

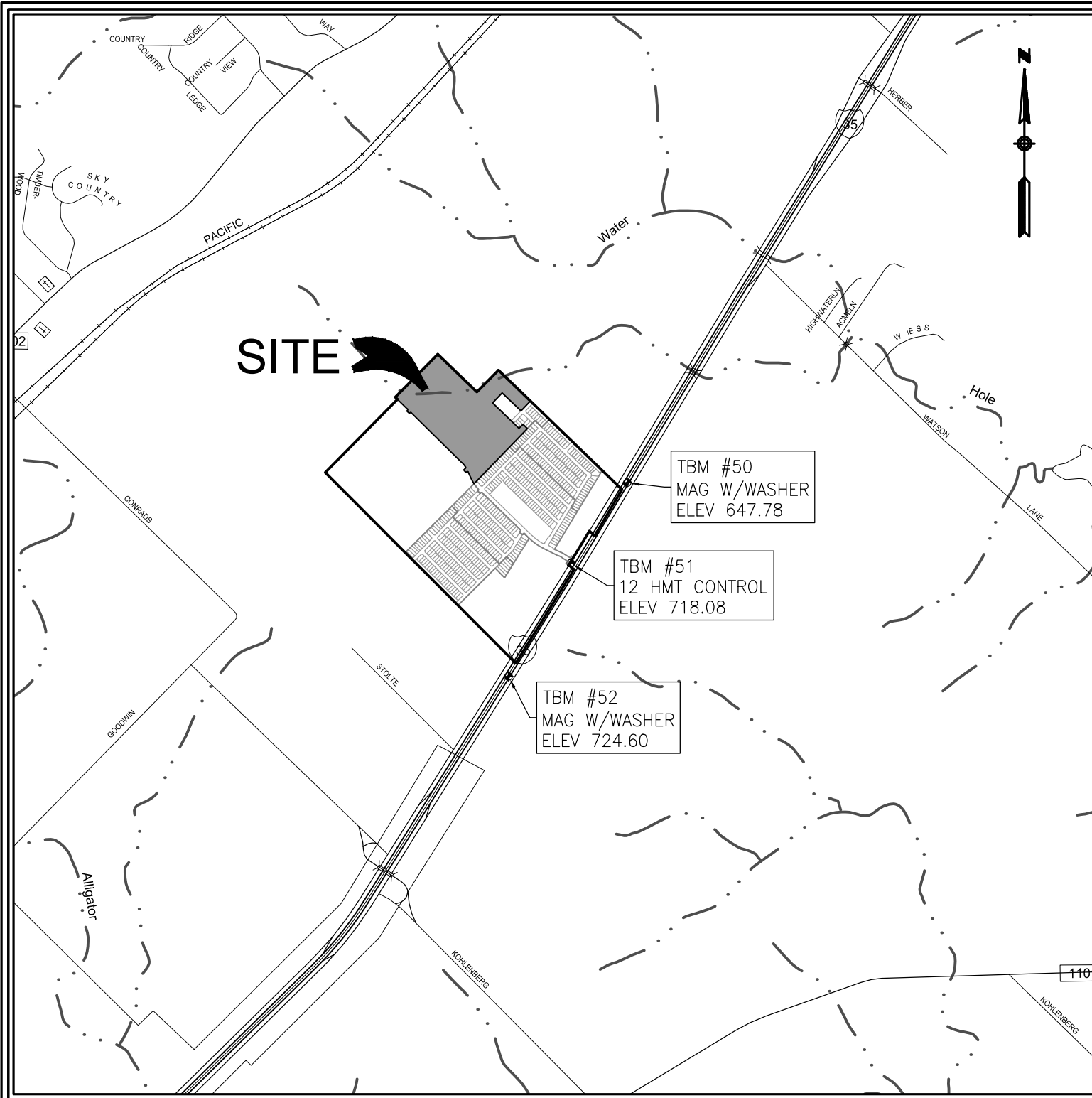
LENNAR HOMES OF TEXAS LAND & CONSTRUCTION, LTD

100 NE LOOP 410, SUITE 1155

SAN ANTONIO, TEXAS 78216

KYNDWOOD SUBDIVISION, UNIT 5
CIVIL SITE CONSTRUCTION PLANS

HMT #	337.081
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PROJECT LOCATION MAP

SCALE: N.T.S.

PROJECT BENCHMARK

SITE TBM #1
SET TBM #50
N: 13826117.760
E: 22708943.061
ELEV: 647.78

SITE TBM #3
SET TBM #52
N: 13823280.018
E: 2269104.327
ELEV: 724.60

SITE TBM #2
SET TBM #51
N: 13824938.543
E: 2270011.970
ELEV: 718.08

LEGAL DESCRIPTION

BEING A 40.15 ACRE TRACT OF LAND, SITUATED IN THE NANCY KENNER SURVEY NO. 2, ABSTRACT NO. 306, COMAL COUNTY, TEXAS, BEING A PORTION OF A CALLED 150.643 ACRE TRACT RECORDED IN DOCUMENT NO. 202306036543 OF OFFICIAL PUBLIC RECORDS, COMAL COUNTY, TEXAS.

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF A 40.15 ACRE TRACT FOR SINGLE FAMILY, DETACHED RESIDENTIAL SUBDIVISION WITH 160 LOTS.

KYNDWOOD MUNICIPAL UTILITY DISTRICT (M.U.D.)

REVIEW OF THE PLANS BY THE DISTRICT IS LIMITED TO WATER, WASTEWATER AND DRAINAGE AND DOES NOT INDICATE A REVIEW OF THE ADEQUACY OF THE DESIGN FOR THE FACILITIES. IN APPROVING THESE PLANS THE DISTRICT MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

DISTRICT ENGINEER

GENERAL NOTES:

1. IF CONSTRUCTION HAS NOT COMMENCED WITHIN ONE-YEAR OF CITY APPROVAL FOR CONSTRUCTION INSPECTION, THAT APPROVAL IS NO LONGER VALID.
2. THE MOST CURRENT EDITIONS OF THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS AND THE TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES SHALL BE FOLLOWED FOR ALL CONSTRUCTION EXCEPT AS AMENDED BY THE CITY OF NEW BRAUNFELS STANDARD DETAILS.
3. 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 IN RECORD.
4. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE CITY OF NEW BRAUNFELS TO SET A PRE-CONSTRUCTION MEETING. A 48-HOUR ADVANCED NOTIFICATION IS REQUIRED FOR ALL INSPECTION AND MEETING REQUESTS.
 - 4.1 ALL INSPECTIONS ARE TO BE CALLED IN AT 830-372-1031 OR,
 - 4.2 FAXED IN AT 830-372-0067 OR,
 - 4.3 E-MAILED AT VEPOLL@COM.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL TEMPORARY AND PERMANENT TRAFFIC CONTROL DEVICES ARE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE PLANS AND LATEST EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. IF THE NEED ARISES, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES MUST BE ORDERED BY THE ENGINEERING REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
6. DRAINAGE IMPROVEMENTS SUFFICIENT TO MITIGATE OFFSITE IMPACT OF CONSTRUCTION MUST BE COMPLETIVE AND IN PLACE PRIOR TO ADDING IMPERVIOUS COVER TO THE SITE.
7. THIS DEVELOPMENT IS A TYPE 3 DEVELOPMENT.
8. A PORTION OF THE SUBDIVISION IS LOCATED WITHIN AN INDICATED SPECIAL FLOOD HAZARD ZONE ACCORDING TO THE ADOPTED FLOOD MAPS OF THE CITY OF NEW BRAUNFELS, AS DEFINED BY THE COMAL COUNTY, TEXAS FLOOD INSURANCE RATE MAP NUMBER 48091C0295F, EFFECTIVE DATE SEPTEMBER 2, 2009 AS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
9. THIS PROJECT IS NOT LOCATED WITHIN THE EDWARDS AQUIFER RECHARGE, TRANSITION OR CONTRIBUTING ZONE.
10. GAS UTILITIES ARE NOT INDICATED ON THE CIVIL CONSTRUCTION PLANS. FINAL GAS UTILITY DESIGN SHALL BE APPROVED BY THE CITY FOR ANY WORK WITHIN PUBLIC RIGHT-OF-WAY, IF APPLICABLE.
11. THE ENGINEER OF RECORD ACKNOWLEDGES THAT ALL PROPOSED WATER AND WASTEWATER IMPROVEMENTS MUST COMPLY WITH TCEQ, CITY OF NEW BRAUNFELS, CRYSTAL CLEAR SUD WATER CONNECTION POLICY, SOUND ENGINEERING JUDGEMENT AND ANY OTHER GOVERNING ENTITY ORDINANCES OR CODES.

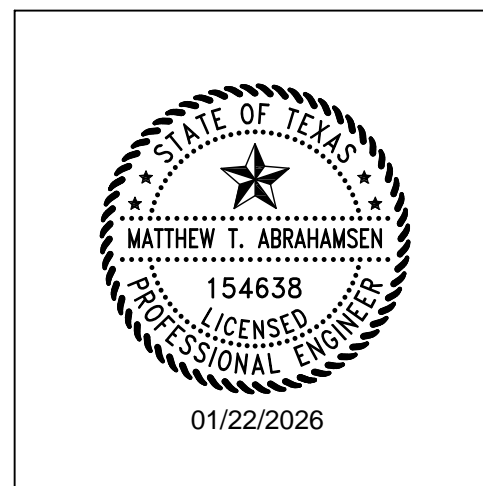
△	REVISED SHEETS C.0.01, C.2.01, C.4.08, C.5.02, C.5.04, C.5.05, C.5.06, C.5.07, C.5.08, C.5.09, C.5.10, C.5.11, C.5.12, C.6.01, C.6.02, C.7.02, C.7.05, C.7.06, & C.7.08	1/22/2026
REVISIONS		

REQUIRED PERMITS

NUMBER

- | | |
|--------------------------|--------------|
| 1. CRYSTAL CLEAR SUD | # |
| 2. CITY OF NEW BRAUNFELS | PI 2025-0023 |

JANUARY 2026



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 OF RECORD.

UPON THE ADEQUACY OF THE WORK OF THE ENGINEER

Matthew T. Abrahamsen

Matthew T. Abrahamsen P.E.,
License No. 154638

PREPARED BY:



290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
HMTNB.COM
P(830)625-8555*F(830)625-8556
TBPELS FIRM F-10961
TBPELS FIRM 1053600

NOTE TO CONTRACTOR:

BY THE ACT OF SUBMITTING A BID FOR THIS PROPOSED CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS, HE INTENDS TO USE HAVE CAREFULLY AND THOROUGHLY REVIEWED THE DRAWINGS, SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS AND HAVE FOUND THEM COMPLETE AND FREE FROM ANY AMBIGUITIES AND SUFFICIENT FOR THE PURPOSE INTENDED. THE BIDDER FURTHER WARRANTS THAT TO THE BEST OF HIS OR HIS SUBCONTRACTORS' AND MATERIAL SUPPLIERS' KNOWLEDGE, ALL MATERIALS AND PRODUCTS SPECIFIED OR INDICATED HEREIN ARE ACCEPTABLE FOR ALL APPLICABLE CODES AND AUTHORITIES.

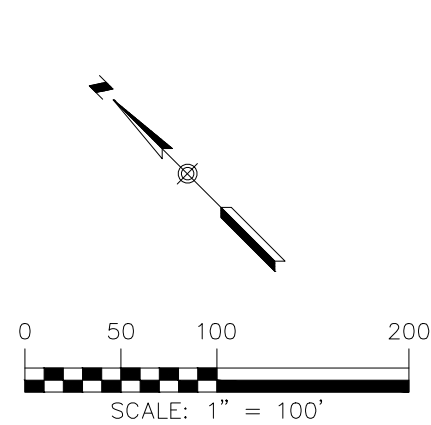
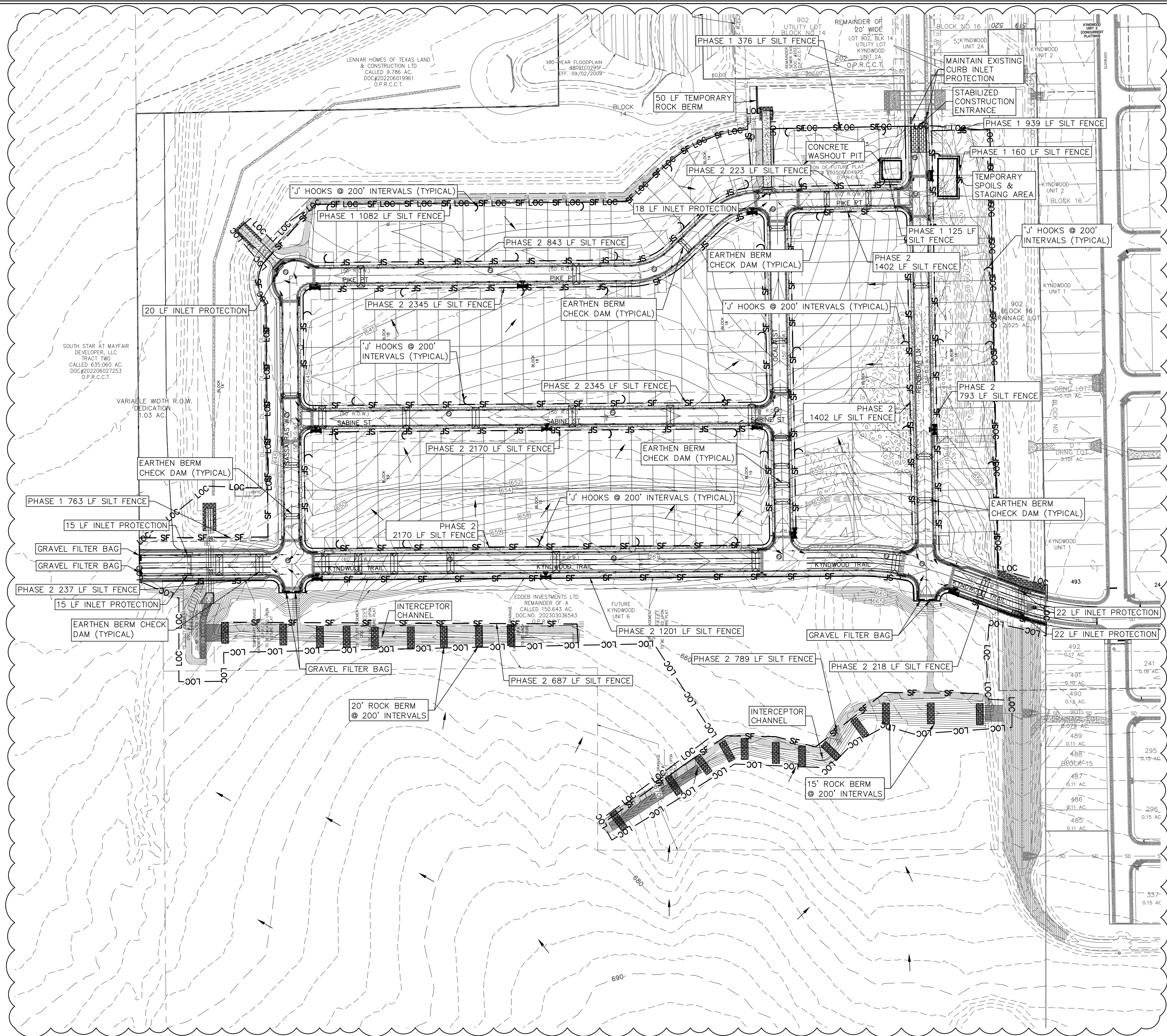
THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS HAS BEEN BASED UPON RECORD INFORMATION ONLY AND MAY NOT MATCH LOCATIONS AND/OR DEPTHS AS CONSTRUCTED. THE CONTRACTOR SHALL CONTACT EACH OF THE INDIVIDUAL UTILITIES FOR ASSISTANCE IN DETERMINING EXISTING UTILITY LOCATIONS AND DEPTHS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL UTILITY CROSSINGS PRIOR TO BEGINNING ANY CONSTRUCTION.

ANY QUANTITIES PROVIDED BY HMT OR OWNER ON THE PLANS, OPINION OF PROBABLE COST, BID SUMMARIES, ETC. ARE FOR CURSORY USE ONLY. CONTRACTOR IS RESPONSIBLE FOR BIDDING SIGNED AND SEALED CONSTRUCTION PLANS. IF A DISCREPANCY EXISTS, CONTRACTOR SHALL CONTACT ENGINEER IMMEDIATELY.

CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE LOCATION AND ELEVATION OF ALL DOWNSTREAM CONNECTION POINTS PRIOR TO CONSTRUCTION. IF A DISCREPANCY EXISTS, CONTRACTOR SHALL CONTACT ENGINEER IMMEDIATELY.

CONTRACTOR SHALL INSTALL ALL GRAVITY SEWER, GRAVITY STORM SEWER, CURBS AND PAVEMENT FROM THE MOST DOWNSTREAM POINT OF CONNECTION. IF IMPROVEMENTS ARE CONSTRUCTED FROM UPSTREAM TO DOWNSTREAM, THEN THE CONTRACTOR WILL TAKE FULL RISK AND LIABILITY OF ANY ISSUES THAT MIGHT ARISE FROM FLOWLINE ELEVATION DISCREPANCIES, UTILITY CONFLICTS, ETC.

CONTRACTOR IS RESPONSIBLE FOR THE STOCKPILING OF ANY EXCESS DIRT. ALL BIDS FROM CONTRACTOR SHOULD ACCOUNT FOR THE REMOVAL AND PLACEMENT OF ALL EARTHWORK TO INCLUDE STOCKPILING, EXPORT, IMPORT, ETC. IF A LOCATION OF PLACEMENT OF EXCESS DIRT IS NOT SHOWN ON THE PLANS, THEN CONTRACTOR SHALL CONTACT ENGINEER IMMEDIATELY TO DETERMINE THE MOST SUITABLE STOCKPILE LOCATION.



LEGEND

- 700 EXISTING CONTOURS
- 700 PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- U.E. UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- DRAINAGE FLOW DIRECTION
- SF Silt Fence
 - PHASE 1 (DONE BY GC AT START OF PROJECT)
 - PHASE 2 (DONE BY GC AT COMPLETION OF LOT AND CHANNEL GRADING)
 - PHASE 3 (DONE BY HOME BUILDER (NOT IN BID TO GC))
- LOC LOC LIMIT OF CONSTRUCTION
- STABILIZED CONSTRUCTION ENTRANCE
- FILTER DIKE CURB INLET PROTECTION
- TYPE 2 ROCK BERM
- EARTHEN BERM CHECK DAM

NOTE:

PER TPDES REQUIREMENTS, DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITIES HAVE CEASED (TEMPORARILY OR PERMANENT) SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITY RESUMES WITHIN 21 DAYS. SEEDING DOES NOT CONSTITUTE AS STABILIZATION.

SILT FENCE AT PROPERTY LINE MAY BE SHOWN GRAPHICALLY OFFSET FROM PROPERTY LINE TO AVOID OVERLAP OF LINEWORK. CONTRACTOR SHALL NOT INSTALL EROSION CONTROL MEASURES BEYOND LIMITS OF CONSTRUCTION REGARDLESS OF GRAPHIC REPRESENTATION.

NOTES

- PER TPDES REQUIREMENTS, EROSION CONTROL AND STABILIZATION MEASURES MUST BE INITIATED IMMEDIATELY IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY CEASED AND WILL NOT RESUME FOR A PERIOD EXCEEDING FOURTEEN (14) CALENDAR DAYS. STABILIZATION MEASURES THAT PROVIDE A PROTECTIVE COVER MUST BE INITIATED IMMEDIATELY IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED. THE TERM "IMMEDIATELY" IS USED TO DEFINE THE DEADLINE FOR INITIATING STABILIZATION MEASURES. IN THE CONTEXT OF THIS REQUIREMENT, "IMMEDIATELY" MEANS AS SOON AS PRACTICABLE, BUT NO LATER THAN THE END OF THE NEXT WORKDAY, FOLLOWING THE DAY WHEN THE EARTH-DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED.
- SILT FENCE AT PROPERTY LINE MAY BE SHOWN GRAPHICALLY OFFSET FROM PROPERTY LINE TO AVOID OVERLAP OF LINEWORK. CONTRACTOR SHALL NOT INSTALL EROSION CONTROL MEASURES BEYOND LIMITS OF CONSTRUCTION REGARDLESS OF GRAPHIC REPRESENTATION.
- STOCKPILED MATERIALS (AREAS) NEED TO BE REVEGETATED AFTER EXCAVATION IS COMPLETE IN ACCORDANCE WITH THE NOTE 1. THE HAUL PATHS THAT WILL NOT BE USED AFTER 14 DAYS, INCLUDING THOSE LEADING TO STOCKPILES NEED TO BE STABILIZED IN ACCORDANCE WITH NOTE 1.
- THE LIMIT OF CONSTRUCTION (LOC) LINE IS THE PROPERTY BOUNDARY FOR THIS PROJECT.

SEQUENCE OF CONSTRUCTION

LINEAR PROJECT:

- CLEAR AND MULCH IN PLACE UTILITY/CONSTRUCTION RIGHT OF WAY (ROW).
- INSTALL SEDIMENT CONTROLS PER APPROVED PLAN. SEDIMENT CONTROLS TO BE INSTALLED PHASED TO MATCH THE CONSTRUCTION PROGRESS. INSTALL THE DISCHARGE ROCK BERMS ONCE THE AREAS ARE CLEARED PER APPROVED PLANS. INSTALL SEDIMENT CONTROL LOGS DOWNSTREAM OF THE ACTIVE WORK AREA WHEN IN OR ADJACENT TO THE EXISTING DRAINAGE EASEMENT. PROTECT DRIVEWAY CULVERT CROSSINGS WITH SEDIMENT CONTROL LOGS.
- TEMPORARY SEDIMENT CONTROLS TO BE INSPECTED WEEKLY. TEMPORARY SEDIMENT CONTROLS SHOULD BE MAINTAINED WEEKLY, PRIOR TO ANTICIPATED RAINFALL EVENTS, AND AFTER RAINFALL EVENTS, AS NEEDED. CONTRACTOR/OWNER SHALL PROVIDE A CONTACT NAME AND NUMBER FOR SEDIMENT AND EROSION CONTROL ISSUES.
- CONDUCT SELECT DEMOLITION ACTIVITIES, AS NECESSARY.
- PERFORM ROUGH GRADE WITHIN THE LIMITS OF CONSTRUCTION AS NECESSARY TO FACILITATE EXCAVATION ACTIVITIES. IF STOCKPILING TO OCCUR, FOLLOW NOTE 3.
- COMPLETE UTILITY LINE INSTALLATION
- INSTALL BORE PITS AND ASSOCIATED SEDIMENT CONTROLS INCLUDING STABILIZED CONSTRUCTION EXITS TO POINTS OF EGRESS TO PAVED SURFACES AND ANY NECESSARY STORMWATER DIVERSION CONTROLS
- INSTALL EROSION CONTROL MATTING/BLANKET AND SEED ALONG THE UTILITY LINE ON A WEEKLY BASIS WHERE WORK HAS BEEN COMPLETED AND ACCEPTED BY THE CITY OR MUNICIPAL PROVIDER.
- CONTRACTOR TO VEGETATE ANY ADDITIONAL DISTURBED AREAS ONCE FINAL GRADING IS COMPLETE AND ESTABLISH A MINIMUM OF 70% VEGETATION PRIOR TO COMPLETION OF THE PROJECT AND PRIOR TO SUBMISSION OF THE GC'S TCEQ NOTICE OF TERMINATION (NOT).
- REMOVE ALL TEMPORARY SEDIMENT CONTROL MEASURES PRIOR TO SUBMISSION OF THE GC'S TCEQ NOTICE OF TERMINATION (NOT).
- SUBMIT TCEQ NOTICE OF TERMINATION (NOT) TO THE TCEQ AND SUBMIT A COPY TO THE LOCAL CITY/MUNICIPALITY AND/OR MS4

THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR WILL AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES 24-HOURS PRIOR TO COMMENCING CONSTRUCTION.

EROSION CONTROL PLAN

KYNDWOOD SUBDIVISION, UNIT 5
NEW BRAUNFELS, TEXAS

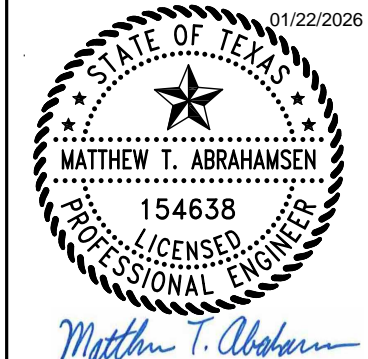
NO.	REVISION DESCRIPTION	REVISION DATE	
		DATE	BY
1	UPDATED S.F. PHASING, INLET PROTECTION & ROCK BERM LENGTHS	1/22/2026	

DATE: JANUARY 2026
DRAWN BY: MK
DESIGNED BY: MA
REVIEWED BY: MA

HMT PROJECT NO.: 337.081

SHEET

C2.01



290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPLES FIRM F-10961
TBPLES FIRM 1053600



LEGEND

B.L. BUILDING SETBACK LINE
U.E. UTILITY EASEMENT
D.E. DRAINAGE EASEMENT
A.D.A. RAMP
ACCESSIBLE CROSSING AREA
CONTRACTOR TO ENSURE MAX 2%
CROSS SLOPE IN THESE AREAS
SIDEWALK RAMP TYPE
TO BE CONSTRUCTED AT TIME OF
STREET CONSTRUCTION
(SEE DETAIL SHEET C4.10-C4.13)

- NOTES**
- LOCAL STREETS WERE DESIGNED TO POSTED SPEED LIMIT OF 25 MPH.
 - IN WASHOUT CROWN AREAS, THE CURB ON THE HIGH SIDE OF THE STREET SHOULD BE SPILL CURB AS DESIGNATED ON THE PLANS.
 - CONTRACTOR TO CONSTRUCT SIDEWALK RAMPS WITH STREETS.
 - CONTRACTOR TO ENSURE POSITIVE DRAINAGE AWAY FROM STREET STUB OUT ENDS SO THAT NO "PONDING" OF WATER OCCURS.
 - PER NEW BRAUNFELS ORDINANCE SEC. 114-98(a)(6) ALL DRIVEWAY LOCATED ON A SINGLE FAMILY RESIDENCE ON A LOCAL STREET SHALL HAVE A MINIMUM SPACING OF 20'

SIGNAGE NOTES

INSTALLATION

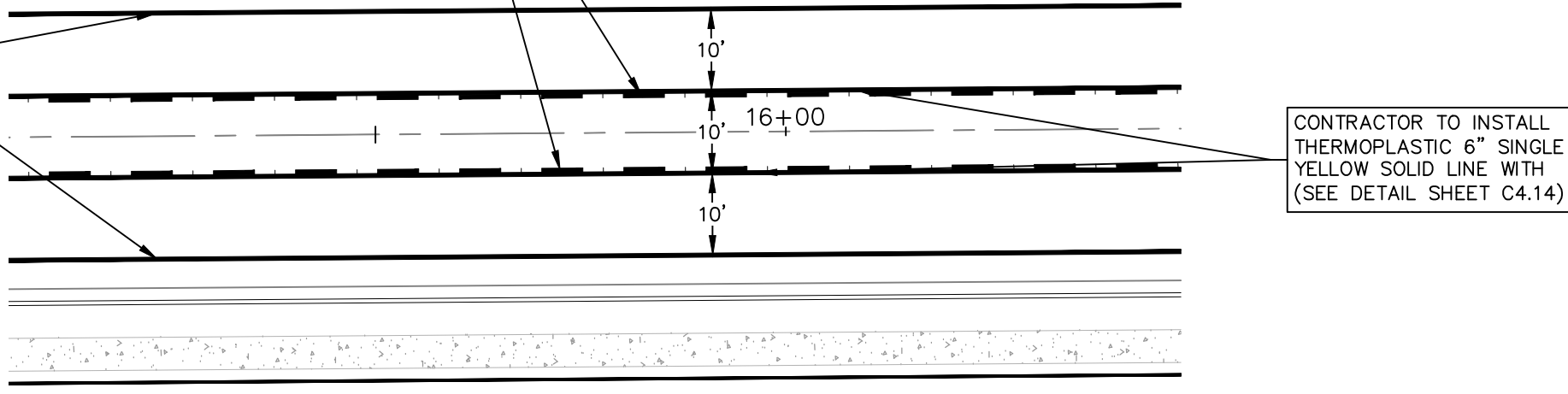
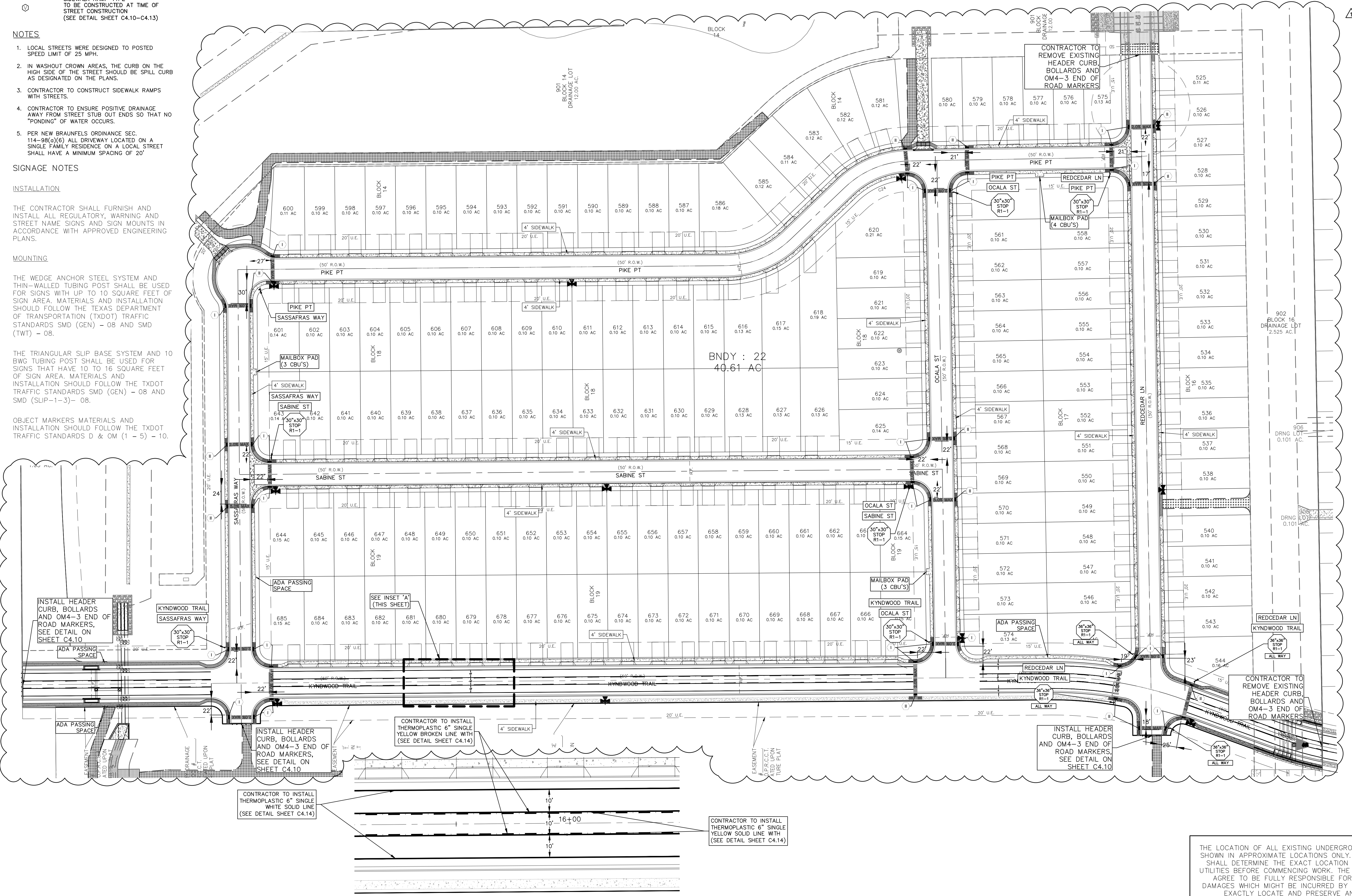
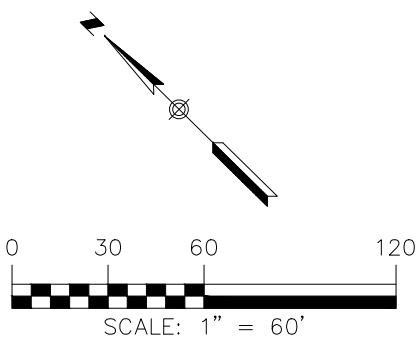
THE CONTRACTOR SHALL FURNISH AND INSTALL ALL REGULATORY, WARNING AND STREET NAME SIGNS AND SIGN MOUNTS IN ACCORDANCE WITH APPROVED ENGINEERING PLANS.

