



Addendum #1

STBG-3003 (006)

Larkspur Circle Extension

September 25, 2025

1. What is the route name that shall be written on the bid bond form? **The route name shall be Larkspur Circle anywhere the route name is required.**
2. Will there be any pre-bid meetings for this project? **No pre-bid meetings will be held.**
3. The bid book shows July 31, 2025 as the completion date. **The year is a typo and has been updated to 2026. Bidders shall replace page 5 of 122 with the attached sheet to correct this error.**
4. Instead of using a epoxy capsule system for the anchor rods on the handrail, can we use Hilti epoxy system? **Upon award of the contract, the contractor will need to send a submittal to the City that includes the specifications for the epoxy system or epoxy capsule system for approval. The system shall meet the City of Belton handrail standards and MoDOT's handrail standards (standard plans 608.40).**
5. Do you have quantity estimates for dirt quantities and/or more detailed cross sections that can be provided? **The cross sections have been properly ordered and additional ones have been included for more detail. The plans have been updated (cover sheet, page numbers on all sheets, new cross section sheets) and are included with this addendum. Please use this updated set. Also, as with the original set, the earthwork quantities were/are shown on the summary of quantities sheet, sheet 3.**

Bidders shall download the updated plan set included with this addendum to replace the original plan set as all page numbers have been updated and additional cross sections were added with more detail upon request. Additionally, bidders shall replace sheet 5 of 122 with the attached sheet to correct the completion date error. Note that all questions received after 5 p.m. local time on Friday October 3rd, 2025, will not be answered.

NOTICE TO CONTRACTORS

Sealed bids, addressed to the City of Belton, 700 Seabee Road, Belton, MO 64012 for the proposed work will be received by the City of Belton until **10:00 A.M. (prevailing local time)** on October 9, 2025, at the office of the City of Belton Public Works, 700 Seabee Road, Belton, MO 64012, and at that time will be publicly opened. Bids should be delivered to: 700 Seabee Road, Belton, MO 64012.

(1) PROPOSED WORK: The proposed work, hereinafter called the work, includes:

Improvements include the construction of a new concrete box culvert, roadway construction and reconstruction, resurfacing, storm sewer, curb and sidewalk construction, signing, striping and various other improvements.

(2) COMPLIANCE WITH CONTRACT PROVISIONS: The bidder, having examined and being familiar with the local conditions affecting the work, and with the contract, contract documents, including the current version of the Missouri Highways and Transportation Commission's "Missouri Standard Specifications for Highway Construction," and "Missouri Standard Plans for Highway Construction" (if applicable), their revisions, and the request for bid, including appendices, the special provisions and plans, hereby proposes to furnish all labor, materials, equipment, services, etc., required for the performance and completion of the work. All references are to the Missouri Standard Specifications for Highway Construction, as revised, unless otherwise noted.

The following documents are available on the Missouri Department of Transportation web page at www.modot.mo.gov under "Business with MoDOT" "Standards and Specifications". The effective version shall be the October 2023 edition.

General Provisions & Supplemental Specifications

Supplemental Revisions to Missouri Standard Plans
For Highway Construction (if applicable)

These supplemental bidding documents contain all current revisions to the bound printed versions and have important legal consequences. It shall be conclusively presumed that they are in the bidder's possession, and they have been reviewed and used by the bidder in the preparation of any bid submitted on this project. The standard specifications and design criteria of the City of Belton and the Kansas City Metropolitan Chapter of the American Public Works Association shall also govern all public improvements for this project.

Please note that within the above-listed documents, the term "Commission" shall be replaced with the term, "City of Belton", and the term "Engineer" is a reference to the Engineer of Record from the City of Belton.

The contracting authority for this contract is the City of Belton.

(3) PERIOD OF PERFORMANCE: If the bid is accepted, the bidder agrees that work shall be diligently prosecuted at such rate and in such manner as, in the judgment of the engineer, is necessary for the completion of the work within the time specified as follows in accordance with Sec 108:

Completion Date: July 31, 2026

(4) LIQUIDATED DAMAGES: The bidder agrees that, should the bidder fail to complete the work in the time specified or such additional time as may be allowed by the engineer under the contract, the amount of liquidated damages to be recovered in accordance with Sec 108 shall be as follows:

Liquidated damages per day \$ 1,100

(5) BID GUARANTY: The bidder shall submit a Bid Guaranty meeting the requirements of Section 102 of the Missouri Standard Specifications for Highway Construction. A sample project bid bond form is included in the bid book. The bidder shall mark the box below to identify the type of Bid Guaranty.

- ☐ Paper Bid Bond
- ☐ Cashier's Check

PROJECT ID:
WITH: **ST24-0001**

COUNTY:
CASS



CITY OF BELTON
ENGINEERING DEPARTMENT

PLAN OF PROPOSED IMPROVEMENT

LARKSPUR CIRCLE EXTENSION

LARKSPUR CIRCLE
BELTON MO

INTERNAL PROJECT NUMBER
ST24-0001

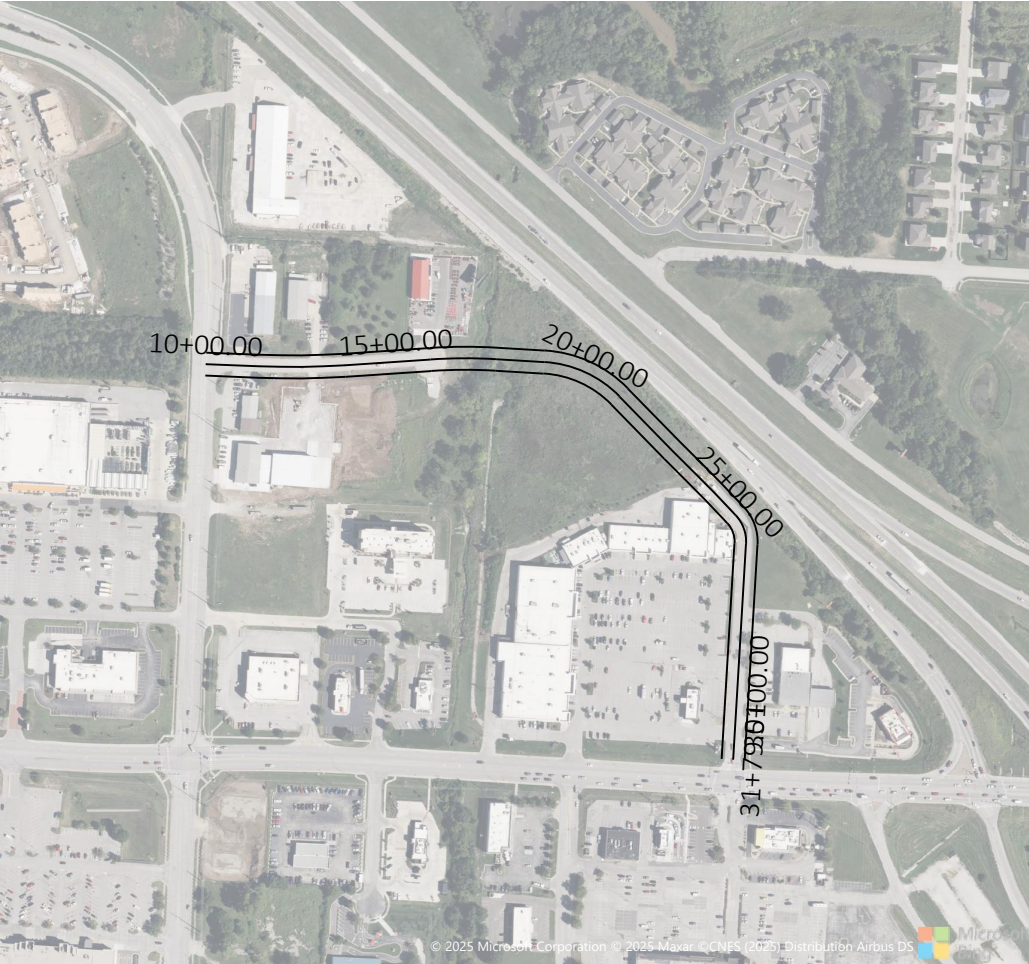
SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
1	COVER
2	GENERAL NOTES
3	SUMMARY OF QUANTITIES
4-8	TYPICAL SECTIONS
9-12	RIGHT OF WAY PLAN
13-15	EXISTING CONDITIONS AND REMOVAL PLAN
16-21	PLAN & PROFILE
22-26	GRADING
27-30	STORMWATER PLAN
31-34	SIGNING AND STRIPING
35	TEMPORARY TRAFFIC CONTROL
36-54	STANDARD DETAILS
55-63	CROSS SECTIONS

DESIGN DESIGNATION

A.A.D.T. 3000 =
A.A.D.T. =
D.H.V. =
D.D. =
T. =
DESIGN SPEED = 35 MPH
ESALS =

CONVENTIONAL SYMBOLS

PLAN	PROFILE
CORPORATE LIMITS	GRADE LINE
PROPERTY LINE	ORIGINAL GROUND
LOT LINE	MARSH OR ROCK PROFILE (To be noted as such)
LIMITED HIGHWAY EASEMENT	SPECIAL DITCH
EXISTING RIGHT OF WAY	GRADE ELEVATION
PROPOSED OR NEW R/W LINE	CULVERT (Profile View)
SLOPE INTERCEPT	UTILITIES
REFERENCE LINE	ELECTRIC
EXISTING CULVERT	FIBER OPTIC
PROPOSED CULVERT (Box or Pipe)	GAS
COMBUSTIBLE FLUIDS	SANITARY SEWER
MARSH AREA	STORM SEWER
WOODED OR SHRUB AREA	TELEPHONE
	WATER
	UTILITY PEDESTAL
	POWER POLE
	TELEPHONE POLE



LAYOUT
SCALE 0 200 FT
TOTAL NET LENGTH OF CENTERLINE = 2179.5 LF

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE MISSOURI
COORDINATE REFERENCE SYSTEM (MO-W),
NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID
COORDINATES, GRID BEARINGS, AND GRID DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2018). GPS DERIVED
ELEVATIONS ARE BASED ON GEOID 18.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
NA		
STBG-3003(006)		

UTILITY CONTACTS

EVERGY ALEX GERHART 215 LOCUST HILL RD BELTON, MO 64012 (816) 652-1929	GOOGLE FIBER CRAIG YOUNG 2812 W. 47TH AVE KANSS CITY, KS 66013 (870) 219-5030
AT&T SHANE JARMAN 2121 E 63RD DT KANSAS CITY, MO 64130 (816) 944-9428	BELTON SCHOOL DISTRICT #124 DALE HENDERSON 314 S CLEVELAND AVE BELTON, MO 64012
SPIRE RICHI GARCIA 3025 SE CLOVER DR LEE'S SUMMIT, MO 64083 (816) 507-0713	CITY OF BELTON WATER SERVICES MATTHEW BUTTERFIELD 700 SEABEE ROAD BELTON, MO 64012 (816) 699-2177
CHARTER/SPECTRUM SCOTT GRIFFITHS 8221 W 119TH ST OVERLAND PARK, KS 60213 (913) 643-1927	CITY OF BELTON PUBLIC WORKS DIRECTOR GREG ROKOS, PE 700 SEABEE ROAD BELTON, MO 64012
JACKSON COUNTY PWSD1 DAN HARTMAN 13015 15TH ST GRANDVIEW, MO 64030 (816) 956-0550	

CITY OF BELTON
ENGINEERING DEPARTMENT

PREPARED BY
Surveyor WILL KNIGHT
Designer DANE NGUYEN
Reviewer RYAN HAUPT

APPROVED CITY ENGINEER
DATE: 9/25/2025 (Signature)

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GENERAL NOTES

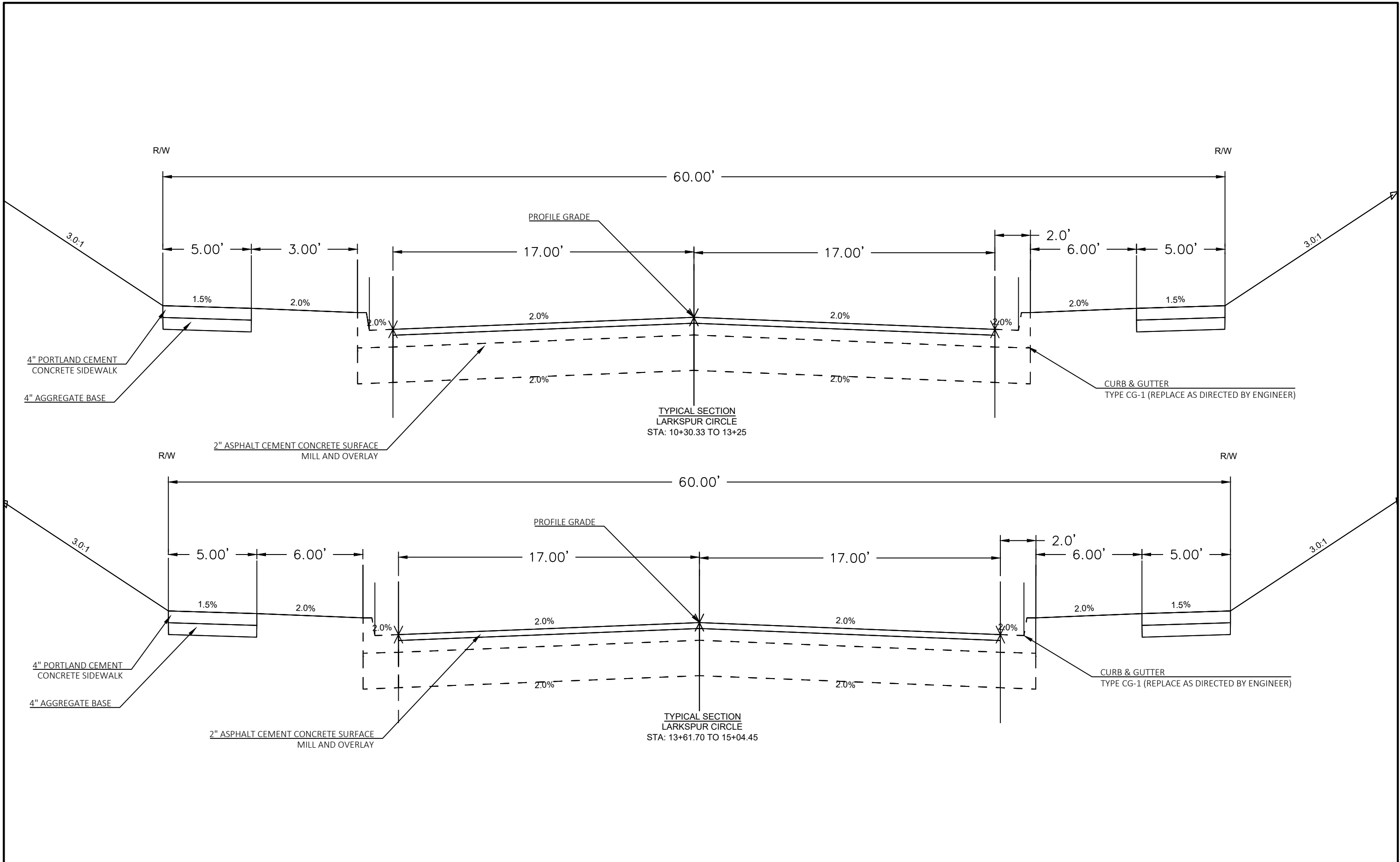
1. THE STANDARD SPECIFICATIONS AND DESIGN CRITERIA OF THE CITY OF BELTON, KANSAS CITY METROPOLITAN CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION, AND 2023 MoDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION SHALL GOVERN THE CONSTRUCTION OF ALL PUBLIC IMPROVEMENTS FOR THIS PROJECT.
 2. THE CONTRACTOR SHALL NOT WORK ON SATURDAYS, SUNDAYS, OR HOLIDAYS ON PORTIONS OF WORK UNLESS REQUESTED AT LEAST FORTY EIGHT(48) HOURS IN ADVANCE AND WHEN APPROVED BY THE CITY ENGINEER.
 3. ALL EXISTING UTILITIES INDICATED ON THESE IMPROVEMENT PLANS ARE ACCORDING TO THE BEST INFORMATION AVAILABLE TO THE DESIGN ENGINEER; HOWEVER, ALL EXISTING UTILITIES MAY NOT BE SHOWN. UTILITIES DAMAGED BY THE CONTRACTOR WHILE LOCATING OR DURING CONSTRUCTION SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. THE CONTRACTOR, PRIOR TO CONSTRUCTION, SHALL VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES. THE REPAIR OF ANY DAMAGE TO SAID UTILITIES SHALL BE AT THE COST OF THE CONTRACTOR. ANY UTILITIES FOUND TO BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL NOTIFY THOSE COMPANIES WHICH HAVE FACILITIES IN THE NEAR VICINITY OF THE CONSTRUCTION TO BE PERFORMED. ENCROACHMENTS SUCH AS TELEPHONE, POWER, AND CABLE T.V. POLES SHALL BE MOVED BY THE UTILITY OWNER AND COORDINATED BY THE CONTRACTOR AFTER WRITTEN APPROVAL FROM THE OWNER, UNLESS OTHERWISE NOTED.
 4. ALL BACKFILL SHALL BE TAMPED OR COMPACTED AS SPECIFIED PER THE CONTRACT SPECIFICATIONS.
 5. ALL SEDIMENT AND EROSION CONTROL MEASURES SPECIFIED ON THE PLANS SHALL BE IN PLACE PRIOR TO COMMENCING ANY LAND DISTURBANCE ACTIVITIES ON THE SITE. CONTRACTOR SHALL BE REQUIRED TO SIGN AND ABIDE BY STORMWATER POLLUTION PREVENTION PLAN (SWPPP). CONTRACTOR SHALL ABIDE BY THE MISSOURI CLEAN WATER LAW, INCLUDING ALL RULES, REGULATIONS, ORDERS AND DECISIONS.
 6. CONTRACTOR SHALL CLEAR AND GRUB ALL TREES WITHIN THE GRADING LIMITS UNLESS OTHERWISE NOTED. REMOVAL OF A TREE INCLUDES REMOVAL OF ALL BRANCHES, ROOTS, AND BRUSH WITHIN THE CANOPY LIMITS OF THE TREE. THE CONTRACTOR IS REQUIRED TO EXERCISE PARTICULAR CARE DURING EXCAVATION TO PREVENT UNNECESSARY DAMAGE TO TREES, RETAINING WALLS, STRUCTURES, UTILITIES, ETC. IN THE VICINITY OF CONSTRUCTION. ONLY THOSE TREES IN DIRECT CONFLICT WITH CONSTRUCTION OPERATIONS SHALL BE REMOVED, AS AGREED UPON BETWEEN THE CONTRACTOR AND CITY REPRESENTATIVE. ALL TREES THAT ARE DEFINITELY TO BE SAVED SHALL BE MARKED BY THE CONTRACTOR AND SHALL BE FENCED AT THE DRIP LINE WITH T POSTS AND ORANGE CONSTRUCTION FENCING. PER CITY'S TREE PROTECTION STANDARD DETAIL.
 7. CLEARING AND GRUBBING OPERATIONS AND DISPOSAL OF ALL DEBRIS THEREFROM SHALL BE PERFORMED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL LAWS, CODES AND ORDINANCES. OPEN BURNING OF DEBRIS SHALL NOT BE PERMITTED.
 8. CONTRACTOR SHALL STRIP TOPSOIL AND VEGETATION A MINIMUM OF 6" AND STOCKPILE FOR USE AS TOPSOIL WHERE VEGETATION IS TO BE REESTABLISHED.
 9. ALL EXISTING CONCRETE PAVEMENT, CURB & GUTTER, DRIVEWAYS, SIDEWALKS OR BITUMINOUS SURFACING TO BE REMOVED SHALL BE SAW CUT TO THE NEAT LINES SHOWN ON THE PLANS OR TO THE NEAREST JOINT AS DIRECTED BY THE CITY. ADDITIONAL REMOVAL MAY BE ORDERED BY THE CITY. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO "CLEARING, GRUBBING AND DEMOLITION".
 10. EXCESS SOIL OR ROCK MATERIAL RESULTING FROM THE PROJECT SHALL BE DISPOSED OF OFF SITE BY THE CONTRACTOR. THIS WORK IS INCIDENTAL AND NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK.
 11. THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND ELEVATIONS SHALL BE CONFIRMED BY THE CONTRACTOR AT THE JOB SITE. IF THE CONTRACTOR FINDS ANY DIMENSIONS TO BE IN ERROR OR IN QUESTION, THE ENGINEER SHALL BE PROMPTLY CONTACTED FOR CLARIFICATION PRIOR TO THE CONTINUATION OF THE WORK.
 12. ALL PORTLAND CEMENT CONCRETE EXPOSED TO AMBIENT AIR SHALL BE KCMMB 5K MIX, INCLUDING INVERTS OF STORM STRUCTURES.
 13. ALL EXISTING DRAINAGE TILES, FOUNDATION DRAINS, SUMP PUMP DRAINS, AND/OR ROOF DRAINS ENCOUNTERED OR DAMAGED DURING CONSTRUCTION ARE TO BE RESTORED TO THEIR ORIGINAL CONDITION, PROPERLY REROUTED AND/OR CONNECTED TO THE STORM SEWER SYSTEM. THE EXTENSION, RESTORATION OR REROUTING OF THESE TILES OR DRAINS SHALL BE CONSIDERED SUBSIDIARY TO THE CONSTRUCTION OF THE PROPOSED STORM SEWERS.
 14. ALL STORM SEWER PIPE LENGTHS SHOWN ON THE PLANS ARE MEASURED FROM INSIDE FACE OF DOWNSTREAM STRUCTURE TO INSIDE FACE OF UPSTREAM STRUCTURES, (FOR BIDDING AND PAYMENT PURPOSE ONLY).
 15. ALL SIGNS AND MAILBOXES IN CONFLICT WITH THE PROPOSED CONSTRUCTION SHALL BE REMOVED AND REPLACE.
 17. THE CONTRACTORS IS RESPONSIBLE FOR THE PROTECTION OF ALL PROPERTY CORNERS AND SECTION CORNERS. ANY PROPERTY CORNERS OR SECTION CORNERS DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE RESET BY A REGISTERED LAND SURVEYOR LICENSED IN THE STATE OF MISSOURI, AT THE CONTRACTOR'S EXPENSE.
 18. ALL STORM SEWER STRUCTURES USED FOR THE PROJECT SHALL BE PRECAST. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO CASTING OF STRUCTURES. ALL STORM SEWER STRUCTURES LIDS SHALL BE CAST IN PLACE.
 19. ALL EXISTING FENCING, PLANTER WALLS, WALKS, ETC. THAT ARE DISTURBED BY THE CONTRACTOR'S OPERATION SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THE ORIGINAL CONDITION. CONTRACTOR SHALL SATISFY HIMSELF BY SITE VISIT AS TO THE EXTENT AND NATURE OF SUCH WORK IN PREPARING HIS BID. THIS WORK SHALL BE SUBSIDIARY TO OTHER BID ITEMS.
 20. ALL DISTURBED AREAS SHALL BE RESTORED WITH TOPSOIL, SEED & A STAKED DOWN EROSION CONTROL BLANKET. ANY AREAS DISTURBED OUTSIDE OF THE LIMITS SHOWN ON THE PLANS SHALL BE SEEDED AT NO ADDITIONAL COST.
 21. ACCESS TO PROPERTIES SHALL BE MAINTAINED AT ALL TIMES. IF CONSTRUCTION ACROSS A DRIVEWAY IS TO TAKE MORE THAN 24 HOURS, ONE HALF OF THE DRIVE SHALL REMAIN IN SERVICE UNTIL THE OTHER HALF IS RECONSTRUCTED AND IN SERVICE OR ALTERNATE ACCESS PROVIDED.
 22. ALL FENCING WITHIN THE WORK LIMITS SHALL BE PROTECTED OR RESTORED TO PRIOR CONDITIONS UPON COMPLETION OF THE WORK, WHETHER SO NOTED ON THE PLANS OR NOT. CONTRACTOR SHALL PROVIDE TEMPORARY FENCING FOR ANY RESIDENTS WHO OWN PETS OR WHO OTHERWISE REQUEST TEMPORARY FENCING. CONTRACTOR SHALL COORDINATE THE TEMPORARY FENCING LOCATION WITH THE RESIDENT, CITY, AND ENGINEER. TEMPORARY FENCING SHALL BE SUBSIDIARY TO OTHER BID ITEMS.
 23. THE CONTRACTOR SHALL MAINTAIN DRAINAGE DURING CONSTRUCTION AND IS RESPONSIBLE FOR ANY DEWATERING NECESSARY FOR CONSTRUCTION. DEWATERING SHALL BE SUBSIDIARY TO THEIR BID ITEMS.
 24. ALL EQUIPMENT USED BY THE CONTRACTOR HAVING METAL TRACKS SHALL NOT BE DRIVEN OVER CITY STREETS OTHER THAN THOSE BEING DISRUPTED BY STORM SEWER TRENCHING. SUCH EQUIPMENT MUST BE TRANSPORTED.
 25. CONTRACTOR SHALL NOTIFY EACH IMPACTED PROPERTY OWNER OF THE ANTICIPATED CONSTRUCTION ACTIVITY 48 HOURS PRIOR TO BEGINNING WORK. THE NOTIFICATION METHOD SHALL BE OF SUITABLE MEANS, AND APPROVED BY THE CITY ENGINEER.
 26. THE LOCATION POINT FOR ALL STORM SEWER STRUCTURES SHALL BE CENTER OF STRUCTURE AS INDICATED ON PLAN SHEETS.
 27. ALL WORK REQUIRED TO COMPLETE THE PROJECT BUT WHICH IS NOT SPECIFICALLY CALLED OUT IN A PAY ITEM SHALL BE SUBSIDIARY TO OTHER PAY ITEMS.

PROJECT NO:	ST24-001	RTE: LARKSPUR CIRCLE	REV: A	STA: 0+00	TO STA: 1+00	CITY OF BELTON - ENGINEERING DEPARTMENT	GENERAL NOTES	TOTAL SHEETS 56	SHEET 02	E
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FILE NAME : C:\USERS\DNGUYEN\ONEDRIVE - BELTONMO\ PUBLIC WORKS\CAPITAL IMPROVEMENT PROJECTS\STREETS\LARKSPUR CONNECTION\DESIGN\CAD\9.13.25 DESIGN\02 GENERAL NOTES.DWG PLOT DATE : 9/25/2025 3:11 PM PLOT BY : DANE NGUYEN PLOT NAME : PLOT SCALE : #####
LAYOUT NAME - 02 GENERAL NOTES

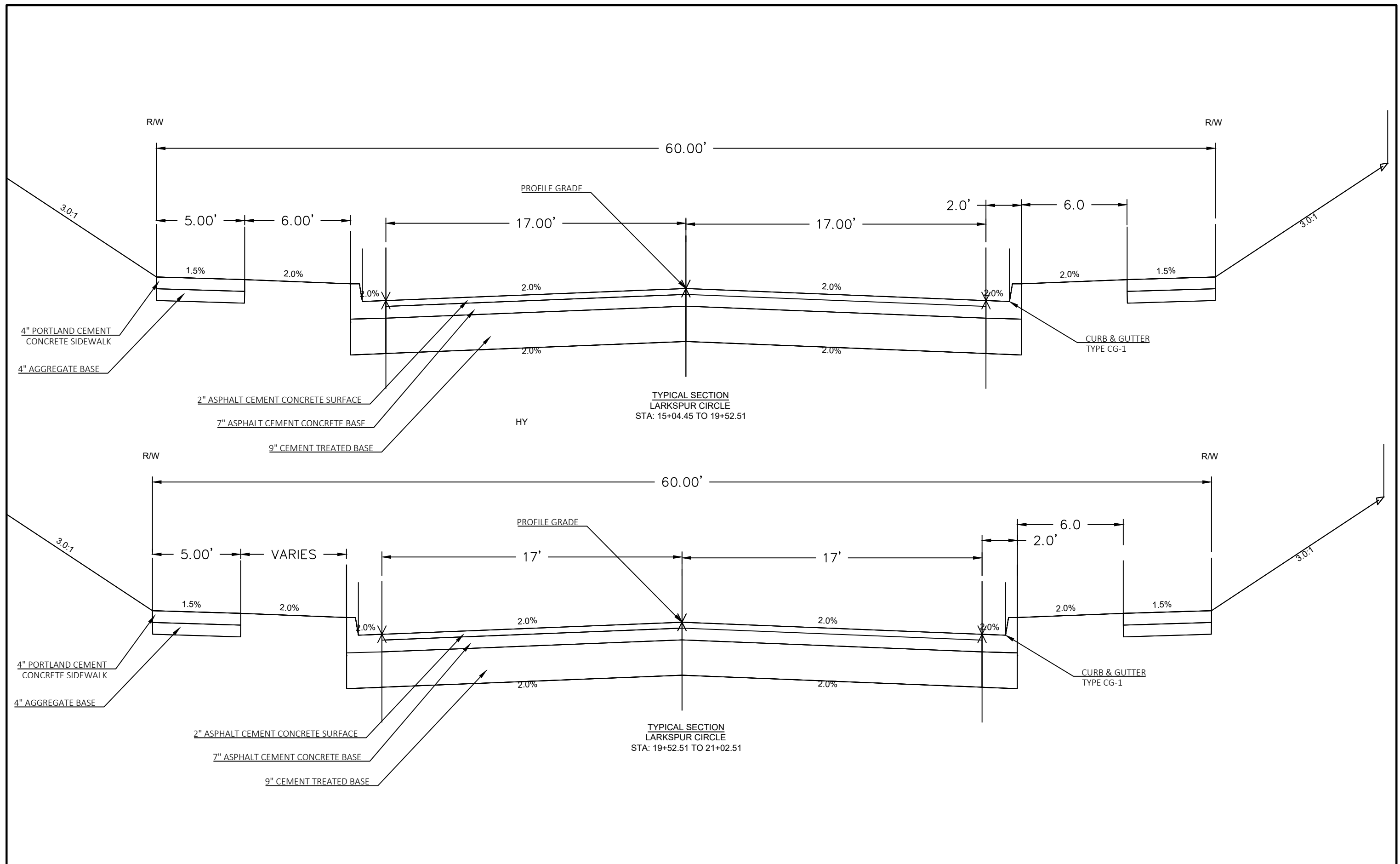
SUMMARY OF QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
2019901	CLEARING AND GRUBBING	1.0	L SUM
2022010	REMOVAL OF IMPROVEMENTS	1.0	L SUM
2039901A	UNCLASSIFIED EXCAVATION	1.0	L SUM
2039901B	EMBANKMENT	1.0	L SUM
3029901	MISC. CEMENT TREATED BASE, 9"	3900.0	SQ YD
4039910A	ASPHALTIC CEMENT CONCRETE BASE, 7"	1500.0	TON
4039910B	ASPHALTIC CEMENT CONCRETE SURFACE, 2"	1100.0	TON
4039910C	ASPHALTIC CEMENT CONCRETE BASE 4"	30.0	TON
4071005	TACK COAT	1500.0	GAL
6042010	ADJUSTING MANHOLES	3.0	EACH
6081012	TRUNCATED DOMES	80.0	SQ FT
6085008	PAVED APPROACH, 8"	600.0	SQ YD
6089903A	COMBINATION CONCRETE CURB AND GUTTER, TYPE CG-1	2600.0	LF
6089903B	MISC. METAL HANDRAILS	80.0	LF
6089905	CONCRETE SIDEWALK, 4"	1840.0	SQ YD
6099904	MISC. STONE RIPRAP (D50 = 18", T= 36") (REUSE ONSITE MATERIAL)	500.0	SQ YD
6149902A	CURB INLETS (4'X4')	7.0	EACH
6149902B	CURB INLETS (5'X4')	2.0	EACH
6161005	CONSTRUCTION SIGNS	100.0	SQ FT
6161030	TYPE III BARRICADES	7.0	EACH
6181000	MOBILIZATION	1.0	L SUM
6209902	THERMOPLASTIC PAVEMENT MARKING - LEFT/RIGHT ARROWS	20.0	EACH
6209903A	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	5450.0	LF
6209903B	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	505.0	LF
6209903C	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	60.0	LF
6209903D	PREFORMED THERMOPLASTIC PAVEMENT MARKING - LINE 24"	70.0	LF
6274000	CONTRACTOR FURNISHED SURVEYING AND STAKING	1.0	L SUM
7039902	CONCRETE BOX CULVERT END SECTIONS	2.0	EACH
7269903A	STORM SEWER, RCP CLASS III, 15"	392.0	LF
7269903B	STORM SEWER, RCP CLASS III, 24"	480.0	LF
7269903C	STORM SEWER, RCP CLASS III, 36"	400.0	LF
7339903	CONCRETE BOX CULVERTS 8' X 7' (SPECIAL)	89.0	LF
8059901	MISC. PERMANENT RESTORATION	1.0	L SUM
8061007A	CURB INLET CHECK	10.0	EACH
8061019	SILT FENCE	450.0	LF
8069902A	TEMPORARY CONSTRUCTION ENTRANCE	2.0	EACH
8069902B	TEMPORARY ROCK DITCH CHECK	1.0	EACH
9039901	PERMANENT SIGNAGE	1.0	L SUM

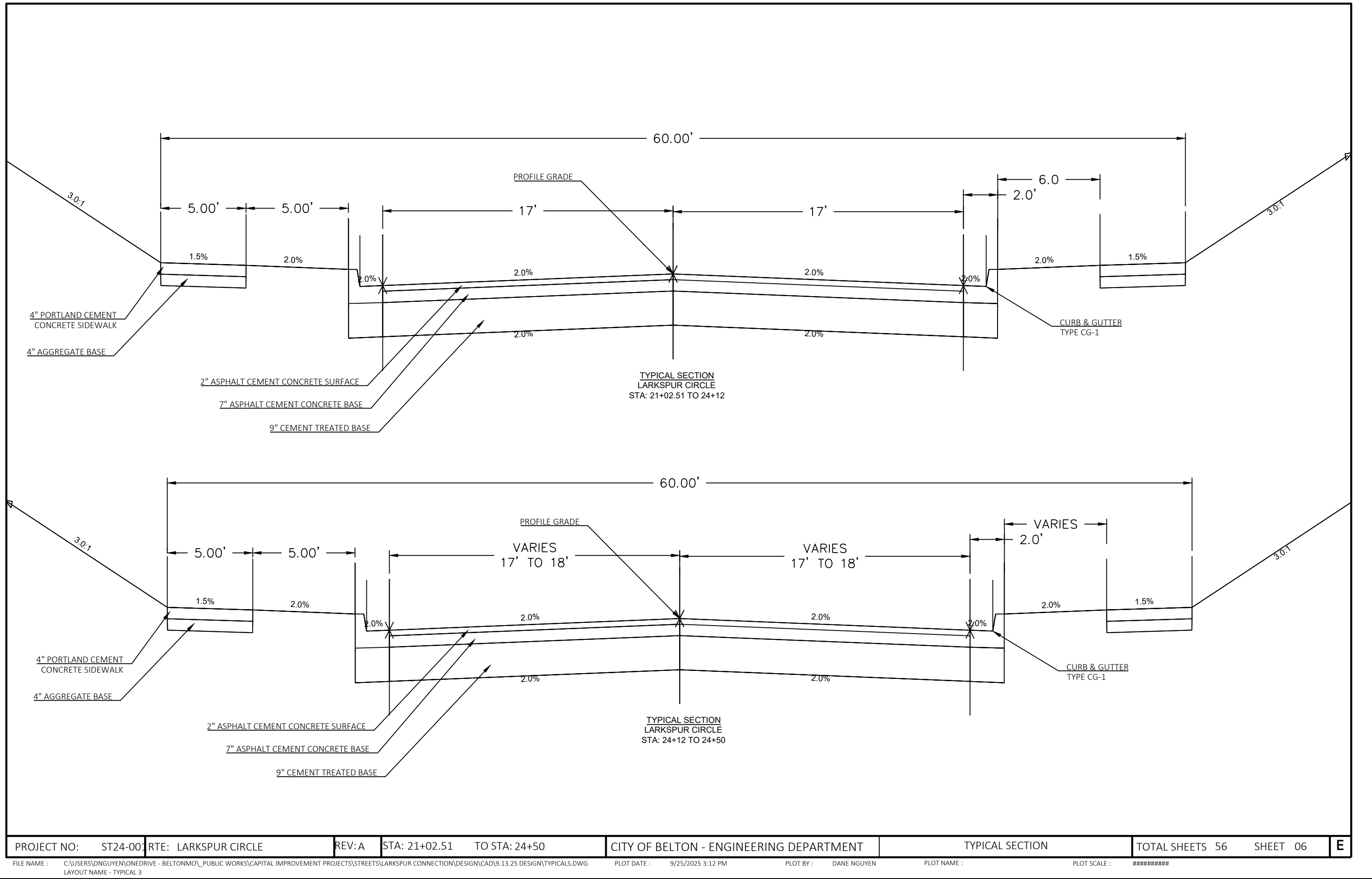
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EMBANKMENT: 3600 CY

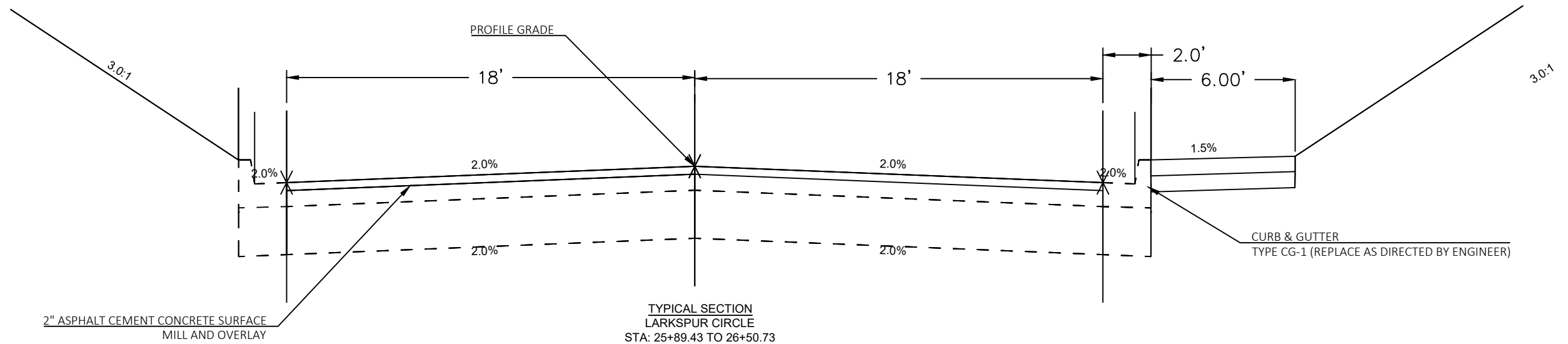
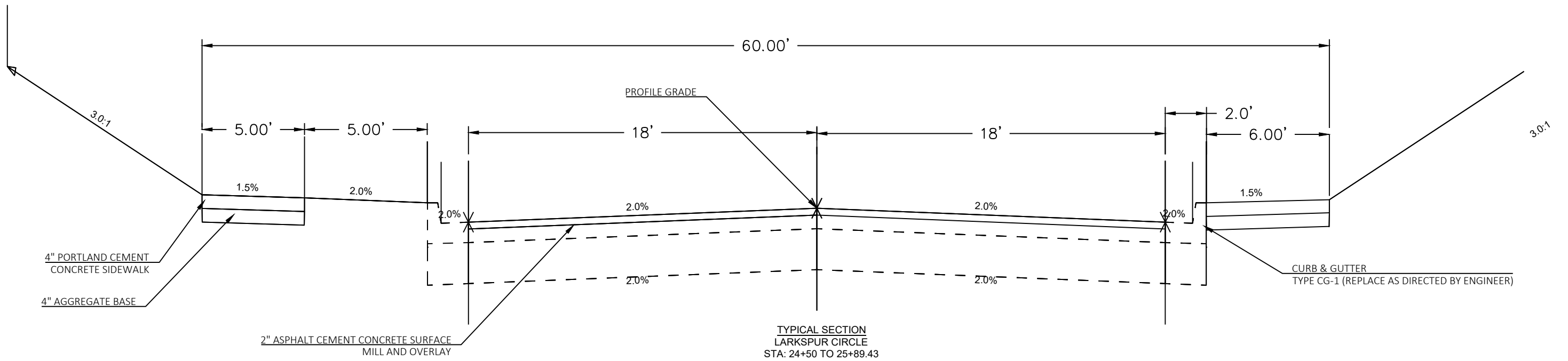


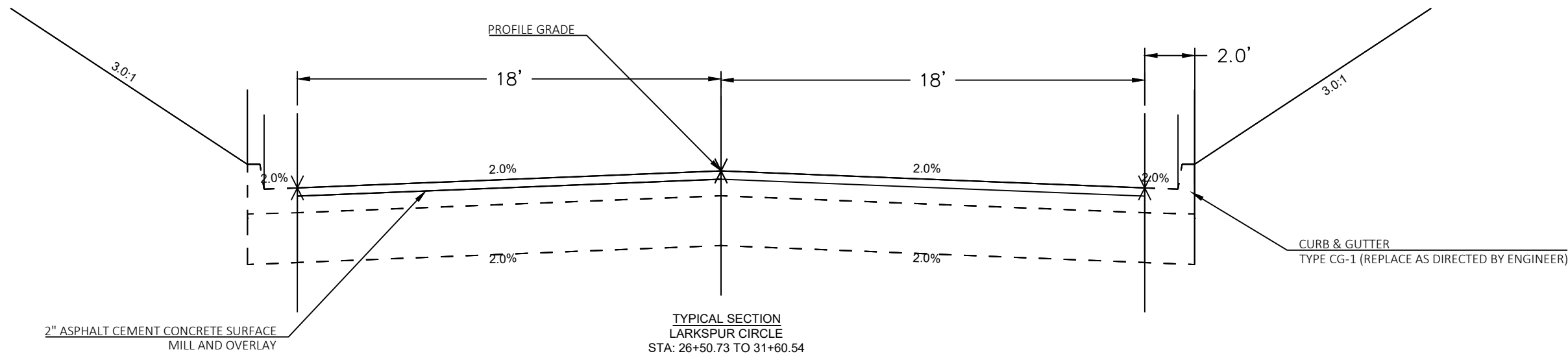
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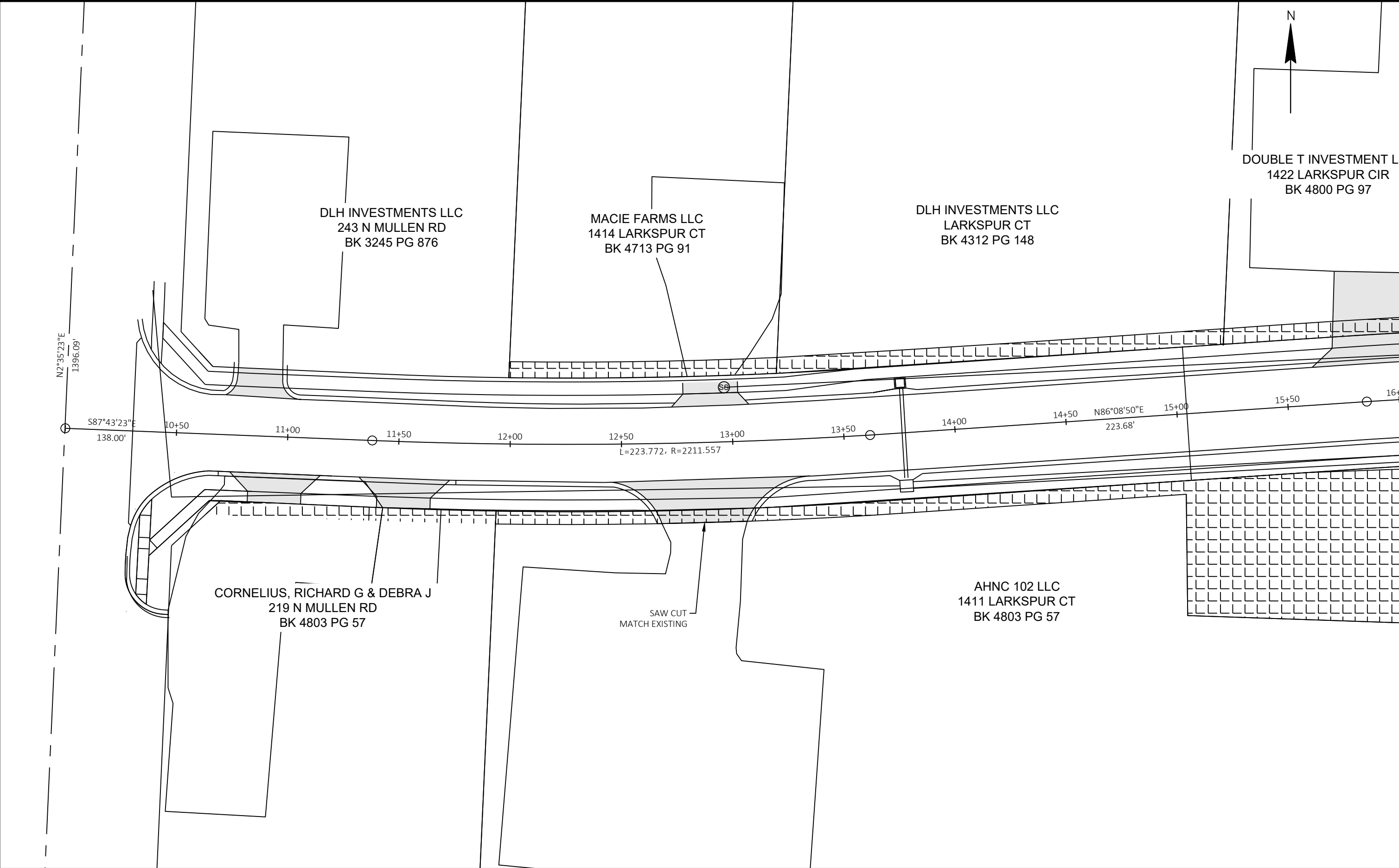
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LAYOUT NAME - TYPICAL 1



