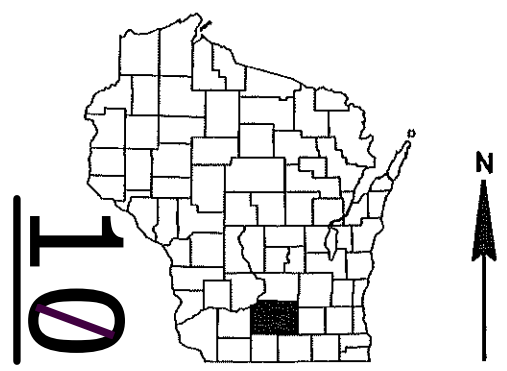


MAD PROJECT ID: 5998-00-01/02 COUNTY: DANE

MARCH 2025
ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes Erosion Control)
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 158



DESIGN DESIGNATION	5998-00-00
A.A.D.T.	2022 = 1600
A.A.D.T.	2045 = 2200
D.H.V.	= 344
D.D.	= 59/41
T.	= 12.3%
DESIGN SPEED	= 25 MPH
ESALS	= XX

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
	STORM SEWER
	TELEPHONE
	WATER
MARSH AREA	UTILITY PEDESTAL
	POWER POLE
WOODED OR SHRUB AREA	TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

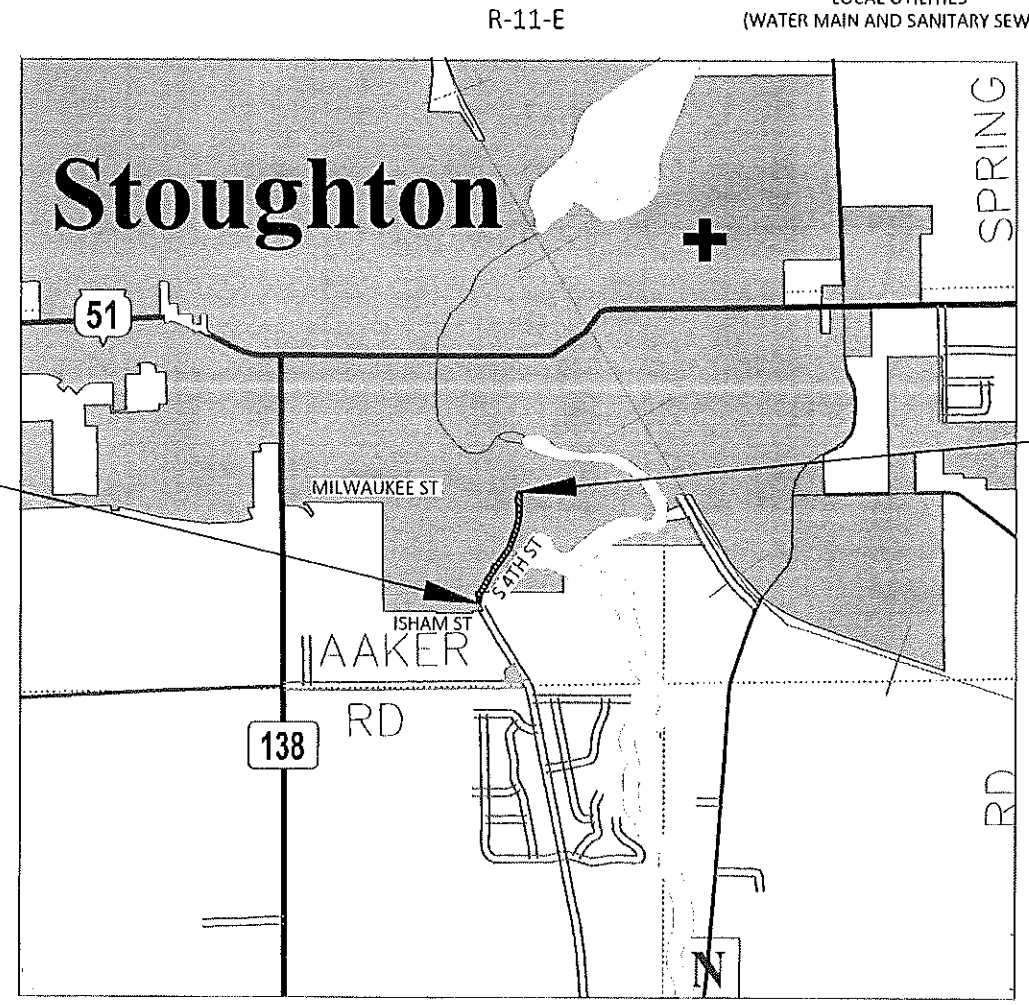
PLAN OF PROPOSED IMPROVEMENT

CITY OF STOUGHTON, S FOURTH STREET
MILWAUKEE STREET TO ISHAM STREET

LOCAL STREET
DANE COUNTY

STATE PROJECT NUMBER
5998-00-01

STATE PROJECT NUMBER
5998-00-02



BEGIN PROJECT
STA 11+25.00
X = 865,140.88
Y = 421,898.64

END PROJECT
STA 28+28.70

LAYOUT
SCALE 0 0.5 MI
TOTAL NET LENGTH OF CENTERLINE = 0.323 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), DANE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.
ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12B

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5998-00-01	WISC 2025365	1
5998-00-02		

SANITARY SEWER, WATER MAIN, AND STORM SEWER DESIGNED BY: STRAND ASSOCIATES, INC.

WISCONSIN PROFESSIONAL ENGINEER
MARK A. FISHER
E-30301
MADISON WI
10/22/24

ACCEPTED FOR
CITY OF STOUGHTON
Date 10/24/24
Brett Heber
Director of Public Works
(Signature and Title of Official)

ORIGINAL PLANS PREPARED BY

STRAND ASSOCIATES

WISCONSIN PROFESSIONAL ENGINEER
ROBERT A JACK
E-42985
MADISON WI
10/23/24

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	STRAND ASSOCIATES, INC.
Designer	STRAND ASSOCIATES, INC.
Project Manager	ZACHARY PEARSON, P.E.
Regional Examiner	WISDOT SOUTHWEST REGION
Regional Supervisor	KYLE HELM, P.E.

APPROVED FOR THE DEPARTMENT
DATE: 10/28/24
ZACHARY PEARSON
(Signature)

GENERAL NOTES

EXACT LOCATIONS AND WIDTHS OF DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

THE EXACT PAVING LIMITS AT INTERSECTIONS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LBS/SY/IN.

ASPHALTIC PAVEMENT SUMMARY

S FOURTH STREET		
LAYER	THICKNESS	TYPE
UPPER LAYER	2.0 INCHES	4 LT 58-28 S
LOWER LAYER	3.0 INCHES	3 LT 58-28 S

SUPERELEVATION TABLES

Station	Lane	Percent (%)
11+25	LT	5.0
11+50	LT	5.0
11+75	LT	5.0
12+00	LT	5.0
12+25	LT	4.5
12+50	LT	4.0
26+50	LT	4.0
26+75	LT	3.9
27+00	LT	3.5
27+25	LT	3.1
27+50	LT / DRIVE	3.0
27+50	LT / PARK	-1.0
27+75	LT / DRIVE	3.0
27+75	LT / PARK	-1.0
28+00	LT / DRIVE	2.0
28+00	LT / PARK	-2.0
28+25	LT	-1.4

Station	Lane	Percent (%)
11+25	RT	-6.5
11+50	RT	-6.0
11+75	RT	-5.5
12+00	RT	-5.0
12+25	RT	-4.5
12+50	RT	-4.0
26+50	RT	-4.0
26+75	RT	-3.9
27+00	RT	-3.5
27+25	RT	-3.1
27+50	RT	-3.0
27+75	RT	-3.0
28+00	RT	-2.0
28+25	RT	-2.7

SECTION 2 ORDER OF SHEETS

- GENERAL NOTES
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PLAN DETAILS
- CURB RAMP DETAILS
- EROSION CONTROL
- STORM SEWER
- UTILITY PLANS
- PAVEMENT MARKING AND SIGNING
- TRAFFIC CONTROL-ADVANCED WARNING
- PEDESTRIAN ACCESS
- ALIGNMENT

DNR LIASON

ERIC HEGGELUND
DNR SOUTH CENTRAL REGION
HEADQUARTERS
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711-5367
(608) 228-7927
ERIC.HEGGELUND@WISCONSIN.GOV

WISDOT REGION CONTACT

ZACHARY PEARSON P.E., LOCAL-
PROGRAM PROJECT MANAGER
WISDOT SOUTHWEST REGION
OFFICE
2101 WRIGHT ST
MADISON, WI 53704
(608) 246-5319
ZACHARY.PEARSON@DOT.WI.GOV

DESIGN CONSULTANT

ZACH DECENT
STRAND ASSOCIATES, INC.
910 WEST WINGRA DRIVE
MADISON, WI 53715
(608) 251-4843
ZACH.DECENT@STRAND.COM

CITY OF STOUGHTON CONTACT

BRETT HEBERT
PUBLIC WORKS DIRECTOR
2439 COUNTY HWY A
STOUGHTON, WI 53589
608-877-8684
BHEBERT@CITYOFSTOUGHTON.COM

CITY OF STOUGHTON - PUBLIC WORKS

JOHN KEMPPAINEN - CITY FORESTER
(608) 646-0414
JKEMPPAINEN@CI.STOUGHTON.WI.US

STOUGHTON UTILITIES

JILL WEISS, P.E. - UTILITIES DIRECTOR
(608) 877-7423
JWEISS@STOUGHTONUTILITIES.COM

UTILITY CONTACTS

* AT&T - TELEPHONE/FIBER OPTIC

RICK PODOLAK
(715) 410-0656
RP4514@ATT.COM

* TDS - TELEPHONE/FIBER OPTIC

ERIC DEATRICK
(717) 524-6096
ERIC.DEATRICK@TDSTELECOM.COM

* CHARTER SPECTRUM - CABLE/FIBER OPTIC

NICHOLAS THUNBERG
(608) 373-7506
NICHOLAS.THUNBERG@CHARTER.COM

* STOUGHTON UTILITIES - ELECTRIC

RYAN JEFFERSON
(608) 877-7425
RJEFFERSON@STOUGHTONUTILITIES.COM

* ALLIANT ENERGY - GAS

KEITH VER KUILEN
(608) 501-5216
KEITHVERKUILEN@ALLIANTENERGY.COM

* STOUGHTON UTILITIES - WASTEWATER

KEVIN HUDSON
(608) 877-7421
KHUDSON@STOUGHTONUTILITIES.COM

* STOUGHTON UTILITIES - WATER

KENT THOMPSON
(608) 877-7422
KTHOMPSON@STOUGHTONUTILITIES.COM



Dial 811 or (800)242-8511

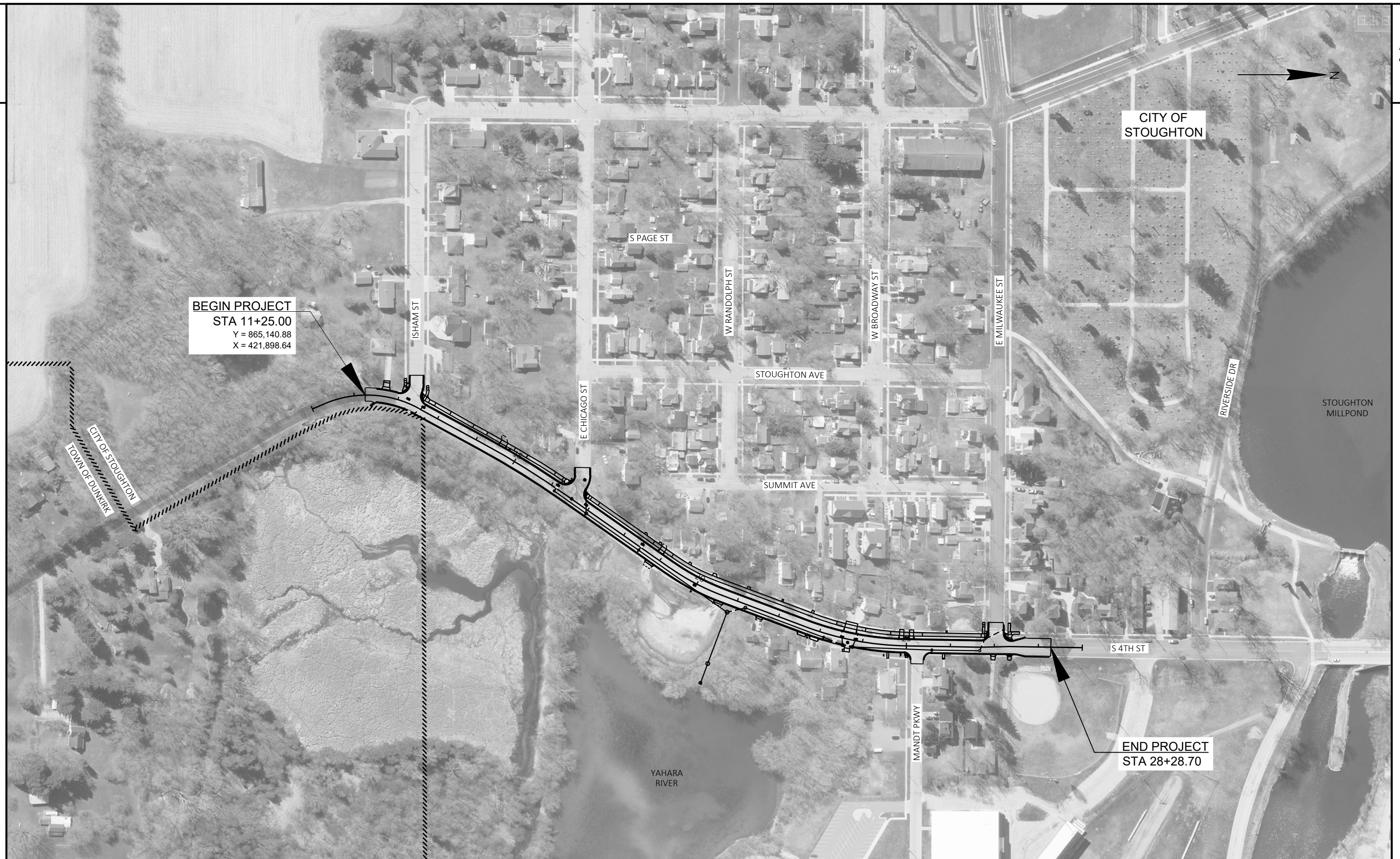
www.DiggersHotline.com

* DENOTES MEMBER OF DIGGERS HOTLINE

RUNOFF COEFFICIENT TABLE

LAND USE:	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS:	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIPTURF:	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPETURF:			.25			.27			.28			.30
			.32			.34			.36			.38
PAVEMENT:												
ASPHALT:	.70 - .95											
CONCRETE:	.80 - .95											
BRICK:	.70 - .80											
DRIVES, WALKS:	.75 - .85											
ROOFS:	.75 - .95											
GRAVEL ROADS, SHOULDERS:	.40 - .60											

TOTAL PROJECT AREA = 2.86 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.52 ACRES



PROJECT NO: 5998-00-01

HWY: S FOURTH ST

COUNTY: DANE

PROJECT OVERVIEW

SHEET

3

E

2



STA 11+25.00 TO STA. 16+50.00

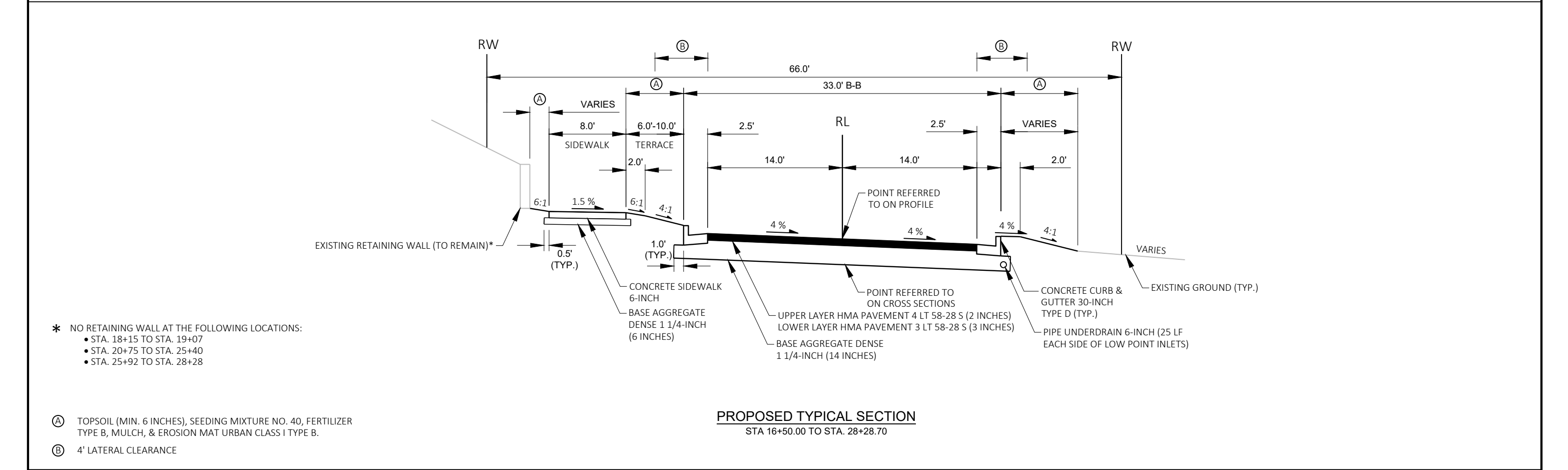
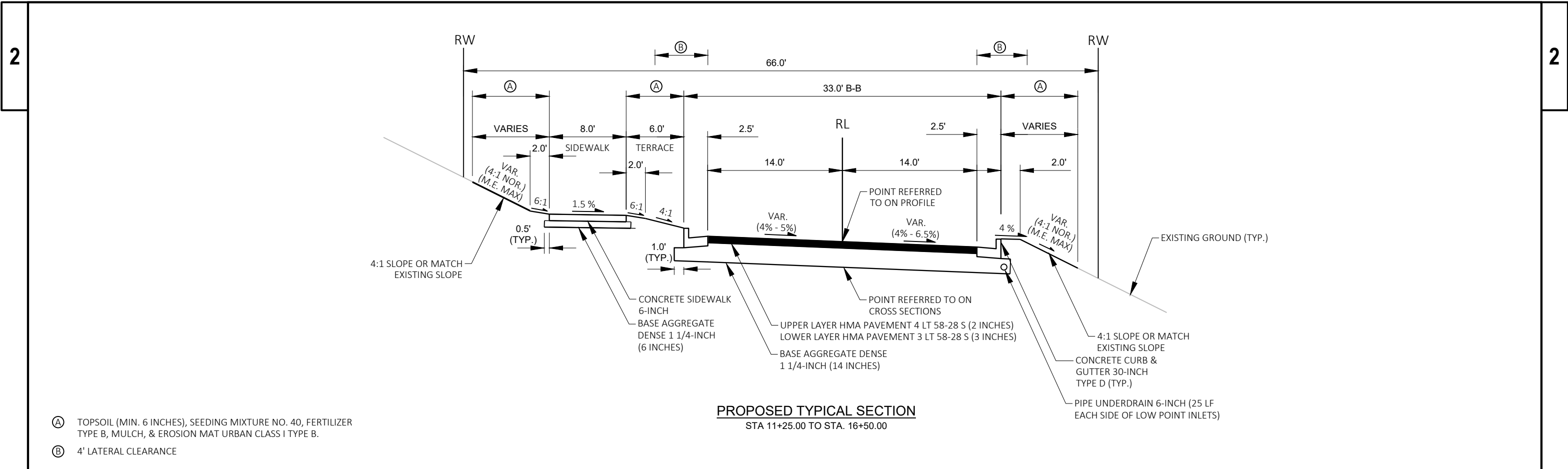
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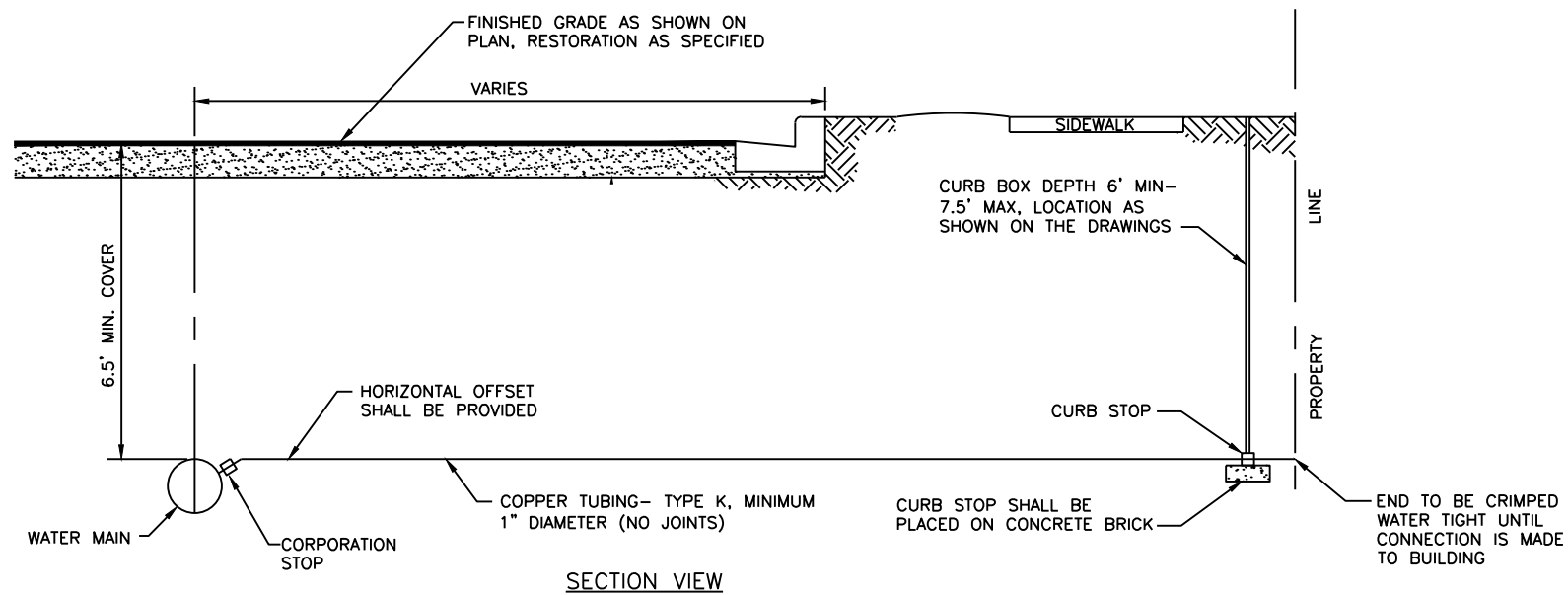


STA 16+50.00 TO STA. 28+28.70

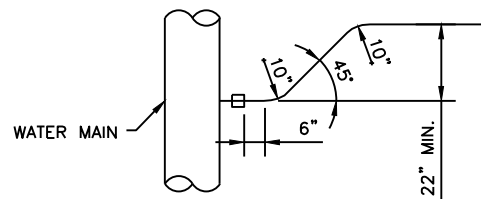
* NO RETAINING WALL AT THE FOLLOWING LOCATIONS:

- STA. 18+15 TO STA. 19+07
- STA. 20+75 TO STA. 25+40
- STA. 25+92 TO STA. 28+28

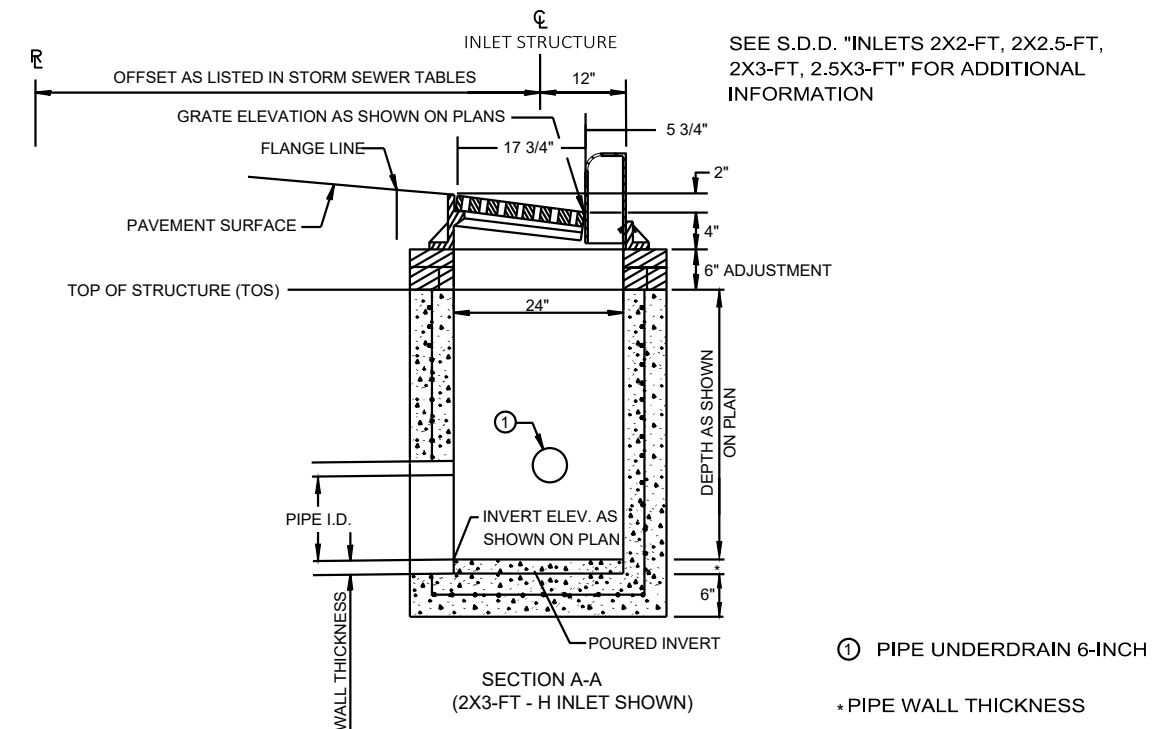
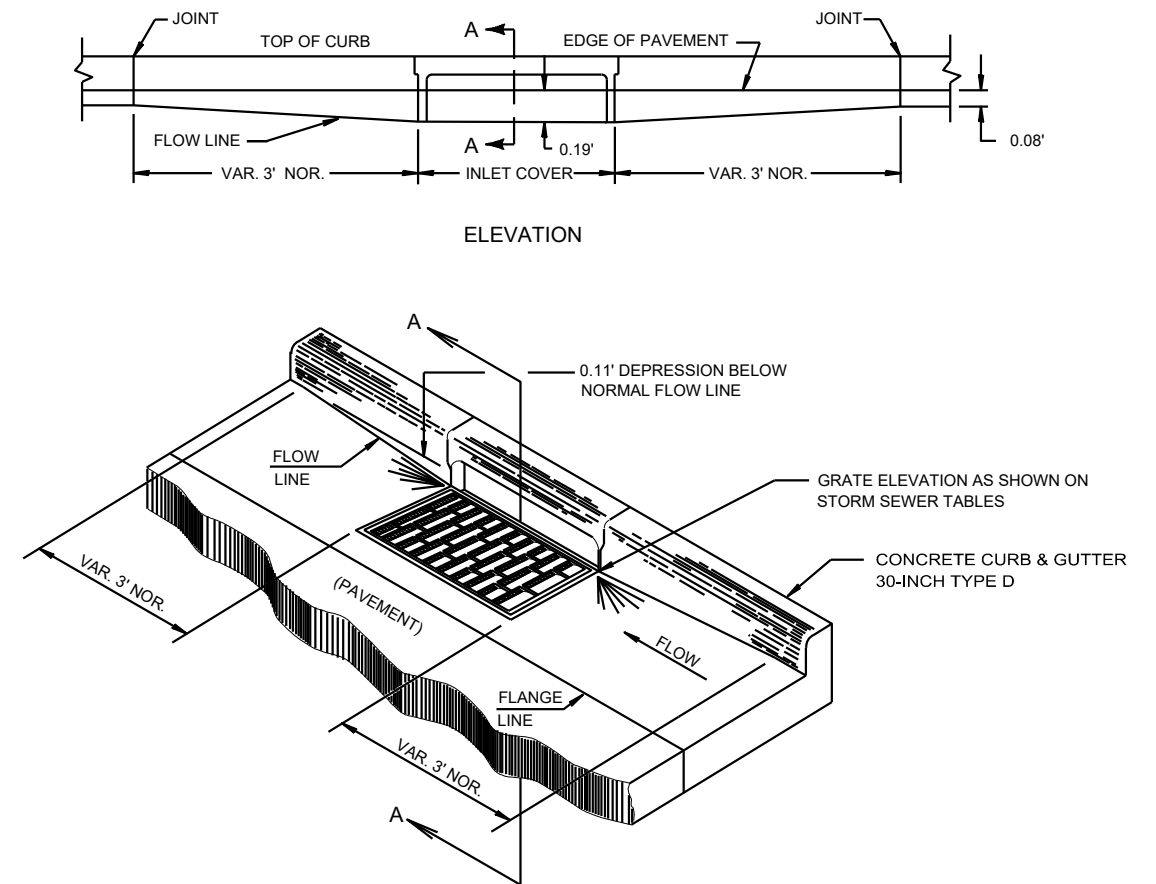




- NOTES**
1. ALL FITTINGS SHALL BE FLARED OR COMPRESSION JOINT TYPE, AND CONFORM TO AWWA REQUIREMENTS
 2. CORPORATION STOP TO BE TAPPED INTO DUCTILE IRON WATER MAIN, UNLESS OTHERWISE SPECIFIED, AND ATTACHED TO PVC WATER MAIN WITH A SADDLE
 3. ALL TAPS TO BE MADE UNDER PRESSURE WHEN APPLICABLE.
 4. NO TAPS TO BE CLOSER THAN 18" APART ALONG MAIN
 5. ALL COPPER TUBE BENDS TO BE SMOOTH RADIUS, 10" MIN
 6. WATER SERVICE LATERAL TO BE TESTED ALONG WITH WATER MAIN, UNLESS IT IS AN EXISTING SERVICE BEING RECONNECTED



RESIDENTIAL WATER SERVICE





NOTES:

1. DETAILS RELATIVE TO ITEMS SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
 2. VARIATIONS IN DIMENSIONS AND DESIGN MAY BE PERMISSIBLE, PROVIDING EQUIVALENT CAPACITY AND STRENGTH ARE ATTAINED.
 3. ALL CONCRETE FILLETS SHALL BE HAND TROWELED WITH A 1/4"/FT. SLOPE.
 4. INSIDE DIMENSIONS FOR MANHOLES:
USE MINIMUM 4" DIAMETER FOR SEWER LESS THAN 18" IN DIAMETER; USE MINIMUM 5' DIAMETER FOR SEWER 18" THRU 24" IN DIAMETER; USE MINIMUM 6' DIAMETER OR MINIMUM 6' SQUARE FOR SEWER OVER 24" IN DIAMETER, USE 7 FT. DIAMETER WHERE SHOWN ON THE DRAWINGS.
 5. BEDDING CLASSES "B" AND "C" SHALL MEET OR EXCEED ASTM C12 REQUIREMENTS.
 6. DROP TYPE ENTRANCE TO STANDARD MANHOLE WILL BE PAID FOR SEPARATELY IF SO LISTED IN THE BID.
 7. SEE DRAWINGS FOR DROP TYPE ENTRANCES FOR SANITARY SEWERS LARGER THAN 15".
 8. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF REGULATORY BODIES OF THE STATE AND APPLICABLE MUNICIPAL ORDINANCES.
 9. ALL NEW CONSTRUCTION SHALL BE PLACED ON UNDISTURBED EARTH OR STONE BEDDING.
 10. FLAT SLAB TOPS SHALL BE DESIGNED FOR H-20 TRUCK LOADING AND SHALL MEET REQUIREMENTS OF ASTM C-478.
 11. BASE SLABS SHALL BE REINFORCED AS FOLLOWS: REINFORCING SHALL BE PLACED IN EACH DIRECTION AT 2" CLEAR FROM TOP SURFACE OF SLAB, REINFORCING SHALL BE GRADE 60, USE OF CAST-IN-PLACE SLAB SHALL NOT RELIEVE CONTRACTOR OF REQUIREMENTS TO PROVIDE WATERTIGHT JOINTS.
- | INSIDE DIA. | DEPTH | REINF. |
|-------------|---------|--------|
| 4" | ≤ 30' | #3@8" |
| 5" | ≤ 20' | #3@8" |
| 5' | 20'-30' | #4@10" |
| 6" | ≤ 20' | #4@10" |
| 6' | 20'-25' | #4@8" |
| 6" | 25'-30' | #4@6" |
| 7" | ≤ 20' | #4@6" |
12. FLAT SLABS SHALL BE PROVIDED IN SHALLOW DEPTH SITUATIONS IN LIEU OF ECCENTRIC CONES.

INSIDE DIA.	DEPTH	REINF.
4'	≤ 30'	#3@8
5'	≤ 20'	#3@8
5'	20'-30'	#4@10
6'	≤ 20'	#4@10
6'	20'-25'	#4@8
6'	25'-30'	#4@6
7'	≤ 20'	#4@6



PROJECT NO: 5998-00-02

HWY: S FOURTH ST

COUNTY: DANE

CONSTRUCTION DETAILS

SHEET

8

E

FILE NAME : S:\MAD\1000--1099\1040\150\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 021003-cd

PLOT DATE : 10/25/2024 8:39 AM

PLOT BY : DECENT. ZACH

PLOT NAME :

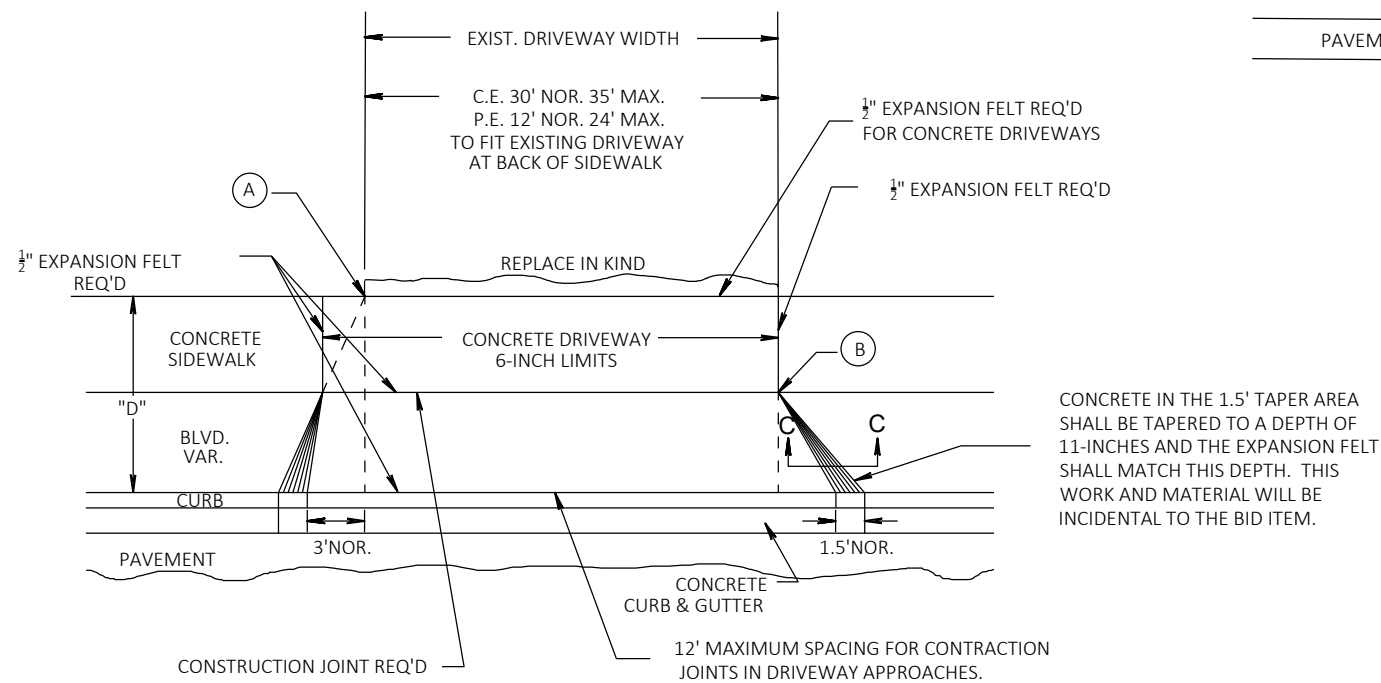
PLOT SCALE : #####

WISDOT/CADDS SHEET 42



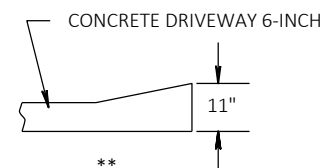
FIRE HYDRANT INSTALLATION

DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER

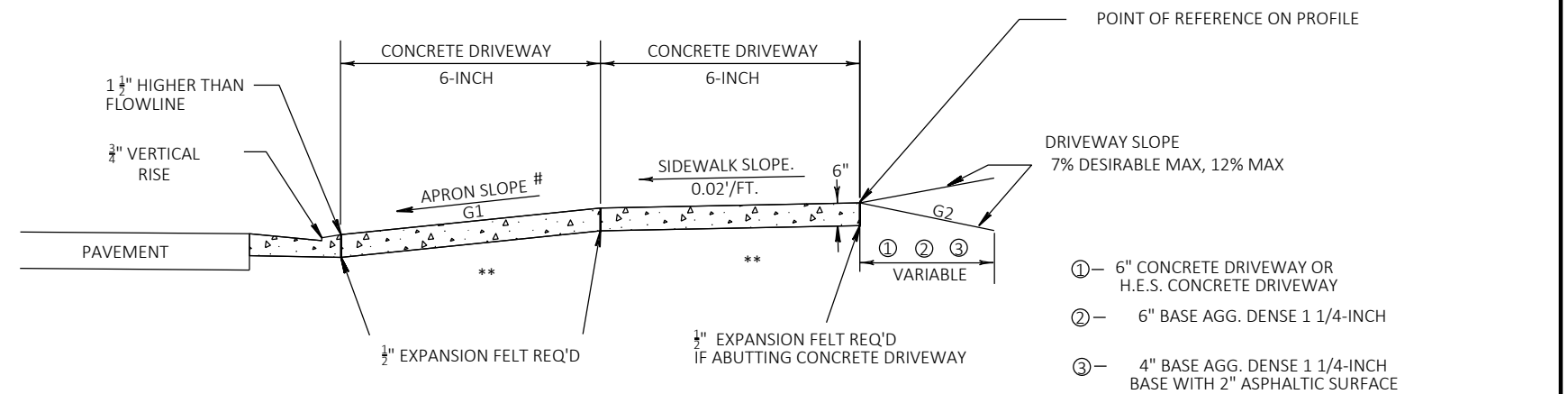


PLAN VIEW

- (A) WHEN "D" IS 13' OR LESS, ALIGN
TAPER WITH BACK OF SIDEWALK
- (B) WHEN "D" IS GREATER THAN
13', ALIGN TAPER WITH FRONT
OF SIDEWALK



SECTION C-C

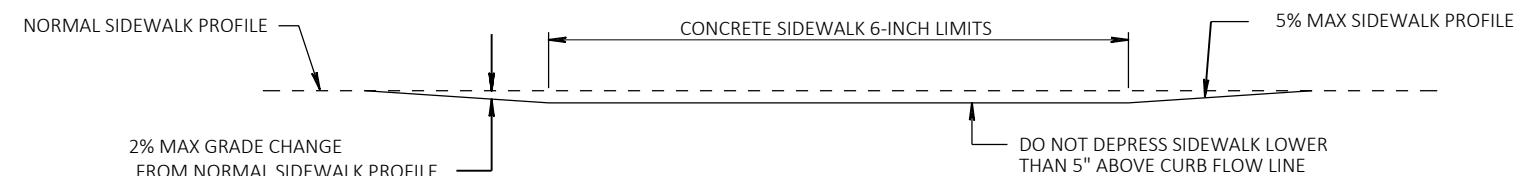


TYPICAL SIDEWALK SECTION

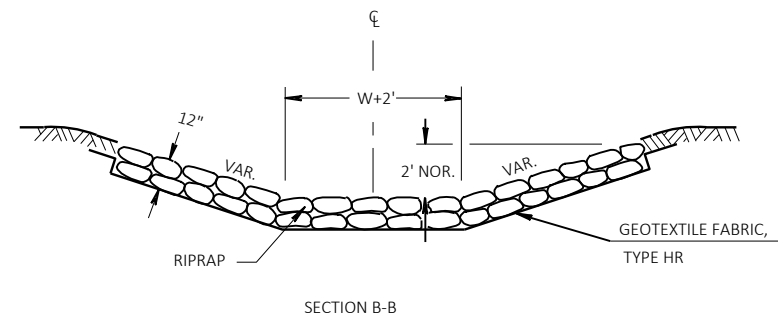
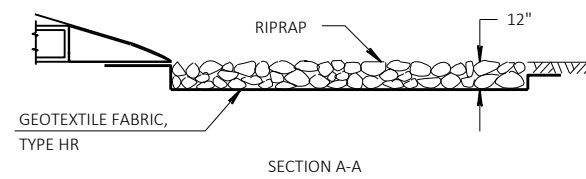
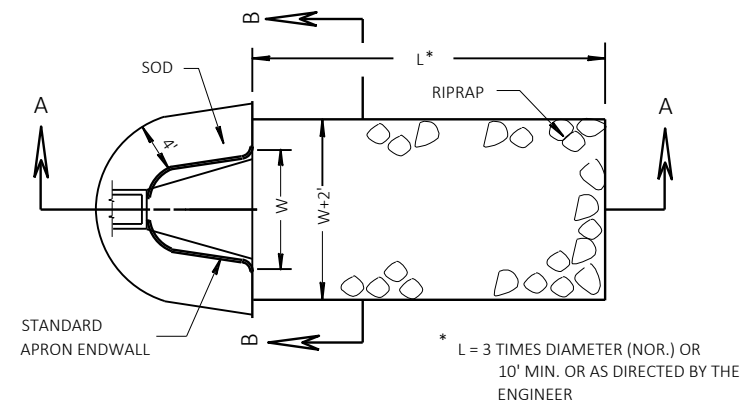
#	TERRACE WIDTH	APRON SLOPE (G1)		
		MIN %	DESIRABLE %	MAX %
	3 FT	7.0	8.5	12.0
	4 FT	5.0	7.0	12.0
	5 FT	4.0	7.0	12.0
	6 FT	4.0	7.0	12.0
	7 FT	3.5	7.0	12.0
	8 FT	3.0	7.0	12.0