MOUNTING

THE WEDGE ANCHOR STEEL SYSTEM AND THIN-WALLED TUBING POST SHALL BE USED FOR SIGNS WITH UP TO 10 SQUARE FEET OF SIGN AREA. MATERIALS AND INSTALLATION SHOULD FOLLOW THE TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) TRAFFIC STANDARDS SMD (GEN) - 08 AND SMD (TWT) - 08.

THE TRIANGULAR SLIP BASE SYSTEM AND 10 BWG TUBING POST SHALL BE USED FOR SIGNS THAT HAVE 10 TO 16 SQUARE FEET OF SIGN AREA. MATERIALS AND INSTALLATION SHOULD FOLLOW THE TXDOT TRAFFIC STANDARDS SMD (GEN) - 08 AND SMD (SLIP-1-3) - 08.

OBJECT MARKERS MATERIALS AND INSTALLATION SHOULD FOLLOW THE TXDOT TRAFFIC STANDARDS D & OM (1 - 5) - 10.



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290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPLES FIRM F-10961
TBPLES FIRM 1053600

HMT
ENGINEERING & SURVEYING

MATTHEW T. ABRAHAMSON
154638
PROFESSIONAL ENGINEER
Matthew T. Abrahamson

STREET SIGNAGE PLAN

KYNDWOOD SUBDIVISION, UNIT 5
NEW BRAUNFELS, TEXAS

NO.	REVISION DESCRIPTION	REVISION DATE
1	ADDED SIDEWALK RAMP TYPES	1/22/2026

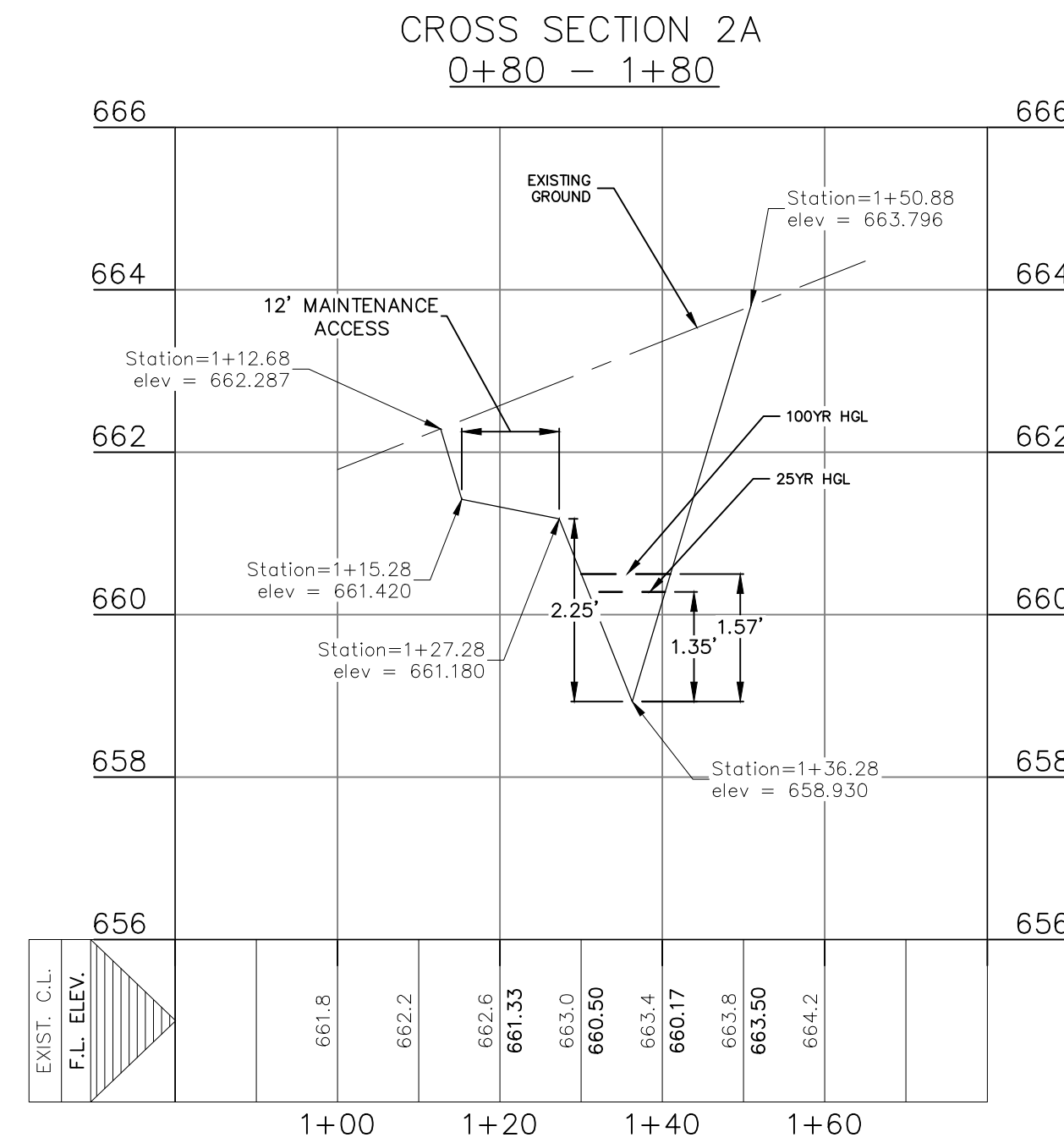
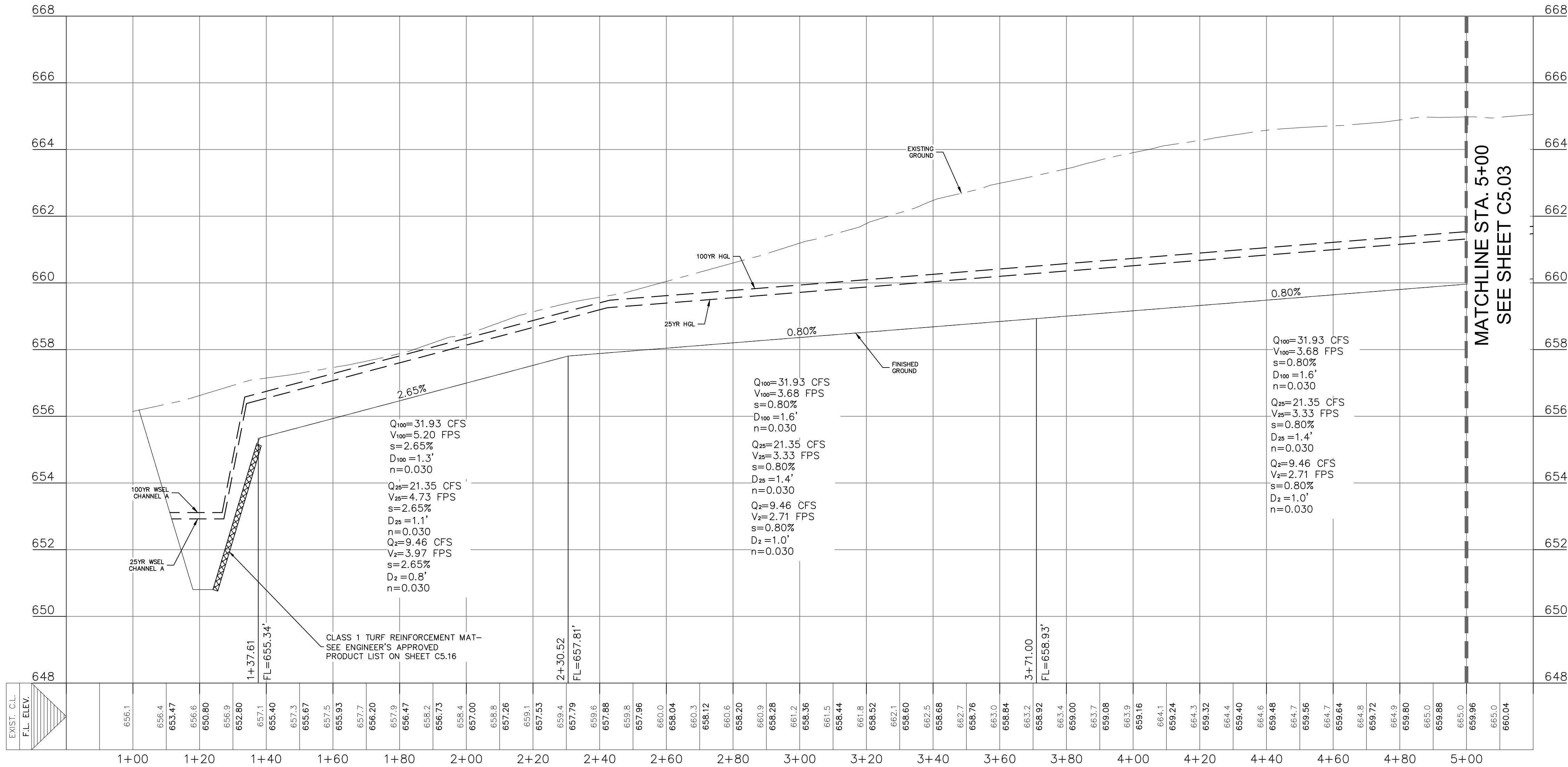
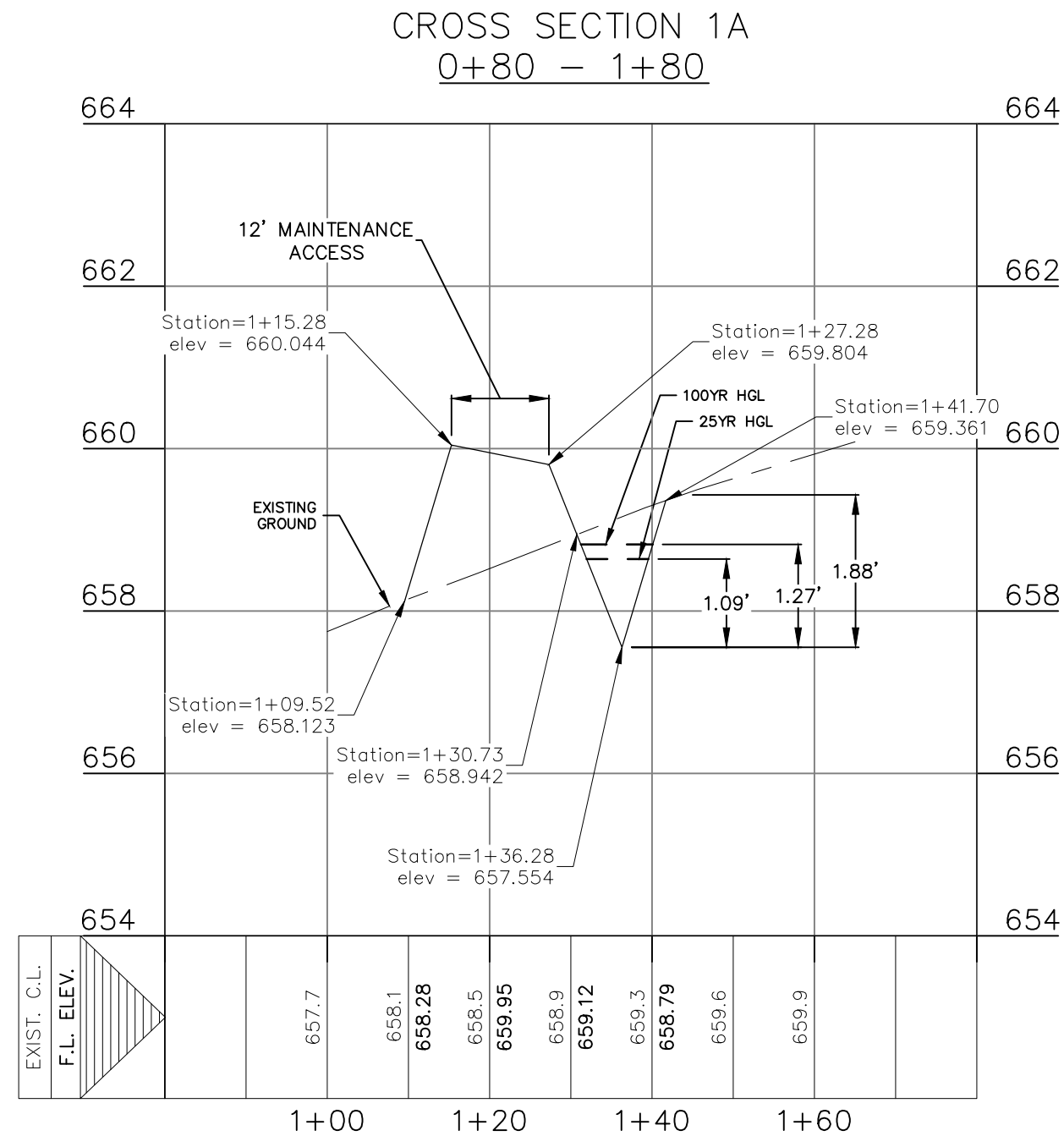
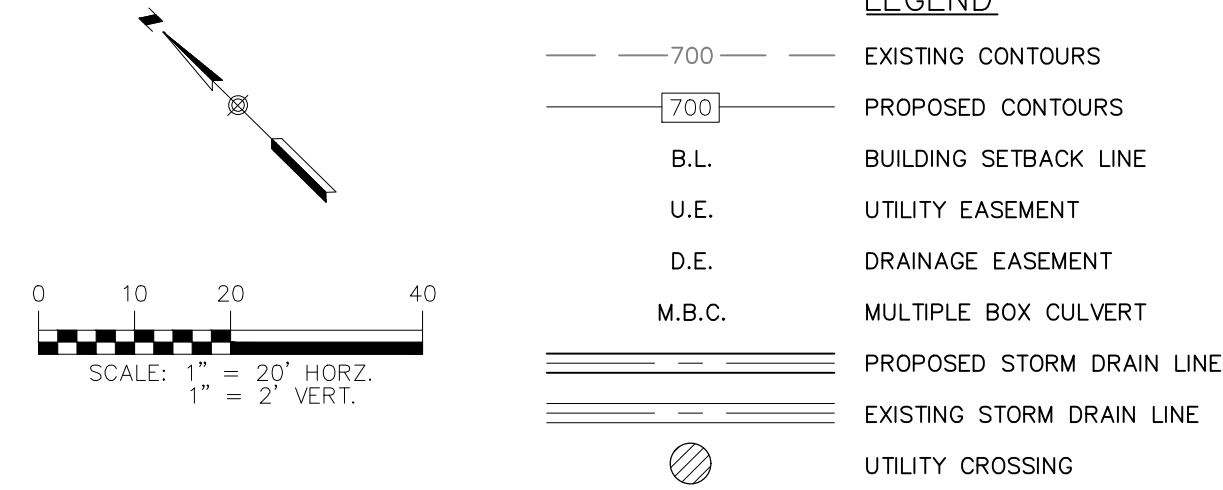
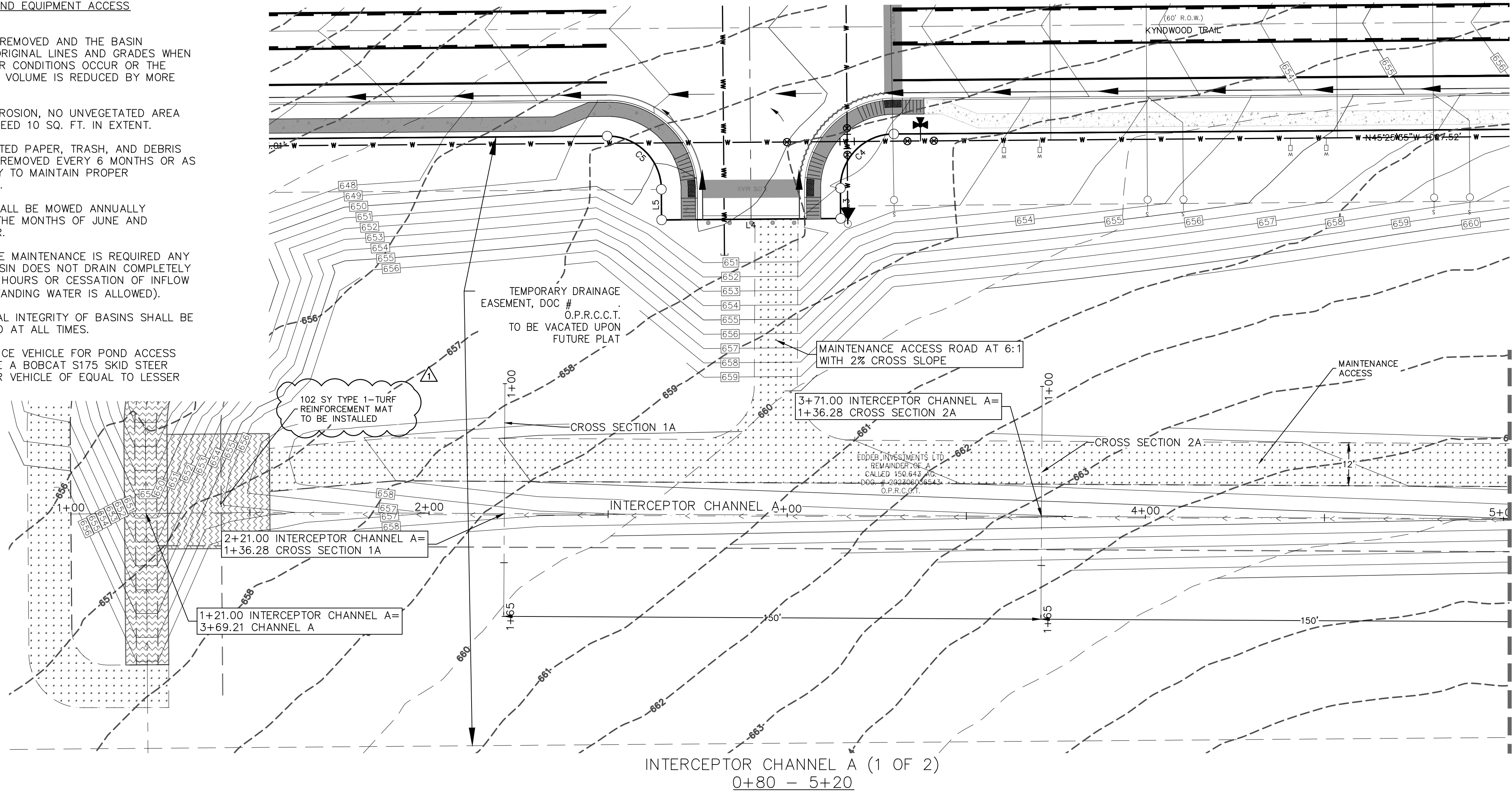
DATE: **JANUARY 2026**
DRAWN BY: **MK**
DESIGNED BY: **MA**
REVIEWED BY: **MA**
HMT PROJECT NO.: **337.081**

SHEET
C4.08

DRAINAGE FEATURES, DETENTION BASIN
MAINTENANCE AND EQUIPMENT ACCESS
REQUIREMENTS:

SILT SHALL BE REMOVED AND THE BASIN
RETURNED TO ORIGINAL LINES AND GRADES WHEN
STANDING WATER CONDITIONS OCCUR OR THE
BASIN STORAGE VOLUME IS REDUCED BY MORE
THAN 10%.

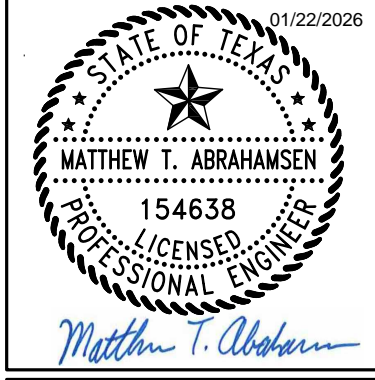
- A. TO LIMIT EROSION, NO UNVEGETATED AREA
SHALL EXCEED 10 SQ. FT. IN EXTENT.
- B. ACCUMULATED PAPER, TRASH, AND DEBRIS
SHALL BE REMOVED EVERY 6 MONTHS OR AS
NECESSARY TO MAINTAIN PROPER
OPERATION.
- C. BASINS SHALL BE MOWED ANNUALLY
BETWEEN THE MONTHS OF JUNE AND
SEPTEMBER.
- D. CORRECTIVE MAINTENANCE IS REQUIRED ANY
TIME A BASIN DOES NOT DRAIN COMPLETELY
WITHIN 60 HOURS OR CESSATION OF INFLOW
(IE: NO STANDING WATER IS ALLOWED).
- E. STRUCTURAL INTEGRITY OF BASINS SHALL BE
MAINTAINED AT ALL TIMES.
- F. MAINTENANCE VEHICLE FOR POND ACCESS
SHOULD BE A BOBCAT S175 SKID STEER
LOADER OR VEHICLE OF EQUAL TO LESSER
SIZE.



REFER TO THE COVER SHEET
FOR BENCHMARK INFORMATION.

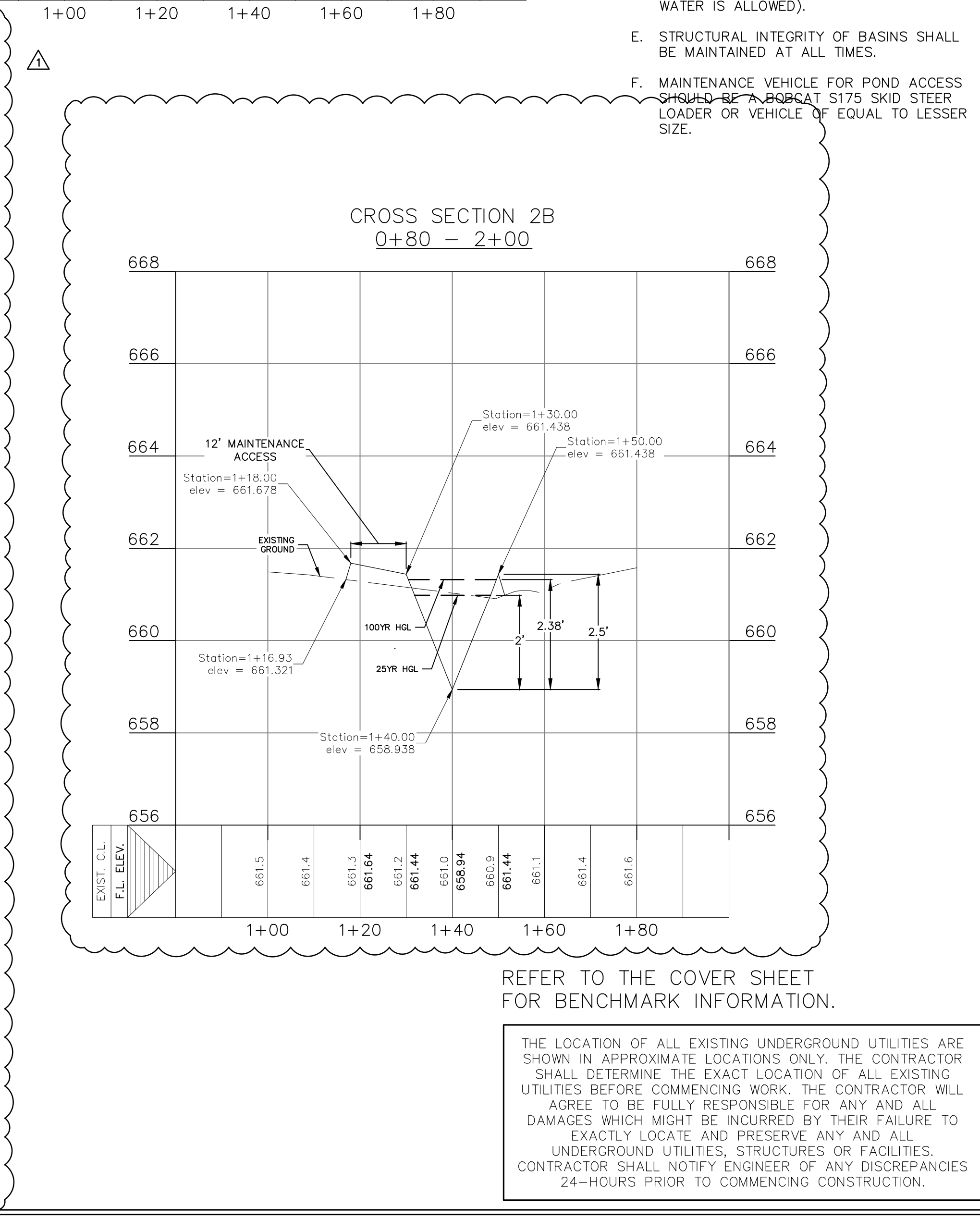
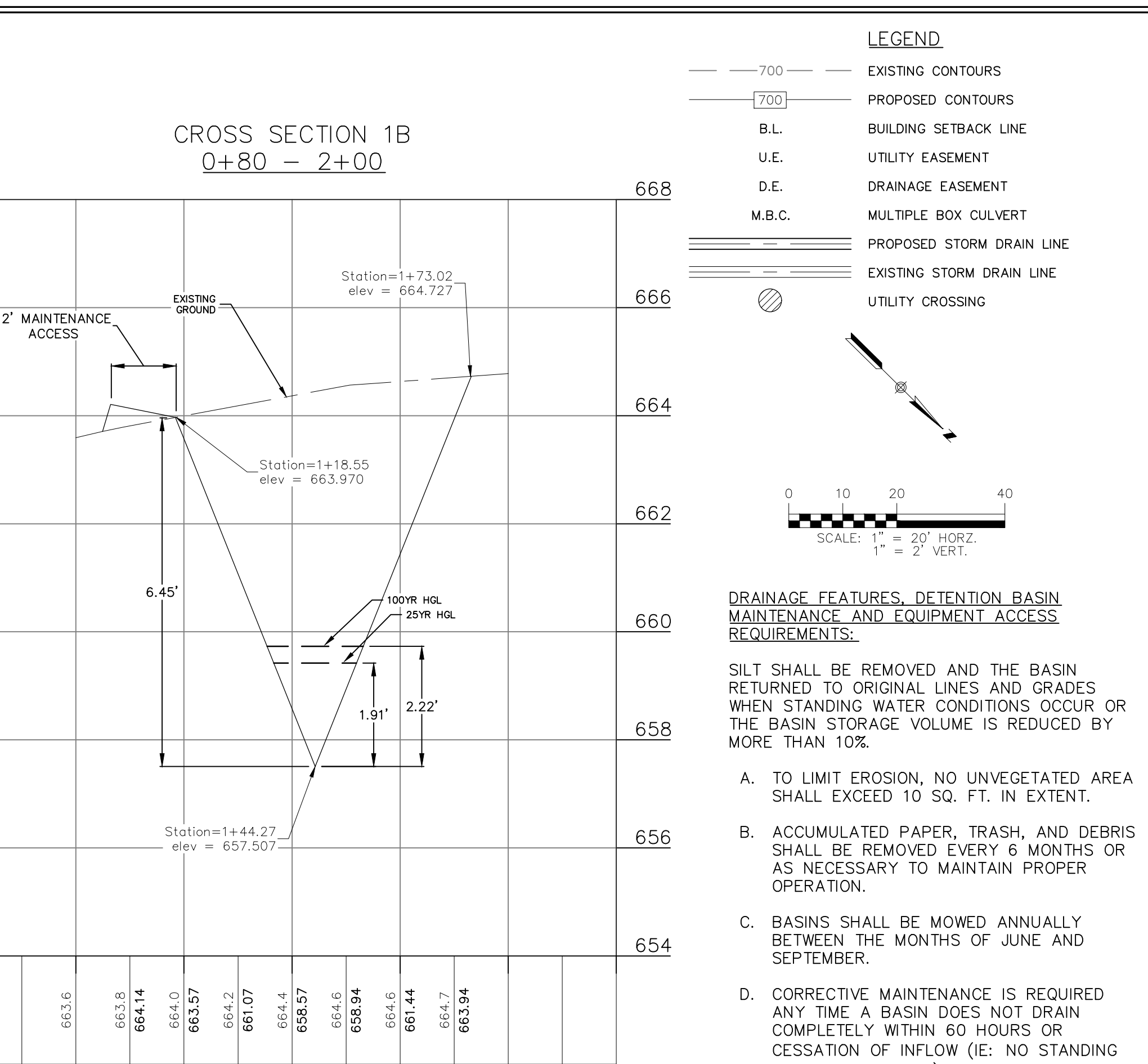
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AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL
DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO
EXACTLY LOCATE AND PRESERVE ANY AND ALL
UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES.
CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES
24-HOURS PRIOR TO COMMENCING CONSTRUCTION.