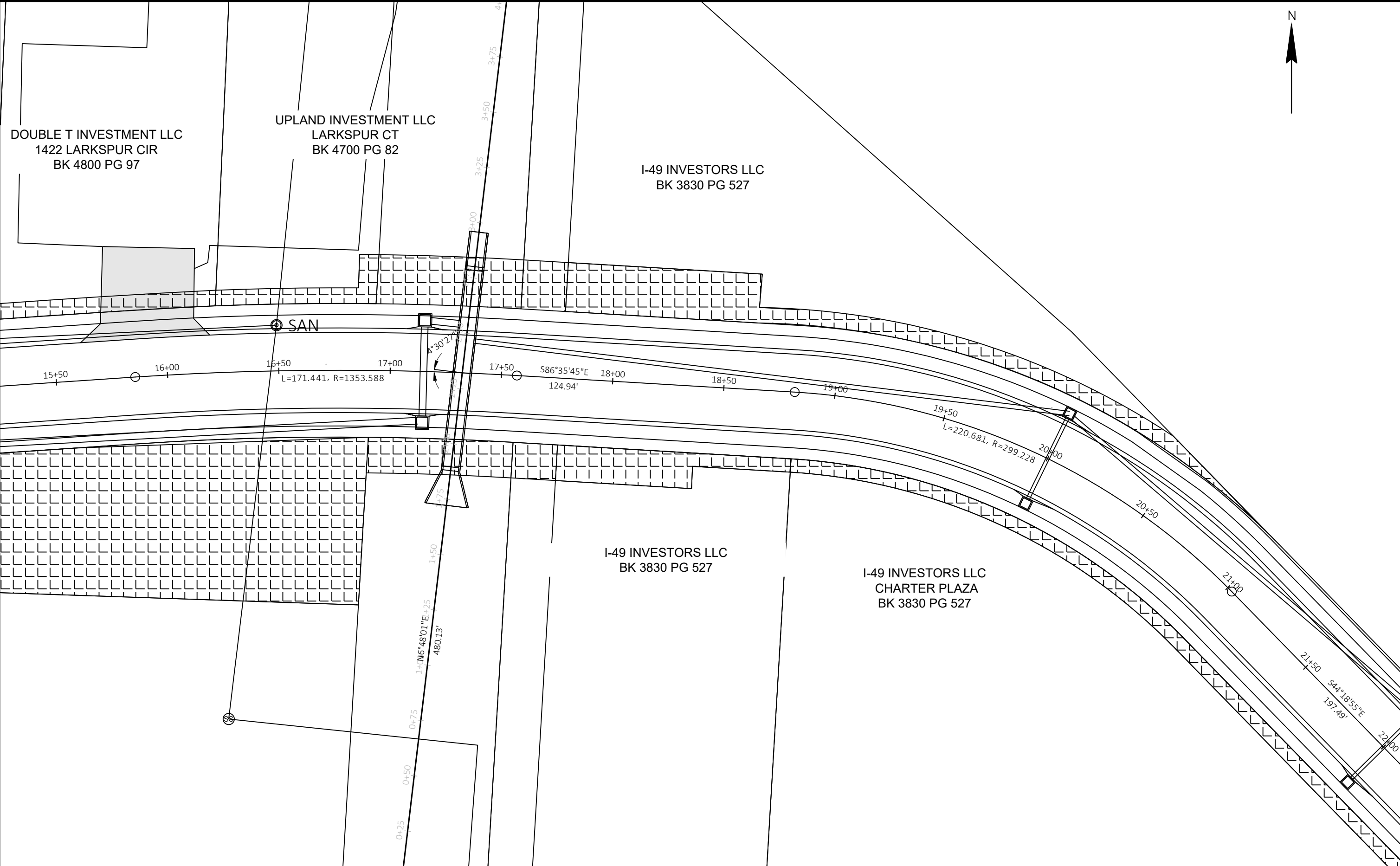








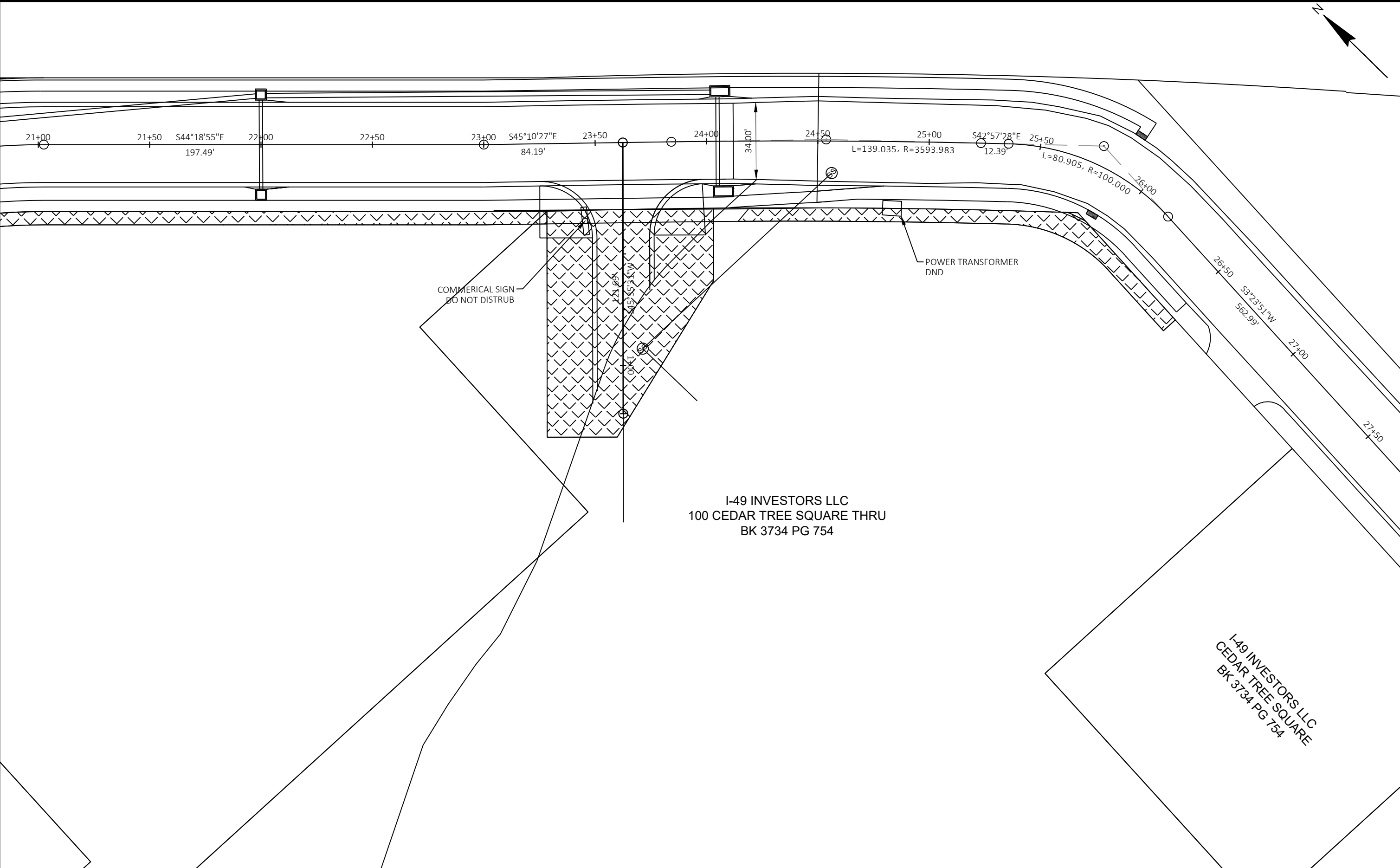
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PROJECT NO:	ST24-001	RTE:	LARKSPUR CIRCLE	REV:	A	STA:	15+50	TO STA:	22+00	CITY OF BELTON - ENGINEERING DEPARTMENT	ROW PLAN	TOTAL SHEETS	56	SHEET	10	E
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FILE NAME : C:\USERS\DNHUYEN\ONEDRIVE - BELTONMO\PUBLIC WORKS\CAPITAL IMPROVEMENT PROJECTS\STREETS\LARKSPUR CONNECTION\DESIGN\CAD\9.13.25 DESIGN\RIGHT OF WAY.DWG PLOT DATE : 9/25/2025 3:12 PM PLOT BY : DANE NGUYEN PLOT NAME : PLOT SCALE : 1" = 40'

LAYOUT NAME - 04 ROW PLAN (2)



PROJECT NO:	ST24-001	RTE:	LARKSPUR CIRCLE	REV:	A	STA:	22+00	TO STA:	27+50	CITY OF BELTON - ENGINEERING DEPARTMENT	ROW PLAN	TOTAL SHEETS	56	SHEET	11	E
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FILE NAME : C:\USERS\DNNGUYEN\ONEDRIVE - BELTONMO_PUBLIC WORKS\CAPITAL IMPROVEMENT PROJECTS\STREETS\LARKSPUR CONNECTION\DESIGN\CAD\9.13.25 DESIGN\RIGHT OF WAY.DWG

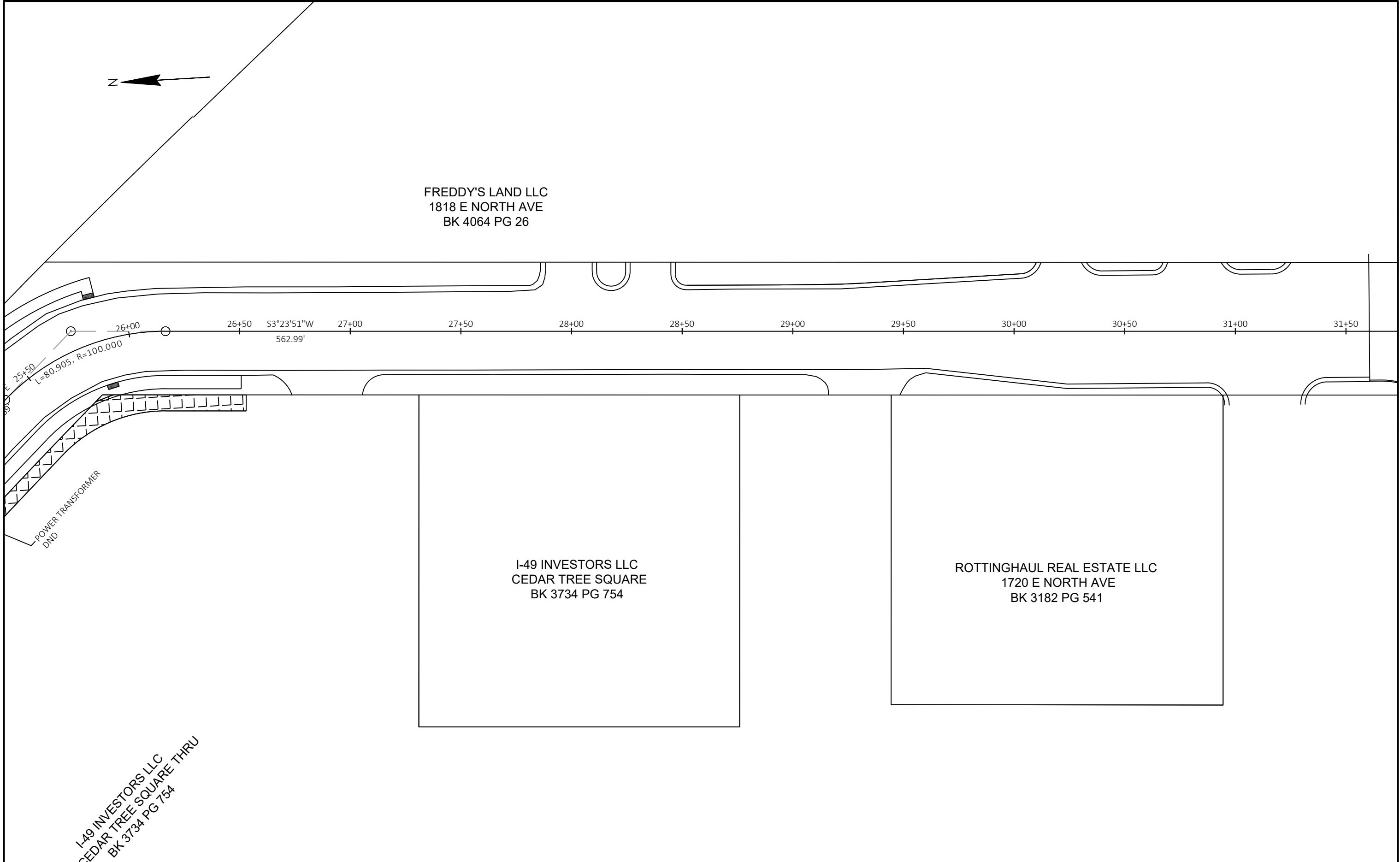
PLOT DATE : 9/25/2025 3:12 PM

PLOT BY : DANE NGUYEN

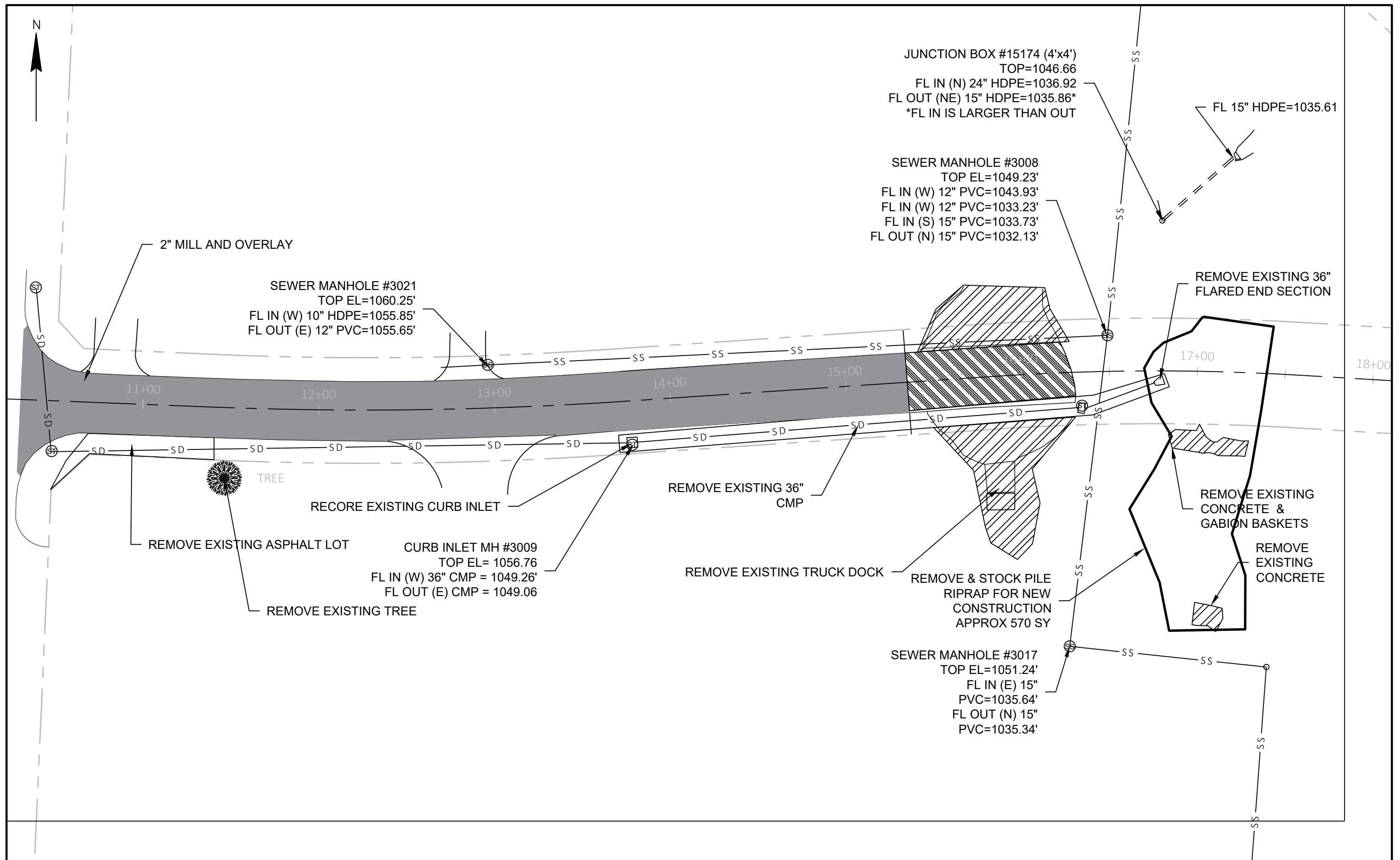
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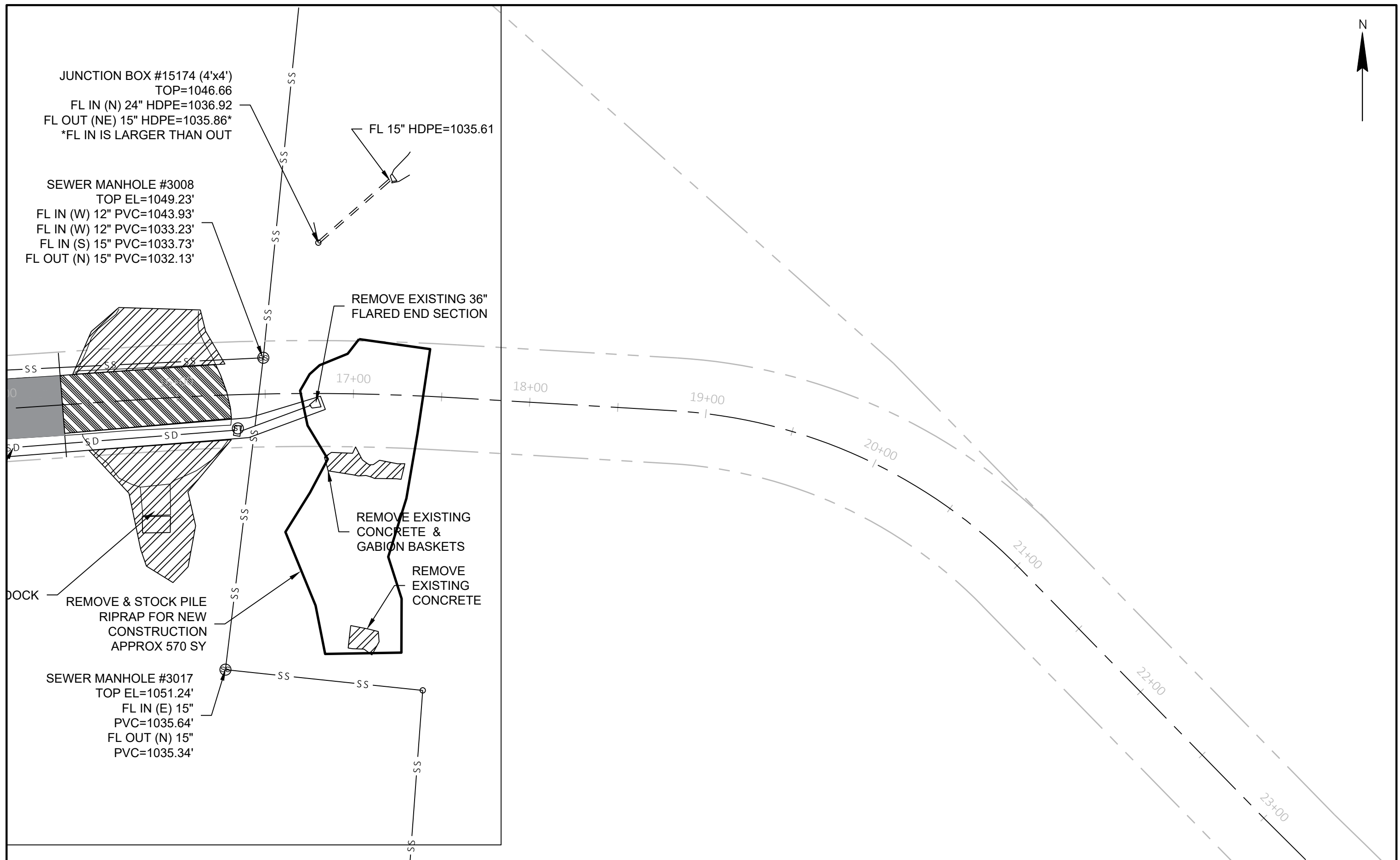
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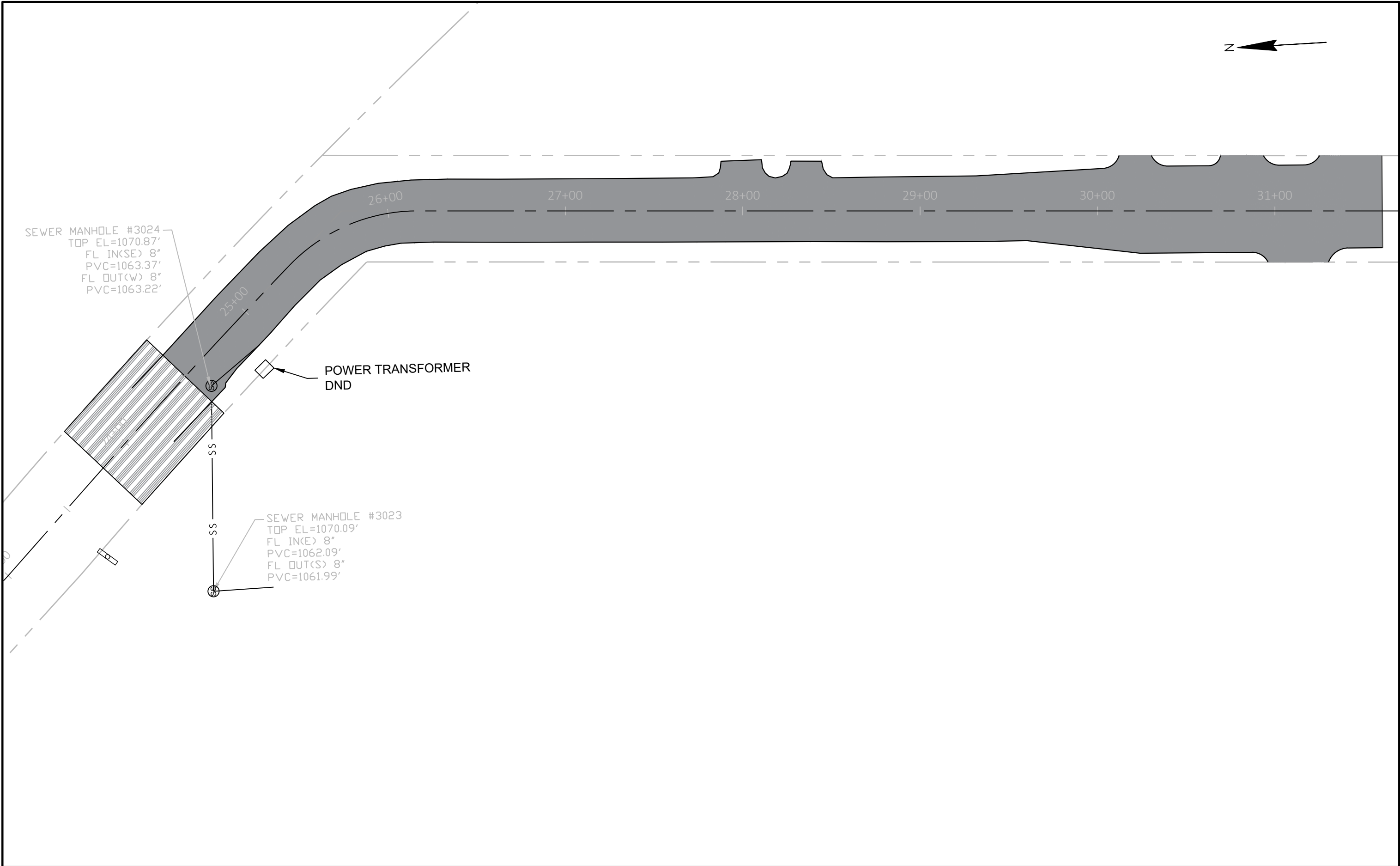
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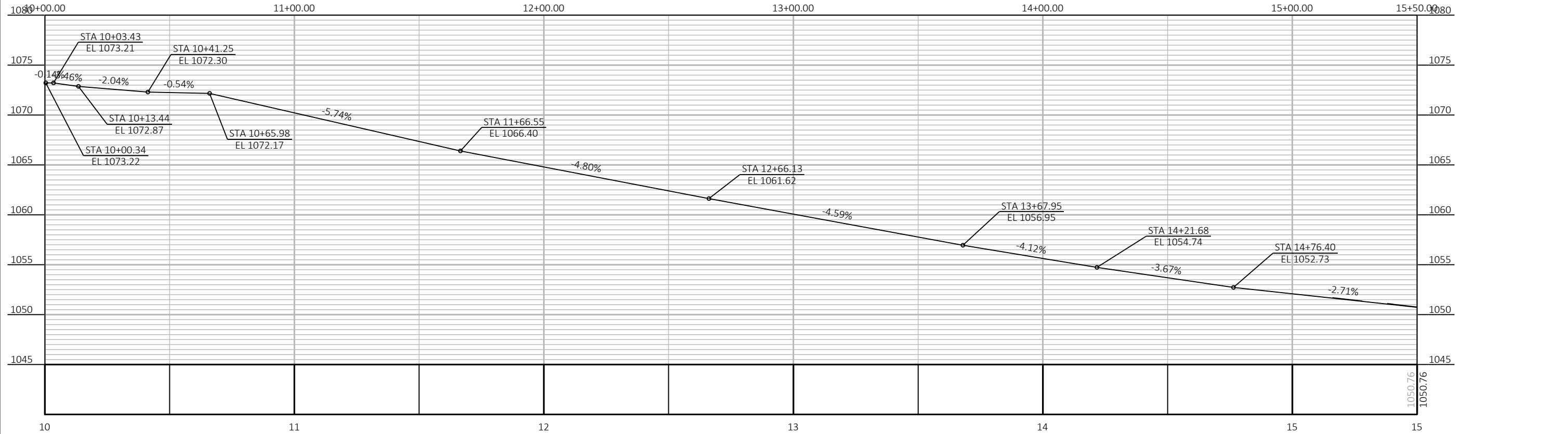
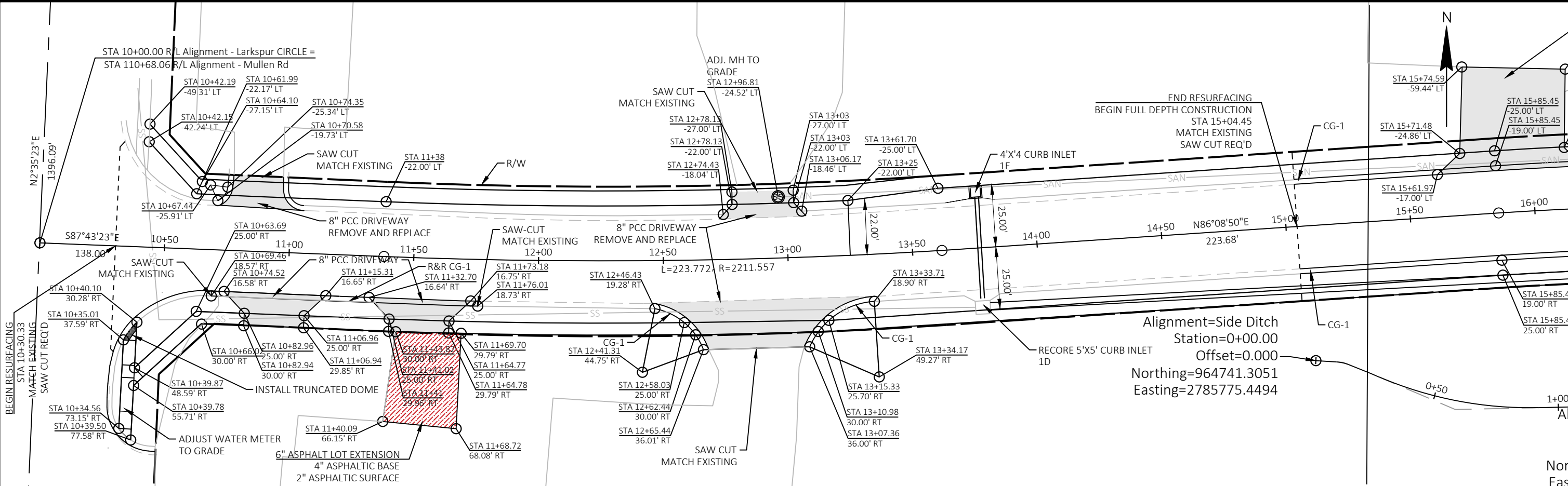


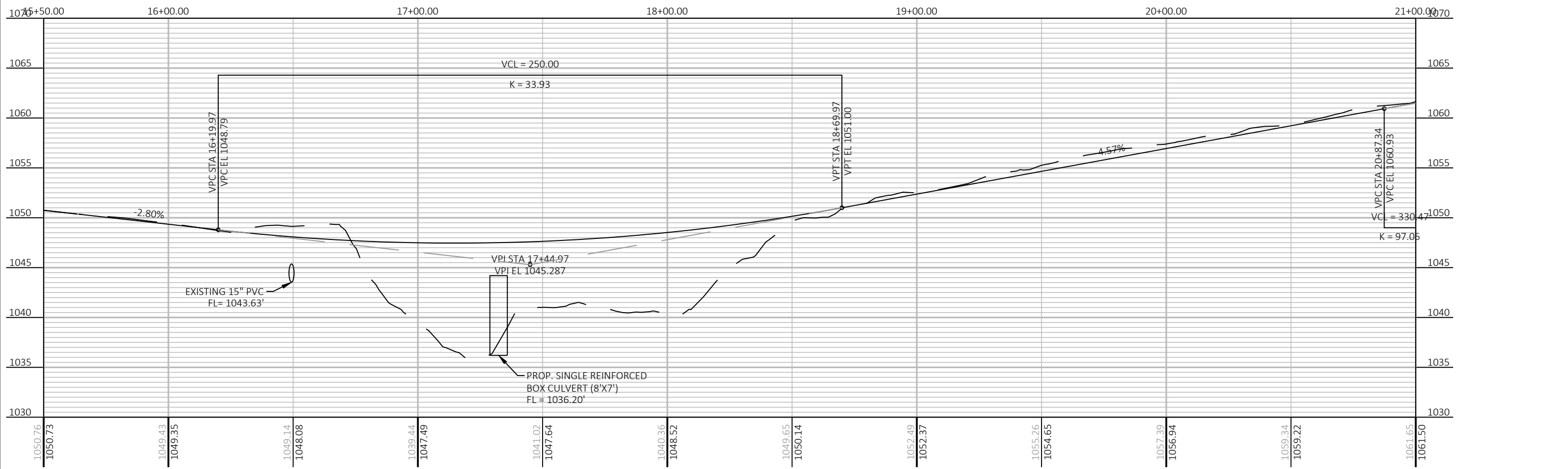
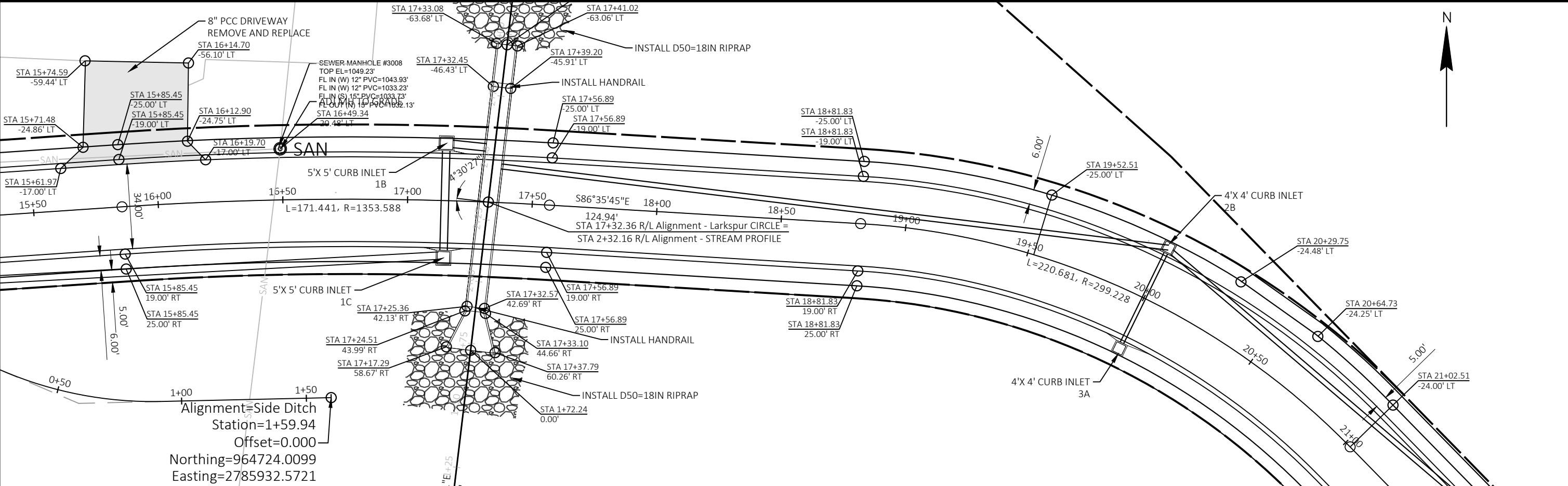
PROJECT NO:	ST24-001	RTE: LARKSPUR CIRCLE	REV: A	STA: 22+50	TO STA: 31+50	CITY OF BELTON - ENGINEERING DEPARTMENT	ROW PLAN	TOTAL SHEETS 56	SHEET 12	E
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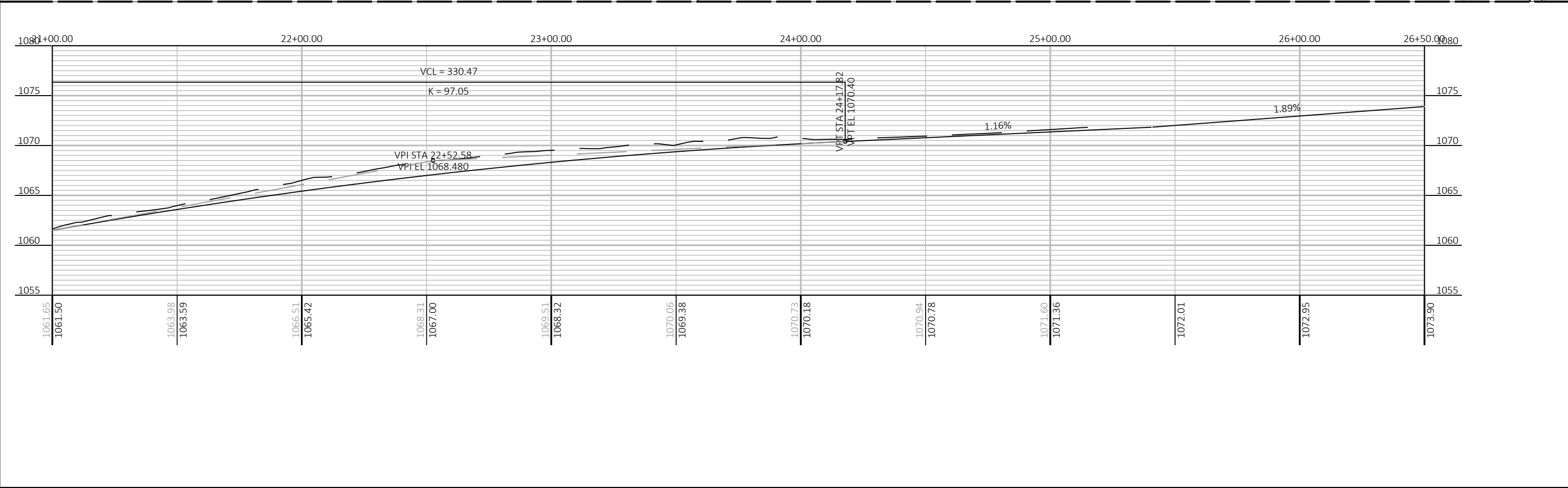
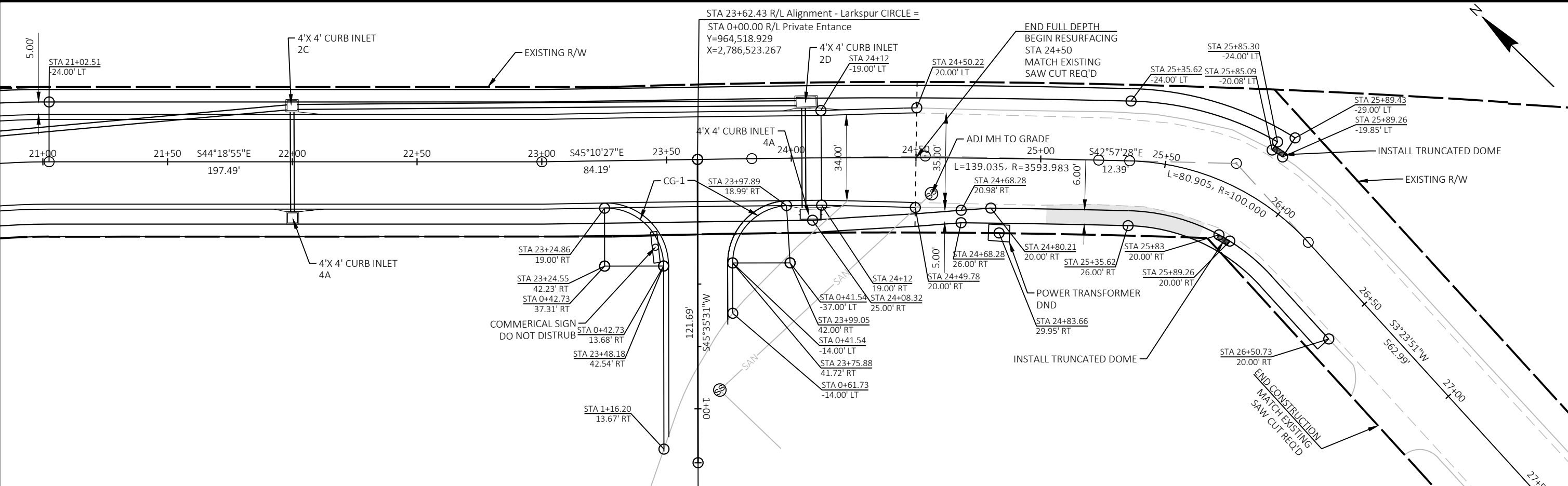


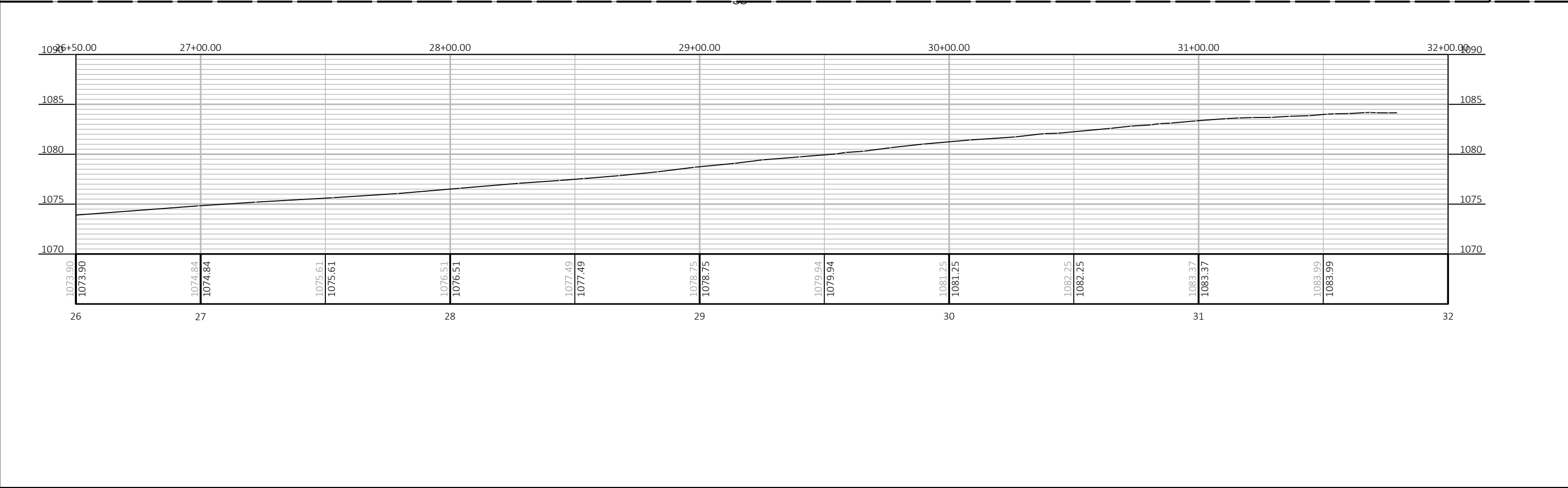
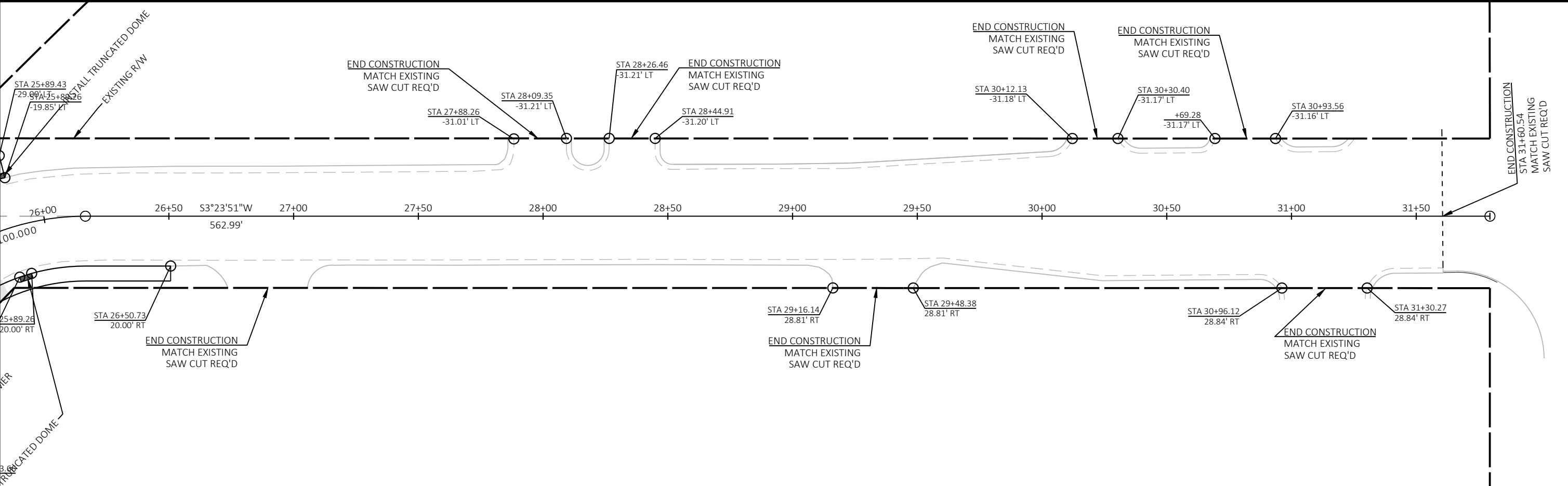


