



May 26, 2023

Mr. Otis Spriggs
Director of Development Services
City of Angleton
121 S. Velasco
Angleton, TX 77515

Re: On-Going Services
Angleton Park Place Subdivision Improvement Plans (Revised Layout) – 1st Submittal Review
Angleton, Texas
HDR Job No. 10361761

Dear Mr. Spriggs:

HDR Engineering, Inc. (HDR) has reviewed the plans for the above referenced subdivision and offers the following comments:

1. A Pre-Construction Meeting shall be coordinated for the proposed improvements.
2. Coordination with City of Angleton Public Works shall be provided for all proposed utility tie-in locations
3. For traffic control along Phillips Road (CR 219), coordination shall be made 72-hrs in advance for any lane/road closures.
4. Any changes to the attached site plans shall be coordinated and resubmitted for review and City approval.

HDR takes no objection to the proposed Angleton Park Place Subdivision Improvement Plans (Revised Layout) with the exceptions noted. Please note, this does not necessarily mean that the entire drawings, including all supporting data and calculations, has been completely checked and verified; however, the drawings and supporting data are signed, dated, and sealed by a Licensed Professional Engineer licensed to practice in the State of Texas, which therefore conveys the engineer's responsibility and accountability.

If you have any questions, please feel free to contact us at our office (713)-622-9264.

Sincerely,

HDR Engineering, Inc.

Javier Vasquez, P.E., CFM
Civil Engineer

cc: Files (10361761)

Attachments

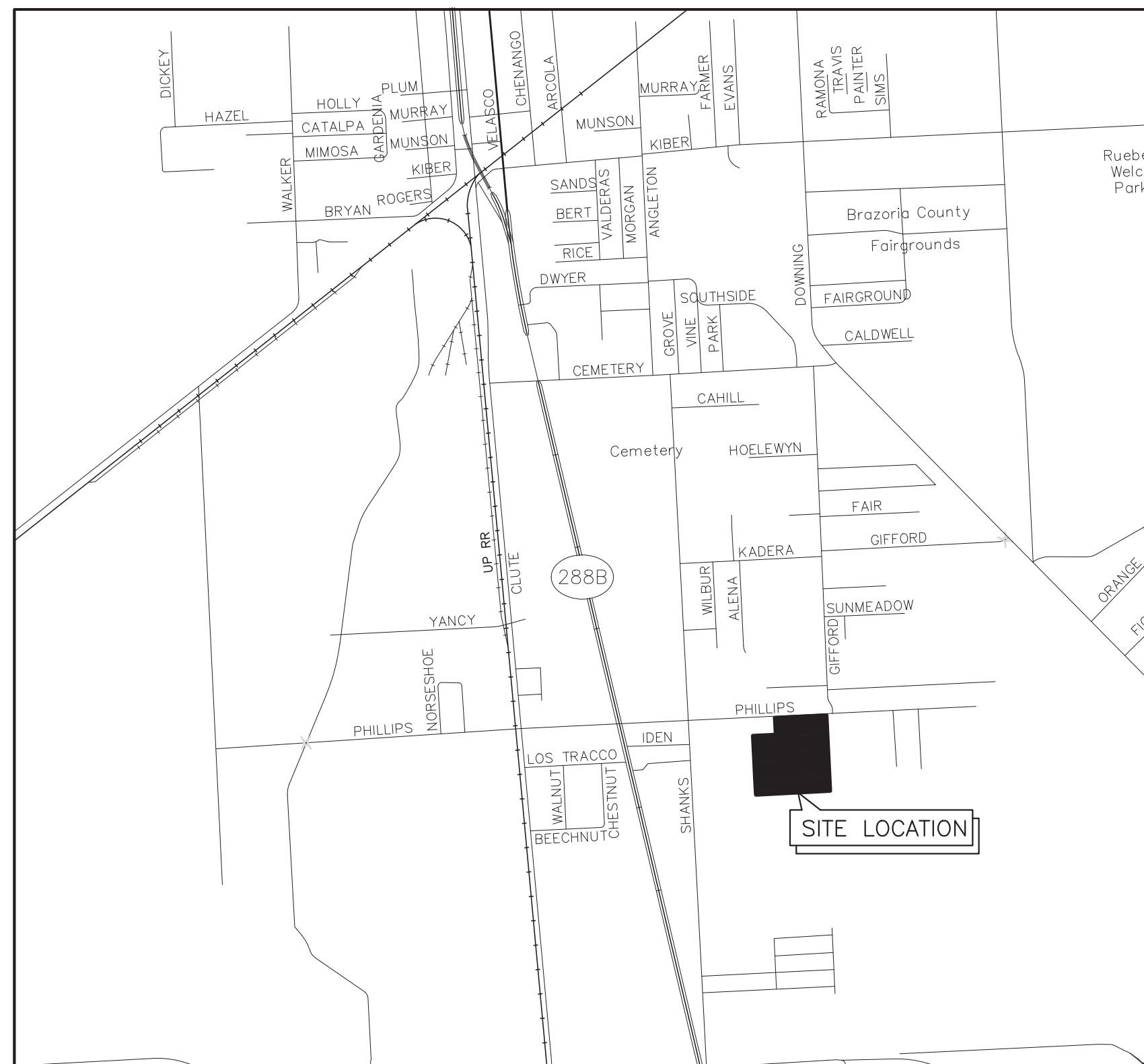
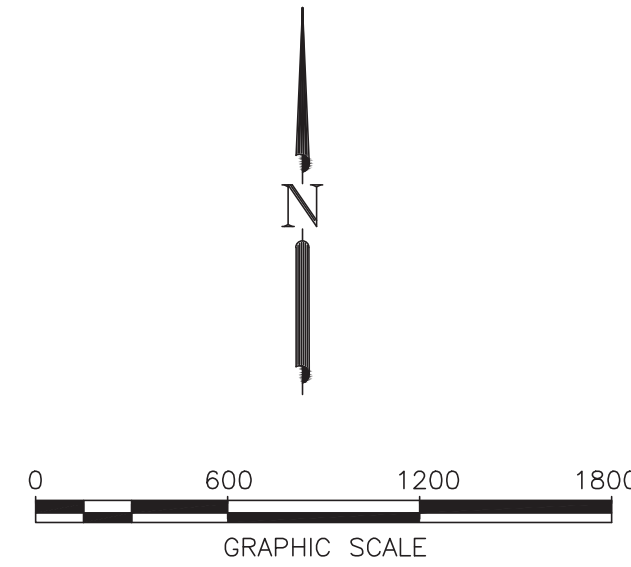
PLANS FOR CONSTRUCTION OF PAVING, DRAINAGE AND UTILITIES ON ANGLETON PARK PLACE SECTION 1 A 50 LOT, 4 BLOCK SUBDIVISION FOR THE CITY OF ANGLETON BRAZORIA COUNTY B&L JOB No. 14320 May 25, 2023

INDEX OF DRAWINGS

SHEET NO.	SHEET NAME
1	TITLE SHEET
2	CONSTRUCTION NOTES
3	EXISTING CONDITIONS
4	SITE PLAN & HERITAGE TREE PRESERVATION
5	LOT GRADING PLAN
6	CUT AND FILL CALCULATIONS
7	UTILITY LAYOUT
8	STORM SEWER CALCULATIONS SYSTEM "A" & SYSTEM "B"
9	DRAINAGE AREA MAP
10	DETENTION POND LAYOUT AND CROSS-SECTIONS
11	PAVEMENT MARKING, STREET SIGN, MAILBOX, AND ROAD LIGHTING LAYOUT
12	PLAN & PROFILE - VERMONT AVENUE STA 0+00 TO 5+60
13	PLAN & PROFILE - VERMONT AVENUE STA 5+60 TO 8+60
14	PLAN & PROFILE - BOARDWALK STREET STA -0+40 TO 4+40
15	PLAN & PROFILE - BOARDWALK STREET STA 4+40 TO 8+60
16	PLAN & PROFILE - BAL TIC AVENUE STA 0+00 TO 5+80
17	PLAN & PROFILE - PARK PLACE BLVD STA -0+40 TO 4+40
18	PLAN & PROFILE - STM SEWER "A"
19	SWPPP LAYOUT AND DETAILS
20	SWPPP NARRATIVE
21	HYDROLOGIC CALCULATIONS
22	TRAFFIC CONTROL PLAN - HALF ROAD CLOSURE
23	TRAFFIC CONTROL PLAN - FULL ROAD CLOSURE

DETAIL SHEETS

24	MISCELLANEOUS DETAILS (1 OF 2)
25	MISCELLANEOUS DETAILS (2 OF 2)
26 (SL-03)	STORM SEWER MANHOLE CONSTRUCTION DETAILS
27 (SL-07)	STORM SEWER MANHOLE CONSTRUCTION DETAILS
28 (SL-08)	STORM SEWER INLET CONSTRUCTION DETAILS II
29 (SL-09)	STORM SEWER INLET CONSTRUCTION DETAILS III
30 (SL-10)	STORM SEWER CONSTRUCTION DETAILS
31 (SL-11)	JUNCTION BOX MANHOLES
32 (SL-14)	SANITARY SEWER CONSTRUCTION DETAILS
33 (SL-15)	WATER LINE CONSTRUCTION DETAILS
34 (SL-16)	WATER LINE CROSSING DETAILS
35 (SL-19)	WATER LINE, SAN. SEW. F.M. BEDDING DETAILS
36 (SL-20)	STORM SEW. BEDDING AND BACKFILL DETAILS
37 (SL-21)	CONCRETE PAVEMENT CONSTRUCTION DETAILS
38 (SL-22)	CONCRETE PAVEMENT CONSTRUCTION DETAILS
39 (SL-23)	RESIDENTIAL CURB CONSTRUCTION DETAILS
40 (SL-25)	WHEEL CHAIR RAMP & SIDEWALK DETAILS I
41 (SL-26)	WHEEL CHAIR RAMP & SIDEWALK DETAILS II
42 (SL-27)	DRIVEWAY CONSTRUCTION DETAILS
43 (SL-33)	GENERAL EROSION CONTROL NOTES
44 (SL-34)	EROSION CONTROL DETAILS - 1
45 (SL-35)	EROSION CONTROL DETAILS - 2



VICINITY MAP

CITY OF ANGLETON

MAYOR
JASON PEREZ

CITY COUNCIL
 CHRISTIENE DANIEL
 CECIL BOOTH
 JOHN WRIGHT
 TRAVIS TOWNSEND
 MARK GONGORA

"Release of this application does not constitute a verification of all data, information and calculations supplied by the applicant. The engineer of record is solely responsible for the completeness, accuracy and adequacy of their submittal, whether or not the application is reviewed for Code compliance by the City Engineer."

"All responsibility for the adequacy of these plans remains with the Engineer who prepared them. In approving these plans, the City of Angleton must rely on the adequacy of the work of the Design Engineer."

FLOOD ZONE STATEMENT

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP No. 48039C0445K EFFECTIVE DECEMBER 30, 2020, THE SITE LIES FULLY IN ZONE "X" (UNSHADED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD.

THE SITE LIES FULLY WITHIN THE BASTROP BAYOU WATERSHED, DRAINAGE AREA BB19 OF THE BRAZORIA COUNTY MASTER DRAINAGE STUDY.

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 SHEET SET SEC 1.DWG

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED	MS
DRAWN	
CHECKED	
DATE	

OWNER:
Mike Morgan
979-236-5089
dmmorganjr@yahoo.com

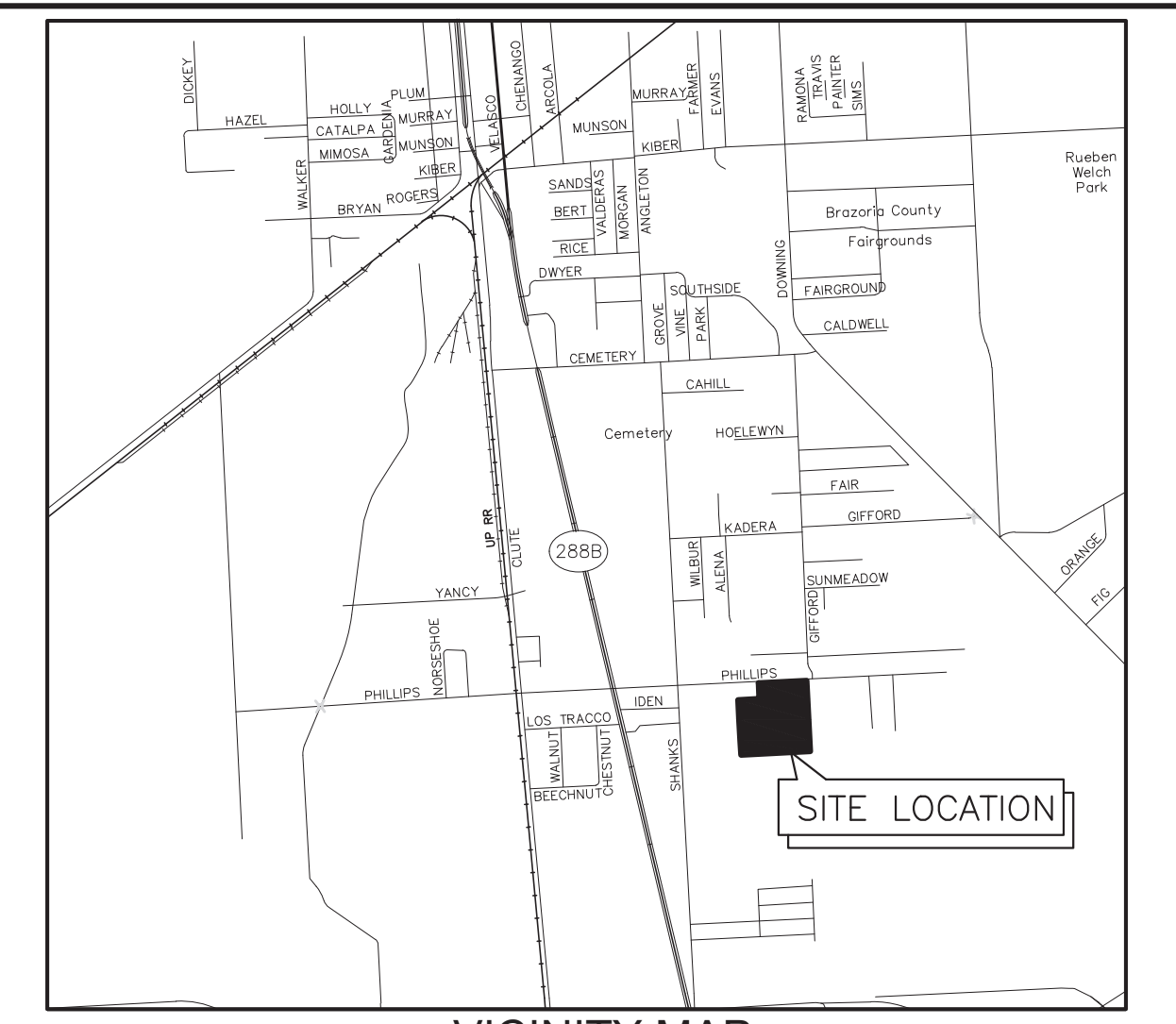
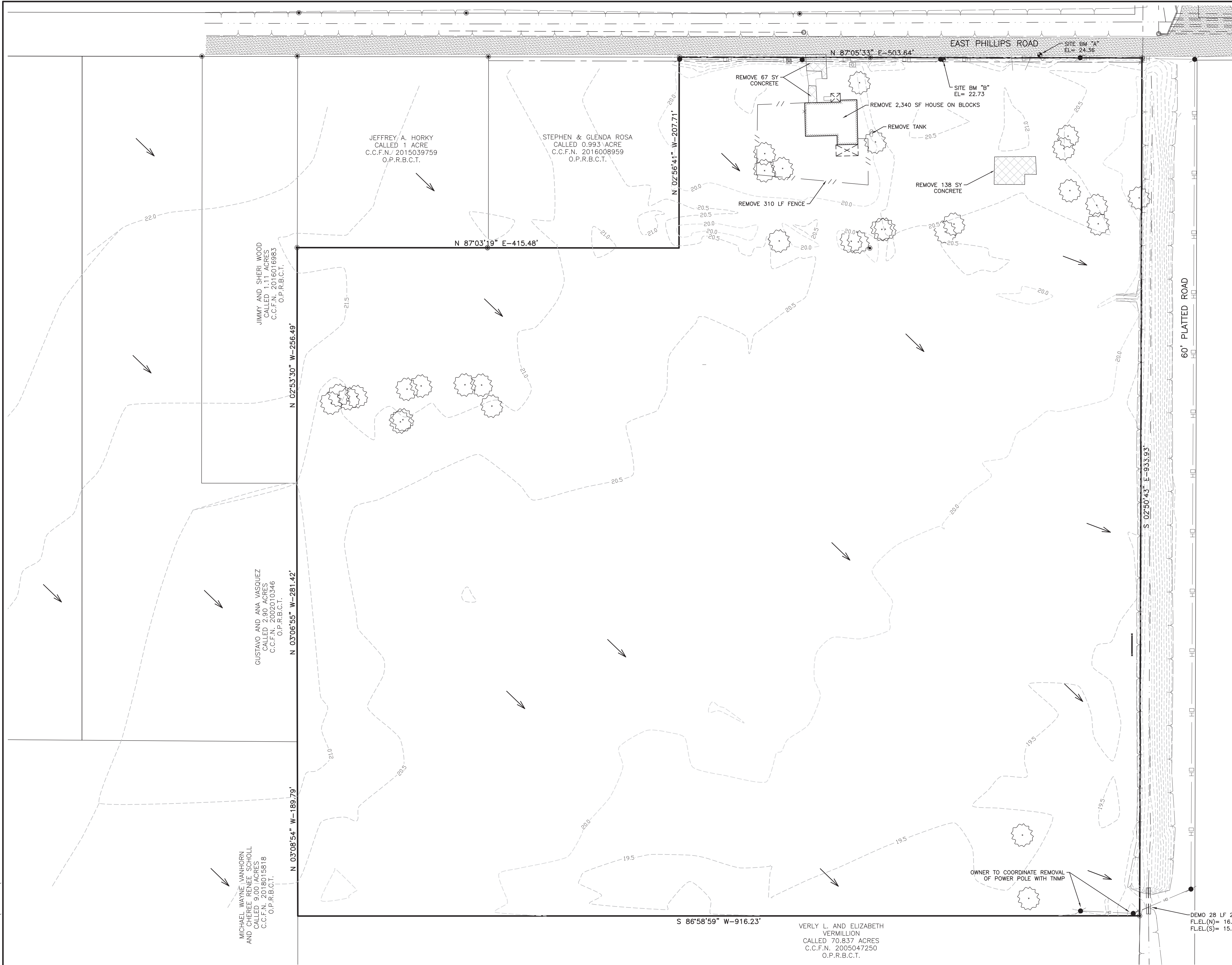
PLAN: _____
PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____

**ANGLETON PARK PLACE SECTION 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

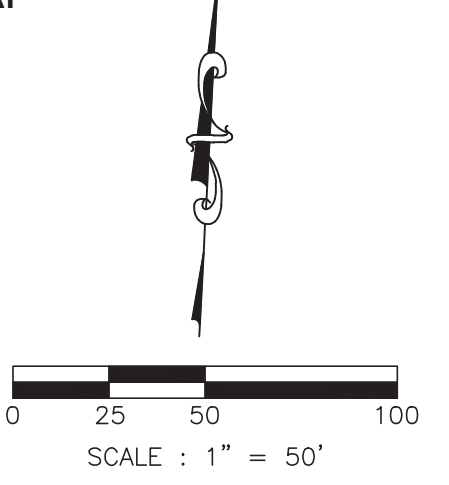
TITLE SHEET
PROJECT NO. 14320

14320 SHEET SET SEC 1.DWG

J:\140005\143005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 SHEET SET SEC 1.DWG



VICINITY MAP



FLOOD ZONE STATEMENT

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP No. 48039C0445K EFFECTIVE DECEMBER 30, 2020, THE SITE LIES FULLY IN ZONE "X" (UNSHADED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD.

PROJECT BENCHMARK:

ANGLETON = PUBLISHED ELEVATION = 25.81'
TRIANGULATION STATION DISK SET IN TOP OF CONCRETE POST STAMPING; ANGLETON 1931 LOCATED ABOUT 1 MILE SOUTHWEST OF ANGLETON ON LAND OWNED BY MR. JAMISON, 40 FEET NORTH EAST OF COUNTY ROAD 221, NEAR MAIN GATE TO HOMESITE.

TEMPORARY BENCHMARK ON SITE: TOP BOLT ON FIRE HYDRANT LOCATED ON THE SOUTH RIGHT-OF-WAY LINE OF EAST PHILLIPS ROAD AND THE NORTH PROPERTY LINE OF SUBJECT PROPERTY.
TBM = 24.82'

SITE BENCHMARKS:

SITE BM "A"

"LL" STAMP IN FIRE HYDRANT LOCATED ON SOUTH SIDE OF PHILLIPS ROAD, CENTERED ON NORTH PROPERTY LINE.
ELEVATION = 24.36

SITE BM "B"

A 60D NAIL IN EAST FACE OF A POWER POLE LOCATED ON NORTH WEST CORNER OF PROPERTY ON SOUTH SIDE OF PHILLIPS ROAD.
ELEVATION = 22.73

ALL COORDINATES SHOWN HEREON ARE IN GRID, BASED ON THE TEXAS COORDINATE SYSTEM OF 1983, (NAD83) SOUTH CENTRAL ZONE, PER GPS OBSERVATIONS.

SYMBOLS

- = FND IMPLEMENT AS NOTED
- = SET 5/8" IRON ROD
- ⊙ = BENCHMARK
- ⊕ = GAS VALVE
- ⊖ = GAS METER
- ⊗ = IRRIGATION CONTROL
- ⊘ = WATER VALVE
- ⊙ = WATER METER
- ⊕ = FIRE HYDRANT
- ⊖ = GUY WIRE
- ⊗ = POWER POLE
- ⊘ = SIGNAL POLE
- ⊙ = LIGHT POLE
- ⊕ = BOLLARD
- ⊖ = MONITOR WELL
- ⊗ = CLEANOUT
- ⊘ = SIGN
- ⊙ = TELE PEDESTAL
- ⊕ = TREE
- ⊖ = MANHOLE
- ⊗ = INLET

LEGEND:

- EXISTING OVERFLOW PATH
- ⊕ EXISTING NATURAL GROUND EL

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

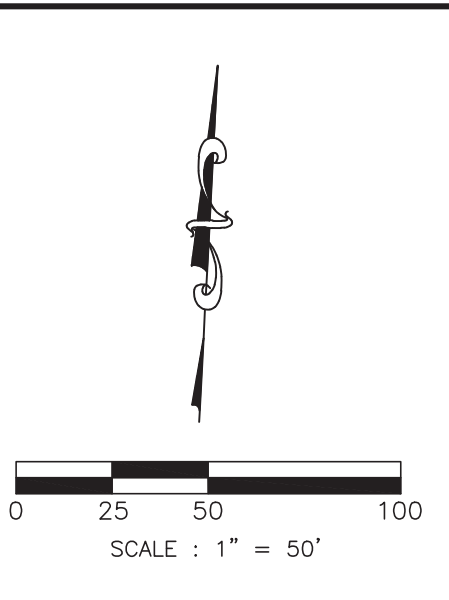
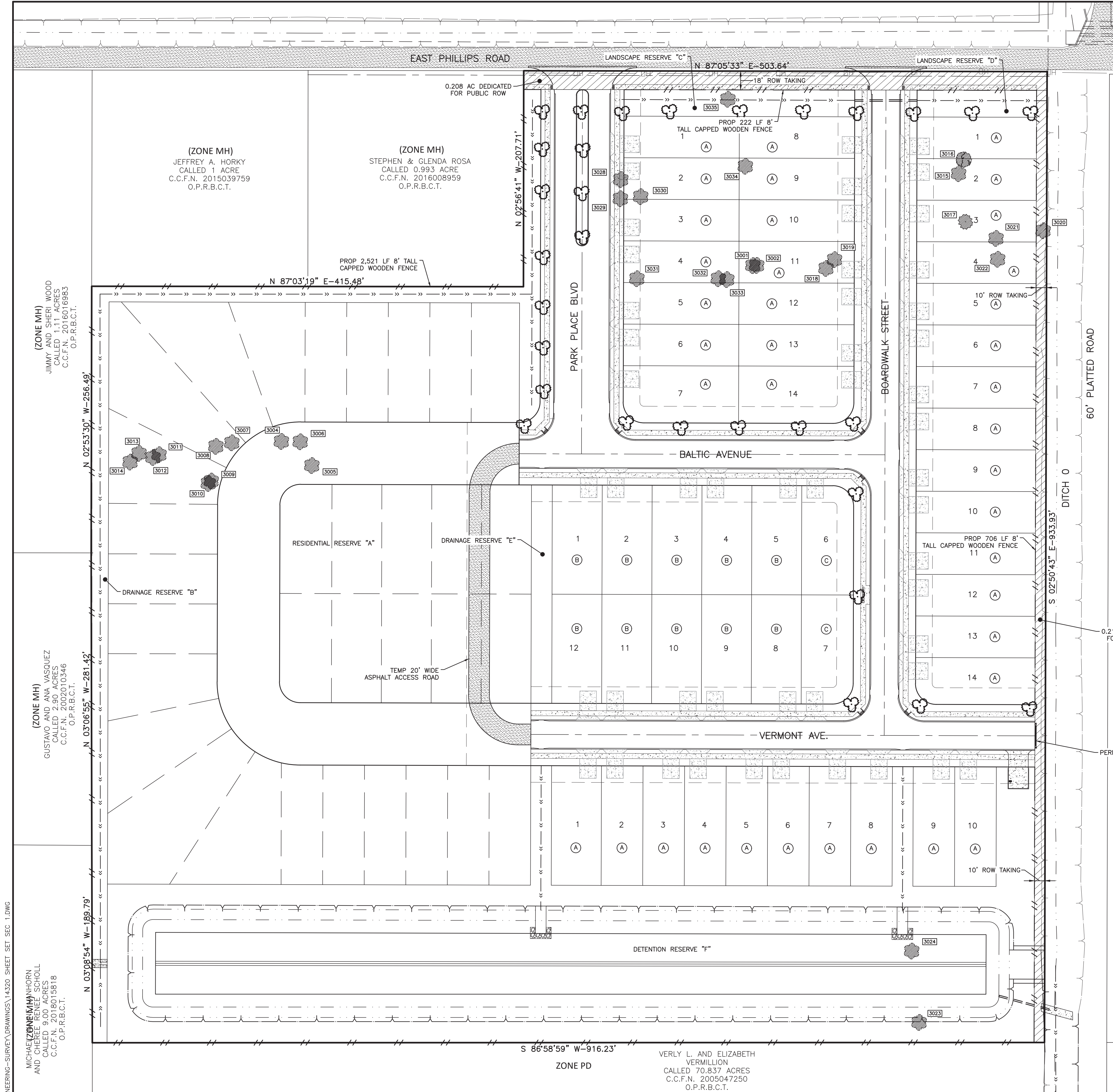
DESIGNED MS
DRAWN
CHECKED
DATE May 25, 2023

OWNER:
Mike Morgan
979-236-5089
dmmorganjr@yahoo.com

PLAN: 1" = 50'
PROFILE:
HORIZONTAL:
VERTICAL:

**ANGLETON PARK PLACE SECTION 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

EXIST CONDITIONS
PROJECT NO. 14320



TREE LEGEND

- HERITAGE TREE (PECAN & LIVE OAK)
- SIGNIFICANT TREE (OAK & ELM)
- INSIGNIFICANT TREE (ALL OTHER TYPES)
- PROPOSED TREE (FROM LIST)

TREE LIST

COMMON NAME

- GREEN ASH
- BASSWOOD
- EASTERN COTTONWOOD
- AMERICAN ELM
- BLACK HICKORY
- SOUTHERN MAGNOLIA
- RED MAPLE
- BUR OAK
- CALIFORNIA FAN PALM
- LOBLOLLY PINE
- SWEETGUM

TREES TO BE REMOVED				
ID	TYPE	DIAMETER (INCH)	TYPE	STATUS
3001	TALLOW	24	INSIGNIFICANT	REMOVE
3002	TALLOW	24	INSIGNIFICANT	REMOVE
3004	TALLOW	16	INSIGNIFICANT	REMOVE
3005	TALLOW	20	INSIGNIFICANT	REMOVE
3006	TALLOW	12	INSIGNIFICANT	REMOVE
3007	TALLOW	22	INSIGNIFICANT	REMOVE
3008	TALLOW	11	INSIGNIFICANT	REMOVE
3009	TALLOW	12	INSIGNIFICANT	REMOVE
3010	TALLOW	12	INSIGNIFICANT	REMOVE
3011	TALLOW	22	INSIGNIFICANT	REMOVE
3012	TALLOW	24	INSIGNIFICANT	REMOVE
3013	TALLOW	28	INSIGNIFICANT	REMOVE
3014	TALLOW	28	INSIGNIFICANT	REMOVE
3015	TALLOW	15	INSIGNIFICANT	REMOVE
3016	OAK	28	SIGNIFICANT	REMOVE
3017	PECAN	30	HERITAGE	REMOVE
3018	TALLOW	28	INSIGNIFICANT	REMOVE
3019	TALLOW	30	INSIGNIFICANT	REMOVE
3020	HACKBERRY	30	INSIGNIFICANT	REMOVE
3021	HACKBERRY	12	INSIGNIFICANT	REMOVE
3022	TALLOW	24	INSIGNIFICANT	REMOVE
3023	TALLOW	28	INSIGNIFICANT	REMOVE
3024	TALLOW	30	INSIGNIFICANT	REMOVE
3028	TALLOW	15	INSIGNIFICANT	REMOVE
3029	TALLOW	15	INSIGNIFICANT	REMOVE
3030	HACKBERRY	12	INSIGNIFICANT	PERSERVE
3031	TALLOW	24	INSIGNIFICANT	PERSERVE
3032	TALLOW	24	INSIGNIFICANT	REMOVE
3033	TALLOW	10	INSIGNIFICANT	REMOVE
3034	TALLOW	12	INSIGNIFICANT	REMOVE
3035	MAPLE	14	INSIGNIFICANT	REMOVE

TOTAL NUMBER OF HERITAGE TREES = 1
 TOTAL CALIPER OF HERITAGE TREES = 30 IN

HERITAGE TREES TO BE REMOVED = 1
 CALIPER OF REMOVED HERITAGE TREES = 30 IN

HERITAGE & SIGNIFICANT TREES TO BE PRESERVED = 0
 CALIPER OF HERITAGE/SIGNIFICANT TREES TO BE PRESERVED = 0 IN

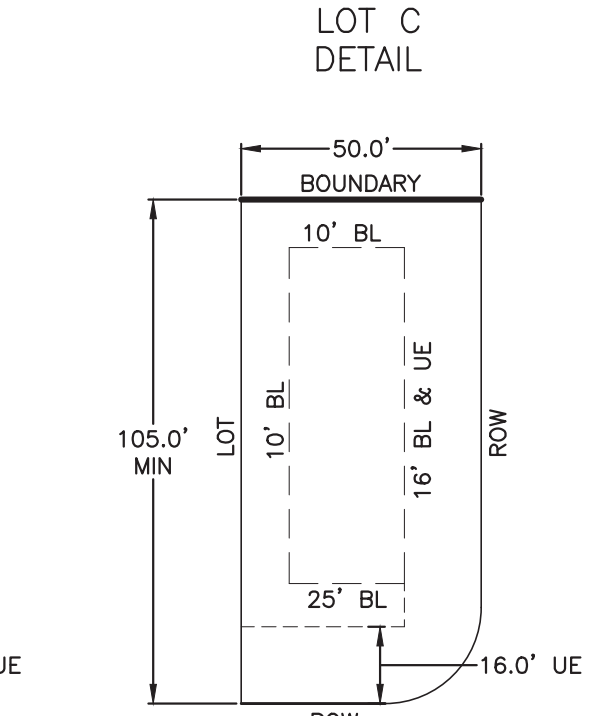
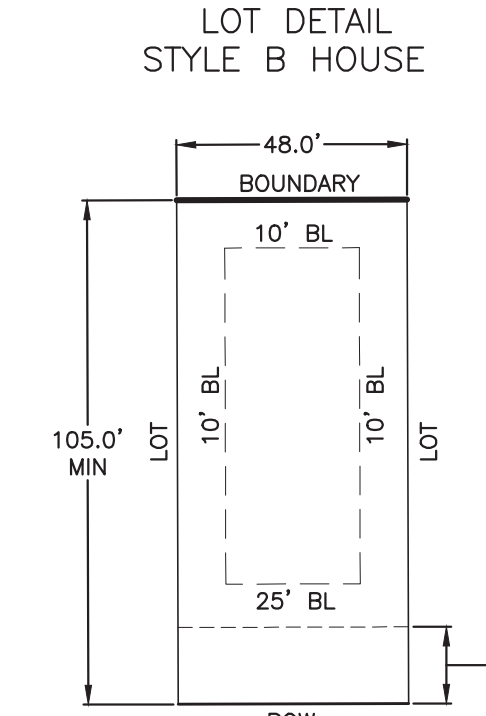
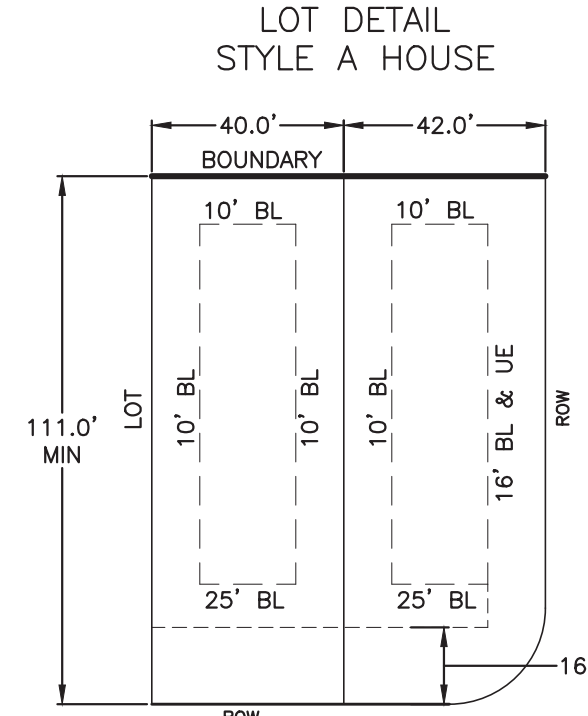
REQUIRED REPLACEMENT CALIPER = (30 - 0) X 3 = 90 IN

PER SECTION 23-60.H.7 OF THE ANGLETON LDC, THE HOMEOWNER WILL PROVIDE TWO TREES PER LOT IN ADDITION TO THE REQUIRED REPLACEMENT CALIPER. THE LAND DEVELOPER WILL PROVIDE 30 3"-DIAMETER TREES (TOTAL = 90") IN ADDITION TO TWO TREE PER LOT REQUIREMENT.

THE PROPOSED TREES SHOWN ON THIS SHEETS ARE REQUIRED PRIOR TO THE CITY'S ACCEPTANCE OF THE SUBDIVISION AND WILL BE INSTALLED BY THE DEVELOPER.

AN ADDITIONAL TWO TREES PER LOT WILL BE PLANTED BY THE HOME BUILDER.

- HOUSE DIMENSIONS LEGEND:**
- (A) 16' X 76'
 - (B) 28 X 65'
 - (C) 24' X 65'



SYMBOLS LEGEND

- EXIST GRADE ELEVATION
- PROP GRADE ELEVATION
- PROP TOP OF 4" CURB ELEVATION
- PROP TOP OF 6" CURB ELEVATION
- PROP RIM ELEVATION OF CURB INLET
- PROP GUTTER LINE ELEVATION
- PROP TOP OF CONCRETE PAVEMENT
- PROP TOP OF GRATE INLET
- DOUBLE WATER METER
- SINGLE WATER METER
- FIRE HYDRANT
- WATER VALVE
- TAPPING SLEEVE AND VALVE
- STORM SEWER MANHOLE (STM MH-1)
- SANITARY SEWER MANHOLE (SAN MH-1)
- DOUBLE SAN. WYE CONNECTION
- SINGLE SAN. CONNECTION
- DRIVEWAY SWING INDICATOR
- TOP BANK
- STORM SEWER LINE
- RCP, BOX CULVERT, OR PP
- SANITARY SEWER LINE (D3034, SDR 26, 160 PR)
- WATERLINE (AWWA C900, CLASS 150, DR18)
- PROP SIDEWALK (IN CONTRACT)
- PROP. CASING FOR WATERLINE AND SAN SEW CONFLICT

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
 DRAWN
 CHECKED
 DATE May 25, 2023

B & L
 BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1330
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825

The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992

OWNER:
 Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

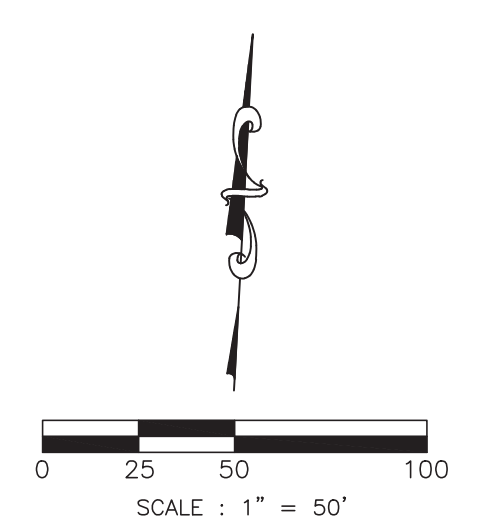
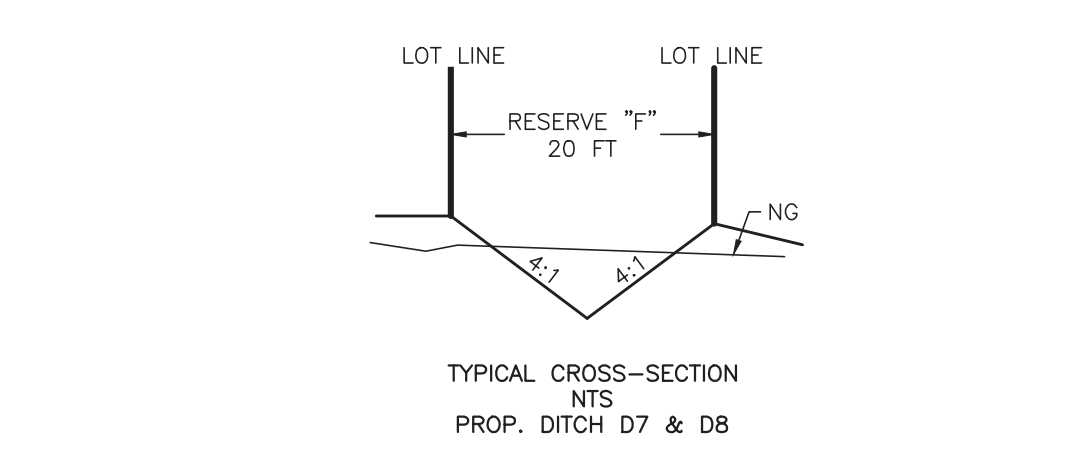
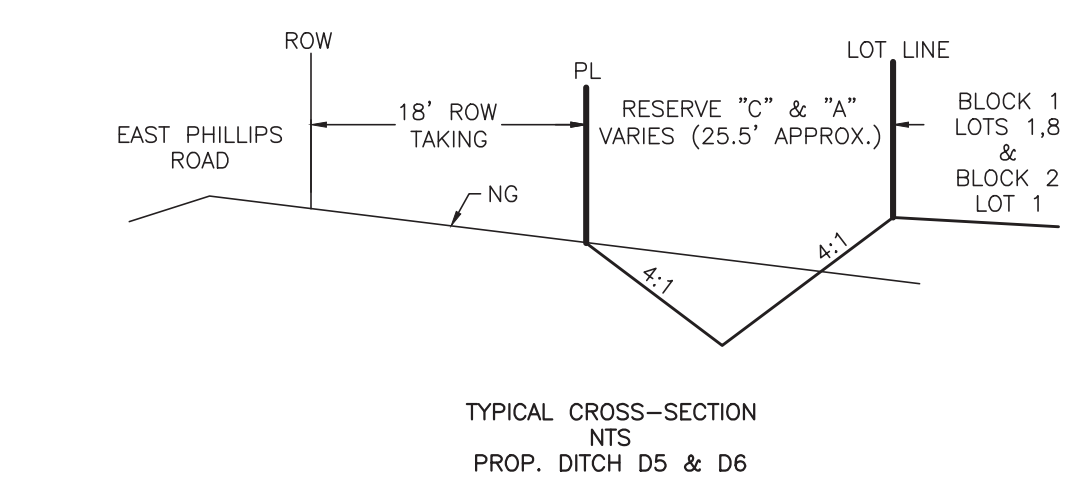
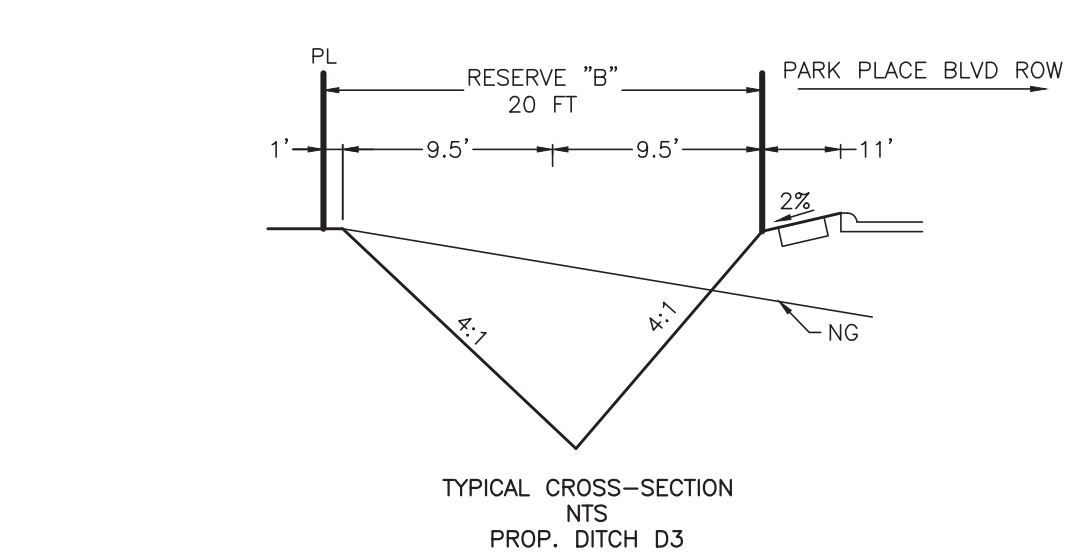
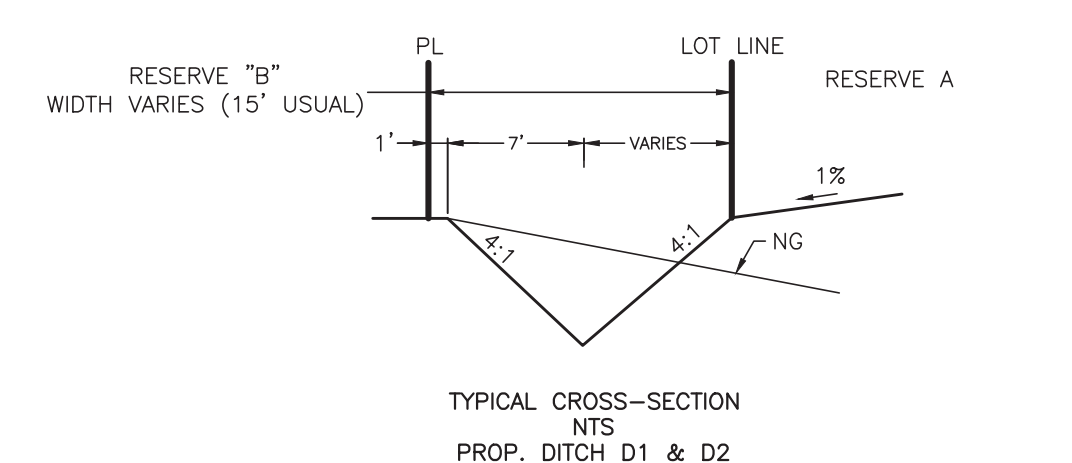
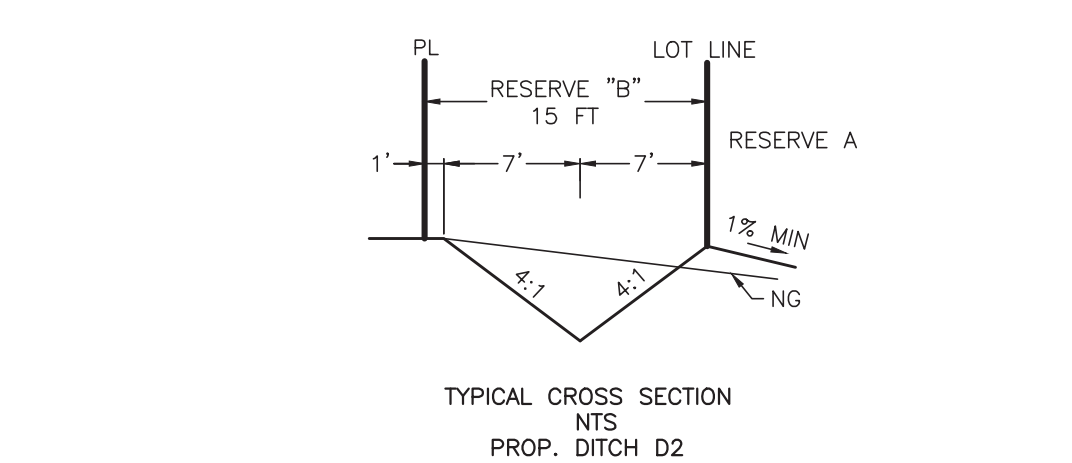
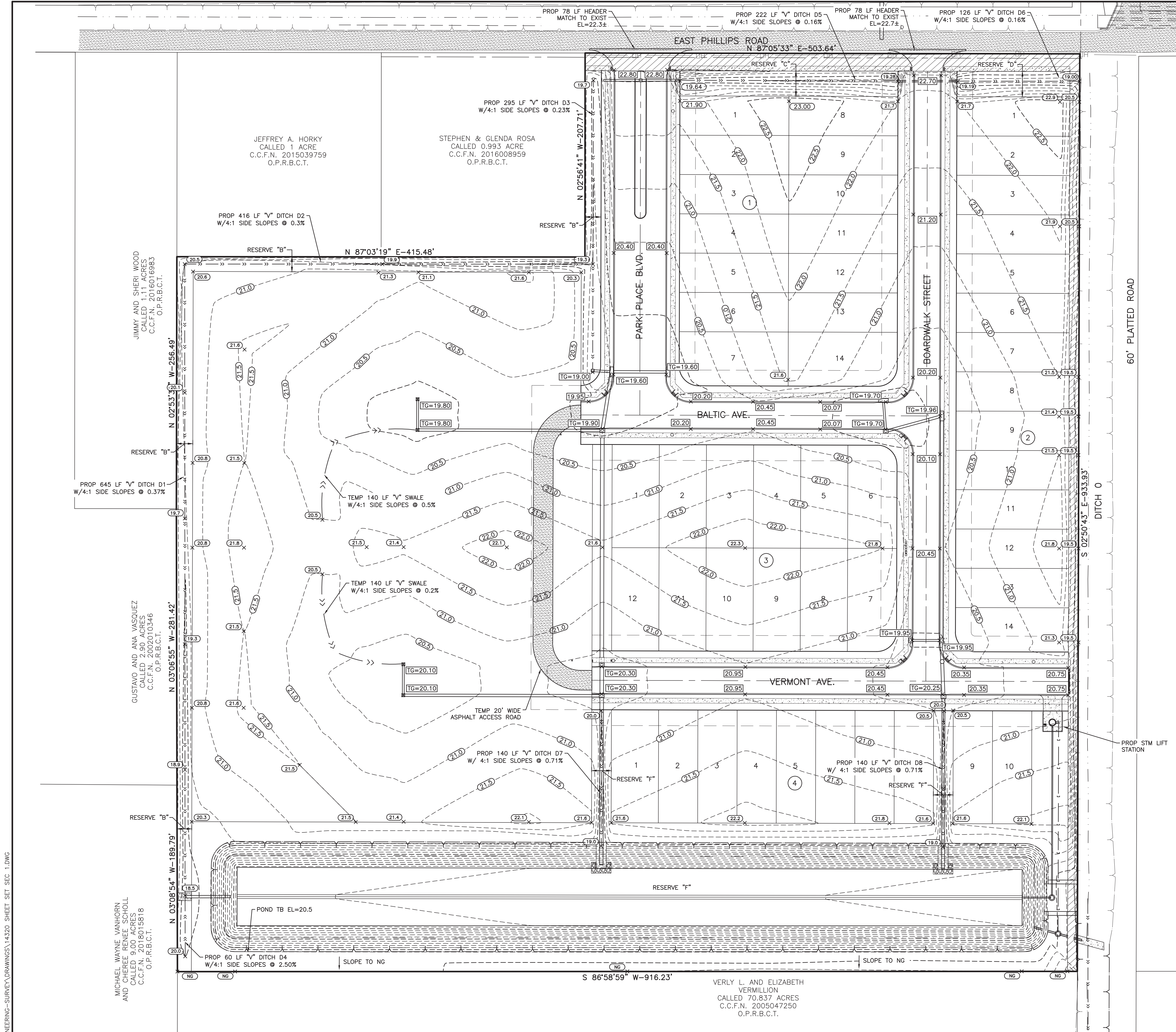
PLAN: 1" = 50'
 PROFILE:
 HORIZONTAL:
 VERTICAL:

ANGELTON PARK PLACE SECTION 1
 ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

SITE PLAN & HERITAGE TREE PRESERVATION
 PROJECT NO. 14320

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 SHEET SET SEC 1.DWG

14320 SHEET SET SEC 1.DWG



SYMBOLS LEGEND

- EXIST GRADE ELEVATION
- PROP GRADE ELEVATION
- PROP TOP OF 4" CURB ELEVATION
- PROP TOP OF 6" CURB ELEVATION
- PROP RIM ELEVATION OF CURB INLET
- PROP GUTTER LINE ELEVATION
- PROP TOP OF CONCRETE PAVEMENT
- PROP TOP OF GRATE INLET
- DOUBLE WATER METER
- SINGLE WATER METER
- FIRE HYDRANT
- WATER VALVE
- TAPPING SLEEVE AND VALVE
- STORM SEWER MANHOLE (STM MH-1)
- SANITARY SEWER MANHOLE (SAN MH-1)
- DOUBLE SAN. WYE CONNECTION
- SINGLE SAN. CONNECTION
- DRIVEWAY SWING INDICATOR
- TOP BANK
- STORM SEWER LINE
- RCP, BOX CULVERT, OR PP
- SANITARY SEWER LINE (D3034, SDR 26, 160 PR)
- WATERLINE (AWWA C900, CLASS 150, DR18)
- PROP SIDEWALK (IN CONTRACT)
- PROP. CASING FOR WATERLINE AND SAN SEW CONFLICT

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 SHEET SET SEC 1.DWG

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
DRAWN
CHECKED
DATE May 25, 2023

B & L
BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
4005 TECHNOLOGY DRIVE, SUITE 1530
ANGLETON, TEXAS 77515 (979) 849-6681
REG. NO. F-825

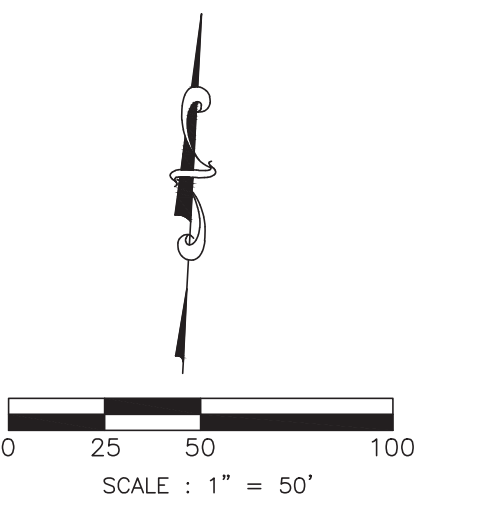
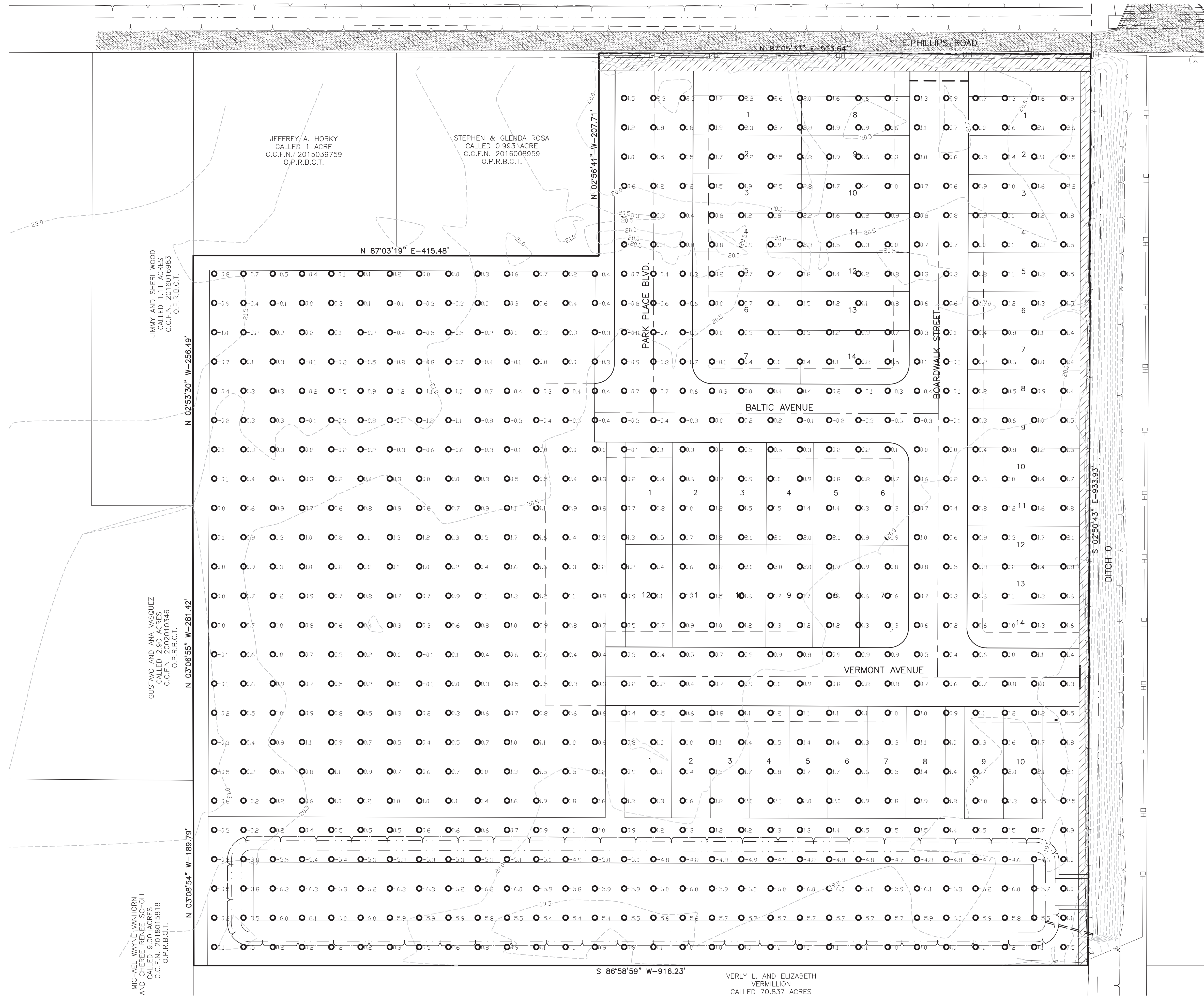
The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992
MIGUELANGEL A. SAUCEDO
LICENSED PROFESSIONAL ENGINEER
05-25-2023

OWNER:
Mike Morgan
979-236-5089
dmmorganjr@yahoo.com

PLAN: 1" = 50'
PROFILE:
HORIZONTAL:
VERTICAL:

**ANGLETON PARK PLACE SECTION 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

LOT GRADING PLAN
PROJECT NO. 14320 **5**



EARTHWORK QUANTITY:
 CUT VOLUME: 16,890 CuYd
 FILL VOLUME: 20,333 CuYd
 NET FILL : 3,443 CuYd

ESTIMATED ROADWAY EXCAVATION = 2,545 CY (CUT)
 ESTIMATED UTILITY SPOILS = 2,663 CY (CUT)
 ADJUSTED NET = 3,443 (FILL) - 2545 (CUT) -2,663 CUT
 = 1,765 CY (CUT)
 CONTRACTOR TO SPREAD EXCESS FILL ON LOTS (1,765 CY =1.0")

J:\140005\143005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 SHEET SET SEC 1.DWG

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
 DRAWN
 CHECKED
 DATE May 25, 2023

B & L
BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1530
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825

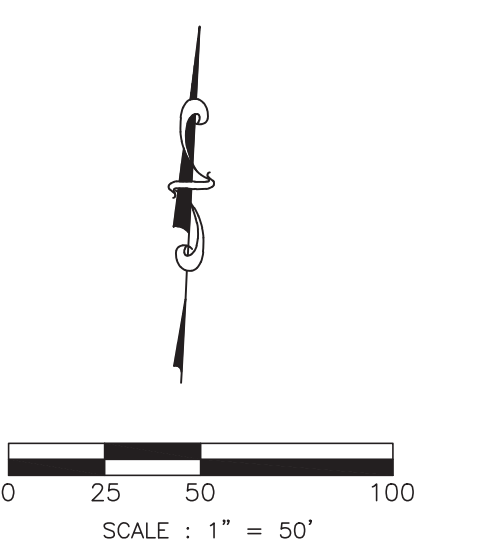
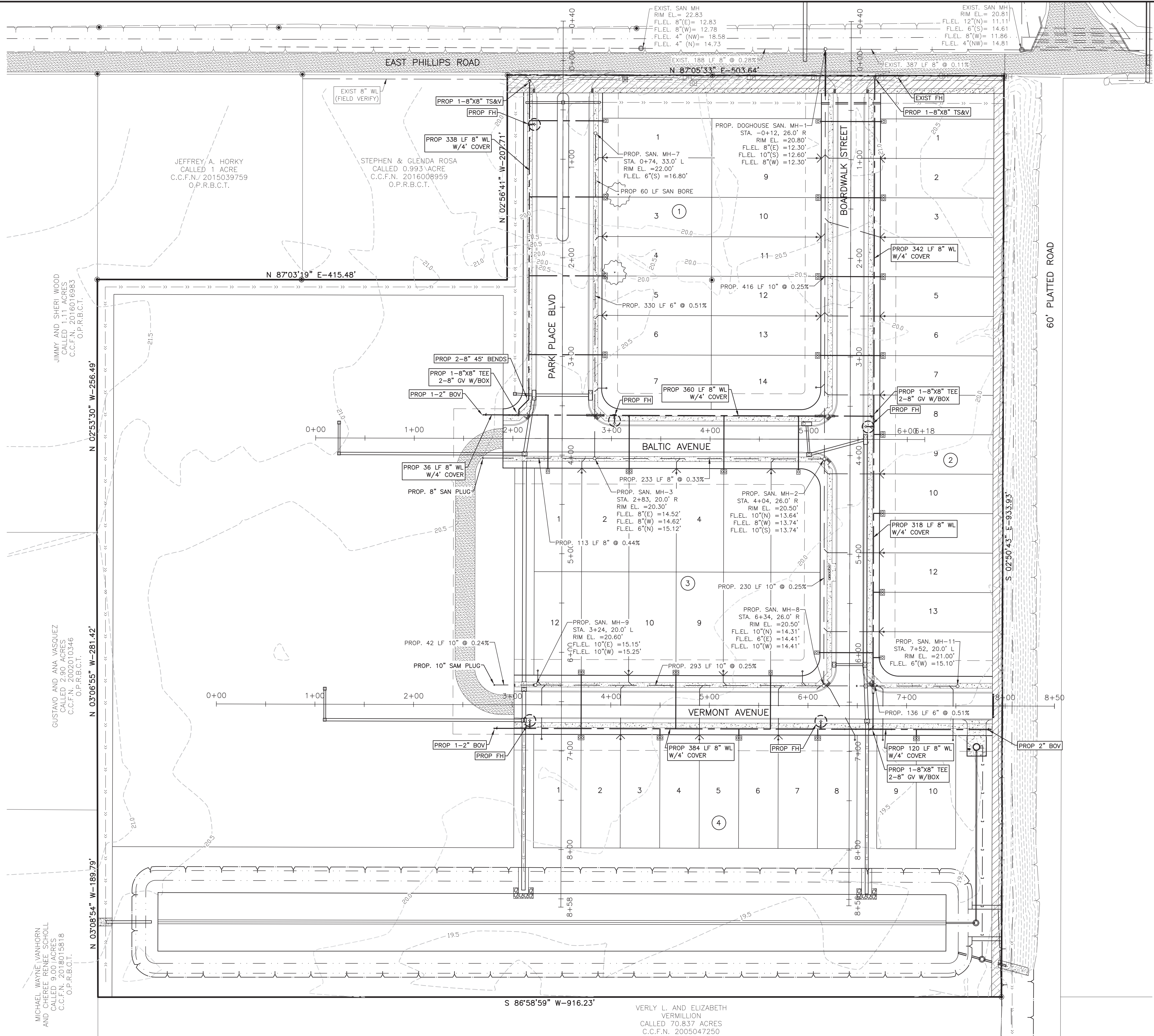
The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992
 05-25-2023

OWNER:
 Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

PLAN: 1" = 50'
 PROFILE:
 HORIZONTAL:
 VERTICAL:

ANGLETON PARK PLACE SECTION 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

CUT & FILL
 CALCULATIONS
 PROJECT NO. 14320 **6**



SYMBOLS LEGEND

- EXIST GRADE ELEVATION
- PROP GRADE ELEVATION
- PROP TOP OF 4" CURB ELEVATION
- PROP TOP OF 6" CURB ELEVATION
- PROP RIM ELEVATION OF CURB INLET
- PROP GUTTER LINE ELEVATION
- PROP TOP OF CONCRETE PAVEMENT
- PROP TOP OF GRATE INLET
- DOUBLE WATER METER
- SINGLE WATER METER
- FIRE HYDRANT
- WATER VALVE
- TAPPING SLEEVE AND VALVE
- STORM SEWER MANHOLE (STM MH-1)
- SANITARY SEWER MANHOLE (SAN MH-1)
- DOUBLE SAN. WYE CONNECTION
- SINGLE SAN. CONNECTION
- DRIVEWAY SWING INDICATOR
- TOP BANK
- STORM SEWER LINE
RCP, BOX CULVERT, OR PP
- SANITARY SEWER LINE
(D3034, SDR 26, 160 PR)
- WATERLINE (AWWA C900,
CLASS 150, DR18)
- PROP SIDEWALK (IN CONTRACT)
- PROP. CASING FOR WATERLINE
AND SAN SEW CONFLICT

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 SHEET SET SEC 1.DWG

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
 DRAWN
 CHECKED
 DATE May 25, 2023

B & L
BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1330
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825

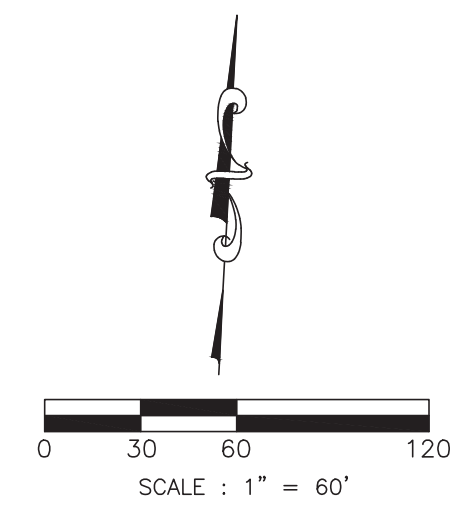
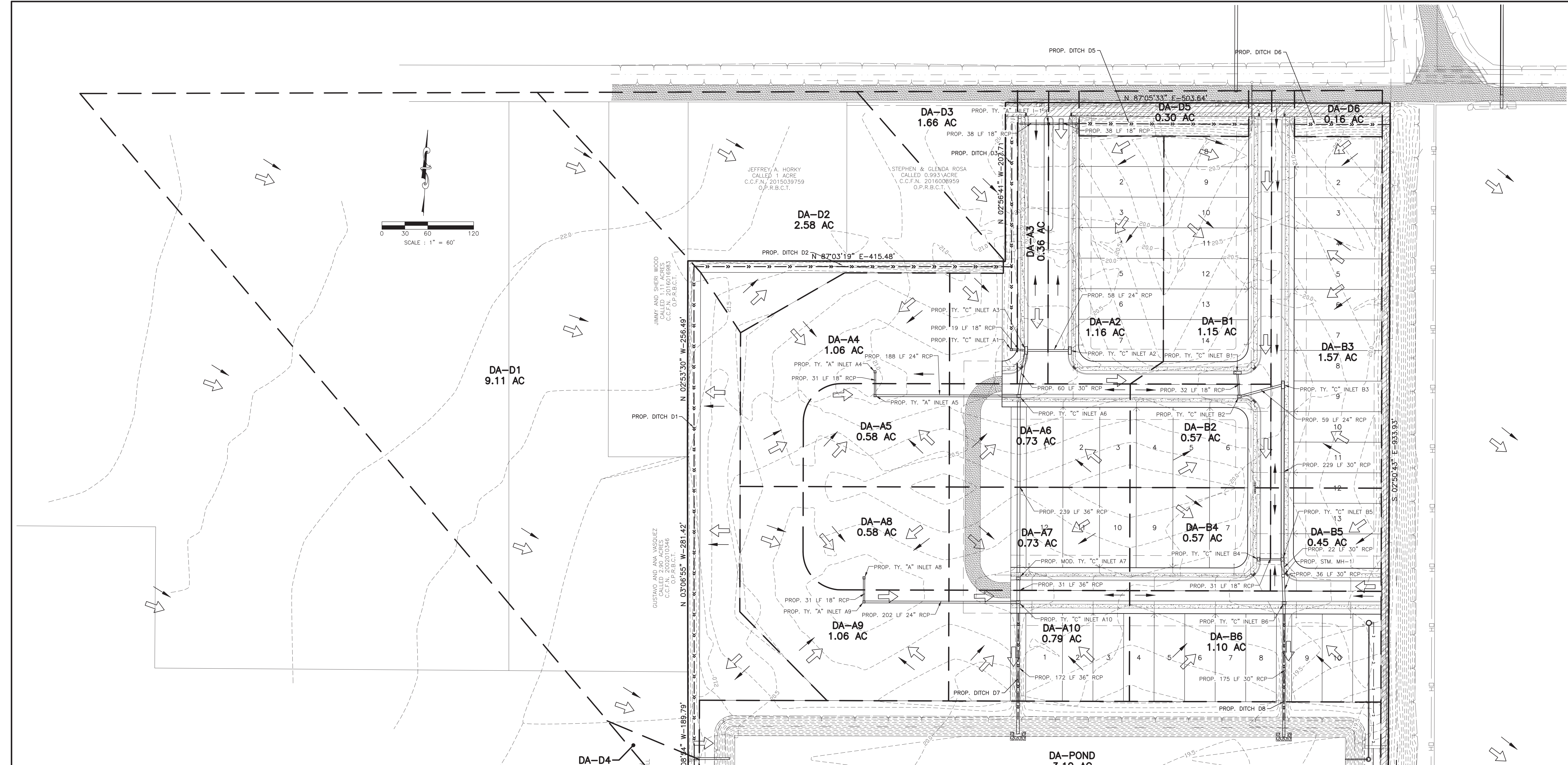
The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992 05-25-2023

OWNER:
Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

PLAN: 1" = 50'
 PROFILE:
 HORIZONTAL:
 VERTICAL:

ANGLETON PARK PLACE SECTION 1
ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

UTILITY LAYOUT
 PROJECT NO. 14320 **7**



DRAINAGE HYDRAULIC CALCULATIONS FOR THE 100-YEAR STORM EVENT

D.A. NO.	RUN	AREA (AC)	C	Tc (MIN)	Ditch Length (ft)	100-YR (in/hr)	CUMM AREA (AC)	WEIGHTED C	Factor of Safety	Q 100-YR (CFS)
DA-D1	DITCH 1	9.11	0.25	48.3	645	5.181	9.21	0.25	1.25	14.91
DA-D2	DITCH 2	2.58	0.25	27.7	416	6.725	2.58	0.25	1.25	5.42
DA-D3	DITCH 3	1.66	0.25	20.0	295	7.629	4.24	0.25	1.25	10.11
DA-D4	DITCH 4	0.10	0.25	20.0	189	7.629	0.43	0.25	1.25	1.03

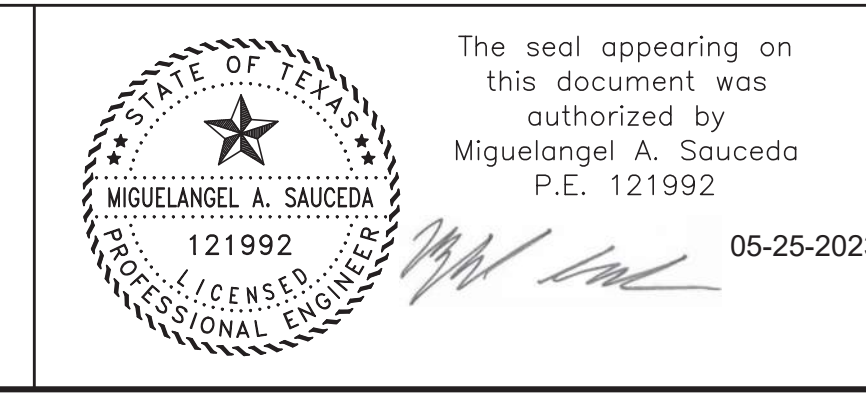
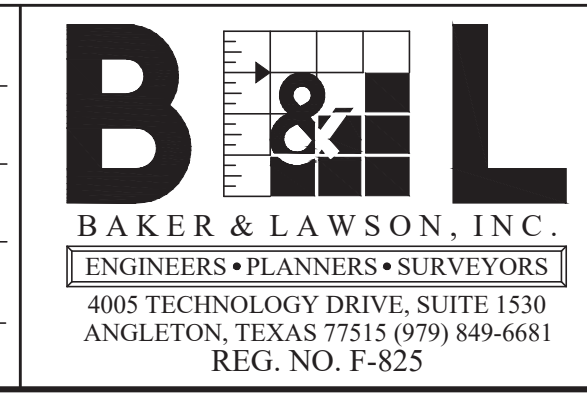
DITCH CAPACITY

ID	DITCH DEPTH (FT)	FREEBOARD (FT)	WATER DEPTH (FT)	DITCH BOTTOM (W) FT	DITCH BOTTOM (S) FT	CROSS SEC AREA (A) SF	WET PERIMETER (P) FT	HYDRAULIC RADIUS (R) FT	ROUGHNESS COEFFICIENT	SLOPE (S) FT/FT	CAPACITY (Q) CFS	REQUIRED CAPACITY (Q) CFS
DITCH 1	2	0.5	1.5	0	4	9	6.18	1.46	0.025	0.0037	41.9	14.91
DITCH 2	1.5	0.5	1	0	4	4	4.12	0.97	0.025	0.002	10.4	5.42
DITCH 3	1.5	0.5	1	0	4	4	4.12	0.97	0.025	0.002	10.4	10.11
DITCH 4	2	0.5	1.5	0	4	9	6.18	1.46	0.025	0.002	30.8	1.03

Use 30" RCP for outfall of Ditches D1 (Capacity = 24.24 cfs)
 Use 24" RCP for outfall of Ditches D2 and D3 (Capacity = 10.12 cfs)

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
 DRAWN
 CHECKED
 DATE May 25, 2023



OWNER:
Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

PLAN: 1" = 60'
 PROFILE:
 HORIZONTAL:
 VERTICAL:

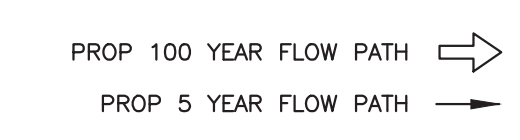
ANGLETON PARK PLACE SECTION 1
ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

DRAINAGE AREA MAP
 PROJECT NO. 14320

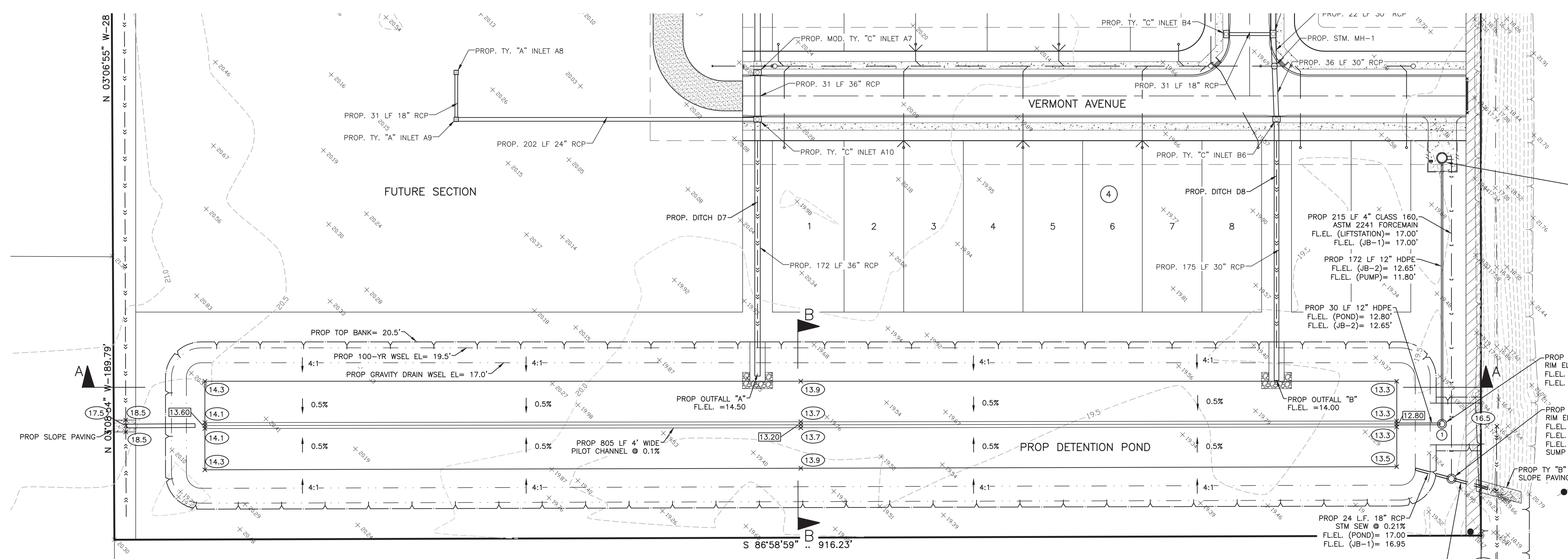
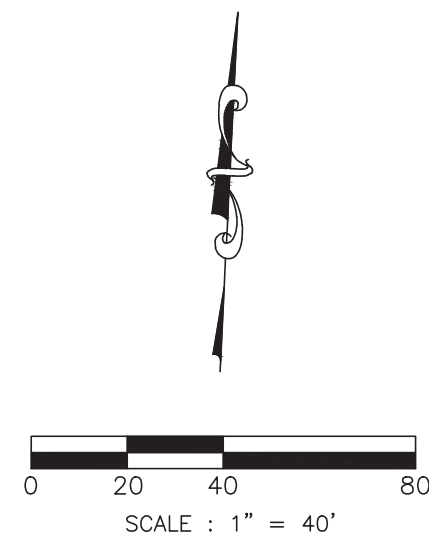
NOTE:

DRAINAGE AREAS A5, A6, A9, AND A10 ARE DESIGNED FOR FUTURE DEVELOPMENT AND INCLUDED IN CONTRACT. TY "A" INLET WILL BE USED IN LUE OF TY "C" INLET UNTIL CONSTRUCTION OF FUTURE DEVELOPMENT.

LEGEND



J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 SHEET SET SEC 1.DWG



PROP 60" DIA LIFT STATION
RIM = 21.20'
F.L.E.L. 4" SCH80 PVC = 17.00'
F.L.E.L. 12" HDPE = 11.80'
BOTTOM = 9.20'

TRANSDUCER ELEVATIONS
HIGH LEVEL ALARM = 17.00'
PUMP #1 ON = 15.30'
PUMP #1 OFF = 13.30'
PUMP #2 ON = 15.30'
PUMP #2 OFF = 13.30'

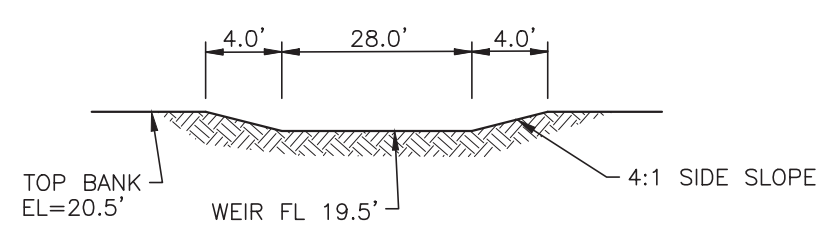
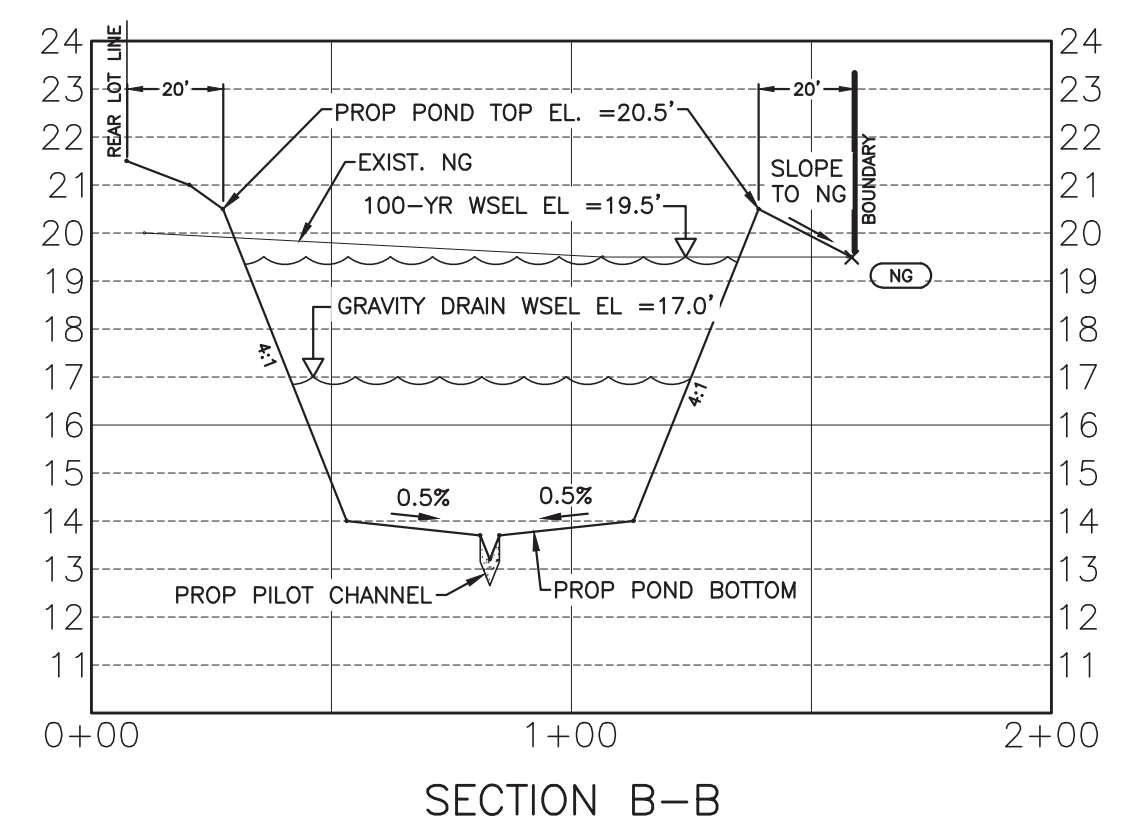
LIFT STATION INFORMATION

PROP STORM SEWER PUMP STATION 200 GPM (60" DIAMETER)
2-200 GPM SUBMERSIBLE PUMPS (ALTERNATING PUMPS)

TOTAL HEAD ON LIFT STATION =
(17.0' OUTLET EL - 11.80' INLET EL) +
2.0' HEAD LOSS FOR FITTINGS +
4.5' FRICTION LOSS IN 215 LF 4" PIPE = 11.7'

TOTAL VOLUME OF WATER TO PUMP = 179,467 CF
PUMP FLOW RATE = 200 GPM = 38,500 CFD
TOTAL PUMP TIME = 4.7 DAYS

PUMP DISCHARGE RATE = 0.45 CFS (2.1% OF ALLOWABLE)
VELOCITY IN 4" PIPE = 5.1 FPS < 10 FPS



WEIR CALCULATIONS

TRAPEZOIDAL WEIR FORMULA

$$Q = 3.247L^{1.48} \frac{0.566H^{1.9}}{1 + 2L/H} + 0.609H^{2.5}$$

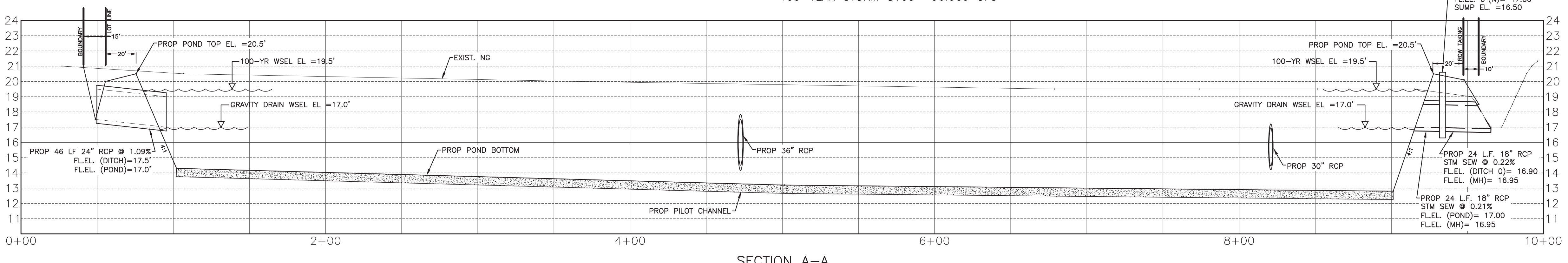
Where:
Q = Flow Rate in cfs.
L = Width of the weir crest in feet.
H = Height of the upstream water above the weir crest in feet.

L=	28 FT
H=	1 FT
Q=	91.13 CFS

① PROP 28" WIDE GRASSED OVERSPILL WEIR FOR EXTREME RAINFALL EVENT.

WEIR FLOW RATE DOES NOT EXCEED
100-YEAR STORM Q100 = 96.909 CFS

- SYMBOLS LEGEND
- EXISTING GRADE ELEVATION
 - PROPOSED GRADE ELEVATION
 - PROPOSED TOP OF 4" CURB ELEVATION
 - PROPOSED TOP OF 6" CURB ELEVATION
 - PROPOSED RIM ELEVATION OF CURB INLET
 - PROPOSED GUTTER LINE ELEVATION
 - PROPOSED TOP OF CONCRETE PAVEMENT
 - PROPOSED TOP OF GRATE INLET
 - DOUBLE WATER METER
 - SINGLE WATER METER
 - FIRE HYDRANT
 - WATER VALVE
 - TAPPING SLEEVE AND VALVE
 - STORM SEWER MANHOLE (STM MH-1)
 - SANITARY SEWER MANHOLE (SAN MH-1)
 - DOUBLE SAN. WYE CONNECTION
 - SINGLE SAN. CONNECTION
 - DRIVEWAY SWING INDICATOR
 - TOP BANK
 - STORM SEWER LINE, RCP, BOX CULVERT, OR PP
 - SANITARY SEWER LINE (D3034, SDR 26, 160 PR)
 - WATERLINE (AWWA C900, CLASS 150, DR18)
 - PROP. SIDEWALK (IN CONTRACT)
 - PROP. CASING FOR WATERLINE AND SAN SEW CONFLICT



NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
DRAWN
CHECKED
DATE May 25, 2023

B & L
BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
4005 TECHNOLOGY DRIVE, SUITE 1330
ANGLETON, TEXAS 77515 (979) 849-6681
REG. NO. F-825

The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992

121992
MIGUELANGEL A. SAUCEDO
LICENSED PROFESSIONAL ENGINEER

05-25-2023

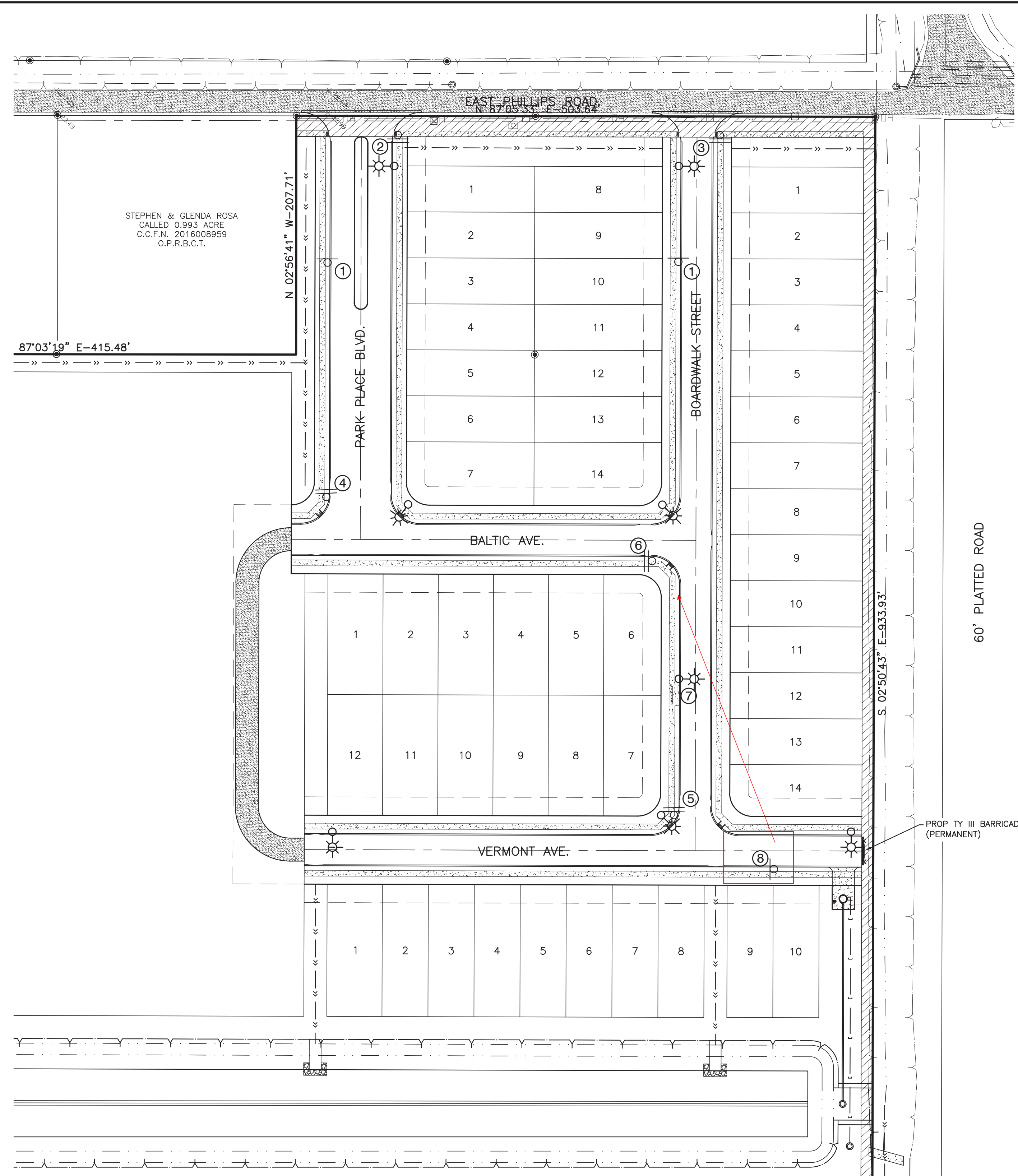
OWNER:
Mike Morgan
979-236-5089
dmmorganjr@yahoo.com

PLAN: 1" = 40'
PROFILE:
HORIZONTAL: 1" = 40'
VERTICAL: 1" = 4'

ANGLETON PARK PLACE SECTION 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

DETENTION POND LAYOUT
& CROSS-SECTIONS

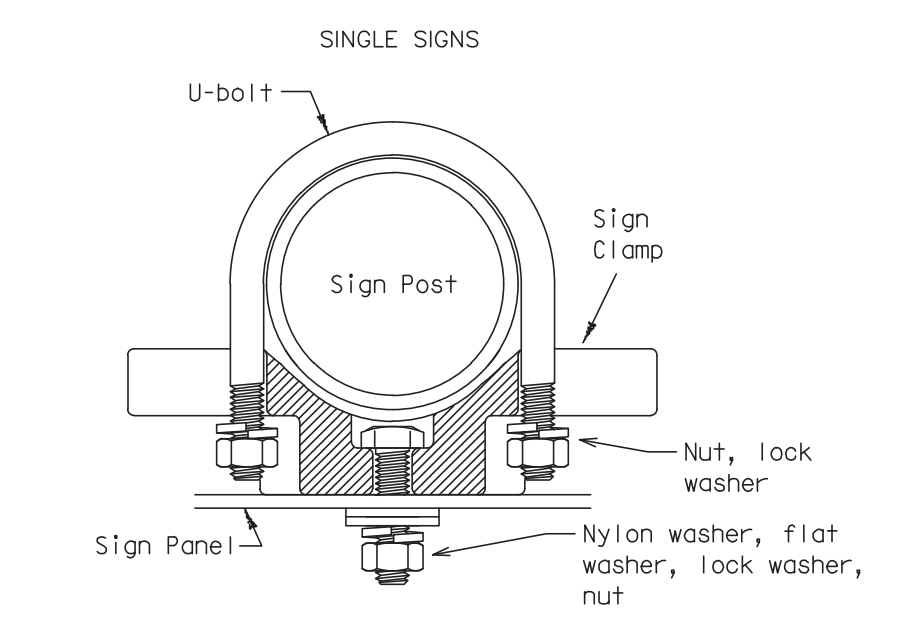
PROJECT NO. 14320



STEPHEN & GLENDA ROSA
CALLED 0.993 ACRE
C.C.F.N. 2016008959
O.P.R.B.C.T.

VERLY L. AND ELIZABETH
VERMILLION
CALLED 70.837 ACRES
C.C.F.N. 2005047250
O.P.R.B.C.T.

- SYMBOLS LEGEND**
- STREET AREA LIGHTING (8 LOCATIONS)
 - STOP SIGN W/ STREET NAMES (5 LOCATIONS)
 - SPEED LIMIT SIGN (2 LOCATION)



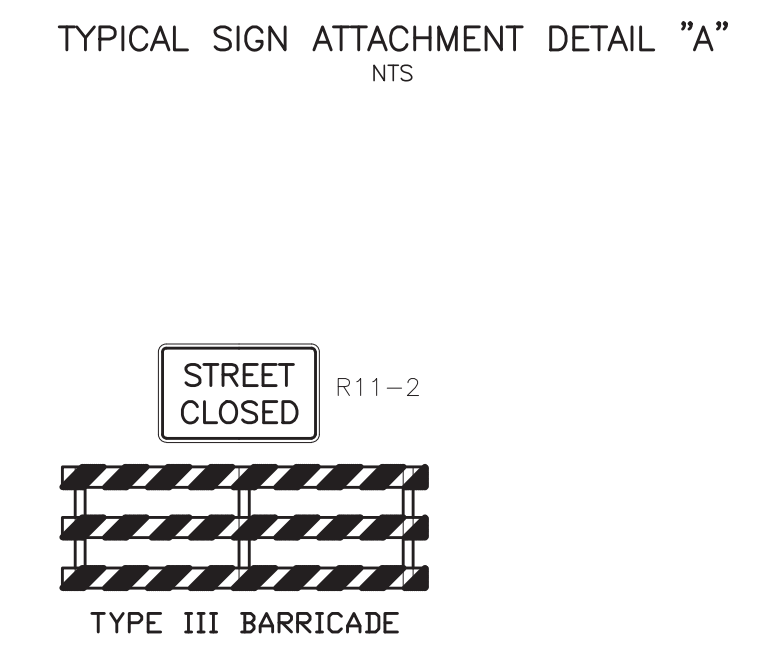
PIPE DIAMETER	APPROXIMATE BOLT LENGTH	
	SPECIFIC CLAMP	UNIVERSAL CLAMP
2" NOMINAL	3"	3 OR 3 1/2"
2 1/2" NOMINAL	3 OR 3 1/2"	3 1/2 OR 4"
3" NOMINAL	3 1/2 OR 4"	4 1/2"

GENERAL CONSTRUCTION NOTE:

BOLTS USED TO MOUNT SIGN PANELS TO THE CLAMP ARE 5/16-18 UNC GALVANIZED SQUARE HEAD WITH NUT, NYLON WASHER, FLAT WASHER AND LOCK WASHER. THE BOLT LENGTH IS 1 INCH FOR ALUMINUM.