NOTE: ALGEBRAIC DIFFERENCE BETWEEN TANGENT
GRADES G1 & G2 TO NOT EXCEED 15%

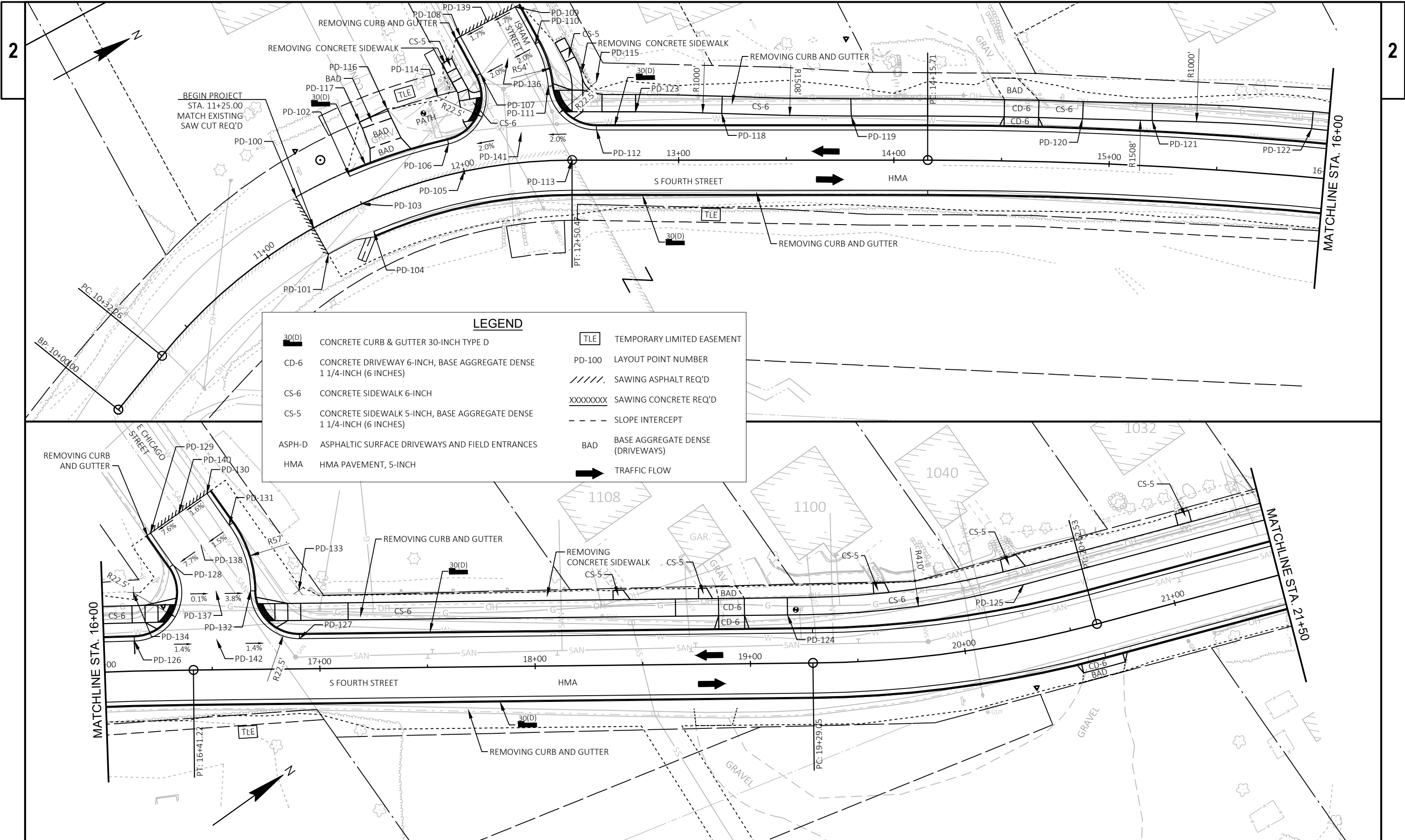
DEPRESS SIDEWALK PROFILE IF DRIVEWAY
APRON EXCEEDS MAX SLOPE

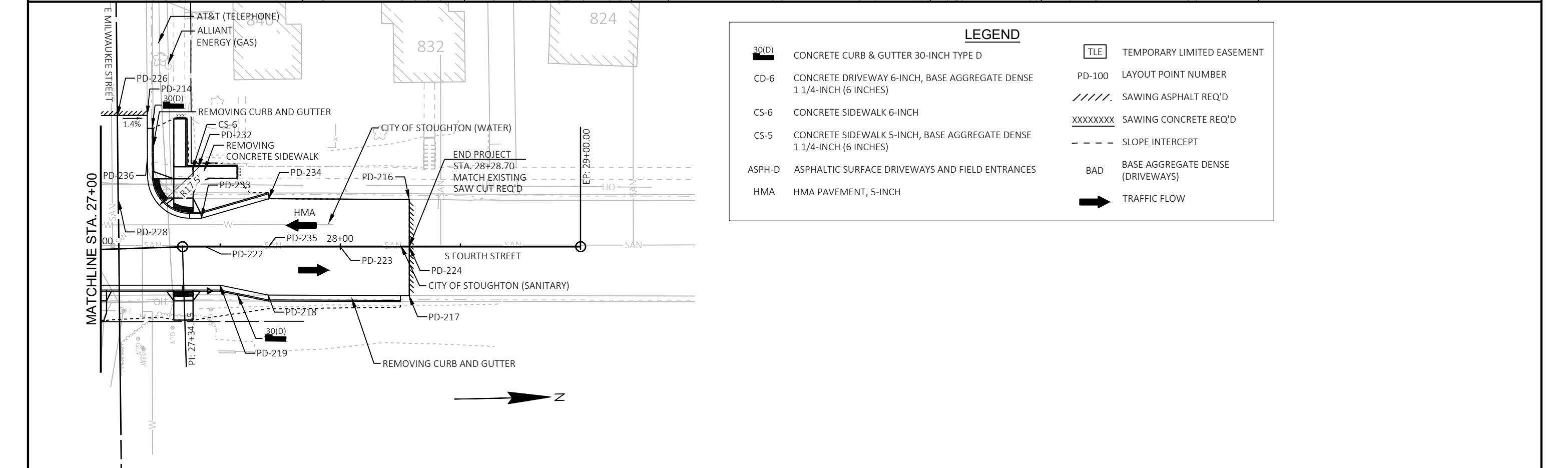
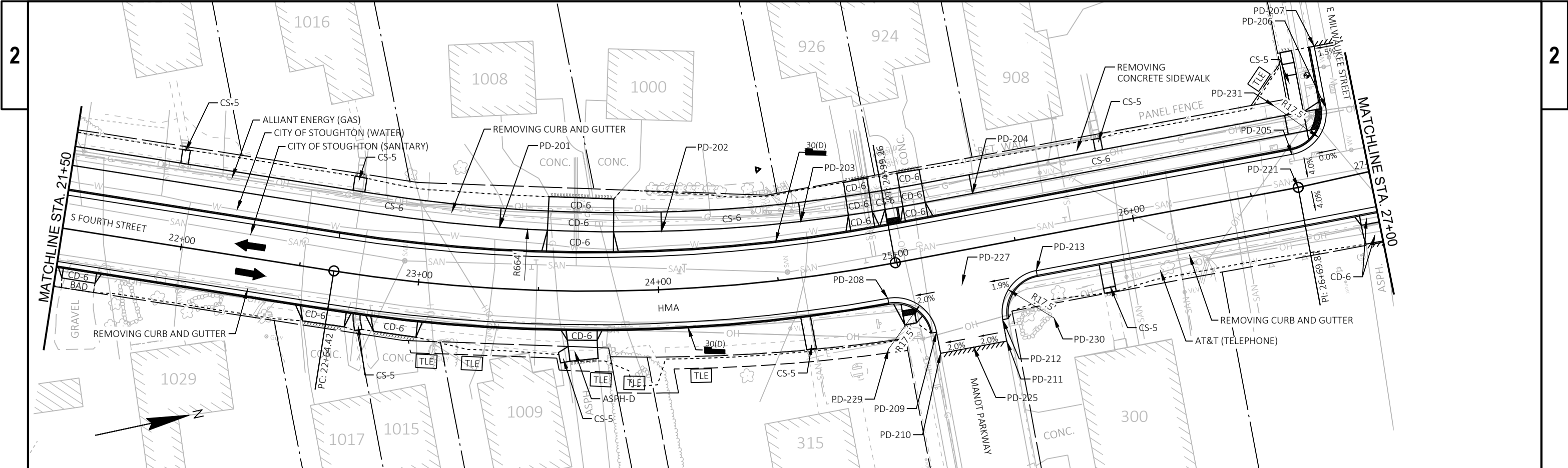


DEPRESSED SIDEWALK PROFILE DETAIL



**SOD, RIPRAP AND GEOTEXTILE FABRIC DETAIL
AT APRON ENDWALLS**





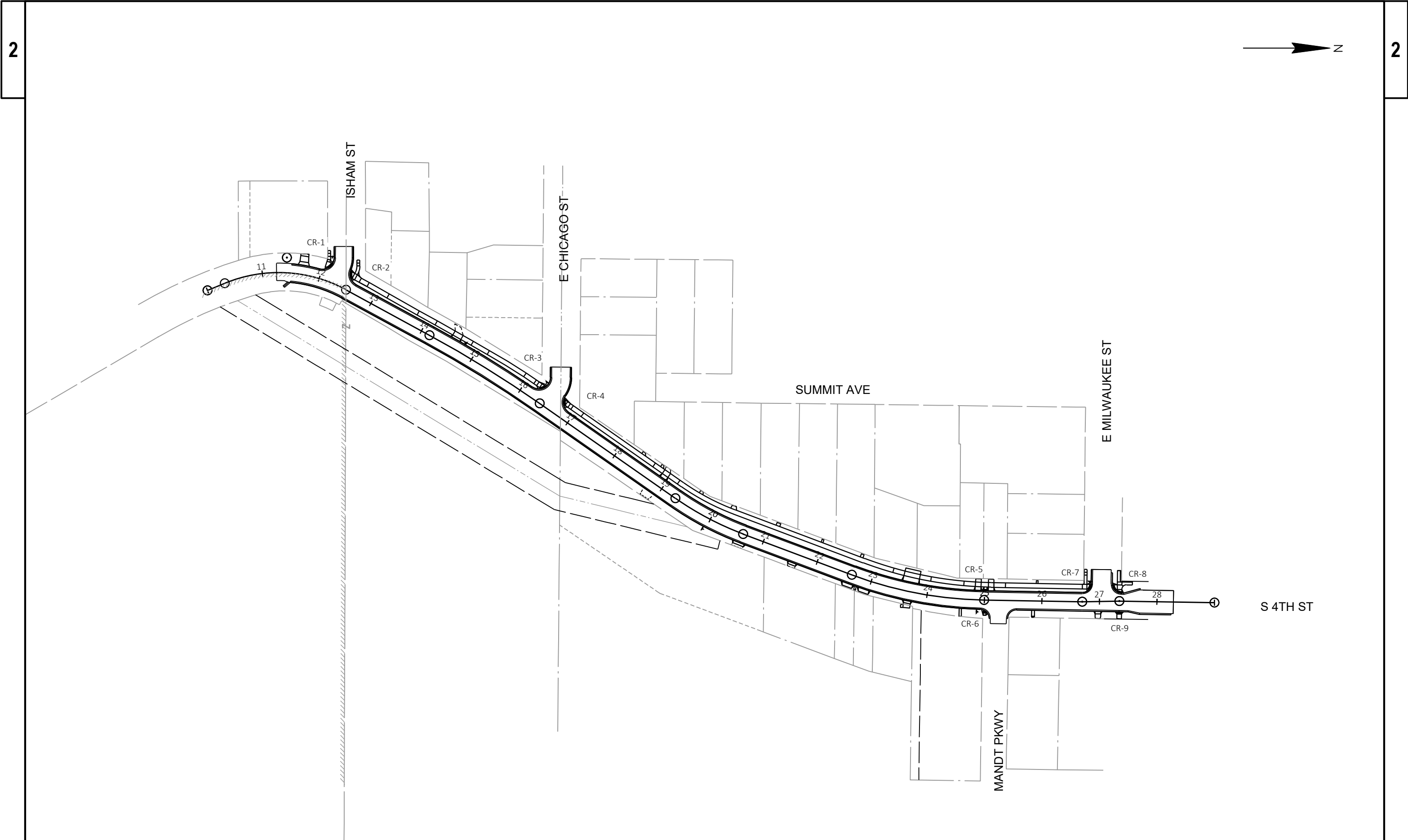
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
PD-100	11+25.00	16.50 LT	421898.409	865124.380	848.51
PD-101	11+25.00	14.00 RT	421898.842	865154.876	846.82
PD-102	11+50.00	14.00 LT	421924.844	865127.852	848.72
PD-103	11+50.00	0.00 RT	421923.616	865141.798	848.02
PD-104	11+50.00	14.00 RT	421922.387	865155.744	847.18
PD-105	12+00.00	0.00 RT	421972.632	865151.219	848.86
PD-106	11+95.75	14.00 LT	421972.343	865136.554	849.47
PD-107	12+14.18	43.37 LT	422000.943	865114.949	851.11
PD-108	12+08.83	61.91 LT	422000.989	865095.304	853.08
PD-109	12+30.07	72.38 LT	422029.988	865095.371	853.58
PD-110	12+36.51	54.48 LT	422029.943	865115.016	852.30
PD-111	12+40.75	34.59 LT	422025.812	865135.108	851.27
PD-112	12+61.86	14.00 LT	422035.827	865163.742	850.80
PD-113	12+50.47	0.00 RT	422019.136	865170.603	849.98
PD-114	11+95.75	36.50 LT	421978.443	865114.897	850.04
PD-115	12+61.78	36.50 LT	422046.507	865143.938	853.42
PD-116	11+74.69	37.20 LT	421955.038	865108.654	849.81
PD-117	11+62.55	35.64 LT	421941.020	865107.923	849.47
PD-118	13+19.94	21.70 LT	422090.531	865184.713	853.91
PD-119	13+80.15	20.50 LT	422142.857	865214.528	855.54

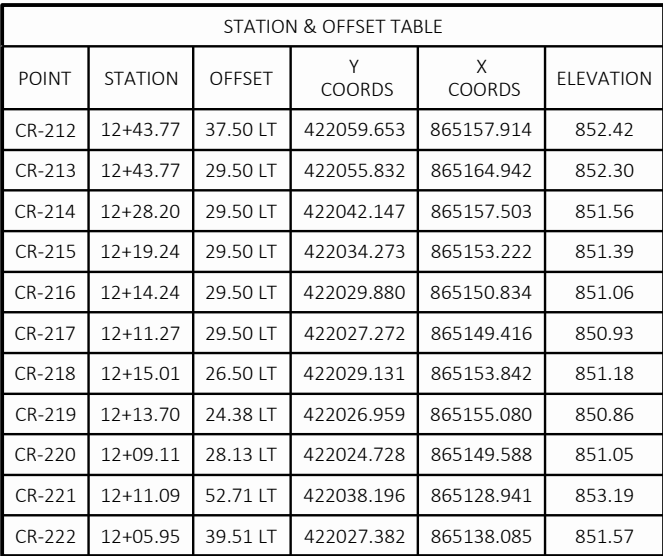
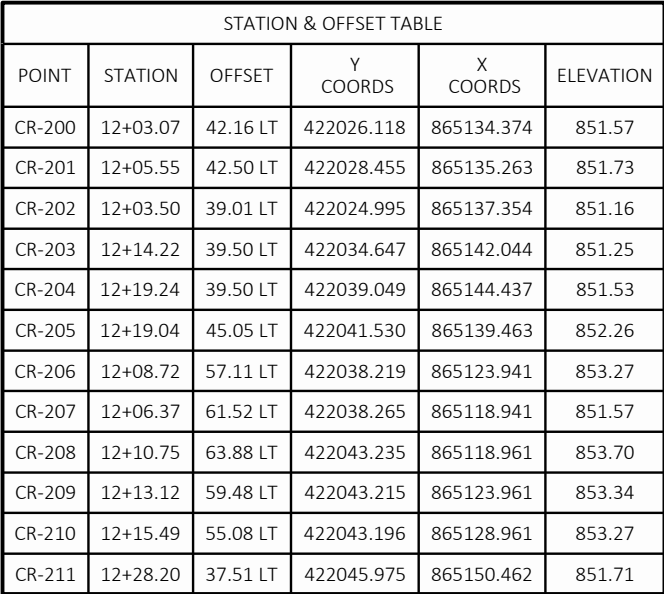
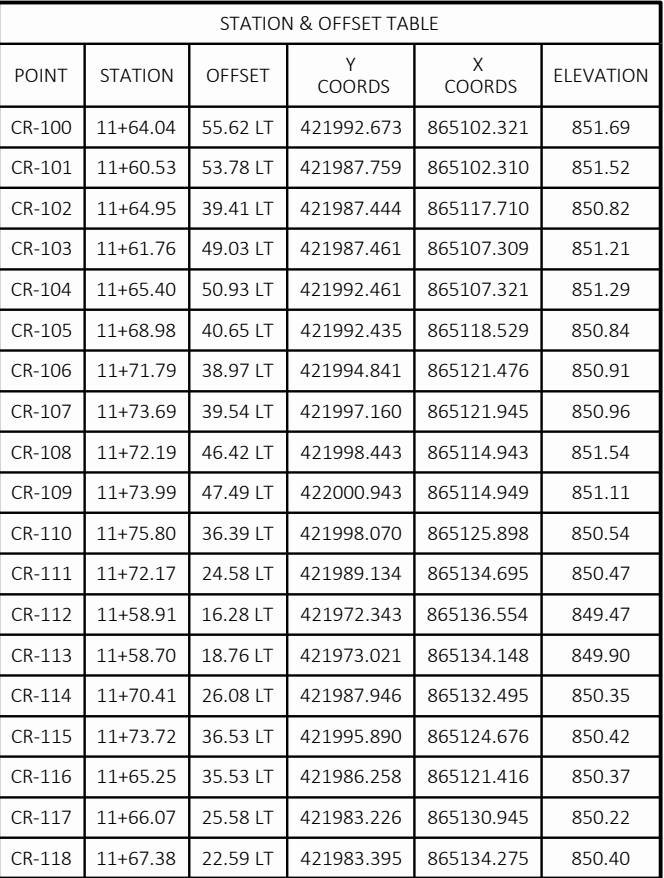
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
PD-120	14+86.84	20.50 LT	422236.608	865266.947	857.75
PD-121	15+18.90	21.11 LT	422264.684	865283.125	858.34
PD-122	15+92.29	22.50 LT	422327.973	865321.851	858.35
PD-123	12+80.01	22.50 LT	422055.832	865164.942	852.30
PD-124	19+17.54	22.50 LT	422595.228	865508.175	855.67
PD-125	20+33.00	25.72 LT	422692.561	865560.601	856.66
PD-126	16+14.17	14.00 LT	422341.560	865341.222	856.64
PD-127	16+90.68	14.00 LT	422404.498	865385.051	855.58
PD-128	16+32.45	49.06 LT	422376.710	865322.834	858.29
PD-129	16+22.61	63.96 LT	422376.848	865304.819	860.09
PD-130	16+48.43	81.99 LT	422408.873	865305.129	861.56
PD-131	16+58.63	67.13 LT	422408.709	865323.144	859.76
PD-132	16+68.18	36.45 LT	422398.936	865353.760	856.76
PD-133	16+90.68	36.50 LT	422417.401	865366.617	857.82
PD-134	16+14.17	36.50 LT	422354.211	865322.616	858.31
PD-136	12+25.56	48.62 LT	422015.443	865114.983	852.00
PD-137	16+52.18	36.50 LT	422385.859	865344.540	857.37
PD-138	16+45.43	58.08 LT	422392.710	865322.989	859.52
PD-139	12+19.63	66.85 LT	422015.488	865095.338	853.33
PD-140	16+35.46	72.95 LT	422392.884	865304.974	861.30

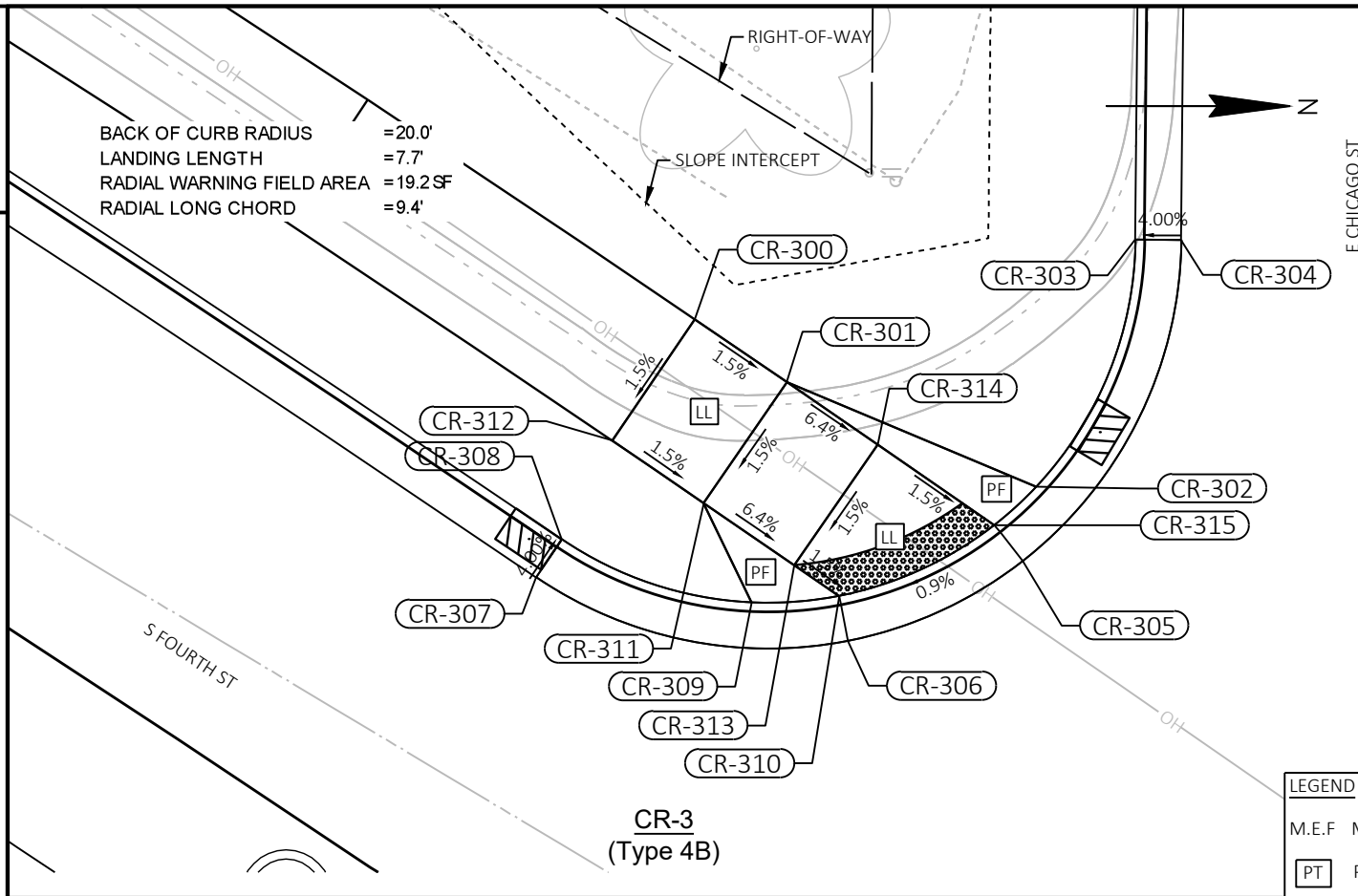
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
PD-141	12+28.12	13.77 LT	422004.487	865148.189	850.09
PD-142	16+52.23	14.00 LT	422373.002	865363.005	856.12

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
PD-201	23+32.33	25.47 LT	422969.715	865662.424	854.68
PD-202	24+02.37	24.28 LT	423035.461	865677.625	854.19
PD-203	24+62.58	23.24 LT	423093.072	865685.309	856.20
PD-204	25+36.19	22.50 LT	423165.384	865688.262	857.56
PD-205	26+70.35	13.99 LT	423298.894	865699.095	858.53
PD-206	26+88.37	29.89 LT	423316.651	865682.905	859.16
PD-207	26+89.16	55.94 LT	423317.015	865656.844	860.02
PD-208	24+93.62	14.00 RT	423122.064	865723.988	854.45
PD-209	25+10.86	31.50 RT	423139.111	865741.815	854.08
PD-210	25+10.85	40.50 RT	423138.946	865750.809	853.76
PD-211	25+38.85	40.55 RT	423166.935	865751.345	853.81
PD-212	25+38.86	31.50 RT	423167.107	865742.300	854.64
PD-213	25+56.36	14.00 RT	423184.910	865725.109	855.67
PD-214	27+21.36	55.11 LT	423349.232	865657.142	860.04
PD-216	28+28.70	19.73 LT	423457.746	865693.695	856.30
PD-217	28+28.58	20.25 RT	423457.038	865733.668	856.03
PD-218	27+70.05	20.12 RT	423398.517	865732.679	857.04
PD-219	27+50.01	16.00 RT	423378.542	865728.264	857.38
PD-221	26+69.87	0.00 RT	423298.650	865713.093	857.97
PD-222	27+43.86	0.08 LT	423372.628	865712.092	857.92

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
PD-223	28+00.00	0.00 RT	423428.762	865713.001	857.18
PD-224	28+28.70	0.00 RT	423457.455	865713.423	856.57
PD-225	25+24.85	40.52 RT	423152.938	865751.079	853.55
PD-226	27+08.98	55.24 LT	423336.847	865657.215	860.21
PD-227	25+24.89	14.00 RT	423153.442	865724.560	855.07
PD-228	27+08.26	20.41 LT	423336.696	865692.051	858.81
PD-229	24+90.33	34.91 RT	423118.070	865744.791	854.15
PD-230	25+59.94	34.77 RT	423188.128	865745.938	854.85
PD-231	26+66.49	34.97 LT	423295.876	865678.067	859.85
PD-232	27+40.83	32.82 LT	423370.077	865679.311	858.74
PD-233	27+42.26	11.94 LT	423371.206	865700.212	858.03
PD-234	27+70.22	20.02 LT	423399.284	865692.541	857.68
PD-235	27+70.06	0.12 RT	423398.826	865712.681	857.64
PD-236	27+20.95	37.39 LT	423349.106	865674.872	859.38







LEGEND

M.E.F. MAXIMUM EXTENT FEASIBLE

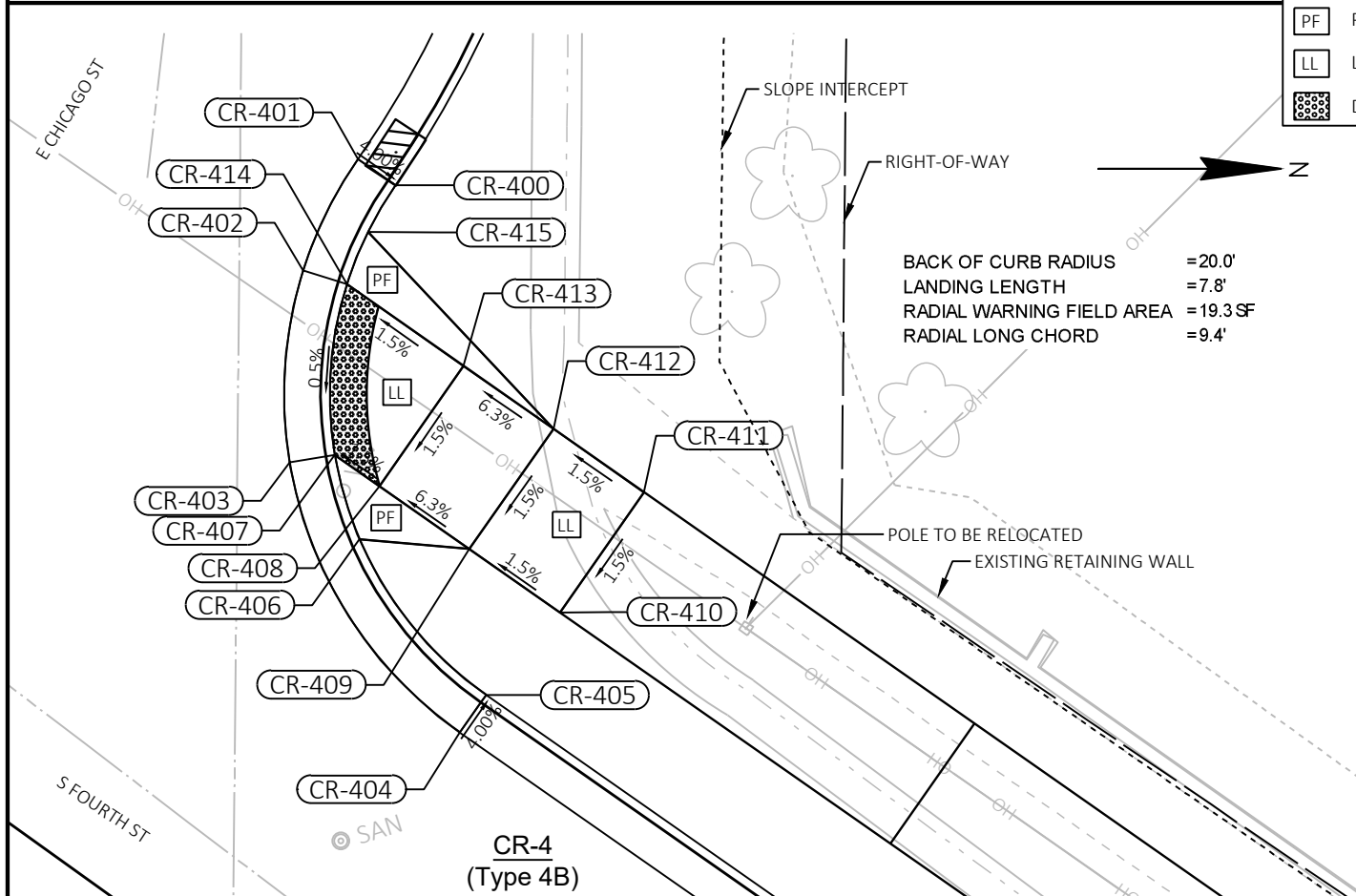
PT PAVED TRAVERSABLE 10:1 FLARE

PF PAVED NON-TRAVERSABLE 6:1 FLARE

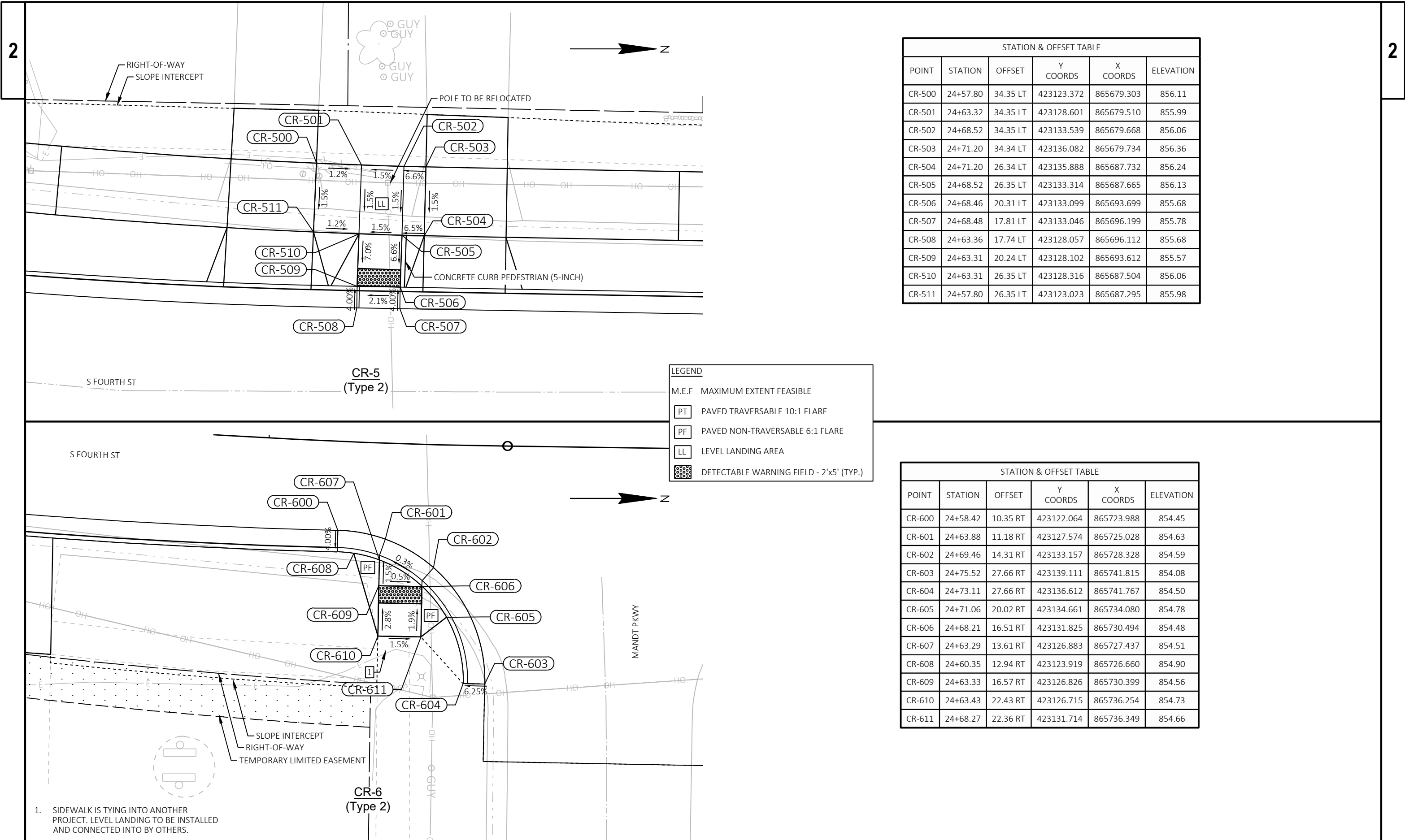
LL LEVEL LANDING AREA

DETECTABLE WARNING FIELD - 2'x5' (TYP.)

