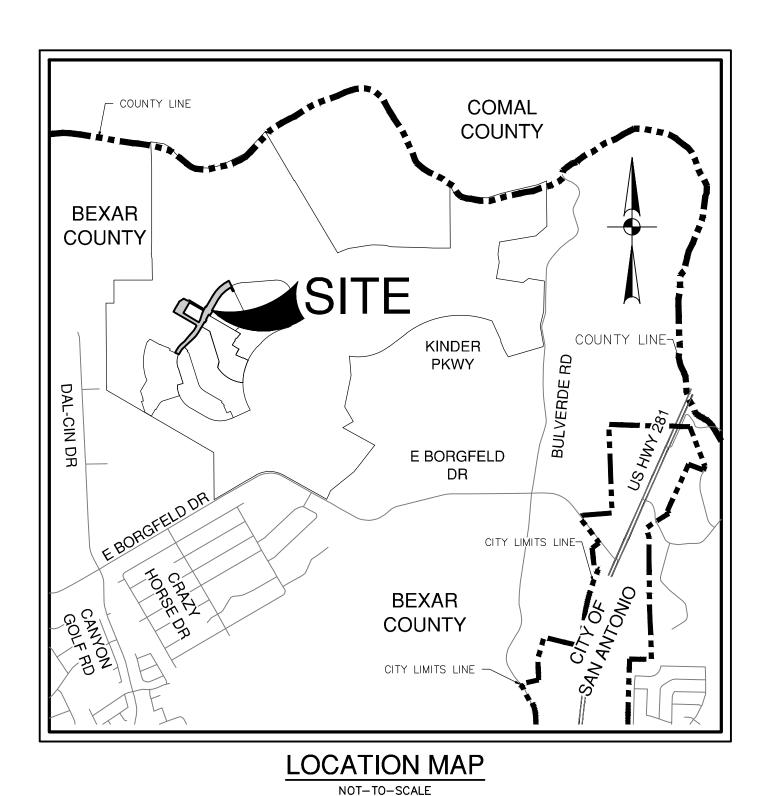
# KINDER SUNDAY CREEK - PHASE I

# SAN ANTONIO, TEXAS

# CIVIL CONSTRUCTION PLANS



PREPARED FOR:

SA KINDER WEST SUNDAY CREEK 11 LYNN BATTS LANE, SUITE 100 SAN ANTONIO, TEXAS 78218

**MARCH 2024** 



# Sheet List Table

| Sheet Description                             | Sheet Number |
|---|--------------|
| COVER SHEET                                   | C0.00        |
|   |              |
| MASTER DRAINAGE PLAN                          | C1.00        |
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| DRAIN "A" & "C" PLAN & PROFILE                | C1.02        |
| DRAIN "B" PLAN & PROFILE                      | C1.03        |
| DRAIN "B" PLAN & PROFILE                      | C1.04        |
| DRAINAGE DETAILS                              | C1.10        |
| DRAINAGE DETAILS                              | C1.11        |
| DRAINAGE DETAILS                              | C1.12        |
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| SUNDAY CREEK PLAN & PROFILE                   | C2.00        |
| SUNDAY CREEK PLAN & PROFILE                   | C2.01        |
| STREET DETAILS                                | C2.10        |
| STREET DETAILS                                | C2.11        |
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| SIGNAGE DETAILS                               | C3.10        |
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| WATER DISTRIBUTION PLAN DETAILS               | C4.10        |
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|   |              |
| STORMWATER POLLUTION PREVENTION PLAN          | C7.00        |
| STORM WATER POLLUTION PREVENTION PLAN DETAILS | C7.10        |

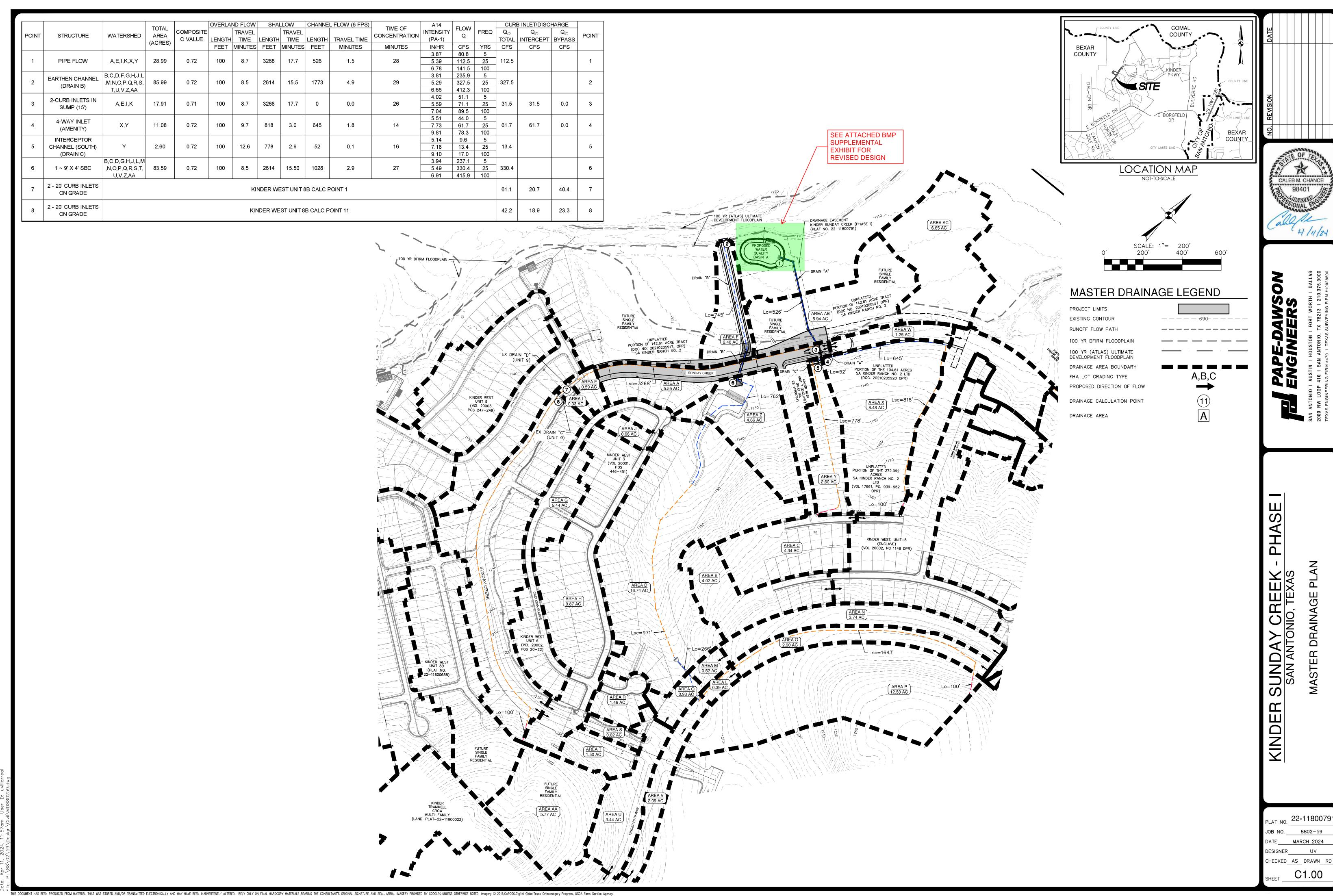


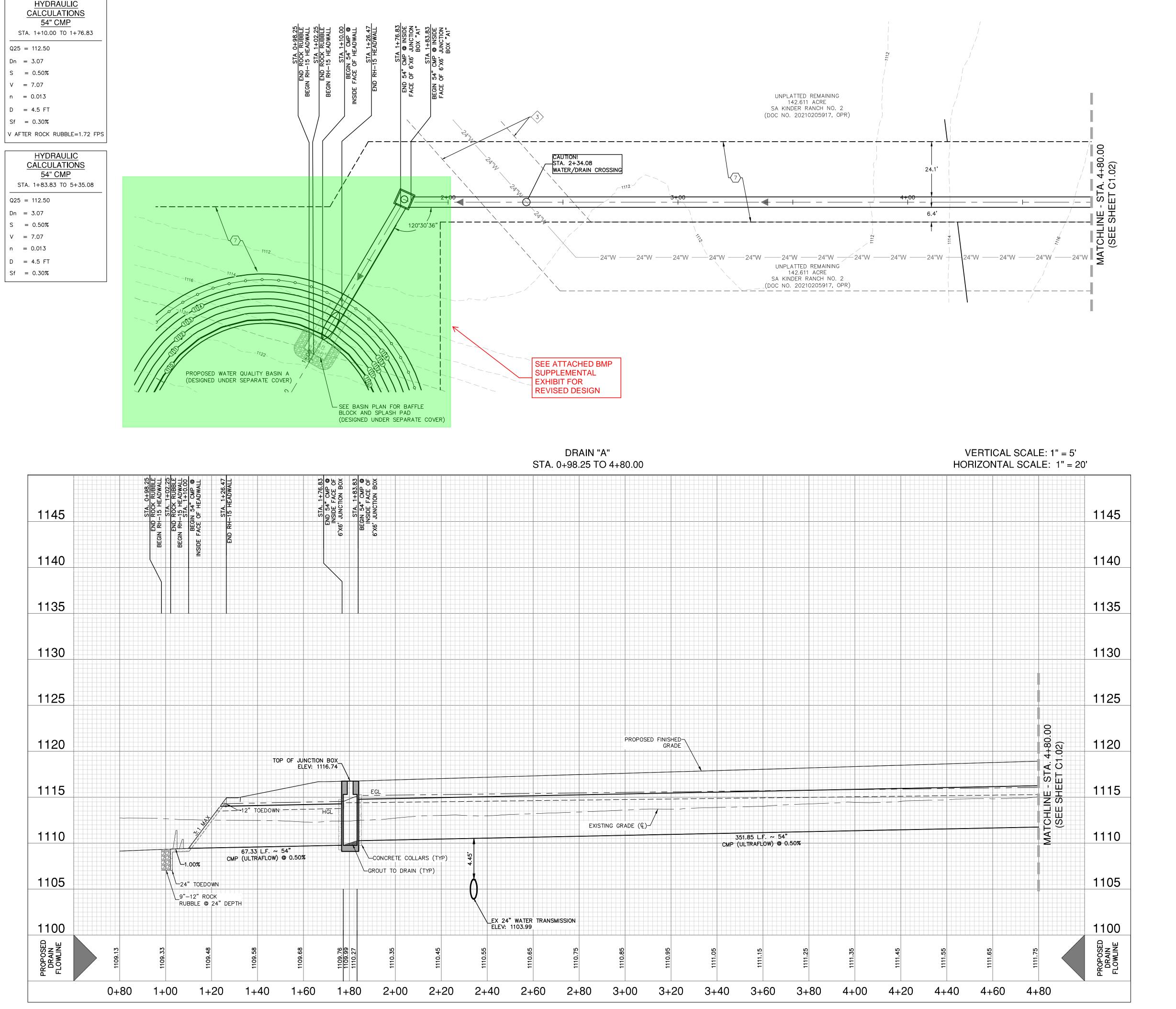
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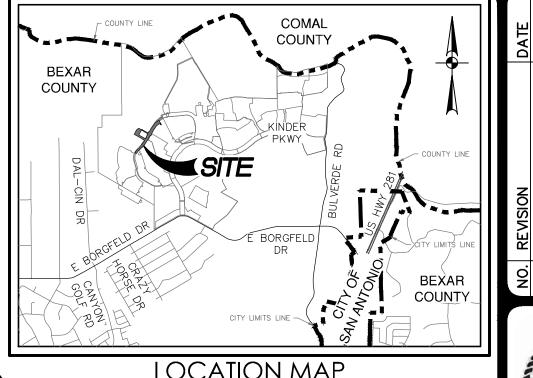
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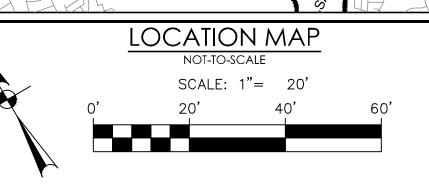
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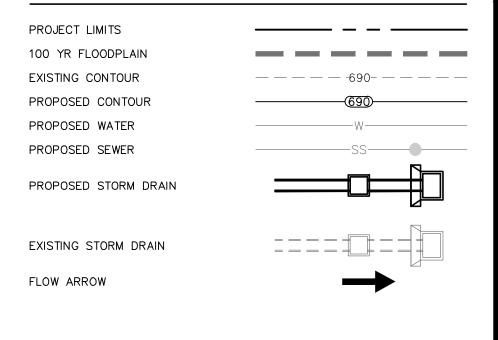








# DRAINAGE LEGEND



# KEYED NOTES:

VARIABLE WIDTH WATER EASEMENT (VOL 18673, PG 1851, OPR)

7 VARIABLE WIDTH DRAINAGE EASEMENT (PERMEABLE)

(OFF LOT) (2.685 OF AN ACRE)

# 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 TXDOT DRAINAGE STRUCTURES SHALL MEET TXDOT SPECIFICATIONS. ALL OTHER CONCRETE SHALL BE CLASS "A" 3000 PSI CYLINDER STRENGTH IN 28 DAYS.
- 3. REFERENCE DRAINAGE DETAILS FOR PIPE TRENCH DETAILS, BO CULVERT, HEADWALL, AND WINGWALL CONSTRUCTION DETAILS, AND BO 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.

# 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!!

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WGINEERS

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G FIRM #470 I TEXAS SURVEYING FIRM #10028800

CALEB M. CHANCE

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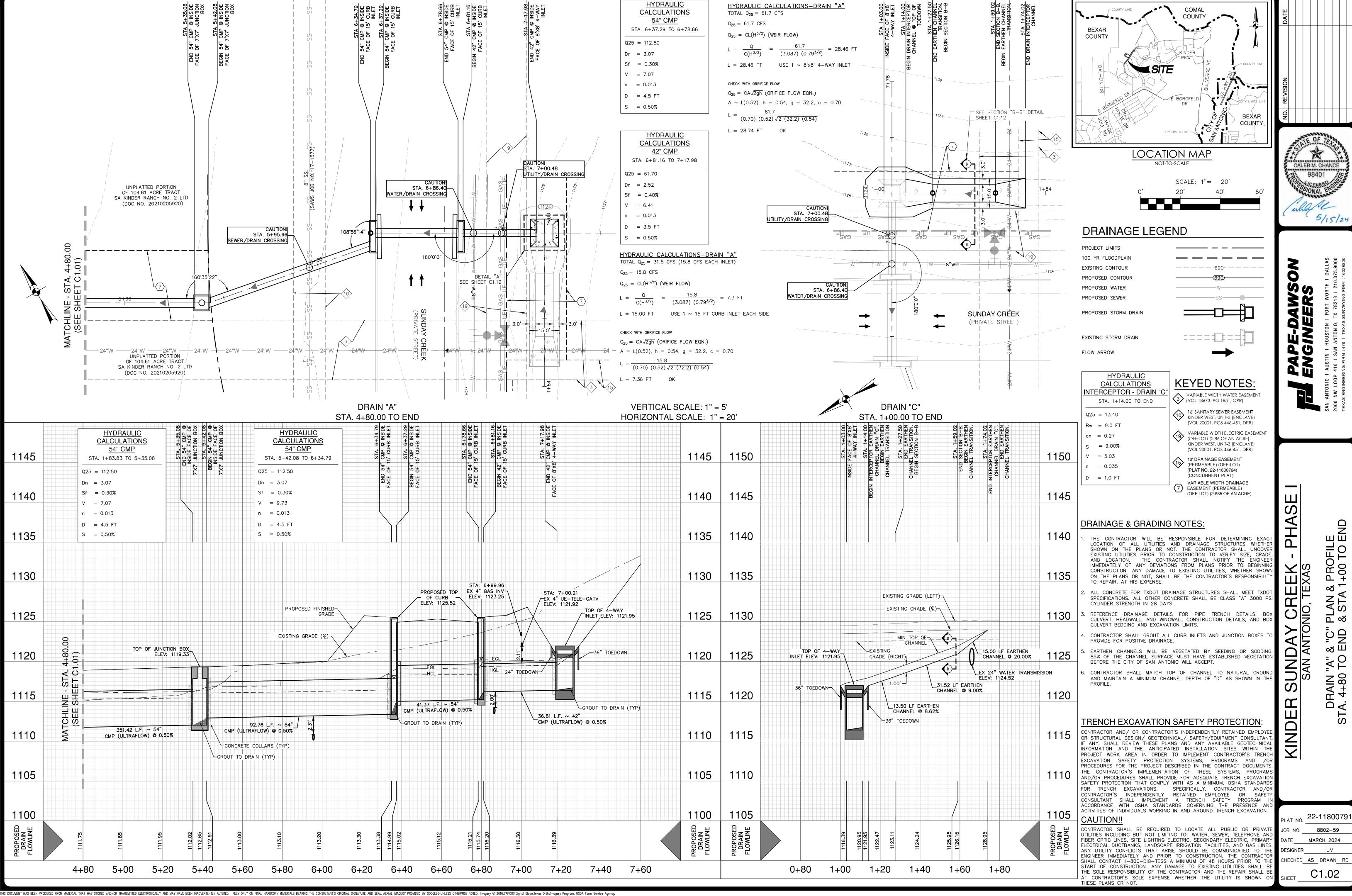
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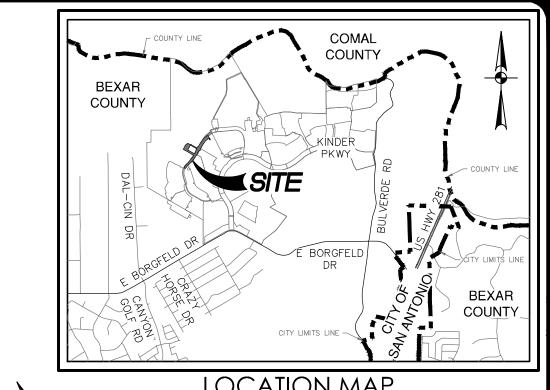
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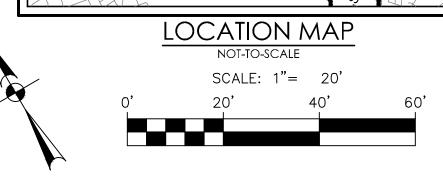
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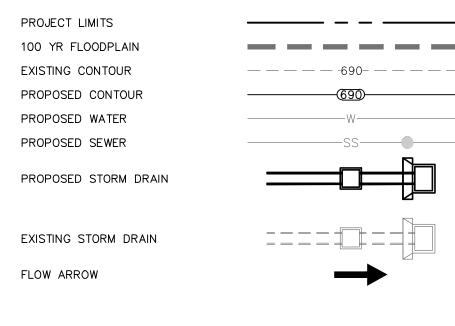
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# DRAINAGE LEGEND



# **KEYED NOTES:**

VARIABLE WIDTH WATER EASEMENT (VOL 18673, PG 1851, OPR)

10 16' Sanitary Sewer Easement Kinder West, Unit-3 (Enclave) (VOL 20001, PGS 446-451, DPR)

VARIABLE WIDTH ELECTRIC EASEMENT (OFF-LOT) (0.86 OF AN ACRE) KINDER WEST, UNIT-3 (ENCLAVE) (VOL 20001, PGS 446-451, DPR)

VARIABLE WIDTH DRAINAGE (7) EASEMENT (PERMEABLE) (OFF LOT) (2.685 OF AN ACRE)

# **DRAINAGE & GRADING NOTES:**

- 1. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING EXAC 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.
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5. EARTHEN CHANNELS WILL BE VEGETATED BY SEEDING OR SODDING

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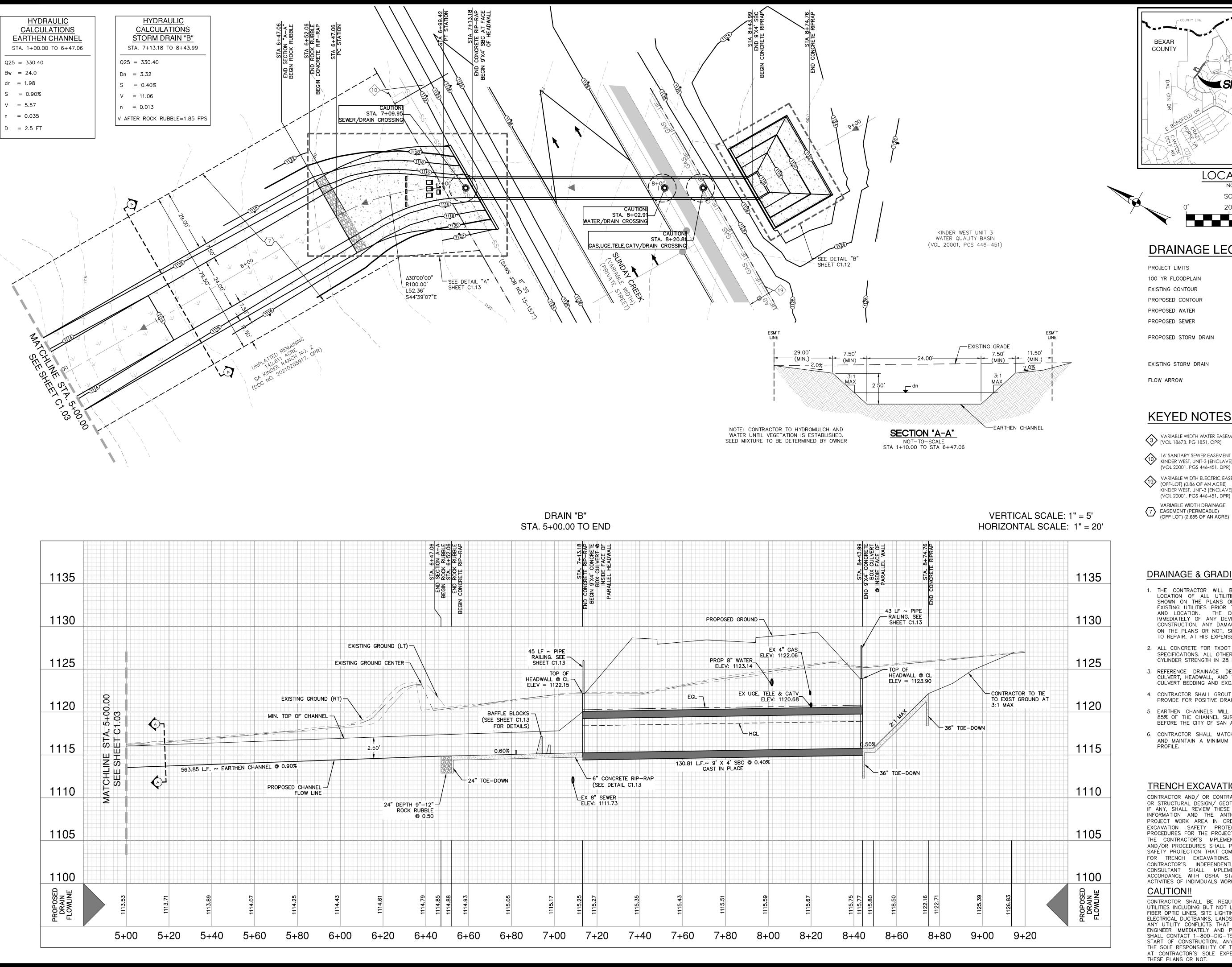
CALEB M. CHANCE

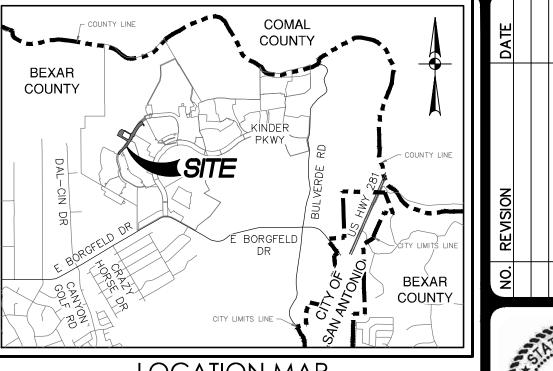
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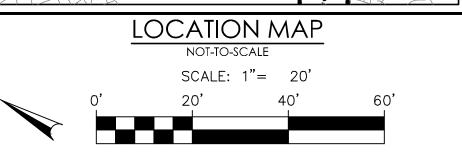
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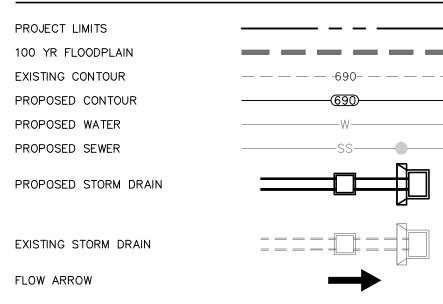
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# DRAINAGE LEGEND



# **KEYED NOTES:**

- VARIABLE WIDTH WATER EASEMENT (VOL 18673, PG 1851, OPR)
- 16' SANITARY SEWER EASEMENT KINDER WEST, UNIT-3 (ENCLAVE) (VOL 20001, PGS 446-451, DPR)
- VARIABLE WIDTH ELECTRIC EASEMENT (OFF-LOT) (0.86 OF AN ACRE) KINDER WEST, UNIT-3 (ENCLAVE)
- VARIABLE WIDTH DRAINAGE 7 EASEMENT (PERMEABLE) (OFF LOT) (2.685 OF AN ACRE)

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# CAUTION!!