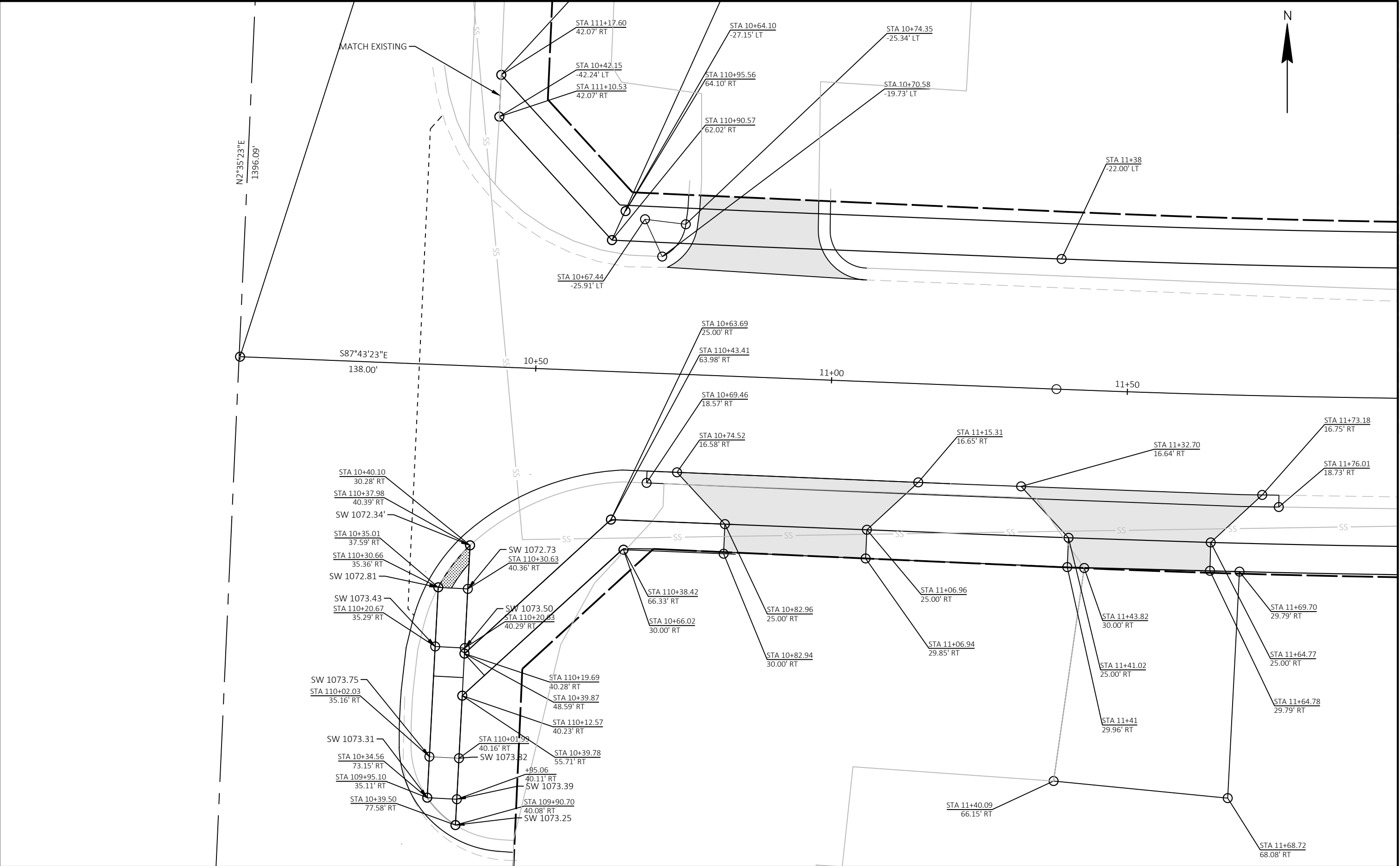






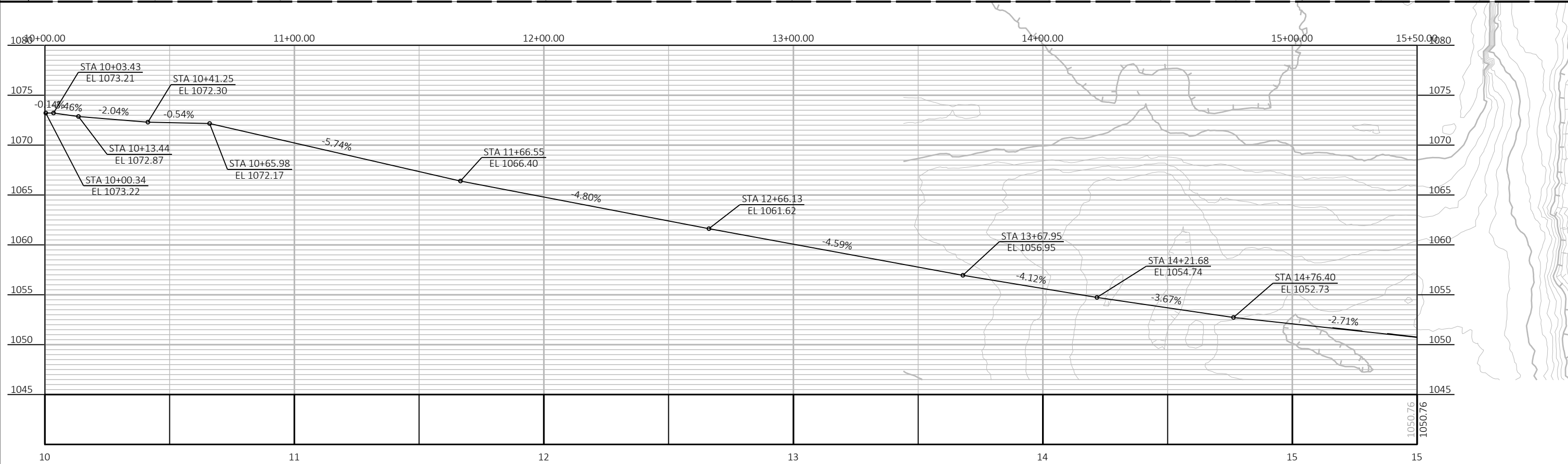
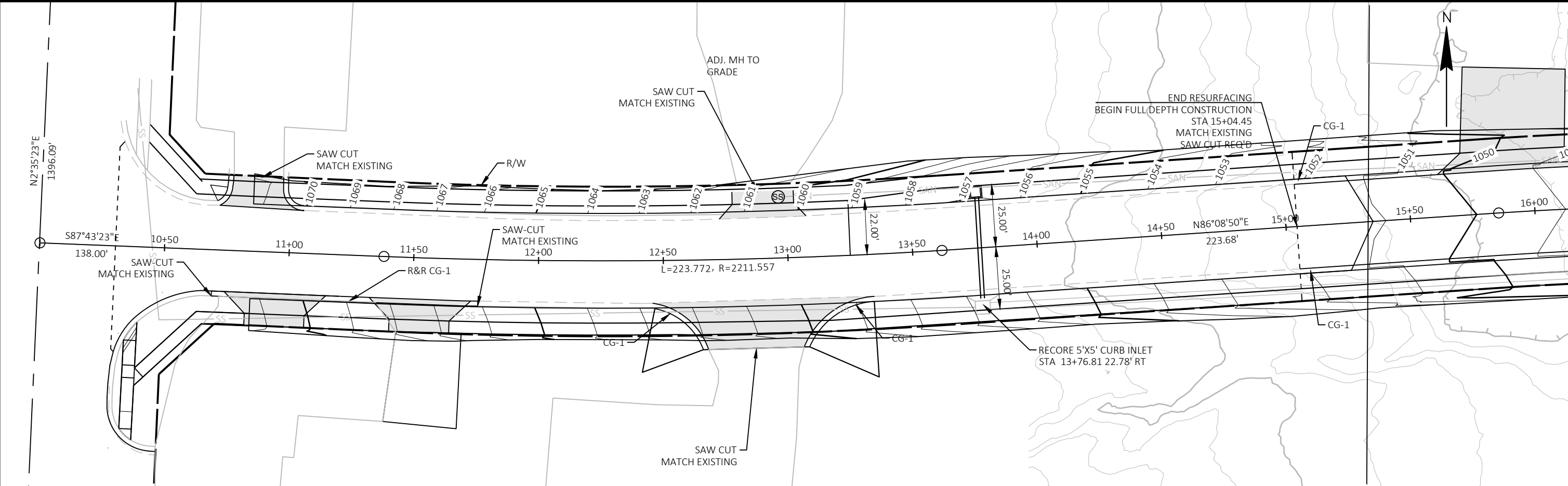


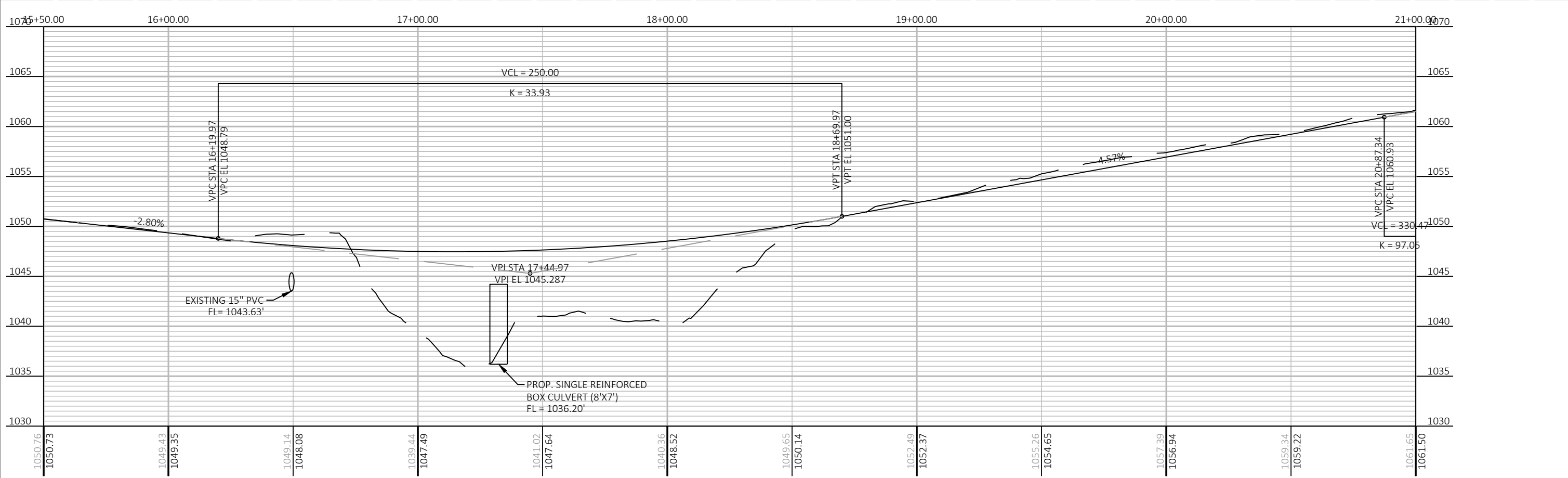
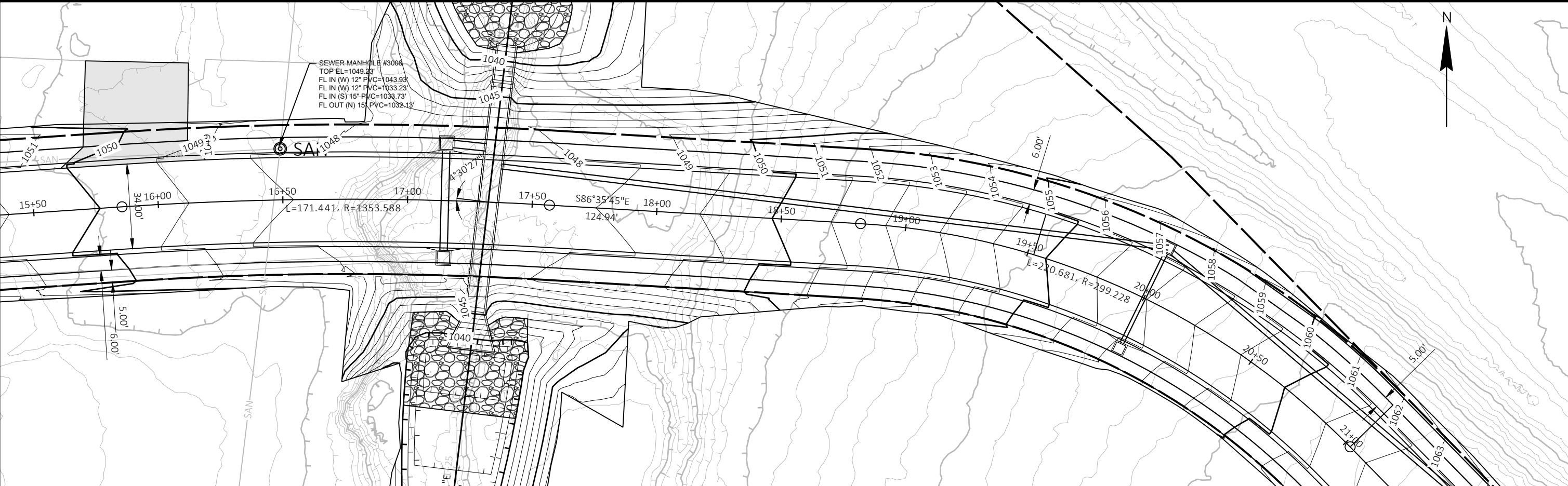


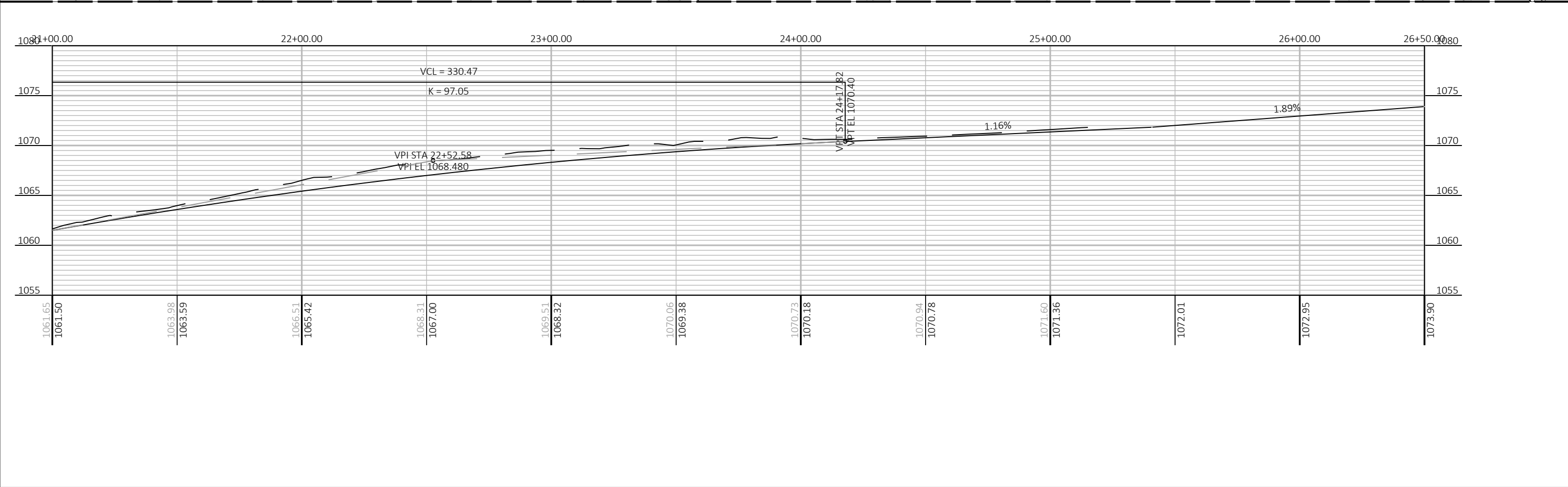
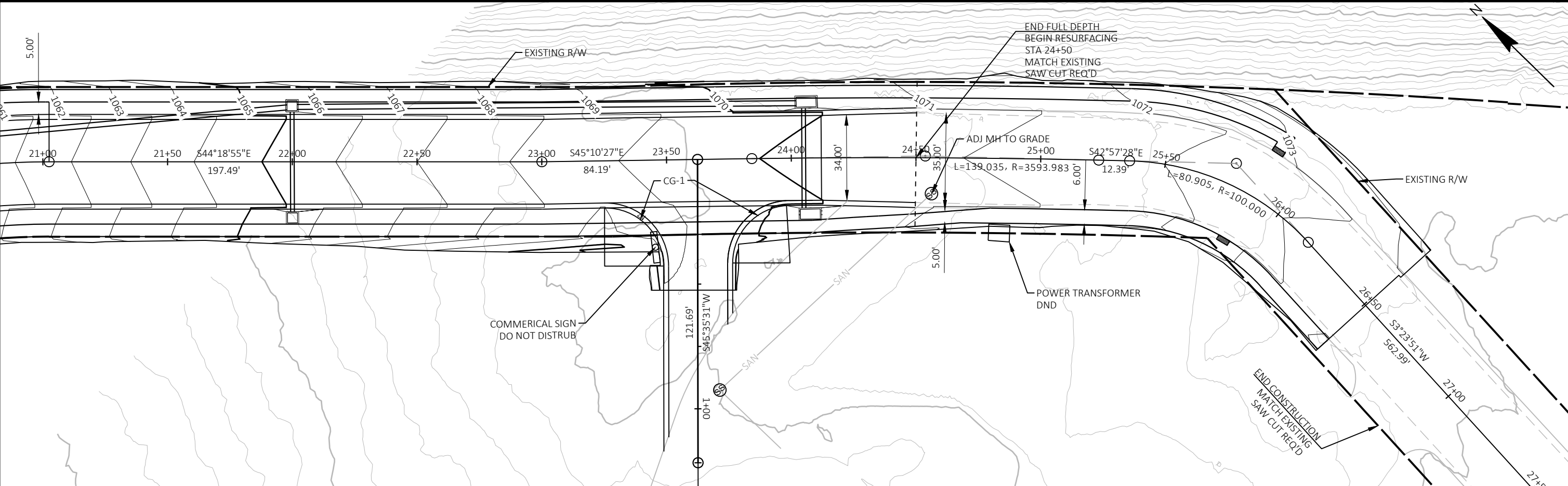


PROJECT NO:	ST24-001	RTE: LARKSPUR CIRCLE	REV: A	STA: 10+00	TO STA: 11+50	CITY OF BELTON - ENGINEERING DEPARTMENT	PLAN AND PROFILE	TOTAL SHEETS 56	SHEET 21	E
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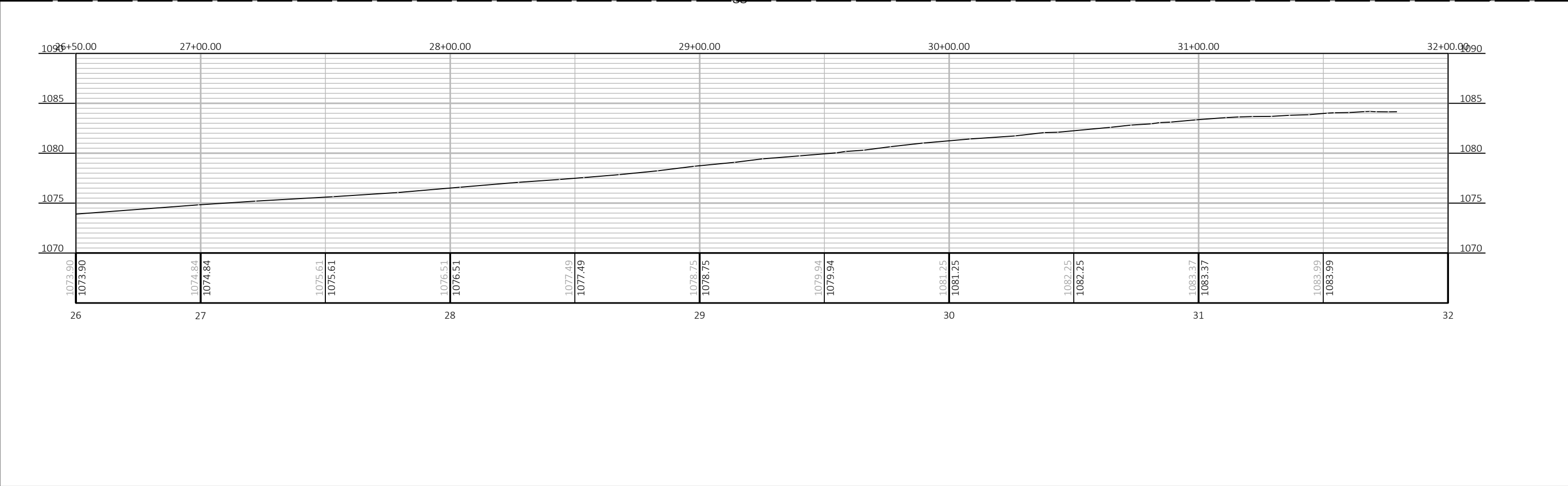
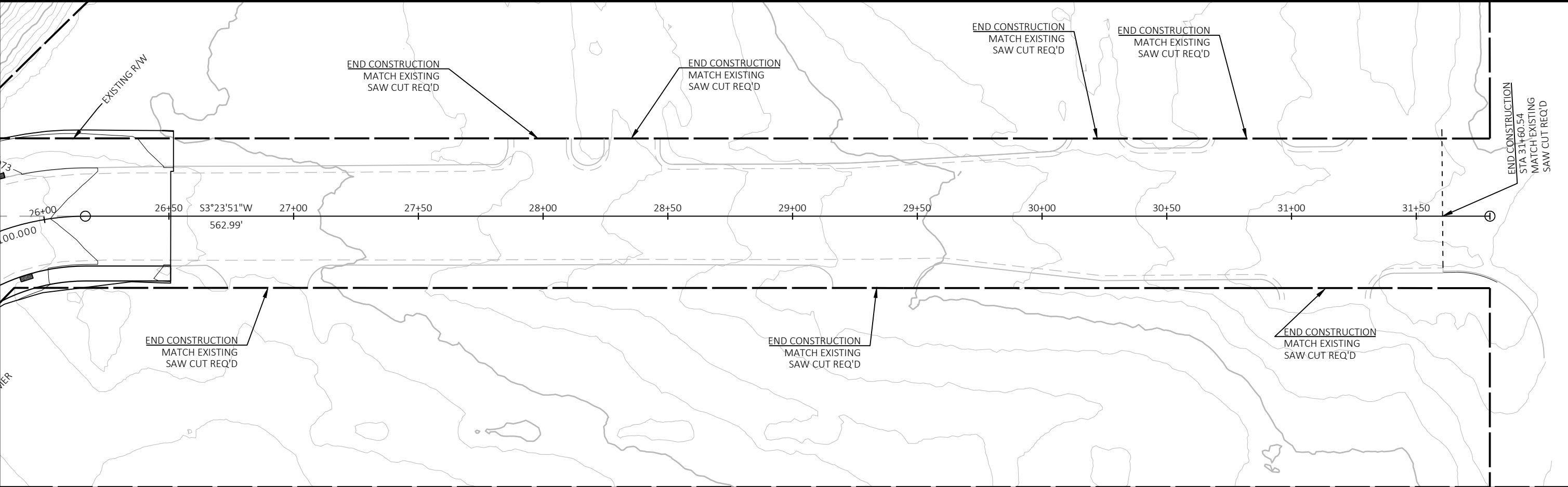
FILE NAME : C:\USERS\NGUYEN\ONEDRIVE - BELTONMO\PUBLIC WORKS\CAPITAL IMPROVEMENT PROJECTS\STREETS\LARKSPUR CONNECTION\DESIGN\CAD\9.13.25 DESIGN\PLAN AND PROFILE.DWG PLOT DATE : 9/25/2025 3:13 PM PLOT BY : DANE NGUYEN PLOT NAME : PLOT SCALE : 1:15 LAYOUT NAME - 04 ROW PLAN (3)



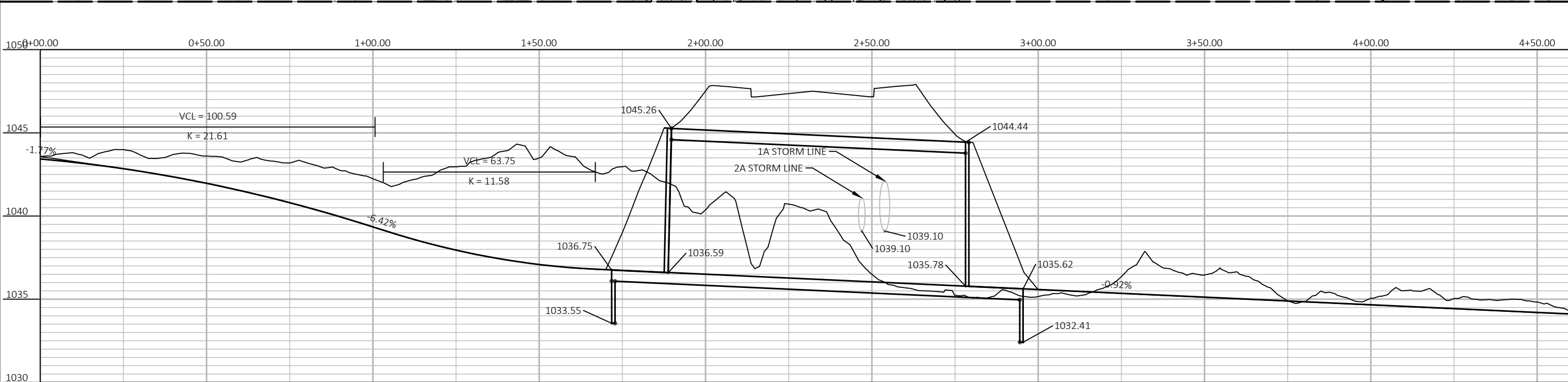
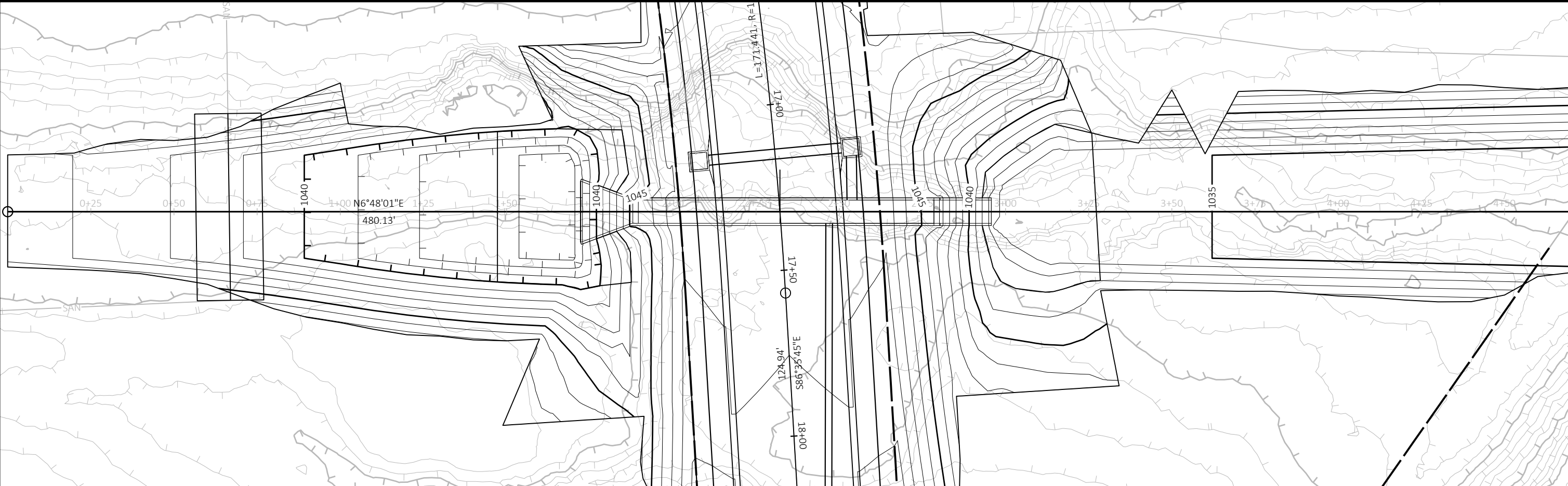


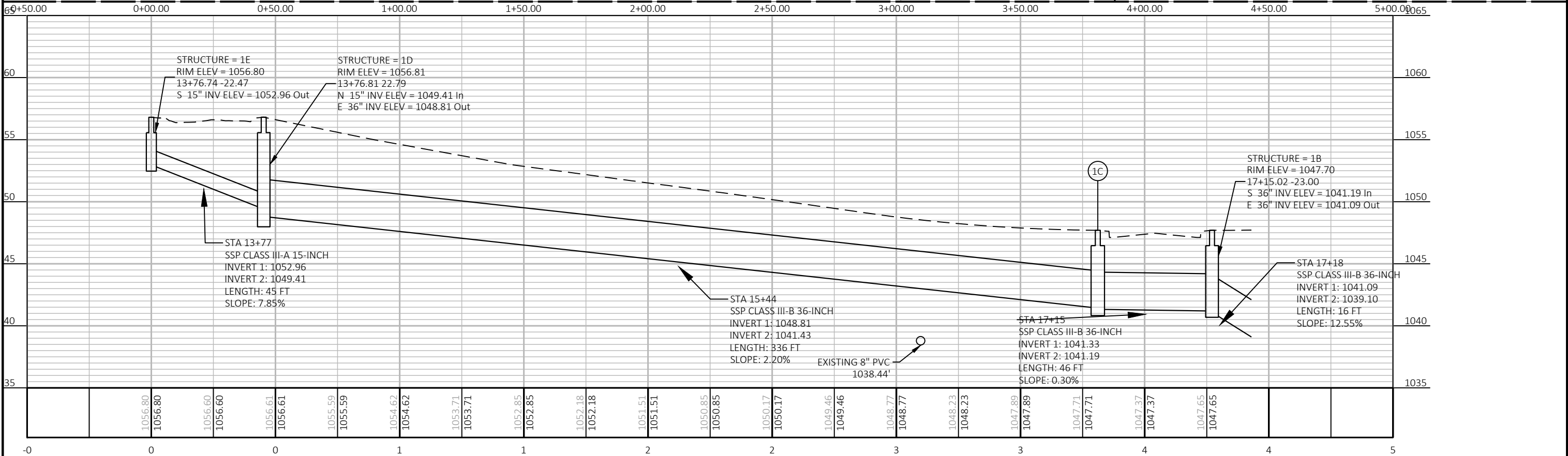
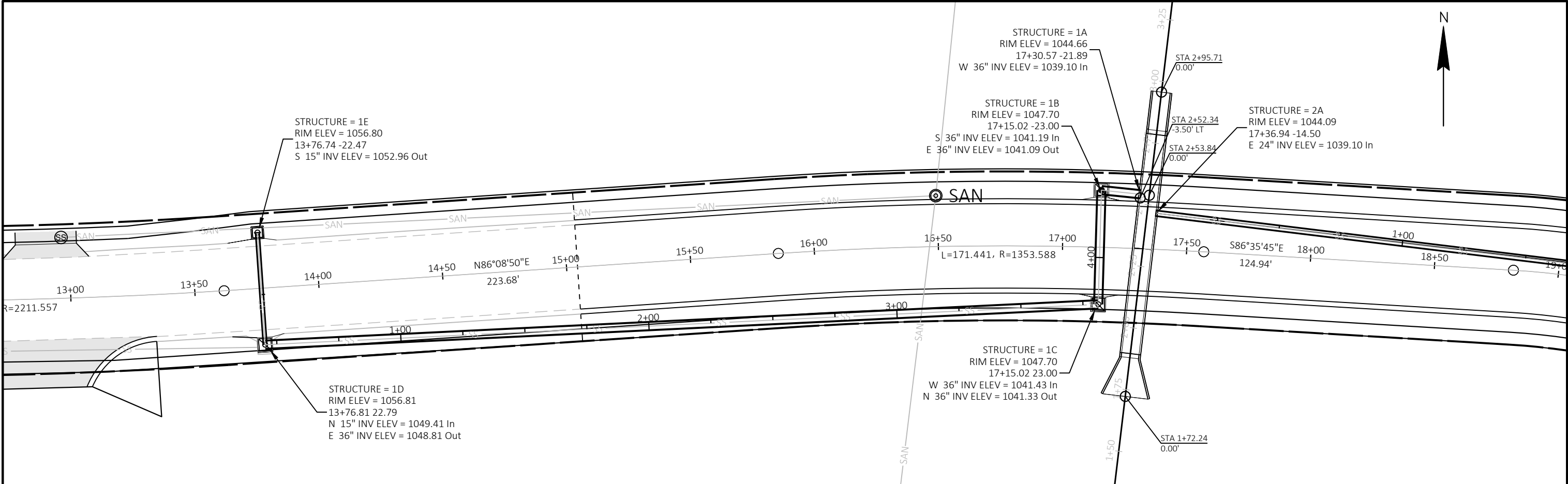


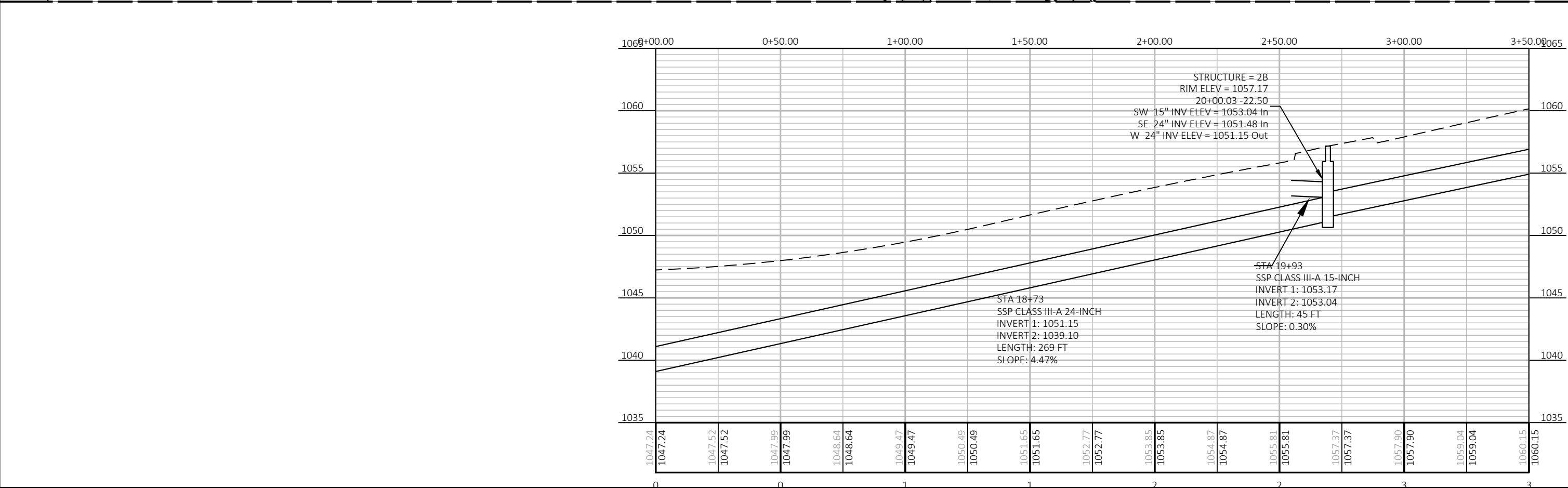
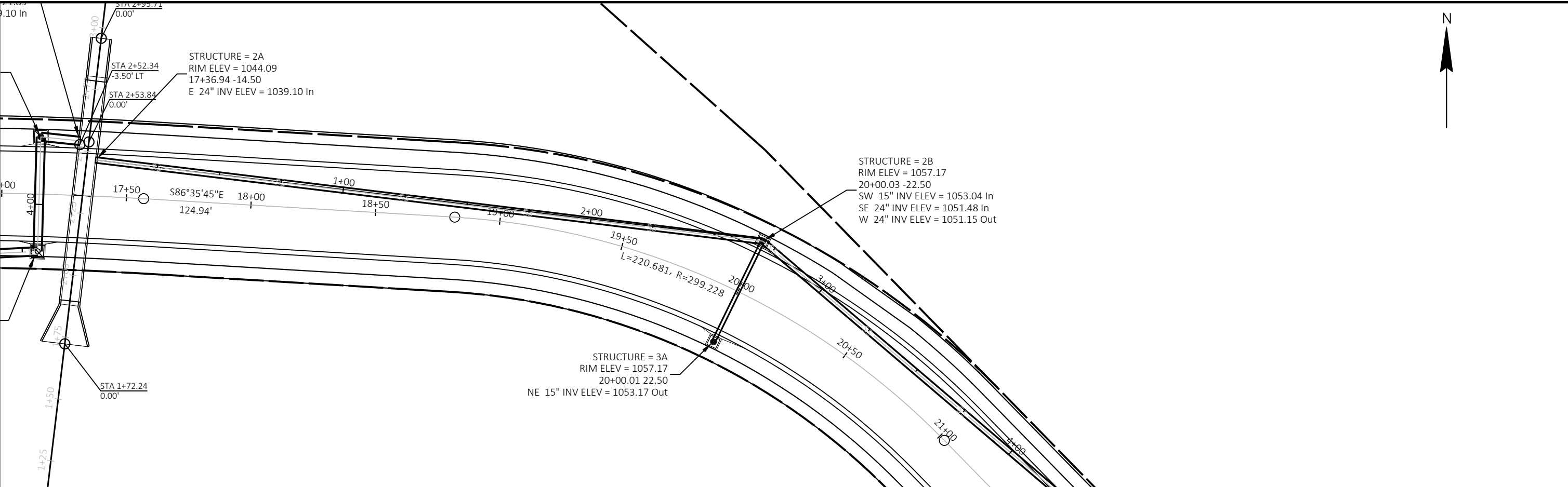
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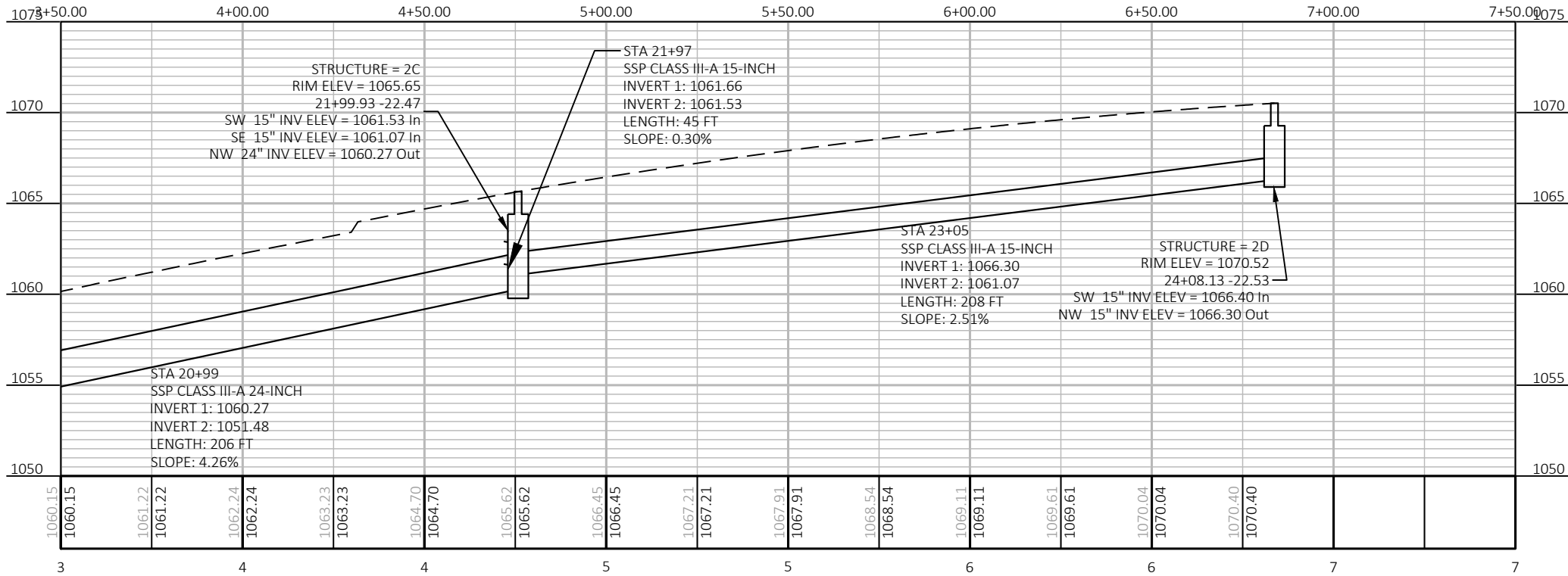
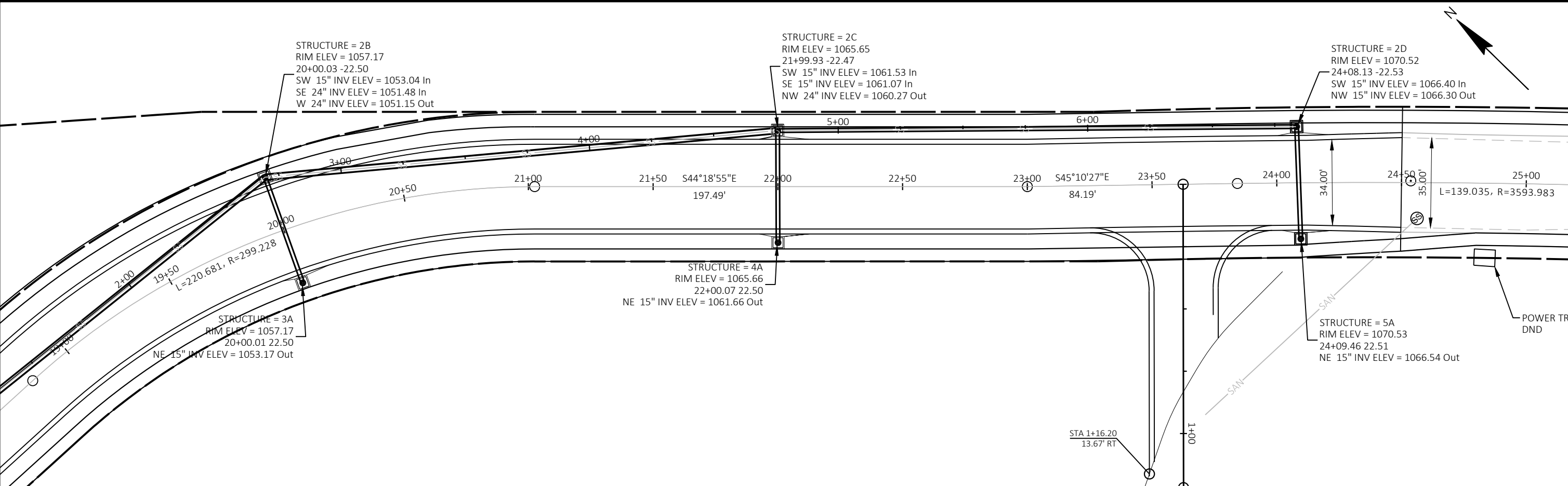
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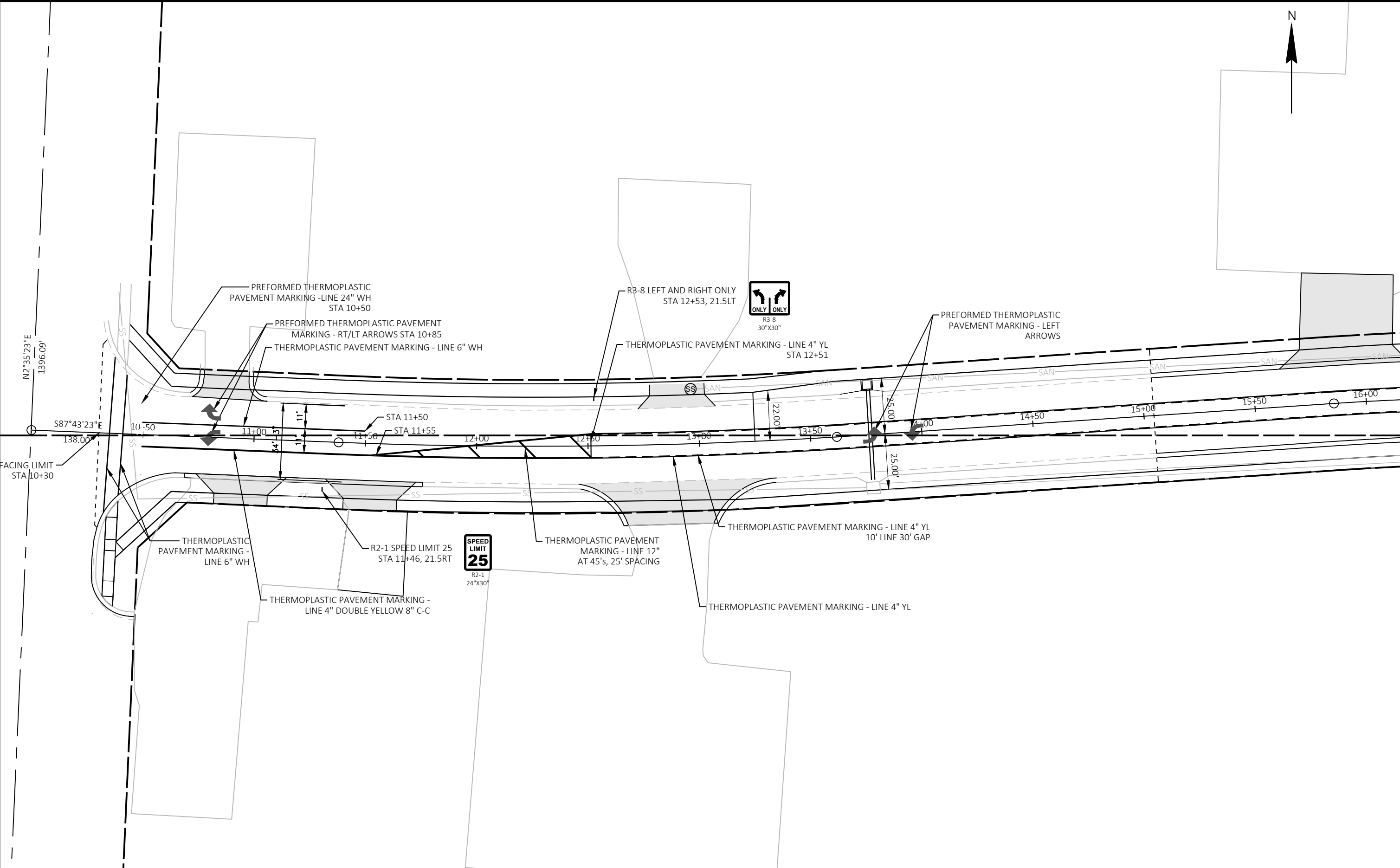


