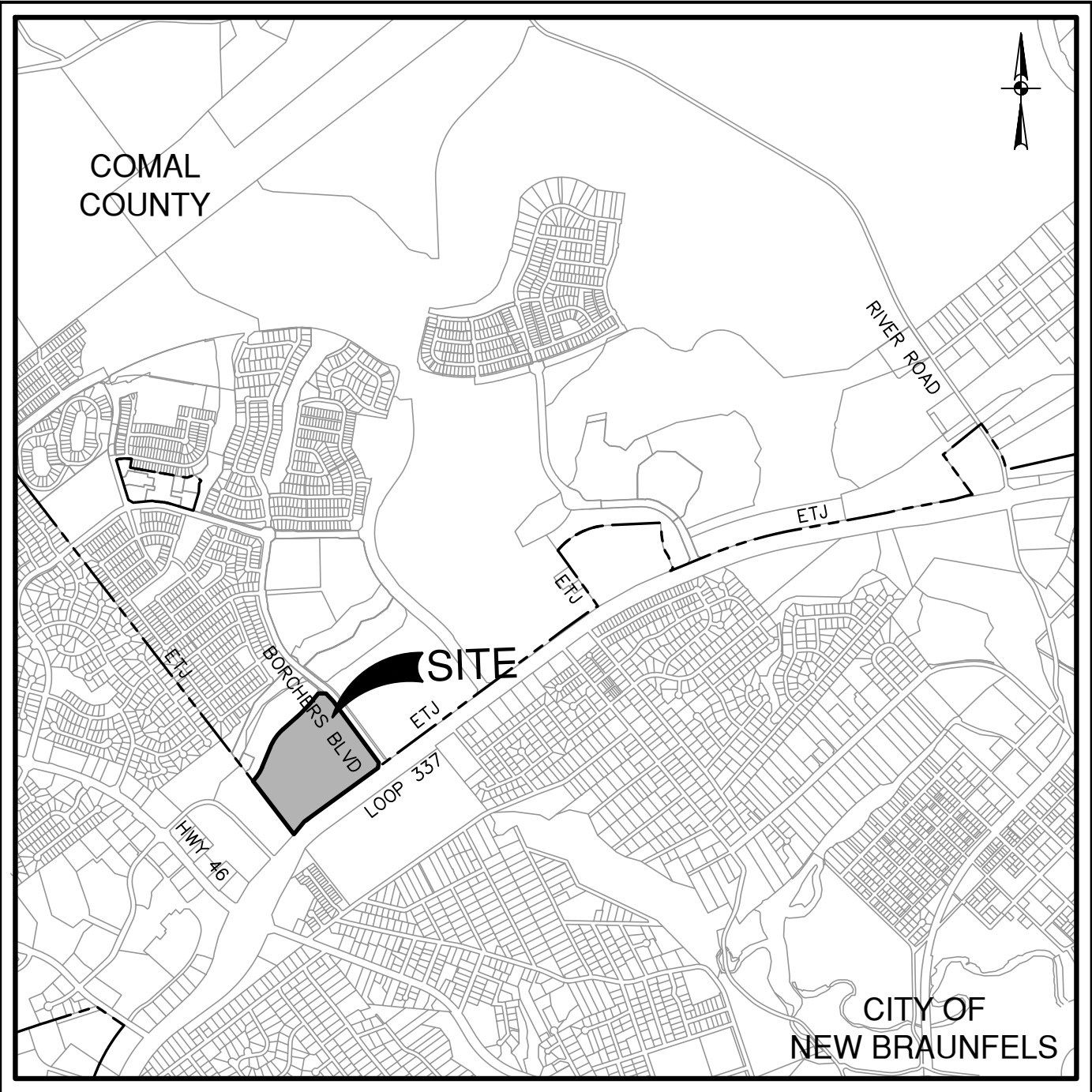


VERAMENDI PRECINCT 11A

NEW BRAUNFELS, TEXAS

CIVIL CONSTRUCTION PLANS

NBU NO. W-245133/WW-245134



LOCATION MAP
NOT-TO-SCALE

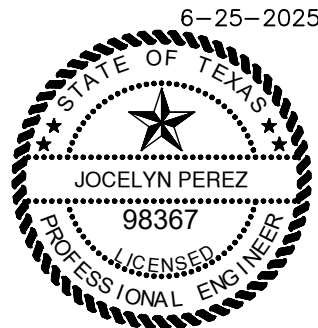
PREPARED FOR:

VERAMENDI PE-CAIRNS
2168 OAK RUN PKWY, SUITE 101
NEW BRAUNFELS, TX 78132

MAY 2024

**PAPE-DAWSON
ENGINEERS**

1672 INDEPENDENCE DR, STE 102 | NEW BRAUNFELS, TX 78132 | 830.632.5633
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



Joelyn Perez

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STORM DRAIN A-1 - PLAN & PROFILE	STA 15+40.00 TO 19+20.00 C1.06
STORM DRAIN A-1 - PLAN & PROFILE	STA. 19+20.00 TO 22+57.27 C1.07
STORM DRAIN B-1 - PLAN & PROFILE	STA. 0+88.00 TO 4+20.00 C1.08
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SANITARY SEWER LINE A - PLAN & PROFILE	STA. 10+00.00 TO 17+50.00 C5.01
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NBU NOTES:

- ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER OF RECORD. IN ACCEPTING THESE PLANS, NEW BRAUNFELS UTILITIES MUST RELY UPON THE ADEQUACY OF THE WORK OF THE ENGINEER OF RECORD.
- THE ENGINEER OF RECORD ACKNOWLEDGES THAT ALL PROPOSED WATER OR WASTEWATER IMPROVEMENTS MUST COMPLY WITH CRITERIA FROM THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, THE CITY OF NEW BRAUNFELS, NBU W&WW DESIGN CRITERIA, ANY OTHER GOVERNING ENTITY ORDINANCES OR CODES, AND SOUND ENGINEERING JUDGEMENT.
- THE ENGINEER OF RECORD ACKNOWLEDGES THAT THE POINT OF DELIVERY FOR THE NBU WATER SYSTEM IS THE MAIN SIDE OF THE SERVICE/LATERAL/LEAD FROM THE CUSTOMER'S METER, BACKFLOW PREVENTER, OR EASEMENT EDGE. THE CUSTOMER IS RESPONSIBLE FOR THE DESIGN, PERMITTING, CONSTRUCTION, OPERATION AND MAINTENANCE BEYOND THE POINT OF DELIVERY AND HAS SOLE CONTROL AND SUPERVISION OVER THE IT'S INSTALLATION.
- THE ENGINEER OF RECORD ACKNOWLEDGES THAT THE POINT OF DELIVERY FOR A NBU WASTEWATER SYSTEM IS THE MAIN SIDE OF THE SERVICE LATERAL FROM THE CUSTOMER'S CLEAN OUT OR PROPERTY LINE, WHICHEVER IS NEARER. THE CUSTOMER IS RESPONSIBLE FOR THE DESIGN, CONSTRUCTION, OPERATION AND MAINTENANCE BEYOND THE POINT OF DELIVERY AND HAS SOLE CONTROL AND SUPERVISION OVER ITS INSTALLATION.
- WATER IS A PRECIOUS COMMODITY IN THE STATE OF TEXAS AND NEW BRAUNFELS UTILITIES (NBU) IS PASSIONATE ABOUT PROTECTING THE LOCAL RESOURCE. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ACQUIRING A FIRE HYDRANT METER SO THAT ALL WATER USED FOR CONSTRUCTION OR TESTING PURPOSES IS PROPERLY ACCOUNTED FOR. NBU WILL NOT TOLERATE ANY WATER THEFT, REGARDLESS OF THE AMOUNT. IF WATER THEFT IS DISCOVERED, THE CONTRACTOR SHALL BE SUBJECT TO MONETARY PENALTIES, CRIMINAL CHARGES, AND STOPPAGE OF ALL CONSTRUCTION ACTIVITIES RELATED TO THE PROJECT. COSTS ASSOCIATED WITH ANY WORK STOPPAGE RESULTING FROM WATER THEFT SHALL BE AT THE FULL EXPENSE OF THE CONTRACTOR.

NBU AS-BUILT REQUIREMENTS:

NBU REQUIRES GPS POINTS FOR CERTAIN ELECTRIC, WATER AND WASTEWATER ATTRIBUTES, SOME OF WHICH MUST BE MEASURED PRIOR TO BACKFILL, DURING CONSTRUCTION.

GPS POINTS ARE REQUIRED FROM THE DEVELOPER'S CONTRACTOR OR ENGINEER. A MINIMUM OF THREE (3) COORDINATE POINTS FOR GEOREFERENCING ARE REQUIRED. THE WATER AND WASTEWATER GPS POINTS SHALL BE TO SURVEY GRADE AND ELECTRIC GPS POINTS SHALL BE MEASURED TO MAP GRADE. PLEASE REFERENCE NBU'S WATER CONNECTION POLICY FOR ADDITIONAL CAD DELIVERABLE REQUIREMENTS.

REQUIRED MEASUREMENTS FOR THE WATER SYSTEM INCLUDE:

- VERTICAL BENDS AND EDGES OF STEEL CASINGS (IF APPLICABLE) PRIOR TO BACKFILL.
- HORIZONTAL BENDS PRIOR TO BACKFILL.
- TEES PRIOR TO BACKFILL.
- FITTINGS (REDUCERS AND COUPLINGS) PRIOR TO BACKFILL.
- FIRE HYDRANTS (TOP FLANGE).
- VALVES.
- METERS (TOP CENTER OF BOX).
- BLOW OFF ASSEMBLIES.
- CORNER SLAB OF ALL WATER TANKS AND THE ISOLATION GATE VALVE ON THE WATER TANK.

REQUIRED MEASUREMENTS FOR THE WASTEWATER SYSTEM INCLUDE:

- MANHOLES.
- CLEANOUTS.
- CORNER SLAB OF ALL LIFT STATIONS.

REQUIRED MEASUREMENTS FOR THE ELECTRIC SYSTEM:

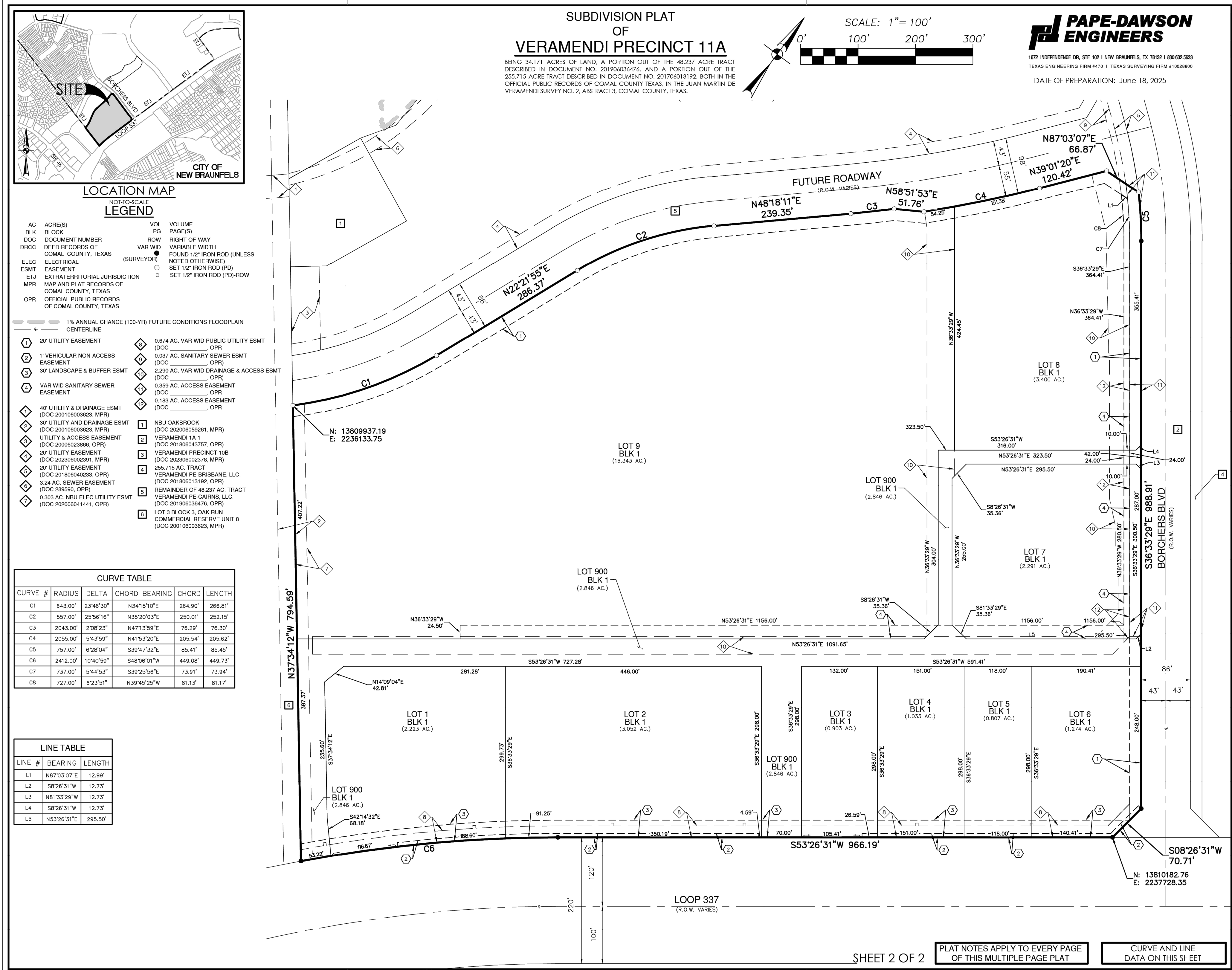
- POLES.
- TRANSFORMERS, BOTH ABOVE AND UNDERGROUND (FRONT LOCK).
- PULL BOXES.
- STREET LIGHTS.

COORDINATE GPS REQUIREMENTS WITH NBU INSPECTOR NOTES:

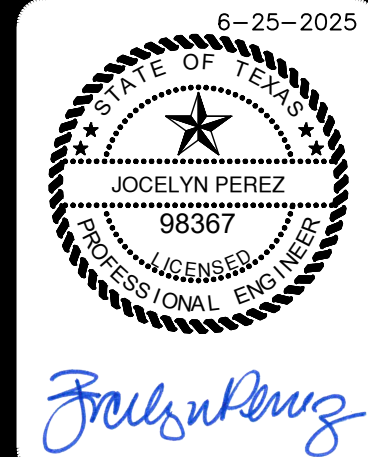
- TYPE 3 DEVELOPMENT.
- ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER OF RECORD. IN ACCEPTING THESE PLANS, THE CITY OF NEW BRAUNFELS MUST RELY UPON THE ADEQUACY OF THE WORK OF THE ENGINEER RECORD.
- IF CONSTRUCTION HAS NOT COMMENCED WITHIN ONE YEAR OF CITY APPROVAL FOR CONSTRUCTION INSPECTION, THAT APPROVAL IS NO LONGER VALID.
- THIS PROJECT IS WITHIN THE EDWARDS AQUIFER JURISDICTIONAL ZONES.
- NO PORTION OF THIS PROJECT IS WITHIN AN INDICATED SPECIAL FLOOD HAZARD ZONE ACCORDING TO THE FEMA FIRM MAP NO. 48091C0435F EFFECTIVE DATE 9/2/2009.
- GAS UTILITIES ARE NOT INCLUDED IN THE CIVIL CONSTRUCTION PLANS. FINAL GAS UTILITY DESIGN SHALL BE APPROVED BY THE CITY FOR ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- FOLLOWING PERMITS ARE REQUIRED PRIOR TO START OF CONSTRUCTION:
 - CITY OF NEW BRAUNFELS PUBLIC INFRASTRUCTURE PERMIT
 - NEW BRAUNFELS UTILITY APPROVAL
 - TCEQ WATER POLLUTION ABATEMENT PLAN APPROVAL
 - TCEQ SEWAGE COLLECTION SYSTEM APPROVAL

LEGAL DESCRIPTION:

BEING 34.171 ACRES OF LAND, A PORTION OUT OF THE 48.237 ACRE TRACT DESCRIBED IN DOCUMENT NUMBER 20160606009473, AND A PORTION OUT OF THE 255.715 ACRE TRACT DESCRIBED IN DOCUMENT NUMBER 201706013192, BOTH IN THE OFFICIAL PUBLIC RECORDS OF COMAL COUNTY, TEXAS, IN THE JUAN MARTIN DE VERAMENDI SURVEY NO. 2, ABSTRACT 3, COMAL COUNTY, TEXAS.



NOTE
THE VERAMENDI PRECINCT 11A PLAT WAS APPROVED WITH CONDITIONS
AT THE CITY OF NEW BRAUNFELS PLANNING COMMISSION ON XX/XX/XXXX.

[illegible]

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ENGINEERS**

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TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10228600

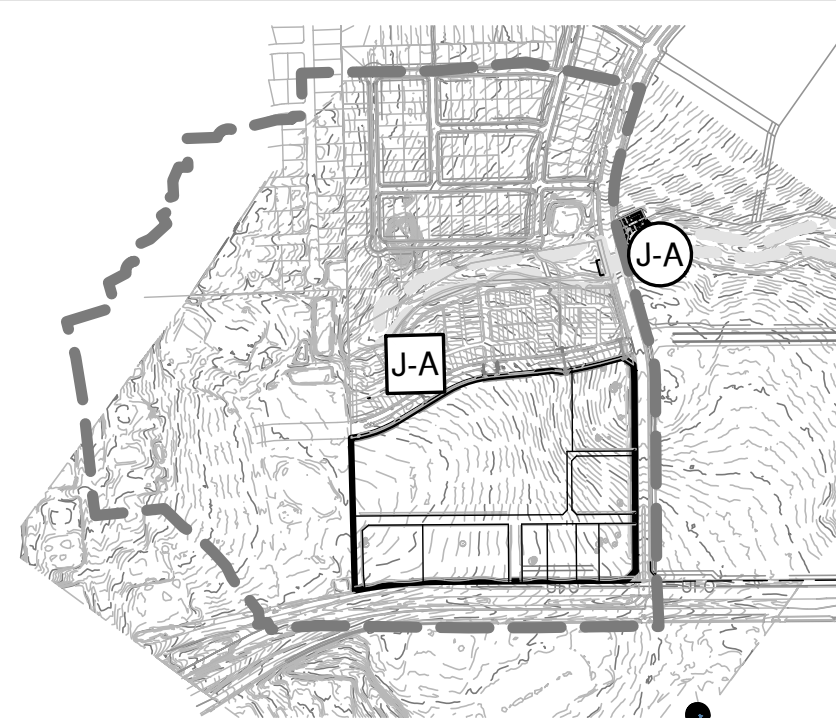
VERAMENDI PRECINCT 11A
NEW BRAUNFELS, TEXAS

PLAT

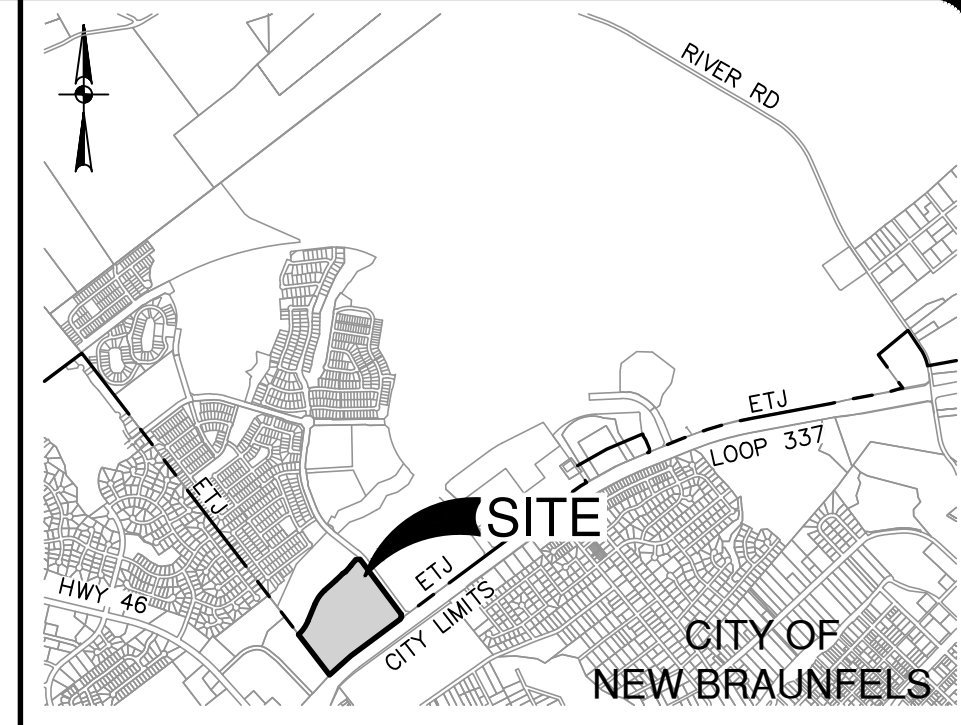
PLAT NO. _____
JOB NO. 30001-81
DATE JUNE 2025
DESIGNER CP
CHECKED TMM DRAWN CP
SHEET C0.03

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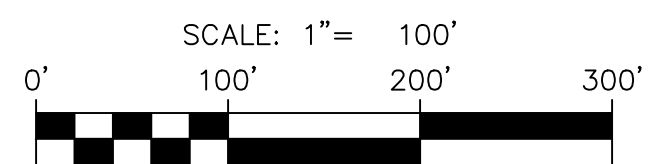
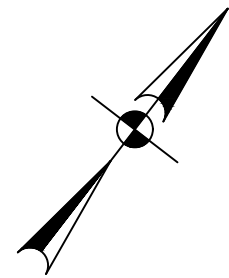
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DETAIL "A"
SCALE 1:1000



LOCATION MAP
NOT-TO-SCALE



MASTER DRAINAGE LEGEND

- PROJECT LIMITS
- EXISTING CONTOUR
- 100 YR FLOODPLAIN
- RUNOFF FLOW PATH
- DRAINAGE AREA BOUNDARY
- FHA LOT GRADING TYPE
- PROPOSED DIRECTION OF FLOW
- DRAINAGE CALCULATION POINT
- DRAINAGE AREA

NOTE:
ULTIMATE DEVELOPMENT IMPERVIOUS COVER VALUE FOR EACH INDIVIDUAL LOTS 1-9 NOT TO EXCEED 90% PER THE APPROVED VERAMENDI SECTOR PLAN 2.

Calc Pt	Description	Drainage Area		Time of Conc. (minutes)	Intensity (in/hr)	Discharge Q		Frequency (year)	Total Q (cfs)
		Area ID	Acres			C	(cfs)		
1	ON GRADE INLET PULL FOR WQ	UA	0.43	10.00	5.05	0.68	1	2	
					7.50	0.75	2	10	
					9.12	0.80	3	25	
					11.70	0.89	4	100	
2	ON GRADE INLET PULL FOR WQ	UB	0.41	10.00	5.05	0.67	1	2	
					7.50	0.74	2	10	
					9.12	0.79	3	25	
					11.70	0.88	4	100	
3	PIPE FLOW	UA+UB							3
									5
									6
									9
4	DRAIN B-1	UG+UM	16.11	11.00	4.87	0.33	26	2	
					7.23	0.38	44	10	
					8.78	0.42	59	25	
					11.26	0.49	89	100	
4A	DRAIN B-1	UM	2.04	11.00	4.87	0.33	3	2	
					7.23	0.38	6	10	
					8.78	0.42	8	25	
					11.26	0.49	11	100	
5	ON GRADE INLET PULL FOR WQ	UC	0.76	10.00	5.05	0.66	3	2	
					7.50	0.73	4	10	
					9.12	0.78	5	25	
					11.70	0.87	8	100	
6	ON GRADE INLET PULL FOR WQ	UD	0.76	10.00	5.05	0.66	3	2	
					7.50	0.74	4	10	
					9.12	0.79	5	25	
					11.70	0.87	8	100	
7	PIPE FLOW	UG+UM+UC(C)+UD(C)							31
									53
									70
									104
8	BASIN OUTFALL	UH+UG+UM+UC(C)+UD(C)	18.85	14.00	4.39	0.60	49	2	55
					6.47	0.67	81	10	90
					7.82	0.71	105	25	116
					10.03	0.80	151	100	166
9	DRAIN A-1	UK+UH+UL	18.09	13.00	4.54	0.71	58	2	
					6.72	0.79	95	10	
					8.13	0.83	123	25	
					10.42	0.92	174	100	
9A	DRAIN A-1	UH+UL	12.31	11.00	4.87	0.71	42	2	
					7.23	0.79	70	10	
					8.78	0.83	90	25	
					11.26	0.92	128	100	
9B	DRAIN A-1	UL	6.58	11.00	4.87	0.71	23	2	
					7.23	0.79	37	10	
					8.78	0.83	48	25	
					11.26	0.92	68	100	
10	ON GRADE INLET PULL FOR WQ	UE	0.47	10.00	5.05	0.64	2	2	
					7.50	0.71	3	10	
					9.12	0.76	3	25	
					11.70	0.84	5	100	
11	ON GRADE INLET PULL FOR WQ	UF	0.39	10.00	5.05	0.65	1	2	
					7.50	0.72	2	10	
					9.12	0.77	3	25	
					11.70	0.86	4	100	
12	PIPE FLOW	UH+UL+UK+UE(C)+UF(C)							61
									100
									129
									182
13	DRAIN OUTFALL	UH+UH+UL+UK+UE(C)+UF(C)	18.30	15.00	4.24	0.60	46	2	49
					6.24	0.67	76	10	81
					7.52	0.71	98	25	104
					9.64	0.80	141	100	149
J-A	MODELED WITH HEC-HMS 5"x4" MBC	VERAMENDI 1A-1							422
									775
									940
									1250

DATE
06/25/25

NO. REVISION
1 CHANGED LOT LINES

6-25-2025

Jocelyn Perez
PROFESSIONAL ENGINEER

PLAT NO.