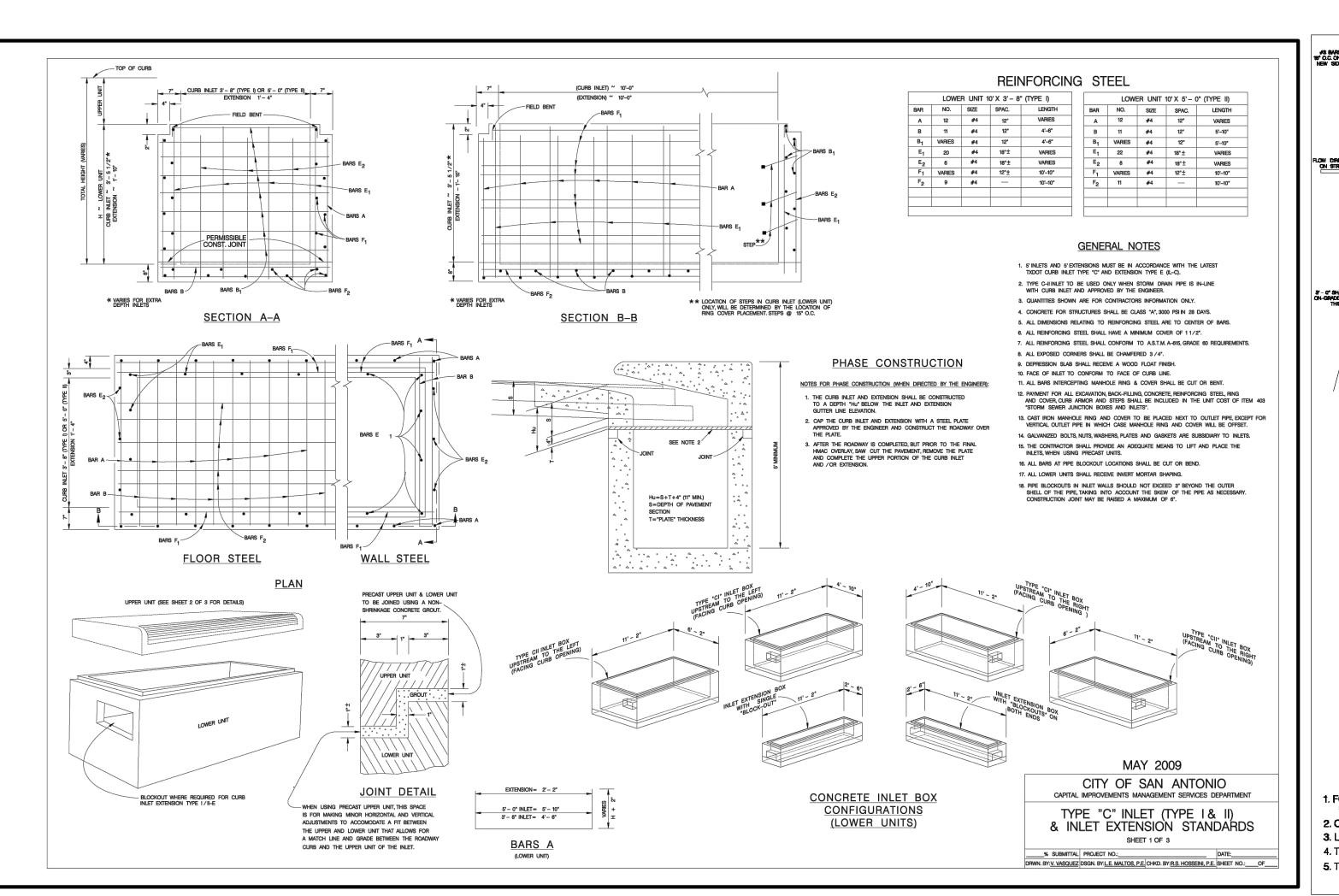
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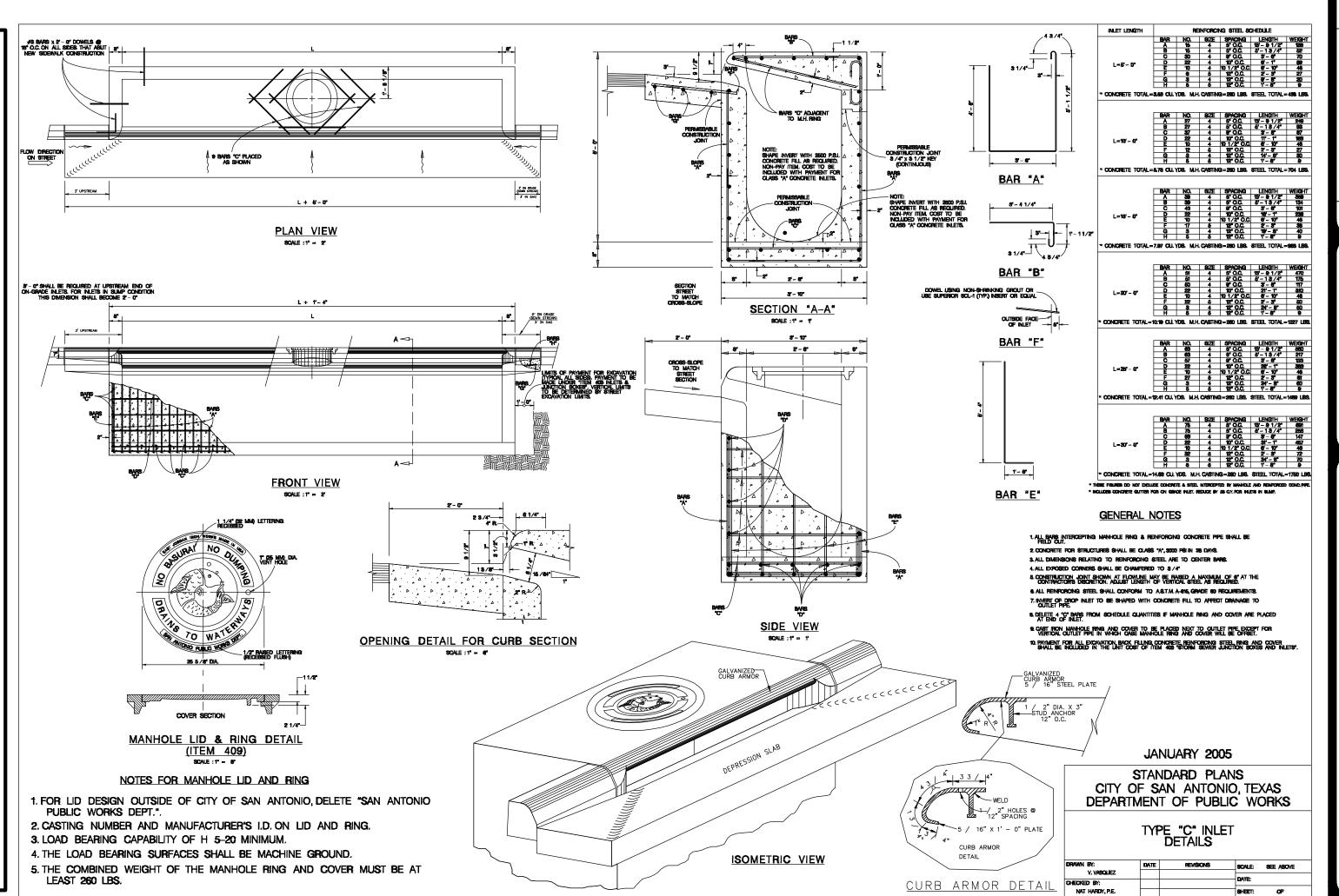
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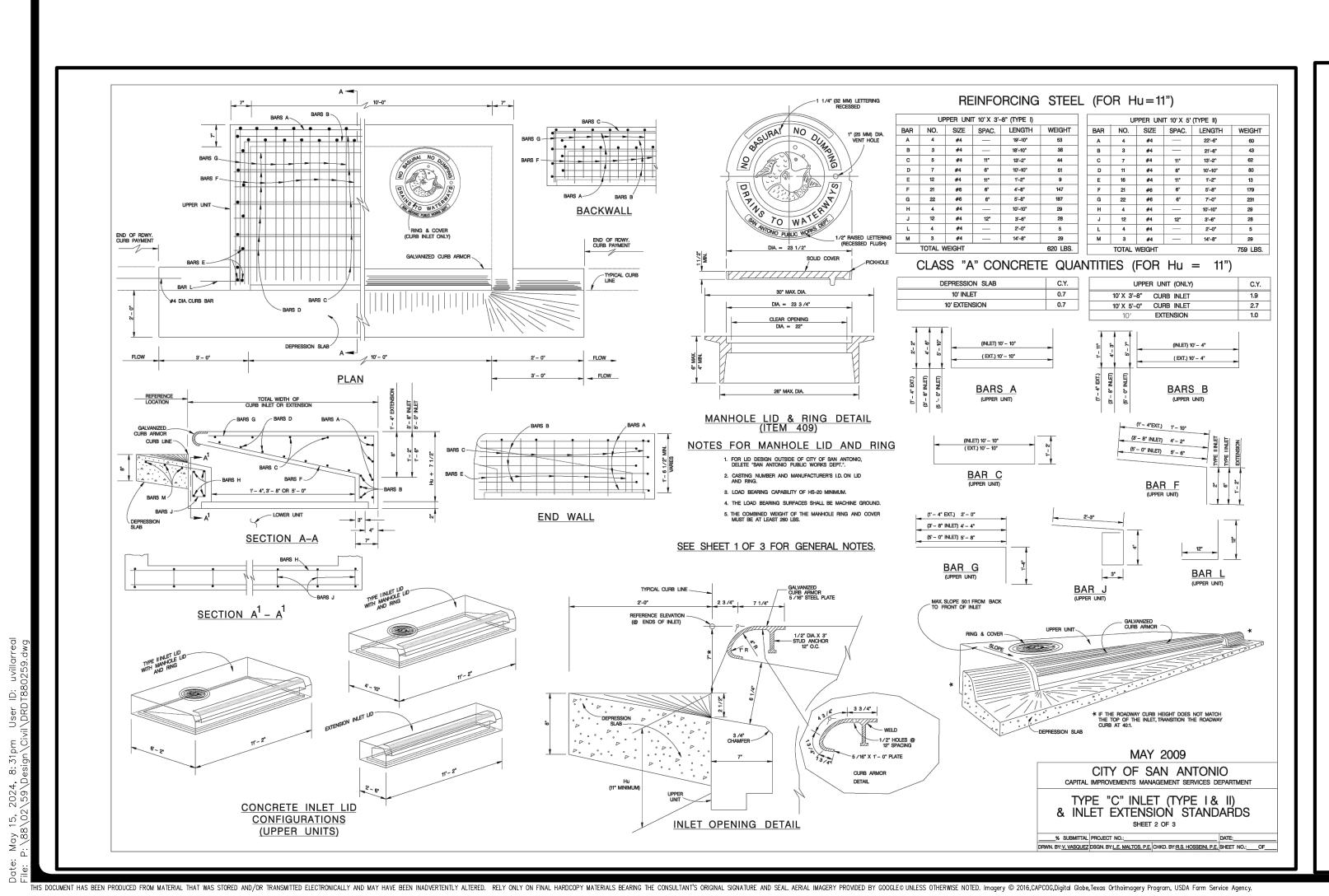
CALEB M. CHANCE

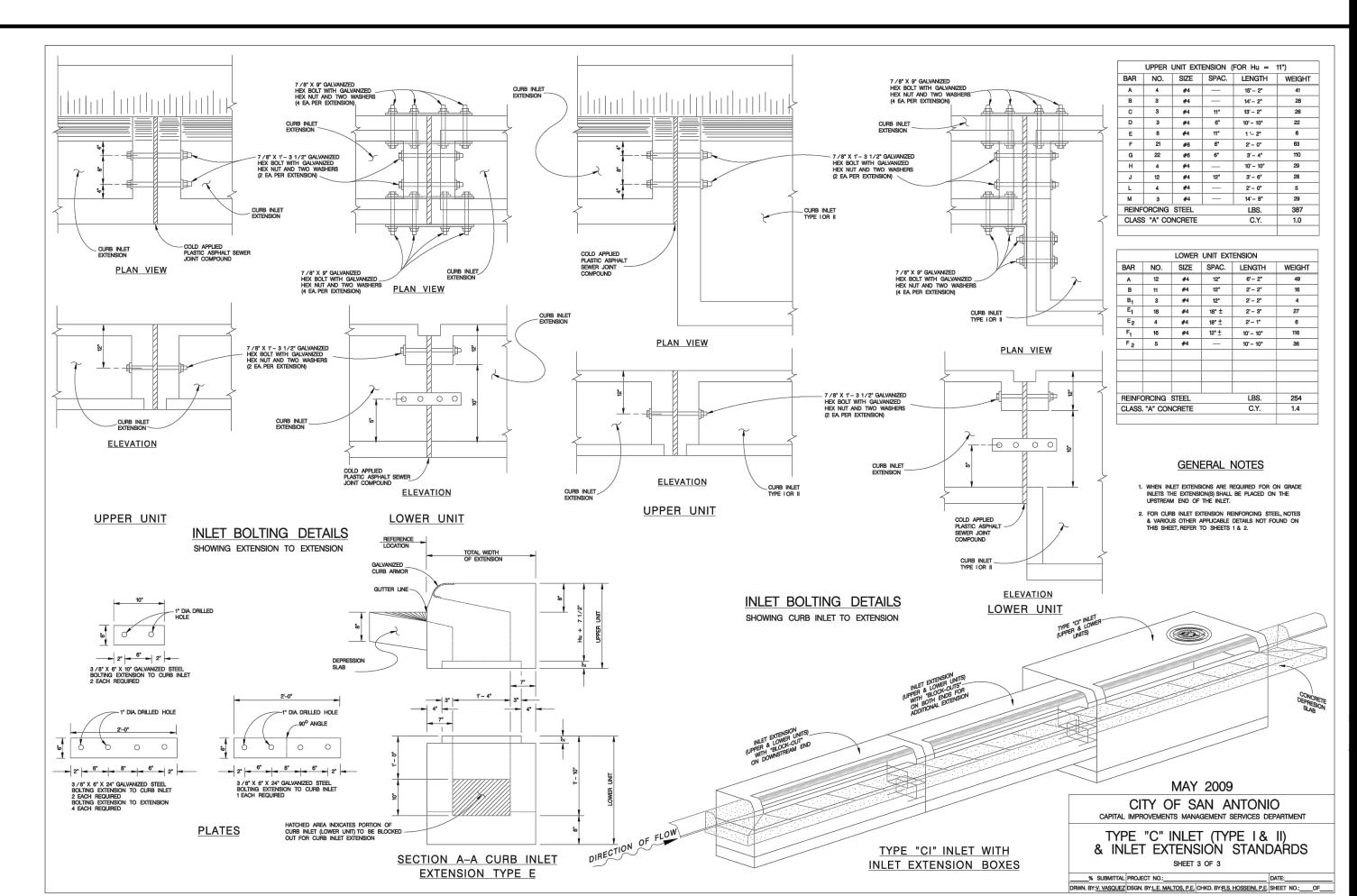
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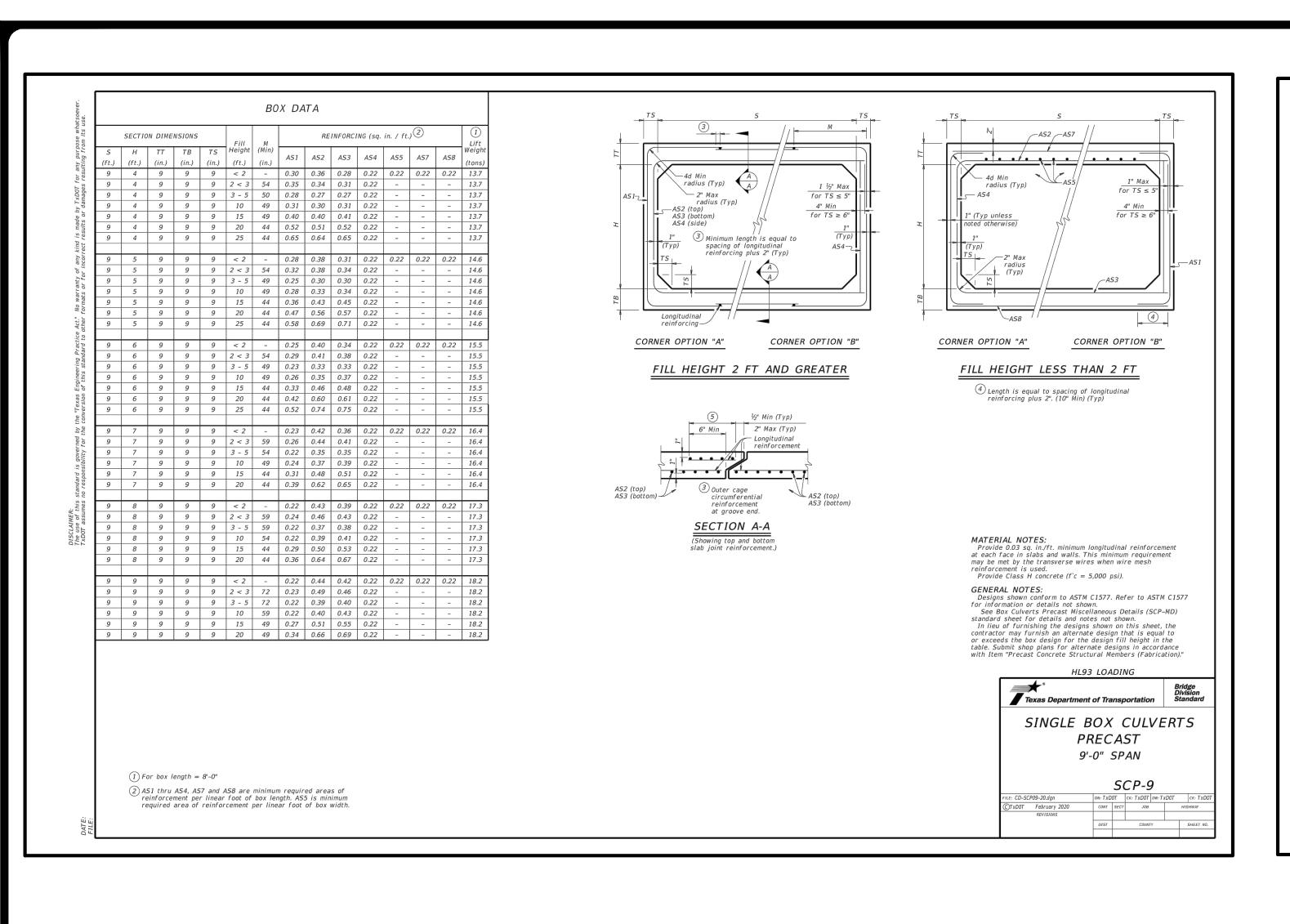


