

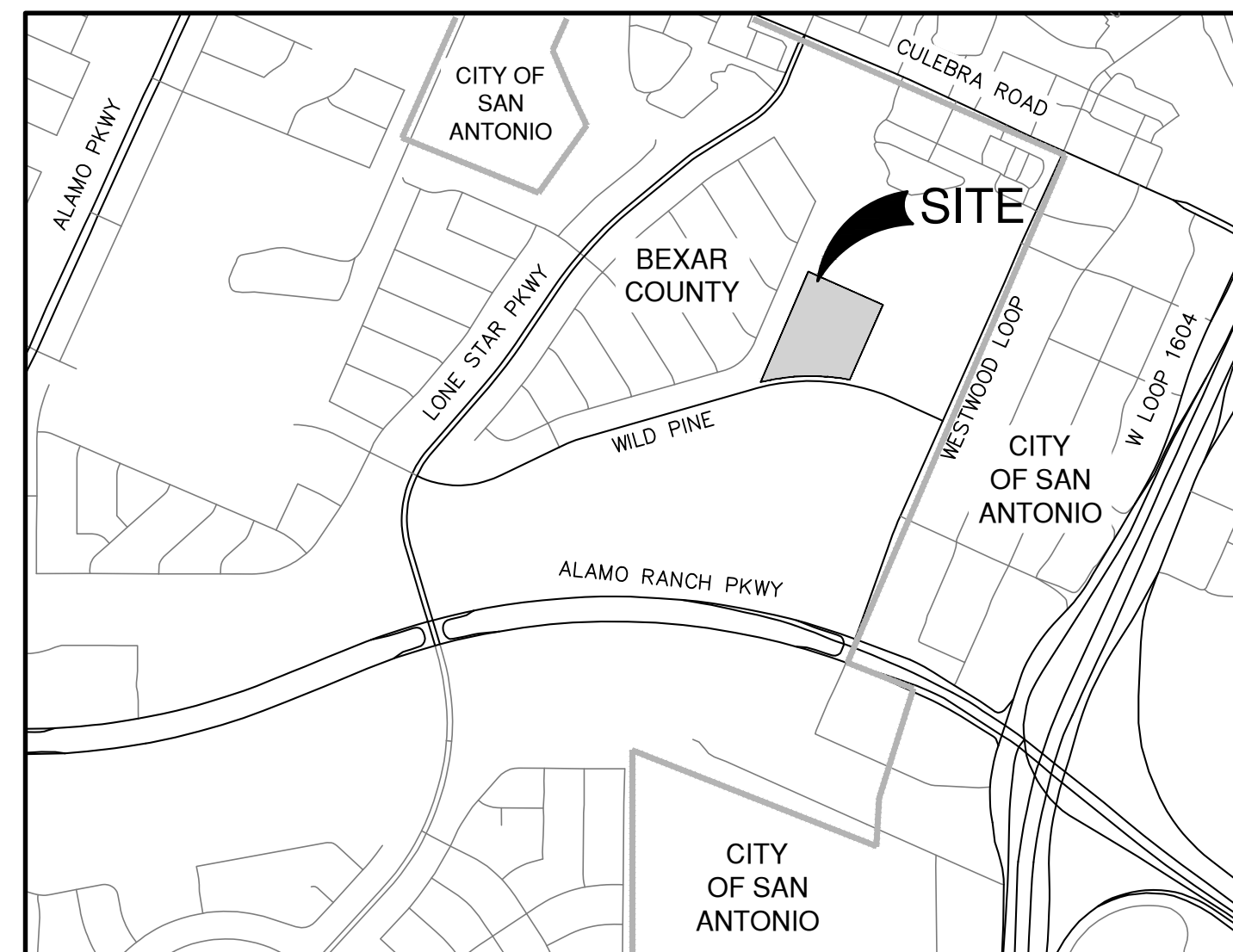
WILD PINE

SAN ANTONIO, TEXAS

CIVIL CONSTRUCTION PLANS

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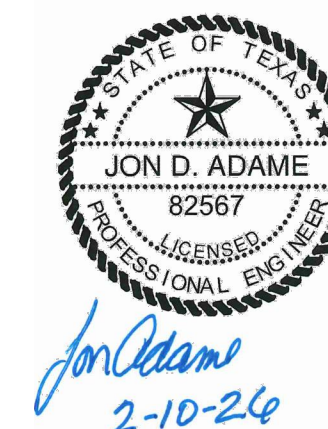
LOCATION MAP
NOT-TO-SCALE

PREPARED FOR:

WILD PINE SAN ANTONIO LLC
440 LOUISIANA, STE 952
HOUSTON, TX 77002

FEBRUARY 2026

PAPE-DAWSON
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

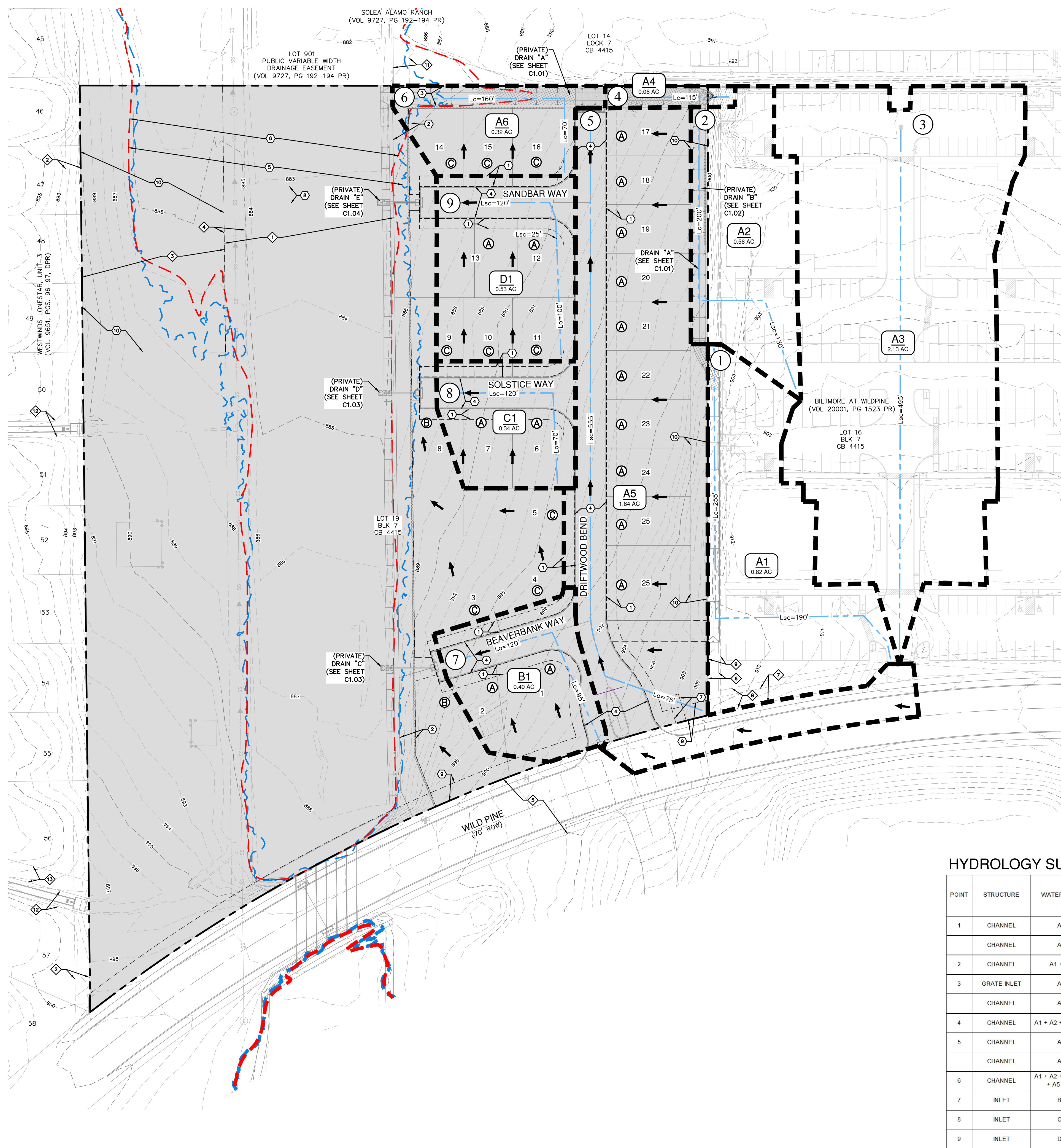


WATER (PRESSURE ZONE PZ 1111 MIDDLE)

| |
|--|
| DEVELOPER'S NAME: <u>WILD PINE SAN ANTONIO LLC</u> |
| ADDRESS: <u>440 LOUISIANA, STE 952</u> |
| CITY: <u>HOUSTON</u> STATE: <u>TX</u> ZIP: <u>77002</u> |
| PHONE# <u>(540)305-4056</u> FAX# _____ |
| SAWS BLOCK MAP# <u>090602</u> TOTAL EDU'S <u>28.5</u> TOTAL ACREAGE <u>9.608</u> |
| TOTAL LINEAR FOOTAGE OF PIPE: <u>PRIVATE</u> PLAT NO. <u>25-11800373</u> |
| NUMBER OF LOTS <u>26</u> SAWS JOB NO. <u>CTR-346875</u> |

SEWER (ALAMO RANCH & WESTWINDS TRACT)

| |
|---|
| DEVELOPER'S NAME: <u>WILD PINE SAN ANTONIO LLC</u> |
| ADDRESS: <u>440 LOUISIANA, STE 952</u> |
| CITY: <u>HOUSTON</u> STATE: <u>TX</u> ZIP: <u>77002</u> |
| PHONE# <u>(540)305-4056</u> FAX# _____ |
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| NUMBER OF LOTS <u>26</u> SAWS JOB NO. <u>CTR-346875</u> |



TRENCH EXCAVATION SAFETY PROTECTION:

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE 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 /OR 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 SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

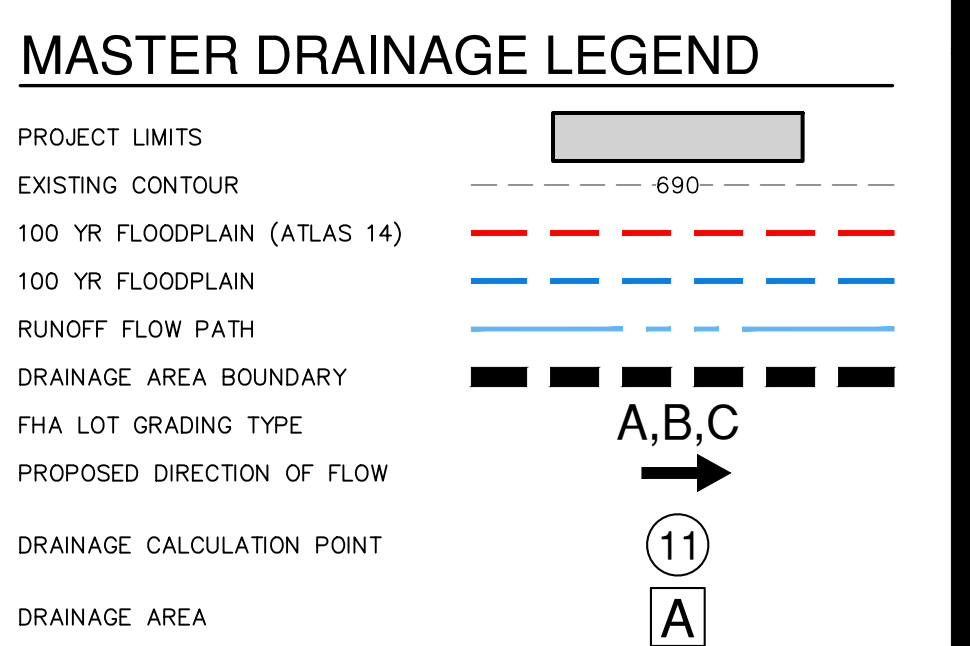
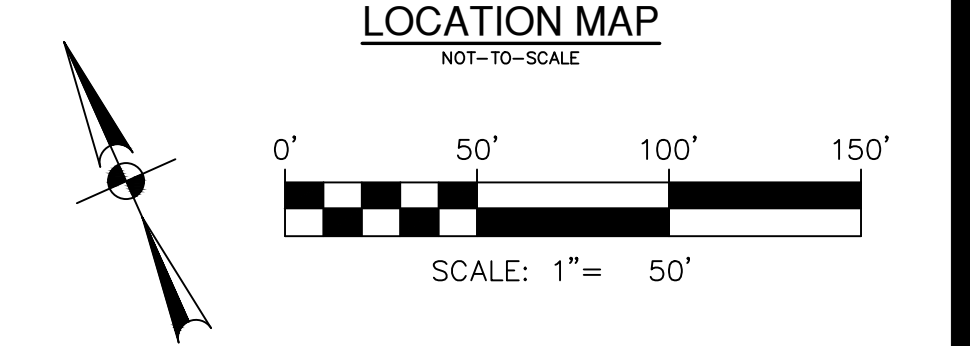
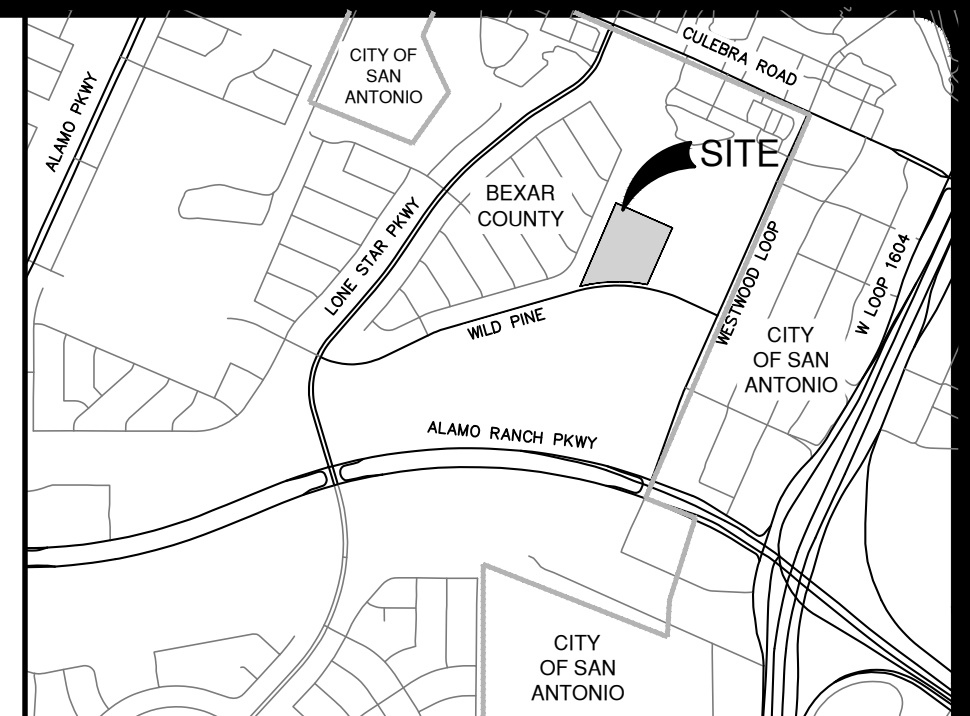
CAUTION!!

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.

DRAINAGE & GRADING NOTES:

1. 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.
2. ALL CONCRETE FOR TYPICAL DRAINAGE STRUCTURES SHALL MEET TYPICAL SPECIFICATIONS. ALL OTHER CONCRETE SHALL BE CLASS "A" 3000 PSI CYLINDER STRENGTH IN 28 DAYS.
3. REFERENCE DRAINAGE DETAILS FOR PIPE TRENCH DETAILS, BOX CULVERT, HEADWALL, AND WINGWALL CONSTRUCTION DETAILS, AND BOX CULVERT BEDDING AND EXCAVATION LIMITS.
4. CONTRACTOR SHALL GROUT ALL CURB INLETS AND JUNCTION BOXES TO PROVIDE FOR POSITIVE DRAINAGE.
5. 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.
6. CONTRACTOR SHALL MATCH TOP OF CHANNEL TO NATURAL GROUND AND MAINTAIN A MINIMUM CHANNEL DEPTH OF "D" AS SHOWN IN THE PROFILE.

CAUTION !!!
EXISTING UTILITIES ARE WITHIN THE LIMITS OF CONSTRUCTION. CONTRACTORS SHALL EXERCISE EXTRA CARE IN DIGGING ANY TRENCH OF PROPOSED UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE, VERIFY THE EXACT LOCATION & IDENTIFY AREA OF CONFLICTS WITH EXISTING UTILITIES AND SHALL NOTIFY THE ENGINEER IF CONFLICT IS FOUND.



HYDROLOGY SUMMARY TABLE (POST DEVELOPMENT - ATLAS 14 - PA3)

| POINT | STRUCTURE | WATERSHED | TOTAL AREA (ACRES) | COMPOSITE C VALUE | OVERLAND FLOW | | SHALLOW | | CHANNEL FLOW (6 FPS) | | TIME OF CONCENTRATION | INTENSITY | | | FLOW | | | POINT |
|-------|-------------|-----------------------------|--------------------|-------------------|--|---------------------|-------------|---------------------|----------------------|---------------------|-----------------------|----------------------|----------------------|-----------------------|--------------------|--------------------|---------------------|-------|
| | | | | | LENGTH FEET | TRAVEL TIME MINUTES | LENGTH FEET | TRAVEL TIME MINUTES | LENGTH FEET | TRAVEL TIME MINUTES | | I ₂ IN/HR | I ₅ IN/HR | I ₁₀ IN/HR | Q ₂ CFS | Q ₅ CFS | Q ₁₀ CFS | |
| 1 | CHANNEL | A1 | 0.82 | 0.95 | 0 | 0.0 | 190 | 1.0 | 255 | 1.0 | 2.0 | 7.87 | 10.99 | 13.77 | 6.13 | 8.56 | 10.73 | 1 |
| | CHANNEL | A2 | 0.56 | 0.95 | 0 | 0.0 | 130 | 0.5 | 200 | 0.5 | 1.0 | 7.88 | 11.00 | 13.78 | 4.19 | 5.85 | 7.33 | |
| 2 | CHANNEL | A1 + A2 | 1.38 | | REFERENCE STORM WATER MANAGEMENT REPORT FOR HYDRAULIC CALCULATIONS | | | | | | | | | | 10.32 | 14.41 | 18.05 | 2 |
| 3 | GRATE INLET | A3 | 2.13 | 0.95 | 0 | 0.0 | 495 | 2.0 | 0 | 0.0 | 2.0 | 7.87 | 10.99 | 13.77 | 15.93 | 22.24 | 27.86 | 3 |
| | CHANNEL | A4 | 0.06 | 0.75 | 0 | 0.0 | 115 | 1.0 | 0 | 0.0 | 1.0 | 4.89 | 6.89 | 8.67 | 0.22 | 0.31 | 0.39 | |
| 4 | CHANNEL | A1 + A2 + A3 + A4 | 3.57 | | REFERENCE STORM WATER MANAGEMENT REPORT FOR HYDRAULIC CALCULATIONS | | | | | | | | | | 25.12 | 35.35 | 44.40 | 4 |
| 5 | CHANNEL | A5 | 1.84 | 0.75 | 75 | 4.0 | 555 | 3.0 | 0 | 0.0 | 7.0 | 7.33 | 10.17 | 12.66 | 10.11 | 14.03 | 17.47 | 5 |
| | CHANNEL | A6 | 0.32 | 0.75 | 70 | 8.0 | 160 | 1.0 | 0 | 0.0 | 9.0 | 6.71 | 9.29 | 11.54 | 1.61 | 2.23 | 2.77 | |
| 6 | CHANNEL | A1 + A2 + A3 + A4 + A5 + A6 | 5.73 | | REFERENCE STORM WATER MANAGEMENT REPORT FOR HYDRAULIC CALCULATIONS | | | | | | | | | | 34.86 | 48.86 | 61.22 | 6 |
| 7 | INLET | B1 | 0.40 | 0.75 | 95 | 10.0 | 120 | 1.0 | 0 | 0.0 | 11.0 | 6.20 | 8.57 | 10.60 | 1.86 | 2.57 | 3.18 | 7 |
| 8 | INLET | C1 | 0.34 | 0.75 | 70 | 8.0 | 120 | 1.0 | 0 | 0.0 | 9.0 | 6.71 | 9.29 | 11.53 | 1.71 | 2.37 | 2.94 | 8 |
| 9 | INLET | D1 | 0.53 | 0.75 | 100 | 11.0 | 145 | 1.0 | 0 | 0.0 | 12.0 | 5.99 | 8.25 | 10.21 | 2.38 | 3.28 | 4.06 | 9 |

DATE: _____

NO. REVISION: _____

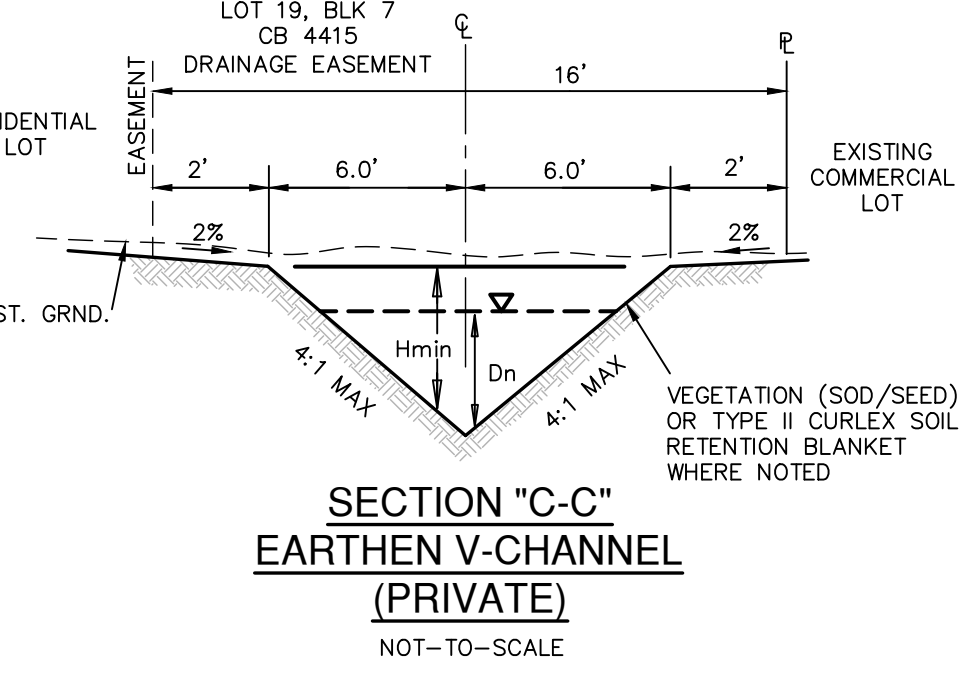
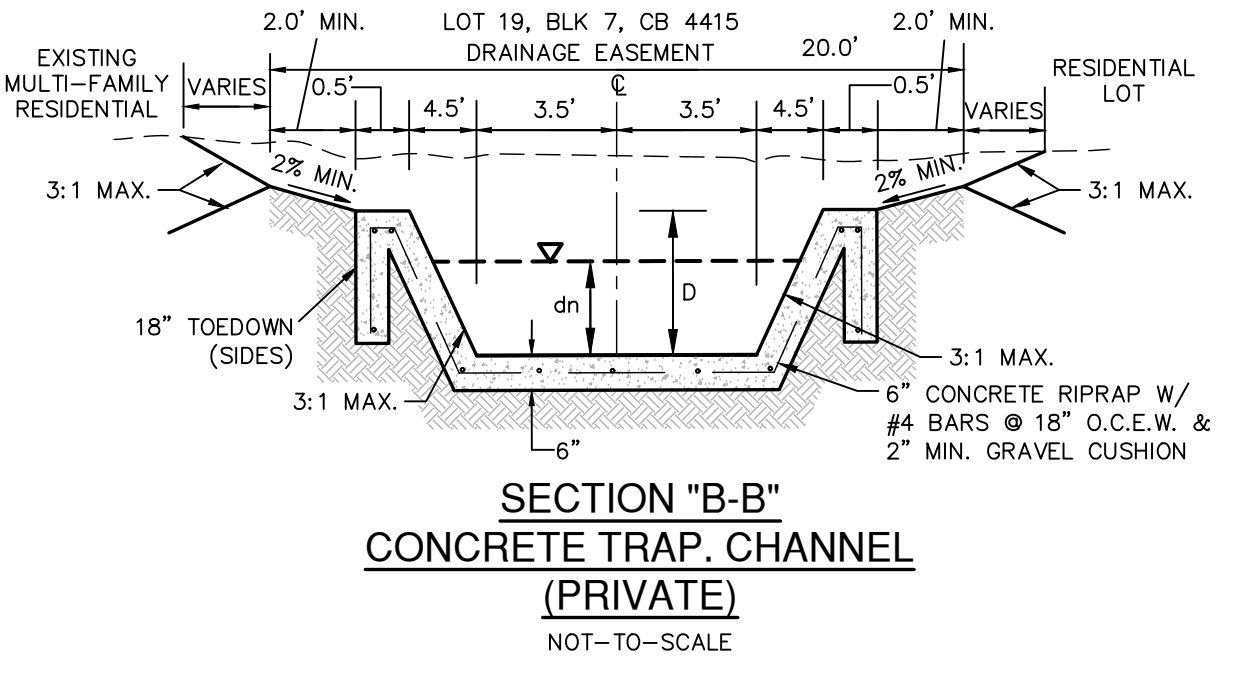
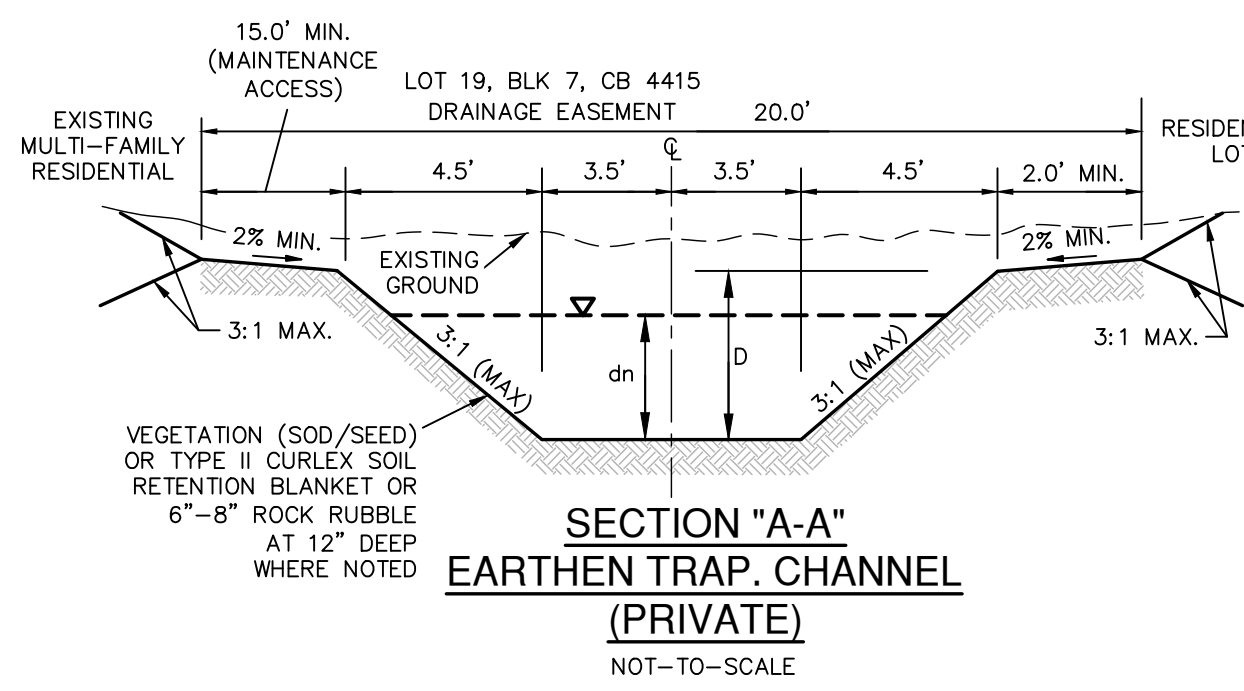
Jon Adame
2-10-2024

PAPE-DAWSON
2000 NW LOOP 410 | SAN ANTONIO, TX 78243 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

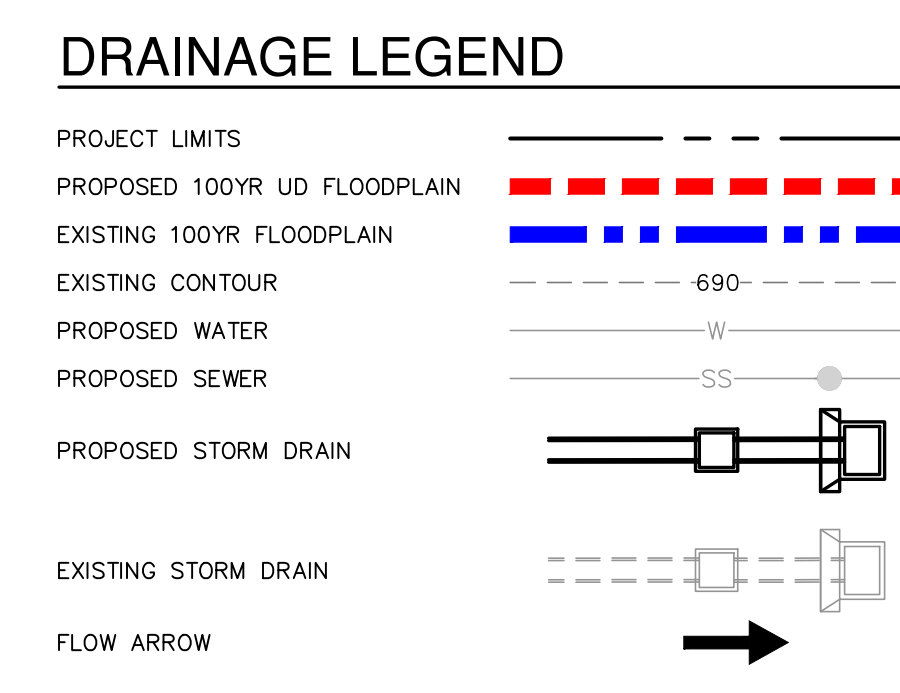
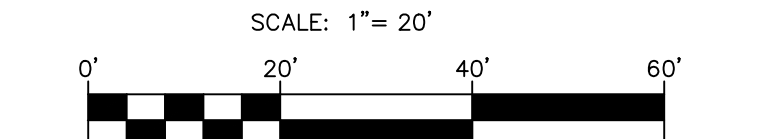
WILD PINE
SAN ANTONIO, TEXAS
OVERALL MASTER DRAINAGE PLAN

PLAT NO. 25-11800373
JOB NO. 13657-13
DATE FEBRUARY 2026
DESIGNER CB
CHECKED JA_DRAWN_CB
SHEET C1.00

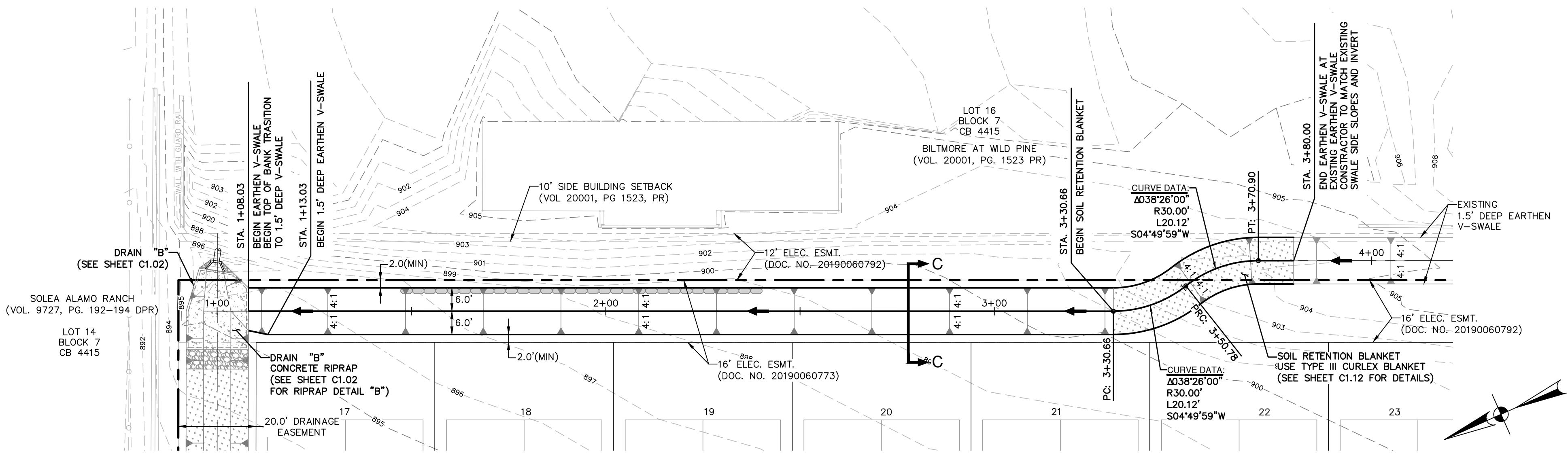
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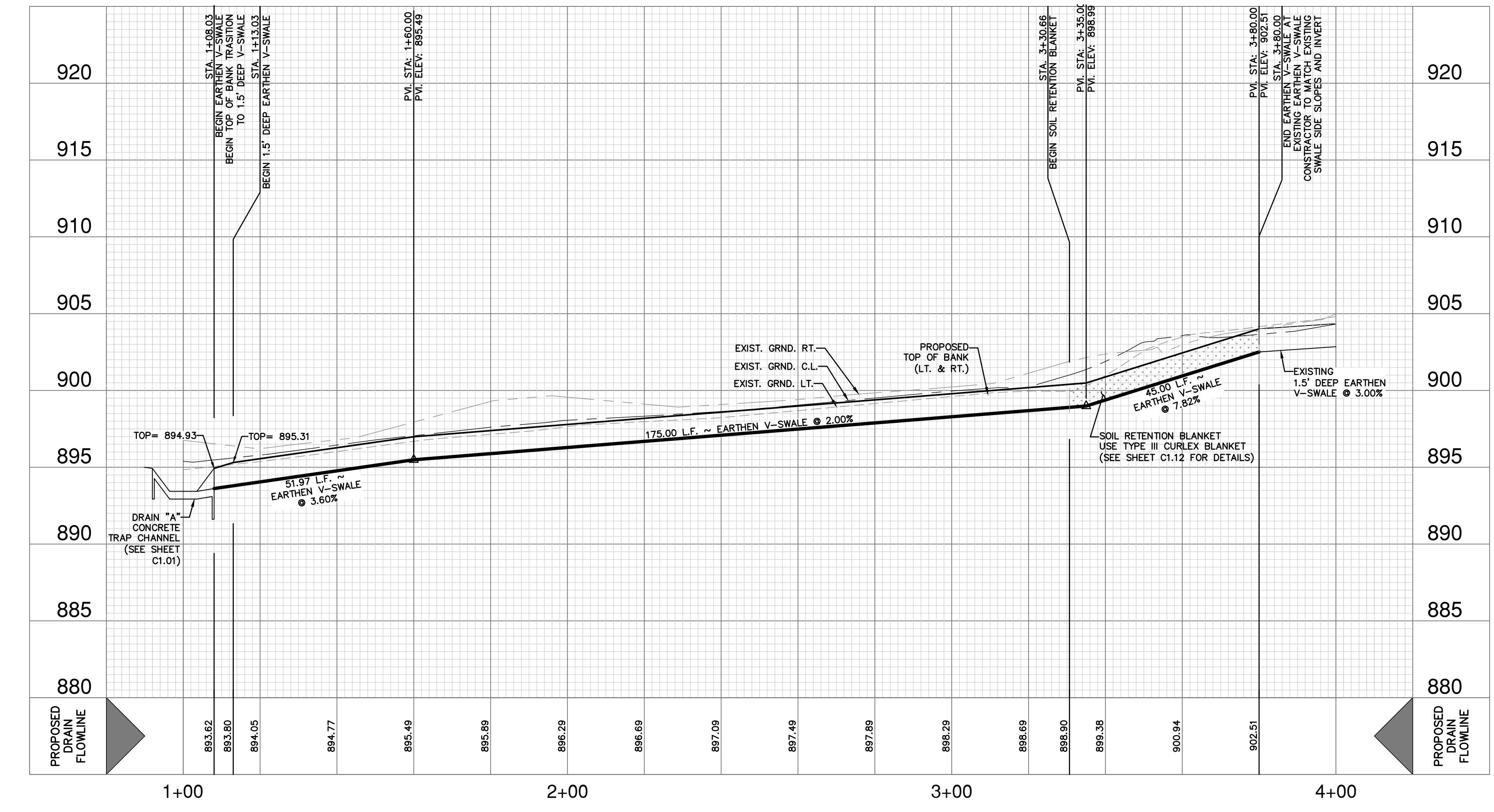
| HYDRAULIC CALCULATIONS EARTH V-SWALE (DRAIN "B" SECTION C-C) STA. 1+08.03 TO 1+60.00 | HYDRAULIC CALCULATIONS EARTH V-SWALE (DRAIN "B" SECTION C-C) STA. 1+60.00 TO 3+35.00 | HYDRAULIC CALCULATIONS EARTH V-SWALE (DRAIN "B" SECTION C-C) STA. 3+35.00 TO END |
|---|---|---|
| Q25 = 14.41 CFS | Q25 = 14.41 CFS | Q25 = 14.41 CFS |
| SS = 4:1 | SS = 4:1 | SS = 4:1 |
| n = 0.035 | n = 0.035 | n = 0.035 |
| S = 3.60% | S = 2.00% | S = 7.82% |
| D = 1.50' | D = 1.50' | D = 1.50' |
| dn = 0.89' | dn = 0.99' | dn = 0.77' |
| V = 4.55 fps | V = 3.68 fps | V = 6.08 fps |
| T _d = 0.97 LB/FT ² | T _d = 0.60 LB/FT ² | T _d = 1.82 LB/FT ² |
| RC = B,C,D | RC = B,C,D | RC = TYPE III CURLEX |



| | |
|---|---|
| HYDRAULIC CALCULATIONS EARTH TRAP CHANNEL (DRAIN "A" SECTION A-A) STA. 1+59.54 TO 2+60.00 Q25 = 48.86 CFS Bw = 7' n = 0.035 S = 2.00% D = 1.50' dn = 1.00' V = 4.89 fps T _d = 0.94 LB/FT ² RC = B,C,D | HYDRAULIC CALCULATIONS EARTH TRAP CHANNEL (DRAIN "A" SECTION A-A) STA. 2+60.00 TO 3+20.00 Q25 = 48.86 CFS Bw = 7' n = 0.035 S = 2.42% D = 1.50' dn = 0.95' V = 5.22 fps T _d = 1.09 LB/FT ² RC = TYPE III CURLEX |
| HYDRAULIC CALCULATIONS EARTH TRAP CHANNEL (DRAIN "A" SECTION A-A) STA. 3+20.00 TO 3+44.03 Q25 = 48.86 CFS Bw = 7' n = 0.035 S = 5.50% D = 1.50' dn = 0.76' V = 6.93 fps T _d = 2.05 LB/FT ² RC = TYPE III CURLEX | HYDRAULIC CALCULATIONS ROCK TRAP CHANNEL (DRAIN "A" SECTION A-A) STA. 3+44.03 TO 3+72.03 Q25 = 48.86 CFS Bw = 7' n = 0.035 S = 5.50% D = 1.50' dn = 0.76' V = 6.93 fps T _d = 2.05 LB/FT ² RC = ROCK D50=6in |
| HYDRAULIC CALCULATIONS EARTH TRAP CHANNEL (DRAIN "A" SECTION A-A) STA. 3+72.03 TO 4+46.11 Q25 = 35.35 CFS Bw = 7' n = 0.035 S = 5.50% D = 1.50' dn = 0.63' V = 6.31 fps T _d = 1.75 LB/FT ² RC = TYPE III CURLEX | HYDRAULIC CALCULATIONS ROCK TRAP CHANNEL (DRAIN "A" SECTION A-A) STA. 4+46.11 TO 4+51.11 Q25 = 35.35 CFS Bw = 7' n = 0.035 S = 5.50% D = 1.50' dn = 0.63' V = 6.31 fps T _d = 1.75 LB/FT ² RC = ROCK D50=6in |
| HYDRAULIC CALCULATIONS CONC. TRAP CHANNEL (DRAIN "A" SECTION B-B) STA. 4+51.11 TO 4+61.02 Q25 = 35.35 CFS Bw = 7' n = 0.015 S = 5.50% D = 1.50' dn = 0.39' V = 11.09 fps | HYDRAULIC CALCULATIONS CONC. TRAP CHANNEL (DRAIN "A" SECTION B-B) STA. 4+61.02 TO END Q25 = 35.35 CFS Bw = 7' n = 0.015 S = 25.00% D = 1.50' dn = 0.25' V = 18.25 fps |



(PRIVATE) DRAIN "B" ~ STA. 1+00.00 TO END
 VERTICAL SCALE: 1" = 5'
 HORIZONTAL SCALE: 1" = 20'



OPEN CHANNEL NOTE:
 CONTRACTOR SHALL REFERENCE TABLE 9.3.8.1 - "RETARDATION GLASS FOR LINING MATERIALS" PROVIDED ON SHEET C1.10 AND SUPPLIED RETARDANCE CLASS (RC) FOR CHOICE OF COVER WITHIN OPEN EARTHEN CHANNEL CROSS-SECTIONS.

- DRAINAGE & GRADING NOTES:**
- 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.
 - 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.
 - ALL CONCRETE FOR TxDOT DRAINAGE STRUCTURES SHALL MEET TxDOT SPECIFICATIONS. ALL OTHER CONCRETE SHALL BE CLASS "A" 3000 PSI CYLINDER STRENGTH IN 28 DAYS.
 - REFERENCE DRAINAGE DETAILS FOR PIPE TRENCH DETAILS, BOX CULVERT HEADWALL, AND WINGWALL CONSTRUCTION DETAILS, AND BOX CULVERT BEDDING AND EXCAVATION LIMITS.
 - CONTRACTOR SHALL GROUT ALL CURB INLETS AND JUNCTION BOXES TO PROVIDE POSITIVE DRAINAGE.
 - 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.
 - CONTRACTOR SHALL MATCH TOP OF CHANNEL TO NATURAL GROUND AND MAINTAIN A MINIMUM CHANNEL DEPTH OF "D" AS SHOWN IN THE PROFILE.

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-TEST 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.

TRENCH EXCAVATION SAFETY PROTECTION:
 CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE 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/OR 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 SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

DATE: _____

NO. REVISION: _____

Jon Adame
2-10-24

PAPE-DAWSON
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

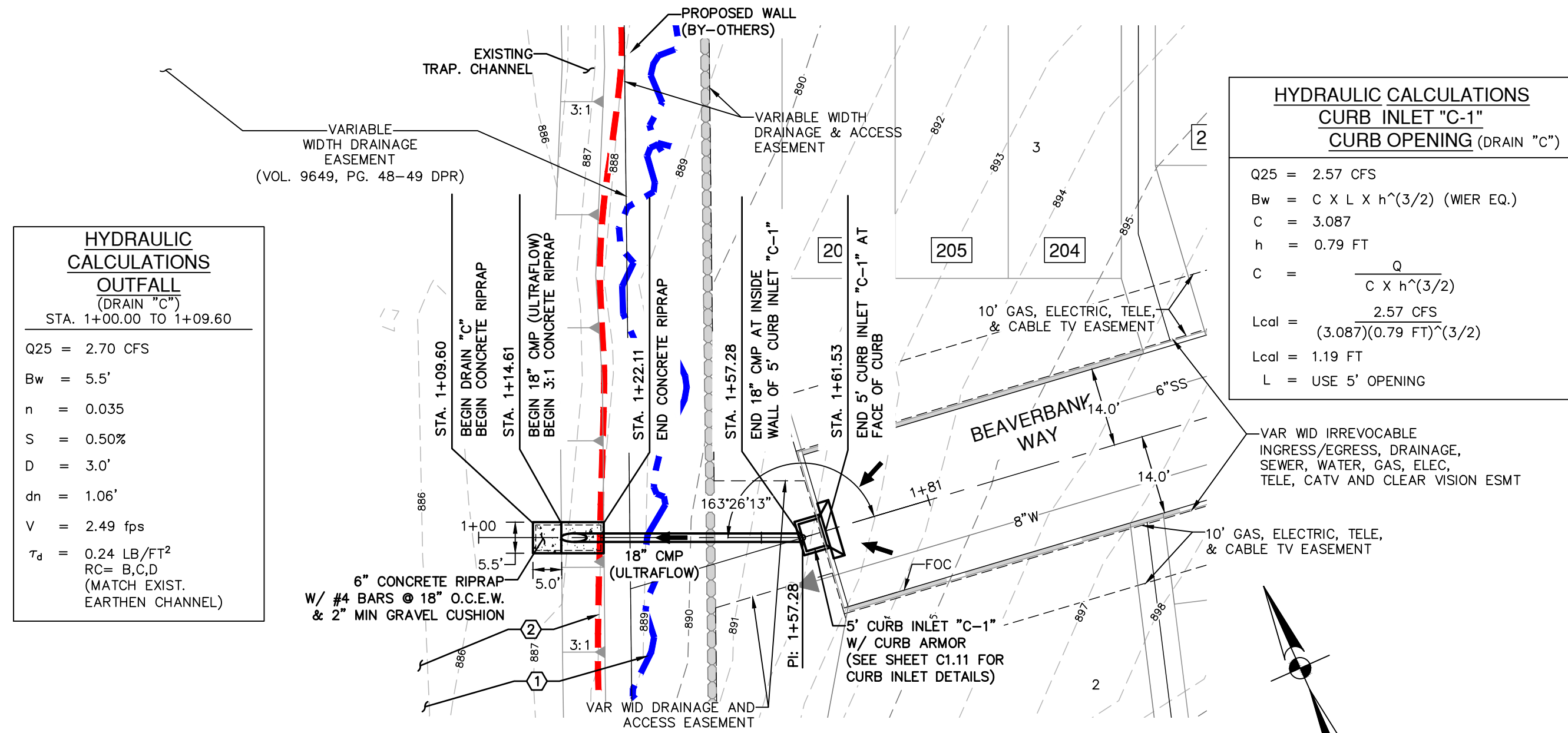
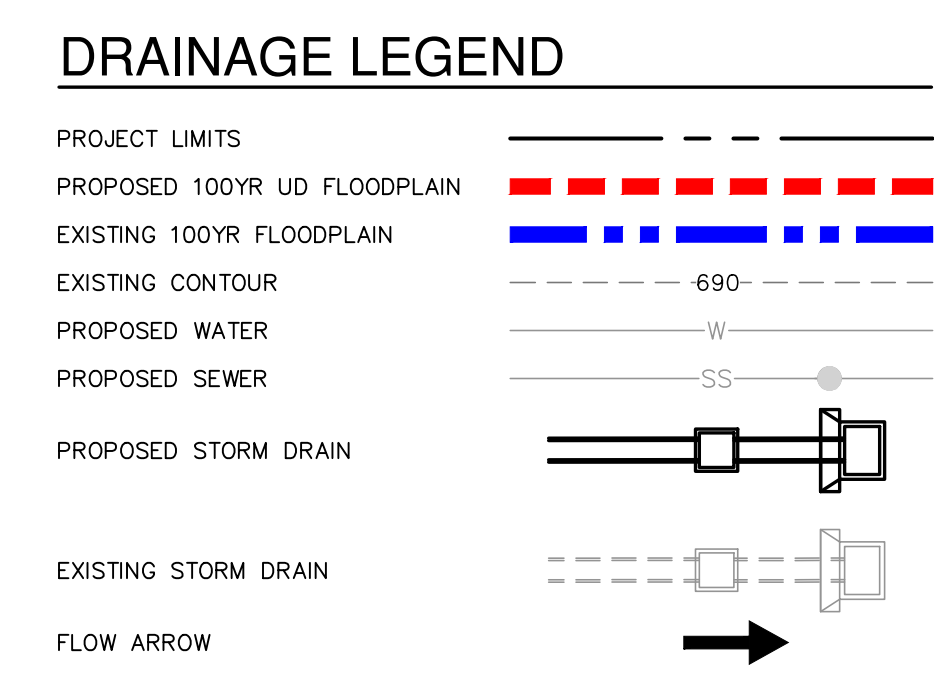
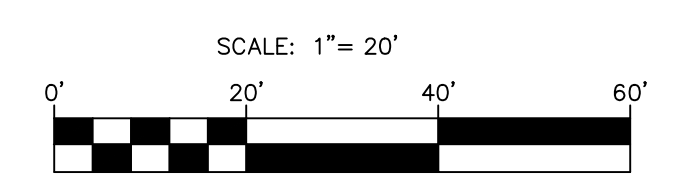
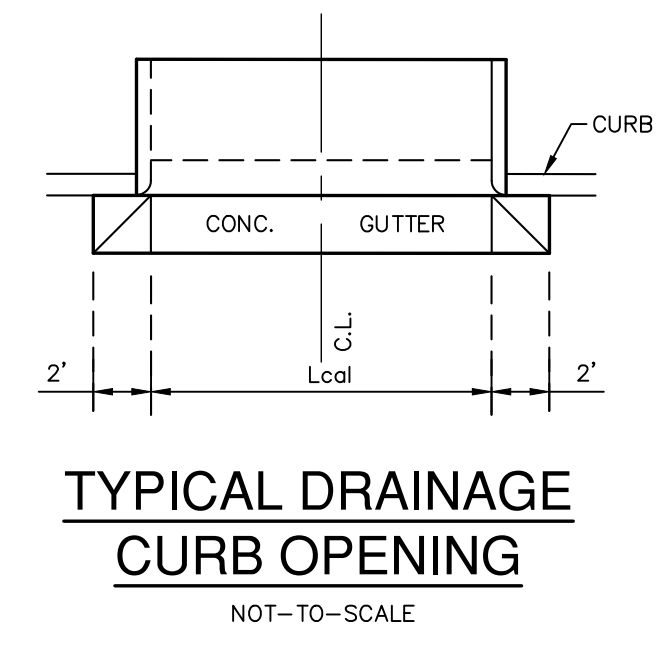
WILD PINE
 SAN ANTONIO, TEXAS