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-300	15+76.90	34.65 LT	422350.201	865327.145	857.44
CR-301	15+82.86	34.59 LT	422355.217	865330.597	857.35
CR-302	15+96.99	37.53 LT	422368.810	865336.287	857.58
CR-303	15+93.91	51.70 LT	422374.211	865322.810	858.71
CR-304	15+95.92	53.10 LT	422376.710	865322.834	858.29
CR-305	15+98.65	33.79 LT	422368.082	865340.331	856.86
CR-306	15+93.36	24.81 LT	422358.565	865344.691	856.89
CR-307	15+77.54	18.15 LT	422341.560	865341.222	856.64
CR-308	15+77.56	20.65 LT	422342.965	865339.155	857.06
CR-309	15+87.92	23.58 LT	422353.313	865342.596	856.76
CR-310	15+91.61	26.56 LT	422358.081	865342.238	856.88
CR-311	15+82.79	26.62 LT	422350.701	865337.159	857.23
CR-312	15+76.85	26.65 LT	422345.705	865333.762	857.32
CR-313	15+88.69	26.58 LT	422355.645	865340.559	856.92
CR-314	15+88.74	34.58 LT	422360.180	865333.969	857.04
CR-315	15+96.31	34.54 LT	422366.541	865338.364	856.93

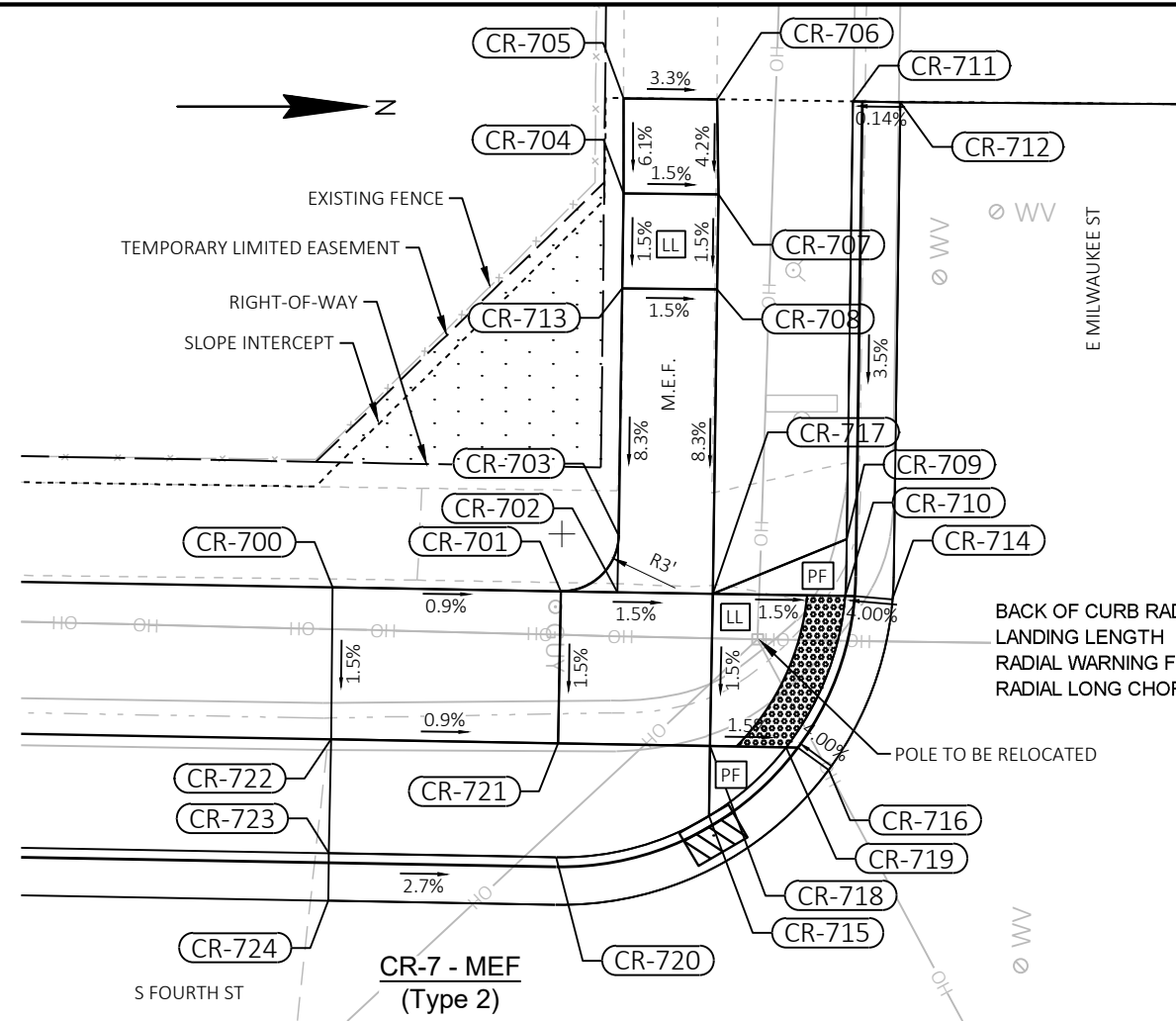


STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-400	16+33.41	40.59 LT	422400.988	865355.189	857.18
CR-401	16+30.91	40.55 LT	422398.936	865353.760	856.76
CR-402	16+32.02	33.87 LT	422395.946	865359.840	856.30
CR-403	16+37.52	24.93 LT	422395.205	865370.307	856.24
CR-404	16+53.66	18.36 LT	422404.498	865385.051	855.58
CR-405	16+53.63	20.86 LT	422405.932	865383.003	856.01
CR-406	16+43.06	23.74 LT	422399.021	865374.503	856.35
CR-407	16+39.28	26.70 LT	422397.671	865369.897	856.25
CR-408	16+42.25	26.74 LT	422400.104	865371.599	856.29
CR-409	16+48.25	26.80 LT	422405.019	865375.040	856.56
CR-410	16+54.28	26.87 LT	422409.960	865378.498	856.68
CR-411	16+54.19	34.87 LT	422414.548	865371.944	856.80
CR-412	16+48.16	34.80 LT	422409.607	865368.486	856.68
CR-413	16+42.16	34.73 LT	422404.691	865365.045	856.41
CR-414	16+34.40	34.65 LT	422398.330	865360.593	856.30
CR-415	16+33.67	37.64 LT	422399.481	865357.736	856.95



STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-500	24+57.80	34.35 LT	423123.372	865679.303	856.11
CR-501	24+63.32	34.35 LT	423128.601	865679.510	855.99
CR-502	24+68.52	34.35 LT	423133.539	865679.668	856.06
CR-503	24+71.20	34.34 LT	423136.082	865679.734	856.36
CR-504	24+71.20	26.34 LT	423135.888	865687.732	856.24
CR-505	24+68.52	26.35 LT	423133.314	865687.665	856.13
CR-506	24+68.46	20.31 LT	423133.099	865693.699	855.68
CR-507	24+68.48	17.81 LT	423133.046	865696.199	855.78
CR-508	24+63.36	17.74 LT	423128.057	865696.112	855.68
CR-509	24+63.31	20.24 LT	423128.102	865693.612	855.57
CR-510	24+63.31	26.35 LT	423128.316	865687.504	856.06
CR-511	24+57.80	26.35 LT	423123.023	865687.295	855.98

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-600	24+58.42	10.35 RT	423122.064	865723.988	854.45
CR-601	24+63.88	11.18 RT	423127.574	865725.028	854.63
CR-602	24+69.46	14.31 RT	423133.157	865728.328	854.59
CR-603	24+75.52	27.66 RT	423139.111	865741.815	854.08
CR-604	24+73.11	27.66 RT	423136.612	865741.767	854.50
CR-605	24+71.06	20.02 RT	423134.661	865734.080	854.78
CR-606	24+68.21	16.51 RT	423131.825	865730.494	854.48
CR-607	24+63.29	13.61 RT	423126.883	865727.437	854.51
CR-608	24+60.35	12.94 RT	423123.919	865726.660	854.90
CR-609	24+63.33	16.57 RT	423126.826	865730.399	854.56
CR-610	24+63.43	22.43 RT	423126.715	865736.254	854.73
CR-611	24+68.27	22.36 RT	423131.714	865736.349	854.66



BACK OF CURB RADIUS = 15.0'
LANDING LENGTH = 4.0'
RADIAL WARNING FIELD AREA = 17.3 SF
RADIAL LONG CHORD = 8.6'

LEGEND

M.E.F. MAXIMUM EXTENT FEASIBLE

PT PAVED TRAVERSABLE 10:1 FLARE

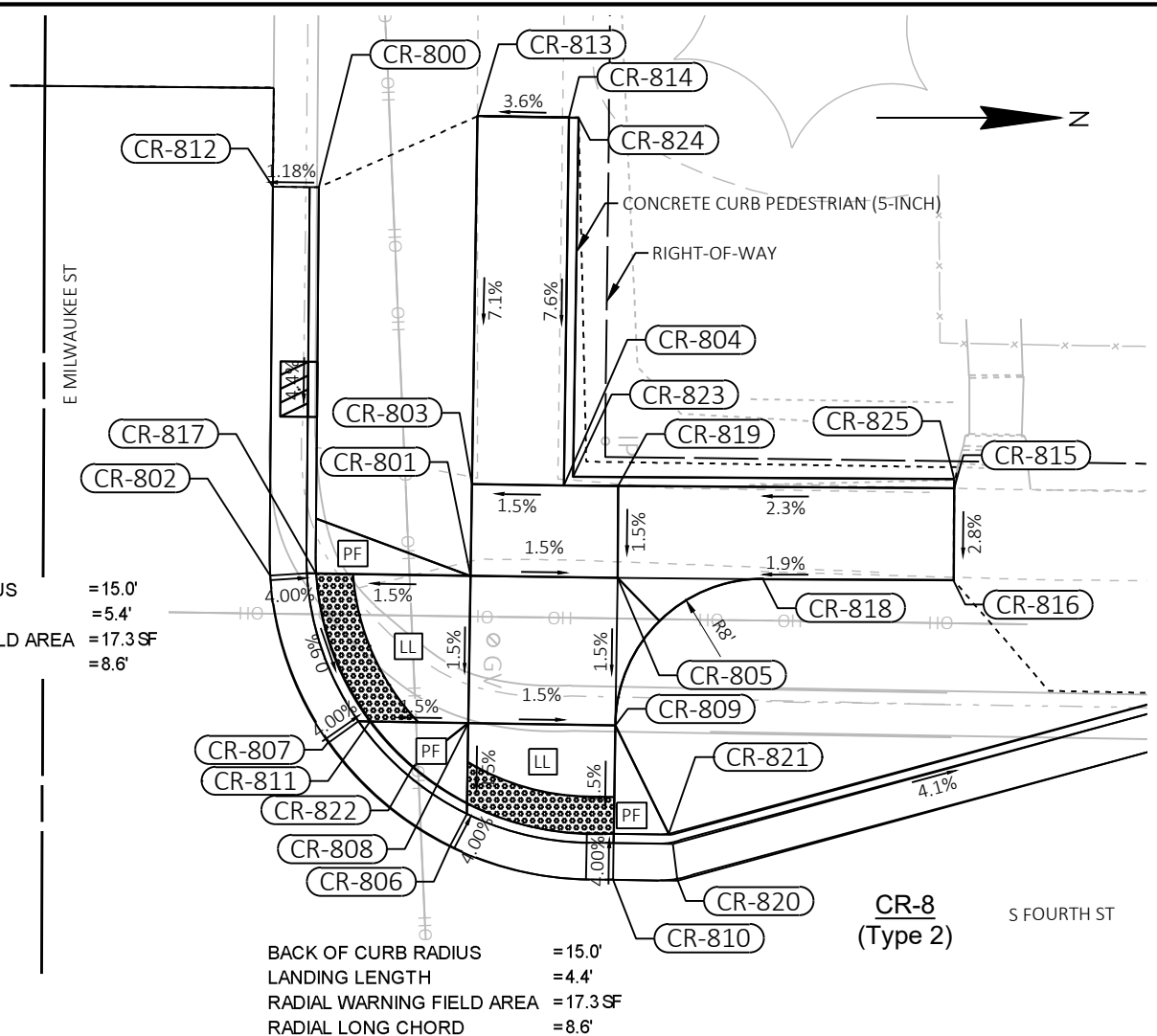
PF PAVED NON-TRAVERSABLE 6:1 FLARE

LL LEVEL LANDING AREA

DETECTABLE WARNING FIELD - 2'x5' (TYP.)

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-700	26+22.64	33.82 LT	423287.171	865682.387	859.42
CR-701	26+34.64	33.81 LT	423299.169	865682.562	859.12
CR-702	26+37.64	33.77 LT	423302.167	865682.649	859.19
CR-703	26+37.65	36.78 LT	423302.220	865679.631	595.19
CR-704	26+37.66	54.78 LT	423302.479	865661.641	860.89
CR-705	26+37.60	59.78 LT	423302.486	865656.641	860.98
CR-706	26+42.51	59.78 LT	423307.395	865656.709	860.82
CR-707	26+42.66	54.78 LT	423307.477	865661.711	860.84
CR-708	26+42.66	49.78 LT	423307.406	865666.711	860.53
CR-709	26+49.66	36.72 LT	423314.226	865679.859	859.24
CR-710	26+49.63	33.74 LT	423314.148	865682.839	801.47
CR-711	26+49.66	59.77 LT	423314.548	865656.809	860.40
CR-712	26+52.16	59.77 LT	423317.048	865656.844	860.01
CR-713	26+37.66	49.78 LT	423302.407	865666.641	860.60
CR-714	26+52.12	33.60 LT	423316.641	865683.020	859.16

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-715	26+42.61	22.06 LT	423306.974	865694.426	858.80
CR-716	26+48.87	24.57 LT	423313.269	865692.003	859.08
CR-717	26+42.65	33.75 LT	423307.178	865682.737	859.24
CR-718	26+42.63	25.75 LT	423307.038	865690.736	859.07
CR-719	26+46.63	25.73 LT	423311.041	865690.805	859.01
CR-720	26+34.61	19.78 LT	423298.938	865696.595	858.62
CR-721	26+34.63	25.78 LT	423299.039	865690.596	858.97
CR-722	26+22.66	25.82 LT	423287.076	865690.387	859.30
CR-723	26+22.64	19.82 LT	423286.971	865696.386	858.85
CR-724	26+22.63	17.32 LT	423286.928	865698.886	858.43

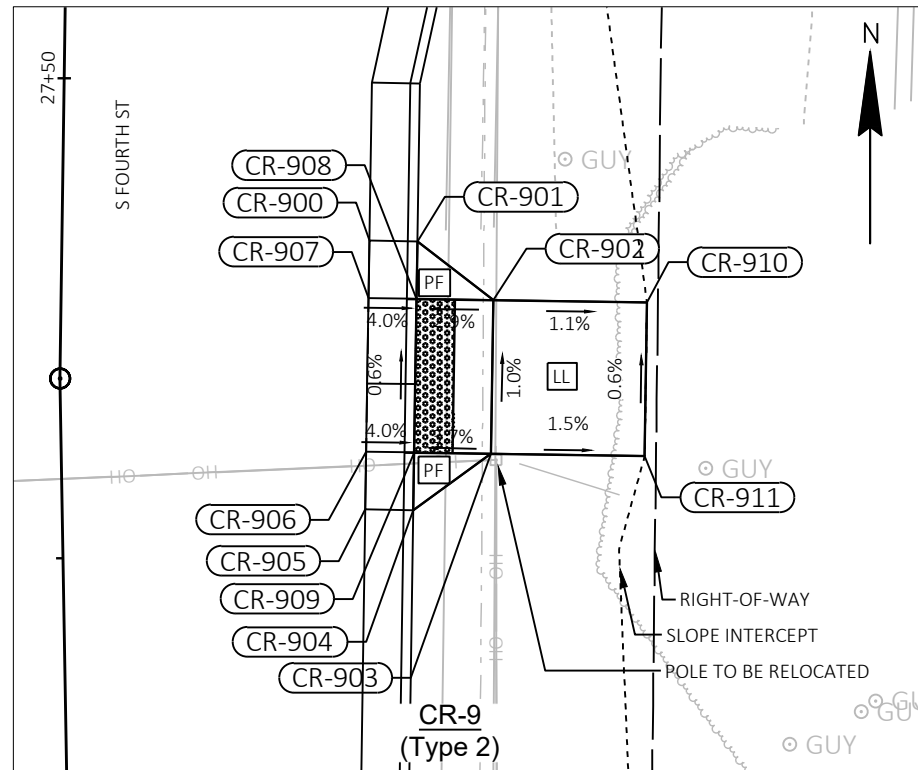


BACK OF CURB RADIUS = 15.0'
LANDING LENGTH = 4.4'
RADIAL WARNING FIELD AREA = 17.3 SF
RADIAL LONG CHORD = 8.6'

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-800	26+86.91	54.60 LT	423351.722	865662.497	859.88
CR-801	26+95.45	33.59 LT	423359.965	865683.629	859.09
CR-802	26+84.56	33.45 LT	423349.078	865683.613	859.04
CR-803	26+95.45	38.57 LT	423360.040	865678.653	859.01
CR-804	27+00.45	38.56 LT	423365.037	865678.728	859.09
CR-805	27+03.45	33.58 LT	423367.964	865683.746	858.97
CR-806	26+94.53	18.88 LT	423358.844	865698.328	858.98
CR-807	26+87.84	24.42 LT	423352.232	865692.695	858.35
CR-808	26+95.44	25.58 LT	423359.847	865691.634	858.97
CR-809	27+03.44	25.58 LT	423367.846	865691.752	858.85
CR-810	27+03.43	17.17 LT	423367.718	865700.153	858.83
CR-811	26+90.08	25.59 LT	423354.486	865691.555	858.89
CR-812	26+84.41	54.59 LT	423349.222	865662.475	859.85

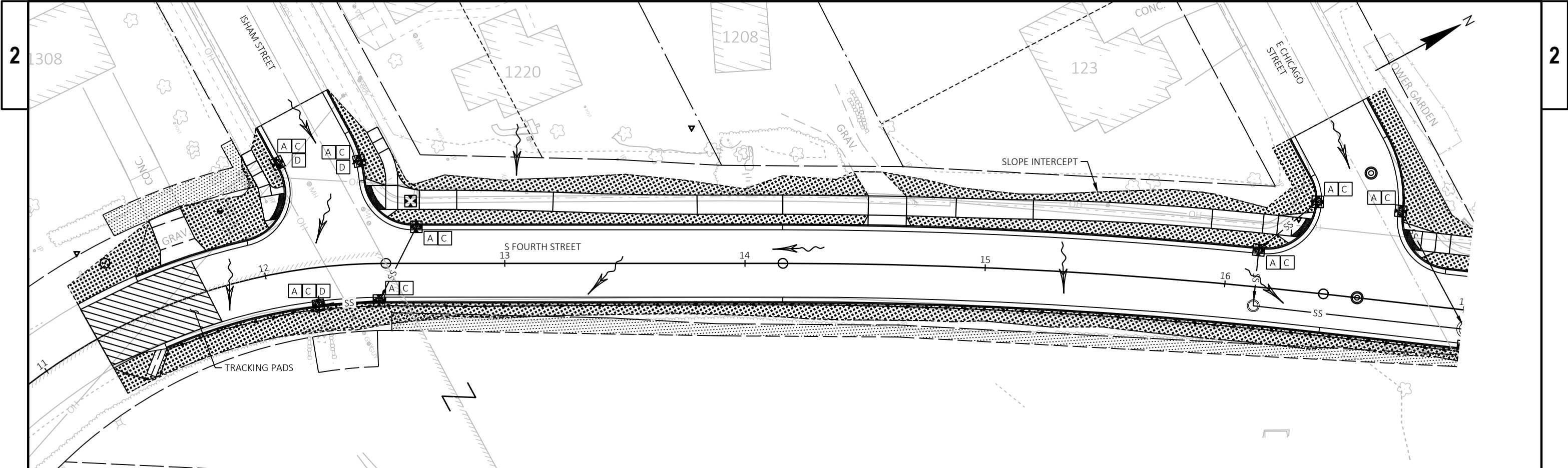
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-813	26+95.48	58.59 LT	423360.341	865658.631	860.44
CR-814	27+00.44	58.59 LT	423365.308	865658.703	860.62
CR-815	27+21.67	38.71 LT	423386.254	865678.873	859.47
CR-816	27+21.70	33.71 LT	423386.219	865683.873	859.32
CR-817	26+87.05	33.60 LT	423351.570	865683.505	858.96
CR-818	27+11.34	33.64 LT	423375.858	865683.801	859.12
CR-819	27+26.98	27.77 LT	423367.998	865678.748	859.04
CR-820	27+26.97	25.27 LT	423371.173	865700.026	858.70
CR-821	27+06.43	19.71 LT	423370.750	865697.657	858.10
CR-822	26+92.48	23.16 LT	423356.851	865694.014	858.76
CR-823	27+00.95	39.06 LT	423365.545	865678.231	859.58
CR-824	27+00.98	58.58 LT	423365.841	865658.712	860.83
CR-825	27+21.67	39.21 LT	423386.257	865678.374	859.49

2



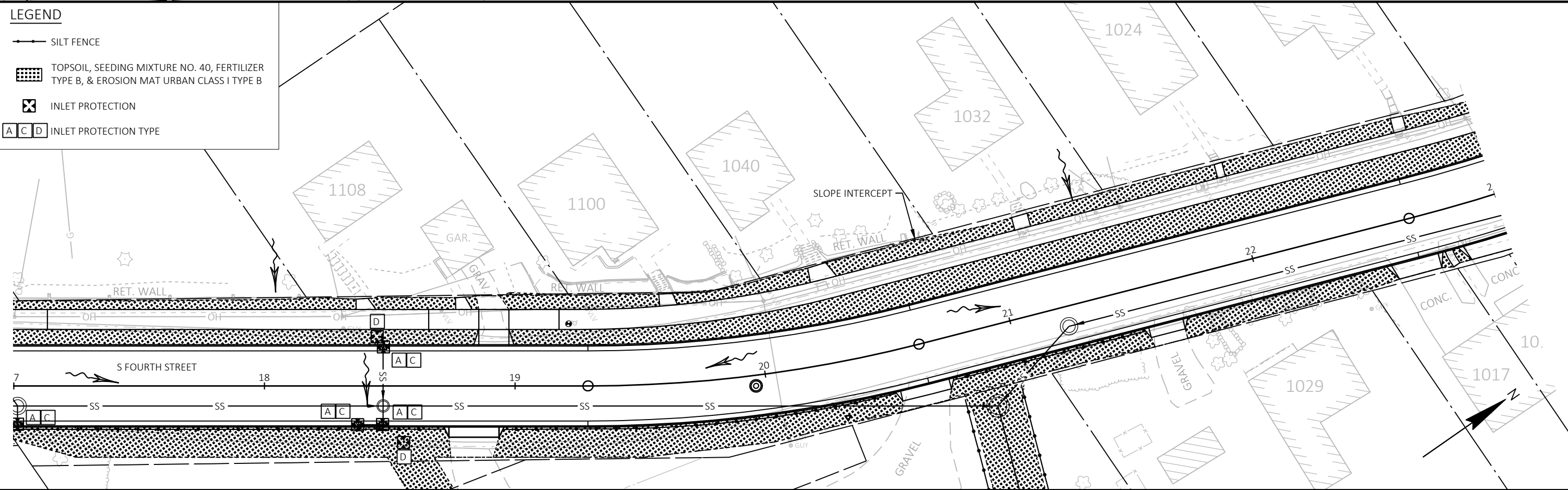
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-900	26+43.54	10.73 RT	423370.311	865728.147	857.45
CR-901	26+43.54	13.23 RT	423370.275	865730.642	857.87
CR-902	26+40.48	17.24 RT	423367.216	865734.599	857.61
CR-903	26+32.48	17.22 RT	423359.216	865734.480	857.73
CR-904	26+29.54	13.21 RT	423356.276	865730.438	857.95
CR-905	26+29.55	10.71 RT	423356.325	865727.929	857.53
CR-906	26+32.55	10.72 RT	423359.324	865727.975	857.52
CR-907	26+40.55	10.72 RT	423367.320	865728.100	857.47
CR-908	26+40.55	13.23 RT	423367.283	865730.603	857.41
CR-909	26+32.54	13.22 RT	423359.281	865730.481	857.47
CR-910	26+40.45	25.24 RT	423367.098	865742.598	857.73
CR-911	26+32.45	25.22 RT	423359.099	865742.481	857.85

2 |

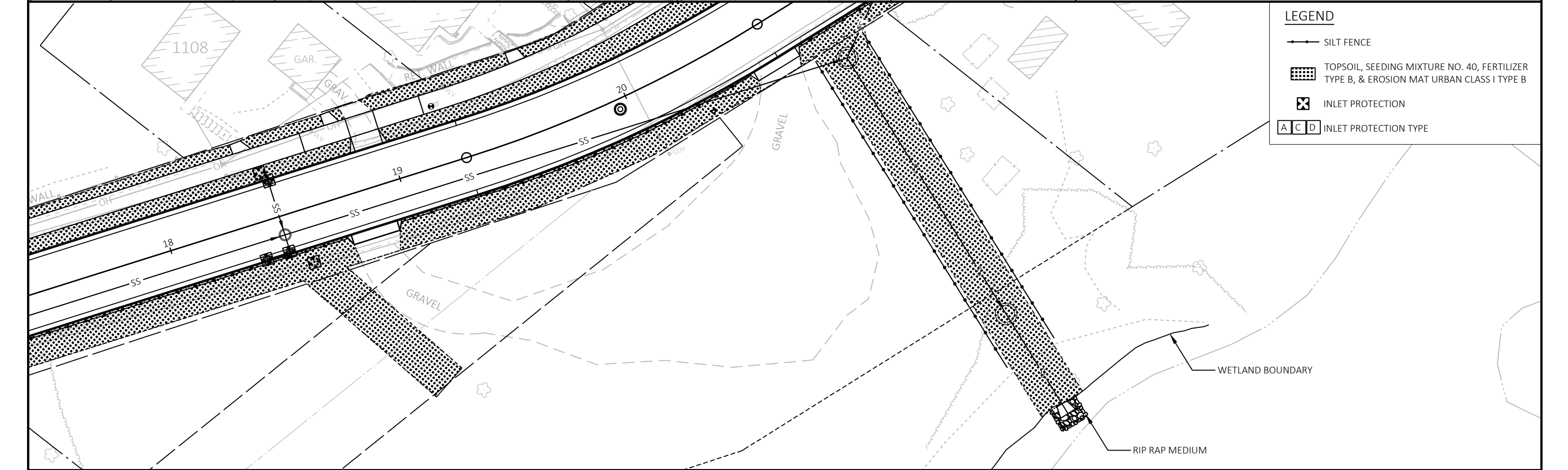
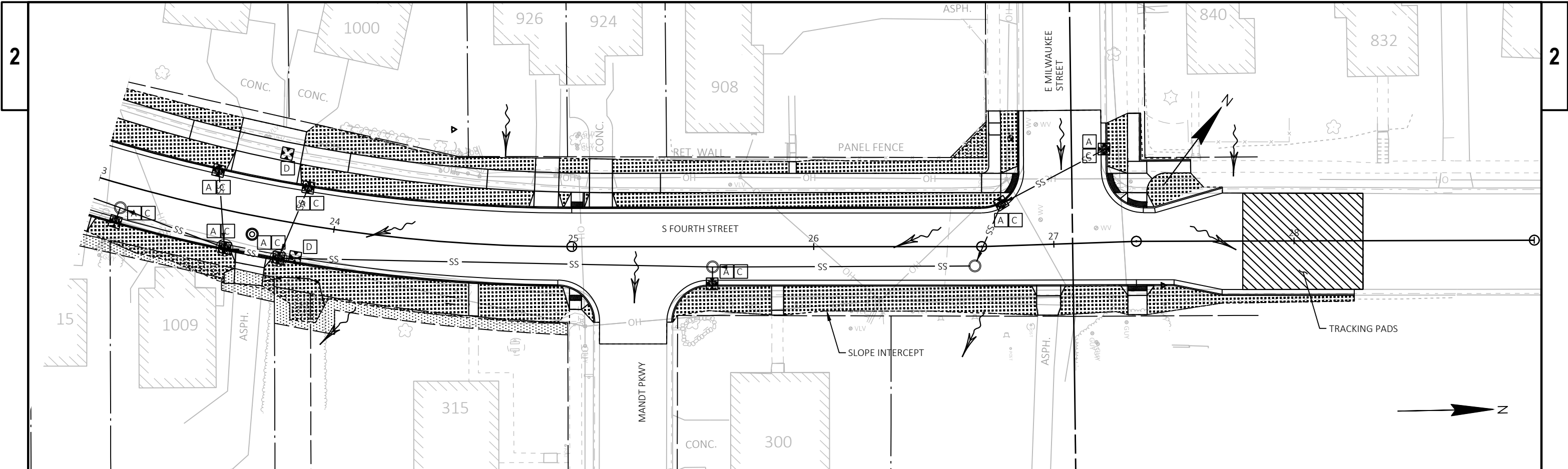


LEGEND

- SILT FENCE
- TOPSOIL, SEEDING MIXTURE NO. 40, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE B
- INLET PROTECTION
- INLET PROTECTION TYPE

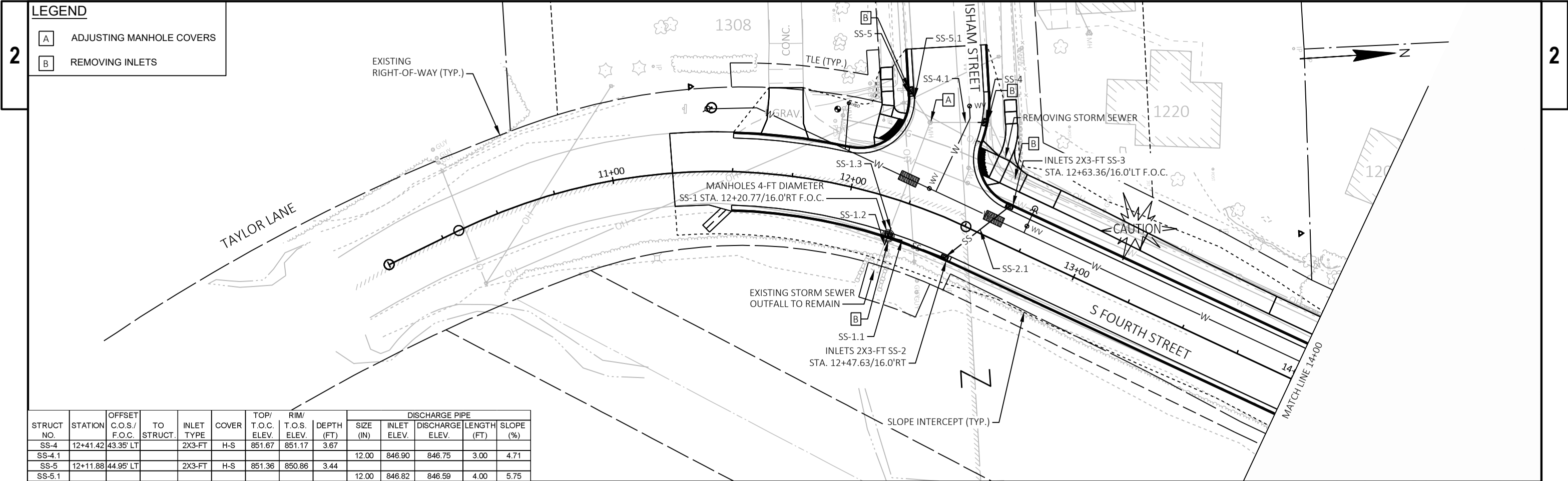


PROJECT NO: 5998-00-01	HWY: S FOURTH ST	COUNTY: DANE	EROSION CONTROL	SHEET 20	E
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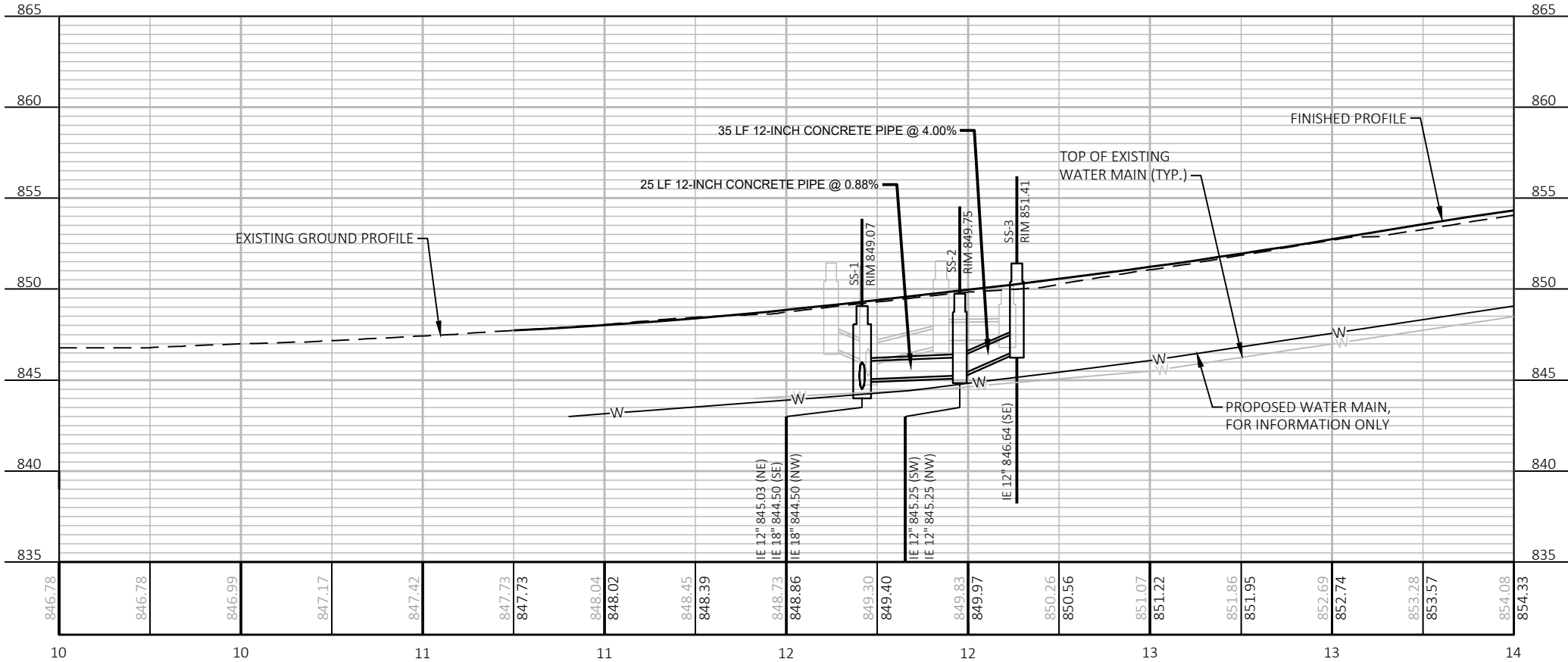


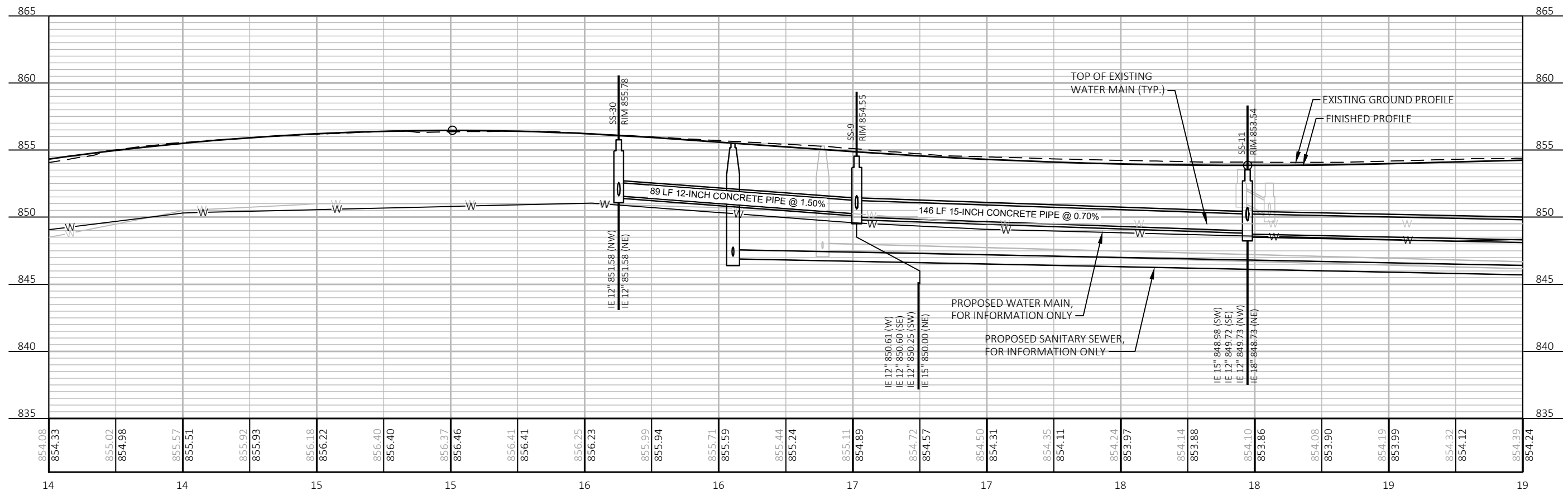
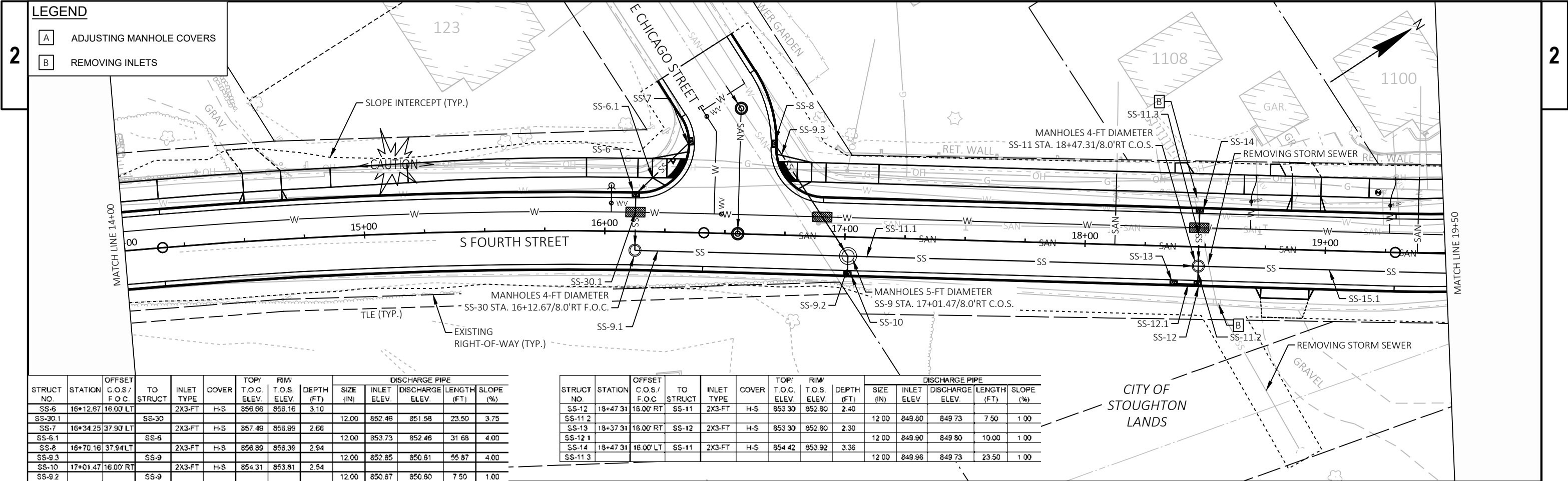
LEGEND

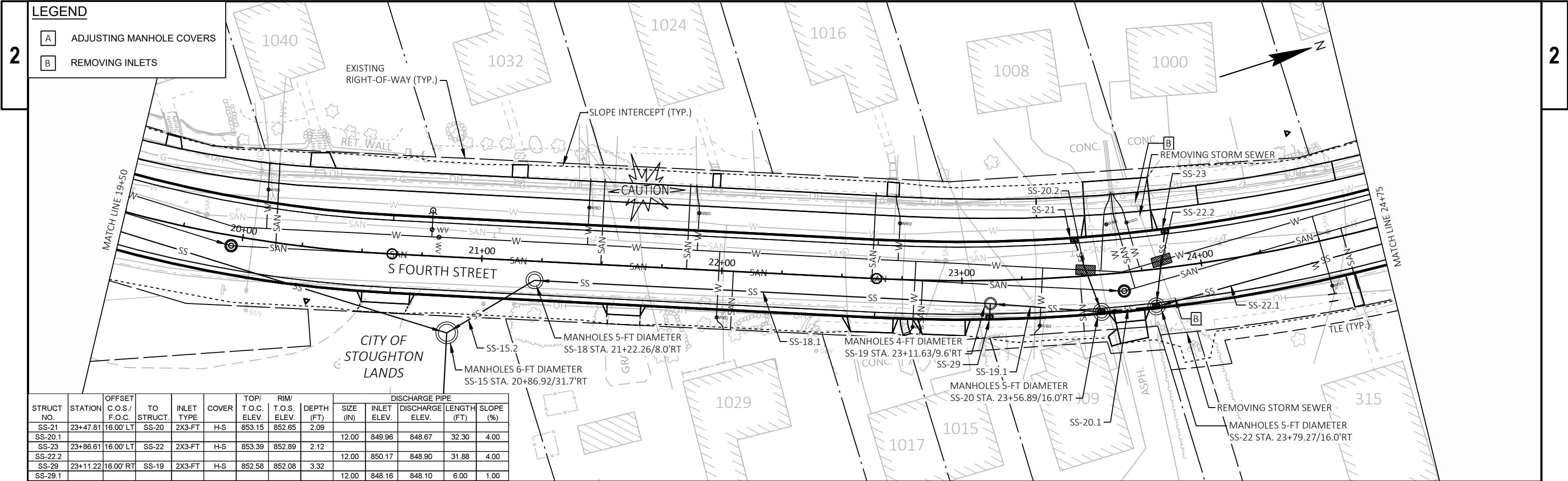
- SILT FENCE
- ▨ TOPSOIL, SEEDING MIXTURE NO. 40, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE B
- ⊗ INLET PROTECTION
- A C D INLET PROTECTION TYPE



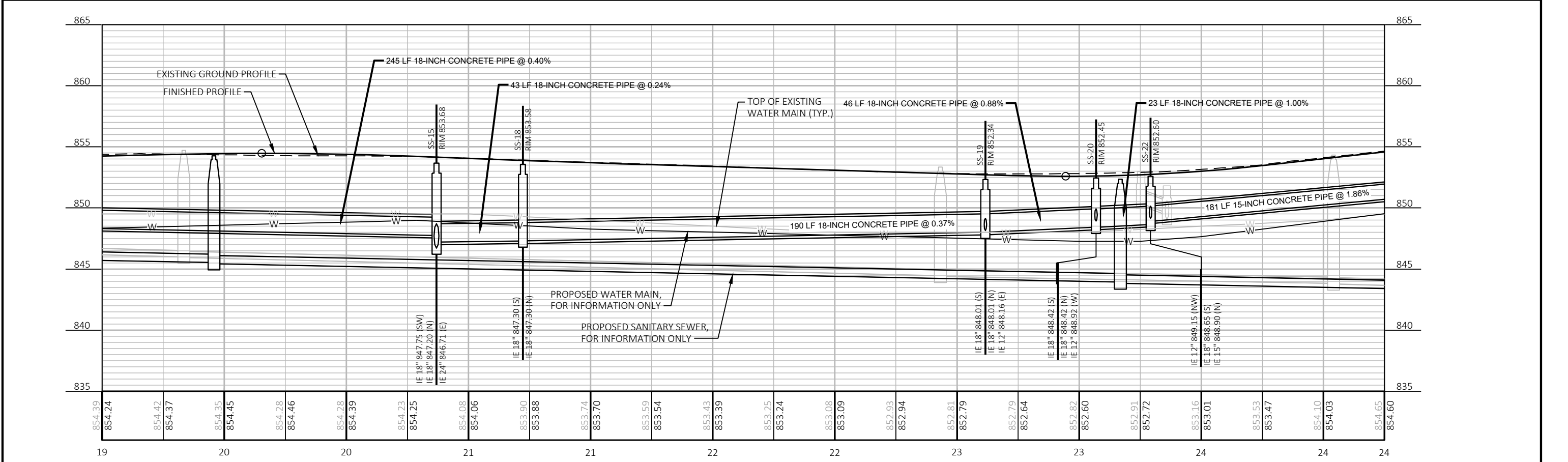
STRUCT NO.	STATION	OFFSET C.O.S./ F.O.C.	TO STRUCT.	INLET TYPE	COVER	TOP/ T.O.C. ELEV.	RIM/ T.O.S. ELEV.	DEPTH (FT)	DISCHARGE PIPE				
									SIZE (IN)	INLET ELEV.	DISCHARGE ELEV.	LENGTH (FT)	SLOPE (%)
SS-4	12+41.42	43.35' LT		2X3-FT	H-S	851.67	851.17	3.67	12.00	846.90	846.75	3.00	4.71
SS-4.1													
SS-5	12+11.88	44.95' LT		2X3-FT	H-S	851.36	850.86	3.44					
SS-5.1									12.00	846.82	846.59	4.00	5.75

