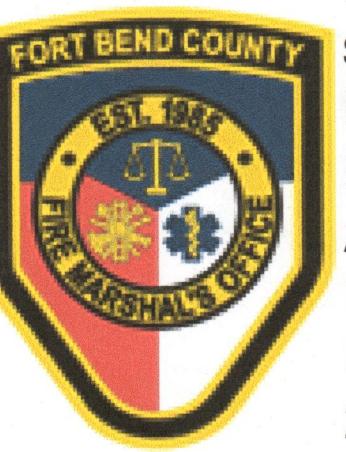


FORT BEND COUNTY M.U.D. NO. 210

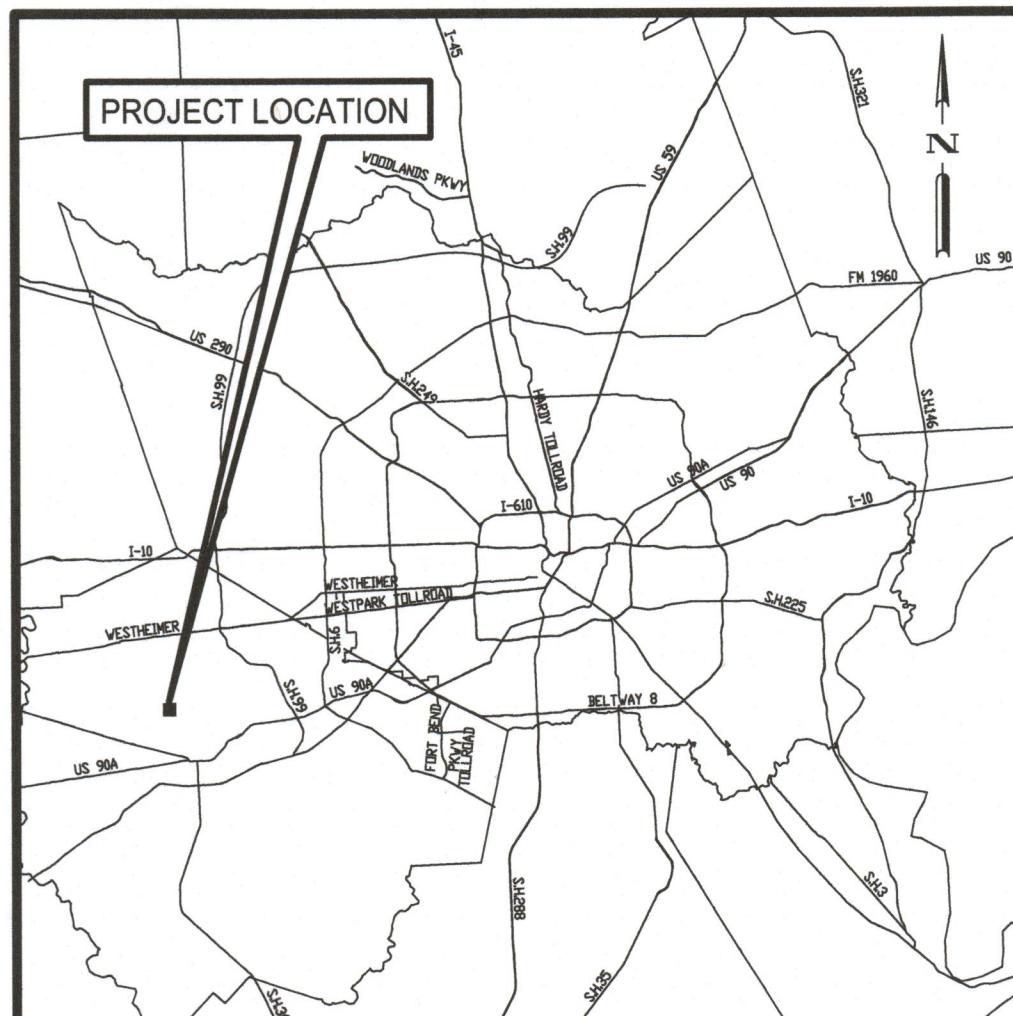
CONSTRUCTION PLANS FOR

LIFT STATION NO. 1



Digitally signed by
Pawlak, Cuyler
Reason: Plans Approved for Permit
Date: 2025.10.08
10:46:17-05'00'

SHORT PROJECT DESCRIPTION: FBCMUD210 / BGE JOB NO. 14451-00



LOCATION MAP

N.T.S.

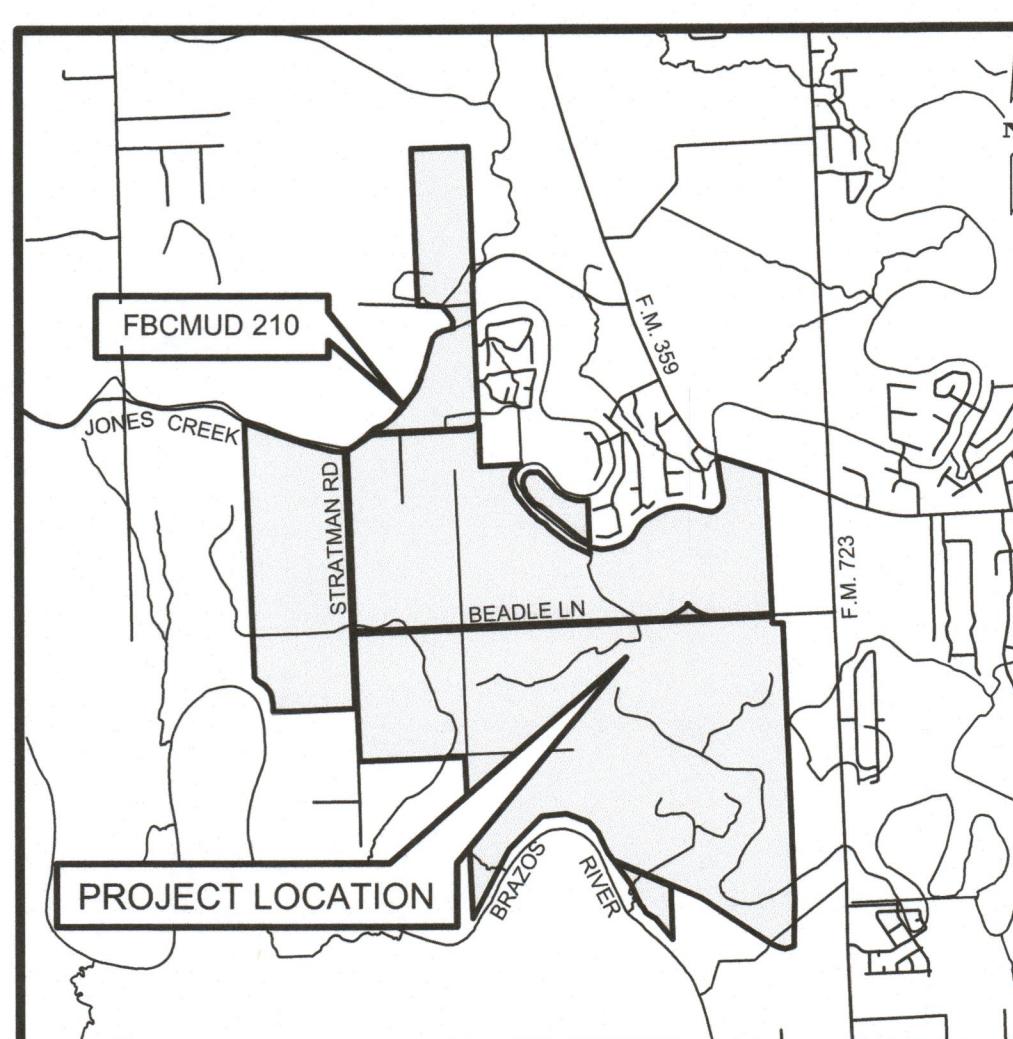
SEPTEMBER 2025

SHEET INDEX

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| 2 | GENERAL CONSTRUCTION NOTES |
| 3 | SITE PLAN |
| 4 | PAVING AND DRAINAGE PLAN |
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THIS SITE LIES ENTIRELY IN ZONE AE.
BASE FLOOD ELEVATION: 94.2'
FIRM PANEL 230 OF 575
48157C0230L

ONE-CALL NOTIFICATION SYSTEM
CALL BEFORE YOU DIG!!!
DIAL 811 or 1-(800)-344-8377
AT LEAST 48 HOURS BEFORE
PROCEEDING WITH ANY EXCAVATION



VICINITY MAP

N.T.S.

KEY MAP 564 K
1110 1/2 BEADLE LN
ROSENBERG, TEXAS 77471

CONTRACTOR TO COORDINATE ALL WORK WITHIN THE
COUNTY ROAD R.O.W. WITH THE FORT BEND COUNTY
ENGINEERING, 281-633-7500.

FORT BEND COUNTY ENGINEER

ENGINEER: *Rufi J. Stacy, P.E., PTOE*
for J. STACY SLAWINSKI, P.E.

DATE: 11/31/25

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

APPROVED: *Ch. G.*
DEVELOPMENT COORDINATOR

DATE: 10-31-25

REV. NO.	DATE	DESCRIPTION	P.E. APPR.
△	11/25/2025	IFB	AD
△			
△			



BGE, Inc.
10777 Westheimer, Suite 400
Houston, TX 77042
Tel: 281-568-8700 • www.bgeinc.com
TBPE Registration No. F-1046



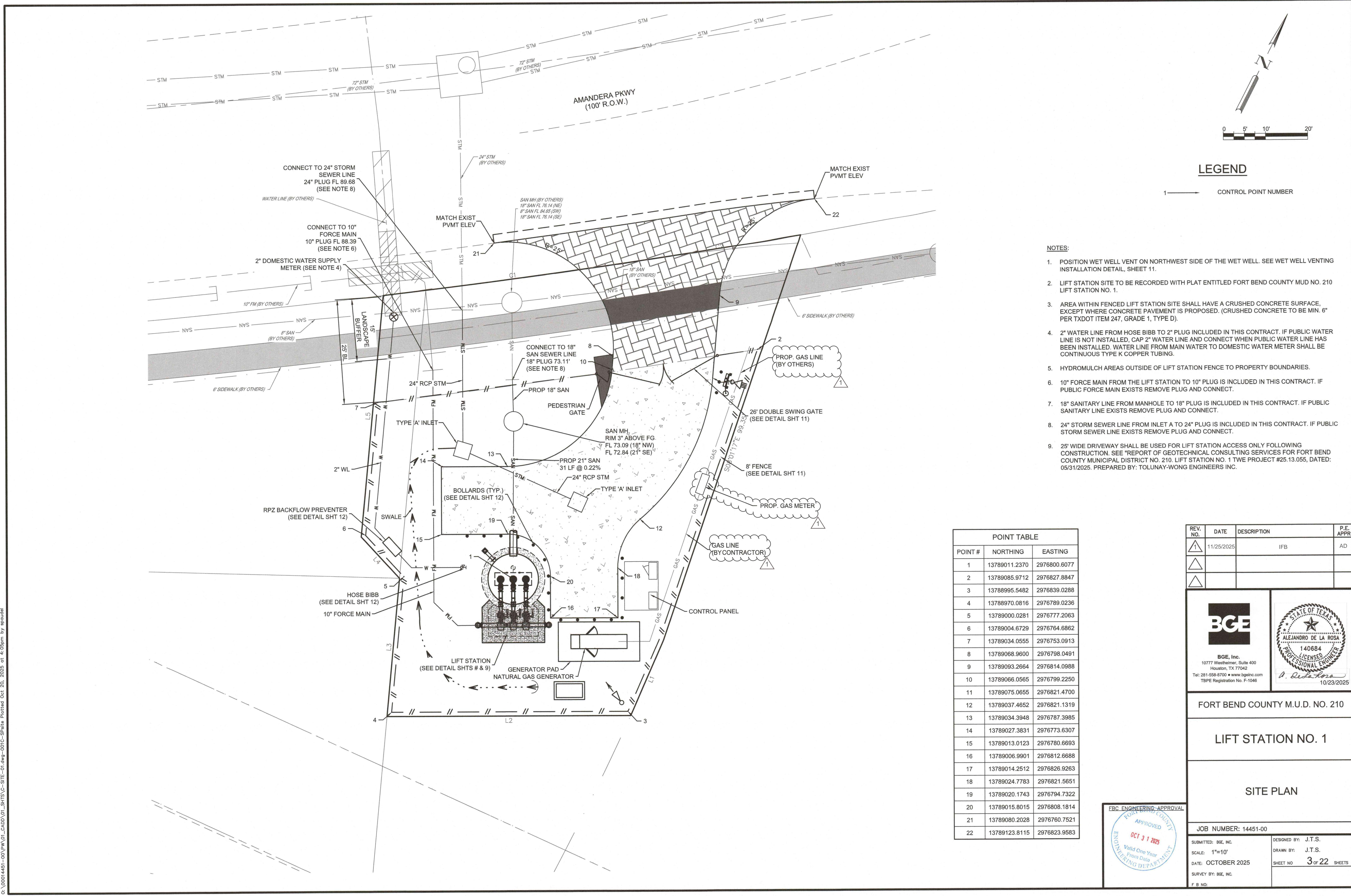
GENERAL

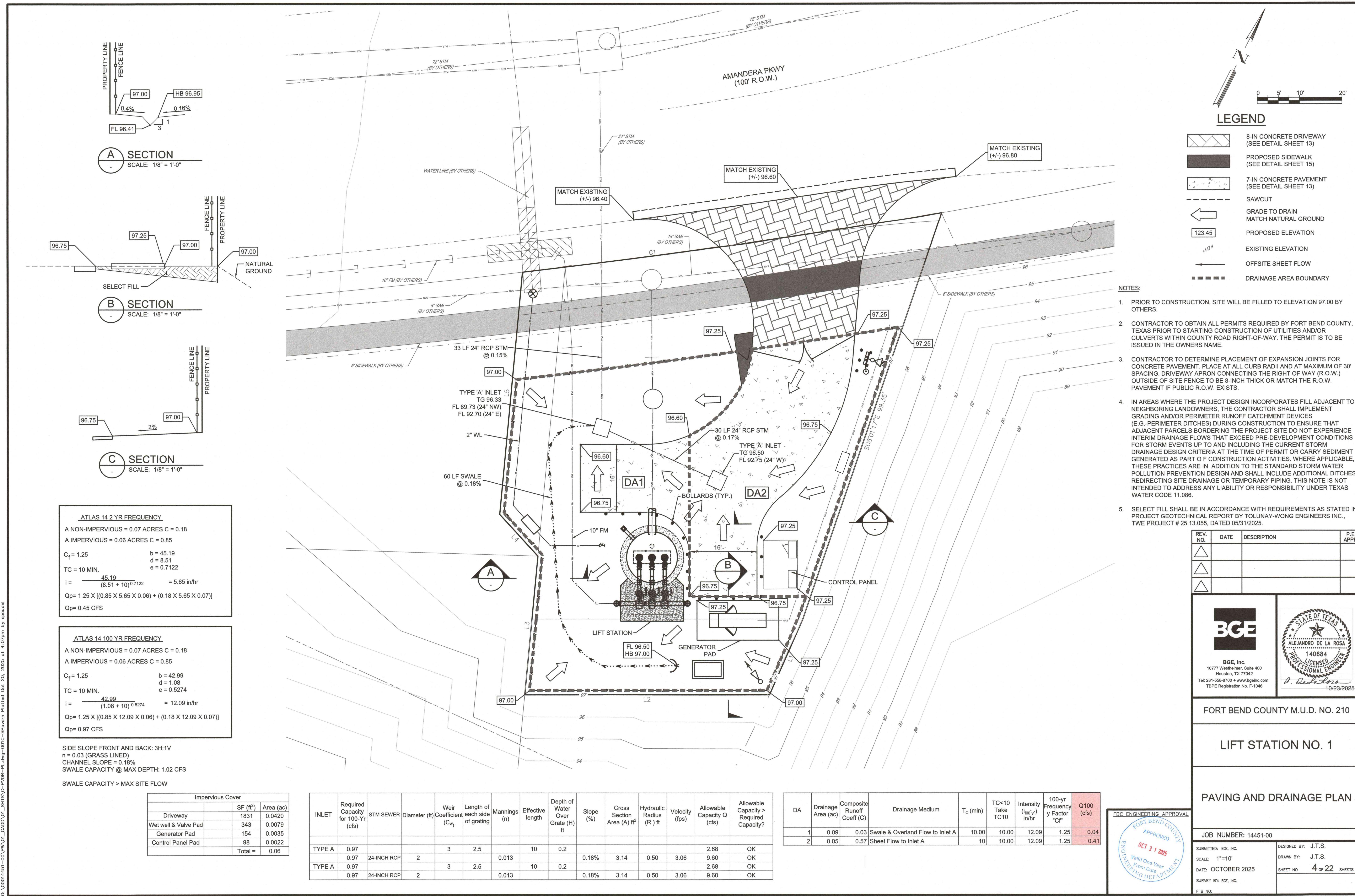
- THESE PLANS WERE PREPARED TO MEET OR EXCEED TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, FORT BEND COUNTY AND CITY OF FULSHEAR RULES AND REGULATION AS CURRENTLY AMENDED. WHEN CONFLICTS ARE NOTED WITH LOCAL STANDARDS, THE MORE STRINGENT SHALL APPLY. CONSTRUCTION FOR PUBLIC WATER SYSTEMS MUST ALWAYS, AT A MINIMUM, MEET TCEQ'S "RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS".
- WATER LINES, WASTEWATER COLLECTION SYSTEMS, AND DRAINAGE SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF FULSHEAR SUBDIVISION ORDINANCE NO. 04-913, UNLESS OTHERWISE NOTED AND APPROVED ON THESE PLANS. THE DESIGN IS CONSISTENT WITH THE MINIMUM STANDARDS ESTABLISHED IN THE SUBDIVISION ORDINANCE NO. 04-913. CONTRACTOR SHALL USE CURRENT COPIES OF DESIGN MANUAL AND STANDARD CONSTRUCTION SPECIFICATIONS ISSUED BY THE CITY OF FULSHEAR. WHERE THE CITY OF FULSHEAR SUBDIVISION ORDINANCE AND/OR FORT BEND COUNTY REGULATIONS CONFLICT WITH THE STANDARDS CONSTRUCTION SPECIFICATIONS, THE CITY OF FULSHEAR AND/OR FORT BEND COUNTY REGULATIONS SHOULD BE USED. FOR ITEMS NOT ADDRESSED WITHIN THE CITY OF FULSHEAR SUBDIVISION ORDINANCES AND/OR FORT BEND COUNTY REGULATIONS, THE CITY OF HOUSTON STANDARD CONSTRUCTION SPECIFICATIONS SHOULD BE USED. THE MORE STRINGENT SPECIFICATION WILL APPLY.
- THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE TO THE EXISTING PUBLIC UTILITY LINES OR PRIVATE UTILITY LINES, INCLUDING BUT NOT LIMITED TO WATER LINES, WASTEWATER COLLECTION SYSTEMS AND STORM SEWERS, DURING CONSTRUCTION. ALL DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF FULSHEAR SUBDIVISION ORDINANCES NO. 04-913 WITH NO COST TO THE PUBLIC. (NO ADDITIONAL PAY TO CONTRACTOR)
- UNLESS SPECIFICALLY INDICATED OTHERWISE ON THE PLANS, UTILITIES WITHIN EASEMENTS SHALL BE LOCATED IN ACCORDANCE WITH STANDARDS OUTLINED BY THE MOST CURRENT UTILITY COORDINATING COMMITTEE DRAWINGS.
- AUTHORIZATION NOTICE ISSUED TO FORT BEND COUNTY PUBLIC INFRASTRUCTURE ENGINEERING DEPARTMENT PERMIT OFFICE REQUIRED PRIOR TO CONSTRUCTION OF UTILITIES OR LEFT TURN LANES WITHIN FORT BEND COUNTY RIGHT-OF-WAY. CONTACT FORT BEND COUNTY PERMIT OFFICE 281-433-7502.
- CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES AND OTHER FACILITIES.
- CONTRACTOR SHALL COMPLY WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION STANDARDS AND ANY OTHER FEDERAL, STATE AND LOCAL REGULATIONS REGARDING TRENCH SAFETY SYSTEMS FOR TRENCH EXCAVATION.
- ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE OWNING AUTHORITY. ALL CONSTRUCTION STORM RUNOFF SHALL COMPLY WITH THE FINAL DRAFT OF STORMWATER MANAGEMENT HANDBOOK FOR CONSTRUCTION ACTIVITIES AS PREPARED BY FORT BEND COUNTY DRAINAGE DISTRICT, AND THE CITY OF FULSHEAR ALL IN COMPLIANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS.
- CONTRACTOR TO OBTAIN ANY CONSTRUCTION PERMITS REQUIRED BY FORT BEND COUNTY AND TEXAS FOR FLOOD PLAIN MANAGEMENT PRIOR TO STARTING CONSTRUCTION.
- CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY, UPON COMPLETION OF JOB, SHALL BE AS GOOD OR BETTER THAN CONDITION PRIOR TO STARTING WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL PIPELINE COMPANIES WITHIN THE VICINITY OF CONSTRUCTION ACTIVITIES PRIOR TO THE COMMENCEMENT OF WORK.
- CONTRACTOR SHALL BE REQUIRED TO MAINTAIN ORANGE PROTECTIVE FENCING IN ALL AREAS OF WORK PER THESE CONSTRUCTION PLANS.
- CONTRACTOR SHALL MARK CURB WITH A SAW CUT "IV" INDICATING THE LOCATION OF NON-POTABLE WATER LINE GATE VALVES.
- PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE OWNER OF THE SYSTEM OR HIS REPRESENTATIVE MUST NOTIFY THE APPROPRIATE TCEQ REGIONAL OFFICE IN WRITING OF THE DATE ON WHICH CONSTRUCTION WILL BEGIN.

SANITARY SEWERS

- ALL SEWERS SHALL BE SUBJECT TO A STANDARD EXFILTRATION TEST. TESTS ARE TO BE PERFORMED ON THE TOTAL FOOTAGE OF SEWER LINE INCLUDED IN THE PROJECT. REQUIREMENTS OF 30 TEXAS ADMINISTRATIVE CODE, CHAPTER 317, "DESIGN CRITERIA FOR SEWERAGE SYSTEMS" SHALL BE FOLLOWED WHERE NOT COVERED BY CITY OF FULSHEAR.
- SANITARY SEWER PIPE TO BE SDR 26 P.V.C. PIPE MEETING ASTM SPECIFICATIONS D3034 WITH RUBBER GASKET JOINTS, UNLESS OTHERWISE NOTED.
- SANITARY SEWERS WILL HAVE BEDDING AND BACKFILL PER CITY OF FULSHEAR SUBDIVISION ORDINANCE NO. 04-913 DATED 10/26/05 AND DETAILS INCLUDED IN THIS PLAN SET.
- ALL SANITARY SEWER LINES UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT 1 FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL HAVE BEDDING PER CITY OF FULSHEAR SUBDIVISION ORDINANCE NO. 04-913 DATED 10/26/05 AND DETAILS INCLUDED IN THIS PLAN SET, WITH A MINIMUM 1.5 SACKS CEMENT/TON (MIN. 100 PSI AT 48 HR.), STABILIZED SAND BACKFILL UP TO WITHIN ONE (1) FOOT OF PAVING SUBGRADE. TEST REPORTS TO BE SUBMITTED BEFORE PLACEMENT OF PAVEMENT. SAND SHALL BE PLACED WITHIN 4 HOURS OF BEING MIXED.
- ALL MANHOLES ARE TO BE PER CITY OF FULSHEAR SUBDIVISION ORDINANCE NO. 04-913 DATED 10/26/05 AND DETAILS INCLUDED IN THIS PLAN SET AND SHALL MEET REQUIREMENTS OF ASTM C478 (LATEST REVISION).
- ALL SANITARY SEWERS CROSSING WATER LINES SHALL FOLLOW THE "PROTECTIVE REQUIREMENTS FOR SANITARY SEWER CROSSINGS" CRITERIA PER CITY OF HOUSTON DESIGN MANUAL AND MEET TCEQ RULE 290.44(E)(4)(B)(V) WHICH REQUIRES

 - (S290.44(E)(4)(B)(V)) THAT WHERE A NEW POTABLE WATERLINE CROSSES A NEW, PRESSURE RATED WASTEWATER (OR NON-POTABLE WATER) MAIN OR LATERAL, ONE SEGMENT OF THE WATERLINE SHALL BE CENTERED OVER THE WASTEWATER (OR NON-POTABLE WATER) MAIN OR LATERAL AND SHALL BE LOCATED AT LEAST NINE FEET HORIZONTALLY FROM THE CENTER LINE OF THE WASTEWATER (OR NON-POTABLE WATER) MAIN OR LATERAL. THE CROSSING SHALL BE CENTERED BETWEEN THE JOINTS OF THE WASTEWATER (OR NON-POTABLE WATER) MAIN OR LATERAL. THE WASTEWATER (OR NON-POTABLE WATER) PIPE SHALL HAVE A MINIMUM PRESSURE RATING OF AT LEAST 150 PSI. THE WASTEWATER (OR NON-POTABLE WATER) MAIN OR LATERAL SHALL BE EMBEDDED IN CEMENT STABILIZED SAND (S290.44(E)(4)(B)(V)) FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 12 INCHES BEYOND THE JOINT ON EACH END.
 - (S290.44(E)(4)(B)(V)) REQUIRES THAT WHERE CEMENT STABILIZED SAND BEDDING IS REQUIRED, THE CEMENT STABILIZED SAND SHALL HAVE A MINIMUM OF 10% CEMENT PER CUBIC YARD OF CEMENT STABILIZED SAND MIXTURE, BASED ON LOOSE DRY WEIGHT VOLUME (AT LEAST 2.5 BAGS OF CEMENT PER CUBIC YARD OF MIXTURE). THE CEMENT STABILIZED SAND BEDDING SHALL BE A MINIMUM OF SIX INCHES ABOVE AND FOUR INCHES BELOW THE WASTEWATER (OR NON-POTABLE WATER) MAIN OR LATERAL. THE USE OF BROWN COLORING IN CEMENT STABILIZED SAND FOR EQUIPMENT, JOINTS AND BACKFILL IS NOT ALLOWED. THE USE OF BROWN COLORING IN CEMENT STABILIZED SAND FOR EQUIPMENT, JOINTS AND BACKFILL IS NOT ALLOWED.
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GENERAL NOTES FOR STRUCTURES

CONCRETE

- DESIGN SHALL CONFORM TO THE LATEST BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI-318) WITH SPECIAL REQUIREMENTS OF ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES (ACI - 350).
- ALL REINFORCING BARS SHALL CONFORM TO ASTM A-615, GRADE 60. ARRANGEMENT AND DETAILS OF REINFORCING STEEL, INCLUDING BARS SUPPORTS AND SPACERS, SHALL BE IN ACCORDANCE WITH THE LATEST ACI DETAILING MANUAL, UNLESS OTHERWISE NOTED.
- ALL SLAB AND BEAM REINFORCEMENT SHALL HAVE A MINIMUM EXTENSION INTO THE SUPPORT IN ACCORDANCE WITH THE LATEST ACI CODE. IF SUCH EXTENSION IS NOT POSSIBLE, BARS SHALL TERMINATE IN STANDARD HOOKS.
- HORIZONTAL WALL REINFORCEMENT AND TEMPERATURE REINFORCEMENT SHALL LAP A MINIMUM OF 1.7D AT SPLICES. WALL DOWELS AND WALL BAR EXTENSIONS AND ALL STRESS SPLICES SHALL LAP A MINIMUM OF 1.7 LD, UNLESS OTHERWISE NOTED.
- WALL OR COLUMNS SHALL HAVE DOWELS FROM FOUNDATIONS OR CONSTRUCTION BELOW OF SAME SIZE AND SPACING AS WALL OR COLUMN VERTICAL STEEL.
- UNLESS OTHERWISE NOTED ON THE DRAWINGS, CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS SHALL NOT BE LESS THAN THE FOLLOWING:
 - STRUCTURAL MEMBERS, FOUNDATIONS, WALLS AND SUSPENDED SLABS- 4000 PSI
 - SLABS ON GRADE - 4000 PSI
 - LEAN CONCRETE CLASS B (SEAL SLAB CONCRETE) - 1500 PSI
 - GROUT FILL CLASS H - 3000 PSI
- WHERE WALL OR SLAB SURFACE OF CONCRETE IS IN CONTACT WITH WASTEWATER, THE REINFORCING STEEL COVER SHALL BE 4" (MIN). UNLESS OTHERWISE SHOWN, THE COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

SLABS:	
• TOP AND BOTTOM OF FORMED SLABS	-2"
• TOP OF WALK AND DRIVEWAY SLABS	-2"
• SURFACES IN CONTACT WITH LIQUID	-2"
• BOTTOM OF SLABS ON FILL OR SOIL	-3"

FOOTINGS:	
• TOP AND SIDES	-2 1/2"
• BOTTOM	-3"

WALLS:	
1. LESS THAN 12" THICK	-1 1/2"
2. 12" OR OVER IN THICKNESS WITH POURS LESS THAN 10 FEET HIGH	-2"
3. 12" OR OVER IN THICKNESS WITH POURS MORE THAN 10 FEET HIGH	-2 1/2"

BEAMS AND GIRDERS:	
1. COVER AT TOP, BOTTOM OR SIDES OF LONGITUDINAL REINF-	-2"

COLUMNS:	
1. COVER FOR VERTICAL BARS	-2"
- HORIZONTAL AND VERTICAL CONSTRUCTION JOINT SHOWN OR NOTED ON THE PLANS ARE RECOMMENDED. ANY DEVIATION FROM THOSE SHOWN SHALL HAVE APPROVAL OF THE ENGINEER.
- ANY STOP IN FRAMED CONCRETE WORK MUST BE MADE IN THE CENTER OF THE SPAN AND INCORPORATE AN APPROVED KEYWAY. REINFORCEMENT SHALL EXTEND THESE JOINTS IF REQUIRED FOR CONTINUITY.
- USE TYPE 'C2' JOINT FOR ALL CONSTRUCTION JOINTS IN WALLS AND SLABS BELOW GRADE AND WALLS WHICH SEPARATE AREAS OF SOIL OR LIQUID FROM PERMANENTLY DRY AREAS SUCH AS TUNNELS, GALLERIES, BASEMENT ROOMS, ETC. USE TYPE 'C1' JOINT AT ALL OTHER CONSTRUCTION JOINTS, UNLESS OTHERWISE NOTED ON DRAWINGS.
- CONCRETE WALLS AND PARTITIONS SHALL BE POURED IN MAXIMUM LENGTHS OF 40 FEET BETWEEN VERTICAL CONSTRUCTION JOINTS.
- ALL CONCRETE SLABS OVER 8" IN THICKNESS, REINFORCED WITH BARS, AND POURED AGAINST SOIL SHALL BE POURED IN A STRIP PATTERN OF 40 FEET OR LESS IN EACH DIRECTION.
- ALL EXPOSED EDGES OF BEAMS, COLUMNS, SLABS AND WALLS SHALL BE CHAMFERED 3/4" UNLESS MASONRY OR OTHER MEMBERS ARE ERECTED FLUSH WITH THEM.
- REFER TO ARCHITECTURAL, PROCESS, MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL SLEEVES, PIPES, CONDUITS AND MISCELLANEOUS ANCHORING DEVICES TO BE INCORPORATED IN THE CONSTRUCTION.