(PRIVATE) DRAIN "B" ~ STA. 1+00.00 TO END
 DRAIN PLAN & PROFILE

PLAT NO. 25-11800373
 JOB NO. 13657-13
 DATE FEBRUARY 2026
 DESIGNER CB
 CHECKED JA DRAWN CB
 SHEET C1.02

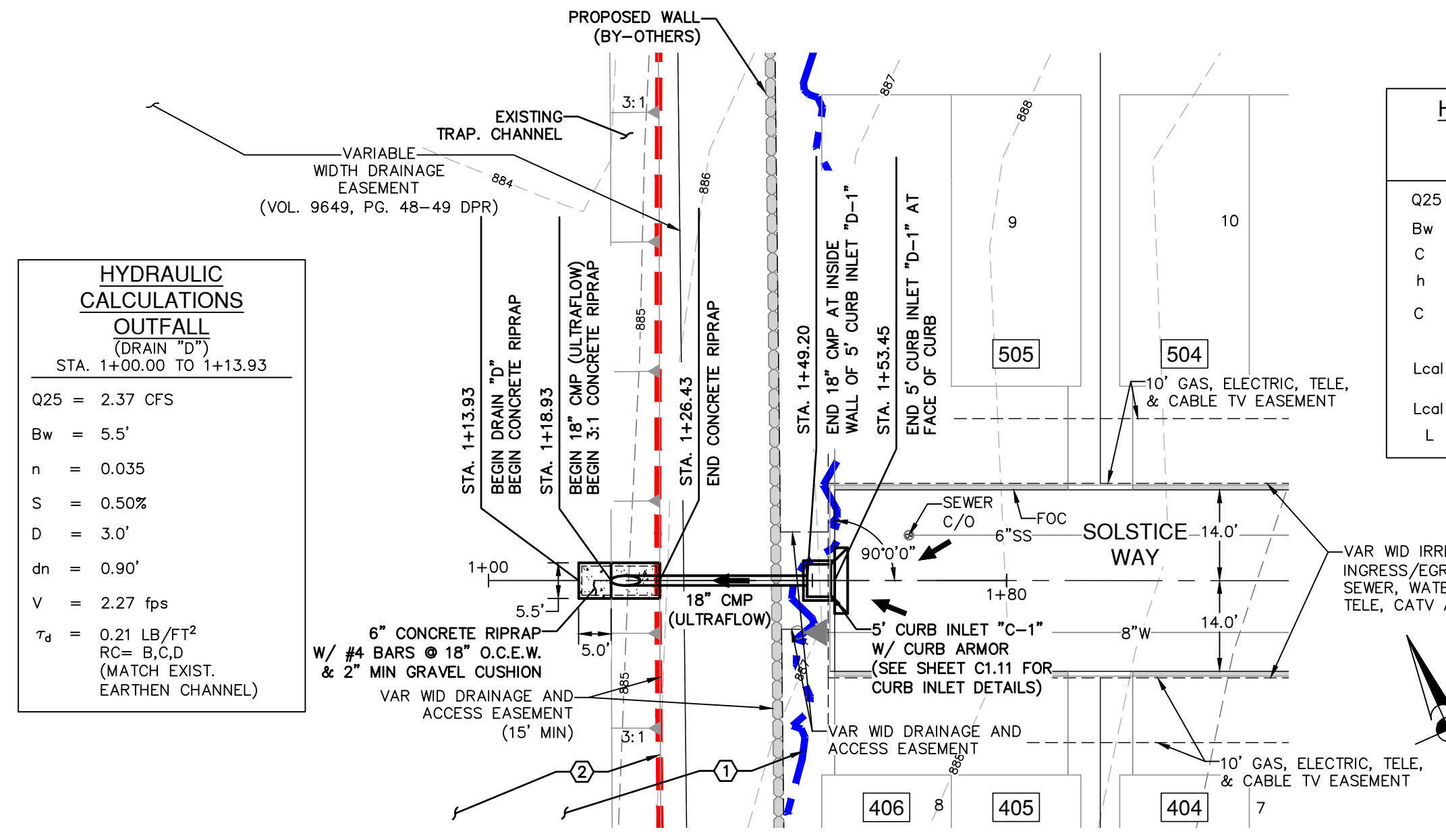
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HYDRAULIC CALCULATIONS OUTFALL (DRAIN "C")
 STA. 1+00.00 TO 1+09.60
 Q25 = 2.70 CFS
 Bw = 5.5'
 n = 0.035
 S = 0.50%
 D = 3.0'
 dn = 1.06'
 V = 2.49 fps
 Td = 0.24 LB/FT²
 RC = B,C,D
 (MATCH EXIST. EARTHEN CHANNEL)

HYDRAULIC CALCULATIONS CURB INLET "C-1" CURB OPENING (DRAIN "C")
 Q25 = 2.57 CFS
 Bw = C x L x h^{3/2} (WIER EQ.)
 C = 3.087
 h = 0.79 FT
 C = $\frac{Q}{C \times h^{3/2}}$
 Lcal = $\frac{2.57 \text{ CFS}}{(3.087)(0.79 \text{ FT})^{3/2}}$
 Lcal = 1.19 FT
 L = USE 5' OPENING



HYDRAULIC CALCULATIONS OUTFALL (DRAIN "D")
 STA. 1+00.00 TO 1+13.93
 Q25 = 2.37 CFS
 Bw = 5.5'
 n = 0.035
 S = 0.50%
 D = 3.0'
 dn = 0.90'
 V = 2.27 fps
 Td = 0.21 LB/FT²
 RC = B,C,D
 (MATCH EXIST. EARTHEN CHANNEL)

HYDRAULIC CALCULATIONS CURB INLET "D-1" CURB OPENING (DRAIN "D")
 Q25 = 2.37 CFS
 Bw = C x L x h^{3/2} (WIER EQ.)
 C = 3.087
 h = 0.79 FT
 C = $\frac{Q}{C \times h^{3/2}}$
 Lcal = $\frac{2.37 \text{ CFS}}{(3.087)(0.79 \text{ FT})^{3/2}}$
 Lcal = 1.09 FT
 L = USE 5' OPENING

- KEY NOTES LEGEND**
- 1 EFFECTIVE (EXISTING) FEMA 1% ANNUAL CHANCE (100-YR) FLOODPLAIN
 - 2 1% ANNUAL CHANCE (100-YR) ATLAS 14 UD CONDITIONS FLOODPLAIN (PAPE-DAWSON FLOOD STUDY)

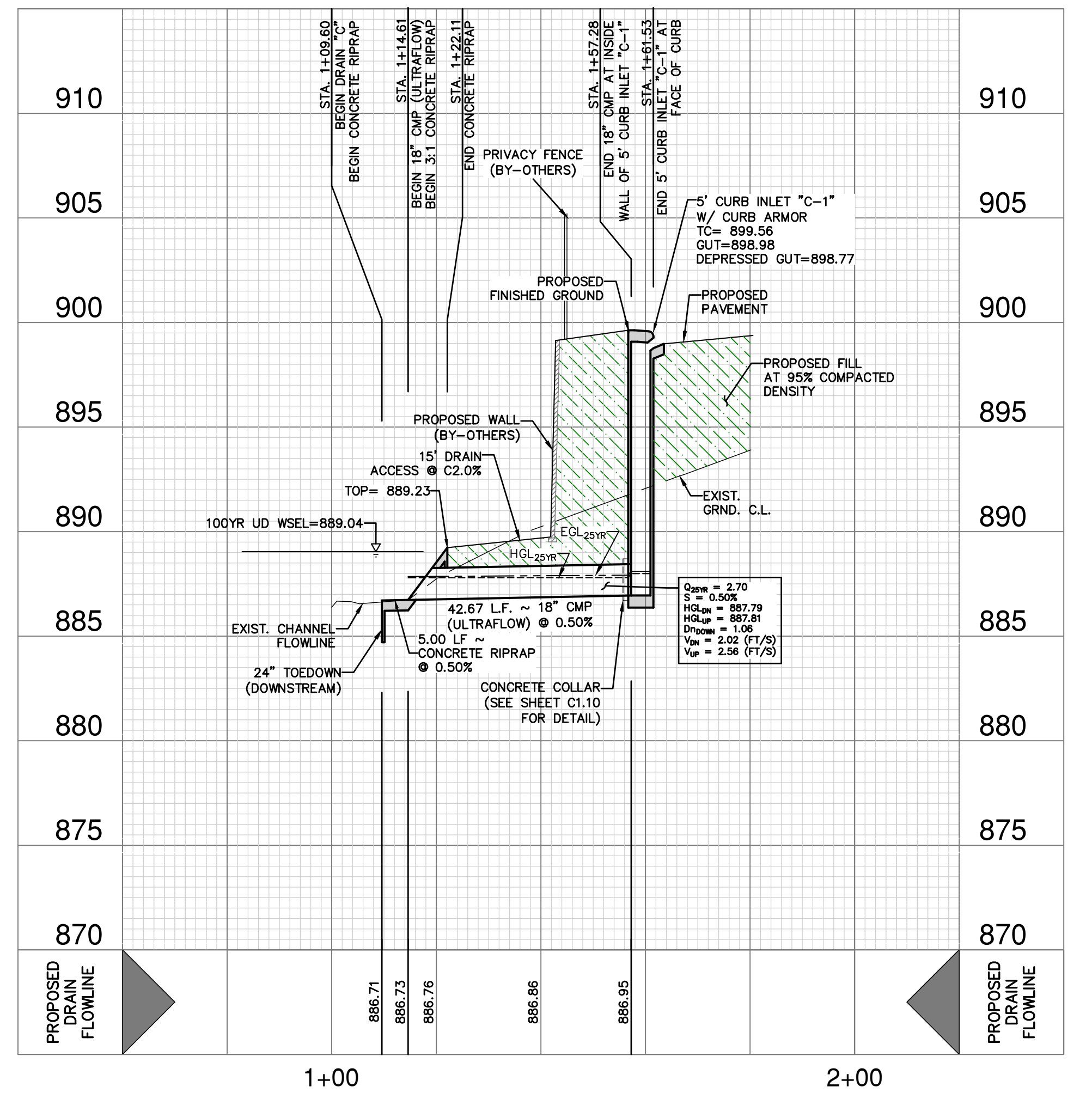
OPEN CHANNEL NOTE:
 CONTRACTOR SHALL REFERENCE TABLE 9.3.8.1 - "RETARDATION GLASS FOR LINING MATERIALS" PROVIDED ON SHEET C1.10 AND SUPPLIED RETARDANCE CLASS (RC) FOR CHOICE OF COVER WITHIN OPEN EARTHEN CHANNEL CROSS-SECTIONS.

- DRAINAGE & GRADING NOTES:**
- 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.
 - 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.
 - ALL CONCRETE FOR TxDOT DRAINAGE STRUCTURES SHALL MEET TxDOT SPECIFICATIONS. OTHER CONCRETE SHALL BE CLASS "A" 3000 PSI CYLINDER STRENGTH IN 28 DAYS.
 - REFERENCE DRAINAGE DETAILS FOR PIPE TRENCH DETAILS, BOX CULVERT HEADWALL, AND WINGWALL CONSTRUCTION DETAILS, AND BOX CULVERT BEDDING AND EXCAVATION LIMITS.
 - CONTRACTOR SHALL GROUT ALL CURB INLETS AND JUNCTION BOXES TO PROVIDE POSITIVE DRAINAGE.
 - 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.
 - CONTRACTOR SHALL MATCH TOP OF CHANNEL TO NATURAL GROUND AND MAINTAIN A MINIMUM CHANNEL DEPTH OF "D" AS SHOWN IN THE PROFILE.

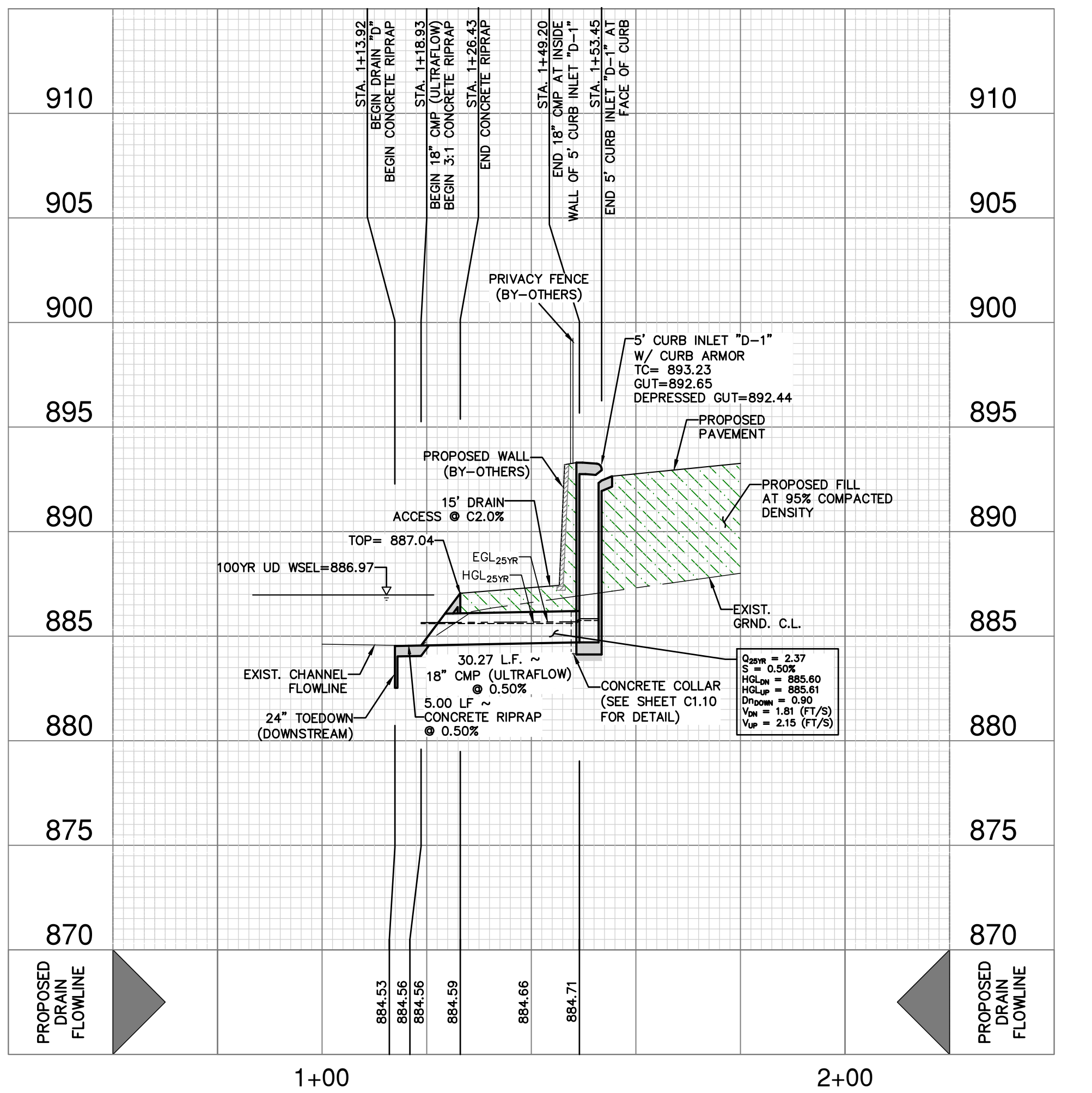
CAUTION!!
 CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITING TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

TRENCH EXCAVATION SAFETY PROTECTION:
 CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE 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/OR 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 SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

(PRIVATE) DRAIN "C" ~ STA. 1+00.00 TO END
 VERTICAL SCALE: 1" = 5'
 HORIZONTAL SCALE: 1" = 20'



(PRIVATE) DRAIN "D" ~ STA. 1+00.00 TO END
 VERTICAL SCALE: 1" = 5'
 HORIZONTAL SCALE: 1" = 20'



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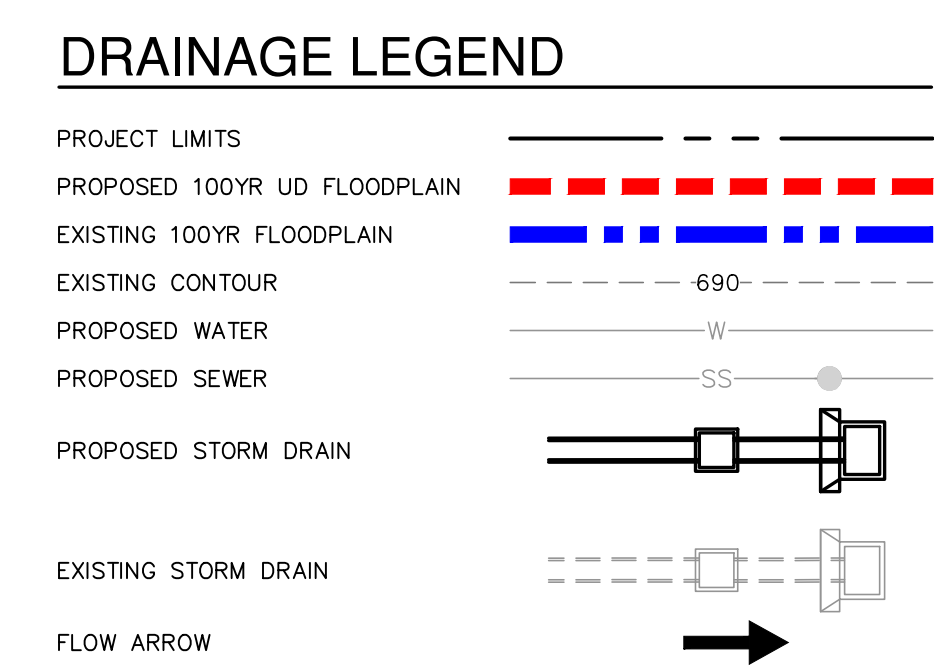
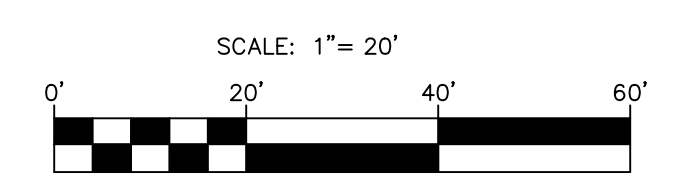
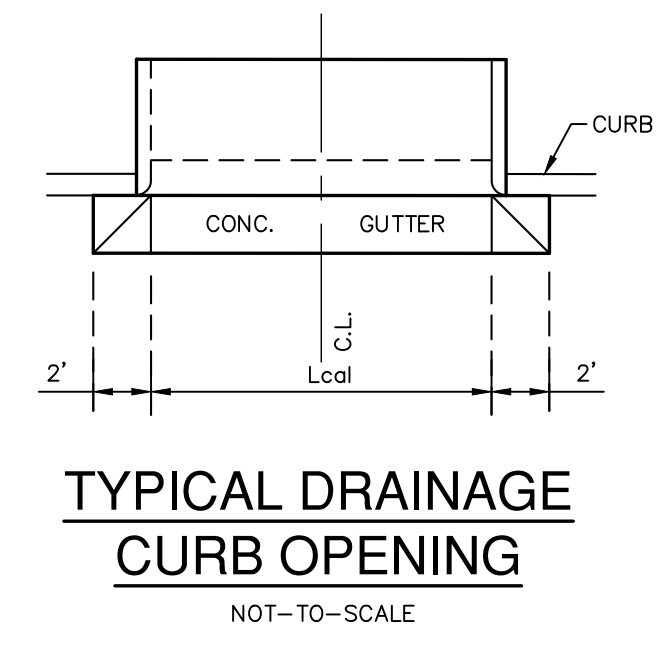
DATE: _____
 NO. REVISION: _____

Jon Adame
 2-10-24

PAPE-DAWSON
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

WILD PINE
 SAN ANTONIO, TEXAS
 (PRIVATE) DRAIN "C" ~ STA. 1+00.00 TO END
 (PRIVATE) DRAIN "D" ~ STA. 1+00.00 TO END
 DRAIN PLAN & PROFILE

PLAT NO. 25-11800373
 JOB NO. 13657-13
 DATE FEBRUARY 2026
 DESIGNER CB
 CHECKED JA DRAWN CB
 SHEET C1.03

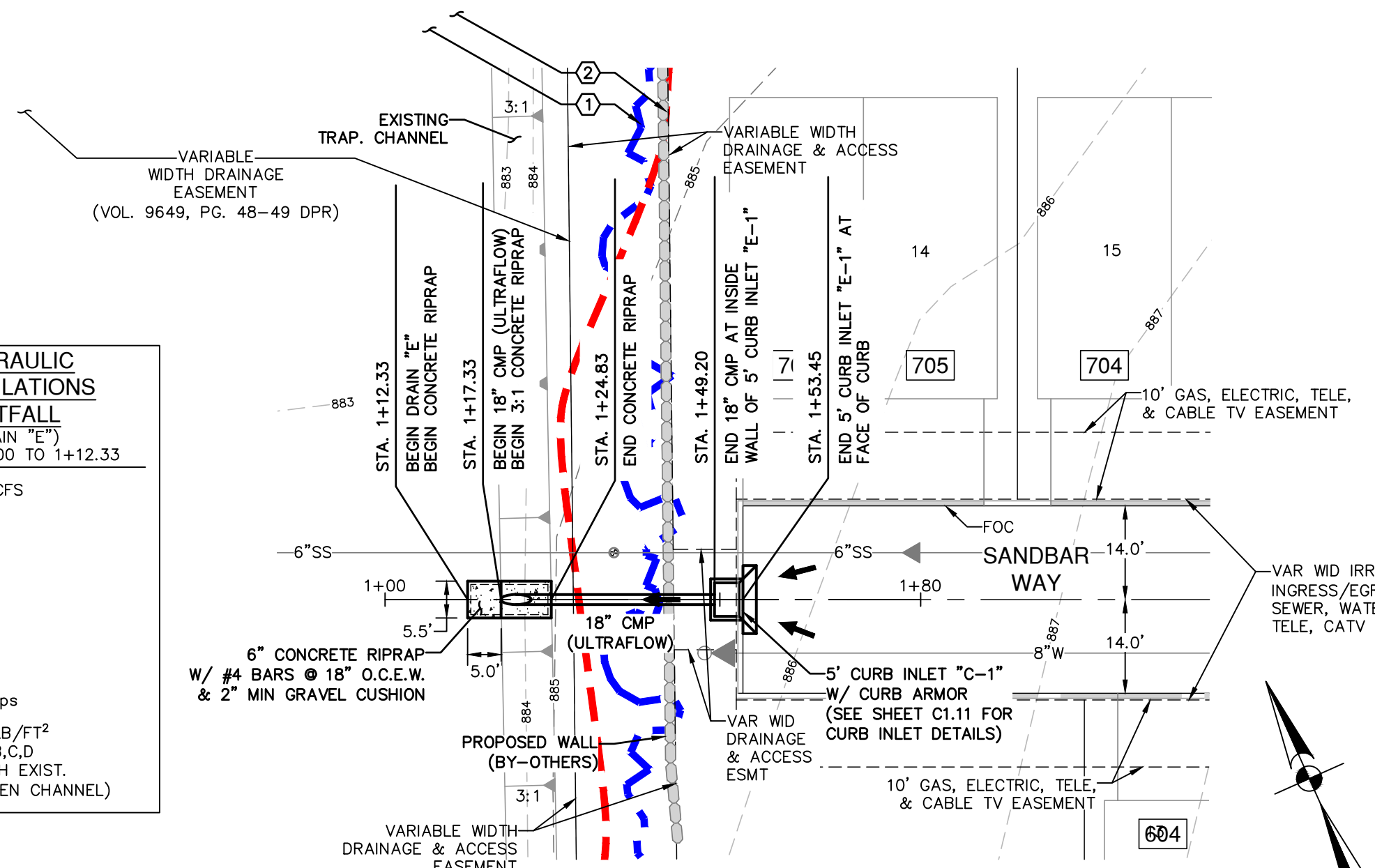


HYDRAULIC CALCULATIONS
CURB INLET "E-1"
CURB OPENING (DRAIN "E")

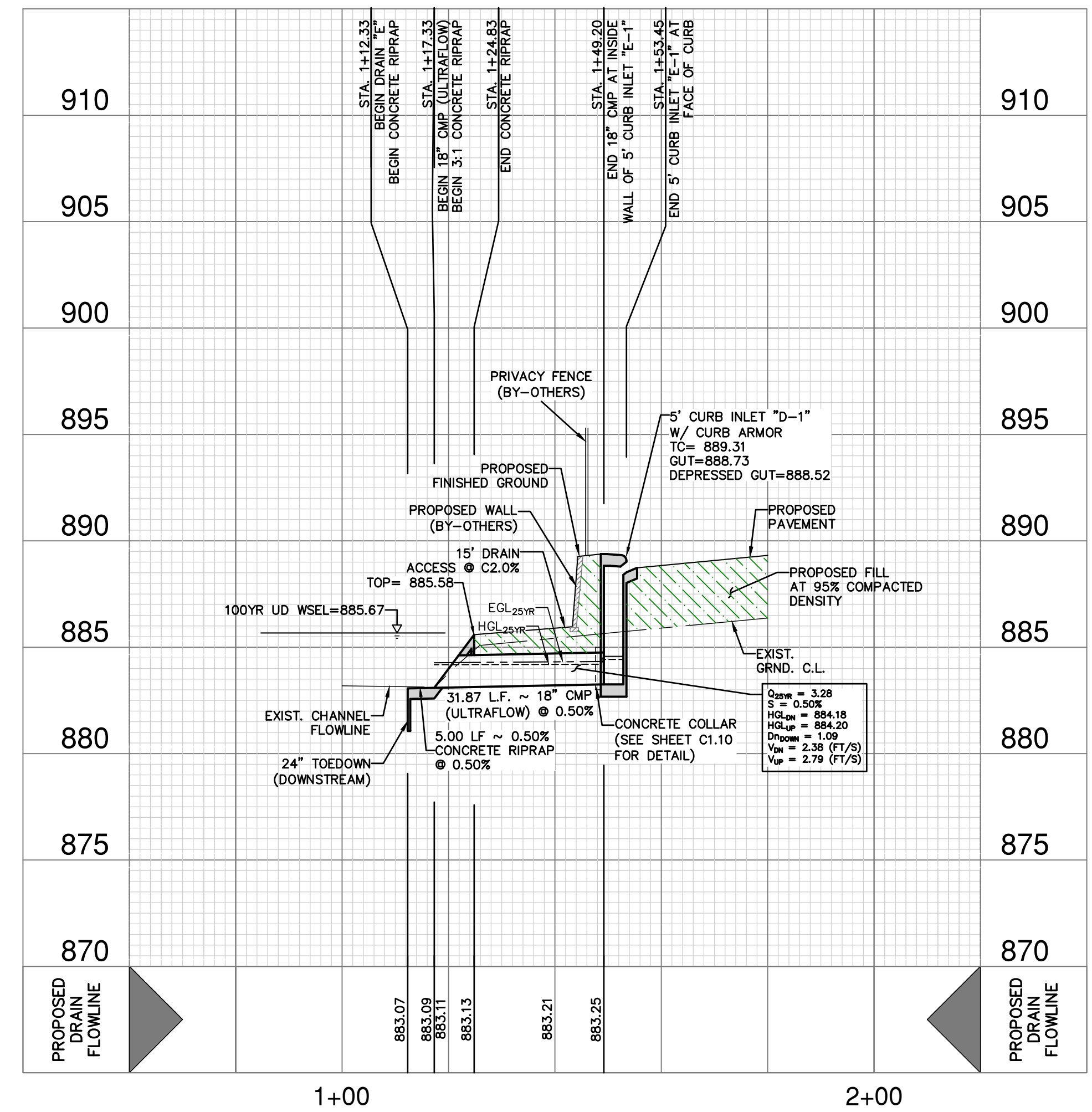
Q25 = 3.28 CFS
 $B_w = C \times L \times h^{3/2}$ (WER EQ.)
 $C = 3.087$
 $h = 0.79$ FT
 $C = \frac{Q}{B_w \times h}$
 $C = \frac{3.28 \text{ CFS}}{(3.087)(0.79 \text{ FT})^{3/2}}$
 $C = 1.51$ FT
 $L = \text{USE } 5' \text{ OPENING}$

HYDRAULIC CALCULATIONS
OUTFALL
(DRAIN "E")
STA. 1+00.00 TO 1+12.33

Q25 = 3.28 CFS
 $B_w = 5.5'$
 $n = 0.035$
 $S = 0.50\%$
 $D = 3.0'$
 $dn = 1.09'$
 $V = 2.52$ fps
 $T_d = 0.24 \text{ LB/FT}^2$
 $RC = B, C, D$
 (MATCH EXIST. EARTHEN CHANNEL)



VERTICAL SCALE: 1" = 5'
 HORIZONTAL SCALE: 1" = 20'



KEY NOTES LEGEND

- EFFECTIVE (EXISTING) FEMA 1% ANNUAL CHANCE (100-YR) FLOODPLAIN (FROM PANEL NO. 48029003556 EFFECTIVE 9-29-2010)
- 1% ANNUAL CHANCE (100-YR) ATLAS 14 UD CONDITIONS FLOODPLAIN (PAPE-DAWSON FLOOD STUDY)

OPEN CHANNEL NOTE:

CONTRACTOR SHALL REFERENCE TABLE 9.3.8.1 - "RETARDATION GLASS FOR LINING MATERIALS" PROVIDED ON SHEET C1.10 AND SUPPLIED RETARDANCE CLASS (RC) FOR CHOICE OF COVER WITHIN OPEN EARTHEN CHANNEL CROSS-SECTIONS.

DRAINAGE & GRADING NOTES:

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- CONTRACTOR SHALL GROUT ALL CURB INLETS AND JUNCTION BOXES TO PROVIDE FOR POSITIVE DRAINAGE.
- 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.
- CONTRACTOR SHALL MATCH TOP OF CHANNEL TO NATURAL GROUND AND MAINTAIN A MINIMUM CHANNEL DEPTH OF "D" AS SHOWN IN THE PROFILE.

CAUTION!!

CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITING TO: WATER, SEWER, TELEPHONE AND POWER 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-TEST 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.

TRENCH EXCAVATION SAFETY PROTECTION:

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE 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/OR 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 SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

DATE: _____

NO. REVISION: _____

Jon Adame
2-10-24

PAPE-DAWSON
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

WILD PINE
 SAN ANTONIO, TEXAS
 (PRIVATE) DRAIN "E" ~ STA. 1+00.00 TO END
 DRAIN PLAN & PROFILE

PLAT NO. 25-11800373
 JOB NO. 13657-13
 DATE FEBRUARY 2026
 DESIGNER CB
 CHECKED JA DRAWN CB
 SHEET C1.04

PRODUCT DATA SHEET CURLEX® ENFORCER®

DESCRIPTION
Curlex Enforcer is a biocomposite Turf Reinforcement Mat (TRM) that consists of a specific cut of naturally seed free Great Lakes Aspen curled wood excelsior with 80% six-inch fibers or greater fiber length. It is of consistent thickness with fibers evenly distributed throughout the entire area of the blanket. The top and bottom of each blanket is covered with extra heavy duty black net. Curlex Enforcer is also available as QuickGRASS® (green pigment). Curlex Enforcer shall be manufactured in the U.S.A.

Curlex Enforcer has a design soil loss ratio (event-based RUSLE C factor) of .022 and is typically suitable for slopes up to 5H:1V. Curlex Enforcer is rated for channel flows up to 11 ft/s (3.4 m/s); 3.25 lb/ft² (156 Pa) shear stress unvegetated or 17 ft/s (5.2 m/s); 10.0 lb/ft² (480 Pa) shear stress vegetated.

PHYSICAL PROPERTIES

Curlex Enforcer measurements at time of manufacturing:

| | |
|----------------------------|--------------------------------------|
| Width | 8.0 ft (2.4 m) |
| Length | 67.5 ft (20.6 m) |
| Area | 60.0 yd² (50.2 m²) |
| Weight* | 75.0 lb (34.1 kg) |
| Fiber Count | ≈12,000 per yd² |
| Fiber Length (80% min.) | ≈14,400 per m² |
| Mass per Unit Area (± 10%) | ≥6.0 in (≈15.2 cm) |
| Net Openings | 1.25 lb/yd² (0.68 kg/m²) |
| | 0.75 in x 1.0 in (19.1 mm x 25.4 mm) |

TYPICAL INDEX VALUES

| Index Property | Test Method | Value |
|--------------------------|------------------------|---|
| Thickness | ASTM D 6525 | 0.419 in (10.64 mm) |
| Light Penetration | ASTM D 6567 | 12.7% |
| Resiliency | ASTM D 1777/ECTC | 55% |
| Mass per Unit Area | ASTM D 6475 | 0.98 lb/yd² (0.532 kg/m²) |
| MD-Tensile Strength Max. | ASTM D 6818 | 612.0 lb/ft (8.93 kN/m) |
| TD-Tensile Strength Max. | ASTM D 6818 | 460.5 lb/ft (6.72 kN/m) |
| MD-Elongation | ASTM D 6818 | 19.5% |
| TD-Elongation | ASTM D 6818 | 27.3% |
| Swell | ECTC Procedure | 33% |
| Water Absorption | ASTM D 1117/ECTC | 170% |
| UV Stability | ASTM D 4355 (1,000 hr) | 90% minimum |
| Bench-Scale Rain Splash | ASTM D 7101 | SLR = 10.24 @ 2 in/hr ^{bc} |
| Bench-Scale Rain Splash | ASTM D 7101 | SLR = 10.51 @ 4 in/hr ^{bc} |
| Bench-Scale Rain Splash | ASTM D 7101 | SLR = 10.86 @ 6 in/hr ^{bc} |
| Bench-Scale Shear | ASTM D 7207 | 3.55 lb/ft² @ 0.5 in soil loss ^d |
| Germination Improvement | ASTM D 7322 | 486% |

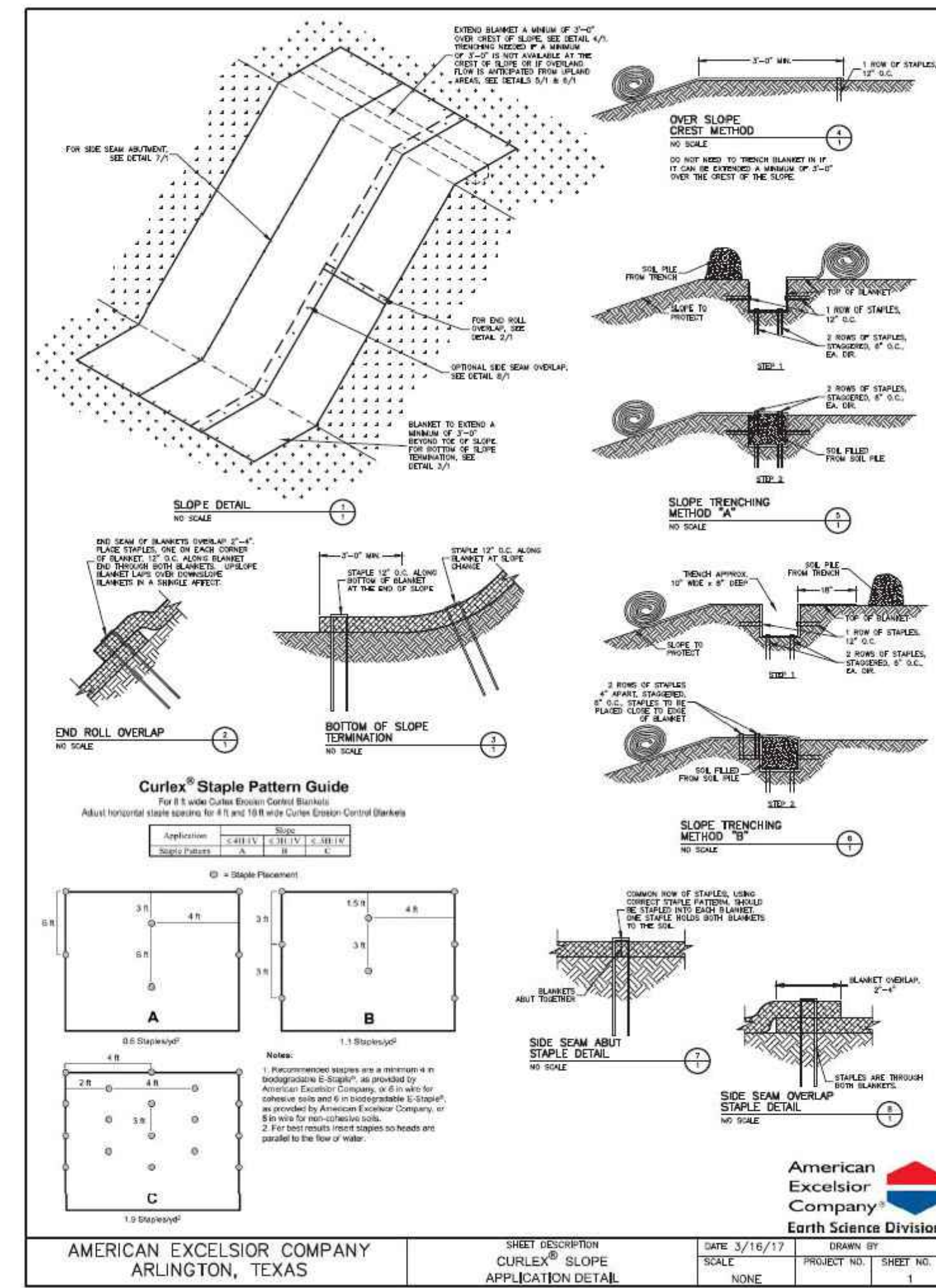
* Weight is based on a dry fiber weight basis at time of manufacture. Baseline moisture content of Great Lakes Aspen excelsior is 22%.

^b SLR is the Soil Loss Ratio, as reported by NTPEP/AASHTO. ^c Bench-scale index values should not be used for design purposes.



850 Avenue H East | Arlington, Texas 76011
Phone 1-800-777-SOIL | Fax 817-385-3585 | www.curlex.com

W0516R1116



American Excelsior Company Earth Science Division
Curlex® Blankets
Heavy Duty Excelsior Erosion Control Blankets

SUGGESTED SPECIFICATIONS

Choosing the Right Heavy Duty Curlex Product
Heavy Duty Excelsior Blankets are available in various fiber weights and netting combinations to match the appropriate job site requirements. Eighty percent of the Curlex fibers are six-inches or longer with consistent thickness and are evenly distributed over its entire area. Both the top and bottom side of the blankets are covered with black, extruded plastic mesh designed to provide strength beyond the service life of standard blankets. Curlex Excelsior blankets are naturally seed free and do not contain any chemical additives or foreign matter.

- Curlex III Specifications**
Recommended Use: Slopes to 1H:1V, channel bottom applications, Shear stress 120 Pa (2.5 lb/ft²) (unvegetated), 40 yd² (4' x 90'), 80 yd² (8' x 90'), 160 yd² (16' x 90')
- Roll Sizes:
Weight*: 0.98 lb/yd²
Netting: Black or FibreNet™, top and bottom
Color: Natural Aspen or QuickGRASS Green
- Curlex Enforcer Specifications**
Recommended Use: Slopes to .5H:1V, channel bottom applications, Shear stress 156 Pa (3.25 lb/ft²) (unvegetated), 480 Pa (10.0 lb/ft²) (vegetated), 60 yd² (8' x 67.5')
- Roll Sizes:
Weight*: 1.25 lb/yd²
Netting: Extra Heavy Duty Black, top and bottom
Color: Natural Aspen or QuickGRASS Green
- Curlex HV Specifications**
Recommended Use: Slopes to .75H:1V, channel bottom applications, Shear stress 156 Pa (3.25 lb/ft²) (unvegetated), 44.4 yd² (8' x 50')
- Roll Sizes:
Weight*: 1.62 lb/yd²
Netting: Heavy Duty Black or FibreNet™, top and bottom

*Weight is based on a dry fiber weight basis at time of manufacture. Baseline moisture content of Great Lakes Aspen Excelsior is 22%.

Installation
Before installing Curlex blankets, the seedbed shall be inspected by the Owner's Representative to ensure it has been properly compacted and fine graded to remove any existing rills. It shall be free of obstructions, such as tree roots, projections such as stones, and other foreign objects. Grass seed shall match soil conditions to allow for maximum germination, dense vegetation, and a structural root system. Contractor shall proceed when satisfactory conditions are present. After the area has been properly shaped, seeded, fertilized, and compacted, locate the start of the roll, making sure the roll is facing toward the area to be covered, and then roll out the blanket. Blankets shall be rolled out flat, even, and smooth without stretching the material then anchored to the subgrade. Slopes: It is recommended that the blankets be installed in the same direction as the water flow; however, on short slopes it may be more practical to install horizontally across the width of the application. If more than one width is required, simply abut the edges together and secure the blankets with a common row of biodegradable staples, steel staples, or stakes. Overlapping of Curlex excelsior blankets is not required or recommended. An exception is waterway slopes. Channels: Curlex blankets shall be centered to offset a seam in the middle of the waterway. They shall be installed in the same direction as the water flow. The adjoining blankets shall be installed away from the center of channel and concentrated water flow. They shall be secured by a common row of staples. It is usually not necessary to overlap Curlex blankets; however, a 2" single tie installation shall be used in waterway slopes applications. Curlex blanket installation should continue up the side slopes 3' above the anticipated high water elevation. Flanks exposed to runoff, or sheet flow, must be protected by a check slot or trenched. Curlex blankets shall be trenched at the start of the channel and anchored using a staggered staple pattern at end of roll overlaps and end of roll terminations.

Disclaimer: Curlex III, Curlex Enforcer, and Curlex HV is a system for erosion control and re-vegetation on slopes and channels. American Excelsior Company (AEC) believes that the information contained herein to be reliable and accurate for use in erosion control and re-vegetation applications. However, since physical conditions vary from job site to job site and even within a given job site, AEC makes no performance guarantee and assumes no obligation or liability for the reliability or accuracy of information contained herein for the results, safety, or suitability of using Curlex, or for damages occurring in connection with the installation of any erosion control product whether or not made by AEC or its affiliates, except as separately and specifically made in writing by AEC. These specifications are subject to change without notice.

If you would like to receive more information or consult with one of our Customer Care Center Specialists, please call us toll free at (888-352-9582) PDF download specifications available in the Technical Support Library at www.curlex.com



American Excelsior Company Earth Science Division
Curlex® Blankets
Heavy Duty Excelsior Erosion Control Blankets

Heavy Duty Curlex Blankets, for long-term protection against wind and water erosion, are a natural choice in place of stone or riprap in swales, ditch bottoms, and on long, steep slopes.

- MATERIAL CHARACTERISTICS**
- Curlex III**
0.98 lb/yd² of Great Lakes Aspen Excelsior Wood Fibers and two layers of netting designed to provide protection for grass seed and topsoil from wind and water erosion for up to 36 months, while simultaneously promoting ideal growing conditions.
- Curlex Enforcer**
1.25 lb/yd² of Great Lakes Aspen Excelsior Wood Fibers and two layers of extra heavy duty UV stabilized netting designed to provide permanent service life and reinforcement between established vegetation and root systems on slopes and in channel bottoms. Curlex Enforcer is a biocomposite turf reinforcement mat (TRM).
- Curlex High Velocity**
1.62 lb/yd² of Great Lakes Aspen Excelsior Wood Fibers and two layers of heavy duty netting designed to provide extended protection for grass seed and topsoil from wind and water erosion for approximately 36+ months, while simultaneously promoting ideal growing conditions on steep, long slopes and/or in channel applications.

Curlex heavy duty excelsior blankets are available individually wrapped or in master packs to allow for mechanical unloading and stacking.

PERFORMANCE CAPABILITIES

Curlex heavy duty blankets can handle wind and water shear even on steep slopes. These heavy duty blankets provide long-term protection in critical areas where vegetation requires additional time and protection to develop.

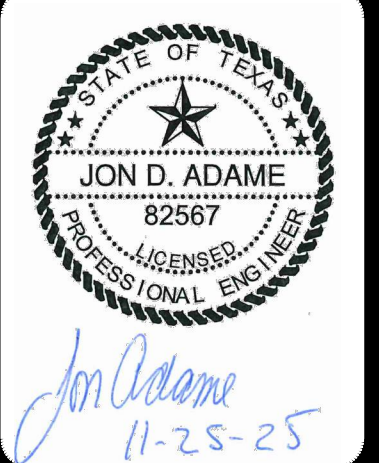
| Blanket | Channels | Shear Stress: | Grade: |
|-----------------|----------|------------------------------------|--------------|
| Curlex III | Slopes | 120 Pa (2.5 lb/ft²) (unvegetated) | up to 1H:1V |
| | Slopes | 156 Pa (3.25 lb/ft²) (unvegetated) | up to 1H:1V |
| Curlex Enforcer | Slopes | 480 Pa (10.0 lb/ft²) (vegetated) | up to 50H:1V |
| | Slopes | 156 Pa (3.25 lb/ft²) (unvegetated) | up to 75H:1V |

TYPICAL APPLICATIONS

Channel bottoms, swales, steep slopes, led down structures, drop structures, and other areas associated with concentrated water flow exceeding the performance capability and service life of a standard biodegradable blanket.



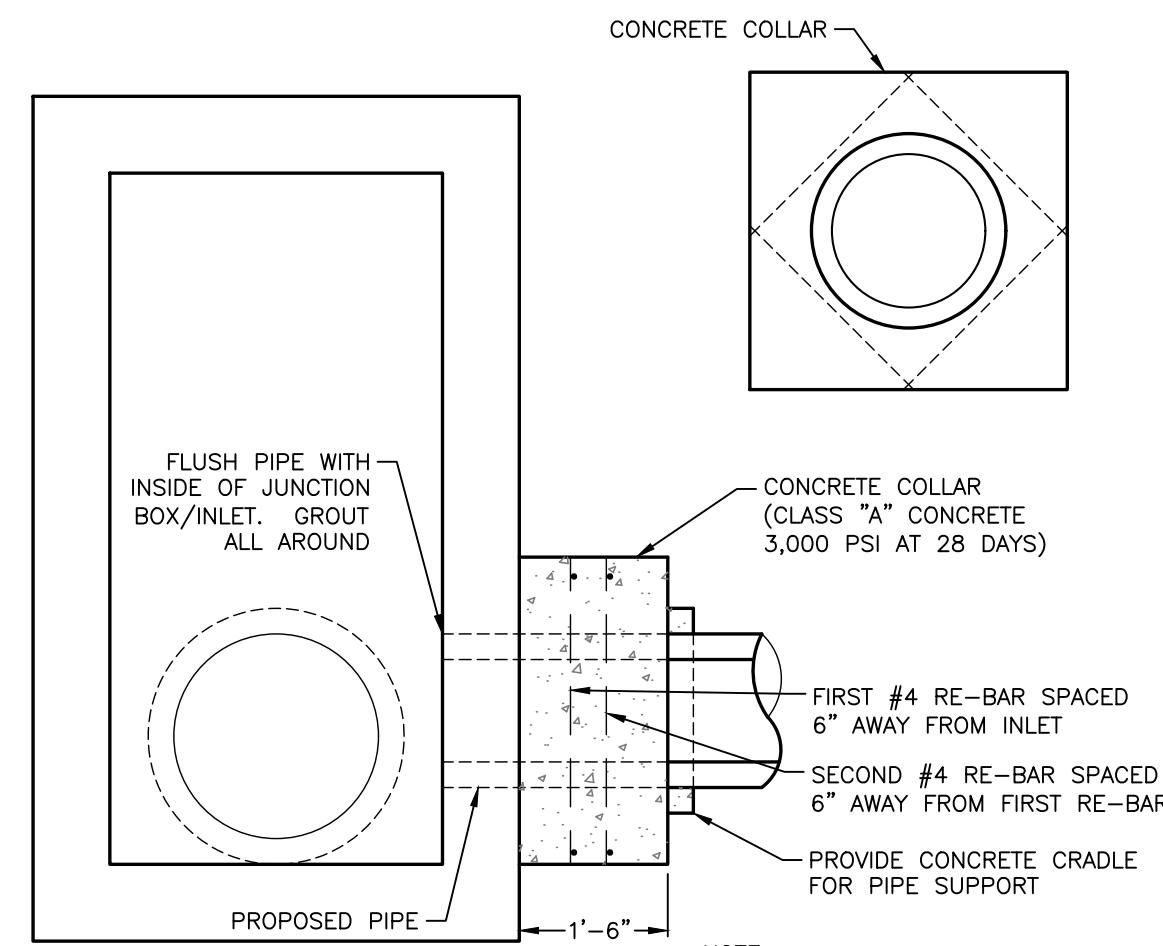
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| DATE | |
| NO. | |
| REVISION | |



PAPE - DAWSON
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

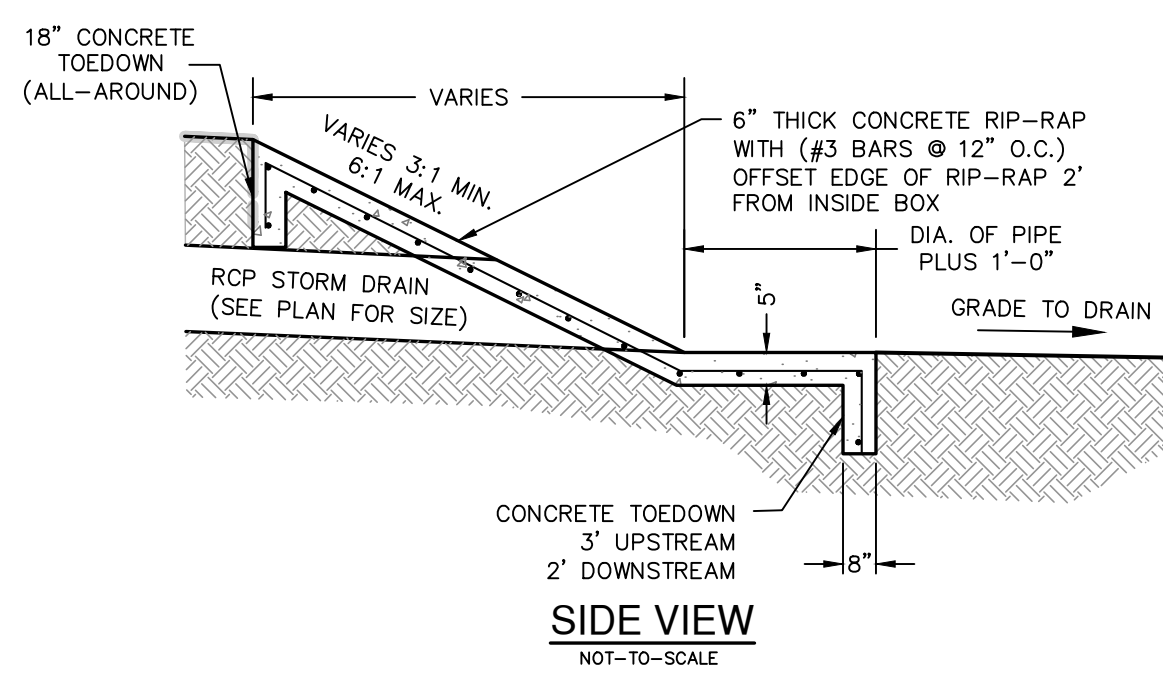
WILD PINE
SAN ANTONIO, TEXAS
DRAIN DETAILS

| | |
|----------|---------------|
| PLAT NO. | 25-11800373 |
| JOB NO. | 13657-13 |
| DATE | NOVEMBER 2025 |
| DESIGNER | CB |
| CHECKED | JA DRAWN CB |
| SHEET | C1.10 |



