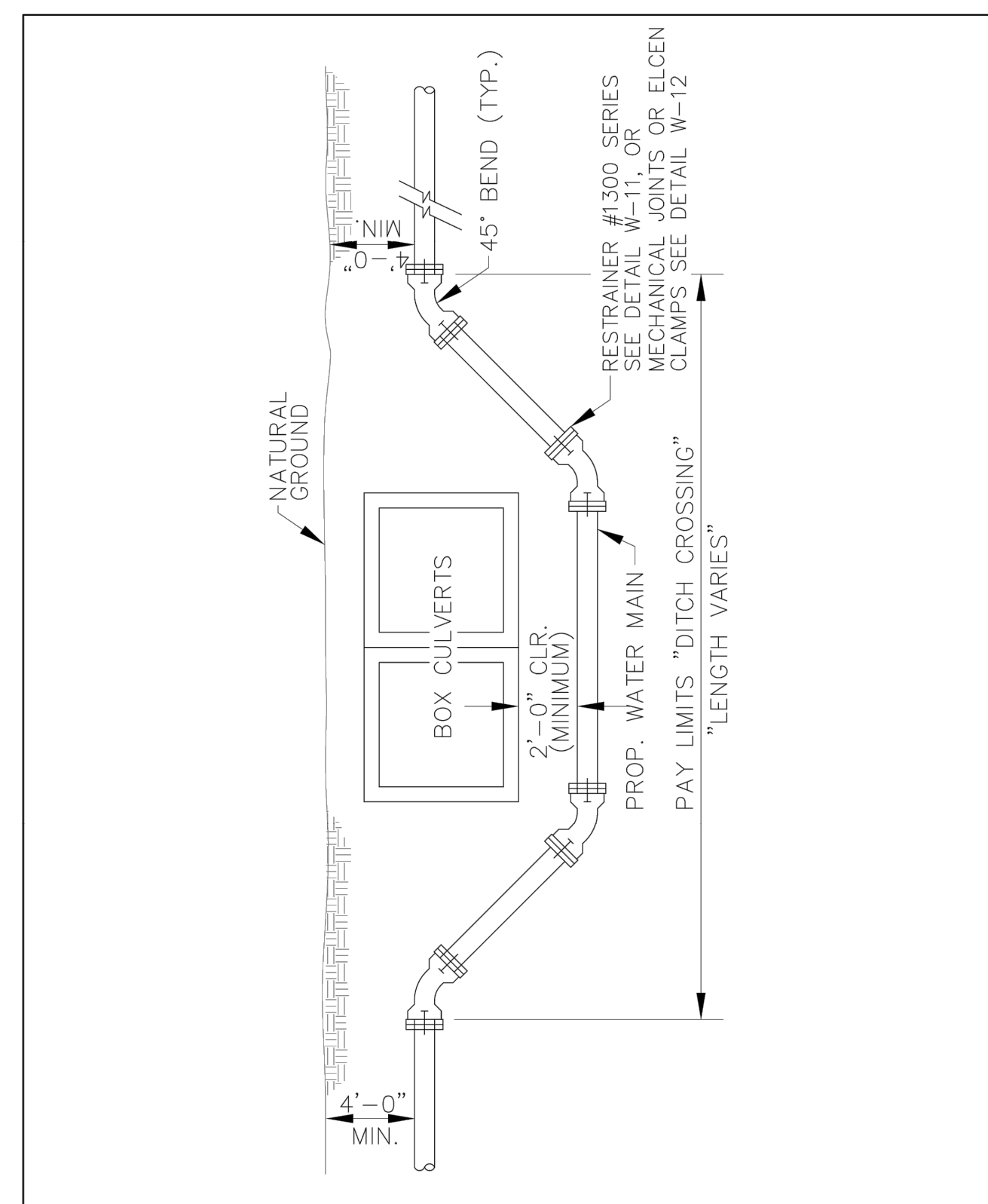
CROSS-SECTION

REVISIONS	CITY OF MONTGOMERY DITCH CROSSING DETAILS FOR WATERLINE	WATER W-6
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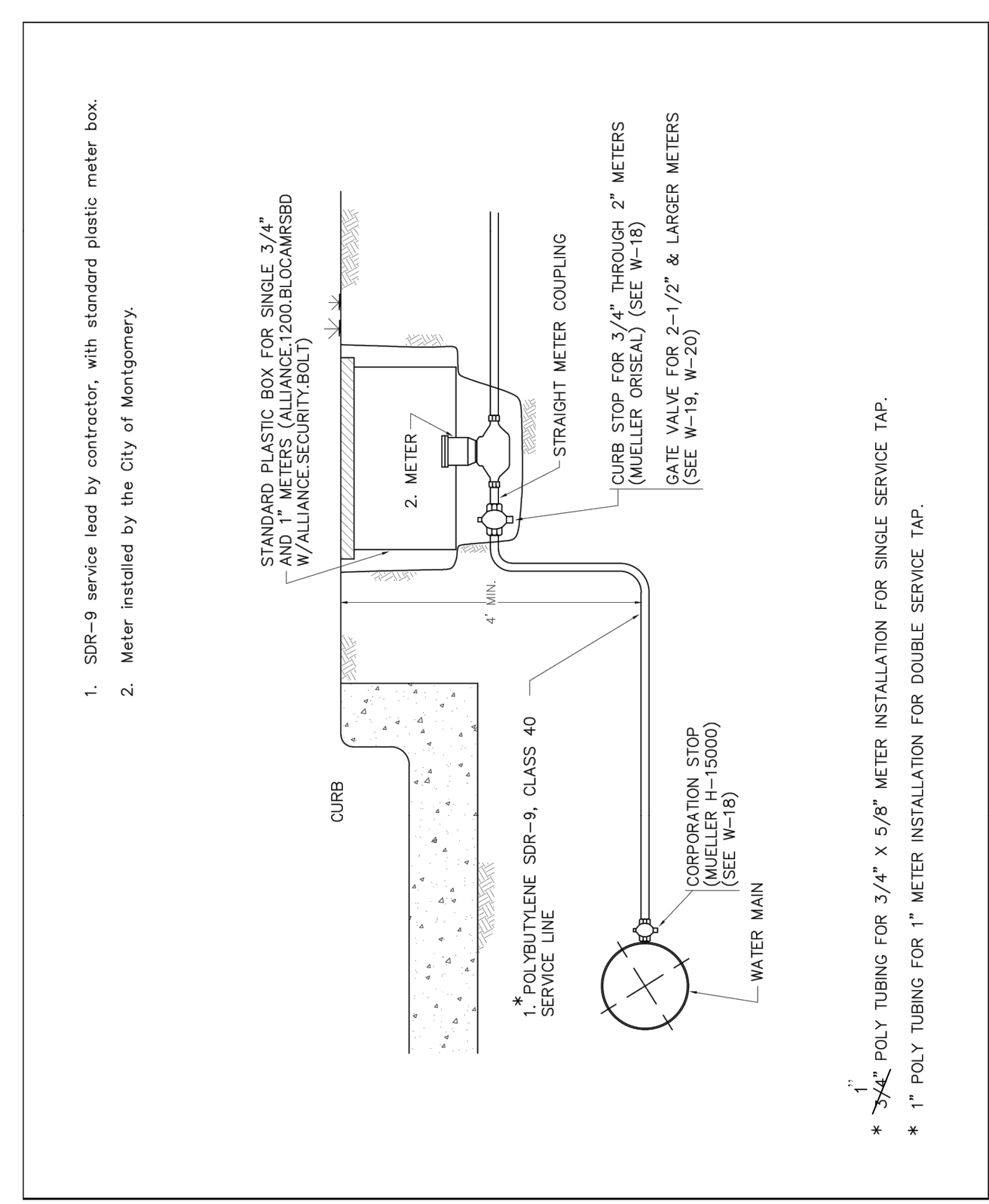


* BLOCK GATE VALVES WITH COMPRESSION JOINT FITTINGS ON 8" & LARGER LINES

REVISIONS	CITY OF MONTGOMERY GATE VALVE & BOX INSTALLATION 14" AND SMALLER WATERLINE	WATER W-11
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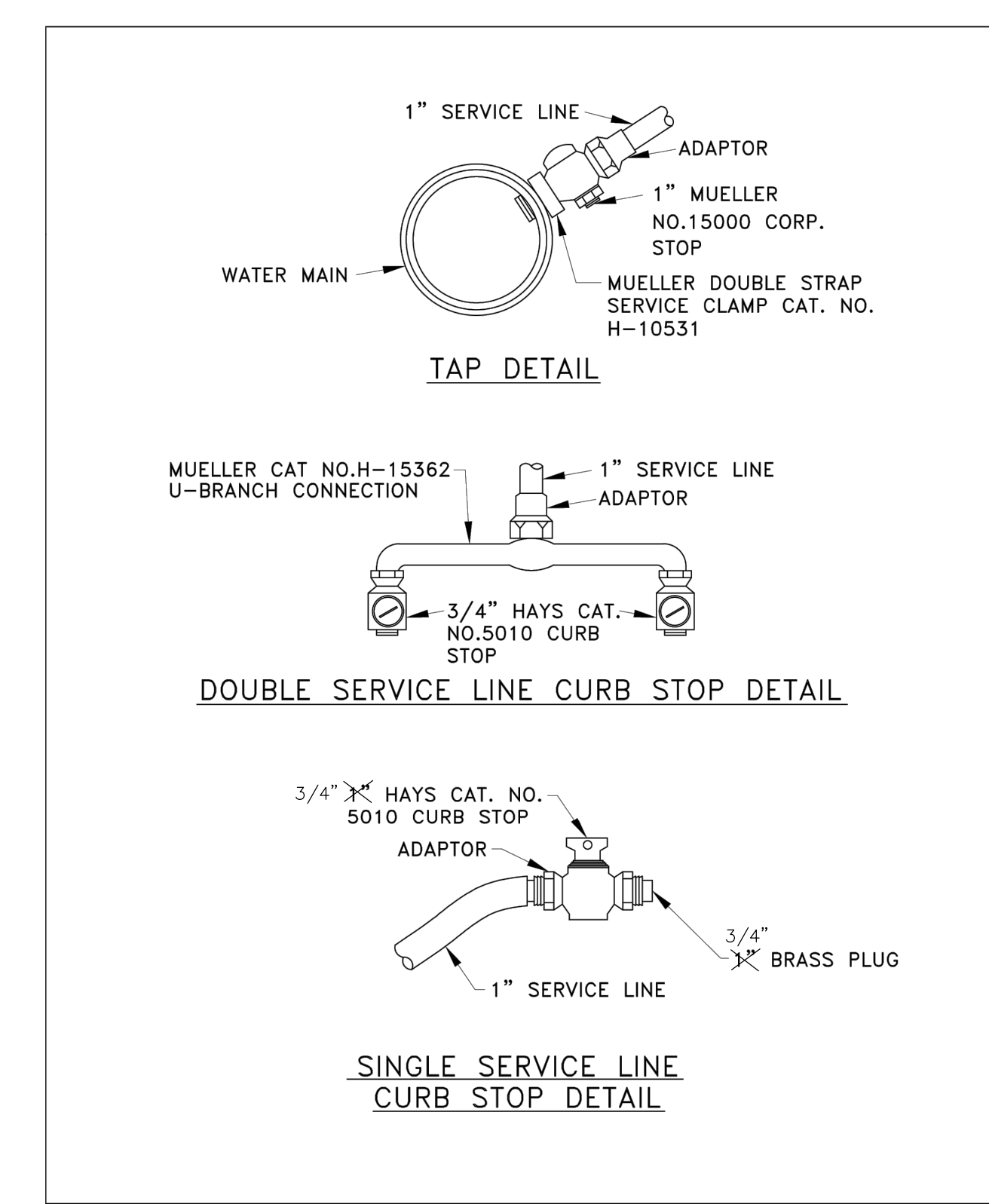
REVISIONS	CITY OF MONTGOMERY CULVERT CROSSING DETAIL FOR WATERLINE	WATER W-7
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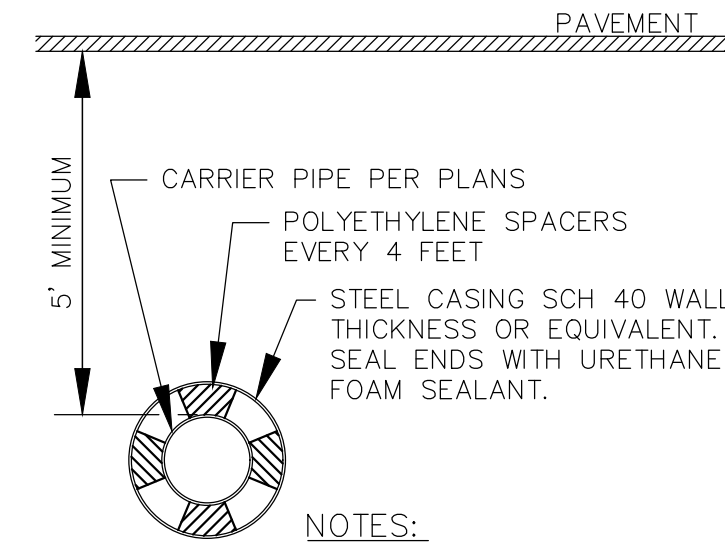
1. SDR-9 service lead by contractor, with standard plastic meter box.
2. Meter installed by the City of Montgomery.

- * 1" POLY BUTYLENE SDR-9, CLASS 40
- * 1" POLY TUBING FOR 3/4" X 5/8" METER INSTALLATION FOR SINGLE SERVICE TAP.
- * 1" POLY TUBING FOR 1" METER INSTALLATION FOR DOUBLE SERVICE TAP.

REVISIONS	CITY OF MONTGOMERY WATER SERVICE CONNECTION	WATER W-8
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REVISIONS	CITY OF MONTGOMERY CURB STOP & TAP FOR WATERLINE	WATER W-10
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CARRIER PIPE DIA.	ENCASEMENT PIPE DIA.
4" C 900	10"
6" C 900	12"
8" C 900	14"
10" C 900	18"
12" C 900	20"
14" C 905	24"
15" C 905	26"
18" C 905	30"
20" C 905	36"
24" C 905	42"

- NOTES:
1. STEEL CASING SHALL BE USED IN ALL BORES.
 2. STEEL CASING SHALL HAVE TOTALLY WELDED JOINTS.
 3. CONTRACTOR TO OBTAIN PERMITS PRIOR TO ANY CONSTRUCTION AT THESE CROSSINGS.

STEEL CASING DETAIL

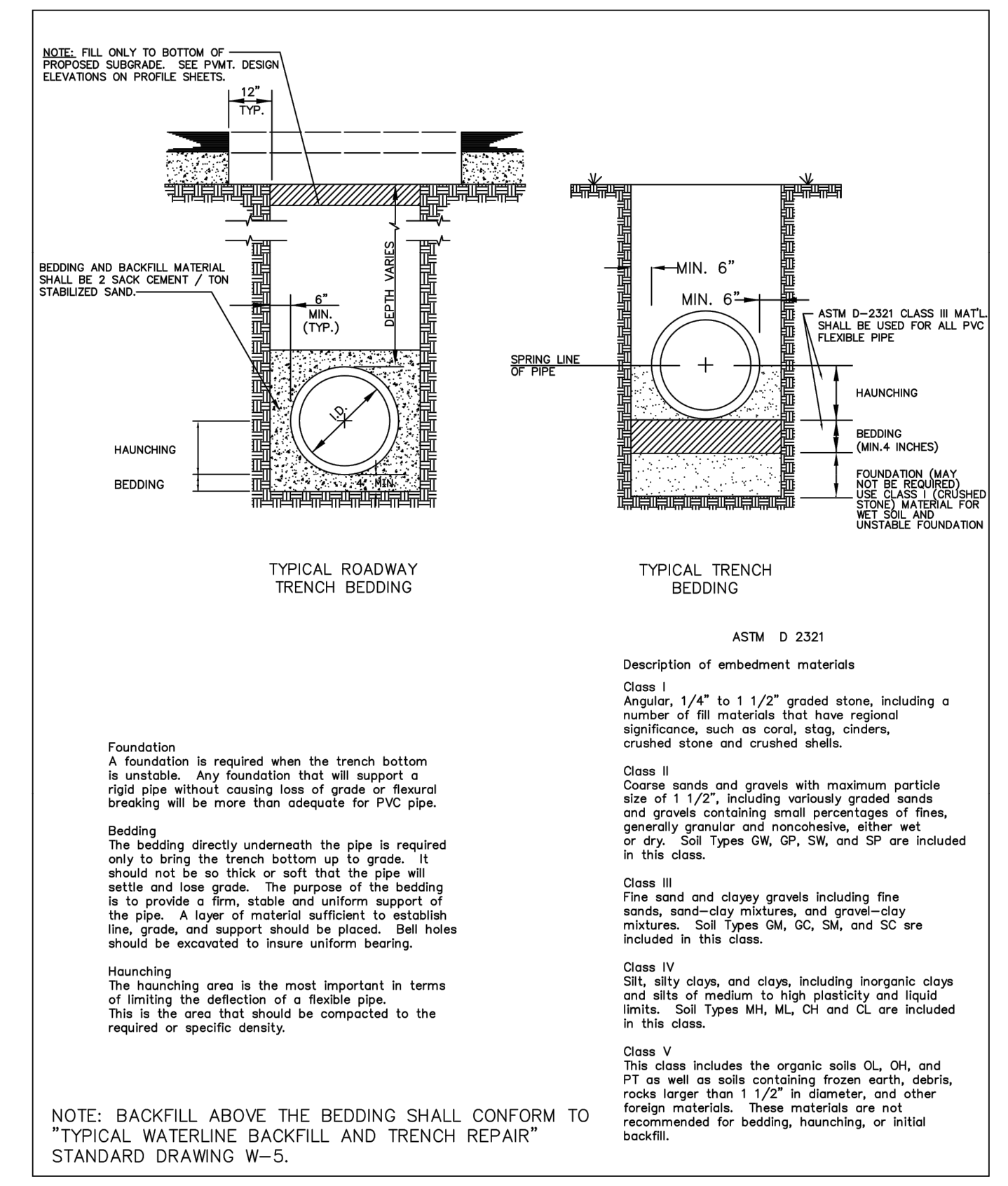
DATE	REVISION	APP.

GARRET J. DUHON
9709 LAKESIDE BLVD.
SUITE 200
THE WOODLANDS, TX 77381
(832) 823-2200

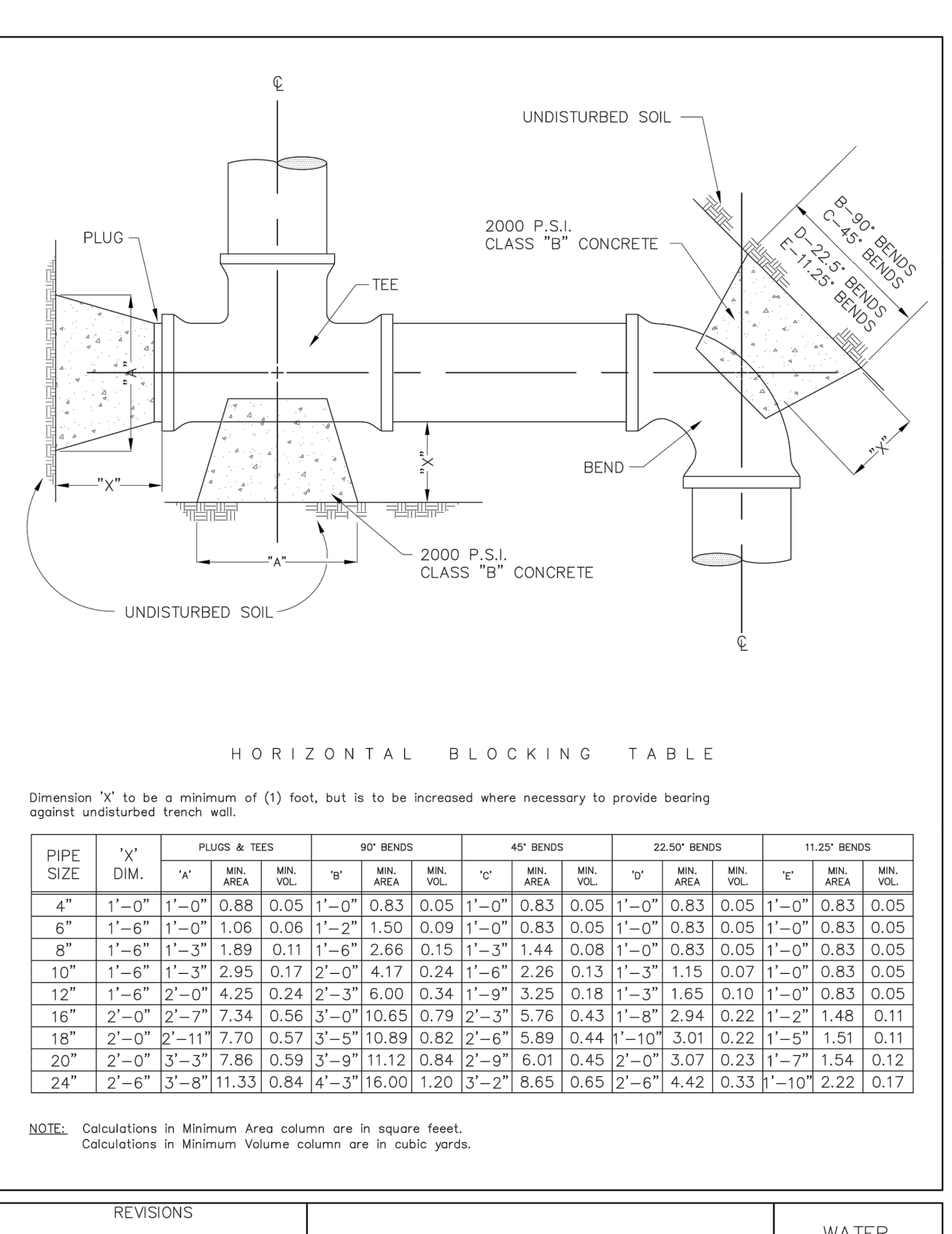
TBPE NO. F-22671
CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE VALID FOR ONE (1) YEAR

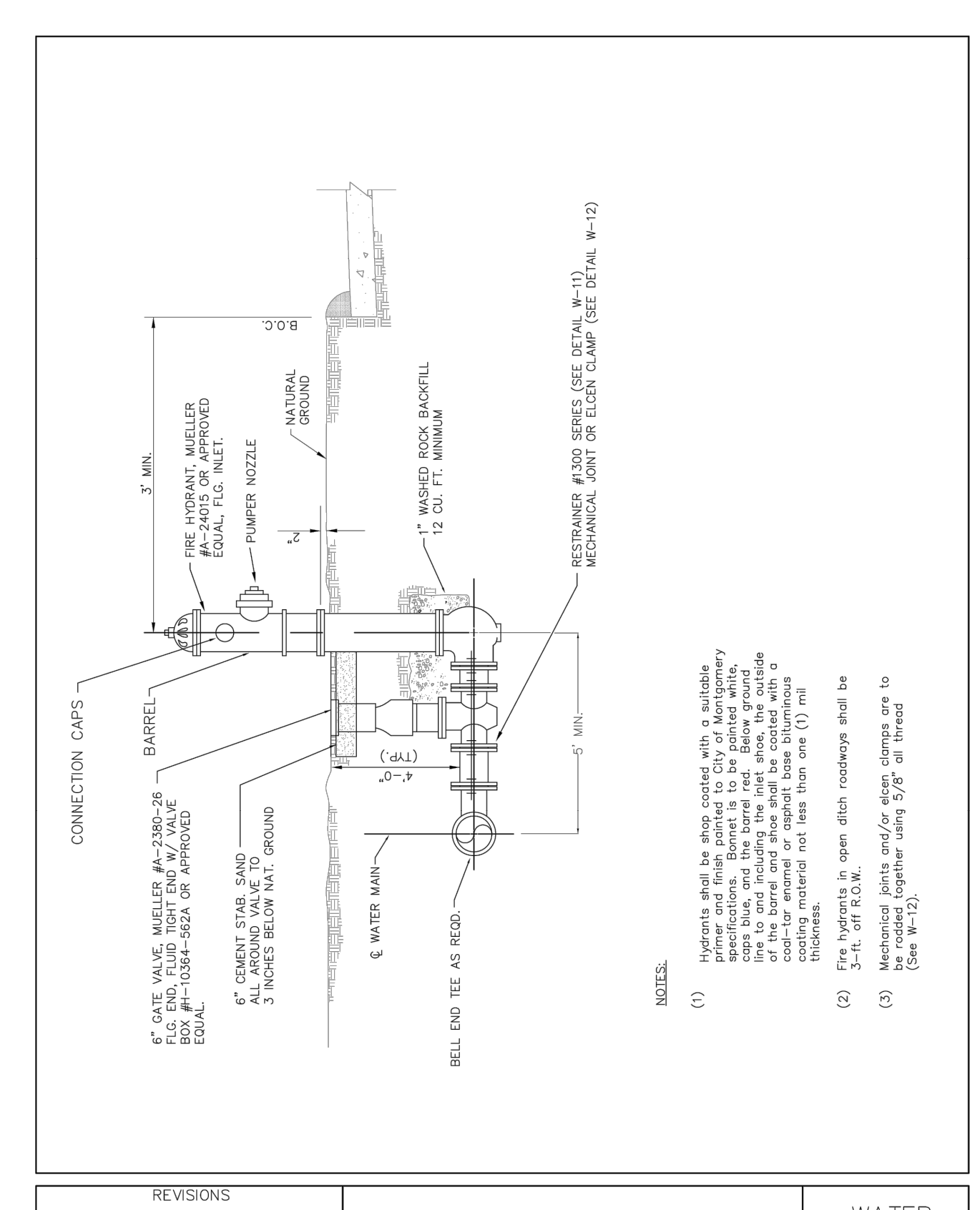
WATER DETAILS
(1 OF 2)



