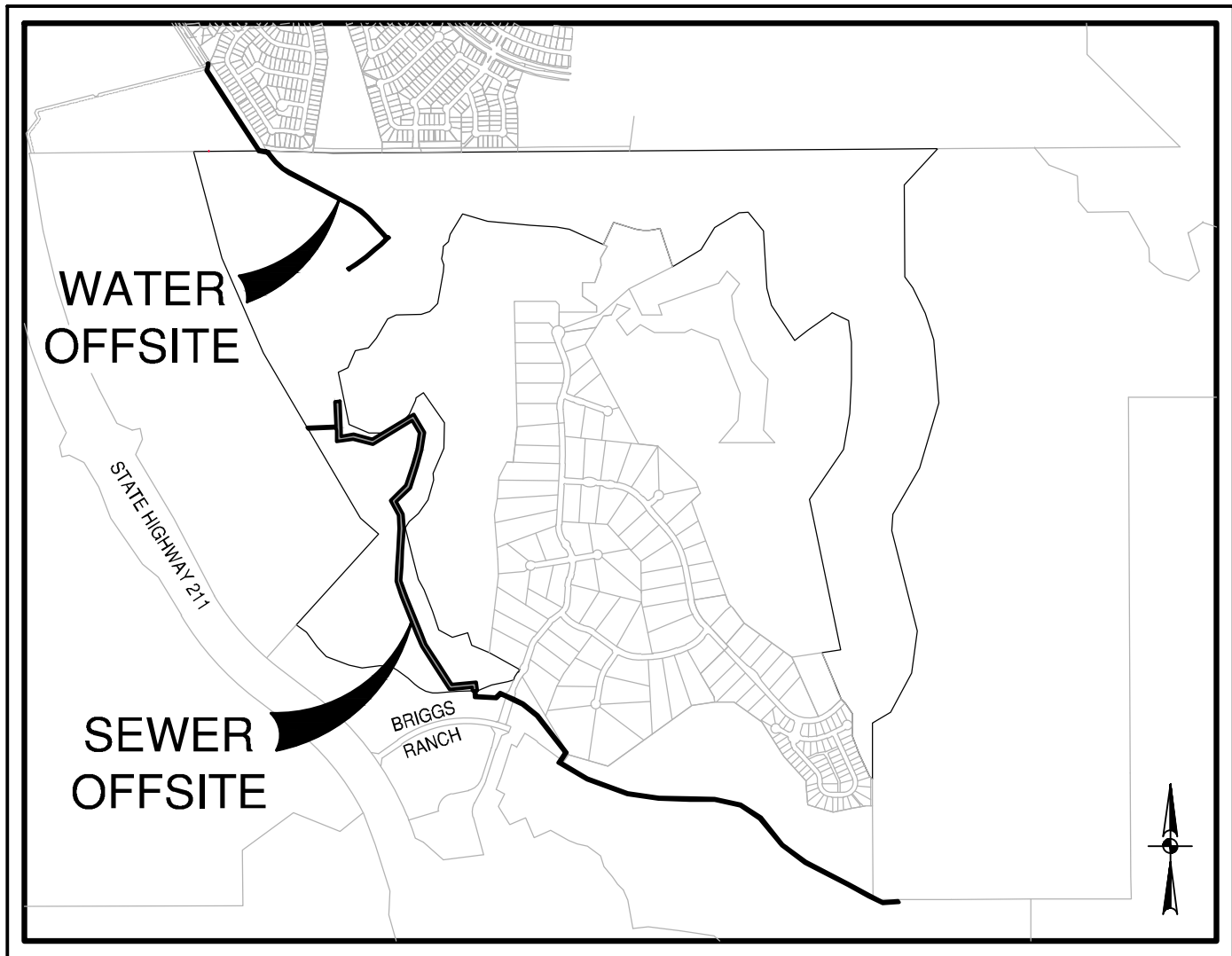


# BRIGGS RANCH NORTH OFFSITE UTILITIES

## SAN ANTONIO, TEXAS

### CIVIL CONSTRUCTION PLANS



LOCATION MAP  
NOT-TO-SCALE

PREPARED FOR:  
  
CHESMAR HOMES, LLC  
211 NORTH LOOP 1604, SUITE 175  
SAN ANTONIO, TEXAS 78232

NOVEMBER 2023

**PAPE-DAWSON  
ENGINEERS**

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

*Bruna Spengler*  
11/22/23

WATER: (PRESSURE ZONE 1080)  
BRIGGS RANCH NORTH OFFSITE UTILITIES

Developer's Name: CHESMAR HOMES, LLC	
Address: 211 NORTH LOOP 1604, SUITE 175	
City: SAN ANTONIO	State: TEXAS ZIP: 78232
Phone# (210) 957-3395	FAX# N/A
SAWS Block Map# 080560, 080562 50' LF ~ 12" PVC Total Acreage 3.18	
Total Linear Footage of Pipe 2,697 LF ~ 16" PVC Plot No. N/A	
Number of Lots N/A	TOTAL EDU'S 1 SAWS JOB NO. 23-XXXX

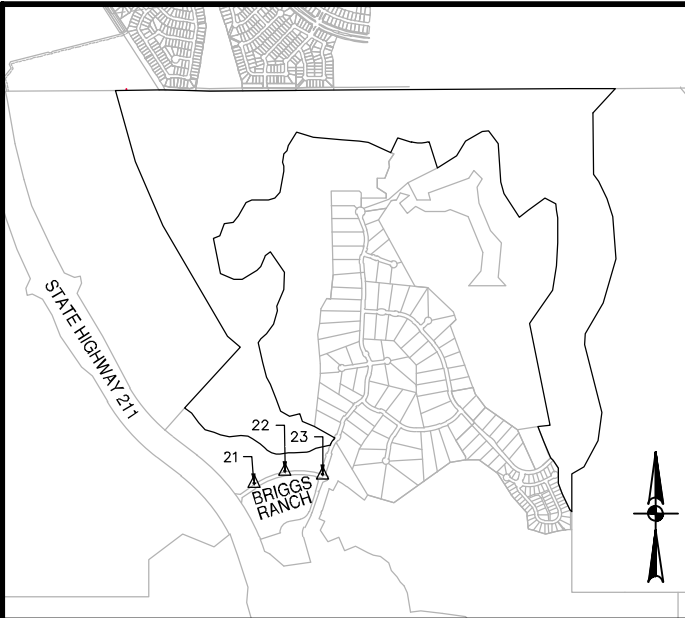
SEWER: UPPER MEDINA SEWERSHED - DOS RIOS W.R.C.

Developer's Name: CHESMAR HOMES, LLC	
Address: 211 NORTH LOOP 1604, SUITE 175	
City: SAN ANTONIO	State: TEXAS ZIP: 78232
Phone# (210) 957-3395	FAX# N/A
SAWS Block Map# 080560, 080562 Total Acreage 2.86	
Total Linear Footage of Pipe 11,945 LF ~ 8" PVC Plot No. N/A	
Number of Lots N/A	TOTAL EDU'S N/A SAWS JOB NO. 23-XXXX

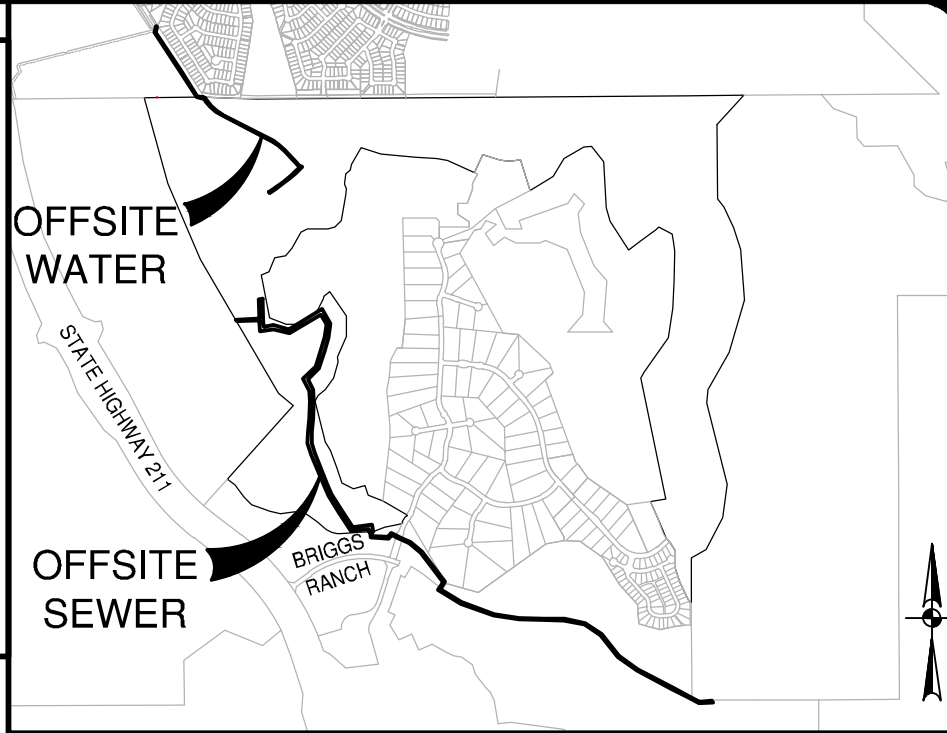


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THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL. AERIAL IMAGERY PROVIDED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



BENCHMARKS				
NUMBER	NORTHING/EASTING	ELEVATION	DESCRIPTION	
21	13,693,311.67	2,043,024.57	801.88	SET I.R. REDCAP (TRAV)
22	13,693,498.49	2,043,498.32	802.15	SET I.R. REDCAP (TRAV)
23	13,693,447.13	2,044,061.54	800.96	SET MAG NAIL (TRAV)



KEY NOTES:

- (A) BRIGGS 15-2015 LLC, 15.00 AC (VOL. 17108 PG. 716 OPR)
- (B) BRASS TIMESHARE PARTNERS, LLC., 3.00 AC (VOL. 15100, PG. 2328, OPR)
- (C) BRIGGS 3 EXTRA 2014, LLC., 3.00 AC (VOL. 16948, PG. 1862, DPR)
- (D) BRIGGS RANCH TIMESHARE, UNIT-1, LOT 1, BLOCK 4 (VOL. 9567 PG. 212, DPR)
- (E) BRIGGS RANCH, LTD., REM. PORTION OF 1909.83 AC, (VOL. 7511, PG. 80. OPR)
- (F) RUSTLER'S TRAIL (PRIVATE VARIABLE WIDTH RIGHT-OF-WAY), LOT 131, TRAILS OF BRIGGS RANCH, UNIT-1 (VOL. 9547, PGS. 35-47 DPR)
- (G) HANA GOLF LLC., REMAINING PORTION OF A 285.9 TRACT (VOL. 18557, PGS. 873-886 OPR)
- (H) ARCADIA RIDGE PHASE 1, UNIT 5B-2 (9709, PGS. 99-100 DPR)
- (I) ARCADIA RIDGE PHASE 1, UNIT 5B-1 (VOL. 9679 PGS. 203-205 DPR)
- (J) ARCADIA RIDGE PHASE 1, UNIT 5C-3 (DOC# 20180135928)
- (K) ARCADIA RIDGE PHASE 1, UNIT 5C (VOL. 20001, PG. 253 PR)
- (L) ARCADIA RIDGE PHASE 1, UNIT 5D (VOL. 20001, PG. 1709 PR)
- (M) ARCADIA RIDGE PHASE 1, UNIT 4B-2 (VOL. 20001, PG. 306 PR)
- (N) ARCADIA RIDGE PHASE 1, UNIT 4B-1 (VOL. 9710, PGS. 24-26 DPR)
- (O) RANCHO COACHELLA PROPERTIES CALLED 33.68 ACRE TRACT (VOL. 8818, PGS. 1638-1644 OPR)
- (P) CITICORP SUBDIVISION UNIT 2, LOT 2, BLOCK 1 (VOL. 9530, PG. 168, DPR)

UTILITY LEGEND

PROJECT LIMITS	---
EXISTING WATER	---
EXISTING SEWER	---
PROPOSED SEWER	---
PROPOSED WATER	---
PROPOSED WYE & LATERAL	---
SINGLE WATER SERVICE	---
DUAL WATER SERVICE	---
GAS, ELECTRIC, TELEPHONE & CABLE TELEVISION EASEMENT	---

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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WATER: (PRESSURE ZONE 1080)  
BRIGGS RANCH NORTH OFFSITE UTILITIES

Developer's Name: CHESMAR HOMES, LLC	
Address: 211 NORTH LOOP 1604, SUITE 175	
City: SAN ANTONIO	State: TEXAS
ZIP: 78232	
Phone# (210) 957-3395	FAX# N/A
SAWS Block Map# 080560, 080562	
SAWS LF ~ 12" PVC	
Total Linear Footage of Pipe 2,697 LF ~ 16" PVC	
Plot No. N/A	
Number of Lots N/A	
TOTAL EDU'S 1	
SAWS JOB NO. 23-XXXX	

SEWER: UPPER MEDINA SEWERSHED - DOS RIOS W.R.C.

Developer's Name: CHESMAR HOMES, LLC	
Address: 211 NORTH LOOP 1604, SUITE 175	
City: SAN ANTONIO	State: TEXAS
ZIP: 78232	
Phone# (210) 957-3395	FAX# N/A
SAWS Block Map# 080560, 080562	
SAWS LF ~ 8" PVC	
Total Linear Footage of Pipe 11,845 LF ~ 8" PVC	
Plot No. N/A	
Number of Lots N/A	
TOTAL EDU'S N/A	
SAWS JOB NO. 23-XXXX	

BRIGGS RANCH NORTH OFFSITE UTILITIES  
SAN ANTONIO, TEXAS

SHEET INDEX & OVERALL UTILITY PLAN

**PAPE-DAWSON ENGINEERS**

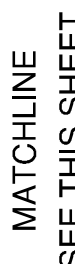
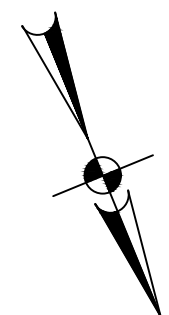
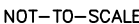
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000  
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1008600

**BRUNA F. SPENGLER**  
127547  
PROFESSIONAL ENGINEER  
11/22/23

DATE	NO.	REVISION

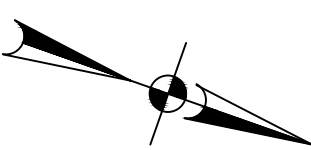
PLAT NO.	N/A
JOB NO.	12719-04
DATE	NOVEMBER 2023
DESIGNER	BR
CHECKED	DW
DRAWN	JR
SHEET	C1.00





The diagram illustrates a water main layout with the following components and symbols:

- Water Main:** Represented by a solid black line.
- Valve:** Indicated by a grey triangle pointing right.
- Manhole:** Indicated by a grey circle with a cross inside.
- Fire Hydrant:** Indicated by a grey symbol with four arms and a central nut.
- Labels:**
  - W:** Water Main
  - SS:** Sewer
  - MANHOLE:** Label for the manhole symbol.
  - FIRE HYDRANT:** Label for the fire hydrant symbol.
- Legend:**
  - A T-shaped symbol represents a **FF = XXXX.XX** (Fire Flow).
  - A gear-like symbol represents a **Fire Hydrant**.



Developer's Name: CHESMAR HOMES, LLC  
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City: SAN ANTONIO State: TEXAS ZIP: 78232  
Phone# (210) 957-3395 FAX# N/A  
SAWS Block Map# 080560, 080562 Total Acreage 2.86  
Total Linear Footage of Pipe 11,945 LF ~ 8" PVC Plat No. N/A  
Number of Lots N/A TOTAL EDU'S N/A SAWS JOB NO. 23-XXXX

OVERALL SANITARY SEWER PLAN

PLAT NO. N/A  
JOB NO. 12719-04  
DATE NOVEMBER 20  
DESIGNER BR  
CHECKED DW DRAWN   
SHEET C2.00





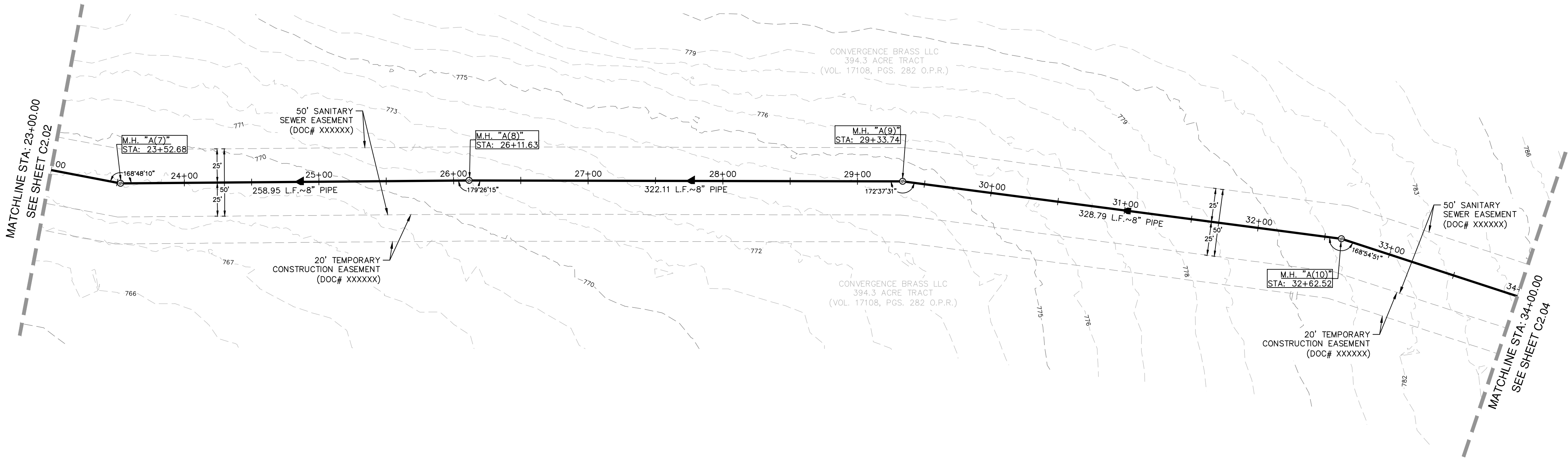
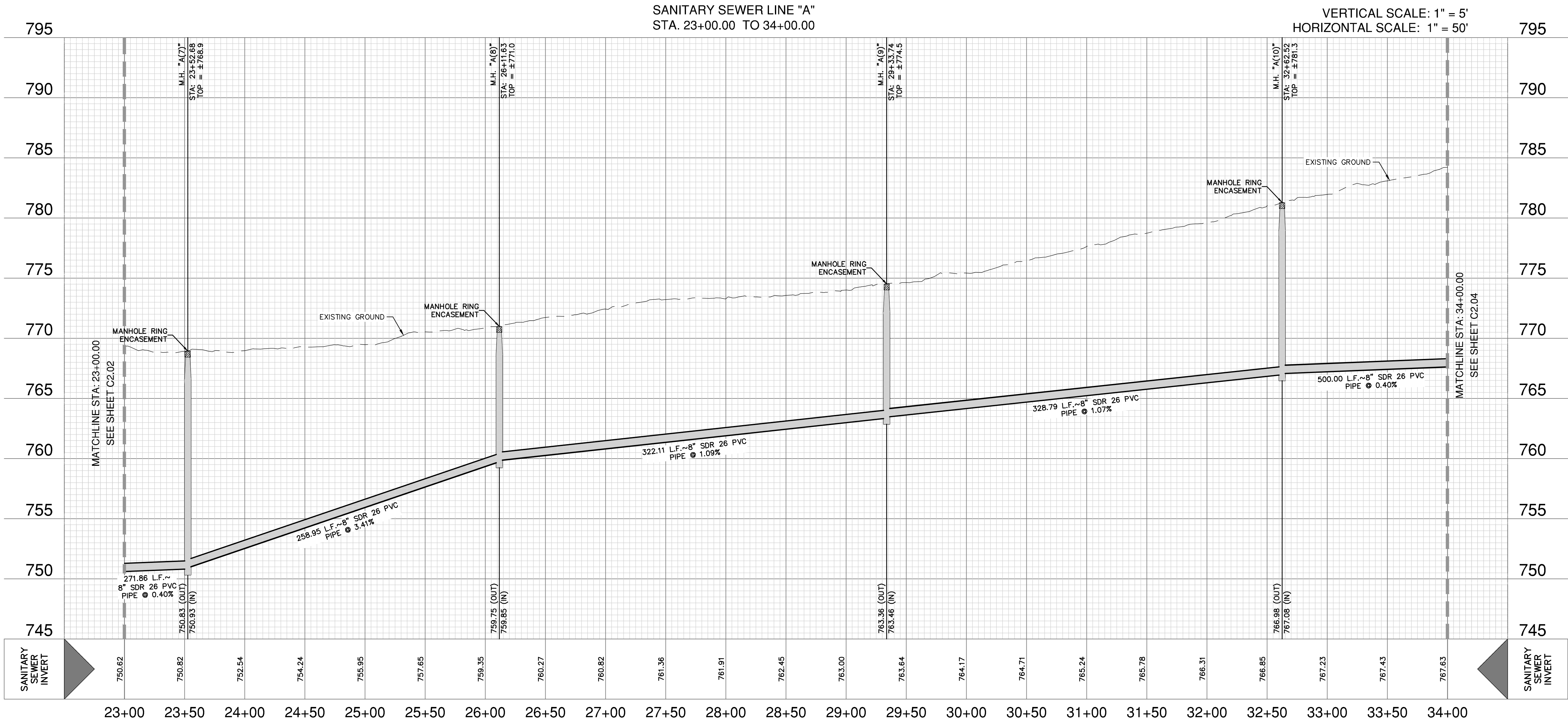




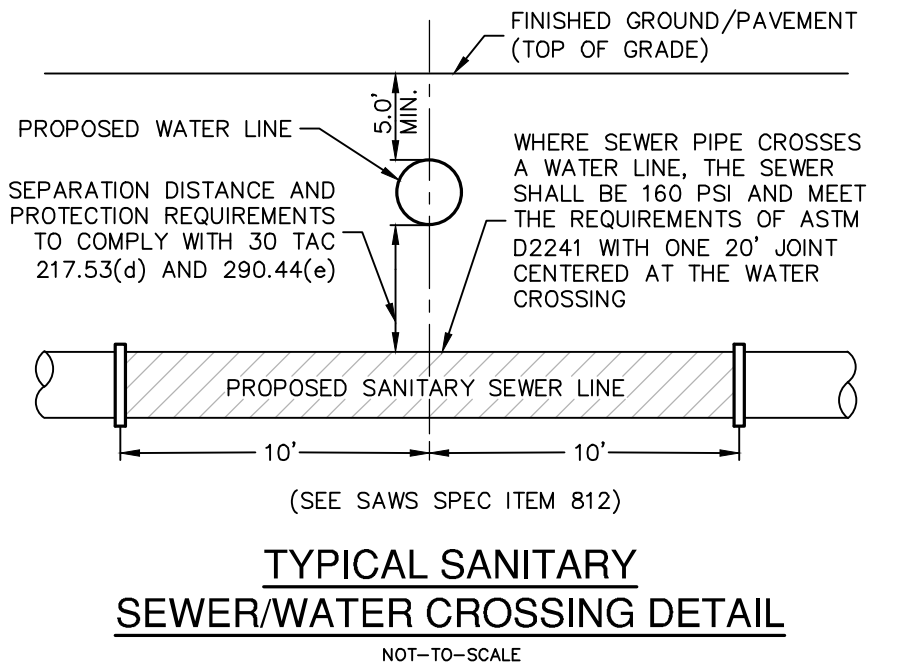
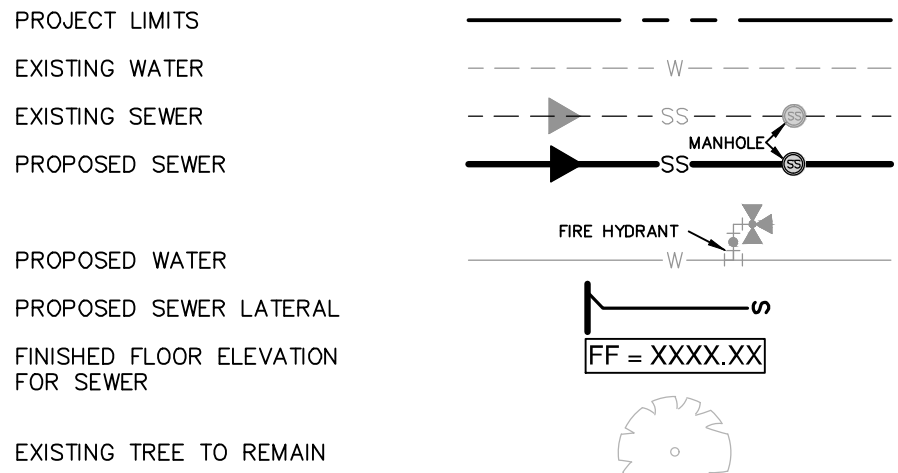


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## SEWER LEGEND



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**TRENCH EXCAVATION SAFETY PROTECTION:**  
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SEWER: UPPER MEDINA SEWERSHED - DOS RIOS W.R.C.

Developer's Name: CHESMAR HOMES, LLC			
Address: 211 NORTH LOOP 1604, SUITE 175			
City: SAN ANTONIO	State: TEXAS	ZIP: 78232	
Phone# (210) 957-3395	FAX# N/A		
SAWS Block Map# 080560, 080562		Total Acreage 2.88	
Total Linear Footage of Pipe 11,845 LF ~ 8" PVC		Plot No. N/A	
Number of Lots N/A	TOTAL EDU'S N/A	SAWS JOB NO. 23-XXXX	

NO.	REVISION	DATE



**PAPE-DAWSON ENGINEERS**  
2000 HW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000  
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1008800

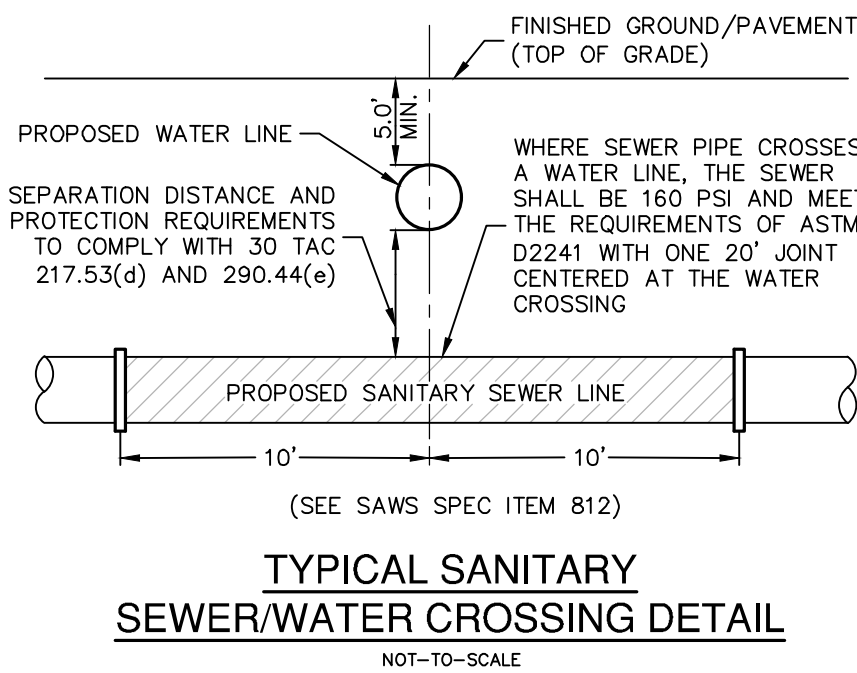
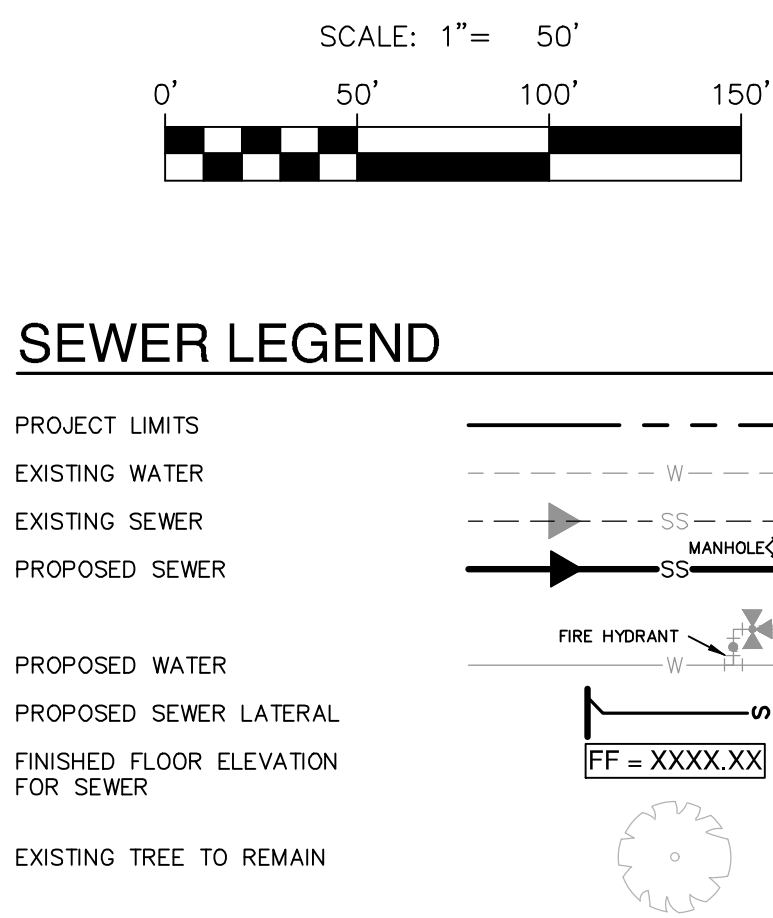
**BRIGGS RANCH NORTH OFFSITE UTILITIES**  
SAN ANTONIO, TEXAS  
**SANITARY SEWER LINE A PLAN & PROFILE**  
(STA. 23+00.00 TO 34+00.00)

PLAT NO.	N/A
JOB NO.	12719-04
DATE	NOVEMBER 2023
DESIGNER	BR
CHECKED	DW
DRAWN	JR
SHEET	C2.03









**CAUTION!!**

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

## TRENCH EXCAVATION SAFETY PROTECTION

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SEWER: UPPER MEDINA SEWERSHED - DOS RIOS W.R.C.

Developer's Name: CHESMAR HOMES, LLC  
Address: 211 NORTH LODGE 1604, SUITE 175  
City: SAN ANTONIO State: TEXAS ZIP: 78232  
Phone# (210) 957-3395 FAX# N/A  
SAWS Block Map# 080560, 080562 Total Acreage 7.86  
Total Linear Footage of Pipe 11,945 LF ~ 8" PVC Plat No. N/A  
Number of Lots N/A TOTAL EDU'S N/A SAWS JOB NO. 23-XXXX

[illegible]

**PAPE-DAWSON**  
**PE ENGINEERS**

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

**BRIGGS RANCH NORTH OFFSITE UTILITIES**  
**SAN ANTONIO, TEXAS**

---

**SANITARY SEWER LINE A PLAN & PROFILE**  
**(STA. 45+00.00 TO 56+00.00)**

PLAT NO. N/A  
JOB NO. 12719-04  
DATE NOVEMBER 2023  
DESIGNER BR  
CHECKED DW DRAWN JR  
SHEET C2.05



PROJECT LIMITS

EXISTING WATER

EXISTING SEWER

PROPOSED SEWER

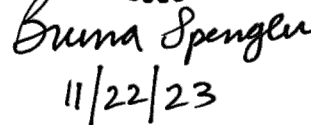
PROPOSED WATER

PROPOSED SEWER LATERAL

FINISHED FLOOR ELEVATION FOR SEWER

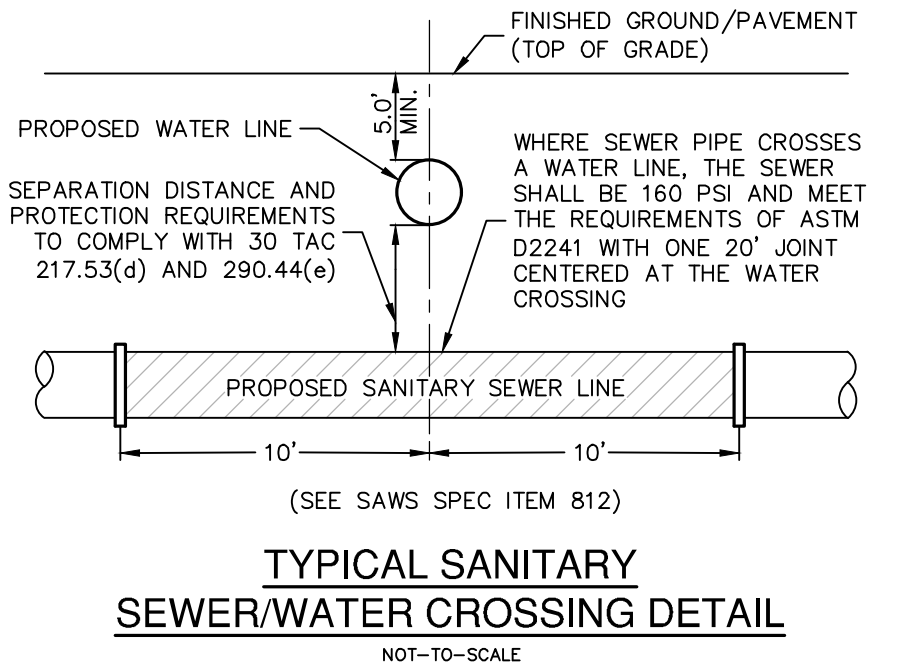
EXISTING TREE TO REMAIN

Labels in diagram: W, SS, MANHOLE, FIRE HYDRANT, FF = XXXX.XX



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

SANITARY SEWER LINE A PLAN & PROFILE  
(STA. 56+00.00 TO 67+00.00)



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

TRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/ GEOTECHNICAL/ SAFETY/EQUIPMENT CONSULTANT SHALL REVIEW AND APPROVE ALL TRENCH SAFETY PLANS. IN ANY, ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE TRENCH WORK AREA IN ORDER TO ELEMENT CONTRACTOR'S TRENCH SAFETY AND PROTECTION PROGRAMS, SYSTEMS, PROCEDURES 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 EFFECTIVELY AND COMPLETELY WITHIN THE WORKING STANDING OF THE CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY/ 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

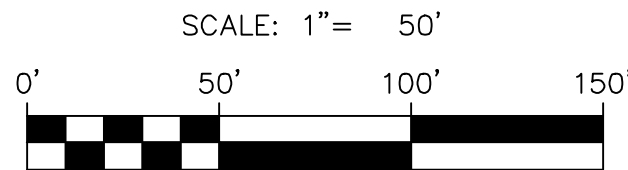
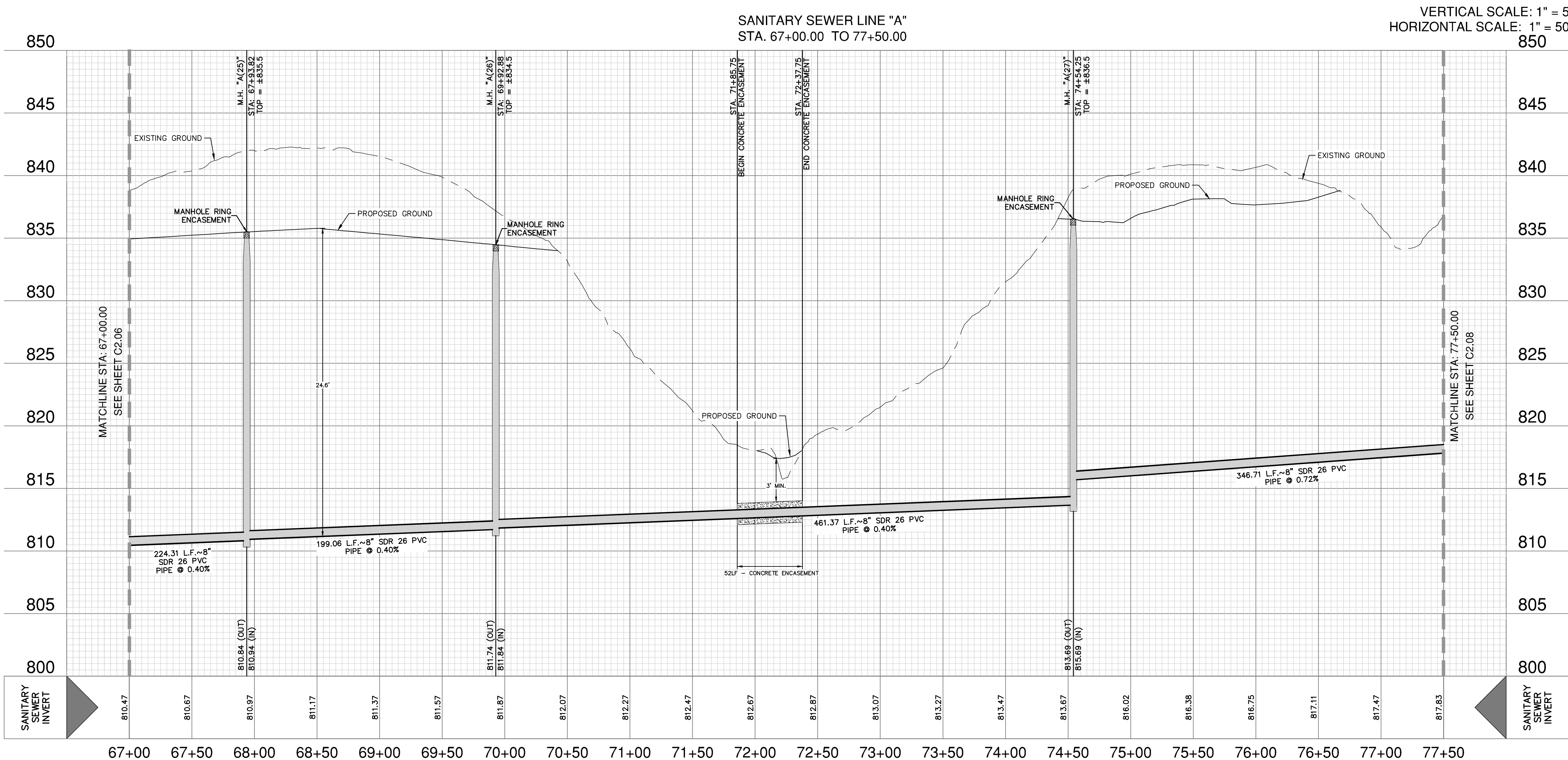
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SAWS Block Map# 080560, 080562 Total Acreage 2.86  
Total Linear Footage of Pipe 11,945 LF ~ 8" PVC Plat No. N/A  
Number of Lots N/A TOTAL EDU'S N/A SAWS JOB NO. 23-XXXX

LAT NO. N/A  
 JOB NO. 12719-04  
 DATE NOVEMBER 2023  
 DESIGNER BR  
 CHECKED DW DRAWN JR  
 SHEET C2.06

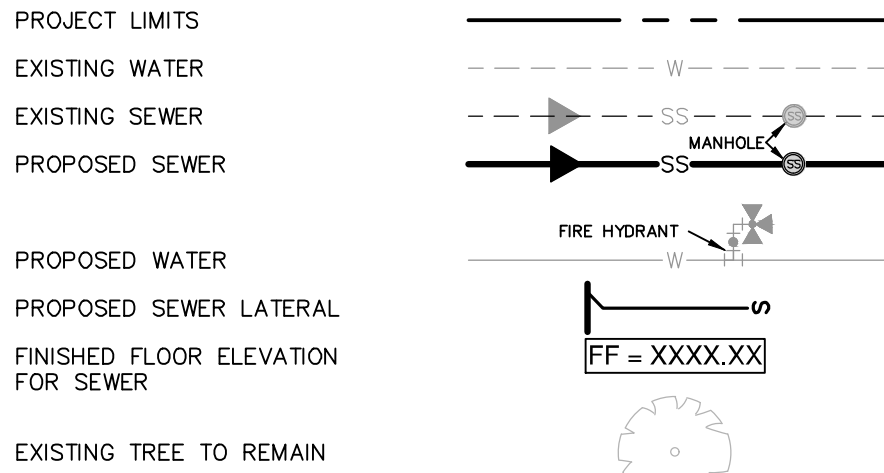


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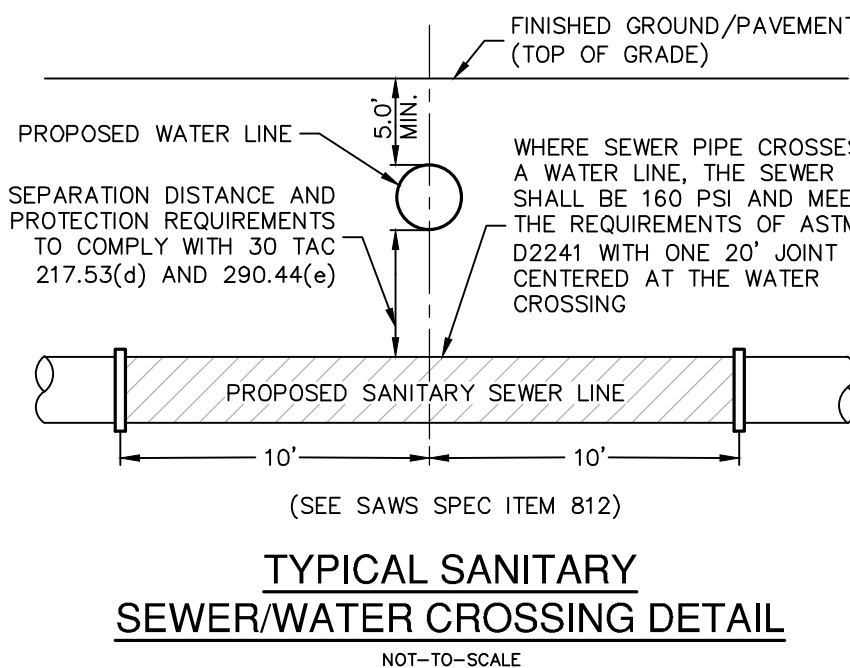


### SEWER LEGEND



**PAPE-DAWSON  
ENGINEERS**  
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000  
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1008800

**BRIGGS RANCH NORTH OFFSITE UTILITIES**  
SAN ANTONIO, TEXAS  
**SANITARY SEWER LINE A PLAN & PROFILE**  
(STA. 67+00.00 TO 77+50.00)



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### TRENCH EXCAVATION SAFETY PROTECTION:

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

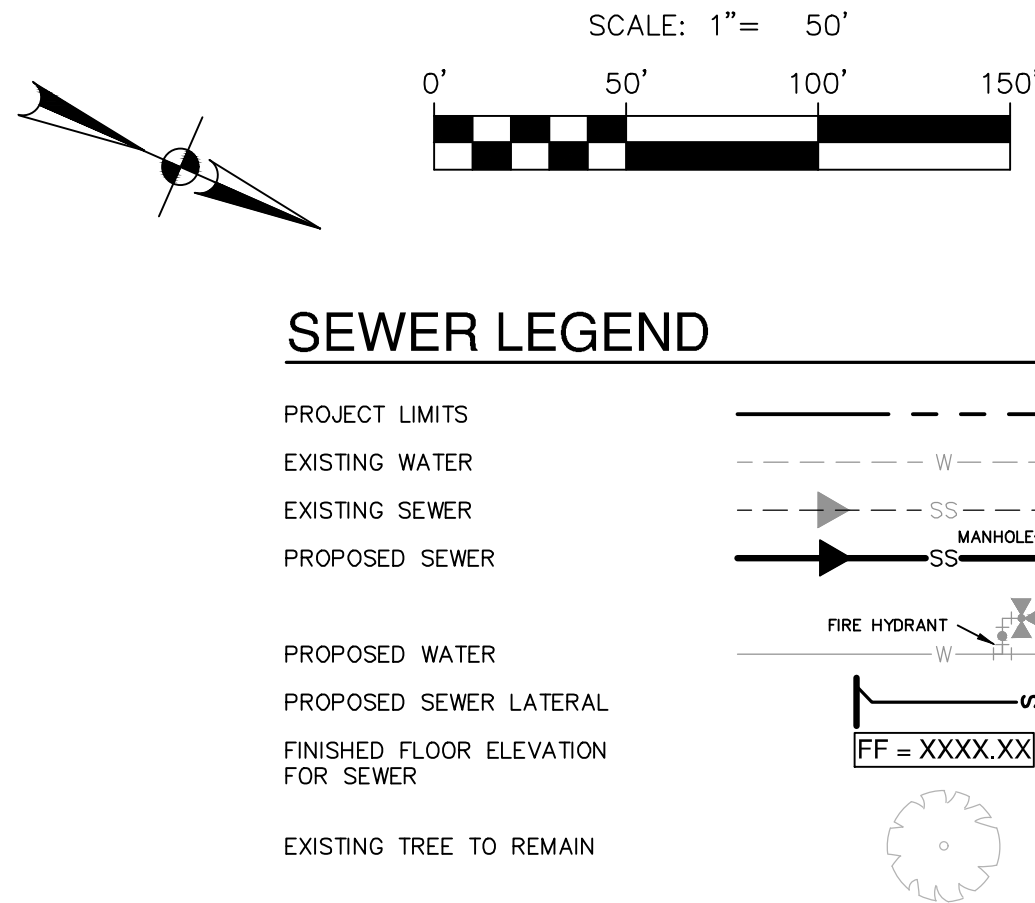
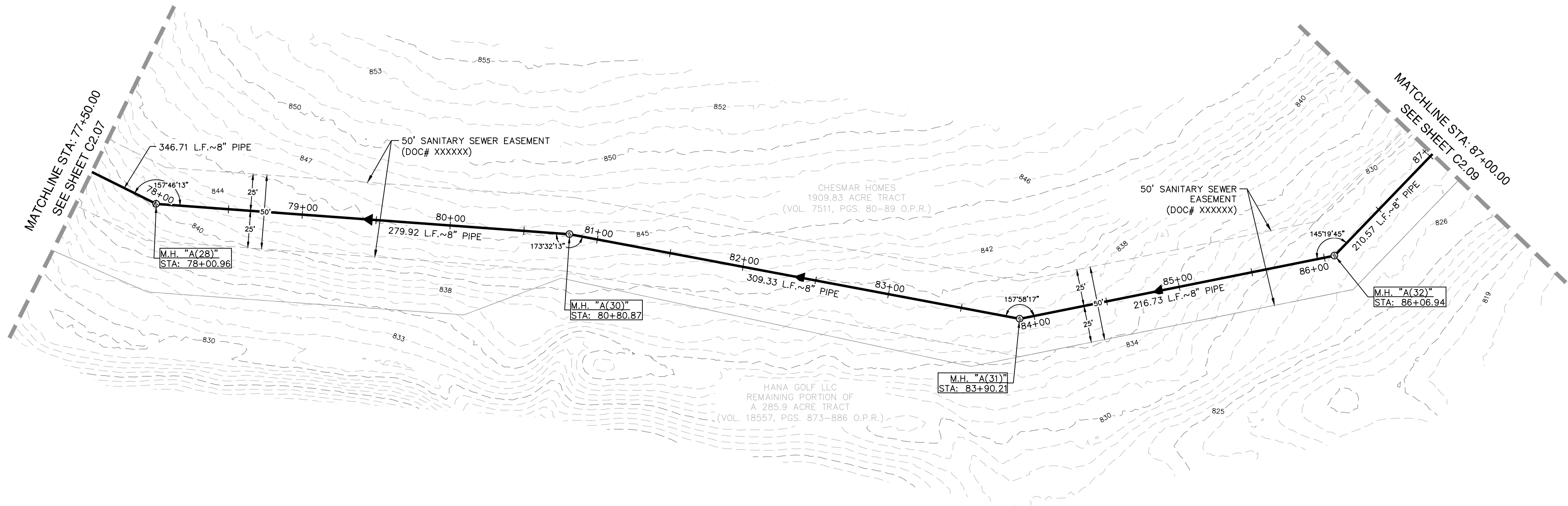
SEWER: UPPER MEDINA SEWERSHED - DOS RIOS W.R.C.