STRUCTURAL STEEL

- STRUCTURAL STEEL SHALL CONFORM TO THE LATEST AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS". ALL STRUCTURAL STEEL SHALL BE ASTM A36.
- ALL METAL COMPONENTS SUBJECT TO A CORROSIVE ENVIRONMENT SHALL BE STAINLESS STEEL OR ALUMINUM.
- ELEVATIONS OF STEEL BEAMS SHOWN ON FRAMING PLANS REFER TO TOP OF FLANGE, UNLESS OTHERWISE NOTED.
- ALL BOLTED CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER ASTM A-325 BOLTS EXCEPT AS OTHERWISE SHOWN OR NOTED. ALL CONNECTIONS SHALL BE CAPABLE OF SUPPORTING ONE HALF THE MAXIMUM ALLOWABLE UNIFORM LOAD FOR INDICATED BEAM SIZE AND SPAN IN AISC MANUAL OF STEEL CONSTRUCTION, EXCEPT AS OTHERWISE NOTED.
- FIELD CONNECTIONS SHALL BE BOLTED, EXCEPT AS OTHERWISE SHOWN OR NOTED.
- ALL WELDING SHALL CONFORM TO THE LATEST SPECIFICATION OF THE AMERICAN WELDING SOCIETY. ALL WELDED CONNECTIONS SHALL BE MADE WITH AWS A.5.1 OR A.5.6 E70 XX ELECTRODE.
- ANCHOR BOLTS AND MISC EMBEDDED STEEL - ASTM A36. ANCHOR BOLTS WHICH ARE SUBMERGED, LOCATED ABOVE A LIQUID SURFACE, OR ARE IN A CORROSIVE ATMOSPHERE
- ALL EQUIPMENT ANCHOR BOLT DIMENSIONS AND LOCATIONS SHALL BE VERIFIED FROM CERTIFIED VENDOR DRAWINGS, PRIOR TO CONSTRUCTION.

THE STRUCTURE IS DESIGNED ACCORDING TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE 2018 (IBC 2018) WITH THE FOLLOWING SPECIFICATIONS:

- ACI 318: BUILDING CODE FOR STRUCTURAL CONCRETE
- ACI 350: CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES
- ACI 364: GUIDE FOR ASSESSMENT OF CONCRETE STRUCTURES BEFORE REHABILITATION
- ACI 315: DETAILS AND DETAILING OF CONCRETE REINFORCEMENT
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION
- ALUMINUM DESIGN MANUAL, THE ALUMINUM ASSOCIATION

DESIGN DEAD LOADS:

SELFWEIGHT OF STRUCTURE..... SELF WEIGHT
MECHANICAL AND CEILING..... 10 PSF

DESIGN LIVE LOADS:
TOP OF SLAB..... 300 PSF
MECHANICAL AREAS, STAIRS, 100 PSF
ALUMINUM COVER, PLATFORM, AND
WALKWAYS AT OR BELOW GRADE..... 150 PSF

LIVE LOAD REDUCTIONS:

LIVE LOAD REDUCTIONS HAVE BEEN TAKEN FOR BEAMS, GIRDERS, AND COLUMNS. THESE REDUCTIONS HAVE BEEN TAKEN ONLY AS ALLOWED BY THE BUILDING CODE.

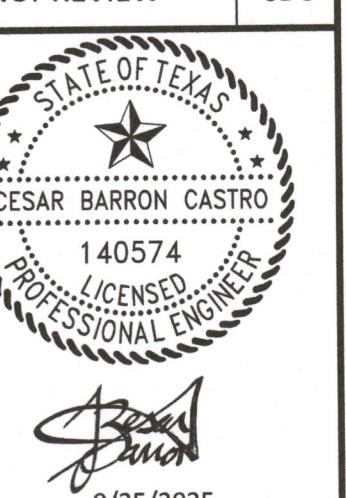
FOUNDATIONS

- THE GEOTECHNICAL REPORT FOR THIS PROJECT WAS PRODUCED BY TOLUNAY-WONG ENGINEERS, INC., PROJECT NUMBER 25.13.055, DATED MAY 31, 2025.
- ALLOWABLE SOIL BEARING PRESSURE, EXCAVATION AND BACKFILL FOR FOUNDATIONS AND STRUCTURES SHALL BE AS RECOMMENDED PER PROJECT GEOTECHNICAL REPORT. GENERAL CONTRACTOR SHALL REVIEW GEOTECHNICAL REPORT(S) PRIOR TO CONSTRUCTION AND FOLLOW RECOMMENDATIONS.
- ALL EXCAVATIONS SHALL BE CARRIED OUT IN THE DRY, AND PROVISIONS SHALL BE MADE TO PREVENT THE BOTTOM OF ALL EXCAVATIONS FROM FREEZING OR FLOODING AT ALL TIMES.
- ALL FOUNDATIONS SHALL BE CONSTRUCTED IN EXCAVATIONS FREE OF STANDING WATER.
- BACKFILL MATERIAL PLACING AND COMPACTION OF BACKFILL SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT(S), AND THE CONTRACT SPECIFICATIONS.

STRUCTURAL ABBREVIATIONS

ADDITIONAL	- ADDL	SCHEDULE(D)	- SCHED
ALTERNATE	- ALT	SECTION	- SECT
AND	- &	SHEET	- SHT
ANCHOR BOLT	- AB	SIMILAR	- SIM
APPROXIMATE	- APPROX	SPACE	- SP
ARCHITECTURAL	- ARCH	SPECIFICATION(S)	- SPEC(S)
AT	- @	SQUARE FOOT (FEET)	- SF
BEAM	- BM	STAINLESS STEEL	- SS
BEARING	- BRG	STANDARD	- STD
BELLOW FINISH FLOOR	- BFF	STEEL	- STL
BETWEEN	- BTWN	STRAIGHT	- STRA
BOTTOM	- BOT	STIRRUPS	- STIR
BOTTOM OF	- B'	STRUCTURAL	- STRUCT'L
BUILDING	- BLDG	SYMMETRICAL	- SYMM
CAST-IN-PLACE	- CIP	TOP	- TOP
CEILING	- CLG	TOP OF	- T/
CENTER LINE	- CL	THICK	- THK
CENTER TO CENTER	- C/C	TOUNGE AND GROOVE	- T & G
CLEAR	- CLR	TOP OF BEAM	- TOB
COLUMN	- COL	TOP OF FOOTING	- TOF
COMPRESSION	- C OR COMP	TOP OF PIER	- TOP
CONCRETE	- CONC	TOP OF SLAB	- TOS
CONCRETE MASONRY UNIT	- CMU	TOP OF WALL	- TOW
CONNECTION(S)	- CONN(S)	TYPICAL	- TYP
CONTINUOUS	- CONT	UNLESS OTHERWISE NOTED	- UON
CONSTRUCTION JOINT	- CJ	VERTICAL	- VERT
CONSTRUCTION	- CONST	VARIES	- VAR
DETAIL	- DET	WELDED WIRE FABRIC	- WWF
DEAD LOAD	- DL	WITH	- W/
DEMOLITION	- DEMO		
DIAGONAL	- DIAG		
DIAMETER	- DIA OR Ø		
DIMENSION(S)	- DIM(S)		
DRAWING(S)	- DWG(S)		
DOUBLE	- DBL		
DOWEL(S)	- DWL(S)		
EACH	- EA		
EACH FACE	- EF		
EACH WAY	- EW		
ELECTRICAL	- ELEC		
ELEVATION	- EL		
EMBEDMENT	- EMBED		
EQUAL	- EQ		
EXPANSION JOINT	- EJ		
EXISTING	- EXIST		
EXTERIOR	- EXT		
FACE-TO-FACE	- F TO F		
FAR SIDE	- FS		
FINISHED FLOOR	- FF		
FOUNDATION	- FDN		
FOOTING	- FTG		
GAGE OR GAUGE	- GA		
GALVANIZED	- GALV		
HEIGHT	- HT		
HORIZONTAL	- HORIZ		
HIGH POINT	- H.P.		
INFORMATION	- INFO		
INSIDE DIAMETER	- ID		
INSIDE FACE	- IF		
INTERIOR	- INT		
INTERMEDIATE	- INTERM		
JOINT	- JT		
JOIST(S)	- JSY(S)		
LOW POINT	- LP		
LIVE LOAD	- LL		
LONG	- LG		
LONGITUDINAL	- LONG		
MANHOLE	- MH		
MAXIMUM	- MAX		
MECHANICAL	- MECH'L		
MINIMUM	- MIN		
MISCELLANEOUS	- MSC		
NEAR SIDE	- NS		
NUMBER	- NOM		
ON CENTER	- NO OR # OR NOS		
OPENING(S)	- OC		
OPPOSITE	- OPNG(S)		
OPPOSITE HAND	- OPR		
OUTSIDE FACE	- OF		
OUTSIDE DIAMETER	- OD		
OVERALL	- OA		
POLYVINYL CHLORIDE	- PVC		
REINFORCEMENT	- REINF.		
RADIUS	- R		
REINFORCED CONCRETE PIPE	- RCP		
REQUIRED	- REQ'D		
ROOF DRAIN	- RD		

REV. NO.	DATE	DESCRIPTION	P.E. APPR.
△			
△			
△	9/25/25	ISSUE FOR AGENCY REVIEW	CBC



BGE, Inc. 10771 Webster Blvd., Suite 400 Houston, TX 77042 Tel: 281-556-8700 • www.bgeinc.com TBPE Registration No. F-1046
Valid One Year From Date Approved
OCT 31 2025

FORT BEND CO MUD NO. 210
LIFT STATION NO. 1

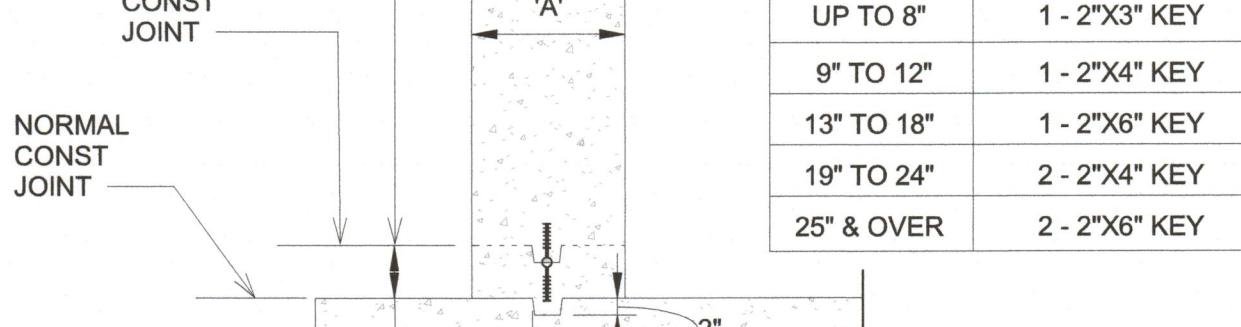
GENERAL NOTES

JOB NUMBER:	
SUBMITTED: BGE, INC.	DESIGNED BY: CB
SCALE:	DRAWN BY: MB
DATE:	SHEET NO. 5 OF 22 SHEETS
SURVEY BY: BGE, INC.	F.B. NO:



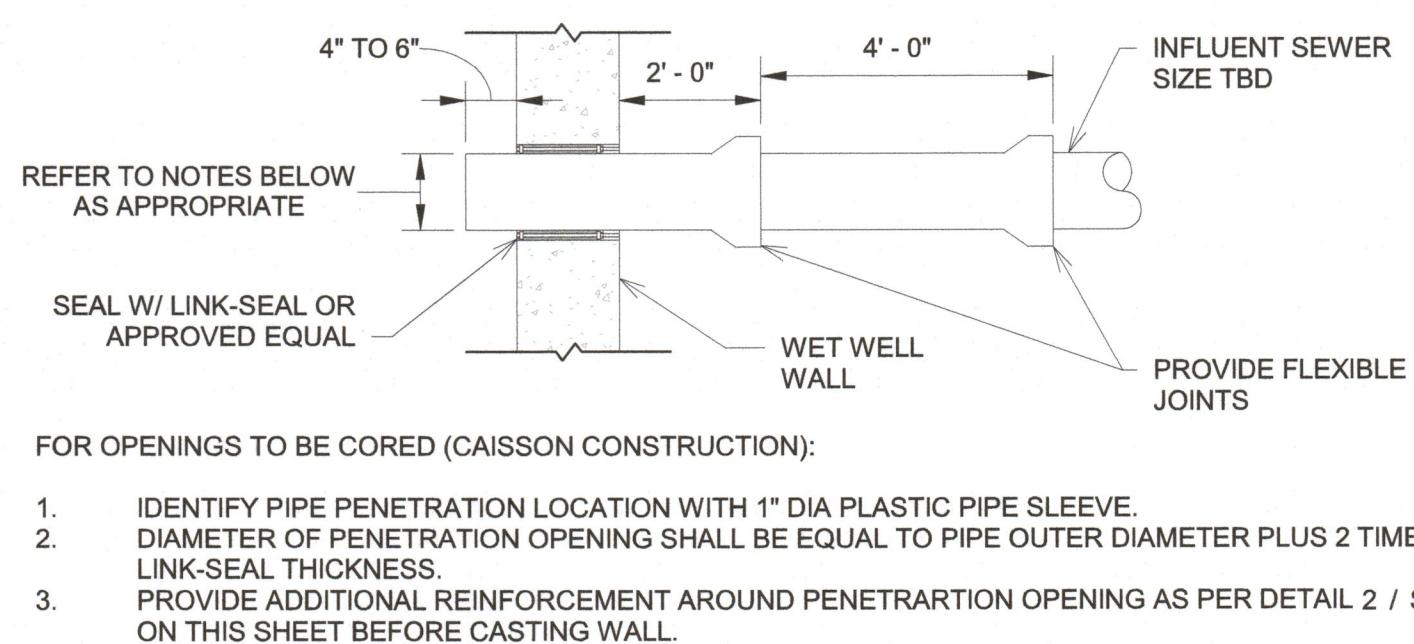
2405 S. GRAND BLVD., SUITE A,
PEARLAND, TEXAS 77581
832-295-3600
TBPE FIRM No. F-23075

RAISE CONSTRUCTION JOINT ABOVE STRUCTURAL SLAB WHERE WATERSTOP IS REQUIRED EXCEPT AS OTHERWISE SHOWN ON DRAWINGS.



NUMBER AND SIZE OF KEYS SHOWN APPLY TO JOINTS SLABS AND TO BOTH VERTICAL AND HORIZONTAL JOINTS IN WALLS EXCEPT AS OTHERWISE NOTED ON DRAWINGS.

⑪ CONSTRUCTION JOINT KEY DETAILS NTS



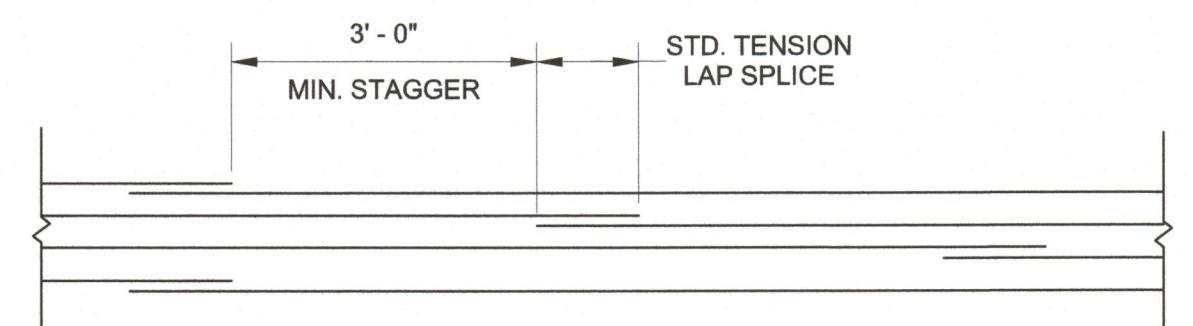
FOR OPENINGS TO BE SLEEVED OF FORMED (CAISSON CONSTRUCTION):

- IDENTIFY PIPE PENETRATION LOCATION.
- DIAMETER OF PENETRATION OPENING SHALL BE EQUAL TO PIPE OUTER DIAMETER PLUS 2 TIMES LINK-SEAL THICKNESS. SEE "TYPICAL PIPE BLOCK-OUT DETAIL FOR CAISSON CONSTRUCTION," THIS SHEET.
- PROVIDE ADDITIONAL REINFORCEMENT AROUND PENETRATION OPENING AS PER DETAIL 2 / S2 ON THIS SHEET BEFORE CASTING WALL.

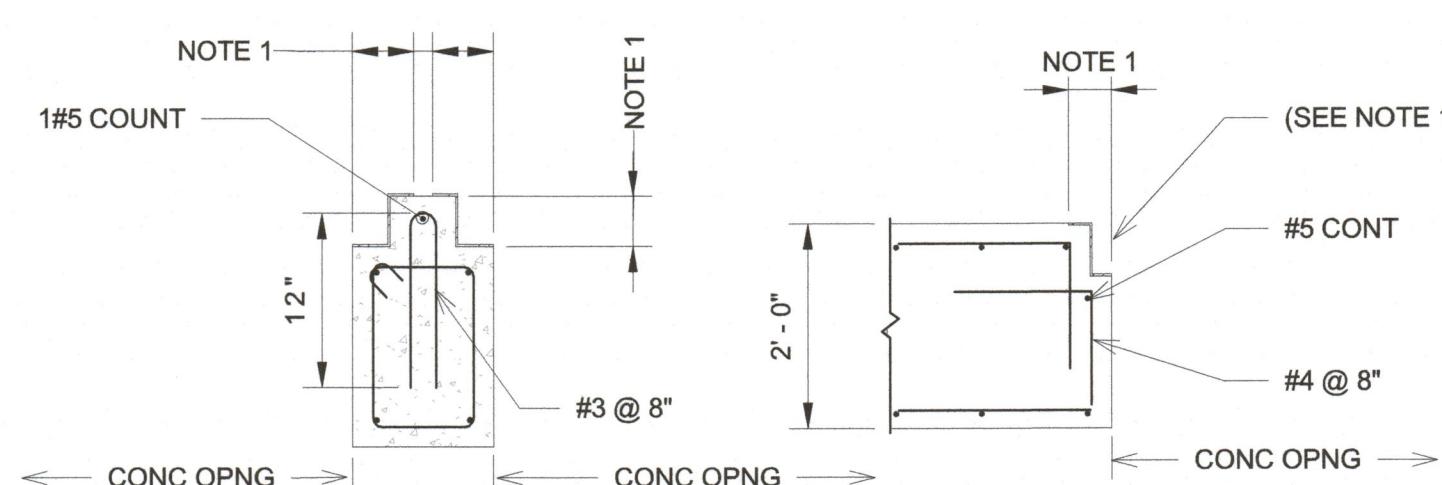
FOR OPENINGS TO BE FORMED OR SLEEVED (OPEN CUT CONSTRUCTION):

- IDENTIFY PIPE PENETRATION LOCATION.
- DIAMETER OF PENETRATION OPENING SHALL BE EQUAL TO PIPE OUTER DIAMETER PLUS 2 TIMES LINK-SEAL THICKNESS.
- PROVIDE ADDITIONAL REINFORCEMENT AROUND PENETRATION OPENING AS PER DETAIL 2 / S2 ON THIS SHEET BEFORE CASTING WALL.

⑩ TYP INFLUENT SEWER ENTRY DETAIL NTS



⑨ SPLICE LAYOUT FOR HOOP BARS (WET WELL WALL) NTS

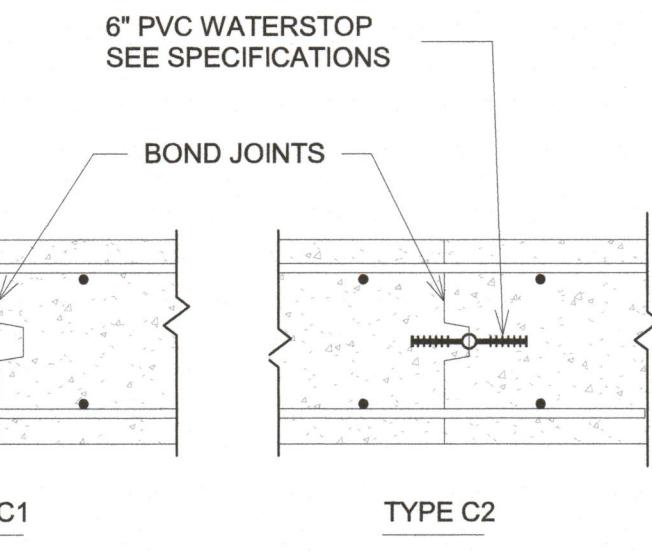


NOTES:

- VERIFY SIZE AND LOCATION OF THE ACCESS HATCH OPENING PER SELECTED HATCH AND PUMP MANUFACTURER'S REQUIREMENTS. WHEN PURCHASED HATCH COVERS ARE USED CONSULT HATCH MANUFACTURER'S DRAWINGS FOR DOOR FRAME DETAILS.

⑧ TYPICAL HATCH FRAME SECTIONS NTS

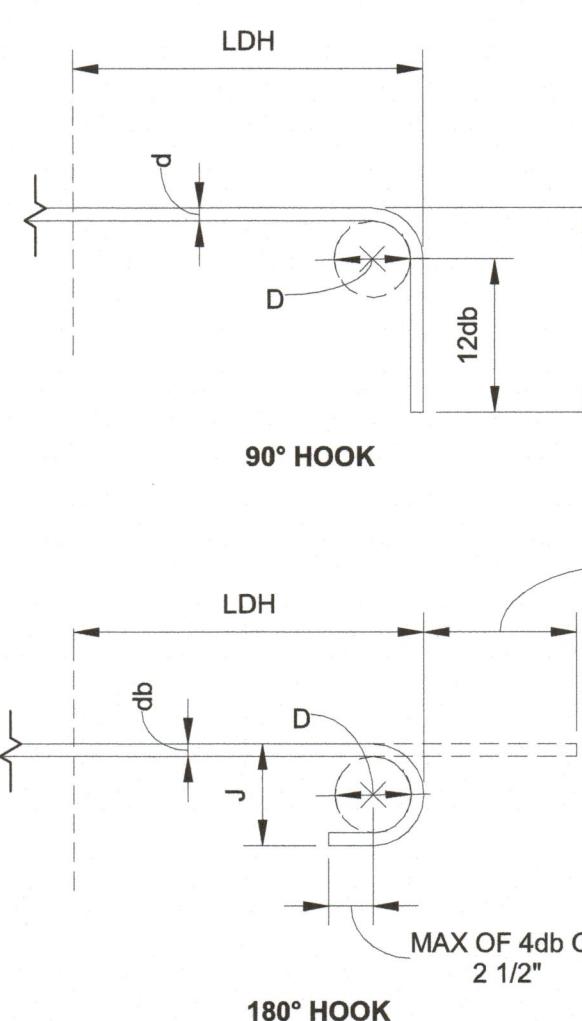
⑦ TYPICAL THRUST BLOCK SETAIL NTS



NOTES:

- IN JOINTS WITH MORE THAN ONE KEY, PLACE WATERSTOP IN KEY NEAREST TO SURFACE AGAINST EARTH OR WATER.
- REINF. STEEL IS CONTINUOUS THROUGH CONSTRUCTION JOINT.