JOB NO. 30001-81

DATE JUNE 2025

DESIGNER CP

CHECKED TMM DRAWN CP

SHEET C1.01

VERAMENDI PRECINCT 11A
NEW BRAUNFELS, TEXAS

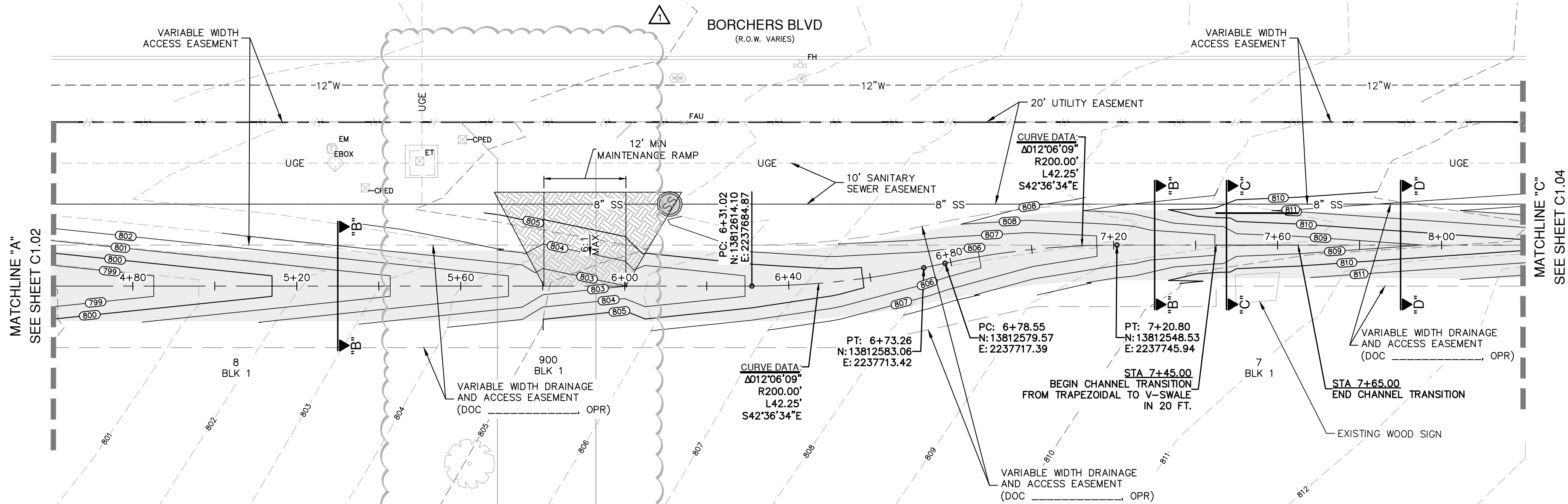
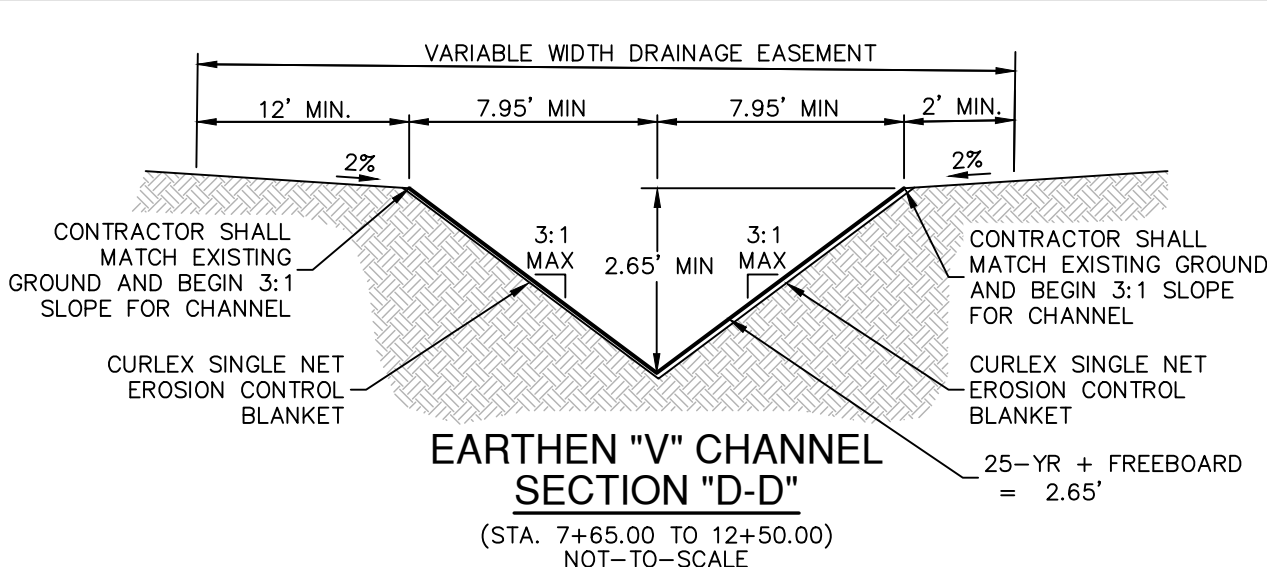
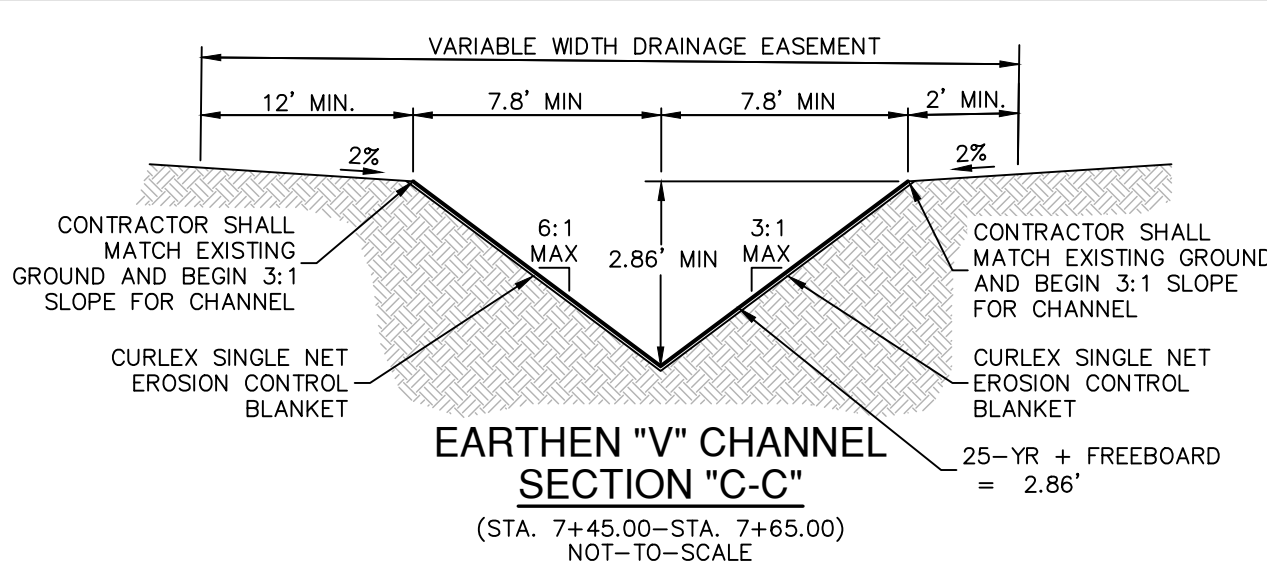
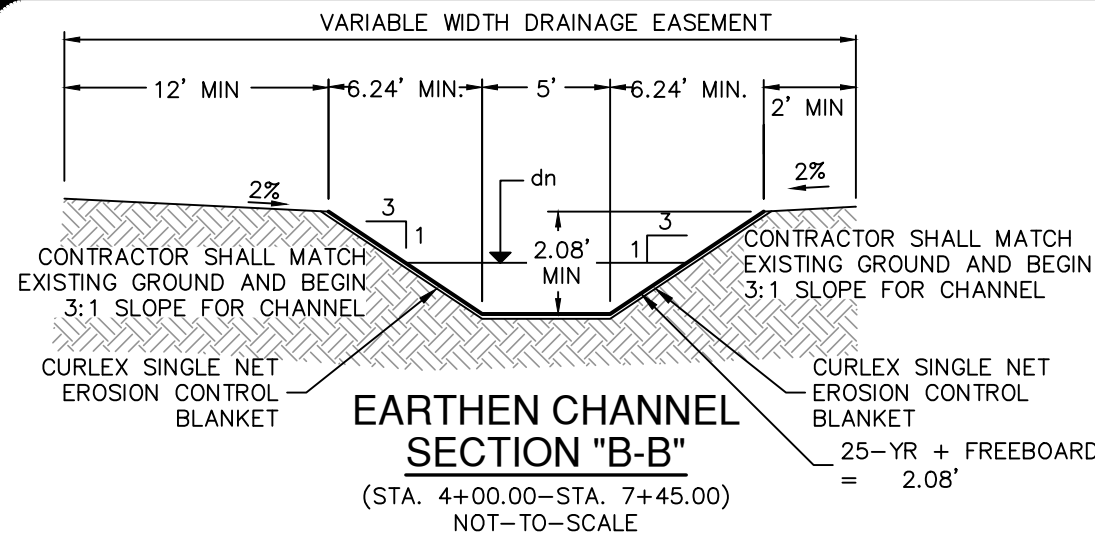
OVERALL DRAINAGE PLAN - ULTIMATE CONDITIONS

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TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1008800

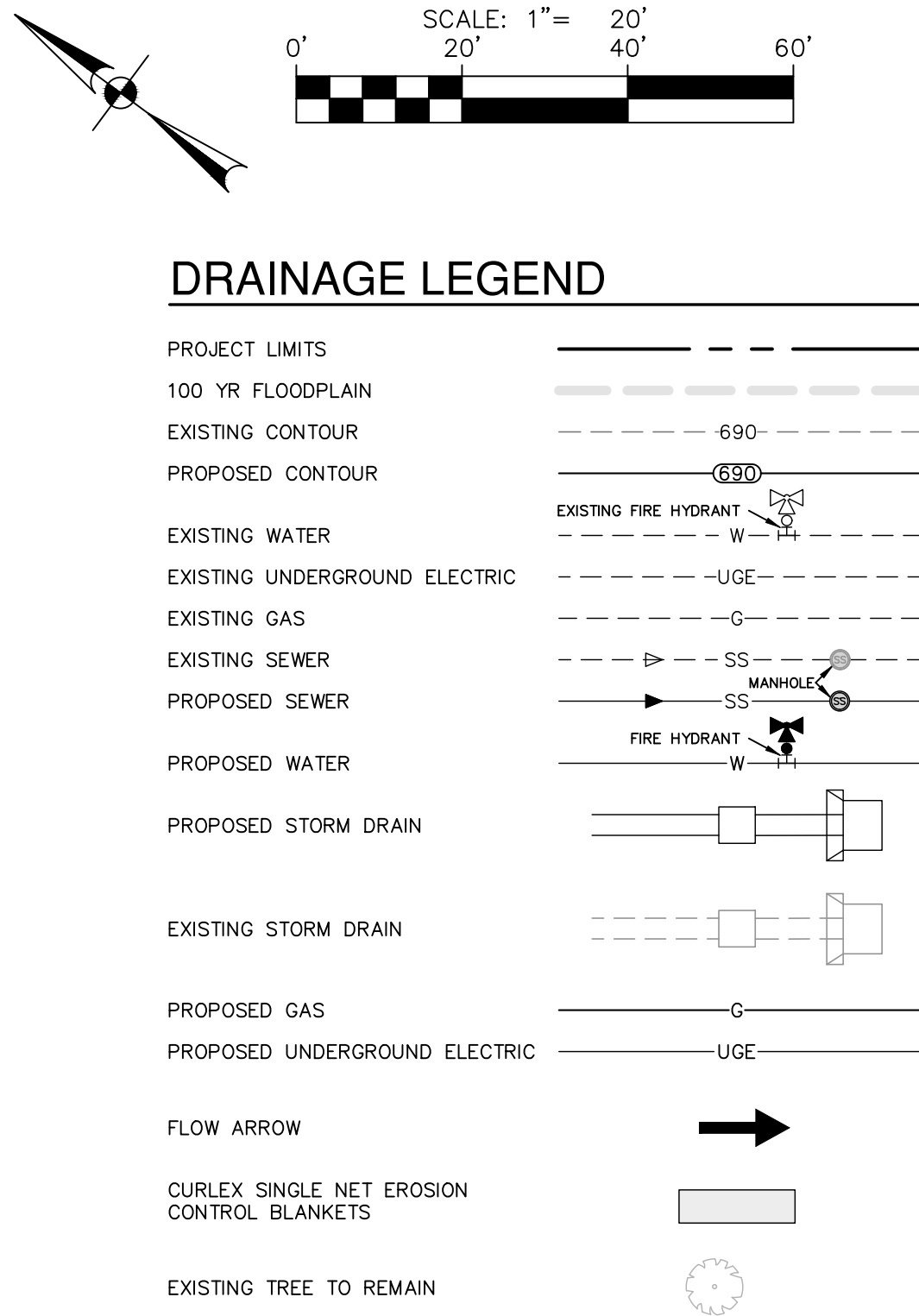
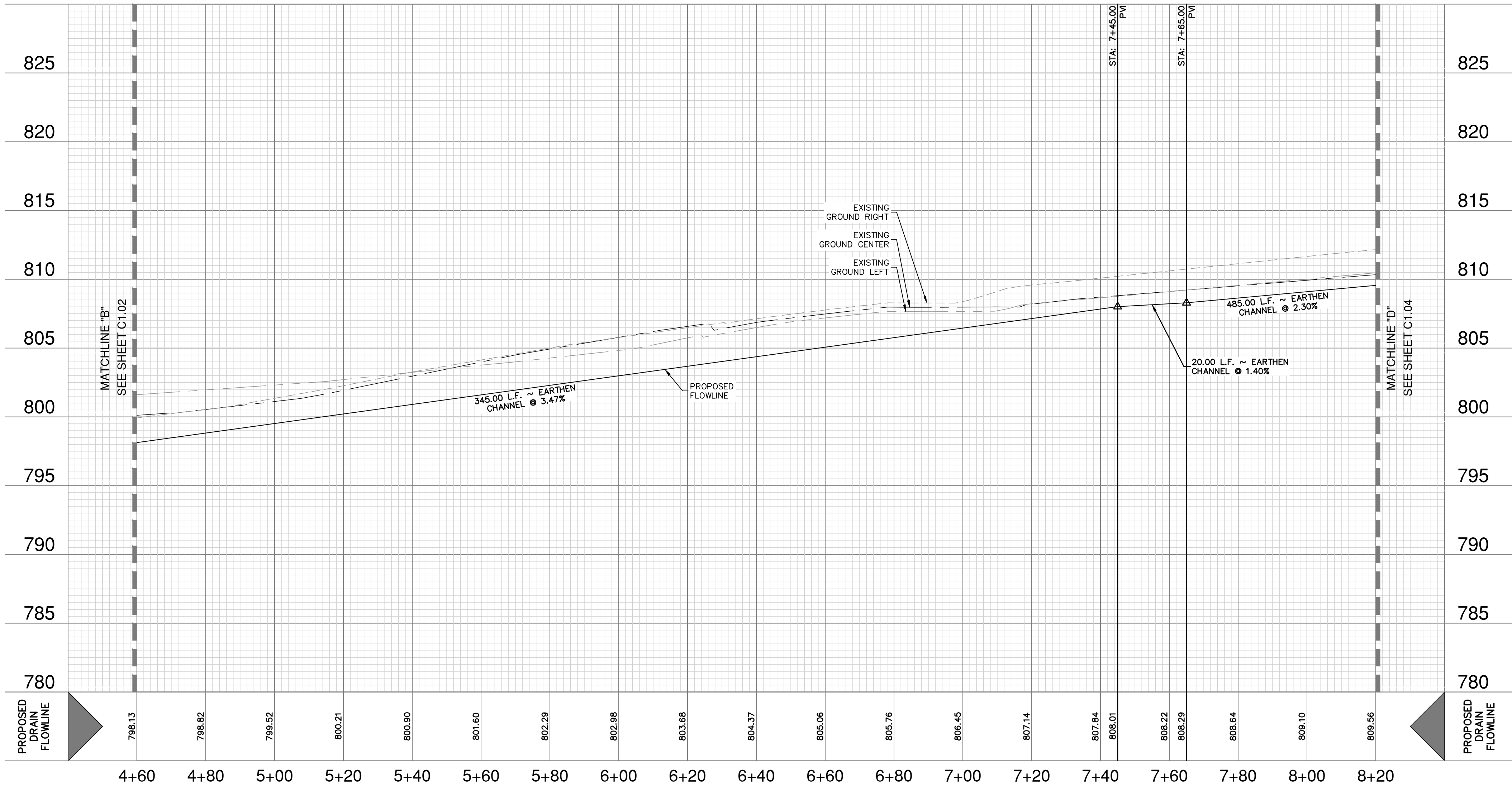
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STORM DRAIN "A-1"
 STA 4+60.00 TO 8+20.00

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



HYDRAULIC CALCULATIONS
 EARTH CHANNEL
 STA. 4+00.00 TO 7+45.00
 Q₂₅ = 123 CFS
 n = 0.035
 S = 3.47%
 dn₂₅ = 1.58 FT
 dn₂₅ + Fbrd. = 2.08 FT
 V₂₅ = 8.04 FPS
 Q₂ = 58 CFS
 V₂ = 6.54 FPS
 Q₁₀₀ = 174 CFS
 dn₁₀₀ = 1.87 FT
 V₁₀₀ = 8.82 FPS

HYDRAULIC CALCULATIONS
 EARTH CHANNEL
 STA. 7+45.00 TO 12+50.00
 Q₂₅ = 90 CFS
 n = 0.035
 S = 1.40%
 dn₂₅ = 2.36 FT
 dn₂₅ + Fbrd. = 2.86 FT
 V₂₅ = 5.41 FPS
 Q₂ = 42 CFS
 V₂ = 4.47 FPS
 Q₁₀₀ = 128 CFS
 dn₁₀₀ = 2.69 FT
 V₁₀₀ = 5.91 FPS

HYDRAULIC CALCULATIONS
 EARTH CHANNEL
 STA. 7+45.00 TO 12+50.00
 Q₂₅ = 90 CFS
 n = 0.035
 S = 2.30%
 dn₂₅ = 2.15 FT
 dn₂₅ + Fbrd. = 2.65 FT
 V₂₅ = 6.52 FPS
 Q₂ = 42 CFS
 V₂ = 5.39 FPS
 Q₁₀₀ = 128 CFS
 dn₁₀₀ = 2.45 FT
 V₁₀₀ = 7.12 FPS

DRAINAGE & GRADING NOTES:

1. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY SIZE, GRADE, AND LOCATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DEVIATIONS FROM PLANS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.
 2. ALL CONCRETE FOR TXDOT DRAINAGE STRUCTURES SHALL MEET TXDOT SPECIFICATIONS. ALL OTHER CONCRETE SHALL BE CLASS "A" 3000 PSI CYLINDER STRENGTH IN 28 DAYS.
 3. REFERENCE DRAINAGE DETAILS FOR PIPE TRENCH DETAILS, BOX CULVERT, HEADWALL, AND WINGWALL CONSTRUCTION DETAILS, AND BOX CULVERT BEDDING AND EXCAVATION LIMITS.
 4. CONTRACTOR SHALL GROUT ALL CURB INLETS AND JUNCTION BOXES TO PROVIDE FOR POSITIVE DRAINAGE.
 5. EARTHEN CHANNELS WILL BE VEGETATED BY SEEDING OR SODDING. 85% OF THE CHANNEL SURFACE MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF NEW BRAUNFELS WILL ACCEPT.
 6. CONTRACTOR SHALL MATCH TOP OF CHANNEL TO NATURAL GROUND AND MAINTAIN A MINIMUM CHANNEL DEPTH OF "D" AS SHOWN IN THE PROFILE.
 7. ALL RCP SHALL BE AASHTO M170 CLASS III RCP.

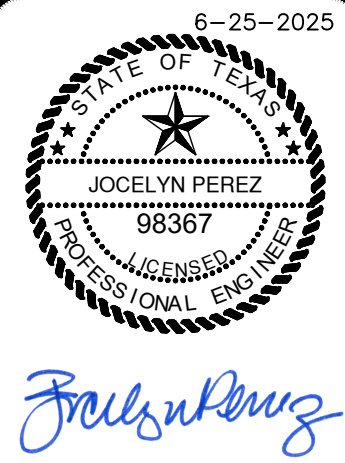
CAUTION!!

CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITING TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCTBANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT TEXAS 811 A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR NOT.

TRENCH EXCAVATION SAFETY PROTECTION:

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

NO. 1
 REVISION 1
 DATE 06/25/23
 CHANGED LOT LINES

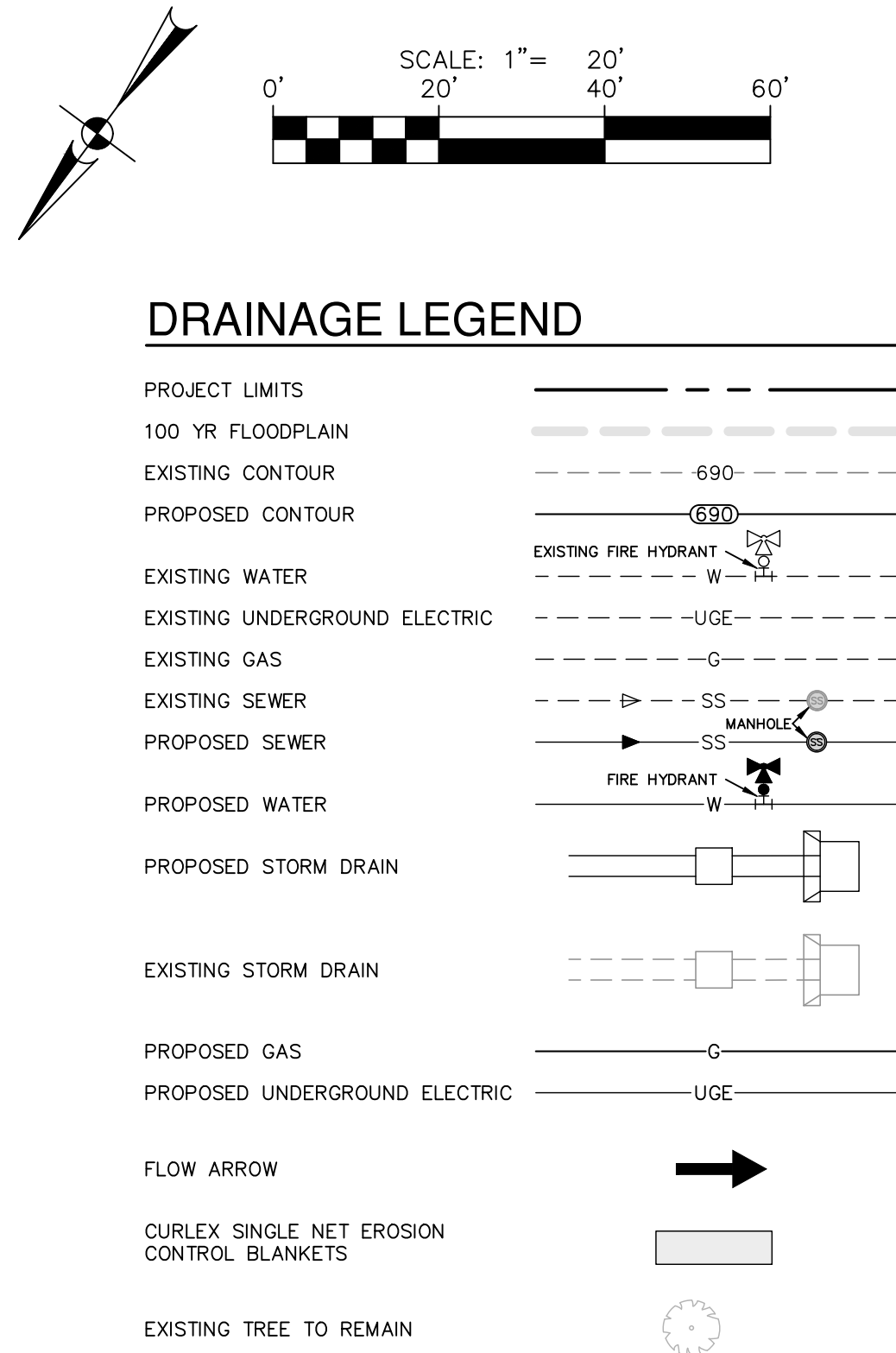
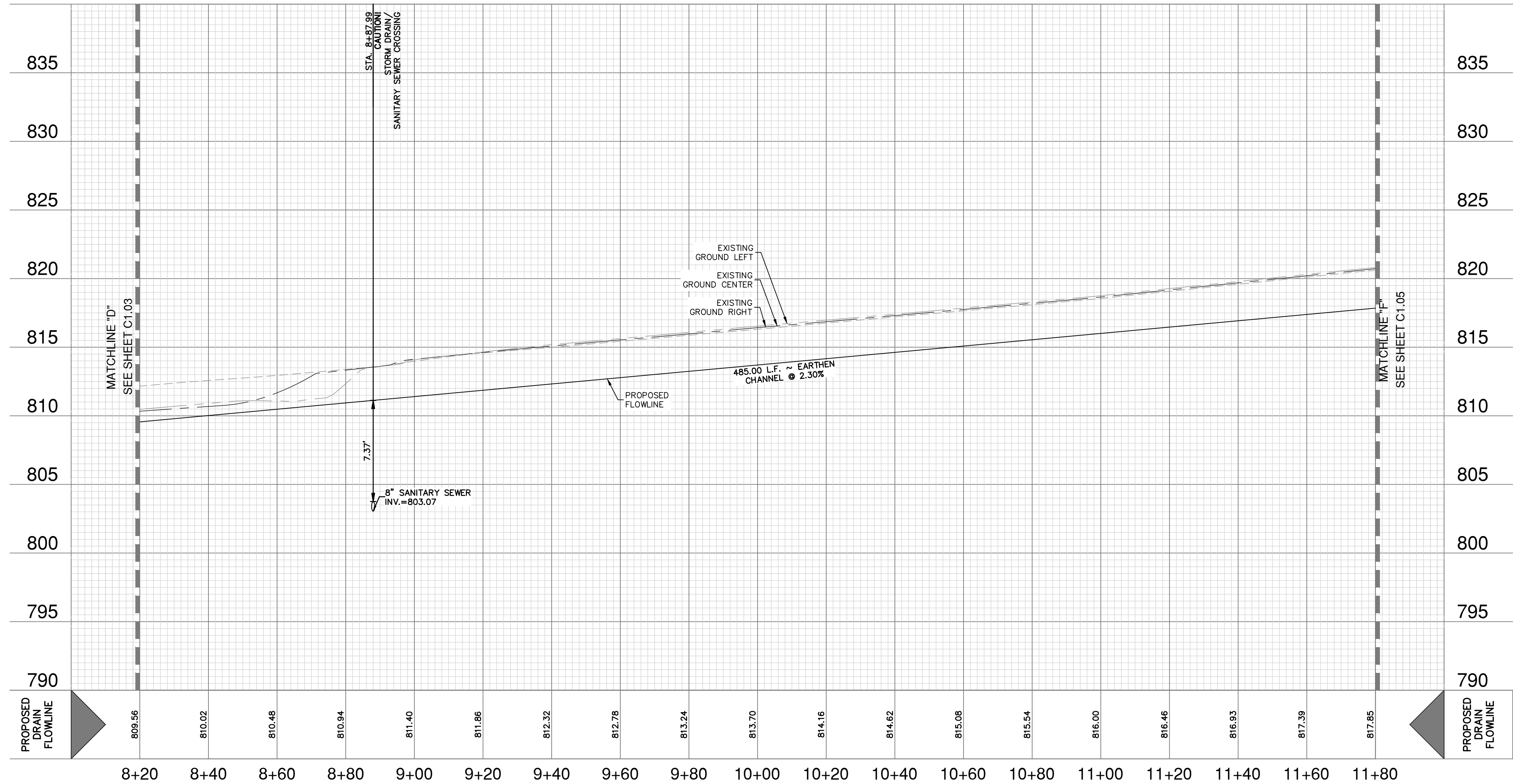
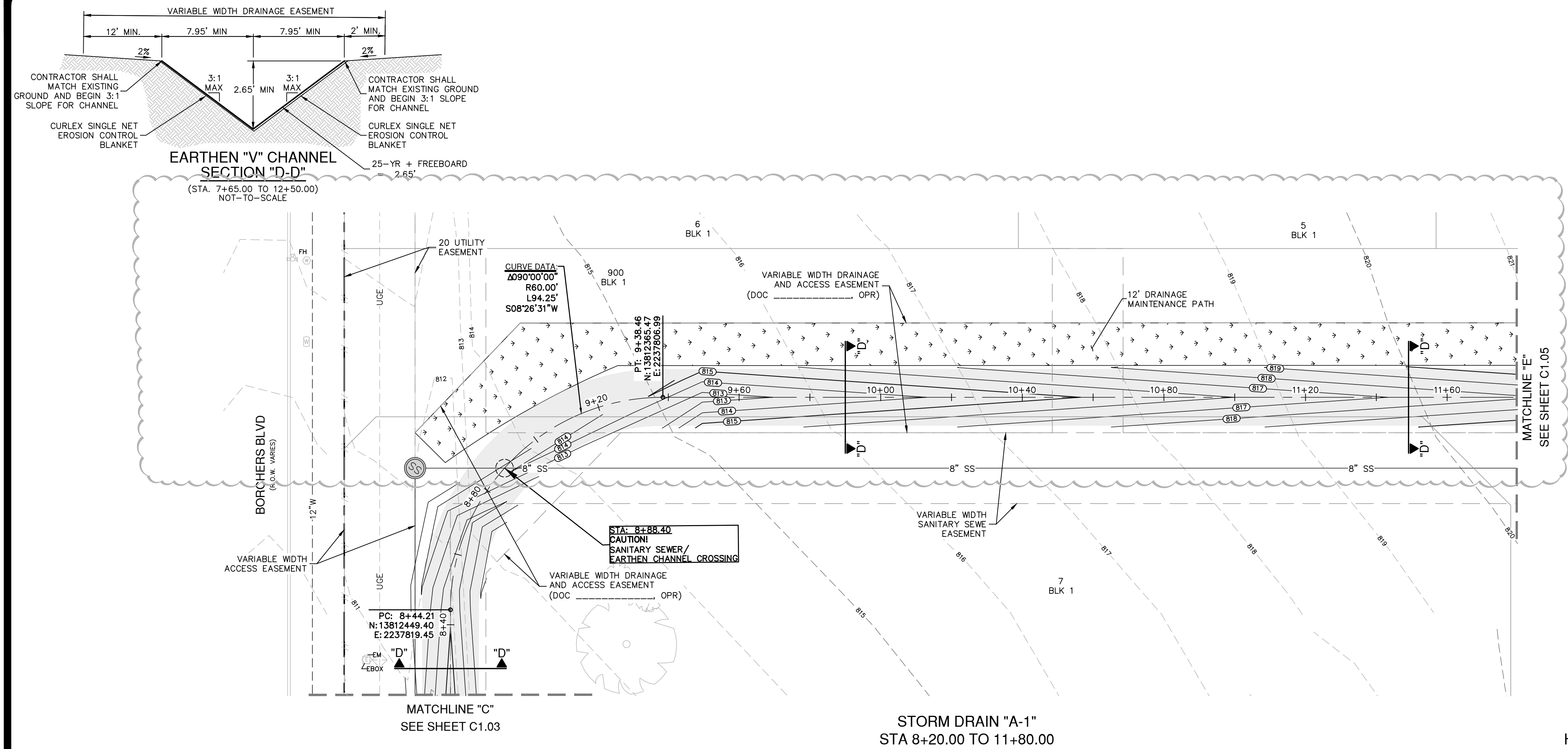


VERAMENDI PRECINCT 11A
 NEW BRAUNFELS, TEXAS
 STORM DRAIN A-1 - PLAN & PROFILE
 STA 4+60.00 TO 8+20.00

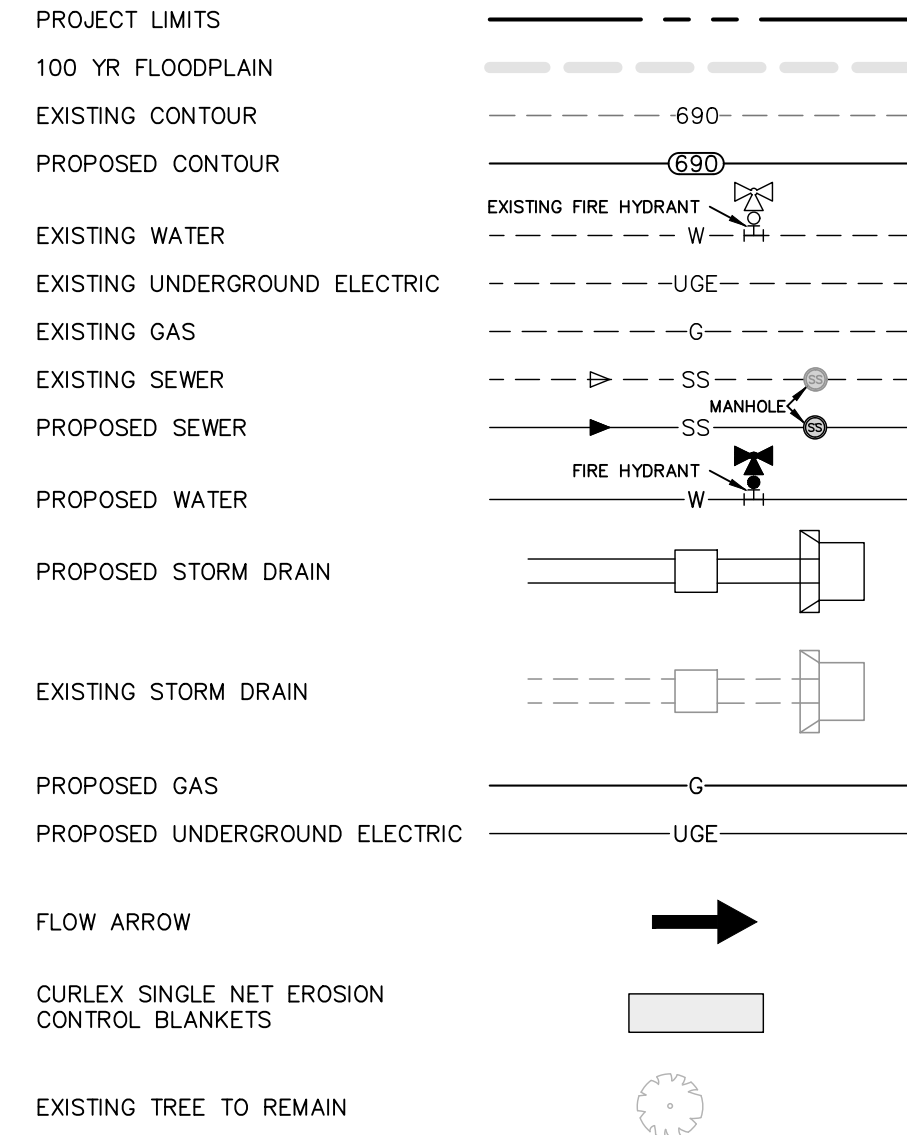
PLAT NO.
 JOB NO. 30001-81
 DATE JUNE 2025
 DESIGNER CP
 CHECKED TMM DRAWN CP
 SHEET C1.03

Date: March 13, 2024, 12:11 PM - User ID: carchter
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DRAINAGE LEGEND



DRAINAGE & GRADING NOTES:

- THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY SIZE, GRADE, AND LOCATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DEVIATIONS FROM PLANS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.
- ALL CONCRETE FOR TxDOT DRAINAGE STRUCTURES SHALL MEET TxDOT SPECIFICATIONS. ALL OTHER CONCRETE SHALL BE CLASS "A" 3000 PSI CYLINDER STRENGTH IN 28 DAYS.
- REFERENCE DRAINAGE DETAILS FOR PIPE TRENCH DETAILS, BOX CULVERT, HEADWALL, AND WINGWALL CONSTRUCTION DETAILS, AND BOX CULVERT BEDDING AND EXCAVATION LIMITS.
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- EARTHEN CHANNELS WILL BE VEGETATED BY SEEDING OR SODDING. 85% OF THE CHANNEL SURFACE MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF NEW BRAUNFELS WILL ACCEPT.
- CONTRACTOR SHALL MATCH TOP OF CHANNEL TO NATURAL GROUND AND MAINTAIN A MINIMUM CHANNEL DEPTH OF "D" AS SHOWN IN THE PROFILE.
- ALL RCP SHALL BE AASHTO M170 CLASS III RCP.