Developer's Name: <b>CHESMAR HOMES, LLC</b>	
Address: 211 NORTH LOOP 1604, SUITE 175	
City: <b>SAN ANTONIO</b>	State: <b>TEXAS</b> ZIP: <b>78232</b>
Phone: <b>(210) 957-3395</b>	FAX: <b>N/A</b>
SAWS Block Map: <b>080560, 080562</b> Total Acreage <b>7.88</b>	
Total Linear Footage of Pipe <b>11,845 LF ~ 8" PVC</b> Plot No. <b>N/A</b>	
Number of Lots <b>N/A</b> TOTAL EDU'S <b>N/A</b> SAWS JOB NO. <b>23-XXXX</b>	

PLAT NO. **N/A**  
JOB NO. **12719-04**  
DATE **NOVEMBER 2023**  
DESIGNER **BR**  
CHECKED **DW** DRAWN **JR**  
SHEET **C2.07**

Date: October 19, 2023, 1:37 PM - User ID: brojps  
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DATE

NO. REVISION

STATE OF TEXAS  
BRUNA F. SPENGLER  
127547  
PROFESSIONAL ENGINEER

Bruna Spengler  
11/22/23

PAPE-DAWSON  
ENGINEERS

2000 HW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000  
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1008800

BRIGGS RANCH NORTH OFFSITE UTILITIES  
SAN ANTONIO, TEXAS

SANITARY SEWER LINE A PLAN & PROFILE  
(STA. 77+50.00 TO 87+00.00)

PLAT NO. N/A

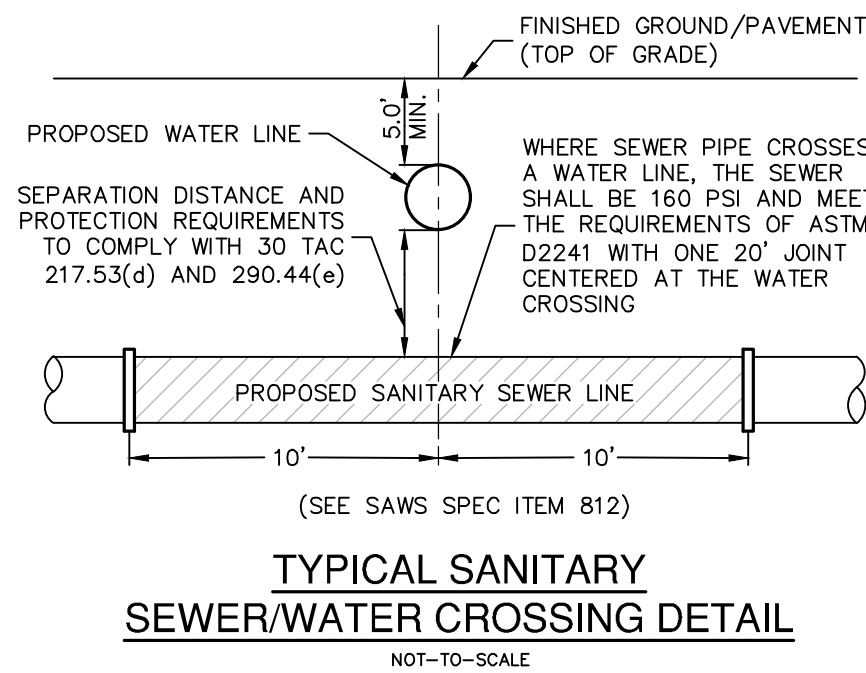
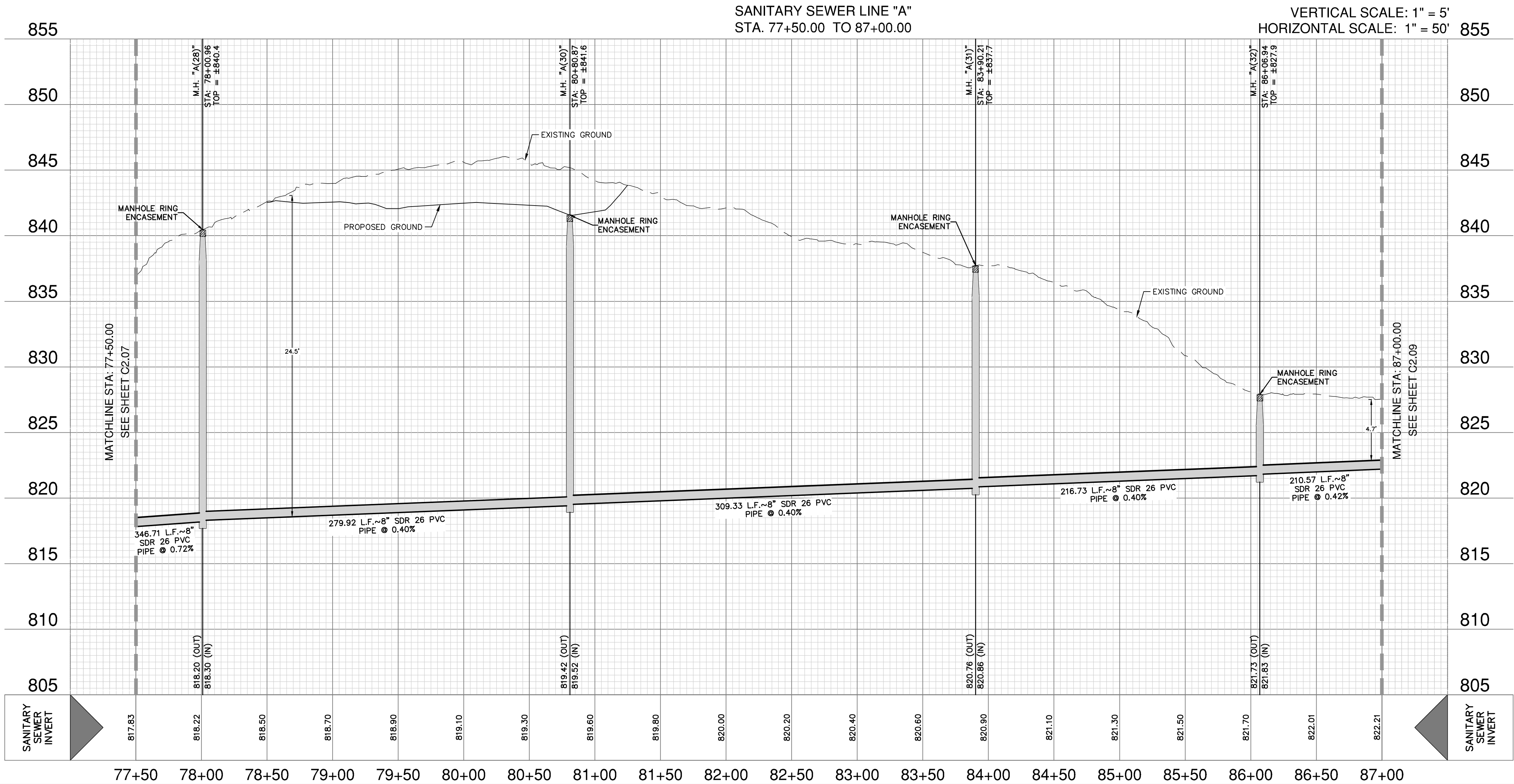
JOB NO. 12719-04

DATE NOVEMBER 2023

DRAWN BR

CHECKED DW DRAWN JR

SHEET C2.08



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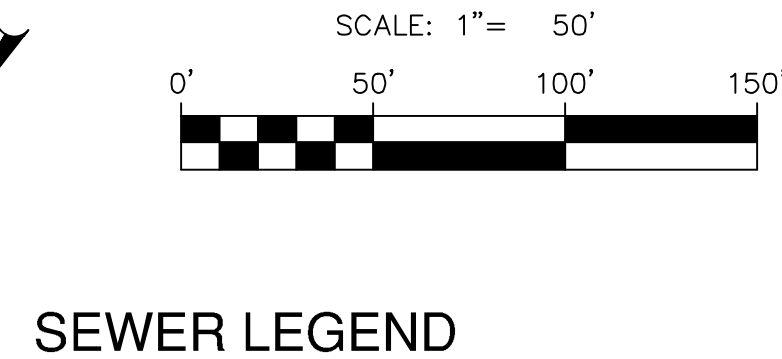
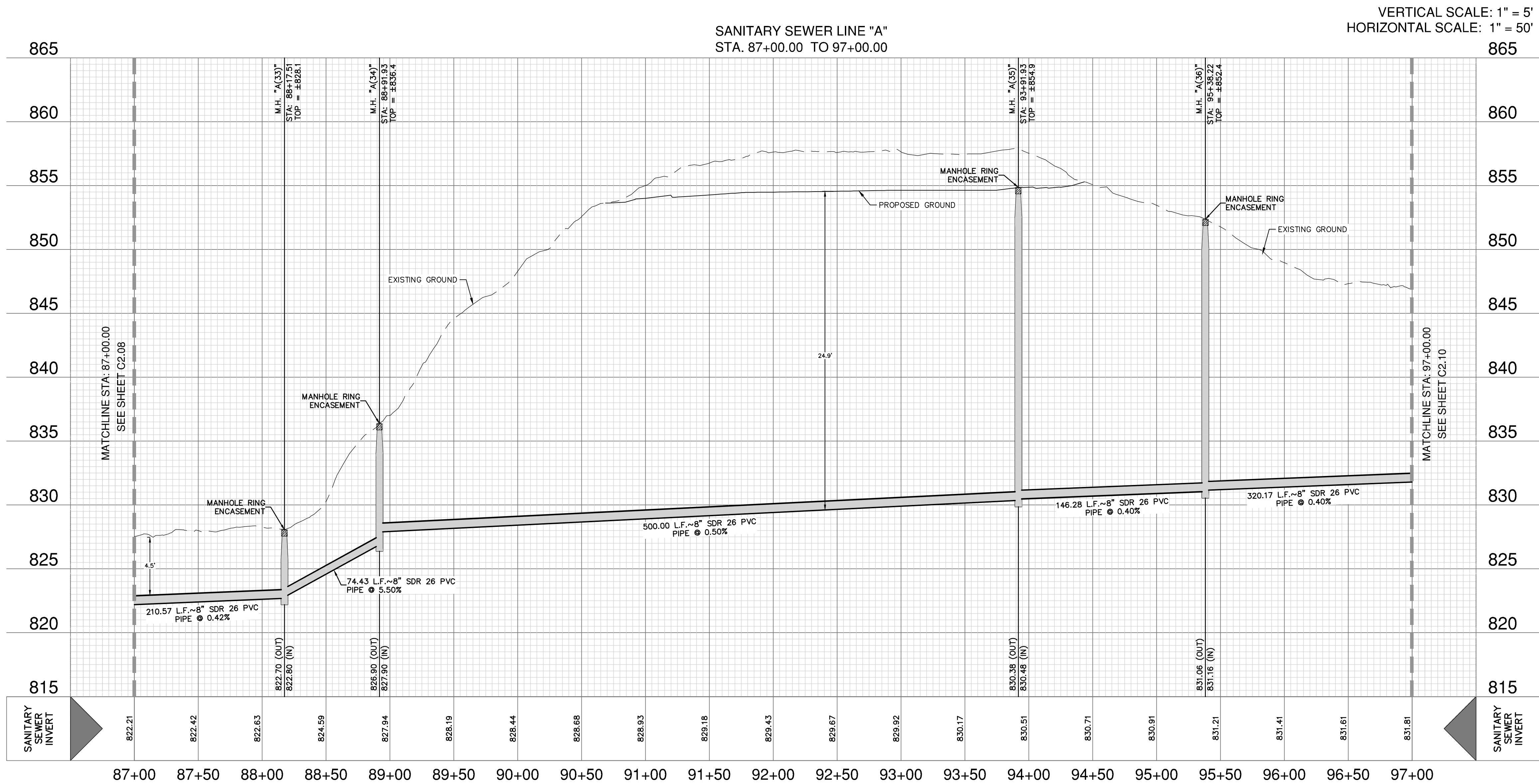
SEWER: UPPER MEDINA SEWERSHED - DOS RIOS W.R.C.

Developer's Name: CHESMAR HOMES, LLC	
Address: 211 NORTH LOOP 1604, SUITE 175	
City: SAN ANTONIO	State: TEXAS
Phone: (210) 957-3395	FAX: N/A
SAWS Block Map# 080560, 080562	
Total Linear Footage of Pipe 11,845 LF ~ 8" PVC	Plot No. N/A
Number of Lots N/A	TOTAL EDU'S N/A
SAWS JOB NO. 23-XXXX	



Date: October 19, 2023, 1:38 PM - User ID: brojtas  
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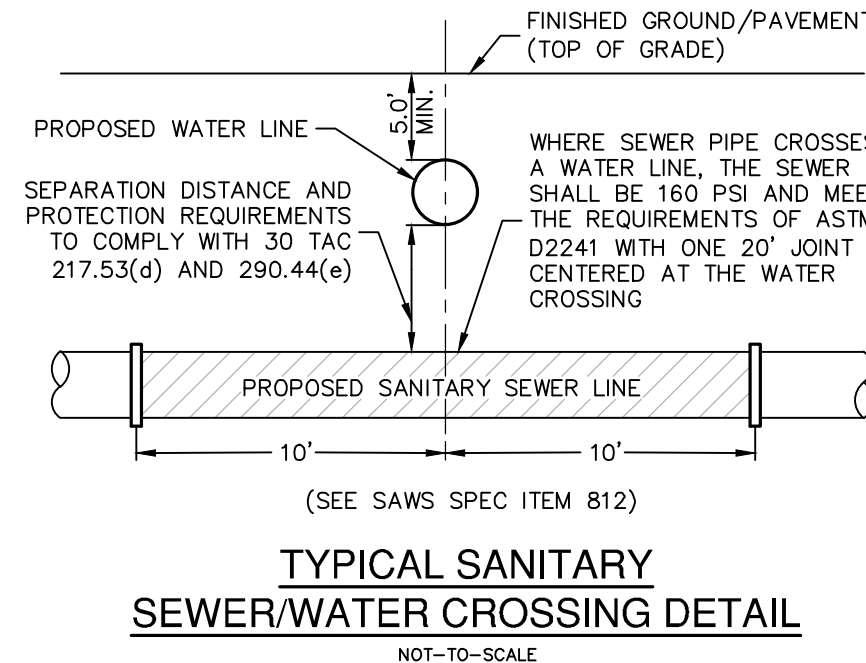
**PAPE-DAWSON ENGINEERS**

2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000  
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1008800

**BRIGGS RANCH NORTH OFFSITE UTILITIES**  
SAN ANTONIO, TEXAS

**SANITARY SEWER LINE A PLAN & PROFILE**  
(STA. 87+00.00 TO 97+00.00)

STATE OF TEXAS  
BRUNA F. SPENGLER  
127547  
PROFESSIONAL ENGINEER  
11/22/23



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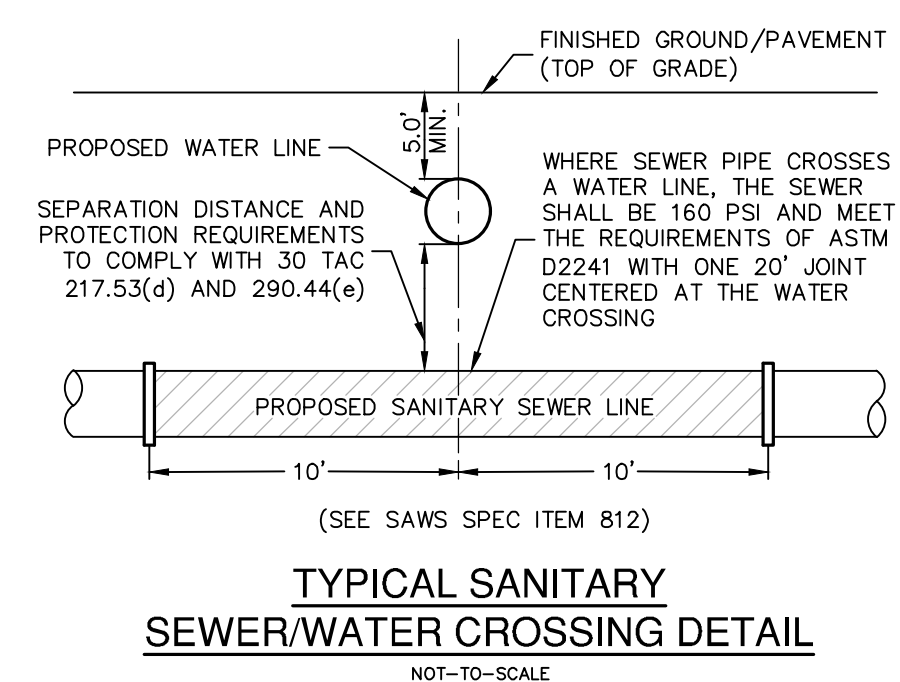
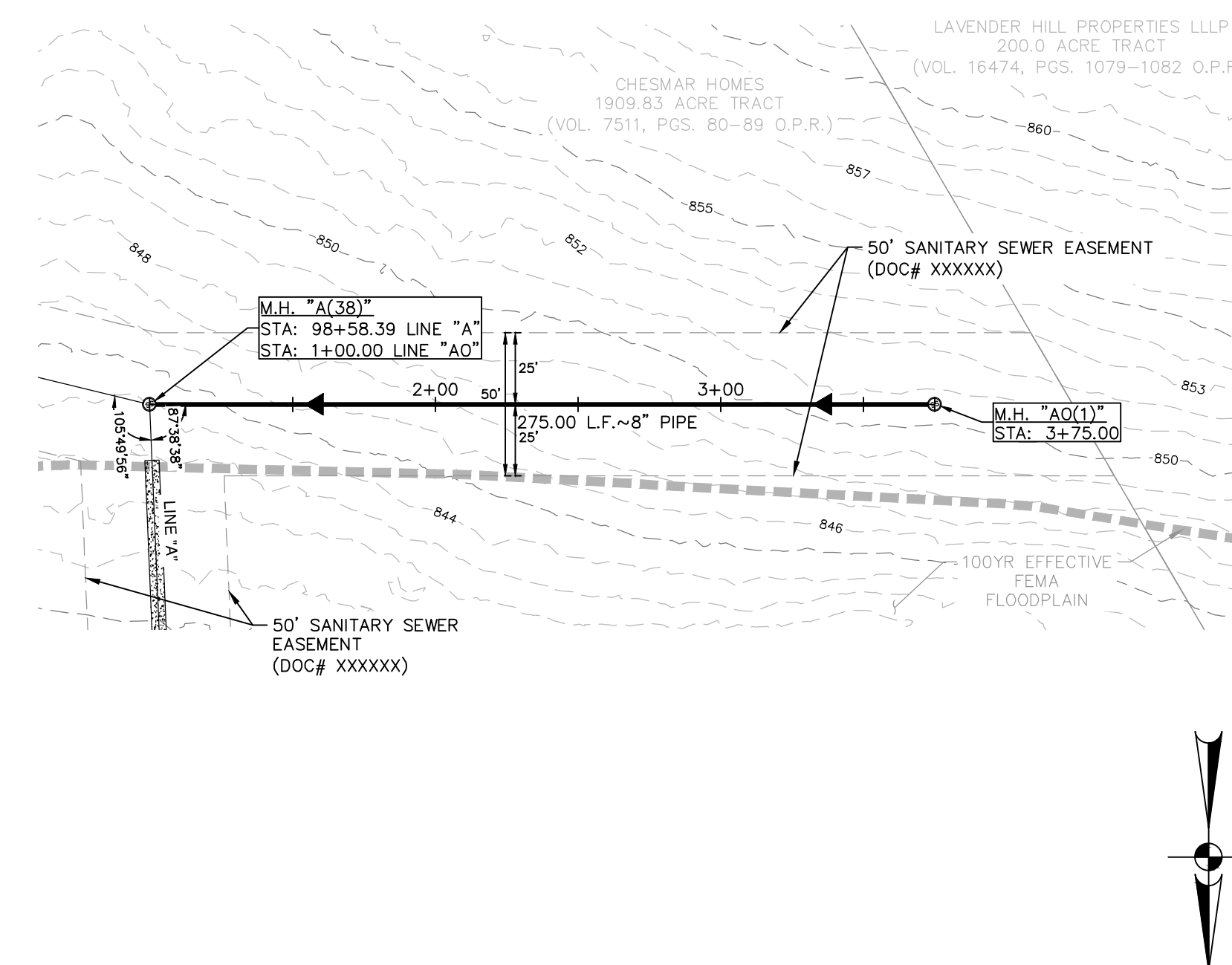
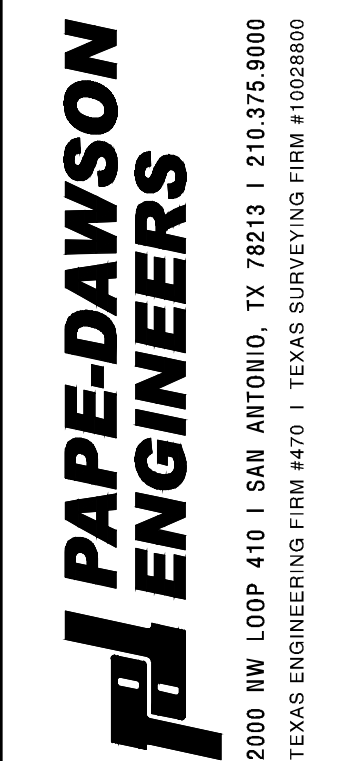
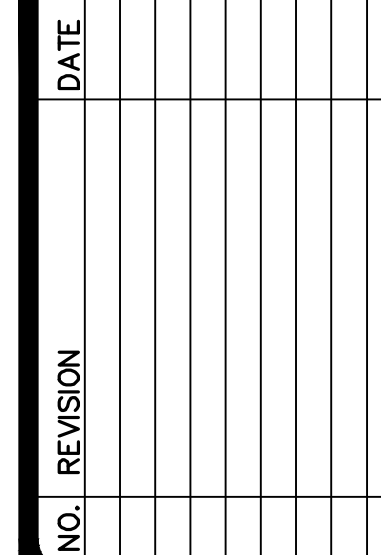
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**SEWER: UPPER MEDINA SEWERSHED - DOS RIOS W.R.C.**

Developer's Name: CHESMAR HOMES, LLC		
Address: 211 NORTH LOOP 1604, SUITE 175		
City: SAN ANTONIO	State: TEXAS	ZIP: 78232
Phone: (210) 957-3395	FAX: N/A	
SAWS Block Map# 080560, 080562		
Total Linear Footage of Pipe 11,845 L.F. ~ 8" PVC	Total Acreage 7.88	Plot No. N/A
Number of Lots N/A	TOTAL EDU'S N/A	SAWS JOB NO. 23-XXXX

PLAT NO. N/A  
JOB NO. 12719-04  
DATE NOVEMBER 2023  
DESIGNER BR  
CHECKED DW DRAWN JR  
SHEET C2.09





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Developer's Name: CHESMAR HOMES, LLC  
Address: 211 NORTH LOOP 1604, SUITE 175  
City: SAN ANTONIO State: TEXAS ZIP: 78232  
Phone# (210) 957-3395 FAX# N/A  
SAWS Block Map# 080560, 080562 Total Acreage 7.86  
Total Linear Footage of Pipe 11,945 LF ~ 8" PVC Plat No./N/A  
Number of Lots N/A TOTAL EDU'S N/A SAWS JOB NO. 23-XXXX

BRIGGS RANCH NORTH OFFSITE UTILITIES  
SAN ANTONIO, TEXAS  
SANITARY SEWER LINE A & LINE AO PLAN & PROFILE  
LINE A STA. 97+00.00 TO END  
LINE AO 1+00.00 TO END

PLAT NO. N/A  
JOB NO. 12719-04  
DATE NOVEMBER 2023  
DESIGNER BR  
CHECKED DW DRAWN JR  
SHEET C2.10



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## SAWS STANDARD GENERAL CONSTRUCTION NOTES ASSOCIATED WITH 2021 SAWS STANDARD SPECS

(UPDATED JANUARY 2022)

### GENERAL CONSTRUCTION

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:

- CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) 'DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEM'; TEXAS ADMINISTRATIVE CODE (TAC) TITLE 30 PART 1 CHAPTER 217 AND 'PUBLIC DRINKING WATER'; TAC TITLE 30 PART 1 CHAPTER 290.
- CURRENT TxDOT 'STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE.'
- CURRENT 'SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION'.
- CURRENT CITY OF SAN ANTONIO 'STANDARD SPECIFICATIONS FOR CONSTRUCTION.'
- CURRENT CITY OF SAN ANTONIO 'UTILITY EXCAVATION CRITERIA MANUAL' (UECM).

2. THE CONTRACTOR SHALL OBTAIN SAWS STANDARD DETAILS FROM SAWS WEBSITE, [HTTPS://APPS.SAWS.ORG/BUSINESS\\_CENTER/SPECS/CONSTSPES/](https://apps.saws.org/business_center/specs/constspecs/), UNLESS OTHERWISE NOTED WITHIN DESIGN PLANS.

3. THE CONTRACTOR IS TO NOTIFY AND MAKE ARRANGEMENTS WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT 210-233-3500 (DURING REGULAR SAWS WORKING HOURS) AND PROVIDE NOTIFICATION PROCEDURES. THE CONTRACTOR WILL USE TO NOTIFY AFFECTED HOME RESIDENTS AND/OR PROPERTY OWNERS TWO (2) WEEKS PRIOR TO EXCAVATION. OUTSIDE OF REGULAR SAWS WORKING HOURS THE SAWS EOC SHOULD BE CONTACTED AT 210-704-7297.

4. IF NECESSARY, CONTRACTOR WILL COORDINATE USE OF SAWS PREMISES AT NO ADDITIONAL COST TO SAWS. SUCH EFFORTS INCLUDE, BUT ARE NOT LIMITED TO, OBTAINING SECURITY IDENTIFICATION BADGES REQUIRED FOR ACCESS TO SAWS FACILITIES.

5. LOCATIONS AND DEPTHS 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 PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTORS 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 PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT. AS-BUILTS FOR SAWS INFRASTRUCTURE CAN BE OBTAINED AT WEBSITE BELOW. CONTRACTOR SHALL COORDINATE PHYSICAL LOCATES FOR SAWS INFRASTRUCTURE THROUGH THE SAWS INSPECTOR. PLEASE ALLOW UP TO 7 BUSINESS DAYS FOR LOCATES REQUESTING PIPE LOCATION MARKERS ON SAWS INFRASTRUCTURE. THE FOLLOWING CONTACT INFORMATION ARE SUPPLIED FOR VERIFICATION PURPOSES:

SAN ANTONIO WATER SYSTEM:  
REQUEST AS-BUILTS: [HTTPS://WWW.SAWS.ORG/SERVICE/LOCATES-SERVICE/](https://www.saws.org/service/locates-service/)  
  
COSA DRAINAGE 210-206-8433  
COSA TRAFFIC SIGNAL OPERATIONS 210-207-7720  
TEXAS STATEWIDE ONE CALL LOCATOR 1-800-545-6005 OR 811

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING, AND STRUCTURES TO ITS ORIGINAL OR BETTER CONDITION AS A RESULT OF DAMAGES DONE BY THE PROJECTS CONSTRUCTION.

8. CONTRACTOR SHALL NOT MAKE USE OF DUMPSTERS OR WASTE BINS THAT ARE INTENDED TO SERVE RESIDENTS AND/OR BUSINESSES.

9. ALL WORK IN TEXAS DEPARTMENT OF TRANSPORTATION AND BEXAR COUNTY RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH RESPECTIVE CONSTRUCTION SPECIFICATIONS AND PERMIT.

10. THE CONTRACTOR SHALL COMPLY WITH CITY OF SAN ANTONIO OR OTHER GOVERNING MUNICIPALITY'S TREE ORDINANCES WHEN EXCAVATING NEAR TREES.

11. ALL WORK WITHIN THE 100-YEAR FLOODPLAIN SHALL BE DONE IN ACCORDANCE WITH FLOODPLAIN DEVELOPMENT PERMIT.

12. ANY WORK COMPLETED WITHOUT PRIOR WRITTEN AUTHORIZATION WHICH IS NOT INCLUDED IN THESE PLANS AND SPECIFICATIONS WILL NOT BE COMPENSATED BY THE SAN ANTONIO WATER SYSTEM.

13. HOLIDAY WORK: CONTRACTORS WILL NOT BE ALLOWED TO PERFORM SAWS WORK ON SAWS RECOGNIZED HOLIDAYS.  
  
WEEKEND WORK: CONTRACTORS ARE REQUIRED TO SUBMIT REQUEST TO THE SAWS INSPECTION CONSTRUCTION DEPARTMENT BY 12:00PM ON THE WEDNESDAY PRIOR TO THE WEEKEND BEING REQUESTED. REQUEST SHOULD BE SENT TO [CONSTWORKREQ@SAWS.ORG](mailto:CONSTWORKREQ@SAWS.ORG).

ANY AND ALL SAWS UTILITY WORK INSTALLED WITHOUT WEEKEND APPROVAL WILL BE SUBJECT TO BE UNCOVERED FOR PROPER INSPECTION AT NO COST TO SAWS.

14. PRE-CON SITE VIDEO: BEFORE THE START OF ANY CONSTRUCTION, THE SITE MUST BE VIDEO RECORDED BY THE CONTRACTOR WITH ONE COPY SUBMITTED TO SAWS INSPECTIONS. A PRE-SITE VIDEO WILL PROVIDE ACCURATE DOCUMENTATION OF THE EXISTING CONDITIONS(NSPI).

15. POWER POLE BRACING: CONTRACTORS SHOULD BE ADVISED THAT THERE ARE EXISTING OVERHEAD UTILITY POLES ALONG THE PROJECT CORRIDOR. CONTRACTORS SHOULD FURTHER BE ADVISED THAT IF THE DISTANCE FROM THE OUTSIDE FACE OF A UTILITY TRENCH TO THE FACE OF A UTILITY POLE IS LESS THAN 5 FEET, SAID UTILITY POLE IS SUBJECT TO BRACING, BASED ON A DETERMINATION MADE BY UTILITY POLE OWNER. COSTS INCURRED BY CONTRACTOR FOR BRACING OF THESE UTILITY POLES IS SUBSIDIARY TO THAT RESPECTIVE UTILITY COMPANY'S WORK. IT IS ADVISABLE FOR THE CONTRACTOR TO REVIEW THE CONSTRUCTION DOCUMENTS AND VISIT THE CONSTRUCTION SITE TO DETERMINE POTENTIAL IMPACTS.

16. CONSTRUCTION SEQUENCING: IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO SCHEDULE SEQUENCING FOR REMOVAL AND INSTALLATION OF EXISTING AND PROPOSED SAWS UTILITIES IN CONJUNCTION WITH GENERAL PROJECT CONSTRUCTION. SEQUENCE OF CONSTRUCTION ACTIVITIES SHALL BE CONSIDERED IN ORDER TO MINIMIZE THE EXTENT AND DURATION OF DISTURBANCES.

17. CONTRACTOR SHALL COMPLY WITH APPLICABLE REGULATIONS INCLUDING, BUT NOT LIMITED TO, THOSE OVERSEEN BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). OSHA INFORMATION AND RELATED MATERIALS MAY BE OBTAINED AT [HTTPS://WWW.OSHA.GOV/](https://www.osha.gov/) OR AT THE OSHA SAN ANTONIO OFFICE LOCATED AT FOUNTAINHEAD TOWER, SUITE 605 8200 W. INTERSTATE 10 SAN ANTONIO, TX 78230 WHICH IS ALSO REACHABLE BY PHONE AT (210) 472-5040.

18. TRENCH EXCAVATION SAFETY PROTECTION: CONTRACTOR AND/OR CONTRACTORS INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREAS IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH, AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

### SEWER

19. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT NO SANITARY SEWER OVERFLOW (SSO) OCCURS AS A RESULT OF THEIR WORK. ALL CONTRACTOR PERSONNEL RESPONSIBLE FOR SSO PREVENTION AND CONTROL SHALL BE TRAINED ON PROPER RESPONSE. SHOULD AN SSO OCCUR, THE CONTRACTOR SHALL:

- IDENTIFY THE SOURCE OF THE SSO AND NOTIFY SAWS EMERGENCY OPERATIONS CENTER IMMEDIATELY AT 210-704-SAWS (210-704-7297). PROVIDE THE ADDRESS OF THE SPILL AND AN ESTIMATED VOLUME OR FLOW.
- ATTEMPT TO ELIMINATE THE SOURCE OF THE SSO.
- CONTAIN SEWAGE FROM THE SSO TO THE EXTENT OF PREVENTING A POSSIBLE CONTAMINATION OF WATERWAYS.
- CLEAN UP SPILL SITE (RETURN CONTAINED SEWAGE TO THE COLLECTION SYSTEM IF POSSIBLE) AND PROPERLY DISPOSE OF CONTAMINATED SOIL/MATERIALS.
- CLEAN THE AFFECTED SEWER MAINS AND REMOVE ANY DEBRIS.
- MEET ALL POST-SSO REQUIREMENTS AS PER THE EPA CONSENT DECREE, INCLUDING LINE CLEANING AND TELEVISIONG THE AFFECTED SEWER MAINS (AT SAWS DIRECTOR) WITHIN 24 HOURS.

SHOULD THE CONTRACTOR FAIL TO ADDRESS AN SSO IMMEDIATELY AND TO SAWS SATISFACTION, THEY WILL BE RESPONSIBLE FOR ALL COSTS INCURRED BY SAWS, INCLUDING ANY FINES FROM EPA.

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

24. THE CONTRACTOR SHALL PROVIDE BYPASS PUMPING OF SEWAGE AROUND EACH SEGMENT OF PIPE TO BE REPLACED,

IN ACCORDANCE WITH SAWS STANDARD SPECIFICATION ITEM NO. 865, "BYPASS PUMPING SMALL DIAMETER SANITARY SEWER MAINS" AND STANDARD SPECIFICATION ITEM NO. 864, "BYPASS PUMPING LARGE DIAMETER SANITARY SEWER MAINS" AS APPLICABLE. PAYMENT FOR SUCH WORK WILL BE MADE UNDER THE APPROPRIATE BID ITEM ASSOCIATED WITH SANITARY SEWER BYPASS PUMPING IN ACCORDANCE WITH SAWS STANDARD SPECIFICATIONS 865 AND 864.

25. PRIOR TO TIE-INS, ANY SHUTDOWNS OF EXISTING FORCE MAINS OF ANY SIZE MUST BE COORDINATED WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT 210-233-3500 AND/OR SAWS PRODUCTION GROUPS AT LEAST TWO WEEKS OR MORE IN ADVANCE OF THE SHUTDOWN. THE CONTRACTOR MUST ALSO PROVIDE A SEQUENCE OF WORK AS RELATED TO THE TIE-INS; THIS IS AT NO ADDITIONAL COST TO SAWS OR THE PROJECT AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK ACCORDINGLY.

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

27. MANHOLE REMOVAL: WHERE EXISTING MANHOLES ARE TO BE REPLACED BY THE CONTRACTOR, THE EXISTING MANHOLES SHALL BE REMOVED. (NSPI)

28. SMART MANHOLE COVERS: THE CONTRACTOR SHALL NOTIFY SAWS EOC AT 210-704-SAWS (210-233-7297) AND EITHER AMERICA ESPINOZA AT 210-233-2934 OR JOSE A. MARTINEZ AT 210-233-3071 A MINIMUM OF 72 HOURS, NOT COUNTING WEEKENDS OR SAWS HOLIDAYS, BEFORE WORKING ON THE PIPE OR MANHOLE. IN ORDER TO HAVE SAWS REMOVE THE SMART COVER, ANY DAMAGE DONE TO THE SMART COVER WILL BE CHARGED TO THE CONTRACTOR THROUGH A CHANGE ORDER.

29. FLOW METERS IN MANHOLES: THE CONTRACTOR SHALL NOTIFY BOBBY JOHNSON AT 210-233-3493 OR ABEL BORUAY AT 210-233-3704 A MINIMUM OF 72 HOURS, NOT COUNTING WEEKENDS OR SAWS HOLIDAYS, BEFORE WORKING ON THE PIPE OR MANHOLE. IN ORDER TO HAVE SAWS REMOVE THE FLOW METER IN THE MANHOLE, ANY DAMAGE DONE TO THE FLOW METER WILL BE CHARGED TO THE CONTRACTOR THROUGH A CHANGE ORDER.

### ADDITIONAL MISCELLANEOUS SAWS NOTES

1. THE CONTRACTOR SHALL NOT PROCEED WITH ANY PIPE INSTALLATION WORK UNTIL THEY OBTAIN A NOTICE TO PROCEED FROM SAWS.

2. THE CONTRACTOR SHALL MAINTAIN SERVICE TO ALL EXISTING SANITARY SEWERS AT ALL TIMES DURING CONSTRUCTION.

3. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181, CITY PUBLIC SERVICE MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND GAS VALVES THAT ARE IN THE PROJECT AREAS.

4. SEWER PIPE CONNECTIONS TO PRE-CAST MANHOLES WILL BE COMPRESSION JOINTS AS APPROVED BY SAWS. MECHANICAL JOINT "BOOT TYPE" CONNECTIONS ALONE WILL NOT BE ALLOWED. "BOOT TYPE" JOINTS MAY BE USED IN CONJUNCTION WITH COMPRESSION JOINTS AS APPROVED BY SAWS. ANY CHANGES FROM THESE METHODS MUST BE APPROVED BY SAWS.

5. WHERE REQUIRED, CONCRETE ENCASEMENT SHALL BE PLACED FOR FULL WIDTH OF THE TRENCH TO A PLANE 8" ABOVE THE TOP OF THE PIPE, WITH PAY LIMITS AS SHOWN ON THE ITEM NO. DD-858-01.

6. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION. THE CONTRACTOR SHALL NOT PERMANENTLY PLACE ANY WASTE MATERIALS IN THE 100-YEAR FLOODPLAIN WITHOUT FIRST OBTAINING AN APPROVAL FLOODPLAIN DEVELOPMENT PERMIT.

7. STORM WATER PROTECTION:

A. THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY AND ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIRE EROSION AND SEDIMENTATION CONTROL FOR CONSTRUCTION OF SEWER COLLECTION SYSTEMS. DEVELOPER OR AUTHORIZED REPRESENTATIVE SHALL PROVIDE EROSION AND SEDIMENTATION CONTROL AS NOTED ON THE PROJECT'S PLAN AND PROFILE SHEETS.

B. AT A MINIMUM THESE CONTROLS SHALL CONSIST OF ROCK BERMS AND/OR SILT FENCES CONSTRUCTED PARALLEL TO AND DOWN GRADIENT FROM THE TRENCHES. THE ROCK BERM OR SILT FENCES SHALL BE INSTALLED IN A MANNER SUCH THAT ANY RAINFALL RUNOFF SHALL BE FILTERED. HAY BALES SHALL NOT BE USED FOR TEMPORARY EROSION AND SEDIMENTATION CONTROLS.

C. ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS MUST BE INSTALLED PRIOR TO CONSTRUCTION, SHALL BE MAINTAINED DURING CONSTRUCTION, AND SHALL BE REMOVED WHEN VEGETATION IS ESTABLISHED AND THE CONSTRUCTION AREA IS STABILIZED. ADDITIONAL PROTECTION MAY BE NECESSARY IF EXCESSIVE SOLIDS ARE BEING DISCHARGED FROM THE SITE.

15. ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED BY THE CONTRACTOR AT FINAL ACCEPTANCE OF THE PROJECT BY THE SAN ANTONIO WATER SYSTEM.

16. PLACEMENT OF SUCH CONTROLS SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION PLANS. ACTUAL LOCATIONS MAY VARY SLIGHTLY FROM THE PLANS, BUT WILL BE VERIFIED BY THE ENGINEER/INSPECTOR IN THE FIELD PRIOR TO SEWER LINE CONSTRUCTION. THE CONTRACTOR AND CITY INSPECTOR SHALL INSPECT THE CONTROLS AT WEEKLY INTERVALS AND AFTER EVERY SIGNIFICANT RAINFALL TO INSURE SIGNIFICANT DISTURBANCE TO THE STRUCTURES HAS NOT OCCURRED. SEDIMENT DEPOSITED AFTER A SIGNIFICANT RAINFALL SHALL BE REMOVED FROM THE SITE OR PLACED IN AN APPROVED DESIGNATED SOIL DISPOSAL AREA.

17. A DEFLECTION TEST SHALL BE PERFORMED ON ALL FLEXIBLE PIPE. THE TEST SHALL BE CONDUCTED AFTER INITIAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. ITEM NO. 849

18. ALL MAINS MUST PASS AIR TESTING PER ITEM NO. 849 IN THE STANDARD SPECIFICATIONS PRIOR TO ACCEPTANCE BY THE SAN ANTONIO WATER SYSTEM.

19. ALL MAINS MUST COMPLY WITH ITEM NO. 868 OF SEWER MAIN CLEANING.

20. WATER LETTING THE BACKFILL WITHIN A STREET WILL NOT BE PERMITTED. SANITARY SEWER TRENCHES SUBJECT TO TRAFFIC SHALL CONFORM TO THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND SAWS ITEM 804.

21. SANITARY SEWER MAIN CONNECTIONS MADE DIRECTLY TO EXISTING MANHOLES WILL REQUIRE SUCCESSFUL TESTING OF THE MANHOLES IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS ITEM 849.

22. AFTER CONSTRUCTION, TESTING WILL BE DONE BY T.V. CAMERA BY THE CONTRACTOR AND OBSERVED BY INSPECTOR, AND WASTEWATER ENGINEERING PERSONNEL AS THE CAMERA IS RUN THROUGH THE LINES. ANY ABNORMALITIES, SUCH AS BROKEN PIPE OR MISALIGNED JOINTS, MUST BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.

23. A COPY OF ALL TESTING REPORTS SHALL BE FORWARDED TO THE SAN ANTONIO WATER SYSTEM CONSTRUCTION INSPECTION DIVISION.

24. NO EXTRA PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SCHEDULE. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER THE PAY ITEM TO WHICH IT RELATES.