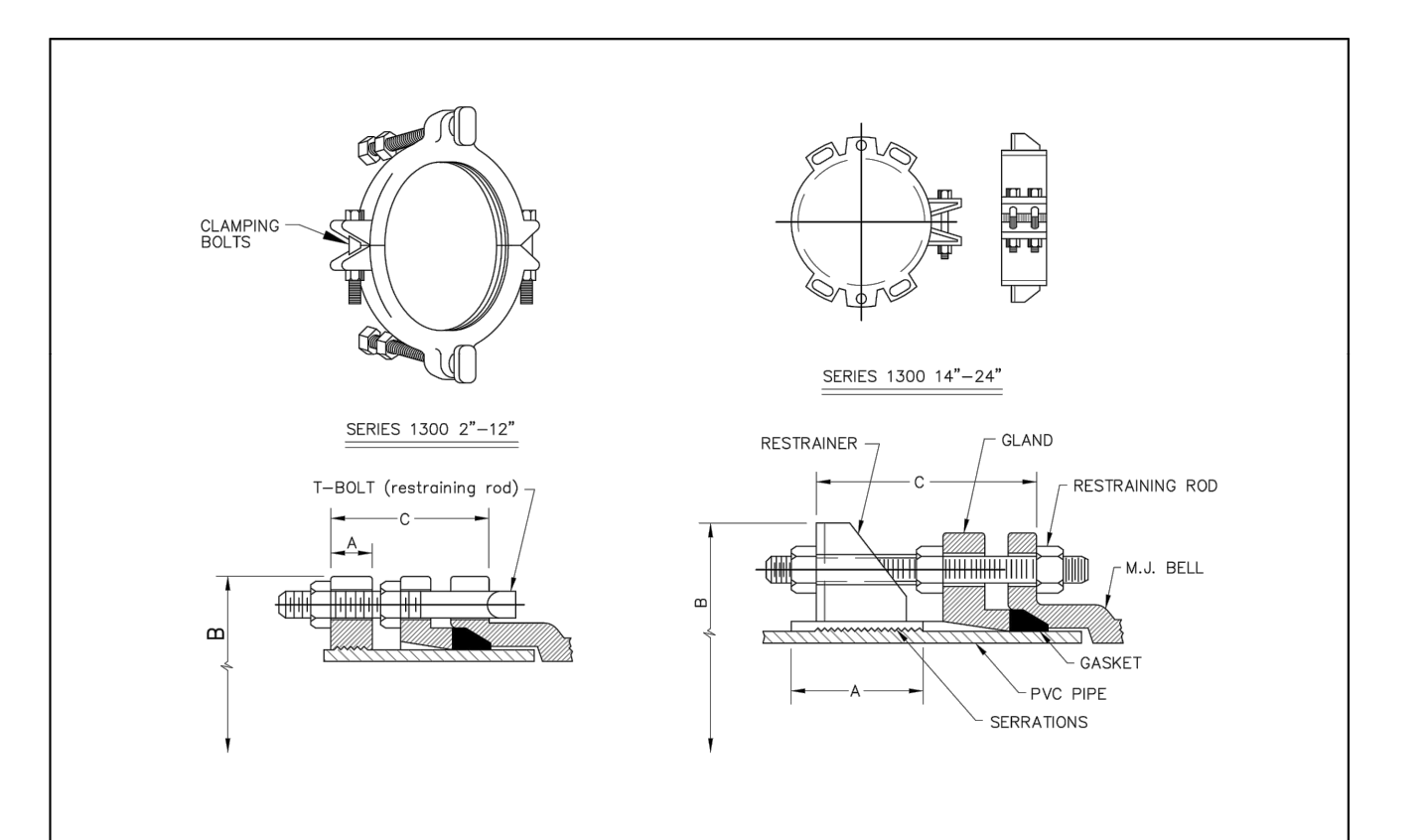
REVISIONS	CITY OF MONTGOMERY TYPICAL WATERLINE BEDDING AND TRENCH DETAIL	WATER W-1
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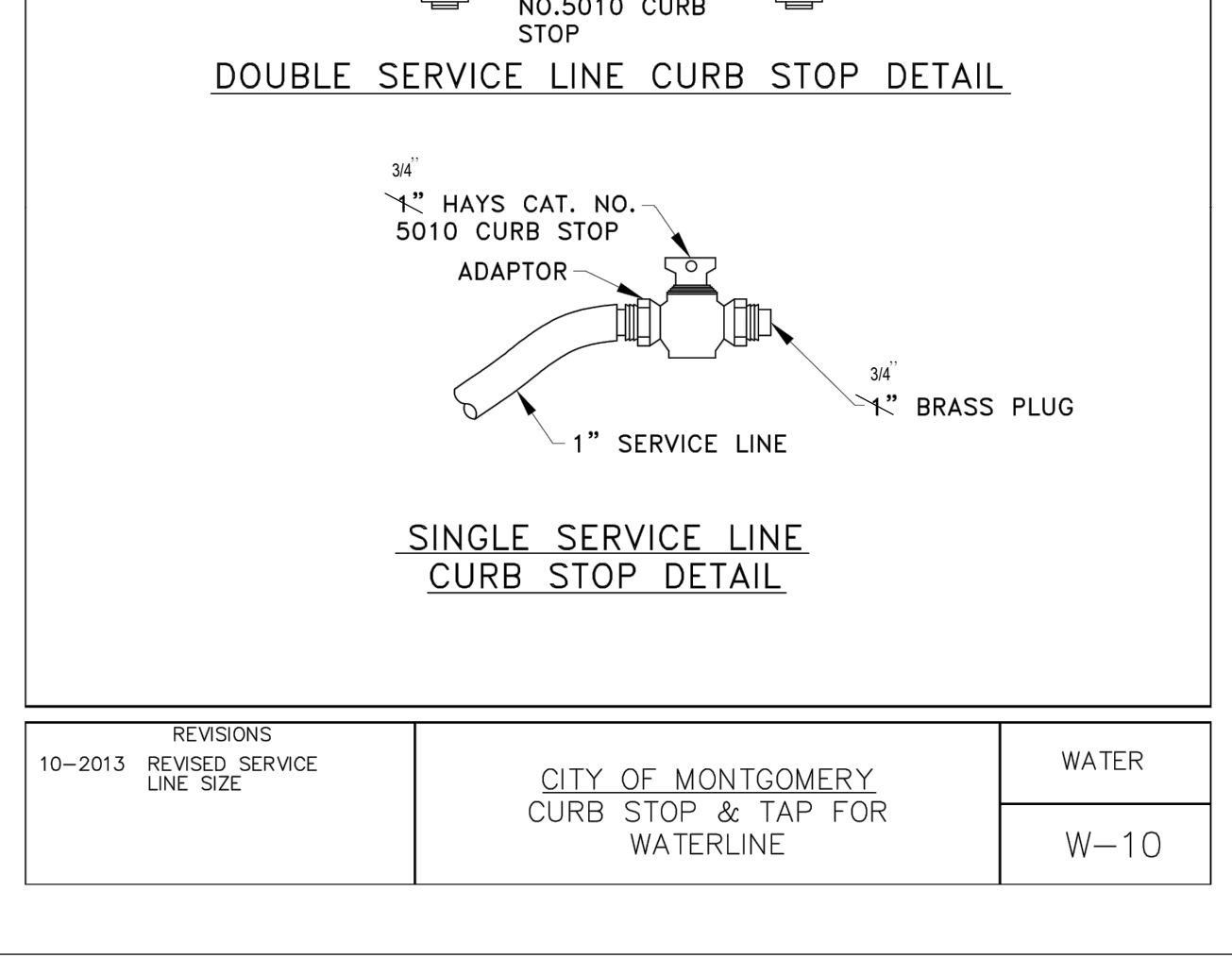
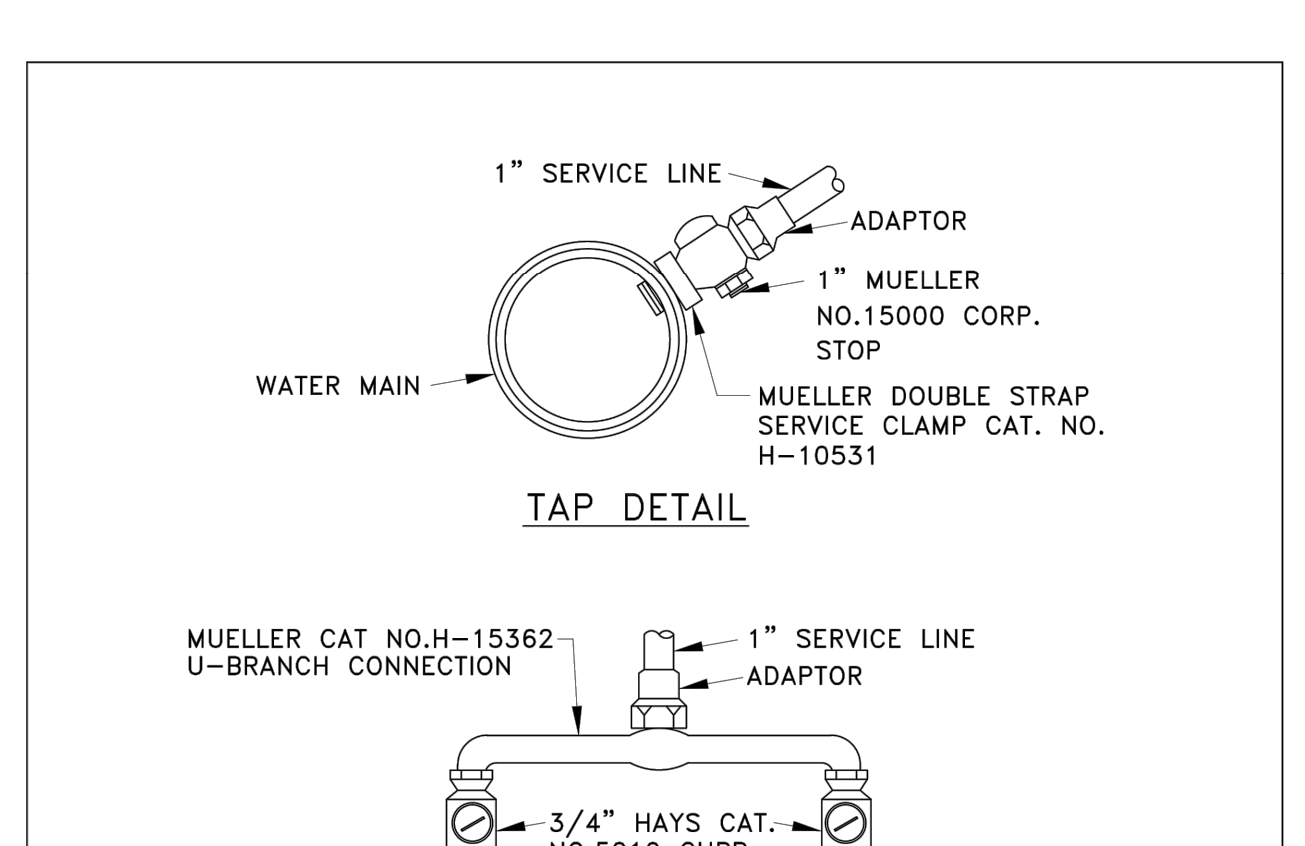
REVISIONS	CITY OF MONTGOMERY HORIZONTAL BLOCKING FOR WATERLINE	WATER W-2
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REVISIONS	CITY OF MONTGOMERY FIRE HYDRANT INSTALLATION	WATER W-15
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REVISIONS	CITY OF MONTGOMERY WATERLINE RESTRAINER	WATER W-3
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REVISIONS	CITY OF MONTGOMERY CURB STOP & TAP FOR WATERLINE	WATER W-10
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DocuSign Envelope ID: 8C758D66-A7C7-447F-AEB3-F9D41B48F4D7



March 22, 2023

City of Montgomery Engineering Department
Attn: Chris Roznovsky
101 Old Plantersville Rd, Montgomery, TX 77356
Conroe, Texas 77301

RE: Encroachment within 15' UE for 12" waterline.

To whom it may concern.

This is to inform you that Entergy has no objection to the proposed encroachment mentioned above as shown on attached Exhibit "A". Please note there is a required 5' minimum clearance from waterline to poles and construction plan provided, shows waterline will be 7.5' from existing poles. Provided this does not interfere with the operation of Entergy's equipment or violate any OSHA rules or Entergy's standards and regulations.

Please note that there may be underground electrical conductors of high voltage within said easements and extreme caution should be exercised when working in the vicinity of these conductors. Contact with them could cause serious injury and/or death to a person or persons contacting them. As per OSHA Regulations a 10-foot clearance from the overhead conductors should be maintained when working in the vicinity of these conductors.

If digging is necessary in the vicinity of underground facilities, please call Texas One Call at 1-800-245-4545 www.texasonecall.com at least 48 hours prior to digging.

Should you have any questions feel free to call me at 281-362-4040.

Sincerely,
Erin Dixon
Erin Dixon
Sr. Right of Way Agent
Entergy Texas
9425 Pincroft Drive
The Woodlands, Texas 77380

DATE	REVISION	APP.

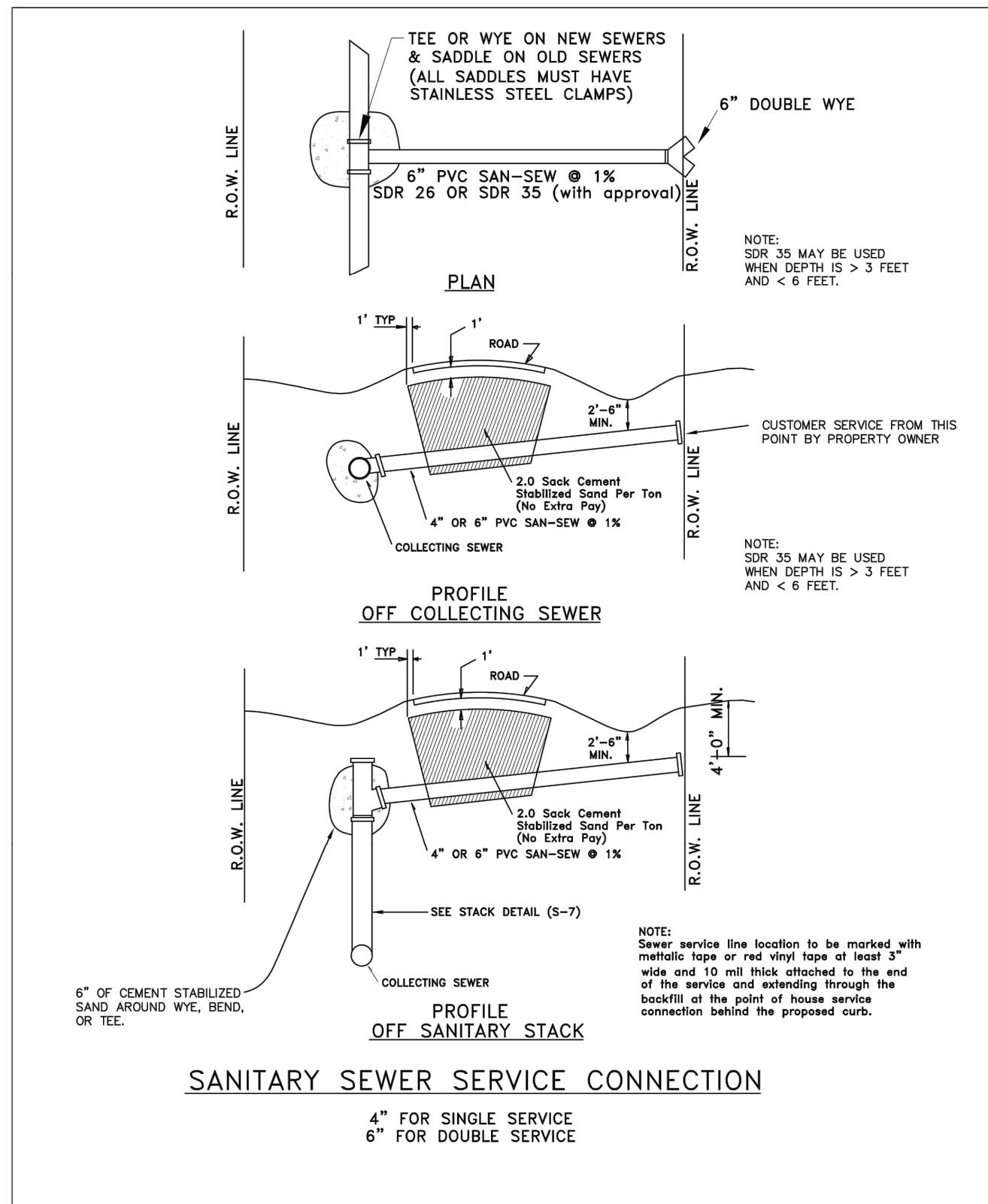
GARRET J. DUHON
9709 LAKESIDE BLVD.
SUITE 200
THE WOODLANDS, TX 77381
(832) 823-2200