290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPLES FIRM F-10961
TBPLES FIRM 1053600

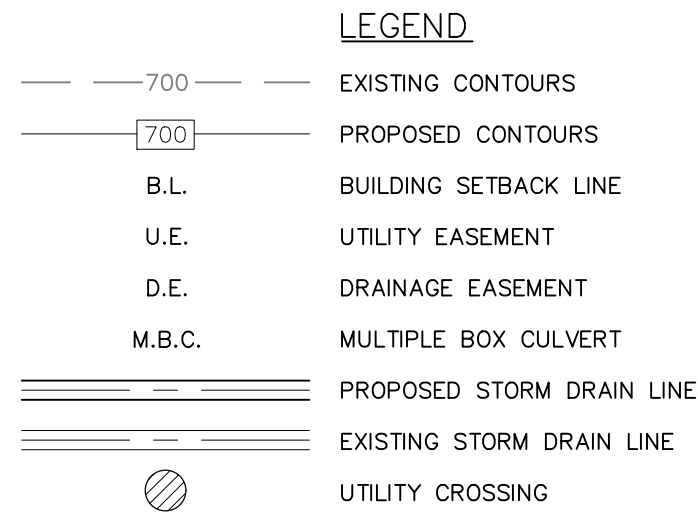


INTERCEPTOR CHANNEL A
PLAN & PROFILE (1 OF 2)
KYNDWOOD SUBDIVISION, UNIT 5
NEW BRAUNFELS, TEXAS

NO.	REVISION	DESCRIPTION	DATE
1	1/22/2026		
DATE: JANUARY 2026			
DRAWN BY: MK			
DESIGNED BY: MA			
REVIEWED BY: MA			
HMT PROJECT NO.: 337.081			
SHEET C5.02			



	HMT ENGINEERING & SURVEYING	290 S. CASTELL AVE., STE. 100 NEW BRAUNFELS, TX 78130 TBPBLS FIRM F-10961 TBPBLS FIRM 1053600
<div style="text-align: center;"></div>		
<div style="display: flex; justify-content: space-between;"><div><h2>INTERCEPTOR CHANNEL B</h2><h3>PLAN & PROFILE (1 OF 3)</h3></div><div><p>KYNWOOD SUBDIVISION, UNIT 5</p><p>NEW BRAUNFELS, TEXAS</p></div></div>		
No.	Revision Description	REVISION DATE
A	ADJUSTED INTERCEPTOR CHANNEL B FLOW LINE	1/22/2026
DATE:	JANUARY 2026	
DRAWN BY:	MK	
DESIGNED BY:	MA	
REVIEWED BY:	MA	
HMT PROJECT NO.:	337.081	
<div>SHEET</div> <div>C5.04</div>		



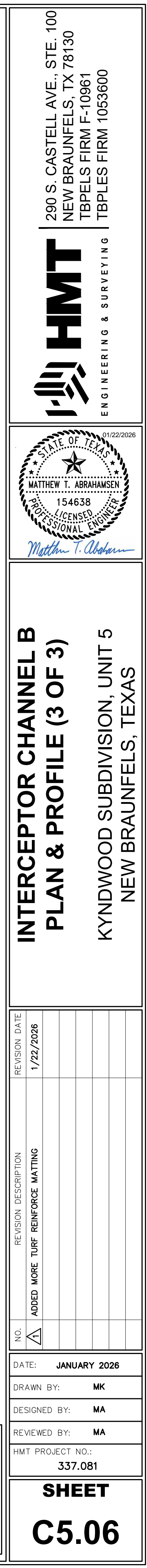
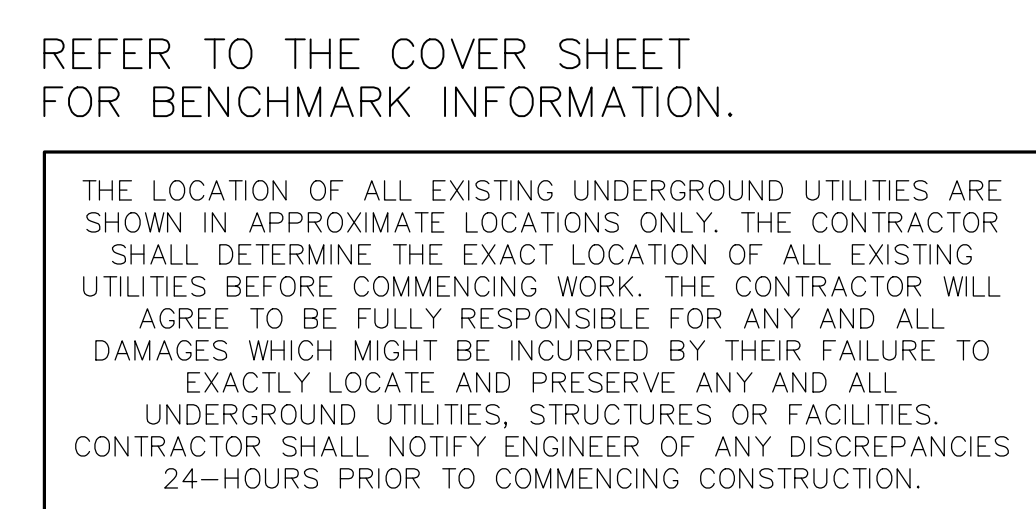
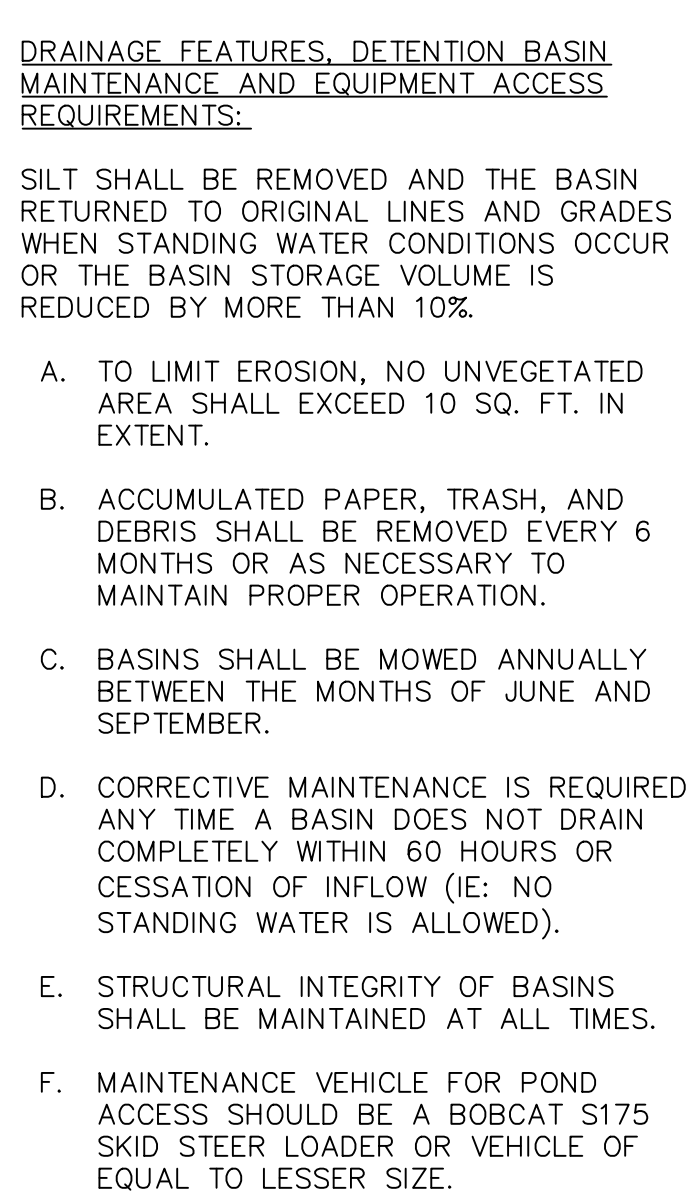
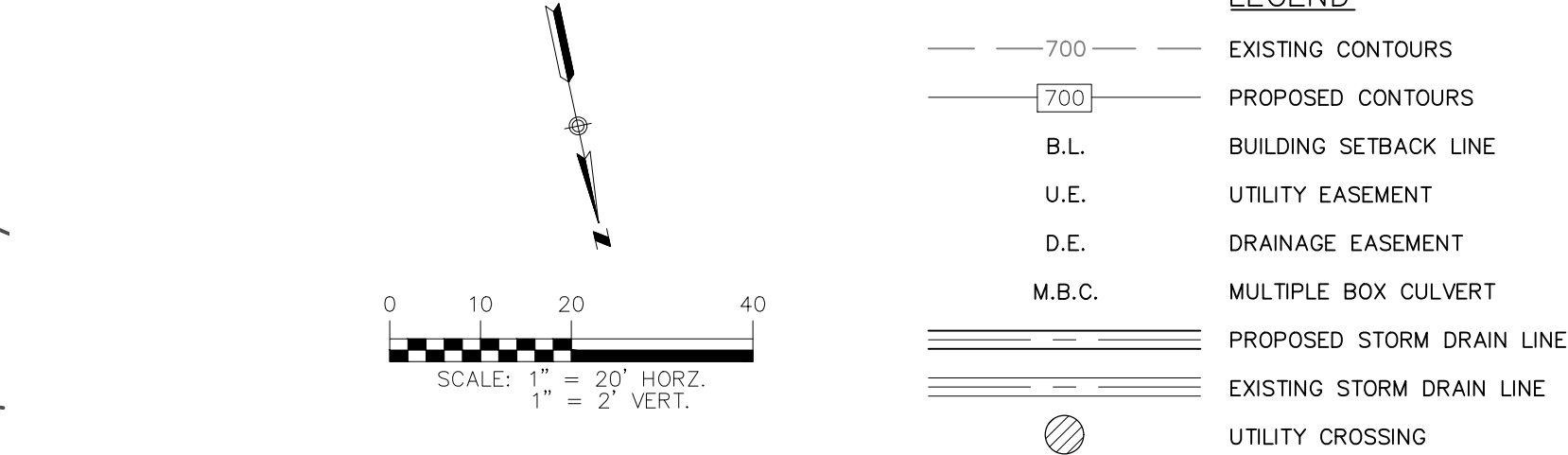
SILT SHALL BE REMOVED AND THE BASIN RETURNED TO ORIGINAL LINES AND GRADES WHEN STANDING WATER CONDITIONS OCCUR OR THE BASIN STORAGE VOLUME IS REDUCED BY MORE THAN 10%.

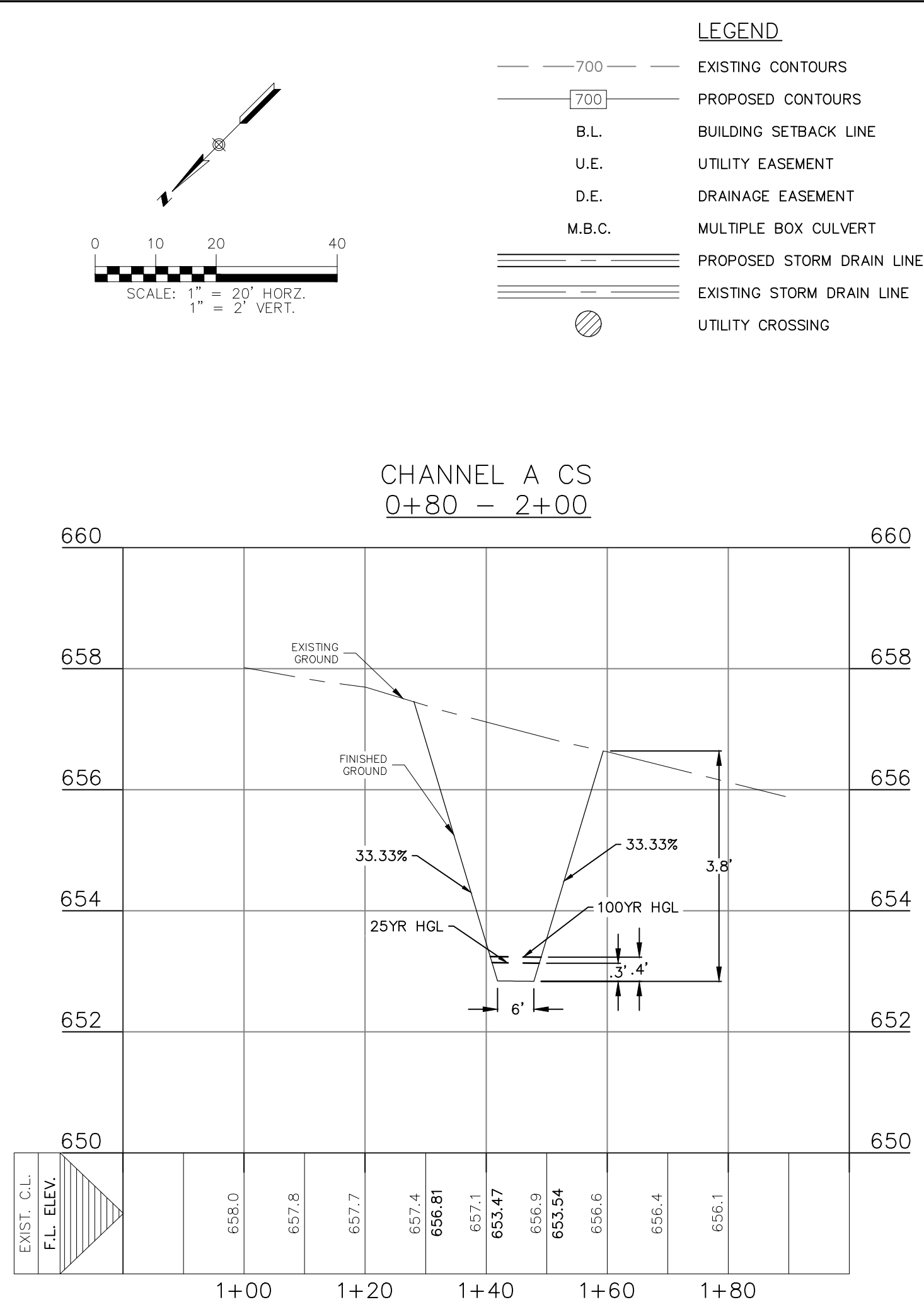
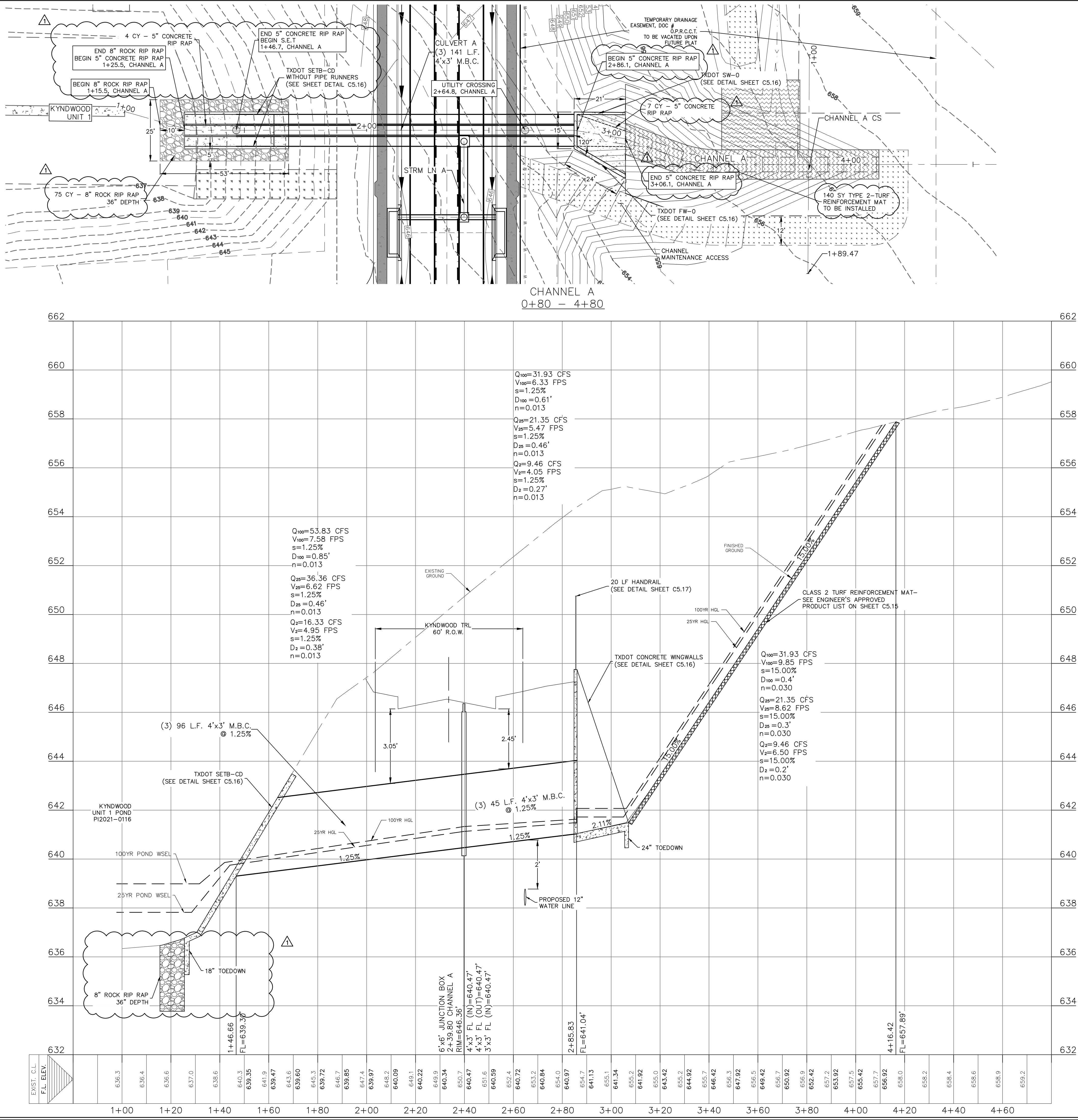
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- B. ACCUMULATED PAPER, TRASH, AND DEBRIS SHALL BE REMOVED EVERY 6 MONTHS OR AS NECESSARY TO MAINTAIN PROPER OPERATION.
- C. BASINS SHALL BE MOWED ANNUALLY BETWEEN THE MONTHS OF JUNE AND SEPTEMBER.
- D. CORRECTIVE MAINTENANCE IS REQUIRED ANY TIME A BASIN DOES NOT DRAIN COMPLETELY WITHIN 60 HOURS OR CESSATION OF INFLOW (IE: NO STANDING WATER IS ALLOWED).
- E. STRUCTURAL INTEGRITY OF BASINS SHALL BE MAINTAINED AT ALL TIMES.
- F. MAINTENANCE VEHICLE FOR POND ACCESS SHOULD BE A BOBCAT S175 SKID STEER LOADER OR VEHICLE OF EQUAL TO LESSER SIZE.

REFER TO THE COVER SHEET
FOR BENCHMARK INFORMATION.

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290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPLES FIRM F-10961
TBPLES FIRM 1053600

HMT
ENGINEERING & SURVEYING

Matthew T. Abrahamson

CHANNEL A
PLAN & PROFILE

KYNDWOOD SUBDIVISION, UNIT 5
NEW BRAUNFELS, TEXAS

NO.	REVISION	DESCRIPTION	DATE
1	UPDATED	EROSION CONTROL FOR CHANNEL A	1/22/2026

DATE: **JANUARY 2026**

DRAWN BY: **MK**

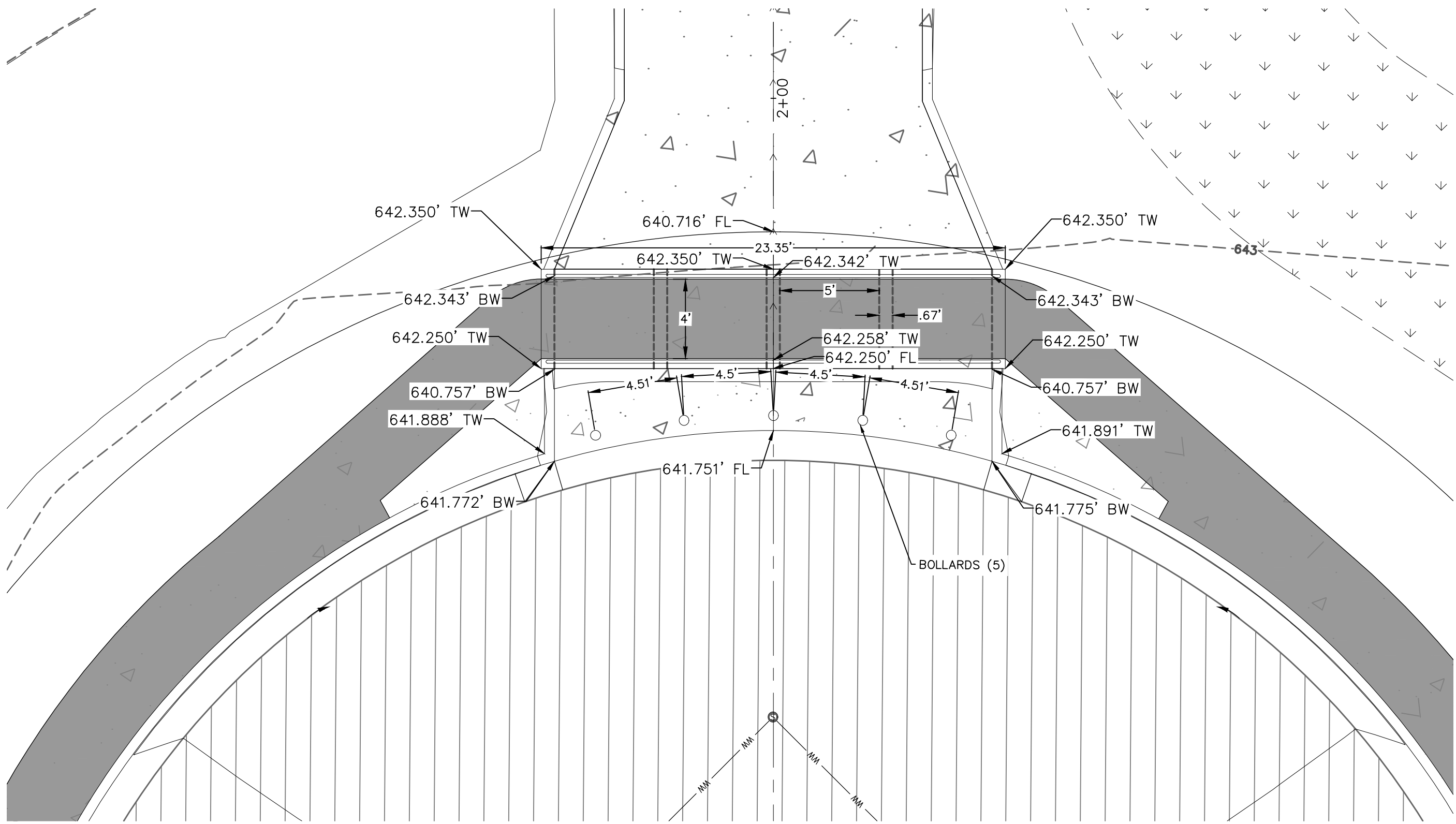
DESIGNED BY: **MA**

REVIEWED BY: **MA**

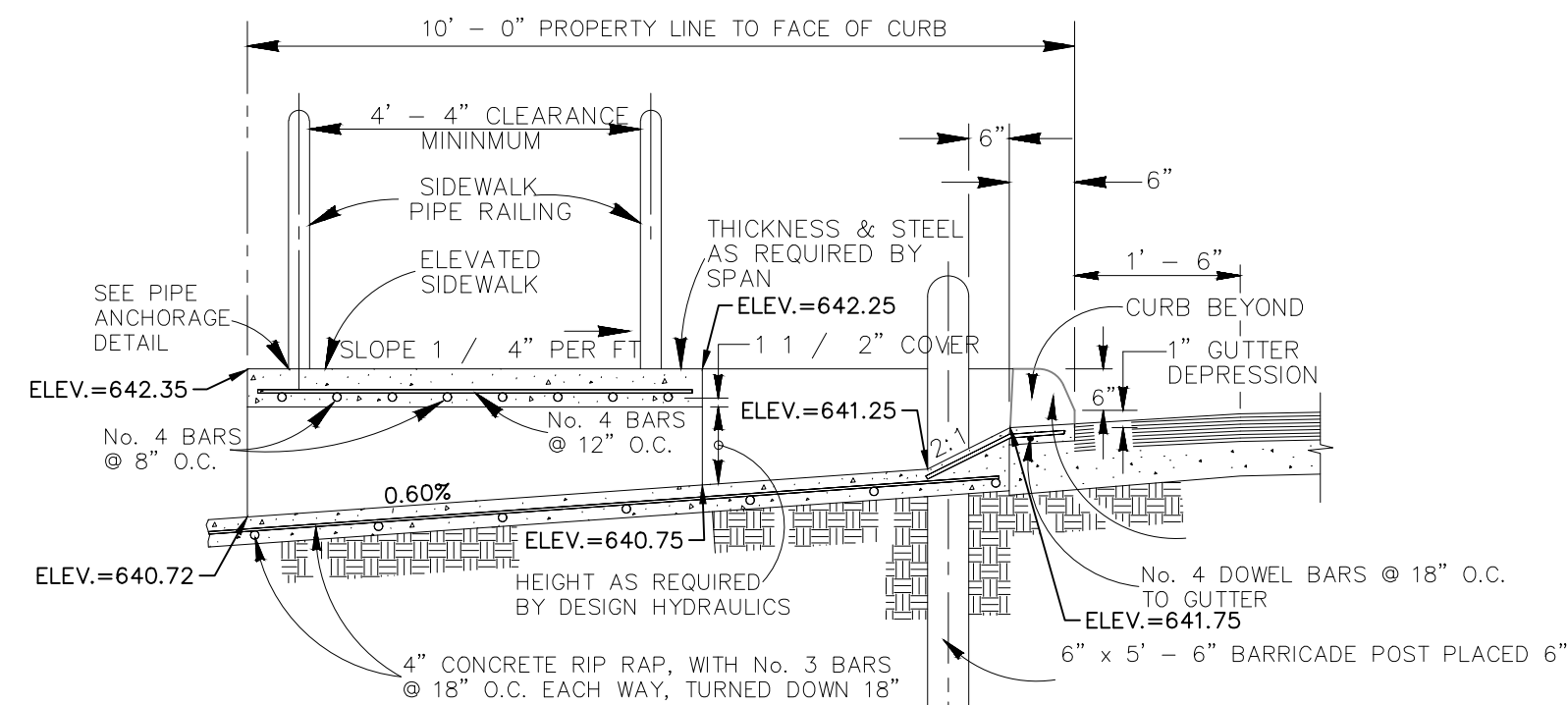
HMT PROJECT NO.: **337.081**

SHEET

C5.07

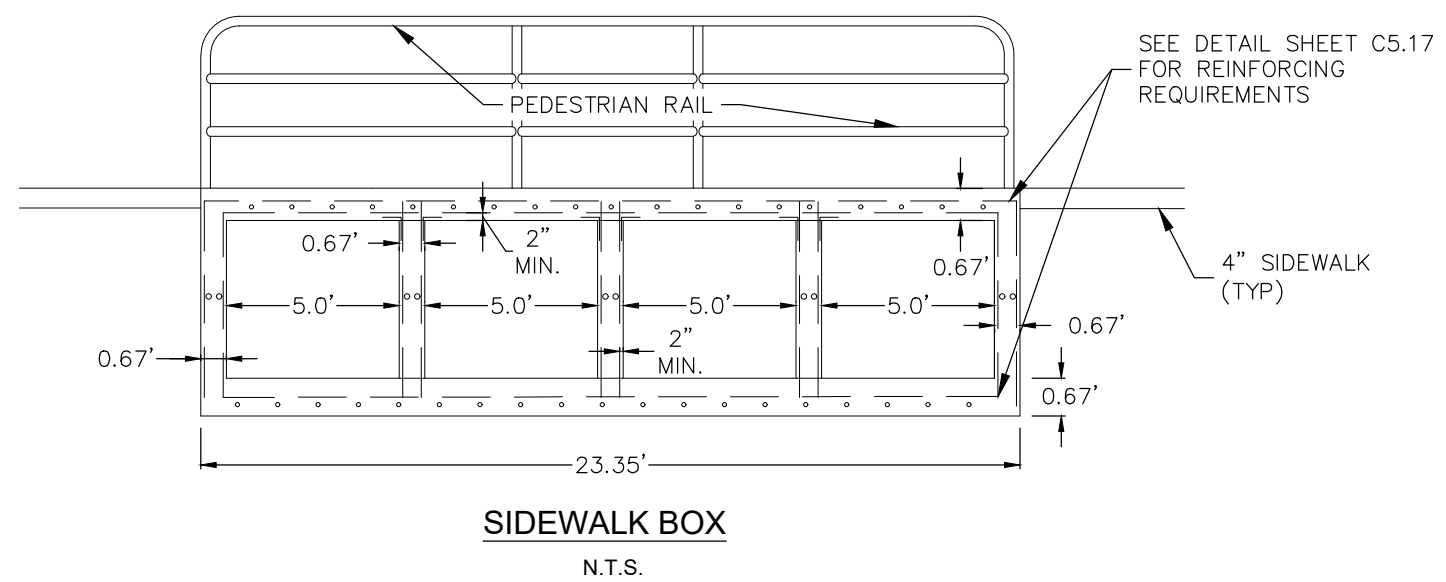


SIDEWALK BOX
SCALE : 1"=5'