25. THE DEVELOPER DEDICATES THE SANITARY SEWER MAINS UPON COMPLETION BY THE DEVELOPER AND ACCEPTANCE BY THE SAN ANTONIO WATER SYSTEM. THE SAN ANTONIO WATER SYSTEM WILL OWN AND MAINTAIN SAID SANITARY SEWER MAINS WHICH ARE LOCATED WITHIN THIS PARTICULAR SUBDIVISION. (AS APPLICABLE)

26. WORK COMPLETED BY THE CONTRACTOR WHICH HAS NOT RECEIVED CONSENT OF THE SAN ANTONIO WATER SYSTEM CONSTRUCTION INSPECTION DIVISION WILL BE SUBJECT TO REMOVAL AND REPLACEMENT BY AND AT THE EXPENSE OF THE CONTRACTOR.

27. CONTRACTOR SHALL ABIDE BY ALL APPLICABLE GOVERNMENTAL AND REGULATORY STANDARDS AND REQUIREMENTS AND OBTAIN ALL NECESSARY PERMITS AND APPROVALS FOR CONSTRUCTION OF THE PIPELINE FACILITIES SHOWN IN THE PLANS.

28. THE CONTRACTOR SHALL EXCAVATE THE TOP 12 INCHES OF TOPSOIL AND STOCKPILE IT SEPARATELY FROM THE GENERAL EXCAVATION. A SUITABLE VOLUME OF TOPSOIL SHALL BE EXCAVATED TO PLACE A MINIMUM OF 12 INCHES OF TOPSOIL OVER ALL EXCAVATED OR BACKFILLED AREAS. TOPSOILING IS NOT REQUIRED WHERE PAVEMENT, CONCRETE CAP, OR PAVED FACILITIES ARE REQUIRED AT THE SURFACE. CONTRACTOR MAY MOUND EXCESS TRENCH EXCAVATED MATERIAL OVER PIPE UP TO 1 FOOT IN HEIGHT ABOVE NATURAL GRADE. MOUND SHALL BE COMPLETELY COVERED WITH 12 INCHES OF TOPSOIL. MOUND SHALL BE FREE OF BRUSH AND ROCK. MOUNDING IS NOT PERMITTED IN DEVELOPED PROPERTIES, ROADS, CREEKS, FLOODPLAINS, PAVED AREAS, CULTIVATED FIELDS OR OTHER AREAS DIRECTED BY NATIVE REPRESENTATIVE. RESTORE GROUND TO ORIGINAL GRADE AND PONDING OF STORM WATER RUNOFF ON ALL GROUND DISTURBED BY CONSTRUCTION ACTIVITIES.

29. CONSTRUCTION SURVEYING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR INCLUDING BUT NOT LIMITED TO LIMITS OF PERMANENT EASEMENT AND TEMPORARY EASEMENTS, PIPE ALIGNMENT, APPURTENANCE LOCATION AND ROAD CROSSINGS. THE CONTRACTOR SHALL VERIFY ALL CONTROL MONUMENTATION PRIOR TO BEGINNING CONSTRUCTION.

30. ALL PIPELINES 24" AND LARGER SHALL HAVE A MINIMUM COVER OF 48". PIPE SMALLER THAN 24" SHALL HAVE A MINIMUM COVER OF 36" (UNLESS NOTED OTHERWISE). PIPES SHALL BE ROUTED AS SHOWN UNLESS MINOR REVISIONS ARE NECESSARY TO MISS EXISTING PIPES, STRUCTURES, ETC. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL FITTINGS AND ADAPTORS REQUIRED TO MAKE THE ROUTING CHANGES. CONTRACTOR SHALL INCLUDE COST FOR THIS IN THE BID.

31. CONTRACTOR SHALL MAKE CONNECTIONS TO EXISTING PIPE, STRUCTURES, EQUIPMENT, ETC. AS REQUIRED AND SHALL PROVIDE ALL FITTINGS, ADAPTORS AND APPURTENANCES REQUIRED TO MAKE THE CONNECTIONS. PROVIDE ALL SUPPORTS REQUIRED FOR A RIGID INSTALLATION AND TO HAVE A COMPLETE AND WORKING SYSTEM.

32. VARIOUS LOCATIONS OF THE WORK ARE SUBJECT TO FLOODING AND STANDING WATER DURING WET WEATHER PERIODS. CONTRACTOR SHALL PLAN THIS WORK FOR DRY WEATHER PERIODS AND PROVIDE DEWATERING AND OTHER WET WEATHER PROVISIONS AS INCIDENTAL WORK.

33. CONTRACTOR SHALL COORDINATE HIS/HER PROPOSED CONSTRUCTION WITH OTHER CONTRACTORS IN THE EVENT OF THE OTHER CONTRACTORS DOING WORK IN THE SAME AREA SIMULTANEOUSLY WITH HIS/HER PROJECT. THIS INCLUDES, BUT NOT LIMITED TO, ALL CONNECTION POINTS OR OTHER SPECIAL ITEMS AS REQUIRED FOR TESTING.

34. CONTRACTOR SHALL DISPOSE OF ALL EXCESS MATERIAL, CONSTRUCTION, RUBBLE AND TRASH. ALL TRASH SHALL BE PICKED-UP AND REMOVED AT THE END OF EACH DAY.

35. NO BURNING OR BLASTING IS ALLOWED.

36. THE PERMANENT AND TEMPORARY EASEMENTS ARE SHOWN ON THE DRAWINGS. THE CONTRACTOR MAY ACQUIRE ADDITIONAL TEMPORARY CONSTRUCTION EASEMENTS AT HIS/HER OWN COST, IF HE/SHE SO CHOOSES. IF THE CONTRACTOR ACQUIRES ADDITIONAL TEMPORARY EASEMENTS, HE/SHE SHALL PROVIDE COPIES OF THE WRITTEN AGREEMENT TO SAWS. THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR ANY DAMAGE AS A RESULT OF USE OF EASEMENTS.

### SUPPLEMENTARY NOTES

1. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ALL PERMITS.

- CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNER IN ADVANCE OF ANY WORK IN THE OWNERS' PROPERTY. WITHIN THE:
  - BRIGGS RANCH LTD. CARTER SPEER (210-862-8700)
  - BRIGGS RANCH HOA (RUSTLERS TRAIL) (210-862-8700)
  - CONVERGENCE INVESTMENTS, MARIAH UNDERHILL (203-520-4203)

3. WHEN WORKING IN AN AREA WITH LIVESTOCK, THE CONTRACTOR SHALL INSTALL AND MAINTAIN (AT CONTRACTOR'S EXPENSE) THE NECESSARY TEMPORARY FENCING TO KEEP THE LIVESTOCK FROM EXITING THE AREA. ANY ESCAPED LIVESTOCK WILL BE CAPTURED AND RETURNED TO THE AREA AT THE CONTRACTOR'S EXPENSE. CONTRACTOR IS RESPONSIBLE FOR ANY INJURY, DEATH OR DAMAGES RESULTING FROM ESCAPED LIVESTOCK. SEE SPECIAL CONDITION 5.

4. CONTRACTOR TO COORDINATE CONSTRUCTION PHASING WITH PROPERTY OWNER TO FACILITATE CATTLE MANAGEMENT WHERE APPLICABLE.

5. SMOKING IN THE PROJECT AREA IS PROHIBITED DUE TO TALL GRASS BEING A FIRE HAZARD.

### UNDERGROUND TELEPHONE/COMMUNICATION LINES NOTE

• THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE AS SHOWN ON THESE PLANS HAS BEEN TAKEN FROM THE BEST INFORMATION AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. CONTRACTOR SHALL CONTACT THE TELEPHONE/COMMUNICATION COMPANY CABLE LOCATOR 48 HOURS PRIOR TO EXCAVATION AT 1-800-545-6005. CONTRACTOR SHALL PROTECT AND (AS NECESSARY) INSTALL SHORING FOR TELEPHONE COMPANY FACILITIES DURING CONSTRUCTION.

• CONTRACTOR TO LOCATE AND MAINTAIN IN SERVICE EXISTING ELECTRIC SERVICE TO WELL AND WATER LINES EXTENDING FROM THE WELL. IF THE EXISTING WELL ELECTRIC SERVICE IS FOUND TO BE WITHIN THE PERMANENT SEWER EASEMENT, CONTRACTOR TO RELOCATE THE ELECTRIC SERVICE OUTSIDE THE PERMANENT SEWER EASEMENT. CONTRACTOR TO RELOCATE THE ELECTRIC SERVICE OUTSIDE THE PERMANENT EASEMENT TO A LOCATION COORDINATED WITH THE PROPERTY OWNER.

### TREE PROTECTION NOTES

1. CONTRACTOR TO PROTECT ALL TREES WHEREVER POSSIBLE. DAMAGE TO TREES IDENTIFIED TO BE PROTECTED WILL BE MITIGATED AT THE CONTRACTOR'S SOLE EXPENSE. ALSO, ALL WORK IN PUBLIC RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE CONTROLLING ENTITIES STANDARDS, SPECIFICATIONS AND PERMIT REQUIREMENTS.

2. PROTECT EXISTING TREES SIX INCH (6") DIAMETER AND LARGER. ALL TREES TO BE PRESERVED AS PART OF THE PROJECT SHALL BE PROTECTED AGAINST INJURY OR DAMAGE, INCLUDING CUTTING, SOIL COMPACTION, BREAKING OR SKINNING OF ROOTS, TRUNKS, OR BRANCHES DURING CONSTRUCTION OPERATIONS BY FENCING AS DESCRIBED BELOW. THE TREE PROTECTION SHALL BE PLACED BEFORE ANY EXCAVATION OR GRADING IS BEGUN AND MAINTAINED FOR THE DURATION OF THE CONSTRUCTION WORK. PROTECTION WILL ENCOMPASS THE ROOT PROTECTION ZONE WHICH WILL BE AT MINIMUM ONE FOOT (1.0') RADIUS PER INCH DIAMETER OF THE TREE TRUNK AT 4.5' ABOVE GROUND. NO MATERIAL SHALL BE STORED OR CONSTRUCTION OPERATION SHALL BE CARRIED ON WITHIN THE TREE PROTECTION FENCING, UNLESS AUTHORIZED BY THE OWNER. THE PROTECTION SHALL REMAIN UNTIL ALL WORK IS COMPLETED.

3. NO CONSTRUCTION ACTIVITIES SHALL BE PERFORMED WITHIN 5' FROM THE TRUNK OF A TREE THAT IS PROTECTED. TRENCH SHORING WILL BE REQUIRED INSIDE OF A ROOT PROTECTION ZONE. THE ROOT PROTECTION ZONE IS CALCULATED AS A RADIUS FROM THE TREE TRUNK EQUAL TO ONE FOOT PER DIAMETER INCH OF THE TREE.

4. THIS PROJECT IS SUBJECT TO REGULATIONS ESTABLISHED BY THE CITY OF SAN ANTONIO TREE ORDINANCE.

### HAULING AND STORAGE

• HAULING AND/OR TEMPORARY STORAGE OF EQUIPMENT AND MATERIALS MAY BE NECESSARY, INCLUDING EXCAVATED MATERIAL AND SPOILS. CONTRACTOR SHALL INCLUDE IN HIS BID PRICE ALL COSTS ASSOCIATED WITH HAULING AND OFF-SITE STORAGE OF ALL MATERIALS AND/OR EQUIPMENT. ALSO REFER TO THE PROJECT SPECIFICATIONS.

### EXISTING IMPROVEMENTS

• ALL EXISTING IMPROVEMENTS WITHIN THE PROJECT AREA, WHICH ARE NOT COVERED UNDER THE UNIT PRICE BID PROPOSAL, SHALL BE PROTECTED OR REMOVED AND REPLACED TO EXISTING CONDITION OR BETTER AT NO ADDITIONAL COST TO THE OWNER.

### MISCELLANEOUS NOTES

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL, MONITOR AND MAINTAIN THE STORMWATER POLLUTION PREVENTION PLAN FOR THIS PROJECT.

2. ALL FENCING, GATES, OIL FIELD FACILITIES, SIGNS AND ANY OTHER EXISTING IMPROVEMENTS DAMAGED BY THE CONTRACTOR SHALL BE REPLACED TO ITS ORIGINAL CONDITION OR BETTER AT NO ADDITIONAL COST TO THE OWNER.

3. THE CONTRACTOR, BY PERSONAL EXAMINATION OF THE SITE, SHALL SATISFY HIMSELF/HERSELF WITH THE LOCAL CONDITIONS AND MAKE HIS/HER ESTIMATE OF THE DIFFICULTIES AND UNCERTAINTIES THAT WILL ATTEND THE EXECUTION OF THE PROPOSED WORK. DERIVING INFORMATION FROM PLANS AND SPECIFICATIONS ONLY, WHILE FAILING TO EXAMINE THE SITE, SHALL IN NO WAY RELIEVE THE CONTRACTOR FROM HIS/HER RESPONSIBILITIES OR AFFECT THE RISK OR OBLIGATION ASSUMED BY THE CONTRACTOR FROM FULFILLING ANY CONDITION OF THE CONTRACT.

4. THE CONTRACTOR SHALL MAKE EVERY ATTEMPT TO AVOID DAMAGING EXISTING FACILITIES INCLUDING BUT NOT LIMITED TO WELLS, WATER LINES, PIPING, TANKS, HOSES AND ELECTRICAL.

### TRAFFIC CONTROL NOTE

• CONTRACTOR SHALL PREPARE AND SUBMIT A TRAFFIC CONTROL PLAN TO BEXAR COUNTY FOR REVIEW AND APPROVAL. NECESSARY TRAFFIC CONTROL, DETOUR ROUTING AROUND WORK ACTIVITIES, MAINTENANCE OF DETOUR SIGNS AND FLAGMEN ARE THE CONTRACTOR'S RESPONSIBILITY. UNLESS DIRECTED OTHERWISE, THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE OPEN TRAFFIC LANE (MINIMUM 12 FEET WIDE), CONTROLLED WITH FLAGMEN, DURING WORKING HOURS. DURING ALL NON-WORKING HOURS A MINIMUM OF TWO TRAFFIC LANES (EACH A MINIMUM 12 FEET WIDE) SHALL BE OPEN TO TRAFFIC. CONTRACTOR WILL FURNISH AND MAINTAIN ALL REQUIRED TRAFFIC CONTROL DEVICES PER TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD), TO PROPERLY WARN, GUIDE AND CONTROL TRAFFIC AT ALL TIMES THROUGHOUT CONSTRUCTION.

### TCEQ CRITERIA FOR SEWER MAIN CONSTRUCTION IN THE VICINITY OF WATER MAINS

I. WHERE A SEWER MAIN CROSSES OVER A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN NINE (9) FEET, ALL PORTIONS OF THE SEWER MAIN WITHIN NINE (9) FEET OF THE WATER LINE SHALL BE CONSTRUCTED USING 160 PSI PRESSURE RATED HDPE.

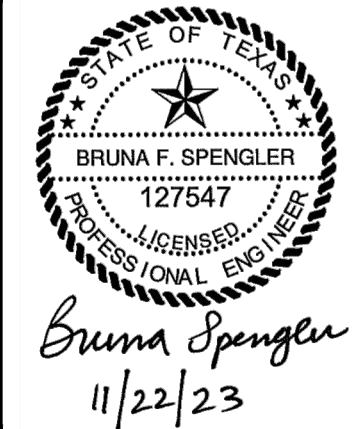
II. WHERE A SEMI-RIGID OR RIGID SEWER MAIN CROSSES UNDER A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN NINE FEET BUT GREATER THAN TWO FEET, THE INITIAL BACKFILL SHALL BE CEMENT STABILIZED SAND (TWO OR MORE BAGS OF CEMENT PER CUBIC YARD OF SAND) FOR ALL SECTIONS OF THE SEWER WITHIN NINE FEET OF THE WATER MAIN.

III. WHERE A SEWER MAIN CROSSES UNDER A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN TWO FEET, THE SEWER MAIN SHALL BE CONSTRUCTED OF HDPE WITH A MINIMUM PRESSURE RATING OF 160 PSI WITHIN NINE FEET OF THE WATER MAIN. SHALL BE PLACED NO CLOSER THAN SIX (6") INCHES BETWEEN OUTER DIAMETERS.

IV. WHERE A SEWER MAIN PARALLELS A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN NINE FEET, THE SEWER MAIN SHALL BE BELOW THE WATER MAIN, SHALL BE CONSTRUCTED OF HDPE WITH A MINIMUM PRESSURE RATING OF 160 PSI FOR BOTH PIPE AND JOINTS FOR A DISTANCE OF NINE FEET BEYOND THE POINT OF CONFLICT. SHALL MAINTAIN A MINIMUM SEPARATION DISTANCE BETWEEN OUTER DIAMETERS OF TWO FEET VERTICALLY AND FOUR FEET HORIZONTALLY.

V. SANITARY SEWER MANHOLES SHALL NOT BE INSTALLED ANY CLOSER THAN NINE FEET TO WATER MAINS.

NO.	REVISION	DATE



**PAPE-DAWSON  
ENGINEERS**

2000 HW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000  
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1008800