TBPE NO. F-22671
CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

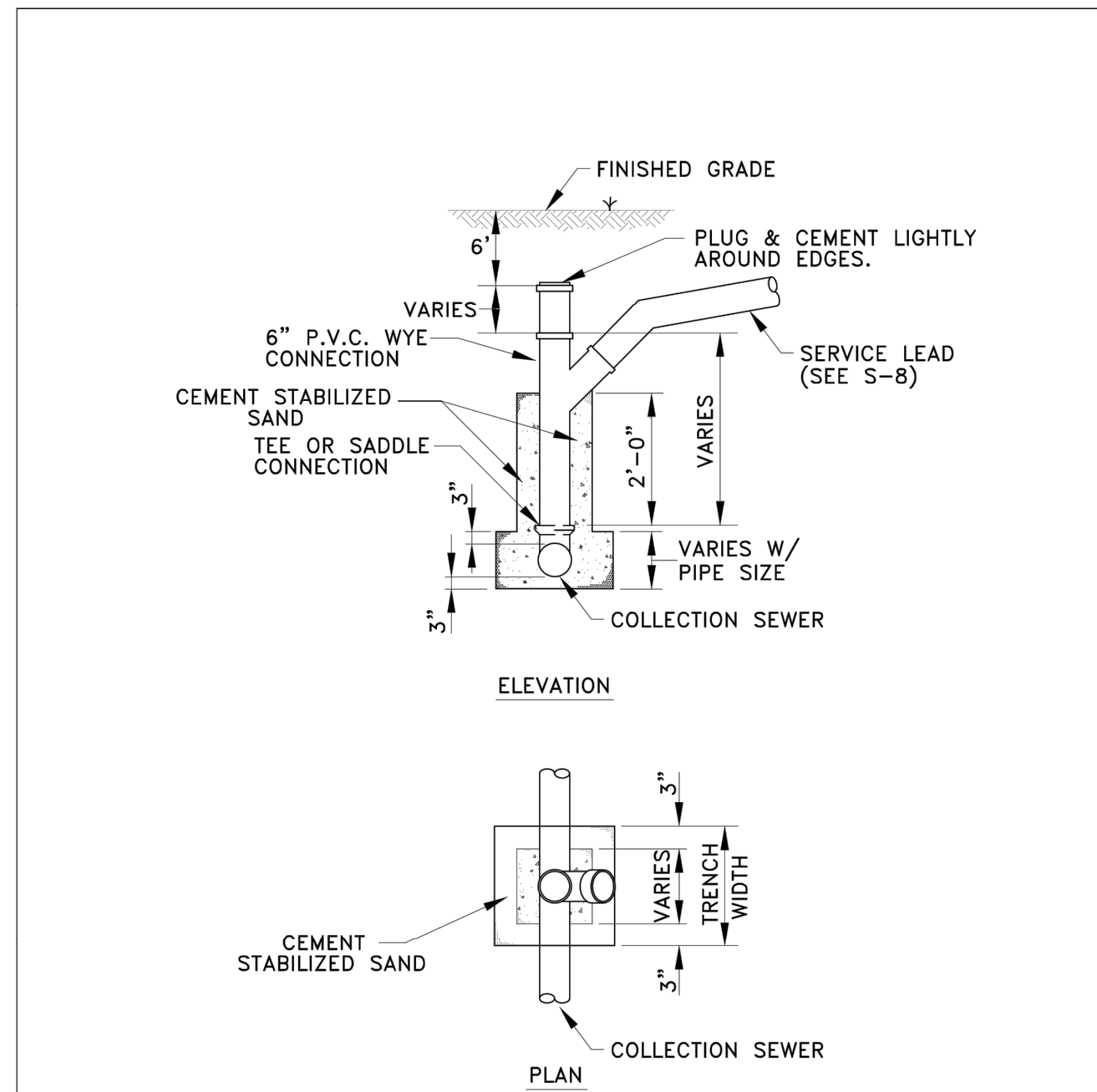
CITY OF MONTGOMERY CITY ENGINEER DATE
SIGNATURE VALID FOR ONE (1) YEAR

**WATER DETAILS
(2 OF 2)**

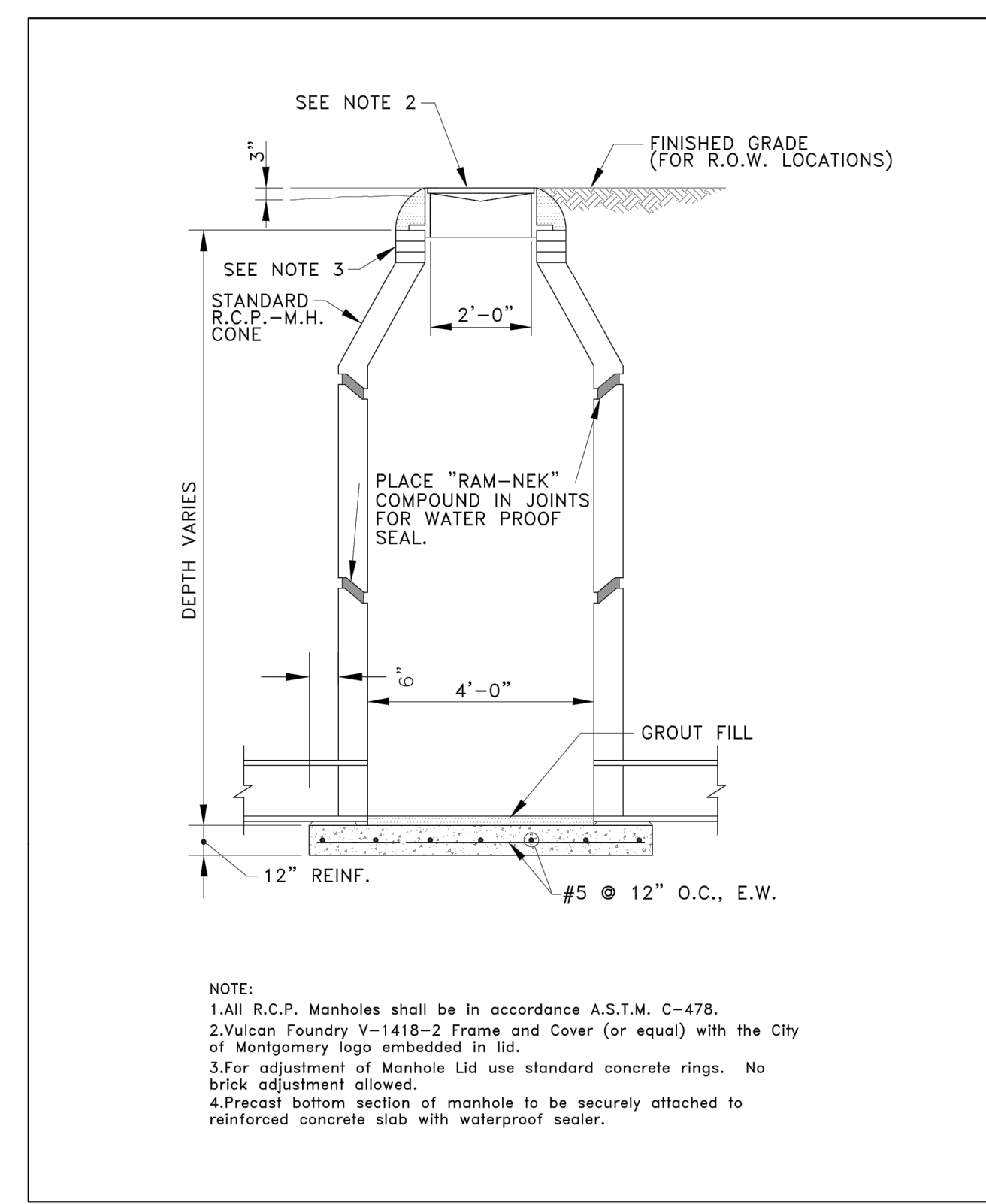
SHEET 21 OF 29



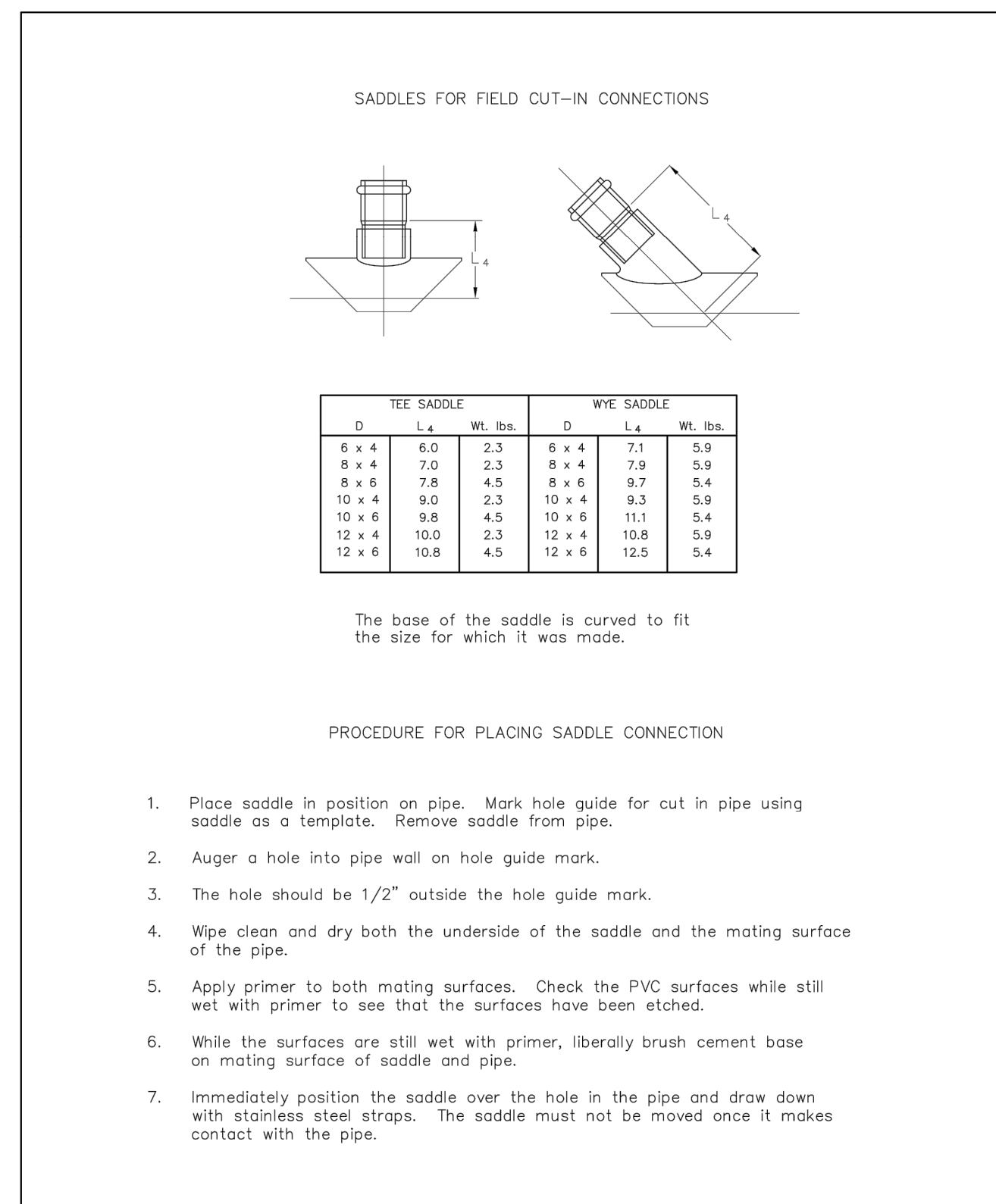
REVISIONS 10-2013 REVISED SERVICE GRADE & NOTES	CITY OF MONTGOMERY RESIDENTIAL SANITARY SEWER SERVICE CONNECTION	SEWER S-8
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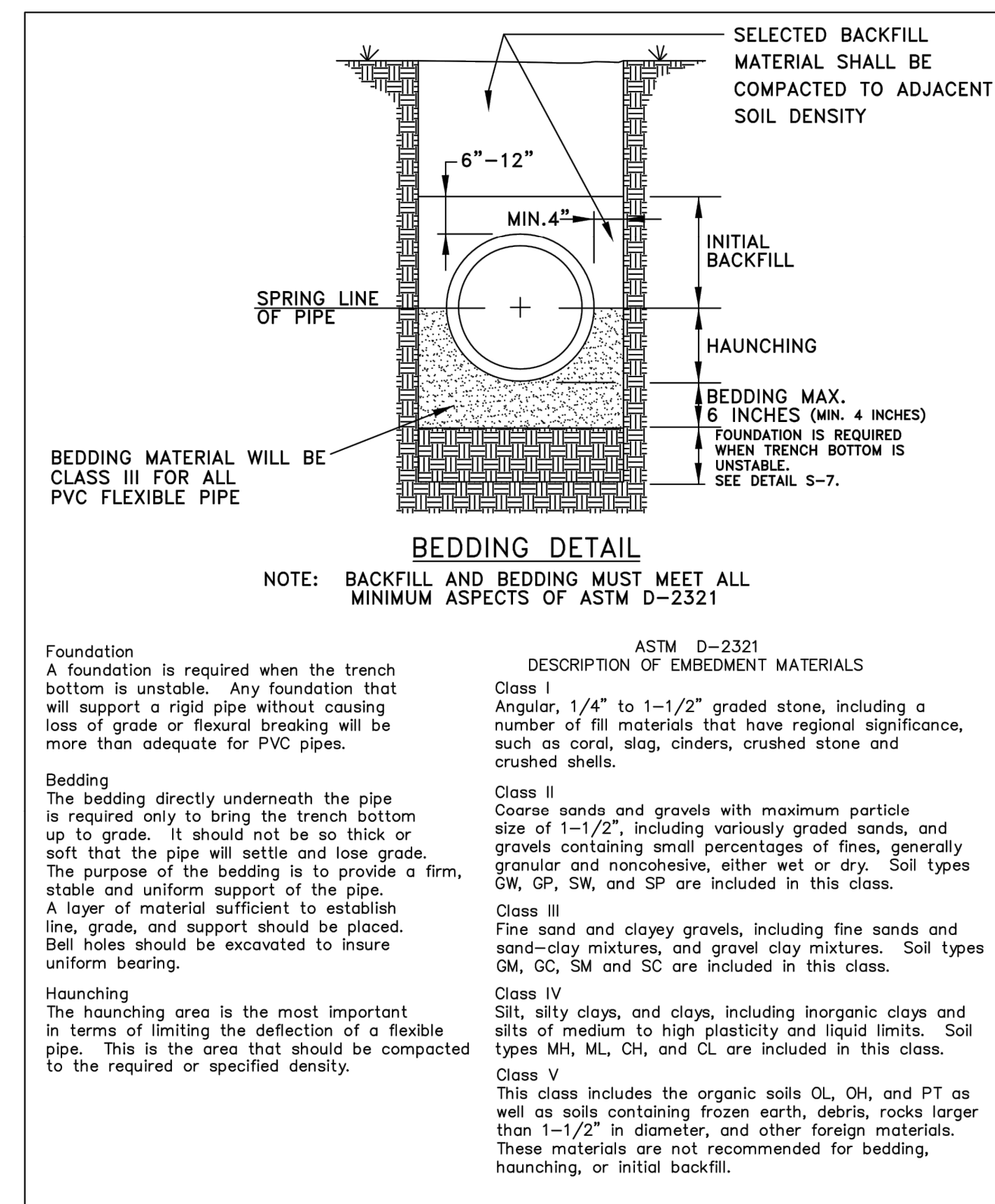
REVISIONS 10-2013 - REVISED NOTES	CITY OF MONTGOMERY SANITARY SEWER STACK DETAIL	SEWER S-7
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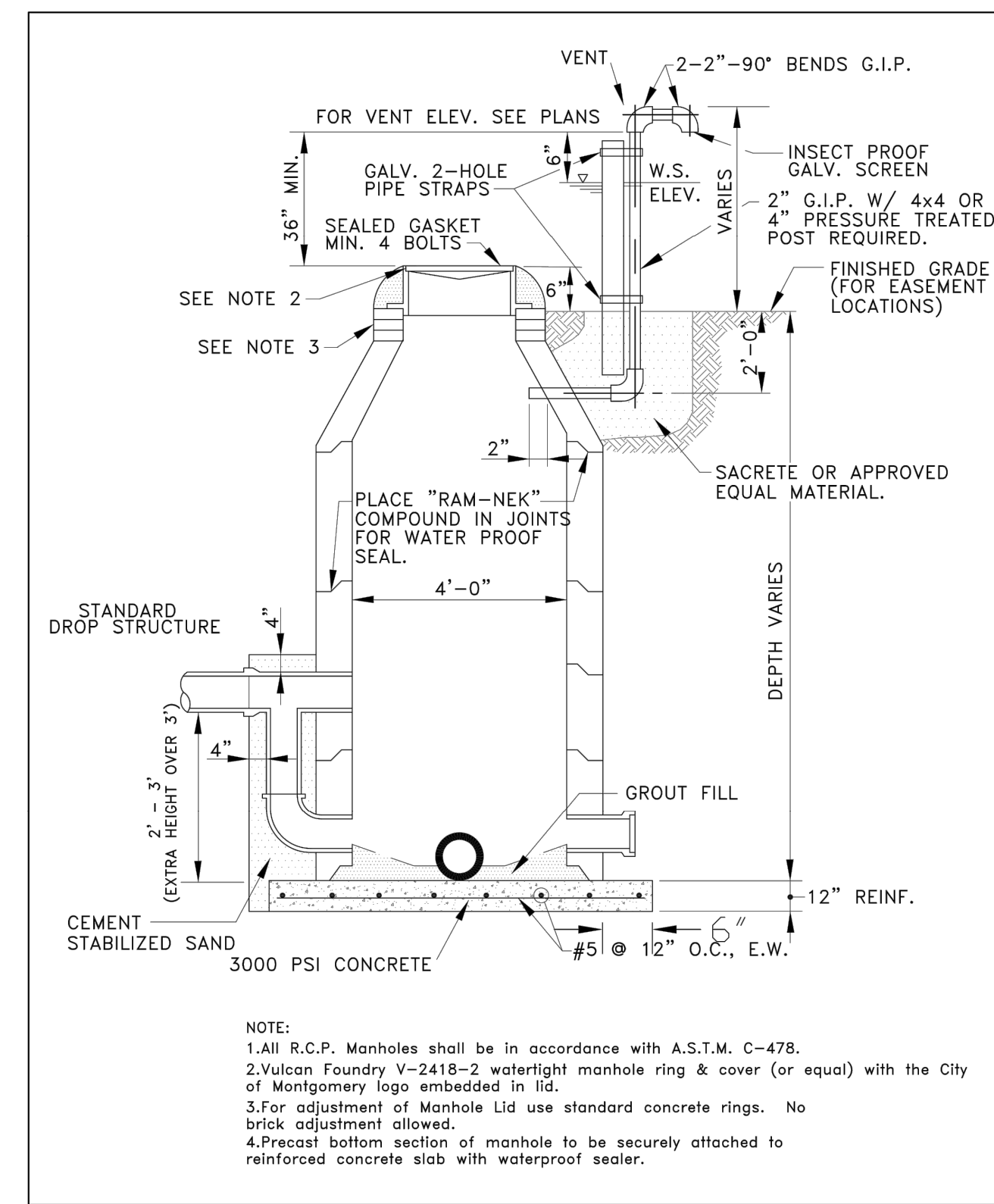
REVISIONS	CITY OF MONTGOMERY STANDARD PRECAST MANHOLE	SEWER S-4
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REVISIONS	CITY OF MONTGOMERY TEE & WYE SADDLES FOR PVC PIPE	SEWER S-11
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REVISIONS	CITY OF MONTGOMERY TYPICAL SANITARY SEWER BEDDING AND TRENCH DETAIL	SEWER S-1
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REVISIONS	CITY OF MONTGOMERY STANDARD PRECAST MANHOLE W/ DROP CONNECTION & VENT	SEWER S-5
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DATE	REVISION	APP.

GARRET J. DUHON
9709 LAKESIDE BLVD.
SUITE 200
THE WOODLANDS, TX 77381
(832) 823-2200

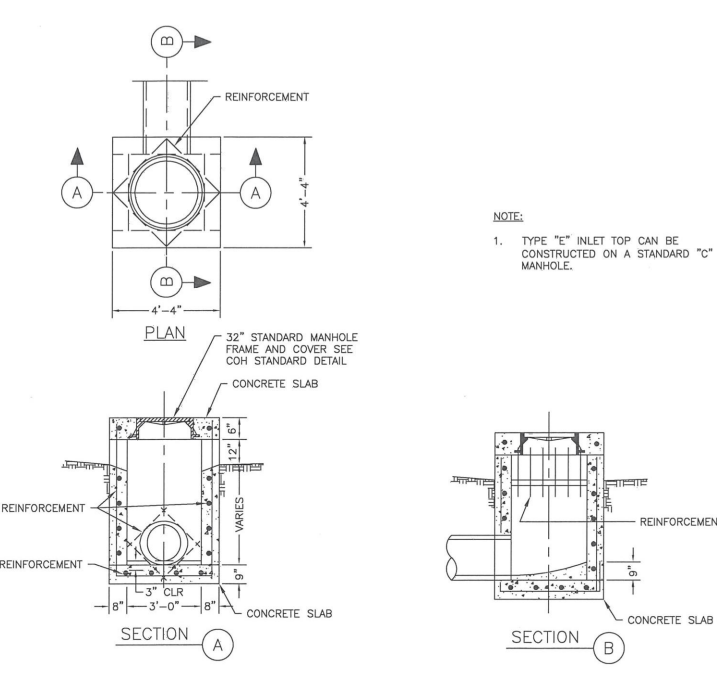
TBPE NO. F-22671

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY CITY ENGINEER DATE
SIGNATURE VALID FOR ONE (1) YEAR

SANITARY SEWER DETAILS

02632-09



REINFORCEMENT
12" STANDARD MANHOLE
FRAME AND COVER PER
CON STANDARD DETAIL
CONCRETE SLAB

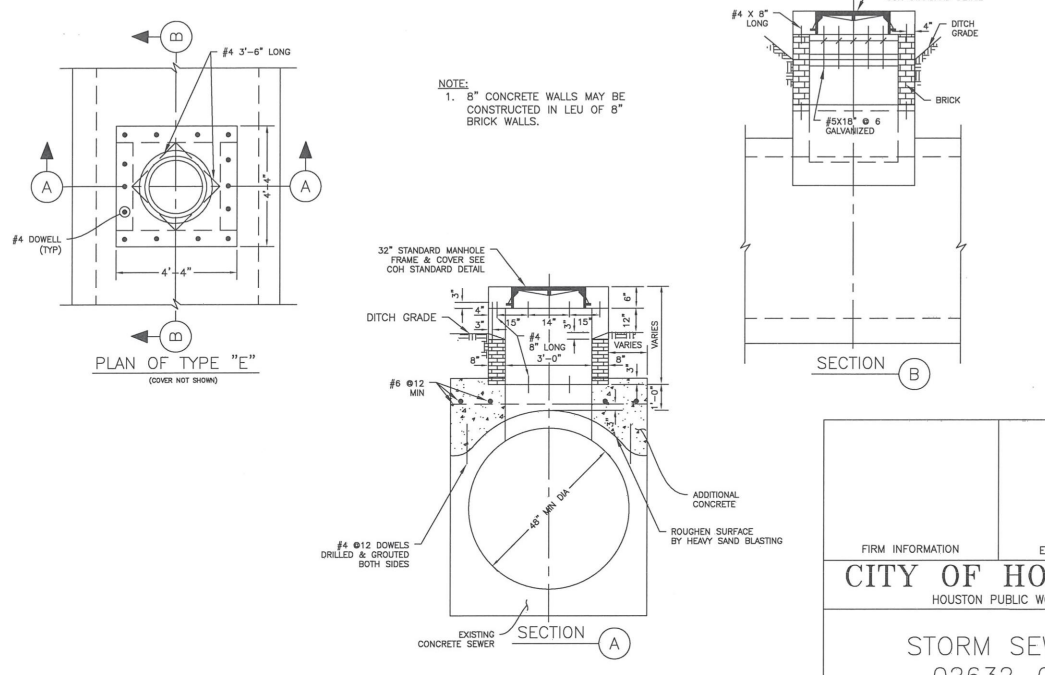
SECTION A
SECTION B
SECTION C

STORM SEWER TYPE "C" INLET
N/S

NOTES:
1. TYPE "C" INLET TOP CAN BE
CONSTRUCTED ON A STANDARD "C"
MANHOLE.

02632-10

CONCRETE PHASING OUT BRICK NEW
DETAILS TO BE CHECKED LINE C-2019

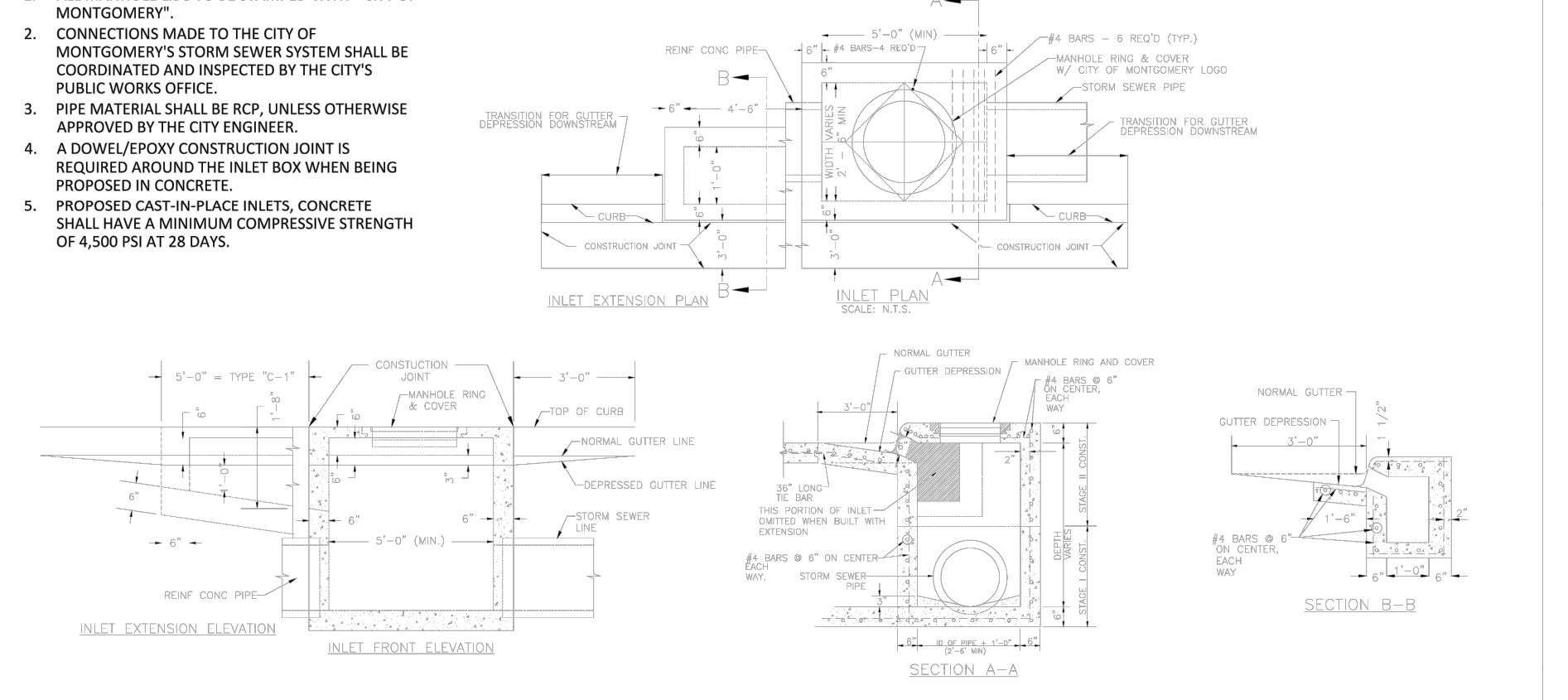


SECTION A
SECTION B
SECTION C

STORM SEWER TYPE "C" INLET ON EXISTING
MONOLITHIC CONCRETE SEWER OF 48" DIA & GREATER
N/S

FORM INFORMATION: CITY OF HOUSTON, HOUSTON PUBLIC WORKS
PROJECT NO: 02632-09 AND 02632-10
APPROVED BY: [Signature]
DATE: 04-01-2019
FOR CITY OF HOUSTON USE ONLY

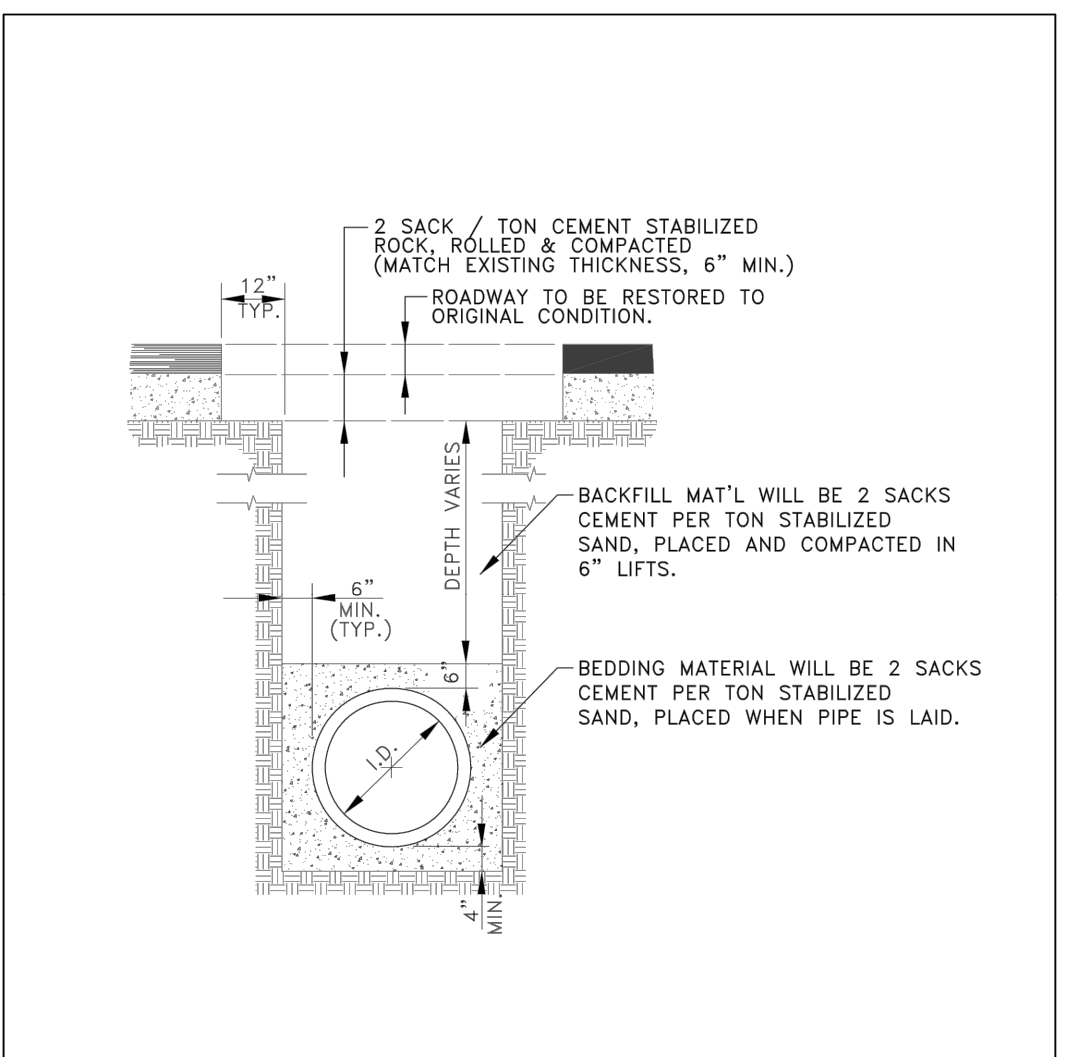
NOTES:
1. ALL MANHOLE LIDS TO BE STAMPED WITH "CITY OF MONTGOMERY".
2. CONNECTIONS MADE TO THE CITY OF MONTGOMERY'S STORM SEWER SYSTEM SHALL BE COORDINATED AND INSPECTED BY THE CITY'S PUBLIC WORKS OFFICE.
3. PIPE MATERIAL SHALL BE RCP, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
4. A DOWEL/EPOXY CONSTRUCTION JOINT IS REQUIRED AROUND THE INLET BOX WHEN BEING PROPOSED IN CONCRETE.
5. PROPOSED CAST-IN-PLACE INLETS, CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS.