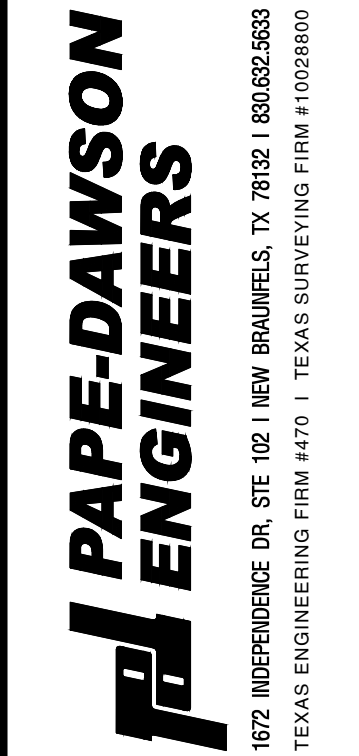
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CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITING TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCTBANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT "TEXAS 811" 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.

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NO.	REVISION	DATE
1	LOT LINES & SEWER ESMT	06/25/23

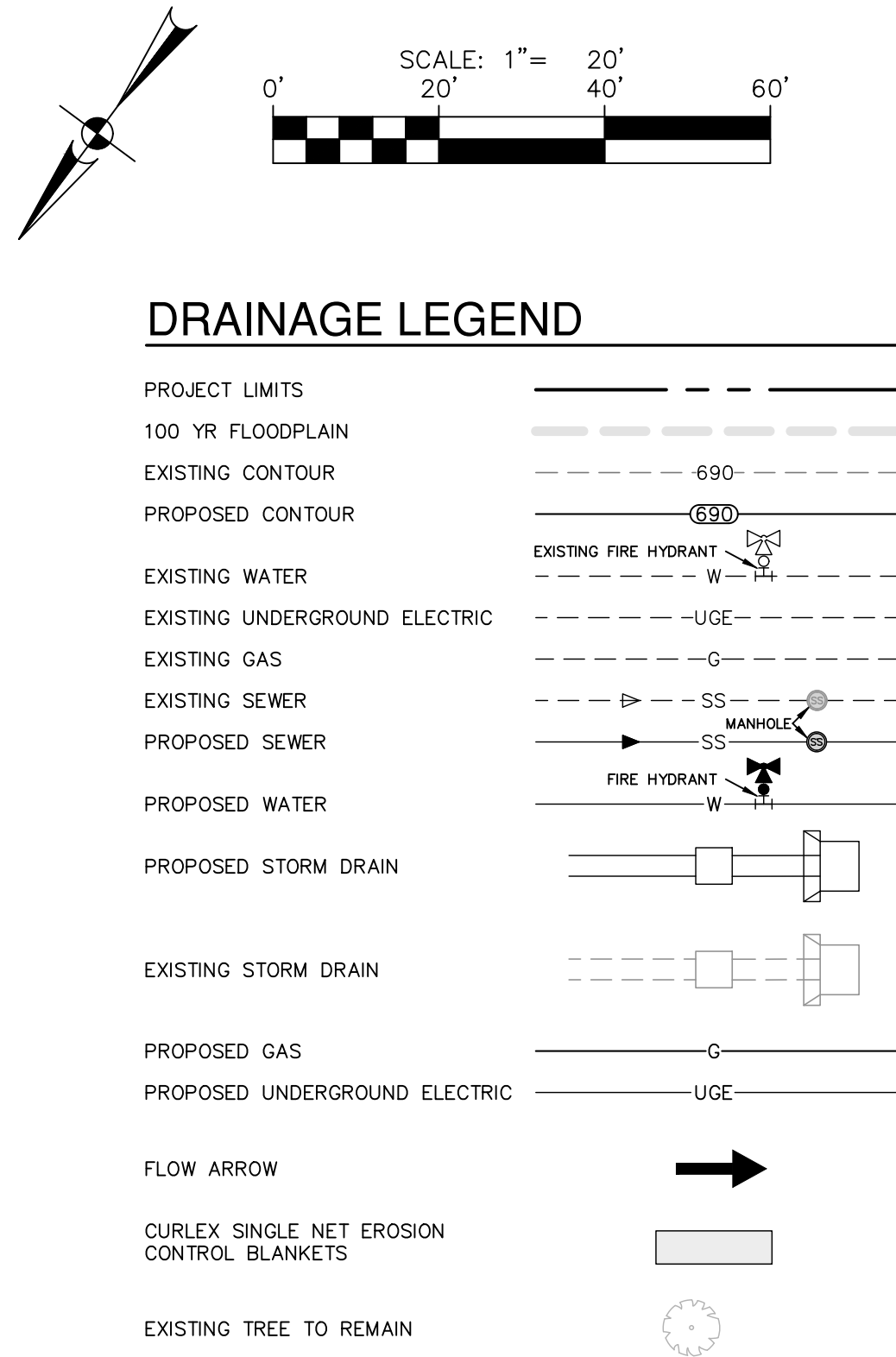
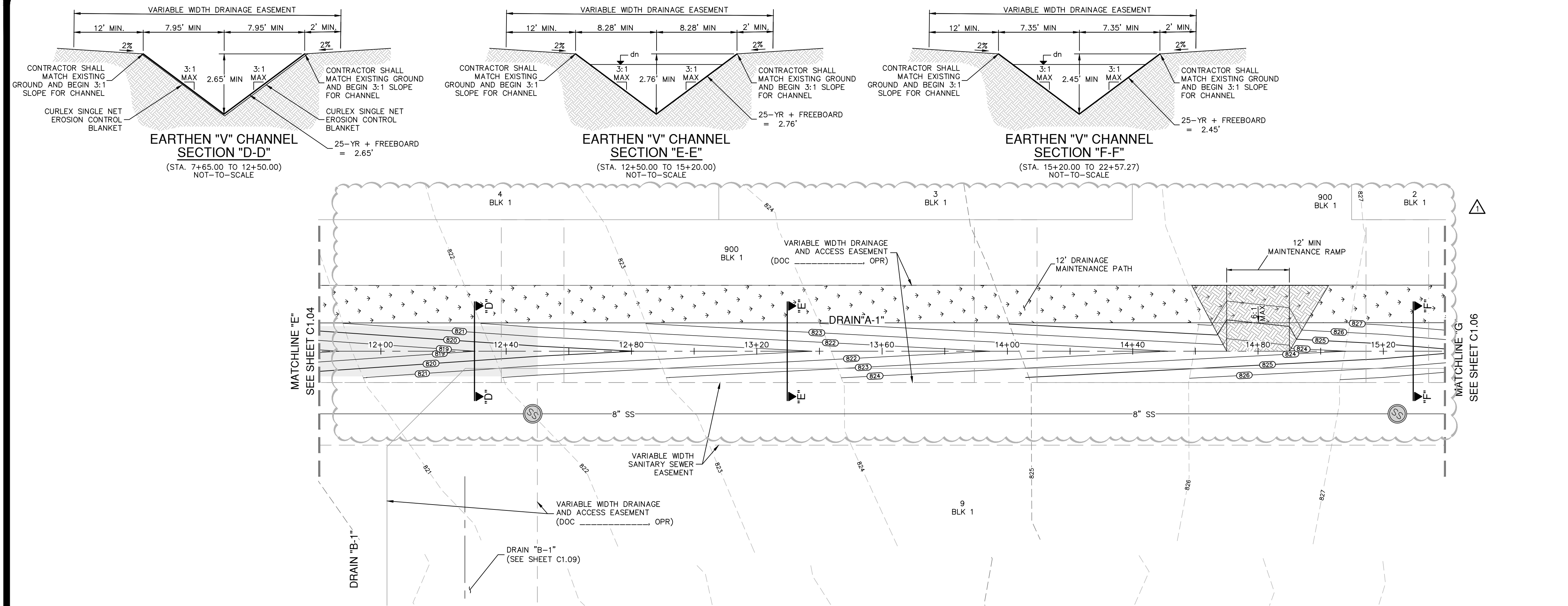


VERAMENDI PRECINCT 11A
NEW BRAUNFELS, TEXAS
STORM DRAIN A-1 - PLAN & PROFILE
STA 8+20.00 TO 11+80.00

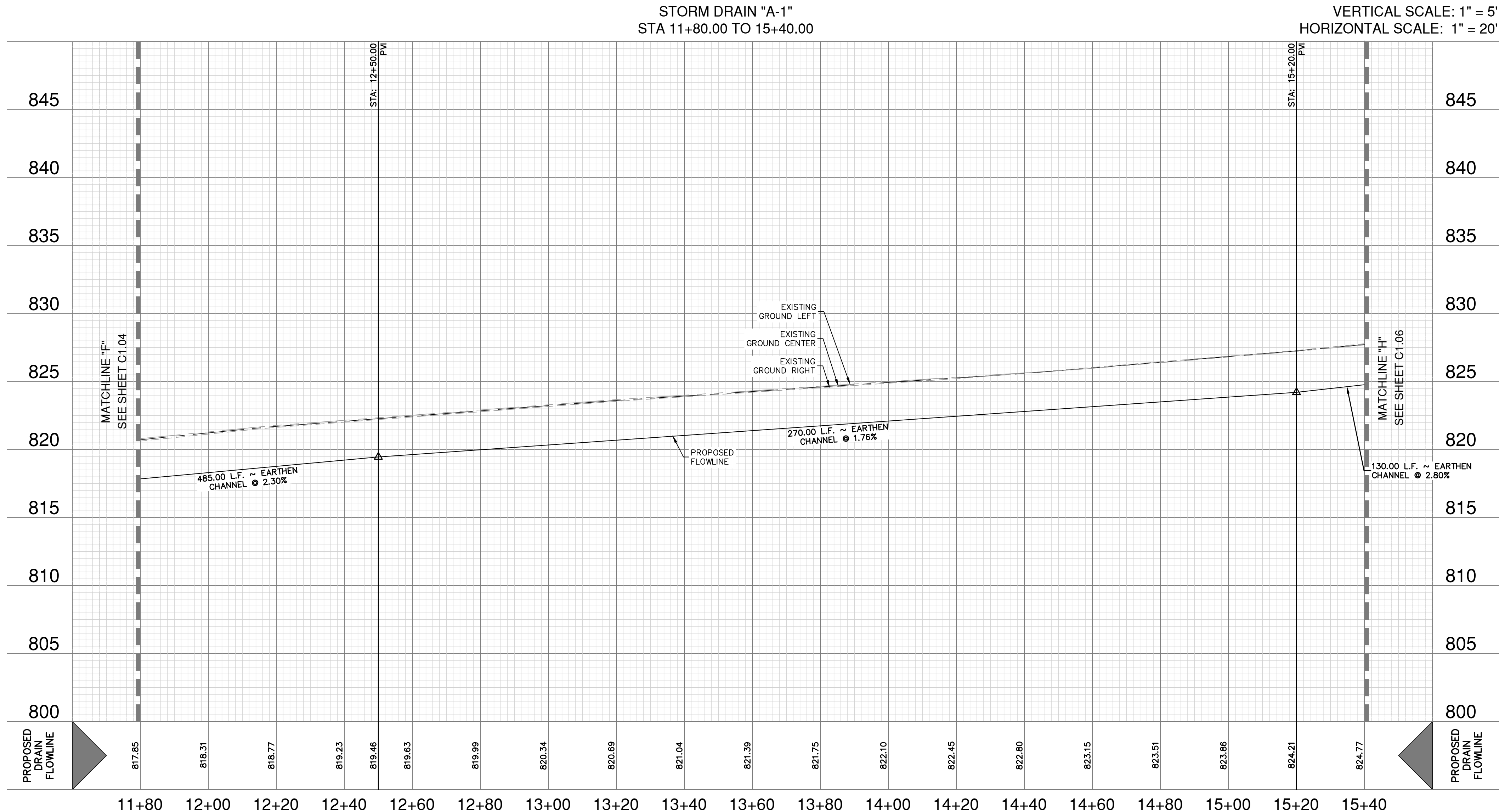
PLAT NO.	JOB NO.	30001-81
DATE	DATE	JUNE 2025
DESIGNER	CP	
CHECKED	TMM	DRAWN CP
SHEET	C1.04	

Date: March 13, 2024, 12:11 PM - User ID: carchter
File: P:\300\01\81\Design\Civil\SDA-30001-81.dwg

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HYDRAULIC CALCULATIONS EARTH CHANNEL STA. 7+65.00 TO 12+50.00	HYDRAULIC CALCULATIONS EARTH CHANNEL STA. 12+50.00 TO 15+20.00	HYDRAULIC CALCULATIONS EARTH CHANNEL STA. 15+20.00 TO 16+50.00
$Q_{25} = 90$ CFS $n = 0.035$ $S = 2.30\%$ $dn_{25} = 2.15$ FT $dn_{25} + \text{Fbrd.} = 2.65$ FT $V_{25} = 6.52$ FPS $Q_2 = 42$ CFS $V_2 = 5.39$ FPS $Q_{100} = 128$ CFS $dn_{100} = 2.45$ FT $V_{100} = 7.12$ FPS	$Q_{25} = 90$ CFS $n = 0.035$ $S = 2.30\%$ $dn_{25} = 2.26$ FT $dn_{25} + \text{Fbrd.} = 2.76$ FT $V_{25} = 5.89$ FPS $Q_2 = 42$ CFS $V_2 = 4.87$ FPS $Q_{100} = 128$ CFS $dn_{100} = 2.58$ FT $V_{100} = 6.44$ FPS	$Q_{25} = 48$ CFS $n = 0.035$ $S = 2.80\%$ $dn_{25} = 1.64$ FT $dn_{25} + \text{Fbrd.} = 2.14$ FT $V_{25} = 5.95$ FPS $Q_2 = 23$ CFS $V_2 = 4.99$ FPS $Q_{100} = 68$ CFS $dn_{100} = 1.87$ FT $V_{100} = 6.84$ FPS



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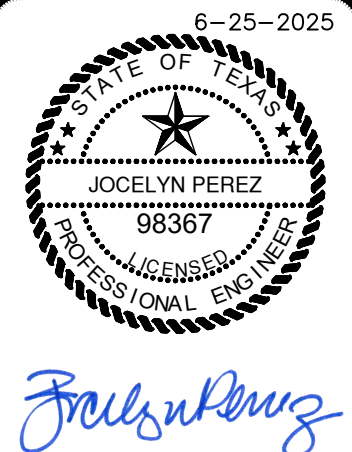
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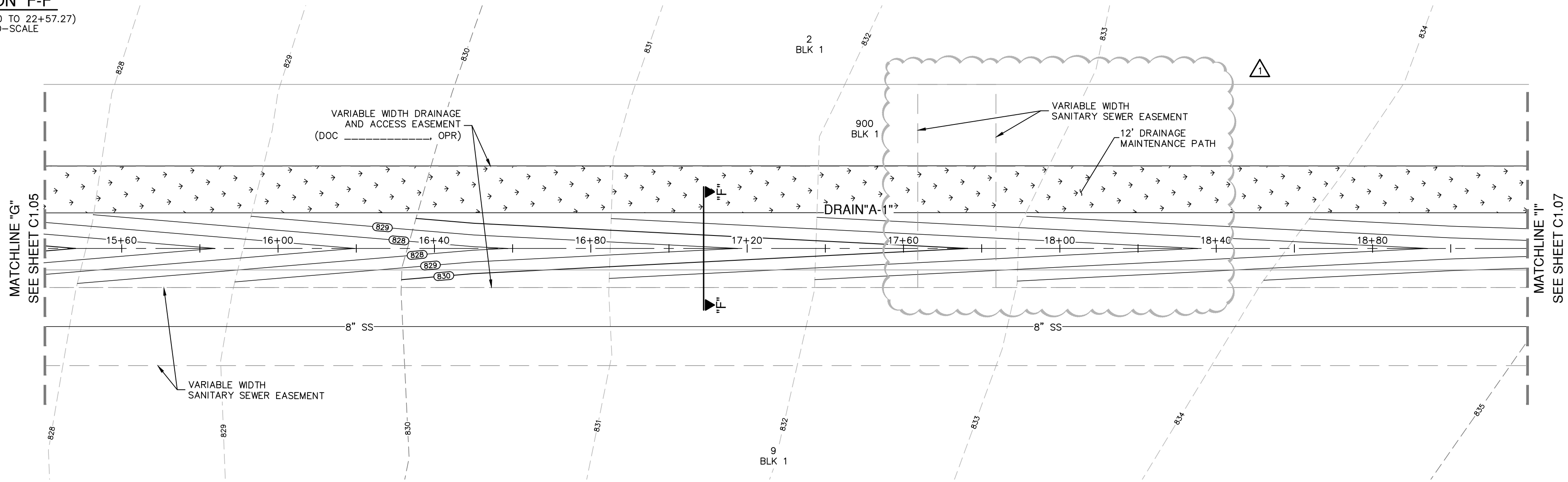
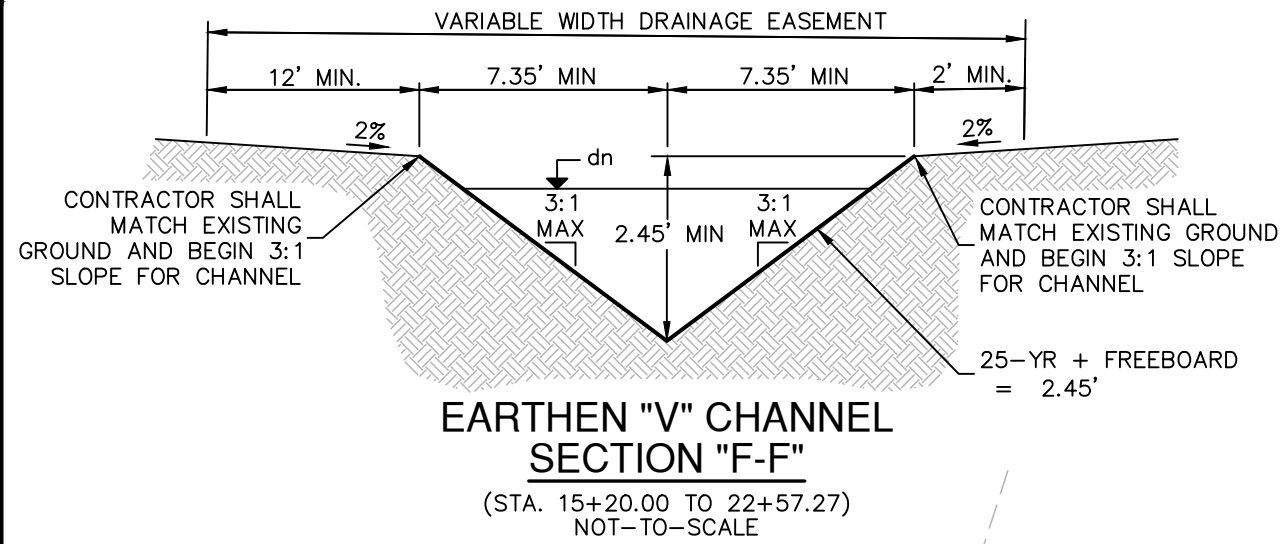
NO.	REVISION	DATE
1	CHANGED LOTS & SSWR ESM	06/25/23



PAPE-DAWSON ENGINEERS
1672 INDEPENDENCE DR. STE 102 | NEW BRAUNFELS, TX 78132 | 830.632.5633
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1008800

VERAMENDI PRECINCT 11A
NEW BRAUNFELS, TEXAS
STORM DRAIN A-1 - PLAN & PROFILE
STA 11+80.00 TO 15+40.00

PLAT NO.	
JOB NO.	30001-81
DATE	JUNE 2025
DESIGNER	CP
CHECKED	TMM
DRAWN	CP
SHEET	C1.05

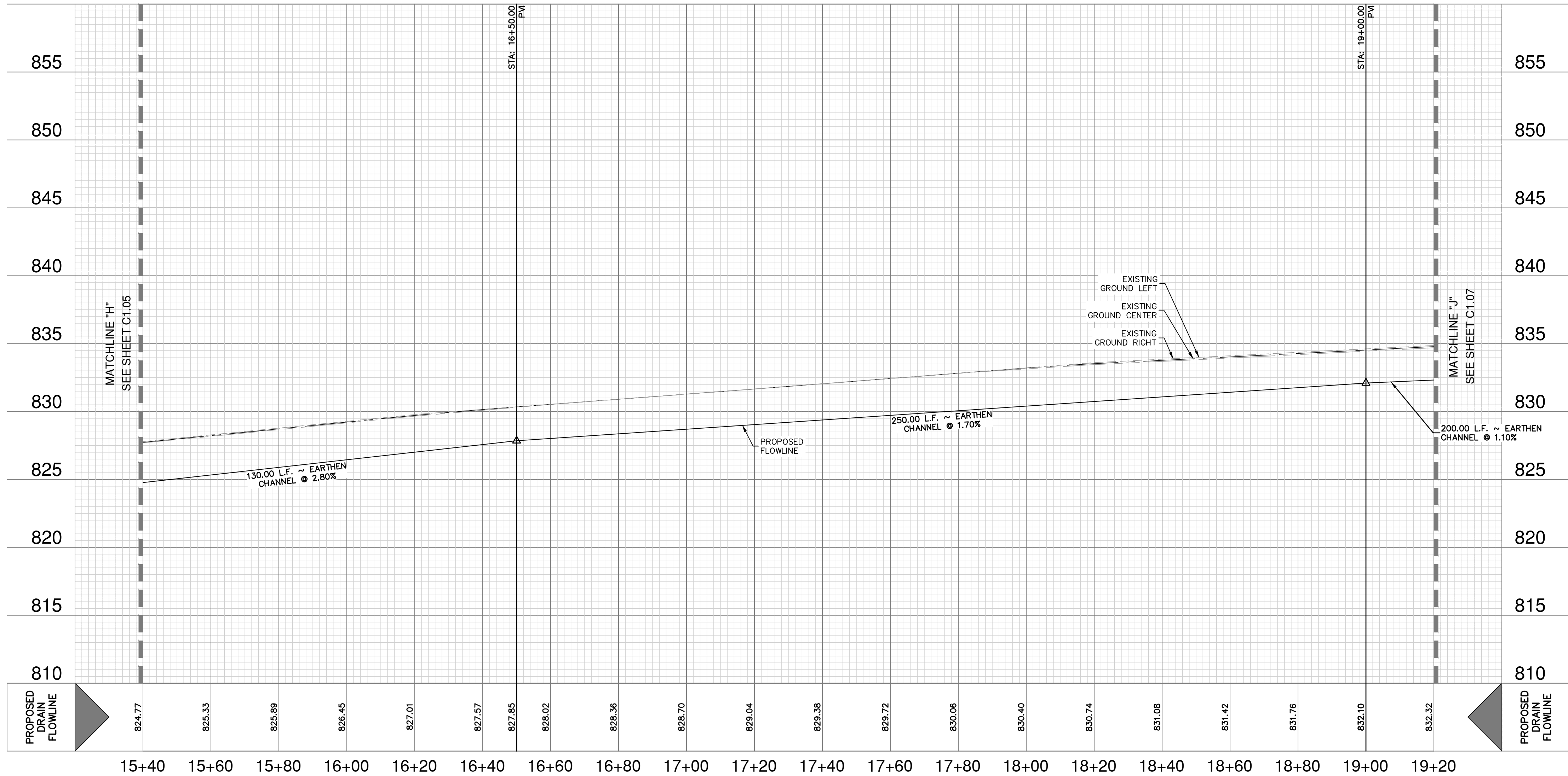


STORM DRAIN "A-1"

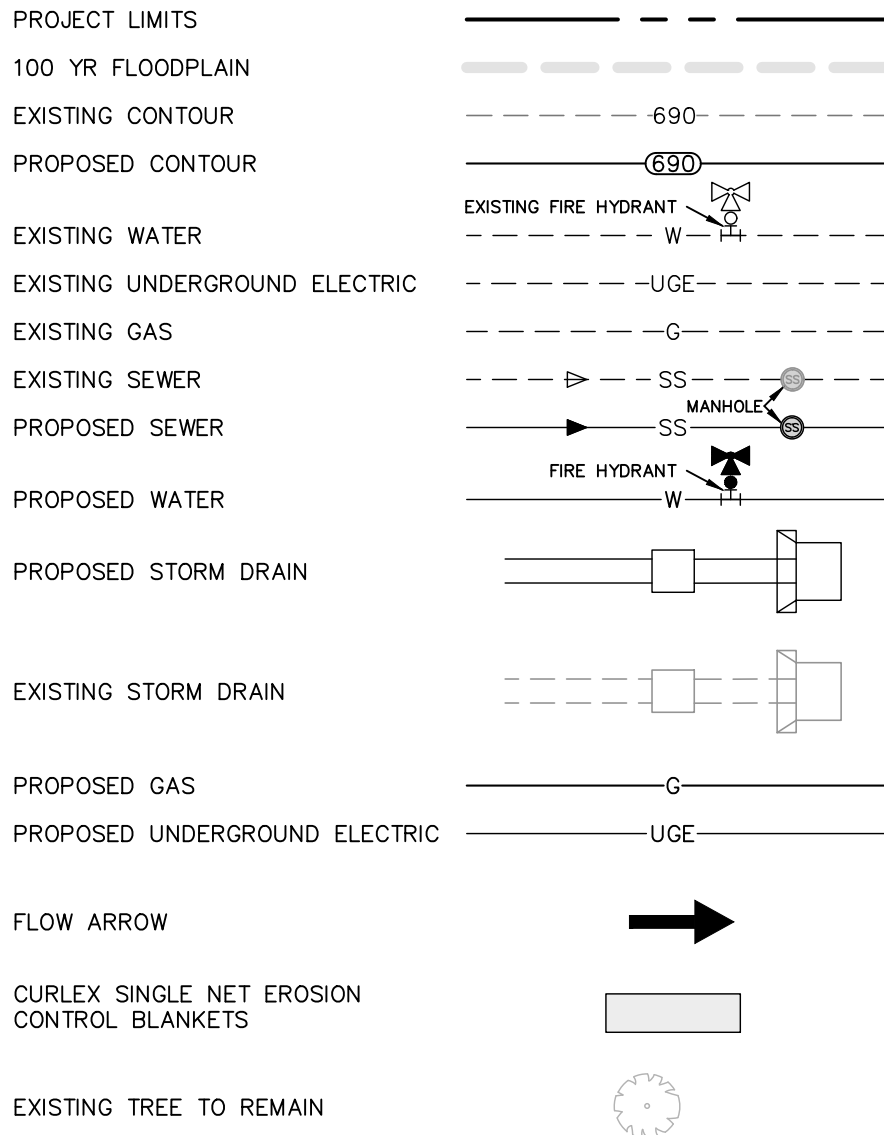
STA 15+40.00 TO 19+20.00

VERTICAL SCALE: 1" = 5'

HORIZONTAL SCALE: 1" = 20'



DRAINAGE LEGEND



HYDRAULIC CALCULATIONS EARTH CHANNEL STA. 15+20.00 TO 16+50.00
Q ₂₅ = 48 CFS
n = 0.035
S = 2.80%
dn ₂₅ = 1.64 FT
dn ₂₅ + Fbrd. = 2.14 FT
V ₂₅ = 5.95 FPS
Q ₂ = 23 CFS
V ₂ = 4.99 FPS
Q ₁₀₀ = 68 CFS
dn ₁₀₀ = 1.87 FT
V ₁₀₀ = 6.84 FPS

HYDRAULIC CALCULATIONS EARTH CHANNEL STA. 16+50.00 TO 19+00.00
Q ₂₅ = 48 CFS
n = 0.035
S = 1.70%
dn ₂₅ = 1.80 FT
dn ₂₅ + Fbrd. = 2.30 FT
V ₂₅ = 4.94 FPS
Q ₂ = 23 CFS
V ₂ = 4.08 FPS
Q ₁₀₀ = 68 CFS
dn ₁₀₀ = 2.05 FT
V ₁₀₀ = 5.39 FPS

HYDRAULIC CALCULATIONS EARTH CHANNEL STA. 19+00.00 TO 21+00.00
Q ₂₅ = 48 CFS
n = 0.035
S = 1.10%
dn ₂₅ = 1.95 FT
dn ₂₅ + Fbrd. = 2.45 FT
V ₂₅ = 4.21 FPS
Q ₂ = 23 CFS
V ₂ = 3.50 FPS
Q ₁₀₀ = 68 CFS
dn ₁₀₀ = 2.22 FT
V ₁₀₀ = 4.60 FPS