**BRIGGS RANCH NORTH OFFSITE UTILITIES**

SAN ANTONIO, TEXAS

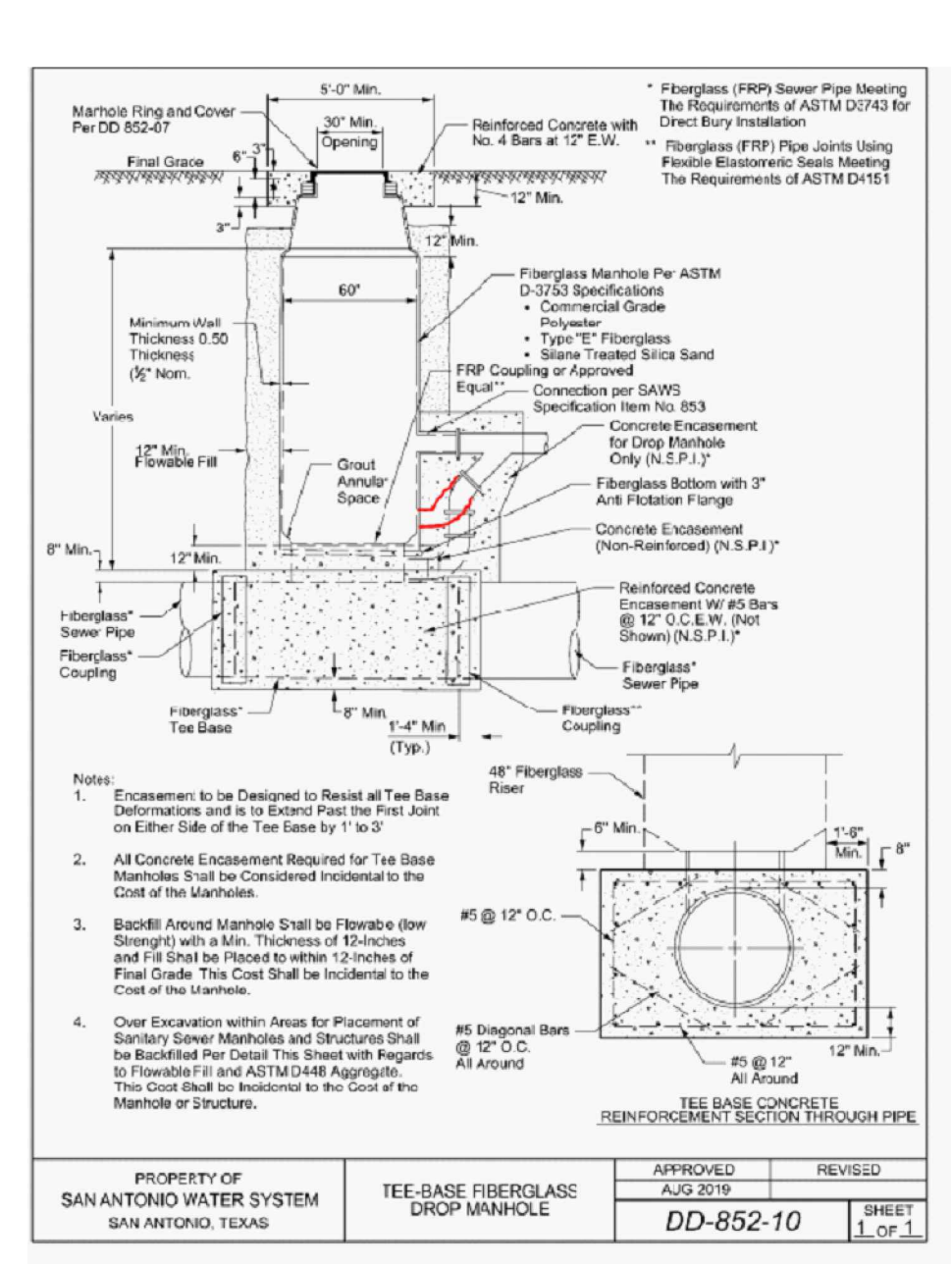
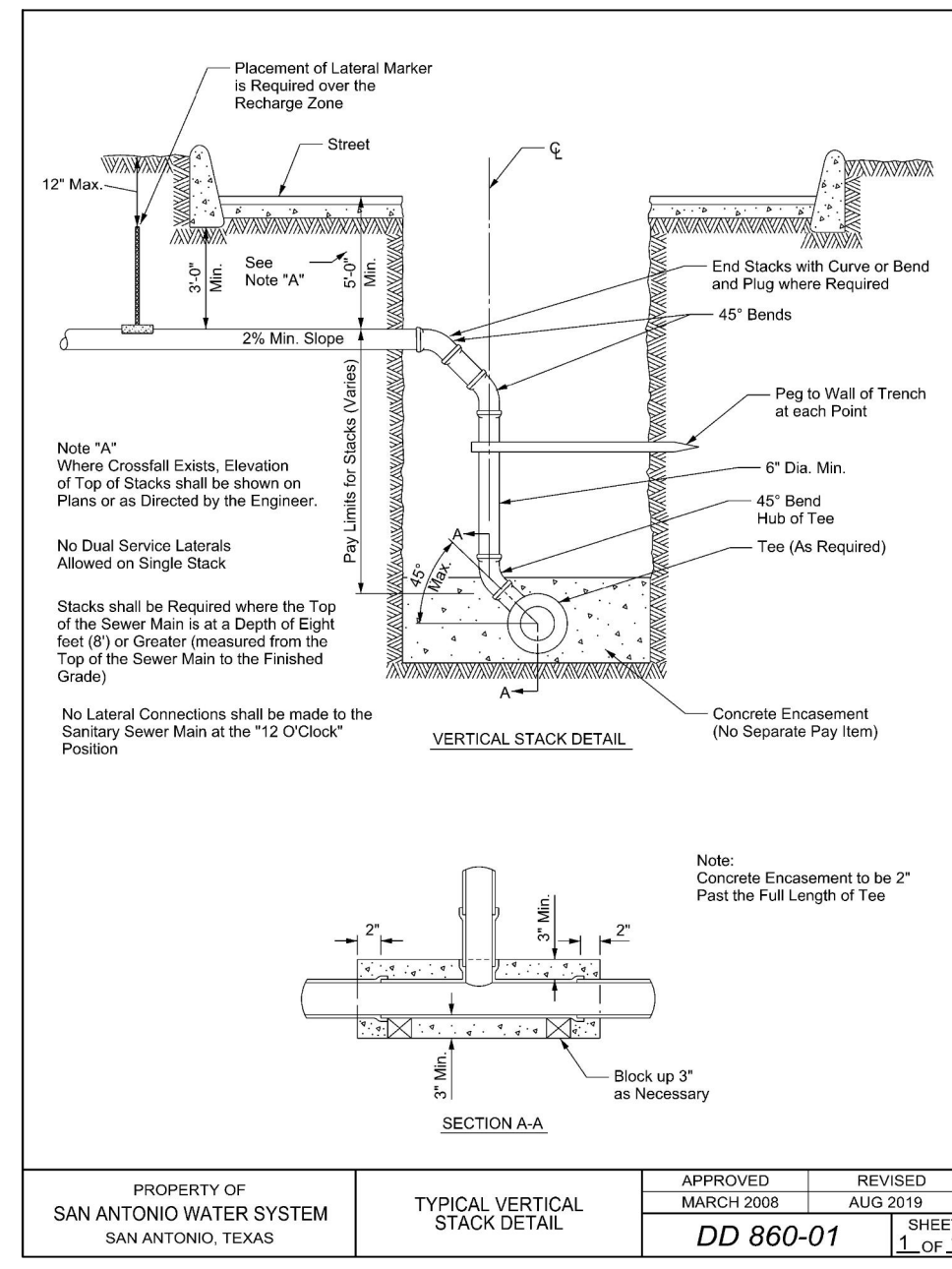
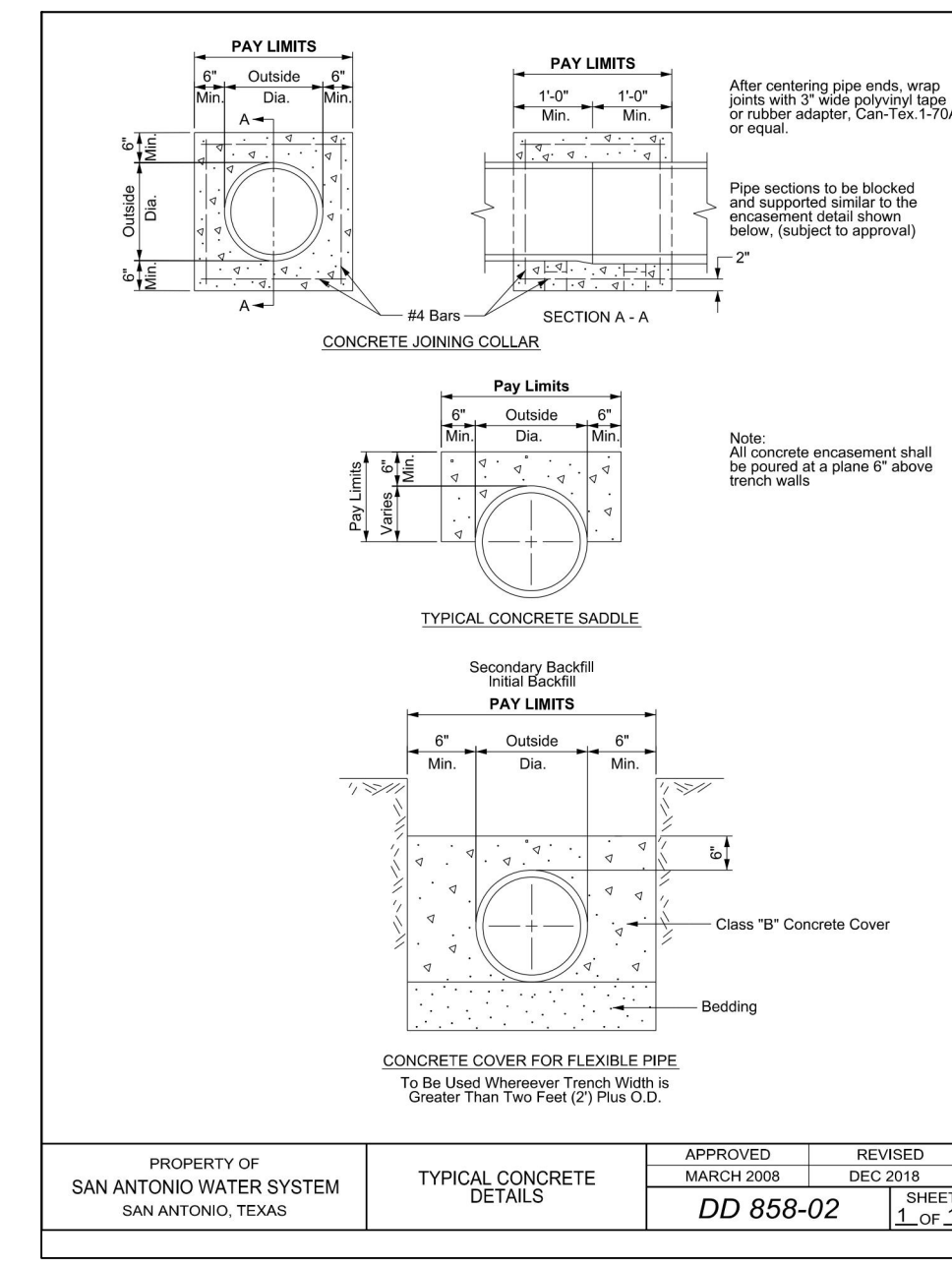
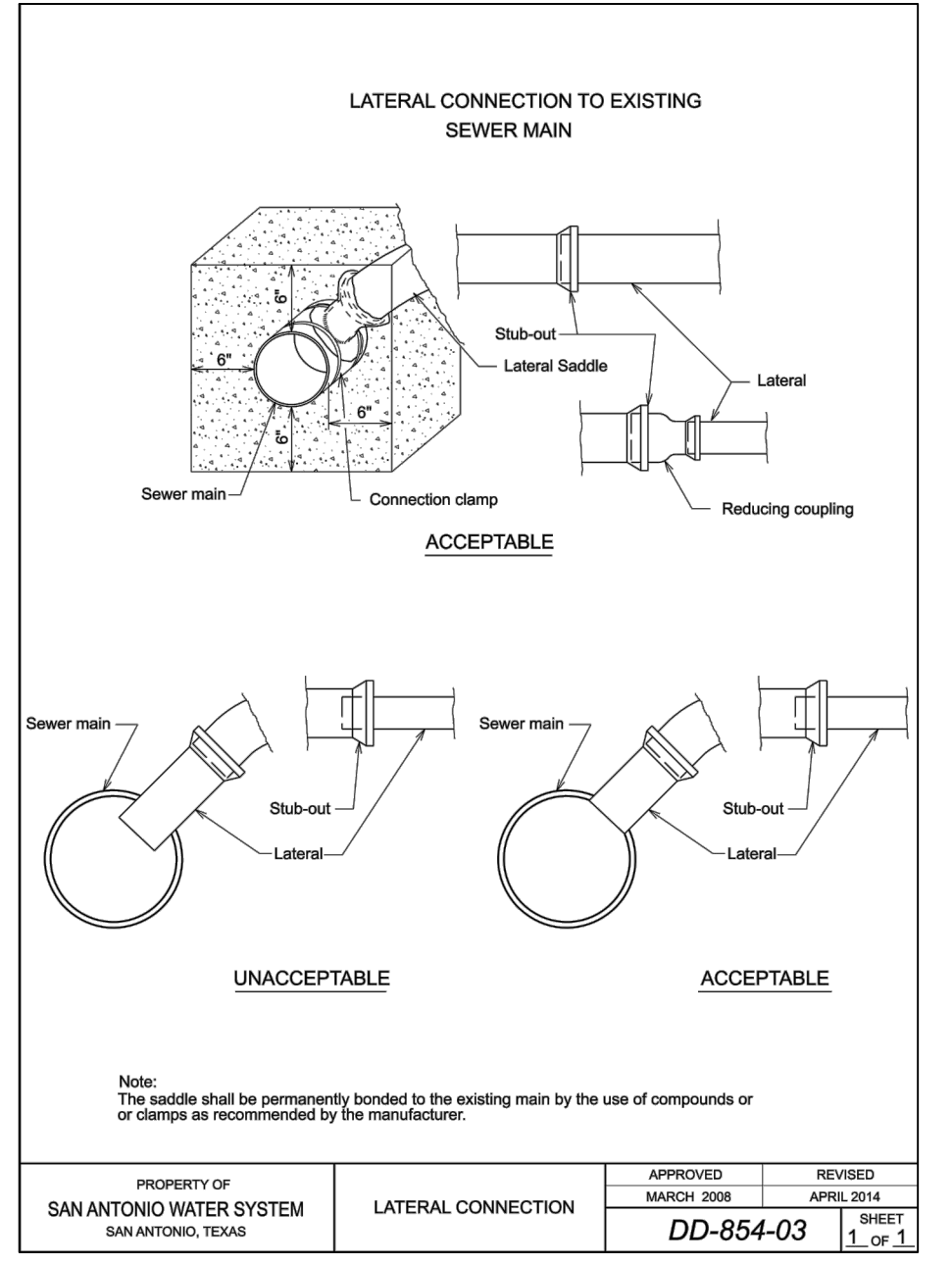
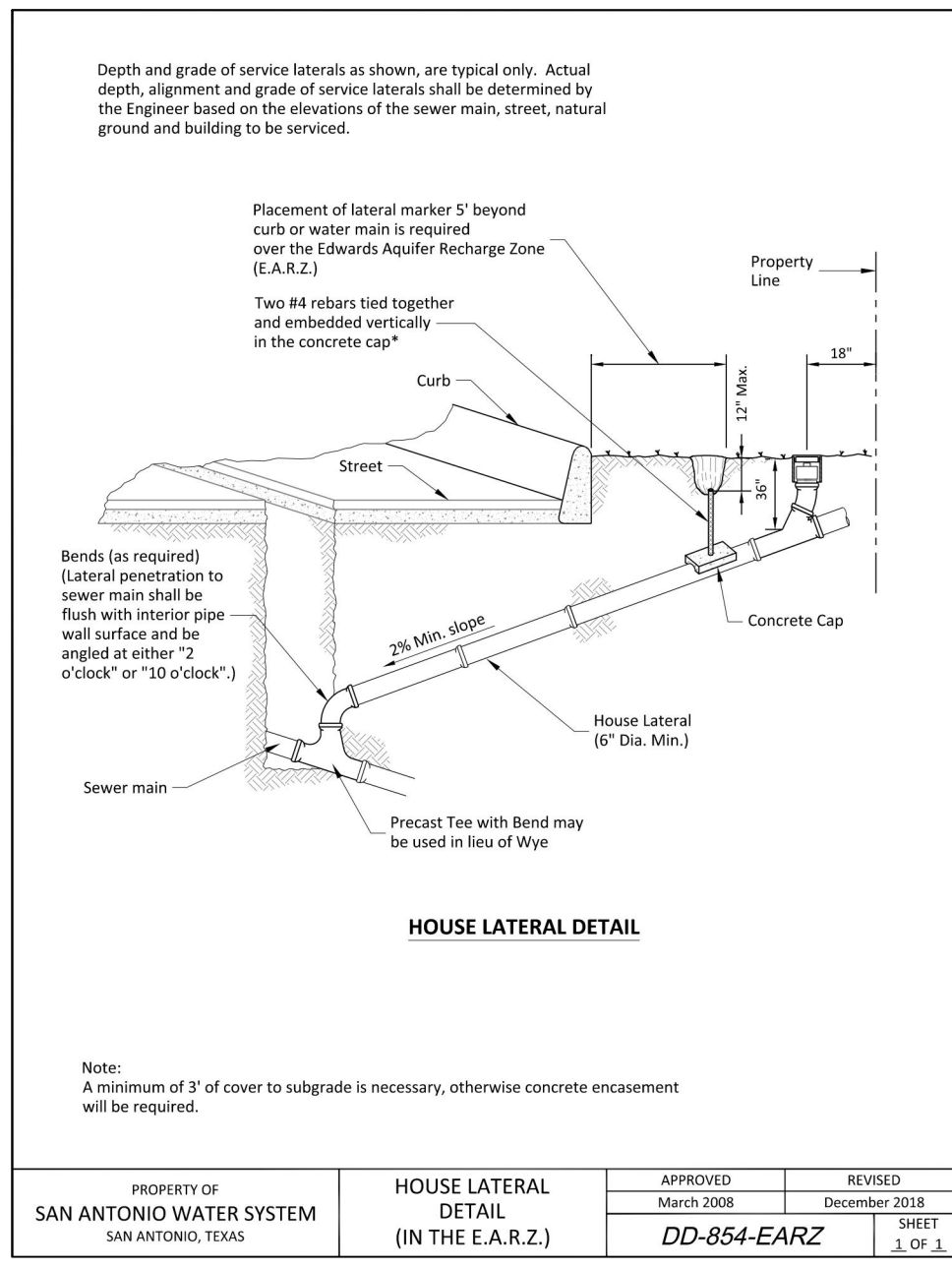
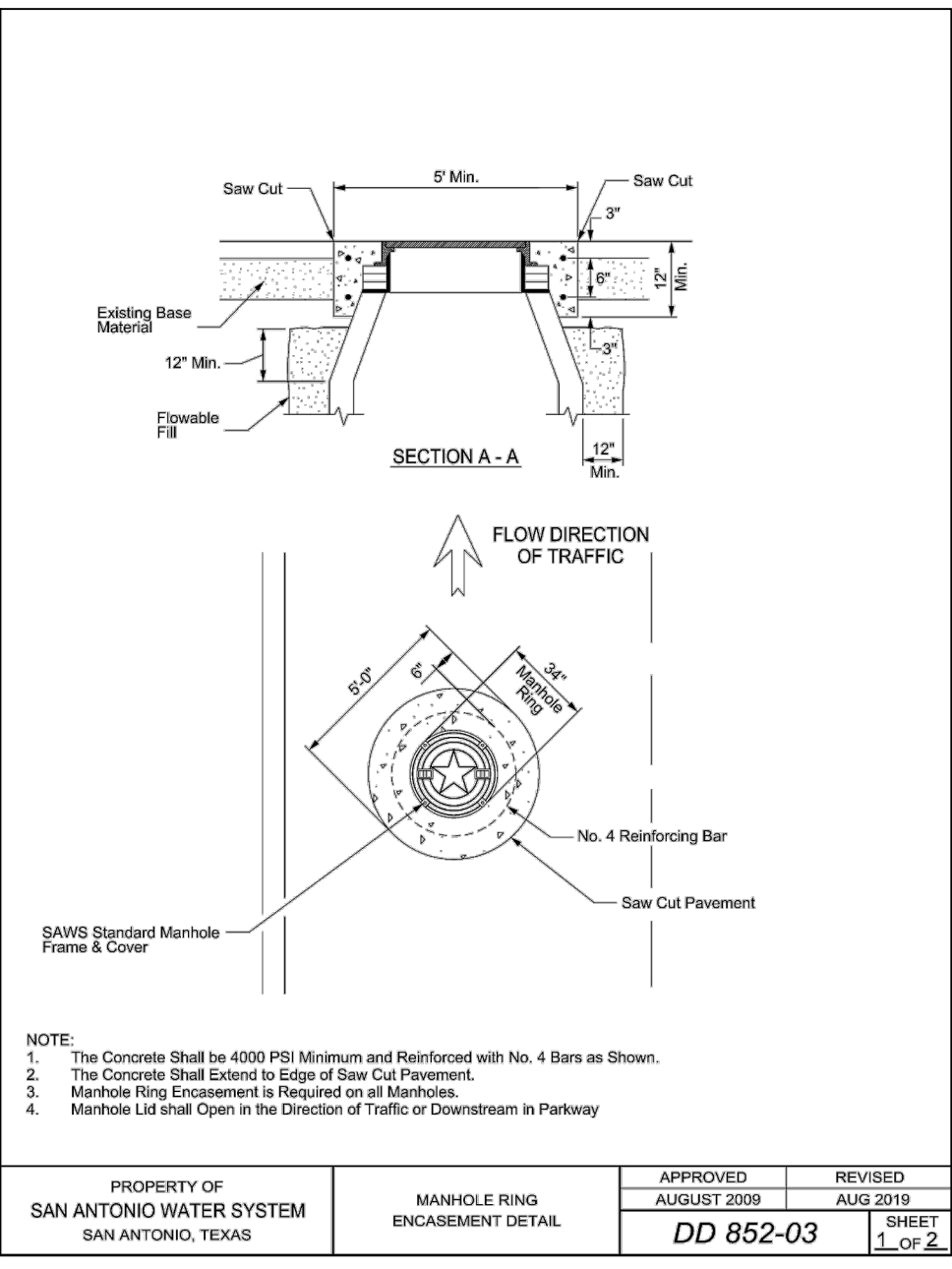
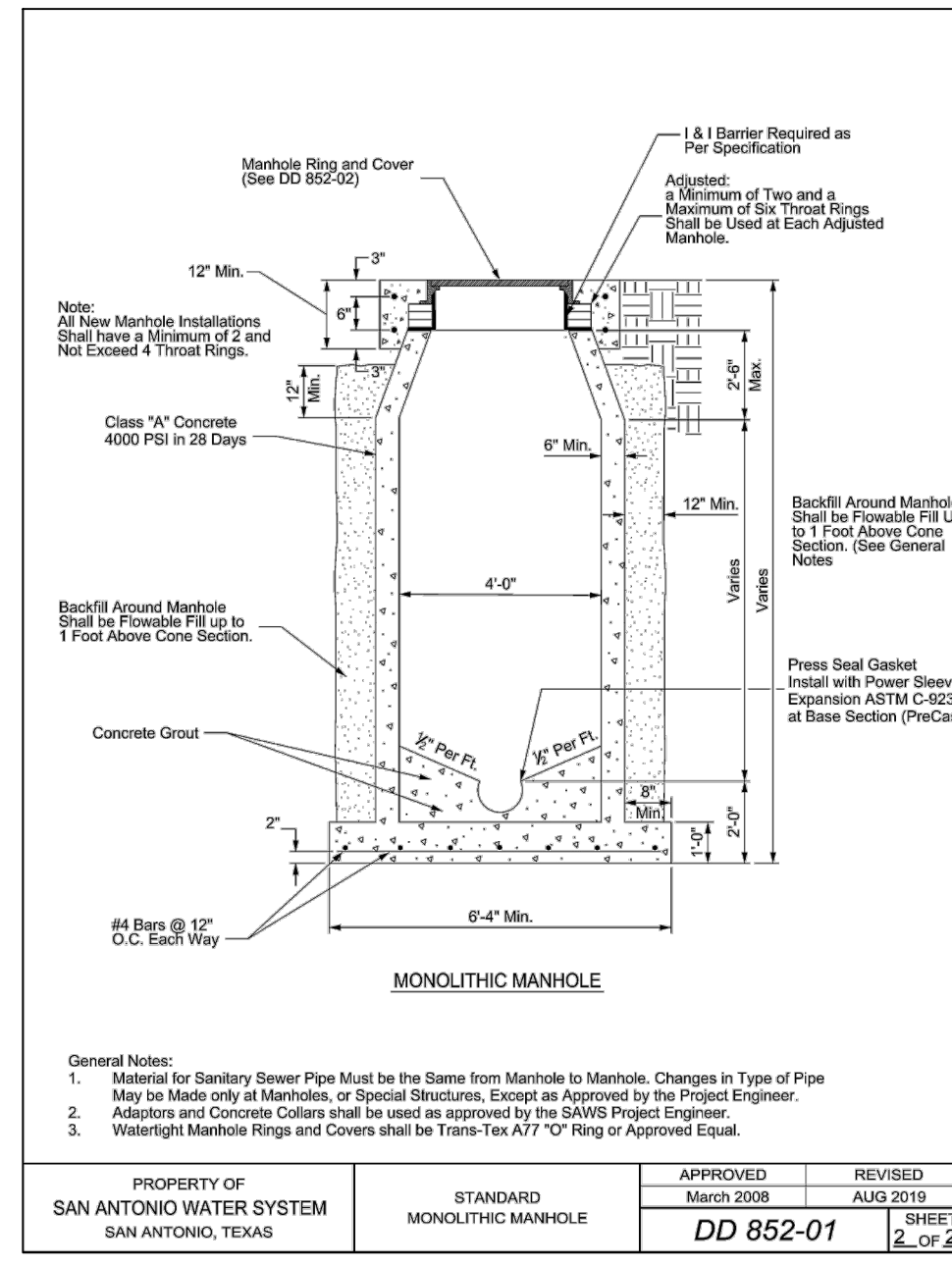
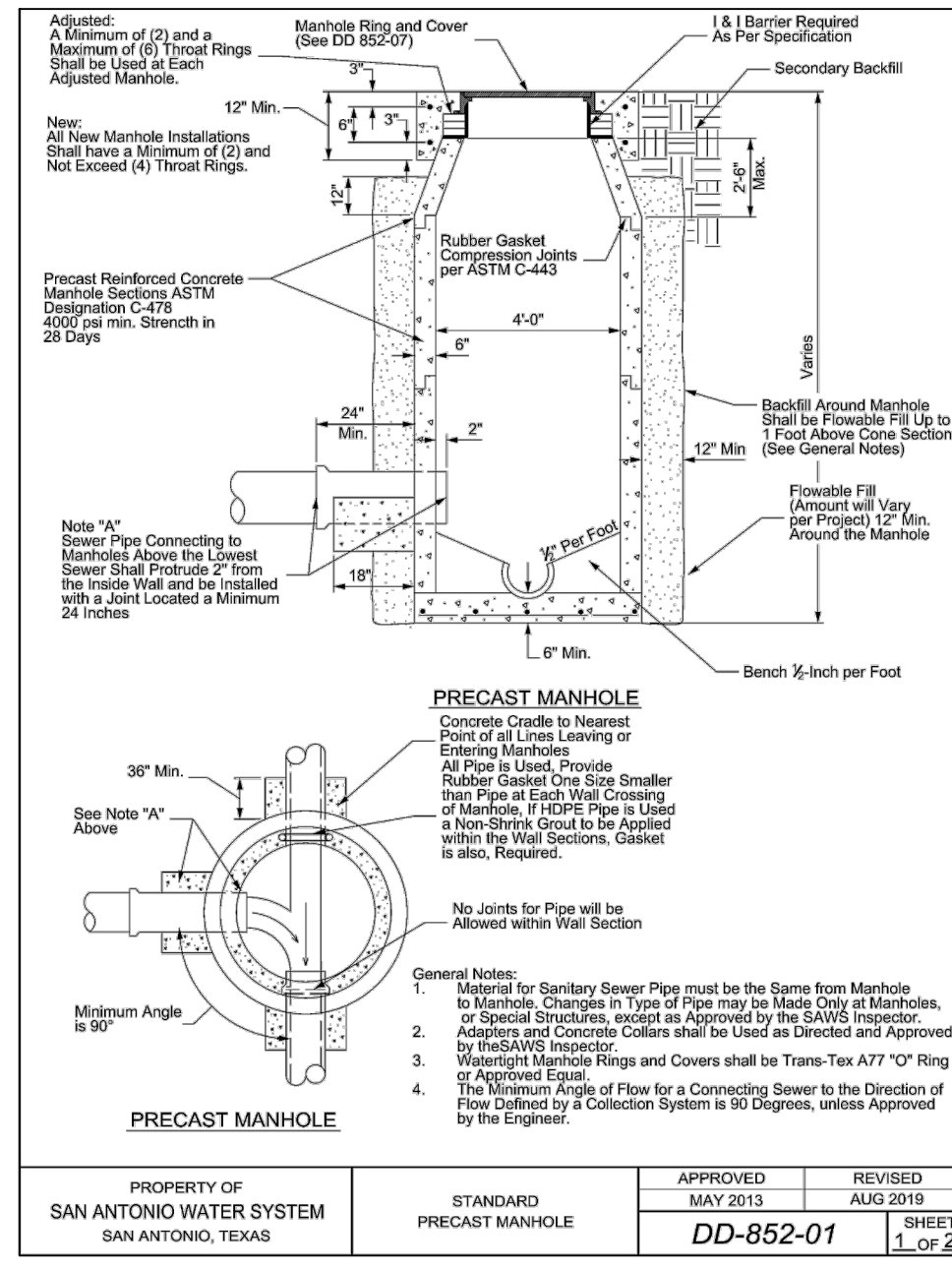
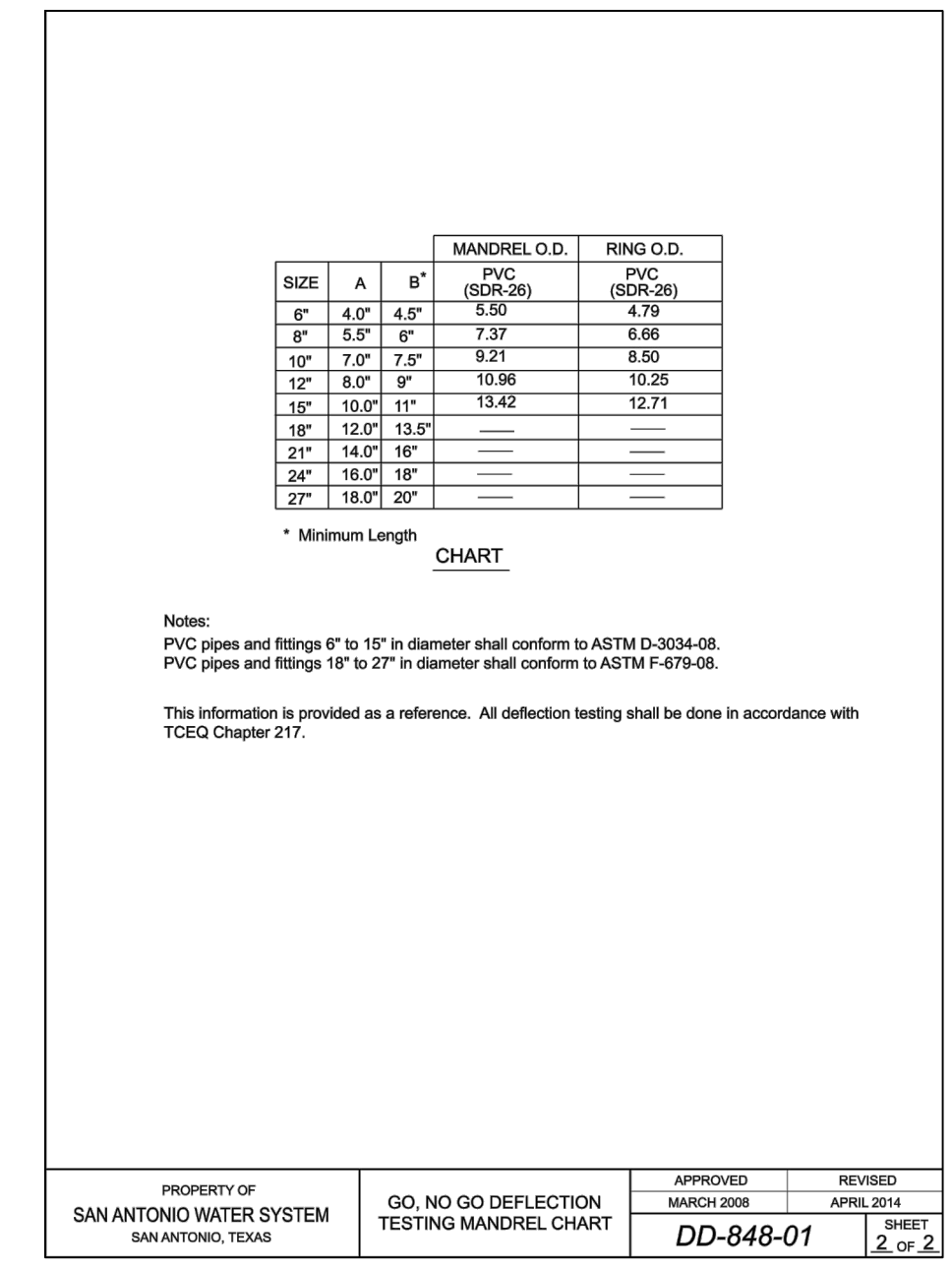
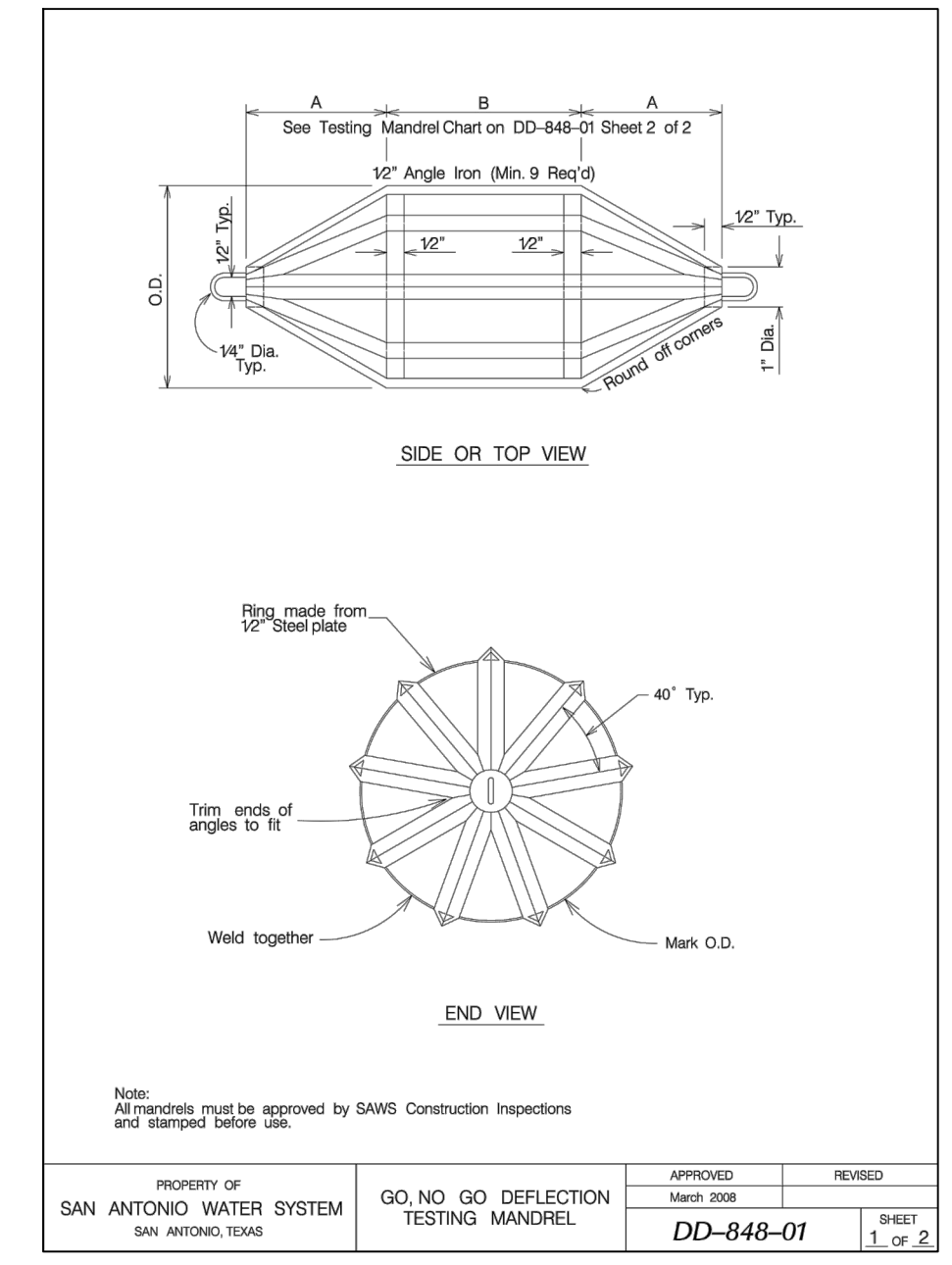
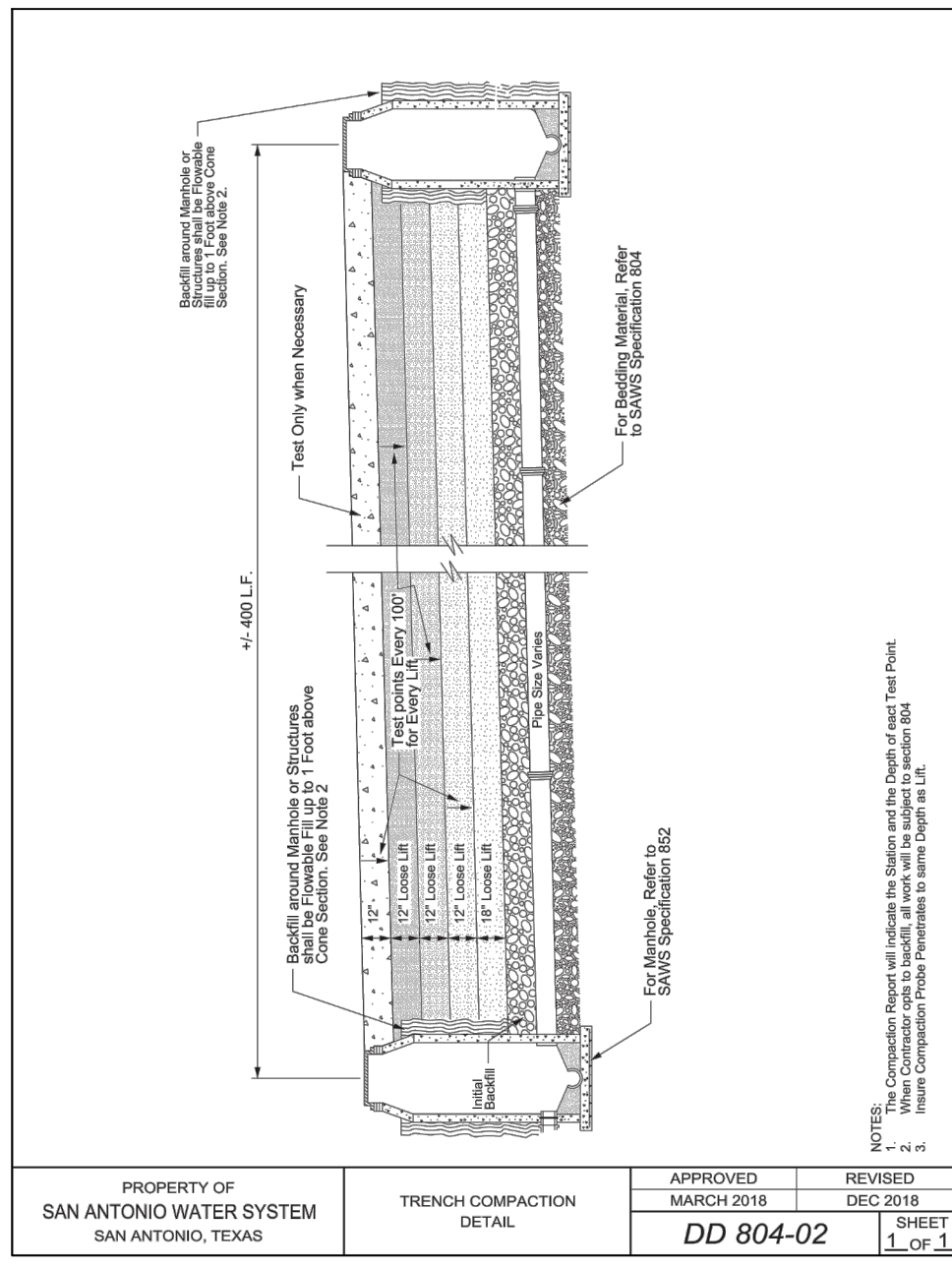
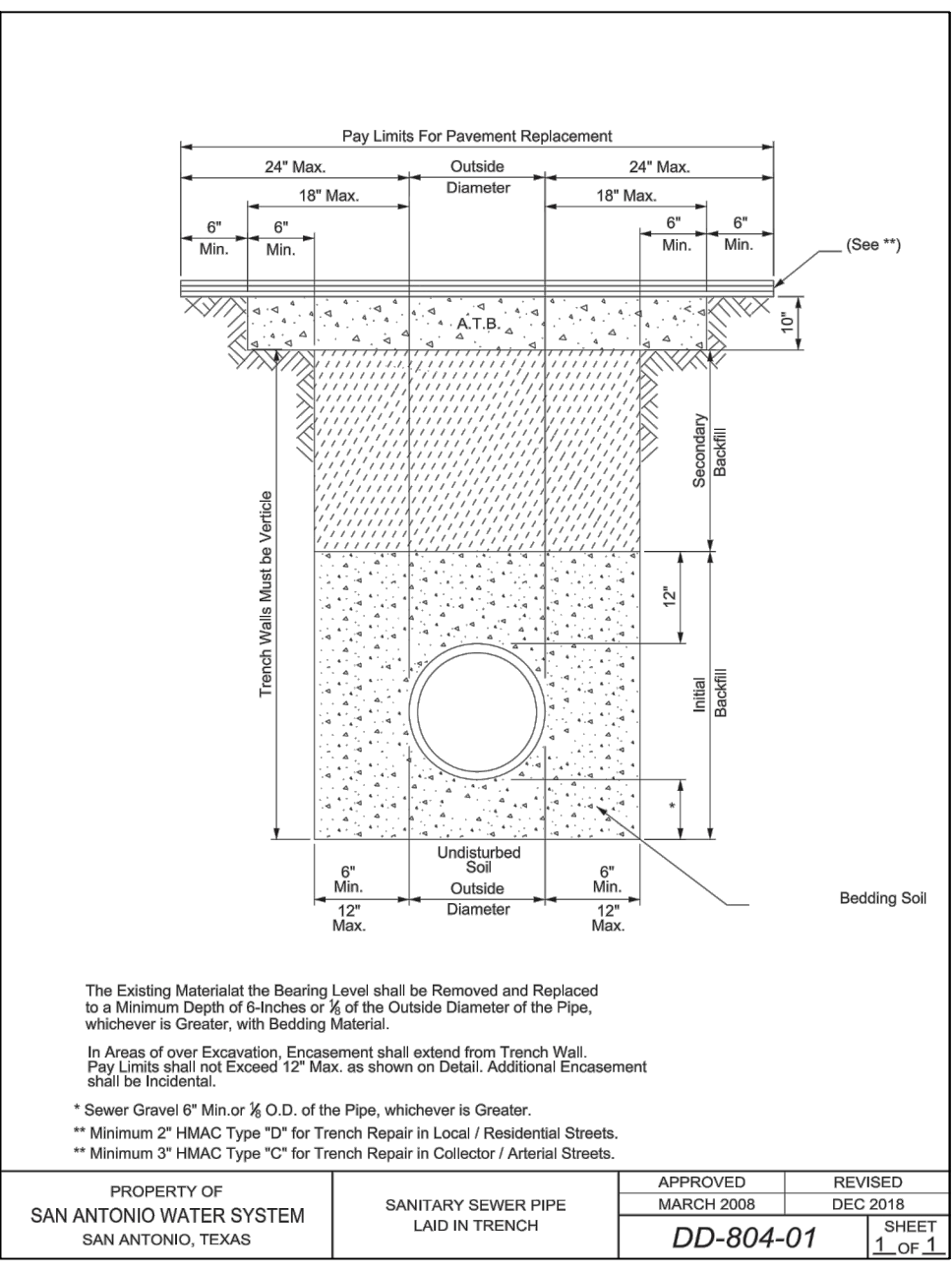
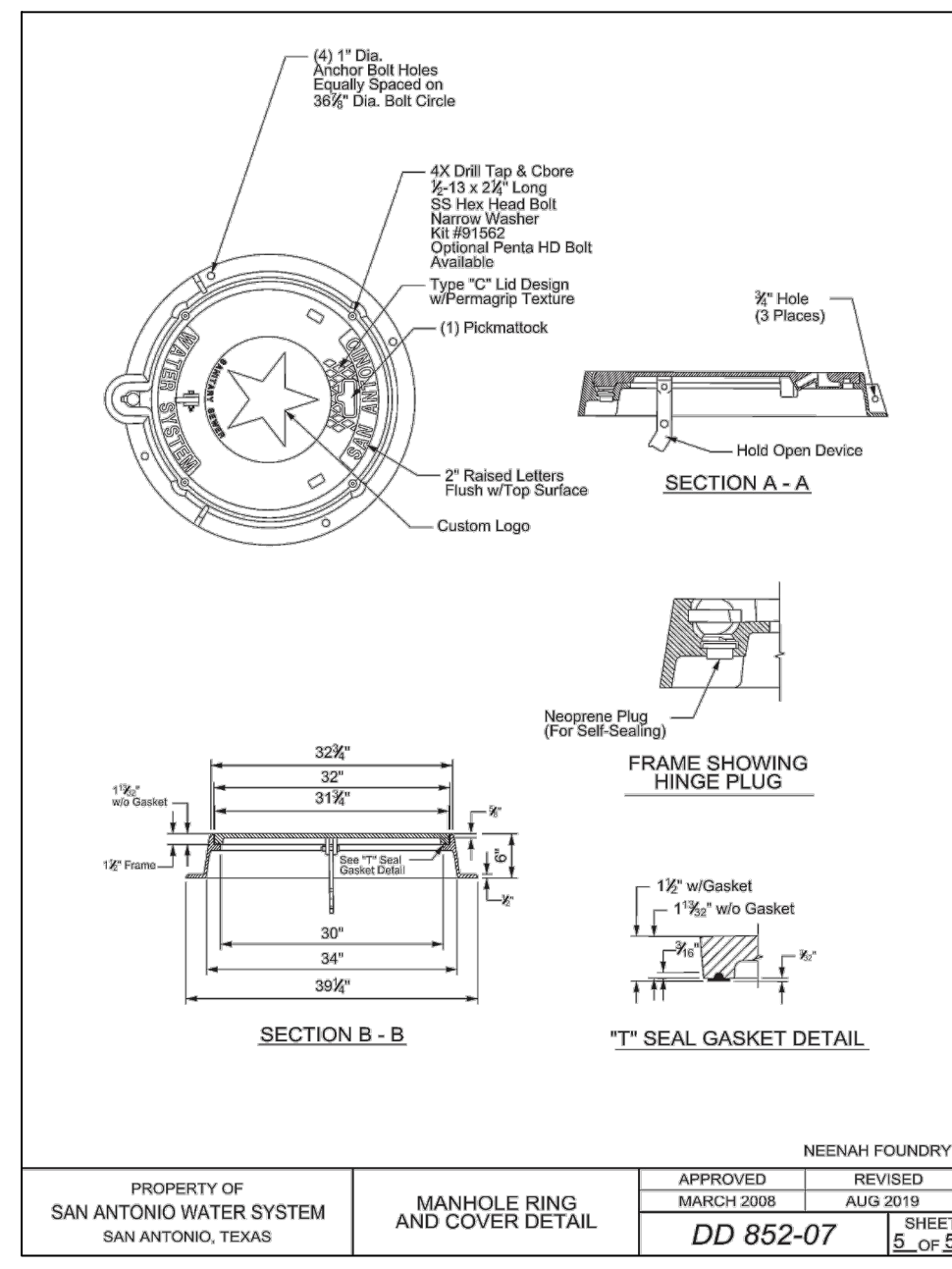
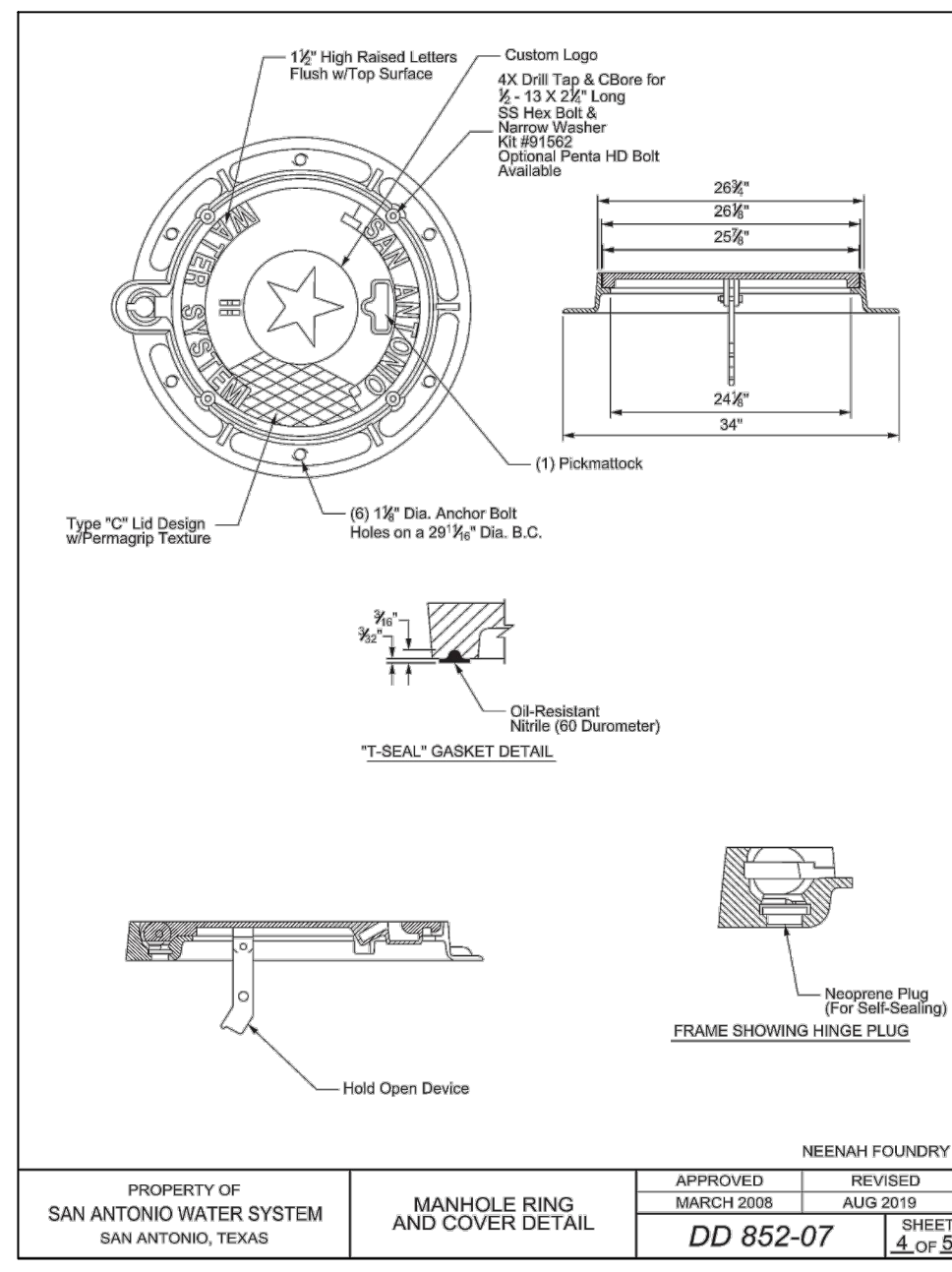
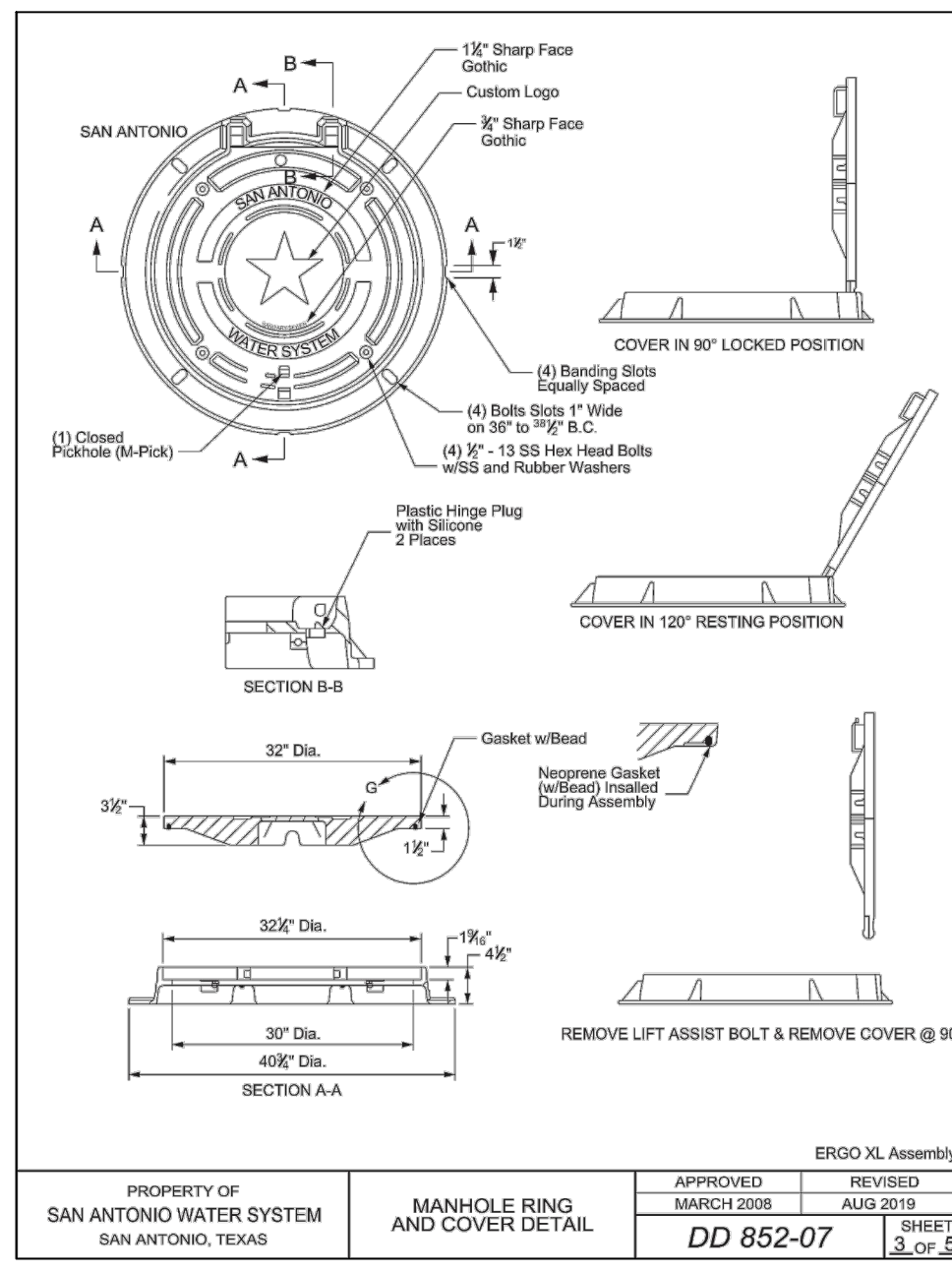
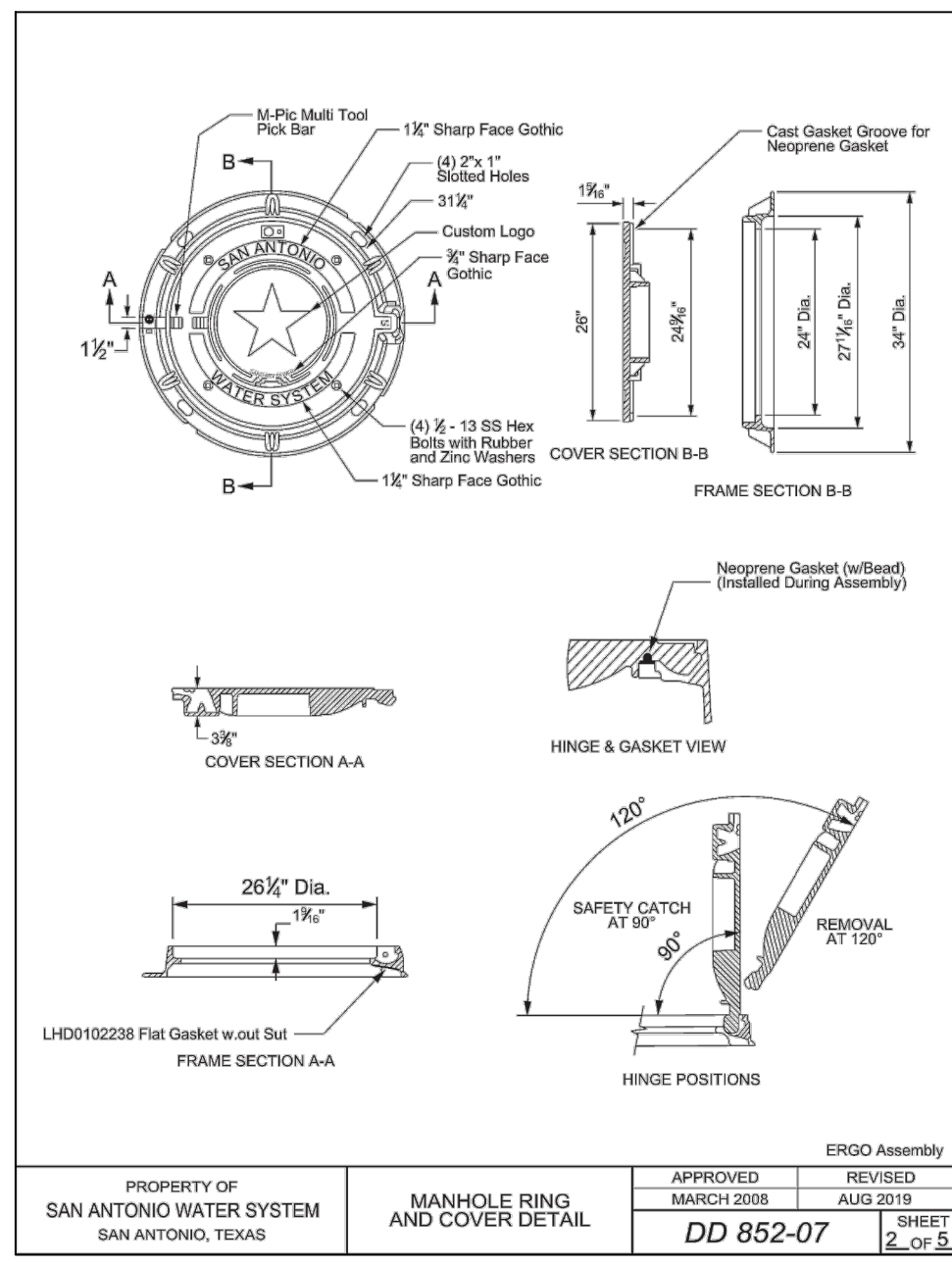
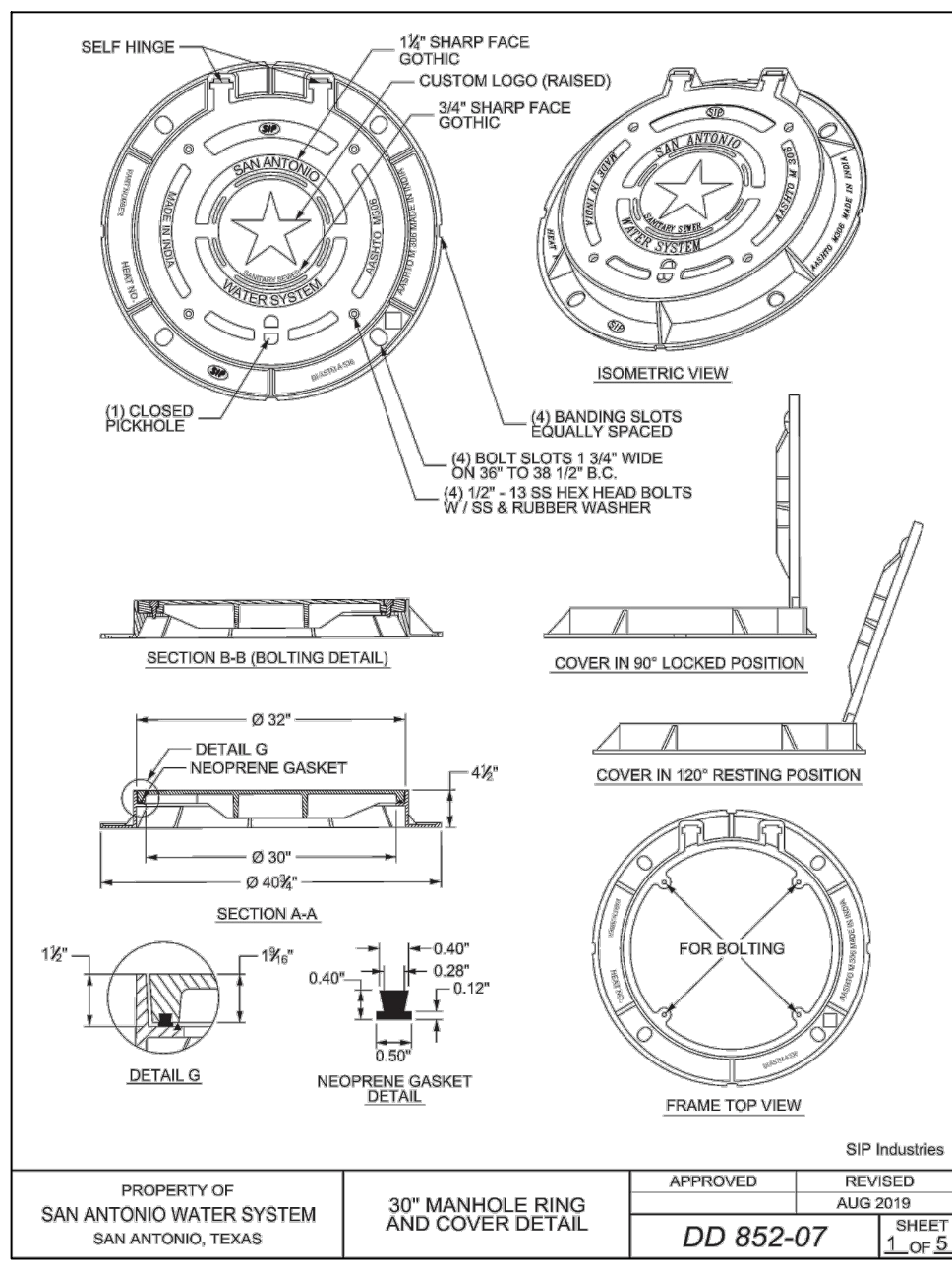
SANITARY SEWER NOTES

PLAT NO.	N/A
JOB NO.	12719-04
DATE	NOVEMBER 2023
DESIGNER	BR
CHECKED	DW DRAWN JR
SHEET	C2.11



Date: October 19, 2023, 1:39 PM - User ID: brojcs  
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SEWER: UPPER MEDINA SEWERSHED - DOS RIOS W.R.C.