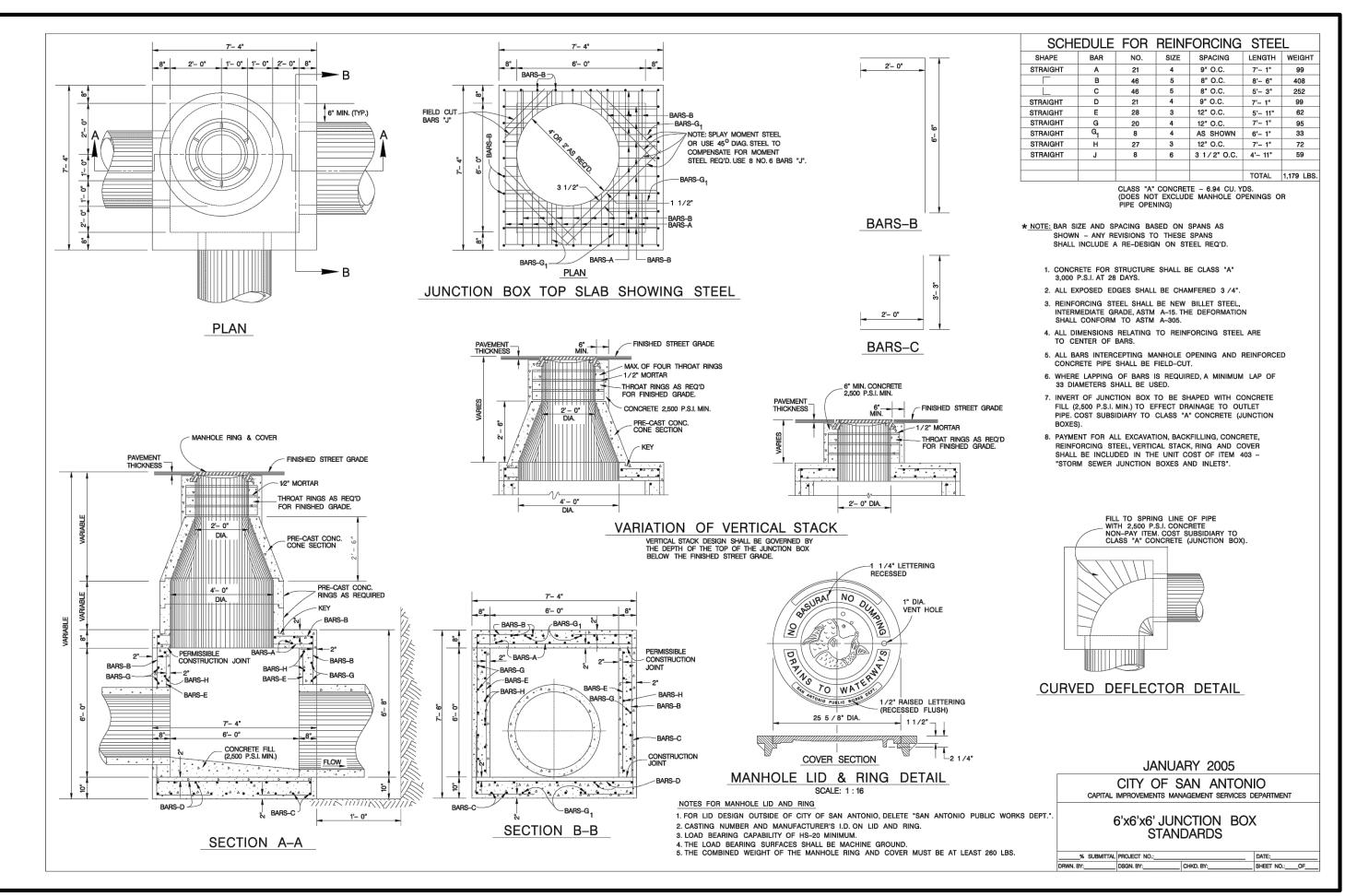
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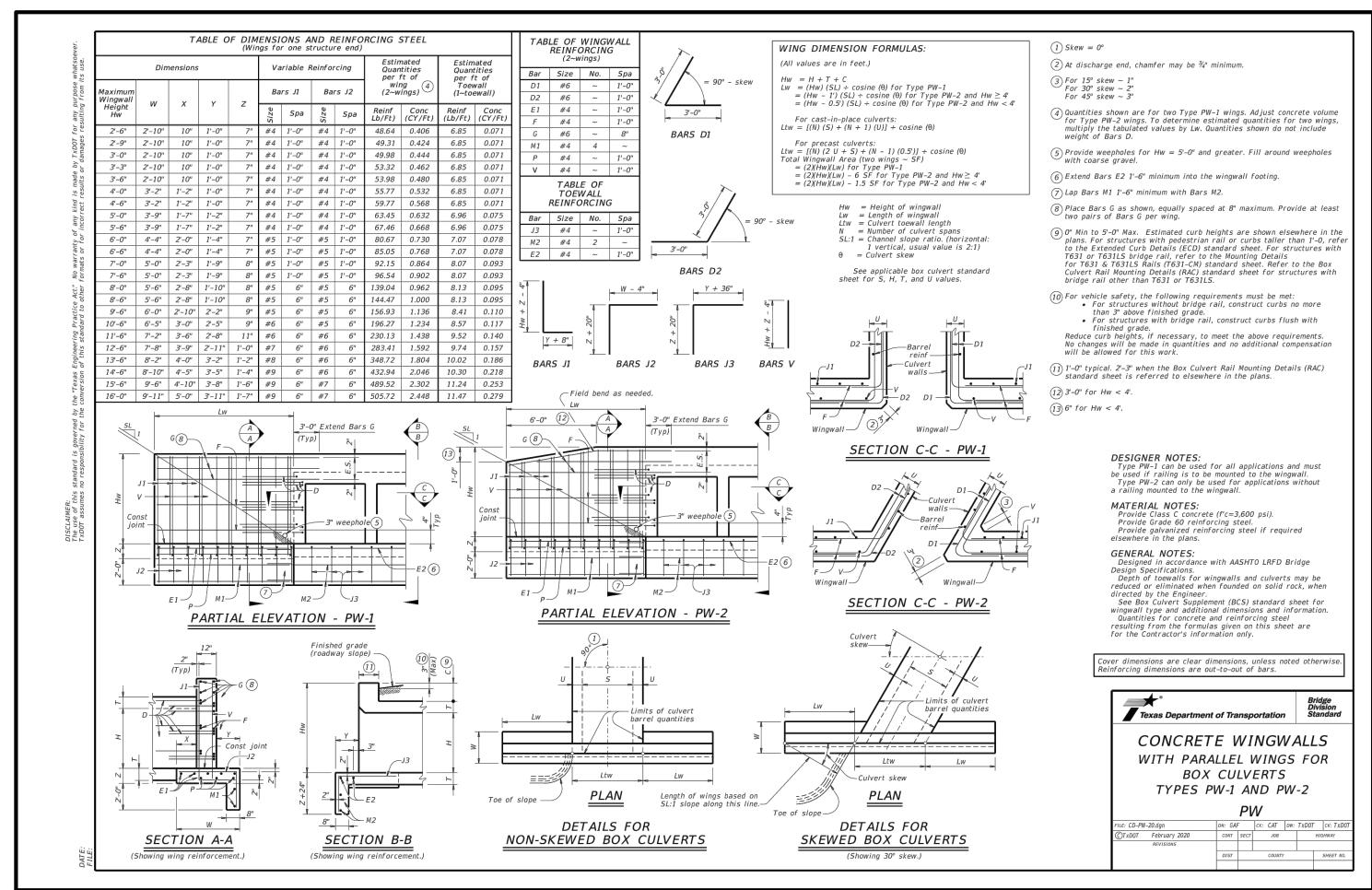
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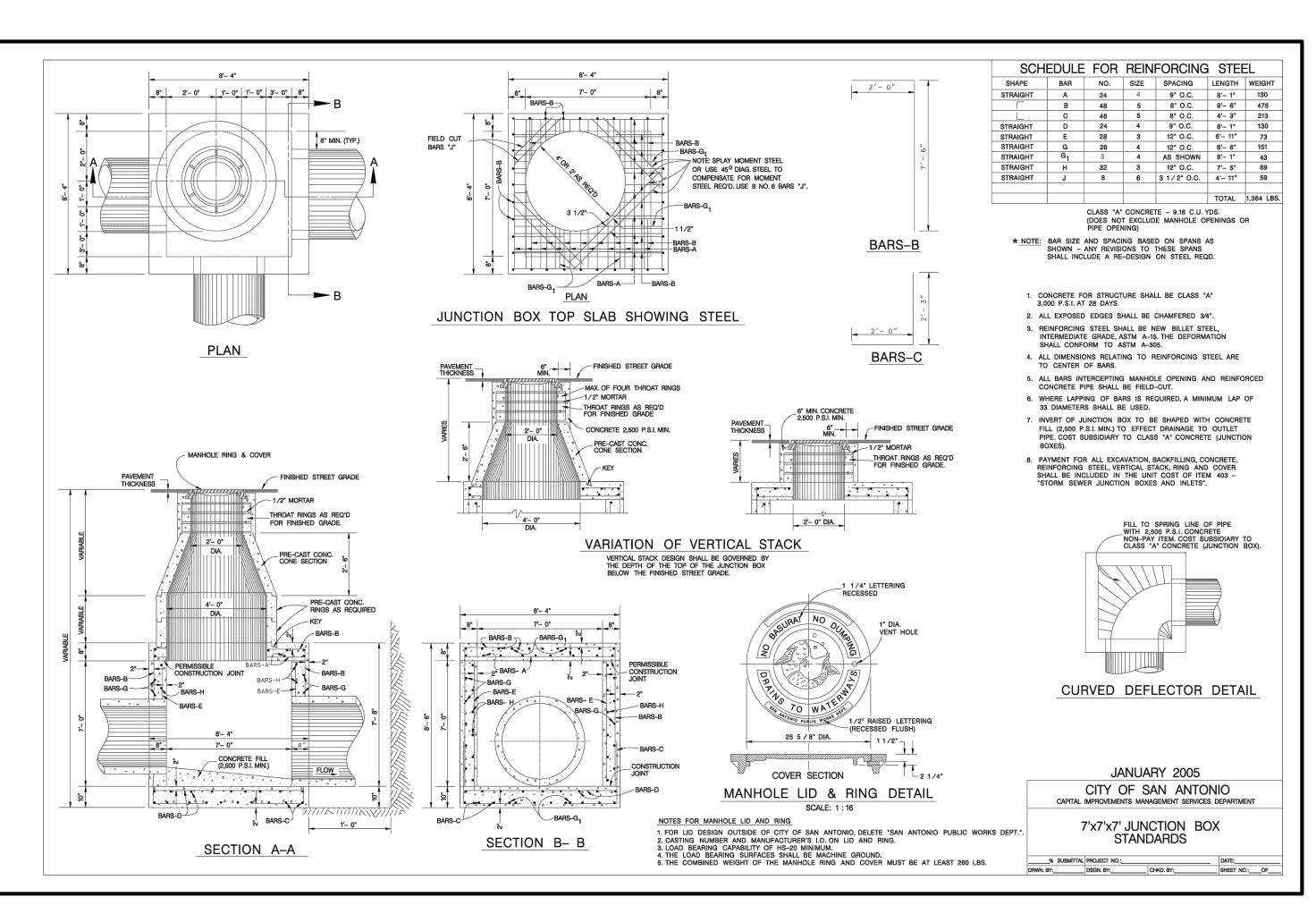
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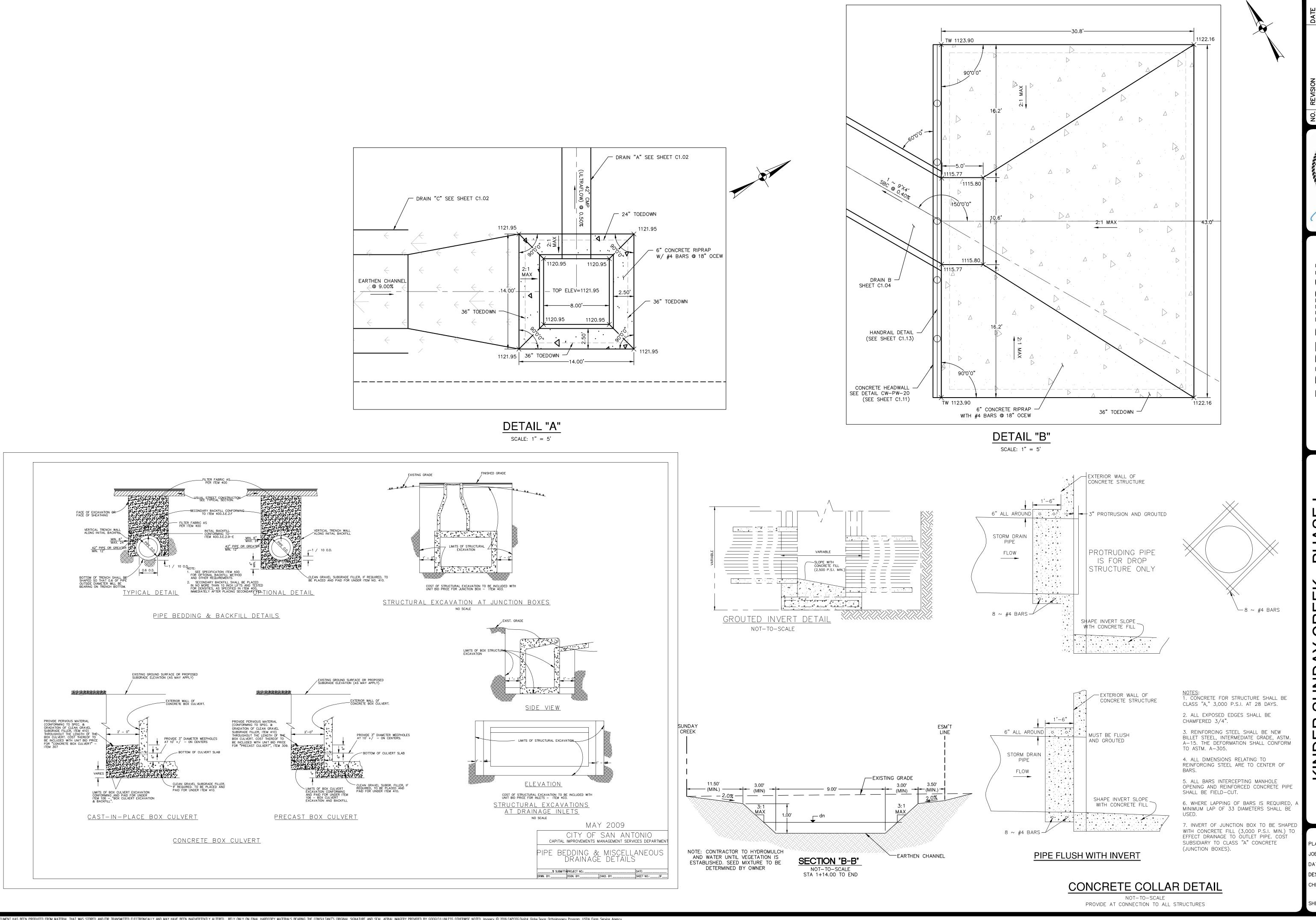




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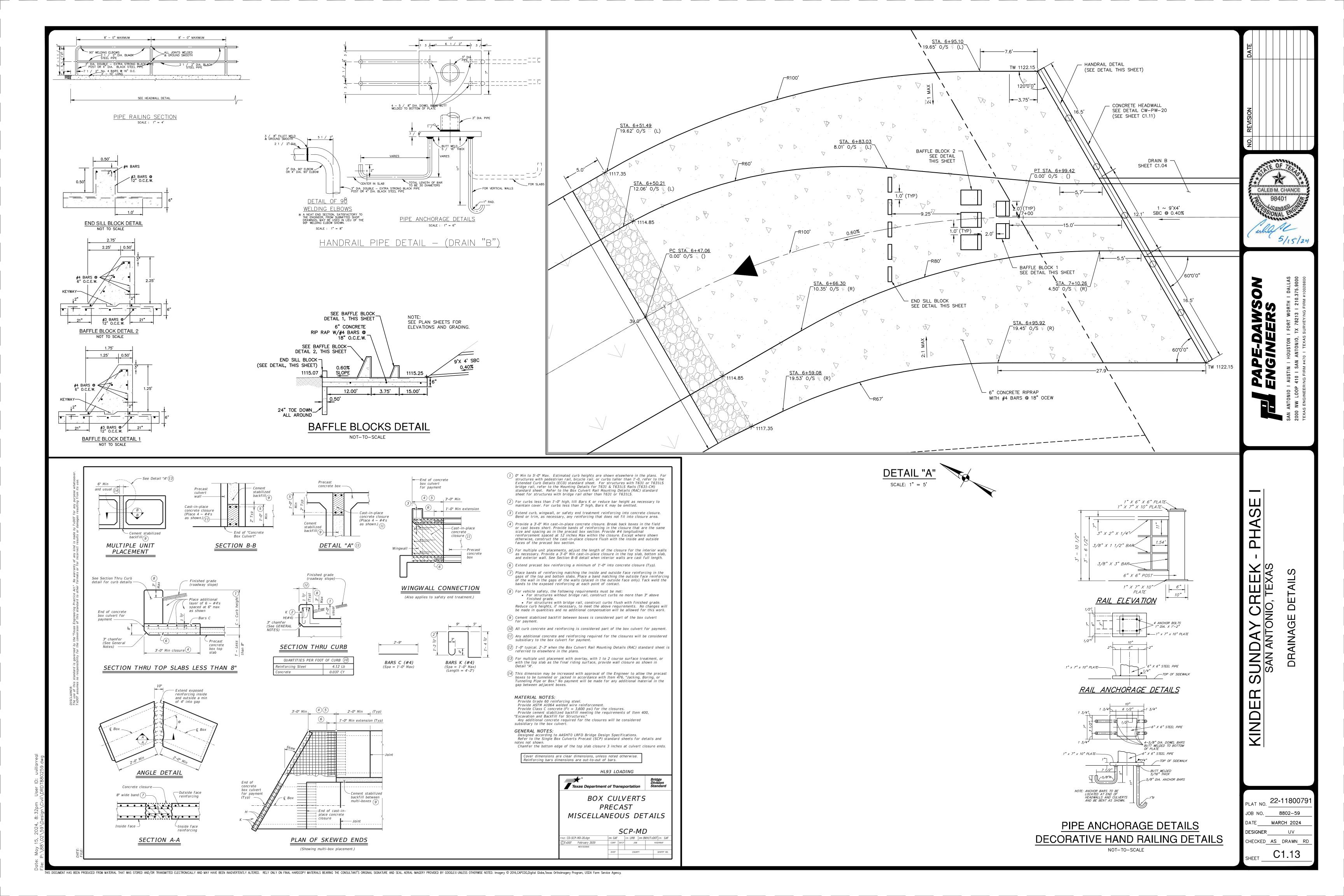
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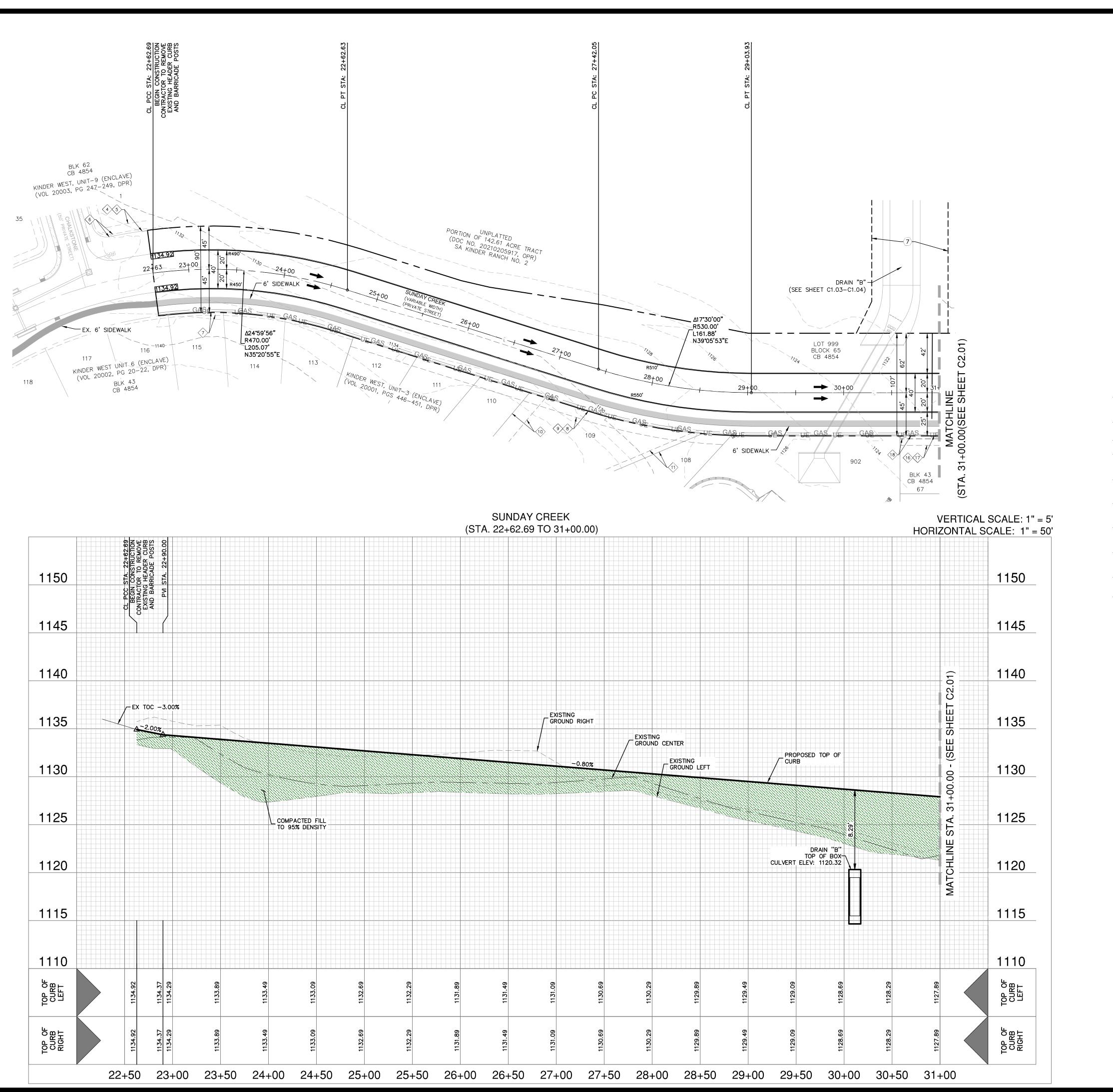
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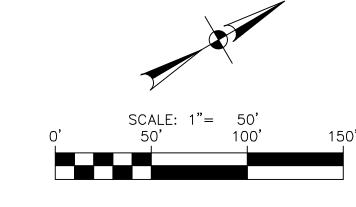
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# STREET LEGEND

PROJECT LIMITS MAINTAIN GUTTER EXISTING CONTOUR WHEELCHAIR RAMP CENTERLINE RADIUS POINT POINT OF CURVATURE POINT OF TANGENCY RET DRAINAGE FLOW ARROW 857.30 TOP OF CURB SPOT ELEVATION 857.00(P) × PAVEMENT ELEVATION WASHOUT CROWN SECTION SIDEWALK (HOMEOWNER'S RESPONSIBILITY SIDEWALK (DEVELOPER'S RESPONSIBILITY) DRIVEWAY

- 10' GAS ELECTRIC, TELEPHONE AND CABLE T.V. EASEMENT KINDER WEST, UNIT-2 (ENCLAVE) (VOL 9727, PG 7-12, DPR)
- 2 10' BUILDING SETBACK KINDER WEST, UNIT-2 (ENCLAVE) (VOL 9727, PG 7-12, DPR) VARIABLE WIDTH WATER EASEMENT VARIABLE WID II W// 2... 2... (VOL 18673, PG 1851, OPR)
- 4 10' ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT KINDER WEST UNIT 9 (ENCLAVE) (VOL 20003, PGS 247-249, DPR) 10' BUILDING SETBACK LINE
- KINDER WEST UNIT 9
  (ENCLAVE) (VOL 20003, PGS 247-249, DPR) 1' VEHICLE NON ACCESS 6 1' VEHICLE NON ACCECC EASEMENT (NOT-TO-SCALE) KINDER WEST UNIT 9 (ENCLAVE)
- (VOL 20003, PGS 247-249, DPR) 1' VEHICLE NON ACCESS EASEMENT (NOT-TO-SCALE) KINDER WEST, UNIT-6 (ENCLAVE) (VOL 20002, PGS 20-22, DPR)
- 10' GAS, ELECTRIC, TELEPHONE AND CABLE TV EASEMENT KINDER WEST, UNIT-3 (ENCLAVE) (VOL 20001, PGS 446-451, DPR)
- 9 KINDER WEST, UNIT-3 (ENCLAVE) (VOL 20001, PGS 446-451, DPR) 16' SANITARY SEWER EASEMENT
  KINDER WEST, UNIT-3 (ENCLAVE) (VOL 20001, PGS 446-451, DPR)

5' GAS, ELECTRIC, TELEPHONE AND CABLE TV EASEMENT KINDER WEST, UNIT-3 (ENCLAVE)

15' GAS, ELECTRIC, TELEPHONE

KINDER WEST, UNIT-7 (ENCLAVE)

(OFF-LOT) (0.86 OF AN ACRE) KINDER WEST, UNIT-3 (ENCLAVE)

(VOL 20001, PGS 446-451, DPR)

ELECTRIC, TELEPHONE AND CABLE TV

VARIABLE WIDTH ELECTRIC EASEMENT

VARIABLE WIDTH ACCESS, SANITARY SEWER,

FORCE MAIN, WATER, DRAINAGE, GAS,

INCORPORATION INTO PLATTED PRIVATE

(VOLUME 9722, PAGES 49-53 DPR)

STREET (OFF-LOT) (PERMEABLE) (5.74 ACRES)

AND CABLE T.V. EASMENT

(PLAT NO. 22-11800764)

- (VOL 20001, PGS 446-451, DPR) 1' VEHICLE NON ACCESS UTILITY EASEMENT TO EXPIRE UPON PLATTING OF FUTURE PRIVATE STREET (PERMEABLE) (OFF LOT) (2.437 OF AN ACRE) EASEMENT (NOT-TO-SCALE) KINDER WEST, UNIT-2 (ENCLAVE) (VOL 9727, PGS 7-12, DPR) (PERMEABLE) (OFF-LOT) (PLAT NO. 22-11800764) (CONCURRENT PLAT)
- 10' GAS ELECTRIC, TELEPHONE AND CABLE T.V. EASEMENT KINDER WEST, UNIT-7 (ENCLAVE) (PLAT NO. 22-11800764) 10' BUILDING SETBACK KINDER WEST, UNIT-7 (ENCLAVE) (PLAT NO. 22-11800764)
- VARIABLE WIDTH DRAINAGE
  EASEMENT (PERMEABLE)
  (OFF LOT) (2.685 OF AN ACRE) VARIABLE WIDTH DRAINAGE, TURNAROUND, ACCESS AND

CALEB M. CHANCE

28' PERMANENT
ELECTRIC EASEMENT (PERMEABLE) (OFF LOT) (0.058 OF AN ACRE) VARIABLE WIDTH

PERMANENT GAS, TELEPHONE, ELECTRIC, AND CABLE TV EASEMENT (PERMEABLE) (OFF LOT)

# **STREET NOTES:**

- CONTRACTOR SHALL MATCH EXISTING PAVEMENT AT TIE-IN. IF EXISTING PAVEMENT ELEVATION DIFFERS SIGNIFICANTLY, CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONTINUING WORK.
- 2. SIDEWALKS SHALL BE CONSTRUCTED 3-FT FROM THE BACK OF CURB FOR ALL LOCATIONS WHERE THE SIDEWALK IS SHOWN OFFSET. REFER TO STREET DETAIL SHEET FOR SIDEWALK AND RAMP DETAILS.
- 3. NO PERMANENT STRUCTURES HIGHER THAN 3 FEET, AND LOWER THAN 8 FEET ABOVE THE PAVEMENT, INCLUDING STRUCTURES, WALLS, FENCES, AND VEGETATION, SHALL BE CONSTRUCTED OR ALLOWED WITHIN THE CLEAR VISION EASEMENT. CONTRACTOR SHALL GRADE AREAS WITHIN CLEAR VISION EASEMENTS SUCH THAT THE ELEVATION WITHIN THE CLEAR VISION EASEMENT IS NOT HIGHER THAN 3 FEET ABOVE TH ADJACENT TOP OF PAVEMENT.
- 4. 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 LOT DESIGN.
- 5. CHANGES IN THE SIDEWALK LOCATION FOR A MAXIMUM LINEAR DISTANCE OF TWO HUNDRED (200) FEET ARE PERMITTED TO BE APPROVED BY THE FIELD INSPECTOR WITHOUT AMENDING THE STREET PLAN OR UTILITY LAYOUT PER UDC SECTION 35-506 (Q)(6).
- 6. THE CONSTRUCTION OF SIDEWALKS ADJACENT TO ALL 900 SERIES LOTS WILL BE THE RESPONSIBILITY OF THE DEVELOPER AS SHOWN ON THE OVERALL SIGNAGE PLAN SIDEWALKS ARE NOT SHOWN ADJACENT TO ALL PRIVATE STREETS. REFER TO SHEET C3.00 FOR LOCATIONS OF SIDEWALK CONSTRUCTION.
- 7. FILL MATERIAL SHOULD BE NATIVE ON-SITE MATERIAL, FREE OF DELETERIOUS MATERIAL WITH A MINIMUM CBR VALUE OF 5.0 AND A F MAXIMUM OF 20. THE GRAVEL SIZE SHOULD NOT EXCEED 3 INCHES IN DIAMETER. LIME APPLICATION RATE SHOULD BE RE-EVALUATED FOR TH FILL MATERIAL. THE MATERIAL SHOULD BE PLACED AS PER APPLICABLE CITY OR COUNTY GUIDELINES.