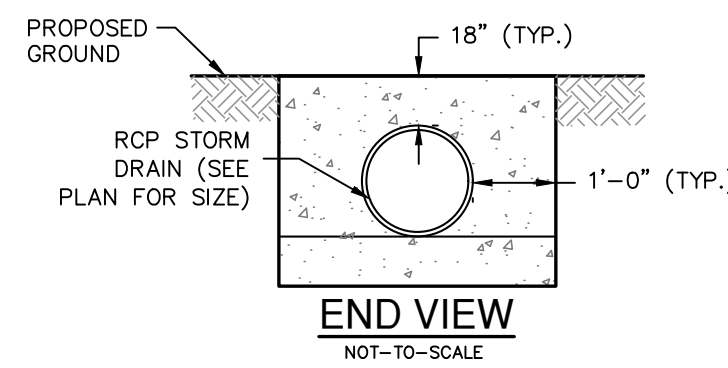
CONCRETE COLLAR DETAIL

NOT-TO-SCALE



SIDE VIEW

NOT-TO-SCALE

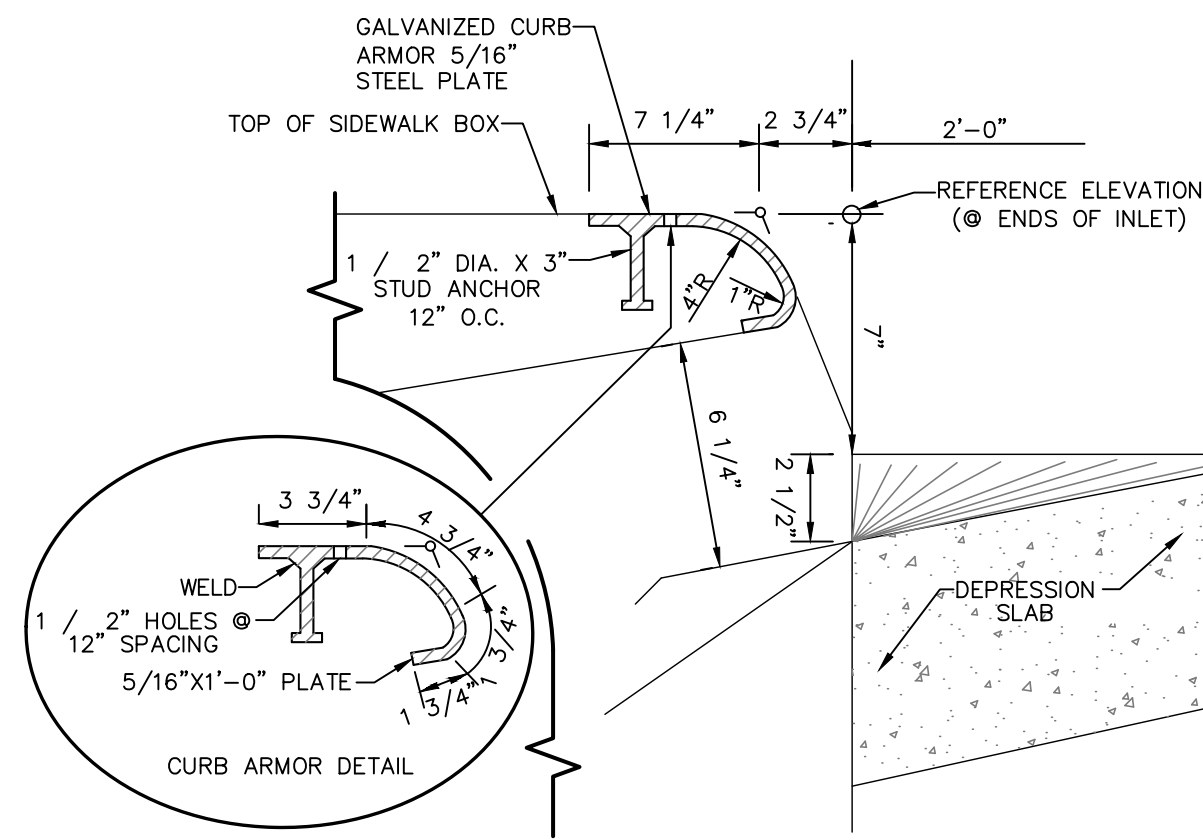


END VIEW

NOT-TO-SCALE

DRAINAGE CONCRETE RIP RAP DETAIL

NOT-TO-SCALE



CURB ARMOR DETAIL

NOT-TO-SCALE

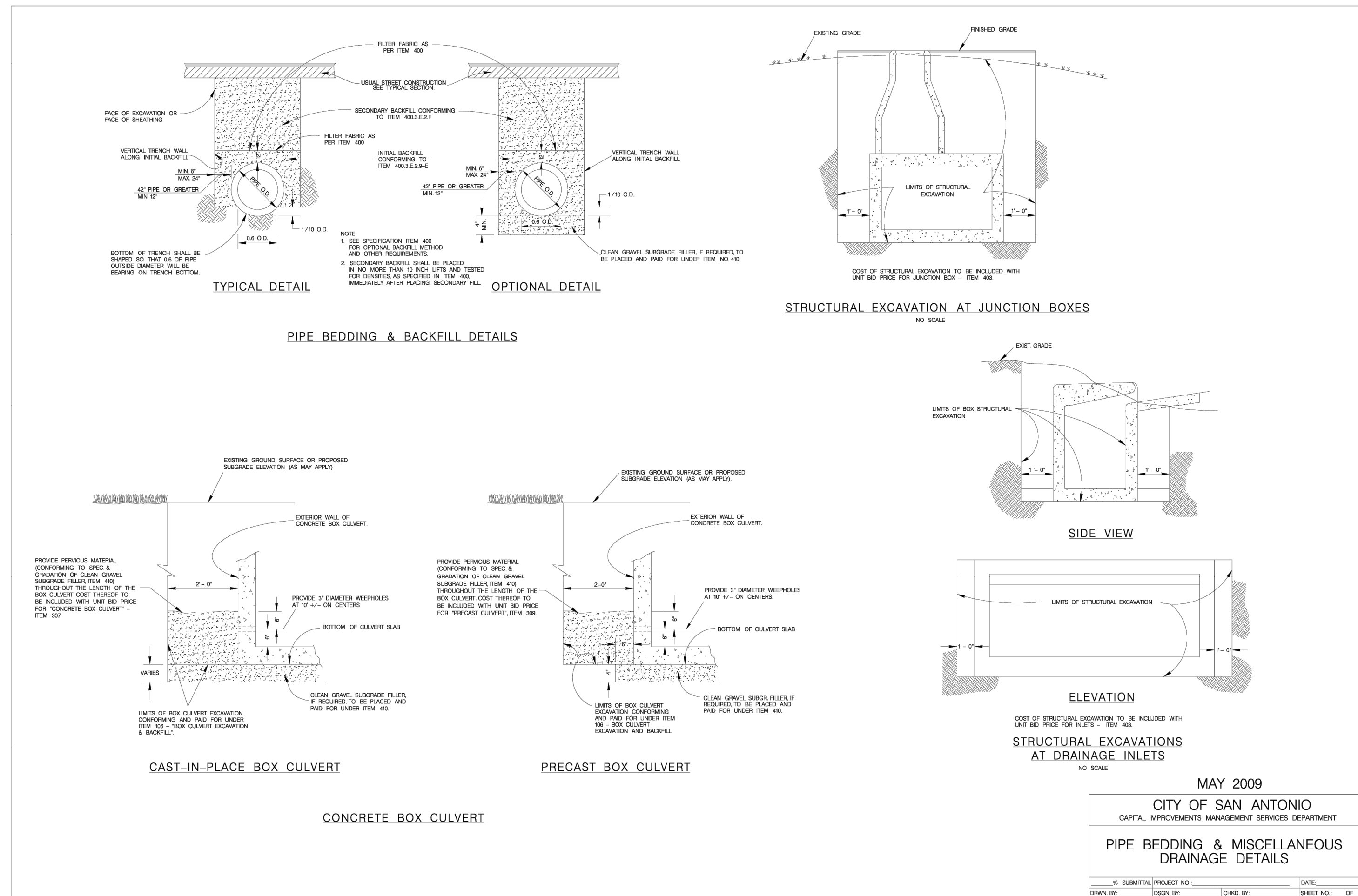


Table 9.3.8.1 - Retardance Class for Lining Materials
(Source TXDOT - Hydraulic Design Manual, Chapter 7, Section 3 - Roadside Channel Design)

| Retardance Class | Permissible Shear Stress (t) (lbs./sq.ft.) | Cover | Condition |
|------------------|--|---|--|
| B | 2.1 | Bermuda grass | Good stand, tall (average 12 in. or 305 mm) |
| | | Native grass mixture | Good stand, unmowed |
| | | little bluestem, bluestem, blue gamma, other short and long stem midwest grasses | |
| | | Lespedeza sericea | Good stand, not woody, tall (Average 19 in. or 480 mm) |
| | | Alfalfa | Good stand, uncut (Average 11 in. or 280 mm) |
| C | 1.1 | Blue gamma | Good stand, uncut (Average 11 in. or 280 mm) |
| | | Crabgrass | Fair stand, uncut (10-to-48 in. or 55-to-1220 mm) |
| | | Bermuda grass | Good stand, mowed (average 6 in. or 150 mm) |
| | | Common lespedeza | Good Stand, uncut (average 11 in. Or 280 mm) |
| | | Grass-legume mixture: summer (orchard grass redtop, Italian ryegrass, and common Lespedeza) | Good Stand, uncut (6-8 in. or 150-200 mm) |
| D | 0.6 | Centipede grass | Very dense cover (average 6 in. or 150 mm) |
| | | Kentucky bluegrass | Good stand, headed (6-12 in. or 150-305 mm) |
| | | Bermuda grass | Good stand, cut to 2.5 in. or 65 mm |
| | | Common lespedeza | Excellent stand, uncut (average 4.5 in. or 115 mm) |
| | | Buffalo grass | Good stand, uncut (3-6 in. or 75-150 mm) |
| E | 0.35 | Grass-legume mixture: fall, spring (orchard grass Italian ryegrass, and common lespedeza) | Good stand, uncut (4-5 in. or 100-125 mm) |
| | | Lespedeza sericea | After cutting to 2 in. or 50 mm (very good before cutting) |
| | | Bermuda grass | Good stand, cut to 1.5 in. or 40 mm |
| | | Bermuda grass | Burned Stubble |
| | | 2.5 | Rock D60 = 6 in. or 150 mm |
| | 5.0 | Rock D60 = 12 in. or 300 mm | |
| | 2.5 | Type III Curlex Soil Retention Blanket | |

DATE: _____

NO. REVISION: _____

STATE OF TEXAS
JON D. ADAME
 82567
 LICENSED SURVEYOR
 PROFESSIONAL ENGINEER

Jon Adame
11-25-25

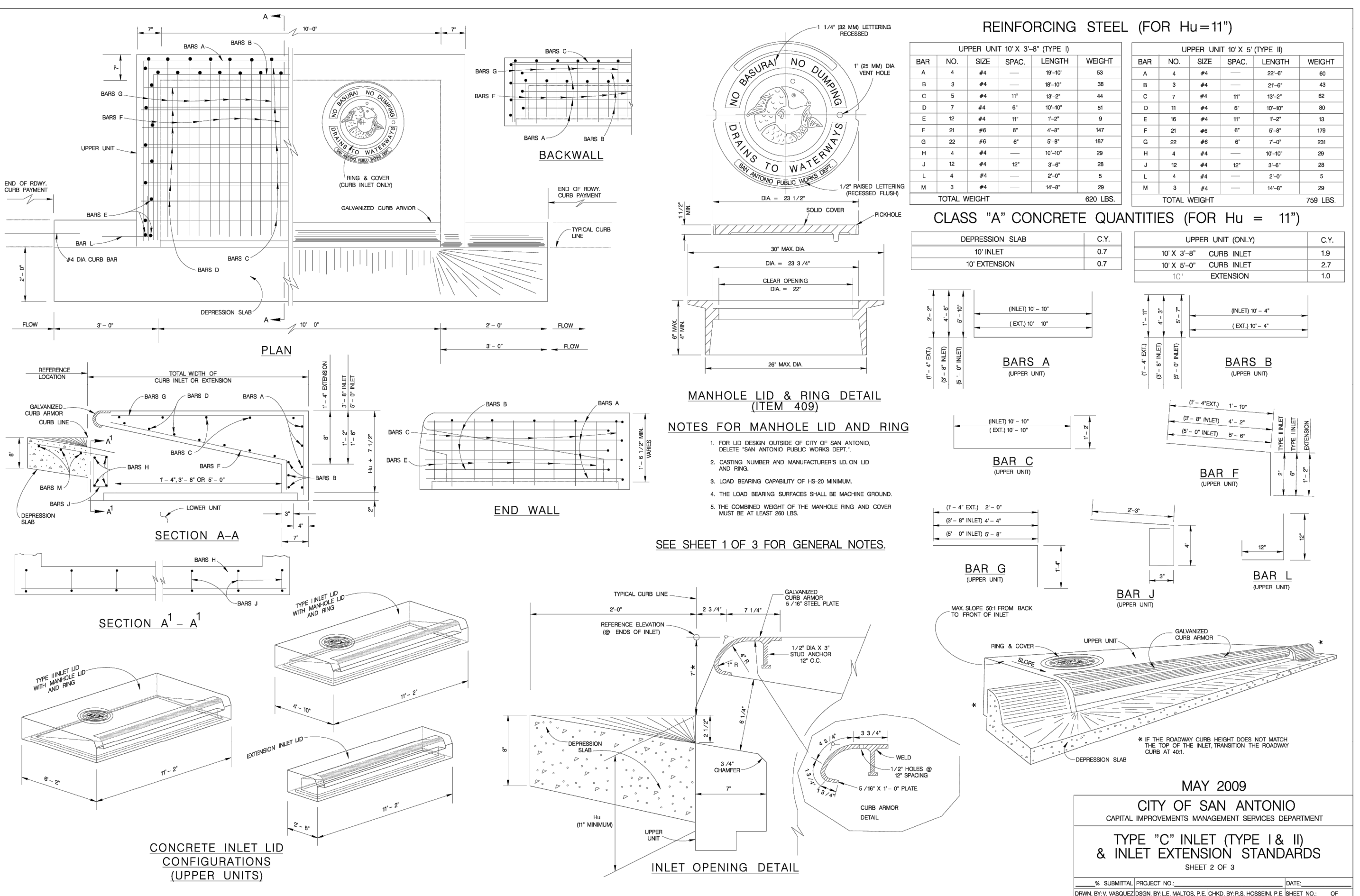
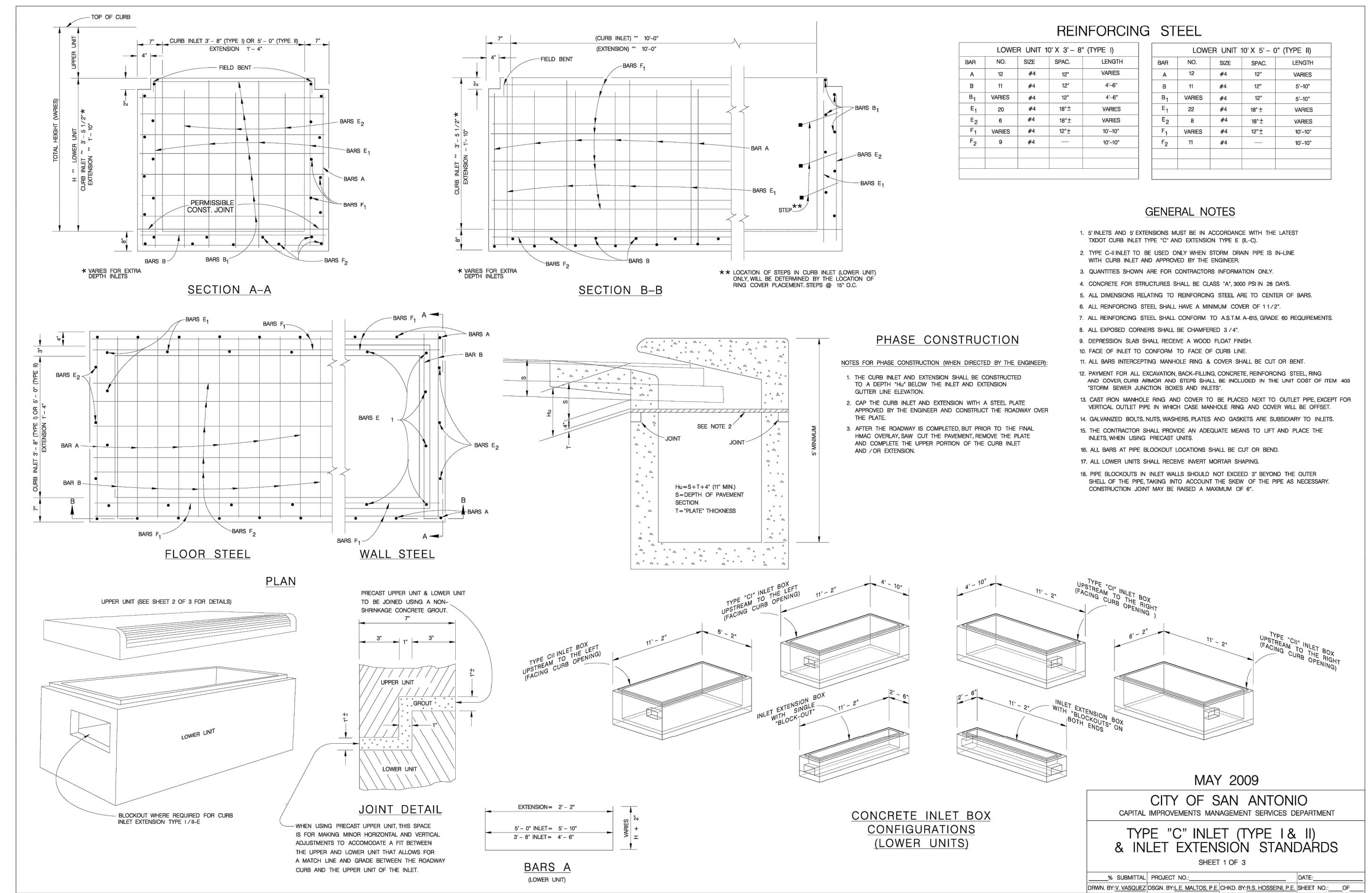
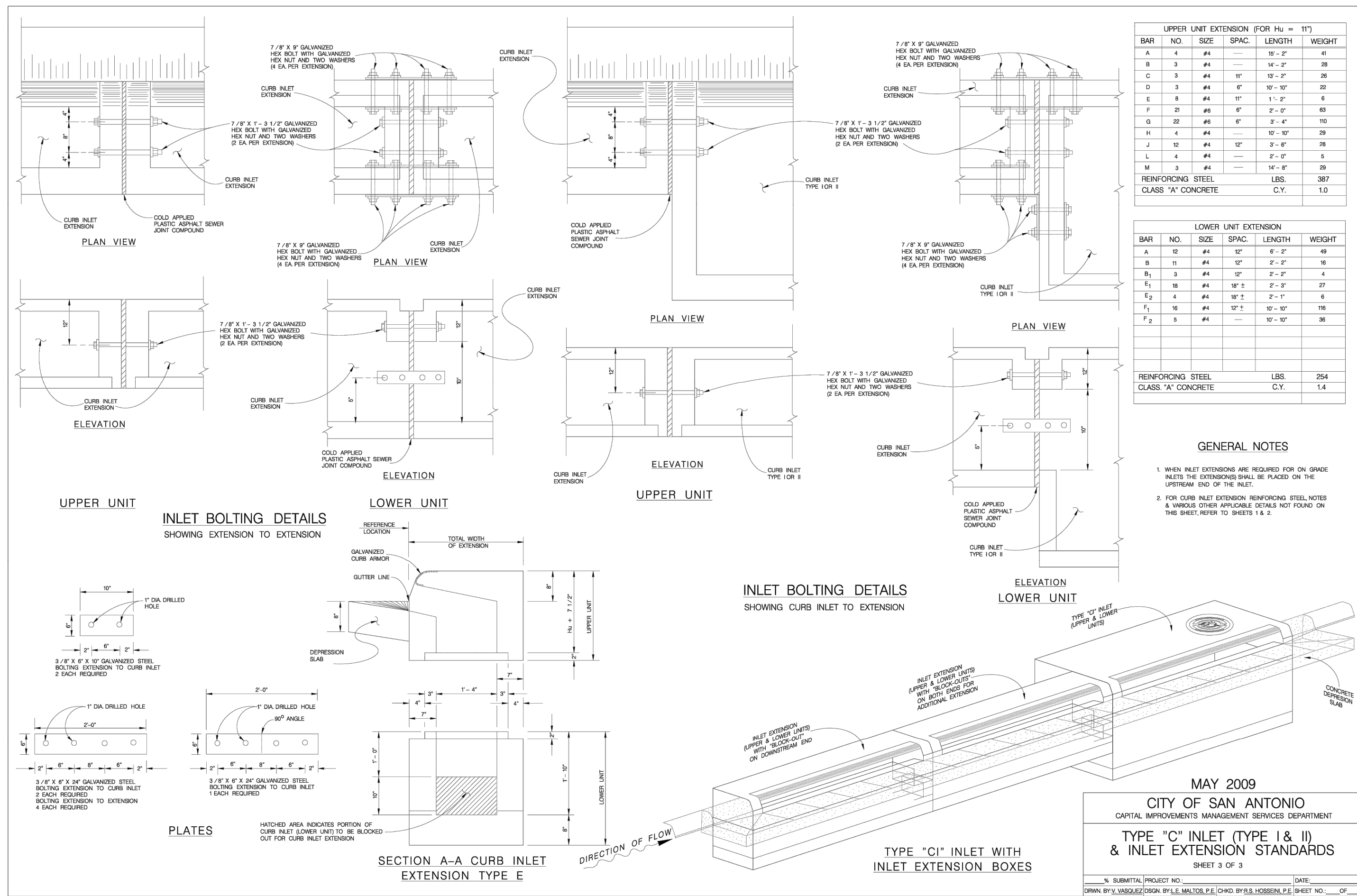
PAPE-DAWSON
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

WILD PINE
 SAN ANTONIO, TEXAS
 DRAIN DETAILS

PLAT NO. 25-11800373
 JOB NO. 13657-13
 DATE NOVEMBER 2025
 DESIGNER -
 CHECKED - DRAWN -
 SHEET C1.11

Date: Nov 05, 2025, 7:16am User: jf...
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***ALL CURB INLETS TO BE INSTALLED WITH CURB ARMOR (SEE SHEET C1.10 FOR CURB ARMOR DETAILS)**

DATE: _____

NO. REVISION: _____

STATE OF TEXAS
 JON D. ADAME
 82567
 LICENSED PROFESSIONAL ENGINEER

Jon Adame
 11-25-25

PAPE-DAWSON
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM # 10028800

WILD PINE
 SAN ANTONIO, TEXAS
 DRAIN DETAILS

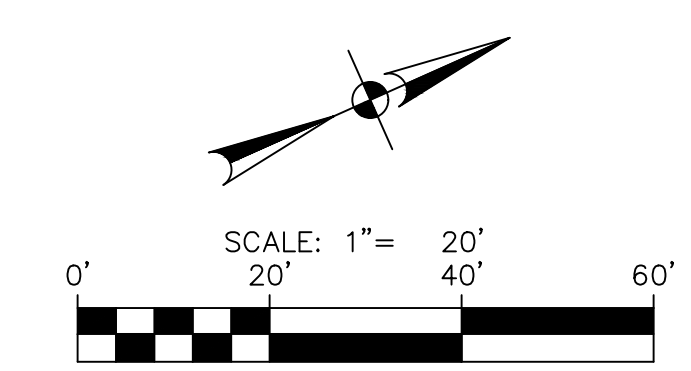
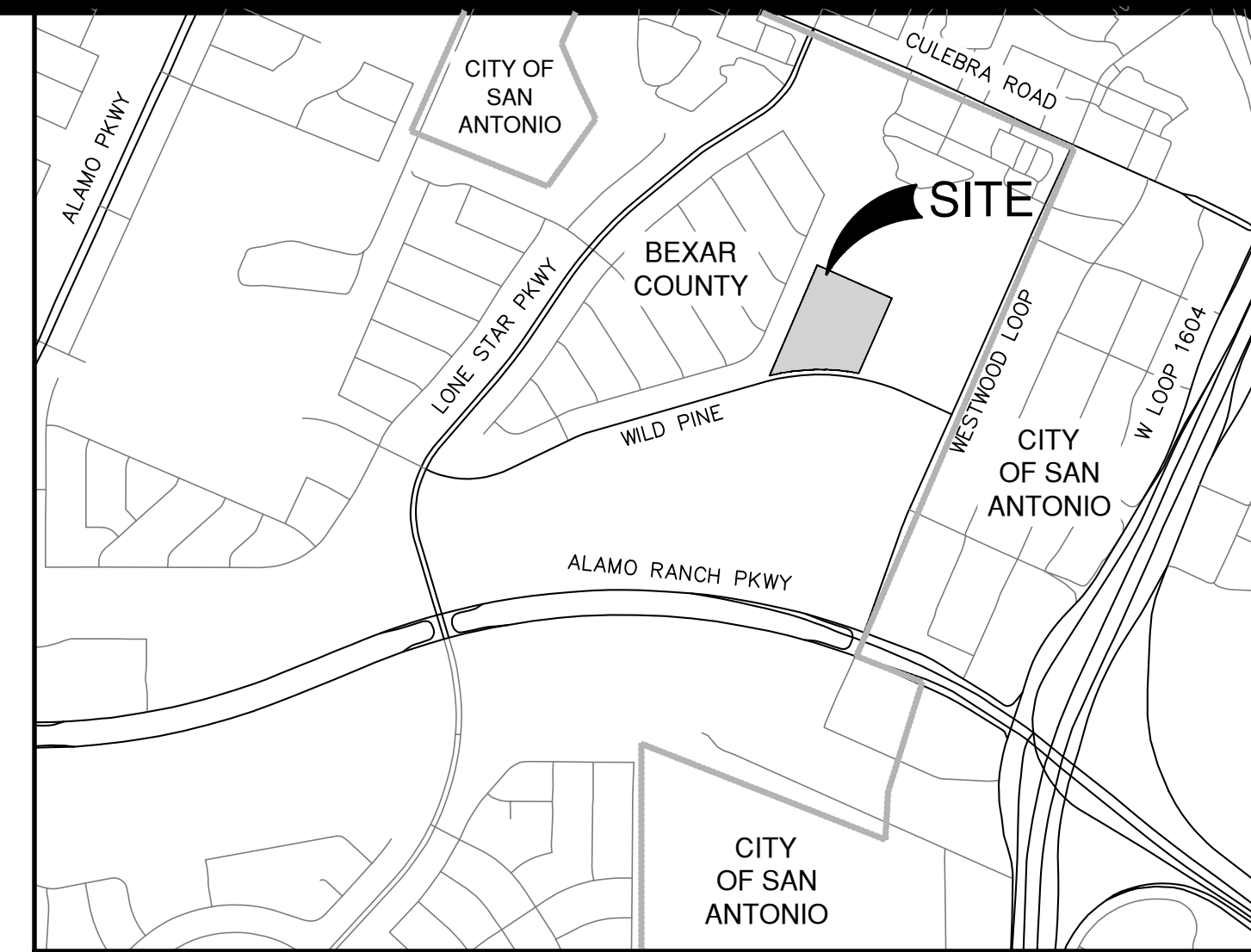
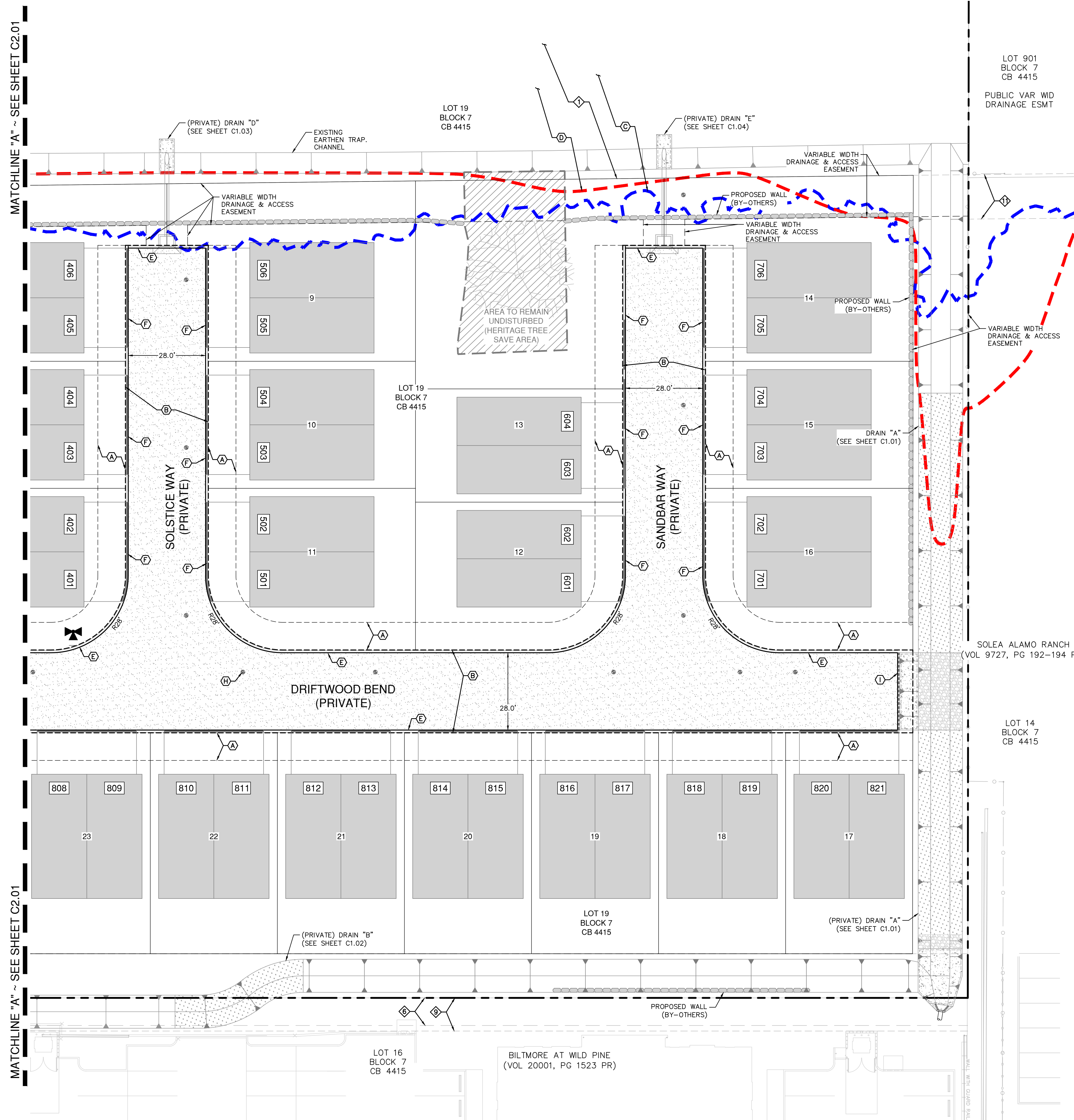
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 JOB NO. 13657-13
 DATE NOVEMBER 2025
 DESIGNER _____
 CHECKED _____ DRAWN _____
 SHEET C1.12

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MATCHLINE "A" ~ SEE SHEET C2.01

MATCHLINE "A" ~ SEE SHEET C2.01



LEGEND
NOT-TO-SCALE

| | |
|---|-----|
| PROJECT LIMITS | --- |
| 100 YR FEMA EFFECTIVE FLOODPLAIN | --- |
| 100 YR ULTIMATE DEVELOPMENT FLOODPLAIN (PAPE-DAWSON FP) | --- |
| RETAINING WALL (BY OTHERS) | --- |
| PROPOSED FIRE HDRANT | --- |
| ASPHALT PAVEMENT (SEE DETAIL SHEET C2.10) | --- |
| PROPOSED 7" STD. CURB | --- |
| PROPOSED LOW CURB AT DRIVEWAY | --- |

NOTE:
SEE SHEET C0.10 FOR CONSTRUCTION NOTES.

KEY NOTES LEGEND

| | |
|---|---|
| ⊕ 10' GAS, ELEC, TELE AND CATV ESMT (VOL 9649, PG 48-49, DPR) | ⊕ VAR WID DRAINAGE ESMT (VOL 9649, PG 48-49, DPR) |
| ⊕ VAR WID IRREVOCABLE INGRESS/EGRESS, DRAINAGE, SEWER, WATER, GAS, ELEC, TELE, CATV AND CLEAR VISION ESMT (VOL 9614, PG 110-112, DPR) | ⊕ 14' ELEC, GAS, TEL, CATV AND OH ESMT (VOL 9614, PG 110-112, DPR) |
| ⊕ EFFECTIVE (EXISTING) FEMA 1% ANNUAL CHANCE (100-YR) FLOODPLAIN (FIRM PANEL NO. 48029C0355G EFFECTIVE 9-29-2010) | ⊕ 135' ELEC ESMT AND ROW (VOL 6187, PG 265-268, DR) |
| ⊕ 1% ANNUAL CHANCE (100-YR) ATLAS 14 UD CONDITIONS FLOODPLAIN (PAPE-DAWSON FLOOD STUDY) | ⊕ 20' SANITARY SEWER ESMT (VOL 15789, PG 1574, OPR) |
| ⊕ 7" STD. CURB (SEE DETAIL SHEET C2.10) | ⊕ 70' ROW (VOL 9649, PG 48-49, DPR) |
| ⊕ LOW CURB AT DRIVEWAY (SEE DETAIL SHEET C2.10 FOR CURB PROFILE AT DRIVEWAY) | ⊕ 10' SIDE BUILDING SETBACK (VOL 20001, PG 1523, PR) |
| ⊕ TIE TO EXISTING CURB | ⊕ 14' GAS, ELEC, TELE AND CATV ESMT (VOL 20001, PG 1523, PR) |
| ⊕ CLEANOUT FRAME AND LID FLUSH WITH PAVEMENT (TYP) (SEE DETAIL SHEET C5.10) | ⊕ 20' FRONT BUILDING SETBACK (VOL 9649, PG 48-49, DPR) |
| ⊕ 7" SAWTOOTH CURB (SEE DETAIL SHEET C2.10) | ⊕ 12' ELEC ESMT (DOC NO 20190060792 OPR) |
| | ⊕ 16' ELEC ESMT (DOC NO 20190060773 OPR) |
| | ⊕ 15' PUBLIC DRAINAGE ESMT (VOL 9727, PG 192-194 PR) |
| | ⊕ GREENBELT AND 15' SANITARY SEWER, DRAINAGE, GAS, ELEC, TELE, WATER, CATV AND ACCESS ESMT (VOL 9651, PG 95-97 DPR) |
| | ⊕ 16' ELEC, GAS, TELE, AND CATV ESMT (VOL 9651, PG 95-97 DPR) |

SITE / PARKING SUMMARY TABLE

| | |
|----------------------------|--|
| BUILDING USE | SINGLE FAMILY DETACHED (26 UNITS) (57 DWELLINGS) |
| PARKING STORAGE STANDARDS: | |
| MINIMUM PARKING RATIO | 1 PER DWELLING |
| MAXIMUM PARKING RATIO | N/A |
| REGULAR: | |
| MINIMUM REQUIRED | 57 |
| ACTUAL/PROPOSED PARKING | |
| • GARAGE PARKING | 57 |
| • SURFACE PARKING | 0 |
| • TOTAL: | 57 |

| | |
|--------------|--|
| DATE | |
| NO. REVISION | |

PAPE-DAWSON
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

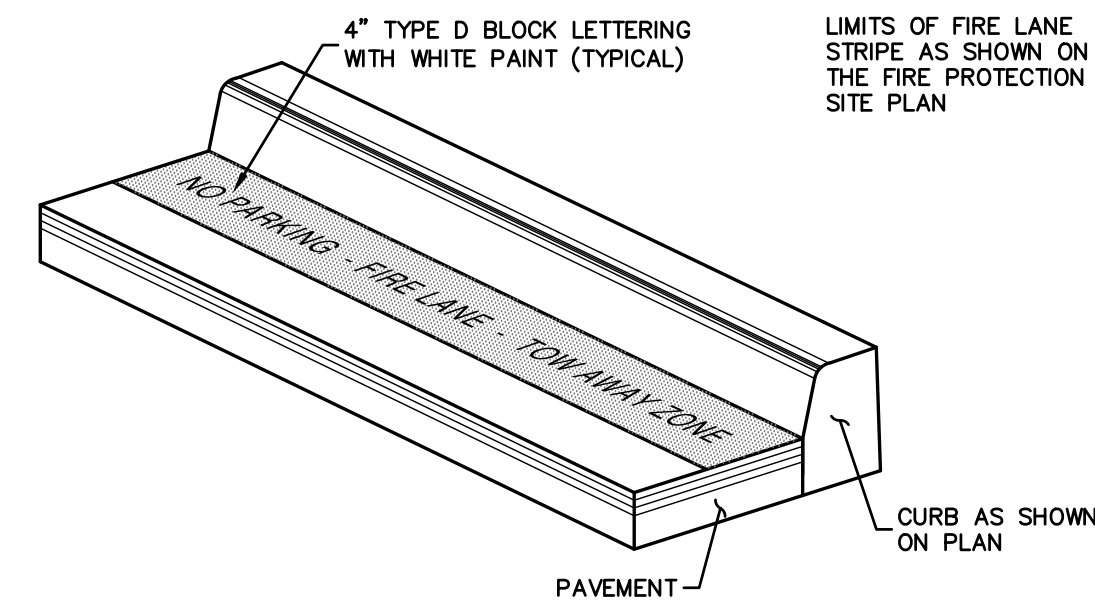
WILD PINE
 SAN ANTONIO, TEXAS
 SITE & DIMENSIONAL CONTROL PLAN

PLAT NO. 25-11800373
 JOB NO. 13657-13
 DATE FEBRUARY 2026
 DESIGNER CB
 CHECKED JA DRAWN CB
 SHEET C2.01



SIGNAGE NOTES:

- SIGNS SHALL BE MIN SIZE 12"x18" AND HAVE RED LETTERS ON A WHITE REFLECTIVE BACKGROUND.
- SIGNS SHALL BE MOUNTED WITH THE BOTTOM EDGE OF THE SIGN AT LEAST SEVEN (7) FEET ABOVE GRADE AND AT LEAST TWO (2) FEET FROM CURB EDGE.
- SIGNS SHALL BE PLACED AS FOLLOWS:
 - FIRE LANE SIGNS SHALL BE POSTED ON BOTH SIDES OF FIRE APPARATUS ROADS THAT ARE 20 TO 26 FEET WIDE
 - FIRE LANE SIGNS SHALL BE POSTED ON ONE SIDE OF FIRE APPARATUS ACCESS ROADS MORE THAN 26 FEET WIDE AND LESS THAN 32 FEET WIDE
- SIGNS TO BE PLACED IN ACCORDANCE WITH THE 2021 INTERNATIONAL FIRE CODE AND SAN ANTONIO'S FIRE CODE AMENDMENTS. THE CONTRACTOR SHALL COORDINATE WITH THE FIRE INSPECTOR FOR APPROVED SIGN LOCATIONS.

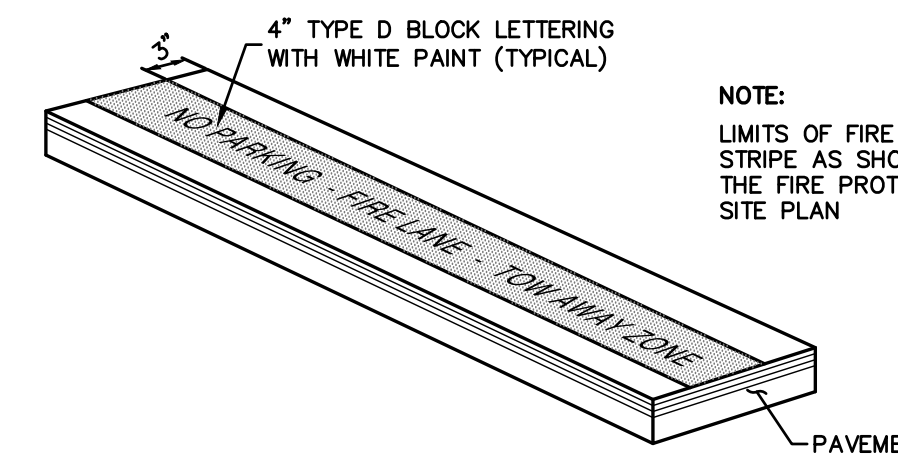


NOTE:
LIMITS OF FIRE LANE STRIPE AS SHOWN ON THE FIRE PROTECTION SITE PLAN

APP LOCATION:

- PAIN A 6" WIDE RED STRIPE LOCATED AT EDGE OF PAVEMENT WITH 4" WHITE LETTERING ON RED STRIPE.
- SEE THIS SHEET FOR CURB TYPES & LOCATIONS.
- 40 FOOT SPACING BETWEEN THE BEGINNING OF THE WHITE LETTERING.
- WHERE NO CURB EXISTS: *PAINT A 6" WIDE RED STRIPE LOCATED 3" OFF EDGE OF PAVEMENT WITH 4" WHITE LETTERING ON RED STRIPE.

BEXAR COUNTY FIRE LANE MARKING DETAIL
NOT-TO-SCALE

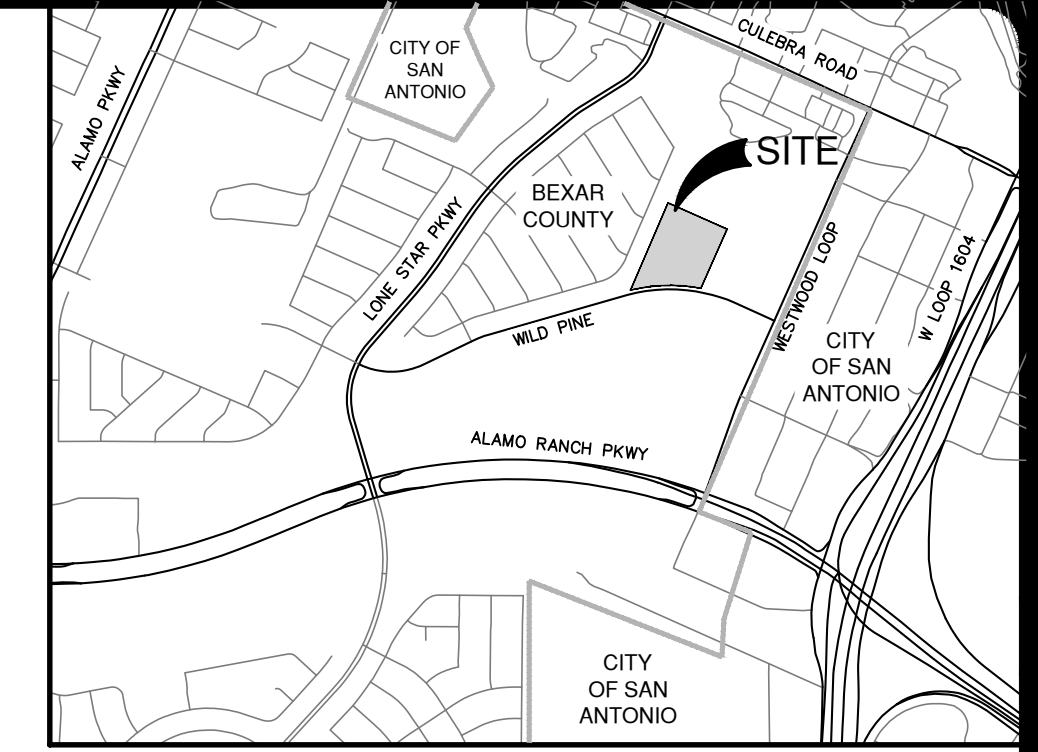


NOTE:
LIMITS OF FIRE LANE STRIPE AS SHOWN ON THE FIRE PROTECTION SITE PLAN

APPLICATION:

- PAIN A 6" WIDE RED STRIPE LOCATED 3" OFF EDGE OF PAVEMENT WITH 4" WHITE LETTERING ON RED STRIPE.
- SEE THIS SHEET FOR CURB TYPES & LOCATIONS.
- 40 FOOT SPACING BETWEEN THE BEGINNING OF THE WHITE LETTERING.

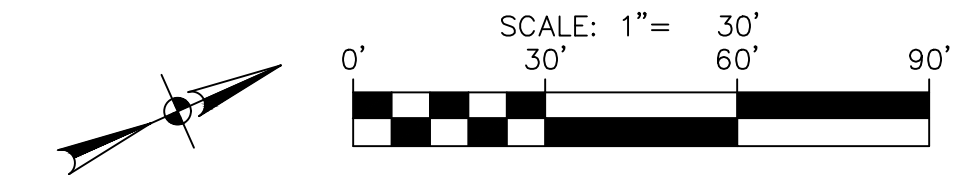
BEXAR COUNTY FIRE LANE MARKING DETAIL - NO CURB
NOT-TO-SCALE



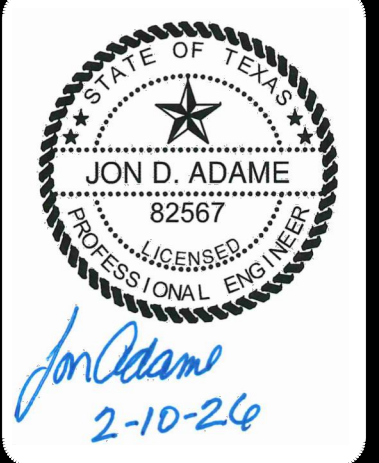
LOCATION MAP
NOT-TO-SCALE

LEGAL DESCRIPTION:
LOT: 1, BLOCK: 7, C.B.: 4415
(PLAT NO. 25-118XXXX)

ADDRESS:
WILD PINE
SAN ANTONIO, TX



| NO. | REVISION | DATE |
|-----|----------|------|
| | | |

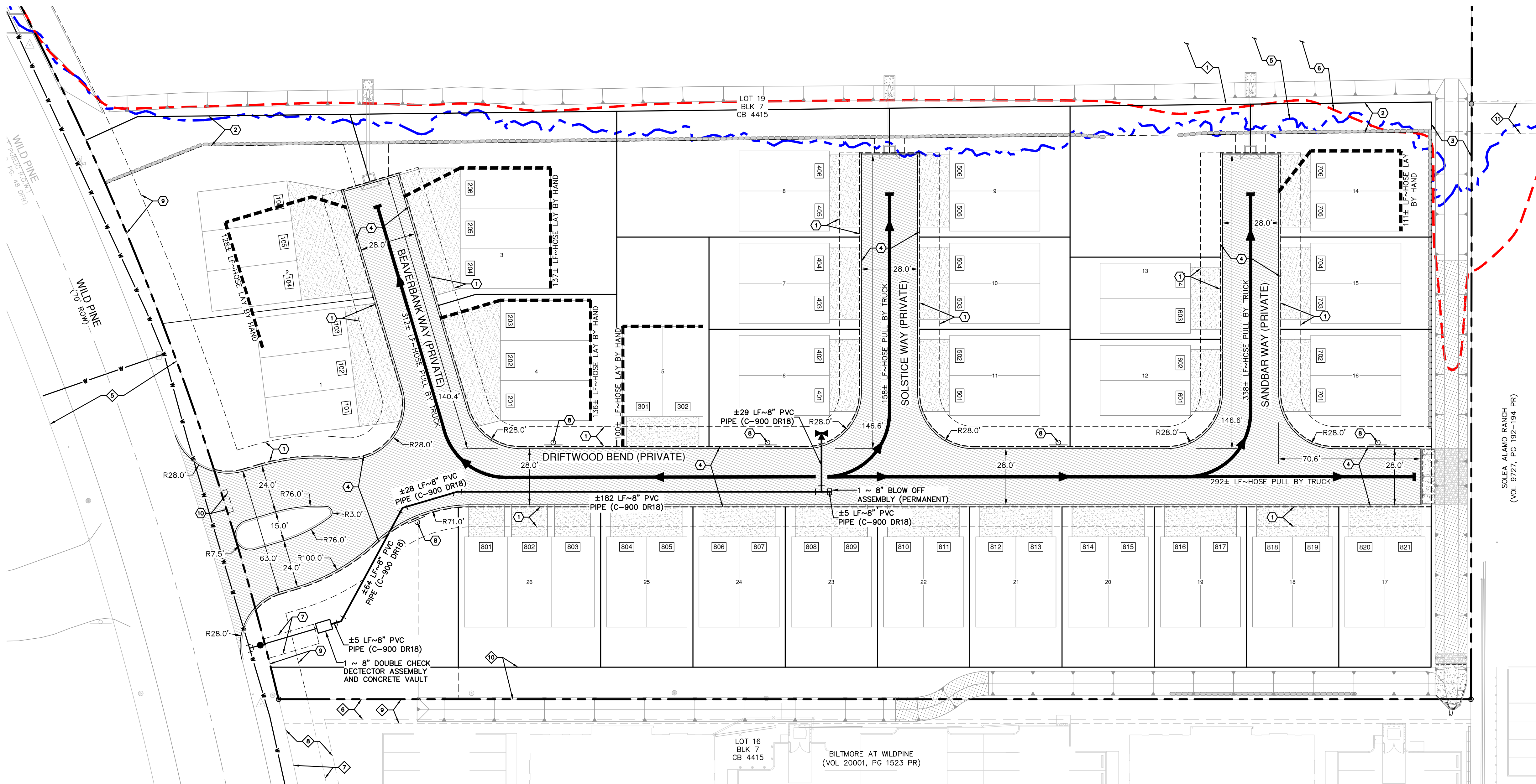


LEGEND

- PROPERTY LINE
- (TRUCK) FIRE TRUCK HOSE LAY
- (HOSE) HAND PULL HOSE LAY
- EXISTING FIRE HYDRANT
- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- PROPOSED FIRE HYDRANT
- PROPOSED FIRE LANE
- RETAINING WALL (BY-OTHERS)
- 100-YR FEMA EFFECTIVE FLOODPLAIN
- 100-YR ULTIMATE DEVELOPMENT FLOODPLAIN (PAPE-DAWSON FP)
- ZERO LOT LINE
- PROPOSED FIRE SIGN

KEY NOTES LEGEND

- ① 10' GAS, ELEC, TELE AND CATV ESMT
- ② VAR WID DRAINAGE AND ACCESS ESMT
- ③ 20' DRAINAGE ESMT
- ④ VAR WID IRREVOCABLE INGRESS/EGRESS, DRAINAGE, SEWER, WATER, GAS, ELEC, TELE, CATV AND CLEAR VISION ESMT
- ⑤ EFFECTIVE (EXISTING) FEMA 1% ANNUAL CHANCE (100-YR) FLOODPLAIN (FIRM PANEL NO. 4802900355G EFFECTIVE 9-29-2010)
- ⑥ 1% ANNUAL CHANCE (100-YR) ATLAS 14 UD CONDITIONS FLOODPLAIN (PAPE-DAWSON FLOOD STUDY)
- ⑦ VARIABLE WIDTH WATER EASEMENT
- ⑧ FIRE LANE NO PARKING SIGN (SEE THIS SHEET FOR SIGNAGE DETAIL AND NOTES)
- ⑨ 14' GAS, ELEC, TELE AND CATV ESMT
- ⑩ VARIABLE WIDTH CLEAR VISION EASEMENT
- ◇ VAR WID DRAINAGE ESMT (VOL 9649, PG 48-49, DPR)
- ◇ 14' ELEC, GAS, TEL, CATV AND OH ESMT (VOL 9614, PG 110-112, DPR)
- ◇ 135' ELEC ESMT AND ROW (VOL 6187, PG 265-268, DR)
- ◇ 20' SANITARY SEWER ESMT (VOL 15789, PG 1574, OPR)
- ◇ 70' ROW (VOL 9649, PG 48-49, DPR)
- ◇ 10' SIDE BUILDING SETBACK (VOL 20001, PG 1523, PR)
- ◇ 14' GAS, ELEC, TELE AND CATV ESMT (VOL 20001, PG 1523, PR)
- ◇ 20' FRONT BUILDING SETBACK (VOL 9649, PG 48-49, DPR)
- ◇ 12' ELEC ESMT (DOC NO 20190060792 OPR)
- ◇ 16' ELEC ESMT (DOC NO 20190060773 OPR)
- ◇ 15' PUBLIC DRAINAGE ESMT (VOL 9727, PG 192-194 PR)
- ◇ GREENBELT AND 15' SANITARY SEWER, DRAINAGE, GAS, ELEC, TELE, WATER, CATV AND ACCESS ESMT (VOL 9651, PG 96-97 DPR)
- ◇ 16' ELEC, GAS, TELE, AND CATV ESMT (VOL 9651, PG 96-97 DPR)

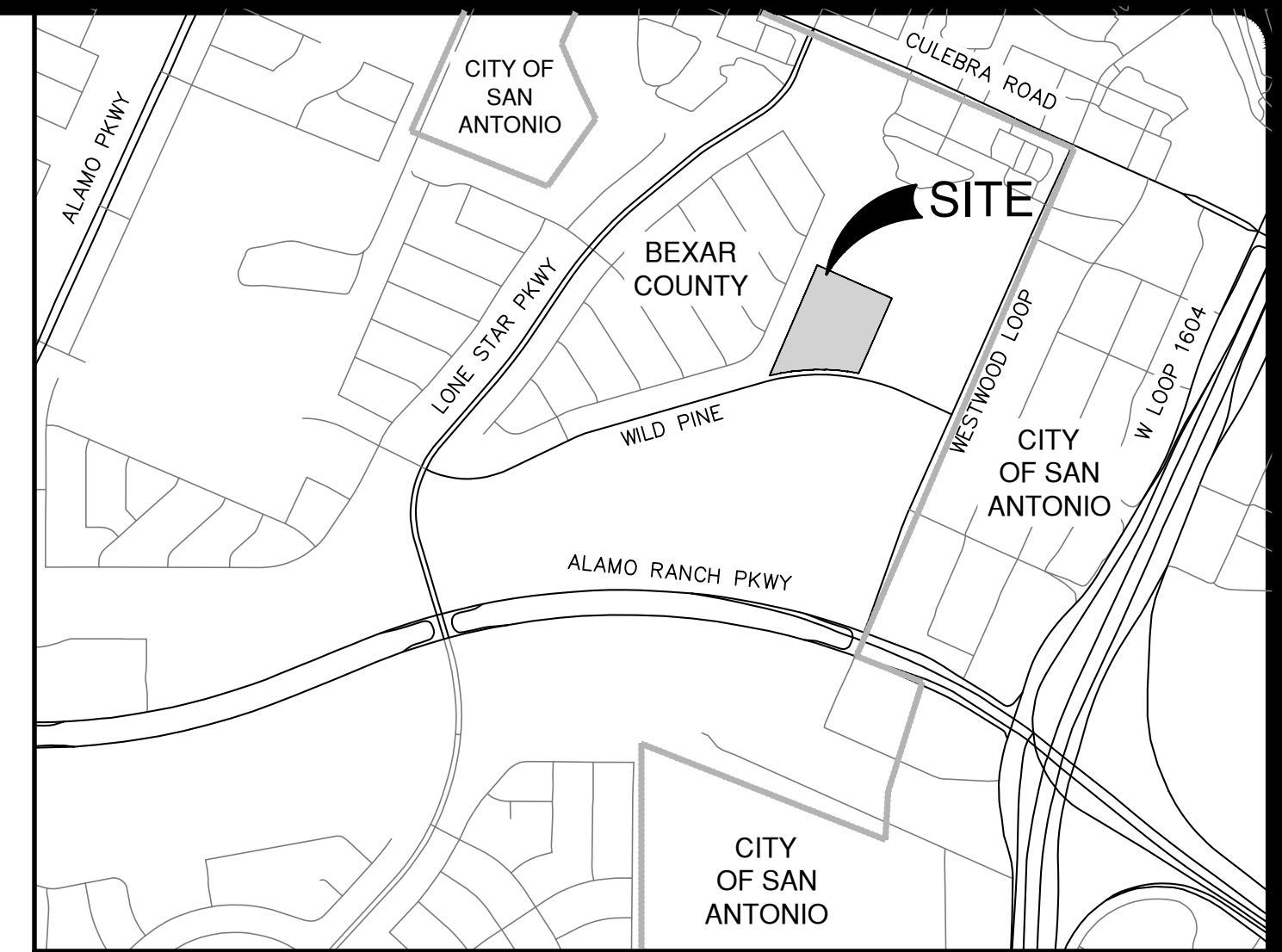
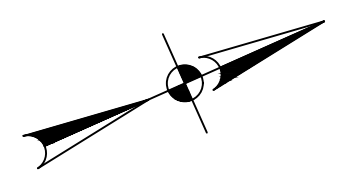
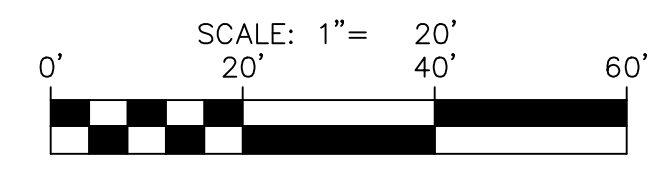


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PAPE-DAWSON
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

WILD PINE
 SAN ANTONIO, TEXAS
 FIRE PROTECTION PLAN

| | |
|----------|---------------|
| PLAT NO. | 25-11800373 |
| JOB NO. | 13657-13 |
| DATE | FEBRUARY 2024 |
| DESIGNER | CB |
| CHECKED | JA DRAWN CB |
| SHEET | C2.02 |



LOCATION MAP
NOT-TO-SCALE

KEY NOTES LEGEND

- (A) 10' GAS, ELEC, TELE AND CATV ESMT
- (B) VAR WD IRREVOCABLE INGRESS/EGRESS, DRAINAGE, SEWER, WATER, GAS, ELEC, TELE, CATV AND CLEAR VISION ESMT
- (C) EFFECTIVE (EXISTING) FEMA 1% ANNUAL CHANCE (100-YR) FLOODPLAIN (FIRM PANEL NO. 48029C0355G EFFECTIVE 9-29-2010)
- (D) 1% ANNUAL CHANCE (100-YR) ATLAS 14 UD CONDITIONS FLOODPLAIN (PAPE-DAWSON FLOOD STUDY)
- (E) 7" STD. CURB (SEE DETAIL SHEET C2.10)
- (F) LOW CURB AT DRIVEWAY (SEE DETAIL SHEET C2.10 FOR CURB PROFILE AT DRIVEWAY)
- (G) TIE TO EXISTING CURB
- (H) CLEANOUT FRAME AND LID PLUS 1" WITH PAVEMENT (1" P) (SEE DETAIL SHEET C5.10)
- (I) 7" SAWTOOTH CURB (SEE DETAIL SHEET C2.10)
- (J) VARIABLE WIDTH DRAINAGE EASEMENT
- (K) 14' GAS, ELEC, TELE AND CATV ESMT
- (L) VARIABLE WIDTH CLEAR VISION EASEMENT
- (M) VAR WD DRAINAGE ESMT (VOL 9649, PG 48-49, DPR)
- (N) 14' ELEC, GAS, TEL, CATV AND OH ESMT (VOL 9614, PG 110-112, DPR)
- (O) 135' ELEC ESMT AND ROW (VOL 6187, PG 265-268, DR)
- (P) 20' SANITARY SEWER ESMT (VOL 15789, PG 1574, OPR)
- (Q) 70' ROW (VOL 9649, PG 48-49, DPR)
- (R) 10' SIDE BUILDING SETBACK (VOL 20001, PG 1523, PR)
- (S) 14' GAS, ELEC, TELE AND CATV ESMT (VOL 20001, PG 1523, PR)
- (T) 20' FRONT BUILDING SETBACK (VOL 9649, PG 48-49, DPR)
- (U) 12' ELEC ESMT (DOC NO 20190060792 OPR)
- (V) 16' ELEC ESMT (DOC NO 20190060773 OPR)
- (W) 15' PUBLIC DRAINAGE ESMT (VOL 9727, PG 192-194 PR)
- (X) GREENBELT AND 15' SANITARY SEWER, DRAINAGE, GAS, ELEC, TELE, WATER, CATV AND ACCESS ESMT (VOL 9651, PG 96-97 DPR)
- (Y) 16' ELEC, GAS, TELE, AND CATV ESMT (VOL 9651, PG 96-97 DPR)

GRADING LEGEND

- PROJECT LIMITS
- EXISTING 100 YR FEMA FLOODPLAIN
- 100 YR UD FLOODPLAIN (AT-14)
- EXISTING CONTOUR
- PROPOSED CONTOUR
- FLOW ARROW (EXISTING)
- FLOW ARROW (PROPOSED)
- FINISHED GROUND SPOT ELEV.
- TOP OF CURB SPOT ELEV.
- PAVEMENT SPOT ELEV.