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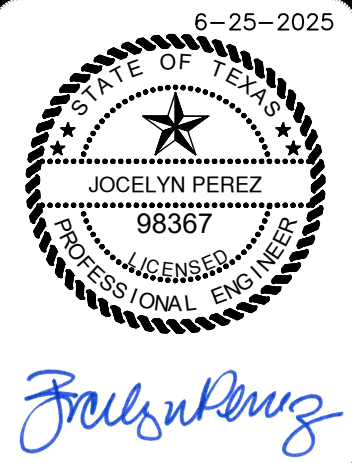
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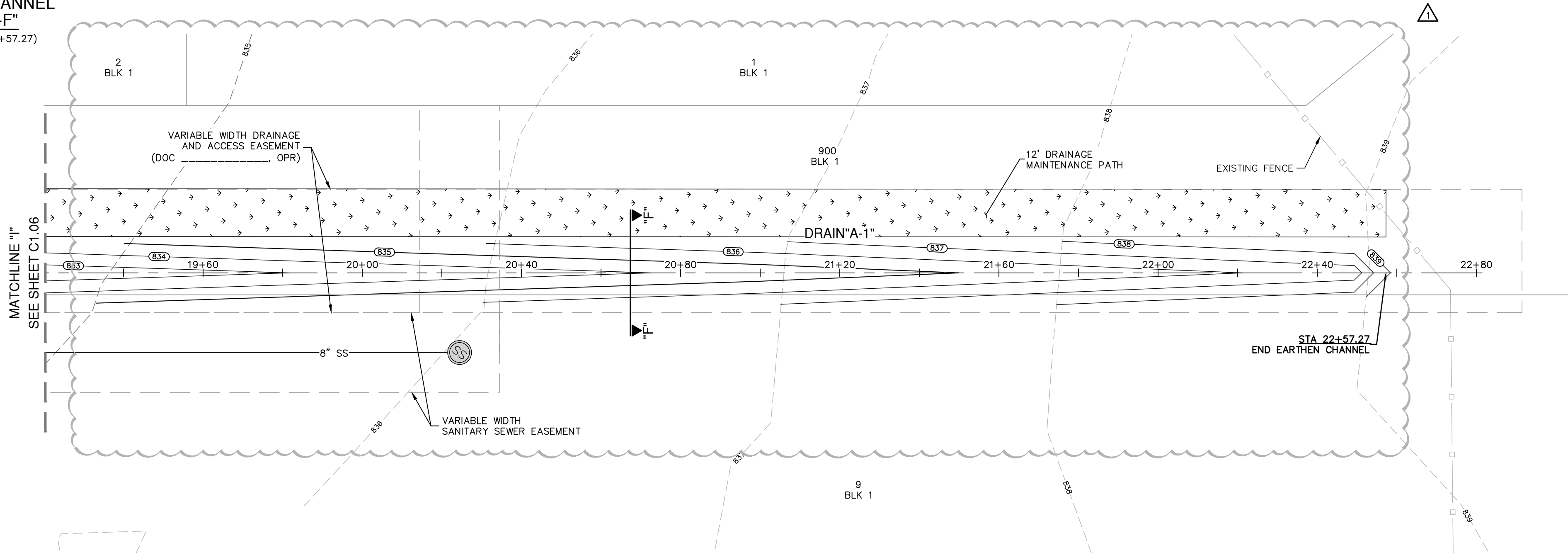
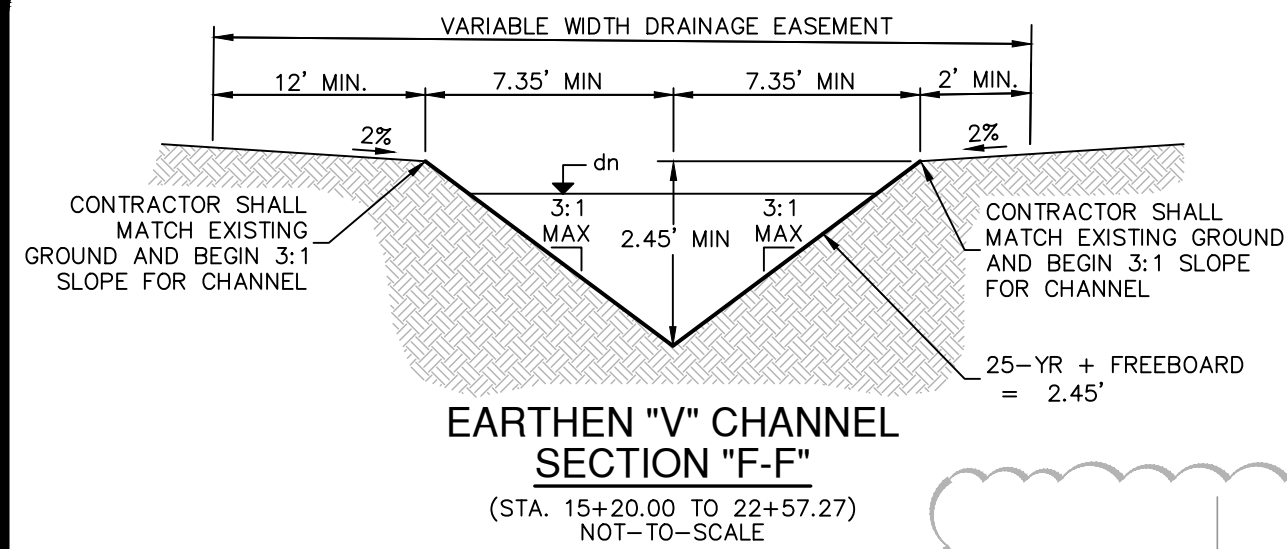
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NO.	REVISION	DATE
1	CHANGE IN SEWER EASEMENT	06/25/25

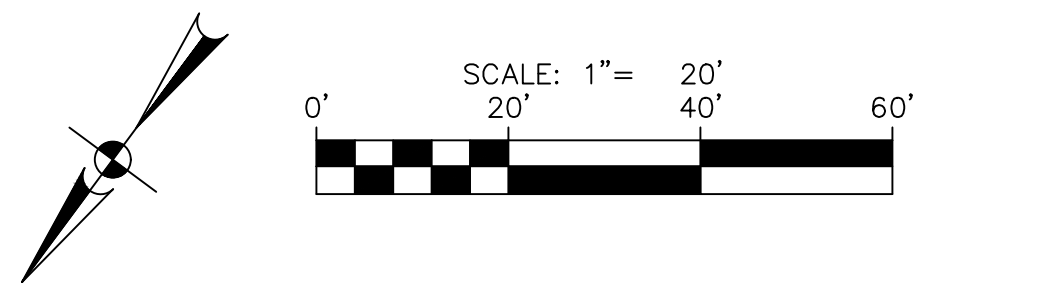
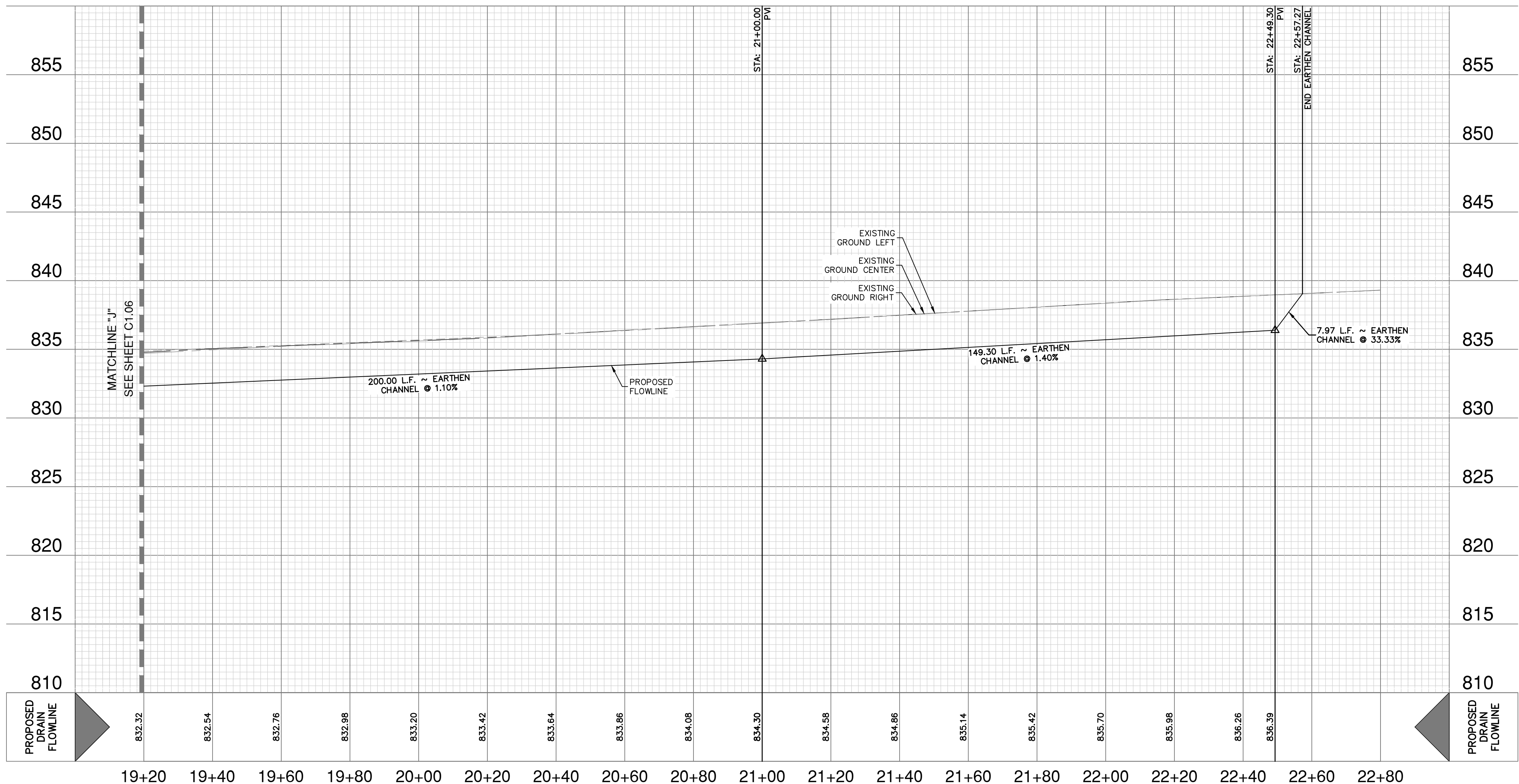


PLAT NO.	
JOB NO.	30001-81
DATE	JUNE 2025
DESIGNER	CP
CHECKED	TMM
DRAWN	CP
SHEET	C1.06



STORM DRAIN "A-1"
STA. 19+20.00 TO 22+57.27

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



DRAINAGE LEGEND

PROJECT LIMITS	---
100 YR FLOODPLAIN	---
EXISTING CONTOUR	---
PROPOSED CONTOUR	---
EXISTING WATER	---
EXISTING UNDERGROUND ELECTRIC	---
EXISTING GAS	---
EXISTING SEWER	---
PROPOSED SEWER	---
PROPOSED WATER	---
PROPOSED STORM DRAIN	---
EXISTING STORM DRAIN	---
PROPOSED GAS	---
PROPOSED UNDERGROUND ELECTRIC	---
FLOW ARROW	→
CURLEX SINGLE NET EROSION CONTROL BLANKETS	---
EXISTING TREE TO REMAIN	---

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Q ₂₅ = 48 CFS
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S = 1.10%
dn ₂₅ = 1.95 FT
dn ₂₅ + Fbrd. = 2.45 FT
V ₂₅ = 4.21 FPS
Q ₂ = 23 CFS
V ₂ = 3.50 FPS
Q ₁₀₀ = 68 CFS
dn ₁₀₀ = 2.22 FT
V ₁₀₀ = 4.60 FPS

HYDRAULIC CALCULATIONS EARTH CHANNEL STA. 21+00.00 TO 22+57.27
Q ₂₅ = 48 CFS
n = 0.035
S = 1.40%
dn ₂₅ = 1.87 FT
dn ₂₅ + Fbrd. = 2.37 FT
V ₂₅ = 4.58 FPS
Q ₂ = 23 CFS
V ₂ = 3.80 FPS
Q ₁₀₀ = 68 CFS
dn ₁₀₀ = 2.13 FT
V ₁₀₀ = 5.00 FPS

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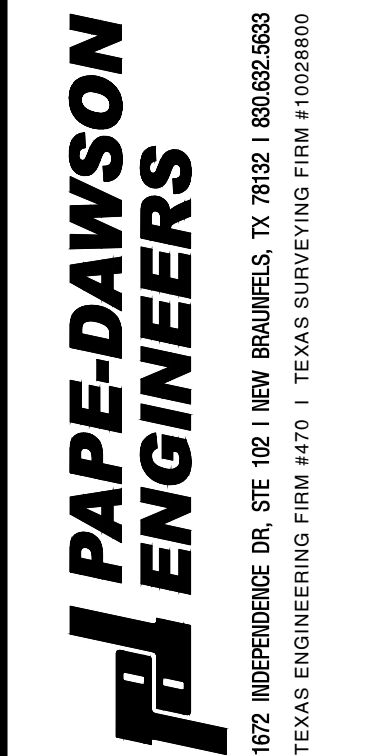
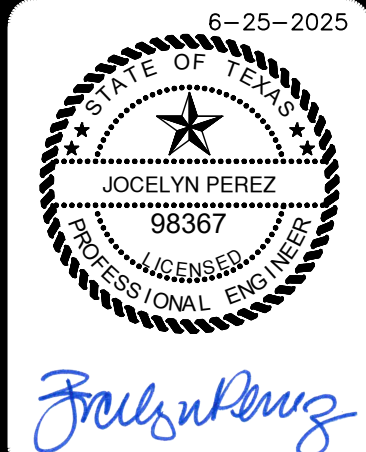
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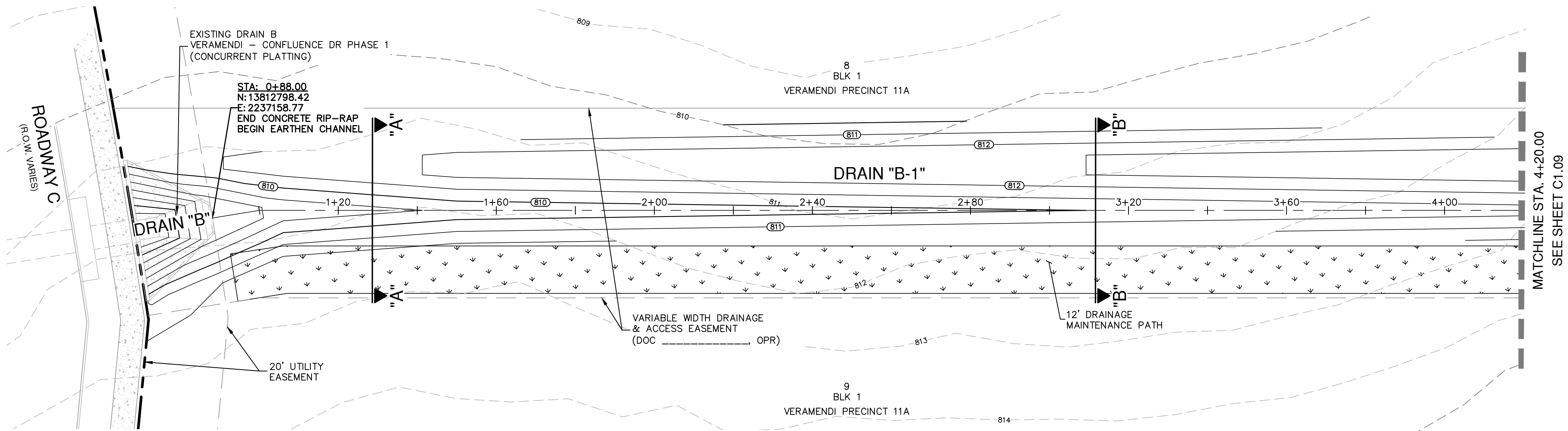
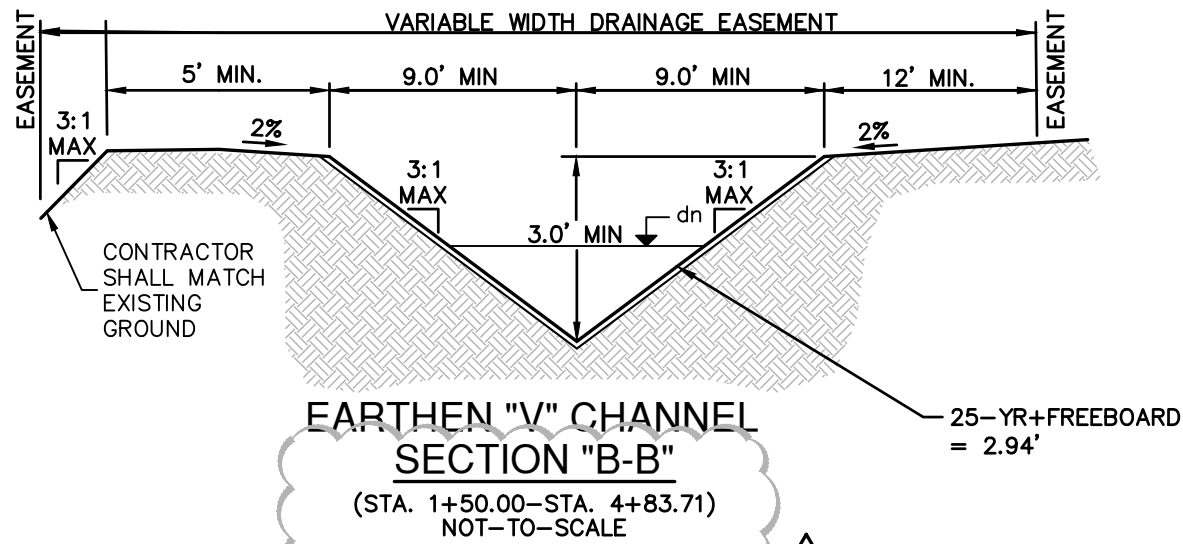
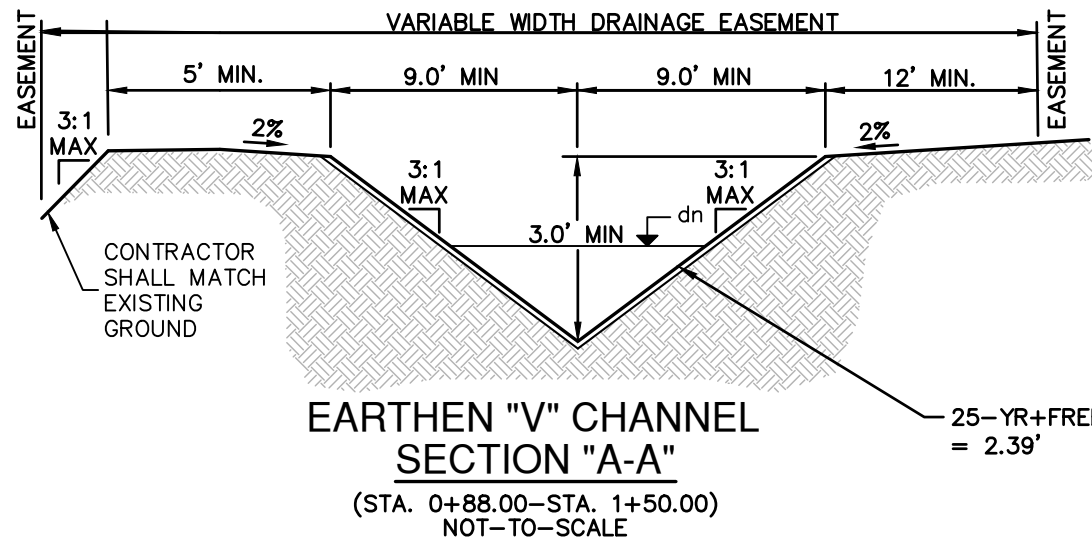
NO.	REVISION	DATE
1	CHANGED LOTS & SS&W ESMT	06/25/23



PLAT NO.	
JOB NO.	30001-81
DATE	JUNE 2025
DESIGNER	CP
CHECKED	TMM
DRAWN	CP
SHEET	C1.07

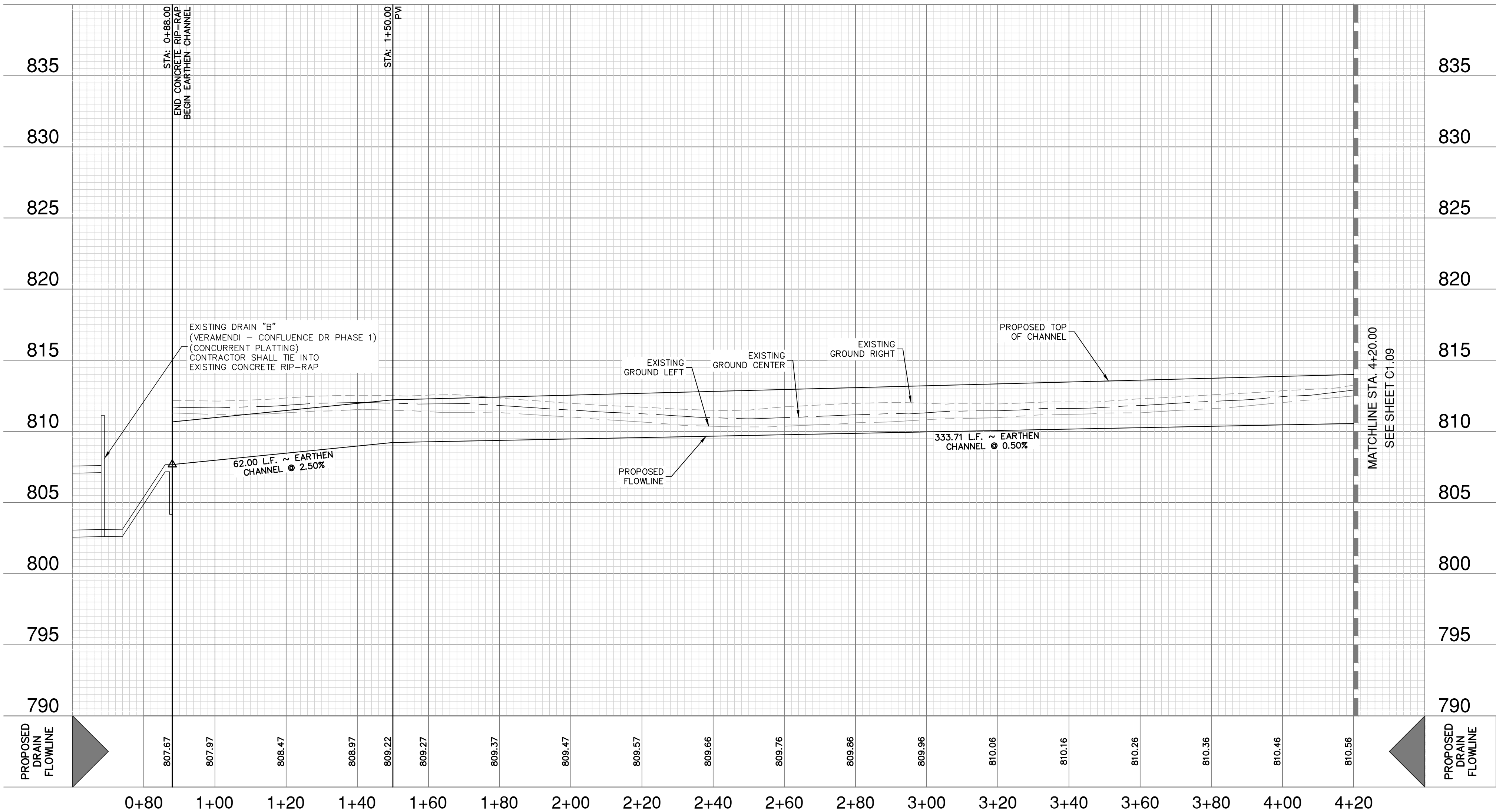
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THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL. AERIAL IMAGERY PROVIDED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



STORM DRAIN "B-1"
STA. 0+88.00 TO 4+20.00

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



DRAINAGE LEGEND

PROJECT LIMITS	---
100 YR FLOODPLAIN	---
EXISTING CONTOUR	---690---
PROPOSED CONTOUR	---(690)---
EXISTING WATER	---
EXISTING UNDERGROUND ELECTRIC	---UG---
EXISTING GAS	---
EXISTING SEWER	---
PROPOSED SEWER	---
PROPOSED WATER	---
PROPOSED STORM DRAIN	---
EXISTING STORM DRAIN	---
PROPOSED GAS	---
PROPOSED UNDERGROUND ELECTRIC	---
FLOW ARROW	→
CURLEX SINGLE NET EROSION CONTROL BLANKETS	---
EXISTING TREE	---
MAINTENANCE ACCESS PATH	---

HYDRAULIC CALCULATIONS EARTH CHANNEL STA. 0+88.00 TO 1+50.00
Q ₂₅ = 59 CFS
n = 0.035
S = 2.50%
dn ₂₅ = 1.89 FT
dn ₂₅ + Fbrd. = 2.39 FT
V ₂₅ = 6.00 FPS
Q ₂ = 26 CFS
V ₂ = 4.90 FPS
Q ₁₀₀ = 89 CFS
dn ₁₀₀ = 2.23 FT
V ₁₀₀ = 6.66 FPS

HYDRAULIC CALCULATIONS EARTH CHANNEL STA. 1+50.00 TO 4+83.71
Q ₂₅ = 59 CFS
n = 0.035
S = 0.50%
dn ₂₅ = 2.44 FT
dn ₂₅ + Fbrd. = 2.94 FT
V ₂₅ = 3.31 FPS
Q ₂ = 26 CFS
V ₂ = 2.70 FPS
Q ₁₀₀ = 89 CFS
dn ₁₀₀ = 2.85 FT
V ₁₀₀ = 3.67 FPS

NOTE:
CHANNEL SIZED BASED ON EXISTING CONDITIONS C-VALUE CALCULATIONS.

DRAINAGE & GRADING NOTES:

- THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY SIZE, GRADE, AND LOCATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DEVIATIONS FROM PLANS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.
- ALL CONCRETE FOR TxDOT DRAINAGE STRUCTURES SHALL MEET TxDOT SPECIFICATIONS. ALL OTHER CONCRETE SHALL BE CLASS "A" 3000 PSI CYLINDER STRENGTH IN 28 DAYS.
- REFERENCE DRAINAGE DETAILS FOR PIPE TRENCH DETAILS, BOX CULVERT, HEADWALL, AND WINGWALL CONSTRUCTION DETAILS, AND BOX CULVERT BEDDING AND EXCAVATION LIMITS.
- CONTRACTOR SHALL GROUT ALL CURB INLETS AND JUNCTION BOXES TO PROVIDE FOR POSITIVE DRAINAGE.
- EARTHEN CHANNELS WILL BE VEGETATED BY SEEDING OR SODDING. 85% OF THE CHANNEL SURFACE MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF NEW BRAUNFELS WILL ACCEPT.
- CONTRACTOR SHALL MATCH TOP OF CHANNEL TO NATURAL GROUND AND MAINTAIN A MINIMUM CHANNEL DEPTH OF "D" AS SHOWN IN THE PROFILE.
- ALL RCP SHALL BE AASHTO M170 CLASS III RCP.

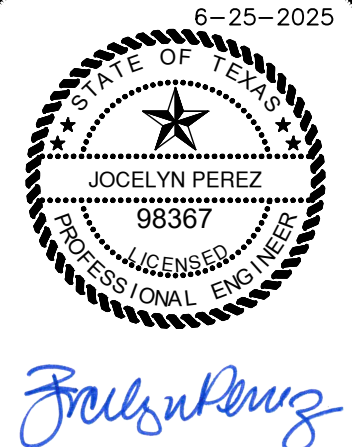
CAUTION!!

CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITING TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCTBANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT "TEXAS 811" A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTOR'S SOLE EXPENSE. WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR NOT.