INLET EXTENSION PLAN
INLET PLAN
INLET FRONT ELEVATION
SECTION A-A
SECTION B-B

CITY OF MONTGOMERY
TYPE - C-1
STORM SEWER INLET

DRAINAGE
D-1



2 SACK / TON CEMENT STABILIZED
ROCK, ROLLED & COMPACTED
(MATCH EXISTING THICKNESS, 6" MIN.)
ROADWAY TO BE RESTORED TO
ORIGINAL CONDITION.

DEPTH VARIES

BACKFILL MAT'L WILL BE 2 SACKS
CEMENT PER TON STABILIZED
SAND, PLACED AND COMPACTED IN
6" LIFTS.

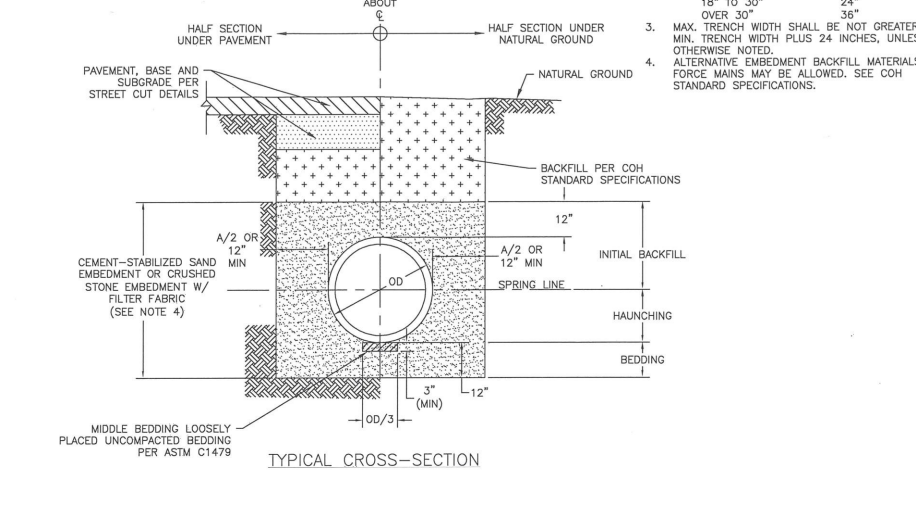
6" MIN.
(TYP.)

BEDDING MATERIAL WILL BE 2 SACKS
CEMENT PER TON STABILIZED
SAND, PLACED WHEN PIPE IS LAID.

NOTE: BACKFILL AND BEDDING MUST MEET ALL
MINIMUM ASPECTS OF ASTM D-2321

02317-03

NOTES:
1. THIS DETAIL MAY BE USED ONLY FOR DRY
STABLE TRENCH BEDDING FOR DRY STABLE
TRENCH. SEE CON STANDARD SPECIFICATION FOR
REINFORCEMENT IN EXISTING CONCRETE
CONCRETE SHALL BE 4,500 PSI MIN. ALLOWANCE "X" FOR THE NOMINAL PIPE SIZE.
2. MANHOLE WIDTH SHALL BE 18" OR FLUSH AN
ALLOWANCE "X" FOR THE NOMINAL PIPE SIZE.
3. MANHOLE DEPTH SHALL BE GREATER THAN
NATURAL GROUND. SEE CON STANDARD SPECIFICATION FOR
CONCRETE STABILIZED SAND OR GRADED SAND
EMBEDMENT W/ FILTER FABRIC FOR STREET
OUT DETAILS.

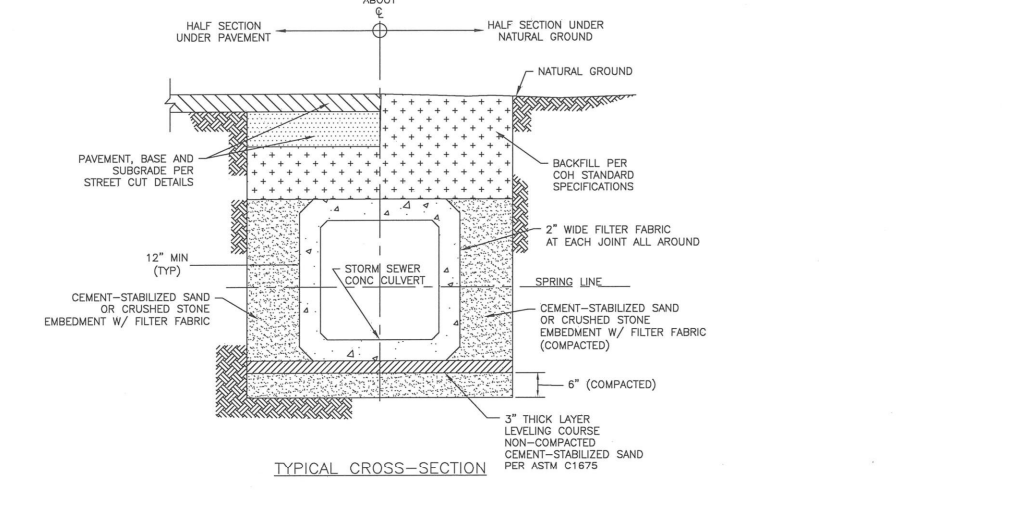


TYPICAL CROSS-SECTION

SANITARY OR STORM SEWER BEDDING AND BACKFILL
FOR DRY STABLE TRENCH
N/S

02317-05

NOTES:
1. WHERE MULTIPLE BOX SEWERS ARE USED IN THE
SAME TRENCH, MANHOLE TO OUTSIDE BOX
SEWER SEPARATION SHALL BE 6"
SEWER SEPARATION SHALL BE 6"
SEWER SEPARATION SHALL BE 6"
SEWER SEPARATION SHALL BE 6"



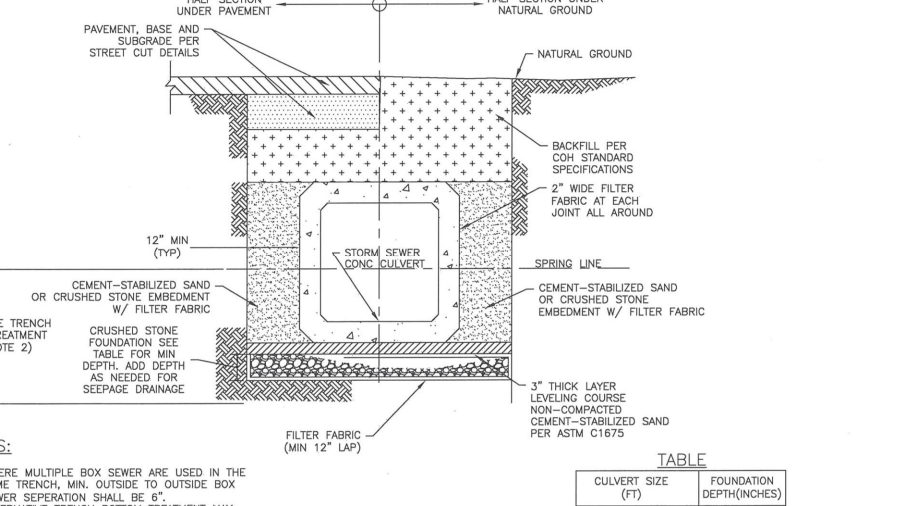
TYPICAL CROSS-SECTION

PRECAST CONCRETE BOX STORM SEWER
BEDDING AND BACKFILL FOR DRY STABLE TRENCH
N/S

FORM INFORMATION: CITY OF HOUSTON, HOUSTON PUBLIC WORKS
PROJECT NO: 02317-03 THROUGH 07
APPROVED BY: [Signature]
DATE: 04-01-2019
FOR CITY OF HOUSTON USE ONLY

02317-06

NOTES:
1. WHERE MULTIPLE BOX SEWERS ARE USED IN THE
SAME TRENCH, MANHOLE TO OUTSIDE BOX
SEWER SEPARATION SHALL BE 6"
SEWER SEPARATION SHALL BE 6"
SEWER SEPARATION SHALL BE 6"
SEWER SEPARATION SHALL BE 6"



TYPICAL CROSS-SECTION

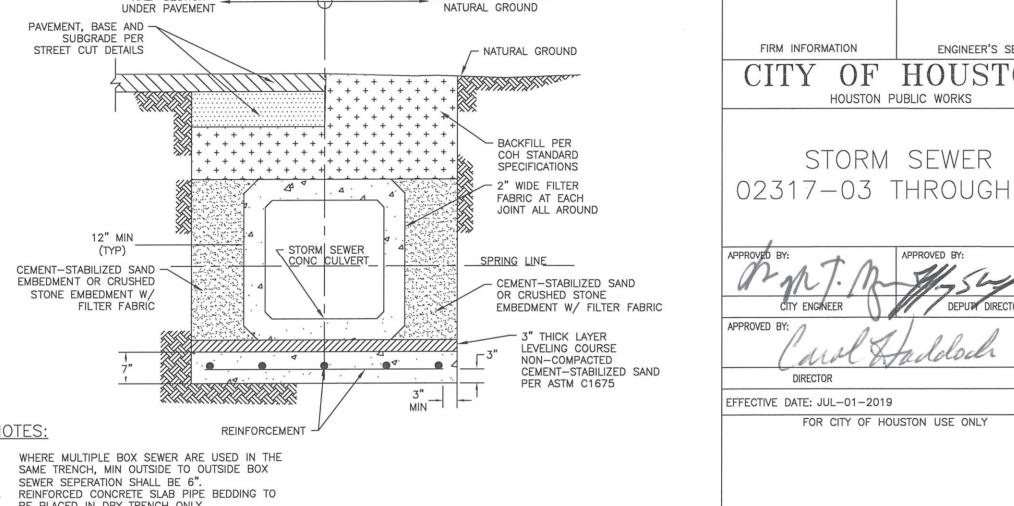
PRECAST CONCRETE BOX STORM SEWER
BEDDING AND BACKFILL WITH SEAL SLAB
N/S

TABLE 1
CONCRETE STRENGTH REQUIREMENTS FOR 48" TO 42" IN MANHOLE DIA BOX SEWER SEWERS

SIZE	MANHOLE DIA	MINIMUM COMPRESSIVE STRENGTH	MINIMUM TENSILE STRENGTH
48"	48"	4,500	300
42"	42"	4,500	300
36"	36"	4,500	300
30"	30"	4,500	300
24"	24"	4,500	300
18"	18"	4,500	300
12"	12"	4,500	300

02317-07

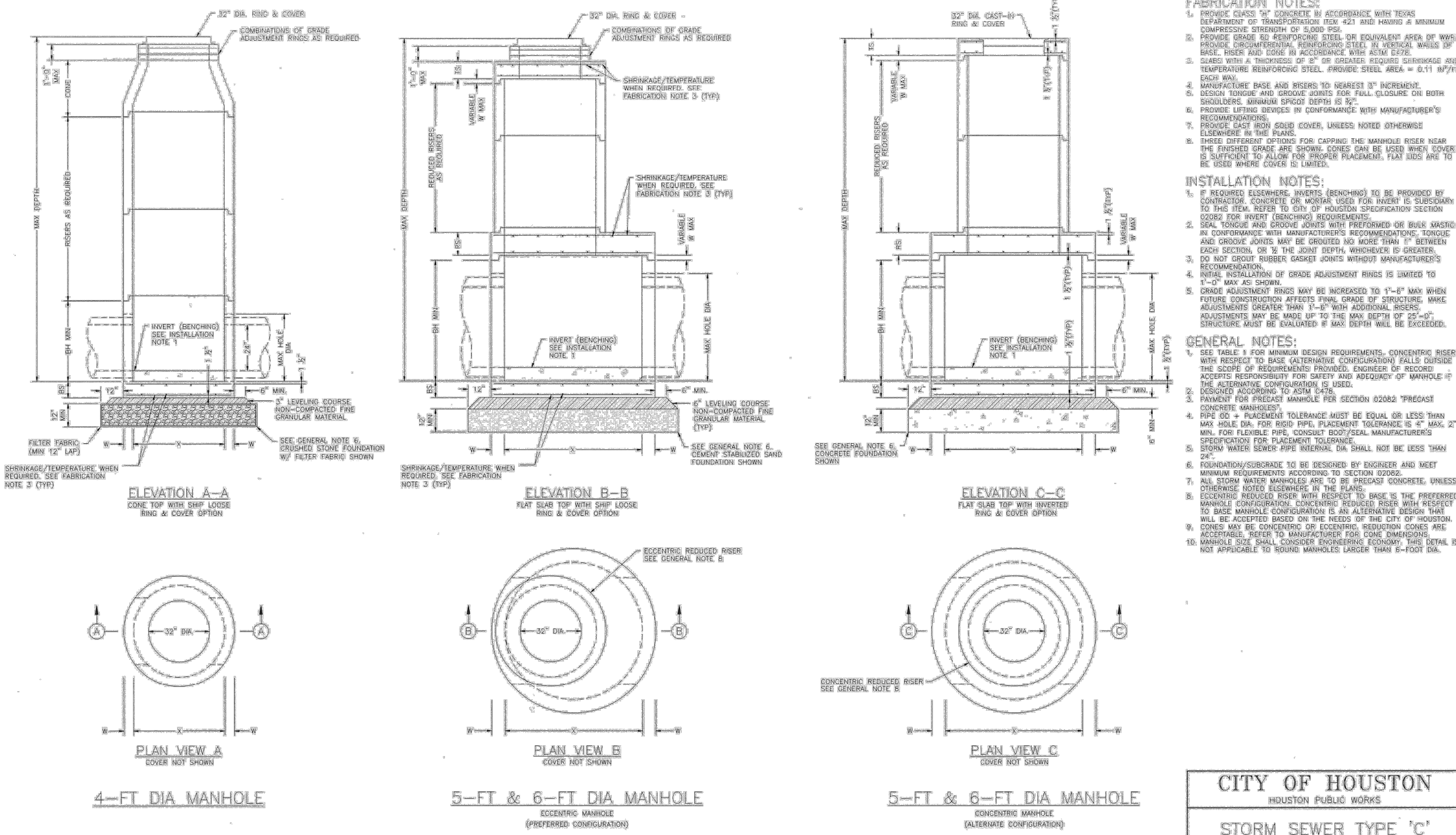
NOTES:
1. WHERE MULTIPLE BOX SEWERS ARE USED IN THE
SAME TRENCH, MANHOLE TO OUTSIDE BOX
SEWER SEPARATION SHALL BE 6"
SEWER SEPARATION SHALL BE 6"
SEWER SEPARATION SHALL BE 6"
SEWER SEPARATION SHALL BE 6"



TYPICAL CROSS-SECTION

PRECAST CONCRETE BOX STORM SEWER
BEDDING AND BACKFILL WITH SEAL SLAB
N/S

FORM INFORMATION: CITY OF HOUSTON, HOUSTON PUBLIC WORKS
PROJECT NO: 02317-03 THROUGH 07
APPROVED BY: [Signature]
DATE: 04-01-2019
FOR CITY OF HOUSTON USE ONLY



ELEVATION A-A
ELEVATION B-B
ELEVATION C-C

PLAN VIEW A
PLAN VIEW B
PLAN VIEW C

4-FT DIA MANHOLE
5-FT & 6-FT DIA MANHOLE
5-FT & 6-FT DIA MANHOLE

TABLE 1
CONCRETE STRENGTH REQUIREMENTS FOR 48" TO 42" IN MANHOLE DIA BOX SEWER SEWERS

SIZE	MANHOLE DIA	MINIMUM COMPRESSIVE STRENGTH	MINIMUM TENSILE STRENGTH
48"	48"	4,500	300
42"	42"	4,500	300
36"	36"	4,500	300
30"	30"	4,500	300
24"	24"	4,500	300
18"	18"	4,500	300
12"	12"	4,500	300

CITY OF HOUSTON
HOUSTON PUBLIC WORKS
STORM SEWER TYPE "C"
PRECAST ROUND MANHOLE
(NOT TO SCALE)

APPROVED BY: [Signature]
DATE: 04-01-2019
FOR CITY OF HOUSTON USE ONLY

REVISIONS	CITY OF MONTGOMERY TYPICAL ROADWAY TRENCH BEDDING AND BACKFILL DETAIL	SEWER S-2
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DATE	REVISION	APP.

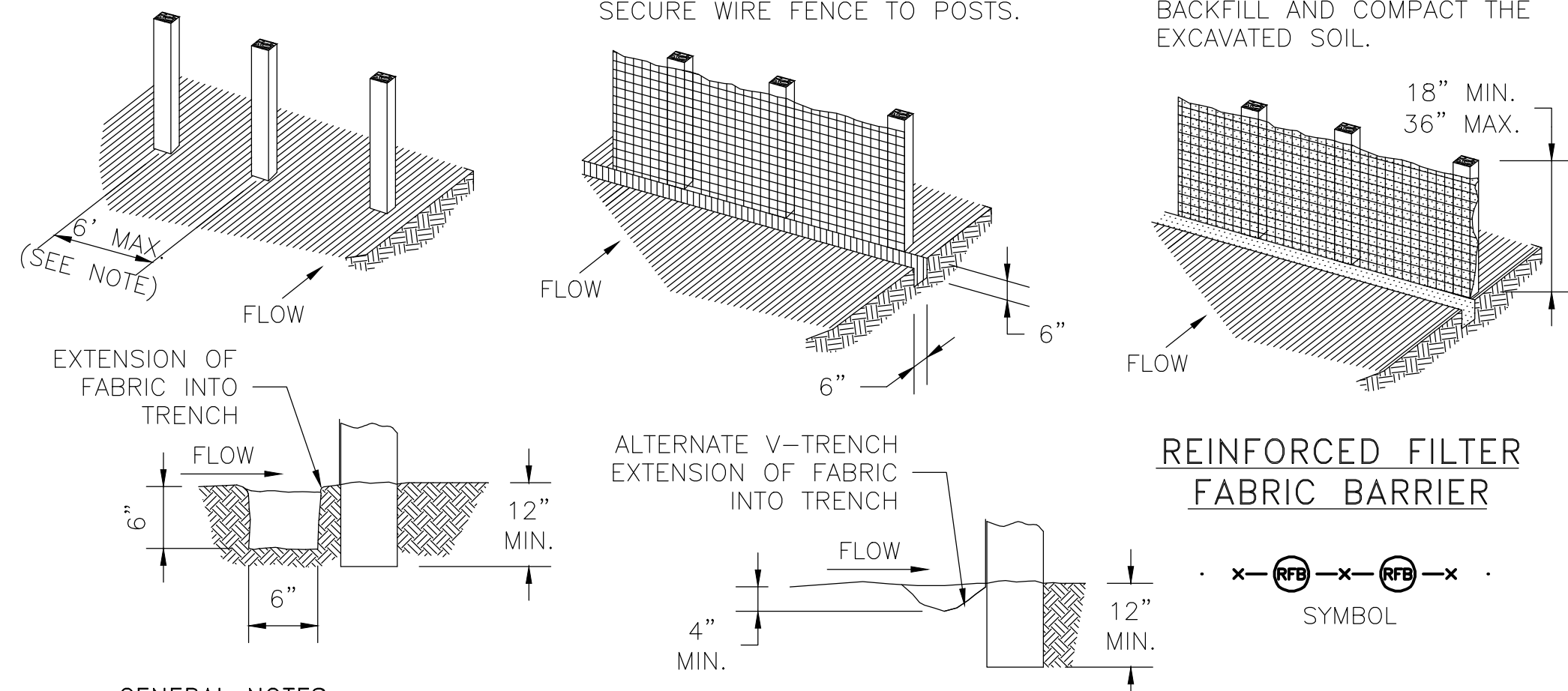
GARRET J. DUHON
9709 LAKESIDE BLVD.
SUITE 200
THE WOODLANDS, TX 77381
(832) 823-2200

TBPB NO. F-22671
CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

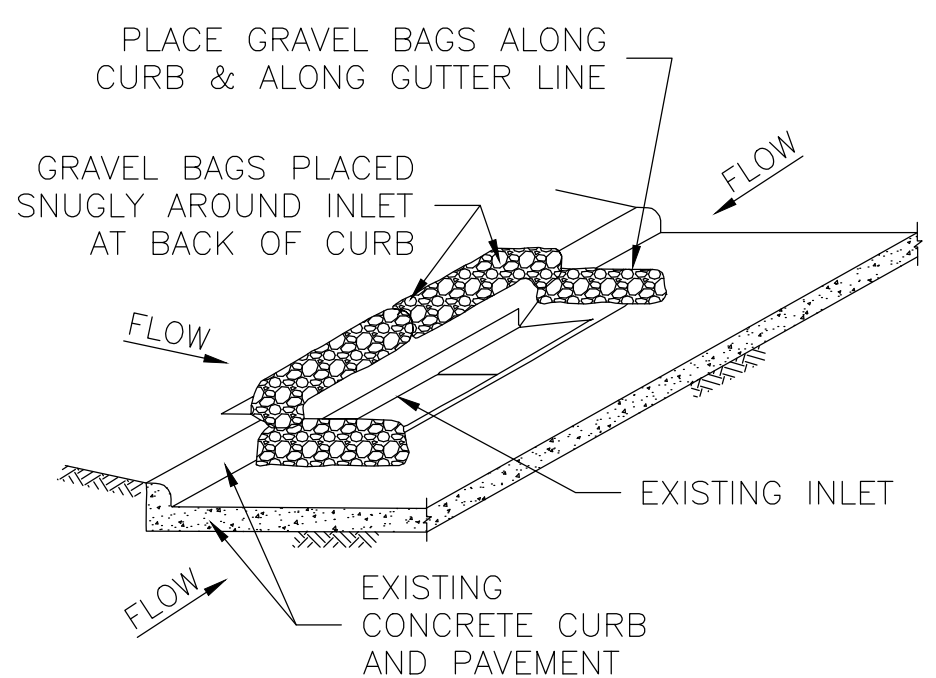
STORM SEWER
DETAILS

1. SET POSTS AT REQUIRED SPACING
2. EXCAVATE A 6"x6" TRENCH UPSLOPE ALONG THE LINE OF POSTS AND SECURE WIRE FENCE TO POSTS.
3. ATTACH FILTER FABRIC TO POSTS AND EXTEND IT INTO THE TRENCH. BACKFILL AND COMPACT THE EXCAVATED SOIL.