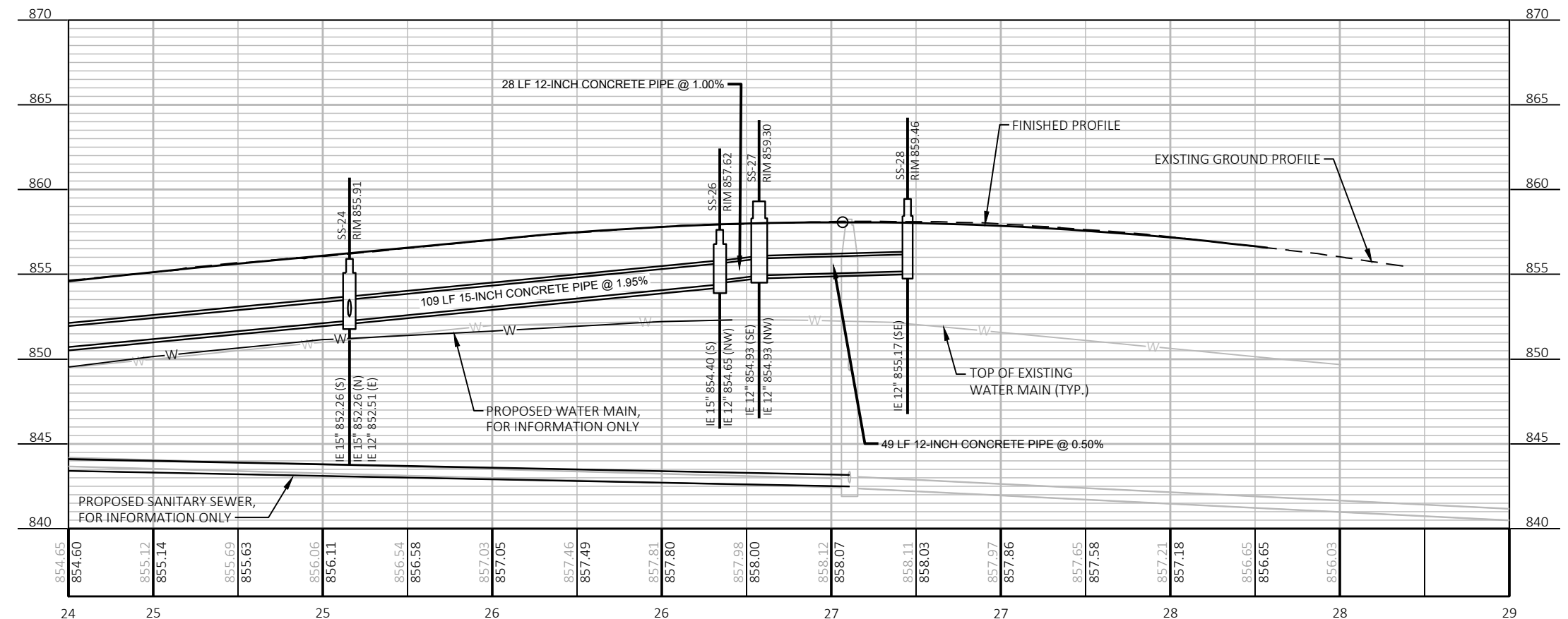
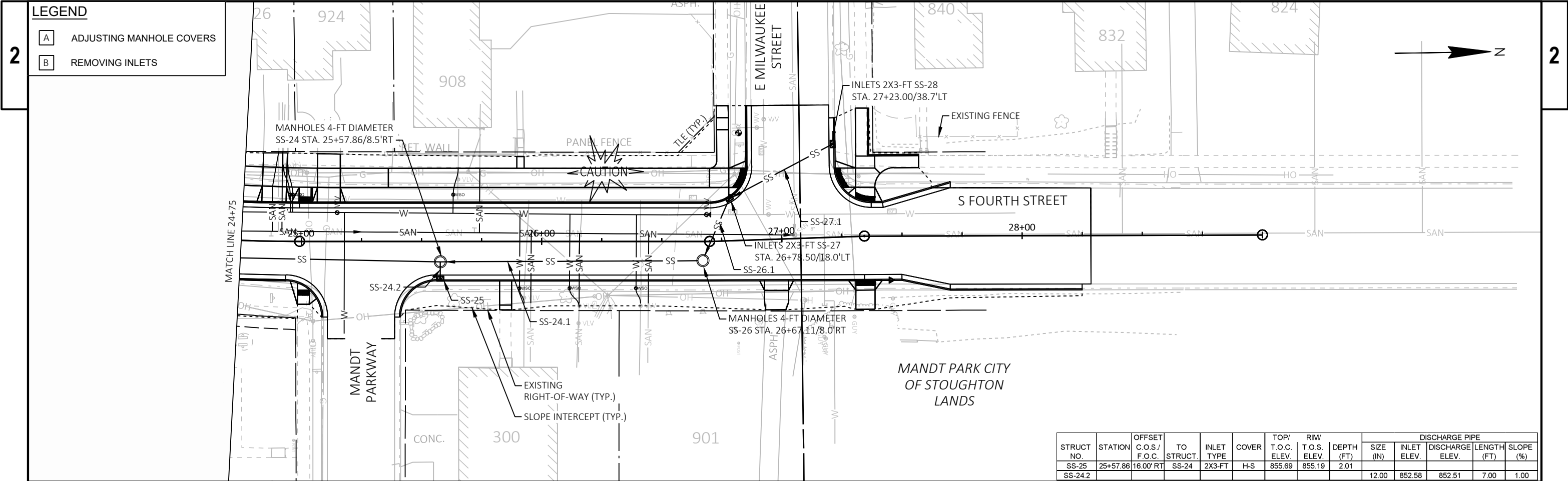


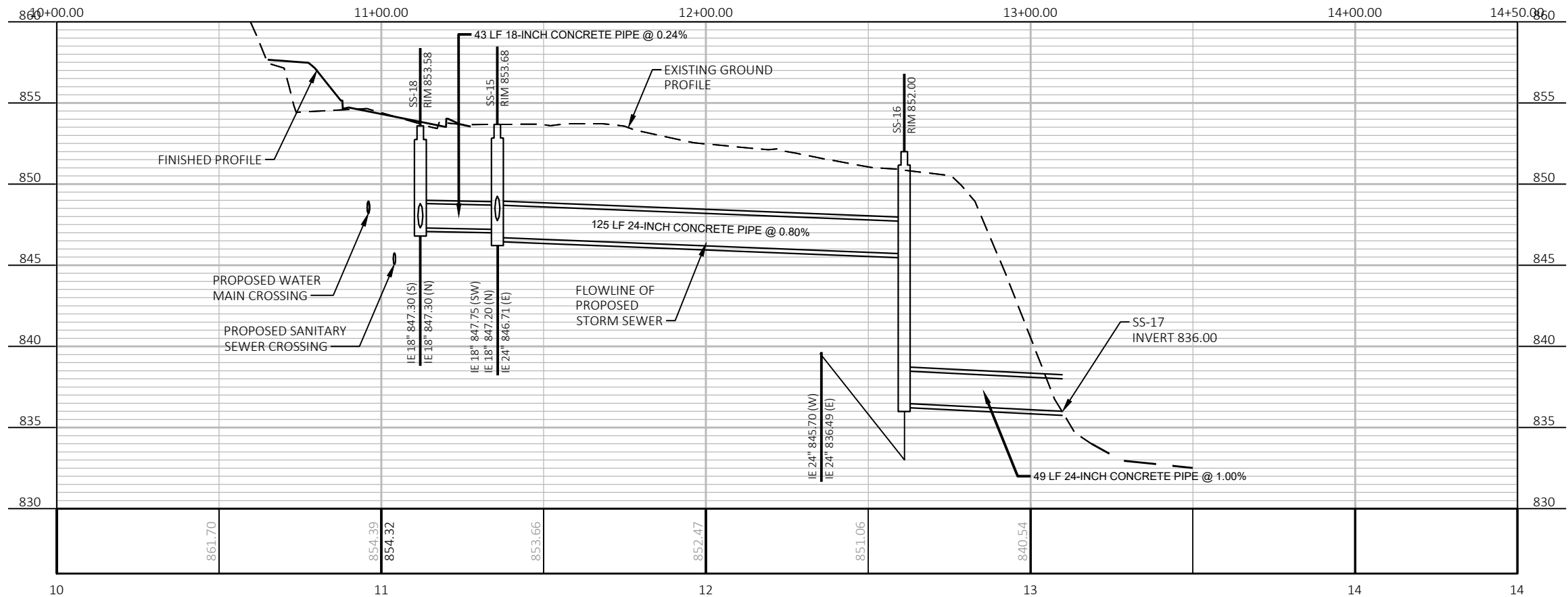
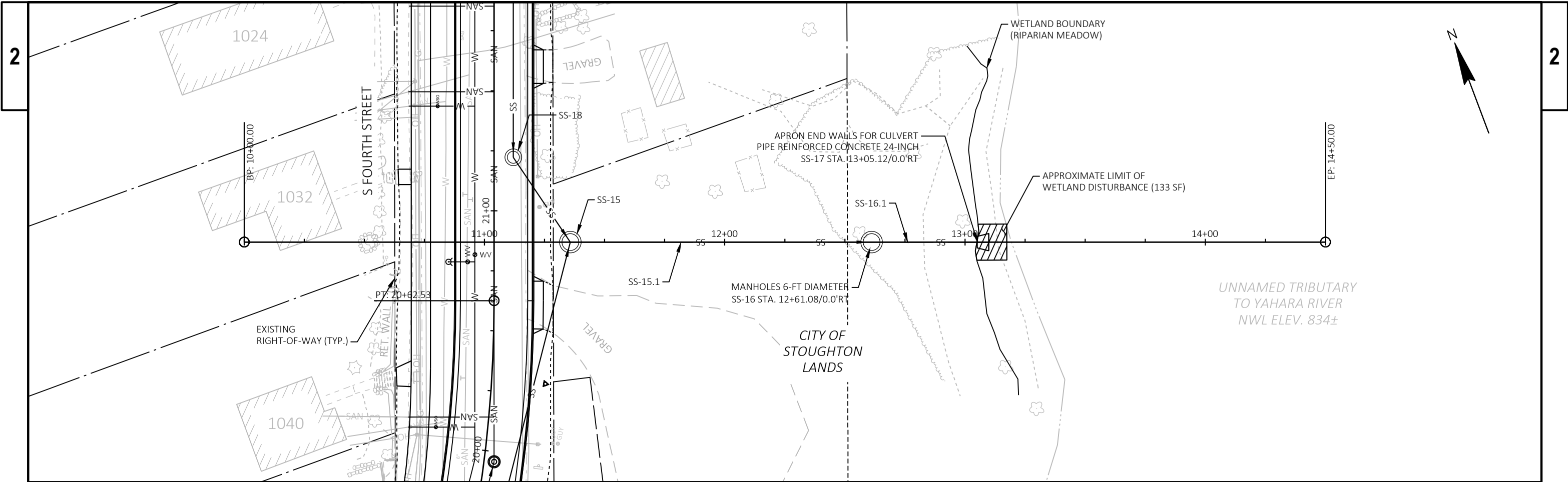


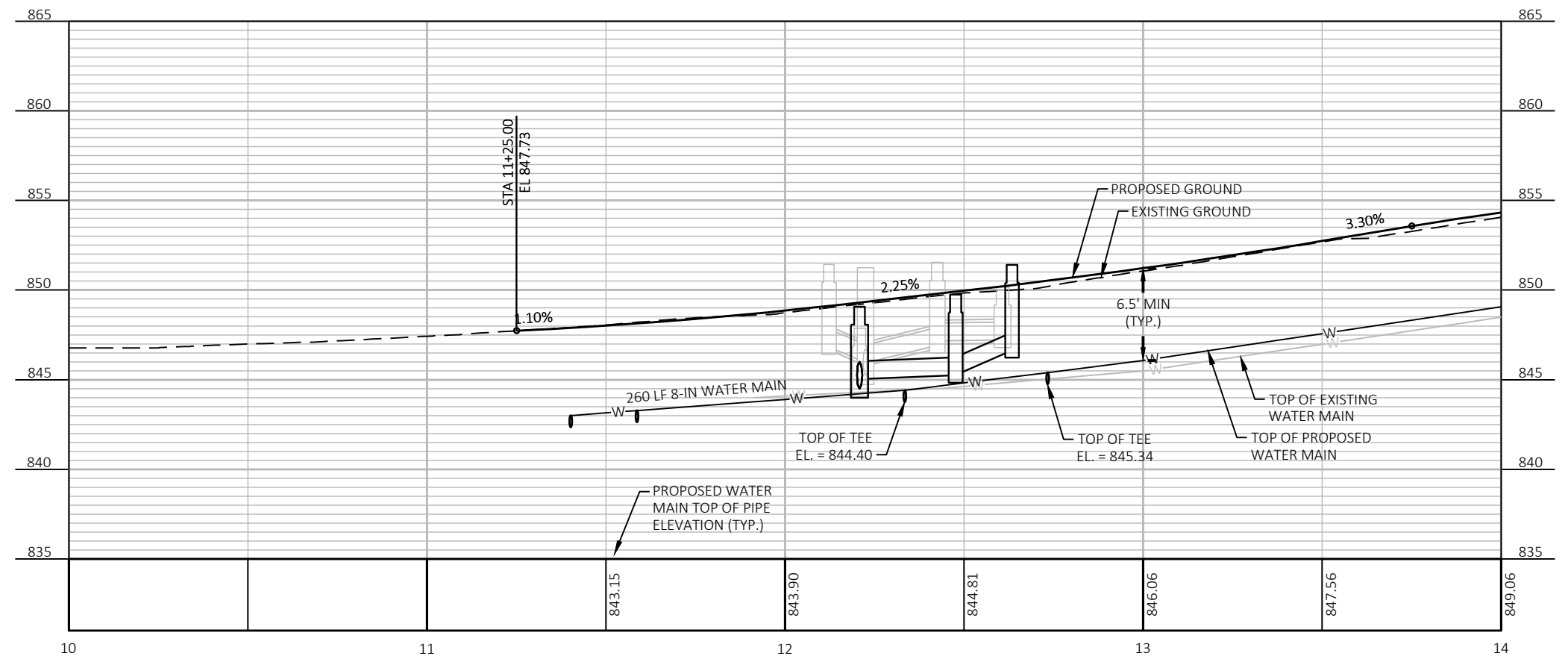
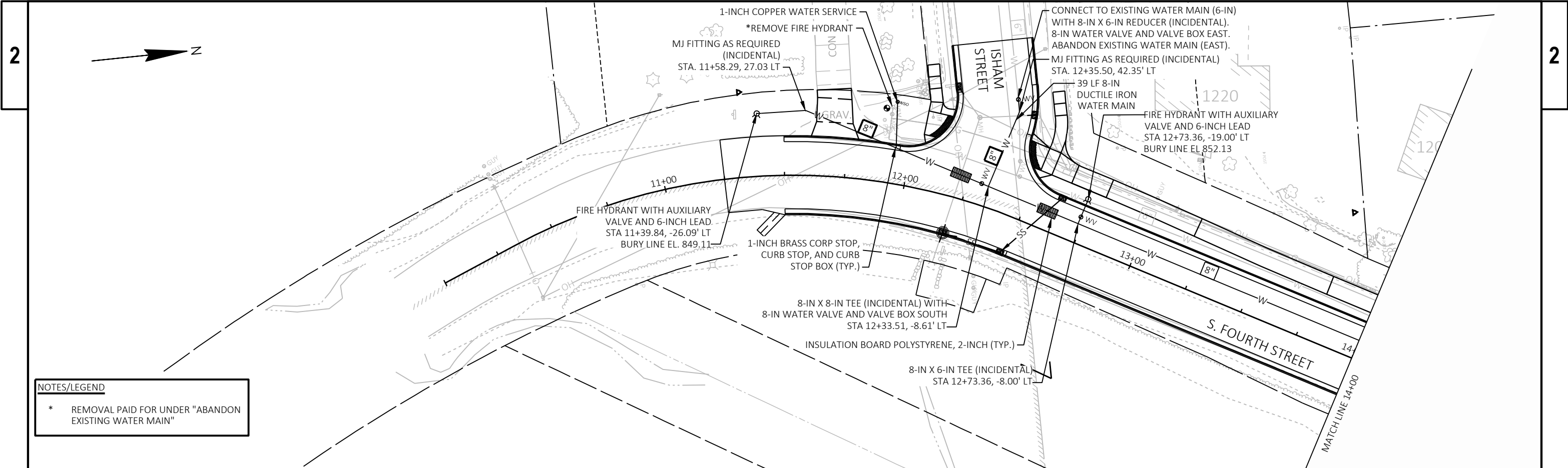


STRUCT NO.	STATION	OFFSET C.O.S./ F.O.C.	TO STRUCT.	INLET TYPE	COVER	TOP/ T.O.C. ELEV.	RIM/ T.O.S. ELEV.	DEPTH (FT)	DISCHARGE PIPE				
									SIZE (IN)	INLET ELEV.	DISCHARGE ELEV.	LENGTH (FT)	SLOPE (%)
SS-21	23+47.81	16.00' LT	SS-20	2X3-FT	H-S	853.15	852.65	2.09	12.00	849.96	848.67	32.30	4.00
SS-20.1													
SS-23	23+86.61	16.00' LT	SS-22	2X3-FT	H-S	853.39	852.89	2.12	12.00	850.17	848.90	31.88	4.00
SS-22.2													
SS-29	23+11.22	16.00' RT	SS-19	2X3-FT	H-S	852.58	852.08	3.32	12.00	848.16	848.10	6.00	1.00
SS-29.1													









PROJECT NO: 5998-00-02

HWY: S FOURTH ST

COUNTY: DANE

UTILITY PLANS

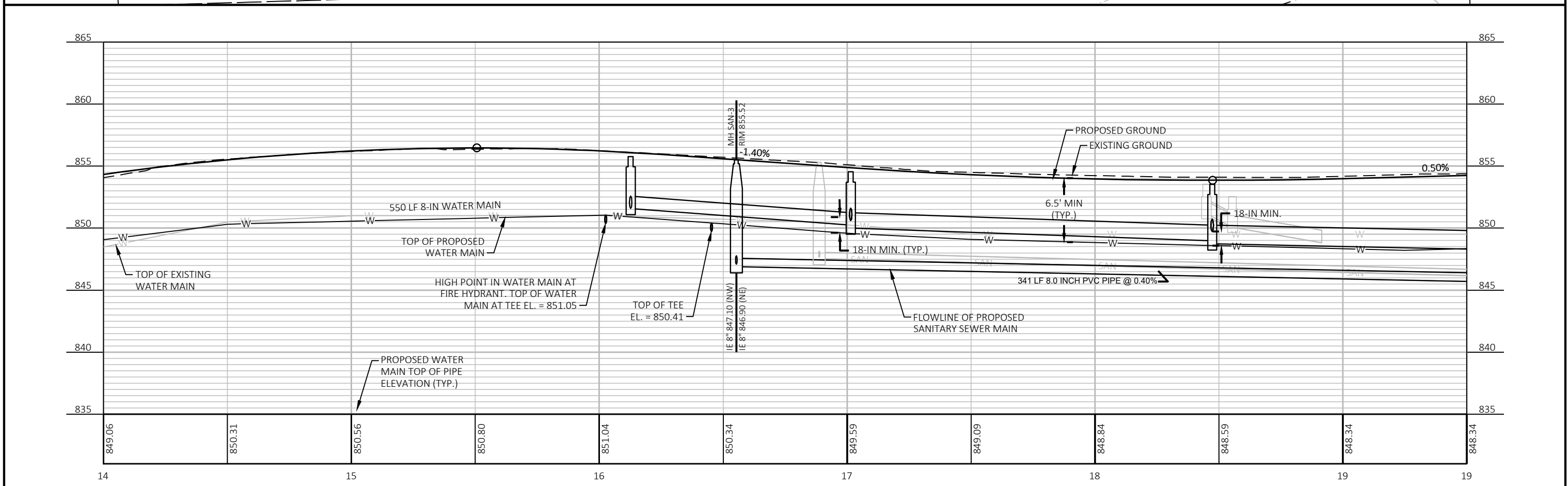
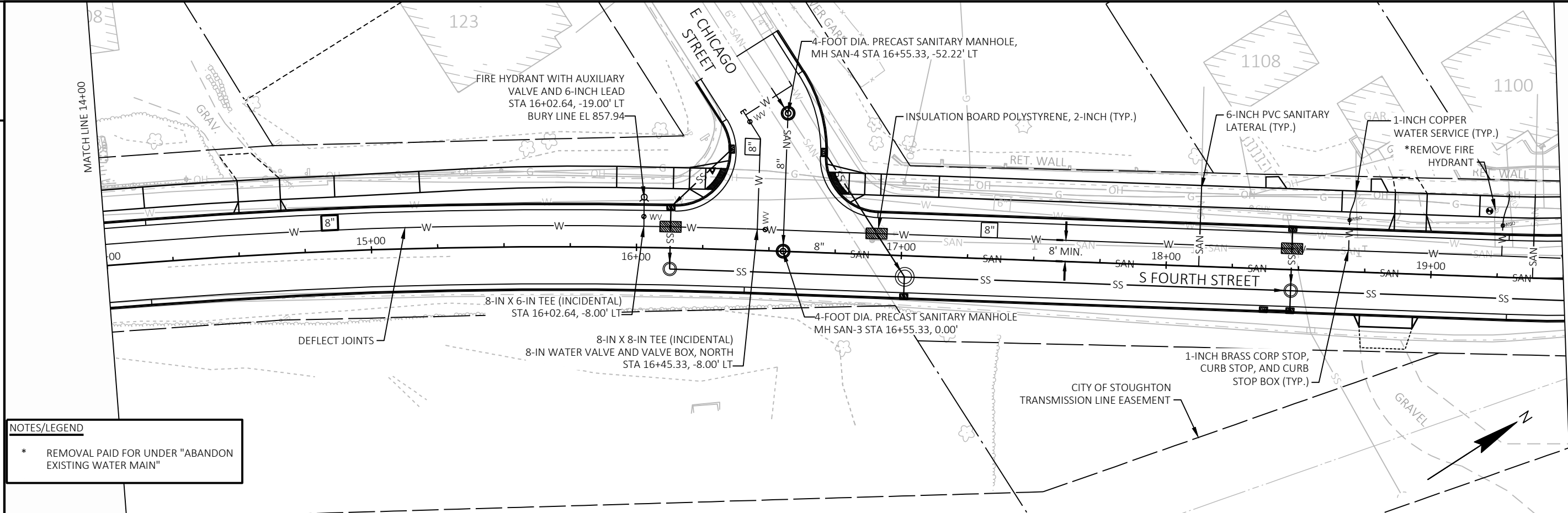
SHEET

27

E

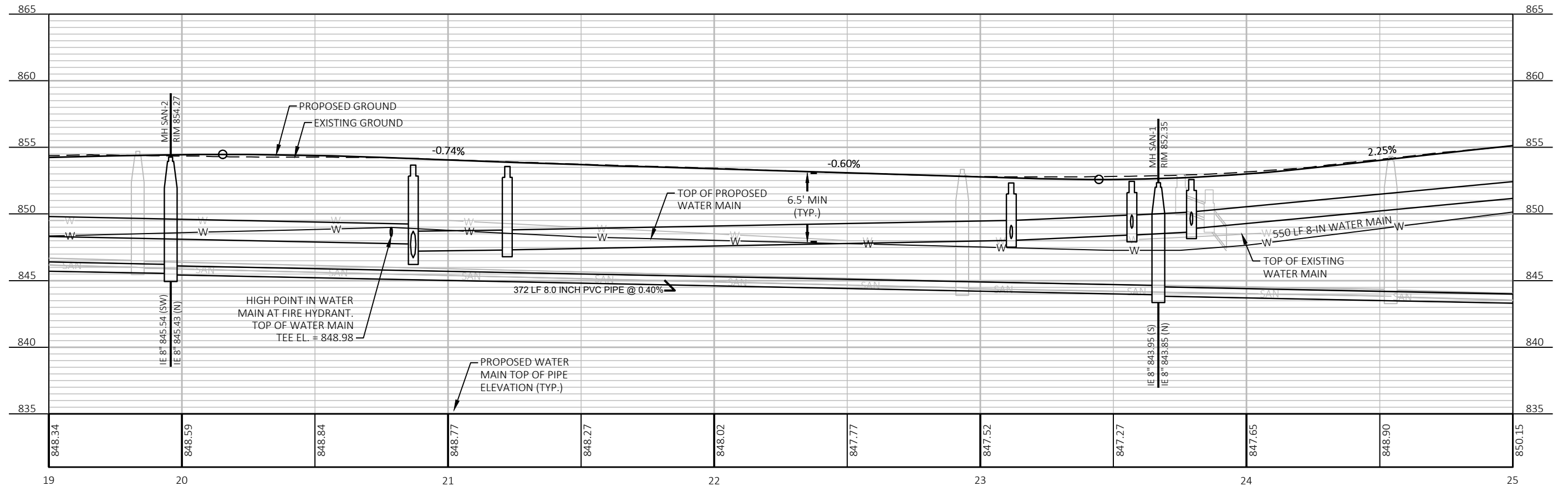
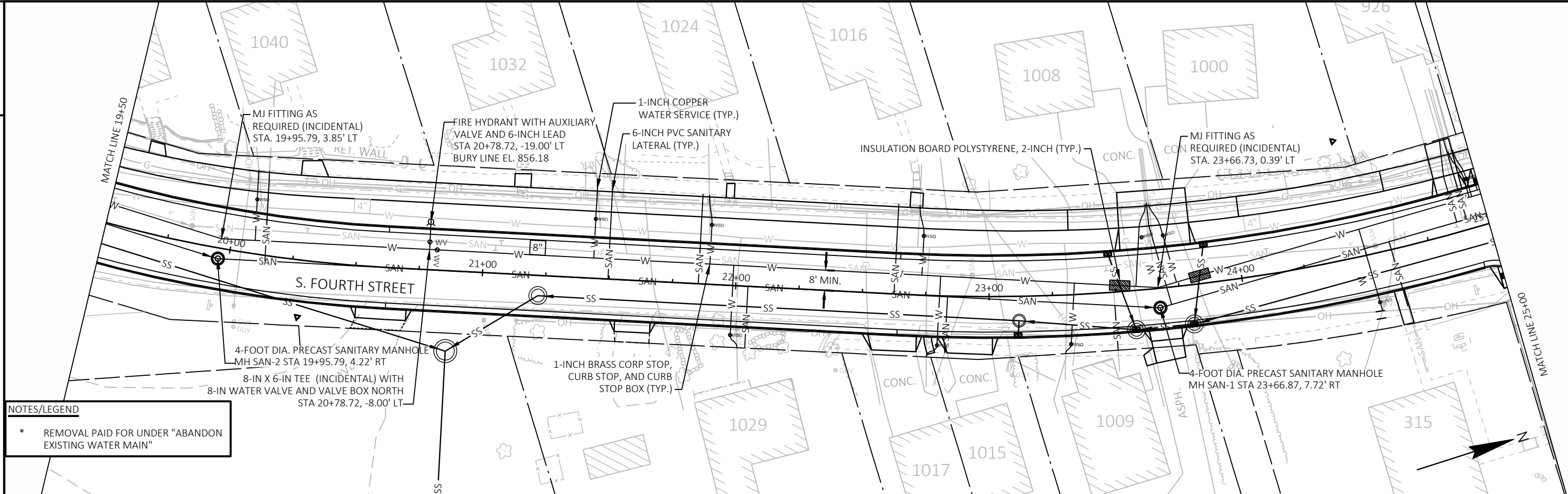
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2



2

2



PROJECT NO: 5998-00-02

HWY: S FOURTH ST

COUNTY: DANE

UTILITY PLANS

SHEET	29	E
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E

FILE NAME : S:\MAD\1000--1099\1040\150\DRAWINGS\CAD\CIVIL 3D\SHEETSP\PLAN\023001-UP.DWG
LAYOUT NAME - 023003-up

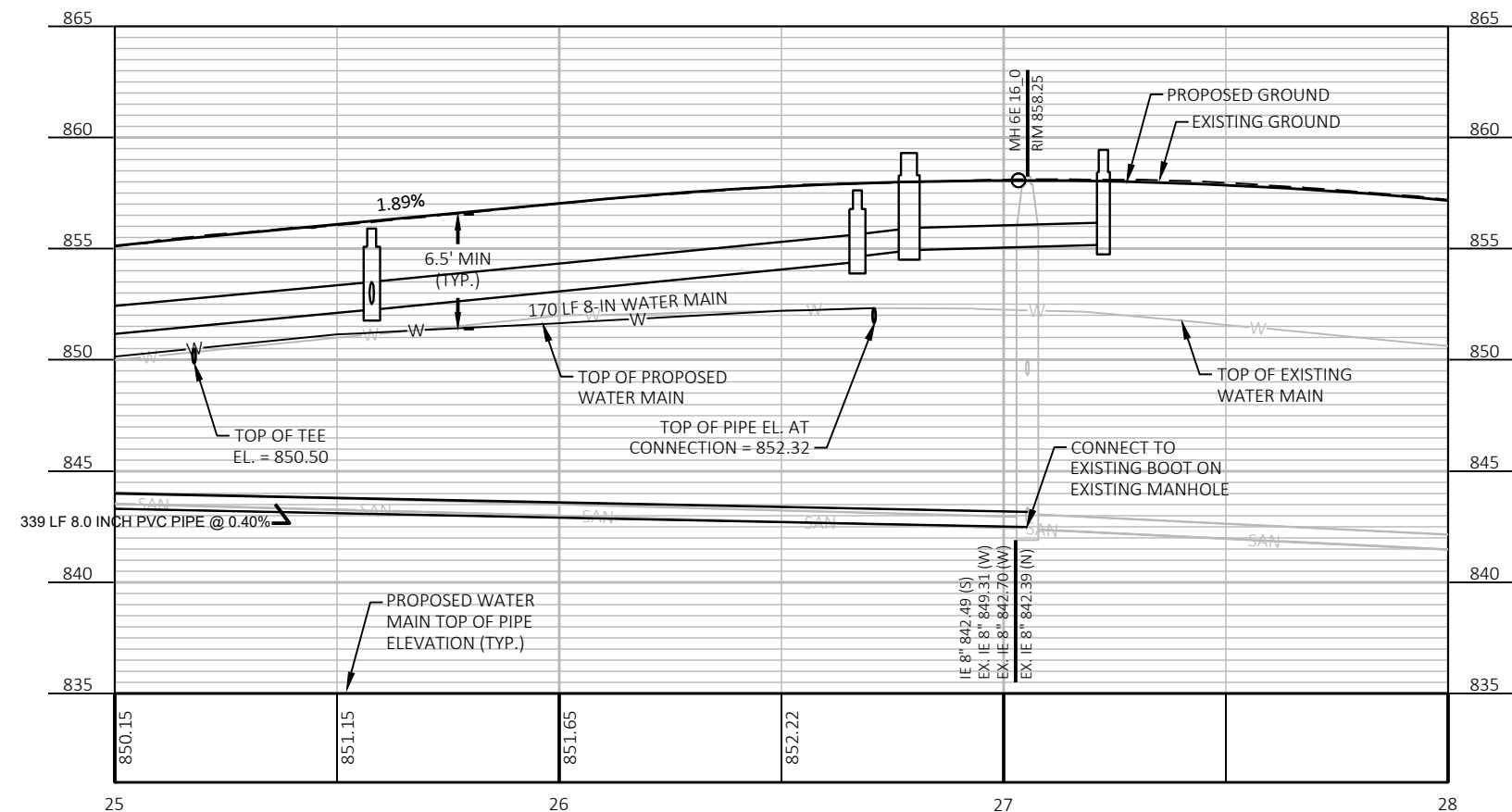
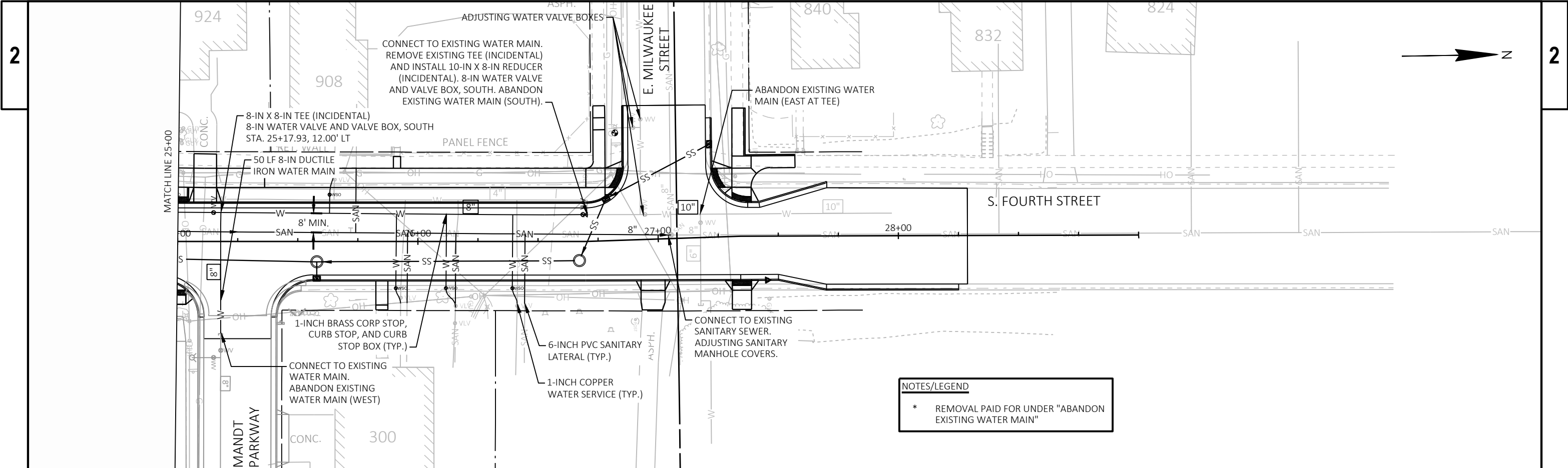
PLOT DATE : 1/6/2025 3:25 PM

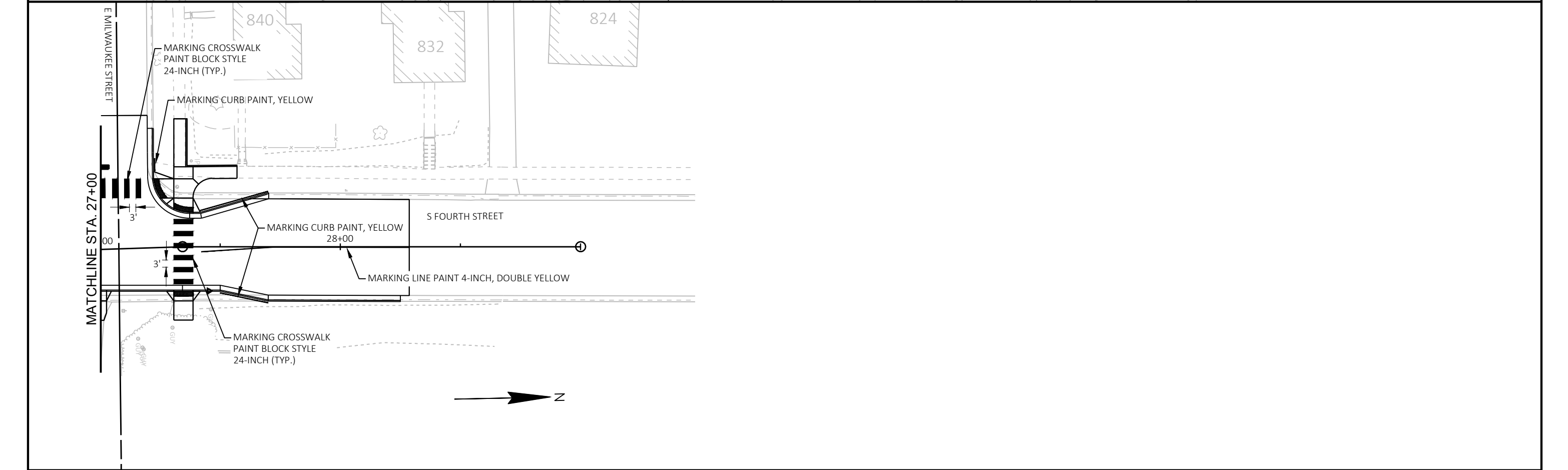
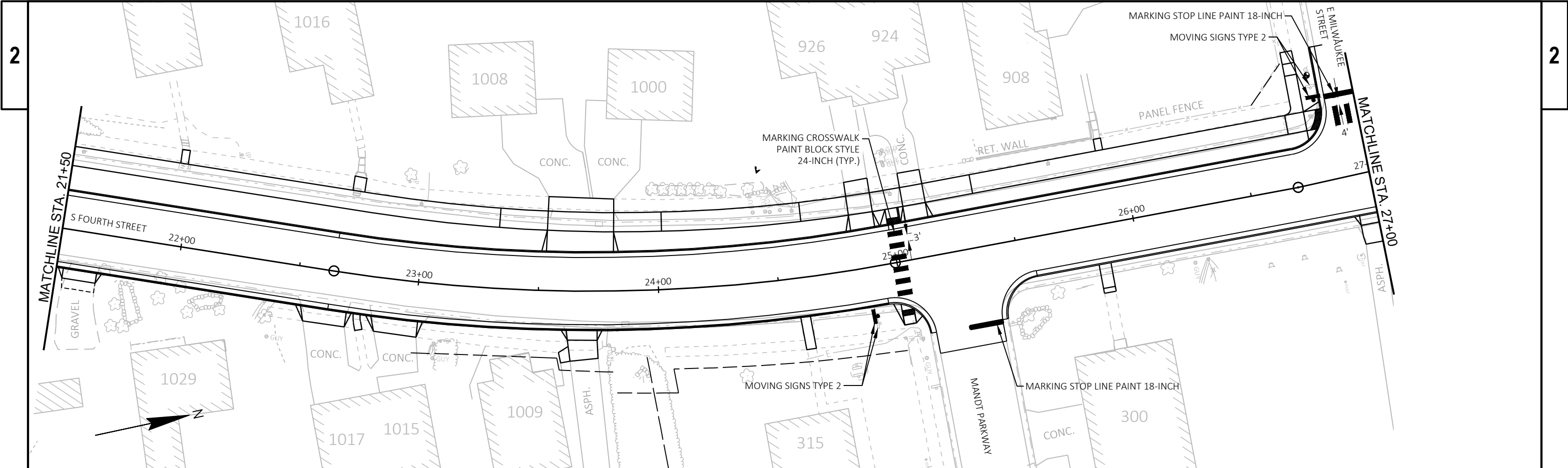
PLOT BY : DECENT, ZACH

PLOT NAME : PLOT SCALE :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44





GENERAL NOTES

THE EXACT LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

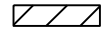
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

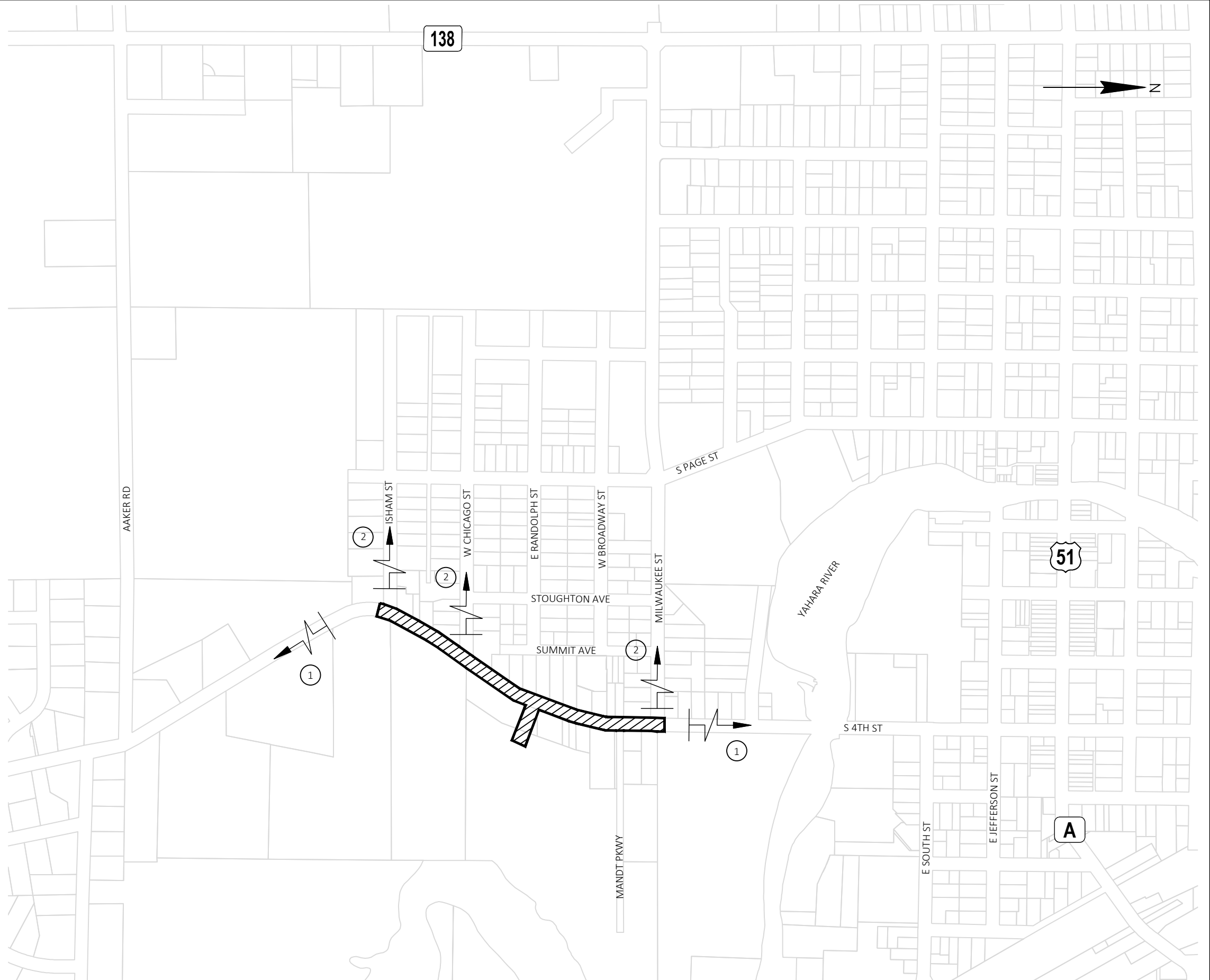
ALL "WO" AND "W" SIGNS SHALL BE 48"X48" UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL SIGNS PORTABLE CHANGEABLE MESSAGE TO BE INSTALLED ONE WEEK PRIOR TO IMPLEMENTATION OF ROADWAY CLOSURE.