TRENCH EXCAVATION SAFETY PROTECTION:

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

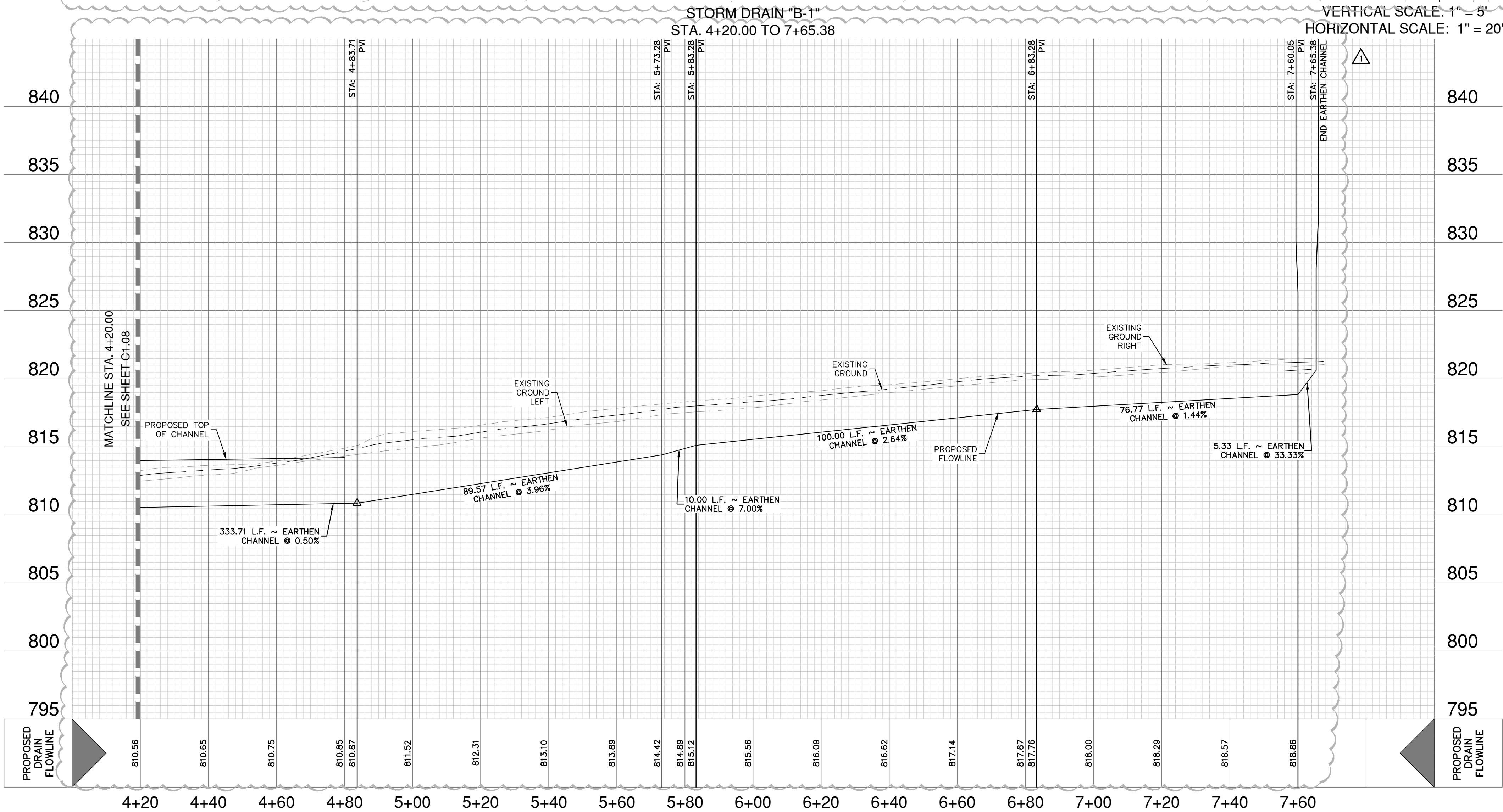
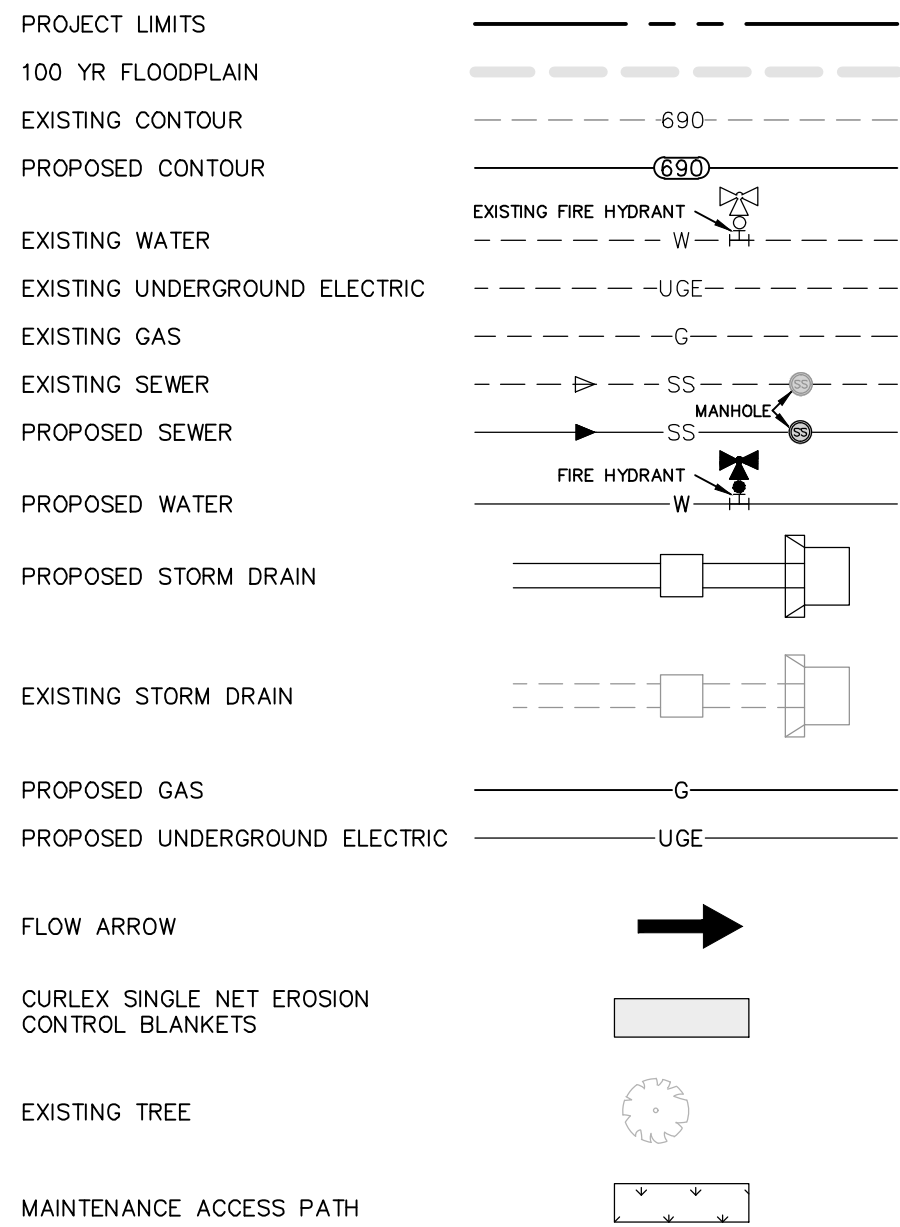
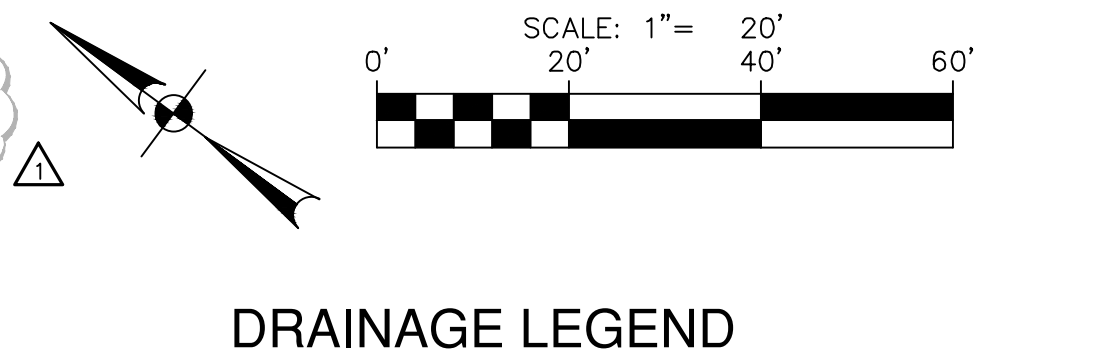
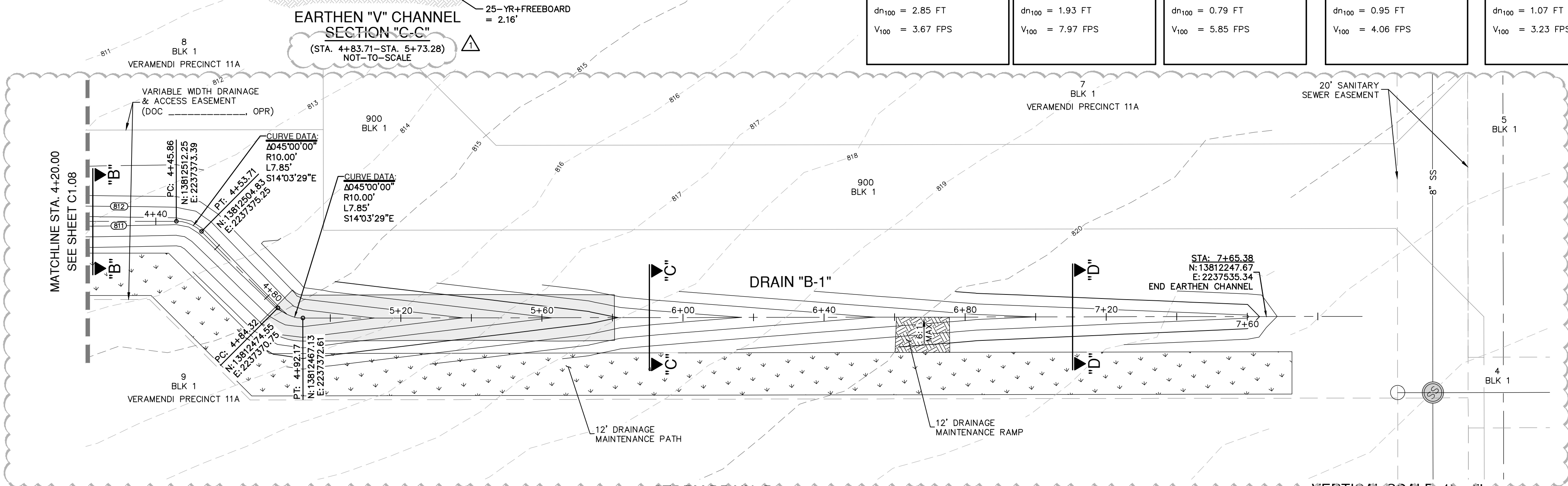
NO.	REVISION	DATE
1	LOT LINES & CHANNEL CHANGE 06/25/25	



PAPE-DAWSON ENGINEERS
1672 INDEPENDENCE DR. STE 102 | NEW BRAUNFELS, TX 78132 | 830.632.5633
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1008800

VERAMENDI PRECINCT 11A
NEW BRAUNFELS, TEXAS
STORM DRAIN B-1 - PLAN & PROFILE
STA. 0+88.00 TO 4+20.00

PLAT NO.	
JOB NO.	30001-81
DATE	JUNE 2025
DESIGNER	CP
CHECKED	TMM
DRAWN	CP
SHEET	C1.08



NOTE:
CHANNEL SIZED BASED ON EXISTING CONDITIONS C-VALUE CALCULATIONS.

DRAINAGE & GRADING NOTES:

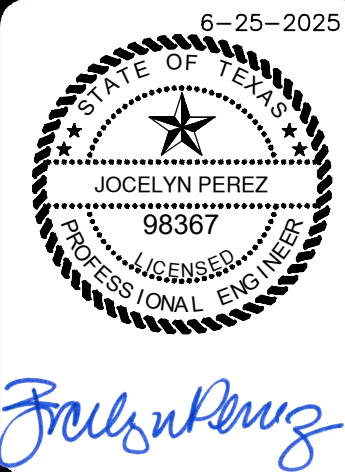
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6. CONTRACTOR SHALL MATCH TOP OF CHANNEL TO NATURAL GROUND AND MAINTAIN A MINIMUM CHANNEL DEPTH OF "D" AS SHOWN IN THE PROFILE.
7. ALL RCP SHALL BE AASHTO M170 CLASS III RCP.

CAUTION!

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

TRENCH EXCAVATION SAFETY PROTECTION

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/ GEOTECHNICAL/ SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND ADVISE THE CONTRACTOR OF ANY RECOMMENDATIONS FOR PROJECT WORK ARE 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 BE IN ADDITION TO ANY 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 ALL APPLICABLE STANDARDS CONCERNING PREVENTIVE ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.



**PAPE-DAWSON
ENGINEERS**

1672 INDEPENDENCE DR. STE 102 | NEW BRAUNFELS, TX 78132 | 830.632.5633
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

VERAMENDI PRECINCT 11A
NEW BRAUNFELS, TEXAS

STORM DRAIN B-1 - PLAN & PROFILE
STA. 4+20.00 TO 7+65.38

CAUTION!!!:
THE LOCATIONS AND DEPTHS OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

NBU PRESSURE ZONE:
PROPOSED WATER MAIN IS WITHIN NBU PRESSURE ZONE 4.

NOTE:
FOR PAVEMENT DESIGN SECTION SEE GEOTECHNICAL ENGINEERING REPORT.

FOR CHLORINATION INJECTION
2 - 1" CORPORATION STOP, C.C.XLP
1 - 1" COPPER TUBING, CUT AS REQUIRED
2 - 1" COMP. 1 1/4 COUPLING, CORP. STOP
2 - 1 1/4" THD. SOLID CAPS, THR.

12" VALVE SHALL REMAIN CLOSED UNTIL NEW MAINS HAVE BEEN DISINFECTED BY CONTRACTOR AND ACCEPTED BY NBU

CONTRACTOR SHALL TIE PROPOSED 12" MAIN TO EXISTING 12" PVC C-900 DR 18 MAIN AND PROVIDE VERTICAL BENDS AS NEEDED AFTER DISINFECTION BY CONTRACTOR AND ACCEPTANCE BY NBU

2" TEMPORARY BLOWOFF ASSEMBLY (SEE NBU STD DWG 253)

Pipe Restraint Length Calculations				
Source: EBAA Iron, Restraint Length Calculator v 7.1.2				
Assumptions:				
Soil Type	Safety Factor	Trench Type	Depth of Bury	Test Pressure
CH	1.5 to 1.0	5	4 ft	200 psi

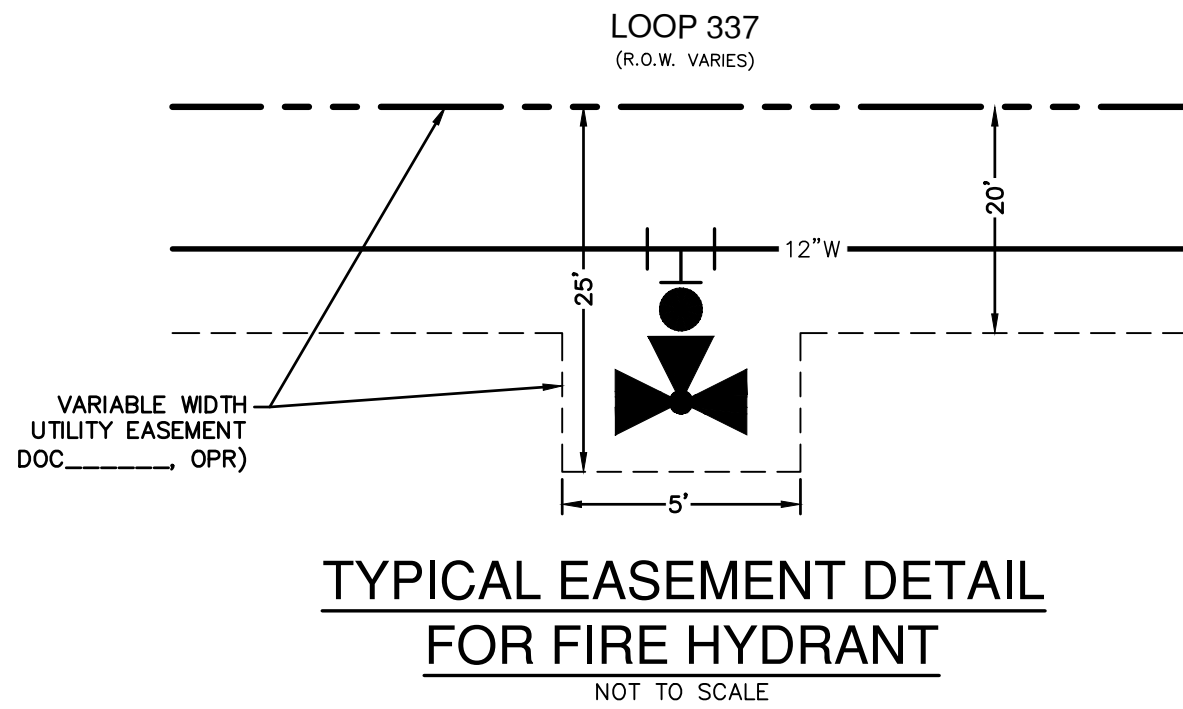
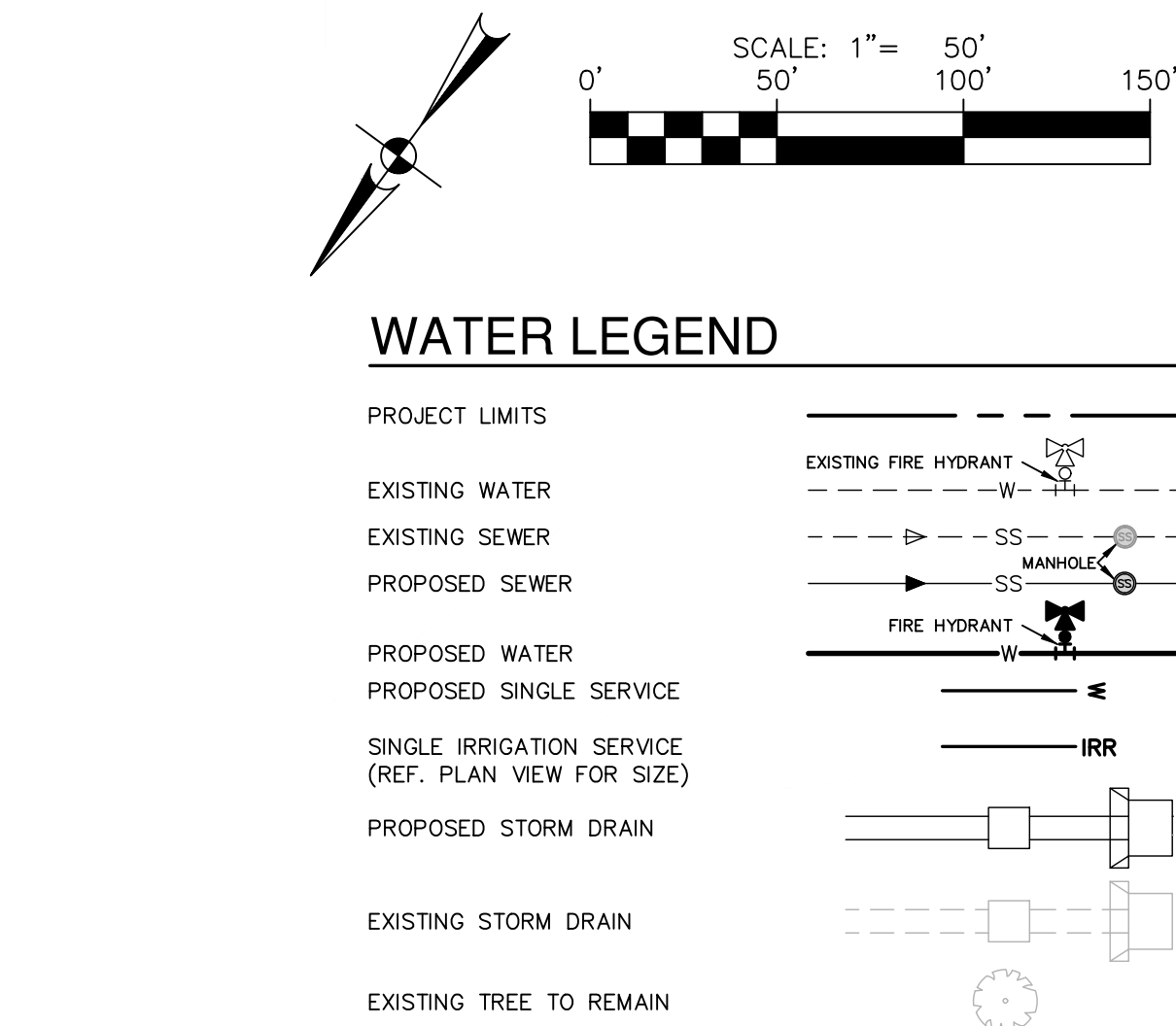
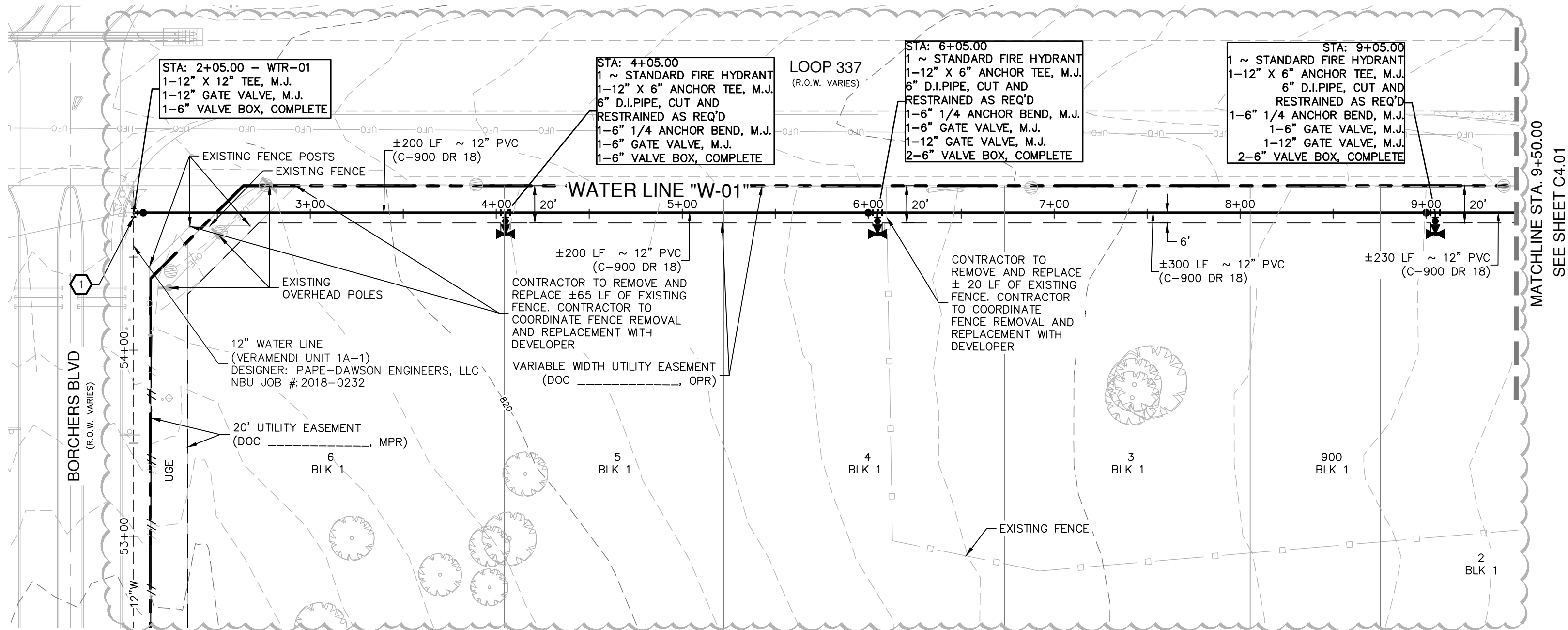
Minimum Restraint Lengths in Feet

12" Waterline	
Main	Branch

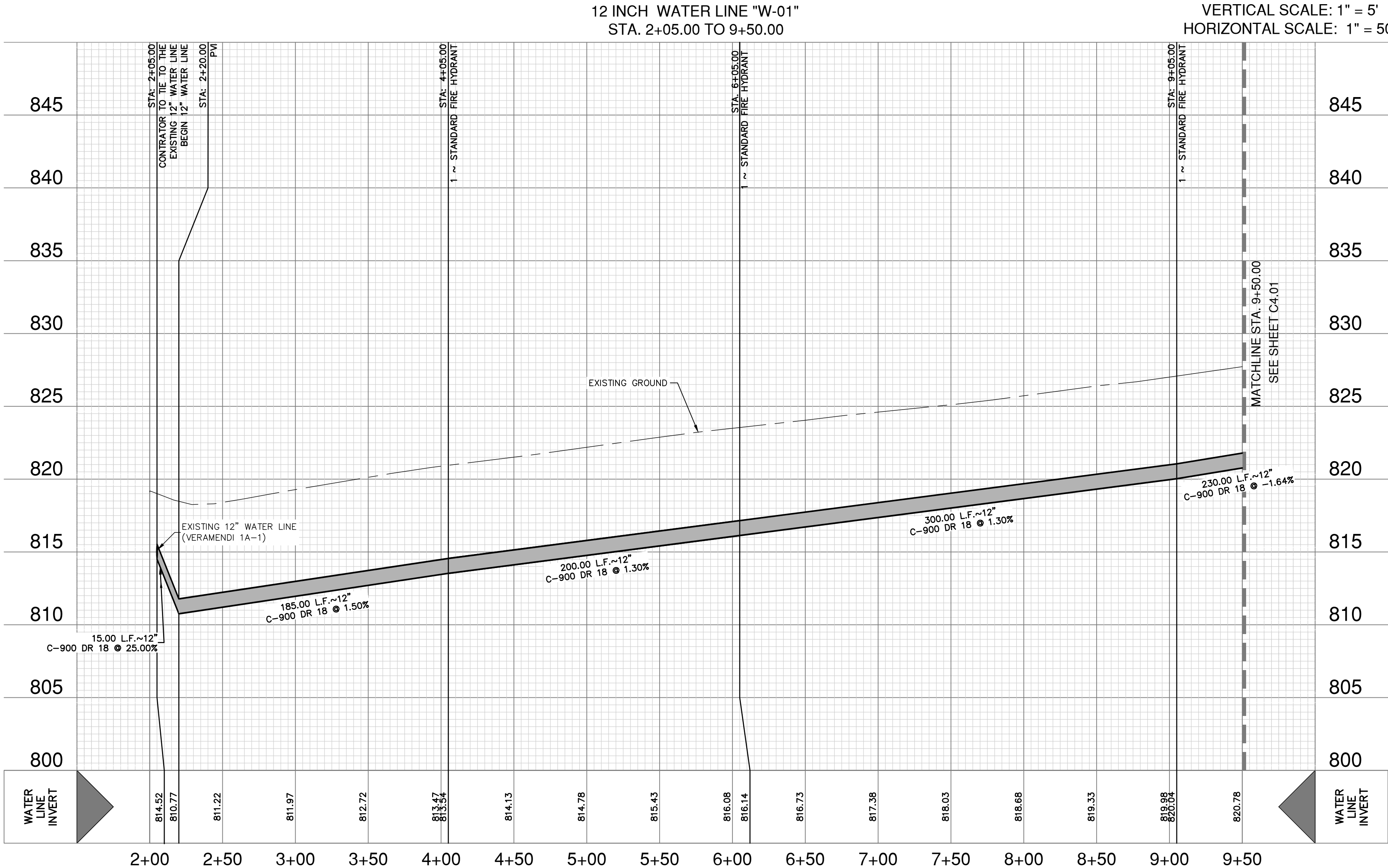
Horizontal Bends	
11.25 Degrees	
22.5 Degrees	
45 Degrees	17

Misc. Fittings	
8"x6" Tee	
8"x8" Tee	
12"x6" Tee	59 (6" Branch)
12"x8" Tee	
Dead End/ Gate Valve	110
16"x12" Cross	
16"x12" Reducer	

Vertical Bends (assumes low side depth of 10)	High Side	Low Side
11.25 Degrees	11	2
22.5 Degrees	22	4
45 Degrees	46	7



WATER (NBU JOB NO. W-245133)		
ITEM	UNIT	QUANTITY
12" WATER LINE	LF	1480
LUes	EA	48
FIRE HYDRANT	EA	1
6" GATE VALVE	EA	1
12" GATE VALVE	EA	4
2" SERVICE LINE WITH 1.5" METER	EA	2
2" SERVICE LINE WITH 2" METER	EA	1



JOINT RESTRAINT NOTE:

CONTRACTOR SHALL INSTALL RETAINER GLANDS AT ALL FITTINGS AND PROVIDE JOINT RESTRAINING HARNESSSES 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 FEET OF PIPE WITH NO JOINTS ON EACH SIDE OF THE FITTING. CONTRACTOR SHALL USE PIPE RESTRAINT LENGTH TABLE PROVIDED ON THIS SHEET. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE JOINT RESTRAINTS WITH THE DEVELOPER'S ENGINEER IF CHANGES OCCUR.

NOTE:

- ALL IRRIGATION SERVICES WITHIN RESIDENTIAL AREAS SHALL HAVE A REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY (R/P) INSTALLED PRIOR TO PLACEMENT OF METER. ALL NEW FACILITIES ARE REQUIRED TO COMPLY WITH THE REQUIREMENTS OF THE LATEST NBU BACKFLOW POLICY.
- ALL GATE VALVES 16" AND SMALLER SHALL BE RESILIENT SEATED GATE VALVES.

CITY OF NEW BRAUNFELS NOTES

- NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, OR DRIVEWAYS.
- ALL UTILITIES TO BE CONSTRUCTED PRIOR TO STREETS.
- THIS PROJECT INCLUDES UTILITY INSTALLATIONS GREATER THAN 5- FEET IN DEPTH. DEEP TRENCHES POSE COMPACTION TESTING AND CONSTRUCTION CHALLENGES AND CITY METHODS FOR TESTING AND COMPACTION MAY NOT BE ACHIEVABLE. A UTILITY COMPACTION PLAN WILL BE REQUIRED AND MUST BE SUBMITTED FOR APPROVAL TO CITY PRIOR TO UTILITY INSTALLATION.
- UTILITY TRENCH COMPACTION - ALL UTILITY TRENCH COMPACTION TESTS WITHIN THE STREET PAVEMENT/SIDEWALK SECTION SHALL BE THE RESPONSIBILITY OF THE DEVELOPER'S GEOTECHNICAL ENGINEER. FILL MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED TWELVE INCHES (12") LOOSE. DETERMINE THE MAXIMUM LIFT THICKNESS BASED ON THE ABILITY OF THE COMPACTING OPERATION AND EQUIPMENT USED TO MEET THE REQUIRED DENSITY. EACH LAYER OF MATERIAL SHALL BE COMPACTED TO A MINIMUM 95% DENSITY AND TESTED FOR DENSITY AND MOISTURE IN ACCORDANCE WITH TEST METHODS TEX-113-E, TEX-114-E, TEX-115-E. THE NUMBER AND LOCATION OF REQUIRED TESTS SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY OF NEW BRAUNFELS STREET INSPECTOR. AT A MINIMUM, TESTS SHALL BE TAKEN EVERY 200 LF FOR EACH LIFT AND EVERY OTHER SERVICE LINE. UPON COMPLETION OF TESTING THE GEOTECHNICAL ENGINEER SHALL PROVIDE THE CITY OF NEW BRAUNFELS STREET INSPECTOR WITH ALL TESTING DOCUMENTATION AND A CERTIFICATION STATING THAT THE PLACEMENT OF FILL MATERIAL HAS BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. ADDITIONAL DENSITY TESTS MAY BE REQUESTED BY THE CITY OF NEW BRAUNFELS INSPECTOR.