⑤ CONSTRUCTION JOINTS NTS

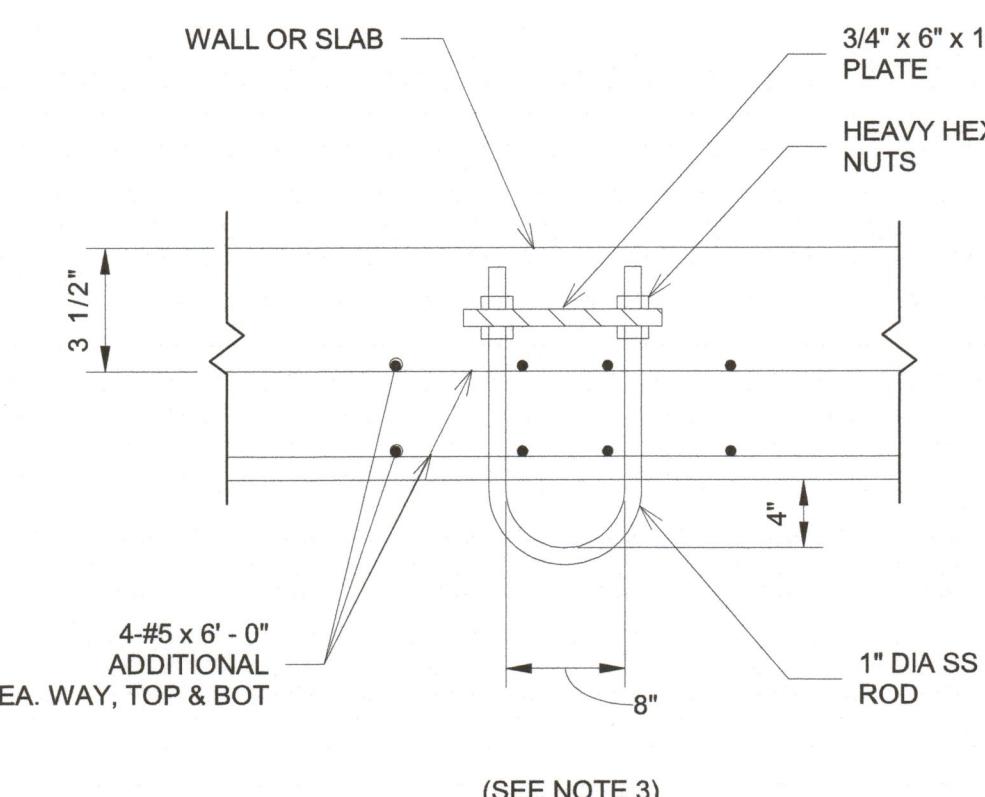
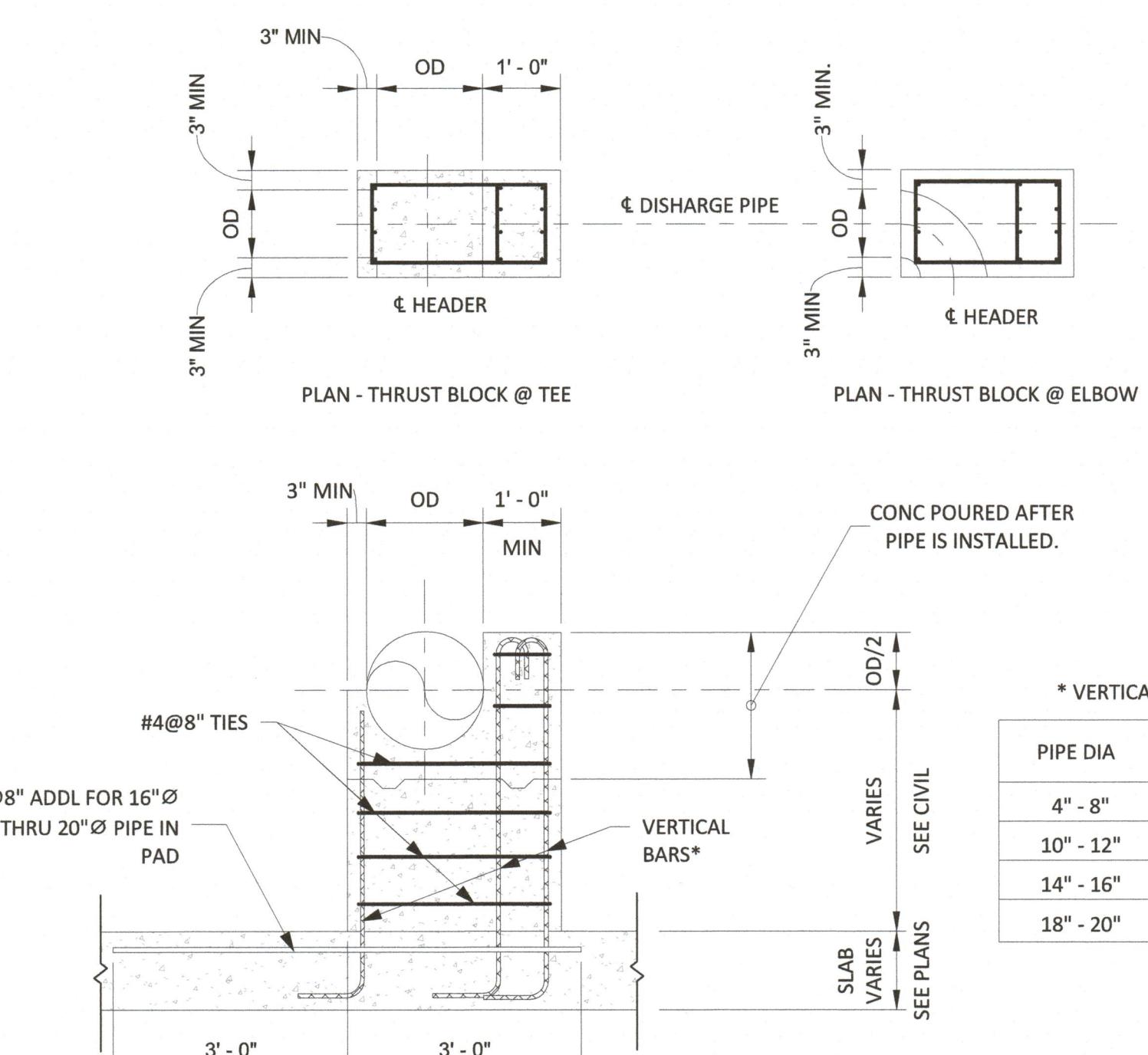


BAR SIZE	D	180° HOOKS		90° HOOKS	
		J	A or G	J	A or G
#3	2 1/4"	3"	6"		
#4	3"	4"	8"		
#5	3 3/4"	5"	10"		
#6	4 1/2"	6"	1'-0"		
#7	5 1/4"	7"	1'-2"		
#8	6"	8"	1'-4"		
#9	9"	11 3/4"	1'-7"		
#10	10"	1'-11 1/4"	1'-10"		

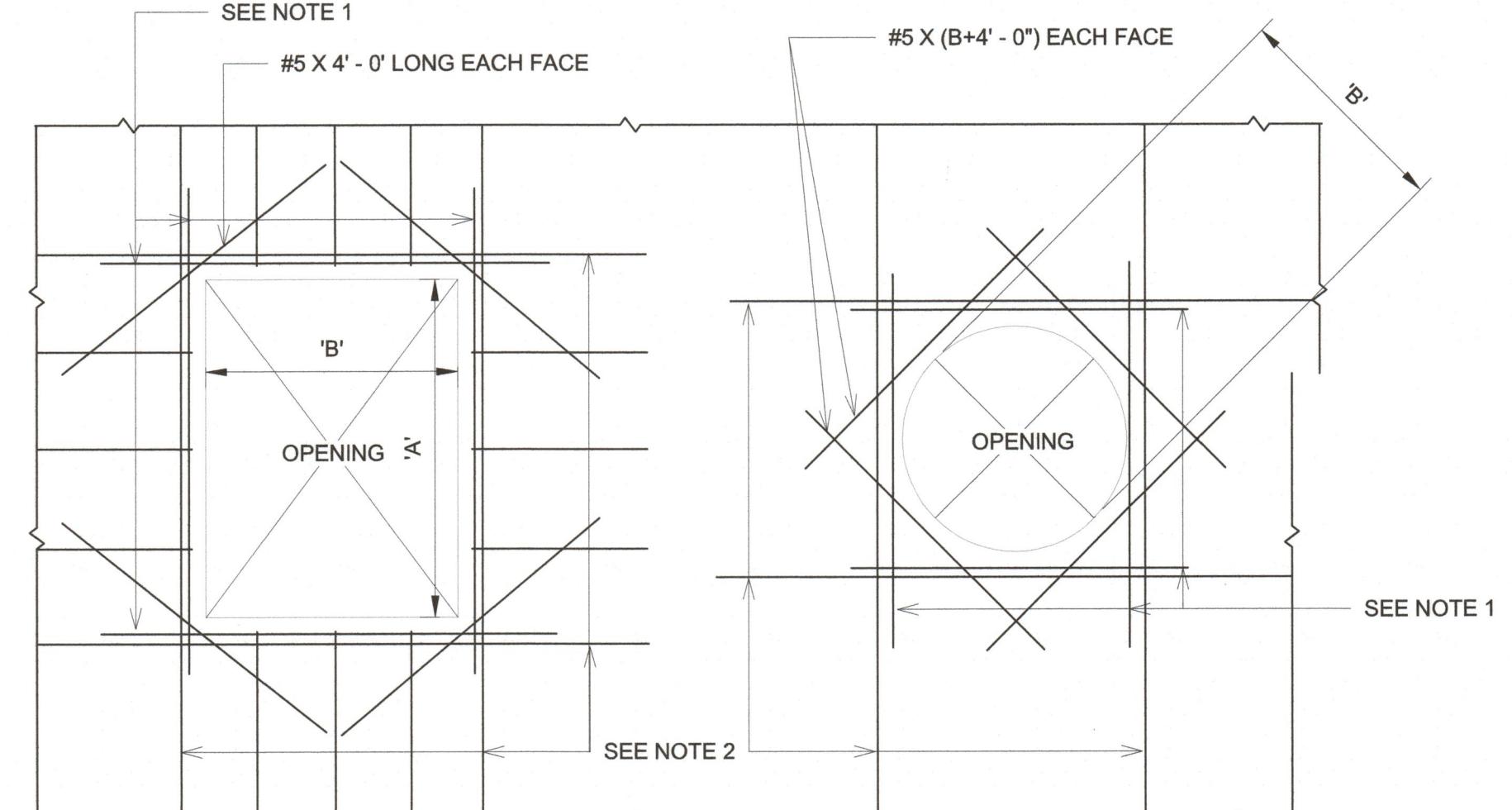
[1] A STANDARD HOOK FOR DEFORMED BARS IN TENSION INCLUDES THE SPECIFIC INSIDE BEND DIAMETER AND STRAIGHT EXTENSION LENGTH. IT SHALL BE PERMITTED TO USE A LONGER STRAIGHT EXTENSION AT THE END OF A HOOK. A LONGER EXTENSION SHALL NOT BE CONSIDERED TO INCREASE THE ANCHORAGE CAPACITY OF THE HOOK.

D - INSIDE DIAMETER OF HOOK
db - BAR DIAMETER

⑥ TYPICAL STANDARD HOOKS NTS



④ TYPICAL WALL AND SLAB LIFTING HOOK NTS



NOTES:

- PROVIDE 2-#6 X (B+4'-0") ADDITIONAL REBARS @ TOP AND BOTTOM AND 2-#6 X (A+4'-0") ADDITIONAL REBARS AT EACH SIDE OF OPENING IN WALLS ONLY.
- PROVIDE ADDL BARS EQUAL TO ONE-HALF OF BARS INTERRUPTED AT EACH SIDE OF OPENING AT 3" O.C. THESE BARS SHALL BE ORIGINAL SIZES AND LENGTHS AS THOSE OF THE INTERRUPTED BARS. (TYPICAL FOR OPENINGS IN SLABS AND PRESSURE WALLS.)

② ADDITIONAL REINFORCING STEEL AT OPENING IN WALLS AND SLABS NTS

DEVELOPMENT AND LAP SPLICE SCHEDULE

EMBEDMENT						LAP SPLICE						HOOK	COMPR	EMBEDMENT			LAP SPLICE		
COMPR			TENSION (LTE)			COMPR			TENSION (LTS)			HOOK	COMPR	EMBEDMENT			LAP SPLICE		
BAR (LCE)	TOP	OTHER	(LCS)	TOP	OTHER	(LHD)	(LCE)	TOP	OTHER	(LCS)	TOP	OTHER	(LHD)	(LCE)	TOP	OTHER	(LHD)		
#3	8	21	16	12	28	21	6	8	18	14	12	24	18	6					
#4	11	28	22	15	37	28	8	9	25	19	15	32	25	7					
#5	14	36	27	19	46	36	10	12	31	24	19	40	31	8					
#6	16	43	33	23	56	43	12	14	37	28	23	48	37	10					
#7	19	62	48	26	81	62	13	17	54	42	26	70	54	12					
#8	22	71	55	30	93	71	15	19	62	47	40	30	80	62	13				
#9	25	80	62	34	105	80	17	21	70	54	34	91	70	15					
#10	28	90	70	38	118	90	19	24	78	60	38	102	78	17					
#11	31	100	77	42	131	100	22	27	87	67	42	113	87	19					

NOTES (PERTAINING TO TABLE):

- TOP BARS ARE HORIZONTAL BARS THAT HAVE MORE THAN 12" OF FRESH CONCRETE CAST BELOW THEM.
- ALL BARS THAT ARE NOT "TOP BARS" ABBREVIATIONS:
 - LCE - COMPRESSION EMBEDMENT LENGTH
 - LTE - TENSION EMBEDMENT LENGTH
 - LCS - COMPRESSION LAP SPLICE LENGTH
 - LTS - TENSION LAP SPLICE LENGTH
 - LHD - HOOKED BAR TENSION EMBEDMENT LENGTH
- NOTES (GENERAL):
 - 1. STAGGER ALL SPLICES 12 db MIN. BUT NOT LESS THAN 12"
 - 2. ALL DIMENSIONS INDICATED IN TABLE ARE IN INCHES
 - 3. BARS GREATER THAN #11 SHALL BE MECHANICALLY SPLINED
 - 4. ALL SPLICES SHALL BE WIRED IN CONTACT STACKED VERTICAL

MULTIPLIERS:
ALL EMBEDMENT AND LAP SPLICE LENGTHS SHALL BE INCREASED AS REQ'D BY THE MULTIPLIERS BELOW. APPLY MULTIPLE MULTIPLIERS IF APPLICABLE.
1.3 - IF CONC. CONTAINS LIGHT WEIGHT AGGREGATES
1.3 - IF EPOXY COATED REBAR USED

① SPLICE AND DEVELOPMENT LENGTHS NTS

BARRON ENGINEERING
2405 S. GRAND BLVD., SUITE A,
PEARLAND, TEXAS 77581
832-295-3600
TBPE FIRM No. F-23075

REV. NO.	DATE	DESCRIPTION	P.E. APPR.
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△	9/25/25	ISSUE FOR AGENCY REVIEW	CBC

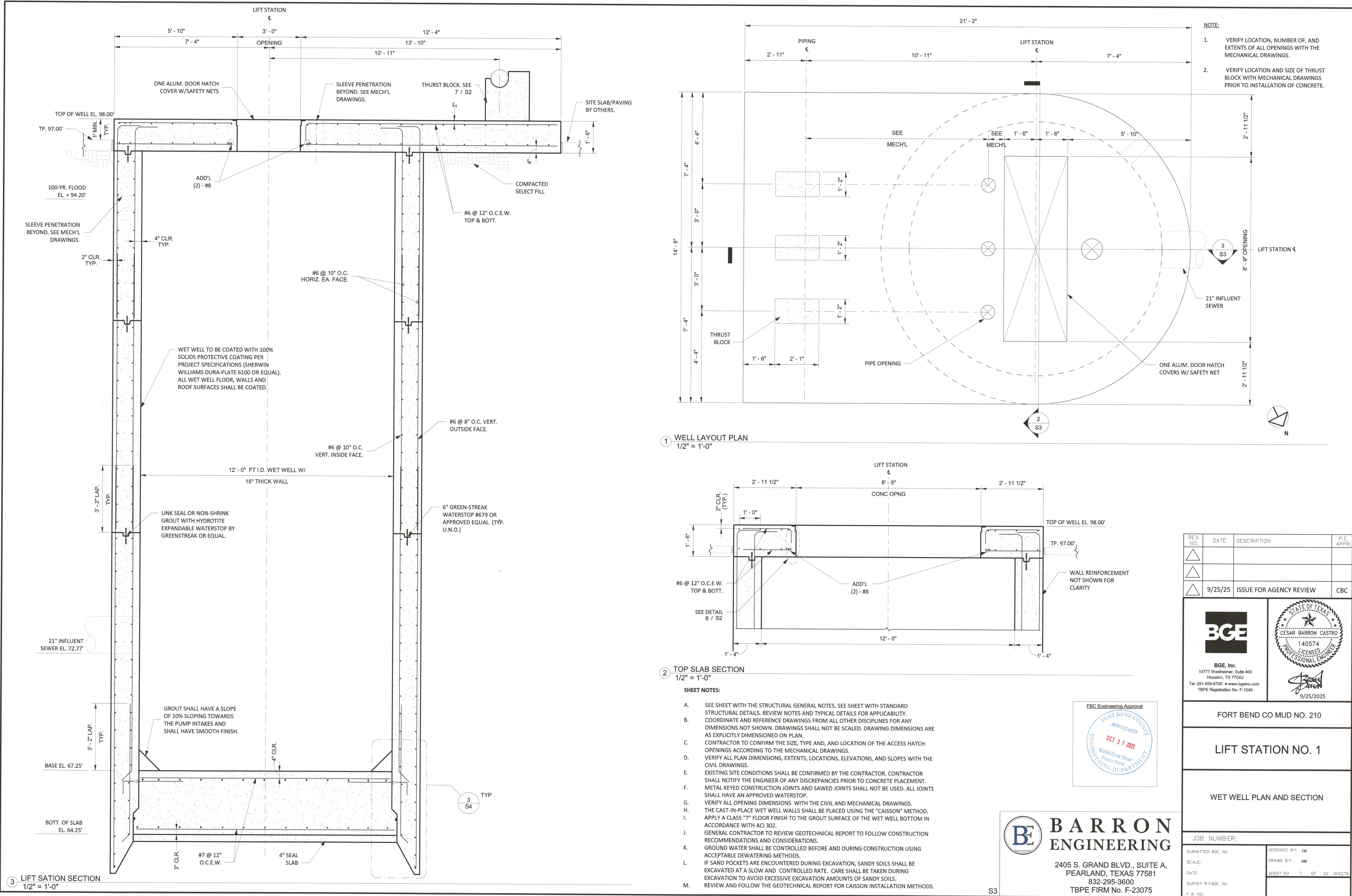
BGE
BGE, Inc.
10777 Westheimer, Suite 400
Houston, TX 77042
Tel: 281-558-8700 • www.bgeinc.com
TBPE Registration No. F-1046

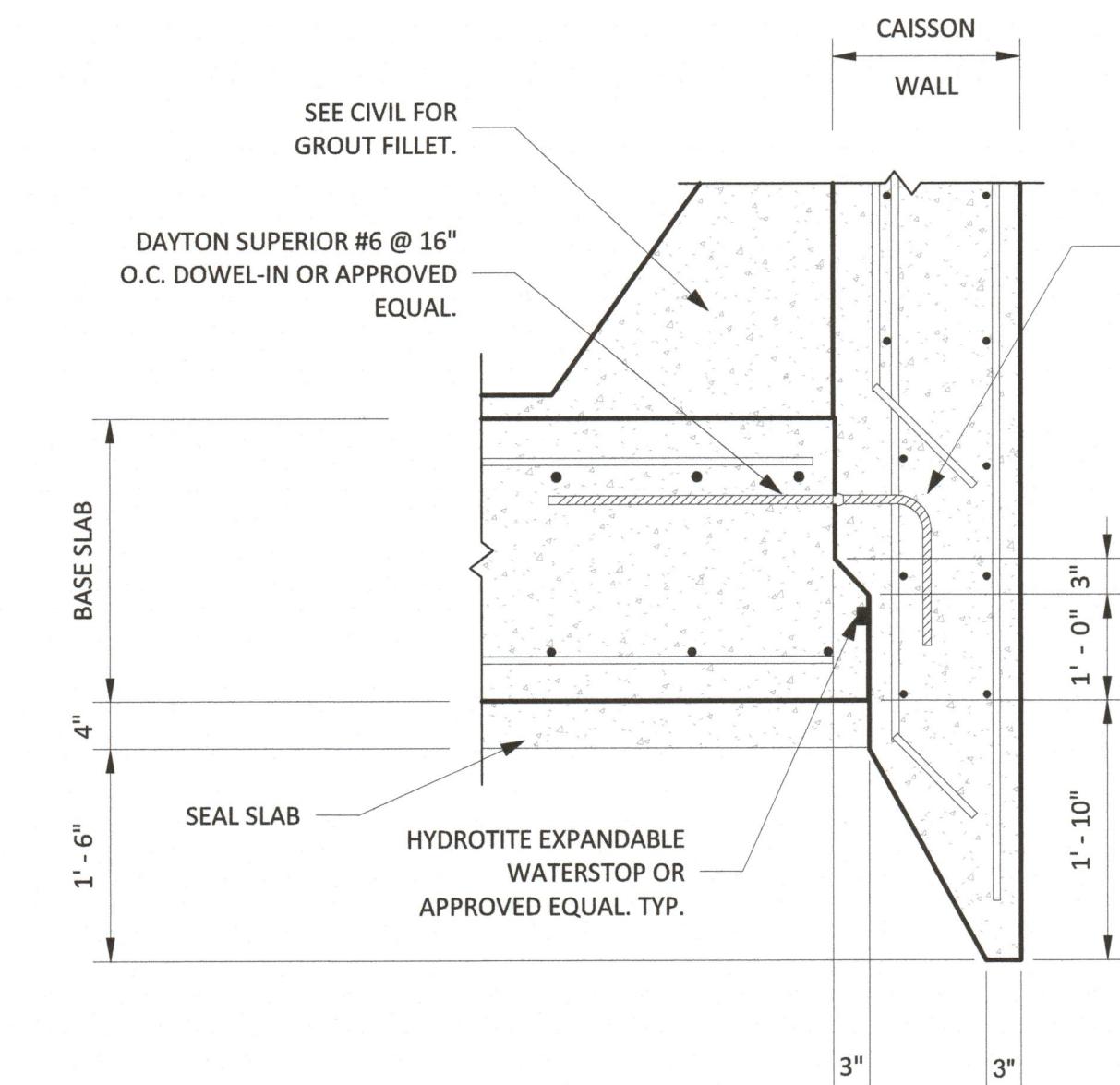
FORT BEND COUNTY APPROVED OCT 3 2025
FORT BEND COUNTY APPROVED OCT 3 2025
Valid One Year From Date
Engineering Department

LIFT STATION NO. 1

TYPICAL NOTES

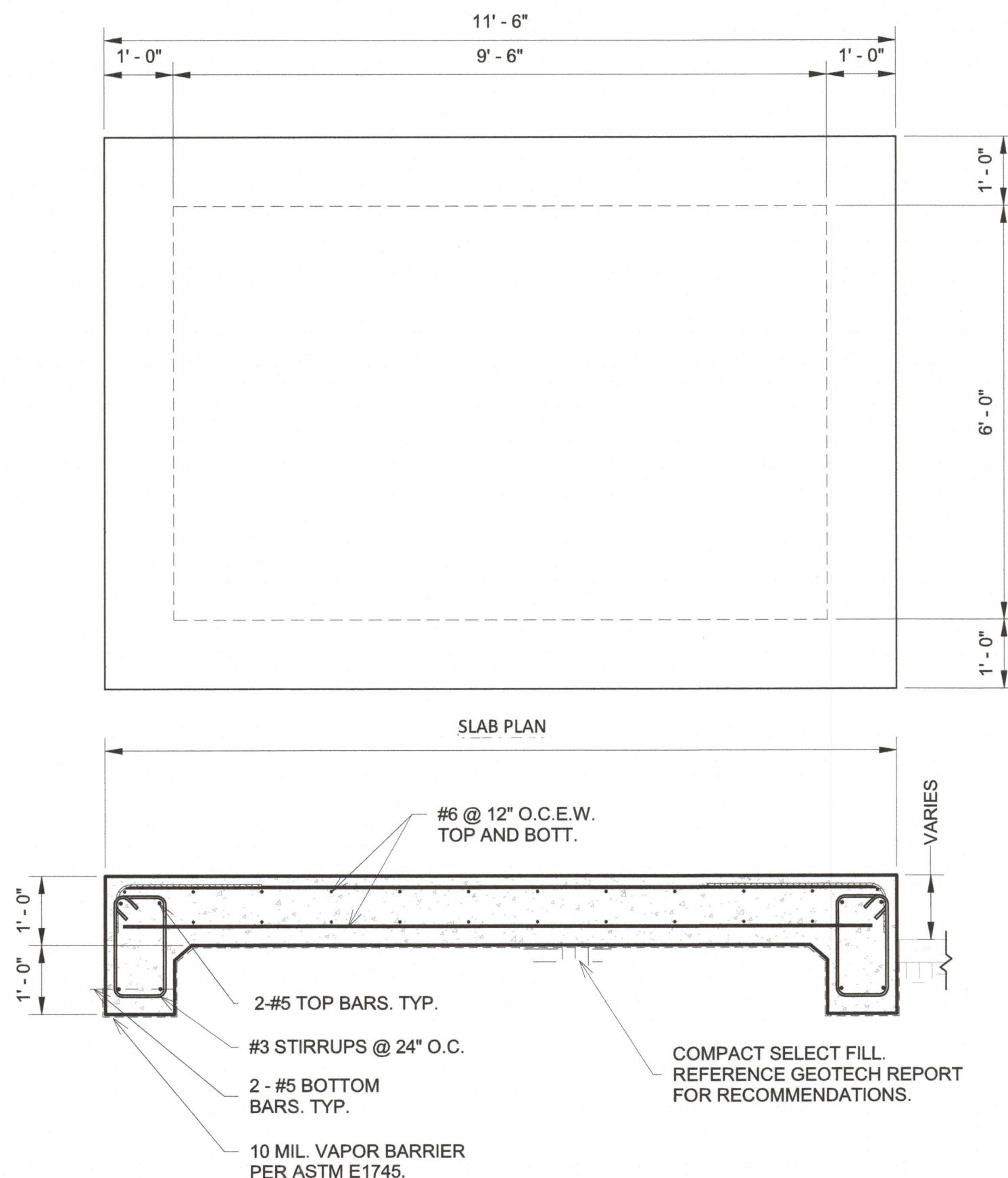
JOB NUMBER:
SUBMITTED: BGE, INC.
DESIGNED BY: CB
SCALE:
DRAWN BY: MB
DATE:
SHEET NO. 6 OF 22 SHEETS
F B NO:



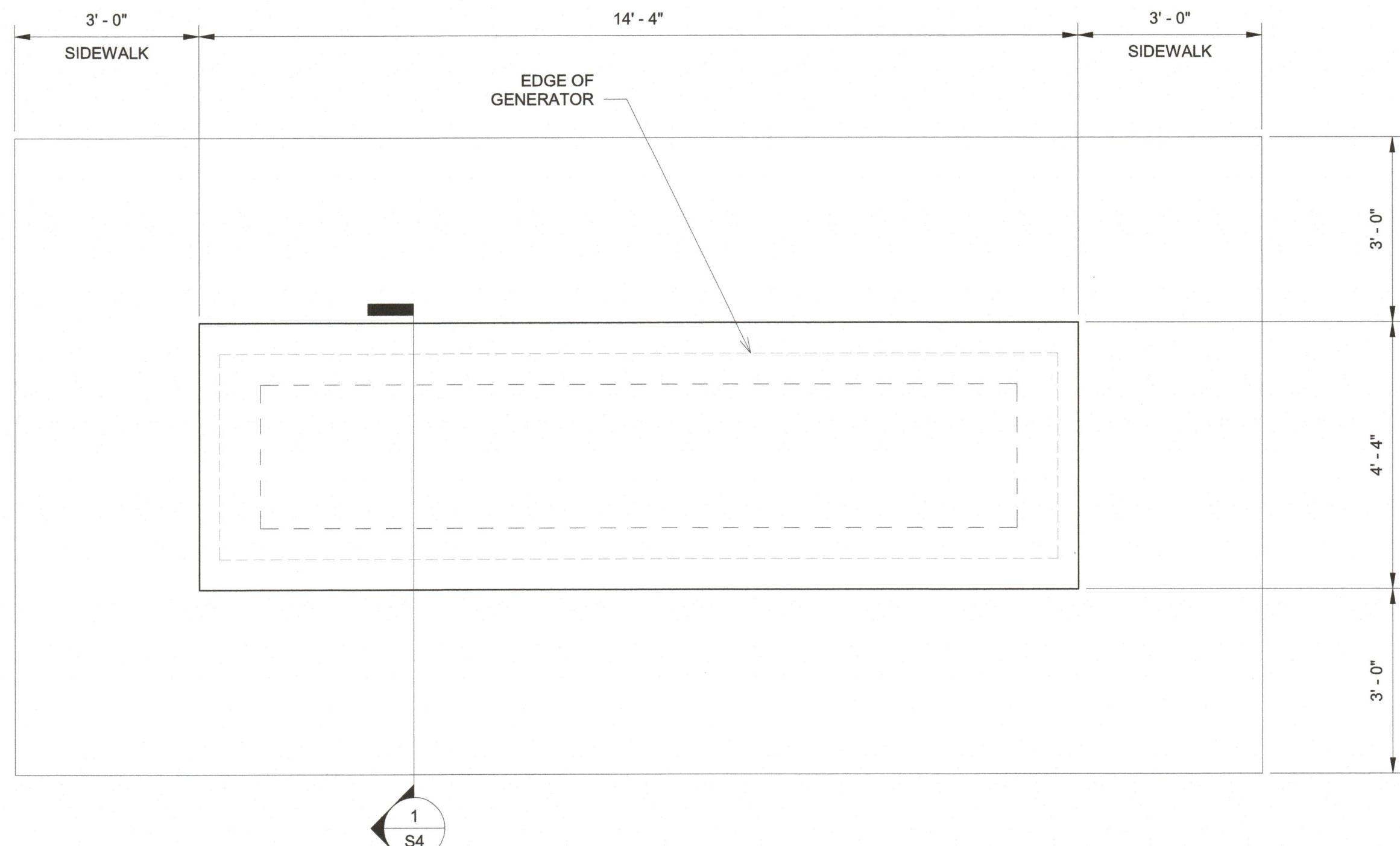


③ CAISSON METHOD BASE DETAIL
NTS

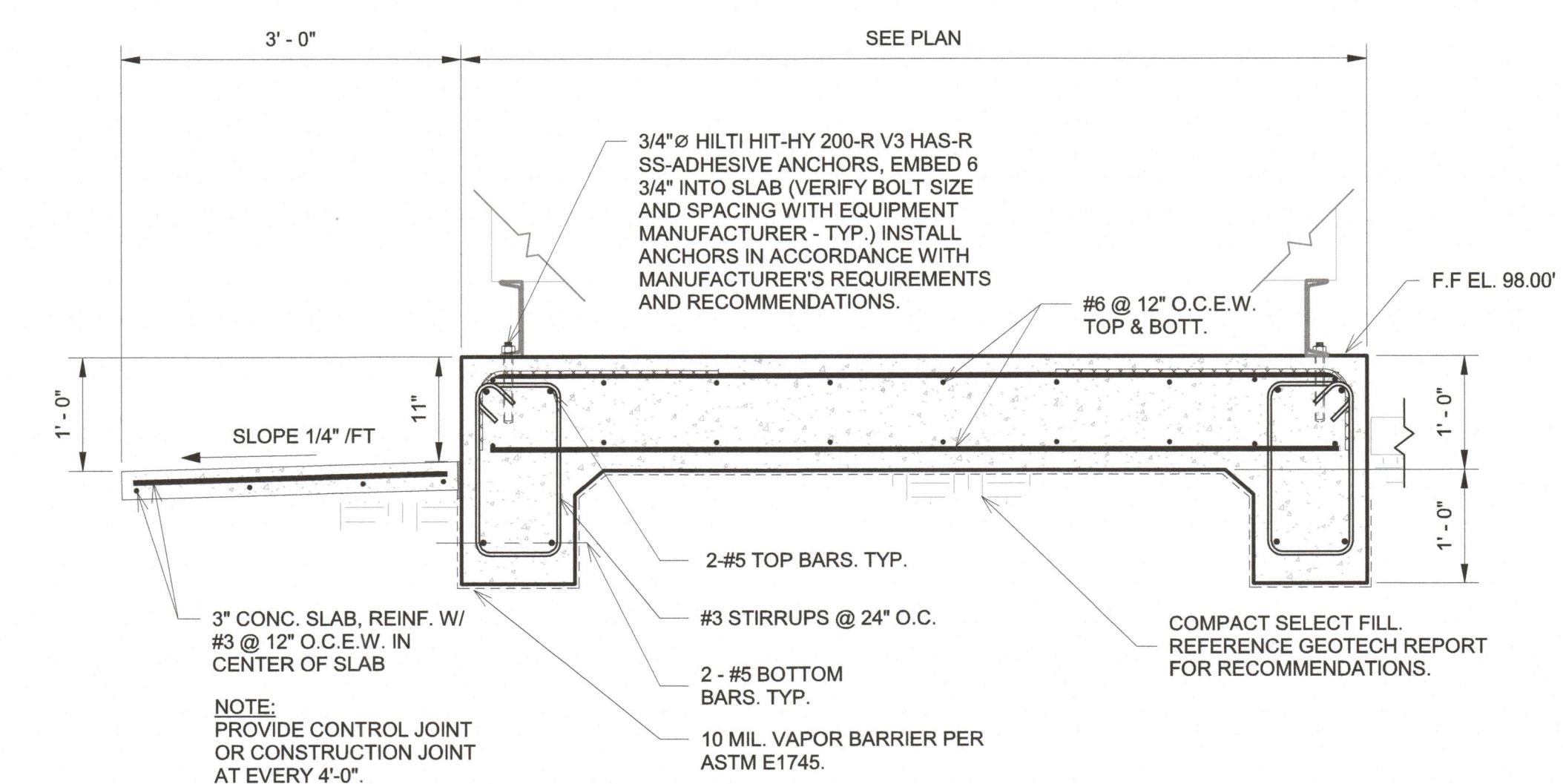
NOTE:
FINAL GENERATOR DIMENSIONS MAY DIFFER FROM DIMENSIONS SHOWN. REINFORCEMENT AND DETAILS SHOWN APPLY FOR A SLAB MEASURING UP TO 7 FT IN WIDTH. GC SHALL NOTIFY EOR IF REQUIRED WIDTH OF GENERATOR SLAB EXCEEDS 7 FT.