GRADING NOTES:

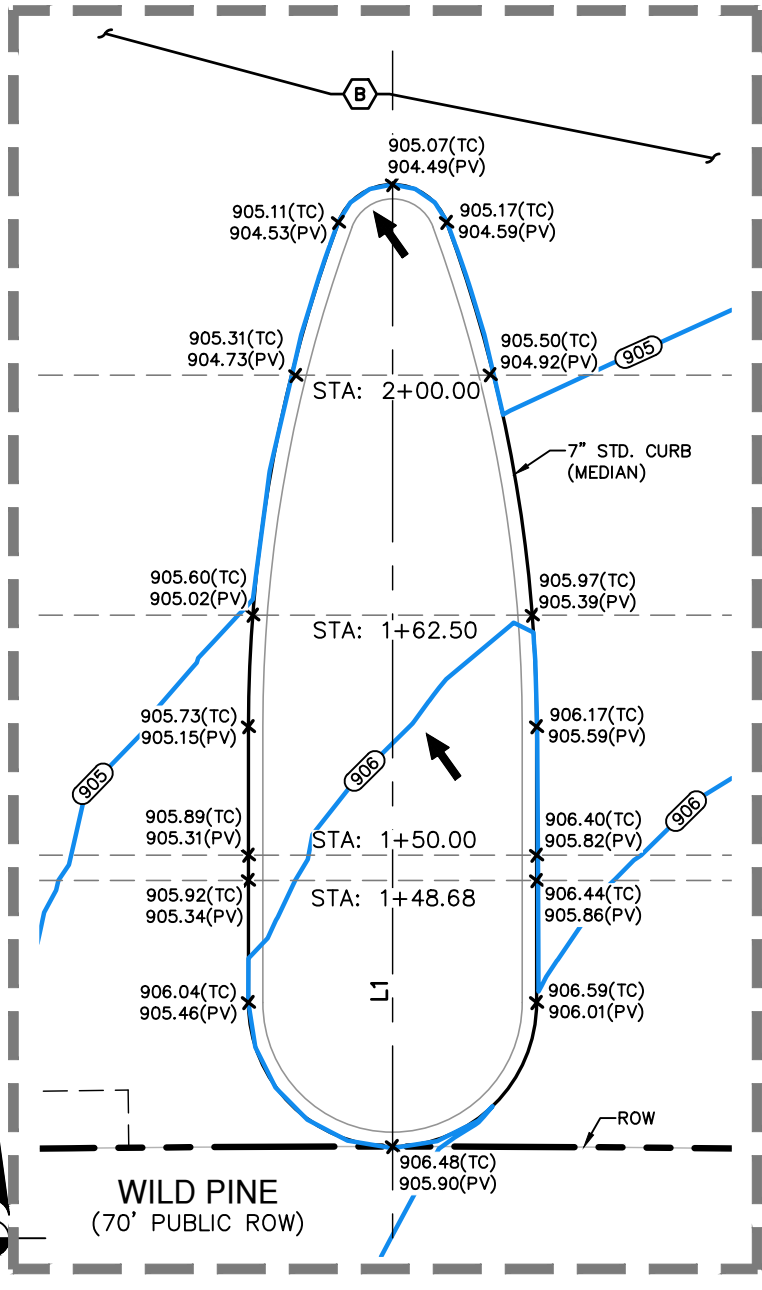
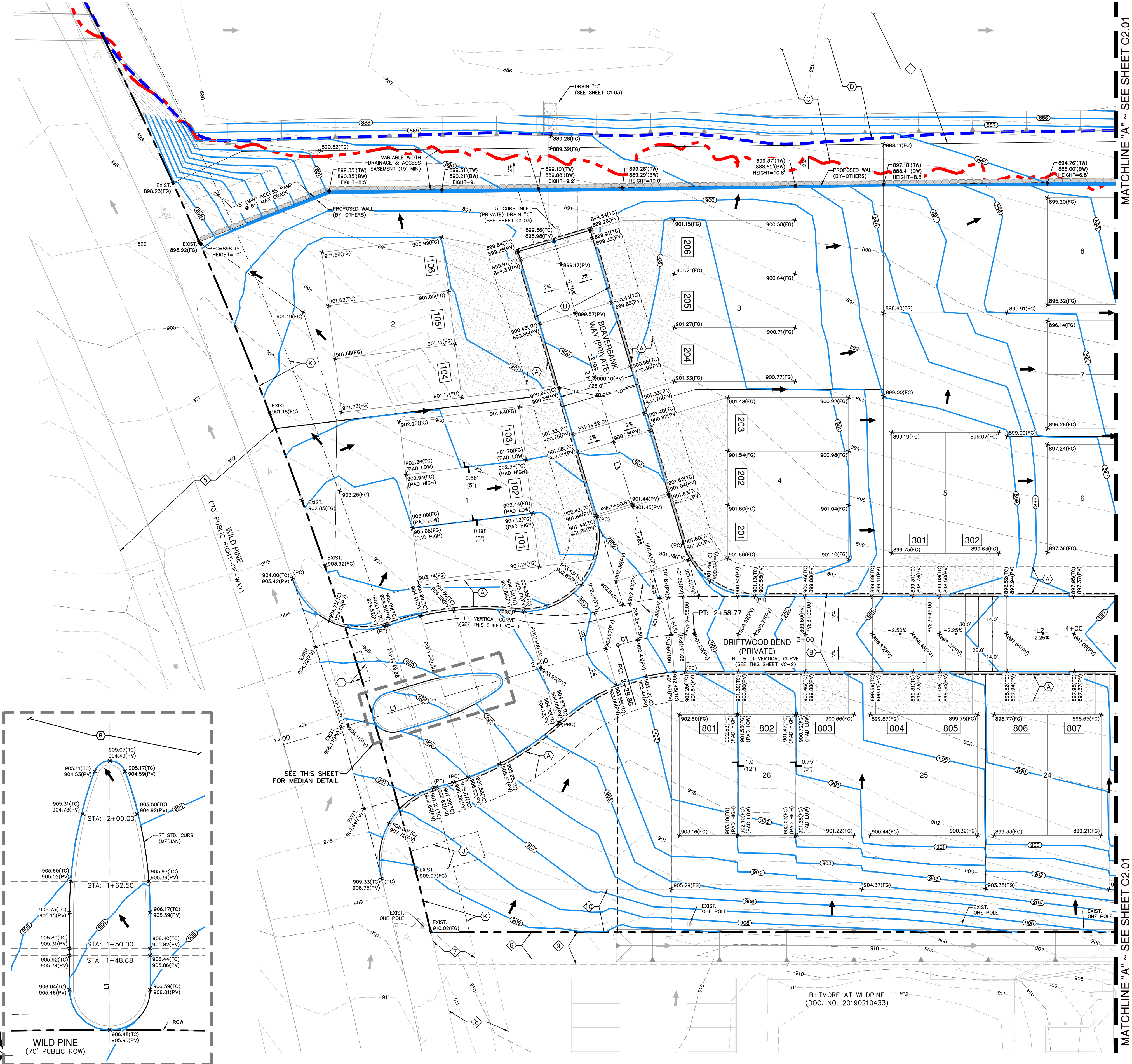
1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THIS SCOPE OF WORK WHERE NOT SPECIFICALLY COVERED IN THE SPECIFICATIONS OR GEOTECHNICAL REPORT SHALL CONFORM TO ALL APPLICABLE CITY, COUNTY AND TxDOT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION).
2. SITE PREPARATION, GRADING, EXCAVATION AND FILL SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL REPORT AND SPECIFICATIONS.
3. ALL SELECT FILL MATERIAL PROVIDED SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING AND COMPACTING.
4. ALL ELEVATIONS AND PROPOSED CONTOURS SHOWN ON THIS GRADING PLAN REFLECT FINISHED GRADES. THE THICKNESS OF PAVING, BASE, GRASS, TOPSOIL, AND MULCH MUST BE SUBTRACTED TO OBTAIN SUBGRADE ELEVATIONS.
5. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT, OR LIMITS OF DIMENSIONS OR GRADES NECESSARY FOR CONSTRUCTION OF THIS PROJECT.
6. THE CONTRACTOR SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE COMMENCEMENT OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
8. THE CONTRACTOR SHALL REMOVE TOP SOIL, GRASS, ROOTS, DEBRIS, ETC. AND DISPOSE OFF SITE THOSE MATERIALS NOT SUITABLE FOR EMBANKMENT AND TOPSOIL. CLEAN STRIPPINGS AND TOPSOIL MAY BE STOCKPILED ON SITE FOR REUSE IN A LOCATION SPECIFIED BY THE OWNER.
9. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE STABILIZATION. ALL DISTURBED AREAS SHALL BE VEGETATED IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND TIDES/SWPP REQUIREMENTS. REFERENCE THE LANDSCAPE ARCHITECT'S PLAN, IF APPLICABLE.
10. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS (USE OF SILT FENCES, ETC.) TO KEEP DRAINAGE AND SILT FROM WASHING ONTO ADJACENT PROPERTY, STREETS, OR DRAINAGE WAYS. CONTRACTOR SHALL IMMEDIATELY REMOVE SILT/DEBRIS WHICH WASHES OFFSITE OR INTO EXISTING STORM DRAIN SYSTEMS. (SEE SWPPP PLANS & TIDES BOOK).
11. THE CONTRACTOR SHALL OBTAIN GRADES SHOWN HEREON WITHIN +/- ONE-TENTH (0.10) FOOT.
12. IN PROPOSED PAVING AREAS, STREET DESIGN PLANS SHALL CONTROL. ALL EARTHEN SLOPES SHALL BE A MAXIMUM OF 3:1 AND A MINIMUM OF 1.0% UNLESS OTHERWISE SHOWN.
13. THE CONTRACTOR SHALL PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING SITE AND PROPOSED IMPROVEMENTS.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL, OR BETTER, CONDITION ANY DAMAGE DONE TO EXISTING TREES, BUILDINGS, UTILITIES, FENCES, PAVEMENT, CURBS, OR DRIVEWAYS (NO SEPARATE PAY ITEMS).
15. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN WORKING NEAR UTILITIES, GAS LINES, SEWER, OR EXISTING APPURTENANCES. PRIOR TO PERFORMING ANY EXCAVATION, CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND ASSURE HIMSELF THAT ALL UTILITIES HAVE BEEN ADEQUATELY LOCATED AND IDENTIFIED. THE ENGINEER SHALL BE NOTIFIED IF ANY UTILITY CONFLICTS ARE DISCOVERED.
16. UTILITIES SHOWN ON THE PLANS ARE FROM INFORMATION SOURCES AVAILABLE AT THE TIME OF DESIGN BUT MAY NOT REPRESENT ALL EXISTING UTILITIES ON SITE. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL UTILITIES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION AND 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 CONTRACTORS RESPONSIBILITY TO REPAIR, AT HIS OWN EXPENSE.
17. POSITIVE DRAINAGE SHALL BE MAINTAINED THROUGHOUT THE SCOPE OF THE PROJECT. DRAINAGE SHALL BE DIRECTED AWAY FROM ALL BUILDING FOUNDATIONS. CONTRACTOR SHOULD TAKE PRECAUTIONS NOT TO ALLOW ANY PONDING OF WATER.
18. FOR FILL PLACEMENT ON HILL SIDES OR STEEP SLOPE AREAS, THE CONTRACTOR SHALL REFERENCE THE PROJECT SPECIFICATIONS AND GEOTECHNICAL REPORT FOR SPECIAL INSTRUCTIONS REGARDING BENCHING.
19. NO WORK SHALL BE PERFORMED IN A PUBLIC RIGHT-OF-WAY WITHOUT A PERMIT.

VERTICAL CURVES

- VC-1
- VC-2
- LT. VERTICAL CREST CURVE (PVM/CURB)
- RT. & LT. VERTICAL SAG CURVE (PVM/CURB)

| LINE | LENGTH | DIRECTION |
|------|---------|-----------------|
| L1 | 129.86' | N07°29'11.58"E' |
| L2 | 476.37' | N24°02'58.37"E' |
| L3 | 157.27' | N82°30'48.42"W' |
| L4 | 161.30' | N65°57'01.63"W' |
| L5 | 161.30' | N65°57'01.63"W' |

| CURVE | RADIUS | LENGTH | CHORD DIRECTION |
|-------|----------|---------|-----------------|
| C1 | 100.000' | 28.908' | N15°46'04.97"E' |



DATE: _____

NO. REVISION: _____

Jon Adame
2-10-24

PAPE-DAWSON

2000 NW LOOP 410 | SAN ANTONIO, TX 78243 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

WILD PINE
SAN ANTONIO, TEXAS

GRADING PLAN

PLAT NO. 25-11800373

JOB NO. 13657-13

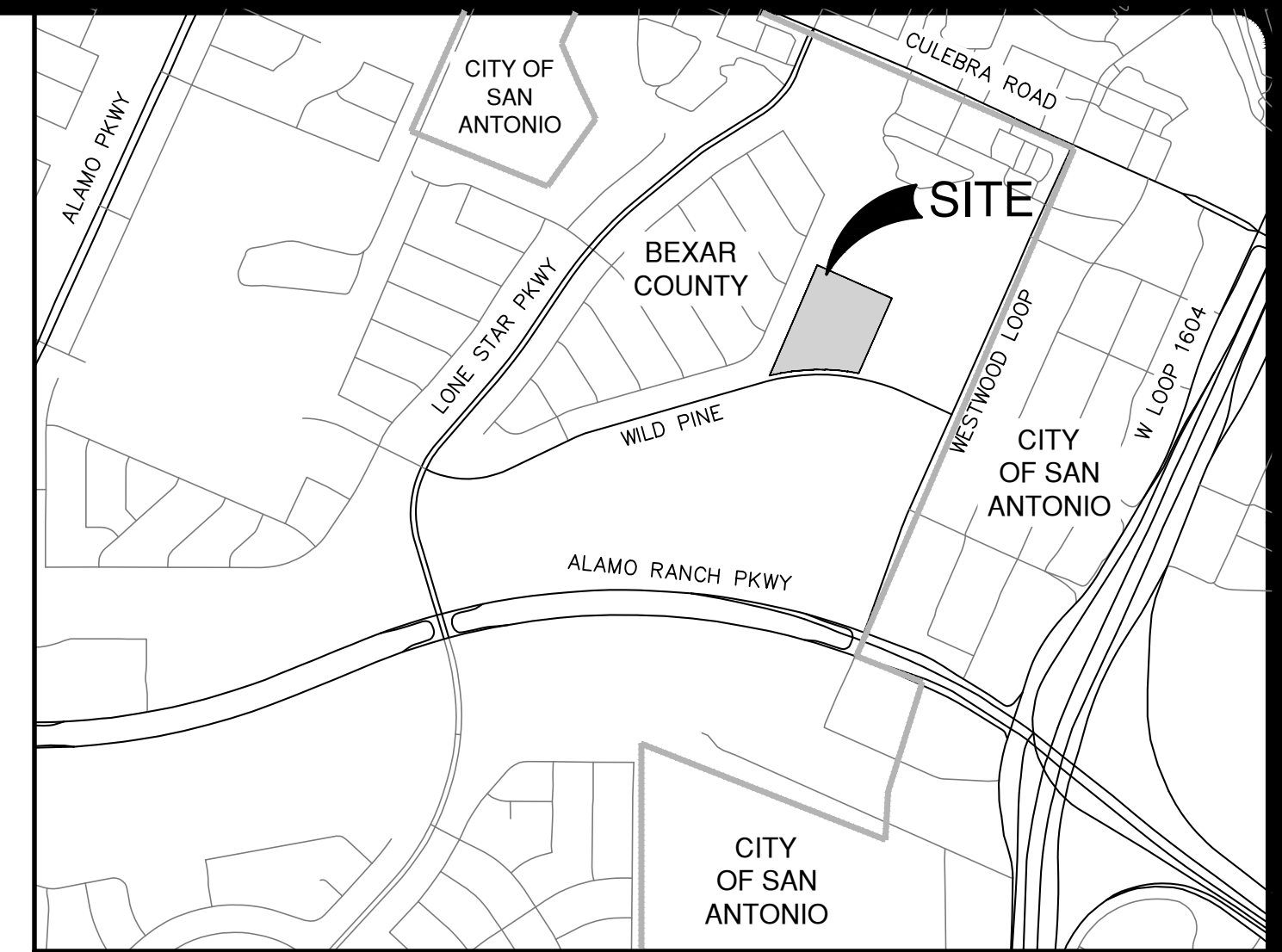
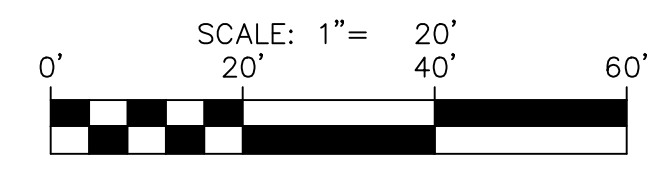
DATE FEBRUARY 2026

DESIGNER CB

CHECKED JA_DRAWN_CB

SHEET C2.03

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 THIS 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 CONSULTANTS ORIGINAL SIGNATURE AND SEAL. IMAGERY PROVIDED BY GOOGLE; UNLESS OTHERWISE NOTED. Imagery © 2016, CAPOCO, Digital Globe, Texas Orthographic Program, USDA Farm Service Agency.



LOCATION MAP
NOT-TO-SCALE

DATE: _____

NO. REVISION: _____

Jon Adame
2-10-24

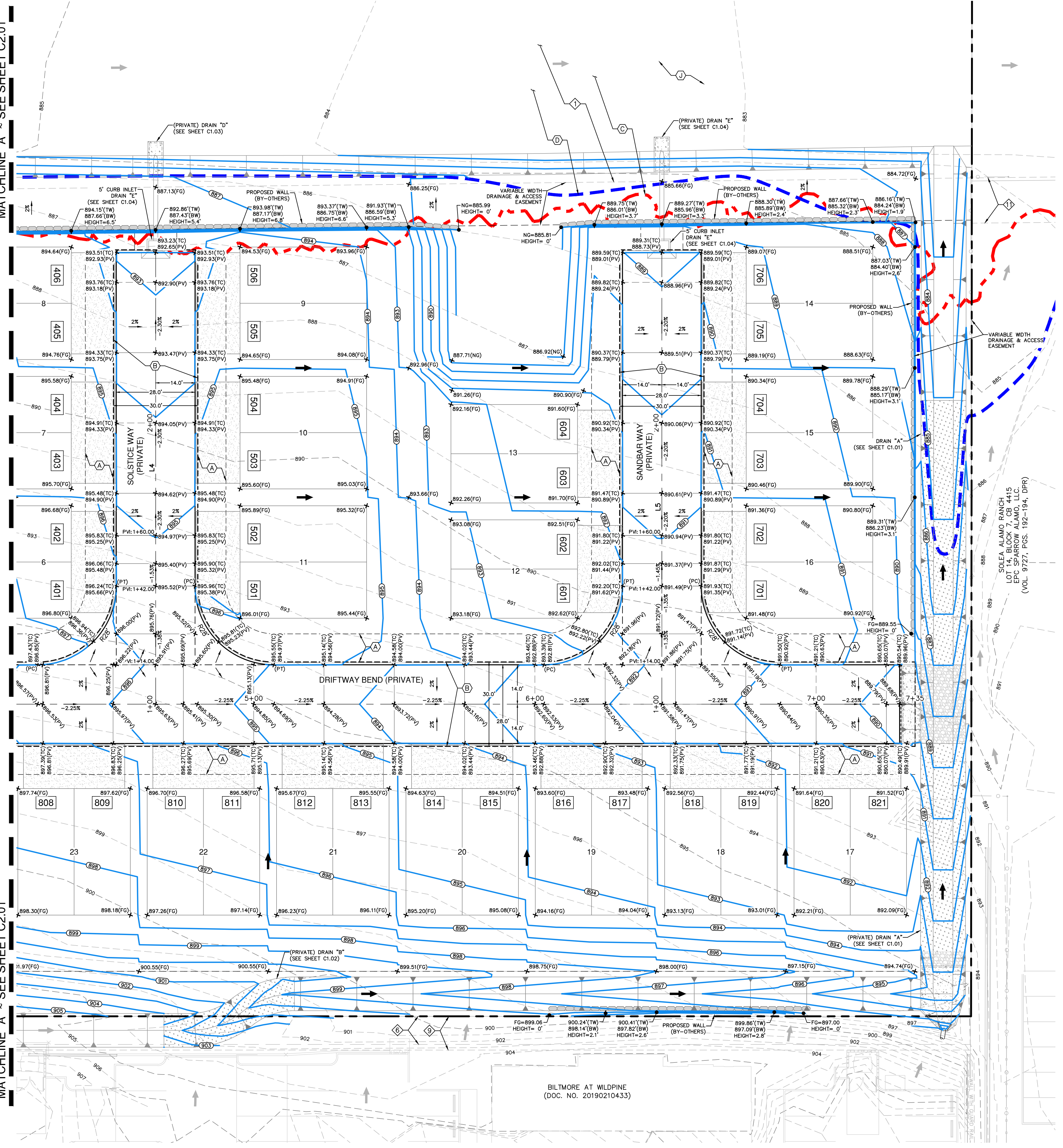
PAPE-DAWSON
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS SURVEYING FIRM #470 | TEXAS SURVEYING FIRM #10028800

WILD PINE
SAN ANTONIO, TEXAS
GRADING PLAN

PLAT NO. 25-11800373
JOB NO. 13657-13
DATE FEBRUARY 2026
DESIGNER CB
CHECKED JA_DRAWN_CB
SHEET C2.04

MATCHLINE "A" - SEE SHEET C2.01

MATCHLINE "A" - SEE SHEET C2.01



KEY NOTES LEGEND

- (A) 10' GAS, ELEC, TELE AND CATV ESMT
- (B) VAR WID IRREVOCABLE INGRESS/EGRESS, DRAINAGE, SEWER, WATER, GAS, ELEC, TELE, CATV AND CLEAR VISION ESMT
- (C) EFFECTIVE (EXISTING) FEMA 1% ANNUAL CHANGE (100-YR) FLOODPLAIN (FIRM PANEL NO. 4802900355G EFFECTIVE 9-29-2010)
- (D) 1% ANNUAL CHANGE (100-YR) ATLAS 14 UD CONDITIONS FLOODPLAIN (PAPE-DAWSON FLOOD STUDY)
- (E) 7" STD. CURB (SEE DETAIL SHEET C2.10)
- (F) LOW CURB AT DRIVEWAY (SEE DETAIL SHEET C2.10 FOR CURB PROFILE AT DRIVEWAY)
- (G) TIE TO EXISTING CURB
- (H) CLEANOUT FRAME AND LID FLUSH WITH PAVEMENT (TYP) (SEE DETAIL SHEET C5.10)
- (I) 7" SAWTOOTH CURB (SEE DETAIL SHEET C2.10)
- (J) 16" SANITARY SEWER EASEMENT
- (K) VAR WID DRAINAGE ESMT (VOL 9649, PG 48-49, DPR)
- (L) 14' ELEC, GAS, TEL, CATV AND OH ESMT (VOL 9614, PG 110-112, DPR)
- (M) 135' ELEC ESMT AND ROW (VOL 6187, PG 265-268, DR)
- (N) 20' SANITARY SEWER ESMT (VOL 15789, PG 1574, OPR)
- (O) 70' ROW (VOL 9649, PG 48-49, DPR)
- (P) 10' SIDE BUILDING SETBACK (VOL 20001, PG 1523, PR)
- (Q) 14' GAS, ELEC, TELE AND CATV ESMT (VOL 20001, PG 1523, PR)
- (R) 20' FRONT BUILDING SETBACK (VOL 9649, PG 48-49, DPR)
- (S) 12' ELEC ESMT (DOC NO 20190060792 OPR)
- (T) 16' ELEC ESMT (DOC NO 20190060773 OPR)
- (U) 15' PUBLIC DRAINAGE ESMT (VOL 9727, PG 192-194 PR)
- (V) GREENBELT AND 15' SANITARY SEWER, DRAINAGE, GAS, ELEC, TELE, WATER, CATV AND ACCESS ESMT (VOL 9651, PG 96-97 DPR)
- (W) 16' ELEC, GAS, TELE, AND CATV ESMT (VOL 9651, PG 96-97 DPR)

GRADING LEGEND

- PROJECT LIMITS
- EXISTING 100 YR FEMA FLOODPLAIN
 - 100 YR UD FLOODPLAIN (AT-14)
 - EXISTING CONTOUR
 - PROPOSED CONTOUR
 - FLOW ARROW (EXISTING)
 - FLOW ARROW (PROPOSED)
 - FINISHED GROUND SPOT ELEV.
 - TOP OF CURB SPOT ELEV.
 - PAVEMENT SPOT ELEV.

GRADING NOTES:

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THIS SCOPE OF WORK WHERE NOT SPECIFICALLY COVERED IN THE SPECIFICATIONS OR GEOTECHNICAL REPORT SHALL CONFORM TO ALL APPLICABLE CITY, COUNTY AND TxDOT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION).
2. SITE PREPARATION, GRADING, EXCAVATION AND FILL SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL REPORT AND SPECIFICATIONS.
3. ALL SELECT FILL MATERIAL PROVIDED SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING AND COMPACTING.
4. ALL ELEVATIONS AND PROPOSED CONTOURS SHOWN ON THIS GRADING PLAN REFLECT FINISHED GRADES. THE THICKNESS OF PAVING, BASE, GRASS, TOPSOIL, AND MULCH MUST BE SUBTRACTED TO OBTAIN SUBGRADE ELEVATIONS.
5. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT, OR LIMITS OF DIMENSIONS OR GRADES NECESSARY FOR CONSTRUCTION OF THIS PROJECT.
6. THE CONTRACTOR SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE COMMENCEMENT OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
8. THE CONTRACTOR SHALL REMOVE TOP SOIL, GRASS, ROOTS, DEBRIS, ETC. AND DISPOSE OFF SITE THOSE MATERIALS NOT SUITABLE FOR EMBANKMENT AND TOPSOIL. CLEAN STRIPPINGS AND TOPSOIL MAY BE STOCKPILED ON SITE FOR REUSE IN A LOCATION SPECIFIED BY THE OWNER.
9. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE STABILIZATION. ALL DISTURBED AREAS SHALL BE REVEGETATED IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND TDES/SWPPP REQUIREMENTS. REFERENCE THE LANDSCAPE ARCHITECT'S PLAN, IF APPLICABLE.
10. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS (USE OF SILT FENCES, ETC.) TO PREVENT DRAINAGE AND SILT FROM WASHING ONTO ADJACENT PROPERTY, STREETS, OR DRAINAGE WAYS. CONTRACTOR SHALL IMMEDIATELY REMOVE SILT/DEBRIS WHICH WASHES OFFSITE OR INTO EXISTING STORM DRAIN SYSTEMS. (SEE SWPPP PLANS & TDES BOOK).
11. THE CONTRACTOR SHALL OBTAIN GRADES SHOWN HEREON WITHIN +/- ONE-TENTH (0.10) FOOT.
12. IN PROPOSED PAVING AREAS, STREET DESIGN PLANS SHALL CONTROL. ALL EARTHEN SLOPES SHALL BE A MAXIMUM OF 3:1 AND A MINIMUM OF 1.0% UNLESS OTHERWISE SHOWN.
13. THE CONTRACTOR SHALL PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING SITE AND PROPOSED IMPROVEMENTS.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER, CONDITION ANY DAMAGE DONE TO EXISTING TREES, BUILDINGS, UTILITIES, FENCES, PAVEMENT, CURBS, OR DRIVEWAYS (NO SEPARATE PAY ITEMS).
15. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN WORKING NEAR UTILITIES, GAS LINES, SEWER, OR EXISTING APPURTENANCES. PRIOR TO PERFORMING ANY EXCAVATION, CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND ASSURE HIMSELF THAT ALL UTILITIES HAVE BEEN ADEQUATELY LOCATED AND IDENTIFIED. THE ENGINEER SHALL BE NOTIFIED IF ANY UTILITY CONFLICTS ARE DISCOVERED.
16. UTILITIES SHOWN ON THE PLANS ARE FROM INFORMATION SOURCES AVAILABLE AT THE TIME OF DESIGN BUT MAY NOT REPRESENT ALL EXISTING UTILITIES ON SITE. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL UTILITIES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION AND 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 CONTRACTORS RESPONSIBILITY TO REPAIR, AT HIS OWN EXPENSE.
17. POSITIVE DRAINAGE SHALL BE MAINTAINED THROUGHOUT THE SCOPE OF THE PROJECT. DRAINAGE SHALL BE DIRECTED AWAY FROM ALL BUILDING FOUNDATIONS. CONTRACTOR SHOULD TAKE PRECAUTIONS NOT TO ALLOW ANY PONDING OF WATER.
18. FOR FILL PLACEMENT ON HILL SIDES OR STEEP SLOPE AREAS, THE CONTRACTOR SHALL REFERENCE THE PROJECT SPECIFICATIONS AND GEOTECHNICAL REPORT FOR SPECIAL INSTRUCTIONS REGARDING BENCHING.
19. NO WORK SHALL BE PERFORMED IN A PUBLIC RIGHT-OF-WAY WITHOUT A PERMIT.

LINE TABLE

| LINE | LENGTH | DIRECTION |
|------|---------|----------------|
| L1 | 129.86' | N07°29'11.58"E |
| L2 | 476.37' | N24°02'58.37"E |
| L3 | 157.27' | N82°30'48.42"W |
| L4 | 161.30' | N65°57'01.63"W |
| L5 | 161.30' | N65°57'01.63"W |

CURVE TABLE

| CURVE | RADIUS | LENGTH | CHORD DIRECTION |
|-------|----------|---------|-----------------|
| C1 | 100.000' | 28.908' | N15°46'04.97"E |

Notes: File: 10_2025_4-02.dwg User: J. Adame Date: 2/10/24
 Plot: P:\1025\4-02.dwg (Color) Plot Date: 2/10/24
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| PAVEMENT SECTION DETAIL | | | | | | | | | | |
|-------------------------|----------------|--------------|--------------|----------|----------------|----------|---------|-------------|-----|-------------------|
| STREET NAME | STATION | TYPE "D" HMA | TYPE "C" HMA | CONCRETE | AGGREGATE BASE | SUBGRADE | GEOGRID | STREET TYPE | CBR | STRUCTURAL NUMBER |
| DRIFTWOOD BEND | 1+00.00 TO END | 2.00" | - | - | 9.5" | 6" | NO | LOCAL A | 2.5 | 2.69 |
| BEAVERBANK WAY | 1+00.00 TO END | 2.00" | - | - | 9.5" | 6" | NO | LOCAL A | 2.5 | 2.69 |
| SOLSTICE WAY | 1+00.00 TO END | 2.00" | - | - | 9.5" | 6" | NO | LOCAL A | 2.5 | 2.69 |
| SANDBAR WAY | 1+00.00 TO END | 2.00" | - | - | 9.5" | 6" | NO | LOCAL A | 2.5 | 2.69 |

*STREET TRANSITIONS FROM STREET CLASSIFICATIONS OF DIFFERING PAVEMENT WIDTHS SHALL BE CONSTRUCTED WITH PAVEMENT SECTION OF STREET CLASSIFICATION WITH WIDER PAVEMENT SECTION

GENERAL NOTES:

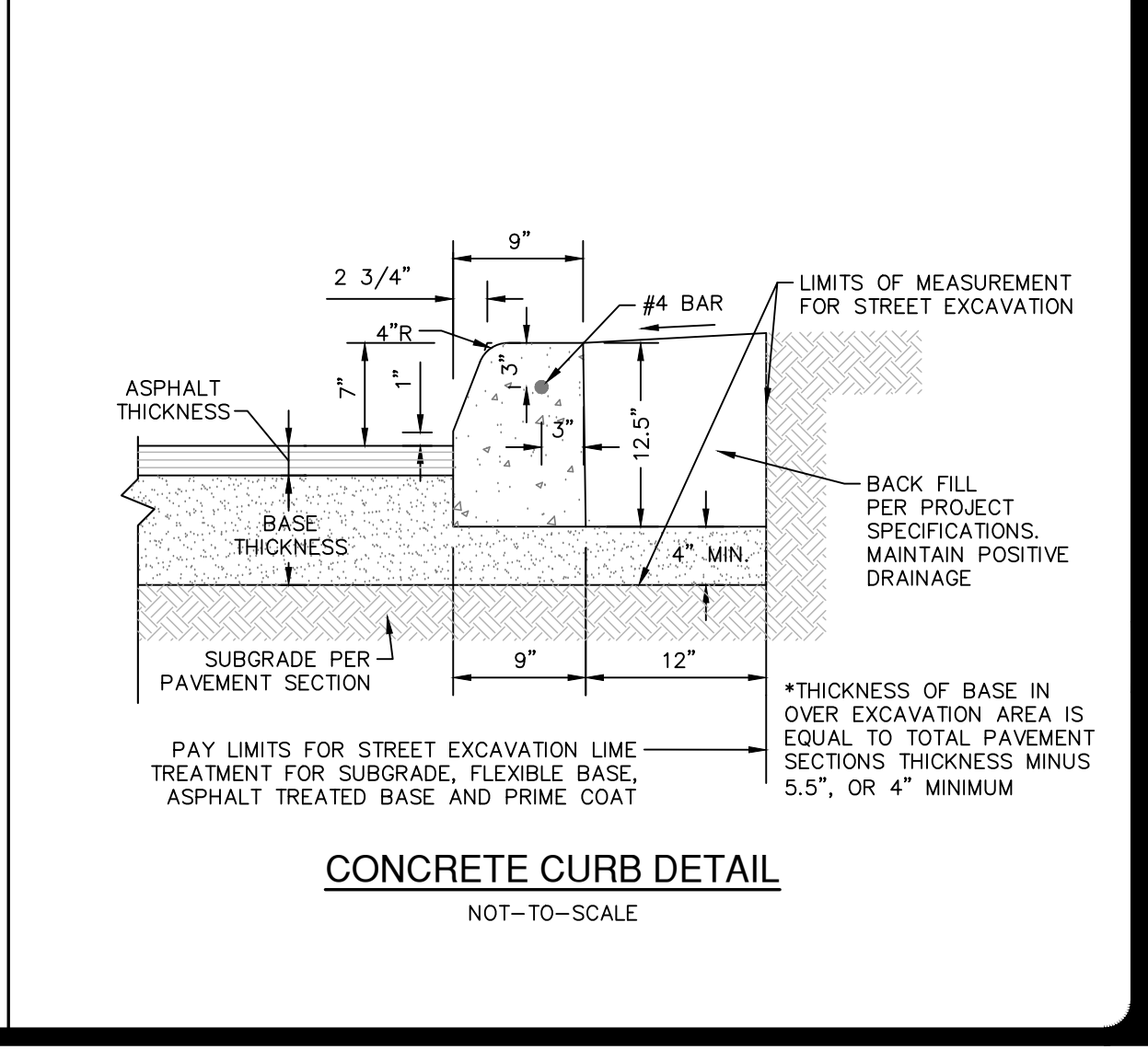
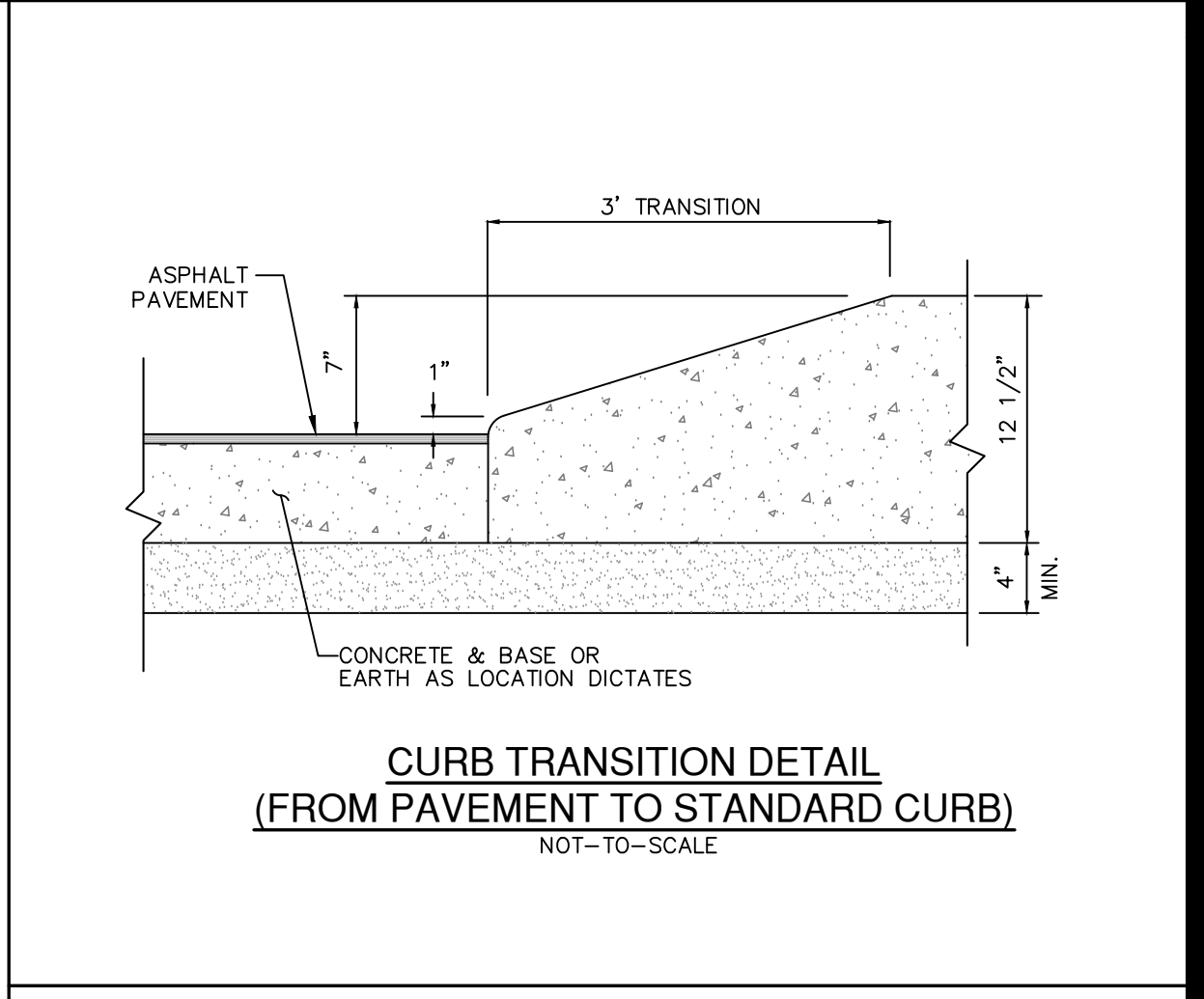
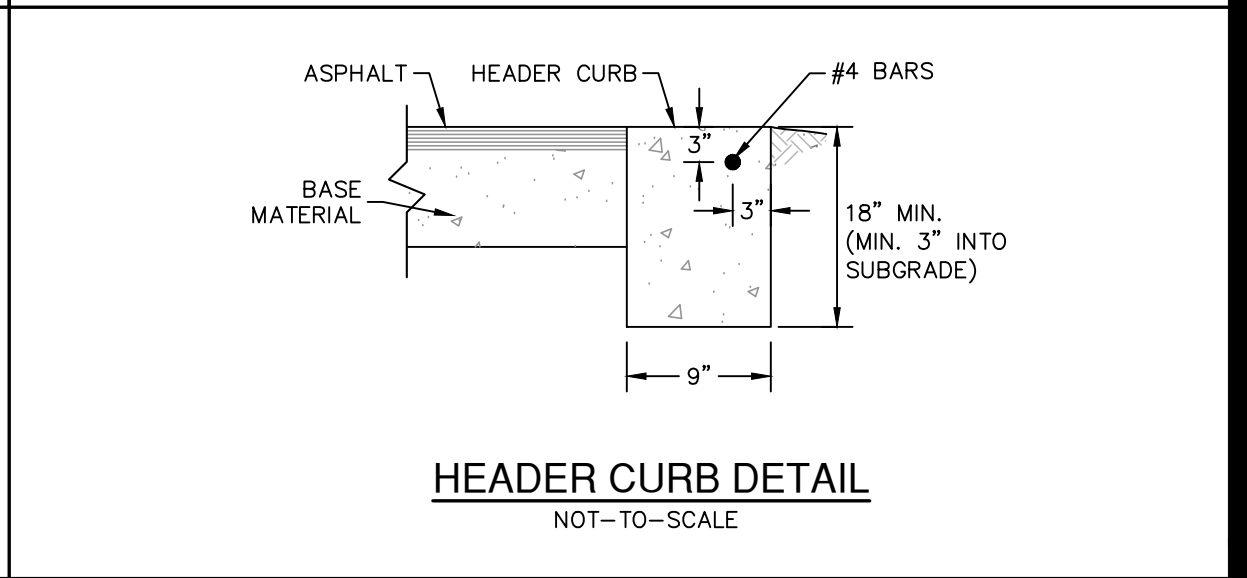
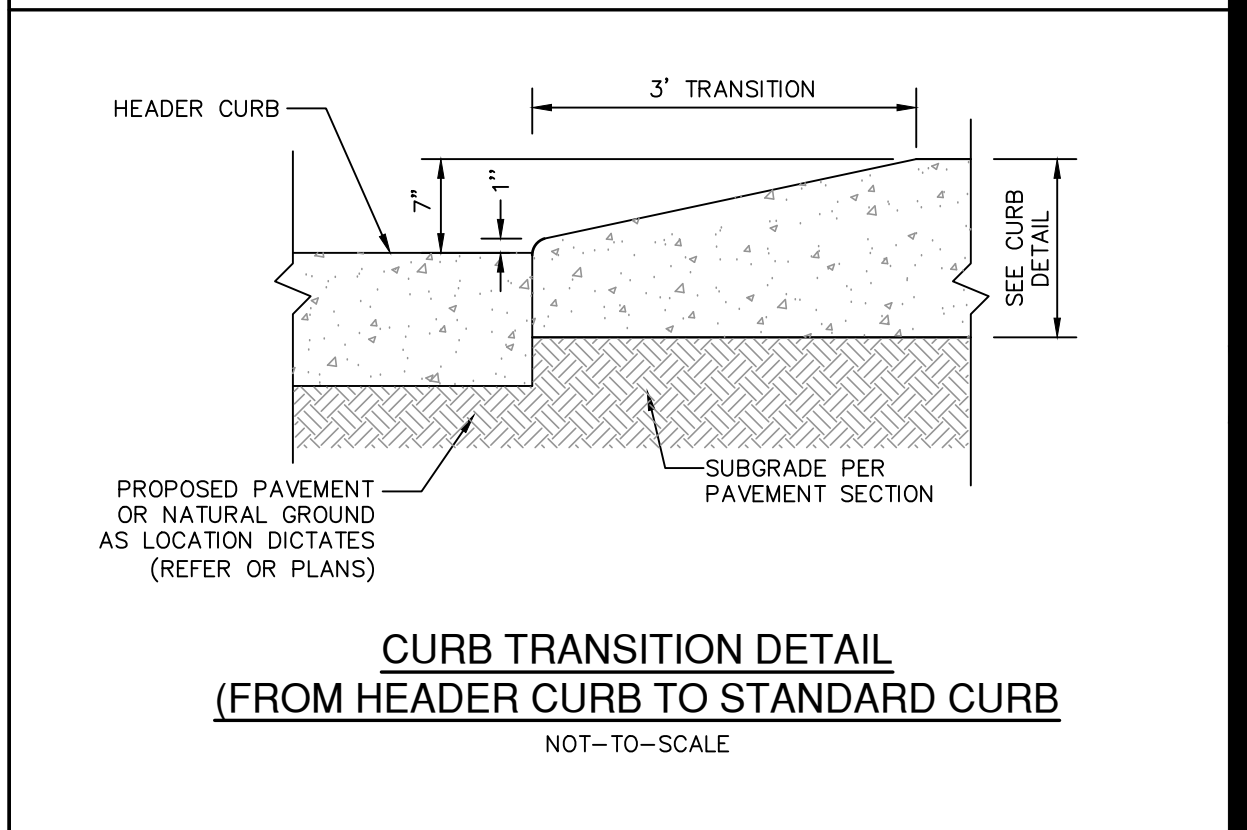
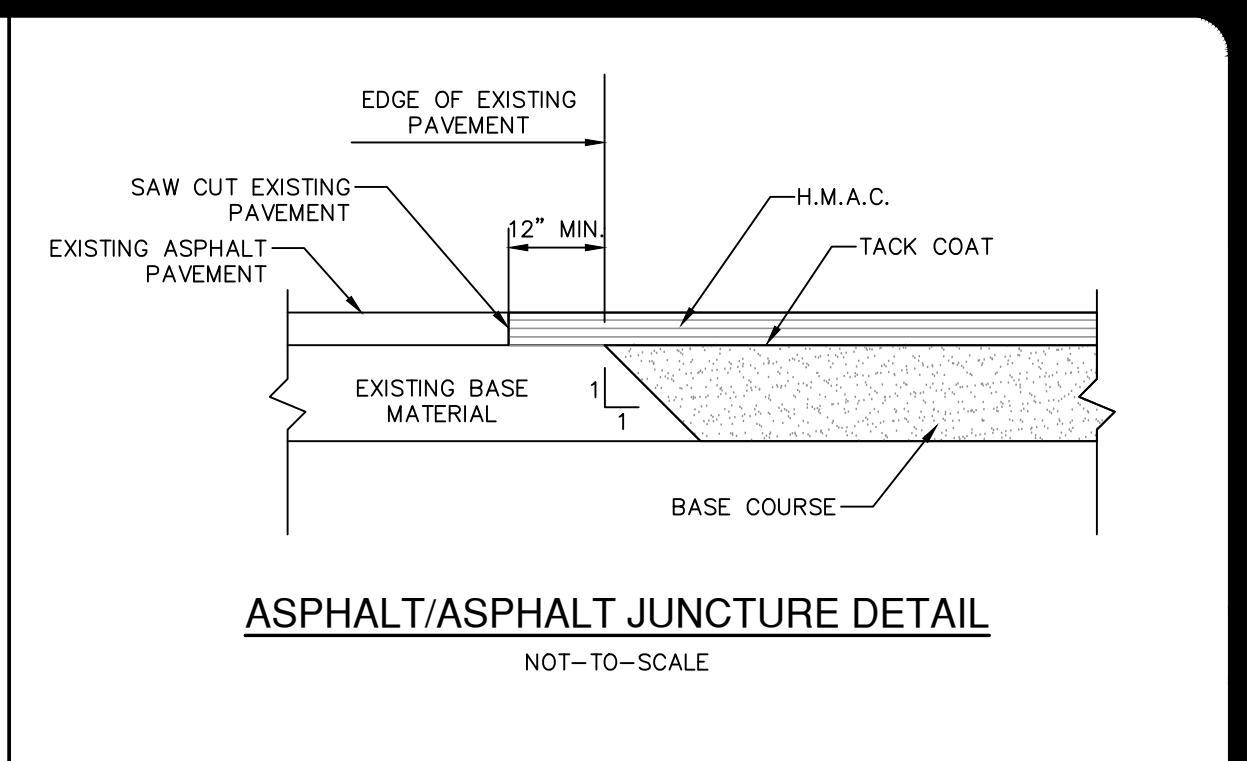
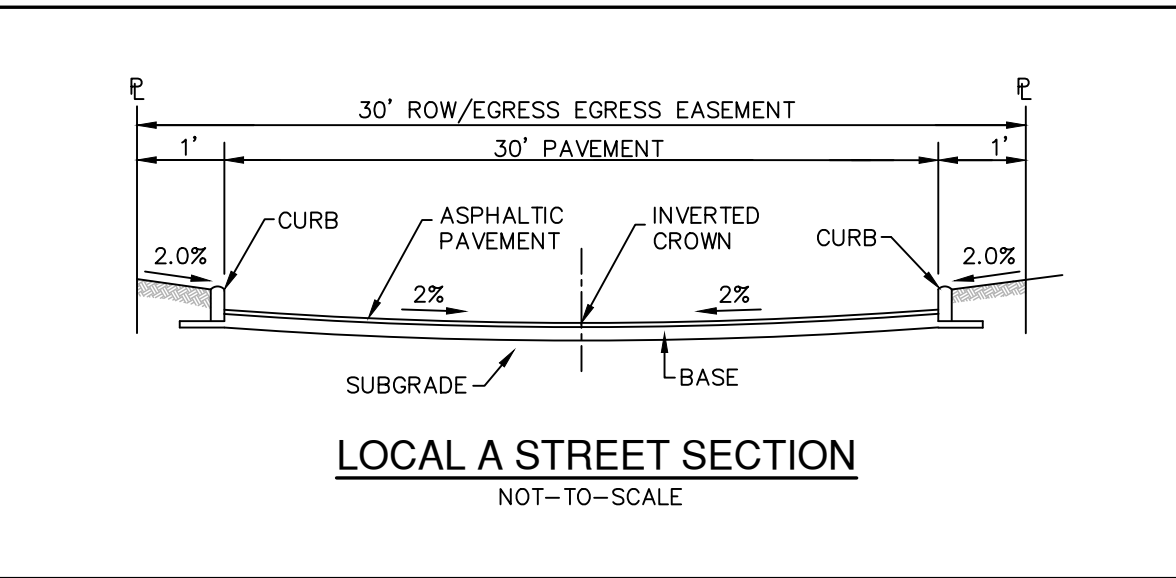
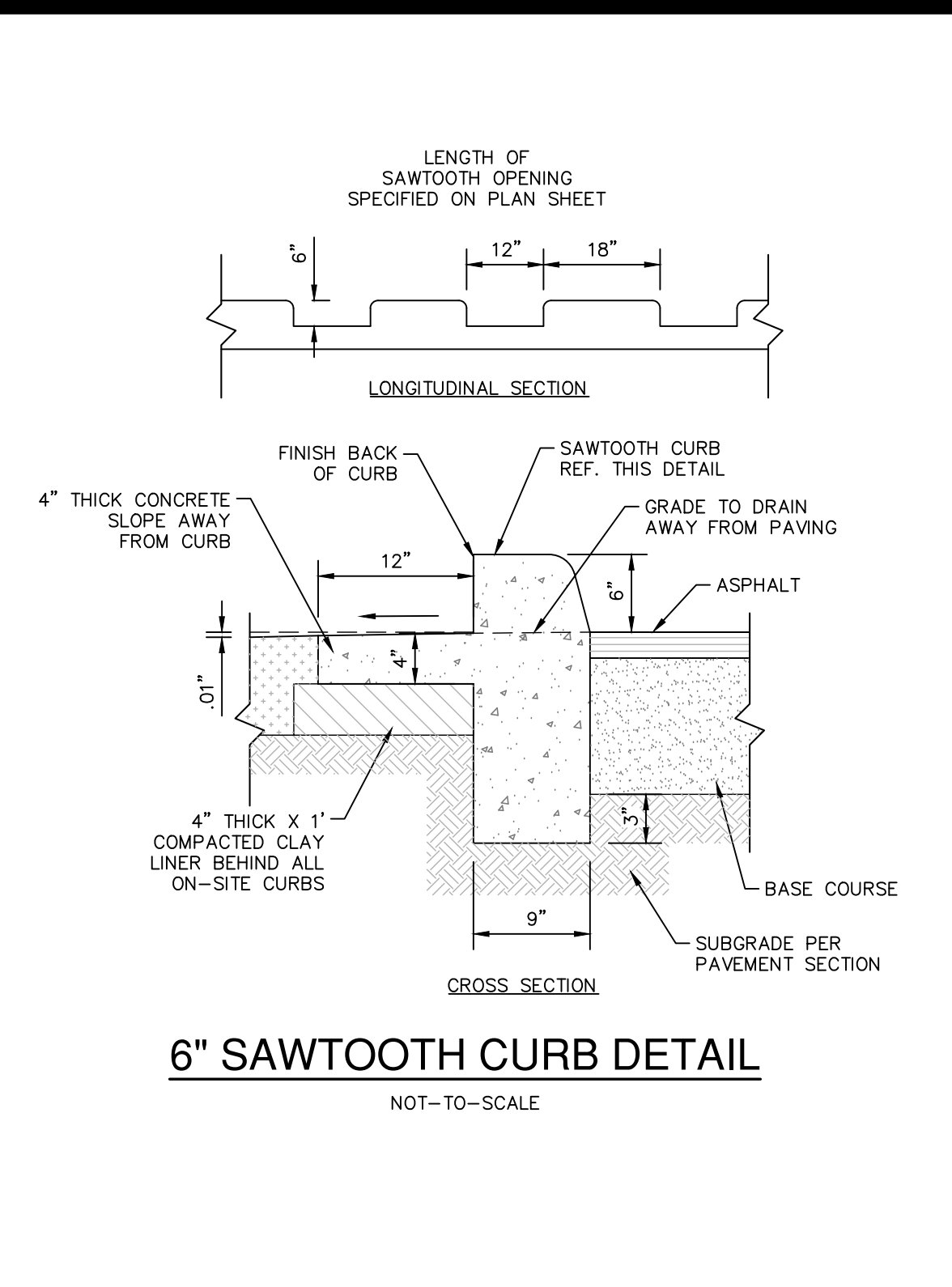
- CONTRACTOR SHALL REFERENCE THE PROJECT PAVEMENT DESIGN REPORT PREPARED BY INTECH, DATED MARCH 21, 2025.
- CONTRACTOR SHALL RETAIN A GEOTECHNICAL ENGINEER TO VERIFY THE SUB GRADE CONDITION PRIOR TO PLACING ANY BASE MATERIAL. GEOTECHNICAL ENGINEER SHALL DETERMINE THE SUB GRADE CONDITION AND IF LIME STABILIZATION 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:

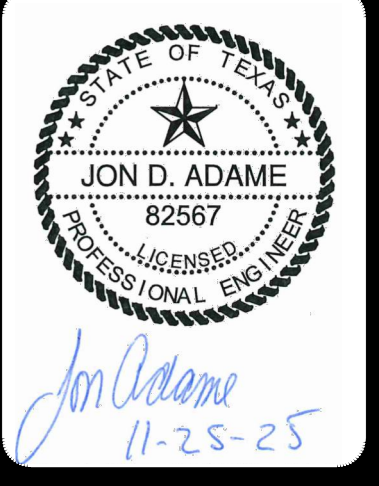
- IF THE STREET SUBGRADE PLASTICITY INDEX VALUE IS GREATER THAN 20, SUBGRADE STABILIZATION IS NEEDED AS PER CITY OF SAN ANTONIO REQUIREMENTS.
- IF THE SUBGRADE PLASTICITY INDEX VALUE IS 20 OR LESS, SUBGRADE STABILIZATION IS NOT NEEDED. THE SUBGRADE SHOULD BE MOISTURE CONDITIONED (COMPACTED TO A MINIMUM 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 6 INCHES AS NOTED ABOVE.
- 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 NEEDED.
- LIME APPLICATION RATE OF 30 LBS PER SQ YARD FOR 6 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 5.0 AND A MAXIMUM PLASTICITY INDEX OF 45. 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:
- AFTER INITIAL MIXING THE SOIL-LIME MIXTURE SHALL MELLOW FOR A PERIOD OF TWO TO THREE (2-3) DAYS. MAINTAIN MOISTURE DURING MELLOWING.
 - AFTER MELLOWING AND FINAL MIXING, THE PULVERIZATION SHALL BE CHECKED USING THE FOLLOWING CRITERIA (REMOVE NON-SLAKING AGGREGATES RETAINED ON THE 3/8 INCH SIEVE FROM THE SAMPLE):
 - MINIMUM PASSING 1/2" SIEVE 100
 - MINIMUM PASSING 3/8" SIEVE 85
 - MINIMUM PASSING NO. 4 SIEVE 60
 - 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.
 - COMPACT AND CHECK FIELD DENSITY (MINIMUM OF 95% OF MDD REQUIRED).
 - CURE FOR AN ADDITIONAL 2 TO 5 DAYS (TOTAL MELLOWING AND CURING TIME SHOULD TOTAL AT LEAST 5 DAYS).
 - VERIFY DEPTH OF LIME STABILIZED LAYER TO DEPTH AS NOTED ON PLAN TO WITHIN +/- 1.0 INCH.



| DATE | |
|----------|--|
| NO. | |
| REVISION | |



PAPE-DAWSON
 2000 NW LOOP 410 | SAN ANTONIO, TX 78243 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

WILD PINE
 SAN ANTONIO, TEXAS
 CIVIL DETAILS

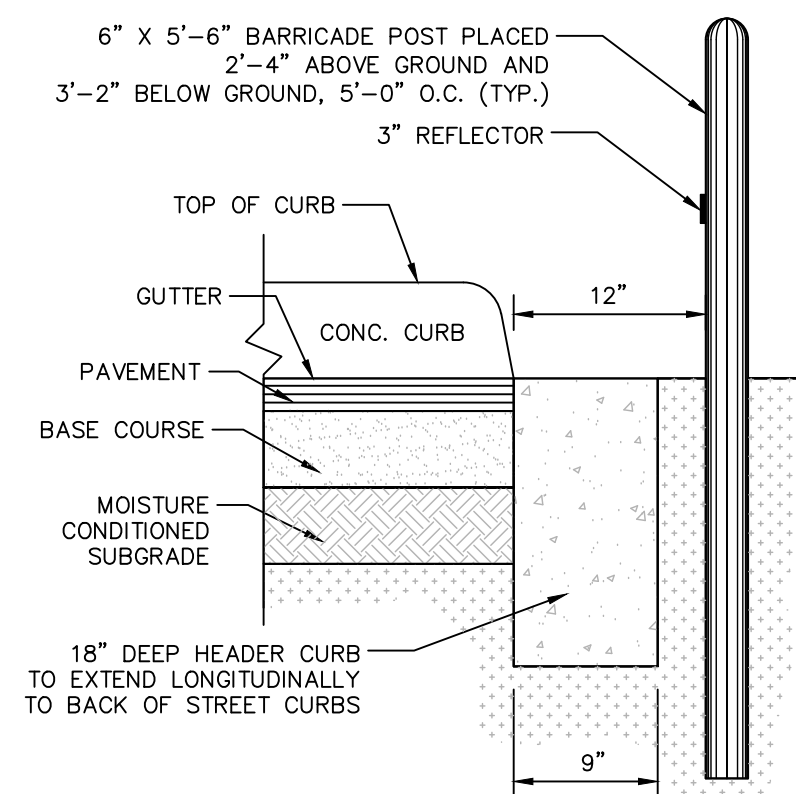
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|----------|---------------|
| PLAT NO. | 25-11800373 |
| JOB NO. | 13657-13 |
| DATE | NOVEMBER 2025 |
| DESIGNER | CB |
| CHECKED | JA DRAWN CB |
| SHEET | C2.10 |

| SYMBOL | ITEM NUMBER | SYMBOL | ITEM NUMBER |
|--------|--|--------|-------------------------------|
| | UNIT BOUNDARY | | WI4-2 30"x30" |
| | PROPOSED DRIVEWAY | | OM4-3 NO SEPARATE PAY ITEM |
| | TRAFFIC FLOW ARROW | | R1-1 30"x30" |
| | SIDEWALK (HOMEBUILDER RESPONSIBILITY) | | TYPE "A", "B", "C" 12"x18" |
| | SIDEWALK (SITWORK CONTRACTOR RESPONSIBILITY) | | MAINTENANCE SIGN (24"x18") |
| | TYPE II BLUE RAISED PAVEMENT MARKERS - NO SEPARATE PAY ITEM (N.T.S.) | | |
| | STREET SIGN | | |

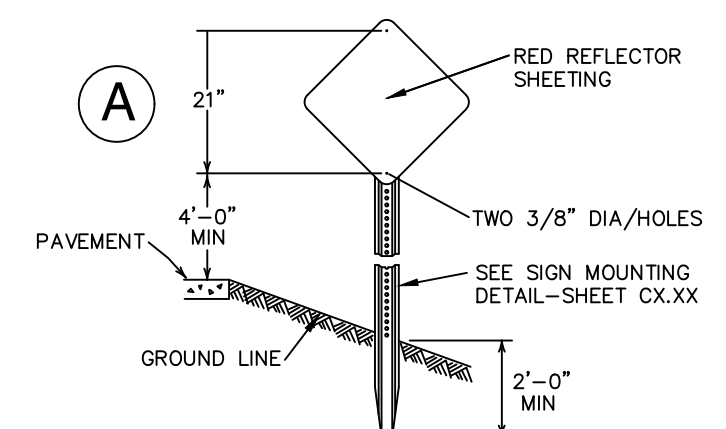


FIRE LANE SIGNAGE NOTES:

- SIGNS SHALL BE MIN SIZE 12"x18" AND HAVE RED LETTERS ON A WHITE REFLECTIVE BACKGROUND.
- SIGNS SHALL BE MOUNTED WITH THE BOTTOM EDGE OF THE SIGN AT LEAST SEVEN (7) FEET ABOVE GRADE AND AT LEAST TWO (2) FEET FROM CURB EDGE.
- SIGNS SHALL BE PLACED AS FOLLOWS:
 - FIRE LANE SIGNS SHALL BE POSTED ON BOTH SIDES OF FIRE APPARATUS ROADS THAT ARE 20 TO 26 FEET WIDE.
 - FIRE LANE SIGNS SHALL BE POSTED ON ONE SIDE OF FIRE APPARATUS ACCESS ROADS MORE THAN 26 FEET WIDE AND LESS THAN 32 FEET WIDE.
- SIGNS TO BE PLACED IN ACCORDANCE WITH THE 2021 INTERNATIONAL FIRE CODE AND SAN ANTONIO'S FIRE CODE AMENDMENTS. THE CONTRACTOR SHALL COORDINATE WITH THE FIRE INSPECTOR FOR APPROVED SIGN LOCATIONS.

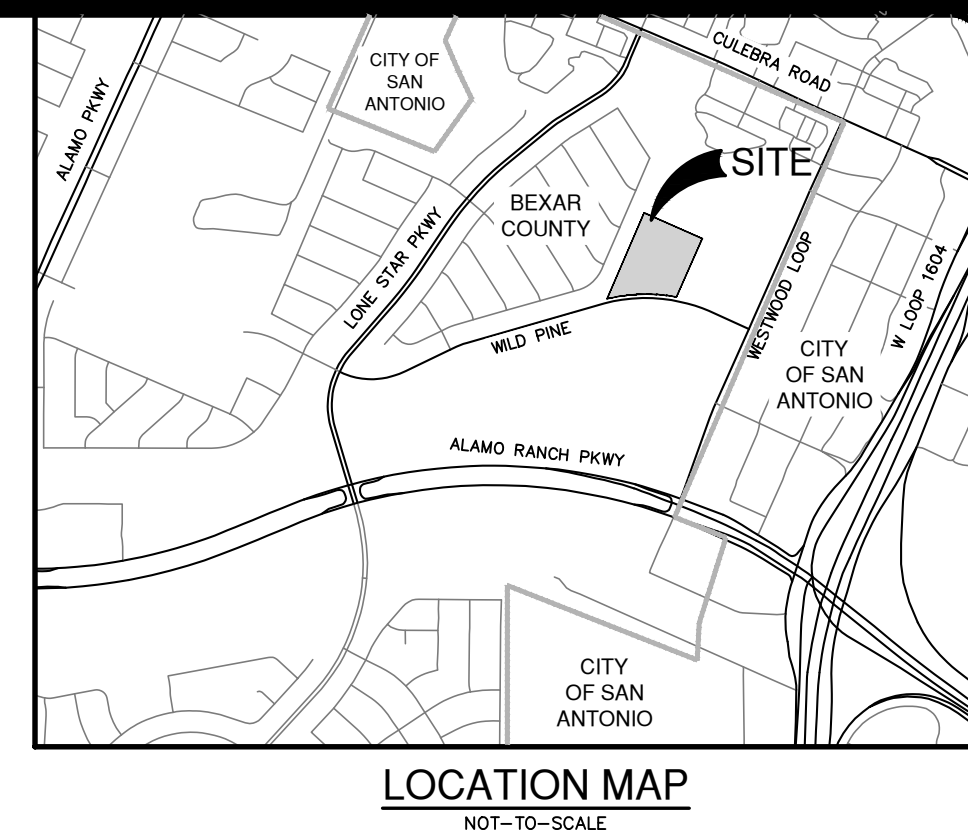
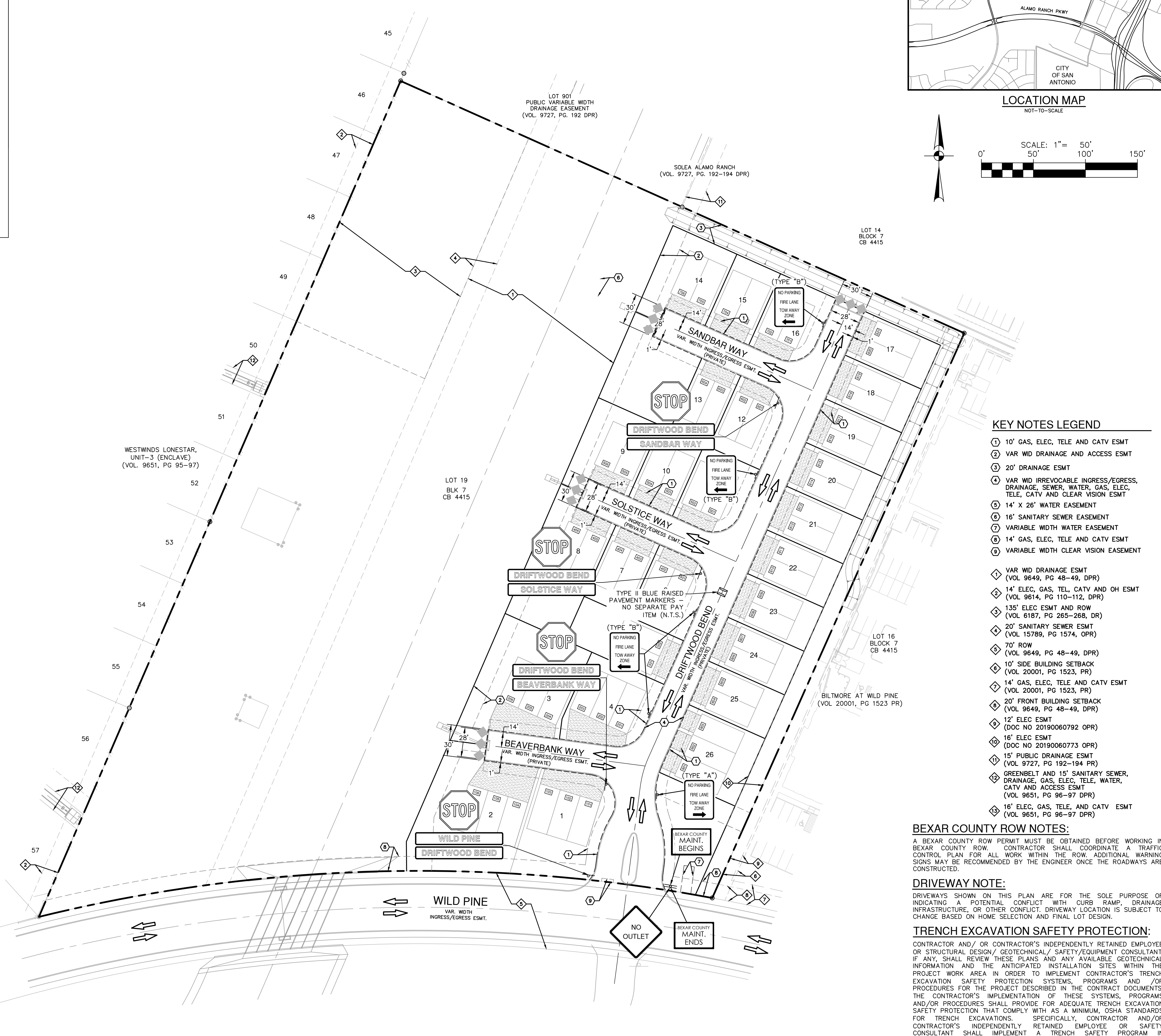


HEADER CURB & BARRICADE POST DETAIL
NOT-TO-SCALE

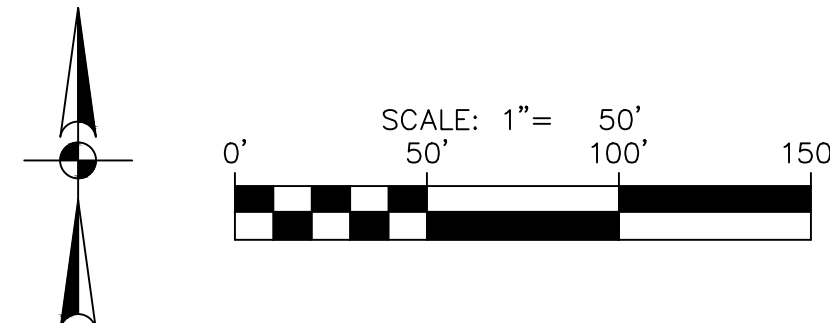


OBJECT MARKER TYPE 4
NOT-TO-SCALE

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LOCATION MAP
NOT-TO-SCALE



KEY NOTES LEGEND

- ① 10' GAS, ELEC, TELE AND CATV ESMT
- ② VAR WID DRAINAGE AND ACCESS ESMT
- ③ 20' DRAINAGE ESMT
- ④ VAR WID IRREVOCABLE INGRESS/EGRESS, DRAINAGE, SEWER, WATER, GAS, ELEC, TELE, CATV AND CLEAR VISION ESMT
- ⑤ 14' X 26' WATER EASEMENT
- ⑥ 16' SANITARY SEWER EASEMENT
- ⑦ VARIABLE WIDTH WATER EASEMENT
- ⑧ 14' GAS, ELEC, TELE AND CATV ESMT
- ⑨ VARIABLE WIDTH CLEAR VISION EASEMENT
- ⑩ VAR WID DRAINAGE ESMT (VOL 9649, PG 48-49, DPR)
- ⑪ 14' ELEC, GAS, TEL, CATV AND OH ESMT (VOL 9614, PG 110-112, DPR)
- ⑫ 135' ELEC ESMT AND ROW (VOL 6187, PG 265-268, DR)
- ⑬ 20' SANITARY SEWER ESMT (VOL 15789, PG 1574, OPR)
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- ⑮ 10' SIDE BUILDING SETBACK (VOL 20001, PG 1523, PR)
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- ㉑ GREENBELT AND 15' SANITARY SEWER, DRAINAGE, GAS, ELEC, TELE, WATER, CATV AND ACCESS ESMT (VOL 9651, PG 96-97 DPR)
- ㉒ 16' ELEC, GAS, TELE, AND CATV ESMT (VOL 9651, PG 96-97 DPR)

BEXAR COUNTY ROW NOTES:

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.

DRIVEWAY NOTE:

DRIVEWAYS SHOWN ON THIS PLAN ARE FOR THE SOLE PURPOSE OF INDICATING A POTENTIAL CONFLICT WITH CURB RAMP, DRAINAGE INFRASTRUCTURE, OR OTHER CONFLICT. DRIVEWAY LOCATION IS SUBJECT TO CHANGE BASED ON HOME SELECTION AND FINAL DESIGN.

TRENCH EXCAVATION SAFETY PROTECTION:

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE 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/OR 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 SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

DATE: _____
 NO. REVISION: _____

Jon Adame
2-10-24

PAPE-DAWSON
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

WILD PINE
 SAN ANTONIO, TEXAS
 OVERALL SIGNAGE PLAN

PLAT NO. 25-11800373
 JOB NO. 13657-13
 DATE FEBRUARY 2026
 DESIGNER JF
 CHECKED JA DRAWN JF
 SHEET C3.00

SIGN SUPPORT DESCRIPTIVE CODES
(Descriptive codes correspond to project estimates and quantities sheets)

SM RD SGN ASSM TY XXXXX(X)(X)(X-XXXX)

Part Type
FRP = Fiberglass Reinforced Plastic Pipe (see SMD(FRP))
TM = Thin Walled Tubing (see SMD(TM))
TBRG = 10 000 TUBING (see SMD(SLIP-1) to (SLIP-3))
SR = Schedule 80 Pipe (see SMD(SLIP-1) to (SLIP-3))

Number of Posts (1 or 2)

Anchor Type
UA = Universal Anchor - Bolted down (see SMD(FRP) and (TM))
UB = Universal Anchor - Bolted down (see SMD(FRP) and (TM))
WS = Wedge Anchor Steel - (see SMD(TM))
WA = Wedge Anchor Plastic (see SMD(TM))
SA = Sillpost - Concrete (see SMD(SLIP-1) to (SLIP-3))
SB = Sillpost - Bolted down (see SMD(SLIP-1) to (SLIP-3))

Sign Mounting Designation
P = Prefab, "Plain" (see SMD(SLIP-1) to (SLIP-3), (TM), (FRP))
T = Prefab, "T" (see SMD(SLIP-1) to (SLIP-3), (TM))
FR = Prefab, "R" (see SMD(SLIP-1) to (SLIP-3), (TM))
EXT or EXT+ = Number of Extensions (see SMD(SLIP-1) to (SLIP-3), (TM))
BM = Extruded Wing Beams (see SMD(SLIP-1) to (SLIP-3))
W = 1.12 W/F Wing Channel (see SMD(SLIP-1) to (SLIP-3))
EXAL = Extruded Aluminum Sign Panels (see SMD(SLIP-3))

REQUIRED CLEARANCE FOR BREAKAWAY SUPPORT

To avoid vehicle undercarriage snagging, any substantial remains of a breakaway support, when it is broken away, should not project more than 4 inches above a 60-inch chord (i.e., typical space between wheel paths).

SIGN LOCATION

PAVED SHOULDERS

LESS THAN 6 FT. WIDE
When the shoulder is 6 ft. or less in width, the sign must be placed at least 12 ft. from the edge of the travel lane.

GREATER THAN 6 FT. WIDE
When the shoulder is greater than 6 ft. in width, the sign must be placed at least 6 ft. from the edge of the shoulder.

BEHIND BARRIER
When a supplemental plaque or secondary sign is used, the 7 ft sign height is measured to the bottom of the supplemental plaque or secondary sign.

BEHIND GUARDRAIL
Sign clearance based on distance required for proper guard rail or concrete barrier performance.

BEHIND CONCRETE BARRIER
Sign clearance based on distance required for proper guard rail or concrete barrier performance.

T-INTERSECTION

When this sign is placed at the end of a two-lane, two-way roadway, the right edge of the sign should be in line with the center line of the roadway. Place as close to look as practical.

TIRES

No more than 2 sign posts should be located within a 7 ft. circle.

TIRES

Acceptable

TIRES

Not Acceptable

TIRES

Not Acceptable

TIRES

Not Acceptable

TIRES

Not Acceptable

TYPICAL SIGN ATTACHMENT DETAIL

Single Signs

Back-to-Back Signs

Boots used to mount sign panels to the clamp are 5/16-18 UNC galvanized square head with nut, nylon washer, flat washer and lock washer. The bolt length is 1 inch for aluminum.

When two sign panels are used to mount signs back-to-back, use a 5/16-18 UNC galvanized hex head per ASTM A307 with nut and flat-top spring lock washer. The approximate bolt lengths for various post sizes and sign types are given in the table at right. The bolt length may need to be adjusted depending upon field conditions.

Sign clamps may be either the specific size clamp or the universal clamp.

| Post Diameter | Approximate Bolt Length |
|----------------|-------------------------|
| 2" nominal | 3 or 3 1/2" |
| 2 1/2" nominal | 3 or 3 1/2" or 4" |
| 3" nominal | 3 1/2 or 4" |

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TRIANGULAR SLIPBASE INSTALLATION GENERAL REQUIREMENTS

GENERAL NOTES:

- Slip base shall be permanently marked to indicate manufacturer, method, design, and location of marking are subject to approval of the TxDOT Traffic Operations Division.
- Material used on post with this system shall conform to the following specifications:
 - 10 000 TUBING (see SMD(SLIP-1) to (SLIP-3))
 - 10 000 TUBING (see SMD(SLIP-1) to (SLIP-3))
 - 0.134" nominal wall thickness
 - Seamless or electric-resistance welded steel tubing or pipe
 - Steel shall be A513 or 55 per ASTM A1011 or ASTM A1008
 - 30,000 PSI minimum yield strength
 - 30,000 PSI minimum tensile strength
 - 0.134" nominal wall thickness
 - Seamless or electric-resistance welded steel tubing or pipe with equivalent outside diameter and wall thickness may be used if they meet the following:
 - 46,000 PSI minimum yield strength
 - 46,000 PSI minimum tensile strength
 - 0.127" nominal wall thickness
 - Steel tubing or pipe shall be within the range of 0.127" to 0.138"
- Wall thickness (uncoated) shall be within the range of 0.241" to 0.264"
- Outside diameter (uncoated) shall be within the range of 2.867" to 2.887"
- Seamless or electric-resistance welded steel tubing (ASTM A513), except tube outside diameter welded seam by metalizing with zinc wire per ASTM B833.
- Schedule 80 Pipe (ASTM A53) outside diameter
- 0.276" nominal wall thickness
- Steel tubing or pipe shall be within the range of 0.241" to 0.264"
- Outside diameter (uncoated) shall be within the range of 2.867" to 2.887"
- Seamless or electric-resistance welded steel tubing or pipe with equivalent outside diameter and wall thickness may be used if they meet the following:
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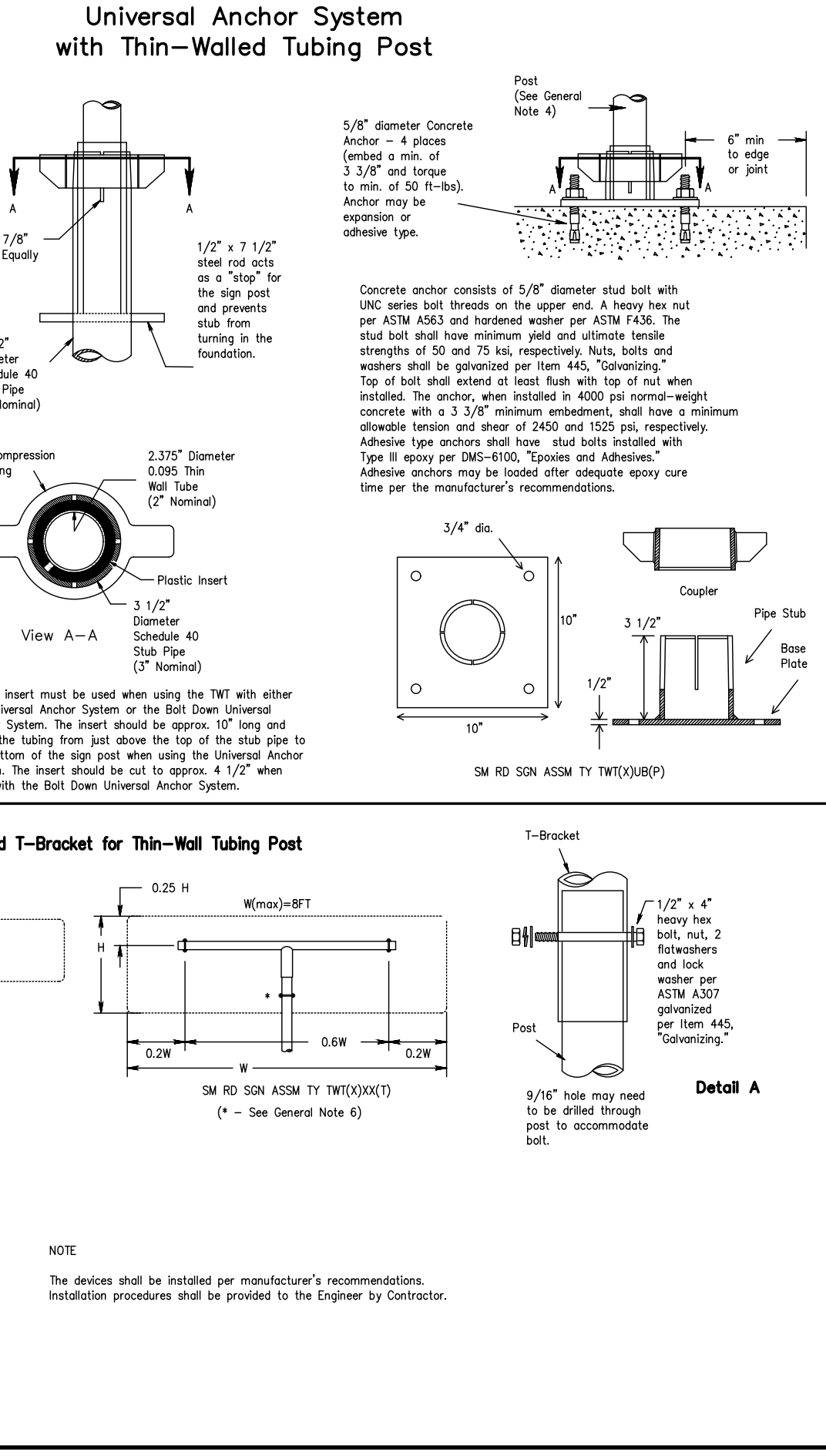
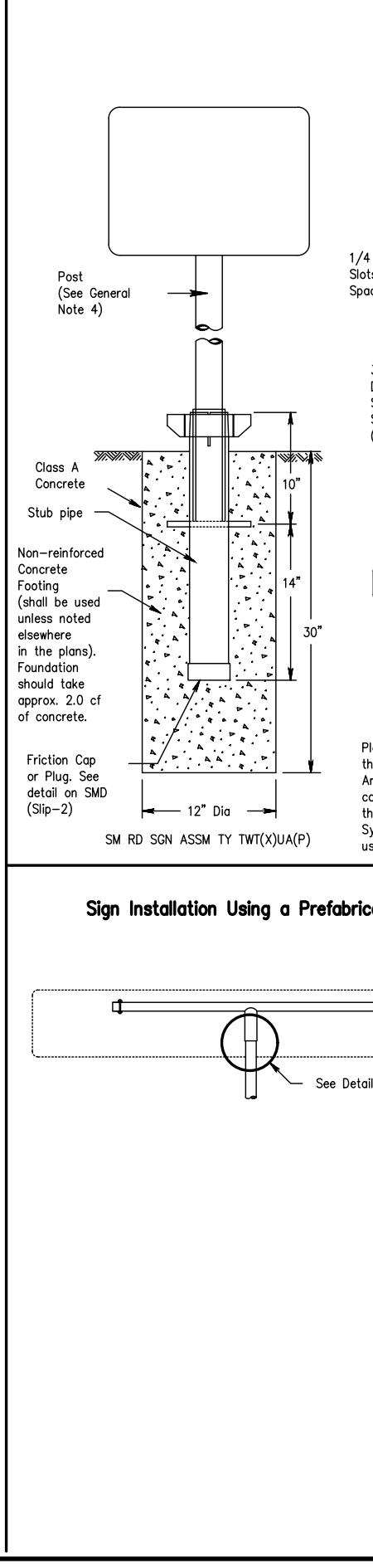
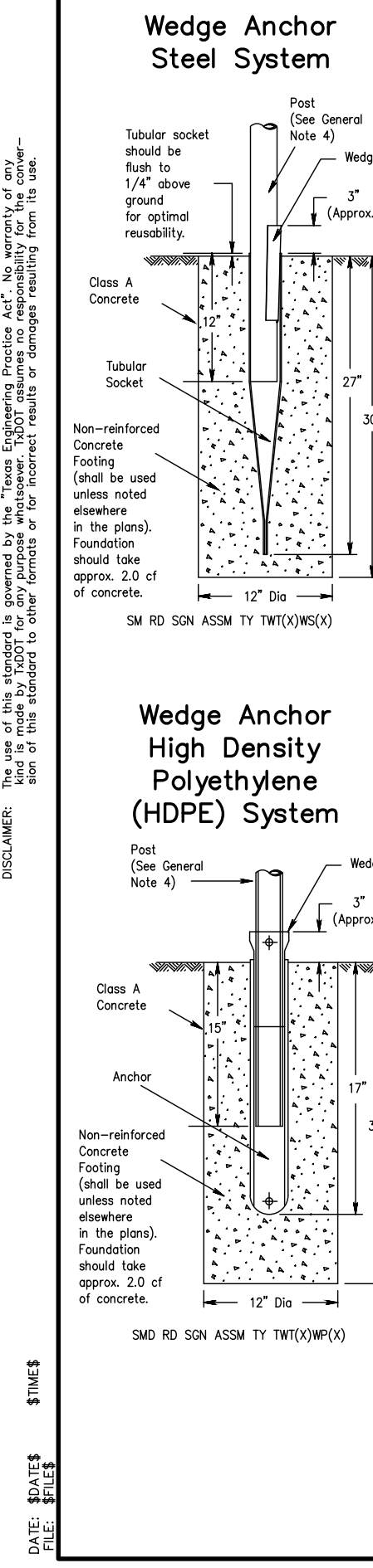
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- Schedule 80 Pipe (ASTM A53) outside diameter
- 0.276



GENERAL NOTES:

- The Wedge Anchor System and the Universal Anchor System with thin wall tubing post may be used to support up to 10 square feet of sign area.
- The tubular socket, wedge and prefabricated T-bracket shall be permanently marked to indicate manufacturer, material, design, and location of marking are subject to the approval of the TxDOT Traffic Operations Engineer.
- Except for posts (13 BWC Tubing), clamps, nuts and bolts, all components shall be prefabricated. A list of prefabricated vendors may be obtained from the Materials Producer List web page. The website address is: <http://www.txdot.gov/procurement/materials/>
- Material used on post with this system shall conform to the following specifications:
 - 13 BWC Tubing (2.375" outside diameter) (TW):
 - 0.005" nominal wall thickness
 - Seamless or electrically welded steel tubing
 - Steel shall be A513 or A514 or ASTM A1011 or ASTM A1008
 - Other steels may be used if they meet the following:
 - 55,000 PSI minimum yield strength
 - 70,000 PSI minimum tensile strength
 - 18% minimum elongation in 2"
 - Wall thickness (uncoated) shall be within the range of .085" to .099"
 - Outside diameter (uncoated) shall be within the range of 2.360" to 2.381"
 - Galvanization per ASTM 123 or ASTM A653 G210. For pre-coated steel tubing (ASTM A653), reveal hole outside diameter weld seam by metalizing with zinc wire per ASTM B333.
- Sign bases shall be the sites and shapes shown on the plans.
- Additional sign clamp required on the "T-bracket" post for 24" high signs. Place clamp at least 3" above bottom of sign when possible.
- Sign supports shall not be applied except where shown. Sign support posts shall not be spliced.
- See the Traffic Operations Division website for detailed drawings of sign clamps and Wedge Anchor System components. The website address is: <http://www.txdot.gov/procurement/materials/>

WEDGE ANCHOR SYSTEM INSTALLATION PROCEDURE:

- Drill foundation hole. When solid rock is encountered at ground level, the foundation shall be a minimum depth of 18". When solid rock is encountered below ground level, the foundation shall extend in the solid rock a minimum depth of 18" or provide a minimum foundation depth of 30". If solid rock is encountered, the socket/stub shall be recessed in length as required to a minimum length of 18". Any material removed from the socket/stub shall be from the bottom and the clearance requirements given on SMD(TWT) shall be followed. The inner surfaces of the socket/stub must remain free of concrete or other debris. The Engineer may permit batches of concrete less than 2 cubic yards to be mixed with a portable, motor driven concrete mixer. For small placements less than 0.5 cubic yards, hand mixing in a suitable container may be allowed by Engineer. Place concrete into hole until it is approximately flush with the ground. Concrete shall be Class A.
- Insert tubular socket into concrete until top of socket is approximately 1/4" above the concrete footing.
- Insert plastic insert into concrete until top of insert is flush with the ground. Concrete shall be Class A.
- Attach the sign to the sign post.
- Insert the sign post into socket and align sign face with roadway.
- Drive the wedge into the socket to secure post. This will leave approximately 3 inches of wedge above the sign post.

UNIVERSAL ANCHOR SYSTEM INSTALLATION PROCEDURE:

- Drill foundation hole. When solid rock is encountered at ground level, the foundation shall be a minimum depth of 18". When solid rock is encountered below ground level, the foundation shall extend in the solid rock a minimum depth of 18" or provide a minimum foundation depth of 30". If solid rock is encountered, the socket/stub shall be recessed in length as required to a minimum length of 18". Any material removed from the socket/stub shall be from the bottom and the clearance requirements given on SMD(FRP) shall be followed. The inner surfaces of the socket/stub must remain free of concrete or other debris. The Engineer may permit batches of concrete less than 2 cubic yards to be mixed with a portable, motor driven concrete mixer. For small placements less than 0.5 cubic yards, hand mixing in a suitable container may be allowed by Engineer. Place concrete into hole until it is approximately flush with the ground. Concrete shall be Class A.
- Insert tubular socket into concrete until top of socket is approximately 1/4" above the concrete footing.
- Insert plastic insert into concrete until top of insert is flush with the ground. Concrete shall be Class A.
- Attach the sign to the sign post.
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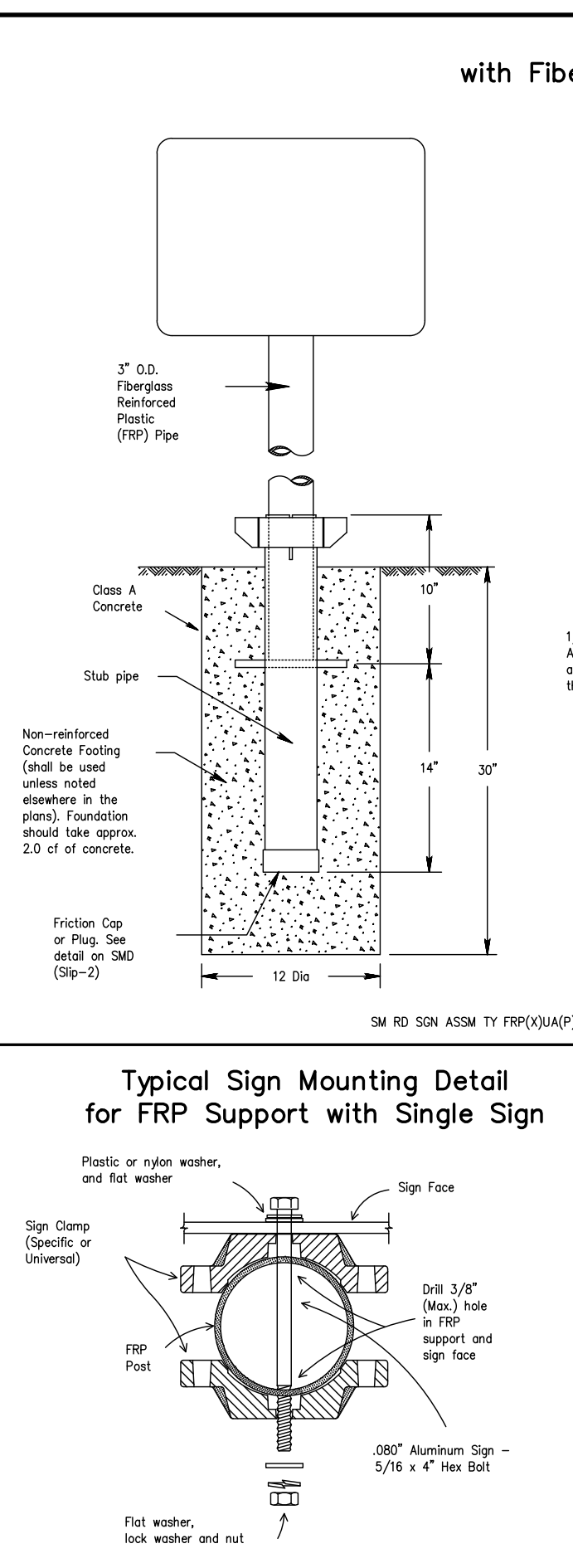
- Position base plate with coupler on existing concrete.
- Drill holes into concrete and insert the 5/8" diameter bolts with wedge anchors, and tighten nuts.
- Attach sign to FRP post.
- Insert bottom of sign post into pipe stub.
- Use hammer to ensure the coupler is firmly seated. Top of coupler should be level with top of base post in most instances.
- Check sign to ensure there is no twist. If loose, increase the tightening of coupler.

BOLT-DOWN SIGN SUPPORT:

- Position base plate with coupler on existing concrete.
- Drill holes into concrete and insert the 5/8" diameter bolts with wedge anchors, and tighten nuts.
- Attach sign to FRP post.
- Insert bottom of sign post into pipe stub.
- Use hammer to ensure the coupler is firmly seated. Top of coupler should be level with top of base post in most instances.
- Check sign to ensure there is no twist. If loose, increase the tightening of coupler.

NOTE:
The devices shall be installed per manufacturer's recommendations. Installation procedures shall be provided to the Engineer by Contractor.

DATE: 09-08
REVISED: 09-08
SHEET NO. 252



GENERAL NOTES:

- FRP sign supports for a single type sign support may be used for signs up to and including 16 square feet. Dual post installation may be used for signs up to and including 32 square feet.
- All nuts, bolts and washers shall be galvanized per Item 445, "Galvanizing".
- See the Traffic Operations Division website for detailed drawings of sign clamps. The website address is: <http://www.txdot.gov/procurement/materials/>

FRP POST REQUIREMENTS:

- Materials shall conform to the requirements of Departmental Material Specification DMS-4410 and will be furnished in a yellow or grey color as specified elsewhere in the plans.
- Thickness of FRP sign support is (1/2" ± 0.031" - 0.0").
- FRP sign supports are prefabricated by the Traffic Operations Division. Prefabrication procedures are obtained by writing:
 - Texas Department of Transportation
 - Traffic Operations Division
 - 125 East 11th Street
 - Austin, Texas 78701-2483

UNIVERSAL ANCHOR SYSTEM INSTALLATION PROCEDURE:

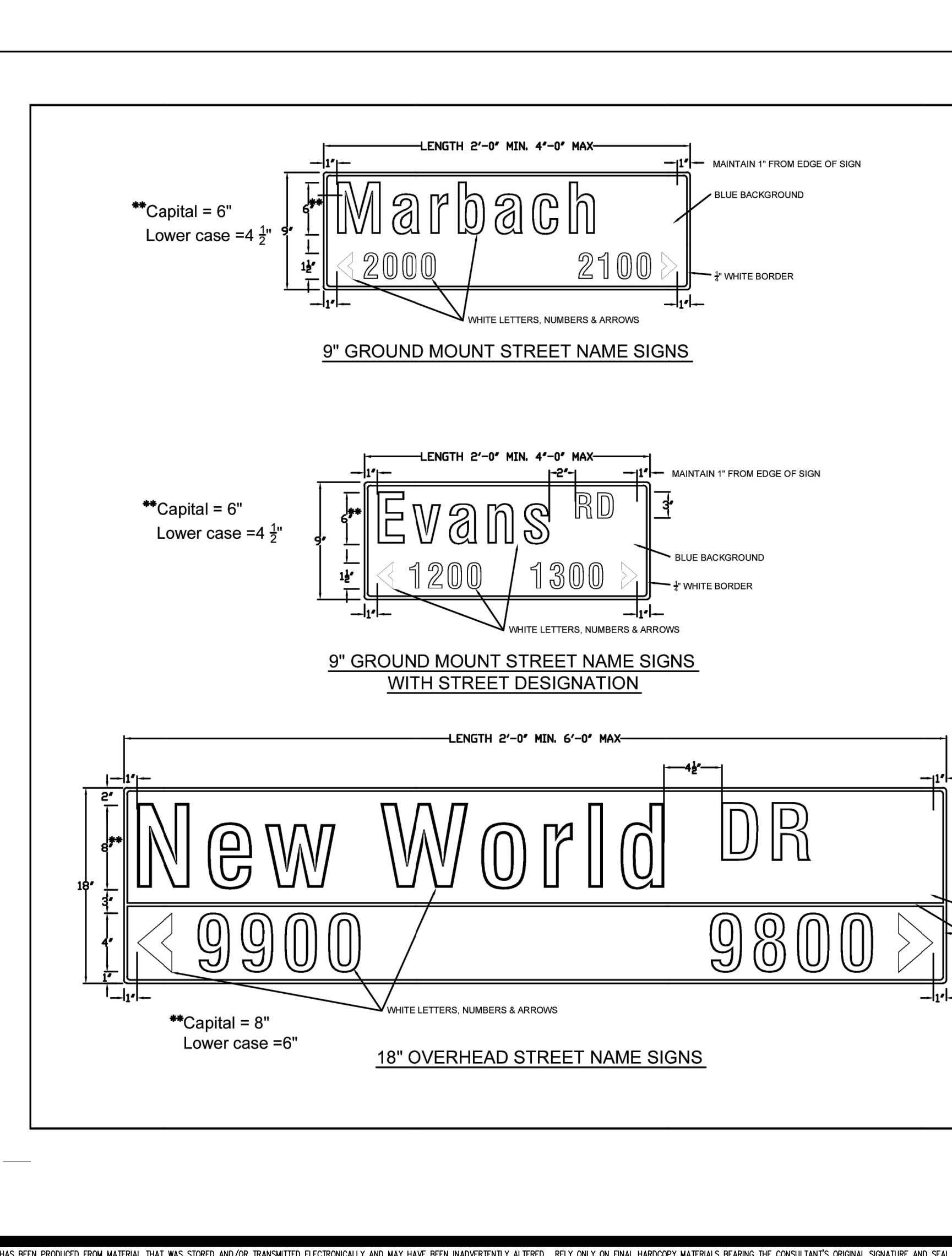
- Drill foundation hole. When solid rock is encountered at ground level, the foundation shall be a minimum depth of 18". When solid rock is encountered below ground level, the foundation shall extend in the solid rock a minimum depth of 18" or provide a minimum foundation depth of 30". If solid rock is encountered, the socket/stub shall be recessed in length as required to a minimum length of 18". Any material removed from the socket/stub shall be from the bottom and the clearance requirements given on SMD(FRP) shall be followed. The inner surfaces of the socket/stub must remain free of concrete or other debris. The Engineer may permit batches of concrete less than 2 cubic yards to be mixed with a portable, motor driven concrete mixer. For small placements less than 0.5 cubic yards, hand mixing in a suitable container may be allowed by Engineer. Concrete shall be Class A.
- Insert base post in foundation hole to depth shown and fill hole with concrete. Cut base post from bottom and ensure a minimum of 18" embedment if installed in solid rock.
- Level and plumb the base post with coupler using a tripod level and let concrete set a minimum of 4 days, unless otherwise directed by Engineer.
- Insert bottom of sign post into pipe stub.
- Attach sign to FRP post.
- Insert sign post into base post. Lower until the post comes to rest on the steel rod.
- Use hammer to ensure the coupler is firmly seated. Top of coupler should be level with top of base post in most instances.
- Check sign to ensure there is no twist. If loose, increase the tightening of coupler.

BOLT-DOWN SIGN SUPPORT:

- Position base plate with coupler on existing concrete.
- Drill holes into concrete and insert the 5/8" diameter bolts with wedge anchors, and tighten nuts.
- Attach sign to FRP post.
- Insert bottom of sign post into pipe stub.
- Use hammer to ensure the coupler is firmly seated. Top of coupler should be level with top of base post in most instances.
- Check sign to ensure there is no twist. If loose, increase the tightening of coupler.