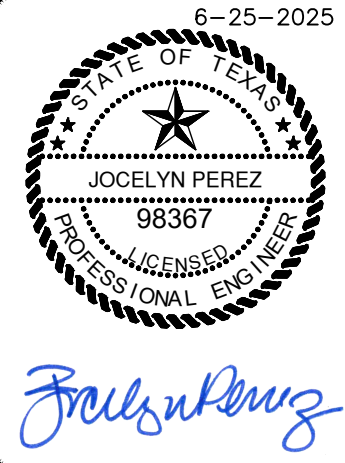
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DATE	06/25/25
REVISION	
NO.	1
LOT LINES CHANGED	



PAPE-DAWSON ENGINEERS
1672 INDEPENDENCE DR. STE 102 | NEW BRAUNFELS, TX 78132 | 830.632.5633
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1008800

VERAMENDI PRECINCT 11A
NEW BRAUNFELS, TEXAS
12 INCH WATER LINE W-01 - PLAN & PROFILE
STA. 2+05.00 TO 9+50.00

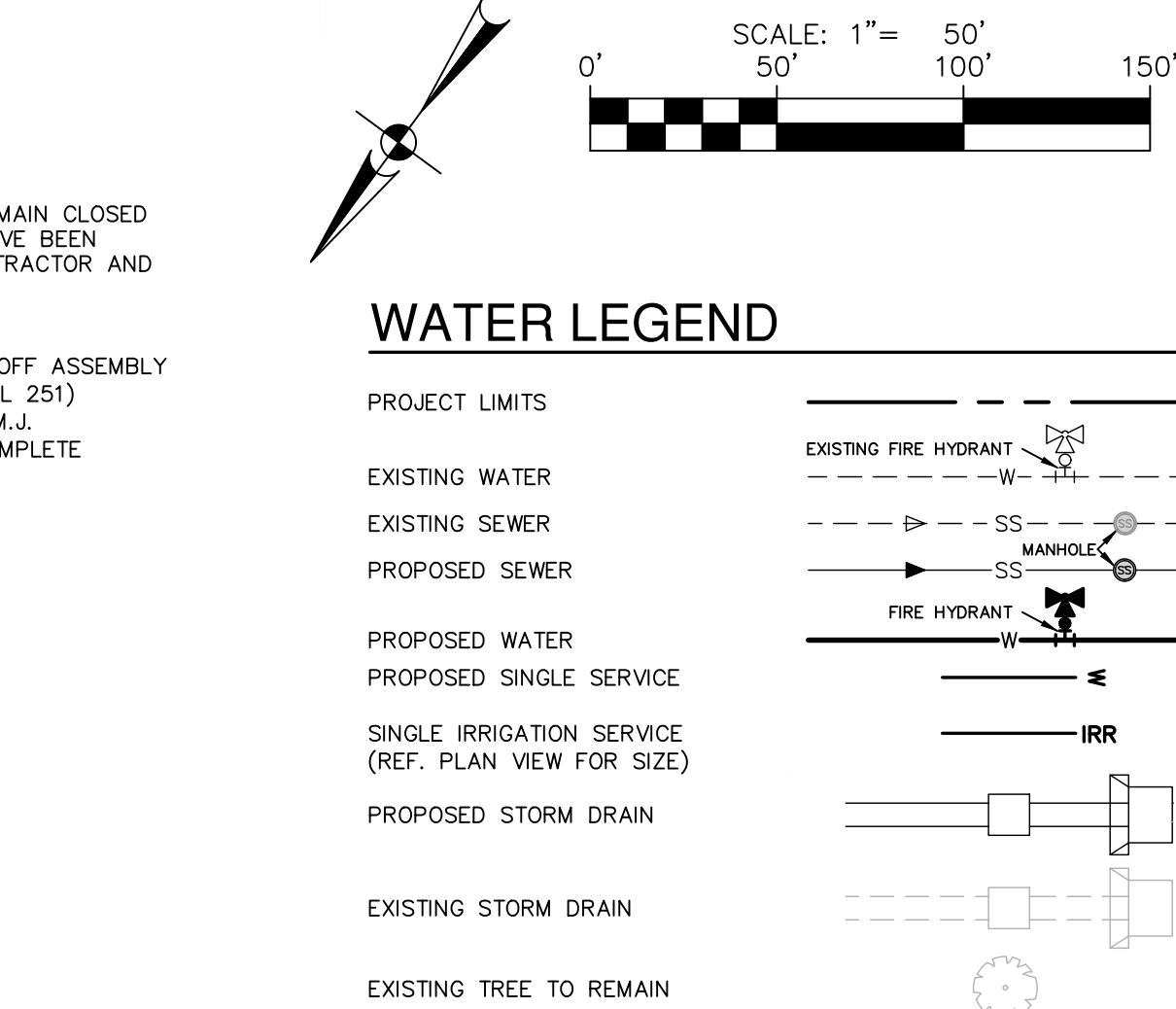
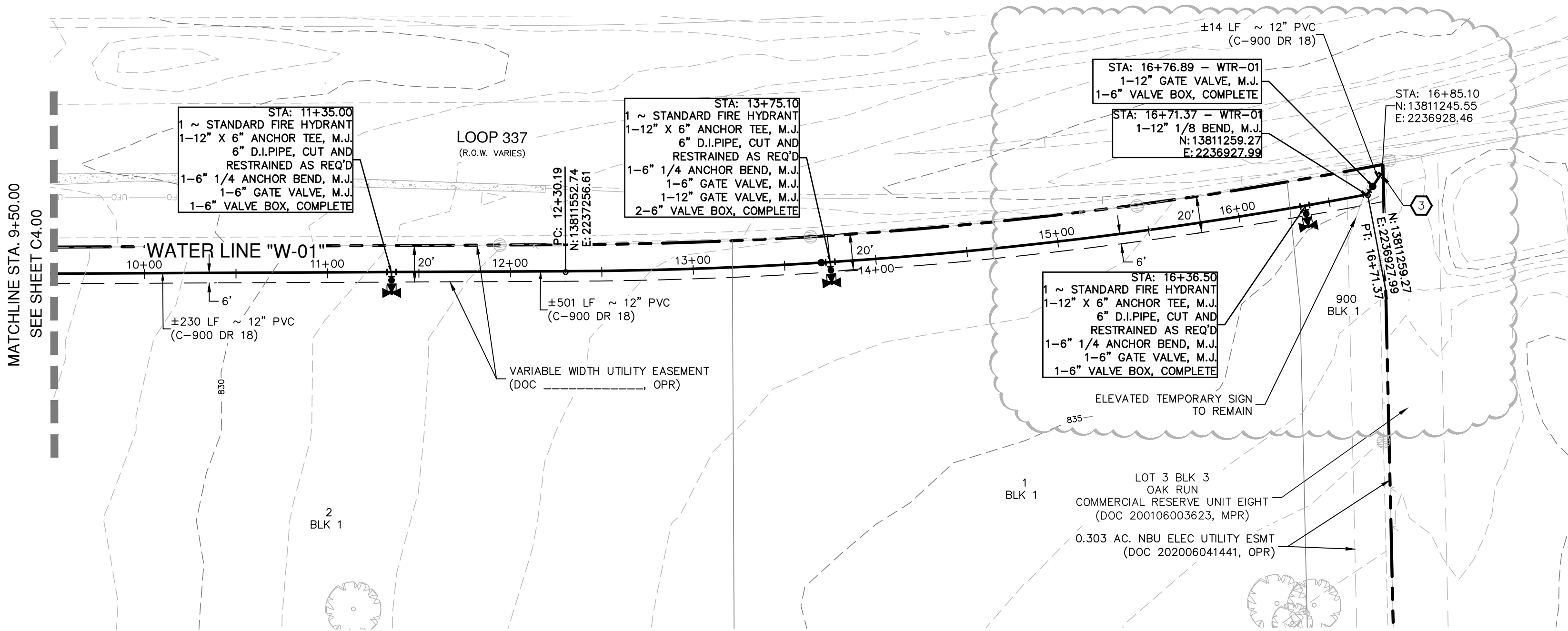
PLAT NO.	
JOB NO.	30001-81
DATE	JUNE 2025
DRAWN	CP
CHECKED	TMM
SHEET	C4.00

CAUTION!!!:
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NBU PRESSURE ZONE:
PROPOSED WATER MAIN IS WITHIN NBU PRESSURE ZONE 4.

NOTE:
FOR PAVEMENT DESIGN SECTION SEE GEOTECHNICAL ENGINEERING REPORT.

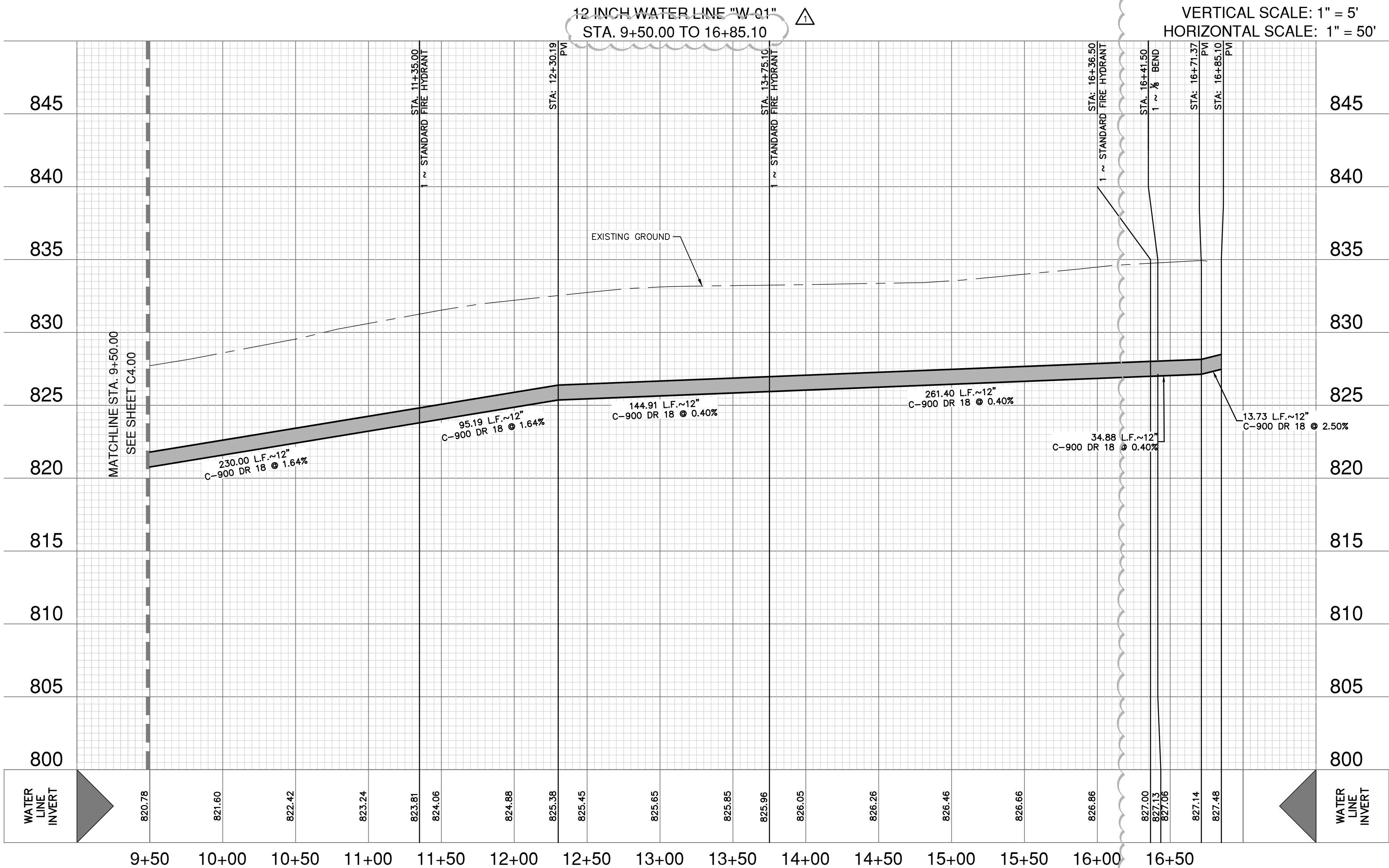
Pipe Restraint Length Calculations				
Source: EBAA Iron, Restraint Length Calculator v 7.1.2				
Assumptions:				
Soil Type	Safety Factor	Trench Type	Depth of Bury	Test Pressure
CH	1.5 to 1.0	5	4 ft	200 psi
Minimum Restraint Lengths in Feet				
12" Waterline				
Horizontal Bends				
11.25 Degrees				
22.5 Degrees				
45 Degrees	17			
Misc. Fittings				
8"x6" Tee				
8"x8" Tee				
12"x6" Tee		59 (6" Branch)		
12"x8" Tee				
Dead End/ Gate Valve	110			
16"x12" Cross				
16"x12" Reducer				
Vertical Bends (assumes low side depth of 10)				
	High Side	Low Side		
11.25 Degrees	11	2		
22.5 Degrees	22	4		
45 Degrees	46	7		



TYPICAL EASEMENT DETAIL FOR FIRE HYDRANT

NOT TO SCALE

WATER (NBU JOB NO. W-245133)		
ITEM	UNIT	QUANTITY
12" WATER LINE	LF	1480
FIRES	EA	48
FIRE HYDRANT	EA	1
6" GATE VALVE	EA	1
12" GATE VALVE	EA	4
2" SERVICE LINE WITH 1.5" METER	EA	2
2" SERVICE LINE WITH 2" METER	EA	1



JOINT RESTRAINT NOTE:

CONTRACTOR SHALL INSTALL RETAINER GLANDS AT ALL FITTINGS AND PROVIDE JOINT PRESSURE BACKFLOW PREVENTION ASSEMBLY (R/P) INSTALLED PRIOR TO PLACEMENT OF METER. ALL NEW FACILITIES ARE REQUIRED TO COMPLY WITH THE REQUIREMENTS OF THE LATEST NBU BACKFLOW POLICY.

NOTE:

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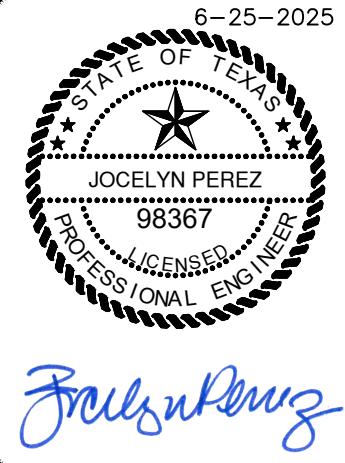
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DATE	06/25/25
REVISION	1 WATER LINE EXTENDED
NO.	1



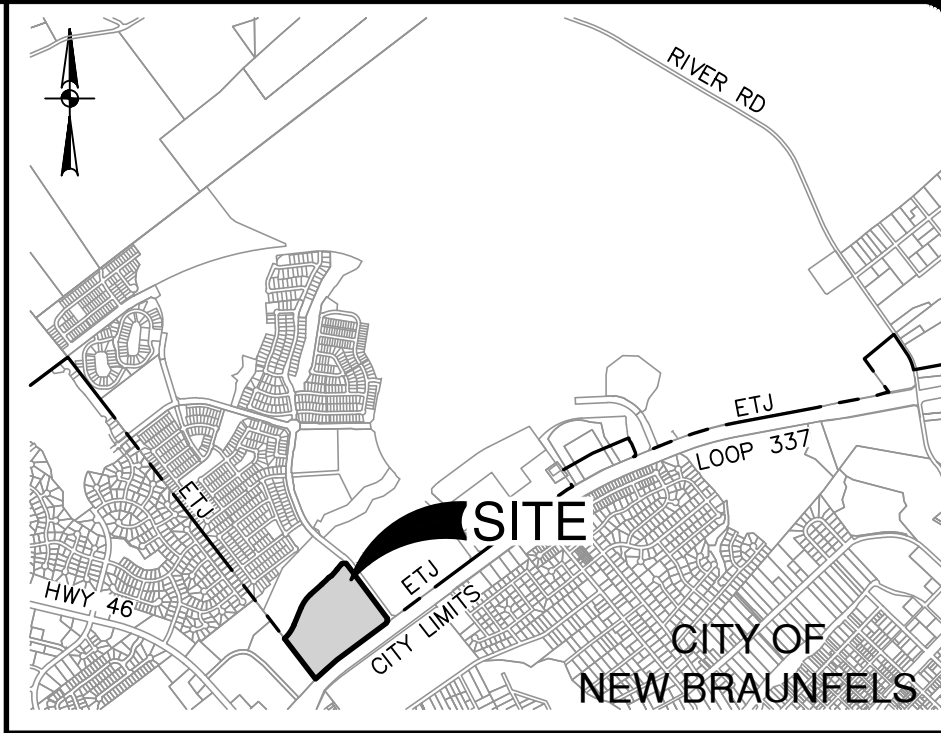
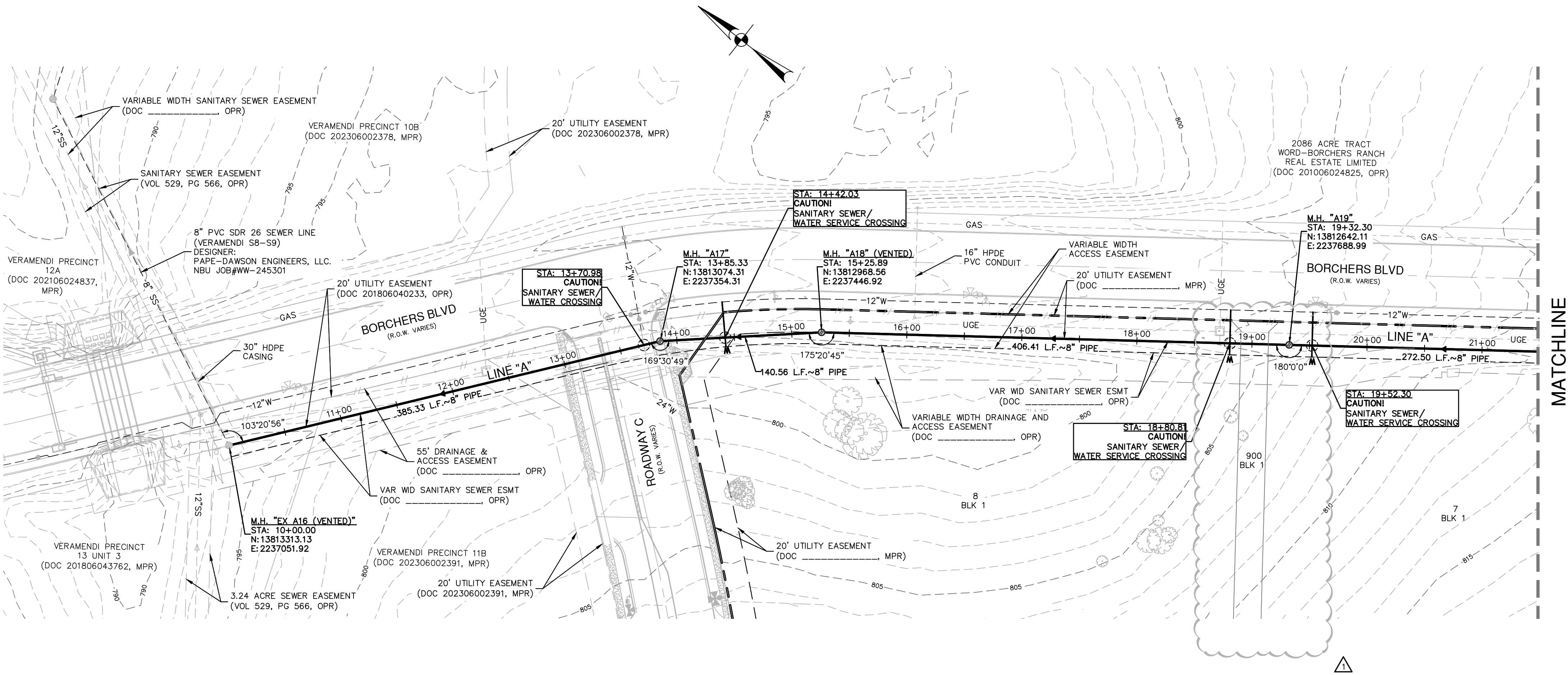
PAPE-DAWSON ENGINEERS
1672 INDEPENDENCE DR. STE 102 | NEW BRAUNFELS, TX 78132 | 830.632.5693
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1008800

VERAMENDI PRECINCT 11A
NEW BRAUNFELS, TEXAS
12 INCH WATER LINE W-01 - PLAN & PROFILE
STA. 9+50.00 TO 16+85.10

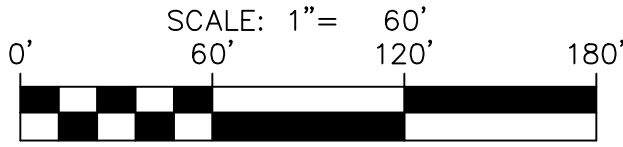
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JOB NO.	30001-81
DATE	JUNE 2025
DRAWN	CP
CHECKED	TMM
SHEET	C4.01

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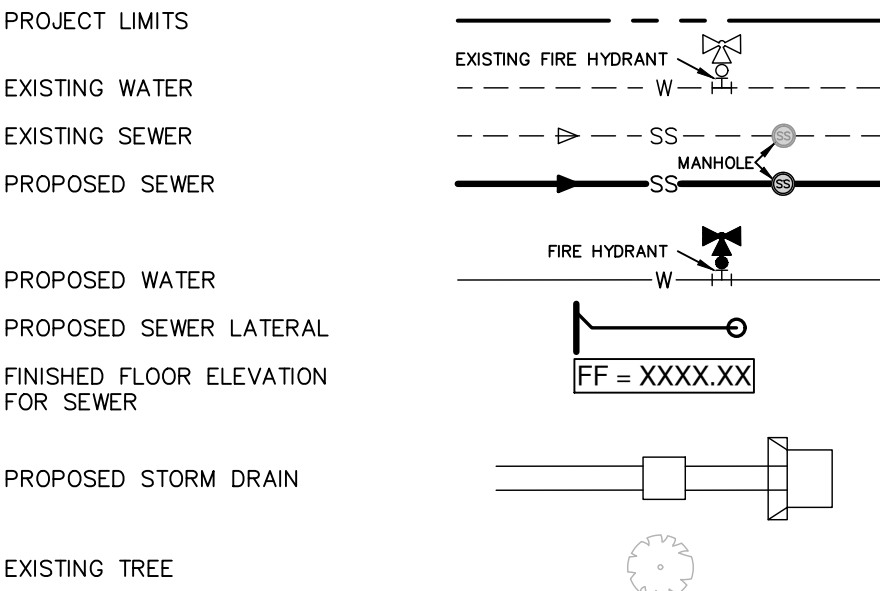
THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL. AERIAL IMAGERY PROVIDED BY GOOGLE/UNLESS OTHERWISE NOTED. Imagery © 2016,CARPOOL,digital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



LOCATION MAP
 NOT-TO-SCALE



SEWER LEGEND



FLOODPLAIN NOTE

1. NO PORTION OF ANY LOT ON THIS PROJECT IS WITHIN AN INDICATED SPECIAL FLOOD HAZARD ZONE ACCORDING TO THE FEMA FIRM MAP NO. 48187C0095F EFFECTIVE DATE 9/2/2009.

CITY OF NEW BRAUNFELS NOTES

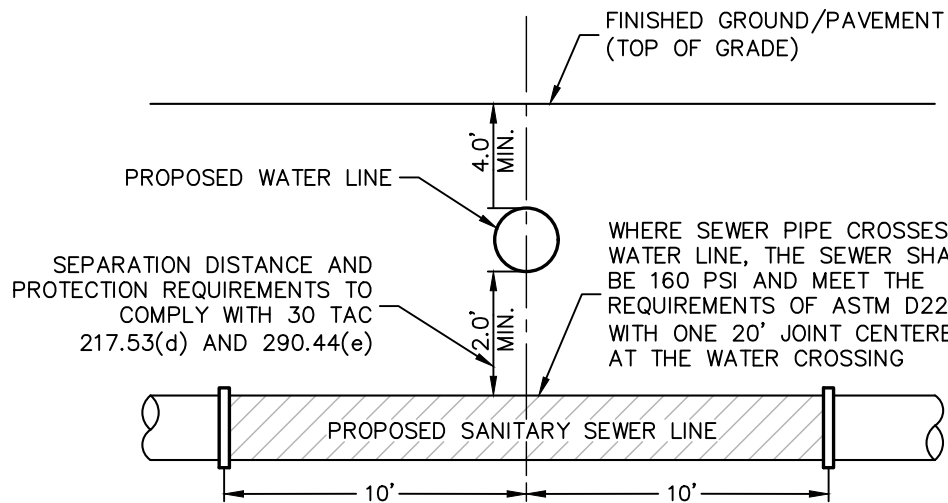
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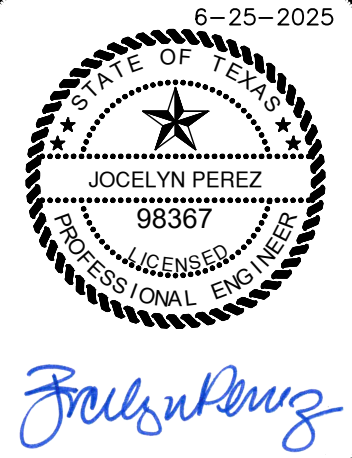
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TYPICAL SANITARY
 SEWER/WATER CROSSING DETAIL
 NOT-TO-SCALE

WASTEWATER (NBU JOB NO. WW-245134)		
ITEM	UNIT	QUANTITY
8" SANITARY SEWER PIPE	LF	2,361
48" MANHOLES	EA	147
8" SANITARY SEWER LATERALS	LF	464

NO.	REVISION	DATE
1	SANITARY SEWER CHANGES	06/25/25

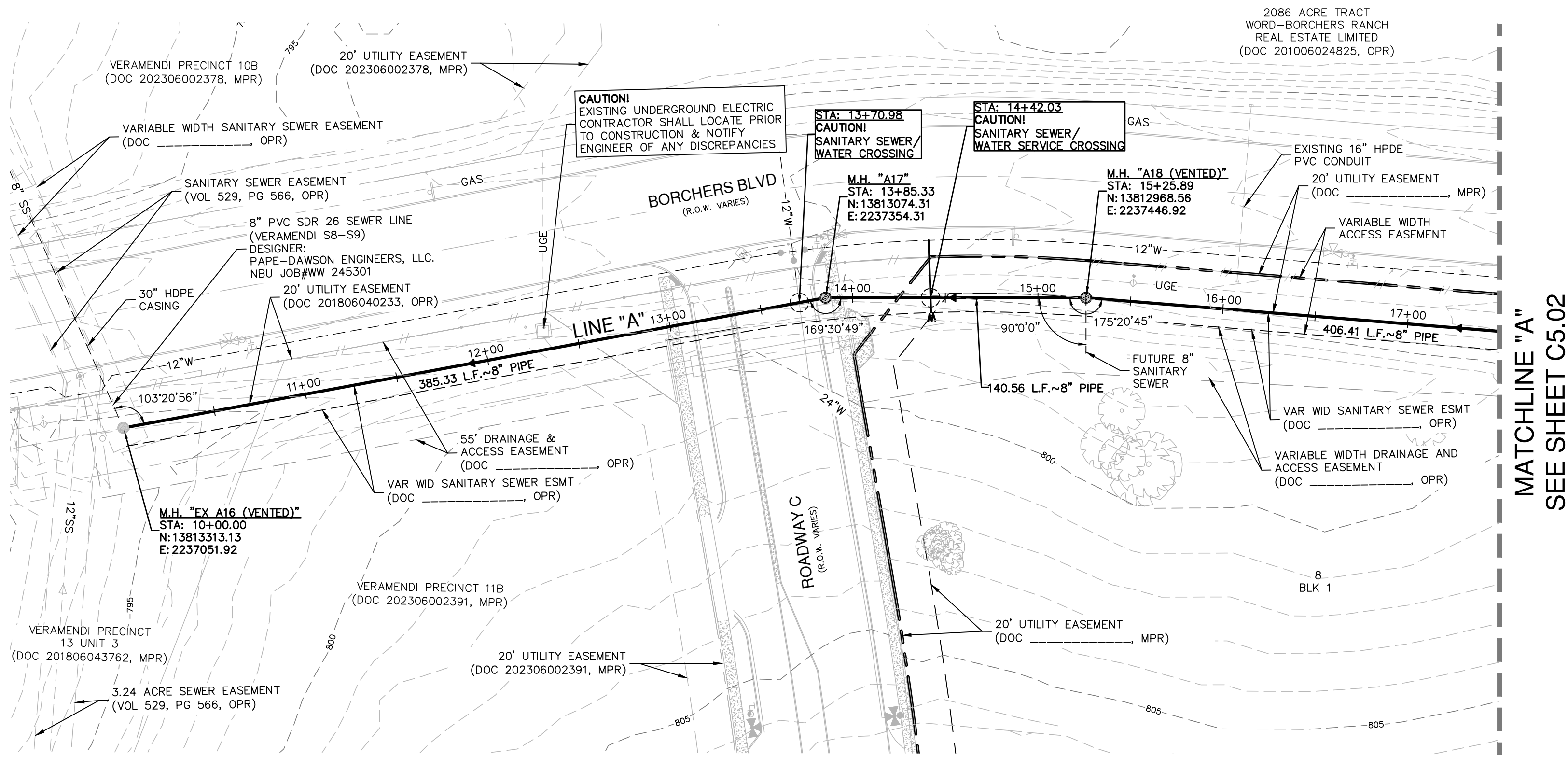
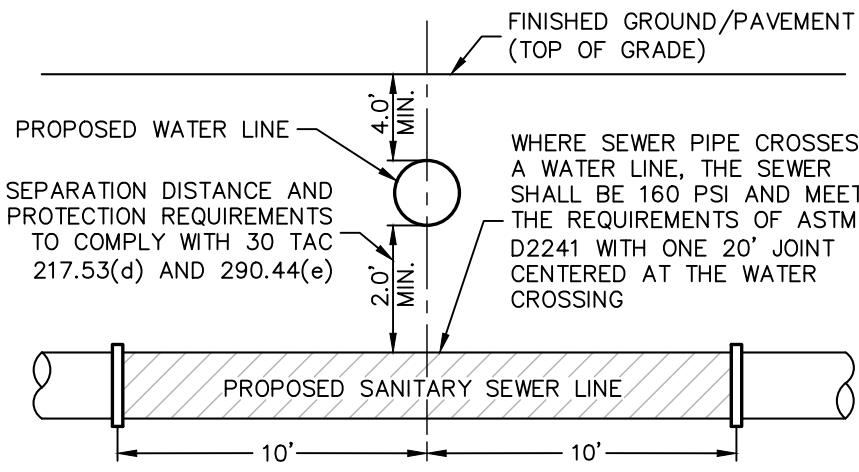