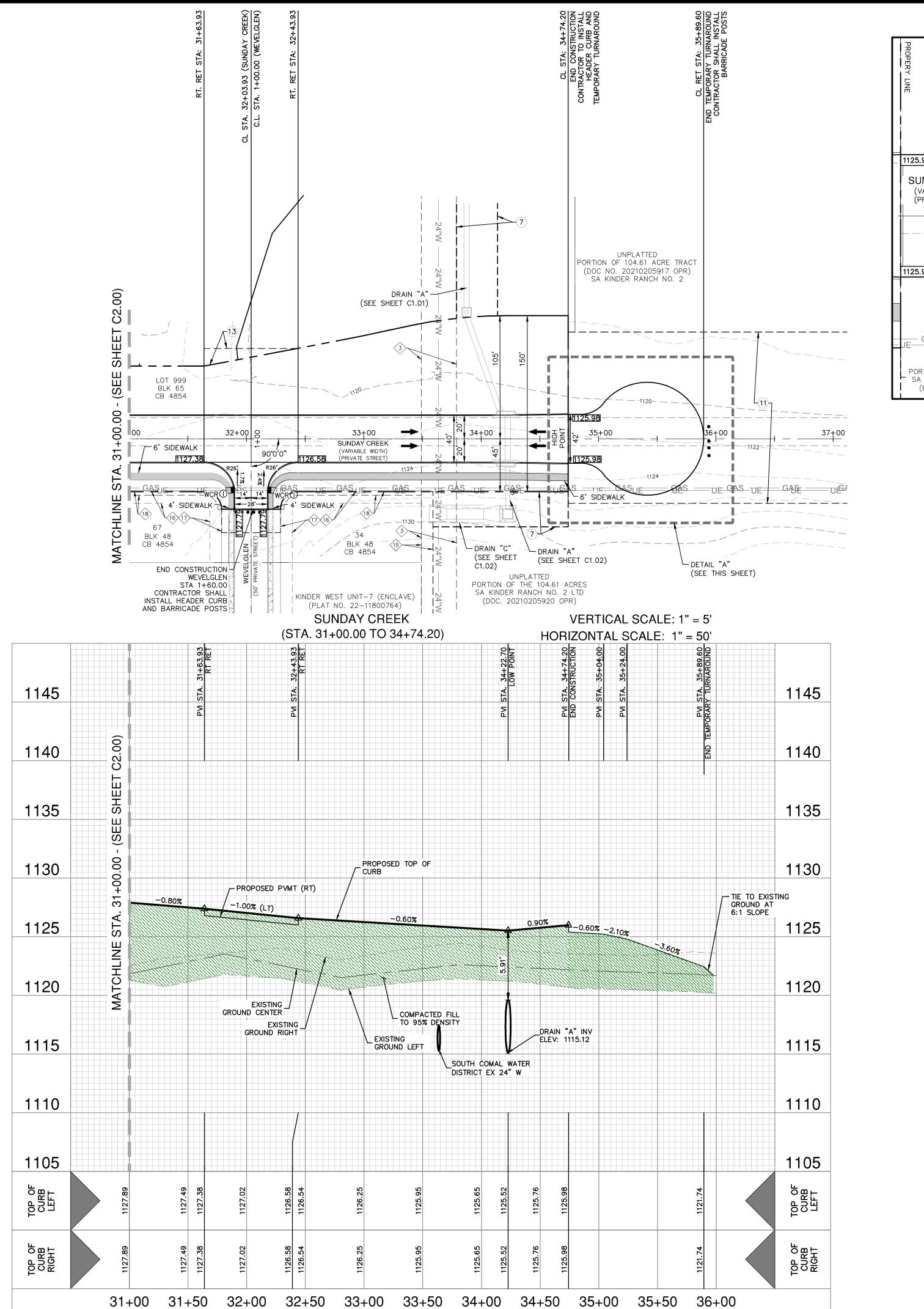
SUNDAY CREEK SAN ANTONIO, TEXAS

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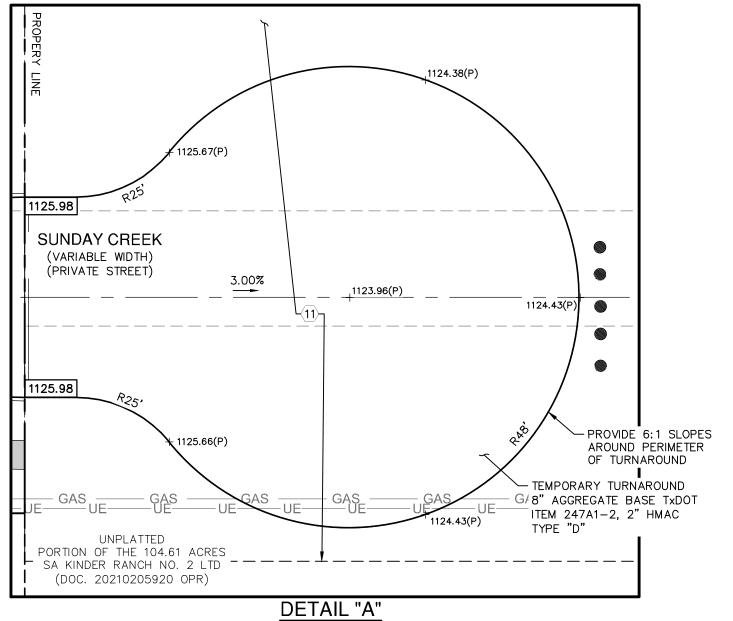
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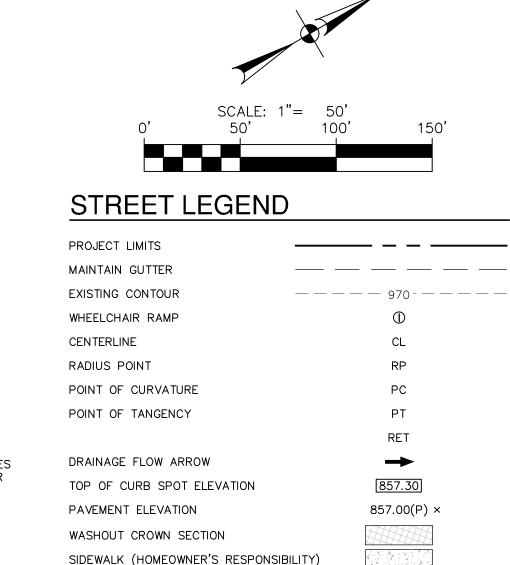
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SCALE: 1" = 20'



SIDEWALK (DEVELOPER'S RESPONSIBILITY)

- AND CABLE T.V. EASEMENT KINDER WEST, UNIT-2 (ENCLAVE) (VOL 9727, PG 7-12, DPR)
- 10' BUILDING SETBACK 10' BUILDING SETBACK
  KINDER WEST, UNIT-2 (ENCLAVE)

  14 (VOL 9727, PG 7-12, DPR)
- 4 10' ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT KINDER WEST UNIT 9 (ENCLAVE) (VOL 20003, PGS 247-249, DPR) 10' BUILDING SETBACK LINE
- (ENCLAVE) (VOL 20003, PGS 247-249, DPR)
- KINDER WEST UNIT 9 (ENCLAVE) (VOL 20003, PGS 247-249, DPR) 1' VEHICLE NON ACCESS
  EASEMENT (NOT-TO-SCALE)
- (VOL 20002, PGS 20-22, DPR) 8 10' GAS, ELECTRIC, TELEPHONE AND CABLE TV EASEMENT KINDER WEST, UNIT-3 (ENCLAVE) (VOL 20001, PGS 446-451, DPR)
- 9 10' BUILDING SETBACK LINE KINDER WEST, UNIT-3 (ENCLAVE) (VOL 20001, PGS 446-451, DPR) 16' SANITARY SEWER EASEMENT KINDER WEST, UNIT-3 (ENCLAVE) (VOL 20001, PGS 446-451, DPR)

5' GAS, ELECTRIC, TELEPHONE AND CABLE TV EASEMENT KINDER WEST, UNIT-3 (ENCLAVE) (VOL 20001, PGS 446-451, DPR) 1' VEHICLE NON ACCESS

DRIVEWAY

- EASEMENT (NOT-TO-SCALE) KINDER WEST, UNIT-2 (ENCLAVE) (VOL 9727, PGS 7-12, DPR) VARIABLE WIDTH WATER EASEMENT (VOL 18673, PG 1851, OPR)
  - 10' DRAINAGE EASEMENT (PERMEABLE) (OFF-LOT) (PLAT NO. 22-11800764) (CONCURRENT PLAT) 10' GAS ELECTRIC, TELEPHONE AND CABLE T.V. EASEMENT KINDER WEST, UNIT-7 (ENCLAVE)
- KINDER WEST UNIT 9 6 1' VEHICLE NON ACCESS EASEMENT (NOT-TO-SCALE)
  - KINDER WEST, UNIT-7 (ENCLAVE) (PLAT NO. 22-11800764) 15' GAS, ELECTRIC, TELEPHONE AND CABLE T.V. EASMENT KINDER WEST, UNIT-7 (ENCLAVE) (PLAT NO. 22-11800764)

(PLAT NO. 22-11800764)

10' BUILDING SETBACK

VARIABLE WIDTH ELECTRIC EASEMENT KINDER WEST, UNIT-6 (ENCLAVE)
(VOL 20002 PGS 20-22 DPB)

VARIABLE WIDTH ELECTRIC EAS (OFF-LOT) (0.86 OF AN ACRE) KINDER WEST, UNIT-3 (ENCLAVE) (VOL 20001, PGS 446-451, DPR) VARIABLE WIDTH ACCESS, SANITARY SEWER, FORCE MAIN, WATER, DRAINAGE, GAS, ELECTRIC, TELEPHONE AND CABLE TV EASEMENT TO EXPIRE UPON

INCORPORATION INTO PLATTED PRIVATE

(VOLUME 9722, PAGES 49-53 DPR)

STREET (OFF-LOT) (PERMEABLE) (5.74 ACRES)

- 7 VARIABLE WIDTH DRAINAGE EASEMENT (PERMEABLE) (OFF LOT) (2.685 OF AN ACRE) VARIABLE WIDTH DRAINAGE, TURNAROUND, ACCESS AND UTILITY EASEMENT TO EXPIRE
  - UPON PLATTING OF FUTURE PRIVATE STREET (PERMEABLE) (OFF LOT) (2.437 OF AN ACRE) 28' PERMANENT ELECTRIC EASEMENT (PERMEABLE) (OFF LOT) (0.058 OF AN ACRE)
  - VARIABLE WIDTH PERMANENT GAS, TELEPHONE, ELECTRIC, AND CABLE TV EASEMENT (PERMEABLE) (OFF LOT)

# **STREET NOTES:**

- 1. CONTRACTOR SHALL MATCH EXISTING PAVEMENT AT TIE-IN. IF EXISTING PAVEMENT ELEVATION DIFFERS SIGNIFICANTLY, CONTRACTOR SHAL NOTIFY THE ENGINEER PRIOR TO CONTINUING WORK.
- 2. SIDEWALKS SHALL BE CONSTRUCTED 3-FT FROM THE BACK OF CURB FOR ALL LOCATIONS WHERE THE SIDEWALK IS SHOWN OFFSET. REFER TO STREET DETAIL SHEET FOR SIDEWALK AND RAMP DETAILS.
- 3. NO PERMANENT STRUCTURES HIGHER THAN 3 FEET, AND LOWER THAN 8 FEET ABOVE THE PAVEMENT, INCLUDING STRUCTURES, WALLS, FENCES, AND VEGETATION, SHALL BE CONSTRUCTED OR ALLOWED WITHIN TH CLEAR VISION EASEMENT. CONTRACTOR SHALL GRADE AREAS WITHIN CLEAR VISION EASEMENTS SUCH THAT THE ELEVATION WITHIN THE CLEAR VISION EASEMENT IS NOT HIGHER THAN 3 FEET ABOVE TH ADJACENT TOP OF PAVEMENT.
- 4. 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 LOT DESIGN.
- 5. CHANGES IN THE SIDEWALK LOCATION FOR A MAXIMUM LINEAR DISTANCE OF TWO HUNDRED (200) FEET ARE PERMITTED TO BE APPROVED BY THE FIELD INSPECTOR WITHOUT AMENDING THE STREET PLAN OR UTILITY LAYOUT PER UDC SECTION 35-506 (Q)(6).
- 6. THE CONSTRUCTION OF SIDEWALKS ADJACENT TO ALL 900 SERIES LOTS WILL BE THE RESPONSIBILITY OF THE DEVELOPER AS SHOWN ON THE OVERALL SIGNAGE PLAN SIDEWALKS ARE NOT SHOWN ADJACENT TO ALL PRIVATE STREETS. REFER TO SHEET C3.00 FOR LOCATIONS OF SIDEWALK CONSTRUCTION.
- 7. FILL MATERIAL SHOULD BE NATIVE ON-SITE MATERIAL, FREE OF DELETERIOUS MATERIAL WITH A MINIMUM CBR VALUE OF 5.0 AND A F MAXIMUM OF 20. THE GRAVEL SIZE SHOULD NOT EXCEED 3 INCHES IN DIAMETER. LIME APPLICATION RATE SHOULD BE RE-EVALUATED FOR TH FILL MATERIAL. THE MATERIAL SHOULD BE PLACED AS PER APPLICABLE CITY OR COUNTY GUIDELINES.

SUNDAY CREEK SAN ANTONIO, TEXAS

/ CREEK PLAN & F . 31+00.00 TO 34+7

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CALEB M. CHANCE

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.<sub>NO</sub> 22-11800791 8802-59

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MARCH 2024 DESIGNER CHECKED AS DRAWN DD

| PAVEMENT SECTION DETAIL   |                      |                  |                              |                     |                                  |     |                      |
|---------------------------|----------------------|------------------|------------------------------|---------------------|----------------------------------|-----|----------------------|
| STREET NAME               | STATION              | TYPE "D"<br>HMAC | CRUSHED<br>LIMESTONE<br>BASE | TREATED<br>SUBGRADE | GEOGRID<br>(TENSAR TRIAX<br>TX5) | CBR | STRUCTURAL<br>NUMBER |
| SUNDAY CREEK<br>(LOCAL B) | 22+62.69 TO 34+74.20 | 3"               | 17"                          | *                   | NO                               | 5.0 | 3.70                 |
| WEVELGLEN<br>(LOCAL A)    | 1+20.00 TO 1+60.00   | 2"               | 10"                          | *                   | NO                               | 2.5 | 2.76                 |

### GENERAL NOTES:

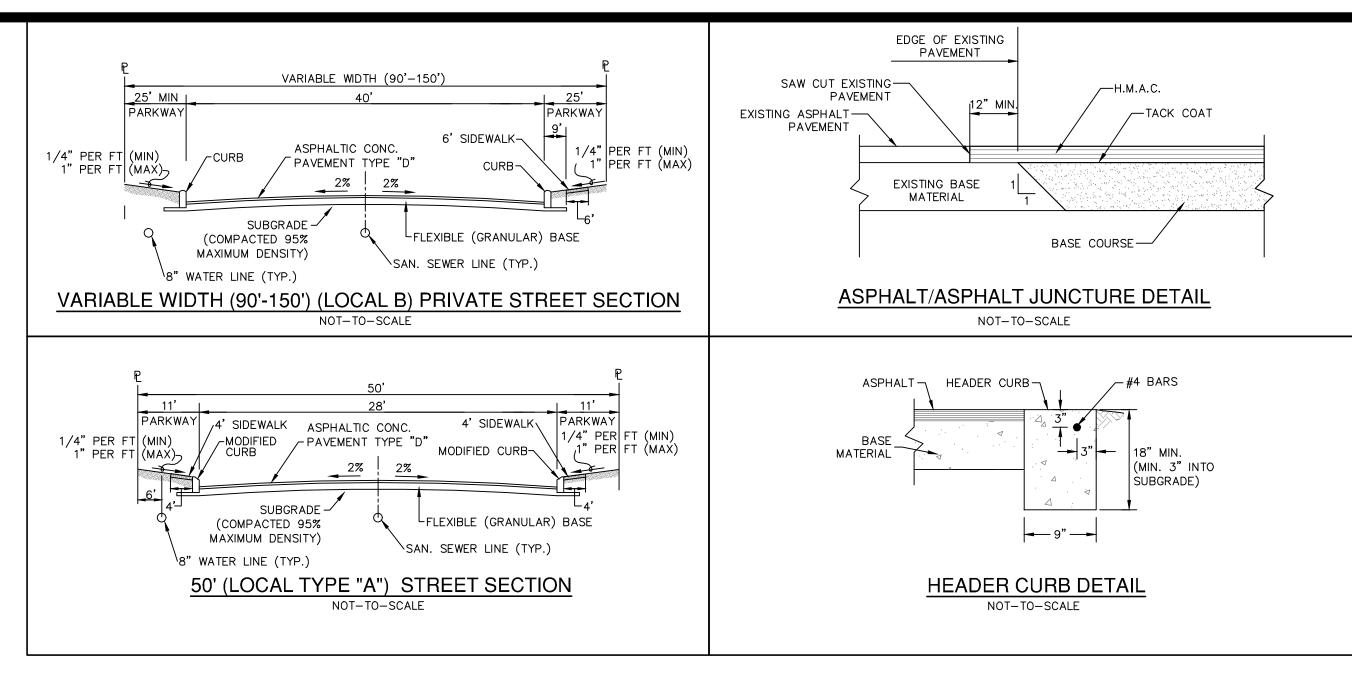
- CONTRACTOR SHALL REFERENCE THE PROJECT PAVEMENT DESIGN REPORT S231114 PREPARED BY INTEC DATED **JANUARY 29, 2024.**
- 2. CONTRACTOR SHALL RETAIN A GEOTECHNICAL ENGINEER TO VERIFY THE SUB GRADE CONDITION PRIOR TO PLACING ANY BASE MATERIAL. GEOTECHNICAL ENGINEER SHALL DETERMINE THE SUB GRADE CONDITION AND IF LIME TREATMENT IS REQUIRED.
- GEOTECHNICAL ENGINEER SHOULD VERIFY THE STREET SUBGRADE AT THE TIME OF CONSTRUCTION PRIOR TO PLACEMENT OF AGGREGATE BASE.
- 4. THE FLEXIBLE BASE COURSE SHOULD BE CRUSHED LIMESTONE CONFORMING TO TXDOT STANDARD SPECIFICATIONS, ITEM 247, TYPE A, GRADES 1 OR 2.
- 5. 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
- 6. 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
- 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.
- 8. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL MATERIAL TESTING WITH THE PROJECT GEOTECHNICAL ENGINEER. TESTING SHALL BE PAID FOR BY THE OWNER.
- 9. FILL MATERIAL HOULD BE NATIVE ON-SITE MATERIAL, FREE OF DELETERIOUS MATERIAL WITH A MINIMUM CBR VALUE OF 5.0 AND A PI LESS THAN OR EQUAL TO 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.

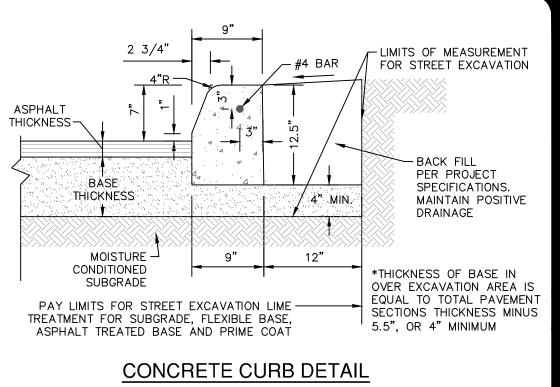
### STREET SUBGRADE NOTES (\*)

- 1. IF THE STREET SUBGRADE PLASTICITY INDEX VALUE IS GREATER THAN 20, SUBGRADE TREATMENT IS NEEDED AS PER CITY OF SAN ANTONIO REQUIREMENTS.
- 2. IF THE SUBGRADE PLASTICITY INDEX VALUE IS 20 OR LESS. SUBGRADE TREATMENT 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)).
- 3. THE SUBGRADE SHOULD BE TREATED USING 6 PERCENT LIME TO A DEPTH OF 6 INCHES AS NOTED
- 4. 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.
- 5. LIME APPLICATION RATE OF 27 LBS PER SQ YARD FOR 6 INCH DEPTH OF TREATMENT IS RECOMMENDED.
- 6. 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 PLASTICITY INDEX VALUES OF 20 OR LESS. 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.
- 7. THE SUBGRADE SHOULD BE PROOF ROLLED TO IDENTIFY SOFT AREAS BEFORE STABILIZATION.

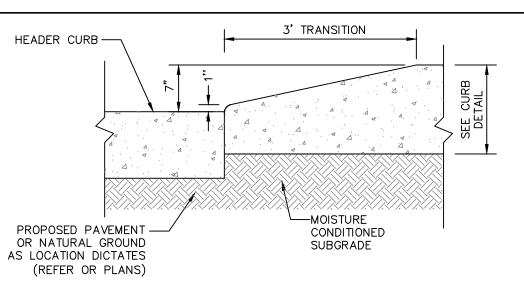
# LIME NOTES:

- FOR LIME TREATED CONSTRUCTION VERIFICATION THE FOLLOWING SHALL BE CONDUCTED ON THE FIELD: 1. AFTER INITIAL MIXING THE SOIL-LIME MIXTURE SHALL MELLOW FOR A PERIOD OF TWO TO THREE (2-3)DAYS. MAINTAIN MOISTURE DURING MELLOWING.
- 2. AFTER MELLOWING AND FINAL MIXING, THE PULVERIZATION SHALL BE CHECKED USING THE FOLLOWING CRITERIA (REMOVE NON-SLAKING AGGREGATES RETAINED ON THE 3 INCH SIEVE FROM THE SAMPLE): MINIMUM PASSING 1¾ SIEVE 100
  - MINIMUM PASSING ¾" SIEVE MINIMUM PASSING NO. 4 SIEVE
- 3. SAMPLE SOIL-LIME MIXTURE FOR DETERMINATION OF MAXIMUM DRY DENSITY (MDD). IN THE LABORATORY, MOLD SPECIMENS TO 95% OF MDD AT OPTIMUM MOISTURE CONTENT AND VERIFY UCS TO BE AT LEAST 160 PSI IN ACCORDANCE WITH PROCEDURE OUTLINED IN THE BEXAR COUNTY FLEXIBLE PAVEMENT DESIGN CRITERIA GUIDE FOR MIXTURE DESIGN.
- 4. COMPACT AND CHECK FIELD DENSITY (MINIMUM OF 95% OF MDD REQUIRED).
- 5. CURE FOR AN ADDITIONAL 2 TO 5 DAYS (TOTAL MELLOWING AND CURING TIME SHOULD TOTAL AT LEAST 5 DAYS).
- 6. VERIFY DEPTH OF LIME TREATED LAYER TO DEPTH AS NOTED ON PLAN TO WITHIN  $\pm 1.0$  INCH.