PROJECT NO:	ST24-001	ROUTE:	LARKSPUR CIRCLE	REV:	A	STA:	17+00	TO STA:	21+00	CITY OF BELTON - ENGINEERING DEPARTMENT	STORMWATER PLAN	TOTAL SHEETS	56	SHEET	28	E
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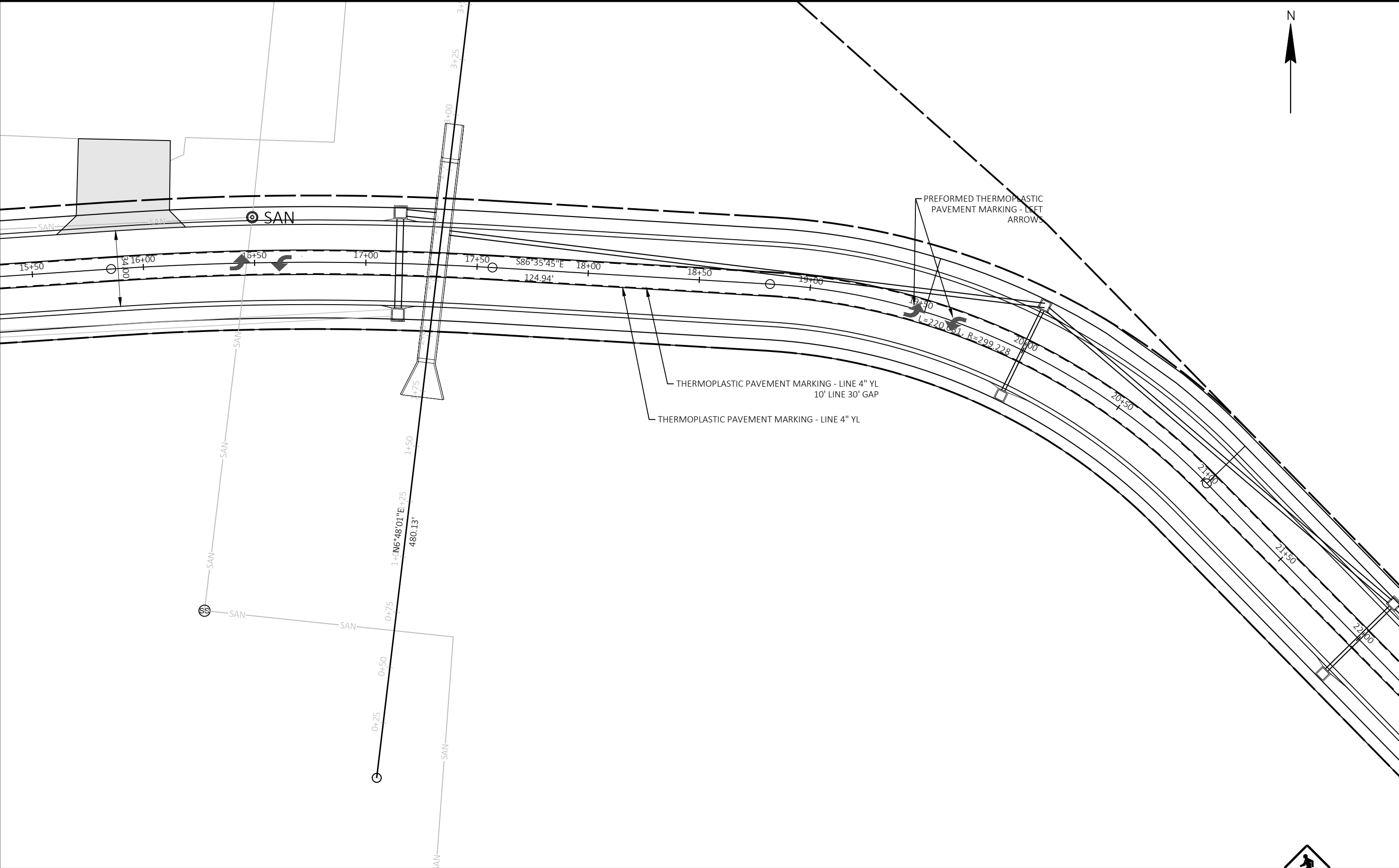


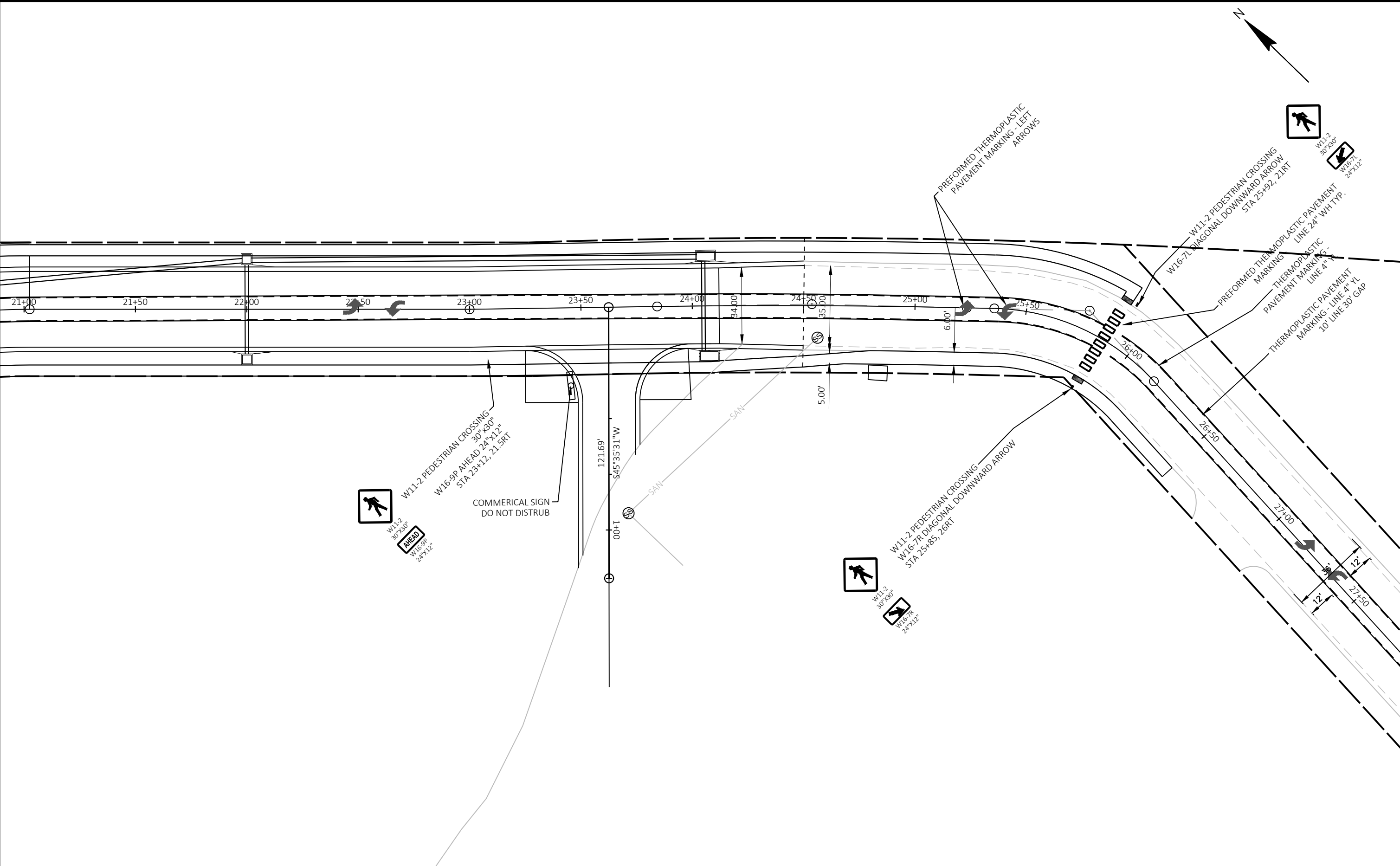
STORM SEWER STRUCTURE TABLE													
STRUCTURE NUMBER	STATION	OFFSET	TYPE	RIM ELEVATION	SUMP ELEVATION	INVERT ELEVATIONS							
						NORTH	NORTHEAST	EAST	SOUTHEAST	SOUTH	SOUTHWEST	WEST	NORTHWEST
1B	17+15.02	23 LT	CURB INLET 5' X 5'	1047.7	1040.79			1041.09		1041.19			
1C	17+15.02	23 RT	CURB INLET 5' X 5'	1047.7	1041.03	1041.33						1041.43	
1E	13+76.74	22.47 LT	CURB INLET 4'X4'	1056.8	1056.5					1052.96			
2B	20+00.03	22.5 LT	CURB INLET 4'X4'	1057.17	1050.85				1051.48		1053.04	1051.15	
2C	21+99.93	22.5 LT	CURB INLET 4'X4'	1065.65	1059.97				1061.07		1061.53		1060.27
2D	24+08.13	22.5 LT	CURB INLET 4'X4'	1070.52	1066						1066.4		1066.3
3A	20+00.01	22.5 RT	CURB INLET 4'X4'	1057.17	1052.87		1053.17						
4A	22+00.07	22.5 RT	CURB INLET 4'X4'	1065.66	1061.36		1061.66						
5A	24+09.46	22.5 RT	CURB INLET 4'X4'	1070.53	1066.24		1066.54						

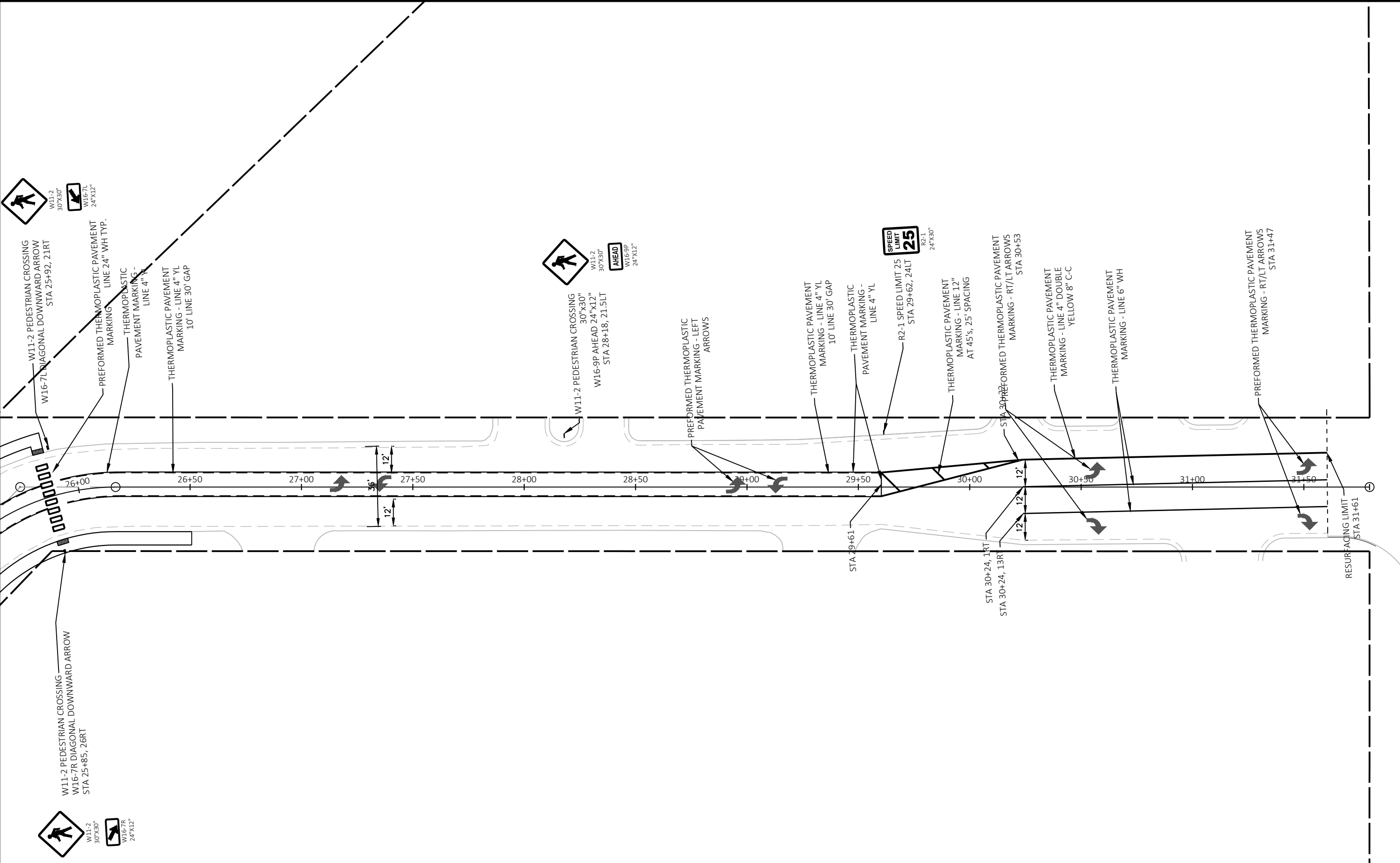
STORM SEWER PIPE TABLE						
STRUCTURE		SIZE & TYPE	LENGTH	SLOPE	UPSTREAM ELEV.	DOWNSTREAM ELEV.
FROM	TO					
1E	1D	15" RCP	45.0	7.85%	1052.96	1049.41
1D	1C	36" RCP	336.0	2.20%	1048.81	1041.43
1C	1B	36" RCP	46.0	0.30%	1041.33	1041.19
1B	1A	36" RCP	16.0	12.55%	1041.09	1039.1
5A	2D	15" RCP	45.0	0.30%	1066.54	1066.4
2D	2C	15" RCP	208.0	2.51%	1066.3	1061.07
4A	2C	15" RCP	45.0	0.30%	1061.66	1061.52
2C	2B	24" RCP	206.0	4.26%	1060.27	1051.48
3A	2B	15" RCP	45.0	0.30%	1053.18	1053.04
2B	2A	24" RCP	269.5	4.47%	1051.15	1039.1

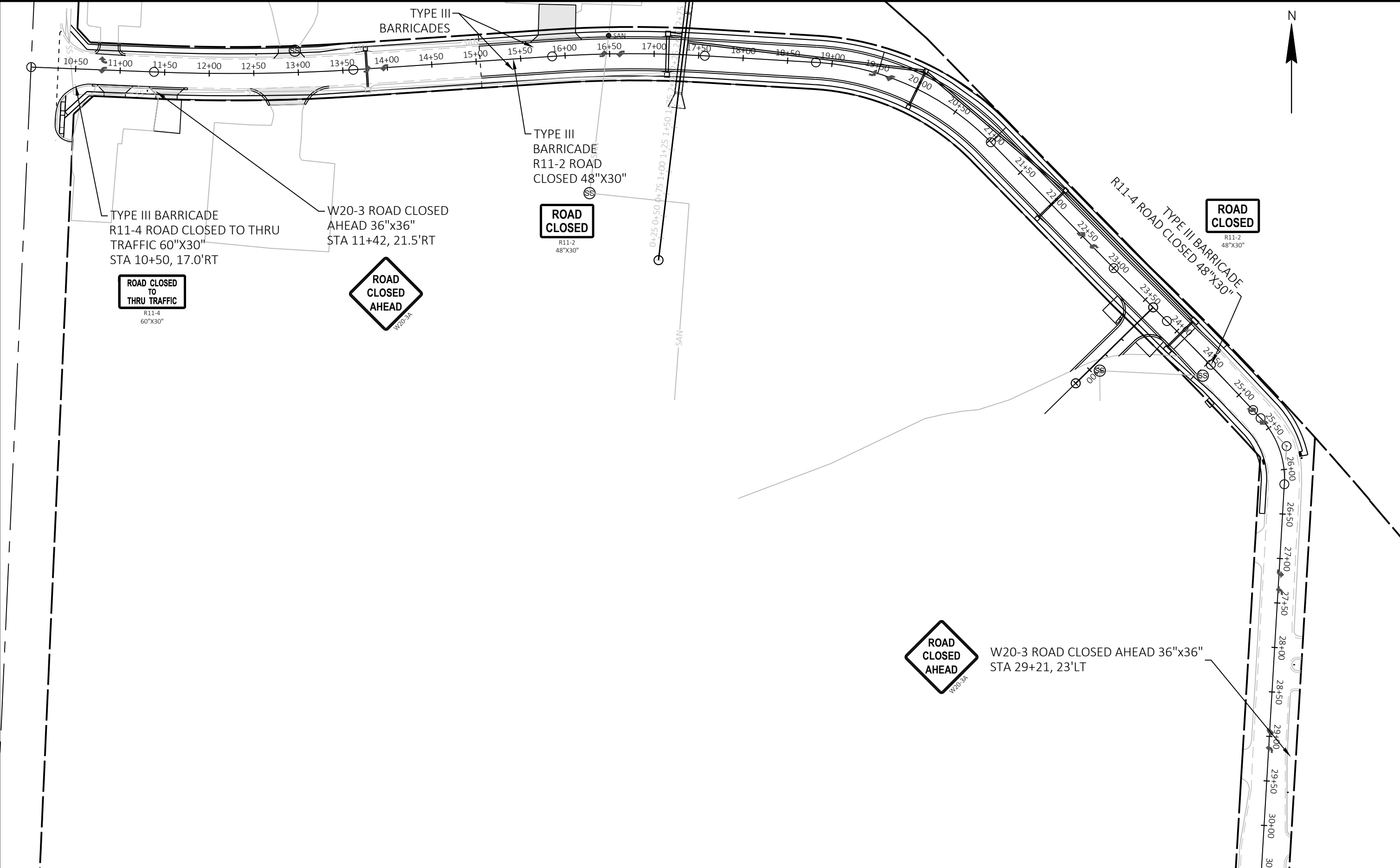


PROJECT NO:	ST24-001	RTE:	LARKSPUR CIRCLE	REV:	A	STA:	10+00	TO STA:	16+00	CITY OF BELTON - ENGINEERING DEPARTMENT	TRAFFIC CONTROL	TOTAL SHEETS	56	SHEET	31	E
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PROJECT NO:	ST24-001	RTE:	LARKSPUR CIRCLE	REV:	A	STA:	10+00	TO STA:	30+00	CITY OF BELTON - ENGINEERING DEPARTMENT	TEMP TRAFFIC CONTROL	TOTAL SHEETS	56	SHEET	35	E
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INSTALLATION NOTES

GRADING

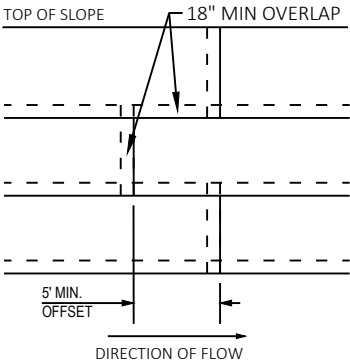
- 1. GRADE AREA TO PROVIDE SMOOTH, EVEN SURFACE AT SPECIFIED DEPTH.
- 2. FILL DEPRESSIONS TO AVOID FILTER FABRIC BRIDGING AND TEARING DURING STONE PLACEMENT.
- 3. REMOVE LARGE STONES, LIMBS, AND OTHER DEBRIS TO PREVENT FILTER FABRIC TEARING/PUNCTURING DURING PLACEMENT.

FILTER FABRIC

- 1. PLACE FILTER FABRIC:
 - a. STARTING AT THE LOWEST POINT, MOVING UPSTREAM AND UPSLOPE SO THAT UPSLOPE LAYER SHEDS RUNOFF OVER DOWNSLOPE LAYER.
 - b. WITH LONG DIMENSION PARALLEL TO FLOW.
 - c. FREE OF TENSION OR STRESS SO IT CAN EASILY CONFORM TO GROUND WHEN STONE IS PLACED.
 - d. FREE OF FOLDS, WRINKLES, OR CREASES SO THAT EROSION CHANNELS DO NOT FORM BELOW FABRIC.
- 2. FASTEN FREE OF TENSION USING PINS OR STAPLES CENTERED ON OVERLAPS AT 3 FEET SPACING.
- 3. TRACKED OR WHEELED EQUIPMENT OR VEHICLES SHALL NOT BE OPERATED ON FABRIC.
- 4. FABRIC SHALL NOT BE LEFT EXPOSED MORE THAN 2 WEEKS PRIOR TO STONE PLACEMENT.

RIPRAP

- 1. PLACE RIPRAP:
 - a. STARTING AT THE BASE OF SLOPES.
 - b. TO FULL COURSE THICKNESS IN ONE OPERATION.
 - c. WITH EVEN DISTRIBUTION AND NO ACCUMULATIONS OF LARGER OR SMALLER STONES.
 - d. IN A MANNER THAT PREVENTS DISPLACING, TEARING, OR PUNCTURING FILTER FABRIC.
- 2. RIPRAP SHALL NOT BE DROPPED MORE THAN 3 FEET.
- 3. PLACING IN LAYERS OR BY DUMPING INTO CHUTES, OR SIMILAR METHOD LIKELY TO CAUSE SEGREGATION IS NOT PERMITTED.
- 4. TEARS OR RIPS IN FILTER FABRIC SHALL BE REPAIRED WITH MINIMUM 12" OVERLAP IN ALL DIRECTIONS.



FILTER FABRIC LAYOUT

RIPRAP DEPTH	
STONE SIZE	MINIMUM DEPTH*
APWA LIGHT	27"
APWA HEAVY	42"
OTHER	2xD ₅₀

D50: MEDIAN SIZE OF STONE; HALF OF STONE IN GRADATION IS LARGER AND HALF IS SMALLER

MATERIAL REQUIREMENTS

RIPRAP STONE

- 1. SOUND, DURABLE, AND ANGULAR (NOT SMOOTH) IN SHAPE
- 2. NO MORE THAN 10% WITH ELONGATION GREATER THAN 3:1 AND NONE WITH ELONGATION GREATER THAN 4:1
- 3. FREE OF CRACKS, SEAMS OR OTHER DEFECTS
- 4. SHALE AND STONE WITH SHALE SEAMS ARE NOT ACCEPTABLE
- 5. MINIMUM DENSITY OF 155 LB/FT³
- 6. WELL GRADED FROM MINIMUM TO MAXIMUM SPECIFIED SIZE, REPRESENTING GRADATION REQUIREMENTS

FILTER FABRIC

- 1. MINIMUM WEIGHT 10 OZ NONWOVEN FABRIC
- 2. SYNTHETIC FIBERS SHALL BE POLYPROPYLENE, NYLON, OR POLYESTER FILAMENT
- 3. MINIMUM 6' WIDTH

STEEL PINS

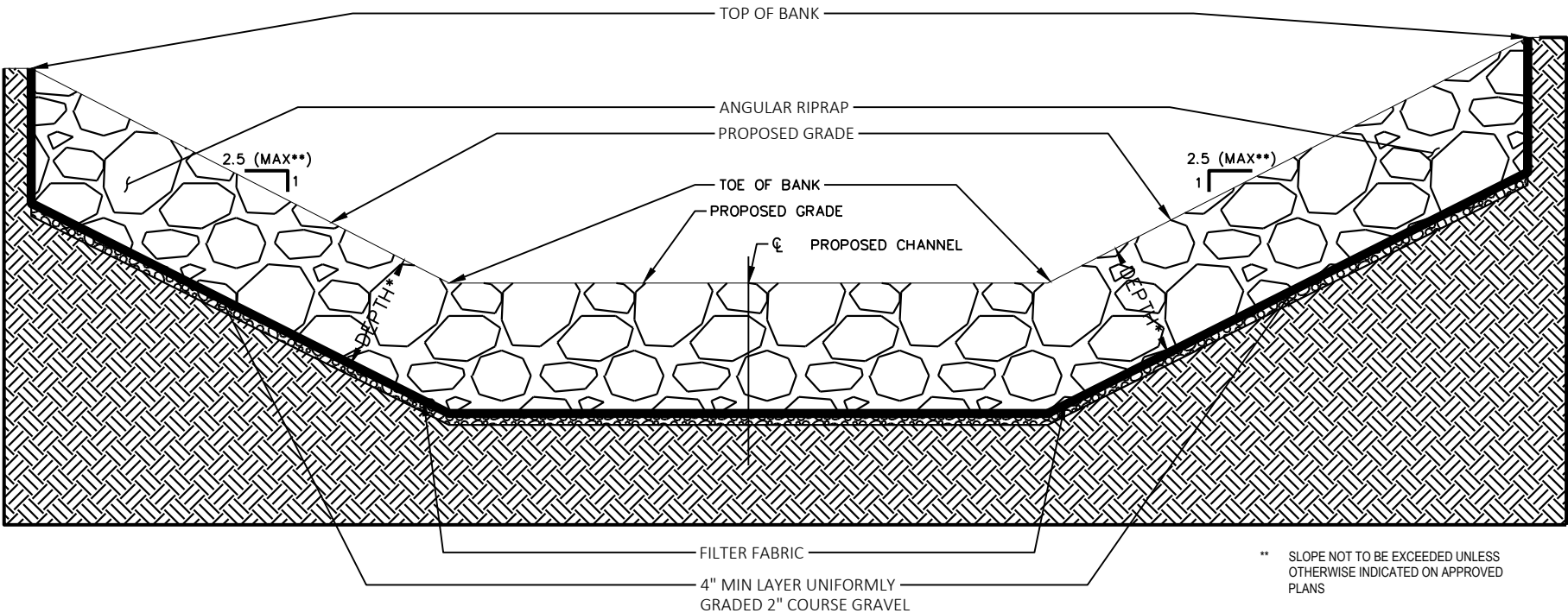
- 1. 0.2" DIAMETER AND 20" LONG
- 2. POINTED ON ONE END AND FITTED WITH 1.6" DIAMETER WASHERS ON THE OTHER END

GRADATION REQUIREMENTS

APWA LIGHT STONE		
DIAMETER (INCHES)	WEIGHT (POUNDS)	MINIMUM PERCENT HEAVIER
18"	250	NONE
13"	100	50%
12"	75	70%
5"	5	90%

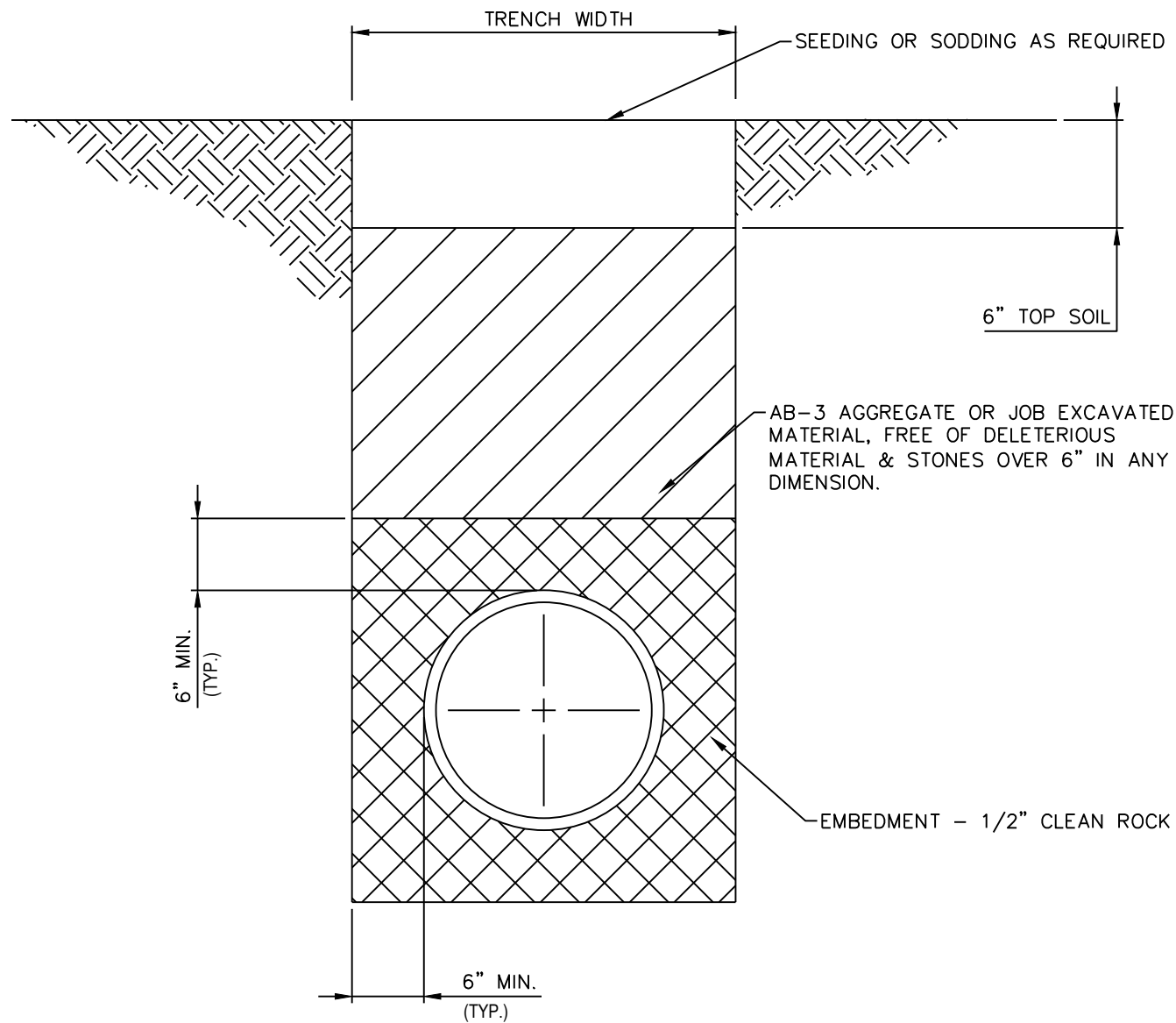
APWA HEAVY STONE		
DIAMETER (INCHES)	WEIGHT (POUNDS)	MINIMUM PERCENT HEAVIER
27"	1000	NONE
21"	500	50%
12"	75	90%

2" UNIFORMLY GRADED COURSE GRAVEL	
DIAMETER (INCHES)	PERCENT SMALLER
2"	100%
0.5"	50%
0.02"	15%

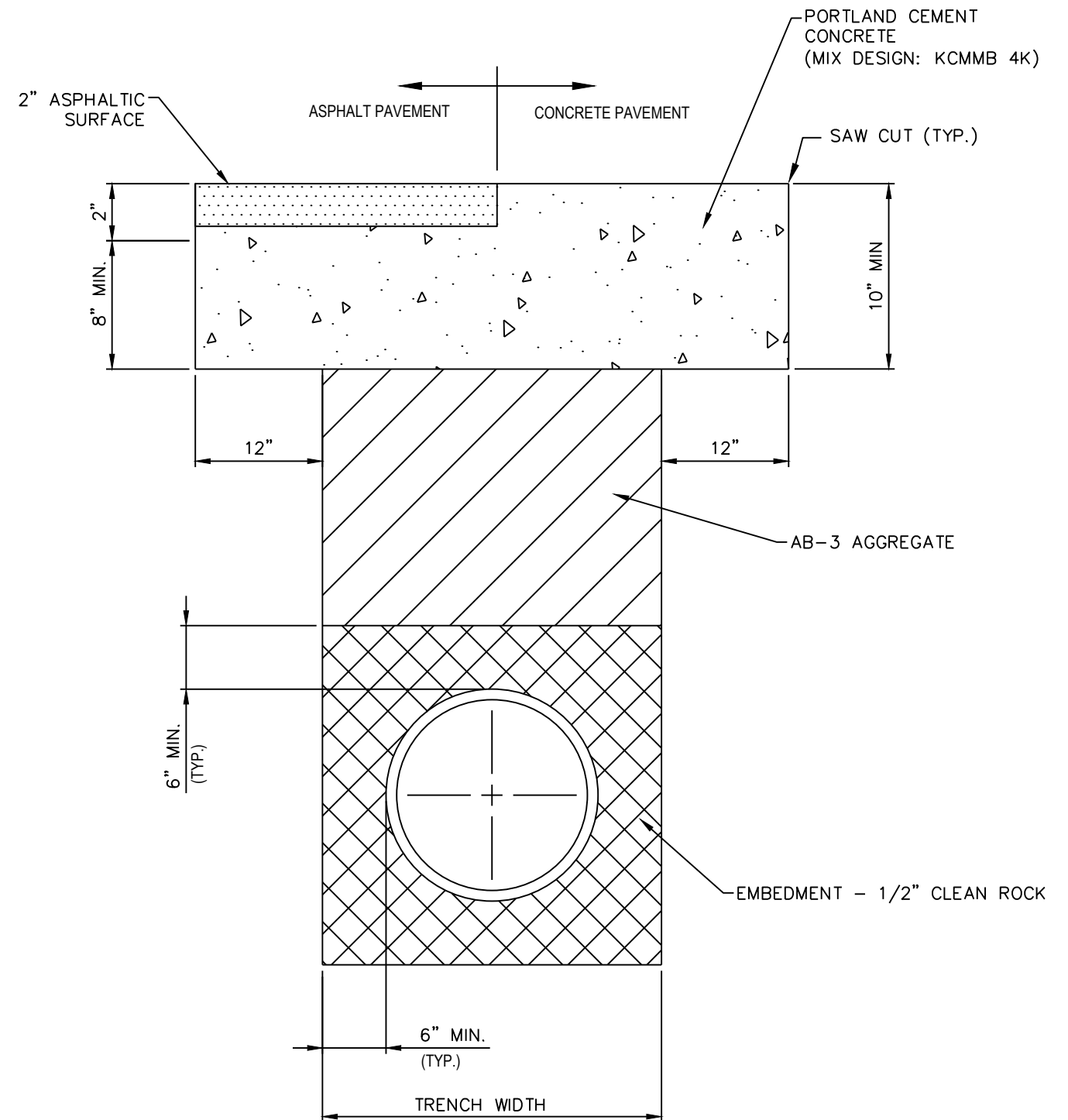


** SLOPE NOT TO BE EXCEEDED UNLESS OTHERWISE INDICATED ON APPROVED PLANS

TYPICAL STREAM SECTION



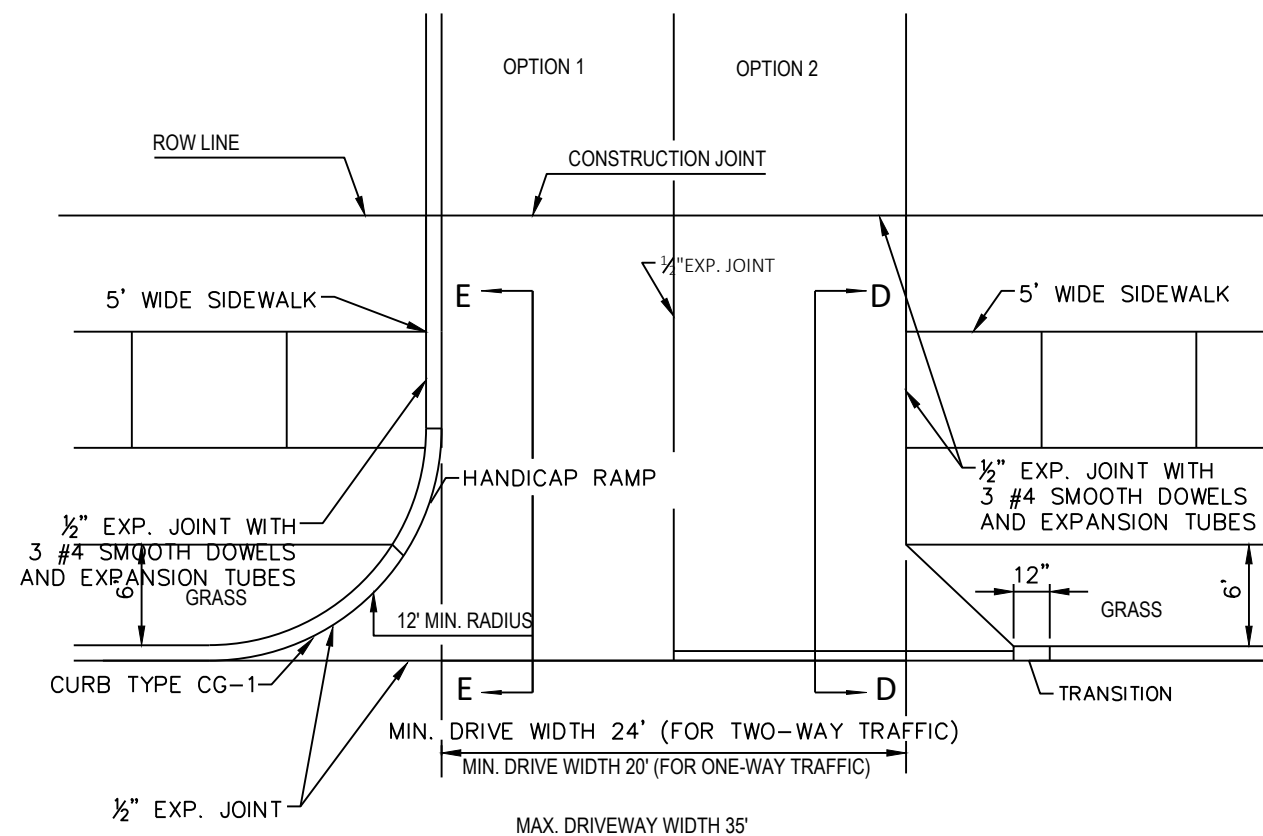
PIPE EMBEDMENT - BACKFILL UNDER NON-PAVED AREAS



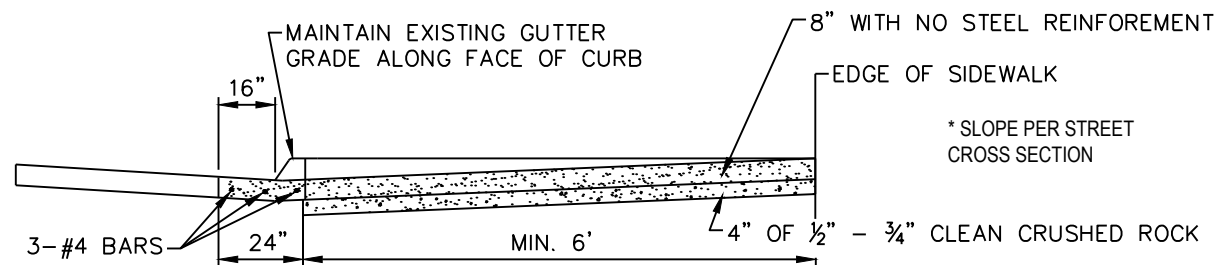
PIPE EMBEDMENT - BACKFILL UNDER PAVED AREAS

NOTES:

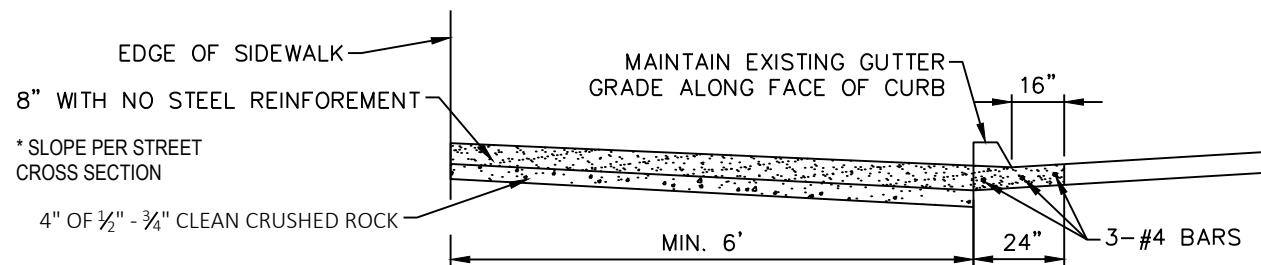
1. IF THE TRENCH WIDTH IS LESS THAN OR EQUAL TO 24-INCHES, IT SHALL BE BACKFILLED WITH FLOWABLE FILL. FLOWABLE FILL MIX DESIGN TO BE APPROVED BY THE CITY PRIOR TO PLACEMENT.