VERAMENDI PRECINCT 11A
 NEW BRAUNFELS, TEXAS
 OVERALL SANITARY SEWER PLAN

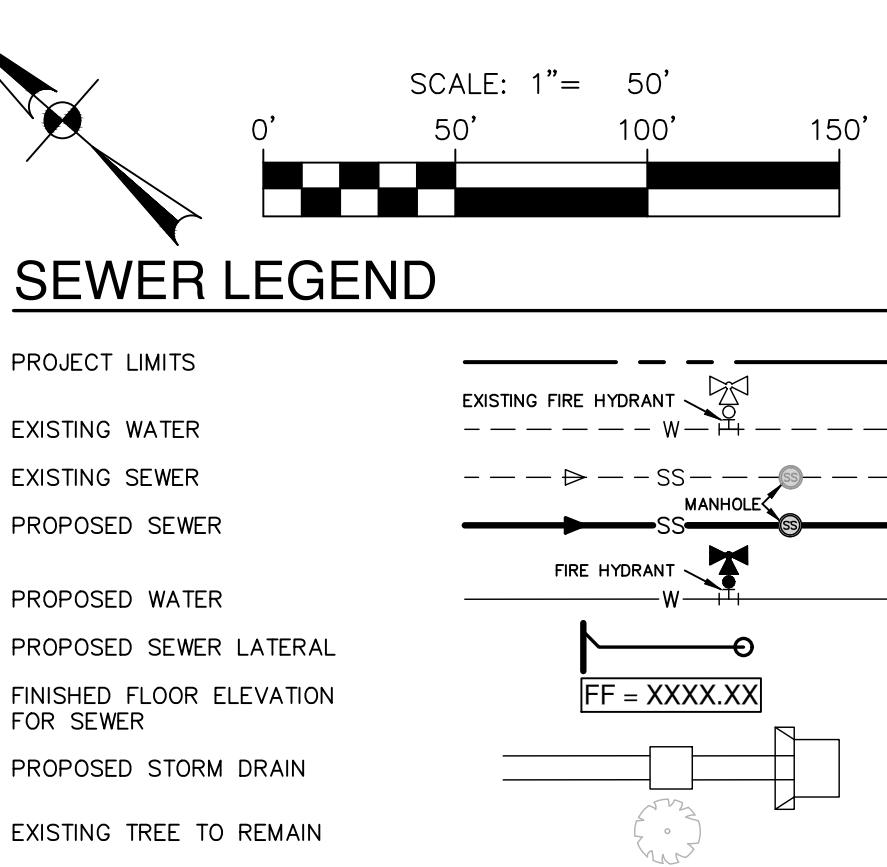
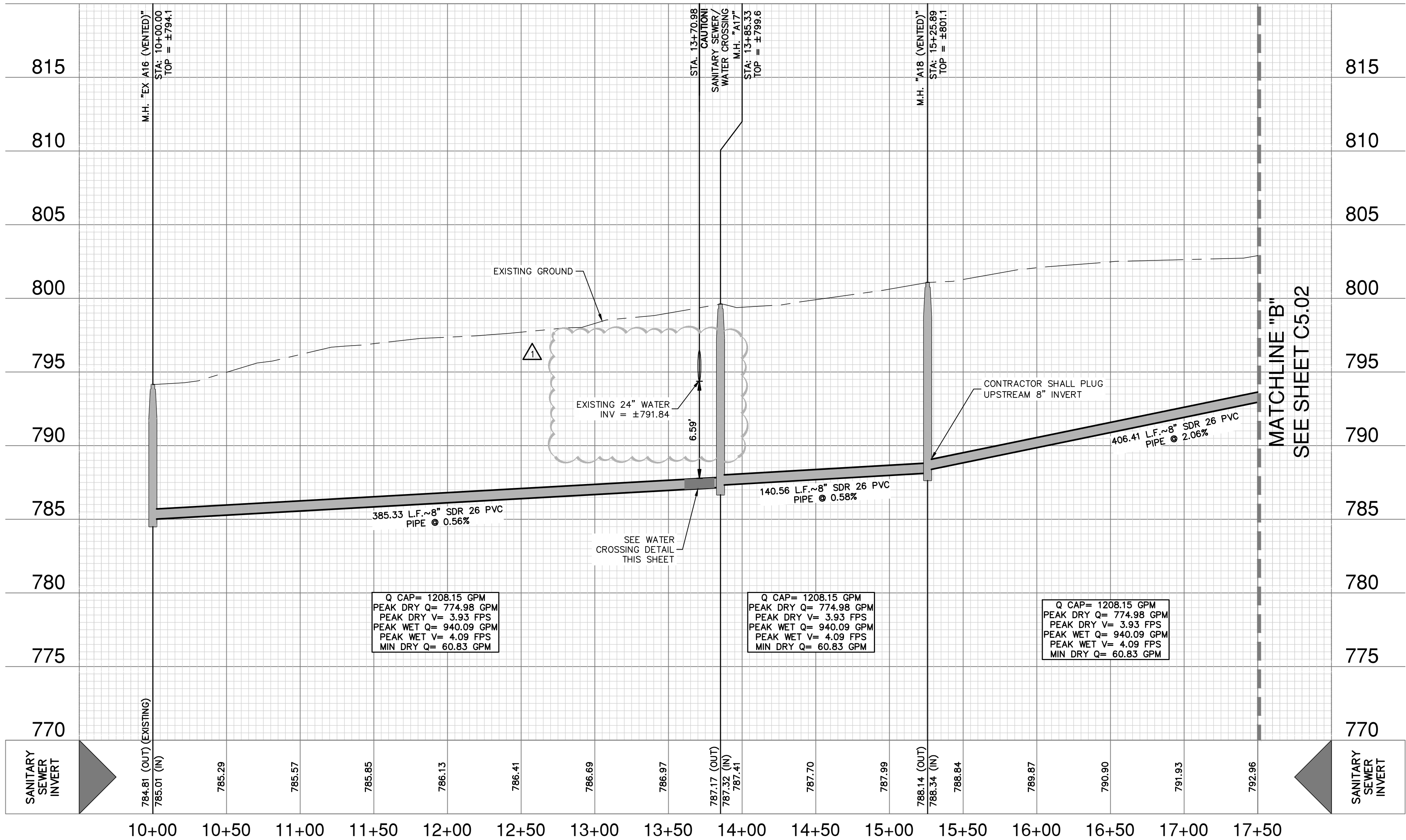
PLAT NO.	30001-81
DATE	JUNE 2025
DESIGNER	CP
CHECKED	TMM
DRAWN	CP
SHEET	C5.00

CITY OF NEW BRAUNFELS NOTES

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SANITARY SEWER LINE "A"
STA. 10+00.00 TO 17+50.00
VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: 1" = 50'



- NOTES
- SEWER PIPE WHERE WATER LINE CROSSES SHALL BE 160 P.S.I. AND MEET THE REQUIREMENTS OF ASTM D2241 WITH ONE 20' JOINT CENTERED AT WATER MAIN.
 - NO VERTICAL STACKS ALLOWED FOR ANY LOTS UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
 - WHEN HORIZONTAL DISTANCE BETWEEN SEWER PIPES AND WATER MAIN IS LESS THAN 9 FOOT OF SEPARATION, SEWER MAIN SHALL BE INSTALLED WITH 150 PSI (MIN) PRESSURE PIPE AND FITTINGS IN ACCORDANCE WITH NBU'S WATER CONNECTION POLICY IN THE VICINITY OF WATER MAINS. (SEE SEWER NOTES SHEET C5.20)
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 - ALL SEWER PIPE LATERALS SHALL BE SDR 26 (CLASS 160) PVC PIPE.
 - SERVICES SHALL HAVE A MINIMUM OF THIRTY-SIX (36) INCHES OF COVER.

NOTE:
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CAUTION!!
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DATE
06/25/25

REVISION
1 CHANGED WATER PIPE

NO.

6-25-2025

Jocelyn Perez

PAPE-DAWSON
ENGINEERS

1672 INDEPENDENCE DR. STE 102 | NEW BRAUNFELS, TX 78132 | 830.632.5633
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1008800

VERAMENDI PRECINCT 11A
NEW BRAUNFELS, TEXAS

SANITARY SEWER LINE A - PLAN & PROFILE
STA. 10+00.00 TO 17+50.00

PLAT NO.

JOB NO. 30001-81

DATE JUNE 2025

DRAWN CP

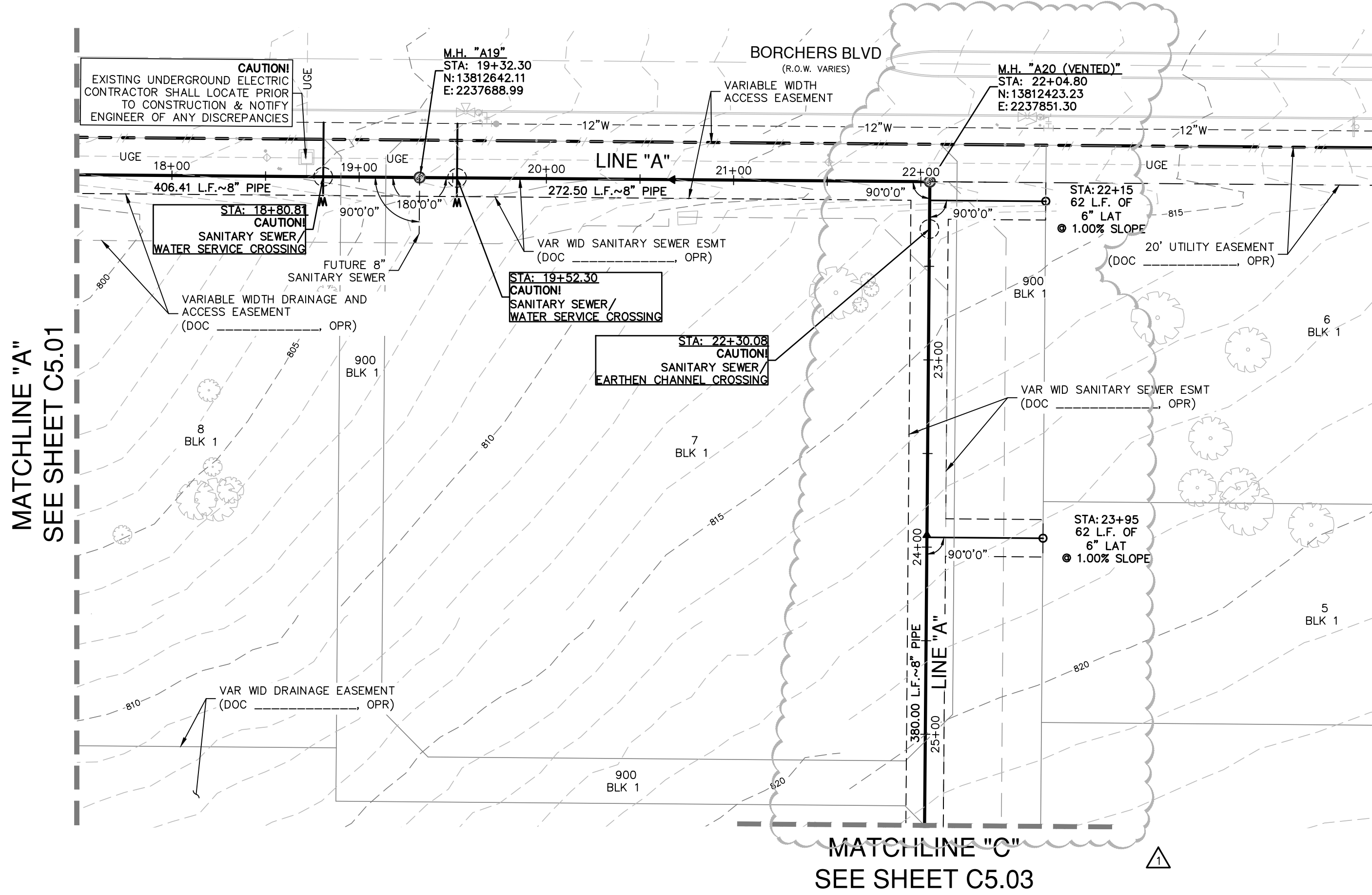
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DESIGNER CP

SHEET C5.01

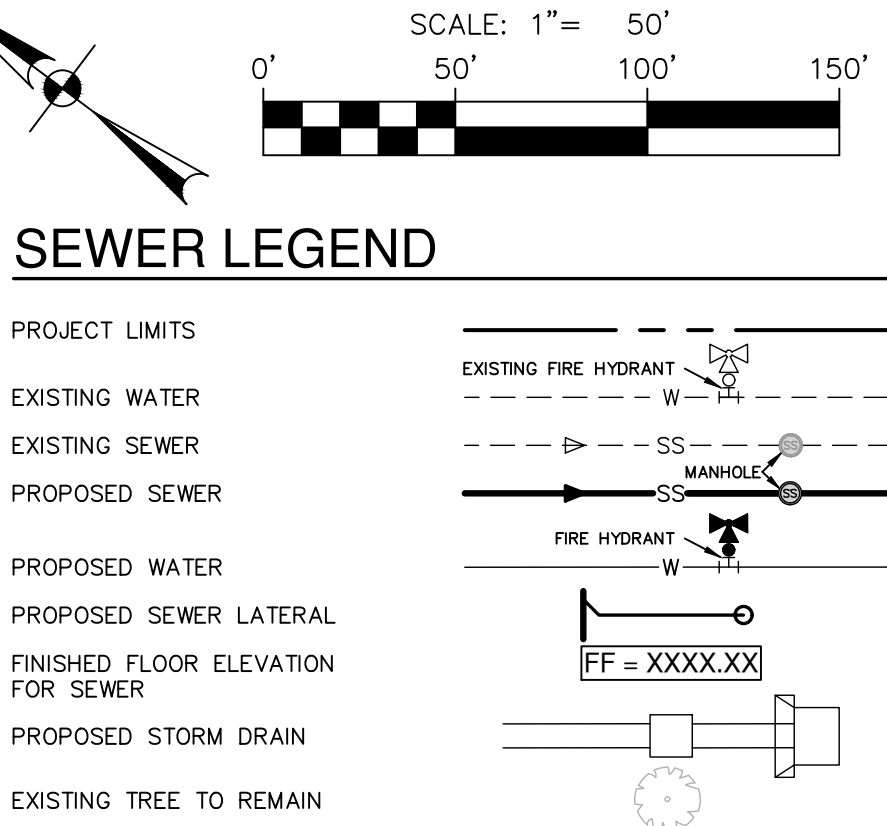
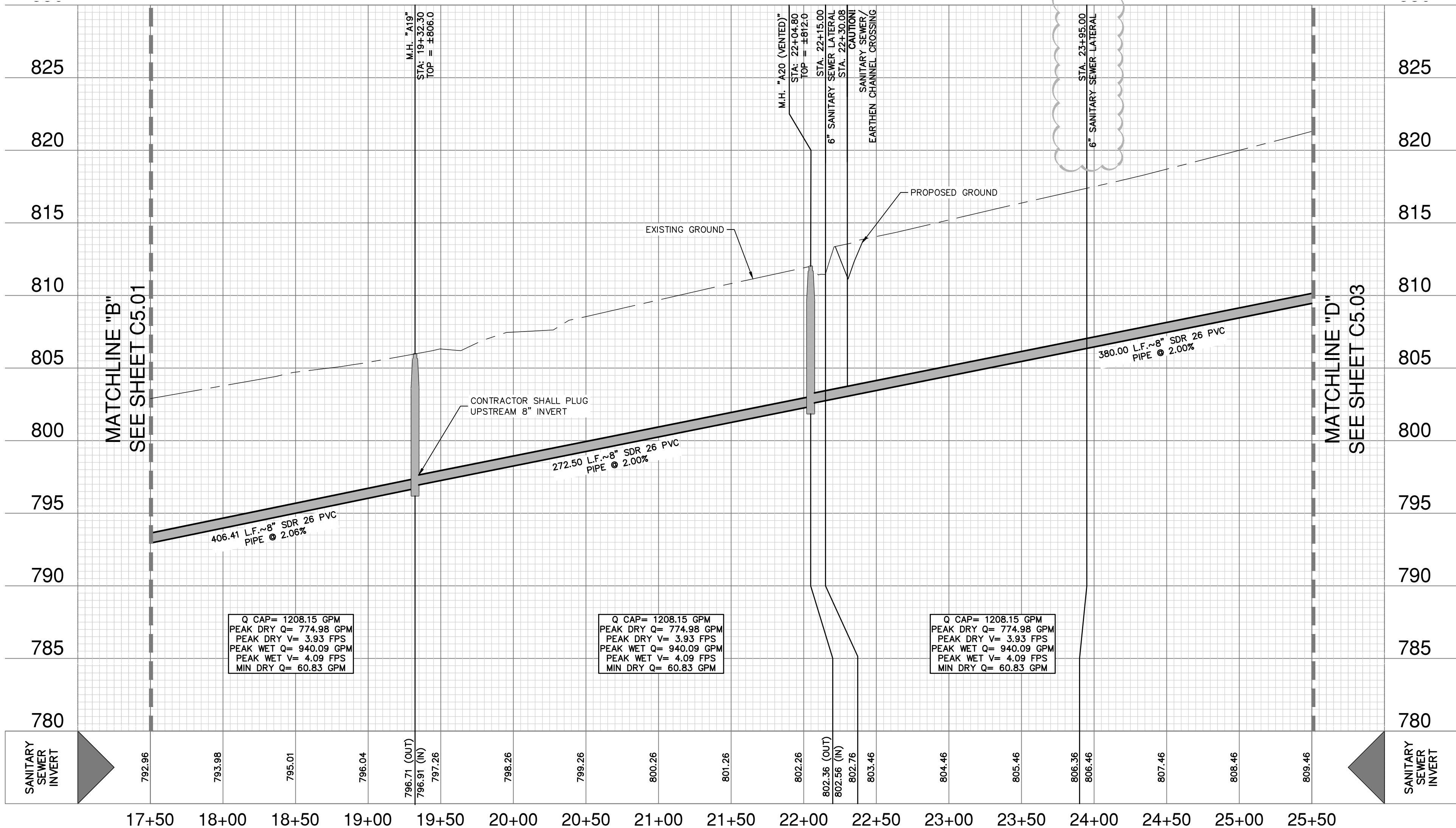
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SANITARY SEWER LINE "A"
STA. 17+50.00 TO 25+50.00

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

DATE	06/25/25
REVISION	
1	SANITARY SEWER CHANGES

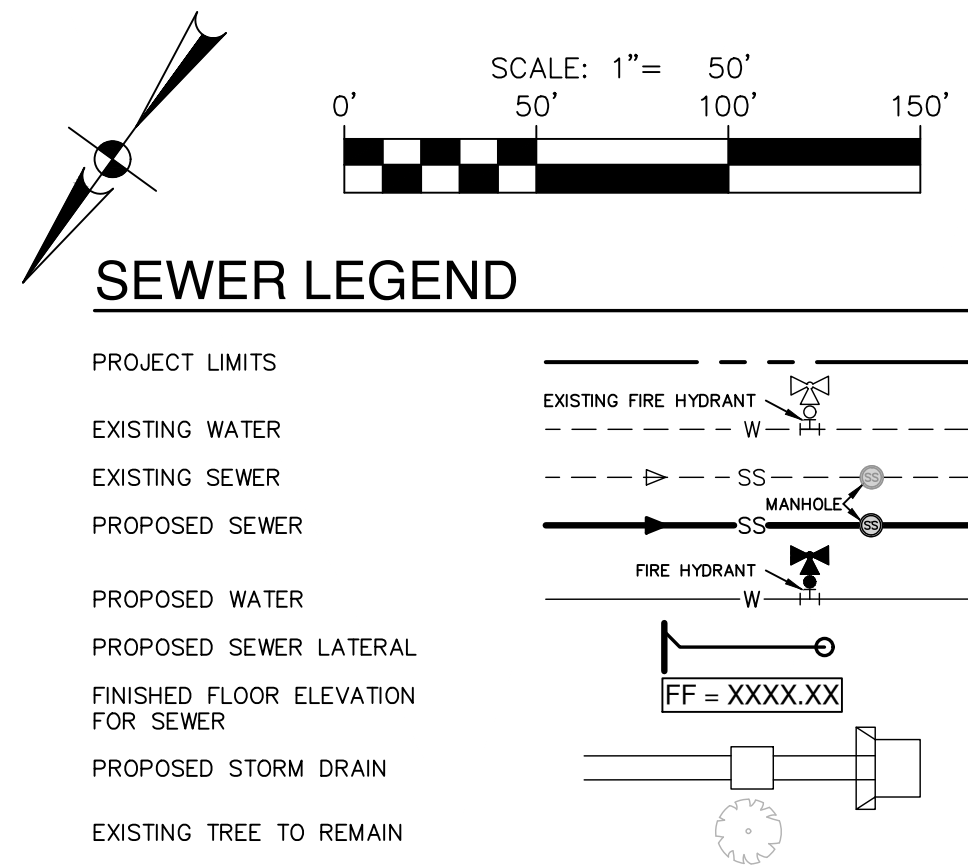
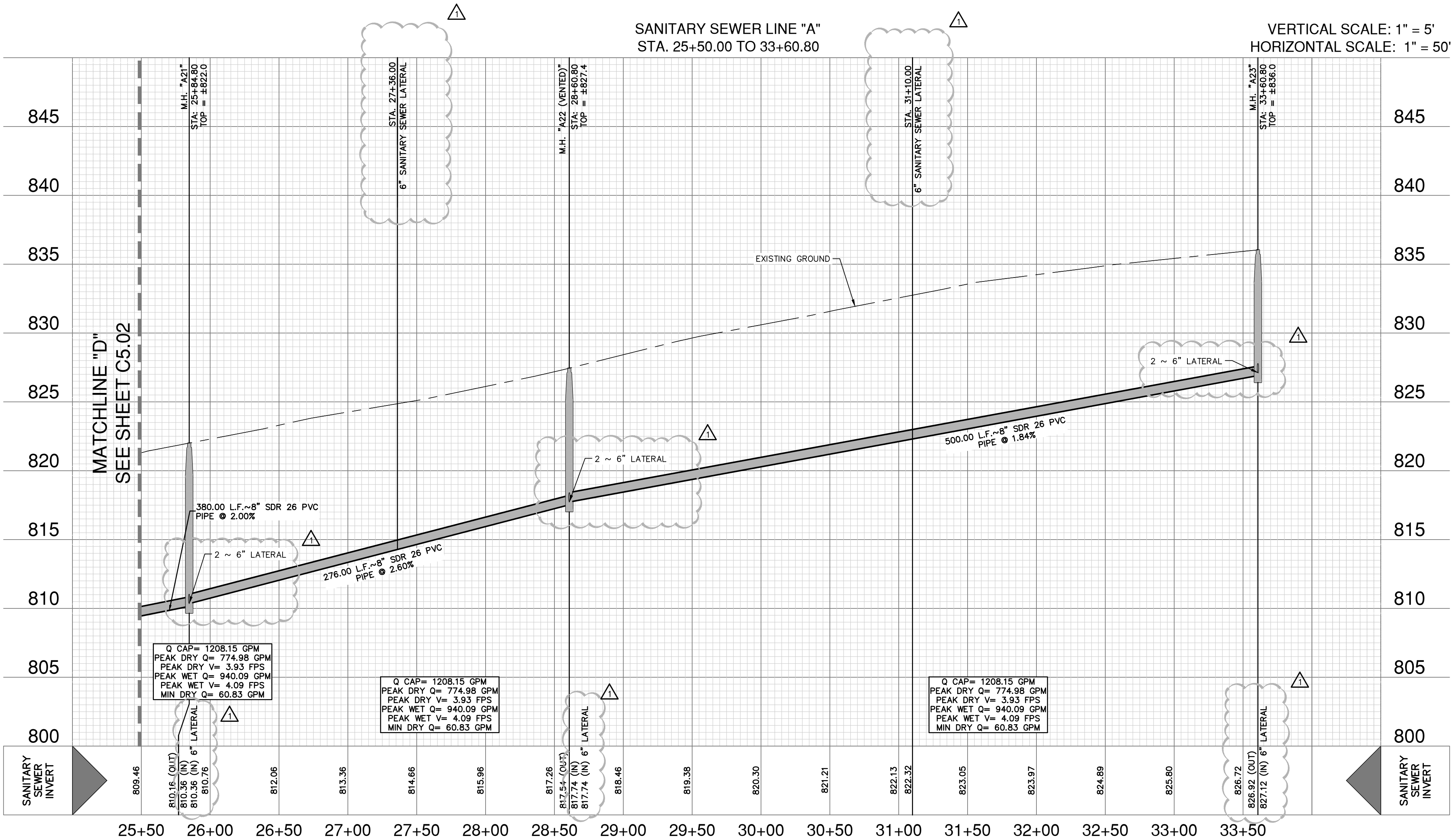
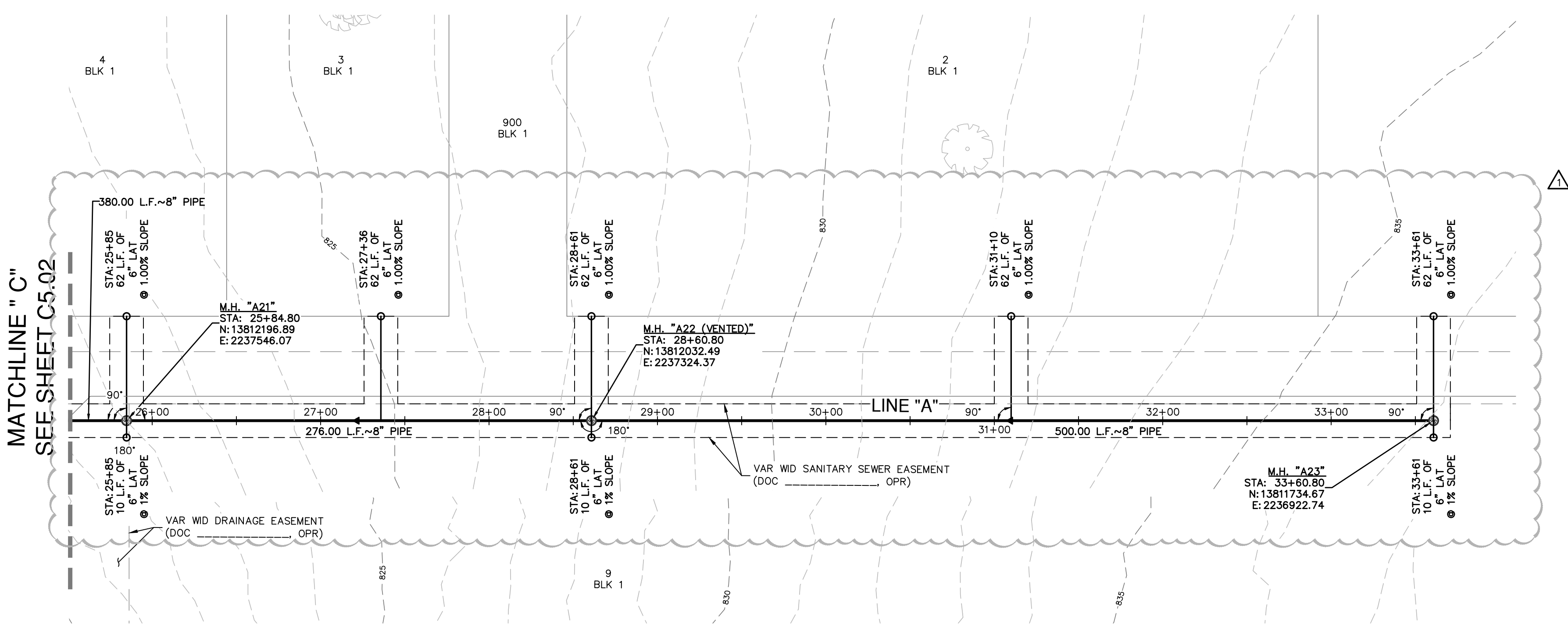


VERAMENDI PRECINCT 11A
NEW BRAUNFELS, TEXAS
SANITARY SEWER LINE A - PLAN & PROFILE
STA. 17+50.00 TO 25+50.00

PLAT NO.	
JOB NO.	30001-81
DATE	JUNE 2025
DESIGNER	CP
CHECKED	TMM
DRAWN	CP
SHEET	C5.02

CITY OF NEW BRAUNFELS NOTES

- NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, OR DRIVEWAYS.
- ALL UTILITIES TO BE CONSTRUCTED PRIOR TO STREETS.
- THIS PROJECT INCLUDES UTILITY INSTALLATIONS GREATER THAN 5- FEET IN DEPTH. DEEP TRENCHES POSE COMPACTION TESTING AND CONSTRUCTION CHALLENGES AND CITY METHODS FOR TESTING AND COMPACTION MAY NOT BE ACHIEVABLE. A UTILITY COMPACTION PLAN WILL BE REQUIRED AND MUST BE SUBMITTED FOR APPROVAL TO CITY PRIOR TO UTILITY INSTALLATION.
- UTILITY TRENCH COMPACTION - ALL UTILITY TRENCH COMPACTION TESTS WITHIN THE STREET PAVEMENT/SIDEWALK SECTION SHALL BE THE RESPONSIBILITY OF THE DEVELOPER'S GEOTECHNICAL ENGINEER. FILL MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED TWELVE INCHES (12") LOOSE. DETERMINE THE MAXIMUM LIFT THICKNESS BASED ON THE ABILITY OF THE COMPACTING OPERATION AND EQUIPMENT USED TO MEET THE REQUIRED DENSITY. EACH LAYER OF MATERIAL SHALL BE COMPACTED TO A MINIMUM 95% DENSITY AND TESTED FOR DENSITY AND MOISTURE IN ACCORDANCE WITH TEST METHODS TEX-113-E, TEX-114-E, TEX-115-E. THE NUMBER AND LOCATION OF REQUIRED TESTS SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY OF NEW BRAUNFELS STREET INSPECTOR. AT A MINIMUM, TESTS SHALL BE TAKEN EVERY 200 LF FOR EACH LIFT AND EVERY OTHER SERVICE LINE. UPON COMPLETION OF TESTING THE GEOTECHNICAL ENGINEER SHALL PROVIDE THE CITY OF NEW BRAUNFELS STREET INSPECTOR WITH ALL TESTING DOCUMENTATION AND A CERTIFICATION STATING THAT THE PLACEMENT OF FILL MATERIAL HAS BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. ADDITIONAL DENSITY TESTS MAY BE REQUESTED BY THE CITY OF NEW BRAUNFELS INSPECTOR.