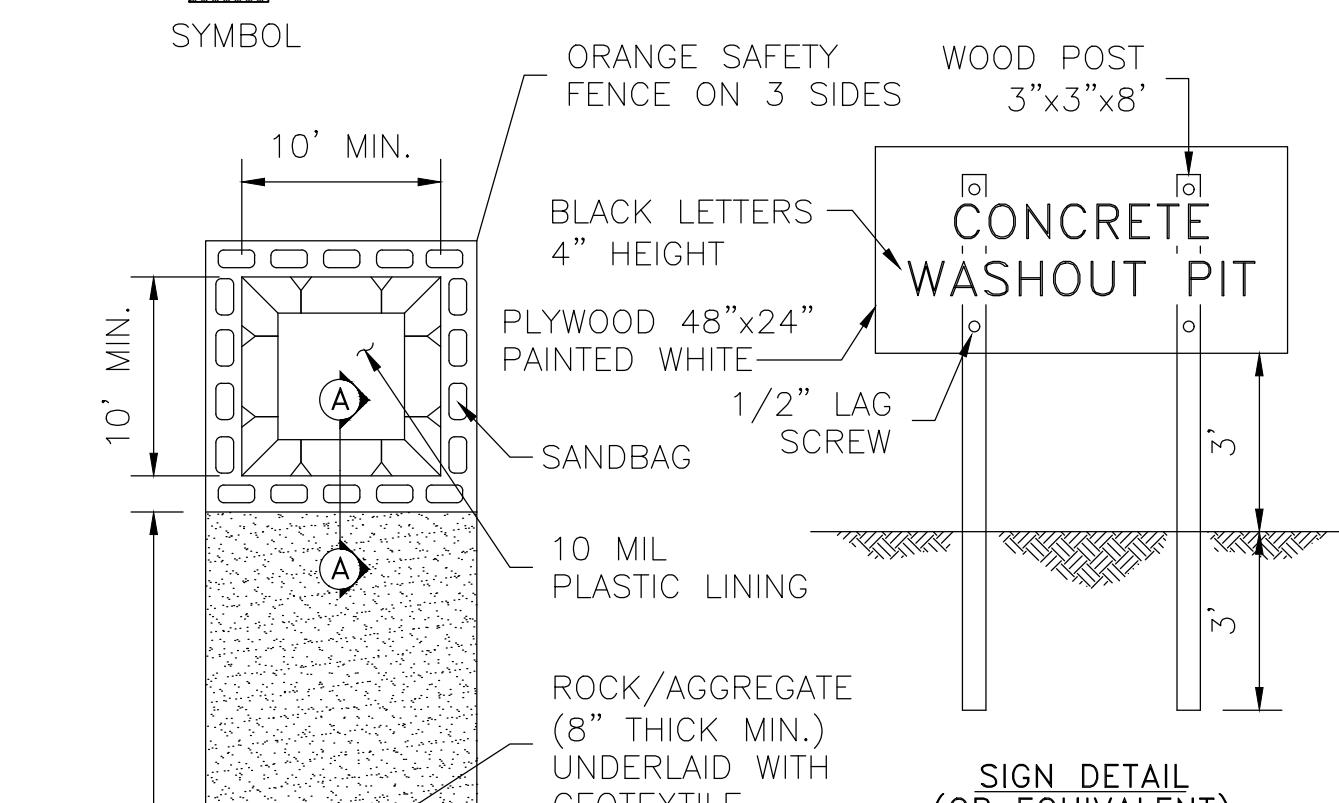
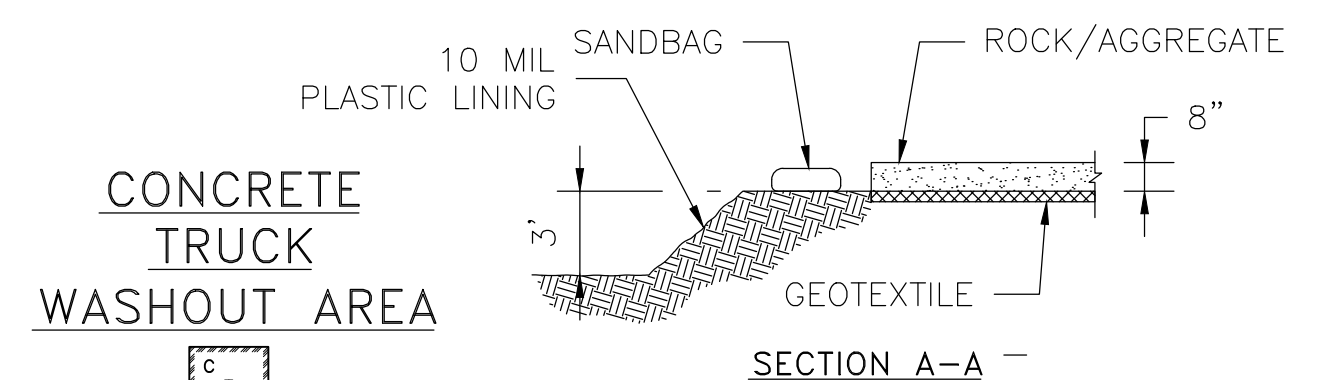
GENERAL NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.



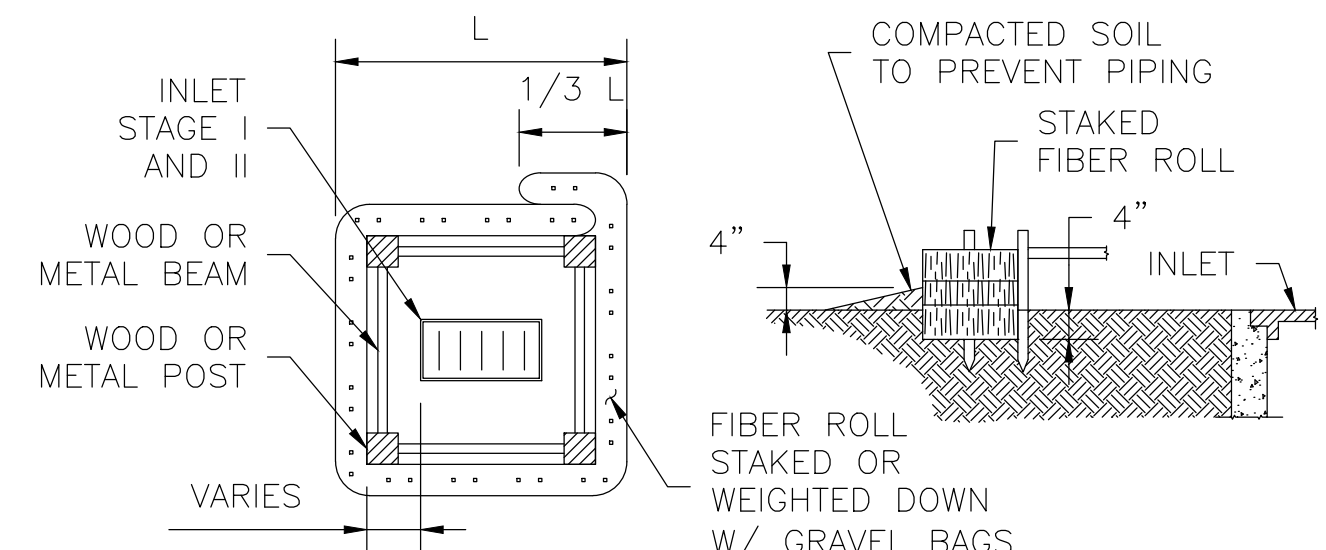
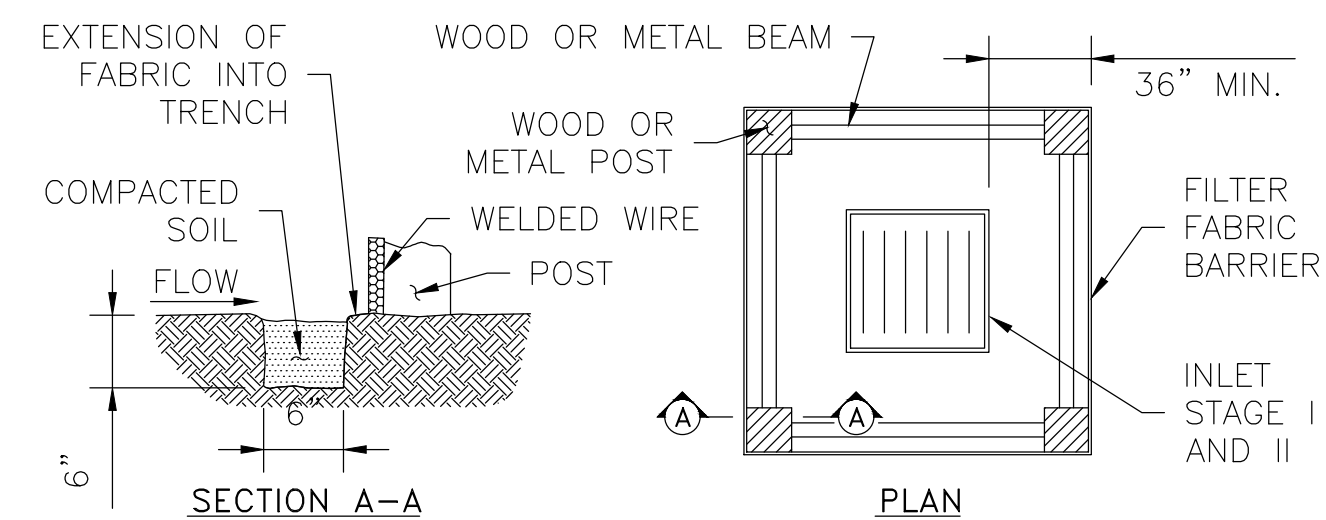
GENERAL NOTES:

1. REMOVE SEDIMENT DEPOSIT WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-THIRD THE HEIGHT OF THE BARRIER.
2. GRAVEL BAGS SHALL NOT BLOCK THROAT OF INLET UNLESS DIRECTED BY ENGINEER.



CONCRETE TRUCK WASHOUT AREA NOTES:

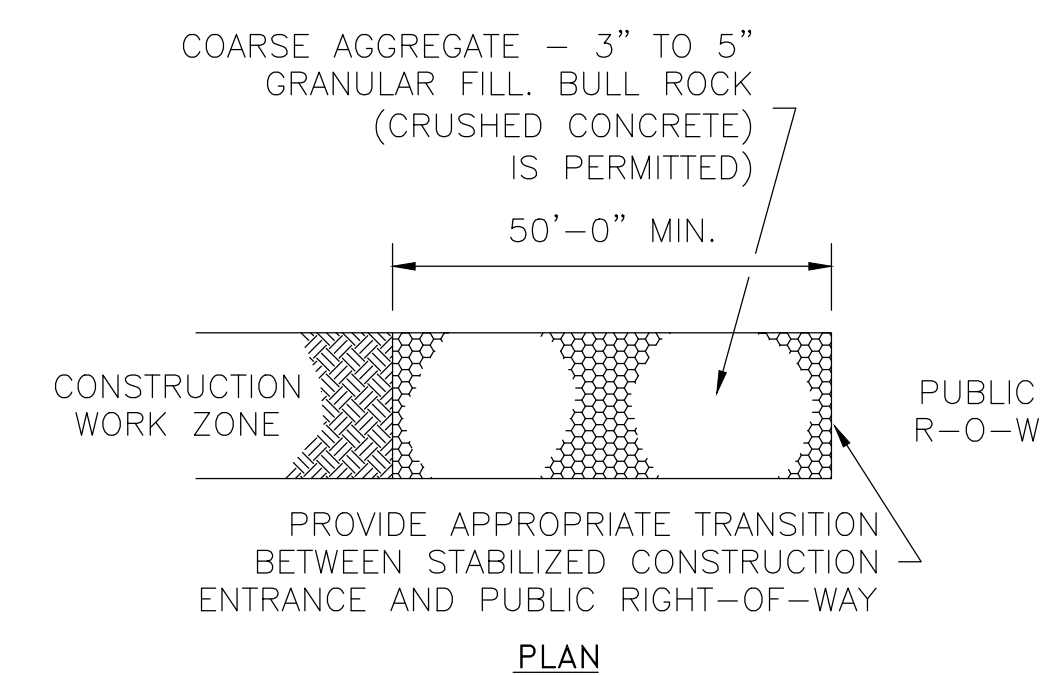
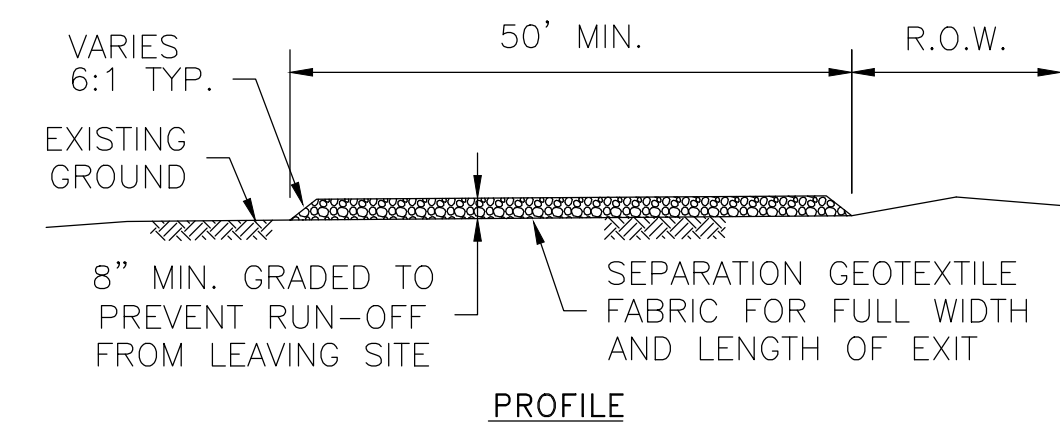
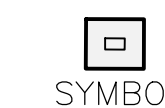
1. POST A SIGN READING "CONCRETE WASHOUT PIT" NEXT TO THE PIT.
2. VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASHOUT THEIR TRUCKS IN THE PIT AND NOWHERE ELSE.
3. UPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR. AFTER REMOVAL OF THE CONCRETE WASTE, THE WASHOUT PIT SHALL BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.
4. CONCRETE WASHOUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY.
5. CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS EQUIPMENT.



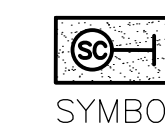
GENERAL NOTES:

1. FIBER ROLLS WILL BE UTILIZED ONLY WHEN SITE CONDITIONS DO NOT PERMIT THE USE OF FILTER FABRIC BARRIER, AND AS APPROVED BY THE ENGINEER.

INLET PROTECTION BARRIERS FOR STAGE I INLETS



STABILIZED CONSTRUCTION ACCESS



ELEVATION
land solutions
TBPE REGISTRATION NUMBER F-22671
9709 LAKESIDE BLVD, SUITE 200
THE WOODLANDS, TX 77381 832-823-2200

GENERAL NOTES:

1. MINIMUM LENGTH IS AS SHOWN ON CONSTRUCTION DRAWINGS OR 50 FEET, WHICHEVER IS MORE.
2. CONSTRUCT AND MAINTAIN CONSTRUCTION EXIT WITH CONSTANT WIDTH ACROSS ITS LENGTH, INCLUDING ALL POINTS OF INGRESS OR EGRESS.
3. UNLESS SHOWN ON THE CONSTRUCTION DRAWINGS, STABILIZATION FOR OTHER AREAS WILL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT.
4. WHEN SHOWN ON THE CONSTRUCTION DRAWINGS, WIDEN OR LENGTHEN STABILIZED AREA TO OUTLET SEDIMENT TRAP FOR THE TRUCK WASHING
5. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL
6. PERIODICALLY TURN AGGREGATE TO EXPOSE A CLEAN
7. MINIMUM 14' WIDTH FOR ONE WAY TRAFFIC AND 20'

DATE	REVISION	APP.

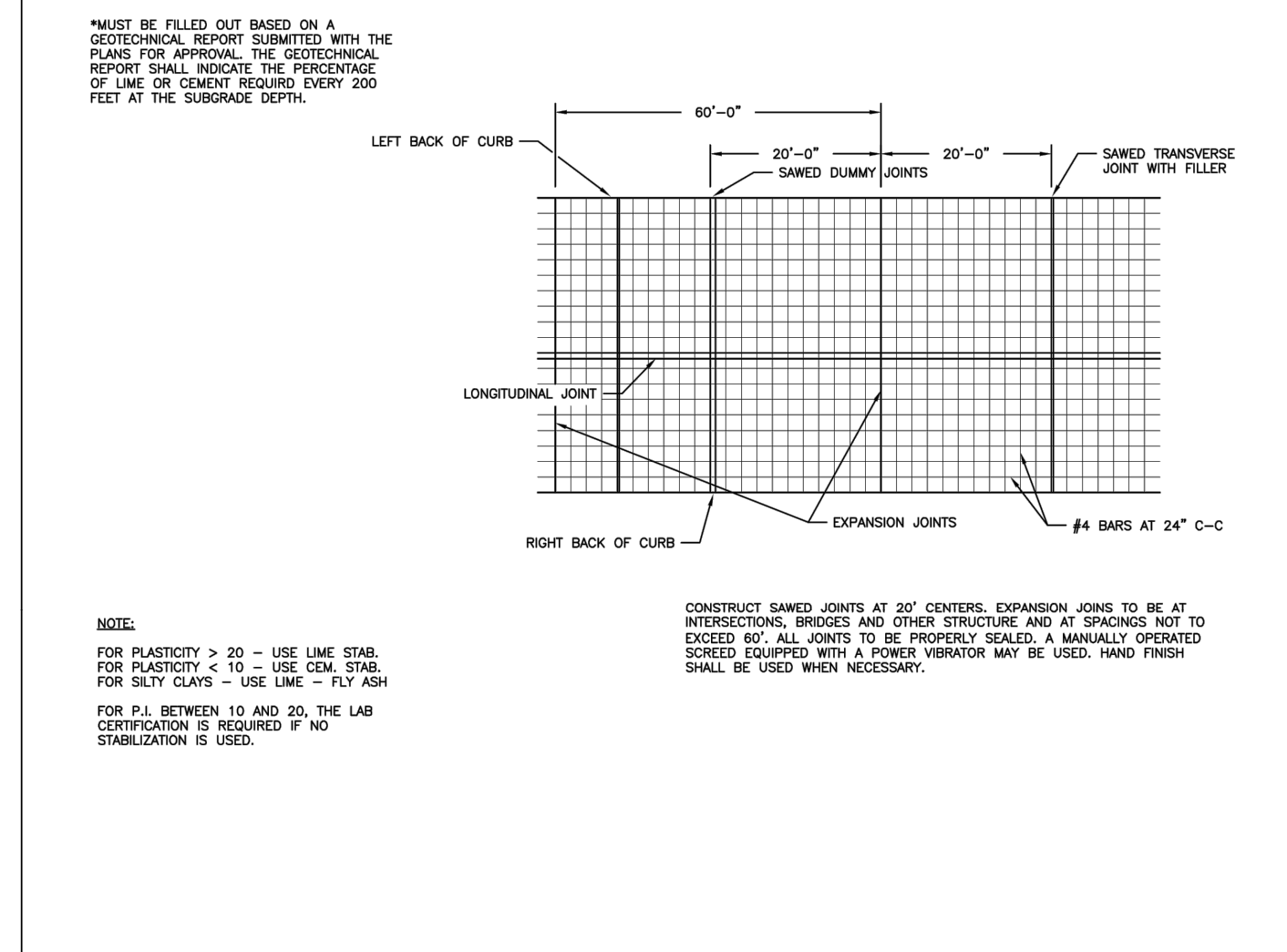
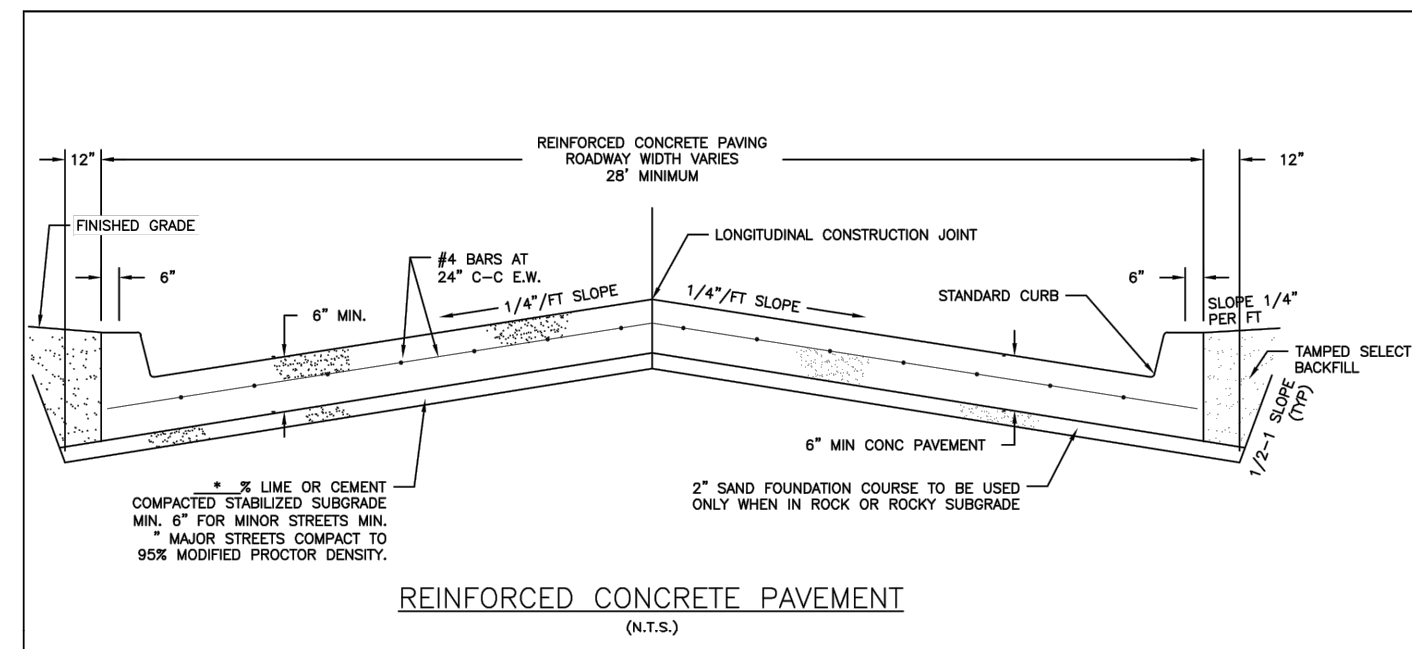
GARRET J. DUHON
9709 LAKESIDE BLVD.
SUITE 200
THE WOODLANDS, TX 77381
(832) 823-2200