Developer's Name: CHESMAR HOMES, LLC

Address: 211 NORTH LOOP 1604, SUITE 175

City: SAN ANTONIO State: TEXAS ZIP: 78232

Phone: (210) 957-3395 FAX: N/A

SAWS Block Map: 080560, 080562 Total Acreage: 2.86

Total Linear Footage of Pipe: 11,945 LF ~ 8" PVC Plat No: N/A

Number of Lots: N/A TOTAL EDU'S: N/A SAWS JOB NO: 23-XXXX

DATE

NO. REVISION

Bruna Spengler  
11/22/23

BRIGGS RANCH NORTH OFFSITE UTILITIES  
SAN ANTONIO, TEXAS

SAWYER SEWER DETAILS

PLAT NO. N/A

JOB NO. 12719-04

DATE NOVEMBER 2023

DRAWN BR

CHECKED DW

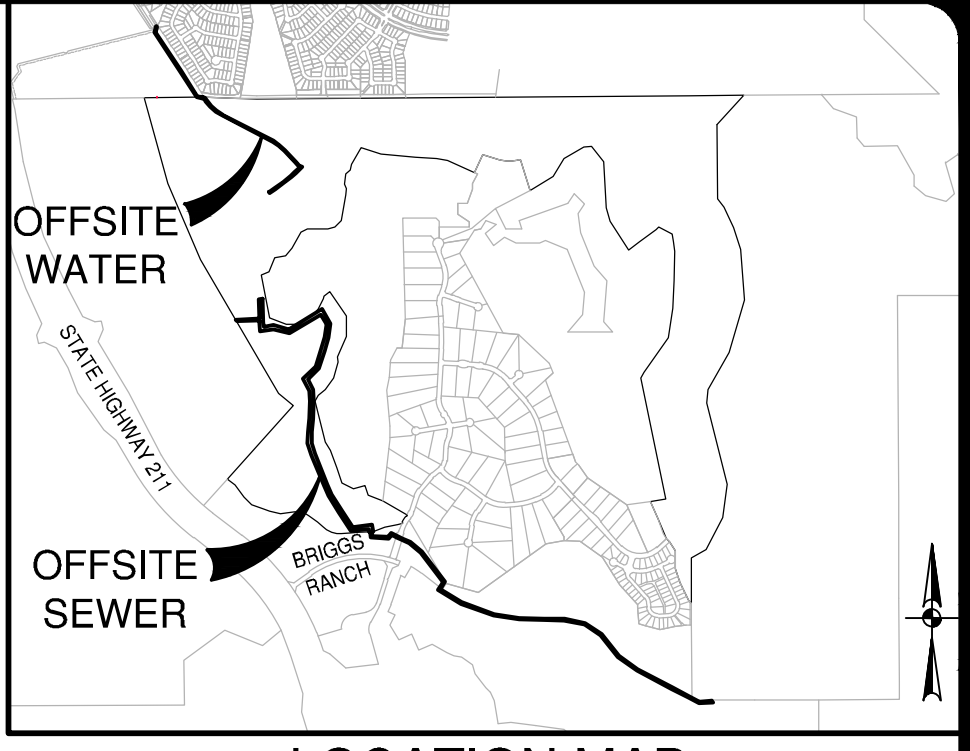
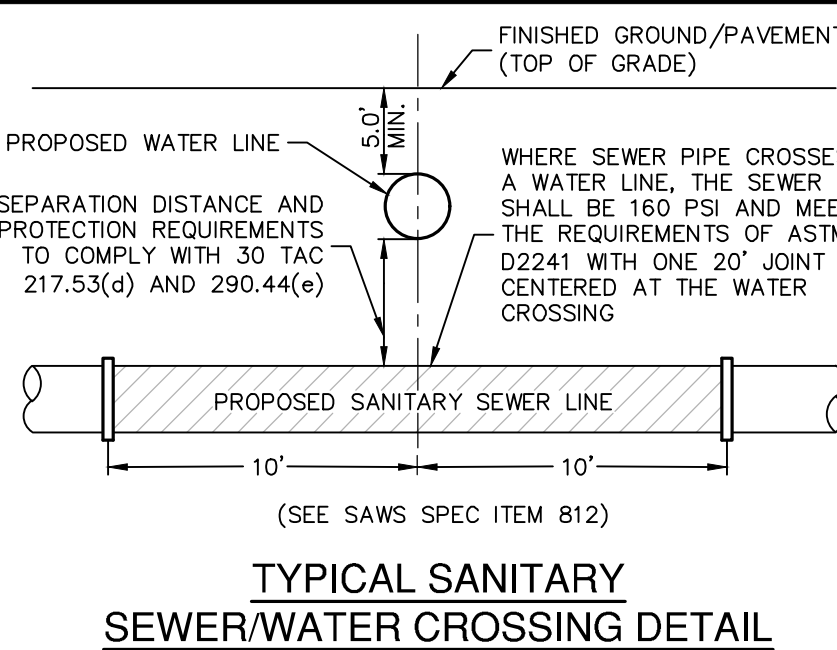
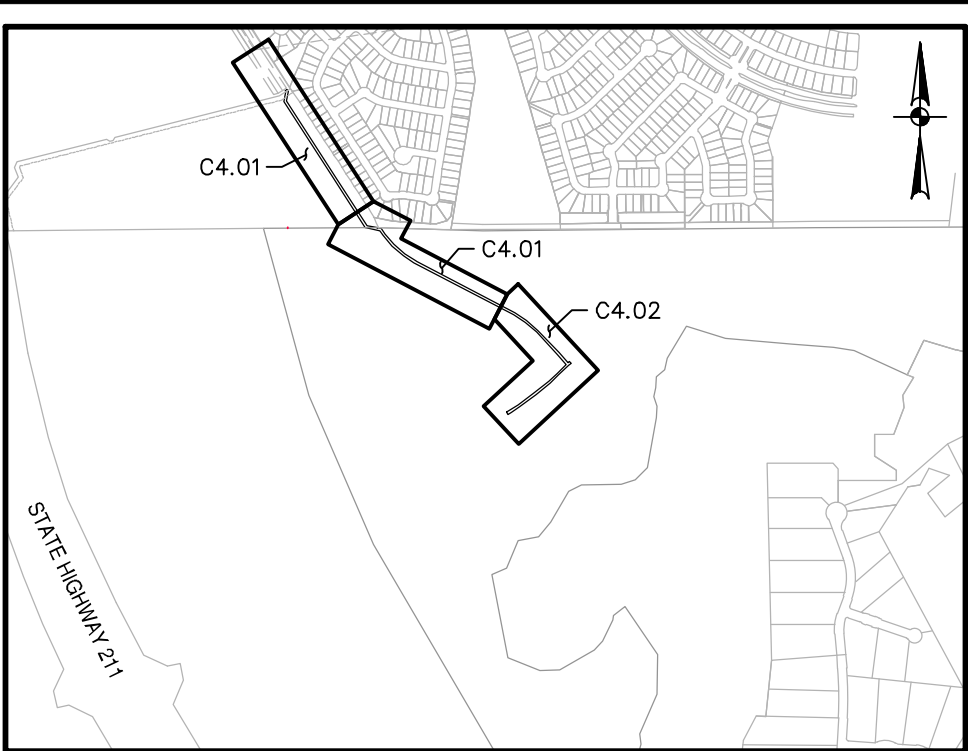
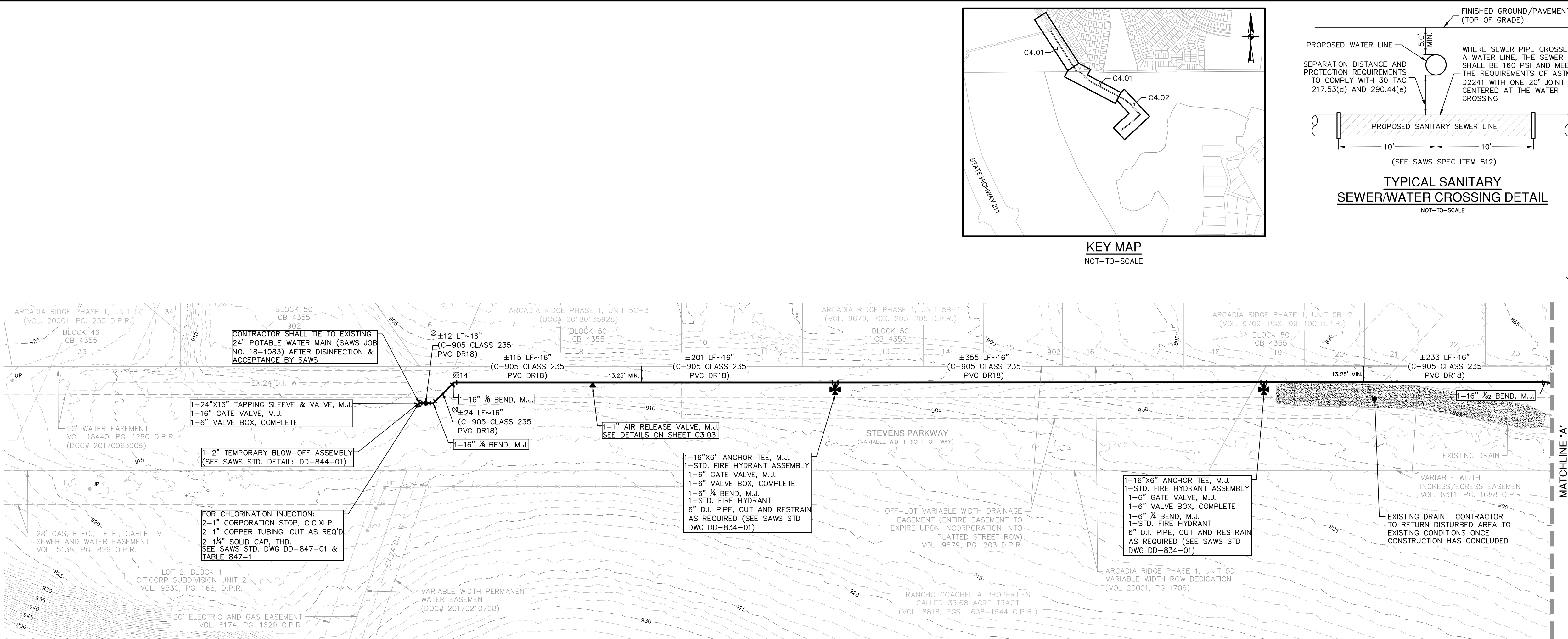
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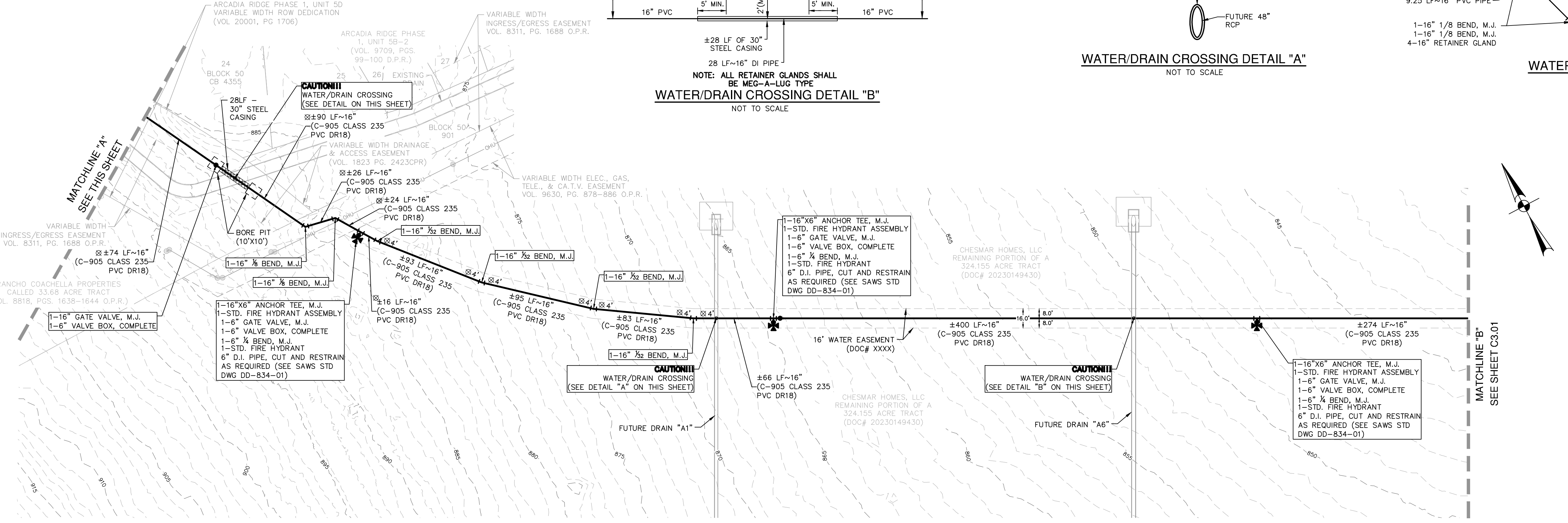
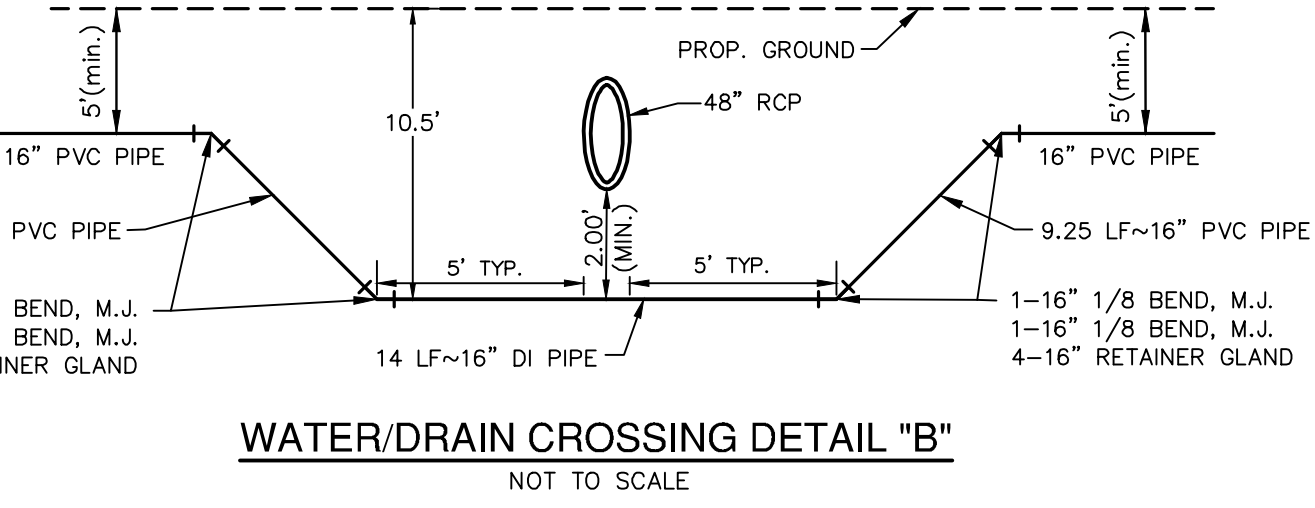
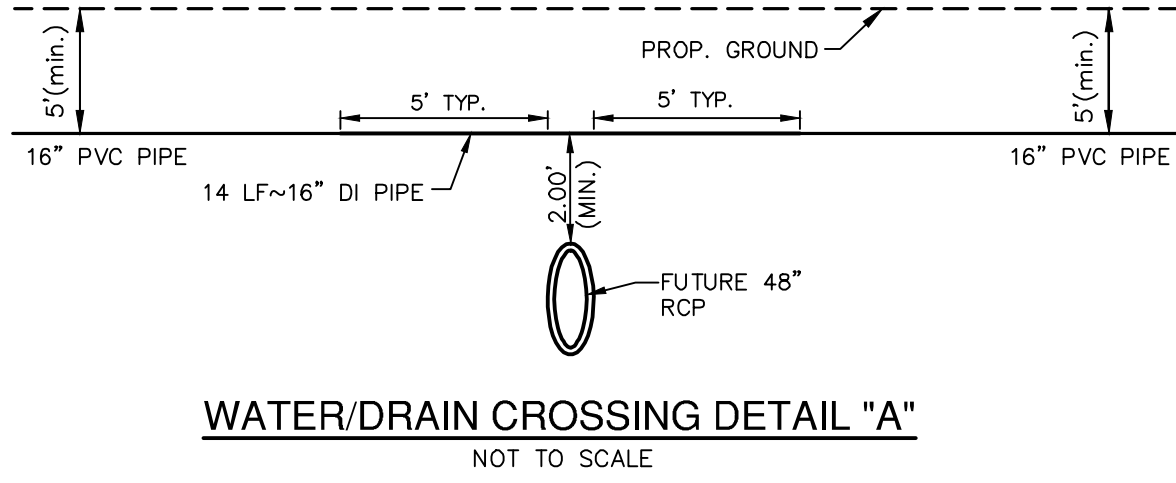
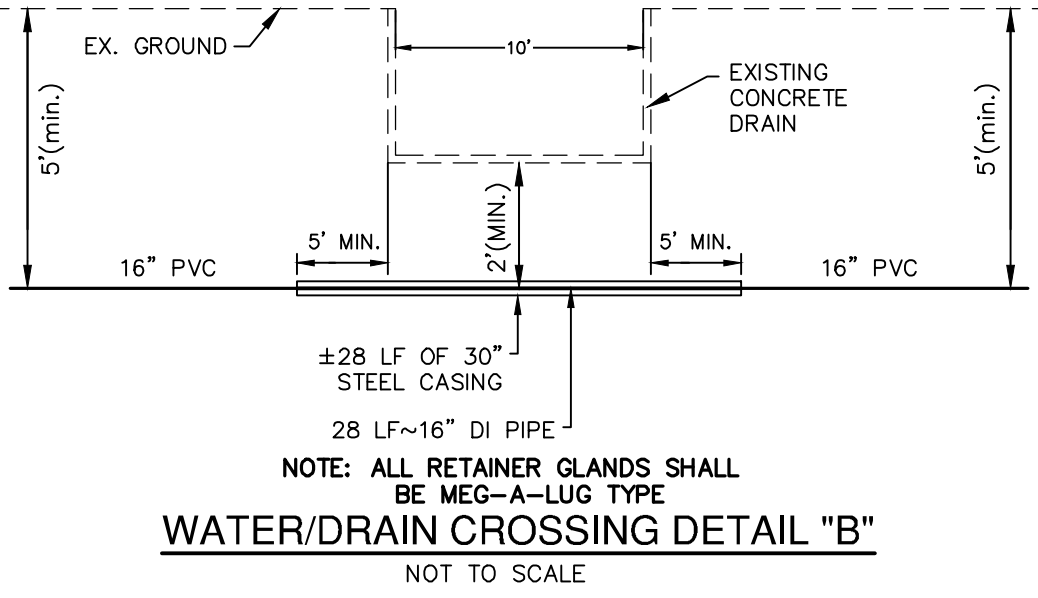
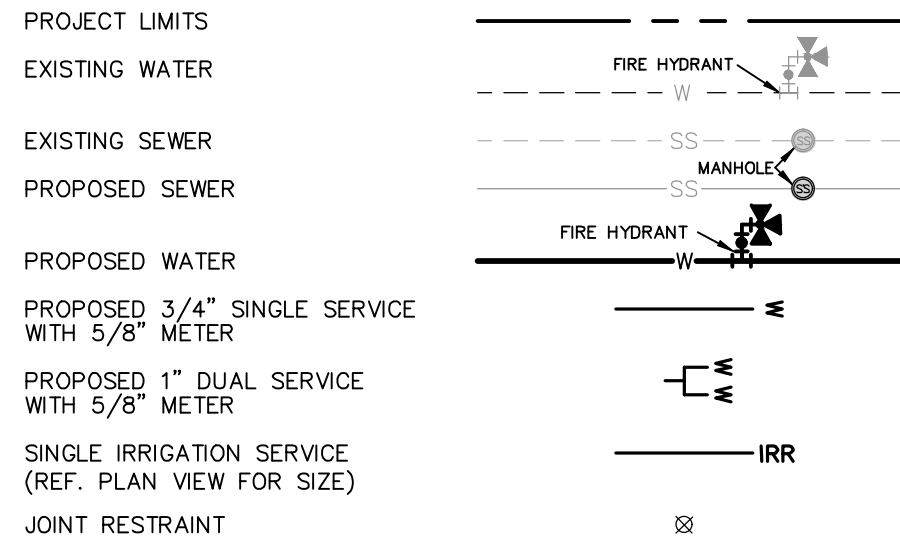


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## WATER LEGEND



## \*\*IMPORTANT\*\*

CONTRACTOR TO COORDINATE WATER MAIN CONSTRUCTION WITH THE CONTRACTOR FOR BRIGGS RANCH PHASE 1. EARTHWORK OPERATIONS NEED TO BE COMPLETE AND SITE NEEDS TO BE AT FINAL GRADE PRIOR TO STARTING WORK ON THIS WATER MAIN.

## ROW PERMIT NOTE:

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

## JOINT RESTRAINT NOTE:

CONTRACTOR SHALL INSTALL RETAINER GLANDS AT ALL FITTINGS AND PROVIDE JOINT RESTRAINING HARNESSES OR FIELD LOCK GASKETS AT ALL JOINTS WITHIN THE LENGTH SHOWN. CONTRACTOR SHALL INSURE THAT ALL 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.

## TRENCH EXCAVATION SAFETY PROTECTION:

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

## WATER: (PRESSURE ZONE 1080)

BRIGGS RANCH NORTH OFFSITE UTILITIES

Developer's Name: CHESMAR HOMES, LLC			
Address: 211 NORTH LOOP 1604, SUITE 175			
City: SAN ANTONIO	State: TEXAS	ZIP: 78232	
Phone# (210) 957-3395	FAX# N/A		
SAWS Block Map# 080560_080562		Total Acreage 3.18	
Total Linear Footage of Pipe 2,697 LF ~ 12" PVC		Plat No. N/A	
Number of Lots N/A		TOTAL EDU'S 1	SAWS JOB NO. 23-XXXX

**PAPE-DAWSON**  
**ENGINEERS**

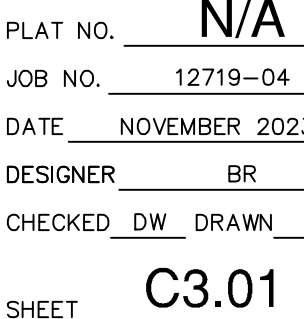
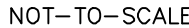
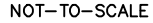
2000 HW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000  
TEXAS ENGINEERING FIRM #1008600

**BRIGGS RANCH NORTH OFFSITE UTILITIES**  
SAN ANTONIO, TEXAS

OVERALL WATER DISTRIBUTION PLAN

PLAT NO. N/A  
JOB NO. 12719-04  
DATE NOVEMBER 2023  
DESIGNER BR  
CHECKED DW DRAWN JR  
SHEET C3.00







SAWS STANDARD GENERAL CONSTRUCTION NOTES

ASSOCIATED WITH 2021 SAWS STANDARD SPECS

(UPDATED MARCH 17, 2021)

GENERAL CONSTRUCTION

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND COMPLY WITH THE PLANS, SPECIFICATIONS, GENERAL CONDITIONS AND WITH THE FOLLOWING AS APPLICABLE:

- A. CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) "DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEM," TEXAS ADMINISTRATIVE CODE (TAC) TITLE 30 PART 1 CHAPTER 217 AND "PUBLIC DRINKING WATER," TAC TITLE 30 PART 1 CHAPTER 290.
- B. CURRENT TxDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE".
- C. CURRENT "SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION".
- D. CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR CONSTRUCTION".
- E. CURRENT CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL" (UECM).

2. THE CONTRACTOR SHALL OBTAIN THE SAWS STANDARD DETAILS FROM THE SAWS WEBSITE, [HTTPS://APPS.SAWS.ORG/BUSINESS\\_CENTER/SPECS/CONSTSPES/](https://apps.saws.org/business_center/specs/constspecs/) UNLESS OTHERWISE NOTED WITHIN DESIGN PLANS.

3. THE CONTRACTOR IS TO NOTIFY AND MAKE ARRANGEMENTS WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT 210-233-3500 (DURING REGULAR WORKING HOURS), AND PROVIDE NOTIFICATION PROCEDURES THE CONTRACTOR WILL USE TO NOTIFY AFFECTED HOME RESIDENTS AND/OR PROPERTY OWNERS TWO (2) WEEKS PRIOR TO EXCAVATION. OUTSIDE OF REGULAR SAWS WORKING HOURS THE SAWS EOC SHOULD BE CONTACTED AT 210-704-7297.

4. IF NECESSARY, CONTRACTOR WILL COORDINATE USE OF SAWS PREMISES AT NO ADDITIONAL COST TO SAWS. SUCH EFFORTS INCLUDE, BUT ARE NOT LIMITED TO, OBTAINING SECURITY IDENTIFICATION BADGES REQUIRED FOR ACCESS TO SAWS FACILITIES.

5. LOCATIONS 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 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 PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT. AS-BUILTS FOR SAWS INFRASTRUCTURE CAN BE OBTAINED AT WEBSITE BELOW. CONTRACTOR SHALL COORDINATE PHYSICAL LOCATES FOR SAWS INFRASTRUCTURE THROUGH THE SAWS INSPECTOR. 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:

SAN ANTONIO WATER SYSTEM:  
REQUEST AS-BUILTS: [HTTP://WWW.SAWS.ORG/SERVICE/LOCATES-SERVICE/](http://www.saws.org/service/locates-service/)  
COSA DRAINAGE (210) 206-8433  
COSA TRAFFIC SIGNAL OPERATIONS (210) 207-7720  
TEXAS STATE WIDE ONE CALL LOCATOR 1-800-545-6005 OR 811

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING AND STRUCTURES TO ITS ORIGINAL OR BETTER CONDITION AS A RESULT OF DAMAGES DONE BY THE PROJECT'S CONSTRUCTION.

8. CONTRACTOR SHALL NOT MAKE USE OF DUMPSTERS OR WASTE BINS THAT ARE INTENDED TO SERVE RESIDENTS AND/OR BUSINESSES.

9. 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.

10. THE CONTRACTOR SHALL COMPLY WITH CITY OF SAN ANTONIO OR OTHER GOVERNING MUNICIPALITY'S TREE ORDINANCES WHEN EXCAVATING NEAR TREES.

11. ALL WORK WITHIN THE 100-YEAR FLOODPLAIN SHALL BE DONE IN ACCORDANCE WITH FLOODPLAIN DEVELOPMENT PERMIT.

12. ANY WORK COMPLETED WITHOUT PRIOR WRITTEN AUTHORIZATION WHICH IS NOT INCLUDED IN THESE PLANS AND SPECIFICATIONS WILL NOT BE COMPENSATED BUT THE SAN ANTONIO WATER SYSTEM.

13. HOLIDAY WORK: CONTRACTORS WILL NOT BE ALLOWED TO PERFORM SAWS WORK ON SAWS RECOGNIZED HOLIDAYS.

WEEKEND WORK: CONTRACTORS ARE REQUIRED TO SUBMIT REQUEST TO THE SAWS INSPECTION CONSTRUCTION DEPARTMENT BY 12:00PM ON THE WEDNESDAY PRIOR TO THE WEEKEND BEING REQUESTED. REQUEST SHOULD BE SENT TO [CONSTWORKREQ@SAWS.ORG](mailto:CONSTWORKREQ@SAWS.ORG).

ANY AND ALL SAWS UTILITY WORK INSTALLED WITHOUT WEEKEND APPROVAL WILL BE SUBJECT TO BE UNCOVERED FOR PROPER INSPECTION AT NO COST TO SAWS.

14. PRE CON SITE VIDEO: BEFORE THE START OF ANY CONSTRUCTION, THE SITE MUST BE VIDEO RECORDED BY THE CONTRACTOR WITH ONE COPY SUBMITTED TO SAWS INSPECTIONS. A PRE-SITE VIDEO WILL PROVIDE ACCURATE DOCUMENTATION OF THE EXISTING CONDITIONS (NPS).

15. POWER POLE BRACING: CONTRACTORS SHOULD BE ADVISED THAT THERE ARE EXISTING OVERHEAD UTILITY POLES ALONG THE PROJECT CORRIDOR. CONTRACTORS SHOULD FURTHER BE ADVISED THAT IF THE DISTANCE FROM THE OUTSIDE FACE OF A UTILITY TRENCH TO THE FACE OF A UTILITY POLE IS LESS THAN 5 FEET, SAID UTILITY POLE IS SUBJECT TO BRACING, BASED ON A DETERMINATION MADE BY UTILITY POLE OWNER. COSTS INCURRED BY CONTRACTOR FOR BRACING OF THESE UTILITY POLES IS SUBSIDIARY TO THAT RESPECTIVE UTILITY COMPANY'S WORK. IT IS ADVISABLE FOR THE CONTRACTOR TO REVIEW THE CONSTRUCTION DOCUMENTS, AND VISIT THE CONSTRUCTION SITE TO DETERMINE POTENTIAL IMPACTS.

16. CONSTRUCTION SEQUENCING: IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO SCHEDULE SEQUENCING FOR REMOVAL AND INSTALLATION OF EXISTING AND UTILITIES IN CONJUNCTION WITH GENERAL PROJECT CONSTRUCTION. SEQUENCE OF CONSTRUCTION ACTIVITIES SHALL BE CONSIDERED IN ORDER TO MINIMIZE THE EXTENT AND DURATION OF DISTURBANCES.

17. CONTRACTOR SHALL COMPLY WITH APPLICABLE REGULATIONS INCLUDING, BUT NOT LIMITED TO, THOSE OVERSEEN BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). OSHA INFORMATION AND RELATED MATERIALS MAY BE OBTAINED AT [HTTPS://WWW.OSHA.GOV/](https://www.osha.gov/) OR AT THE OSHA SAN ANTONIO OFFICE LOCATED AT FOUNTAINHEAD TOWER, SUITE 605 8200 W. INTERSTATE 10 SAN ANTONIO, TX 78230 WHICH IS ALSO REACHABLE BY PHONE AT (210) 472-5040.

18. TRENCH EXCAVATION SAFETY PROTECTION: CONTRACTOR AND/OR CONTRACTORS INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT. IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREAS IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH, AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

WATER SECTION

19. PRIOR TO TIE-INS, ANY SHUTDOWNS OF EXISTING MAINS OF ANY SIZE MUST BE COORDINATED WITH THE SAWS CONSTRUCTION INSPECTION AND/OR SAWS PRODUCTION GROUPS AT LEAST TWENTY-FIVE (25) CALENDAR DAYS IN ADVANCE OF THE SHUTDOWN. THE CONTRACTOR MUST ALSO PROVIDE A SEQUENCE OF WORK AS RELATED TO THE TIE-INS. THIS IS AT NO ADDITIONAL COST TO SAWS OR THE PROJECT AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK ACCORDINGLY. SAWS PRODUCTION CONTROL CENTER 210-233-2016.

20. ASBESTOS CEMENT (AC) PIPE, ALSO KNOWN AS TRANSITE PIPE WHICH IS KNOWN TO CONTAIN ASBESTOS-CONTAINING MATERIAL (ACM), MAYBE LOCATED WITHIN THE PROJECT LIMITS. SPECIAL WASTE MANAGEMENT PROCEDURES AND HEALTH AND SAFETY REQUIREMENTS WILL BE APPLICABLE WHEN REMOVAL AND/OR DISTURBANCE OF THIS PIPE OCCURS. PAYMENT FOR SUCH WORK IS TO BE MADE UNDER ITEM NO. 3000, "HANDLING ASBESTOS CEMENT PIPE".

AC PIPE REMOVED ON CONSTRUCTION PROJECTS FOR TIE-IN(S) SHOULD BE IN LENGTH OF 26 LINEAR FEET (LF). LENGTHS OF 13 LF SHOULD BE REMOVED WHERE AC PIPE IS BEING REMOVED AND CROSSING PIPES, CONDUITS, OR BOXES.

21. VALVE REMOVAL: WHERE THE CONTRACTOR IS TO ABANDON A WATER MAIN, THE CONTROL VALVE LOCATED ON THE ABANDONING BRANCH WILL BE REMOVED AND REPLACED WITH A CAP/PLUG. (NSPI)

22. 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 TWENTY-FIVE (25) CALENDAR DAYS 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 ID 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.

ADDITIONAL WATER NOTES

- 1. LEAD FREE FIRE HYDRANTS:  
"SAWS REQUIRES GOPS AND COUNTER PERMITS TO USE LEAD FREE (< 0.25% LEAD) FIRE HYDRANTS."
- 2. SAWS SHALL MACHINE CHLORINATE NEW WATER MAINS.

3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSPECT THE SITE AND VERIFY THAT ALL STAKES REQUIRED FOR HIS WORK ARE IN PLACE. 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.

- 4. THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH ALL THE FINAL MEASUREMENTS, TAPS AND LENGTH OF SERVICE CONNECTIONS.
- 5. 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.
- 6. 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).
- 7. FIRE HYDRANTS SHALL BE PLACED NO FURTHER THAN 7' AND NO CLOSER THAN 1' FROM FACE OF CURB.

MISCELLANEOUS NOTES

- 1. ALL FENCING, SIGNS AND ANY OTHER IMPROVEMENTS DAMAGED BY THE CONTRACTOR SHALL BE REPLACED TO ITS ORIGINAL CONDITION OR BETTER AT NO ADDITIONAL COST TO THE OWNER.
- 2. ALL PIPE FITTINGS AND PIPE RESTRAINTS SHALL BE CONSIDERED SUBSIDIARY TO THE WATER MAIN PIPE UNIT PRICE.
- 3. CONTRACTOR SHALL REPAIR OR REPLACE ANY ADJACENT CURB, PAVEMENT, PAVEMENT MARKINGS, FENCES, ETC. DAMAGED BY CONSTRUCTION TO THE PRE-EXISTING CONDITIONS, AT CONTRACTOR'S EXPENSE.
- 5. FIRE HYDRANTS SHALL BE PAINTED WITH APPROPRIATE SAWS COLORS.
- 6. 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.

CPS ENERGY GAS VALVES AND OVERHEAD POWER

LINE NOTES

- 1. CALL CPS LOCATOR AT 978-3500 72 HOURS BEFORE BEGINNING ANY EXCAVATION.
- 2. DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CPS ENERGY MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.
- 3. CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN WORKING UNDER "HIGH VOLTAGE TRANSMISSION LINES". A WORKING HEIGHT OF 30' FROM GROUND ELEVATION WILL BE OBSERVED WHEN WORKING UNDER THE HIGH VOLTAGE LINE. COORDINATE ALL WORK WITH CPS ENERGY.

HAULING AND STORAGE

- HAULING AND/OR TEMPORARY STORAGE OF EQUIPMENT AND MATERIALS MAY BE NECESSARY, INCLUDING EXCAVATED MATERIAL AND SPOILS. CONTRACTOR SHALL INCLUDE IN HIS BID PRICE ALL COSTS ASSOCIATED WITH HAULING AND OFF-SITE STORAGE OF ALL MATERIALS AND/OR EQUIPMENT.

UNDERGROUND UTILITIES NOTE

- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE, AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCT BANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. THE CONTRACTOR MUST CONTACT 1-800-DIG-TESS AND CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION AND/OR START OF CONSTRUCTION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES (WHETHER SHOWN ON PLANS OR NOT) WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTORS SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR NOT.

CONTRACTOR NOTES

- 1. ALL SHOP DRAWINGS AND SUBMITTALS REQUIRED FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- 2. ALL AREAS WITHIN THE RIGHT-OF-WAY AND THE WATER LINE EASEMENT THAT ARE NECESSARY FOR INSTALLATION OF THE PROPOSED WATER LINE ARE TO BE CLEARED EXCEPT AS OTHERWISE NOTED ON THE PLANS AND/OR AS DIRECTED IN THE CONTRACT DOCUMENTS SPECIAL CONSTRUCTION CONDITIONS. CONTRACTOR SHALL REMOVE TREES WITHIN THE RIGHT-OF-WAY AND WATER LINE EASEMENT ONLY AS NECESSARY, FOR INSTALLATION OF THE PROPOSED WATER LINE. NO HERITAGE TREES SHALL BE REMOVED. OTHERWISE ALL TREES WITHIN 15-FEET OF THE WORK SHALL BE PROTECTED, SEE TREE PROTECTION NOTES AND DETAILS.
- 3. PI'S AND PVI'S MAY BE SHOWN FOR PIPE JOINT DEFLECTION. JOINT DEFLECTION SHALL BE AS PER THE PIPE MANUFACTURER'S RECOMMENDATIONS, AND LIMITED TO SAWS MAXIMUM ALLOWABLE DEFLECTION ANGLES.
- 4. CONTRACTOR SHALL NOTIFY AND COORDINATE WITH LANDOWNER(S) PRIOR TO ENTERING ANY PROPERTY OUTSIDE THE COUNTY RIGHT-OF-WAY 14 DAYS IN ADVANCE AND AGAIN 72 HOURS PRIOR TO CONSTRUCTION ON PRIVATE PROPERTY.
- 5. CONTRACTOR SHALL REMOVE AND REPLACE, TO AS GOOD OR BETTER CONDITION THAN EXISTING, ANY CROSS FENCING LOCATED WITHIN THE WATER LINE EASEMENT AS NECESSARY FOR INSTALLATION OF THE PROPOSED WATER MAIN. N.S.P.I.
- 6. VALVE BOXES SHALL BE INSTALLED SO THAT THE VALVE OPERATING NUT IS CENTERED IN THE BOX. VALVES INSTALLED ON SLOPING TERRAIN SHALL HAVE THE VALVE BOX INSTALLED PERPENDICULAR TO THE VALVE WITH THE OPERATING NUT CENTERED IN THE BOX IN ORDER TO ALLOW THE VALVE WRENCH EASY ACCESS TO THE VALVE OPERATING NUT.
- 7. CONTRACTOR SHALL NOT OPERATE ANY EXISTING WATER VALVES WITHIN THE SAWS SYSTEM. NOTIFYING & OBTAINING ASSISTANCE FROM THE SAWS STAFF IS REQUIRED.
- 8. CONTRACTOR SHALL REFER TO THE CONTRACT DOCUMENTS SPECIAL CONSTRUCTION CONDITIONS FOR ADDITIONAL INFORMATION REGARDING WORK ASSOCIATED WITH THIS PROJECT.
- 9. 24" C900 PVC PIPE SHALL BE CLASS 235 (DR 18). ALL PIPE, FITTINGS AND VALVES SHALL MEET SAWS STANDARDS.
- 10. HAUL OFF OF EXCAVATED MATERIAL SHALL BE INCLUDED AS PART OF THE PIPE INSTALLATION LINE ITEM BID PRICE.

STORM WATER PROTECTION AND EROSION CONTROL

NOTES

- 1. CONTRACTOR SHALL PREPARE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND SUBMIT IT TO THE ENGINEER AND SAWS FOR REVIEW AND APPROVAL. THE CONTRACTOR IS RESPONSIBLE FOR THE SUBMITTAL OF THE SWPPP PLAN TO BEXAR COUNTY AS PART OF THEIR ROW PERMIT SUBMITTAL REQUIREMENT.
- 2. CONTRACTOR SHALL INSTALL STORM WATER POLLUTION PREVENTION STRUCTURES INCLUDING BUT NOT LIMITED TO, SILT FENCING AND/OR ROCK BERMS IN ALL AREAS TO BE IMPACTED BY CURRENT AND ONGOING CONSTRUCTION AND MAINTAIN SUCH STRUCTURES UNTIL SUITABLE GROUND COVER/VEGETATION IS ACCEPTED. ALL STORM WATER POLLUTION PREVENTION STRUCTURES SHALL BE CONSTRUCTED WITHIN THE COUNTY RIGHT-OF-WAY AND WATER LINE EASEMENTS. ANY FEATURES ON THE PLANS SHOWN OUTSIDE THESE AREAS ARE SHOWN FOR VISUAL CLARITY ONLY.
- 3. THE LOCATION OF ANY BEST MANAGEMENT PRACTICES (B.M.P.'S) SUCH AS SILT FENCING, ROCK BERMS, STABILIZED CONSTRUCTION ENTRANCE/EXIT, ETC. THAT MAY BE SHOWN ON THESE PLANS ARE SUBJECT TO FIELD VERIFICATION. CONTRACTOR SHALL ADJUST THE LOCATIONS OF B.M.P.'S TO BEST ACCOMMODATE THE CONDITIONS AND TOPOGRAPHY ENCOUNTERED DURING CONSTRUCTION. QUESTIONS REGARDING THE PLACEMENT AND/OR CHANGES CONCERNING B.M.P.'S SHALL BE REFERRED TO THE OWNER AND THE COUNTY. THE CONTRACTOR IS TO ENSURE THAT SEDIMENTATION AND EROSION WILL BE CONTAINED WITHIN THE PROJECT WORK AREAS AND KEPT OFF ROADWAYS AND ADJACENT PROPERTIES AND OUT OF DRAINAGE CHANNELS AND WATER COURSES.

TREE PROTECTION NOTES

- 1. CONTRACTOR TO PROTECT ALL TREES WHEREVER POSSIBLE. DAMAGE TO TREES IDENTIFIED TO BE PROTECTED WILL BE MITIGATED AT THE CONTRACTOR'S SOLE EXPENSE. ALSO, ALL WORK IN PUBLIC RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE CONTROLLING ENTITIES STANDARDS, SPECIFICATIONS AND PERMIT REQUIREMENTS.
- 2. PROTECT EXISTING TREES SIX INCH (6") DIAMETER AND LARGER. ALL TREES TO BE PRESERVED AS PART OF THE PROJECT SHALL BE PROTECTED AGAINST INJURY OR DAMAGE, INCLUDING CUTTING, SOIL COMPACTION, BREAKING OR SKINNING OF ROOTS, TRUNKS, OR BRANCHES DURING CONSTRUCTION OPERATIONS BY FENCING AS DESCRIBED BELOW. THE TREE PROTECTION SHALL BE PLACED BEFORE ANY EXCAVATION OR GRADING IS BEGUN AND MAINTAINED FOR THE DURATION OF THE CONSTRUCTION WORK. PROTECTION WILL ENCOMPASS THE ROOT PROTECTION ZONE WHICH WILL BE AT MINIMUM ONE FOOT (1.0') RADIUS PER INCH DIAMETER OF THE TREE TRUNK AT 4.5' ABOVE GROUND. NO MATERIAL SHALL BE STORED OR CONSTRUCTION OPERATION SHALL BE CARRIED ON WITHIN THE TREE PROTECTION FENCING, UNLESS AUTHORIZED BY THE OWNER. THE PROTECTION SHALL REMAIN UNTIL ALL WORK IS COMPLETED. TREE PROTECTION SHALL BE INCLUDED IN BASE BID.

TRAFFIC CONTROL NOTE

- CONTRACTOR SHALL PREPARE AND SUBMIT A TRAFFIC CONTROL PLAN TO BEXAR COUNTY FOR REVIEW AND APPROVAL. NECESSARY TRAFFIC CONTROL, DETOUR ROUTING AROUND WORK ACTIVITIES, MAINTENANCE OF DETOUR SIGNS AND FLAGMEN ARE THE CONTRACTOR'S RESPONSIBILITY. UNLESS DIRECTED OTHERWISE, THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE OPEN TRAFFIC LANE (MINIMUM 12 FEET WIDE), CONTROLLED WITH FLAGMEN, DURING WORKING HOURS. DURING ALL NON-WORKING HOURS A MINIMUM OF TWO TRAFFIC LANES (EACH A MINIMUM 12 FEET WIDE) SHALL BE OPEN TO TRAFFIC. CONTRACTOR WILL FURNISH AND MAINTAIN ALL REQUIRED TRAFFIC CONTROL DEVICES PER TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD), TO PROPERLY WARN, GUIDE AND CONTROL TRAFFIC AT ALL TIMES THROUGHOUT CONSTRUCTION.

UNDERGROUND TELEPHONE/COMMUNICATION LINES NOTE

- THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE AS SHOWN ON THESE PLANS HAS BEEN TAKEN FROM THE BEST INFORMATION AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. CONTRACTOR SHALL CONTACT THE TELEPHONE/COMMUNICATION COMPANY CABLE LOCATOR 48 HOURS PRIOR TO EXCAVATION AT 1-800-545-6005. CONTRACTOR SHALL PROTECT AND (AS NECESSARY) INSTALL SHORING FOR TELEPHONE COMPANY FACILITIES DURING CONSTRUCTION.

EXISTING IMPROVEMENTS

- ALL EXISTING IMPROVEMENTS WITHIN THE PROJECT AREA, WHICH ARE NOT COVERED UNDER THE UNIT PRICE BID PROPOSAL, SHALL BE PROTECTED OR REMOVED AND REPLACED TO EXISTING CONDITION OR BETTER AT NO ADDITIONAL COST TO THE OWNER.

BEXAR COUNTY FLOODPLAIN GENERAL CONSTRUCTION

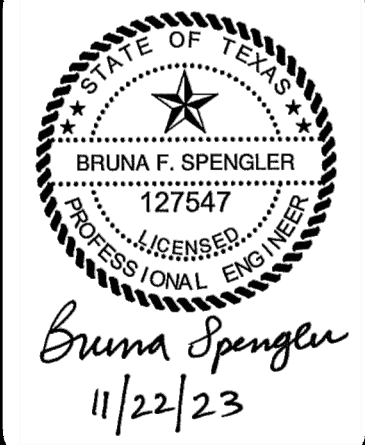
NOTE

- NO CONSTRUCTION AND/OR WASTE MATERIAL SHALL BE PLACED IN EXISTING LOWS THAT WILL BLOCK OR ALTER FLOW LIMITS OF EXISTING NATURAL DRAINAGE OR PLACED WITHIN THE LIMITS OF EXISTING FLOODPLAIN.

WATER: (PRESSURE ZONE 1080)  
BRIGGS RANCH NORTH OFFSITE UTILITIES

Developer's Name: CHESMAR HOMES, LLC	
Address: 211 NORTH LOOP 1604, SUITE 175	
City: SAN ANTONIO	State: TEXAS ZIP: 78232
Phone# (210) 957-3395	FAX# N/A
SAWS Block Map# 080560_080562	
597 LF ~ 12" PVC	Total Acreage 1.18
Total Linear Footage of Pipe 2,697 LF ~ 16" PVC	
Plot No. N/A	
Number of Lots N/A	TOTAL EDU'S 1 SAWS JOB NO. 23-XXXX

DATE	NO.	REVISION



PAPE-DAWSON  
ENGINEERS

2000 HW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000  
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1008800

BRIGGS RANCH NORTH OFFSITE UTILITIES  
SAN ANTONIO, TEXAS

OVERALL WATER DISTRIBUTION NOTES

PLAT NO.	N/A
JOB NO.	12719-04
DATE	NOVEMBER 2023
DESIGNER	BR
CHECKED	DW DRAWN JR
SHEET	C3.02



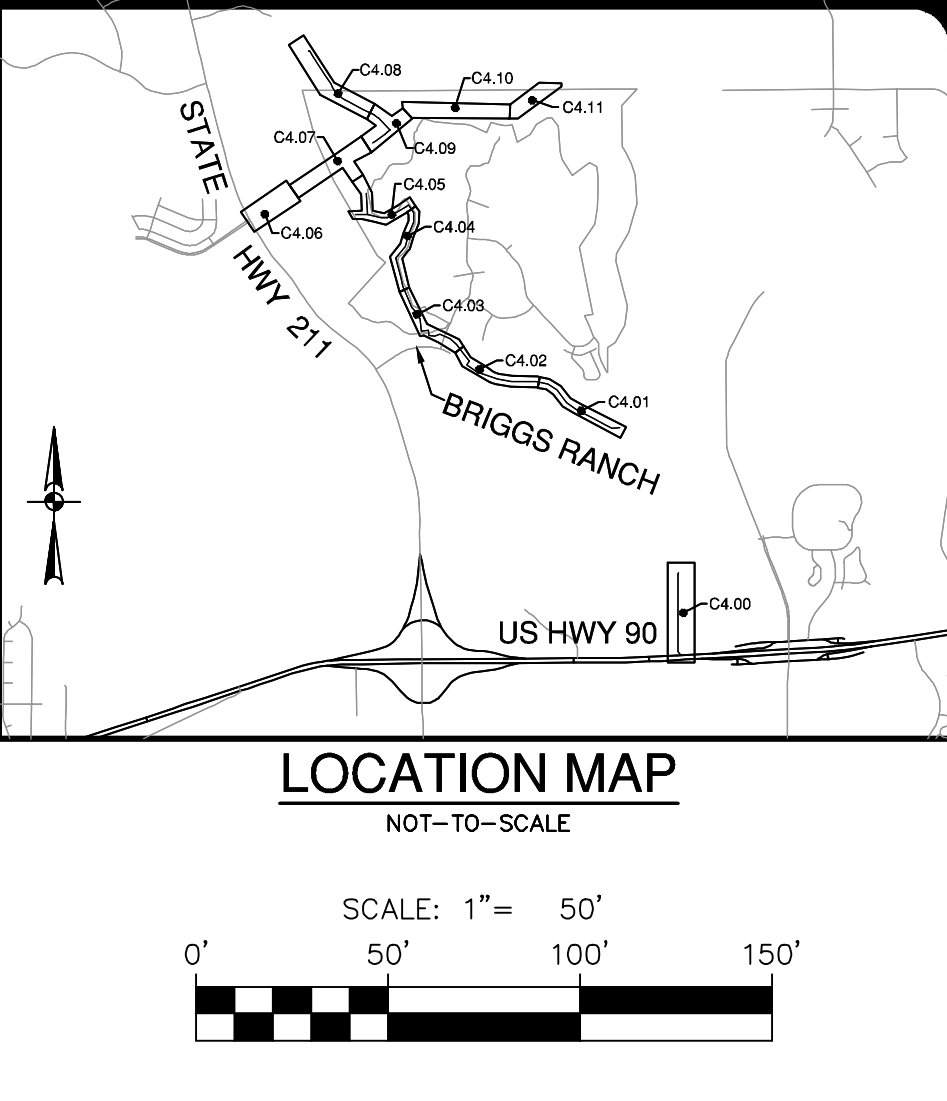
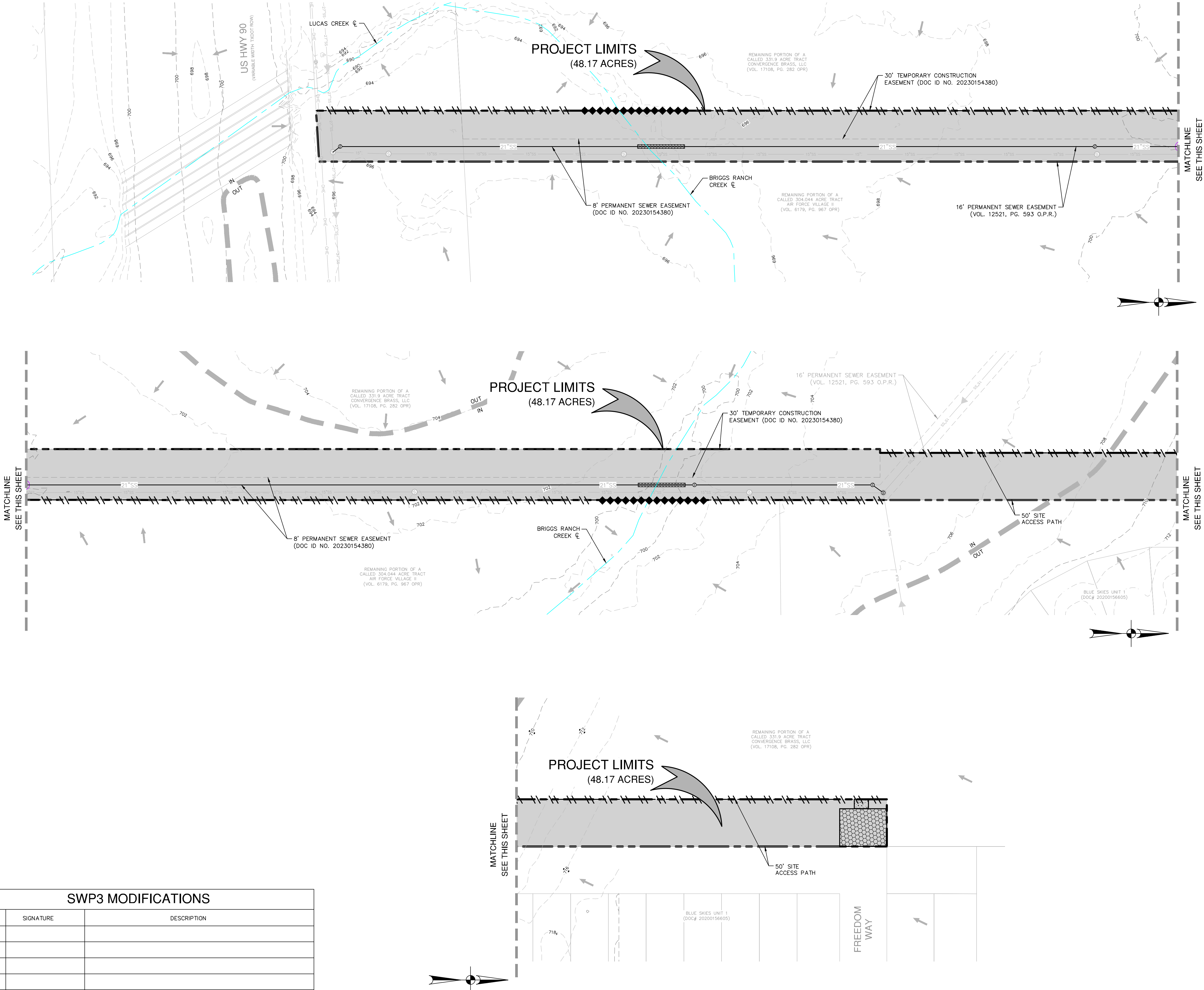




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SWP3 MODIFICATIONS		
DATE	SIGNATURE	DESCRIPTION



SWPPP LEGEND	
PROJECT LIMITS	---
EXISTING CONTOUR	---
PROPOSED CONTOUR	---
FLOW ARROW (EXISTING)	→
FLOW ARROW (PROPOSED)	→
SILT FENCE	--- --- --- --- ---
ROCK BERM	--- --- --- --- ---
GRAVEL FILTER BAGS	--- --- --- --- ---
GRATE INLET PROTECTION	--- --- --- --- ---
SEDIMENT CONTROL ROLLS	--- --- --- --- ---
LIMITS OF DISTURBED AREA	---
STABILIZED CONSTRUCTION ENTRANCE/EXIT (FIELD LOCATE)	---
CONSTRUCTION EQUIPMENT, VEHICLE & MATERIALS STORAGE AREA (FIELD LOCATE)	---
CONCRETE TRUCK WASH-OUT PIT (FIELD LOCATE)	---
EXISTING CREEK CENTERLINE	---