② CONTROL PANEL SLAB SECTION
1/2" = 1'-0"



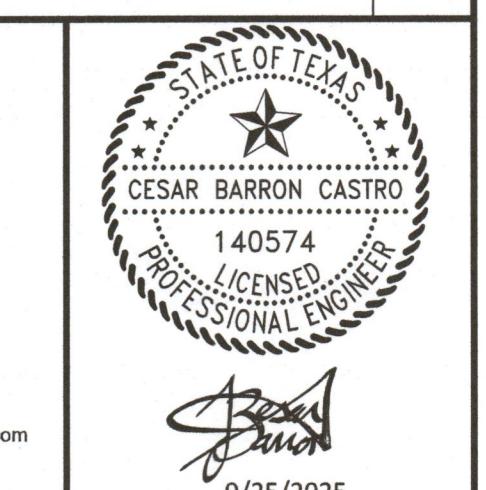
④ GENERATOR SLAB PLAN
1/2" = 1'-0"



① GENERATOR SLAB SECTION
NTS

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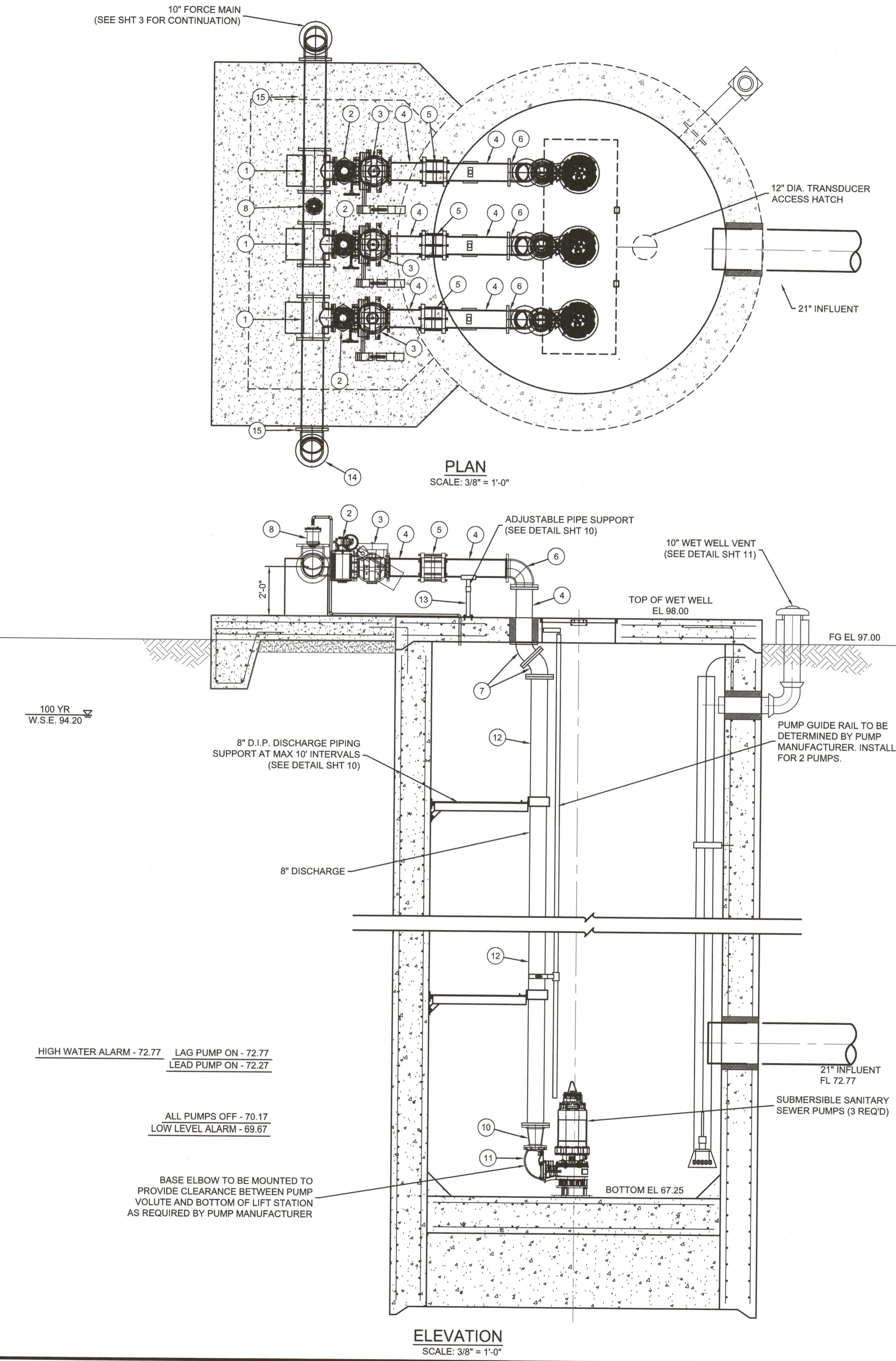
9/25/2025



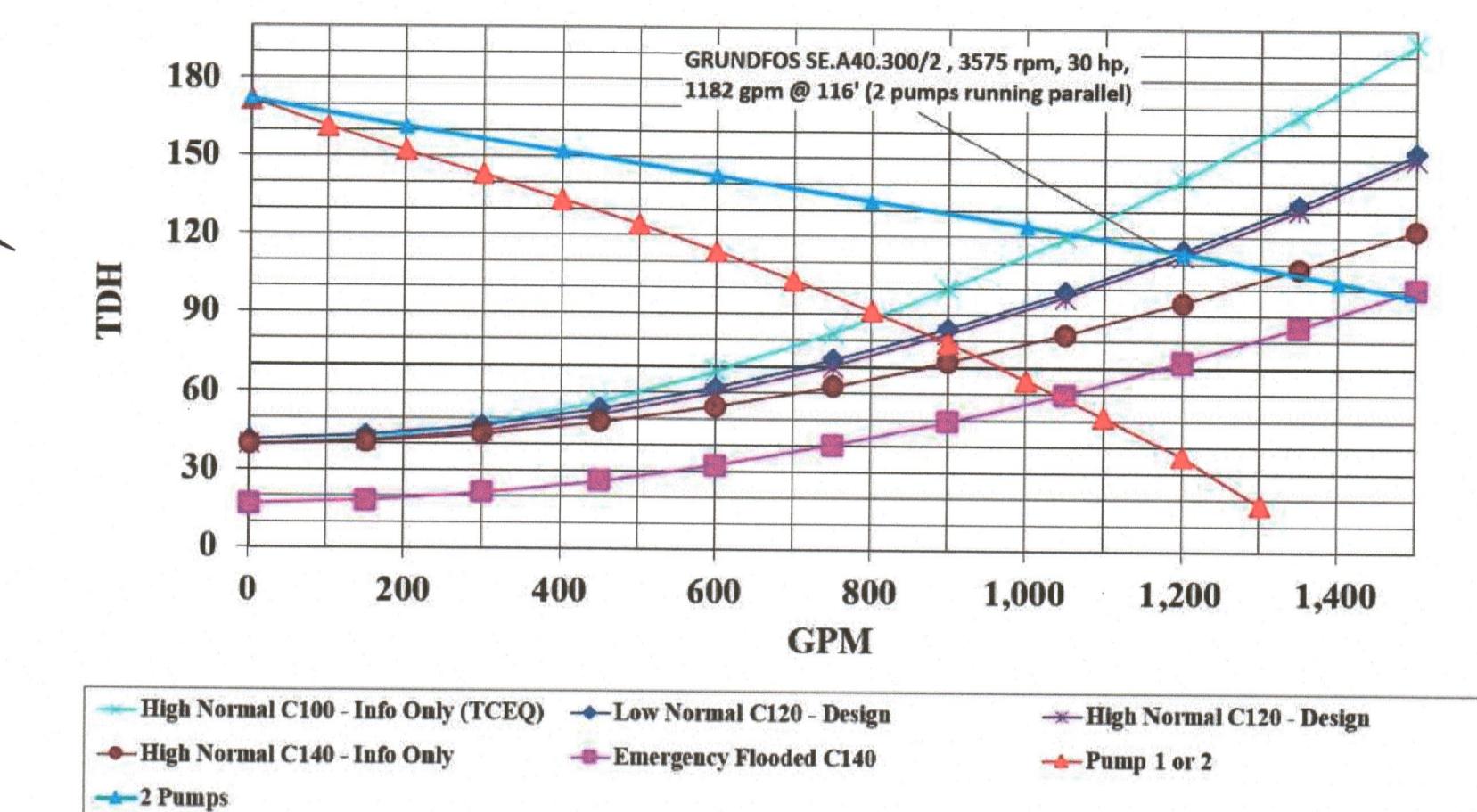
FORT BEND CO MUD NO. 210

LIFT STATION NO. 1

GENERATOR AND CONTROL PANEL SLAB



Fort Bend County MUD No. 210 Lift Station



NOTES:

- SEE DETAIL AND STRUCTURAL DRAWINGS FOR DIMENSIONS AND INFORMATION NOT SHOWN.
- CONTRACTOR TO CONFIRM SIZE AND LOCATION OF THE WET WELL HATCHES PER SELECTED HATCH AND PUMP MANUFACTURER'S REQUIREMENTS.
- ALL METAL FASTENINGS INSIDE WET WELL SHALL BE TYPE 316 STAINLESS STEEL. PIPING SHALL BE COATED PER SPEC. 09901.
- LIFT STATION WILL OPERATE WITH TWO PUMPS RUNNING. PUMPS SHALL ALTERNATE AS LEAD AND LAG.
- PUMP DATA AND SYSTEM CURVES ARE BASED ON GRUNDFOS MODEL SE.A40.300/2. CONTRACTOR SHALL PROVIDE CERTIFIED PUMP CURVES AND DATA ON PROPOSED EQUIPMENT.
- LIFT STATION WET WELL OPENING TO BE PROTECTED USING HATCH SAFETY NET OR FALL THROUGH PREVENTION SYSTEM USING U.S.F. FABRICATION, U.S. NETTING, OR APPROVED EQUAL.
- THE ENTIRE CONCRETE INTERIOR OF THE WET WELL SHALL BE COATED WITH RAVEN LINER 405 (120 MILS) OR APPROVED EQUAL.
- THE QUANTITIES, LENGTHS, AND SIZES SPECIFIED IN THE SCHEDULE SHALL BE CONFIRMED PRIOR TO ORDERING ANY ITEM.

L.S. OPERATING TABLE

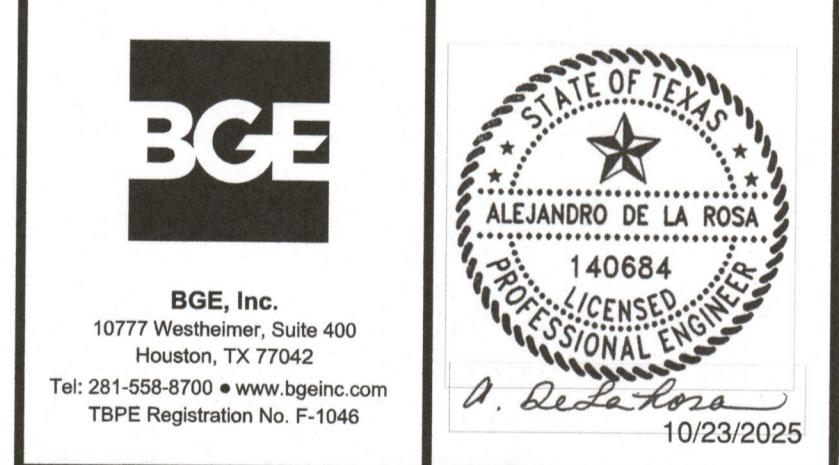
PUMP CHARACTERISTICS	PUMP NO 1	PUMP NO 2	PUMP NO 3
MOTOR DATA			
NOMINAL SIZE (HP)	30.0	30.0	30.0
MAX. SPEED (RPM)	3575	3575	3575
SOLIDS PASSAGE MIN. SPHERE (IN)	3	3	3
CAPACITY (GPM)			
DESIGN (C=120, LWL)	591	591	591
RUNOUT (C=140, HWL)	1150	1150	1150
DISCHARGE HEAD (FT)			
DESIGN (C=120, LWL)	92.0	92.0	92.0
RUNOUT (C=140, HWL)	60.0	60.0	60.0
SHUT OFF	172.0	172.0	172.0
PUMP EFFICIENCY (%) DESIGN	70	70	70

PUMP DATA TABLE

RISING LEVEL CYCLE		
WATER LEVEL ELEVATION	ACTION	PUMP(S) IN OPERATION
70.17	PUMPS OFF LEVEL - NO ACTION	ALL PUMPS OFF
72.27	LEAD PUMP ON	LEAD PUMP
72.77	LAG PUMP ON	LEAD AND LAG
72.77	HIGH LEVEL TRANSDUCER ALARM ON	LEAD AND LAG
73.27	HIGH LEVEL ALARM/FLOAT ON	LEAD AND LAG

FALLING LEVEL CYCLE		
WATER LEVEL ELEVATION	ACTION	PUMP(S) IN OPERATION
72.27	LAG PUMP OFF	LEAD PUMP
70.17	LEAD PUMP OFF	N/A
69.67	LOW LEVEL ALARM/FLOAT ALL PUMPS OFF	N/A

REV. NO.	DATE	DESCRIPTION	P.E. APPR.
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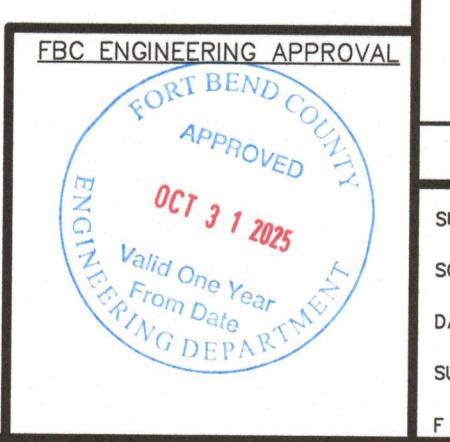


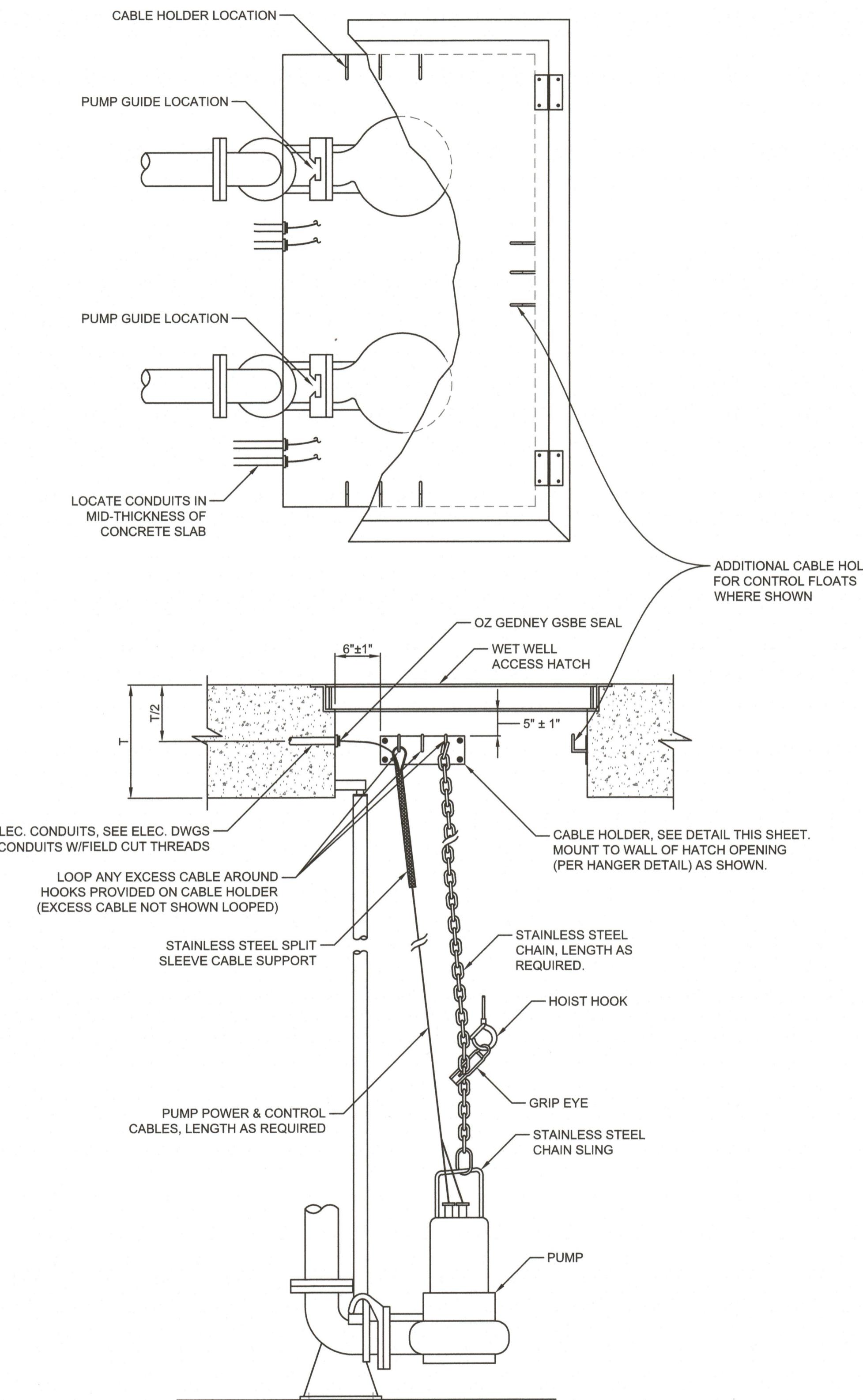
FORT BEND COUNTY M.U.D. NO. 210

LIFT STATION NO. 1

MECHANICAL PLAN

VALVE AND PIPE FITTING SCHEDULE			
MARK	QUANTITY	SIZE	VALVE/FITTING
(1)	3	8"x10"	TEE
(2)	3	8"	ECC. PLUG VALVE - CLOW F5412 OR EQUAL
(3)	3	8"	SWING CHECK VALVE - APCO SERIES 600 OR EQUAL
(4)	9	8"	PIPE SPOOL FLG./PE.
(5)	3	8"	RESTRAINED FLANGE ADAPTOR
(6)	4	8"	90° BEND
(7)	6	8"	45° BEND
(8)	1	2"	AIR RELEASE VALVE (SEE DETAIL SHEET 11)
(9)	1	2"	AIR RELEASE VALVE DISCHARGE
(10)	3	8"x4"	REDUCER
(11)	3	4"	BASE ELBOW
(12)	3	8"	PIPE SPOOL FLG./FLG. - D.I.
(13)	3	-	ADJUSTABLE PIPE SUPPORT
(14)	1	10"	BLIND FLANGE
(15)	2	10"	90° BEND
(16)	1	10"	GATE VALVE





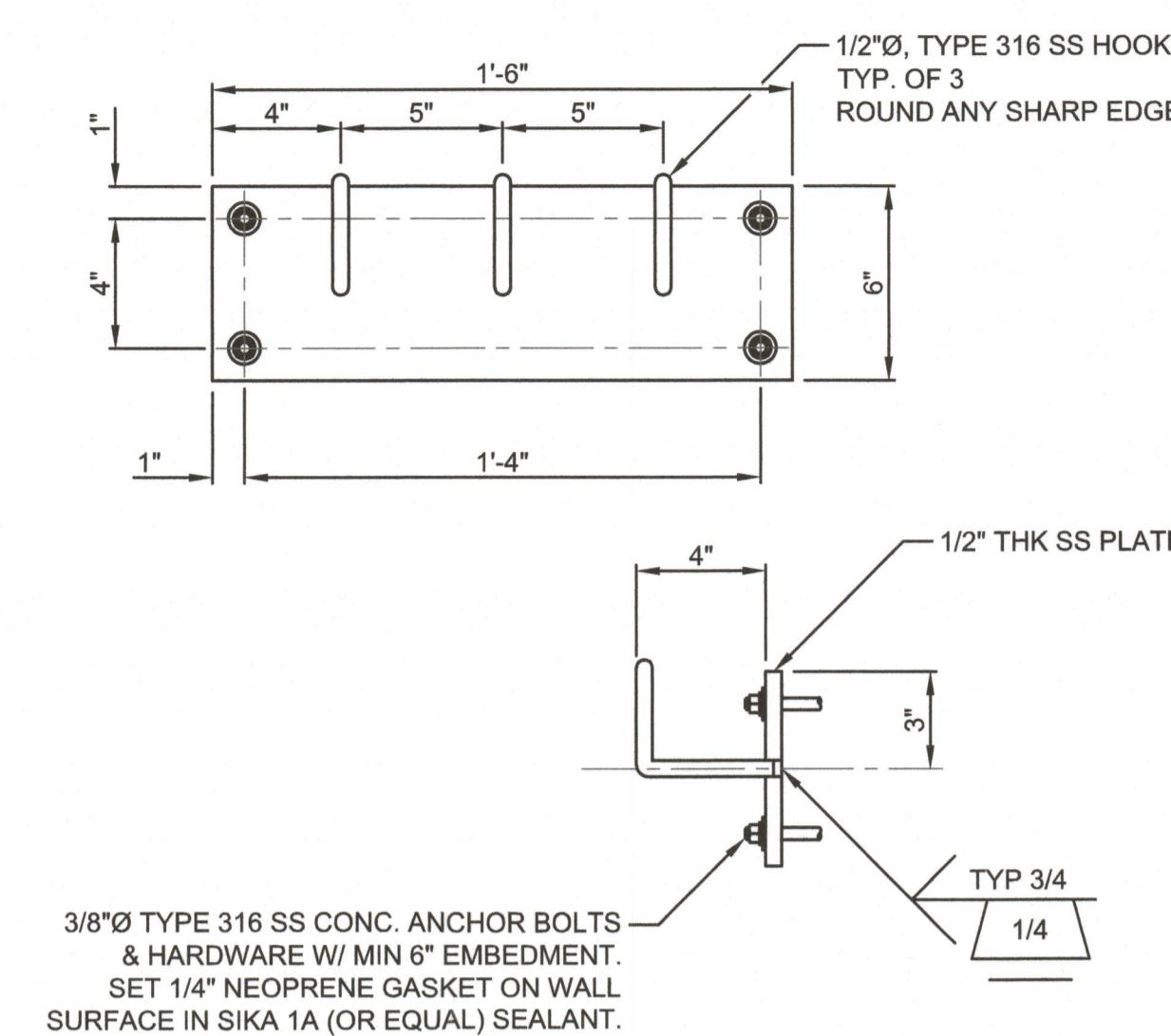
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TYPICAL PUMP LIFTING AND CABLING DETAIL

SCALE:
N.T.S.

6 SLEEVED SLAB PENETRATION DETAIL

SCALE:
N.T.S.



2 TYPICAL CABLE HOLDER ASSY. DETAIL

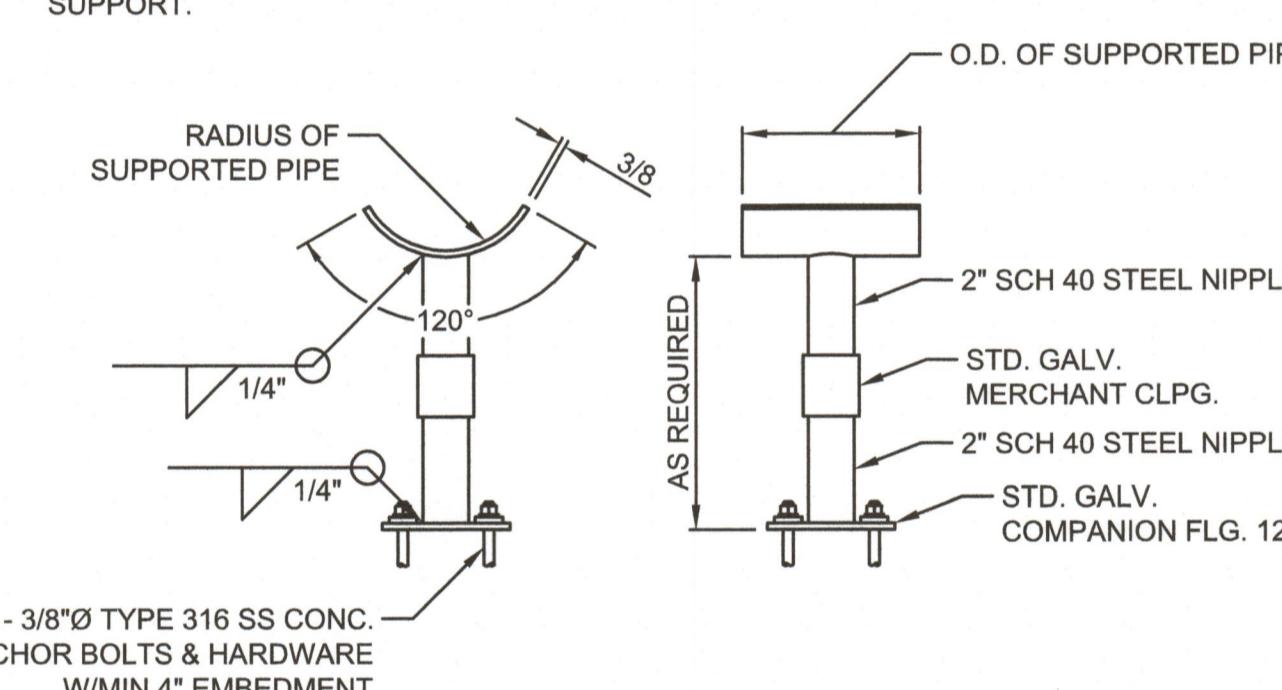
3 WET WELL PENETRATION DETAIL

SCALE:
N.T.S.

SCALE:
N.T.S.

NOTES:

- ADJUSTABLE PIPE SUPPORT ASSEMBLY TO BE HOT DIPPED GALVANIZED AFTER FABRICATION. COLD GALVANIZING COMPOUND TO BE USED AS TOUCH UP AFTER INSTALLATION.
- AT CONTRACTOR'S OPTION, THE ADJUSTABLE PIPE SUPPORT MAY BE AN EQUAL PURCHASED PRODUCT AS MANUFACTURED BY MATERIAL RESOURCES, GRINNELL, OR EQUAL.
- TWO LAYERS OF TAR TREATED BUILDING PAPER TO BE PLACED BETWEEN THE PIPE AND PIPE SUPPORT.