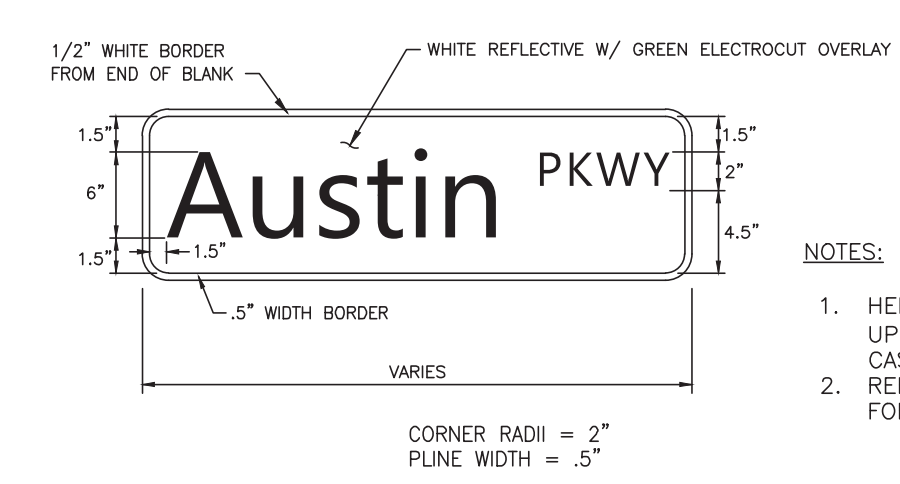
WHEN TWO SIGN CLAMPS ARE USED TO MOUNT SIGNS BACK-TO-BACK, USE A 5/16-18 UNC GALVANIZED HEX HEAD PER ASTM A307 WITH NUT AND HELICAL-SPRING LOCK WASHER. THE APPROXIMATE BOLT LENGTHS FOR VARIOUS POST SIZES AND SIGN CLAMP TYPES ARE GIVEN IN THE TABLE AT RIGHT. THE BOLT LENGTH MAY NEED TO BE ADJUSTED DEPENDING UPON FIELD CONDITIONS.

SIGN CLAMPS MAY BE EITHER THE SPECIFIC SIZE CLAMP OR THE UNIVERSAL CLAMP.



- STREET SIGNS**
- ① 30 MPH SPEED LIMIT
 - ② STOP - FACING PARK PLACE BLVD / E PHILLIPS RD
 - ③ STOP - FACING BOARDWALK ST / E PHILLIPS RD
 - ④ STOP - FACING PARK PLACE BLVD / BOARDWALK ST / VERMONT AVE
 - ⑤ STOP - FACING BOARDWALK ST / BOARDWALK ST / VERMONT AVE
 - ⑥ STOP - FACING BALTIC AVE / BOARDWALK ST
 - ⑦ 6 CBU POST OFFICE MAIL BOXES
 - ⑧ NO OUTLET SIGN

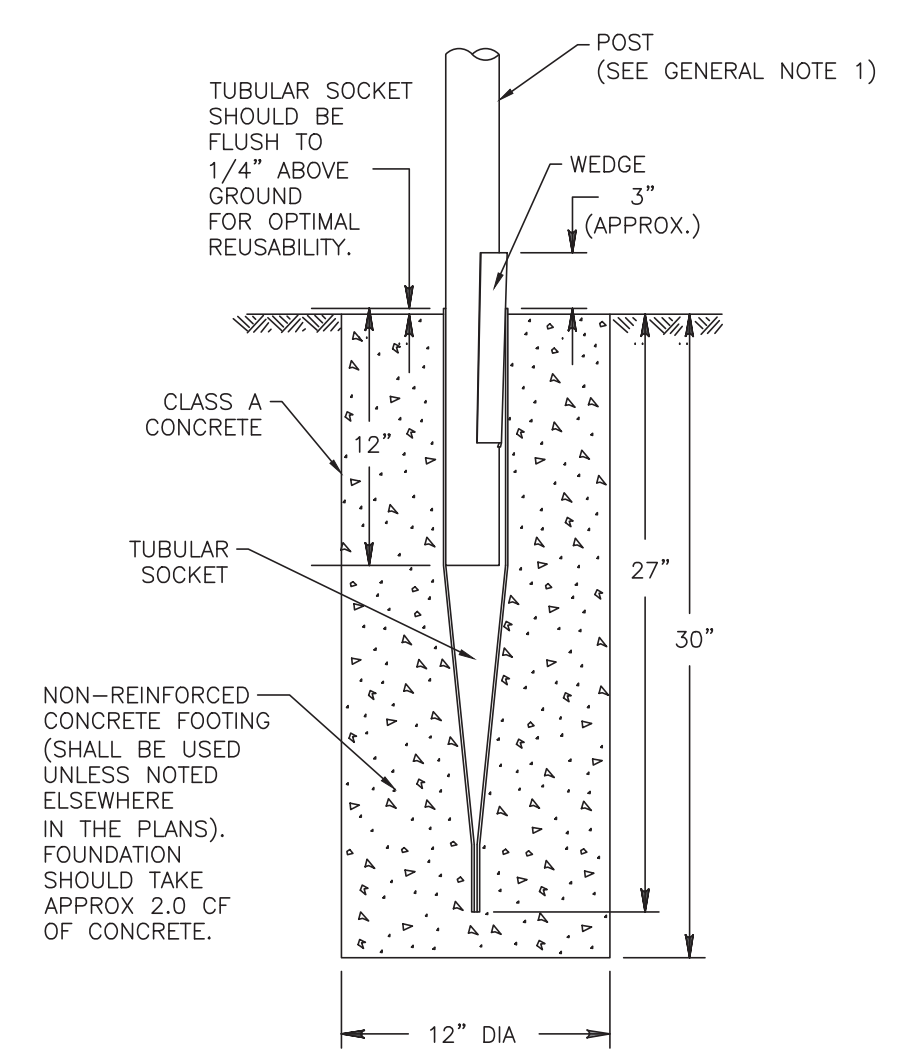
LIGHTING PLAN PROVIDED IS SHOWN AS RECOMMENDED. FINAL LOCATIONS AND QUANTITIES ARE DETERMINED BY TEXAS NEW MEXICO POWER (TNMP).



- NOTES:**
- HELVETICA BOLD, MEDIUM STYLE; WITH 9" UPPER CASE LETTERS AND 6" LOWER CASE LETTERS.
 - REFERS TO C.D.S.L. DESIGN STANDARDS FOR MORE INFO.

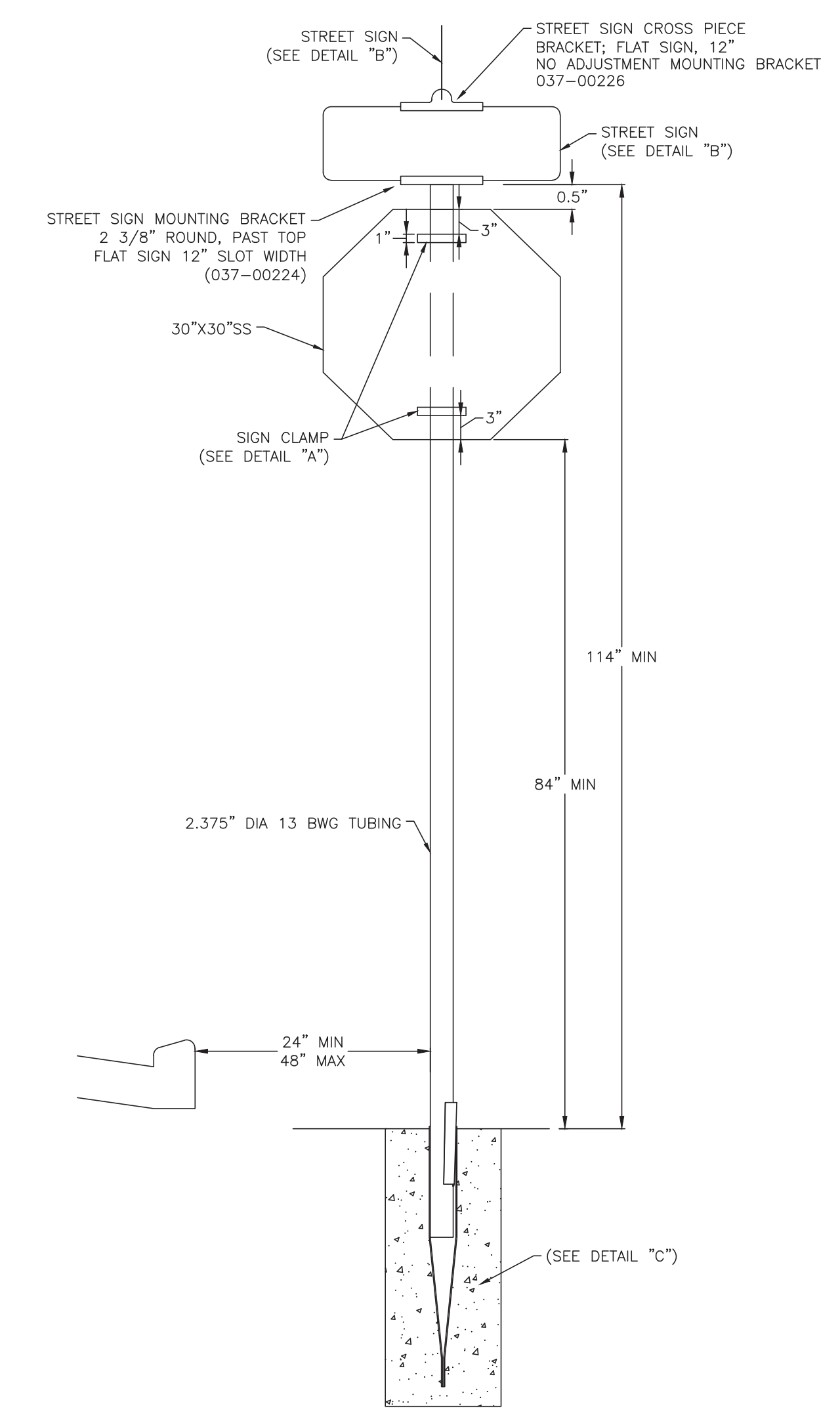
- GENERAL CONSTRUCTION NOTE:**
- SECURELY ATTACH STREET NAME SIGN TO TRAFFIC SIGNAL SUPPORT WIRES WITH MULTI-LEVELING, WIND DUMPING BRACKETS.
 - SUPPORT WIRES SHOULD NOT BE PROHIBITED FROM INDEPENDENT MOVEMENT.
 - INSTALL ONE STREET NAME SIGN APPROXIMATE 2" FROM POLE ABOVE ON-COMING TRAFFIC ON EACH TRAFFIC SIGNAL SPAN.
 - THE FIRST LETTER OF EACH WORD SHALL BE UPPER CASE, SUBSEQUENT LETTERS SHALL BE LOWER CASE, ALL INDIVIDUAL LETTERS FOR EXAMPLE "F.M." SHALL BE UPPER CASE. STREET SUFFIXES & "NO OUTLET" SHALL BE UPPER CASE.
 - ALL SHEETING SHALL BE "DIAMOND GRADE" OR APPROVED EQUAL.
 - USE ANODIZED BLANKS ONLY.
 - STREET SIGN FONTS SHALL BE HELVETICA BOLD, MEDIUM STYLE.
 - MINIMUM SIGN THICKNESS: 9" SIGNS = .125"
 - ATTACH SIGNAGE TO 2" SIGN POST WITH 12" BLADE MOUNT BRACKET.

STREET SIGN DETAIL "B"
NTS

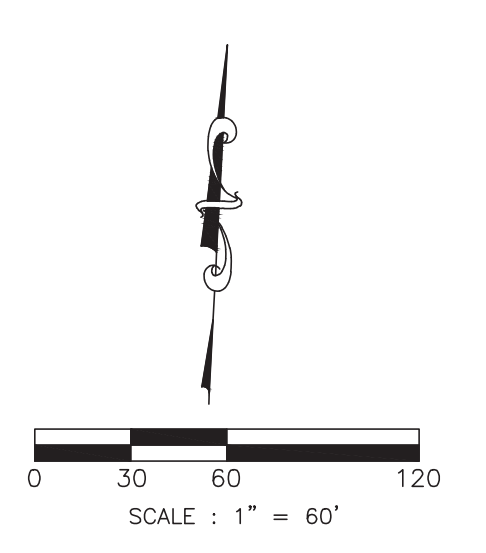


- GENERAL CONSTRUCTION NOTE:**
- MATERIAL USED AS POST WITH THIS SYSTEM SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:
 13 BWG TUBING C2.375" OUTSIDE DIAMETER) (TWT)
 0.095" NOMINAL WALL THICKNESS
 SEAMLESS OR ELECTRIC-RESISTANCE WELDED STEEL TUBING
 STEEL SHALL BE HSLAS OR 55 PER ASTM A1011 OR ASTM A1008
 OTHER STEELS MAY BE USED IF THEY MEET THE FOLLOWING:
 55,000 PSI MINIMUM YIELD STRENGTH
 70,000 PSI MINIMUM TENSILE STRENGTH
 18% MINIMUM ELONGATION IN 2"
 WALL THICKNESS (UNCOATED) SHALL BE WITHIN THE RANGE OF .083" TO .099"
 OUTSIDE DIAMETER (UNCOATED) SHALL BE WITHIN THE RANGE OF 2.369" TO 2.381"
 GALVANIZATION PER ASTM 123 OR ASTM A653 G210. FOR PRECOATED STEEL TUBING (ASTM A653), RECOAT TUBE OUTSIDE DIAMETER WELD SEAM BY METALLIZING WITH ZINC WIRE PER ASTM B833.

WEDGE ANCHOR SYSTEM "C"
NTS



TYPICAL STREET SIGN
NTS



J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 SHEET SET 1.DWG

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
DRAWN
CHECKED
DATE May 25, 2023

BAKER & LAWSON, INC.
ENGINEERS-PLANNERS-SURVEYORS
4005 TECHNOLOGY DRIVE, SUITE 1530
ANGLETON, TEXAS 77515 (979) 849-6681
REG. NO. F-825

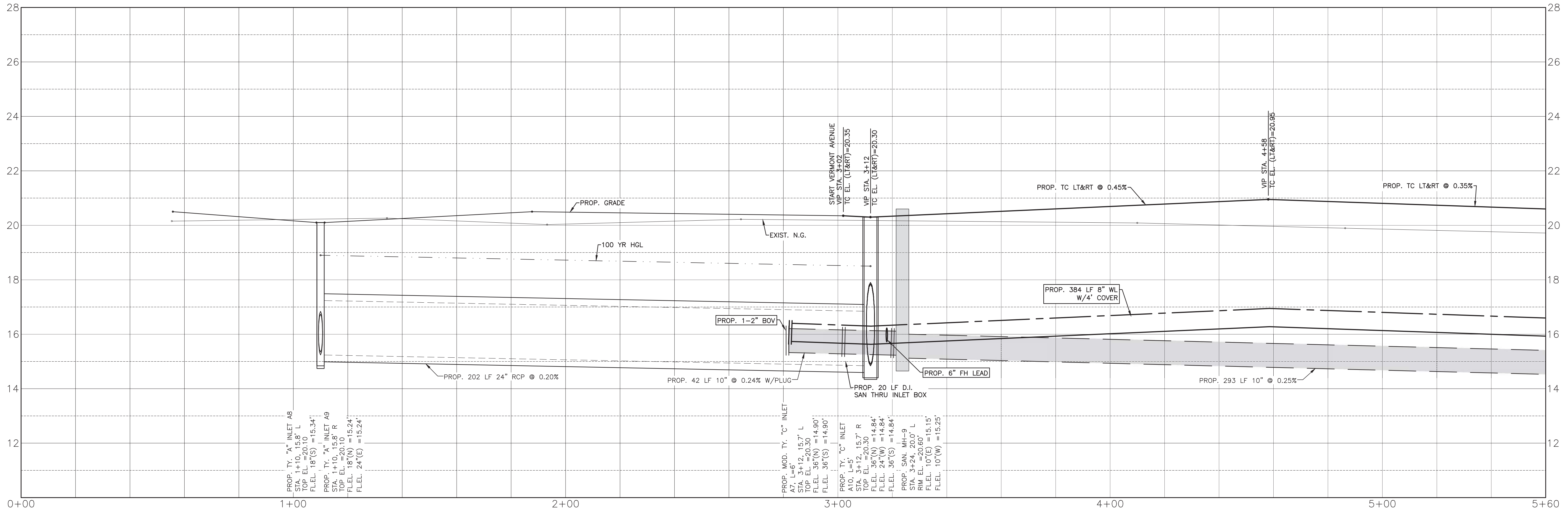
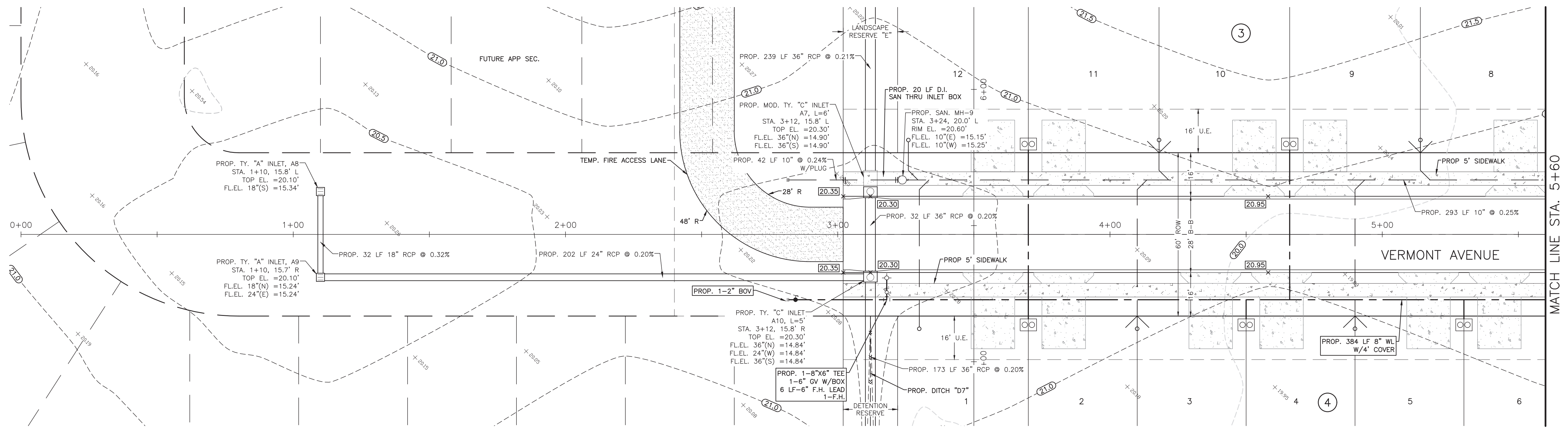
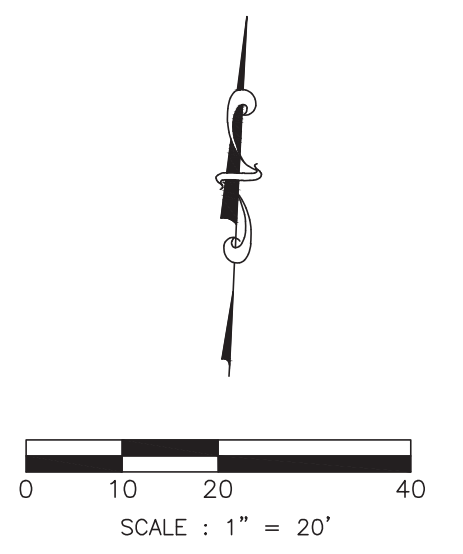
The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992 05-25-2023

OWNER:
Mike Morgan
979-236-5089
dmmorganjr@yahoo.com

PLAN: 1" = 60'
PROFILE:
HORIZONTAL:
VERTICAL:

ANGLETON PARK PLACE SECTION 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

PAVEMENT MARKING,
STREET SIGN, MAILBOX
& ROAD LIGHTING LAYOUT
PROJECT NO. 14320 11



SYMBOLS LEGEND

- EXIST GRADE ELEVATION
- PROP GRADE ELEVATION
- PROP TOP OF 4" CURB ELEVATION
- PROP TOP OF 6" CURB ELEVATION
- PROP RIM ELEVATION OF CURB INLET
- PROP GUTTER LINE ELEVATION
- PROP TOP OF CONCRETE PAVEMENT
- PROP TOP OF GRATE INLET
- DOUBLE WATER METER
- SINGLE WATER METER
- FIRE HYDRANT
- WATER VALVE
- TAPPING SLEEVE AND VALVE
- STORM SEWER MANHOLE (STM MH-1)
- SANITARY SEWER MANHOLE (SAN MH-1)
- DOUBLE SAN. WYE CONNECTION
- SINGLE SAN. CONNECTION
- DRIVEWAY SWING INDICATOR
- TOP BANK
- STORM SEWER LINE
RCP, BOX CULVERT, OR PP
- SANITARY SEWER LINE
(D3034, SDR 26, 160 PR)
- WATERLINE (AWWA C900,
CLASS 150, DR18)
- PROP SIDEWALK (IN CONTRACT)
- PROP. CASING FOR WATERLINE
AND SAN SEW CONFLICT

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 SHEET SET SEC 1.DWG

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED MS
 DRAWN
 CHECKED
 DATE May 25, 2023

B & L
BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1530
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825

The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992

MIGUELANGEL A. SAUCEDO
 121992
 LICENSED PROFESSIONAL ENGINEER
 05-25-2023

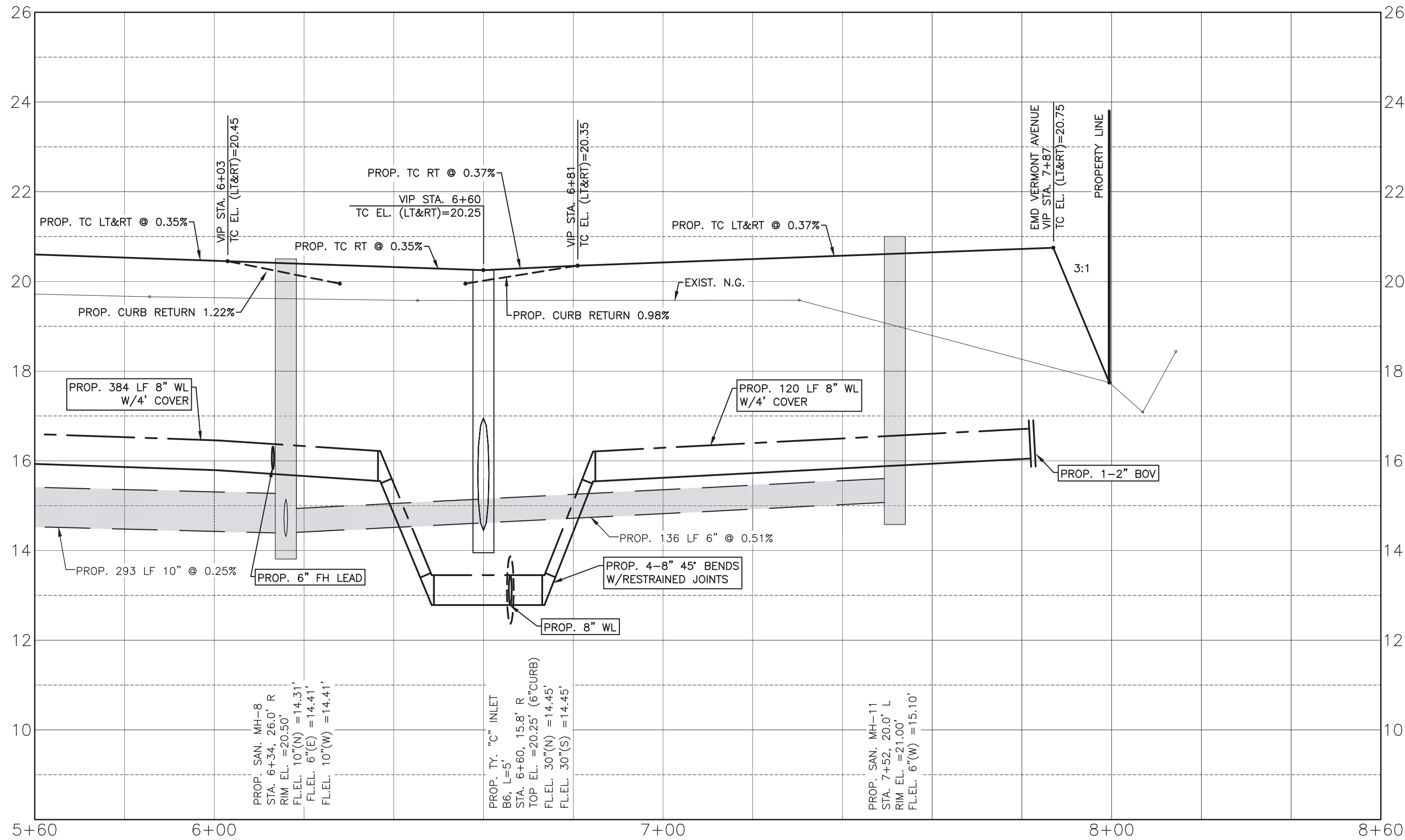
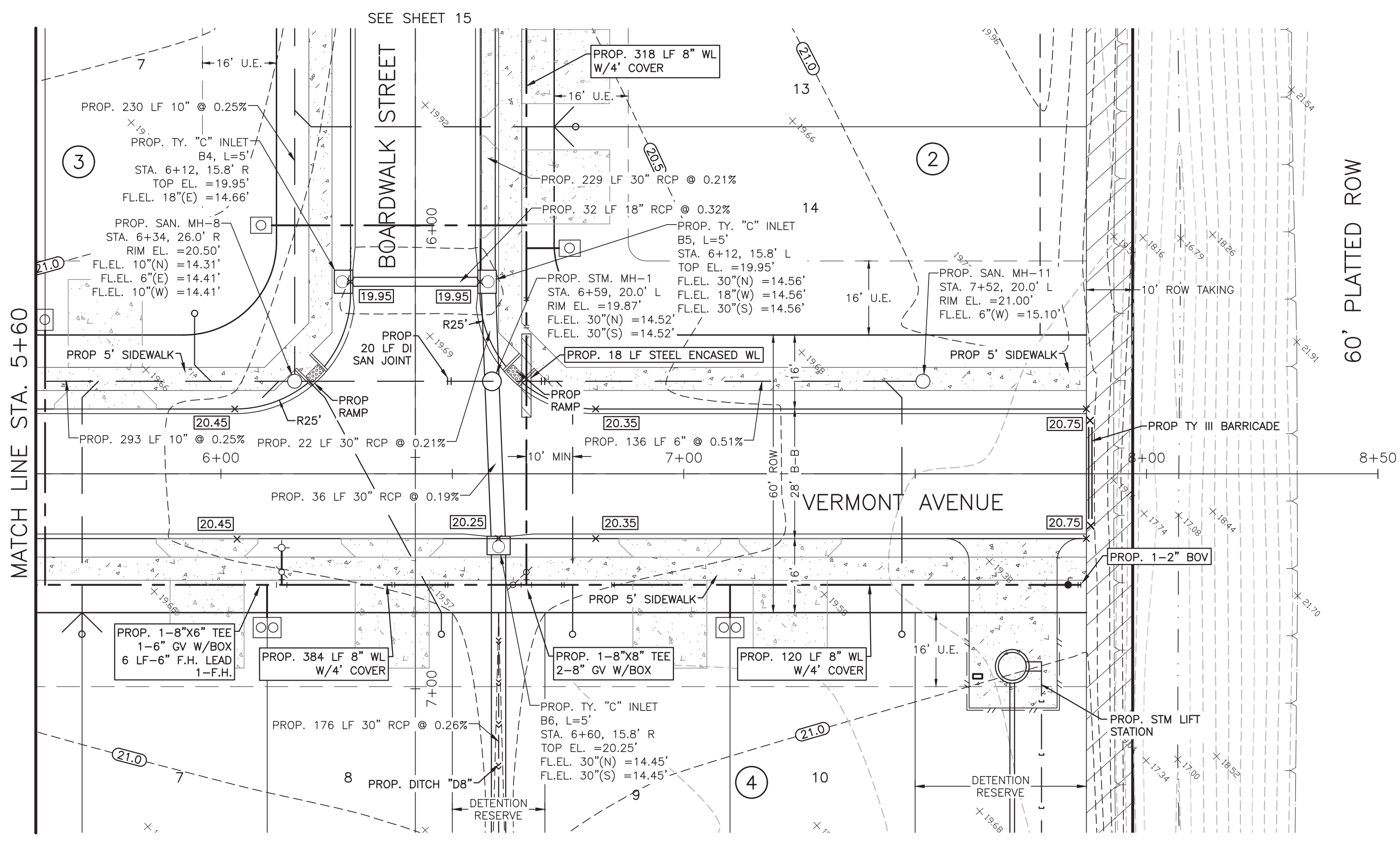
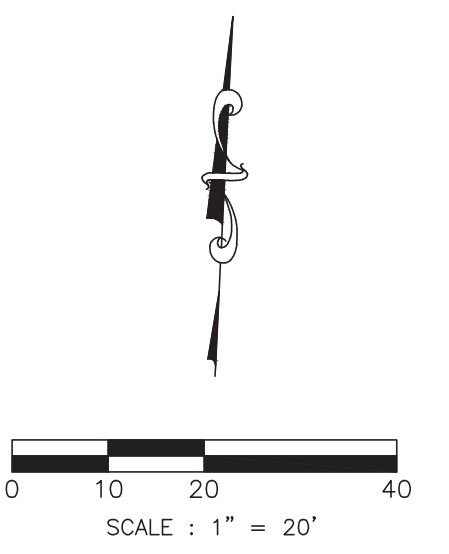
OWNER:
Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

PLAN: 1" = 20'
 PROFILE:
 HORIZONTAL: 1" = 20'
 VERTICAL: 1" = 2'

ANGLETON PARK PLACE SECTION 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

PLAN & PROFILE
VERMONT AVENUE
STA. 0+00 TO 5+60

PROJECT NO. 14320 **12**



- ### SYMBOLS LEGEND
- EXIST GRADE ELEVATION
 - PROP GRADE ELEVATION
 - PROP TOP OF 4" CURB ELEVATION
 - PROP RIM ELEVATION OF CURB INLET
 - PROP GUTTER LINE ELEVATION
 - PROP TOP OF CONCRETE PAVEMENT
 - PROP TOP OF GRATE INLET
 - DOUBLE WATER METER
 - SINGLE WATER METER
 - FIRE HYDRANT
 - WATER VALVE
 - TAPPING SLEEVE AND VALVE
 - STORM SEWER MANHOLE (STM MH-1)
 - SANITARY SEWER MANHOLE (SAN MH-1)
 - DOUBLE SAN. WYE CONNECTION
 - SINGLE SAN. CONNECTION
 - DRIVEWAY SWING INDICATOR
 - TOP BANK
 - STORM SEWER LINE
RCP, BOX CULVERT, OR PP
 - SANITARY SEWER LINE
(D3034, SDR 26, 160 PR)
 - WATERLINE (AWWA C900,
CLASS 150, DR18)
 - PROP SIDEWALK (IN CONTRACT)
 - PROP. CASING FOR WATERLINE
AND SAN SEW CONFLICT

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 SHEET SET SEC 1.DWG

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED	MS
DRAWN	
CHECKED	
DATE	May 25, 2023

The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992 05-25-2023

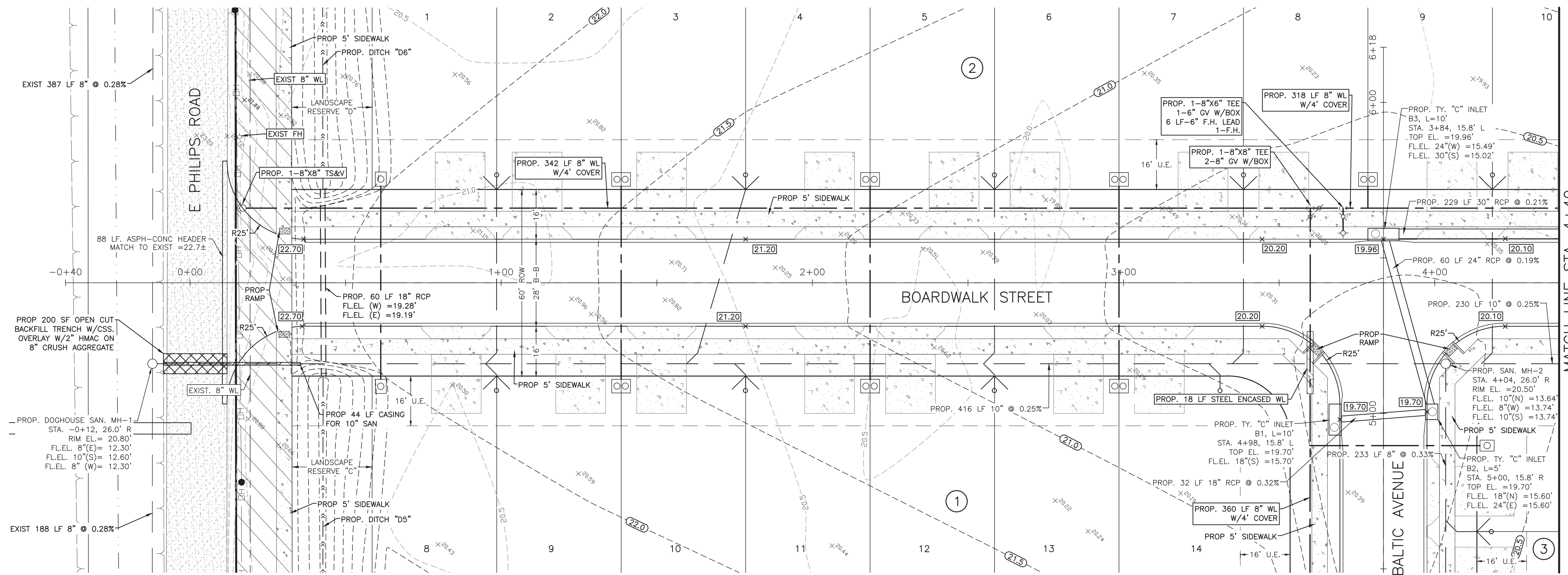
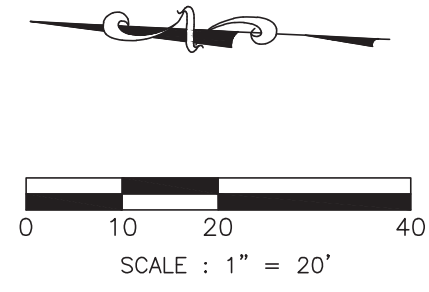
OWNER:
Mike Morgan
979-236-5089
dmmorganjr@yahoo.com

PLAN: 1" = 20'
PROFILE:
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'

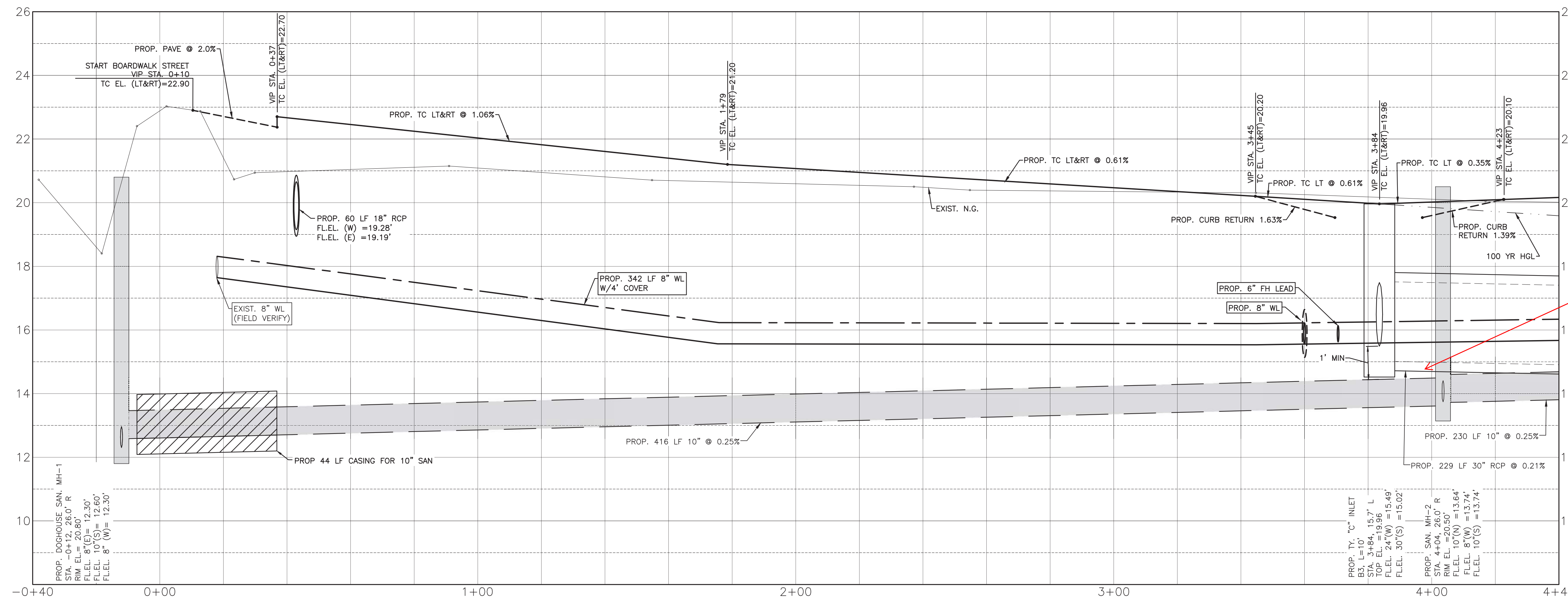
**ANGLETON PARK PLACE SECTION 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

PLAN & PROFILE
VERMONT AVENUE
STA. 5+60 TO 8+60

PROJECT NO. 14320 **13**



SEE SHEET 16



SYMBOLS LEGEND

- EXIST GRADE ELEVATION
- PROP GRADE ELEVATION
- PROP TOP OF 4" CURB ELEVATION
- PROP TOP OF 6" CURB ELEVATION
- PROP RIM ELEVATION OF CURB INLET
- PROP GUTTER LINE ELEVATION
- PROP TOP OF CONCRETE PAVEMENT
- PROP TOP OF GRATE INLET
- DOUBLE WATER METER
- SINGLE WATER METER
- FIRE HYDRANT
- WATER VALVE
- TAPPING SLEEVE AND VALVE
- STORM SEWER MANHOLE (STM MH-1)
- SANITARY SEWER MANHOLE (SAN MH-1)
- DOUBLE SAN. WYE CONNECTION
- SINGLE SAN. CONNECTION
- DRIVEWAY SWING INDICATOR
- TOP BANK
- STORM SEWER LINE
RCP, BOX CULVERT, OR PP
- SANITARY SEWER LINE
(D3034, SDR 26, 160 PR)
- WATERLINE (AWWA C900,
CLASS 150, DR18)
- PROP SIDEWALK (IN CONTRACT)
- PROP. CASING FOR WATERLINE
AND SAN SEW CONFLICT

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 SHEET SET SEC 1.DWG

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
 DRAWN
 CHECKED
 DATE May 25, 2023

BAKER & LAWSON, INC.
 ENGINEERS-PLANNERS-SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1330
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825

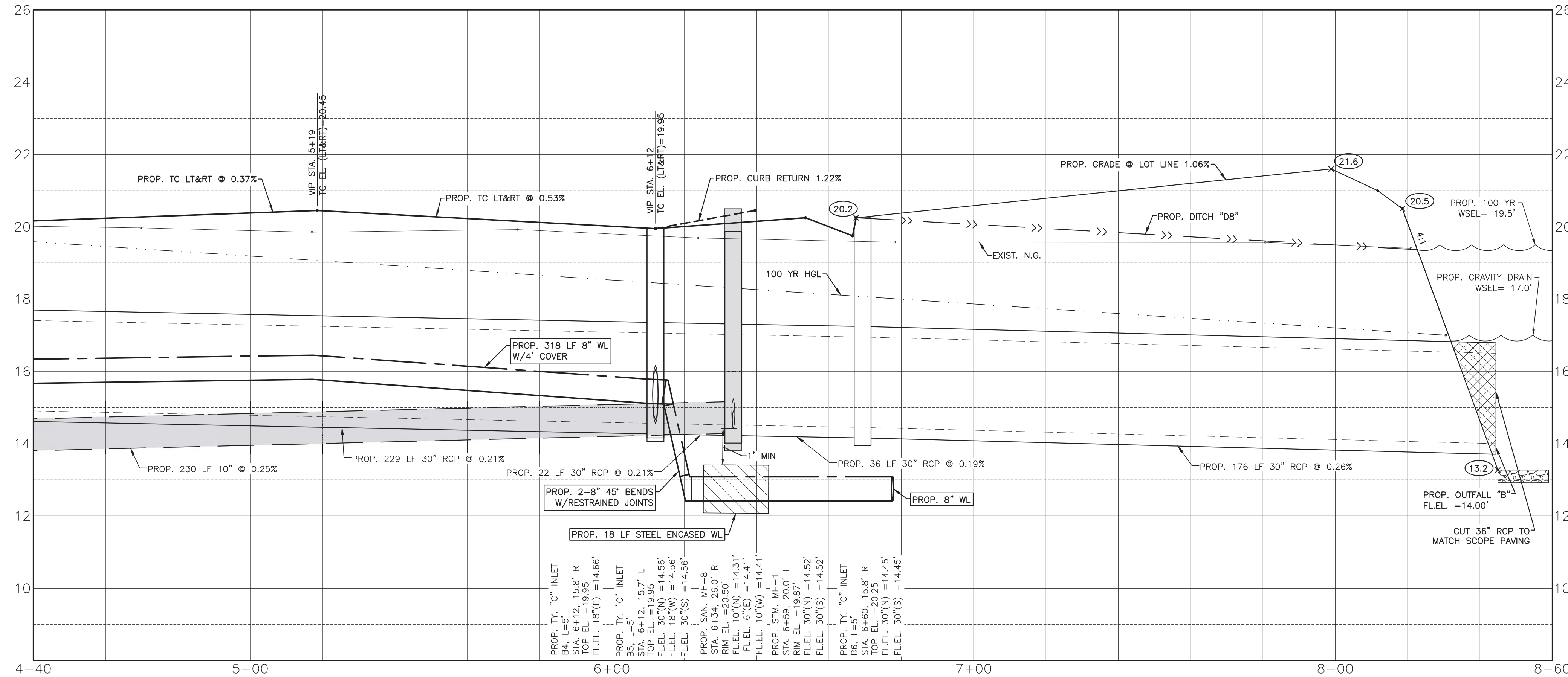
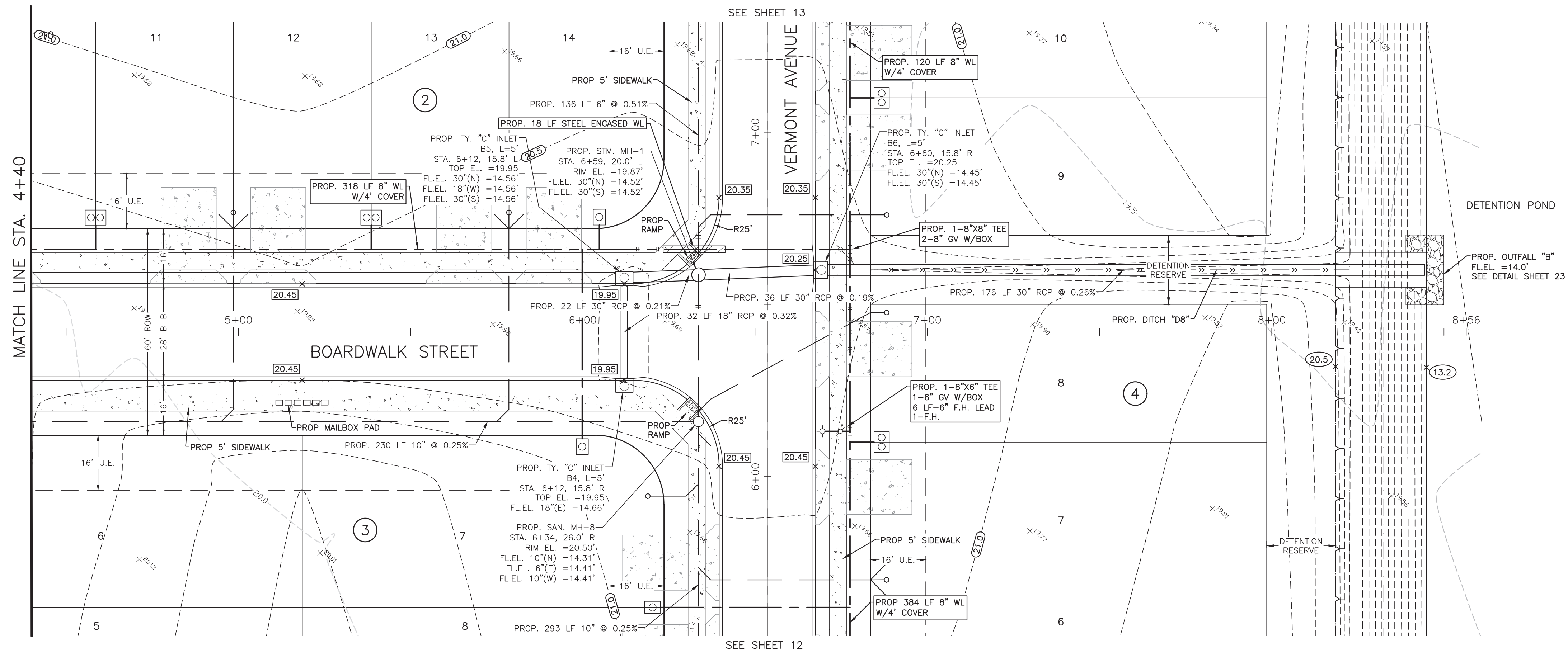
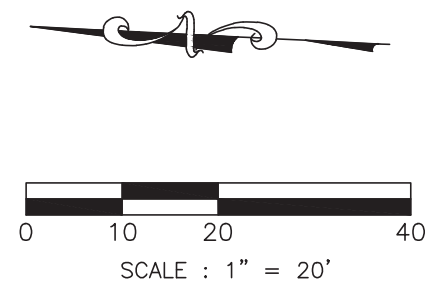
The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992 05-25-2023

OWNER:
Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

PLAN: 1" = 20'
 PROFILE:
 HORIZONTAL: 1" = 20'
 VERTICAL: 1" = 2'

ANGLETON PARK PLACE SECTION 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

PLAN & PROFILE
 BOARDWALK STREET
 STA. -0+40 TO 4+40
 PROJECT NO. 14320 **14**



SYMBOLS LEGEND

- EXIST. GRADE ELEVATION
- PROP. GRADE ELEVATION
- PROP. TOP OF 4" CURB ELEVATION
- PROP. TOP OF 6" CURB ELEVATION
- PROP. RIM ELEVATION OF CURB INLET
- PROP. GUTTER LINE ELEVATION
- PROP. TOP OF CONCRETE PAVEMENT
- PROP. TOP OF GRATE INLET
- DOUBLE WATER METER
- SINGLE WATER METER
- FIRE HYDRANT
- WATER VALVE
- TAPPING SLEEVE AND VALVE
- STORM SEWER MANHOLE (STM MH-1)
- SANITARY SEWER MANHOLE (SAN MH-1)
- DOUBLE SAN. WYE CONNECTION
- SINGLE SAN. CONNECTION
- DRIVEWAY SWING INDICATOR
- TOP BANK
- STORM SEWER LINE
RCP, BOX CULVERT, OR PP
- SANITARY SEWER LINE
(D3034, SDR 26, 160 PR)
- WATERLINE (AWWA C900,
CLASS 150, DR18)
- PROP. SIDEWALK (IN CONTRACT)
- PROP. CASING FOR WATERLINE
AND SAN SEW CONFLICT

J:\140005\143005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 SHEET SET SEC 1.DWG

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED	MS
DRAWN	
CHECKED	
DATE	May 25, 2023

B & L
BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
4005 TECHNOLOGY DRIVE, SUITE 1330
ANGLETON, TEXAS 77515 (979) 849-6681
REG. NO. F-825

The seal appearing on
this document was
authorized by
Miguelangel A. Saucedo
P.E. 121992

05-25-2023

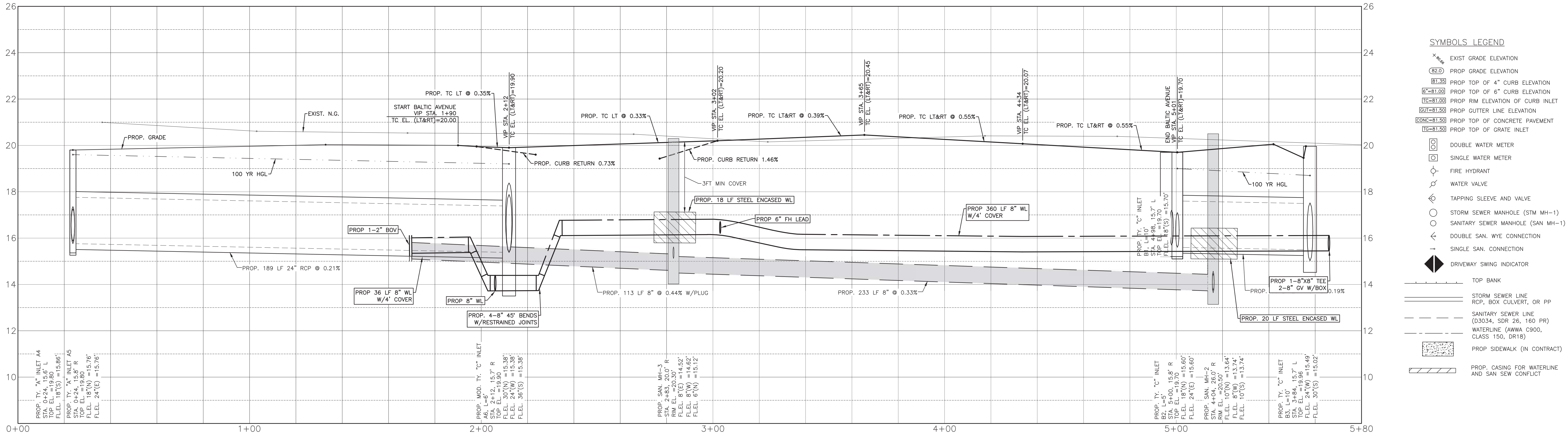
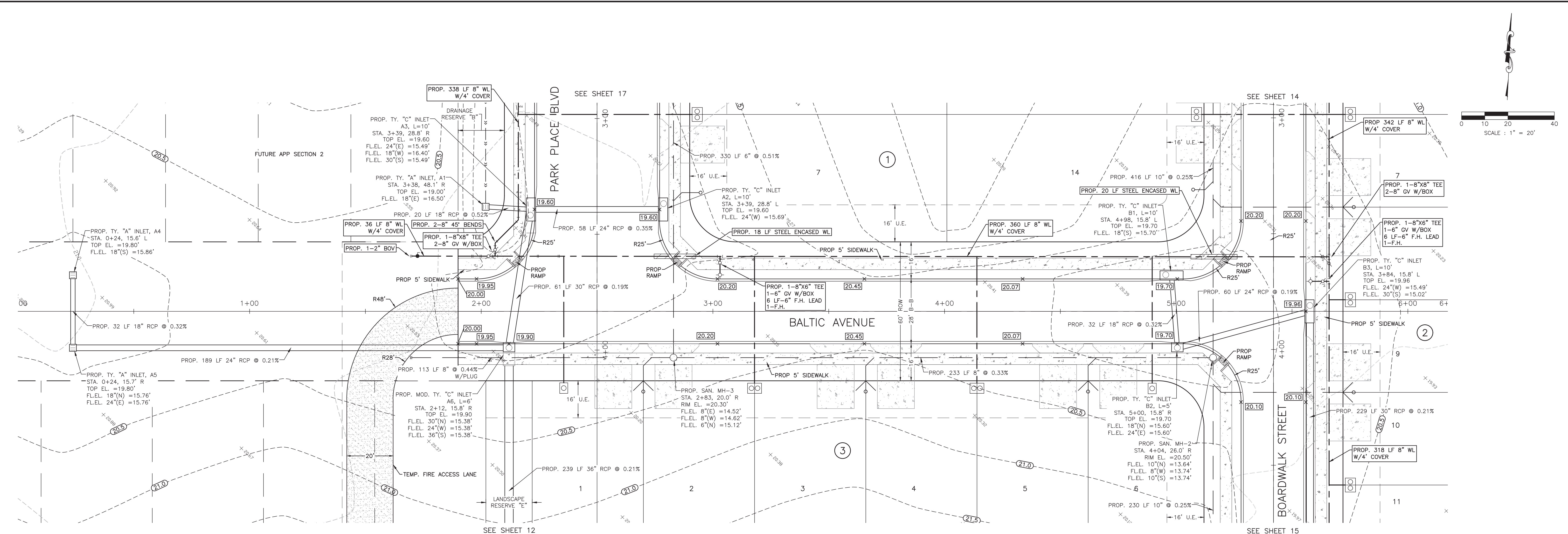
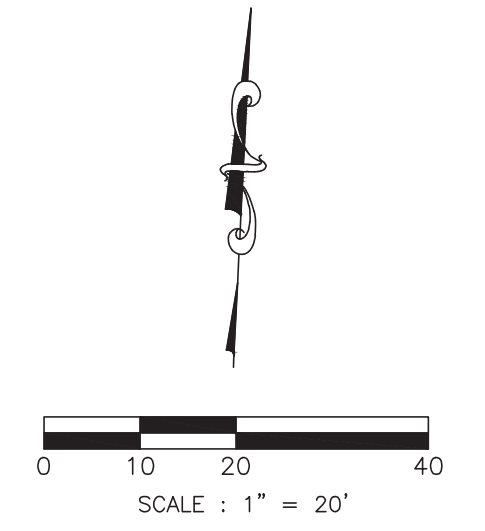
OWNER:
Mike Morgan
979-236-5089
dmmorganjr@yahoo.com

PLAN: 1" = 20'
PROFILE:
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'

ANGLETON PARK PLACE SECTION 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

PLAN & PROFILE
BOARDWALK STREET
STA. 4+40 TO 8+60

PROJECT NO. 14320 **15**



NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
 DRAWN
 CHECKED
 DATE May 25, 2023

B & L
BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1330
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MIGUELANGEL A. SAUCEDA P.E. 121992

121992
 LICENSED PROFESSIONAL ENGINEER

05-25-2023

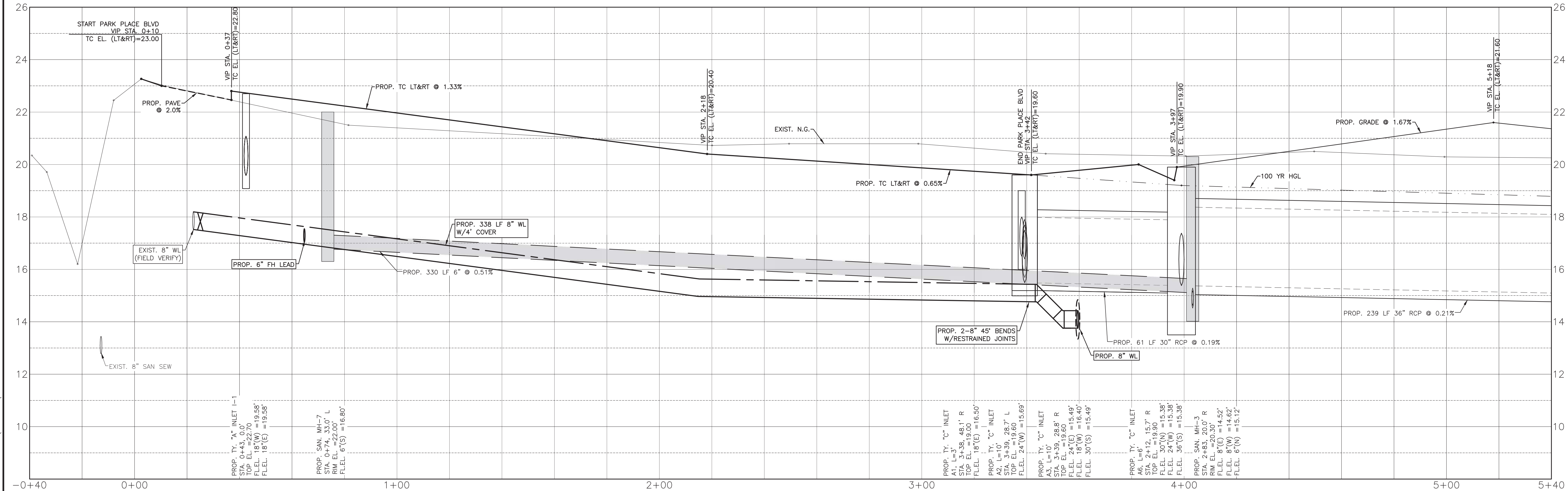
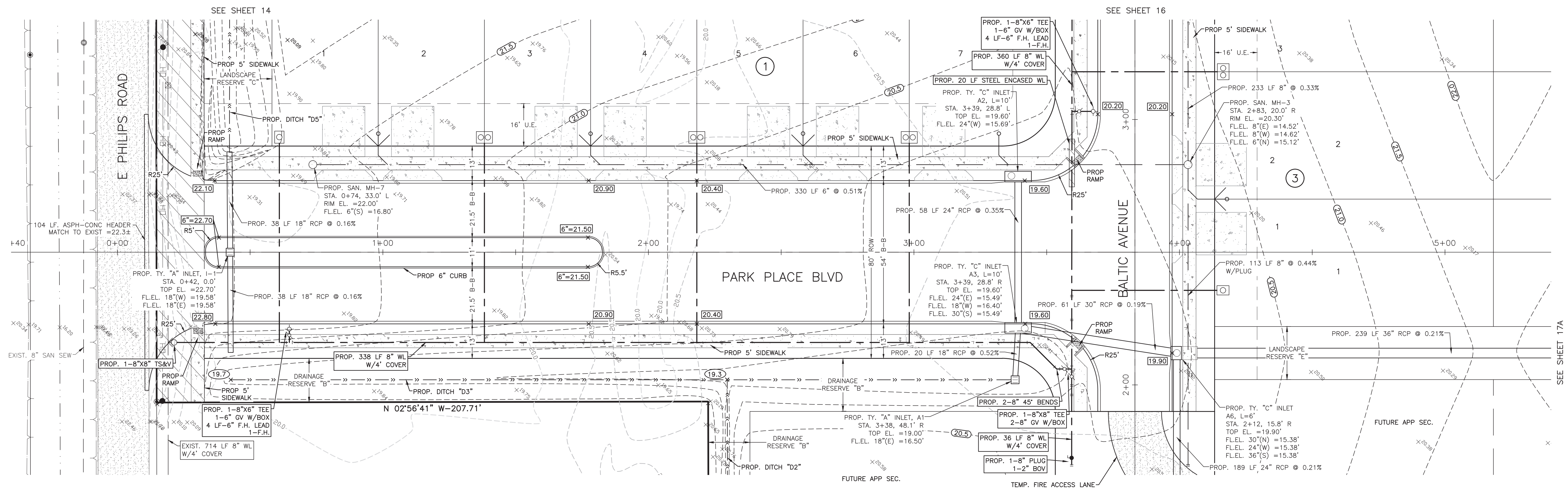
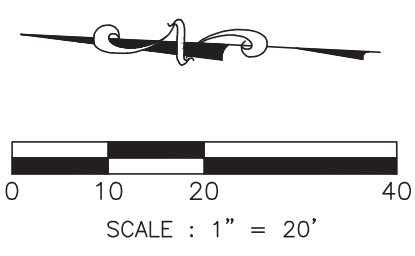
OWNER:
Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

PLAN: 1" = 20'
 PROFILE:
 HORIZONTAL: 1" = 20'
 VERTICAL: 1" = 2'

ANGLETON PARK PLACE SECTION 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

PLAN & PROFILE
 BALTIC AVENUE
 STA. 0+00 TO 5+80

PROJECT NO. 14320 **16**



- SYMBOLS LEGEND**
- EXIST GRADE ELEVATION
 - PROP GRADE ELEVATION
 - PROP TOP OF 4" CURB ELEVATION
 - PROP TOP OF 6" CURB ELEVATION
 - PROP RIM ELEVATION OF CURB INLET
 - PROP GUTTER LINE ELEVATION
 - PROP TOP OF CONCRETE PAVEMENT
 - PROP TOP OF GRATE INLET
 - DOUBLE WATER METER
 - SINGLE WATER METER
 - FIRE HYDRANT
 - WATER VALVE
 - TAPPING SLEEVE AND VALVE
 - STORM SEWER MANHOLE (STM MH-1)
 - SANITARY SEWER MANHOLE (SAN MH-1)
 - DOUBLE SAN. WYE CONNECTION
 - SINGLE SAN. CONNECTION
 - DRIVEWAY SWING INDICATOR
 - TOP BANK
 - STORM SEWER LINE (RCP, BOX CULVERT, OR PP)
 - SANITARY SEWER LINE (D3034, SDR 26, 160 PR)
 - WATERLINE (AWWA C900, CLASS 150, DR18)
 - PROP SIDEWALK (IN CONTRACT)
 - PROP. CASING FOR WATERLINE AND SAN SEW CONFLICT

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED	MS
DRAWN	
CHECKED	
DATE	May 25, 2023

B & L
BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1330
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825

The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992

121992
 MIGUELANGEL A. SAUCEDO
 LICENSED PROFESSIONAL ENGINEER

05-25-2023

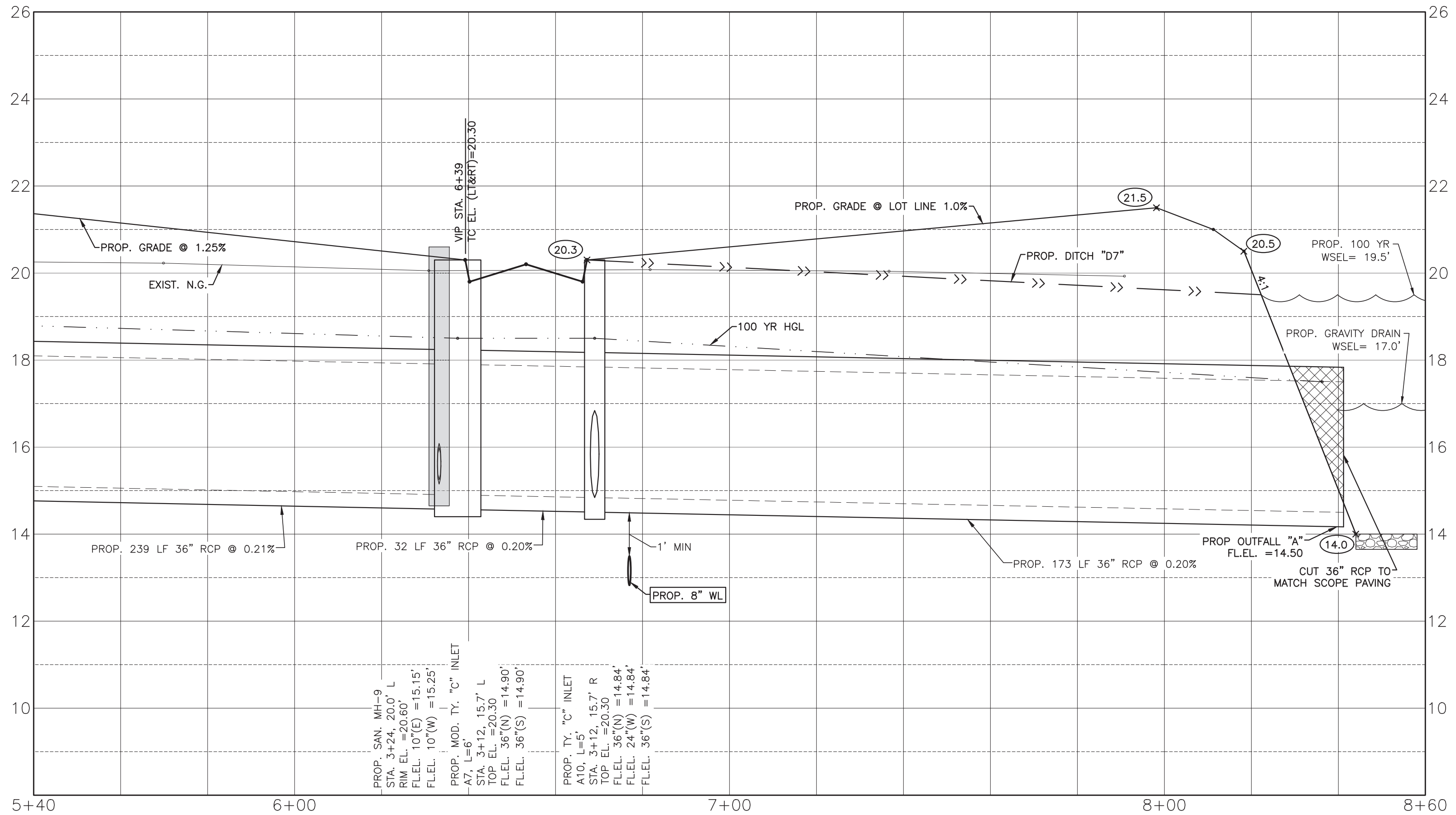
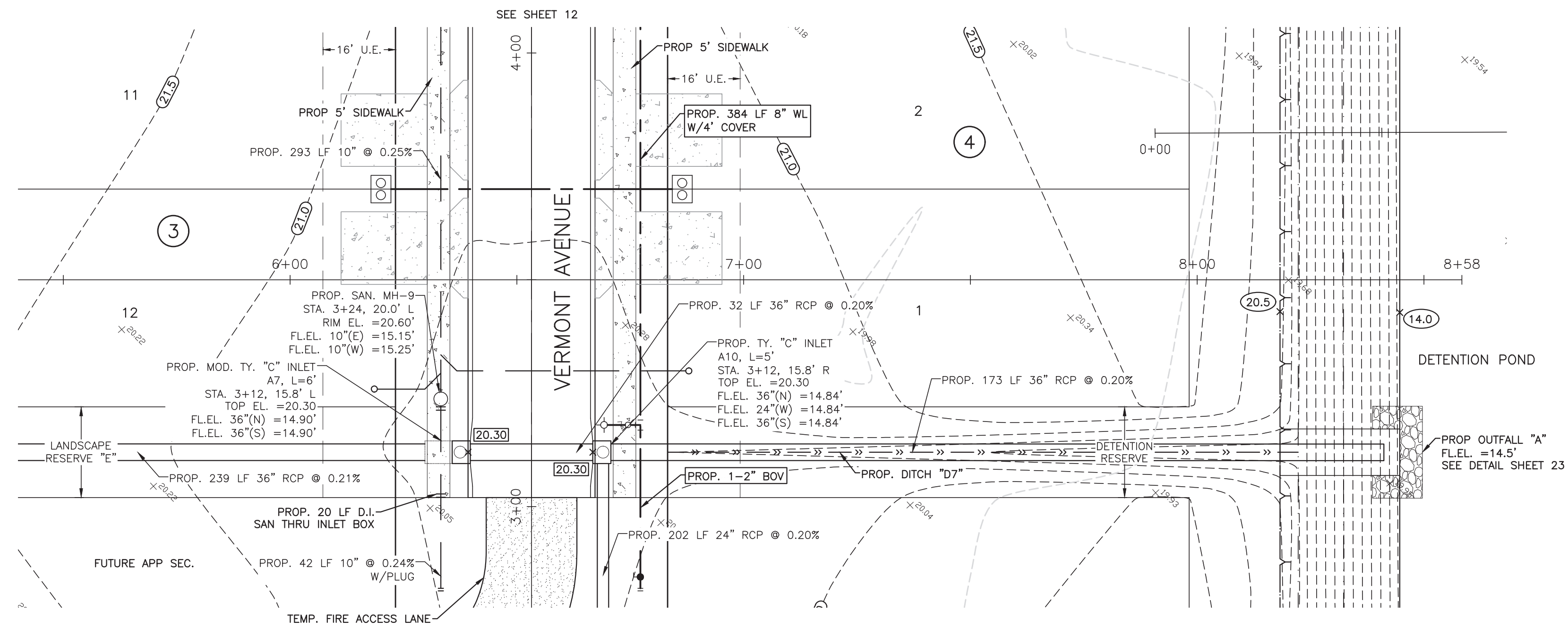
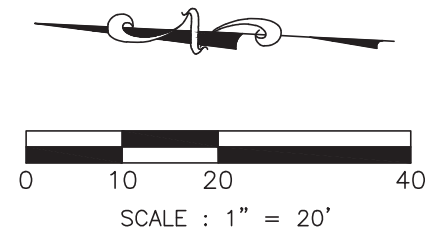
OWNER:
 Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

PLAN: 1" = 20'
 PROFILE:
 HORIZONTAL: 1" = 20'
 VERTICAL: 1" = 2'

ANGLETON PARK PLACE SECTION 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

PLAN & PROFILE
 PARK PLACE BLVD
 STA. -0+40 TO 5+40

PROJECT NO. 14320 **17**



SYMBOLS LEGEND

- EXIST GRADE ELEVATION
- PROP GRADE ELEVATION
- PROP TOP OF 4" CURB ELEVATION
- PROP TOP OF 6" CURB ELEVATION
- PROP RIM ELEVATION OF CURB INLET
- PROP GUTTER LINE ELEVATION
- PROP TOP OF CONCRETE PAVEMENT
- PROP TOP OF GRATE INLET
- DOUBLE WATER METER
- SINGLE WATER METER
- FIRE HYDRANT
- WATER VALVE
- TAPPING SLEEVE AND VALVE
- STORM SEWER MANHOLE (STM MH-1)
- SANITARY SEWER MANHOLE (SAN MH-1)
- DOUBLE SAN. WYE CONNECTION
- SINGLE SAN. CONNECTION
- DRIVEWAY SWING INDICATOR
- TOP BANK
- STORM SEWER LINE
RCP, BOX CULVERT, OR PP
- SANITARY SEWER LINE
(D3034, SDR 26, 160 PR)
- WATERLINE (AWWA C900,
CLASS 150, DR18)
- PROP SIDEWALK (IN CONTRACT)
- PROP. CASING FOR WATERLINE
AND SAN SEW CONFLICT

J:\140005\143005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 SHEET SET SEC 1.DWG

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
 DRAWN
 CHECKED
 DATE May 25, 2023

B & L
BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1330
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825

The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992

05-25-2023

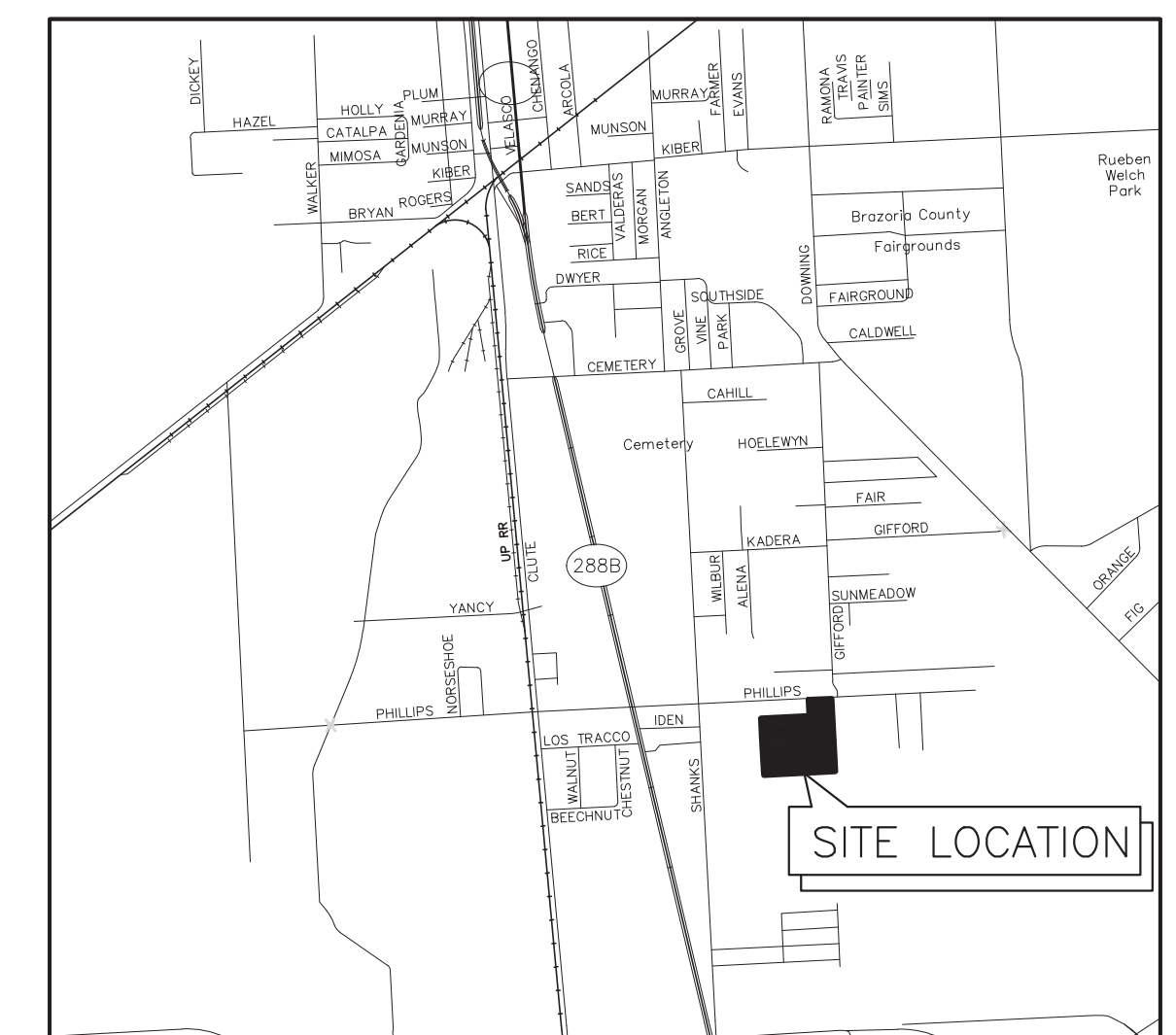
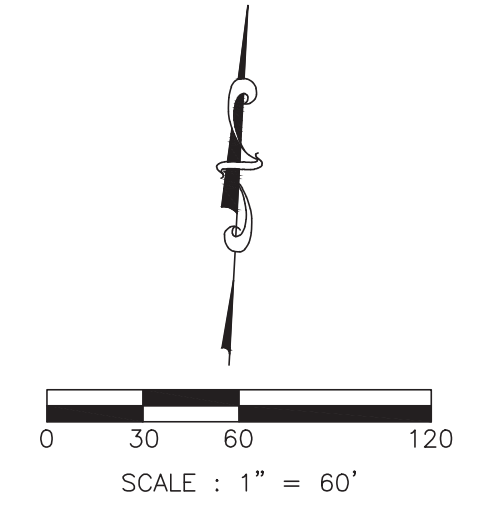
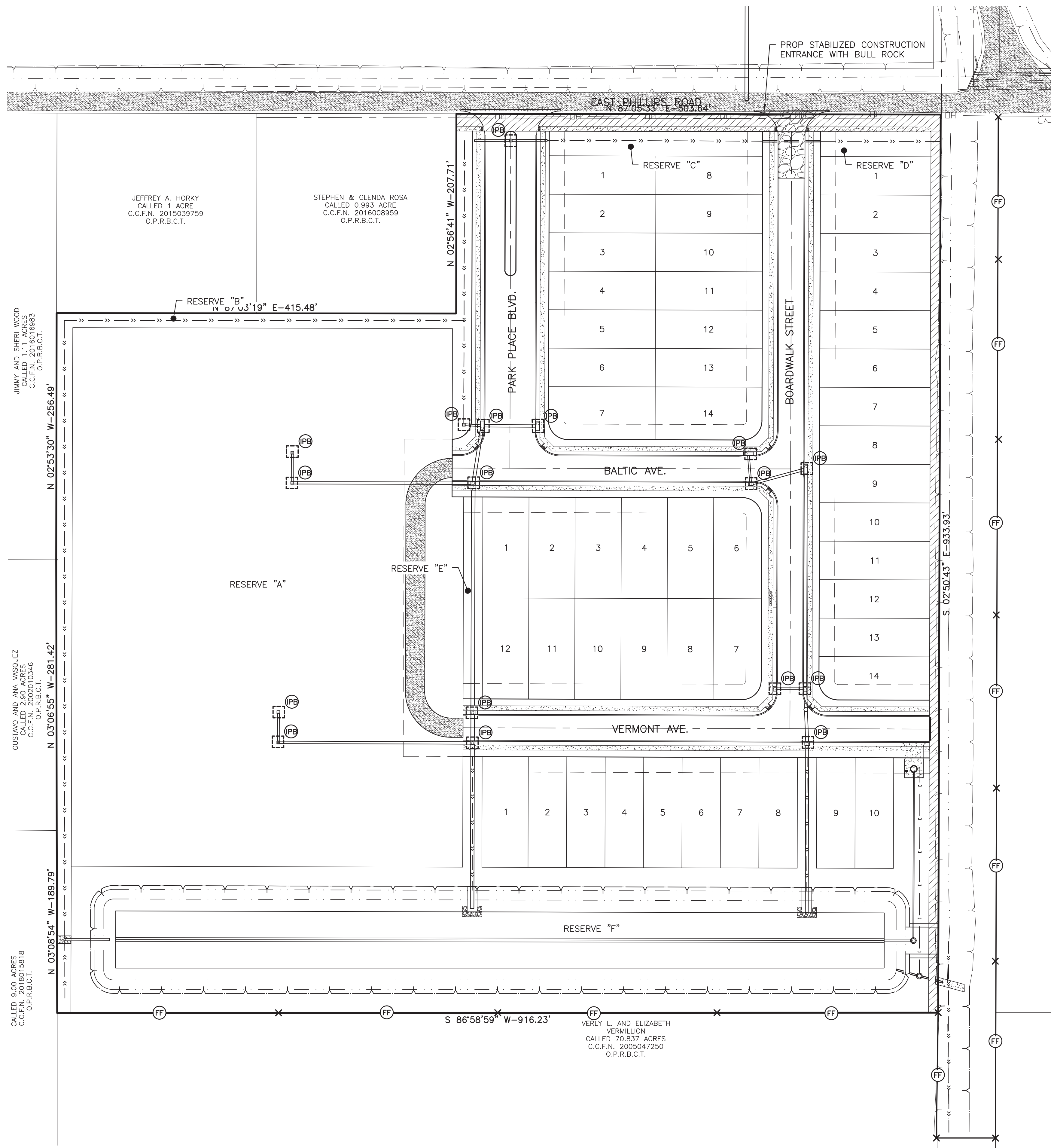
OWNER:
Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

PLAN: 1" = 20'
 PROFILE:
 HORIZONTAL: 1" = 20'
 VERTICAL: 1" = 2'

ANGLETON PARK PLACE SECTION 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

PLAN & PROFILE
STM SEWER "A"
STA. 5+40 TO 8+60

PROJECT NO. 14320 **18**



VICINITY MAP

PROJECT/SITE INFORMATION

PROJECT NAME: ANGLETON PARK PLACE SECTION 1
 PROJECT ADDRESS/LOCATION: E PHILLIPS ROAD EAST OF GIFFORD ROAD
 CITY: ANGLETON STATE: TX ZIP CODE: 77515
 LATITUDE: 29°08'13" LONGITUDE: 95°25'07" COUNTY: BRAZORIA
 NAME OF RECEIVING WATERS: GULF OF MEXICO

06/01/2023 MONTH/DAY/YEAR ESTIMATED CONSTRUCTION START DATE
 06/01/2024 MONTH/DAY/YEAR ESTIMATED COMPLETION DATE

ESTIMATE OF AREA TO BE DISTURBED: 18.1 ACRES
 ESTIMATE OF LIKELIHOOD OF DISCHARGE:

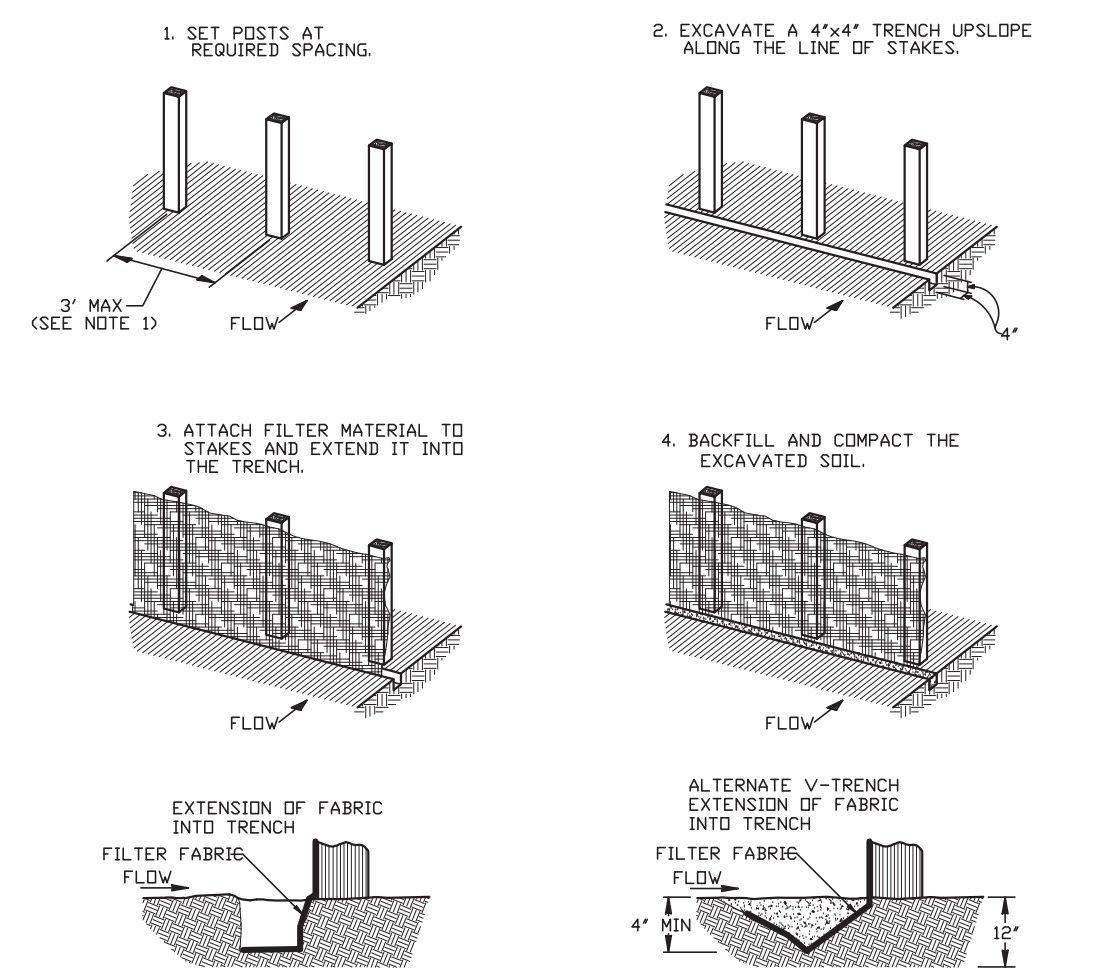
- UNLIKELY
- ONCE PER WEEK
- CONTINUAL
- ONCE PER MONTH
- ONCE PER DAY

ARE THERE ANY LISTED ENDANGERED OR THREATENED SPECIES, OR DESIGNATED CRITICAL HABITAT IN THE PROJECT AREA?

- YES
- NO

ELIGIBILITY WITH REGARD TO PROTECTION OF ENDANGERED SPECIES HAS BEEN SATISFIED THROUGH THE INDICATED SECTION OF PART 1.B.3.e.(2) OF THE PERMIT.

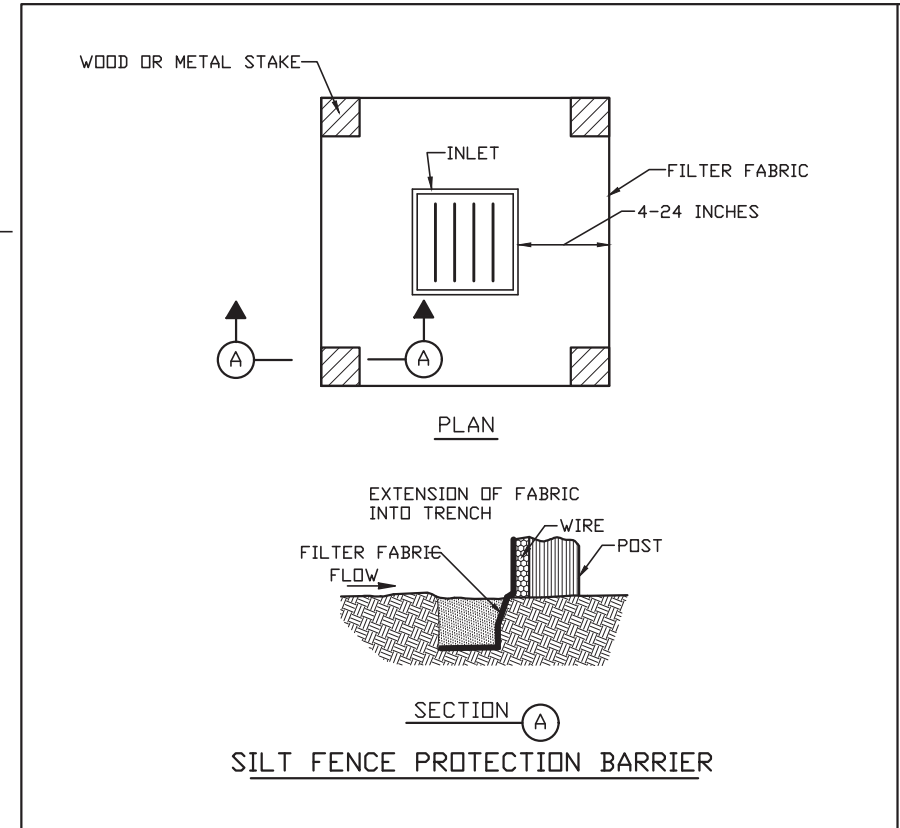
- (a)
- (b)
- (c)
- (d)



CONSTRUCTION NOTES:

- 1 INCH THICK BY 2 INCH WOODEN STAKES TO BE SET AT MAX SPACING OF 3 FEET AND EMBEDDED A MIN OF 8 INCHES. IF PREASSEMBLED FENCE WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAX.
- ATTACH FILTER FABRIC TO WOODEN STAKES. FILTER FABRIC FENCE SHALL HAVE A MIN HEIGHT OF 18 INCHES AND MAX HEIGHT OF 36 INCHES ABOVE NATURAL GROUND.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHOULD BE OVERLAPPED 6 INCHES AT THE POSTS, AND FOLDED.

FILTER FABRIC FENCE



LEGEND

- SILT FENCE AROUND STRUCTURE UNDER CONSTRUCTION
- SILT FENCE ACROSS EXISTING DITCH REINFORCED FILTER BARRIER
- HYDROMULCH SEED

PLAN: 1" = 60'
 PROFILE:
 HORIZONTAL:
 VERTICAL:

ANGLETON PARK PLACE SECTION 1
 ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

SWPPP LAYOUT AND
 DETAILS

PROJECT NO. 14320

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 SHEET SET 1.DWG

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
 DRAWN
 CHECKED
 DATE May 25, 2023

BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1330
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825

The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992 05-25-2023

OWNER:
 Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

1. SITE DESCRIPTION

A. NATURE OF THE CONSTRUCTION ACTIVITY:
 ANGLETON PARK PLACE SECTION 1 SUBDIVISION ANGLETON, BRAZORIA COUNTY, TEXAS, BEING 17.720 ACRE TRACT WHICH WILL BE A RESIDENTIAL SUBDIVISION OF 50 LOTS (40 FT WIDE MINIMUM). CONSTRUCTION WILL INCLUDE UNDERGROUND UTILITIES, STORM SEWER, CONCRETE ROADWAYS WITH CURBS, AND DETENTION POND.

B. INTENDED SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:
 STREET RIGHT OF WAY AND LOT AREAS WILL BE STRIPPED OF ALL VEGETATIVE MATTER. THIS MATERIAL WILL BE STOCKPILED AT THE SITE TO BE SPREAD OVER THE LOTS AFTER FINAL GRADING. THE DETENTION POND WILL BE EXCAVATED AND MATERIAL WILL BE SPREAD ON THE SITE. UTILITY AND STORMSEWER WILL REQUIRE TRENCHING WITH SPOILS TO BE SPREAD ON THE LOTS. RAINFALL RUNOFF WILL BE DIRECTED TO THE STREET GUTTERS AND THE CONSTRUCTED STORM SEWER. TRUCKS WILL BE USED TO DELIVER MATERIALS TO THE SITE AND INCLUDE LIME, CONCRETE, AND PIPE. TRUCKS WILL ALSO BE USED TO HAUL MATERIAL AWAY FROM THE SITE. THE TRUCKS WILL BE ROUTED ALONG BUCHTA ROAD FOR INGRESS AND EGRESS. RUTTING ON SITE DURING WET WEATHER WILL PROVIDE POTENTIAL FOR TRACKING MUD ALONG EAST PHILLIPS ROAD. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING MUD TRACKED ONTO EAST PHILLIPS ROAD DAILY.

C. TOTAL PROJECT AREA: 18.1 ACRES

D. TOTAL AREA TO BE DISTURBED: 18.1 ACRES

WEIGHTED RUNOFF COEFFICIENT (BEFORE CONSTRUCTION): 0.30 (AFTER CONSTRUCTION): 0.60

E. REFER TO GENERAL LOCATION MAP AND SITE MAP FOR DRAINAGE PATTERNS AND APPROXIMATE SLOPES ANTICIPATED AFTER MAJOR GRADING ACTIVITIES; AREAS OF SOIL DISTURBANCE; AREAS WHICH WILL NOT BE DISTURBED; LOCATIONS OF MAJOR STRUCTURAL AND NON-STRUCTURAL CONTROLS; LOCATIONS WHERE STABILIZATION PRACTICES ARE EXPECTED TO OCCUR; LOCATION OF OFF-SITE MATERIAL, WASTE, BORROW OR EQUIPMENT STORAGE AREAS; SURFACE WATERS (INCLUDING WETLANDS); AND LOCATIONS WHERE STORM WATER DISCHARGES TO A SURFACE WATER.

F. LOCATION AND DESCRIPTION OF ANY DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY OTHER THAN CONSTRUCTION:

G. NAME OF RECEIVING WATERS:
 DRAINAGE WILL BE COLLECTED IN THE PROPOSED DETENTION POND WHICH WILL DRAIN THRU A RESTRICTIVE OUTLET INTO DITCH 0, MAINTENCED BY THE ANGLETON DRAINAGE DISTRICT. DITCH 0 OUTFALLS TO DITCH 22 WHICH THEN OUTFALLS TO BASTROP BAYOU. BASTROP BAYOU OUTFALLS TO THE GULF OF MEXICO.

AREAL EXTENT AND DESCRIPTION OF WETLAND OR SPECIAL AQUATIC SITE AT OR NEAR THE SITE WHICH WILL BE DISTURBED OR WHICH WILL RECEIVE DISCHARGES FROM DISTURBED AREAS OF THE PROJECT.

NONE

H. REFER TO FEDERAL REGISTER, VOLUME 63, NO.128, MONDAY JULY 6, 1998, PAGES 36497 TO 36515 FOR REQUIREMENTS OF NPDES GENERAL PERMITS FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES IN REGION 6.

I. LISTED ENDANGERED OR THREATENED SPECIES OR CRITICAL HABITAT FOUND IN PROXIMITY TO THE CONSTRUCTION ACTIVITY:

NONE

J. PROPERTY LISTED OR ELIGIBLE FOR LISTING ON THE NATIONAL REGISTER OF HISTORIC PLACES:

NONE

2. CONTROLS

NARRATIVE – SEQUENCE OF CONSTRUCTION ACTIVITIES AND APPROPRIATE CONTROL MEASURES DURING CONSTRUCTION

1. CUT PERIMETER SWALES ALONG THE PROPERTY LINE. SEED THE SWALES. INSTALL SILT FENCE ALONG THE PERIMETER OF THE WORK AREA. CONSTRUCT THE STABILIZED CONSTRUCTION ENTRANCE.

2. STRIPPING OF ALL VEGETATION MAY BEGIN. REMOVED VEGETATION WILL BE STOCKPILED AT THE SITE.

3. THE DETENTION POND WILL BE EXCAVATED AND SPOILS WILL BE SPREAD ON SITE. INSTALL THE RESTRICTIVE OUTLET TO THE POND. COVER THE OUTLET WITH A ROCK BERM. HYDROMULCH THE POND SIDE SLOPES.

4. INSTALL WATERLINE, SANITARY SEWER, SERVICE LEAD, STORM SEWER, INLETS, AND MANHOLES. PROVIDE INLET PROTECTION ON ALL INLETS. ALL SPOILS FROM TRENCHING WILL BE SPREAD ON THE ADJACENT LOTS.

5. BEGIN ROADWAY EXCAVATION, LIME STABILIZATION, AND CONCRETE PAVING.

6. INSTALL CONCRETE CURB. PLACE AN 16" WIDE STRIP OF SOD BEHIND THE CURB. FILTER FABRIC FENCE MAY BE USED IN LIEU OF SOD.

7. PERFORM FINAL GRADE ON LOTS. SPREAD STOCKPILED VEGETATIVE MATERIAL OVER LOTS. SEED AND FERTILIZED ALL AREAS TO ENSURE GROWTH.

A. EROSION AND SEDIMENT CONTROLS: EROSION AND SEDIMENT CONTROLS SHALL RETAIN SEDIMENT ON SITE TO THE EXTENT PRACTICABLE. CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS (WHERE APPLICABLE) AND GOOD ENGINEERING PRACTICES. OFFSITE SEDIMENT ACCUMULATIONS MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE IMPACTS. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS WHEN CAPACITY HAS BEEN REDUCED BY 50%. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORM WALL SHALL BE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORM WATER DISCHARGES.