- 1 PLACE ADVANCED WARNING SIGNS AND ROAD CLOSURE IN ACCORDANCE WITH STANDARD DETAIL DRAWING "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" (DETAIL C), AND "BARRICADES AND SIGNS FOR VARIOUS CLOSURES" (DETAIL E)
- 2 PLACE ADVANCED WARNING SIGNS AND ROAD CLOSURE IN ACCORDANCE WITH STANDARD DETAIL DRAWING "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" (DETAIL 4)

LEGEND

 WORK ZONE



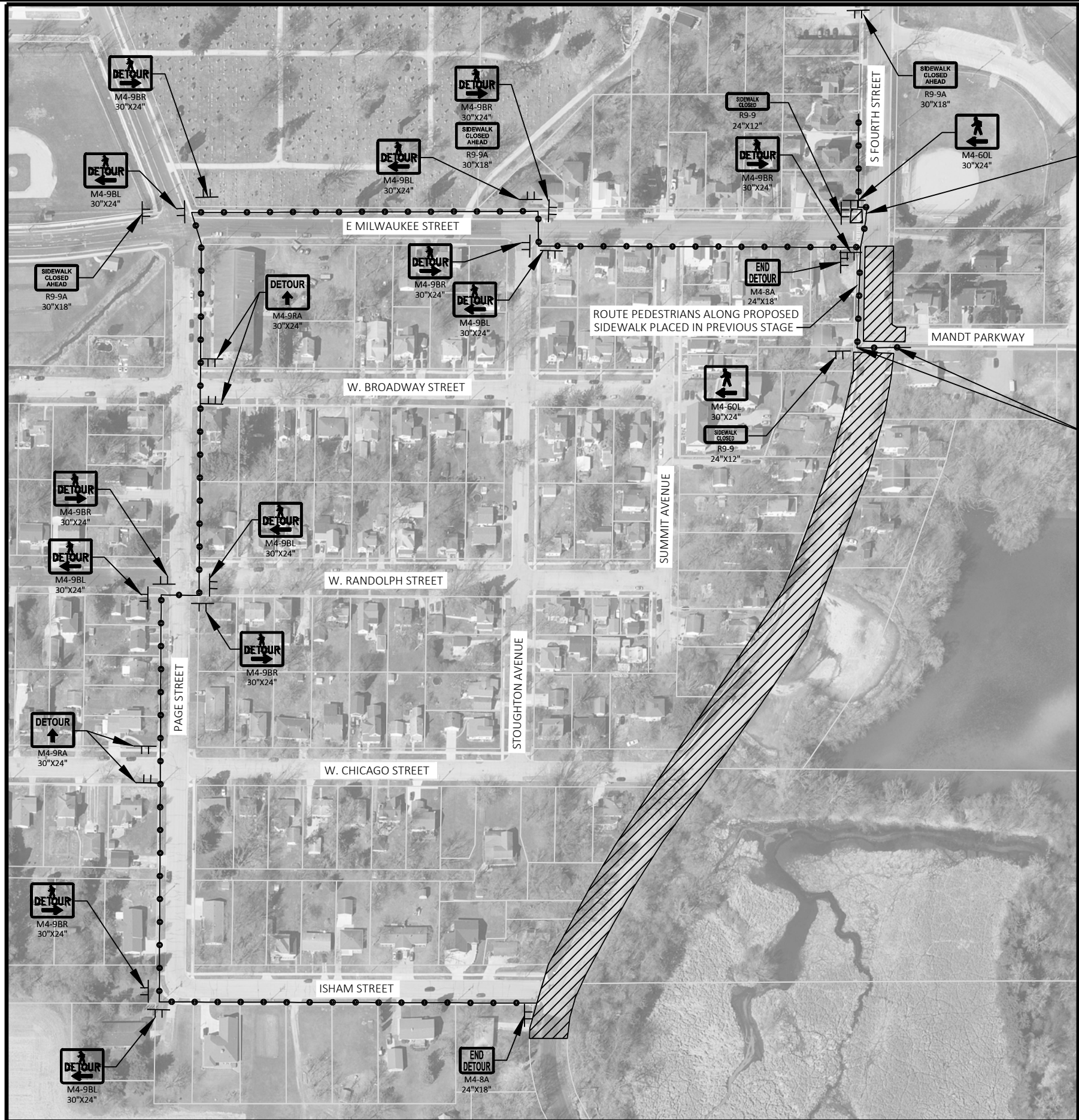




NOTE:
SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN
ACCOMMODATION" FOR ADDITIONAL
INFORMATION.

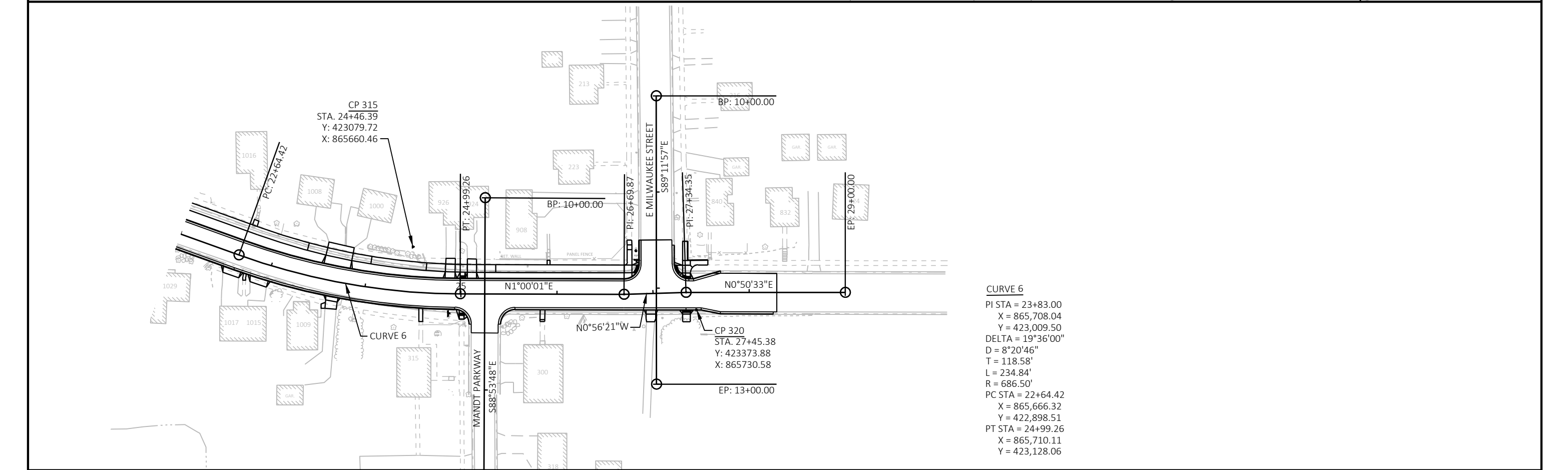
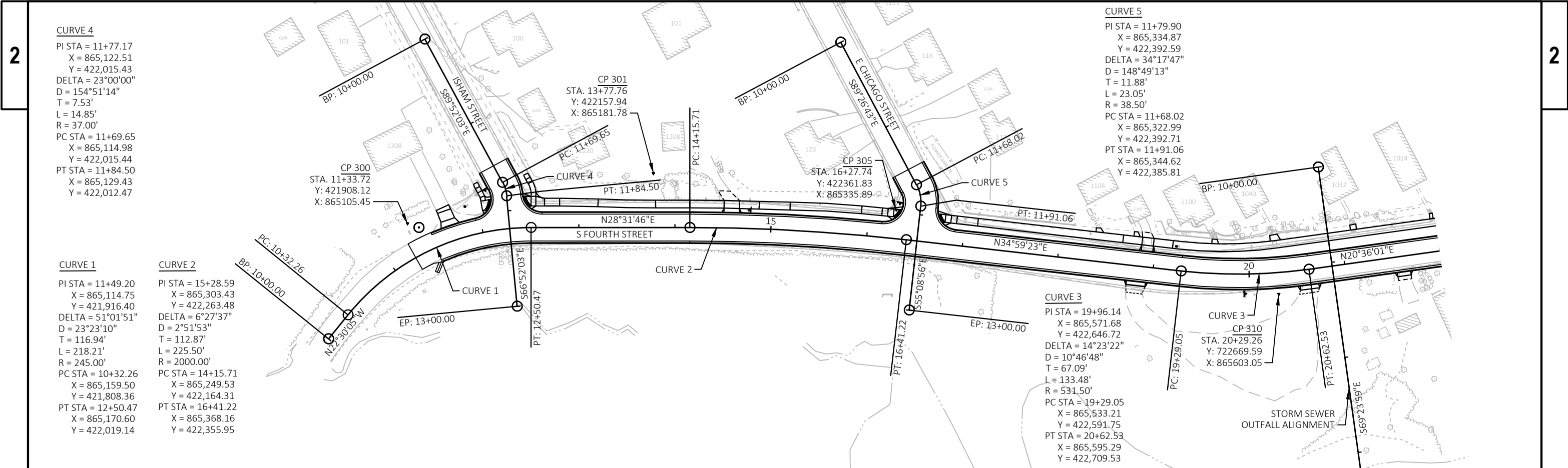
LEGEND

- PEDESTRIAN DETOUR ROUTE
- TEMPORARY PEDESTRIAN BARRICADE
- WORK ZONE
- SIGN ON TEMPORARY SUPPORT



SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN
ACCOMMODATION, SHEET J" FOR
ADDITIONAL INFORMATION.

ROUTE PEDESTRIANS ALONG PROPOSED
CURB RAMP PLACED IN PREVIOUS STAGE



Estimate Of Quantities

		5998-00-01		5998-00-02	
Line	Item	Item Description	Unit	Total	Qty
0002	204.0150	Removing Curb & Gutter	LF	3,180.000	3,180.000
0004	204.0155	Removing Concrete Sidewalk	SY	800.000	800.000
0006	204.0220	Removing Inlets	EACH	6.000	6.000
0008	204.0245	Removing Storm Sewer (size) 001. 12-Inch	LF	220.000	220.000
0010	205.0100	Excavation Common	CY	5,529.000	5,529.000
0012	209.1500	Backfill Granular Grade 1	TON	100.000	100.000
0014	213.0100	Finishing Roadway (project) 001. 5998-00-01	EACH	1.000	1.000
0016	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	3,107.000	3,107.000
0018	305.0130	Base Aggregate Dense 3-Inch	TON	1,339.000	1,339.000
0020	455.0605	Tack Coat	GAL	305.000	305.000
0022	460.2000	Incentive Density HMA Pavement	DOL	1,100.000	1,100.000
0024	460.5223	HMA Pavement 3 LT 58-28 S	TON	1,030.000	1,030.000
0026	460.5224	HMA Pavement 4 LT 58-28 S	TON	685.000	685.000
0028	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	13.000	13.000
0030	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000
0032	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	3,320.000	3,320.000
0034	601.0600	Concrete Curb Pedestrian	LF	50.000	50.000
0036	602.0410	Concrete Sidewalk 5-Inch	SF	800.000	800.000
0038	602.0415	Concrete Sidewalk 6-Inch	SF	11,200.000	11,200.000
0040	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	30.000	30.000
0042	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	140.000	140.000
0044	602.0810	Concrete Driveway 6-Inch	SY	169.000	169.000
0046	606.0200	Riprap Medium	CY	2.200	2.200
0048	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	467.000	467.000
0050	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	327.000	327.000
0052	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	504.000	504.000
0054	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	174.000	174.000
0056	611.0612	Inlet Covers Type C	EACH	8.000	8.000
0058	611.0624	Inlet Covers Type H	EACH	13.000	13.000
0060	611.0639	Inlet Covers Type H-S	EACH	5.000	5.000
0062	611.2004	Manholes 4-FT Diameter	EACH	4.000	4.000
0064	611.2005	Manholes 5-FT Diameter	EACH	4.000	4.000
0066	611.2006	Manholes 6-FT Diameter	EACH	2.000	2.000
0068	611.3230	Inlets 2x3-FT	EACH	16.000	16.000
0070	612.0106	Pipe Underdrain 6-Inch	LF	200.000	200.000
0072	612.0902.S	Insulation Board Polystyrene (inch) 001. 2-Inch	SY	25.000	25.000
0074	619.1000	Mobilization	EACH	1.000	0.600
0076	624.0100	Water	MGAL	50.000	50.000
0078	625.0100	Topsoil	SY	3,333.000	3,333.000
0080	627.0200	Mulching	SY	8,889.000	8,889.000
0082	628.1504	Silt Fence	LF	980.000	980.000
0084	628.1520	Silt Fence Maintenance	LF	980.000	980.000
0086	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0088	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0090	628.2006	Erosion Mat Urban Class I Type A	SY	2,280.000	2,280.000
0092	628.7005	Inlet Protection Type A	EACH	19.000	19.000
0094	628.7015	Inlet Protection Type C	EACH	19.000	19.000
0096	628.7020	Inlet Protection Type D	EACH	8.000	8.000
0098	628.7560	Tracking Pads	EACH	2.000	2.000

Estimate Of Quantities

		5998-00-01		5998-00-02		
Line	Item	Item Description	Unit	Total	Qty	Qty
0100	629.0210	Fertilizer Type B	CWT	5.600	5.600	
0102	630.0140	Seeding Mixture No. 40	LB	150.000	150.000	
0104	630.0300	Seeding Borrow Pit	LB	250.000	250.000	
0106	630.0500	Seed Water	MGAL	199.700	199.700	
0108	638.2102	Moving Signs Type II	EACH	6.000	6.000	
0110	642.5001	Field Office Type B	EACH	1.000	0.800	0.200
0112	643.0300	Traffic Control Drums	DAY	2,275.000	2,275.000	
0114	643.0420	Traffic Control Barricades Type III	DAY	4,860.000	4,860.000	
0116	643.0705	Traffic Control Warning Lights Type A	DAY	9,720.000	9,720.000	
0118	643.0900	Traffic Control Signs	DAY	14,670.000	14,670.000	
0120	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000	
0122	643.3305	Temporary Marking Crosswalk Paint 6-inch	LF	90.000	90.000	
0124	643.5000	Traffic Control	EACH	1.000	0.800	0.200
0126	644.1440	Temporary Pedestrian Surface Matting	SF	1,800.000	1,800.000	
0128	644.1601	Temporary Pedestrian Curb Ramp	DAY	120.000	120.000	
0130	644.1605	Temporary Pedestrian Detectable Warning Field	SF	100.000	100.000	
0132	644.1810	Temporary Pedestrian Barricade	LF	550.000	550.000	
0134	645.0120	Geotextile Type HR	SY	3.000	3.000	
0136	646.1005	Marking Line Paint 4-Inch	LF	90.000	90.000	
0138	646.6105	Marking Stop Line Paint 18-Inch	LF	65.000	65.000	
0140	646.7505	Marking Crosswalk Paint Block Style 24-Inch	LF	240.000	240.000	
0142	646.8105	Marking Curb Paint	LF	55.000	55.000	
0144	650.4000	Construction Staking Storm Sewer	EACH	27.000	27.000	
0146	650.4500	Construction Staking Subgrade	LF	1,705.000	1,705.000	
0148	650.5000	Construction Staking Base	LF	1,705.000	1,705.000	
0150	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	3,320.000	3,320.000	
0152	650.9000	Construction Staking Curb Ramps	EACH	10.000	10.000	
0154	650.9500	Construction Staking Sidewalk (project) 001. 5998-00-01	EACH	1.000	1.000	
0156	650.9911	Construction Staking Supplemental Control (project) 001. 5998-00-01	EACH	1.000	1.000	
0158	650.9920	Construction Staking Slope Stakes	LF	1,705.000	1,705.000	
0160	690.0150	Sawing Asphalt	LF	180.000	180.000	
0162	690.0250	Sawing Concrete	LF	125.000	125.000	
0164	740.0440	Incentive IRI Ride	DOL	1,290.000	1,290.000	
0166	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000	
0168	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000	
0170	SPV.0060	Special 001. Temporary Mailbox Station	EACH	1.000	1.000	
0172	SPV.0060	Special 200. 4-Foot Dia. Precast Sanitary Manhole	EACH	4.000		4.000
0174	SPV.0060	Special 201. Connect to Existing Sanitary Sewer	EACH	2.000		2.000
0176	SPV.0060	Special 202. Connect to Existing Water Main	EACH	4.000		4.000
0178	SPV.0060	Special 203. 8-Inch Water Valve and Valve Box	EACH	7.000		7.000
0180	SPV.0060	Special 204. Fire Hydrant with Auxiliary Valve and 6-Inch Lead	EACH	4.000		4.000
0182	SPV.0060	Special 205. 1-Inch Brass Corp Stop, Curb Stop, and Curb Stop Box	EACH	19.000		19.000
0184	SPV.0060	Special 206. Abandon Existing Water Main	EACH	5.000		5.000
0186	SPV.0060	Special 207. Abandon Existing Sanitary Sewer	EACH	2.000		2.000
0188	SPV.0060	Special 208. Adjusting Sanitary Manhole Covers	EACH	1.000		1.000
0190	SPV.0060	Special 209. Adjusting Water Valve Boxes	EACH	3.000		3.000
0192	SPV.0090	Special 200. 8-Inch PVC Sanitary Sewer Main	LF	1,120.000		1,120.000
0194	SPV.0090	Special 201. 4-Inch Ductile Iron Water Main	LF	20.000		20.000
0196	SPV.0090	Special 202. 8-Inch Ductile Iron Water Main	LF	1,670.000		1,670.000

Estimate Of Quantities

					5998-00-01	5998-00-02
Line	Item	Item Description	Unit	Total	Qty	Qty
0198	SPV.0090	Special 203. 6-Inch PVC Sanitary Lateral	LF	530.000		530.000
0200	SPV.0090	Special 204. 1-Inch Copper Water Service	LF	575.000		575.000

3

REMOVAL SUMMARY				
ID: 5998-00-01	204.0150	204.0155	204.0220	204.0245
	REMOVING	REMOVING	REMOVING	REMOVING
	CURB & GUTTER	CONCRETE SIDEWALK	INLETS	STORM SEWER
	LF	SY	EA	LF
0010	3180	800	6	220

BACKFILL GRANULAR GRADE 1		
ID: 5998-00-01		209.1500
CATEGORY	STATION - STATION	TON
0010	12+04 - 27+42	100

3

EXCAVATION COMMON						
ID: 5998-00-01			205.0100	305.0130		
			EXCAVATION	BASE AGGREGATE		
CATEGORY	STATION - STATION	LOCATION	COMMON	DENSE 3-INCH	FILL	WASTE
			CY	TON	CY	CY
0010	11+95 - 28+25	CURB AND GUTTER REPLACEMENT	740	---	--	740
	12+04 - 27+42	SIDEWALK REPLACEMENT	380	---	--	380
	11+60 - 27+04	DRIVEWAY REPLACEMENT	51	---	--	51
	11+25 - 28+28	LT/RT	3,634	---	--	3,634
	11+25 - 28+28	EXCAVATION BELOW SUBGRADE (EBS)	724	1,339	--	724
TOTALS			5,529	1,339	0	5,529

NOTE: EBS TO BE BACKFILLED WITH BASE AGGREGATE DENSE 3-INCH

FINISHING ROADWAY		
ID: 5998-00-01		213.0100
CATEGORY	PROJECT	EACH
0010	.01 5998-00-01	1

BASE AGGREGATE DENSE				
ID: 5998-00-01			305.0120	624.0100
			BASE AGGREGATE	WATER
			DENSE 1 1/4-INCH	
CATEGORY	STATION - STATION	LOCATION	TON	MGAL
0010	11+95 - 28+25	CURB AND GUTTER REPLACEMENT	450	4.5
	12+04 - 27+42	SIDEWALK REPLACEMENT	530	5.3
	11+60 - 27+04	DRIVEWAY REPLACEMENT	47	0.5
	11+25 - 28+28	UNDISTRIBUTED	190	1.9
	11+25 - 28+28	LT/RT	1,890	37.8
TOTALS			3,107	50.0

CONCRETE DRIVEWAY 6-INCH			
ID: 5998-00-01			602.0810
CATEGORY	STATION	LOCATION	SY
0010	11+70	LT	18
	14+60	LT	9
	18+90	LT	9
	20+60	RT	11
	21+60	RT	8
	22+62	RT	13
	22+92	RT	15
	23+67	LT	45
	23+67	RT	7
	24+88	LT	15
	25+12	LT	14
	26+97	RT	6
TOTAL			169

3

ASPHALTIC ITEMS						
ID: 5998-00-01						
		460.5223 HMA PAVEMENT 3 LT 58-28 S	460.5224 HMA PAVEMENT 4 LT 58-28 S	455.0605 TACK COAT	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	
CATEGORY	STATION - STATION	TON	TON	GAL	TON	
0010	11+25 - 28+28	1030	685	305	---	
	PARKING LOTS / DRIVEWAYS	---	---	---	13	
TOTALS		1030	685	305	13	

NOTE: HMA PAVEMENT WEIGHT CALCULATIONS BASED ON 112 LB/SY/IN.

CONCRETE CURB					
ID: 5998-00-01					
		CONCRETE CURB AND GUTTER 30-INCH TYPE D 601.0411	CONCRETE CURB PEDESTRIAN 601.0600		
CATEGORY	STATION - STATION	LOCATION	LF	LF	
0010	11+25 - 28+50	LT/RT	3320	50	

STORM SEWER PIPE REINFORCED CONCRETE CLASS III						
ID: 5998-00-01						
		608.0312 12-INCH	608.0315 15-INCH	608.0318 18-INCH	608.0324 24-INCH	
CATEGORY	STATION	LOCATION	LF	LF	LF	LF
0010	12+10 - 26+83	LT/RT	467	---	---	---
	17+01 - 25+57	RT	---	327	---	---
	18+47 - 23+57	RT	---	---	504	---
	20+86	RT	---	---	---	174
TOTALS			467	327	504	174

SIDEWALK ITEMS						
ID: 5998-00-01						
		602.0410 CONCRETE SIDEWALK 5-INCH	602.0415 CONCRETE SIDEWALK 6-INCH	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW	602.0605 CURB RAMP DETECTABLE WARNING FIELD RADIAL YELLOW	
CATEGORY	STATION - STATION	LOCATION	SF	SF	SF	SF
0010	12+04 - 27+42	LT & RT	800	11,200	30	140

STORM SEWER SUMMARY													
ID: 5998-00-01													
		522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	606.0200 RIP RAP MEDIUM	611.2004 MANHOLES 4-FT DIAMETER	611.2005 MANHOLES 5-FT DIAMETER	611.2006 MANHOLES 6-FT DIAMETER	611.3230 INLETS 2X3-FT	612.0106 PIPE UNDERDRAIN 6-INCH	645.0120 GEOTEXTILE TYPE HR	611.0612 INLET COVERS TYPE C	611.0624 INLET COVERS TYPE H	611.0639 INLET COVERS TYPE H-S	
CATEGORY	STATION	LOCATION	EACH	CY	EACH	EACH	EACH	LF	SY	EA	EA	EA	
0010	12+12	LT	---	---	---	---	1	---	---	---	1	---	
0010	12+20	RT	---	---	---	---	1	---	---	---	1	---	
0010	12+41	LT	---	---	---	---	1	---	---	---	1	---	
0010	12+47	RT	---	---	---	---	1	---	---	---	1	---	
0010	12+63	LT	---	---	---	---	1	---	---	---	1	---	
0010	16+13	LT	---	---	---	---	1	---	---	---	1	---	
0010	16+34	LT	---	---	---	---	1	---	---	---	1	---	
0010	16+70	LT	---	---	---	---	1	---	---	---	1	---	
0010	17+01	RT	---	---	1	---	1	---	1	1	1	---	
0010	18+37	RT	---	---	---	---	1	25	---	---	---	1	
0010	18+47	LT/RT	---	---	1	---	2	75	---	1	---	2	
0010	20+87	RT	1	2.2	---	2	---	---	3	2	---	---	
0010	21+22	RT	---	---	1	---	---	---	---	1	---	---	
0010	23+11	RT	---	---	1	---	---	---	---	1	---	---	
0010	23+47	LT	---	---	---	---	1	50	---	---	---	1	
0010	23+57	RT	---	---	1	---	---	50	---	---	---	1	
0010	23+79	RT	---	---	1	---	---	---	---	---	1	---	
0010	23+87	LT	---	---	---	---	1	---	---	---	1	---	
0010	25+58	RT	---	---	1	---	1	---	---	1	1	---	
0010	26+83	LT/RT	---	---	1	---	1	---	---	1	1	---	
TOTALS			1	2.2	4	4	2	16	200	3	8	13	5

PROJECT NO: 5998-00-01

HWY: S FOURTH ST

COUNTY: DANE

MISCELLANEOUS QUANTITIES

SHEET

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3

MOBILIZATION

ID: 5998-00-01		619.1000
CATEGORY	PROJECT	EACH

0010	5998-00-01	0.6
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ID: 5998-00-02		619.1000
CATEGORY	PROJECT	EACH

0010	5998-00-02	0.4
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TEMPORARY MAILBOX STATION

ID: 5998-00-01		SPV.0060.01
CATEGORY	PROJECT	EACH

0010	5998-00-01	1
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FINISHING ITEMS

ID: 5998-00-01			625.0100	627.0200	629.0210	630.0140	630.0300	630.0500
			TOPSOIL	MULCHING	FERTILIZER	SEEDING	SEEDING	SEED WATER
					TYPE B	MIXTURE NO. 40	BORROW PIT	
CATEGORY	STATION	LOCATION	SY	SY	CWT	LB	LB	MGAL
0010	11+25 - 28+28	LT/RT	3,333	3,333	2.1	150.0	---	74.9
	WASTE SITE	-	---	5,556	3.5	---	250	124.8
TOTALS			3333	8889	5.6	150	250	199.7

EROSION CONTROL

ID: 5998-00-01			628.2006	628.1504	628.1520	628.7005	628.7015	628.7020	628.7560
			EROSION MAT	SILT FENCE	SILT FENCE	INLET PROTECTION	INLET PROTECTION	INLET PROTECTION	TRACKING
			URBAN CLASS I TYPE B		MAINTENANCE				
CATEGORY	STATION	LOCATION	SY	LF	LF	TYPE A	TYPE C	TYPE D	PADS
0010	11+25 - 28+28	LT/RT	2280	---	---	19	19	8	2
	11+25 - 21+52	RT	---	980	980	---	---	---	---
TOTALS			2280	980	980	19	19	8	2

EROSION CONTROL MOBILIZATIONS

ID: 5998-00-01		628.1905	628.1910
		MOBILIZATIONS	MOBILIZATIONS
		EROSION	EMERGENCY
		CONTROL	EROSION
			CONTROL
CATEGORY	PROJECT	EACH	EACH
0010	5998-00-01	3	1

TRAFFIC CONTROL

ID: 5998-00-01		643.5000
CATEGORY	PROJECT	EACH
0010	5998-00-00	1

SIGNAGE

ID: 5998-00-01		MOVING SIGNS	
		TYPE 2	
		638.2102	
CATEGORY	STATION	LOCATION	EA
0010	12+09	LT	1
	14+77	LT	1
	16+30	LT	1
	19+95	RT	1
	24+87	RT	1
	26+84	LT	1
TOTAL			6

FIELD OFFICE TYPE B

ID: 5998-00-01		642.5001
CATEGORY	PROJECT	EACH
0010	5998-00-01	0.8
ID: 5998-00-02		642.5001
CATEGORY	PROJECT	EACH
0010	5998-00-02	0.2

PROJECT NO: 5998-00-01/02

HWY: S FOURTH ST

COUNTY: DANE

MISCELLANEOUS QUANTITIES

SHEET

E

TRAFFIC CONTROL AND ADVANCED WARNING ITEMS																		
CATEGORY	STAGE	DURATION (DAYS)	643.0300		643.0420		643.0705		643.0900		643.1050		644.1440	644.1601	644.1605	644.1810		
			TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TEMPORARY PEDESTRIAN	TEMPORARY PEDESTRIAN	TEMPORARY PEDESTRIAN	TEMPORARY PEDESTRIAN		
			DRUMS		BARRICADES TYPE III		WARNING LIGHTS TYPE A		SIGNS		SIGNS PCMS		SURFACE MATTING	CURB RAMP	DETECTABLE WARNING	BARRICADE		
			EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAYS	SF	EACH	DAY	SF	LF	
0010	ADVANCED WARNING	135	---	---	24	3,240	48	6,480	30	4,050	2	14	---	---	---	---	---	
	PEDESTRIAN ACCESS	---	10	250	---	---	---	---	75	9,000	---	---	1,800	1	120	100	550	
	UNDISTRIBUTED	135	15	2,025	12	1,620	24	3,240	12	1,620	---	---	---	---	---	---	---	
TOTALS			2,275		4,860		9,720		14,670		14		1,800		120		100	550

PAVEMENT MARKING ITEMS						
ID: 5998-00-01			643.3305	646.1005	646.6105	646.7505
			TEMPORARY	MARKING	MARKING	MARKING
			MARKING	LINE PAINT	STOP LINE	CROSSWALK
			CROSSING		PAINT	PAINT BLOCK STYLE
CATEGORY	LOCATION		PAINT 6-INCH	4-INCH	18-INCH	24-INCH
			LF	LF	LF	LF
0010	S FOURTH STREET		90	90	65	240
						55

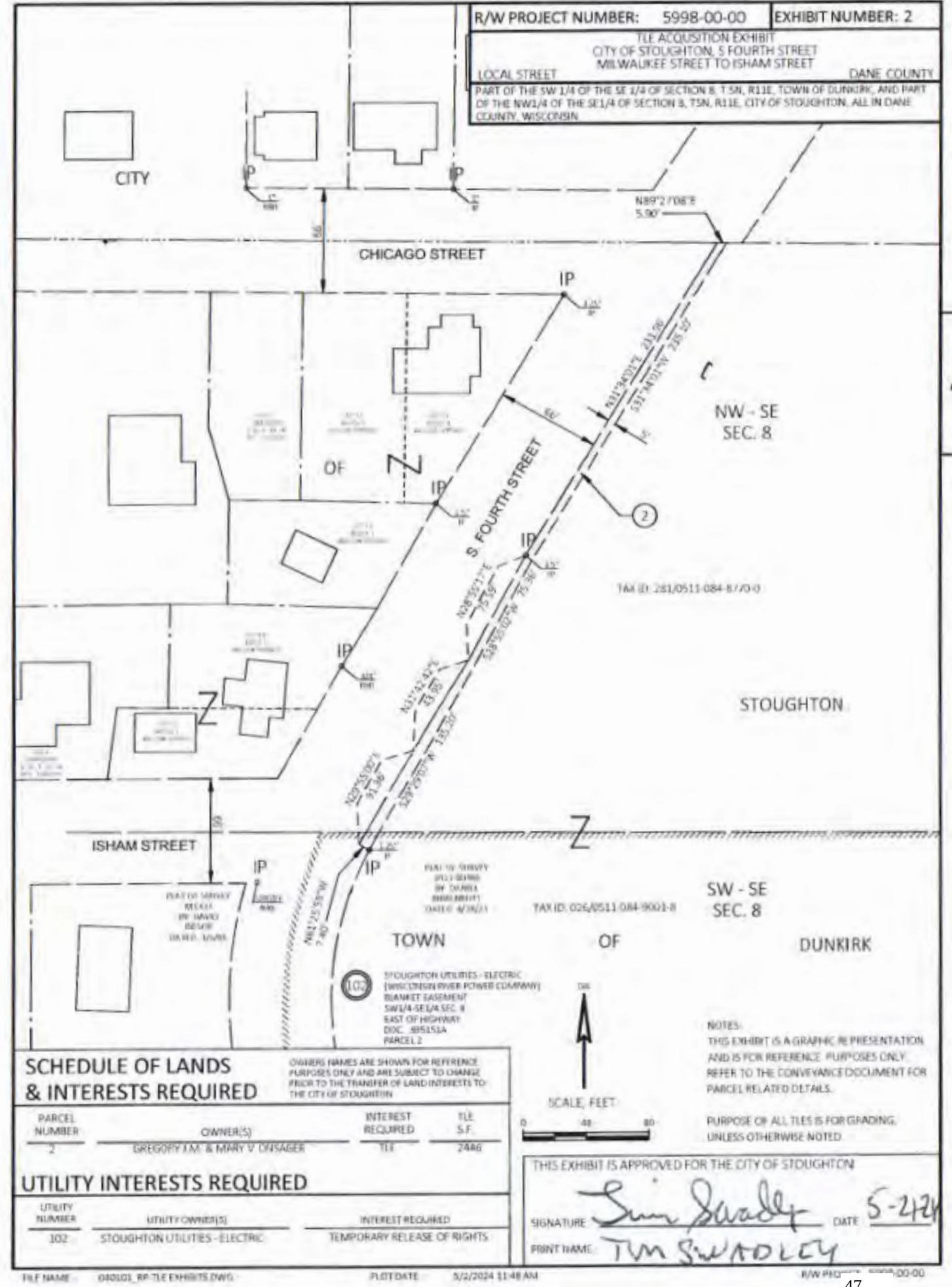
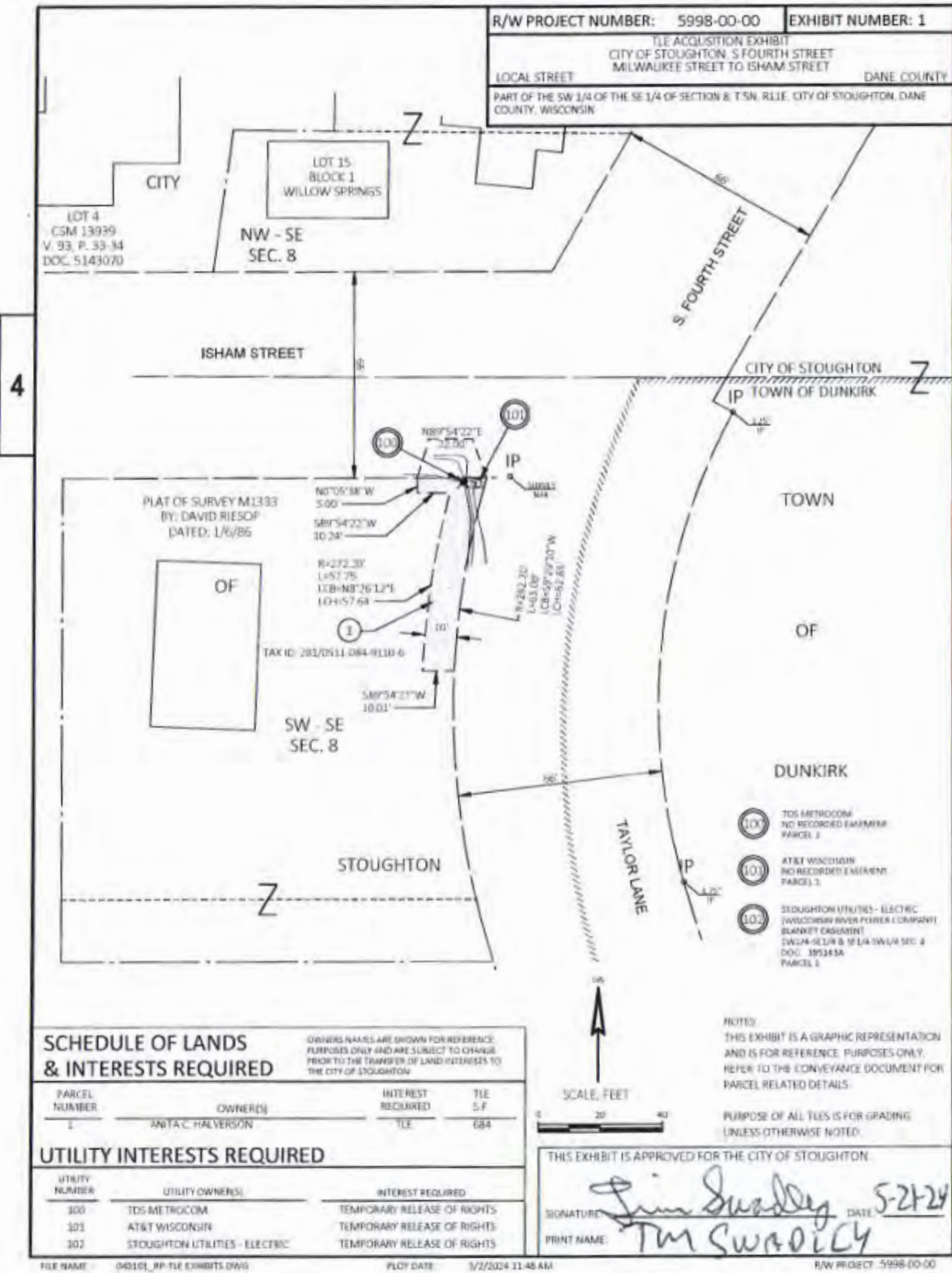
CONSTRUCTION STAKING SUMMARY									
ID: 5998-00-01			650.4000	650.4500	650.5000	650.5500	650.9000	650.9500	650.9920
			CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION
			STAKING	STAKING	STAKING	STAKING	STAKING	STAKING	STAKING
			STORM SEWER	SUBGRADE	BASE	CURB GUTTER AND CURB & GUTTER	CURB RAMPS	SIDEWALK (PROJECT) 01. 5998-00-01	SLOPE STAKES
CATEGORY	STATION - STATION		EACH	LF	LF	LF	EACH	EACH	LF
0010	11+25 - 28+28		27	1,705	1,705	3,320	10	1	1,705
	11+25 - 28+28		---	---	---	---	---	---	---
	TOTALS		27	1,705	1,705	3,320	10	1	1,705