TBPE NO. F-22671

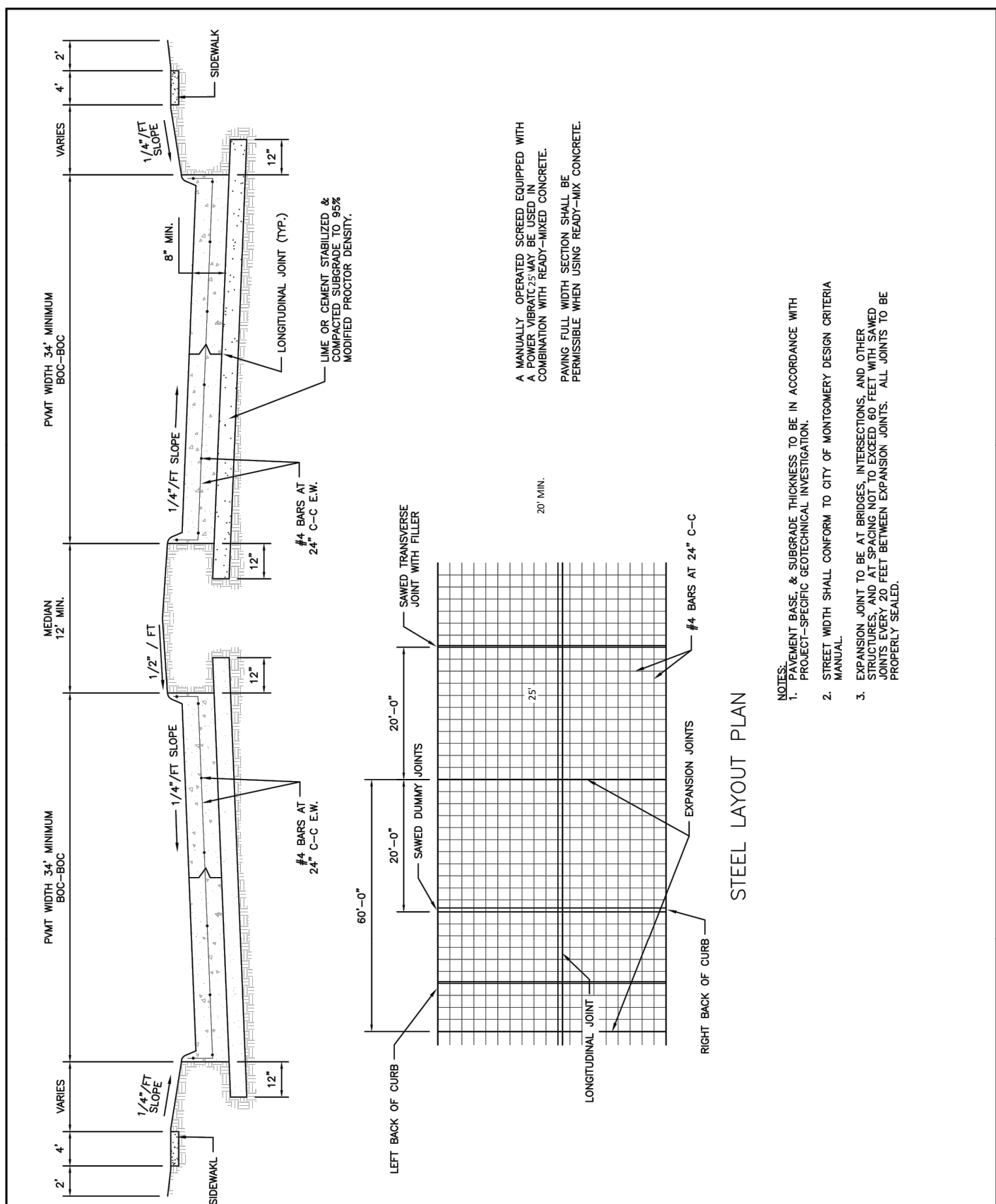
CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE VALID FOR ONE (1) YEAR

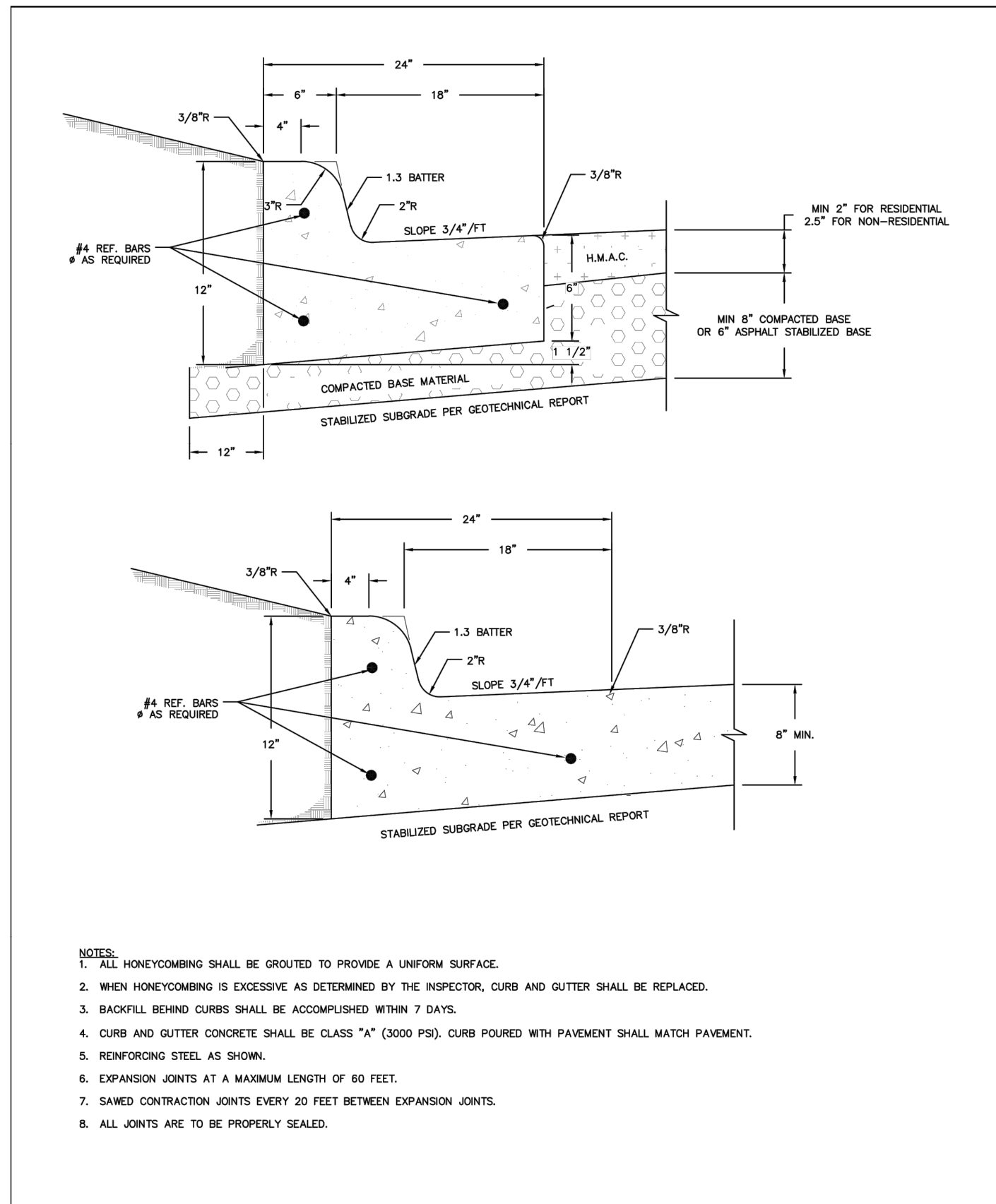
STORM WATER POLLUTION PREVENTION PLAN DETAILS



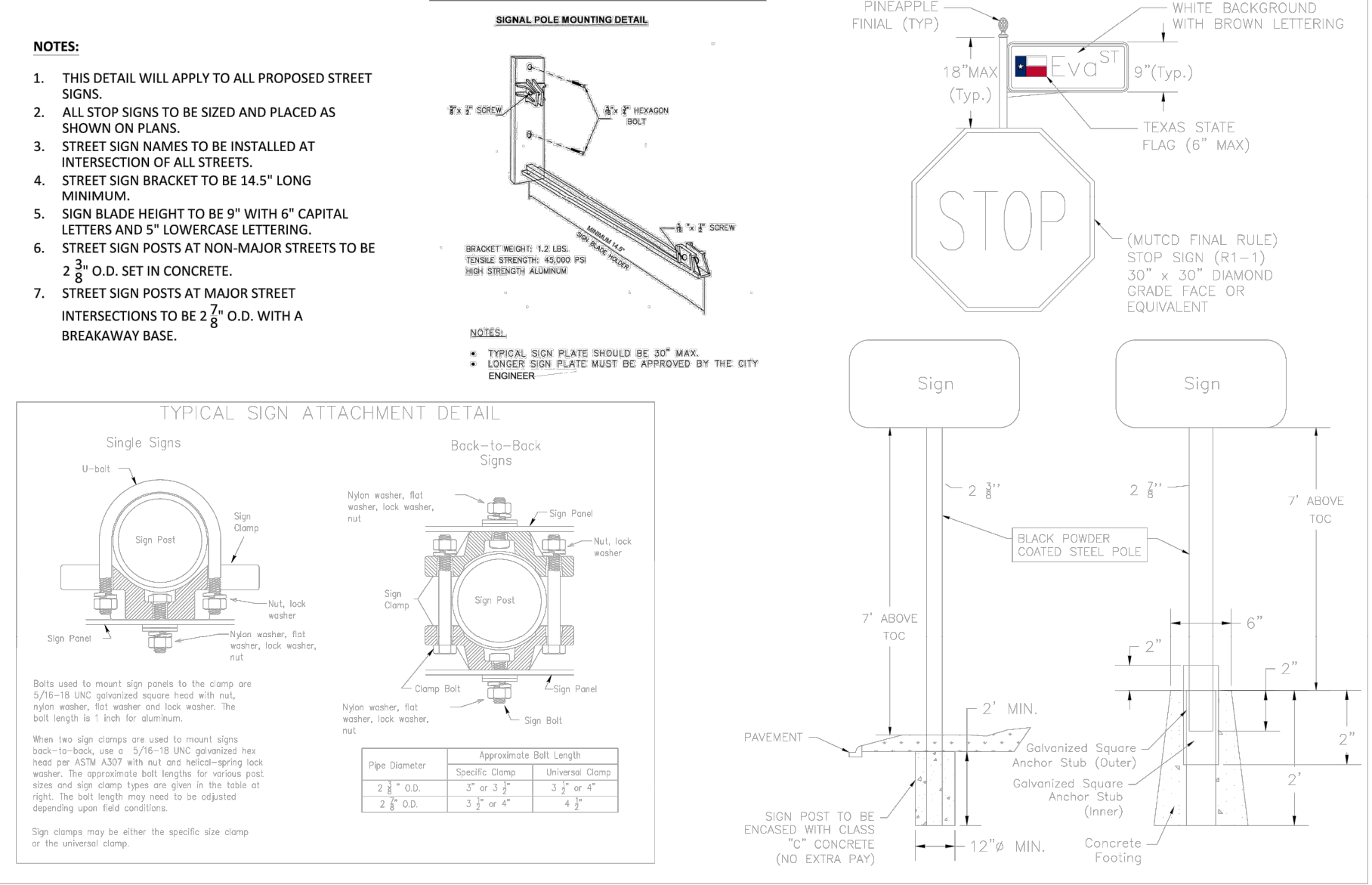
REVISIONS 10-2013 REVISED NOTES	CITY OF MONTGOMERY TYPICAL NON-RESIDENTIAL CONCRETE PAVING WITH STANDARD CURB	PAVING P-3
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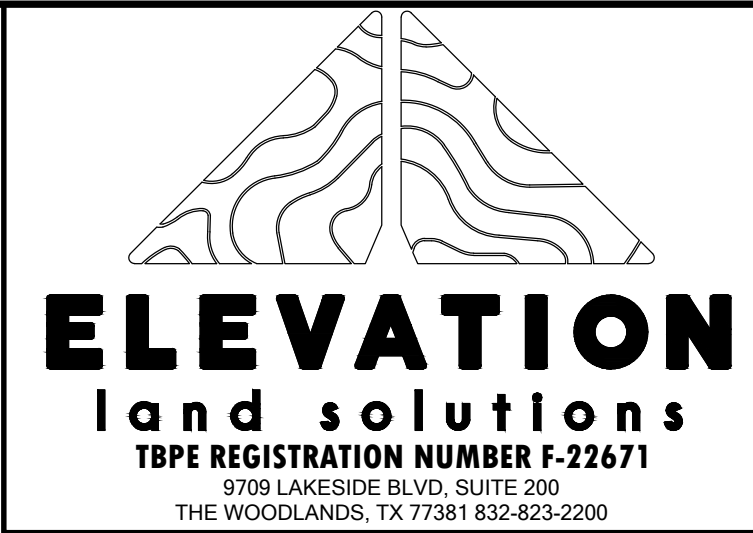
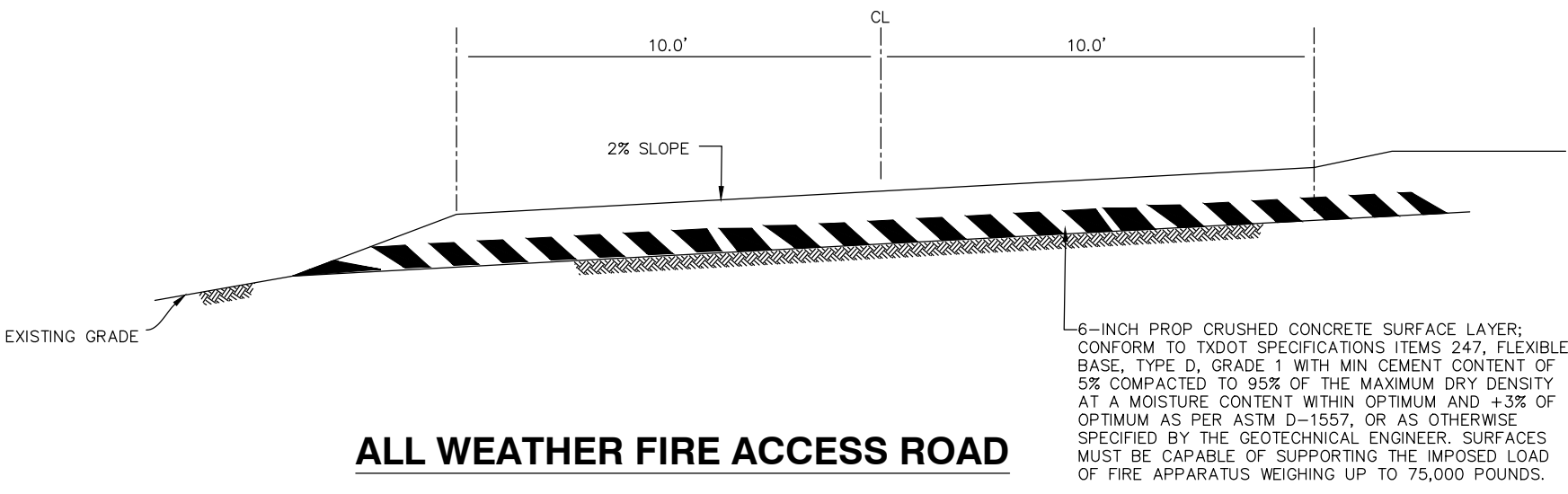
REVISIONS 10-2013 REVISED NOTES	CITY OF MONTGOMERY DIVIDED ROADWAY CROSS SECTION	PAVING P-1
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REVISIONS 10-2013 REVISED NOTES	CITY OF MONTGOMERY STANDARD CURB & GUTTER	PAVING P-4
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REVISIONS 10-2013 REVISED NOTES	CITY OF MONTGOMERY STANDARD STREET SIGN	PAVING P-6
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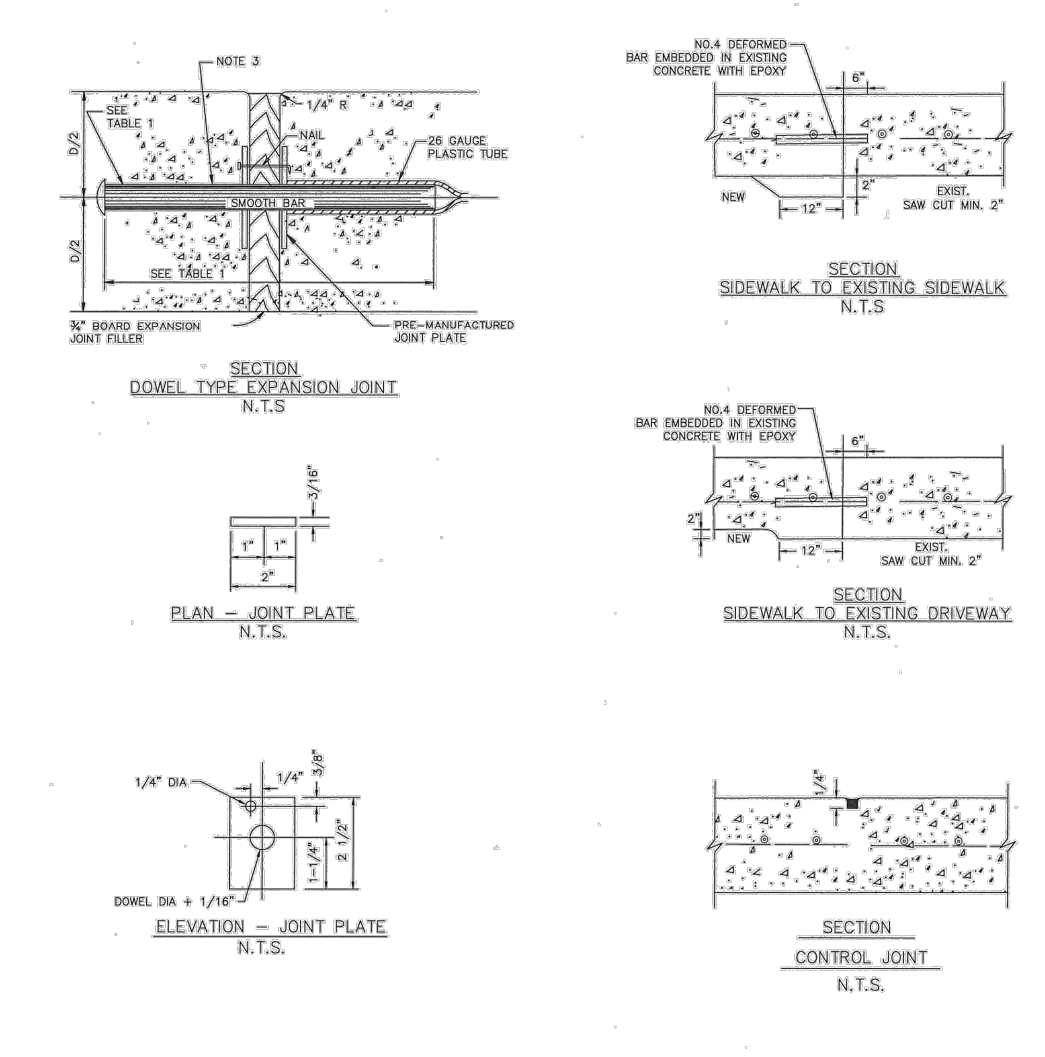
TBPE NO. F-22671
CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE VALID FOR ONE (1) YEAR

PAVING DETAILS
(1 OF 2)

SHEET 25 OF 29

02752-02



SECTION
DOWEL TYPE EXPANSION JOINT
N.T.S.

SECTION
CONTROL JOINT
N.T.S.

PLAN - JOINT PLATE
N.T.S.

ELEVATION - JOINT PLATE
N.T.S.

TABLE 1
DOWEL SIZES AND SPACINGS

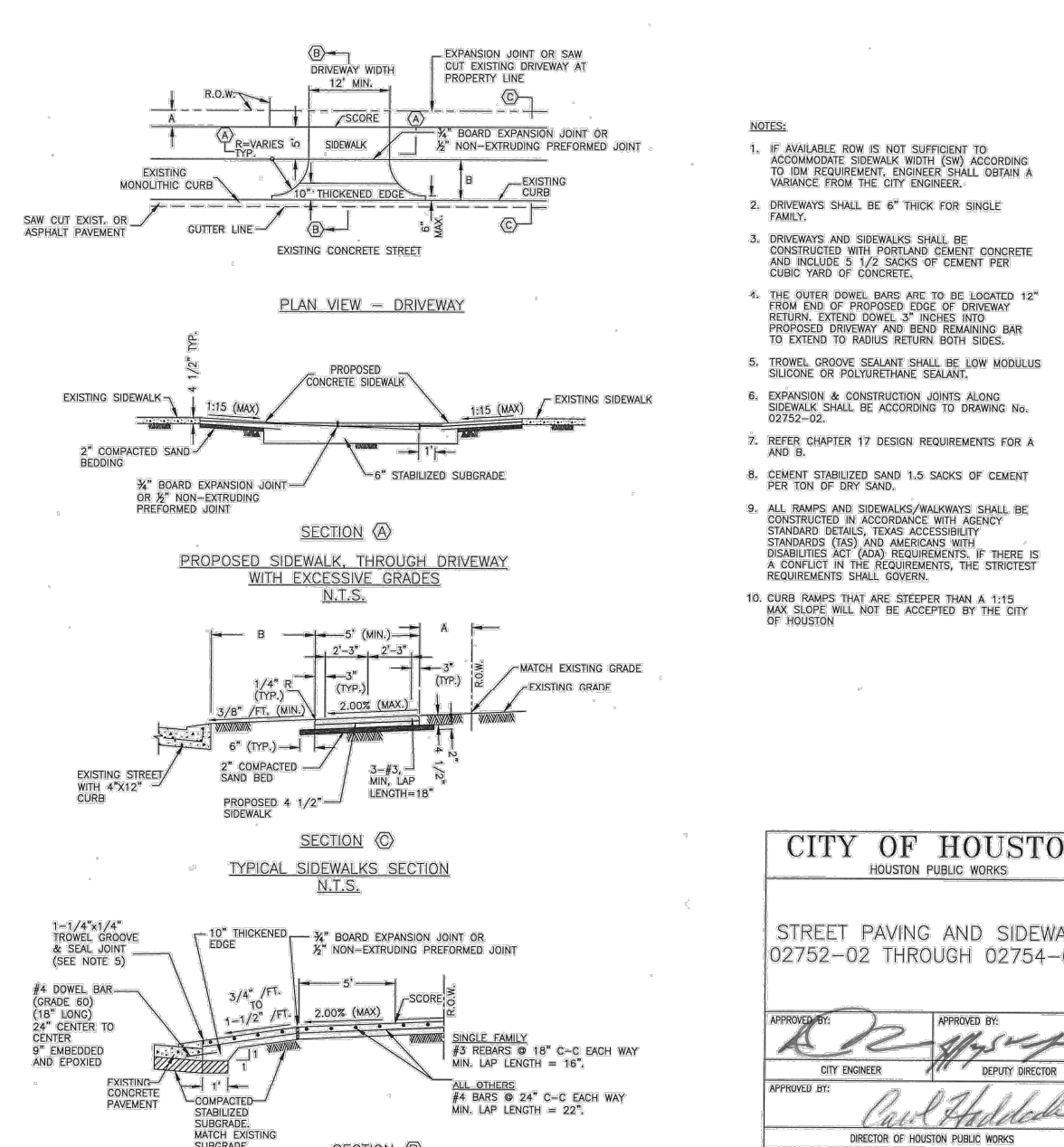
PAVEMENT THICKNESS (IN)	DOWEL DIAMETER (IN)	LENGTH (IN)	SPACING (IN)
4	1/2	18	12
5	5/8	18	12
6	3/4	18	12
7	1	18	12
8	1 1/4	18	12
10	1 1/2	18	12
11	1 3/4	18	12
12	1 3/4	18	12

NOTES:

1. STEEL TO MEET ASTM STANDARD SPECIFICATIONS FOR CONCRETE REINFORCING BARS UNITS TO BE SPACED ON 12" CENTER.
2. EXPANSION JOINT TO BE PLACED AT THE END OF EACH CURB RAMP AND SPACES AT A MINIMUM OF 3 FEET MAXIMUM SPACING FOR CONTROL JOINTS SHALL BE 3 FEET.
3. CENTER DOWEL HORIZONTALLY ON JOINT.
4. CENTER DOWEL VERTICALLY IN CONCRETE BASE DATED THICKNESS CONCRETE AS NEEDED TO MAINTAIN 2" MIN COVER.
5. CITY OF HOUSTON APPROVED PRODUCTS MAY BE USED AS JOINT PLATE ALTERNATE.

SIDEWALK EXPANSION AND CONSTRUCTION JOINT DETAILS
NTS

02754-01A



PLAN VIEW - DRIVEWAY

SECTION (A)
PROPOSED SIDEWALK THROUGH DRIVEWAY WITH EXCESSIVE GRADES
N.T.S.

SECTION (B)
TYPICAL SIDEWALK SECTION
N.T.S.

SECTION (C)
TYPICAL DRIVEWAY SECTION
N.T.S.