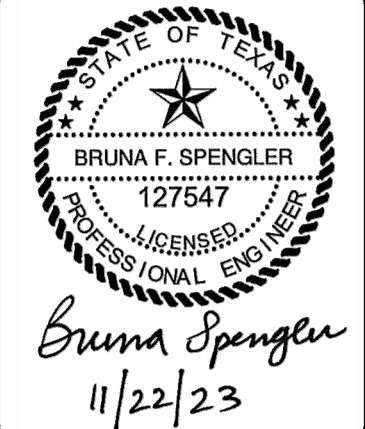
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  - RESTRICT ENTRY/EXIT TO THE PROJECT SITE TO DESIGNATED LOCATIONS BY USE OF ADEQUATE FENCING, IF NECESSARY.
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EXHIBIT 2

DATE	
NO.	
REVISION	



**PAPE-DAWSON ENGINEERS**

2000 HW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000  
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

## BRIGGS RANCH NORTH OFFSITE UTILITIES SAN ANTONIO, TEXAS STORM WATER POLLUTION PREVENTION PLAN (1 OF 12)

PLAT NO.	N/A
JOB NO.	12719-04
DATE	NOVEMBER 2023
DESIGNER	BR
CHECKED	DW DRAWN JR
SHEET	C4.00

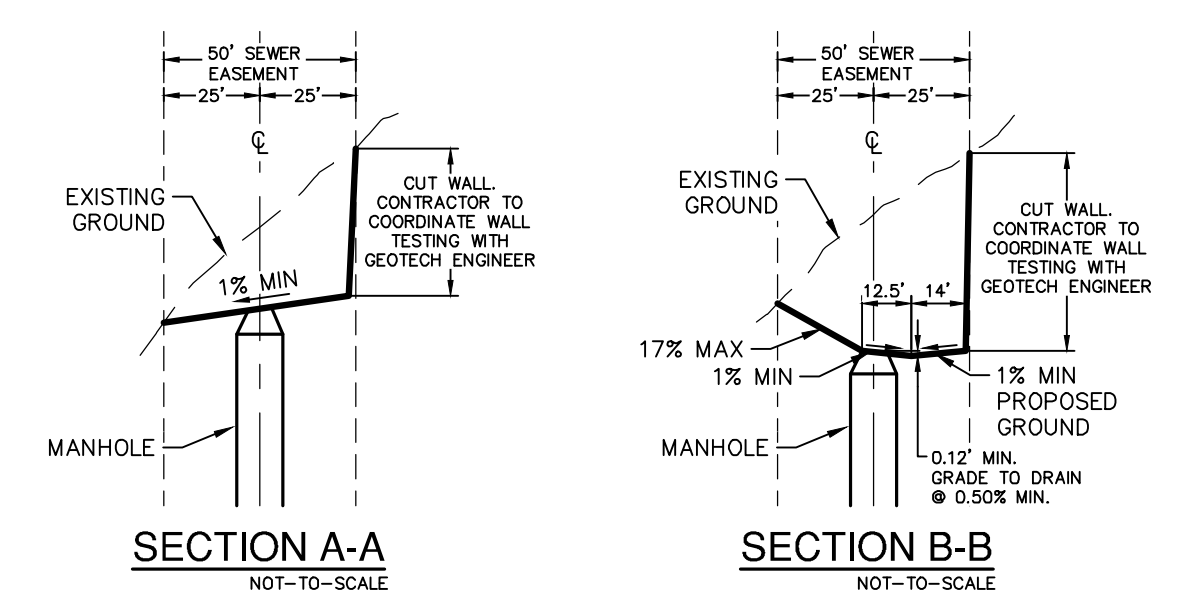
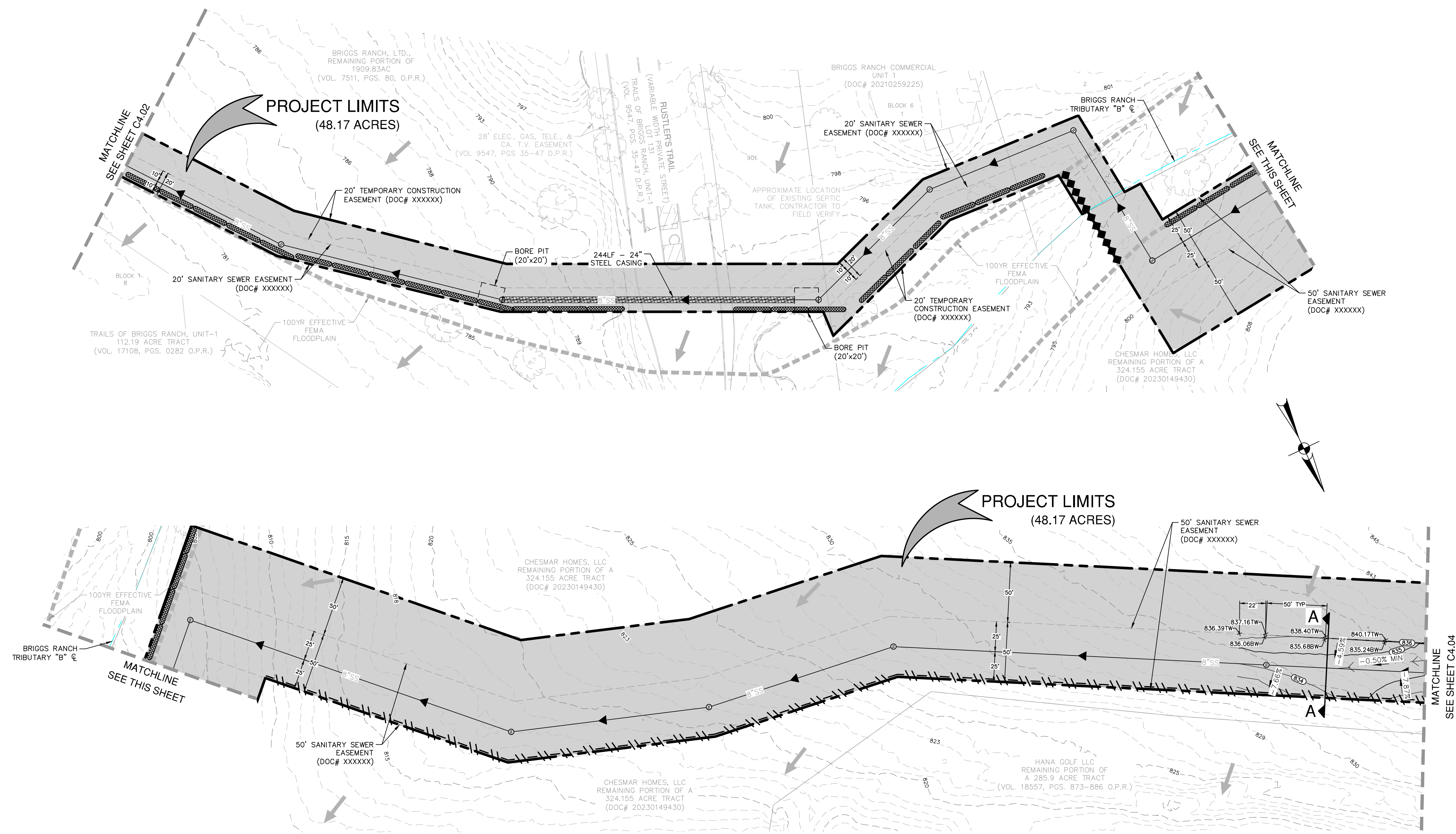
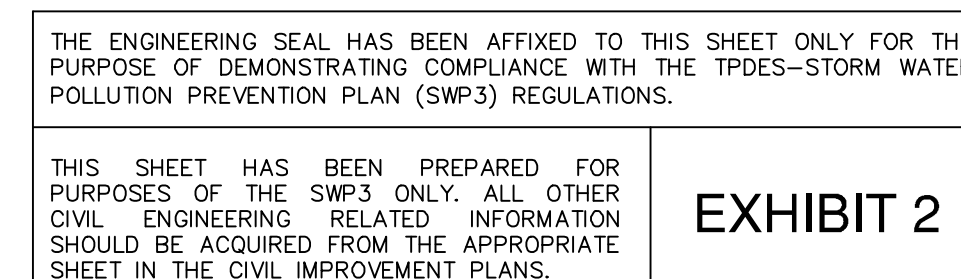
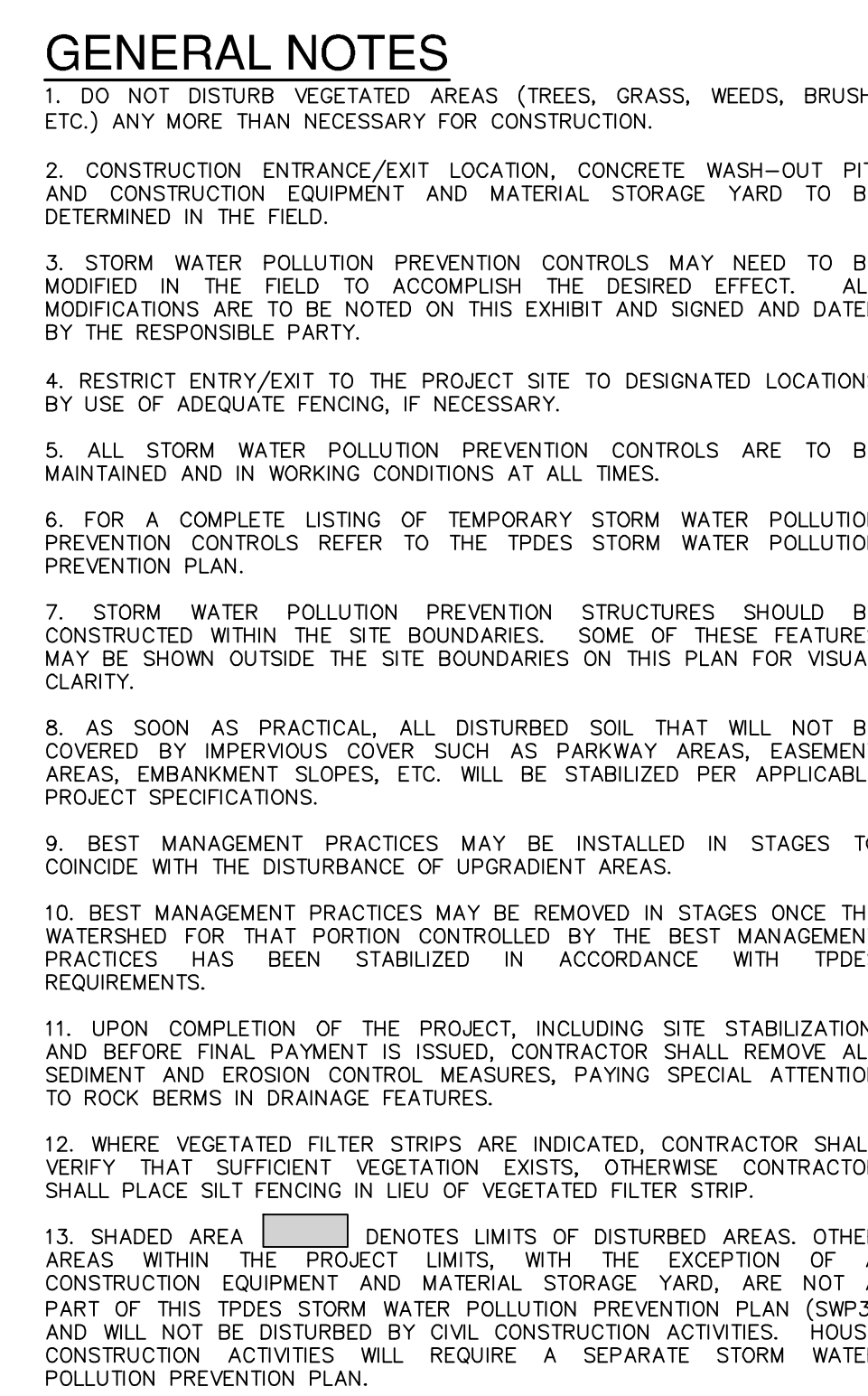
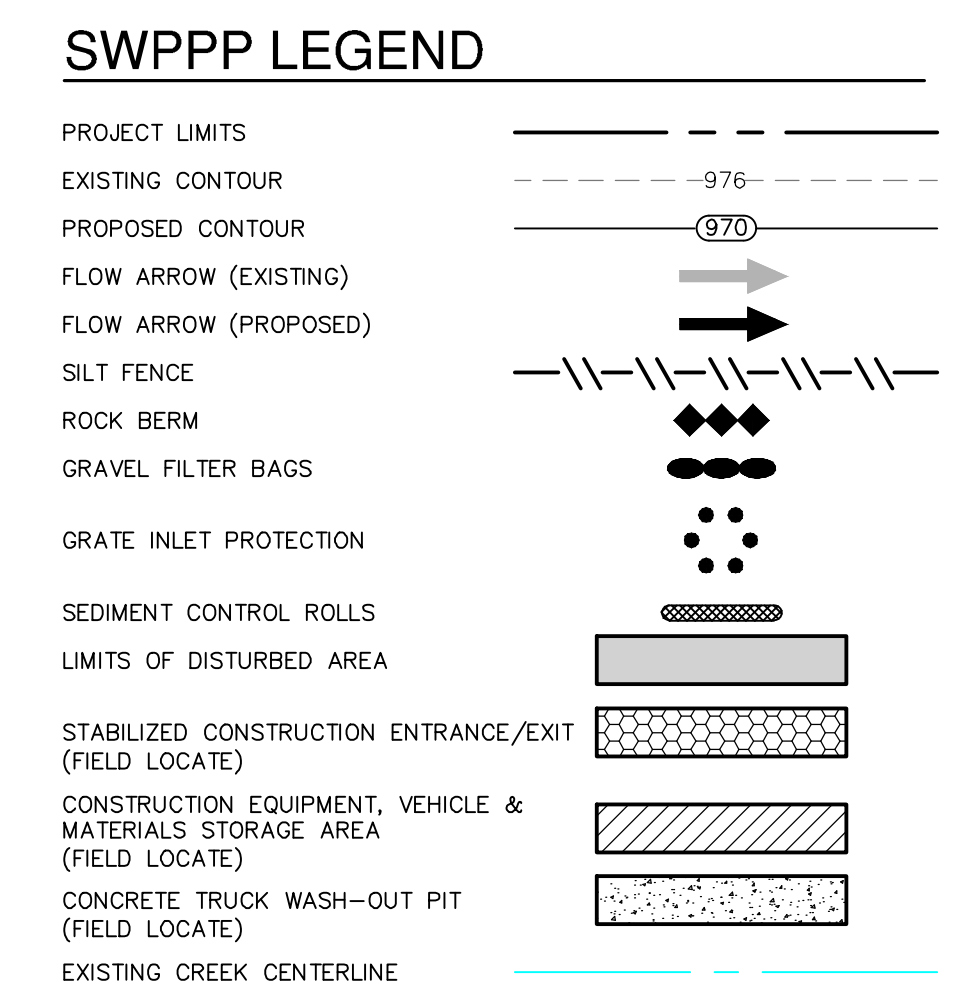
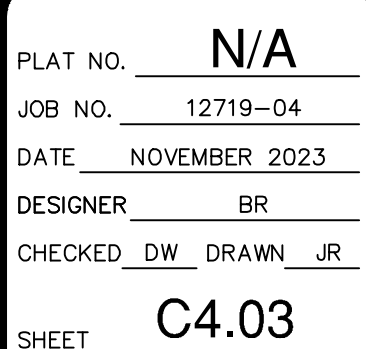
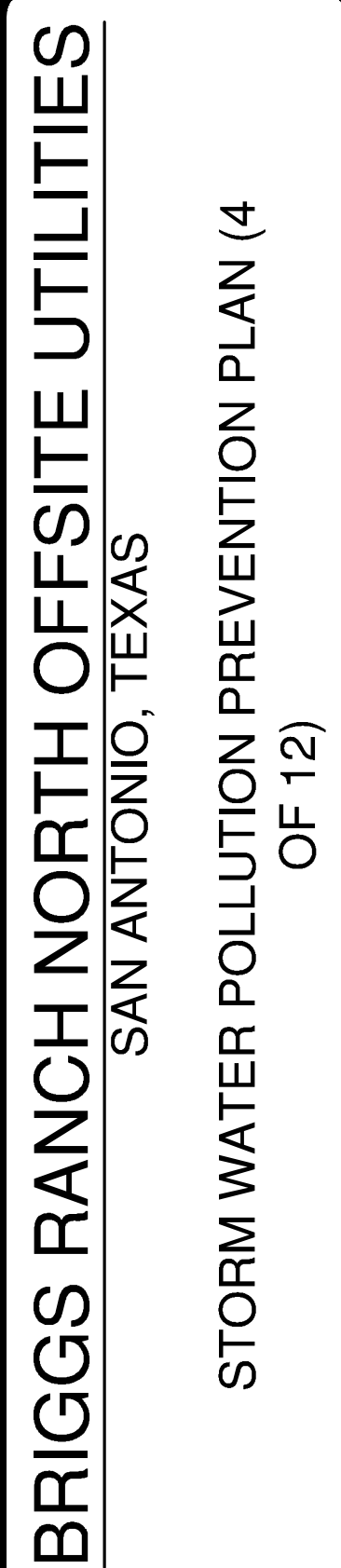
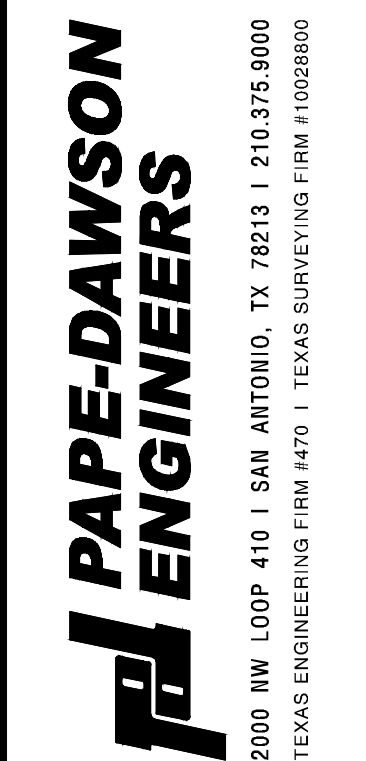
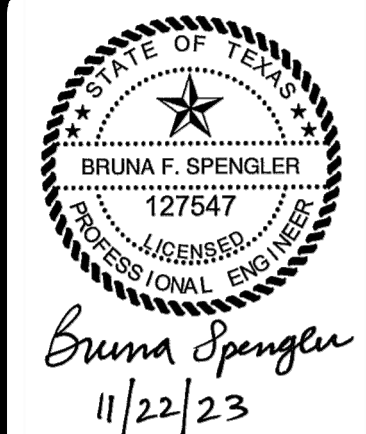
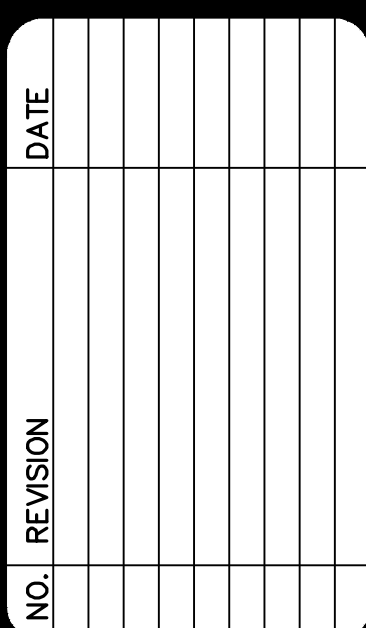
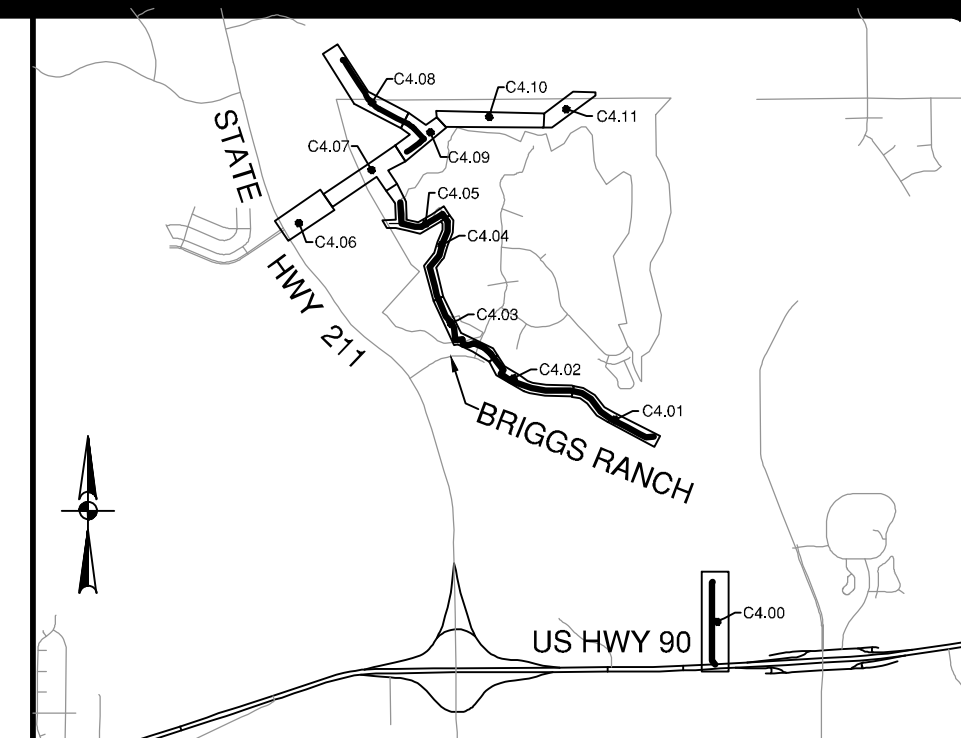










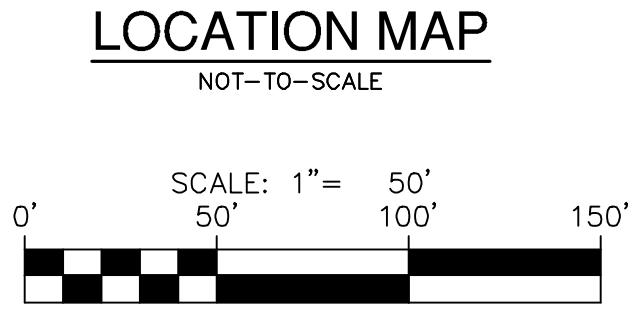
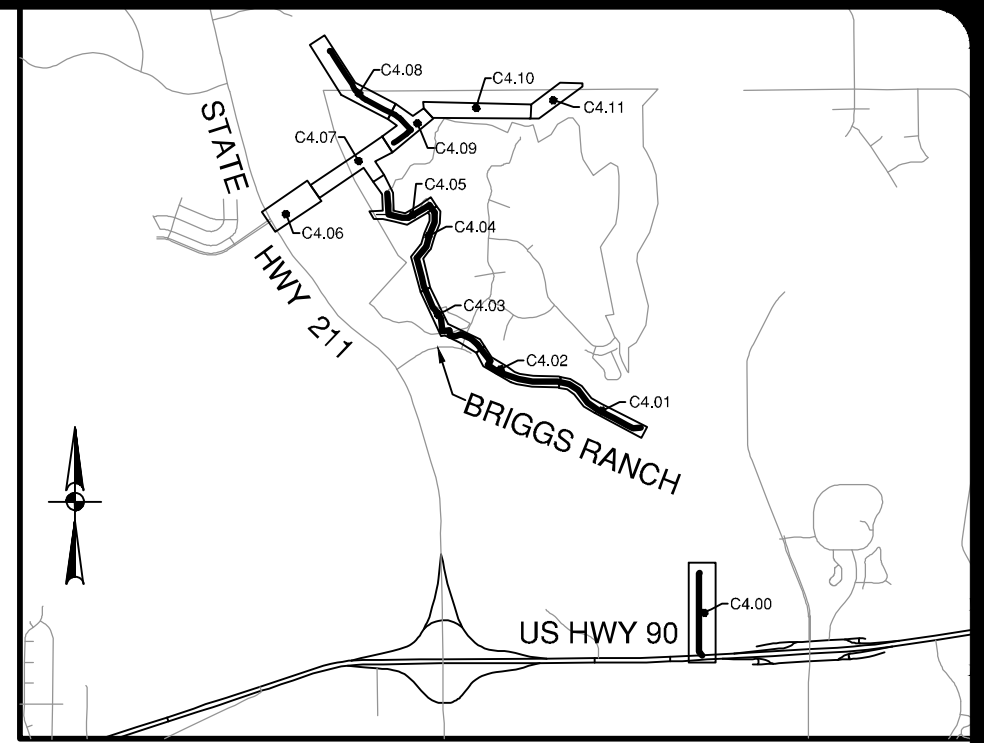
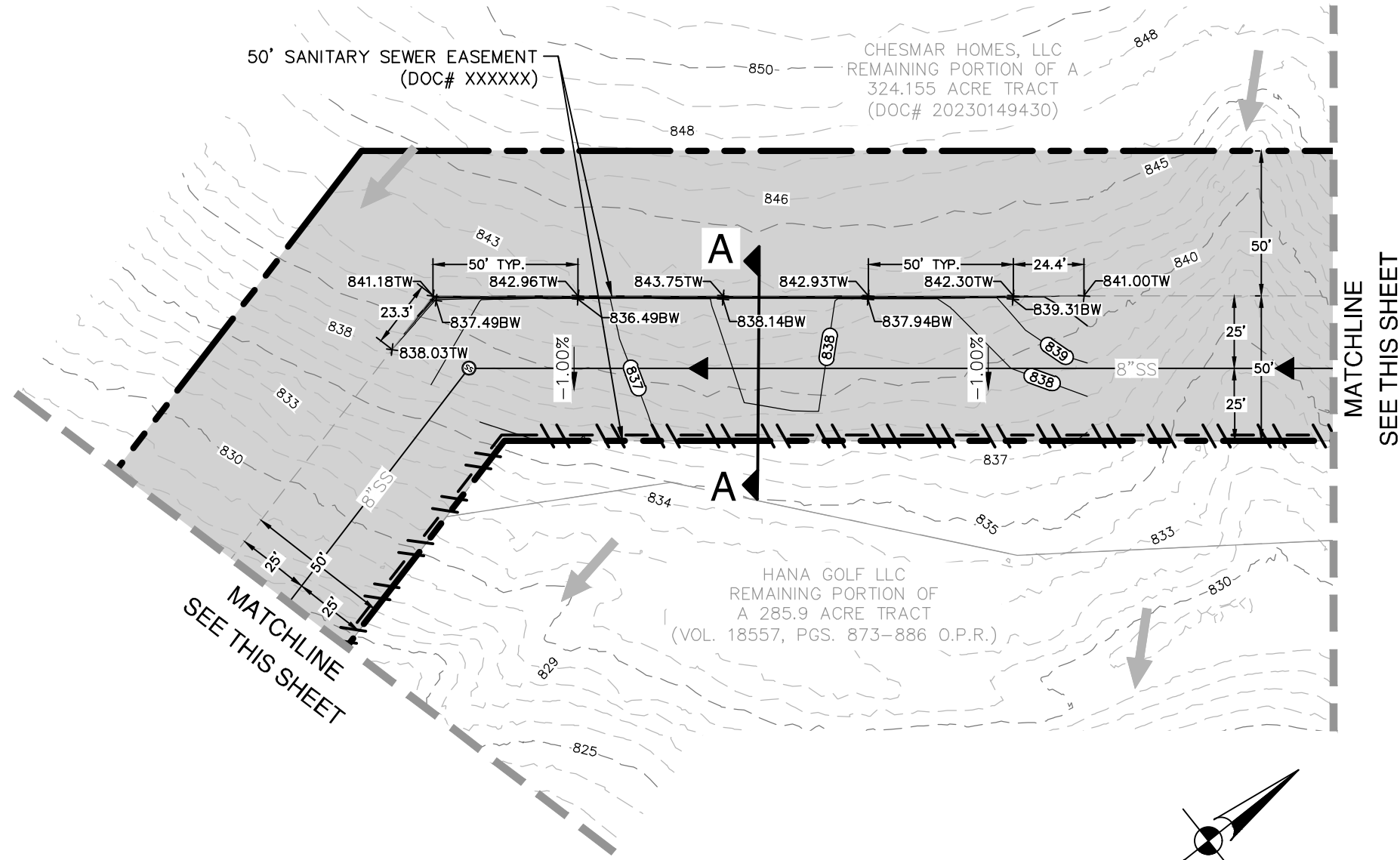
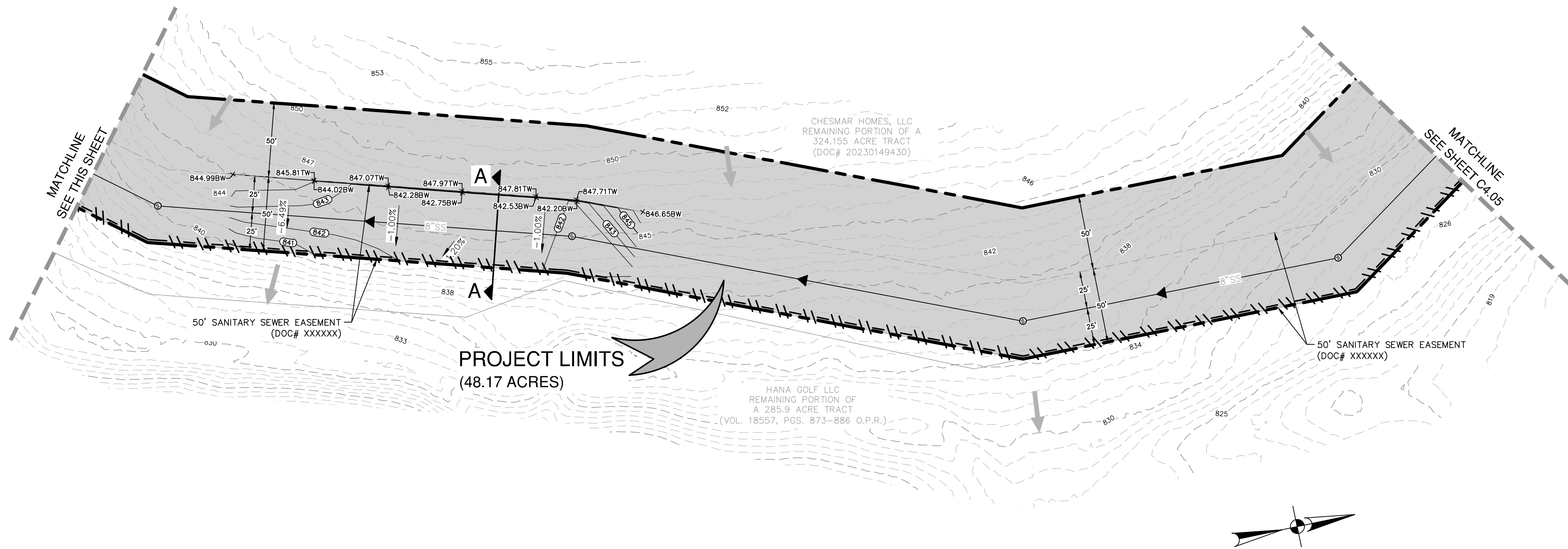
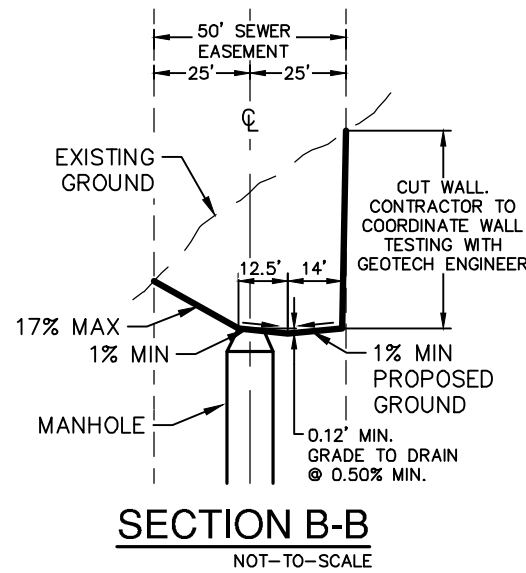
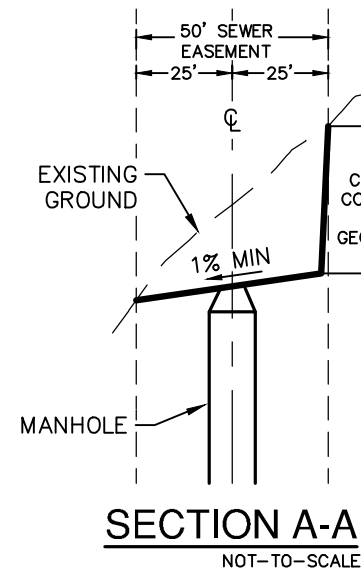
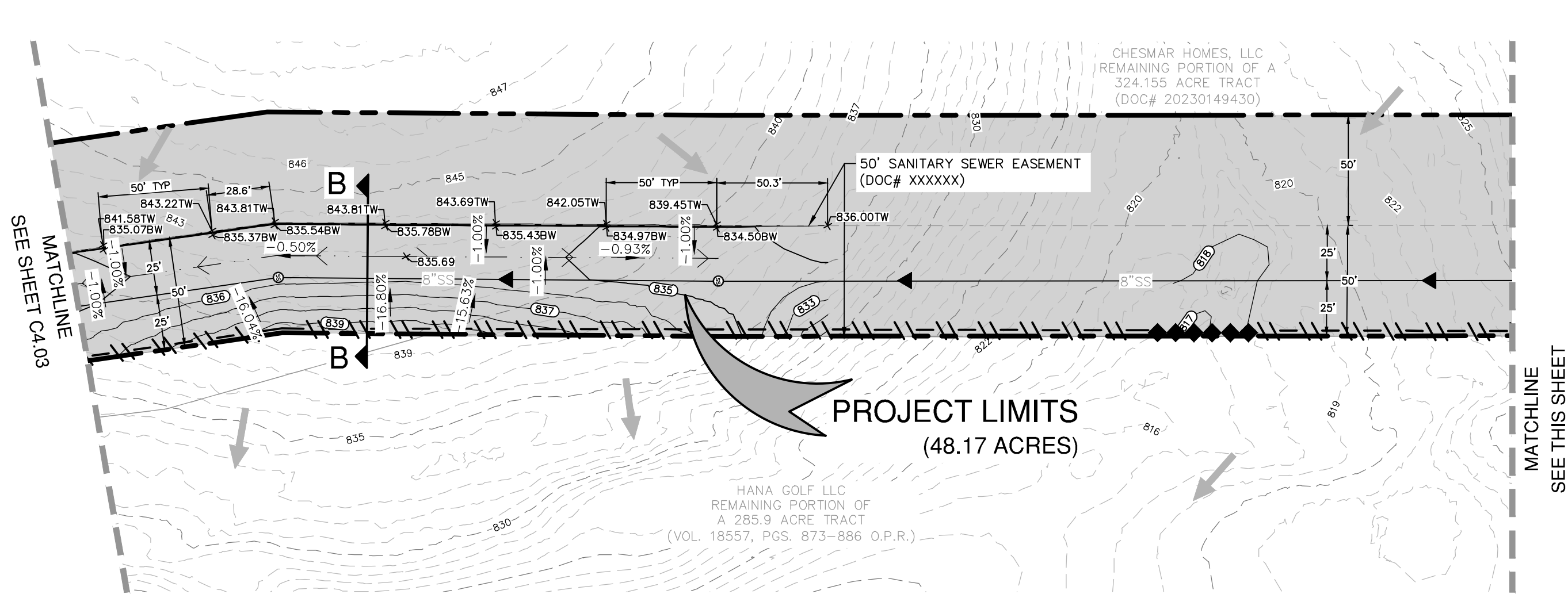
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SWP3 MODIFICATIONS		
DATE	SIGNATURE	DESCRIPTION



### SWPPP LEGEND

PROJECT LIMITS	---
EXISTING CONTOUR	---
PROPOSED CONTOUR	---
FLOW ARROW (EXISTING)	→
FLOW ARROW (PROPOSED)	→
SILT FENCE	
ROCK BERM	
GRAVEL FILTER BAGS	
GRATE INLET PROTECTION	
SEDIMENT CONTROL ROLLS	
LIMITS OF DISTURBED AREA	
STABILIZED CONSTRUCTION ENTRANCE/EXIT (FIELD LOCATE)	
CONSTRUCTION EQUIPMENT, VEHICLE & MATERIALS STORAGE AREA (FIELD LOCATE)	
CONCRETE TRUCK WASH-OUT PIT (FIELD LOCATE)	

### GENERAL NOTES

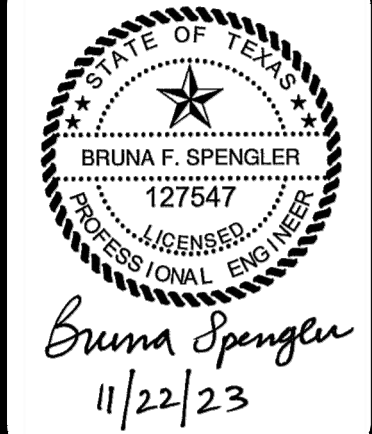
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EXHIBIT 2

DATE	
NO.	
REVISION	



**PAPE-DAWSON ENGINEERS**  
2000 HW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000  
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1008800

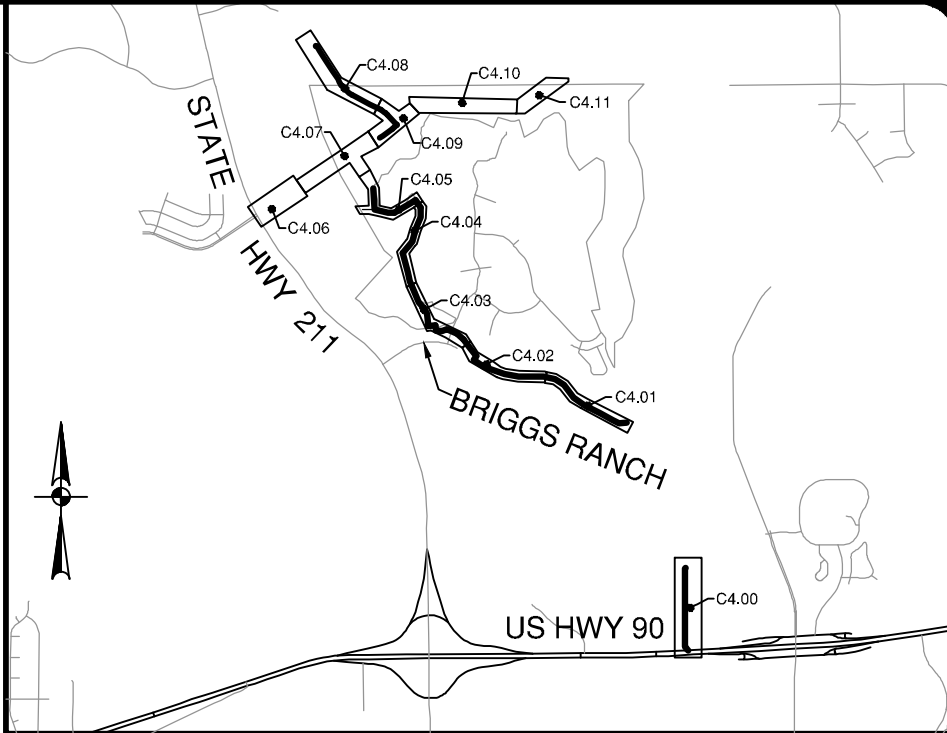
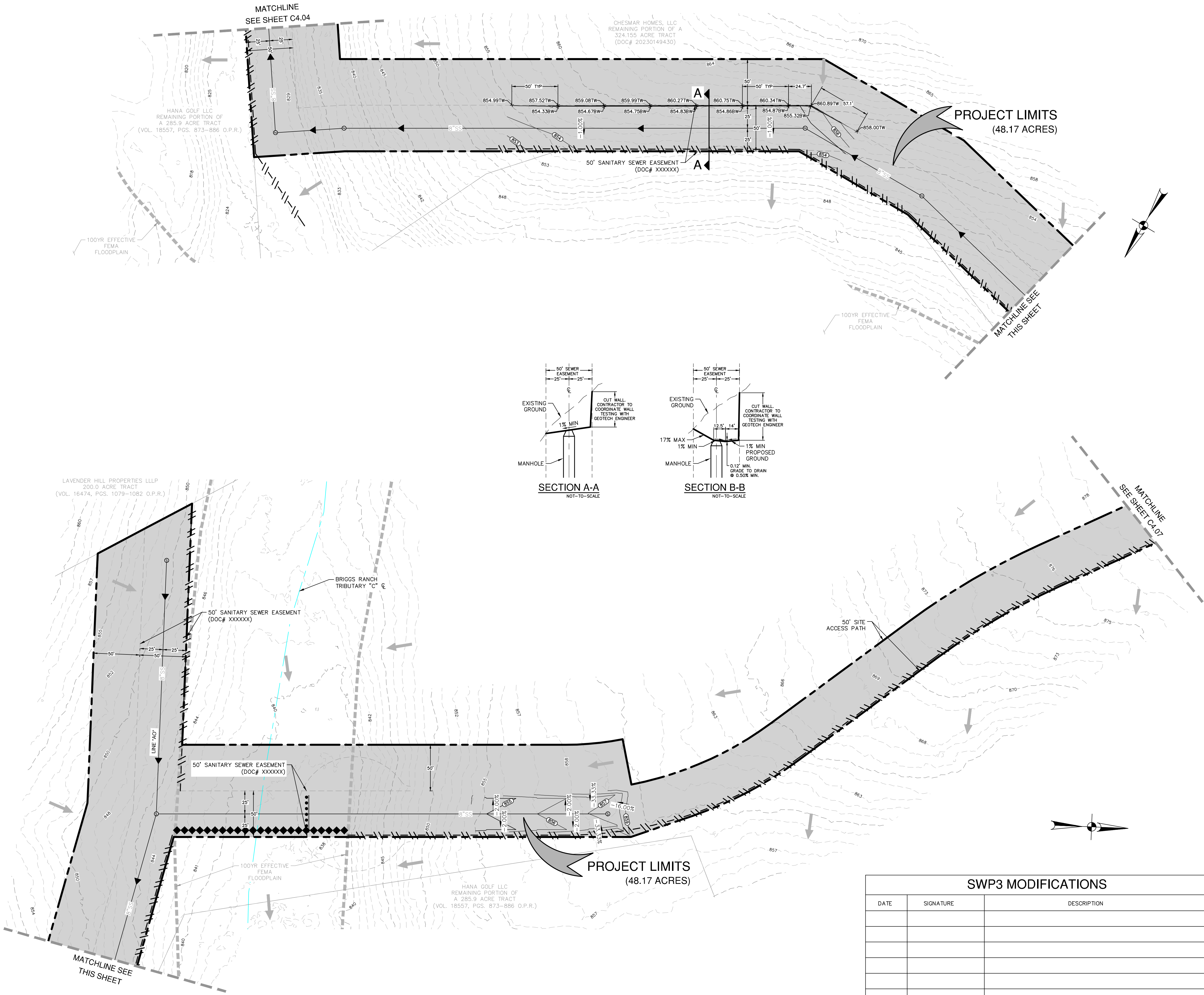
**BRIGGS RANCH NORTH OFFSITE UTILITIES**  
SAN ANTONIO, TEXAS  
**STORM WATER POLLUTION PREVENTION PLAN**  
(5 OF 12)

PLAT NO.	N/A
JOB NO.	12719-04
DATE	NOVEMBER 2023
DESIGNER	BR
CHECKED	DW
DRAWN	JR
SHEET	C4.04

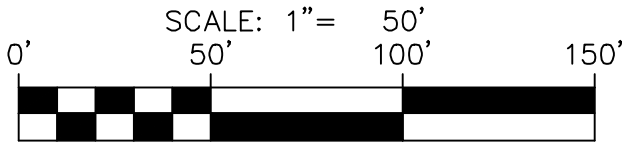


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LOCATION MAP  
NOT-TO-SCALE



### SWPPP LEGEND

PROJECT LIMITS	---
EXISTING CONTOUR	---
PROPOSED CONTOUR	---
FLOW ARROW (EXISTING)	→
FLOW ARROW (PROPOSED)	→
SILT FENCE	
ROCK BERM	
GRAVEL FILTER BAGS	
GRATE INLET PROTECTION	
SEDIMENT CONTROL ROLL	
LIMITS OF DISTURBED AREA	
STABILIZED CONSTRUCTION ENTRANCE/EXIT (FIELD LOCATE)	
CONSTRUCTION EQUIPMENT, VEHICLE & MATERIALS STORAGE AREA (FIELD LOCATE)	
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EXISTING CREEK CENTERLINE	---

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EXHIBIT 2

SWP3 MODIFICATIONS		
DATE	SIGNATURE	DESCRIPTION

NO.	REVISION	DATE

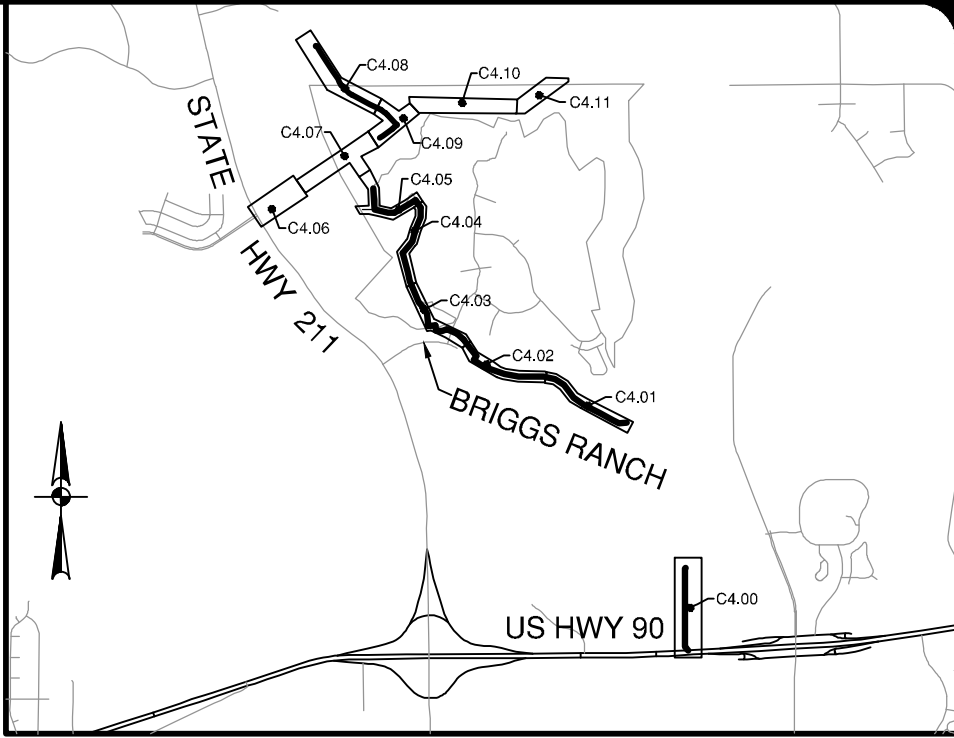


**PAPE-DAWSON ENGINEERS**  
2000 HW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000  
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

**BRIGGS RANCH NORTH OFFSITE UTILITIES**  
SAN ANTONIO, TEXAS  
**STORM WATER POLLUTION PREVENTION PLAN**  
(6 OF 12)

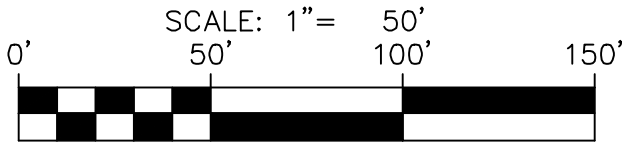
PLAT NO.	N/A
JOB NO.	12719-04
DATE	NOVEMBER 2023
DESIGNER	BR
CHECKED	DW
DRAWN	JR
SHEET	C4.05





## LOCATION MAP

NOT-TO-SCALE



The diagram illustrates a proposed construction site layout with various features and their locations relative to a road. The features are listed on the left, and their corresponding symbols or patterns are shown on the right.