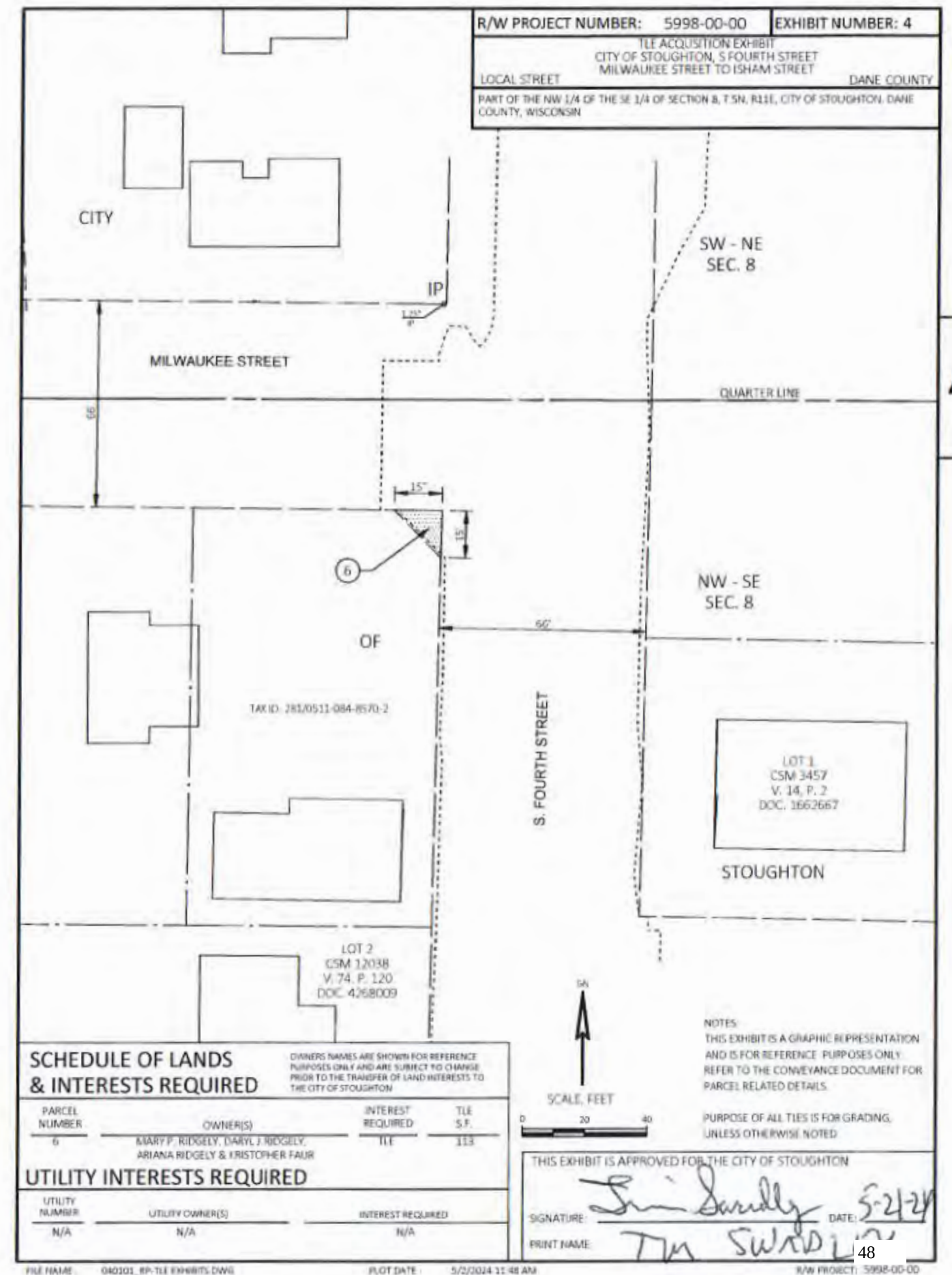
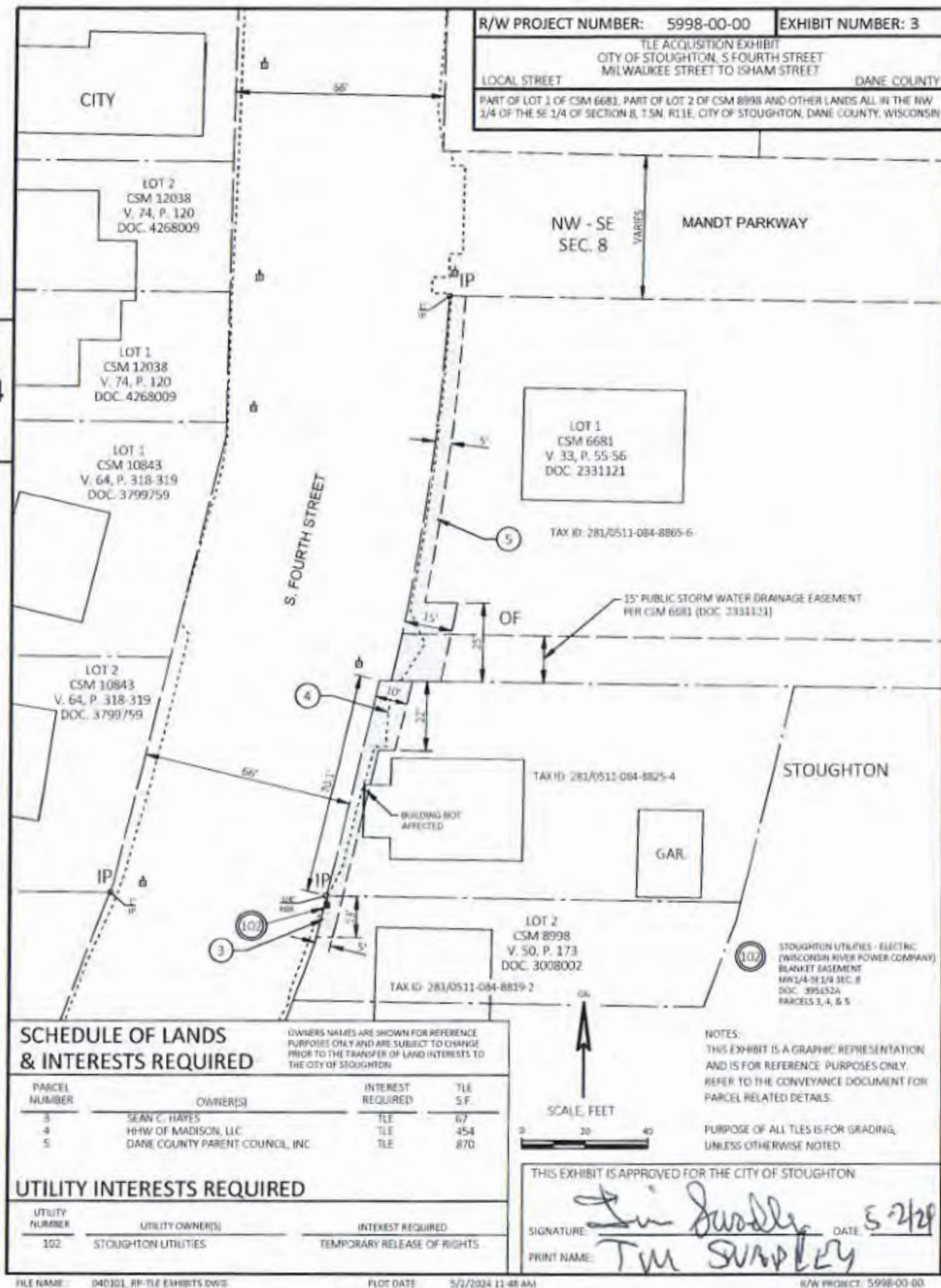
CONSTRUCTION STAKING SUPPLEMENTAL CONTROL			
ID: 5998-00-01		650.9911	
CATEGORY	PROJECT	EACH	
0010	.01 5998-00-01	1	

SAWING			
ID: 5998-00-01		690.0150	690.0250
CATEGORY	LOCATION	SAWING ASPHALT	SAWING CONCRETE
		LF	LF
0010	S FOURTH STREET	180	125

SANITARY SEWER							
ID: 5998-00-02		SPV.0060.200	SPV.0060.201	SPV.0060.207	SPV.0060.208	SPV.0090.200	SPV.0090.203
		4-FOOT DIA.	CONNECT	ABANDON	ADJUSTING	8-INCH	6-INCH
		PRECAST	TO EXISTING	EXISTING	SANITARY	PVC	PVC
		SANITARY	SANITARY	SANITARY	MANHOLE	SANITARY	SANITARY
		MANHOLE	SEWER	SEWER	COVERS	SEWER MAIN	LATERAL
CATEGORY	LOCATION	EA	EA	EA	EA	LF	LF
0010	S FOURTH STREET	4	2	2	1	1,120	530

WATER MAIN											
ID: 5998-00-02		612.0902.S	SPV.0060.202	SPV.0060.203	SPV.0060.204	SPV.0060.205	SPV.0060.206	SPV.0060.209	SPV.0090.201	SPV.0090.202	SPV.0090.204
		INSULATION	CONNECT	8-INCH	FIRE	1-INCH	ABANDON	ADJUSTING	4-INCH	8-INCH	1-INCH
		BOARD	TO	WATER VALVE	HYDRANT	BRASS CORP STOP,	EXISTING	WATER	DUCTILE IRON	DUCTILE IRON	COPPER
		POLYSTYRENE	EXISTING	AND	WITH AUXILIARY	CURB STOP, AND	WATER	VALVE	WATER	WATER	WATER
		2-INCH	WATER MAIN	VALVE BOX	VALVE AND 6-IN LEAD	CURB STOP BOX	MAIN	BOXES	MAIN	MAIN	SERVICE
CATEGORY	LOCATION	SY	EA	EA	EA	EA	EA	EA	LF	LF	LF
0020	S FOURTH STREET	25	4	7	4	19	5	3	20	1,670	575





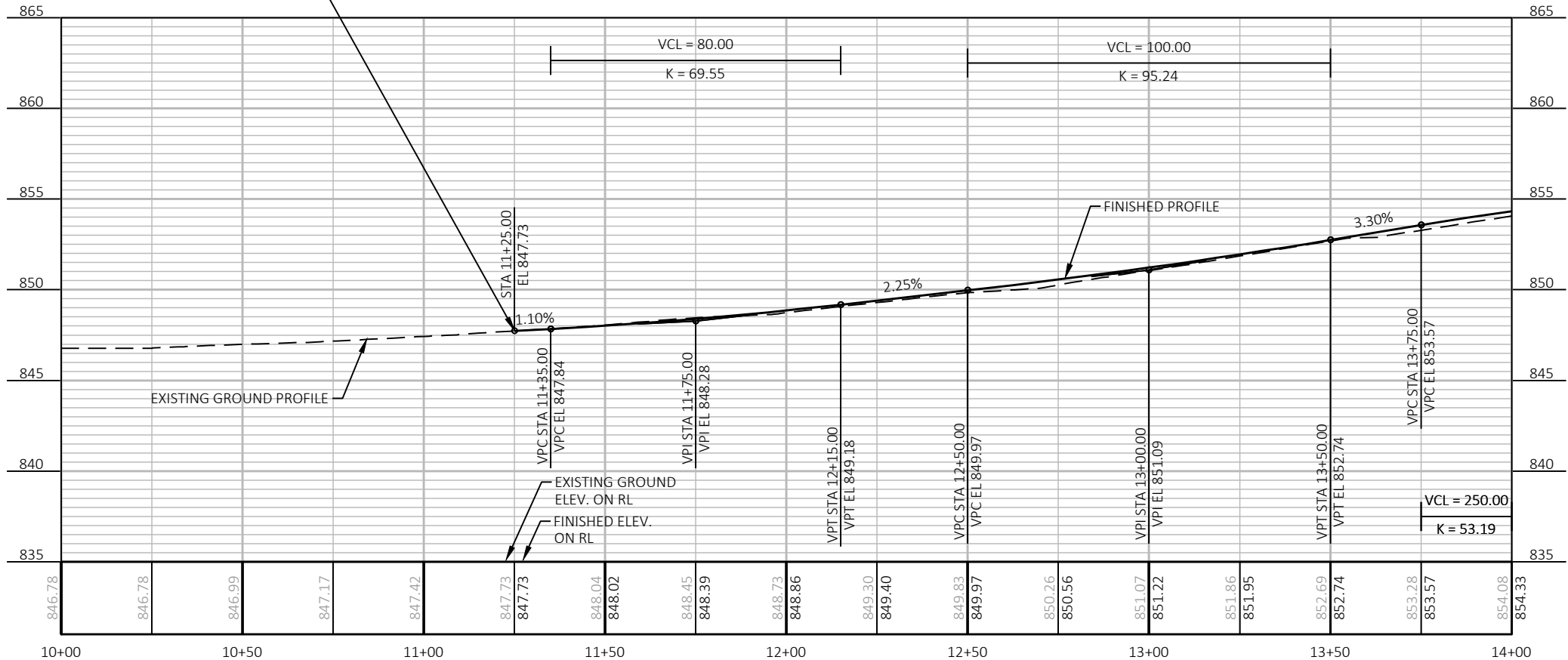
5

BENCHMARK TABLE				
NO.	STATION	DESCRIPTION	OFFSET	ELEVATION
413	11+90.60	FH TOP NUT	31.32	852.45

BEGIN PROJECT
STA 11+25.00
MATCH EXISTING
SAW CUT REQ'D
X = 865,140.88
Y = 421,898.64



5



PROJECT NO: 5998-00-01

HWY: S FOURTH ST

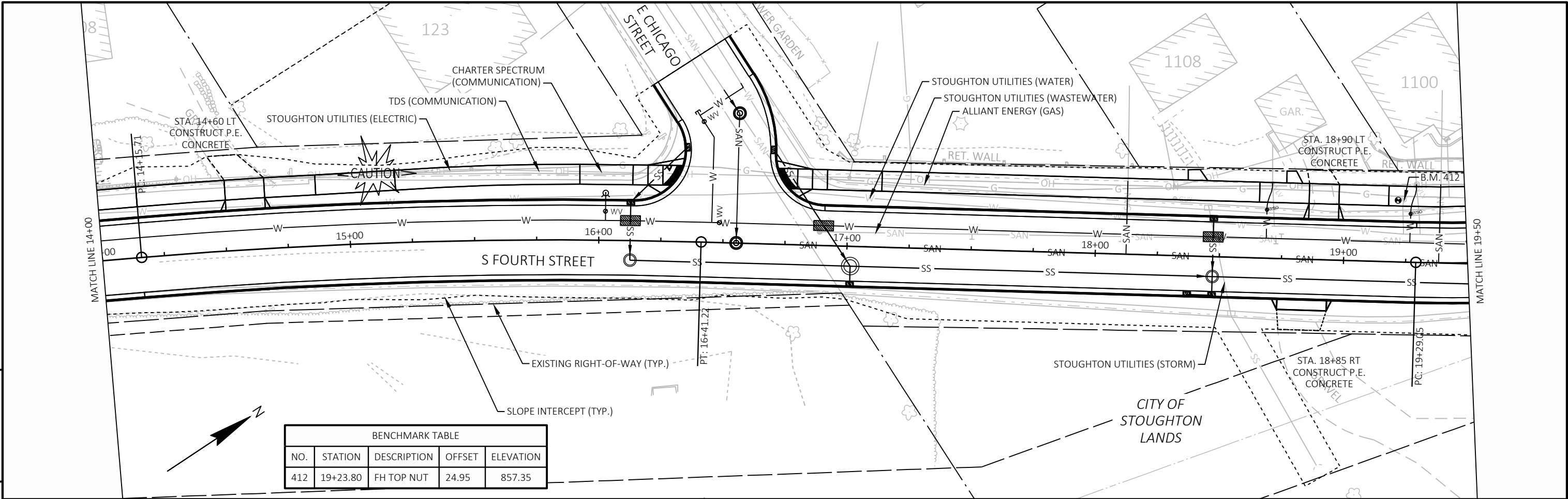
COUNTY: DANE

PLAN AND PROFILE: S FOURTH ST

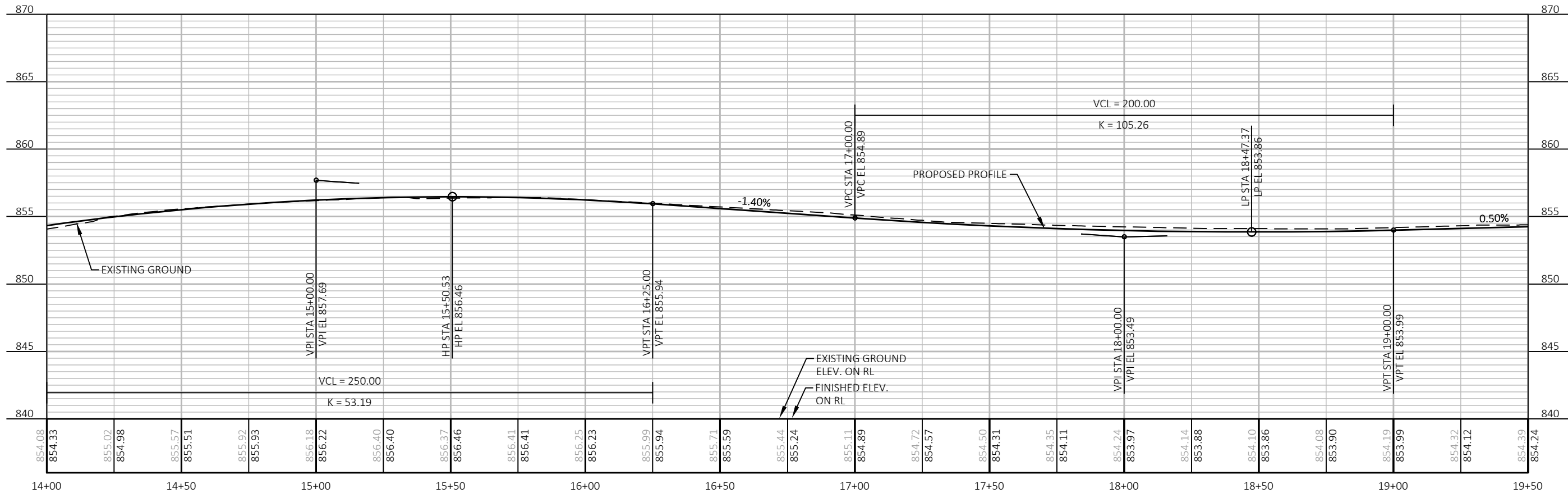
SHEET

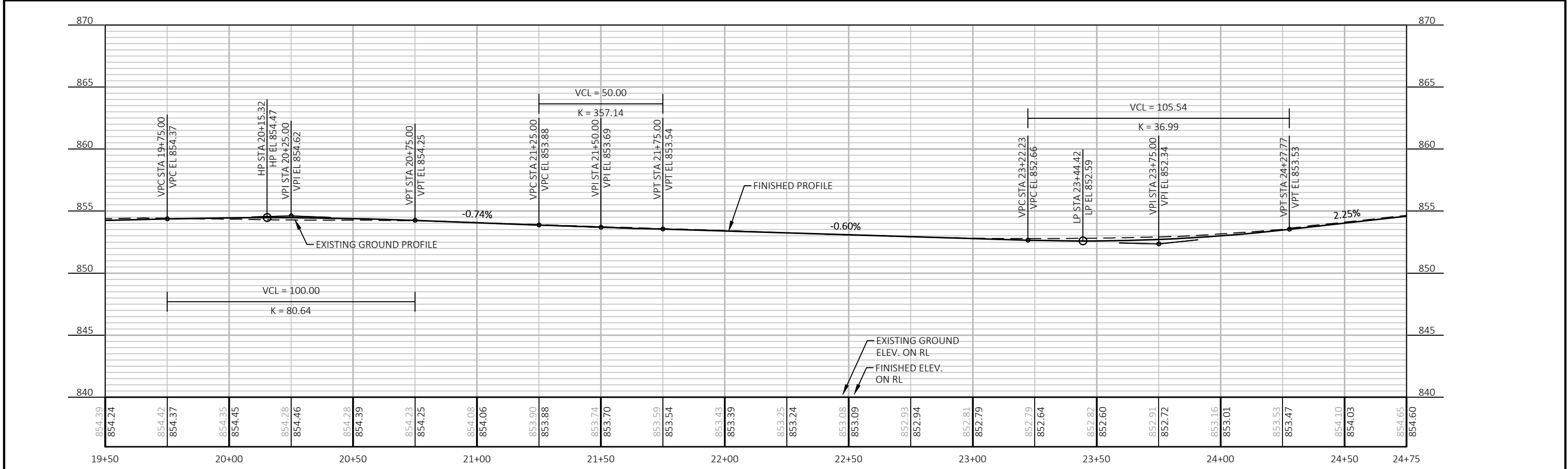
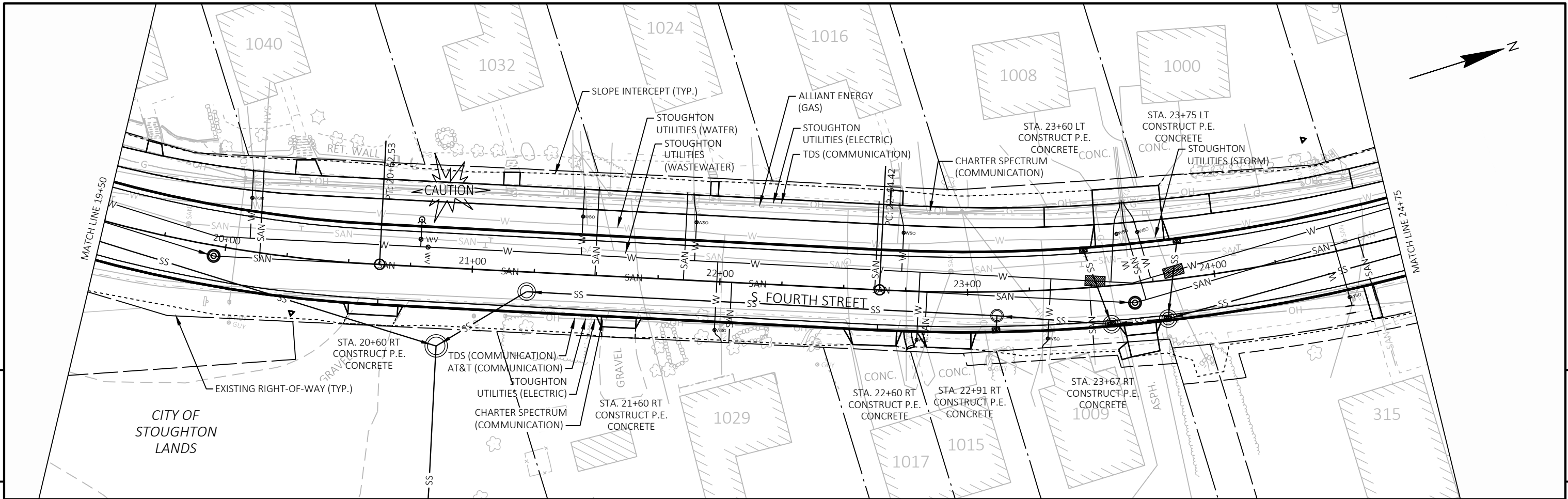
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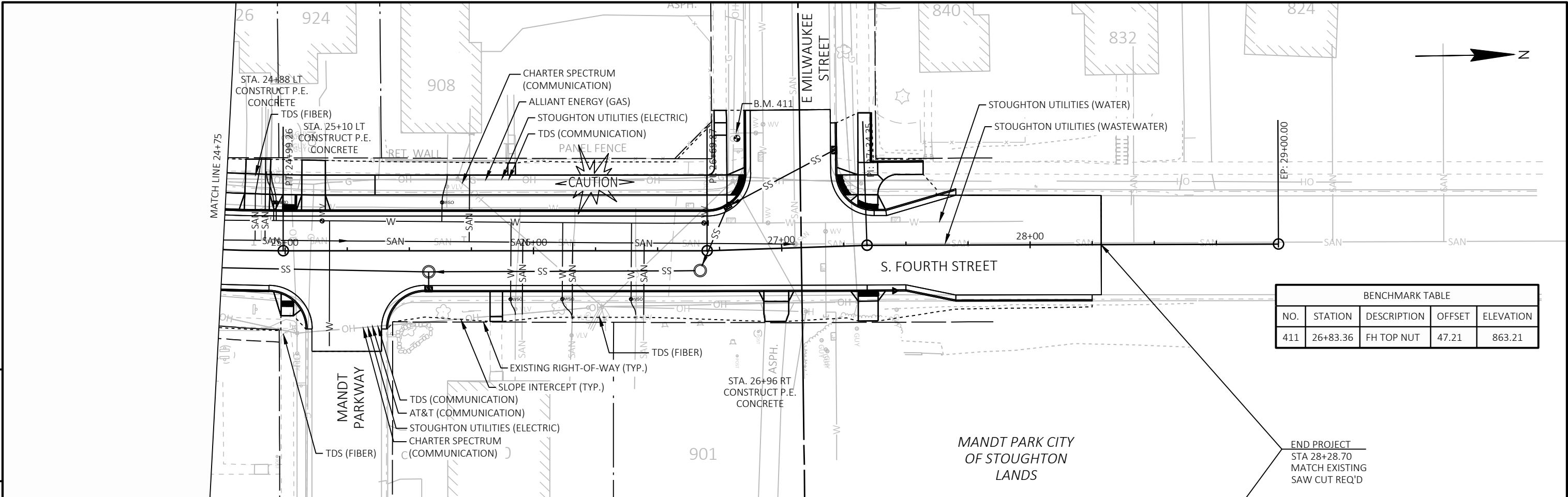
E



BENCHMARK TABLE				
NO.	STATION	DESCRIPTION	OFFSET	ELEVATION
412	19+23.80	FH TOP NUT	24.95	857.35

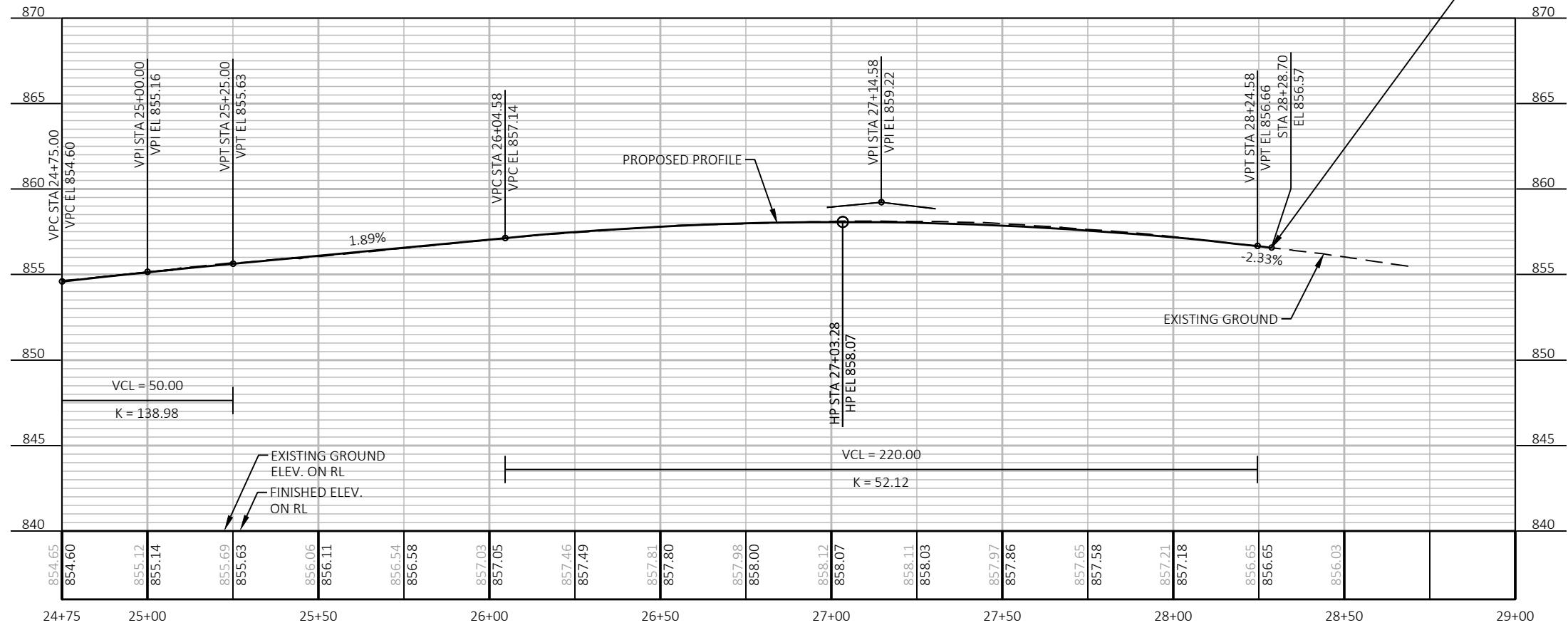


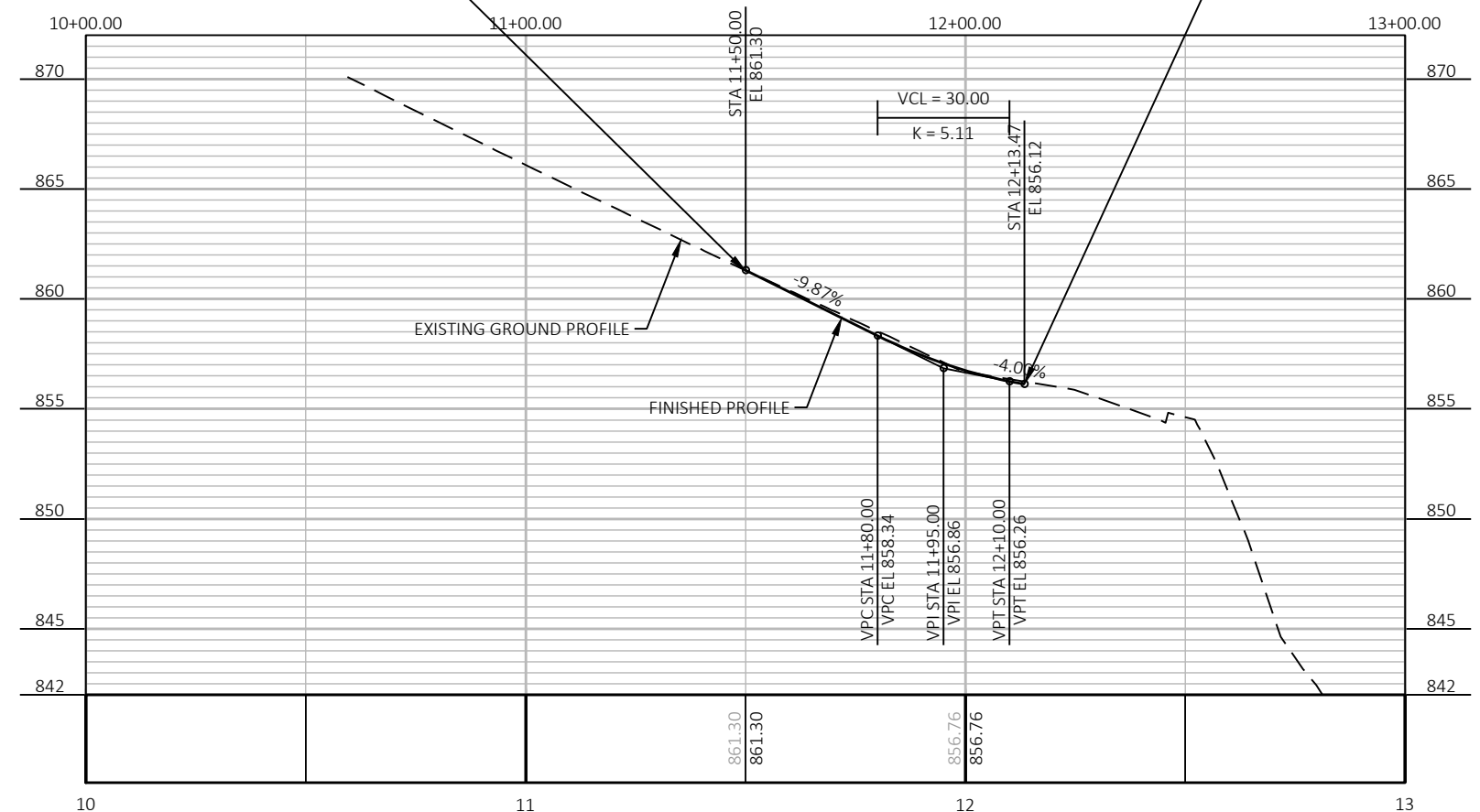
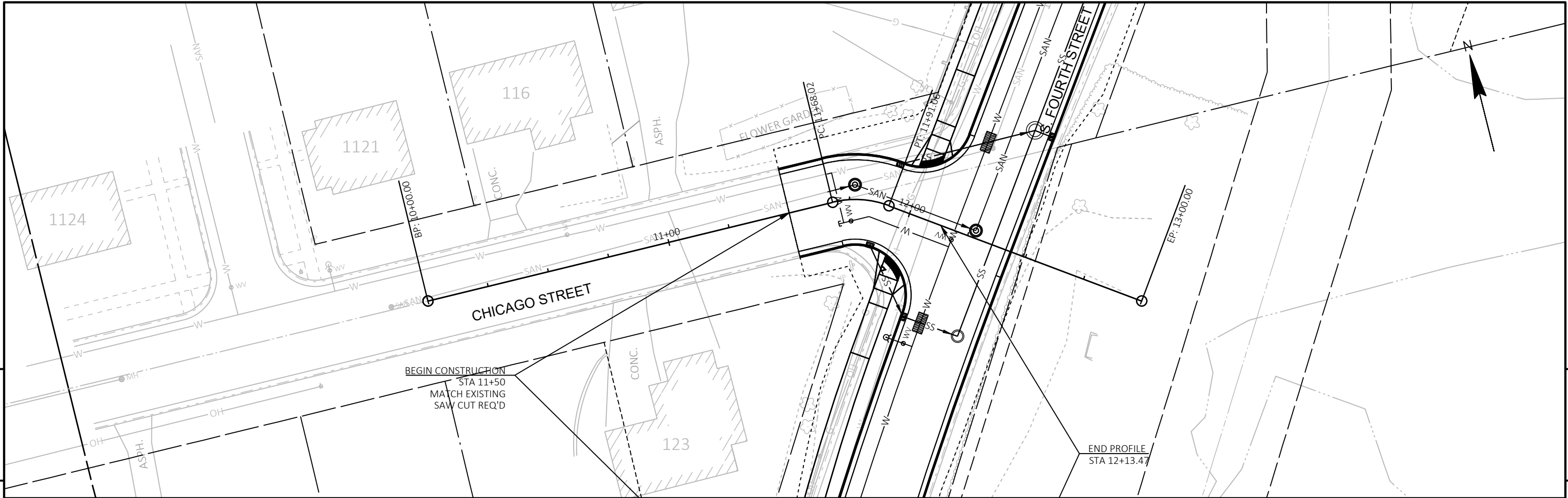




BENCHMARK TABLE				
NO.	STATION	DESCRIPTION	OFFSET	ELEVATION
411	26+83.36	FH TOP NUT	47.21	863.21

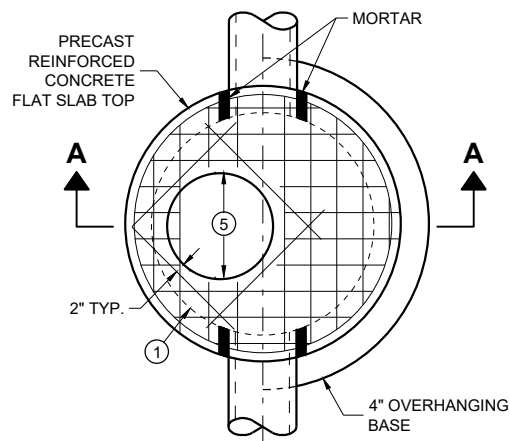
END PROJECT
STA 28+28.70
MATCH EXISTING
SAW CUT REQ'D



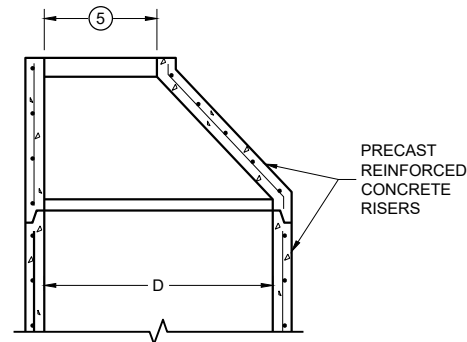


Standard Detail Drawing List

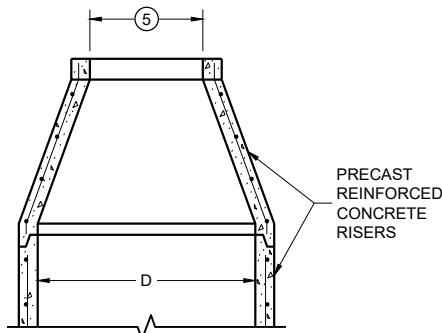
08B09-04	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C07-03	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT, 2.5X3-FT & 2X3.5-FT
08D01-23A	CONCRETE CURB & GUTTER
08D05-21A	CURB RAMPS TYPES 1 AND 1-A
08D05-21B	CURB RAMPS TYPES 2 AND 3
08D05-21C	CURB RAMPS TYPES 4A AND 4A1
08D05-21D	CURB RAMPS TYPE 4B AND 4B1
08D05-21E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-21F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-21G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13C19-03	HMA LONGITUDINAL JOINTS
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-15A	PAVEMENT MARKING SYMBOLS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D30-09A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09D	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09E	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09G	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09H	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09I	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09J	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09L	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION



PLAN VIEW
CIRCULAR OPENING



OPTIONAL PRECAST
REINFORCED CONCRETE
ECCENTRIC TOP



OPTIONAL PRECAST
REINFORCED CONCRETE
CONCENTRIC TOP

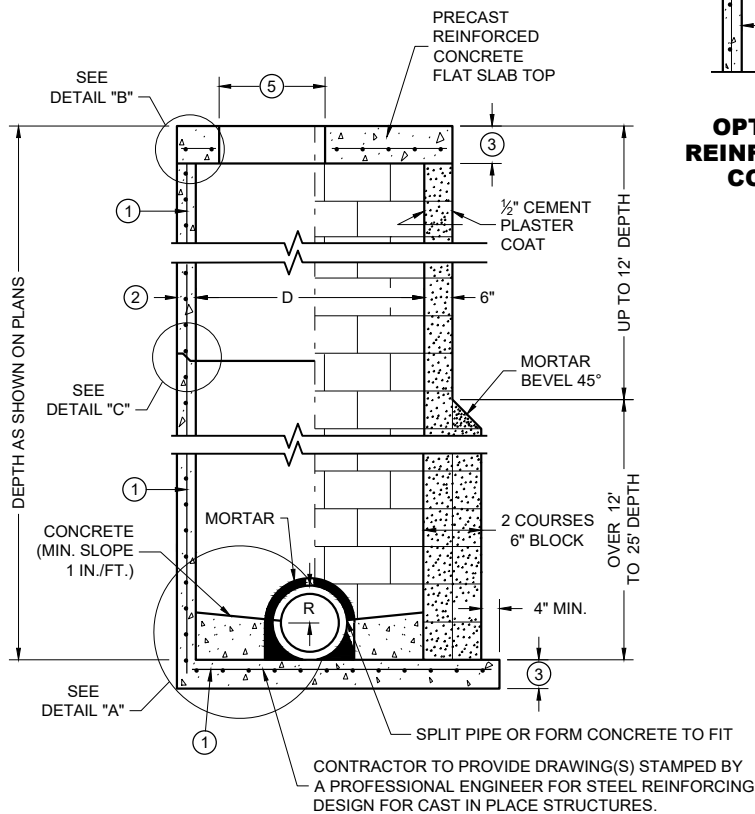
MANHOLE COVER OPENING MATRIX

MANHOLE COVER OPENING SIZE (FT.)	MANHOLE COVER TYPE	C	ALL JS	K	L	M
2 DIA.	5	X	X		X	
3 DIA.				X		X

PIPE MATRIX

MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42 *	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

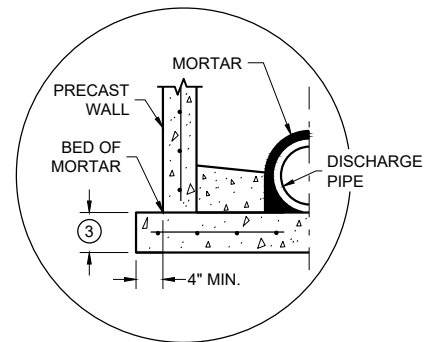
*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES.
SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.



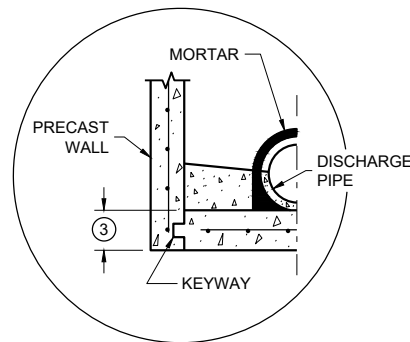
SECTION A - A

PRECAST REINFORCED
CONCRETE WITH
MONOLITHIC BASE

CONCRETE BLOCK WITH
CAST IN PLACE OR
PRECAST REINFORCED
CONCRETE BASE ①

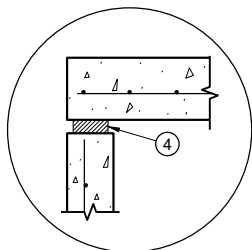


SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

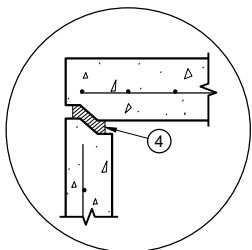


PRECAST REINFORCED CONCRETE
WITH INTEGRAL BASE OPTION

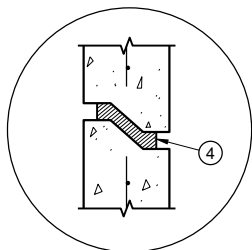
DETAIL "A"



TOP WITH PLAIN
END JOINT



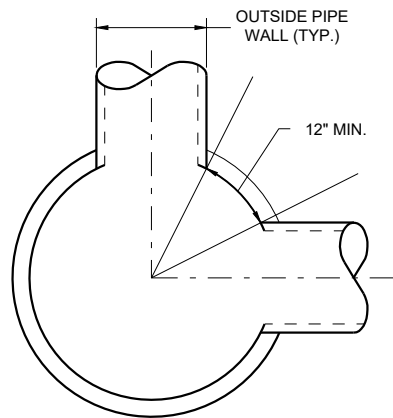
TOP WITH TONGUE
AND GROOVE JOINT



RISER WITH TONGUE
AND GROOVE JOINT

DETAIL "B"

DETAIL "C"



MINIMUM HORIZONTAL
PIPE SEPARATION

DETAIL "D"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL IMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

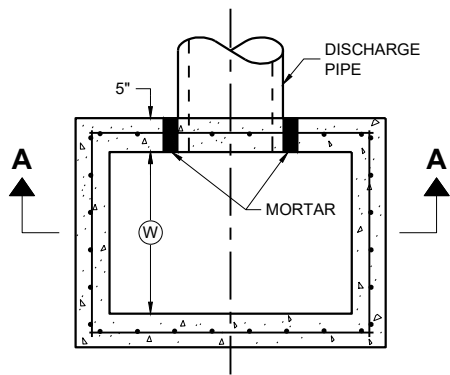
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

- ① FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- ② SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES
- ③ SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.
- ④ JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.
- ⑤ SEE MANHOLE COVER OPENING MATRIX.