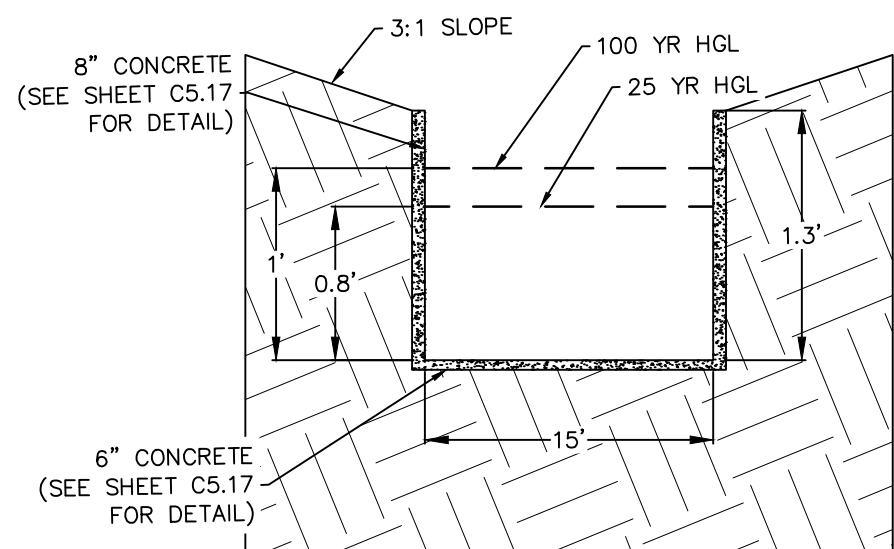


NOTE: 1. ALLOW FOR REFLECTOR BUTTONS ON BARRICADE POST. USE ONE 3 / 4" BUTTON PER POST.
2. POST SHALL RECEIVE TWO COATS OF ALUMINUM PAINT.
3. DESIGN HYDRAULICS REQUIRE 1.0' HEIGHT FOR ELEVATED SIDEWALK

CHANNEL B - SIDEWALK & DROP CURB SECTION

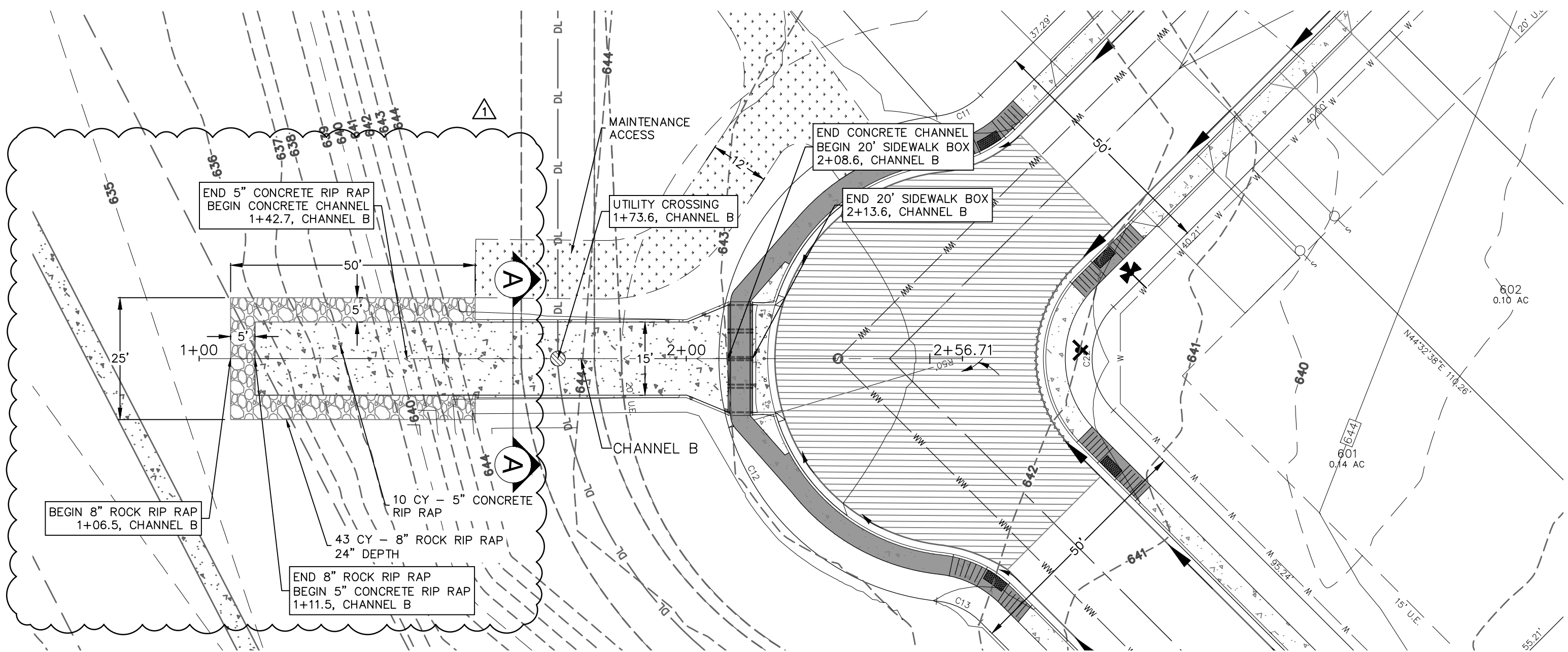


SIDEWALK BOX
N.T.S.

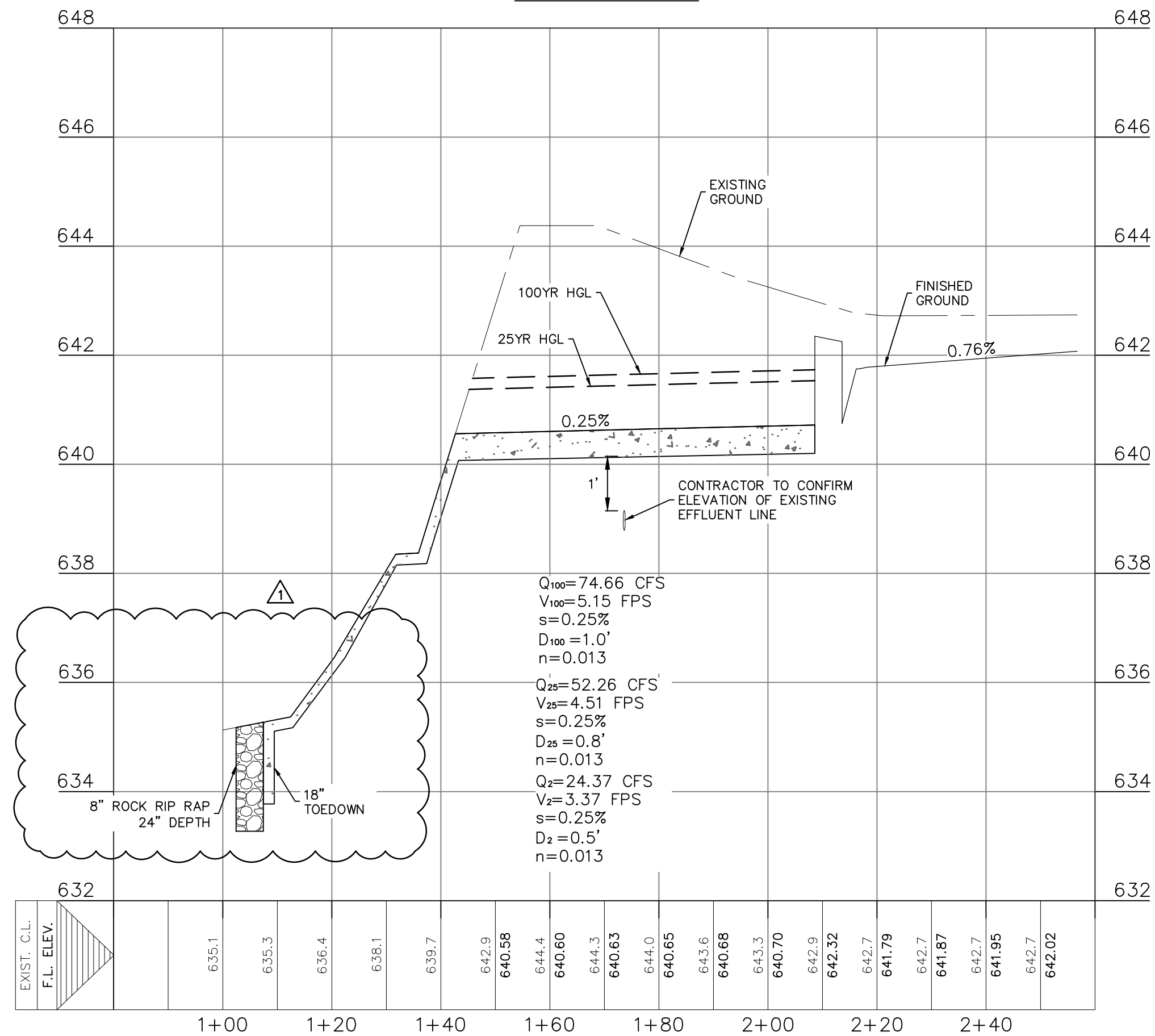


CROSS-SECTION A-A

1"=10' HORZ.
1"=1' VERT.



CHANNEL B
0+80 - 2+60



DRAINAGE FEATURES, DETENTION BASIN MAINTENANCE AND EQUIPMENT ACCESS REQUIREMENTS:

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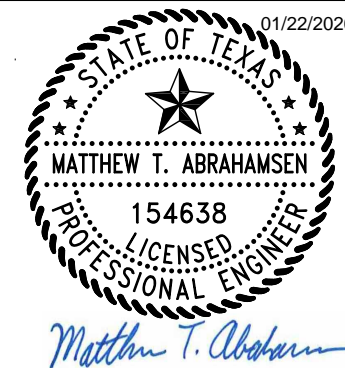
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LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- U.E. UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- M.B.C. MULTIPLE BOX CULVERT
- PROPOSED STORM DRAIN LINE
- EXISTING STORM DRAIN LINE
- UTILITY CROSSING

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPELS FIRM F-10961
TBPLES FIRM 1053600



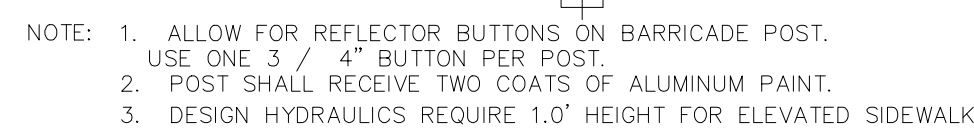
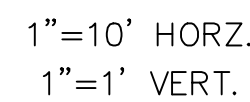
CHANNEL B
PLAN & PROFILE
KYNDWOOD SUBDIVISION, UNIT 5
NEW BRAUNFELS, TEXAS

NO.	REVISION	DESCRIPTION	DATE
1	UPDATED	EROSION CONTROL FOR CHANNEL B	1/22/2026

DATE: **JANUARY 2026**
DRAWN BY: **MK**
DESIGNED BY: **MA**
REVIEWED BY: **MA**

HMT PROJECT NO.:
337.081

SHEET
C5.08



SEE DETAIL SHEET C5.17
FOR REINFORCING
REQUIREMENTS

PEDESTRIAN RAIL

4" SIDEWALK
(TYP)

0.67'

2" MIN.

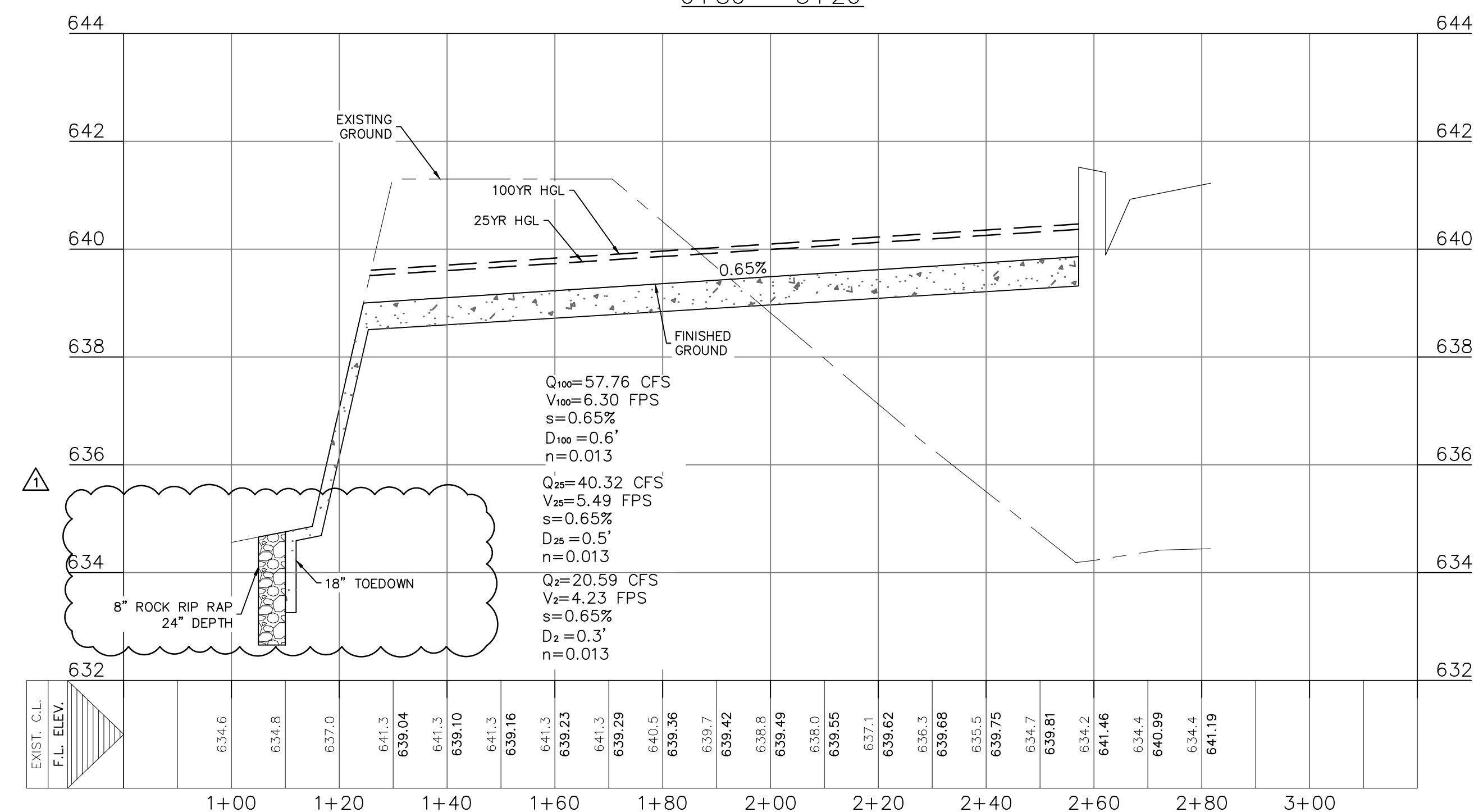
5.0'

0.67'

17.68'

SIDEWALK BOX SECTION B-B

N.T.S.



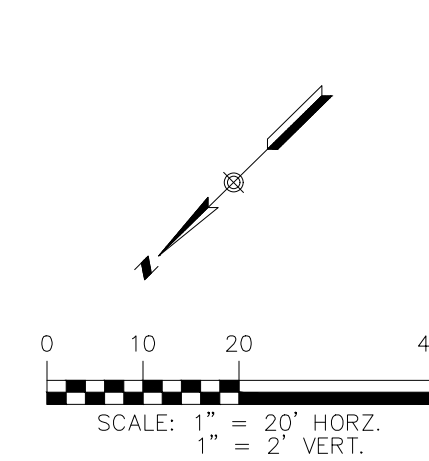
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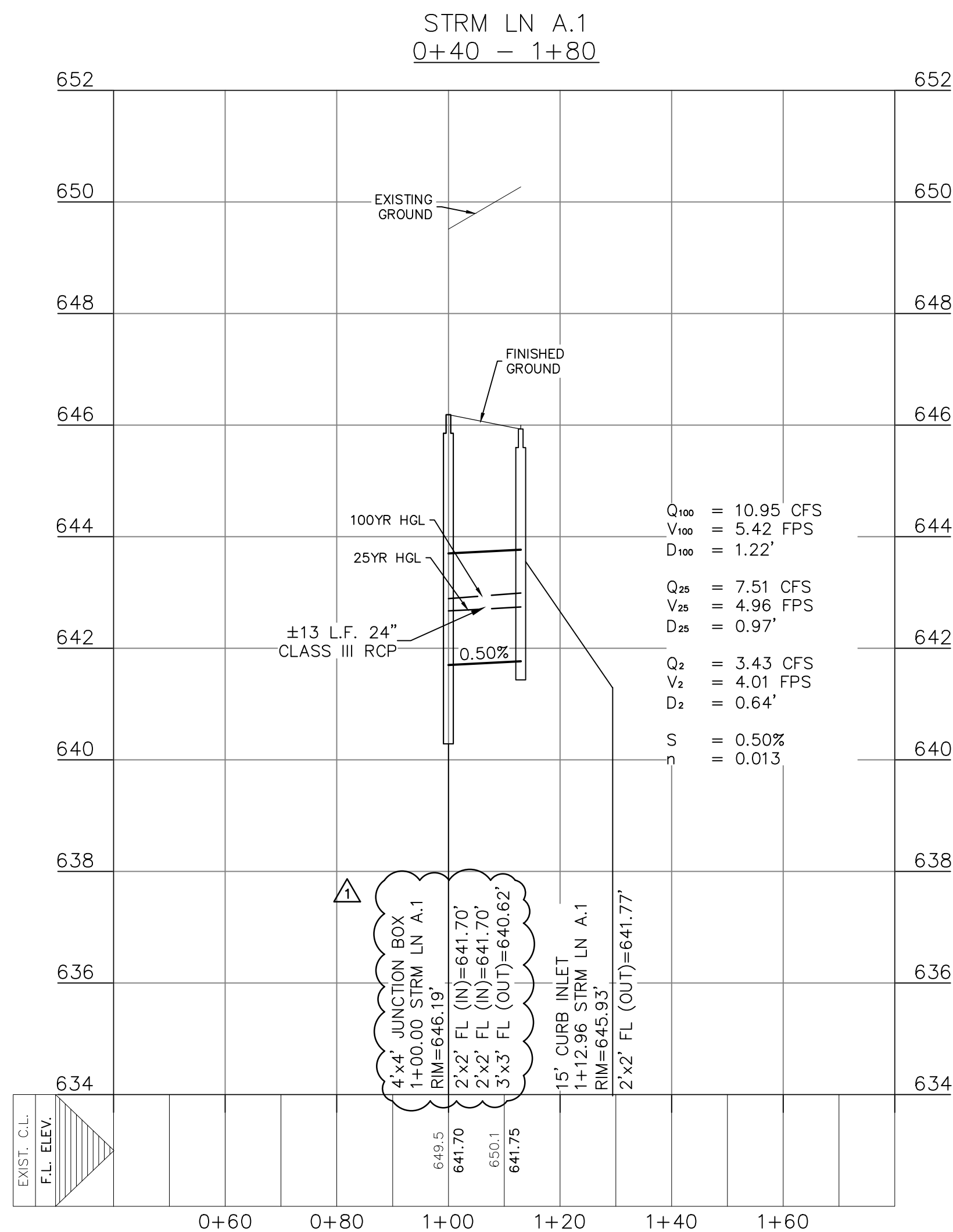
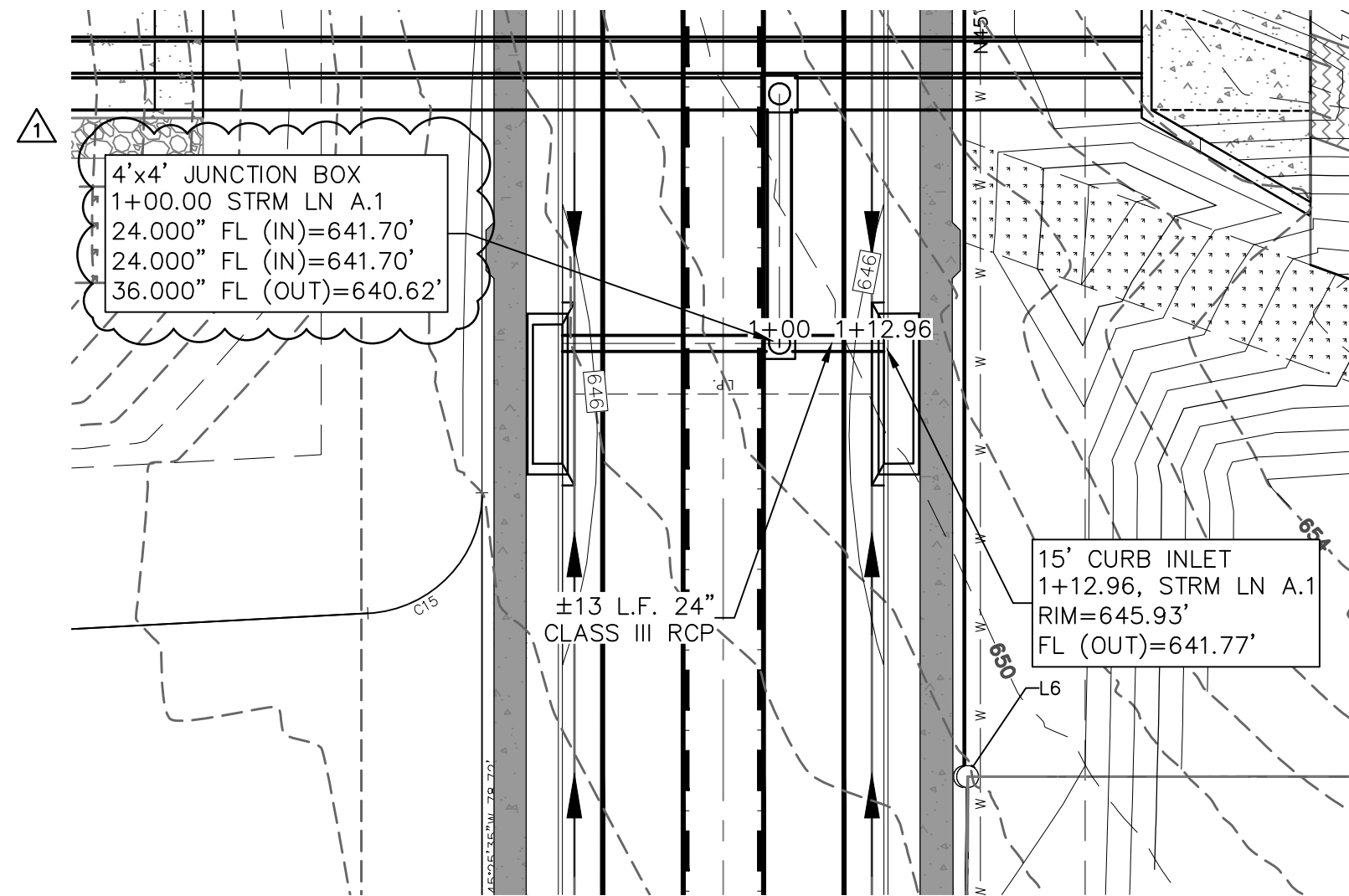
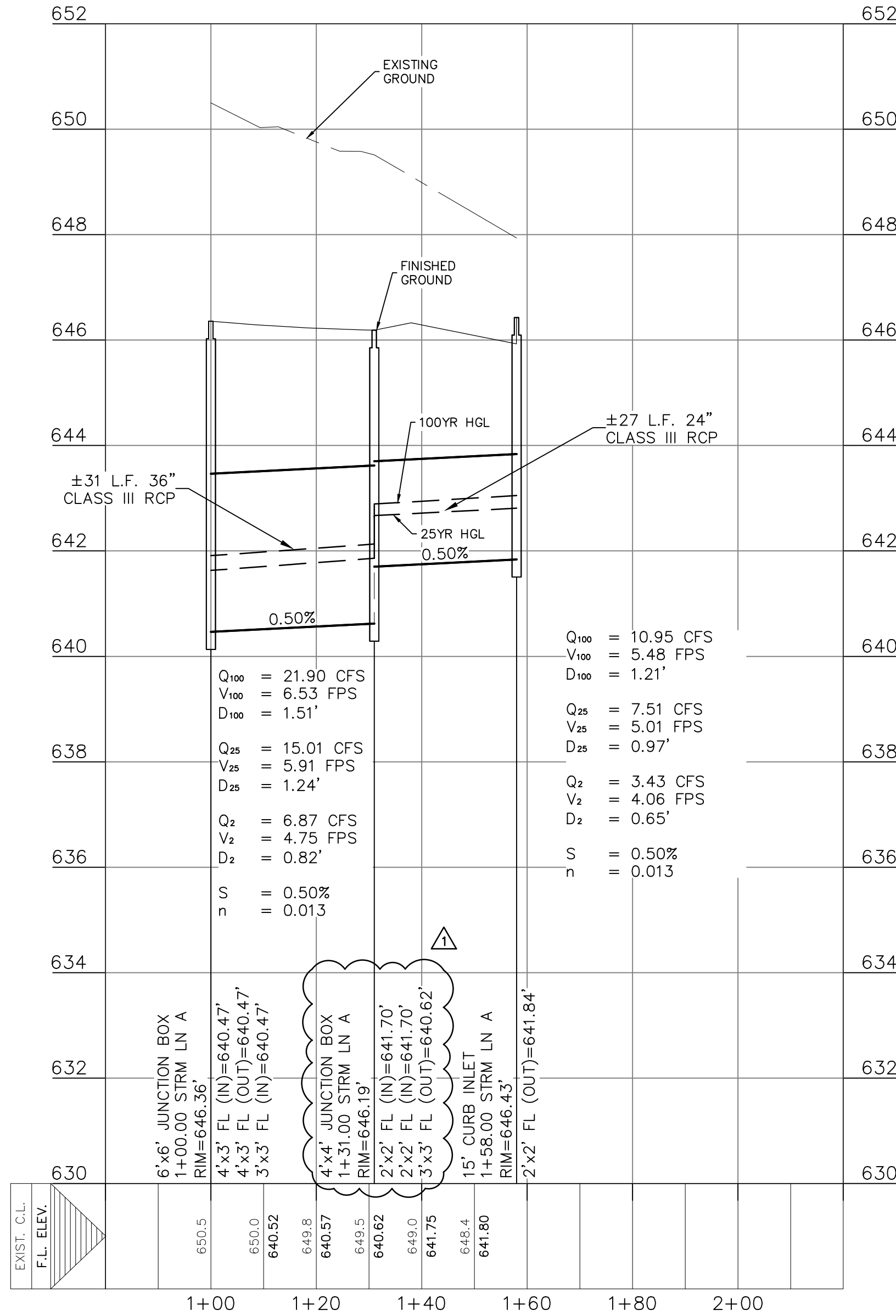
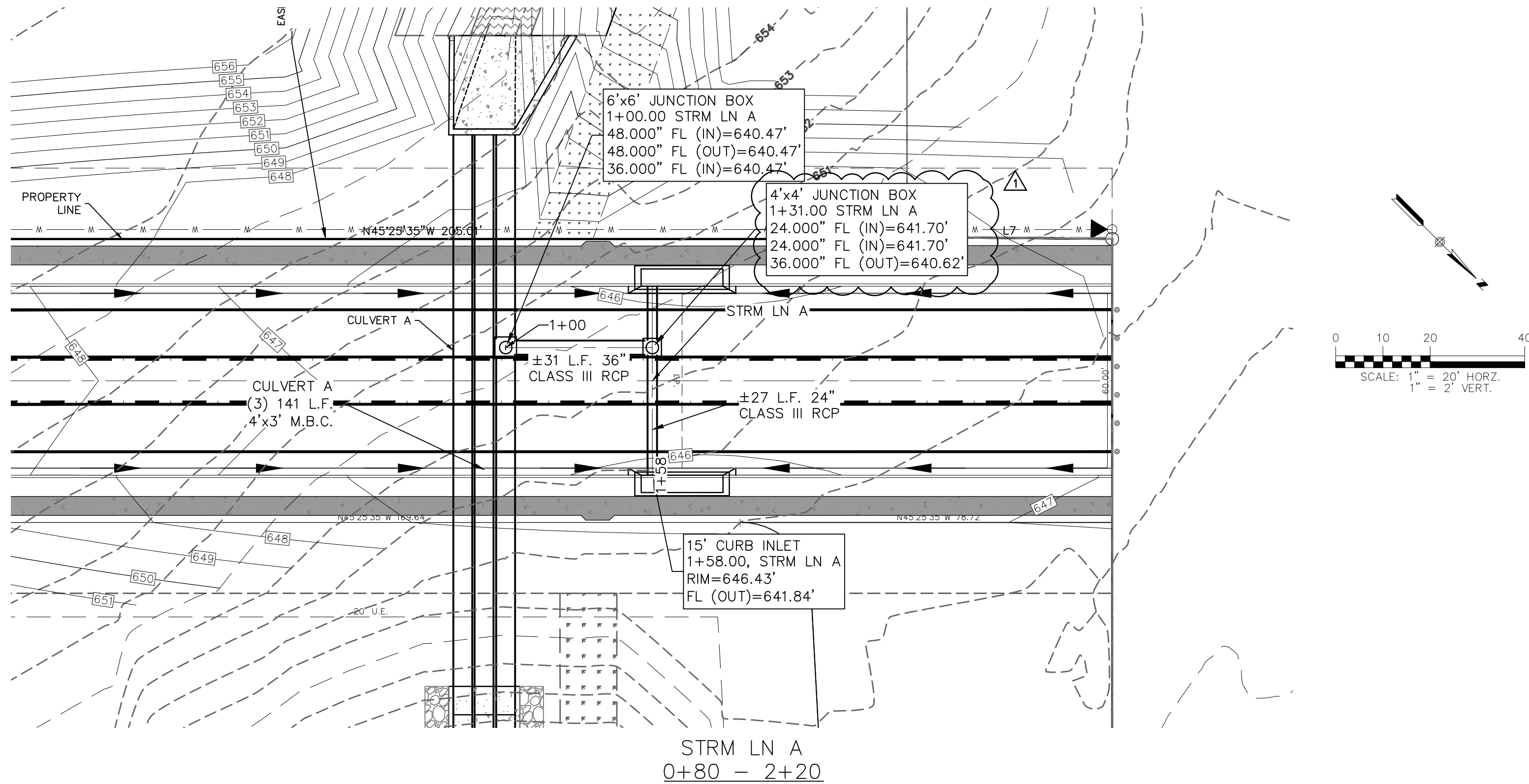
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	PROPOSED CONTOURS
B.L.	BUILDING SETBACK LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
M.B.C.	MULTIPLE BOX CULVERT
	PROPOSED STORM DRAIN LINE
	EXISTING STORM DRAIN LINE
	UTILITY CROSSING