TABLE 1
DOWEL SIZES AND SPACINGS

PAVEMENT THICKNESS (IN)	DOWEL DIAMETER (IN)	LENGTH (IN)	SPACING (IN)
4	1/2	18	12
5	5/8	18	12
6	3/4	18	12
7	1	18	12
8	1 1/4	18	12
10	1 1/2	18	12
11	1 3/4	18	12
12	1 3/4	18	12

NOTES:

1. IF EXISTING SIDEWALK IS NOT CONFORMING TO CITY REQUIREMENTS, CONTRACTOR SHALL REMOVE AND RECONSTRUCT TO MEET CITY REQUIREMENTS.
2. SIDEWALK SHALL BE 6" THICK FOR SINGLE FAMILY.
3. SIDEWALK AND SIDEWALKS SHALL BE CONSTRUCTED WITH REINFORCED CONCRETE FOR 12" TO 18" DEPTH OF CONCRETE FOR CURB RAMP OF CONCRETE.
4. THE JOINT SHALL BE LOCATED 12" FROM END OF PROPOSED SIDEWALK FROM DRIVEWAY TO DRIVEWAY AND 12" FROM DRIVEWAY TO DRIVEWAY AND 12" FROM DRIVEWAY TO DRIVEWAY.
5. SIDEWALK SHALL BE 6" THICK FOR SINGLE FAMILY.
6. EXPANSION AND CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH AGENCY STANDARD DETAILS, TEXAS ACCESSIBILITY STANDARDS (TAS) AND AMERICAN WITH DISABILITIES ACT (ADA) REQUIREMENTS. IF THERE IS A CONFLICT IN THE REQUIREMENTS, THE STRICTER REQUIREMENTS SHALL GOVERN.
7. REFER CHAPTER 17 DESIGN REQUIREMENTS FOR A DRIVEWAY.
8. FORMER STABILIZER SAND 1.5 BAGS OF CONCRETE PER TON OF DRY SAND.
9. ALL RAMP AND SIDEWALKS/PAVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH AGENCY STANDARD DETAILS, TEXAS ACCESSIBILITY STANDARDS (TAS) AND AMERICAN WITH DISABILITIES ACT (ADA) REQUIREMENTS. IF THERE IS A CONFLICT IN THE REQUIREMENTS, THE STRICTER REQUIREMENTS SHALL GOVERN.
10. CURB RAMP THAT ARE STEEPER THAN A 1:15 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

STREET PAVING AND SIDEWALK
02752-02 THROUGH 02754-01A

APPROVED BY: [Signature]
CITY ENGINEER

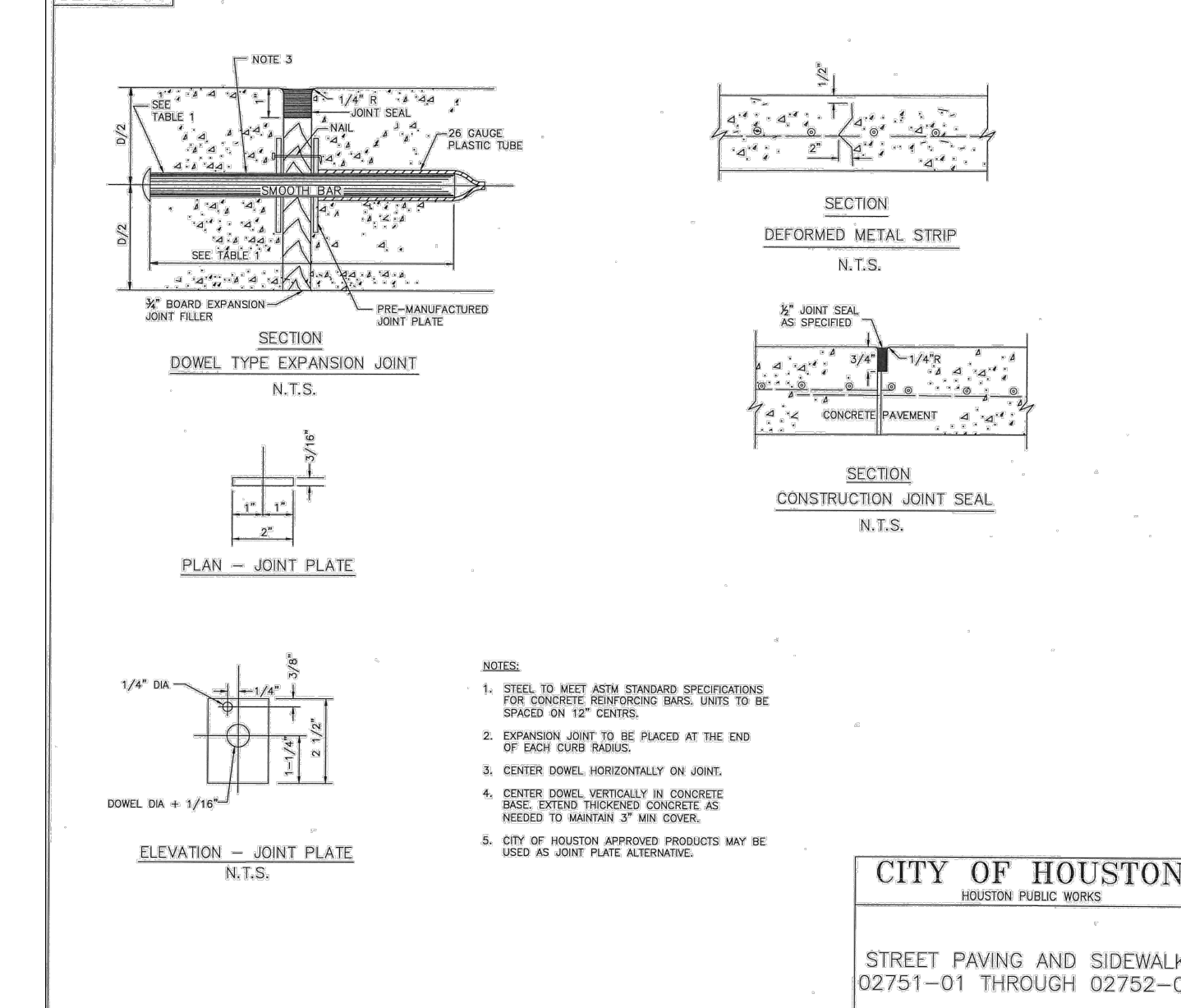
APPROVED BY: [Signature]
SENIOR DESIGNER

DIRECTOR OF HOUSTON PUBLIC WORKS

EFFECTIVE DATE: JUL-01-2020
FOR CITY OF HOUSTON USE ONLY

SHEET NO.

02752-01



SECTION
DOWEL TYPE EXPANSION JOINT
N.T.S.

SECTION
CONSTRUCTION JOINT SEAL
N.T.S.

PLAN - JOINT PLATE
N.T.S.

ELEVATION - JOINT PLATE
N.T.S.

TABLE 1
DOWEL SIZES AND SPACINGS

PAVEMENT THICKNESS (IN)	DOWEL DIAMETER (IN)	LENGTH (IN)	SPACING (IN)
6	3/4	18	12
7	1	18	12
8	1 1/4	18	12
10	1 1/2	18	12
11	1 3/4	18	12
12	1 3/4	18	12

NOTES:

1. STEEL TO MEET ASTM STANDARD SPECIFICATIONS FOR CONCRETE REINFORCING BARS UNITS TO BE SPACED ON 12" CENTER.
2. EXPANSION JOINT TO BE PLACED AT THE END OF EACH CURB RAMP.
3. CENTER DOWEL HORIZONTALLY ON JOINT.
4. CENTER DOWEL VERTICALLY IN CONCRETE BASE DATED THICKNESS CONCRETE AS NEEDED TO MAINTAIN 2" MIN COVER.
5. CITY OF HOUSTON APPROVED PRODUCTS MAY BE USED AS JOINT PLATE ALTERNATE.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

STREET PAVING AND SIDEWALK
02751-01 THROUGH 02752-01

APPROVED BY: [Signature]
CITY ENGINEER

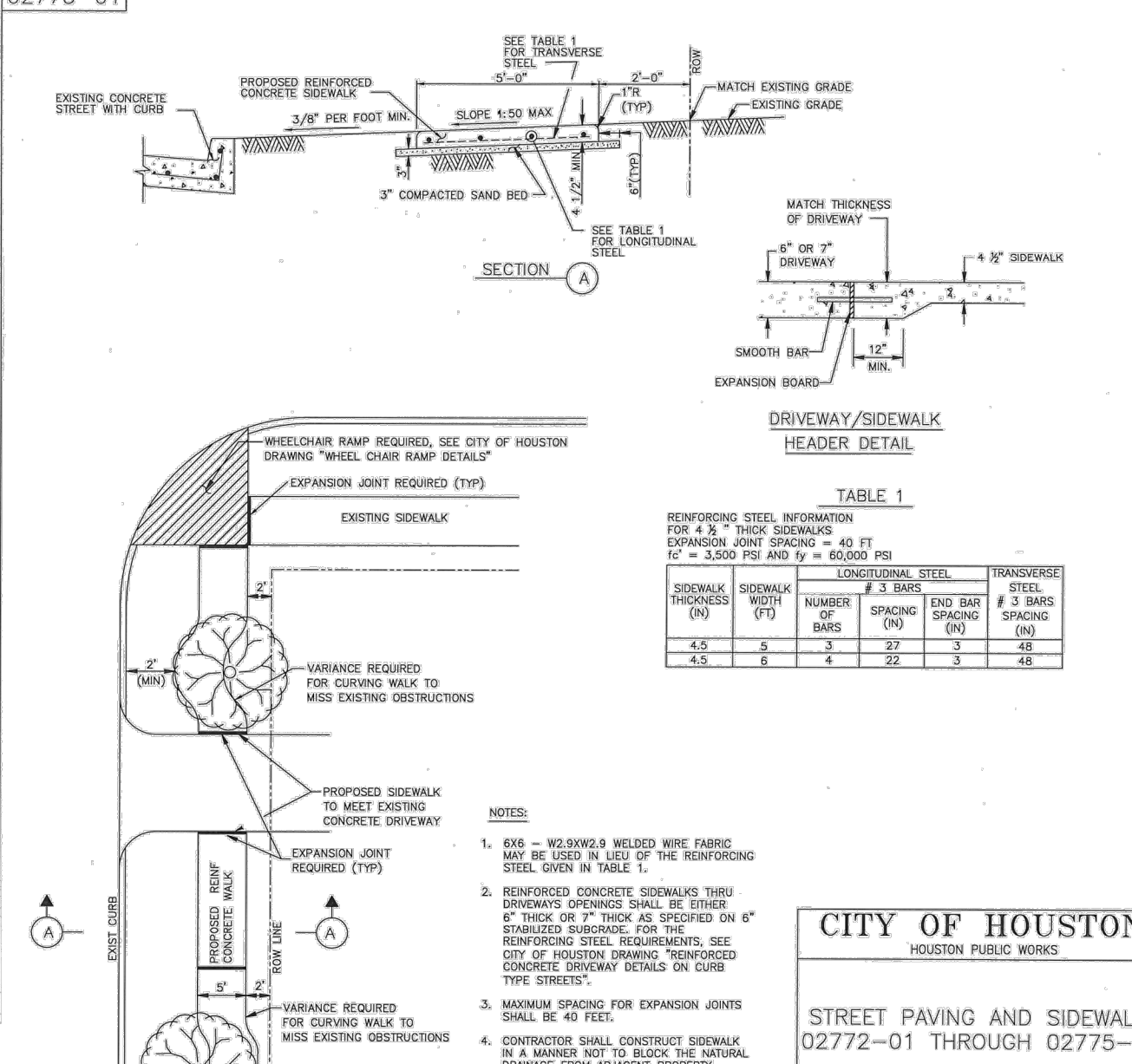
APPROVED BY: [Signature]
SENIOR DESIGNER

DIRECTOR OF HOUSTON PUBLIC WORKS

EFFECTIVE DATE: JUL-01-2020
FOR CITY OF HOUSTON USE ONLY

SHEET NO.

02775-01



SECTION (A)
DRIVEWAY/SIDEWALK HEADER DETAIL
N.T.S.

SECTION (B)
WHEEL CHAIR RAMP
N.T.S.

TABLE 1
REINFORCING STEEL INFORMATION FOR 8" THICK SIDEWALKS EXPANSION JOINT SPACING = 40 FT

SEWAL THICKNESS (IN)	SEWAL WIDTH (FT)	NUMBER OF BARS	SPACING (IN)	END BAR SPACING (IN)	TRANSVERSE STEEL # 3 BARS SPACING (IN)
4.5	5	3	37	3	48
5.5	6	4	36	3	48

NOTES:

1. 6x6 - 10x10x6x6 WELDED WIRE FABRIC MAY BE USED IN LIEU OF THE REINFORCING STEEL CHECK IN TABLE 1.
2. REINFORCED CONCRETE SIDEWALKS THRU DRIVEWAY OPENINGS SHALL BE 8" THICK OR 2" THICK AS SPECIFIED ON 6" STANDARD SPECIFICATIONS FOR THE REINFORCING STEEL REQUIREMENTS. SEE CITY OF HOUSTON DRAWING "REINFORCED CONCRETE DRIVEWAY DETAILS ON CURB THIS STREET".
3. MAXIMUM SPACING FOR EXPANSION JOINTS SHALL BE 40 FEET.
4. CONTRACTOR SHALL CONSTRUCT SIDEWALK IN A MANNER NOT TO BLOCK THE MINIMAL DRAINAGE FROM ADJACENT PROPERTY.
5. ALL RAMP AND SIDEWALKS/PAVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH AGENCY STANDARD DETAILS, TEXAS ACCESSIBILITY STANDARDS (TAS) AND AMERICAN WITH DISABILITIES ACT (ADA) REQUIREMENTS. IF THERE IS A CONFLICT IN THE REQUIREMENTS, THE STRICTER REQUIREMENTS SHALL GOVERN.
6. CURB RAMP THAT ARE STEEPER THAN A 1:15 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

STREET PAVING AND SIDEWALK
02772-01 THROUGH 02775-01

APPROVED BY: [Signature]
CITY ENGINEER

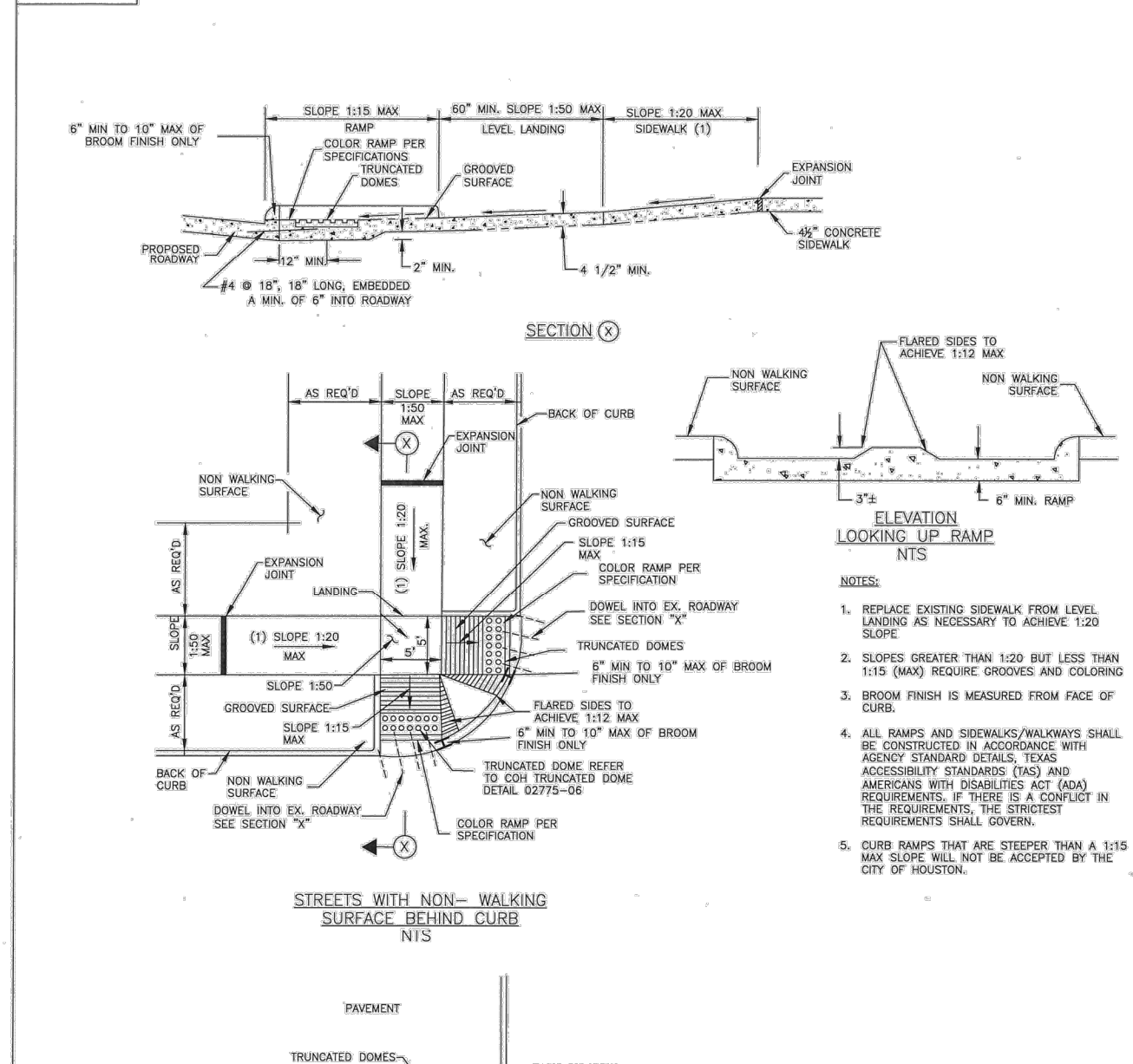
APPROVED BY: [Signature]
SENIOR DESIGNER

DIRECTOR OF HOUSTON PUBLIC WORKS

EFFECTIVE DATE: JUL-01-2020
FOR CITY OF HOUSTON USE ONLY

SHEET NO.

02775-02



SECTION (A)
STREETS WITH NON-WALKING SURFACE BEHIND CURB
N.T.S.

SECTION (B)
WHEEL CHAIR RAMP DETAILS
N.T.S.

NOTES:

1. REPLACE EXISTING SIDEWALK FROM LEVEL LANDING AS NECESSARY TO ACHIEVE 1:20 SLOPE.
2. SLOPES GREATER THAN 1:20 BUT LESS THAN 1:15 (MAX) REQUIRE SHOULDER AND COLORING.
3. BROOM FINISH IS MEASURED FROM FACE OF CURB.
4. ALL RAMP AND SIDEWALKS/PAVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH AGENCY STANDARD DETAILS, TEXAS ACCESSIBILITY STANDARDS (TAS) AND AMERICAN WITH DISABILITIES ACT (ADA) REQUIREMENTS. IF THERE IS A CONFLICT IN THE REQUIREMENTS, THE STRICTER REQUIREMENTS SHALL GOVERN.
5. CURB RAMP THAT ARE STEEPER THAN A 1:15 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

STREET PAVING AND SIDEWALK
02772-01 THROUGH 02775-01

APPROVED BY: [Signature]
CITY ENGINEER

APPROVED BY: [Signature]
SENIOR DESIGNER

DIRECTOR OF HOUSTON PUBLIC WORKS

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DATE	REVISION	APP.

GARRET J. DUHON
9709 LAKESIDE BLVD.
SUITE 200
THE WOODLANDS, TX 77381
(832) 823-2200

TBPE NO. F-22671

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CITY OF MONTGOMERY CITY ENGINEER SIGNATURE VALID FOR ONE (1) YEAR

DATE

PAVING DETAILS
(2 OF 2)

SHEET 26 OF 29

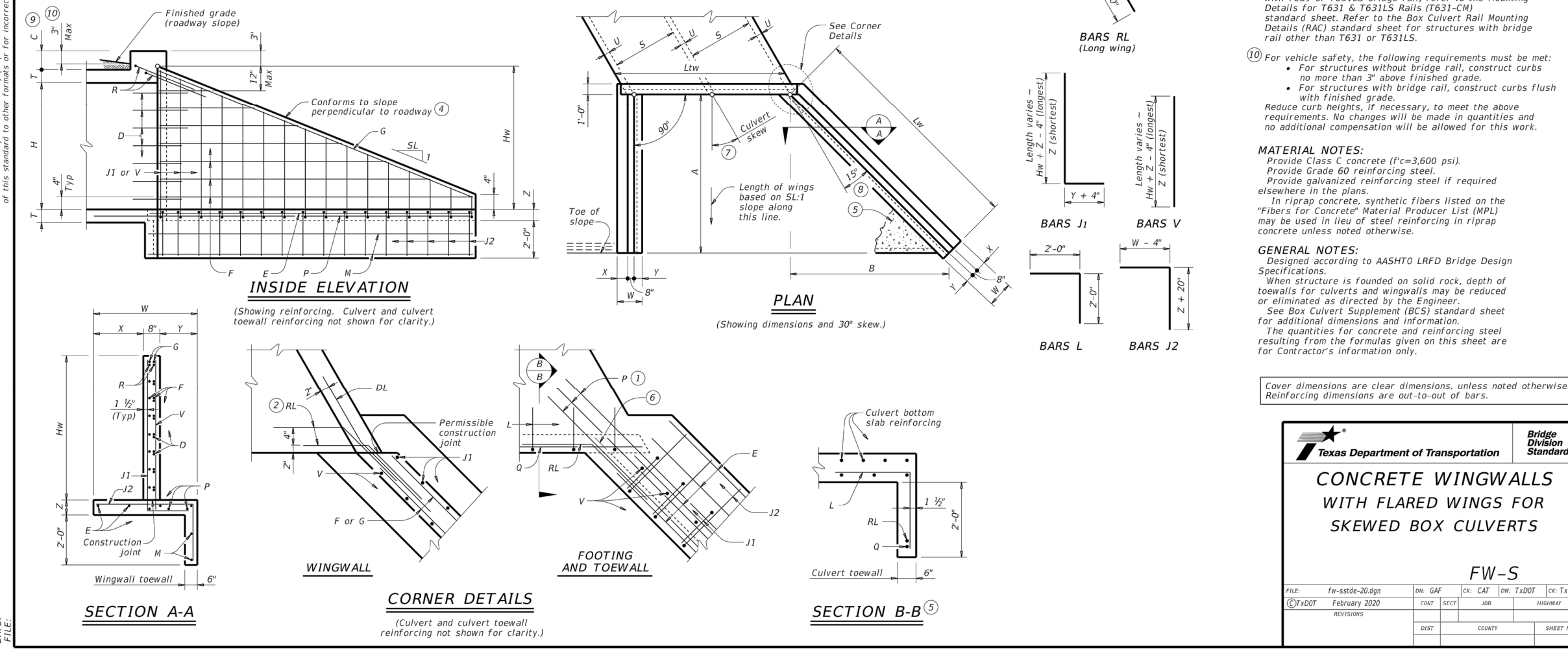
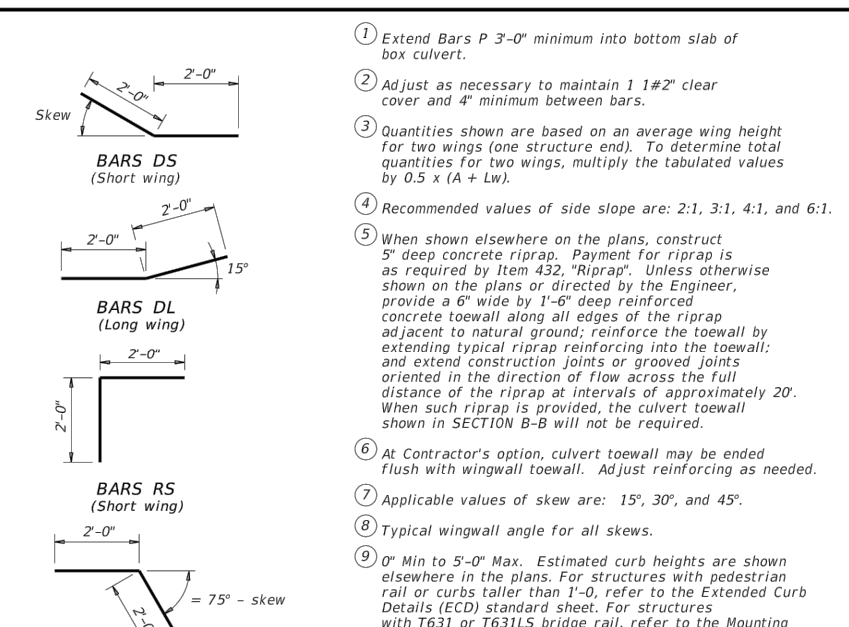
P:\610.126 Mabry and Faulkner Tract\005_Sec.1.dwg - Plan Set Drawings\DETAILS.dwg 6/9/2023 4:17 PM GDUHON