SOIL STABILIZATION PRACTICES:	OWNER/DEVELOPER	GENERAL CNTRTR.	BUILDER	OTHER
TEMPORARY SEEDING				
PERMANENT PLANTING, SODDING, OR SEEDING		X		
MULCHING- WHERE INDICATED		X		
SOIL RETENTION BLANKET				
VEGETATIVE BUFFER STRIPS				
PRESERVATION OF NATURAL RESOURCES				
OTHER:				

THE FOLLOWING RECORDS SHALL BE MAINTAINED AND ATTACHED TO THIS SWPPP: DATES WHEN MAJOR GRADING ACTIVITIES OCCUR, DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, DATES WHEN STABILIZATION MEASURES ARE INITIATED.

STRUCTURAL PRACTICES:	OWNER/DEVELOPER	GENERAL CNTRTR.	BUILDER	OTHER
SILT FENCES		X		
HAY BALES				
ROCK BERMS				
DIVERSION, INTERCEPTOR, OR PERIMETER DIKES				
DIVERSION, INTERCEPTOR, OR PERIMETER SWALES		X		
DIVERSION DIKE AND SWALE COMBINATIONS				
PIPE SLOPE DRAINS				
ROCK BEDDING AT CONSTRUCTION EXIT		X		
TIMBER MATTING AT CONSTRUCTION EXIT				
SEDIMENT TRAPS				
SEDIMENT BASINS				
STORM INLET PROTECTION		X		
STONE OUTLET STRUCTURES				
OTHER:				

B. STORM WATER MANAGEMENT MEASURES INSTALLED DURING CONSTRUCTION TO CONTROL POLLUTANTS IN STORM WATER DISCHARGES THAT WILL OCCUR AFTER CONSTRUCTION:

CURBS & GUTTERS STORM SEWERS

C. OTHER CONTROLS

NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED TO WATERS OF THE UNITED STATES, EXCEPT AS AUTHORIZED BY A PERMIT ISSUED UNDER SECTION 404 OF THE CLEAN WATER ACT.

WASTE MATERIALS: ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL CONTAINER. THE CONTAINER SHALL MEET ALL STATE AND CITY SOLID WASTE MANAGEMENT REGULATIONS. THE CONTAINER SHALL BE EMPTIED AS NECESSARY AND THE TRASH HAULED TO AN APPROPRIATE DUMP SITE. NO CONSTRUCTION MATERIALS WILL BE BURIED ON SITE.

HAZARDOUS WASTE (INCLUDING SPILL REPORTING): AT A MINIMUM, ANY PRODUCTS IN THE FOLLOWING CATEGORIES ARE CONSIDERED TO BE HAZARDOUS: PAINT, CLEANING SOLVENTS, ASPHALT PRODUCTS, PETROLEUM PRODUCTS, CHEMICAL ADDITIVES FOR SOIL STABILIZATION, AND CONCRETE CURING COMPOUNDS AND ADDITIVES. IN THE EVENT OF A SPILL WHICH MAY BE HAZARDOUS, THE SPILL COORDINATOR SHOULD BE CONTACTED IMMEDIATELY.

SANITARY WASTE: PORTABLE SANITARY FACILITIES WILL BE PROVIDED BY THE CONTRACTOR. ALL SANITARY WASTES WILL BE COLLECTED FROM PORTABLE UNITS AND SERVICED BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

OFFSITE VEHICLE TRACKING SHALL BE MINIMIZED BY:

- HAUL ROADS DAMPENED FOR DUST CONTROL LOADED
- HAUL TRUCKS TO BE COVERED WITH TARPULIN
- EXCESS DIRT ON ROAD REMOVED DAILY STABILIZED
- CONSTRUCTION ENTRANCE

OTHER: TRUCKS HAULING VEGETATION AND DEBRIS WILL BE MONITORED AND SHALL BE COVERED WITH TARPULINS IF REQUIRED TO PREVENT DUST OR OTHER PARTICLES FROM BLOWING OR FALLING FROM TRUCK.

REMARKS: ALL OPERATIONS WILL BE CONDUCTED IN A MANNER THAT WILL MINIMIZE AND CONTROL THE AMOUNTS OF SEDIMENT THAT MAY ENTER THE RECEIVING WATERS. DISPOSAL AREAS SHALL NOT BE LOCATED IN ANY WETLAND, WATERBODY, OR STREAMBED. CONSTRUCTION STAGING AREAS AND VEHICLE MAINTENANCE AREAS SHALL BE CONSTRUCTED BY THE CONTRACTOR IN A MANNER TO MINIMIZE THE RUNOFF OF POLLUTANTS.

3. MAINTENANCE

ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN EFFECTIVE OPERATING CONDITION. IF A REPAIR IS NECESSARY IT SHALL BE DONE AT THE EARLIEST TIME POSSIBLE, BUT NO LATER THAN SEVEN CALENDAR DAYS AFTER THE GROUND HAS DRIED SUFFICIENTLY TO PREVENT FURTHER DAMAGE FROM HEAVY EQUIPMENT. THE AREAS ADJACENT TO DRAINAGE WAYS SHALL HAVE PRIORITY, FOLLOWED BY DEVICES PROTECTING STORM SEWER INLETS. MAINTENANCE SHALL BE PERFORMED BEFORE THE NEXT ANTICIPATED STORM EVENT OR AS SOON AS PRACTICABLE.

4. INSPECTION

AN INSPECTION WILL BE PERFORMED BY THE PERMITEE EVERY FOURTEEN DAYS AS WELL AS AFTER EVERY ONE-HALF INCH OR GREATER RAINFALL EVENT. AN INSPECTION AND RAINFALL REPORT WILL BE MADE AFTER EACH INSPECTION. ANY DEFICIENCIES WILL BE NOTED AND APPROPRIATE CHANGES SHALL BE MADE TO THE SYSTEM TO COMPLY WITH REQUIREMENTS.

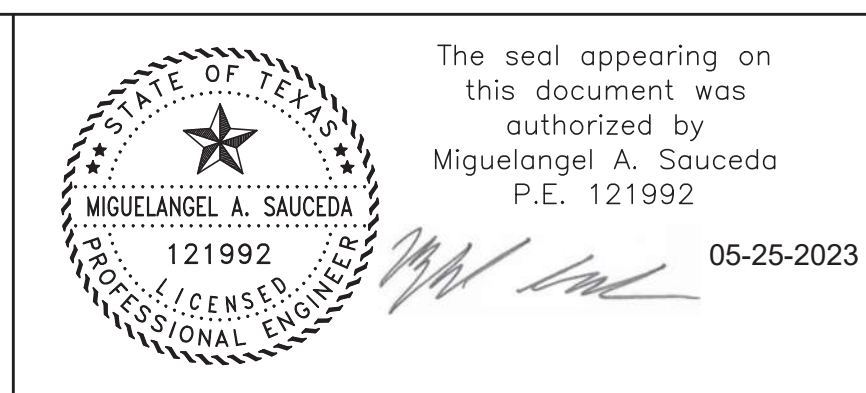
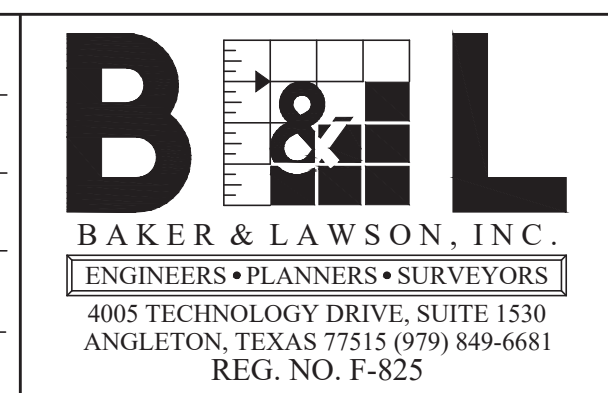
5. NON-STORMWATER DISCHARGES

- FIRE HYDRANT FLUSHING
- BUILDING WASHDOWN WITHOUT DETERGENTS
- PAVEMENT WASHDOWN WITHOUT DETERGENTS
- CONDENSATE
- UNCONTAMINATED GROUNDWATER
- UNCONTAMINATED FOUNDATION DRAINS

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 SHEET SET SEC 1.DWG

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
 DRAWN
 CHECKED
 DATE May 25, 2023



OWNER:
 Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

PLAN:
 PROFILE:
 HORIZONTAL:
 VERTICAL:

ANGLETON PARK PLACE SECTION 1
 ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

SWPPP NARRATIVE
 PROJECT NO. 14320

①

Hydrological and Hydraulic Impacts
ANDERSON PARK PLACE

Job # 14320

Brazoria County, Texas

A = 16.73 Acre Development

Pre Development:
C = 0.2145
TC = 54.0 Minutes, I = 4.889
Q = 100 Year Storm = 21.92 cfs
Q Allowable is 1.31 cfs / ac. = 21.92 cfs

Post Development
C = 0.60
TC = 22.6 Minutes, I = 7.292
Q = 100 Year Storm = 91.495 cfs

Required Detention:
7.158 acre-feet (311,802 c.f.)

Miguel Saucedo, P.E. June 1, 2022

EXISTING CONDITIONS
Bra. Co. Master Drg. Study allows only 1.31 cfs/acre in this area (Bastrop Bayou drainage area BB 19)

TC = 15 Minutes + 1170 LF overland @ 0.5 fps = 54.0 Minutes

PROPOSED CONDITIONS
TC = 15 Minutes + 100 LF overland @ 0.5 FPS + 130 LF gutter @ 2.0 FPS + 575 LF sewer @ 3.0 FPS = 22.6

C = 0.60 per Sugarland Design Manual for lots between 5000-8000 SF

②

Drainage Analysis
Job # 14320 - Phillips Manufactured Homes S

Rainfall Intensity calculations for Brazoria County

i = intensity (in/hr)
b = coefficient
t = time of concentration
d = coefficient
e = coefficient

subscript i = 1 = 2 year storm
i = 2 = 5 year storm
i = 3 = 10 year storm
i = 4 = 25 year storm
i = 5 = 50 year storm
i = 6 = 100 year storm

b ₁ :=	b ₂ :=	d ₁ :=
71.0	0.774	8.4
70.1	0.752	7.7
96.6	0.770	17.2
89.2	0.736	10.4
86.5	0.709	10.0
120.2	0.741	21.3

T_{pre} = 54.0 ENTER PREDEVELOPMENT TIME OF CONCENTRATION

I_{pre} = $\frac{b_1}{(d_1 + T_0)^{e_1}}$ I_{pre} = 4.889 Predevelopment Intensity of Interest

C_{pre} = 0.2145 ENTER PREDEVELOPMENT C VALUE

A_{pre} = 16.73 ENTER AREA

③

C_r = 1.25

Q := C_r * I_{pre} * A
Q = 21.93

V_{pre} := (C_r * A) * 43560 * 1.08
V = 1.688 × 10⁵

Must Insert correct subscript for I to obtain the relevant Q
For these calculations, total volume storage is assumed to equal (C_r*A) with A converted to square feet multiplied by 13" (1.08')

DEVELOPMENT OF RUNOFF HYDROGRAPH
MALCOM'S METHOD AS DESCRIBED IN THE BRAZORIA COUNTY DRAINAGE CRITERIA MANUAL

T := $\frac{V}{1.39 \cdot Q}$ T = 5.538 × 10³

T = Time to peak, presented as a function of volume and peak flow and therefore indirectly related to time of concentration

t := 0, 1000, 84000

f(t) := $\left(\frac{Q}{2}\right) \left(1 - \cos\left(\frac{t \cdot \pi}{T}\right)\right)$ f(t) describes rising limb of hydrograph

g(t) := 4.34 * Q * exp[-1.30 * (t/T)] g(t) describes descending limb of hydrograph

q(t) := if(t ≤ 1.25 * T, f(t), g(t))

Volume_{pre} := $\int_0^{86400} q(t) dt$

Volume_{pre} = 1.694 × 10⁵

④

Predevelopment hydrograph

T_{pre} = 22.6 ENTER POST DEVELOPMENT TIME OF CONCENTRATION

I_{pre} = $\frac{b_1}{(d_1 + T_0)^{e_1}}$ I_{pre} = 7.292 Post development I of interest

C_{pre} = 0.60
C_{post} = 1.25
Q_{post} := C_{post} * I_{pre} * A * C_r

Q = 91.495
V_{pre} := (C_r * A) * 43560 * 1.08
V = 4.722 × 10⁵

T := $\frac{V}{1.39 \cdot Q}$ T = 3.713 × 10³

⑤

t := 0, 1000, 25000

f(t) := $\left(\frac{Q}{2}\right) \left(1 - \cos\left(\frac{t \cdot \pi}{T}\right)\right)$

g(t) := 4.34 * Q * exp[-1.30 * (t/T)]

r(t) := if(t ≤ 1.25 * T, f(t), g(t))

Volume_{post} := $\int_0^{86400} r(t) dt$

Volume_{post} = 4.73 × 10⁵

Post development hydrograph

⑥

Combined pre and post development hydrographs

v(t) := if(r(t) > 0, r(t), 0)

THE REQUIRED STORAGE COMPUTED AS THAT PART OF THE POST DEVELOPMENT HYDROGRAPH THAT FALLS ABOVE THE PREDEVELOPMENT HYDROGRAPH

ACRE- FEET

Volume_{req} := $\int_0^{86400} v(t) dt$

Volume_{req} = 7.158

POND INFORMATION

POND 1
TOP BANK ELEVATION = 20.5' = 94,200 SF
ELEVATION 100-YR WSEL = 19.5' = 86,700 SF
ELEVATION GRAVITY DRAIN (EL = 17.0') = 68,400 SF
ELEVATION TOE (EL = 13.9') = 46,600 SF
AVERAGE DETENTION AREA = 66,650 SF
DETENTION DEPTH = 5.6'

DETENTION PROVIDED = 8.57 AC-FT

RESTRICTOR CALCULATIONS

ORIFICE EQUATION
Q = Cd * A * (2 * G * H)^{0.5}

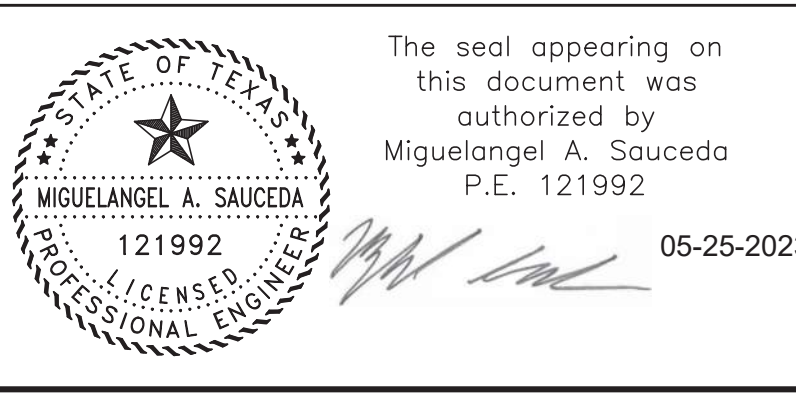
Where:	
Cd =	0.8
G =	32.2
H =	2.5
Q =	23.217
A =	2.29

USE 18" Dia. = 1.76 SF FOR RESTRICTOR

PONDS WILL GRAVITY DRAIN BETWEEN 100-YEAR WSEL @ 19.5' AND 18" GRAVITY DRAIN EL = 17.0'
AVERAGE AREA = 77,550 SF
GRAVITY DRAINAGE DEPTH = 2.5'
TOTAL GRAVITY DRAINAGE VOLUME = 4.45 AC-FT
PERCENTAGE OF TOTAL DETENTION PROVIDED = 51%

DESIGNED	MS
DRAWN	
CHECKED	
DATE	May 25, 2023

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			



OWNER:
Mike Morgan
979-236-5089
dmmorganjr@yahoo.com

PLAN: _____
PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____

ANGLETON PARK PLACE SECTION 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

HYDROLOGIC CALCULATIONS
(PRELIMINARY)

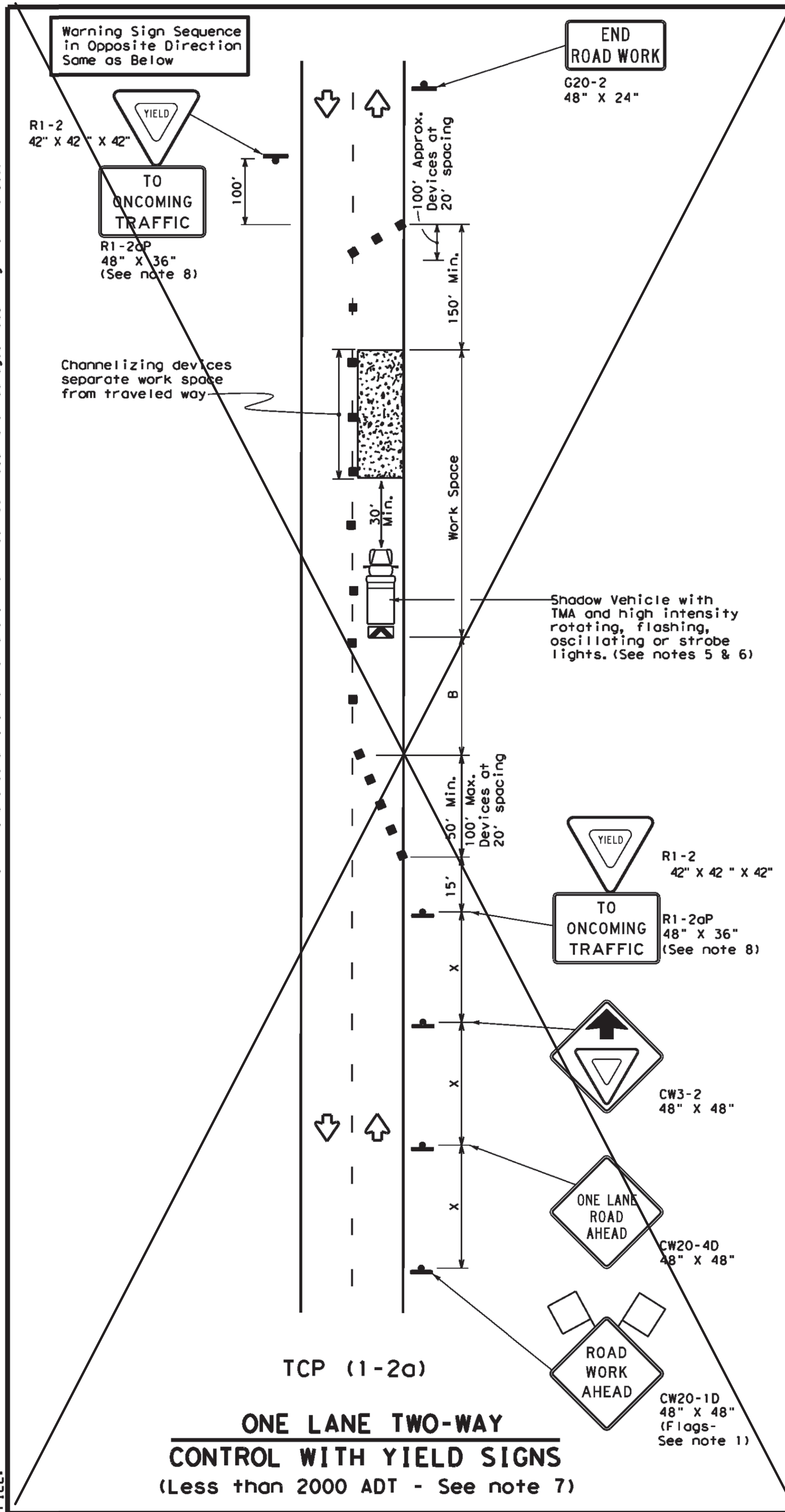
PROJECT NO. 14320

21

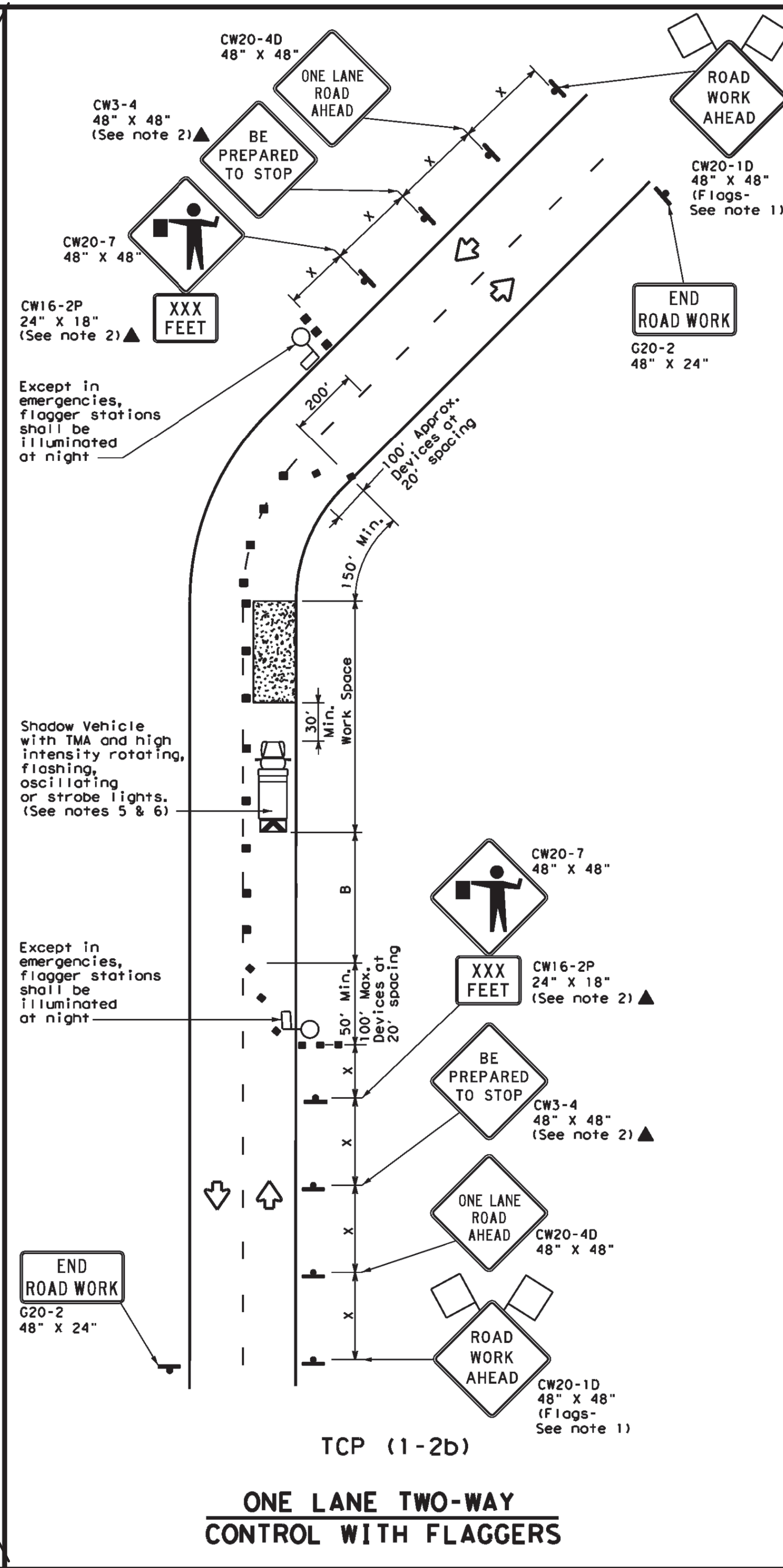
J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 SHEET SET SEC 1.DWG

DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE: FILE:



TCP (1-2a)
ONE LANE TWO-WAY CONTROL WITH YIELD SIGNS
 (Less than 2000 ADT - See note 7)



TCP (1-2b)
ONE LANE TWO-WAY CONTROL WITH FLAGGERS

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"	Stopping Sight Distance
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent			
30	L = WS ² / 60	150'	165'	180'	30'	60'	120'	90'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40		265'	295'	320'	40'	80'	240'	155'	305'
45	L = WS	450'	495'	540'	45'	90'	320'	195'	360'
50		500'	550'	600'	50'	100'	400'	240'	425'
55		550'	605'	660'	55'	110'	500'	295'	495'
60		600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70		700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

* 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.
 - The CW3-4 "BE PREPARED TO STOP" sign may be installed after the CW20-4D "ONE LANE ROAD AHEAD" sign, but proper sign spacing shall be maintained.
 - Sign spacing may be increased or an additional CW20-1D "ROAD WORK AHEAD" sign may be used if advance warning ahead of the flagger or R1-2 "YIELD" sign is less than 1500 feet.
 - 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.
- TCP (1-2a)**
- R1-2 "YIELD" sign traffic control may be used on projects with approaches that have adequate sight distance. For projects in urban areas, work spaces should be no longer than one half city block. In rural areas on roadways with less than 2000 ADT, work spaces should be no longer than 400 feet.
 - R1-2 "YIELD" sign with R1-2aP "TO ONCOMING TRAFFIC" plaque shall be placed on a support at a 7 foot minimum mounting height.
- TCP (1-2b)**
- Flaggers should use two-way radios or other methods of communication to control traffic.
 - Length of work space should be based on the ability of flaggers to communicate.
 - If the work space is located near a horizontal or vertical curve, the buffer distances should be increased in order to maintain adequate stopping sight distance to the flagger and a queue of stopped vehicles (see table above).
 - Channelizing devices on the center-line may be omitted when a pilot car is leading traffic and approved by the Engineer.
 - Flaggers should use 24" STOP/SLOW paddles to control traffic. Flags should be limited to emergency situations.

Texas Department of Transportation
 Traffic Operations Division Standard

TRAFFIC CONTROL PLAN
ONE-LANE TWO-WAY
TRAFFIC CONTROL

TCP (1-2)-18

FILE:	tcp1-2-18.dgn	DATE:	December 1985
REVISIONS:		CONT:	
4-90 4-98		SECT:	
2-94 2-12		JOB:	
1-97 2-18		HIGHWAY:	
		DIST:	
		COUNTY:	
		SHEET NO.:	

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 SHEET SET SEC 1.DWG

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED MS
 DRAWN
 CHECKED
 DATE May 25, 2023

B & L
 BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1330
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825

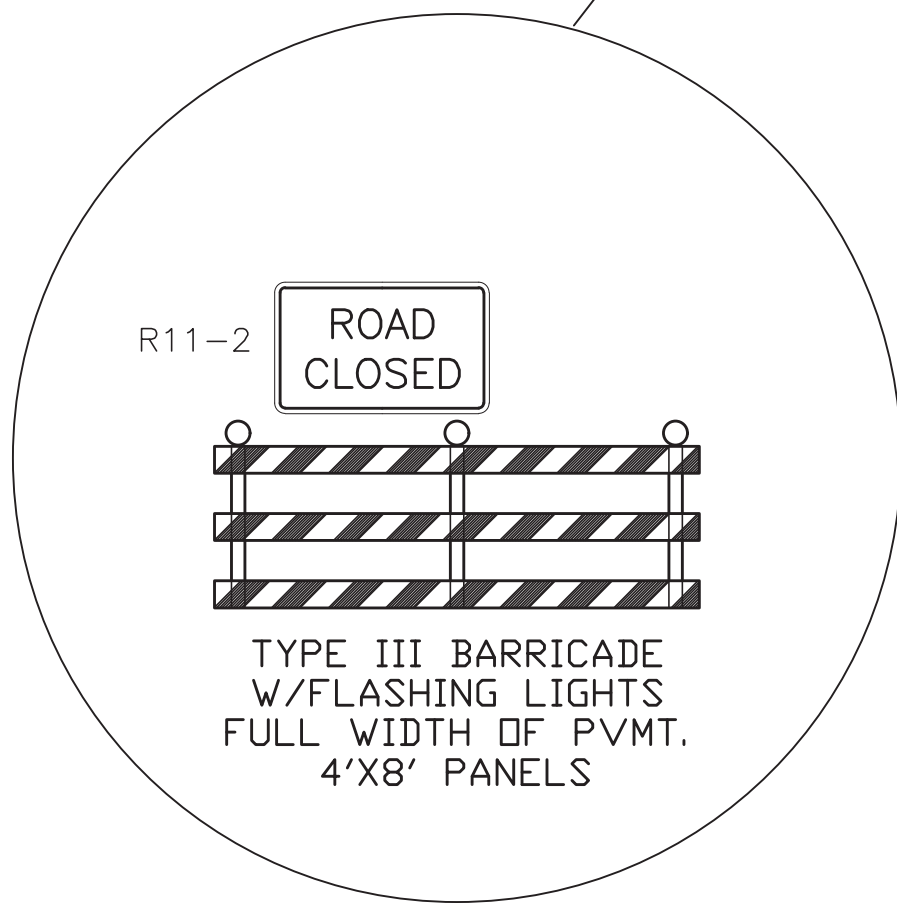
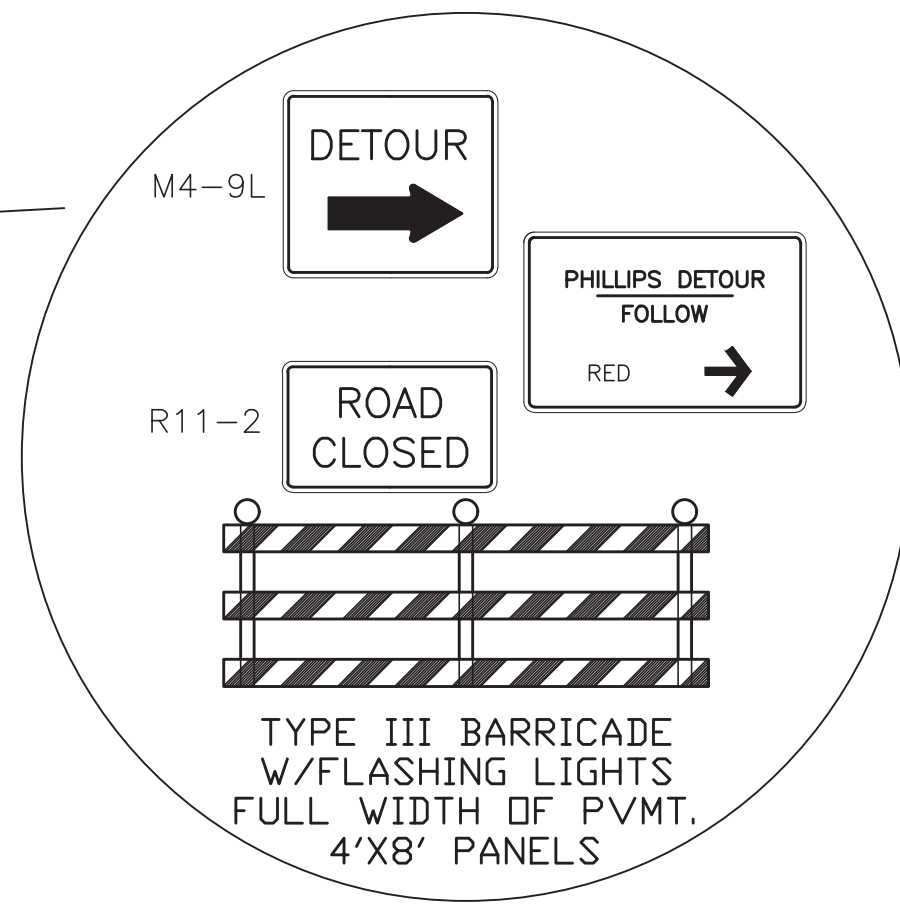
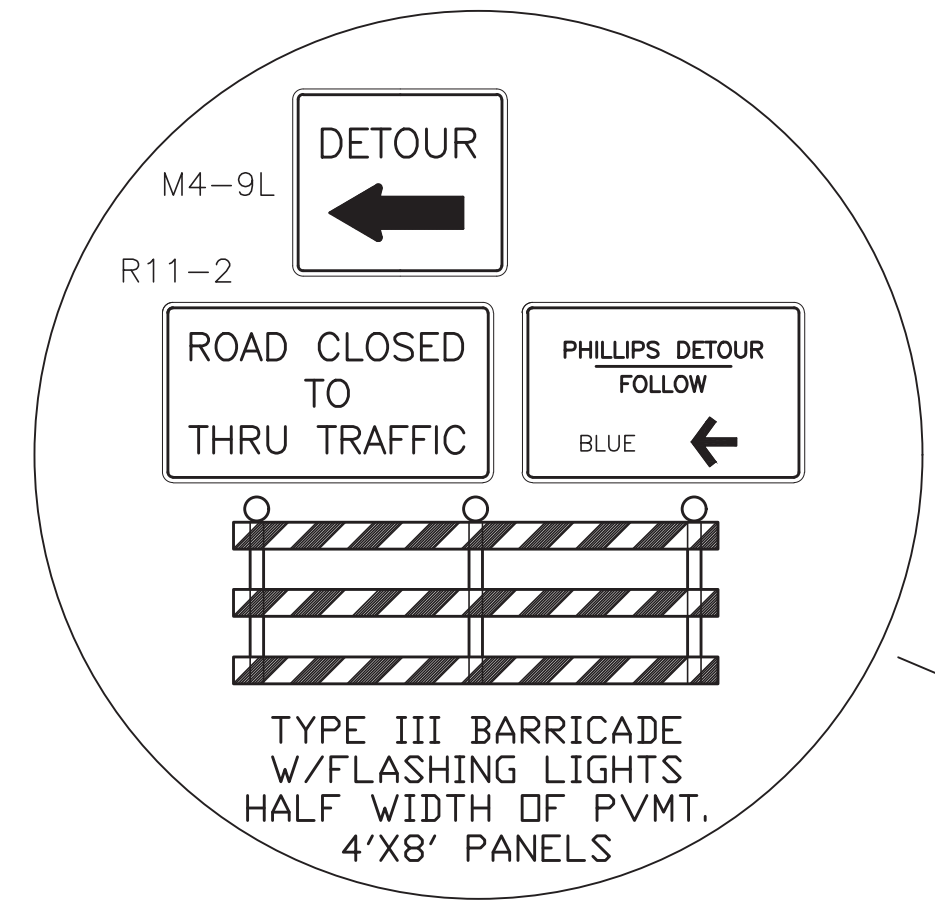
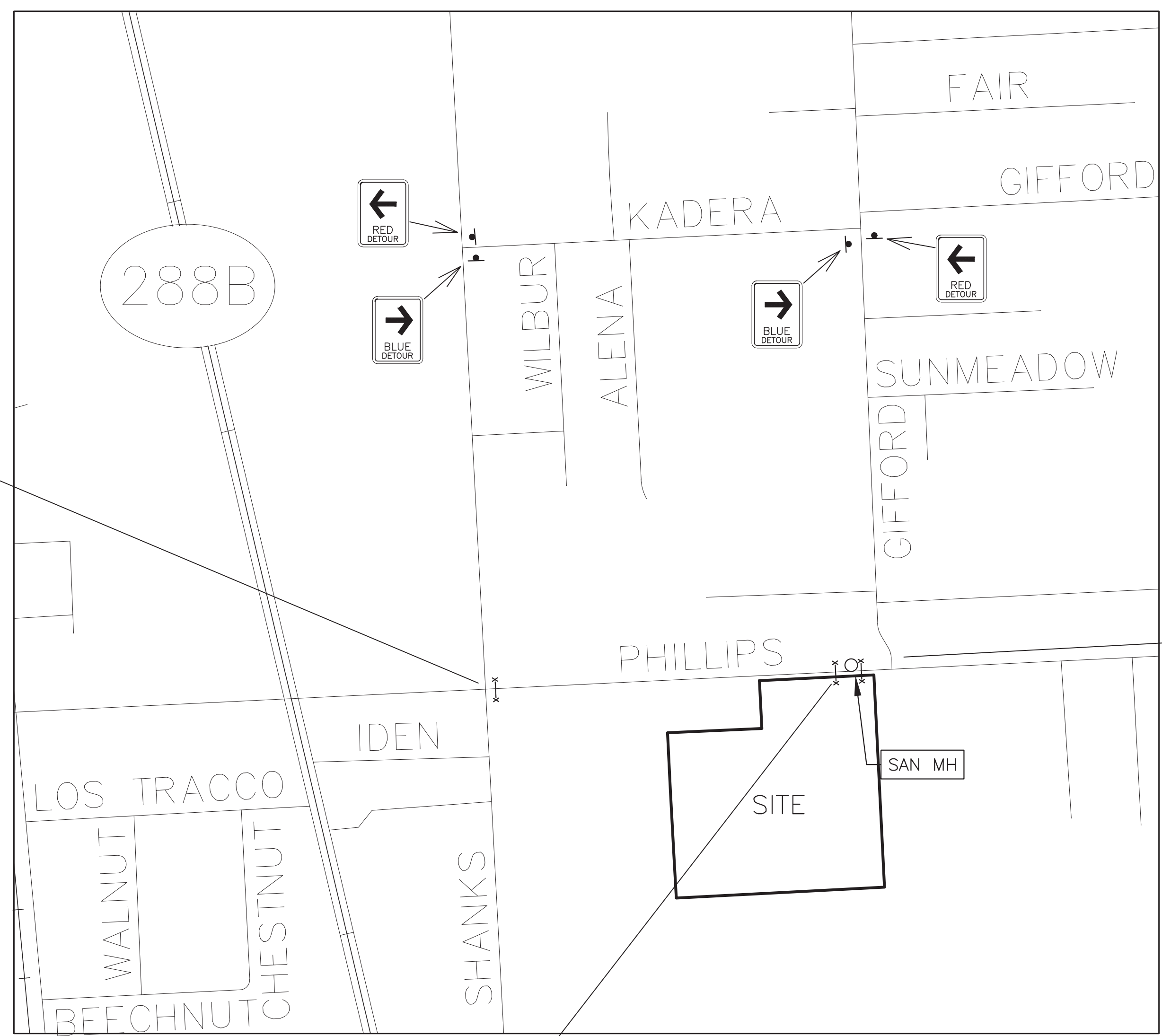
The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992
 05-25-2023

OWNER:
 Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

PLAN:
 PROFILE:
 HORIZONTAL:
 VERTICAL:

ANGLETON PARK PLACE SECTION 1
 ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

TRAFFIC CONTROL PLAN
 - HALF ROAD CLOSURE
 PROJECT NO. 14320



NOTE:
 CONTRACTOR SHALL NOTIFY CITY OF ANGLETON PUBLIC WORKS (JEFF SIFFORD 979-849-4364 EXT 5200) 48 HR PRIOR TO ROAD CLOSURE. WORK ALONG PHILLIPS ROAD SHALL BE PLANNED FOR FRIDAY-SATURDAY, BETWEEN HOURS OF 9AM-3PM OR AT RECOMMENDATION OF PUBLIC WORKS.

WORKERS SHALL BE PRESENT WHEN THERE IS AN OPEN EXCAVATION AND THE EXCAVATION SHALL NOT BE LEFT OPEN OVERNIGHT.

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 SHEET SET SEC 1.DWG

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
 DRAWN
 CHECKED
 DATE May 25, 2023

B & L
 BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1530
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825

The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992

05-25-2023

OWNER:
 Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

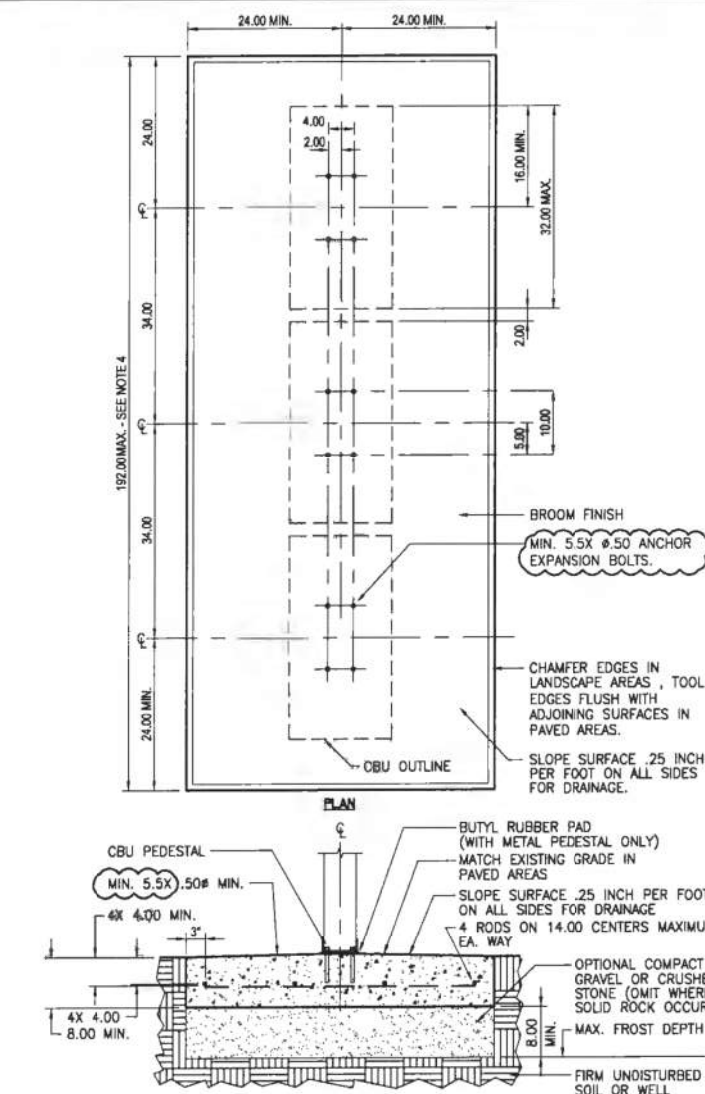
PLAN: _____
 PROFILE: _____
 HORIZONTAL: _____
 VERTICAL: _____

**ANGLETON PARK PLACE SECTION 1
 ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION**

TRAFFIC CONTROL PLAN
 - FULL ROAD CLOSURE

PROJECT NO. 14320 **23**

NOTES TO A/E:

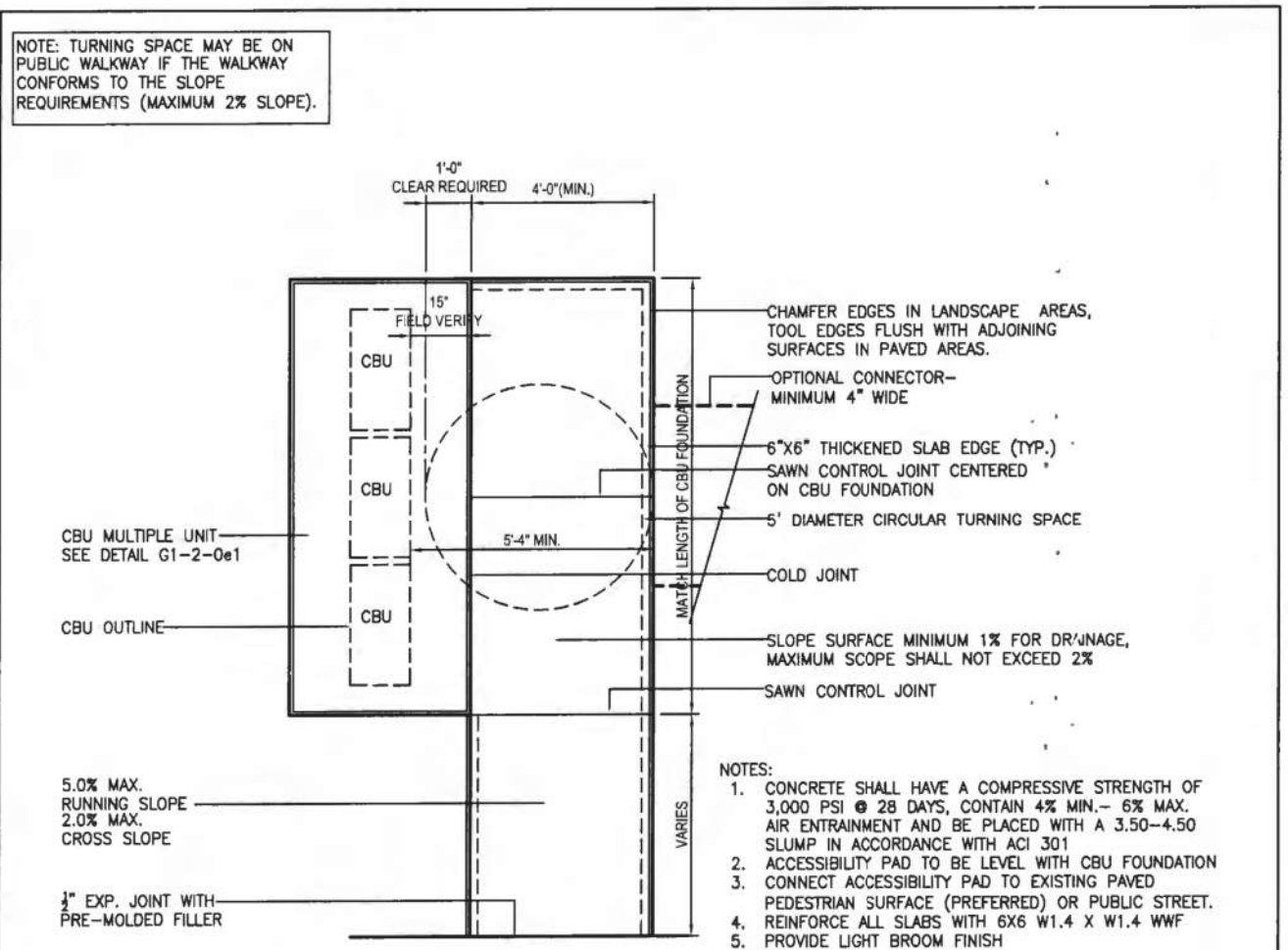


- NOTES:
- CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3,000 PSI @ 28 DAYS, CONTAIN 4% MIN. AIR ENTRAINMENT AND BE PLACED WITH A 3.00 - 4.50 INCH MIN. SLOPE SURFACE.
 - EXPANSION JOINTS SHALL CONFORM TO ASTM A636, GRADE 60, 1/2\"/>

Detail: **CLUSTER BOX UNIT (CBU) INSTALLATION - MULTIPLE UNIT**
 Scale: 1/2" = 1'-0"
 Date: 10/1/2016
 Author: G1-2-0 e1

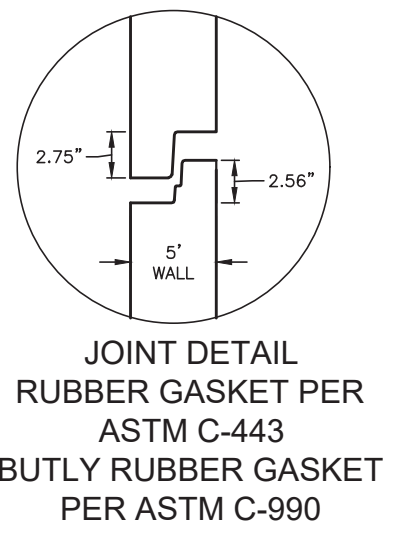
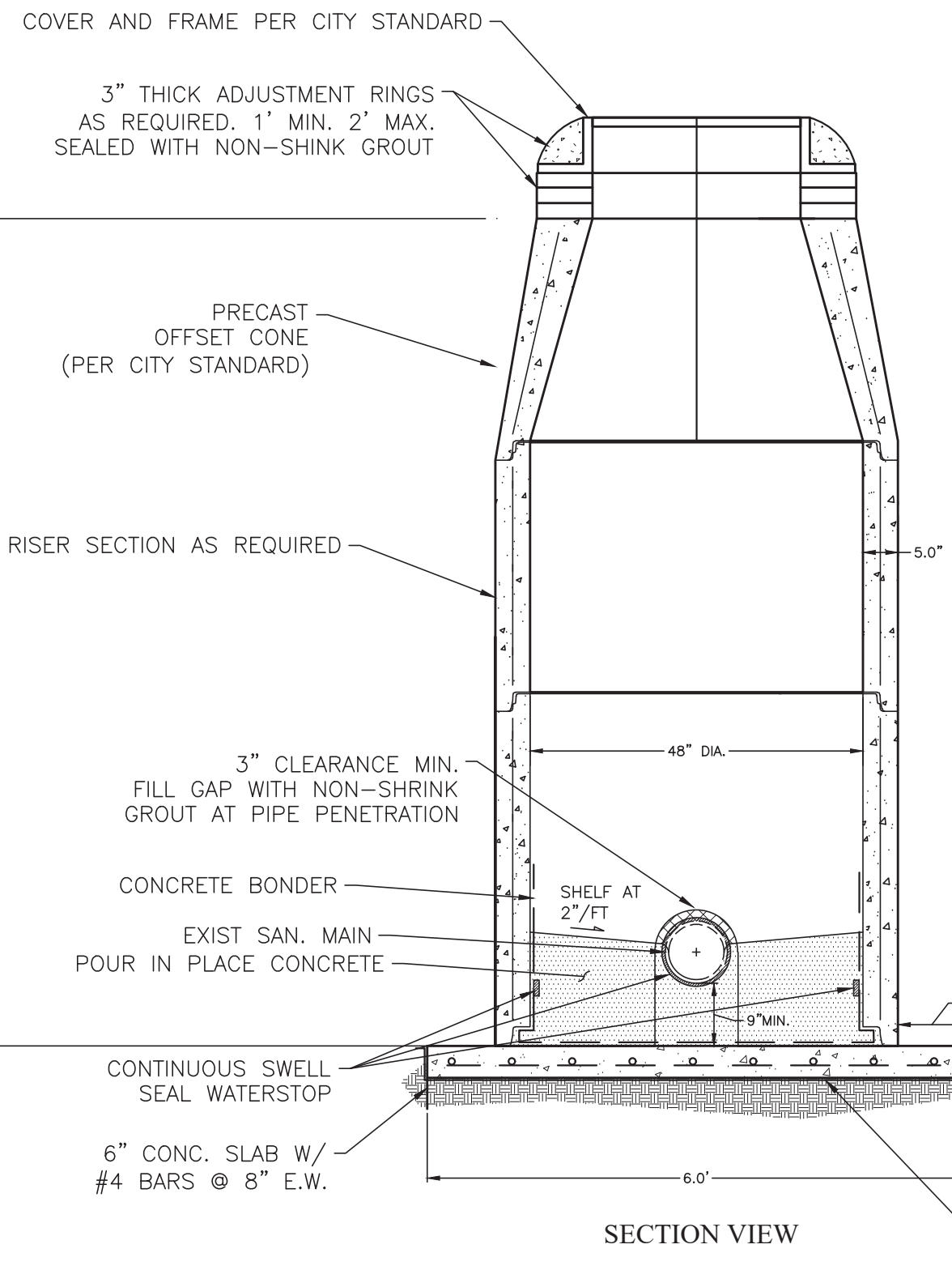
NOTES TO A/E:

- IF THE ACCESSIBLE ROUTE FROM THE CBU(S) CONNECTS WITH A STREET OR OTHER PAVED SURFACE AT A VERTICAL CURB, A CURB RAMP SHOULD BE INSTALLED IN ACCORDANCE WITH RE-4 REQUIREMENTS.

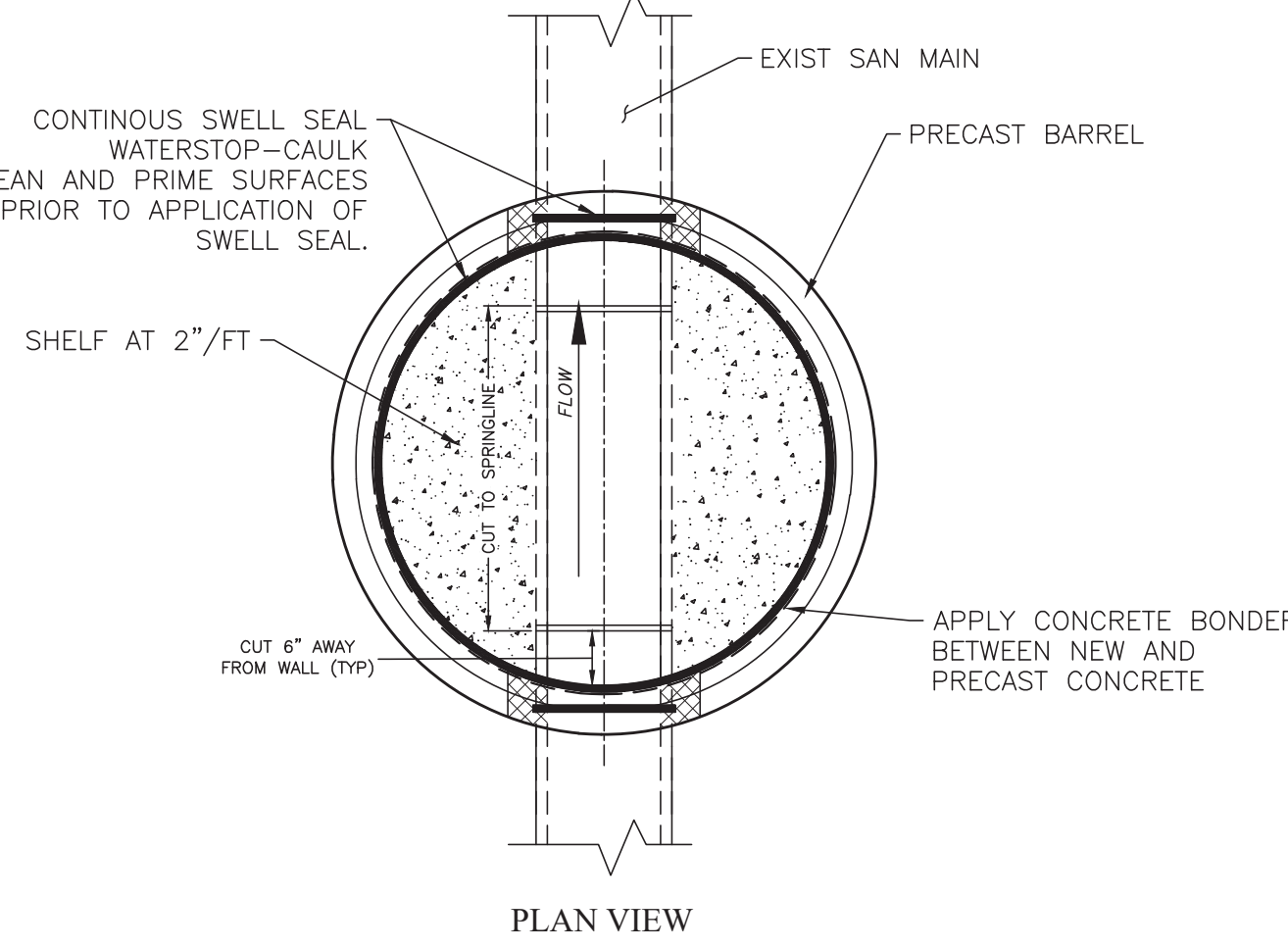


Paved Pedestrian Surface (if available) or Public Street

Detail: **CLUSTER BOX UNIT (CBU) ACCESS (MANEUVERING SPACE - MULTIPLE UNIT)**
 Scale: 1/4" = 1'-0"
 Date: 10/1/2016
 Author: G1-2-0 e3

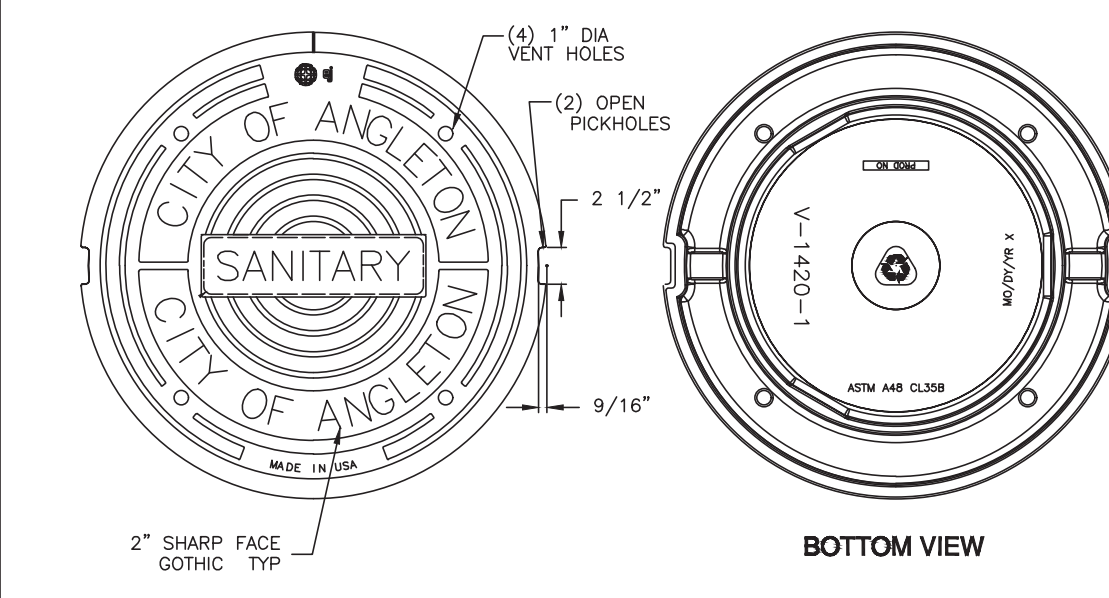


JOINT DETAIL
 RUBBER GASKET PER
 ASTM C-443
 BUTYL RUBBER GASKET
 PER ASTM C-990

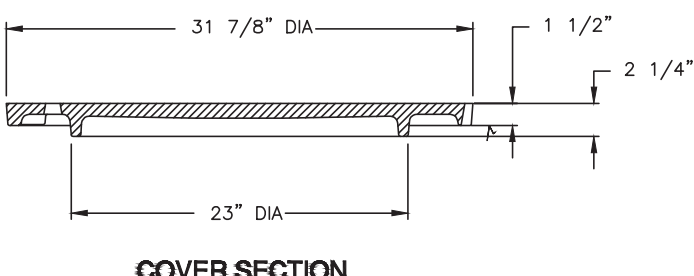


DOG HOUSE MANHOLE DETAIL
 NTS

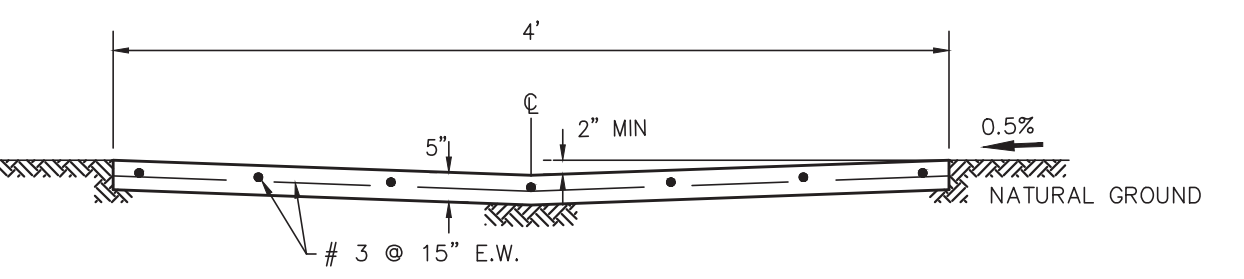
V1420-1 Cover



32" Manhole Cover and Frame
 Scale: NTS

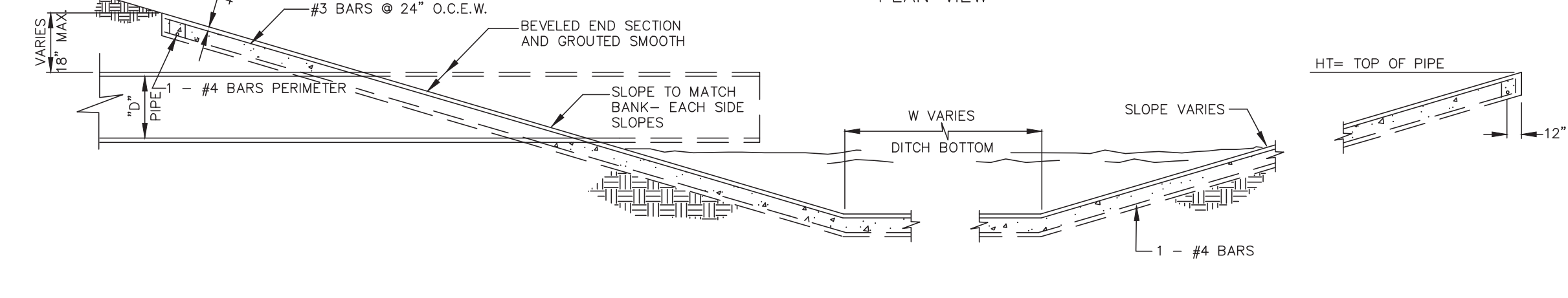
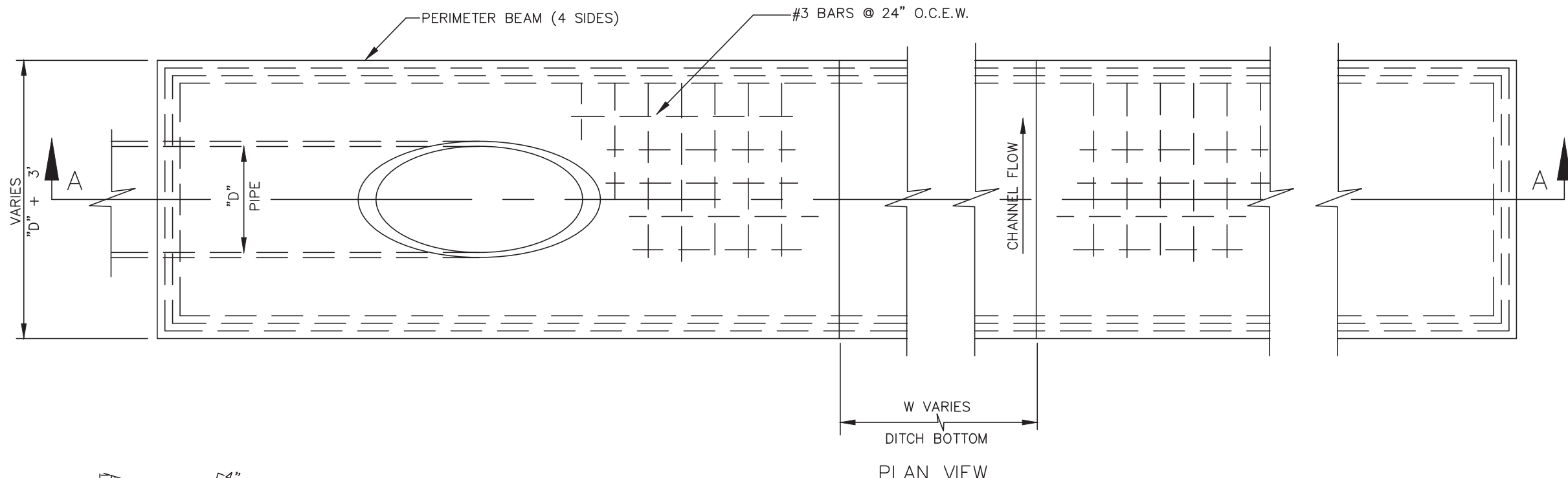


- NOTES:
- MATERIAL SPECIFICATION SHALL BE ASTM A-48 CLASS 35B.
 - COVER TO BE SOLID, WITHOUT HOLES AND WITH NON-PENETRATION RIM ACCESS RECESSES ONLY.
 - HORIZONTAL BEARING SURFACES TO BE MACHINED AND SEALED AT INSTALLATION WITH WATERPROOF GREASE COATING.
 - LOAD RATING TO BE HEAVY-DUTY.
 - MANHOLE FRAMES AND COVERS SET IN FIRM TO MARKET ROADS OR HIGHWAYS SHALL FOLLOW TXDOT SPECIFICATIONS, (UNLESS OTHERWISE NOTED BY ANGLETON)



- NOTES:
- 1" DEPRESSION FOR EACH 1' OF WIDTH.
 - WIDTH TO BE AT LEAST 1' WIDER THAN PIPE ENTERING POND.

4" CONCRETE PILOT CHANNEL DETAIL
 N.T.S.



TYPE 2
 TYPICAL DRAINAGE OUTFALL CHANNEL
 NTS

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED	MS
DRAWN	STD.
CHECKED	
DATE	May 2023

B & L
 BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1330
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825

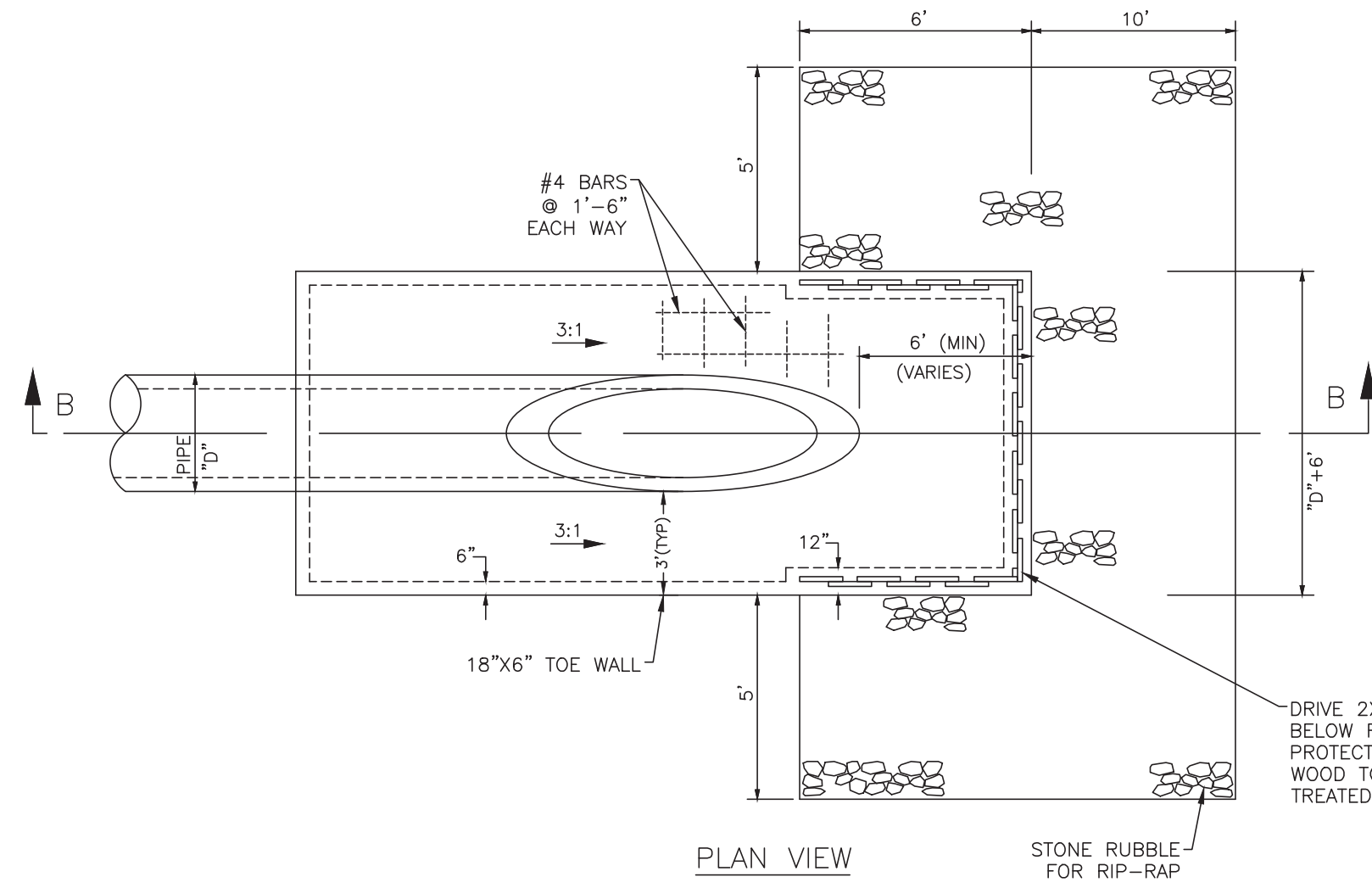
The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992
 05-25-2023

OWNER:
 Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

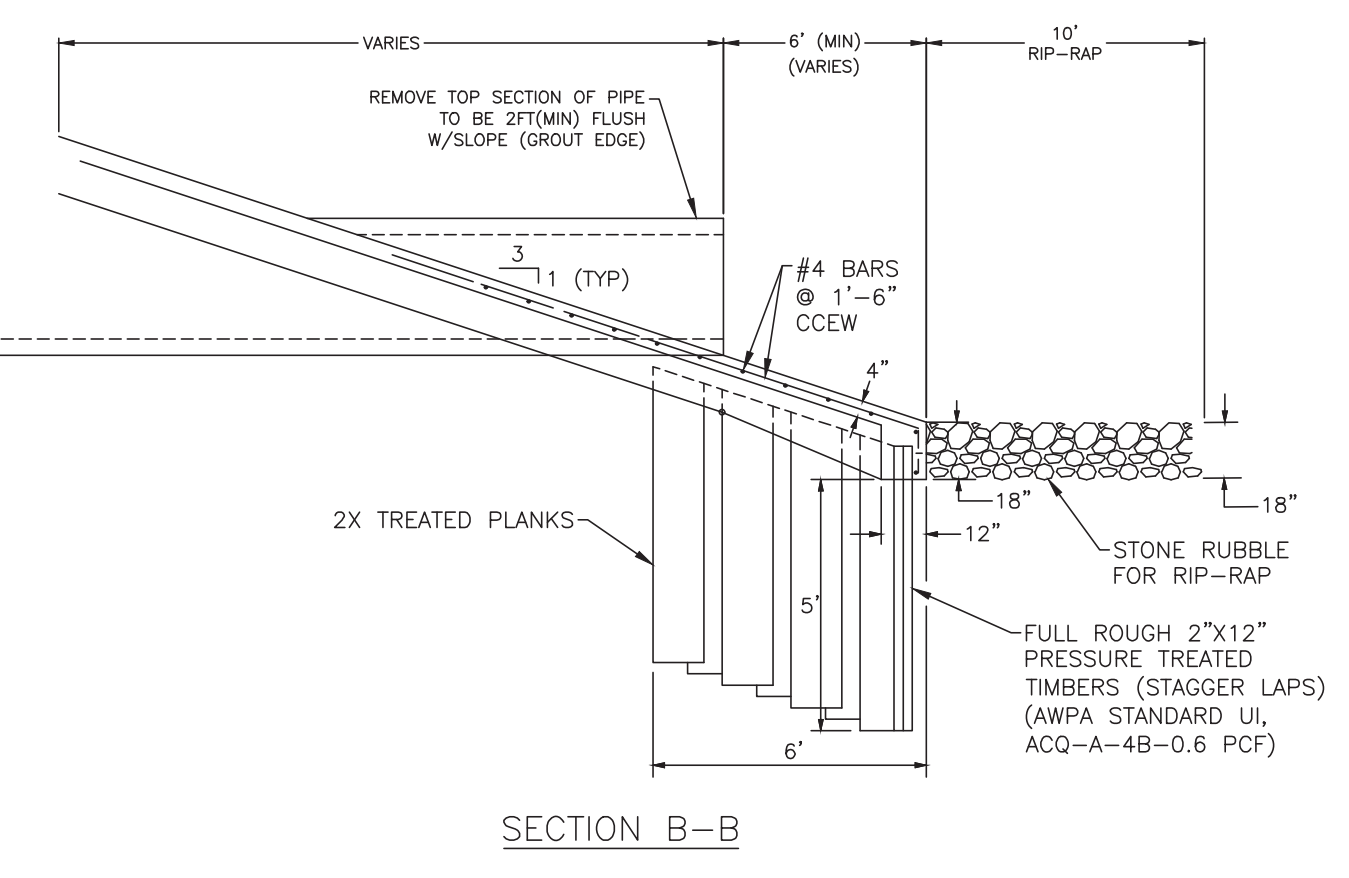
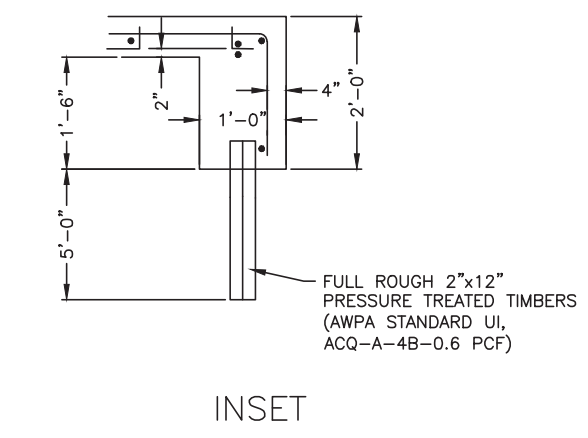
PLAN:	
PROFILE:	
HORIZONTAL:	
VERTICAL:	

ANGLETON PARK PLACE SEC. 1
 ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

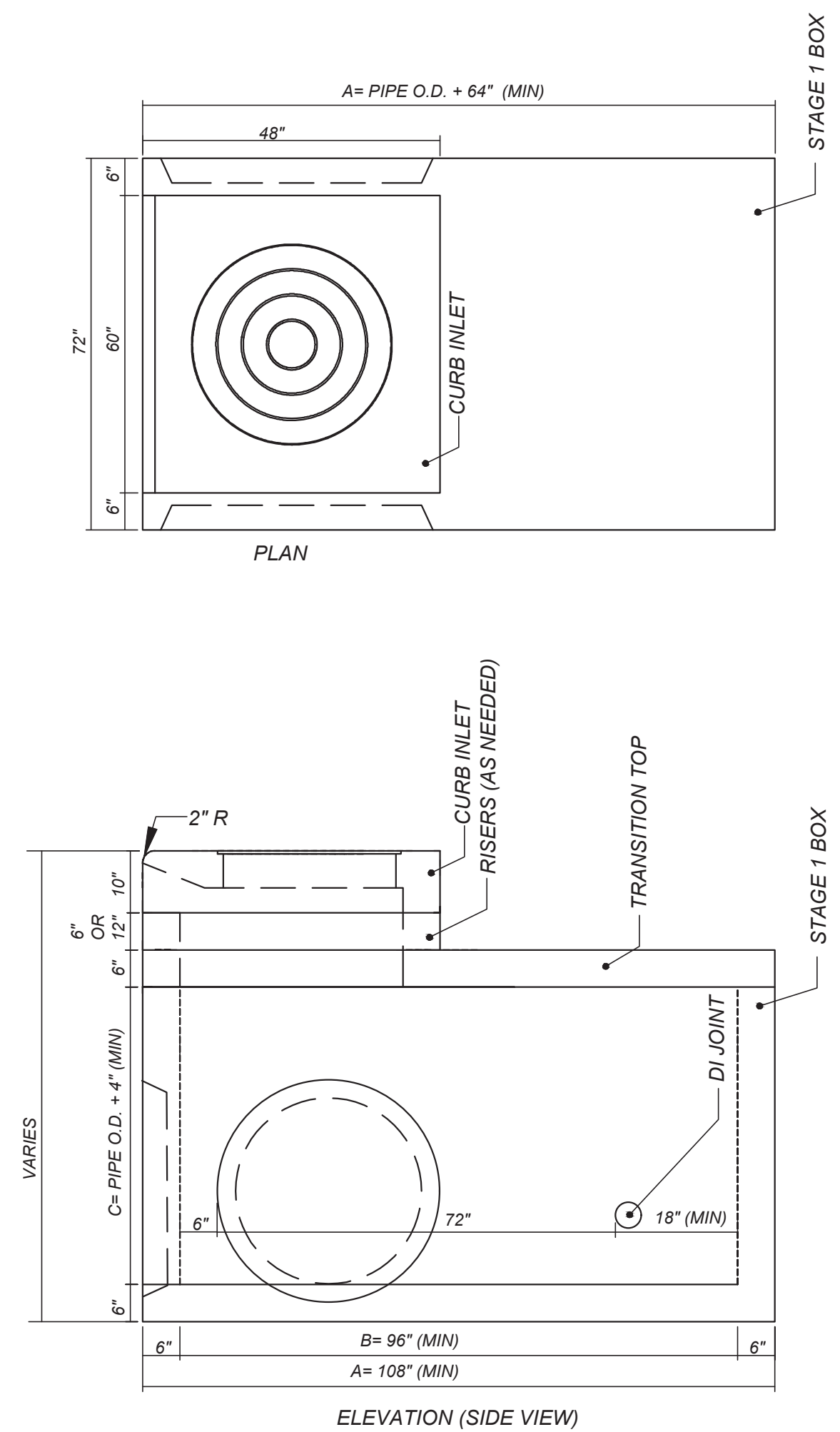
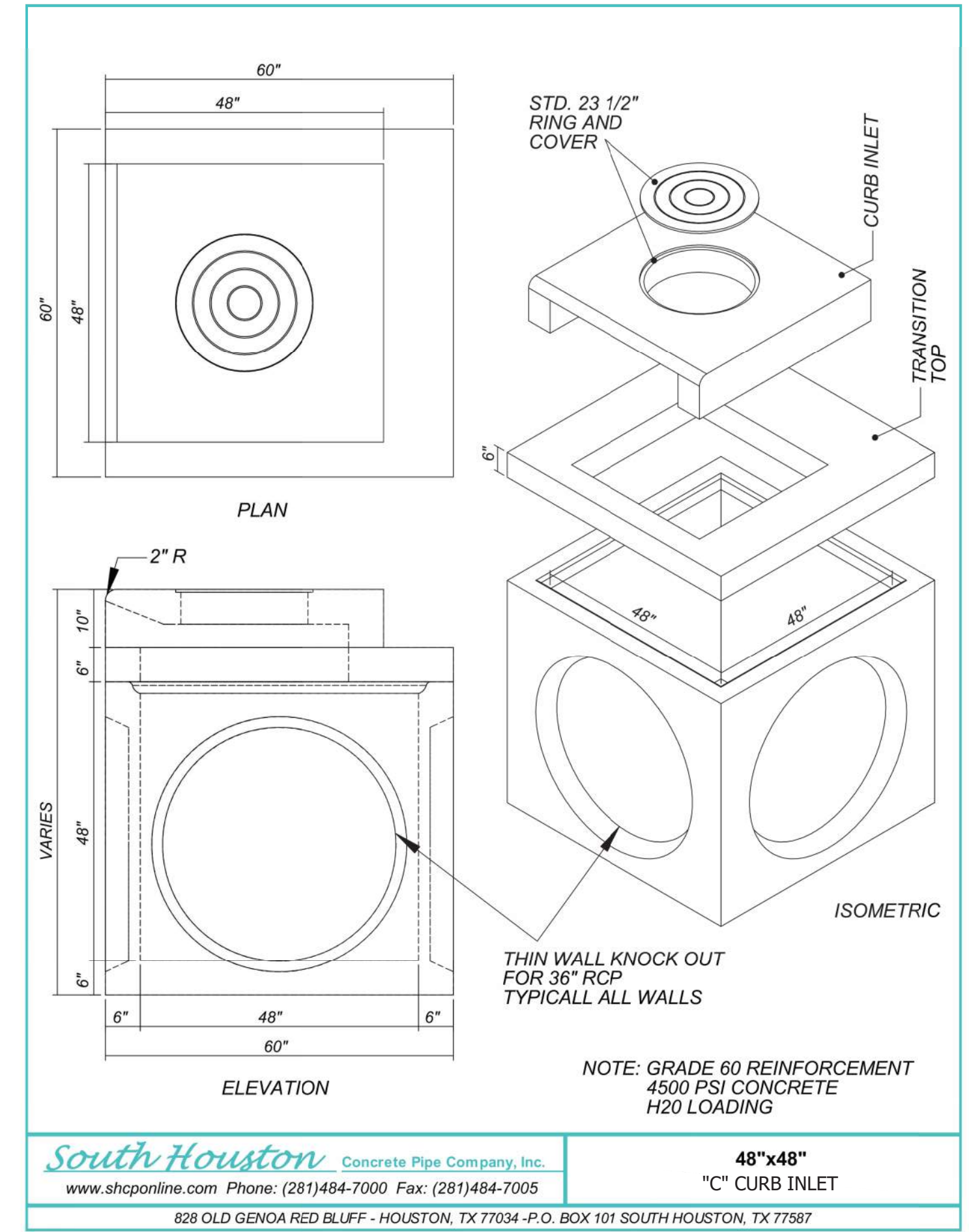
MISCELLANEOUS
 DETAILS
 (1 OF 2)
 PROJECT NO. 14320



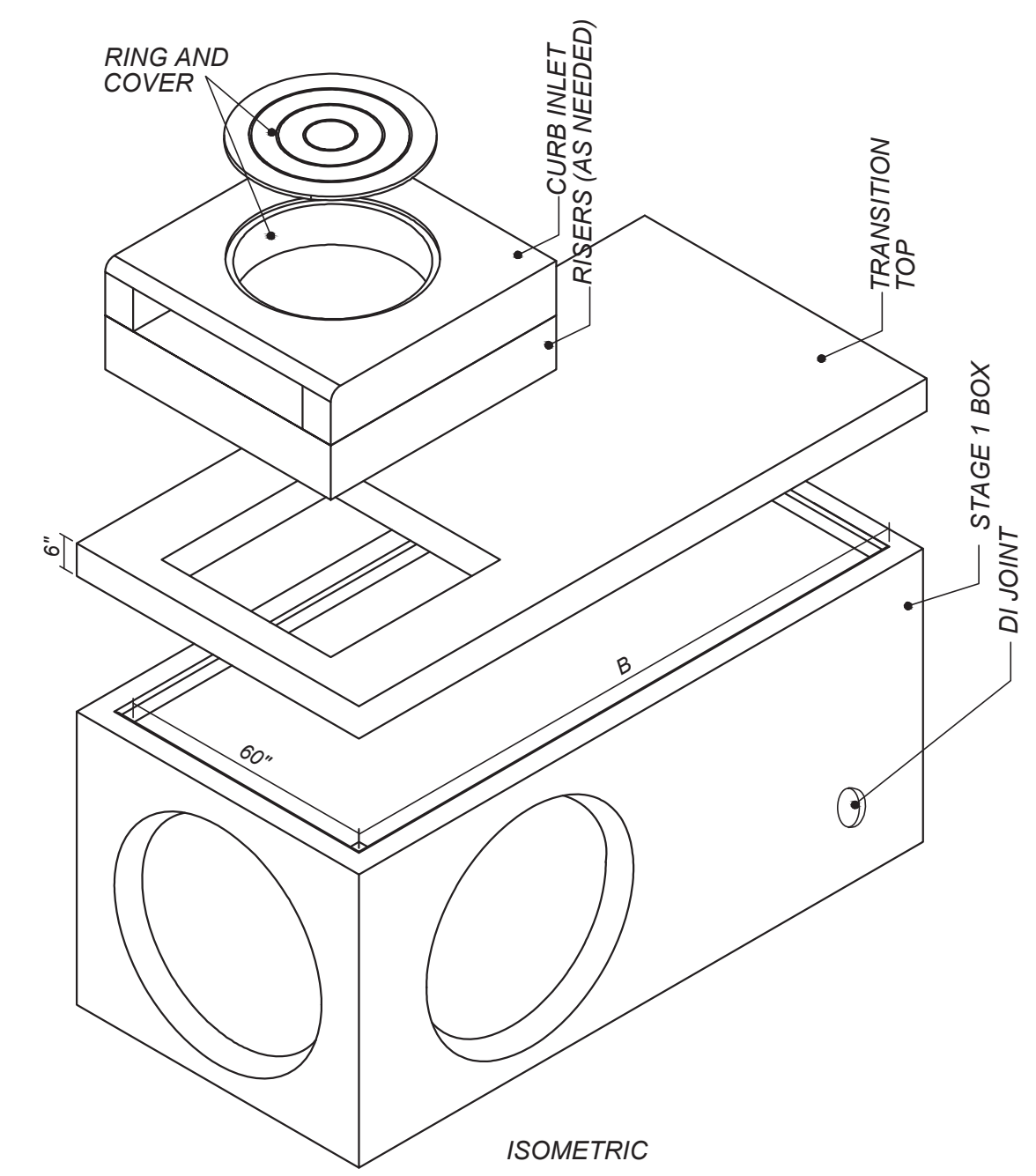
NOTES:
 1. RIP-RAP SHALL BE BROKEN CONCRETE OR NATURAL STONE.
 SPEC. GRAVITY = 2.4
 SIZE = 0.25 TO 1.25 CF (40-190#)
 DIMENSION = >3 IN.
 WIDTH = <2.5 X THICKNESS
 LENGTH = <3 X THICKNESS
 2. ALL PLANKING FOR CUT-OFF WALLS AND RUBBLE RIP-RAP TO BE INCIDENTAL TO THE ITEM-CONCRETE FOR STRUCTURES, CLASS "B" RIP-RAP.



SLOPE PAVING OFFFALL DETAIL
 STORM SEWER OFFFALL INTO DETENTION POND
 N.T.S.



PRECAST MODIFIED "C" CURB INLET
 N.T.S.



NOTE:
 CONCRETE SHALL BE 4000 PSI
 REBAR SHALL BE GRADE 60 WITH #4 BARS SPACED 24" O.C. EACH WAY
 CURB INLET SHALL BE RATED FOR H20 LOADING
 FOR MODIFIED BOXES THAT HAVE SANITARY DI JOINT "A" LENGTH SHALL BE 102".