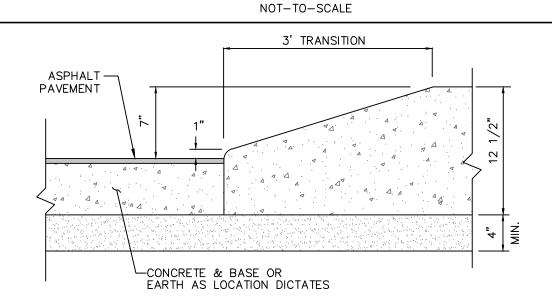




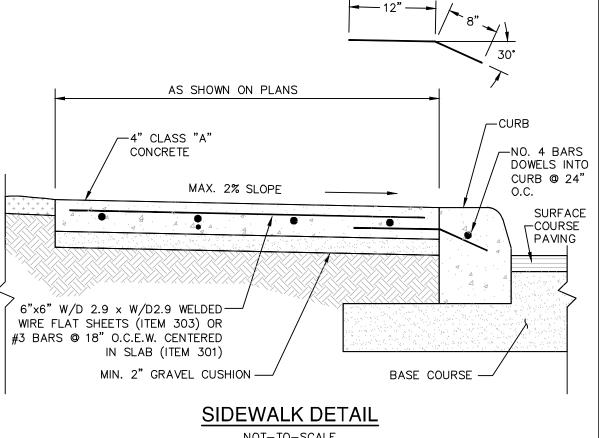
# NOT-TO-SCALE



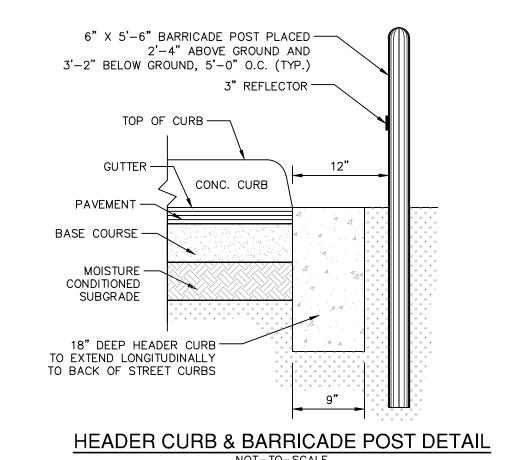
# **CURB TRANSITION DETAIL** (FROM HEADER CURB TO STANDARD CURB



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



# NOT-TO-SCALE



# ШШ **KIND**

PLAT NO. 22-1180079

DESIGNER

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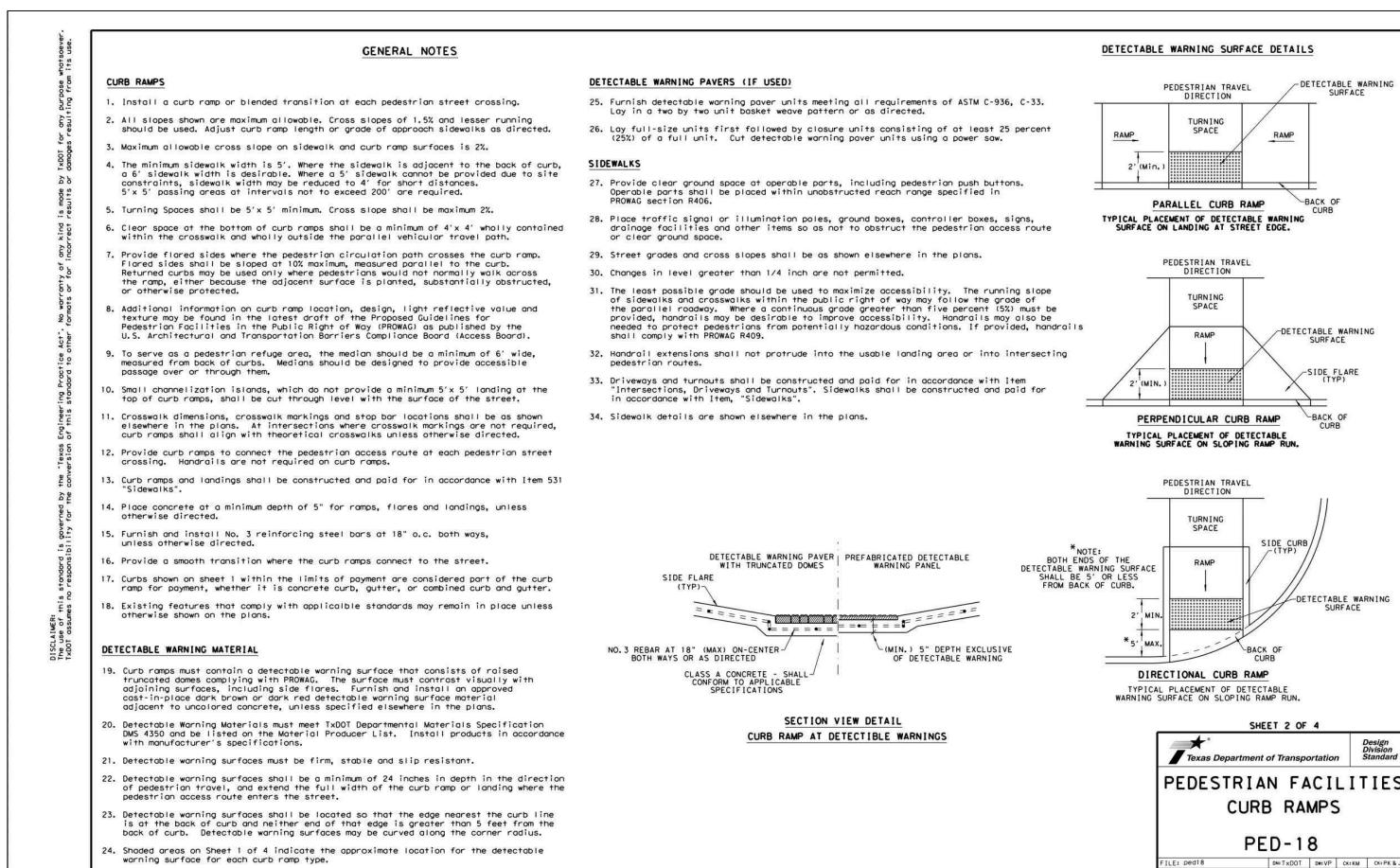
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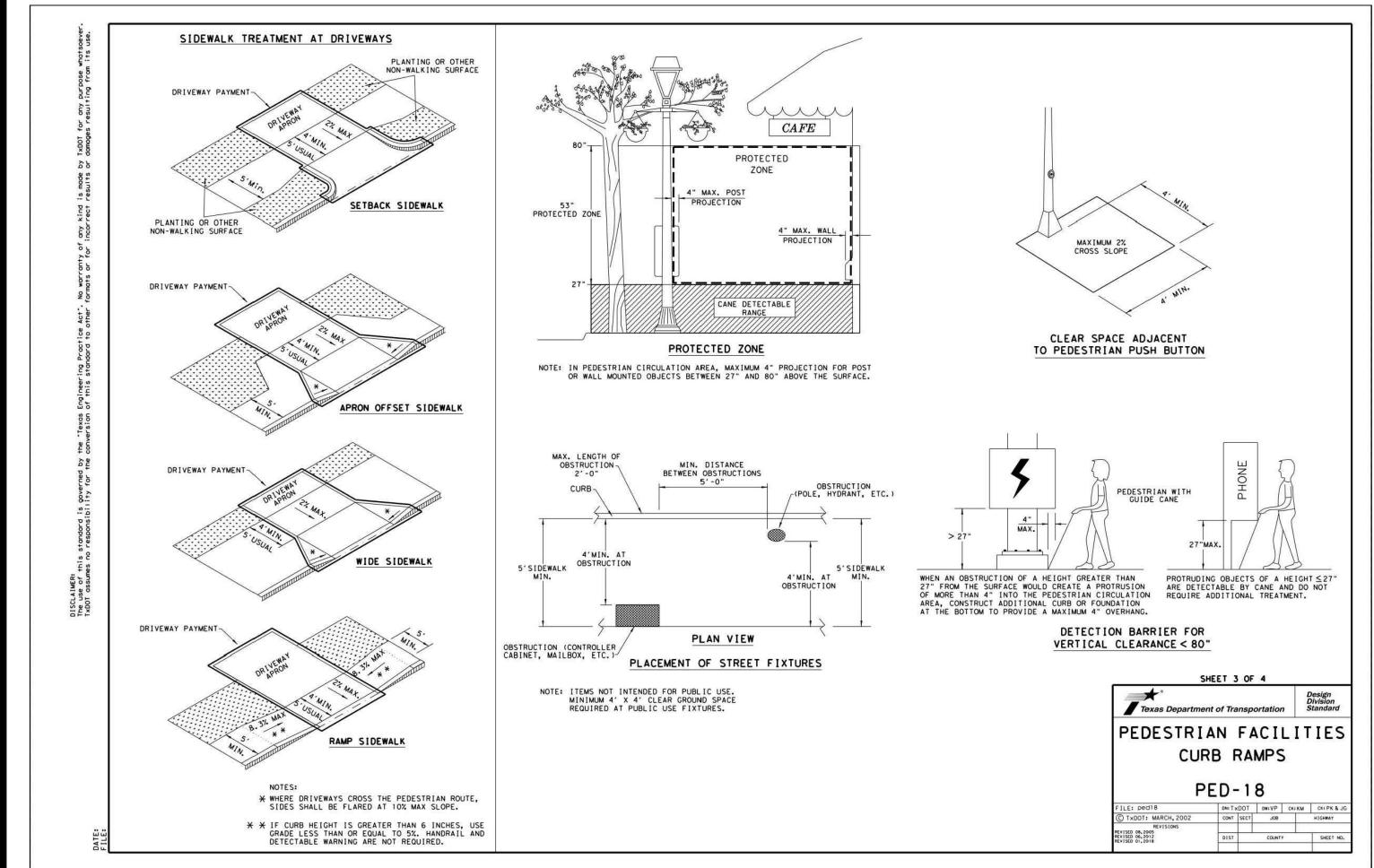
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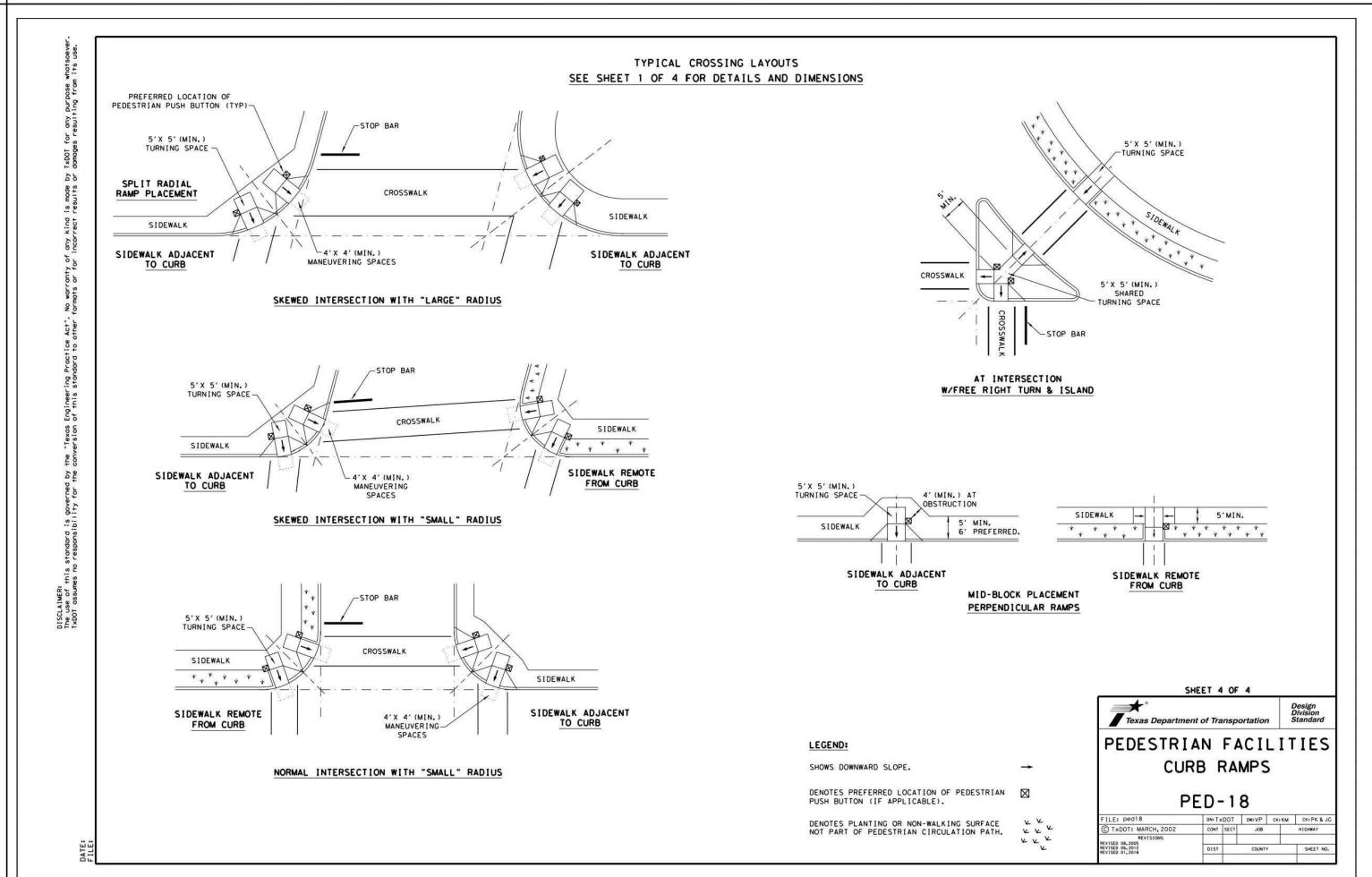
HECKED AS DRAWN RD

CALEB M. CHANCE

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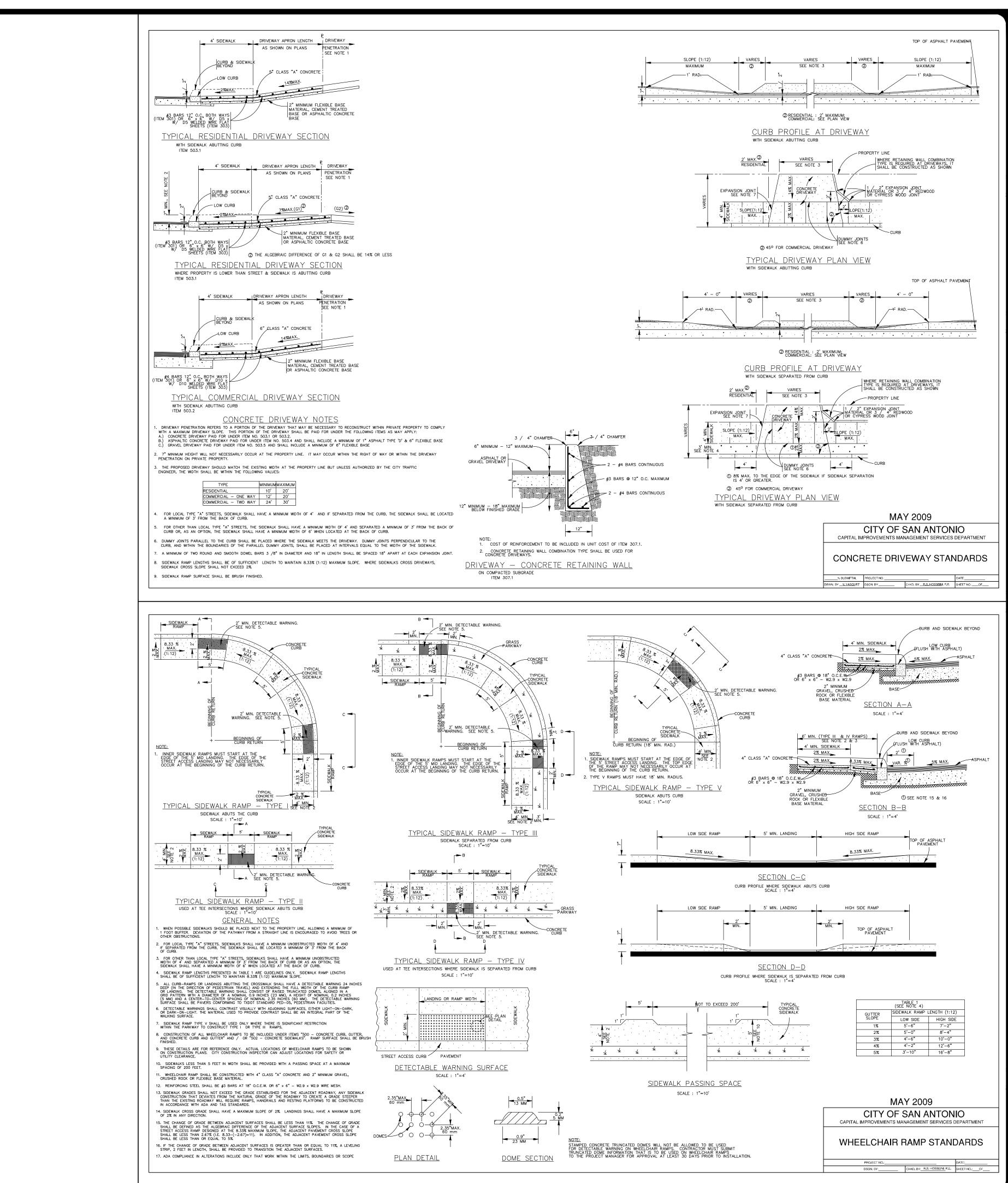






<sub>r NO.</sub> 22-1180079 8802-59 MARCH 2024 HECKED AS DRAWN RD

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NEERS 3/8/2 STON I FORT WORTH I DALLAS TONIO, TX 78213 I 210.375.9000

SAN ANTONIO I AUSTIN I HOUSTON I FORT WORTH I 2000 NW LOOP 410 I SAN ANTONIO, TX 78213 I 210.3 TEXAS ENGINEERING FIRM #470 I TEXAS SURVEYING FIRM #1

SAN ANTONIO, TEXAS

PLAT NO. 22-11800791
JOB NO. 8802-59

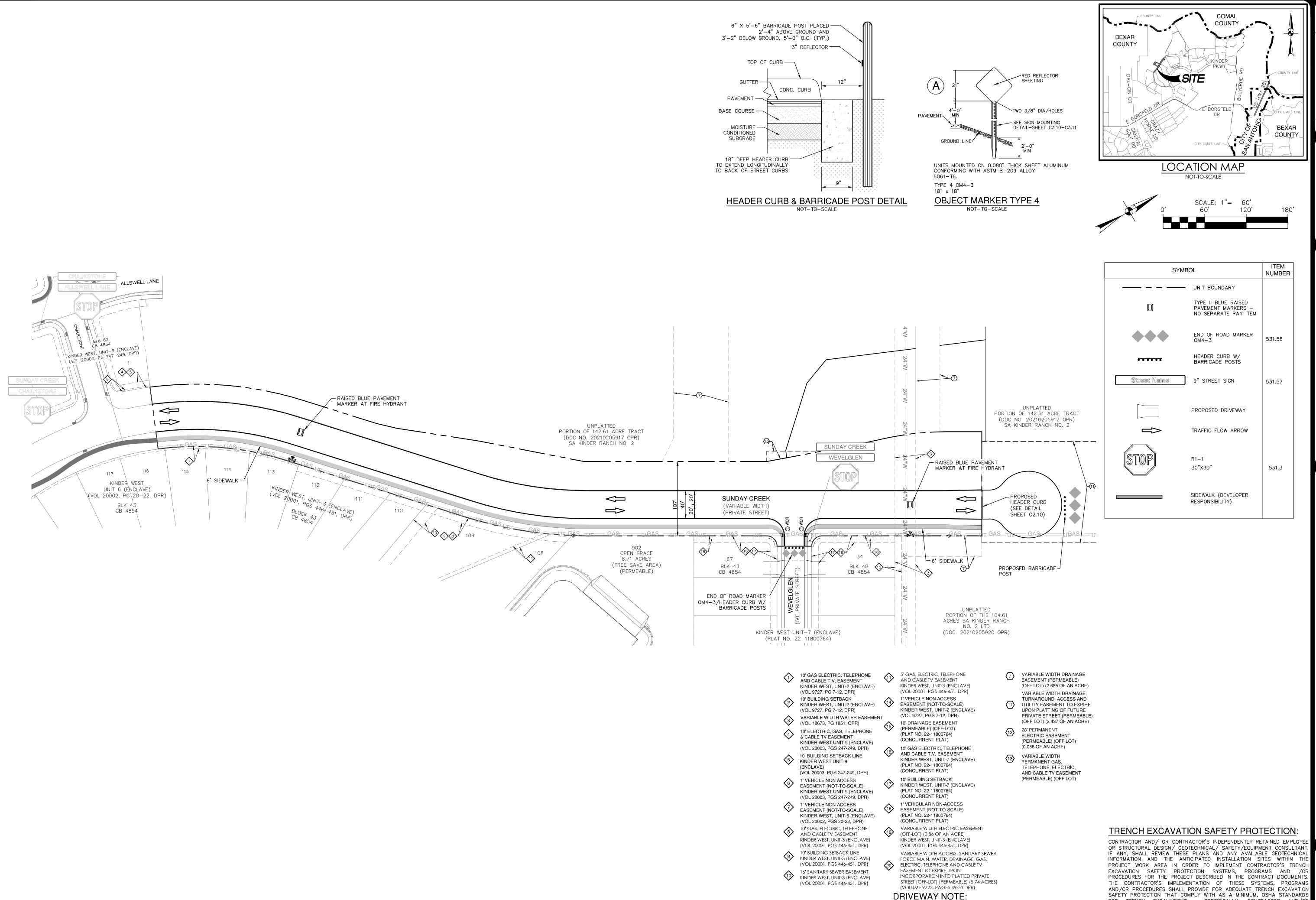
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SAN ANTONIO, TEXA

PLAT NO. 22-11800791

JOB NO. 8802-59

DATE MARCH 2024

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CHECKED AS DRAWN DD

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FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR

CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN

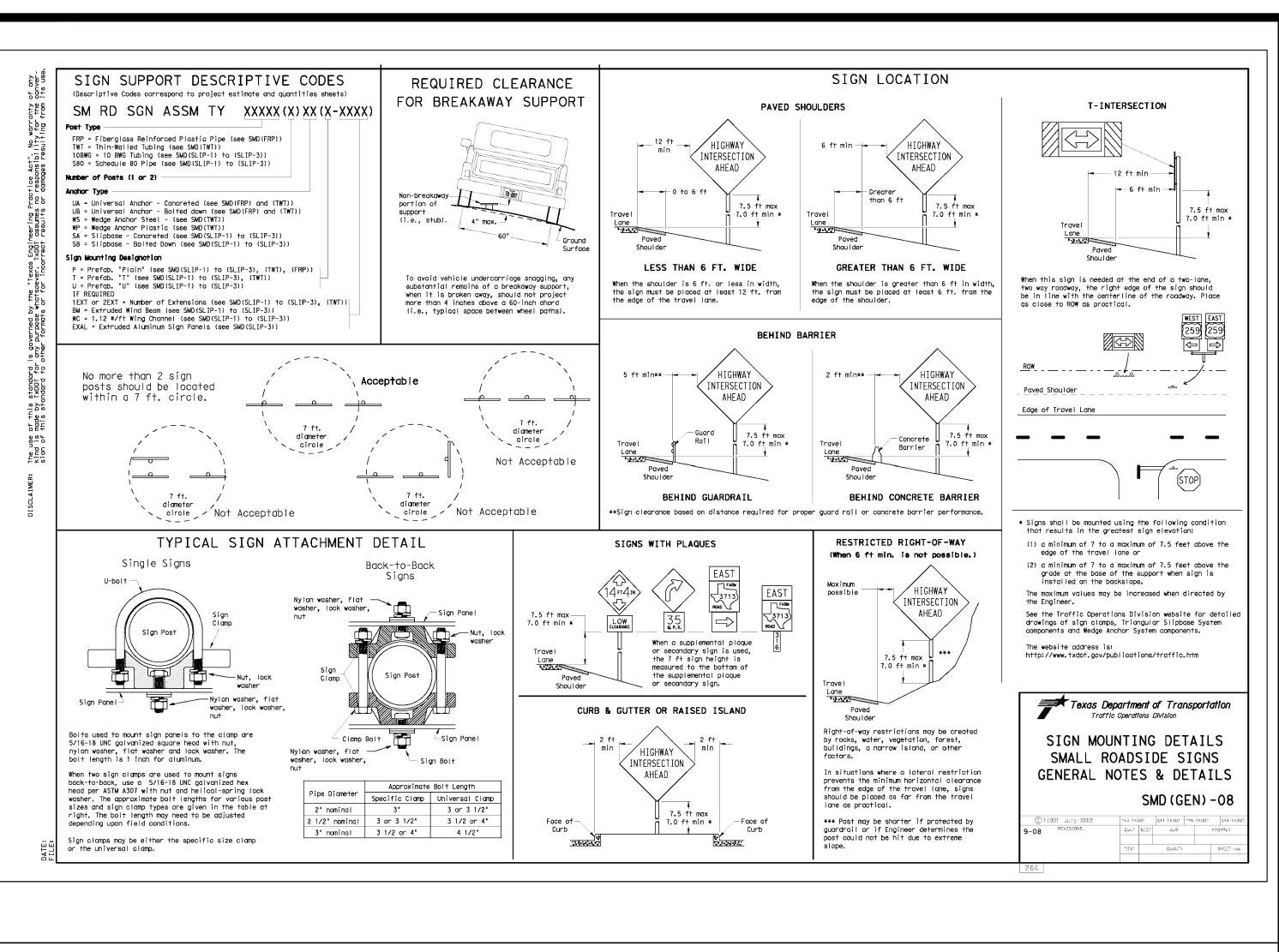
ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AN

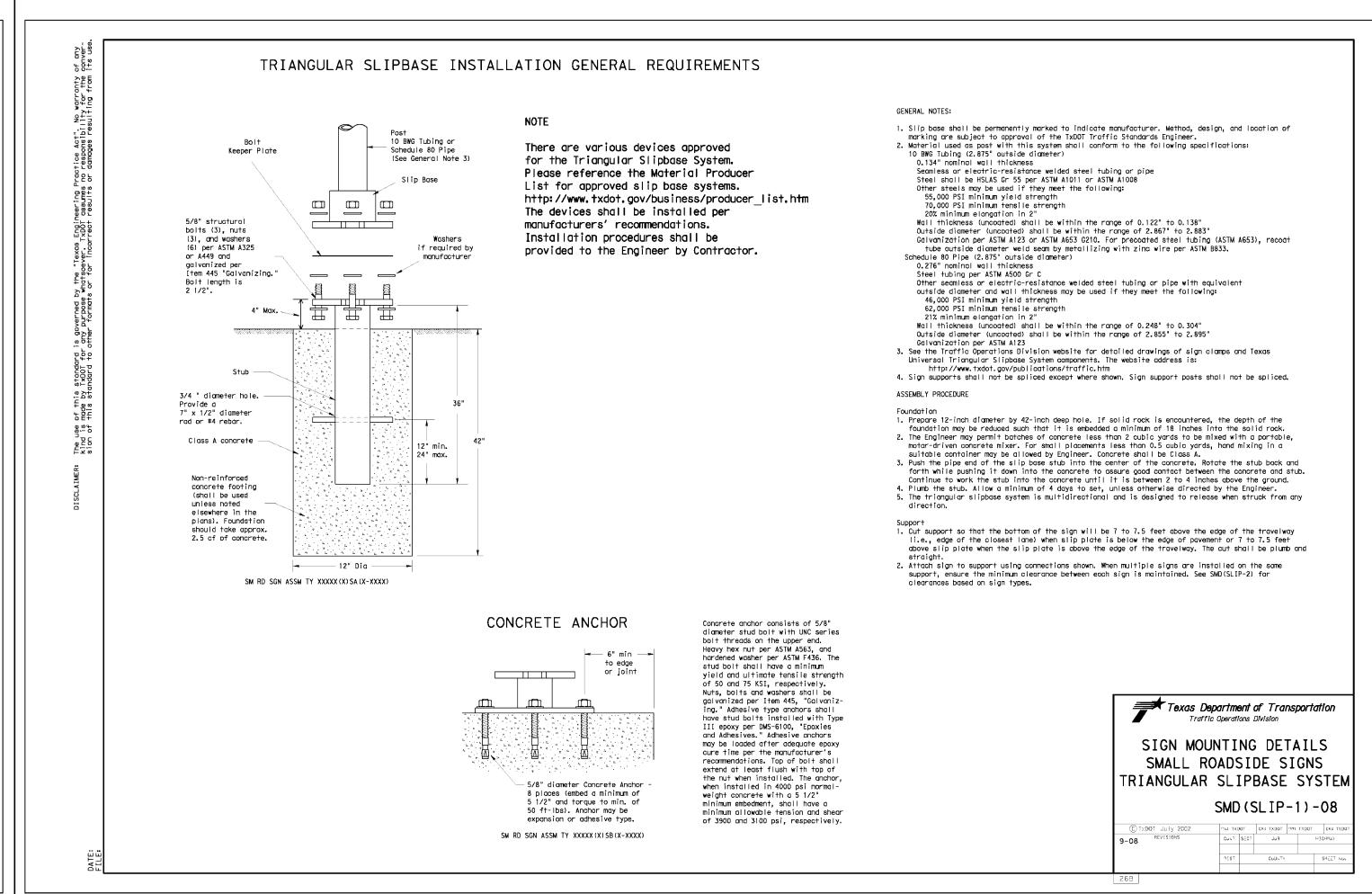
ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