- PROJECT LIMITS**: Represented by a solid horizontal line.
- EXISTING CONTOUR**: Represented by a dashed horizontal line.
- PROPOSED CONTOUR**: Represented by a solid horizontal line with a circled '970' below it.
- FLOW ARROW (EXISTING)**: Represented by a light gray arrow pointing right.
- FLOW ARROW (PROPOSED)**: Represented by a thick black arrow pointing right.
- SILT FENCE**: Represented by a line with diagonal hatching.
- ROCK BERM**: Represented by a line with diamond-shaped patterns.
- GRAVEL FILTER BAGS**: Represented by a line with oval-shaped patterns.
- GRATE INLET PROTECTION**: Represented by a line with circular patterns.
- SEDIMENT CONTROL ROLL**: Represented by a line with a cross-hatch pattern.
- LIMITS OF DISTURBED AREA**: Represented by a solid gray rectangular area.
- STABILIZED CONSTRUCTION ENTRANCE/EXIT (FIELD LOCATE)**: Represented by a rectangular area with a brick-like pattern.
- CONSTRUCTION EQUIPMENT, VEHICLE & MATERIALS STORAGE AREA (FIELD LOCATE)**: Represented by a rectangular area with a diagonal hatching pattern.
- CONCRETE TRUCK WASH-OUT PIT (FIELD LOCATE)**: Represented by a rectangular area with a dotted pattern.

1. DO NOT DISTURB VEGETATED AREAS (TREES, GRASS, WEEDS, BRUSH, ETC.) ANY MORE THAN NECESSARY FOR CONSTRUCTION.
2. CONSTRUCTION ENTRANCE/EXIT LOCATION, CONCRETE WASH-OUT PIT, AND CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD TO BE DETERMINED IN THE FIELD.
3. STORM WATER POLLUTION PREVENTION CONTROLS MAY NEED TO BE MODIFIED IN THE FIELD TO ACCOMPLISH THE DESIRED EFFECT. ALL MODIFICATIONS ARE TO BE NOTED ON THIS EXHIBIT AND SIGNED AND DATED BY THE RESPONSIBLE PARTY.
4. RESTRICT ENTRY/EXIT TO THE PROJECT SITE TO DESIGNATED LOCATIONS BY USE OF ADEQUATE FENCING, IF NECESSARY.
5. ALL STORM WATER POLLUTION PREVENTION CONTROLS ARE TO BE MAINTAINED AND IN WORKING CONDITIONS AT ALL TIMES.
6. FOR A COMPLETE LISTING OF TEMPORARY STORM WATER POLLUTION PREVENTION CONTROLS REFER TO THE TPDES STORM WATER POLLUTION PREVENTION PLAN.
7. STORM WATER POLLUTION PREVENTION STRUCTURES SHOULD BE LOCATED WITHIN THE SITE BOUNDARIES. SOME OF THESE FEATURES MAY BE SHOWN OUTSIDE THE SITE BOUNDARIES ON THIS PLAN FOR VISUAL CLARITY.
8. AS SOON AS PRACTICAL, ALL DISTURBED SOIL THAT WILL NOT BE COVERED BY IMPERVIOUS COVER SUCH AS PARKWAY AREAS, EASEMENT AREAS, EMBANKMENT SLOPES, ETC. WILL BE STABILIZED PER APPLICABLE PROJECT SPECIFICATIONS.
9. BEST MANAGEMENT PRACTICES MAY BE INSTALLED IN STAGES TO COINCIDE WITH THE DISTURBANCE OF UPGRADE AREAS.
10. BEST MANAGEMENT PRACTICES MAY BE REMOVED IN STAGES ONCE THE WATERSHED FOR THAT PORTION CONTROLLED BY THE BEST MANAGEMENT PRACTICES HAS BEEN STABILIZED IN ACCORDANCE WITH TPDES REQUIREMENTS.
11. UPON COMPLETION OF THE PROJECT, INCLUDING SITE STABILIZATION, AND BEFORE FINAL PAYMENT IS ISSUED, CONTRACTOR SHALL REMOVE ALL SEDIMENT AND EROSION CONTROL MEASURES, PAYING SPECIAL ATTENTION TO ROCK BERMS IN DRAINAGE FEATURES.
12. WHERE VEGETATED FILTER STRIPS ARE INDICATED, CONTRACTOR SHALL VERIFY THAT SUFFICIENT VEGETATION EXISTS, OTHERWISE CONTRACTOR SHALL PLACE SILT FENCING IN LIEU OF VEGETATED FILTER STRIP.
13. SHADED AREA ( ) DENOTES LIMITS OF DISTURBED AREAS. OTHER AREAS WITHIN THE PROJECT LIMITS, WITH THE EXCEPTION OF A CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD, ARE NOT A PART OF THIS TPDES STORM WATER POLLUTION PREVENTION PLAN (SWP3) AND WILL NOT BE DISTURBED BY CIVIL CONSTRUCTION ACTIVITIES. HOUSES AND EXISTING DRIVEWAYS WILL REQUIRE A SEPARATE STORM WATER POLLUTION PREVENTION PLAN.

[illegible]

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.

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EXHIBIT 2

PLAT NO. N/A  
JOB NO. 12719-04  
DATE NOVEMBER 2023  
DESIGNER BR  
CHECKED DW DRAWN J  
SHEET C4.06

**PAPE-DAWSON  
ENGINEERS**

**BRIGGS RANCH NORTH OFFSITE UTILITIES**  
**SAN ANTONIO, TEXAS**

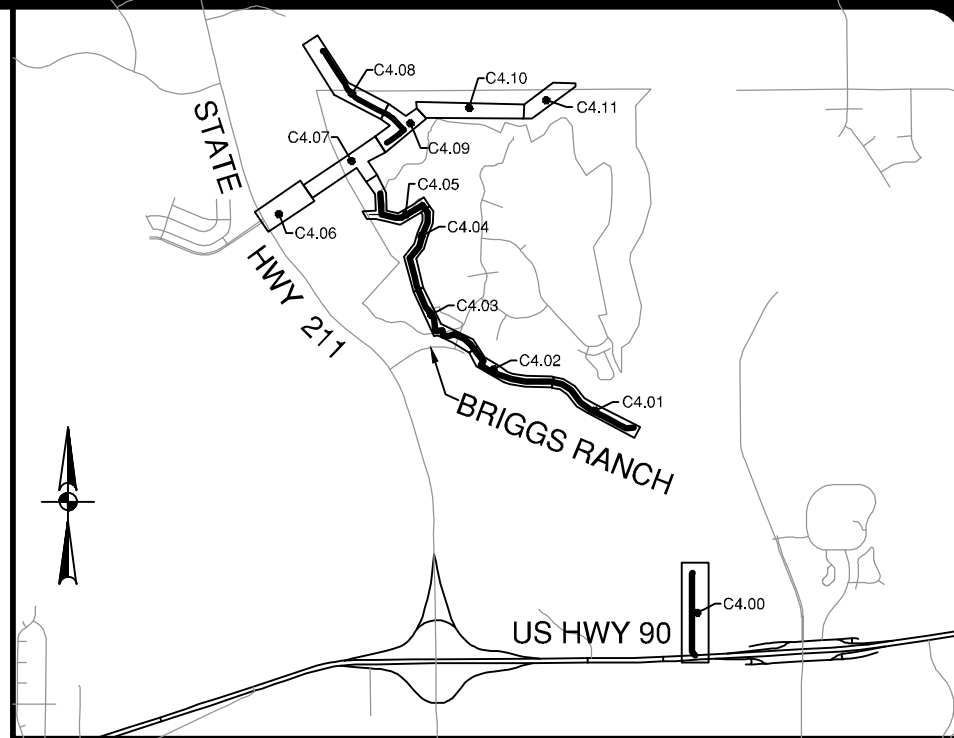
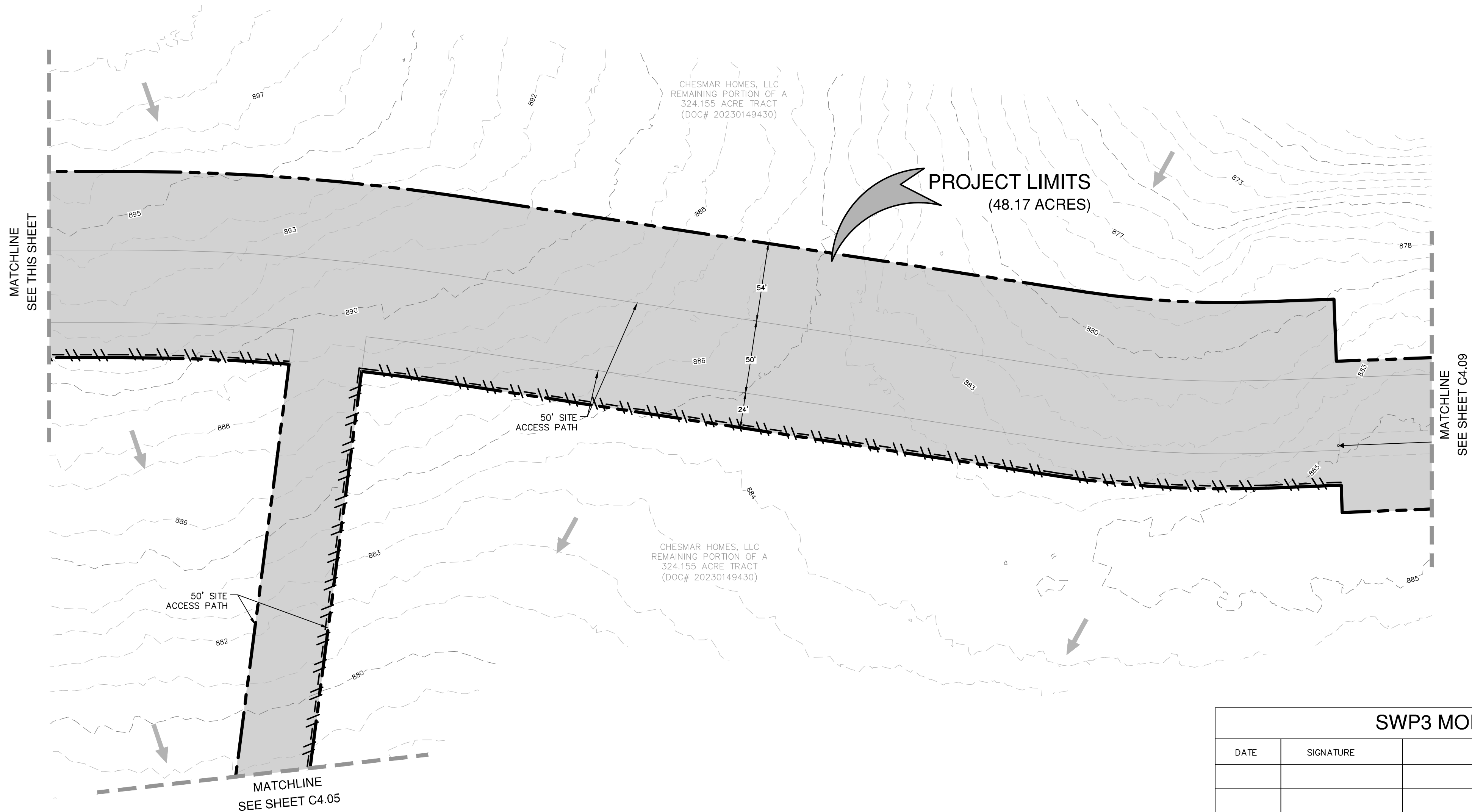
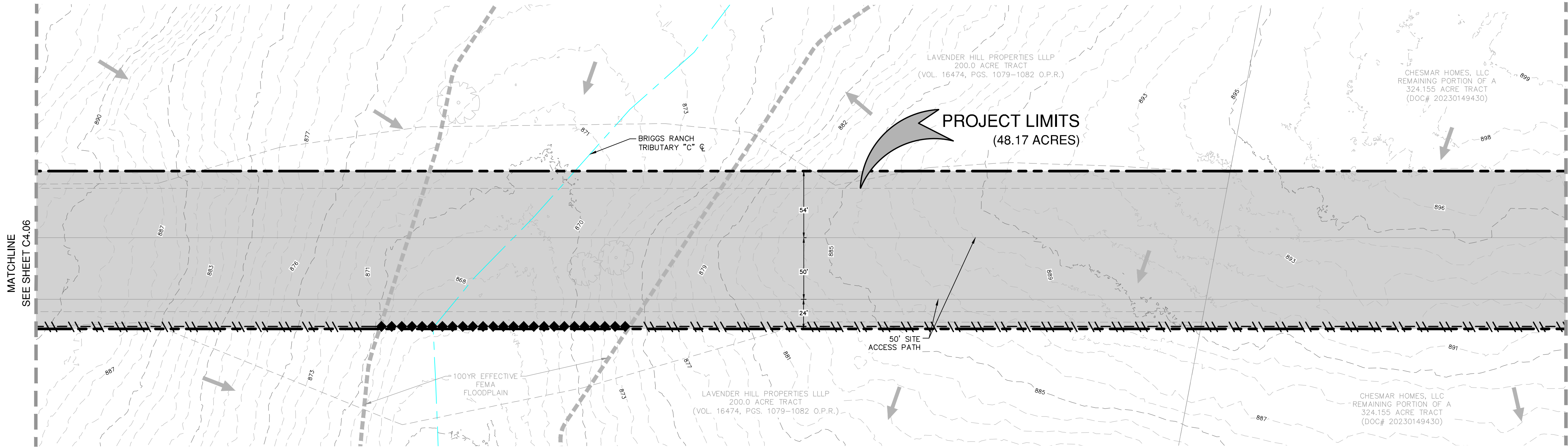
**STORM WATER POLLUTION PREVENTION PLAN**  
**(7 OF 12)**

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#### LOCATION MAP

NOT-TO-SCALE



#### SWPPP LEGEND

PROJECT LIMITS	---
EXISTING CONTOUR	---
PROPOSED CONTOUR	---
FLOW ARROW (EXISTING)	→
FLOW ARROW (PROPOSED)	→
SILT FENCE	--- --- --- ---
ROCK BERM	--- --- --- ---
GRAVEL FILTER BAGS	--- --- --- ---
GRATE INLET PROTECTION	--- --- --- ---
SEDIMENT CONTROL ROLLS	--- --- --- ---
LIMITS OF DISTURBED AREA	---
STABILIZED CONSTRUCTION ENTRANCE/EXIT (FIELD LOCATE)	---
CONSTRUCTION EQUIPMENT, VEHICLE & MATERIALS STORAGE AREA (FIELD LOCATE)	---
CONCRETE TRUCK WASH-OUT PIT (FIELD LOCATE)	---
EXISTING CREEK CENTERLINE	---

#### GENERAL NOTES

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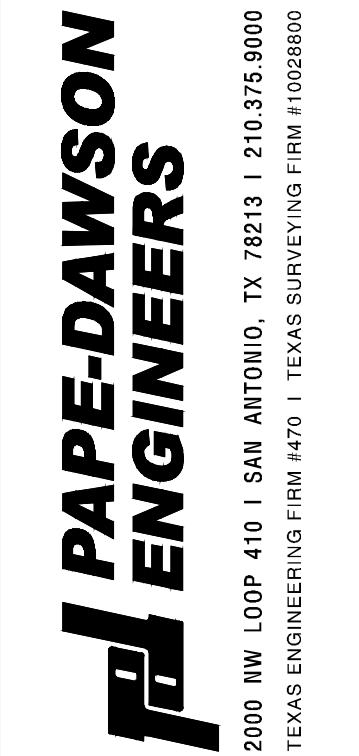
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#### EXHIBIT 2

SWP3 MODIFICATIONS		
DATE	SIGNATURE	DESCRIPTION

NO.	REVISION	DATE



#### BRIGGS RANCH NORTH OFFSITE UTILITIES SAN ANTONIO, TEXAS STORM WATER POLLUTION PREVENTION PLAN (8 OF 12)

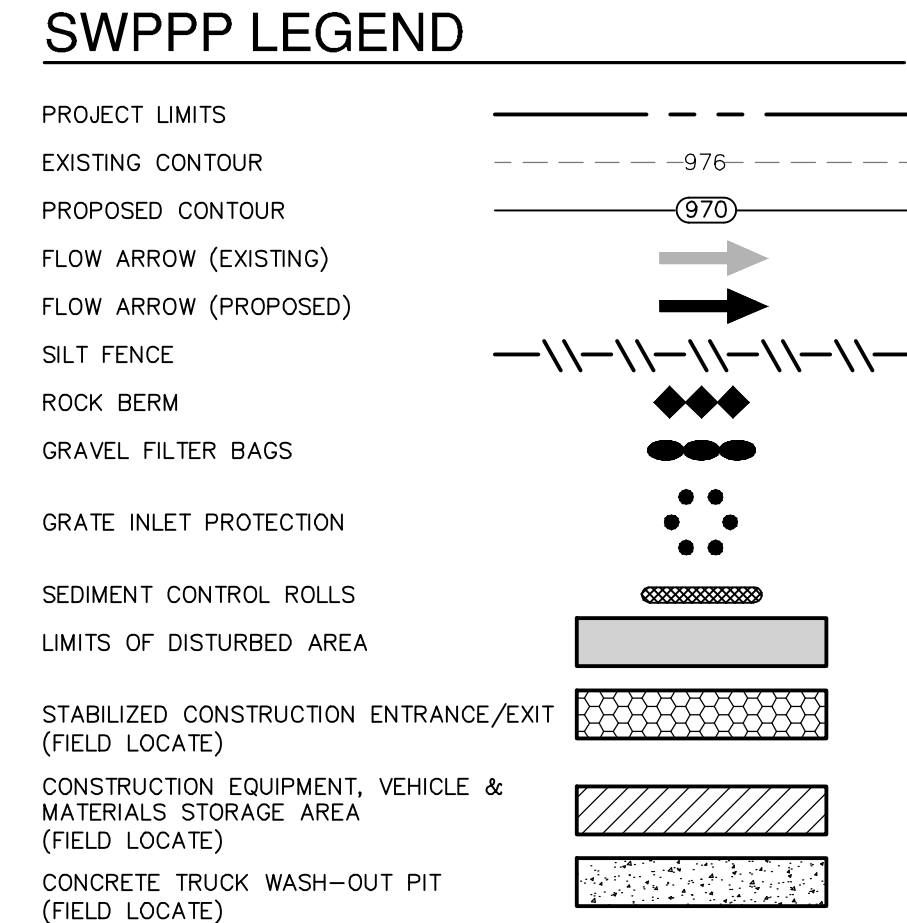
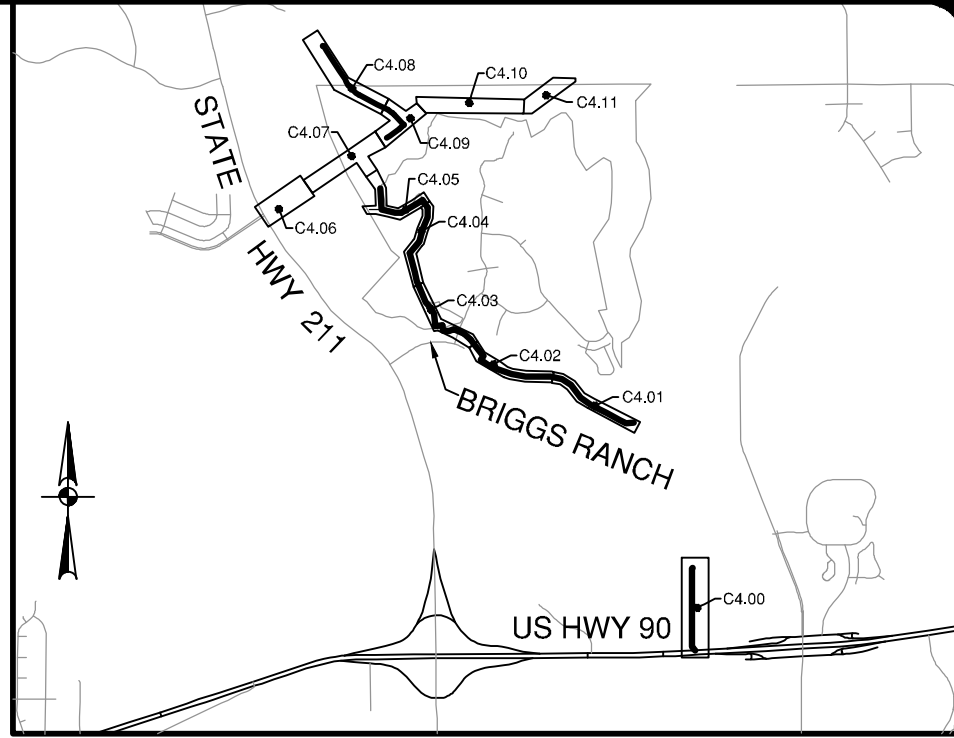
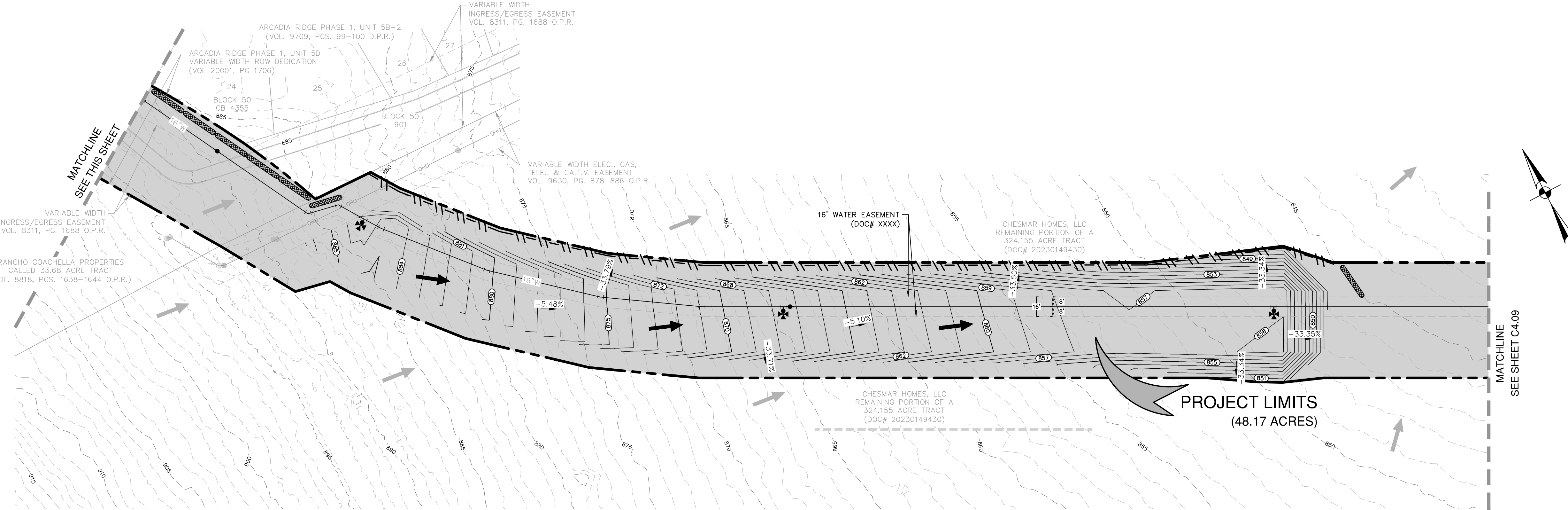
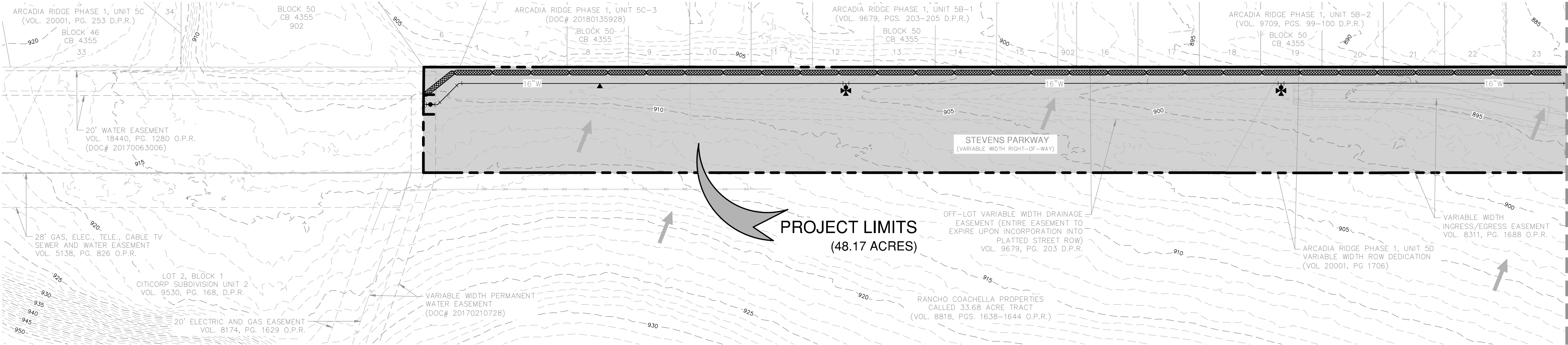
PLAT NO.	N/A
JOB NO.	12719-04
DATE	NOVEMBER 2023
DESIGNER	BR
CHECKED	DW
DRAWN	JR
SHEET	C4.07



Date: October 19, 2023, 10:39 AM -- User ID: trojps  
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SWP3 MODIFICATIONS		
DATE	SIGNATURE	DESCRIPTION



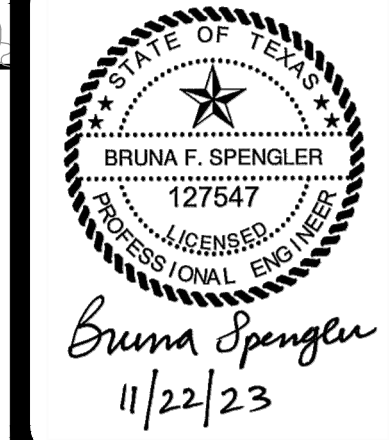
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EXHIBIT 2

NO.	REVISION	DATE



**PAPE-DAWSON ENGINEERS**  
2000 HW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000  
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028900

**BRIGGS RANCH NORTH OFFSITE UTILITIES**  
SAN ANTONIO, TEXAS  
**STORM WATER POLLUTION PREVENTION PLAN**  
(9 OF 12)

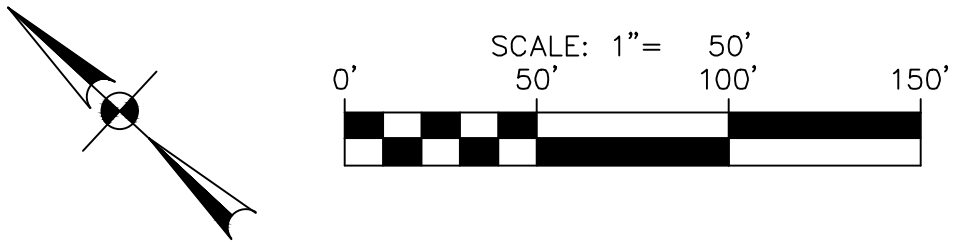
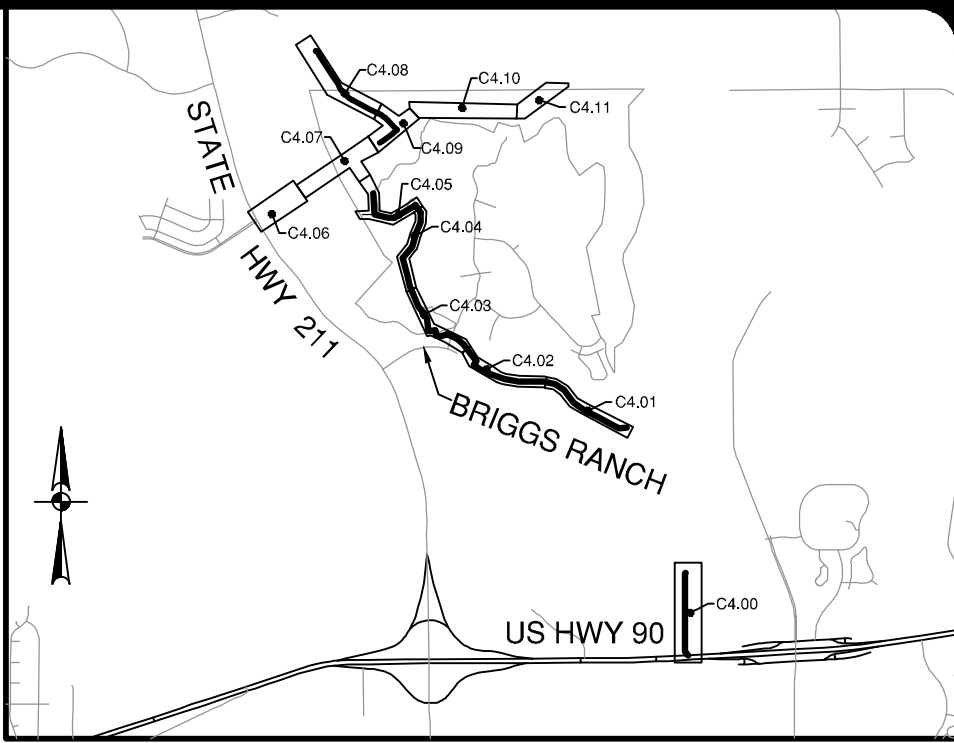
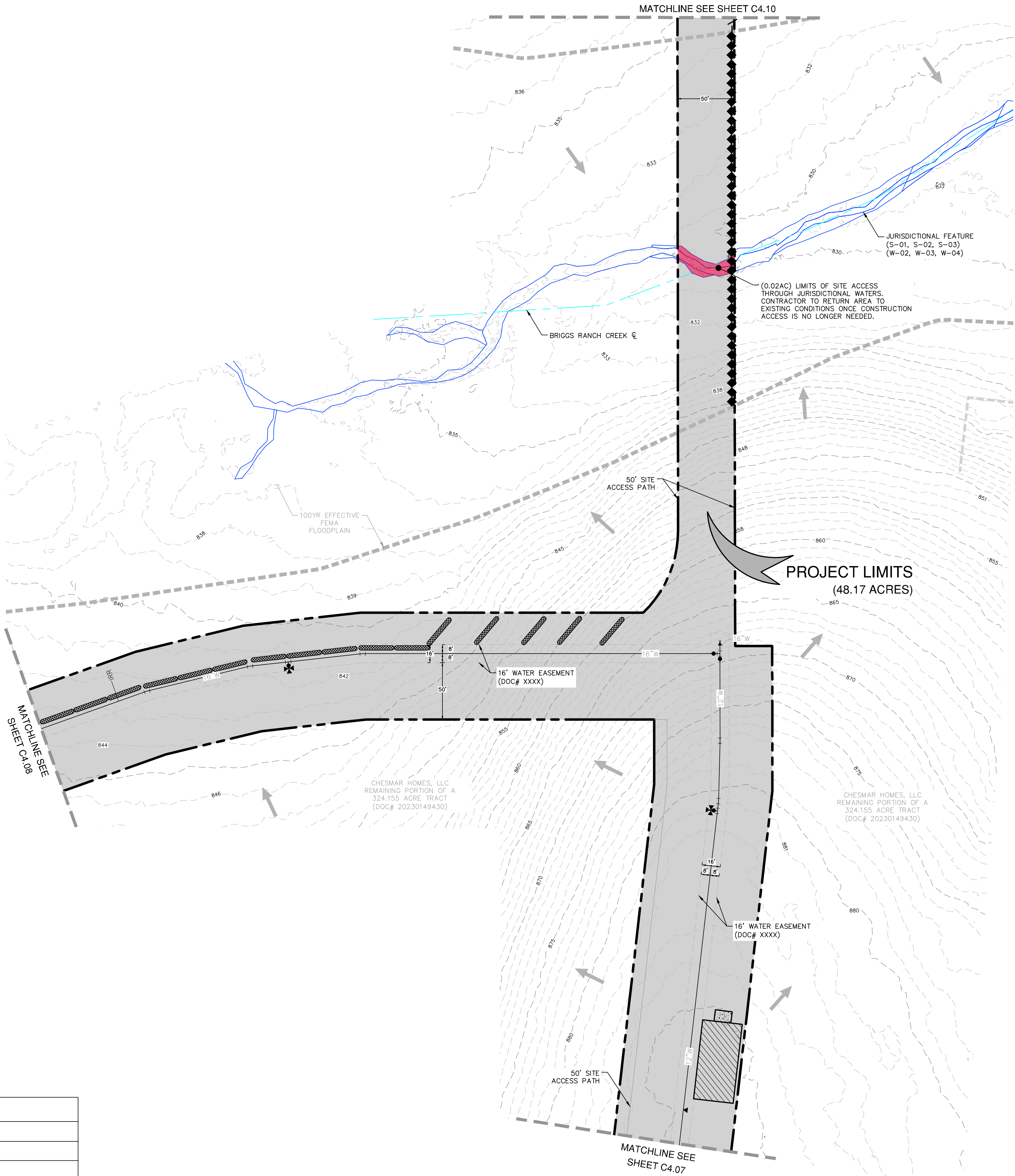
PLAT NO.	N/A
JOB NO.	12719-04
DATE	NOVEMBER 2023
DESIGNER	BR
CHECKED	DW
DRAWN	JR
SHEET	C4.08



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SWP3 MODIFICATIONS		
DATE	SIGNATURE	DESCRIPTION



### SWPPP LEGEND

PROJECT LIMITS	---
EXISTING CONTOUR	---
PROPOSED CONTOUR	---
FLOW ARROW (EXISTING)	→
FLOW ARROW (PROPOSED)	→
SILT FENCE	--- --- --- ---
ROCK BERM	--- --- --- ---
GRAVEL FILTER BAGS	--- --- --- ---
GRATE INLET PROTECTION	--- --- --- ---
SEDIMENT CONTROL ROLLS	--- --- --- ---
LIMITS OF DISTURBED AREA	---
STABILIZED CONSTRUCTION ENTRANCE/EXIT (FIELD LOCATE)	---
CONSTRUCTION EQUIPMENT, VEHICLE & MATERIALS STORAGE AREA (FIELD LOCATE)	---
CONCRETE TRUCK WASH-OUT PIT (FIELD LOCATE)	---
EXISTING LIMITS OF JURISDICTIONAL WATERS	---
EXISTING CREEK CENTERLINE	---

### GENERAL NOTES

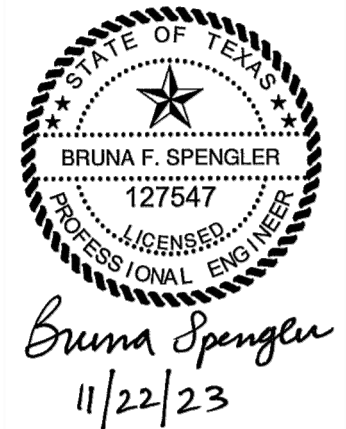
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EXHIBIT 2

NO.	REVISION	DATE



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

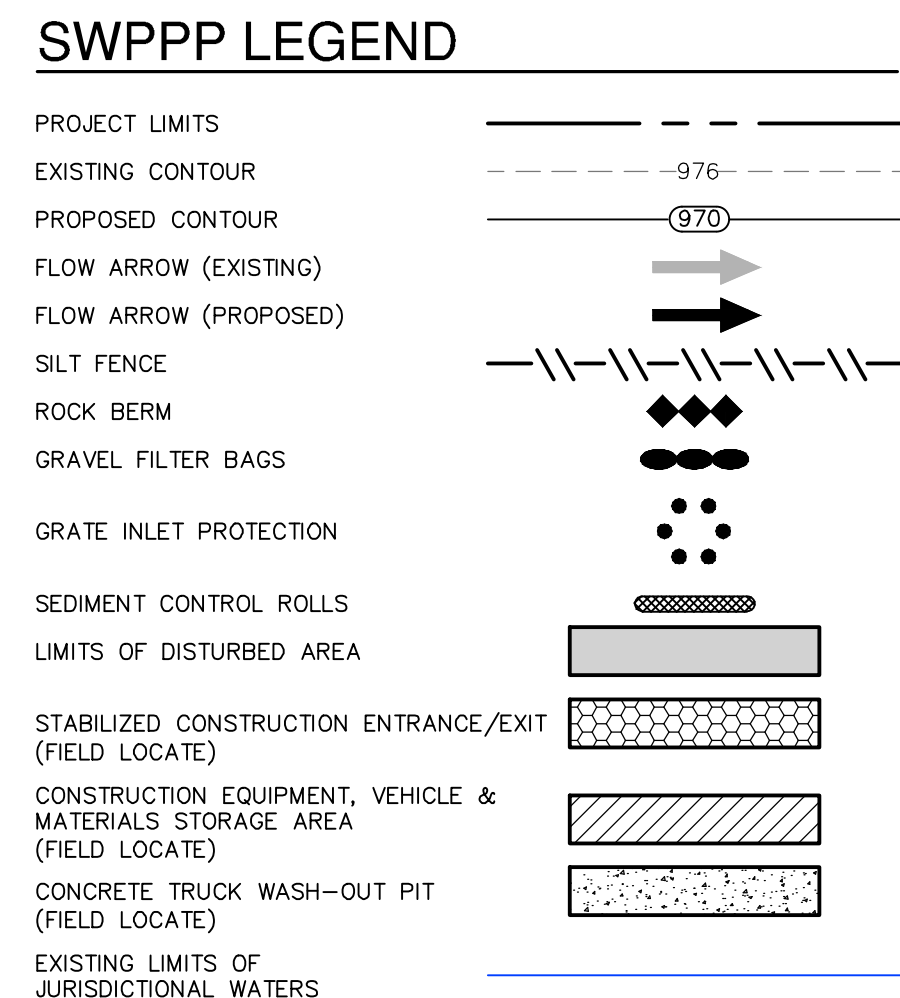
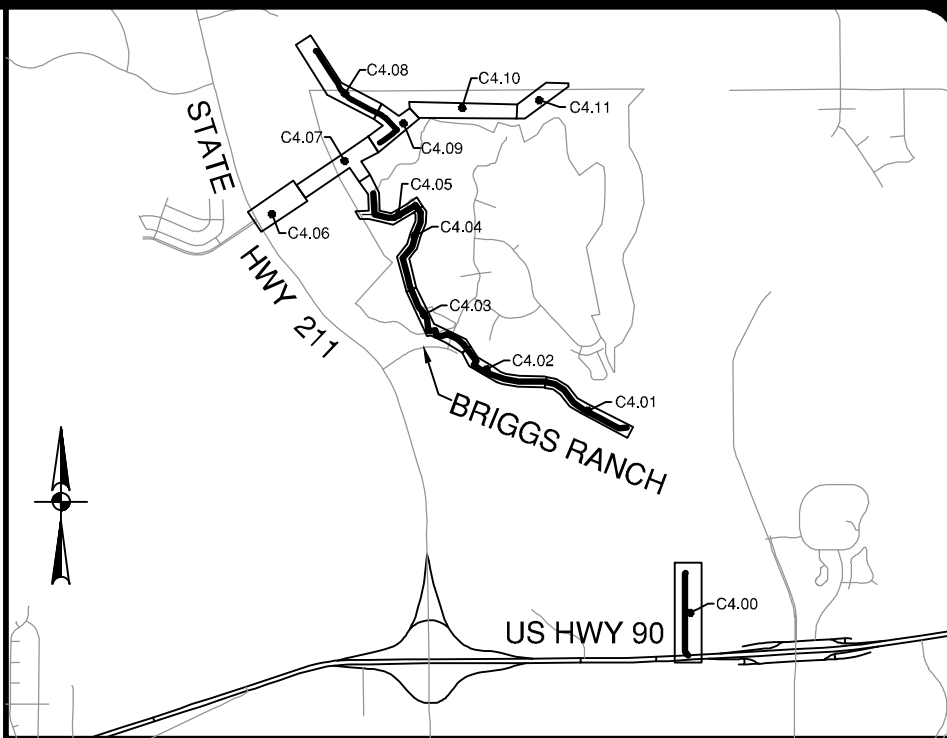
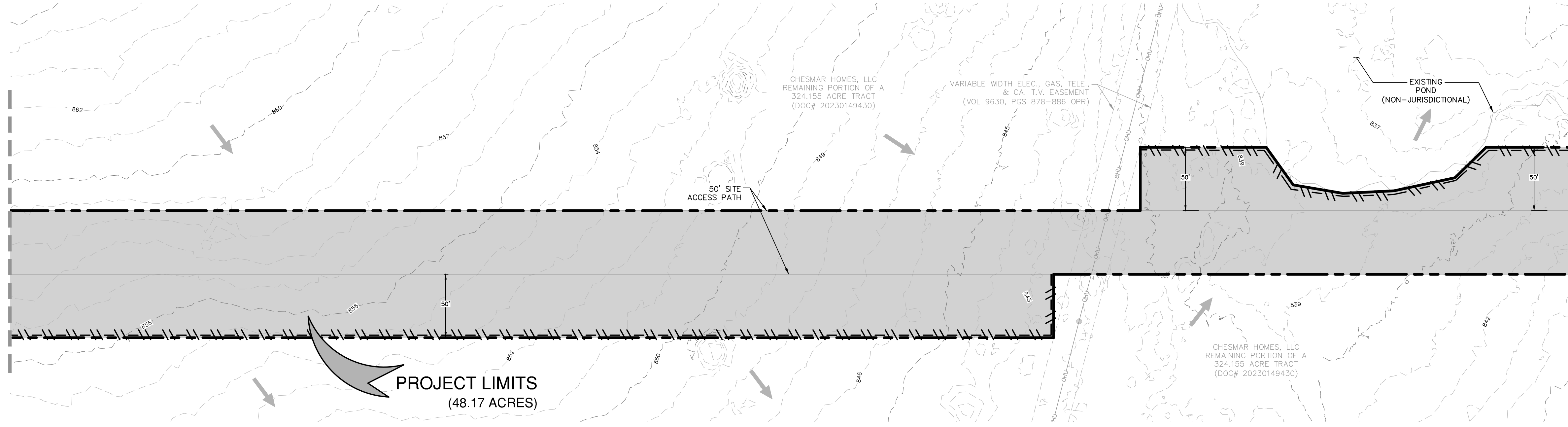
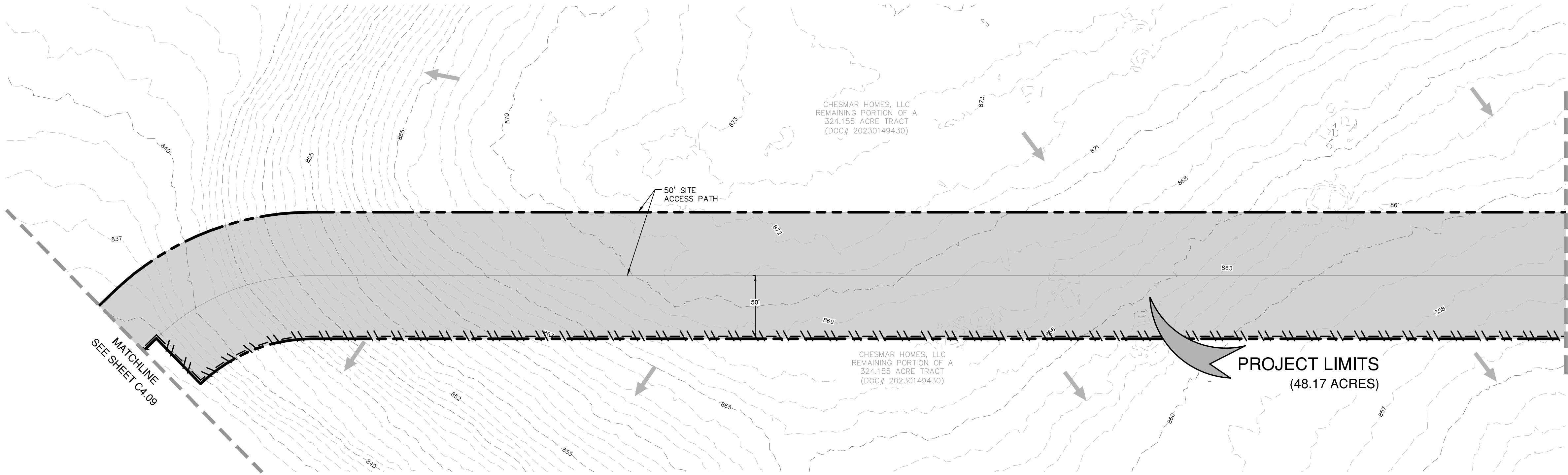
**BRIGGS RANCH NORTH OFFSITE UTILITIES**  
SAN ANTONIO, TEXAS  
**STORM WATER POLLUTION PREVENTION PLAN**  
(10 OF 12)

PLAT NO.	N/A
JOB NO.	12719-04
DATE	NOVEMBER 2023
DESIGNER	BR
CHECKED	DW
DRAWN	JR
SHEET	C4.09



Dates: October 19, 2023, 10:39 AM -- User: ID: brpops  
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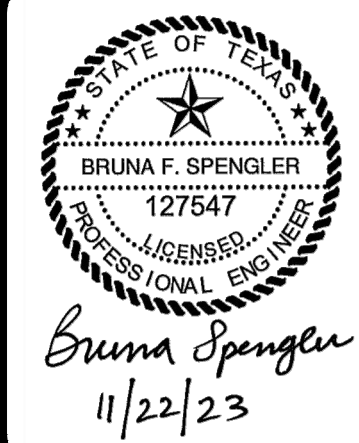
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  - UPON COMPLETION OF THE PROJECT, INCLUDING SITE STABILIZATION, AND BEFORE FINAL PAYMENT IS ISSUED, CONTRACTOR SHALL REMOVE ALL SEDIMENT AND EROSION CONTROL MEASURES, PAYING SPECIAL ATTENTION TO ROCK BERMS IN DRAINAGE FEATURES.
  - WHERE VEGETATED FILTER STRIPS ARE INDICATED, CONTRACTOR SHALL VERIFY THAT SUFFICIENT VEGETATION EXISTS, OTHERWISE CONTRACTOR SHALL PLACE SILT FENCING IN LIEU OF VEGETATED FILTER STRIP.
  - SHADED AREA [shaded box] DENOTES LIMITS OF DISTURBED AREAS. OTHER AREAS WITHIN THE PROJECT LIMITS WITH THE EXCEPTION OF A CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD, ARE NOT A PART OF THIS TPDES STORM WATER POLLUTION PREVENTION PLAN (SWP3) AND WILL NOT BE DISTURBED BY CIVIL CONSTRUCTION ACTIVITIES. HOUSE CONSTRUCTION ACTIVITIES WILL REQUIRE A SEPARATE STORM WATER POLLUTION PREVENTION PLAN.