PLAN VIEW



SECTION E-E

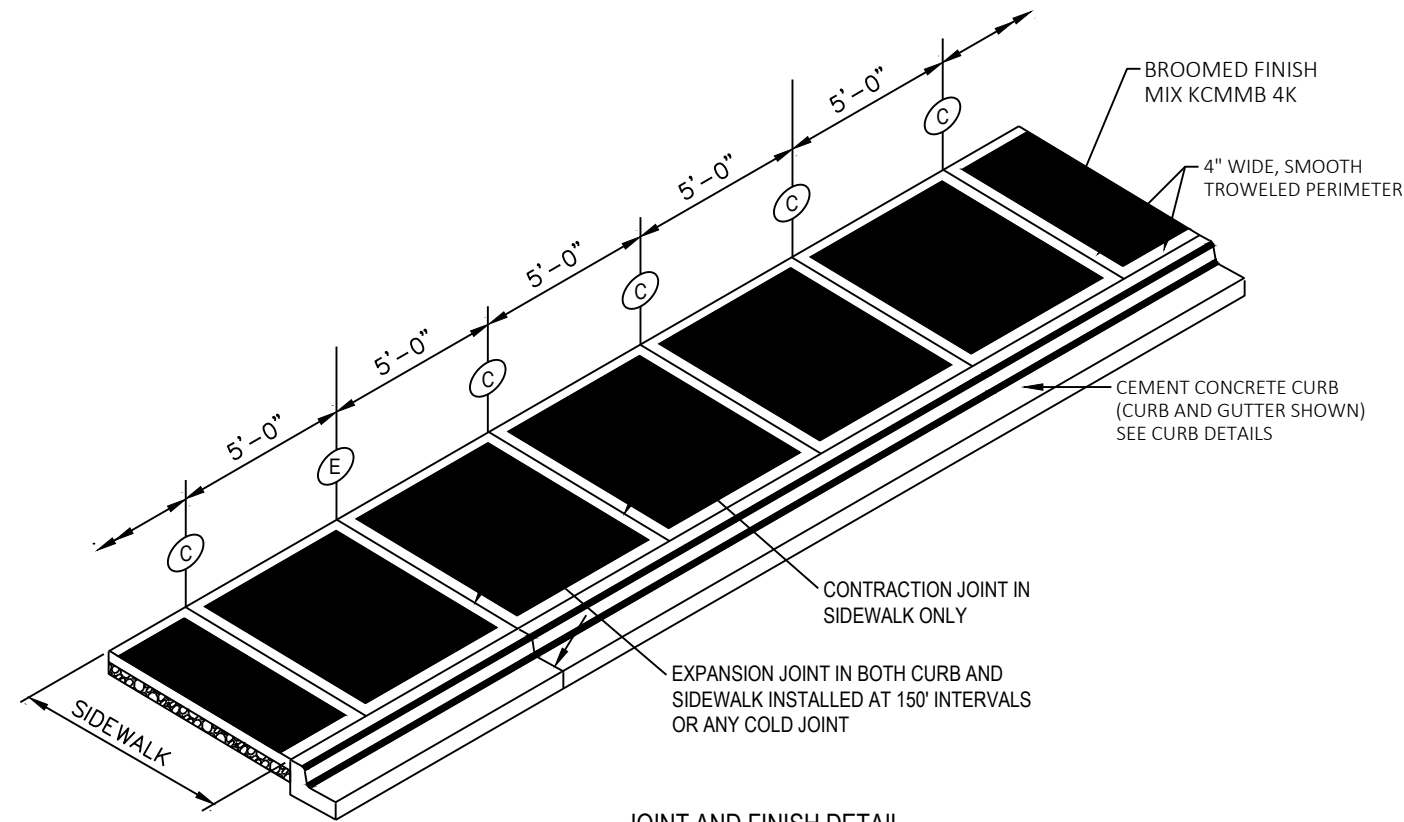


SECTION D-D

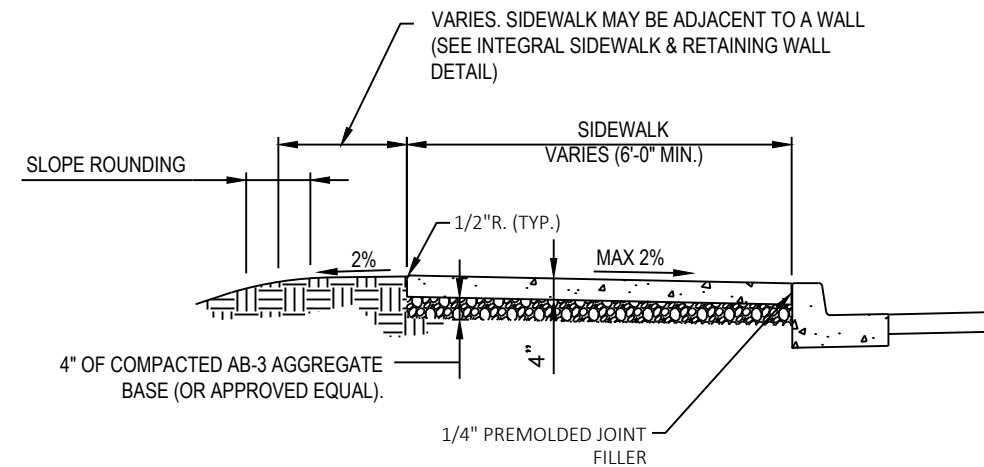
COMMERCIAL CONCRETE APPROACH

NOTE:

1. IF NEW CONSTRUCTION, MAXIMUM DRIVEWAY APPROACH SLOPE IS 2%. IF REMOVING AND REPLACING, EVERY ATTEMPT SHALL BE MADE TO BE ADA COMPLIANT.
2. CITY CONCRETE MIX DESIGN, KCMMB 4K.



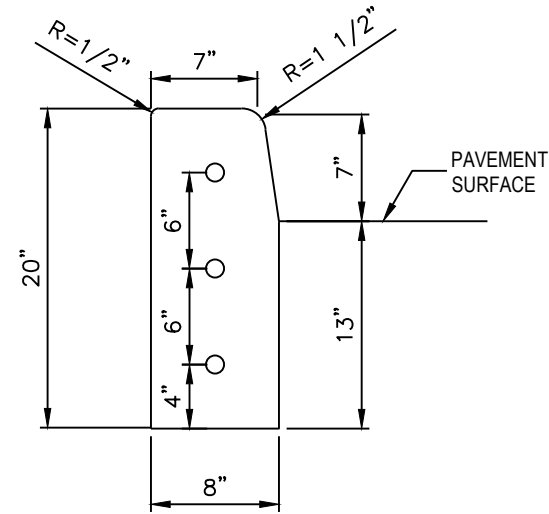
JOINT AND FINISH DETAIL



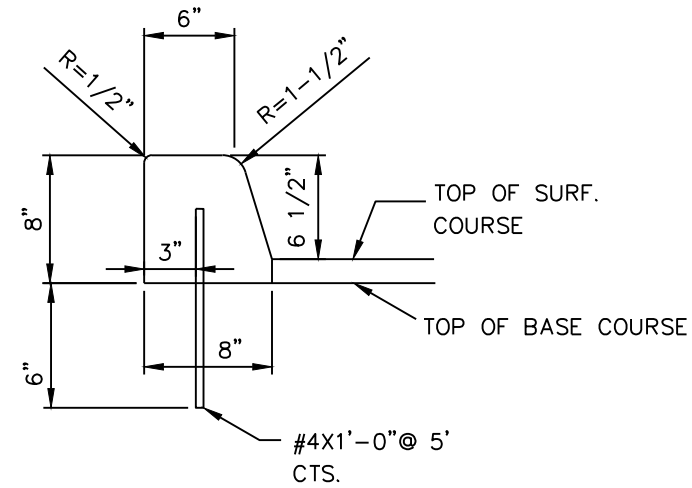
CEMENT CONCRETE SIDEWALK
ADJACENT TO CURB
TYPICAL SIDEWALK

NOTES:

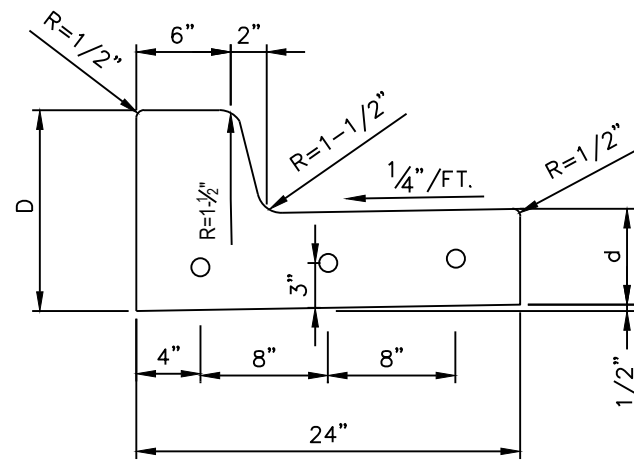
1. ALL SIDEWALK THAT ABUTS TO THE BACK OR SIDE OF A STORM STRUCTURE SHALL BE CONNECTED TO THE BACK AND/OR SIDE WITH A MINIMUM OF THREE DOWELS NOT LESS THAN SIX (6") INCHES LONG WITH PLACEMENT EVERY 16 (16") INCHES AT A MINIMUM.
2. ALL SIDEWALK ABUTTING CURB SHALL BE NO LESS THAN 6 (6') FEET WIDE.
3. $\frac{1}{2}$ " EXPANSION JOINT WITH 3 #4 SMOOTH DOWELS AND EXPANSION TUBES SHALL BE INSTALLED AT BOTH SIDES OF DRIVE APPROACH AND PROPERTY LINES.



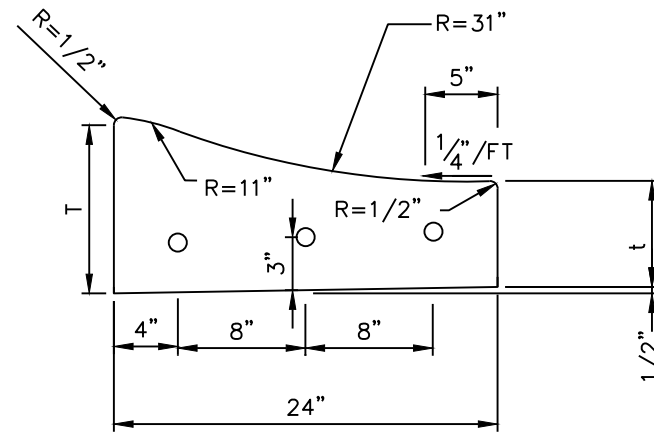
STRAIGHT CURB
(TYPE C-1)



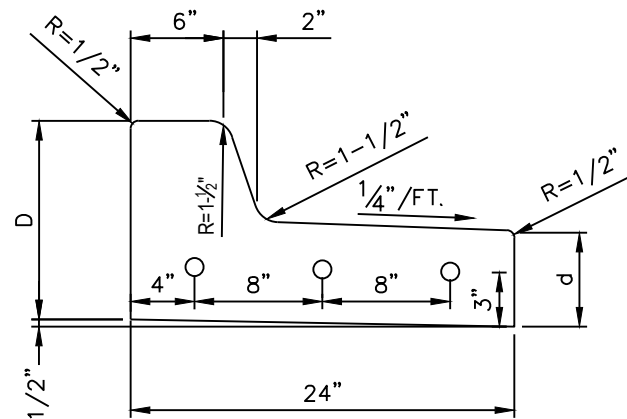
DOWELLED CURB
(TYPE DC)



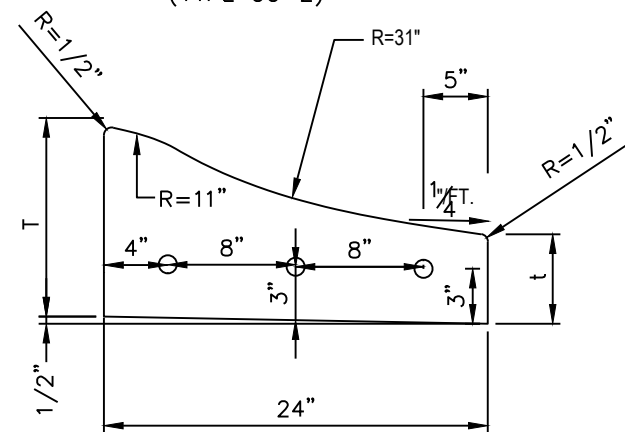
STRAIGHT BACK CURB & GUTTER
(TYPE CG-1)



ROLL BACK CURB & GUTTER
(TYPE CG-2)



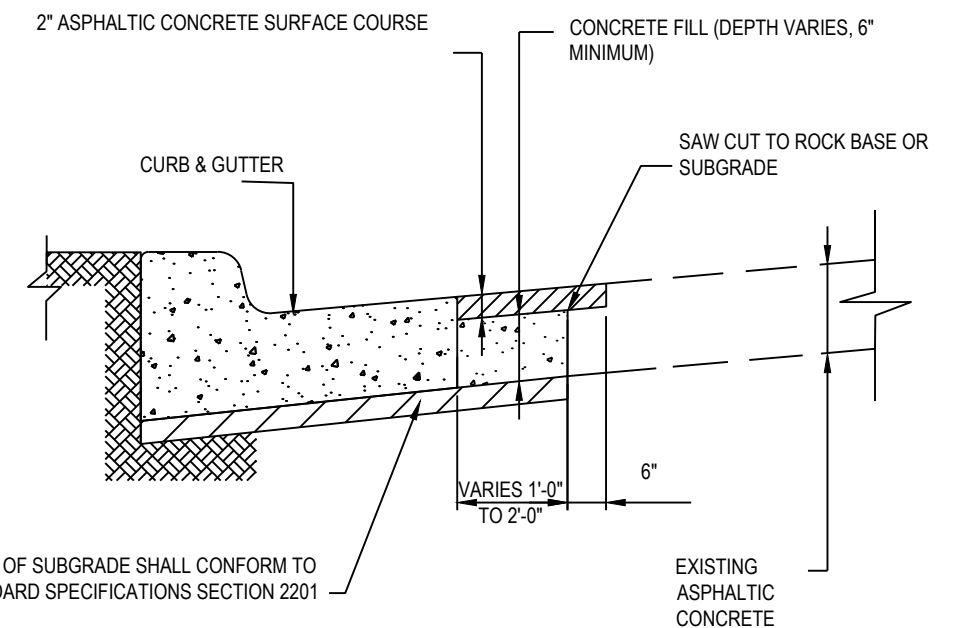
STRAIGHT BACK DRY CURB & GUTTER
(TYPE CG-2 DRY)



ROLL BACK DRY CURB & GUTTER
(TYPE CG-2 DRY)

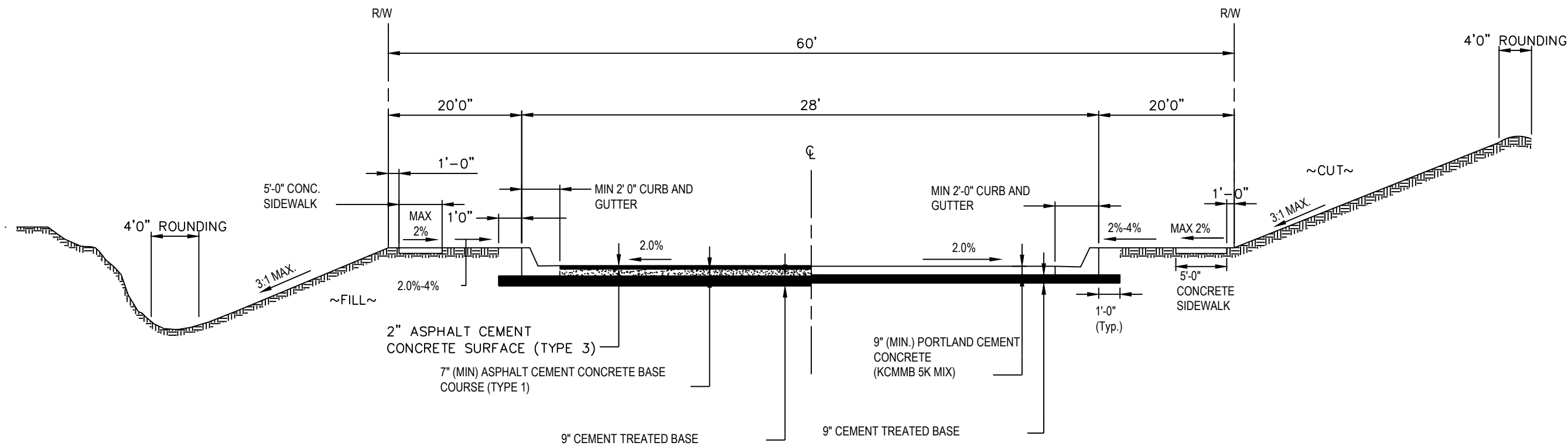
GENERAL NOTES:

- 3/4" PREFORMED EXPANSION JOINTS WITH 3-#4 X 2' SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' MAXIMUM INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
- 2" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
- FIX DOWEL BARS WITH BAR SUPPORTS.
- DEPTH OF CURB SHALL BE A MINIMUM OF 8" THROUGH THE HANDICAP ACCESS RAMP.
- CONCRETE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2208.2.B.
- ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2205.2.



CURB REPLACEMENT DETAIL

- t t is equal to the depth of pavement.
T T is equal to the depth of pavement (t) + 4".
d d is equal to the depth of pavement.
D D is equal to the depth of pavement (d) + 6".



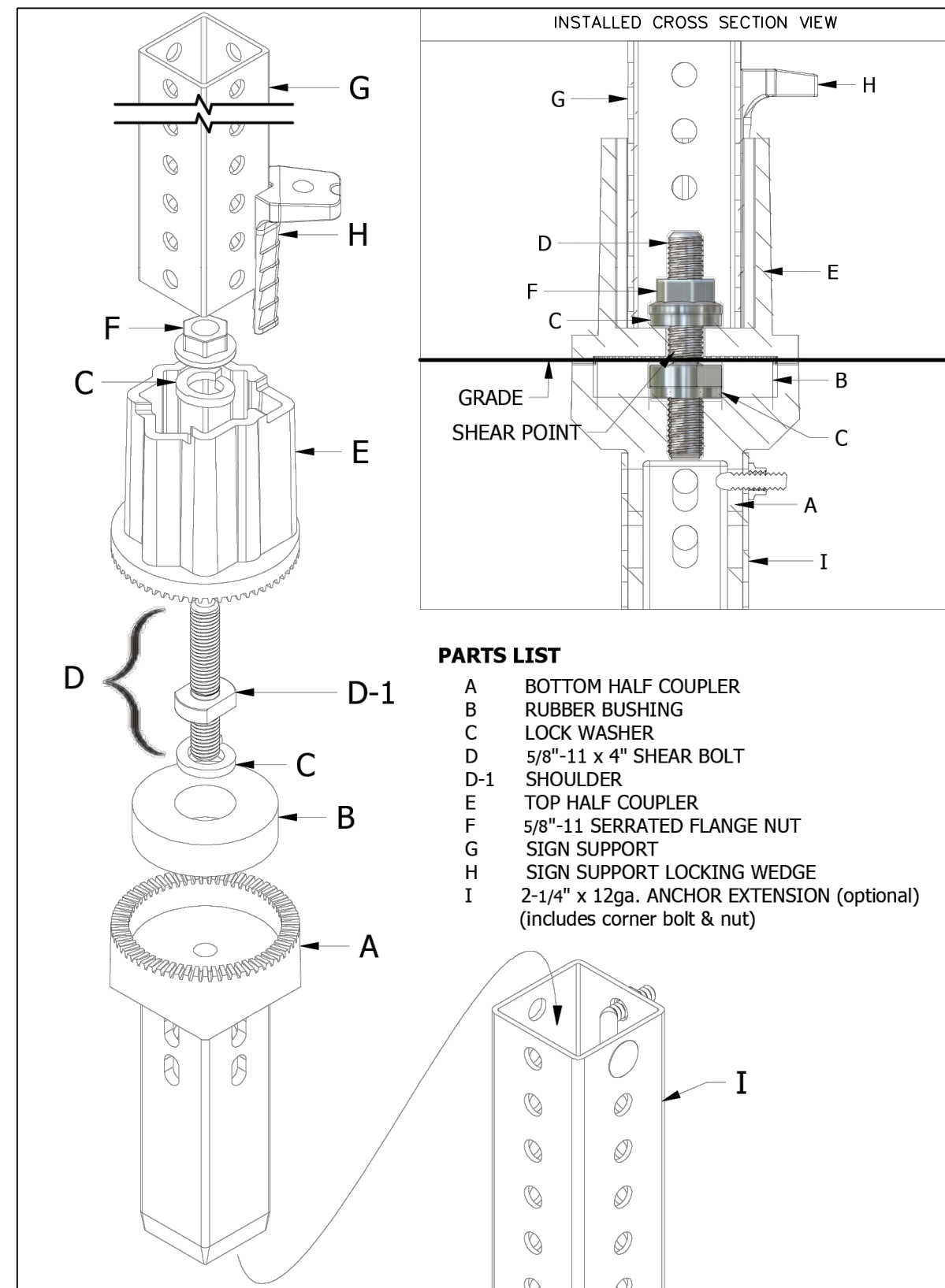
NOTE:

1. THE PAVEMENT THICKNESSES ARE RECOMMENDED MINIMUMS. THE ACTUAL PAVEMENT DESIGN THICKNESS SHOULD BE DETERMINED BY AN ENGINEERING ANALYSIS OF THE TRAFFIC AND LOCAL SUBGRADE CONDITIONS. THE CITY RESERVES THE RIGHT TO REQUIRE ADDITIONAL PAVEMENT THICKNESS IF CONDITIONS WARRANT.
2. OTHER PAVEMENT, SUBGRADE, AND SUBBASE TYPE OPTIONS MAY BE CONSIDERED IF SUBMITTED TO THE CITY OF BELTON FOR APPROVAL ALONG WITH AN ENGINEERING ANALYSIS AND/OR GEOTECHNICAL REPORT.
3. WHERE CURB AND GUTTER IS MONOLITHIC WITH THE STREET, THE CURB SHALL BE POURED AT THE SAME DEPTH AS THE STREET.
4. UNLESS SPECIFIED OTHERWISE, KCM MB 4K OR HIGHER IS REQUIRED FOR ALL CONCRETE.

TYPICAL ROADWAY SECTION - INDUSTRIAL/COMMERCIAL COLLECTOR STREET (2 TO 4 LANES)

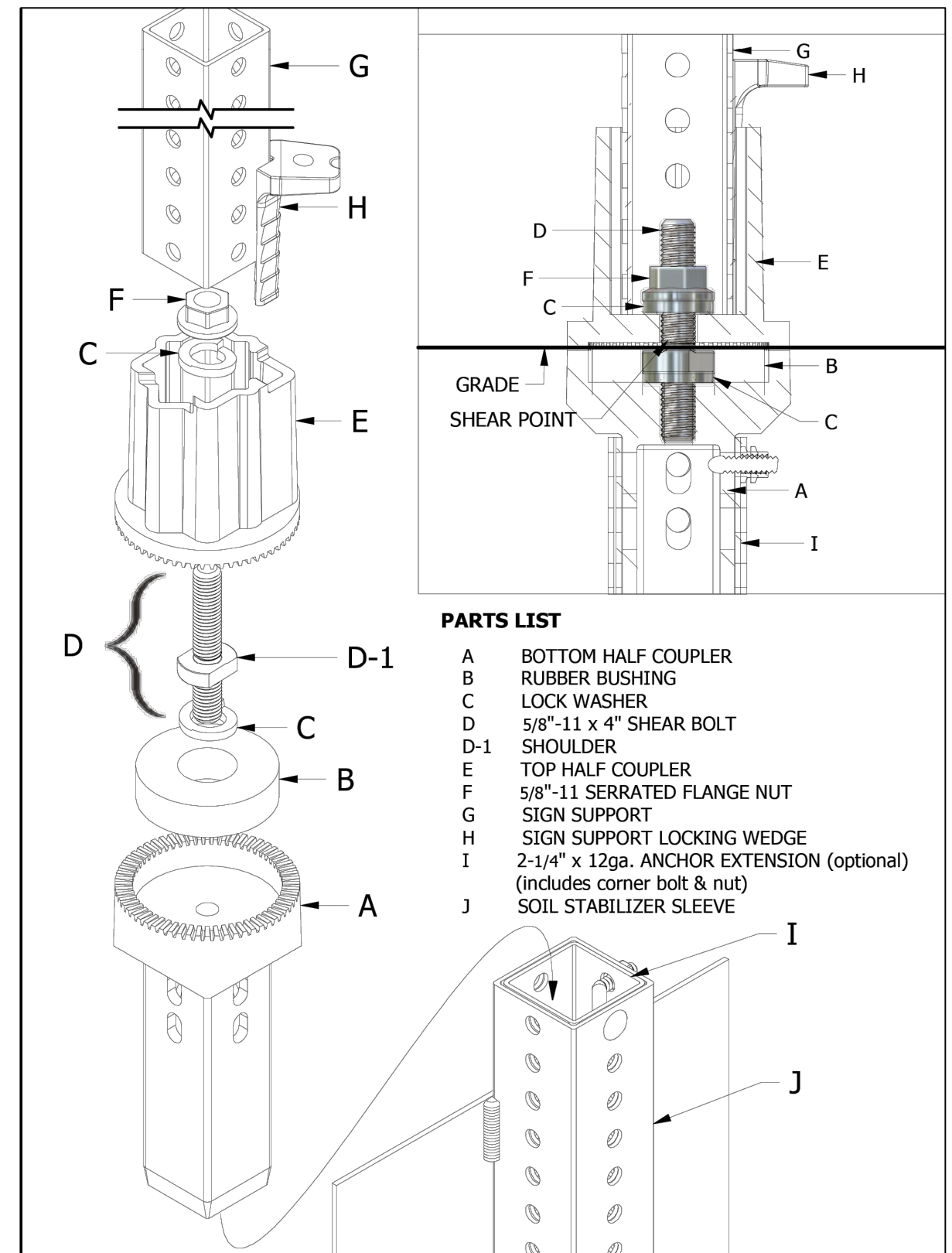
KLEEN BREAK MODEL 425
FOR CONCRETE INSTALLATIONS *

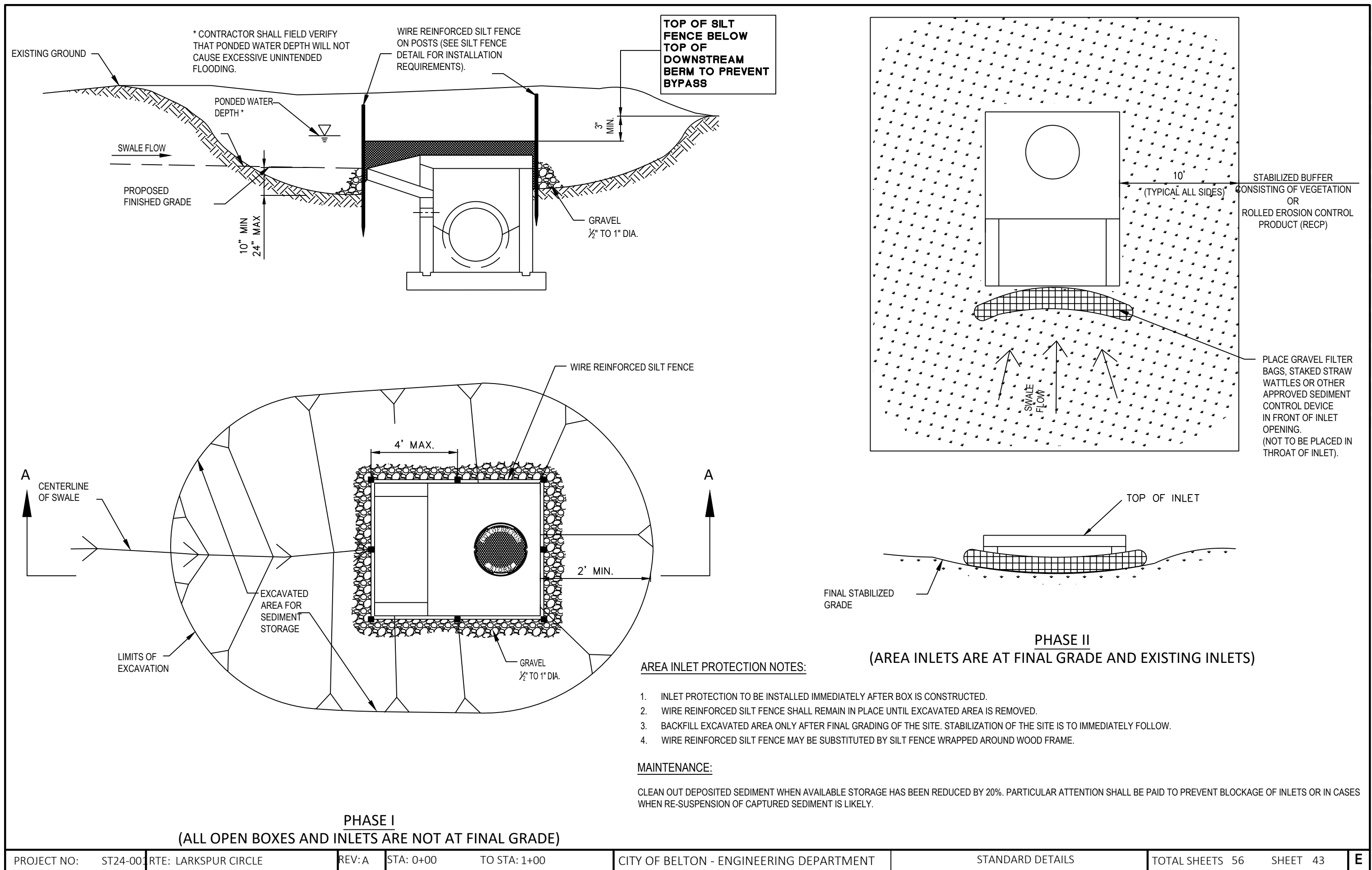
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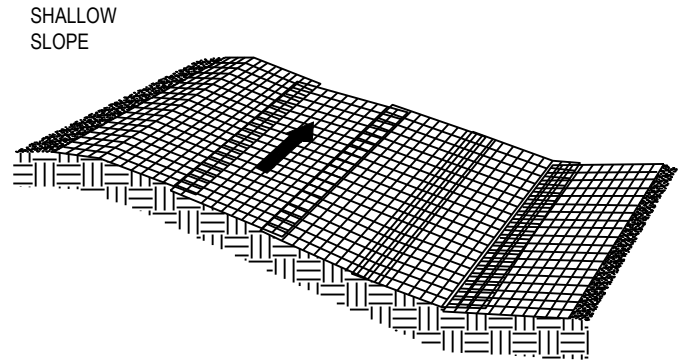


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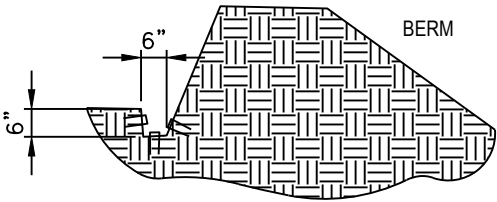
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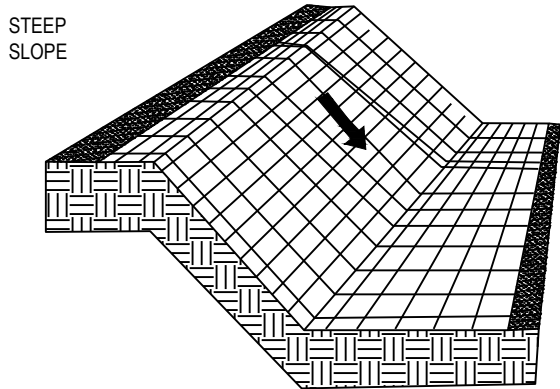




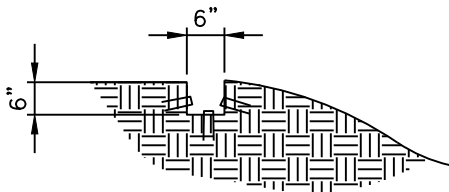
NOTE:
WHERE THERE IS A BERM AT THE TOP OF THE SLOPE, BRING THE MATERIAL OVER THE BERM AND ANCHOR IT BEHIND THE BERM.



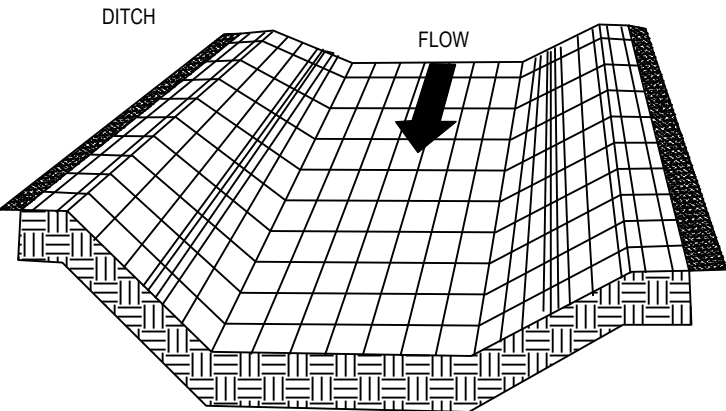
NOTE:
ON STEEP SLOPES, APPLY PROTECTIVE BLANKET PERPENDICULAR TO THE DIRECTION OF FLOW AND ANCHOR SECURELY



NOTE:
BRING MATERIAL DOWN TO THE LEVEL AREA BEFORE TERMINATING THE INSTALLATION



TOP OF SLOPE BLANKET ANCHOR SLOT

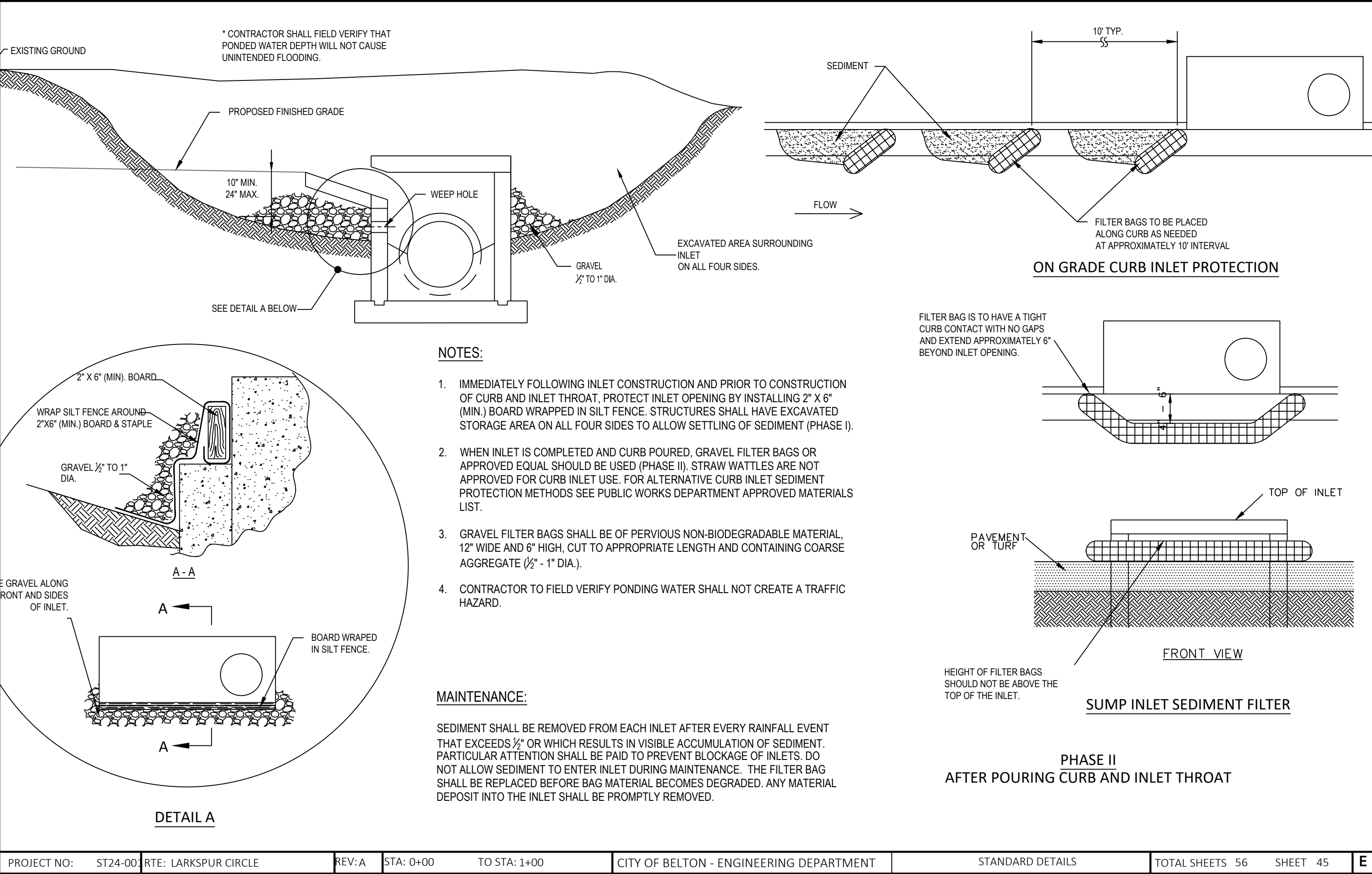


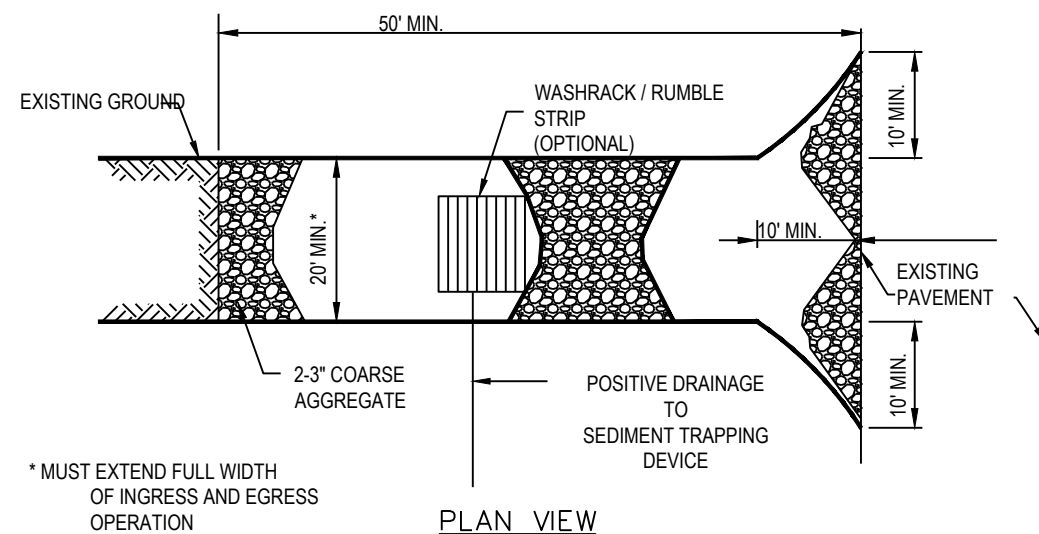
NOTE:
IN DITCHES, APPLY PROSPECTIVE COVERING PARALLEL TO THE DIRECTION OF FLOW. USE CHECK SLOTS AS REQUIRED. AVOID JOINING MATERIAL IN THE CENTER OF THE DITCH IF AT ALL POSSIBLE. FOLLOW BLANKET RECOMMENDATIONS FOR ALLOWABLE VELOCITY AND SHEAR STRESS.

EROSION CONTROL BLANKET NOTES (1 OF 2):

- A) SITE PREPARATION:
AFTER SITE HAS BEEN SHAPED AND GRADED, PREPARE A FRIABLE SEEDBED RELATIVELY FREE FROM CLODS AND ROCKS MORE THAN 1 ½ INCHES IN DIAMETER AND ANY FOREIGN MATERIAL THAT WILL PREVENT UNIFORM CONTACT OF THE PROSPECTIVE COVERING WITH THE SOIL SURFACE.
- B) INSTALLATION:
AS INDICATED OR TO MANUFACTURER'S RECOMMENDATIONS, WHICHEVER IS MORE STRINGENT.
- C) PLANTING:
LIME, FERTILIZER, AND SEED IN ACCORDANCE WITH SEEDING OR PLANTING PLAN. WHEN USING JUTE MESH ON A SEEDED AREA, APPLY APPROXIMATELY ONE HALF THE SEED AFTER LAYING THE MAT. THE PROSPECTIVE COVERING CAN BE LAID OVER SPRIGGED AREAS WHERE SMALL GRASS PLANTS HAVE BEEN INSERTED INTO THE SOIL. WHERE GROUND COVERS ARE TO BE PLANTED, LAY THE PROTECTIVE COVERING FIRST AND THEN PLANT THROUGH THE MATERIAL AS PER PLANTING PLAN.
- D) LAYING AND STAPLING:
IF INSTRUCTIONS HAVE BEEN FOLLOWED, ALL NEEDED CHECK SLOTS WILL HAVE BEEN INSTALLED, AND THE PROSPECTIVE COVERING WILL BE LAID ON A FRIABLE SEEDED FREE FROM CLODS, ROCKS, ROOTS, ETC. THAT MIGHT IMPEDE GOOD CONTACT.
1. START LAYING THE PROSPECTIVE COVERING FROM THE TOP OF THE CHANNEL OF SLOPE AND UNROLL DOWN-GRADE ALLOW TO LAY LOOSELY ON SOIL; DO NOT STRETCH
 2. UPSLOPE ENDS OF THE BLANKET SHOULD BE BURIED IN A ANCHOR SLOT NO LESS THAN 6-INCHES DEEP. TAMP EARTH
 3. FIRMLY OVER THE MATERIAL WHEN TOP IS RELATIVELY FLAT, EXTEND BLANKET ABOUT 40 INCHES AWAY FROM SLOPE. STAPLE THE MATERIAL AT A MINIMUM OF EVERY 12 INCHES ACROSS THE TOP END.
 4. EDGES OF THE MATERIAL SHALL BE STAPLED EVERY 3 FEET. WHERE MULTIPLE WIDTHS ARE LAID SIDE BY SIDE, THE ADJACENT EDGES SHALL BE OVERLAPPED A MINIMUM OF 6 INCHES AND STAPLED TOGETHER.
 5. STAPLES SHALL BE PLACED SOWN THE CENTER, STAGGERED WITH THE EDGES AT 3-FOOT INTERVALS.
- D) TROUBLESHOOTING:
CONSULT WITH A QUALIFIED DESIGN PROFESSIONAL, IF ANY OF THE FOLLOWING OCCUR:
1. MOVEMENT OF THE BLANKET OR EROSION UNDER THE BLANKET IS OBSERVED
 2. VARIATIONS IN THE TYPOGRAPHY ON SITE INDICATE EROSION CONTROL MAT WILL NOT FUNCTION AS INTENDED; CHANGES IN PLAN MAY BE NEEDED, OR A BLANKET WITH A SHORTER OR LONGER LIFE MAY BE NEEDED
 3. DESIGN SPECIFICATIONS FOR SEED VARIETY, SEEDING DATES, OR EROSION CONTROL MATERIALS CANNOT BE MET; SUBSTITUTION MAY BE REQUIRED. UNAPPROVED SUBSTITUTIONS COULD RESULT IN FAILURE TO ESTABLISH VEGETATION.
- E) MAINTENANCE AND INSPECTION:
INSPECT CONTROLS AFTER EACH RAIN OF ½ INCH OR GREATER, AND EVERY 7 DAYS UNTIL VEGETATION IS ESTABLISHED, FOR EROSION OR UNDERMINING BENEATH THE NETTING, BLANKETS, OR MATS. IF ANY AREA SHOWS EROSION, PULL BACK THAT PORTION OF THE MATERIAL, AND SOIL, TAMP DOWN, AND RESEED; RESECURE THE MATERIAL IN PLACE. IF NETTING, BLANKETS OR MATS BECOME DISLOCATED OR DAMAGED, REPAIR OR REPLACE AND RESECURE IMMEDIATELY.