ELEVATION LAND SOLUTIONS - MONTGOMERY BEND SEC 1 - PROJECT NO. 610.126.005.00

TABLE OF DIMENSIONS AND REINFORCING STEEL (Wings for one structure end)

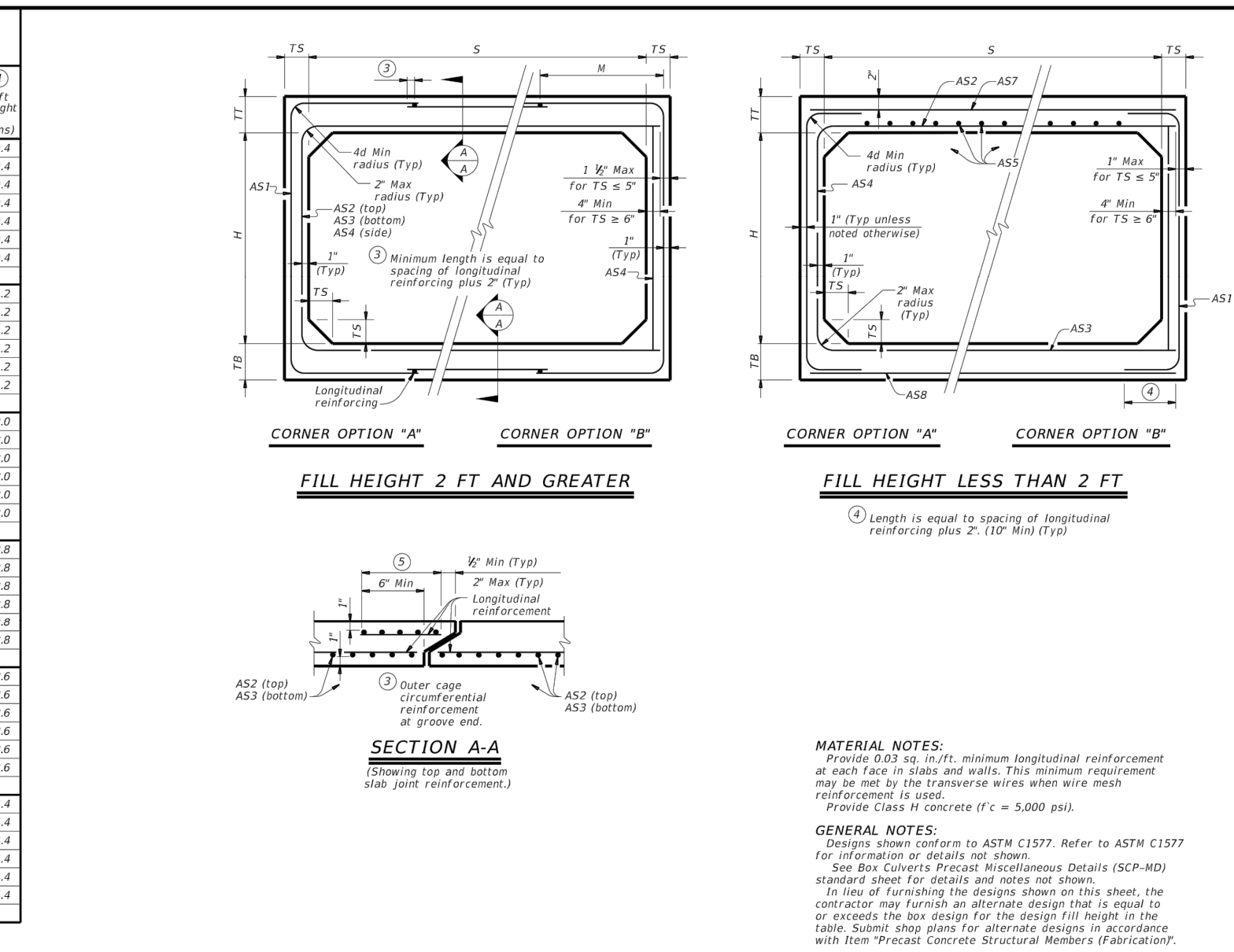
TABLE OF ESTIMATED CULVERT TOWALL QUANTITIES

WING DIMENSION FORMULAS: (W) wings are in feet. Hw = H + c - 0.25D...

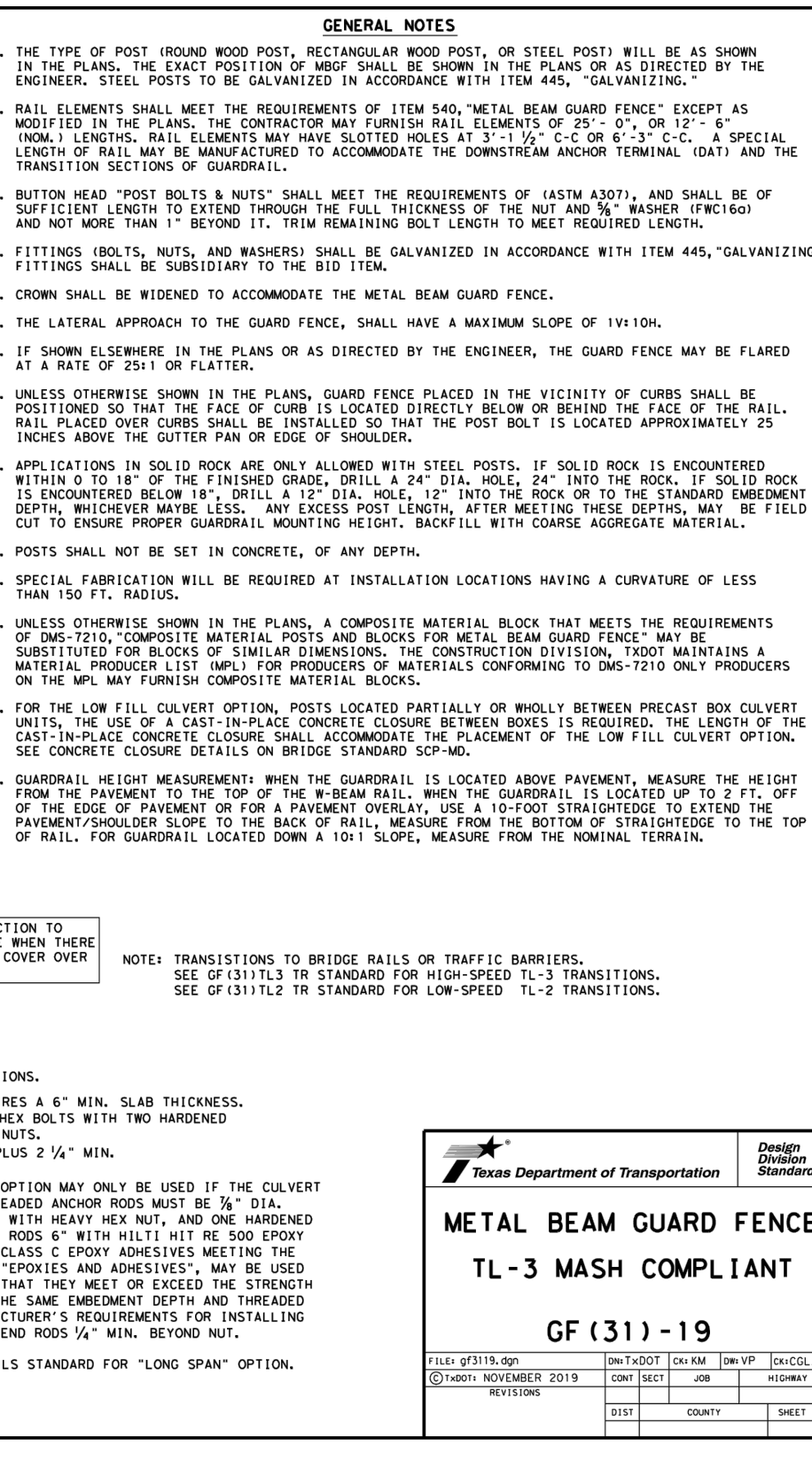
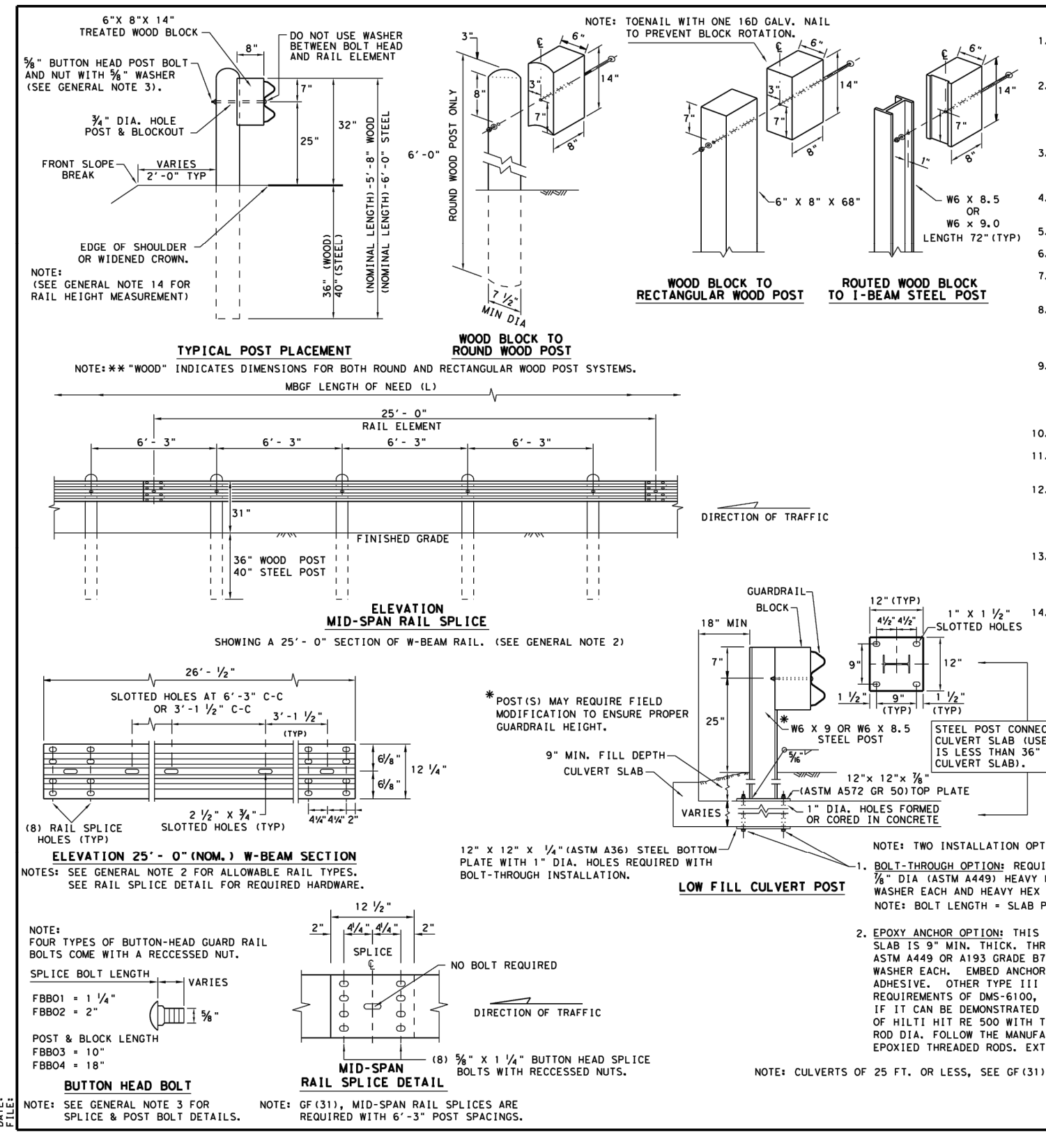


CONCRETE WINGWALLS WITH FLARED WINGS FOR SKEWED BOX CULVERTS

BOX DATA table with columns for SECTION DIMENSIONS and REINFORCING



FW-S



METAL BEAM GUARD FENCE TL-3 MASH COMPLIANT

ELEVATION land solutions

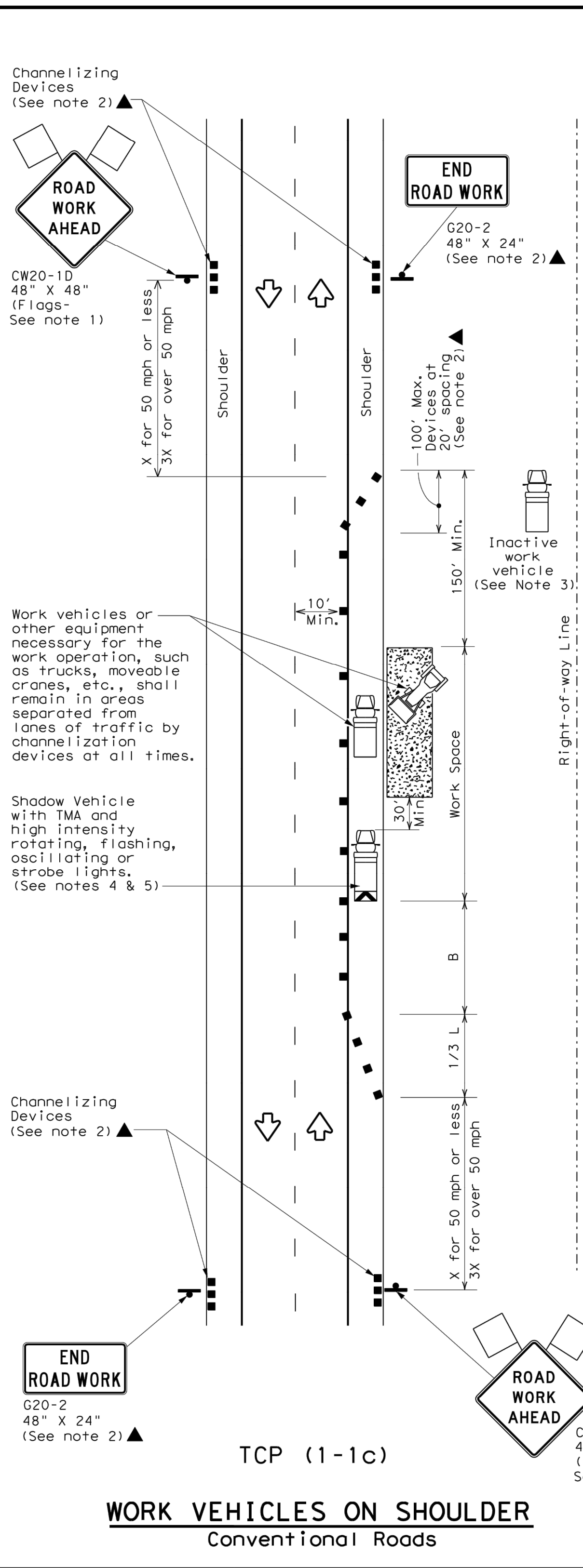
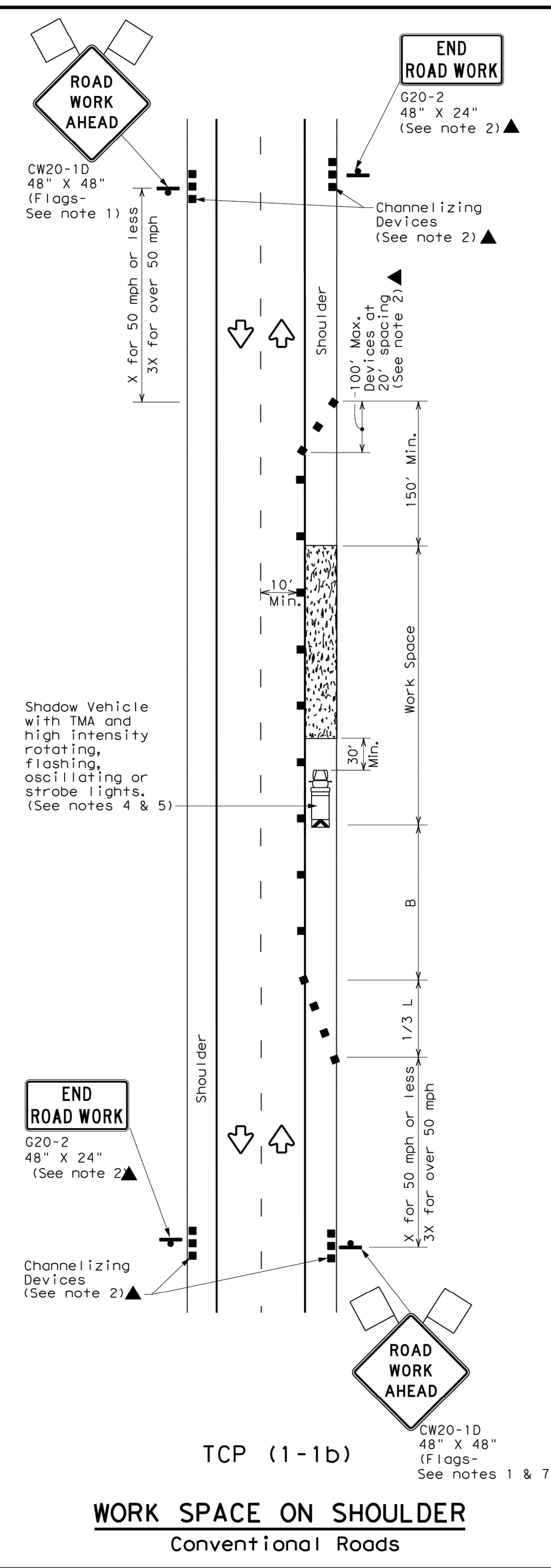
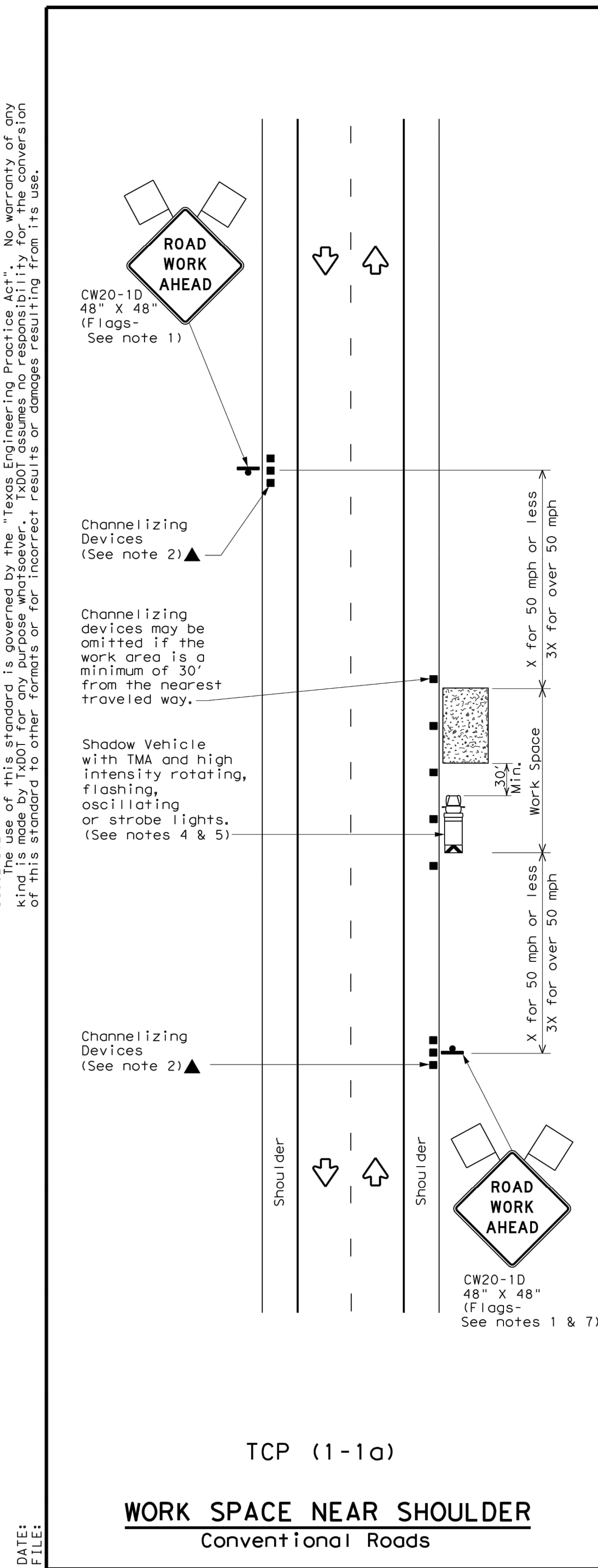
SINGLE BOX CULVERTS PRECAST 8'-0" SPAN SCP-8



METAL BEAM GUARD FENCE TL-3 MASH COMPLIANT

DATE, REVISION, APP, GARRET J. DUHON, CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK, SHEET 27 OF 29

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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 = 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	L = WS	600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75	L = WS	750'	825'	900'	75'	150'	900'	540'
80		800'	880'	960'	80'	160'	1000'	615'

* 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.

Texas Department of Transportation
Traffic Operations Division Standard

TRAFFIC CONTROL PLAN
CONVENTIONAL ROAD
SHOULDER WORK

TCP (1-1) - 18

FILE: tcp1-1-18.dgn
© TxDOT December 1985
REVISIONS: 2-94 4-98, 8-95 2-12, 1-97 2-18

DIST COUNTY SHEET NO.

DATE	REVISION	APP.

GARRET J. DUHON
9709 LAKESIDE BLVD.
SUITE 200
THE WOODLANDS, TX 77381
(832) 823-2200

DATE

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE VALID FOR ONE (1) YEAR

TRAFFIC CONTROL PLAN

Montgomery Bend

Landscape Concept Plan

March 2023



REQUIREMENTS

309 LOTS WITHIN DEVELOPMENT
2 TREES MINIMUM PER LOT REQUIRED

Per Section 78-167
20% OF GROSS PROPERTY AREA OF RESERVES (RI ZONING)

GROSS PROPERTY AREA OF RESERVES=1.57 Acres
20% OF RESERVE AREA=13,678 square feet

16 PARKING SPACES (1 TREE REQUIRED)

PROPOSED

618 TREES PROVIDED IN LOTS (2 PER LOT)
104 TREES WITHIN DEVELOPMENT

15 QUALIFYING TREES (3" OR ABOVE) EQUAL TO 18,000 square feet canopy equivalent

2 QUALIFYING PARKING LOT TREES (3" OR ABOVE)
722 PROVIDED TREES

NOTE: MIN. TREE SIZE IS 30 GAL.

PLANT SCHEDULE

NSA GOLD LANTANA	●	SOUTHERN HAZYBETLE-30 GAL
DRIFT ROSE	●	HONTERKEY OAK-45 GAL
RED TURKIE CAP	●	CHASTE TREE-30 GAL
ROSEMARY	●	LIVE OAK-45 GAL
POND GRASS	●	TEXAS OLIVE-10 GAL
BLACK-EYED RUSSET	●	LIVE OAK-30 GAL
ADAMSS MAIDEN GRASS	●	YALPON HOLLY-30 GAL
RED TULSA	●	LOBLOLLY PIN-30 GAL
AGAVE	●	LOBLOLLY PIN-45 GAL
SHARP MAX MYRTLE	●	
INDIAN GRASS	●	
BUTTERFLY BIR	●	
SHARP YALPON HOLLY	●	
BLUE FESCUE GRASS	●	
GLAD CROST THICK GRASS	●	
SWITCH GRASS	●	



DATE	REVISION	APP.

GARRET J. DUHON
9709 LAKESIDE BLVD.
SUITE 200
THE WOODLANDS, TX 77381
(832) 823-2200

TBPE NO. F-22671

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE VALID FOR ONE (1) YEAR

DATE

LANDSCAPE PLAN

SHEET 29 OF 29