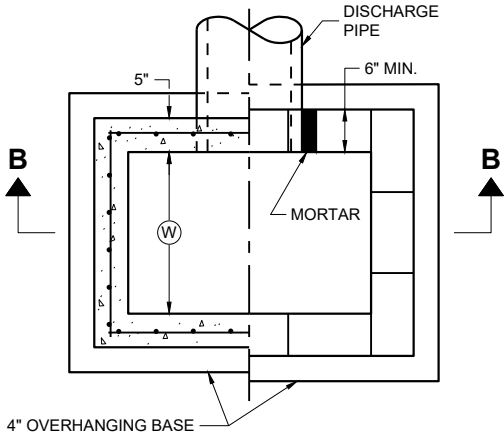
MANHOLES, 3-FT, 4-FT
5-FT, 6-FT, 7-FT, 8-FT, 9-FT
AND 10-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

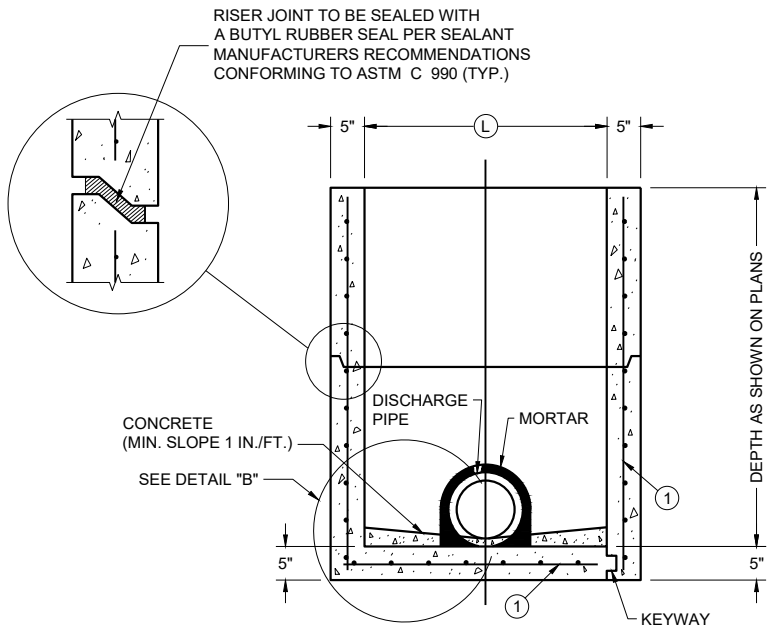
APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



PLAN VIEW



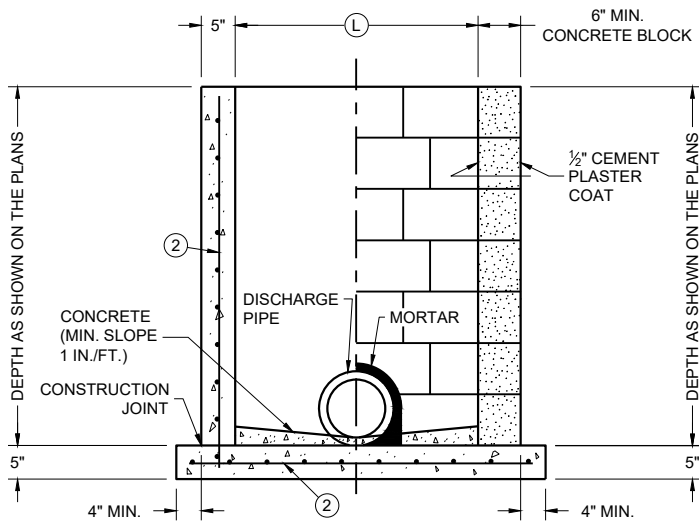
PLAN VIEW



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

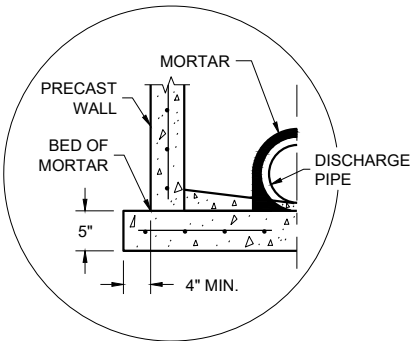
SECTION A - A



CAST IN PLACE REINFORCED CONCRETE

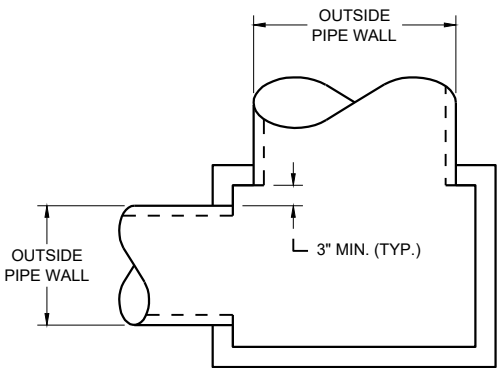
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE ①

SECTION B - B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "B"



DETAIL "A"

INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2X3.5-FT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

- ① FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

CATCH BASIN COVER MATRIX

INLET SIZE	WIDTH (W) (FT.)	LENGTH (L) (FT.)	INLET COVER TYPE									
			ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM	V V-B
2 X 2-FT	2	2	X	X				X				
2 X 2.5-FT	2	2.5			X			X	X	X	X	
2 X 3-FT	2	3					X					
2.5 X 3-FT	2.5	3				X						
2 X 3.5-FT	2	3.5										X

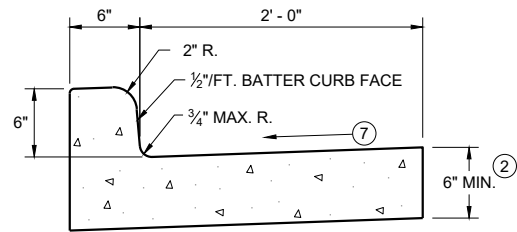
PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2 X 2-FT	12	12
2 X 2.5-FT	12	18
2 X 3-FT	12	24
2.5 X 3-FT	18	24
2 X 3.5-FT	12	30

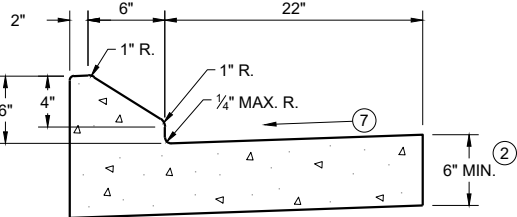
INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2 X 3.5-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

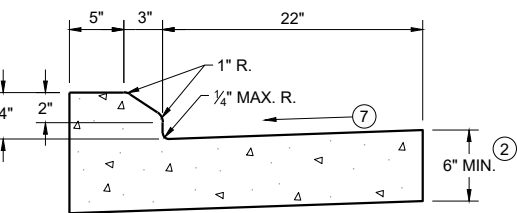
APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



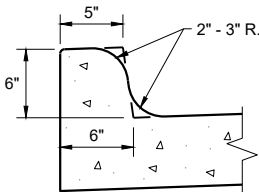
TYPES A^① & D



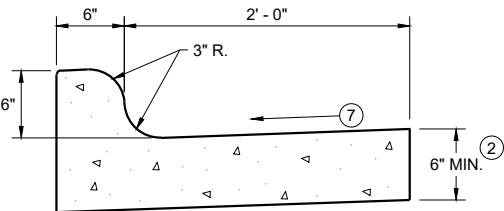
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

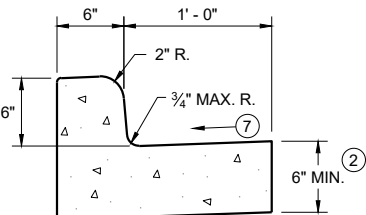


TYPES K^① & L
(OPTIONAL CURB SHAPE)



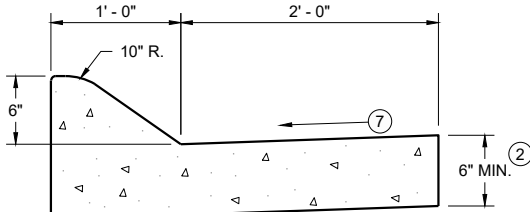
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

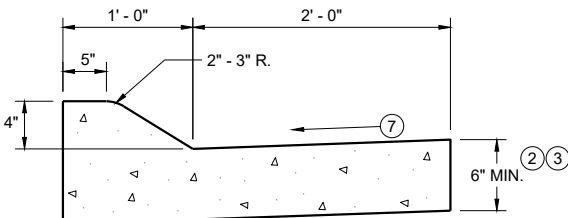


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

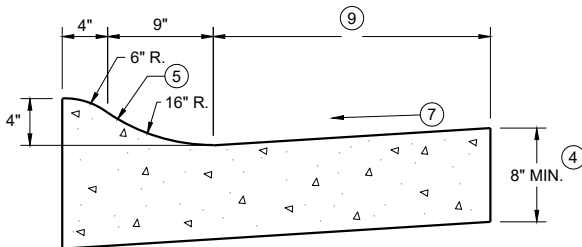


6" SLOPED CURB TYPES A^① & D



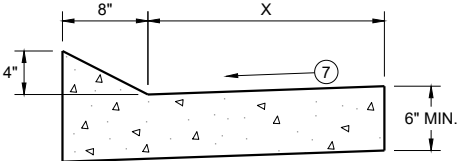
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

TBT & TBTT	X
30"	22"
36"	28"

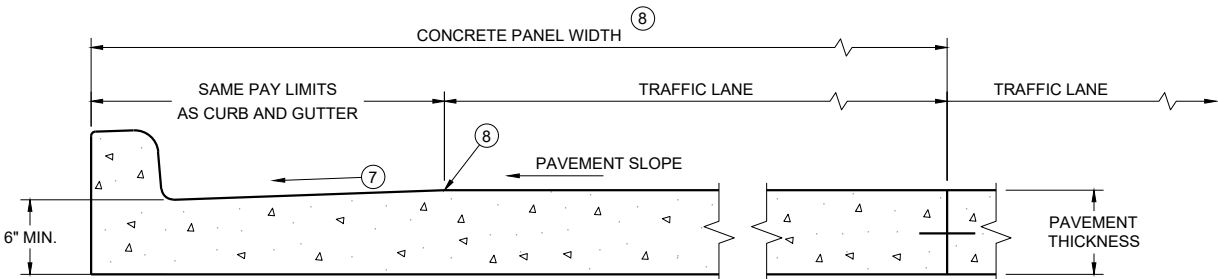


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

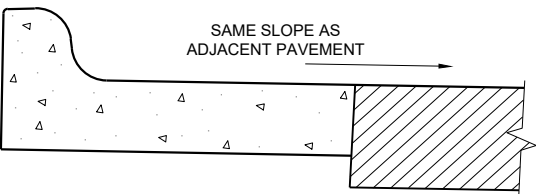
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB AND GUTTER *

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER^⑥
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

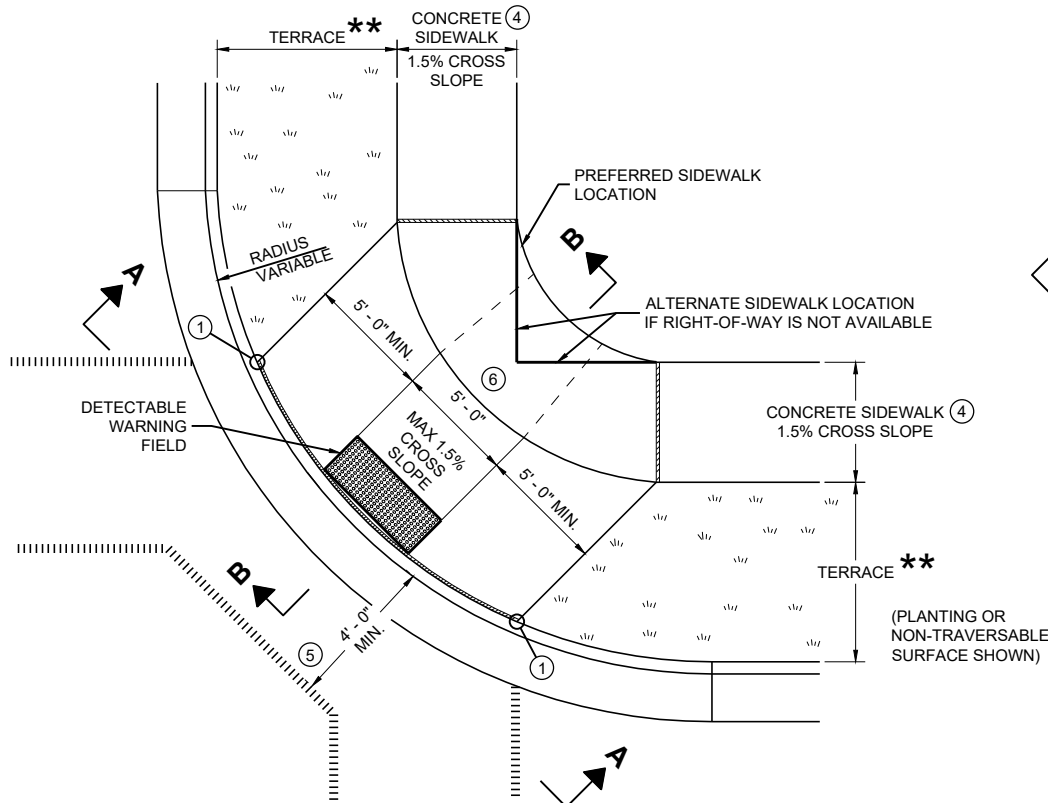
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

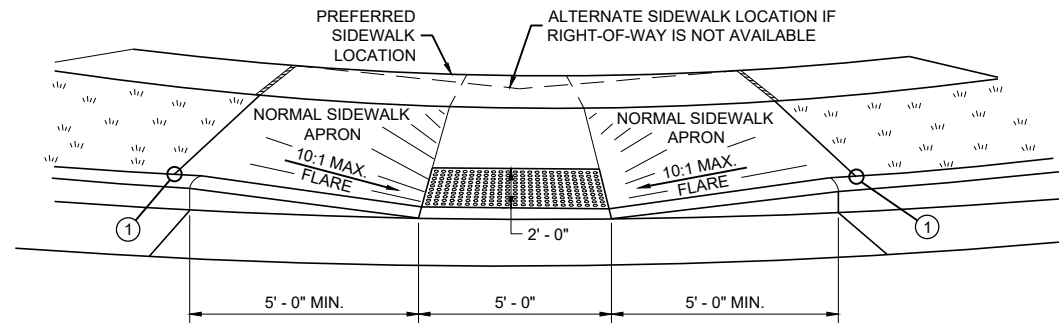
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

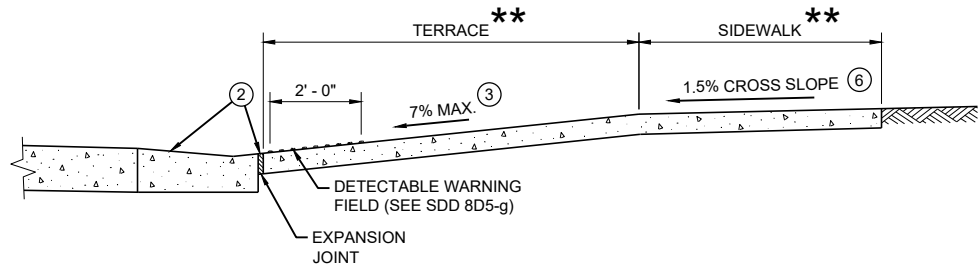


PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)

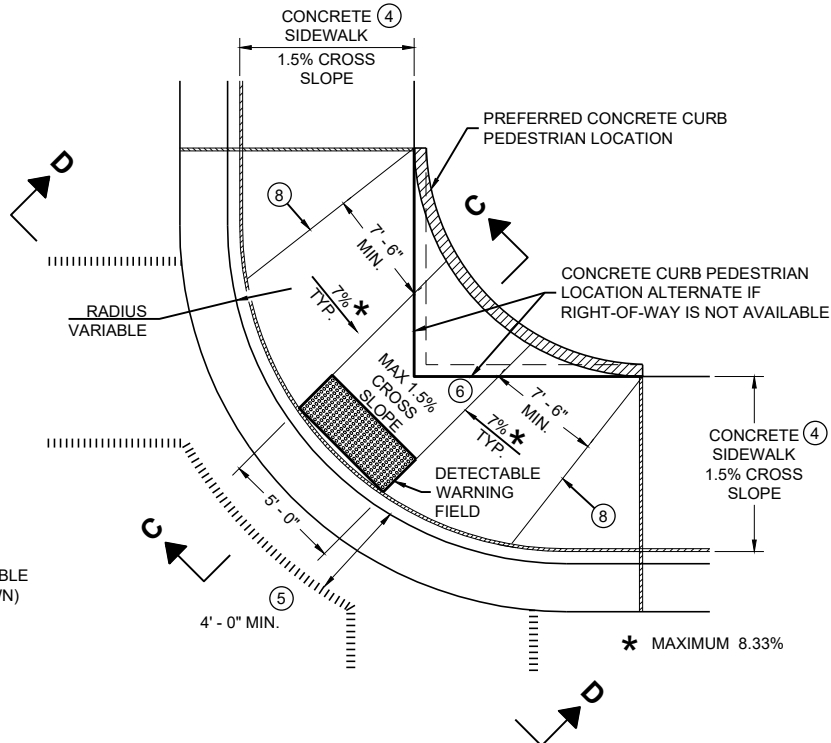


VIEW A - A FOR TYPE 1

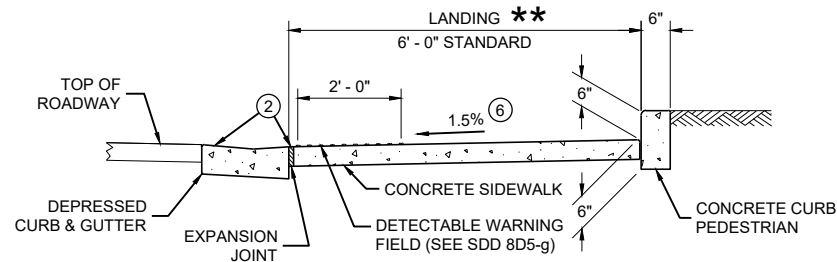
** WIDTH SHOWN ELSEWHERE
IN THE PLANS



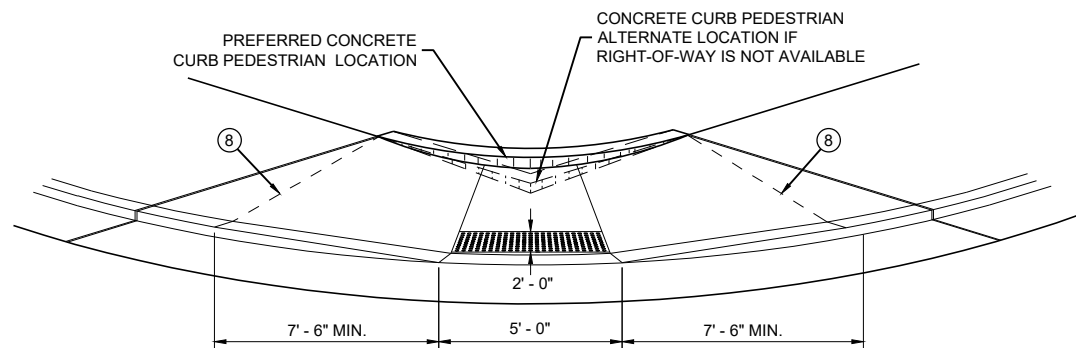
SECTION B - B FOR TYPE 1



PLAN VIEW
CURB RAMP TYPE 1 - A
(NO TERRACE)



SECTION C - C FOR TYPE 1 - A



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

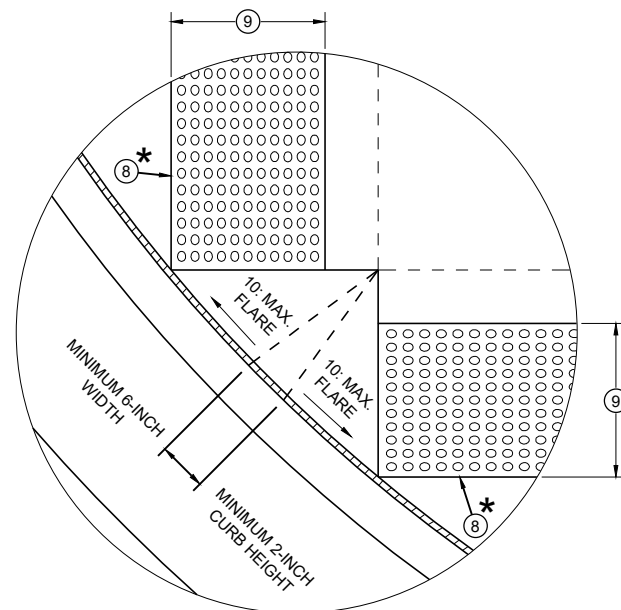
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.
- TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.
- DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.
- SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.
- THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
 - GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
 - MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
 - ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
 - PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA. 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE
 - PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
 - PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

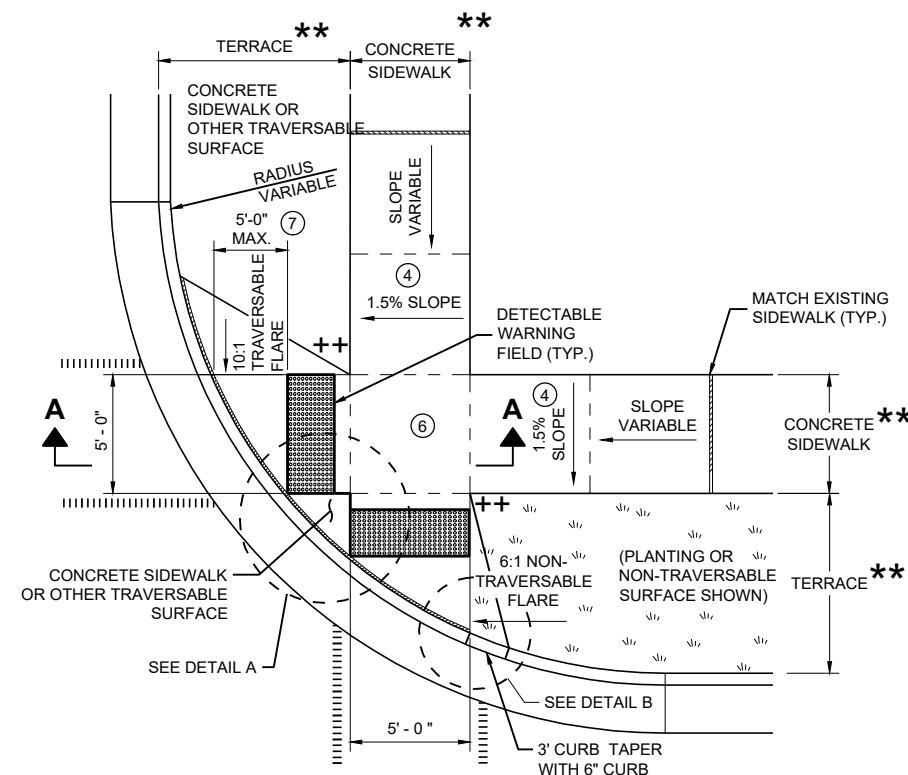
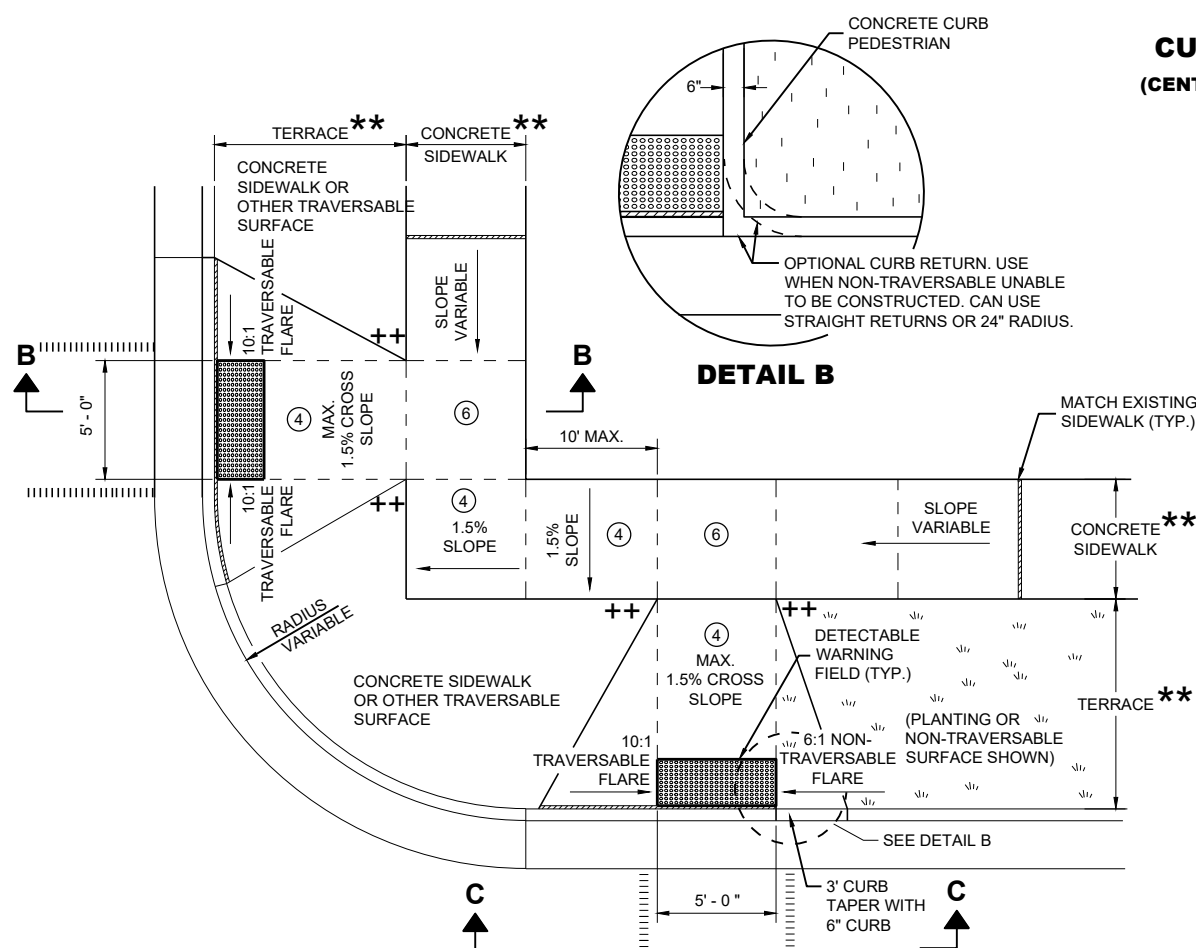
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 1 AND 1-A

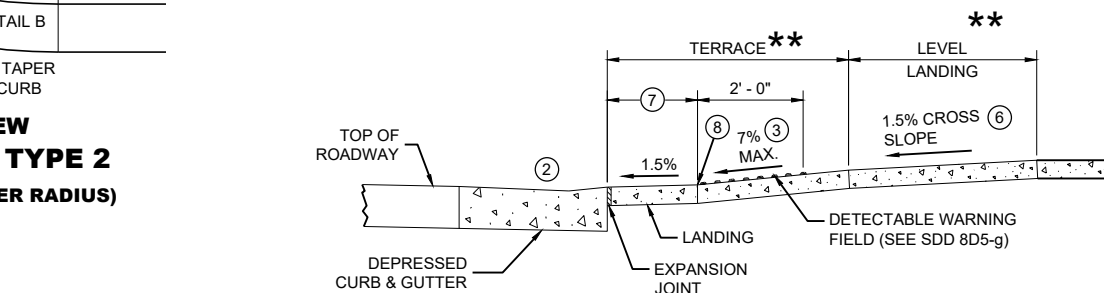
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



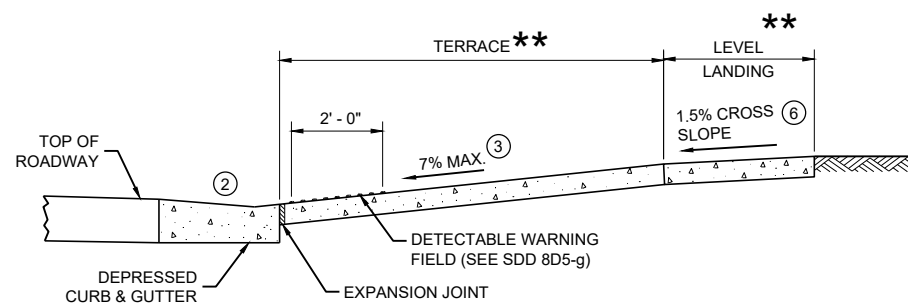
DETAIL A

PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)

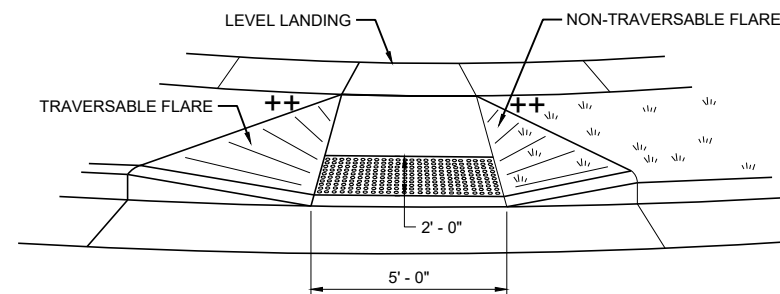
DETAIL B

PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)

SECTION A - A FOR TYPE 2



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

★ MAXIMUM 2.0% SLOPE
IN ALL DIRECTIONS IN
FRONT OF GRADE BREAK

★★ WIDTH SHOWN ELSEWHERE
IN THE PLANS

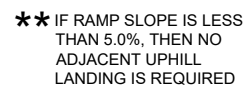
++ CONSTRUCT 6" WEDGE TO
AVOID CONCRETE BREAKAGE

LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
- - - - CONTRACTION JOINT SIDEWALK
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



SECTION B - B FOR TYPE 4A AND TYPE 4A1

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"

INTERMEDIATE RADII CAN BE INTERPOLATED



GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN $\frac{1}{4}$ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

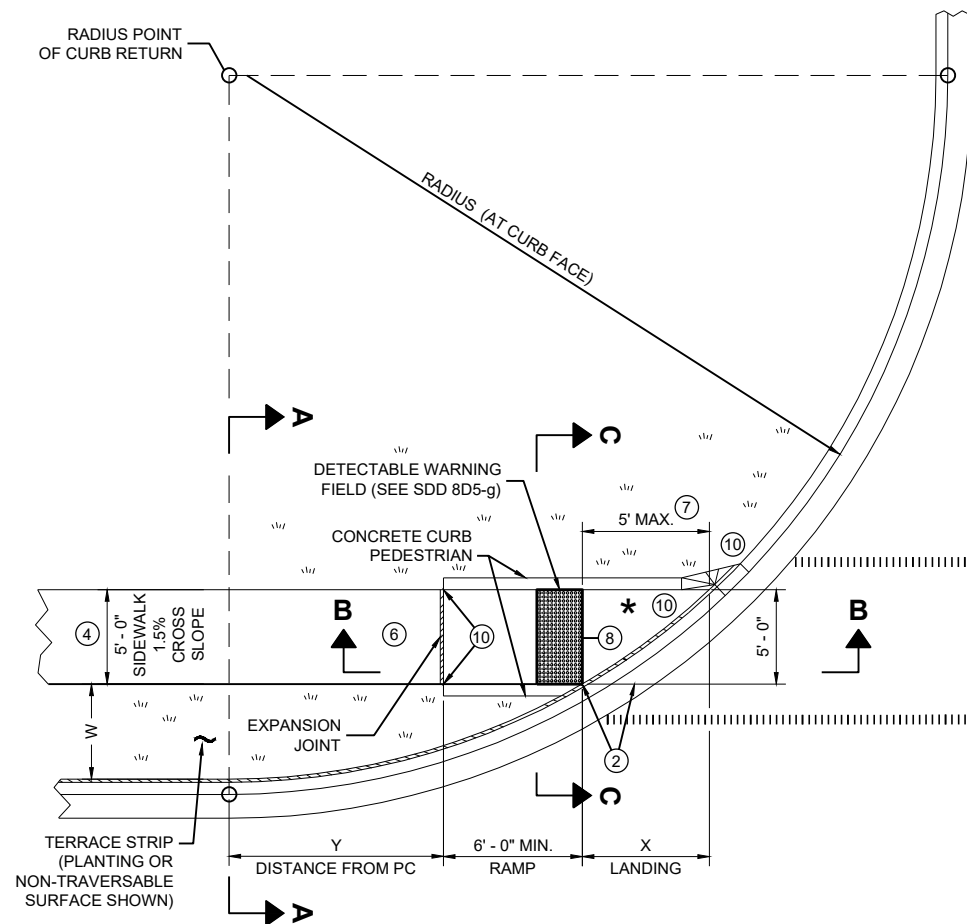
LEGEND

- | | |
|---|------------------------------------|
|  | 1/2" EXPANSION JOINT SIDEWALK |
|  | CONTRACTION JOINT SIDEWALK |
|  | PAVEMENT MARKING CROSSWALK (WHITE) |

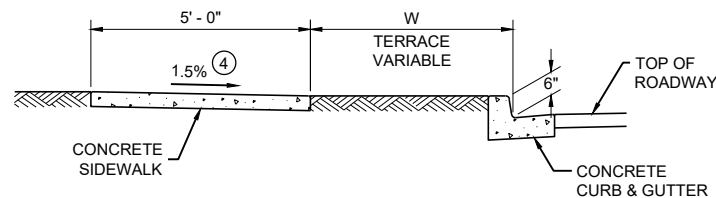


CURB RAMPS TYPE 4A AND 4A1

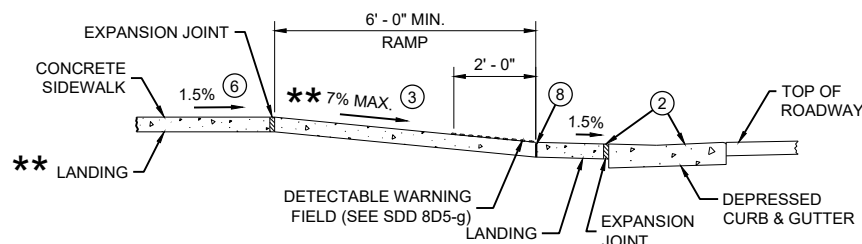
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**PLAN VIEW
CURB RAMP TYPE 4B**



SECTION A - A FOR TYPE 4B



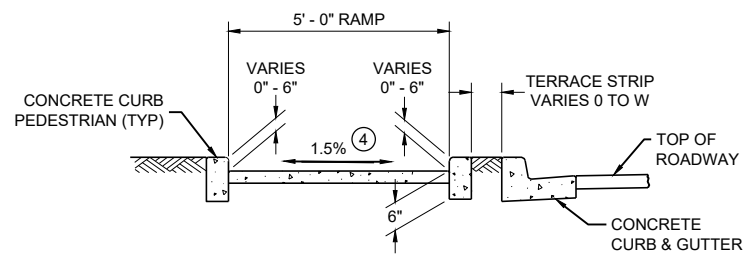
**SECTION B - B FOR
TYPE 4B AND TYPE 4B1**

** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

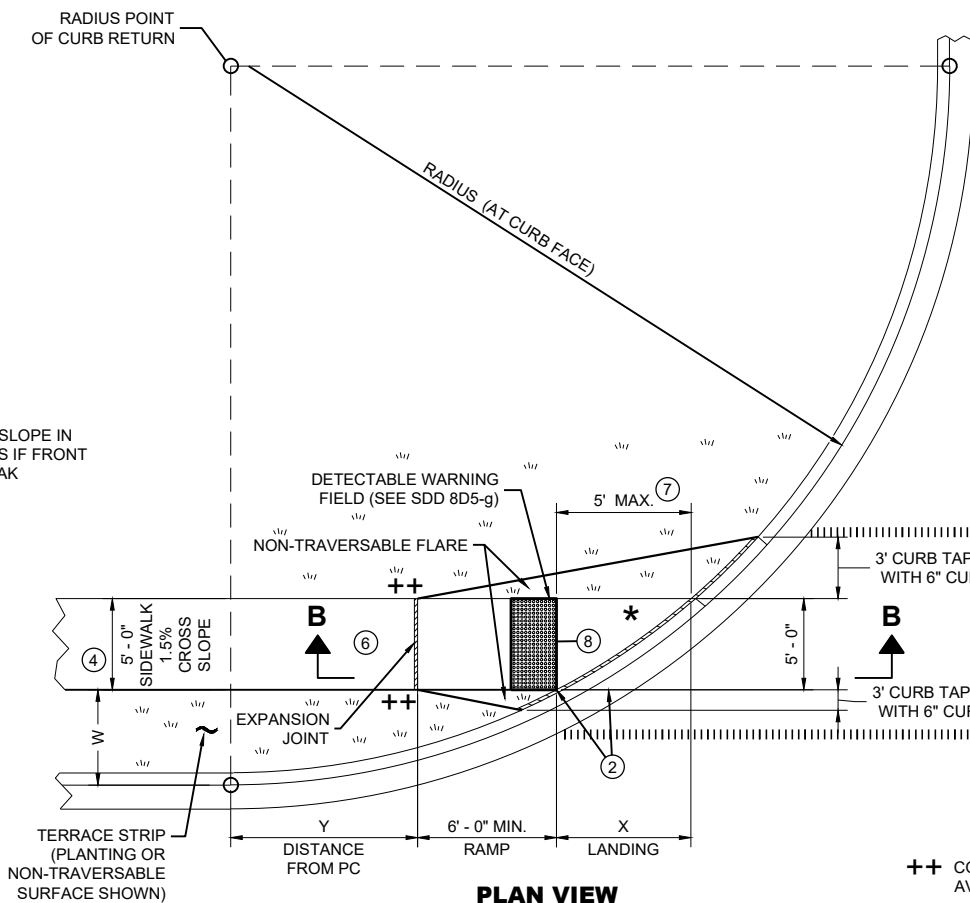
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 1/4"	0' - 5"	2' - 1"	1' - 4 1/2"	1' - 5"	2' - 1"	0' - 10"	2' - 7 1/2"	0' - 3 1/4"	3' - 0 1/4"						
15 FEET	4' - 6 3/4"	2' - 1 3/4"	3' - 9"	3' - 5 3/4"	3' - 1 1/4"	4' - 6"	2' - 6 3/4"	5' - 4 1/2"	2' - 1"	6' - 1"	1' - 8"	6' - 8 1/2"	1' - 3 1/4"	7' - 2 1/2"	0' - 10 3/4"	7' - 7 1/4"
20 FEET			4' - 11 1/2"	5' - 1 3/4"	4' - 3 1/4"	6' - 5 1/2"	3' - 8 3/4"	7' - 7"	3' - 3"	8' - 6 1/2"	2' - 10"	9' - 4 1/2"	2' - 5 1/2"	10' - 1 1/4"	2' - 1 1/4"	10' - 9"
30 FEET									4' - 10 3/4"	12' - 5 3/4"	4' - 5 1/2"	13' - 7 3/4"	4' - 0 3/4"	14' - 8 1/2"	3' - 8 1/2"	15' - 8 1/4"
40 FEET															4' - 10 3/4"	19' - 8 1/4"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



SECTION C - C FOR TYPE 4B



**PLAN VIEW
CURB RAMP TYPE 4B1**

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)

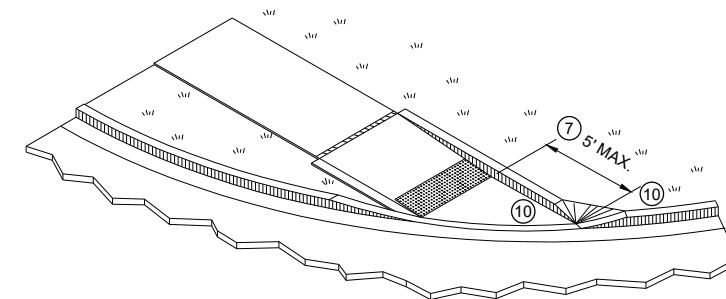
GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