NOTE:
The devices shall be installed per manufacturer's recommendations. Installation procedures shall be provided to the Engineer by Contractor.

DATE: 09-08
REVISED: 09-08
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| | 18" OVERHEAD SIGN | 9" GROUND MOUNT SIGNS |
|---------------------|---|---|
| HEIGHT | 18" (381 mm) | 9" (228 mm) |
| LENGTH | 48" (1200 mm) MIN. 72" (1800 mm) MAX. 1" (25.4 mm) INCREMENTS OF LENGTH | 24" (600 mm) MIN. 48" (1200 mm) MAX. 6" (152.4 mm) INCREMENTS OF LENGTH |
| THICKNESS | 0.125" (3 mm) | |
| SUBSTRATE | ALUMINUM ALLOY 5052-H32 (ASTM B-209) GOLD CHROMATE FINISH | |
| SIGN FACE MATERIALS | BLUE FILM * OVER DIAMOND GRADE -ASTM Type XI Non-Fluorescent | BLUE FILM * OVER HIGH INTENSITY PRISMATIC-ASTM Type IV Non-Fluorescent |
| LEGENDS AND SYMBOLS | IF NAME OTHERWISE EXCEEDS MAXIMUM SIGN LENGTH | |
| COLOR | WHITE LEGEND ON BLUE BACKGROUND | |
| LETTER TRACKING | 17% (USUAL) | 10% |

* ACRYLIC ELECTRONIC CUTTABLE FILM

SPAN WIRE INSTALLATION

MAST ARM INSTALLATION

SIGN FACE MATERIALS SHALL CONFORM TO:

- STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS & BRIDGES ON FEDERAL HIGHWAY PROJECTS - FRP-02 U.S. CUSTOMARY UNITS SECTION 718
- GENERAL SERVICES ADMINISTRATION FEDERAL SPECIFICATIONS L-S-300C
- ASTM D 4955 - 09a1

DATE: 09-08
REVISED: 09-08
SHEET NO. 254

DATE: _____

NO. REVISION: _____

STATE OF TEXAS
JON D. ADAME
LICENSED PROFESSIONAL ENGINEER
82567

Jon Adame
11-25-25

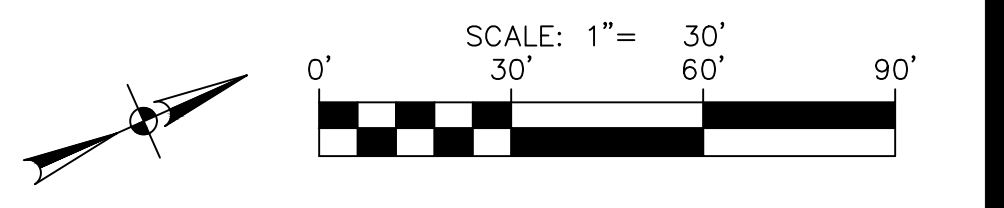
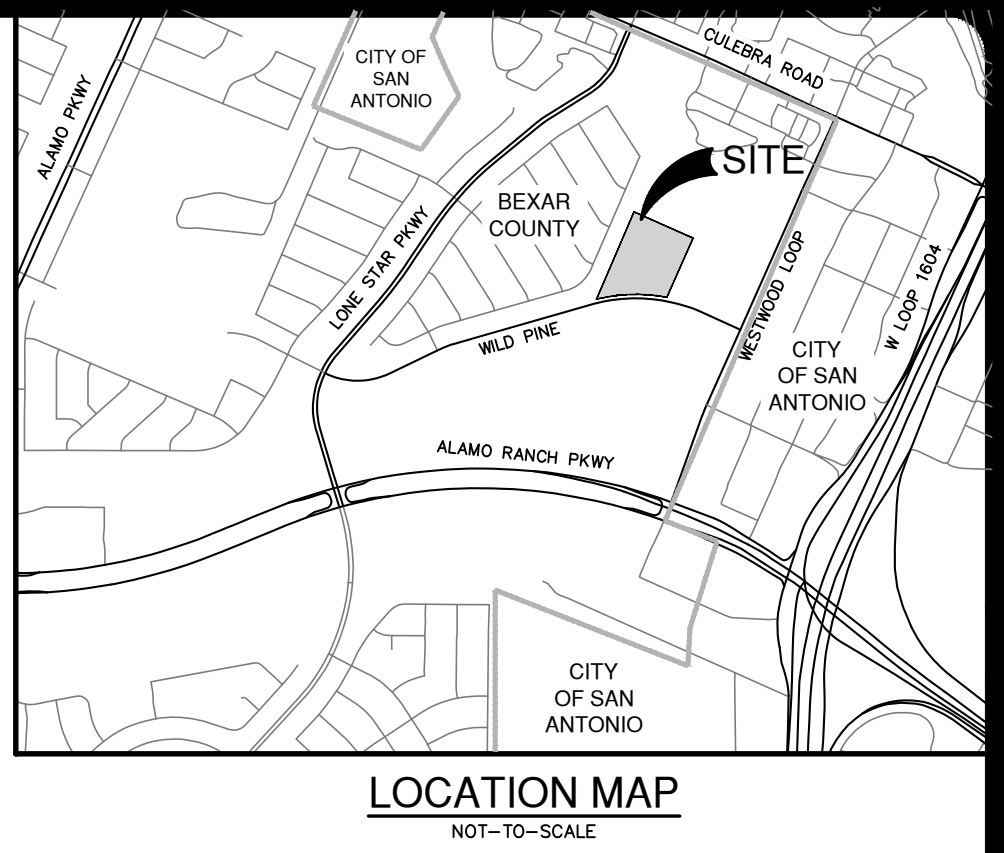
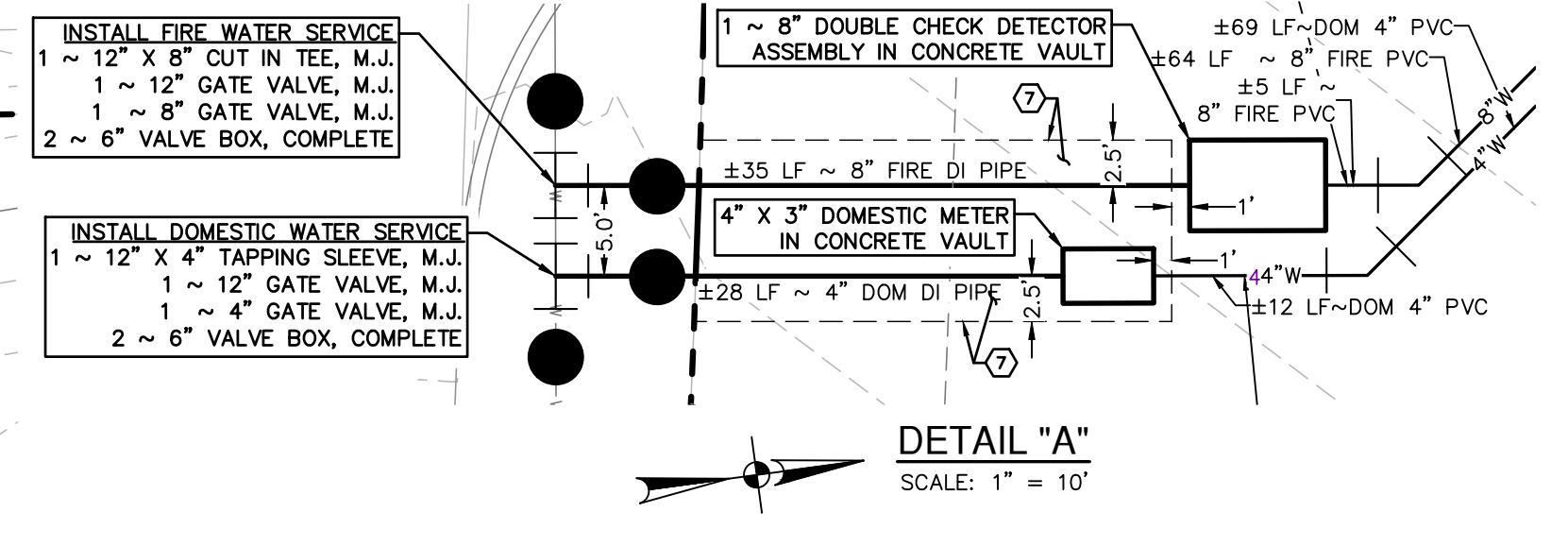
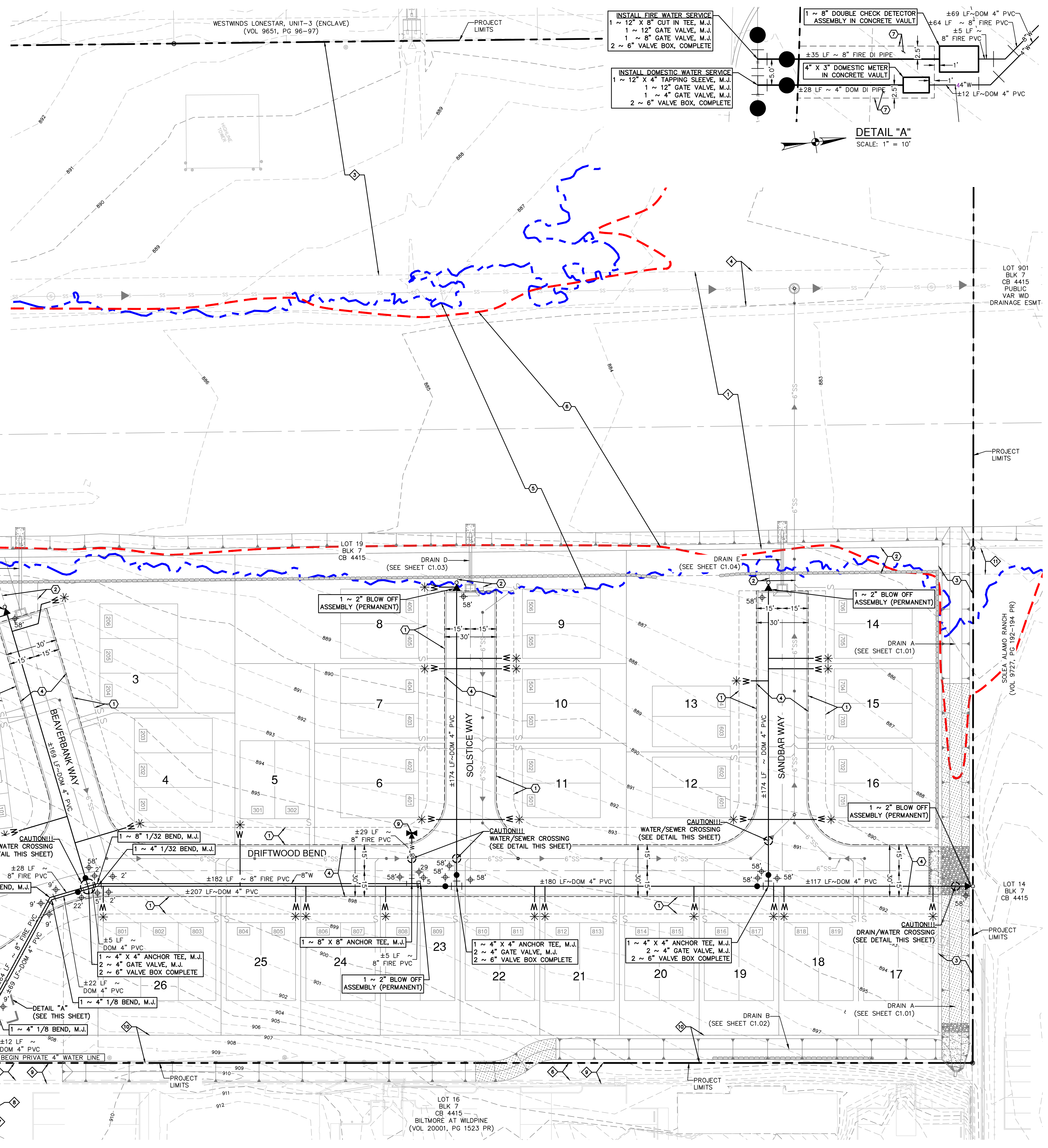
PAPE-DAWSON
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028690

PLAT NO. 25-11800373
JOB NO. 13657-13
DATE NOVEMBER 2025
DESIGNER -
CHECKED - DRAWN -
SHEET C3.02

WILD PINE
SAN ANTONIO, TEXAS
SIGNAGE DETAILS

KEY NOTES LEGEND

- ① 10' GAS, ELEC, TELE AND CATV ESMT
- ② VAR WID DRAINAGE AND ACCESS ESMT
- ③ 20' DRAINAGE ESMT
- ④ VAR WID IRREVOCABLE INGRESS/EGRESS, DRAINAGE, SEWER, WATER, GAS, ELEC, TELE, CATV AND CLEAR VISION ESMT
- ⑤ EFFECTIVE (EXISTING) FEMA 1% ANNUAL CHANCE (100-YR) FLOODPLAIN (FIRM PANEL NO. 48029C0355G EFFECTIVE 9-29-2010)
- ⑥ 1% ANNUAL CHANCE (100-YR) ATLAS 14 UD CONDITIONS FLOODPLAIN (PAPE-DAWSON FLOOD STUDY)
- ⑦ VAR WIDTH WATER ESMT
- ⑧ CONTRACTOR TO VERIFY LOCATION OF EXISTING 12" MAIN (SAWS JOB NO. 09-5045) BEFORE BEGINNING CONSTRUCTION. CONTRACTOR SHALL TIE TO EXISTING 12" POTABLE WATER MAIN AFTER DISINFECTION & ACCEPTANCE BY SAWS
- ⑨ FOR CHLORINATION INJECTION: 2-1" CORPORATION STOP, C.C.x I.P. 1-1" COPPER TUBING, CUT AS REQ'D 2-1 1/4" THD SOLID CAPS 1-2" BLOWOFF ASSEMBLY (TEMPORARY) SEE SAWS STD DETAIL DD-847-01 & TABLE B47-1
- ⑩ NOT USED
- ⑪ 10' GAS, ELEC, TELE AND CATV ESMT
- ⑫ VAR WID DRAINAGE ESMT (VOL 9649, PG 48-49, DPR)
- ⑬ 14' ELEC, GAS, TEL, CATV AND OH ESMT (VOL 9614, PG 110-112, DPR)
- ⑭ 135' ELEC ESMT AND ROW (VOL 6187, PG 265-268, DR)
- ⑮ 20' SANITARY SEWER ESMT (VOL 15789, PG 1574, OPR)
- ⑯ 70' ROW (VOL 9649, PG 48-49, DPR)
- ⑰ 10' SIDE BUILDING SETBACK (VOL 20001, PG 1523, PR)
- ⑱ 14' GAS, ELEC, TELE AND CATV ESMT (VOL 20001, PG 1523, PR)
- ⑲ 20' FRONT BUILDING SETBACK (VOL 9649, PG 48-49, DPR)
- ⑳ 12' ELEC ESMT (DOC NO 20190060792 OPR)
- ㉑ 16' ELEC ESMT (DOC NO 20190060773 OPR)
- ㉒ 15' PUBLIC DRAINAGE ESMT (VOL 9727, PG 192-194 PR)
- ㉓ GREENBELT AND 15' SANITARY SEWER, DRAINAGE, GAS, ELEC, TELE, WATER, CATV AND ACCESS ESMT (VOL 9651, PG 96-97 DPR)
- ㉔ 16' ELEC, GAS, TELE, AND CATV ESMT (VOL 9651, PG 96-97 DPR)



- LEGEND**
- PROPERTY LINE
 - EXISTING OVERHEAD ELECTRIC
 - EXISTING WATER LINE
 - EXISTING FIRE HYDRANT
 - PROPOSED WATER MAIN
 - PROPOSED WATER METER
 - PROPOSED FIRE HYDRANT
 - PROPOSED UNDERGROUND ELECTRIC
 - JUNCTION BOX
 - WITH GRATE
 - PROPOSED STORM DRAINAGE
 - EXISTING SANITARY SEWER
 - PROPOSED SANITARY SEWER
 - ZERO LOT LINE
 - RETAINING WALL (SEE STRUCTURAL PLANS)
 - 100-YR FEMA EFFECTIVE FLOODPLAIN
 - 100-YR ULTIMATE DEVELOPMENT FLOODPLAIN (SARA DRAFT FP)

ADDRESS
11305 WILD PINE
SAN ANTONIO, TEXAS 78253

LEGAL DESCRIPTION
BEING A TOTAL OF 9.606 ACRE TRACT OF LAND, ESTABLISHING LOT 19, BLOCK 7, COUNTY BLOCK 4415 OUT OF A CALLED 2275.17 ACRE TRACT DESCRIBED IN DEED TO WILD PINE SAN ANTONIO LLC, RECORDED IN DOCUMENT 20230021064 OF THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS, OUT OF THE AJ LESLIE SURVEY NO. 217, ABSTRACT 436, COUNTY BLOCK 4415, BEXAR COUNTY, TEXAS.

NOTE
SEE SHEET C0.10 FOR ADDITIONAL GENERAL NOTES.

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.

TRENCH EXCAVATION SAFETY PROTECTION
CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE 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/OR 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 SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

WATER (PRESSURE ZONE PZ 1111 MIDDLE)

| | |
|-------------------------------|---|
| DEVELOPER'S NAME: | WILD PINE SAN ANTONIO LLC |
| ADDRESS: | 440 LOUISIANA, STE 952 |
| CITY: | HOUSTON |
| STATE: | TX |
| ZIP: | 77002 |
| PHONE#: | (540) 305-4056 |
| FAX#: | |
| SAWS BLOCK MAP#: | 090602 TOTAL EDU'S: 28.5 TOTAL ACREAGE: 9.606 |
| TOTAL LINEAR FOOTAGE OF PIPE: | PRIVATE PLAT NO. 25-11800373 |
| NUMBER OF LOTS: | 26 SAWS JOB NO. CTR-346875 |

DATE: _____

NO. REVISION: _____

J. Adame
12-8-25

PAPE-DAWSON
2000 NW LOOP 410 | SAN ANTONIO, TX 78243 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

WILD PINE
SAN ANTONIO, TEXAS

OVERALL WATER DISTRIBUTION PLAN

| | |
|----------|---------------|
| PLAT NO. | 25-11800373 |
| JOB NO. | 13657-13 |
| DATE | DECEMBER 2025 |
| DESIGNER | CB |
| CHECKED | JA DRAWN CB |
| SHEET | C4.00 |

Notes: Rev: 08, 09/25, 3:08pm, User: J. Adame, Job: 13657-13, Date: 12/08/25, File: P:\13657-13\Drawings\CDR\WATER\04-13657-13.dwg

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SAWS CONSTRUCTION NOTES

(LAST REVISED JANUARY 2022)

SAWS GENERAL SECTION

- 1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND COMPLY WITH THE PLANS, SPECIFICATIONS, GENERAL CONDITIONS AND WITH THE FOLLOWING AS APPLICABLE:
A. CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) "DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEM"; TEXAS ADMINISTRATIVE CODE (TAC) TITLE 30 PART 1 CHAPTER 217 AND "PUBLIC DRINKING WATER"; TAC TITLE 30 PART 1 CHAPTER 290.
B. CURRENT TXDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE".
C. CURRENT "SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR WATER AND "SANITARY SEWER CONSTRUCTION".
D. CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION".
E. CURRENT CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL" (UECM).
2. THE CONTRACTOR SHALL NOT PROCEED WITH ANY PIPE INSTALLATION WORK UNTIL THEY OBTAIN A COPY OF THE APPROVED COUNTER PERMIT OR GENERAL CONSTRUCTION PERMIT (GCP) FROM THE CONSULTANT AND HAS BEEN NOTIFIED BY SAWS CONSTRUCTION INSPECTION DIVISION TO PROCEED WITH THE WORK AND HAS ARRANGED A MEETING WITH THE INSPECTOR AND CONSULTANT FOR THE WORK REQUIREMENTS. WORK COMPLETED BY THE CONTRACTOR WITHOUT AN APPROVED COUNTER PERMIT AND/OR A GCP WILL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE EXPENSE OF THE CONTRACTORS AND/OR THE DEVELOPER.
3. THE CONTRACTOR SHALL OBTAIN THE SAWS STANDARD DETAILS FROM THE SAWS WEBSITE, HTTP://WWW.SAWS.ORG/BUSINESS_CENTER/SPECS. UNLESS OTHERWISE NOTED WITHIN THE DESIGN PLANS.
4. THE CONTRACTOR IS TO MAKE ARRANGEMENTS WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT (210) 233-2973, ON NOTIFICATION PROCEDURES THAT WILL BE USED TO NOTIFY AFFECTED HOME RESIDENTS AND/OR PROPERTY OWNERS 48 HOURS PRIOR TO BEGINNING ANY WORK.
5. LOCATION AND DEPTH OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND DEPTHS MUST BE FIELD VERIFIED BY THE CONTRACTOR AT LEAST 1 WEEK PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM DURING CONSTRUCTION AT NO COST TO SAWS.
6. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES AT LEAST 1-2 WEEKS PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT. PLEASE ALLOW UP TO 7 BUSINESS DAYS FOR LOCATES REQUESTING PIPE LOCATION MARKERS ON SAWS FACILITIES. THE FOLLOWING 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
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING AND STRUCTURES TO ITS ORIGINAL OR BETTER CONDITION IF DAMAGES ARE MADE AS A RESULT OF THE PROJECT'S CONSTRUCTION.
8. ALL WORK IN TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) AND/OR BEXAR COUNTY RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH RESPECTIVE CONSTRUCTION SPECIFICATIONS AND PERMIT REQUIREMENTS.
9. THE CONTRACTOR SHALL COMPLY WITH CITY OF SAN ANTONIO OR OTHER GOVERNING MUNICIPALITY'S TREE ORDINANCES WHEN EXCAVATING NEAR TREES.
10. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIALS IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN PERMIT.
11. HOLIDAY WORK: CONTRACTORS WILL NOT BE ALLOWED TO PERFORM SAWS WORK ON SAWS RECOGNIZED HOLIDAYS. REQUEST SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG.
WEEKEND WORK: CONTRACTORS ARE REQUIRED TO NOTIFY THE SAWS INSPECTION CONSTRUCTION DEPARTMENT 48 HOURS IN ADVANCE TO REQUEST WEEKEND WORK. REQUEST SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG.
ANY AND ALL SAWS UTILITY WORK INSTALLED WITHOUT HOLIDAY/WEEKEND APPROVAL WILL BE SUBJECT TO BE UNCOVERED FOR PROPER INSPECTION.
12. COMPACTION NOTE (ITEM 804): THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETINGS THE COMPACTION REQUIREMENTS ON ALL FRENCH BACKFILL AND FOR PAYING FOR THE TESTS PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED, OR AS INDICATED BY THE SAWS INSPECTOR AND/OR THE TEST ADMINISTRATOR, PER EACH 12-INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.
13. A COPY OF ALL TESTING REPORTS SHALL BE FORWARDED TO SAWS CONSTRUCTION INSPECTION DIVISION.

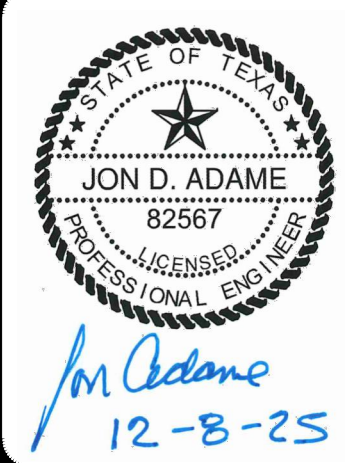
PROJECT WATER NOTES

- 1. MACHINE CHLORINATION BY THE S.A.W.S.
2. ALL 8", 12" AND 16" PIPE SHALL BE P.V.C. C-900 CLASS 235 DR 18.
3. ALL MAINS SHALL BE HYDROSTATICALLY TESTED BY THE CONTRACTOR, AS PROVIDED FOR IN THE SPECIAL CONDITIONS.
4. 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 IT 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 ENGINEER SHOULD BE NOTIFIED IMMEDIATELY AFTER CONSTRUCTION BEGINS. ALL CONSTRUCTION STAKES, MARKS, ETC., SHALL BE CAREFULLY PRESERVED BY THE CONTRACTOR, AND IN CASE OF DESTRUCTION OR REMOVAL BY THE CONTRACTOR, HIS EMPLOYEE OR ANY OTHER MEANS, SUCH STAKES, MARKS, ETC., SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH ALL THE FINAL MEASUREMENTS, TAPS AND LENGTH OF SERVICE CONNECTIONS.
6. 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.
7. 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 BY THE CONTRACTOR, AT HIS EXPENSE.
9. ALL GARBAGE OR SPOIL MATERIAL FROM THIS WORK SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR, AT HIS EXPENSE.
10. 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.
11. 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).
12. 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" (1998 OR ANY REVISIONS THERE TO).
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.
14. SAWS REQUIRES LEAD FREE (< 0.25%) FIRE HYDRANTS.
15. UNLESS OTHERWISE NOTED ALL SERVICES SHALL BE 3/4" WITH 5/8" METER.

SAWS WATER NOTES

- 1. 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 ACCORDINGLY.
• FOR WATER MAINS 12" OR HIGHER: SAWS EMERGENCY OPERATIONS CENTER (210) 233-2014
2. 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".
3. 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)
4. 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 745 FEET WHERE THE STATIC PRESSURE WILL NORMALLY EXCEED 80 PSI. AT ALL SUCH LOCATIONS WHERE THE GROUND LEVEL IS BELOW 745 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 (PRV).
7. PIPE DISINFECTION WITH DRY HTH FOR PROJECTS LESS THAN 800 LINEAR FEET. (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.
9. FINAL CONNECTION TO THE EXISTING WATER MAIN SHALL NOT BE MADE 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.

Table with columns: DATE, NO., REVISION. Contains a grid for tracking changes.



PAPE-DAWSON
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028860

WILD PINE
SAN ANTONIO, TEXAS
WATER DISTRIBUTION PLAN NOTES

WATER (PRESSURE ZONE PZ 1111 MIDDLE)

Form containing project details: DEVELOPER'S NAME: WILD PINE SAN ANTONIO LLC, ADDRESS: 440 LOUISIANA, STE 952, CITY: HOUSTON, STATE: TX, ZIP: 77002, PHONE: (540) 305-4056, FAX: SAWS BLOCK MAP# 090602, TOTAL EDU'S 28.5, TOTAL ACREAGE 9.606, TOTAL LINEAR FOOTAGE OF PIPE: PRIVATE, PLAT NO. 25-11800373, NUMBER OF LOTS 26, SAWS JOB NO. CTR-346875.

Form containing job details: PLAT NO. 25-11800373, JOB NO. 13657-13, DATE DECEMBER 2025, DESIGNER XX, CHECKED XX, DRAWN XX, SHEET C4.11.

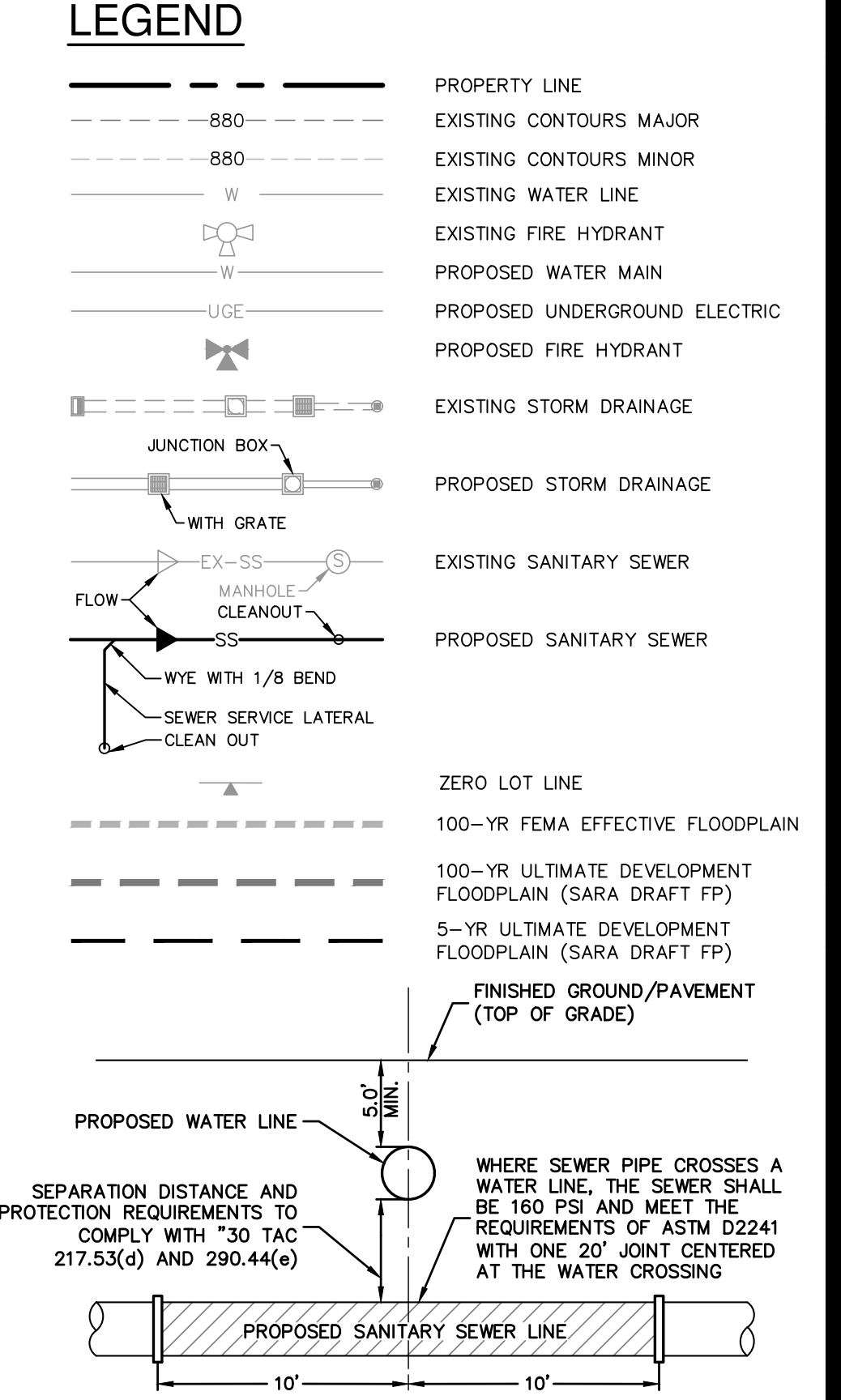
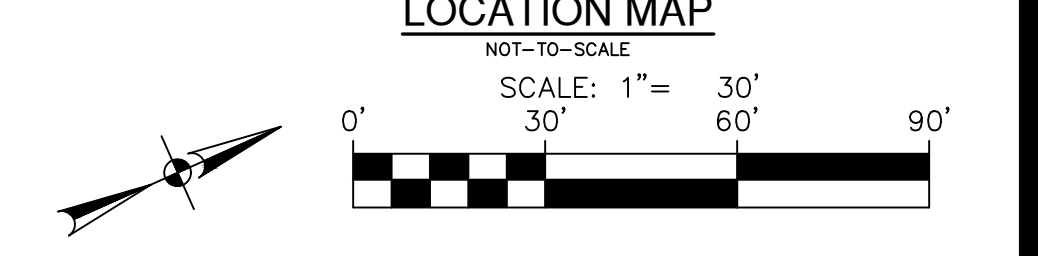
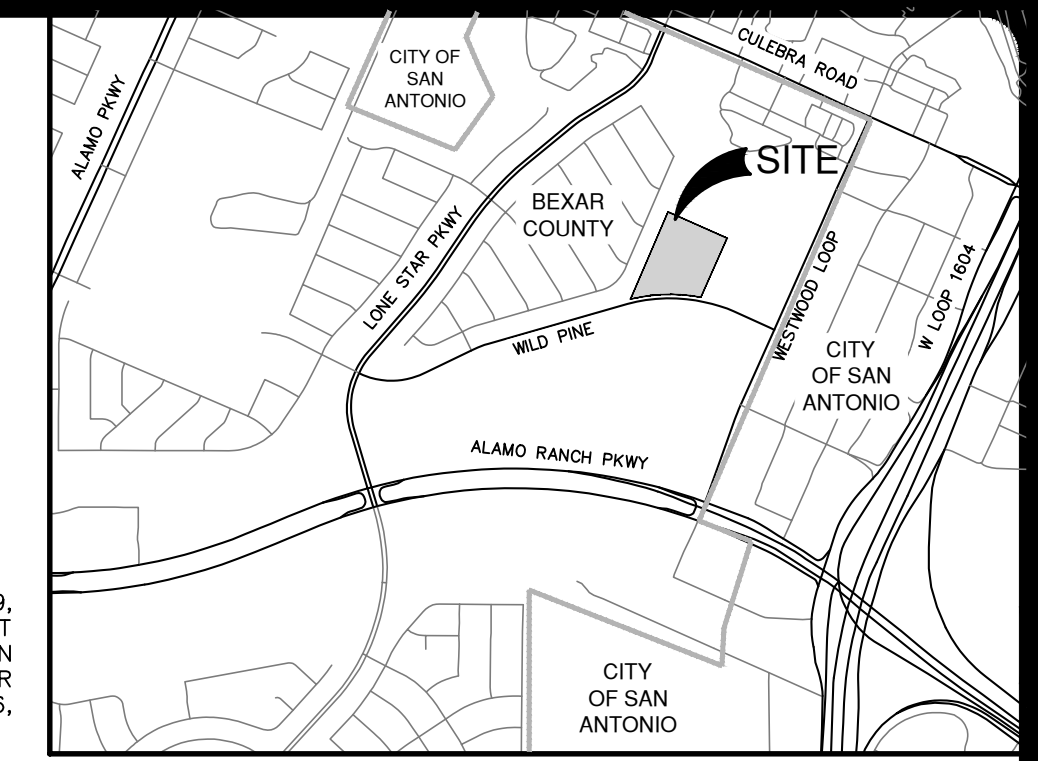
KEY NOTES LEGEND

- ① 10' GAS, ELEC, TELE AND CATV ESMT
- ② VAR WID DRAINAGE AND ACCESS ESMT
- ③ 20' DRAINAGE ESMT
- ④ VAR WID IRREVOCABLE INGRESS/EGRESS, DRAINAGE, SEWER, WATER, GAS, ELEC, TELE, CATV AND CLEAR VISION ESMT (PAPE-DAWSON FLOOD STUDY)
- ⑤ EFFECTIVE (EXISTING) FEMA 1% ANNUAL CHANCE (100-YR) FLOODPLAIN (FIRM PANEL NO. 48029C0355G EFFECTIVE 9-29-2010)
- ⑥ 1% ANNUAL CHANCE (100-YR) ATLAS 14 UD CONDITIONS FLOODPLAIN (PAPE-DAWSON FLOOD STUDY)
- ⑦ VAR WIDTH WATER EASEMENT
- ⑧ NOT USED
- ⑨ 14' GAS, ELEC, TELE AND CATV ESMT
- ⑩ VAR WID DRAINAGE ESMT (VOL 9649, PG 48-49, DPR)
- ⑪ 14' ELEC, GAS, TEL, CATV AND OH ESMT (VOL 9614, PG 110-112, DPR)
- ⑫ 135' ELEC ESMT AND ROW (VOL 6187, PG 265-268, DR)
- ⑬ 20' SANITARY SEWER ESMT (VOL 15789, PG 1574, OPR)
- ⑭ 70' ROW (VOL 9649, PG 48-49, DPR)
- ⑮ 10' SIDE BUILDING SETBACK (VOL 20001, PG 1523, PR)
- ⑯ 14' GAS, ELEC, TELE AND CATV ESMT (VOL 20001, PG 1523, PR)
- ⑰ 20' FRONT BUILDING SETBACK (VOL 9649, PG 48-49, DPR)
- ⑱ 12' ELEC ESMT (DOC NO 20190060792 OPR)
- ⑲ 16' ELEC ESMT (DOC NO 20190060773 OPR)
- ⑳ 15' PUBLIC DRAINAGE ESMT (VOL 9727, PG 192-194 PR)
- ㉑ GREENBELT AND 15' SANITARY SEWER, DRAINAGE, GAS, ELEC, TELE, WATER, CATV AND ACCESS ESMT (VOL 9651, PG 96-97 DPR)
- ㉒ 16' ELEC, GAS, TELE, AND CATV ESMT (VOL 9651, PG 96-97 DPR)

| Point # | Northing | Eastng | Elevation | Full Description |
|---------|------------|-----------|-----------|-----------------------|
| 10 | 728,694.13 | 59,129.76 | 897.75 | SET LR. REDCAP (TRAV) |
| 11 | 729,163.21 | 59,243.97 | 889.71 | SET MAG NAIL (TRAV) |
| 630 | 728,667.39 | 59,668.13 | 910.27 | SET MAG NAIL (TRAV) |
| 631 | 728,696.09 | 59,321.16 | 897.76 | SET MAG NAIL (TRAV) |
| 632 | 728,599.41 | 59,041.92 | 899.59 | SET MAG NAIL (TRAV) |

ADDRESS
11305 WILD PINE
SAN ANTONIO, TEXAS 78253

LEGAL DESCRIPTION
BEING A TOTAL OF 9.606 ACRE TRACT OF LAND, ESTABLISHING LOT 19, BLOCK 7, COUNTY BLOCK 4415 OUT OF A CALLED 2275.17 ACRE TRACT DESCRIBED IN DEED TO WILD PINE SAN ANTONIO LLC, RECORDED IN DOCUMENT 20250021064 OF THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS, OUT OF THE AJ LESLIE SURVEY NO. 217, ABSTRACT 436, COUNTY BLOCK 4415, BEXAR COUNTY, TEXAS.



TYPICAL SANITARY SEWER/WATER CROSSING DETAIL

NOTE
SEE SHEET C0.10 FOR ADDITIONAL GENERAL NOTES.

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, DIGITIBANKS, 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.

TRENCH EXCAVATION SAFETY PROTECTION
CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE 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/OR 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 SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

SEWER (ALAMO RANCH & WESTWINDS TRACT)

| | |
|--|-----------------------|
| DEVELOPER'S NAME: WILD PINE SAN ANTONIO LLC | PLAT NO. 25-11800373 |
| ADDRESS: 440 LOUISIANA, STE 952 | JOB NO. 13657-13 |
| CITY: HOUSTON STATE: TX ZIP: 77002 | DATE: DECEMBER 2025 |
| PHONE# (540)305-4056 FAX# | DESIGNER: CB |
| SAWS BLOCK MAP# TOTAL EDU'S: 28.5 TOTAL ACREAGE 9.606 | CHECKED: JA DRAWN: CB |
| TOTAL LINEAR FOOTAGE OF PIPE: PRIVATE PLAT NO. 25-11800373 | SHEET C5.00 |
| NUMBER OF LOTS: 26 SAWS JOB NO. CTR-346875 | |

| DATE | NO. | REVISION |
|------|-----|----------|
| | | |
| | | |
| | | |

PAPE-DAWSON
2000 NW LOOP 410 | SAN ANTONIO, TX 78243 | 210.375.9000
TEXAS SURVEYING FIRM #470 | TEXAS SURVEYING FIRM #10028600

Jon Adams
12-17-25

WILD PINE
SAN ANTONIO, TEXAS
SANITARY SEWER PLAN

Notes: Dec 17, 2025, 3:57pm User: ID: csc649242
Plot: P:\125457\13\Design\City\SSO-C5-125457.dwg

THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADEQUATELY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANTS ORIGINAL SIGNATURE AND SEAL. AERIAL IMAGERY PROVIDED BY GOOGLE/UNLESS OTHERWISE NOTED. Imagery © 2016, CAPOCO, DigitalGlobe, Texas Orthographic Program, USDA Farm Service Agency.

SAWS CONSTRUCTION NOTES
(LAST REVISED JANUARY 2022)

SAWS GENERAL SECTION

- 1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND COMPLY WITH THE PLANS, SPECIFICATIONS, GENERAL CONDITIONS AND WITH THE FOLLOWING AS APPLICABLE.
A. CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEMS...
B. CURRENT TxDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE...
C. CURRENT SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION...
D. CURRENT CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION...
E. CURRENT CITY OF SAN ANTONIO UTILITY EXCAVATION CRITERIA MANUAL (UECM)...

SAWS SEWER NOTES

- 1. 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...
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...
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 AND SAWS.
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'...
3. 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...
4. SEWER PIPE WHERE WATER LINE CROSSES SHALL BE 160 PSI AND MEET THE REQUIREMENTS OF ASTM D2241, TAC 217.5.3 AND TCEQ 290.44(E)(4)(B). CONTRACTOR SHALL CENTER A 20' JOINT OF 160 PSI PRESSURE RATED PVC AT THE PROPOSED WATER CROSSING...
5. ELEVATIONS POSTED FOR TOP OF MANHOLES ARE FOR REFERENCE ONLY...
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 TIE-INS...
7. MANHOLE AND ALL PIPE TESTING (INCLUDING THE TV INSPECTION) MUST BE PERFORMED AND PASSED PRIOR TO FINAL FIELD ACCEPTANCE...
8. ALL PVC PIPE OVER 14 FEET OF COVER SHALL BE EXTRA STRENGTH WITH MINIMUM PIPE STIFFNESS OF 115 PSI.

- 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

- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING AND STRUCTURES TO ITS ORIGINAL OR BETTER CONDITION IF DAMAGES ARE MADE AS A RESULT OF THE PROJECT'S CONSTRUCTION.
8. ALL WORK IN TEXAS DEPARTMENT OF TRANSPORTATION (TxDOT) AND/OR BEXAR COUNTY RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH RESPECTIVE CONSTRUCTION SPECIFICATIONS AND PERMIT REQUIREMENTS.
9. THE CONTRACTOR SHALL COMPLY WITH CITY OF SAN ANTONIO OR OTHER GOVERNING MUNICIPALITY'S TREE ORDINANCES WHEN EXCAVATING NEAR TREES.
10. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIALS IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN PERMIT.
11. HOLIDAY WORK: CONTRACTORS WILL NOT BE ALLOWED TO PERFORM SAWS WORK ON SAWS RECOGNIZED HOLIDAYS. REQUEST SHOULD BE SENT TO CONSWORKREQ@SAWS.ORG.
WEEKEND WORK: CONTRACTORS ARE REQUIRED TO NOTIFY THE SAWS INSPECTION CONSTRUCTION DEPARTMENT 48 HOURS IN ADVANCE TO REQUEST WEEKEND WORK. REQUEST SHOULD BE SENT TO CONSWORKREQ@SAWS.ORG.
ANY AND ALL SAWS UTILITY WORK INSTALLED WITHOUT HOLIDAY/WEEKEND APPROVAL WILL BE SUBJECT TO BE UNCOVERED FOR PROPER INSPECTION.
12. COMPACTION NOTE (ITEM 804): THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE COMPACTION REQUIREMENTS ON ALL TRENCH BACKFILL AND FOR PAYING FOR THE TESTS PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED, OR AS INDICATED BY THE SAWS INSPECTOR AND/OR THE TEST ADMINISTRATOR, PER EACH 12-INCH LIFT PER 400 LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.
13. A COPY OF ALL TESTING REPORTS SHALL BE FORWARDED TO SAWS CONSTRUCTION INSPECTION DIVISION.

PROJECT SEWER NOTES

- 1. 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 CS-10
2. NO VERTICAL STACKS ALLOWED FOR ANY LOTS UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
3. ALL 6" SEWER LATERALS WILL BE SET AT 2% GRADE FROM THE MAIN TO THE PROPERTY LINE.
4. 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.
5. CONTRACTOR SHALL ENSURE THAT MANHOLES OUTSIDE OF PAVED AREAS ARE SET WITH TOP ELEVATIONS 6" ABOVE FINISHED GRADE WITH CONCRETE RING ENCASUREMENT.
6. ALL SEWER PIPES SHALL BE 8" PVC (SDR 26), UNLESS OTHERWISE NOTED.
7. CONTRACTOR IS TO VERIFY EXISTING INVERT OF EXISTING SANITARY SEWER MAINS AND ALERT ENGINEER IMMEDIATELY OF ANY DIFFERENCE FROM INVERT SHOWN ON PLANS.
8. CONTRACTOR SHALL PROTECT ALL EXISTING FENCES. ANY FENCE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.
9. 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.
10. CONCRETE RING ENCASUREMENT 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 ENCASUREMENT.
11. MANHOLE OPENING INCREASED TO 30" AS PER TAC CHAPTER 217.5.5.
12. ALL SEWER PIPE LATERALS SHALL BE SDR 26 (CLASS 160) PVC PIPE.
13. 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.
14. ALL MANHOLES CONSTRUCTED OVER THE EDWARDS AQUIFER RECHARGE ZONE SHOULD BE WATER TIGHT.

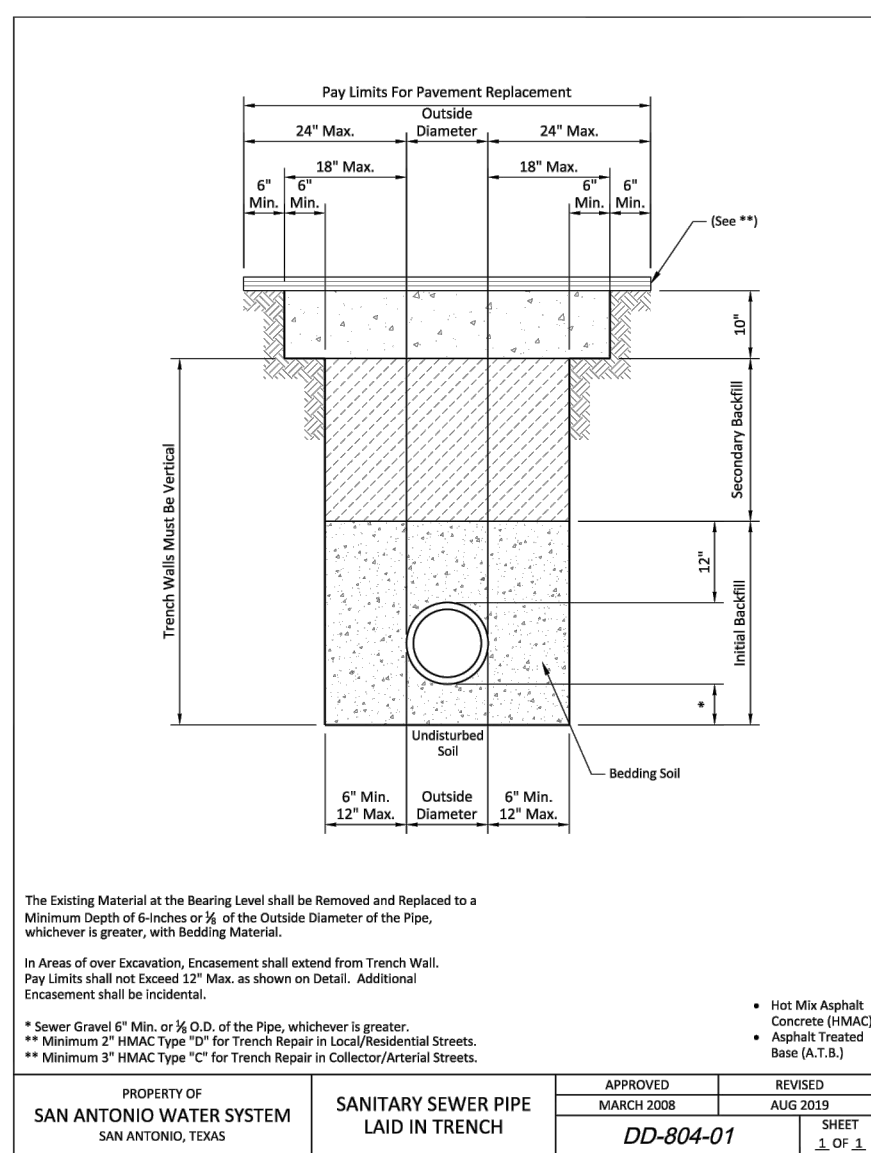


Table with columns: PROPERTY OF, SANITARY SEWER PIPE LAID IN TRENCH, APPROVED, REVISED, SHEET. Includes date DD-804-01 and sheet number 1 of 1.