DRAINAGE FEATURES, DETENTION BASIN MAINTENANCE AND EQUIPMENT ACCESS REQUIREMENTS:

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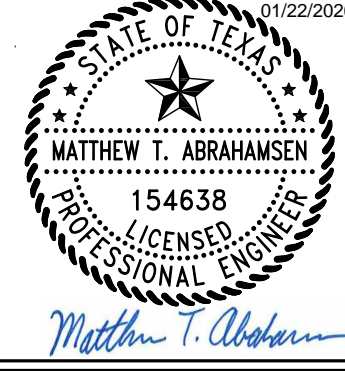
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- 700 — EXISTING CONTOURS
 - 700 — PROPOSED CONTOURS
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 - U.E. UTILITY EASEMENT
 - D.E. DRAINAGE EASEMENT
 - M.B.C. MULTIPLE BOX CULVERT
 - ===== PROPOSED STORM DRAIN LINE
 - ===== EXISTING STORM DRAIN LINE
 - UTILITY CROSSING

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPLES FIRM F-10961
TBPLES FIRM 1053600



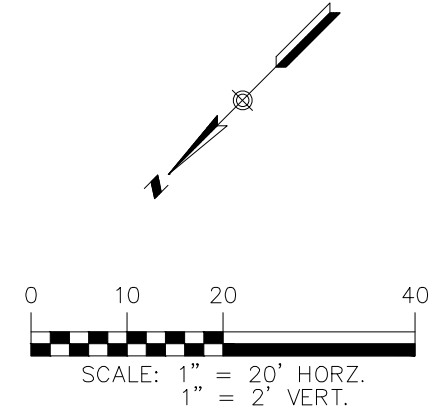
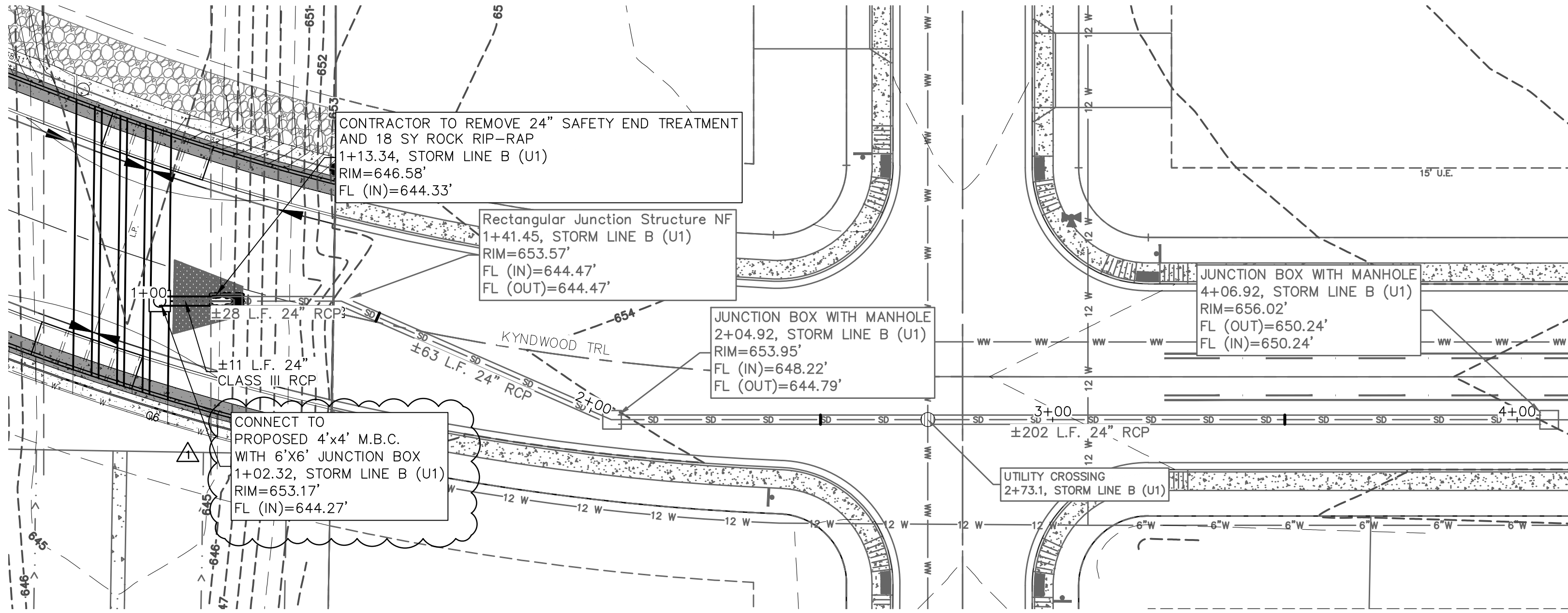
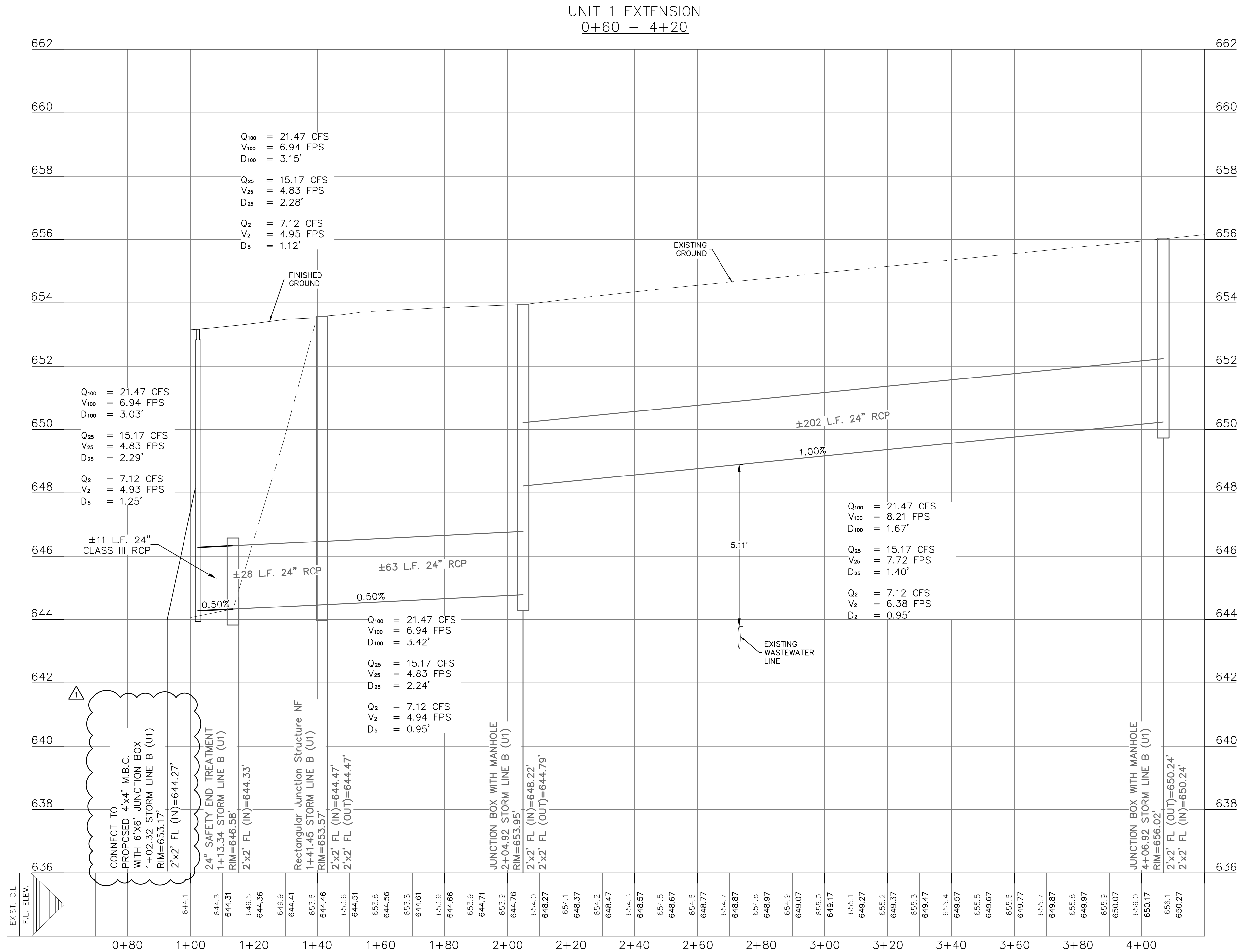
**STORM LINE A
PLAN & PROFILE**
KYNDWOOD SUBDIVISION, UNIT 5
NEW BRAUNFELS, TEXAS

NO.	REVISION DESCRIPTION	REVISION DATE
1	UPDATED JUNCTION BOX	1/22/2026

DATE: **JANUARY 2026**
DRAWN BY: **MK**
DESIGNED BY: **MA**
REVIEWED BY: **MA**
HMT PROJECT NO.: **337.081**

**SHEET
C5.10**

Drawing Name: N:_Projects\337 - Lennar\081 - Kyndwood Subdivision Unit 5 (160 Lots)\CDS\337.081_STORM LINE B (U1).dwg User: edwardu Jan 22, 2026 - 12:02pm



LEGEND	
---	EXISTING CONTOURS
---	PROPOSED CONTOURS
B.L.	BUILDING SETBACK LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
M.B.C.	MULTIPLE BOX CULVERT
---	PROPOSED STORM DRAIN LINE
---	EXISTING STORM DRAIN LINE
---	UTILITY CROSSING

DRAINAGE FEATURES, DETENTION BASIN MAINTENANCE AND EQUIPMENT ACCESS REQUIREMENTS:

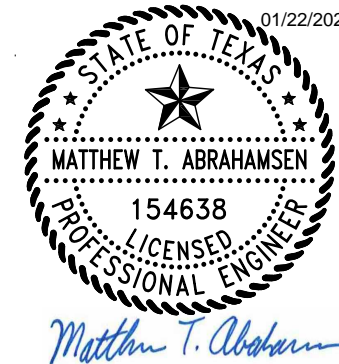
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290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPLES FIRM F-10961
TBPLES FIRM 1053600



UNIT 1 STORM LINE EXTENSION
PLAN & PROFILE
KYNDWOOD SUBDIVISION, UNIT 5
NEW BRAUNFELS, TEXAS

NO.	REVISION DESCRIPTION	REVISION DATE
1	UPDATED JUNCTION BOX	1/22/2026

DATE: JANUARY 2026

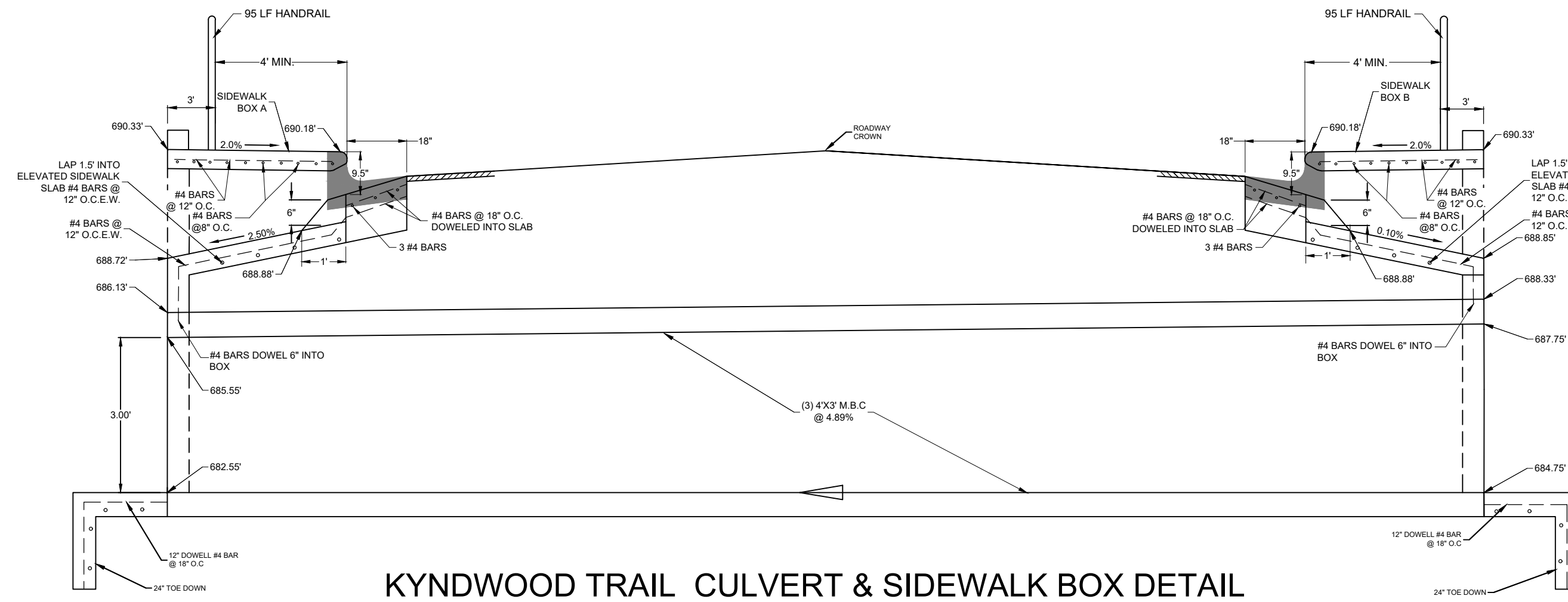
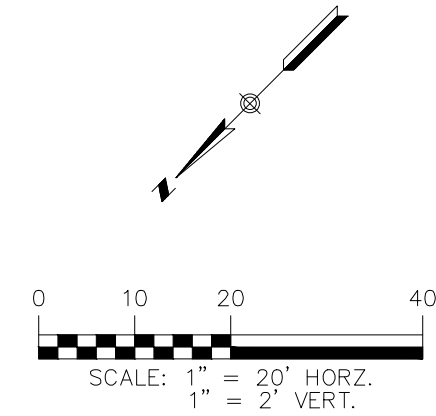
DRAWN BY: MK

DESIGNED BY: MA

REVIEWED BY: MA

HMT PROJECT NO.: 337.081

SHEET
C5.11

[illegible]

SCALE : 1"=5

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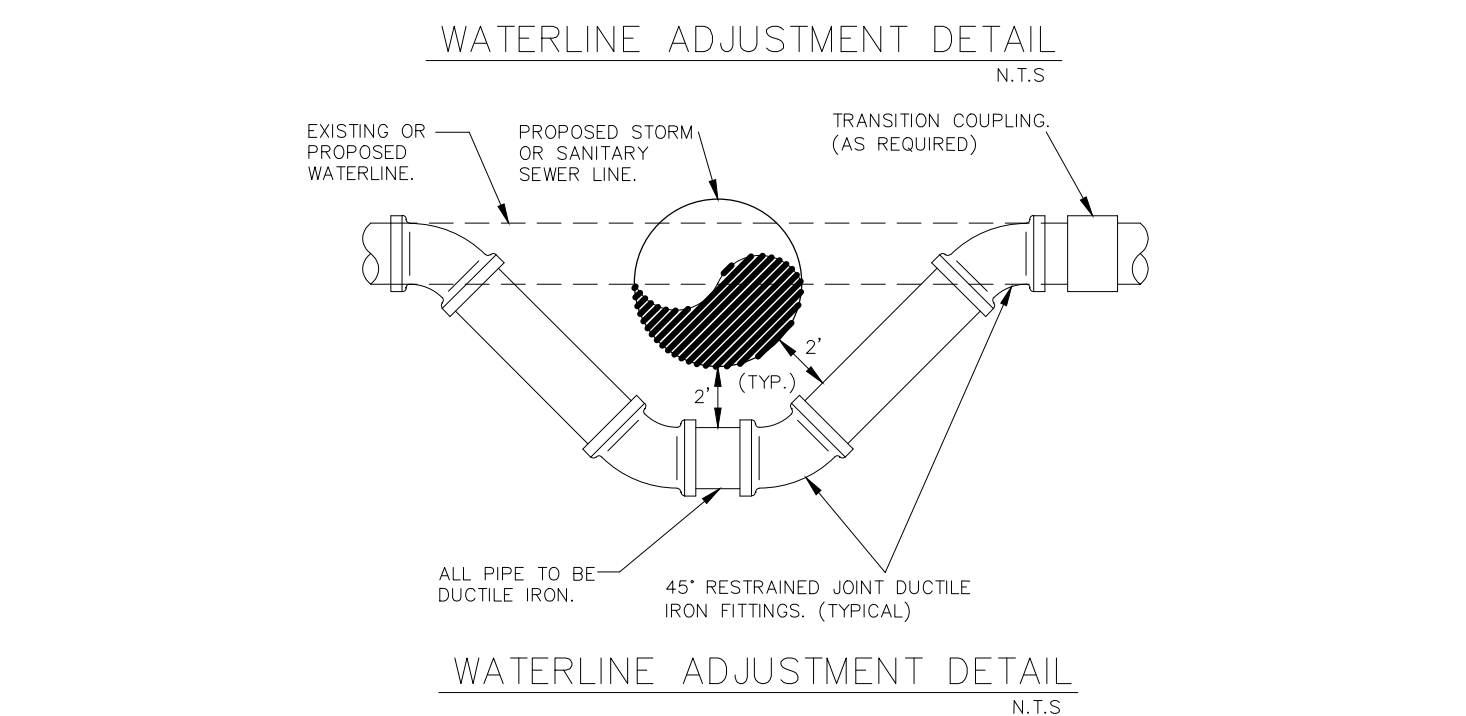
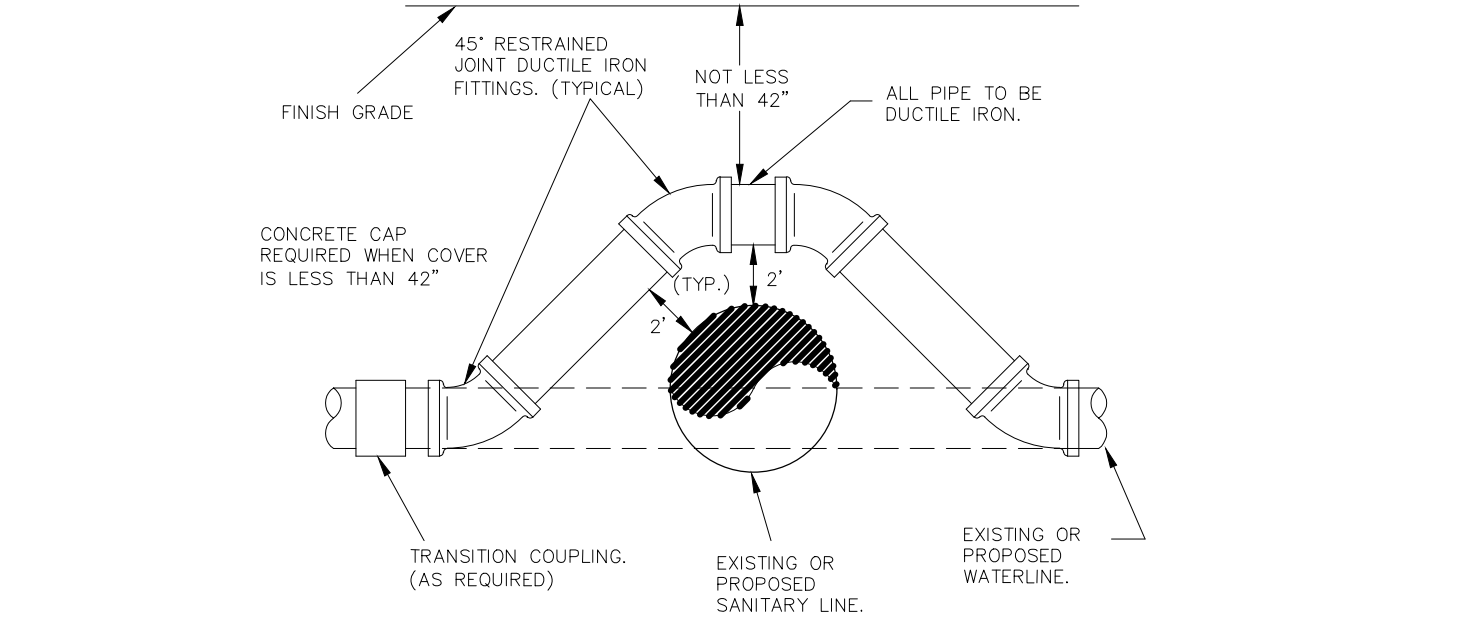
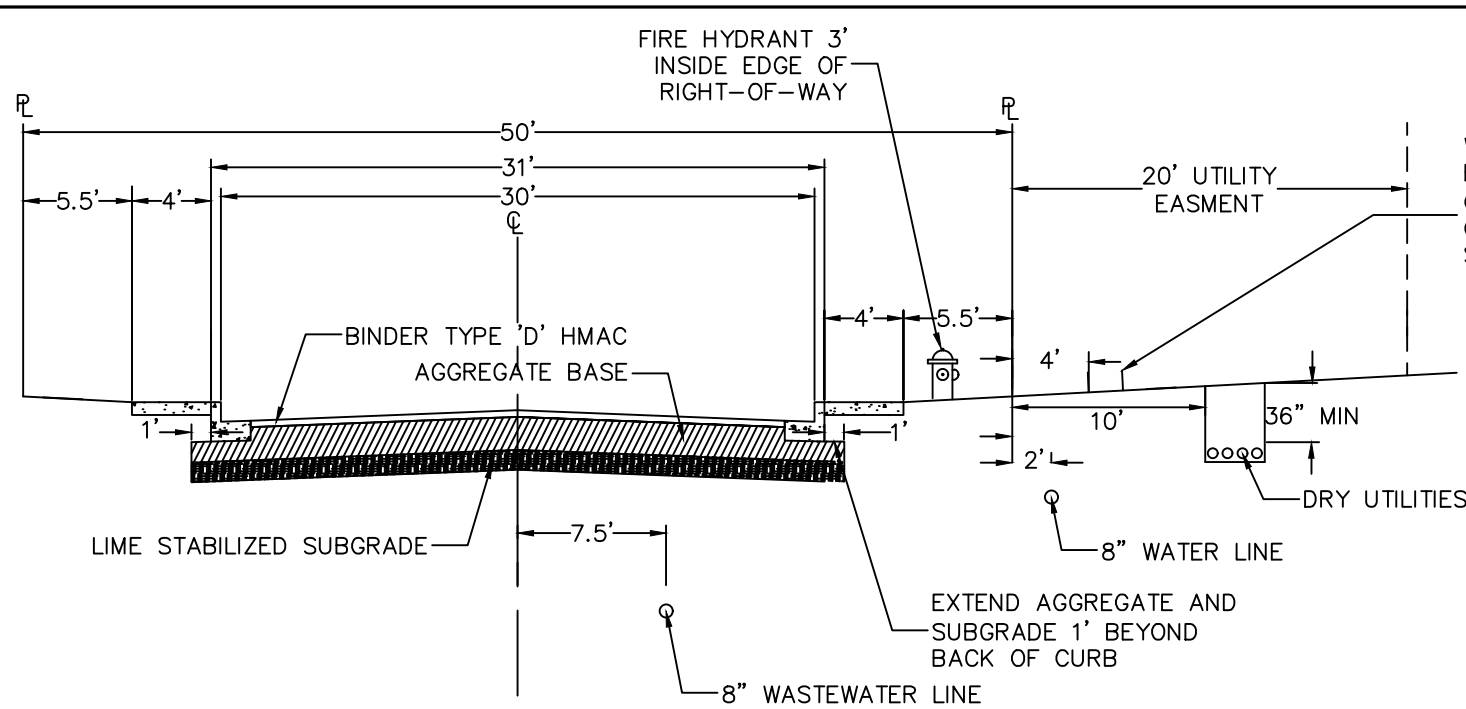
HMT
ENGINEERING & SURVEYING



KYNDWOOD SUBDIVISION, UNIT 5
NEW BRAUNFELS, TEXAS

DATE:	JANUARY 2026
DRAWN BY:	MK
DESIGNED BY:	MA
REVIEWED BY:	MA

SHEET
C5.12



TCEQ WATER MAIN/ WASTEWATER CROSSING NOTES:

WHERE A POTABLE WATERLINE CROSSES A WASTEWATER MAIN OR LATERAL ONE SEGMENT OF THE WATERLINE PIPE SHALL BE CENTERED OVER THE WASTEWATER MAIN OR LATERAL SUCH THAT THE JOINTS OF THE WATERLINE PIPE ARE EQUIDISTANT AND AT LEAST NINE FEET HORIZONTALLY FROM THE CENTERLINE OF THE WASTEWATER MAIN OR LATERAL. THE WASTEWATER MAIN OR LATERAL AT THE CROSSING SHALL BE PRESSURE RATED PIPE (ASTM 224) WITH A MINIMUM RATING OF 160 PSI. WHENEVER POSSIBLE THE CROSSING SHALL BE CENTERED BETWEEN THE JOINTS OF THE WASTEWATER MAIN OR LATERAL.