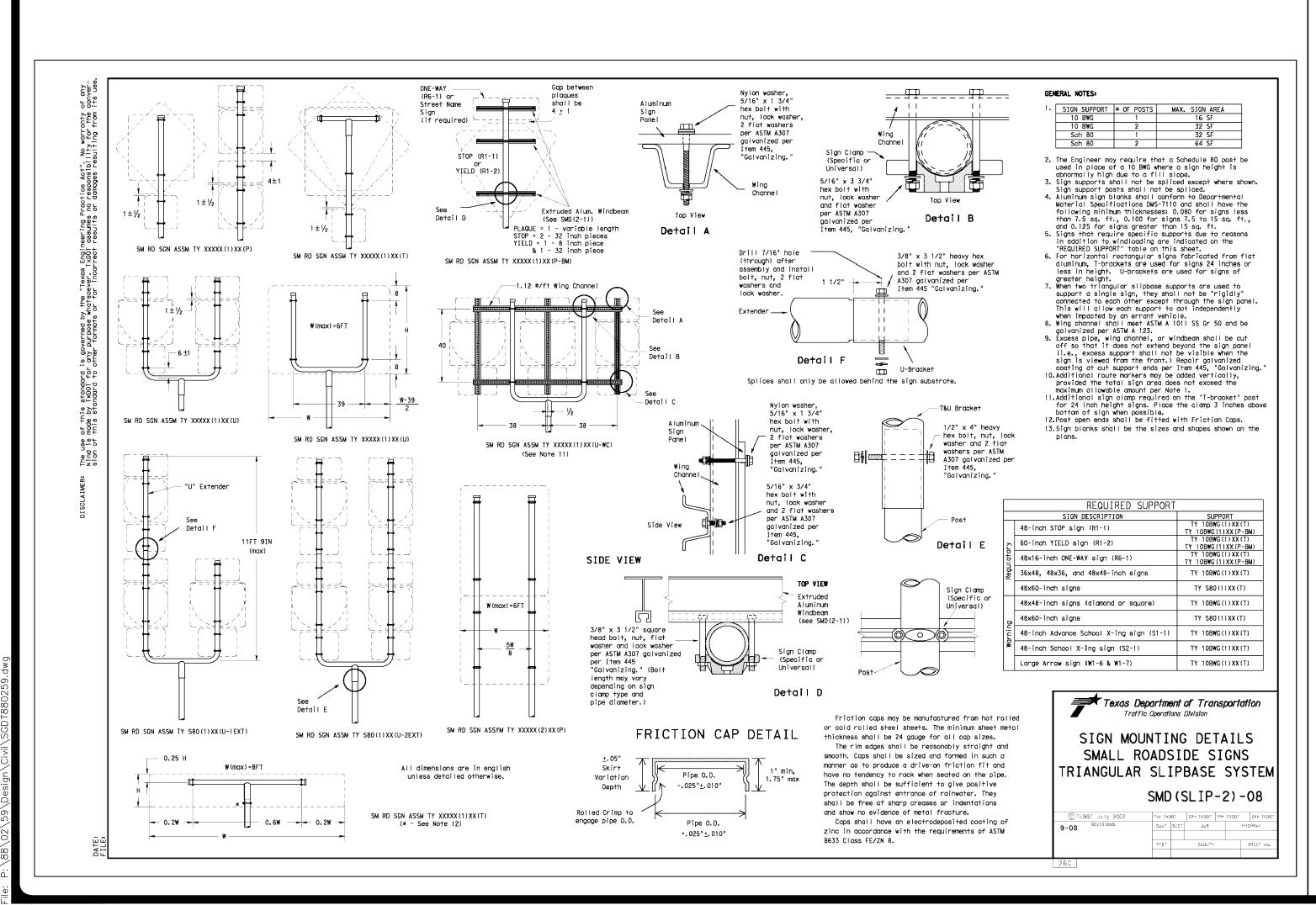
DRIVEWAYS SHOWN ON THIS PLAN ARE FOR THE SOLE PURPOSE OF INDICATING A POTENTIAL CONFLICT WITH CURB RAMP, DRAINAGE

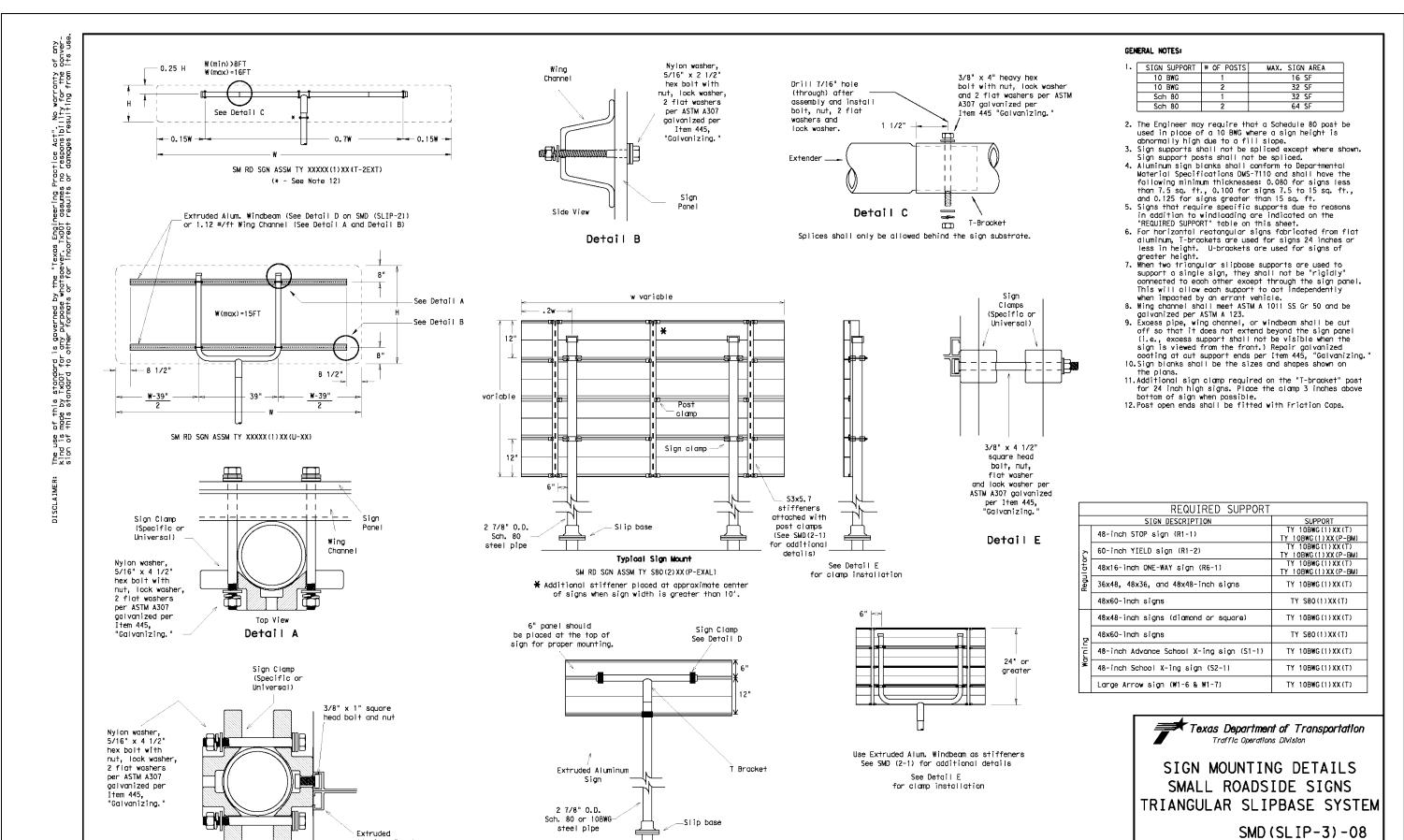
INFRASTRUCTURE, OR OTHER CONFLICT. DRIVEWAY LOCATION IS SUBJECT TO

CHANGE BASED ON HOME SELECTION AND FINAL LOT DESIGN.







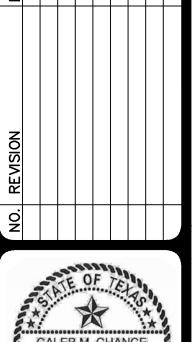


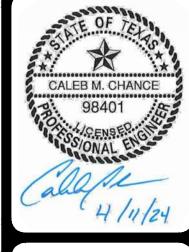
Extruded Aluminum Sign

With T Bracket

Aluminum Panel

EXTRUDED ALUMINUM SIGN WITH T BRACKET



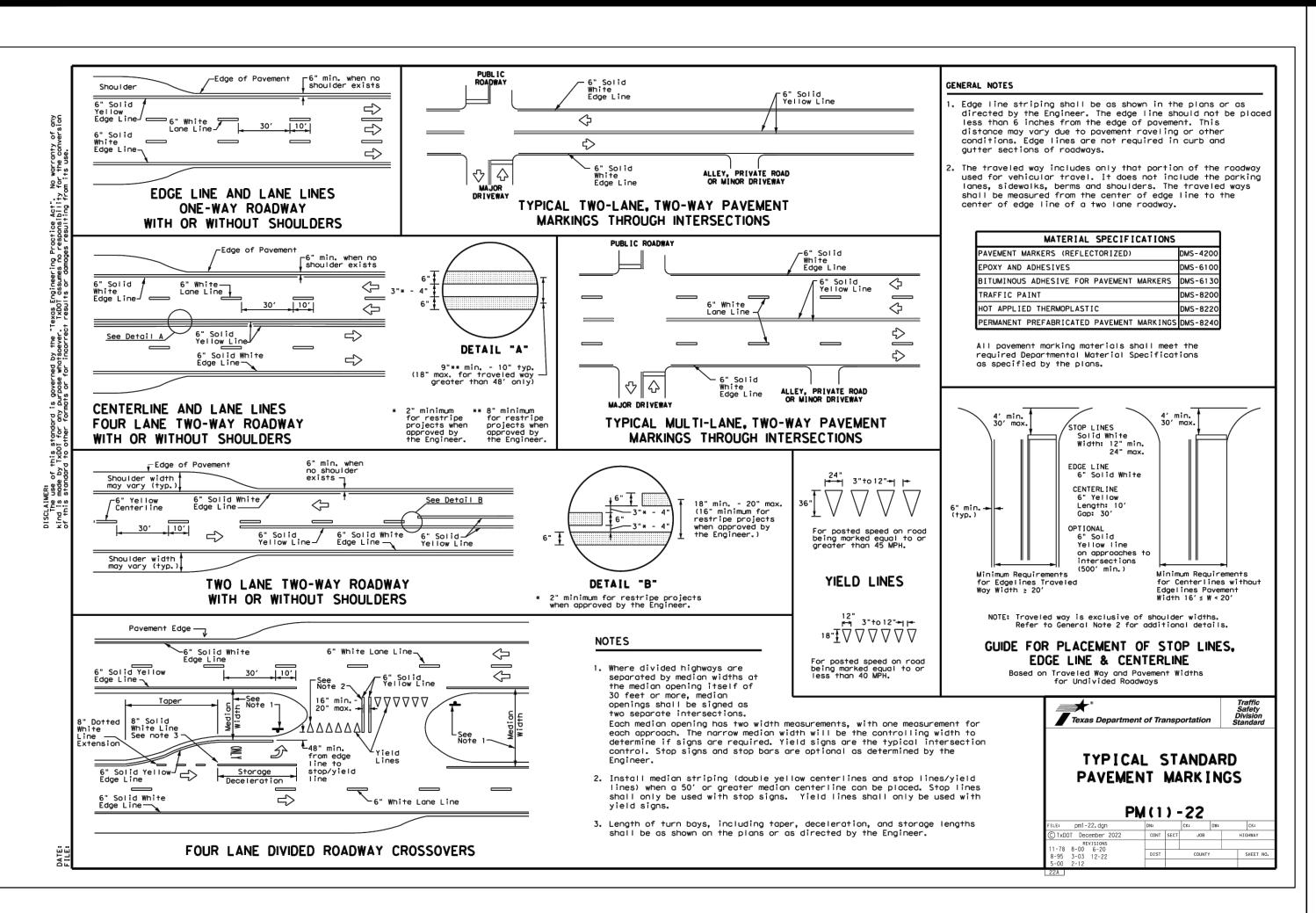


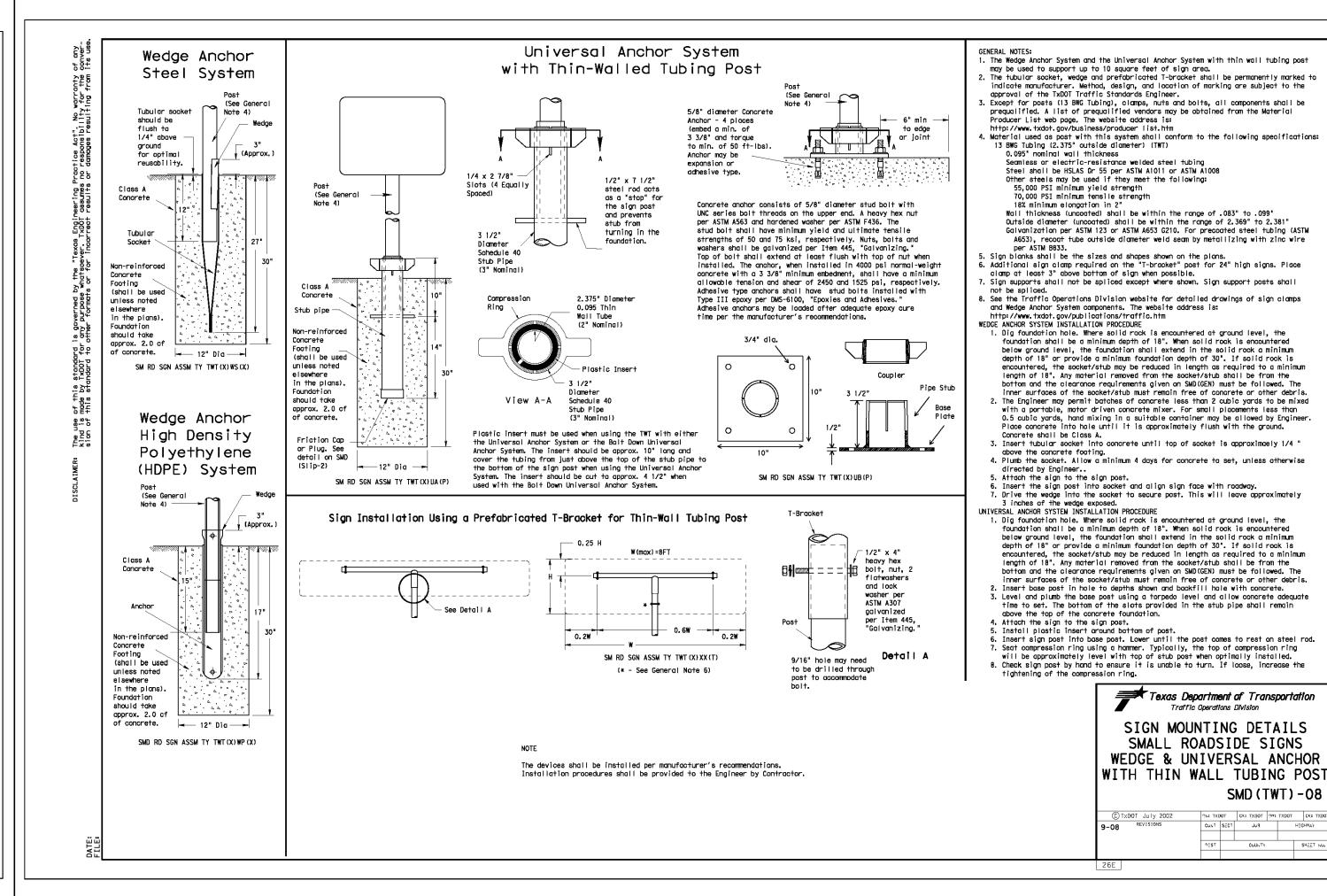
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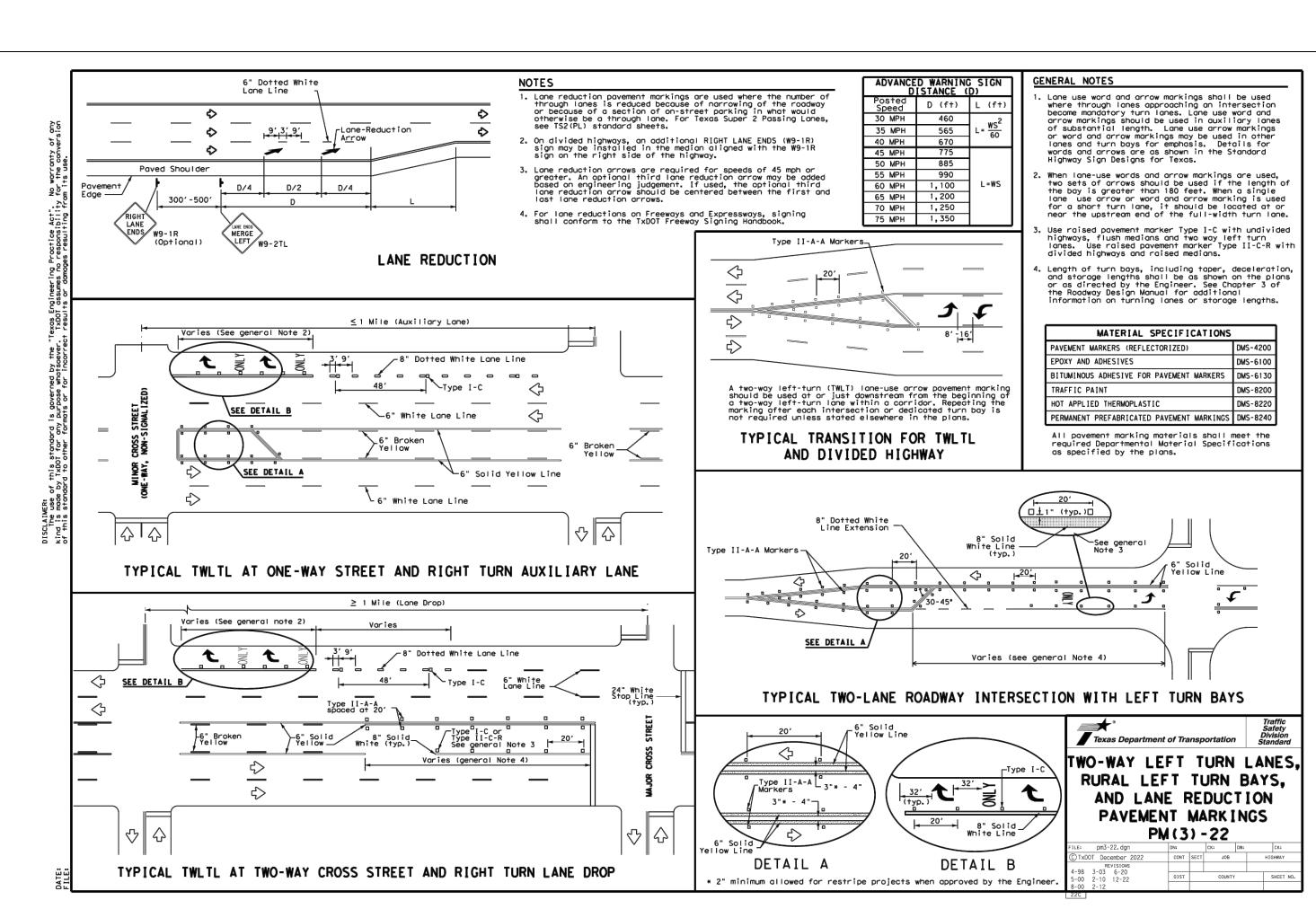
22-1180079 8802-59 MARCH 2024

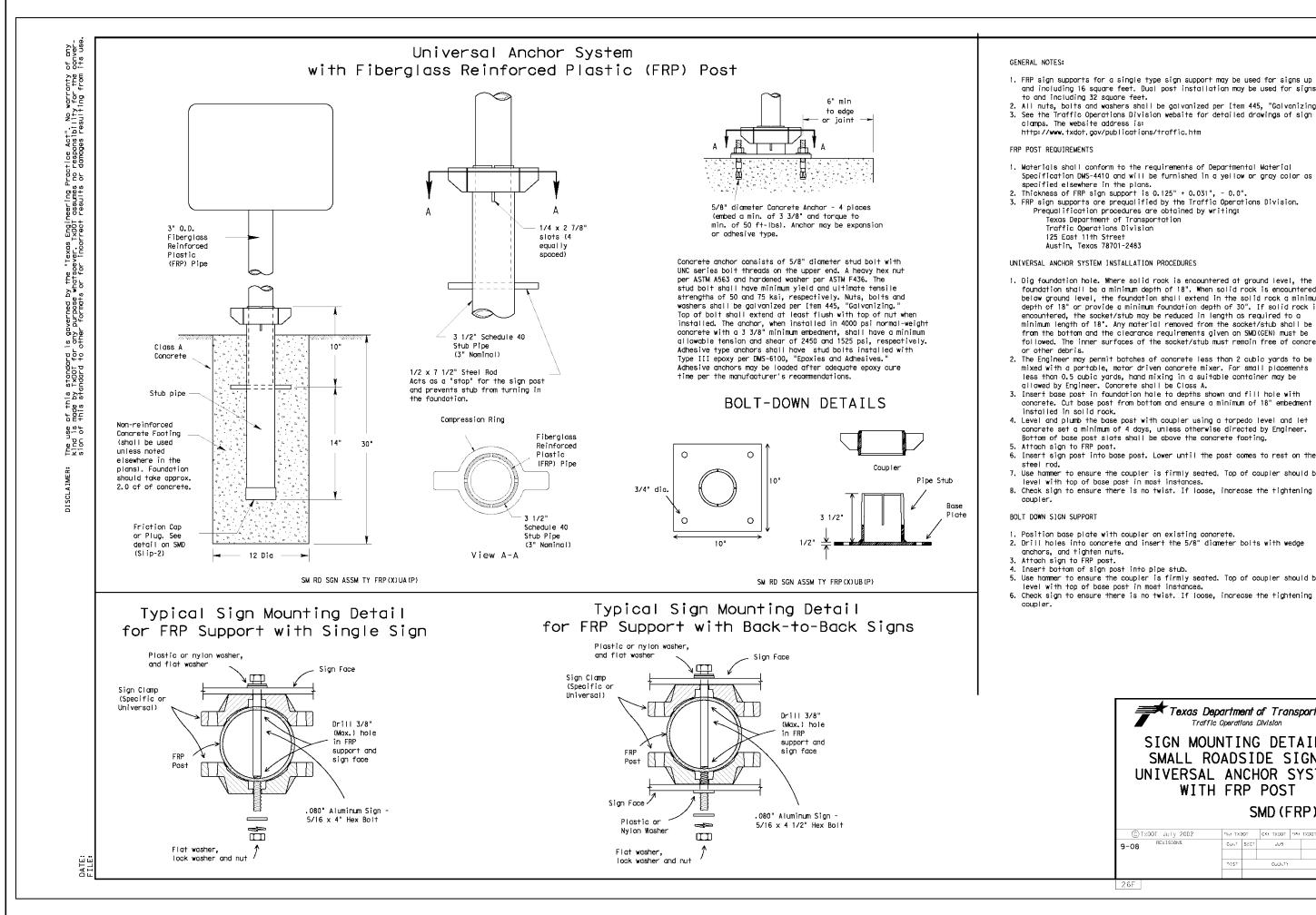
DESIGNER HECKED AS DRAWN RI C3.10

SHEET









1. 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 I nuts, boits and washers shall be galvanized per Item 445, "Galvanizing."

1. Materials shall conform to the requirements of Departmental Material Specification DMS-4410 and will be furnished in a yellow or gray color as

hickness of FRP sign support is 0.125" + 0.031", - 0.0". 3. FRP sign supports are prequalified by the Traffic Operations Division. Pregualification procedures are obtained by writing: Texas Department of Transportation

UNIVERSAL ANCHOR SYSTEM INSTALLATION PROCEDURES

. Dig foundation hole. Where solid rock is encountered at ground level, the foundation shall be a minimum depth of 18". When solid rock is encountered pelow 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 may be reduced 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(GEN) must be followed. The inner surfaces of the socket/stub must remain free of concrete

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.

3. Insert base post in foundation hale to depths shown and fill hole with concrete. Cut base post from bottom and ensure a minimum of 18" embedment if

4. Level and plumb the base post with coupler using a torpedo level and let concrete set a minimum of 4 days, unless otherwise directed by Engineer. Bottom of base post slots shall be above the concrete footing.

6. Insert sign post into base post. Lower until the post comes to rest on the 7. Use hammer to ensure the coupler is firmly seated. Top of coupler should be level with top of base post in most instances. 8. Check sign to ensure there is no twist. If loose, increase the tightening of

2. Drill holes into concrete and insert the 5/8" diameter bolts with wedge

5. Use hammer to ensure the coupler is firmly seated. Top of coupler should be level with top of base post in most instances. 6. Check sign to ensure there is no twist. If loose, increase the tightening of

Texas Department of Transportation SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS UNIVERSAL ANCHOR SYSTEM WITH FRP POST

8802-59 SMD (FRP) -08 MARCH 2024 ESIGNER

HECKED AS DRAWN RI C3.11

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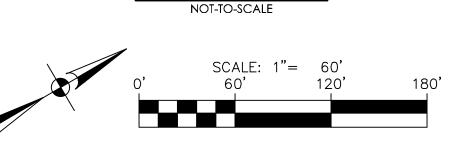
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CALEB M. CHANCE

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COUNTY **BEXAR** COUNTY COUNTY LOCATION MAP

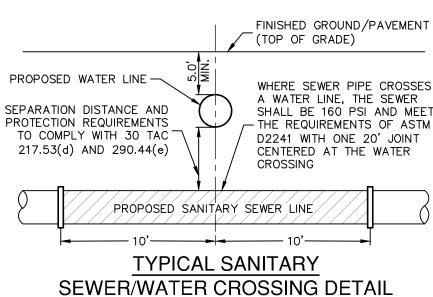


# WATER LEGEND

PROJECT LIMITS EXISTING WATER FIRE HYDRANT \ -----EXISTING SEWER PROPOSED SEWER PROPOSED WATER PROPOSED 3/4" SINGLE SERVICE WITH 5/8" METER PROPOSED 1" DUAL SERVICE WITH 5/8" METER SINGLE IRRIGATION SERVICE (REF. PLAN VIEW FOR SIZE) JOINT RESTRAINT



CALEB M. CHANCE



# PRESSURE NOTE:

NUMBER OF LOTS 0

CONTRACTOR TO VERIFY THAT NO PORTION OF THE TRACT IS BELOW GROUND ELEVATION OF 1215 FEET WHERE THE STATIC PRESSURE WILL NORMALLY EXCEED 80 PSI. AT ALL SUCH LOCATIONS WHERE THE GROUND LEVEL IS BELOW 1215 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).