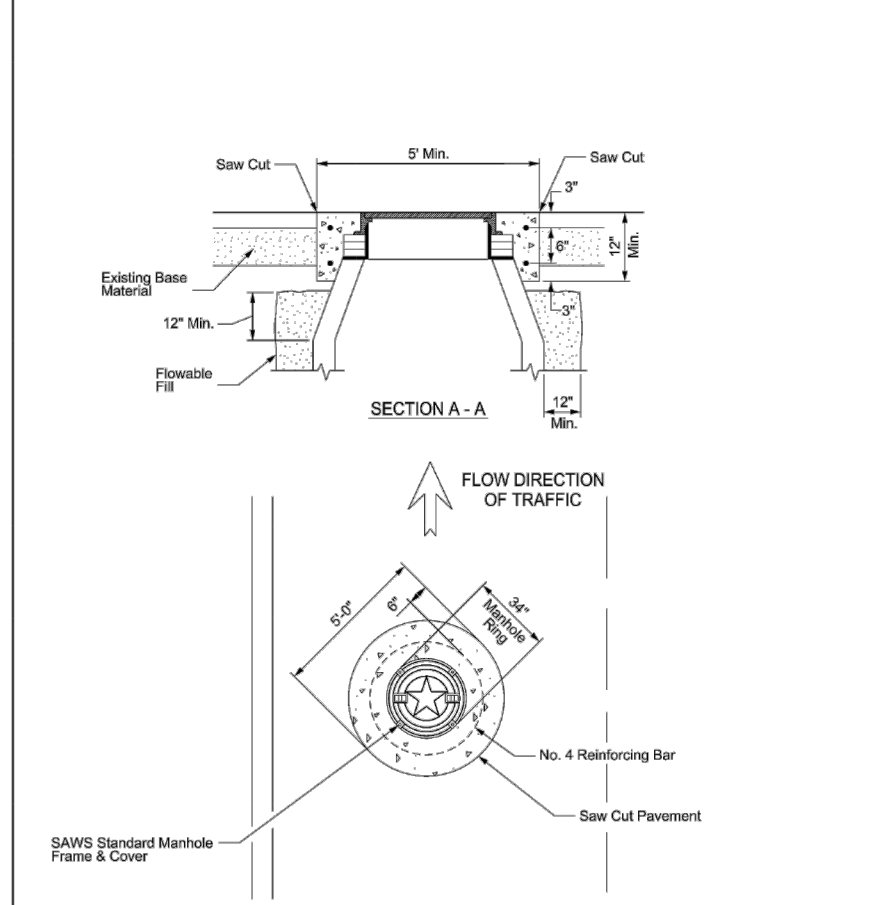


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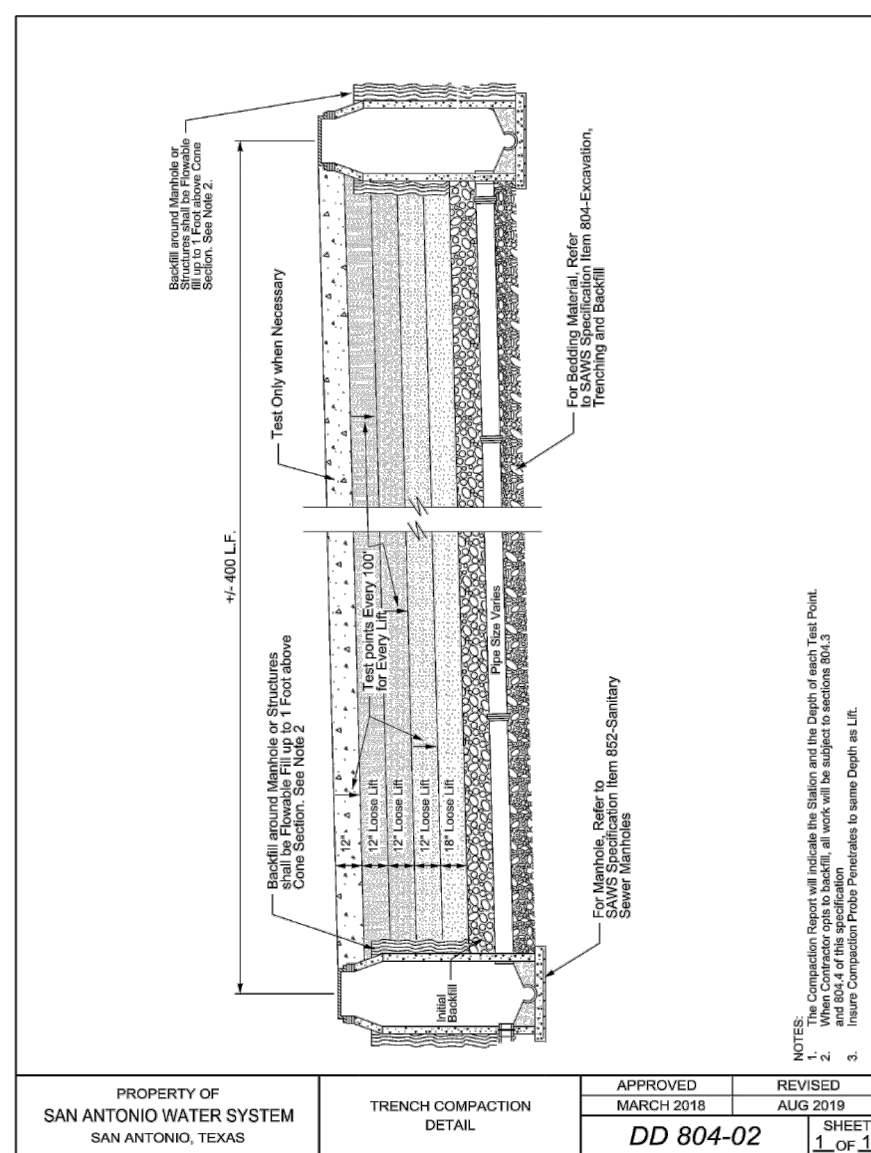


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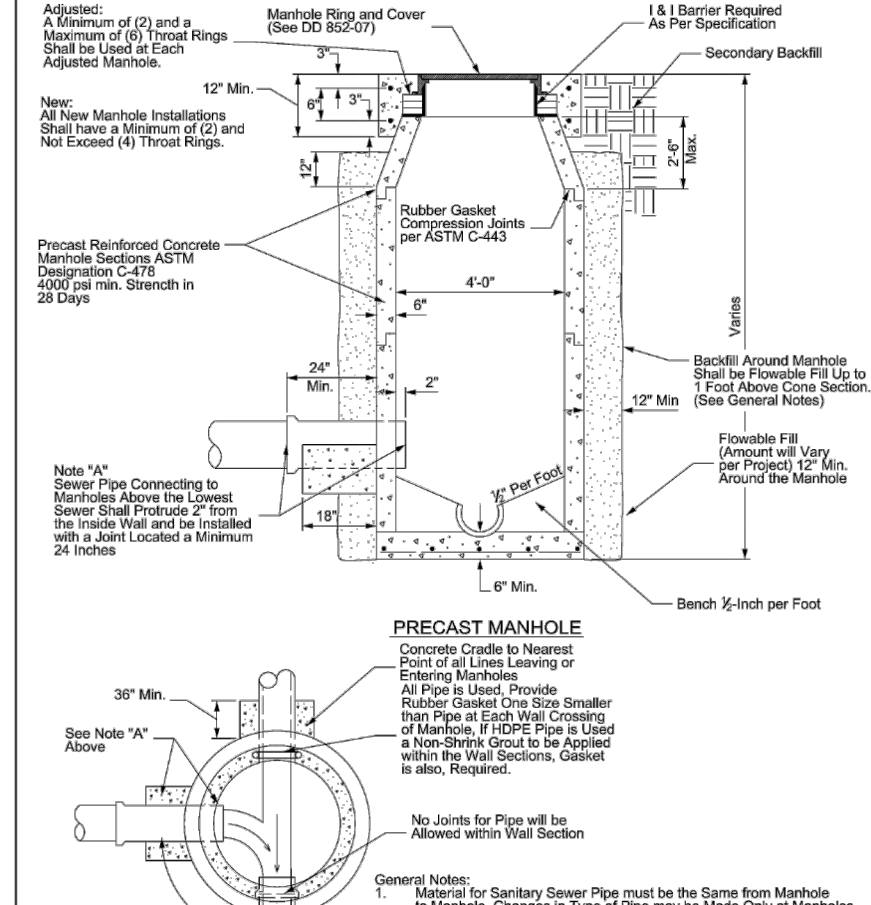


Table with columns: PROPERTY OF, STANDARD PRECAST MANHOLE, APPROVED, REVISED, SHEET. Includes date DD-852-01 and sheet number 1 of 2.

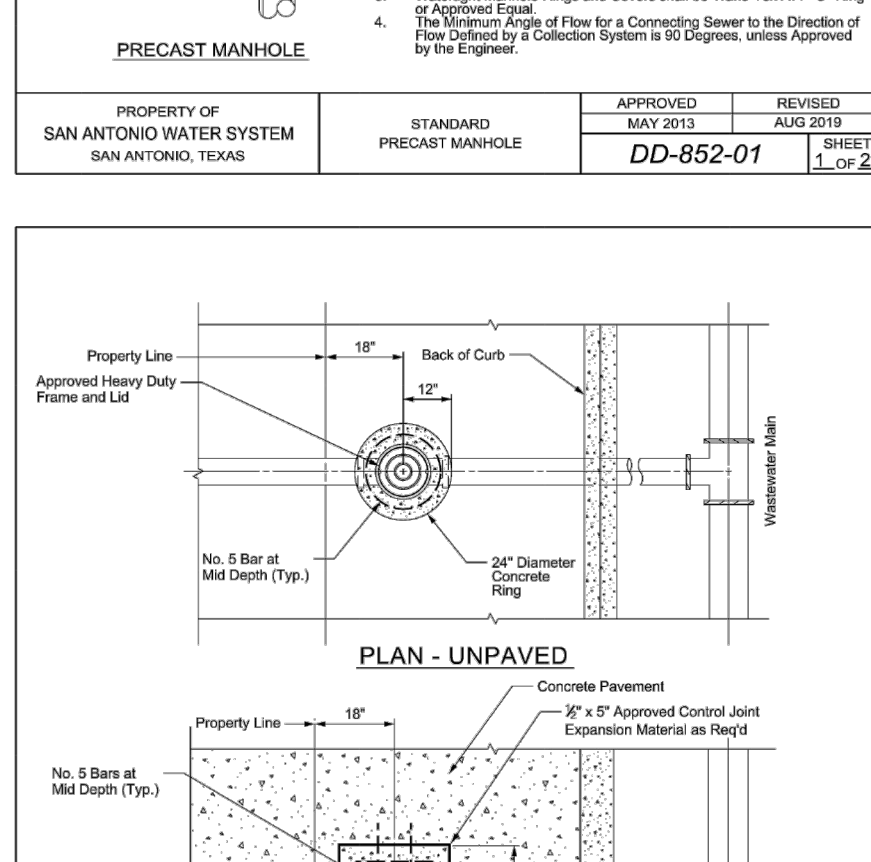


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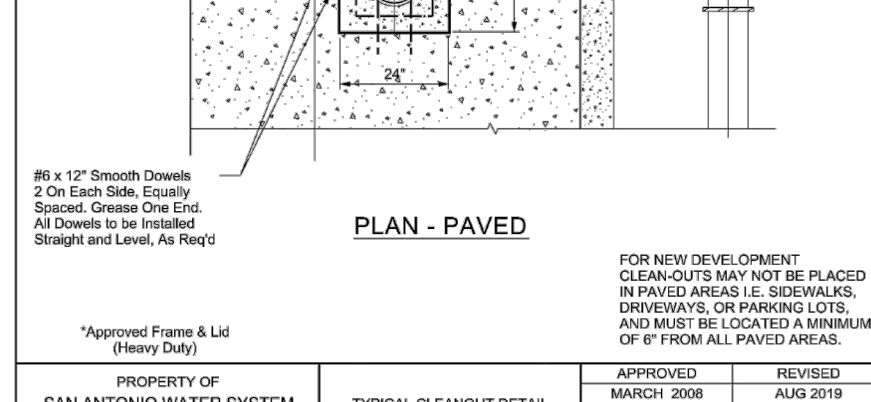


Table with columns: PROPERTY OF, TYPICAL CLEANOUT DETAIL, APPROVED, REVISED, SHEET. Includes date DD-854-02 and sheet number 2 of 3.



Table with columns: PROPERTY OF, TYPICAL CLEANOUT DETAIL, APPROVED, REVISED, SHEET. Includes date DD-854-02 and sheet number 2 of 3.

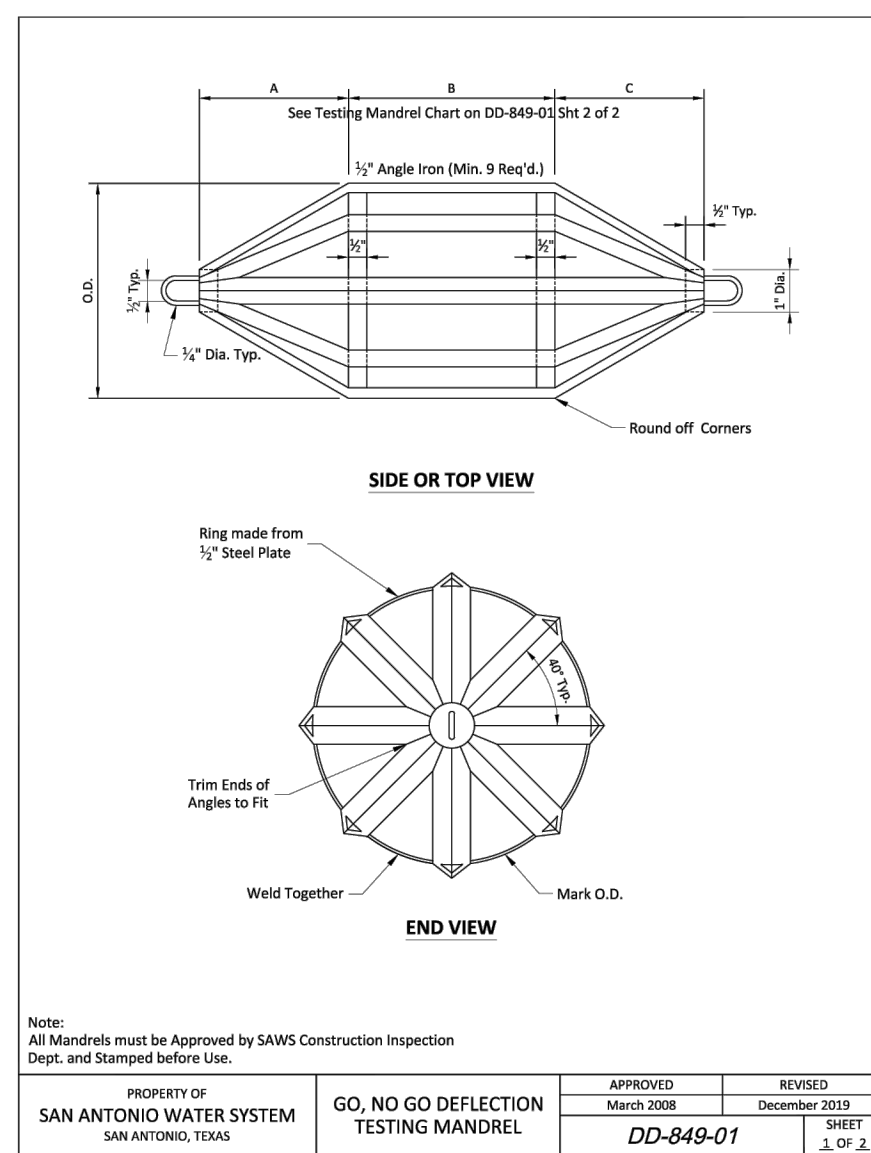


Table with columns: PROPERTY OF, GO, NO GO DEFLECTION TESTING MANDREL, APPROVED, REVISED, SHEET. Includes date DD-849-01 and sheet number 1 of 3.

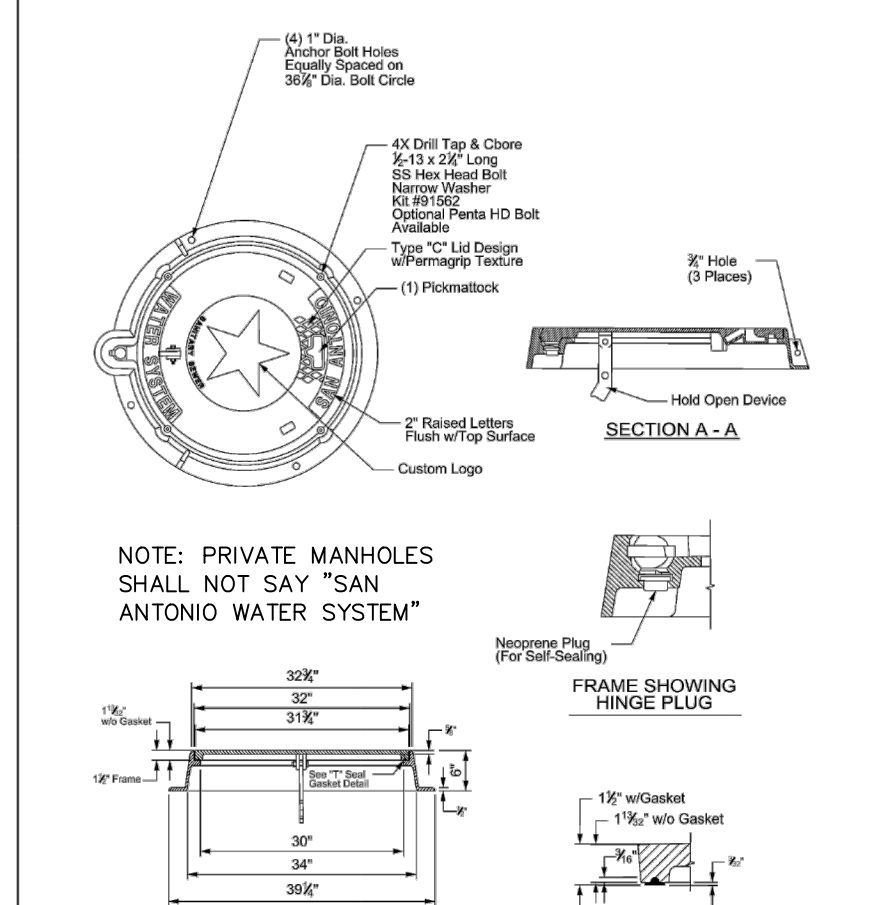


Table with columns: PROPERTY OF, MANHOLE RING AND COVER DETAIL, APPROVED, REVISED, SHEET. Includes date DD-852-07 and sheet number 1 of 2.

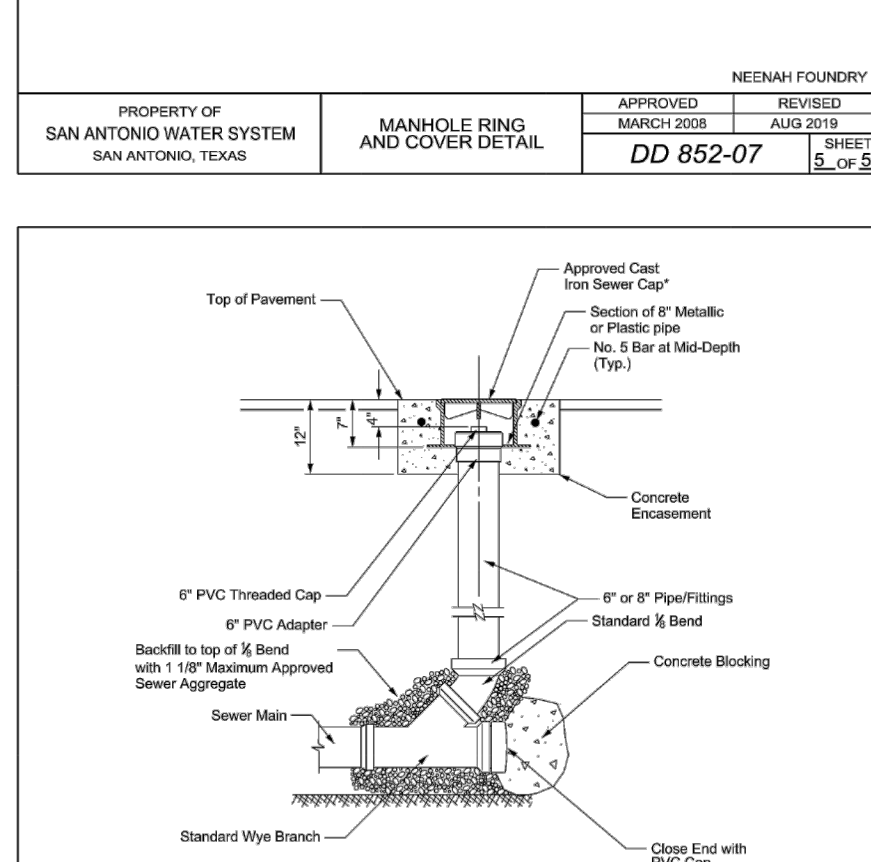


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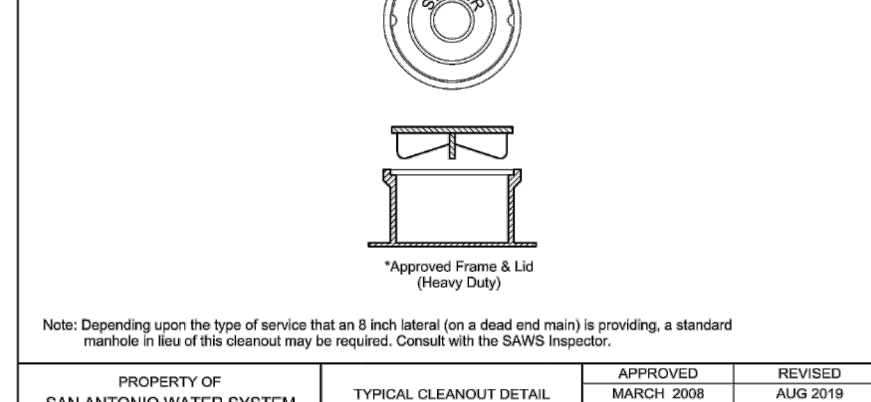


Table with columns: PROPERTY OF, TYPICAL CLEANOUT DETAIL, APPROVED, REVISED, SHEET. Includes date DD-854-02 and sheet number 3 of 3.

Chart showing Manhole O.D. and Ring O.D. for various sizes. Includes columns for SDR 26 and SDR 35.

Table with columns: PROPERTY OF, GO, NO GO DEFLECTION TESTING MANDREL CHART, APPROVED, REVISED, SHEET. Includes date DD-849-01 and sheet number 1 of 3.

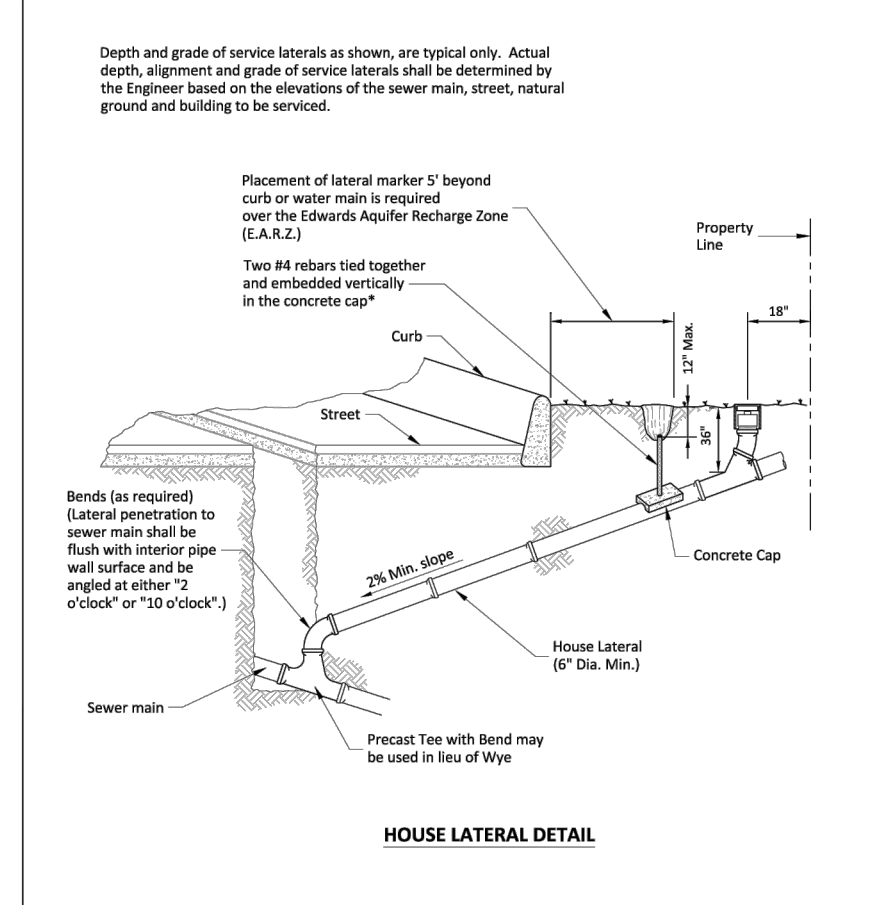


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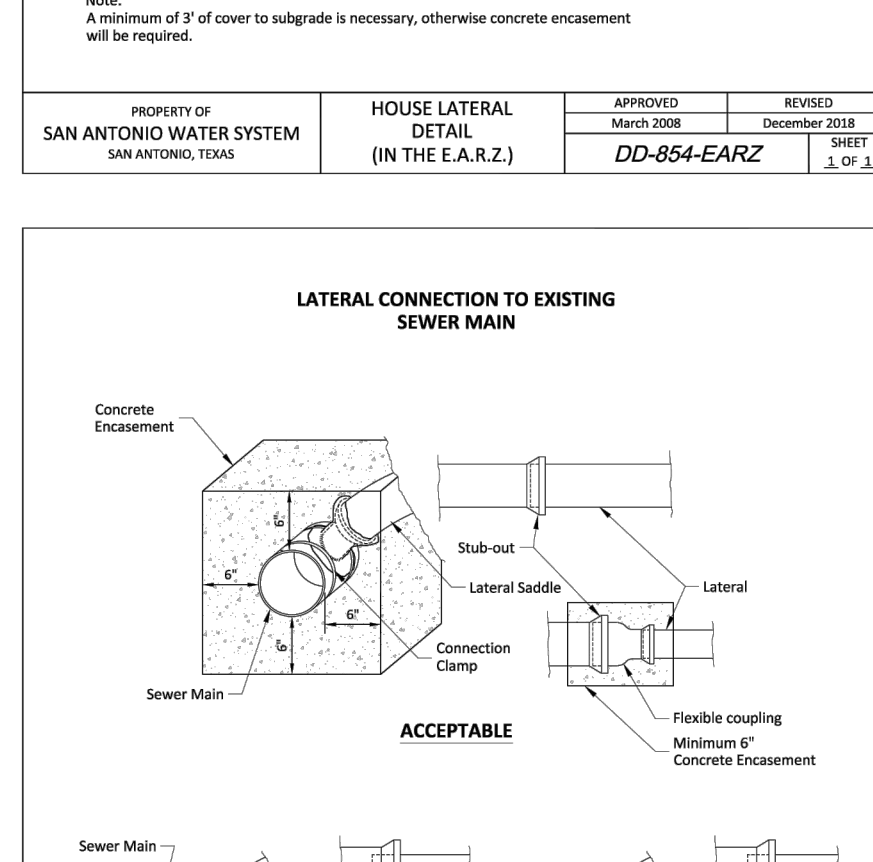


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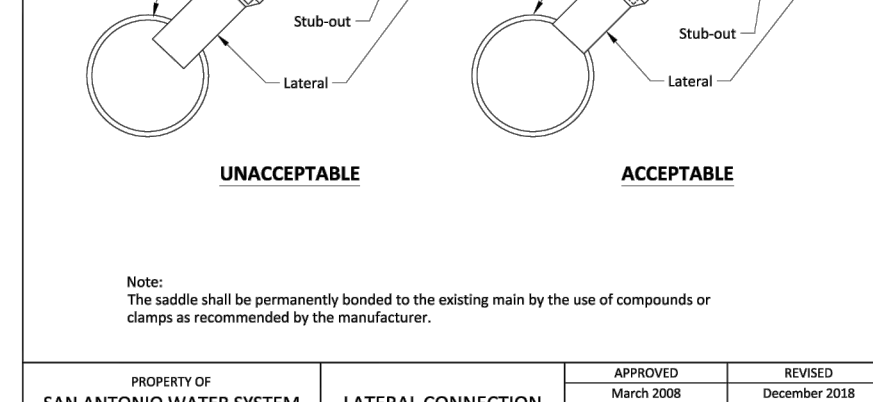


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SEWER (ALAMO RANCH & WESTWINDS TRACT) table with fields for Developer's Name, Address, City, State, Zip, Phone, Fax, SAWS Block Map, Total Edu's, Total Acreage, Total Linear Footage of Pipe, Private, Plat No., Number of Lots, SAWS Job No., and CTR.

DATE and NO. REVISION table.

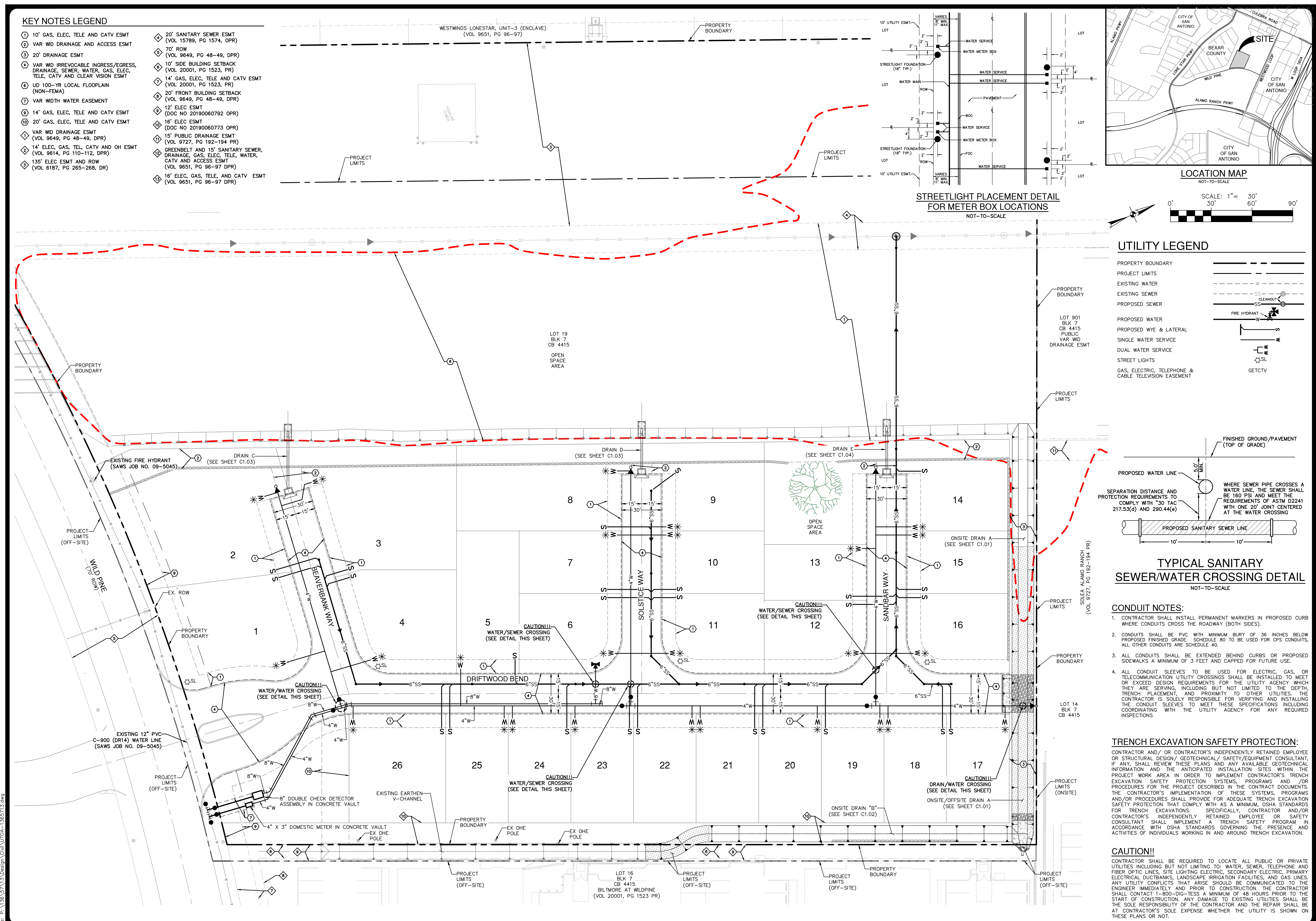
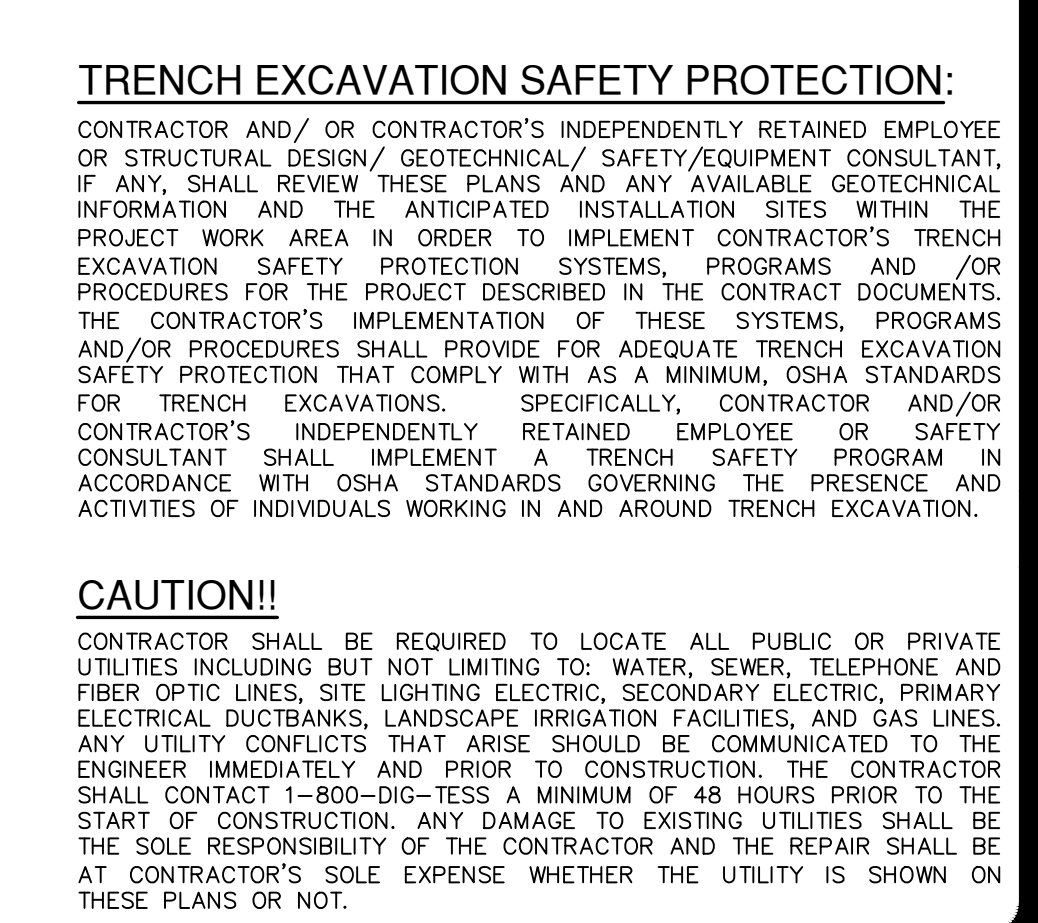
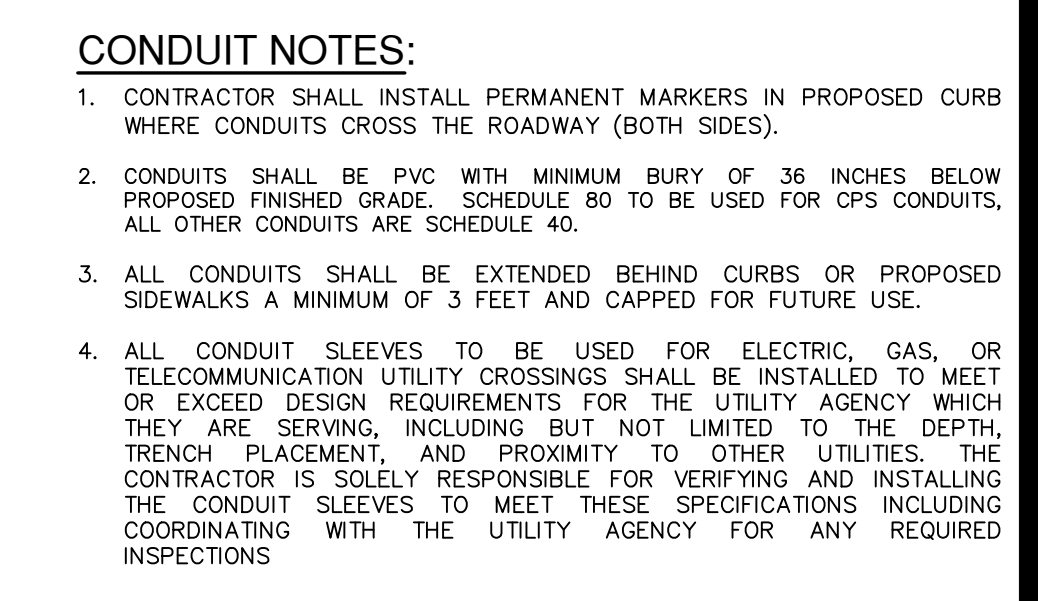
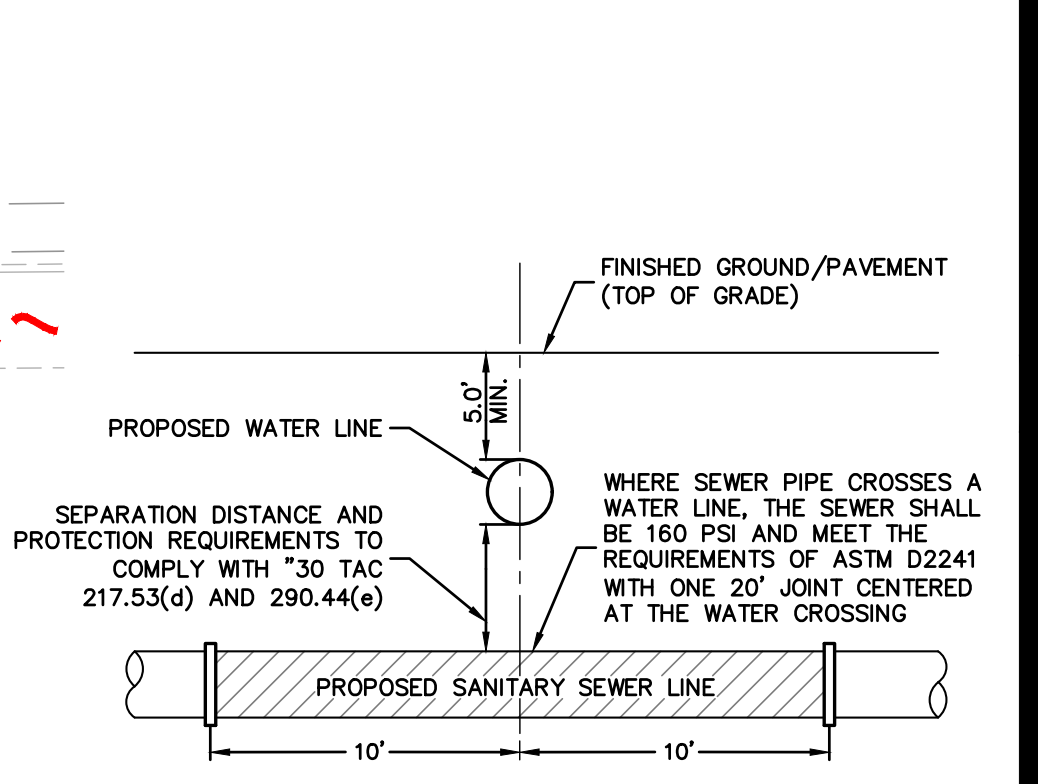
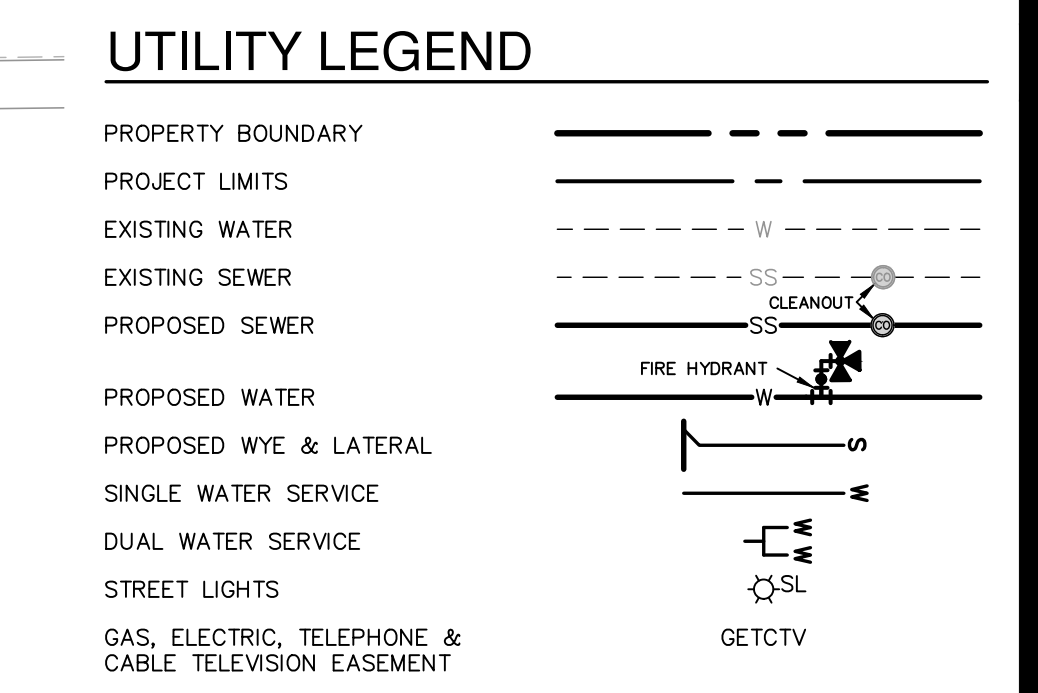
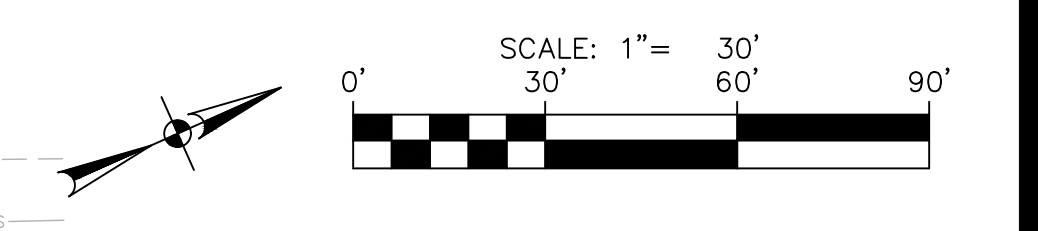
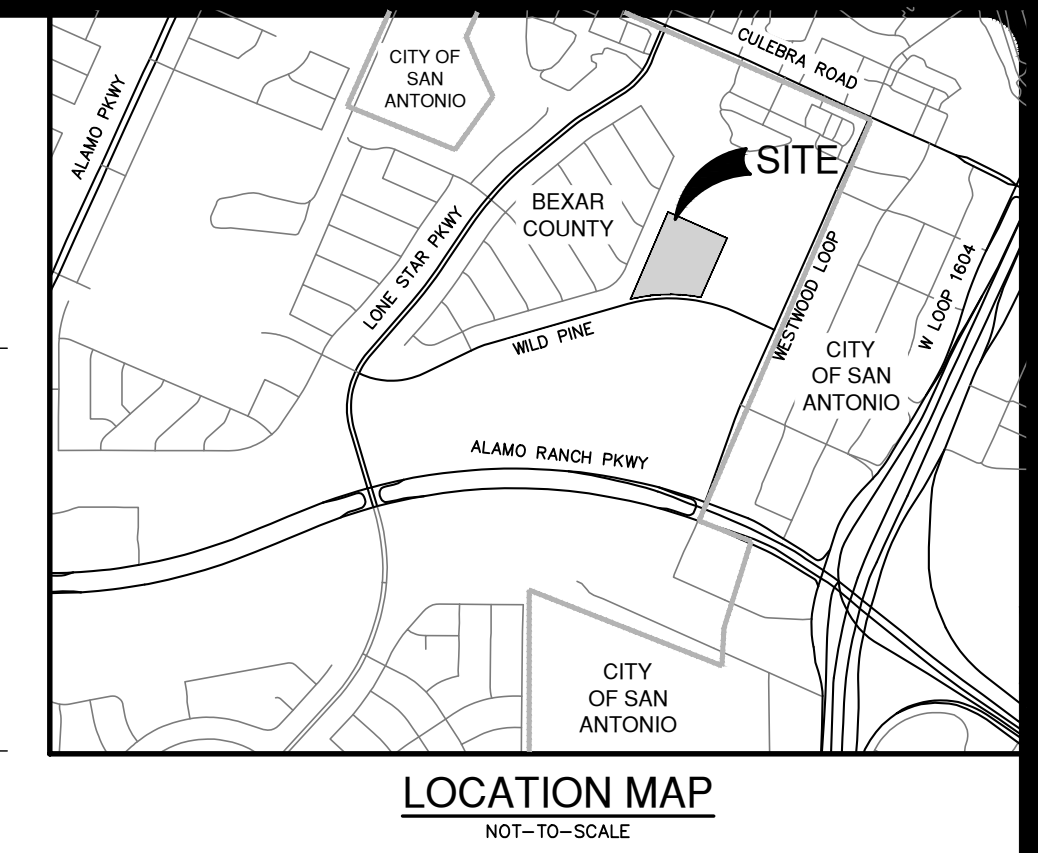
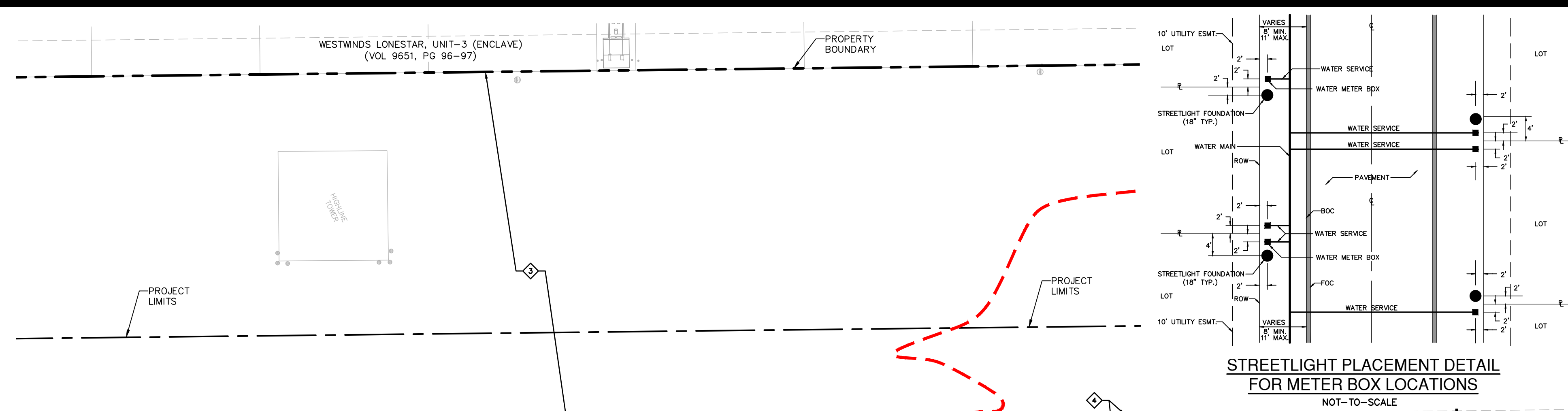
Professional Engineer seal for Jon D. Adame, License No. 82567, dated 12-8-25.

PAPE-DAWSON logo and address: 2000 NW LOOP 410 | SAN ANTONIO, TX 78243 | 210.375.9000. TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800.

WILD PINE SAN ANTONIO, TEXAS SANITARY SEWER DETAILS. PLAT NO. 25-11800373. JOB NO. 13657-13. DATE DECEMBER 2025. CHECKED - DRAWN - SHEET C5.10.

KEY NOTES LEGEND

- ① 10' GAS, ELEC, TELE AND CATV ESMT
- ② VAR WD DRAINAGE AND ACCESS ESMT
- ③ 20' DRAINAGE ESMT
- ④ VAR WD IRREVOCABLE INGRESS/EGRESS, DRAINAGE, SEWER, WATER, GAS, ELEC, TELE, CATV AND CLEAR VISION ESMT
- ⑤ UD 100-YR LOCAL FLOODPLAIN (NON-FEMA)
- ⑥ VAR WIDTH WATER EASEMENT
- ⑦ 14' GAS, ELEC, TELE AND CATV ESMT
- ⑧ 20' GAS, ELEC, TELE AND CATV ESMT
- ⑨ VAR WD DRAINAGE ESMT (VOL 9649, PG 48-49, DPR)
- ⑩ 14' ELEC, GAS, TEL, CATV AND OH ESMT (VOL 9614, PG 110-112, DPR)
- ⑪ 135' ELEC ESMT AND ROW (VOL 6187, PG 265-268, DR)
- ⑫ 20' SANITARY SEWER ESMT (VOL 15789, PG 1574, OPR)
- ⑬ 70' ROW (VOL 9649, PG 48-49, DPR)
- ⑭ 10' SIDE BUILDING SETBACK (VOL 20001, PG 1523, PR)
- ⑮ 14' GAS, ELEC, TELE AND CATV ESMT (VOL 20001, PG 1523, PR)
- ⑯ 20' FRONT BUILDING SETBACK (VOL 9649, PG 48-49, DPR)
- ⑰ 12' ELEC ESMT (DOC NO 20190060792 OPR)
- ⑱ 16' ELEC ESMT (DOC NO 20190060773 OPR)
- ⑲ 15' PUBLIC DRAINAGE ESMT (VOL 9727, PG 192-194 PR)
- ⑳ GREENBELT AND 15' SANITARY SEWER, DRAINAGE, GAS, ELEC, TELE, WATER, CATV AND ACCESS ESMT (VOL 9651, PG 96-97 DPR)
- ㉑ 16' ELEC, GAS, TELE, AND CATV ESMT (VOL 9651, PG 96-97 DPR)



DATE: _____

NO. REVISION: _____

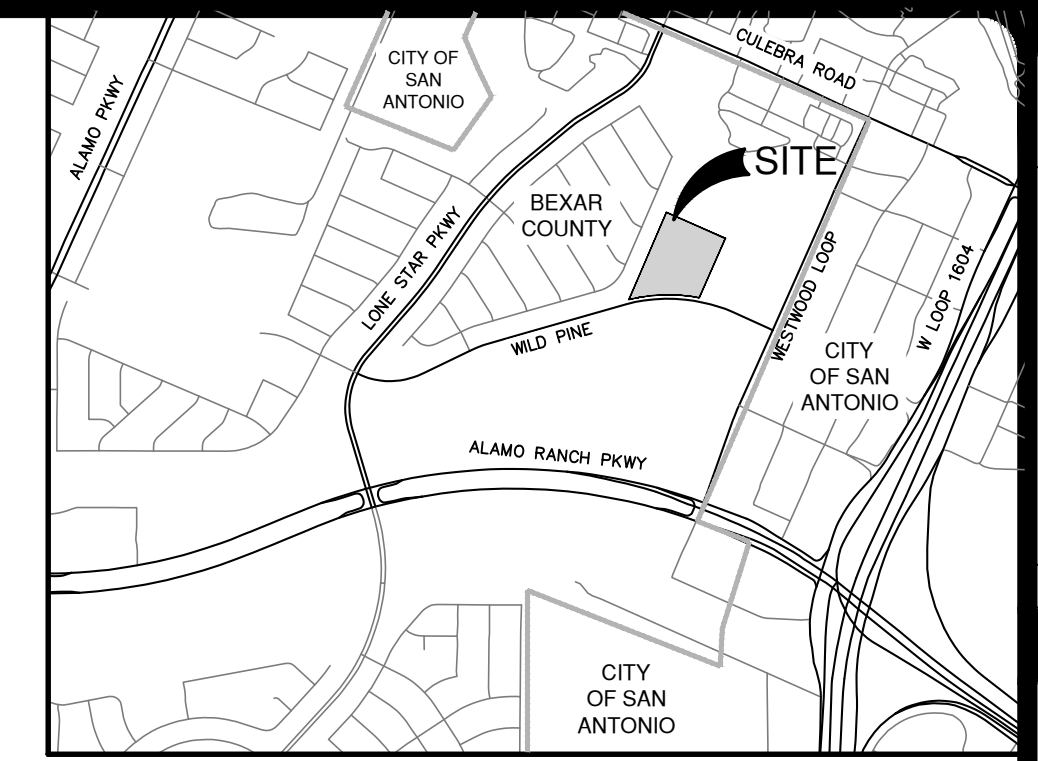
Jon D. Adame
2-2-26

PAPE-DAWSON
2000 NW LOOP 410 | SAN ANTONIO, TX 78243 | 210.375.9000
TEXAS SURVEYING FIRM #470 | TEXAS SURVEYING FIRM #10028600

WILD PINE
SAN ANTONIO, TEXAS
OVERALL UTILITY PLAN

PLAT NO. 25-11800373
JOB NO. 13657-13
DATE FEBRUARY 2026
DESIGNER CB
CHECKED JA DRAWN JF
SHEET C6.00

Date: Feb 02, 2026, 4:52pm User: jda-06467692
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LOCATION MAP
NOT-TO-SCALE

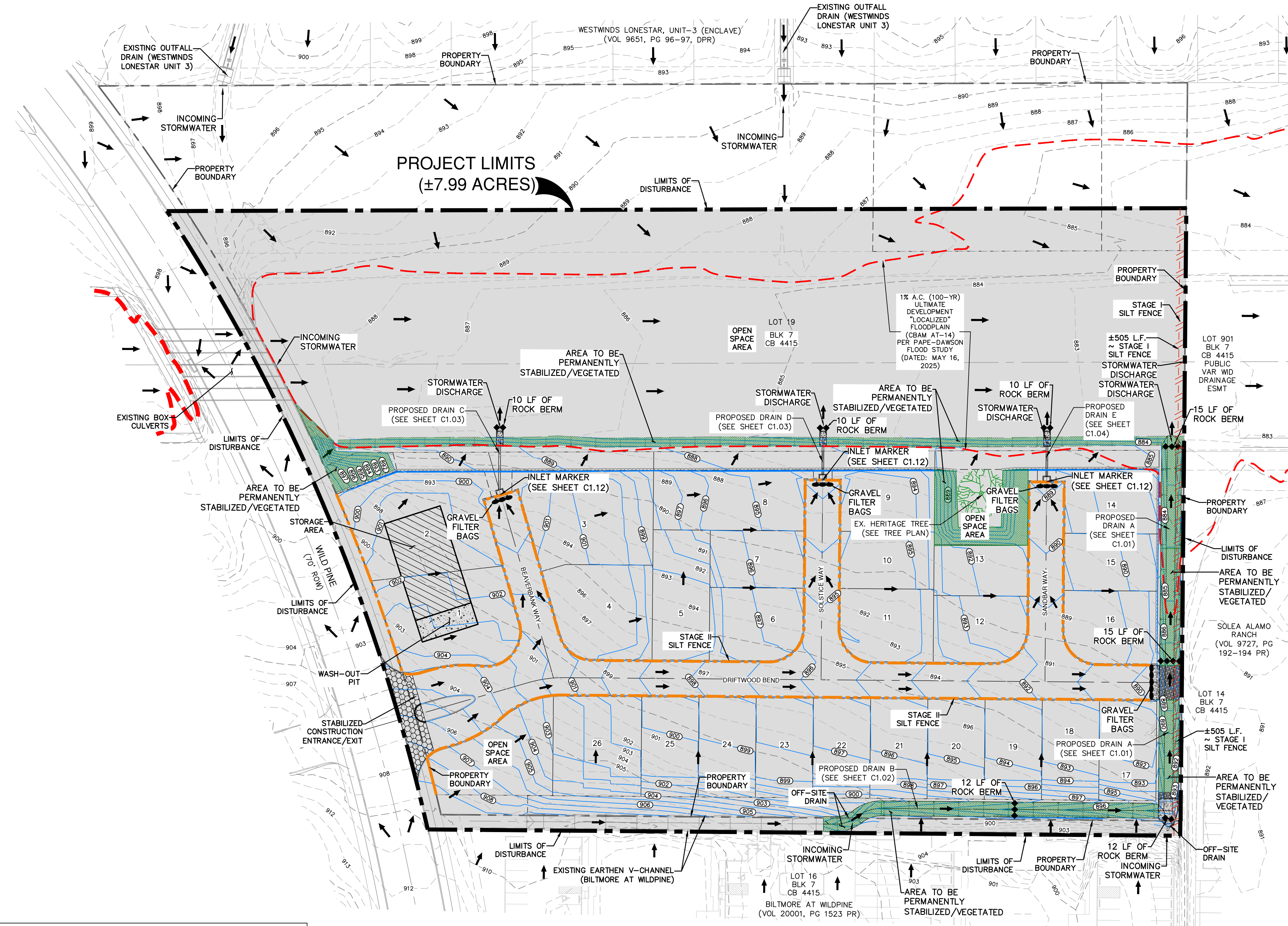


SWPPP LEGEND

- PROJECT LIMITS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- UD 100-YR LOCAL FLOODPLAIN (NON-FEMA FLOODPLAIN)
- FLOW ARROW
- SILT FENCE (STAGE I) - 505 LF (TO BE INSTALLED ADJACENT TO CURB)
- SILT FENCE (STAGE II) - 2,173 LF (TO BE INSTALLED ADJACENT TO CURB)
- ROCK BERM
- GRAVEL FILTER BAGS
- LIMITS OF DISTURBED AREA (±7.99 AC)
- STABILIZED CONSTRUCTION ENTRANCE/EXIT (FIELD LOCATE)
- CONSTRUCTION EQUIPMENT, VEHICLE & MATERIALS STORAGE AREA (FIELD LOCATE)
- CONCRETE TRUCK WASH-OUT PIT (FIELD LOCATE)
- AREA TO BE PERMANENTLY STABILIZED/VEGETATED

GENERAL NOTES

1. DO NOT DISTURB VEGETATED AREAS (TREES, GRASS, WEEDS, BRUSH, 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 DETERMINED IN THE FIELD.
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 PREVENTION PLAN.
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 CLARITY.
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 PROJECT SPECIFICATIONS.
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 REQUIREMENTS.
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 SHALL PLACE SILT FENCING IN LIEU OF VEGETATED FILTER STRIP.
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 PART OF THIS TPDES STORM WATER POLLUTION PREVENTION PLAN (SWP3) AND WILL NOT BE DISTURBED BY CIVIL CONSTRUCTION ACTIVITIES. HOUSE CONSTRUCTION ACTIVITIES WILL REQUIRE A SEPARATE STORM WATER POLLUTION PREVENTION PLAN.
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 ANY BEXAR COUNTY ROW.