THE WASTEWATER MAIN OR LATERAL SHALL BE EMBEDDED IN CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 12 INCHES BEYOND THE JOIN ON EACH END. THE CEMENT STABILIZED SAND SHALL HAVE A MINIMUM OF 10% CEMENT PER CUBIC YARD OF CEMENT STABILIZED SAND MIXTURE, BASED ON LOOSE DRY WEIGHT VOLUME (AT LEAST 2.5 BAGS OF CEMENT PER CUBIC YARD OF MIXTURE). THE CEMENT STABILIZED SAND BEDDING SHALL BE A MINIMUM OF SIX INCHES ABOVE AND FOUR INCHES BELOW THE WASTEWATER MAIN OR LATERAL. THE USE OF BROWN COLORING IN CEMENT STABILIZED SAND FOR WASTEWATER MAIN OR LATERAL BEDDING IS RECOMMENDED FOR THE IDENTIFICATION OF PRESSURE RATED WASTEWATER MAINS DURING FUTURE CONSTRUCTION.

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 A 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.

RESTRAINED LENGTH NOTES:

- CONTRACTOR TO COORDINATE WITH CRYSTAL CLEAR SPECIAL UTILITIES DISTRICT (C.C.S.U.D.) FOR WATER AND SEWER SERVICE TO THE SITE.
- ALL IN-LINE VALVES, BENDS & PLUGS SHALL BE RESTRAINED, RESTRAINT TO BE PROVIDED ON EACH SIDE OF THE VALVE, FITTING OR ANY REQUIRED JOINT.
- RL=RESTRAINT LENGTH
- CONTRACTOR SHALL DETERMINE RESTRAINT LENGTH REQUIRED FOR HORIZONTAL VERTICAL FITTINGS BASED ON RESTRAINT LENGTH TABLE SHOWN BELOW.

PIPE INSIDE DIAMETER	MATERIAL	HORIZONTAL BENDS				VERTICAL BENDS				DEAD END/ INCLINE VALVES
		90°	45°	22.5°	11.25°	UPPER	22.5°	11.25°	LOWER	
8"	PVC	32	14	7	4	37	18	9	10	5
8"	DUCTILE IRON	27	11	6	3	24	12	6	8	4
12"	PVC	38	19	9	5	52	25	13	14	7
12"	DUCTILE IRON	45	16	8	4	33	16	8	12	6

PIPE INSIDE DIAMETER OF RUN	PIPE INSIDE DIAMETER OF BRANCH	MATERIAL	FT.
8"	8"	PVC	77
8"	8"	DUCTILE IRON	50
12"	8"	PVC	72
12"	8"	DUCTILE IRON	46
12"	12"	PVC	114
12"	12"	DUCTILE IRON	73

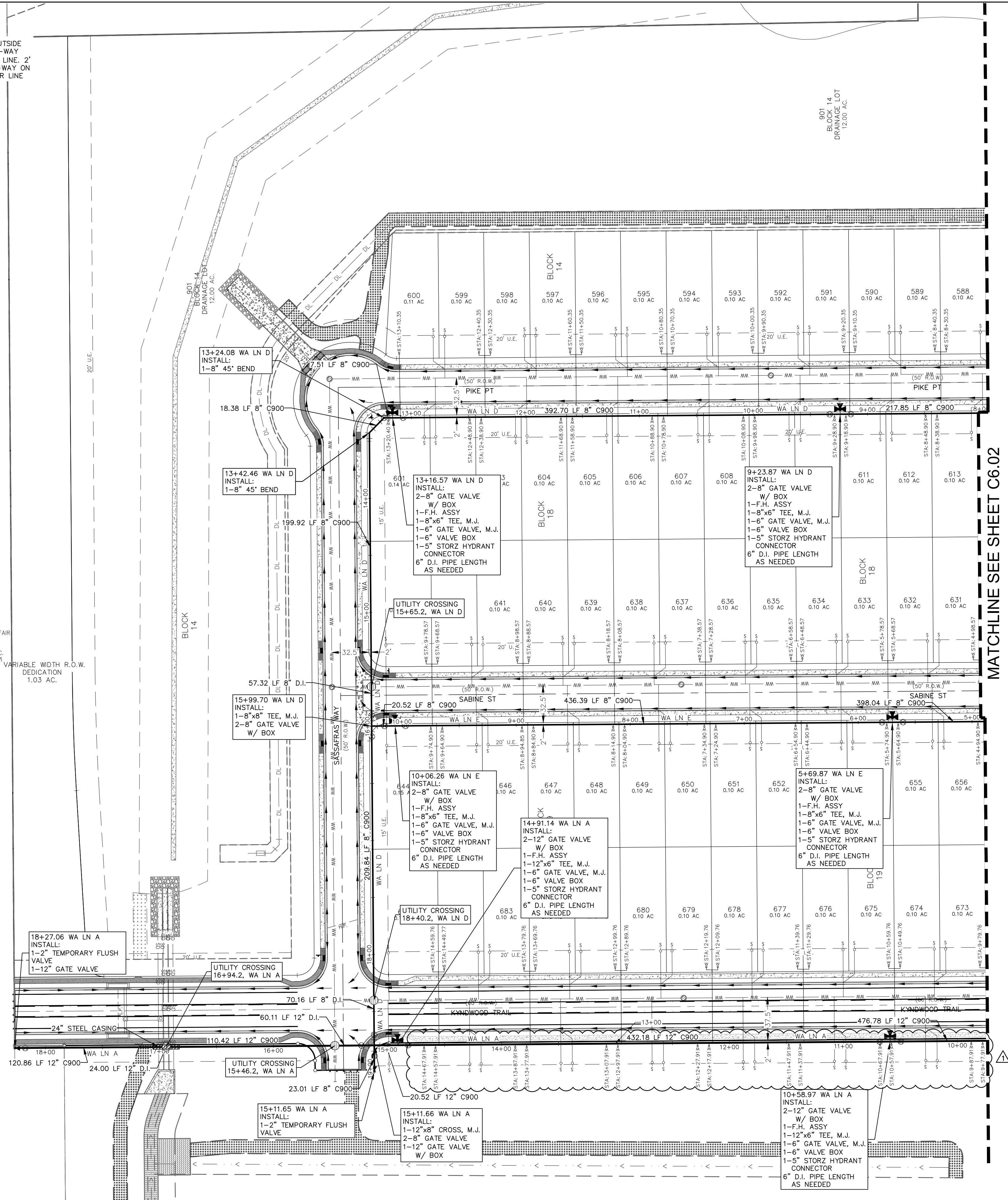
NOTES:

LENGTHS SHOWN ABOVE WERE COMPUTED BASED ON THE FOLLOWING VALUES:

- SAFETY FACTOR = 1.5 TO 1
- TEST PRESSURE = 200psi.
- SOIL DESIGNATION = INORGANIC CLAY OF HIGH PLASTICITY (CH, GRAN. FILL)
- DEPTH OF COVER = 3.5 FEET (TYPICAL AND UPPER BEND)
- DEPTH OF COVER = 5 FEET (LOWER BEND)
- LENGTH ALONG RUN = 2 FEET

SOUTH STAR AT MAYFAIR DEVELOPER, LLC
TRACT TWO
CALLED 635.060 AC.
DOC#202206027253
O.P.R.C.C.T.

VARIABLE WIDTH R.O.W.
DEDICATION
1.03 AC.



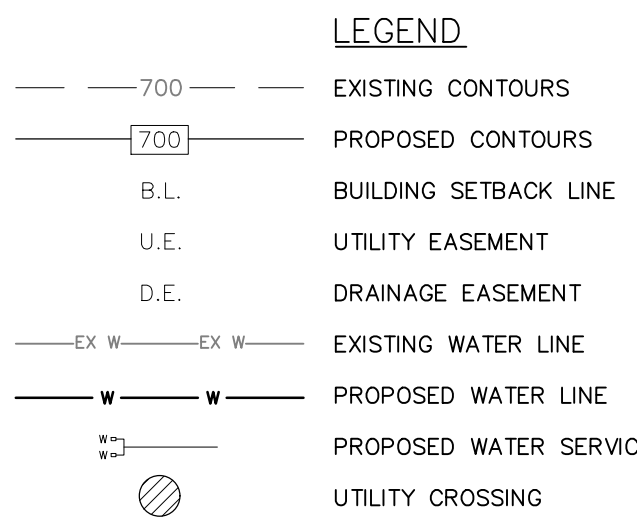
MATCHLINE SEE SHEET C6.02

UTILITY TRENCH COMPACTION (DEEP)

THIS PROJECT INCLUDES UTILITY INSTALLATIONS GREATER THAN 5'-FEET IN DEPTH LOCATED IN PUBLIC RIGHT-OF-WAY OR EASEMENTS. 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.

REFER TO THE COVER SHEET FOR BENCHMARK INFORMATION.

THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR WILL AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES 24-HOURS PRIOR TO COMMENCING CONSTRUCTION.



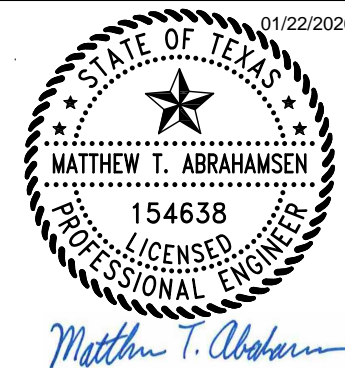
UTILITY NOTES:

- ALL UTILITIES TO BE CONSTRUCTED PRIOR TO THE STREETS.
- NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS OR DRIVEWAYS.
- CONTRACTOR TO VERIFY EXISTING LATERAL HAS A MINIMUM LONGITUDINAL SLOPE OF 2%.
- FIRE HYDRANTS ARE TO BE INSTALLED OUTSIDE OF THE SIDEWALK AND NO GREATER THAN 9 FEET FROM THE BACK OF CURB.

CRYSTAL CLEAR SPECIAL UTILITY DISTRICT (CCSUD) WATER MAIN NOTES

- CONSTRUCTION OF ALL CCSUD WATER UTILITY INFRASTRUCTURE MUST ADHERE TO CCSUD'S TECHNICAL SPECIFICATIONS, DETAILS AND APPROVED EQUIPMENT LIST.
- REMOVE ONLY VEGETATION, TREES, STUMPS, RUBBISH, AND OTHER MATERIAL NECESSARY FOR CONSTRUCTION AND DISPOSE OF OFF SITE.
- THE CONNECTION LOCATIONS LISTED IN THE PLANS ARE BASED ON BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL FIELD LOCATE EXISTING WATER MAIN LOCATIONS AT ALL TIE-IN LOCATIONS TO VERIFY SIZE, ELEVATION, AND MATERIAL PRIOR TO ORDERING MATERIALS FOR CONNECTION.
- THE CONTRACTOR SHALL MAINTAIN MINIMUM SEPARATION BETWEEN UTILITIES PER TCEQ STANDARDS.
- UNLESS OTHERWISE SPECIFIED, ALL PVC WATER MAINS SHALL BE C900 DR 18, COLORED BLUE IN ACCORDANCE WITH SPECIFICATION SECTION 02650 -PVC PIPE FOR WATER MAINS.
- ALL DUCTILE IRON WATER MAINS SHALL BE PRESSURE CLASS CONFORMING TO AWWA C151 AND CEMENT LINED.
- WATER MAINS SHALL BE RESTRAINED WITH RESTRAINT LENGTHS OF FITTINGS SHOWN IN THRUST BLOCKING IS REQUIRED AT ALL FITTINGS AND BENDS IN ACCORDANCE WITH THE THRUST BLOCKING DETAIL PROVIDED AND SPECIFICATION SECTION 02680 - JOINT RESTRAINTS AND THRUST BLOCKING.
- LOCATIONS OF COMBINATION AIR VALVES SHOWN ARE APPROXIMATE. INSTALL AIR RELEASE VALVES AT THE HIGH POINT IN THE WATER MAIN FOR THE LOCATIONS GIVEN.
- THE CONTRACTOR SHALL COORDINATE PRESSURE TESTING OF NEW WATER MAINS WITH OWNER AND ENGINEER AT LEAST TWO BUSINESS DAYS PRIOR. PRESSURE TESTING REQUIREMENTS ARE INCLUDED IN THE SPECIFICATIONS.
- ALL WATER MAINS SHALL BE DISINFECTED PER AWWA AND TCEQ STANDARDS.
- THE OWNER SHALL SUPPLY ALL WATER NEEDED FOR CONSTRUCTION TESTING AND DISINFECTION. THE CONTRACTOR SHALL NOT BE REQUIRED TO PAY FOR THIS WATER.
- UNLESS NOTED OTHERWISE, ALL WATER MAIN P.I.'S SHALL BE ACHIEVED USING THE WATER MAIN MANUFACTURER'S ALLOWABLE JOINT DEFLECTION.
- WATER MAINS, FIRE HYDRANTS, APPURTENANCES, AND VALVES THAT ARE ABANDONED SHALL BE CUT AND PLUGGED PER SPECIFICATION SECTION 02500 -ABANDONMENT OF WATER INFRASTRUCTURE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL AND PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY CCSUD INSPECTOR/TEST ADMINISTRATOR. PER EACH 12-INCH LOOSE LIFT 400 LINEAR FEET AT A MINIMUM. PERMITS WILL NOT BE ACCEPTED AND FINALIZED BY CCSUD WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPBLS FIRM F-10961
TBPBLS FIRM 1053600



OVERALL WATER PLAN (1 OF 2) KYNARDWOOD SUBDIVISION, UNIT 5 NEW BRAUNFELS, TEXAS

REVISION DATE
1/22/2026

REVISION DESCRIPTION
WATER SERVICES ADDED AND FIRE HYDRANT MOVED

DATE: JANUARY 2026

DRAWN BY: MK

DESIGNED BY: MA

REVIEWED BY: MA

HMT PROJECT NO.:
337.081

SHEET
C6.01

- RESTRAINED LENGTH NOTES:
1. CONTRACTOR TO COORDINATE WITH CRYSTAL CLEAR SPECIAL UTILITIES DISTRICT (C.C.S.U.D.) FOR WATER AND SEWER SERVICE TO THE SITE.
 2. ALL IN-LINE VALVES, BENDS & PLUGS SHALL BE RESTRAINED, RESTRAINT TO BE PROVIDED ON EACH SIDE OF THE VALVE, FITTING OR ANY REQUIRED JOINT.
 3. RL=RESTRAINT LENGTH
 4. CONTRACTOR SHALL DETERMINE RESTRAINT LENGTH REQUIRED FOR HORIZONTAL VERTICAL FITTINGS BASED ON RESTRAINT LENGTH TABLE SHOWN BELOW.

RESTRAINED LENGTH FOR PIPE												
PIPE INSIDE DIAMETER	MATERIAL	HORIZONTAL BENDS					VERTICAL BENDS					DEAD END/ INCLINE VALVES
		90°	45°	22.5°	11.25°	45°	UPPER	11.25°	45°	22.5°	11.25°	
8"	PVC	32	14	7	4	37	18	9	10	5	3	88
8"	DUCTILE IRON	27	11	6	3	24	12	6	8	4	2	57
12"	PVC	38	19	9	5	52	25	13	14	7	4	124
12"	DUCTILE IRON	45	16	8	4	33	16	8	12	6	3	80

TEE			
PIPE INSIDE DIAMETER OF RUN	PIPE INSIDE DIAMETER OF BRANCH	MATERIAL	FT.
8"	8"	PVC	77
8"	8"	DUCTILE IRON	50
12"	8"	PVC	72
12"	8"	DUCTILE IRON	46
12"	12"	PVC	114
12"	12"	DUCTILE IRON	73

- NOTES:
- LENGTHS SHOWN ABOVE WERE COMPUTED BASED ON THE FOLLOWING VALUES:
- 1) SAFETY FACTOR = 1.5 TO 1
 - 2) TEST PRESSURE = 200psi.
 - 3) SOIL DESIGNATION = INORGANIC CLAY OF HIGH PLASTICITY (CH, GRAN. FILL)
 - 4) DEPTH OF COVER = 3.5 FEET (TYPICAL W/OD UPPER BEND)
 - 5) DEPTH OF COVER = 5 FEET (LOWER BEND)
 - 6) LENGTH ALONG RUN = 2 FEET

TCEQ WATER MAIN/ WASTEWATER CROSSING NOTES:

WHERE A POTABLE WATERLINE CROSSES A WASTEWATER MAIN OR LATERAL ONE SEGMENT OF THE WATERLINE PIPE SHALL BE CENTERED OVER THE WASTEWATER MAIN OR LATERAL SUCH THAT THE JOINTS OF THE WATERLINE PIPE ARE EQUIDISTANT AND AT LEAST NINE FEET HORIZONTALLY FROM THE CENTERLINE OF THE WASTEWATER MAIN OR LATERAL. THE WASTEWATER MAIN OR LATERAL, AT THE CROSSING SHALL BE PRESSURE RATED PIPE (ASTM 224) WITH A MINIMUM RATING OF 160 PSI. WHENEVER POSSIBLE THE CROSSING SHALL BE CENTERED BETWEEN THE JOINTS OF THE WASTEWATER MAIN OR LATERAL.

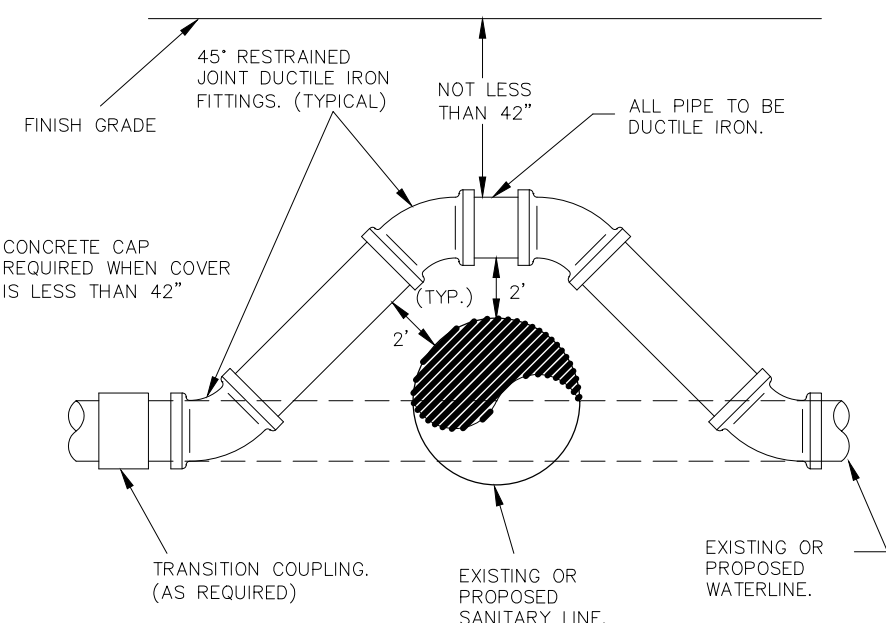
THE WASTEWATER MAIN OR LATERAL SHALL BE EMBEDDED IN CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 12 INCHES BEYOND THE JOIN ON EACH END. THE CEMENT STABILIZED SAND SHALL HAVE A MINIMUM OF 10% CEMENT PER CUBIC YARD OF CEMENT STABILIZED SAND MIXTURE, BASED ON LOOSE DRY WEIGHT VOLUME (AT LEAST 2.5 BAGS OF CEMENT PER CUBIC YARD OF MIXTURE). THE CEMENT STABILIZED SAND BEDDING SHALL BE A MINIMUM OF SIX INCHES ABOVE AND FOUR INCHES BELOW THE WASTEWATER MAIN OR LATERAL. THE USE OF BROWN COLORING IN CEMENT STABILIZED SAND FOR WASTEWATER MAIN OR LATERAL BEDDING IS RECOMMENDED FOR THE IDENTIFICATION OF PRESSURE RATED WASTEWATER MAINS DURING FUTURE CONSTRUCTION.

UTILITY TRENCH COMPACTION

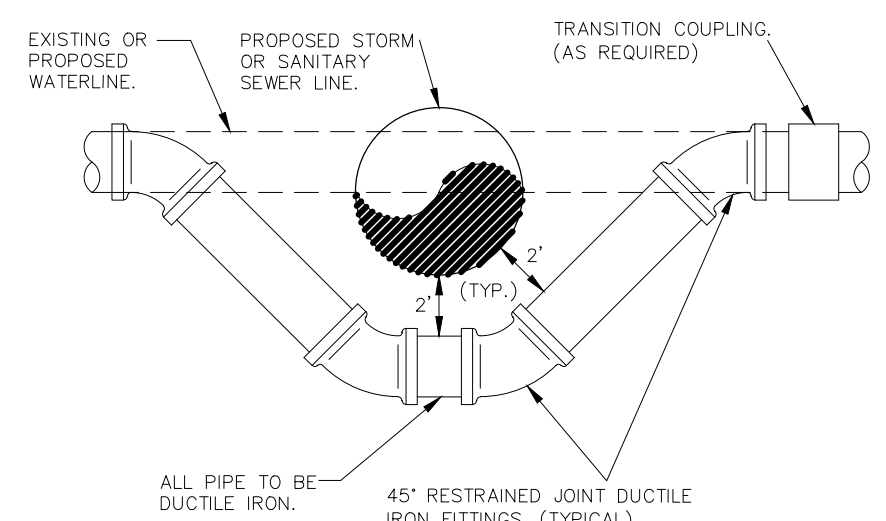
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UTILITY TRENCH COMPACTION (DEEP)

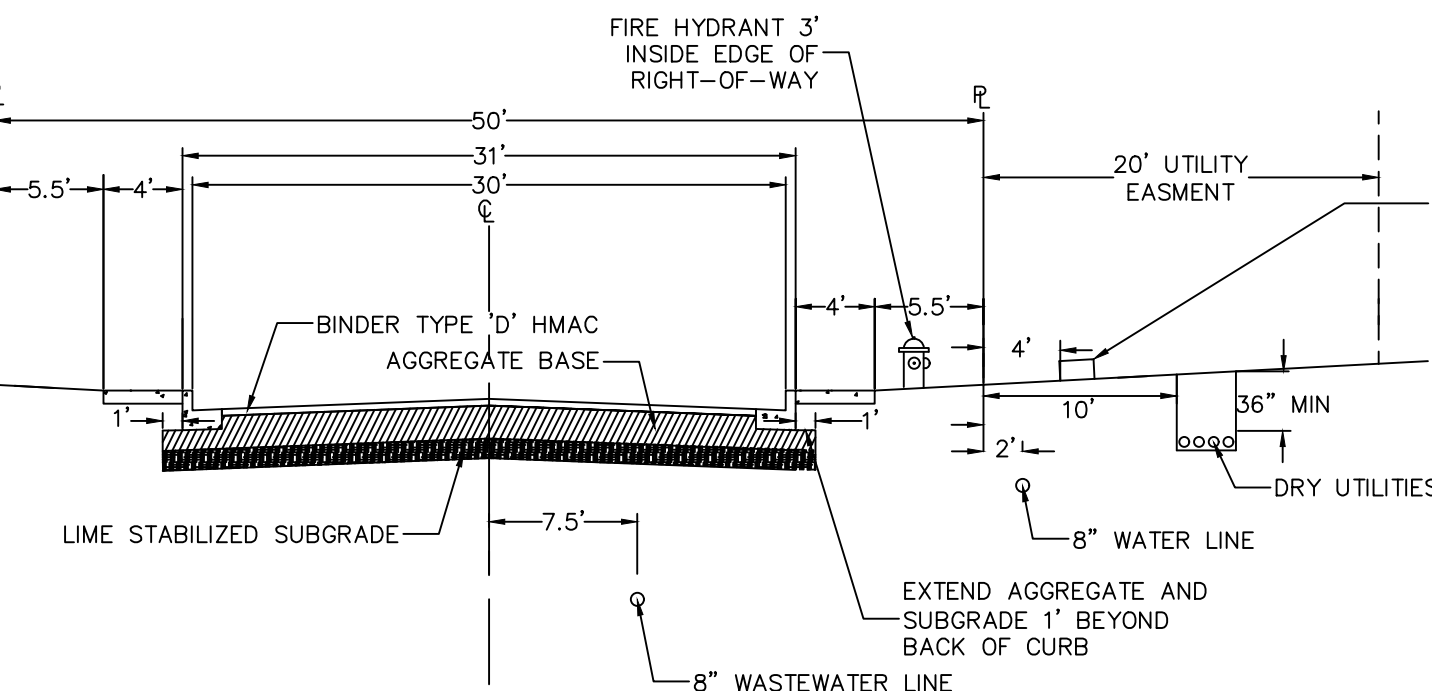
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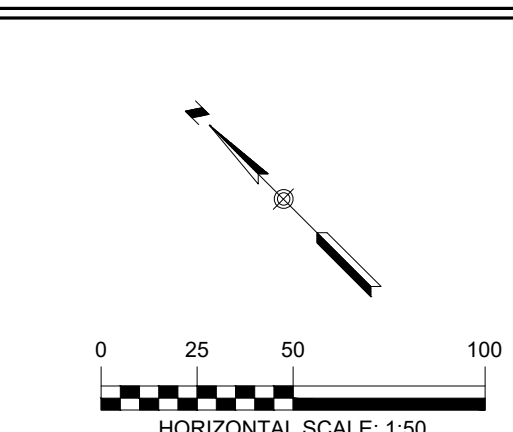
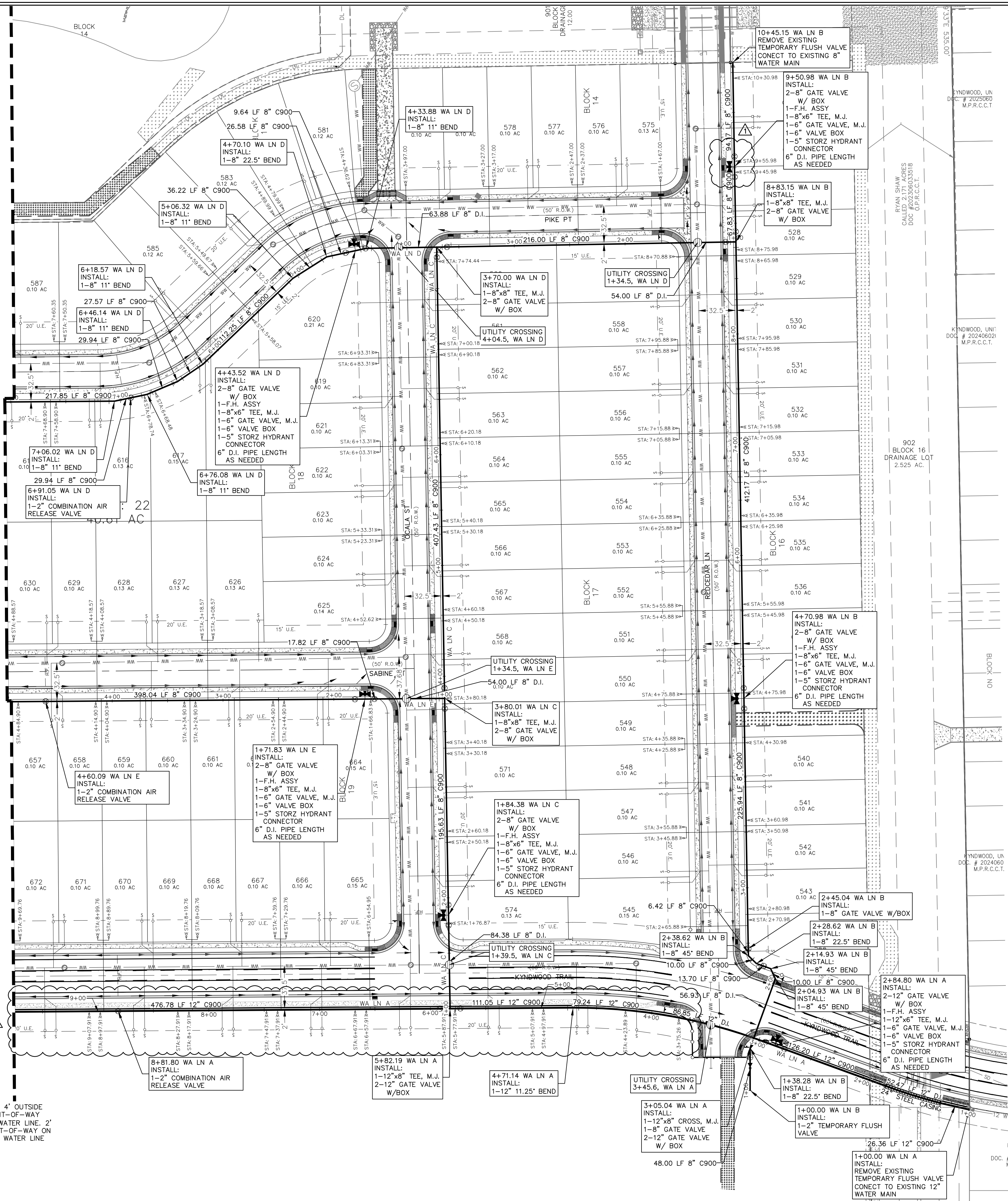
WATERLINE ADJUSTMENT DETAIL
N.T.S.