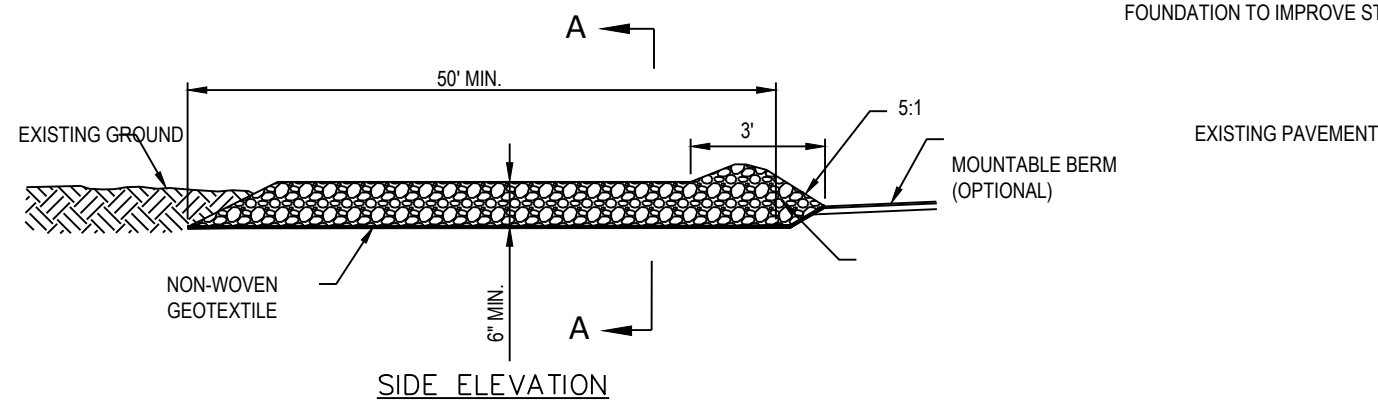
EROSION CONTROL BLANKET



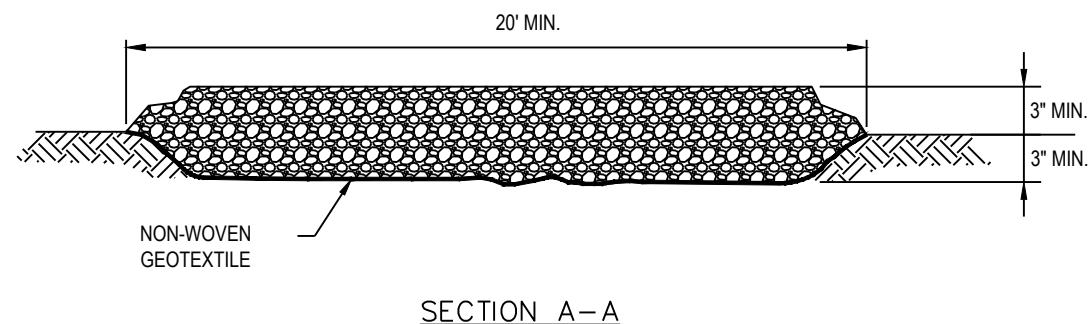


* MUST EXTEND FULL WIDTH
OF INGRESS AND EGRESS
OPERATION

PLAN VIEW



SIDE ELEVATION



SECTION A-A

TEMPORARY CONSTRUCTION ENTRANCE

TEMPORARY CONSTRUCTION ENTRANCE NOTES:

1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. IF SLOPE TOWARDS THE PUBLIC ROAD EXCEEDS 2%, CONSTRUCT A 6- TO 8-INCH HIGH RIDGE WITH 3H:1V SIDE SLOPES ACROSS THE FOUNDATION APPROXIMATELY 15 FEET FROM THE EDGE OF THE PUBLIC ROAD TO DIVERT RUNOFF FROM IT.
4. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES ALONG PUBLIC ROADS.
5. PLACE STONE TO DIMENSIONS AND GRADE AS SHOWN ON PLANS. LEAVE SURFACE SLOPED FOR DRAINAGE.
6. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE.
7. IF WET CONDITIONS ARE ANTICIPATED, PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY.

MAINTENANCE:

RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL. TOP DRESS WITH CLEAN STONE AS NEEDED.

SEDIMENT CONTROL GENERAL NOTES:

PROJECT NO:	ST24-001	RTE: LARKSPUR CIRCLE	REV: A	STA: 0+00	TO STA: 1+00	CITY OF BELTON - ENGINEERING DEPARTMENT	STANDARD DETAILS	TOTAL SHEETS 56	SHEET 46	E
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SEDIMENT CONTROL GENERAL NOTES:

1. ALL EROSION CONTROL DESIGN MEASURES SHALL COMPLY WITH THE CITY'S DESIGN AND CONSTRUCTION MANUAL.
 2. PERMITS: THE FOLLOWING LAND DISTURBANCE PERMITS SHALL BE REQUIRED:
 - A. ALL SITES ONE ACRE OR MORE SHALL HAVE A MISSOURI DEPARTMENT OF NATURAL RESOURCES PERMIT AND A CITY OF BELTON PERMIT.
 - B. ALL SUBDIVISION AND COMMERCIAL LOTS LESS THAN ONE ACRE SHALL HAVE A CITY OF BELTON PERMIT.
 3. PRIOR TO CONSTRUCTION THE GENERAL CONTRACTOR SHALL PREPARE DOCUMENTS CONVEYING HIS/HER INTENDED WORK SCHEDULE AND PROPOSED TASK SEQUENCING FOR THE PROJECT. THESE DOCUMENTS SHALL BE SUBMITTED AT THE PRE-CONSTRUCTION MEETING TO THE ENGINEER FOR REVIEW AND APPROVAL, PRIOR TO THE START OF CONSTRUCTION. THE GENERAL CONTRACTOR MUST BE ABLE TO SATISFACTORILY DEMONSTRATE THAT HE/SHE IS CAPABLE OF MEETING ALL EROSION CONTROL REQUIREMENTS ON ALL AREAS OF THE SITE. THE GC WILL ONLY BE ALLOWED TO WORK THE AREA(S) THAT HE/SHE CLEARLY SHOWS THEY CAN ADEQUATELY MEET ALL REQUIREMENTS.
 4. THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO ALL APPLICABLE STANDARDS AND SPECIFICATIONS OF THE PUBLIC WORKS DEPARTMENT OF THE CITY OF BELTON, MISSOURI, CURRENT USAGE.
 5. ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE CITY OF BELTON, MISSOURI.
 6. EXCEPT WHERE NECESSARY TO INSTALL EROSION AND SEDIMENT CONTROL DEVICES, CLEARING ACTIVITIES SHALL NOT BEGIN UNTIL ALL EROSION AND SEDIMENT CONTROL DEVICES HAVE BEEN INSTALLED AND THE SOIL HAS BEEN STABILIZED.
 7. THE CONTRACTOR SHALL PROVIDE FOR CONTROL OF SURFACE EROSION AND SEDIMENT DEPOSITION DURING ALL PHASES OF CONSTRUCTION AND UNTIL THE OWNER ACCEPTS THE WORK AS COMPLETE. THE CONTRACTOR SHALL PROVIDE TEMPORARY SEEDING, BERMS, SILT FENCE, SEDIMENT TRAPS OR OTHER MEANS TO PREVENT SEDIMENT FROM REACHING THE PUBLIC RIGHT-OF-WAY, STREAMS OR ADJACENT PROPERTY. IN THE EVENT THE PREVENTION MEASURES ARE NOT EFFECTIVE, THE CONTRACTOR SHALL REMOVE ANY DEBRIS SEDIMENT AND RESTORE THE RIGHT-OF-WAY AND ADJACENT PROPERTY TO ITS ORIGINAL OR BETTER CONDITION.
 8. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL PUBLIC ROADWAYS ADJACENT TO THE CONSTRUCTION SITE FREE OF DIRT AND DEBRIS RESULTING FROM ACTIVITIES RELATED TO THE CONSTRUCTION OF THIS PROJECT.
 9. CONTRACTOR SHALL KEEP THE ENTIRE PROJECT SITE FREE OF DEBRIS AND TRASH AT ALL TIMES. CONTRACTOR SHALL EXECUTE WORK USING METHODS THAT MINIMIZE EXCESSIVE NOISE OR DUST EMISSIONS. CONTRACTOR SHALL PROVIDE METHODS, MEANS AND FACILITIES TO PREVENT CONTAMINATION OF SOIL OR WATER FROM DISCHARGE OF POTENTIAL CONSTRUCTION SITE POLLUTANTS (I.E., DIESEL FUEL, PORT-A-POTTY WASTE, PAINTS, ETC.)
 10. AREAS ARE NOTED ON THE PLAN SHEETS FOR STOCKPILING OF MATERIALS. THE SLOPES IN THESE AREAS SHALL BE GRADED SUCH THAT THEY DO NOT EXCEED 3:1. SILT FENCE SHALL BE INSTALLED COMPLETELY AROUND THE PERIMETER OF THE AREAS AND THE AREAS SHALL BE SEEDDED WITHIN 14 DAYS ONCE CONSTRUCTION ACTIVITIES ON THEM CEASE.
 11. THE CONTRACTOR SHALL ERECT AND MAINTAIN THROUGHOUT CONSTRUCTION, ORANGE COLORED TEMPORARY CONSTRUCTION FENCE AROUND ALL AREAS INDICATED ON THE PLANS TO BE LEFT UNDISTURBED. PRIOR TO ACTUAL FENCE INSTALLATION, CONTRACTOR SHALL STAKE FENCE LOCATION IN THE FIELD FOR REVIEW BY OWNER. THE FENCE MATERIAL SHALL BE 48" IN HEIGHT AND MADE OF HIGH DENSITY POLYETHYLENE PLASTIC WITH A NOMINAL MESH OPENING SIZE OF 1.25 INCHES (X) 1.25 INCHES.
 12. NO CONSTRUCTION EQUIPMENT, CONSTRUCTION MATERIALS OR PERSONAL VEHICLES MAY BE PARKED OR STORED INSIDE THE UNDISTURBED AREAS. ALSO THE CONTRACTOR SHALL INSTALL SEDIMENT CONTROL TO PREVENT SEDIMENT FROM ACCUMULATING INSIDE THE UNDISTURBED AREAS.
 13. PRIOR TO INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY EROSION CONTROL SHALL BE COMPLETED ON ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); EMBANKMENTS OF PONDS, BASINS, AND TRAPS.
 14. SEDIMENT CONTROL SHALL BE COMPLETED WITHIN FOURTEEN (14) CALENDAR DAYS ON ALL OTHER DISTURBED OR GRADED AREAS. THIS REQUIREMENT DOES NOT APPLY TO THOSE AREAS THAT ARE SHOWN ON THE PLANS THAT ARE CURRENTLY BEING USED FOR MATERIAL STORAGE OR FOR THOSE AREAS, WHICH ACTUAL CONSTRUCTION ACTIVITIES ARE CURRENTLY BEING PERFORMED.
 15. THE CONTRACTOR SHALL REQUEST THE CITY TO INSPECT AND APPROVE THE SEDIMENT CONTROL MEASURES UPON THE COMPLETION OF VARIOUS STAGES OF THE WORK. REQUESTS FOR INSPECTION SHALL BE MADE AT LEAST TWENTY-FOUR (24) HOURS IN ADVANCE (EXCLUSIVE OF SATURDAYS, SUNDAYS, AND HOLIDAYS) OF THE TIME THE INSPECTION IS DESIRED. THE CONTRACTOR SHALL OBTAIN WRITTEN NOTIFICATION OF THE CITY'S APPROVAL AT THE END OF THE FOLLOWING STAGES OF THE CONSTRUCTION:
 - A. UPON INSTALLATION OF THE PERIMETER EROSION AND SEDIMENT CONTROLS NOTED IN PHASE A OF THE WORK. THE CITY'S INSPECTION SHALL TAKE PLACE BEFORE PROCEEDING WITH ANY OTHER LAND DISTURBANCE ACTIVITY.
 - B. DURING THE CONSTRUCTION OF SEDIMENT BASINS OR STORMWATER MANAGEMENT STRUCTURES.
 - C. AT SPECIAL INSPECTION POINTS NOTED ON THE CONSTRUCTION PERMIT.
 - D. PRIOR TO REMOVAL OR SUBSTANTIAL MODIFICATION OF ANY EROSION AND SEDIMENT CONTROL MEASURE.
 - E. UPON COMPLETION OF FINAL GRADING OPERATIONS.
 - F. UPON ESTABLISHMENT OF GROUND COVERS.
 16. THE CONTRACTOR SHALL PREPARE AND FOLLOW A PHASED METHOD OF CONSTRUCTION GRADING TO MINIMIZE THE AMOUNT OF EXPOSED BARE GROUND AT ANY ONE TIME. THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS WITH TEMPORARY SEEDING AND RECEIVE APPROVAL FROM THE CITY BEFORE CONTINUING TO DISTURB ADDITIONAL AREAS.
 17. FOLLOWING STRIPPING OPERATIONS, THE CONTRACTOR SHALL REMOVE EXISTING TOPSOIL AND STOCKPILE THE MATERIAL IN AN APPROVED AREA. STOCKPILES SHALL BE STABILIZED BY TEMPORARY SEEDING AND ENCIRCLED WITH SILT FENCE.
 18. CONTRACTOR MUST INSTALL AND MAINTAIN THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THESE PLANS. IF THE ENGINEER DETERMINES THAT THE INSTALLATION OR THE MAINTENANCE IS INADEQUATE, THE CONTRACTOR MUST IMMEDIATELY CORRECT AT HIS EXPENSE. IF IT IS DETERMINED THAT ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES ARE NEEDED THE CONTRACTOR WILL BE DIRECTED TO INSTALL AND MAINTAIN THOSE MEASURES.
 19. FOLLOWING THE FINAL REMOVAL OF ALL EROSION CONTROL MEASURES THE CONTRACTOR SHALL RE-GRADE AND RE-SEED ALL AREAS THAT WERE DISTURBED BY THE REMOVAL.
 20. THE CONTRACTOR SHALL INSPECT THE LAND DISTURBANCE SITE AT LEAST ONCE EVERY SEVEN (7) DAYS AND WITHIN TWENTY-FOUR (24) HOURS FOLLOWING EACH RAINFALL EVENT OF 1/2" OR MORE WITHIN ANY TWENTY-FOUR (24) HOUR PERIOD. THE CONTRACTOR SHALL ALSO INSPECT AND ASSURE THAT ALL SEDIMENT CONTROL DEVICES ARE IN WORKING CONDITION PRIOR TO ANY FORECASTED RAINFALL.
 21. THE CONTRACTOR SHALL REMOVE SEDIMENT FROM THE FLOW AREAS AND MAKE ALL NECESSARY REPAIRS TO MAINTAIN THE INTEGRITY OF THE SEDIMENT CONTROL MEASURES. SEDIMENT SHALL BE REMOVED ONCE IT REACHES 1/2 THE INSTALLED HEIGHT OF MEASURE.
 22. SEDIMENT CONTROL MEASURES SHALL BE REMOVED ONCE 70 PERCENT OF THE PERMANENT COVER IS ESTABLISHED OVER 100 PERCENT OF THE TRIBUTARY AREA.
 23. SOME OF THE EROSION AND SEDIMENT CONTROL MEASURES, SUCH AS DIVERSION DIKES AND SEDIMENT TRAPS, WILL REQUIRE THE CONTRACTOR TO INSTALL, REMOVE, AND REINSTALL THE MEASURES AS CONSTRUCTION PROCEEDS. THE PHASING OF THIS WORK IS DEPENDENT ENTIRELY ON THE CONTRACTOR'S SCHEDULE, AND IS NOT SPECIFIED HEREIN. HOWEVER, THE CONTRACTOR SHALL COORDINATE THESE ACTIONS WITH THE ENGINEER AT THE TIMES ADJUSTMENTS ARE NEEDED.
 24. STONE STABILIZED PADS SHALL BE CONSTRUCTED AT THE LOCATIONS SHOWN ON THE PLANS WHERE CONSTRUCTION AND PRIVATE VEHICULAR TRAFFIC WILL BE ALLOWED TO ENTER AND EXIT THE CONSTRUCTION SITE. CONSTRUCTION EQUIPMENT (INCLUDING PERSONAL VEHICLES) ARE NOT ALLOWED TO EXIT THE SITE DIRECTLY ONTO ARTERIAL OR COLLECTOR STREETS. ALL VEHICLES/CONSTRUCTION EQUIPMENT MUST USE THE STABILIZED CONSTRUCTION ENTRANCES SHOWN ON THE PLANS.
 25. CONSTRUCTION ENTRANCES SHALL BE CONSTRUCTED PER THE CITY STANDARD DETAIL.
 26. THE CONTRACTOR SHALL TEMPORARILY SEED AND MULCH ALL DISTURBED AREAS IF THERE HAS BEEN NO CONSTRUCTION ACTIVITY ON THEM FOR A PERIOD OF 14 CALENDAR DAYS. IF THE ENGINEER DETERMINES THAT A SITE HAS A HIGH POTENTIAL FOR EROSION BASED ON PREVIOUS INFORMATION SUBMITTED, HE MAY DIRECT THAT DISTURBED SOIL BE STABILIZED AFTER PERIODS OF CONSTRUCTION INACTIVITY OF MORE THAN FORTY-EIGHT (48) HOURS.
 27. THE CONTRACTOR SHALL SEED OR HYDRO SEED IN ACCORDANCE WITH CITY SPECIFICATION FOR SEEDING AND/OR HYDROSEEDING
 - SEED MIXTURE TO BE AS FOLLOWS:**

50% REGREEN STERILE WHEAT	APPLICATION RATE:
50% ANNUAL RYE	TOTAL SEED MIX 400LBS./ACRE
 - MULCH MUST BE HAY, BROME GRASS, OR SHREDDED HARDWOOD APPLIED AT A RATE OF 2 TONS PER ACRE AND CRIMPED INTO THE SOIL WITH A WEIGHTED NOTCHED DISC OR A MULCH ANCHORING TOOL TO PUNCH THE MULCH INTO THE SOIL, OR OTHER APPROVED METHOD. THE SEEDDED AREAS SHALL BE INSPECTED BY THE ENGINEER TWO TO FOUR WEEKS AFTER SEEDING FOR ADEQUATE SEED GERMINATION, EROSION CONTROL AND WEED CONTROL. REPAIRS AND RESEEDING SHALL BE PERFORMED BY THE CONTRACTOR AT THE DIRECTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE CITY. IF VEGETATIVE MEASURES ARE NOT EFFECTIVE WITHIN THIS TIME FRAME, CONTRACTOR MAY BE REQUIRED TO RESEED OR EMPLOY A NON-VEGETATIVE OPTION TO STABILIZE THE DISTURBED AREA.
 28. IF SEEDING AND MULCH IS NOT EFFECTIVE, ADDITIONAL MULCH SHALL BE UNIFORMLY APPLIED AT A RATE OF 2 TONS PER ACRE AS SPECIFIED IN NOTE 27.
 29. ALL SITES REMAINING UNDEVELOPED FOR MORE THAN ONE GROWING SEASON MUST INCLUDE PERMANENT SEED VEGETATIVE STABILIZATION. PERMANENT SEED MIXTURE SHALL BE PER CITY OF BELTON TECHNICAL SPECIFICATION S-715, AS SHOWN BELOW, UNLESS OTHERWISE NOTED IN PLANS AND APPROVED BY CITY.
 - A. 30% EACH OF ANY 3 VARIETIES OF TURF TYPE FINE LEAF FESCUE.
 - B. 10% EACH OF PERENNIAL RYE
 - C. TOTAL APPLICATION RATE SHALL BE 8 POUNDS/1,000 SQ. FEET.
 30. CONTRACTOR SHALL SUBMIT COMPLETED EROSION INSPECTION REPORTS WEEKLY AND AFTER EVERY 1/2" OF RAIN TO THE CITY OF BELTON ENGINEERING DIVISION.

CURB INLET NOTES

GENERAL

1. ALL STORM SEWER STRUCTURES SHALL BE PRE-CAST OR POURED IN PLACE. IF PRE-CAST STRUCTURES ARE USED, THE TOPS SHALL BE POURED IN PLACE AND THE WALL STEEL SHALL BE LEFT EXPOSED TO A HEIGHT 2" BELOW THE FINISH TOP ELEVATION, OR AS DIRECTED BY THE CITY ENGINEER.
2. PRE-CAST SHOP DRAWINGS ARE TO BE APPROVED BY THE CITY ENGINEER FOR PUBLICLY FINANCED OR ADMINISTERED PROJECTS. PRE-CAST SHOP DRAWINGS FOR PRIVATELY FINANCED PROJECTS ARE TO BE SUBMITTED TO THE ENGINEERING SERVICES DIVISION OF THE PLANNING AND DEVELOPMENT SERVICES DEPARTMENT.
3. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CITY ENGINEER PRIOR TO CONSTRUCTION.
4. ON-GRADE INLETS SHALL CONFORM TO THE STREET GRADE AND SUMP INLETS SHALL BE LEVEL.
5. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION. THE CONCRETE THICKNESS AND REINFORCEMENT SHOWN IS FOR BOXES WITH ("L"×"H") AND ("W"×"H") LESS THAN OR EQUAL TO 20. FOR BOXES WITH EITHER OF THESE CALCULATIONS GREATER THAN 20, A SPECIAL DESIGN IS REQUIRED.

CONCRETE

6. CONCRETE USED IN THIS WORK SHALL BE KCMMB4K, AS APPROVED BY THE KANSAS CITY METROPOLITAN MATERIALS BOARD.
7. INLET FLOORS SHALL BE SHAPED WITH NON-REINFORCED CONCRETE INVERTS TO PROVIDE SMOOTH FLOW.
8. BEVEL ALL EXPOSED EDGES WITH 3/4" TRIANGULAR MOLDING.
9. "NO DUMPING DRAINS TO STREAM" CONCRETE STAMP SHALL BE 12" HIGH BY 18" WIDE AND STAMPED IN TOP OF INLET AS SHOWN ON DETAIL.

REINFORCING STEEL

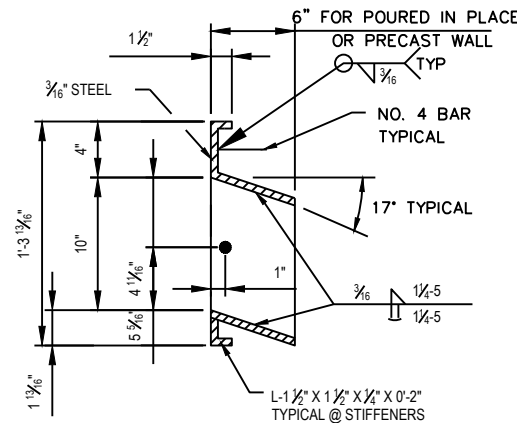
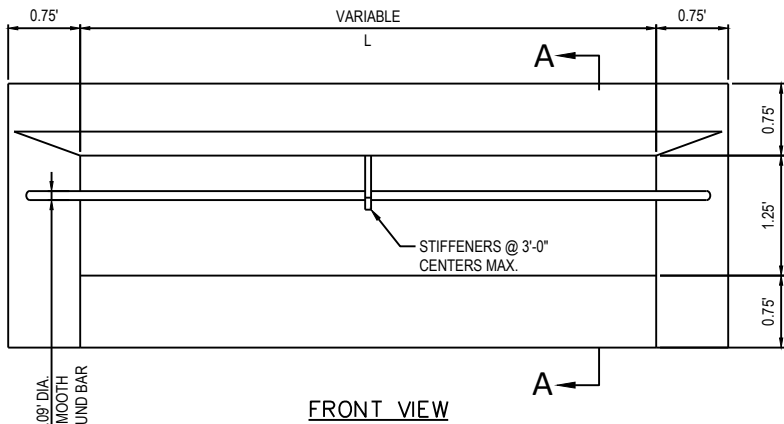
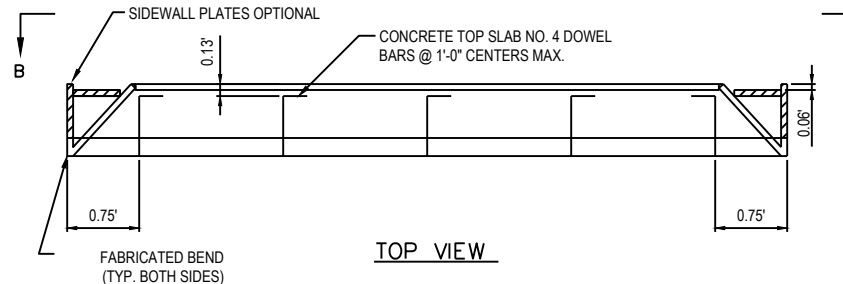
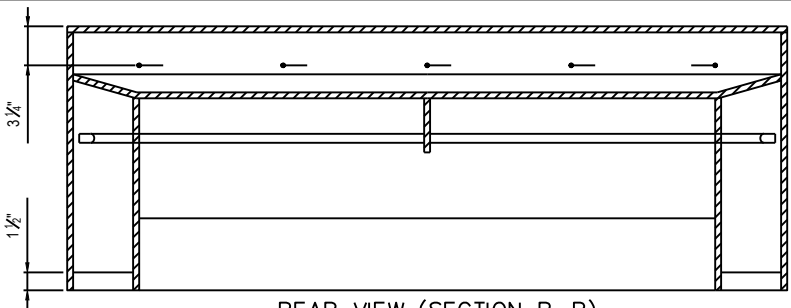
10. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 40 AS PER ASTM A615M, AND SHALL BE BENT COLD.
11. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF +/- 1/2" SHALL BE PERMITTED.
12. ALL LAP SPLICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
13. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS @ 3'-0" MAXIMUM SPACING.
14. ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF BOTTOM SLAB CONCRETE. STICKING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE ACCEPTABLE.

CONSTRUCTION

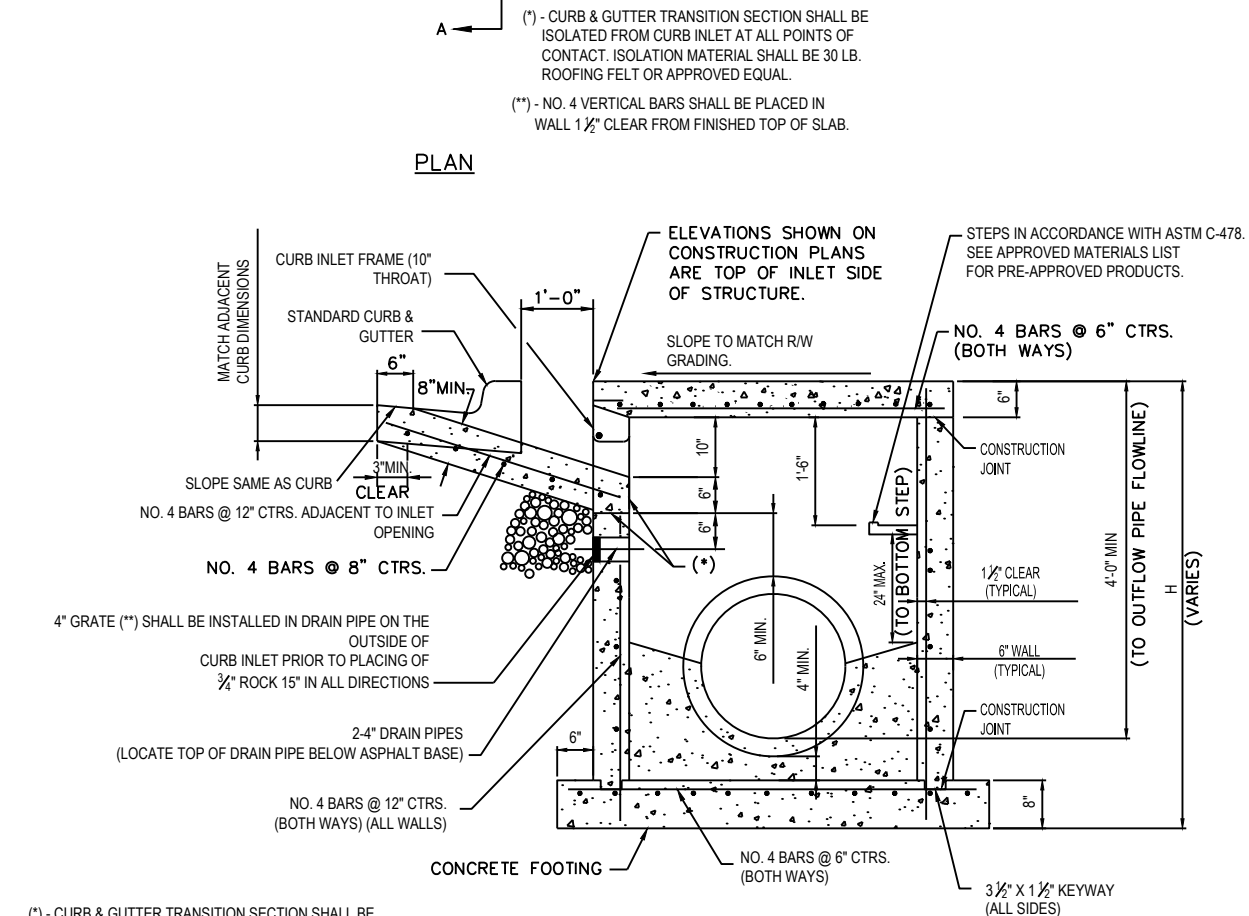
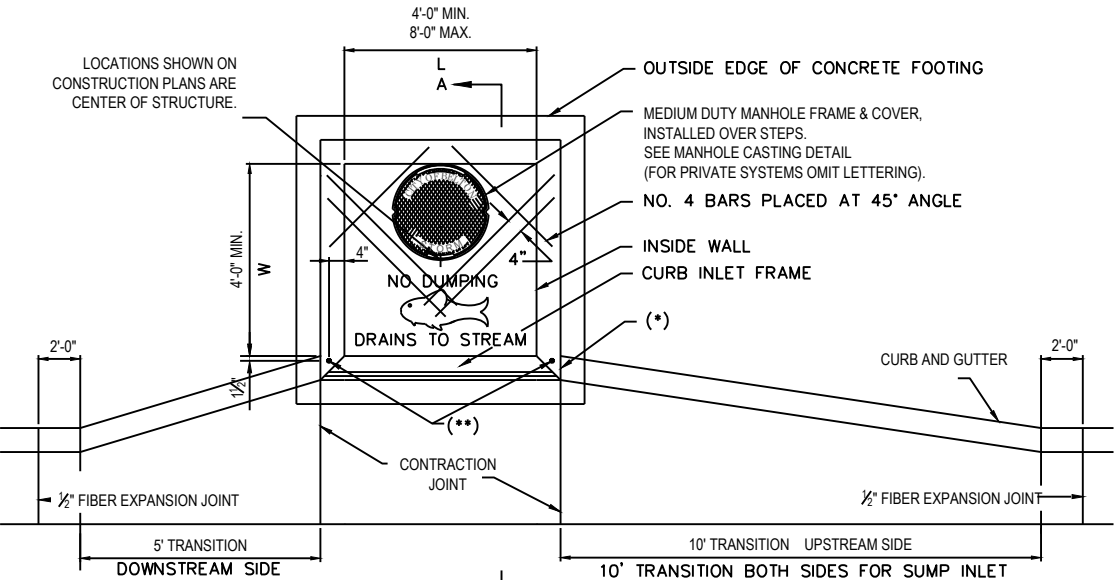
15. THE BOTTOM SLAB SHALL BE AT LEAST 24 HOURS OLD BEFORE PLACING SIDEWALL CONCRETE. ALL SIDEWALL FORMS SHALL REMAIN IN PLACE A MINIMUM OF 24 HOURS AFTER SIDEWALLS ARE POURED BEFORE REMOVAL, AND AFTER REMOVAL SHALL BE IMMEDIATELY TREATED WITH MEMBRANE CURING COMPOUND.
16. ALL CURB INLET TOPS ARE TO BE CONSTRUCTED AFTER FINAL CURB STRING LINE HAS BEEN APPROVED BY THE ENGINEER AND PRIOR TO CURB CONSTRUCTION, OR AS DIRECTED BY THE CITY ENGINEER.
17. PIPE CONNECTIONS TO PRE-CAST STRUCTURES SHALL HAVE A MINIMUM OF 6" OF CONCRETE AROUND THE ENTIRE PIPE WITHIN 2' OF THE STRUCTURE.
18. MATERIAL SELECTION AND COMPACTION REQUIREMENTS FOR BACKFILL AROUND STRUCTURES SHALL BE AS SPECIFIED IN THE MANUAL OF INFRASTRUCTURE STANDARDS, AS PROMULGATED BY THE CITY ENGINEER.
19. ALL CURB INLETS TO BE STAMPED "NO DUMPING, DRAINS TO STREAM" ON CONCRETE LID.

CURB INLET FRAME NOTES

1. ALL WELDS SHALL BE PERFORMED IN ACCORDANCE WITH APPROPRIATE AWS SPECIFICATIONS AND PROCEDURES.
2. ALL WELDS ON EXPOSED SURFACES SHALL BE DRESSED SO AS TO PROVIDE A PLEASING FINISHED APPEARANCE.
3. ALL FLAT STEEL SHALL BE 7 GAGE OR 3/16" THICK.
4. THE ENTIRE FRAME SHALL BE HOT DIP ZINC COATED IN ACCORDANCE WITH ASTM A-123.



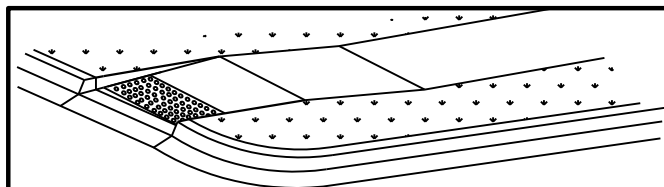
CURB INLET FRAME (10" THROAT)



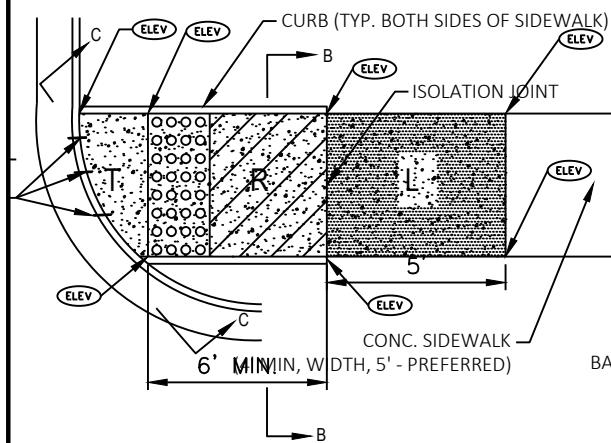
(*) - CURB & GUTTER TRANSITION SECTION SHALL BE ISOLATED FROM CURB INLET AT ALL POINTS OF CONTACT. ISOLATION MATERIAL SHALL BE 30 LB. ROOFING FELT OR APPROVED EQUAL.

(**) - THE MATERIAL OF THE GRATE SHALL MATCH THE MATERIAL OF THE PIPE AND SHALL BE AS FOLLOWS:

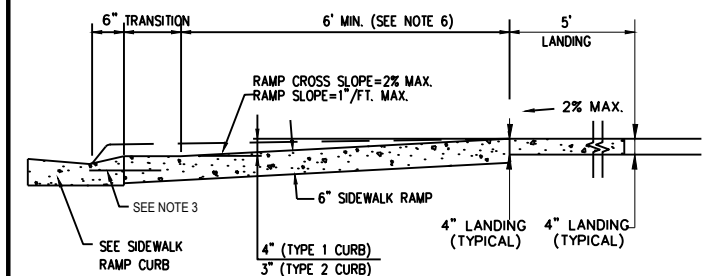
- A) PVC: PIPE - 4" SCHEDULE 40 PVC MEETING ASTM D-1785'
GRATE - 4" PVC SNAP-IN DRAIN - MEETS ASTM D-2665,
WITH STAINLESS STEEL (TYPE 304) COVER, MOUNTED
WITH TWO 18-8 STAINLESS STEEL SCREWS;
MAXIMUM OPENING SIZE 1/2".
- B) HDPE: PIPE - 4"HDPE MEETING AASHTO M252, TYPE S;
GRATE - 4"HDPE - MEETS ASTM D-3350;
MAXIMUM OPENING SIZE 1/2".