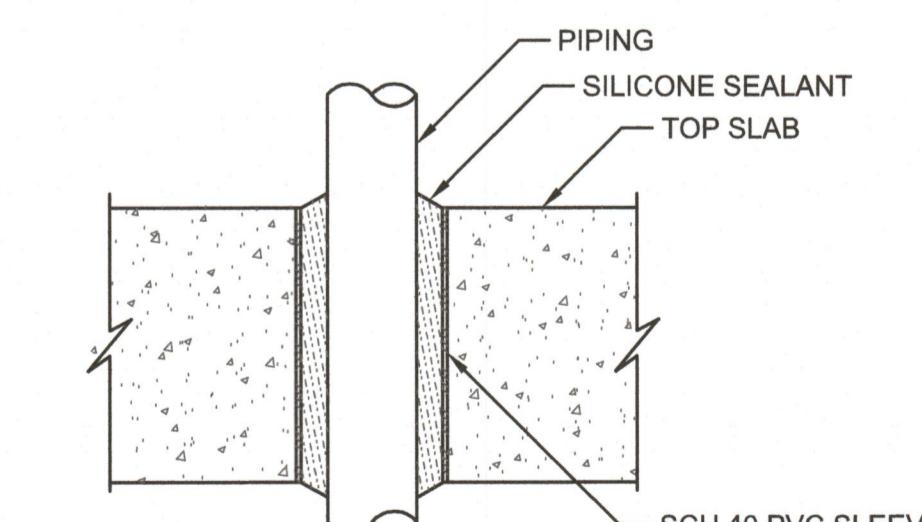


4 TYPICAL ADJUSTABLE PIPE SUPPORT

5 DISCHARGE PIPING SUPPORT DETAIL

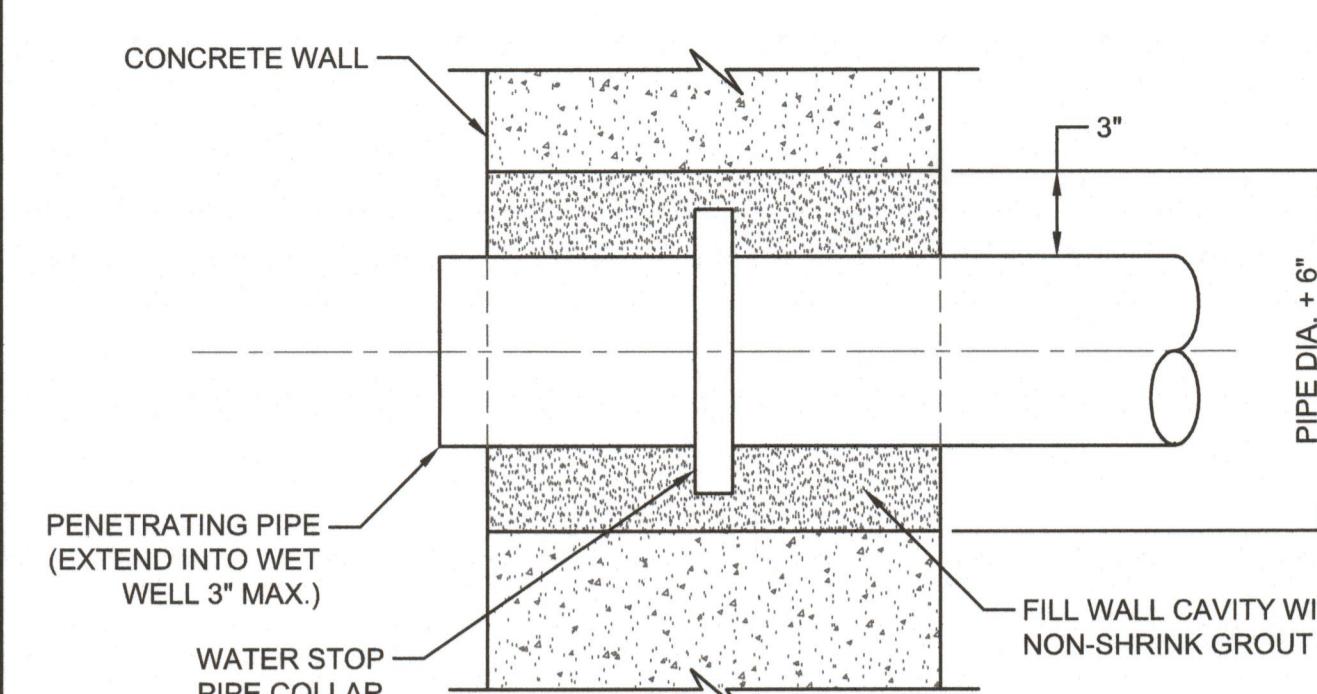
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N.T.S.



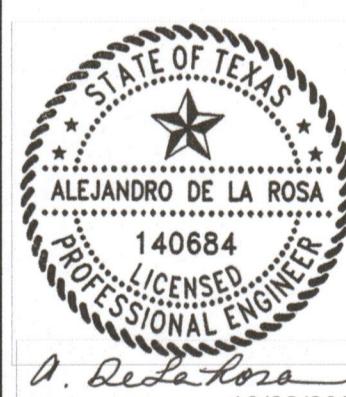
NOTE:

- SLEEVED SLAB PENETRATION IS NOT TO BE USED FOR WET WELL PENETRATIONS.



- NOTE:
1. SLEEVED WET WELL PENETRATION IS NOT TO BE USED FOR CONDUIT INSTALLATION.

REV. NO.	DATE	DESCRIPTION	P.E. APPR.
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FORT BEND COUNTY M.U.D. NO. 210

LIFT STATION NO. 1

MECHANICAL DETAILS



J.T.S.

DESIGNED BY: J.T.S.

DRAWN BY: J.T.S.

SCALE: AS NOTED

DATE: OCTOBER 2025

SHEET NO: 10 OF 22 SHEETS

F B NO:

JOB NUMBER: 14451-00

SUBMITTED: BGE, INC.

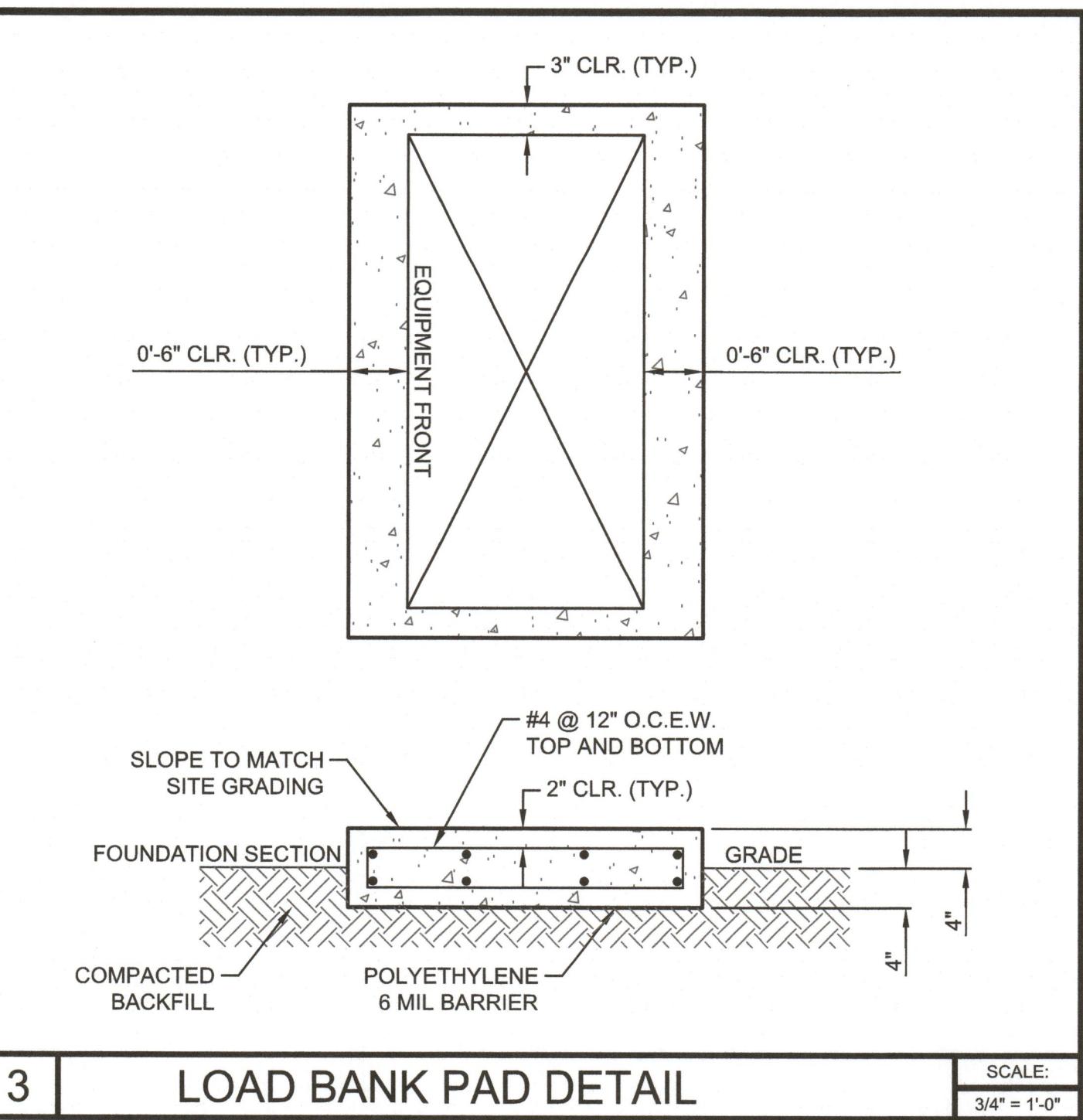
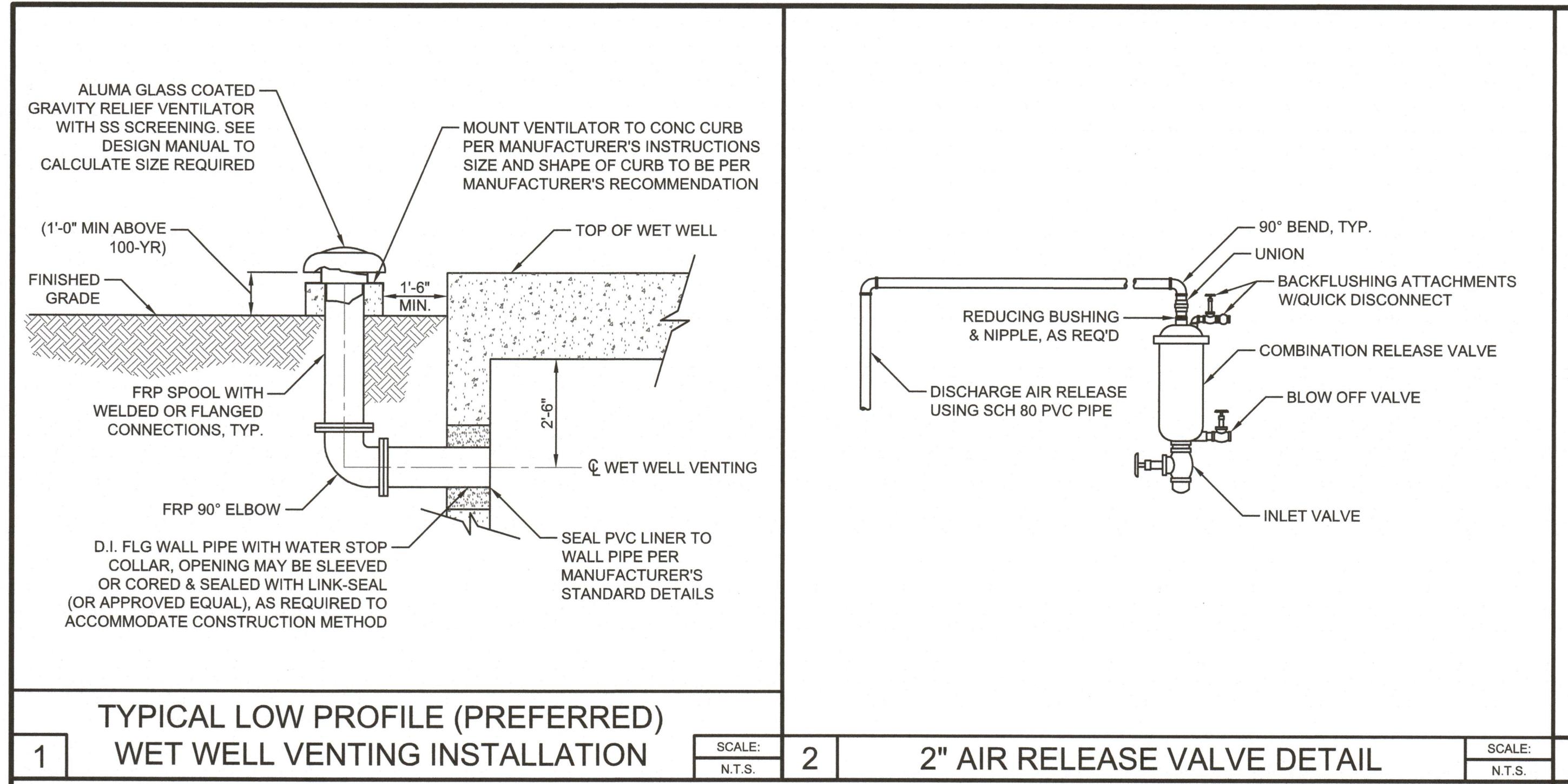
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DRAWN BY: J.T.S.

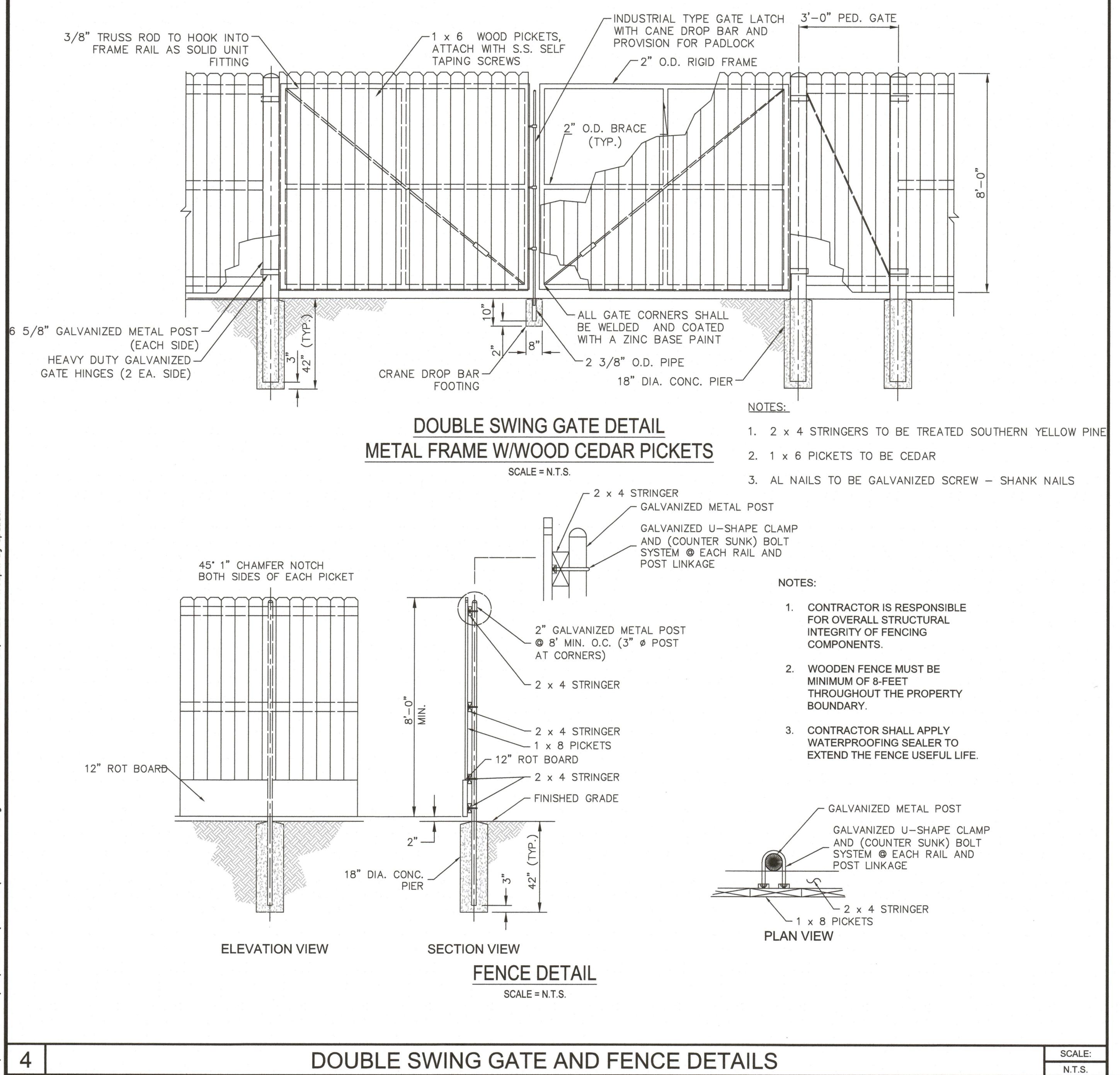
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DATE: OCTOBER 2025

SHEET NO: 10 OF 22 SHEETS



SCALE: N.T.S.



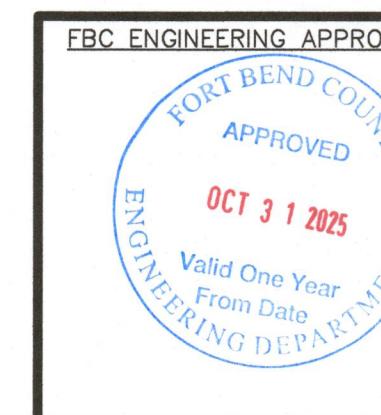
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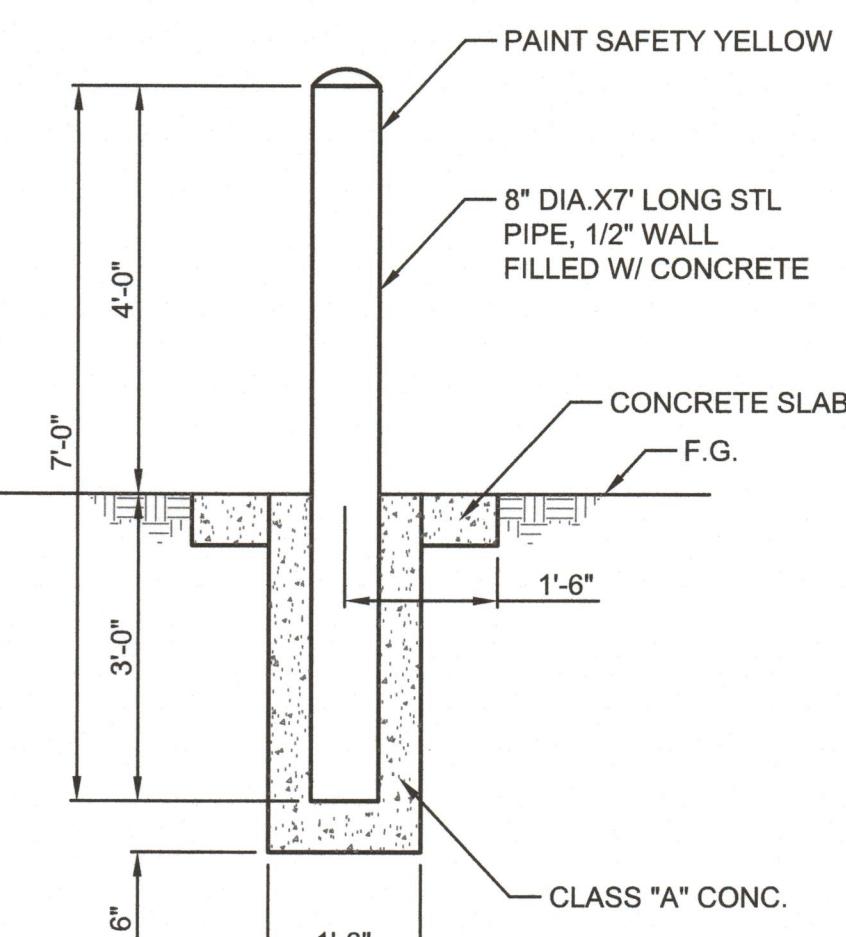
FORT BEND COUNTY M.U.D. NO. 210

LIFT STATION NO. 1

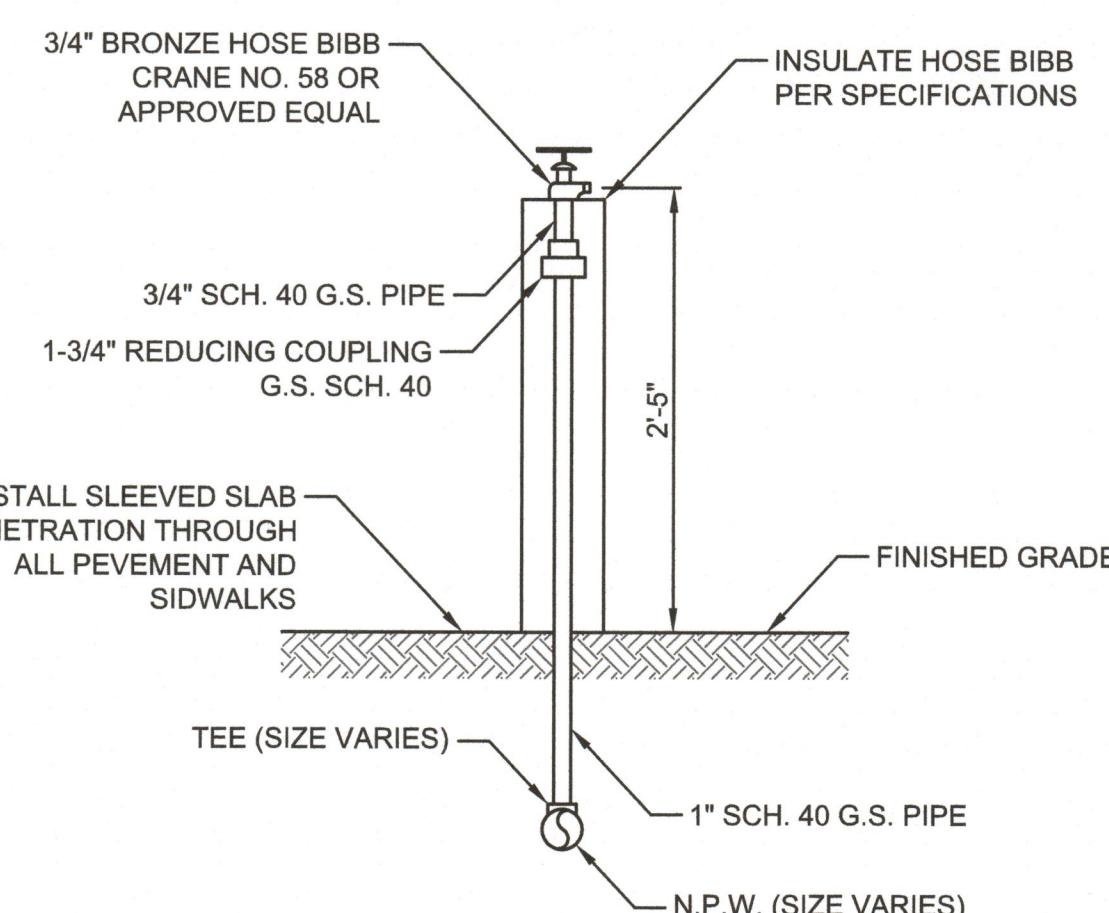
MISCELLANEOUS DETAILS (SHEET 1 OF 3)



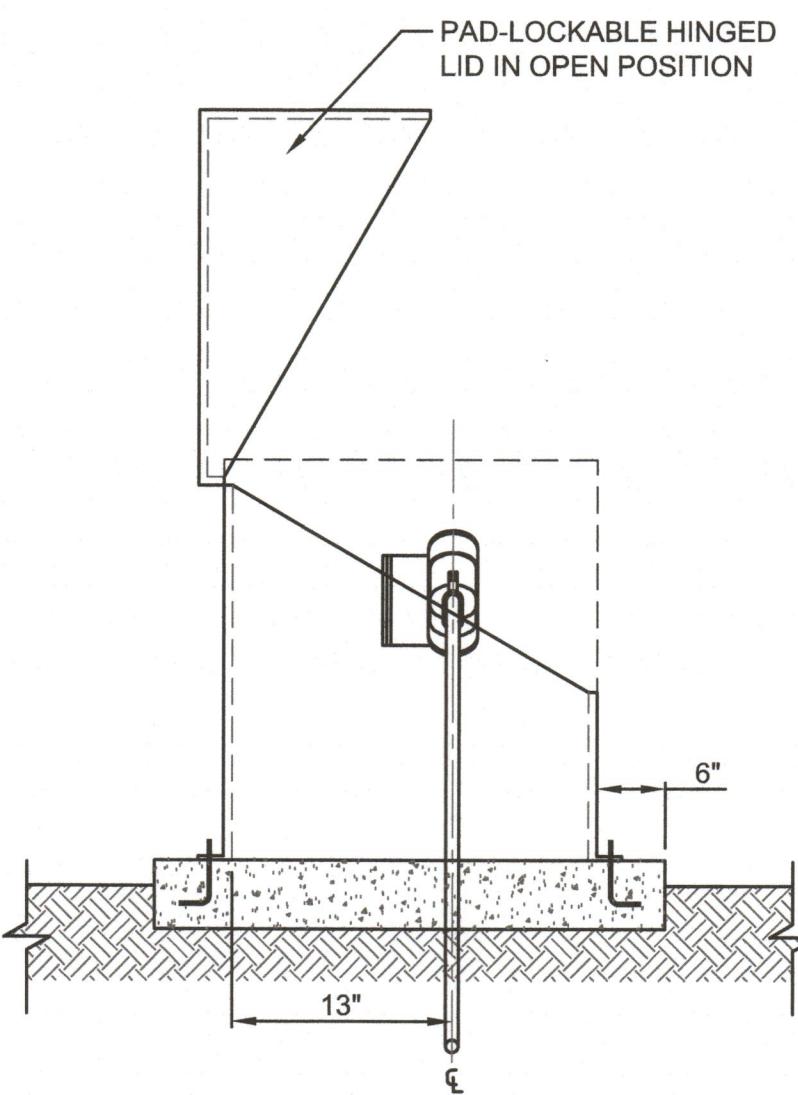
JOB NUMBER: 14451-00	DESIGNED BY: J.T.S.
SUBMITTED: BGE, INC.	DRAWN BY: J.T.S.
SCALE: AS NOTED	DATE: OCTOBER 2025
From Date	Sheet No. 11 of 22 SHEETS
F.B. NO:	