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
 DRAWN STD.
 CHECKED
 DATE May 2023

B & L
 BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1530
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825

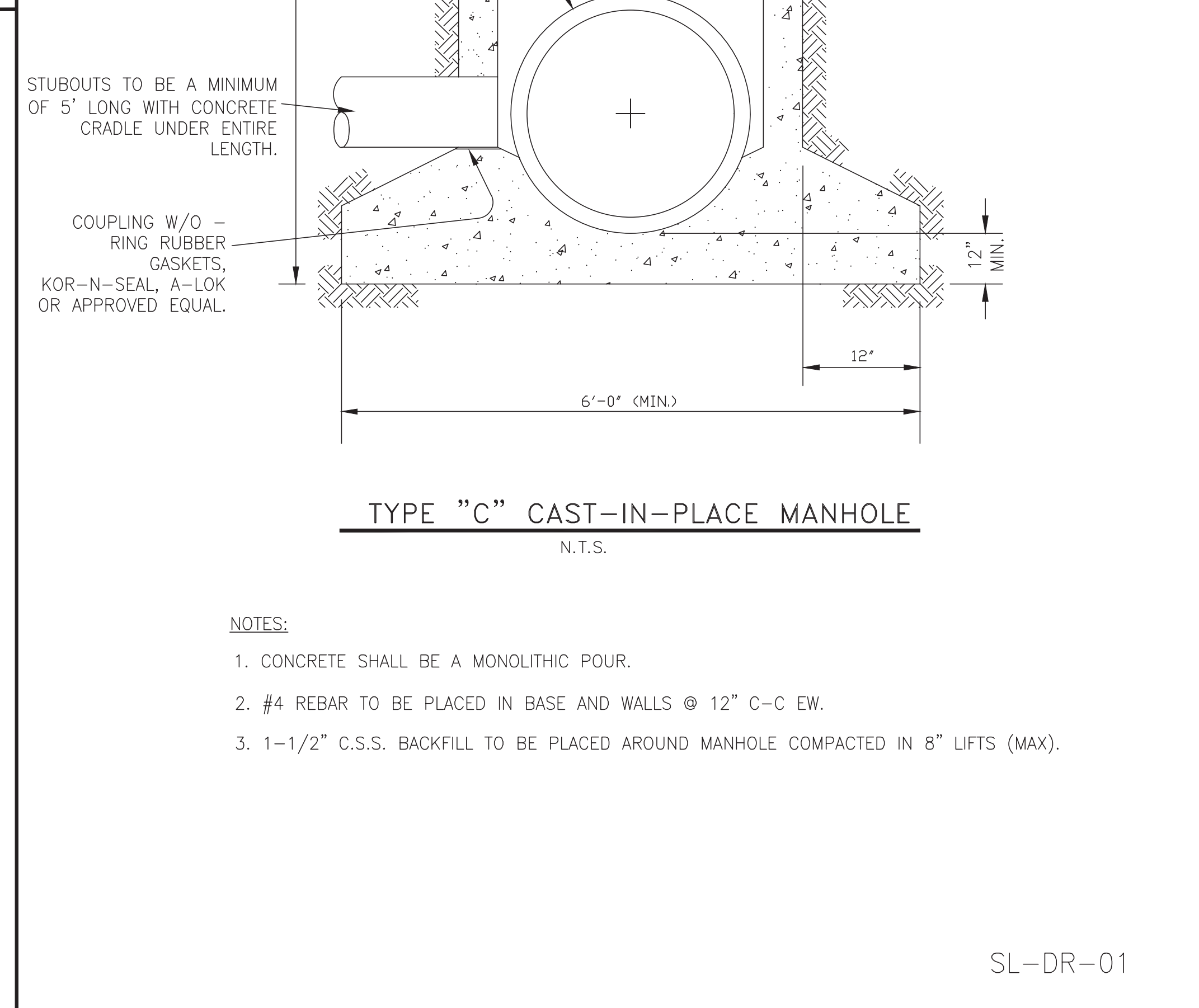
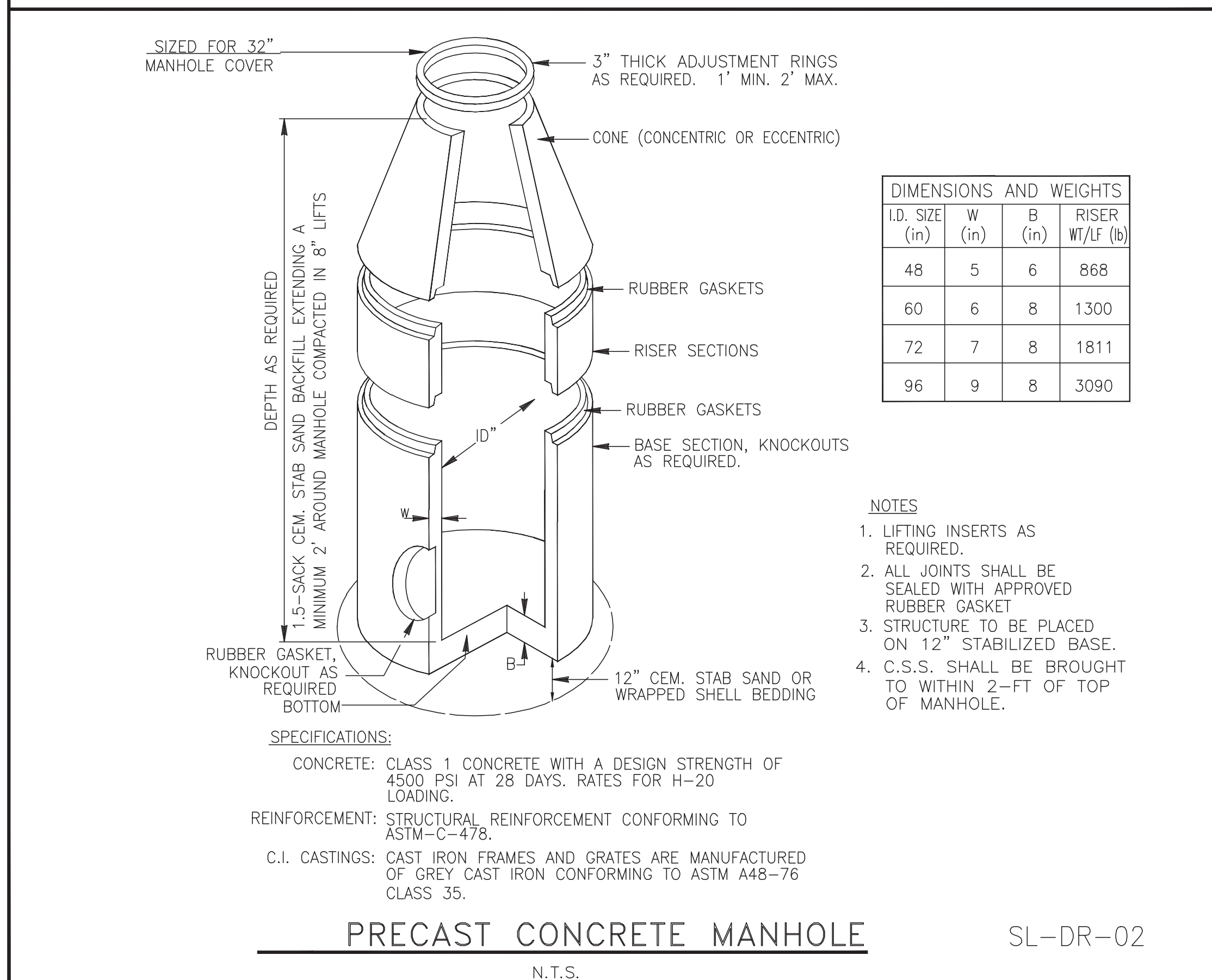
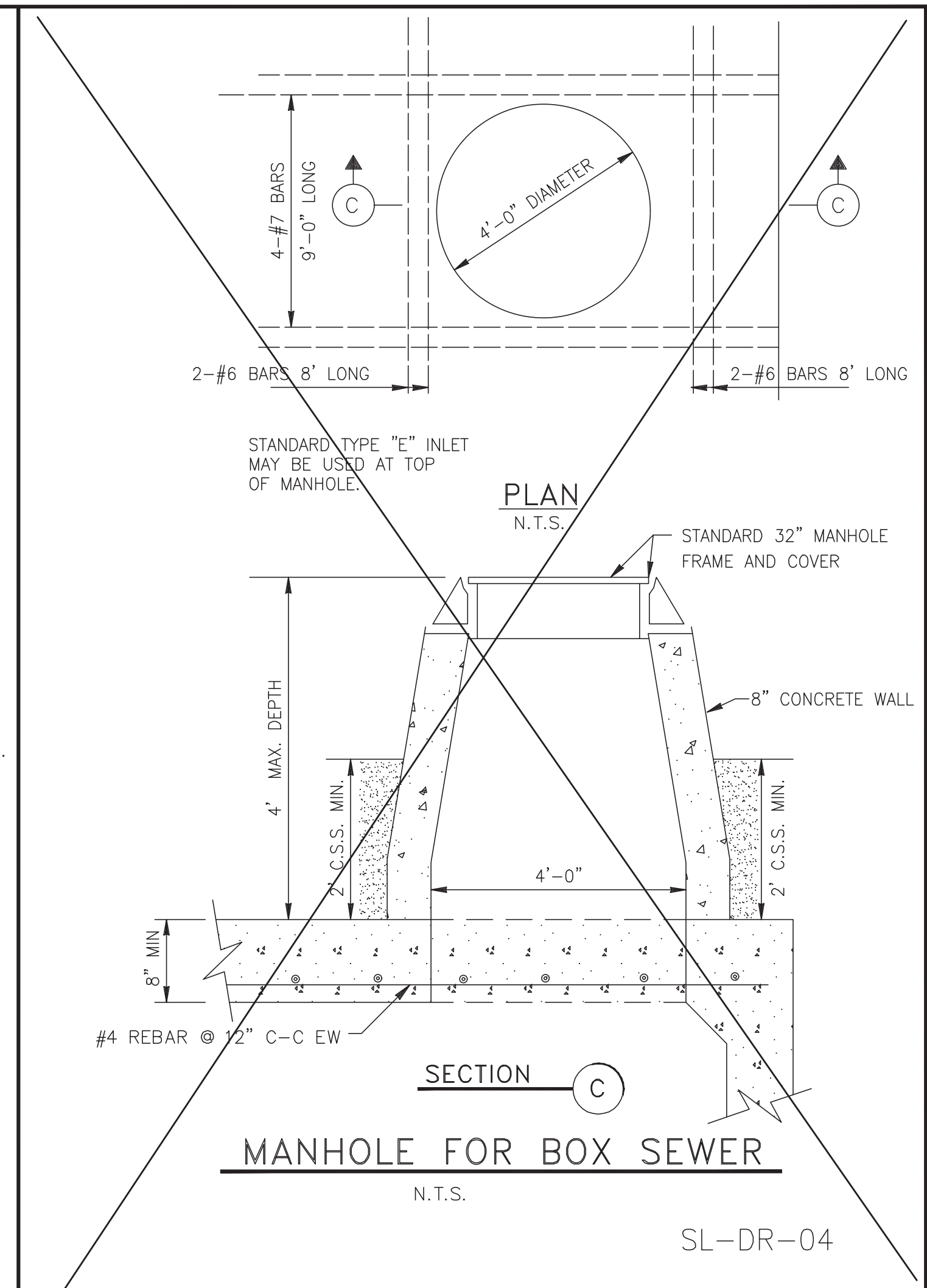
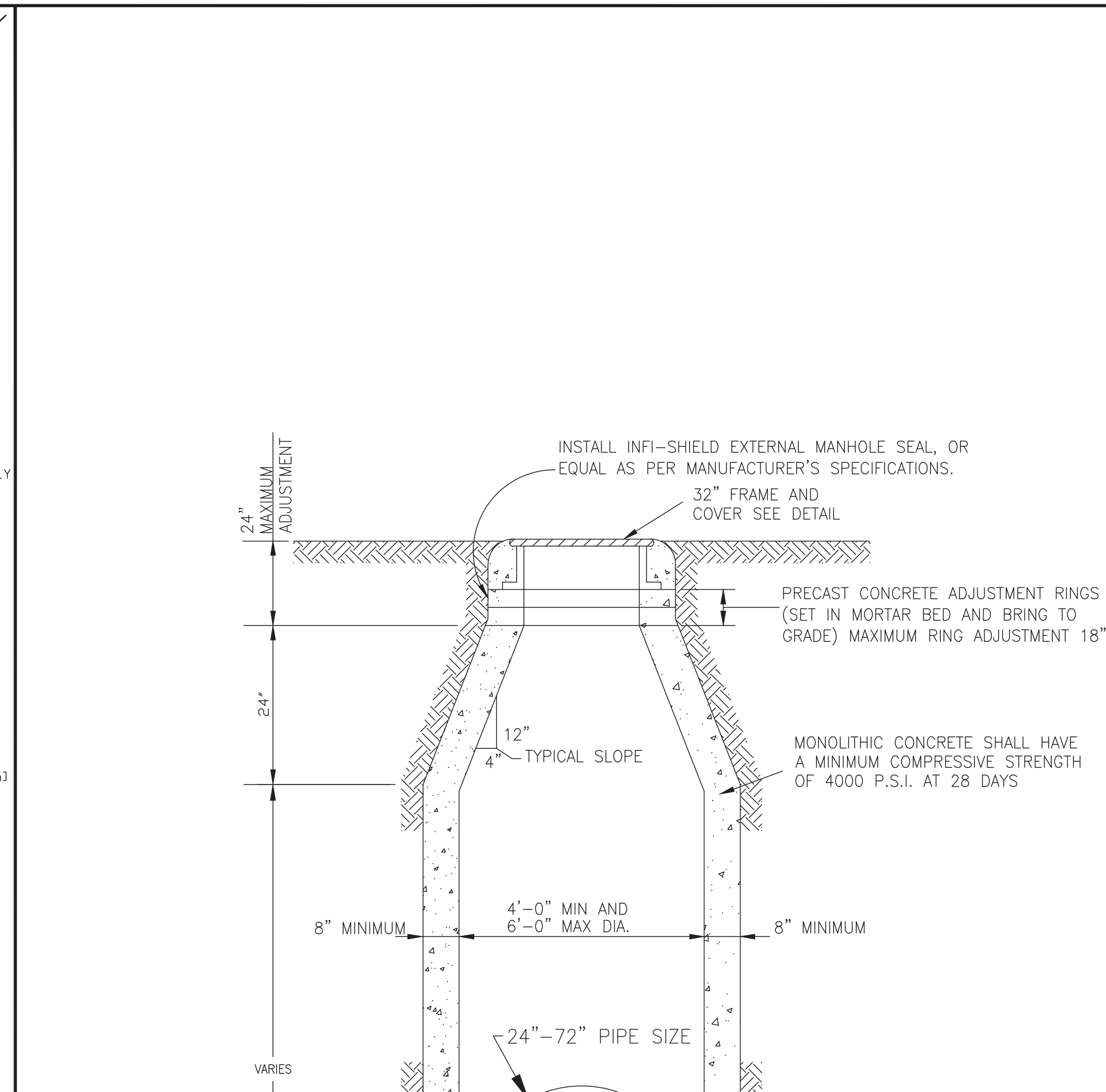
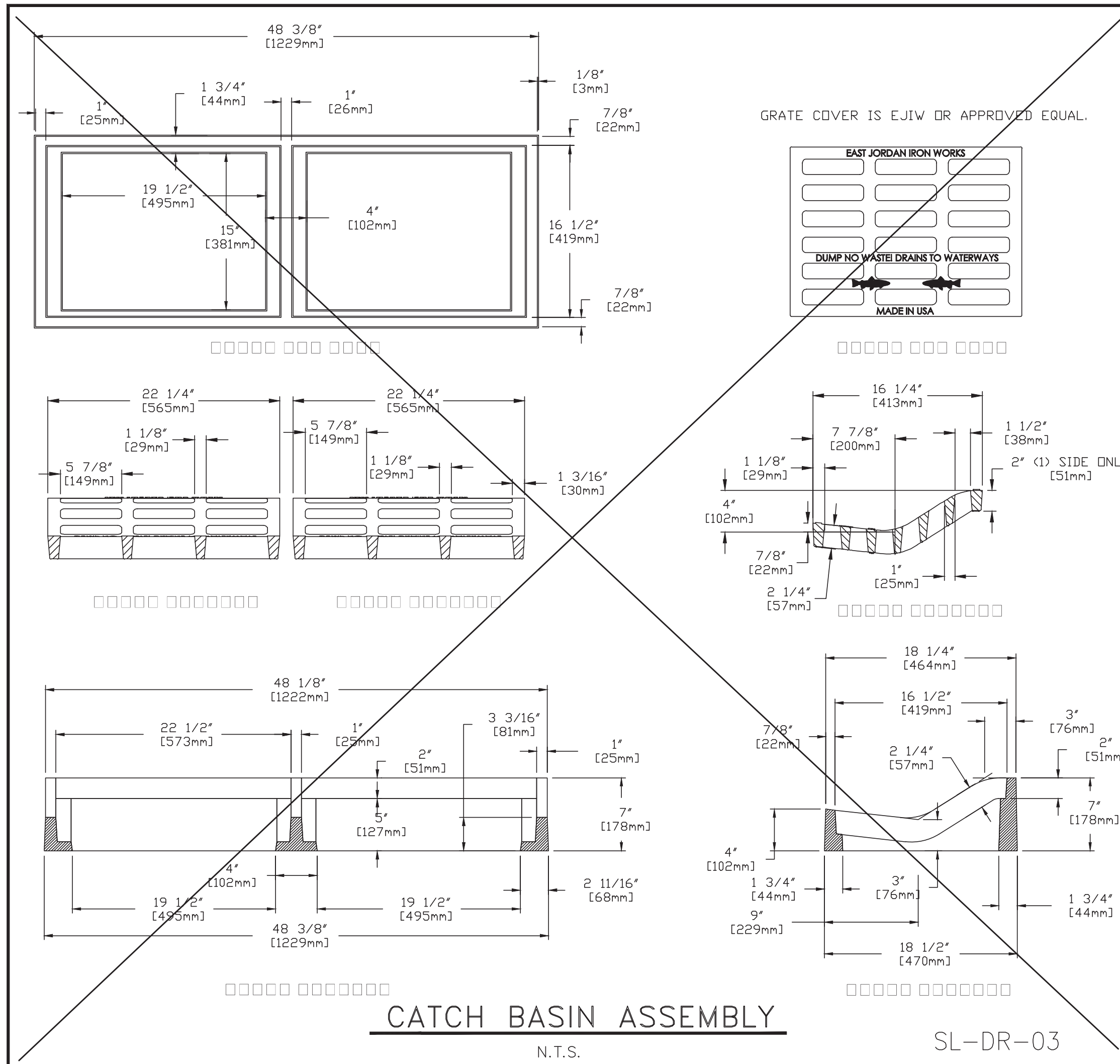
The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992
 05-25-2023

OWNER:
 Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

PLAN: _____
 PROFILE: _____
 HORIZONTAL: _____
 VERTICAL: _____

ANGLETON PARK PLACE SEC. 1
 ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

MISCELLANEOUS
 DETAILS
 (2 OF 2)
 PROJECT NO. 14320



No.	DATE	REVISION

DESIGN ENGINEER: _____ DATE: _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

STORM SEWER MANHOLE CONSTRUCTION DETAILS

JOB No.: _____
DATE: _____
DESIGNED BY: _____
DRAWN BY: _____
CHECKED BY: _____
SCALE: _____

SL-03
SHEET OF

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED MS
DRAWN BT
CHECKED
DATE May 2023

B & L
BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
4005 TECHNOLOGY DRIVE, SUITE 1330
ANGLETON, TEXAS 77515 (979) 849-6681
REG. NO. F-825

The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992 05-25-2023

STATE OF TEXAS
121992
MIGUELANGEL A. SAUCEDO
LICENSED PROFESSIONAL ENGINEER

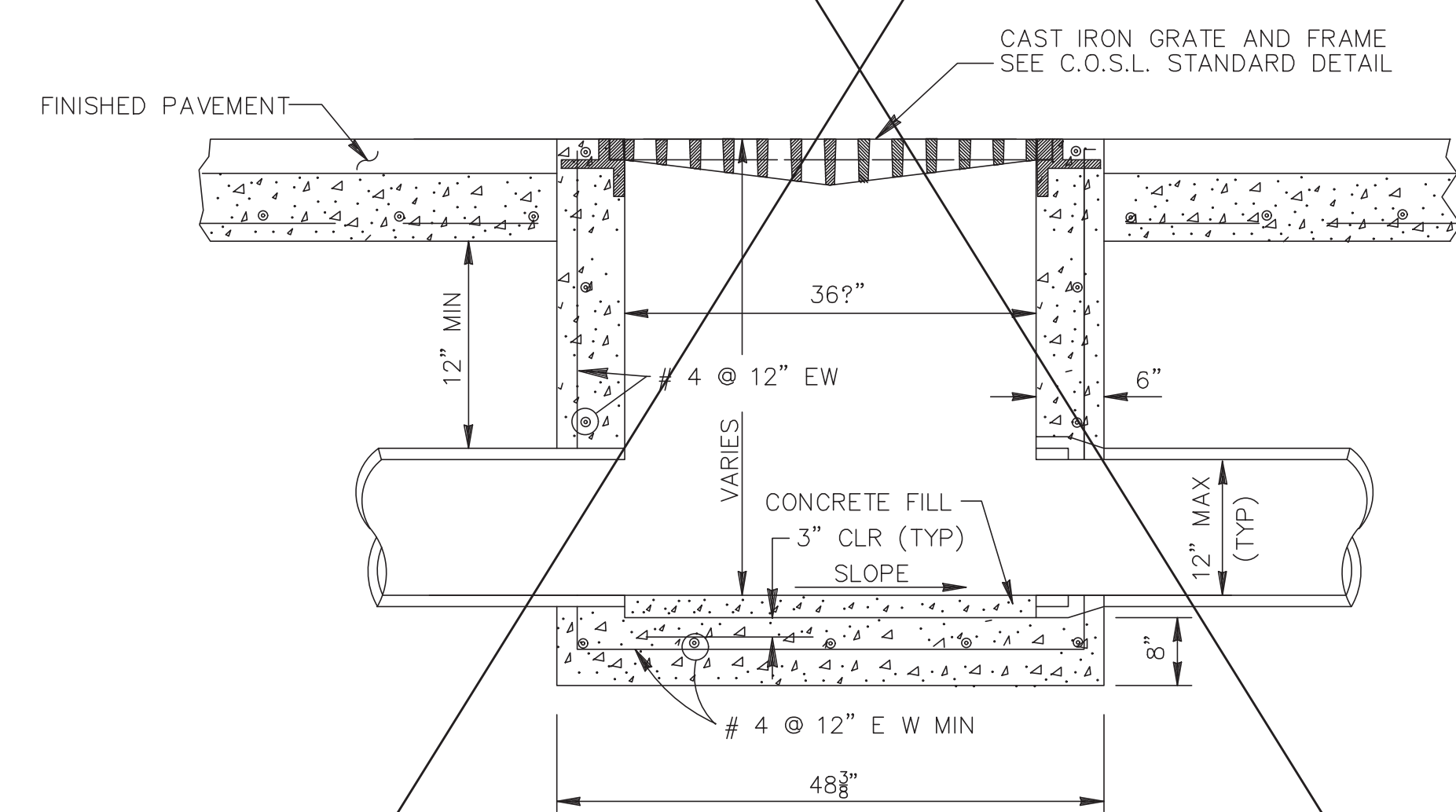
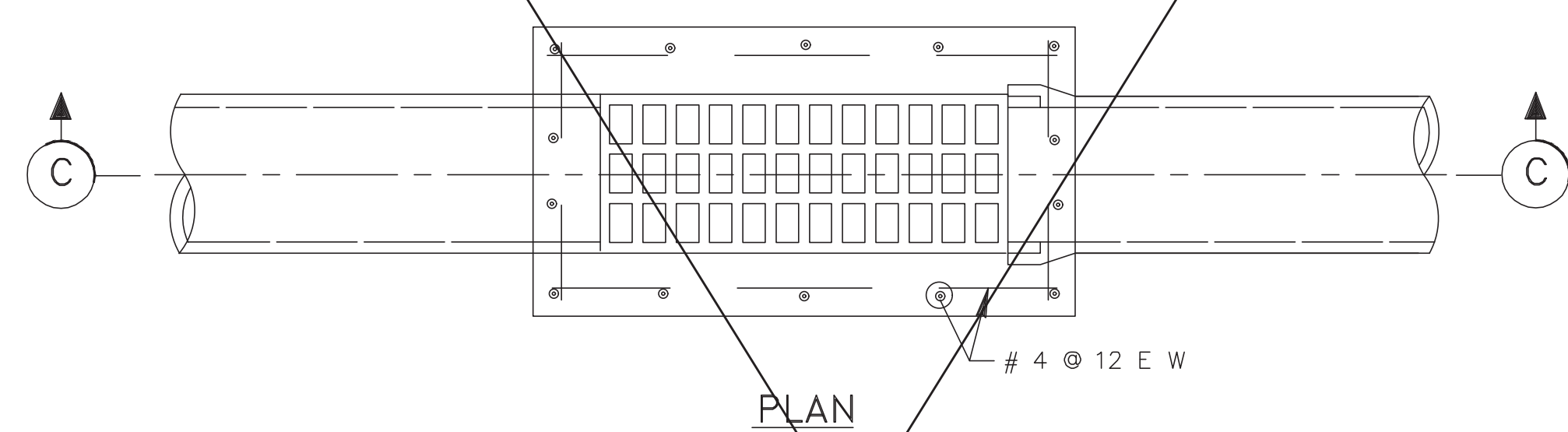
OWNER:
Mike Morgan
979-236-5089
dmmorganjr@yahoo.com

PLAN: _____
PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____

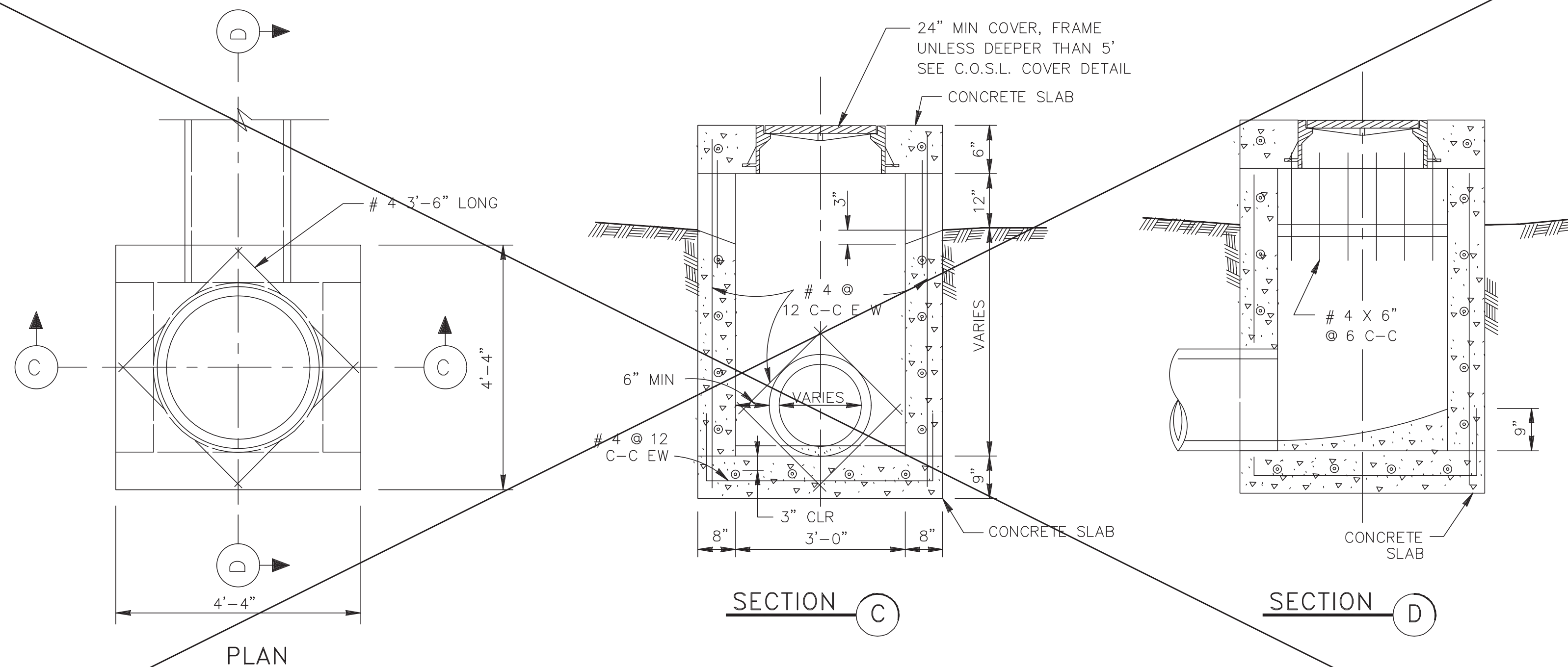
ANGLETON PARK PLACE SEC. 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

STORM SEWER MANHOLE
CONSTRUCTION DETAILS
SL-03

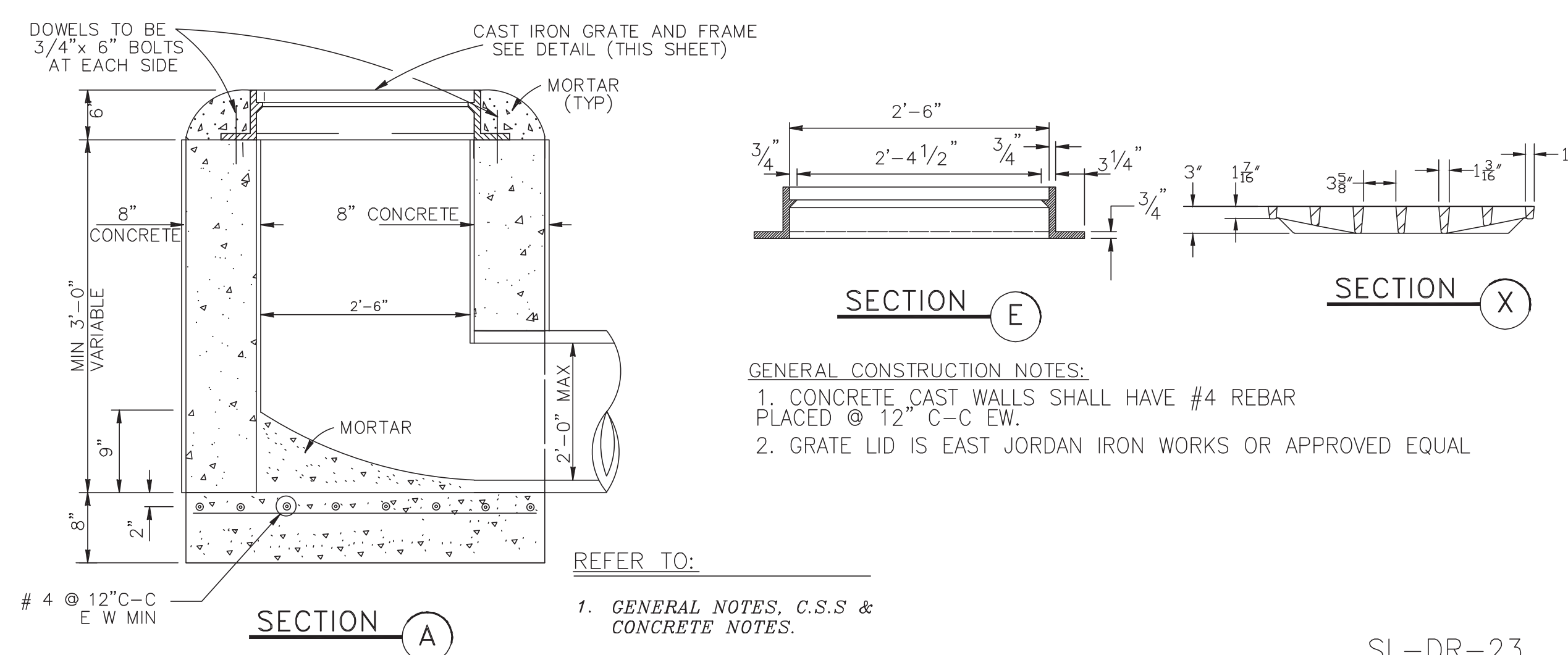
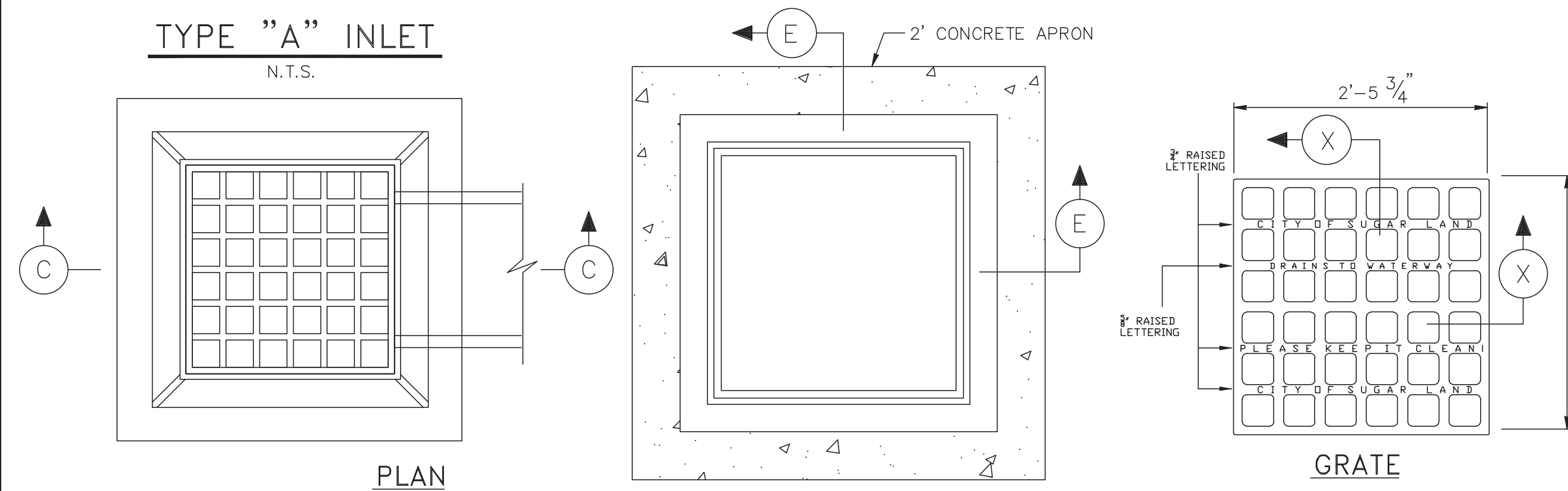
PROJECT NO. 14320



SECTION C
TYPE "D" INLET
SL-DR-24



TYPE "E" INLET
N.T.S.
SL-DR-22



GENERAL CONSTRUCTION NOTES:
 1. CONCRETE CAST WALLS SHALL HAVE #4 REBAR PLACED @ 12" C-C EW.
 2. GRATE LID IS EAST JORDAN IRON WORKS OR APPROVED EQUAL

REFER TO:
 1. GENERAL NOTES, C.S.S. & CONCRETE NOTES.
 2. STORM SEWER NOTES

SL-DR-23

No.	DATE	REVISION

DESIGN ENGINEER: _____ DATE: _____

CITY OF SUGAR LAND, TEXAS
 ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:
 STORM SEWER INLET
 CONSTRUCTION DETAILS I

JOB No.: _____
 DATE: _____
 DRAWN BY: _____
 CHECKED BY: _____
 SCALE: _____

SL-07
 SHEET OF _____

J:\140005\143005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED MS
 DRAWN BT
 CHECKED _____
 DATE May 2023

B & L
 BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1530
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825

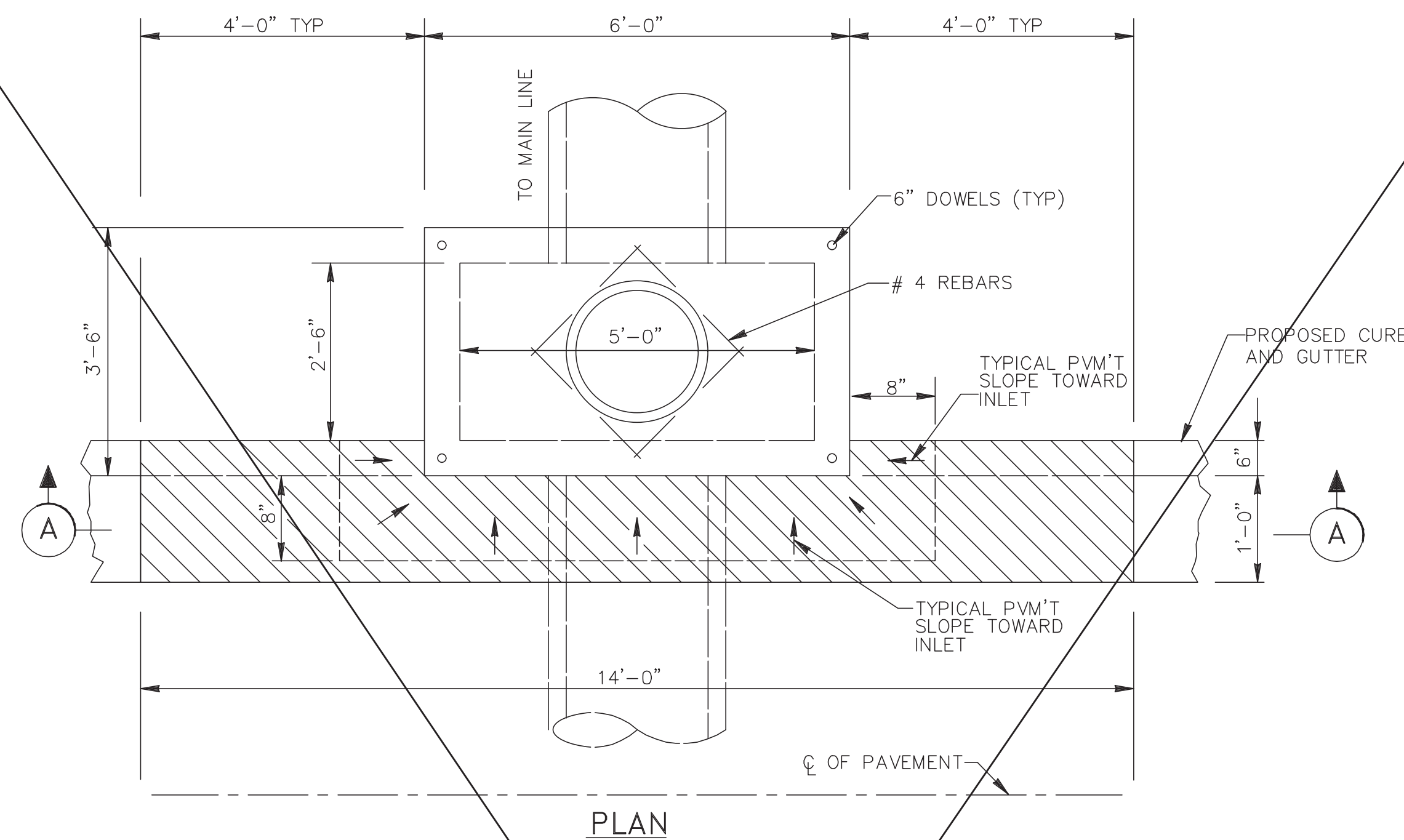
STATE OF TEXAS
 MIGUELANGEL A. SAUCEDA
 121992
 LICENSED PROFESSIONAL ENGINEER
 The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992
 05-25-2023

OWNER:
 Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

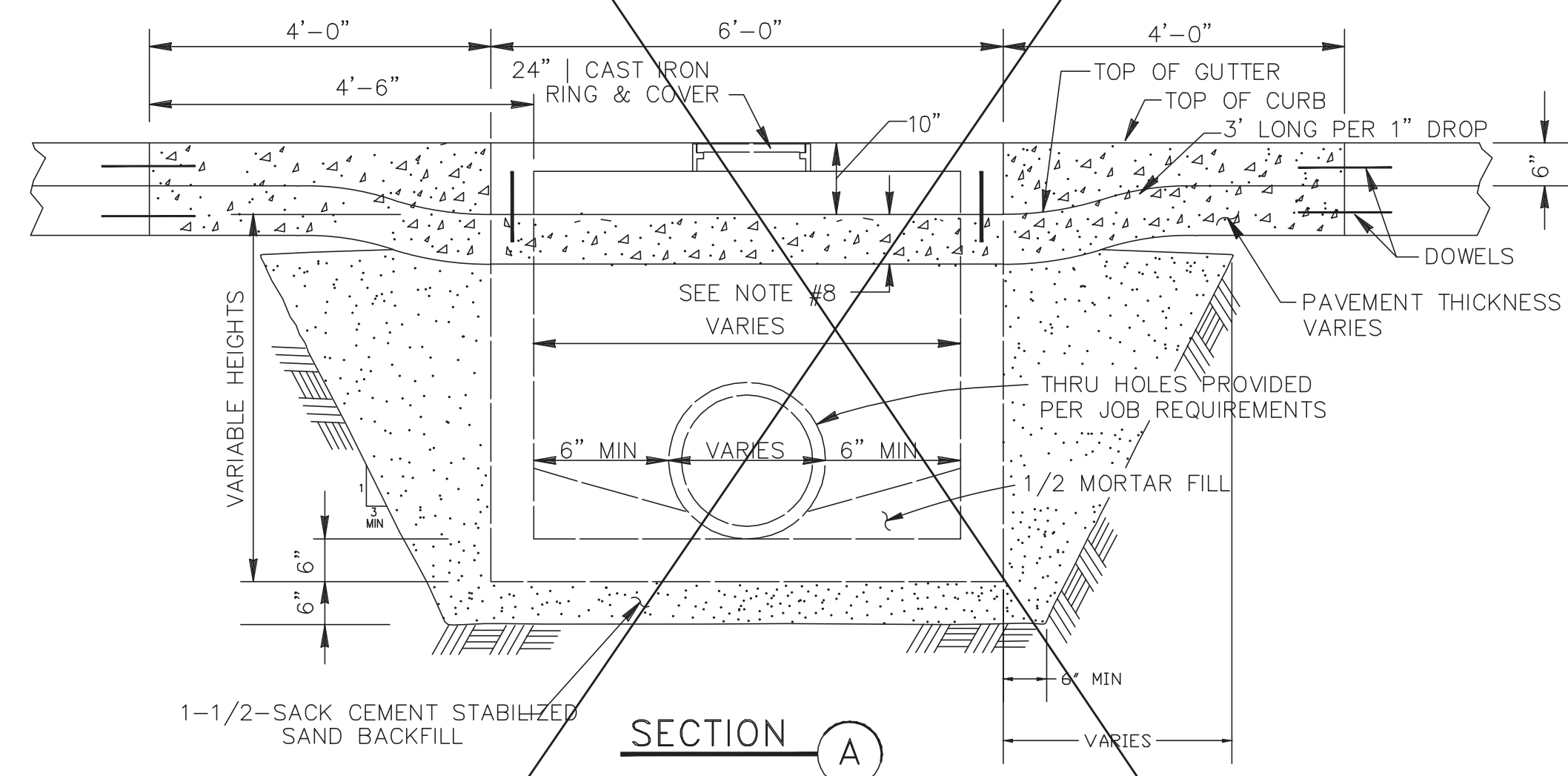
PLAN: _____
 PROFILE: _____
 HORIZONTAL: _____
 VERTICAL: _____

ANGLETON PARK PLACE SEC. 1
 ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

STORM SEWER MANHOLE
 CONSTRUCTION DETAILS
 SL-07
 PROJECT NO. 14320



PLAN



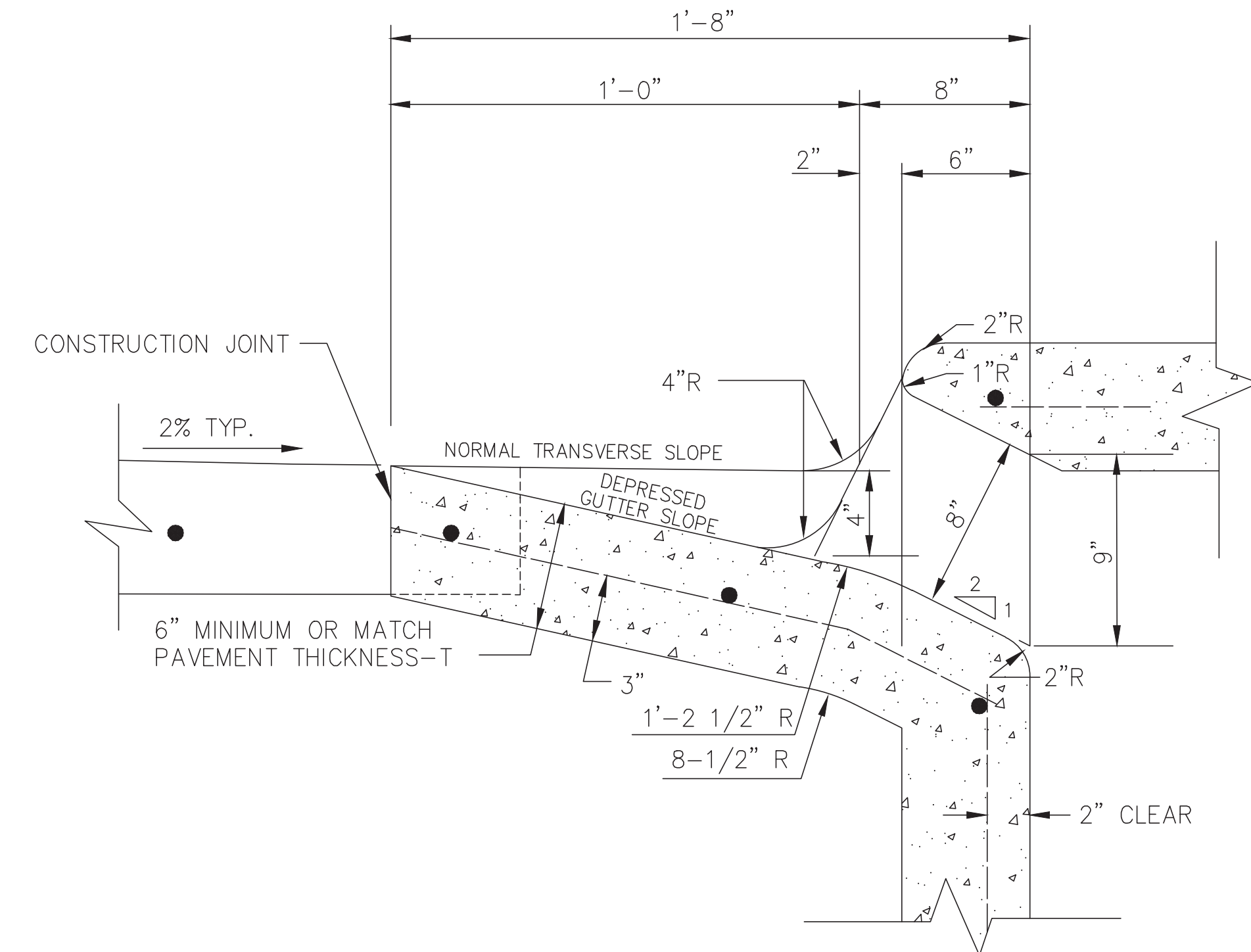
SECTION A

TYPE "H-2" INLET

SL-DR-25

NOTES:

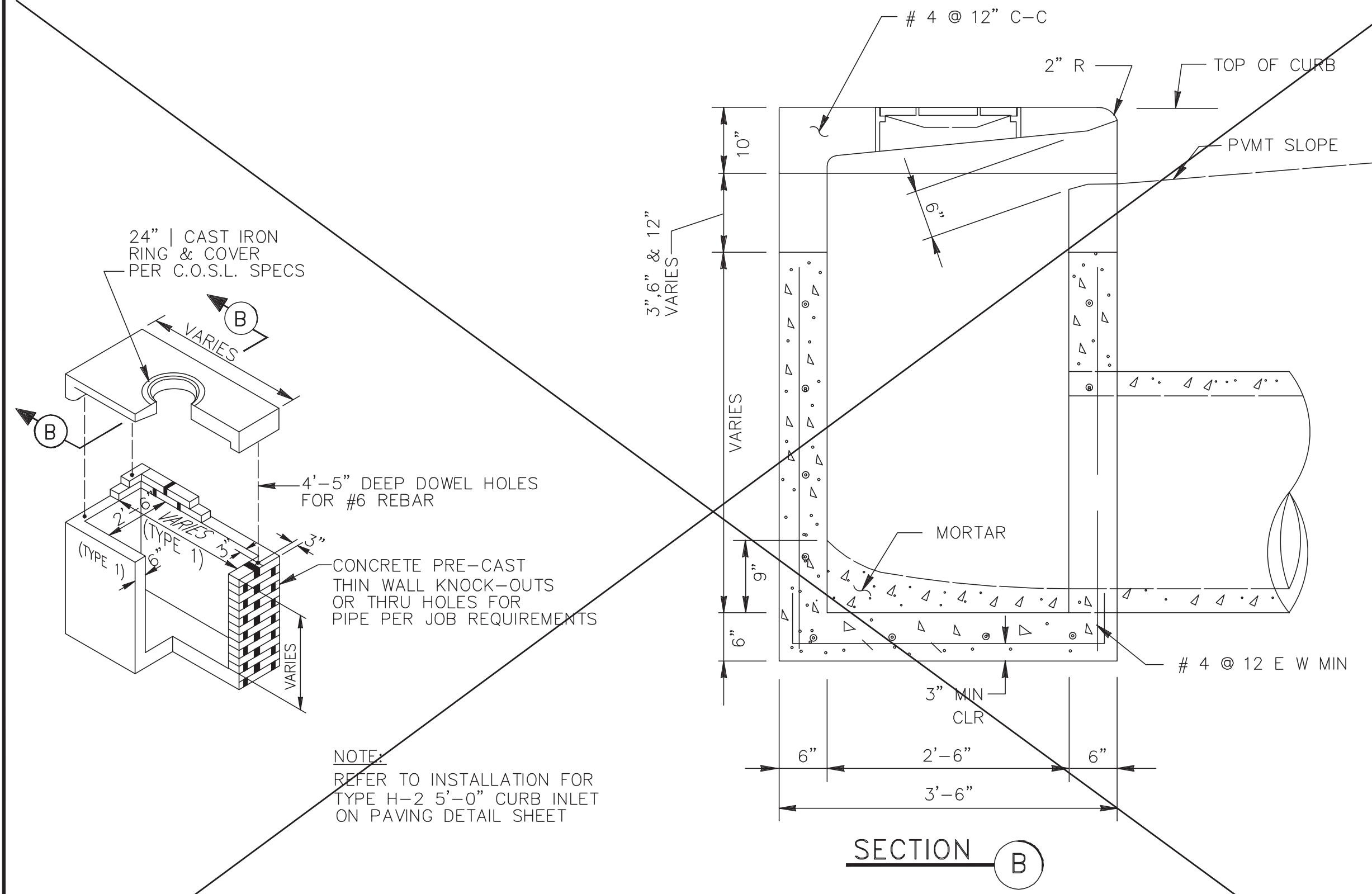
1. INLET WALLS MAY BE EXTENDED USING PRECAST RISER SECTION.
2. INLET TOPS MUST BE SECURED TO THE INLET WALL USING #6 DOWELS DRILLED AND GROUTED A MINIMUM DEPTH OF 5" INTO THE INLET WALL. A PLAN PREPARED BY THE MANUFACTURER MUST BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION. THE PLAN SHOULD DETAIL CONNECTIONS AND SEALING OF JOINTS.
3. PRECAST INLET TOPS SHALL NOT UTILIZE MULTIPLE ONE-FOOT SECTIONS TO ACHIEVE GRADE.
4. INLET BACKFILL SHALL BE CEMENT STABILIZED SAND TO THE TOP OF THE INLET FIRST GRADE.
5. GRADE 60 REINFORCEMENT. #4 STEEL REBAR TO CONFORM TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.
6. PRECAST INLET MUST BE CONSTRUCTED TO SPECIFICATIONS REQUIRED BY APPROVED DRAWINGS. (SEE GENERAL NOTES).
7. TOPS POURED-IN-PLACE REQUIRE #4 REBAR @ 12" C-C EACH WAY, 4,500 PSI CONCRETE MINIMUM AND 3" THICK MINIMUM.
8. PAVEMENT DEPTH AT INLET SHALL BE EQUAL TO OR GREATER THAN REQUIRED PAVEMENT DEPTH.
9. DEPRESS GUTTER TO INLET.
10. ALL SIDES OF ALL INLETS MUST BE COMPACTED.
11. REFER TO GEOTECHNICAL REPORTS FOR RECOMMENDED TRENCH SIDE SLOPES.



THROAT DETAIL FOR STANDARD INLETS ON CONCRETE STREETS

SCALE: N.T.S.

SL-DR-40



SECTION B


TYPE "H-2" PRECAST INLET

N.T.S.

SL-DR-26

REFER TO:

1. GENERAL NOTES
2. SEE C.S.S., PAVEMENT NOTES

NO.	DATE	REVISION
SEAL:		
DESIGN ENGINEER: _____ DATE: _____		
 CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT		
CONSTRUCTION PLANS FOR:		
STORM SEWER INLET CONSTRUCTION DETAILS II		
JOB No.:	SL-08	
DATE:		
DESIGNED BY:		
DRAWN BY:		
CHECKED BY:		
SCALE:		
SHEET		OF

J:\140005\143005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED	MS
DRAWN	BT
CHECKED	
DATE	May 2023

OWNER:
Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

PLAN: _____
 PROFILE: _____
 HORIZONTAL: _____
 VERTICAL: _____

ANGLETON PARK PLACE SEC. 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

STORM SEWER INLET
 CONSTRUCTION DETAILS II
 SL-08

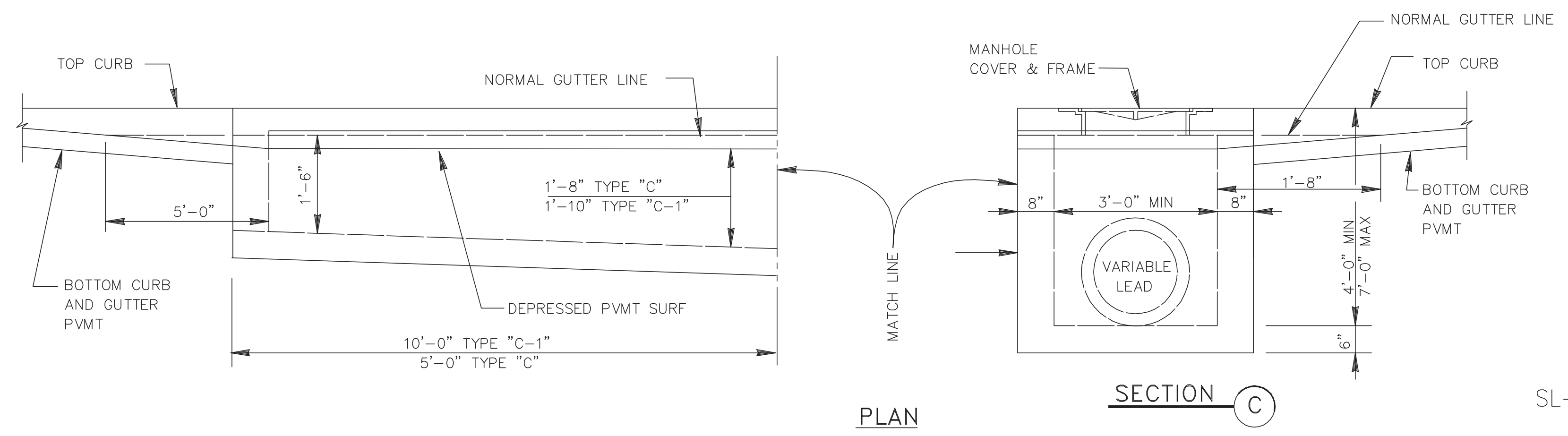
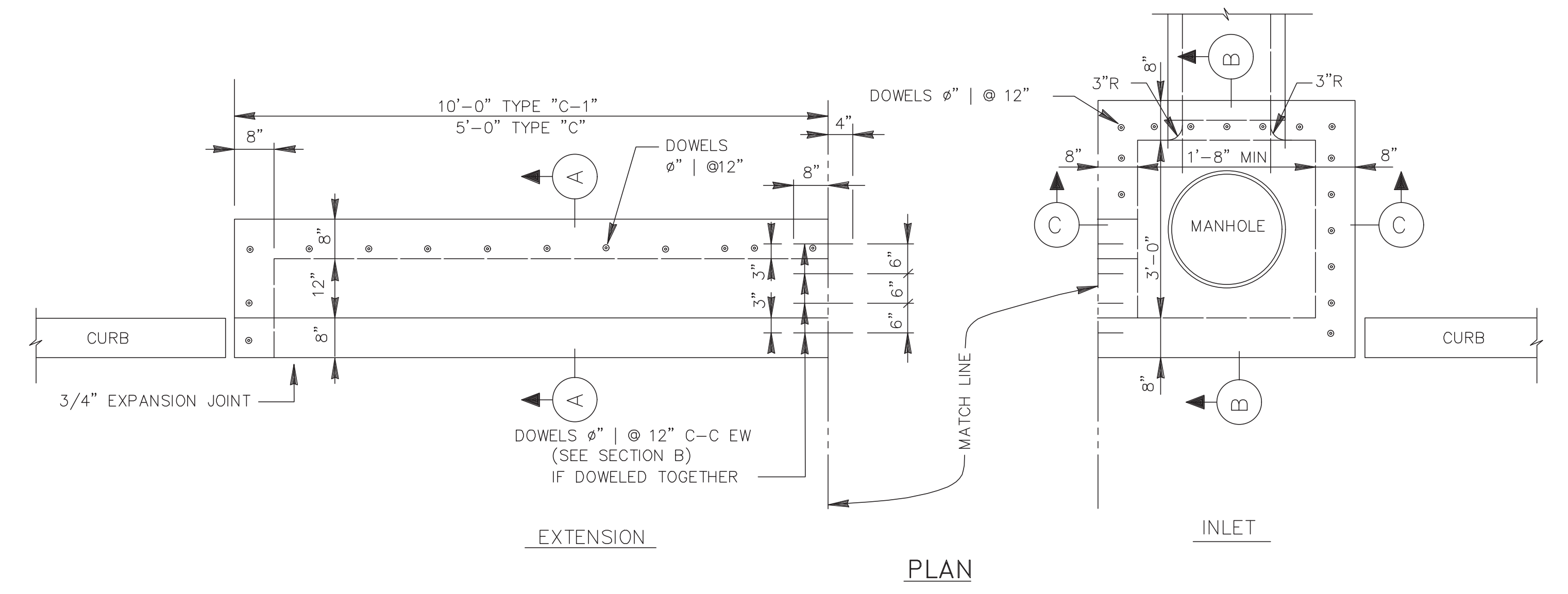
PROJECT NO. 14320

GENERAL NOTES:

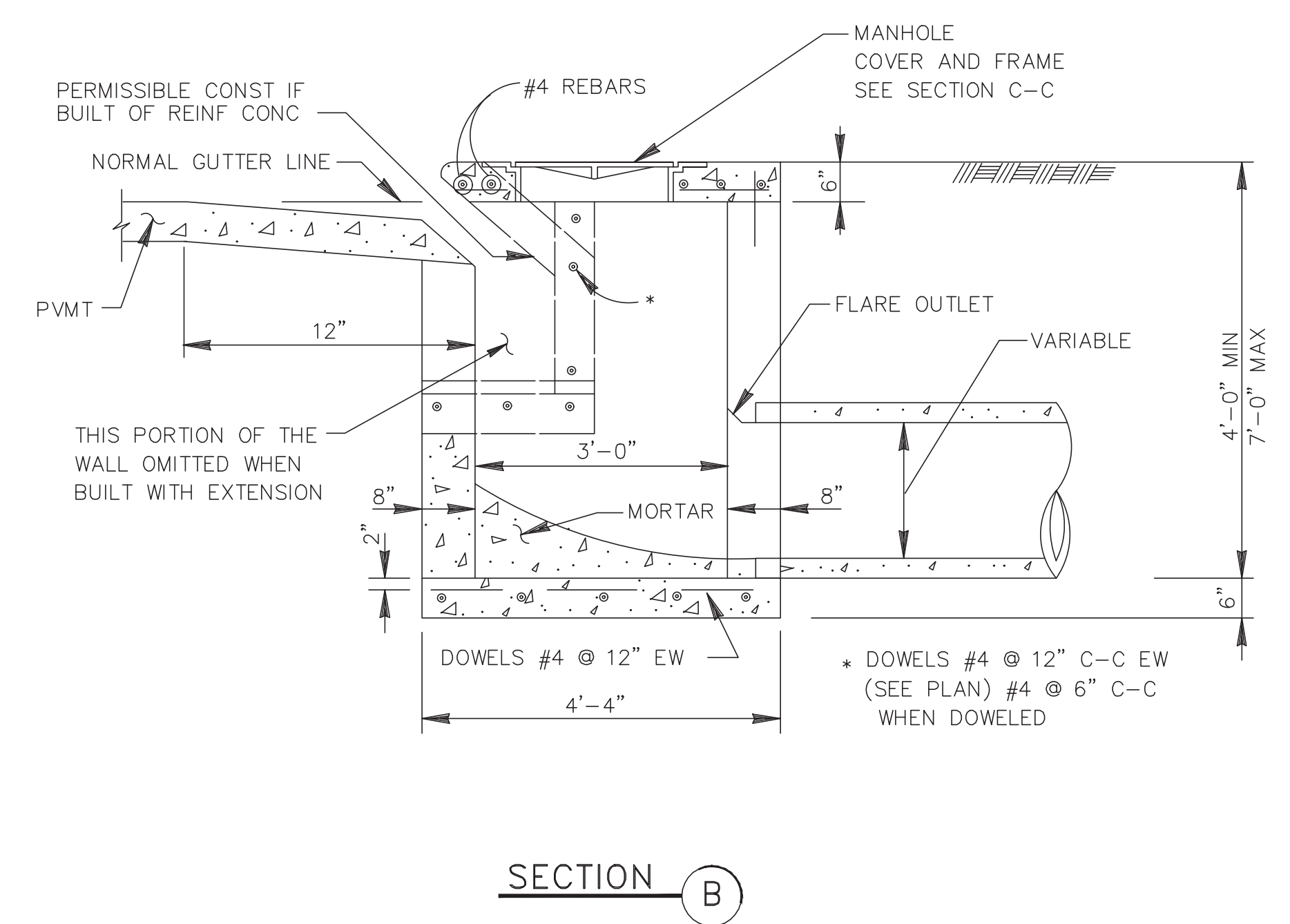
- TYPE "C" INLET WITH ONE EXTENSION
- TYPE "C-1" INLET WITH DOUBLE EXTENSION
- TYPE "C-2" INLET WITH EXTEN. ON EACH SIDE
- TYPE "C-2A" INLET WITH NO EXTENSION

NOTES:

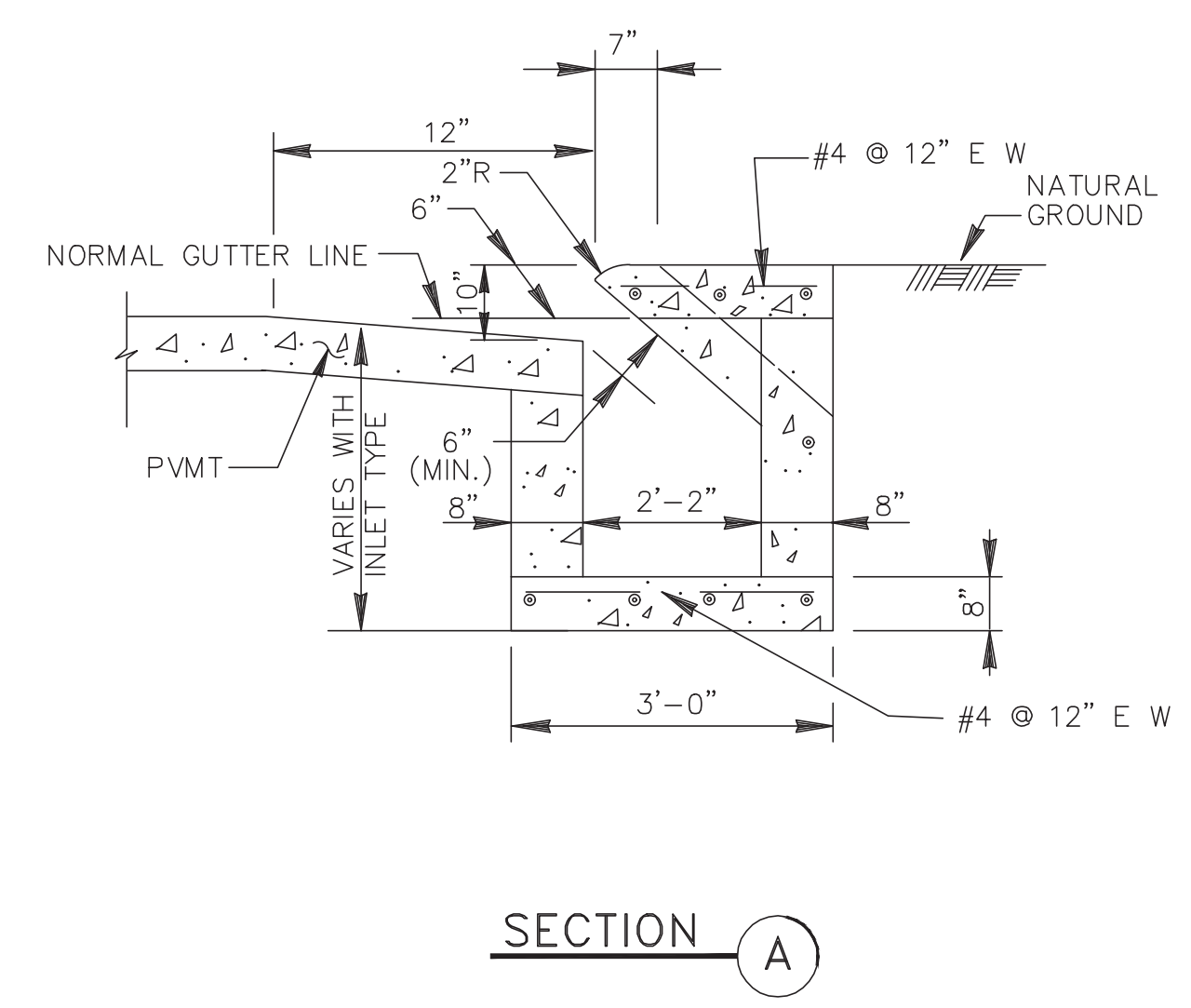
1. FOR TYPE "C-1" INLETS PROVIDE A CENTER 6"x6" COLUMNS IN THE CURB LINE BETWEEN ALL EXTENSIONS.
2. WALLS TO BE 8" IF BUILT WITH REINFORCED CONCRETE. BRICK WALLS ARE NOT ALLOWED.



SL-DR-27



SECTION B



SECTION A

TYPE "C" INLET

N.T.S.


SL-DR-28

REFER TO:

1. GENERAL NOTES
2. STORM SEWER NOTES

No.	DATE	REVISION

DESIGN ENGINEER: _____ DATE: _____


 CITY OF SUGAR LAND, TEXAS
 ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

STORM SEWER INLET
CONSTRUCTION DETAILS III

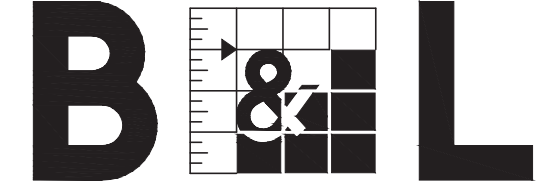
JOB No.: _____ DATE: _____ DESIGNED BY: _____ DRAWN BY: _____ CHECKED BY: _____ SCALE: _____	SL-09 SHEET OF _____
---	-------------------------

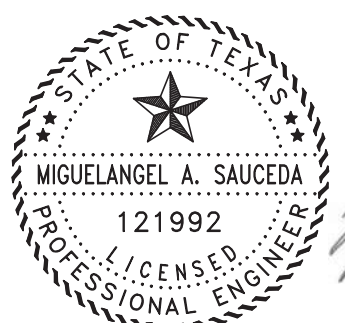
J:\140005\143005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN BT
CHECKED _____
DATE May 2023


BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1530
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825

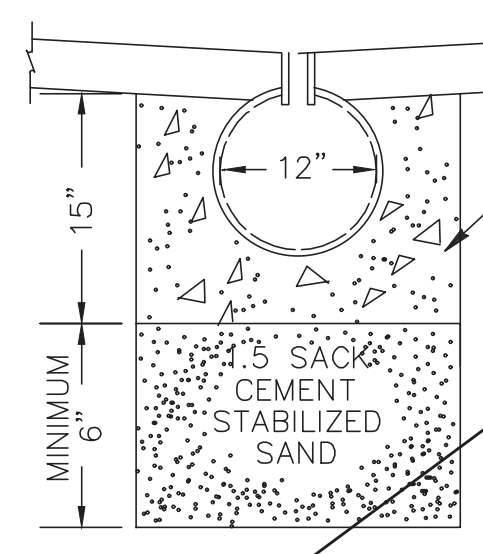
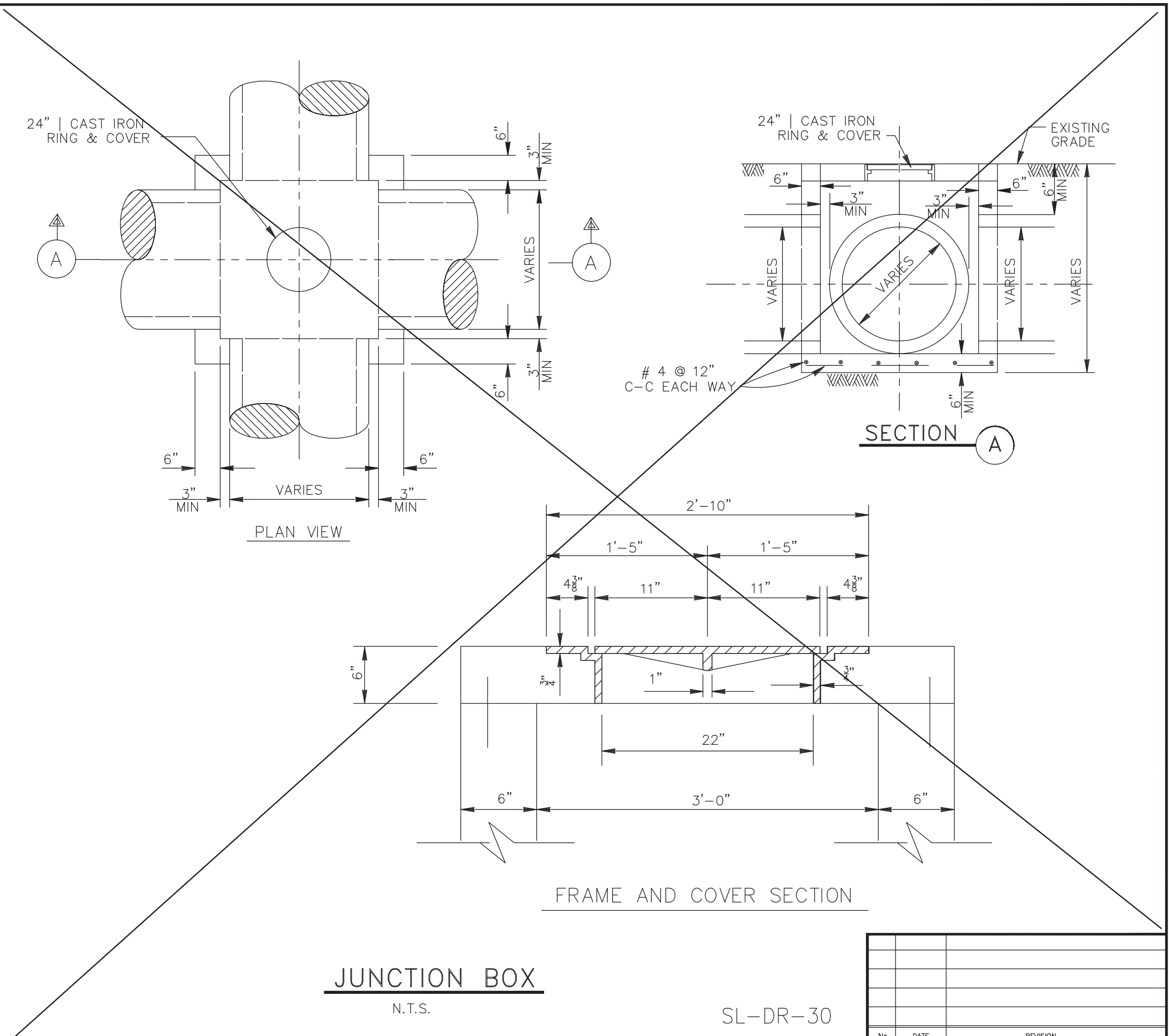
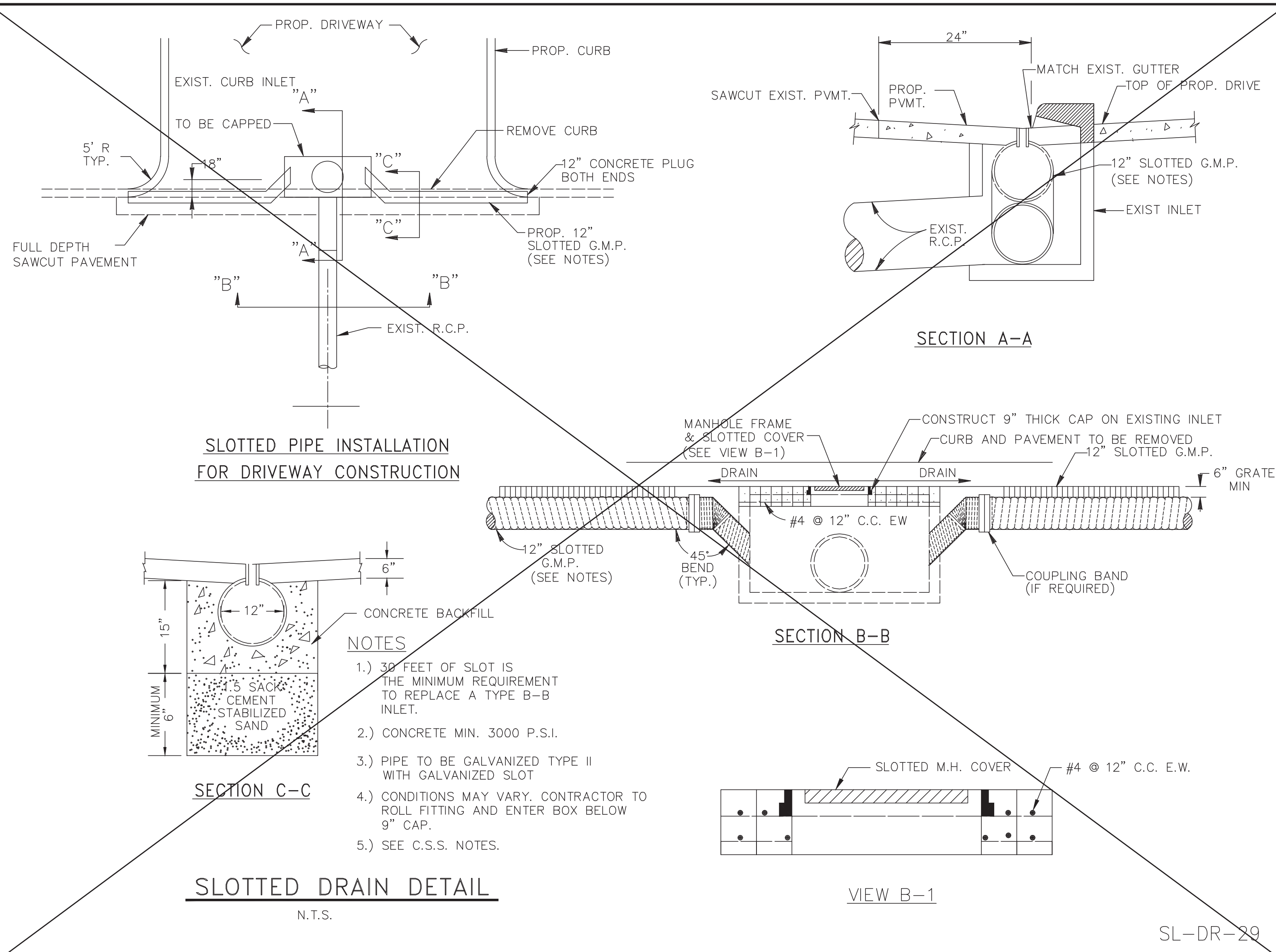

 The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992
 05-25-2023

OWNER:
Mike Morgan
979-236-5089
dmmorganjr@yahoo.com

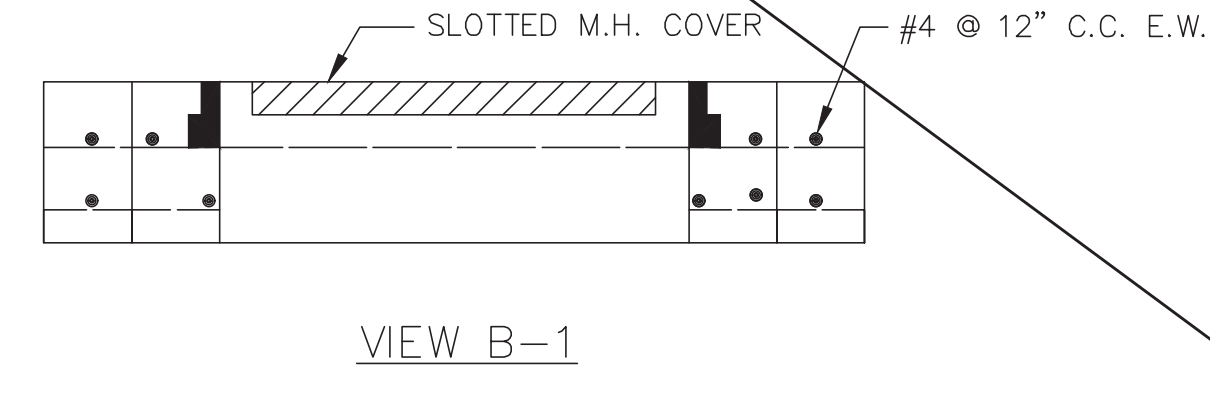
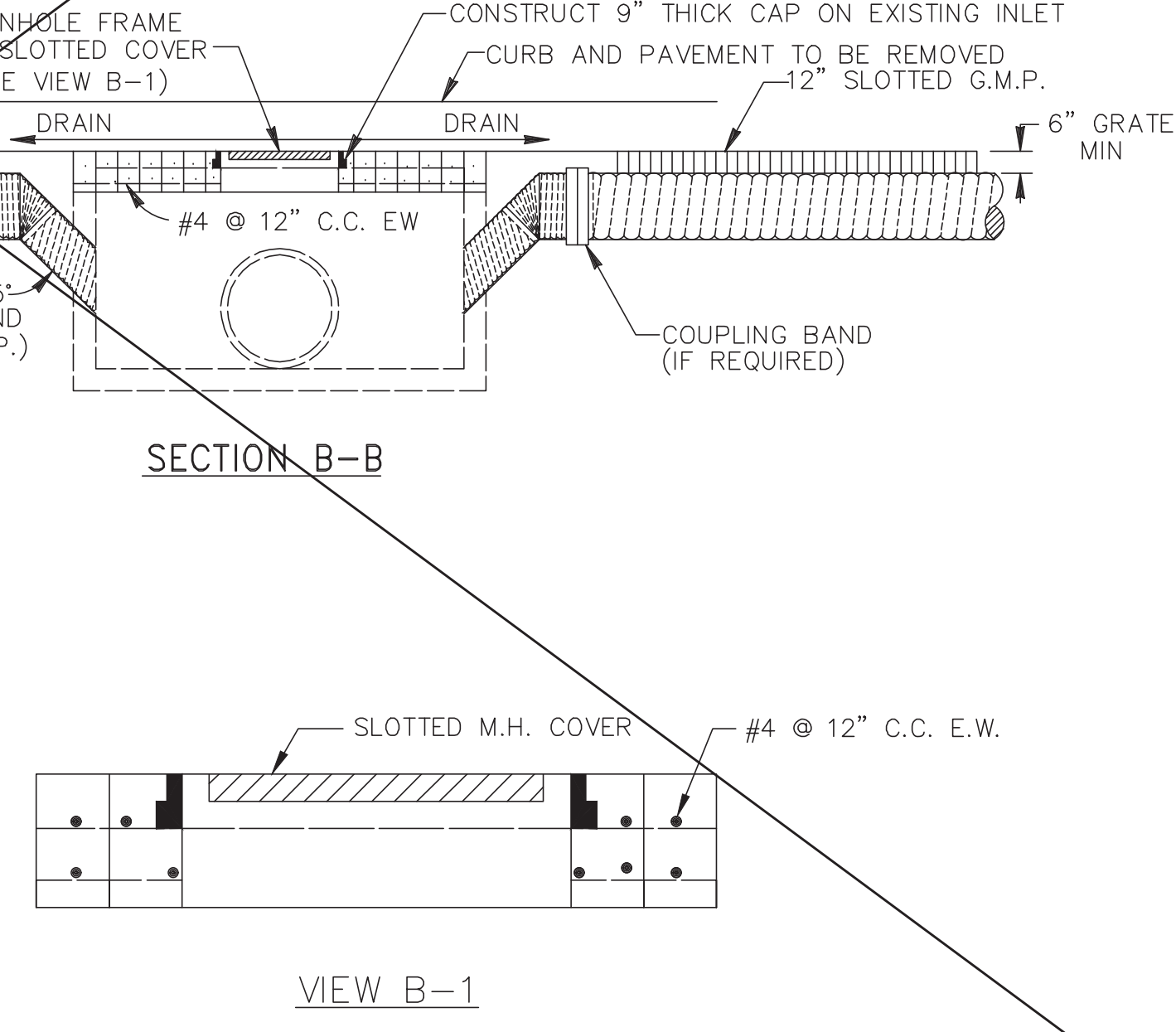
PLAN: _____
PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____

ANGLETON PARK PLACE SEC. 1
ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

STORM SEWER INLET
 CONSTRUCTION DETAILS III
 SL-09
 PROJECT NO. 14320

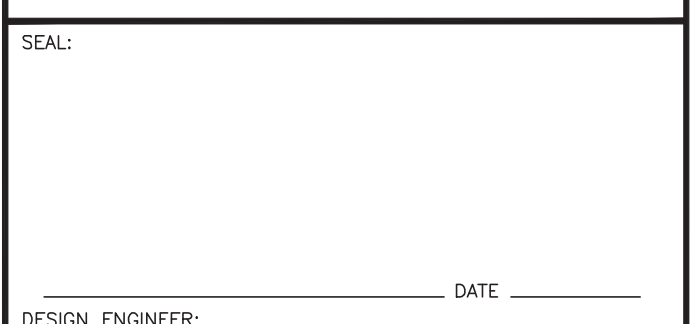


- NOTES**
- 1.) 30 FEET OF SLOT IS THE MINIMUM REQUIREMENT TO REPLACE A TYPE B-B INLET.
 - 2.) CONCRETE MIN. 3000 P.S.I.
 - 3.) PIPE TO BE GALVANIZED TYPE II WITH GALVANIZED SLOT
 - 4.) CONDITIONS MAY VARY. CONTRACTOR TO ROLL FITTING AND ENTER BOX BELOW 9" CAP.
 - 5.) SEE C.S.S. NOTES.



NO.	DATE	REVISION

SEAL: _____
 DESIGN ENGINEER: _____ DATE: _____

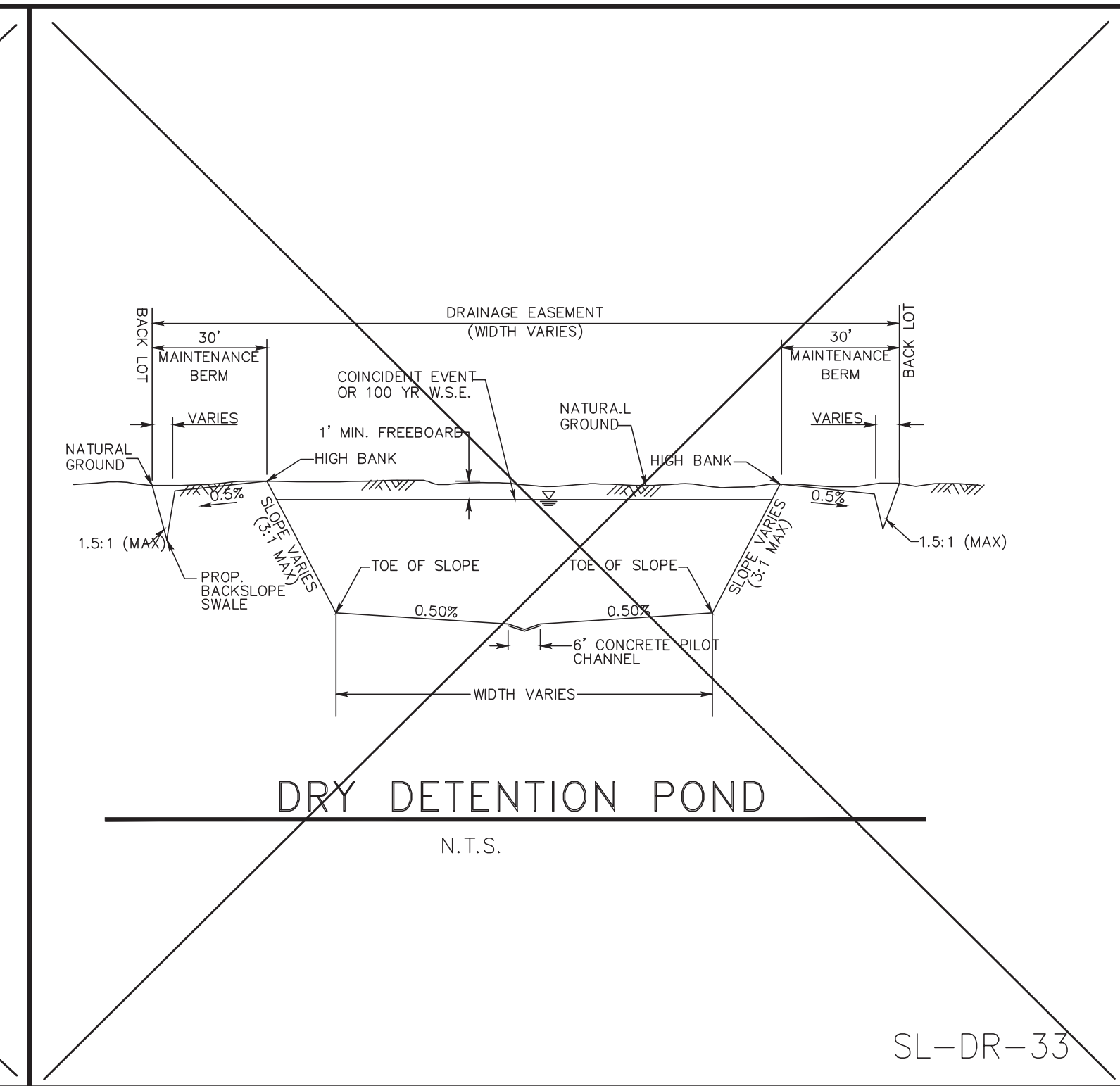
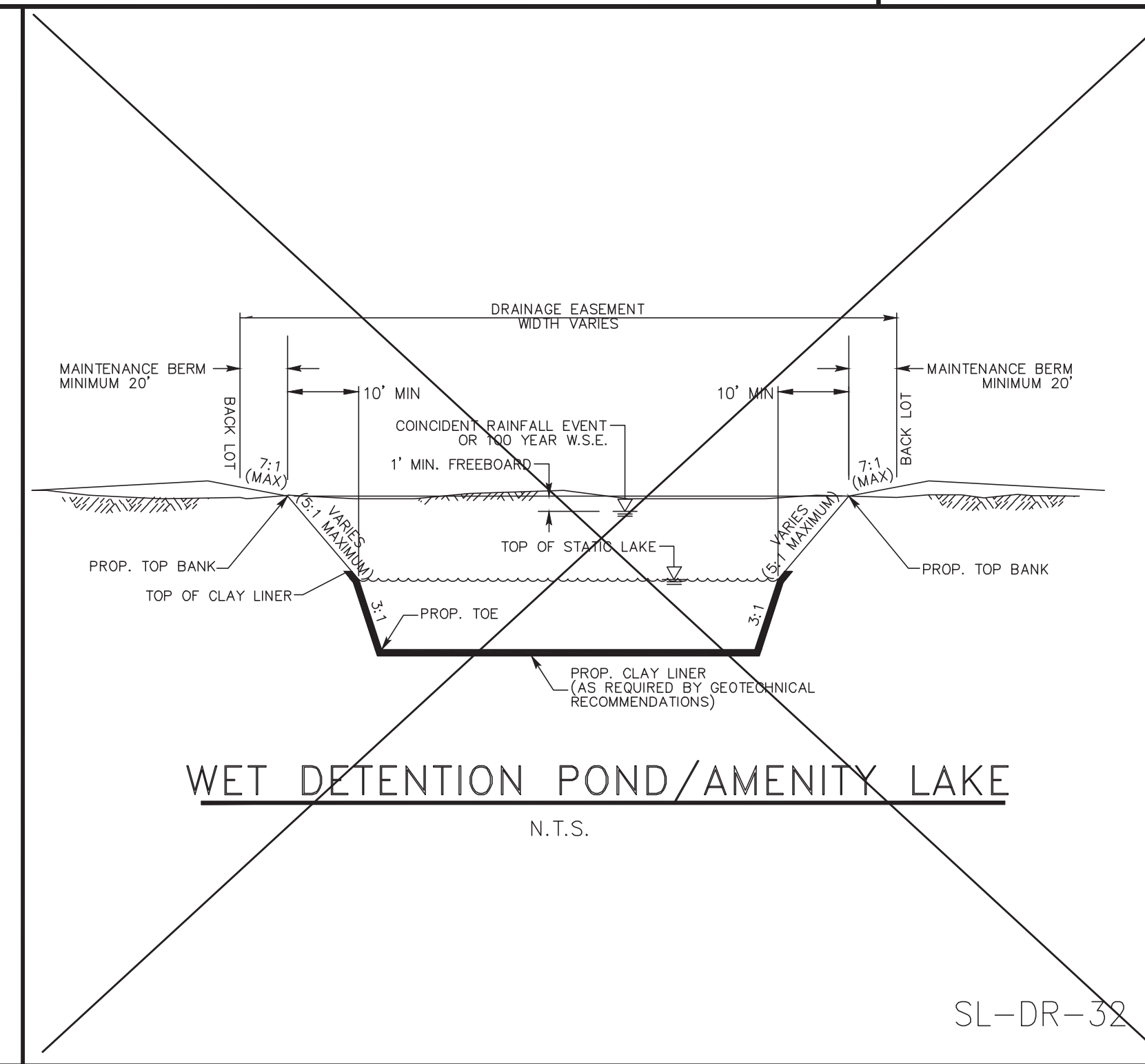
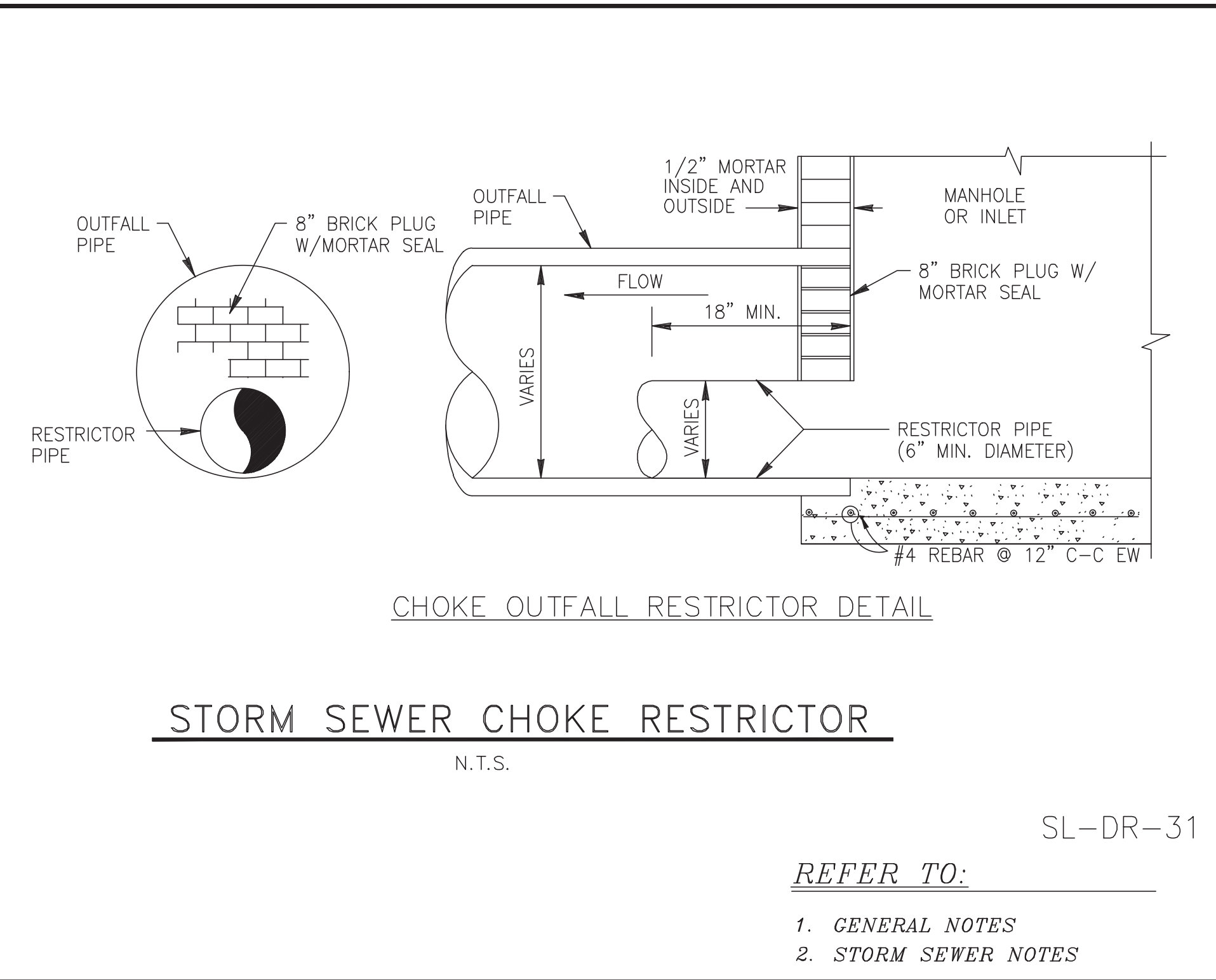


CITY OF SUGAR LAND, TEXAS
 ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:
STORM SEWER CONSTRUCTION DETAILS

JOB No.: _____
 DATE: _____
 DESIGNED BY: _____
 DRAWN BY: _____
 CHECKED BY: _____
 SCALE: _____

SL-10
 SHEET OF _____

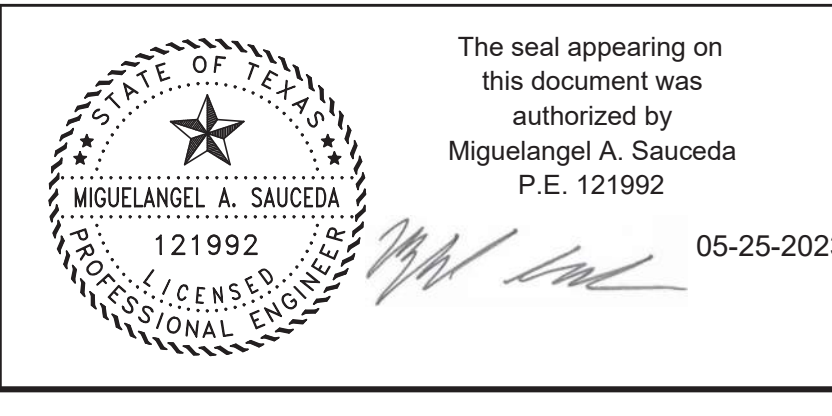


- REFER TO:**
1. GENERAL NOTES
 2. STORM SEWER NOTES

J:\140005\143005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED MS
 DRAWN BT
 CHECKED _____
 DATE May 2023

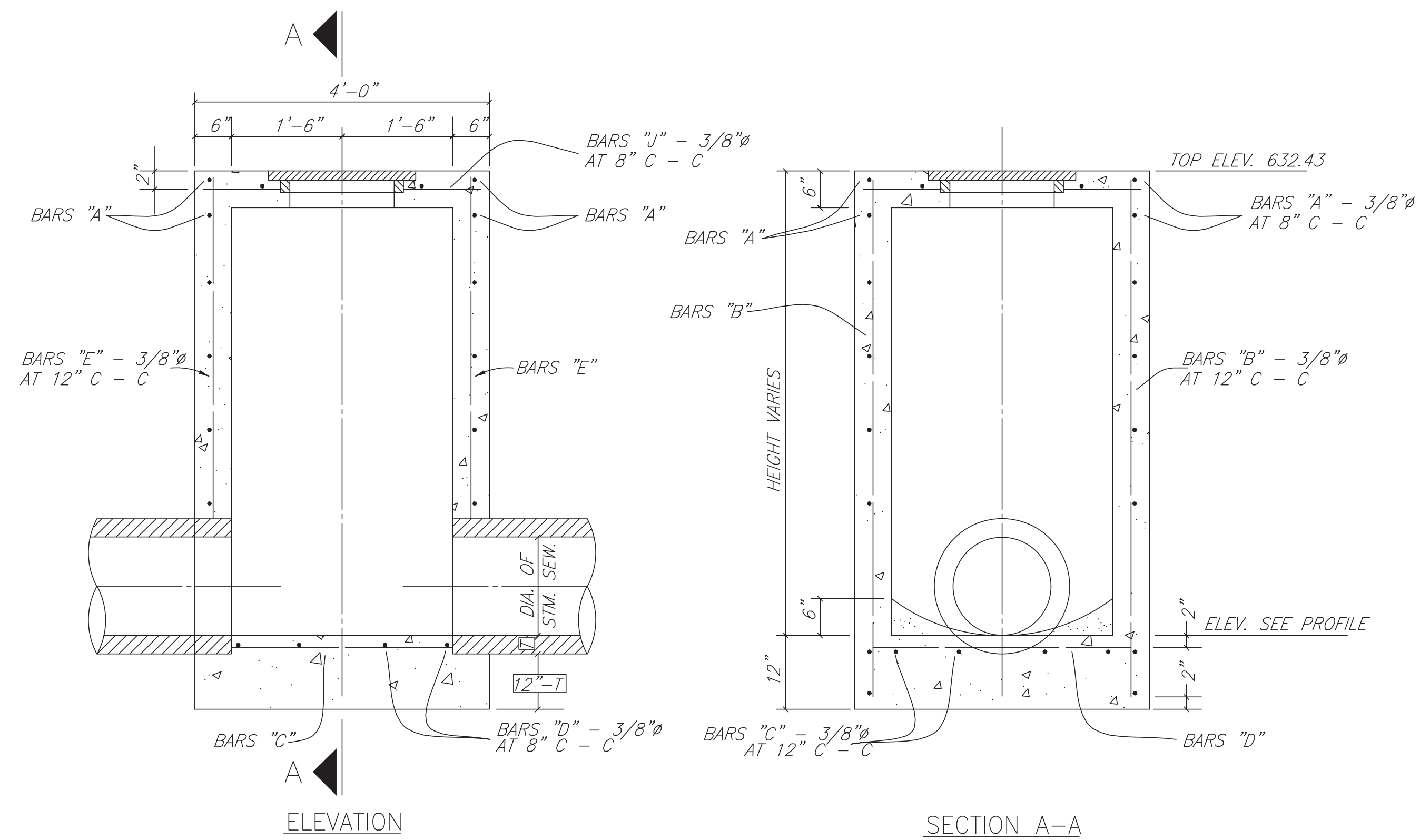


OWNER:
Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

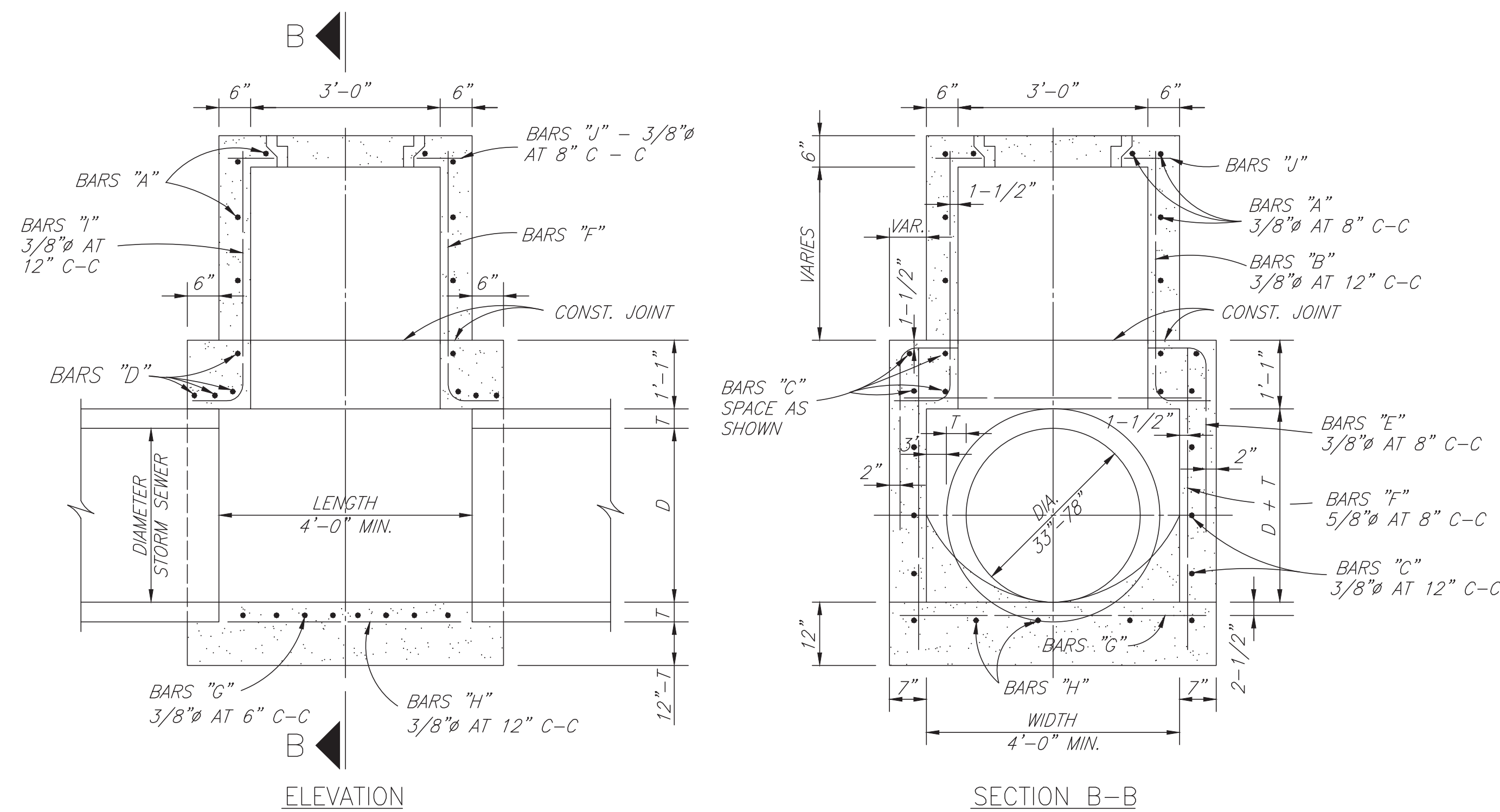
PLAN: _____
 PROFILE: _____
 HORIZONTAL: _____
 VERTICAL: _____

ANGLETON PARK PLACE SEC. 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION


STORM SEWER CONSTRUCTION DETAILS
 SL-10
 PROJECT NO. 14320



STORM SEWER TYPE A MANHOLE
MAX. PIPE SIZE 30" - N.T.S.