NOT-TO-SCALE

# TRENCH EXCAVATION SAFETY PROTECTION:

CONTRACTOR AND/ OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOY OR STRUCTURAL DESIGN/ GEOTECHNICAL/ SAFETY/EQUIPMENT CONSULTANT IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN T PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENC EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND / PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OF CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AN ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

# WATER (SAWS PRESSURE ZONE 1400 HGL)

DEVELOPER'S NAME: <u>SA KINDER RANCH NO. 2, LTD</u> ADDRESS: 11 LYNN BATTS LANE, SUITE 100 CITY: SAN ANTONIO \_\_\_\_STATE:\_\_\_TEXAS\_\_\_ PHONE# <u>(210) 828-6131</u> SAWS BLOCK MAP# 166686 TOTAL EDU'S\_ 1\_\_\_\_ TOTAL ACREAGE <u>8.24.</u>

<sub>NO</sub> 22-1180079 8802-59 MARCH 2024 ESIGNER HECKED AS DRAWN DE

\_\_\_\_

\_\_ SAWS JOB NO. <u>24-1039</u>

16' SANITARY SEWER EASEMENT

NOT TO SCALE

KINDER WEST, UNIT-3 (ENCLAVE)

(VOL 20001, PGS 446-451, DPR)

(VOLUME 9722, PAGES 49-53 DPR)

EASEMENT TO EXPIRE UPON INCORPORATION INTO PLATTED PRIVATE STREET (OFF-LOT) (PERMEABLE) (5.74 ACRES)

(SEE SAWS STD DWG DD-834-01)

☐ 1-2" PERMANENT BLOW-OFF ASSEMBLY

(SEE SAWS STD DETAIL DD-844-02)

4 1-8"X2" ECC. REDUCER, MJ

TEES, BENDS, VALVES, ETC. HAVE A MINIMUM OF 5 FT OF PIPE WITH NO JOINTS ON EACH SIDE OF THE FITTING. JOINT RESTRAINTS AND RETAINER GLANDS SHALL BE CALCULATED BY SAWS APPROVED PROGRAMS. THERE WILL BE NO SEPARATE PAY ITEM FOR RETAINER GLANDS AND OTHER JOINT RESTRAINING HARNESSES AND GASKETS, BUT SHALL BE SUBSIDIARY TO THE UNIT COST PER LINEAL FOOT OF PIPE INSTALLED.

6" or 8" M.J. x 2" Thd. C.I. or D.I. Eccentric Reducer

Cut as required to extend beyond excavation

SAN ANTONIO WATER SYSTEM

SECTION A-A

2" TEMPORARY

**BLOW-OFF ASSEMBLY** 

ON 6" & 8" MAINS

12" or 16"\_\_

tut as required to extend beyond excavation

AN ANTONIO WATER SYSTEM BLOW-OFF ASSEMBLY

PROPERTY OF

SAN ANTONIO, TEXAS

— 2" x 12" G.I. Nipple, Thd.

AUG 2019

- 2" Ball Valve, Thd.

- 2" x 6" G.I. Nipple, Thd.

MARCH 2008

DD-844-01

2" 90° G.I. Ell, Thd.

AUG 2019

\* Cut to fit in meter box.

SAN ANTONIO WATER SYSTEM

SAN ANTONIO, TEXAS

- 2" x 12" G.I. Nipple, Thd

- 2" Ball Valve, Thd.

— 2" x 6" G.I. Nipple, Thd.

March 2008

DD-844-01

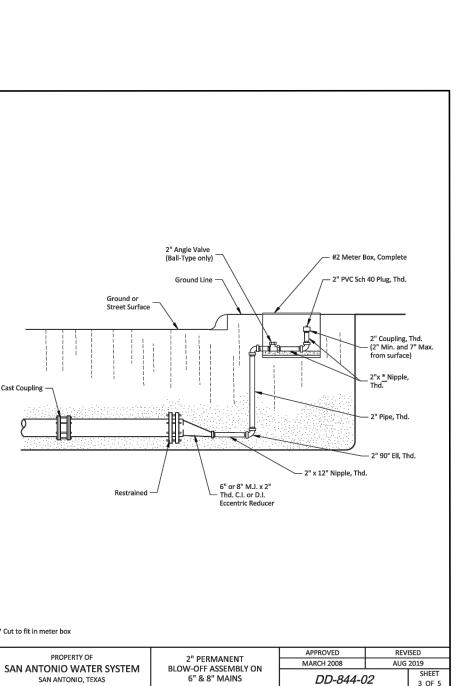
12" or 16" x 2" Eccentrically

SECTION A-A

2" TEMPORARY

ON 12" & 16" MAINS

Tapped Cap, M.J.



6" Gate Valve, M.J. - with 6" Valve Box \*

- Joint Restraint

— 6" ¼ Bend, M.J.

APPROVED REVISED MAY 2013 AUG 2019

DD-834-01

MARCH 2008

DD-839-08

- #2 Meter Box, Complete

6" Valve Box &

2" 90° Ell, Thd.

12" or 16" M.J. Retainer Gland

SECTION A-A

2" PERMANENT

BLOW-OFF ASSEMBLY

ON 12" & 16" MAINS

\_ 12" or 16" x 2" Eccentrically Tapped Cap, M.J.

MARCH 2008

DD-844-02

- 2" PVC SCH 40 Plug, The

S PHA

WATER (SAWS PRESSURE ZONE 1400 HGL) DEVELOPER'S NAME: SA KINDER RANCH NO. 2, LTD ADDRESS: 11 LYNN BATTS LANE, SUITE 100 \_\_\_\_\_ SAWS JOB NO. 24-1039

KIND

CALEB M. CHANCE

0

22-1180079 8802-59 MARCH 2024 DESIGNER CHECKED AS DRAWN DI

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 CONSULTANT'S ORIGINAL SIGNATURE AND SEAL. AERIAL IMAGERY PROVIDED BY GOOGLE® UNLESS OTHERWISE NOTED. Imagery © 2016,CAPCOG,Digital Globe,Texas Orthoimagery Program, USDA Farm Service Agency.

1-1/8 BEND-

WATER MAIN

WATER MAIN-

1-1/8 BEND-

ALL JOINTS ARE FULLY RESTRAINED IN

ACCORDANCE WITH SAWS SPECIFICATION

TYPICAL UTILITY/WATER CROSSING DETAIL

NOT-TO-SCALE

TABLE DD-839-06.

-MISC. UTILITY (I.E.: RCP/BOX CULVERT, GAS OR ELECTRICAL

-1-1/8 BEND

DUCTBANK)

FINISHED GRADE

\_\_WATER MAIN

\_1-1/8 BEND

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

DUCTBANK)

CULVERT, GAS OR ELECTRICAL

MIN.

FINISHED GRADE

-WATER MAIN

1-1/8 BEND-

1-1/8 BEND-

WATER MAIN-

CITY: SAN ANTONIO STATE: TEXAS ZIP: 78218 PHONE# (210) 828-6131 SAWS BLOCK MAP# 166686 TOTAL EDU'S 1 TOTAL ACREAGE 8.243 

6" & 8" MAINS

|  | 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 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<br>INSPECTION DIVISION AT<br>(210) 233-2973, ON NOTIFICATION PROCEDURES THAT WILL BE USED TO NOTIFY<br>AFFECTED HOME RESIDENTS AND/OR PROPERTY OWNERS 48 HOURS PRIOR TO<br>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:  |
|  | <ul> <li>SAWS UTILITY LOCATES: HTTP: //WWW.SAWS.ORG/SERVICE/LOCATES</li> <li>COSA DRAINAGE (210) 207-0724 OR (210) 207-6026</li> <li>COSA TRAFFIC SIGNAL OPERATIONS (210) 206-8480</li> <li>COSA TRAFFIC SIGNAL DAMAGES (210) 207-3951</li> <li>TEXAS STATE WIDE ONE CALL LOCATOR 1-800-545-6005 OR 811</li> </ul>  |
|  | 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.  |
|  | 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.  |
|  | 11. 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 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.  |
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5 DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL. AERIAL IMAGERY PROVIDED BY GOOGLE® UNLESS OTHERWISE NOTED. Imagery © 2016,CAPCOG,Digital Globe,Texas Orthoimagery Program, USDA Farm Service Agency.

# **SAWS WATER NOTES**

MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS PRIOR TO TIE-INS, ANY SHUTDOWNS OF EXISTING MAINS OF ANY SIZE MUST ITRACT SHALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND BE COORDINATED WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT IMPLY WITH THE PLANS, SPECIFICATIONS, GENERAL CONDITIONS AND WITH THE 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 A.CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) DESIGN

CRITERIA FOR DOMESTIC WASTEWATER SYSTEM", TEXAS ADMINISTRATIVE ACCORDINGLY. CODE (TAC) TITLE 30 PART 1 CHAPTER 217 AND "PUBLIC DRINKING WATER", TAC TITLE 30 PART 1 CHAPTER 290. ■ FOR WATER MAINS 12" OR HIGHER: SAWS EMERGENCY OPERATIONS B.CURRENT TXDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF CENTER (210) 233-2014

- CURRENT "SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR ASBESTOS CEMENT (AC) PIPE, ALSO KNOWN AS TRANSITE PIPE WHICH IS KNOWN TO CONTAIN ASBESTOS- CONTAINING MATERIAL (ACM), MAY BE CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR PUBLIC LOCATED WITHIN THE PROJECT LIMITS. SPECIAL WASTE MANAGEMENT PROCEDURES AND HEALTH AND SAFETY REQUIREMENTS WILL BE APPLICABLE CURRENT CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL" 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". CONTRACTOR SHALL NOT PROCEED WITH ANY PIPE INSTALLATION WORK UNTIL
- VALVE REMOVAL: WHERE THE CONTRACTOR IS TO ABANDON A WATER MAIN, NSTRUCTION PERMIT (GCP) FROM THE CONSULTANT AND HAS BEEN NOTIFIED BY THE CONTROL VALVE LOCATED ON THE ABANDONING BRANCH WILL BE VS CONSTRUCTION INSPECTION DIVISION TO PROCEED WITH THE WORK AND HAS RANGED A MEETING WITH THE INSPECTOR AND CONSULTANT FOR THE WORK REMOVED AND REPLACED WITH A CAP/PLUG. (NSPI)
  - SUITABLE ANCHORAGE/THRUST BLOCKING OR JOINT RESTRAINT SHALL BE PROVIDED AT ALL OF THE FOLLOWING MAIN LOCATIONS: DEAD ENDS, PLUGS, CAPS, TEES, CROSSES, VALVES, AND BENDS, IN ACCORDANCE WITH THE STANDARD DRAWINGS DD-839 SERIES AND ITEM NO. 839, IN THE SAWS STANDARD SPECIFICATIONS FOR CONSTRUCTION.
  - 5. ALL VALVES SHALL READ "OPEN RIGHT".
  - 6. PRVS REQUIRED: CONTRACTOR TO VERIFY THAT NO PORTION OF THE TRACT IS BELOW GROUND ELEVATION OF 1215 FEET WHERE THE STATIC PRESSURE WILL NORMALLY EXCEED 80 PSI. AT ALL SUCH LOCATIONS WHERE THE GROUND LEVEL IS BELOW 1215 FEET, THE DEVELOPER OR BUILDER SHALL INSTALL AT EACH LOT, ON THE CUSTOMER'S SIDE OF THE METER, AN APPROVED TYPE PRESSURE REGULATOR IN CONFORMANCE WITH THE PLUMBING CODE OF THE CITY OF SAN ANTONIO. NO DUAL SERVICES ALLOWED FOR ANY LOT(S) IF \*PRV IS/ARE REQUIRED FOR SUCH LOT(S), ONLY SINGLE SERVICE CONNECTIONS SHALL BE ALLOWED. \*NOTE: A PRESSURE REGULATOR IS ALSO KNOWN AS A PRESSURE REDUCING VALVE
  - PIPE DISINFECTION WITH DRY HTH FOR PROJECTS LESS THAN 800 LINEAR (ITEM NO. 847.3): MAINS SHALL BE DISINFECTED WITH DRY HTH WHERE SHOWN IN THE CONTRACT DOCUMENTS OR AS DIRECTED BY THE INSPECTOR, AND SHALL NOT EXCEED A TOTAL LENGTH OF 800 FEET. THIS METHOD OF DISINFECTION WILL ALSO BE FOLLOWED FOR MAIN REPAIRS. THE CONTRACTOR SHALL UTILIZE ALL APPROPRIATE SAFETY MEASURE TO PROTECT HIS PERSONNEL DURING DISINFECTION OPERATIONS.
  - 8. BACKFLOW PREVENTION DEVICES:
  - ALL IRRIGATION SERVICES WITHIN RESIDENTIAL AREAS ARE REQUIRED TO HAVE BACKFLOW PREVENTION DEVICES. ALL COMMERCIAL BACKFLOW PREVENTION DEVICES MUST BE APPROVED BY SAWS PRIOR TO INSTALLATION.
  - UNTIL THE WATER MAIN HAS BEEN PRESSURE TESTED, CHLORINATED, AND SAWS HAS RELEASED THE MAIN FOR TIE-IN AND USE.
  - 10. DIVISION VALVES: DIVISION VALVES SHOWN ON PLANS OR NOT SHOWN ON PLANS BUT FOUND IN THE FIELD SHALL ONLY BE OPERATED BY SAWS DISTRIBUTION AND COLLECTION STAFF AND ONLY WITH PRIOR WRITTEN APPROVAL OF THE SAWS DIRECTOR OF PRODUCTION AND OPERATIONS AND PROPER COORDINATION WITH ALL SAWS DEPARTMENTS. CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO THE INSPECTOR A MINIMUM OF TWO WEEKS IN ADVANCE TO START THE COORDINATION PROCESS AND WILL BE INFORMED BY THE INSPECTOR WHEN THE DIVISION VALVE WILL BE OPERATED BY THE SAWS DISTRIBUTION AND COLLECTION STAFF. THE DIVISION VALVE CAN ONLY BE OPERATED BY SAWS DISTRIBUTION AND COLLECTION STAFF MEMBER NOT THE INSPECTOR OR THE CONTRACTOR. OPERATION OF A DIVISION VALVE WITHOUT THE EXPRESS PRIOR WRITTEN APPROVAL OF THE SAWS DISTRIBUTION AND COLLECTION STAFF WILL CONSTITUTE A MATERIAL BREACH OF ANY WRITTEN SAWS CONTRACT OR PERMIT IN ADDITION TO SUBJECTING THE CONTRACTOR TO LIABILITY FOR ANY AND ALL FINES. FEES. OR OTHER DAMAGES, DIRECT OR CONSEQUENTIAL, THAT MAY ARISE FROM OR BE CAUSED BY THE OPERATION OF THE VALVE WITHOUT PRIOR WRITTEN PERMISSION. PLEASE BE INFORMED THAT THE APPROVAL OF THE OPERATION OR OPENING OR CLOSING OF A DIVISION VALVE CAN TAKE SEVERAL WEEKS FOR APPROVAL. DIVISION VALVES WILL ALSO HAVE A VALVE LID LABELED DIVISION VALVE AND A LOCKING MECHANISM INSTALLED WITH A KEY. THE LOCK AND KEY MECHANISM WILL BE PAID FOR BY THE CONTRACTOR BUT WILL BE INSTALLED BY SAWS DISTRIBUTION AND COLLECTION STAFF.

### PROJECT WATER NOTES

- MACHINE CHLORINATION BY THE S.A.W.S.
- ALL 8", 12" AND 16" PIPE SHALL BE P.V.C. C-900 CLASS 235 DR 18.
- RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK | 3. ALL MAINS SHALL BE HYDROSTATICALLY TESTED BY THE CONTRACTOR, AS PROVIDED FOR IN THE SPECIAL CONDITIONS.
  - THE WATER LINES WILL BE SET FROM THE STREET HUBS BEFORE THIS CONTRACT BEGINS. STREET CUT SHEETS WILL BE SUPPLIED TO THE CONTRACTOR. THERE SHOULD BE NO ADDITIONAL STAKES REQUIRED. AND I SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSPECT THE SITE AND VERIFY THAT ALL STAKES REQUIRED FOR HIS WORK ARE IN PLACE AT THE TIME THE CONSTRUCTION BEGINS. IF ANY STAKES ARE MISSING THE 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.
  - THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH ALL THE FINAL MEASUREMENTS, TAPS AND LENGTH OF SERVICE CONNECTIONS.
  - THE LOT CORNERS WILL BE SET BY THE ENGINEER FOR INSTALLATION OF ALL WATER SERVICES. THESE LOT CORNERS SHALL BE CAREFULLY PRESERVED BY THE CONTRACTOR SO THE METER BOXES CAN BE SET IN PHASE II. ANY LOT CORNER DESTROYED OR REMOVED BY THE CONTRACTOR, HIS EMPLOYEES, OR BY ANY OTHER MEANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
  - STREETS WILL HAVE BEEN EXCAVATED DOWN TO SUBGRADE AND THE PARKWAY WILL BE CUT DOWN TO TOP OF CURB BY THE STREET CONTRACTOR, PRIOR TO CONSTRUCTION OF THE WATER MAINS. IT WILL BE THE UTILITY CONTRACTOR'S RESPONSIBILITY TO PROVIDE A PAD FOR HIS EQUIPMENT.
  - WATER METER BOXES IF APPLICABLE SHALL BE INSTALLED NINE FEET FROM FACE OF CURB TO CENTER OF THE METER BOX.
  - 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.
  - . UNIT PRICE BID FOR "STANDARD FIRE HYDRANT ASSEMBLY" SHALL INCLUDE FIRE HYDRANT, 6-INCH GATE VALVE AND 6-INCH VALVE BOX COMPLETE, ANCHOR BEND, AND ALL 6-INCH DI PIPE REQUIRED (DI PIPE REQUIRED SHALL INCLUDE ALL PIPE FROM THE TEE ON THE MAIN LINE TO THE FIRE HYDRANT).
  - . WHEN SEWER LINES ARE INSTALLED IN THE VICINITY OF WATER MAINS, SUCH INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION "RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS" (1988 OR ANY REVISIONS THERETO).
  - 13. A CLEAR SPACE SHALL BE PROVIDED AROUND ALL FIRE HYDRANTS. THIS AREA SHOULD HAVE A MINIMUM DIAMETER OF 3.0' AND BE CLEAN OF VERTICAL OBSTRUCTIONS, VALVES, AND METER BOXES.
- FINAL CONNECTION TO THE EXISTING WATER MAIN SHALL NOT BE MADE | 14. SAWS REQUIRES LEAD FREE (< 0.25%) FIRE HYDRANTS.
  - 15. UNLESS OTHERWISE NOTED ALL SERVICES SHALL BE 3/4" WITH 5/8" METER.



 $\square$ 

WATER (SAWS PRESSURE ZONE 1400 HGL)

DEVELOPER'S NAME: SA KINDER RANCH NO. 2, LTD ADDRESS: 11 LYNN BATTS LANE, SUITE 100 STATE: TEXAS ZIP: 78218 CITY: SAN ANTONIO

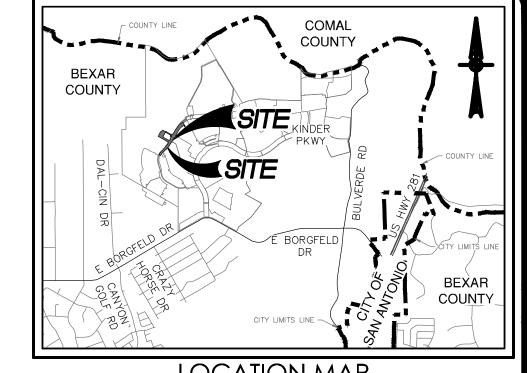
PHONE#<u>(210)828-6131</u> SAWS BLOCK MAP# 166686 TOTAL EDU'S 1 TOTAL ACREAGE 8.243 NUMBER OF LOTS 0 SAWS JOB NO. 24-1039

22-1180079 8802-59 MARCH 2024 DESIGNER

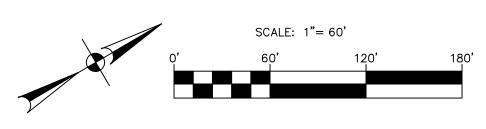
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TYPICAL SANITARY

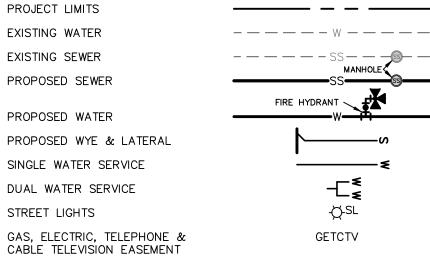
SEWER/WATER CROSSING DETAIL



# **LOCATION MAP**



# **UTILITY LEGEND**



CALEB M. CHANCE

**CONDUIT NOTES:** 

3. ALL CONDUITS SHALL BE EXTENDED BEHIND CURBS OR PROPOSED SIDEWALKS A MINIMUM OF 3 FEET AND CAPPED FOR FUTURE USE.

TELECOMMUNICATION UTILITY CROSSINGS SHALL BE INSTALLED TO MEET OR EXCEED DESIGN REQUIREMENTS FOR THE UTILITY AGENCY WHICH THEY ARE SERVING, INCLUDING BUT NOT LIMITED TO THE DEPTH, TRENCH PLACEMENT, AND PROXIMITY TO OTHER UTILITIES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING AND INSTALLING THE CONDUIT SLEEVES TO MEET THESE SPECIFICATIONS INCLUDING COORDINATING WITH THE UTILITY AGENCY FOR ANY REQUIRED

# 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 THI 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 SAFÉTY 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

FORCE MAIN, WATER, DRAINAGE, GAS,

INCORPORATION INTO PLATTED PRIVATE

STREET (OFF-LOT) (PERMEABLE) (5.74 ACRES)

20 ELECTRIC, TELEPHONE AND CABLE TV

(VOLUME 9722, PAGES 49-53 DPR)

EASEMENT TO EXPIRE UPON

16' SANITARY SEWER EASEMENT 16' SANITARY SEWER EASEMENT KINDER WEST, UNIT-3 (ENCLAVE)

(VOL 20001, PGS 446-451, DPR)

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 TH ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO TH START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL I THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BI AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON

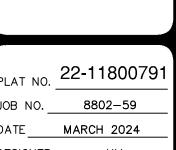
- 1. CONTRACTOR SHALL INSTALL PERMANENT MARKERS IN PROPOSED CURB WHERE CONDUITS CROSS THE ROADWAY (BOTH SIDES).
- 2. CONDUITS SHALL BE PVC WITH MINIMUM BURY OF 36 INCHES BELOW PROPOSED FINISHED GRADE. SCHEDULE 80 TO BE USED FOR CPS CONDUITS, ALL OTHER CONDUITS ARE SCHEDULE 40.
- 4. ALL CONDUIT SLEEVES TO BE USED FOR ELECTRIC, GAS, OF

ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

THESE PLANS OR NOT.

NO 22-11800791 8802-59 MARCH 2024 DESIGNER

HECKED AS DRAWN RD



DESIGNER HECKED AS DRAWN DD



- 10' BUILDING SETBACK KINDER WEST, UNIT-2 (ENCLAVE) (VOL 9727, PG 7-12, DPR)

  EASEMENT (NOT-TO-SCALE) KINDER WEST, UNIT-2 (ENCLAVE) (VOL 9727, PG 7-12, DPR) VARIABLE WIDTH WATER EASEMENT
- (VOL 18673, PG 1851, OPR) 10' ELECTRIC, GAS, TELEPHONE 4 & CABLE TV EASEMENT KINDER WEST UNIT 9 (ENCLAVE) (VOL 20003, PGS 247-249, DPR)
- 10' BUILDING SETBACK LINE KINDER WEST UNIT 9 (ENCLAVE) (VOL 20003, PGS 247-249, DPR)

(VOL 20002, PGS 20-22, DPR)

10' GAS, ELECTRIC, TELEPHONE AND CABLE TV EASEMENT

(VOL 20001, PGS 446-451, DPR)

KINDER WEST, UNIT-3 (ENCLAVE)

(VOL 20001, PGS 446-451, DPR)

16' SANITARY SEWER EASEMENT

KINDER WEST, UNIT-3 (ENCLAVE)

(VOL 20001, PGS 446-451, DPR)

10' BUILDING SETBACK LINE

- 1' VEHICLE NON ACCESS EASEMENT (NOT-TO-SCALE) AND CABLE T.V. EASMENT KINDER WEST LINIT-7 (ENC.) KINDER WEST UNIT 9 (ENCLAVE) (VOL 20003, PGS 247-249, DPR) 1' VEHICLE NON ACCESS EASEMENT (NOT-TO-SCALE) KINDER WEST, UNIT-6 (ENCLAVE)
- VARIABLE WIDTH ELECTRIC EASEMENT (Off-LOT) (0.86 OF AN ACRE)
  KINDER WEST, UNIT-3 (ENCLAVE) (OFF-LOT) (0.86 OF AN ACRE) (VOL 20001, PGS 446-451, DPR) KINDER WEST, UNIT-3 (ENCLAVE)

1' VEHICLE NON ACCESS

(VOL 9727, PGS 7-12, DPR)

10' GAS ELECTRIC, TELEPHONE

15' GAS, ELECTRIC, TELEPHONE

KINDER WEST, UNIT-7 (ENCLAVE)

AND CABLE T.V. EASEMENT

AND CABLE 1.V. EASEMENT
KINDER WEST, UNIT-7 (ENCLAVE)

KINDER WEST, UNIT-7 (ENCLAVE)

(PLAT NO. 22-11800764)

(PLAT NO. 22-11800764)

(PLAT NO. 22-11800764)

10' BUILDING SETBACK

10' DRAINAGE EASEMENT

(PLAT NO. 22-11800764)

(PERMEABLE)

VARIABLE WIDTH ACCESS, SANITARY SEWER, FORCE MAIN, WATER, DRAINAGE, GAS, ELECTRIC, TELEPHONE AND CABLE TV EASEMENT TO EXPIRE UPON INCORPORATION INTO PLATTED PRIVATE STREET (OFF-LOT) (PERMEABLE) (5.74 ACRES) (VOLUME 9722, PAGES 49-53 DPR)

- VARIABLE WIDTH DRAINAGE 7 EASEMENT (PERMEABLE) (OFF LOT) (2.685 OF AN ACRE) VARIABLE WIDTH DRAINAGE, TURNAROUND, ACCESS AND UTILITY EASEMENT TO EXPIRE
- UPON PLATTING OF FUTURE PRIVATE STREET (PERMEABLE) (OFF LOT) (2.437 OF AN ACRE) 28' PERMANENT
- ELECTRIC EASEMENT (PERMEABLE) (OFF LOT) (0.058 OF AN ACRE)

# **GRADING LEGEND** PROJECT LIMITS 100 YR FLOODPLAIN

EXISTING CONTOUR PROPOSED CONTOUR FLOW ARROW (EXISTING)

**BEXAR** 

COUNTY

FLOW ARROW (PROPOSED)

TREES TO REMAIN

# **GRADING NOTES:**

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THIS SCOPE WORK WHERE NOT SPECIFICALLY COVERED IN THE SPECIFICATIONS OF GEOTECHNICAL REPORT SHALL CONFORM TO ALL APPLICABLE CITY, COUNTY AND TXDOT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

2. SITE PREPARATION, GRADING, EXCAVATION AND FILL SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL REPORT AND SPECIFICATIONS.