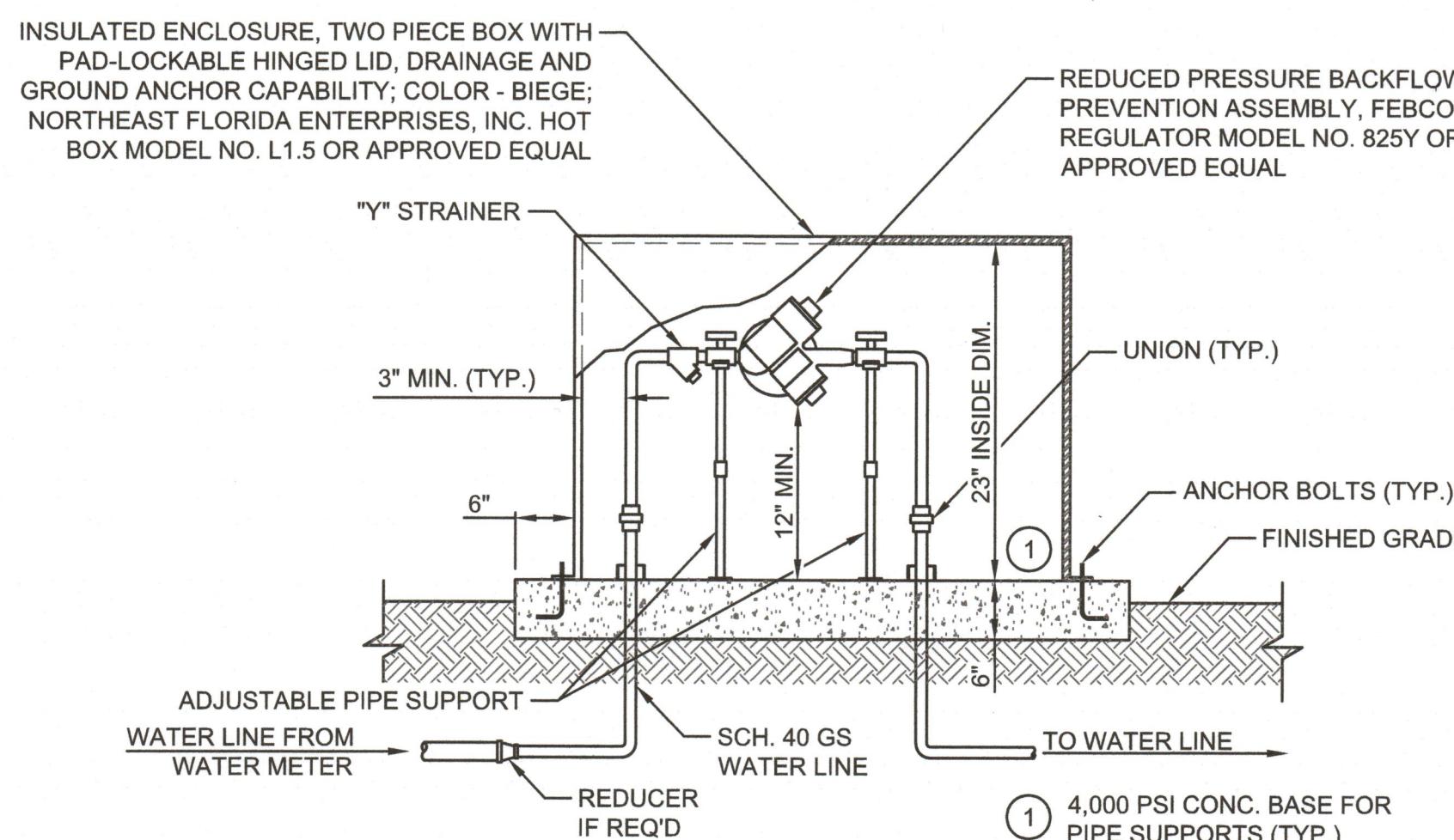
1 BOLLARD DETAIL



2 HOSE BIBB DETAIL



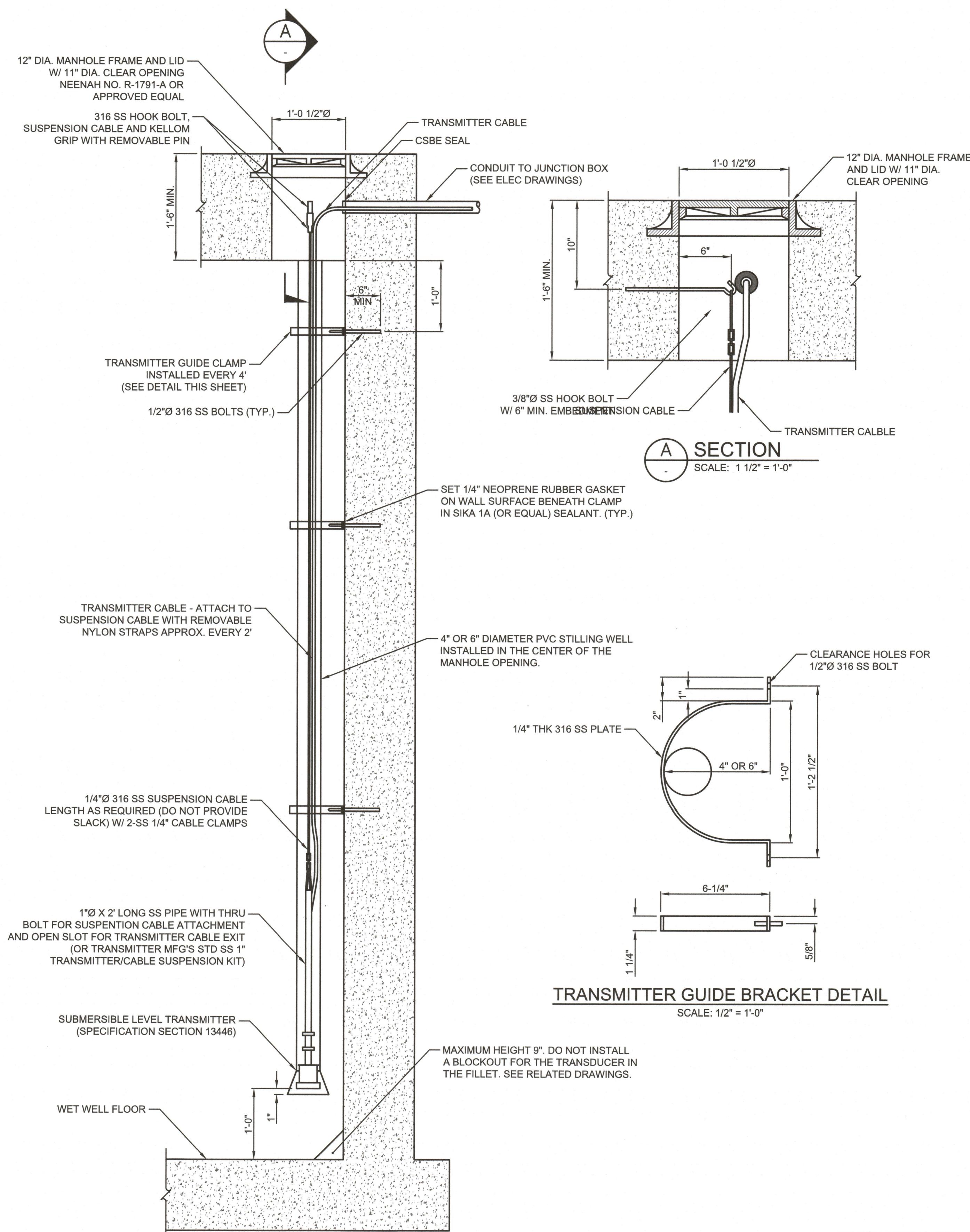
SIDE VIEW



FRONT VIEW

REDUCED PRESSURE BACKFLOW PREVENTER INSTALLATION

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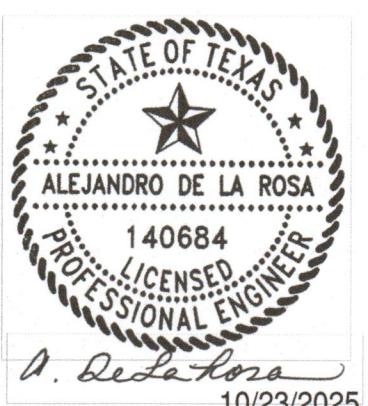
TRANSMITTER GUIDE BRACKET DETAIL

SCALE: 1/2" = 1'-0"

REV. NO.	DATE	DESCRIPTION	P.E. APPR.
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BGE

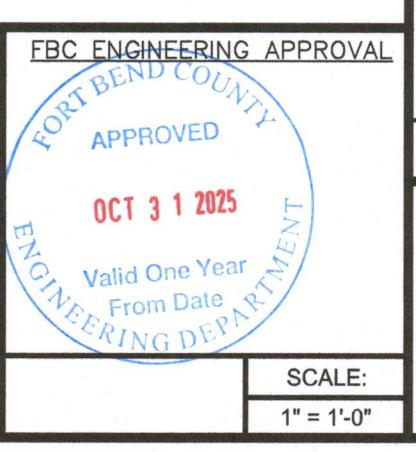
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FORT BEND COUNTY M.U.D. NO. 210

LIFT STATION NO. 1

MISCELLANEOUS DETAILS (SHEET 2 OF 3)



JOB NUMBER: 14451-00

SUBMITTED: BGE, INC.

DESIGNED BY: J.T.S.

DRAWN BY: J.T.S.

SCALE: AS NOTED

DATE: OCTOBER 2025

SURVEY BY: BGE, INC.

F.B. NO:

12 OF 22 SHEETS

4

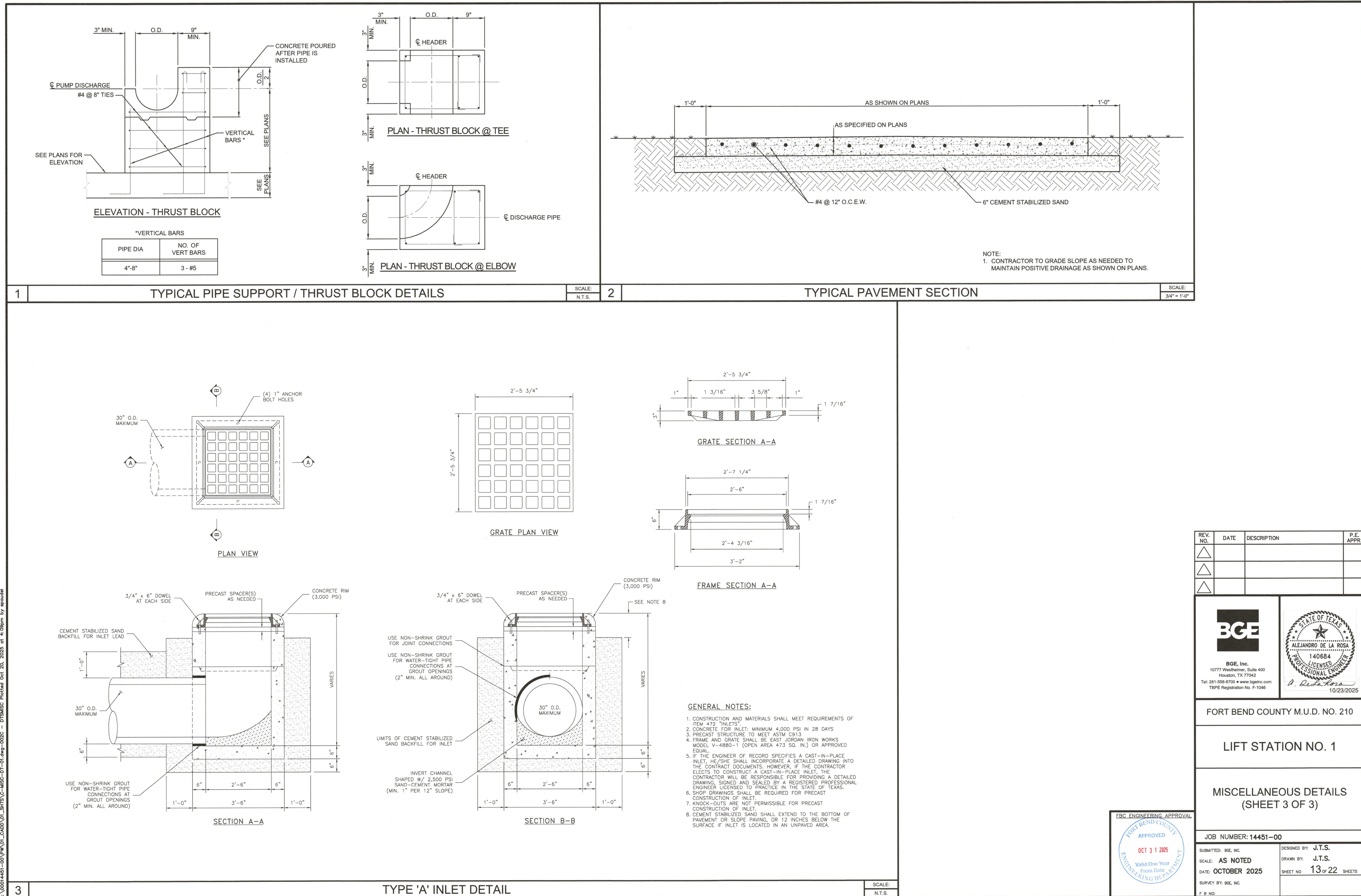
SUBMERSIBLE TRANSDUCER WELL LEVEL GAUGING SYSTEM

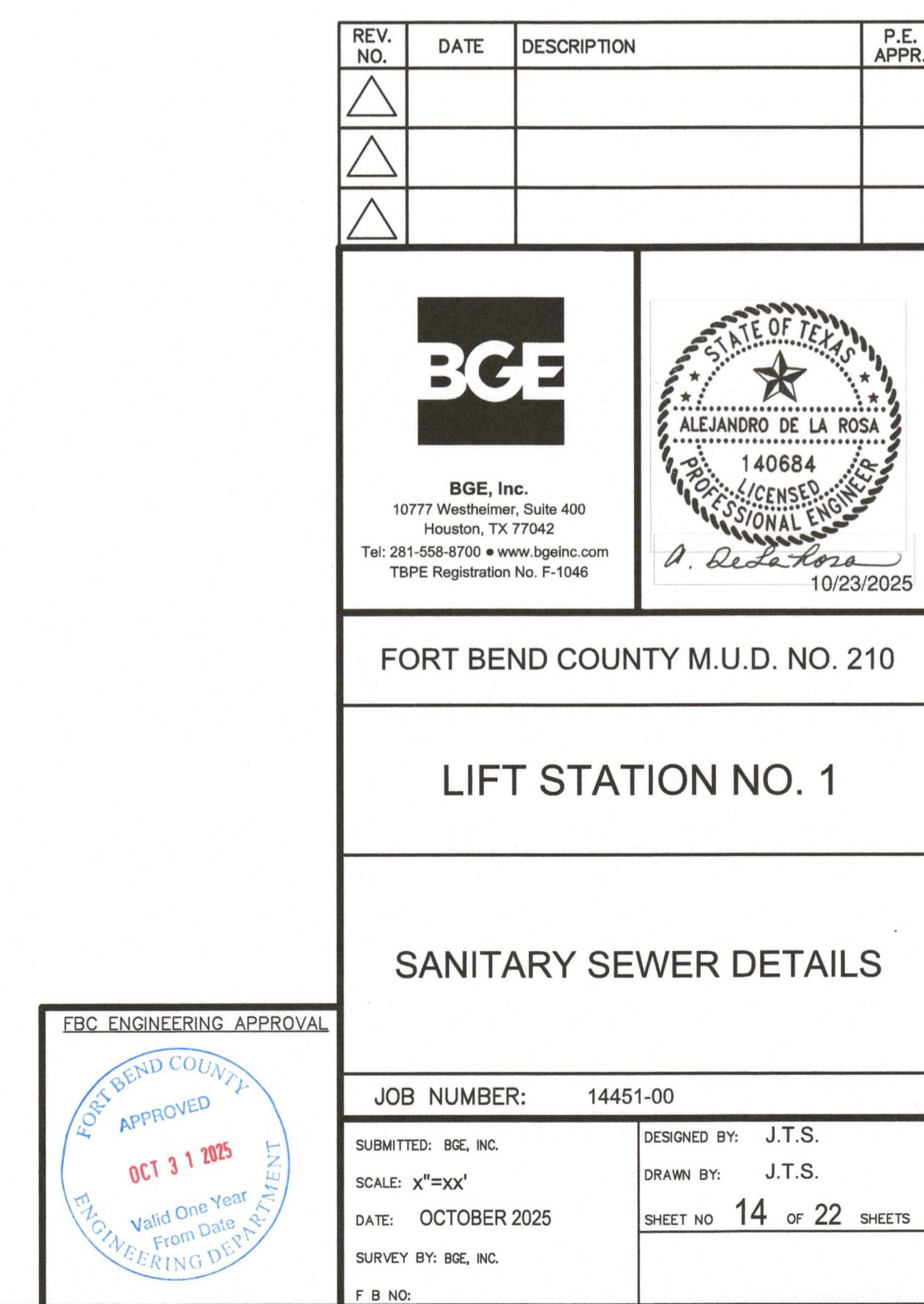
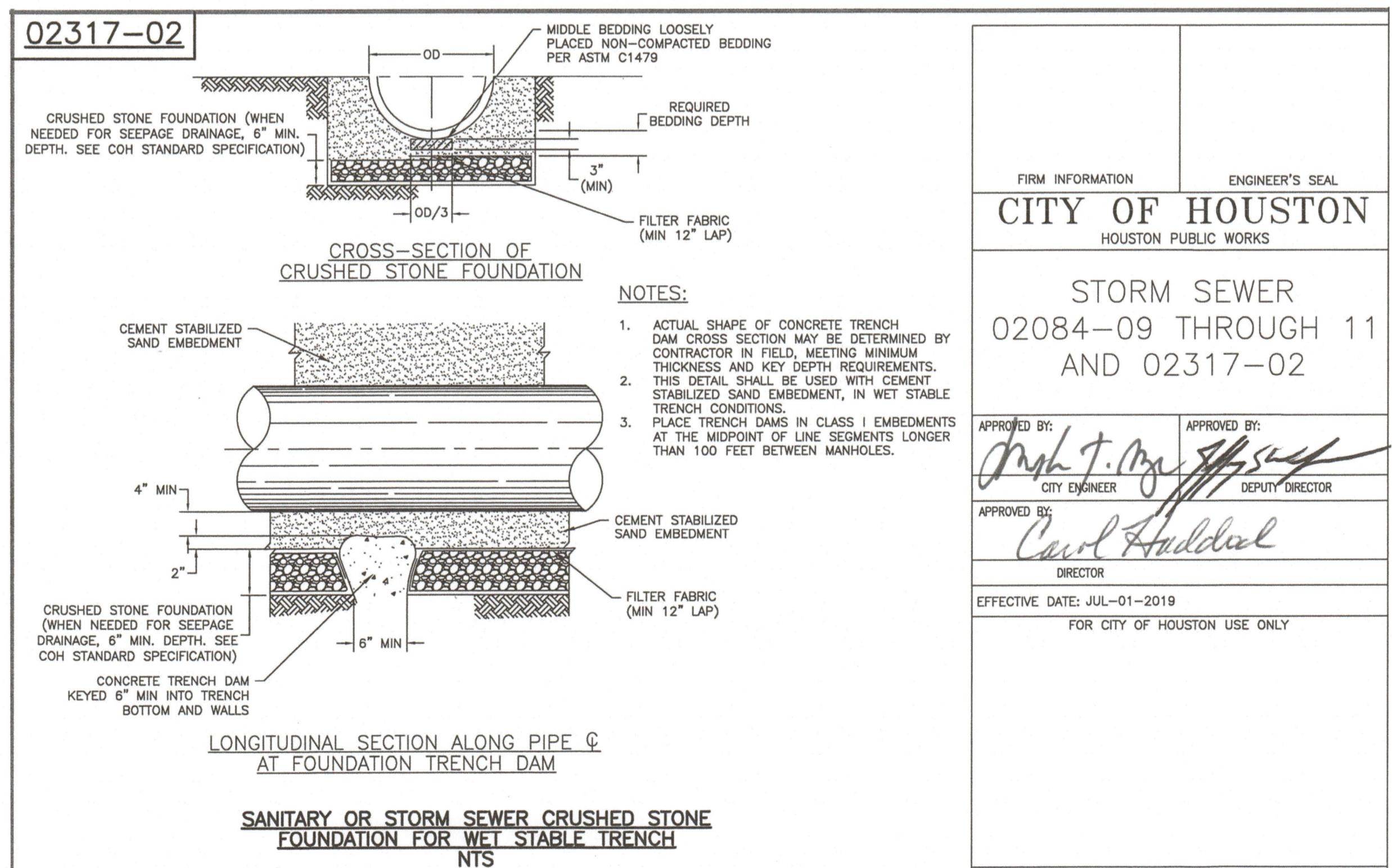
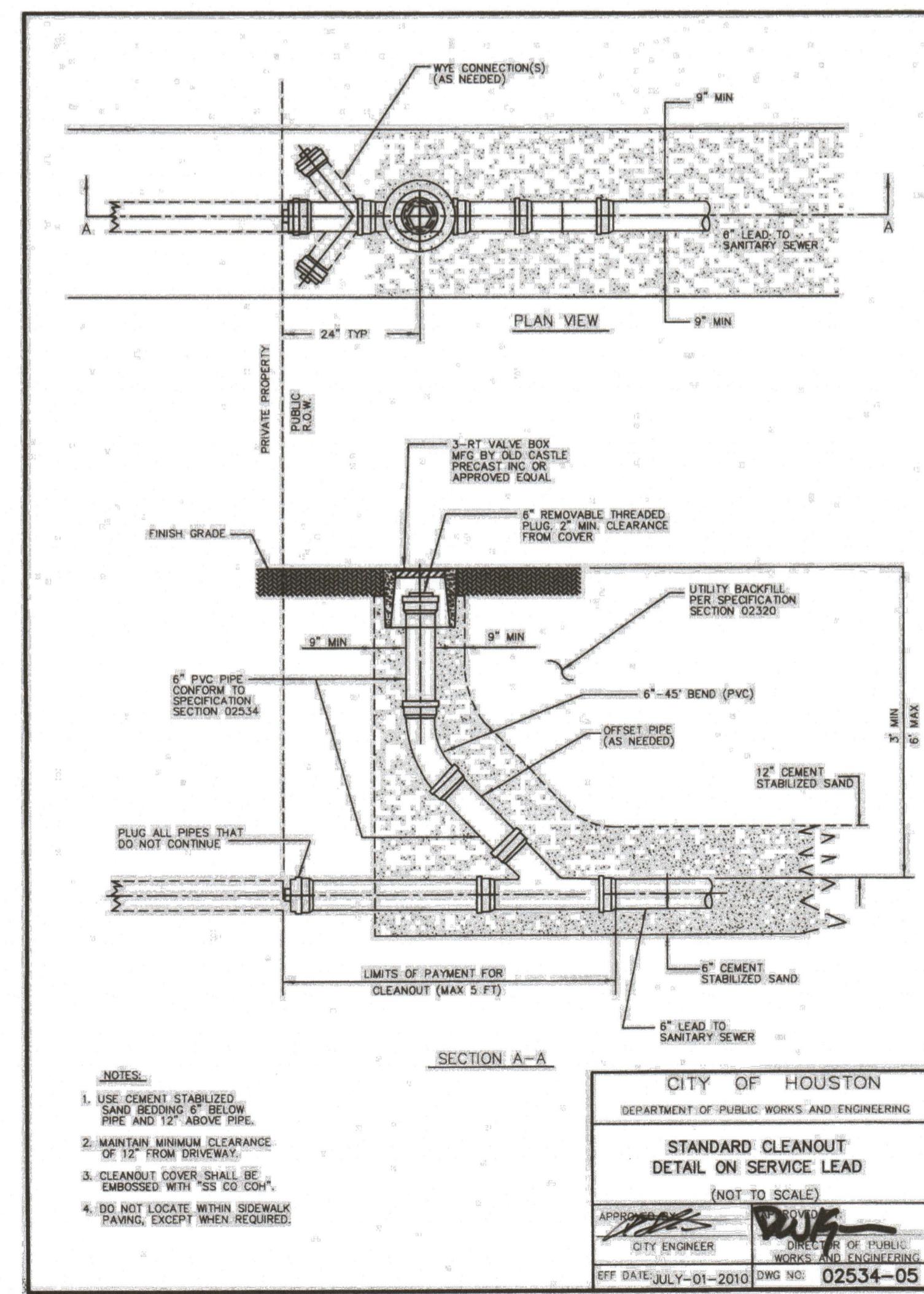
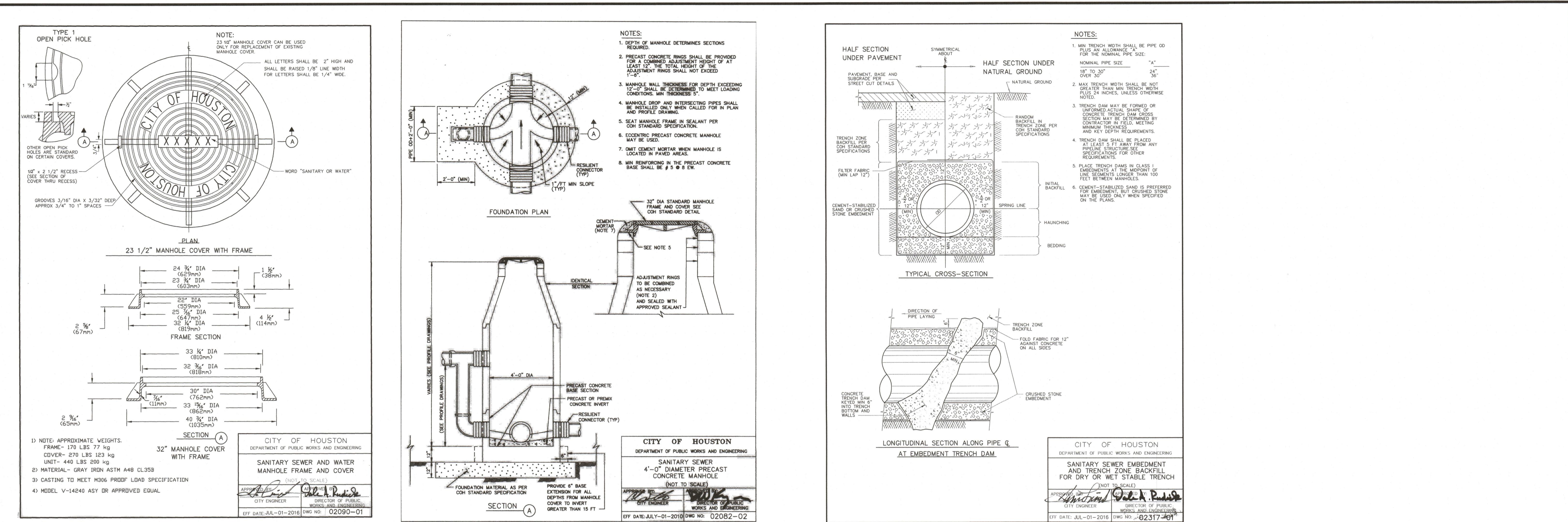
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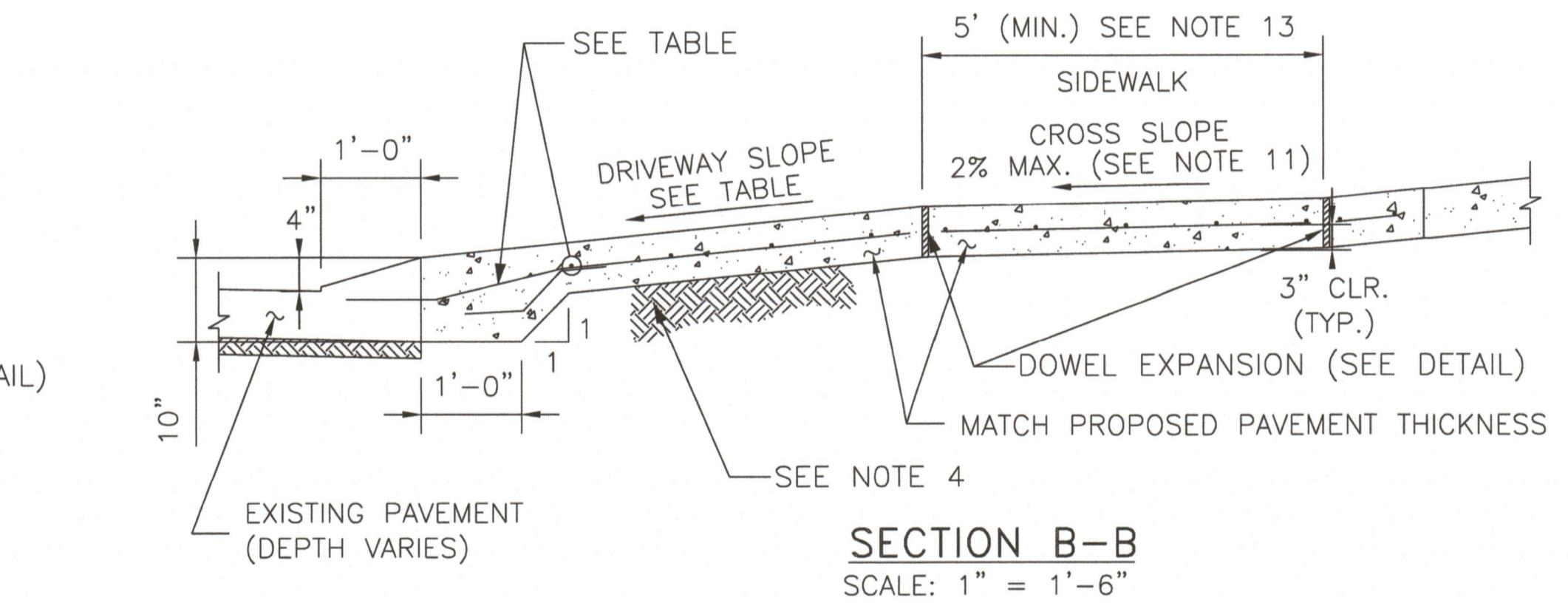
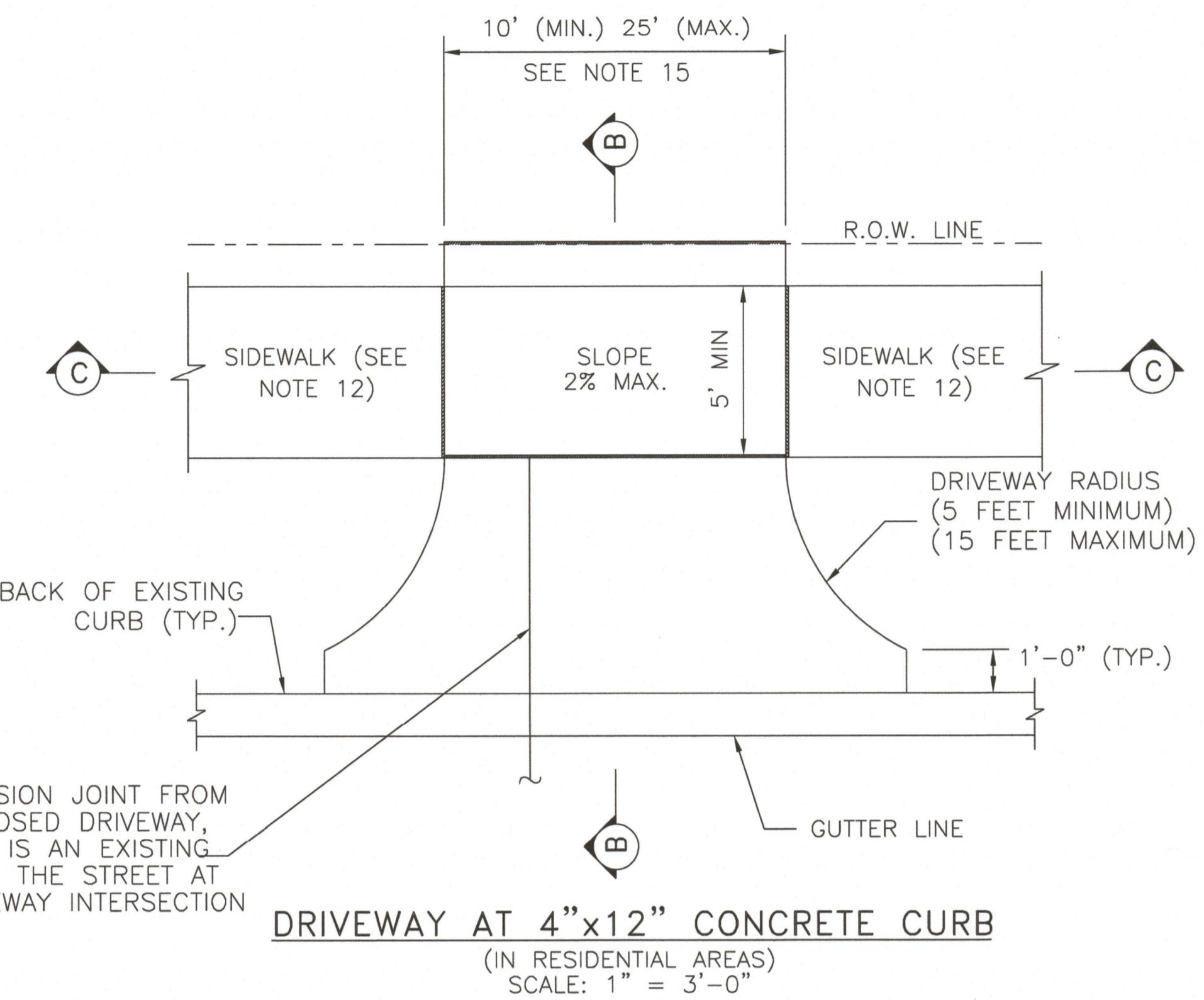
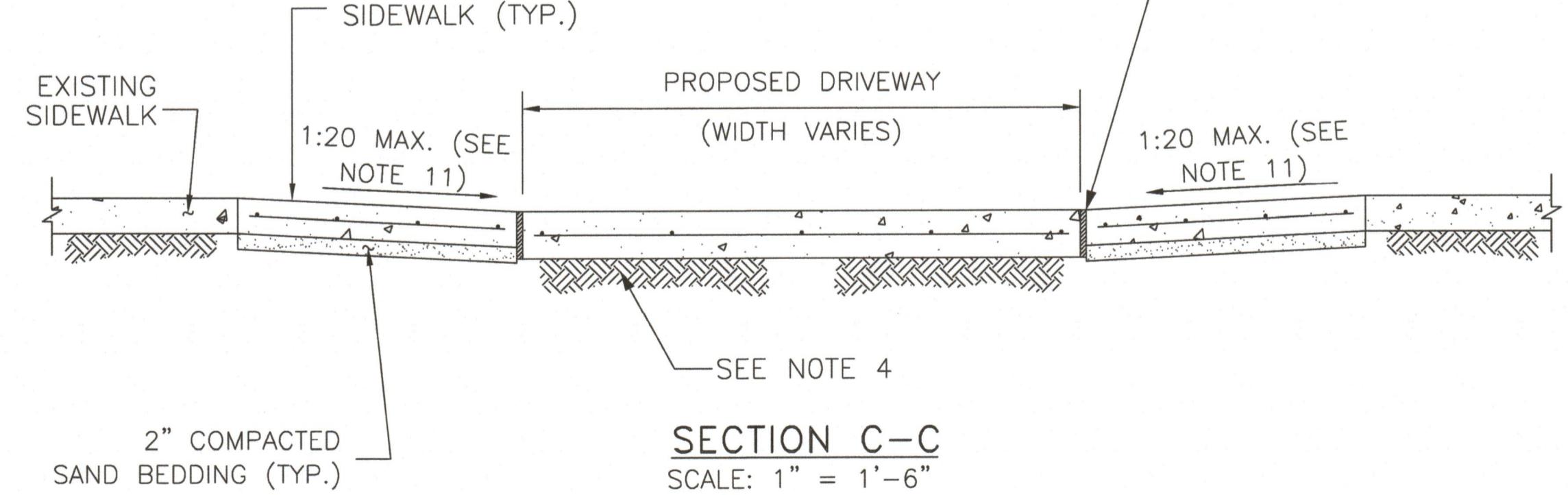
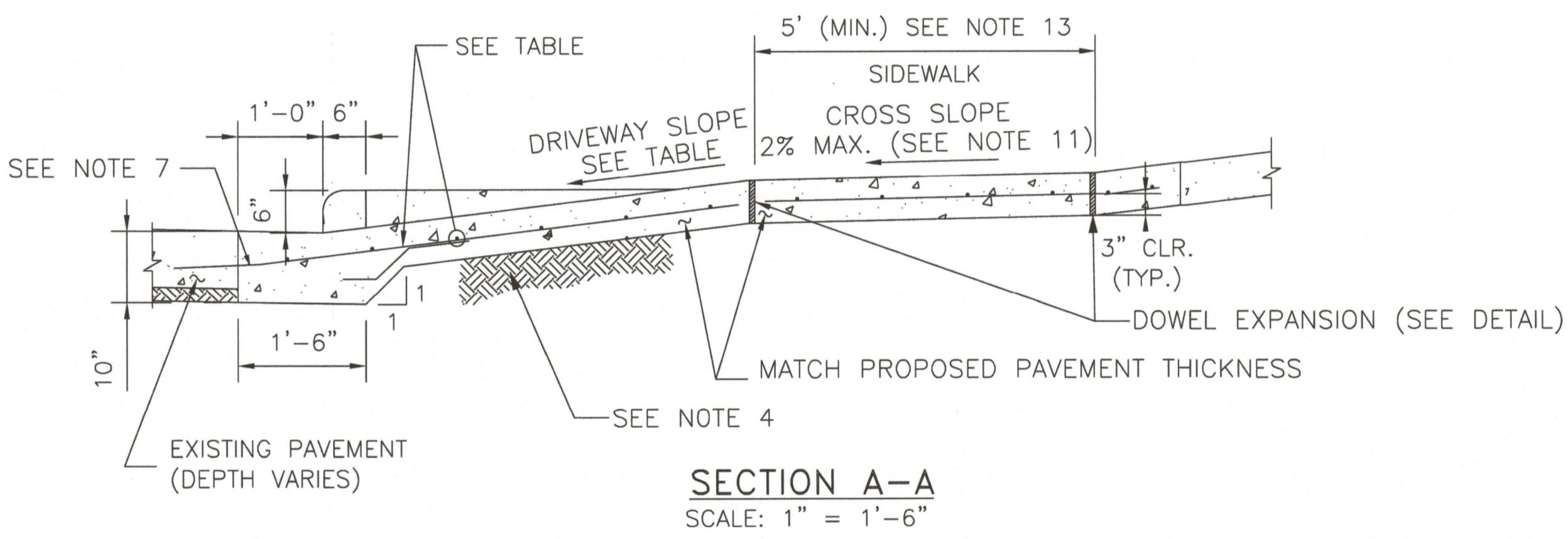
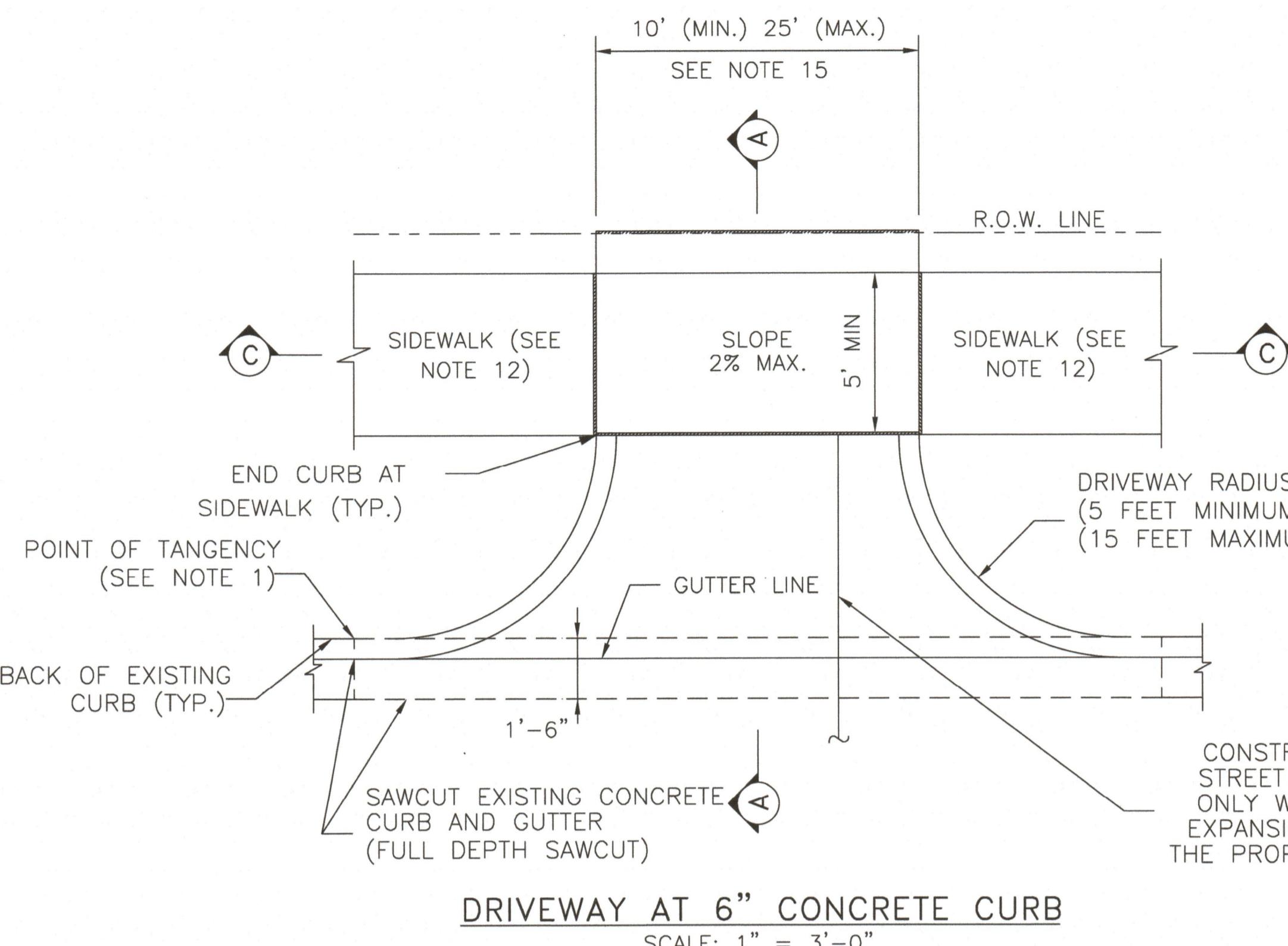
SCALE:
1" = 1'-0"