TYPE B STORM SEWER MANHOLE
MAX. PIPE SIZE 78" - N.T.S.

No.	DATE	REVISION
SEAL:		
DESIGN ENGINEER: _____ DATE _____		
 CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT		
CONSTRUCTION PLANS FOR:		
JUNCTION BOX MANHOLES		
JOB No.:	SL-11	
DATE:		
DESIGNED BY:		
DRAWN BY:		
CHECKED BY:		
SCALE:		
	SHEET	OF

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

DESIGNED	MS		
DRAWN	BT		
CHECKED			
DATE	May 2023		
REVISIONS			
NO.	DATE	DESCRIPTION	APPROVED

BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
4005 TECHNOLOGY DRIVE, SUITE 1530
ANGLETON, TEXAS 77515 (979) 849-6681
REG. NO. F-825



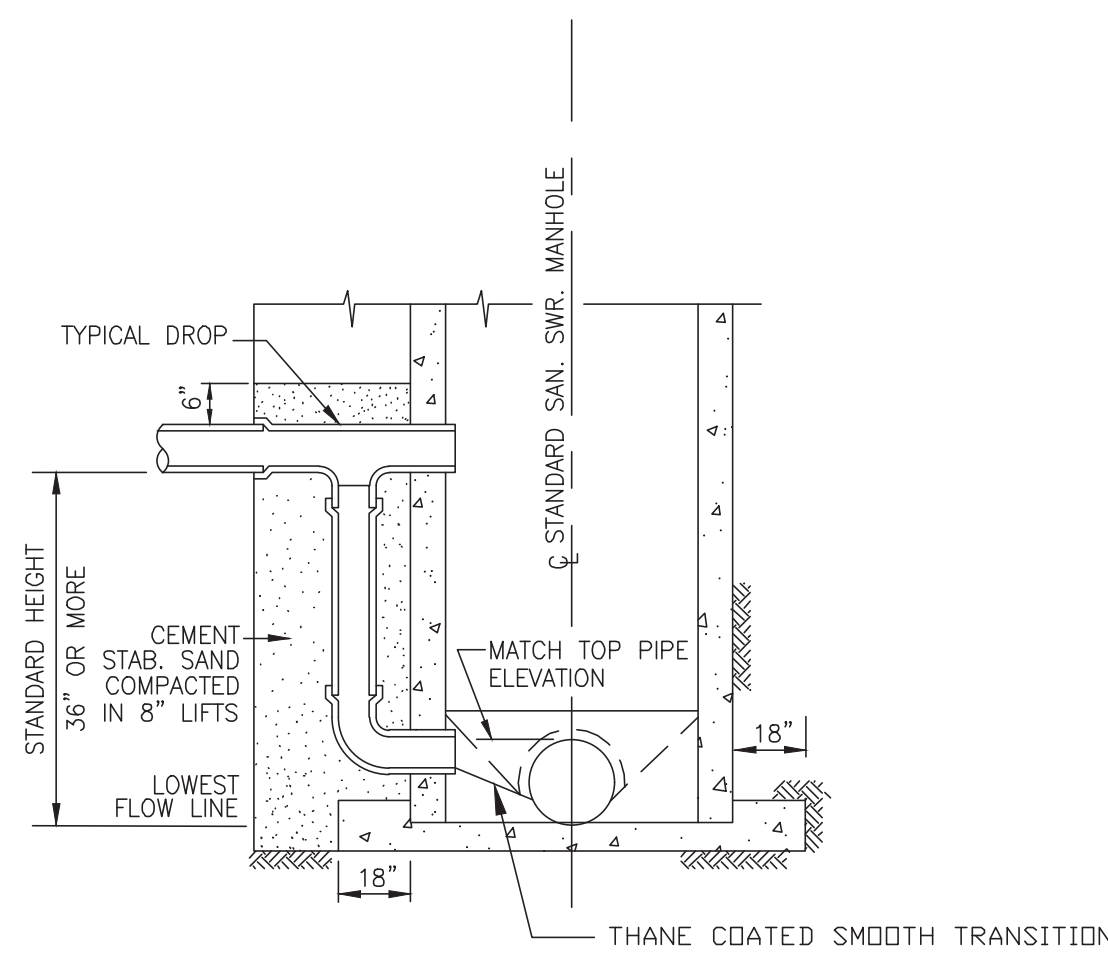
The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992
05-25-2023

OWNER:
Mike Morgan
979-236-5089
dmmorganjr@yahoo.com

PLAN: _____
PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____

ANGLETON PARK PLACE SEC. 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

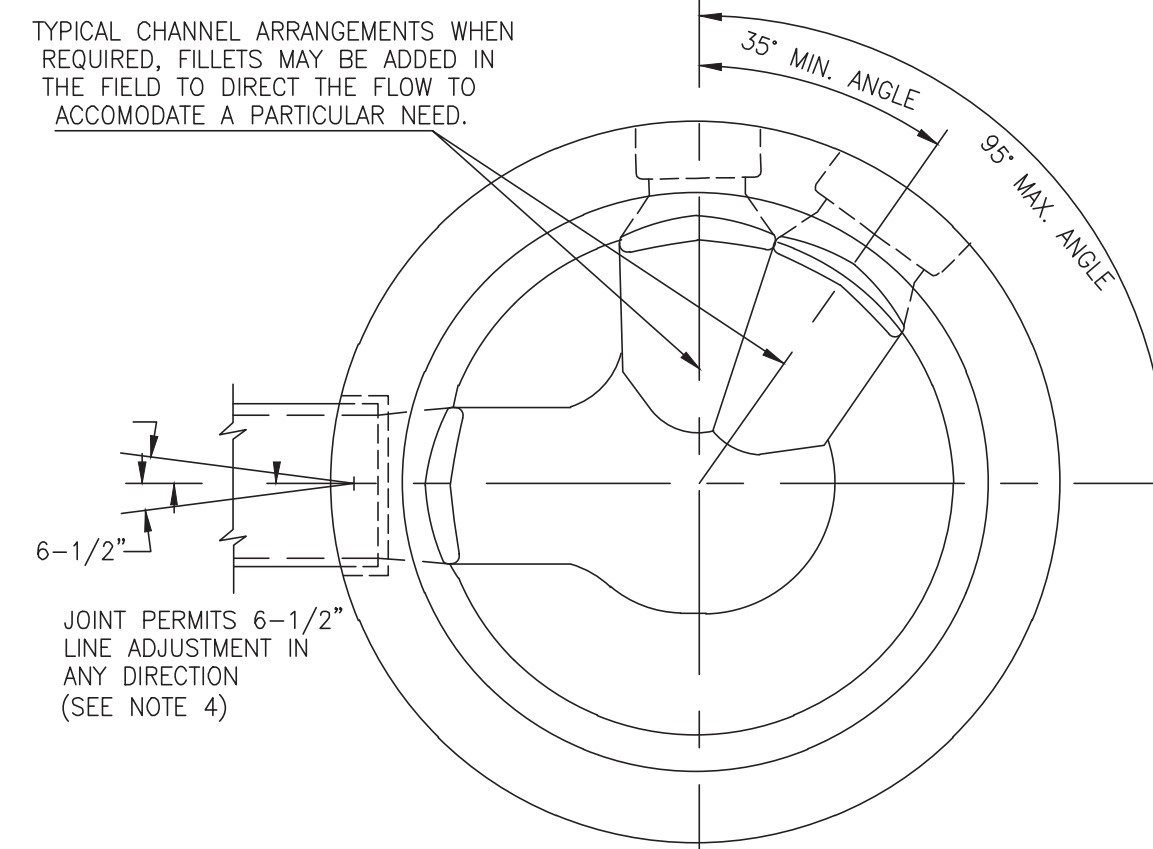
JUNCTION BOX
MANHOLES
SL-11
PROJECT NO. 14320



STANDARD DROP DETAIL

(SEE C.S.S. NOTES)

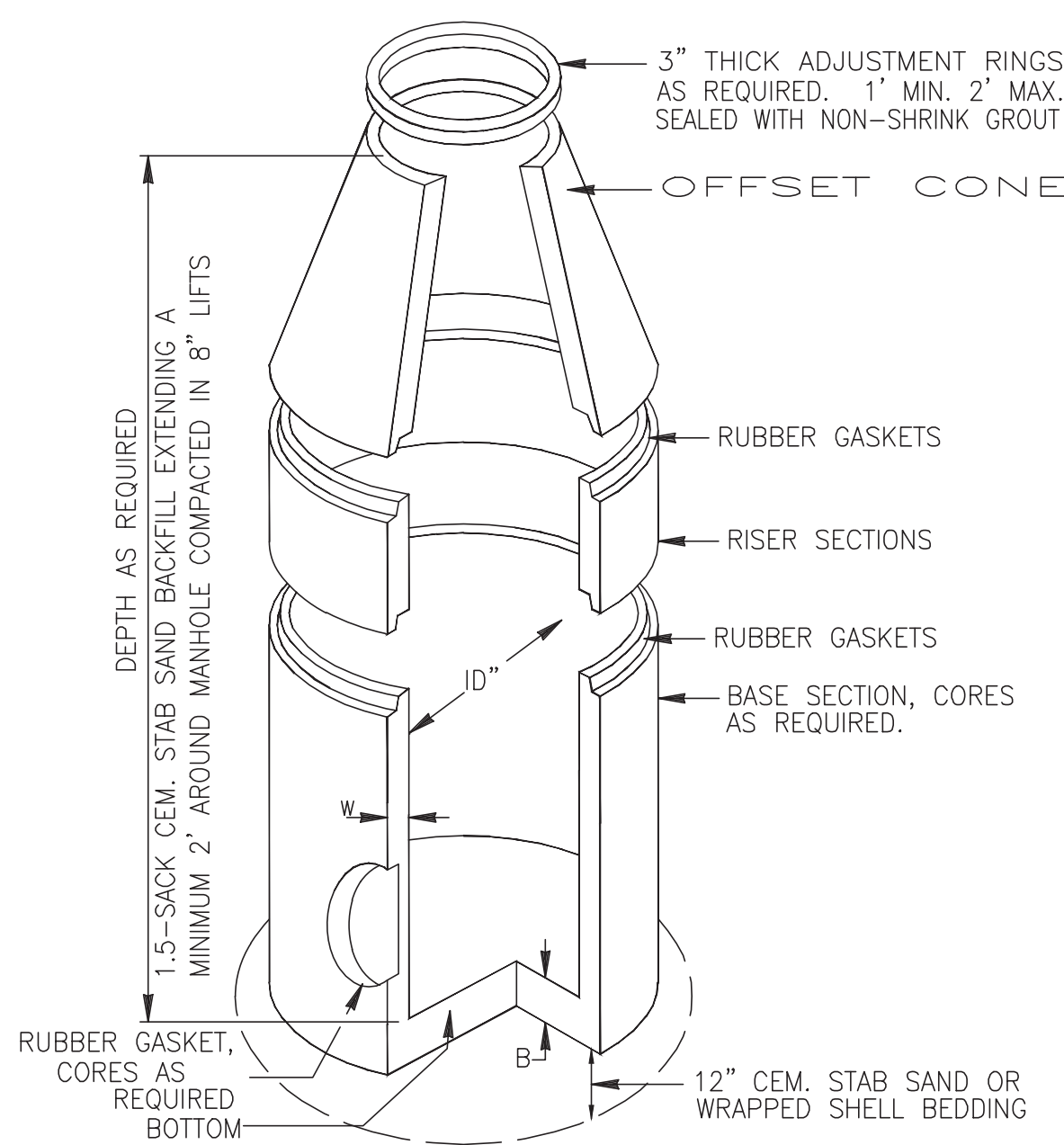
SL-SS-05



PIPING CONNECTIONS DETAIL

SL-SS-05

- NOTE:**
- INFLUENT AND EXFLUENT PIPING CONNECTIONS TO MANHOLE SHALL BE ALIGNED TO PREVENT REVERSE FLOW.
 - INFLUENT AND EXFLUENT CONNECTIONS ARE LIMITED TO A MAXIMUM 90° INCLUDED ANGLE OF CONVERGENCE.
 - MINIMUM 35° AND MAXIMUM 90° INCLUDED ANGLES MUST BE PROVIDED BETWEEN MULTIPLE INFLUENT CONNECTIONS.
 - ANGLE OF DEFLECTION AT PIPING JOINTS AS PER MANUFACTURER'S RECOMMENDATIONS.



SPECIFICATIONS:

- CONCRETE: CLASS 1 CONCRETE WITH A DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. RATES FOR H-20 LOADING.
- REINFORCEMENT: STRUCTURAL REINFORCEMENT CONFORMING TO ASTM-C-478.
- C.I. CASTINGS: CAST IRON FRAMES AND LIDS ARE MANUFACTURED OF GREY CAST IRON CONFORMING TO ASTM A48-76 CLASS 35.

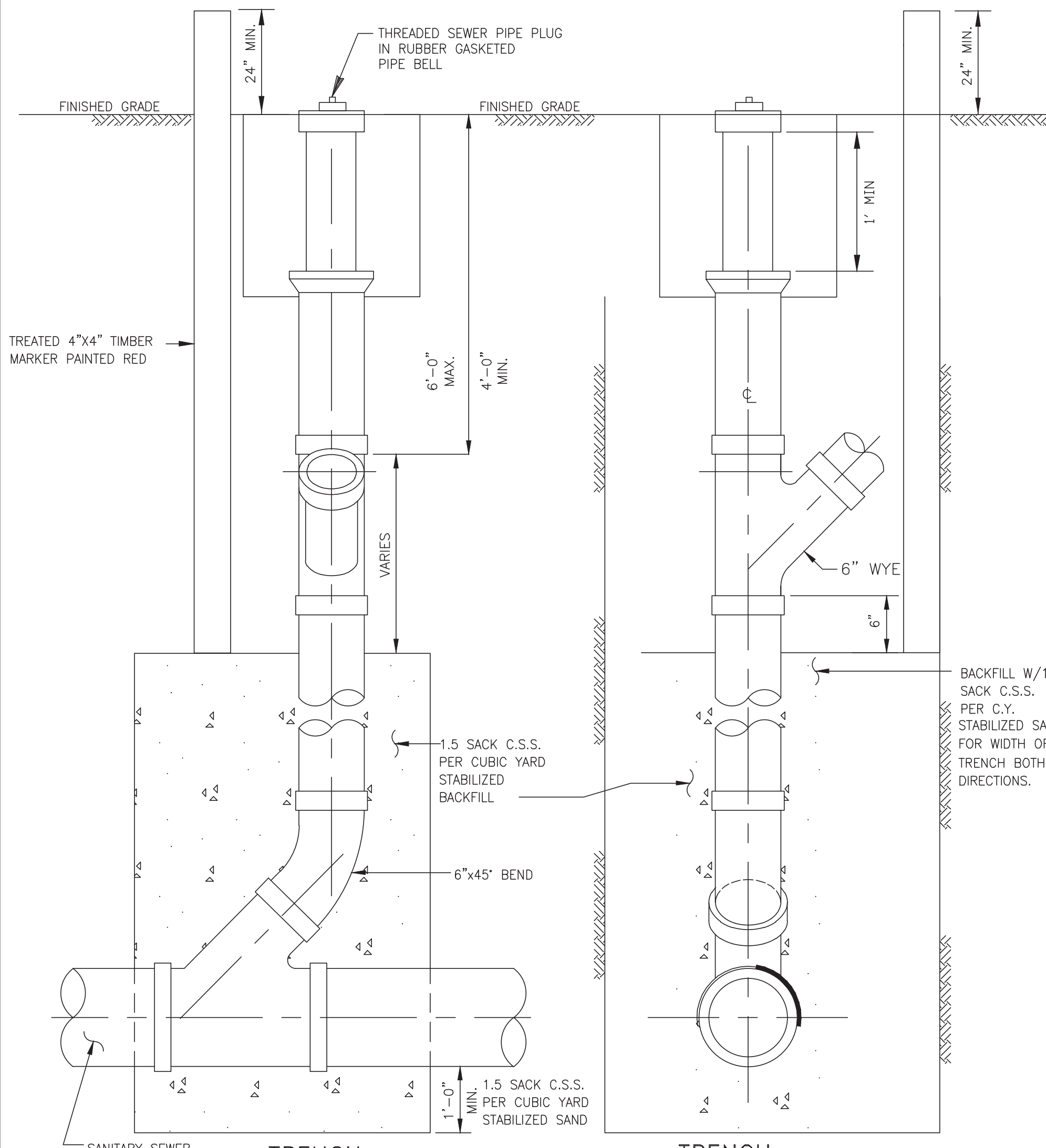
NOTES

- LIFTING INSERTS AS REQUIRED.
- ALL JOINTS SHALL BE SEALED WITH APPROVED RUBBER GASKET
- STRUCTURE TO BE PLACED ON 12" STABILIZED BASE.
- C.S.S. SHALL BE BROUGHT TO WITHIN 2'-FT OF TOP OF MANHOLE.
- PRE-CAST MANHOLE SHALL BE IN COMPLIANCE APPROVED PRODUCT LIST.
- THANE COAT SHALL BE IN COMPLIANCE WITH APPROVED PRODUCT LIST.
- INVERTS SHALL COMPLY WITH C.O.S.L., DESIGN MANUAL SPECIFICATIONS.
- INFLOW PROTECTORS REQUIRED ON ALL SANITARY MANHOLES.
- REFER TO SANITARY MANHOLE LIDS, C.S.S. NOTES, MODIFIED BEDDING DETAILS AND NOTES.

PRECAST SANITARY MANHOLE

N.T.S.

SL-SS-03



SANITARY SEWER STACK DETAIL

N.T.S.

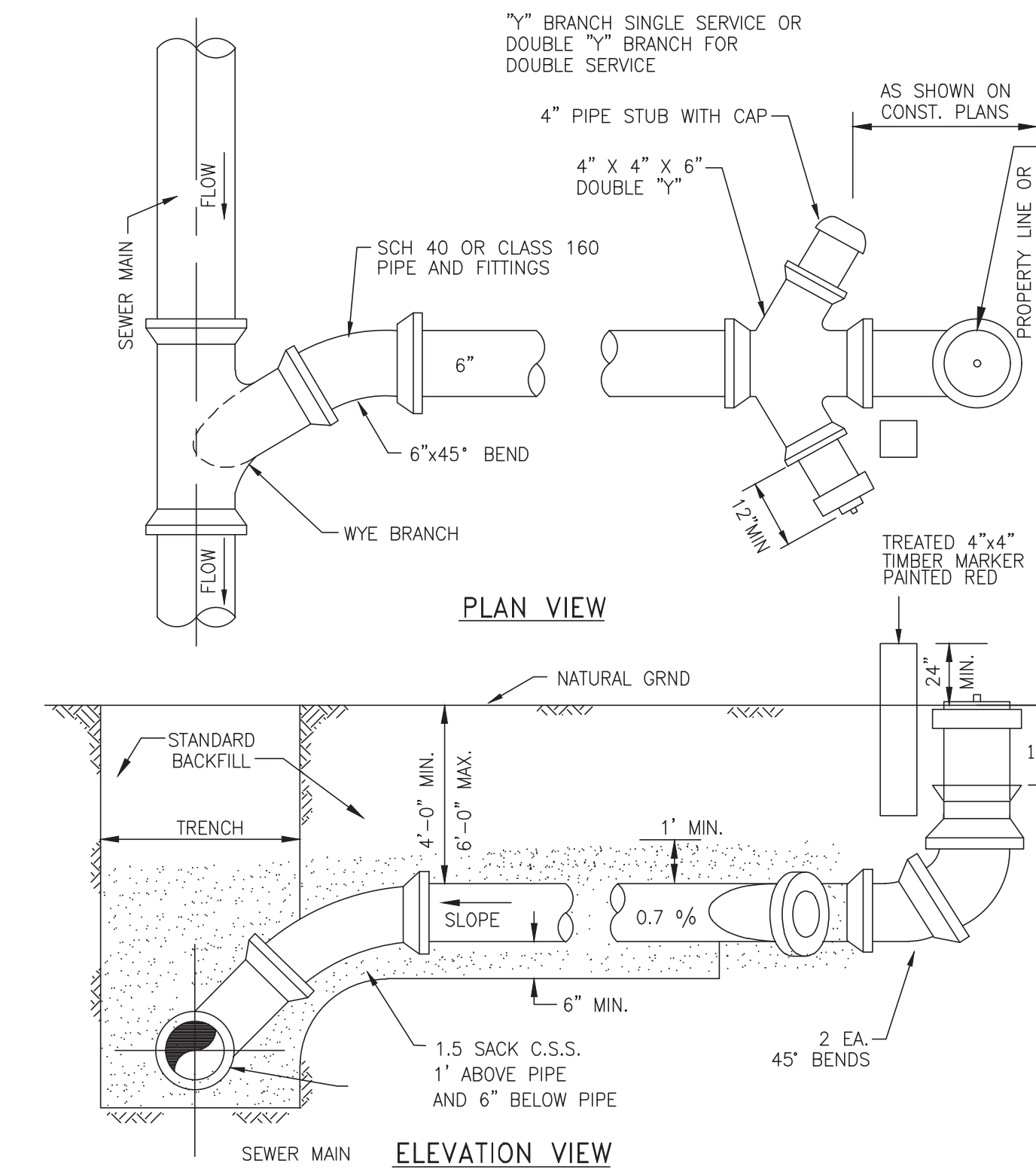
SL-SS-04

- NOTES:**
- NO STACKS ON MAINS OVER 16' DEEP OR IN WET SAND CONDITIONS.
 - ALL STACK CONNECTIONS SHALL BE IN-LINE FITTINGS.

NOTES:

- CONTRACTOR SHALL CONTACT CITY OF SUGAR LAND ENGINEERING DEPARTMENT AT (281) 275-2780 IF WET SAND OR OTHER UNSTABLE SOIL CONDITIONS, HIGH WATER TABLE AND/OR UNDERGROUND OBSTRUCTIONS ARE ENCOUNTERED.
- SHOULD A CONFLICT ARISE BETWEEN INFORMATION DEPICTED ON APPROVED CONSTRUCTION DRAWINGS AND INFORMATION INCLUDED IN PROJECT SPECIFICATIONS, CITY OF SUGAR LAND DESIGN STANDARDS SHALL GOVERN.
- SANITARY SEWER MANHOLES SHALL BE CONSTRUCTED A MINIMUM OF FOUR FEET FROM BACK OF CURB ON CURB AND GUTTER ROADWAYS AND THREE FEET FROM EDGE OF TRAVELLED ROADWAY ON THOSE THOROUGHFARES HAVING NO CURBING, MEASURED FROM OUTSIDE DIAMETER OF MANHOLE. SANITARY SEWER MANHOLES SHALL NOT BE INSTALLED BENEATH STREET PAVING EXCEPT WHERE SPECIFICALLY AUTHORIZED BY CITY ENGINEER AND SO DESIGNATED ON APPROVED CONSTRUCTION DRAWINGS.
- ALL SUCH MANHOLE COVERS SHALL HAVE THE CITY OF SUGAR LAND EMBLEM AND THE WORDS "SUGAR LAND" AND "SANITARY SEWER" CAST IN RAISED RELIEF AS DEPICTED IN CITY OF SUGAR LAND STANDARD CONSTRUCTION DETAILS SHEETS. ALL SANITARY SEWER MANHOLES SHALL INCORPORATE INFLOW PROTECTORS.
- MANHOLE RIM ELEVATIONS SHOWN ON PLANS ARE APPROXIMATE ONLY. CONTRACTORS SHALL ADJUST RIM ELEVATIONS TO 0.4 FEET ABOVE FINISHED GRADE WITHIN RIGHTS-OF-WAY AND EASEMENTS AT EACH MANHOLE LOCATION AFTER FINAL GRADING. ADJUSTMENTS TO MANHOLE RIM ELEVATIONS SHALL BE ACCOMPLISHED BY THE USE OF THROAT RINGS ONLY (MAX. OF 24 INCHES PERMITTED). THE AREA ADJACENT TO SANITARY SEWER MANHOLE LOCATIONS SHALL BE GRADED AWAY FROM SUCH MANHOLES SO AS PREVENT ENTRY OF STORM WATER RUNOFF TO THE SANITARY SEWER SYSTEM.
- DROP CONNECTIONS ARE REQUIRED WHEN INVERT ELEVATION OF SEWER LINE TO BE CONNECTED EXCEEDS 36 INCHES DISTANCE ABOVE INVERT ELEVATION OF MANHOLE BASE. ALL DROP CONNECTIONS SHALL BE CONSTRUCTED OF SAME MATERIALS AS SEWER AND SHALL BE CONSTRUCTED EXTERIOR TO MANHOLE. PIPE CONNECTIONS TO MANHOLES SHALL BE SO CONSTRUCTED AS TO BE WATERTIGHT AND TO ALIGN UPPER INSIDE PIPE WALL ELEVATIONS OF ALL PIPING CONNECTED TO BASE OF MANHOLE UNIFORMLY, REGARDLESS OF PIPE DIAMETERS. DROP ASSEMBLIES SHALL BE BEDDED IN CEMENT STABILIZED SAND. CEMENT STABILIZED SAND SHALL EXTEND A MINIMUM OF SIX INCHES PAST PIPING LATERALLY FROM BASE OF MANHOLE UPWARD TO A POINT SIX INCHES (MINIMUM) ABOVE THE HORIZONTAL SEWER PIPING WHERE CONNECTED TO THE MANHOLE ABOVE THE VERTICAL DROP.
- CONNECTIONS TO EXISTING AND/OR NEW SANITARY SEWER MANHOLES CONSTRUCTED OF PRECAST CONCRETE NOT HAVING PRECURED HOLES OF CORRECT DIAMETER, LOCATION AND FIELD CORING ONLY SHALL ACCOMPLISH INVERT ELEVATION. IN NO INSTANCE WILL EITHER MANUAL OR PNEUMATIC CHISELS AND/OR HAMMER DRILLS BE UTILIZED TO BREAK HOLES IN PRECAST CONCRETE MANHOLES, PIPE SEGMENTS OR OTHER PRECAST STRUCTURES SUCH AS LIFT STATIONS.
- BEDDING AND BACKFILL OF SANITARY SEWER PIPING AND MANHOLES SHALL BE ACCOMPLISHED IN ACCORDANCE WITH CITY OF SUGAR LAND DESIGN STANDARDS. A 1.5-SACK MIX IS REQUIRED FOR ALL CEMENT STABILIZED SAND BEDDING AND SUCH BEDDING SHALL BE INSTALLED IN LIFTS OF EIGHT INCHES MAXIMUM.
- SOLVENT WELDED JOINTS ARE NOT AN ACCEPTABLE JOINING METHOD FOR SANITARY SEWERS CONSTRUCTED OF PVC PIPING MATERIALS AND LOCATED WITHIN RIGHTS-OF-WAY OR EASEMENTS. RUBBER GASKETED BELL AND SPIGOT SANITARY SEWER JOINTS ARE MANDATORY. BELL (FEMALE) ENDS OF PIPE SHALL BE INSTALLED ON UPSTREAM SIDE WITH SPIGOT (MALE) ENDS ORIENTED DOWNSTREAM.
- SANITARY SEWER SERVICE LEADS SHALL BE EXTENDED TO RIGHTS-OF-WAY AND/OR EASEMENT LINES AS APPLICABLE AND CAPPED/PLUGGED FOR FUTURE CONNECTIONS. SERVICE LEADS ARE TO BE INSTALLED SO AS TO PASS UNDER POTABLE WATER PIPING AT CROSSINGS WHERE POSSIBLE.
- EACH SANITARY SEWER SERVICE LEAD STUB, PLUGGED WYE BRANCH OUTLET AND STACK SHALL BE MARKED WITH A PRESSURE TREATED 4 X 4 TIMBER AT THE TIME OF CONSTRUCTION, BEGINNING AT THE INVERT ELEVATION OF THE STUB OR WYE AND AT AN ELEVATION TWO FEET BELOW THE CAPPED TERMINATION POINT OF THE STACK AND EXTENDING TWO FEET ABOVE FINISHED GRADE. EACH TIMBER MARKER SHALL BE PAINTED RED AND LABELED "SANITARY SEWER STUB", "SANITARY SEWER WYE" OR "SANITARY SEWER STACK" AS APPROPRIATE WITH STUB, WYE BRANCH OUTLET OR STACK SIZE NOTED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATION OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION. DURING THE COURSE OF ANY AND ALL CLEARING, GRUBBING, FILL, GRADING, EXCAVATION OR OTHER CONSTRUCTION, CONTRACTOR SHALL ENSURE THAT STORM DRAINAGE PATHWAYS ARE MAINTAINED AND REMAIN OPEN TO ENSURE POSITIVE DRAINAGE AND THAT SUCH CONVEYANCES ARE NOT IMPEDED OR BLOCKED IN ANY WAY. STORM SEWER INLETS SHALL BE PROTECTED FROM ENTRY OF SILT, TRASH, DEBRIS AND ANY SUBSTANCES DELETERIOUS TO THE STORM SEWER SYSTEM AND/OR WATERWAYS RECEIVING STORM WATER RUNOFF. CONTRACTOR SHALL AT COMPLETION OF WORK, FILL LOW SPOTS AND GRADE ALL RIGHTS-OF-WAY AND UTILITY EASEMENTS AND REGRADE/RESTORE DITCHES AS NECESSARY TO MAINTAIN AND/OR ESTABLISH POSITIVE DRAINAGE.
- ALL SANITARY SEWER PIPING AND BEDDING SHALL BE INSPECTED BY CITY CONSTRUCTION INSPECTOR FOR CONFORMANCE WITH CITY INFRASTRUCTURE STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY NOTIFY THE CITY OF ALL CONSTRUCTION ACTIVITIES AND TO CONFORM TO CITY OF SUGAR LAND PUBLIC WORKS DEPARTMENT INSPECTION POLICY.
- C.S.S. 1' ABOVE PIPE AND 6" BELOW PIPE MINIMUM.
- SEE GENERAL NOTES AND C.S.S. NOTES.

SL-SS-07



SANITARY SEWER SERVICE CONNECTION

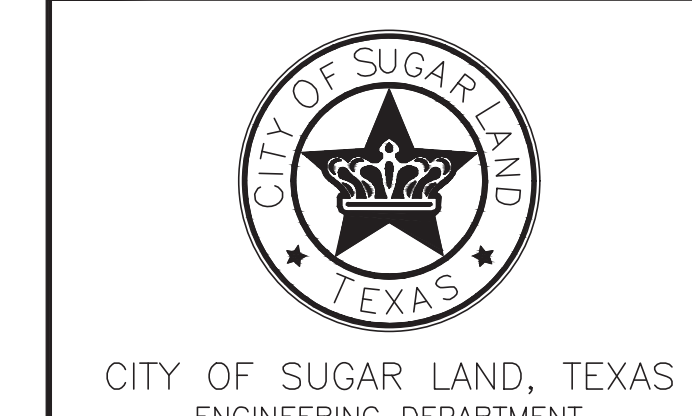
N.T.S.

SL-SS-06

No.	DATE	REVISION

SEAL: _____

DESIGN ENGINEER: _____ DATE: _____



CONSTRUCTION PLANS FOR:

SANITARY SEWER CONSTRUCTION DETAILS

JOB No.: _____

DATE: _____

DESIGNED BY: _____

DRAWN BY: _____

CHECKED BY: _____

SCALE: _____

SL-14

SHEET OF _____

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED MS

DRAWN BT

CHECKED _____

DATE May 2023

OWNER:

Mike Morgan

979-236-5089

dmmorganjr@yahoo.com

PLAN: _____

PROFILE: _____

HORIZONTAL: _____

VERTICAL: _____

ANGLETON PARK PLACE SEC. 1

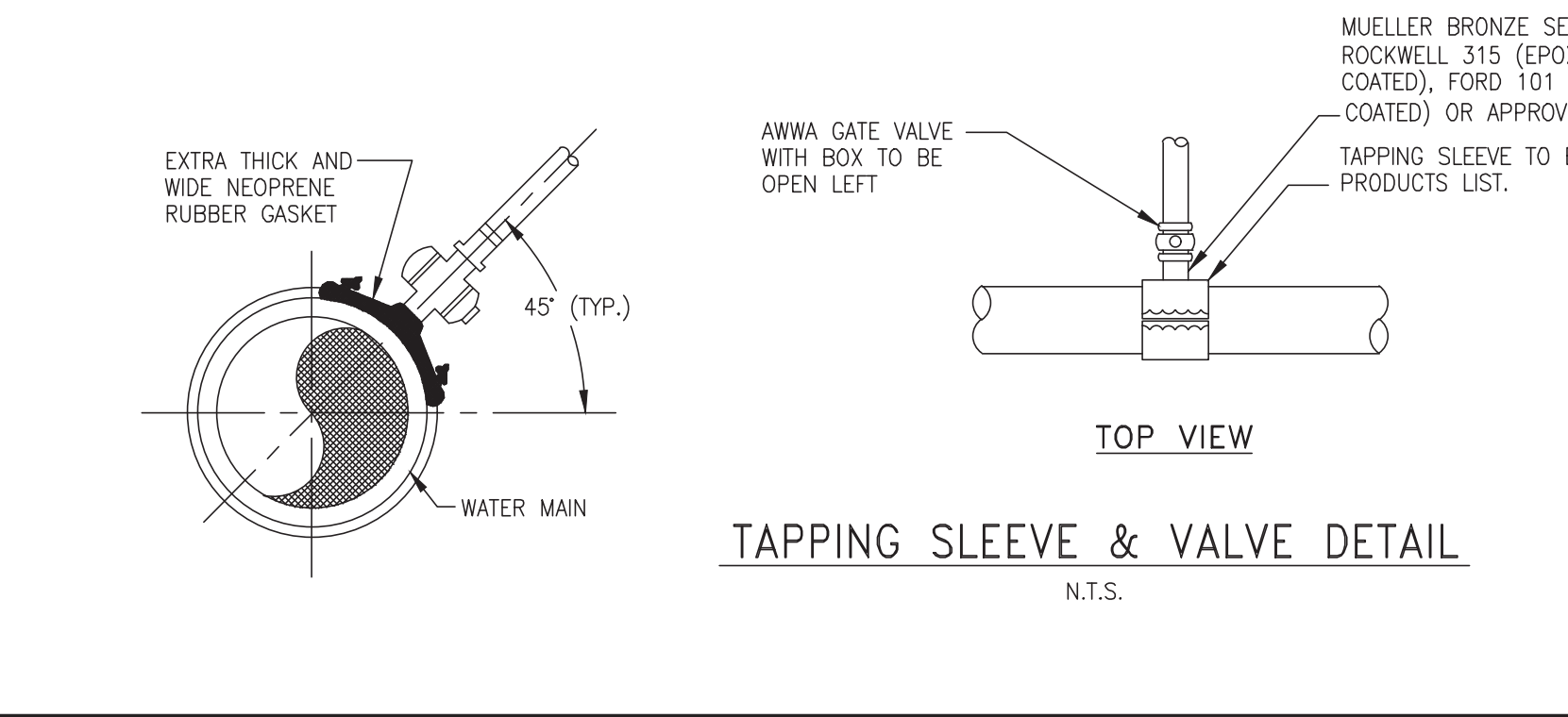
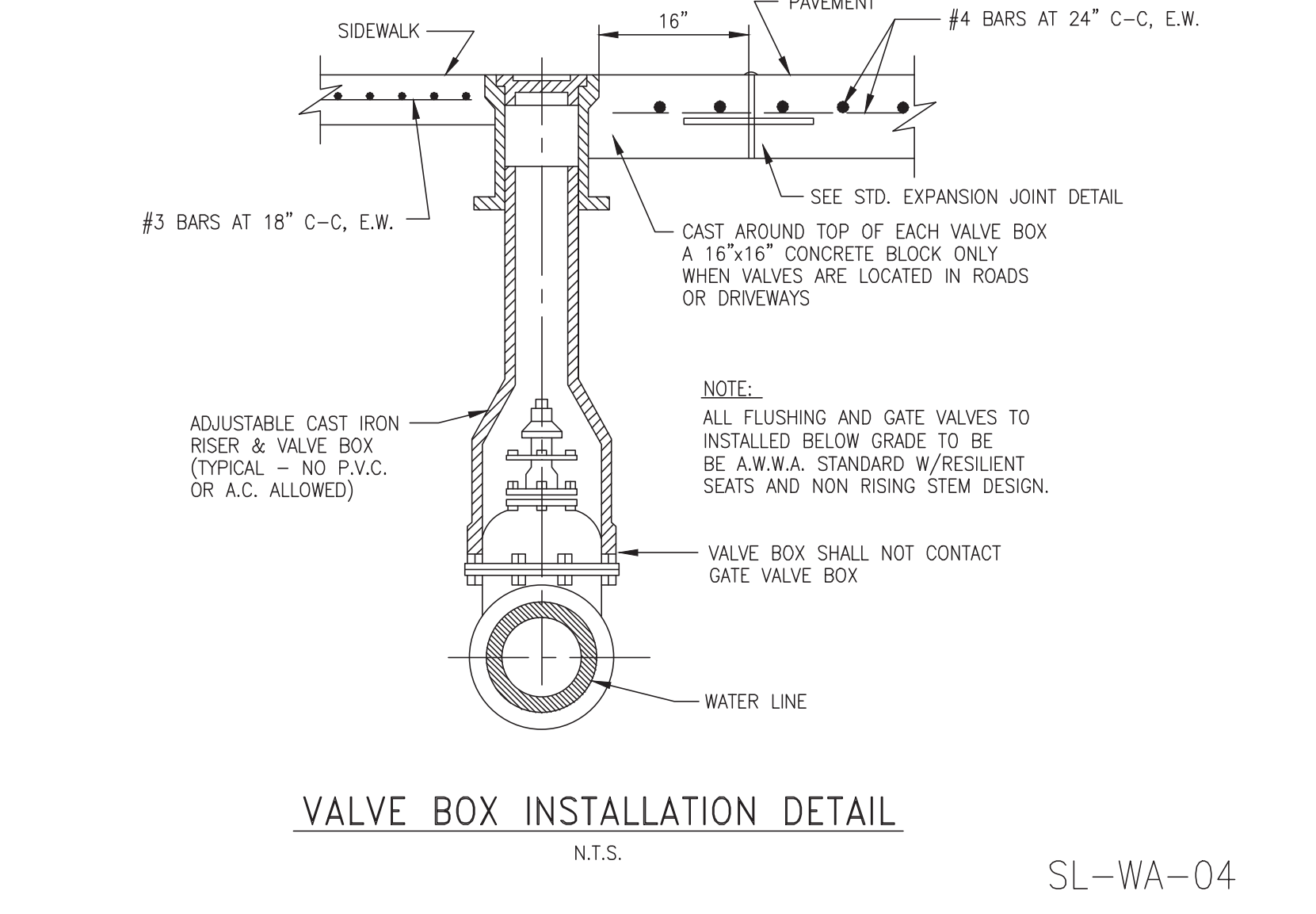
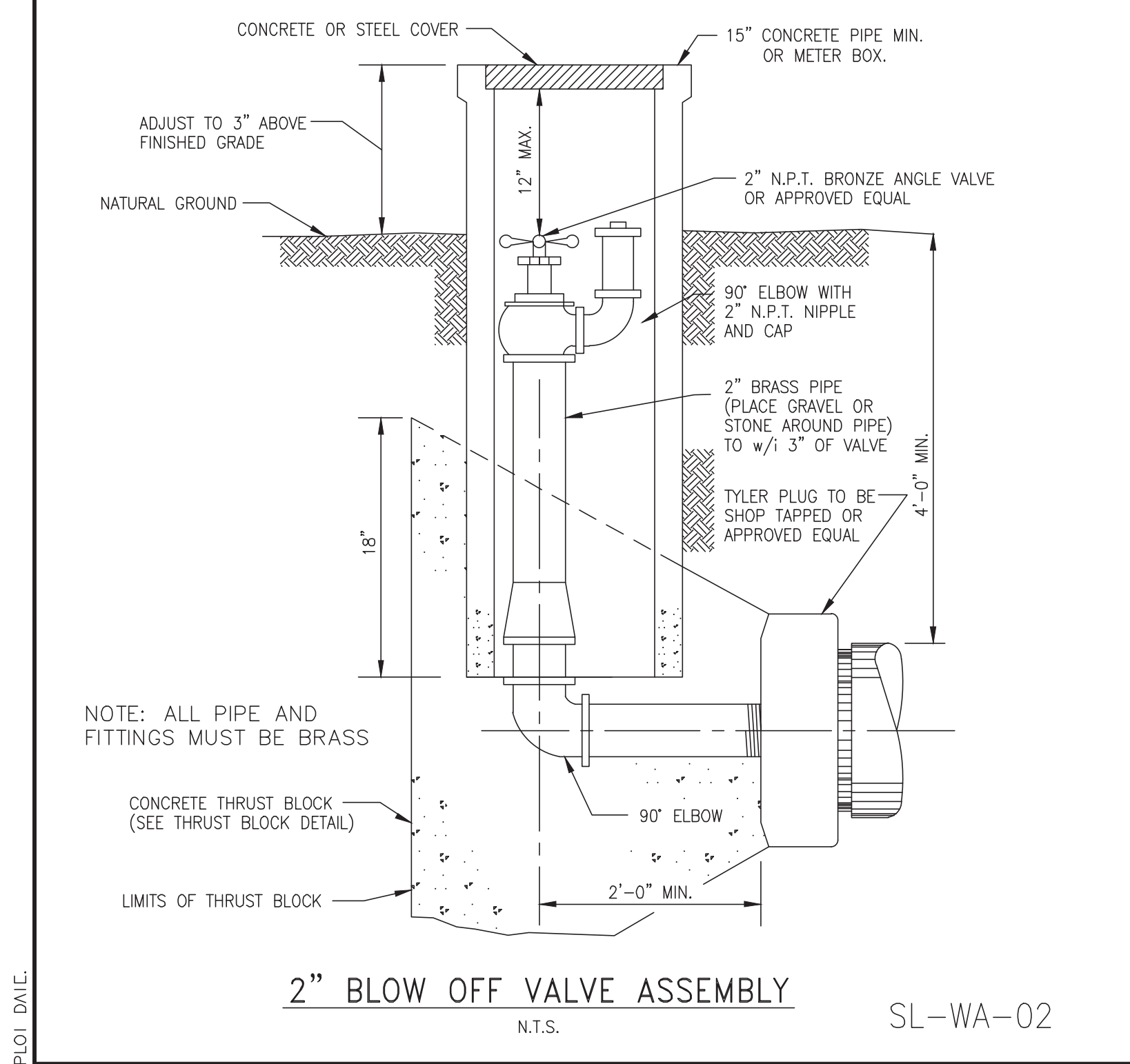
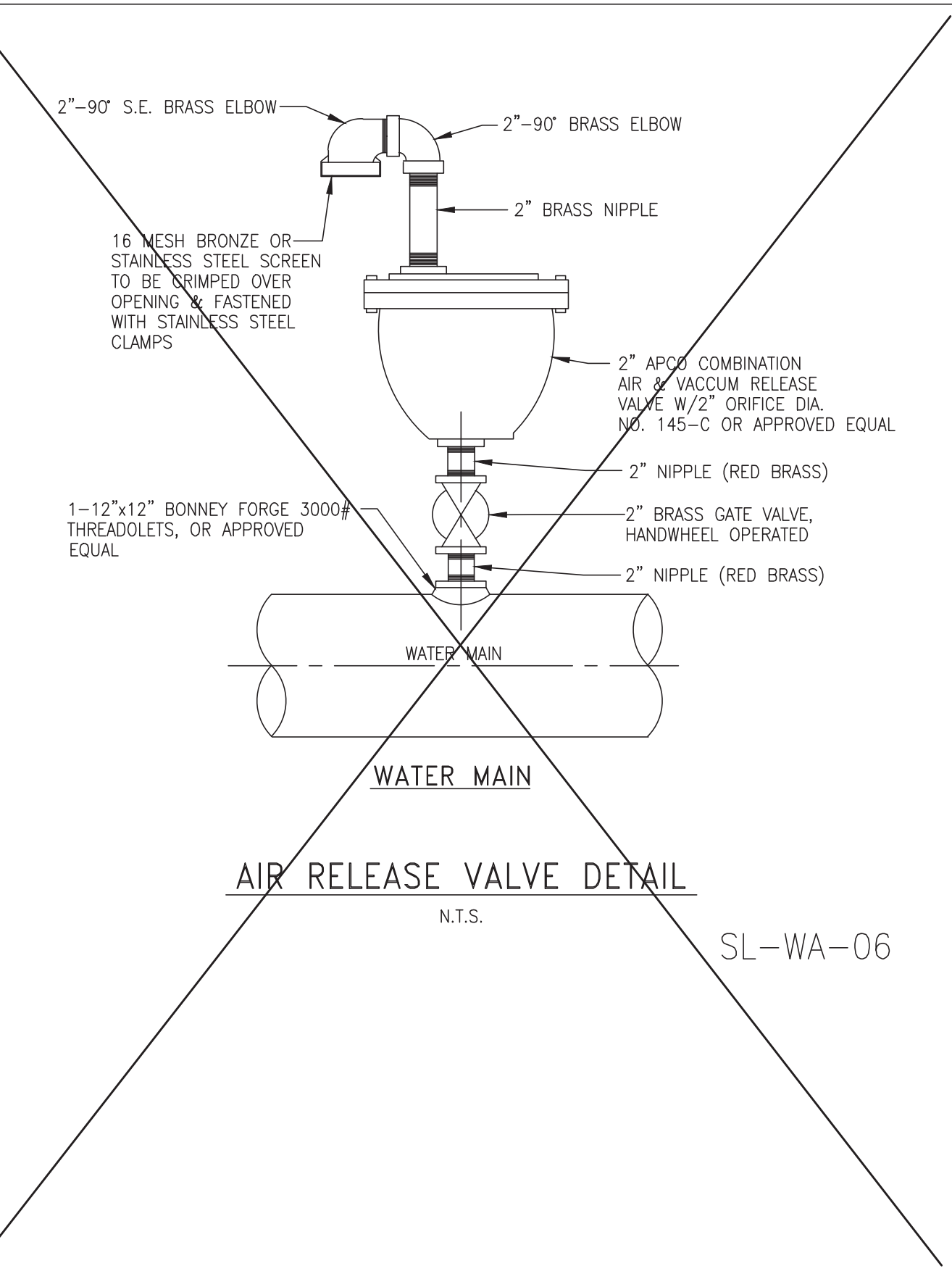
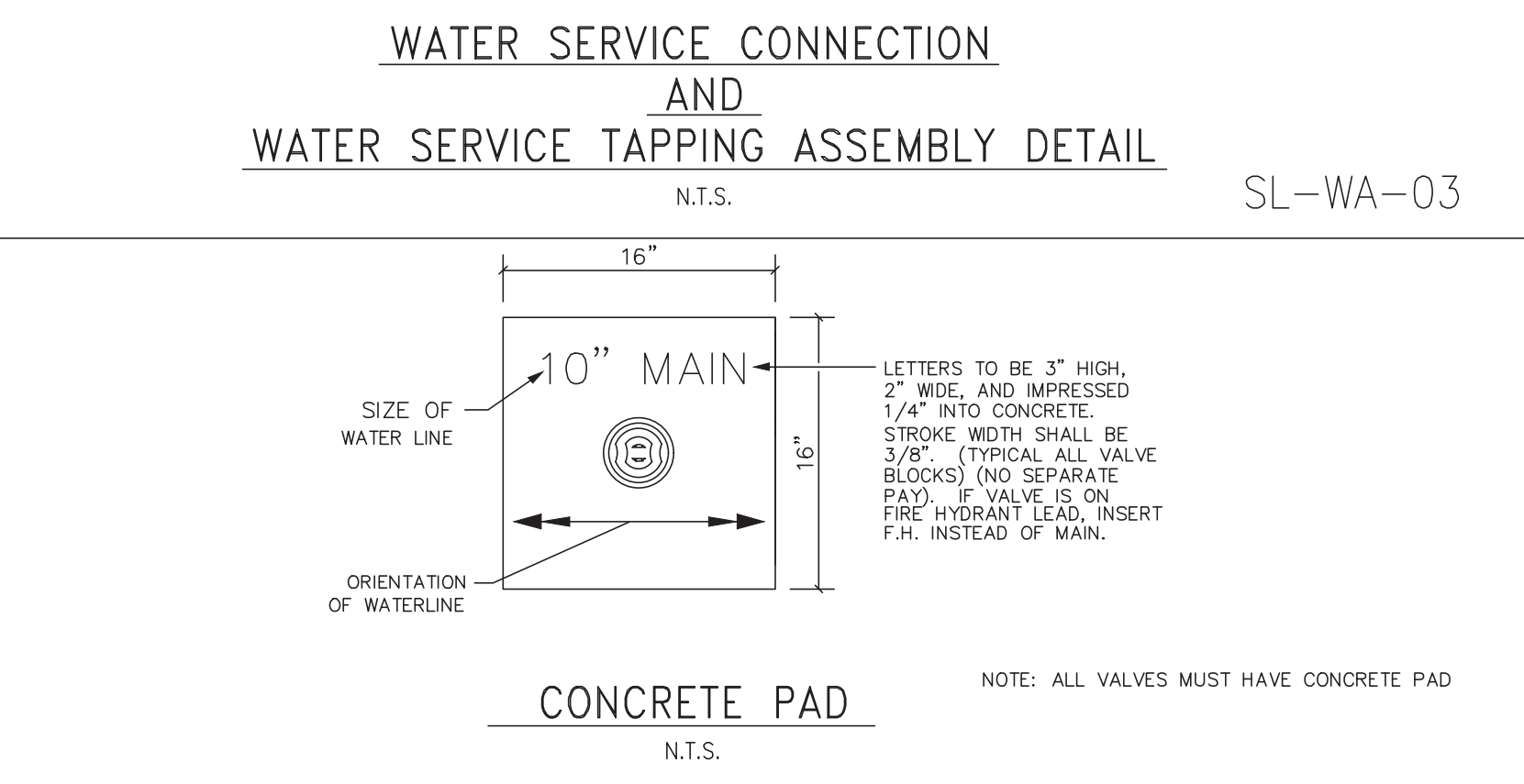
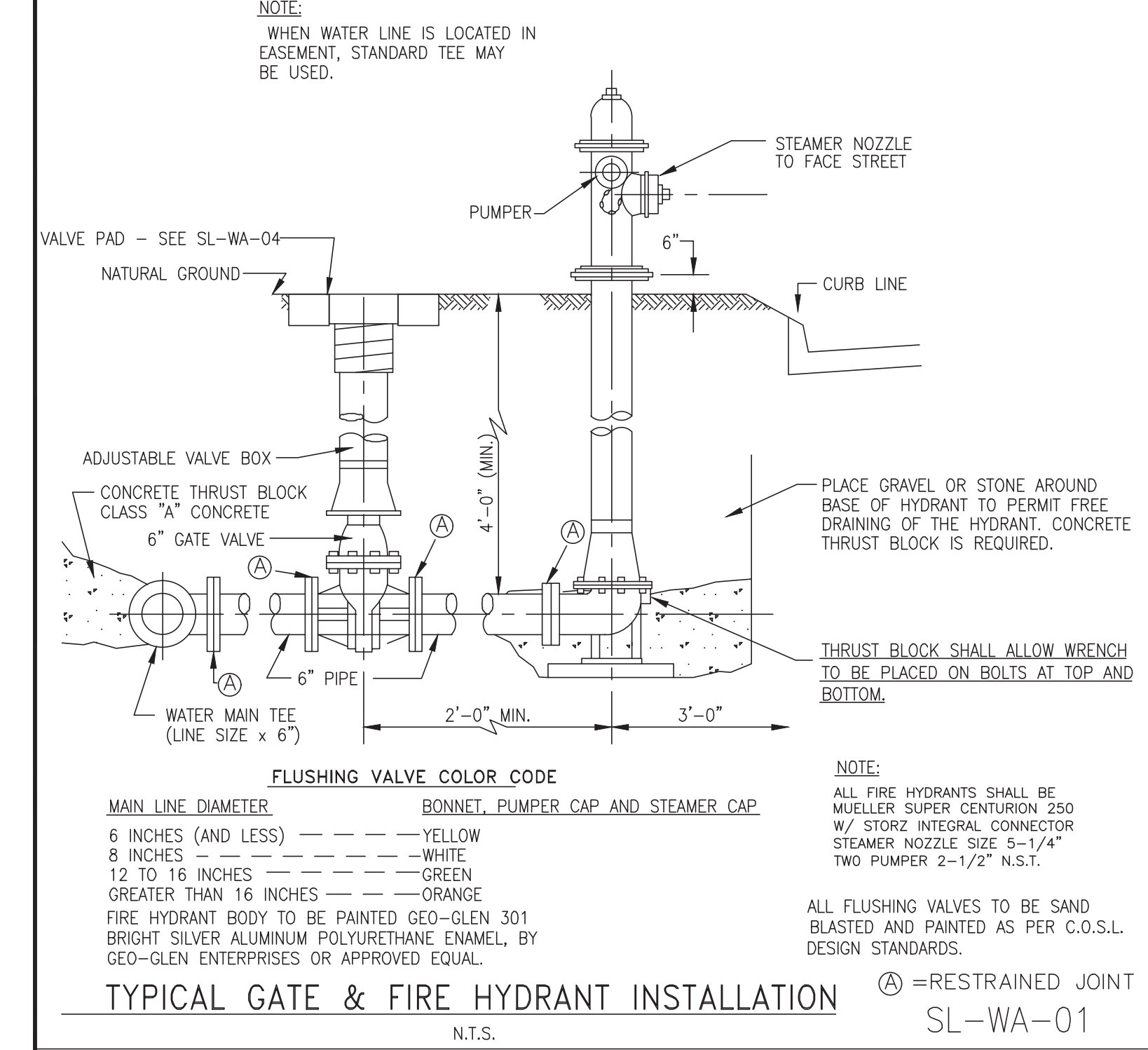
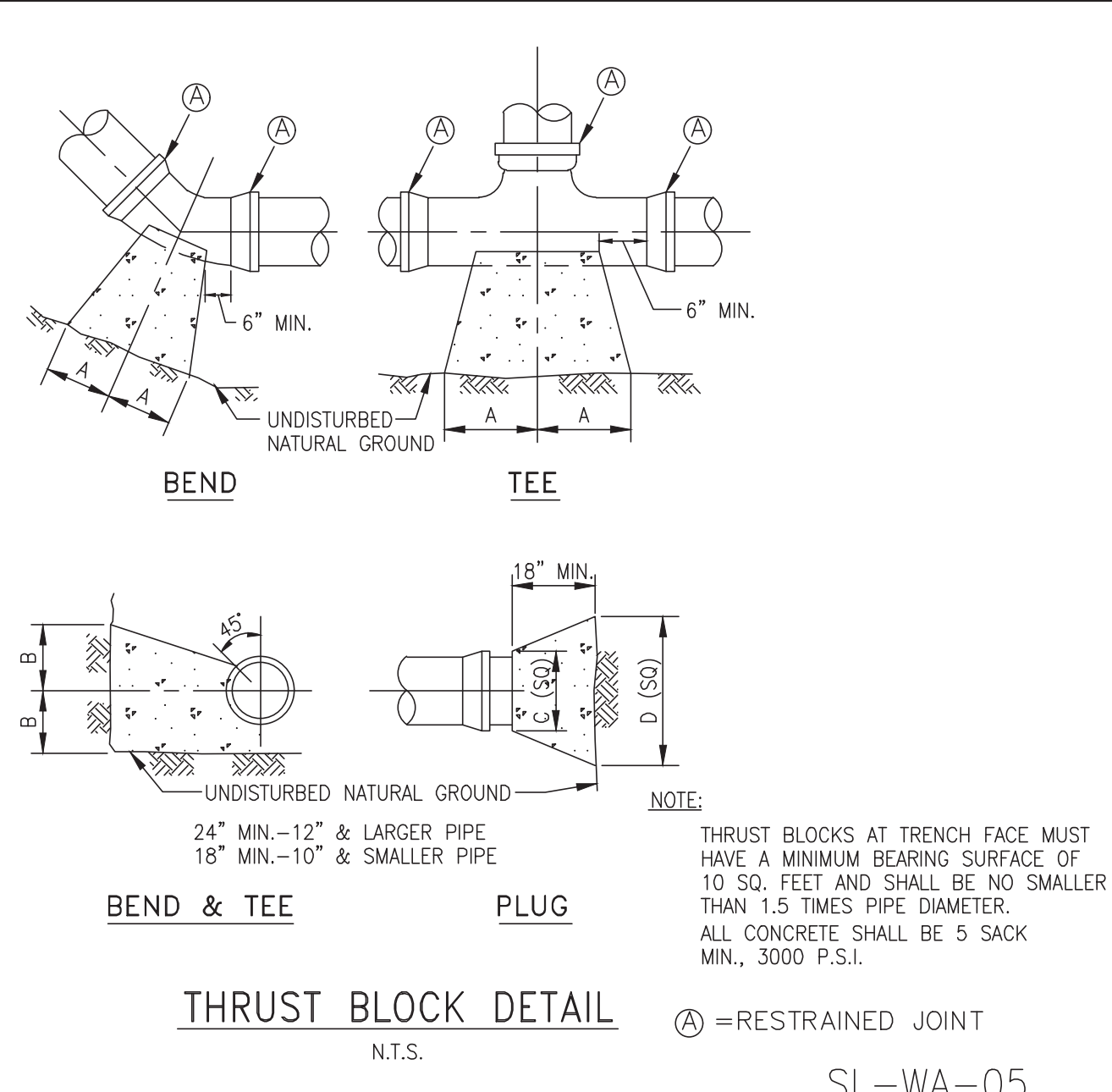
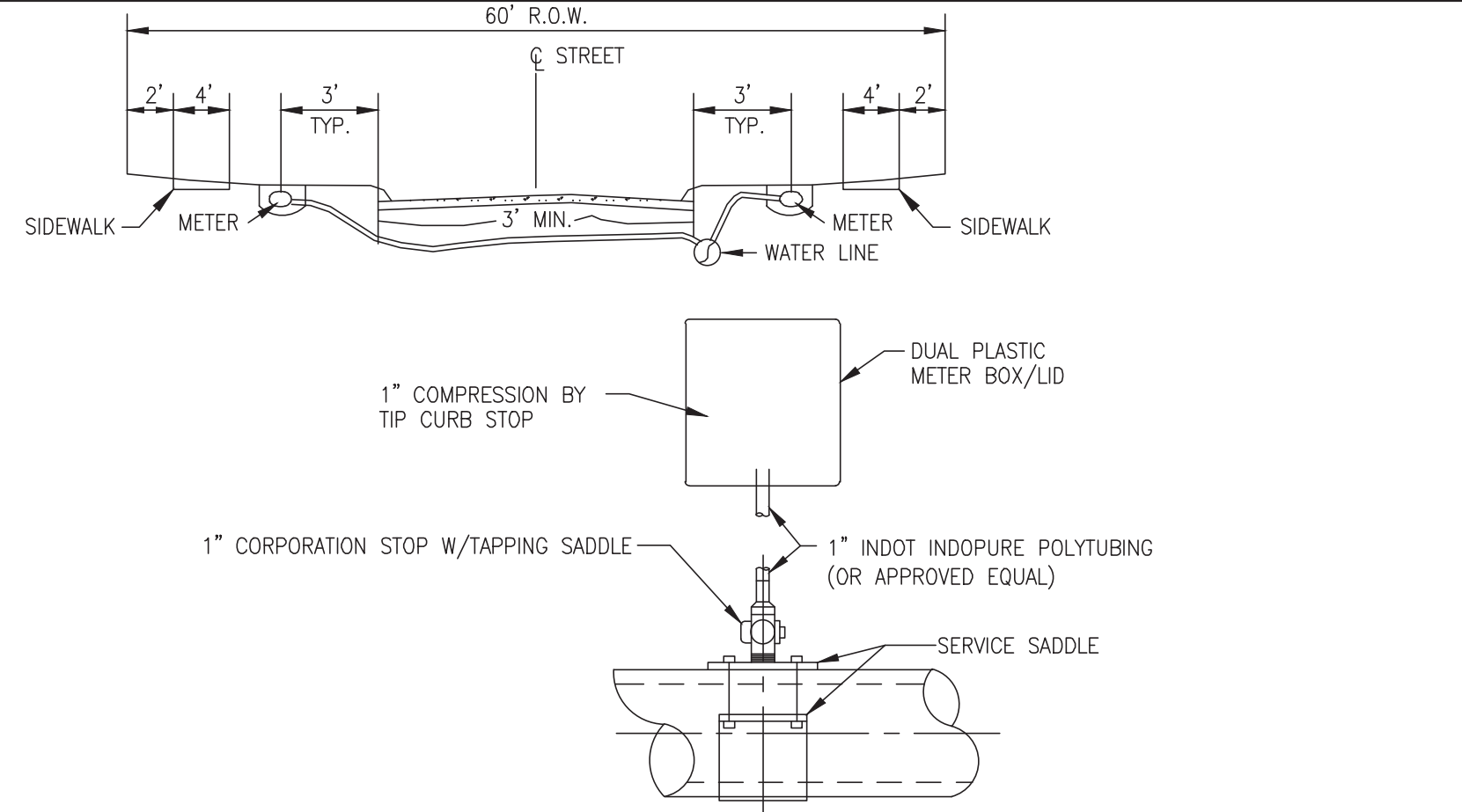
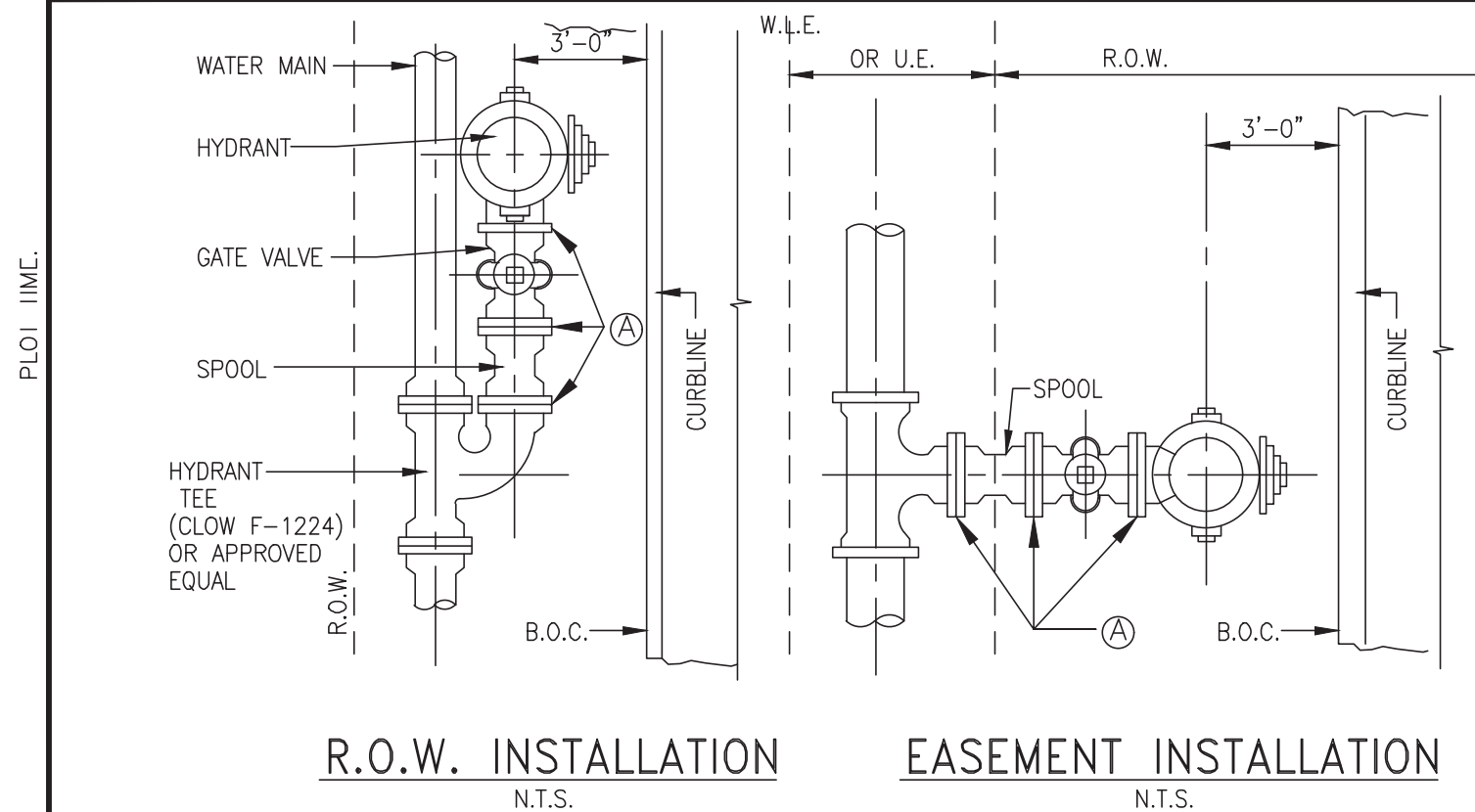
ANGLETON, TEXAS

PLANS FOR GRADING, PAVING, UTILITIES AND DETENTION

SANITARY SEWER CONSTRUCTION DETAILS

SL-14

PROJECT NO. 14320



NOTES:
POLYETHYLENE WRAP FOR IRON PIPE

NOTE:

- POLYETHYLENE FILM SHALL BE USED AS A WRAP TO PROTECT CAST IRON AND OTHER METALS IN A CORROSIVE SOIL ENVIRONMENT.
- AN 8 MIL POLYETHYLENE FILM WRAP SHALL BE REQUIRED AROUND ALL METAL PIPE AND APPURTENANCES (EXCEPT FIRE HYDRANTS).
- POLYETHYLENE FILM SHALL BE FURNISHED AND INSTALLED EITHER IN TUBULAR FORM PRIOR TO LOWERING THE PIPE IN TRENCH OR IN SHEET FORM.
- POLYETHYLENE TUBE ENCASUREMENT SHALL CONFORM WITH THE MINIMUM REQUIREMENTS OF "POLYETHYLENE ENCASUREMENT FOR GRAY AND DUCTILE CAST-IRON PIPING FOR WATER AND OTHER LIQUIDS", ANSI/AWWA C105, CURRENT REVISION. SOILS WITHIN A PROJECT SHALL BE TESTED IN ACCORDANCE WITH APPENDIX A OF ANSI/AWWA C105 TO ADEQUATELY DETERMINE THE REQUIREMENTS FOR ENCASUREMENT.
- ALL FITTINGS AND PIPE JOINTS WITHIN 10' OF A FITTING SHALL HAVE RESTRAINT JOINTS

SIZE	90° BEND		45° BEND		22 1/2° BEND		TEES		PLUGS	
	A	B	A	B	A	B	A	B	A	B
2 1/2"	12"	7"	6"	7"	6"	6"	7"	8"	8"	14"
6"	16"	10"	9"	10"	6"	12"	10"	12"	10"	21"
8"	22"	13"	12"	13"	8"	10"	13"	16"	12"	29"
10"	26"	17"	14"	17"	10"	13"	16"	20"	14"	36"
12"	29"	21"	16"	21"	11"	16"	18"	24"	16"	41"
14"	35"	24"	19"	24"	12"	20"	22"	27"	18"	48"
16"	38"	27"	21"	27"	12"	24"	24"	30"	20"	54"
20"	50"	40"	30"	40"	18"	30"	30"	40"	30"	*78"
24"	50"	40"	30"	40"	18"	30"	30"	40"	30"	*78"
30"	60"	48"	36"	48"	20"	36"	36"	48"	36"	*96"

BENDS, TEES & PLUGS FOR PIPE OF VARIOUS SIZES
N.T.S.

SL-WA-08

No.	DATE	REVISION

DESIGN ENGINEER: _____ DATE: _____



CONSTRUCTION PLANS FOR:
WATER LINE CONSTRUCTION DETAILS

JOB No.: _____
DATE: _____
DESIGNED BY: _____
DRAWN BY: _____
CHECKED BY: _____
SCALE: _____

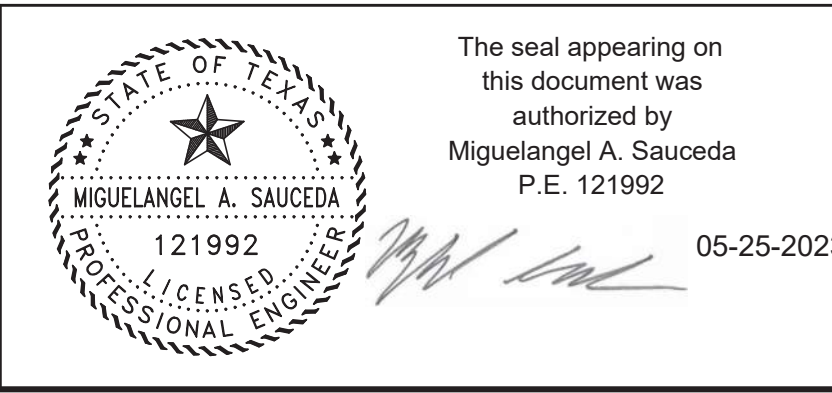
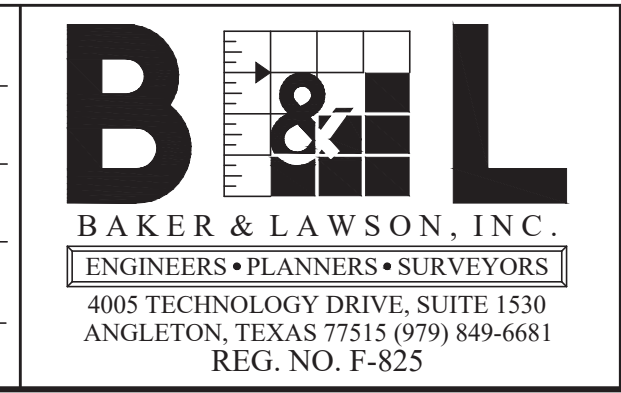
SL-15
SHEET OF

3/14/2005 14320 ENGINEERING-SURVEY DRAWINGS 14320 DETAIL SET.DWG

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN BT
CHECKED _____
DATE May 2023



OWNER:
Mike Morgan
979-236-5089
dmmorganjr@yahoo.com

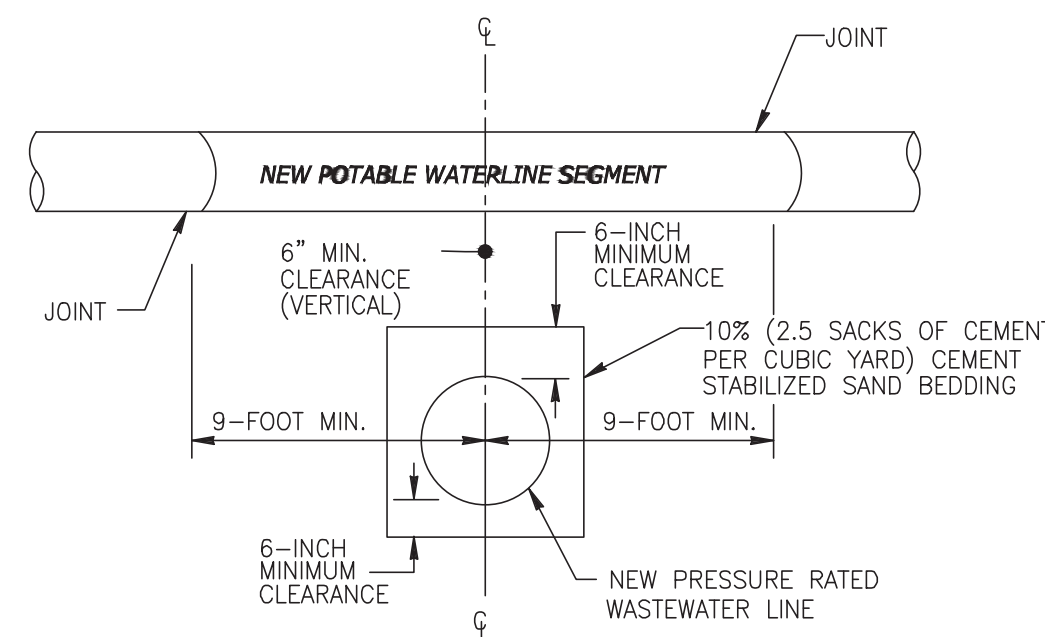
PLAN: _____
PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____

ANGLETON PARK PLACE SEC. 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

WATER LINE
CONSTRUCTION DETAILS
SL-15

PROJECT NO. 14320

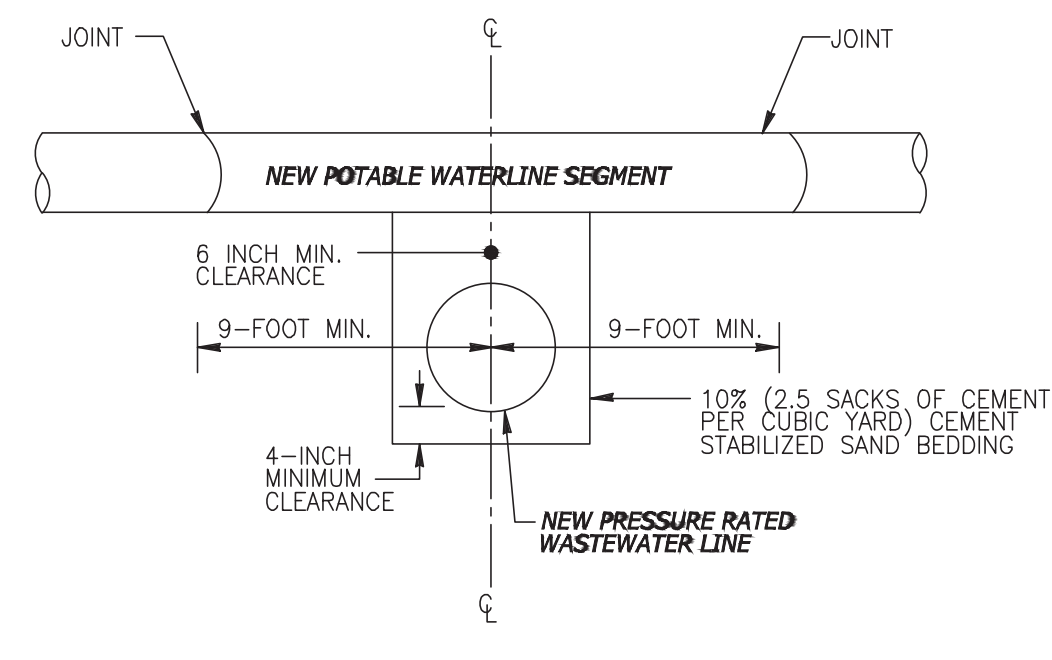
I
NEW POTABLE WATERLINE CROSSING NEW PRESSURE RATED WASTEWATER LINE WITH SEGMENT LENGTHS OF EIGHTEEN (18) FEET OR GREATER, HAVING 6 INCHES OF VERTICAL CLEARANCE AND 4 FEET OF HORIZONTAL CLEARANCE



- WHENEVER POSSIBLE, THE CROSSING SHALL BE CENTERED BETWEEN JOINTS OF THE WASTEWATER LINE.
- MINIMUM WASTEWATER PIPE STIFFNESS OF 115 PSI AT 5% DEFLECTION.
- EMBED WASTEWATER LINE IN CEMENT STABILIZED SAND TO AT LEAST 12" INCHES BEYOND EACH JOINT OF CROSSED SECTION OF PIPE.

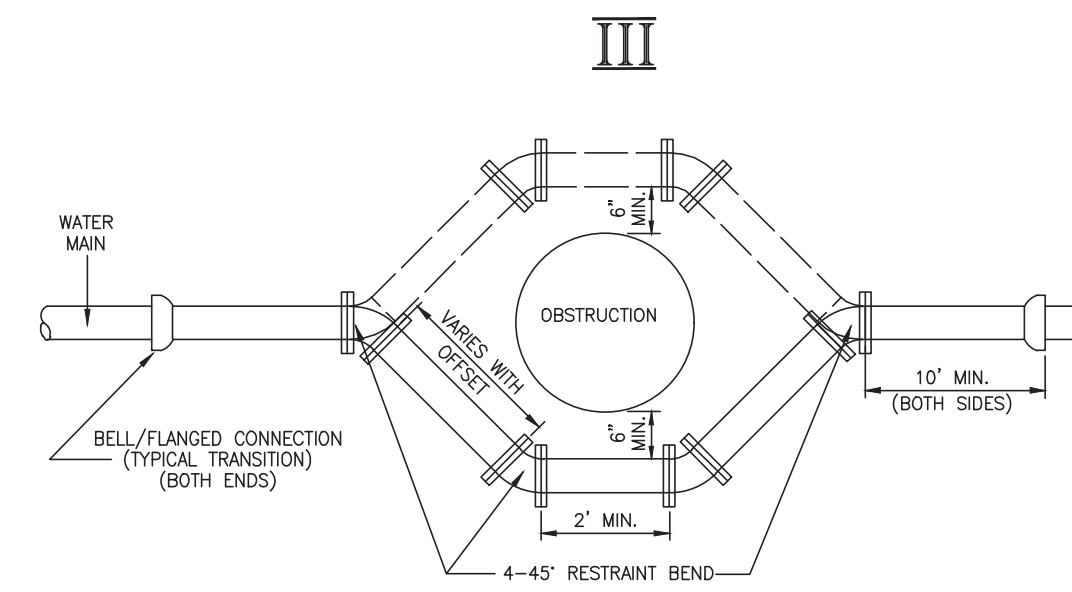
SL-WA-09

II
NEW POTABLE WATERLINE CROSSING NEW PRESSURE RATED WASTEWATER LINE



- WHENEVER POSSIBLE, THE CROSSING SHALL BE CENTERED BETWEEN JOINTS OF THE WASTEWATER LINE.
- MINIMUM WASTEWATER PIPE STIFFNESS OF 115 PSI AT 5% DEFLECTION.
- EMBED WASTEWATER LINE IN CEMENT STABILIZED SAND TO AT LEAST 12" INCHES BEYOND EACH JOINT OF CROSSED SECTION OF PIPE.

SL-WA-10



FOR A LINE TO PASS OVER AN OBSTRUCTION RATHER THAN UNDER, IT MUST HAVE ADEQUATE COVER AND BE APPROVED BY THE ENGINEERING DEPARTMENT.

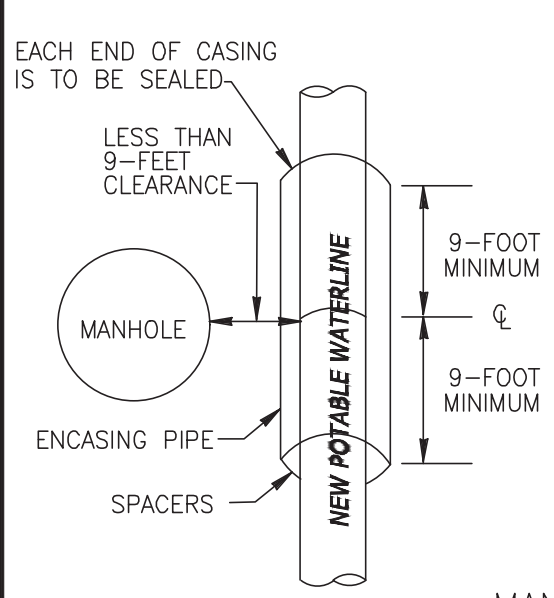
- NOTES:
- PIPE MATERIAL SHALL BE AWWA C900 PVC, DR-14, 200 PSI WITH INTEGRAL PVC RESTRAINED JOINTS.
 - OFFSET ASSEMBLY MUST PASS OVER THE OBSTRUCTION AS LONG AS THE MINIMUM CLEARANCE IS MAINTAINED. SPECIFIC APPROVAL FROM THE UTILITIES DEPARTMENT MUST BE GRANTED FOR THE OFFSET TO PASS UNDER THE OBSTRUCTION.
 - MATERIAL AND COATINGS SHALL BE IN ACCORDANCE WITH WATER MAIN STANDARD SPECIFICATIONS.
 - RESTRAIN EXISTING PIPING BEYOND OFFSET SECTION AS REQUIRED TO PREVENT MOVEMENT.
 - ALL PVC PRODUCTS MUST BE LISTED ON CITY OF SUGAR LAND'S APPROVED PRODUCTS LIST.

MIN. PIPE WALL THICKNESS	
4"	0.250"
6"	0.280"
8"	0.322"
12"	0.375"
AND LARGER	

PVC WATER PIPE OFFSET ASSEMBLY

SL-WA-11

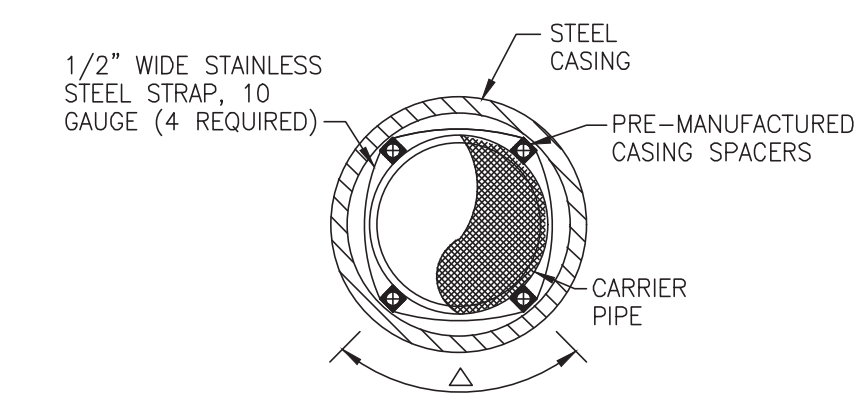
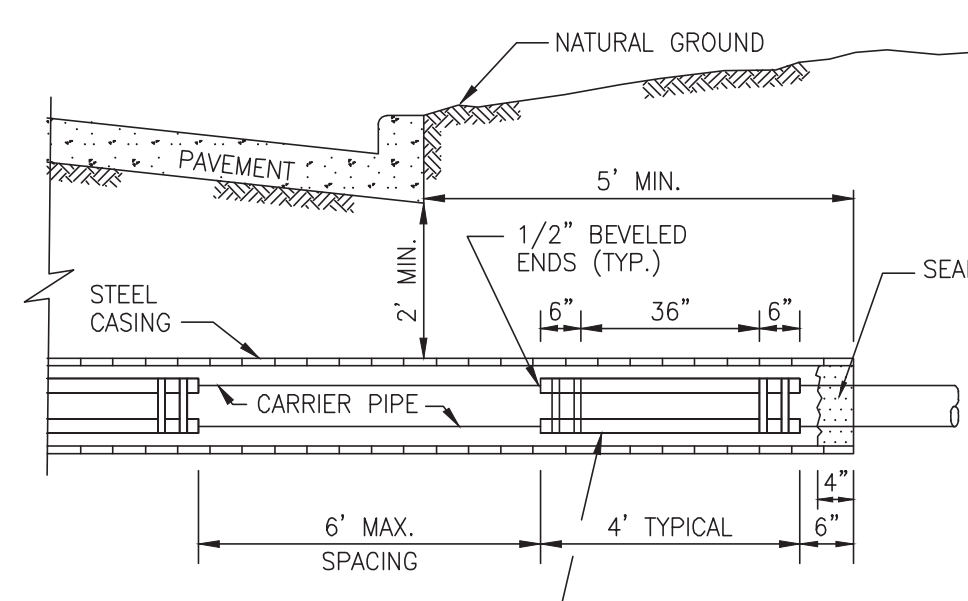
DETAIL OF WATER LINE CROSSING WASTEWATER FACILITIES WHERE SEPARATION IS LESS THAN 9' (NINE FEET)



- ENCASING PIPE
- 150 PSI PRESSURE CLASS PIPE
 - MINIMUM 18 FEET LONG
 - DIAMETER = 2 X WATERLINE DIAMETER
 - SPACE AROUND CARRIER PIPE SHALL BE SUPPORTED AT FIVE (5) FOOT (OR LESS INTERVALS WITH SPACERS)
 - CENTERED ON CROSSING
 - BOTH ENDS SEALED WITH CEMENT GROUT OR A MANUFACTURED WATER TIGHT SEAL.

MANHOLE CLEARANCE

SL-WA-12

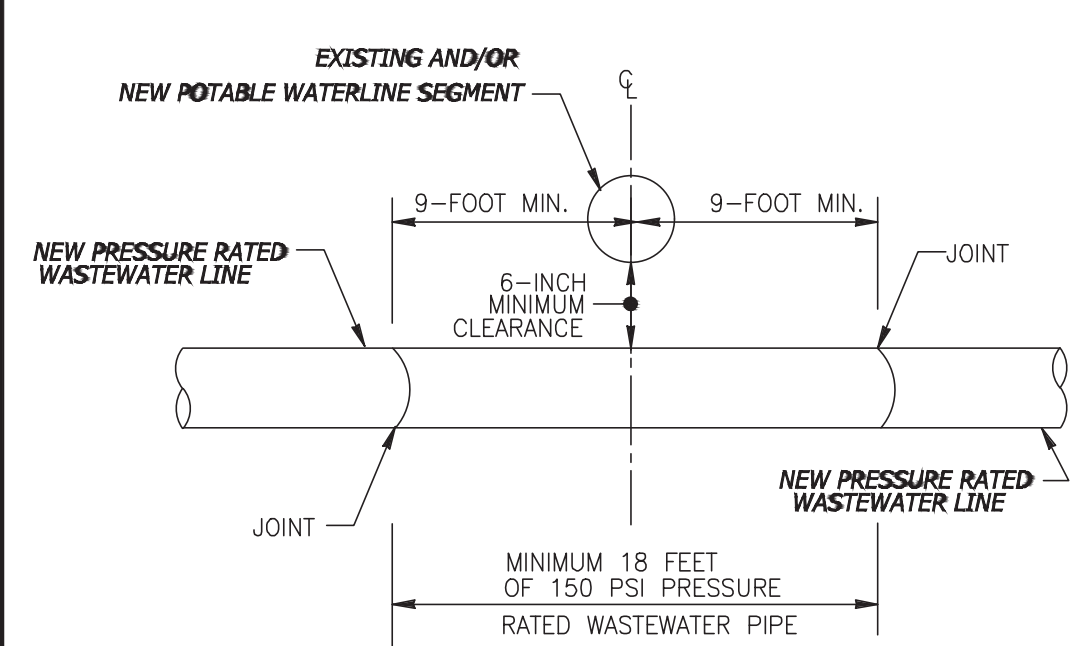


CARRIER PIPE	NOMINAL CASING	MIN. WALL THICKNESS (IN.)
6"	12"	0.11
8"	14"	0.15
10"	16"	0.18
12"	18"	0.20

- CASING SIZE AND THICKNESS SHALL CONFORM TO THE MINIMUM REQUIREMENTS AS SHOWN ON CASING SCHEDULE, OTHER PERMITS AS REQUIRED.
- MAINTAIN 1/2" MINIMUM CLEARANCE BETWEEN THE MAXIMUM OUTSIDE DIAMETER OF CARRIER PIPE AND CASING AT ALL LOCATIONS.
- DIMENSIONS ARE APPROXIMATE ONLY. CONTRACTOR SHALL INSTALL ADEQUATELY SIZED CASING TO ACCOMMODATE THE CARRIER PIPE.

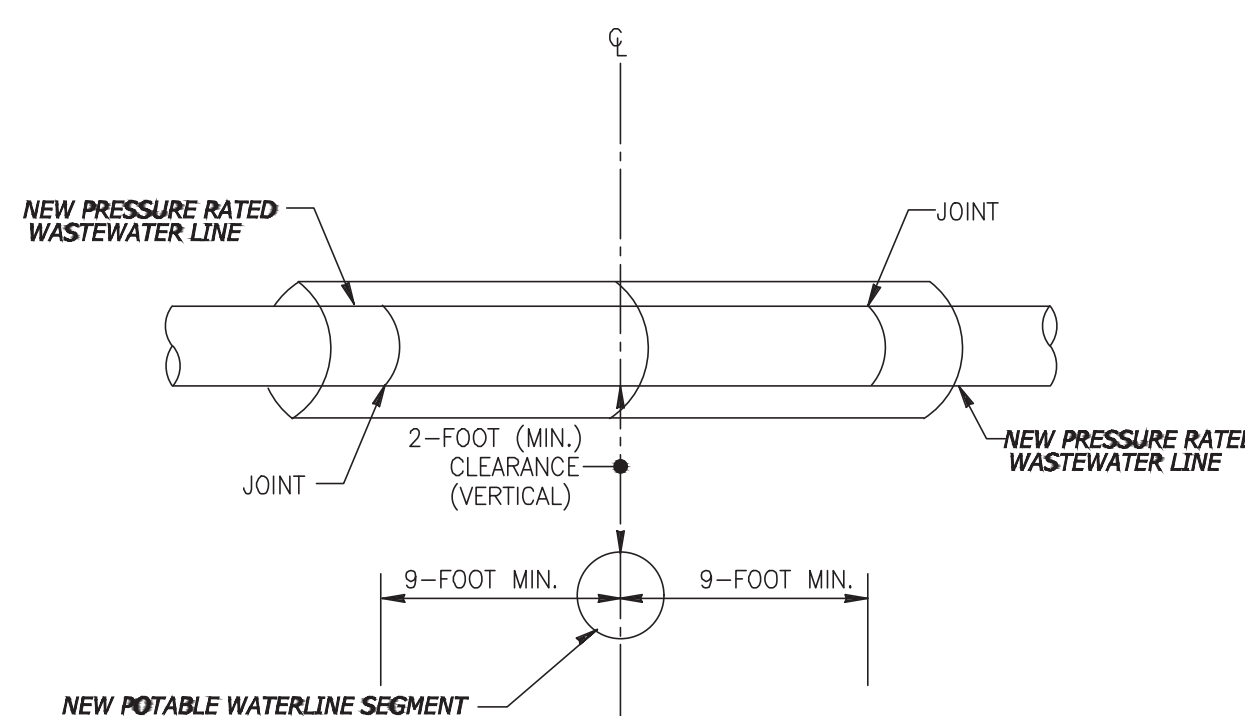
SL-WA-13

ALTERNATIVE A:
PRESSURE RATED WASTEWATER PIPE



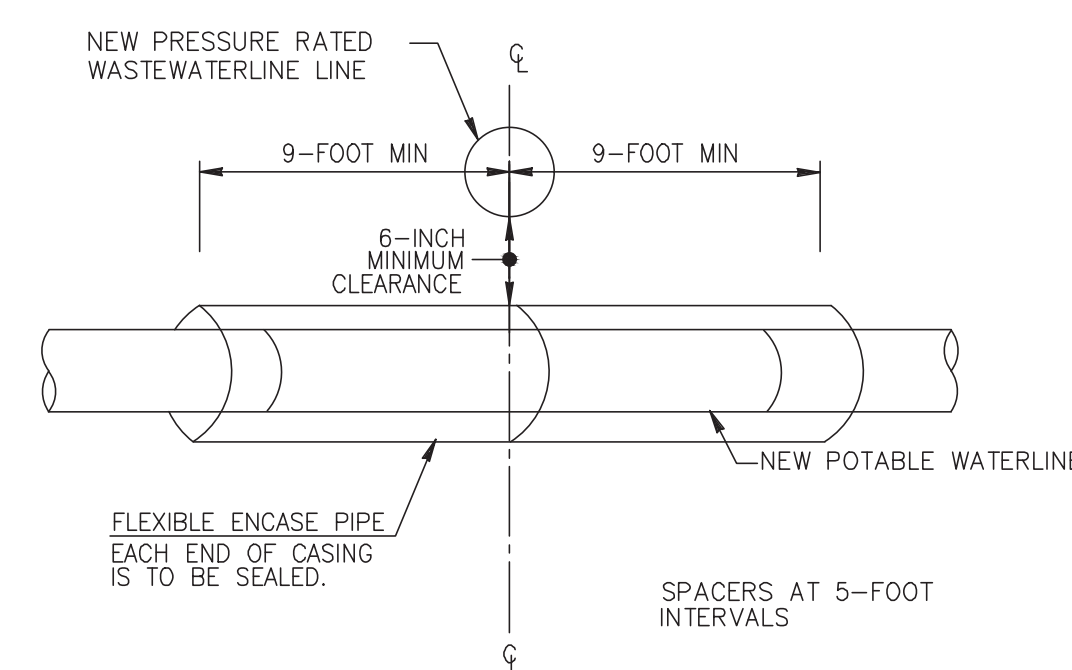
SL-WA-14

ALTERNATIVE B:
EXISTING POTABLE WATERLINE CROSSING EXISTING PRESSURE RATED WASTEWATER LINE



SL-WA-15

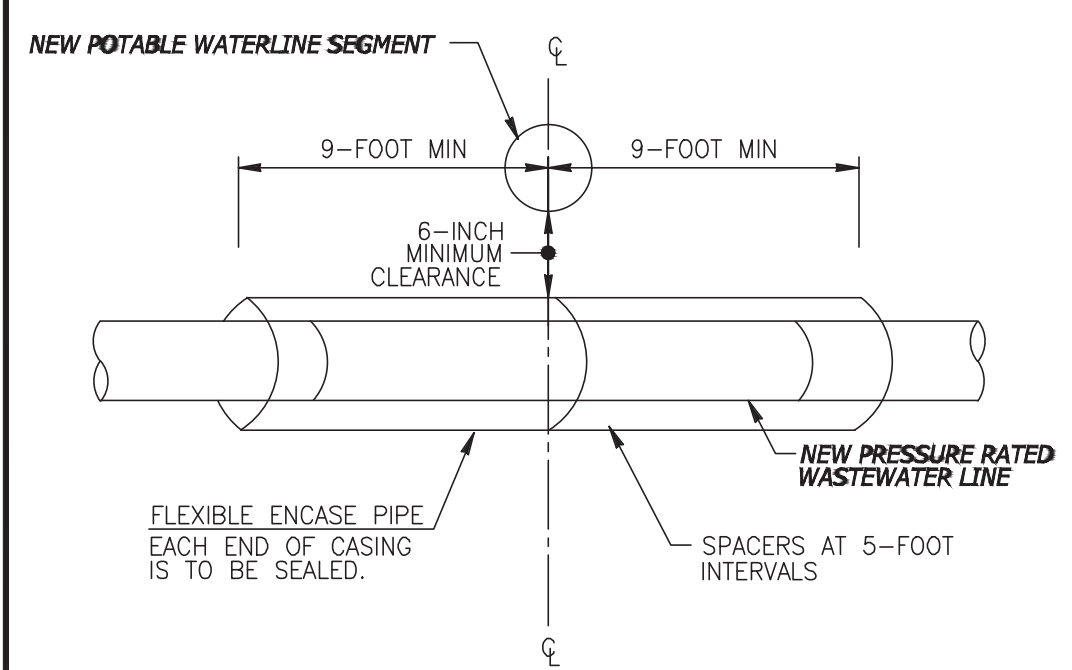
ALTERNATIVE C:
ENCASE NEW POTABLE WATERLINE UNDER A NEW PRESSURE RATED WASTEWATER LINE



SL-WA-16

IV
ENCASED WASTEWATER LINE

NEW POTABLE WATERLINE CROSSING NEW PRESSURE RATED WASTEWATER LINE WITH SEGMENT LENGTHS OF LESS THAN EIGHTEEN (18) FEET



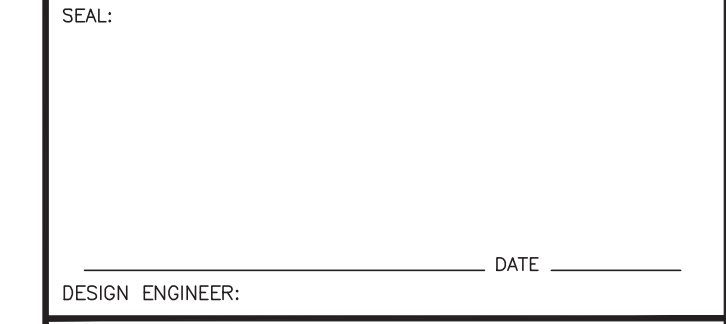
- MINIMUM CASING PIPE STIFFNESS OF 115 PSI AT 5% DEFLECTION.
- MINIMUM CASING PIPE DIAMETER * 2 X WASTEWATER LINE DIAMETER.
- THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE (5) FOOT (OR LESS) INTERVALS WITH SPACERS.
- EACH END CASING IS TO BE SEALED WITH WATER TIGHT NO-SHRINK GROUT OR MANUFACTURED WATER TIGHT SEAL.

SL-WA-17

SL-WA-18

No.	DATE	REVISION

DESIGN ENGINEER: _____ DATE _____



CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:
WATER LINE CROSSING DETAILS

JOB No.: _____
DATE: _____
DESIGNED BY: _____
DRAWN BY: _____
CHECKED BY: _____
SCALE: _____

SL-16

SHEET OF

DESIGNED	MS
DRAWN	BT
CHECKED	
DATE	May 2023

B & L
BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
4005 TECHNOLOGY DRIVE, SUITE 1330
ANGLETON, TEXAS 77515 (979) 849-6681
REG. NO. F-825

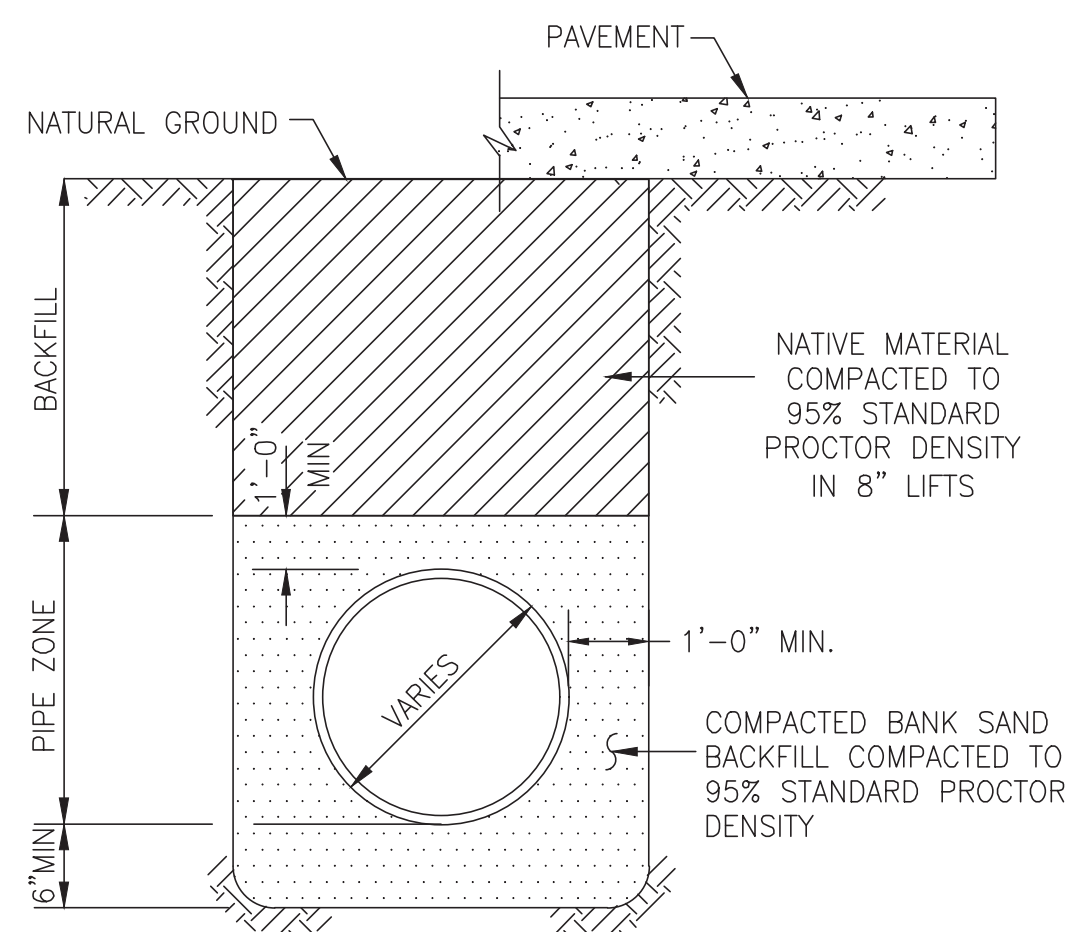
The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992
121992
LICENSED PROFESSIONAL ENGINEER
05-25-2023

OWNER:
Mike Morgan
979-236-5089
dmmorganjr@yahoo.com

PLAN: _____
PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____

ANGLETON PARK PLACE SEC. 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

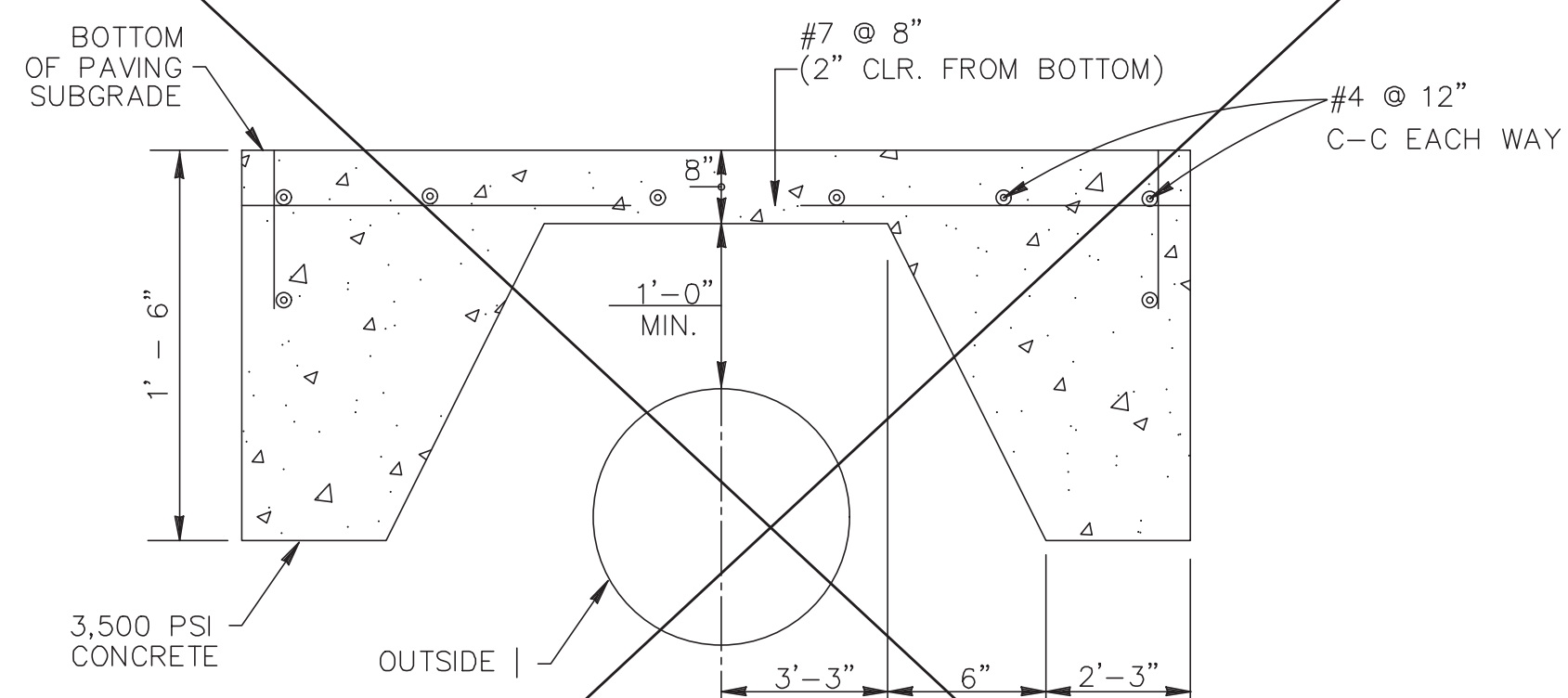
WATER LINE CROSSING DETAILS
SL-16
PROJECT NO. 14320



P.V.C. PIPE BEDDING & BACKFILL
N.T.S.
*SEE CONSTRUCTION NOTES

**SANITARY FORCE MAIN & WATER LINE
BEDDING AND BACKFILL**

SL-BB-01



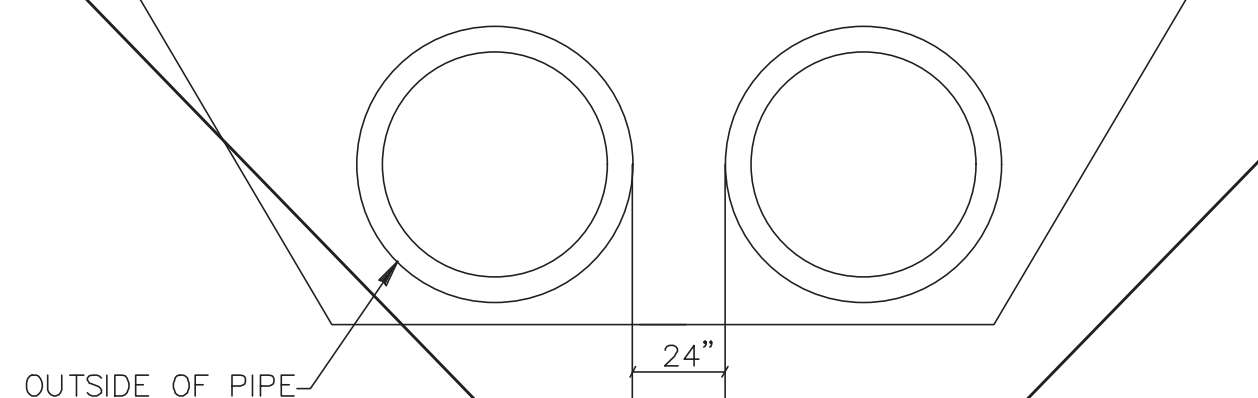
**PROTECTIVE SLAB DETAIL
ZERO LOAD TRANSFER CONCRETE SLAB**

SL-BB-04

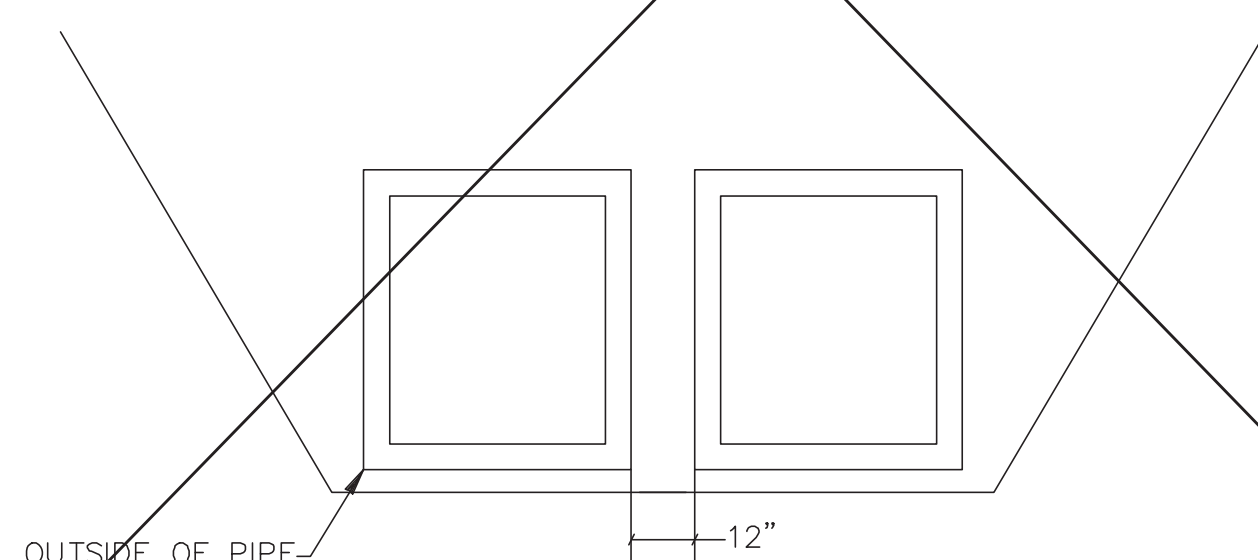
CONSTRUCTION NOTES

1. CONTRACTOR SHALL CONTACT SUGAR LAND ENGINEERING DEPARTMENT IMMEDIATELY IF WET SAND CONDITIONS ARE ENCOUNTERED.
2. LIMESTONE AND RECYCLED CONCRETE DIMENSIONS SHOWN ARE TYPICAL BUT MAY BE VARIED BY ORDER OF CITY ENGINEER.
3. LIMESTONE OR RECYCLED CONCRETE SHALL BE IN ACCORDANCE WITH TXDOT SPECIFICATION No. 248 FLEXIBLE BASE, TYPE A, GRADE 2 AGGREGATE.
4. NO BEDDING SHALL BE INSTALLED IN WET CONDITIONS. WHEN WELL POINTING OR IN WET SAND CONDITIONS, MAINTAIN GROUND WATER 1 (FT) BELOW BOTTOM OF TRENCH FOR A MINIMUM OF 24-HRS AFTER BEDDING AND BACKFILL IS IN PLACE.
5. ALL MATERIALS SHALL BE FROM THE APPROVED PRODUCTS LIST UNLESS SPECIFICALLY APPROVED BY THE CITY ENGINEER.
6. SANITARY SEWER BEDDING FOR WET SAND CONDITIONS SHALL BE AS PER MODIFIED "A".
7. ALL SAND BEDDING FOR WATER LINES SHALL BE CLEAN, MECHANICALLY COMPACTED BANK SAND.
8. REFER TO: MANHOLE DETAILS, SANITARY, C.S.S., GENERAL, WATER CROSSING, WATER DISTRIBUTION DETAILS AND NOTES.
9. ALL BEDDING WILL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
10. A GEOTECHNICAL REPORT MAY BE REQUIRED TO ANALYZE THE BEARING CAPACITY OF EXISTING SOILS AND MAKE A DETERMINATION IF ADDITIONAL BEDDING AND BACKFILL IS APPROPRIATE.

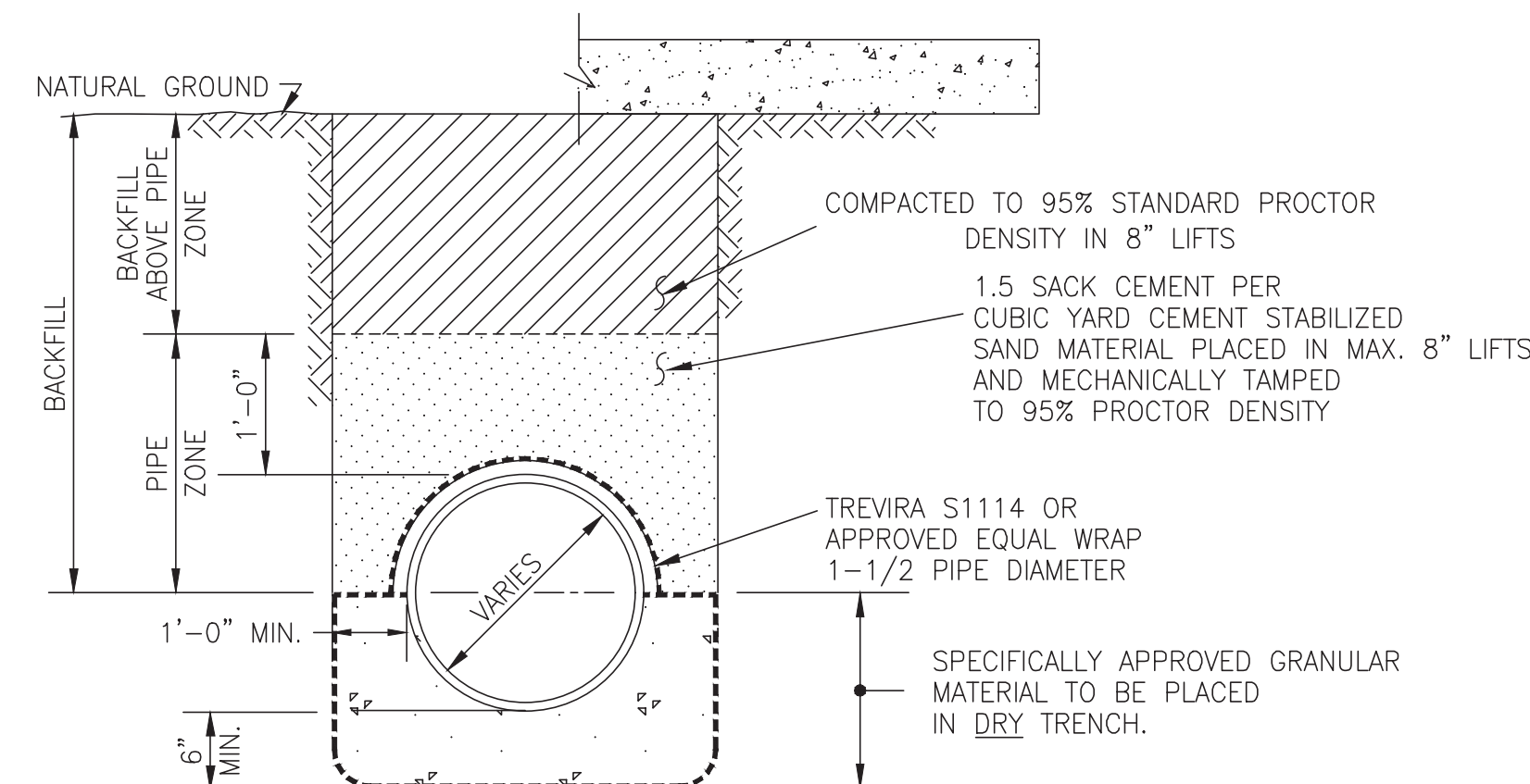
SL-BB-05



PIPE SEPARATION



RCB SEPARATION



MODIFIED "A"
N.T.S.


NOTE: C.S.S. SHALL BE INSTALLED A MIN. 1' ABOVE TOP OF PIPE.

**SANITARY SEWER
BEDDING AND BACKFILL**

SL-BB-03

REFER TO:

1. GENERAL NOTES
2. C.S.S. NOTES

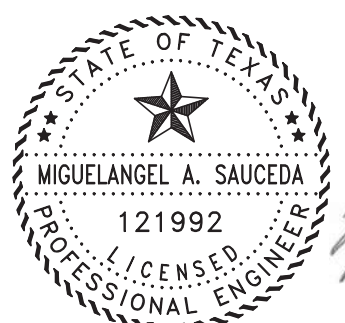
No.	DATE	REVISION
SEAL:		
DESIGN ENGINEER: _____ DATE _____		
 CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT		
CONSTRUCTION PLANS FOR:		
WATER LINE, SANITARY SEWER FORCE MAIN BEDDING DETAILS		
JOB No.:	SL-19	SHEET OF
DATE:		
DESIGNED BY:		
DRAWN BY:		
CHECKED BY:		
SCALE:		

J:\140005\143005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED	MS
DRAWN	BT
CHECKED	
DATE	May 2023

B & L
BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1530
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825

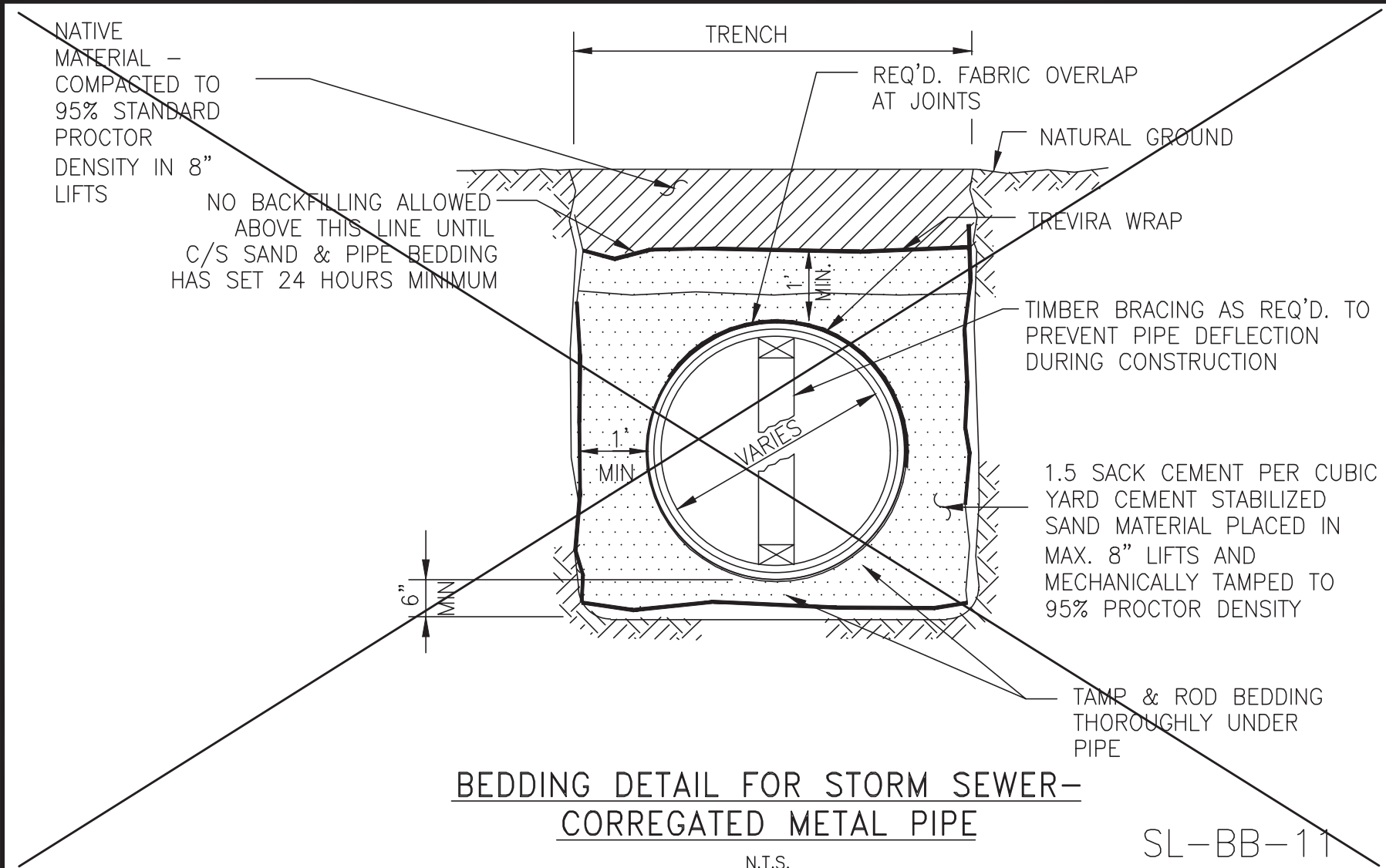
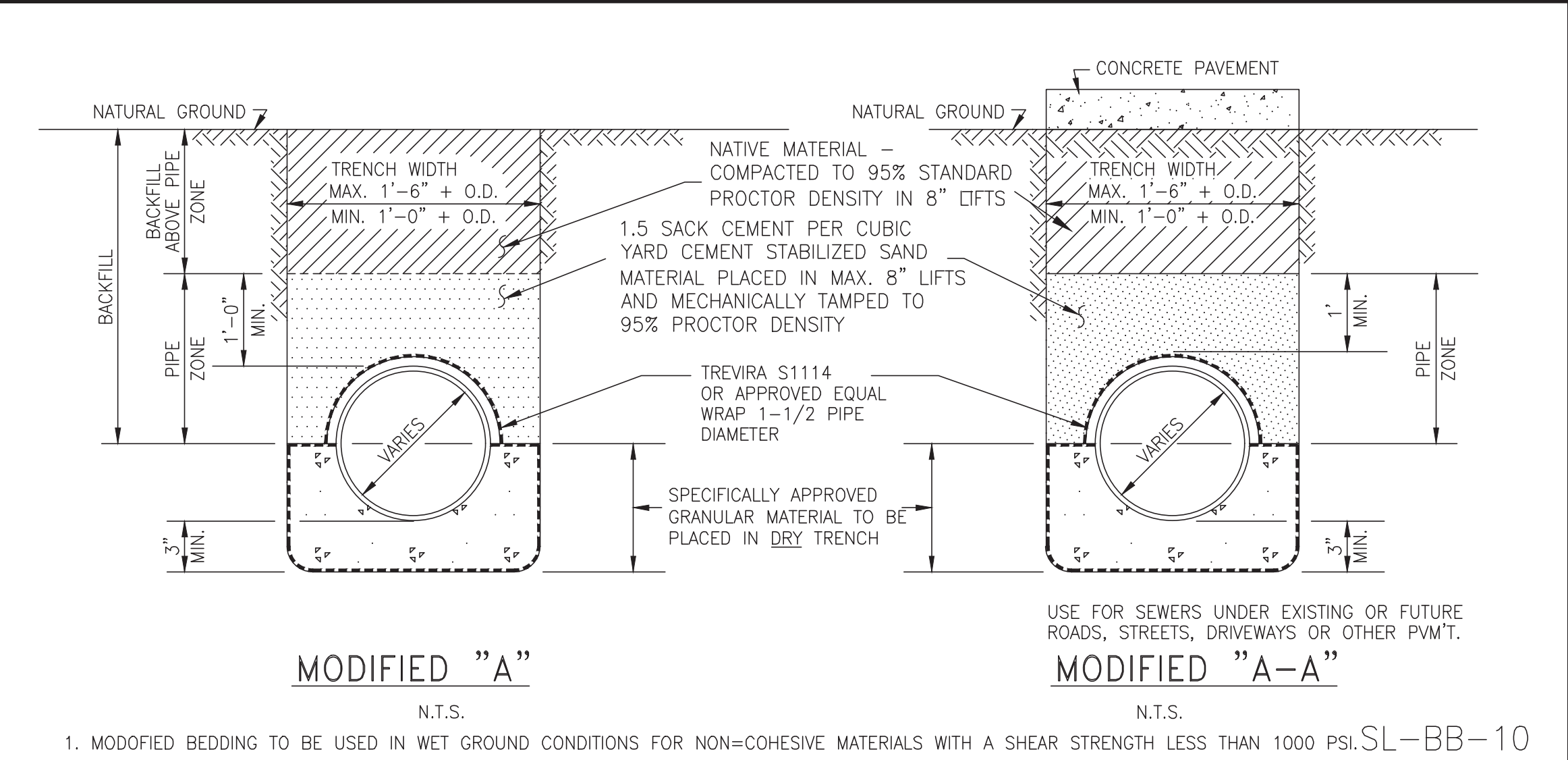
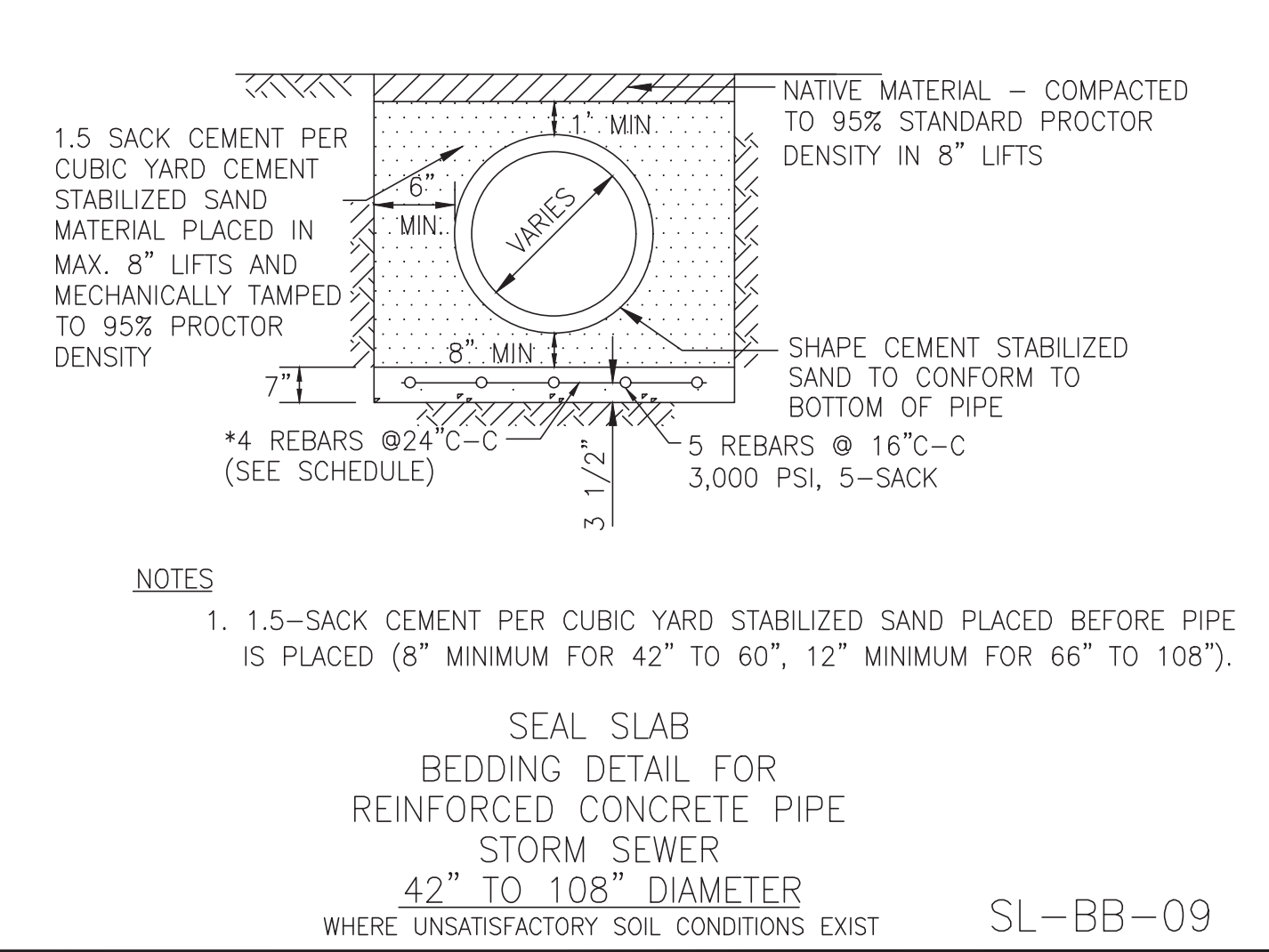
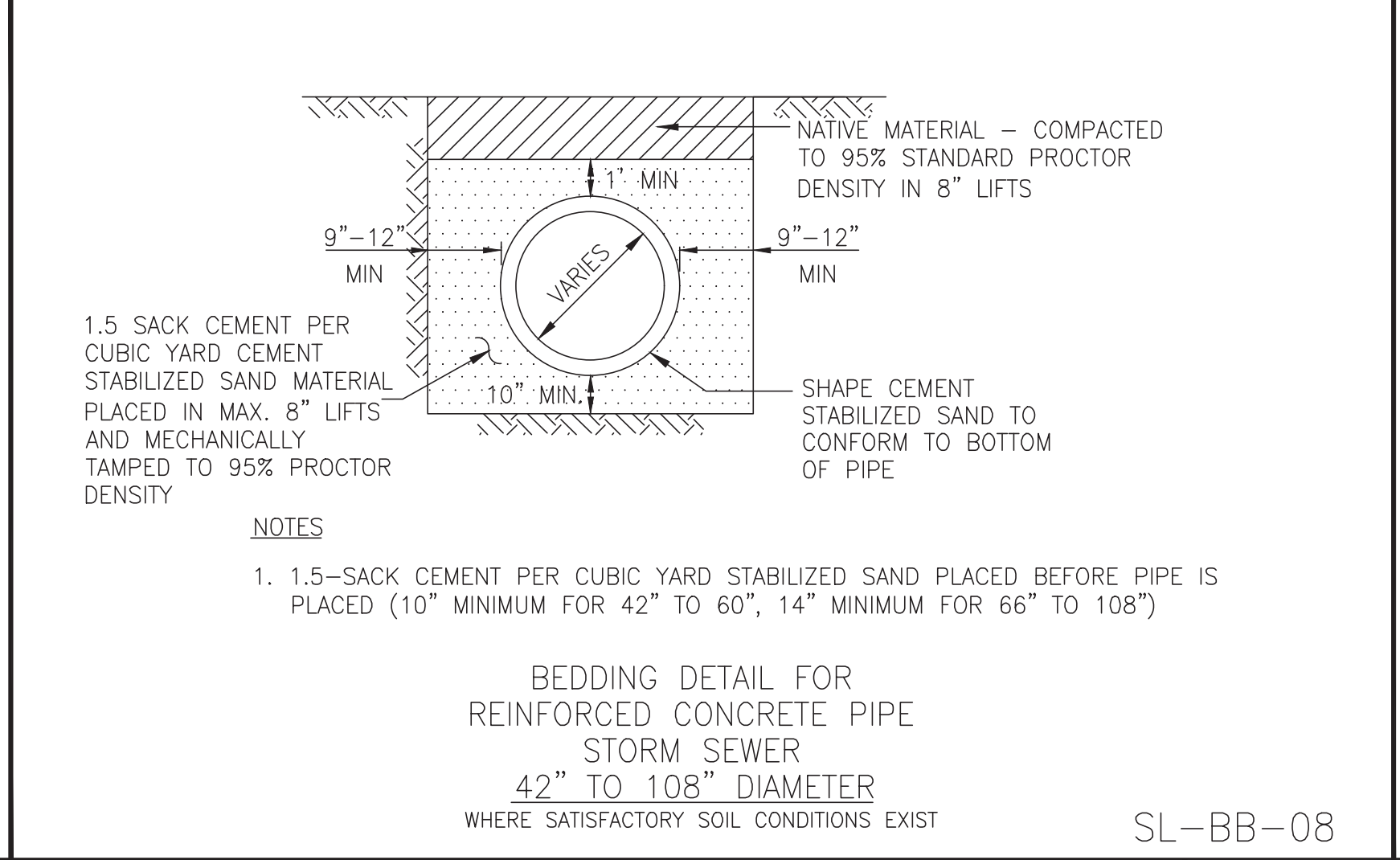
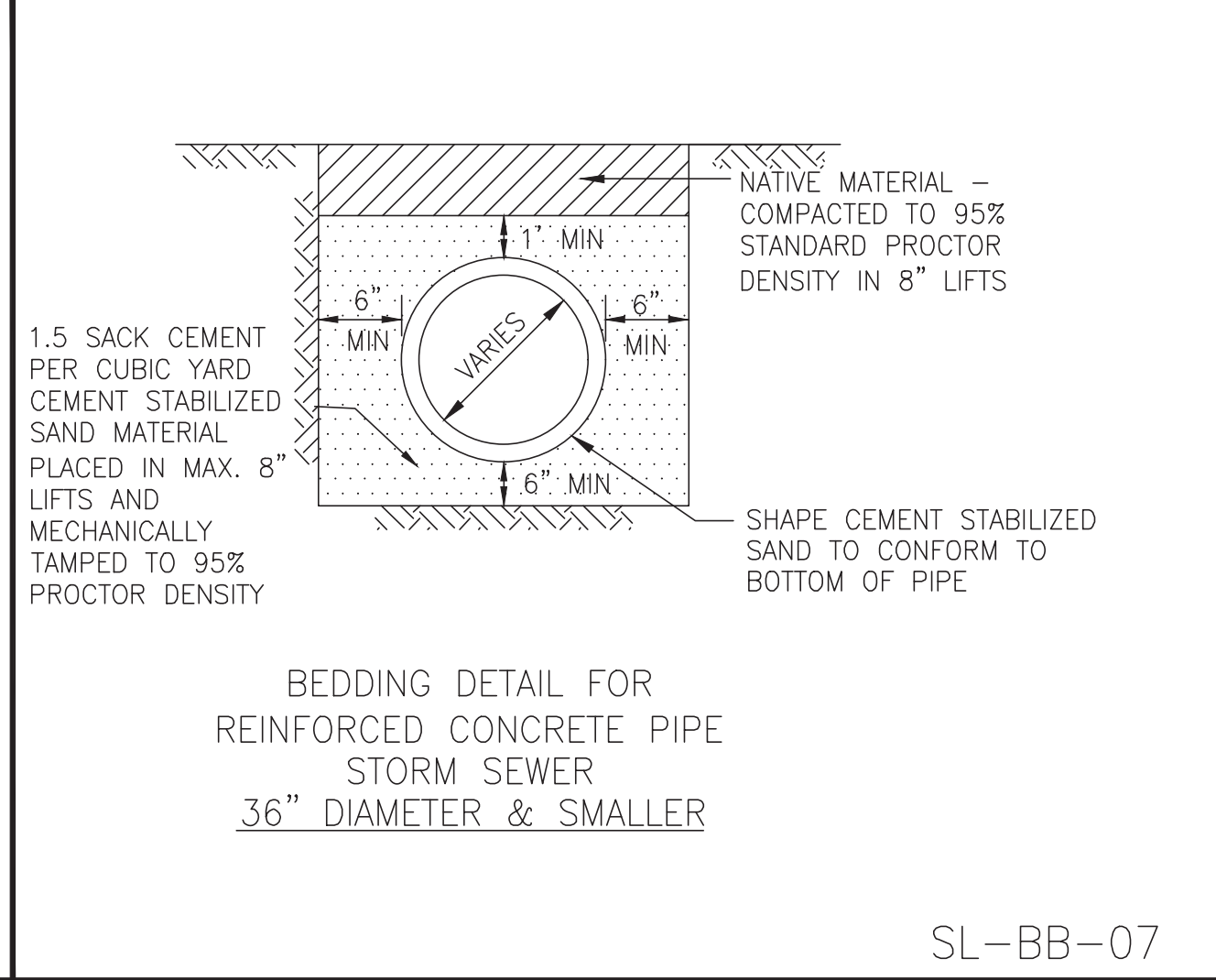
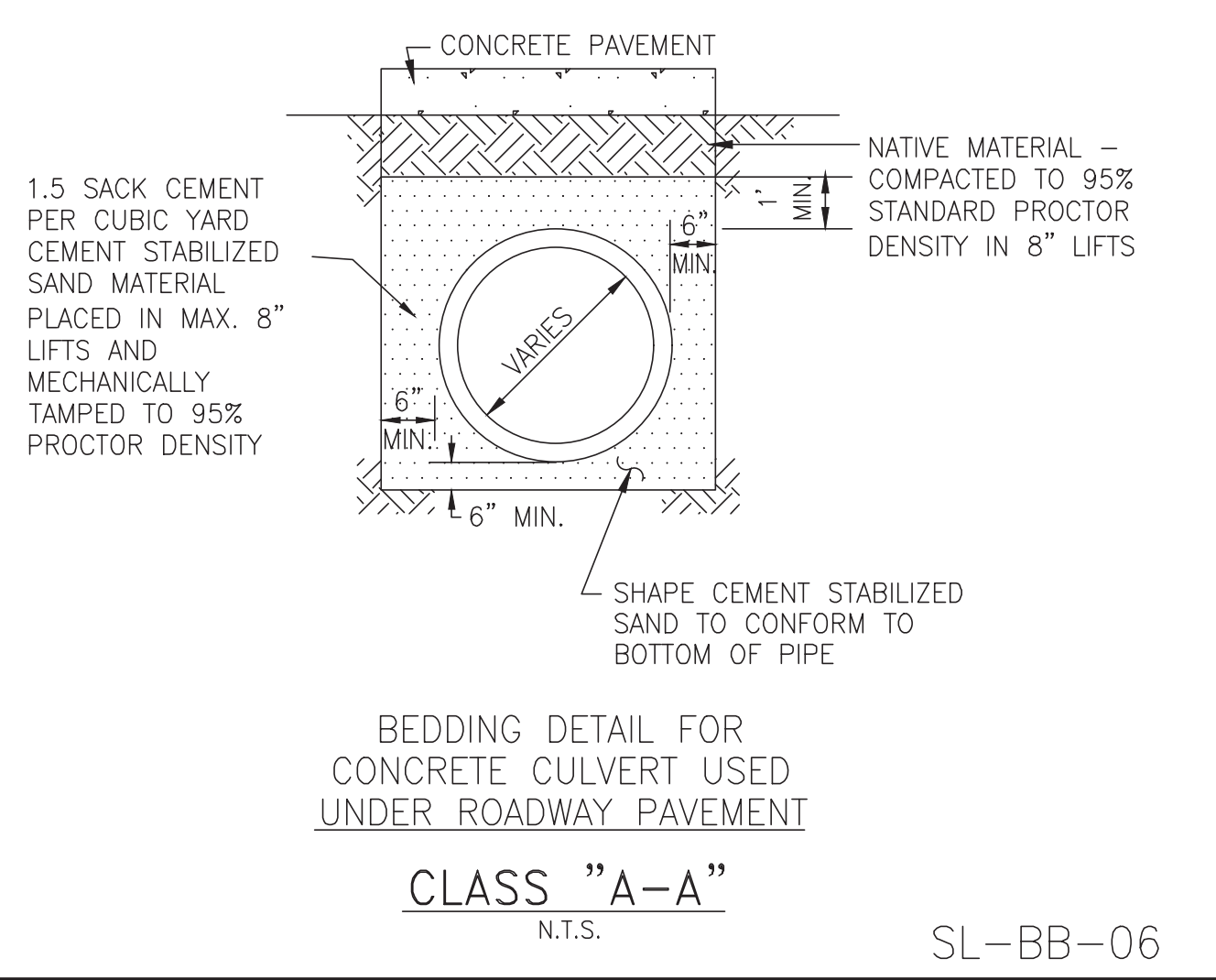
The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992

 05-25-2023

OWNER:
Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

PLAN:	
PROFILE:	
HORIZONTAL:	
VERTICAL:	

**ANGLETON PARK PLACE SEC. 1
 ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION**

WATER LINE, SANITARY
 SEWER FORCE MAIN
 BEDDING DETAILS
 SL-19
 PROJECT NO. 14320



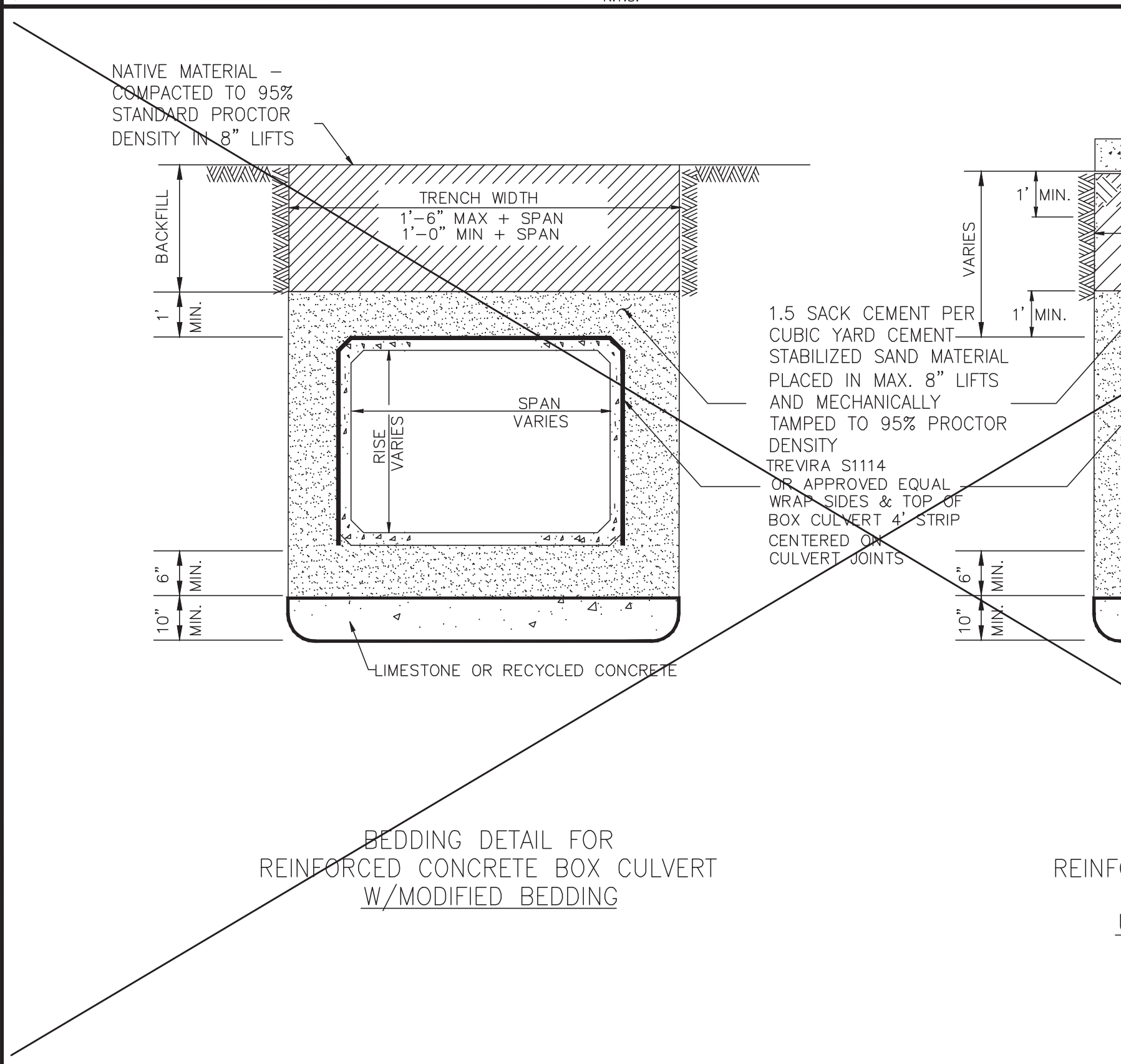
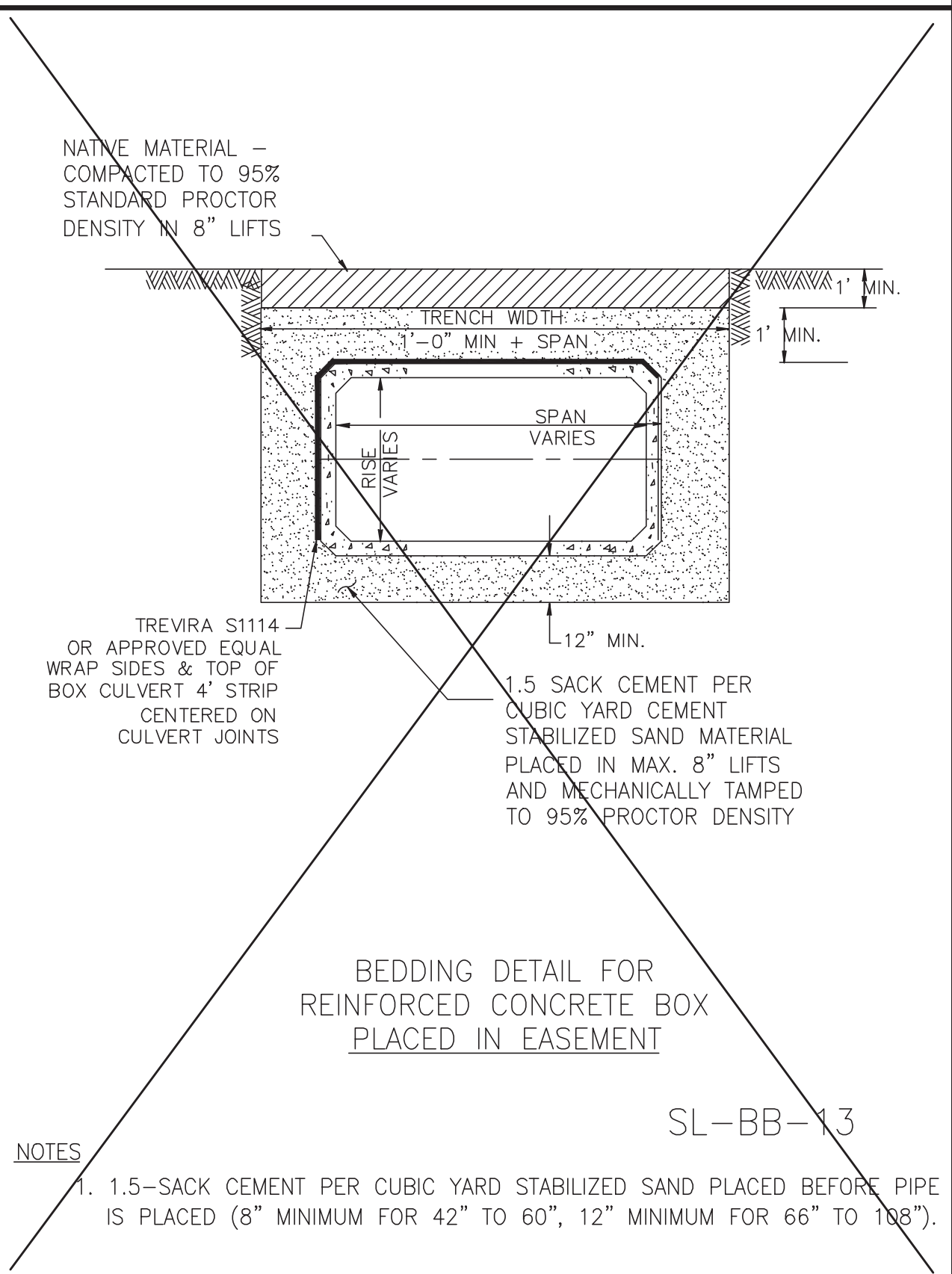
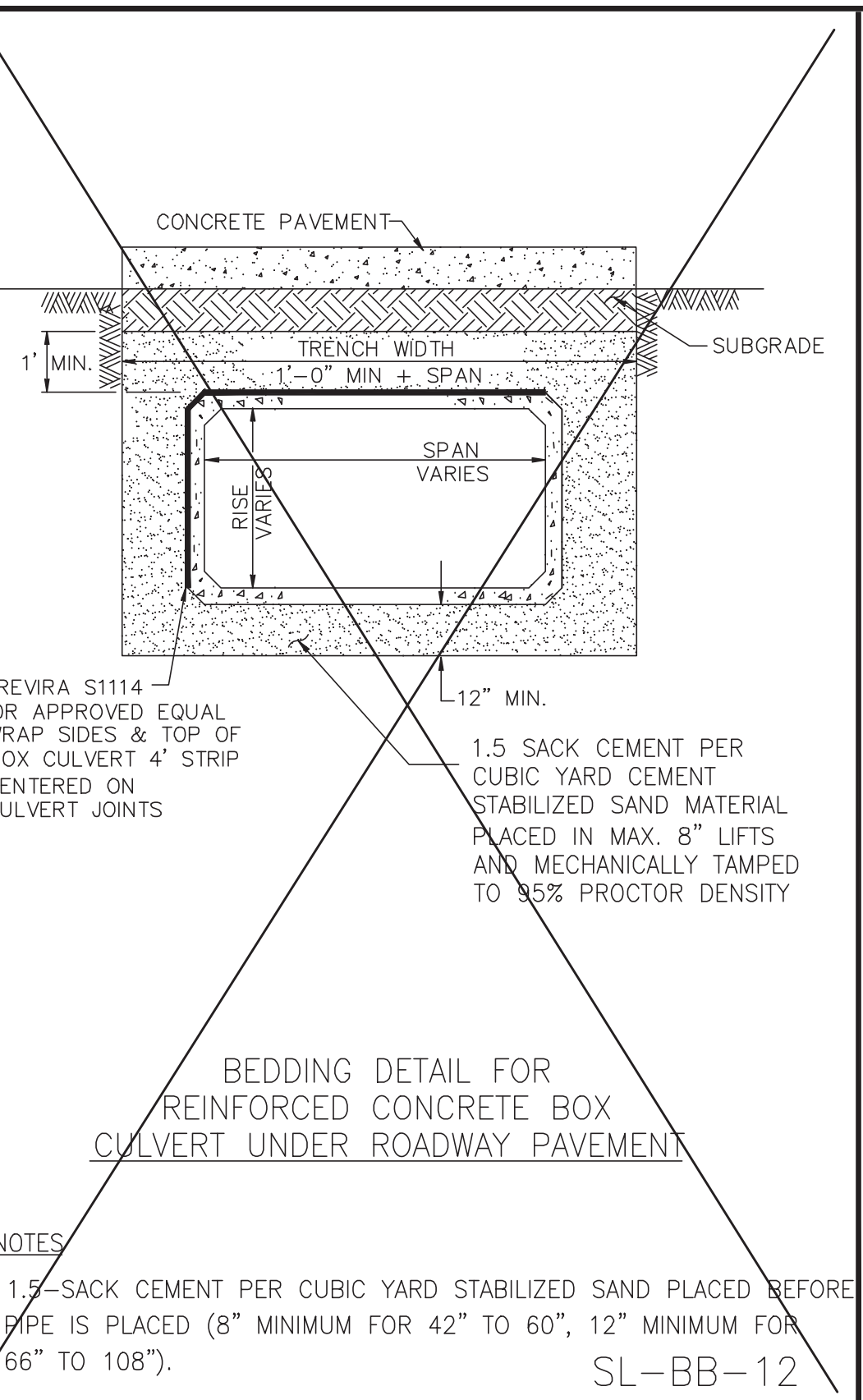
CONSTRUCTION NOTES

- CONTRACTOR SHALL CONTACT SUGAR LAND ENGINEERING DEPARTMENT IMMEDIATELY IF WET SAND CONDITIONS ARE ENCOUNTERED.
- SPECIFICALLY APPROVED GRANULAR MATERIAL DIMENSIONS SHOWN ARE TYPICAL BUT MAY BE VARIED BY ORDER OF CITY ENGINEER.
- SPECIFICALLY APPROVED GRANULAR MATERIAL SHALL BE IN ACCORDANCE WITH TxDOT SPECIFICATION No. 247 FLEXIBLE BASE, TYPE A, GRADE 2 AGGREGATE.
- NO BEDDING SHALL BE INSTALLED IN WET CONDITIONS. WHEN WELL POINTING OR IN WET SAND CONDITIONS, MAINTAIN GROUND WATER 1' (FT.) BELOW BOTTOM OF TRENCH FOR A MINIMUM OF 24-HRS AFTER BEDDING AND BACKFILL IS IN PLACE.
- R.C.P. AND BOX CULVERTS SHALL BE INSTALLED WITH APPROVED GASKETS ONLY.
- MANHOLES SHALL BE PROVIDED WHERE MODIFIED "A" OR MODIFIED "A-A" BEDDING IS USED. STACKS ARE NOT ALLOWED.
- REFER TO: MANHOLE DETAILS, INLETS, OUTFALL AND END TREATMENT DETAILS, C.S.S., GENERAL NOTES, AND STORM NOTES.
- SPECIFIC DESIGNS MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER FOR MANHOLE ACCESS TO BOX CULVERTS AS REQUIRED.
- ALL BACKFILL WITHIN THE R.O.W. SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
- A GEOTECHNICAL REPORT MAY BE REQUIRED TO ANALYZE THE BEARING CAPACITY OF EXISTING SOILS AND MAKE A DETERMINATION IF ADDITIONAL BEDDING AND BACKFILL IS APPROPRIATE.

TYPICAL SEAL SLAB BAR SCHEDULE (OR AS DIRECTED BY ENGINEER)

PIPE SIZE	LGT #4 BARS	NO LONGIT #5 BARS
42"	5'4"	5
48"	6'8"	6
54"	6'8"	6
60"	8'0"	7
66"	8'0"	7
72"	9'4"	8
78"	9'4"	8
84"	9'4"	8
90"	10'8"	9
96"	10'8"	9
102"	12'0"	10
108"	12'0"	10

SL-BB-15



DESIGN ENGINEER: _____ DATE: _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:
STORM SEWER PIPE BEDDING AND BACKFILL DETAILS

JOB No.: _____
DATE: _____
DESIGNED BY: _____
DRAWN BY: _____
CHECKED BY: _____
SCALE: _____

SL-20

SHEET OF _____

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
DRAWN BT
CHECKED _____
DATE May 2023

B & L
BAKER & LAWSON, INC.
ENGINEERS-PLANNERS-SURVEYORS
4005 TECHNOLOGY DRIVE, SUITE 1330
ANGLETON, TEXAS 77515 (979) 849-6681
REG. NO. F-825

The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992

121992
MIGUELANGEL A. SAUCEDO
LICENSED PROFESSIONAL ENGINEER

05-25-2023

OWNER:
Mike Morgan
979-236-5089
dmmorganjr@yahoo.com

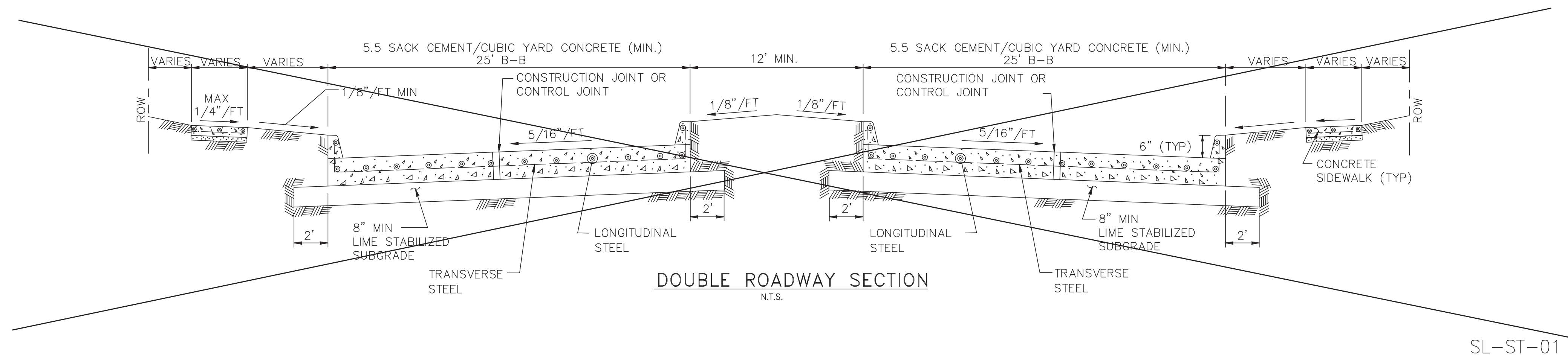
PLAN: _____
PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____

ANGLETON PARK PLACE SEC. 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

STORM SEWER PIPE BEDDING AND BACKFILL DETAILS
SL-20

PROJECT NO. 14320

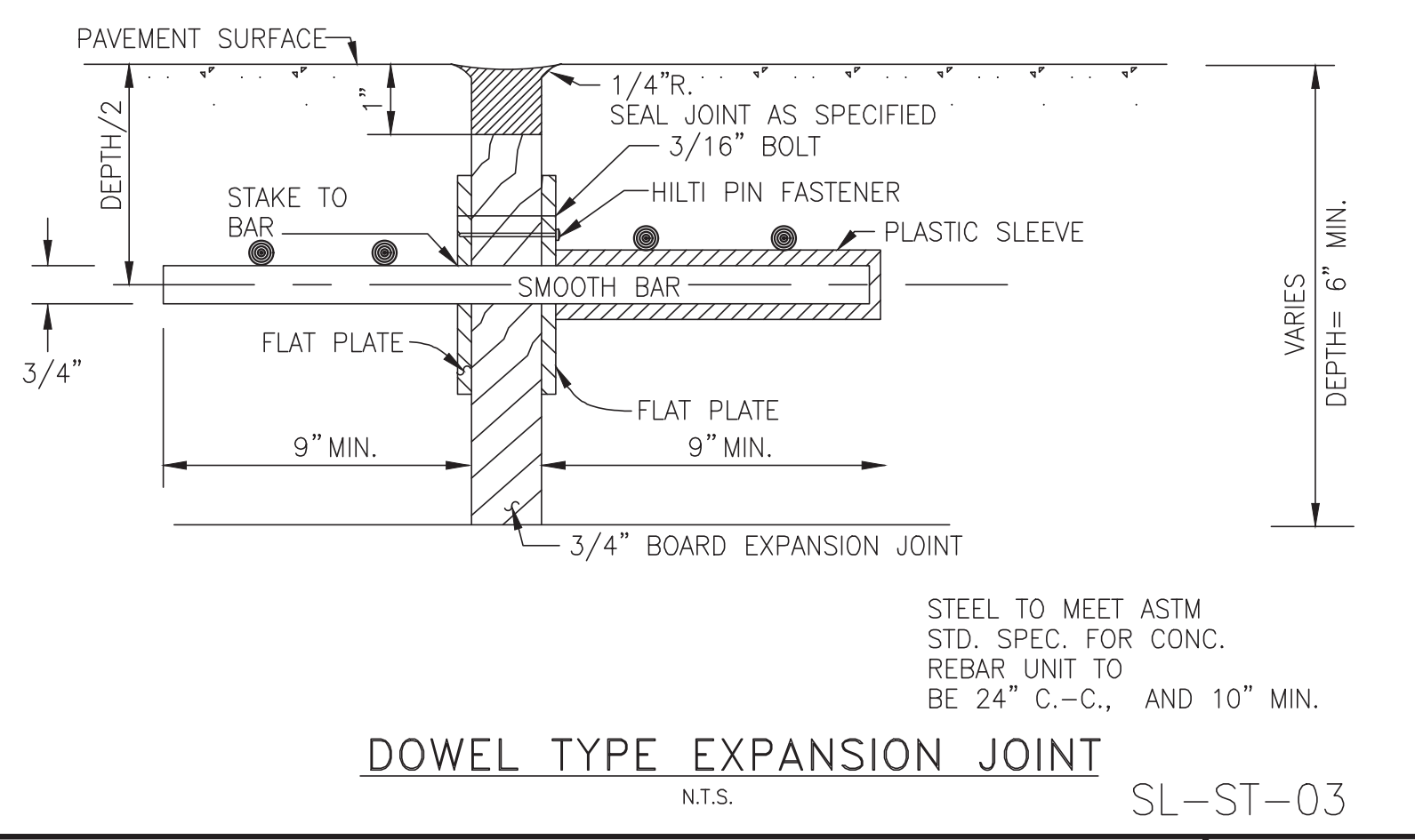
36



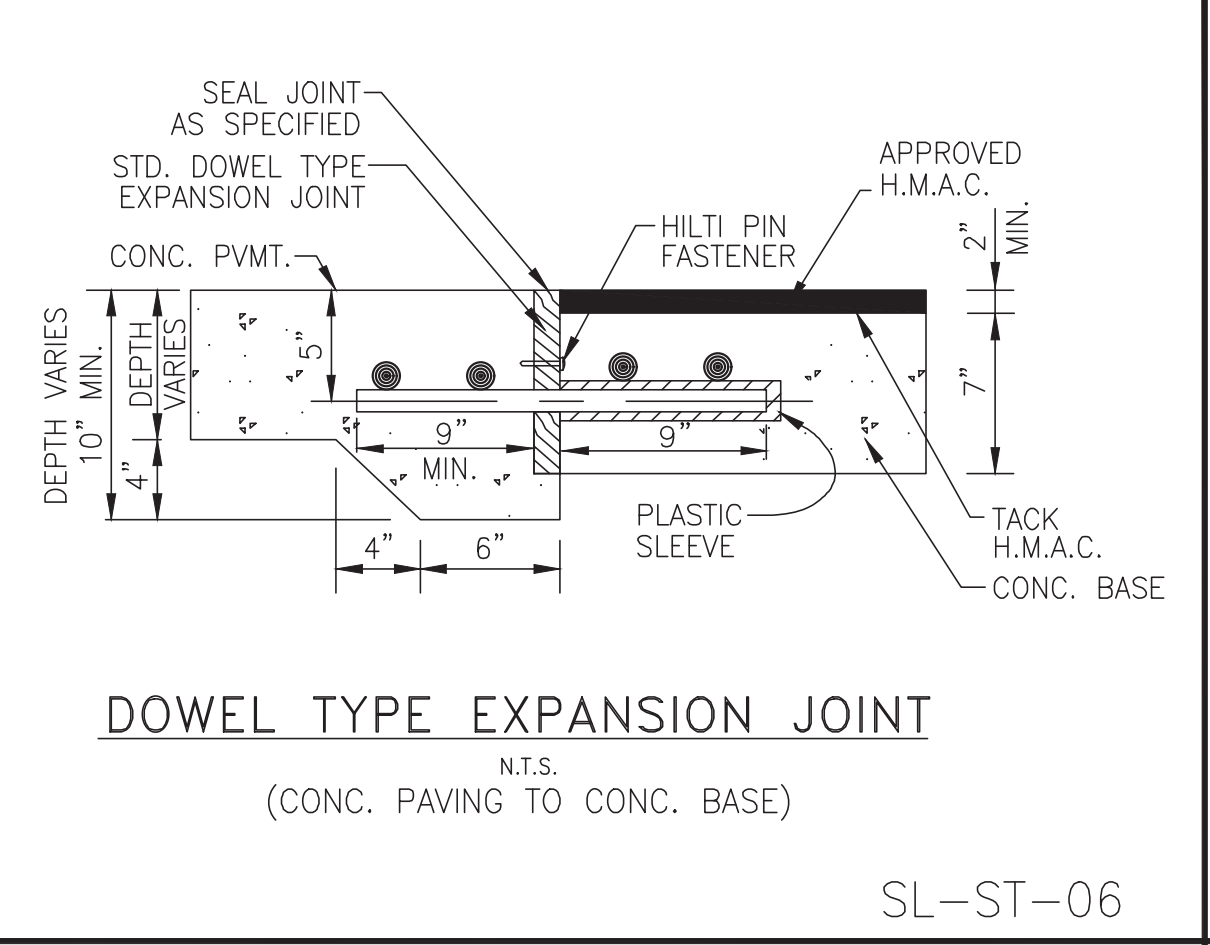
SL-ST-01

- CONSTRUCTION NOTES:**
- 6 INCH, 5.5 SACK CEMENT PER CUBIC YARD CONCRETE, 3500 PSI REINFORCED CONCRETE WITH #4 BARS 24 INCHES C-C, E.W. IS THE MINIMUM ACCEPTABLE PAVEMENT CONSTRUCTION FOR LOCAL STREETS
 - 7 INCH, 5.5 SACK CEMENT PER CUBIC YARD CONCRETE, 3500 PSI REINFORCED CONCRETE WITH #4 BARS 18 INCHES C-C, IS THE MINIMUM ACCEPTABLE PAVEMENT CONSTRUCTION FOR COLLECTOR STREETS
 - EIGHT (8) INCH, 5.5 SK, 3500 PSI @ 28 DAYS, REINFORCED WITH #4 18" C.C. EACH WAY IS THE MINIMUM ACCEPTABLE FOR ARTERIAL STREETS.
 - HARD AGGREGATE IS NOT ALLOWED IN STREET PAVEMENT MIX. ADMIXTURES REQUIRE CITY OF SUGAR LAND PUBLIC WORKS DEPARTMENT APPROVAL.
 - TRANSVERSE EXPANSION JOINTS SHALL BE PLACED AT ALL POINTS OF CURVATURE, POINTS OF TANGENCY AND ALL INTERSECTION CURB RETURN POINTS. MAXIMUM SPACING SHALL BE 200'-0" C-C, AND VERTICAL CURB JOINTS TO BE SEALED WITH SPECIAL JOINT SEALANT ASTM-D-1190-74 OR AASHTO-M173-60 FOR PAVEMENT 8" THICK AND GREATER. (ELASTOMERIC TYPE HOT Poured)
 - PAVEMENT FINISH SHALL BE BAKER BROOM FINISH. CURING COMPOUND REQUIRED ON ALL CONCRETE.
 - STORM WATER POLLUTION PROTECTION SHALL BE DESIGNED, CONSTRUCTED, MAINTAINED AND SHALL BE IN TOTAL COMPLIANCE WITH THE STORM QUALITY MANUAL OF THE CITY OF SUGAR LAND. CITY ENGINEER'S APPROVAL.
 - REFER TO GENERAL, C.S.S., AND PAVEMENT NOTES.

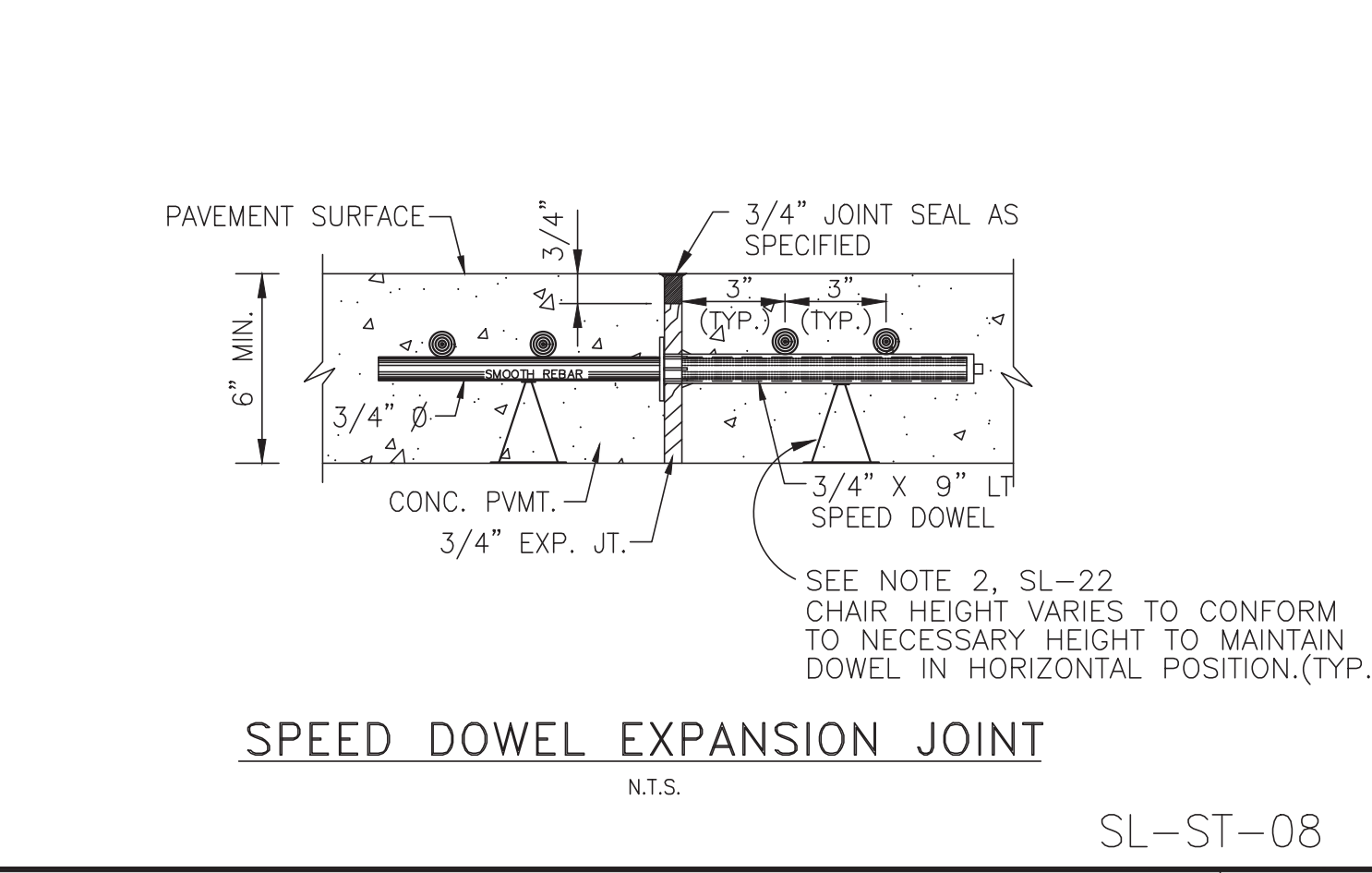
SL-ST-12



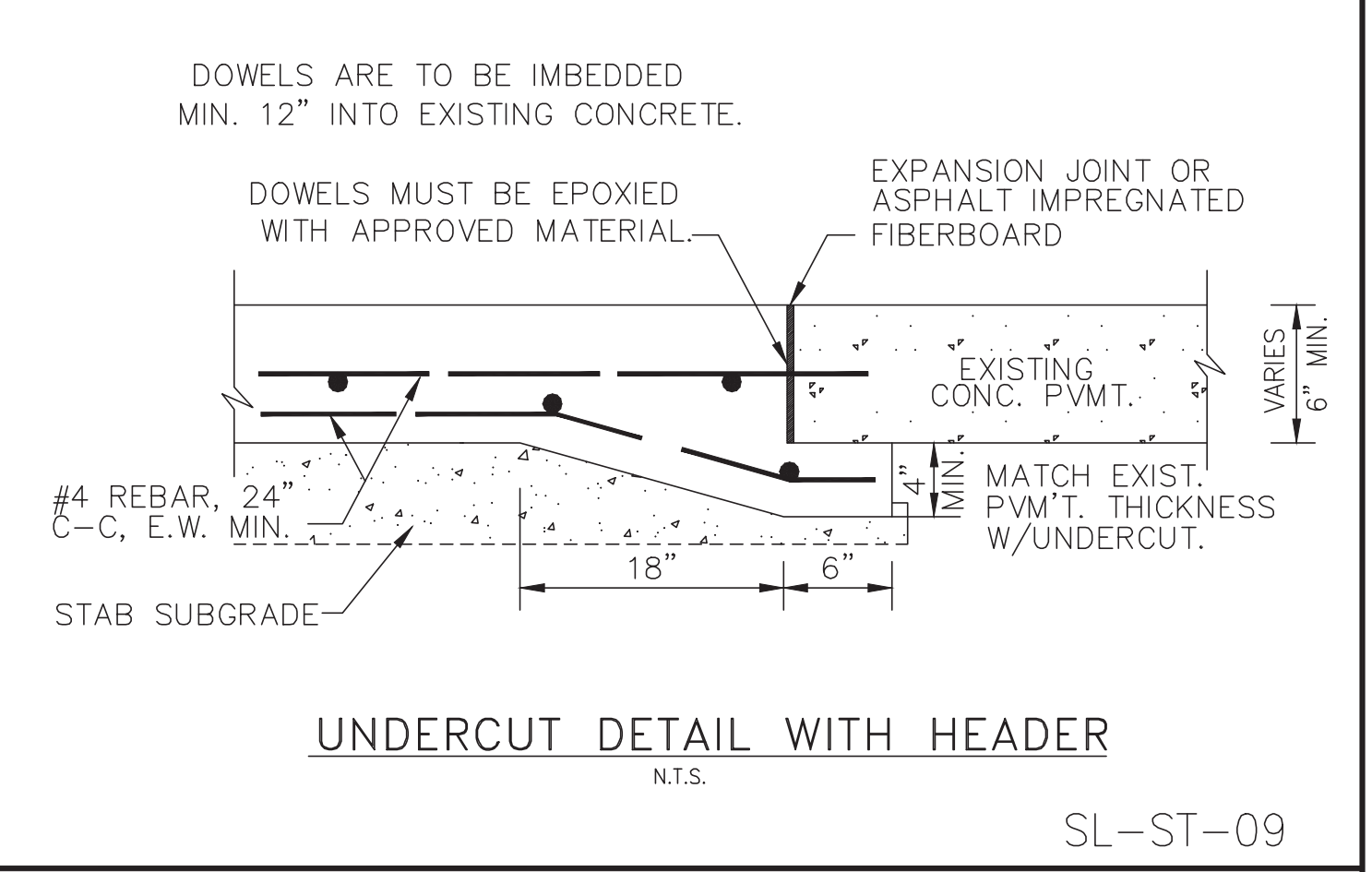
DOWEL TYPE EXPANSION JOINT
N.T.S. SL-ST-03



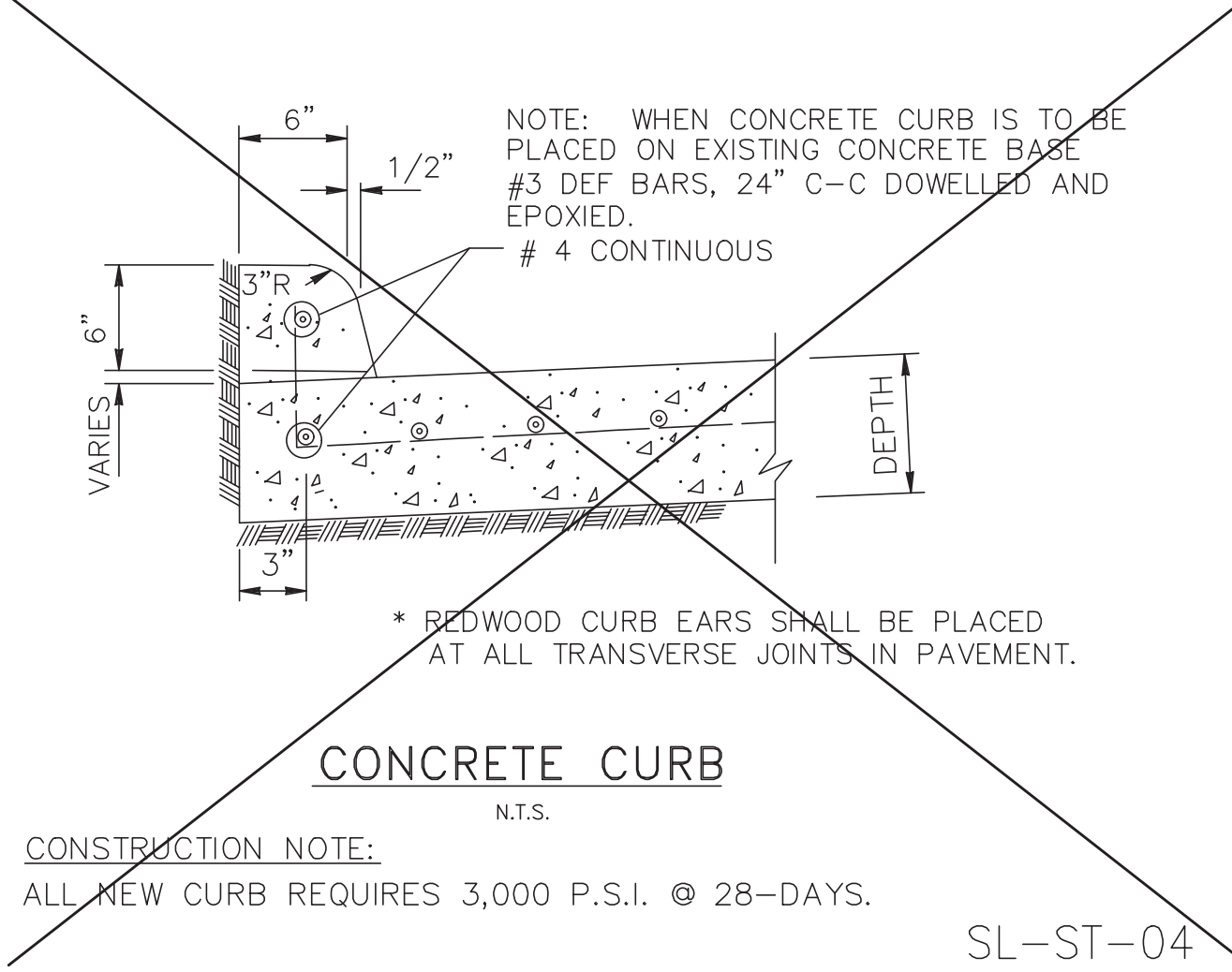
DOWEL TYPE EXPANSION JOINT
(CONC. PAVING TO CONC. BASE)
N.T.S. SL-ST-06



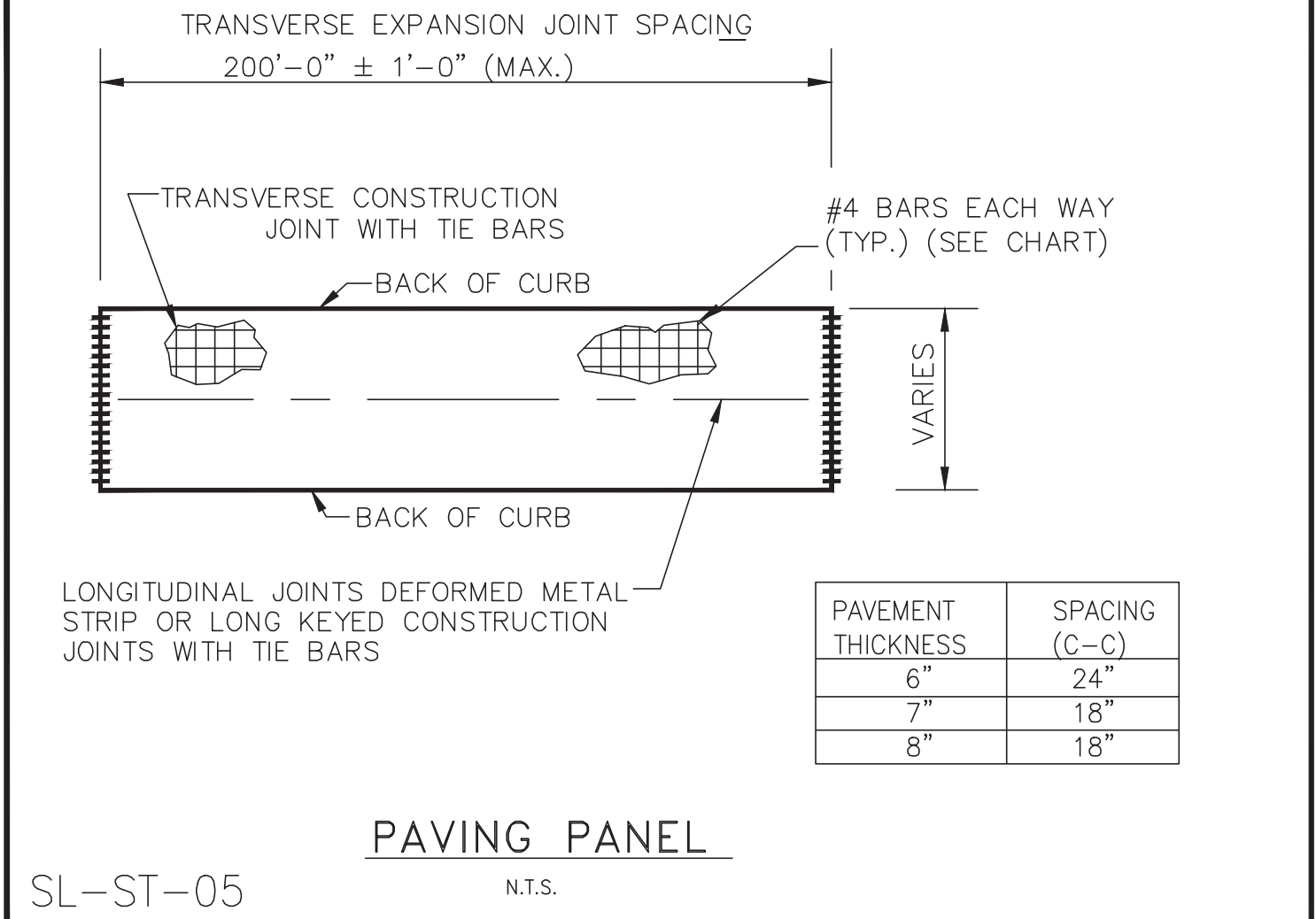
SPEED DOWEL EXPANSION JOINT
N.T.S. SL-ST-08



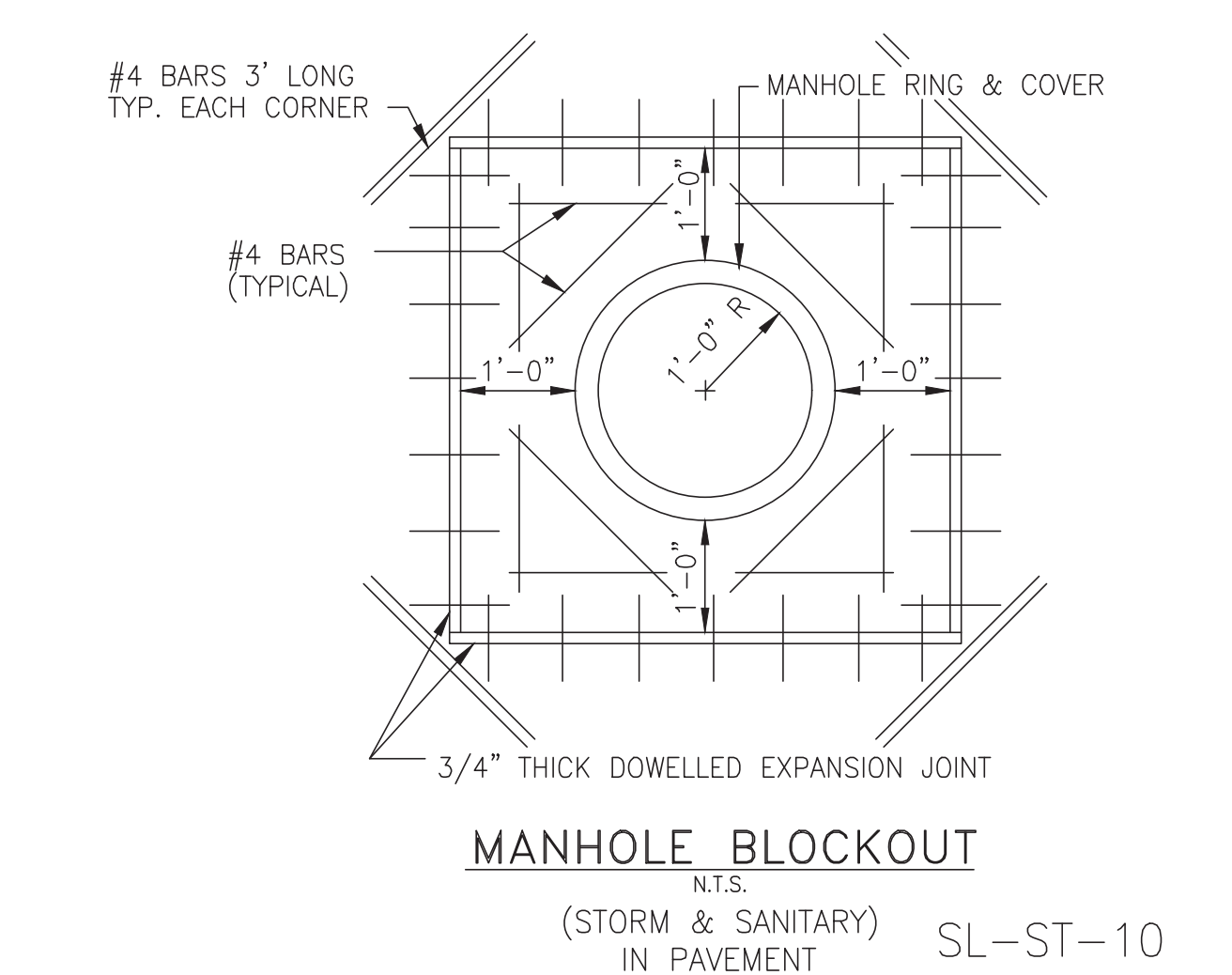
UNDERCUT DETAIL WITH HEADER
N.T.S. SL-ST-09



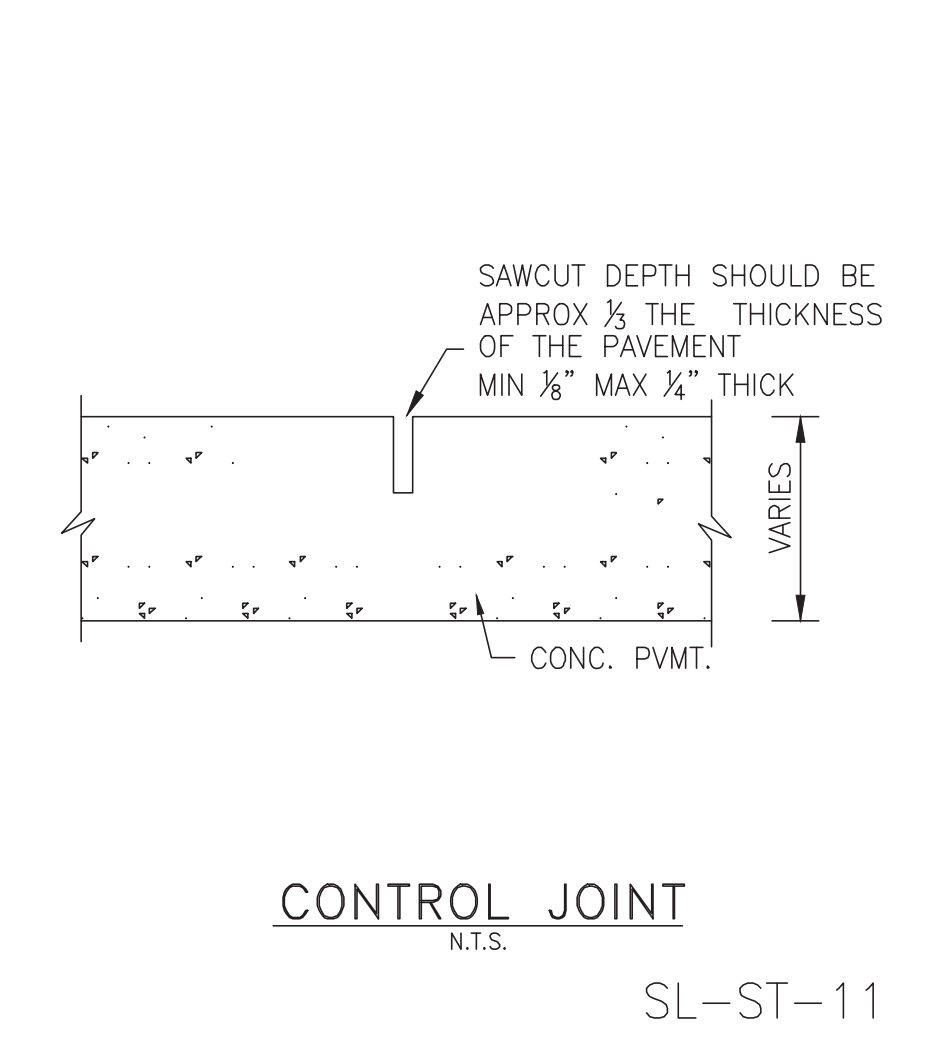
CONCRETE CURB
N.T.S. SL-ST-04



PAVING PANEL
N.T.S. SL-ST-05



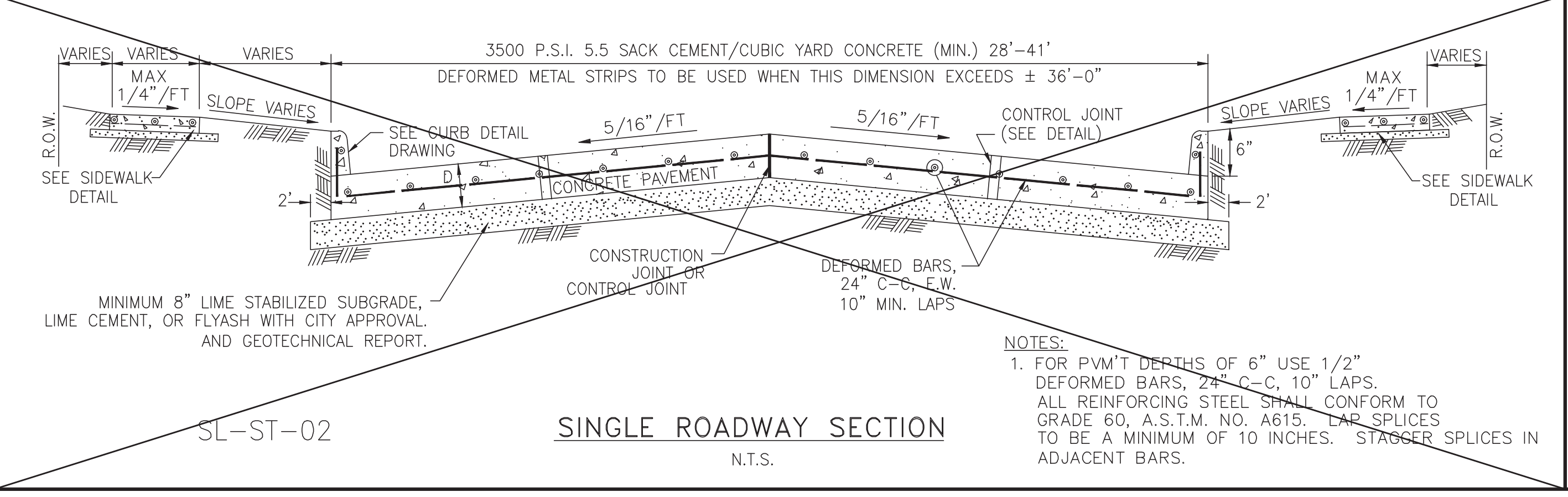
MANHOLE BLOCKOUT
(STORM & SANITARY) IN PAVEMENT
N.T.S. SL-ST-10



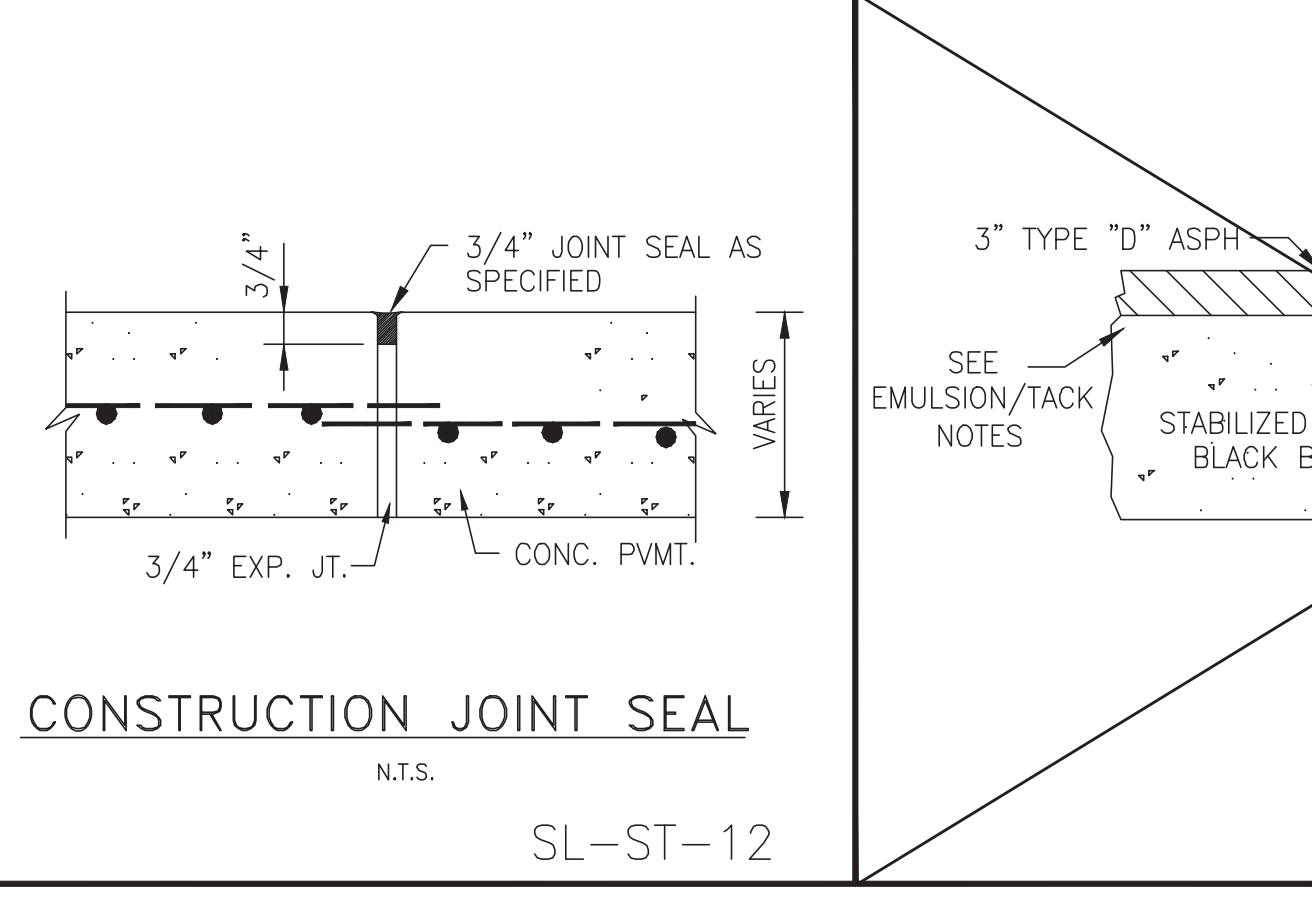
CONTROL JOINT
N.T.S. SL-ST-11

No.	DATE	REVISION

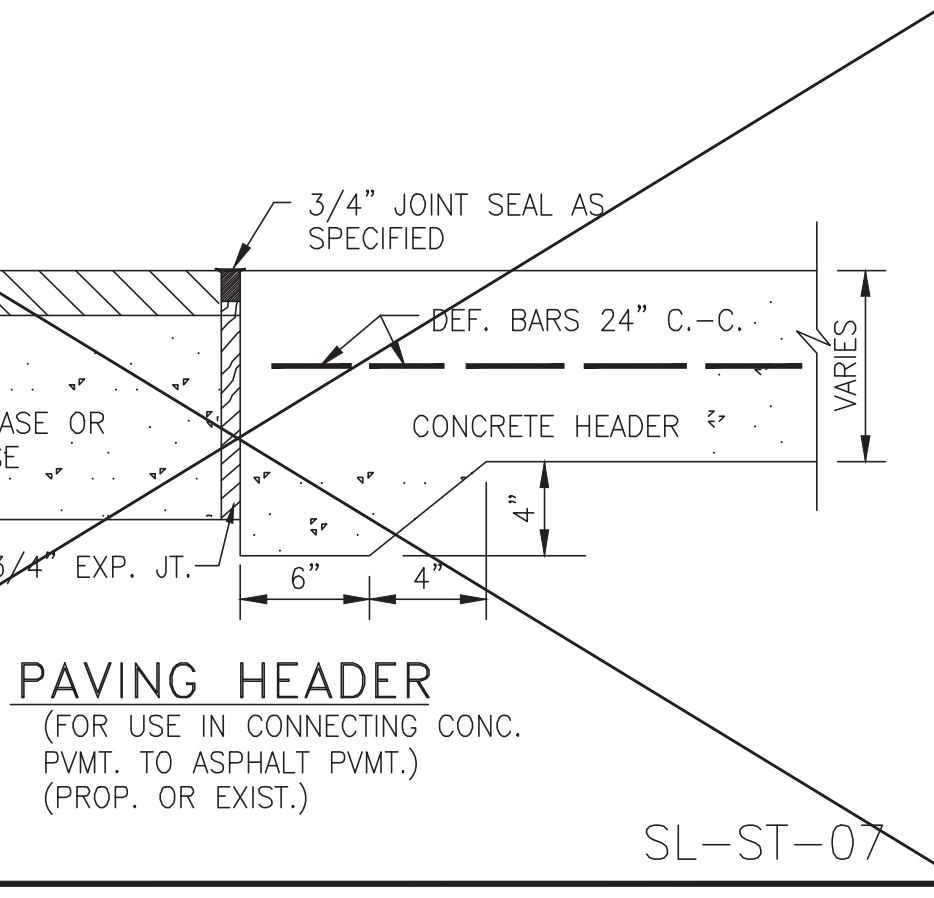
DESIGN ENGINEER: _____ DATE: _____




SINGLE ROADWAY SECTION
N.T.S. SL-ST-02



CONSTRUCTION JOINT SEAL
N.T.S. SL-ST-12



PAVING HEADER
(FOR USE IN CONNECTING CONC. P.V.M.T. TO ASPHALT P.V.M.T.) (PROP. OR EXIST.)
N.T.S. SL-ST-07

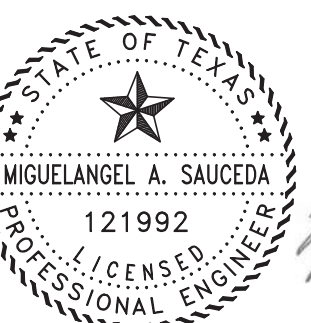

 CITY OF SUGAR LAND, TEXAS
 ENGINEERING DEPARTMENT
 CONSTRUCTION PLANS FOR:
CONCRETE PAVEMENT CONSTRUCTION DETAILS
 JOB No.: _____
 DATE: _____
 DESIGNED BY: _____
 DRAWN BY: _____
 CHECKED BY: _____
 SCALE: _____
SL-21
 SHEET OF

3:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED MS
 DRAWN BT
 CHECKED _____
 DATE May 2023


BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1330
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825

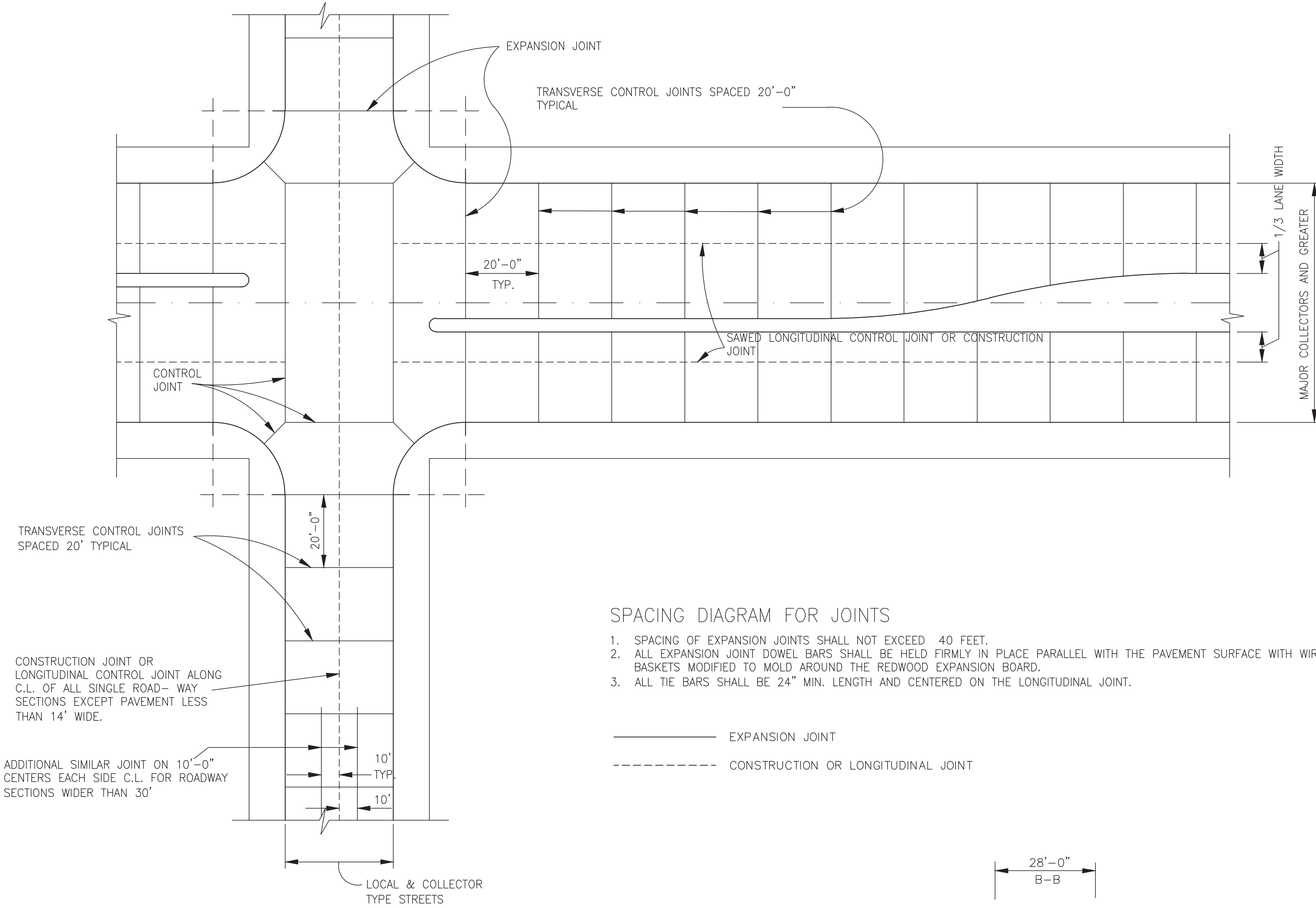

 The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992
 05-25-2023

OWNER:
Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

PLAN: _____
 PROFILE: _____
 HORIZONTAL: _____
 VERTICAL: _____

ANGLETON PARK PLACE SEC. 1
ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

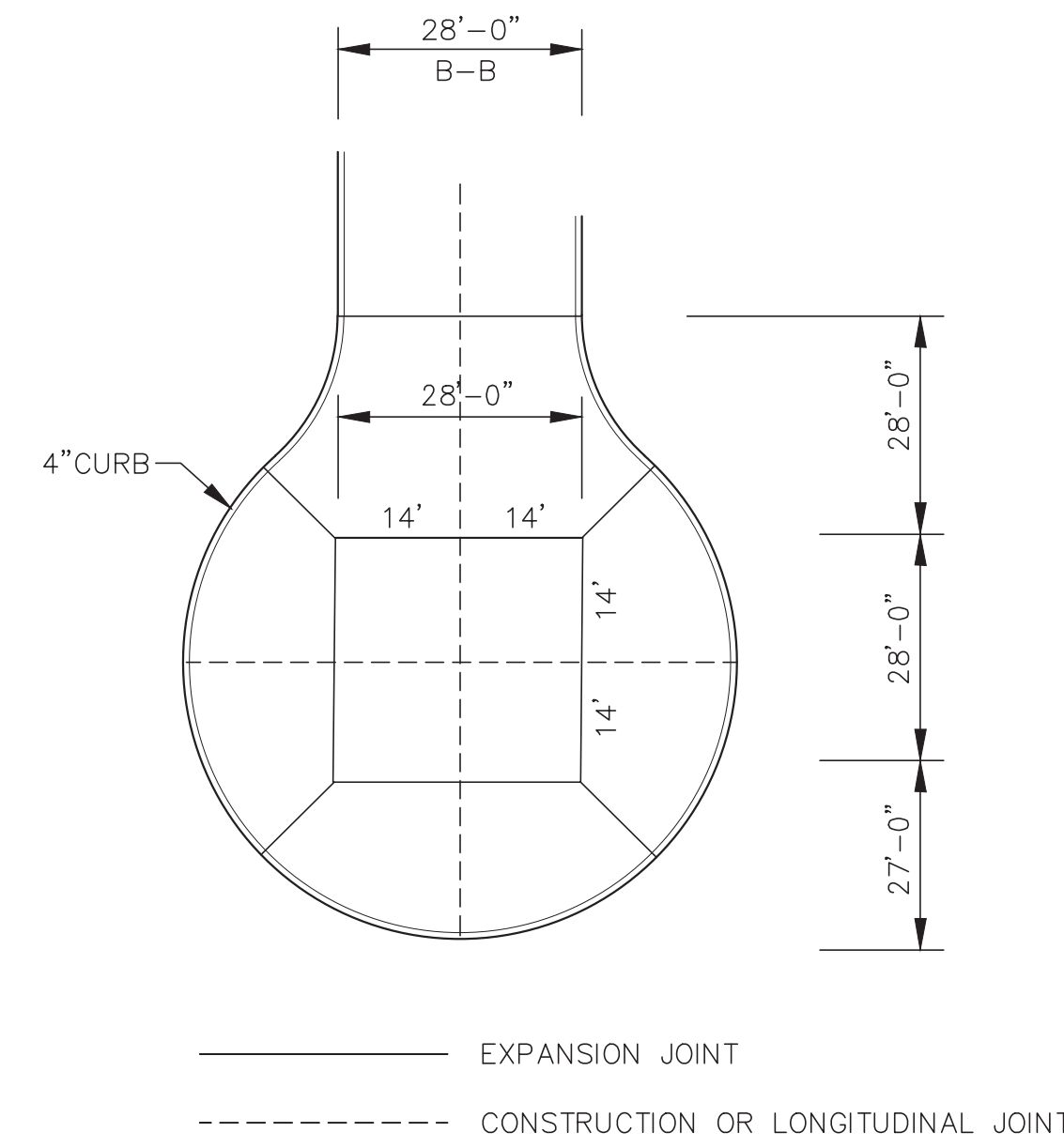
CONCRETE PAVEMENT CONSTRUCTION DETAILS
SL-21
 PROJECT NO. 14320 37




SPACING DIAGRAM FOR JOINTS

1. SPACING OF EXPANSION JOINTS SHALL NOT EXCEED 40 FEET.
2. ALL EXPANSION JOINT DOWEL BARS SHALL BE HELD FIRMLY IN PLACE PARALLEL WITH THE PAVEMENT SURFACE WITH WIRE BASKETS MODIFIED TO MOLD AROUND THE REDWOOD EXPANSION BOARD.
3. ALL TIE BARS SHALL BE 24" MIN. LENGTH AND CENTERED ON THE LONGITUDINAL JOINT.

————— EXPANSION JOINT
 - - - - - CONSTRUCTION OR LONGITUDINAL JOINT



TYPICAL JOINT LAYOUT FOR CUL-DE-SAC

No.	DATE	REVISION
SEAL:		
DESIGN ENGINEER: _____ DATE _____		
 CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT		
CONSTRUCTION PLANS FOR:		
CONCRETE PAVEMENT CONSTRUCTION DETAILS		
JOB No.:	DATE:	SL-22
DESIGNED BY:	DRAWN BY:	SHEET OF
CHECKED BY:	SCALE:	

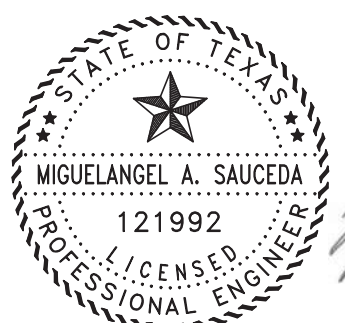
J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
 DRAWN BT
 CHECKED _____
 DATE May 2023

B & L
BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1530
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825

The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992 05-25-2023

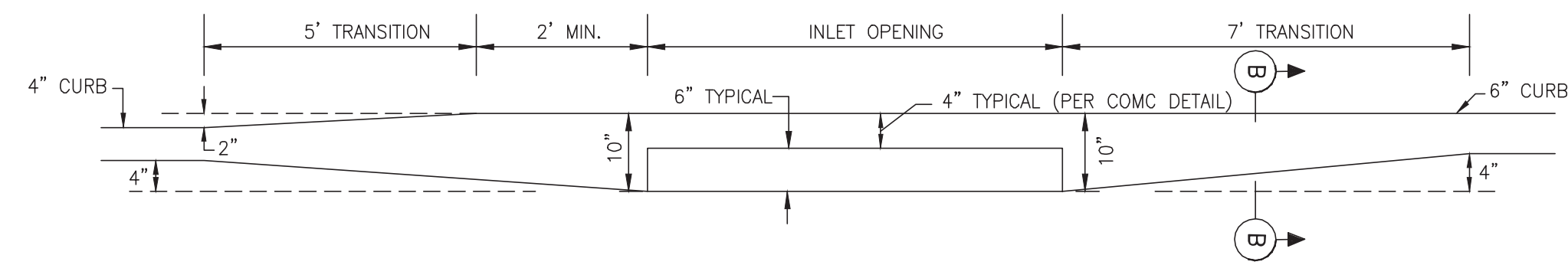


OWNER:
Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

PLAN: _____
 PROFILE: _____
 HORIZONTAL: _____
 VERTICAL: _____

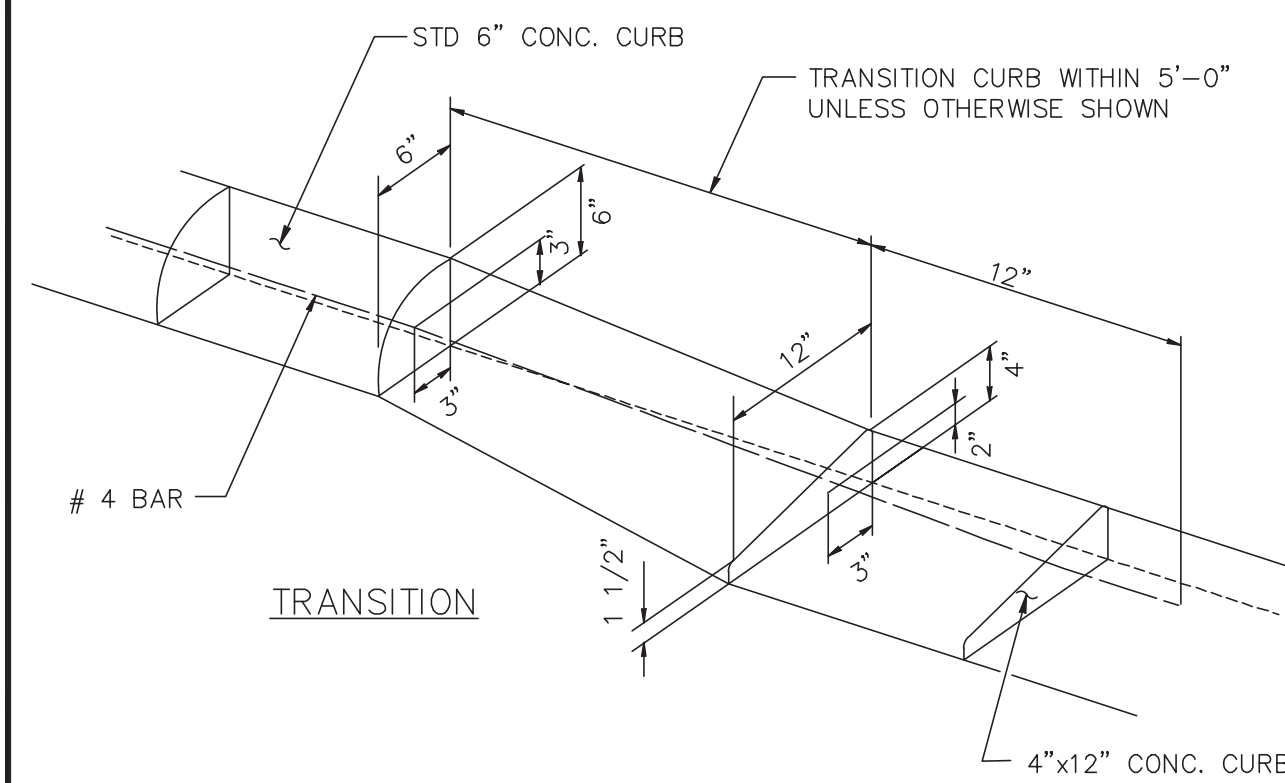
ANGLETON PARK PLACE SEC. 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

CONCRETE PAVEMENT
 CONSTRUCTION DETAILS
 SL-22
 PROJECT NO. 14320



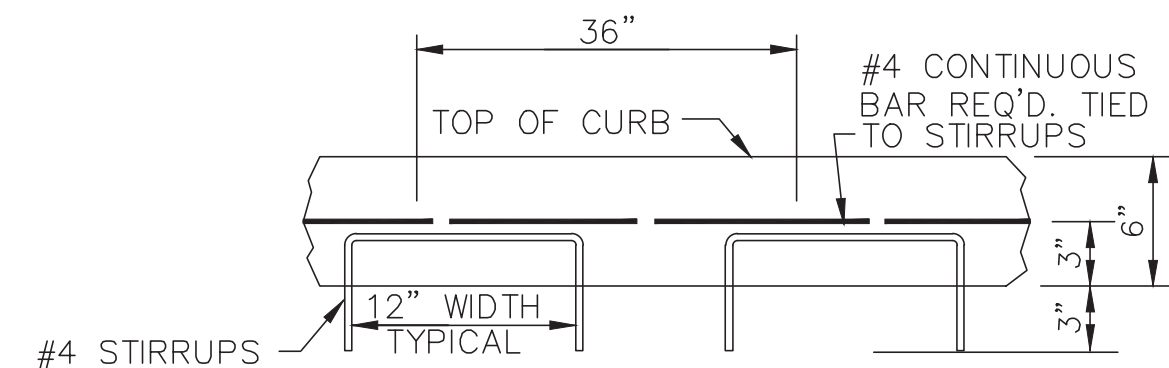
TYPICAL CURB TRANSITION FOR INLET INSTALLATION

SL-ST-13



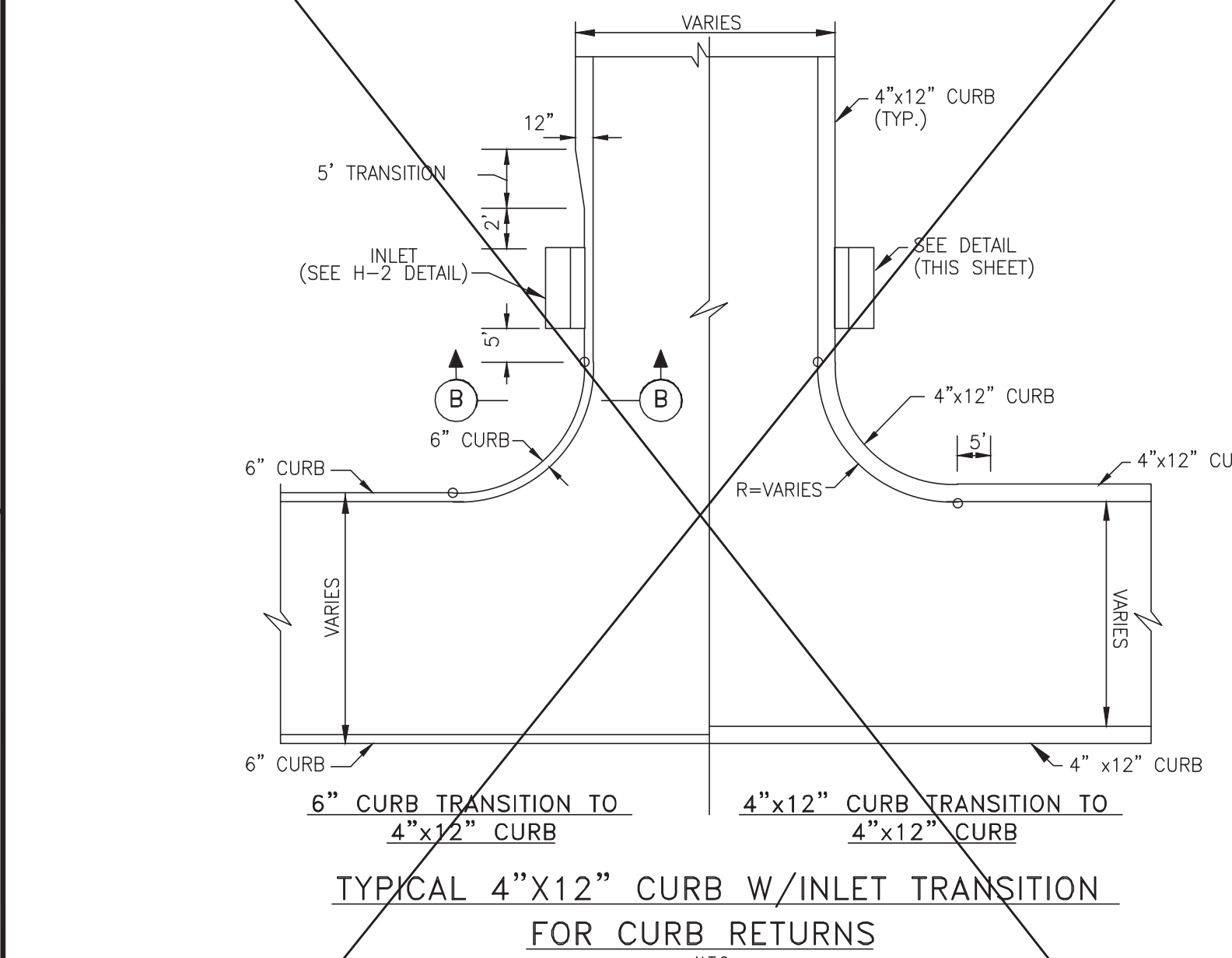
TYPICAL CURB TRANSITION

SL-ST-15



TYPICAL CONCRETE CURB REINFORCING

SL-ST-16

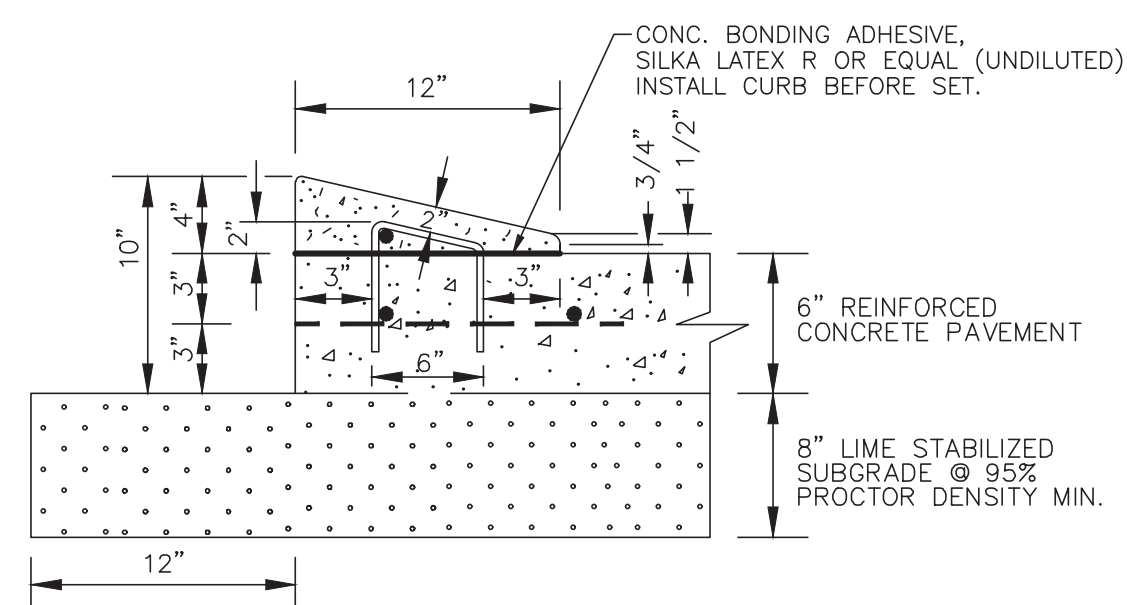


SL-ST-14

CONSTRUCTION NOTES:

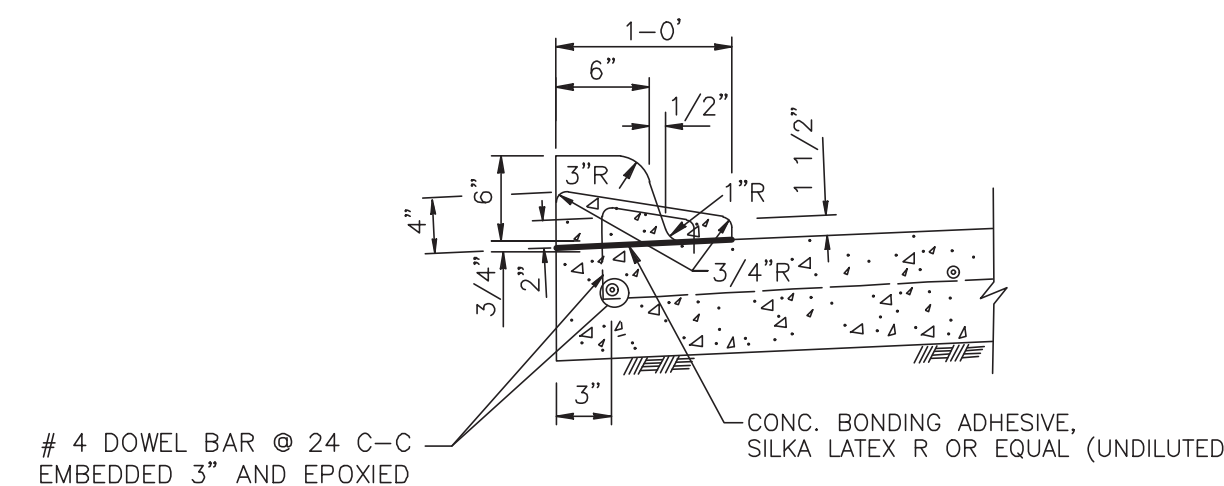
- 6 INCH, 5.5 SACK CEMENT PER CUBIC YARD CONCRETE, 3500 PSI REINFORCED CONCRETE WITH #4 BARS 24 INCHES C-C, E.W. IS THE MINIMUM ACCEPTABLE PAVEMENT CONSTRUCTION FOR RESIDENTIAL STREETS.
- 7 INCH, 5.5 SACK CEMENT PER CUBIC YARD CONCRETE, 3500 PSI REINFORCED CONCRETE WITH #4 BARS 24 INCHES C-C, IS THE MINIMUM ACCEPTABLE PAVEMENT CONSTRUCTION FOR COLLECTOR STREETS.
- EIGHT (8) INCH, 5.5 SK, 3500 PSI @ 28 DAYS, REINFORCED WITH #4 18\"/>

SL-ST-20



4\"/>

SL-ST-17



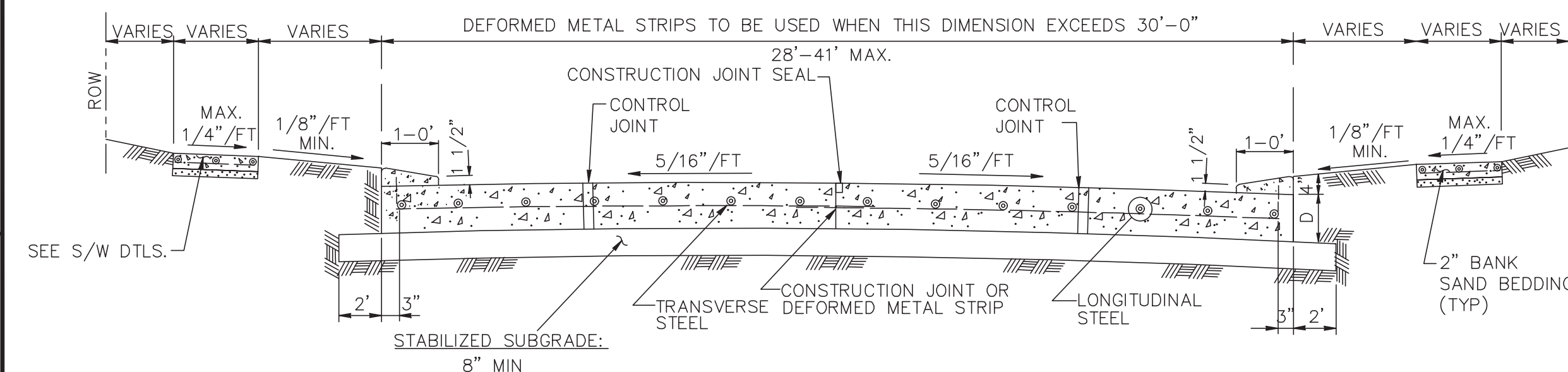
4-INCH x 12-INCH TRANSITION CURB

SL-ST-18

4\"/>

- TRANSITION CURB NOTES:
- 6-INCH CONCRETE CURB TO BE CONSTRUCTED ON ALL ESPLANADES, ISLANDS AND NON-RESIDENTIAL STREETS. RESIDENTIAL STREETS MAY BE CONSTRUCTED WITH EITHER 6-INCH CONCRETE CURB OR 4-INCH x 12-INCH CONCRETE CURB AS NOTED ON PLANS.
 - ALL 4-INCH x 12-INCH CONCRETE CURBS TO BE POURED SEPARATE FROM PROPOSED CONCRETE PAVEMENT.
 - TRANSITIONS FROM 6-INCH CONCRETE CURB TO 4-INCH x 12-INCH CONCRETE CURB TO BE ACCOMPLISHED WITHIN 5 FEET (TYP.), UNLESS OTHERWISE SHOWN. REINFORCING STEEL AS SHOWN IN "4-INCH x 12-INCH TRANSITION CURB" DETAIL IS TO BE INSTALLED.

SL-ST-20



TYPICAL SINGLE ROADWAY SECTION FOR CONCRETE PAVEMENT WITH 4\"/>

* SEE 4\"/>

SL-ST-19

No.	DATE	REVISION
-----	------	----------

SEAL:	
DESIGN ENGINEER:	DATE:

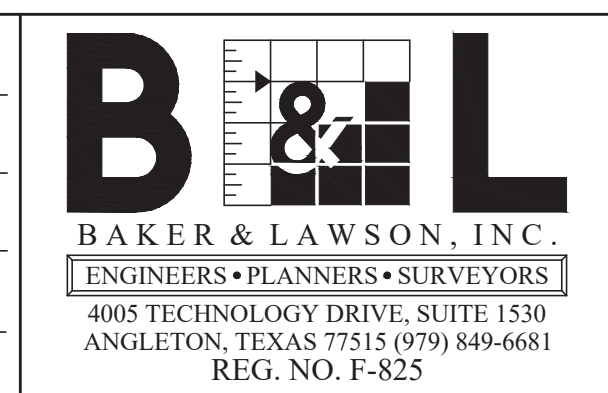


CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT	
CONSTRUCTION PLANS FOR:	
RESIDENTIAL CURB CONSTRUCTION DETAILS	
JOB No.:	SL-23
DATE:	
DRAWN BY:	
CHECKED BY:	
SCALE:	SHEET OF

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

DESIGNED	MS		
DRAWN	BT		
CHECKED			
DATE	May 2023		
NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
4005 TECHNOLOGY DRIVE, SUITE 1530
ANGLETON, TEXAS 77515 (979) 849-6681
REG. NO. F-825



The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992

05-25-2023

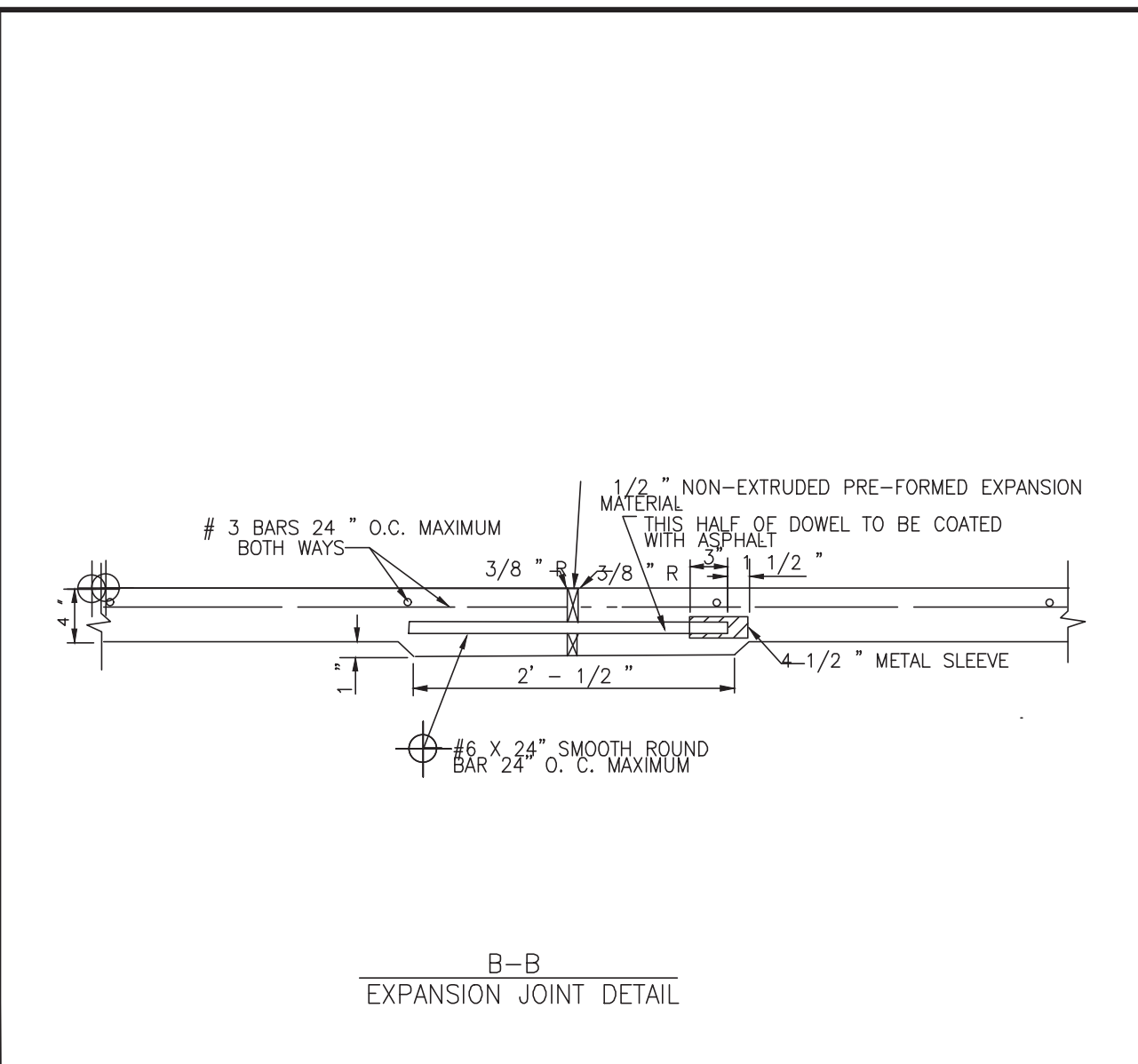
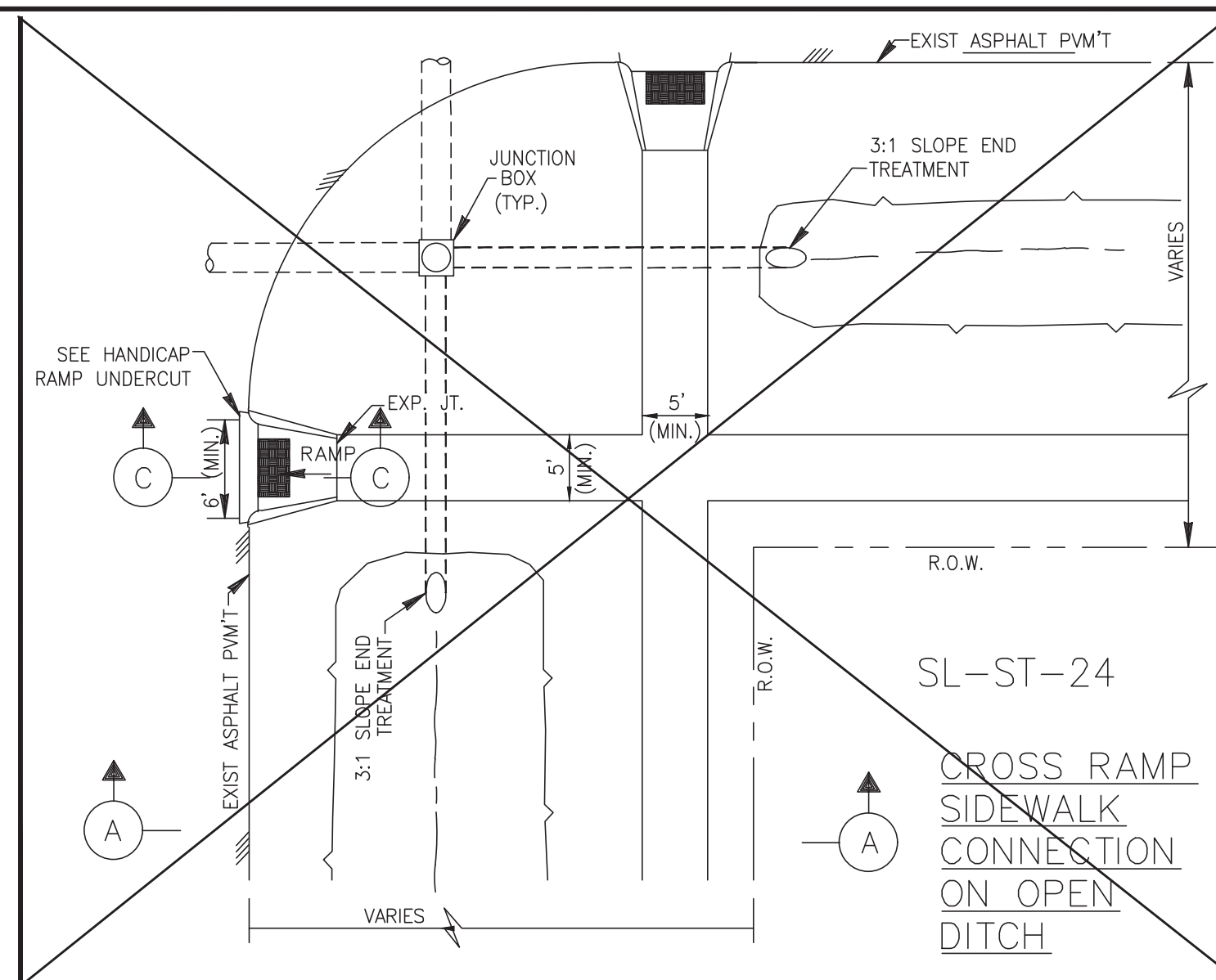
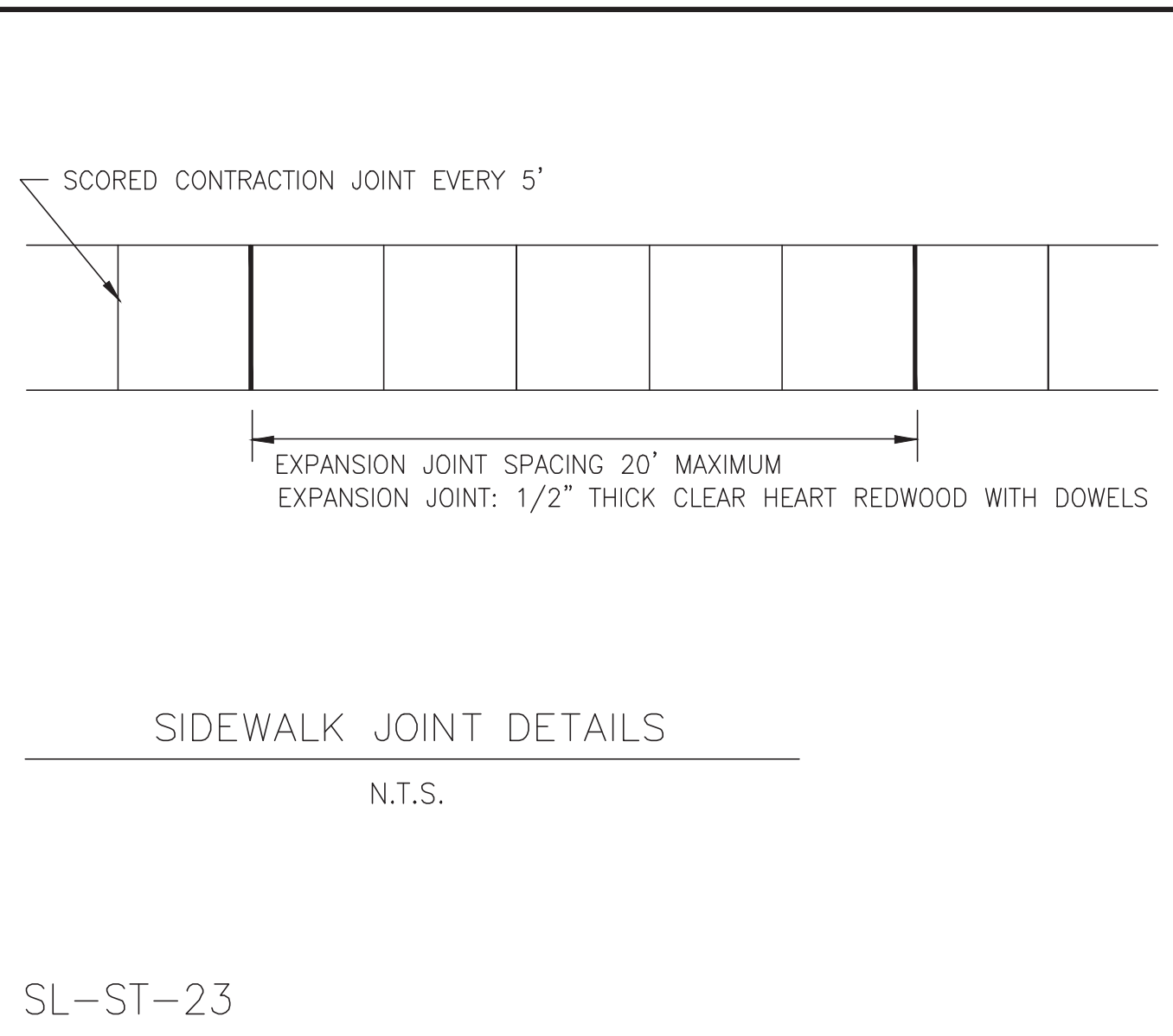
OWNER:
Mike Morgan
979-236-5089
dmmorganjr@yahoo.com

PLAN: _____
PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____

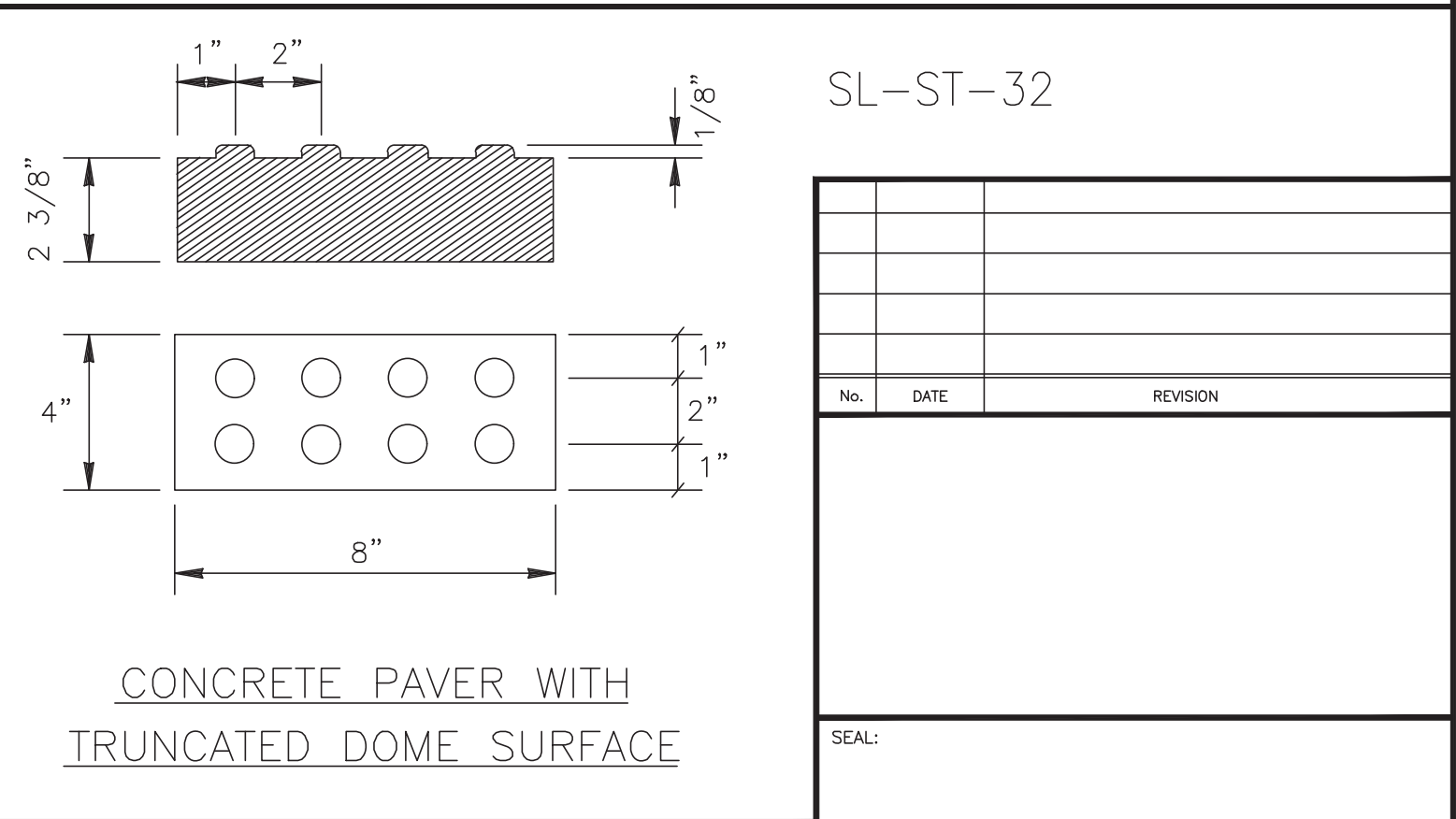
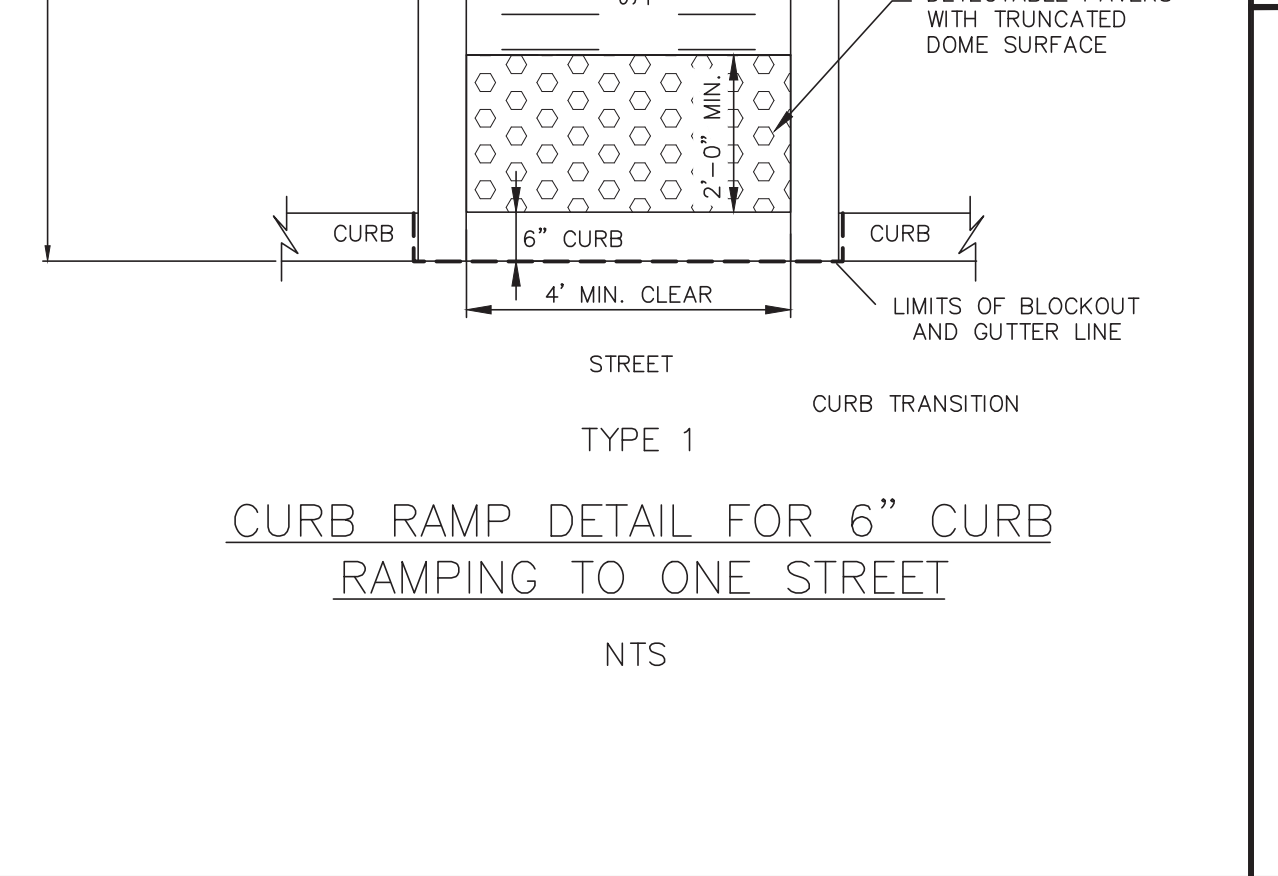
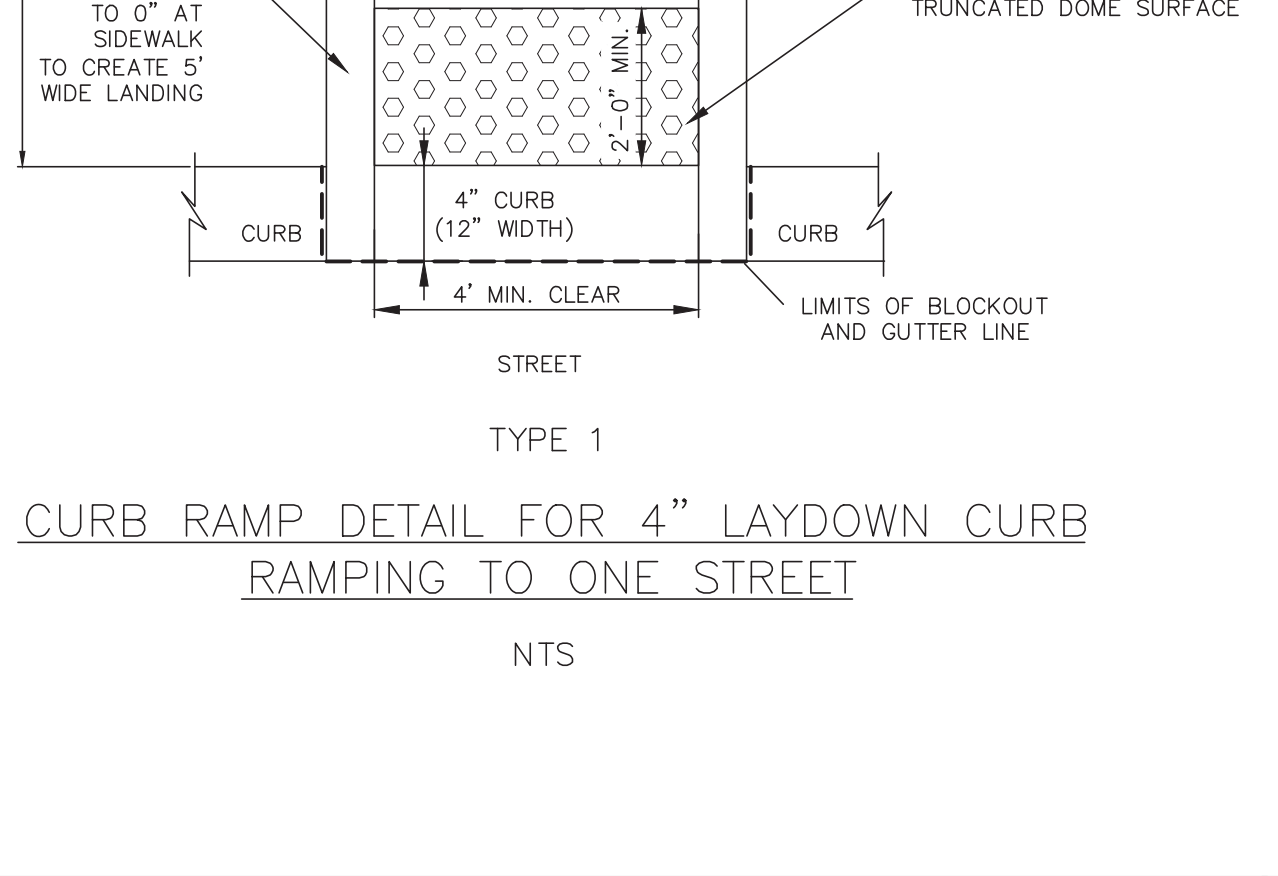
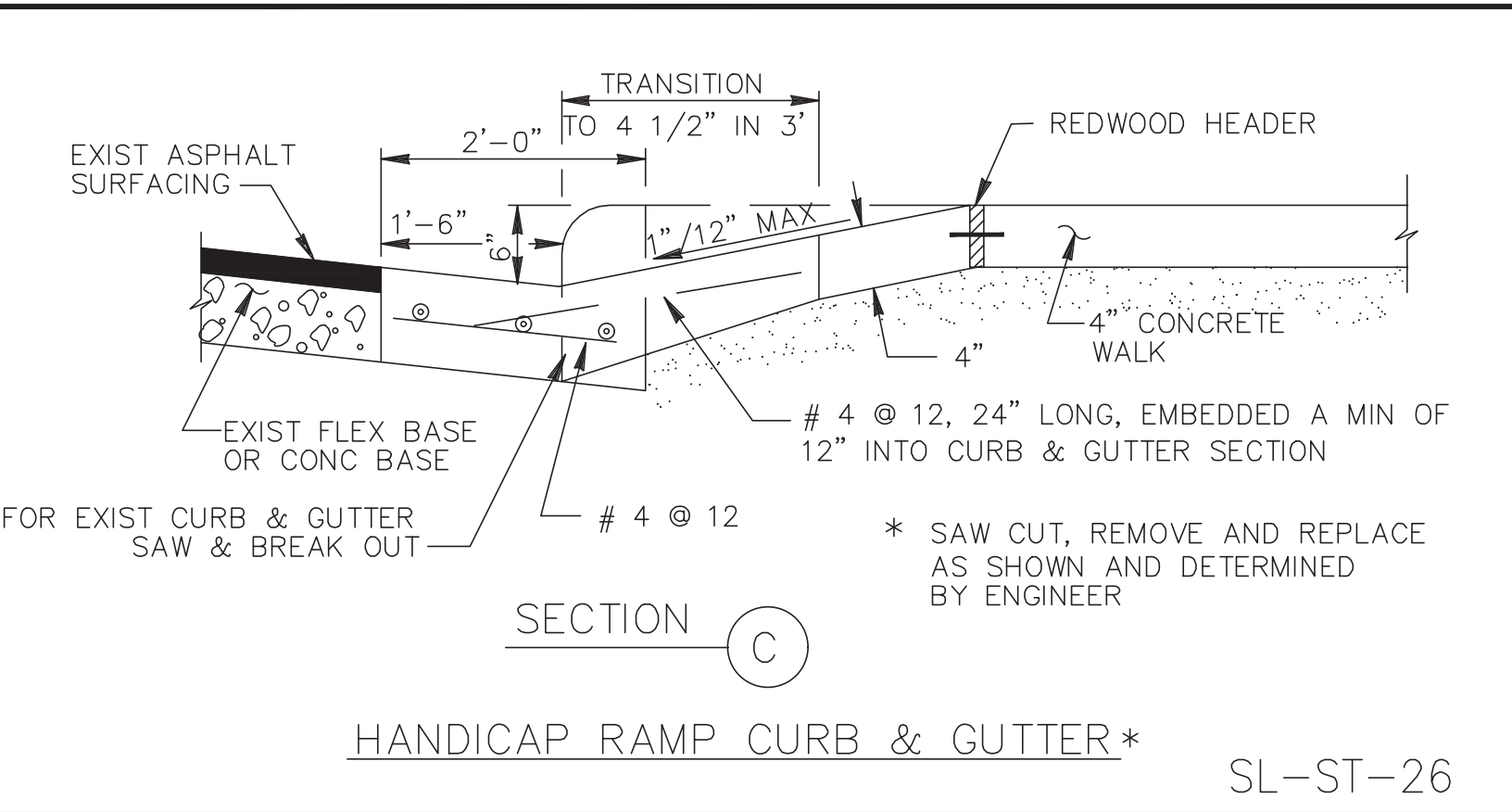
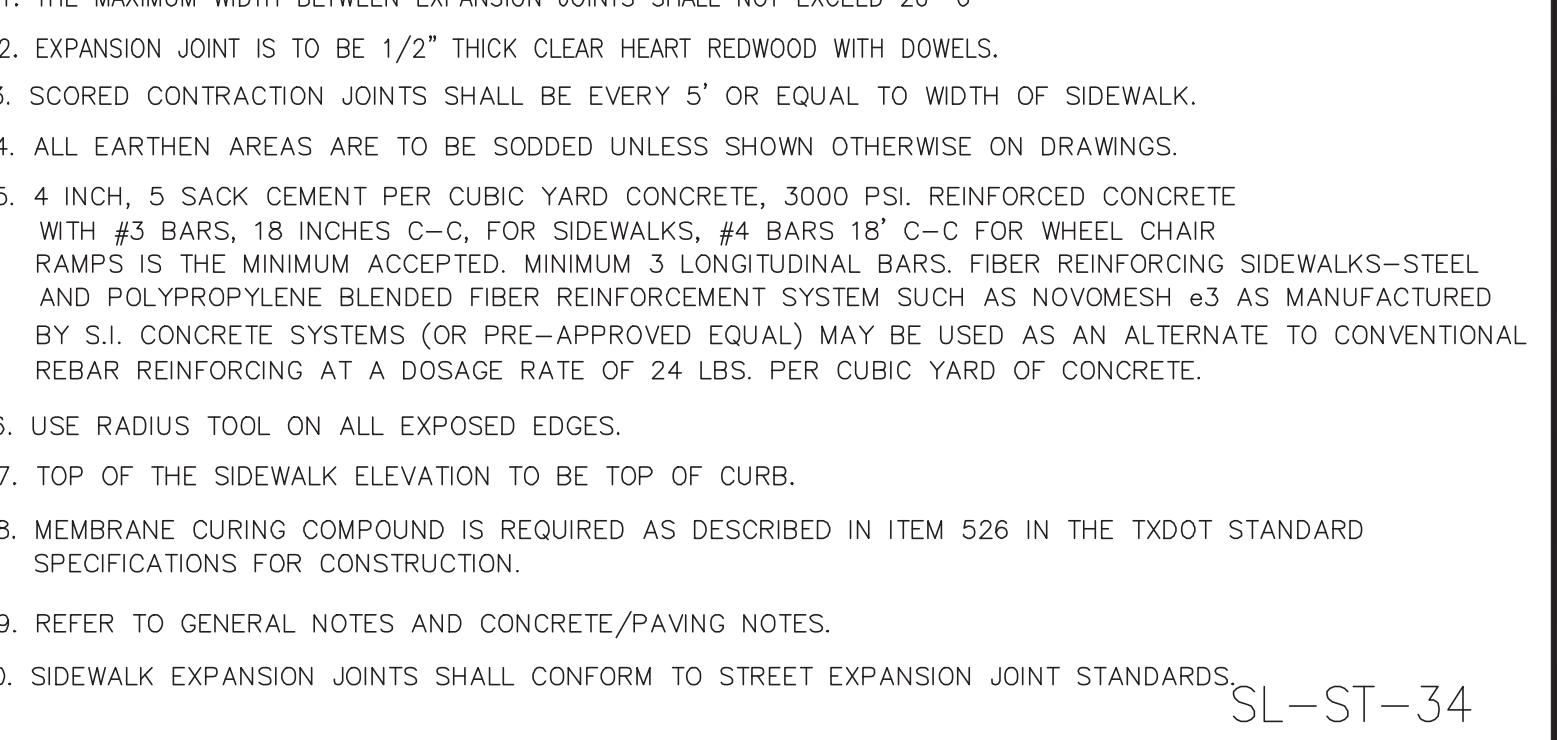
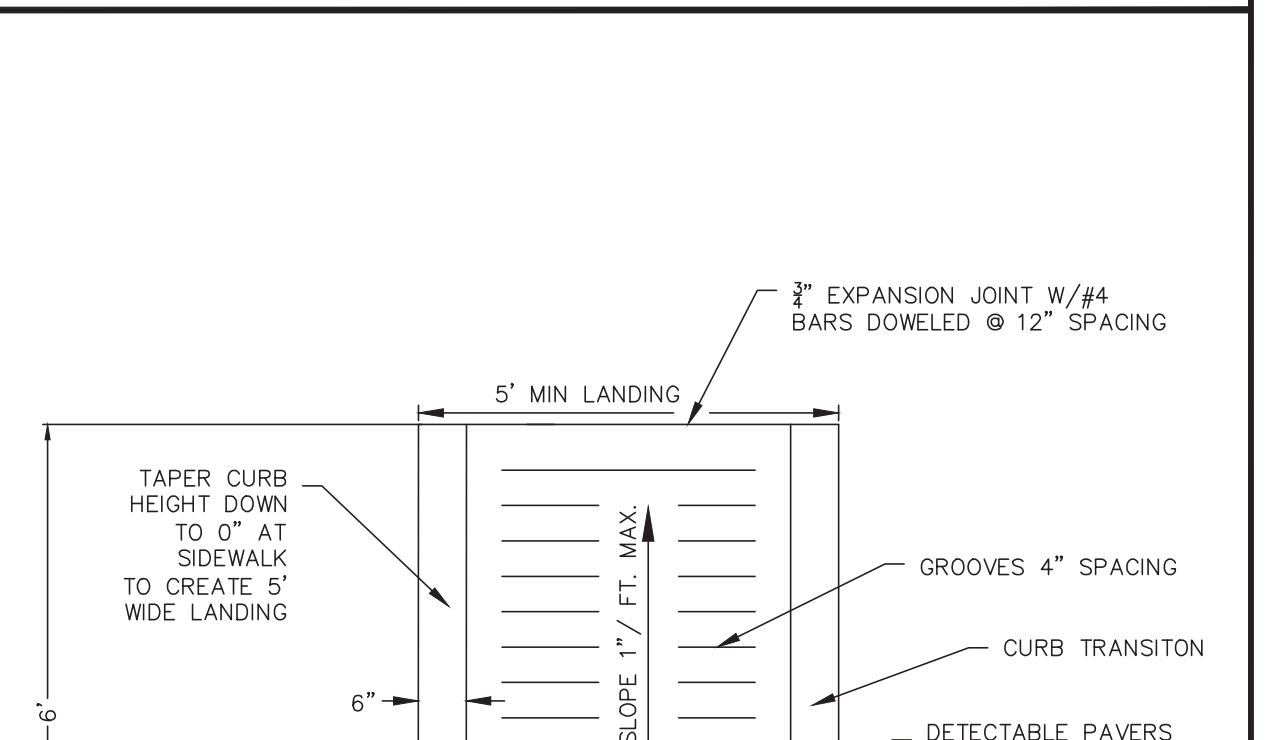
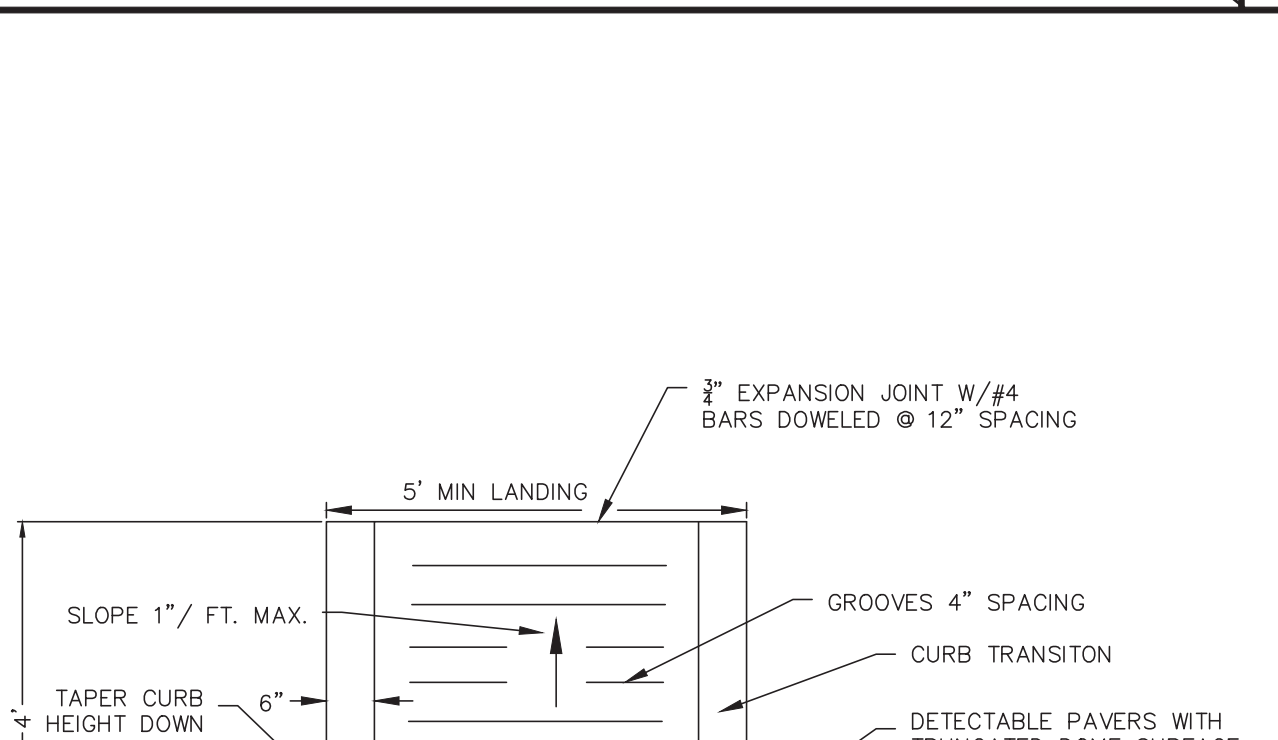
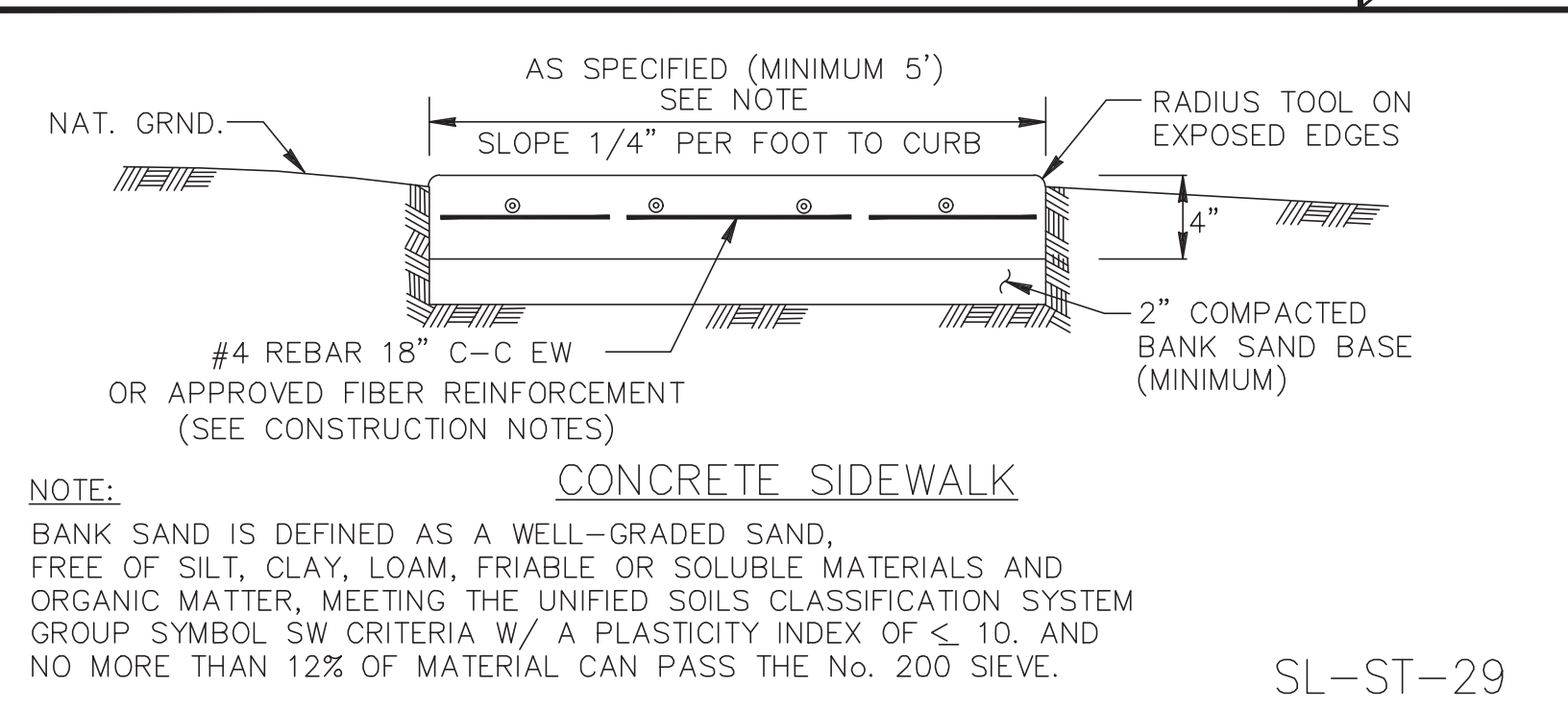
ANGLETON PARK PLACE SEC. 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

RESIDENTIAL CURB
CONSTRUCTION DETAILS
SL-23

PROJECT NO. 14320



- NOTES:
- EXISTING CURB AND GUTTER TO BE SAW CUT, REMOVED AND REPLACED. DOWEL STEEL FOR MINIMUM REINFORCING OVERLAP OF 10" DOWELS SHALL BE EIGHTEEN INCHES (18") LONG AND EPOXIED A MINIMUM OF (8") EIGHT INCHES INTO EXISTING PAVEMENT.
 - IF SIDEWALKS ARE NEITHER EXISTING NOR PROPOSED WHERE WHEELCHAIR RAMP ACCESS IS REQUIRED, CONCRETE SIDEWALKS SURFACE 4 1/2" THICK SHALL BE INSTALLED TO PROVIDE ACCESS TO THE PEDESTRIAN PUSH BUTTONS.
 - DETECTABLE WARNINGS REQUIRED BY T.A.S. SECTIONS 4.1 AND 4.7 SHALL COMPLY WITH T.A.S. SECTION 4.29
 - THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. DETECTABLE WARNINGS USED ON INTERIOR SURFACE SHALL DIFFER FROM ADJOINING WALKING SURFACES IN RESILIENCY OR SOUND-ON-CANE.
 - DETECTABLE WARNING SURFACE SHALL COVER THE ENTIRE WIDTH AND DEPTH OF RAMP.
 - DETECTABLE WARNINGS SHALL BE INSTALLED WITH PAVERS IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
 - CONCRETE PAVEMENT UNITS SHALL MEET ALL REQUIREMENTS OF ASTM C-935, C-33, AND SHALL BE PLACED IN A TWO BY TWO UNIT BASKET WEAVE PATTERN, UNLESS SHOWN OTHERWISE IN THE PLANS.
 - CONCRETE PAVEMENT UNITS SHALL HAVE A TRUNCATED DOME TOP SURFACE FOR DETECTABLE WARNING TO PEDESTRIANS. DOMES SHALL BE ALIGNED IN THE DIRECTION OF PEDESTRIAN TRAVEL.
 - CONCRETE PAVEMENT UNIT COLOR FOR THE RAMP SHALL BE A CONTRASTING COLOR THAT PROVIDES A LIGHT REFLECTIVE THAT SIGNIFICANTLY CONTRASTS WITH THE ADJACENT SURFACES. ADJACENT SURFACES INCLUDE SIDE FLARES.
 - CONCRETE PAVEMENT UNITS SHALL BE SAW CUT ONLY, AND ANY CUT UNIT SHALL NOT BE LESS THAN 25% OF A FULL UNIT.
- CONSTRUCTION NOTES:
- THE MAXIMUM WIDTH BETWEEN EXPANSION JOINTS SHALL NOT EXCEED 20'-0"
 - EXPANSION JOINT IS TO BE 1/2" THICK CLEAR HEART REDWOOD WITH DOWELS.
 - SCORED CONTRACTION JOINTS SHALL BE EVERY 5' OR EQUAL TO WIDTH OF SIDEWALK.
 - ALL EARTHEN AREAS ARE TO BE SODDED UNLESS SHOWN OTHERWISE ON DRAWINGS.
 - 4 INCH, 5 SACK CEMENT PER CUBIC YARD CONCRETE, 3000 PSI. REINFORCED CONCRETE WITH #3 BARS, 8 INCHES C-C, FOR SIDEWALKS, #4 BARS 18" C-C FOR WHEEL CHAIR RAMP IS THE MINIMUM ACCEPTED. MINIMUM 3' LONGITUDINAL BARS. FIBER REINFORCING SIDEWALKS-STEEL AND POLYPROPYLENE BLENDED FIBER REINFORCEMENT SYSTEM SUCH AS NOVOMESH #3 AS MANUFACTURED BY S.I. CONCRETE SYSTEMS (OR PRE-APPROVED EQUAL) MAY BE USED AS AN ALTERNATE TO CONVENTIONAL REBAR REINFORCING AT A DOSAGE RATE OF 24 LBS. PER CUBIC YARD OF CONCRETE.
 - USE RADIUS TOOL ON ALL EXPOSED EDGES.
 - TOP OF THE SIDEWALK ELEVATION TO BE TOP OF CURB.
 - MEMBRANE CURING COMPOUND IS REQUIRED AS DESCRIBED IN ITEM 526 IN THE TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
 - REFER TO GENERAL NOTES AND CONCRETE/PAVING NOTES.
 - SIDEWALK EXPANSION JOINTS SHALL CONFORM TO STREET EXPANSION JOINT STANDARDS.



NO.	DATE	REVISION

DESIGN ENGINEER: _____ DATE _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

WHEEL CHAIR RAMP & SIDEWALK DETAILS I

JOB No.: _____
DATE: _____
DESIGNED BY: _____
DRAWN BY: _____
CHECKED BY: _____
SCALE: _____

SL-25
SHEET OF

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED MS
DRAWN BT
CHECKED _____
DATE May 2023

B & L
BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
4005 TECHNOLOGY DRIVE, SUITE 1330
ANGLETON, TEXAS 77515 (979) 849-6681
REG. NO. F-825

The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992 05-25-2023

STATE OF TEXAS
121992
LICENSED PROFESSIONAL ENGINEER

OWNER:
Mike Morgan
979-236-5089
dmmorganjr@yahoo.com

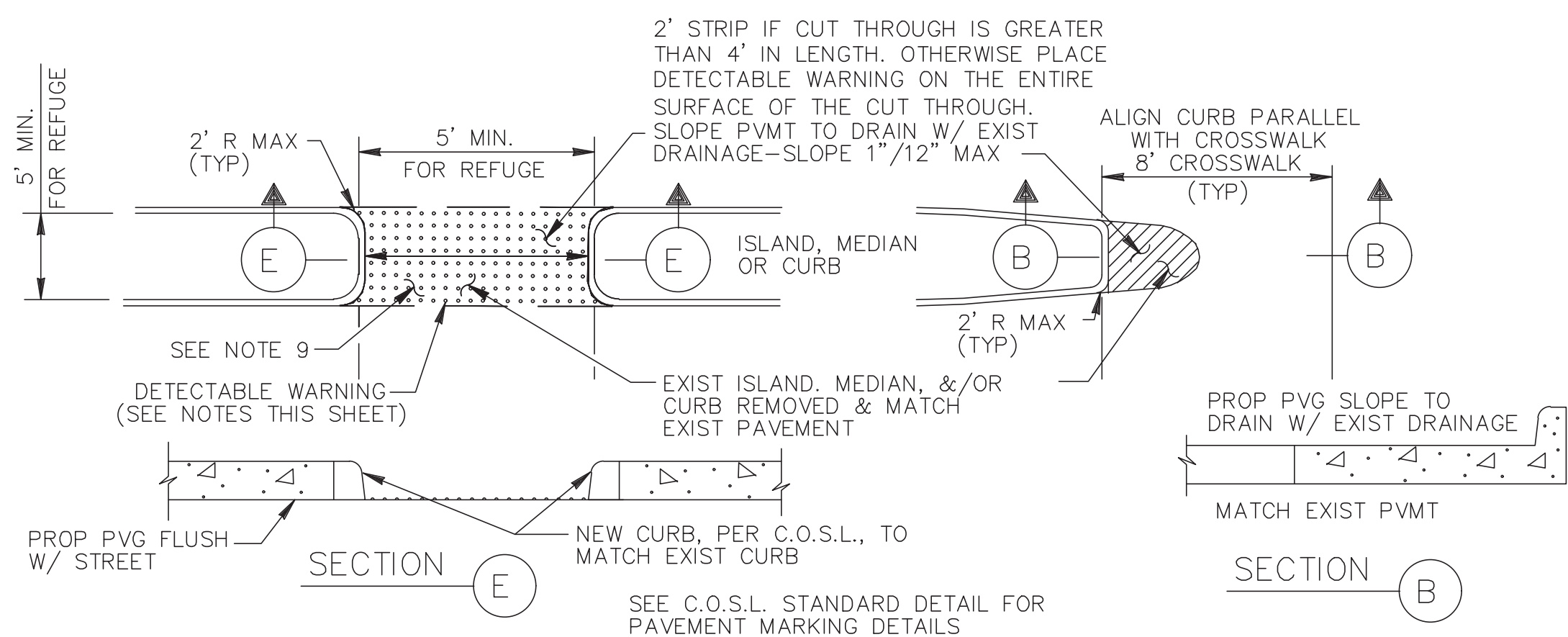
PLAN: _____
PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____

ANGLETON PARK PLACE SEC. 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

WHEEL CHAIR RAMP & SIDEWALK DETAILS I
SL-25

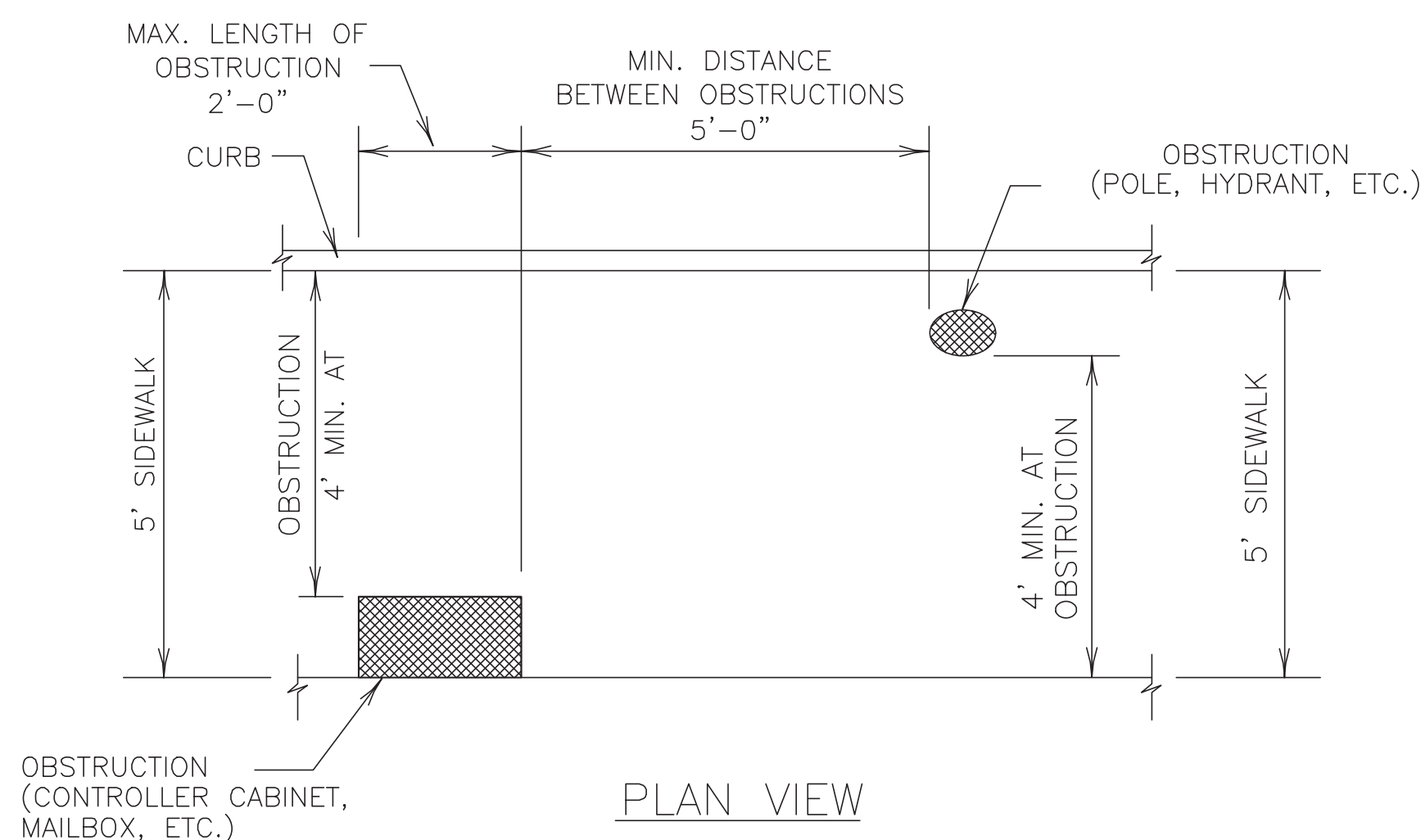
PROJECT NO. 14320

PLOI: IIMC



FOR ISLAND, MEDIAN, OR CURB MODIFICATIONS FOR CROSSWALKS

SL-ST-35



PLAN VIEW
PLACEMENT OF STREET FIXTURES

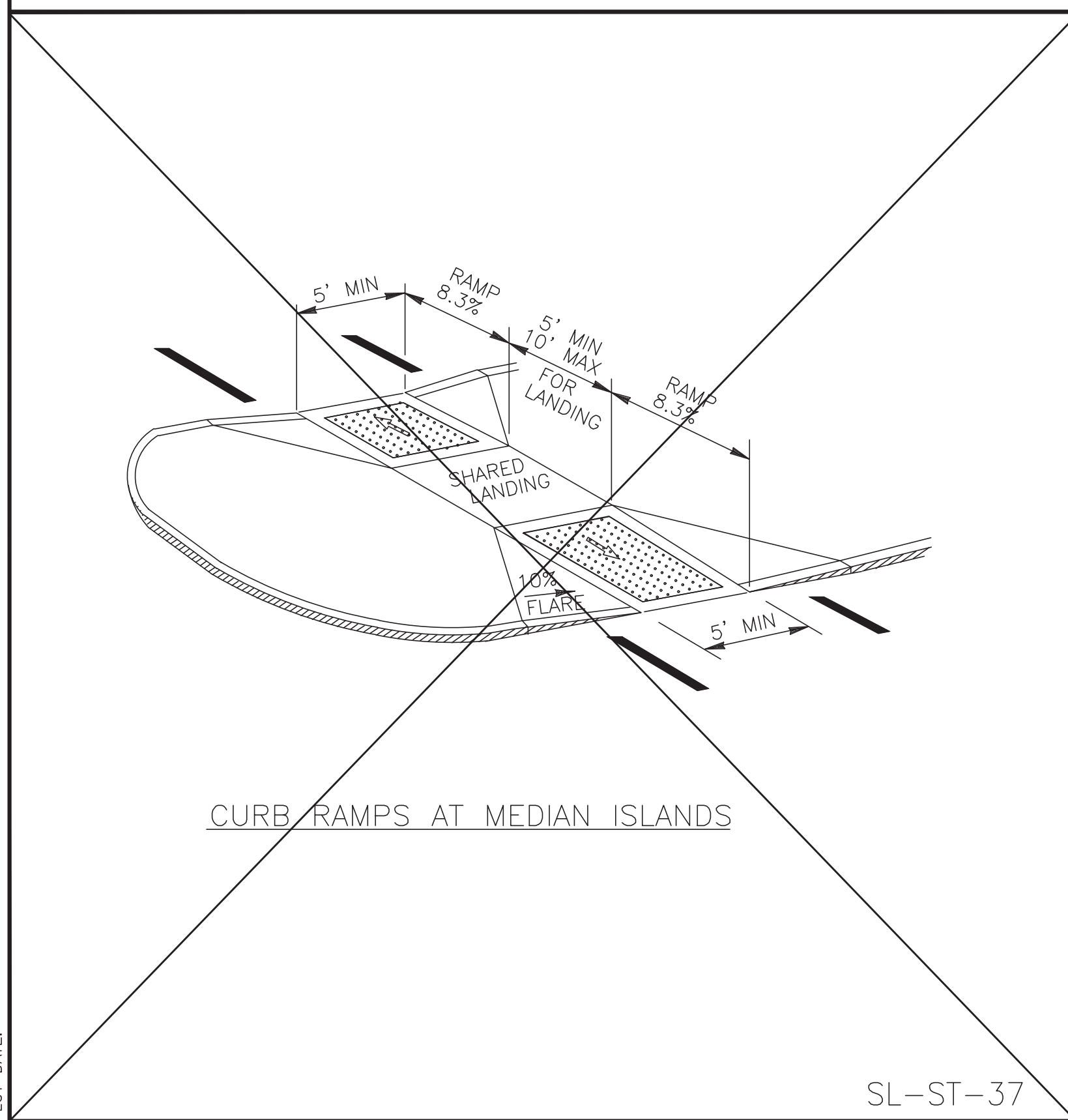
(ITEMS NOT INTENDED FOR PUBLIC USE. MINIMUM 4' x 4' CLEAR GROUND SPACE REQUIRED AT PUBLIC USE FIXTURES.)

SL-ST-36

NOTES:

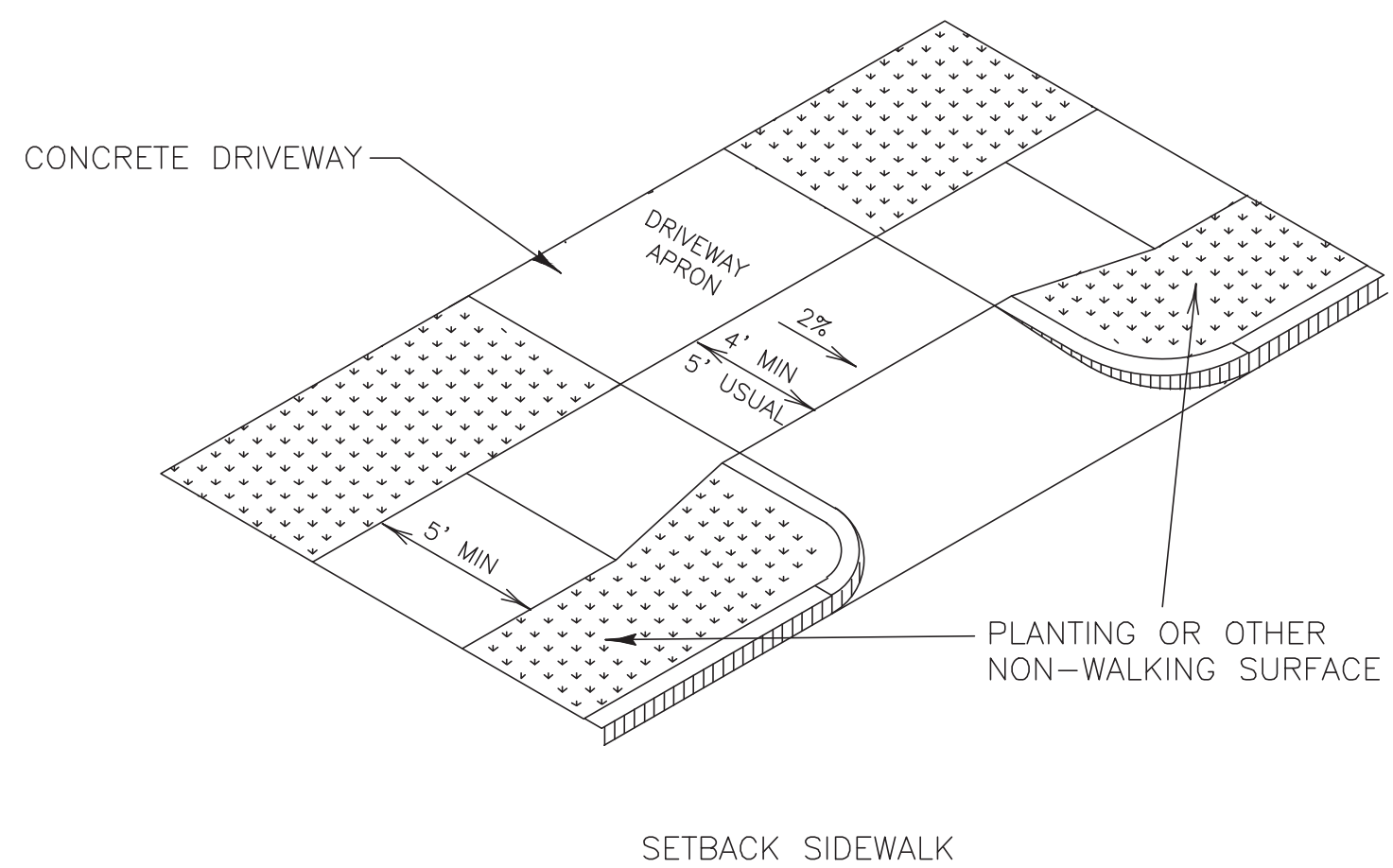
1. ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED. RAMP LENGTH OR GRADE OF APPROACH SIDEWALKS MAY BE ADJUSTED AS DIRECTED
2. THE MINIMUM SIDEWALK WIDTH IS 5' (FEET). THE LANDING SHALL BE 5' x 5' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND RAMP SURFACES IS 2%. USUAL SIDEWALK CROSS SLOPE EQUALS 1.5%. CHANGES IN LEVEL GREATER THAN 1/4" (IN.) ARE NOT PERMITTED.
3. MANEUVERING SPACE AT THE BOTTOM OF CURB RAMPS SHALL BE A MINIMUM OF 5' x 5' WHOLLY CONTAINED WITHIN THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICULAR TRAVEL PATH.
4. ANY PART OF THE ACCESSIBLE ROUTE WITH A SLOPE GREATER THAN 1:20 (5%) SHALL BE CONSIDERED A RAMP. IF A RAMP HAS A RISE GREATER THAN 6" (IN.) OR A HORIZONTAL PROJECTION GREATER THAN 72 INCHES, THEN IT SHALL HAVE HANDRAILS ON BOTH SIDES, WITH THE FOLLOWING EXCEPTIONS:
 - A.) HANDRAILS ARE NOT REQUIRED ON CURB RAMPS. CURB RAMPS SHALL BE PROVIDED WHEREVER AN ACCESSIBLE ROUTE CROSSES (PENETRATES) A CURB.
 - B.) THE LEAST POSSIBLE GRADE SHOULD BE USED TO MAXIMIZE ACCESSIBILITY. WHERE STRUCTURALLY IMPRACTICAL TO ACHIEVE TEXAS ACCESSIBILITY STANDARDS (TAS) COMPLIANCE, THE RUNNING SLOPE OF SIDEWALKS AND CROSSWALKS, WITHIN THE PUBLIC R.O.W., MAY FOLLOW THE GRADE OF THE PARALLEL ROADWAY WITHOUT INVOKING TEXAS ACCESSIBILITY STANDARDS (TAS) VARIANCES FOR LANDINGS OR HANDRAILS. WHERE A CONTINUOUS GRADE GREATER THAN 5% MUST BE PROVIDED, HANDRAILS MAY BE DESIRABLE ON ONE OR BOTH SIDES OF THE SIDEWALK TO IMPROVE ACCESSIBILITY. HANDRAILS MAY ALSO BE NEEDED TO PROTECT PEDESTRIANS FROM POTENTIALLY HAZARDOUS CONDITIONS.
5. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. OTHERWISE, FLARED SIDES SHALL BE PROVIDED. ALL CONCRETE SURFACES SHALL RECEIVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE IN THE PLANS.
6. RAMP TEXTURES MUST CONSIST OF TRUNCATED DOME SURFACES, IN ACCORDANCE WITH ADA AND TEXAS DEPARTMENT OF LICENSING AND REGULATIONS (TDLR). TEXTURES ARE REQUIRED TO BE DETECTABLE UNDERFOOT. TEXTURES ALSO SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES. SURFACES THAT WOULD ALLOW WATER TO ACCUMULATE ARE PROHIBITED.
7. ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGN, LIGHT REFLECTIVE VALUE AND TEXTURE MAY BE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) PREPARED AND ADMINISTERED BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION (TDLR).
8. RAISED MEDIANS SEPARATE OPPOSING DIRECTIONS OF TRAFFIC AND PROVIDE A REFUGE AREA FOR PEDESTRIANS UNABLE TO CROSS THE ENTIRE ROADWAY IN THE ALLOTTED SIGNAL PHASE. TO SERVE AS A REFUGE AREA, THE MEDIAN SHALL BE A MINIMUM OF 5' (FT) WIDE. MEDIANS SHOULD BE DESIGNED TO PROVIDE ACCESSIBLE PASSAGE OVER OR THROUGH THEM.
9. SMALL CHANNELIZATION ISLANDS, WHICH CAN NOT PROVIDE A MINIMUM 5' x 5' LANDING AT THE TOP OF RAMPS, SHALL BE CUT THROUGH LEVEL WITH THE SURFACE OF THE STREET.
10. CROSSWALK DIMENSIONS, CROSSWALK MARKINGS AND STOP BAR LOCATIONS SHALL BE AS SHOWN IN THE PLANS. AT INTERSECTIONS WHERE CROSSWALK MARKINGS ARE NOT REQUIRED, RAMPS SHALL BE ALIGNED WITH THEORETICAL CROSSWALKS, OR AS DIRECTED BY THE ENGINEER.
11. EXISTING FEATURES THAT COMPLY WITH T.A.S. MAY REMAIN IN PLACE UNLESS OTHERWISE SHOWN ON THE PLANS.
12. TRAFFIC SIGNAL OR ILLUMINATION POLES, GROUND BOXES, CONTROLLER BOXES, SIGNS, DRAINAGE FACILITIES AND OTHER ITEMS SHALL BE PLACED SO NOT TO OBSTRUCT THE ACCESSIBLE ROUTE.

SL-ST-40



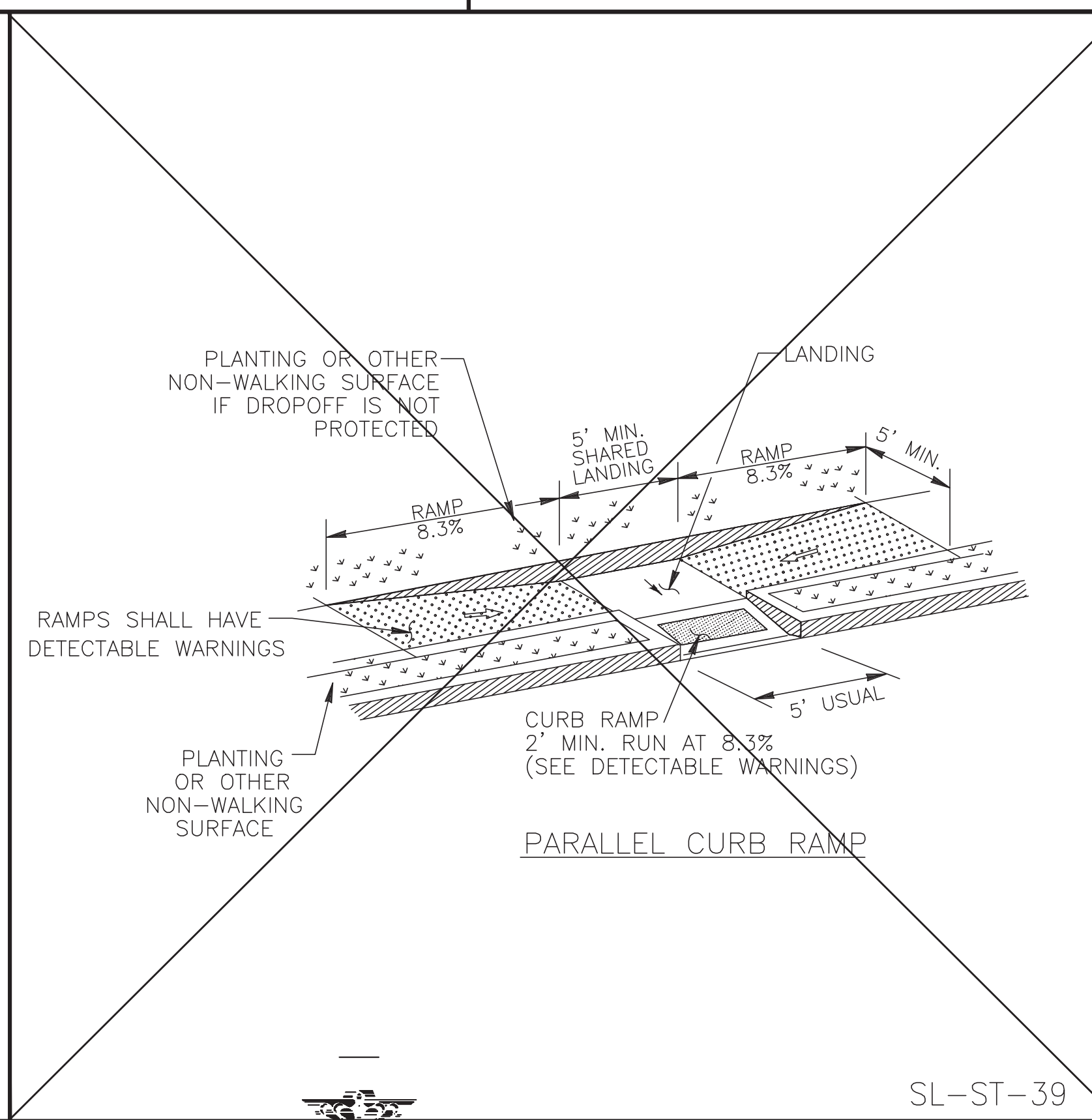
CURB RAMPS AT MEDIAN ISLANDS

SL-ST-37




SIDEWALK TREATMENT AT DRIVEWAYS

SL-ST-38



PARALLEL CURB RAMP

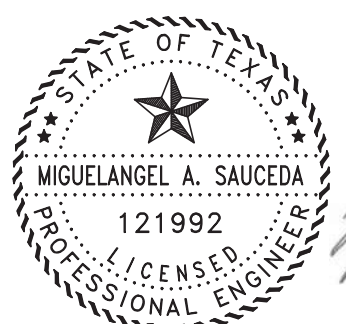
SL-ST-39

No.	DATE	REVISION
SEAL:		
DESIGN ENGINEER:		DATE
 CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT		
CONSTRUCTION PLANS FOR:		
WHEEL CHAIR RAMP & SIDEWALK DETAILS II		
JOB No.:	DATE:	SL-26
DESIGNED BY:	DRAWN BY:	
CHECKED BY:	SCALE:	
SHEET		OF

J:\140005\143005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

DESIGNED	MS		
DRAWN	BT		
CHECKED			
DATE	May 2023		
NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

B & L
BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1530
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825



The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992

OWNER:
Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

PLAN: _____
 PROFILE: _____
 HORIZONTAL: _____
 VERTICAL: _____

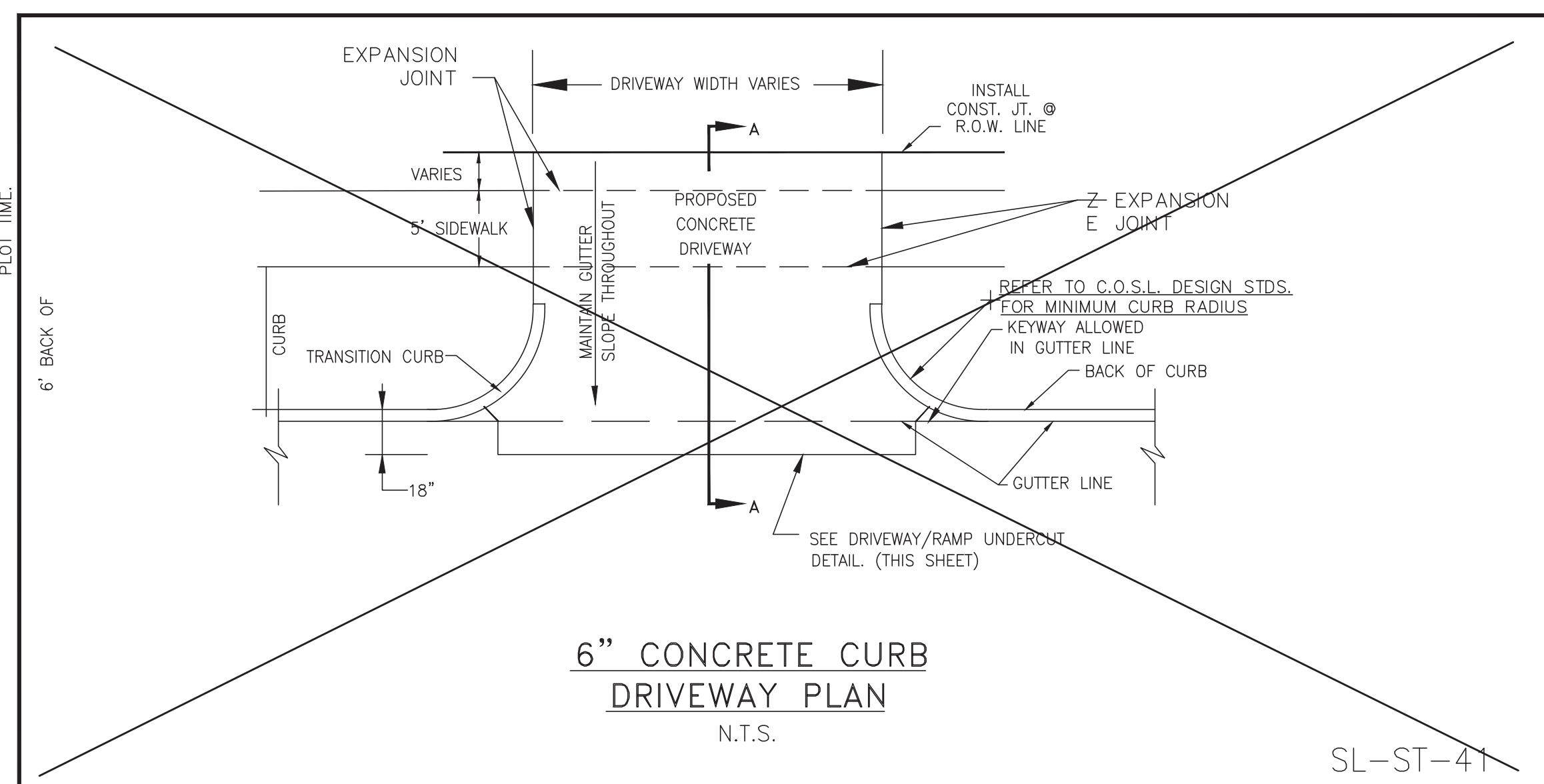
05-25-2023

ANGLETON PARK PLACE SEC. 1
ANGLETON, TEXAS
PLANS FOR GRADING, PAVING, UTILITIES AND DETENTION

WHEEL CHAIR RAMP & SIDEWALK DETAILS II
 SL-26

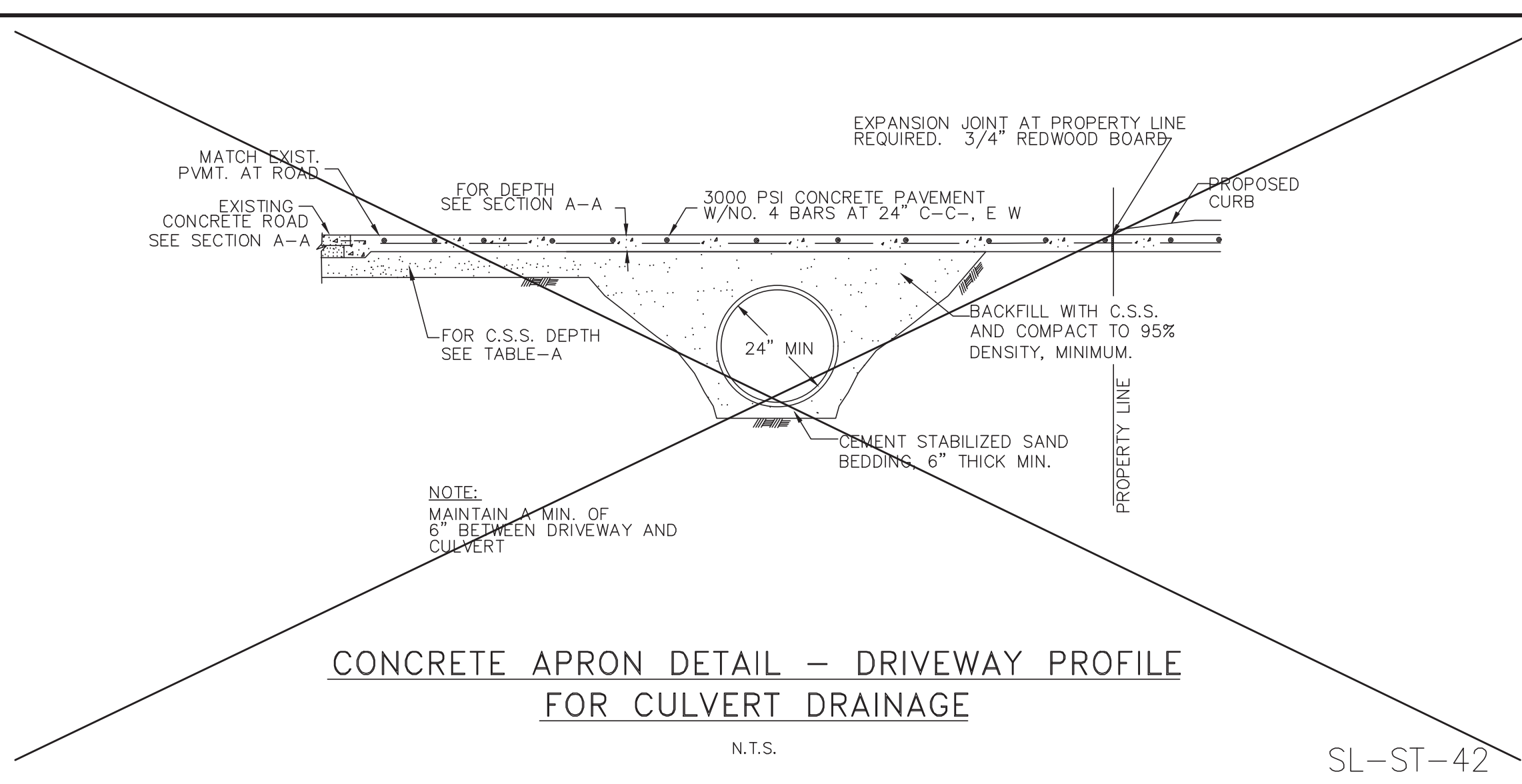
PROJECT NO. 14320

- NOTES:
- 1.) SAW CUT & BREAKOUT NO MORE THAN 72 HOURS PRIOR TO PROPOSED CONCRETE PLACEMENT. NOTIFY SUGAR LAND PRIOR TO CUT.
 - 2.) UNSTABLE SUBGRADE SHALL BE OVER EXCAVATED & REPLACED WITH CONCRETE.
 - 3.) IT IS CONTRACTOR'S RESPONSIBILITY TO NOTIFY SUGAR LAND OF ANY BIRD BATH PROBLEMS PRIOR TO CONSTRUCTION OF DRIVEWAY.
 - 4.) USE 1"x2" TREATED REDWOOD FOR HEADER.
 - 5.) EDGE ALL SIDES WITH EDGING TOOL AND BROOM FINISH
 - 6.) FOR INDUSTRIAL DRIVES, PAVEMENT SHALL HAVE A DEPTH OF 8" (IN).
 - 7.) EXPANSION JOINT AT PROPERTY LINE REQUIRED. 3/4" REDWOOD BOARD WITH NO. 4 DOWELS MINIMUM.
 - 8.) MAXIMUM ALLOWABLE DRIVEWAY GRADE IN PULIC R.O.W. IS 5%
 - 9.) DRIVEWAY GRADE MUST MEET A.D.A AND T.A.S. SIDEWALK SLOPE, SIDEWALKS MUST BE SCORED TO MATCH ADJACENT SIDEWALK. IF SLOPE IS CONTINUED THROUGH THE R.O.W. LINE, PROVIDE A 3/4" REDWOOD EXPANSION JOINT WITH DOWELS AT R.O.W. LINE.
 - 10.) REFER TO GENERAL , C.S.S., ASPHALT, AND CONCRETE PAVEMENT NOTES.



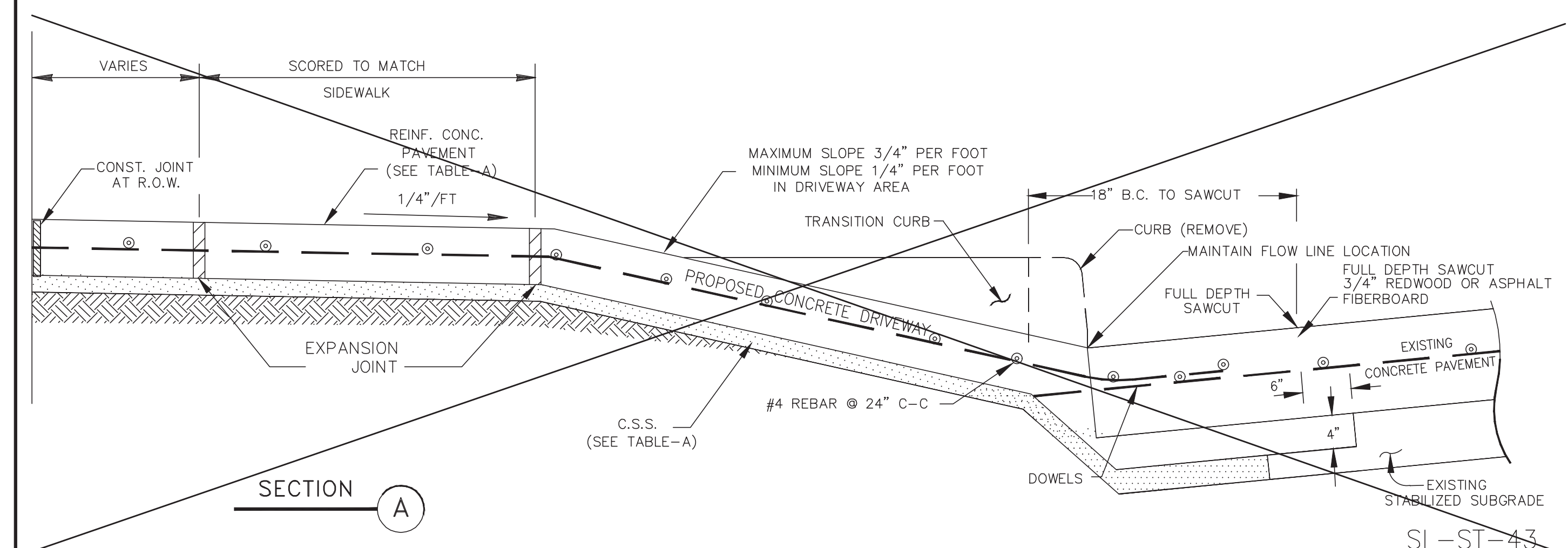
6" CONCRETE CURB DRIVEWAY PLAN
N.T.S.

SL-ST-41



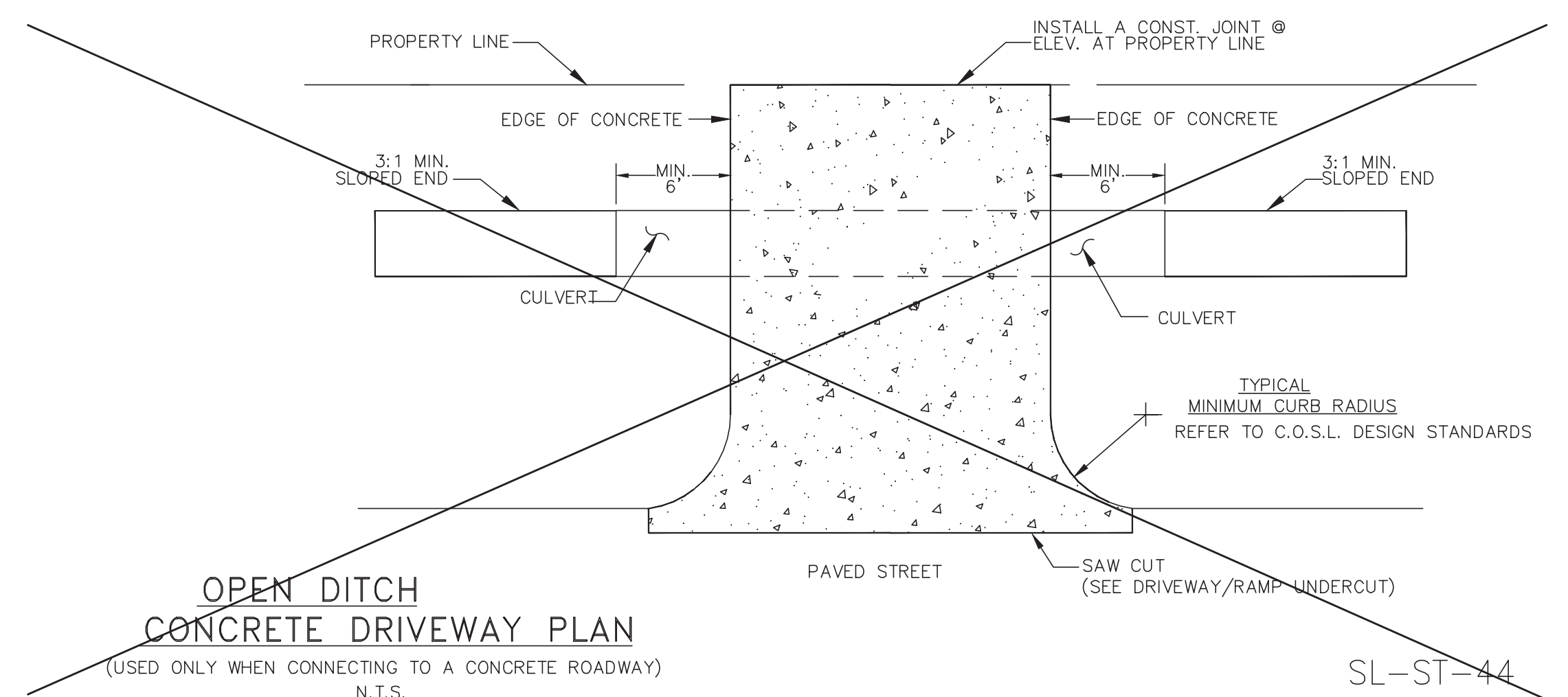
CONCRETE APRON DETAIL - DRIVEWAY PROFILE FOR CULVERT DRAINAGE
N.T.S.

SL-ST-42



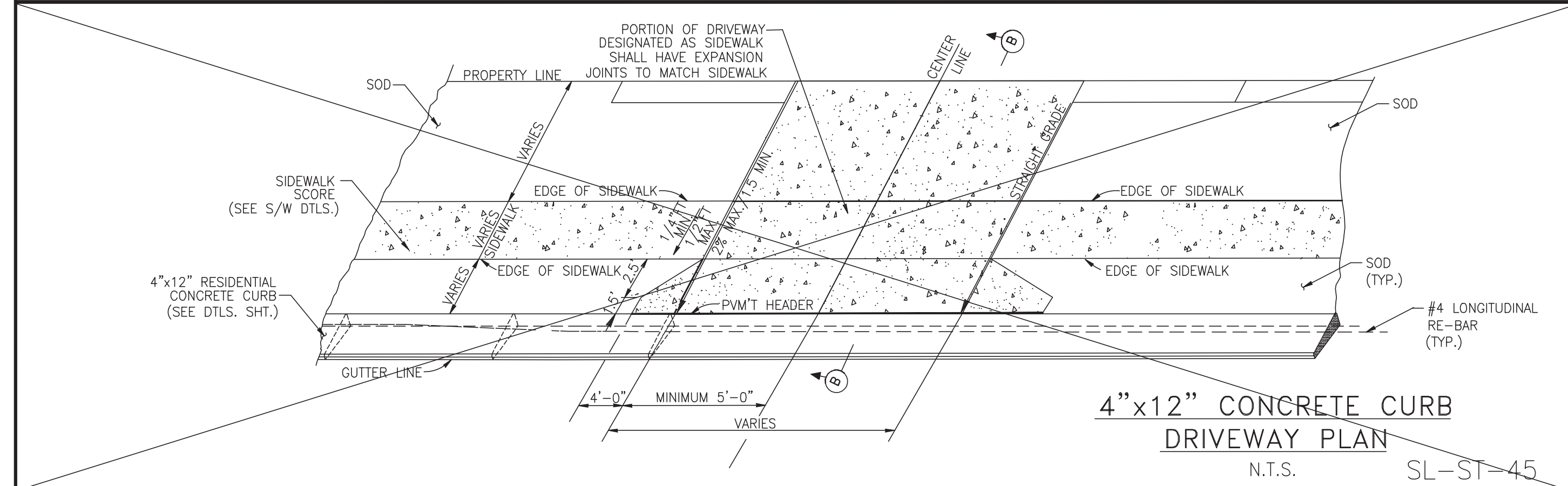
SECTION A

SL-ST-43



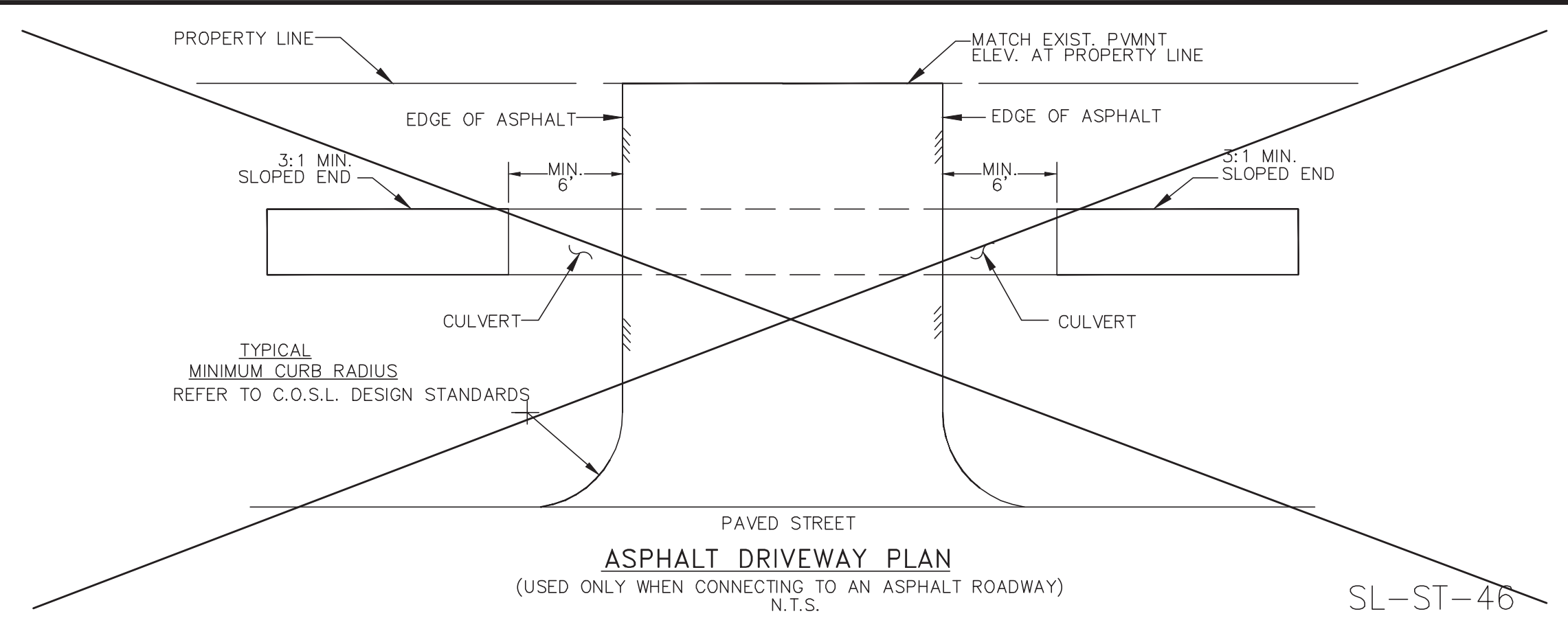
OPEN DITCH CONCRETE DRIVEWAY PLAN
(USED ONLY WHEN CONNECTING TO A CONCRETE ROADWAY)
N.T.S.

SL-ST-44



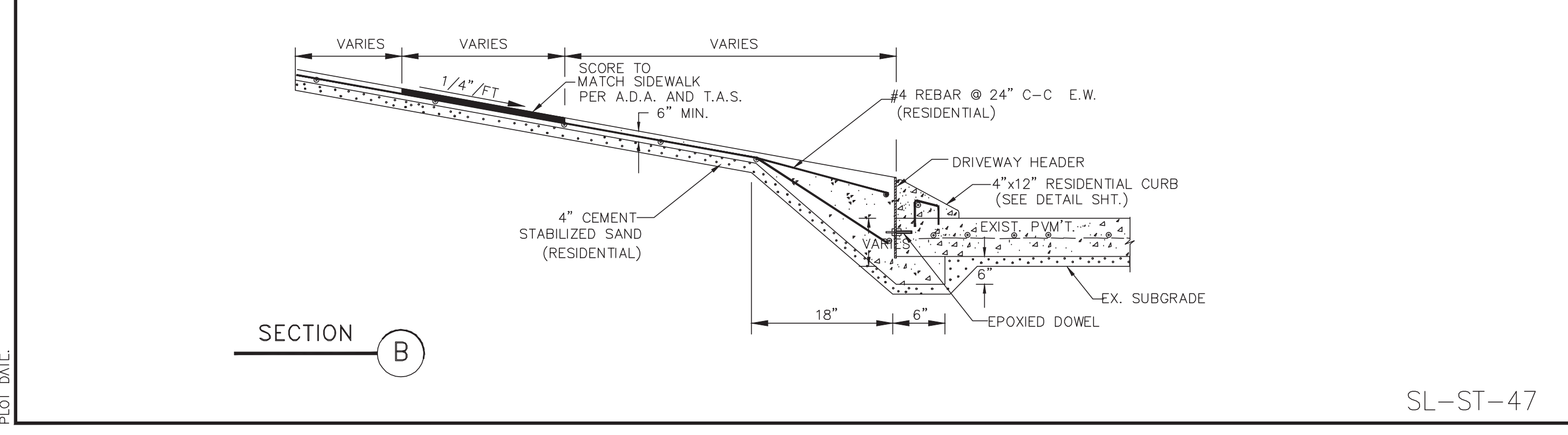
4"x12" CONCRETE CURB DRIVEWAY PLAN
N.T.S.

SL-ST-45



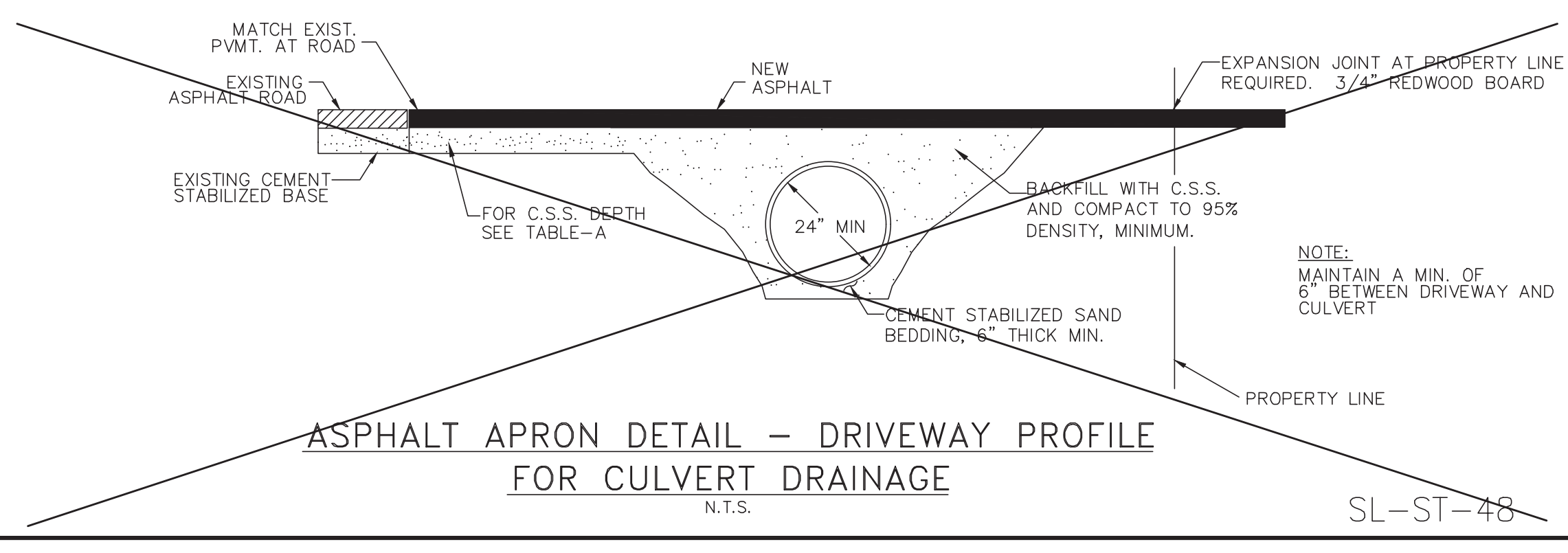
ASPHALT DRIVEWAY PLAN
(USED ONLY WHEN CONNECTING TO AN ASPHALT ROADWAY)
N.T.S.

SL-ST-46



SECTION B

SL-ST-47



ASPHALT APRON DETAIL - DRIVEWAY PROFILE FOR CULVERT DRAINAGE
N.T.S.

SL-ST-48

TABLE-A

CEMENT STABILIZED SAND 2-SK/C.Y.	
RESIDENTIAL	4" MINIMUM
COMMERCIAL	6" MINIMUM
INDUSTRIAL	8" MINIMUM
REINFORCED CONCRETE PAVEMENT 3,000 PSI MIN	
RESIDENTIAL	6" MINIMUM
COMMERCIAL	6" MINIMUM
INDUSTRIAL	8" MINIMUM

DRIVEWAY PAVEMENT CONSTRUCTION TABLE

No.	DATE	REVISION

DESIGN ENGINEER: _____ DATE _____



CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

DRIVEWAY CONSTRUCTION DETAILS

JOB No.: _____
DATE: _____
DESIGNED BY: _____
DRAWN BY: _____
CHECKED BY: _____
SCALE: _____

SL-27
SHEET OF

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN BT
CHECKED _____
DATE May 2023

B & L
BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
4005 TECHNOLOGY DRIVE, SUITE 1330
ANGLETON, TEXAS 77515 (979) 849-6681
REG. NO. F-825

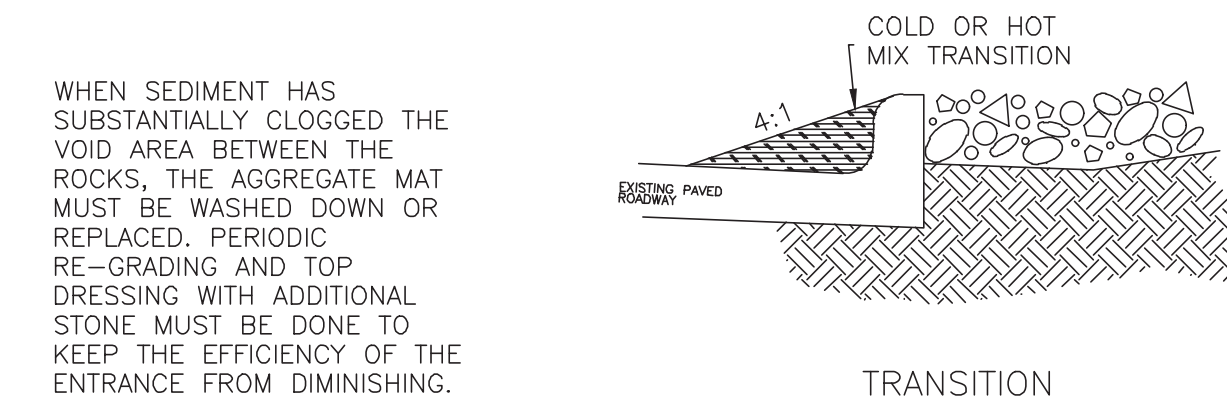
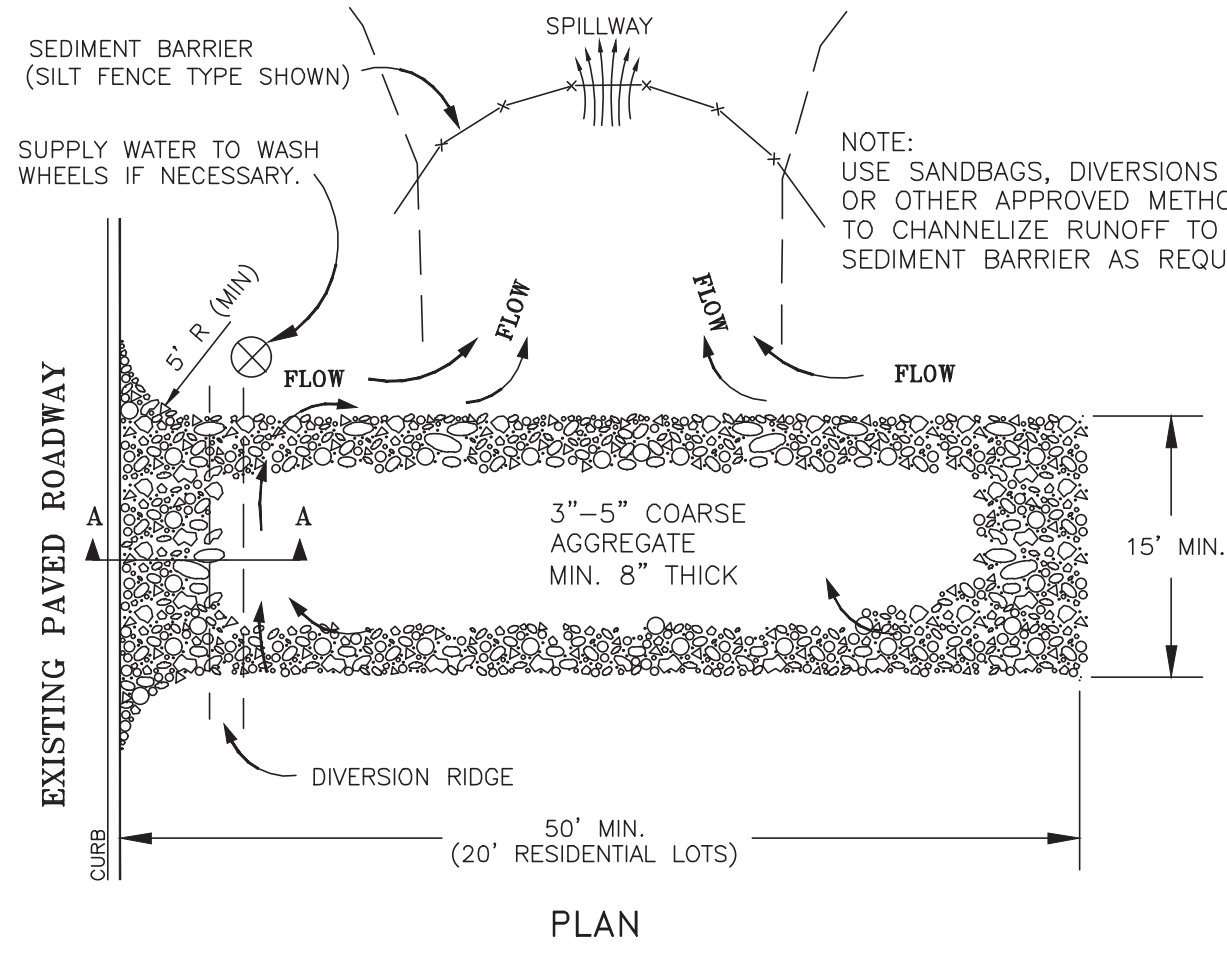
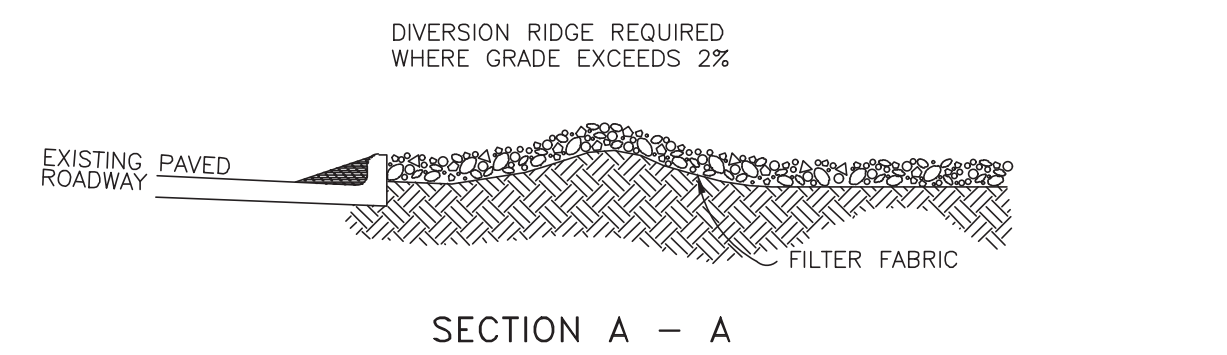
The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992 05-25-2023

OWNER:
Mike Morgan
979-236-5089
dmmorganjr@yahoo.com

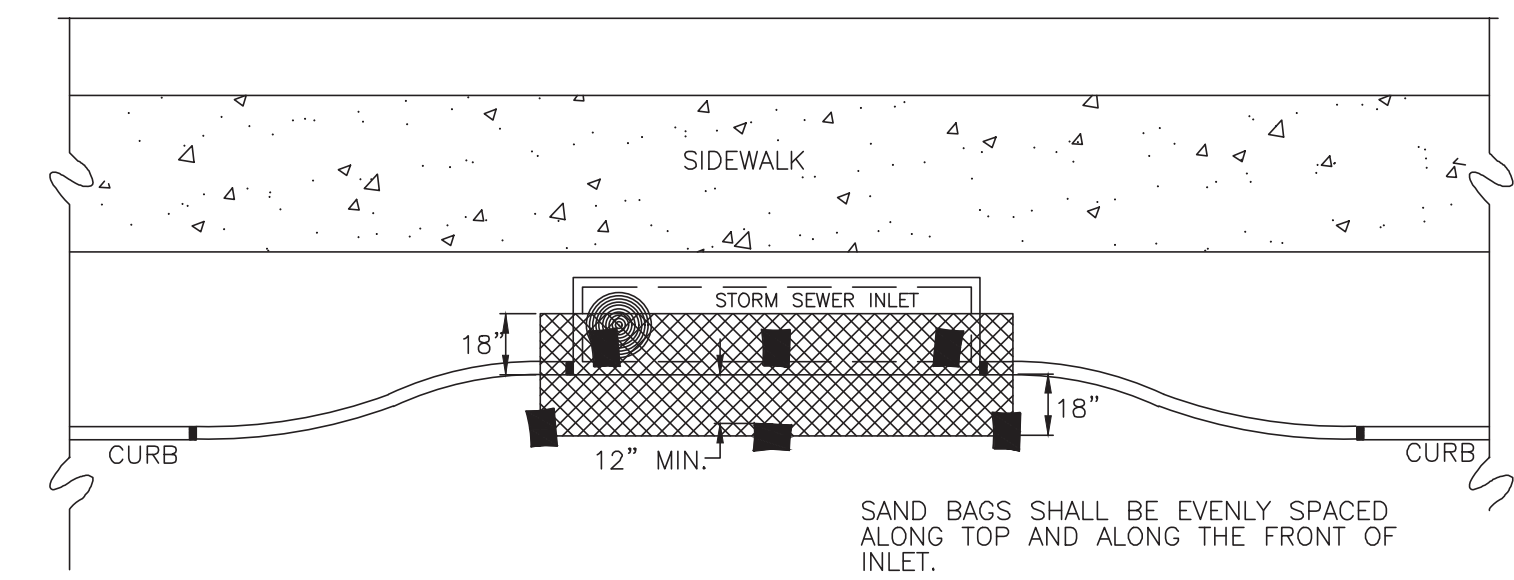
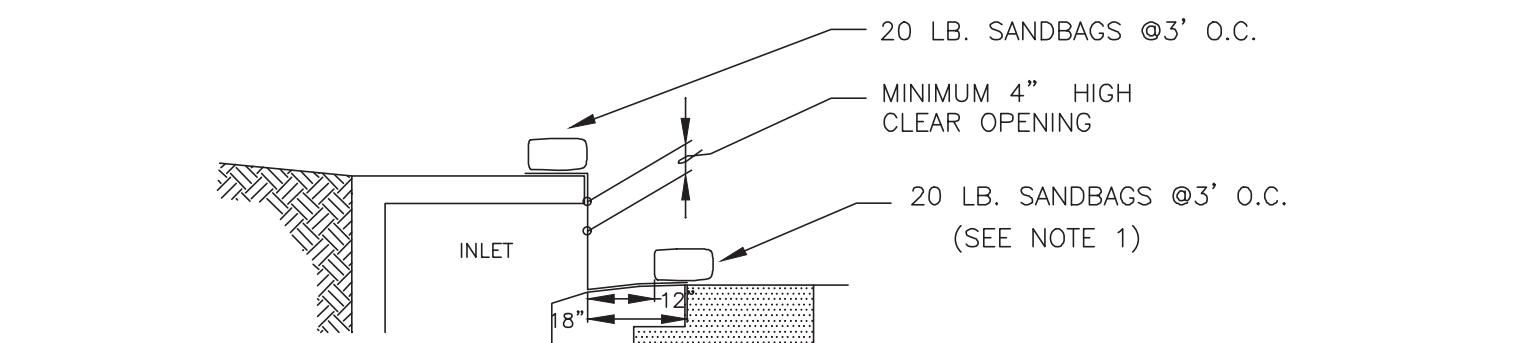
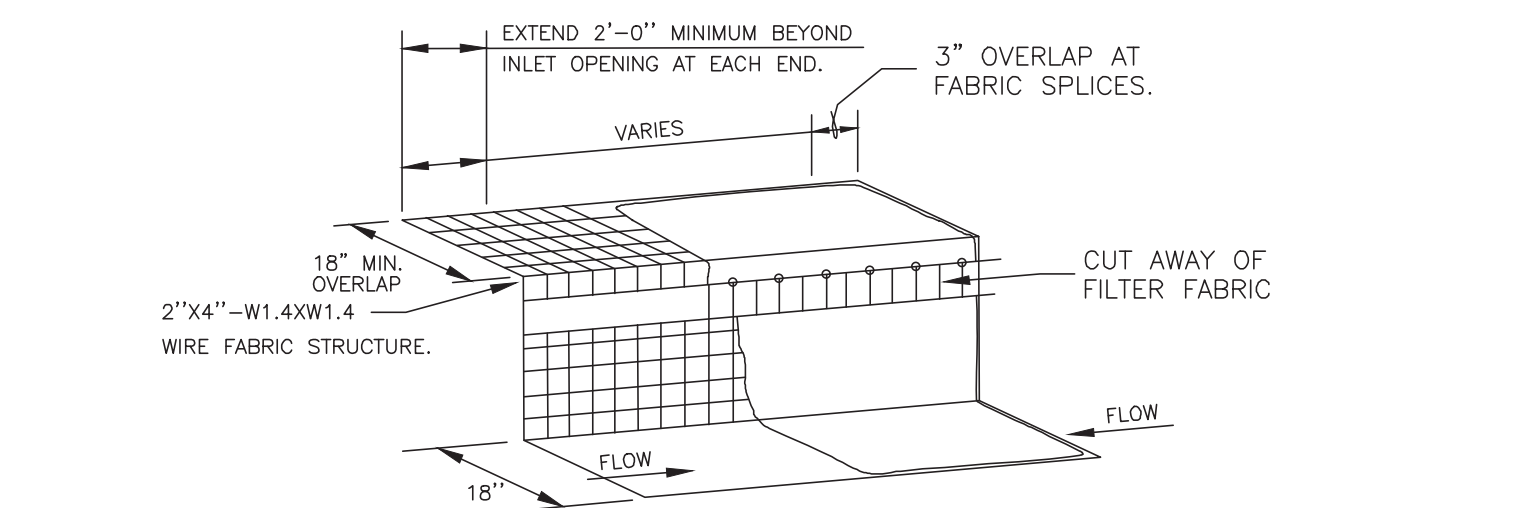
PLAN: _____
PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____

ANGLETON PARK PLACE SEC. 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

DRIVEWAY CONSTRUCTION DETAILS
SL-27
PROJECT NO. 14320



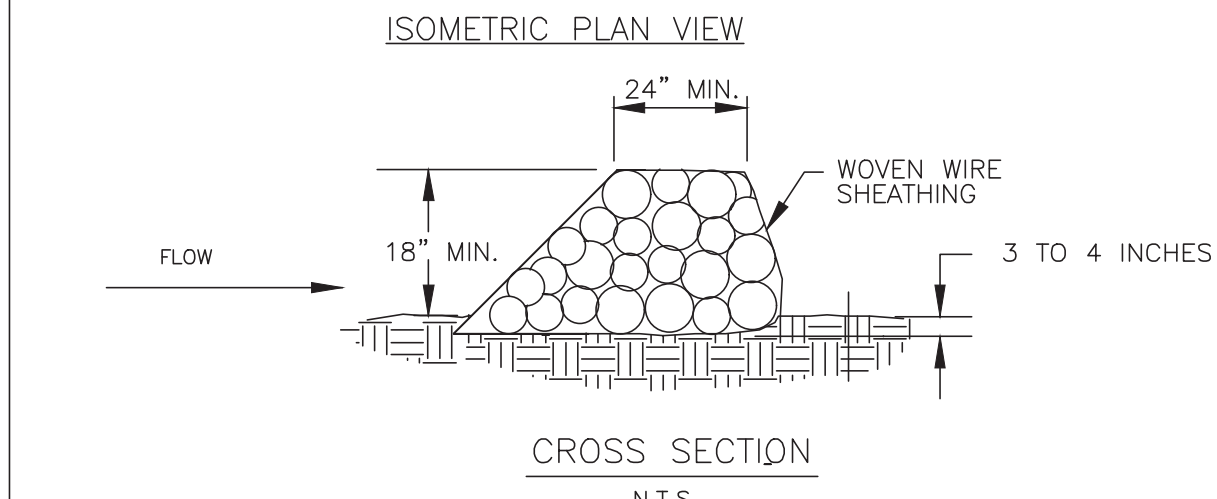
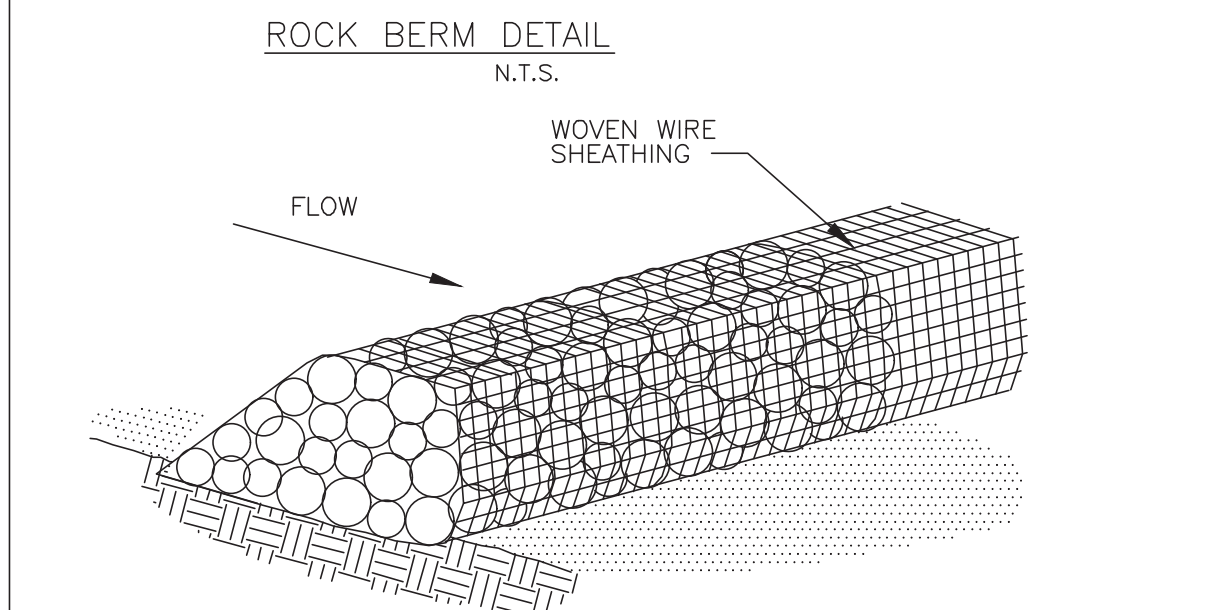
TEMPORARY STONE CONSTRUCTION
ENTRANCE/EXIT
N.T.S.



NOTES:

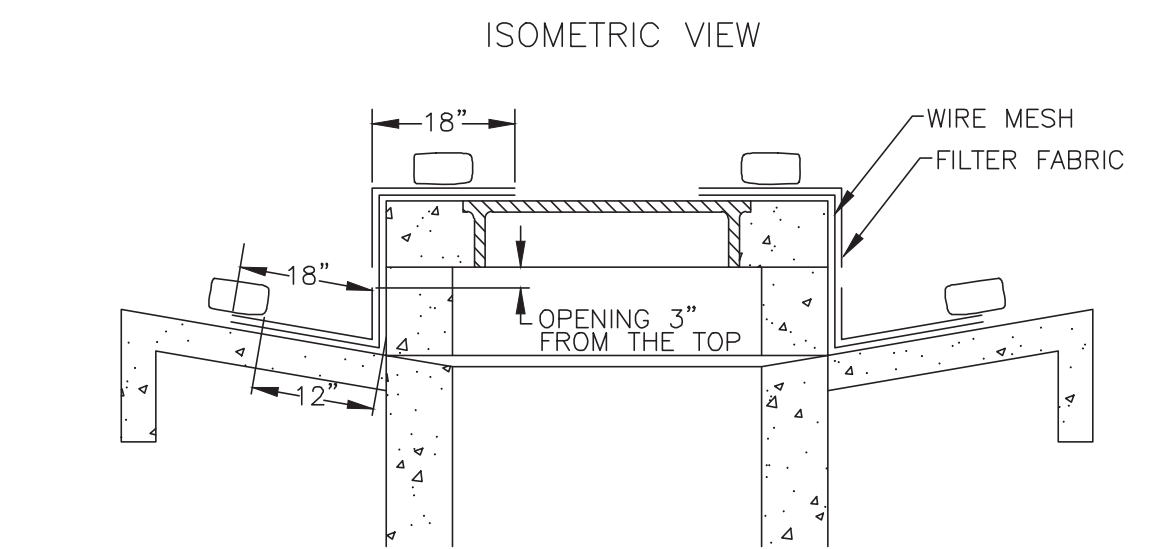
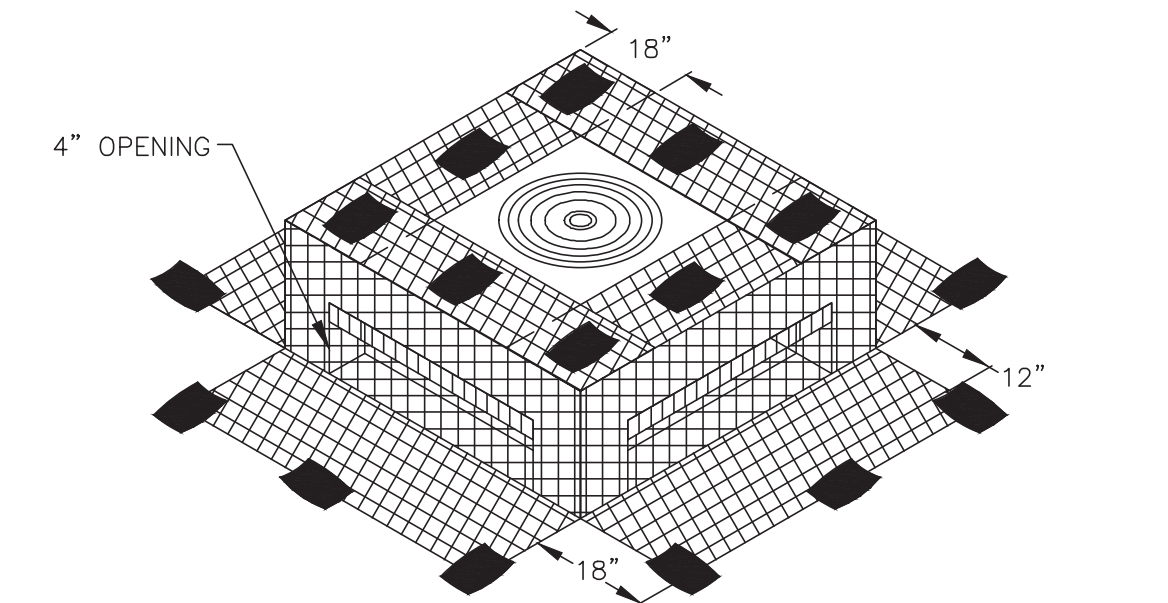
1. A SECTION OF FILTER FABRIC SHALL BE REMOVED AS SHOWN ON THIS DETAIL TO PROVIDE A 4" MINIMUM CLEAR OPENING. FABRIC MUST BE SECURED TO WIRE BACKING WITH CLIPS OR HOG RINGS AT THIS LOCATION.
2. INSPECTION SHALL BE MADE BY CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2".
3. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTION IF THE STORMWATER BEGINS TO OVERTOP THE CURB.
4. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF THE SEDIMENT IS STABILIZED.

INLET OPENING	MINIMUM NUMBER OF SAND BAGS	
	TOP	FRONT
5"	2	3
10"	3	3
15"	3	4
20"	4	4

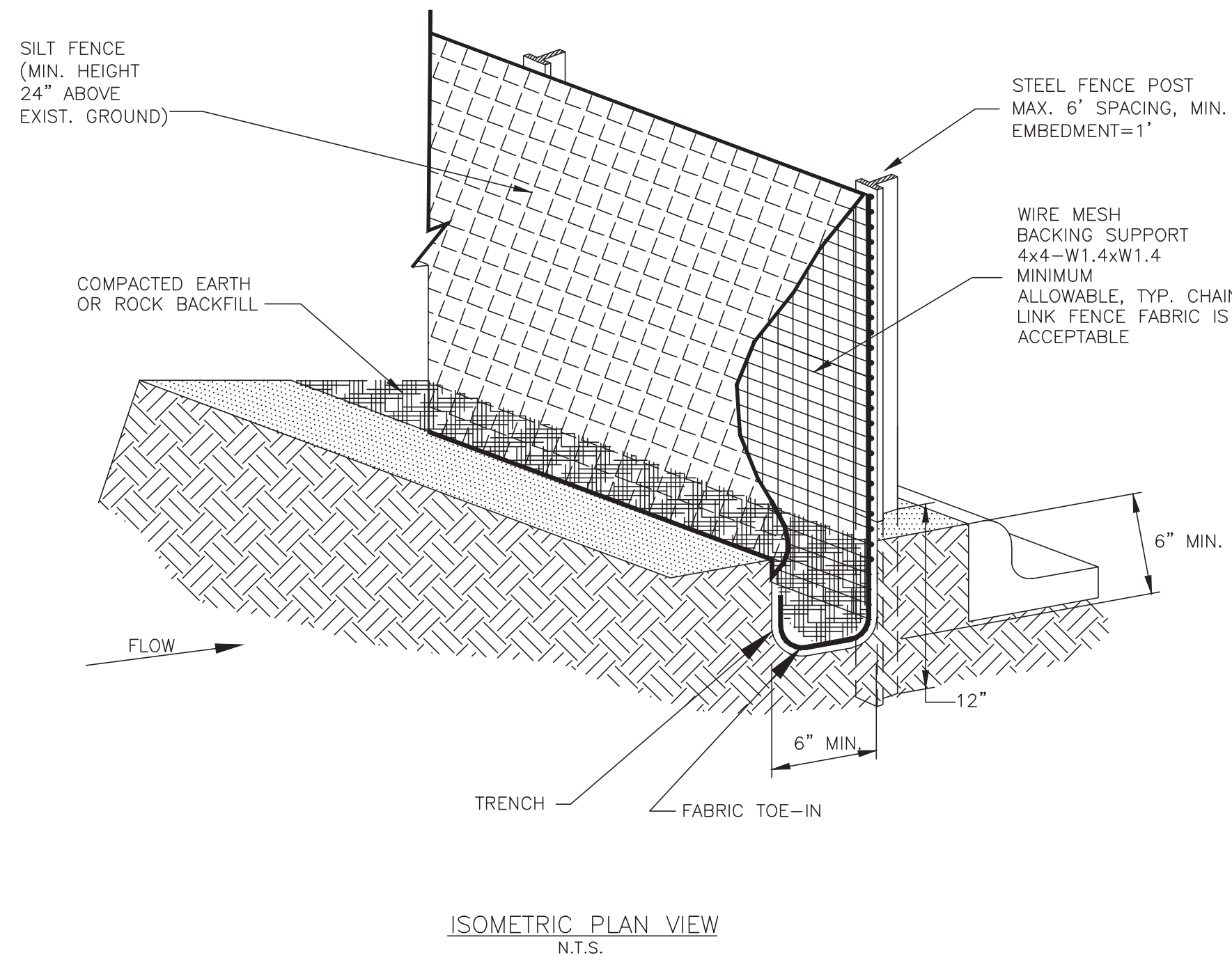


ROCK BERM GENERAL NOTES

1. USE ONLY OPEN GRADED ROCK 4-8 INCHES IN DIAMETER FOR STREAM FLOW CONDITION. USE OPEN GRADED ROCK 3-5 INCHES IN DIAMETER FOR OTHER CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING A MAXIMUM OPENING OF 1 INCH AND A MINIMUM WIRE SIZE OF 20 GAUGE AND SHALL BE BURIED IN A TRENCH APPROXIMATELY 3 TO 4 INCHES DEEP.
3. THE ROCK BERM SHALL BE INSPECTED EVERY TWO WEEKS OR AFTER EACH 1/2" RAIN EVENT AND SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD OF THE HEIGHT OF THE BERM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF PROPERLY.
5. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.
6. ROCK BERM SHOULD BE USED AS CHECK DAMS FOR CONCENTRATED FLOW AND ARE NOT INTENDED FOR USE IN PERIMETER PROTECTION.

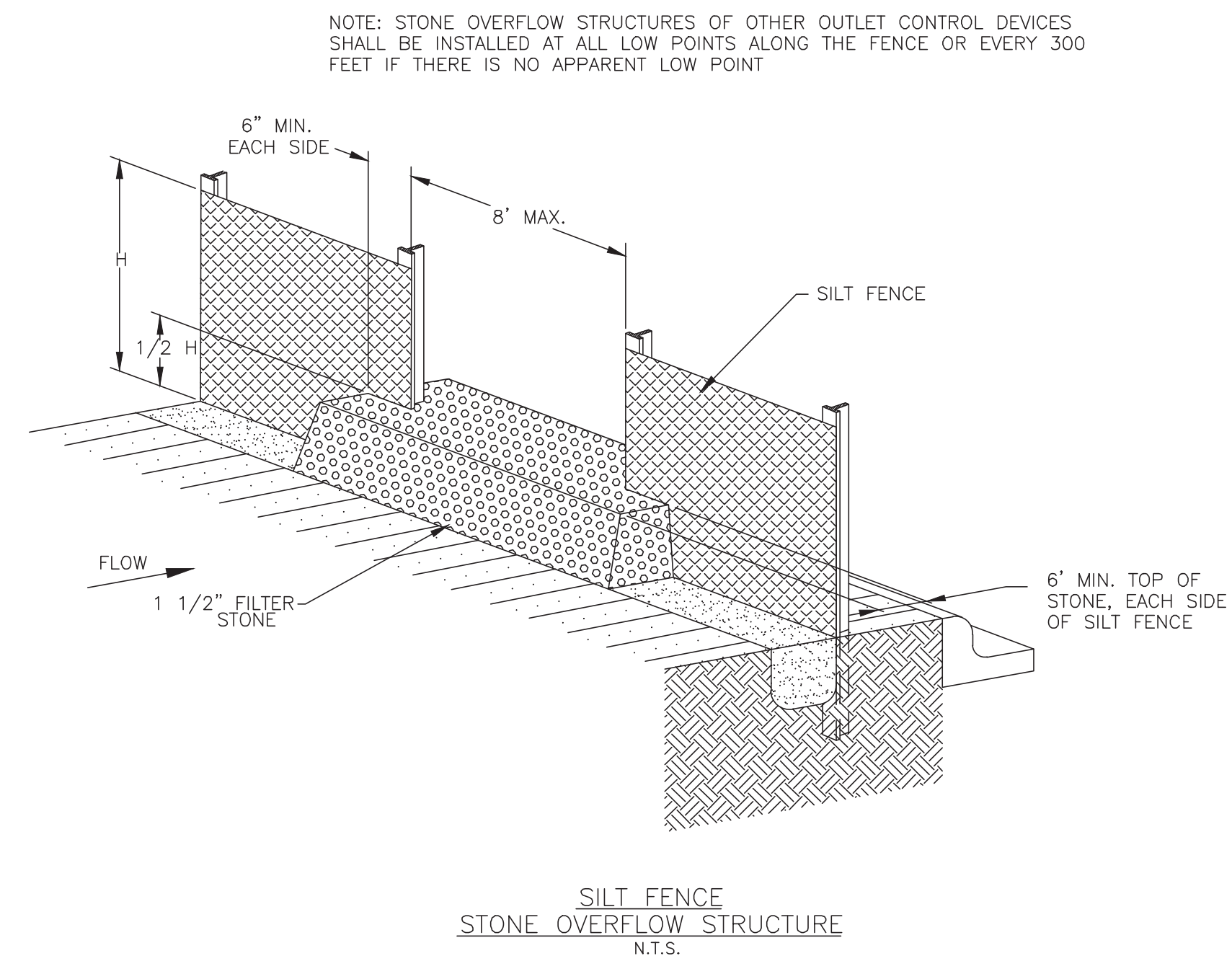


SECTION
FILTER FABRIC WYE INLET PROTECTION
N.T.S.



SILT FENCE GENERAL NOTES

1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G. PAVEMENT), WEIGHT FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN IS ATTACHED TO THE STEEL FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
5. INSPECTION SHALL BE MADE EVERY TWO WEEKS AND AFTER EACH 1/2" RAINFALL. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.



No.	DATE	REVISION

No.	DATE	REVISION

No.	DATE	REVISION

No.	DATE	REVISION

DESIGN ENGINEER: _____ DATE _____

SCALE: _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:
EROSION CONTROL DETAILS - 1

JOB No.: DATE: DESIGNED BY: DRAWN BY: CHECKED BY: SCALE:	SL-34 SHEET OF
---	-------------------

J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN BT
CHECKED _____
DATE May 2023

B & L
BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
4005 TECHNOLOGY DRIVE, SUITE 1330
ANGLETON, TEXAS 77515 (979) 849-6681
REG. NO. F-825

The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992 05-25-2023

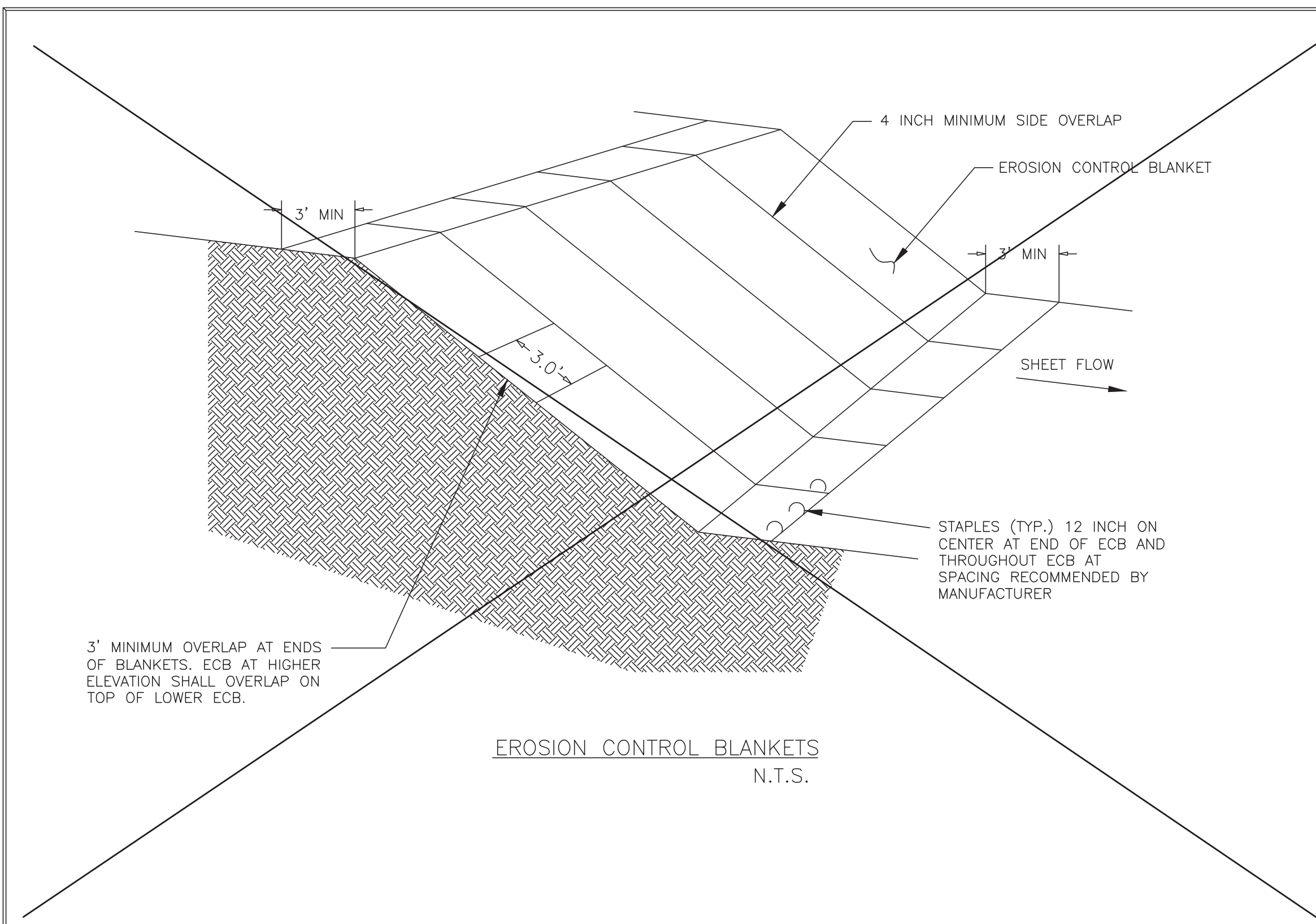
STATE OF TEXAS
121992
LICENSED PROFESSIONAL ENGINEER

OWNER:
Mike Morgan
979-236-5089
dmmorganjr@yahoo.com

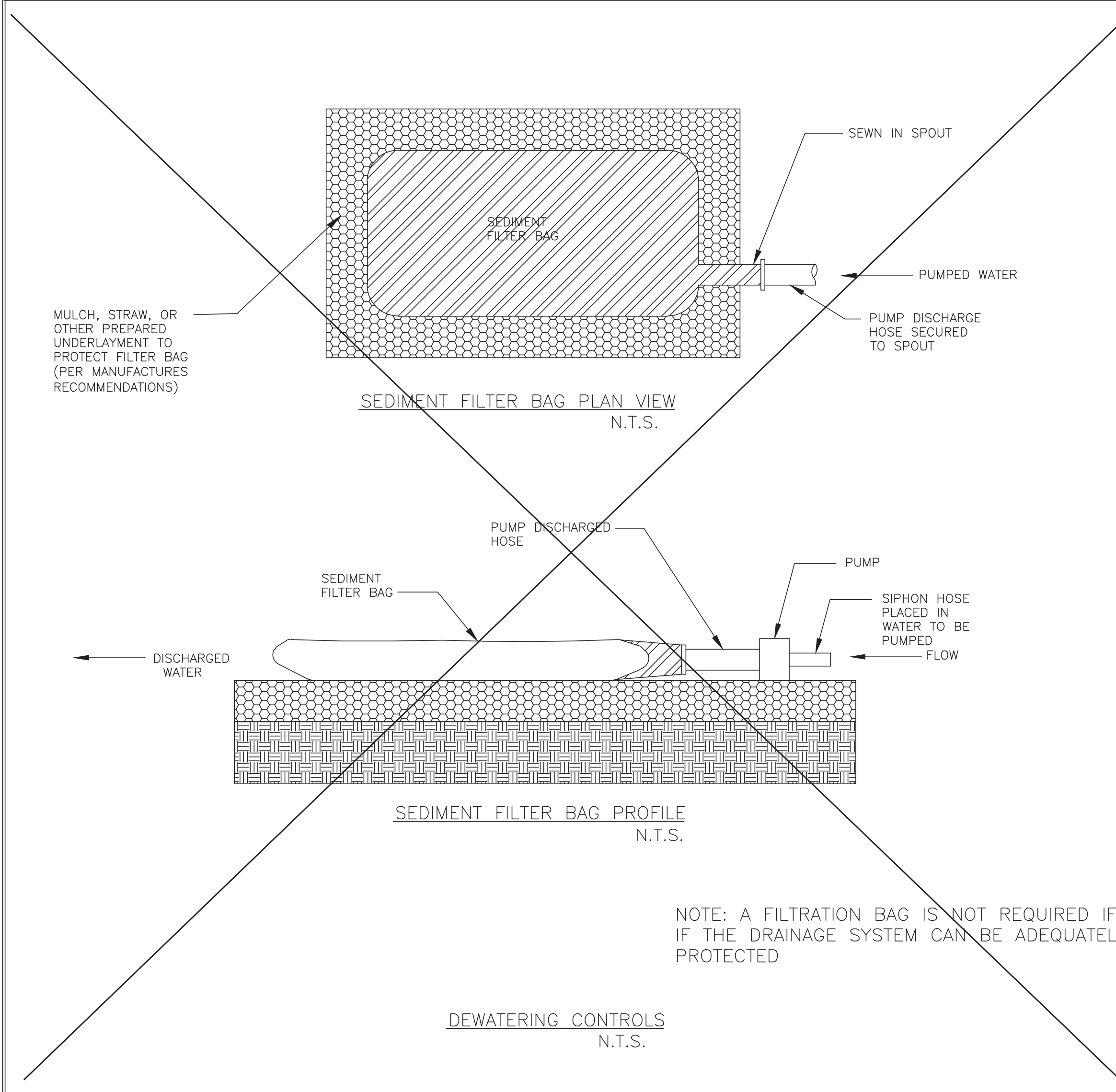
PLAN: _____
PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____

ANGLETON PARK PLACE SEC. 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

EROSION CONTROL
DETAILS - 1
SL-34
PROJECT NO. 14320



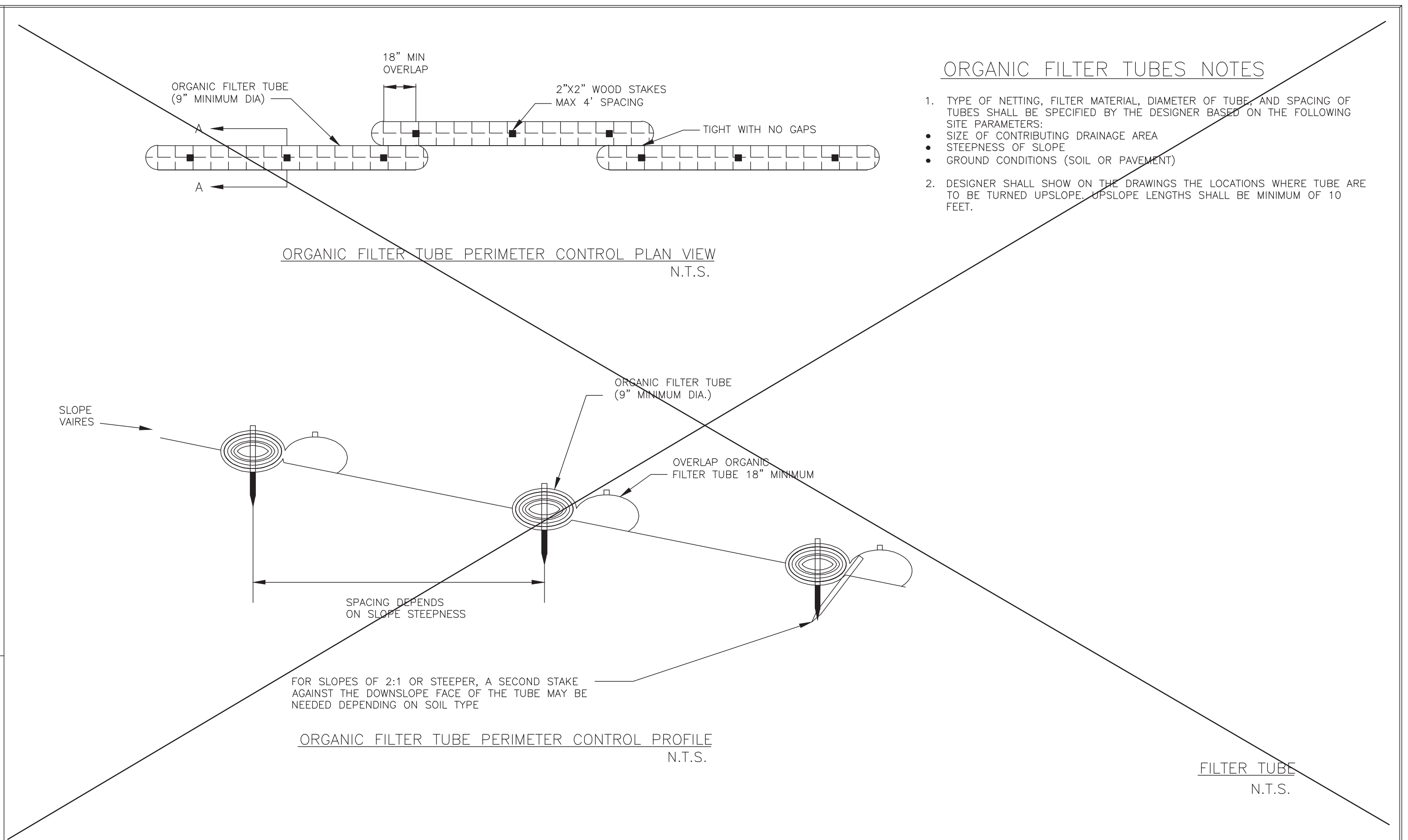
EROSION CONTROL BLANKETS
N.T.S.



SEDIMENT FILTER BAG PLAN VIEW
N.T.S.

SEDIMENT FILTER BAG PROFILE
N.T.S.

DEWATERING CONTROLS
N.T.S.



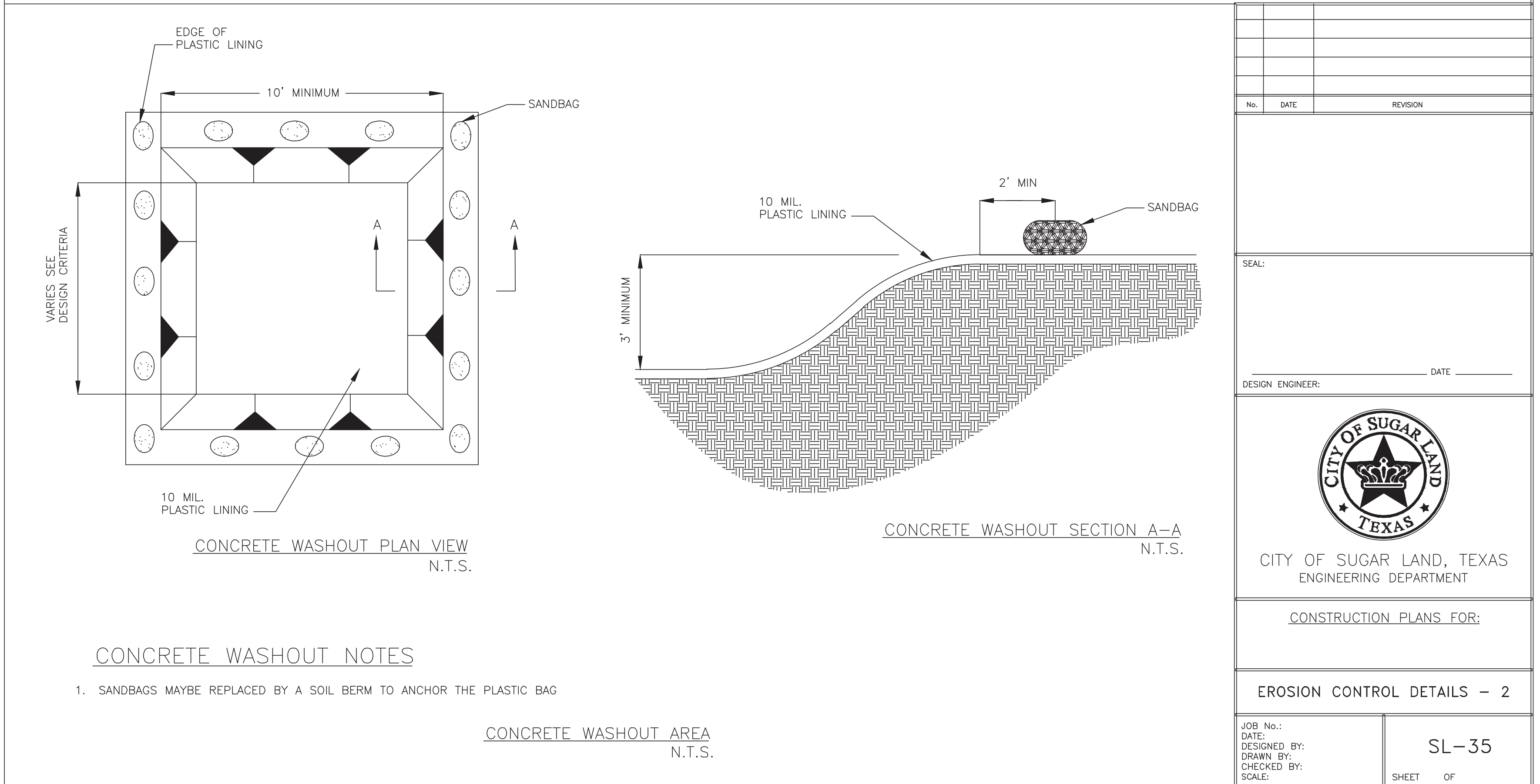
ORGANIC FILTER TUBE PERIMETER CONTROL PLAN VIEW
N.T.S.

ORGANIC FILTER TUBE PERIMETER CONTROL PROFILE
N.T.S.

FILTER TUBE
N.T.S.

ORGANIC FILTER TUBES NOTES

1. TYPE OF NETTING, FILTER MATERIAL, DIAMETER OF TUBE, AND SPACING OF TUBES SHALL BE SPECIFIED BY THE DESIGNER BASED ON THE FOLLOWING SITE PARAMETERS:
• SIZE OF CONTRIBUTING DRAINAGE AREA
• STEEPNESS OF SLOPE
• GROUND CONDITIONS (SOIL OR PAVEMENT)
2. DESIGNER SHALL SHOW ON THE DRAWINGS THE LOCATIONS WHERE TUBE ARE TO BE TURNED UPSLOPE. UPSLOPE LENGTHS SHALL BE MINIMUM OF 10 FEET.



CONCRETE WASHOUT PLAN VIEW
N.T.S.

CONCRETE WASHOUT SECTION A-A
N.T.S.

CONCRETE WASHOUT NOTES


1. SANDBAGS MAYBE REPLACED BY A SOIL BERM TO ANCHOR THE PLASTIC BAG

CONCRETE WASHOUT AREA
N.T.S.

No.	DATE	REVISION

DESIGN ENGINEER: _____	DATE: _____
------------------------	-------------

SEAL: _____


 CITY OF SUGAR LAND, TEXAS
 ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

EROSION CONTROL DETAILS - 2	
JOB No.: _____	SL-35
DATE: _____	SHEET OF
DESIGNED BY: _____	
DRAWN BY: _____	
CHECKED BY: _____	
SCALE: _____	

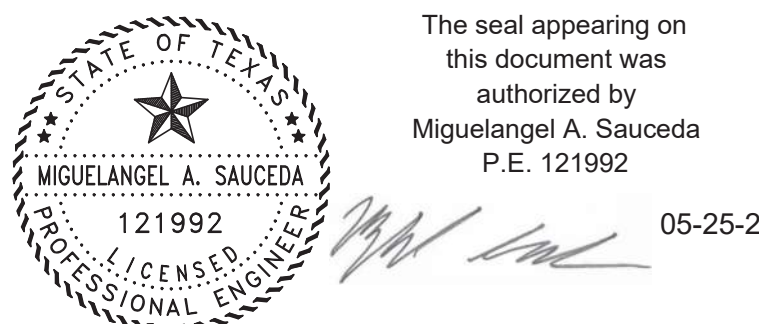
J:\140005\14320\ENGINEERING-SURVEY\DRAWINGS\14320 DETAIL SET.DWG

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED: MS
DRAWN: BT
CHECKED: _____
DATE: May 2023


BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 4005 TECHNOLOGY DRIVE, SUITE 1530
 ANGLETON, TEXAS 77515 (979) 849-6681
 REG. NO. F-825


 The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992
 05-25-2023

OWNER:
Mike Morgan
 979-236-5089
 dmmorganjr@yahoo.com

PLAN: _____
PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____

ANGLETON PARK PLACE SEC. 1
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

EROSION CONTROL
 DETAILS - 2
 SL-35
 PROJECT NO. 14320