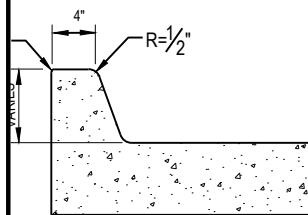
3-D VIEW TYPE A SIDEWALK RAMP



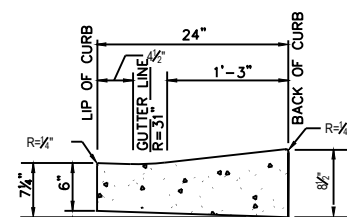
TYPE A SIDEWALK RAMP



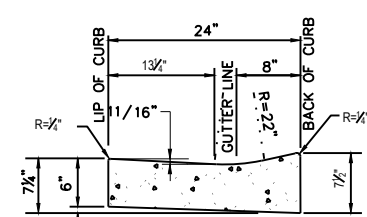
SECTION A-A
TYPE A & B SIDEWALK RAMP



RAMP CURB DETAIL

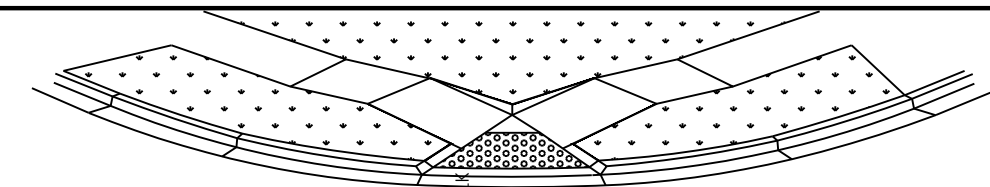
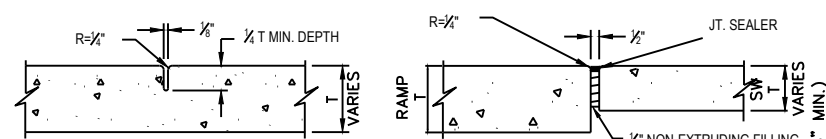


USE WITH TYPE 2 CURB



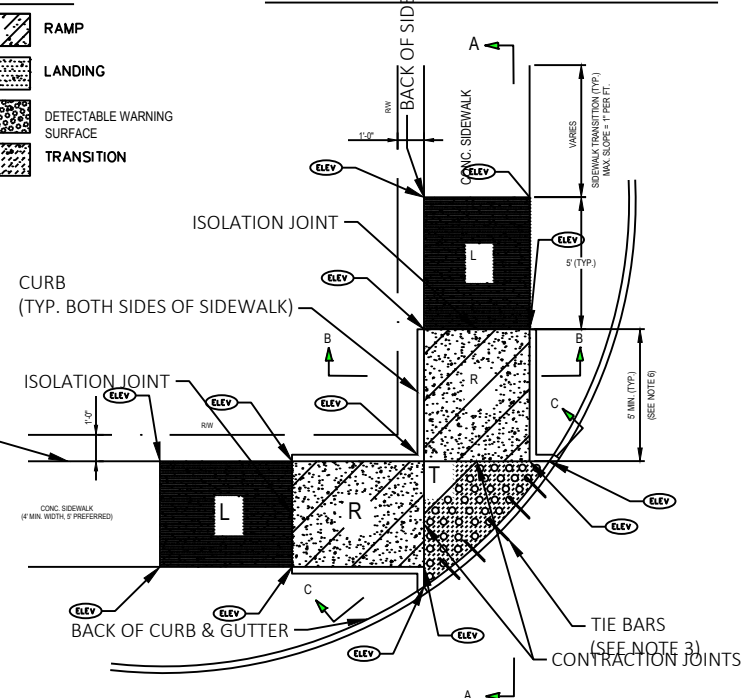
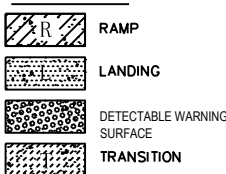
USE WITH TYPE 1 CURB

STREET CURB DETAIL AT RAMP

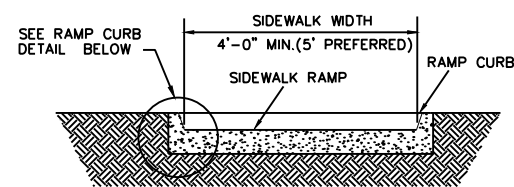


3-D VIEW TYPE B SIDEWALK RAMP

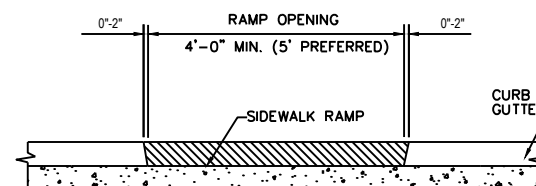
LEGEND:



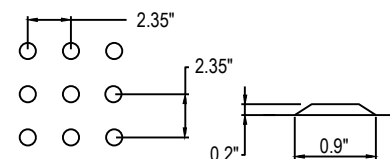
TYPE B SIDEWALK RAMP



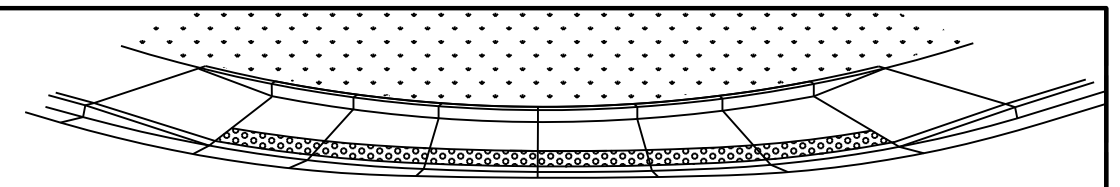
SECTION B-B
TYPE A & B SIDEWALK RAMP



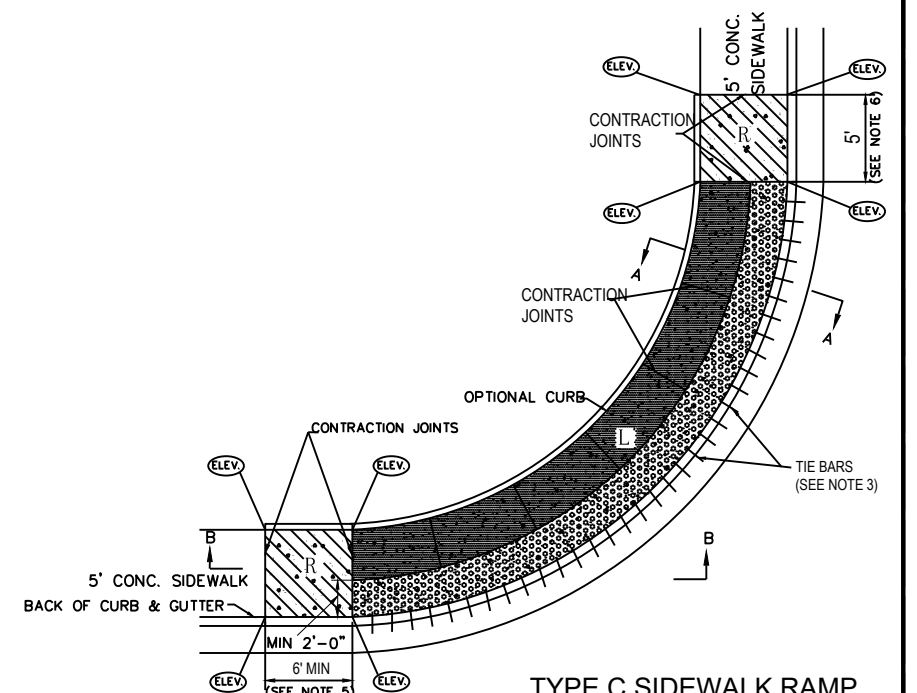
SECTION C-C
TYPE A & B SIDEWALK RAMP



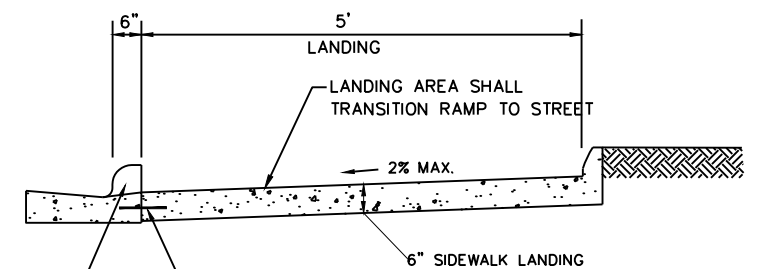
DETECTABLE WARNING
DOME SPACING SECTION



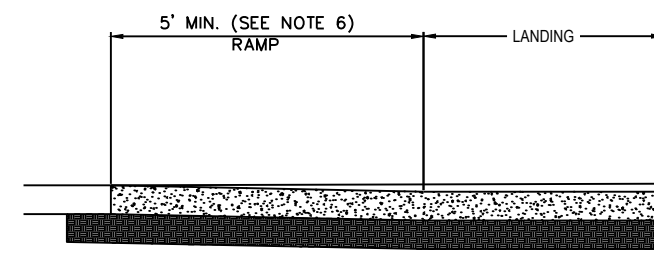
3-D VIEW TYPE C SIDEWALK RAMP



TYPE C SIDEWALK RAMP



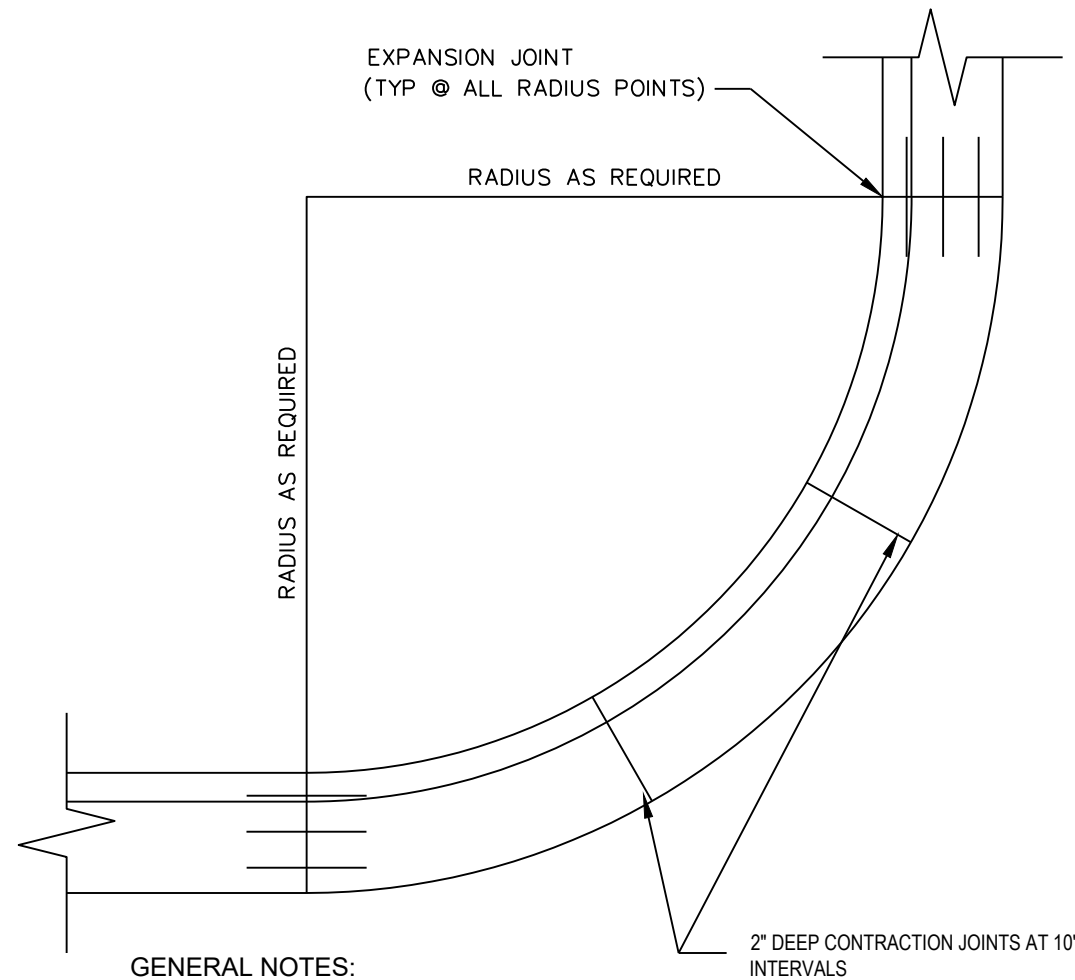
SECTION A-A
TYPE C SIDEWALK RAMP



SECTION B-B
TYPE C SIDEWALK RAMP

SIDEWALK & SIDEWALK RAMP NOTES:

1. SIDEWALK RAMP LOCATION DETERMINED FROM THE INTERSECTION OF THE EXTENSION OF BACK OF SIDEWALK AND BACK OF CURB & GUTTER.
2. PLAN DRAWINGS SHALL INCLUDE A TABLE OF ELEVATIONS FOR ALL POINTS LABELLED AS ELEV.
3. KEY ALL CONSTRUCTION JOINTS OR USE TIE BARS #4 EPOXY COATED @ 12' O.C.
4. LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK.
5. ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 250' CENTERS MAX.
6. SIDEWALK RAMP SHALL BE LENGTHENED TO PROVIDE ADA COMPLIANCE SLOPE BUT NEED NOT EXCEED 15'.
7. ADA MAXIMUM RAMP SLOPE = 1"/FT. ADA MAXIMUM CROSS SLOPE = 2%.
8. DETECTABLE WARNINGS TO COMPLY WITH ADA REQUIREMENTS.
9. LANDING FOR TYPE C RAMP ALONG THE ENTIRE CURB RETURN IS PREFERRED, BUT MAY BE SHORTENED TO MINIMUM ADA COMPLAINT DIMENSIONS.



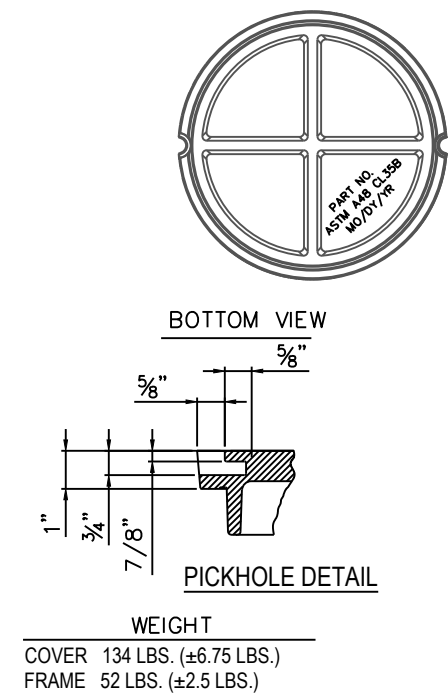
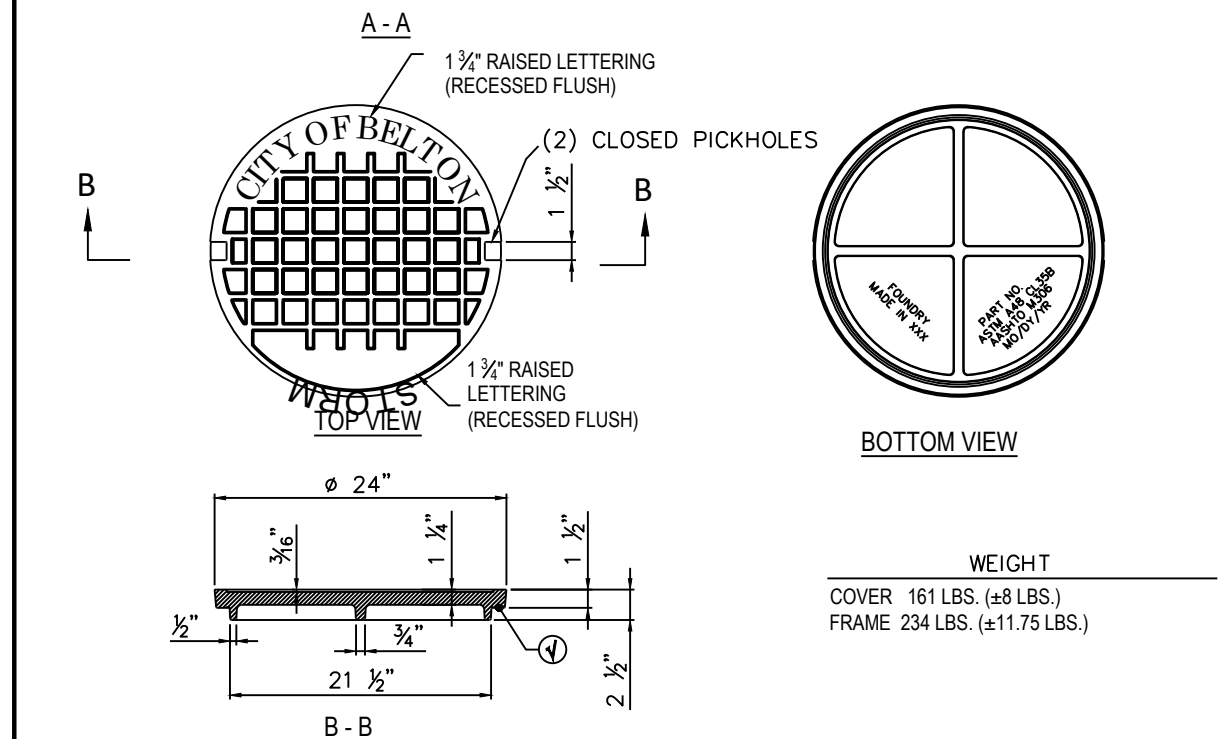
GENERAL NOTES:

1. $\frac{3}{4}$ " PREFORMED EXPANSION JOINTS WITH 3-#4 X 2' SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' MAXIMUM INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.

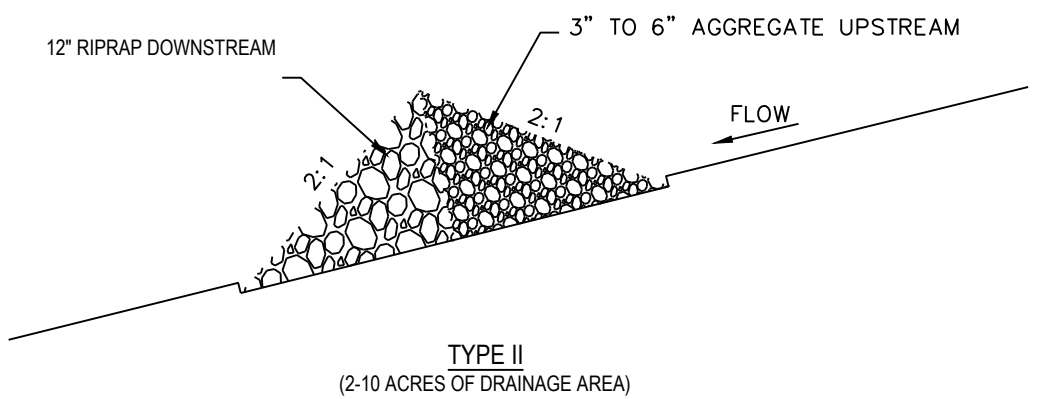
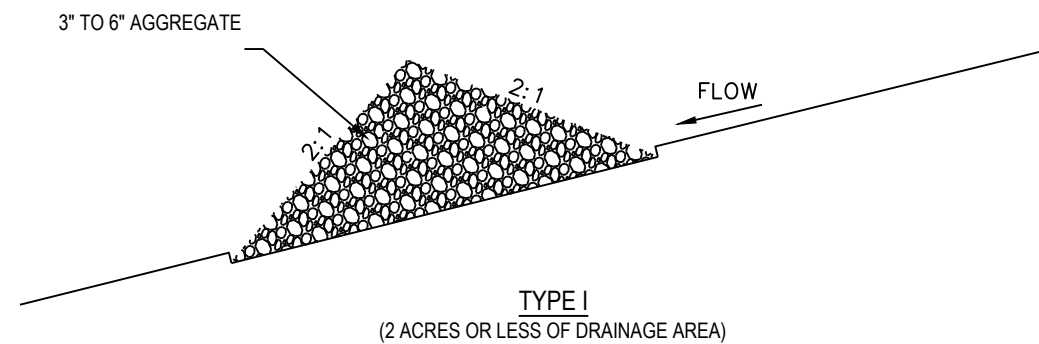
PLAN VIEW

EXPANSION JOINT LOCATION

1. CASTING SHALL BE CHOSEN FROM THE LIST OF ACCEPTABLE MANUFACTURES PROVIDED IN SECTION 2600 OF THE CITY'S DESIGN AND CONSTRUCTION MANUAL.
2. CASTING SHALL COMPLY WITH ASTM A-48 AND AASHTO M306-04.
3. AS-CAST DIMENSIONS MAY VARY $\pm 1/16$ INCH PER FOOT.
4. EACH CASTING SHALL BE MARKED IN ACCORDANCE WITH AASHTO M 306-04, SEC.9.
5. RAISED SURFACES SHALL BE CAST AS NON-SKID FINISH.
6. THE SURFACES LABELED ON THESE DETAILS AS SHALL BE MACHINED.
7. FOR PRIVATE SYSTEMS OMIT LETTERING.
8. PAINT IS OPTIONAL UNLESS SPECIFIED.
9. YEAR AND/OR DATE SHOULD BE DATE OF MANUFACTURE.



MEDIUM DUTY FRAME & COVER
SEE APPROVED MATERIALS LIST
FOR PRE-APPROVED FRAMES AND COVERS



ROCK DITCH CHECK (*)

(*) ALTERNATIVE TYPES OF DITCH CHECK:

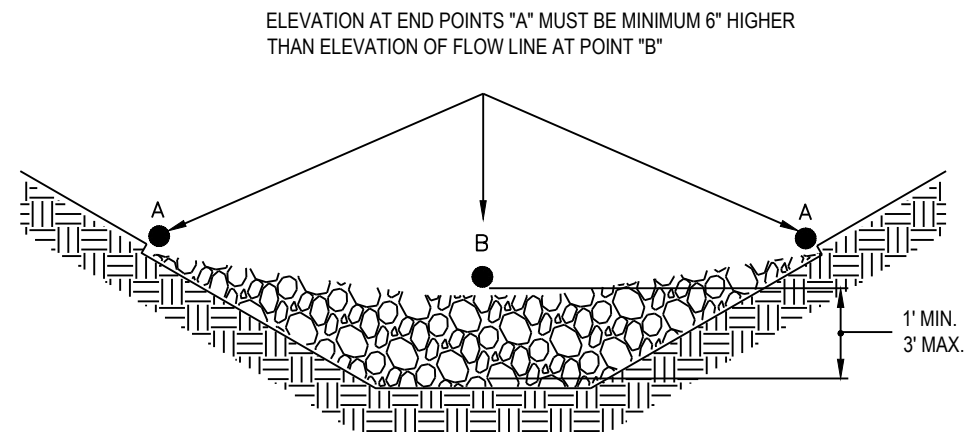
1. FOAM DIKE
2. GEORIDGE
3. WATTLES (INSTALL PER MANUFACTURER'S INSTRUCTIONS).

NOTES:

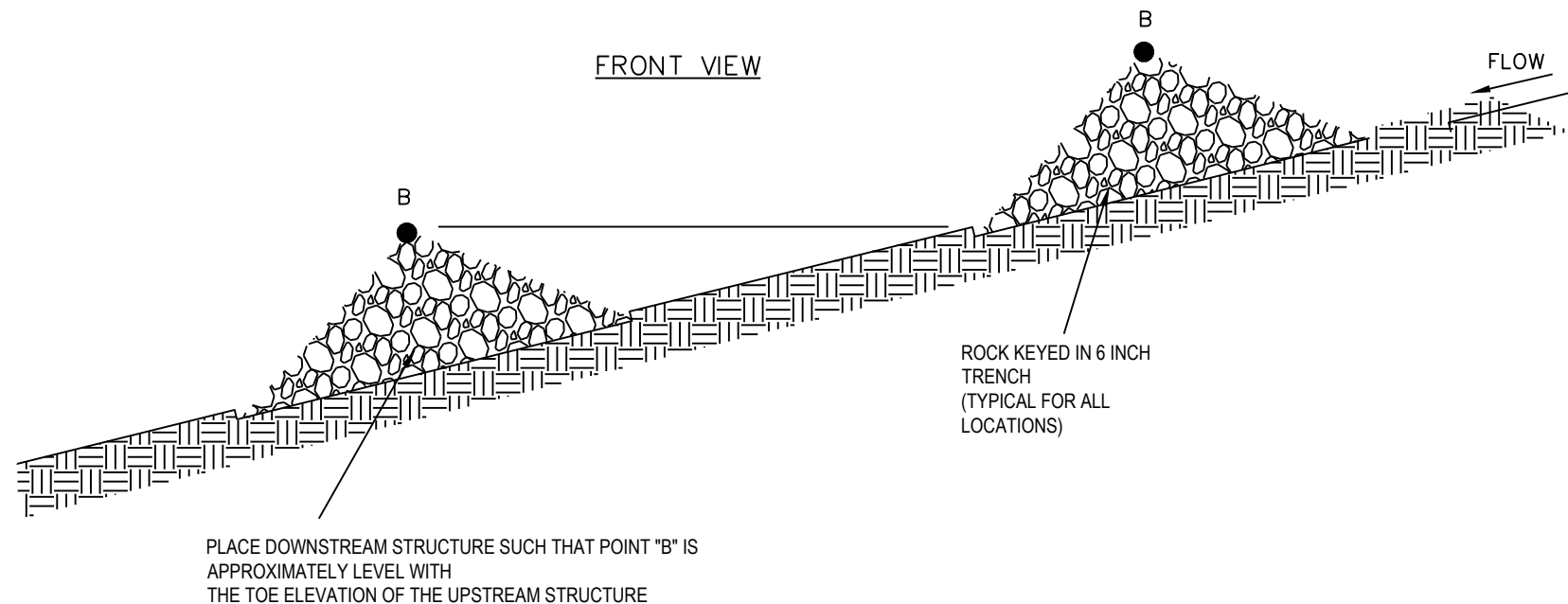
1. ROCK CHECK DAMS SHALL BE USED ONLY FOR DRAINAGE AREAS LESS THAN 10 ACRES UNLESS APPROVED BY THE CITY

MAINTENANCE:

REMOVE SILT WHEN IT ACCUMULATES $\frac{1}{2}$ THE HEIGHT OF THE DITCH CHECK. IF UNITS ARE DAMAGED OR DISLODGED DURING THE SEDIMENT REMOVAL PROCESS, REPAIR AND RE-ESTABLISH CONTINUITY.

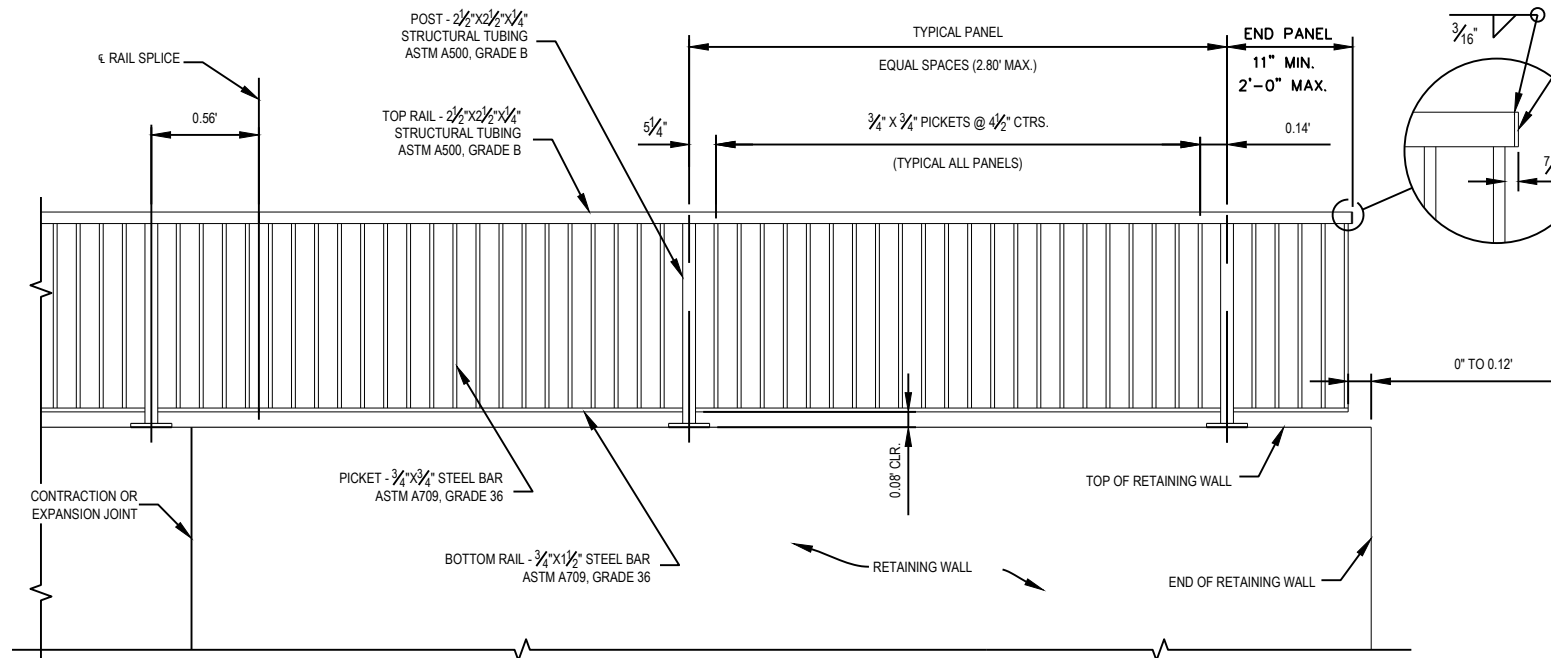


FRONT VIEW

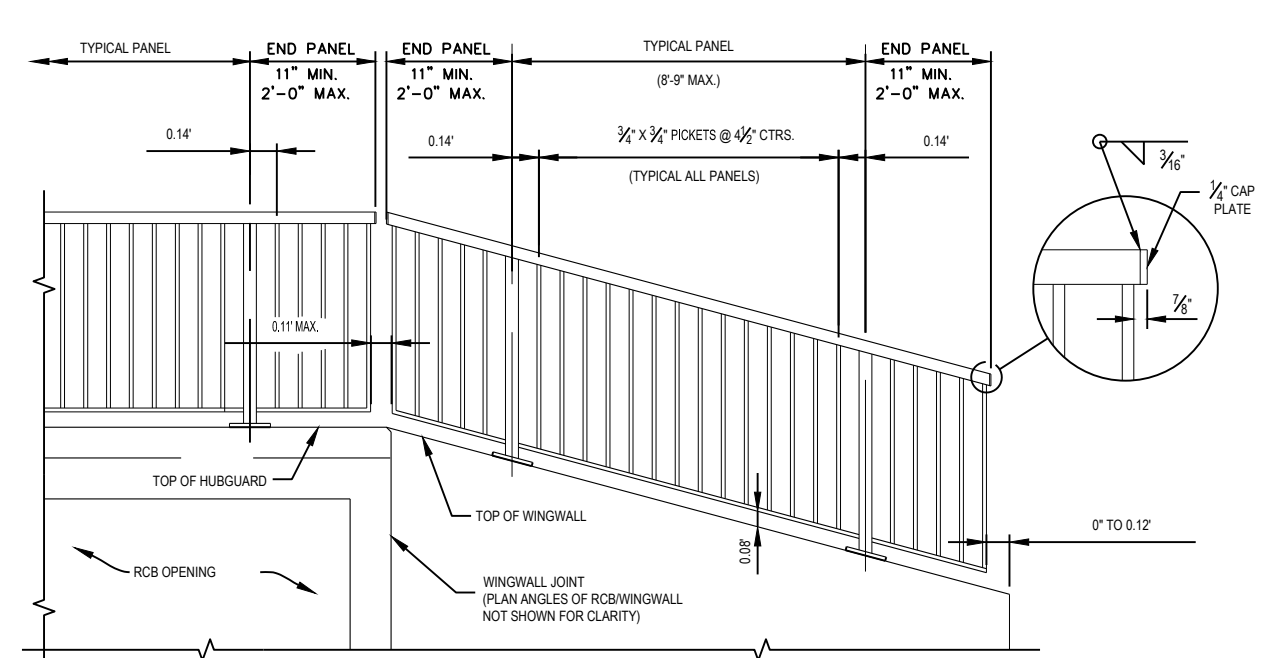


SPACING BETWEEN CHECK DAMS (ALL TYPES)

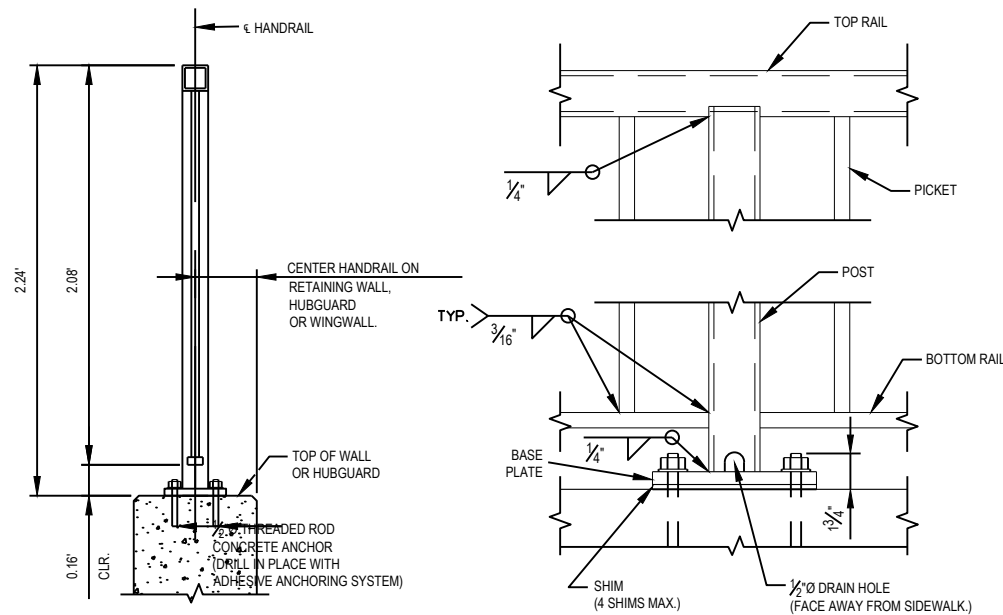
DITCH CHECK



**TYPICAL METAL HANDRAIL ELEVATION
ON CONCRETE RETAINING WALL**

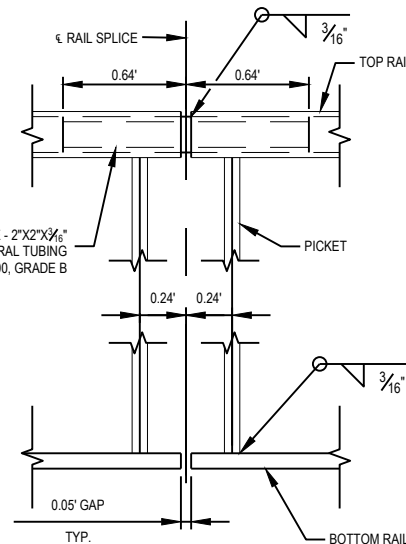


**TYPICAL METAL HANDRAIL ELEVATION
ON RCB HUBGUARD & WINGWALL**

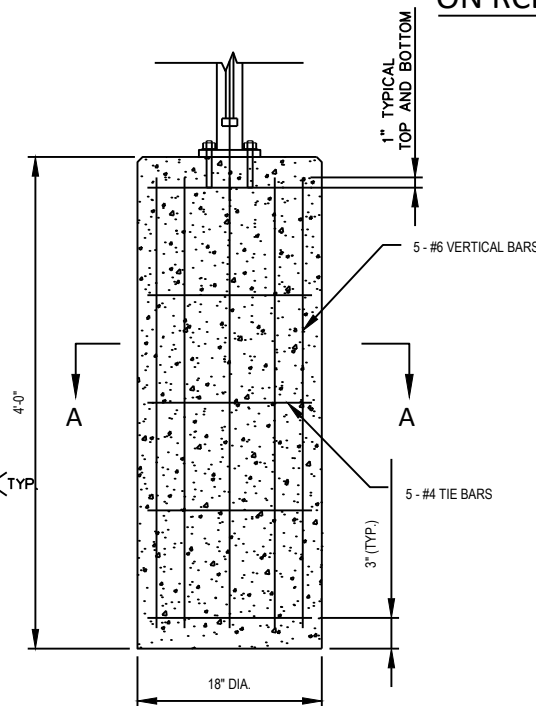


SECTION THRU RAIL

POST DETAIL



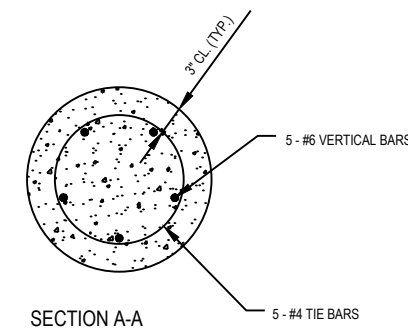
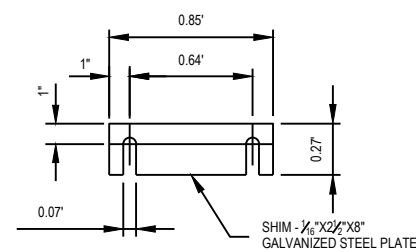
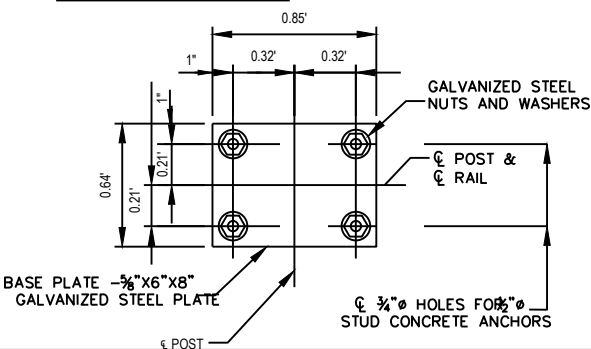
RAIL SPLICE DETAIL



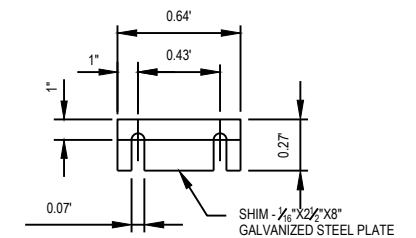
POST FOUNDATION DETAIL

HANDRAIL GENERAL NOTES:

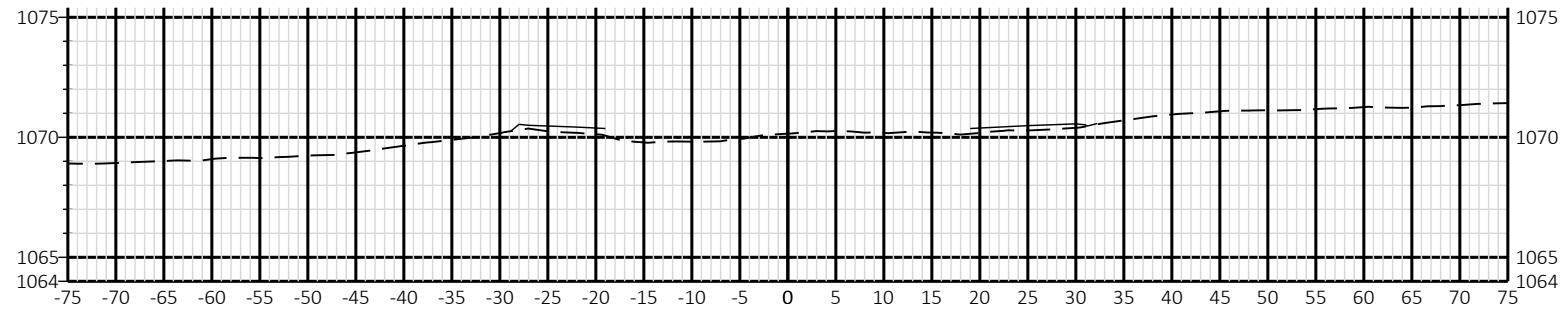
1. GALVANIZE ALL RAIL, POSTS, PICKETS, AND BASE PLATES AFTER FABRICATION IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A123. NO FIELD GALVANIZING WILL BE ALLOWED. HANDRAILS SHALL BE PROTECTED FROM ANY DAMAGE TO THE GALVANIZED SURFACES. HANDRAILS DELIVERED TO THE JOB SITE WITH DAMAGED GALVANIZING SHALL BE RETURNED TO THE MANUFACTURER TO BE RE-GALVANIZED.
2. SET RAILS PARALLEL TO THE TOP OF THE WALL. SET POSTS AND PICKETS VERTICAL IN BOTH PLANES OF THE HANDRAIL. SHIMS MAY BE USED BETWEEN CONCRETE AND BASE PLATE OF STEEL POST.
3. GRIND SMOOTH ALL TOP AND BOTTOM RAIL-TO-POST WELDED CONNECTIONS. FIELD WELDING IS NOT PERMITTED. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION OF THE HANDRAIL. FIELD VERIFY AS-BUILT DIMENSIONS AND ELEVATIONS OF RETAINING WALLS, HUBGUARDS OR WINGWALLS PRIOR TO FABRICATION OF HANDRAIL. POST SPACING WILL BE REVIEWED DURING THE SHOP DRAWING REVIEW PERIOD TO COORDINATE WITH EXPANSION AND CONTRACTION JOINT SPACING IN THE WALL.
4. FABRICATE HANDRAIL IN LENGTHS TO INCLUDE A MINIMUM OF ONE AND A MAXIMUM OF THREE PANELS.
5. ATTACH TOP RAIL MEMBERS TO AT LEAST TWO POSTS. LOCATE CENTER OF RAIL SPLICES 1'-9\"/>



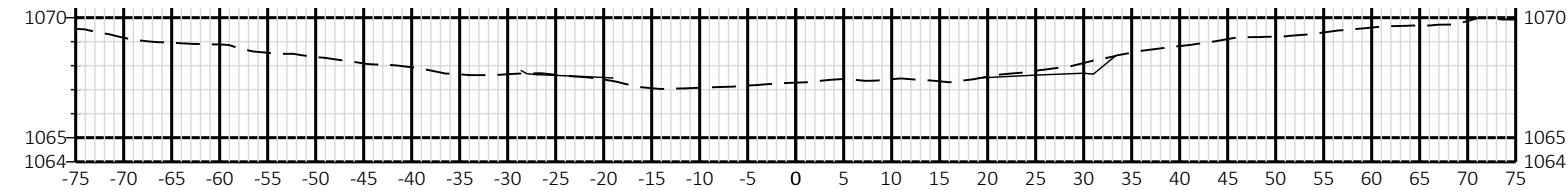
SECTION A-A



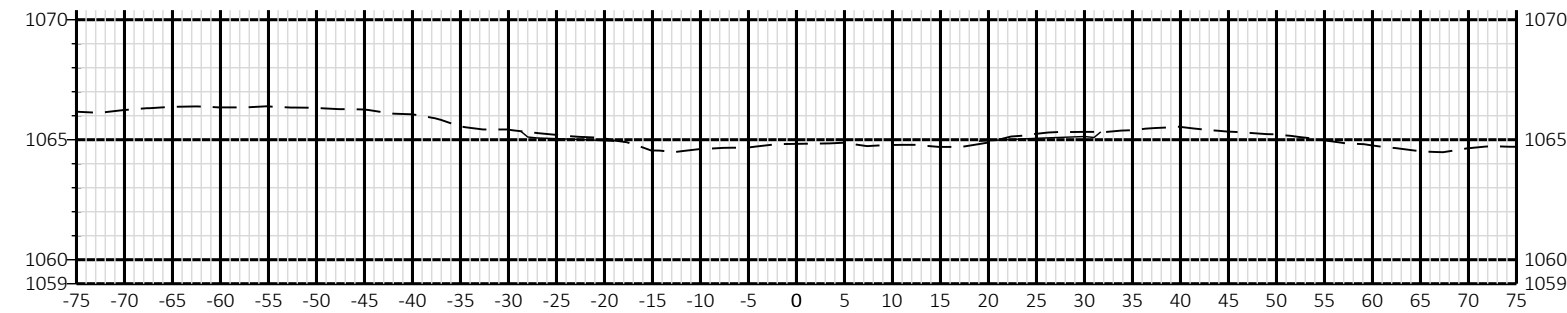
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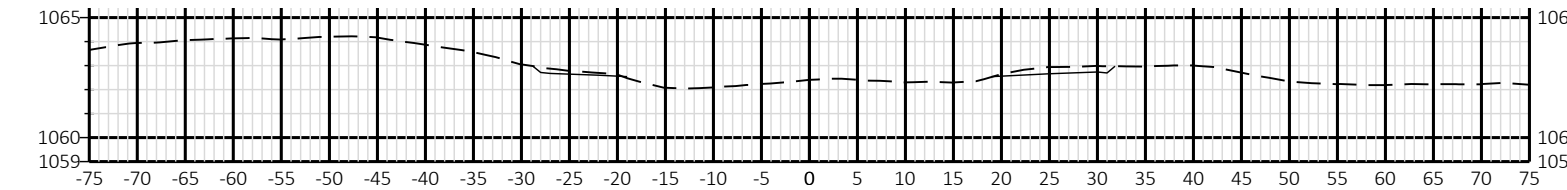
11+00