WATERLINE ADJUSTMENT DETAIL
N.T.S.



MATCHLINE
SEE SHEET C6.01



- LEGEND
- 700 — EXISTING CONTOURS
 - 700 — PROPOSED CONTOURS
 - B.L. BUILDING SETBACK LINE
 - U.E. UTILITY EASEMENT
 - D.E. DRAINAGE EASEMENT
 - EX W — EX W — EXISTING WATER LINE
 - W — W — PROPOSED WATER LINE
 - W — W — PROPOSED WATER SERVICE
 - W — W — UTILITY CROSSING

UTILITY NOTES:

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4. FIRE HYDRANTS ARE TO BE INSTALLED OUTSIDE OF THE SIDEWALK AND NO GREATER THAN 9 FEET FROM THE BACK OF CURB.

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7. WATER MAINS SHALL BE RESTRAINED WITH RESTRAINT LENGTHS OF FITTINGS SHOWN IN THRUST BLOCKING IS REQUIRED AT ALL FITTINGS AND BENDS IN ACCORDANCE WITH THE THRUST BLOCKING DETAIL PROVIDED AND SPECIFICATION SECTION 02680 - JOINT RESTRAINTS AND THRUST BLOCKING.
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290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPLS FIRM F-10961
TBPLS FIRM 1053600

HMT
ENGINEERING & SURVEYING

Matthew T. Abrahamson

OVERALL WATER PLAN
(2 OF 2)

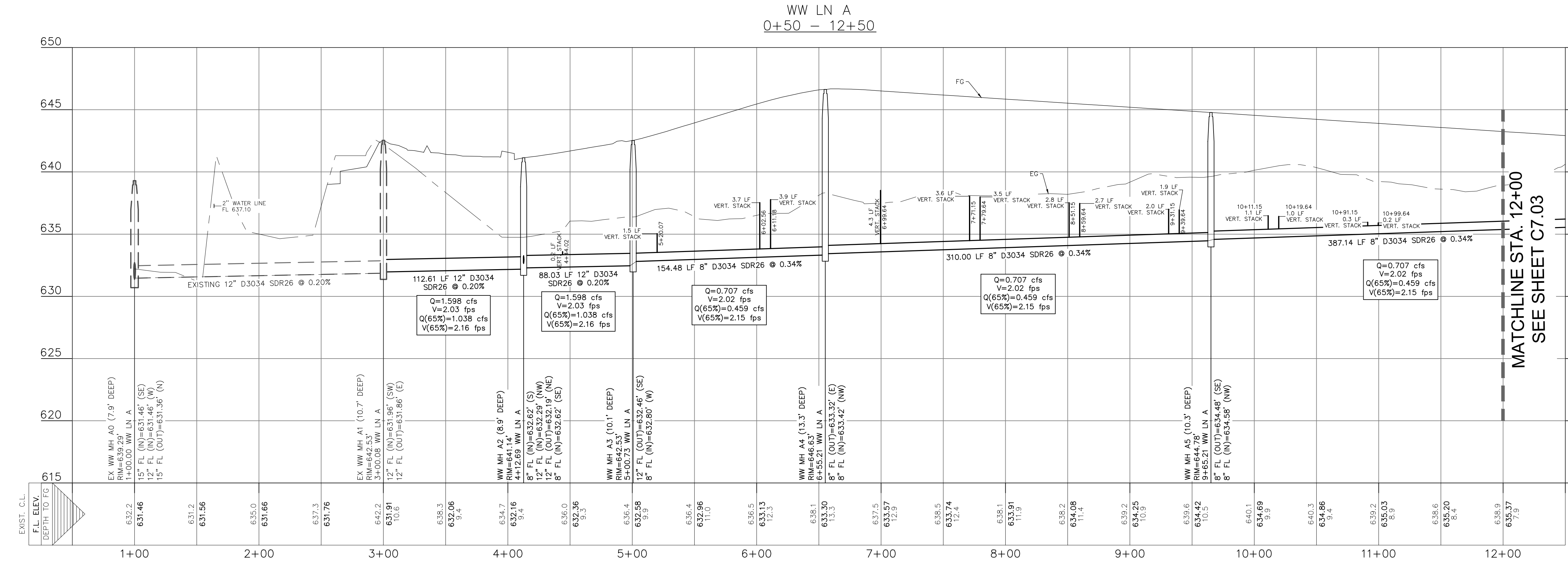
KYNDWOOD SUBDIVISION, UNIT 5
NEW BRAUNFELS, TEXAS

NO.	REVISION DESCRIPTION	REVISION DATE
1	WATER SERVICES ADDED AND FIRE HYDRANT MOVED	1/22/2026

DATE: **JANUARY 2026**
DRAWN BY: **MK**
DESIGNED BY: **MA**
REVIEWED BY: **MA**
HMT PROJECT NO.: **337.081**

SHEET
C6.02

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 AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) 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 EXCAVATIONS.



UTILITY TRENCH COMPACTION (DEEP)
CITY REQUIREMENTS FOR TESTING SHALL BE ADHERED TO, IN CASES WHERE TRENCH DEPTHS DO NOT ALLOW TECHNICIANS ACCESS, METHODS FOR TESTING SHALL BE PROPOSED AND APPROVED PRIOR TO CONSTRUCTION COMMENCING.

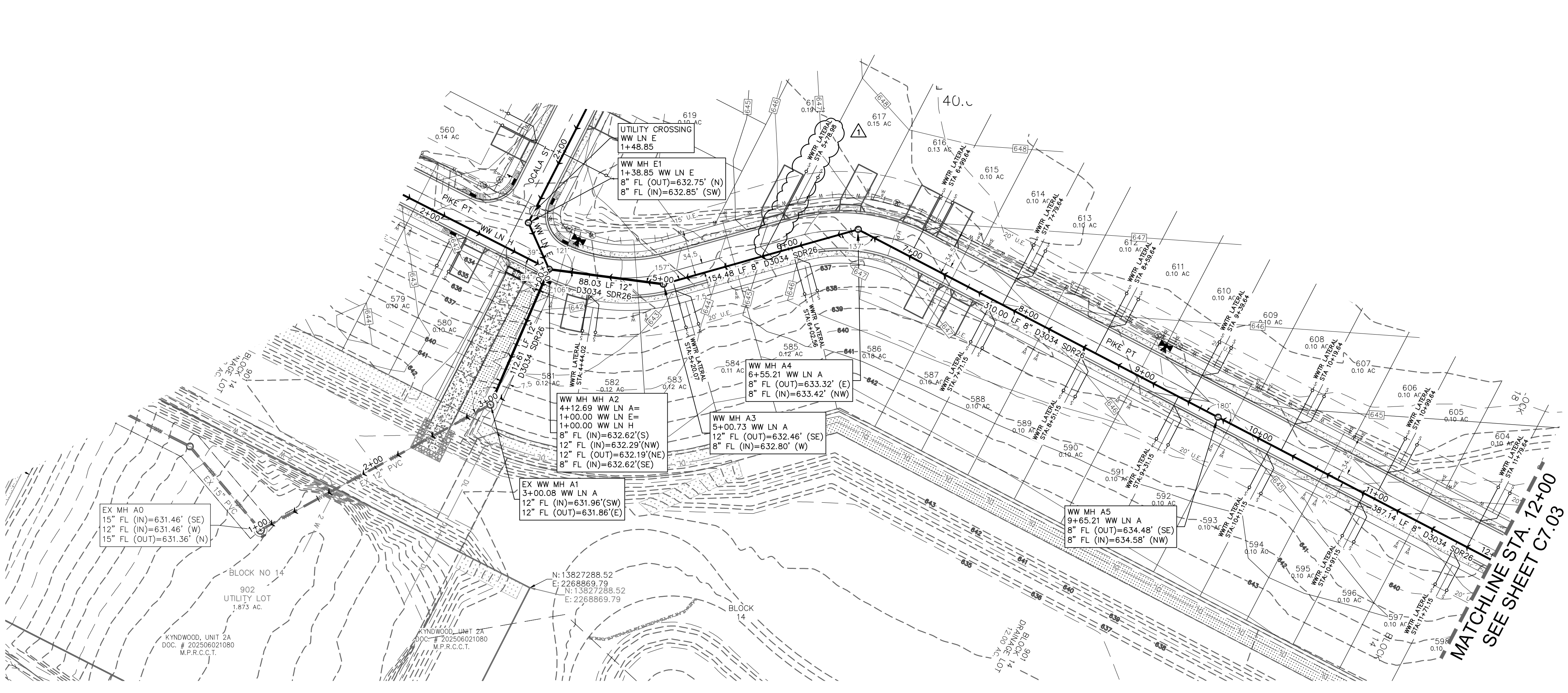
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IN ACCORDANCE WITH TEST METHODS TEX-113-E, TEX-114-E, TEX-115-E, THE NUMBER AND LOCATION OF REQUIRED TESTS SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY OF NEW BRAUNFELS STREET INSPECTOR. AT A MINIMUM, TESTS SHALL BE TAKEN 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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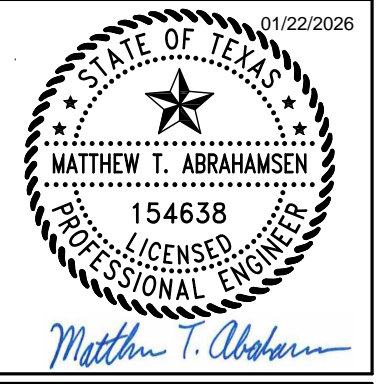
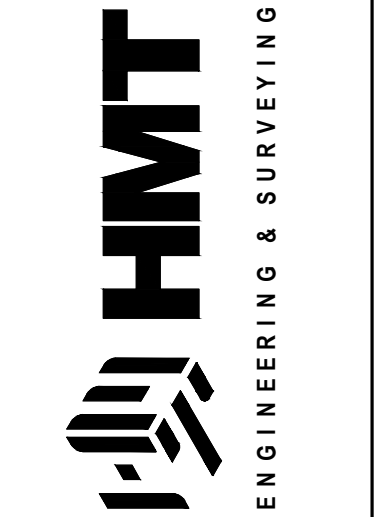


- LEGEND**
- 700 EXISTING CONTOURS
 - 700 PROPOSED CONTOURS
 - B.L. BUILDING SETBACK LINE
 - U.E. UTILITY EASEMENT
 - D.E. DRAINAGE EASEMENT
 - WW EXISTING WASTEWATER LINE
 - PROPOSED WASTEWATER MANHOLE
 - PROPOSED WASTEWATER LINE
 - PROPOSED WASTEWATER SERVICE
 - UTILITY CROSSING

- UTILITY NOTES:**
- ALL UTILITIES TO BE CONSTRUCTED & TESTED PRIOR TO THE STREETS.
 - NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS OR DRIVEWAYS.
 - ALL SEWER PIPE ASTM D3034 (TYPICAL OF OTHER SHEETS) (115 PSI) SDR 26 UNLESS CALLED OUT OTHERWISE.
 - REFER TO THE COVER SHEET FOR BENCHMARK INFORMATION.
 - AT WATER CROSSINGS INCLUDING FIRE HYDRANT LEADS, WHITE COLOR GASKETED ASTM D2241 SDR 26 PIPE AND FITTINGS SHALL BE USED FOR MAINS AND LATERALS.
 - REFER TO ALL CCUSD NOTES ON SHEET C0.02.

- CRYSTAL CLEAR SPECIAL UTILITY DISTRICT (CCSUD) WASTEWATER NOTES**
- THE CONTRACTOR SHALL MAINTAIN SERVICE TO EXISTING WASTEWATER SYSTEM AT ALL TIMES DURING CONSTRUCTION.
 - A MINIMUM OF 8" WASTEWATER PIPE AND FITTINGS (P.V.C. SDR-26, ASTM, D3034, D-3212, F-477) ARE REQUIRED ON NEW INSTALLATION.
 - ALL RESIDENTIAL WASTEWATER SERVICE LATERALS SHALL BE EXTENDED TO THE PROPERTY LINE AND CLEANOUT SHALL BE INSTALLED AT THE PROPERTY LINE. SERVICES TO LOTS WILL EXTEND FOUR (4) FEET PAST THE UNDERGROUND ELECTRIC CONDUIT IF ELECTRIC IS INSTALLED IN THE FRONT EASEMENT. ALL SEWER CLEANOUTS THAT LEAD TO CCUSD MAINS SHALL BE INSTALLED WITH A PROTECTIVE UTILITY SHROUD AND PIVOTING MARKER POLE DURING TIME OF CONSTRUCTION.
 - PIPE BEDDING MATERIAL OF WASTEWATER MAINS SHALL BE COMPOSED OF WELL GRADED, CRUSHED STONE, OR GRAVEL PER SECTION 01230 OF CCUSD'S SPECIFICATIONS.
 - SECONDARY AND GENERAL BACKFILL OF WASTEWATER MAINS SHALL BE APPROVED SOIL MATERIALS FOR BACKFILL AND FILL, FREE OF CLAY, ROCK, OR GRAVEL LARGER THAN 2-INCHES IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, VEGETABLE, AND OTHER ORGANIC MATTER AND DELICTERIOUS MATERIALS. PREVIOUSLY EXCAVATED MATERIALS MEETING THESE REQUIREMENTS MAY BE USED FOR BACKFILL.
 - ALL WASTEWATER MAINS SHALL HAVE COMPRESSION OR MECHANICAL JOINTS AS PER 30 TAC §217.53 (C) (2).
 - FOR WASTEWATER LINES LESS THAN 24" IN DIAMETER, SELECT INITIAL BACKFILL MATERIAL SHALL BE PLACED IN TWO LIFTS.
 - THE FIRST LIFT SHALL BE SPREAD UNIFORMLY AND SIMULTANEOUSLY ON EACH SIDE AND UNDER THE SHOULDERS OF THE PIPE TO THE MID POINT OR SPRING LINE OF THE PIPE.
 - THE SECOND LIFT SHALL BE PLACED TO A DEPTH AS SHOWN ON THE PIPE BACKFILL DETAIL. MAINS LARGER THAN 24", 12" MAXIMUM LIFTS SHALL BE USED.
 - ALL MANHOLES MUST BE WATERTIGHT, EITHER MONOLITHIC, CAST-IN-PLACE CONCRETE STRUCTURES OR PREFABRICATED MANHOLES SPECIFICALLY APPROVED BY THE MANHOLES SHALL HAVE WATER-TIGHT RINGS AND COVERS. WHEREVER THEY ARE WITHIN THE 100 YEAR FLOODPLAIN, THE MANHOLE COVERS SHALL BE EVERY THIRD MANHOLE IN SEQUENCE SHALL HAVE AN ALTERNATE MEANS OF VENTING. 30 TAC §213.5 (C) (3) (A) AND 30 TAC §217.55 (O).
 - ALL MANHOLES SHALL BE CONSTRUCTED SO THAT THE TOP OF THE RING IS TWO INCHES (2") ABOVE SURROUNDING GROUND EXCEPT WHEN LOCATED IN PAVED AREA. IN PAVED AREAS, THE MANHOLE RING SHALL BE FLUSH WITH PAVEMENT.
 - ALL NEW MANHOLES, UNLESS APPROVED BY CCUSD, ARE TO HAVE COVERS WITH 32" OPENINGS.
 - WASTEWATER MAIN CONNECTIONS TO PRE-CAST MANHOLES WILL BE COMPRESSION JOINTS OR MECHANICAL "BOOT TYPE" JOINT AS APPROVED BY CCUSD.
 - WASTEWATER MAINS SHALL BE TESTED FROM MANHOLE TO MANHOLE.
 - IN AREAS WHERE A NEW WASTEWATER MANHOLE IS TO BE CONSTRUCTED OVER AN EXISTING WASTEWATER SYSTEM, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO TEST THE EXISTING MANHOLES BEFORE CONSTRUCTION. AFTER THE PROPOSED MANHOLE(S) HAS BEEN BUILT, THE CONTRACTOR SHALL RE-TEST THE EXISTING SYSTEM TO THE SATISFACTION OF THE CONSTRUCTION INSPECTOR. (NO SEPARATE PAY ITEM).
 - WHERE THE MINIMUM 9 FOOT SEPARATION DISTANCE BETWEEN WASTEWATER LINES AND WATER LINES CANNOT BE MAINTAINED, THE INSTALLATION OF WATER LINES SHALL BE IN STRICT ACCORDANCE WITH TCEQ. THE WASTEWATER LINE SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC MEETING THE ASTM SPECIFICATION FOR BOTH PIPES AND JOINTS OF 160 PSI AND SHALL BE IN ACCORDANCE WITH 30 TAC § 217.53 (D) AND 30 TAC § 290.44 (E).
 - NO TESTING WILL BE PERFORMED PRIOR TO 30 DAYS FROM COMPLETE INSTALLATION OF THE WASTEWATER LINES. THE FOLLOWING SEQUENCE WILL BE STRICTLY ADHERED TO:
 - PULL MANDREL
 - PERFORM AIR TEST
 - CLEANING OF ANY DEBRIS
 - FLUSHING OF SYSTEM
 - TV INSPECTION (WITHIN 72 HOURS OF FLUSHING)
 - A MINIMUM OF 3 FEET OF COVER IS TO BE MAINTAINED OVER THE WASTEWATER MAIN AND LATERALS AT SUBGRADE. OTHERWISE CONCRETE EASEMENT WILL BE REQUIRED.
 - TCEQ AND EPA REQUIRE EROSION AND SEDIMENTATION CONTROL FOR THE CONSTRUCTION OF WASTEWATER COLLECTION SYSTEMS. DEVELOPER OR AUTHORIZED REPRESENTATIVE SHALL PROVIDE EROSION AND SEDIMENTATION CONTROL AS NOTES ON THE PROJECTS PLAN AND PROFILE SHEETS. ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED BY THE CONTRACTOR AT FINAL ACCEPTANCE OF THE PROJECT BY CCUSD.
 - ALL MANHOLES NOT WITHIN PAVED STREETS SHALL HAVE LOCKING CONCRETE COLLAR TO SECURE RING AND COVER TO MANHOLE CONE PER CCUSD DETAIL DRAWING #329.
 - ALL MANHOLES OVER THE EDWARDS AQUIFER RECHARGE ZONE SHALL HAVE LOCKING CONCRETE COLLAR TO SECURE RING AND COVER TO MANHOLE CONE PER CCUSD DETAIL DRAWING #329.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL AND PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY CCUSD INSPECTOR/TEST ADMINISTRATOR, PER EACH 12-INCH LOOSE LIFT 400 LINEAR FEET AT A MINIMUM. PERMITS WILL NOT BE ACCEPTED AND FINALIZED BY CCUSD WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPB'S FIRM F-10961
TBPB'S FIRM 1053600



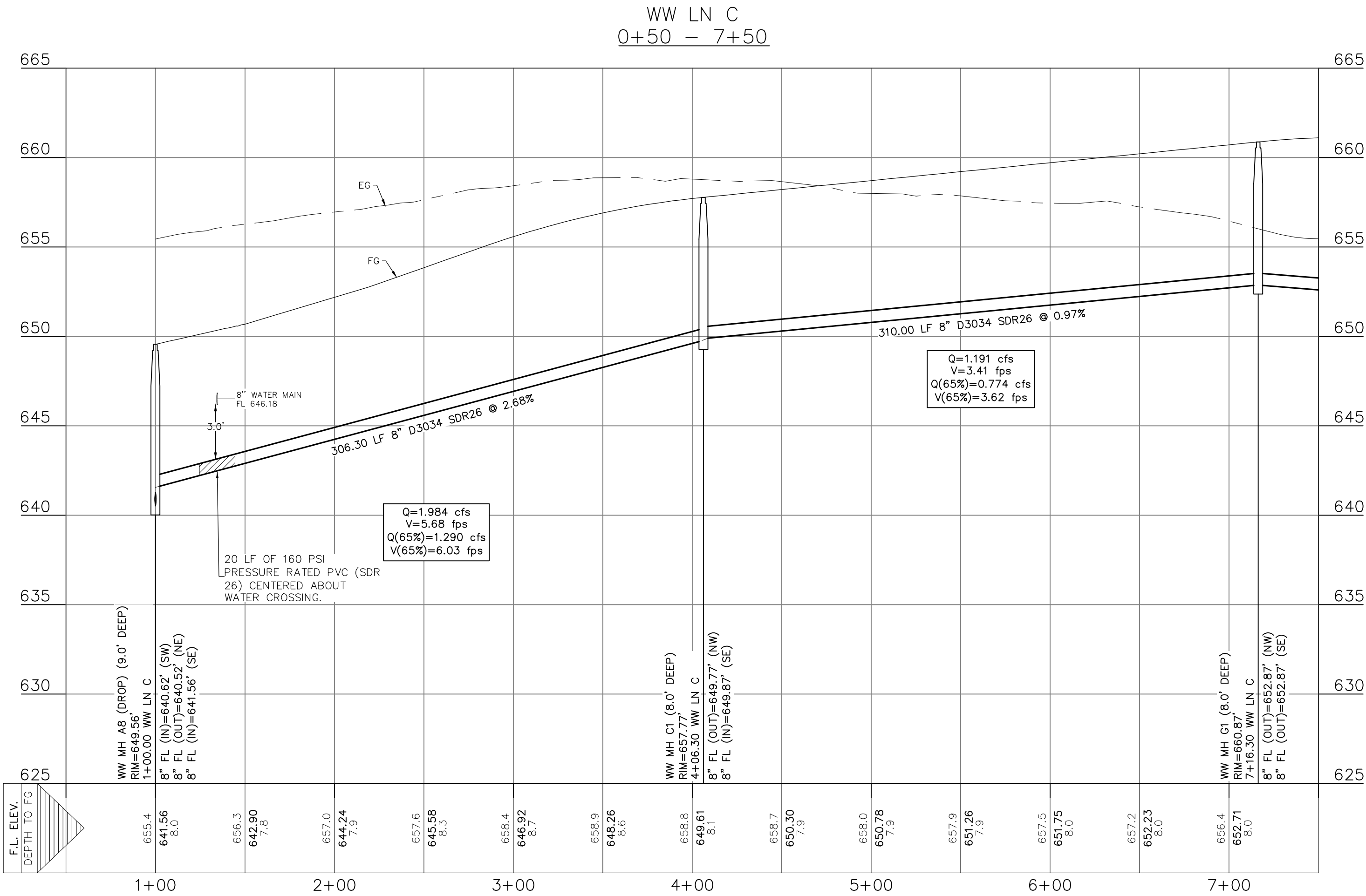
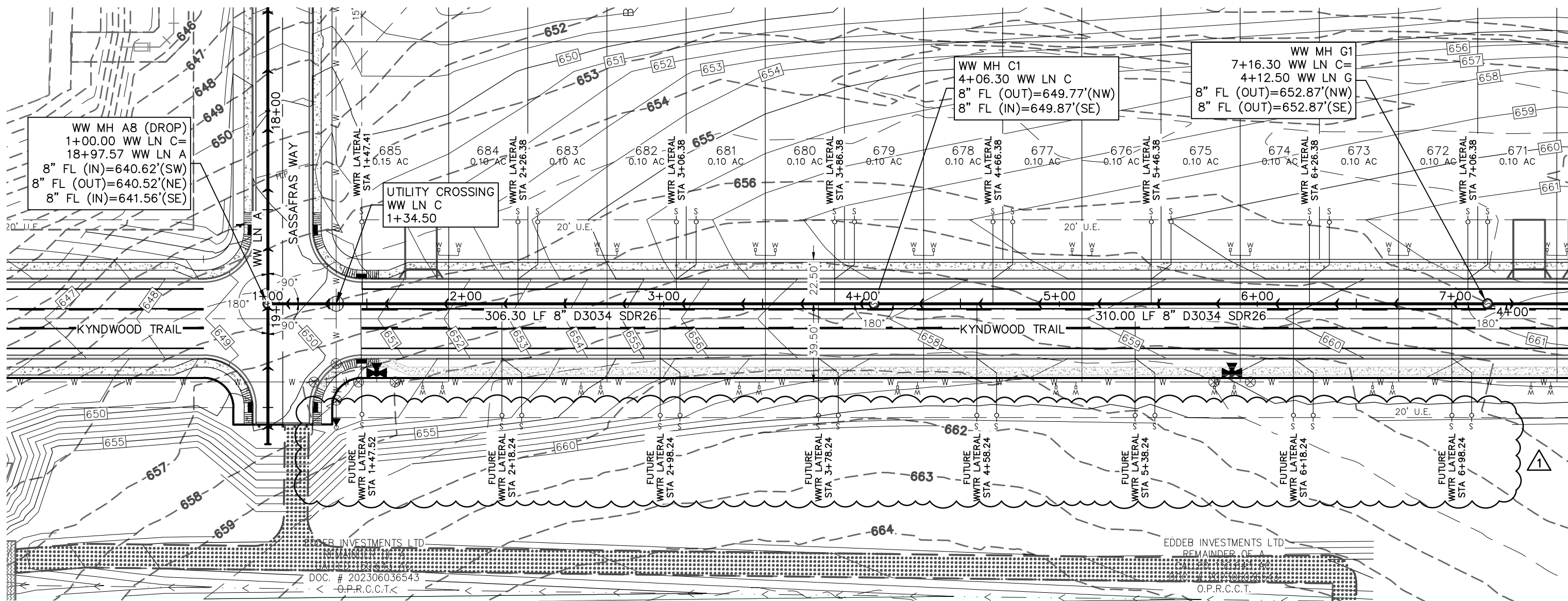
WASTEWATER LINE A PLAN AND PROFILE (1 OF 2)
KYNDWOOD SUBDIVISION, UNIT 5
NEW BRAUNFELS, TEXAS

NO.	REVISION DESCRIPTION	REVISION DATE
1	WASTEWATER SERVICE UPDATED	1/22/2026

DATE: JANUARY 2026
DRAWN BY: MK
DESIGNED BY: MA
REVIEWED BY: MA

HMT PROJECT NO.: 337.081
SHEET C7.02

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 AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) 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 EXCAVATIONS.



UTILITY TRENCH COMPACTION (DEEP)
CITY REQUIREMENTS FOR TESTING SHALL BE ADHERED TO, IN CASES WHERE TRENCH DEPTHS DO NOT ALLOW TECHNICIANS ACCESS, METHODS FOR TESTING SHALL BE PROPOSED AND APPROVED PRIOR TO CONSTRUCTION COMMENCING.

THIS PROJECT INCLUDES UTILITY INSTALLATIONS GREATER THAN 5- FEET IN DEPTH LOCATED IN PUBLIC RIGHT-OF-WAY OR EASEMENTS. 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.

THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR WILL AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES 24-HOURS PRIOR TO COMMENCING CONSTRUCTION.

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPBLS FIRM F-10961
TBPBLS FIRM 1053600

HMT
ENGINEERING & SURVEYING

0 25 50 100
SCALE: 1" = 50' HORIZ.
SCALE: 1" = 5' VERT.