3

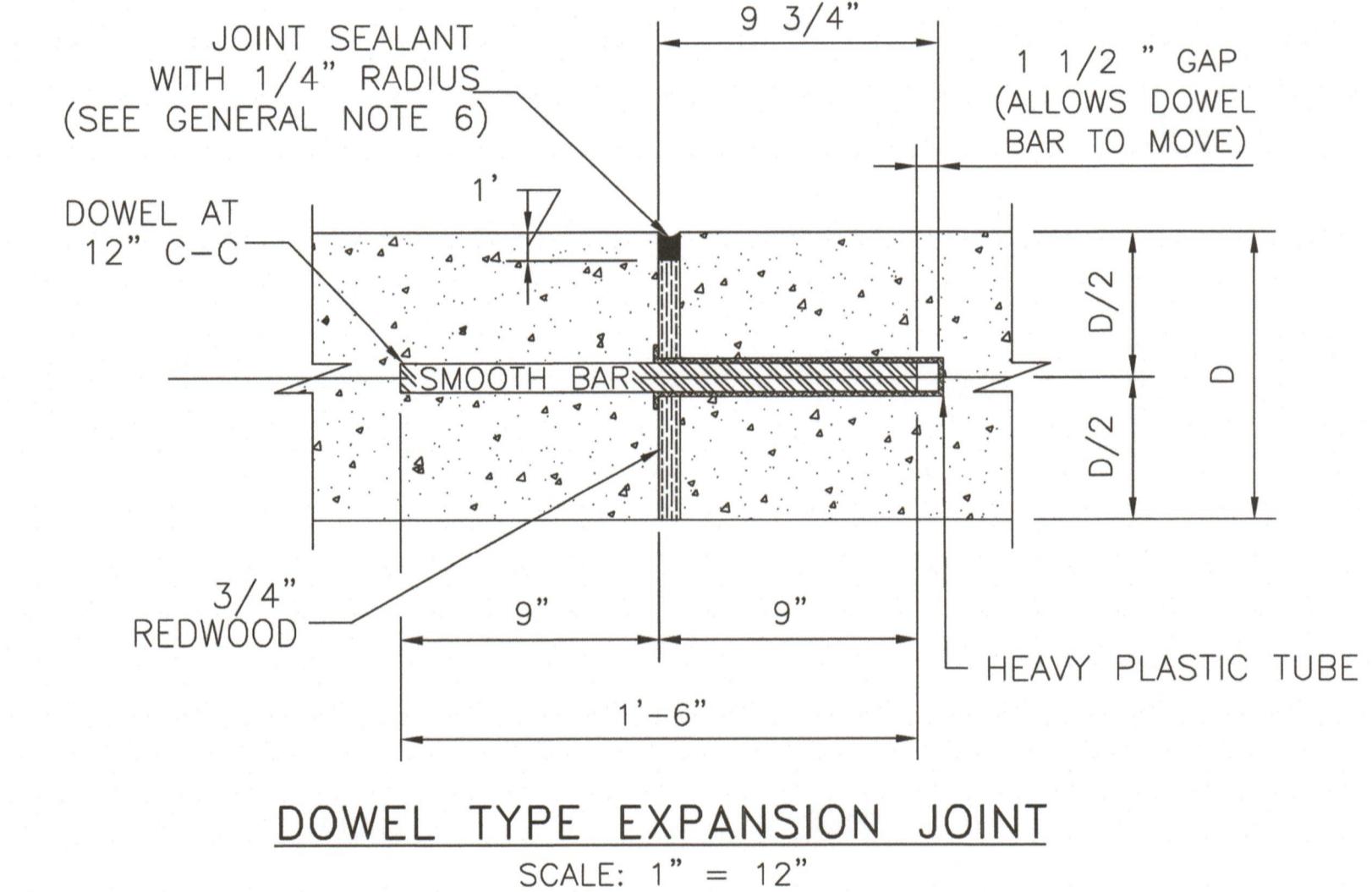
Session #: 081-090-548





**NOTES:**

- PROPOSED DRIVEWAY AT 6" CONCRETE CURB SHALL MATCH EXISTING CURB AT POINT OF TANGENCY.
- PROPOSED DRIVEWAY SHALL BE BUILT WITH PORTLAND CEMENT CONCRETE, 5 1/2 SACK MINIMUM PER CUBIC YARD, 3,500 PSI STRENGTH AT 28 DAYS. THIS DRIVEWAY INSTALLATION IS GOVERNED BY HARRIS COUNTY ITEM 530.
- COMPACTION OF SUBGRADE TO 95% OF STANDARD PROCTOR DENSITY (ASTM D698) (\pm 2% OPTIMUM MOISTURE) FOR PROPOSED DRIVEWAY CONNECTION. THE COUNTY ENGINEER RESERVES THE RIGHT TO INSPECT AND REQUIRE LABORATORY TEST TO BE CONDUCTED.
- FOR COMMERCIAL DRIVEWAYS, USE 6" OF COMPAKTED CEMENT STABILIZED SAND. FOR RESIDENTIAL DRIVEWAYS, USE 2" OF COMPAKTED BANK SAND.
- A PROPOSED DRIVEWAY TO BE BUILT ON A CORNER LOT CANNOT BE LOCATED WITHIN ANY PORTION OF THE PUBLIC STREET CURB RADII. (THE POINTS OF TANGENCY MAY BE THE SAME POINT ALONG THE STREET CURB LINE).
- PROPOSED DRIVEWAY REINFORCING STEEL SHALL BE TIED TO EXISTING CONCRETE PAVEMENT WITH A MINIMUM LAP OF 16 INCHES.
- IF EXISTING STREET REBAR IS CUT OFF, THEN #4 DOWEL BARS (18" LONG) NEED TO BE INSTALLED AT 24" SPACING, EMBEDDED 9 INCHES AND EPOXIED OR MATCH EXISTING SPACING IF TIGHTER.
- 3" NON-METALLIC CHAIRS ARE REQUIRED.
- FOR CAPITAL IMPROVEMENT PROJECTS, THE SUBGRADE SHALL BE STABILIZED ACCORDING TO THE GEOTECHNICAL REPORT RECOMMENDATIONS.
- SAW AND SEAL ALL CONSTRUCTION JOINTS.
- SIDEWALK SLOPES SHALL COMPLY WITH THE TEXAS ACCESSIBILITY STANDARDS 403.3 "SLOPE".
- IF SIDEWALK IS EXISTING, SEE SECTION C-C.
- SIDEWALKS MAY BE REDUCED TO 4' IN FRONT OF SINGLE-FAMILY RESIDENTIAL LOTS WHEN A 5' PASSING AREA IS PROVIDED IN THE DRIVEWAY.
- FOR SIDEWALK DETAILS SEE SIDEWALK DETAILS SHEET
- DRIVEWAY WIDTHS ARE MEASURED AT THE ROW LINE

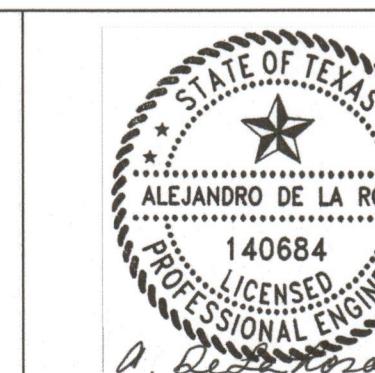
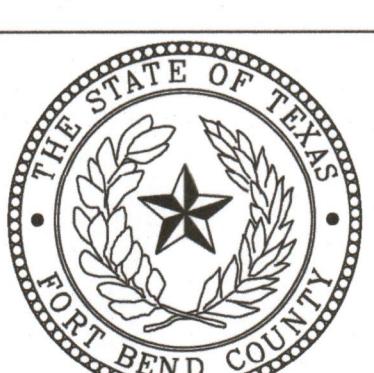


	PAVEMENT THICKNESS	COLLECTOR/MAJOR	RESIDENTIAL (MAJOR THOROUGHFARE)	RESIDENTIAL (COLLECTORS AND LOCAL STREETS)
REINFORCEMENT	6"	#4 @ 24" O.C.E.W.	N/A	#4 @ 24" O.C.E.W.
	7"	#4 @ 24" O.C.E.W.	#4 @ 24" O.C.E.W.	#4 @ 24" O.C.E.W.
	8"	#4 @ 18" O.C.E.W.	#4 @ 18" O.C.E.W.	#4 @ 18" O.C.E.W.
	9"-10"	#5 @ 18" O.C.E.W.	#5 @ 18" O.C.E.W.	#5 @ 18" O.C.E.W.
EXPANSION DOWEL JOINT	6"	3/4" DIA. SMOOTH BAR	3/4" DIA. SMOOTH BAR	3/4" DIA. SMOOTH BAR
	7"	1" DIA. SMOOTH BAR	1" DIA. SMOOTH BAR	1" DIA. SMOOTH BAR
	8"	1" DIA. SMOOTH BAR	1" DIA. SMOOTH BAR	1" DIA. SMOOTH BAR
	9"-10"	1 1/4" DIA. SMOOTH BAR	1 1/4" DIA. SMOOTH BAR	1 1/4" DIA. SMOOTH BAR
CONSTRUCTION JOINT DOWEL	ALL	#5 REBAR	#5 REBAR	#5 REBAR
SUBGRADE	ALL	6" CEMENT-STABILIZED SAND	2" BANK SAND	2" BANK SAND
DRIVEWAY SLOPE	ALL	2% TO 4%	2% TO 6%	2% TO 10%*

*10% ALLOWABLE ON PRIVATELY CONSTRUCTED PROJECTS
6% MAX ON PUBLIC PROJECTS

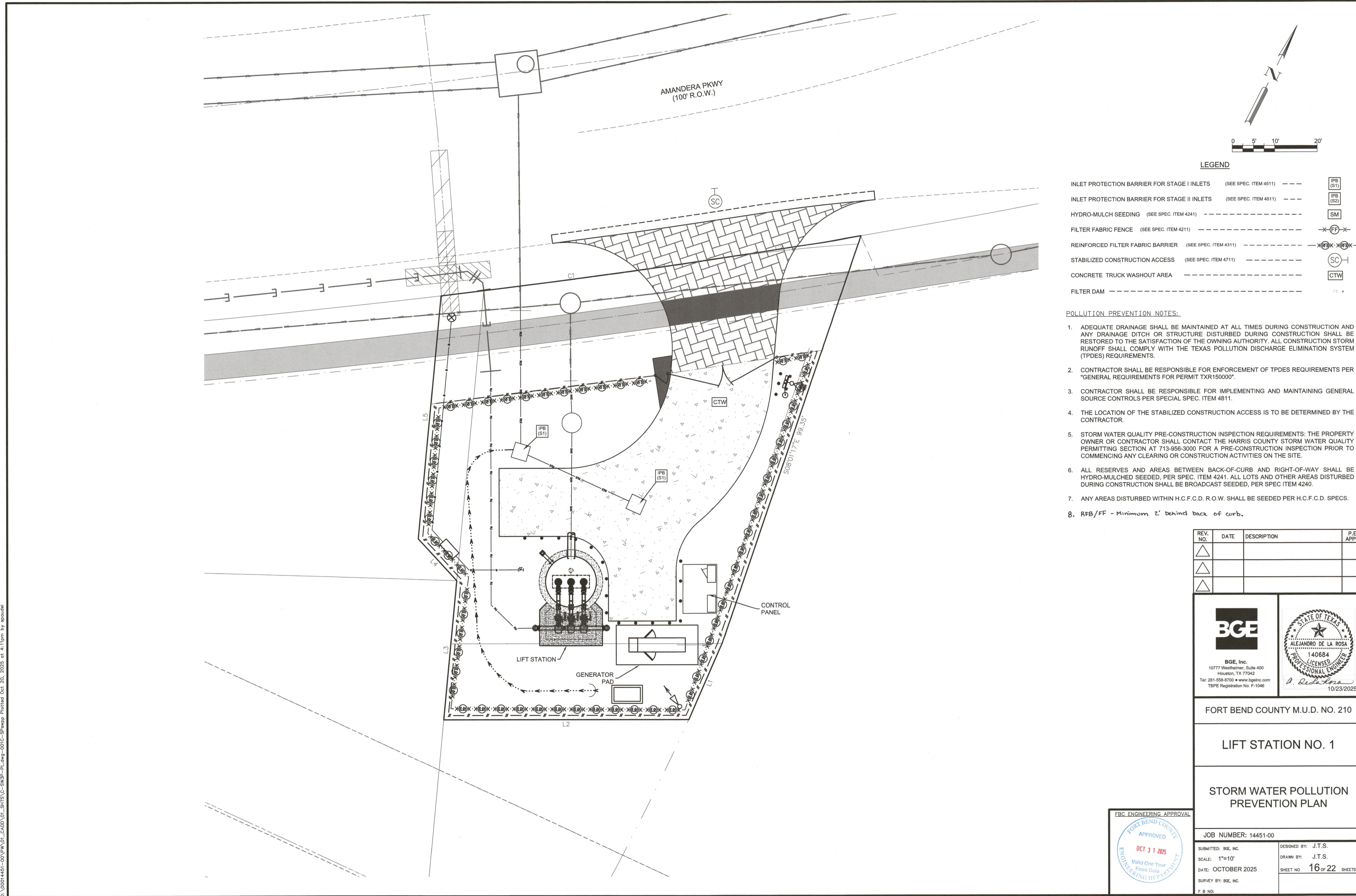
NO.	REVISIONS	DATE	NAME
1	ORIGINAL STANDARD ISSUED	3-1-22	RJS
2			
3			
4			
5			

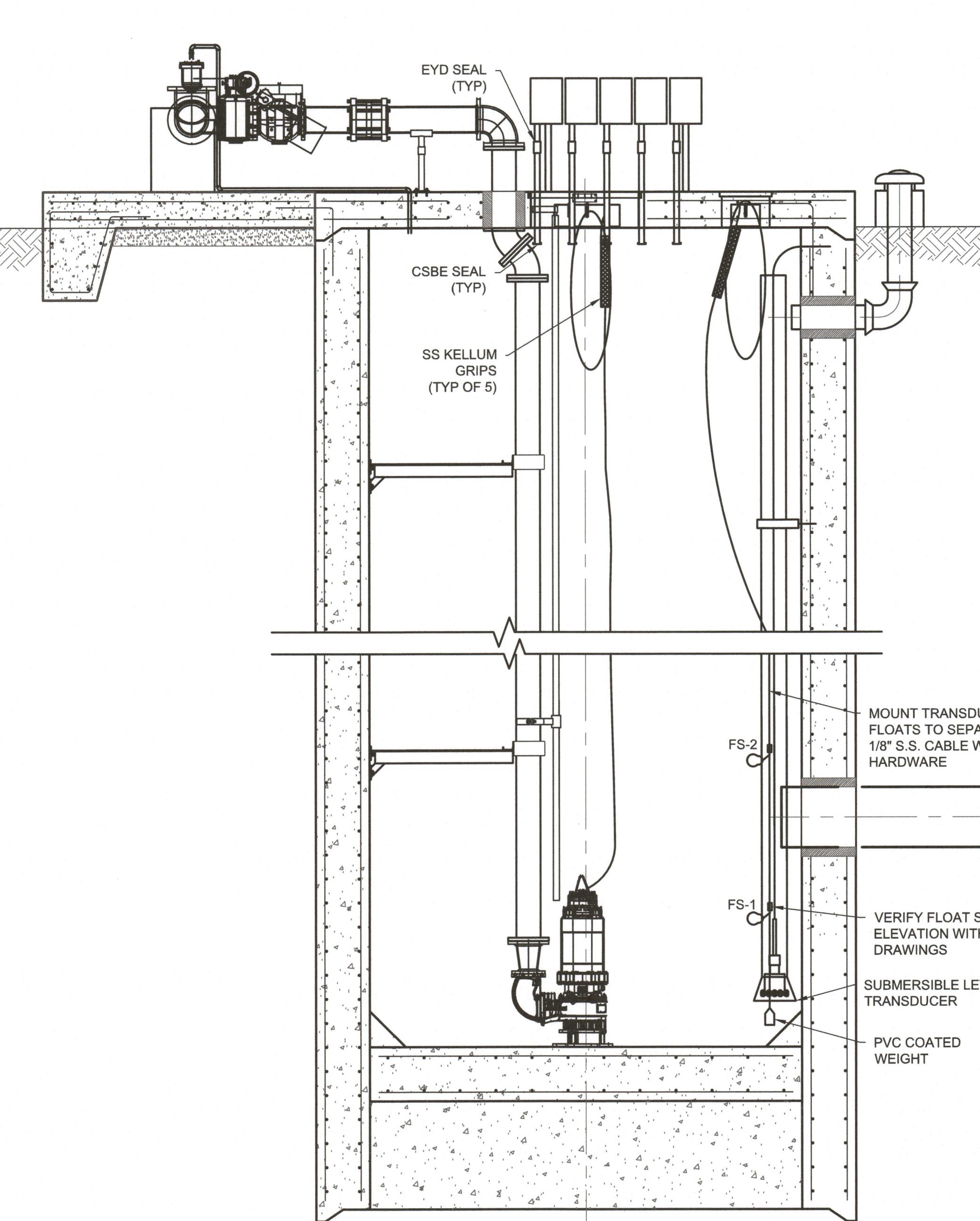
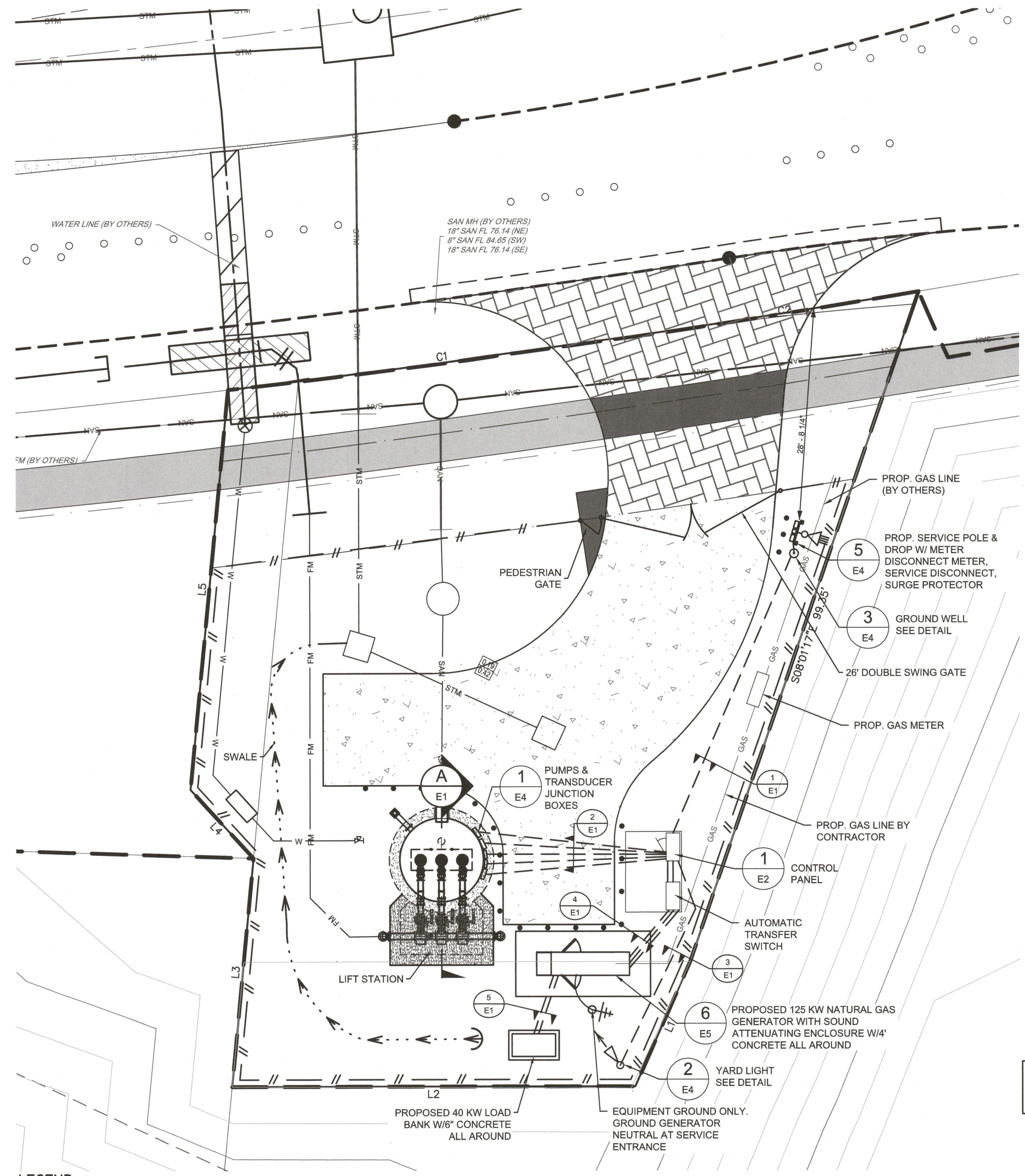
FORT BEND COUNTY ENGINEERING DEPARTMENT



PROJECT TITLE:		LIFT STATION NO. 1
DRAWN BY: INIT		FBCED STANDARD
CK'D BY: INIT		11
SHEET DESCRIPTION: DRIVEWAY DETAILS FOR		
SCALE: AS NOTED		RESIDENTIAL DRIVEWAYS
DATE: 3-1-22		APPROVED BY: A. De La Rosa
		Session No.: 15 / 22







NOTES:

- ALL WORK SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL CODES.
- SERVICE EQUIPMENT DETAILS ARE SHOWN DIAGRAMATICALLY ON PLANS. INSTALLATION SHALL STRICTLY COMPLY WITH LOCAL POWER COMPANY STANDARDS IN EVERY RESPECT. CONSULT LOCAL POWER COMPANY FOR SPECIFIC REQUIREMENTS BEFORE STARTING CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS ASSOCIATED WITH THE WORK. THE COSTS OF THE PERMITS, IF ANY, SHALL BE BORNE BY THE CONTRACTOR.
- LIFT STATION PLAN AND PROFILE VIEWS SHOWN ON THESE ELECTRICAL DRAWINGS ARE INTENDED FOR FUNCTIONAL CLARIFICATION OF INSTALLED ELECTRICAL COMPONENTS. FOR ANY REQUIRED DETAILS OF ELEVATION, DIMENSION, MOUNTING, OR ORIENTATION, REFER TO CIVIL DRAWINGS.
- CONTRACTOR TO PROVIDE A SHORT CIRCUIT ANALYSIS AND POWER COORDINATION STUDY AND ARC FLASH HAZARD ANALYSIS THAT WILL BECOME PART OF THE OEM MANUALS SEE SPECIFICATION NO. 16018. CONTACT JOHN GILROY, JGILROY@BGEINC.COM, 281-529-5005 EXT. 102.
- CONTRACTOR TO CONTACT JOSIE CARRILLO AT JCARRILLO DEVELOPER SERVICES INC. TO COORDINATE UTILITY EFFORTS FOR THIS FACILITY. EMAIL: JOSIE@JCARRILLOINC.COM, PHONE NUMBER: 281-799-9960.