NOTES

- SEWER PIPE WHERE WATER LINE CROSSES SHALL BE 160 P.S.I. AND MEET THE REQUIREMENTS OF ASTM D2241 WITH ONE 20' JOINT CENTERED AT WATER MAIN.
- NO VERTICAL STACKS ALLOWED FOR ANY LOTS UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
- WHEN HORIZONTAL DISTANCE BETWEEN SEWER PIPES AND WATER MAIN IS LESS THAN 9 FEET OF SEPARATION, SEWER MAIN SHALL BE INSTALLED WITH 150 PSI (MIN) PRESSURE PIPE AND FITTINGS IN ACCORDANCE WITH NBU'S WATER CONNECTION POLICY IN THE VICINITY OF WATER MAINS. (SEE SEWER NOTES SHEET C5.20)
- CONTRACTOR SHALL ENSURE THAT MANHOLES OUTSIDE OF PAVED AREAS ARE SET WITH TOP ELEVATIONS 2" ABOVE FINISHED GRADE WITH CONCRETE RING ENCASUREMENT. CONTRACTOR SHALL ENSURE THAT MANHOLES IN PAVED AREAS ARE SET TO MATCH TOP OF FINISHED GRADE.
- ALL SEWER PIPES SHALL BE 8" PVC (SDR 26), UNLESS OTHERWISE NOTED.
- CONTRACTOR IS TO VERIFY EXISTING INVERT OF SANITARY SEWER MAIN AND ALERT ENGINEER IMMEDIATELY OF ANY DIFFERENCE FROM INVERT SHOWN ON PLANS.
- CONTRACTOR SHALL PROTECT ALL EXISTING FENCES. ANY FENCE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY SIZE, GRADE, AND LOCATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DEVIATIONS FROM PLANS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.
- SEE THIS SHEET FOR TYPICAL SANITARY SEWER/WATER CROSSING DETAIL.
- IF A CONFLICT EXISTS BETWEEN THE VARIOUS SUBMITTED DOCUMENTS (ENGINEERING CALCULATIONS, PROJECTED SPECIFICATIONS, PROJECTED PLANS, ADDENDUMS, ETC.), THE FOLLOWING DOCUMENTS TAKE PRECEDENCE: SPECIFICATIONS GOVERN OVER PLANS. SPECIAL CONDITIONS GOVERN OVER SPECIFICATIONS AND PLANS. ADDENDUMS TAKE PRECEDENCE OVER ALL.
- LAST 20 LF. OF 8" STUB-OUT SHALL BE CONSTRUCTED OF P.V.C. SDR 26 (160 P.S.I.) PRESSURE PIPE.
- ALL SEWER PIPE LATERALS SHALL BE SDR 26 (CLASS 160) PVC PIPE.
- SERVICES SHALL HAVE A MINIMUM OF THIRTY-SIX (36) INCHES OF COVER.

NOTE:
FOR PAVEMENT DESIGN SECTION SEE GEOTECHNICAL ENGINEERING REPORT.

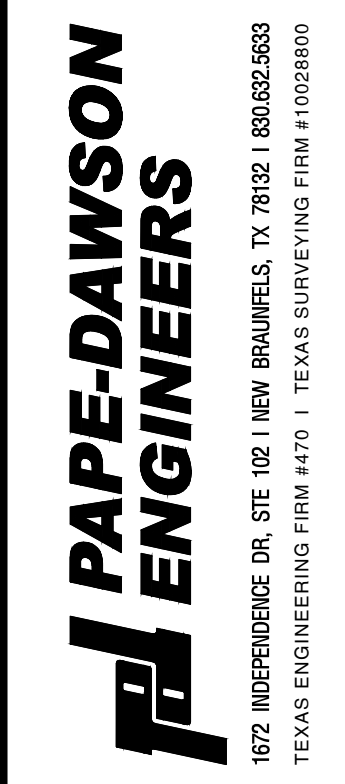
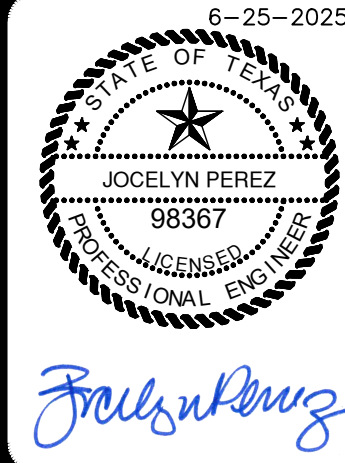
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DATE	06/25/25
REVISION	
NO.	1
DESCRIPTION	SANITARY SEWER CHANGES

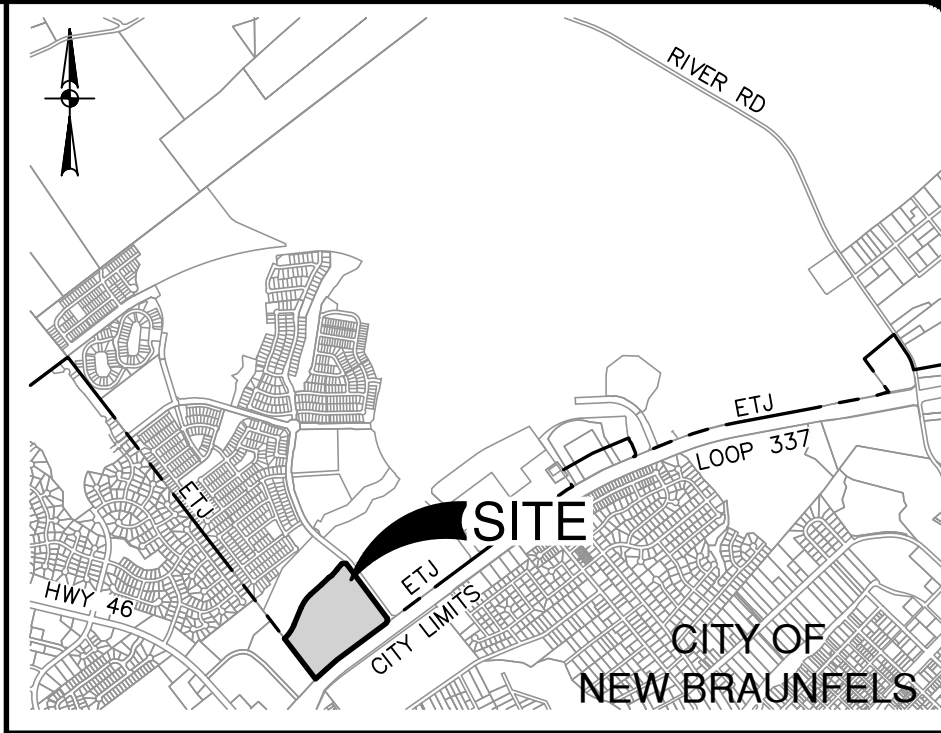


VERAMENDI PRECINCT 11A
NEW BRAUNFELS, TEXAS
SANITARY SEWER LINE A - PLAN & PROFILE
STA. 25+50.00 TO 33+60.80

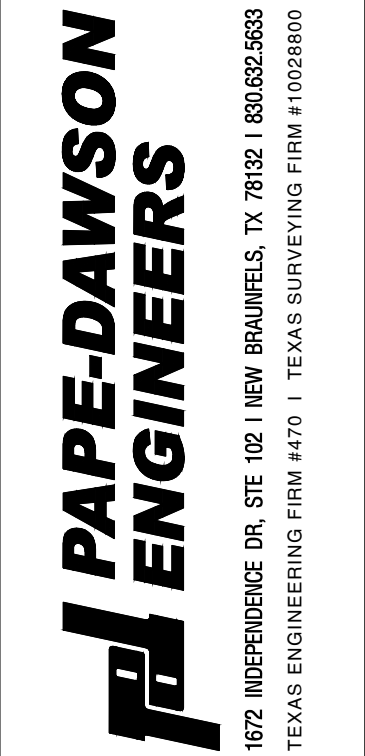
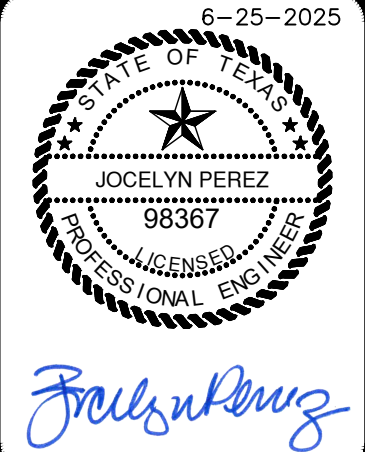
PLAT NO.	
JOB NO.	30001-81
DATE	JUNE 2025
DRAWN	CP
CHECKED	TMM
SHEET	C5.03

WATER (NBU JOB NO. W-245133)		
ITEM	UNIT	QUANTITY
12" WATER LINE	LF	1480
LUES	EA	48
FIRE HYDRANT	EA	1
6" GATE VALVE	EA	1
12" GATE VALVE	EA	4
2" SERVICE LINE WITH 1.5" METER	EA	2
2" SERVICE LINE WITH 2" METER	EA	1

WASTEWATER (NBU JOB NO. WW-245134)		
ITEM	UNIT	QUANTITY
8" SANITARY SEWER PIPE	LF	2,361
LUES	EA	147
48" MANHOLES	EA	7
8" SANITARY SEWER LATERALS	LF	464



NO.	REVISION	DATE	
		LOTE & SEWER ESMT CHANGED	06/25/25
1		WATER LINE EXTENDED	
		ADDED AND EXTENDED LATERALS	



VERAMENDI PRECINCT 11A
NEW BRAUNFELS, TEXAS
OVERALL UTILITY PLAN

UTILITY LEGEND

PROJECT LIMITS	EXISTING FIRE HYDRANT - W
EXISTING WATER	EXISTING UNDERGROUND ELECTRIC - UGE
EXISTING UNDERGROUND ELECTRIC	EXISTING GAS - G
EXISTING GAS	EXISTING SEWER - SS
EXISTING SEWER	PROPOSED SEWER - SS
PROPOSED SEWER	PROPOSED WATER - W
PROPOSED WATER	PROPOSED WYE & LATERAL
PROPOSED WYE & LATERAL	SINGLE WATER SERVICE
SINGLE WATER SERVICE	STREET LIGHTS - SL
STREET LIGHTS	PROPOSED STORM DRAIN
PROPOSED STORM DRAIN	EXISTING STORM DRAIN
EXISTING STORM DRAIN	PROPOSED GAS - G
PROPOSED GAS	PROPOSED UNDERGROUND ELECTRIC - UGE
PROPOSED UNDERGROUND ELECTRIC	EXISTING TREE TO REMAIN
EXISTING TREE TO REMAIN	

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PLAT NO.	
JOB NO.	30001-81
DATE	JUNE 2025
DESIGNER	CP
CHECKED	TMM
DRAWN	CP
SHEET	C6.00

NOTE:
1. THE FENCING SHOWN ABOVE IS DIAGRAMATIC ONLY, WILL CONFORM TO THE DRIP LINE AND IS LIMITED TO PROJECT BOUNDARY.

2. FOR ACCEPTABLE FENCING MATERIALS SEE SPECS.

3. CHAIN LINK FENCE SHALL BE ERECTED PRIOR TO ANY CLEARING, GRUBBING OR SITE WORK OF ANY KIND. FENCING SHALL STAY ERECTED UNTIL FINAL LANDSCAPE OPERATIONS COMMENCE.

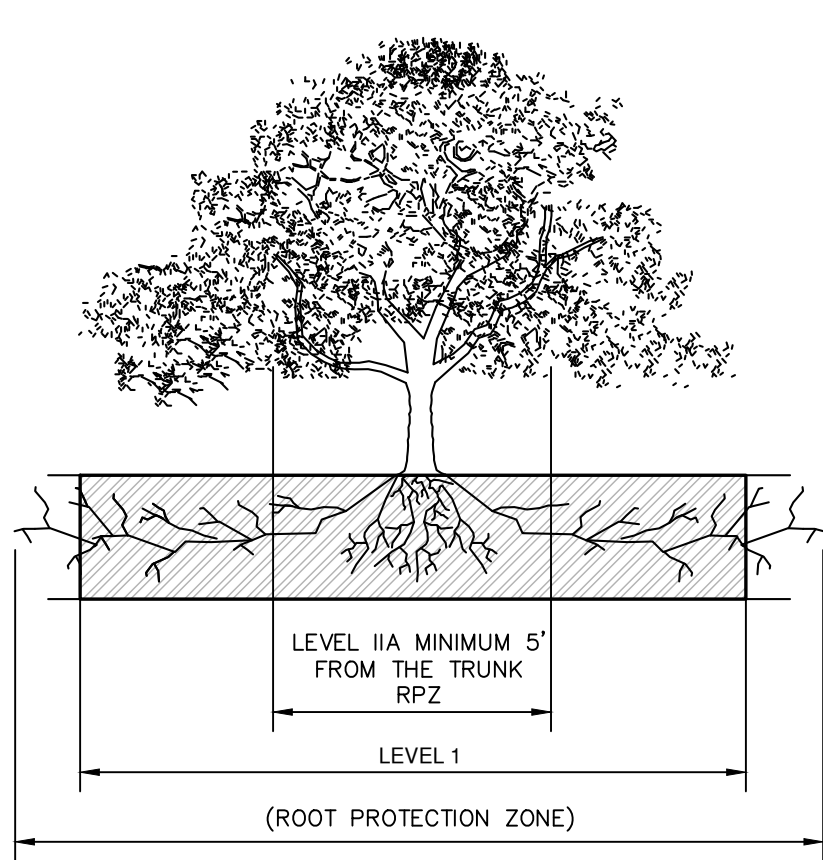
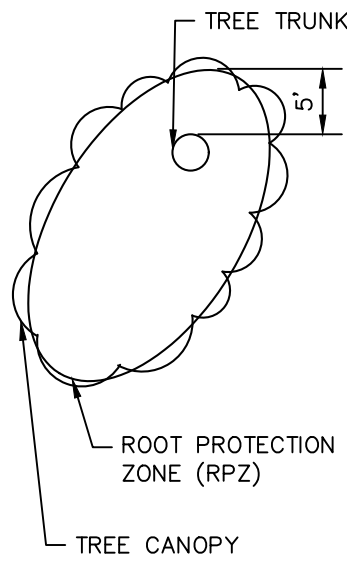
4. ANY PRUNING TO PROVIDE CLEARANCE TO PRESERVED TREES MUST BE APPROVED BY A CERTIFIED ARBORIST.

5. DO NOT REMOVE ANY TREES OVER 1" CALIPER WITHIN THE TREE PROTECTION FENCING OR OUTSIDE THE LIMITS OF CONSTRUCTION.

6. TREE ROOT CUTS SHALL BE MECHANICALLY CUT AT THE DIRECTION OF A CERTIFIED ARBORIST. CUTS SHALL BE CLEAN CUTS, WITHOUT PULLING OR TEARING.

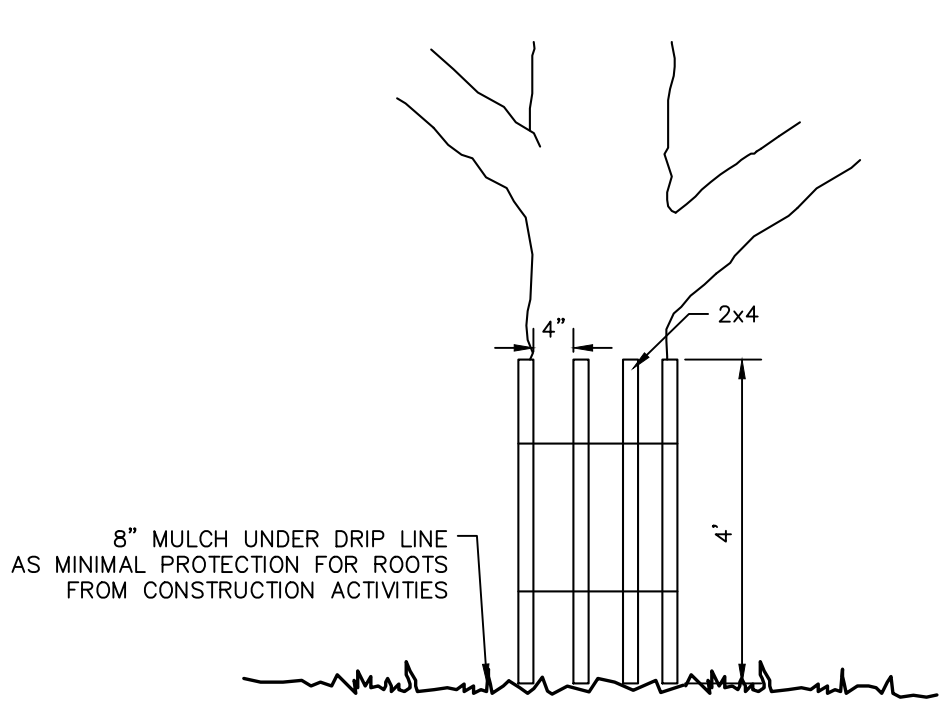
7. CONTRACTOR SHALL PLACE AND MAINTAIN 3" OF MULCH AROUND THE BASE OF THE TREE.

8. CONTRACTOR SHALL WATER THE TREE 1" EVERY WEEK FOR THE DURATION OF CONSTRUCTION.



ELEVATION

NOT TO SCALE



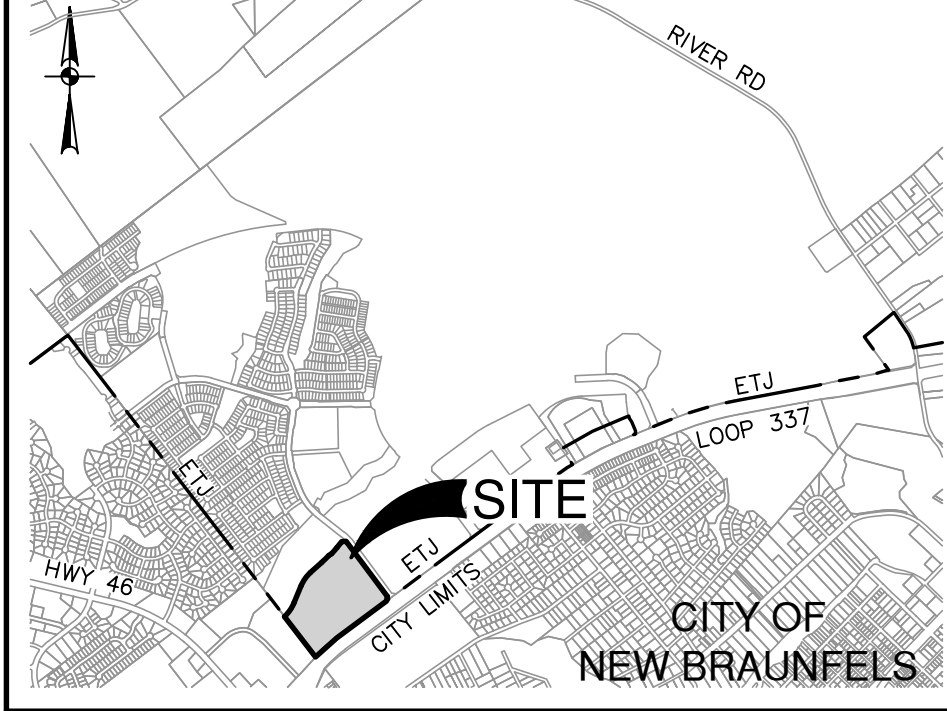
NOTE:
WRAP TREE TRUNK WITH 2"x4" STUDS AND ROPE OR BAND IN PLACE AS NEEDED TO PROTECT TREES IN WORK AREAS.

LEVEL II B FENCE PROTECTION

NOT TO SCALE

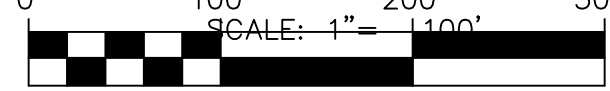
SWP3 MODIFICATIONS

DATE	SIGNATURE	DESCRIPTION



LOCATION MAP

NOT-TO-SCALE



SWPPP LEGEND

PROJECT LIMITS	---
EXISTING CONTOUR	- - - - -976-
PROPOSED CONTOUR	- - - - -970-
FLOW ARROW (EXISTING)	→
FLOW ARROW (PROPOSED)	→
SILT FENCE	- - - - -
TREE PROTECTION	○
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 TREE TO REMAIN	○

GENERAL NOTES

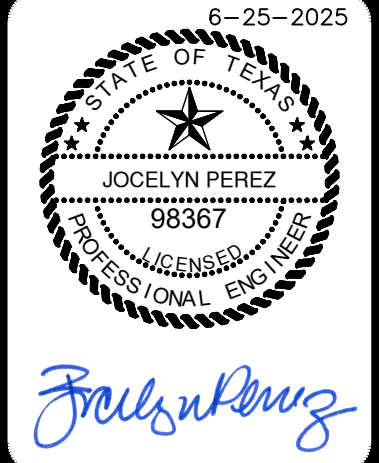
- DO NOT DISTURB VEGETATED AREAS (TREES, GRASS, WEEDS, BRUSH, ETC.) ANY MORE THAN NECESSARY FOR CONSTRUCTION.
- CONSTRUCTION ENTRANCE/EXIT LOCATION, CONCRETE WASH-OUT PIT, AND CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD TO BE DETERMINED IN THE FIELD.
- STORM WATER POLLUTION PREVENTION CONTROLS MAY NEED TO BE MODIFIED TO 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.
- 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 PLACE SILT FENCING IN LIEU OF VEGETATED FILTER STRIP.
- SHADED AREA ▨ DENOTES LIMITS OF DISTURBED AREAS. OTHER AREAS WITHIN THE PROJECT LIMITS, WITH THE EXCEPTION OF A CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD, ARE NOT A PART OF THIS TPDES STORM WATER POLLUTION PREVENTION PLAN (SWP3) AND WILL NOT BE DISTURBED BY CIVIL CONSTRUCTION ACTIVITIES. HOUSE CONSTRUCTION ACTIVITIES WILL REQUIRE A SEPARATE STORM WATER POLLUTION PREVENTION PLAN.
- PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL COORDINATE PLACEMENT OF TEMPORARY BEST MANAGEMENT PRACTICES WITHIN TxDOT RIGHT-OF-WAY WITH TxDOT.
- NBU WILL FUNCTION AS A SECONDARY OPERATOR ON THIS PROJECT AND WILL BE INSTALLING ELECTRIC UTILITIES FOR ON-SITE CONSTRUCTION AND OFF-SITE FEED TO THE PROJECT.
- PER TPDES REQUIREMENTS, DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITIES HAVE CEASED (TEMPORARILY OR PERMANENTLY) SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITY RESUMES WITHIN 21 DAYS. SEEDING DOES NOT CONSTITUTE AS STABILIZATION.

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

DATE	06/25/25
REVISION	LOT LINES & CHANNEL B-1
NO.	1



PAPE-DAWSON
ENGINEERS

1672 INDEPENDENCE DR. STE 102 | NEW BRAUNFELS, TX 78132 | 830.632.5633
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1008800

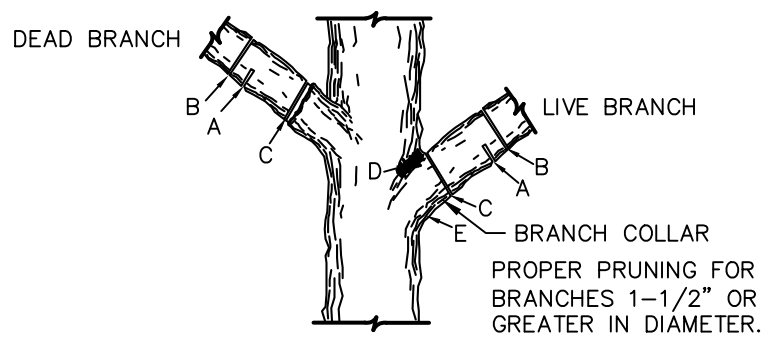
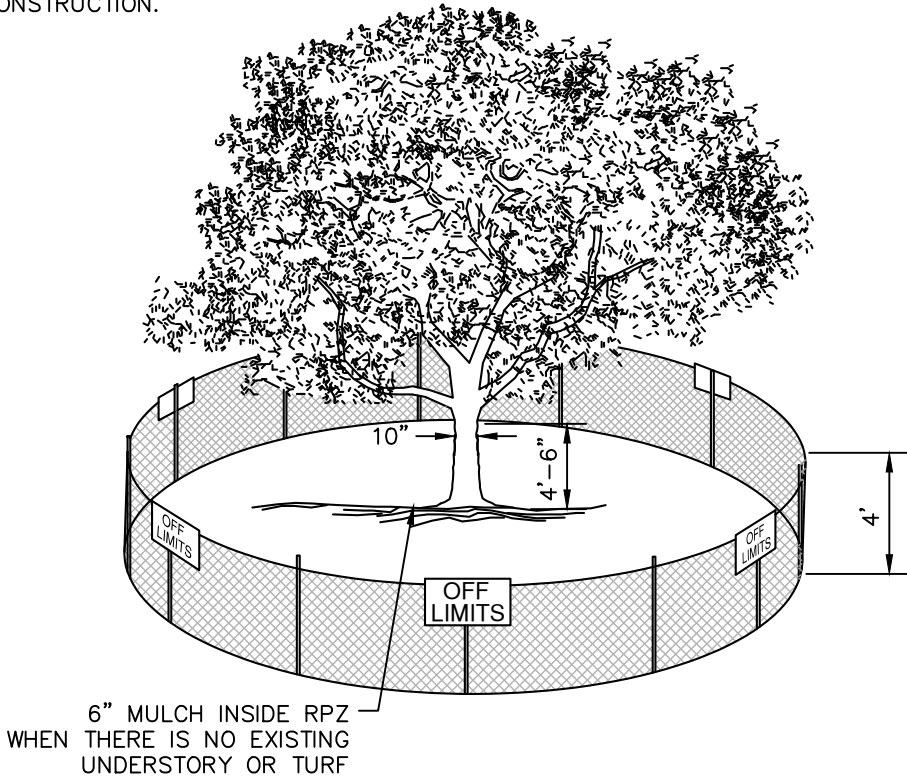
VERAMENDI PRECINCT 11A
NEW BRAUNFELS, TEXAS

STORM WATER POLLUTION PREVENTION PLAN

PLAT NO.	30001-81
JOB NO.	30001-81
DATE	JUNE 2025
DESIGNER	CP
CHECKED	TMM
DRAWN	CP
SHEET	C8.00

TREE PROTECTION ZONE

NOT TO SCALE



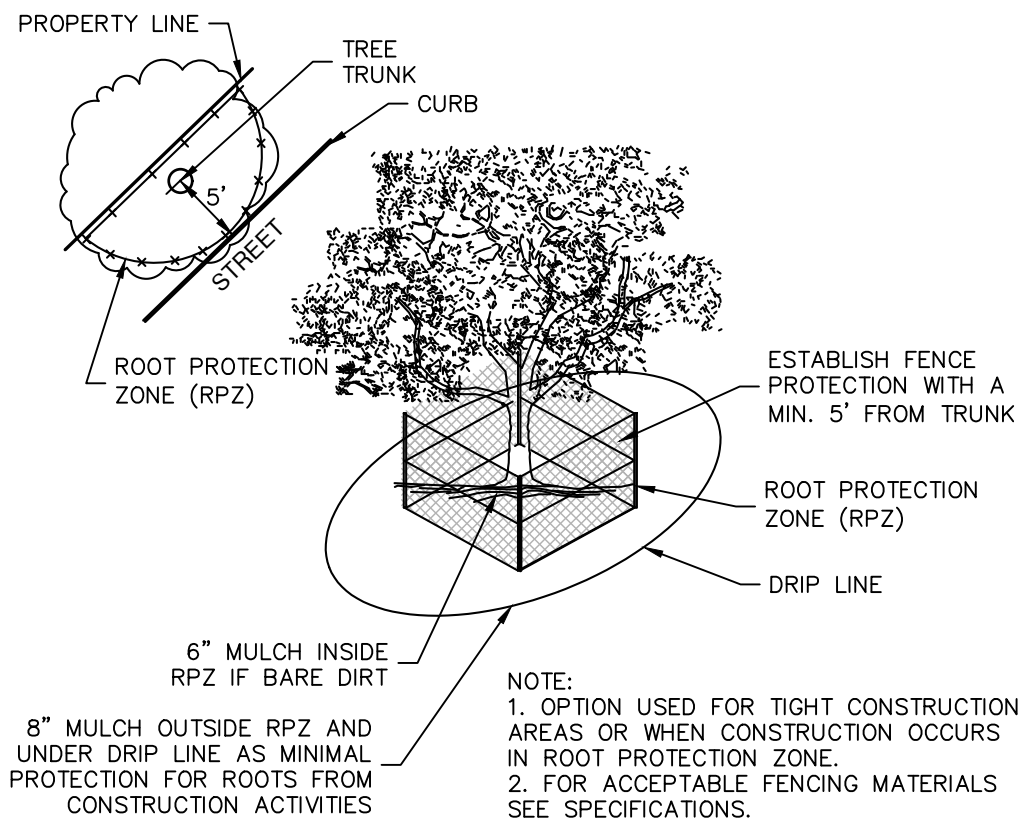
NOTE:
DO NOT CUT FROM D TO E.

- FIRST CUT - TO PREVENT THE BARK FROM BEING PEELED WHEN THE BRANCH FALLS.
- SECOND CUT - TO REDUCE THE WEIGHT OF BRANCH.
- FINAL CUT - ALLOW FOR HEALING COLLAR BUT NO STUBS

FOR OAKS ONLY:
PAINT ALL WOUNDS OR CUTS WITH PRUNING PAINT WITHIN 20 MIN. TO PREVENT THE SPREAD OF OAK WILT.

BRANCH PRUNING

NOT TO SCALE



NOTE:
1. OPTION USED FOR TIGHT CONSTRUCTION AREAS OR WHEN CONSTRUCTION OCCURS IN ROOT PROTECTION ZONE.
2. FOR ACCEPTABLE FENCING MATERIALS SEE SPECIFICATIONS.

LEVEL II A FENCE PROTECTION

NOT TO SCALE