SWP3 MODIFICATIONS

| DATE | SIGNATURE | DESCRIPTION |
|------|-----------|-------------|
| | | |
| | | |
| | | |
| | | |

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

| NO. | REVISION | DATE |
|-----|----------|------|
| | | |

STATE OF TEXAS
JON D. ADAME
 82567
 LICENSED PROFESSIONAL ENGINEER
Jon Adame
 3-3-26

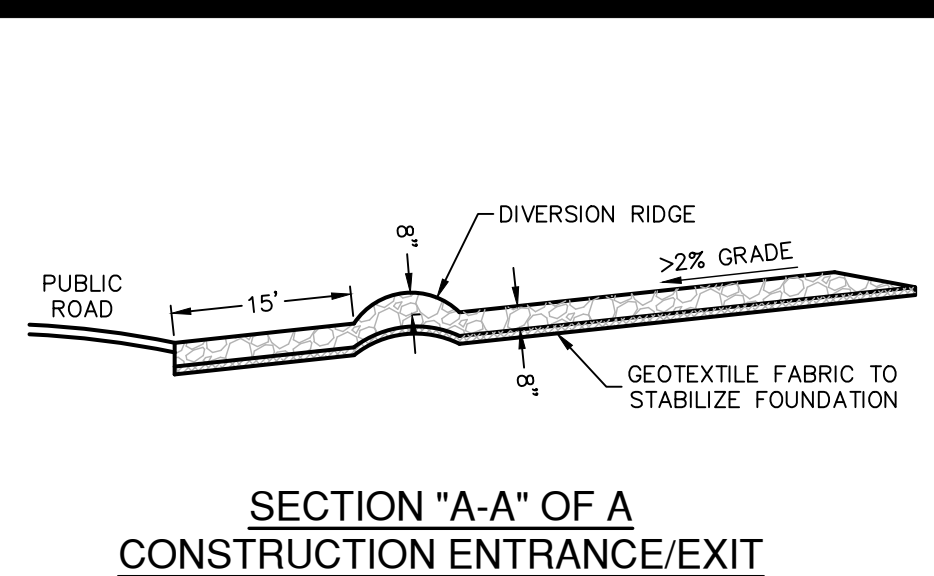
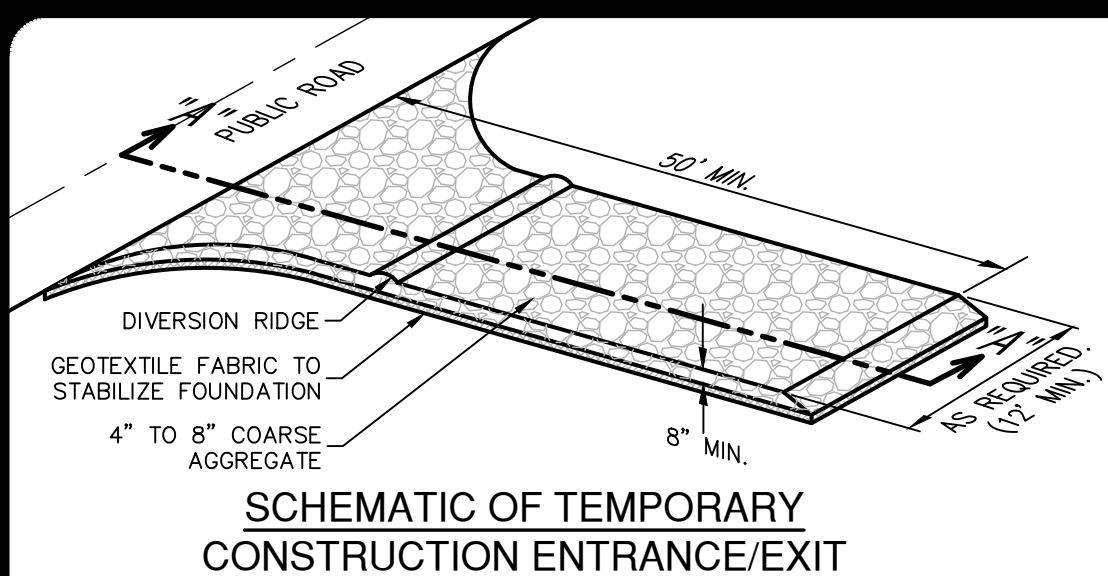
PAPE-DAWSON
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

WILD PINE
 SAN ANTONIO, TEXAS
STORM WATER POLLUTION PREVENTION PLAN

| | |
|----------|---------------|
| PLAT NO. | 25-11800373 |
| JOB NO. | 13657-13 |
| DATE | FEBRUARY 2026 |
| DESIGNER | XX |
| CHECKED | XX DRAWN XX |
| SHEET | C8.00 |

Date: Mar 03, 2025, 9:56am User: jca@pape-dawson.com Plot: P:\13657\13657.dwg Path: C:\Users\jca\AppData\Local\Temp\13657\13657.dwg

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MATERIALS

1. THE AGGREGATE SHOULD CONSIST OF 4-INCH TO 8-INCH WASHED STONE OVER A STABLE FOUNDATION AS SPECIFIED IN THE PLAN.
2. THE AGGREGATE SHOULD BE PLACED WITH A MINIMUM THICKNESS OF 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.
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 OR BASIN.

INSTALLATION

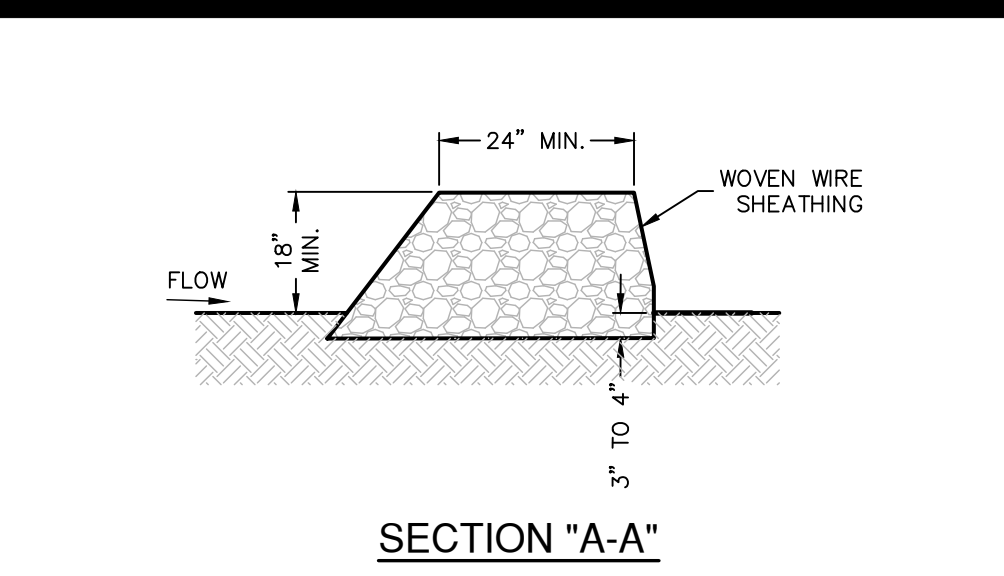
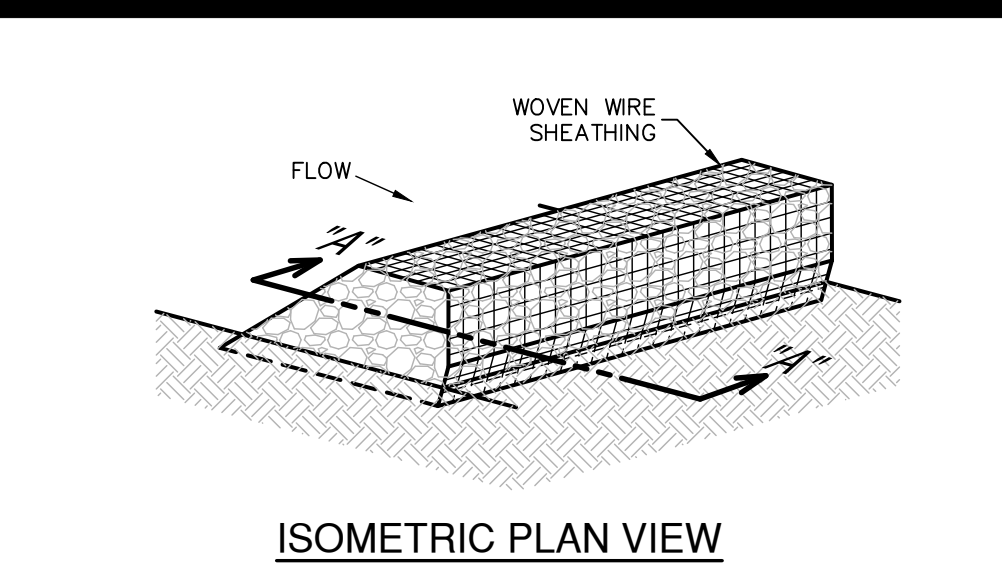
1. AVOID CURVES ON PUBLIC ROADS AND STEEP SLOPES. REMOVE VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA. GRADE CROWN FOUNDATION FOR POSITIVE DRAINAGE.
2. THE MINIMUM WIDTH OF THE ENTRANCE/EXIT SHOULD BE 12 FEET OR THE FULL WIDTH OF EXIT ROADWAY, WHICHEVER IS GREATER.
3. THE CONSTRUCTION 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 RUNOFF AWAY FROM THE PUBLIC ROAD.
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.
8. INSTALL PIPE UNDER PAD AS NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.

COMMON TROUBLE POINTS

1. INADEQUATE RUNOFF CONTROL—SEDIMENT WASHES ONTO PUBLIC ROAD.
2. STONE TOO SMALL OR GEOTEXTILE FABRIC ABSENT, RESULTS IN MUDDY CONDITION AS STONE IS PRESSED INTO SOIL.
3. 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.

INSPECTION AND MAINTENANCE GUIDELINES

1. 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 USED 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 WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
5. ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE BY USING APPROVED METHODS.



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 BERM LOAD IN CHANNELS AND SHOULD NOT BE SUBSTITUTED FOR OTHER EROSION AND SEDIMENT CONTROL MEASURES FURTHER UP THE WATERSHED.

INSTALLATION

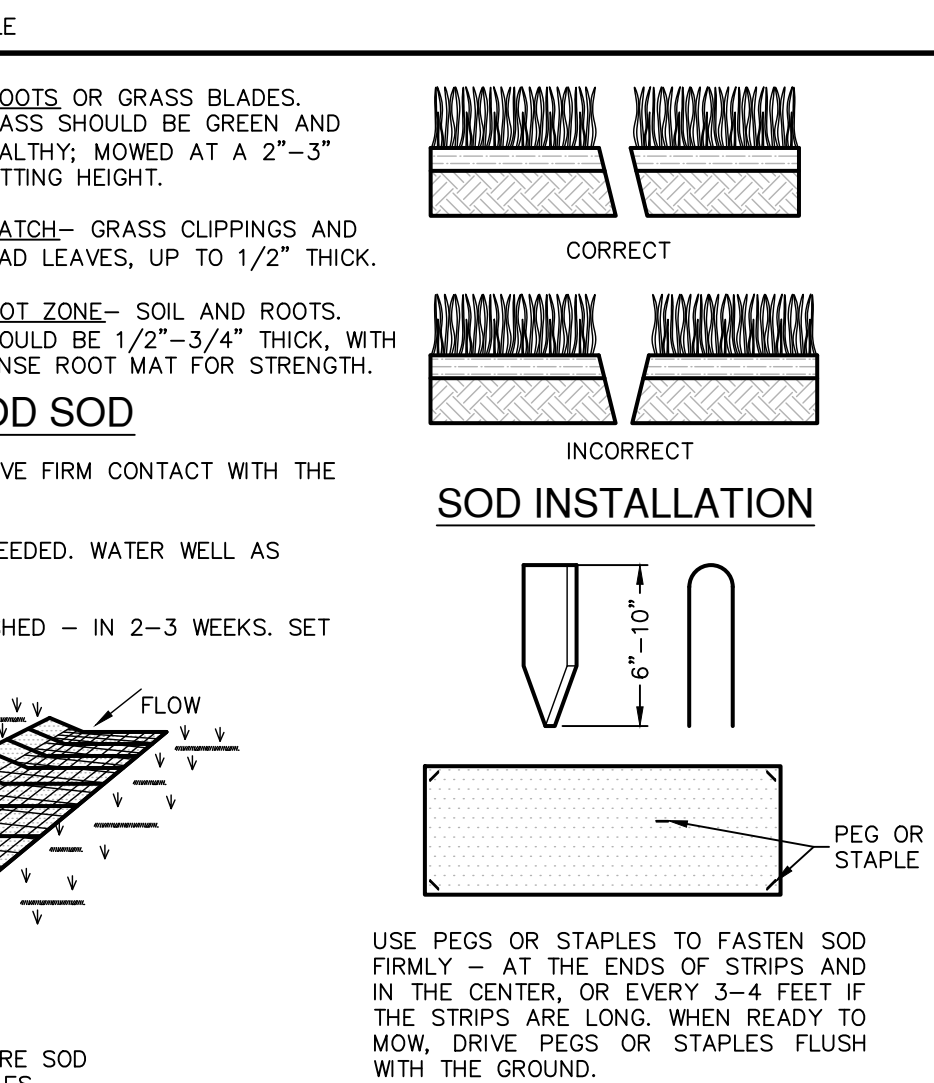
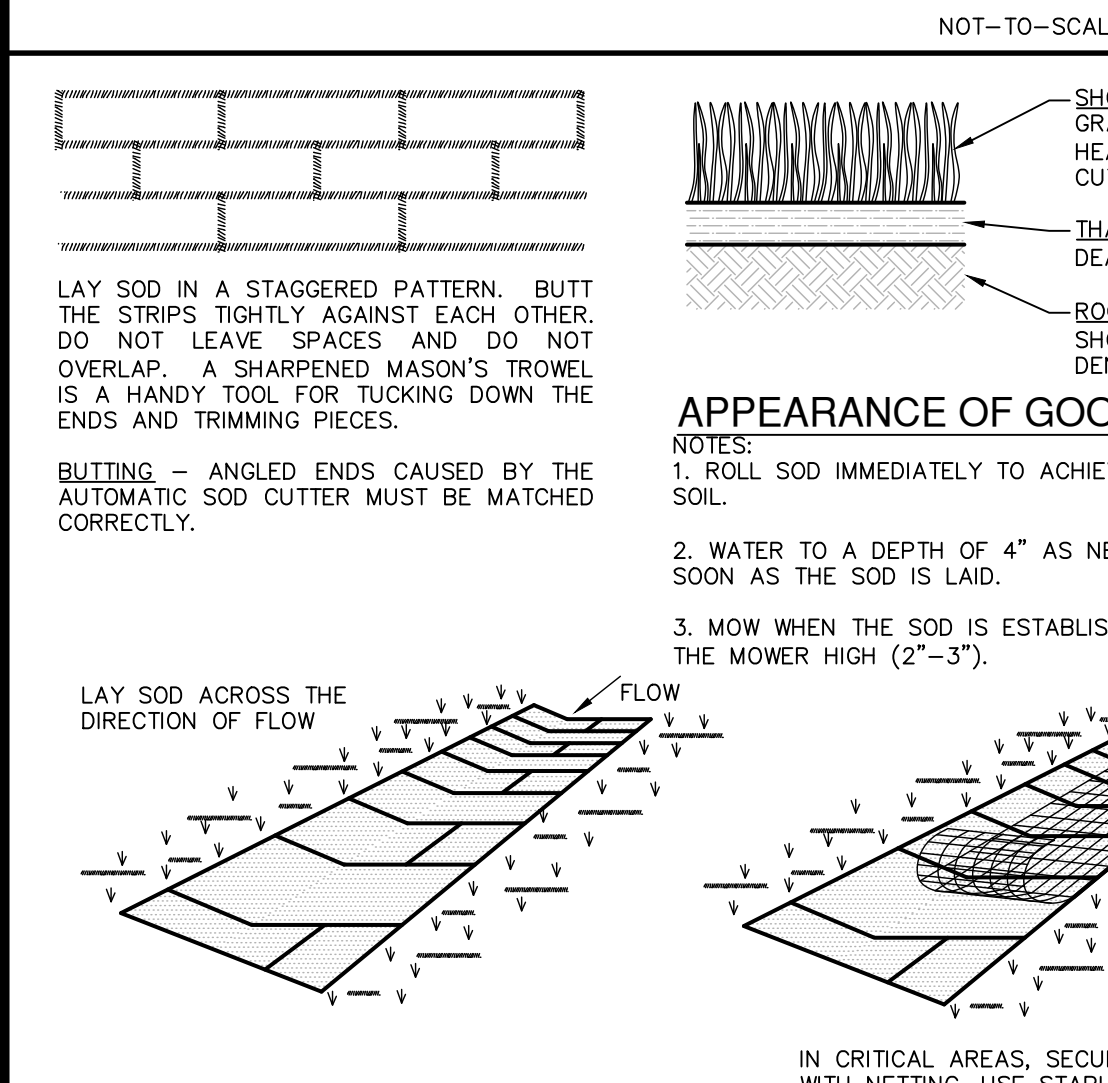
1. LAY OUT THE WOVEN WIRE SHEATHING PERPENDICULAR TO THE FLOW LINE. THE SHEATHING SHOULD BE 20 GAUGE WOVEN WIRE MESH WITH 1 INCH OPENINGS.
2. BERM SHOULD HAVE A TOP WIDTH OF 2 FEET MINIMUM WITH SIDE SLOPES BEING 2:1 (H:V) OR FLATTER.
3. PLACE THE ROCK ALONG THE SHEATHING AS SHOWN IN THE DIAGRAM TO A HEIGHT NOT LESS THAN 18".
4. WRAP THE WIRE SHEATHING AROUND THE ROCK AND SECURE WITH THE 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

1. 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).

INSPECTION AND MAINTENANCE GUIDELINES

1. 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.



APPEARANCE OF GOOD SOD

SHOOTS OR GRASS BLADES. GRASS SHOULD BE GREEN AND HEALTHY. MOWED AT A 2"-3" CUTTING HEIGHT.

THATCH—GRASS CLIPPINGS AND DEAD LEAVES, UP TO 1/2" THICK.

ROOT ZONE—SOIL AND ROOTS. SHOULD BE 1/2"-3/4" THICK, WITH DENSE ROOT MAT FOR STRENGTH.

NOTES:

1. ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL.
2. WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD IS LAID.
3. MOW WHEN THE SOD IS ESTABLISHED — IN 2-3 WEEKS. SET THE MOWER HIGH (2"-3").

SOD INSTALLATION

LAY SOD ACROSS THE DIRECTION OF FLOW.

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 ENDS AND TRIMMING PIECES.

BUTTING — ANGLED ENDS CAUSED BY THE AUTOMATIC SOD CUTTER MUST BE MATCHED CORRECTLY.

USE PEGS OR STAPLES TO FASTEN SOD FIRMLY — AT THE ENDS OF STRIPS AND IN THE CENTER, OR EVERY 3-4 FEET IF THE STRIPS ARE LONG. WHEN READY TO MOW, DRIVE PEGS OR STAPLES FLUSH WITH THE GROUND.

IN CRITICAL AREAS, SECURE SOD WITH NETTING. USE STAPLES.

MATERIALS

1. SOD SHOULD BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4" INCH (± 1/4" INCH) AT THE TIME OF CUTTING. THIS THICKNESS SHOULD EXCLUDE SHOOT GROWTH AND THATCH.
2. PIECES OF SOD SHOULD BE CUT TO THE SUPPLIER'S STANDARD WIDTH AND LENGTH, WITH A MAXIMUM ALLOWABLE DEVIATION IN ANY DIMENSION OF 5%. TORN OR UNEVEN PADS SHOULD NOT BE ACCEPTABLE.
3. STANDARD SIZE SECTIONS OF SOD SHOULD BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED FROM A FIRM GRASP ON ONE END OF THE SECTION.
4. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS.

SITE PREPARATION

1. PRIOR TO SOD PREPARATION, AREAS TO BE SODDED SHOULD BE BROUGHT TO FINAL GRADE IN ACCORDANCE WITH THE APPROVED PLAN.
2. THE SURFACE SHOULD BE CLEARED OF ALL TRASH, DEBRIS AND OF ALL ROOTS, BRUSH, WIRE, GRADE STAKES AND OTHER OBJECTS THAT WOULD INTERFERE WITH PLANTING, FERTILIZING OR MAINTENANCE OPERATIONS.
3. FERTILIZE ACCORDING TO SOIL TESTS. FERTILIZER NEEDS CAN BE DETERMINED BY A SOIL TESTING LABORATORY OR REGIONAL RECOMMENDATIONS 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.

INSTALLATION IN CHANNELS

1. SOD STRIPS IN WATERWAYS SHOULD BE LAID PERPENDICULAR TO THE DIRECTION OF FLOW. CARE SHOULD BE TAKEN TO BUTT ENDS OF STRIPS 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 USED OVER THE SOD FOR EXTRA PROTECTION IN CRITICAL AREAS.

INSPECTION AND MAINTENANCE GUIDELINES

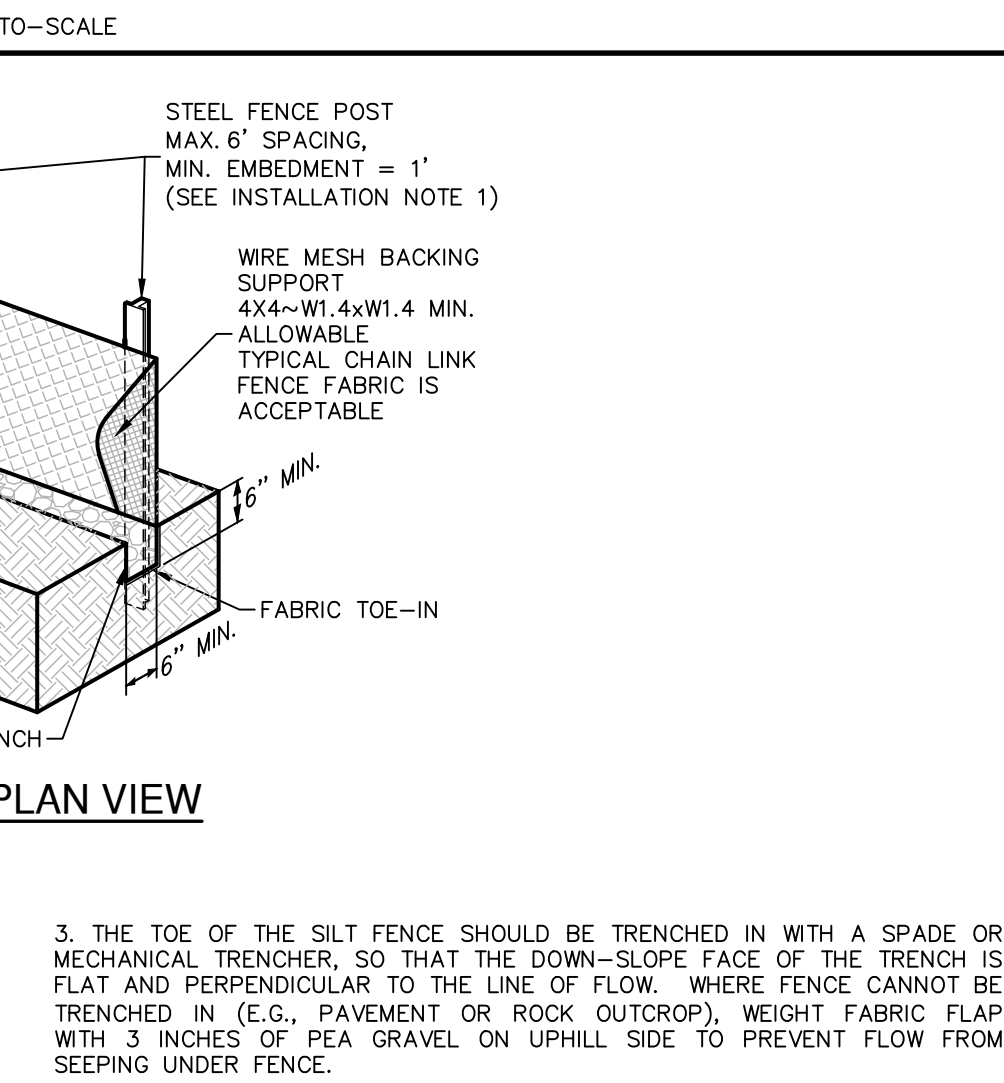
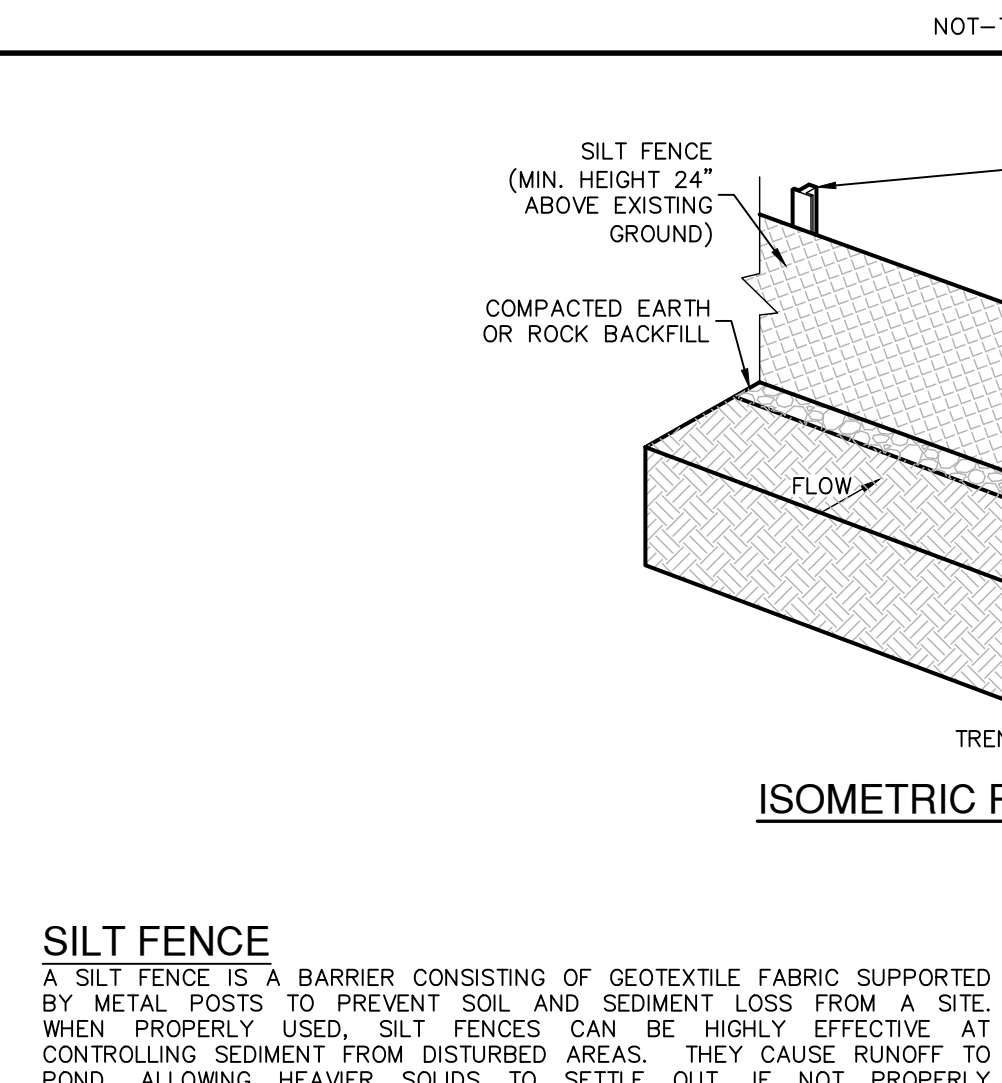
1. SOD SHOULD BE INSPECTED WEEKLY AND AFTER EACH RAIN EVENT TO LOCATE AND REPAIR ANY DAMAGE.
2. DAMAGE FROM STORMS OR NORMAL CONSTRUCTION ACTIVITIES SUCH AS TIRE RUTS OR DISTURBANCE OF SWALE STABILIZATION SHOULD BE REPAIRED AS SOON AS PRACTICAL.

GENERAL INSTALLATION (VA. DEPT. OF CONSERVATION, 1992)

1. 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. DURING PERIODS OF HIGH TEMPERATURE, THE SOIL SHOULD BE LIGHTLY IRRIGATED IMMEDIATELY PRIOR TO LAYING THE SOD, TO COOL THE SOIL AND REDUCE ROOT BURNING AND DIEBACK.
3. THE 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).
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 OR 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 THOROUGHLY WET.
7. 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 INCHES.
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

1. 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.



ROCK BERM DETAIL

STEEL FENCE POST MAX. 6' SPACING, MIN. EMBEDMENT = 1' (SEE INSTALLATION NOTE 1)

WIRE MESH BACKING SUPPORT 4X4-W1.4XW1.4 MIN. ALLOWABLE TYPICAL CHAIN LINK FENCE FABRIC IS ACCEPTABLE

COMPACTED EARTH OR ROCK BACKFILL

MIN. 16" MIN. FABRIC TOE-IN

ISOMETRIC PLAN VIEW

SILT FENCE

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 HEAVY 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.

MATERIALS

1. 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.
2. 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 EXCEEDING 140.
3. WOVEN WIRE BACKING TO SUPPORT THE FABRIC SHOULD BE GALVANIZED 2" X 4" WELDED WIRE, 12 GAUGE MINIMUM.

INSTALLATION

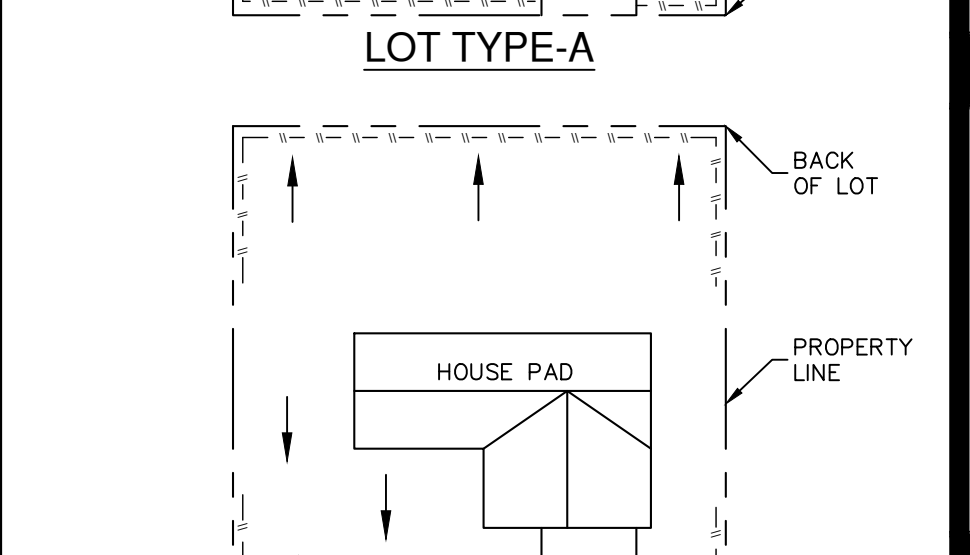
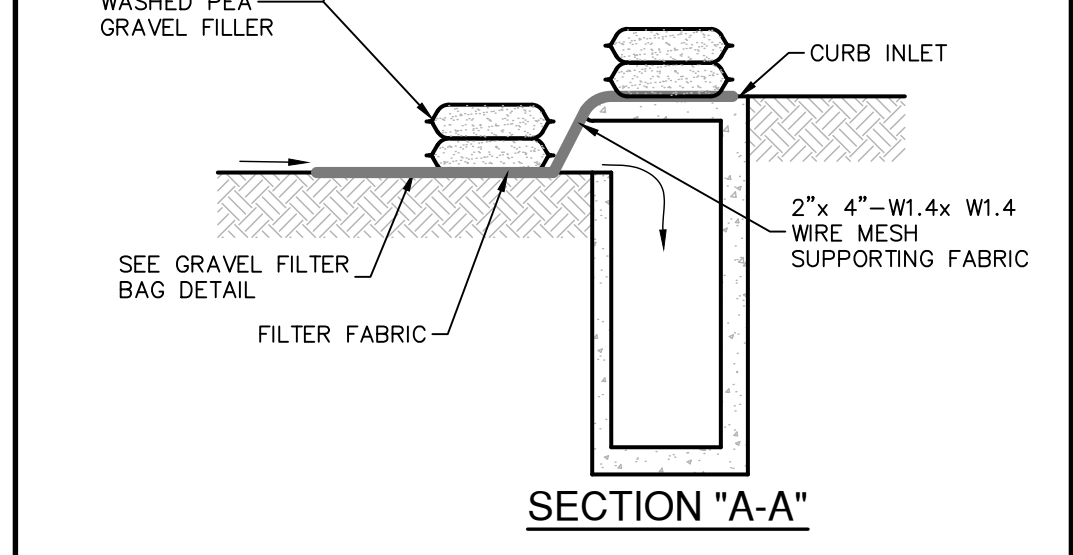
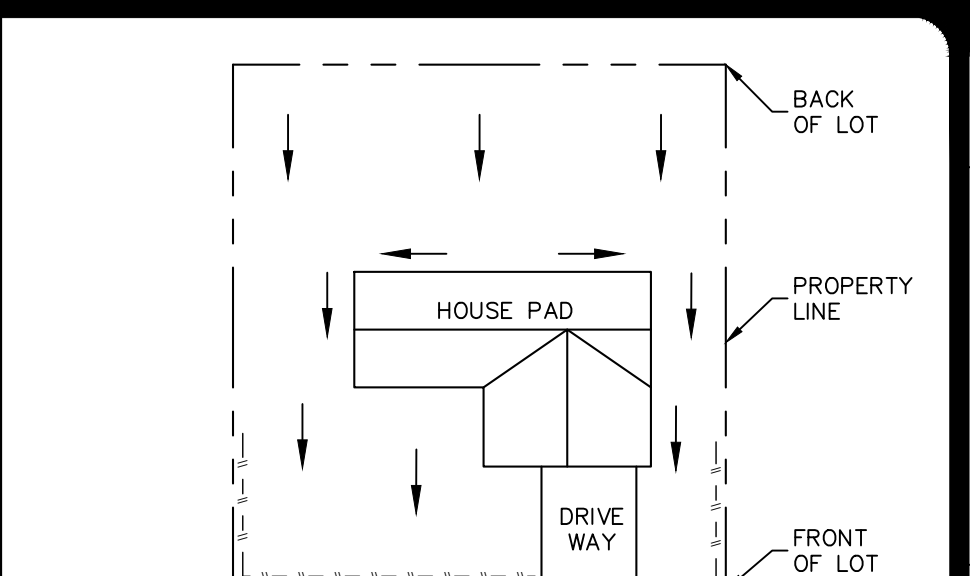
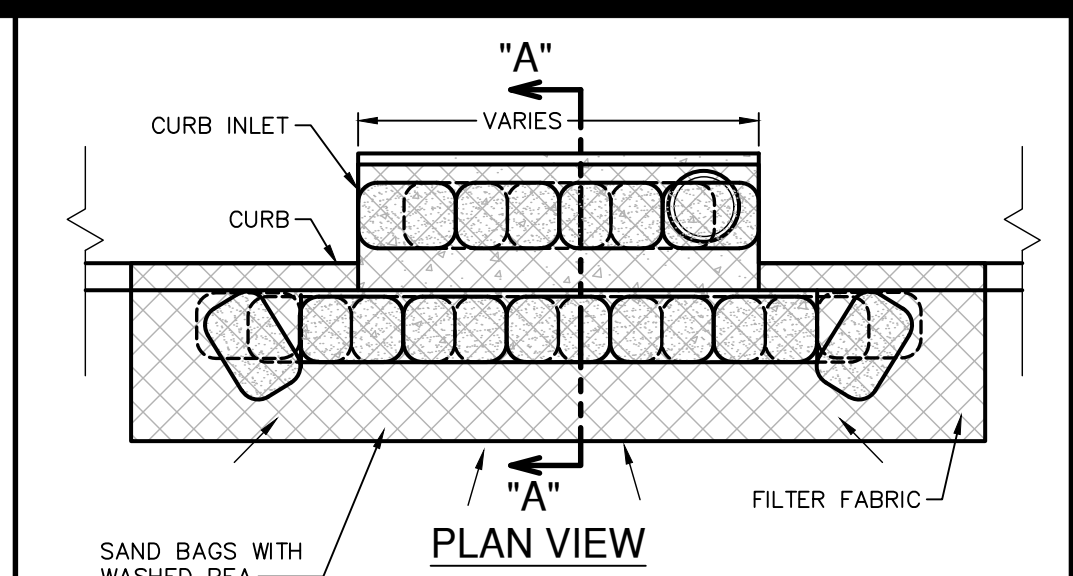
1. STEEL POSTS, WHICH SUPPORT THE SILT FENCE, SHOULD BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS MUST BE EMBEDDED A MINIMUM OF 1-FOOT DEEP AND SPACED NOT MORE THAN 8 FEET ON CENTER, WHERE WATER CONCENTRATES. THE MAXIMUM SPACING SHOULD BE 6 FEET.
2. LAY OUT FENCING DOWN-SLOPE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

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 FENCE DIKE MAY BE PREFERABLE TO A SILT FENCE AT COMMON VEHICLE ACCESS POINTS.
5. 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.

COMMON TROUBLE POINTS

1. FENCE NOT INSTALLED ALONG THE CONTOUR CAUSING WATER TO CONCENTRATE AND FLOW OVER THE FENCE.
2. FABRIC NOT SEALED SECURELY TO GROUND (RUNOFF PASSING UNDER FENCE).
3. FENCE NOT INSTALLED PERPENDICULAR TO FLOW LINE (RUNOFF ESCAPING AROUND SIDES).
4. FENCE TREATING TOO LARGE AN AREA, OR EXCESSIVE CHANNEL FLOW (RUNOFF OVERTOPS OR COLLAPSES FENCE).

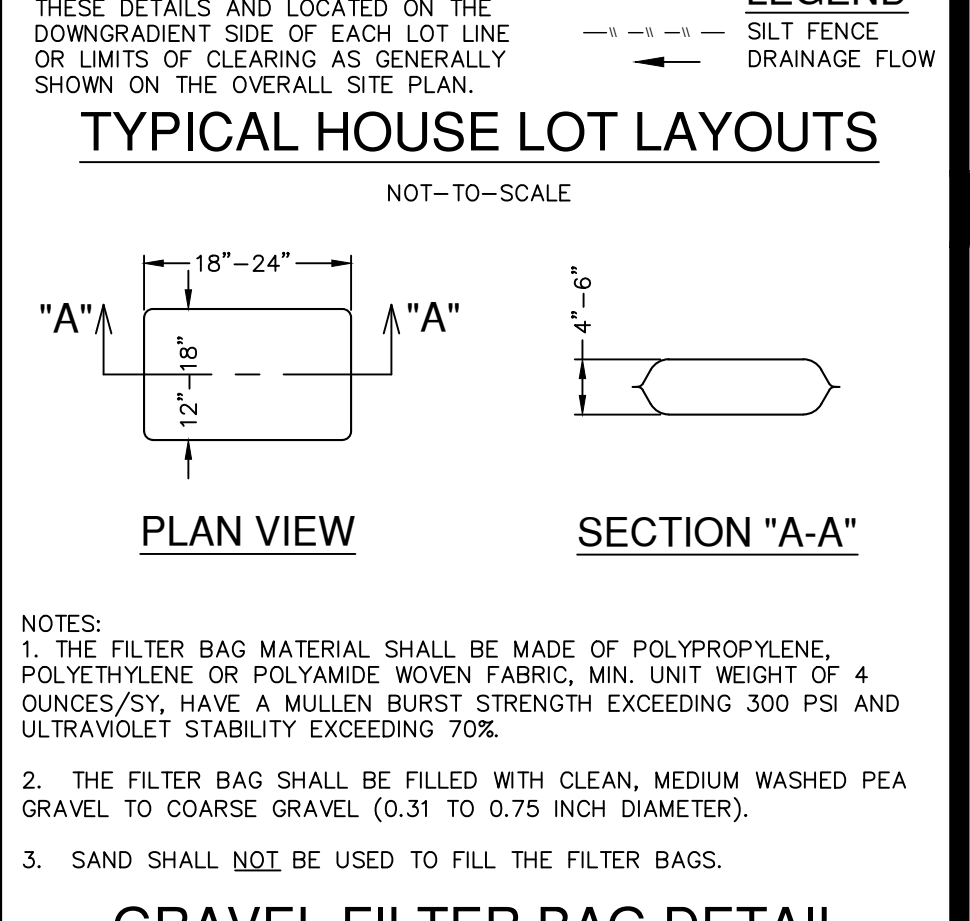
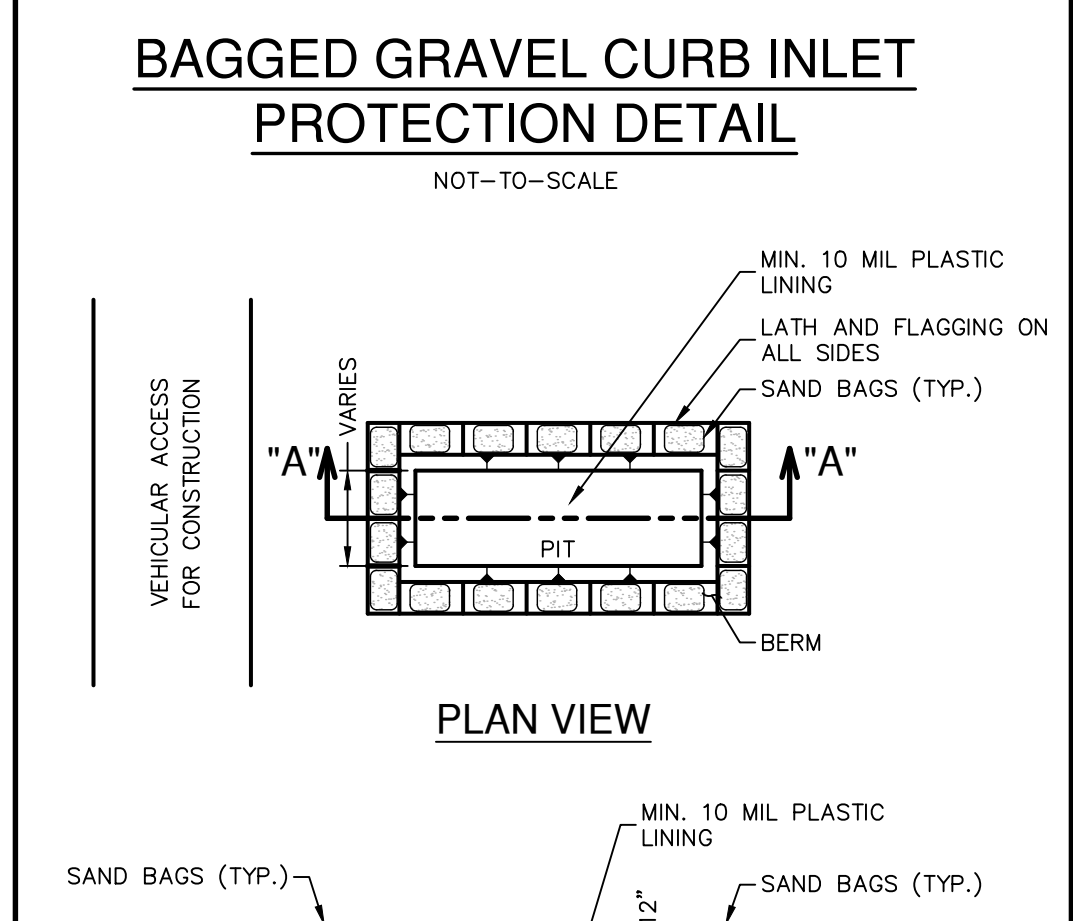
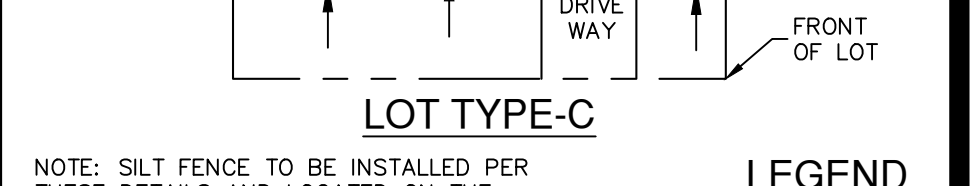
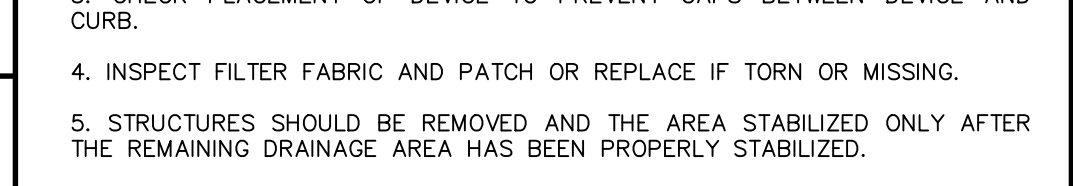
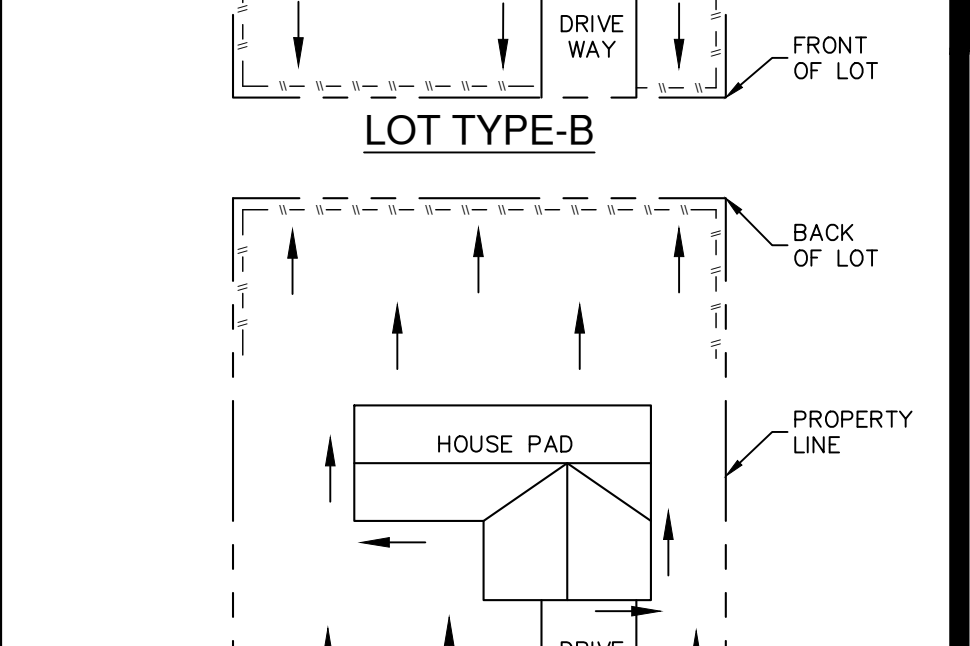


GENERAL NOTES

1. CONTRACTOR TO INSTALL 2"x4"-W1.4XW1.4 WIRE MESH SUPPORTING FILTER FABRIC OVER THE INLET OPENING. FABRIC MUST BE SECURED TO WAKE 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

1. INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL. REPAIR OR REPLACEMENT SHOULD BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
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 CURB.
4. INSPECT FILTER FABRIC AND PATCH OR REPLACE IF TORN OR MISSING.
5. 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

MIN. 10 MIL PLASTIC LINING

LATH AND FLAGGING ON ALL SIDES

SAND BAGS (TYP.)

BERM

VEHICULAR ACCESS FOR CONSTRUCTION

PLAN VIEW

SECTION "A-A"

SAND BAGS (TYP.)

MIN. 10 MIL PLASTIC LINING

PIT

BERM

SECTION "A-A"

GENERAL NOTES

1. 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.
3. 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.
5. 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

1. WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE SHOULD BE REMOVED AND DISPOSED OF.
2. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF.
3. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCES CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE BACKFILLED AND REPAIRED.

CONSTRUCTION STAGING AREA

NOT-TO-SCALE

CONSTRUCTION EQUIPMENT & VEHICLE STORAGE AND MAINTENANCE AREA

FIELD OFFICE

ENTRANCE /EXIT

LEGEND

SILT FENCE

FLOW ARROWS

CONCRETE TRUCK WASHOUT PIT DETAIL

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.

DATE

NO. REVISION

STATE OF TEXAS

JON D. ADAME

PROFESSIONAL ENGINEER

82567

2-2-26

PAPE-DAWSON

2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000

TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

WILD PINE

SAN ANTONIO, TEXAS

STORM WATER POLLUTION PREVENTION PLAN DETAILS

PLAT NO. 25-11800373

JOB NO. 13657-13

DATE FEBRUARY 2026

DESIGNER XX

CHECKED XX DRAWN XX

SHEET C8.10

EXHIBIT 3