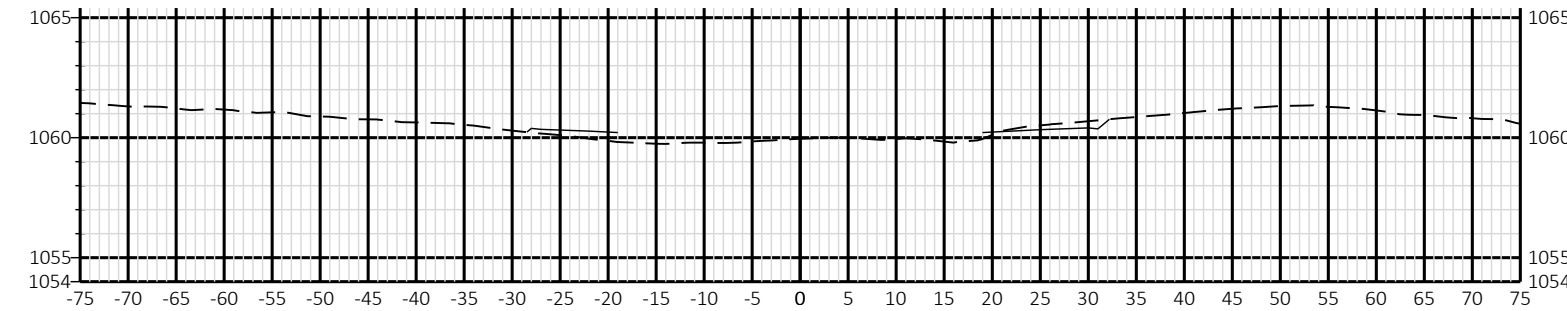
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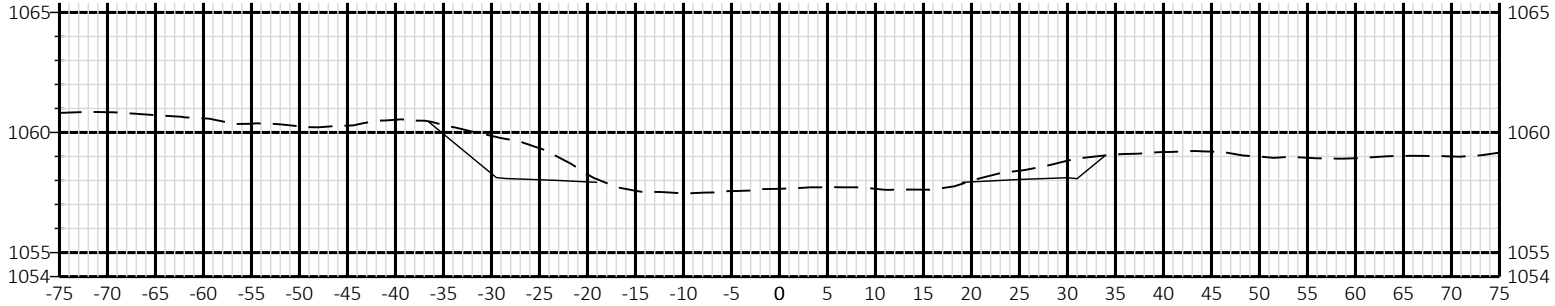
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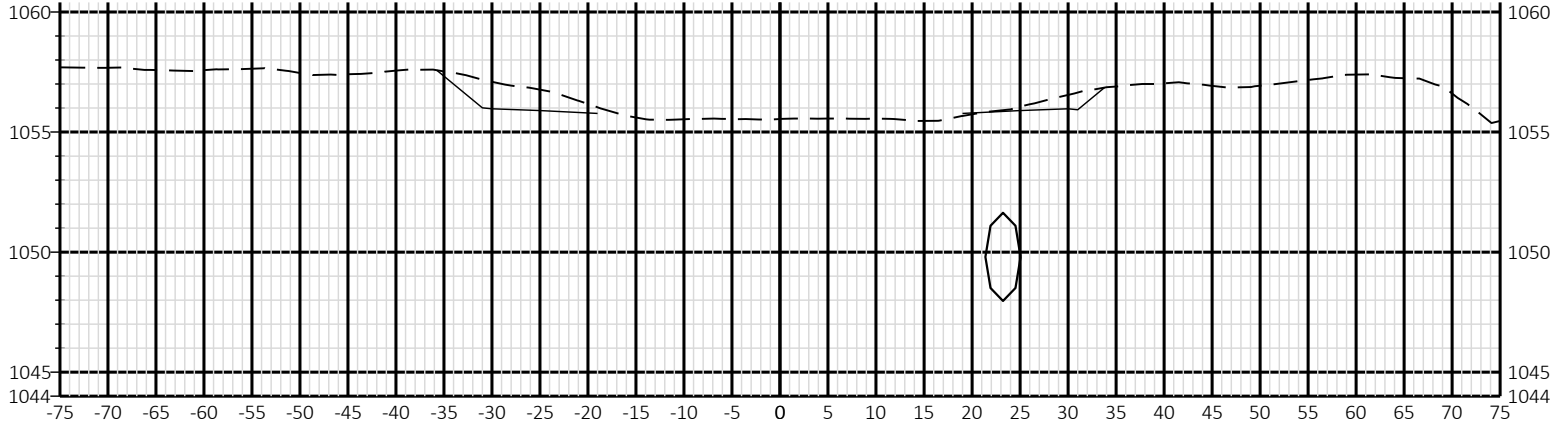
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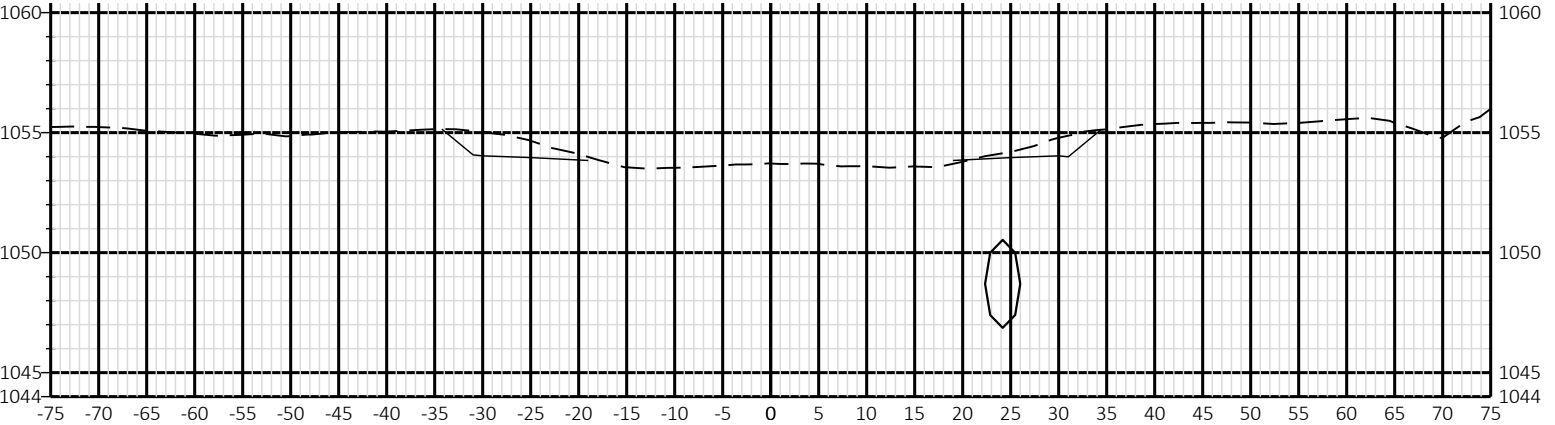
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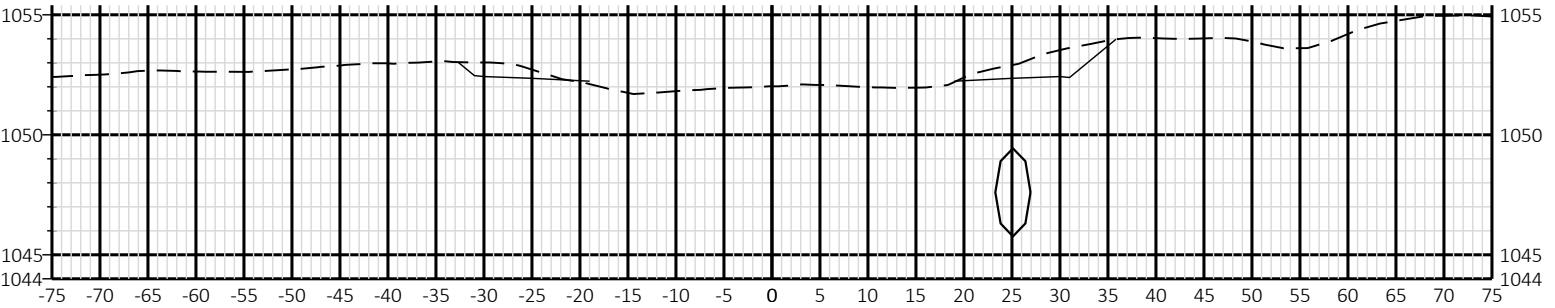
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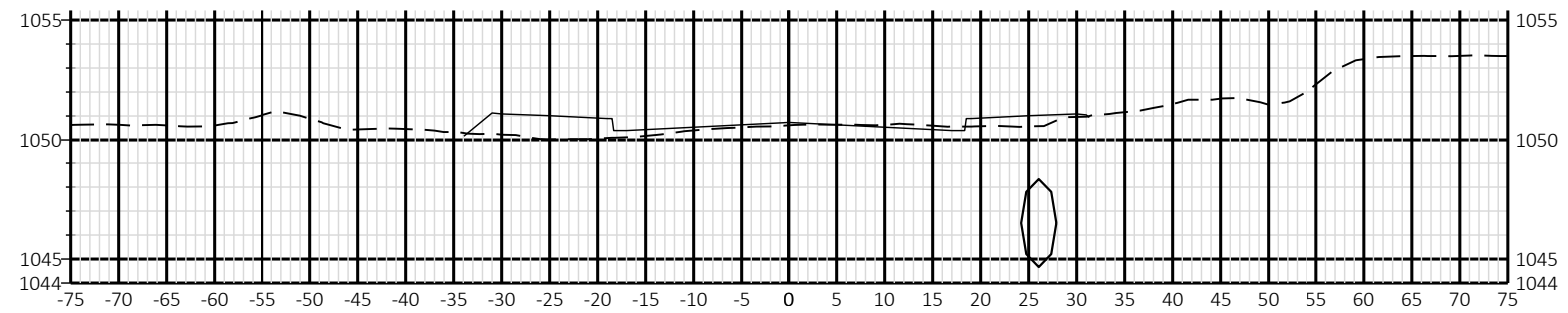
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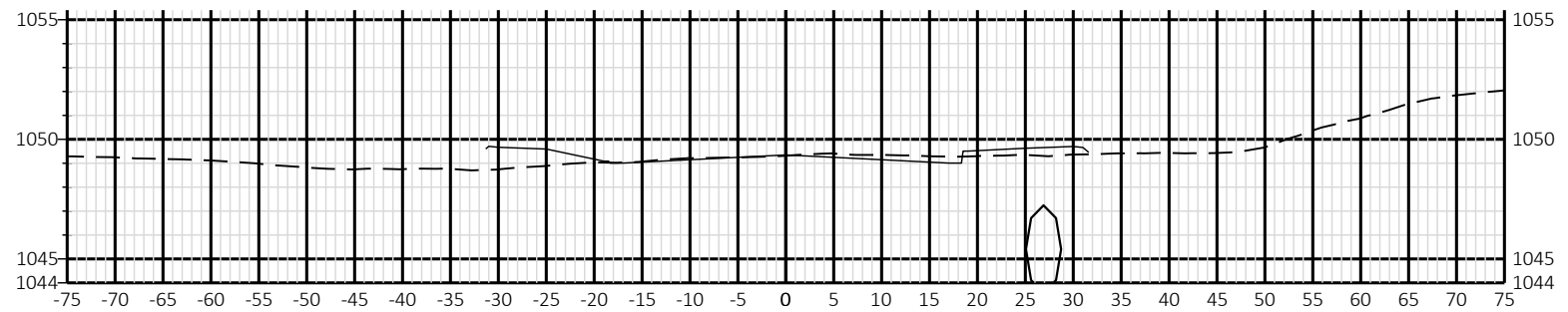
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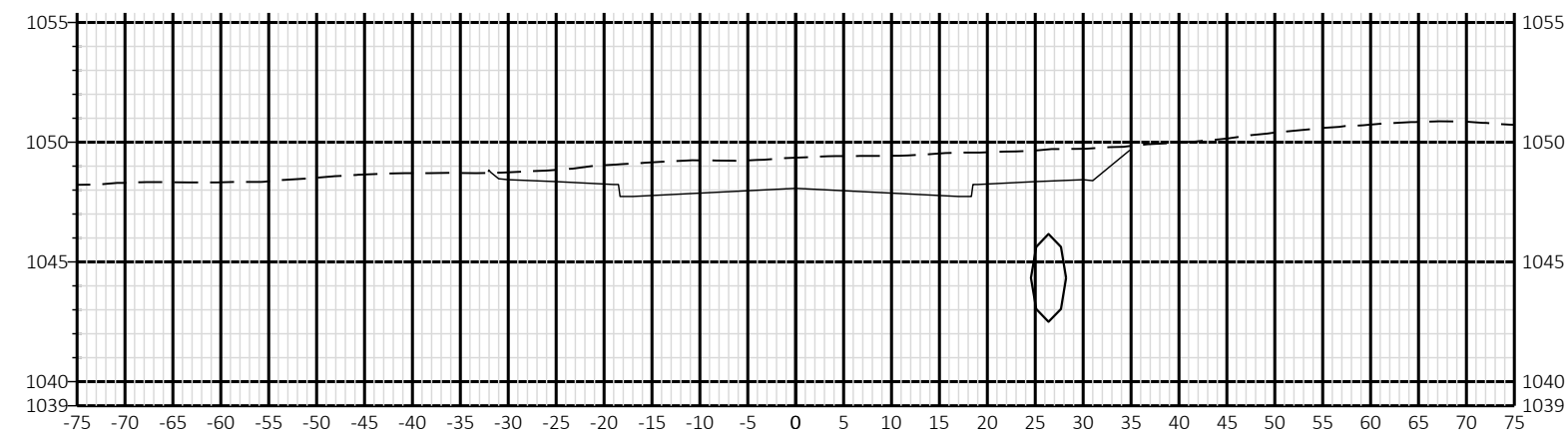
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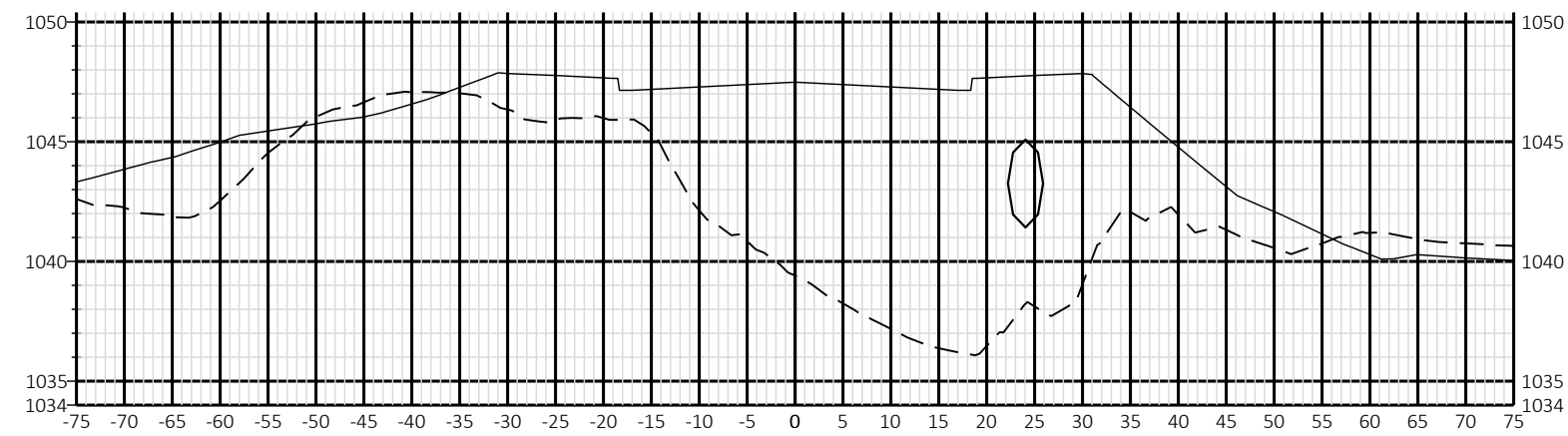
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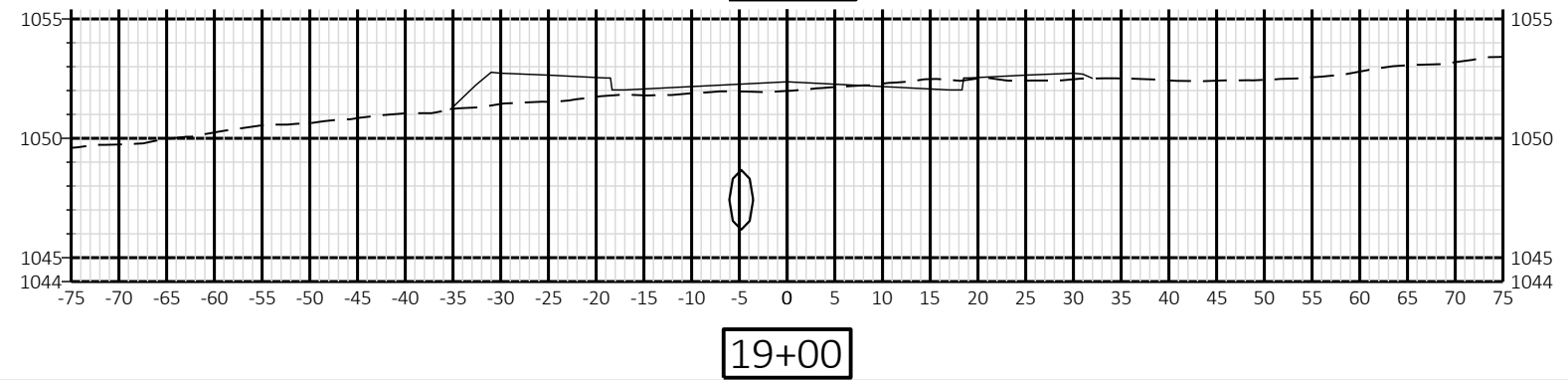
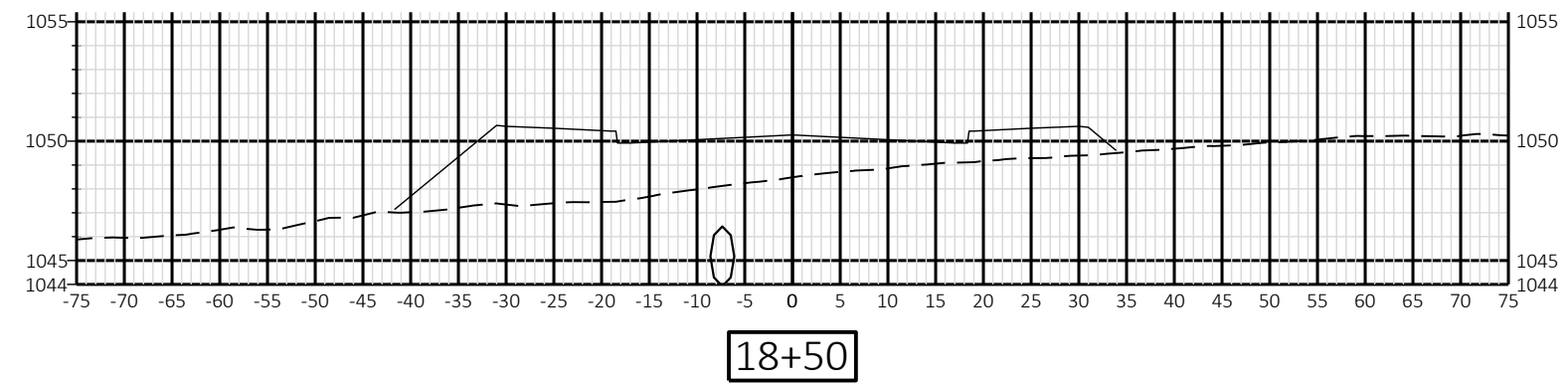
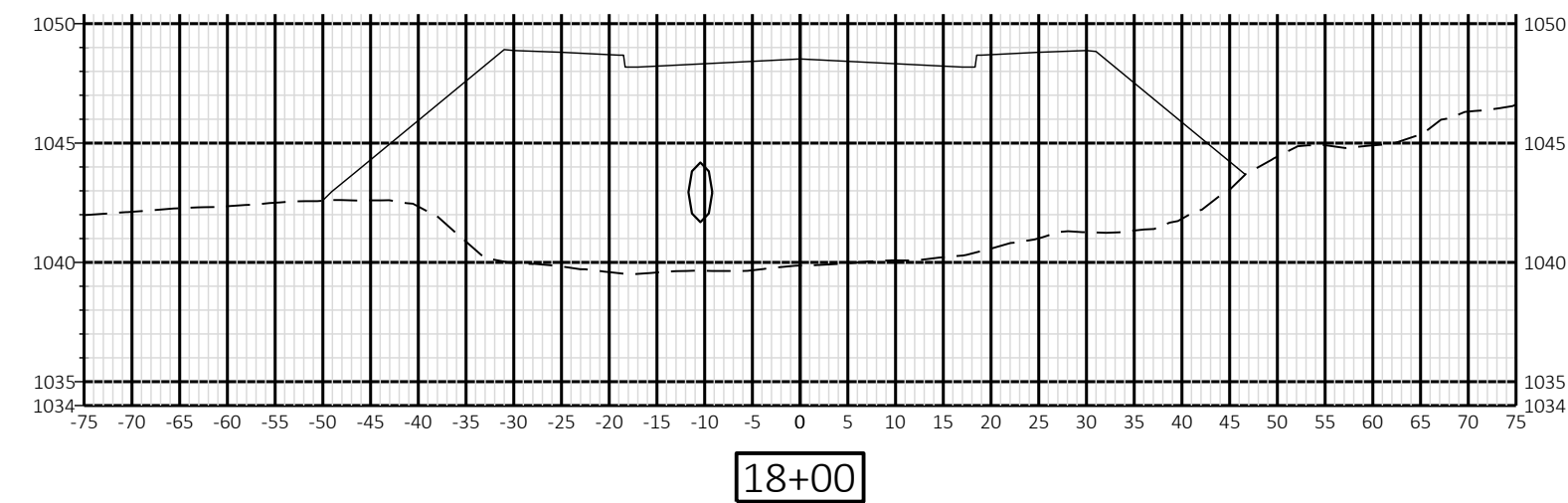
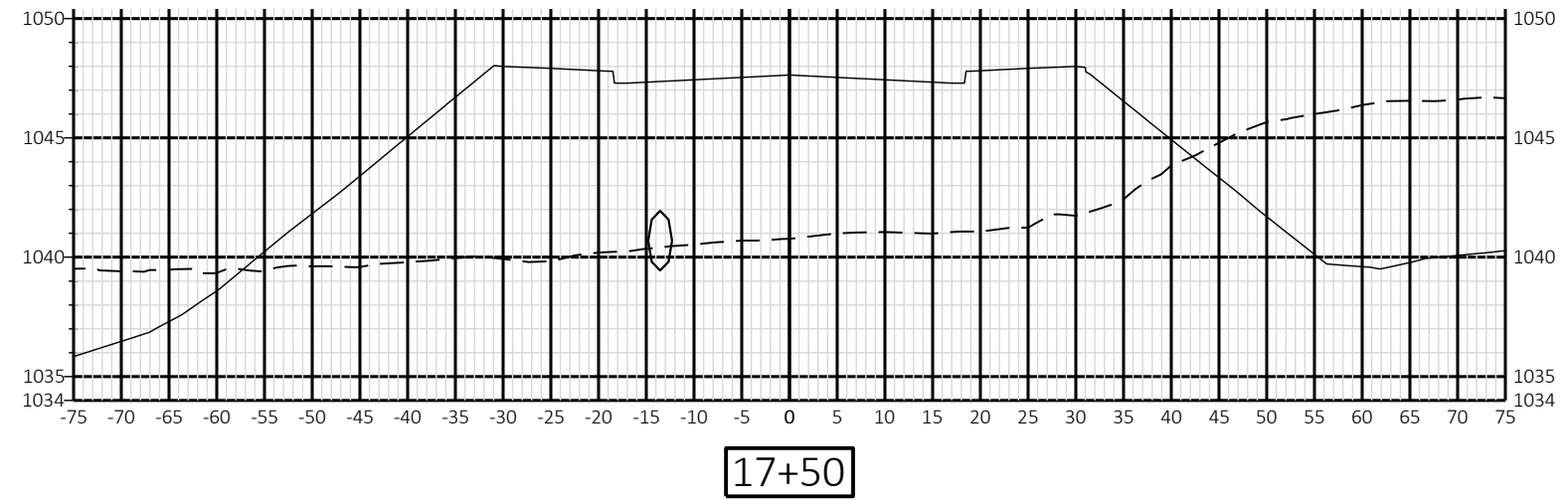
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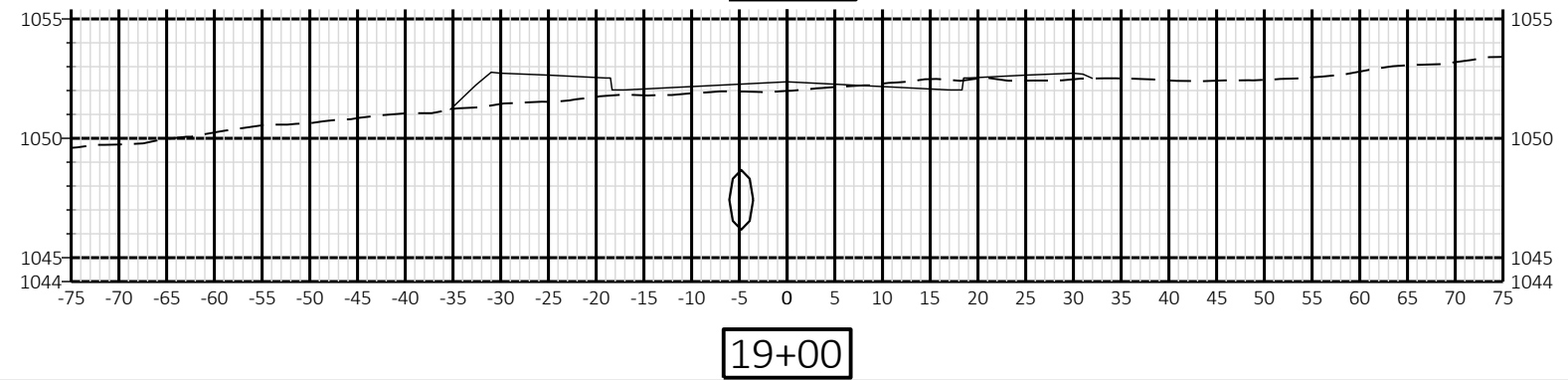
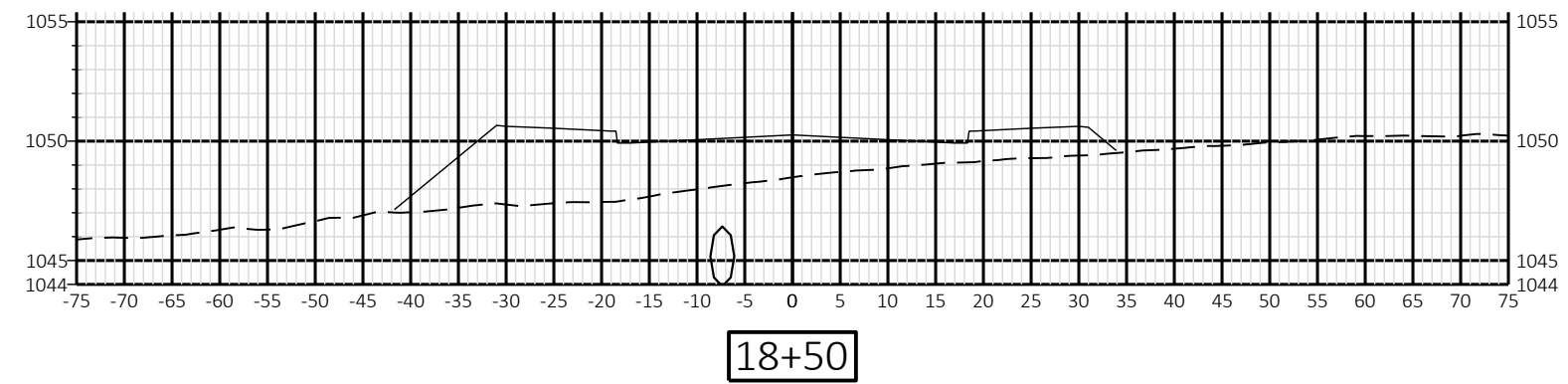
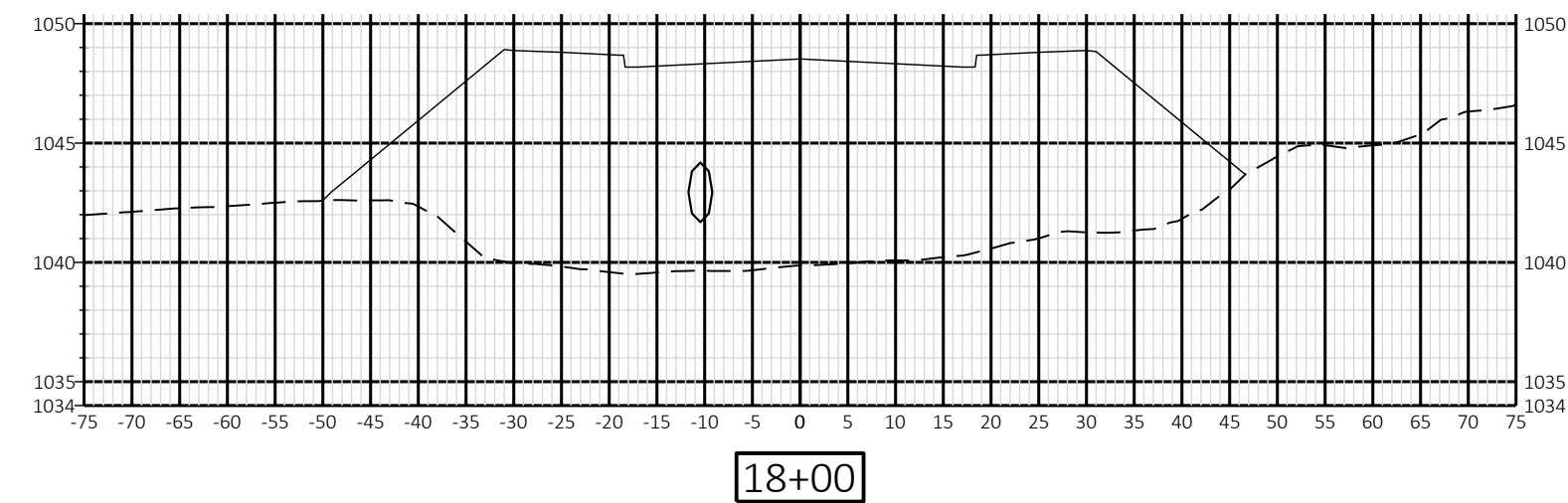
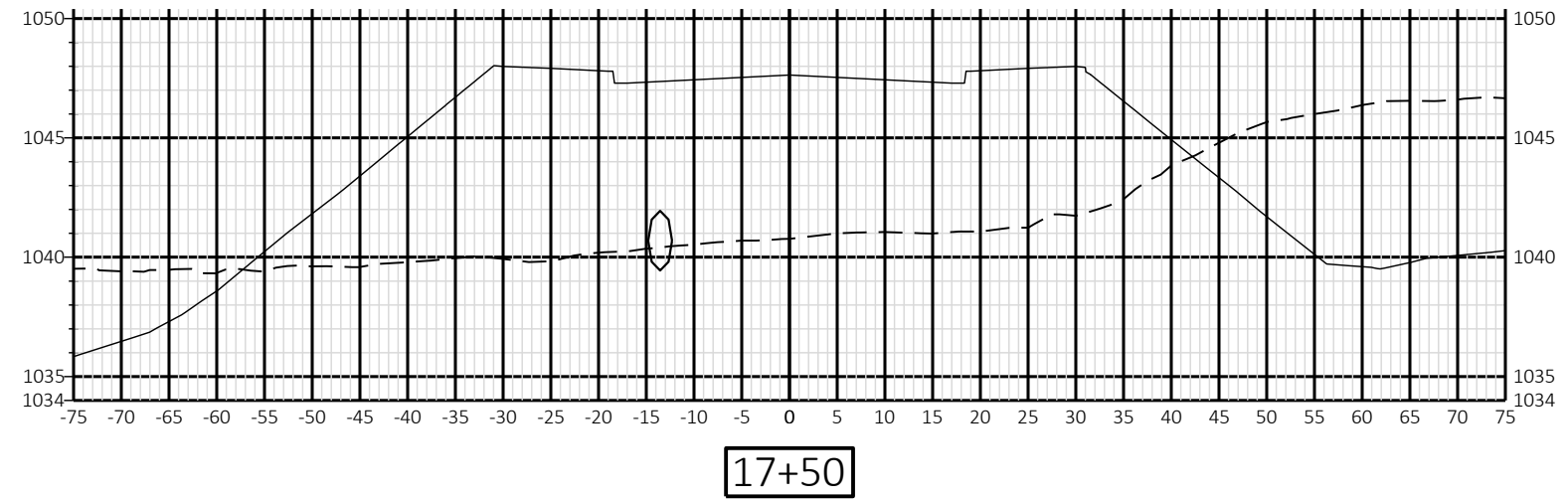


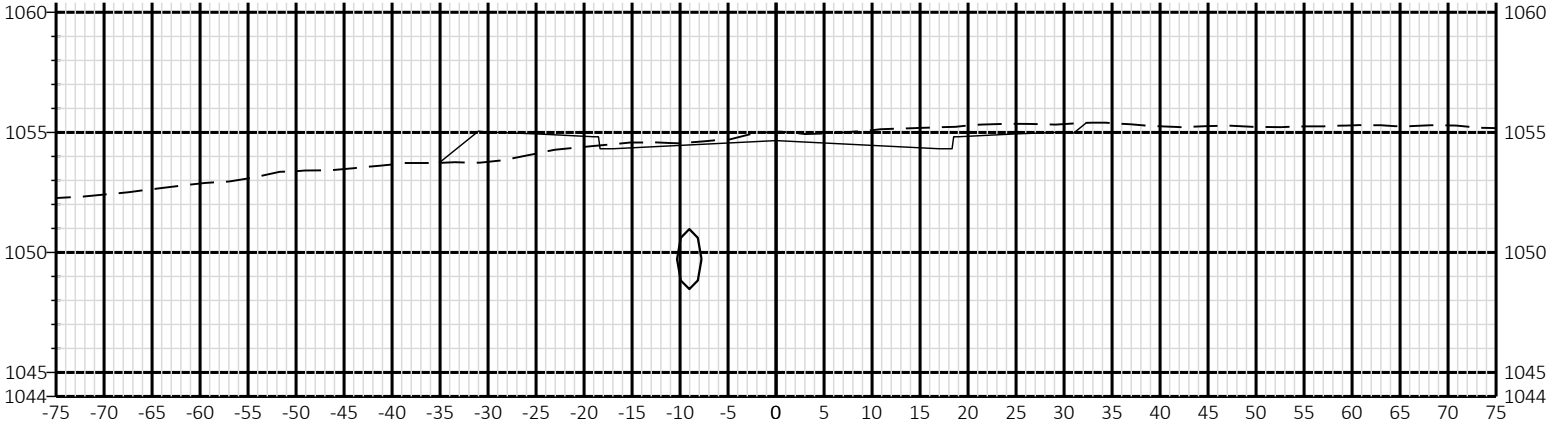
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17+00



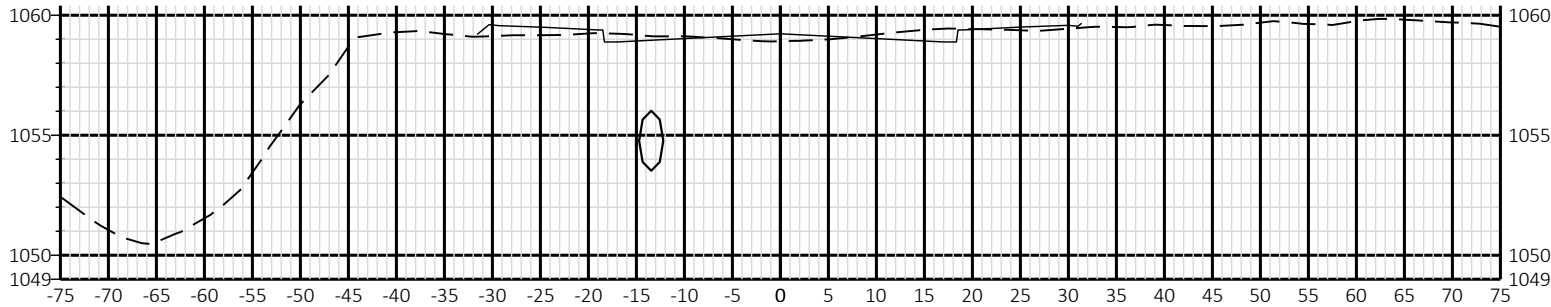




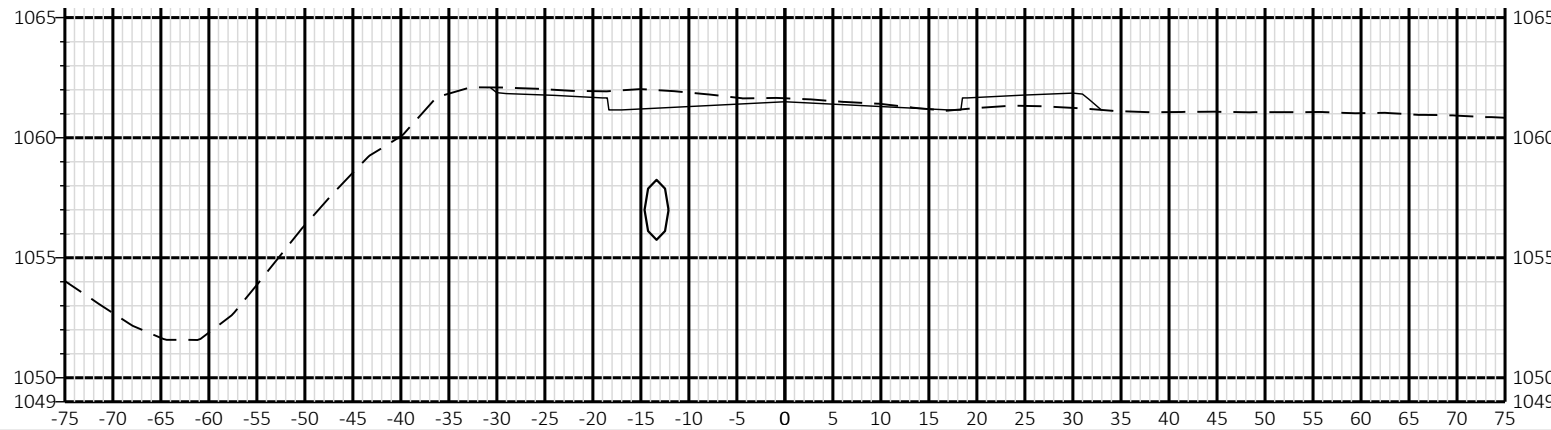
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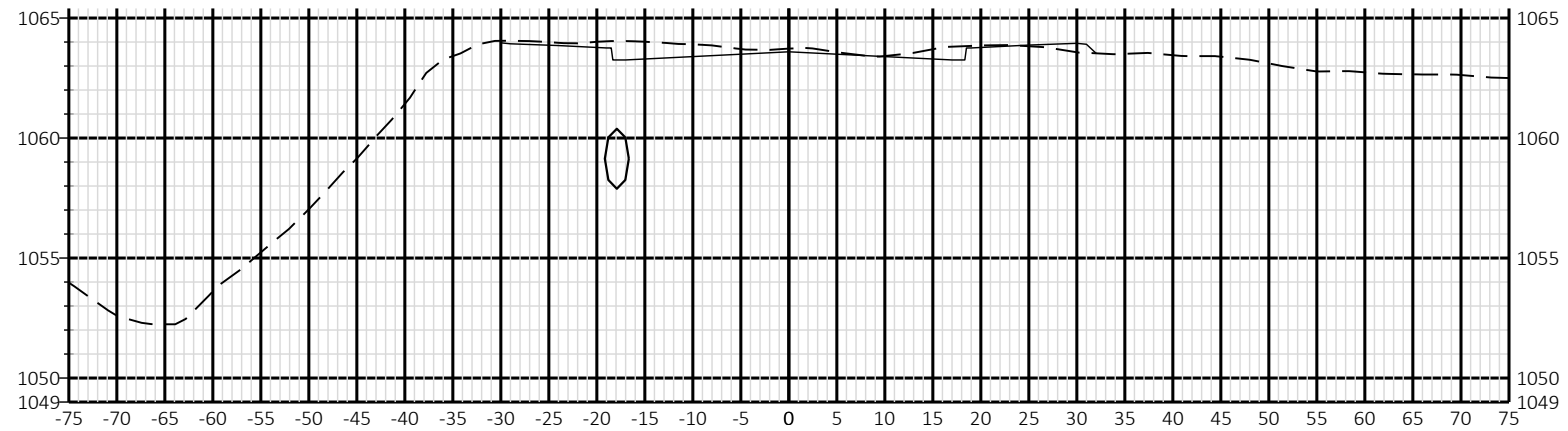


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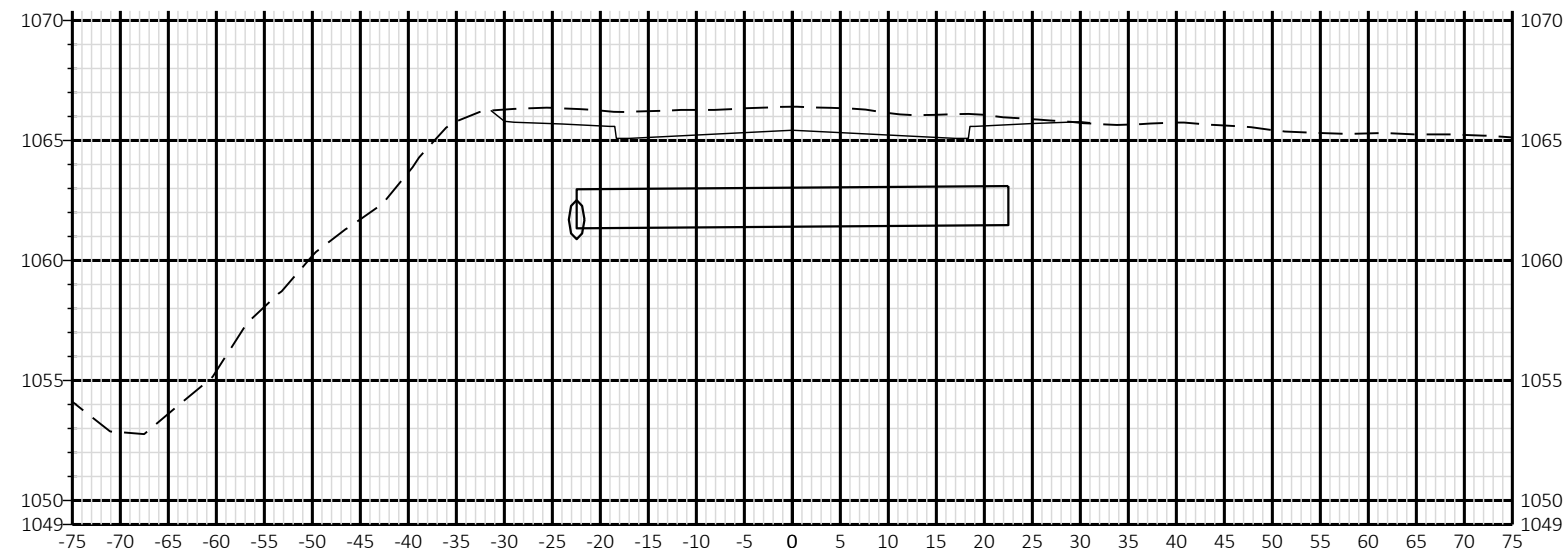


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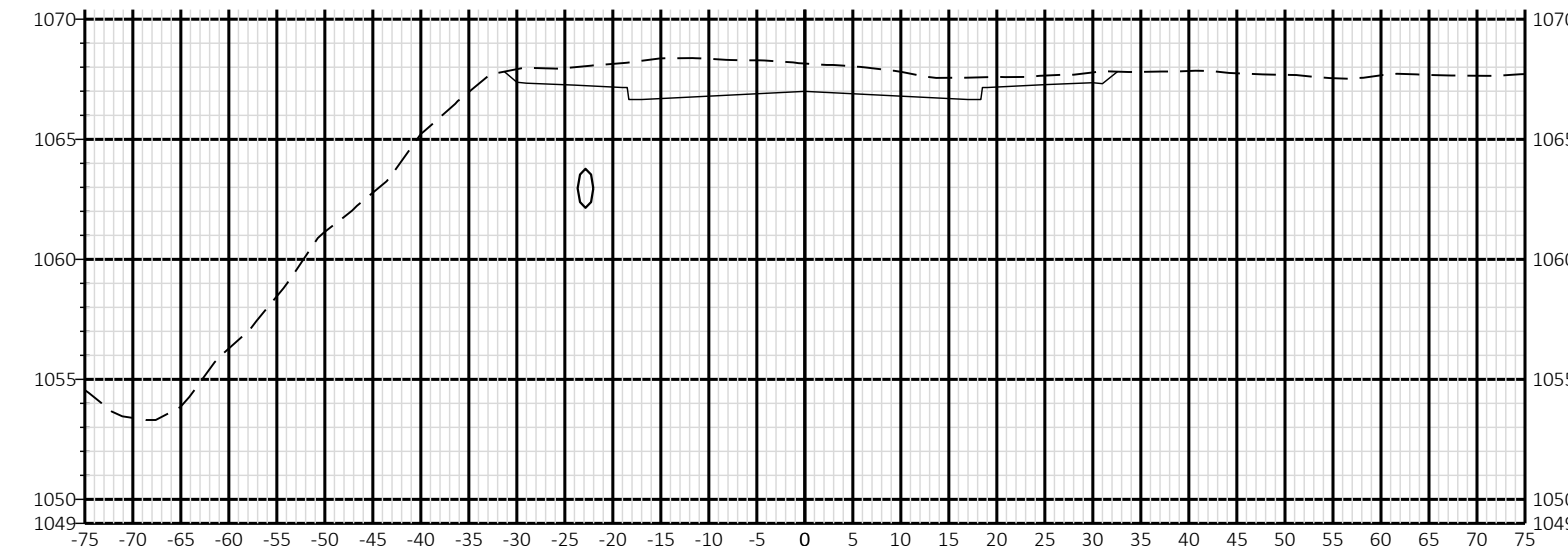




21+50



22+00



22+50