LEGEND

- 700 EXISTING CONTOURS
- 700 PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- U.E. UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- WW EXISTING WASTEWATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER LINE
- PROPOSED WASTEWATER SERVICE
- UTILITY CROSSING

UTILITY NOTES:

- ALL UTILITIES TO BE CONSTRUCTED & TESTED PRIOR TO THE STREETS.
- NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS OR DRIVEWAYS.
- ALL SEWER PIPE ATSM D3034(TYPICAL OF OTHER SHEETS) (115 PSI) SDR 26 UNLESS CALLED OUT OTHERWISE.
- REFER TO THE COVER SHEET FOR BENCHMARK INFORMATION.
- AT WATER CROSSINGS INCLUDING FIRE HYDRANT LEADS, WHITE COLOR GASKETED ASTM D2241 SDR 26 PIPE AND FITTINGS SHALL BE USED FOR MAINS AND LATERALS.
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290 S. CASTELL AVE., STE. 100
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HMT
ENGINEERING & SURVEYING

01/22/2026
MATTHEW T. ABRAHAMSEN
154638
PROFESSIONAL ENGINEER
Matthew T. Abraham

**WASTEWATER LINE C
PLAN AND PROFILE**

KYNDWOOD SUBDIVISION, UNIT 5
NEW BRAUNFELS, TEXAS

NO.	REVISION	DESCRIPTION	REVISION DATE
1	WASTEWATER	SERVICES UPDATED	1/22/2026

DATE: **JANUARY 2026**

DRAWN BY: **MK**

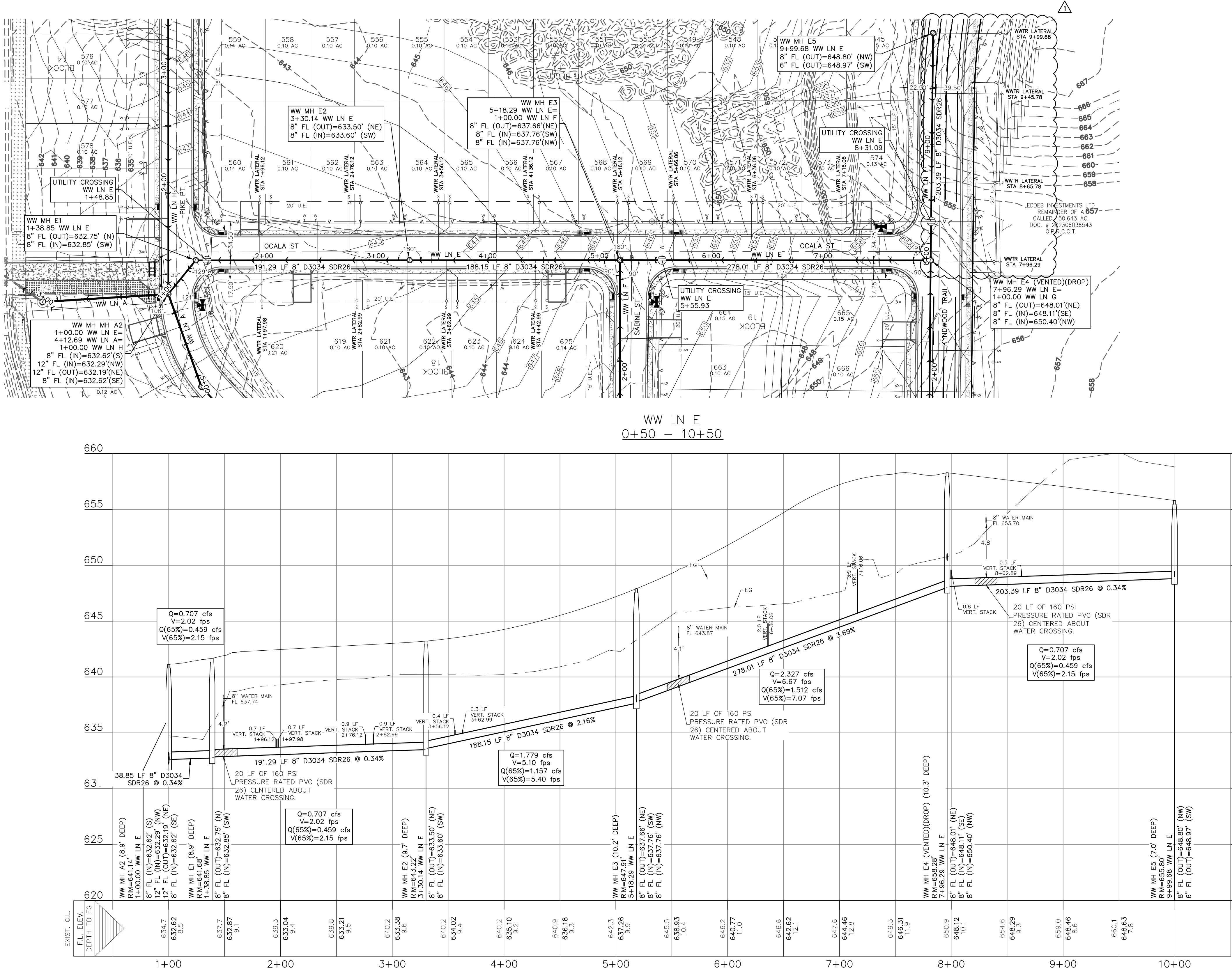
DESIGNED BY: **MA**

REVIEWED BY: **MA**

HMT PROJECT NO.: **337.081**

SHEET
C7.05

TRENCH EXCAVATION SAFETY PROTECTION
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LEGEND

- 700 EXISTING CONTOURS
- 700 PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- U.E. UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- WW EXISTING WASTEWATER LINE
- PROPOSED WASTEWATER MANHOLE
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UTILITY NOTES:

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- WASTEWATER MAINS SHALL BE TESTED FROM MANHOLE TO MANHOLE.
- IN AREAS WHERE A NEW WASTEWATER MANHOLE IS TO BE CONSTRUCTED OVER AN EXISTING WASTEWATER SYSTEM, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO TEST THE EXISTING MANHOLES BEFORE CONSTRUCTION. AFTER THE PROPOSED MANHOLE(S) HAS BEEN BUILT, THE CONTRACTOR SHALL RE-TEST THE EXISTING SYSTEM TO THE SATISFACTION OF THE CONSTRUCTION INSPECTOR. (NO SEPARATE PAY ITEM).
- WHERE THE MINIMUM 9 FOOT SEPARATION DISTANCE BETWEEN WASTEWATER LINES AND WATER LINES CANNOT BE MAINTAINED, THE INSTALLATION OF WASTEWATER LINES SHALL BE IN STRICT ACCORDANCE WITH TCEQ. THE WASTEWATER LINE SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC MEETING THE ASTM SPECIFICATION FOR BOTH PIPES AND JOINTS OF 160 PSI AND SHALL BE IN ACCORDANCE WITH 30 TAC § 217.53 (D) AND 30 TAC § 290.44 (E).
- NO TESTING WILL BE PERFORMED PRIOR TO 30 DAYS FROM COMPLETE INSTALLATION OF THE WASTEWATER LINES. THE FOLLOWING SEQUENCE WILL BE STRICTLY ADHERED TO:
 - PULL MANDREL
 - PERFORM AIR TEST
 - CLEANING OF ANY DEBRIS
 - FLUSHING OF SYSTEM
 - TV INSPECTION (WITHIN 72 HOURS OF FLUSHING)
- A MINIMUM OF 3 FEET OF COVER IS TO BE MAINTAINED OVER THE WASTEWATER MAIN AND LATERALS AT SUBGRADE. OTHERWISE CONCRETE EASEMENT WILL BE REQUIRED.
- TCEQ AND EPA REQUIRE EROSION AND SEDIMENTATION CONTROL FOR THE CONSTRUCTION OF WASTEWATER COLLECTION SYSTEMS. DEVELOPER AUTHORIZED REPRESENTATIVE SHALL PROVIDE EROSION AND SEDIMENTATION CONTROL AS NOTED ON THE PROJECTS PLAN AND PROFILE SHEETS. ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED BY THE CONTRACTOR AT FINAL ACCEPTANCE OF THE PROJECT BY CCUSD.
- ALL MANHOLES NOT WITHIN PAVED STREETS SHALL HAVE LOCKING CONCRETE COLLAR TO SECURE RING AND COVER TO MANHOLE CONE PER CCUSD DETAIL DRAWING #329.
- ALL MANHOLES OVER THE EDWARDS AQUIFER RECHARGE ZONE SHALL HAVE LOCKING CONCRETE COLLAR TO SECURE RING AND COVER TO MANHOLE CONE PER CCUSD DETAIL DRAWING #329.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL AND PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY CCUSD INSPECTOR/TEST ADMINISTRATOR, PER EACH 12-INCH LOOSE LIFT 400 LINEAR FEET AT A MINIMUM. PERMITS WILL NOT BE ACCEPTED AND FINALIZED BY CCUSD WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPBLS FIRM F-10961
TBPBLS FIRM 1053600

HMT
ENGINEERING & SURVEYING

1/22/2026
MATTHEW T. ABRAHAMSEN
154638
PROFESSIONAL ENGINEER
Matthew T. Abraham

**WASTEWATER LINE E
PLAN AND PROFILE**

KYNDWOOD SUBDIVISION, UNIT 5
NEW BRAUNFELS, TEXAS

NO.	REVISION DESCRIPTION	REVISION DATE
1	WASTEWATER SERVICES UPDATED	1/22/2026

DATE: JANUARY 2026

DRAWN BY: MK

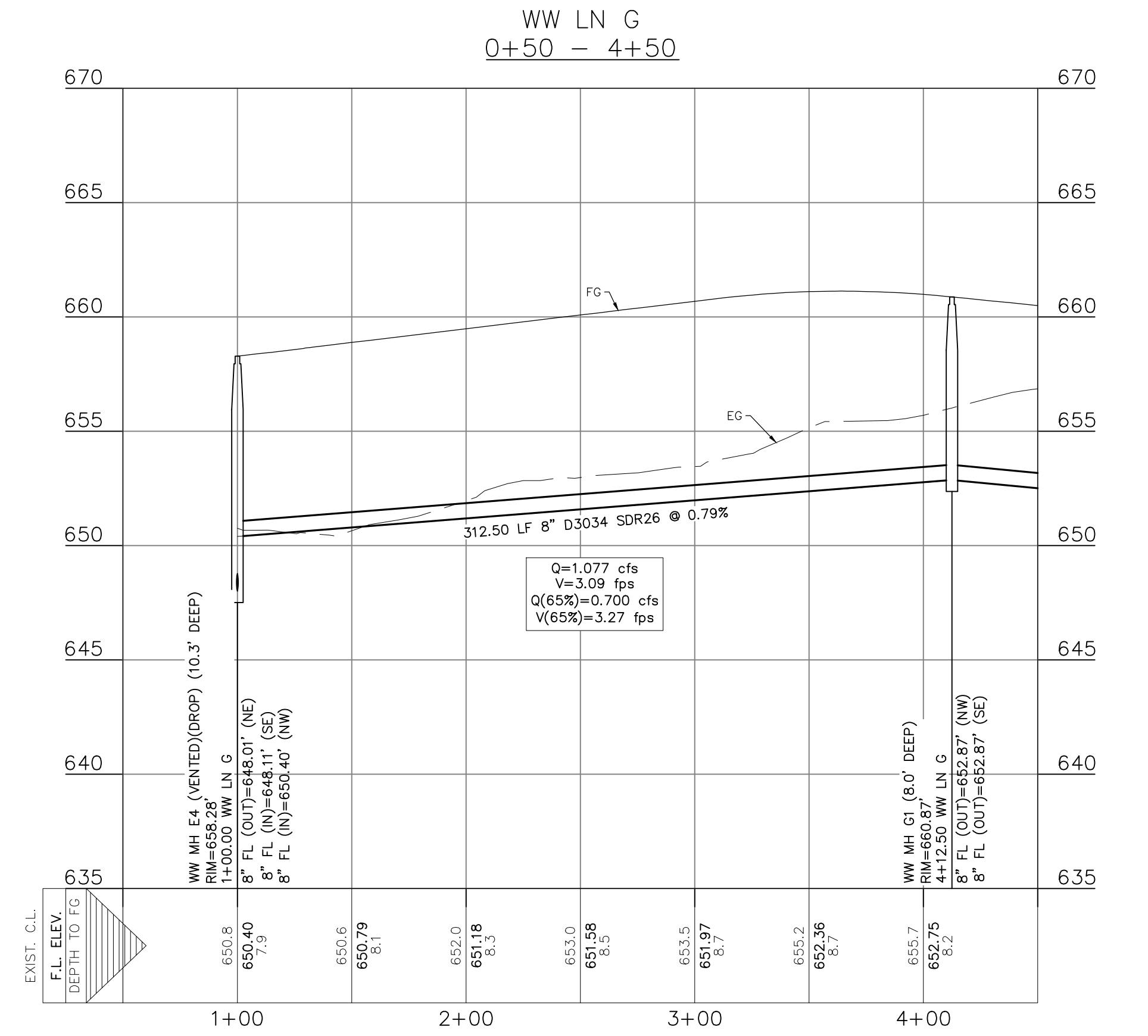
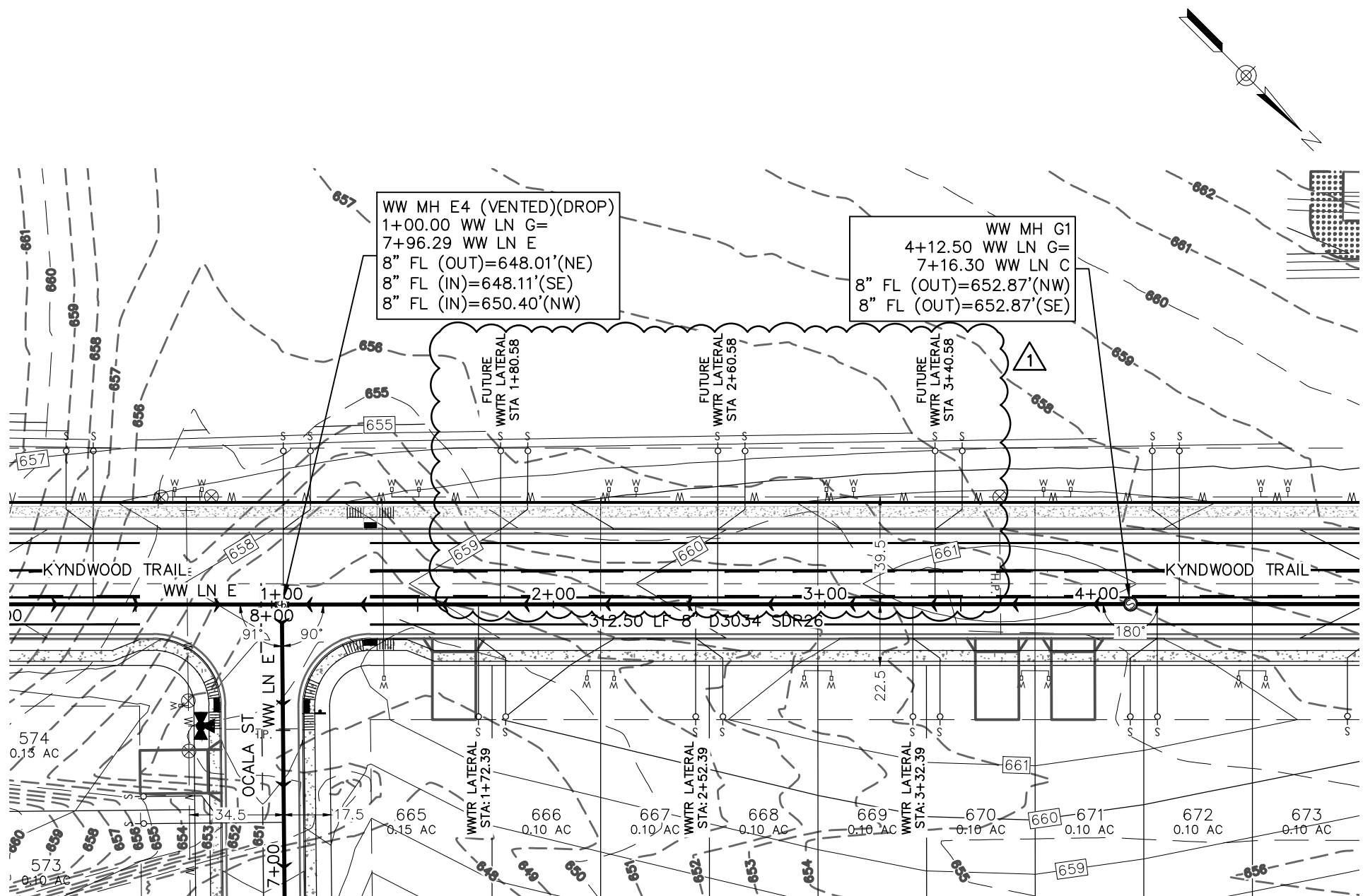
DESIGNED BY: MA

REVIEWED BY: MA

HMT PROJECT NO.: 337.081

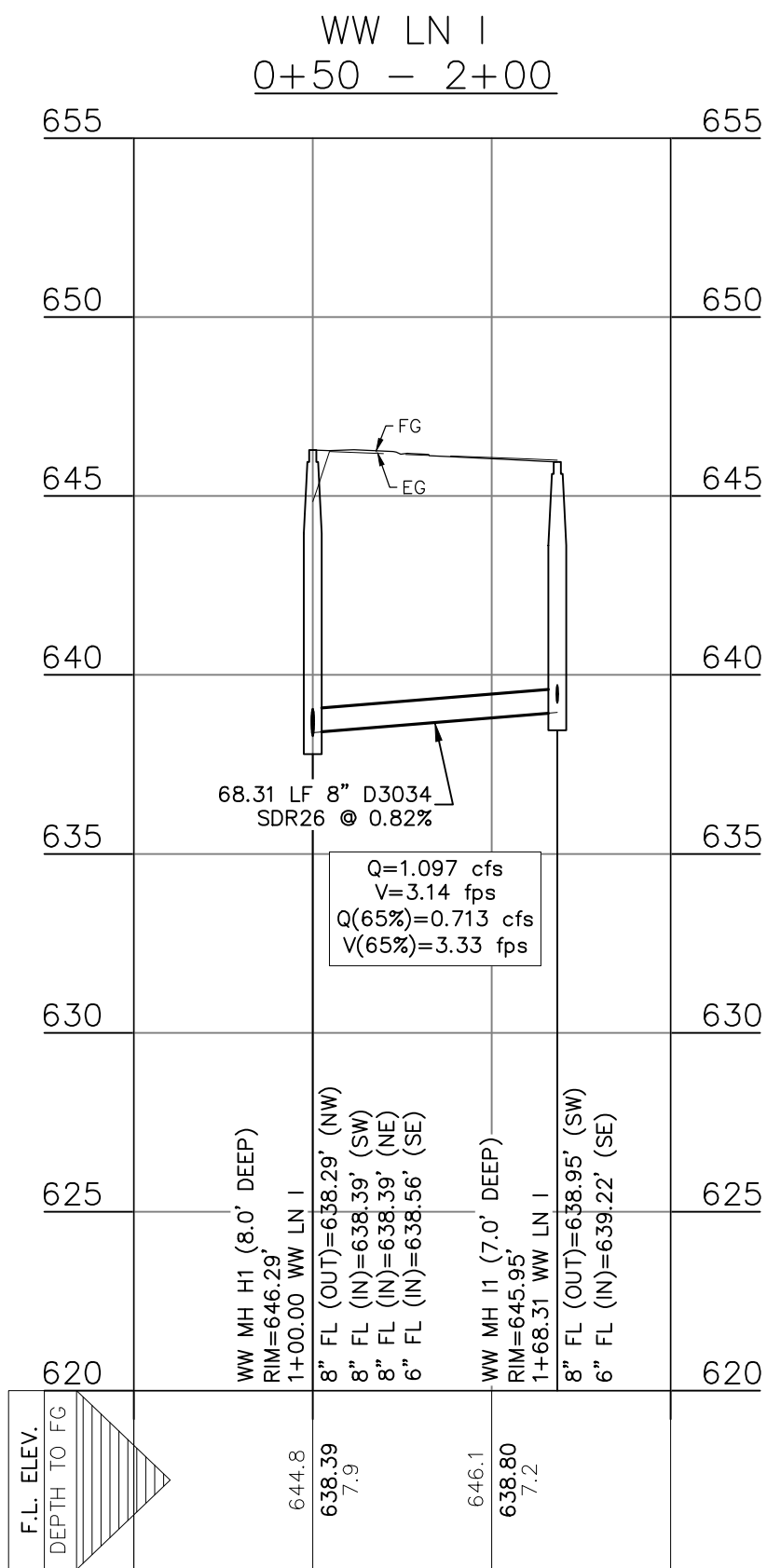
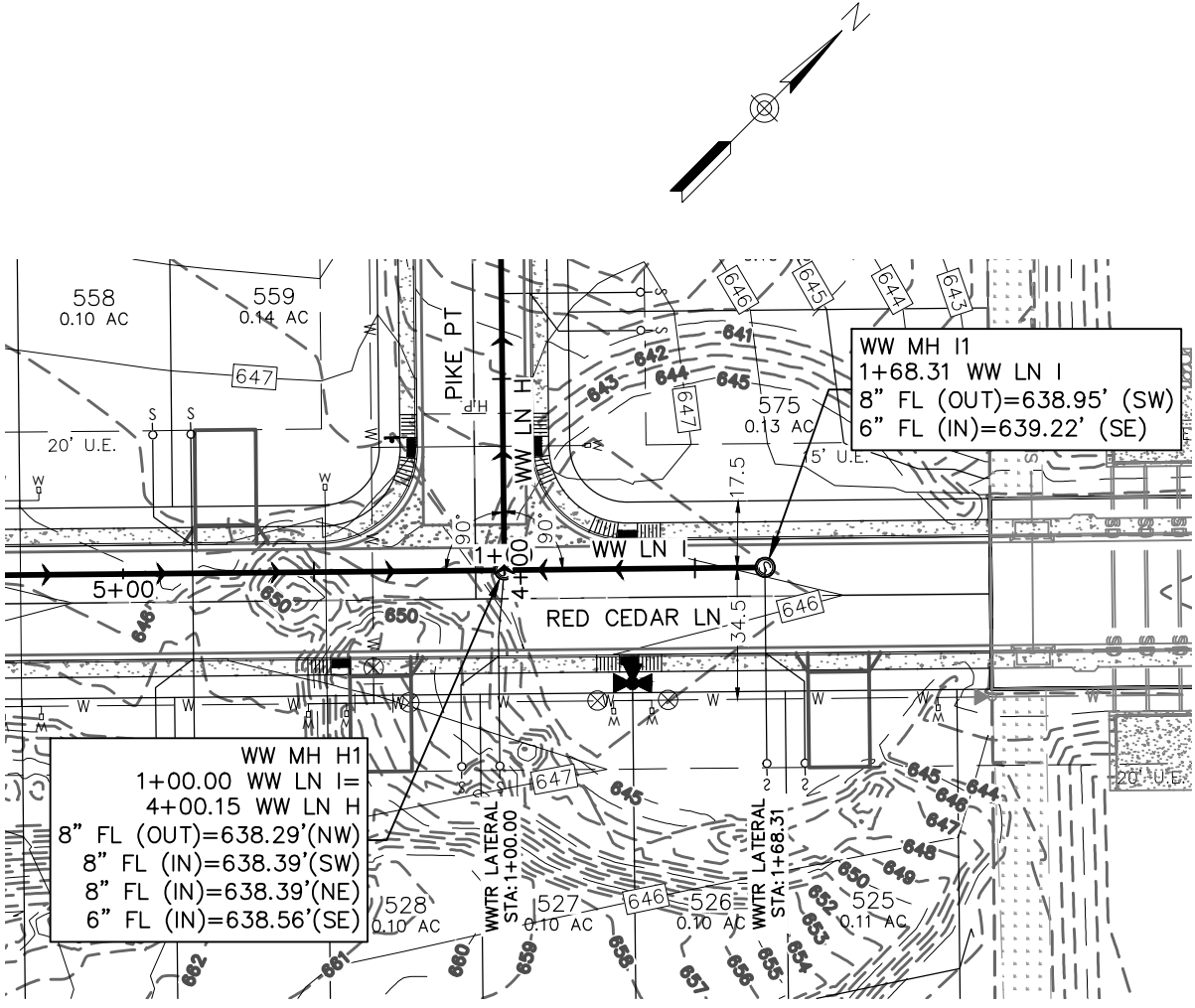
SHEET
C7.06

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 AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) 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 EXCAVATIONS.



UTILITY TRENCH COMPACTION (DEEP)
CITY REQUIREMENTS FOR TESTING SHALL BE ADHERED TO, IN CASES WHERE TRENCH DEPTHS DO NOT ALLOW TECHNICIANS ACCESS. METHODS FOR TESTING SHALL BE PROPOSED AND APPROVED PRIOR TO CONSTRUCTION COMMENCING.

THIS PROJECT INCLUDES UTILITY INSTALLATIONS GREATER THAN 5- FEET IN DEPTH LOCATED IN PUBLIC RIGHT-OF-WAY OR EASEMENTS. 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.

REFER TO THE COVER SHEET FOR BENCHMARK INFORMATION.

THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR WILL AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES 24-HOURS PRIOR TO COMMENCING CONSTRUCTION.

- LEGEND**
- 700 EXISTING CONTOURS
 - 700 PROPOSED CONTOURS
 - B.L. BUILDING SETBACK LINE
 - U.E. UTILITY EASEMENT
 - D.E. DRAINAGE EASEMENT
 - WW EXISTING WASTEWATER LINE
 - PROPOSED WASTEWATER MANHOLE
 - PROPOSED WASTEWATER LINE
 - PROPOSED WASTEWATER SERVICE
 - UTILITY CROSSING

- UTILITY NOTES:**
- ALL UTILITIES TO BE CONSTRUCTED & TESTED PRIOR TO THE STREETS.
 - NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS OR DRIVEWAYS.
 - ALL SEWER PIPE ATSM D3034(TYPICAL OF OTHER SHEETS) (115 PSI) SDR 26 UNLESS CALLED OUT OTHERWISE.
 - REFER TO THE COVER SHEET FOR BENCHMARK INFORMATION.
 - AT WATER CROSSINGS INCLUDING FIRE HYDRANT LEADS, WHITE COLOR GASKETED ASTM D2241 SDR 26 PIPE AND FITTINGS SHALL BE USED FOR MAINS AND LATERALS.
 - REFER TO ALL CCUSD NOTES ON SHEET C0.02.

- CRYSTAL CLEAR SPECIAL UTILITY DISTRICT (CCSUD) WASTEWATER NOTES**
- THE CONTRACTOR SHALL MAINTAIN SERVICE TO EXISTING THE WASTEWATER SYSTEM AT ALL TIMES DURING CONSTRUCTION.
 - A MINIMUM OF 8" WASTEWATER PIPE AND FITTINGS (P.V.C. SDR-26, ASTM, D3034, D-3212, F-477) ARE REQUIRED ON NEW INSTALLATION.
 - ALL RESIDENTIAL WASTEWATER SERVICE LATERALS SHALL BE EXTENDED TO THE PROPERTY LINE AND CLEANOUT SHALL BE INSTALLED AT THE PROPERTY LINE. SERVICES TO LOTS WILL EXTEND FOUR (4) FEET PAST THE UNDERGROUND ELECTRIC CONDUIT IF ELECTRIC IS INSTALLED IN THE FRONT EASEMENT. ALL SEWER CLEANOUTS THAT LEAD TO CCSUD MAINS SHALL BE INSTALLED WITH A PROTECTIVE UTILITY SHROUD AND PIVOTING MARKER POLE DURING TIME OF CONSTRUCTION.
 - PIPE BEDDING MATERIAL OF WASTEWATER MAINS SHALL BE COMPOSED OF WELL GRADED, CRUSHED STONE, OR GRAVEL PER SECTION 01230 OF CCSUD'S SPECIFICATIONS.
 - SECONDARY AND GENERAL BACKFILL OF WASTEWATER MAINS SHALL BE APPROVED SOIL MATERIALS FOR BACKFILL AND FILL, FREE OF CLAY, ROCK, OR GRAVEL LARGER THAN 2-INCHES IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, VEGETABLE, AND OTHER ORGANIC MATTER AND DELETERIOUS MATERIALS. PREVIOUSLY EXCAVATED MATERIALS MEETING THESE REQUIREMENTS MAY BE USED FOR BACKFILL.
 - ALL WASTEWATER MAINS SHALL HAVE COMPRESSION OR MECHANICAL JOINTS AS PER 30 TAC §217.53 (C) (2).
 - FOR WASTEWATER LINES LESS THAN 24" IN DIAMETER, SELECT INITIAL BACKFILL MATERIAL SHALL BE PLACED IN TWO LIFTS.
 - THE FIRST LIFT SHALL BE SPREAD UNIFORMLY AND SIMULTANEOUSLY ON EACH SIDE AND UNDER THE SHOULDERS OF THE PIPE TO THE MID POINT OR SPRING LINE OF THE PIPE
 - THE SECOND LIFT SHALL BE PLACED TO A DEPTH AS SHOWN ON THE PIPE BACKFILL DETAIL. MAINS LARGER THAN 24", 12" MAXIMUM LIFTS SHALL BE USED
 - ALL MANHOLES MUST BE WATERTIGHT, EITHER MONOLITHIC, CAST-IN-PLACE CONCRETE STRUCTURES OR PREFABRICATED MANHOLES SPECIFICALLY APPROVED BY THE MANHOLES SHALL HAVE WATER-TIGHT RINGS AND COVERS. WHEREVER THEY ARE WITHIN THE 100 YEAR FLOODPLAIN, THE MANHOLE COVERS SHALL BE EVERY THIRD MANHOLE IN SEQUENCE SHALL HAVE AN ALTERNATE MEANS OF VENTING. 30 TAC §213.5 (C) (3) (A) AND 30 TAC §217.55 (C).
 - ALL MANHOLES SHALL BE CONSTRUCTED SO THAT THE TOP OF THE RING IS TWO INCHES (2") ABOVE SURROUNDING GROUND EXCEPT WHEN LOCATED IN PAVED AREA. IN PAVED AREAS, THE MANHOLE RING SHALL BE FLUSH WITH PAVEMENT.
 - ALL NEW MANHOLES, UNLESS APPROVED BY CCSUD, ARE TO HAVE COVERS WITH 32" OPENINGS.
 - WASTEWATER MAIN CONNECTIONS TO PRE-CAST MANHOLES WILL BE COMPRESSION JOINTS OR MECHANICAL "BOOT TYPE" JOINT AS APPROVED BY CCSUD.
 - WASTEWATER MAINS SHALL BE TESTED FROM MANHOLE TO MANHOLE.
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TBPLES FIRM F-10961
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HMT
ENGINEERING & SURVEYING

01/22/2026
MATTHEW T. ABRAHAMSON
154638
PROFESSIONAL ENGINEER
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**WASTEWATER LINE G & I
PLAN AND PROFILE**
KYNDWOOD SUBDIVISION, UNIT 5
NEW BRAUNFELS, TEXAS

NO.	REVISION	DESCRIPTION	DATE
1	WASTEWATER SERVICES UPDATED		1/22/2026

DATE: **JANUARY 2026**

DRAWN BY: **MK**

DESIGNED BY: **MA**

REVIEWED BY: **MA**

HMT PROJECT NO.: **337.081**

SHEET
C7.08