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

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

EXHIBIT 2

NO.	REVISION	DATE



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

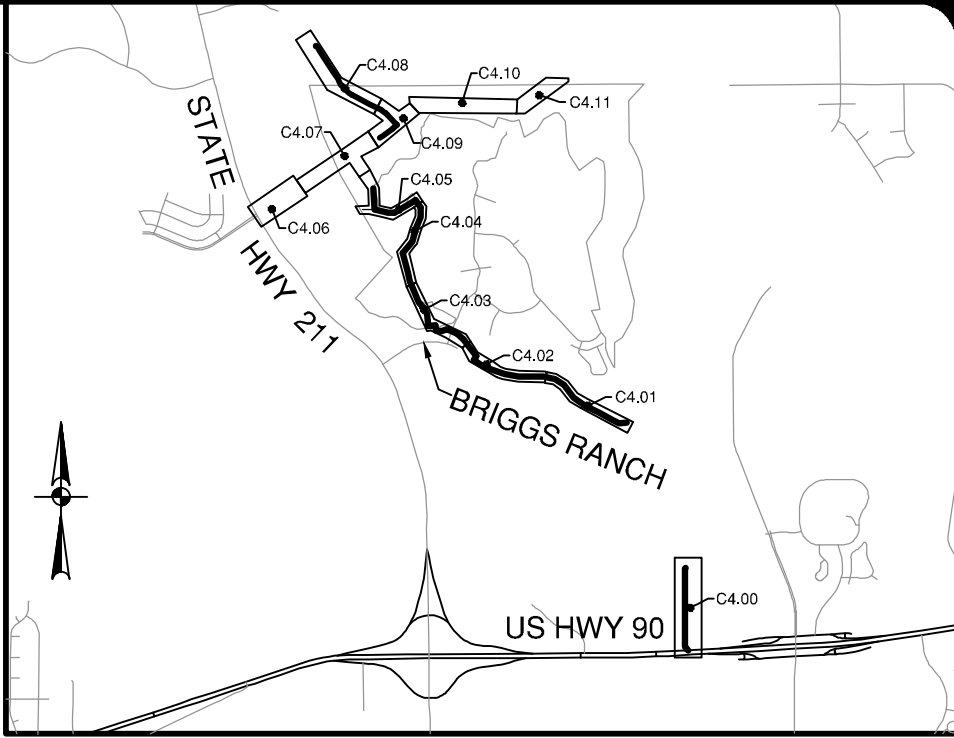
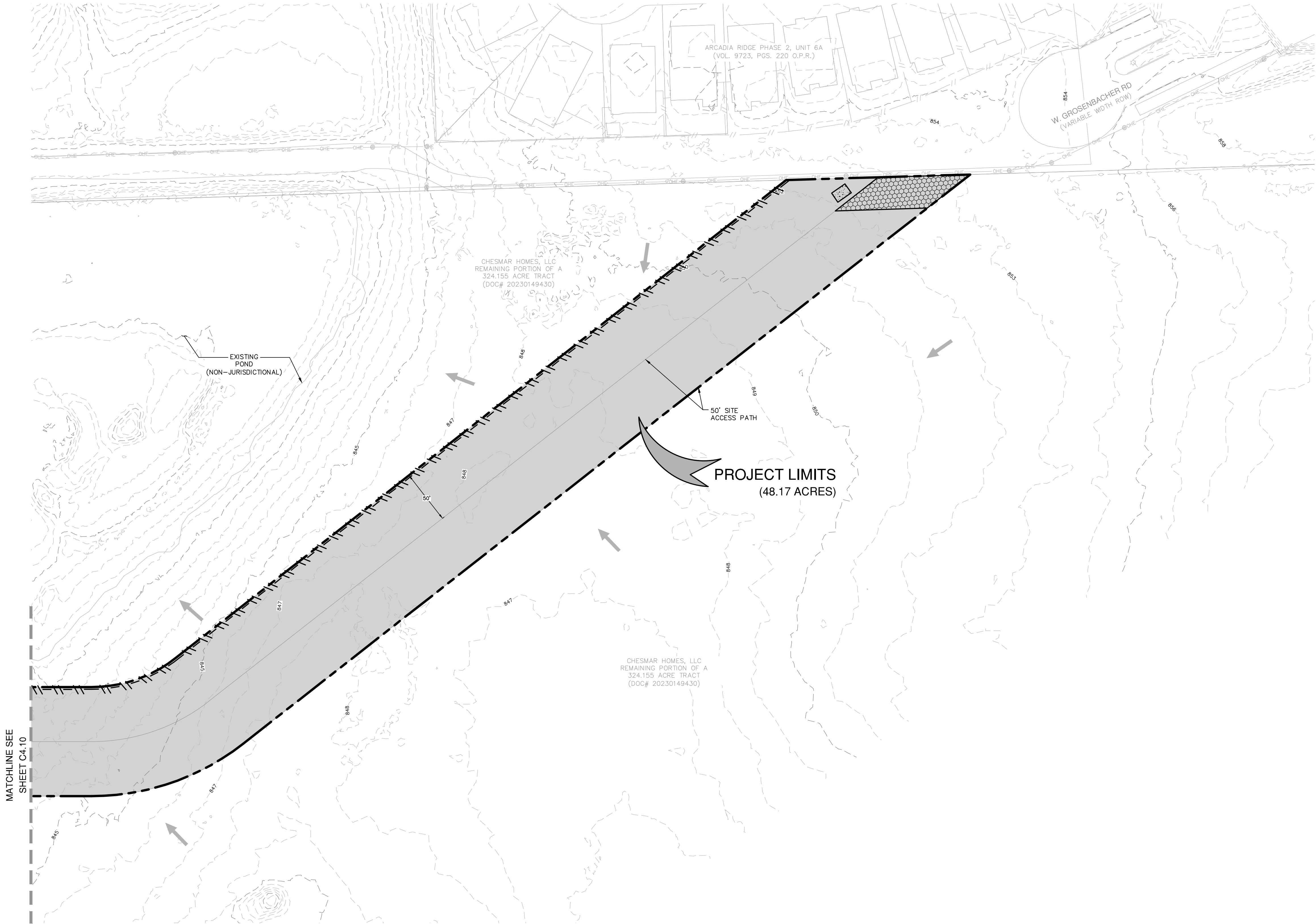
**BRIGGS RANCH NORTH OFFSITE UTILITIES**  
SAN ANTONIO, TEXAS  
**STORM WATER POLLUTION PREVENTION PLAN**  
(11 OF 12)

PLAT NO. N/A  
JOB NO. 12719-04  
DATE NOVEMBER 2023  
DESIGNER BR  
CHECKED DW DRAWN JR  
SHEET C4.10



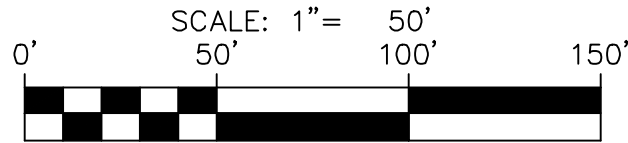
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### LOCATION MAP

NOT-TO-SCALE



### SWPPP LEGEND

PROJECT LIMITS	---
EXISTING CONTOUR	---
PROPOSED CONTOUR	---
FLOW ARROW (EXISTING)	→
FLOW ARROW (PROPOSED)	→
SILT FENCE	
ROCK BERM	
GRAVEL FILTER BAGS	
GRATE INLET PROTECTION	
SEDIMENT CONTROL ROLLS	
LIMITS OF DISTURBED AREA	
STABILIZED CONSTRUCTION ENTRANCE/EXIT (FIELD LOCATE)	
CONSTRUCTION EQUIPMENT, VEHICLE & MATERIALS STORAGE AREA (FIELD LOCATE)	
CONCRETE TRUCK WASH-OUT PIT (FIELD LOCATE)	
EXISTING LIMITS OF JURISDICTIONAL WATERS	---

### GENERAL NOTES

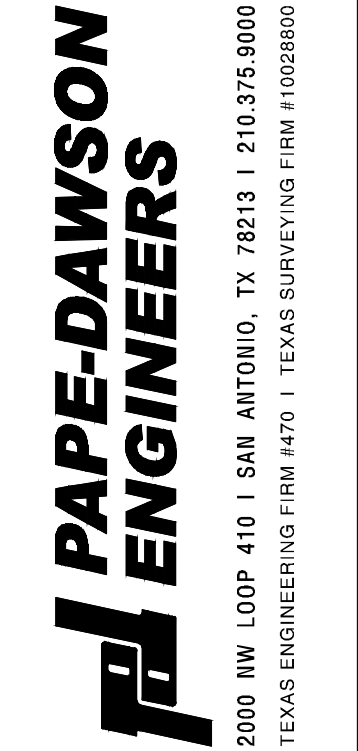
- DO NOT DISTURB VEGETATED AREAS (TREES, GRASS, WEEDS, BRUSH, ETC.) ANY MORE THAN NECESSARY FOR CONSTRUCTION.
- CONSTRUCTION ENTRANCE/EXIT LOCATION, CONCRETE WASH-OUT PIT, AND CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD TO BE DETERMINED IN THE FIELD.
- STORM WATER POLLUTION PREVENTION CONTROLS MAY 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.
- RESTRICT ENTRY/EXIT TO THE PROJECT SITE TO DESIGNATED LOCATIONS BY USE OF ADEQUATE FENCING, IF NECESSARY.
- ALL STORM WATER POLLUTION PREVENTION CONTROLS ARE TO BE MAINTAINED AND IN WORKING CONDITIONS AT ALL TIMES.
- FOR A COMPLETE LISTING OF TEMPORARY STORM WATER POLLUTION PREVENTION CONTROLS REFER TO THE TPDES STORM WATER POLLUTION PREVENTION PLAN.
- STORM WATER POLLUTION PREVENTION STRUCTURES SHOULD BE CONSTRUCTED WITHIN THE SITE BOUNDARIES. SOME OF THESE FEATURES MAY BE SHOWN OUTSIDE THE SITE BOUNDARIES ON THIS PLAN FOR VISUAL CLARITY.
- 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.
- BEST MANAGEMENT PRACTICES MAY BE INSTALLED IN STAGES TO COINCIDE WITH THE DISTURBANCE OF UPGRADE AREAS.
- BEST MANAGEMENT PRACTICES MAY BE REMOVED IN STAGES ONCE THE WATERSHED FOR THAT PORTION CONTROLLED BY THE BEST MANAGEMENT PRACTICES HAS BEEN STABILIZED IN ACCORDANCE WITH TPDES REQUIREMENTS.
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### EXHIBIT 2

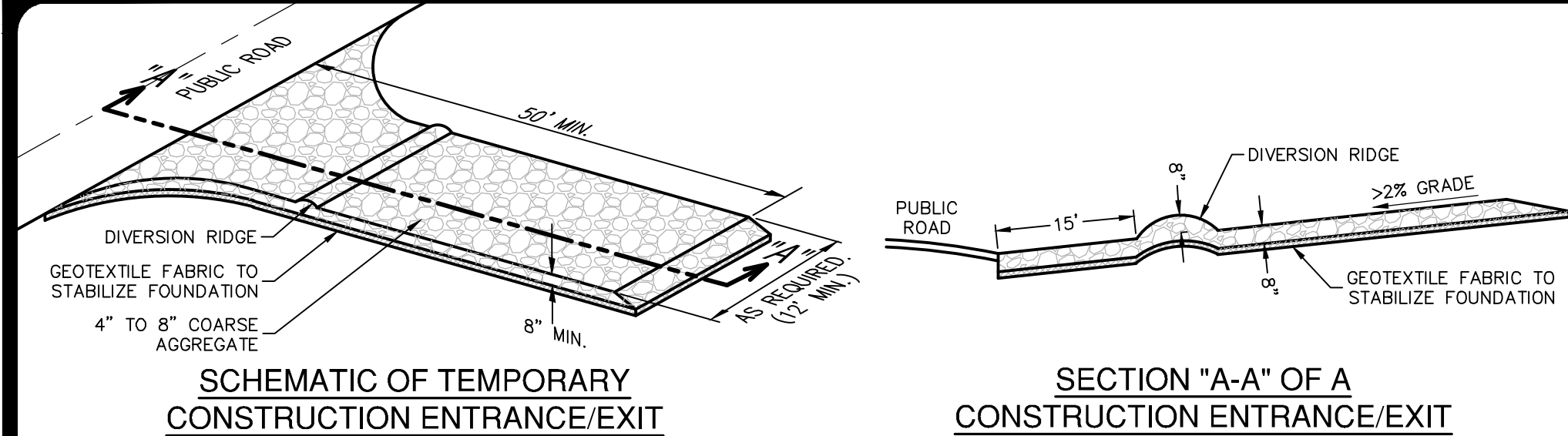
NO.	REVISION	DATE



## BRIGGS RANCH NORTH OFFSITE UTILITIES SAN ANTONIO, TEXAS STORM WATER POLLUTION PREVENTION PLAN (12 OF 12)

PLAT NO.	N/A
JOB NO.	12719-04
DATE	NOVEMBER 2023
DESIGNER	BR
CHECKED	DW DRAWN
SHEET	C4.11

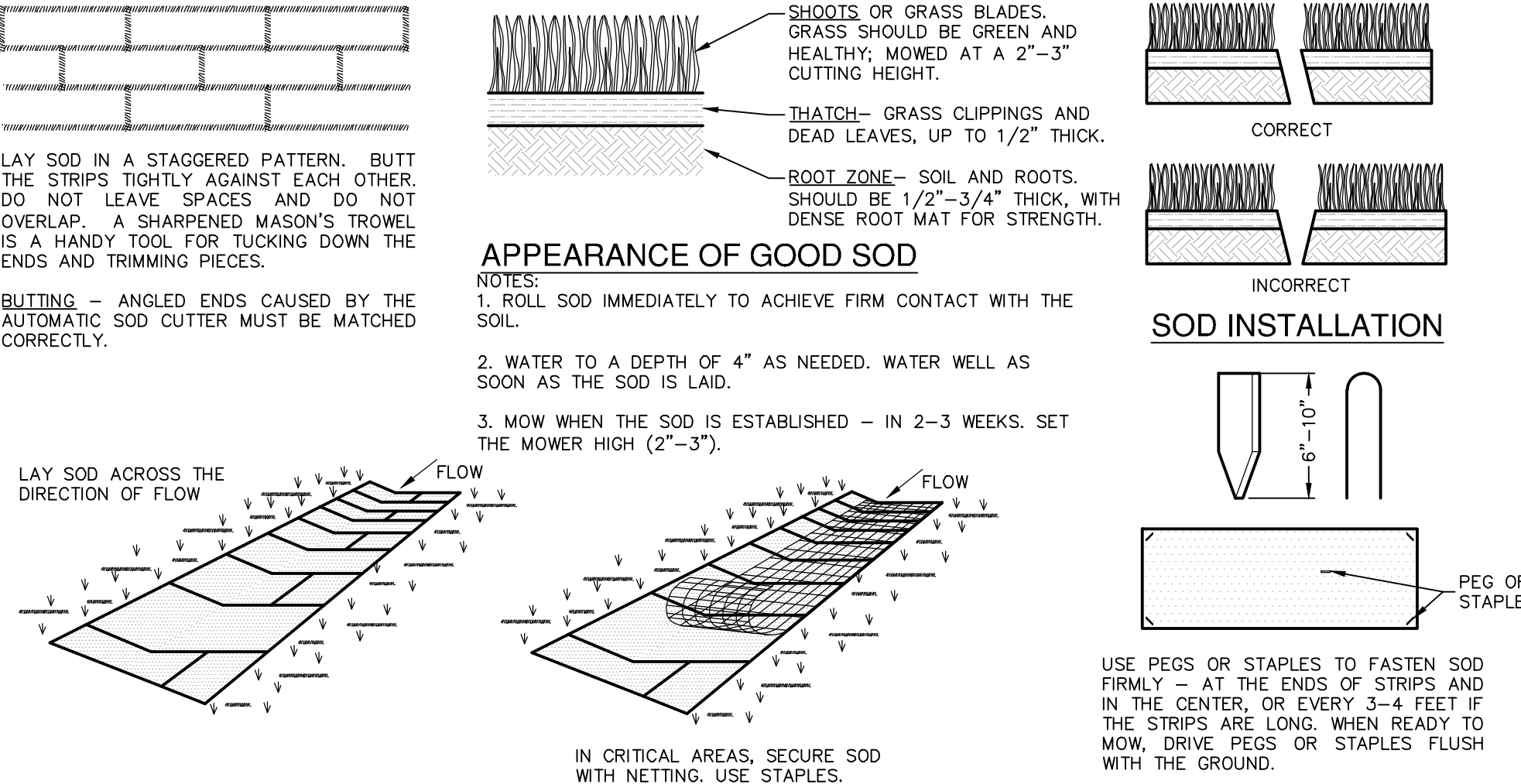




- MATERIALS**
1. THE AGGREGATE SHOULD CONSIST OF 4-INCH TO 8-INCH WASHED STONE OVER A STABLE FOUNDATION AS SPECIFIED IN THE PLAN.
  2. THE AGGREGATE SHOULD BE PLACED WITH A MINIMUM THICKNESS OF 8-INCHES.
  3. THE GEOTEXTILE FABRIC SHOULD BE DESIGNED SPECIFICALLY FOR USE AS A SOIL FILTRATION MEDIA WITH AN APPROXIMATE WEIGHT OF 6 OZ/YD<sup>2</sup>, A MULLEN BURST RATING OF 140 LB/IN<sup>2</sup>, AND AN EQUIVALENT OPENING SIZE GREATER THAN A NUMBER 50 SIEVE.
  4. IF A WASHING FACILITY IS REQUIRED, A LEVEL AREA WITH A MINIMUM OF 4-INCH DIAMETER WASHED STONE OR COMMERCIAL ROCK SHOULD BE INCLUDED IN THE PLANS. DIVERT WASTEWATER TO A SEDIMENT TRAP OR BASIN.

- INSTALLATION**
1. AVOID CURVES ON PUBLIC ROADS AND STEEP SLOPES. REMOVE VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA. GRADE CROWN FOUNDATION FOR POSITIVE DRAINAGE.
  2. THE MINIMUM WIDTH OF THE ENTRANCE/EXIT SHOULD BE 12 FEET OR THE FULL WIDTH OF EXIT ROADWAY, WHICHEVER IS GREATER.
  3. THE CONSTRUCTION ENTRANCE SHOULD BE AT LEAST 50 FEET LONG.
  4. IF THE SLOPE TOWARD THE ROAD EXCEEDS 2%, CONSTRUCT A RIDGE, 6-INCHES TO 8-INCHES HIGH WITH 3:1 (H:V) SIDE SLOPES, ACROSS THE FOUNDATION APPROXIMATELY 15 FEET FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE PUBLIC ROAD.
  5. PLACE GEOTEXTILE FABRIC AND GRADE FOUNDATION TO IMPROVE STABILITY, ESPECIALLY WHERE WET CONDITIONS ARE ANTICIPATED.
  6. PLACE STONE TO DIMENSIONS AND GRADE SHOWN ON PLANS. LEAVE SURFACE SMOOTH AND SLOPE FOR DRAINAGE.
  7. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN.
  8. INSTALL PIPE UNDER PAD AS NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.

### STABILIZED CONSTRUCTION ENTRANCE/EXIT DETAIL



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

- SITE PREPARATION**
1. PRIOR TO SOD PREPARATION, AREAS TO BE SODDED SHOULD BE BROUGHT TO FINAL GRADE IN ACCORDANCE WITH THE APPROVED PLAN.
  2. THE SURFACE SHOULD BE CLEARED OF ALL TRASH, DEBRIS AND OF ALL ROOTS, BRUSH, WIRE, GRADE STAKES AND OTHER OBJECTS THAT WOULD INTERFERE WITH PLANTING, FERTILIZING OR MAINTENANCE OPERATIONS.
  3. FERTILIZE ACCORDING TO SOIL TESTS. FERTILIZER NEEDS CAN BE DETERMINED BY A SOIL TESTING LABORATORY OR REGIONAL RECOMMENDATIONS CAN BE MADE BY COUNTY AGRICULTURAL EXTENSION AGENTS. FERTILIZER SHOULD BE WORKED INTO THE SOIL TO A DEPTH OF 3 INCHES WITH A DISC, SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT. ON SLOPING LAND, THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE CONTOUR.

- INSTALLATION IN CHANNELS**
1. SOD STRIPS IN WATERWAYS SHOULD BE LAID PERPENDICULAR TO THE DIRECTION OF FLOW. CARE SHOULD BE TAKEN TO BUTT ENDS OF STRIPS TIGHTLY (SEE FIGURE ABOVE).
  2. AFTER ROLLING OR TAMPING, SOD SHOULD BE PEGGED OR STAPLED TO RESIST WASHOUT DURING THE ESTABLISHMENT PERIOD. MESH OR OTHER NETTING MAY BE PEGGED OVER THE SOD FOR EXTRA PROTECTION IN CRITICAL AREAS.

### SOD INSTALLATION DETAIL

NOT-TO-SCALE

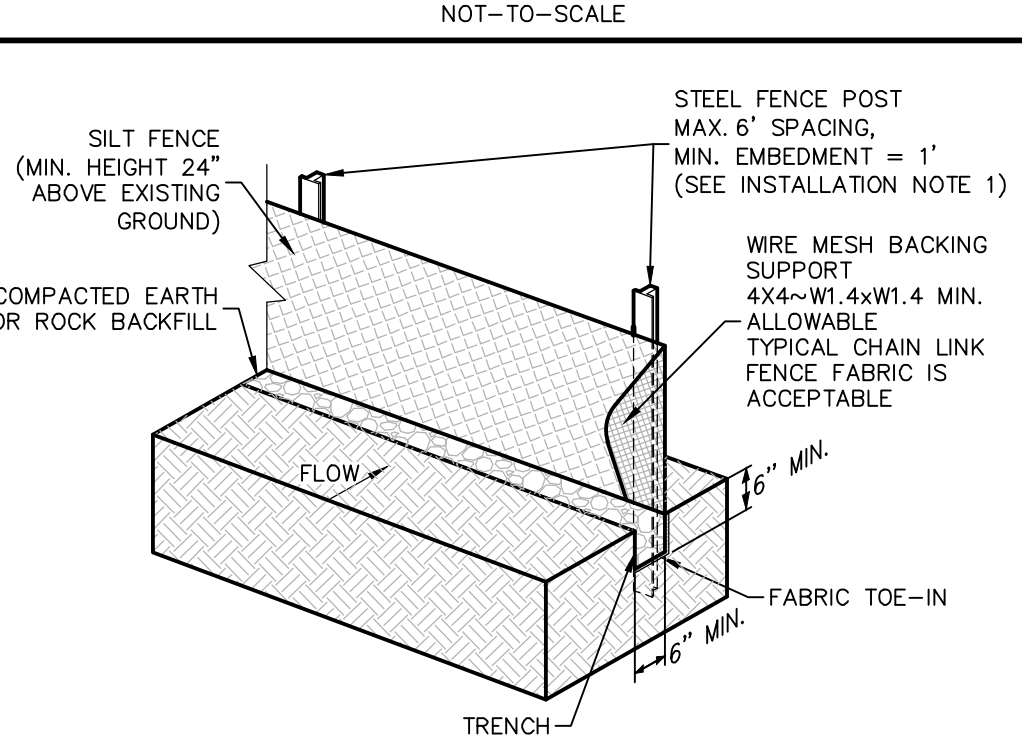
- COMMON TROUBLE POINTS**
1. INADEQUATE RUNOFF CONTROL-SEDIMENT WASHES ONTO PUBLIC ROAD.
  2. STONE TOO SMALL OR GEOTEXTILE FABRIC ABSENT, RESULTS IN MUDDY CONDITION AS STONE IS PRESSED INTO SOIL.
  3. PAD TOO SHORT FOR HEAVY CONSTRUCTION TRAFFIC-EXTEND PAD BEYOND THE MINIMUM 50-FOOT LENGTH AS NECESSARY.
  4. PAD NOT FLARED SUFFICIENTLY AT ROAD SURFACE, RESULTS IN MUD BEING TRACKED ON TO ROAD AND POSSIBLE DAMAGE TO ROAD.
  5. UNSTABLE FOUNDATION - USE GEOTEXTILE FABRIC UNDER PAD AND/OR IMPROVE FOUNDATION DRAINAGE.

- INSPECTION AND MAINTENANCE GUIDELINES**
1. THE ENTRANCE SHOULD BE MAINTAINED IN A CONDITION, WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
  2. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHOULD BE REMOVED IMMEDIATELY BY CONTRACTOR.
  3. WHEN NECESSARY, WHEELS SHOULD BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
  4. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
  5. ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE BY USING APPROVED METHODS.

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

- INSPECTION AND MAINTENANCE GUIDELINES**
1. INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL BY THE RESPONSIBLE PARTY. FOR INSTALLATIONS IN STREAMBEDS, ADDITIONAL DAILY INSPECTIONS SHOULD BE MADE.
  2. REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6 INCHES AND DISPOSE OF THE ACCUMULATED SILT IN AN APPROVED MANNER THAT WILL NOT CAUSE ANY ADDITIONAL SILTATION.
  3. REPAIR ANY LOOSE WIRE SHEATHING.
  4. THE BERM SHOULD BE RESHAPED AS NEEDED DURING INSPECTION.
  5. THE BERM SHOULD BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
  6. THE ROCK BERM SHOULD BE LEFT IN PLACE UNTIL ALL UPSTREAM AREAS ARE STABILIZED AND ACCUMULATED SILT REMOVED.

### ROCK BERM DETAIL



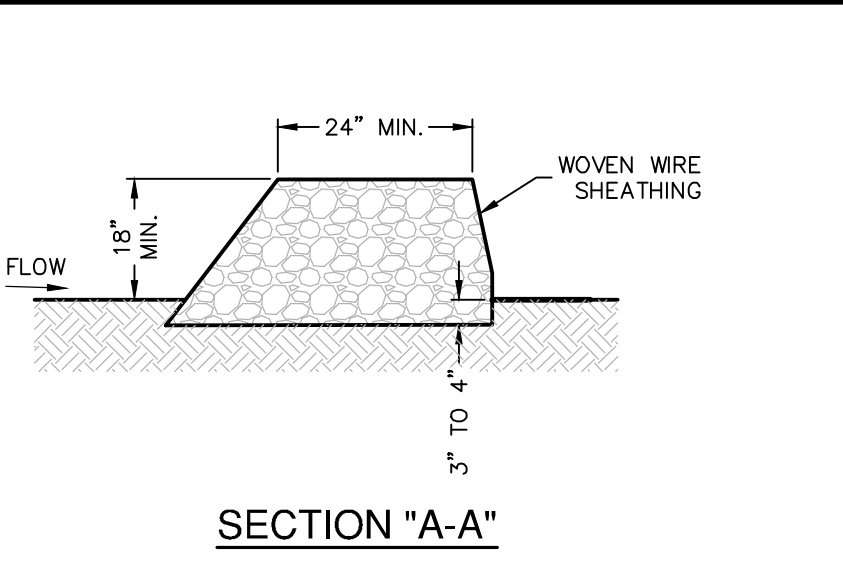
- SILT FENCE**
- A SILT FENCE IS A BARRIER CONSISTING OF GEOTEXTILE FABRIC SUPPORTED BY METAL POSTS TO PREVENT SOIL AND SEDIMENT LOSS FROM A SITE. WHEN PROPERLY USED, SILT FENCES CAN BE HIGHLY EFFECTIVE AT CONTROLLING SEDIMENT FROM DISTURBED AREAS. THEY CAUSE RUNOFF TO POND, ALLOWING HEAVIER SOLIDS TO 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.
- MATERIALS**
1. SILT FENCE MATERIAL SHOULD BE POLYPROPYLENE, POLYETHYLENE, OR POLYAMIDE WOVEN OR NONWOVEN FABRIC. THE FABRIC SHOULD BE 36 INCHES, WITH A MINIMUM UNIT WEIGHT OF 4.5 OZ/YD, MULLEN BURST STRENGTH EXCEEDING 190 LB/IN<sup>2</sup>, ULTRAVIOLET STABILITY EXCEEDING 70%, AND MINIMUM APPARENT OPENING SIZE OF U.S. SIEVE NUMBER 30.
  2. FENCE POSTS SHOULD BE MADE OF HOT ROLLED STEEL, AT LEAST 4 FEET LONG WITH TEE OR Y-BAR CROSS SECTION, SURFACE PAINTED OR GALVANIZED, MINIMUM WEIGHT 1.25 LB/FT, AND BRINELL HARDNESS EXCEEDING 140.
  3. WOVEN WIRE BACKING TO SUPPORT THE FABRIC SHOULD BE GALVANIZED 2" X 4" WELDED WIRE, 12 GAUGE MINIMUM.

- INSTALLATION**
1. STEEL POSTS, WHICH SUPPORT THE SILT FENCE, SHOULD BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS MUST BE EMBEDDED A MINIMUM OF 1-FOOT DEEP AND SPACED NOT MORE THAN 8 FEET ON CENTER. WHERE WATER CONCENTRATES, THE MAXIMUM SPACING SHOULD BE 6 FEET.
  2. LAY OUT FENCING DOWN-SLOPE OF DISTURBED AREA, FOLLOWING THE CONTOUR AS CLOSELY AS POSSIBLE. THE FENCE SHOULD BE SITED SO THAT THE MAXIMUM DRAINAGE AREA IS ¼ ACRE/100 FEET OF FENCE.

### SILT FENCE DETAIL

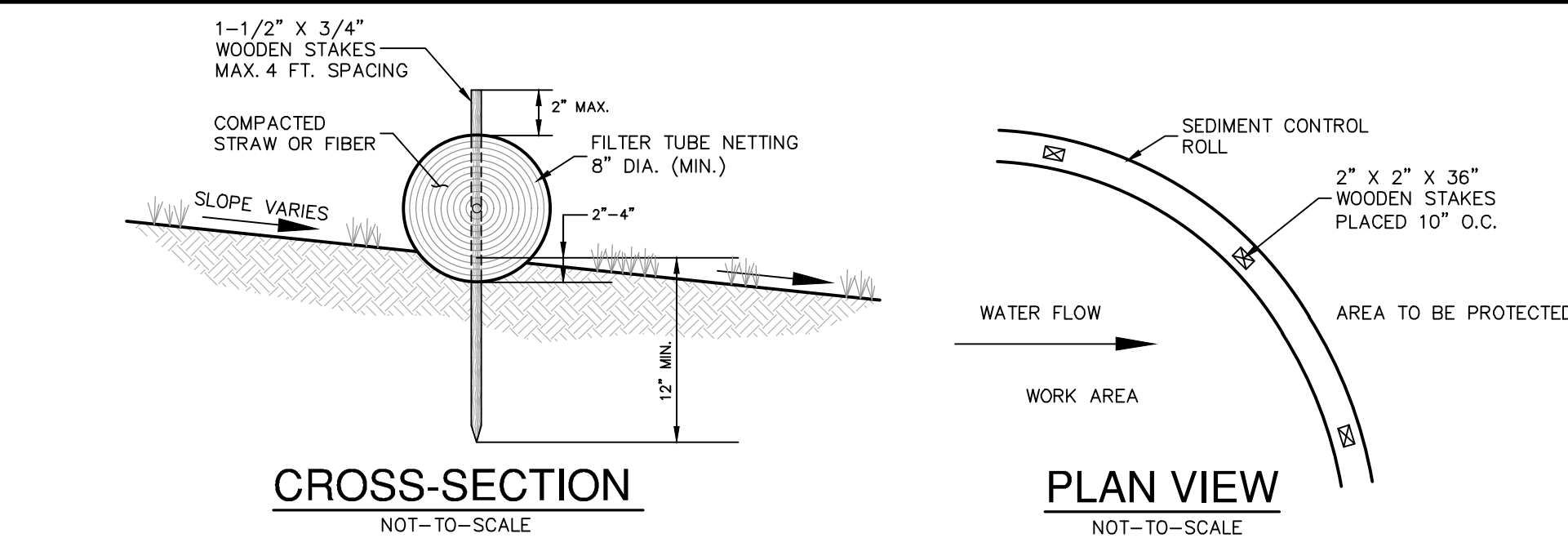
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- MATERIALS**
1. THE BERM STRUCTURE SHOULD BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM OPENING OF 1 INCH AND A MINIMUM WIRE DIAMETER OF 20 GAUGE GALVANIZED AND SHOULD BE SECURED WITH SHOOT RINGS.
  2. CLEAN, OPEN GRADED 3-INCH TO 5-INCH DIAMETER 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 USED.

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



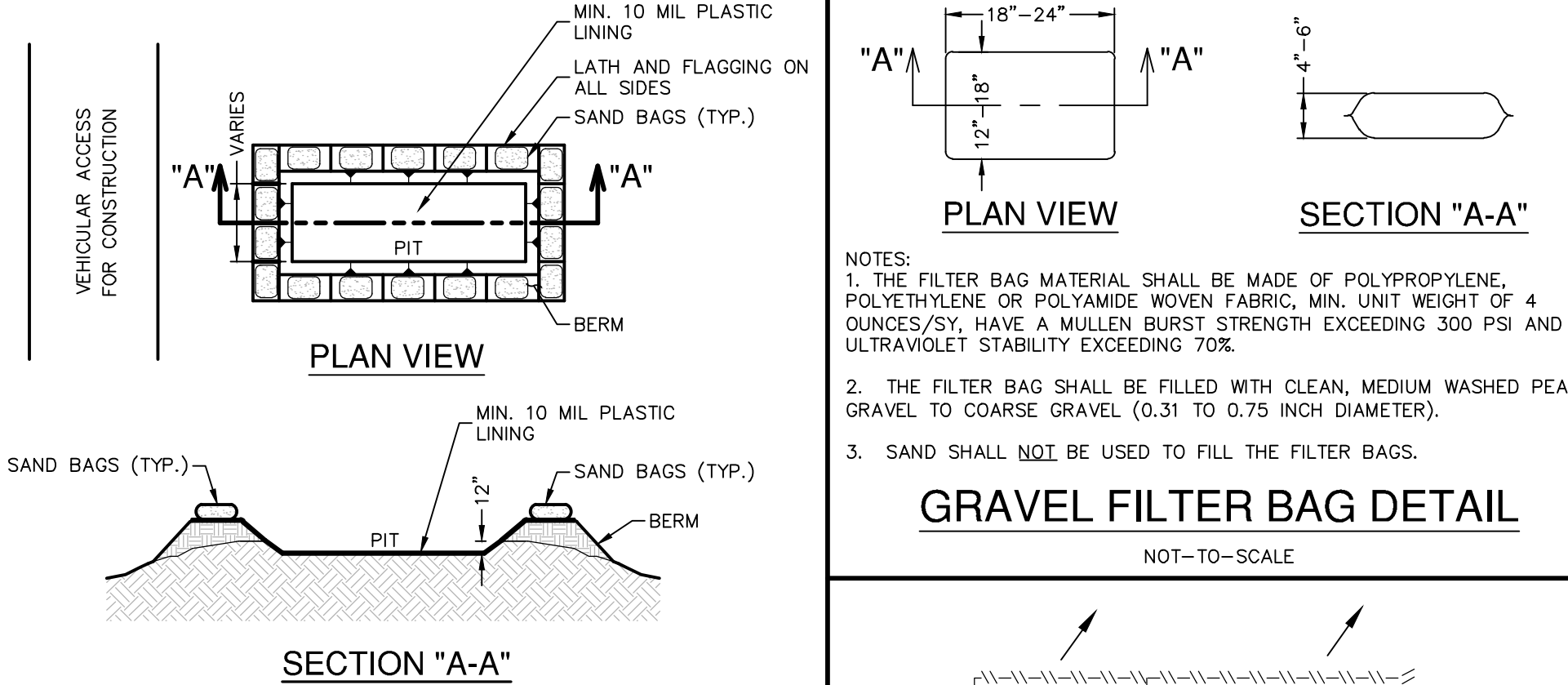
- SEDIMENT CONTROL ROLLS**
- SEDIMENT CONTROL ROLLS ARE ELONGATED TUBES OF COMPACTED STRAW AND/OR OTHER FIBERS THAT ARE INSTALLED ALONG CONTOURS OR AT THE BASE OF SLOPES TO HELP REDUCE SOIL EROSION AND RETAIN SEDIMENT. THEY FUNCTION BY SHORTENING SLOPE LENGTH, REDUCING RUNOFF WATER VELOCITY, TRAPPING DISLODGED SOIL PARTICLES AND REDUCING THE EFFECTS OF SLOPE STEEPNESS.

- MATERIALS**
- CORE MATERIAL: CORE MATERIALS SHALL BE BIODEGRADABLE NAD NOXIOUS WEED FREE. MATERIAL MAY BE COMPOST, MULCH, ASPEN EXCELSDOR WOOD FIBERS, CHIPPED SITE VEGETATION, AGRICULTURAL RICE OR WHEAT STRAW, COCONUT FIBER, OR OTHER 100% BIODEGRADABLE FIBERS.
- CONTAINMENT MESH: CONTAINMENT MESH SHALL BE 100% BIODEGRADABLE, PHOTODEGRADABLE OR RECYCLABLE SUCH AS BURLAP TWINE, UV PHOTODEGRADABLE PLASTIC OR POLYESTER.
- USE BIODEGRADABLE OR PHOTODEGRADABLE MESH WHEN WATTLE WILL REMAIN IN PLACE AS PART OF A VEGETATIVE SYSTEM. USE RECYCLABLE MESH FOR TEMPORARY INSTALLATIONS.
- WATTLES SHALL HAVE A MINIMUM DIAMETER OF 8 INCHES AND A MAXIMUM DIAMETER OF 20 INCHES.
- NO MORE THAN 5% OF THE FILL MATERIAL SHALL BE PERMITTED TO ESCAPE FROM THE CONTAINING MESH. MESH SHALL BE 0.5" X 0.5" HIGH DENSITY POLYETHYLENE AND ETHYL VINYL ACETATE AND CONTAIN ULTRA-VIOLET INHIBITORS. WATTLE ENDS SHALL BE TIED CLOSED.

- SEDIMENT CONTROL ROLLS IN A TEMPORARY EROSION CONTROL APPLICATION**
- WHEN NO LONGER REQUIRED FOR THE INTENDED PURPOSE, TEMPORARY ROLLS SHALL BE REMOVED FROM THE SITE. AS AN OPTION, THE STRAW ROLLS MAY BE SLIT DOWN THE LENGTH OF THE NETTING AND THE STRAW MAY BE USED ON SLOPES OR OTHER AREAS.
- TRENCHES, DEPRESSIONS OR ANY OTHER GROUND DISTURBANCES CAUSED BY THE REMOVAL OF THE TEMPORARY STRAW ROLLS SHALL BE BACKFILLED AND REPAIRED WITH THE EXCESS SEDIMENT CAPTURED BY THE ROLLS, PRIOR TO SPREADING THE STRAW OR OTHER FINAL EROSION CONTROL PROTECTION.

- SEDIMENT CONTROL ROLLS IN A PERMANENT EROSION CONTROL APPLICATION**
- LEAVE ROLLS AS INSTALLED TO PHOTODEGRADE OR BIODEGRADE OVER TIME AS NATIVE AND APPLIED VEGETATION ULTIMATELY REPLACE THE REPAIRED SITE.

### SEDIMENT CONTROL ROLLS



- GENERAL NOTES**
1. DETAIL ABOVE ILLUSTRATES MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN SIZE DEPENDING ON EXPECTED FREQUENCY OF USE.
  2. WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO CONSTRUCTION TRAFFIC.
  3. WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INUNDATION FROM STORM WATER RUNOFF.
  4. LOCATE WASHOUT AREA AT LEAST 50 FEET FROM SENSITIVE FEATURES, STORM DRAINS, OPEN DITCHES OR WATER BODIES.
  5. TEMPORARY CONCRETE WASHOUT FACILITY SHOULD BE CONSTRUCTED WITH SUFFICIENT QUANTITY AND VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.

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

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

### CONCRETE TRUCK WASHOUT

#### PIT DETAIL

NOT-TO-SCALE

DATE	
NO.	
REVISION	

STATE OF TEXAS  
BRUNA F. SPENGLER  
127547  
PROFESSIONAL ENGINEER  
11/22/23

**PAPE-DAWSON ENGINEERS**  
2000 HW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000  
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1008890

**BRIGGS RANCH NORTH OFFSITE UTILITIES**  
SAN ANTONIO, TEXAS  
STORM WATER POLLUTION PREVENTION DETAILS

**CONSTRUCTION STAGING AREA**

NOT-TO-SCALE

LEGEND  
- - - - - SILT FENCE  
- - - - - FLOW ARROWS

PLAT NO. N/A  
JOB NO. 12719-04  
DATE NOVEMBER 2023  
DESIGNER BR  
CHECKED DW DRAWN JR  
SHEET C4.12

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.