COUNTY

LOCATION MAP

SCALE: 1"= 60'

COUNTY

CALEB M. CHANCE

3. ALL SELECT FILL MATERIAL PROVIDED SHALL BE APPROVED BY TH GEOTECHNICAL ENGINEER PRIOR TO PLACING AND COMPACTING. 4. ALL ELEVATIONS AND PROPOSED CONTOURS SHOWN ON

PLAN REFLECT FINISHED GRADES. THE THICKNESS OF PAVING. BASE GRASS, TOPSOIL, AND MULCH MUST BE SUBTRACTED TO OBTAIN SUBGRADE

5. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF AN QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT, C LIMITS OF DIMENSIONS OR GRADES NECESSARY FOR CONSTRUCTION OF THIS

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, E 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 TPDES/SWPPP 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 INT EXISTING STORM DRAIN SYSTEMS. (SEE SWPPP PLANS & TPDES 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 IT ORIGINAL, OR BETTER, CONDITION ANY DAMAGE DONE TO EXISTING TREES, BUILDINGS, UTILITIES, FENCES, PAVEMENT, CURBS, OR DRIVEWAYS (NO SEPARATE PAY ITEMS).

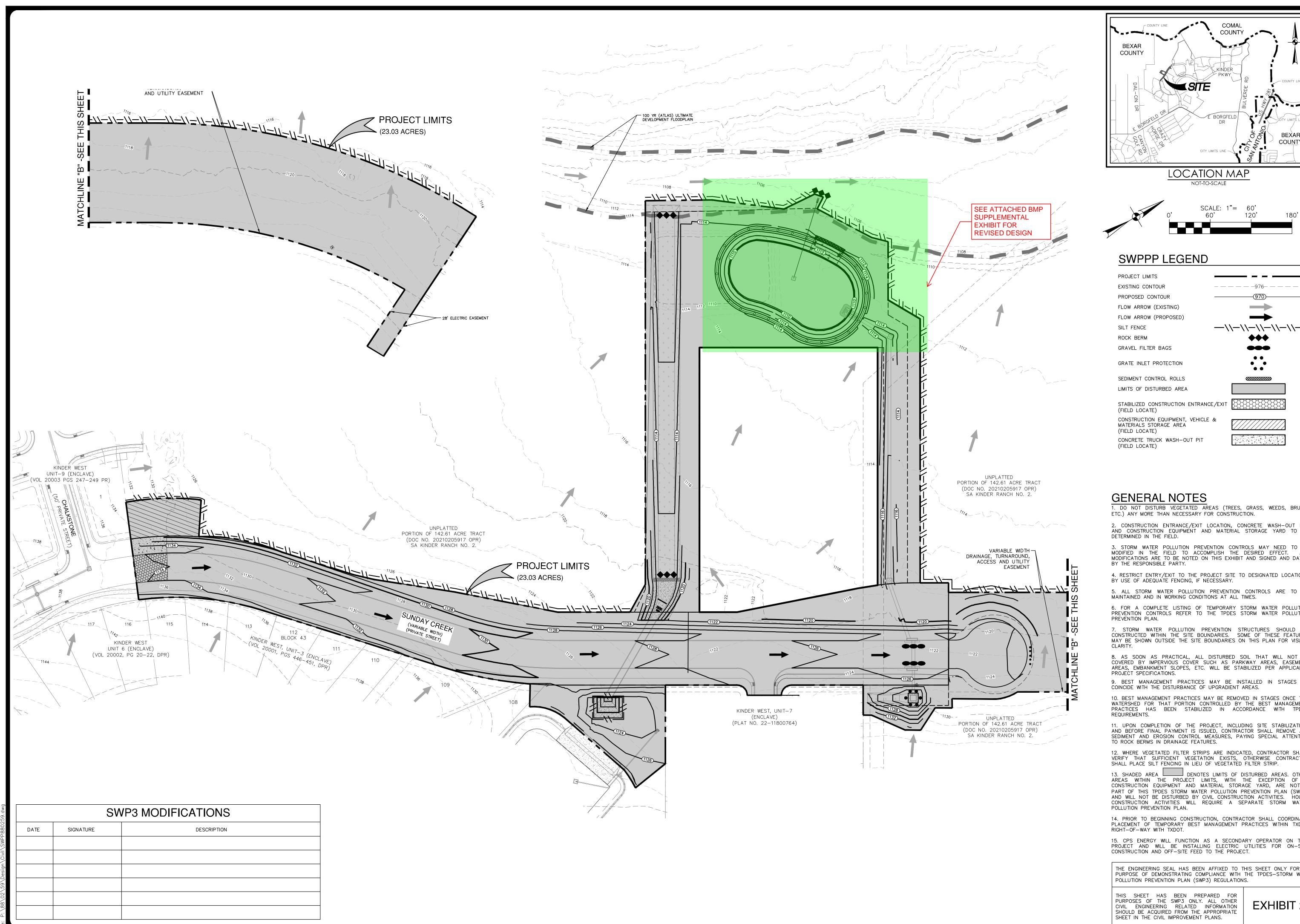
15. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN WORKING NEAR UTILITIES, GAS LINES, SEWER, OR EXISTING APPURTENANCES. PRIOR TO PERFORMING ANY EXCAVATION, CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND ASSURE HIMSELF THAT ALL UTILITIES HAVE BEEN ADEQUATELY LOCATED AND IDENTIFIED. THE ENGINEER 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 TH PLANS OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION AND VERIFY SIZE, GRADE AND LOCATION. TH 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 E

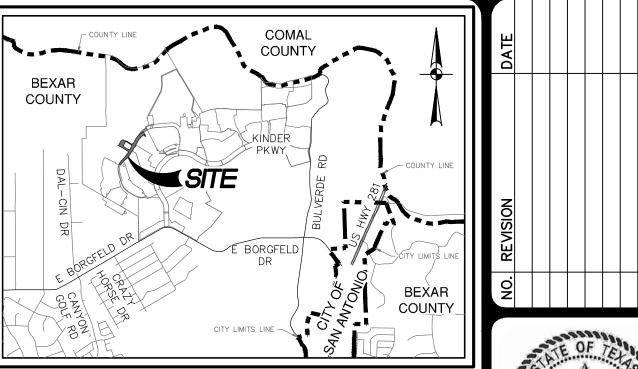
THE CONTRACTORS RESPONSIBILITY TO REPAIR, AT HIS OWN EXPENSE. 17. POSITIVE DRAINAGE SHALL BE MAINTAINED THROUGHOUT THE SCOPE C THE PROJECT. DRAINAGE SHALL BE DIRECTED AWAY FROM ALL BUILDING FOUNDATIONS. CONTRACTOR SHOULD TAKE PRECAUTIONS NOT TO ALLOW ANY PONDING OF WATER.

18. FOR FILL PLACEMENT ON HILL SIDES OR STEEP SLOPE AREAS, T

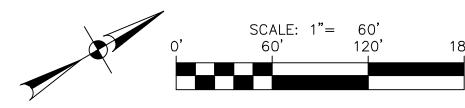
CONTRACTOR SHALL REFERENCE THE PROJECT SPECIFICATIONS AN GEOTECHNICAL REPORT FOR SPECIAL INSTRUCTIONS REGARDING BENCHING. 19. NO WORK SHALL BE PERFORMED IN A PUBLIC RIGHT-OF-WAY WITHOU



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# **SWPPP LEGEND**

| PROJECT LIMITS                                 |        |                        |
|--|--------|------------------------|
| EXISTING CONTOUR                               |        | — — — — 976— — — — — — |
| PROPOSED CONTOUR                               |        | 970                    |
| FLOW ARROW (EXISTING)                          |        | $\rightarrow$          |
| FLOW ARROW (PROPOSED)                          |        | $\rightarrow$          |
| SILT FENCE                                     | —/,    | /-//-//-//-            |
| ROCK BERM                                      |        | <b>***</b>             |
| GRAVEL FILTER BAGS                             |        | •••                    |
| GRATE INLET PROTECTION                         |        | • •                    |
| SEDIMENT CONTROL ROLLS                         |        |                        |
| LIMITS OF DISTURBED AREA                       |        |                        |
| STABILIZED CONSTRUCTION ENTRANC (FIELD LOCATE) | E/EXIT |                        |

CONSTRUCTION EQUIPMENT, VEHICLE & MATERIALS STORAGE AREA (FIELD LOCATE)

CONCRETE TRUCK WASH-OUT PIT

# **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.

CONSTRUCTED WITHIN THE SITE BOUNDARIES. SOME OF THESE FEATURES MAY BE SHOWN OUTSIDE THE SITE BOUNDARIES ON THIS PLAN FOR VISUAL

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

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. HOUSÉ CONSTRUCTION ACTIVITIES WILL REQUIRE A SEPARATE STORM WATER POLLUTION PREVENTION PLAN.

14. PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL COORDINATE PLACEMENT OF TEMPORARY BEST MANAGEMENT PRACTICES WITHIN TXDOT RIGHT-OF-WAY WITH TXDOT.

15. 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.

THE ENGINEERING SEAL HAS BEEN AFFIXED TO THIS SHEET ONLY FOR TH 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.

CALEB M. CHANCE

NO. 22-11800791 8802-59 MARCH 2024 DESIGNER HECKED AS DRAWN DD

C7.00

SCHEMATIC OF TEMPORARY CONSTRUCTION ENTRANCE/EXIT

**MATERIALS** 

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 OF

INSTALLATION

DRAINAGE

CORRECTLY.

LAY SOD IN A STAGGERED PATTERN. BUTT

THE STRIPS TIGHTLY AGAINST EACH OTHER.

DO NOT LEAVE SPACES AND DO NOT

OVERLAP. A SHARPENED MASON'S TROWEL

IS A HANDY TOOL FOR TUCKING DOWN THE

AUTOMATIC SOD CUTTER MUST BE MATCHED

ANGLED ENDS CAUSED BY THE

ENDS AND TRIMMING PIECES.

LAY SOD ACROSS THE

DIRECTION OF FLOW

**MATERIALS** 

OF 36 HOURS.

SHOOT GROWTH AND THATCH.

SITE PREPARATION

TIGHTLY (SEE FIGURE ABOVE).

TORN OR UNEVEN PADS SHOULD NOT BE ACCEPTABLE.

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

TO FINAL GRADE IN ACCORDANCE WITH THE APPROVED PLAN.

**INSTALLATION IN CHANNELS** 

INTERFERE WITH PLANTING, FERTILIZING OR MAINTENANCE OPERATIONS.

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. 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.

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

2. PIECES OF SOD SHOULD BE CUT TO THE SUPPLIER'S STANDARD WIDTH AND

STANDARD SIZE SECTIONS OF SOD SHOULD BE STRONG ENOUGH TO

SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN

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

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

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

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,

FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE CONTOUR.

SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT. ON SLOPING LAND, THE

SOD STRIPS IN WATERWAYS SHOULD BE LAID PERPENDICULAR TO THE

DIRECTION OF FLOW. CARE SHOULD BE TAKEN TO BUTT ENDS OF STRIPS

2. AFTER ROLLING OR TAMPING, SOD SHOULD BE PEGGED OR STAPLED TO

RESIST WASHOUT DURING THE ESTABLISHMENT PERIOD. MESH OR OTHER

NETTING MAY BE PEGGED OVER THE SOD FOR EXTRA PROTECTION IN CRITICAL

PIPE UNDER PAD AS NEEDED TO MAINTAIN PROPER PUBLIC ROAD

SOIL.

# WOVEN WIRI SHEATHING STABILIZE FOUNDATION

ISOMETRIC PLAN VIEW

**ROCK BERMS** 

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

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

INSPECTIONS SHOULD BE MADE. . REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6 INCHES AND DISPOSE OF THE ACCUMULATED SILT IN AN APPROVED MANNER THAT

RESPONSIBLE PARTY. FOR INSTALLATIONS IN STREAMBEDS, ADDITIONAL DAILY

WILL NOT CAUSE ANY ADDITIONAL SILTATION.

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

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

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

**MATERIALS** 

SHEATHING HAVING MAXIMUM OPENING OF 1 INCH AND A MINIMUM WIRE DIAMETER OF 20 GAUGE GALVANIZED AND SHOULD BE SECURED WITH SHOAT 2. CLEAN, OPEN GRADED 3-INCH TO 5-INCH DIAMETER ROCK SHOULD BE

USED, EXCEPT IN AREAS WHERE HIGH VELOCITIES OR LARGE VOLUMES OF

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

THE BERM STRUCTURE SHOULD BE SECURED WITH A WOVEN WIRE

**SECTION "A-A"** 

WOVEN WIRE SHEATHING

INSTALLATION

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

2. BERM SHOULD HAVE A TOP WIDTH OF 2 FEET MINIMUM WITH SIDE SLOPES BEING 2:1 (H: V) OR FLATTER. 3. PLACE THE ROCK ALONG THE SHEATHING AS SHOWN IN THE DIAGRAM TO A HEIGHT NOT LESS THAN 18"

4. WRAP THE WIRE SHEATHING AROUND THE ROCK AND SECURE WITH TIE WIRE SO THAT THE ENDS OF THE SHEATHING OVERLAP AT LEAST 2 INCHES, AND THE BERM RETAINS ITS SHAPE WHEN WALKED UPON. 5. BERM SHOULD BE BUILT ALONG THE CONTOUR AT ZERO PERCENT GRADE

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

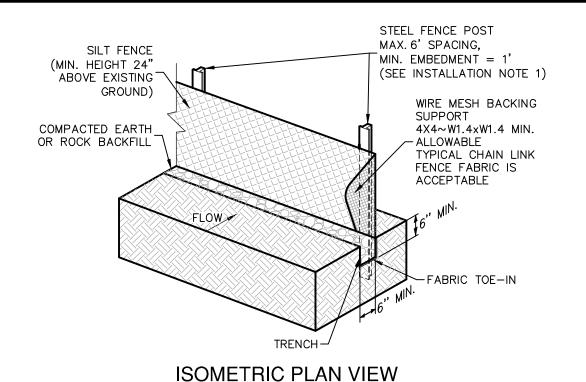
COMMON TROUBLE POINTS

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

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

# **ROCK BERM DETAIL**

NOT-TO-SCALE



INCORRECT

CORRECT

SECTION "A-A" OF A

CONSTRUCTION ENTRANCE/EXIT

. STONE TOO SMALL OR GEOTEXTILE FABRIC ABSENT, RESULTS IN MUDDY

PAD TOO SHORT FOR HEAVY CONSTRUCTION TRAFFIC-EXTEND PAD BEYOND

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

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

2. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC

3. WHEN NECESSARY, WHEELS SHOULD BE CLEANED TO REMOVE SEDIMENT

4. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED

WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR

5. ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING ANY STORM DRAIN,

RIGHTS-OF-WAY SHOULD BE REMOVED IMMEDIATELY BY CONTRACTOR.

PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.

DITCH OR WATER COURSE BY USING APPROVED METHODS.

INSPECTION AND MAINTENANCE GUIDELINES THE ENTRANCE SHOULD BE MAINTAINED IN A CONDITION, WHICH WILL

1. INADEQUATE RUNOFF CONTROL-SEDIMENT WASHES ONTO PUBLIC ROAD.

COMMON TROUBLE POINTS

CONDITION AS STONE IS PRESSED INTO SOIL.

IMPROVE FOUNDATION DRAINAGE.

USED TO TRAP SEDIMENT

SEDIMENT BASIN.

SHOOTS OR GRASS BLADES.

CUTTING HEIGHT.

GRASS SHOULD BE GREEN AND

- THATCH- GRASS CLIPPINGS AND

ROOT ZONE - SOIL AND ROOTS.

DEAD LEAVES, UP TO 1/2" THICK.

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

DENSE ROOT MAT FOR STRENGTH.

HEALTHY; MOWED AT A 2"-3"

STABILIZED CONSTRUCTION ENTRANCE/EXIT DETAIL

NOT-TO-SCALE

APPEARANCE OF GOOD SOD

SOON AS THE SOD IS LAID.

THE MOWER HIGH (2"-3").

1. ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE

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

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

THE MINIMUM 50-FOOT LENGTH AS NECESSARY.

SOD INSTALLATION USE PEGS OR STAPLES TO FASTEN SOD

FIRMLY - AT THE ENDS OF STRIPS AND

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

GENERAL INSTALLATION (VA. DEPT. OF CONSERVATION, 1992

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 LENGTH, WITH A MAXIMUM ALLOWABLE DEVIATION IN ANY DIMENSION OF 5%. IRRIGATED IMMEDIATELY PRIOR TO LAYING THE SOD, TO COOL THE SOIL AND REDUCE ROOT BURNING AND DIEBACK.

WITH THE GROUND.

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 ROOTS, BRUSH, WIRE, GRADE STAKES AND OTHER OBJECTS THAT WOULD ROLLED OR TAMPED TO PROVIDE FIRM CONTACT BETWEEN ROOTS AND SOIL. AFTER ROLLING, SOD SHOULD BE IRRIGATED TO A DEPTH SUFFICIENT THAT THE UNDERSIDE OF THE SOD PAD AND THE SOIL 4 INCHES BELOW THE SOD IS

UNTIL SUCH TIME A GOOD ROOT SYSTEM BECOMES DEVELOPED, IN THE

ABSENCE OF ADEQUATE RAINFALL, WATERING SHOULD BE PERFORMED AS OFTEN AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF AT LEAST 4 8. THE FIRST MOWING SHOULD NOT BE ATTEMPTED UNTIL THE SOD IS FIRMLY ROOTED, USUALLY 2-3 WEEKS. NOT MORE THAN ONE THIRD OF THE GRASS LEAF SHOULD BE REMOVED AT ANY ONE CUTTING.

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

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

SOD INSTALLATION DETAIL

IN THE CENTER. OR EVERY 3-4 FEET IF THE STRIPS ARE LONG. WHEN READY TO MOW, DRIVE PEGS OR STAPLES FLUSH

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

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

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

SILT FENCE

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

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

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

INSTALLATION

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

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

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

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

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

POST. THERE SHOULD BE A 3-FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET. 6. SILT FENCE SHOULD BE REMOVED WHEN THE SITE IS COMPLETELY

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

STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

2. FABRIC NOT SEATED SECURELY TO GROUND (RUNOFF PASSING UNDER FENCE). 3. FENCE NOT INSTALLED PERPENDICULAR TO FLOW LINE (RUNOFF ESCAPING

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

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

2. REMOVE SEDIMENT WHEN BUILDUP REACHES 6 INCHES.

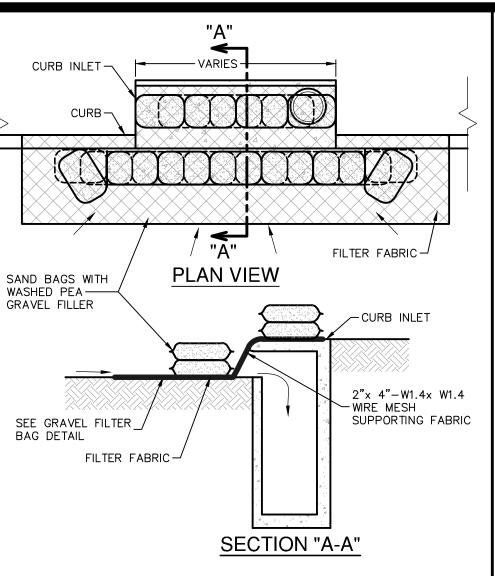
3. REPLACE TORN FABRIC OR INSTALL A SECOND LINE OF FENCING PARALLEL TO THE TORN SECTION. 4. REPLACE OR REPAIR SECTIONS CRUSHED OR COLLAPSED IN THE COURSE

OF CONSTRUCTION ACTIVITY. IF A SECTION OF FENCE IS OBSTRUCTING VEHICULAR ACCESS, CONSIDER RELOCATING IT TO A SPOT WHERE IT WILL PROVIDE EQUAL PROTECTION, BUT WILL NOT OBSTRUCT VEHICLES. A TRIANGULAR FILTER DIKE MAY BE PREFERABLE TO A SILT FENCE AT COMMON VEHICLE ACCESS POINTS. WHEN CONSTRUCTION IS COMPLETE, THE SEDIMENT SHOULD BE DISPOSED . HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCES CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE

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.

SILT FENCE DETAIL

NOT-TO-SCALE



**GENERAL NOTES** 

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

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

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

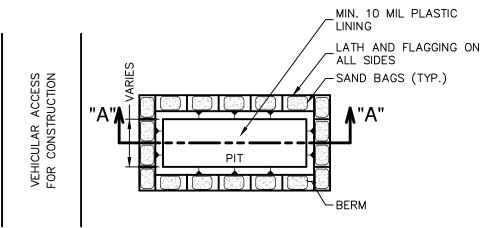
2. REMOVE SEDIMENT WHEN BUILDUP REACHES A DEPTH OF 3 INCHES. REMOVED SEDIMENT SHOULD BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.

3. CHECK PLACEMENT OF DEVICE TO PREVENT GAPS BETWEEN DEVICE AND

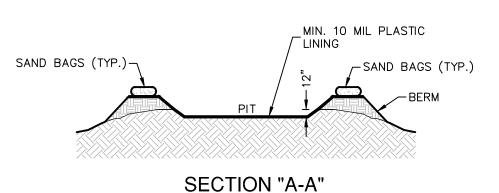
4. INSPECT FILTER FABRIC AND PATCH OR REPLACE IF TORN OR MISSING. 5. STRUCTURES SHOULD BE REMOVED AND THE AREA STABILIZED ONLY AFTER THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

# BAGGED GRAVEL CURB INLET PROTECTION DETAIL

NOT-TO-SCALE



**PLAN VIEW** 



GENERAL NOTES

STORM DRAINS, OPEN DITCHES OR WATER BODIES.

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

CONSTRUCTION TRAFFIC. WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INUNDATION FROM STORM WATER RUNOFF. 4. LOCATE WASHOUT AREA AT LEAST 50 FEET FROM SENSITIVE FEATURES,

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

MATERIALS

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

**MAINTENANCE** WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER

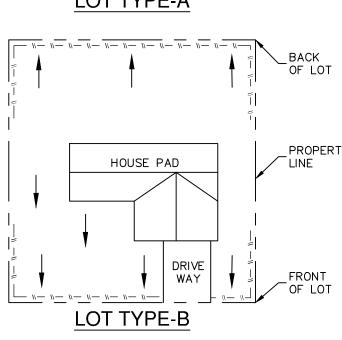
BACKFILLED AND REPAIRED.

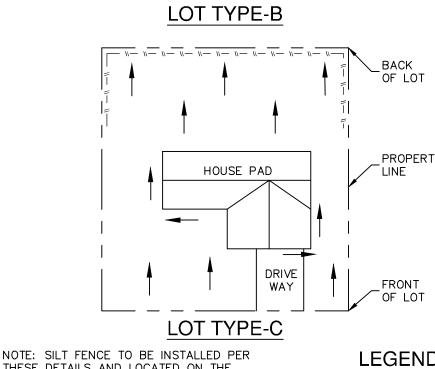
REQUIRED FOR THE WORK, THE HARDENED CONCRETE SHOULD BE REMOVED AND DISPOSED OF. . MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED

> CONCRETE TRUCK WASHOUT PIT DETAIL

> > NOT-TO-SCALE

OF LOT PROPERTY HOUSE PAD DRIV WAY LOT TYPE-A



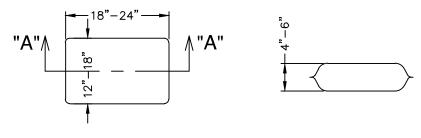


DOWNGRADIENT SIDE OF EACH LOT LINE —" -" -" SILT FENCE → DRAINAGE FLO OR LIMITS OF CLEARING AS GENERALLY SHOWN ON THE OVERALL SITE PLAN.

THESE DETAILS AND LOCATED ON THE

**PLAN VIEW** 





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

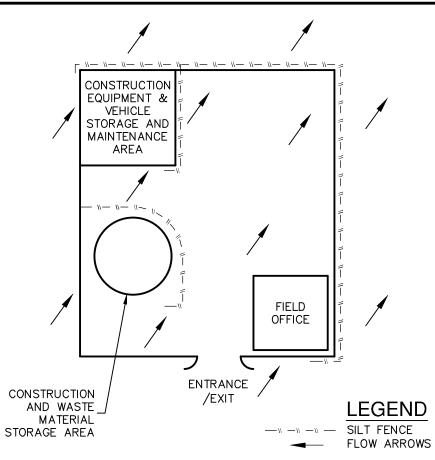
**SECTION "A-A"** 

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

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

GRAVEL FILTER BAG DETAIL

NOT-TO-SCALE



CONSTRUCTION STAGING AREA

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

NOT-TO-SCALE

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

SHEET IN THE CIVIL IMPROVEMENT PLANS.

**EXHIBIT** 

C7.10

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22-1180079 8802-59 MARCH 2024

CALEB M. CHANCE

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SIGNER IECKED AS DRAWN DD

NOT-TO-SCALE