REV. NO.	DATE	DESCRIPTION	P.E. APPR.
△			
△			
△			

BGE	STATE OF TEXAS CHAD L. RAMSEY 131411 LICENSED PROFESSIONAL ENGINEER <i>[Signature]</i> 10/22/2025
BGE, Inc. 10777 Westheimer, Suite 400 Houston, TX 77042 Tel: 281-558-8700 • www.bgeinc.com TBPE Registration No. F-1046	

FORT BEND COUNTY M.U.D. NO. 210

LIFT STATION NO. 1

ELECTRICAL SITE PLAN

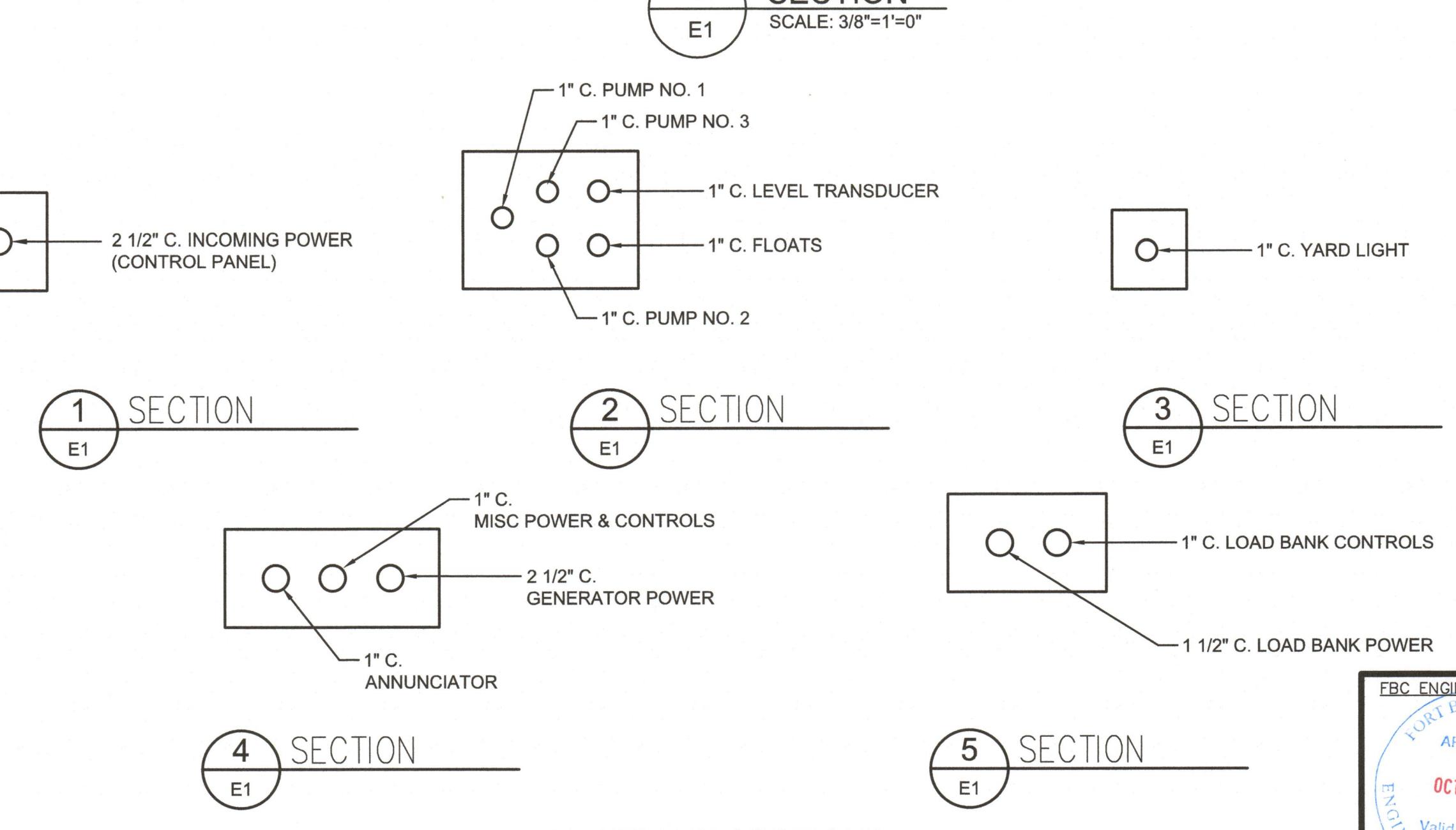
E1

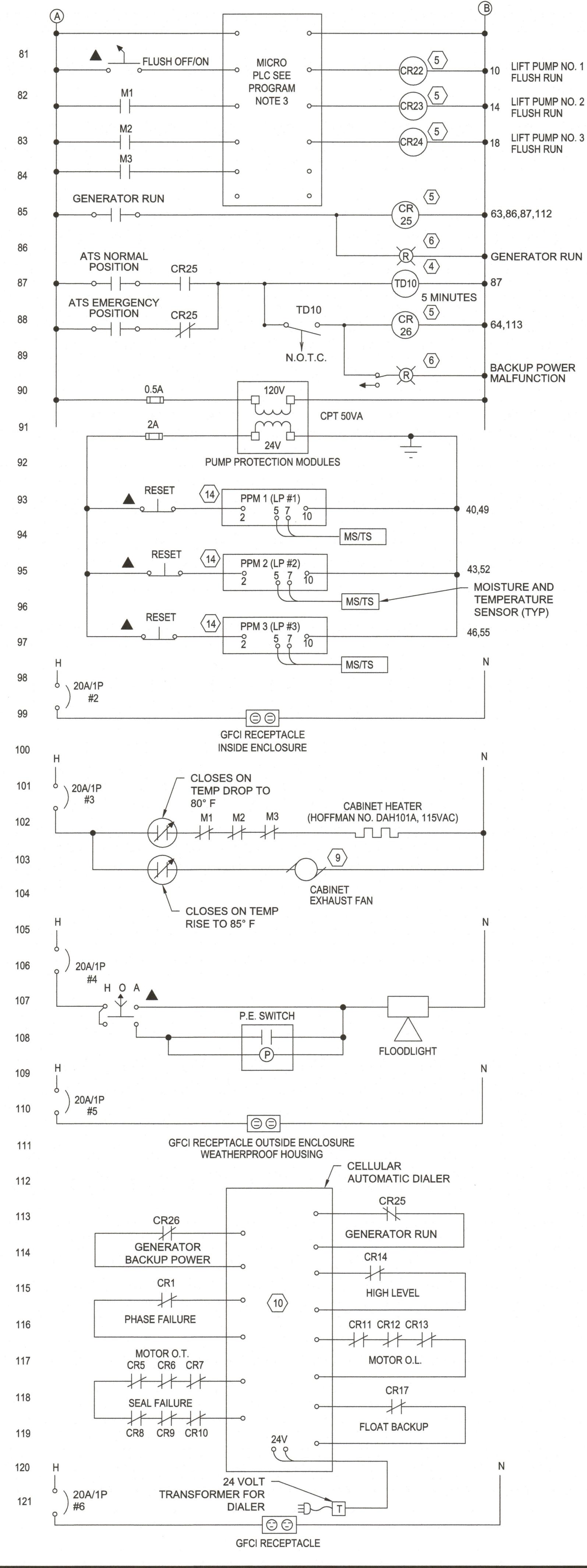
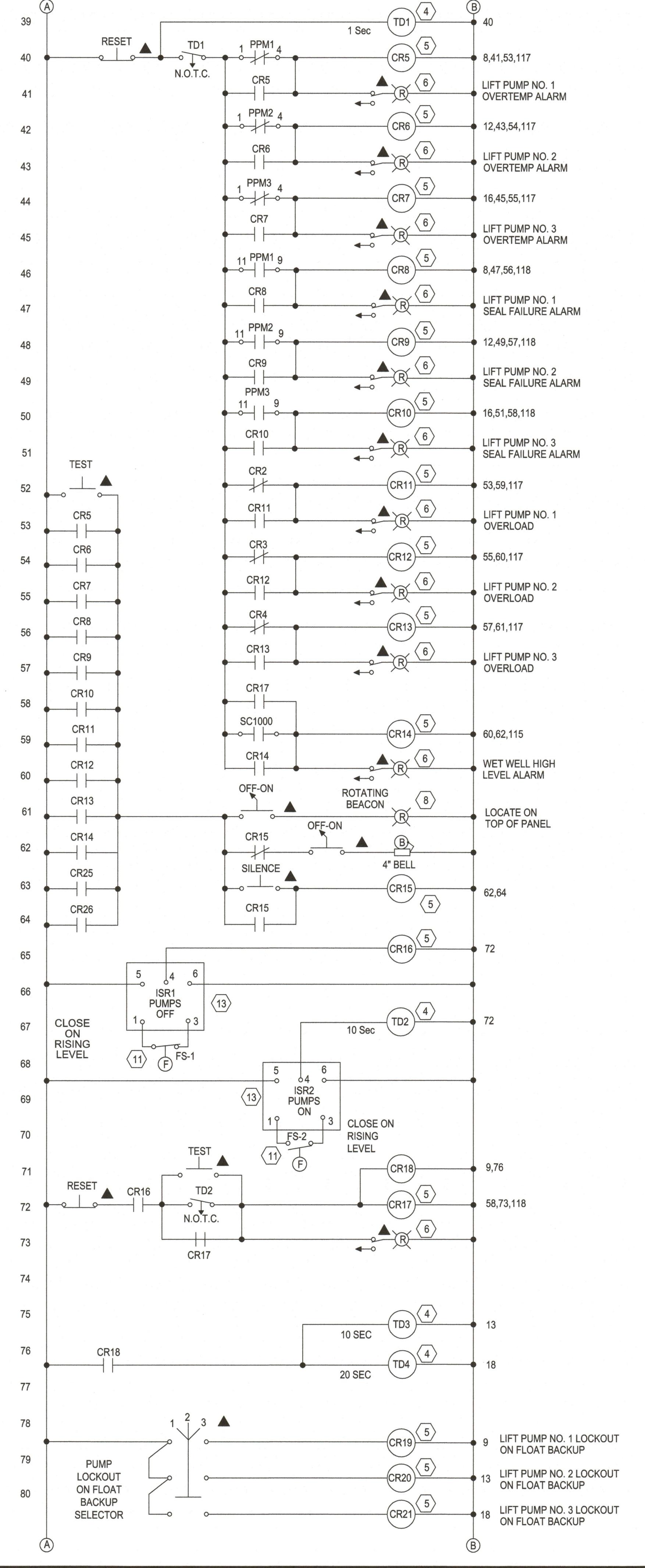
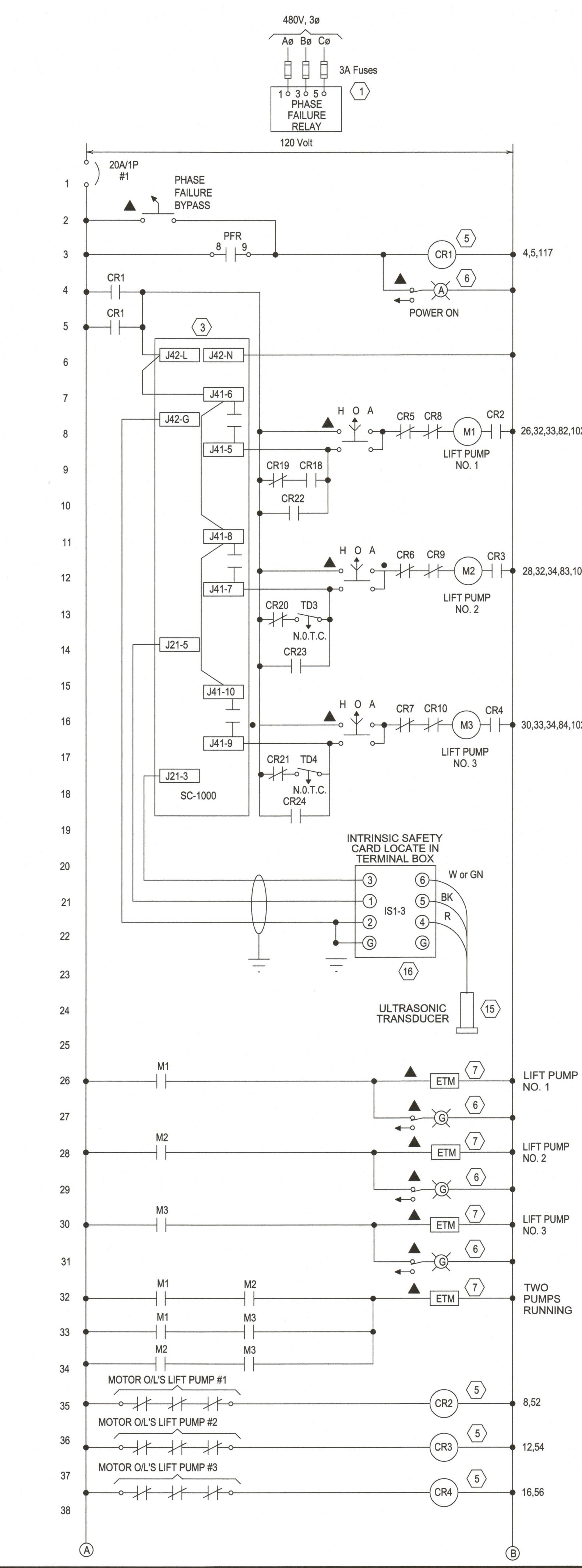


JOB NUMBER: 14451-00

SUBMITTED: BGE, INC.
SCALE: 1'=10'
DATE: OCTOBER 2025
SURVEY BY: BGE, INC.
F B NO:

DESIGNED BY: C.L.R.
DRAWN BY: E.O.
SHEET NO: 18 OF 22 SHEETS

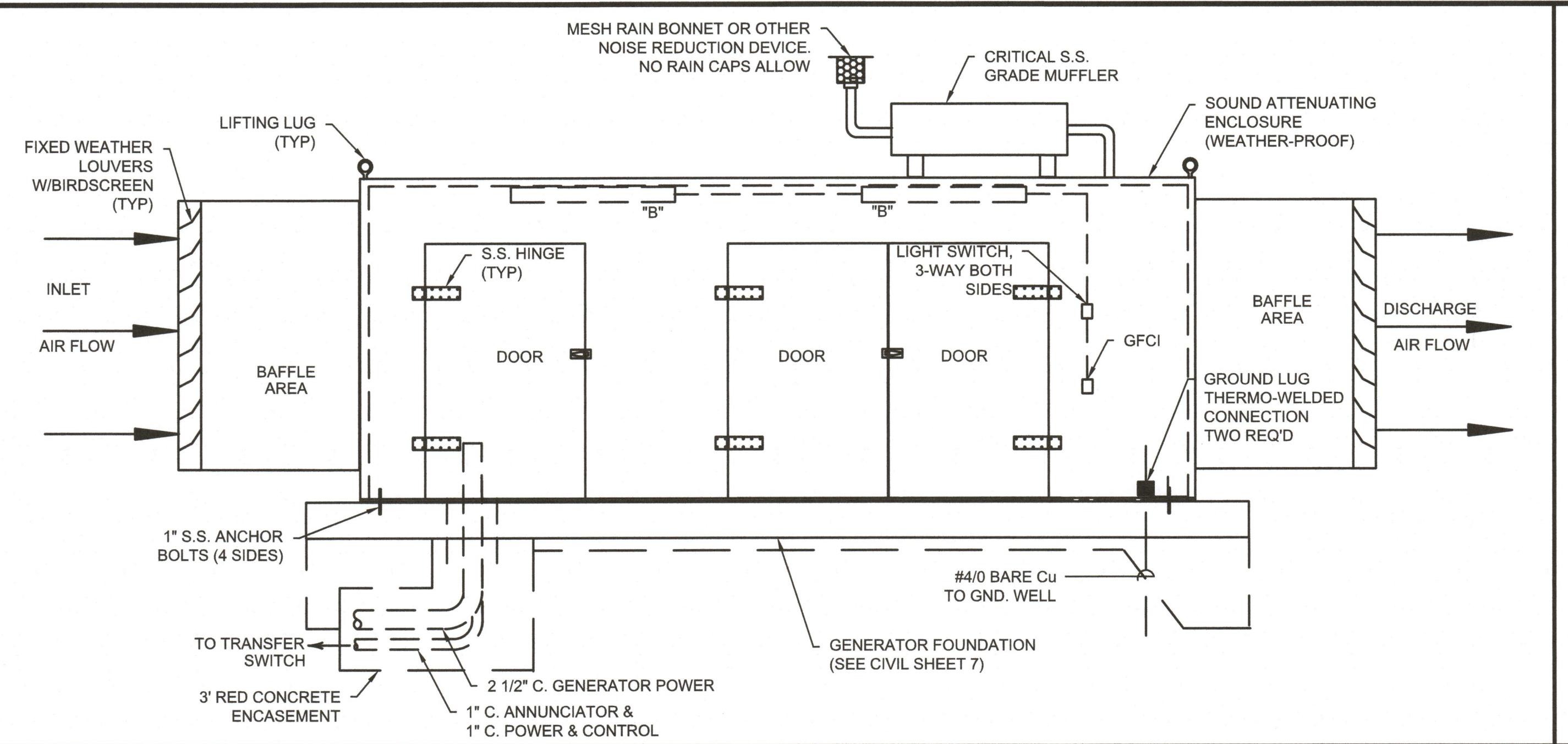




REV. NO.	DATE	DESCRIPTION	P.E. APPR.
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BGE		STATE OF TEXAS CHAD L. RAMSEY LICENSED PROFESSIONAL ENGINEER 131411 10/22/2025	
BGE, Inc. 10777 Westheimer, Suite 400 Houston, TX 77042 Tel: 281-558-8700 • www.bgeinc.com TBPE Registration No. F-1046			
FORT BEND COUNTY M.U.D. NO. 210			
LIFT STATION NO. 1			
ELECTRICAL CONTROL DIAGRAM			
EBC ENGINEERING APPROVAL			
JOB NUMBER: 14451-00			
APPROVED OCT 31 2025			
SUBMITTED: BGE, INC. DESIGNED BY: C.L.R. SCALE: N.T.S. DRAWN BY: E.O. DATE: OCTOBER 2025 SURVEY: BGE, INC. F.B. NO: 20 OF 22 SHEETS			

NOTES:

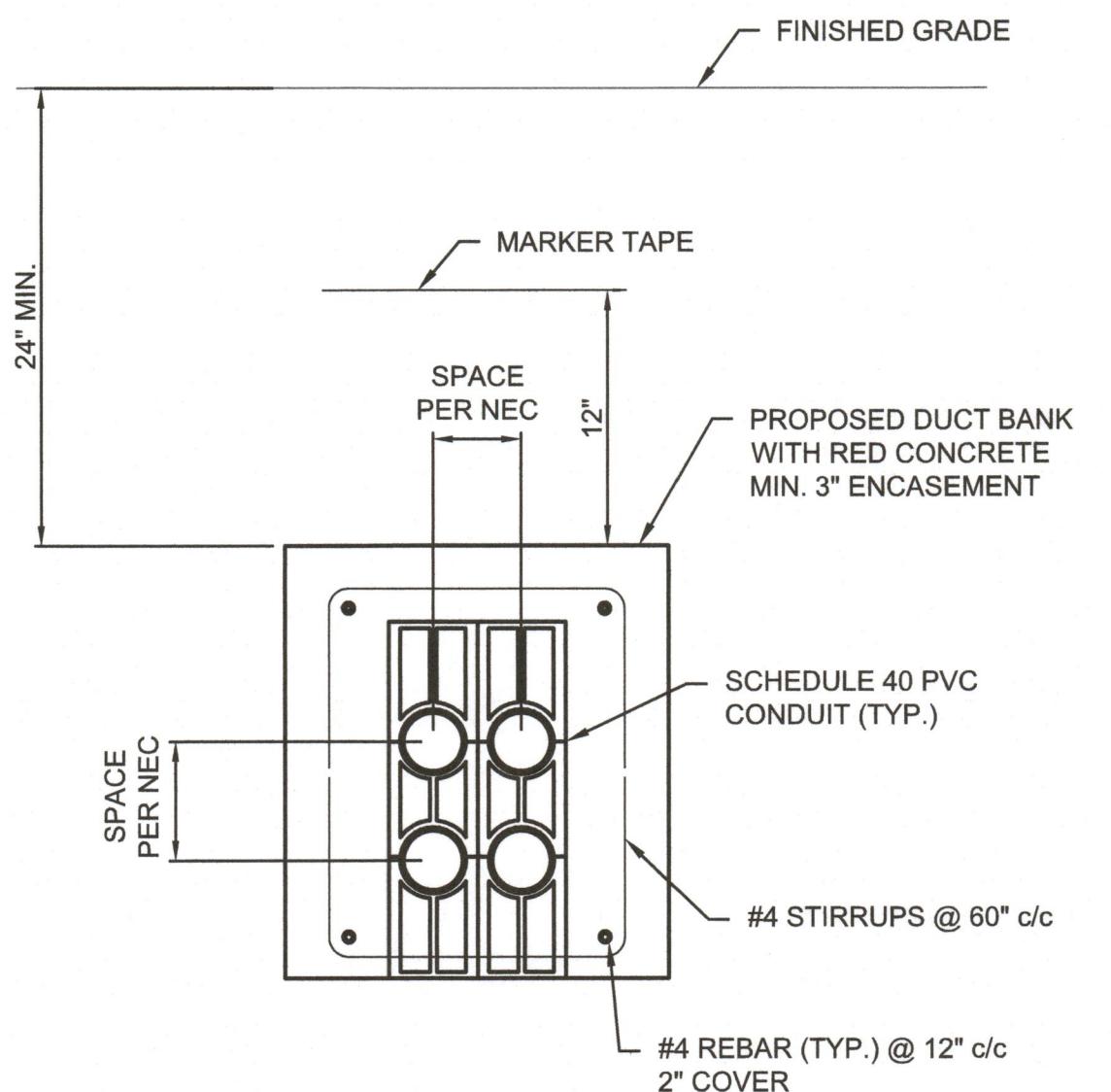
- FLOATS AND INTRINSICALLY SAFE RELAYS ARE PART OF AN INTRINSICALLY SAFE CIRCUIT THAT REQUIRES 3' SPACING FROM NON-INTRINSICALLY SAFE CIRCUITS IN BOTH THE FIELD JUNCTION BOX AND CONTROL CABINET. LABEL CIRCUITS AS INTRINSICALLY SAFE.
- ADD M COIL AUXILIARY RELAY IF REQUIRED.
- TCEQ REQUIRED FORCE MAIN FLUSH CIRCUIT FOR THREE PUMP LIFT STATIONS. IF ANY TWO PUMPS HAVE NOT SIMULTANEOUSLY RUN FOR 12 HOURS, THEN RUN TWO PUMPS FOR A MINIMUM OF 20 SECONDS. PROVIDE A TEN SECOND SEPARATION IN PUMP STARTS.



6 NATURAL GAS GENERATOR & SOUND ATTENUATING ENCLOSURE DETAIL

1

E: S. 7 TYPICAL DUCT BANK CONSTRUCTION



SPECIAL DEVICE SCHEDULE	
ITEM	DESCRIPTION
1	PHASE FAILURE RELAY - DIVERSIFIED ELECTRONICS #SLA-460-ALE, 480 VOLT, 3 PHASE
2	SURGE SUPPRESSOR - SEE SPECIFICATIONS
3	MOTOR PROTECTION ELECTRIC STATION CONTROLLER, SC1000 W/ALARM RELAY, 120 VOLTS, 60HZ, OR APPROVED EQUAL SET FOR TWO PUMP OPERATION
4	TIME DELAY RELAY - WITH 2 S.P.D.T. SWITCHES RATED 5 AMPS AT 120 VOLT, CONTACTS AND COIL, PLUG IN BASE AND SOCKET, 3 RANGES, 0.1 TO 100 SEC. ATC MODEL #319D-134
5	CONTROL RELAY - WITH 4 S.P.D.T. SWITCHES RATED 10 AMPS AT 120 VOLT, 120 VOLT COIL, PLUG IN BASE AND SOCKET
6	INDICATING LIGHT - PUSH TO TEST - LED TYPE, ALLEN BRADLEY BULLETIN 800 TYPE, 120 VOLT, 60HZ - COLOR AS INDICATED
7	ELAPSED TIME METER - CRAMER #635G/HRS, 120 VOLT
8	ROTATING BEACON - 35 WATTS, 90FPM, 120 VOLT, 35T8DC LAMP, RED ACRYLIC DOME LEN, PARABOLIC TYPE, EDWARDS #52R
9	VENT FAN - HOFFMAN CAT. #A-PA4AXFN, 21 WATT, 120 VOLT (WITH RAIN SHIELD GRILL)
10	AUTODIALER - 8 CH., RACO VERBATIM, SEE SPECIFICATIONS
11	CONSOLIDATED ELECTRIC MODEL 9G DIRECT ACTING FLOAT SWITCH WITH 40 FOOT OF CABLE
12	EXHAUST GRILLE - HOFFMANCAT. #A-VK66 LOUVER WITH #A-FLT66 FILTER K.T. (WITH RAIN SHIELD GRILL)
13	DIVERSIFIED ELECTRONICS CAT. #150-120-AFN LOW CURRENT ISOLATION SWITCH, 5 AMPS, 120 VOLT CONTACTS. (INTRINSICALLY SAFE CIRCUIT TO FLOAT SWITCH)
14	FLYGT MINICAS II/FUS PUMP PROTECTION MODULE OR EQUAL UNIT MUST PROVIDE SEAL LEAK AND WINDING OVERTEMP ALARM, INDICATION, AND PROTECTION AS SHOWN
15	A1000 SOLID STATE SUBMERSIBLE LEVEL TRANSDUCER WITH SS CABLE AND ALL ACCESSORIES.
16	CONSOLIDATED ELECTRIC MODEL IS1-3 INTRINSIC SAFETY BARRIER.

REV. NO.	DATE	DESCRIPTION	P.E. APPR.
			
			
			



FORT BEND COUNTY MUD NO. 210

LIFT STATION NO. 1

ELECTRICAL DETAILS (SHEET 2 OF 2)

E5



SP NUMBER 14151-00

ITEM NO. 100-110

E: N T S

OCTOBER 2025

VEY BY: BGE, INC.

NO: