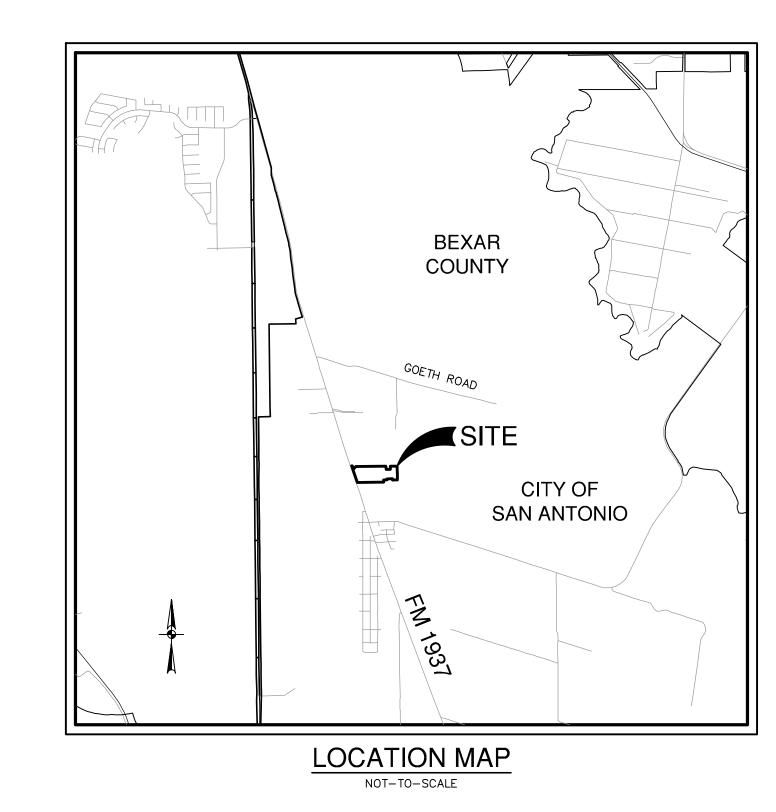
# SONORA-UNIT 1

# BEXAR COUNTY, TEXAS

# CIVIL CONSTRUCTION PLANS

Sheet List Table **Sheet Description** Sheet No. COVER SHEET C0.00 C1.01 DRAIN A PLAN AND PROFILE DRAINAGE MASTER PLAN C1.00 (SHEET 1 OF 2) DRAINAGE DETAILS C1.10 (SHEET 2 OF 2) DRAINAGE DETAILS C1.20 PLAN AND PROFILE ZEPHYR LILY C2.00 STAR CACTUS PLAN AND PROFILE C2.01 C2.02 ORGAN PIPE CACTUS PLAN AND PROFILE C2.03 PLAN AND PROFILE CANDELABRA CACTUS **BARBERRY FIG** C2.04 PLAN AND PROFILE PAVING, STRIPING, AND GRADING PLAN C2.05 LEFT TURN LANE-S FLORES ROAD (SHEET 1 OF 3) C2.10 STREET DETAILS (SHEET 2 OF 3) C2.20 STREET DETAILS (SHEET 3 OF 3) C2.30 STREET DETAILS OVERALL SIGNAGE PLAN C3.00 (SHEET 1 OF 3) OVERALL SIGNAGE DETAILS C3.10 (SHEET 2 OF 3) OVERALL SIGNAGE DETAILS C3.20 (SHEET 3 OF 3) C3.30 OVERALL SIGNAGE DETAILS



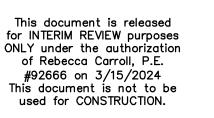
Sheet List Table **Sheet Description** Sheet No. **OVERALL SANITARY SEWER PLAN** C4.00 SANITARY SEWER LINE A PLAN AND PROFILE C4.01 PLAN AND PROFILE (STA. 1+00.00 TO STA. 10+50.00) SANITARY SEWER LINE B C4.02 PLAN AND PROFILE (STA. 10+50.00 TO END) SANITARY SEWER LINE B C4.03 PLAN AND PROFILE C4.04 SANITARY SEWER LINE C C4.10 SANITARY SEWER PLAN DETAILS SANITARY SEWER NOTES C4.20 C5.00 **OVERALL WATER PLAN** WATER DISTRIBUTION DETAILS C5.10 C5.20 WATER DISTRIBUTION NOTES **OVERALL UTILITY PLAN** C6.00 **GRADING PLAN** C7.00 C8.00 STORMWATER POLLUTION PREVENTION PLAN SWPPP DETAILS C8.10

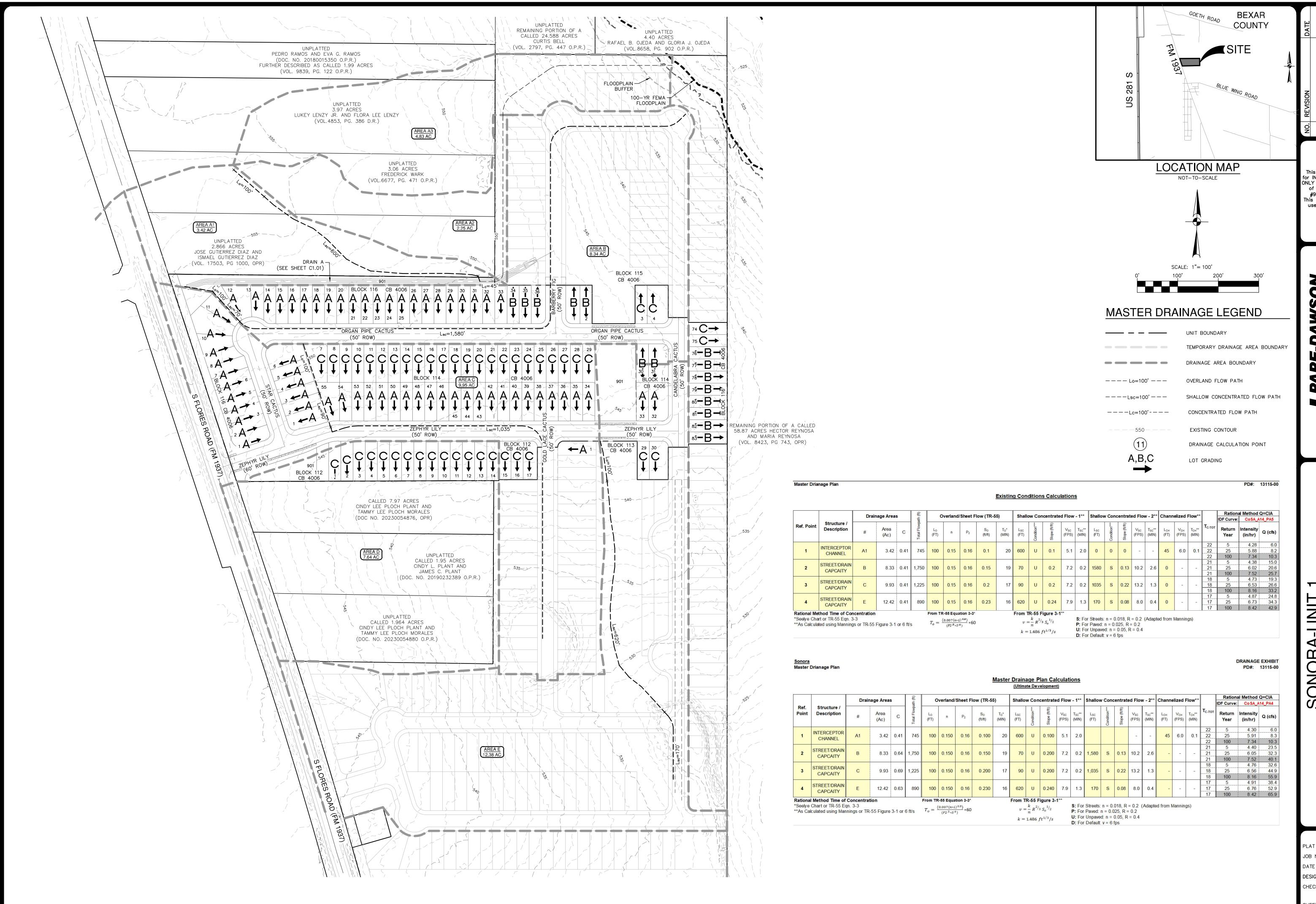
PREPARED FOR:

CONTINENTAL HOMES OF TEXAS, L.P. 5419 N LOOP 1604 E SAN ANTONIO, TEXAS 78247

March 2024





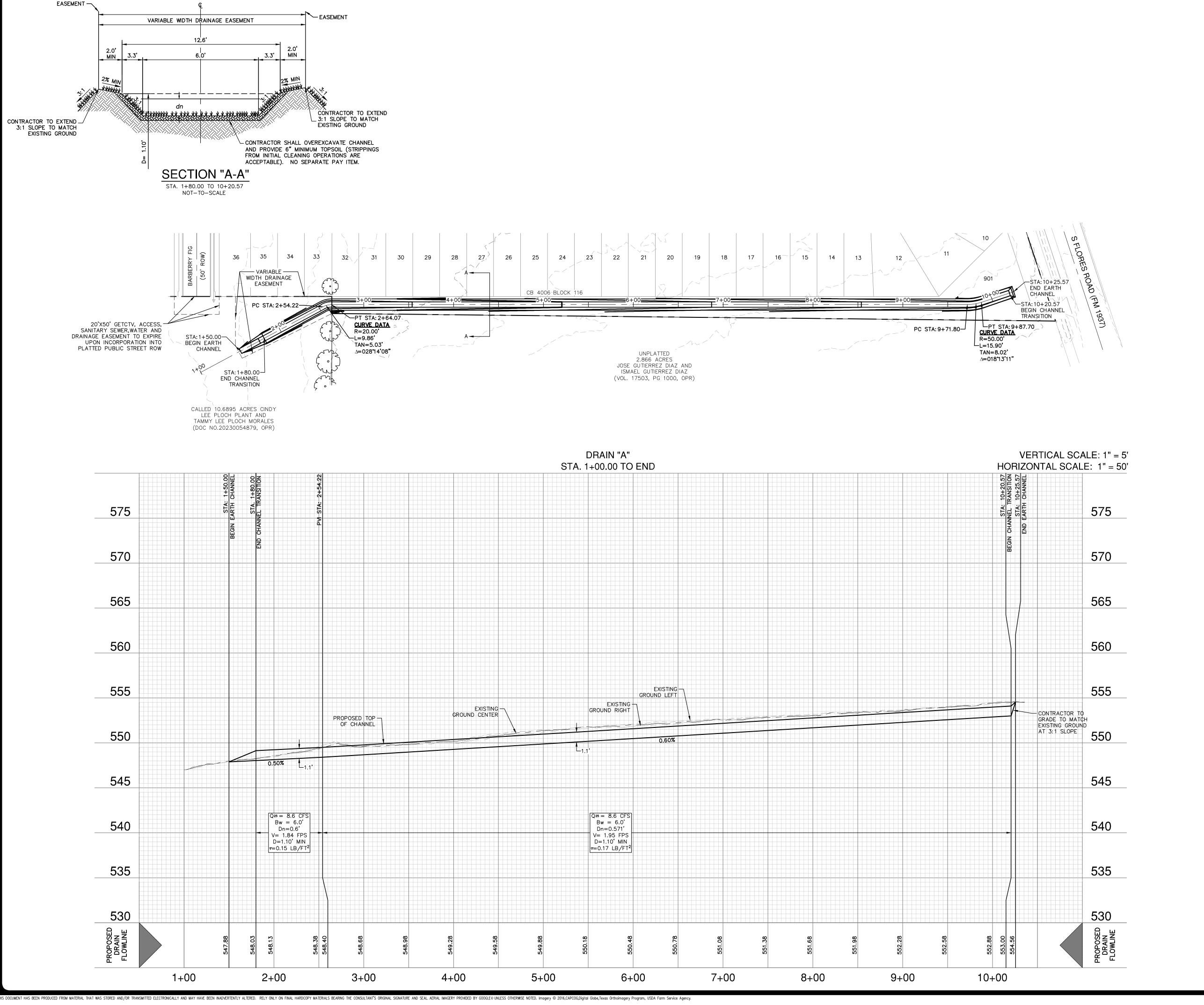


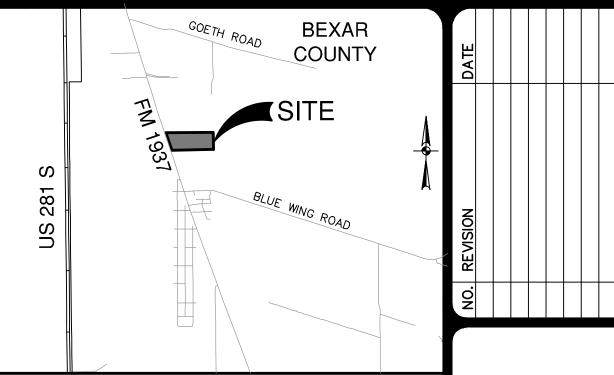
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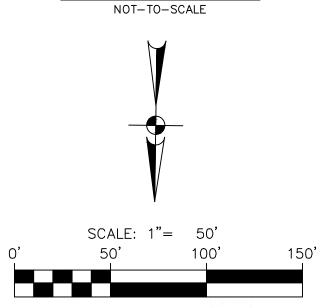
SONORA-UNIT 1 BEXAR COUNTY, TEXAS

PLAT NO. 24-11800020 13115-02 DATE March 2024 DESIGNER CHECKED\_\_\_\_ DRAWN\_ MS





**LOCATION MAP** 



# DRAINAGE LEGEND

DEVELOPMENT FLOODPLAIN

# **DRAINAGE & GRADING NOTES:**

1. A BEXAR COUNTY ROW PERMIT MUST BE OBTAINED BEFORE WORKING IN BEXAR COUNTY ROW. CONTRACTOR SHALL COORDINATE A TRAFFIC CONTROL PLAN FOR ALL WORK WITHIN THE ROW. ADDITIONAL WARNING SIGNS MAY BE RECOMMENDED BY THE ENGINEER ONCE THE ROADWAYS ARE CONSTRUCTED.

- 2. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY SIZE, GRADE, AND LOCATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DEVIATIONS FROM PLANS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.
- 3. ALL CONCRETE FOR TXDOT DRAINAGE STRUCTURES SHALL MEET TXDOT SPECIFICATIONS. ALL OTHER CONCRETE SHALL BE CLASS "A" 3000 PSI CYLINDER STRENGTH IN 28 DAYS.
- 4. REFERENCE DRAINAGE DETAILS FOR PIPE TRENCH DETAILS, BOX CULVERT, HEADWALL, AND WINGWALL CONSTRUCTION DETAILS, AND BOX CULVERT BEDDING AND EXCAVATION LIMITS.
- 5. CONTRACTOR SHALL GROUT ALL CURB INLETS AND JUNCTION BOXES TO PROVIDE FOR POSITIVE DRAINAGE.
- 6. EARTHEN CHANNELS WILL BE VEGETATED BY SEEDING OR SODDING. 85% OF THE CHANNEL SURFACE MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT.
- 7. CONTRACTOR SHALL MATCH TOP OF CHANNEL TO NATURAL GROUND AND MAINTAIN A MINIMUM CHANNEL DEPTH OF "D" AS SHOWN IN THE

# TRENCH EXCAVATION SAFETY PROTECTION:

CONTRACTOR AND/ OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYE OR STRUCTURAL DESIGN/ GEOTECHNICAL/ SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFÉTY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OF CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM II ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION. CAUTION!!

CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITING TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCTBANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR NOT.

A COUNTY, TEX DRAIN A N AND PROFILE

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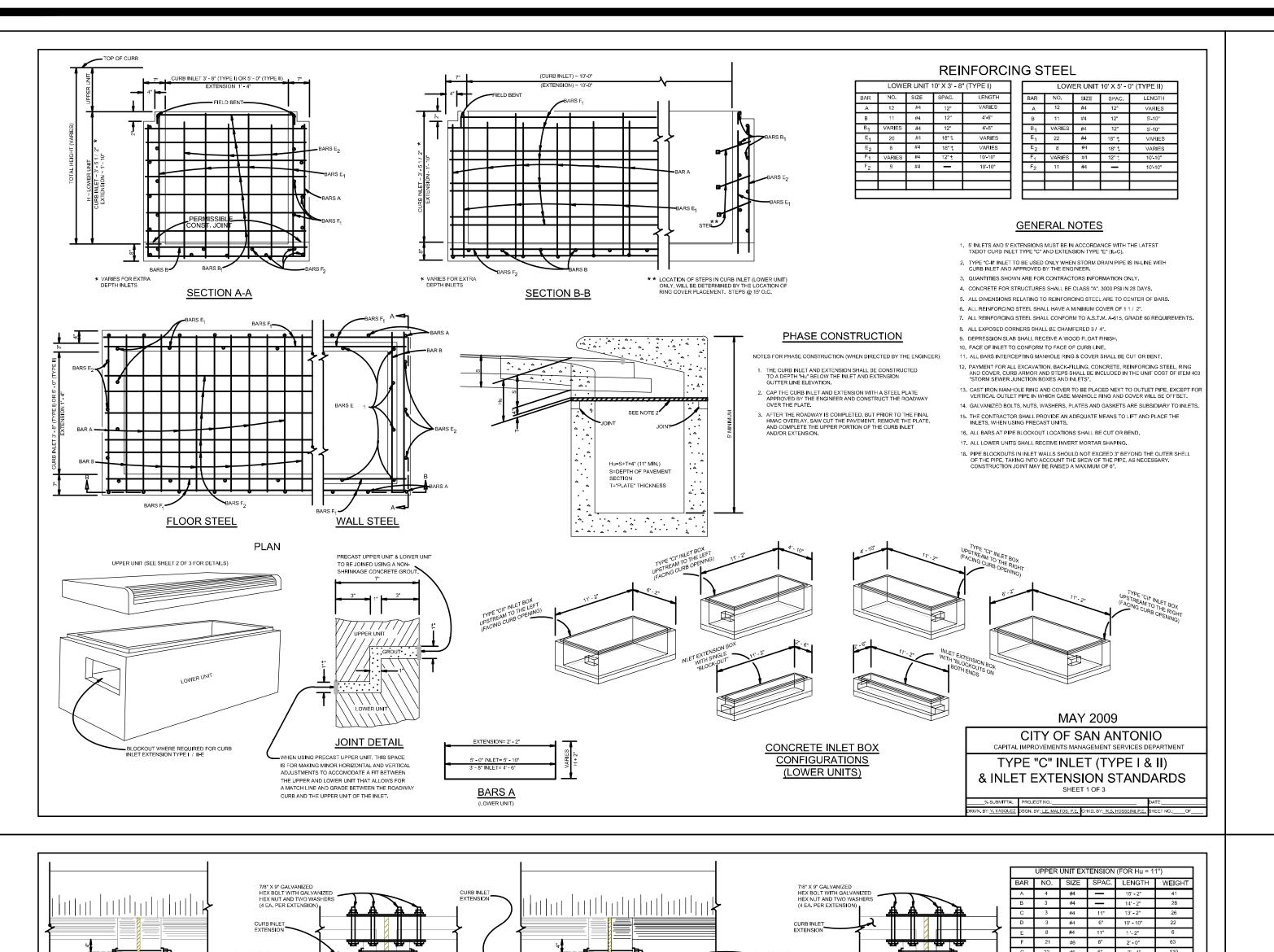
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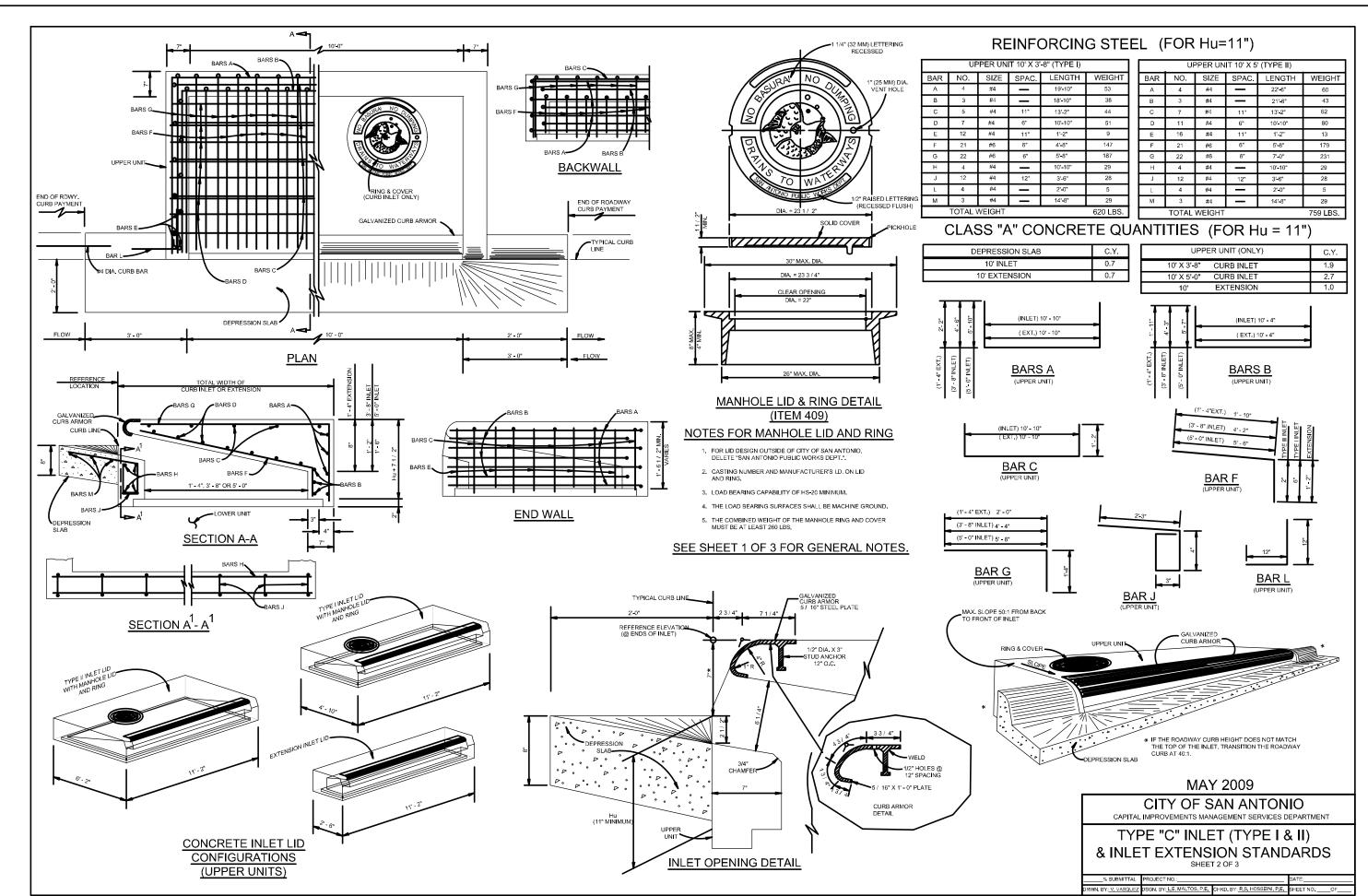
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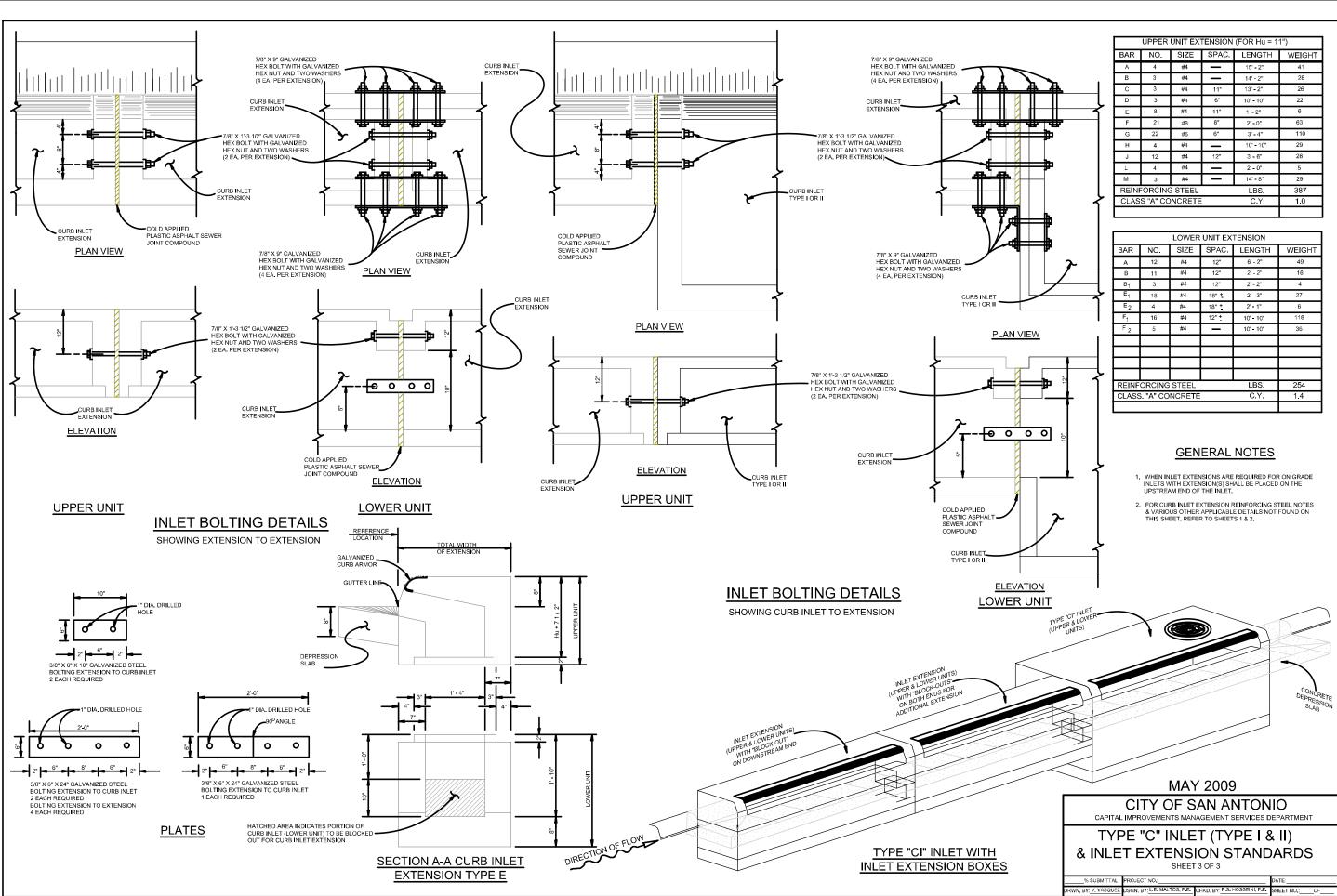
DATE March 2024

DESIGNER SS

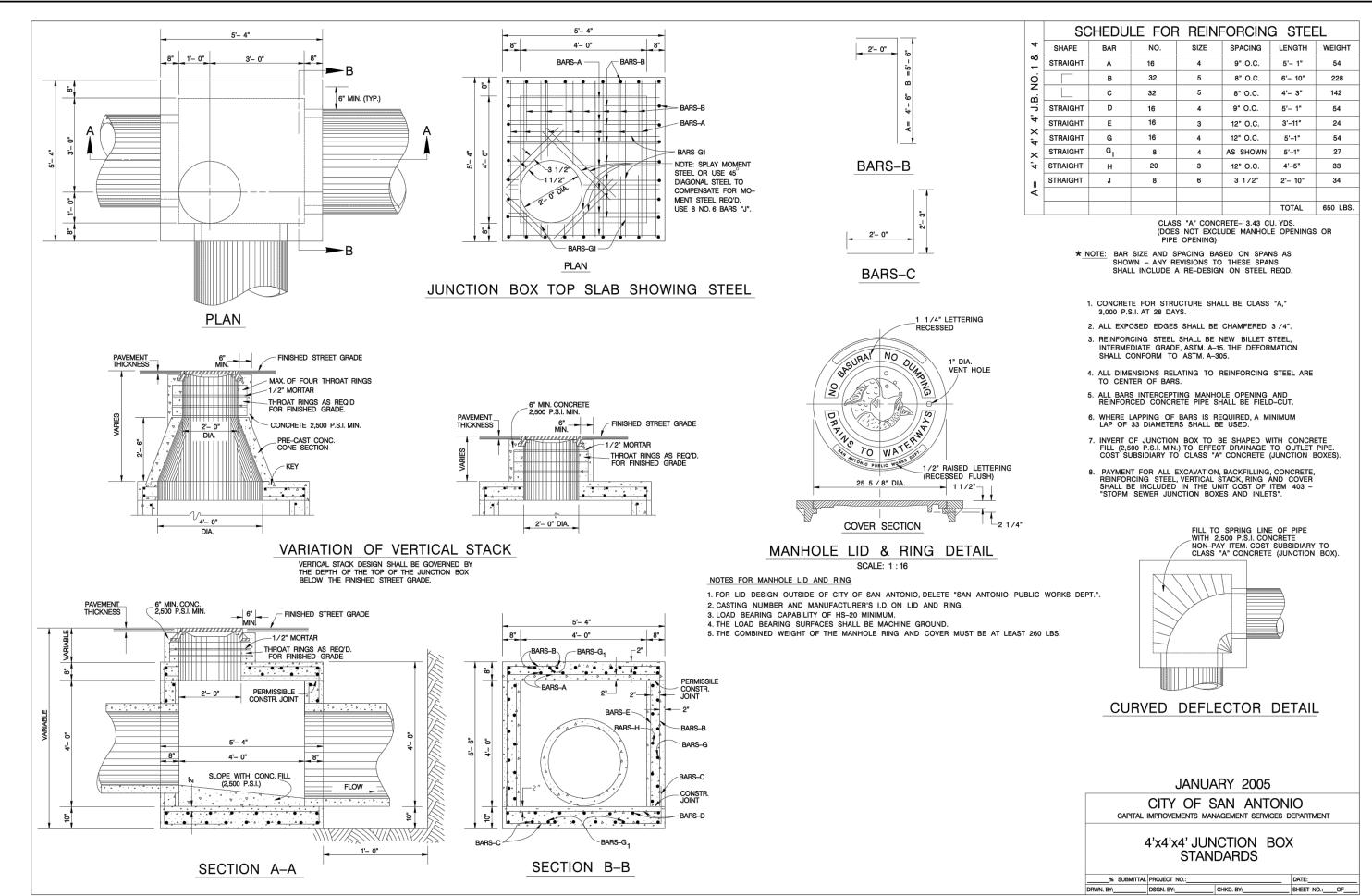
cked\_\_\_\_drawn<u>ms</u> et C1.01







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SONORA-UNIT 1
BEXAR COUNTY, TEXAS

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24-11800020

DRAINAGE (SHEET 1

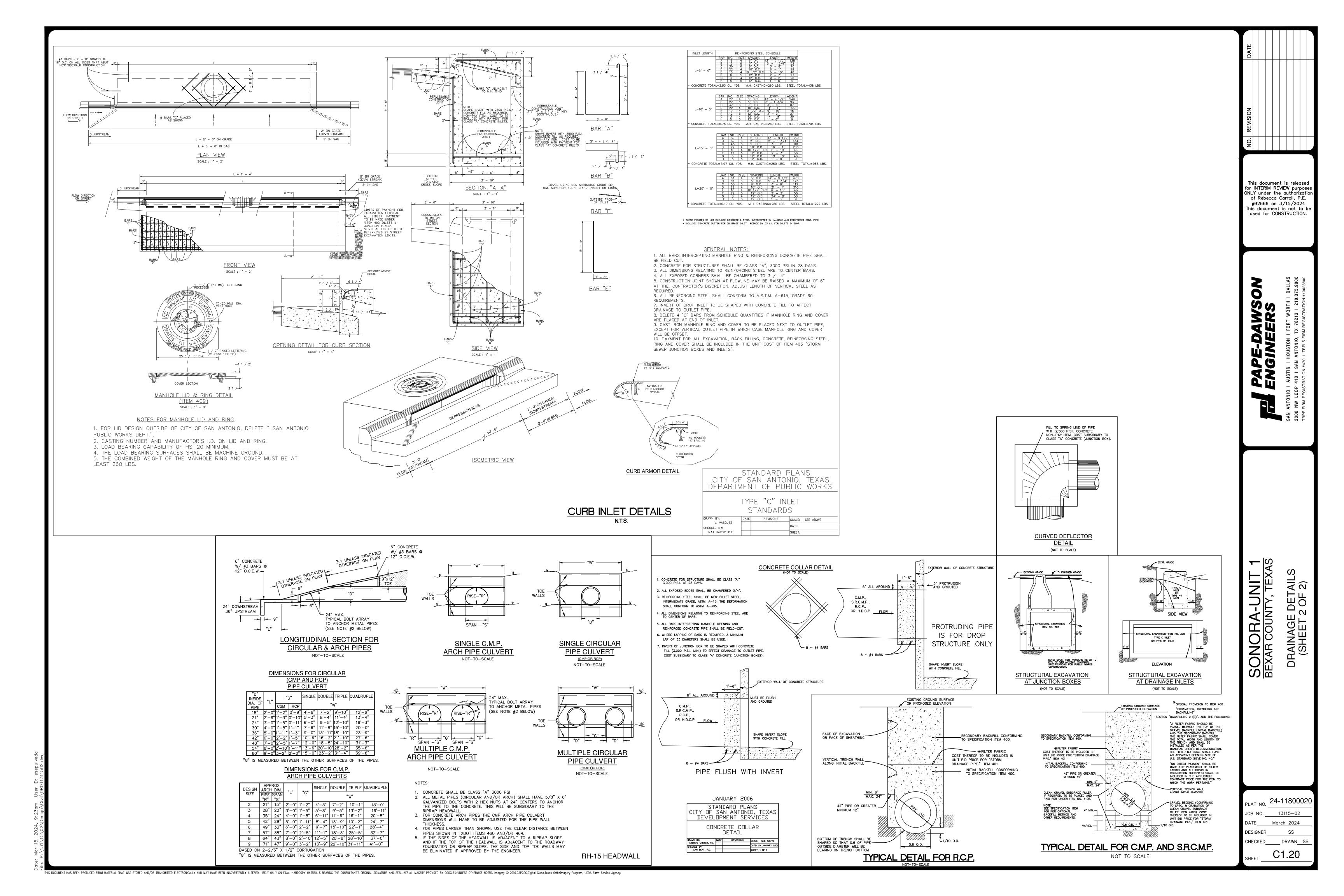
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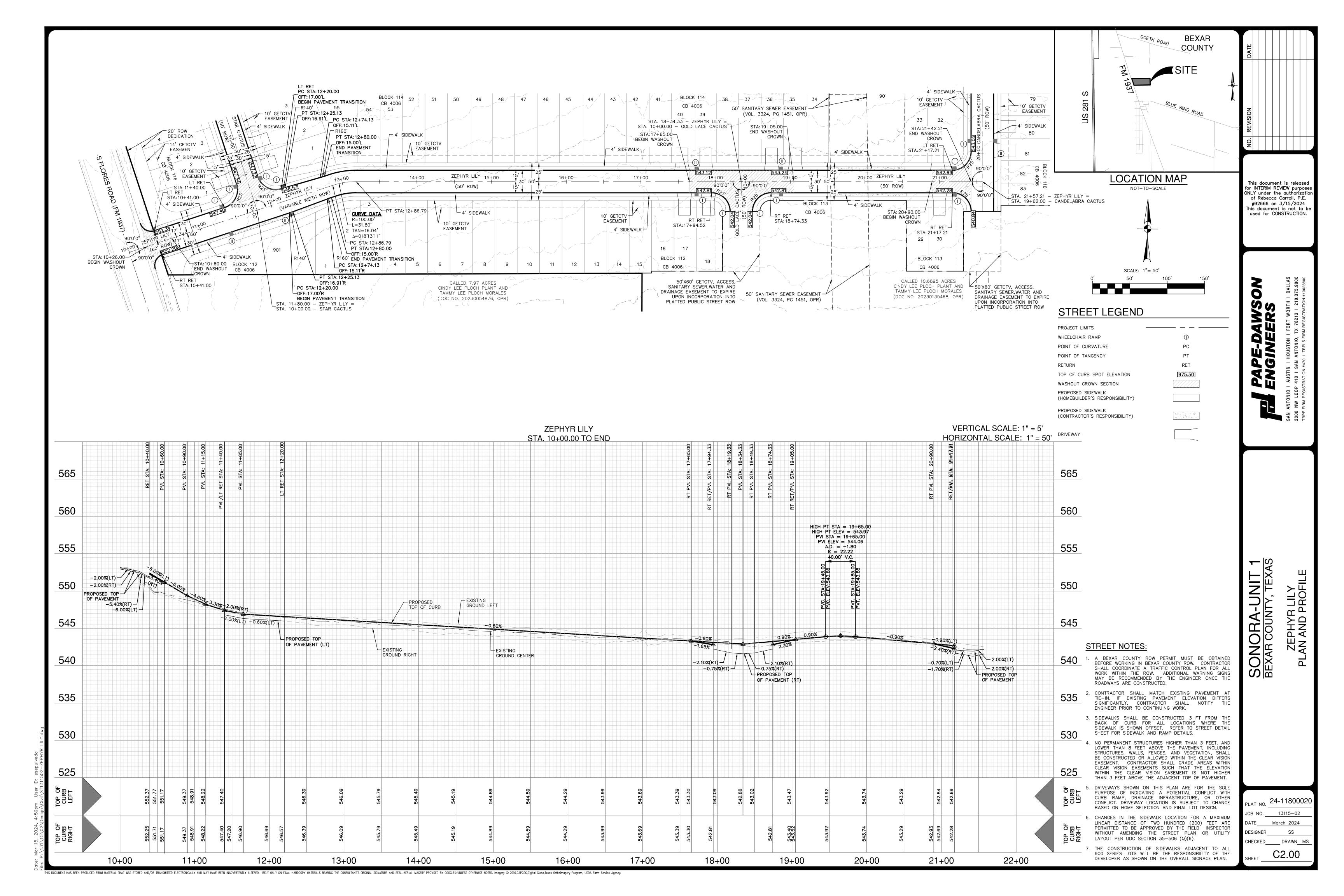
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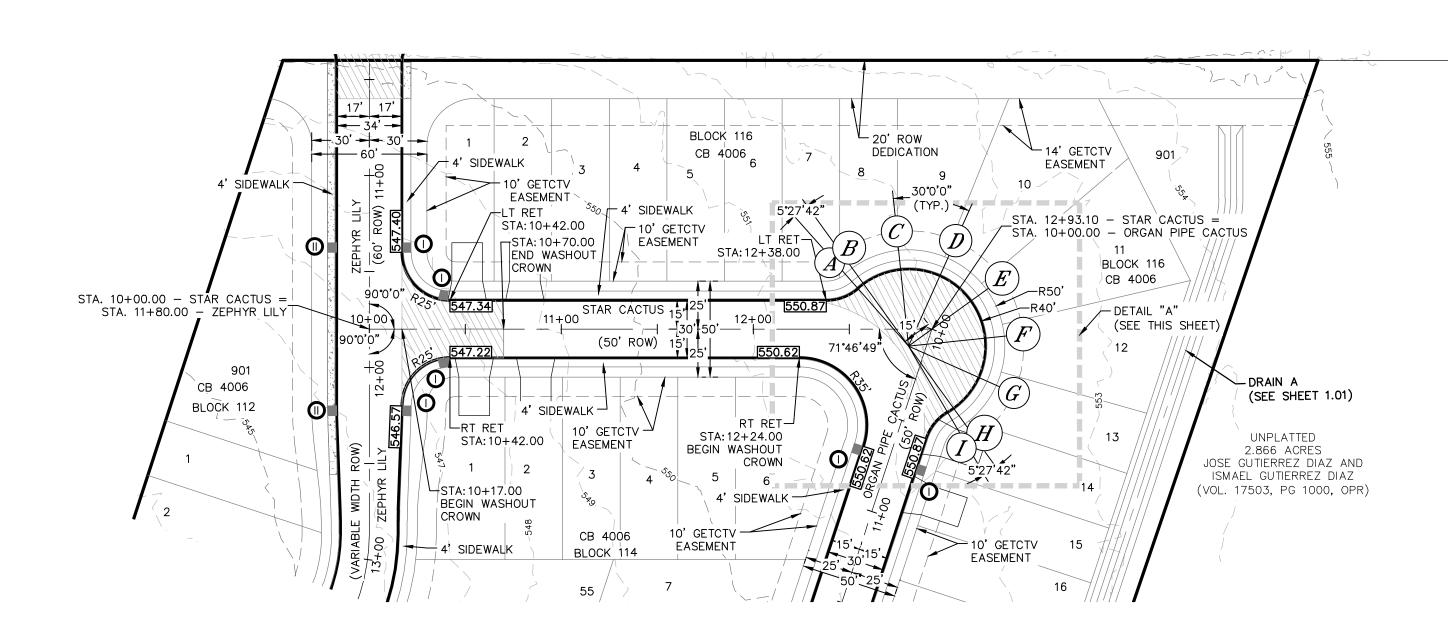
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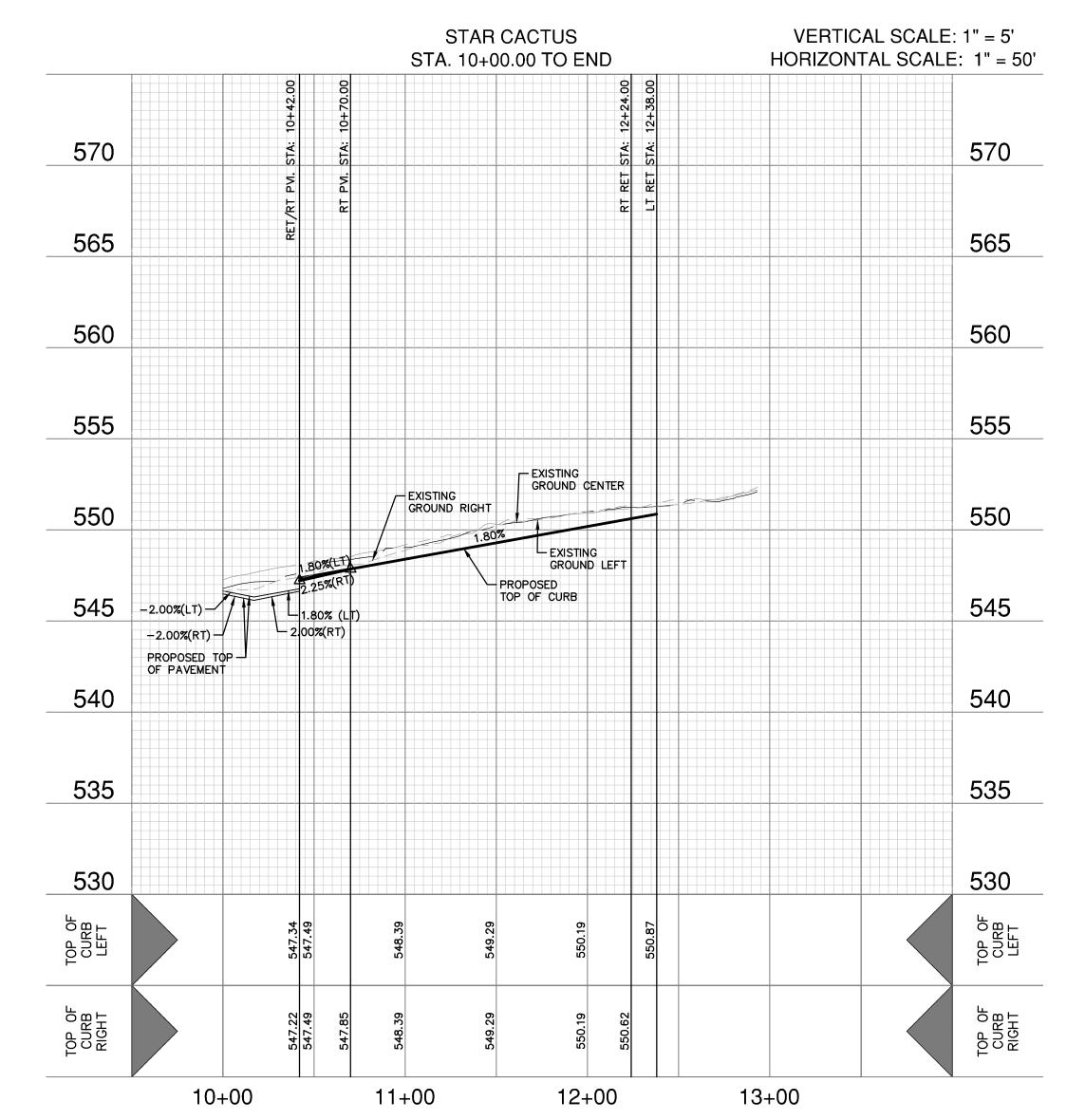
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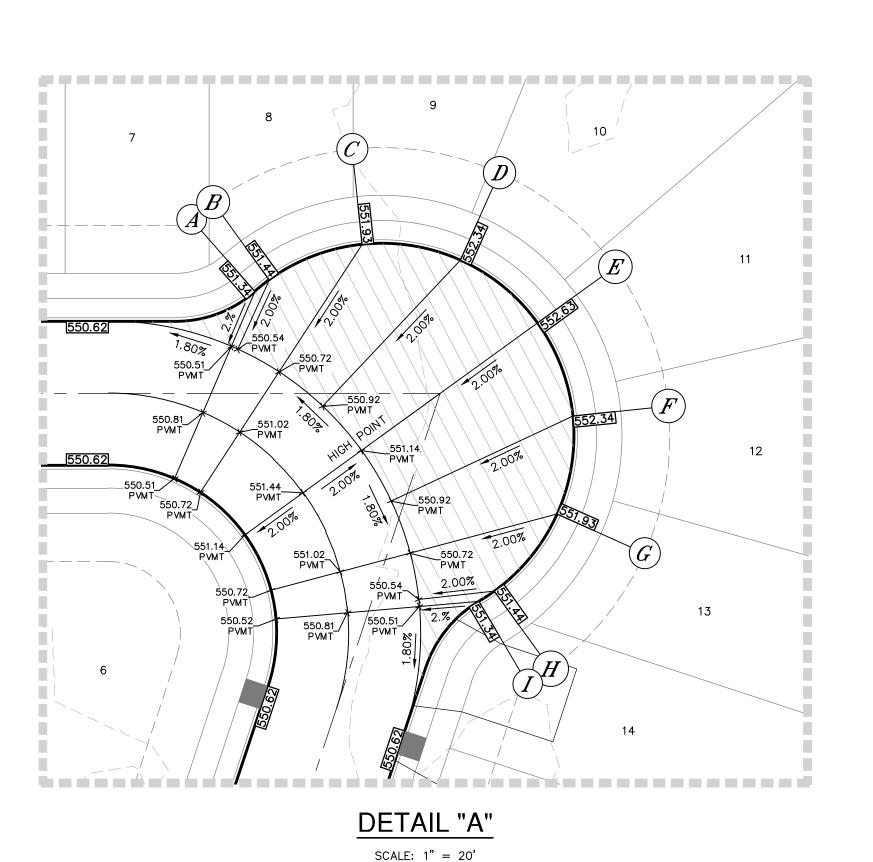
SHEET C1.10

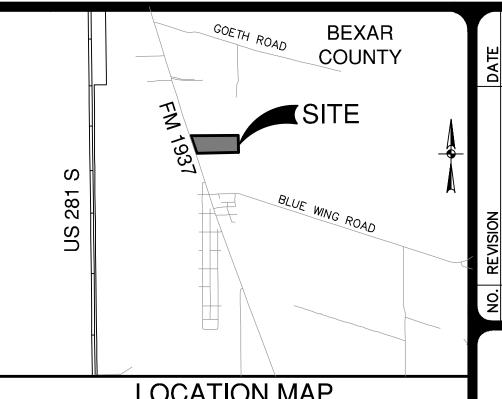






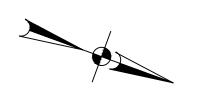






**LOCATION MAP** 

NOT-TO-SCALE



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# STREET LEGEND

DRIVEWAY

PROJECT LIMITS	
WHEELCHAIR RAMP	$\oplus$
POINT OF CURVATURE	PC
POINT OF TANGENCY	PT
RETURN	RET
TOP OF CURB SPOT ELEVATION	975.50
WASHOUT CROWN SECTION	
PROPOSED SIDEWALK (HOMEBUILDER'S RESPONSIBILITY)	
PROPOSED SIDEWALK (CONTRACTOR'S RESPONSIBILITY)	

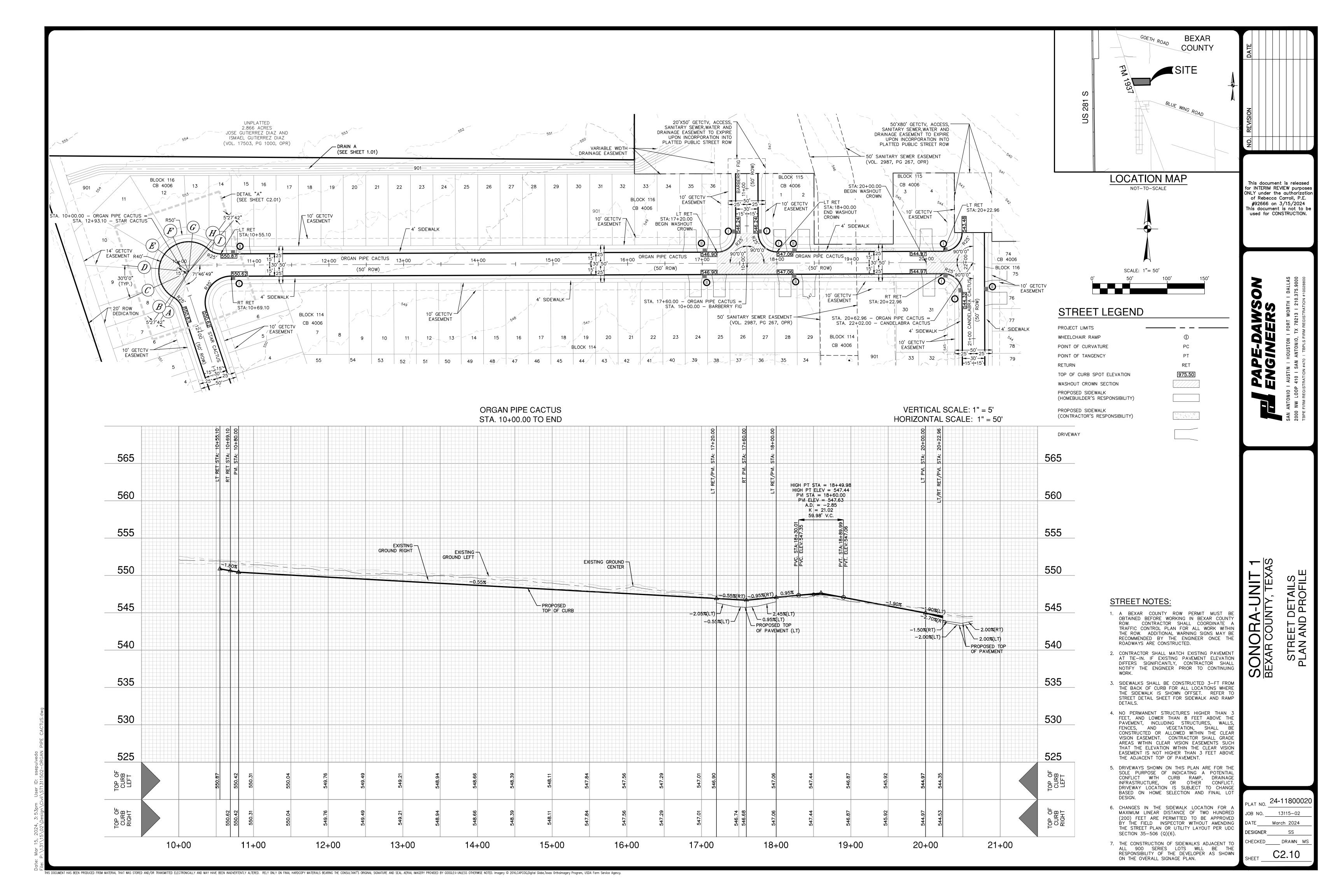
# **STREET NOTES:**

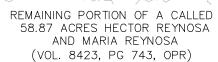
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- 7. THE CONSTRUCTION OF SIDEWALKS ADJACENT TO ALL 900 SERIES LOTS WILL BE THE RESPONSIBILITY OF THE DEVELOPER AS SHOWN ON THE OVERALL SIGNAGE PLAN.

<sub>r NO.</sub> 24-11800020 13115-02 March 2024 DESIGNER CHECKED\_\_\_\_\_DRAWN\_\_MS

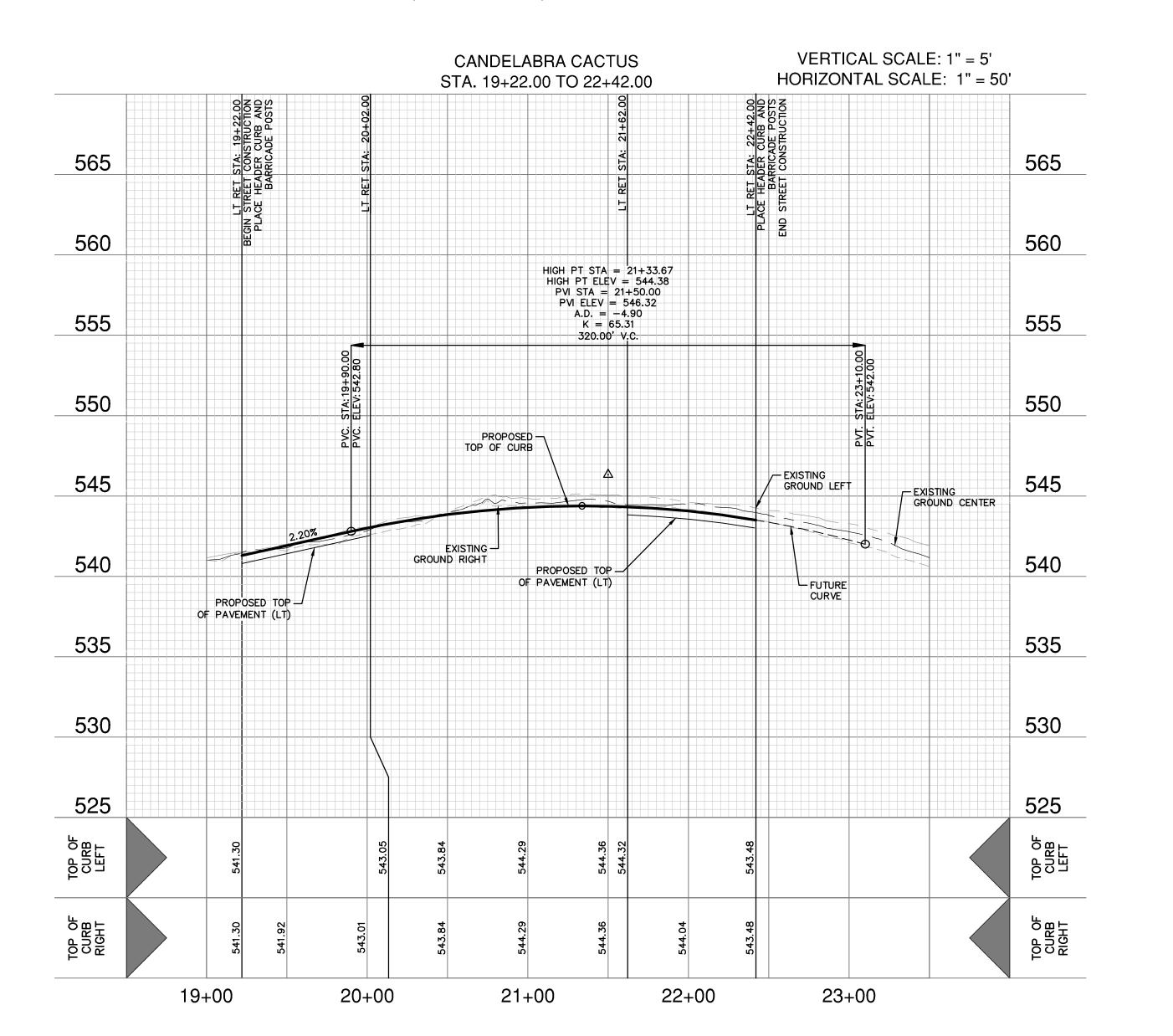
STAR CACTUS PLAN AND PROFILE

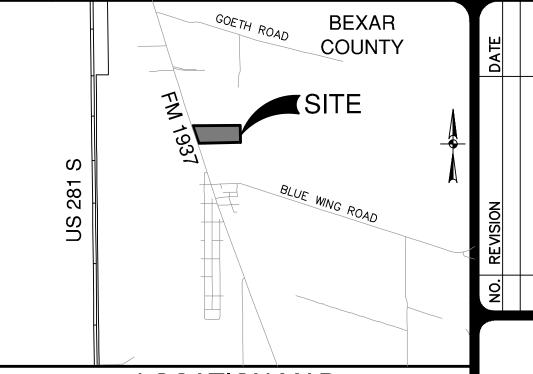
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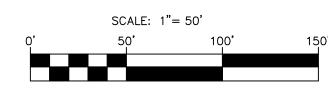




LOCATION MAP

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# STREET LEGEND

PROJECT LIMITS —	
WHEELCHAIR RAMP	•
POINT OF CURVATURE	PC
POINT OF TANGENCY	PT
RETURN	RET
TOP OF CURB SPOT ELEVATION	975.50
WASHOUT CROWN SECTION	
PROPOSED SIDEWALK (HOMEBUILDER'S RESPONSIBILITY)	
PROPOSED SIDEWALK (CONTRACTOR'S RESPONSIBILITY)	
DRIVEWAY	

# ORA-UNIT

ANDELABRA CACTUS PLAN AND PROFILE

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PLAT NO. 24-11800020

JOB NO. 13115-02

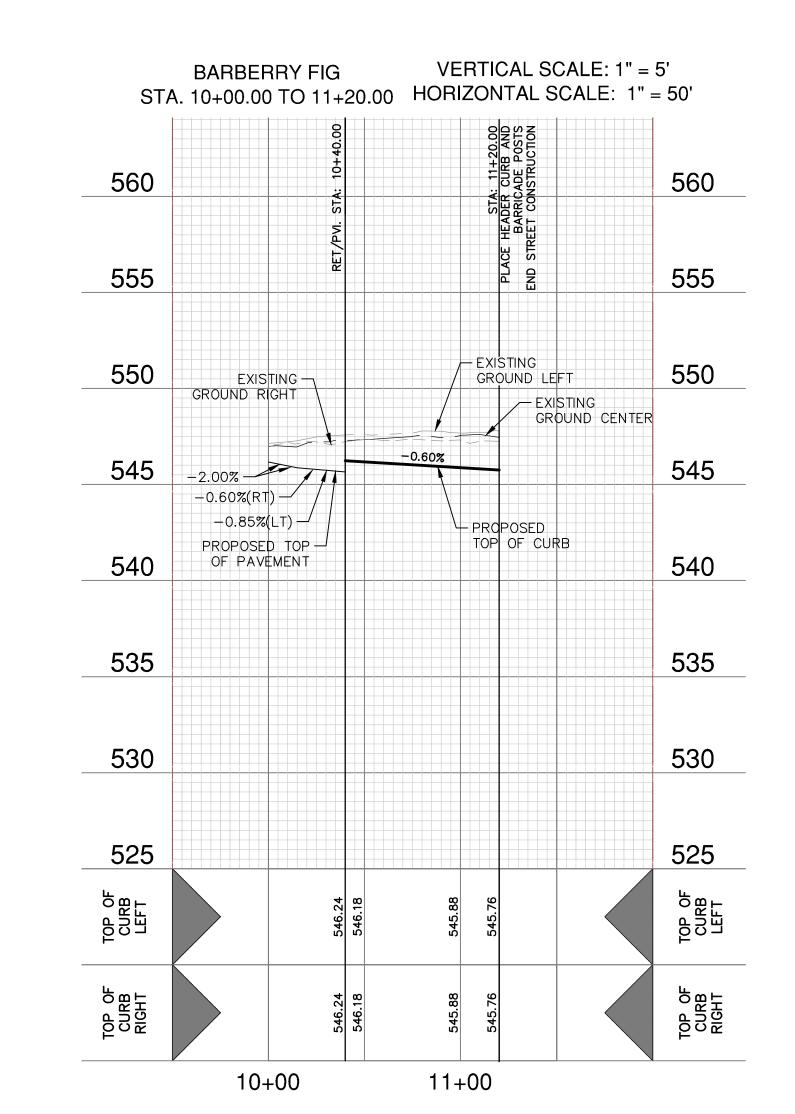
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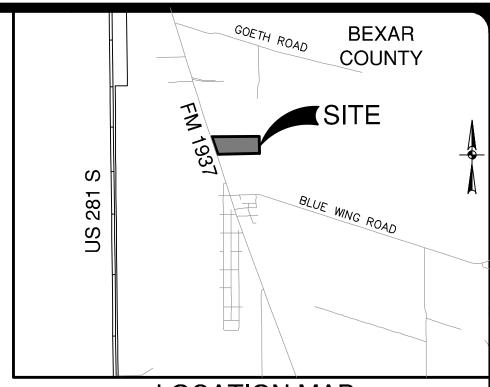
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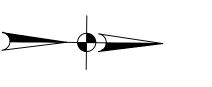
SHEET C2.03

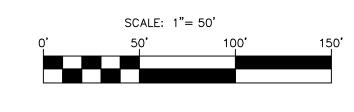
UNPLATTED 2.866 ACRES JOSE GUTIERREZ DIAZ AND ISMAEL GUTIERREZ DIAZ (VOL. 17503, PG 1000, OPR) 10' GETCTV EASEMENT 4' SIDEWALK — BLOCK 115 CB 4006 (SEE SHEET 1.01) 10' GETCTV -EASEMENT 7 VARIABLE WIDTH DRAINAGE EASEMENT CALLED 10.6895 ACRES 548 BLOCK 114 24 CINDY LEE PLOCH PLANT AND TAMMY LEE CB 4006 PLOCH MORALES STA: 10+40.00 4' SIDEWALK END WASHOUT (DOC NO. 20230054879, OPR) CROWN -STA: 11+20.00 PLACE HEADER CURB AND STA. 10+00.00 - BARBERRY FIG =BARRICADE POSTS 546.24 25' BARBERRY FIG 11+00 90°0'0" STA. 17+60,00 - ORGAN PIPE CACTUS END STREET CONSTRUCTION (50' ROW) 50' 1, 546.24 25' 20'X50' GETCTV, ACCESS, SEWER WATER, AND DRAINAGE EASEMENT 90.0,0, STA: 10+00.00-27 BEGIN WASHOUT TO EXPIRE UPON INCORPORATION CROWN INTO PLATTED PUBLIC STREET ROW 28 4' SIDEWALK -4' SIDEWALK STA: 10+40.00 <sup>1</sup> 50' SANITARY SEWER EASEMENT BLOCK 115 CB 4006 (VOL 2987, PG 267, OPR) \_ \_ \_ \_ \_ \_\_\_ - 10' GETCTV EASEMENT CALLED 10.6895 ACRES CINDY LEE PLOCH
PLANT AND TAMMY LEE PLOCH MORALES (DOC NO. 20230054879, OPR)





LOCATION MAP





# STREET LEGEND

PROJECT LIMITS WHEELCHAIR RAMP POINT OF CURVATURE PC PΤ POINT OF TANGENCY RET RETURN 975.50 TOP OF CURB SPOT ELEVATION WASHOUT CROWN SECTION PROPOSED SIDEWALK (HOMEBUILDER'S RESPONSIBILITY) PROPOSED SIDEWALK (CONTRACTOR'S RESPONSIBILITY) DRIVEWAY

PAPE-DAWSON
FINGINATION 1 FORT WORTH 1 DALLAS

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ONORA-UNIT 1

EXAR COUNTY, TEXAS

BARBERRY FIG

PLAN AND PROFILE

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PLAT NO. 24-11800020

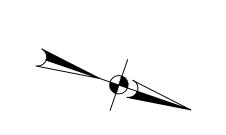
JOB NO. 13115-02

DATE March 2024

DESIGNER SS

CHECKED DRAWN MS

C2.04



SCALE: 1"= 30'

PAVEMENT DESIGN THICKNESS BASED ON GEOTECHNICAL REPORT BY INTEC OF SAN ANTONIO, L.P. REPORT NO. XXX DATED XX/XX/XX.

REFERENCE PROJECT GEOTECHNICAL REPORT, PROJECT SPECIFICATIONS AND BEXAR COUNTY FLEXIBLE PAVEMENT DESIGN CRITERIA FOR ADDITIONAL REQUIREMENTS AND ALTERNATE PAVEMENT

3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING MATERIAL TESTING. TESTING TO BE

4. IF FILL IS USED TO RAISE THE GRADE, FILL MATERIAL UNDERNEATH THE PAVEMENT SHOULD BE APPROVED, FREE OF DELETERIOUS MATERIAL WITH A MINIMUM CBR VALUE OF 5 AND A MAXIMUM PLASTICITY INDEX OF 20. THE GRAVEL SIZE SHOULD NOT EXCEED 3 INCHES IN DIAMETER. THE MATERIAL SHOULD BE PLACED AS PER APPLICABLE CITY OR COUNTY GUIDELINES.

5. BASED ON THE THICKNESS OF THE CLAYS ENCOUNTERED IN THE BORINGS, WE ANTICIPATE THE FINAL PAVEMENT SUBGRADE PLASTICITY INDEX VALUE TO BE LESS THAN 20. SUBGRADE TREATMENT/STABILIZATION IS NOT NEEDED IF THE PLASTICITY INDEX VALUES ARE LESS THAN OR

**EROSION CONTROL AND RE-VEGETATION:** 

SUBSEQUENT TO COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY SEED ALL DISTURBED AREAS WITH A SEED MIXTURE AS DICTATED BY TXDOT. IT SHALL BE THE CONTRACTOR'S FULL RESPONSIBILITY TO ESTABLISH 70% PERMANENT PERENNIAL VEGETATION IN THESE AREAS AND TO PROTECT THOSE DISTURBED AREAS FROM EROSION UNTIL SUCH GROWTH

2. SW3P SHALL NOT BE REMOVED WITHIN THE R.O.W. WITHOUT TCEQ APPROVAL.

3. TXDOT COMPOSTED MANUFACTURED TOPSOIL SHALL BE USED IN THE LAST LIFT (6") OF ALL TRENCHES, USING 4" OF TOPSOIL AND 2" OF COMPOST TO MAKE THE COMPOSTED MANUFACTURED TOPSOIL COMPLY WITH TXDOT SPECIAL SPECIFICATIONS ITEM 1027-FURNISHING AND PLACING

4. ALL OTHER AREAS DISTURBED BY THE CONTRACTOR SHALL RECEIVE 2 INCHES OF COMPOST, TO BE INCORPORATED INTO THE EXISTING TOPSOIL PER TXDOT SPECIAL SPECIFICATIONS ITEM 1027 - FURNISHING AND PLACING COMPOST.

5. BEST MANAGEMENT PRACTICES IS A REQUIREMENT OF THE PERMIT. IF DISTURBED AREAS HAVE NOT BEEN ACTIVE FOR 14 DAYS AND WORK IS NOT SCHEDULED WITHIN 21 DAYS, THEN TEMPORARY STABILIZATION CONTROL MEASURES SHALL BE IMPLEMENTED.

6. ANY SW3P FEATURE REMOVED DURING THAT DAY'S WORK SHALL BE REPLACED AS SOON AS POSSIBLE AND IN ALL CASES BEFORE THE END OF THAT DAY'S WORK. IF ADDITIONAL SW3P MEASURES ARE REQUIRED DUE TO CHANGING SITE CONDITIONS, THE ADDITIONAL SW3P CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE END OF THE DAY.

# PAVING PLAN GENERAL NOTES:

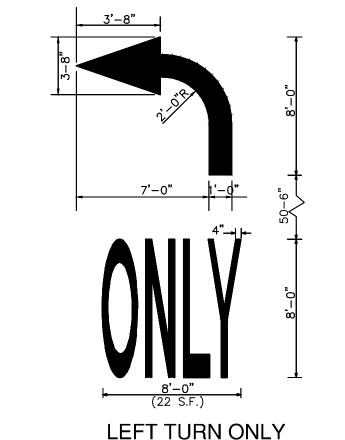
1. CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS BEFORE BEGINNING CONSTRUCTION. 2. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION ANY DAMAGE DONE TO EXISTING IMPROVEMENTS, e.g. UTILITIES, FENCES, PAVEMENT,

CURBS, DRIVEWAYS, OR SIDEWALKS. CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT, CURBS AND SIDEWALKS AT NEW PAVEMENT, CURB AND SIDEWALK JUNCTURES. NO JAGGED OR IRREGULAR CUTS WILL BE

4. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, ALIGNMENT, PLACEMENT, LIMITS, DIMENSIONS OR GRADES NECESSARY FOR CONSTRUCTION OF THIS PROJECT.

5. CONTRACTOR SHALL MAINTAIN MAXIMUM 2% CROSS SLOPE ACROSS SIDEWALKS.

A BEXAR COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN BEXAR COUNTY RIGHT-OF-WAY



(NOT TO SCALE)

# LEGEND

PROPERTY LINE

COUNTY

for INTERIM REVIEW purpose

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PAPE-DAWSON ENGINEERS

**LOCATION MAP** NOT-TO-SCALE

SANITARY SEWER MANHOLE STORM DRAIN MANHOLE EXISTING TRAFFIC SIGNAL BOX EXISTING SIGN EXISTING FIRE HYDRANT b⇔ FH EXISTING LIGHT POLE EXISTING UTILITY POLE ® RP EXISTING RISER POLE EXISTING SPOT ELEVATION  $\times$  876.73 EXISTING CONTOUR PROPOSED CONTOUR PROPOSED SPOT ELEVATION PROPOSED DRAINAGE FLOW DIRECTION

ASPHALT PAVEMENT (SEE THIS SHEET) CONCRETE RIPRAP

(BY OTHERS) ACCESSIBLE RAMP WCR (TRUNCATED DOMES)

# SITE KEY NOTES:

SAWCUT 12" INTO EXISTING PAVEMENT AND MATCH EXISTING GRADE

4" WIDE SOLID YELLOW STRIPING WITH TYPE II-A-A RPMS 4" WIDE SOLID YELL (THERMO-PLASTIC)

YELLOW REFLECTIVE PAVEMENT MARK TYPE I (MED NOSE) (100MIL) WITH TYPE II-A-A RPS YELLOW REFLECTIVE PAVEMENT MARK TYPE I

REFLECTIVE PAVEMENT MARKING LEFT TURN ARROW WITH WORD "ONLY" (WHITE) (THERMO-PLASTIC) (SEE DETAIL THIS SHEET)

4" WIDE SOLID WHITE STRIPING (THERMO-PLASTIC) 4" WIDE SOLID WHITE STRIPING (UNLESS NOTED OTHERWISE)

8" WIDE SOLID WHITE STRIPING (THERMO-PLASTIC)

(UNLESS NOTED OTHERWISE)

ASPHALT/ASPHALT PAVEMENT JUNCTURE

(SEE DETAIL THIS SHEET)

24" WIDE SOLID YELLOW STRIPING (THERMO-PLASTIC) (UNLESS NOTED OTHERWISE)

> 24-1180002 13115-02 March 2024 DESIGNER CHECKED DRAWN MS

S FI AND

(NOT TO SCALE) 7" TYPE B HMAC \_ (TWO EQUAL LIFTS) 4" TYPE "D" HMAC \_ \_SEAL COAT (EMULSION OR AC) (2 EQUAL LIFTS) (RATE APPROX. 0.32 GAL/SY) - PRIME COAT └ 6" COMPACTED SUBGRADE ASPHALT PAVEMENT DETAIL (NOT TO SCALE)

ROADWAY

SAW CUT EXISTING

PRIME COAT

NEW SUBGRADE (COMPACTED TO

95% DENSITY-MINIMUM)

ASPHALT PAVEMENT JUNCTURE DETAIL

EXISTING PAVEMENT

EXISTING BASE

MATERIAL

PAVEMENT

# **GENERAL NOTES:**

REFLECTORIZED

TYPE I-C (TOP VIEW)

SECTION A

RAISED PAVEMENT MARKERS DETAIL

(NOT TO SCALE)

LIMITS OF RECONSTRUCTION

- ADHESIVE

LIMITS OF NEW BASE

H.M.A.C.

/ PRIME COAT

MATCH EXISTING ASPHALT

PAVEMENT DEPTH

ALL DISTANCES ARE MEASURED FROM FACE OF CURB.

2. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC MATERIAL ACCORDING TO THE TXDOT STANDARDS.

ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL CONFORM TO APPLICABLE TXDOT STANDARD SPECIFICATIONS, AND CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

4. THE LOCATIONS AND DEPTHS OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION.

SAN ANTONIO WATER SYSTEM (WATER, SEWER AND RECYCLED WATER) COSA DRAINAGE CITY SIDEWALK AND TRENCHING DIVISION COSA TRAFFIC SIGNAL OPERATIONS TEXAS STATE-WIDE ONE CALL LOCATOR

CITY PUBLIC SERVICE

AT&T

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233-2010 207-2800 821-3240 207-7765 1-800-545-6005

SPECTRUM 5. CONTRACTOR SHALL NOTIFY AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION: A. OSCAR GARZA, CITY SIDEWALK AND TRENCH DIVISION, AT 821-3240.

6. EXISTING UTILITIES ARE WITHIN THE R.O.W. AREA. CONTRACTOR TO VERIFY ALL BURIED UTILITIES WHETHER OR NOT SHOWN ON THIS PLAN. ANY DAMAGED UTILITIES SHALL BE REPAIRED AND/OR REPLACED BY THE CONTRACTOR AT CONTRACTOR'S SOLE EXPENSE.

CONTRACTOR SHALL INSTALL POLLUTION CONTROL MEASURES (SILT FENCING, ETC.) IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN FOR THIS PROJECT. (SEE

8. CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING WITH THE TRAFFIC DEPARTMENT FOR THE REQUIREMENTS OF ANY TRAFFIC CONTROL SYSTEM AND DEVICES THAT ARE REQUIRED DURING THE CONSTRUCTION STAGE. CONTRACTOR SHALL INSTALL AND MAINTAIN REQUIRED TRAFFIC CONTROL DEVICES THROUGHOUT THE LENGTH OF THE CONSTRUCTION. ALL TRAFFIC CONTROL DEVICES SHALL BE PER THE TEXAS M.U.T.C.D. (LATEST EDITION).

9. TYPE II SEALER IS REQUIRED FOR TYPE I MARKINGS.

B. CITY TRAFFIC ENGINEER AT 207-7760.

10. NOTIFY THE INSPECTION SECTION AT 210-335-6700 WITH PERMIT NUMBER AT LEAST 24 HOURS BEFORE STARTING THE ACTIVITY. NO INSPECTION SHALL BE MADE WITHOUT A PERMIT.

PAVEMENT SECTION DETAIL								
STREET NAME	STATION	TYPE "D" HMAC	CRUSHED LIMESTONE BASE	STABILIZED SUBGRADE	GEOGRID (TENSAR TRIAX TX5)	CBR	STRUCTURAL N	IUMBER
ZEPHYR LILY	10+26.00 TO 12+20.00	3.5"	18"	6"	NO		X(.XX) = 0.XX  X(.XX) = X	xx
ZEPHYR LILY	12+20.00 TO END	2"	10"	6"	NO		X(.XX) = 0.XX  X(.XX) = X	xx
STAR CACTUS	10+00.00 TO 10+17.00	3.5"	18"	6"	NO		X(.XX) = 0.XX  X(.XX) = X	xx
STAR CACTUS	10+17.00 TO END	2"	10"	6"	NO		X(.XX) = 0.XX  X(.XX) = X	xx
ORGAN PIPE CACTUS	10+00.00 TO END	2"	10"	6"	NO		X(.XX) = 0.XX  X(.XX) = X	xx
CANDELABRA CACTUS	19+22.00 TO 22+42.00	2"	10"	6"	NO		X(.XX) = 0.XX  X(.XX) = X	xx
BARBERRY FIG	10+00.00 TO 11+20.00	2"	10"	6"	NO		X(.XX) = 0.XX  X(.XX) = X	xx

### **GENERAL NOTES:**

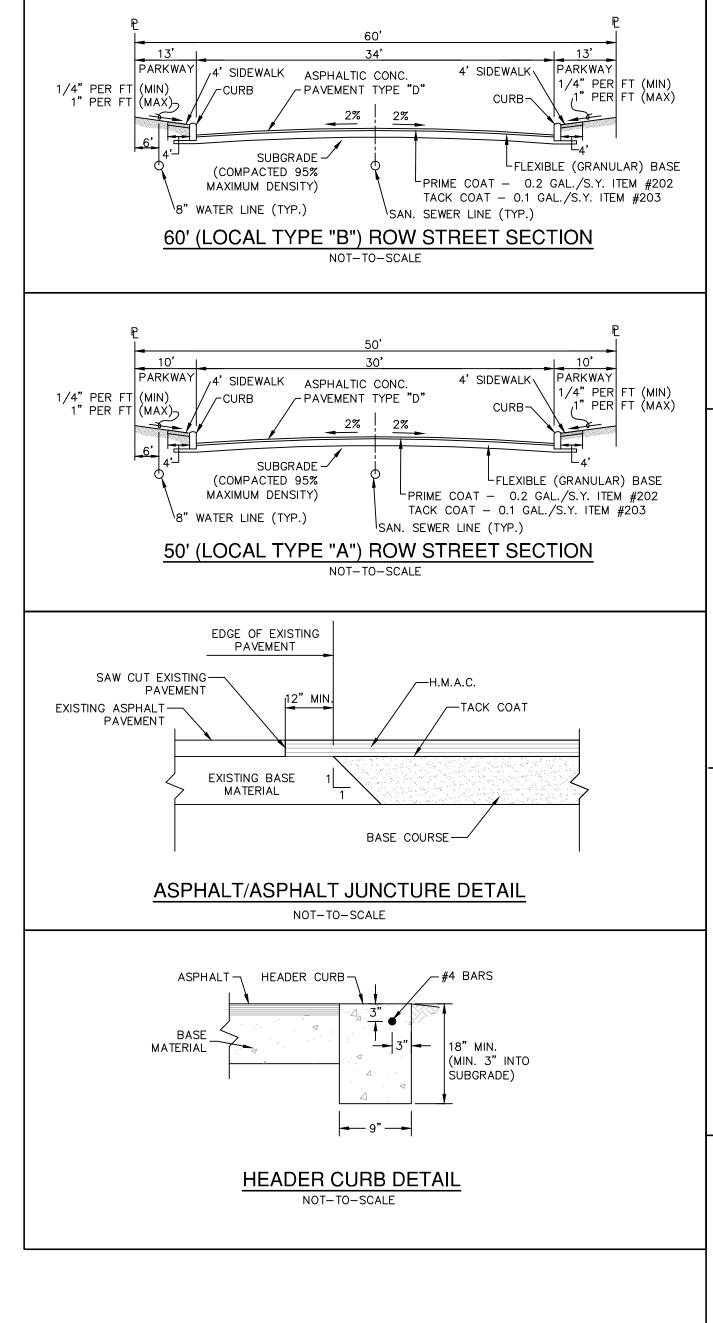
- CONTRACTOR SHALL REFERENCE THE PROJECT PAVEMENT DESIGN REPORT PREPARED BY GEOTECH
- FIRM NAME DATED MONTH DAY, YEAR. CONTRACTOR SHALL RETAIN A GEOTECHNICAL ENGINEER TO VERIFY THE SUB GRADE CONDITION PRIOR TO PLACING ANY BASE MATERIAL. GEOTECHNICAL ENGINEER SHALL DETERMINE THE SUB GRADE CONDITION AND IF LIME STABILIZATION IS REQUIRED.
- GEOTECHNICAL ENGINEER SHOULD VERIFY THE STREET SUBGRADE AT THE TIME OF CONSTRUCTION
- PRIOR TO PLACEMENT OF AGGREGATE BASE. THE FLEXIBLE BASE COURSE SHOULD BE CRUSHED LIMESTONE CONFORMING TO TXDOT STANDARD
- SPECIFICATIONS, ITEM 247, TYPE A, GRADES 1 OR 2. THE MOISTURE CONTENT OF THE FILL SHOULD BE MAINTAINED WITHIN THE RANGE OF OPTIMUM WATER CONTENT TO 3 PERCENTAGE POINTS ABOVE THE OPTIMUM WATER CONTENT UNTIL PERMANENTLY
- COVERED. IN THE EVENT THAT THE CLAY FILL USED IS DIFFERENT THAN THE EXISTING SUBGRADE, THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT COULD BE INVALIDATED AND THE DESIGN ENGINEER MUST BE CONSULTED TO DETERMINE IF ADDITIONAL CBR TESTING AND THICKER PAVEMENT SECTIONS
- ARE REQUIRED. WHERE PAVEMENT SUBGRADE IS LOCATED WITHIN 2-FEET OF THE EXISTING GROUND SURFACE (STRATUM 1 CLAYS), MOISTURE CONDITIONED SUBGRADE WILL BE REQUIRED. GEOTECHNICAL ENGINEER SHOULD VERIFY THE STREET SUBGRADE AT THE TIME OF CONSTRUCTION PRIOR TO PLACEMENT OF AGGREGATE BASE TO DETERMINE WHERE THE MOISTURE CONDITIONED SUBGRADE IS NEEDED.
- REFERENCE GEOTECHNICAL ENGINEERING REPORT FOR MORE INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL MATERIAL TESTING WITH THE PROJECT
- GEOTECHNICAL ENGINEER. TESTING SHALL BE PAID FOR BY THE OWNER. FILL MATERIAL SHOULD BE NATIVE ON-SITE MATERIAL, FREE OF DELETERIOUS MATERIAL WITH A MINIMUM CBR VALUE OF 2 AND A PI WITHIN RANGE OF 5 AND 20. THE GRAVEL SIZE SHOULD NOT EXCEED 3 INCHES IN DIAMETER. LIME OR CEMENT APPLICATION RATES SHOULD BE RE-EVALUATED FOR THE FILL MATERIAL. THE MATERIAL SHOULD BE PLACED AS PER APPLICABLE CITY OR COUNTY GUIDELINES. CONTRACTOR TO VERIFY EXACT SPECIFICATIONS WITH PROJECT GEOTECHNICAL ENGINEERING REPORT.
- A BEXAR COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN THE BEXAR COUNTY ROW. CONTRACTOR SHALL COORDINATE A TRAFFIC CONTROL PLAN FOR ALL WORK WITHIN THE ROW. ADDITIONAL WARNING SIGNS MAY BE RECOMMENDED BY THE ENGINEER ONCE THE ROADWAYS ARE CONSTRUCTED.

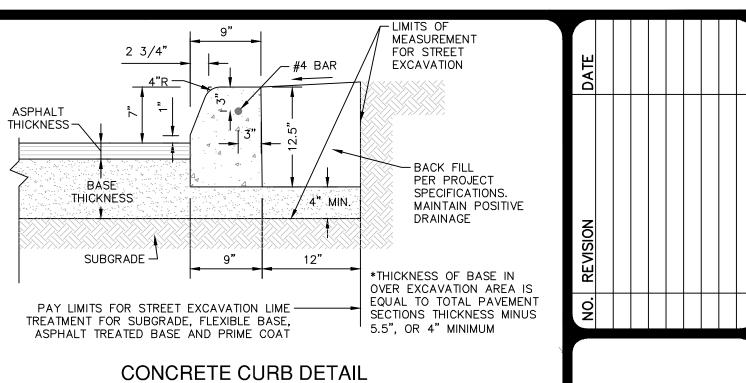
### STREET SUBGRADE NOTES:

- IF THE STREET SUBGRADE PLASTICITY INDEX VALUE IS GREATER THAN 20, SUBGRADE STABILIZATION IS NEEDED AS PER CITY OF SAN ANTONIO REQUIREMENTS.
- IF THE SUBGRADE PLASTICITY INDEX VALUE IS 20 OR LESS. SUBGRADE STABILIZATION IS NOT NEEDED. THE SUBGRADE SHOULD BE MOISTURE CONDITIONED (COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY AT A MINIMUM MOISTURE CONTENT OF OPTIMUM PLUS 2 PERCENT (TEX114E)).
- THE SUBGRADE SHOULD BE STABILIZED USING X PERCENT LIME TO A DEPTH OF X INCHES AS NOTED
- THE SUBGRADE SOILS SHOULD BE TESTED FOR SOIL SULFATE CONTENT PRIOR TO STABILIZATION. IF THE SOIL SULFATE CONTENT IS HIGH, AN ALTERNATE PROCEDURE / RECOMMENDATION WILL BE
- LIME APPLICATION RATE OF XX.X LBS PER SQ YARD FOR X INCH DEPTH OF STABILIZATION IS RECOMMENDED.
- APPROVED FILL MATERIAL SHOULD BE USED TO RAISE THE GRADE. THE FILL SHOULD BE FREE OF DELETERIOUS MATERIAL WITH A MINIMUM CBR VALUE OF X.X LIME APPLICATION RATES SHOULD BE RE-EVALUATED AND TESTED FOR SULFATE CONTENT PRIOR TO USE OF THE FILL MATERIAL. THE MATERIAL SHOULD BE PLACED AS PER APPLICABLE CITY OR COUNTY GUIDELINES.
- THE SUBGRADE SHOULD BE PROOF ROLLED TO IDENTIFY SOFT AREAS BEFORE STABILIZATION.

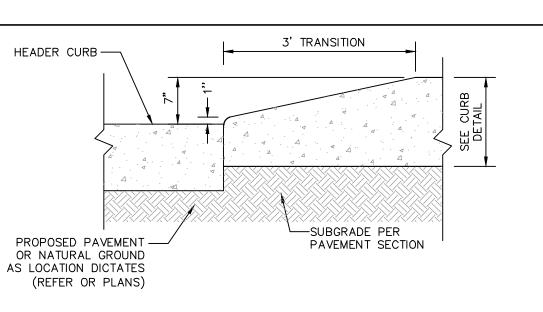
# LIME NOTES:

- FOR LIME STABILIZATION CONSTRUCTION VERIFICATION THE FOLLOWING SHALL BE CONDUCTED ON THE FIELD: 1. AFTER INITIAL MIXING THE SOIL-LIME MIXTURE SHALL MELLOW FOR A PERIOD OF TWO TO THREE (2-3)DAYS. MAINTAIN MOISTURE DURING MELLOWING.
- 2. AFTER MELLOWING AND FINAL MIXING, THE PULVERIZATION SHALL BE CHECKED USING THE FOLLOWING CRITERIA (REMOVE NON-SLAKING AGGREGATES RETAINED ON THE \$\frac{3}{4}\$ INCH SIEVE FROM THE SAMPLE):
- MINIMUM PASSING 1¾" SIEVE
- MINIMUM PASSING ¾ SIEVE MINIMUM PASSING NO. 4 SIEVE
- SAMPLE SOIL-LIME MIXTURE FOR DETERMINATION OF MAXIMUM DRY DENSITY (MDD). IN THE LABORATORY, MOLD SPECIMENS TO 95% OF MDD AT OPTIMUM MOISTURE CONTENT AND VERIFY UCS TO BE AT LEAST 160 PSI IN ACCORDANCE WITH PROCEDURE OUTLINED IN THE BEXAR COUNTY FLEXIBLE PAVEMENT DESIGN CRITERIA GUIDE FOR MIXTURE DESIGN.
- 4. COMPACT AND CHECK FIELD DENSITY (MINIMUM OF 95% OF MDD REQUIRED).
- 5. CURE FOR AN ADDITIONAL 2 TO 5 DAYS (TOTAL MELLOWING AND CURING TIME SHOULD TOTAL AT LEAST
- 6. VERIFY DEPTH OF LIME STABILIZED LAYER TO DEPTH AS NOTED ON PLAN TO WITHIN  $\pm 1.0$  INCH.

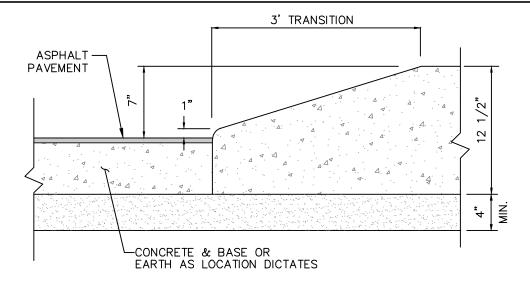




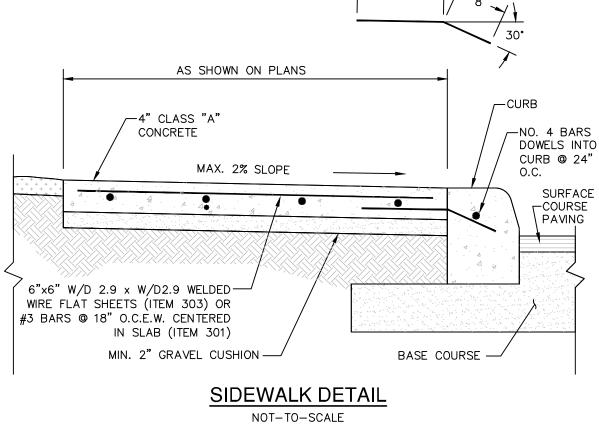
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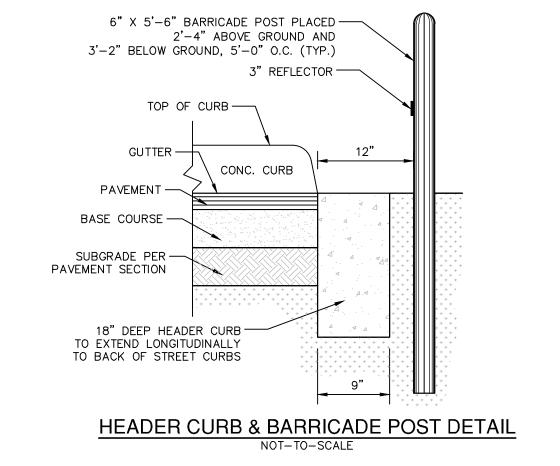


### **CURB TRANSITION DETAIL** (FROM HEADER CURB TO STANDARD CURB NOT-TO-SCALE



# **CURB TRANSITION DETAIL** (FROM PAVEMENT TO STANDARD CURB)





ONORA-LEXAR COUNTY

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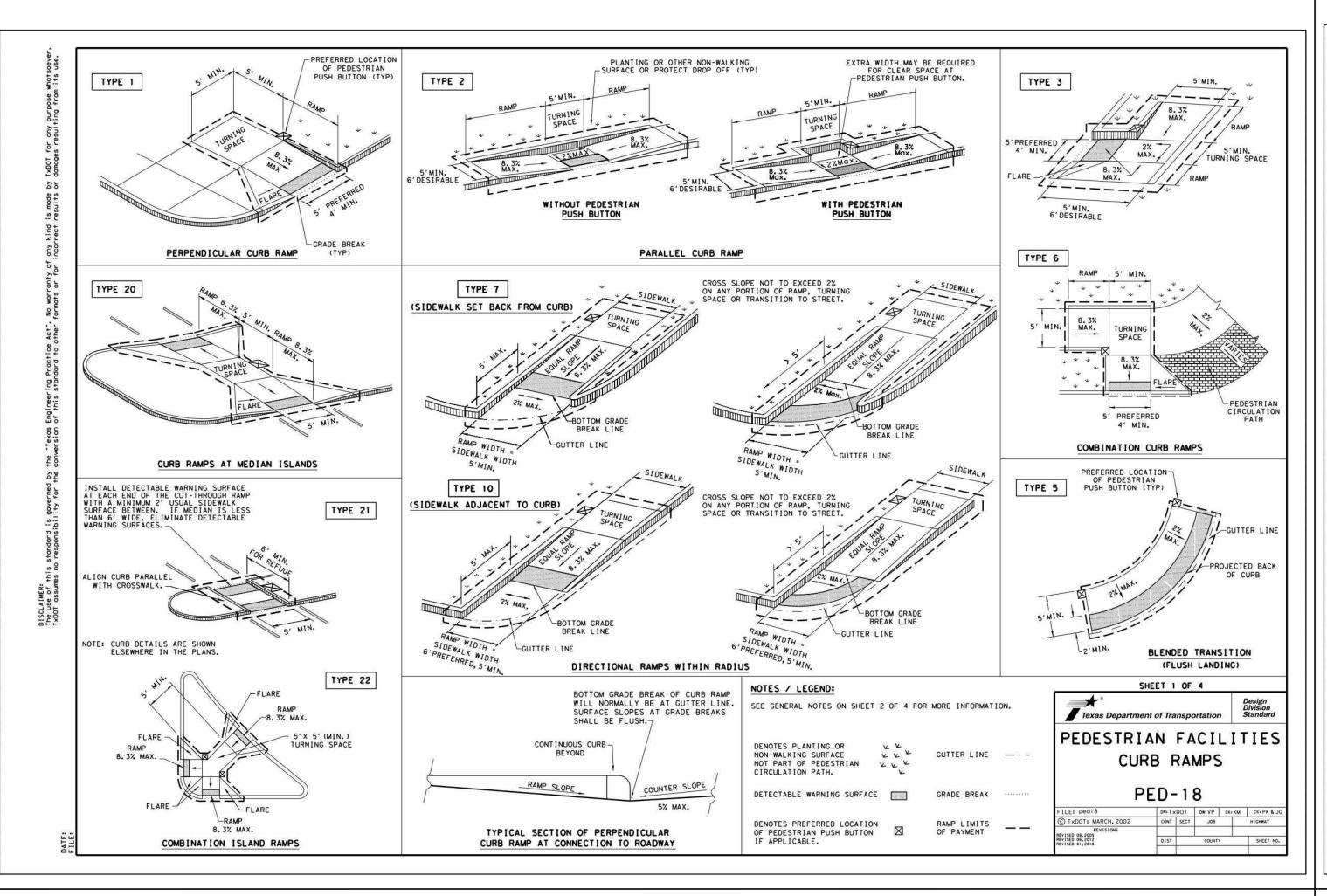
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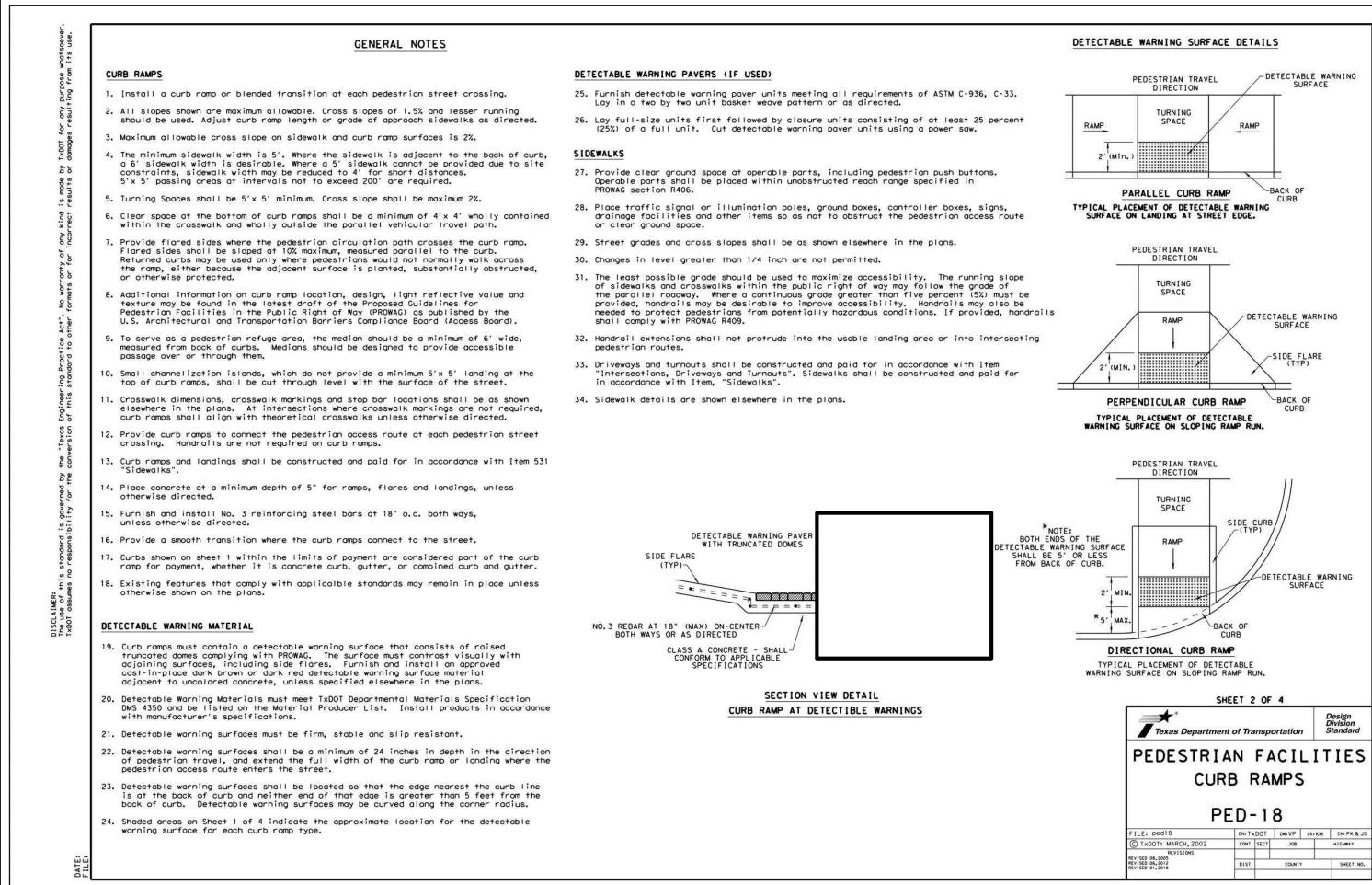
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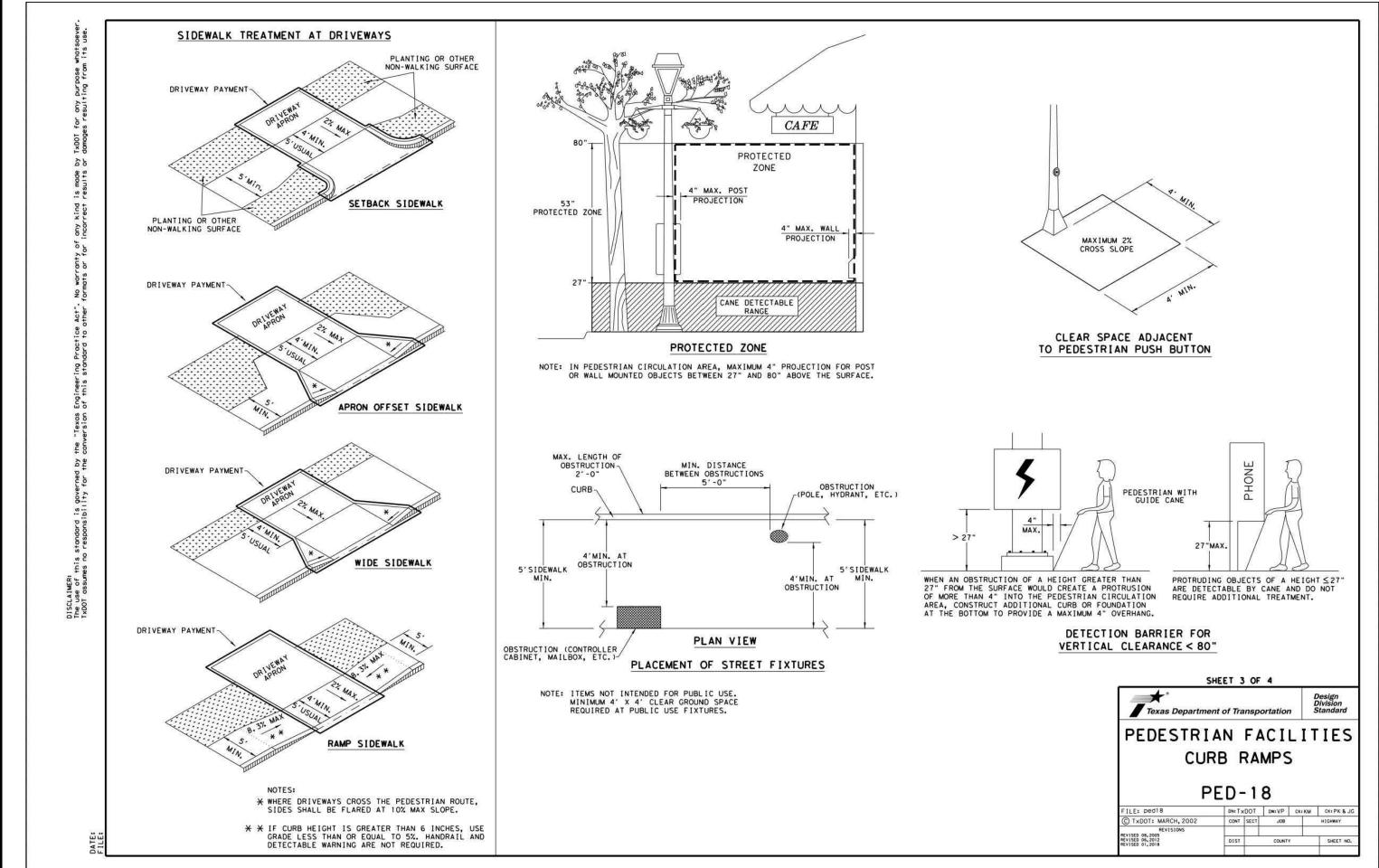
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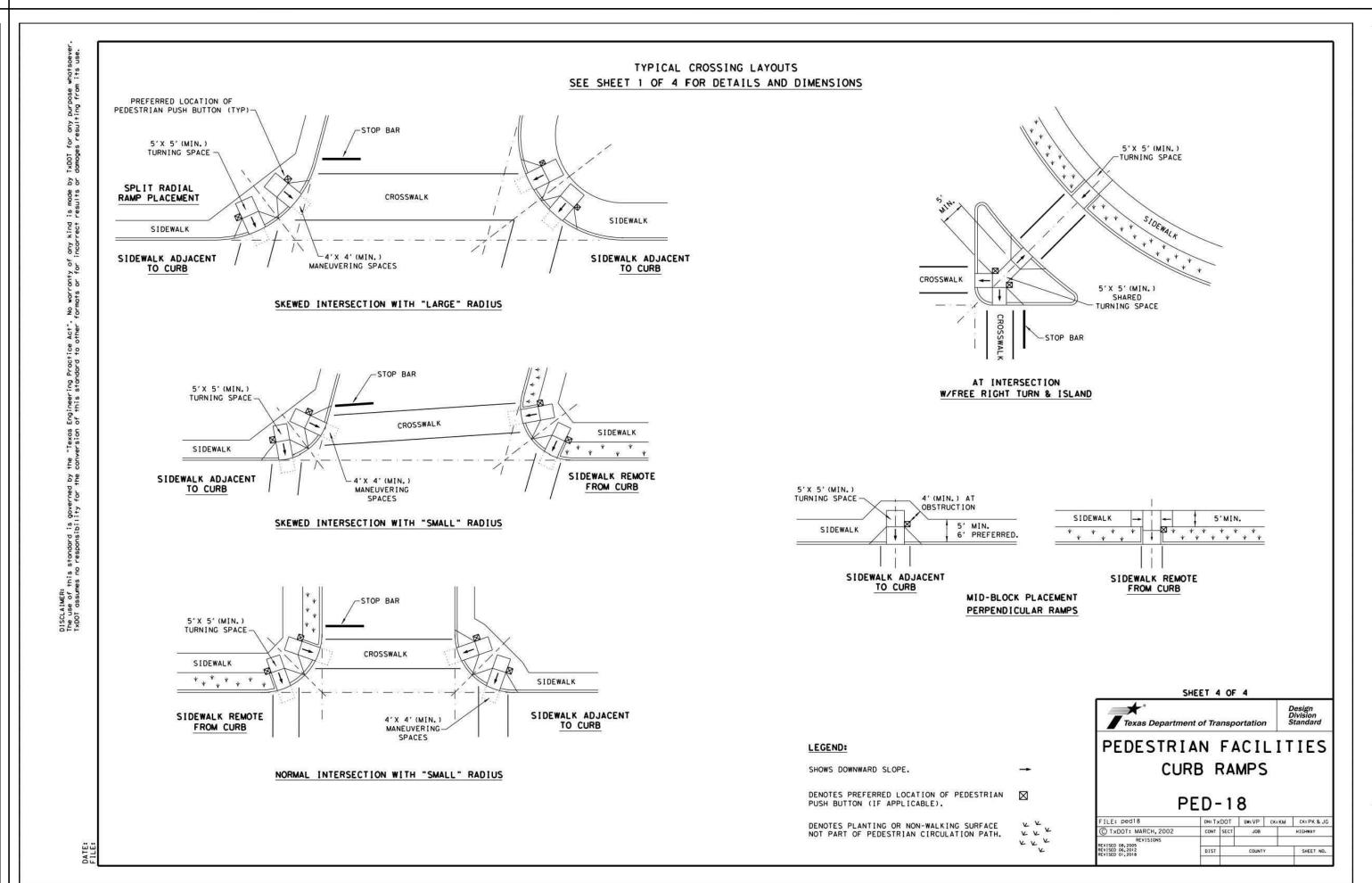
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PLAT NO. 24-11800020 13115-02 March 2024 DESIGNER CHECKED DRAWN SS C2.10









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FAPE-DAWSON
ENGINEERS
I AUSTIN I HOUSTON I FORT WORTH I DALLAS
9 410 I SAN ANTONIO, TX 78213 I 210.375.9000

ONORA-UNIT 1 EXAR COUNTY, TEXAS

BEXAR COUNTY, TE STREET DETAIL( (SHEET 2 OF 3)

PLAT NO. 24-11800020

JOB NO. 13115-02

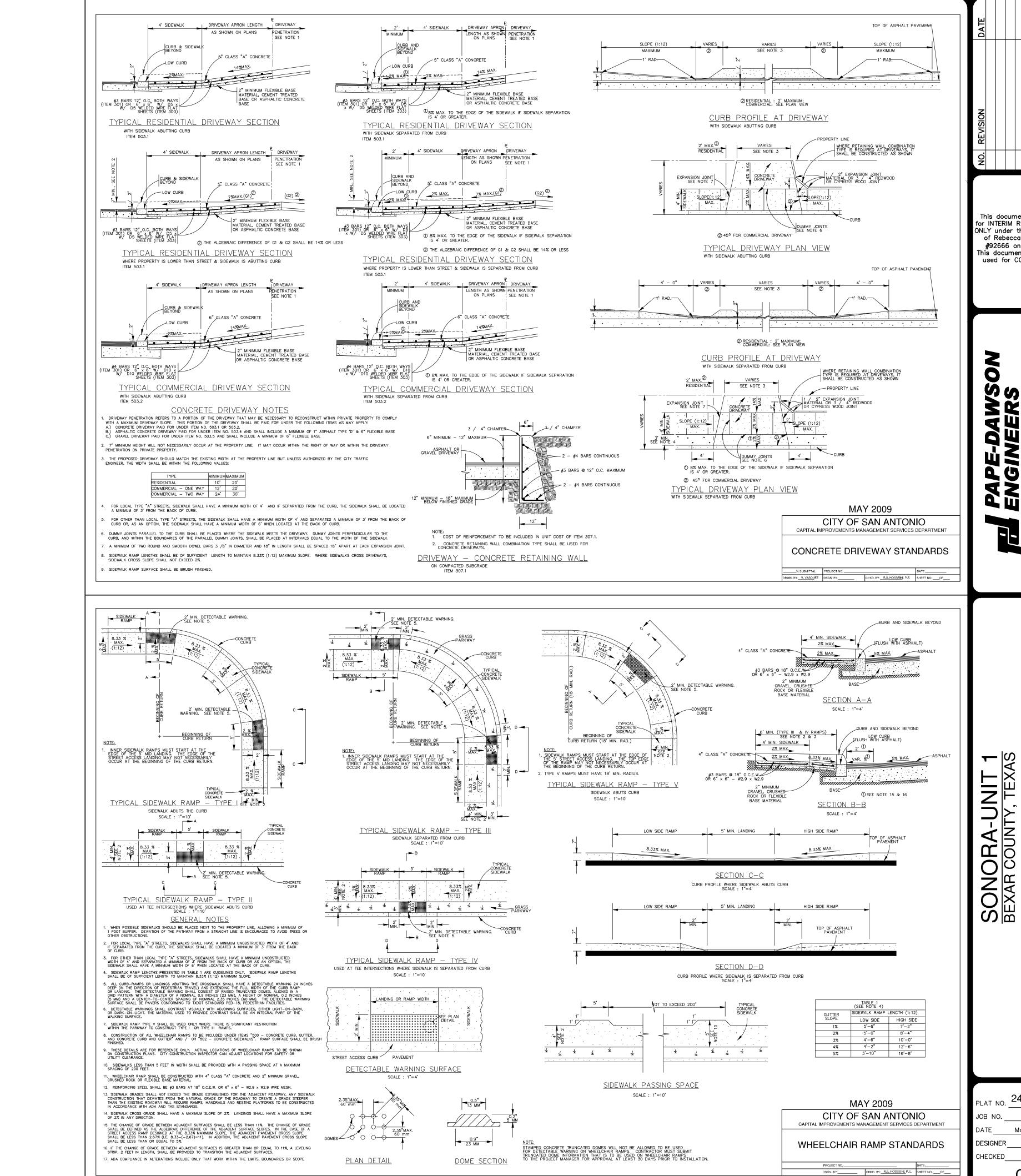
DATE March 2024

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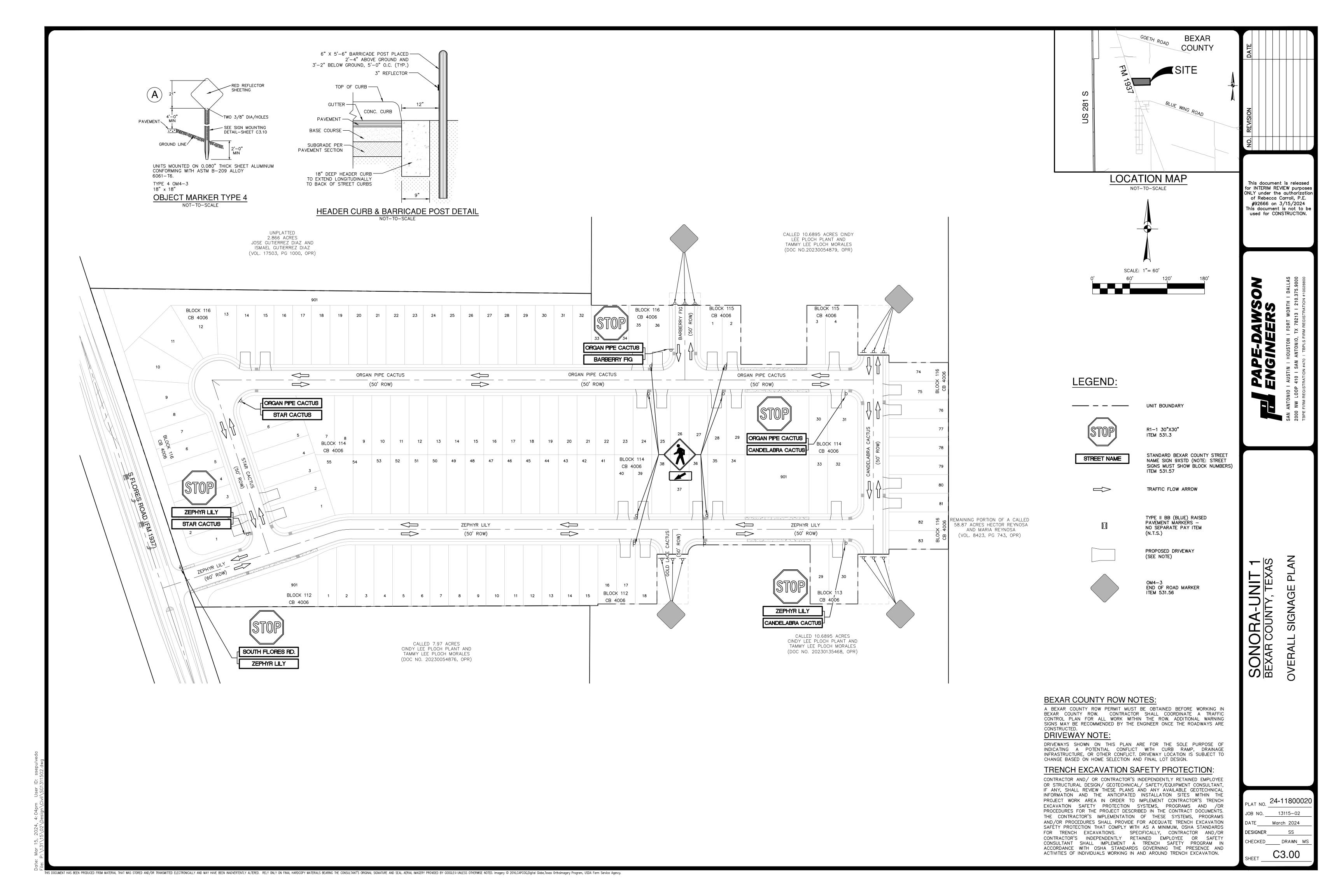
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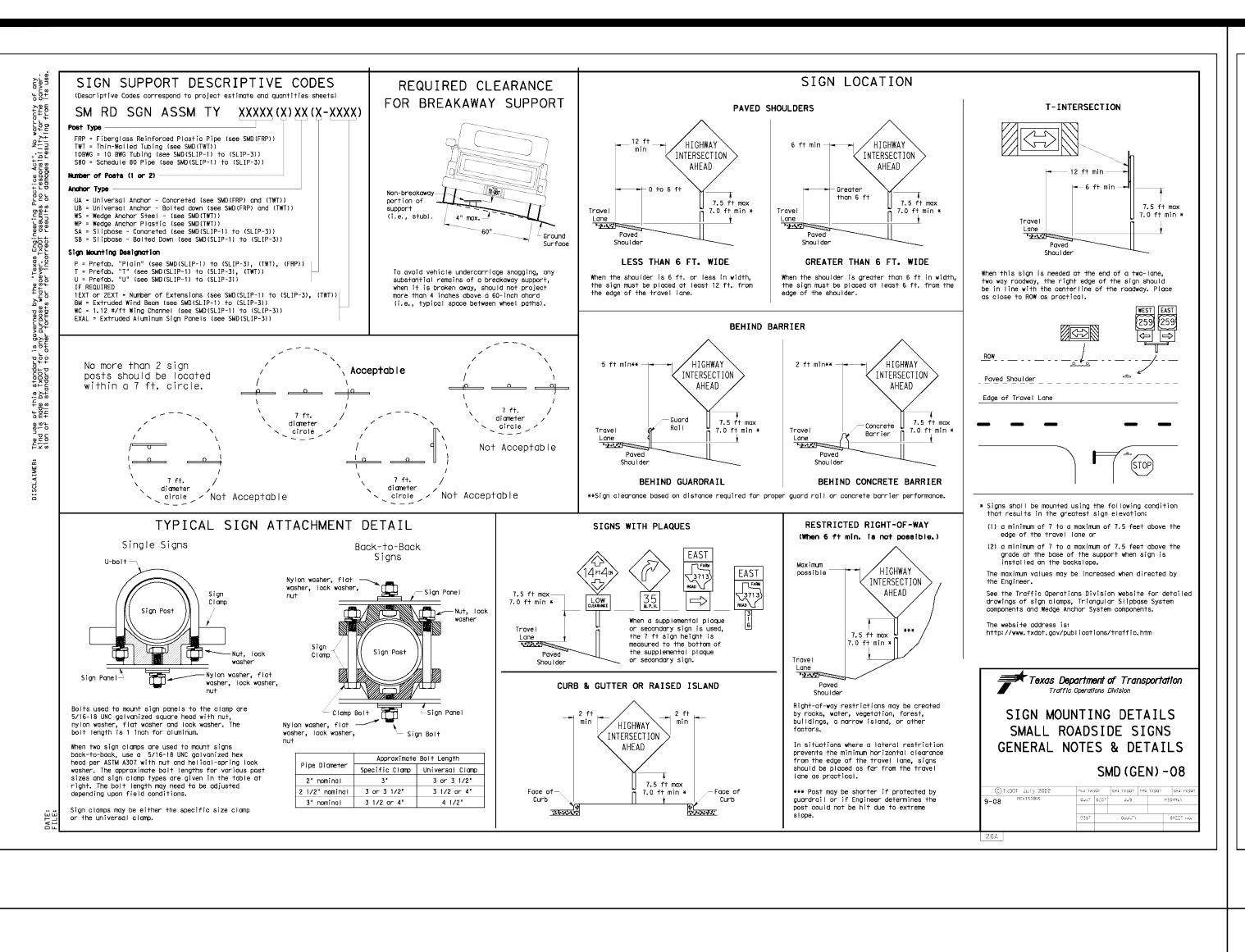
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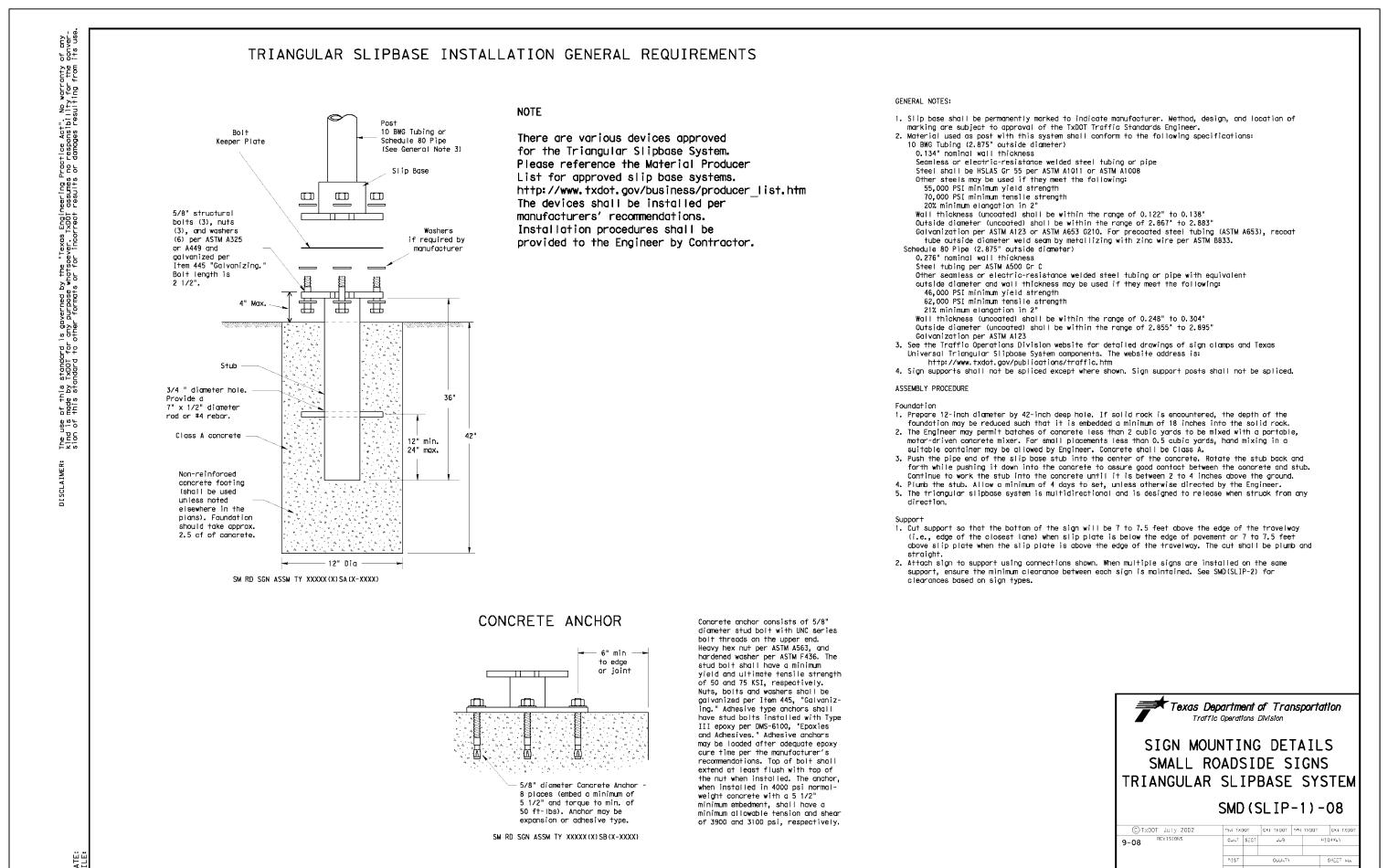
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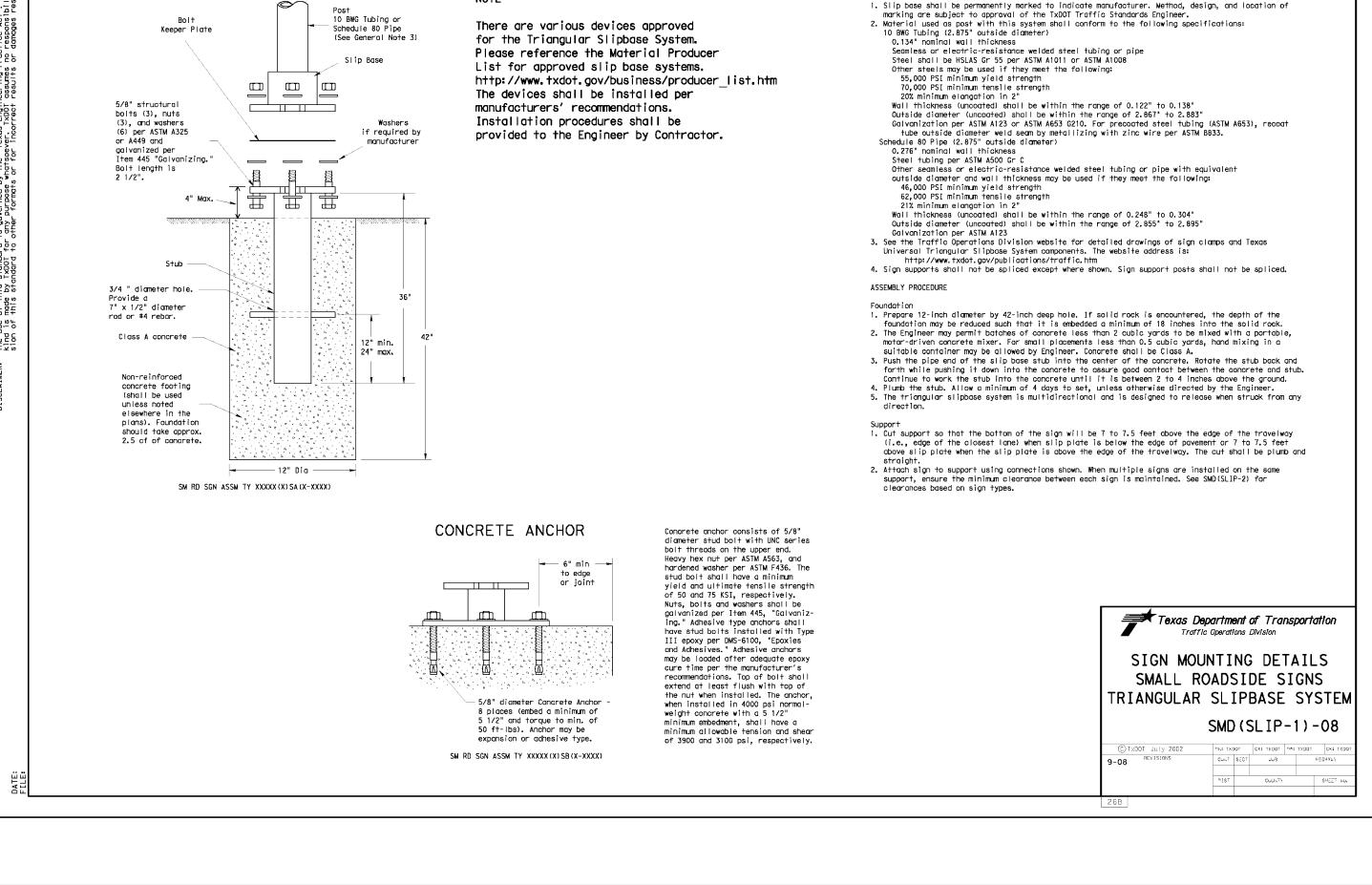
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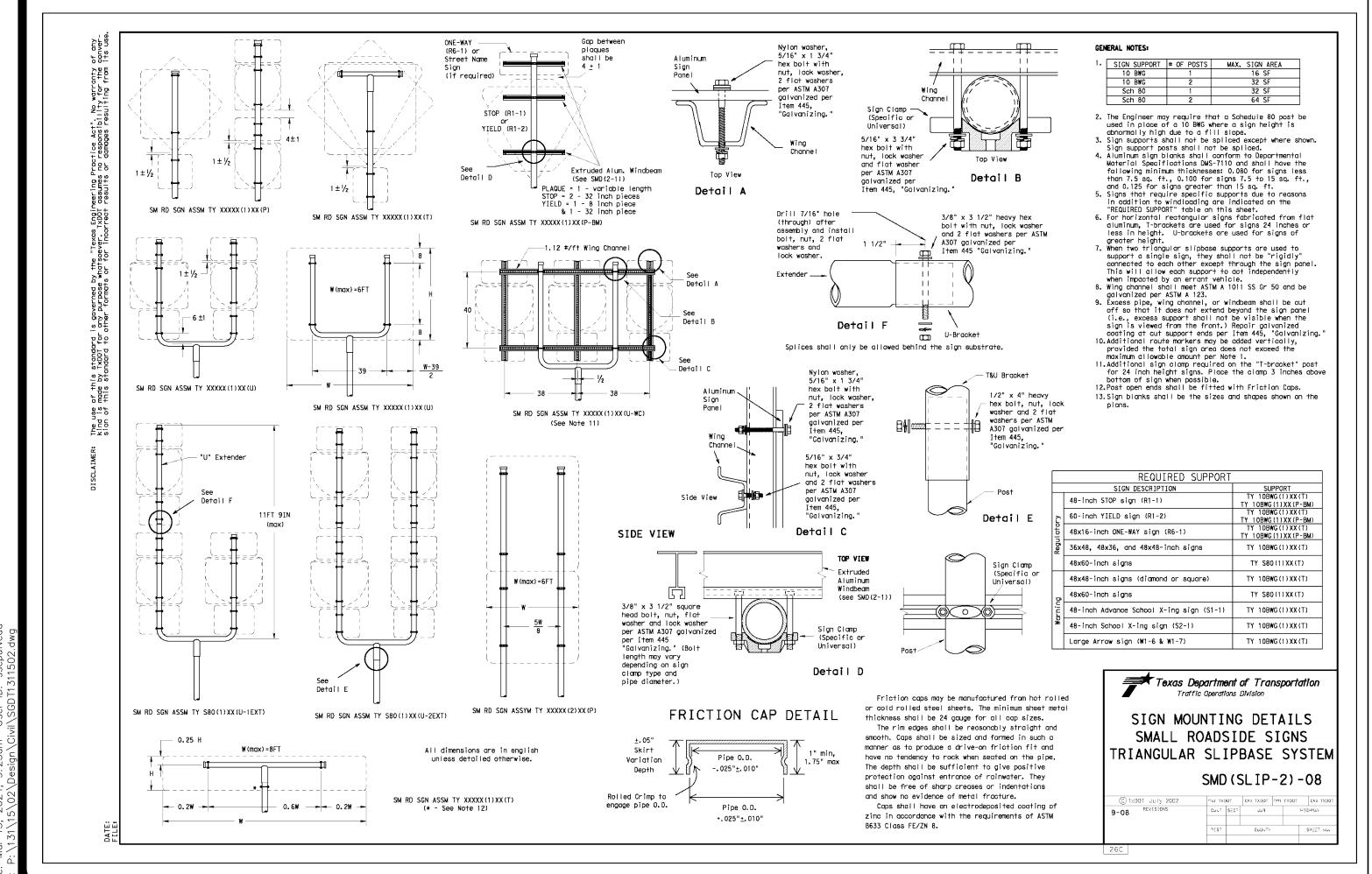
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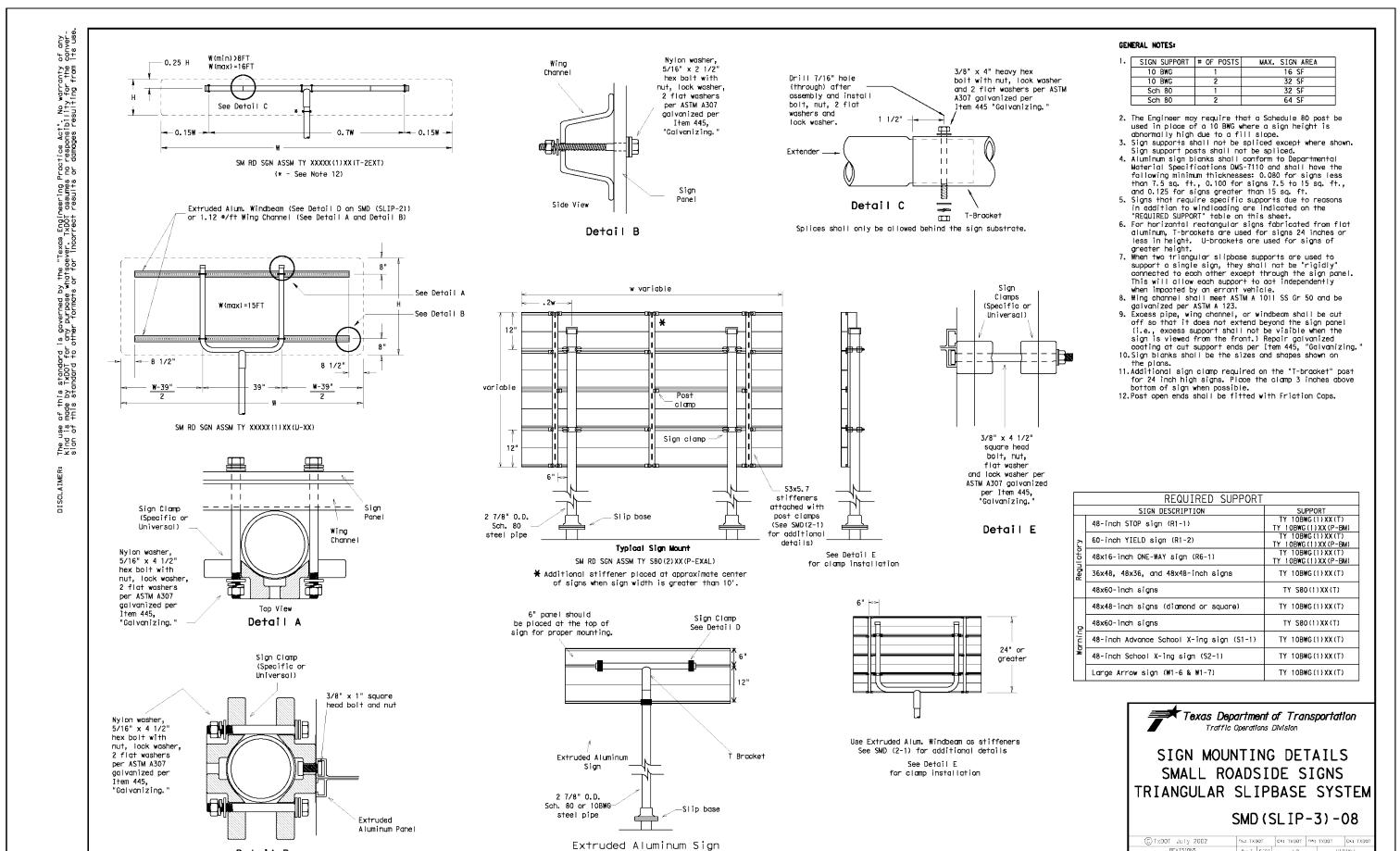












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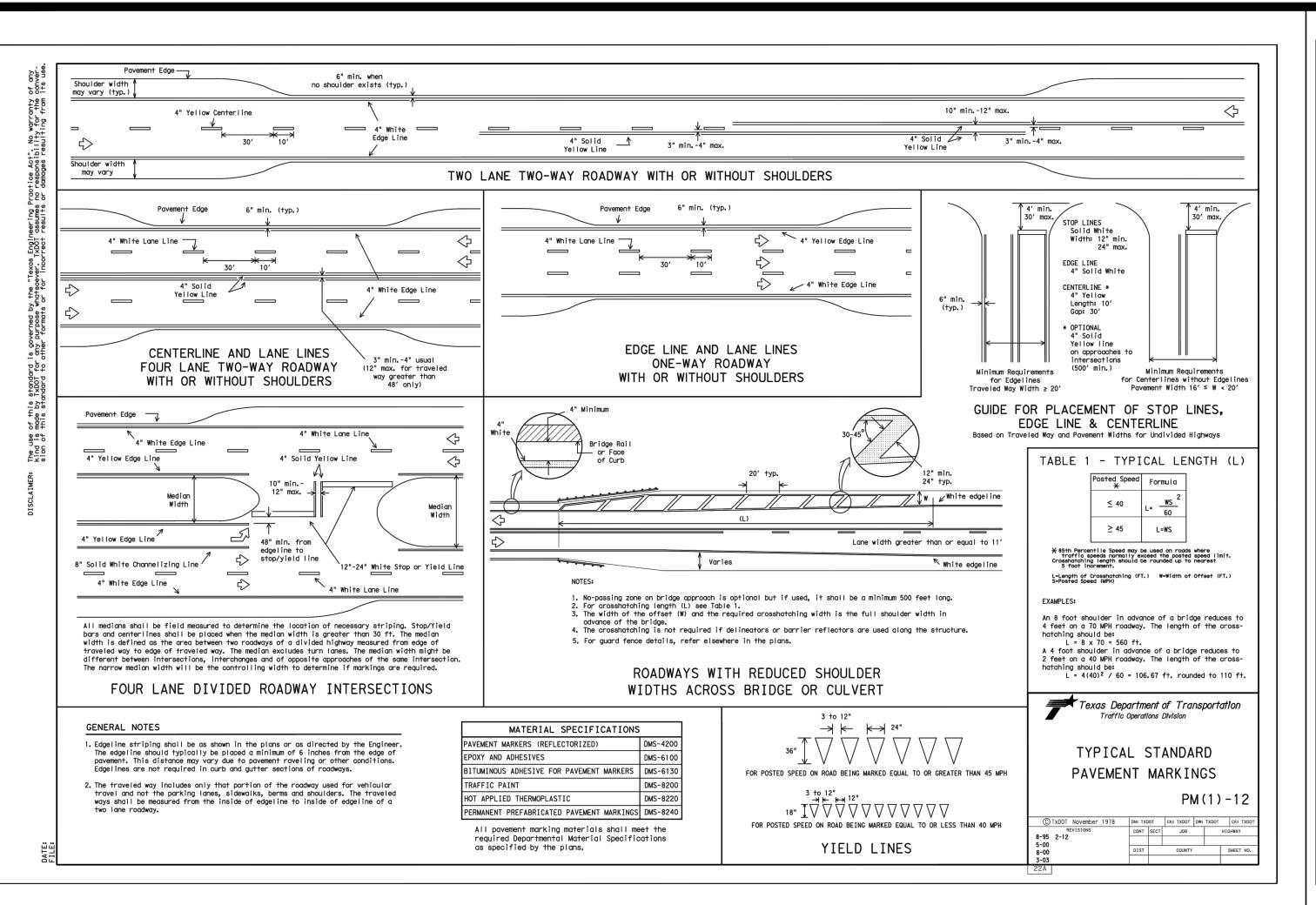
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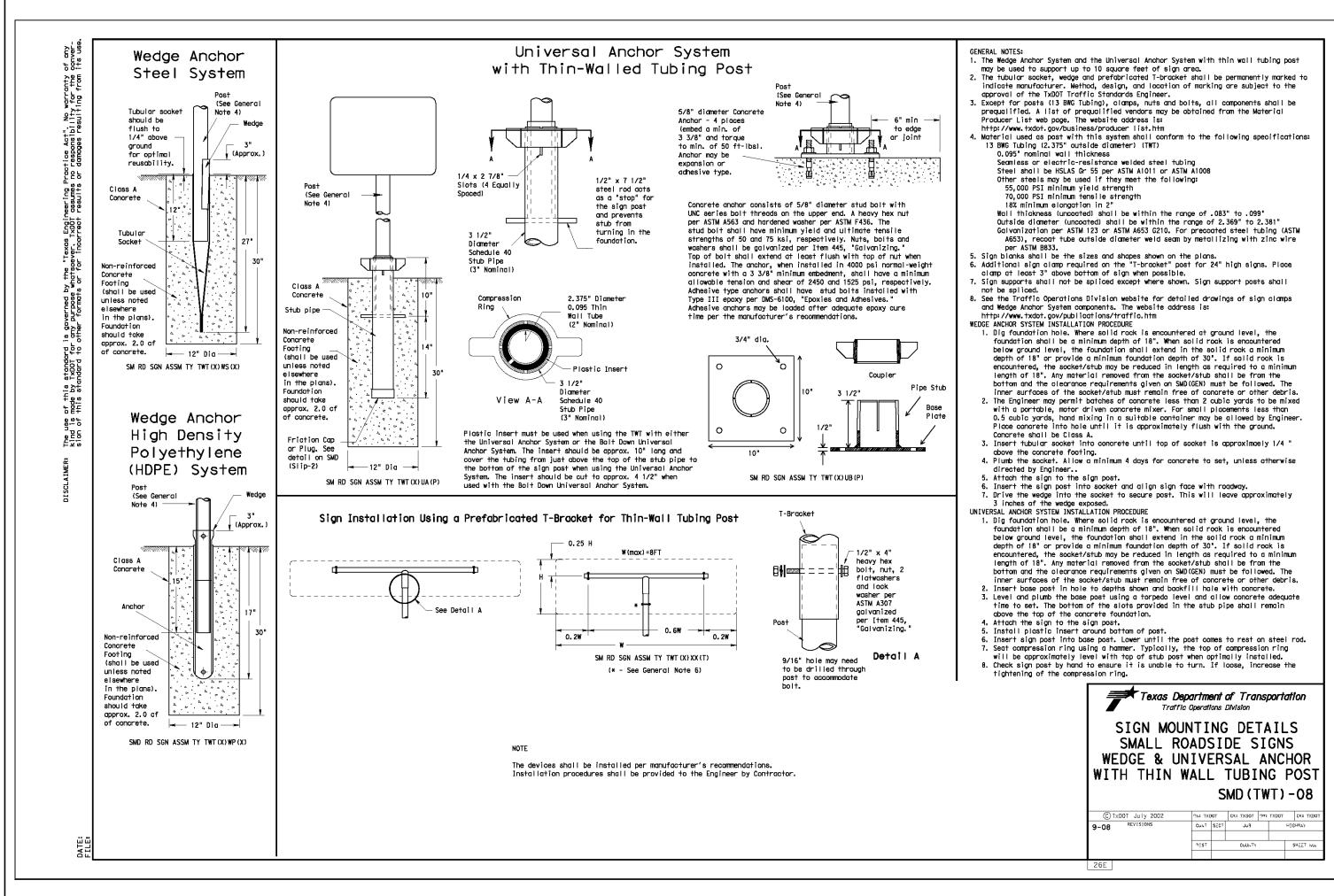
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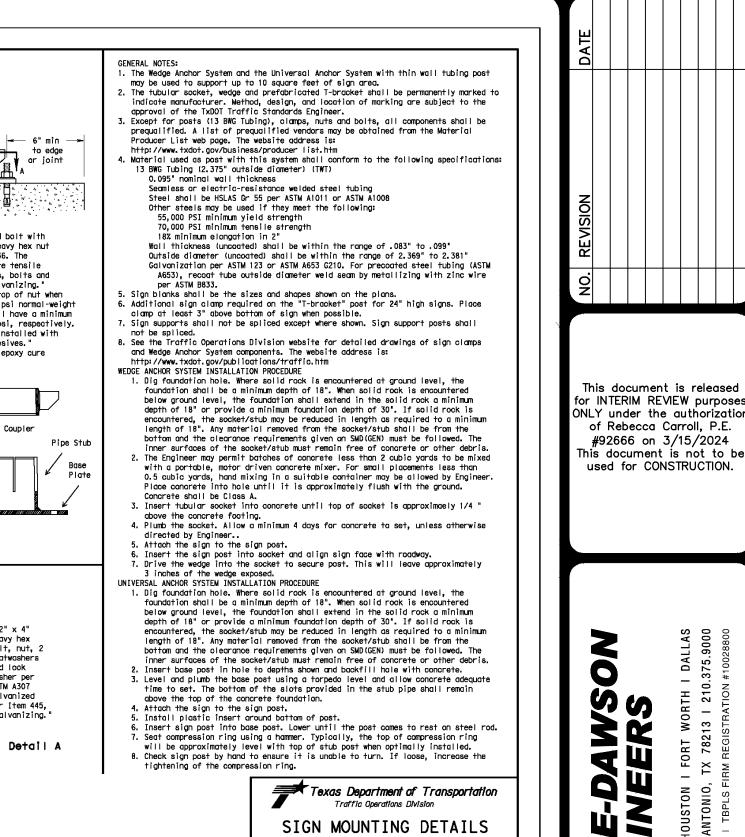
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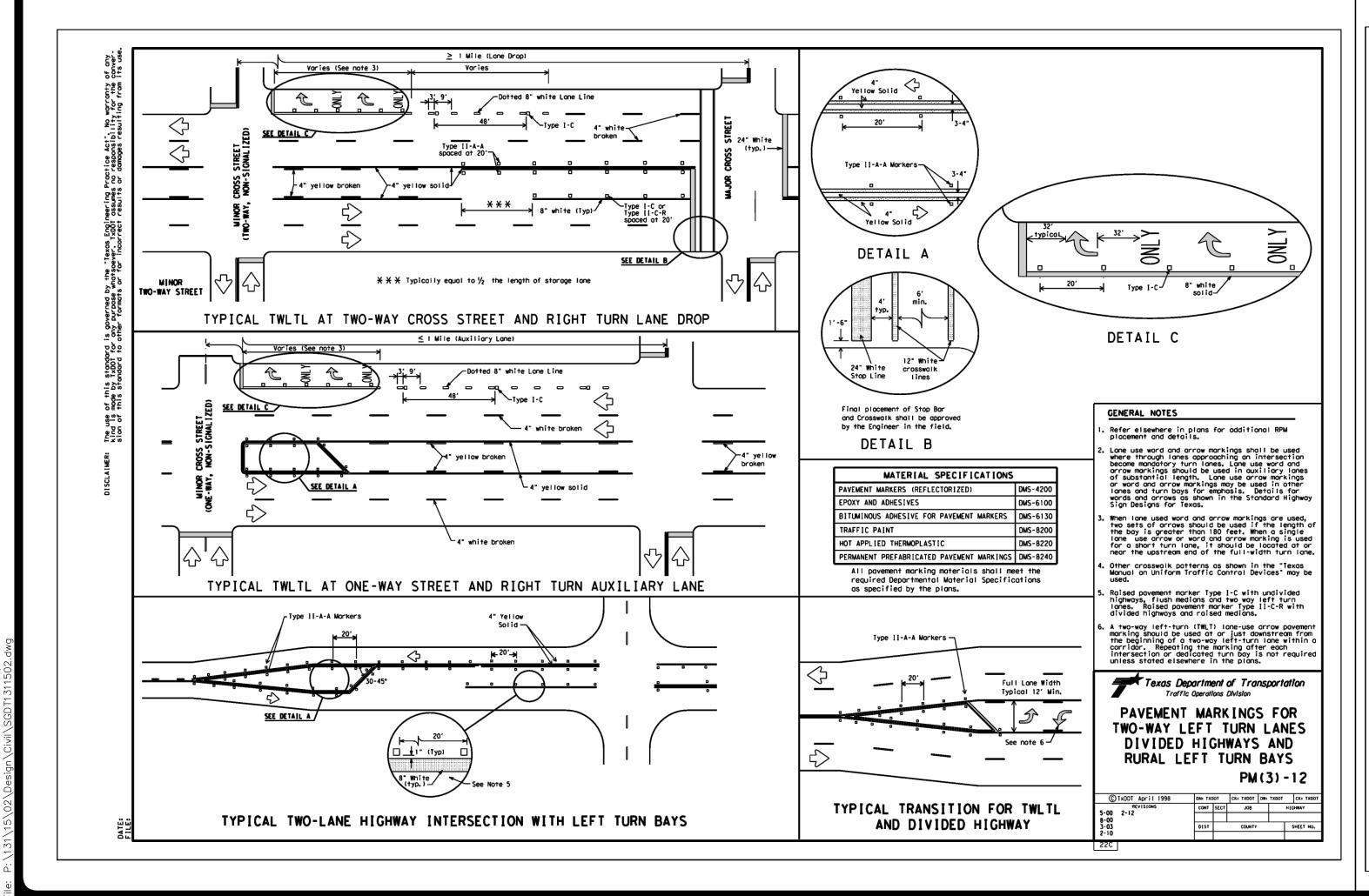
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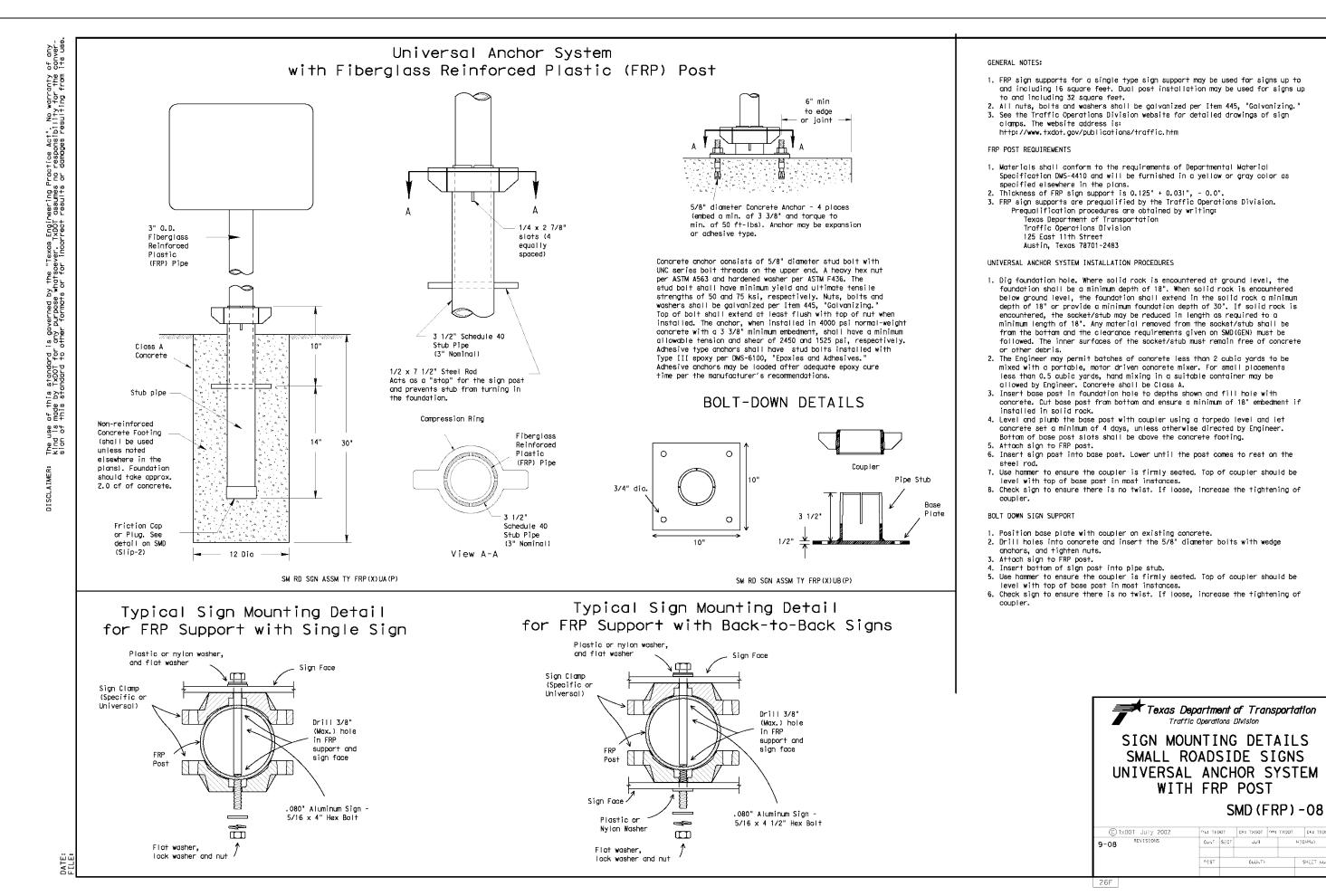
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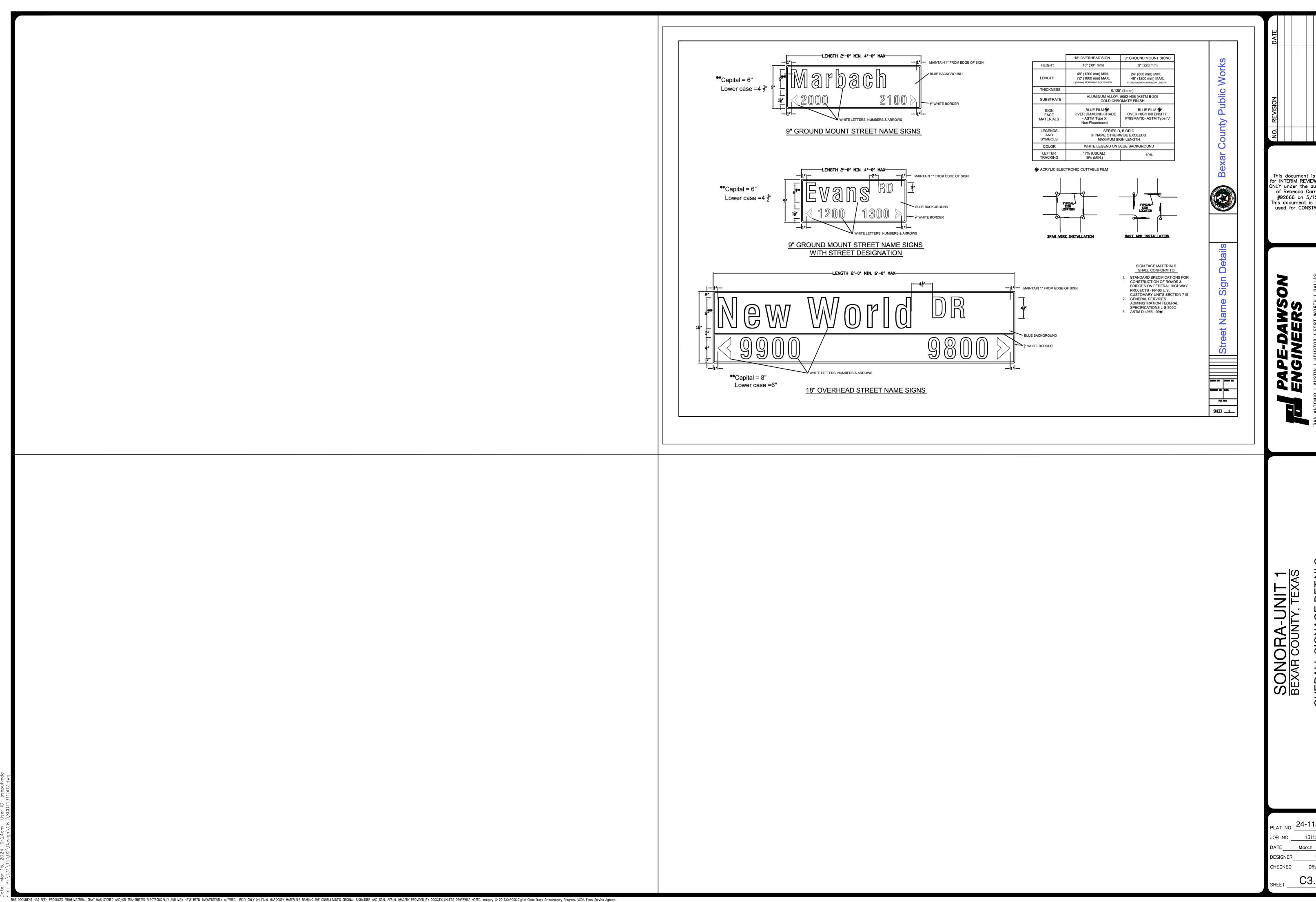
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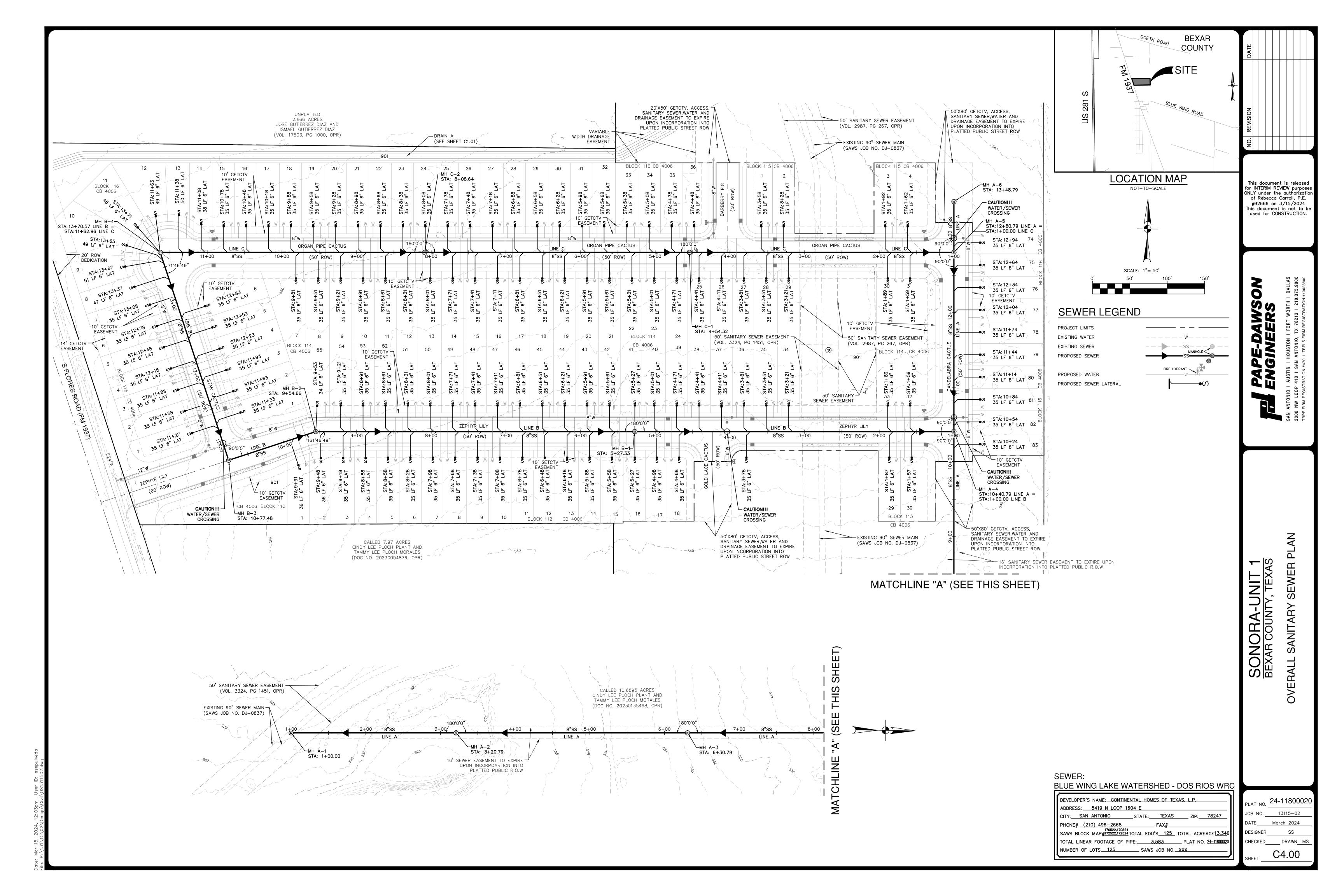


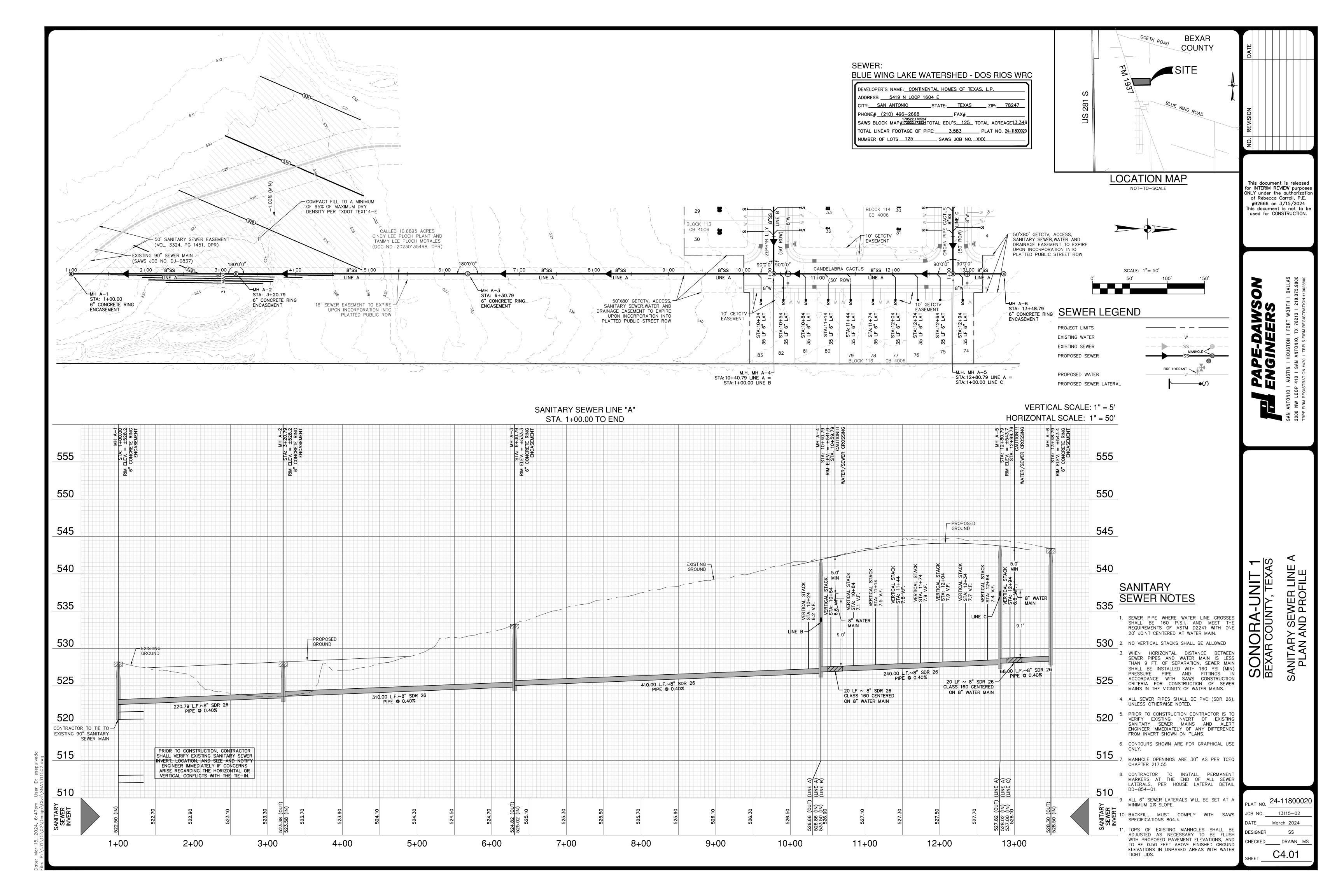


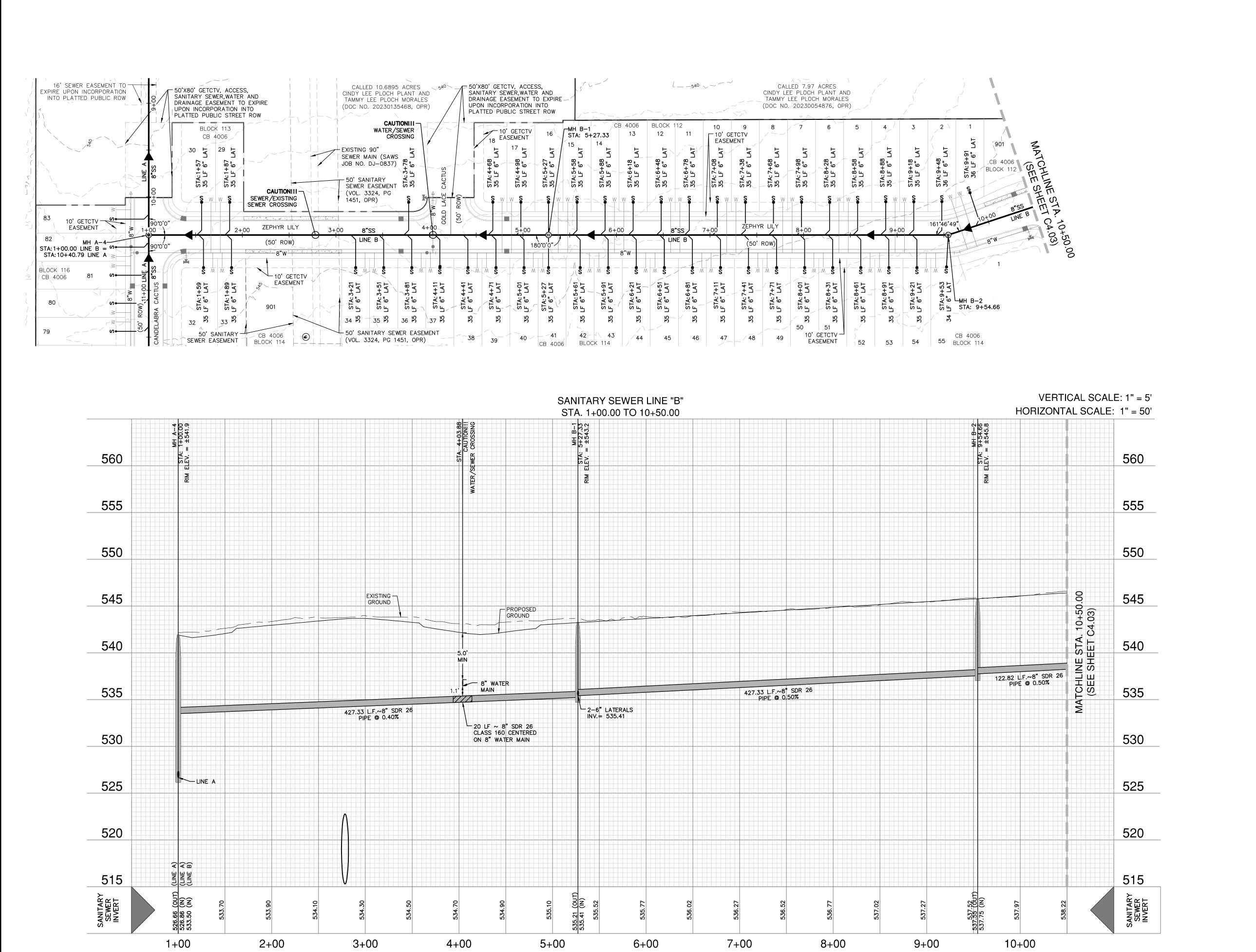
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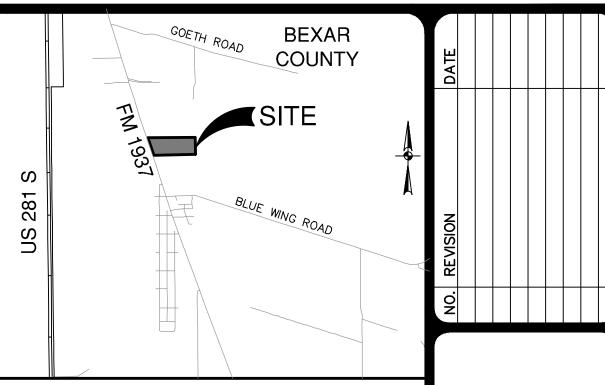
OVERALL SIGNAGE DETAIL (SHEET 3 OF 3)

PLAT NO. 24-11800020 13115-02 DATE March 2024 CHECKED\_\_\_\_ DRAWN\_SS

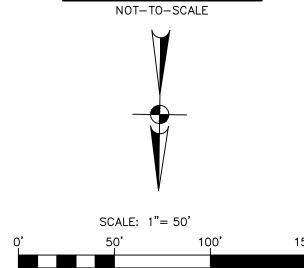




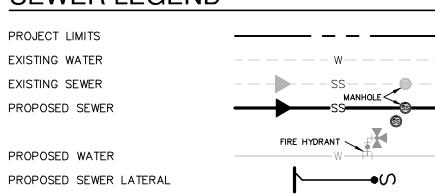




# **LOCATION MAP**



# SEWER LEGEND



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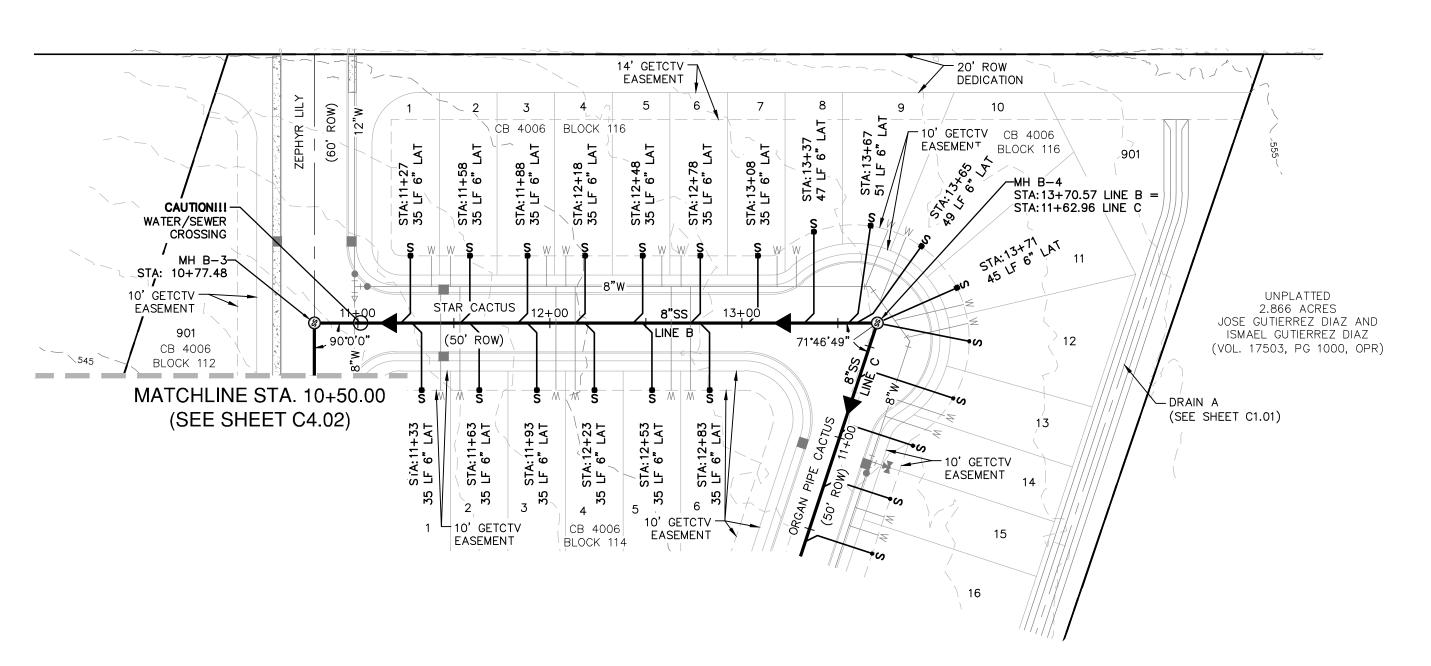
# SANITARY SEWER NOTES

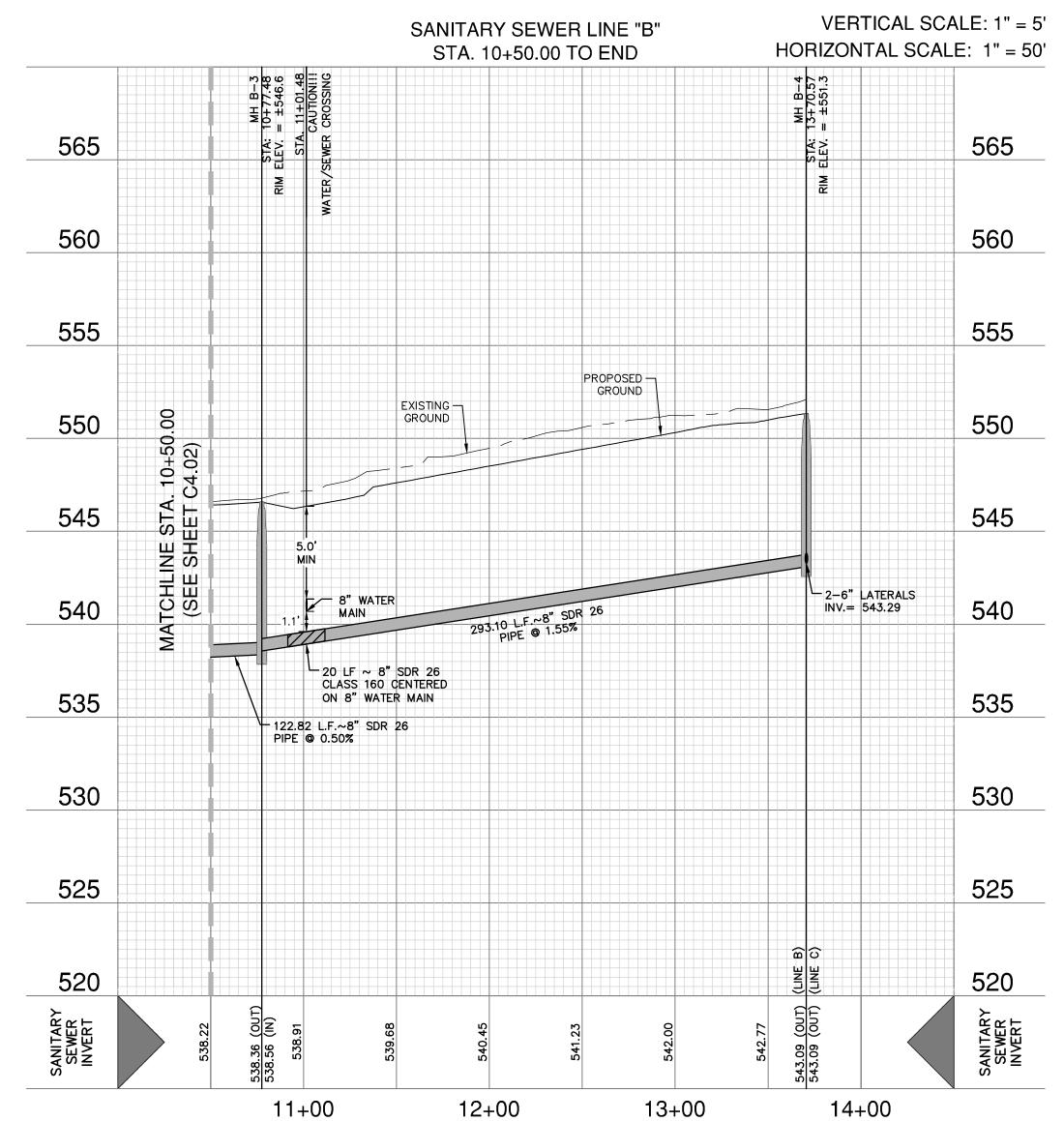
- 1. SEWER PIPE WHERE WATER LINE CROSSES SHALL BE 160 P.S.I. AND MEET THE REQUIREMENTS OF ASTM D2241 WITH ONE 20' JOINT CENTERED AT WATER MAIN.
- 2. NO VERTICAL STACKS SHALL BE ALLOWED
- 3. WHEN HORIZONTAL DISTANCE BETWEEN SEWER PIPES AND WATER MAIN IS LESS THAN 9 FT. OF SEPARATION, SEWER MAIN SHALL BE INSTALLED WITH 160 PSI (MIN) PRESSURE PIPE AND FITTINGS IN ACCORDANCE WITH SAWS CONSTRUCTION CRITERIA FOR CONSTRUCTION OF SEWER MAINS IN THE VICINITY OF WATER MAINS.
- 4. ALL SEWER PIPES SHALL BE PVC (SDR 26), UNLESS OTHERWISE
- 5. PRIOR TO CONSTRUCTION CONTRACTOR IS TO VERIFY EXISTING INVERT OF EXISTING SANITARY SEWER MAINS AND ALERT ENGINEER IMMEDIATELY OF ANY DIFFERENCE FROM INVERT SHOWN ON PLANS.
- 6. CONTOURS SHOWN ARE FOR GRAPHICAL USE ONLY.
- 7. MANHOLE OPENINGS ARE 30" AS PER TCEQ CHAPTER 217.55
- 8. CONTRACTOR TO INSTALL PERMANENT MARKERS AT THE END OF ALL SEWER LATERALS, PER HOUSE LATERAL DETAIL DD-854-01.
- 9. ALL 6" SEWER LATERALS WILL BE SET AT A MINIMUM 2% SLOPE.
- 10. BACKFILL MUST COMPLY WITH SAWS SPECIFICATIONS 804.4.
- 11. TOPS OF EXISTING MANHOLES SHALL BE ADJUSTED AS NECESSARY TO BE FLUSH WITH PROPOSED PAVEMENT ELEVATIONS, AND TO BE 0.50 FEET ABOVE FINISHED GROUND ELEVATIONS IN UNPAVED AREAS WITH WATER TIGHT LIDS.

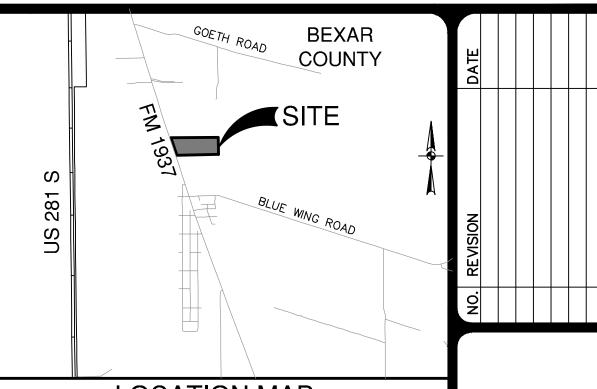
BLUE WING LAKE WATERSHED - DOS RIOS WRC

ADDRESS: 5419 N LOOP 1	1604 E			
CITY: SAN ANTONIO	STATE:	TEXAS	ZIP:	78247
PHONE# (210) 496-2668 170522,17052 SAWS BLOCK MAP#172522,17252	4			 EAGE <u>13.34</u> 6
TOTAL LINEAR FOOTAGE OF INUMBER OF LOTS 125				). <u>24–1180002</u> 0

PLAT NO.	24-1180002
JOB NO.	13115-02
DATE	March 2024
DESIGNER	SS
CHECKED_	DRAWNM
SHEET	C4.02







**LOCATION MAP** NOT-TO-SCALE

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# SEWER LEGEND

PROJECT LIMITS EXISTING WATER EXISTING SEWER PROPOSED SEWER PROPOSED WATER PROPOSED SEWER LATERAL

# SANITARY SEWER NOTES

- 1. SEWER PIPE WHERE WATER LINE CROSSES SHALL BE 160 P.S.I. AND MEET THE REQUIREMENTS OF ASTM D2241 WITH ONE 20' JOINT CENTERED AT WATER MAIN.
- 2. NO VERTICAL STACKS SHALL BE ALLOWED
- 3. WHEN HORIZONTAL DISTANCE BETWEEN SEWER PIPES AND WATER MAIN IS LESS THAN 9 FT. OF SEPARATION, SEWER MAIN SHALL BE INSTALLED WITH 160 PSI (MIN) PRESSURE PIPE AND FITTINGS IN ACCORDANCE WITH SAWS CONSTRUCTION CRITERIA FOR CONSTRUCTION OF SEWER MAINS IN THE VICINITY OF WATER MAINS.
- 4. ALL SEWER PIPES SHALL BE PVC (SDR 26), UNLESS OTHERWISE NOTED.
- 5. PRIOR TO CONSTRUCTION CONTRACTOR IS TO VERIFY EXISTING INVERT OF EXISTING SANITARY SEWER MAINS AND ALERT ENGINEER IMMEDIATELY OF ANY DIFFERENCE FROM INVERT SHOWN ON PLANS.
- 6. CONTOURS SHOWN ARE FOR GRAPHICAL USE ONLY.
- 7. MANHOLE OPENINGS ARE 30" AS PER TCEQ CHAPTER 217.55
- 8. CONTRACTOR TO INSTALL PERMANENT MARKERS AT THE END OF ALL SEWER LATERALS, PER HOUSE LATERAL DETAIL DD-854-01.
- 9. ALL 6" SEWER LATERALS WILL BE SET AT A MINIMUM 2% SLOPE.
- 10. BACKFILL MUST COMPLY WITH SAWS SPECIFICATIONS 804.4.
- 11. TOPS OF EXISTING MANHOLES SHALL BE ADJUSTED AS NECESSARY TO BE FLUSH WITH PROPOSED PAVEMENT ELEVATIONS, AND TO BE 0.50 FEET ABOVE FINISHED GROUND ELEVATIONS IN UNPAVED AREAS WITH WATER TIGHT LIDS.

BLUE WING LAKE WATERSHED - DOS RIOS WRC

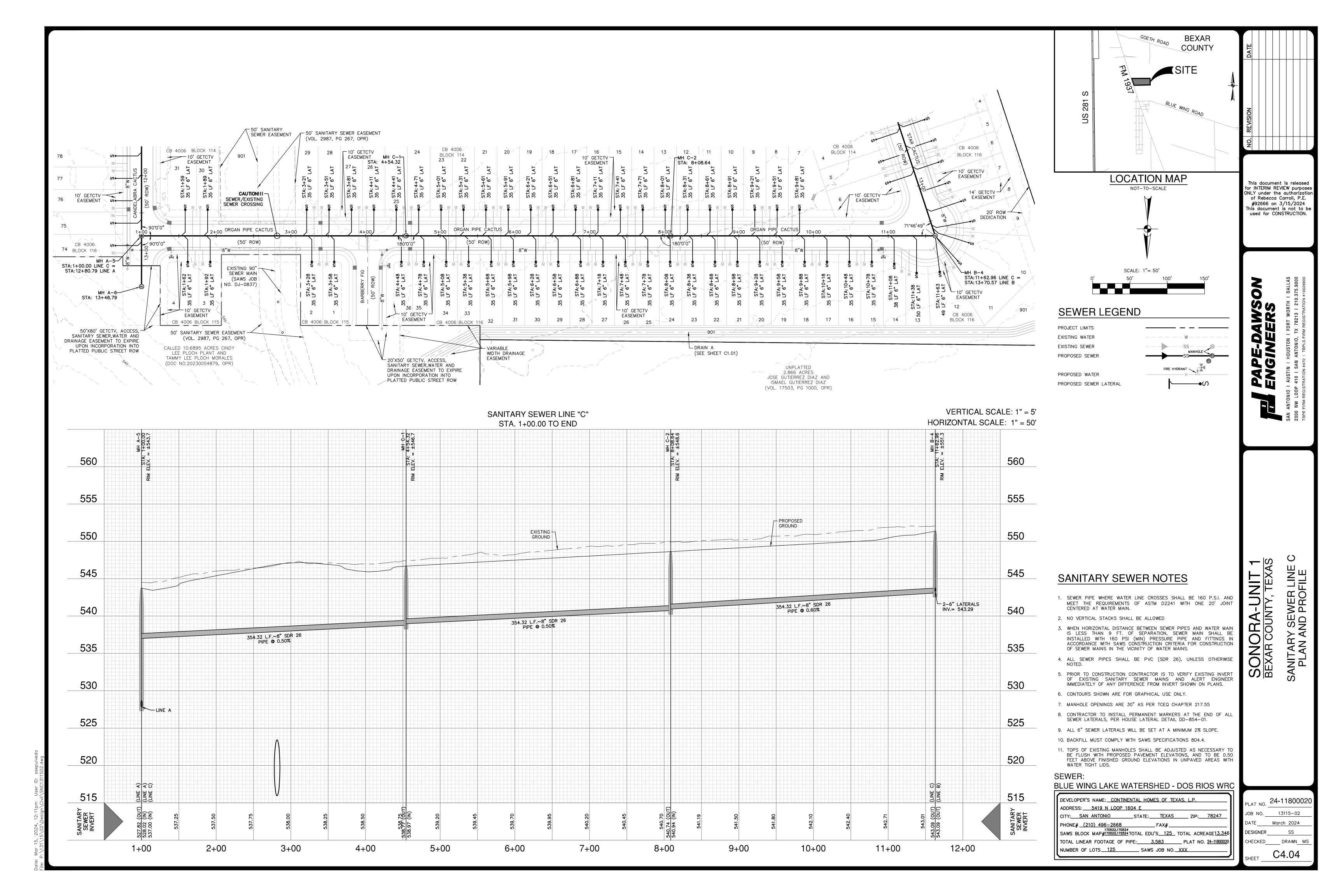
ADDRESS: 5419 N LOOP	1604 E			
CITY: SAN ANTONIO	STATE:	TEXAS	ZIP:	78247
PHONE# (210) 496-2668 170522,1705 SAWS BLOCK MAP#172522,1725			TAL ACDE	
TOTAL LINEAR FOOTAGE OF				
NUMBER OF LOTS 125	SAWS	JOB NOX	ΚX	

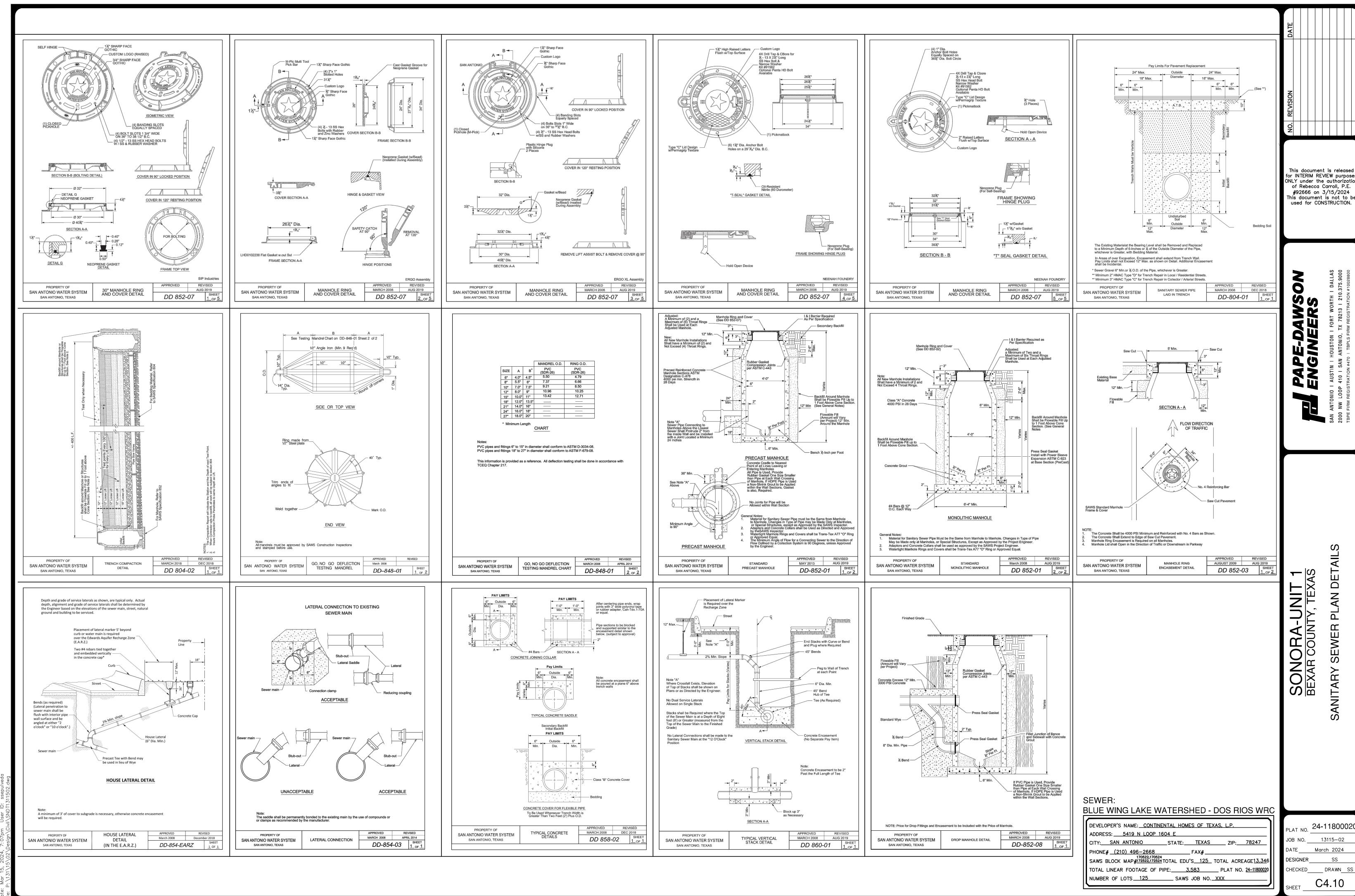
PLAT NO. 24-1180002C 13115-02 March 2024 DESIGNER

CHECKED\_\_\_\_ DRAWN\_ MS

SEWER LINE B (STA. 10+50.00

SANITARY SAND PROFILE





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24-1180002

13115-02 March 2024 DRAWN SS

	SAWS CONSTRUCTION (LAST REVISED JANUARY 202
	SAWS GENERAL SECTION
	ALL MATERIALS AND CONSTRUCTION PROCEDURES CONTRACT SHALL BE APPROVED BY THE SAN ANTONI COMPLY WITH THE PLANS, SPECIFICATIONS, GENERA FOLLOWING AS APPLICABLE:
	A. CURRENT TEXAS COMMISSION ON ENVIRONMENTA CRITERIA FOR DOMESTIC WASTEWATER SYSTEM CODE (TAC) TITLE 30 PART 1 CHAPTER 21: WATER", TAC TITLE 30 PART 1 CHAPTER 290.  B. CURRENT TXDOT "STANDARD SPECIFICATIONS HIGHWAYS, STREETS AND DRAINAGE".  C. CURRENT "SAN ANTONIO WATER SYSTEM STANI WATER AND SANITARY SEWER CONSTRUCTION".  D. CURRENT CITY OF SAN ANTONIO "STANDARD SI WORKS CONSTRUCTION".  E. CURRENT CITY OF SAN ANTONIO "UTILITY EXCA" (UECM).
	2. THE CONTRACTOR SHALL NOT PROCEED WITH ANY P THEY OBTAIN A COPY OF THE APPROVED COL CONSTRUCTION PERMIT (GCP) FROM THE CONSULTANT SAWS CONSTRUCTION INSPECTION DIVISION TO PROCE ARRANGED A MEETING WITH THE INSPECTOR AND REQUIREMENTS. WORK COMPLETED BY THE CONTRAI COUNTER PERMIT AND/OR A GCP WILL BE S REPLACEMENT AT THE EXPENSE OF THE CONTRACTOR
	3. THE CONTRACTOR SHALL OBTAIN THE SAWS STANDA WEBSITE, HTTP://WWW.SAWS.ORG/BUSINESS_CENTER/NOTED WITHIN THE DESIGN PLANS.
	4. THE CONTRACTOR IS TO MAKE ARRANGEMENTS WINSPECTION DIVISION AT  (210) 233-2973, ON NOTIFICATION PROCEDURES THAT AFFECTED HOME RESIDENTS AND/OR PROPERTY OW
	BEGINNING ANY WORK.  5. LOCATION AND DEPTH OF EXISTING UTILITIES AND STITE PLANS ARE UNDERSTOOD TO BE APPROXIMADEPTHS MUST BE FIELD VERIFIED BY THE CONTRACTO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AT NO COST TO SAWS.
	6. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIC AND DRAINAGE STRUCTURES AT LEAST 1-2 WEE WHETHER SHOWN ON PLANS OR NOT. PLEASE ALLOW LOCATES REQUESTING PIPE LOCATION MARKERS FOLLOWING CONTACT INFORMATION ARE SUPPLIED FOR
	<ul> <li>SAWS UTILITY LOCATES: HTTP://WWW.SAWS.ORG/</li> <li>COSA DRAINAGE (210) 207-0724 OR (210) 207-</li> <li>COSA TRAFFIC SIGNAL OPERATIONS (210) 206-8-</li> <li>COSA TRAFFIC SIGNAL DAMAGES (210) 207-3951</li> <li>TEXAS STATE WIDE ONE CALL LOCATOR 1-800-5</li> </ul>
	7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAF ORIGINAL OR BETTER CONDITION IF DAMAGES ARE PROJECT'S CONSTRUCTION.
	ALL WORK IN TEXAS DEPARTMENT OF TRANSPORTA     COUNTY RIGHT-OF-WAY SHALL BE DONE IN ACCONSTRUCTION SPECIFICATIONS AND PERMIT REQUIREN
	9. THE CONTRACTOR SHALL COMPLY WITH CITY OF GOVERNING MUNICIPALITY'S TREE ORDINANCES WHEN E
	10. THE CONTRACTOR SHALL NOT PLACE ANY WASTE FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED      11. HOLIDAY WORK: CONTRACTORS WILL NOT BE ALLOWED
	SAWS RECOGNIZED HOLIDAYS. REQUEST SHOULD BE SI CONSTWORKREQ@SAWS.ORG.  WEEKEND WORK: CONTRACTORS ARE REQUIRED TO CONSTRUCTION DEPARTMENT 48 HOURS IN ADVANCE
	REQUEST SHOULD BE SENT TO CONSTWORKREQ@SAWS.  ANY AND ALL SAWS UTILITY WORK INSTALLED WITHOU
	APPROVAL WILL BE SUBJECT TO BE UNCOVERED FOR  12. COMPACTION NOTE (ITEM 804): THE CONTRACTOR MEETING THE COMPACTION REQUIREMENTS ON ALL
	PAYING FOR THE TESTS PERFORMED BY A THIRD PA BE DONE AT ONE LOCATION POINT RANDOMLY SELEC' SAWS INSPECTOR AND/OR THE TEST ADMINISTRATOR LIFT PER 400 LINEAR FEET AT A MINIMUM. THIS PR AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT PROVIDING ALL NECESSARY DOCUMENTED TEST RESUL
	13. A COPY OF ALL TESTING REPORTS SHALL BE FORWA INSPECTION DIVISION.

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### SAWS CONSTRUCTION NOTES (LAST REVISED JANUARY 2022)

### NERAL SECTION

- ALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS ALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND THE PLANS, SPECIFICATIONS, GENERAL CONDITIONS AND WITH THE
- TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) 'DESIGN FOR DOMESTIC WASTEWATER SYSTEM", TEXAS ADMINISTRATIVE AC) TITLE 30 PART 1 CHAPTER 217 AND "PUBLIC DRINKING"
- TXDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF STREETS AND DRAINAGE". "SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR
- ND SANITARY SEWER CONSTRUCTION" CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR PUBLIC
- ONSTRUCTION". CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL"
- CTOR SHALL NOT PROCEED WITH ANY PIPE INSTALLATION WORK UNTIL A COPY OF THE APPROVED COUNTER PERMIT OR GENERAL PERMIT (GCP) FROM THE CONSULTANT AND HAS BEEN NOTIFIED BY UCTION INSPECTION DIVISION TO PROCEED WITH THE WORK AND HAS MEETING WITH THE INSPECTOR AND CONSULTANT FOR THE WORK WORK COMPLETED BY THE CONTRACTOR WITHOUT AN APPROVED RMIT AND/OR A GCP WILL BE SUBJECT TO REMOVAL AND AT THE EXPENSE OF THE CONTRACTORS AND/OR THE DEVELOPER.
- CTOR SHALL OBTAIN THE SAWS STANDARD DETAILS FROM THE SAWS TP: //WWW.SAWS.ORG/BUSINESS\_CENTER/SPECS. UNLESS OTHERWISE
- CTOR IS TO MAKE ARRANGEMENTS WITH THE SAWS CONSTRUCTION 973, ON NOTIFICATION PROCEDURES THAT WILL BE USED TO NOTIFY OME RESIDENTS AND/OR PROPERTY OWNERS 48 HOURS PRIOR TO
- D DEPTH OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND BE FIELD VERIFIED BY THE CONTRACTOR AT LEAST 1 WEEK PRIOR TO N. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM TRUCTION AT NO COST TO SAWS.
- CTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES E STRUCTURES AT LEAST 1-2 WEEKS PRIOR TO CONSTRUCTION WN ON PLANS OR NOT. PLEASE ALLOW UP TO 7 BUSINESS DAYS FOR QUESTING PIPE LOCATION MARKERS ON SAWS FACILITIES. THE NTACT INFORMATION ARE SUPPLIED FOR VERIFICATION PURPOSES:
  - ILITY LOCATES: HTTP://WWW.SAWS.ORG/SERVICE/LOCATES AINAGE (210) 207-0724 OR (210) 207-6026
  - AFFIC SIGNAL OPERATIONS (210) 206-8480 AFFIC SIGNAL DAMAGES (210) 207-3951 TATE WIDE ONE CALL LOCATOR 1-800-545-6005 OR 811
- CTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, TTS, DRIVEWAYS, SIDEWALKS, LANDSCAPING AND STRUCTURES TO ITS BETTER CONDITION IF DAMAGES ARE MADE AS A RESULT OF THE
- TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) AND/OR BEXAR IT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH RESPECTIVE SPECIFICATIONS AND PERMIT REQUIREMENTS.
- CTOR SHALL COMPLY WITH CITY OF SAN ANTONIO OR OTHER JNICIPALITY'S TREE ORDINANCES WHEN EXCAVATING NEAR TREES.
- CTOR SHALL NOT PLACE ANY WASTE MATERIALS IN THE 100-YEAR WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN PERMIT.
- IZED HOLIDAYS. REQUEST SHOULD BE SENT TO Q@SAWS.ORG.

DRK: CONTRACTORS ARE REQUIRED TO NOTIFY THE SAWS INSPECTION DEPARTMENT 48 HOURS IN ADVANCE TO REQUEST WEEKEND WORK. JLD BE SENT TO CONSTWORKREQ@SAWS.ORG.

SAWS UTILITY WORK INSTALLED WITHOUT HOLIDAY/WEEKEND ILL BE SUBJECT TO BE UNCOVERED FOR PROPER INSPECTION.

- NOTE (ITEM 804): THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPÀCTION RÉQUIREMENTS ON ALL TRENCH BACKFILL AND FOR THE TESTS PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL ONE LOCATION POINT RANDOMLY SELECTED, OR AS INDICATED BY THE TOR AND/OR THE TEST ADMINISTRATOR, PER EACH 12-INCH LOOSE LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY NECESSARY DOCUMENTED TEST RESULTS.
- ALL TESTING REPORTS SHALL BE FORWARDED TO SAWS CONSTRUCTION

### SAWS SEWER NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT NO SANITARY SEWER OVERFLOW (SSO) OCCURS AS A RESULT OF THEIR WORK. ALL CONTRACTOR PERSONNEL RESPONSIBLE FOR SSO PREVENTION AND CONTROL SHALL BE TRAINED ON PROPER RESPONSE. SHOULD AN SSO OCCUR, THE CONTRACTOR SHALL:
- A. IDENTIFY THE SOURCE OF THE SSO AND NOTIFY SAWS EMERGENCY OPERATIONS CENTER (EOC) IMMEDIATELY AT (210) 233-2014. PROVIDE THE ADDRESS OF THE SPILL AND AN ESTIMATED VOLUME OR FLOW.
- B.ATTEMPT TO ELIMINATE THE SOURCE OF THE SSO. C.CONTAIN SEWAGE FROM THE SSO TO THE EXTENT OF PREVENTING A POSSIBLE CONTAMINATION OF WATERWAYS.
- D.CLEAN UP SPILL SITE (RETURN CONTAINED SEWAGE TO THE
- COLLECTION SYSTEM IF POSSIBLE) AND PROPERLY DISPOSE OF CONTAMINATED SOIL/MATERIALS. E.CLEAN THE AFFECTED SEWER MAINS AND REMOVE ANY DEBRIS.
- F.MEET ALL POST-SSO REQUIREMENTS AS PER THE EPA CONSENT DECREE, INCLUDING LINE CLEANING AND TELEVISING THE AFFECTED SEWER MAINS (AT SAWS DIRECTION) WITHIN 24 HOURS.

SHOULD THE CONTRACTOR FAIL TO ADDRESS AN SSO IMMEDIATELY AND TO SAWS SATISFACTION, THEY WILL BE RESPONSIBLE FOR ALL COSTS INCURRED BY SAWS, INCLUDING ANY FINES FROM EPA, TCEQ AND/OR ANY OTHER FEDERAL, STATE OR LOCAL AGENCIES.

NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE FOR THIS WORK. ALL WORK SHALL BE DONE ACCORDING TO GUIDELINES SET BY THE TCEQ

2. IF BYPASS PUMPING IS REQUIRED, THE CONTRACTOR SHALL PERFORM SUCH WORK IN ACCORDANCE WITH SAWS STANDARD SPECIFICATION FOR WATER AND SANITARY SEWER CONSTRUCTION, ITEM NO. 864, "BYPASS PUMPING".

PRIOR TO TIE-INS, ANY SHUTDOWNS OF EXISTING FORCE MAINS OF ANY SIZE MUST BE COORDINATED WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT (210) 233-2973 AT LEAST ONE WEEK IN ADVANCE OF THE SHUTDOWN. THE CONTRACTOR MUST ALSO PROVIDE A SEQUENCE OF WORK AS RELATED TO THE TIE-INS; THIS IS AT NO ADDITIONAL COST TO SAWS OR THE PROJECT AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK ACCORDINGLY.

SEWER PIPE WHERE WATER LINE CROSSES SHALL BE 160 PSI AND MEET THE REQUIREMENTS OF ASTM D2241, TAC 217.53 AND TCEQ 290.44(E)(4)(B). CONTRACTOR SHALL CENTER A 20' JOINT OF 160 PSI PRESSÙRÉ RÀTED PVC AT THE PROPOSED WATER CROSSING.

ELEVATIONS POSTED FOR TOP OF MANHOLES ARE FOR REFERENCE ONLY: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ALLOWANCES AND ADJUSTMENTS FOR TOP OF MANHOLES TO MATCH THE FINISHED GRADE OF THE PROJECT'S IMPROVEMENTS. (NSPI)

6. SPILLS, OVERFLOWS, OR DISCHARGES OF WASTEWATER: ALL SPILLS, OVERFLOWS, OR DISCHARGES OF WASTEWATER, RECYCLED WATER, PETROLEUM PRODUCTS, OR CHEMICALS MUST BE REPORTED IMMEDIATELY TO THE SAWS INSPECTOR ASSIGNED TO THE COUNTER PERMIT OR GENERAL CONSTRUCTION PERMIT (GCP). THIS REQUIREMENT APPLIES TO EVERY SPILL, OVERFLOW, OR DISCHARGE RÉGARDLESS OF SIZE.

MANHOLE AND ALL PIPE TESTING (INCLUDING THE TV INSPECTION) MUST BE PERFORMED AND PASSED PRIOR TO FINAL FIELD ACCEPTANCE BY SAWS CONSTRUCTION INSPECTION DIVISION, AS PER THE SAWS SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION.

. ALL PVC PIPE OVER 14 FEET OF COVER SHALL BE EXTRA STRENGTH WITH MINIMUM PIPE STIFFNESS OF 115 PSI.

# CONTRACTORS WILL NOT BE ALLOWED TO PERFORM SAWS WORK ON PROJECT SEWER NOTES

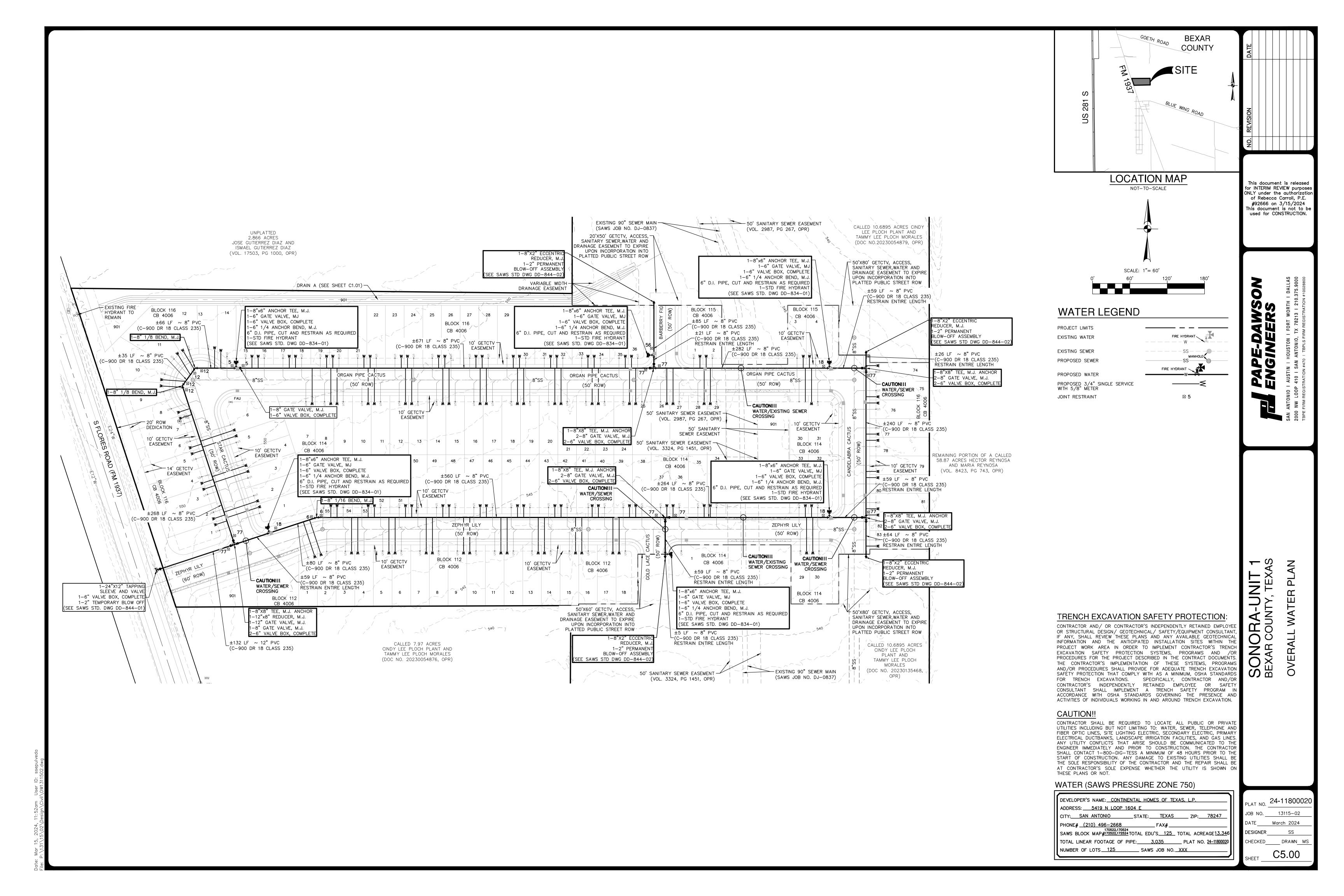
- ALL RESIDENTIAL SEWER SERVICE LATERALS ARE 6" DIA. AND SHALL BE EXTENDED TO 10' PAST THE PROPERTY LINE AND CAPPED AND SEALED. CONTRACTOR SHALL INSTALL A 2" X 4" STAKE, FOUR (4) FEET LONG, TWO 2) FEET DEEP INTO THE GROUND AT THE END OF EACH SERVICE. NO SEPARATE PAY ITEM.
- CONTRACTOR TO INSTALL CLEANOUTS AT THE END OF ALL SEWER LATERALS, PER LATERAL DETAIL SHEET C4.10
- . NO VERTICAL STACKS ALLOWED FOR ANY LOTS UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
- ALL 6" SEWER LATERALS WILL BE SET AT 2% GRADE FROM THE MAIN TO THE PROPERTY LINE.
- WHEN HORIZONTAL DISTANCE BETWEEN SEWER PIPES AND WATER MAIN IS LESS THAN 9 FOOT OF SEPARATION, SEWER MAIN SHALL BE INSTALLED WITH 150 PSI (MIN) PRESSURE PIPE AND FITTINGS IN ACCORDANCE WITH SAWS CONSTRUCTION CRITERIA FOR CONSTRUCTION OF SEWER MAINS IN THE VICINITY OF WATER MAINS.
- . CONTRACTOR SHALL ENSURE THAT MANHOLES OUTSIDE OF PAVED AREAS ARE SET WITH TOP ELEVATIONS 6" ABOVE FINISHED GRADE WITH CONCRETE
- 7. ALL SEWER PIPES SHALL BE 8" PVC (SDR 26), UNLESS OTHERWISE NOTED.
- 8. CONTRACTOR IS TO VERIFY EXISTING INVERT OF EXISTING SANITARY SEWER MAINS AND ALERT ENGINEER IMMEDIATELY OF ANY DIFFERENCE FROM INVERT SHOWN ON PLANS.
- 9. CONTRACTOR SHALL PROTECT ALL EXISTING FENCES. ANY FENCE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR
- 10. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY SIZE, GRADE, AND LOCATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DEVIATIONS FROM PLANS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.
- I. CONCRETE RING ENCASEMENT TO BE INSTALLED ON ALL MANHOLES AND, WITHIN LIMITS OF PAVEMENT, BE INSTALLED TO THE TOP OF THE BASE LAYER WITH A MINIMUM OF 2" OF ASPHALT ON TOP OF THE RING
- 12. MANHOLE OPENING INCREASED TO 30" AS PER TAC CHAPTER 217.55.
- 13. ALL SEWER PIPE LATERALS SHALL BE SDR 26 (CLASS 160) PVC PIPE.
- 14. IF THE GIVEN TOP OF MANHOLE ELEVATION DOES NOT AGREE ON ACTUAL GROUND SURFACE OR FINISH PAVEMENT, THE CONTRACTOR SHALL ADJUST ELEVATIONS SUCH THAT THE TOP OF MANHOLE SHALL BE 0.5' ABOVE EXISTING GROUND, OR FLUSH TO FINISH ASPHALT PAVEMENT.
- 15. ALL MANHOLES CONSTRUCTED OVER THE EDWARDS AQUIFER RECHARGE ZONE SHOULD BE WATERTIGHT.

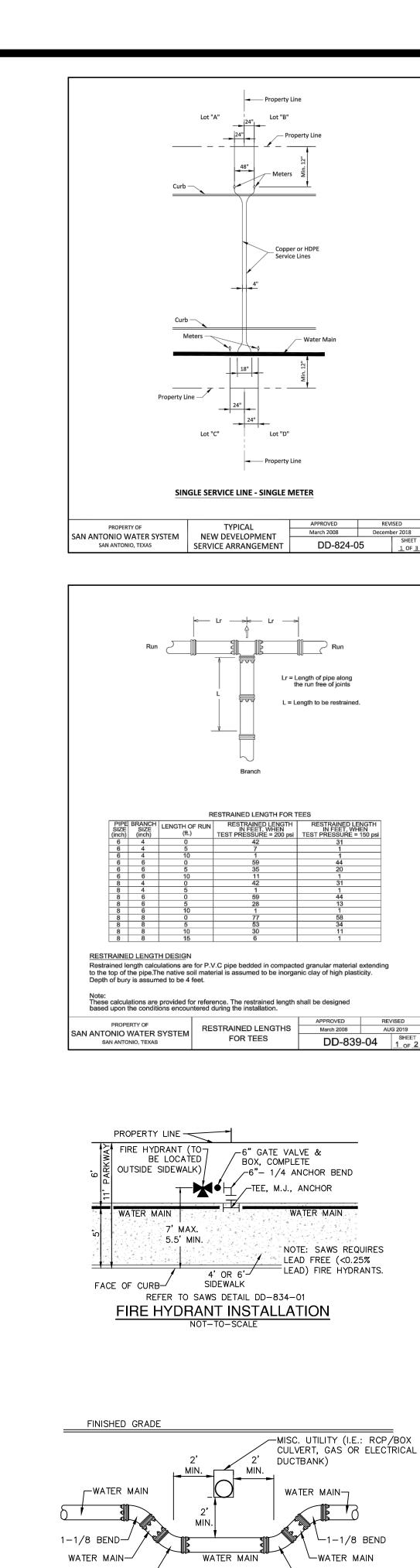
BLUE WING LAKE WATERSHED - DOS RIOS WRC

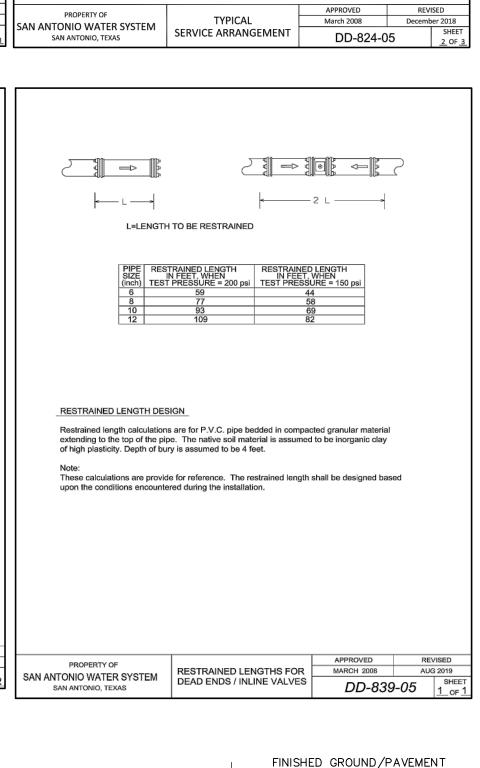
DEVELOPER'S NAME: CONTINENTAL HOMES OF TEXAS, L.P.
ADDRESS: <u>5419 N LOOP 1604 E</u>
CITY: SAN ANTONIO STATE: TEXAS ZIP: 78247
PHONE# <u>(210) 496-2668</u> FAX#
170522,170524 SAWS BLOCK MAP#172522,172524 TOTAL EDU'S 125 TOTAL ACREAGE13.346
TOTAL LINEAR FOOTAGE OF PIPE: 3,583 PLAT NO. 24-11800020
NUMBER OF LOTS 125 SAWS JOB NO. XXX

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T NO. 24-11800020 13115-02 March 2024 DESIGNER CHECKED DRAWN SS







PROPOSED WATER LINE -

SEPARATION DISTANCE AND

PROTECTION REQUIREMENTS

TO COMPLY WITH 30 TAC -

217.53(d) AND 290.44(e)

1-1/8 BEND-

WATER MAIN-

1-1/8 BEND-

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(TOP OF GRADE)

CROSSING

PRÓPOSED SANITARY SEWER LINE

TYPICAL SANITARY

SEWER/WATER CROSSING DETAIL

NOT-TO-SCALE

WATER MAIN

WHERE SEWER PIPE CROSSES

SHALL BE 160 PSI AND MEET

THE REQUIREMENTS OF ASTM

FINISHED GRADE

-1-1/8 BEND

-MISC. UTILITY (I.E.: RCP/BOX

DUCTBANK)

CULVERT, GAS OR ELECTRICAL

\_\_WATER MAIN

\_1-1/8 BEND

A WATER LINE, THE SEWER

D2241 WITH ONE 20' JOINT

CENTERED AT THE WATER

SINGLE SERVICE LINE - DUAL METER

(C) Tee —

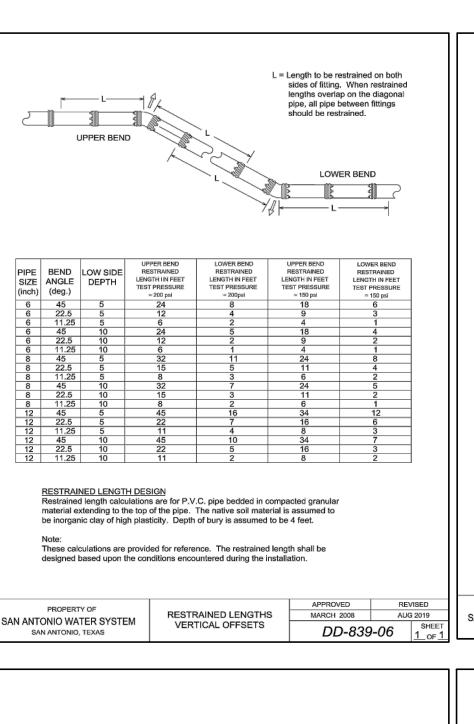
(A) Angle Valves

A B C

2-3/4" Meters | 3/4" | 1" | 3/4" x 3/4" x 1"

1½" Service 2-1" Meter 1" 1½" 1" x 1" x 1½"

**Dual Services not** allowed when PRVs are



C.I. Cap to be Labeled "WATER" or "DIVISION VALVE" (when specifically indicated)

6" Min.

MAIN

PROPERTY OF
SAN ANTONIO WATER SYSTEM
SAN ANTONIO, TEXAS

NSTALLATION OF NON-GEARED
GATE VALVE WITH VALVE BOX
AND EXTENSION

APPROVED
MARCH 2008
AUG 2019
DD 828-01
1 on

Tracer Wire Bolted — to Gate Valve

Use Concrete Blocking – for all Valves

NOTE: Tracer Wire for PVC (Typ. for PVC & HDPE) NOTE: All Concrete to be 3,000 psi

WATER

2" Minimum / 4" Maximum Clearance

in the Terrace shall be Constructed with No. 3

Note: For all work associated with Recycled Water Valves, refer to DD 110-10, Sht. 1 of 1

DD 828-01

Valve Marker

 Valve Marker is 3" Steel pipe painted as shown

2. Valve Measurements shall

be referenced to Marker
3. SAWS Decal shall be noted

on the marker and facing the diection of the valve.

PROPERTY OF

SAN ANTONIO WATER SYSTEM

SAN ANTONIO, TEXAS

VALVE MARKER

SECTION A-A

VALVE MARKER

L=Length to be restrained

RESTRAINED LENGTH DESIGN
Restrained length calculations are for P.V.C. pipe bedded in compacted granular material

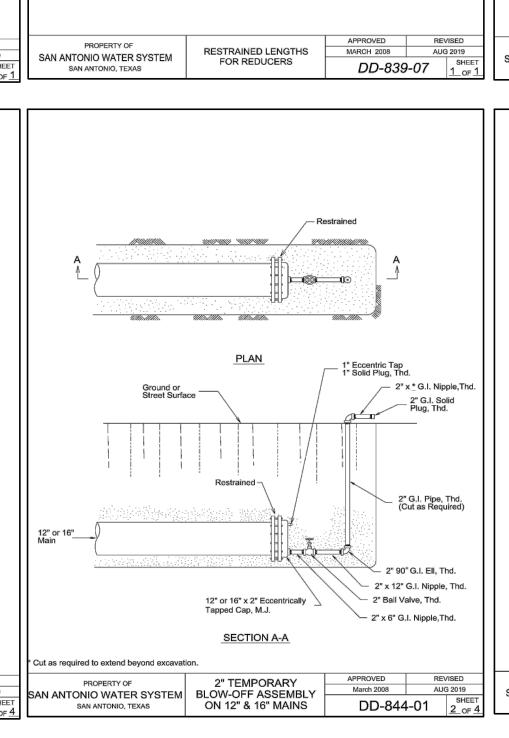
These calculations are provided for reference. Th restrained length shall be designed

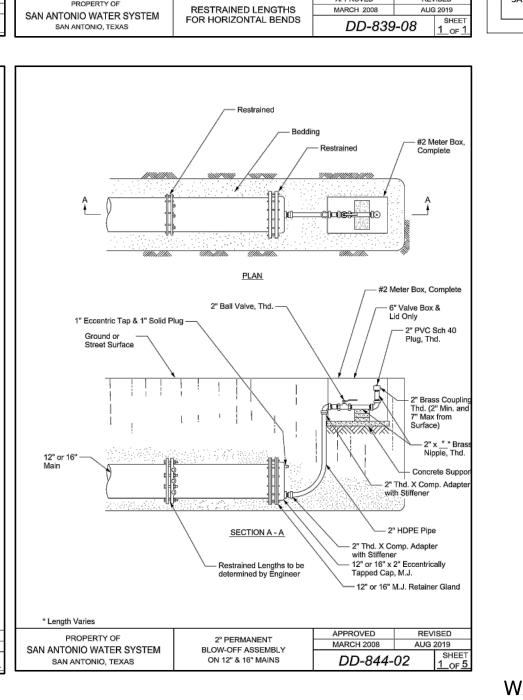
restanting to the top of the pipe. The native soil material is assumed to be inorganic clay of high plasticity. Depth of bury is assumed to be 4 feet.

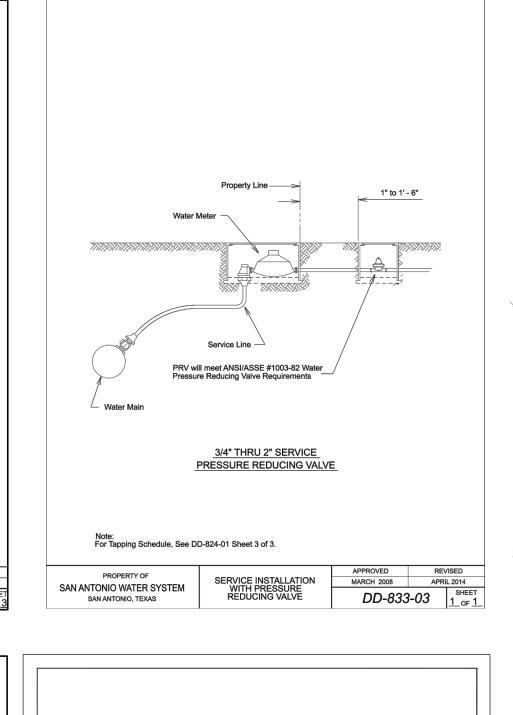
- Top closed and welded

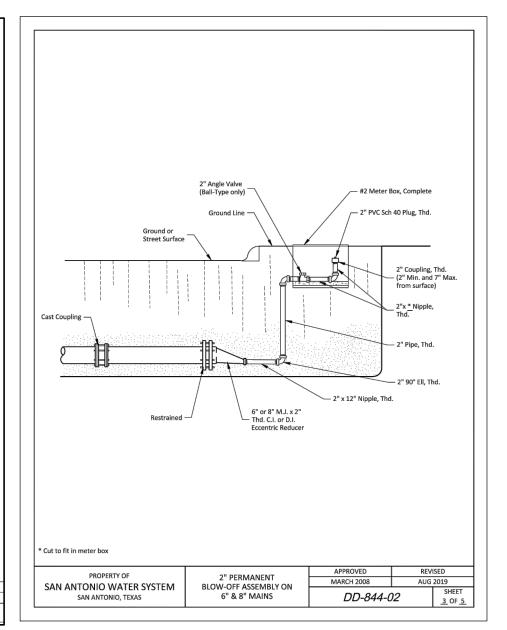
MARCH 2008 AUG 2019

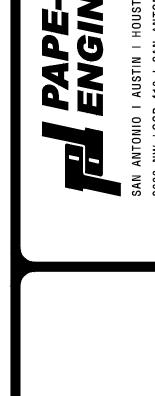
DD-828-04











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24-1180002

13115-02

DRAWN SS

C5.10

March 2024

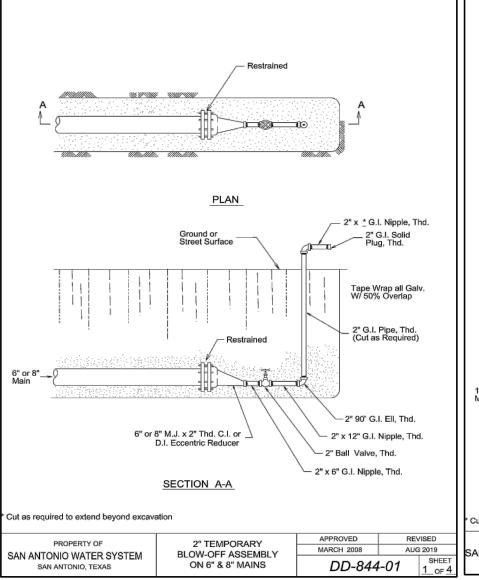
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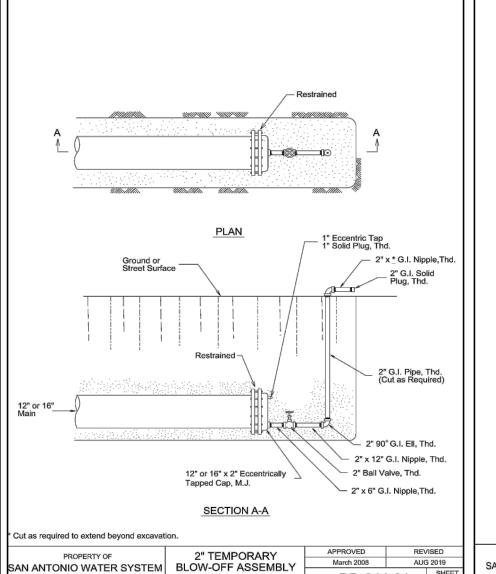
SHEET

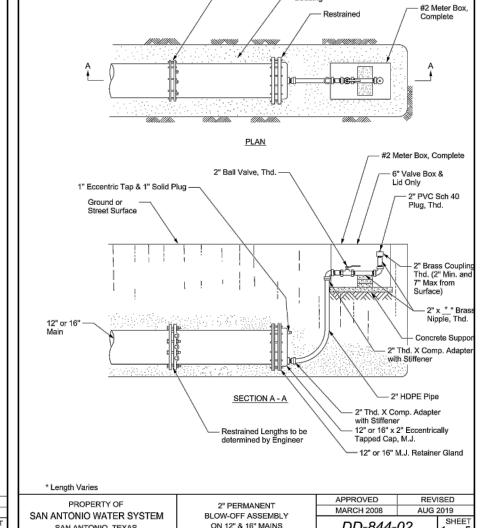
SONORA-UNIT 1 BEXAR COUNTY, TEXAS

WATER (SAWS PRESSURE ZONE 750) DEVELOPER'S NAME: <u>CONTINENTAL HOMES OF TEXAS, L.P.</u> ADDRESS: <u>5419 N LOOP 1604 E</u> STATE: TEXAS ZIP: 78247 CITY: SAN ANTONIO PHONE# (210) 496-2668 170522,170524 SAWS BLOCK MAP<u>#172522,172524</u> TOTAL EDU'S<u>125</u> TOTAL ACREAGE<u>13.34</u>6 TOTAL LINEAR FOOTAGE OF PIPE: 3.035 PLAT NO. 24-11800020 NUMBER OF LOTS 125 SAWS JOB NO. XXX

1-1/8 BEND--1-1/8 BEND ALL JOINTS ARE FULLY RESTRAINED IN ACCORDANCE WITH SAWS SPECIFICATION TABLE DD-839-06. TYPICAL UTILITY/WATER CROSSING DETAIL NOT-TO-SCALE







Use:
(A) Anchoring Tee with M.J. Fitting or M.J. Valve
(B) Std. M.J. Tee with Anchoring Coupling or Anchoring

Optional Extension for Grade — Adjustment, Maximum of 1 @

3000 psi Concrete Pad 16"x16"x4" ----

NOTE: Operation of Hydrant shall be Full Opened or Full Closed Throttleling is Prohibited.

SAN ANTONIO WATER SYSTEM

RESTRAINED LENGTH DESIGN

Plastic Polywrap Branch not Above Weep Holes —

Poly Wrap —

PREFERRED INSTALLATION Profile Shown without Horizontal Ben

ALTERNATE INSTALLATION
Plan View Shown with Bend

FIRE HYDRANT

(JOINT RESTRAINT)

INSTALLATION

L=LENGTH TO BE RESTRAINED ON BOTH SIDES OF FITTING

Restrained length calculations are for P.V.C pipe bedded in compacted granular material extending to the top of the pipe. The native soil material is assumed to be inorganic clay of high plasticity.

These calculations are provided for reference. The restrained length shall be designed

Joint Restraint

— 6" ¼ Bend, M.J.

MAY 2013

DD-834-01

6" Gate Valve, M.J. — with Box \*

	SAWS (
	1. ALL MA CONTRAC COMPLY FOLLOWIN
	A. CUR CRIT COD WAT B. CUR HIGH C. CUR WAT D. CUR WOF E. CUR (UE
	COD WAT
	B. CUR HIGH
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### SAWS CONSTRUCTION NOTES (LAST REVISED JANUARY 2022)

### GENERAL SECTION

- MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS RACT SHALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND LY WITH THE PLANS, SPECIFICATIONS, GENERAL CONDITIONS AND WITH THE WING AS APPLICABLE:
  - CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEM", TEXAS ÀDMINÍSTRATIVE CODE (TAC) TITLE 30 PART 1 CHAPTER 217 AND "PUBLIC DRINKING WATER", TAC TITLE 30 PART 1 CHAPTER 290.
- CURRENT TXDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE" URRENT "SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION". URRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR PUBLIC
- WORKS CONSTRUCTION". CURRENT CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL"
- CONTRACTOR SHALL NOT PROCEED WITH ANY PIPE INSTALLATION WORK UNTIL OBTAIN A COPY OF THE APPROVED COUNTER PERMIT OR GENERAL STRUCTION PERMIT (GCP) FROM THE CONSULTANT AND HAS BEEN NOTIFIED BY CONSTRUCTION INSPECTION DIVISION TO PROCEED WITH THE WORK AND HAS NGED A MEETING WITH THE INSPECTOR AND CONSULTANT FOR THE WORK REMENTS. WORK COMPLETED BY THE CONTRACTOR WITHOUT AN APPROVED NTER PERMIT AND/OR A GCP WILL BE SUBJECT TO REMOVAL AND ACEMENT AT THE EXPENSE OF THE CONTRACTORS AND/OR THE DEVELOPER.
- CONTRACTOR SHALL OBTAIN THE SAWS STANDARD DETAILS FROM THE SAWS TE, HTTP://WWW.SAWS.ORG/BUSINESS\_CENTER/SPECS. UNLESS OTHERWISE WITHIN THE DESIGN PLANS.
- CONTRACTOR IS TO MAKE ARRANGEMENTS WITH THE SAWS CONSTRUCTION 233-2973, ON NOTIFICATION PROCEDURES THAT WILL BE USED TO NOTIFY CTED HOME RESIDENTS AND/OR PROPERTY OWNERS 48 HOURS PRIOR TO NNING ANY WORK.
- ATION AND DEPTH OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND HS MUST BE FIFID VERIFIED BY THE CONTRACTOR AT LEAST 1 WEEK PRIOR TO STRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE Y SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM NG CONSTRUCTION AT NO COST TO SAWS.
- CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES DRAINAGE STRUCTURES AT LEAST 1-2 WEEKS PRIOR TO CONSTRUCTION IER SHOWN ON PLANS OR NOT. PLEASE ALLOW UP TO 7 BUSINESS DAYS FOR TES REQUESTING PIPE LOCATION MARKERS ON SAWS FACILITIES. THE DWING CONTACT INFORMATION ARE SUPPLIED FOR VERIFICATION PURPOSES:
- SAWS UTILITY LOCATES: HTTP://WWW.SAWS.ORG/SERVICE/LOCATES
- COSA DRAINAGE (210) 207-0724 OR (210) 207-6026 COSA TRAFFIC SIGNAL OPERATIONS (210) 206-8480
- COSA TRAFFIC SIGNAL DAMAGES (210) 207-3951 TEXAS STATE WIDE ONE CALL LOCATOR 1-800-545-6005 OR 811
- CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, , STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING AND STRUCTURES TO ITS AL OR BETTER CONDITION IF DAMAGES ARE MADE AS A RESULT OF THE JECT'S CONSTRUCTION.
- WORK IN TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) AND/OR BEXAR ITY RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH RESPECTIVE STRUCTION SPECIFICATIONS AND PERMIT REQUIREMENTS.
- CONTRACTOR SHALL COMPLY WITH CITY OF SAN ANTONIO OR OTHER RNING MUNICIPALITY'S TREE ORDINANCES WHEN EXCAVATING NEAR TREES.
- CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIALS IN THE 100—YEAR PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN PERMIT.
- DAY WORK: CONTRACTORS WILL NOT BE ALLOWED TO PERFORM SAWS WORK ON RECOGNIZED HOLIDAYS. REQUEST SHOULD BE SENT TO TWORKREQ@SAWS.ORG.

KEND WORK: CONTRACTORS ARE REQUIRED TO NOTIFY THE SAWS INSPECTION RUCTION DEPARTMENT 48 HOURS IN ADVANCE TO REQUEST WEEKEND WORK. EST SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG.

AND ALL SAWS UTILITY WORK INSTALLED WITHOUT HOLIDAY/WEEKEND OVAL WILL BE SUBJECT TO BE UNCOVERED FOR PROPER INSPECTION.

- ACTION NOTE (ITEM 804): THE CONTRACTOR SHALL BE RESPONSIBLE FOR ING THE COMPACTION REQUIREMENTS ON ALL TRENCH BACKFILL AND FOR NG FOR THE TESTS PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL ONE AT ONE LOCATION POINT RANDOMLY SELECTED. OR AS INDICATED BY THE INSPECTOR AND/OR THE TEST ADMINISTRATOR, PER EACH 12-INCH LOOSE PER 400 LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY IDING ALL NECESSARY DOCUMENTED TEST RESULTS.
- PY OF ALL TESTING REPORTS SHALL BE FORWARDED TO SAWS CONSTRUCTION

### **SAWS WATER NOTES**

- PRIOR TO TIE-INS, ANY SHUTDOWNS OF EXISTING MAINS OF ANY SIZE MUST BE COORDINATED WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT LEAST ONE WEEK IN ADVANCE OF THE SHUTDOWN. THE CONTRACTOR MUST ALSO PROVIDE A SEQUENCE OF WORK AS RELATED TO THE TIE-INS; THIS IS AT NO ADDITIONAL COST TO SAWS OR THE PROJECT AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK | 3. ALL MAINS SHALL BE HYDROSTATICALLY TESTED BY THE CONTRACTOR, AS ACCORDINGLY.
  - FOR WATER MAINS 12" OR HIGHER: SAWS EMERGENCY OPERATIONS CENTER (210) 233-2014
- ASBESTOS CEMENT (AC) PIPE, ALSO KNOWN AS TRANSITE PIPE WHICH IS KNOWN TO CONTAIN ASBESTOS- CONTAINING MATERIAL (ACM), MAY BE LOCATED WITHIN THE PROJECT LIMITS. SPECIAL WASTE MANAGEMENT PROCEDURES AND HEALTH AND SAFETY REQUIREMENTS WILL BE APPLICABLE WHEN REMOVAL AND/OR DISTURBANCE OF THIS PIPE OCCURS. SUCH WORK IS TO BE MADE UNDER SPECIAL SPECIFICATION ITEM NO. 3000, "SPECIAL SPECIFICATION FOR HANDLING ASBESTOS CEMENT PIPE".
- VALVE REMOVAL: WHERE THE CONTRACTOR IS TO ABANDON A WATER MAIN, THE CONTROL VALVE LOCATED ON THE ABANDONING BRANCH WILL BE REMOVED AND REPLACED WITH A CAP/PLUG. (NSPI)
- SUITABLE ANCHORAGE/THRUST BLOCKING OR JOINT RESTRAINT SHALL BE PROVIDED AT ALL OF THE FOLLOWING MAIN LOCATIONS: DEAD ENDS, PLUGS, CAPS, TEES, CROSSES, VALVES, AND BENDS, IN ACCORDANCE WITH THE STANDARD DRAWINGS DD-839 SERIES AND ITEM NO. 839, IN THE SAWS STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- 5. ALL VALVES SHALL READ "OPEN RIGHT".
- 6. PRVS REQUIRED: CONTRACTOR TO VERIFY THAT NO PORTION OF THE TRACT IS BELOW GROUND ELEVATION OF 565 FEET WHERE THE STATIC PRESSURE WILL NORMALLY EXCEED 80 PSI. AT ALL SUCH LOCATIONS WHERE THE GROUND LEVEL IS BELOW 565 FEET, THE DEVELOPER OR BUILDER SHALL INSTALL AT EACH LOT, ON THE CUSTOMER'S SIDE OF THE METER, AN APPROVED TYPE PRESSURE REGULATOR IN CONFORMANCE WITH THE PLUMBING CODE OF THE CITY OF SAN ANTONIO. NO DUAL SERVICES ALLOWED FOR ANY LOT(S) IF \*PRV IS/ARE REQUIRED FOR SUCH LOT(S), ONLY SINGLE SERVICE CONNECTIONS SHALL BE ALLOWED. \*NOTE: A PRESSURE REGULATOR IS ALSO KNOWN AS A PRESSURE REDUCING VALVE
- PIPE DISINFECTION WITH DRY HTH FOR PROJECTS LESS THAN 800 LINEAR (ITEM NO. 847.3): MAINS SHALL BE DISINFECTED WITH DRY HTH WHERE SHOWN IN THE CONTRACT DOCUMENTS OR AS DIRECTED BY THE INSPECTOR, AND SHALL NOT EXCEED A TOTAL LENGTH OF 800 FEET. THIS METHOD OF DISINFECTION WILL ALSO BE FOLLOWED FOR MAIN REPAIRS. THE CONTRACTOR SHALL UTILIZE ALL APPROPRIATE SAFETY MEASURE TO PROTECT HIS PERSONNEL DURING DISINFECTION OPERATIONS.
- 8. BACKFLOW PREVENTION DEVICES:
- ALL IRRIGATION SERVICES WITHIN RESIDENTIAL AREAS ARE REQUIRED TO HAVE BACKFLOW PREVENTION DEVICES. ALL COMMERCIAL BACKFLOW PREVENTION DEVICES MUST BE APPROVED BY SAWS PRIOR TO INSTALLATION.
- UNTIL THE WATER MAIN HAS BEEN PRESSURE TESTED, CHLORINATED, AND SAWS HAS RELEASED THE MAIN FOR TIE-IN AND USE.
- 10. DIVISION VALVES: DIVISION VALVES SHOWN ON PLANS OR NOT SHOWN ON PLANS BUT FOUND IN THE FIELD SHALL ONLY BE OPERATED BY SAWS DISTRIBUTION AND COLLECTION STAFF AND ONLY WITH PRIOR WRITTEN APPROVAL OF THE SAWS DIRECTOR OF PRODUCTION AND OPERATIONS AND PROPER COORDINATION WITH ALL SAWS DEPARTMENTS. CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO THE INSPECTOR A MINIMUM OF TWO WEEKS IN ADVANCE TO START THE COORDINATION PROCESS AND WILL BE INFORMED BY THE INSPECTOR WHEN THE DIVISION VALVE WILL BE OPERATED BY THE SAWS DISTRIBUTION AND COLLECTION STAFF. THE DIVISION VALVE CAN ONLY BE OPERATED BY SAWS DISTRIBUTION AND COLLECTION STAFF MEMBER NOT THE INSPECTOR OR THE CONTRACTOR. OPERATION OF A DIVISION VALVE WITHOUT THE EXPRESS PRIOR WRITTEN APPROVAL OF THE SAWS DISTRIBUTION AND COLLECTION STAFF WILL CONSTITUTE A MATERIAL BREACH OF ANY WRITTEN SAWS CONTRACT OR PERMIT IN ADDITION TO SUBJECTING THE CONTRACTOR TO LIABILITY FOR ANY AND ALL FINES, FEES, OR OTHER DAMAGES, DIRECT OR CONSEQUENTIAL, THAT MAY ARISE FROM OR BE CAUSED BY THE OPERATION OF THE VALVE WITHOUT PRIOR WRITTEN PERMISSION. PLEASE BE INFORMED THAT THE APPROVAL OF THE OPERATION OR OPENING OR CLOSING OF A DIVISION VALVE CAN TAKE SEVERAL WEEKS FOR APPROVAL. DIVISION VALVES WILL ALSO HAVE A VALVE LID LABELED DIVISION VALVE AND A LOCKING MECHANISM INSTALLED WITH A KEY. THE LOCK AND KEY MECHANISM WILL BE PAID FOR BY THE CONTRACTOR BUT

WILL BE INSTALLED BY SAWS DISTRIBUTION AND COLLECTION STAFF.

### PROJECT WATER NOTES

MACHINE CHLORINATION BY THE S.A.W.S.

PROVIDED FOR IN THE SPECIAL CONDITIONS.

- ALL 8", 12" AND 16" PIPE SHALL BE P.V.C. C-900 CLASS 235 DR 18.
- THE WATER LINES WILL BE SET FROM THE STREET HUBS BEFORE THIS CONTRACT BEGINS. STREET CUT SHEETS WILL BE SUPPLIED TO THE CONTRACTOR. THERE SHOULD BE NO ADDITIONAL STAKES REQUIRED. AND I SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSPECT THE SITE AND VERIFY THAT ALL STAKES REQUIRED FOR HIS WORK ARE IN PLACE AT THE TIME THE CONSTRUCTION BEGINS. IF ANY STAKES ARE MISSING THE
- CONTRACTOR, HIS EMPLOYEE OR ANY OTHER MEANS, SUCH STAKES, MARKS, ETC., SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH ALL THE FINAL

MEASUREMENTS, TAPS AND LENGTH OF SERVICE CONNECTIONS.

BY THE CONTRACTOR, AND IN CASE OF DESTRUCTION OR REMOVAL BY TH

ALL CONSTRUCTION STAKES, MARKS, ETC., SHALL BE CAREFULLY PRESERVED

- THE LOT CORNERS WILL BE SET BY THE ENGINEER FOR INSTALLATION OF ALL WATER SERVICES. THESE LOT CORNERS SHALL BE CAREFULLY PRESERVED BY THE CONTRACTOR SO THE METER BOXES CAN BE SET IN PHASE II. ANY LOT CORNER DESTROYED OR REMOVED BY THE CONTRACTOR, HIS EMPLOYEES, OR BY ANY OTHER MEANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- STREETS WILL HAVE BEEN EXCAVATED DOWN TO SUBGRADE AND THE PARKWAY WILL BE CUT DOWN TO TOP OF CURB BY THE STREET CONTRACTOR, PRIOR TO CONSTRUCTION OF THE WATER MAINS. IT WILL BE THE UTILITY CONTRACTOR'S RESPONSIBILITY TO PROVIDE A PAD FOR HIS EQUIPMENT.
- 8. WATER METER BOXES IF APPLICABLE SHALL BE INSTALLED NINE FEET FROM FACE OF CURB TO CENTER OF THE METER BOX.
- 9. ALL GARBAGE OR SPOIL MATERIAL FROM THIS WORK SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR, AT HIS EXPENSE.
- O. FINAL CONNECTION TO THE EXISTING WATER MAIN SHALL NOT BE MADE UNTIL WATER MAIN HAS BEEN PRESSURE TESTED, CHLORINATED AND THE S.A.W.S. RELEASES THE MAIN FOR TIE-IN AND USE.
- . UNIT PRICE BID FOR "STANDARD FIRE HYDRANT ASSEMBLY" SHALL INCLUDE FIRE HYDRANT, 6-INCH GATE VALVE AND 6-INCH VALVE BOX COMPLETE, ANCHOR BEND, AND ALL 6-INCH DI PIPE REQUIRED (DI PIPE REQUIRED SHALL INCLUDE ALL PIPE FROM THE TEE ON THE MAIN LINE TO THE FIRE HYDRANT).
- . WHEN SEWER LINES ARE INSTALLED IN THE VICINITY OF WATER MAINS, SUCH INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION "RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS" (1988 OR ANY REVISIONS THERETO).
- 13. A CLEAR SPACE SHALL BE PROVIDED AROUND ALL FIRE HYDRANTS. THIS AREA SHOULD HAVE A MINIMUM DIAMETER OF 3.0' AND BE CLEAN OF VERTICAL OBSTRUCTIONS, VALVES, AND METER BOXES.
- FINAL CONNECTION TO THE EXISTING WATER MAIN SHALL NOT BE MADE | 14. SAWS REQUIRES LEAD FREE (< 0.25%) FIRE HYDRANTS.
  - 15. UNLESS OTHERWISE NOTED ALL SERVICES SHALL BE 3/4" WITH 5/8" METER.

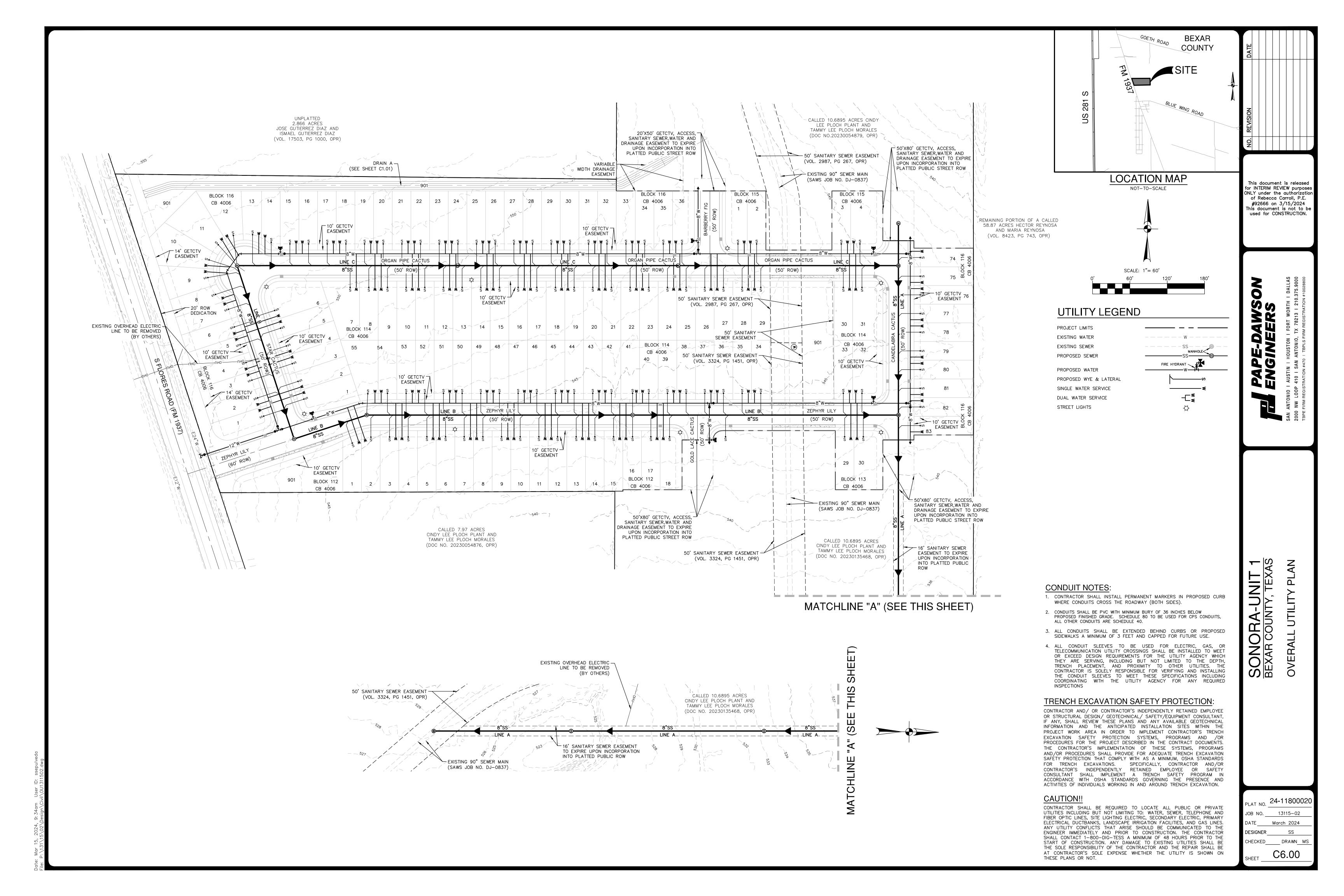
ENGINEER SHOULD BE NOTIFIED IMMEDIATELY. AFTER CONSTRUCTION BEGINS.

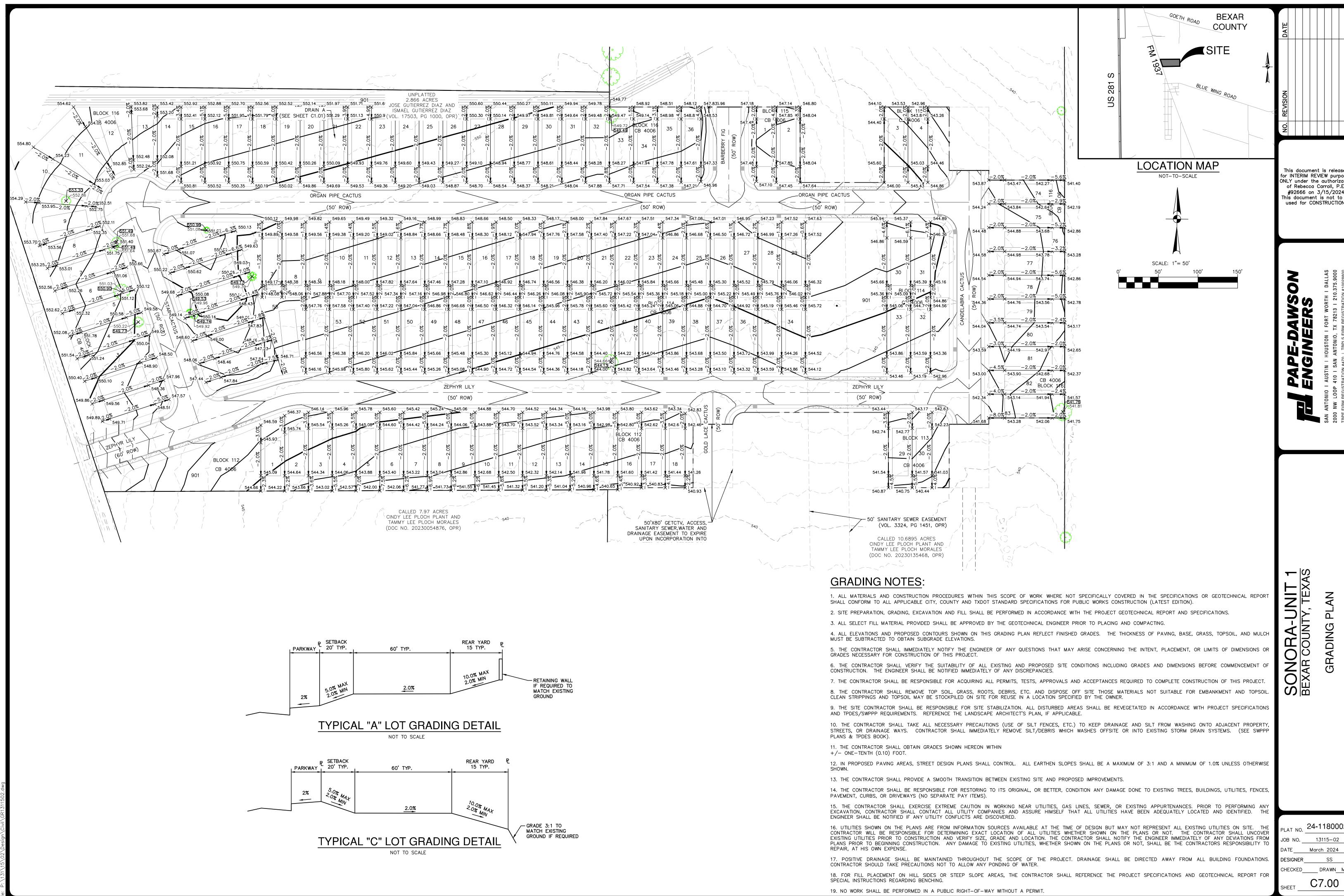
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WATER (SAWS PRESSURE ZONE 750)

DEVELOPER'S NAME: CONTINENTAL HOMES OF TEXAS, L.P. ADDRESS: 5419 N LOOP 1604 E \_\_\_\_STATE: <u>TEXAS</u> ZIP: <u>78247</u> CITY: SAN ANTONIO PHONE# (210) 496-2668 170522,170524 SAWS BLOCK MAP#172522,172524 TOTAL EDU'S 125 TOTAL ACREAGE 13.346 TOTAL LINEAR FOOTAGE OF PIPE: 3,035 PLAT NO. 24-11800020 NUMBER OF LOTS 125 SAWS JOB NO. XXX

24-1180002 13115-02 DESIGNER CHECKED DRAWN SS



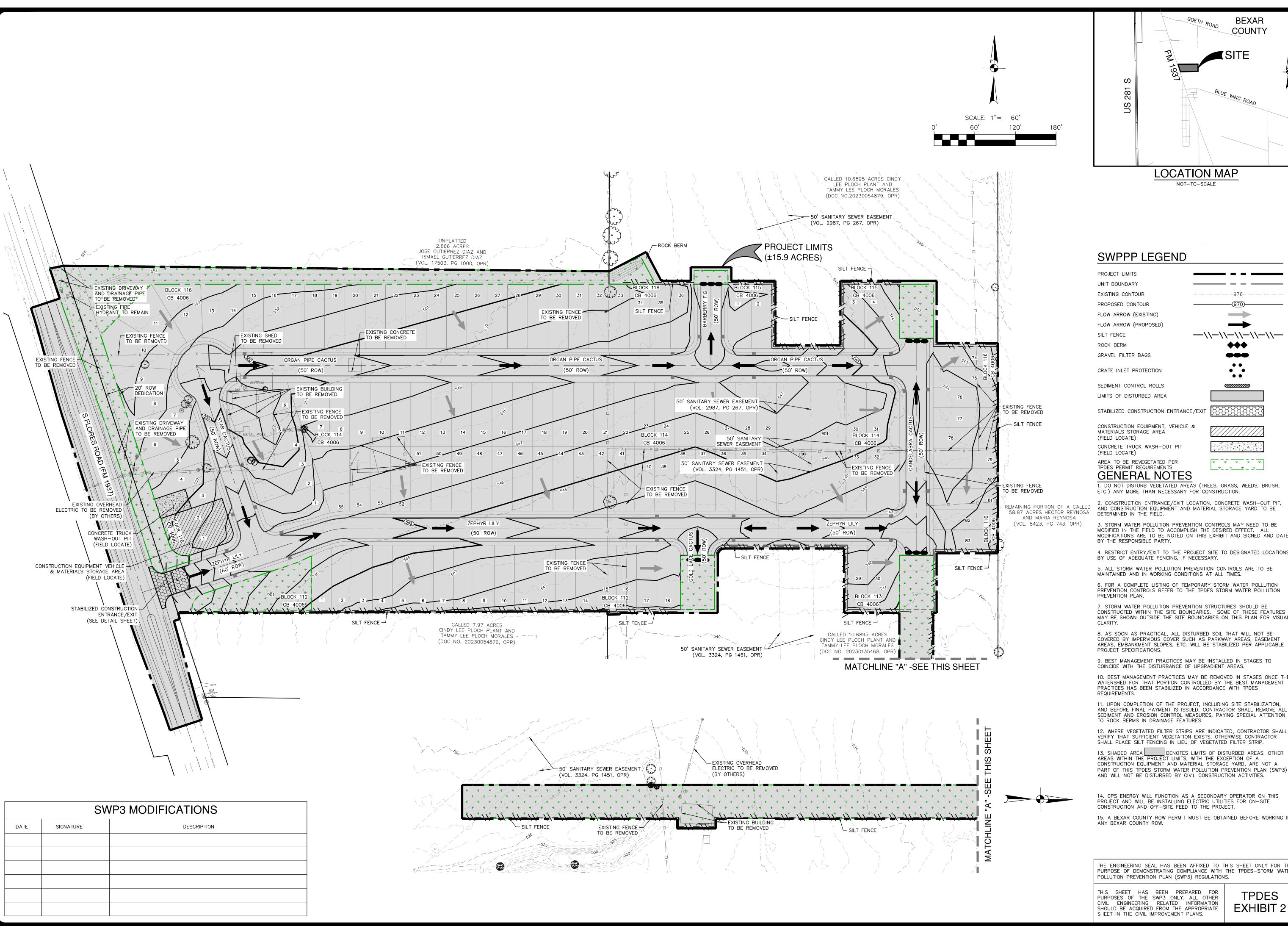


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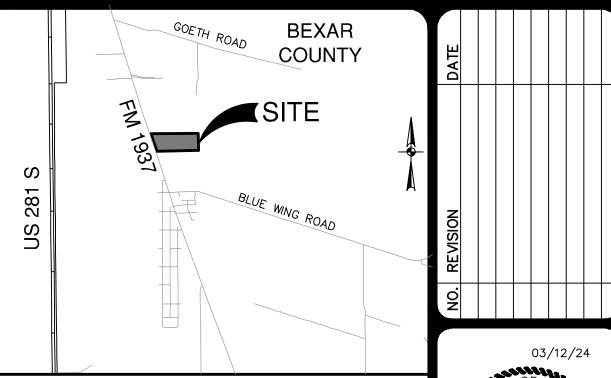
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**LOCATION MAP** NOT-TO-SCALE

# **SWPPP LEGEND**

PROPOSED CONTOUR FLOW ARROW (EXISTING) FLOW ARROW (PROPOSED) -//-//-//-//-**\*\*\*** GRAVEL FILTER BAGS GRATE INLET PROTECTION • • SEDIMENT CONTROL ROLLS LIMITS OF DISTURBED AREA

STABILIZED CONSTRUCTION ENTRANCE/EXIT CONSTRUCTION EQUIPMENT, VEHICLE &

MATERIALS STORAGE AREA CONCRETE TRUCK WASH-OUT PIT

GENERAL NOTES ETC.) ANY MORE THAN NECESSARY FOR CONSTRUCTION.

2. CONSTRUCTION ENTRANCE/EXIT LOCATION, CONCRETE WASH-OUT PIT,
AND CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD TO BE

3. STORM WATER POLLUTION PREVENTION CONTROLS MAY NEED TO BE MODIFIED IN THE FIELD TO ACCOMPLISH THE DESIRED EFFECT. ALL MODIFICATIONS ARE TO BE NOTED ON THIS EXHIBIT AND SIGNED AND DATED BY THE RESPONSIBLE PARTY.

4. RESTRICT ENTRY/EXIT TO THE PROJECT SITE TO DESIGNATED LOCATIONS BY USE OF ADEQUATE FENCING, IF NECESSARY.

5. ALL STORM WATER POLLUTION PREVENTION CONTROLS ARE TO BE MAINTAINED AND IN WORKING CONDITIONS AT ALL TIMES.

6. FOR A COMPLETE LISTING OF TEMPORARY STORM WATER POLLUTION PREVENTION CONTROLS REFER TO THE TPDES STORM WATER POLLUTION

7. STORM WATER POLLUTION PREVENTION STRUCTURES SHOULD BE CONSTRUCTED WITHIN THE SITE BOUNDARIES. SOME OF THESE FEATURES MAY BE SHOWN OUTSIDE THE SITE BOUNDARIES ON THIS PLAN FOR VISUAL

8. AS SOON AS PRACTICAL, ALL DISTURBED SOIL THAT WILL NOT BE COVERED BY IMPERVIOUS COVER SUCH AS PARKWAY AREAS, EASEMENT AREAS, EMBANKMENT SLOPES, ETC. WILL BE STABILIZED PER APPLICABLE

9. BEST MANAGEMENT PRACTICES MAY BE INSTALLED IN STAGES TO COINCIDE WITH THE DISTURBANCE OF UPGRADIENT AREAS.

10. BEST MANAGEMENT PRACTICES MAY BE REMOVED IN STAGES ONCE THE WATERSHED FOR THAT PORTION CONTROLLED BY THE BEST MANAGEMENT PRACTICES HAS BEEN STABILIZED IN ACCORDANCE WITH TPDES

11. UPON COMPLETION OF THE PROJECT, INCLUDING SITE STABILIZATION, AND BEFORE FINAL PAYMENT IS ISSUED, CONTRACTOR SHALL REMOVE ALL SEDIMENT AND EROSION CONTROL MEASURES, PAYING SPECIAL ATTENTION TO ROCK BERMS IN DRAINAGE FEATURES.

12. WHERE VEGETATED FILTER STRIPS ARE INDICATED, CONTRACTOR SHALL VERIFY THAT SUFFICIENT VEGETATION EXISTS, OTHERWISE CONTRACTOR

13. SHADED AREA DENOTES LIMITS OF DISTURBED AREAS. OTHER AREAS WITHIN THE PROJECT LIMITS, WITH THE EXCEPTION OF A CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD, ARE NOT A

14. CPS ENERGY WILL FUNCTION AS A SECONDARY OPERATOR ON THIS PROJECT AND WILL BE INSTALLING ELECTRIC UTILITIES FOR ON-SITE CONSTRUCTION AND OFF-SITE FEED TO THE PROJECT.

15. A BEXAR COUNTY ROW PERMIT MUST BE OBTAINED BEFORE WORKING IN

THE ENGINEERING SEAL HAS BEEN AFFIXED TO THIS SHEET ONLY FOR THE PURPOSE OF DEMONSTRATING COMPLIANCE WITH THE TPDES-STORM WATER POLLUTION PREVENTION PLAN (SWP3) REGULATIONS.

THIS SHEET HAS BEEN PREPARED FOR PURPOSES OF THE SWP3 ONLY. ALL OTHER CIVIL ENGINEERING RELATED INFORMATION SHOULD BE ACQUIRED FROM THE APPROPRIATE SHEET IN THE CIVIL IMPROVEMENT PLANS.

**EXHIBIT 2** 

24-1180002 13115-02 March 2024

DESIGNER

C8.00

DRAWN MS

SCHEMATIC OF TEMPORARY CONSTRUCTION ENTRANCE/EXIT

### MATERIALS 1. THE AGGREGATE SHOULD CONSIST OF 4-INCH TO 8-INCH WASHED STONE OVER A STABLE FOUNDATION AS SPECIFIED IN THE PLAN.

8-INCHES. 3. THE GEOTEXTILE FABRIC SHOULD BE DESIGNED SPECIFICALLY FOR USE AS A SOIL FILTRATION MEDIA WITH AN APPROXIMATE WEIGHT OF 6 OZ/YD2, A MULLEN BURST RATING OF 140 LB/IN2, AND AN EQUIVALENT OPENING SIZE GREATER THAN A NUMBER 50 SIEVE.

2. THE AGGREGATE SHOULD BE PLACED WITH A MINIMUM THICKNESS OF

4. IF A WASHING FACILITY IS REQUIRED, A LEVEL AREA WITH A MINIMUM OF 4-INCH DIAMETER WASHED STONE OR COMMERCIAL ROCK SHOULD BE INCLUDED IN THE PLANS. DIVERT WASTEWATER TO A SEDIMENT TRAP OF

### INSTALLATION

RUNOFF AWAY FROM THE PUBLIC ROAD.

LAY SOD IN A STAGGERED PATTERN. BUTT

THE STRIPS TIGHTLY AGAINST EACH OTHER.

DO NOT LEAVE SPACES AND DO NOT

OVERLAP. A SHARPENED MASON'S TROWEL

IS A HANDY TOOL FOR TUCKING DOWN THE

AUTOMATIC SOD CUTTER MUST BE MATCHED

ANGLED FNDS CAUSED BY THE

ENDS AND TRIMMING PIECES.

LAY SOD ACROSS THE DIRECTION OF FLOW

**MATERIALS** 

OF 36 HOURS.

SHOOT GROWTH AND THATCH.

SITE PREPARATION

1. AVOID CURVES ON PUBLIC ROADS AND STEEP SLOPES. REMOVE VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA. GRADE CROWN FOUNDATION FOR POSITIVE DRAINAGE.

2. THE MINIMUM WIDTH OF THE ENTRANCE/EXIT SHOULD BE 12 FEET OR THE FULL WIDTH OF EXIT ROADWAY, WHICHEVER IS GREATER.

3. THE CONSTRUCTION ENTRANCE SHOULD BE AT LEAST 50 FEET LONG. 4. IF THE SLOPE TOWARD THE ROAD EXCEEDS 2%, CONSTRUCT A RIDGE 6-INCHES TO 8-INCHES HIGH WITH 3:1 (H:V) SIDE SLOPES. ACROSS THE FOUNDATION APPROXIMATELY 15 FEET FROM THE ENTRANCE TO DIVERT

5. PLACE GEOTEXTILE FABRIC AND GRADE FOUNDATION TO IMPROVE STABILITY, ESPECIALLY WHERE WET CONDITIONS ARE ANTICIPATED.

6. PLACE STONE TO DIMENSIONS AND GRADE SHOWN ON PLANS. LEAVE SURFACE SMOOTH AND SLOPE FOR DRAINAGE.

7. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN.

PIPE UNDER PAD AS NEEDED TO MAINTAIN PROPER PUBLIC ROAD

SOIL.

# STABILIZE FOUNDATION SECTION "A-A" OF A

GEOTEXTILE FABRIC TO

# CONSTRUCTION ENTRANCE/EXIT

COMMON TROUBLE POINTS 1. INADEQUATE RUNOFF CONTROL-SEDIMENT WASHES ONTO PUBLIC ROAD.

. STONE TOO SMALL OR GEOTEXTILE FABRIC ABSENT, RESULTS IN MUDDY CONDITION AS STONE IS PRESSED INTO SOIL. . PAD TOO SHORT FOR HEAVY CONSTRUCTION TRAFFIC—EXTEND PAD BEYOND THE MINIMUM 50-FOOT LENGTH AS NECESSARY.

4. PAD NOT FLARED SUFFICIENTLY AT ROAD SURFACE, RESULTS IN MUD BEING TRACKED ON TO ROAD AND POSSIBLE DAMAGE TO ROAD. 5. UNSTABLE FOUNDATION - USE GEOTEXTILE FABRIC UNDER PAD AND/OR

IMPROVE FOUNDATION DRAINAGE.

SHOOTS OR GRASS BLADES.

GRASS SHOULD BE GREEN AND

- THATCH- GRASS CLIPPINGS AND

-ROOT ZONE - SOIL AND ROOTS.

DEAD LEAVES, UP TO 1/2" THICK.

SHOULD BE 1/2"-3/4" THICK, WITH

DENSE ROOT MAT FOR STRENGTH.

HEALTHY; MOWED AT A 2"-3"

INSPECTION AND MAINTENANCE GUIDELINES THE ENTRANCE SHOULD BE MAINTAINED IN A CONDITION. WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS

CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES LISED TO TRAP SEDIMENT 2. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC

RIGHTS-OF-WAY SHOULD BE REMOVED IMMEDIATELY BY CONTRACTOR. 3. WHEN NECESSARY, WHEELS SHOULD BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. 4. WHEN WASHING IS REQUIRED. IT SHOULD BE DONE ON AN AREA STABILIZED

SEDIMENT BASIN 5. ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE BY USING APPROVED METHODS.

WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR

**SECTION "A-A"** 

### ISOMETRIC PLAN VIEW

WOVEN WIRE

SHEATHING

# **ROCK BERMS**

THE PURPOSE OF A ROCK BERM IS TO SERVE AS A CHECK DAM IN AREAS OF CONCENTRATED FLOW, TO INTERCEPT SEDIMENT—LADEN RUNOFF, DETAIN THE SEDIMENT AND RELEASE THE WATER IN SHEET FLOW. THE ROCK BERM SHOULD BE USED WHEN THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 5 ACRES. ROCK BERMS ARE USED IN AREAS WHERE THE VOLUME OF RUNOFF IS TOO GREAT FOR A SILT FENCE TO CONTAIN. THEY ARE LESS EFFECTIVE FOR SEDIMENT REMOVAL THAN SILT FENCES, PARTICULARLY FOR FINE PARTICLES, BUT ARE ABLE TO WITHSTAND HIGHER FLOWS THAN A SILT FENCE. AS SUCH, ROCK BERMS ARE OFTEN USED IN AREAS OF CHANNEL FLOWS (DITCHES, GULLIES, ETC.). ROCK BERMS ARE MOST EFFECTIVE AT REDUCING BED LOAD IN CHANNELS AND SHOULD NOT BE SUBSTITUTED FOR OTHER EROSION AND SEDIMENT CONTROL MEASURES FARTHER UP THE WATERSHED.

### INSPECTION AND MAINTENANCE GUIDELINES . INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL BY THE

RESPONSIBLE PARTY. FOR INSTALLATIONS IN STREAMBEDS, ADDITIONAL DAILY INSPECTIONS SHOULD BE MADE.

2. REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6 INCHES AND DISPOSE OF THE ACCUMULATED SILT IN AN APPROVED MANNER THAT WILL NOT CAUSE ANY ADDITIONAL SILTATION.

3. REPAIR ANY LOOSE WIRE SHEATHING. 4. THE BERM SHOULD BE RESHAPED AS NEEDED DURING INSPECTION

5. THE BERM SHOULD BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.

6. THE ROCK BERM SHOULD BE LEFT IN PLACE UNTIL ALL UPSTREAM AREAS ARE STABILIZED AND ACCUMULATED SILT REMOVED.

### **MATERIALS** THE BERM STRUCTURE SHOULD BE SECURED WITH A WOVEN WIRE

SHEATHING HAVING MAXIMUM OPENING OF 1 INCH AND A MINIMUM WIRE DIAMETER OF 20 GAUGE GALVANIZED AND SHOULD BE SECURED WITH SHOAT 2. CLEAN, OPEN GRADED 3-INCH TO 5-INCH DIAMETER ROCK SHOULD BE USED, EXCEPT IN AREAS WHERE HIGH VELOCITIES OR LARGE VOLUMES OF

FLOW ARE EXPECTED, WHERE 5-INCH TO 8-INCH DIAMETER ROCKS MAY BE

WOVEN WIRE SHEATHING

### INSTALLATION

1. LAY OUT THE WOVEN WIRE SHEATHING PERPENDICULAR TO THE FLOW LINE THE SHEATHING SHOULD BE 20 GAUGE WOVEN WIRE MESH WITH 1 INCH

2. BERM SHOULD HAVE A TOP WIDTH OF 2 FEET MINIMUM WITH SIDE SLOPES BEING 2:1 (H:V) OR FLATTER. 3. PLACE THE ROCK ALONG THE SHEATHING AS SHOWN IN THE DIAGRAM TO

A HEIGHT NOT LESS THAN 18". 4. WRAP THE WIRE SHEATHING AROUND THE ROCK AND SECURE WITH TIE WIRE SO THAT THE ENDS OF THE SHEATHING OVERLAP AT LEAST 2 INCHES. AND THE BERM RETAINS ITS SHAPE WHEN WALKED UPON. 5. BERM SHOULD BE BUILT ALONG THE CONTOUR AT ZERO PERCENT GRADE

OR AS NEAR AS POSSIBLE. 6. THE ENDS OF THE BERM SHOULD BE TIED INTO EXISTING UPSLOPE GRADE AND THE BERM SHOULD BE BURIED IN A TRENCH APPROXIMATELY 3 TO 4 INCHES DEEP TO PREVENT FAILURE OF THE CONTROL.

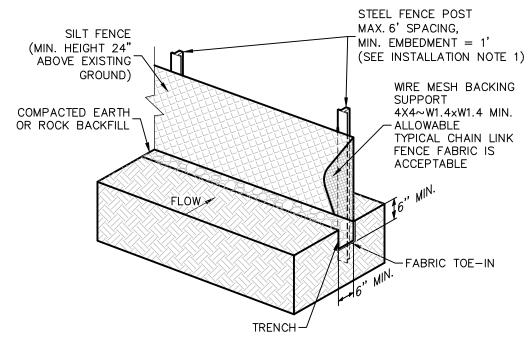
# COMMON TROUBLE POINTS

. INSUFFICIENT BERM HEIGHT OR LENGTH (RUNOFF QUICKLY ESCAPES OVER THE TOP OR AROUND THE SIDES OF BERM).

2. BERM NOT INSTALLED PERPENDICULAR TO FLOW LINE (RUNOFF ESCAPING AROUND ONE SIDE).

# **ROCK BERM DETAIL**

NOT-TO-SCALE



# ISOMETRIC PLAN VIEW

USE PEGS OR STAPLES TO FASTEN SOD

FIRMLY - AT THE ENDS OF STRIPS AND

IN THE CENTER, OR EVERY 3-4 FEET IF

MOW. DRIVE PEGS OR STAPLES FLUSH

THE STRIPS ARE LONG. WHEN READY TO

INCORRECT

SOD INSTALLATION

IN CRITICAL AREAS, SECURE SOD

STABILIZED CONSTRUCTION ENTRANCE/EXIT DETAIL

NOT-TO-SCALE

APPEARANCE OF GOOD SOD

SOON AS THE SOD IS LAID.

THE MOWER HIGH (2"-3").

ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE

3. MOW WHEN THE SOD IS ESTABLISHED - IN 2-3 WEEKS. SET

2. WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS

### WITH NETTING, USE STAPLES, GENERAL INSTALLATION (VA. DEPT. OF

1. SOD SHOULD BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4" INCH CONSERVATION, 1992 (± 1/4" INCH) AT THE TIME OF CUTTING. THIS THICKNESS SHOULD EXCLUDE SOD SHOULD NOT BE CUT OR LAID IN EXCESSIVELY WET OR DRY WEATHER. SOD ALSO SHOULD NOT BE LAID ON SOIL SURFACES THAT ARE FROZEN. 2. PIECES OF SOD SHOULD BE CUT TO THE SUPPLIER'S STANDARD WIDTH AND 2. DURING PERIODS OF HIGH TEMPERATURE, THE SOIL SHOULD BE LIGHTLY LENGTH, WITH A MAXIMUM ALLOWABLE DEVIATION IN ANY DIMENSION OF 5%. IRRIGATED IMMEDIATELY PRIOR TO LAYING THE SOD, TO COOL THE SOIL AND

REDUCE ROOT BURNING AND DIEBACK.

FIRST ROW OF SOD SHOULD BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO AND BUTTING TIGHTLY AGAINST EACH OTHER. LATERAL JOINTS SHOULD BE STAGGERED TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. CARE SHOULD BE EXERCISED TO ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS (SEE FIGURE ABOVE).

WITH THE GROUND.

4. ON SLOPES 3:1 OR GREATER, OR WHEREVER EROSION MAY BE A PROBLEM SOD SHOULD BE LAID WITH STAGGERED JOINTS AND SECURED BY STAPLING OF OTHER APPROVED METHODS. SOD SHOULD BE INSTALLED WITH THE LENGTH PERPENDICULAR TO THE SLOPE (ON CONTOUR).

5. AS SODDING OF CLEARLY DEFINED AREAS IS COMPLETED, SOD SHOULD BE ROLLED OR TAMPED TO PROVIDE FIRM CONTACT BETWEEN ROOTS AND SOIL. 6. AFTER ROLLING, SOD SHOULD BE IRRIGATED TO A DEPTH SUFFICIENT THAT THE UNDERSIDE OF THE SOD PAD AND THE SOIL 4 INCHES BELOW THE SOD IS

UNTIL SUCH TIME A GOOD ROOT SYSTEM BECOMES DEVELOPED, IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHOULD BE PERFORMED AS OFTEN AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF AT LEAST 4

8. THE FIRST MOWING SHOULD NOT BE ATTEMPTED UNTIL THE SOD IS FIRMLY ROOTED, USUALLY 2-3 WEEKS. NOT MORE THAN ONE THIRD OF THE GRASS LEAF SHOULD BE REMOVED AT ANY ONE CUTTING.

### INSPECTION AND MAINTENANCE GUIDELINES SOD SHOULD BE INSPECTED WEEKLY AND AFTER EACH RAIN EVENT TO LOCATE AND REPAIR ANY DAMAGE.

2. DAMAGE FROM STORMS OR NORMAL CONSTRUCTION ACTIVITIES SUCH AS TIRE RUTS OR DISTURBANCE OF SWALE STABILIZATION SHOULD BE REPAIRED AS SOON AS PRACTICAL.

SILT FENCE

STAPLE

A SILT FENCE IS A BARRIER CONSISTING OF GEOTEXTILE FABRIC SUPPORTED BY METAL POSTS TO PREVENT SOIL AND SEDIMENT LOSS FROM A SITE. WHEN PROPERLY USED. SILT FENCES CAN BE HIGHLY EFFECTIVE AT CONTROLLING SEDIMENT FROM DISTURBED AREAS. THEY CAUSE RUNOFF TO POND, ALLOWING HEAVIER SOLIDS TO SETTLE OUT. IF NOT PROPERLY INSTALLED, SILT FENCES ARE NOT LIKELY TO BE EFFECTIVE.

THE PURPOSE OF A SILT FENCE IS TO INTERCEPT AND DETAIN WATER-BORN SEDIMENT FROM UNPROTECTED AREAS OF A LIMITED EXTENT. SILT FENCE IS USED DURING THE PERIOD OF CONSTRUCTION NEAR THE PERIMETER OF A DISTURBED AREA TO INTERCEPT SEDIMENT WHILE ALLOWING WATER TO PERCOLATE THROUGH. THIS FENCE SHOULD REMAIN IN PLACE UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED. SILT FENCE SHOULD NOT BE USED WHERE THERE IS A CONCENTRATION OF WATER IN A CHANNEL OR DRAINAGE WAY. IF CONCENTRATED FLOW OCCURS AFTER INSTALLATION, CORRECTIVE ACTION MUST BE TAKEN SUCH AS PLACING A ROCK BERM IN THE AREAS OF CONCENTRATED FLOW.

SILT FENCING WITHIN THE SITE MAY BE TEMPORARILY MOVED DURING THE DAY TO ALLOW CONSTRUCTION ACTIVITY PROVIDED IT IS REPLACED AND PROPERLY ANCHORED TO THE GROUND AT THE END OF THE DAY. SILT FENCES ON THE PERIMETER OF THE SITE OR AROUND DRAINAGE WAYS SHOULD NOT BE MOVED AT ANY TIME.

I. SILT FENCE MATERIAL SHOULD BE POLYPROPYLENE, POLYETHYLENE, OR POLYAMIDE WOVEN OR NONWOVEN FABRIC. THE FABRIC SHOULD BE 36 INCHES, WITH A MINIMUM UNIT WEIGHT OF 4.5 OZ/YD, MULLEN BURST STRENGTH EXCEEDING 190 LB/IN2, ULTRAVIOLET STABILITY EXCEEDING 70%, AND MINIMUM APPARENT OPENING SIZE OF U.S. SIEVE NUMBER 30.

. FENCE POSTS SHOULD BE MADE OF HOT ROLLED STEEL, AT LEAST 4 FEET LONG WITH TEE OR Y-BAR CROSS SECTION, SURFACE PAINTED OR GALVANIZED, MINIMUM WEIGHT 1.25 LB/FT, AND BRINDELL HARDNESS

3. WOVEN WIRE BACKING TO SUPPORT THE FABRIC SHOULD BE GALVANIZED 2" X 4" WELDED WIRE, 12 GAUGE MINIMUM.

# INSTALLATION

1. STEEL POSTS, WHICH SUPPORT THE SILT FENCE, SHOULD BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS MUST BE EMBEDDED A MINIMUM OF 1-FOOT DEEP AND SPACED NOT MORE THAN 8 FEET ON CENTER. WHERE WATER CONCENTRATES, THE MAXIMUM SPACING SHOULD BE 6 FEET.

2. LAY OUT FENCING DOWN-SLOPE OF DISTURBED AREA, FOLLOWING THE CONTOUR AS CLOSELY AS POSSIBLE. THE FENCE SHOULD BE SITED SO THAT THE MAXIMUM DRAINAGE AREA IS 1/4 ACRE/100 FEET OF FENCE.

3. THE TOE OF THE SILT FENCE SHOULD BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWN-SLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G., PAVEMENT OR ROCK OUTCROP), WEIGHT FABRIC FLAP WITH 3 INCHES OF PEA GRAVEL ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.

TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL. 5. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST. THERE SHOULD BE A 3-FOOT OVERLAP, SECURELY FASTENED WHERE

4. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE

ENDS OF FABRIC MEET 6. SILT FENCE SHOULD BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

### COMMON TROUBLE POINTS FENCE NOT INSTALLED ALONG THE CONTOUR CAUSING WATER TO CONCENTRATE AND FLOW OVER THE FENCE.

2. FABRIC NOT SEATED SECURELY TO GROUND (RUNOFF PASSING UNDER FENCE).

3. FENCE NOT INSTALLED PERPENDICULAR TO FLOW LINE (RUNOFF ESCAPING

4. FENCE TREATING TOO LARGE AN AREA, OR EXCESSIVE CHANNEL FLOW (RUNOFF OVERTOPS OR COLLAPSES FENCE).

### INSPECTION AND MAINTENANCE GUIDELINES 1. INSPECT ALL FENCING WEEKLY, AND AFTER RAINFALL.

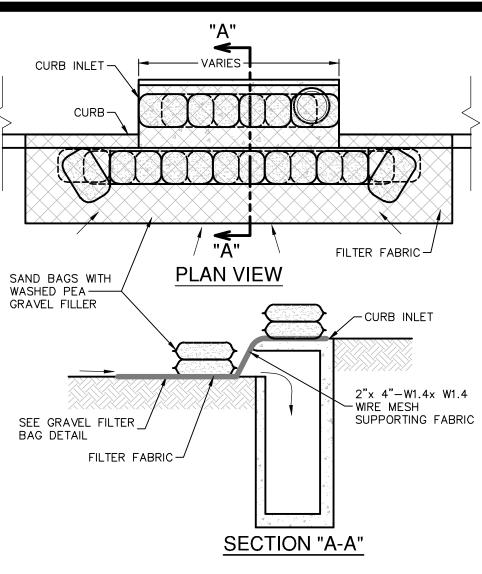
# 2. REMOVE SEDIMENT WHEN BUILDUP REACHES 6 INCHES.

3. REPLACE TORN FABRIC OR INSTALL A SECOND LINE OF FENCING PARALLEL TO THE TORN SECTION.

4. REPLACE OR REPAIR SECTIONS CRUSHED OR COLLAPSED IN THE COURSE OF CONSTRUCTION ACTIVITY. IF A SECTION OF FENCE IS OBSTRUCTING VEHICULAR ACCESS, CONSIDER RELOCATING IT TO A SPOT WHERE IT WILL PROVIDE EQUAL PROTECTION, BUT WILL NOT OBSTRUCT VEHICLES. A TRIANGULAR FILTER DIKE MAY BE PREFERABLE TO A SILT FENCE AT COMMON VEHICLE ACCESS POINTS.

WHEN CONSTRUCTION IS COMPLETE, THE SEDIMENT SHOULD BE DISPOSED OF IN A MANNER THAT WILL NOT CAUSE ADDITIONAL SILTATION AND THE PRIOR LOCATION OF THE SILT FENCE SHOULD BE REVEGETATED. THE FENCE ITSELF SHOULD BE DISPOSED OF IN AN APPROVED LANDFILL

NOT-TO-SCALE



# **GENERAL NOTES**

CONTRACTOR TO INSTALL 2"x4"-W1.4xW1.4 WIRE MESH SUPPORTING FILTER FABRIC OVER THE INLET OPENING. FABRIC MUST BE SECURED TO WIRE BACKING WITH CLIPS OR WIRE TIES AT THIS LOCATION. SAND BAGS FILLED WITH WASHED PEA GRAVEL SHOULD BE PLACED ON TOP OF WIRE MESH ON TOP OF THE INLET AS SHOWN ON THIS DETAIL TO HOLD WIRE MESH IN PLACE. SANDBAGS FILLED WITH WASHED PEA GRAVEL SHOULD ALSO BE PLACED ALONG THE GUTTER AS SHOWN ON THIS DETAIL TO HOLD WIRE MESH IN PLACE. SAND BAGS TO BE STACKED TO FORM A CONTINUOUS BARRIER AROUND INLETS.

2. THE BAGS SHOULD BE TIGHTLY ABUTTED AGAINST EACH OTHER TO PREVENT RUNOFF FROM FLOWING BETWEEN THE BAGS.

### INSPECTION AND MAINTENANCE GUIDELINES . INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL. REPAIR OR REPLACEMENT SHOULD BE MADE PROMPTLY AS NEEDED BY THE

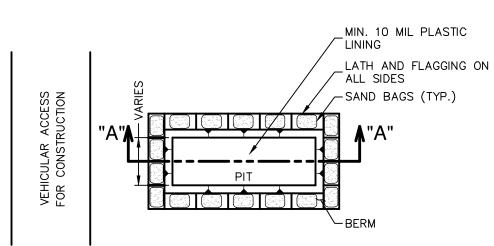
2. REMOVE SEDIMENT WHEN BUILDUP REACHES A DEPTH OF 3 INCHES REMOVED SEDIMENT SHOULD BE DEPOSITED IN A SUITABLE AREA AND IN SUCH

A MANNER THAT IT WILL NOT ERODE. 3. CHECK PLACEMENT OF DEVICE TO PREVENT GAPS BETWEEN DEVICE AND

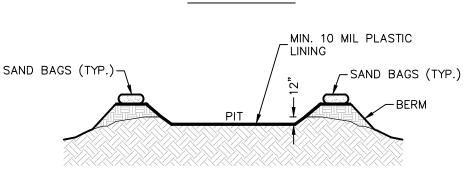
4. INSPECT FILTER FABRIC AND PATCH OR REPLACE IF TORN OR MISSING. . STRUCTURES SHOULD BE REMOVED AND THE AREA STABILIZED ONLY AFTER THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

# BAGGED GRAVEL CURB INLET PROTECTION DETAIL

NOT-TO-SCALE



# **PLAN VIEW**



# SECTION "A-A'

# **GENERAL NOTES**

. DETAIL ABOVE ILLUSTRATES MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN SIZE DEPENDING ON EXPECTED FREQUENCY OF USE. 2. WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO CONSTRUCTION TRAFFIC.

WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INUNDATION FROM STORM WATER RUNOFF. 4. LOCATE WASHOUT AREA AT LEAST 50 FEET FROM SENSITIVE FEATURES, STORM DRAINS, OPEN DITCHES OR WATER BODIES.

TEMPORARY CONCRETE WASHOUT FACILITY SHOULD BE CONSTRUCTED WITH SUFFICIENT QUANTITY AND VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.

# **MATERIALS**

PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL IN POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.

# MAINTENANCE

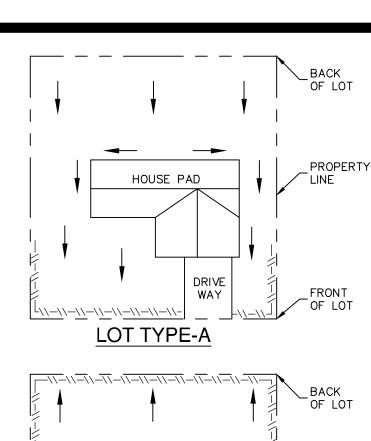
WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE SHOULD BE REMOVED AND DISPOSED OF. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT

HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCES CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE BACKFILLED AND REPAIRED.

FACILITIES SHOULD BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED

# CONCRETE TRUCK WASHOUT

NOT-TO-SCALE



HOUSE PAD

LOT TYPE-B

HOUSE PAD

LOT TYPE-C

NOTE: SILT FENCE TO BE INSTALLED PER

DOWNGRADIENT SIDE OF EACH LOT LINE

THESE DETAILS AND LOCATED ON THE

OR LIMITS OF CLEARING AS GENERALL'S

SHOWN ON THE OVERALL SITE PLAN.

WAY

WAY





-\\-\\- SILT FENCE → DRAINAGE FLOW TYPICAL HOUSE LOT LAYOUTS

LEGENI

PROPERT'

PROPERT'

# NOT-TO-SCALE <del><--</del>18"−24" <del>---</del>

PLAN VIEW **SECTION "A-A"** 

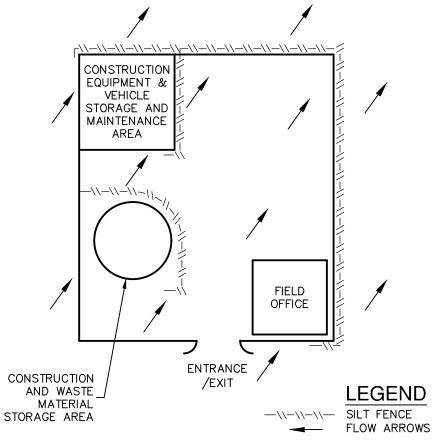
THE FILTER BAG MATERIAL SHALL BE MADE OF POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE WOVEN FABRIC, MIN. UNIT WEIGHT OF 4 OUNCES/SY, HAVE A MULLEN BURST STRENGTH EXCEEDING 300 PSI AND ULTRAVIOLET STABILITY EXCEEDING 70%.

THE FILTER BAG SHALL BE FILLED WITH CLEAN, MEDIUM WASHED PEA GRAVEL TO COARSE GRAVEL (0.31 TO 0.75 INCH DIAMETER).

3. SAND SHALL <u>NOT</u> BE USED TO FILL THE FILTER BAGS.

# **GRAVEL FILTER BAG DETAIL**

NOT-TO-SCALE



# CONSTRUCTION STAGING AREA

THE ENGINEERING SEAL HAS BEEN AFFIXED TO THIS SHEET ONLY FOR THE PURPOSE OF DEMONSTRATING COMPLIANCE WITH THE TPDES-STORM WATER POLLUTION PREVENTION PLAN (SWP3) REGULATIONS.

NOT-TO-SCALE

THIS SHEET HAS BEEN PREPARED FOR PURPOSES OF THE SWP3 ONLY. ALL OTHER CIVIL ENGINEERING RELATED INFORMATION SHOULD BE ACQUIRED FROM THE APPROPRIATE SHEET IN THE CIVIL IMPROVEMENT PLANS.

**EXHIBIT** 3

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NOT-TO-SCALE

ROOTS, BRUSH, WIRE, GRADE STAKES AND OTHER OBJECTS THAT WOULD INTERFERE WITH PLANTING, FERTILIZING OR MAINTENANCE OPERATIONS. FERTILIZE ACCORDING TO SOIL TESTS. FERTILIZER NEEDS CAN BE

TORN OR UNEVEN PADS SHOULD NOT BE ACCEPTABLE.

SUSPENDED FROM A FIRM GRASP ON ONE END OF THE SECTION.

TO FINAL GRADE IN ACCORDANCE WITH THE APPROVED PLAN.

### CAN BE MADE BY COUNTY AGRICULTURAL EXTENSION AGENTS. FERTILIZER SHOULD BE WORKED INTO THE SOIL TO A DEPTH OF 3 INCHES WITH A DISC, SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT. ON SLOPING LAND, THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE CONTOUR.

SOD STRIPS IN WATERWAYS SHOULD BE LAID PERPENDICULAR TO THE DIRECTION OF FLOW. CARE SHOULD BE TAKEN TO BUTT ENDS OF STRIPS

INSTALLATION IN CHANNELS

TIGHTLY (SEE FIGURE ABOVE). 2. AFTER ROLLING OR TAMPING, SOD SHOULD BE PEGGED OR STAPLED TO

RESIST WASHOUT DURING THE ESTABLISHMENT PERIOD. MESH OR OTHER NETTING MAY BE PEGGED OVER THE SOD FOR EXTRA PROTECTION IN CRITICAL

IS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL. AERIAL IMAGERY PROVIDED BY GOOGLE® UNLESS OTHERWISE NOTED. Imagery © 2016, CAPCOG, Digital Globe, Texas Orthoimagery Program, USDA Farm Service Agency And Service Agency Provided BY GOOGLE® UNLESS OTHERWISE NOTED.

DETERMINED BY A SOIL TESTING LABORATORY OR REGIONAL RECOMMENDATIONS

THE SURFACE SHOULD BE CLEARED OF ALL TRASH, DEBRIS AND OF ALL

PRIOR TO SOIL PREPARATION, AREAS TO BE SODDED SHOULD BE BROUGHT

STANDARD SIZE SECTIONS OF SOD SHOULD BE STRONG ENOUGH TO

SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN

4. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD

SOD INSTALLATION DETAIL SILT FENCE DETAIL PIT DETAIL