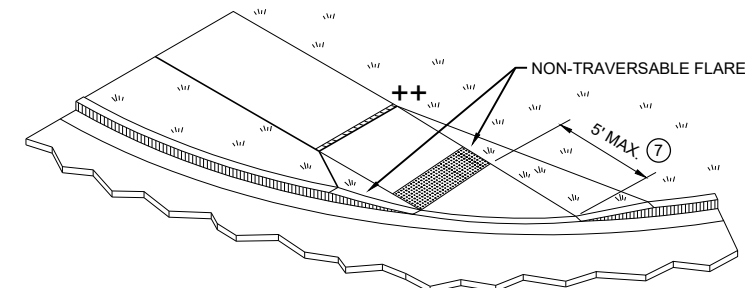
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- 2 GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- 3 AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- 4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- 6 PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- 7 WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- 10 INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



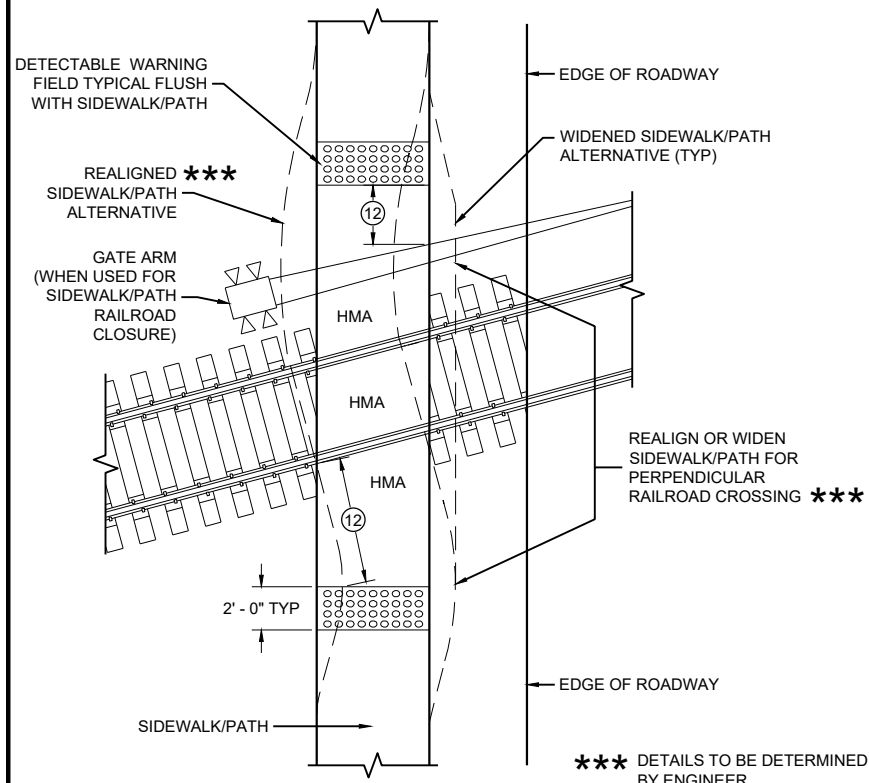
ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

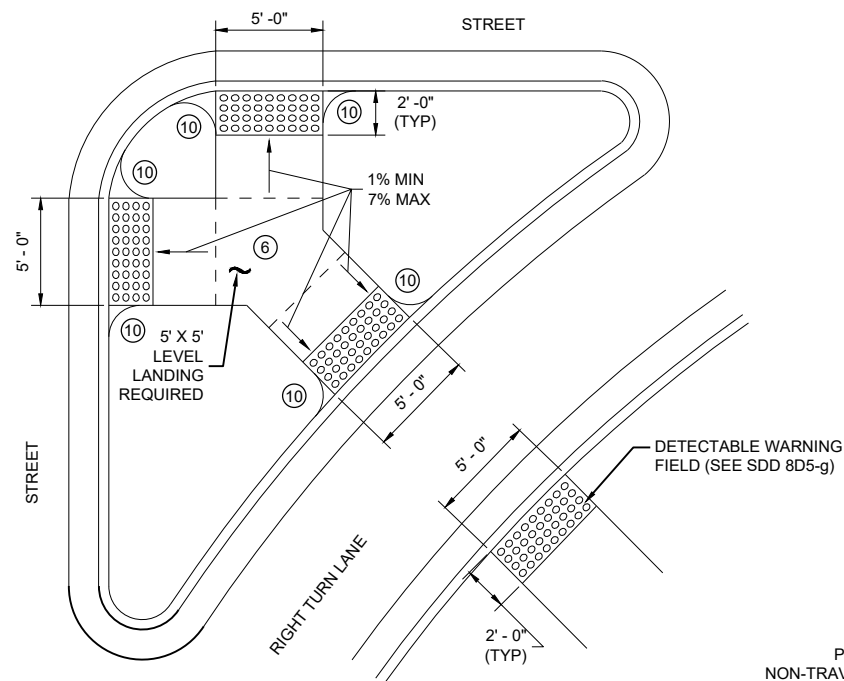
CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 8

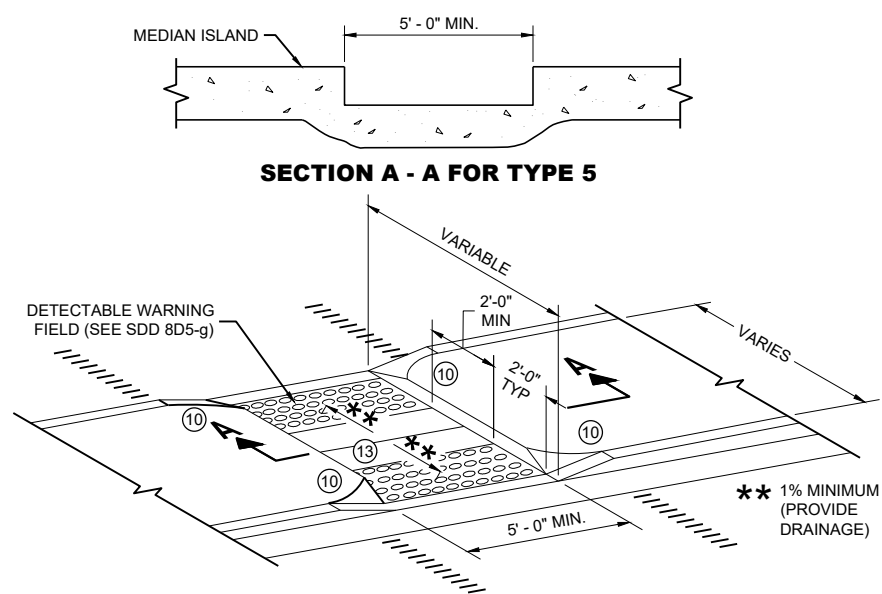
DETECTABLE WARNINGS FOR SIDEWALKS OR SHARED USE PATHS AT RAILROAD CROSSINGS



CURB RAMP TYPE 6

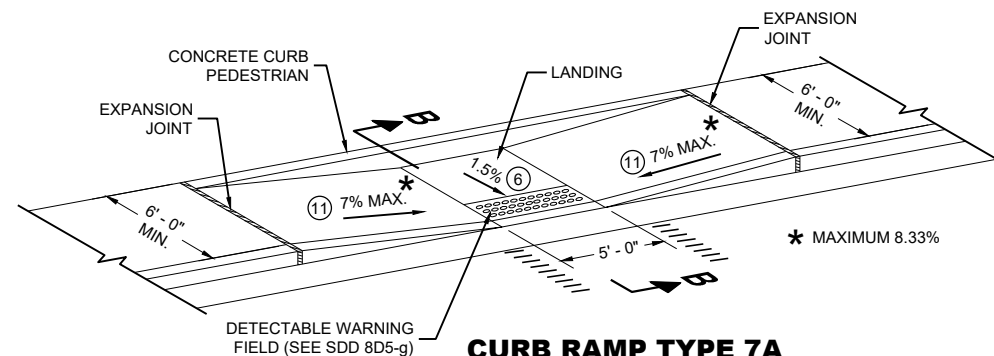
DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES ② AND ③ FOR ALL ISLAND CURB RAMPS



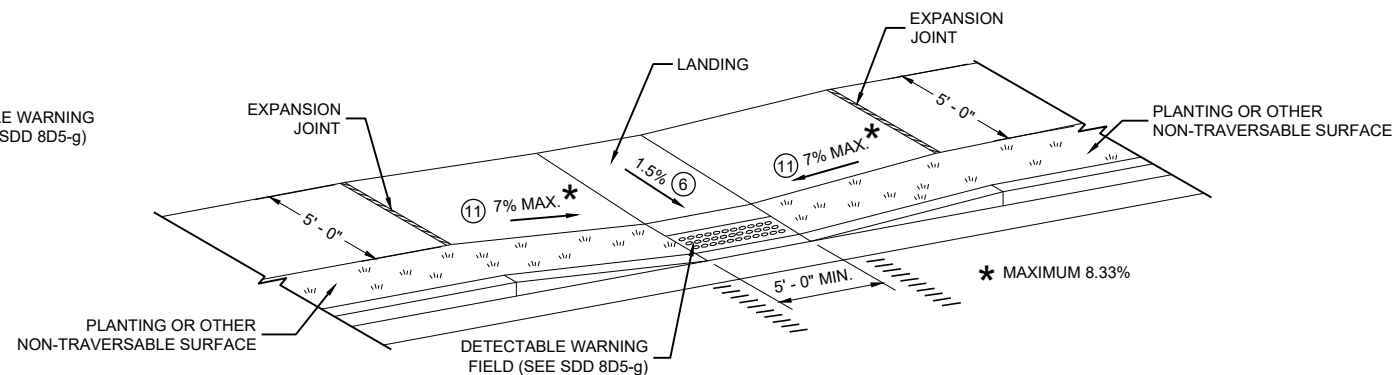
CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING



CURB RAMP TYPE 7A

FOR INTERSECTIONS AND MID BLOCK CROSSINGS



CURB RAMP TYPE 7B

FOR INTERSECTIONS AND MID BLOCK CROSSINGS

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

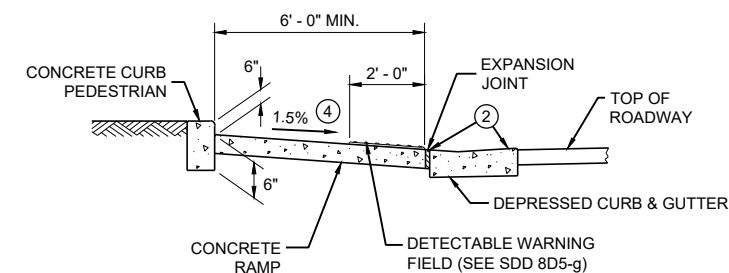
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/8 INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- ⑪ SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ⑫ THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET $\pm 0.1'$ FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK/PATH. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL FROM THE NEAREST RAIL.
- ⑬ DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

- ===== 1/2" EXPANSION JOINT SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)

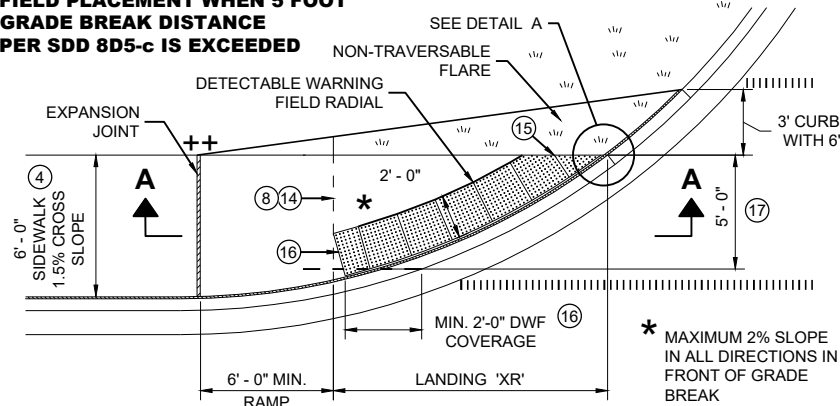


SECTION B - B FOR TYPE 7A

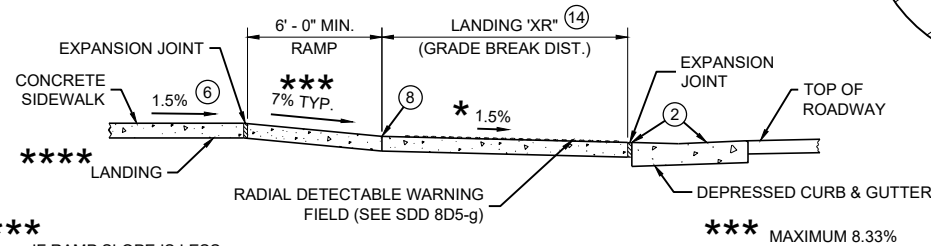
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-c IS EXCEEDED**



**PLAN VIEW
CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



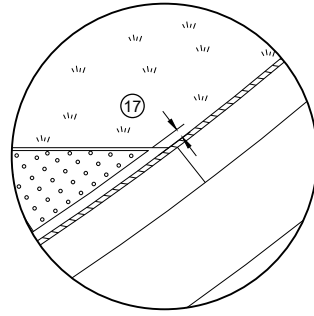
SECTION A - A FOR TYPE 4A1

IF RAMP SLOPE IS LESS
THAN 5.0%, THEN NO
ADJACENT UPHILL
LANDING IS REQUIRED

*** MAXIMUM 8.33%

LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)



DETAIL A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

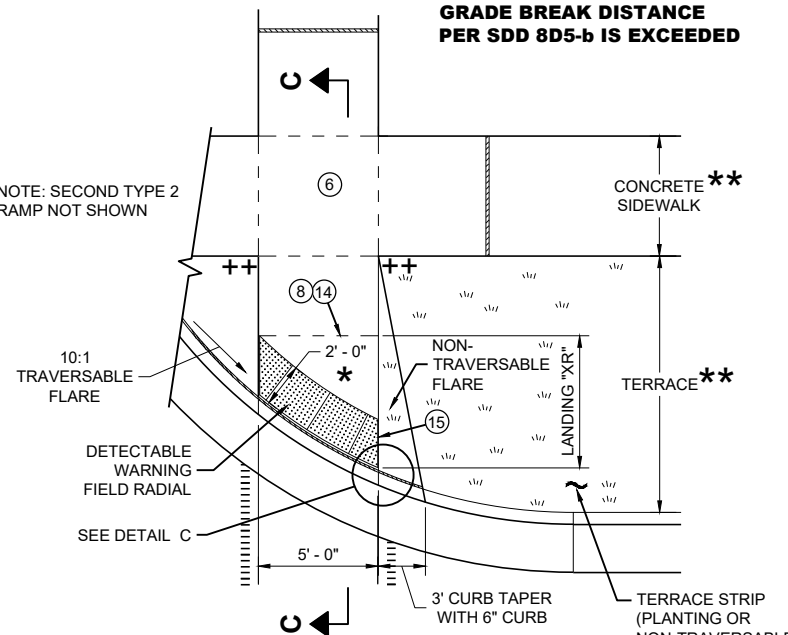
FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

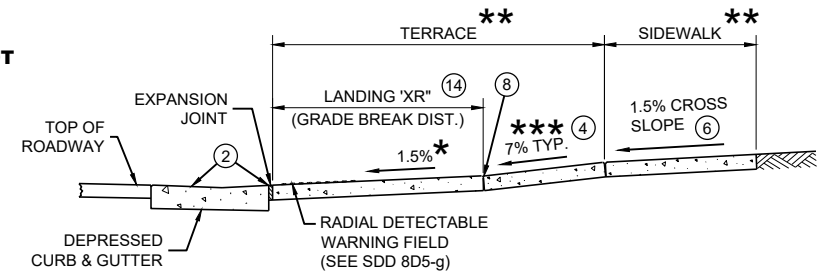
- 2 GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- 3 AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- 4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- 6 PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.
- 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- 14 CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
- 15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/2" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
- 16 USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.
- 17 A MAXIMUM 3 INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-b IS EXCEEDED**

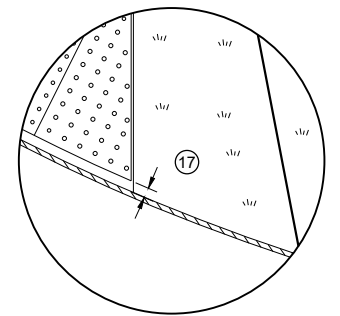
NOTE: SECOND TYPE 2
RAMP NOT SHOWN



**PLAN VIEW
CURB RAMP TYPE 2
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)**



SECTION C - C FOR TYPE 2



DETAIL C

* MAXIMUM 2% SLOPE
IN ALL DIRECTIONS IN
FRONT OF GRADE
BREAK

** WIDTH SHOWN ELSEWHERE
IN THE PLANS

*** MAXIMUM 8.33%

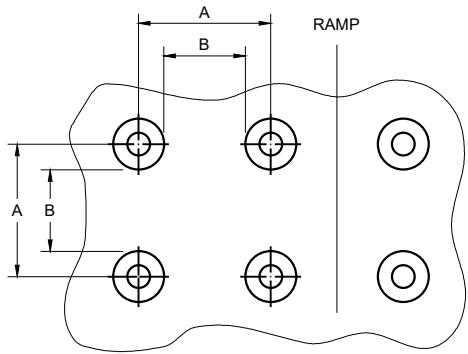
++ CONSTRUCT 6" WEDGE TO
AVOID CONCRETE BREAKAGE

**CURB RAMPS
RADIAL DETECTABLE WARNING**

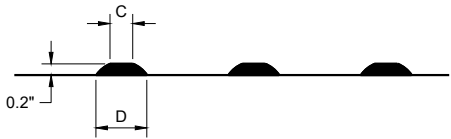
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

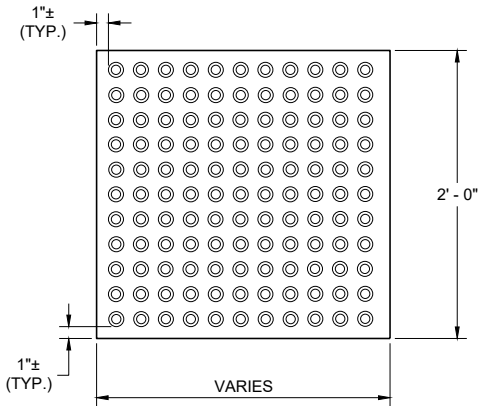


PLAN VIEW

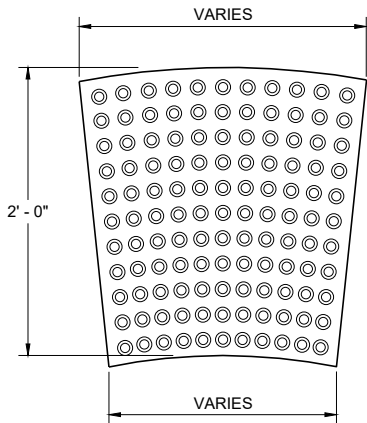


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

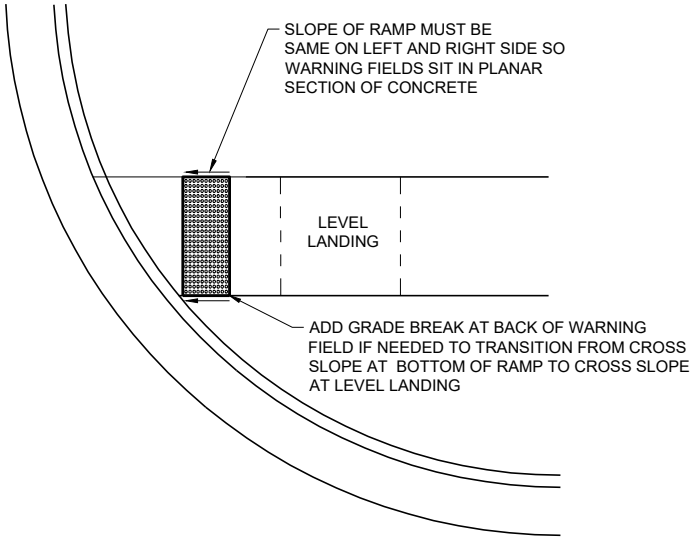


RECTANGULAR
PLATES

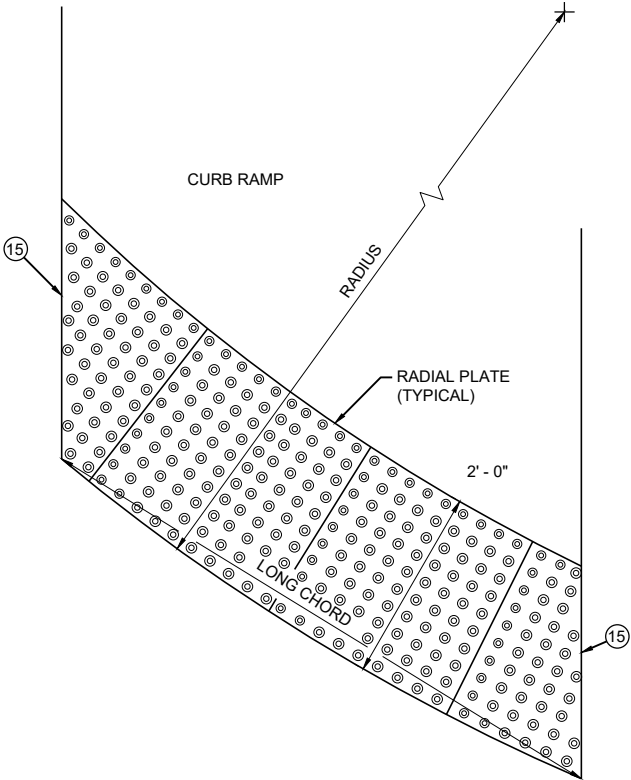


RADIAL
PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



DETECTABLE WARNING FIELD
PLANAR INSTALLATION



PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

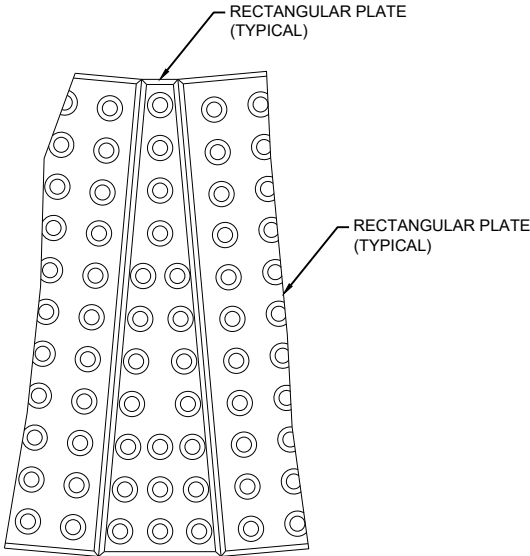
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8\"/>



PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL

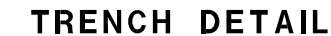
CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1½" X 1½" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

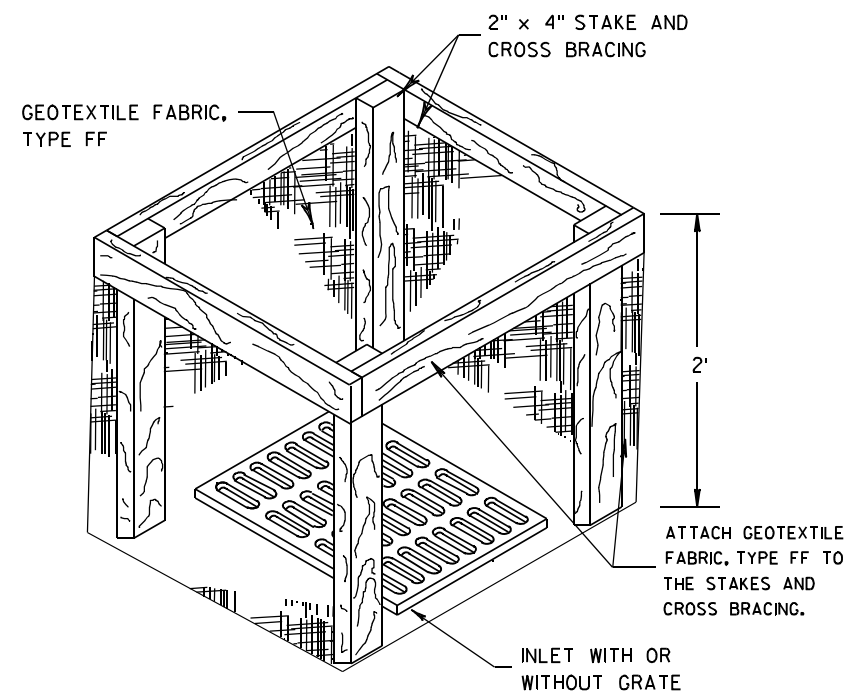
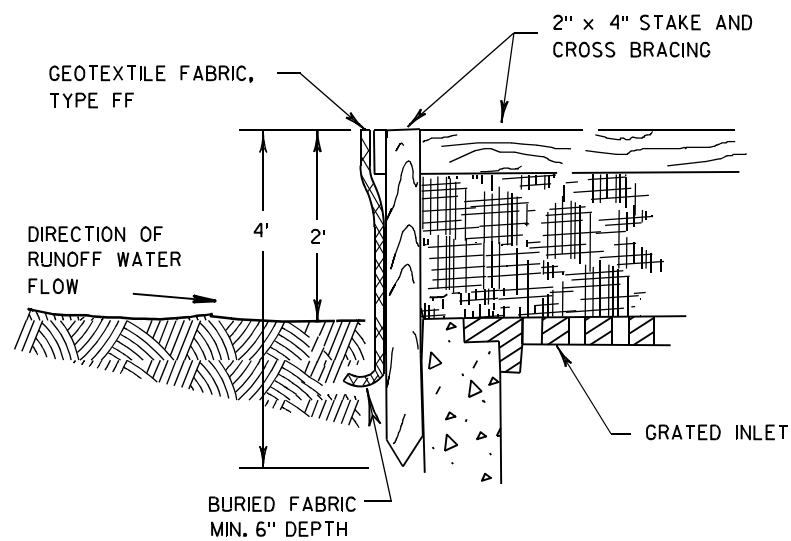


SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05
DATE /S/ Beth Cannata
CHIEF ROADWAY DEVELOPMENT **66** INCHES

FHWA



INLET PROTECTION, TYPE A

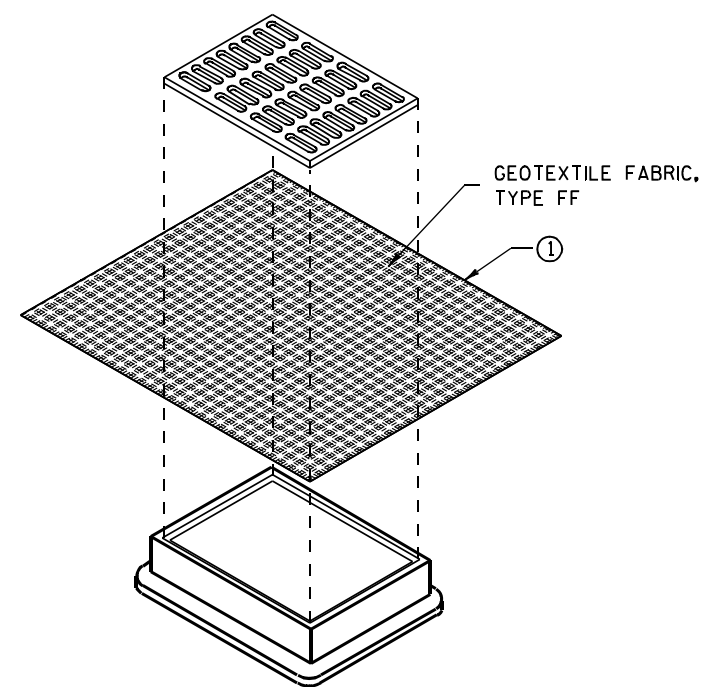
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

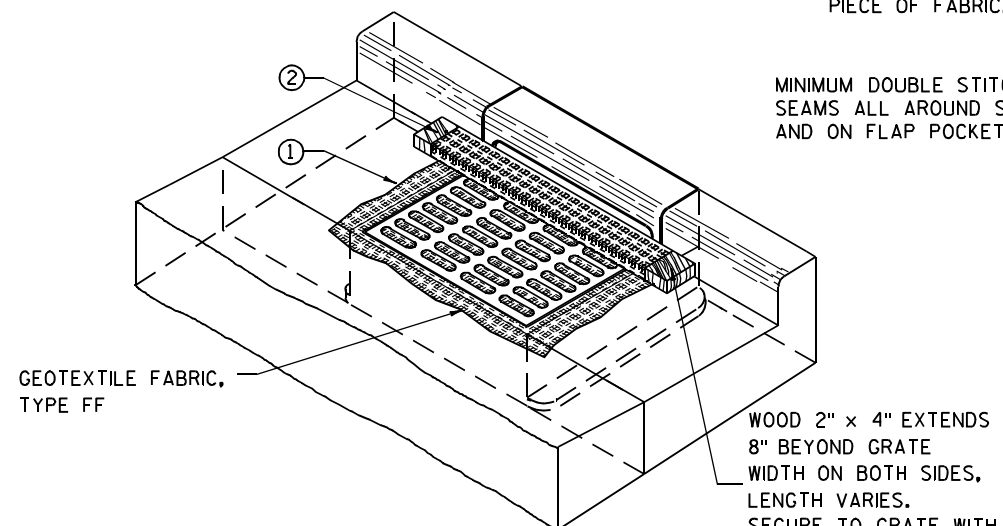
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

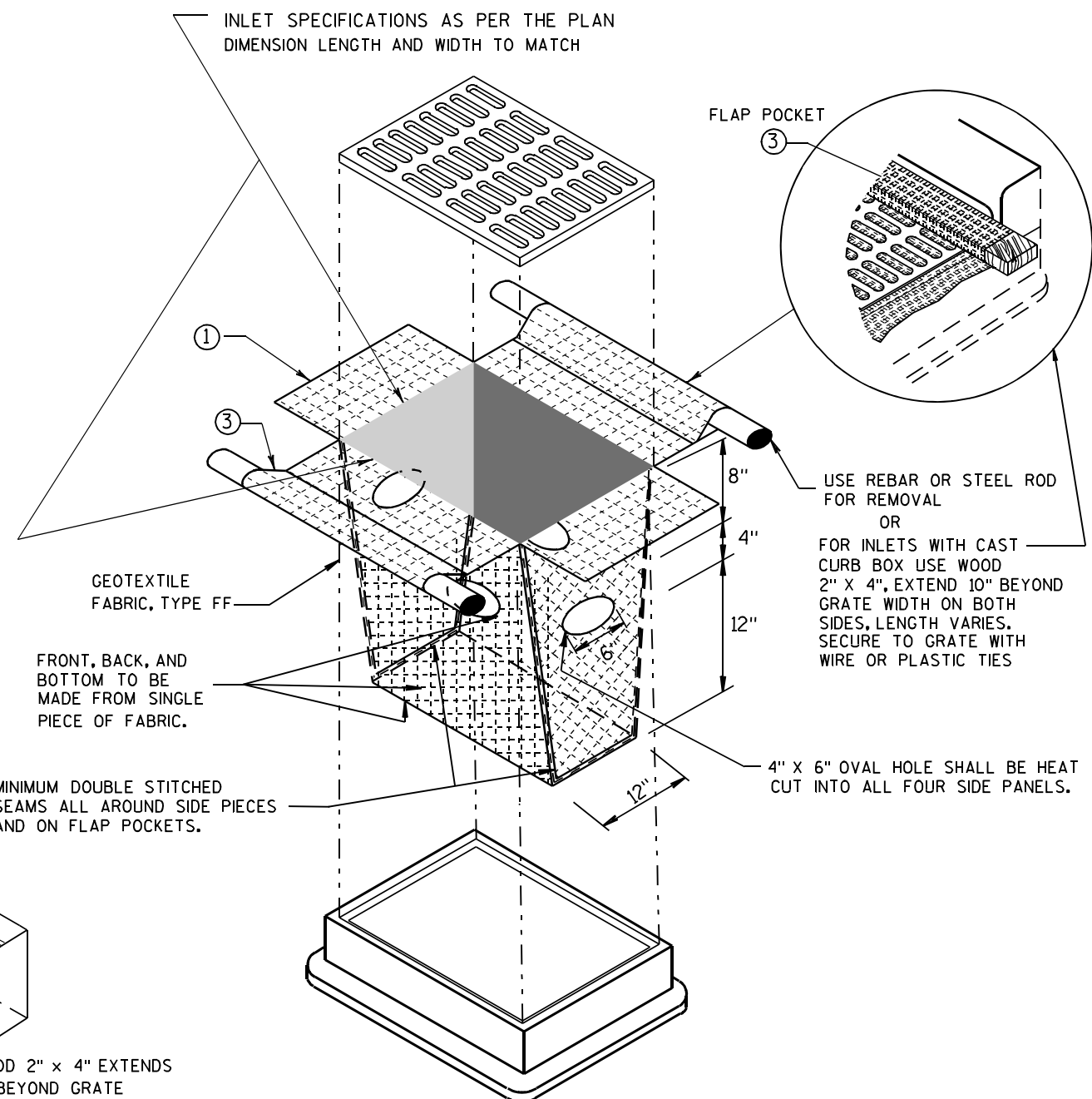
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLower THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



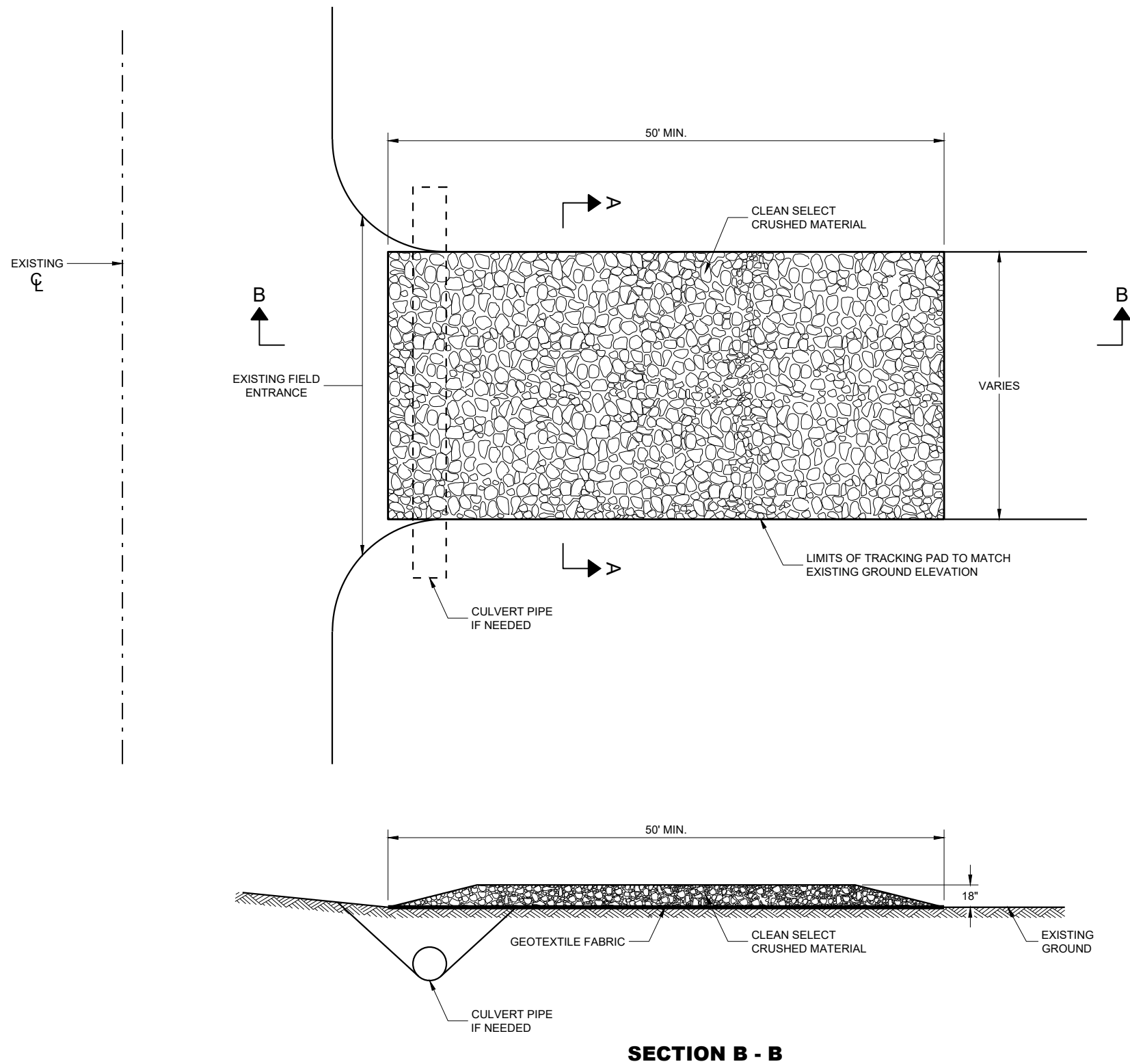
INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Connolly
DATE 67
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

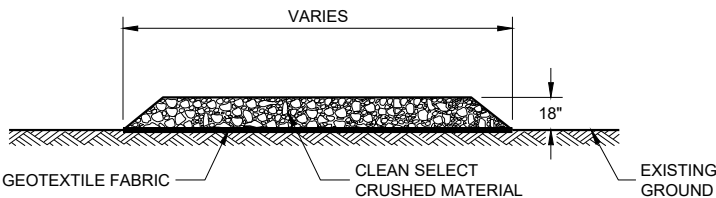
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011

DATE

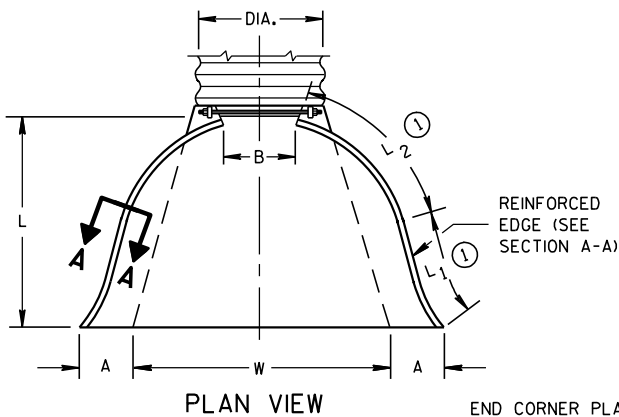
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

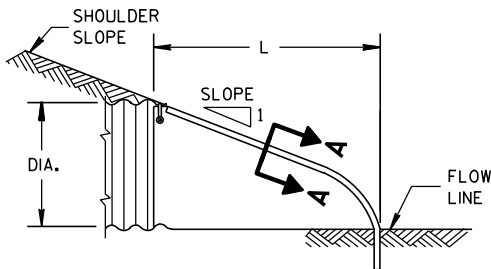
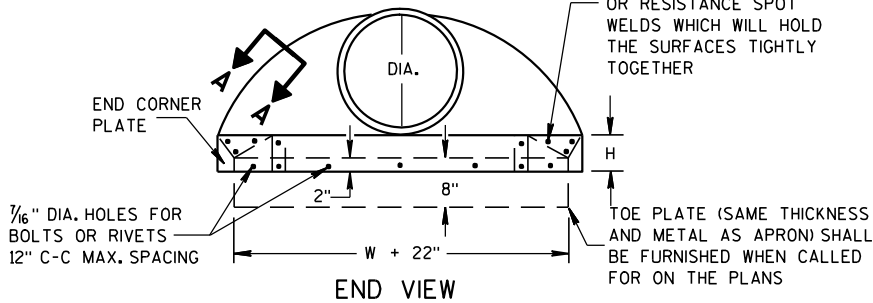
68

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES



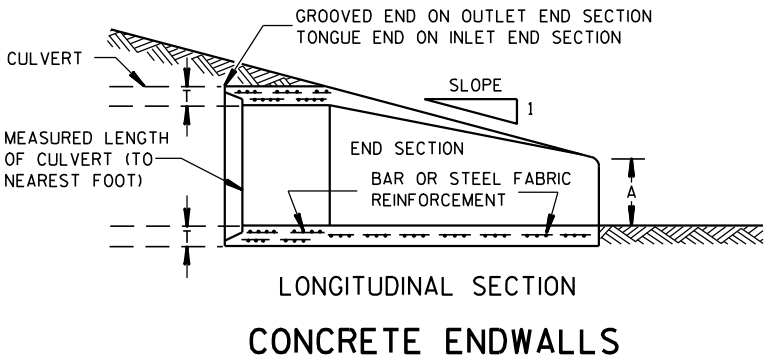
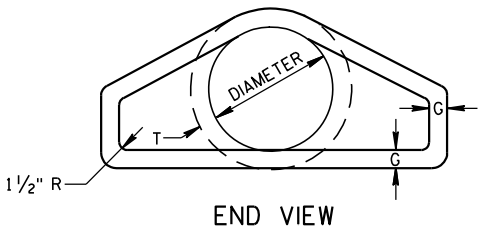
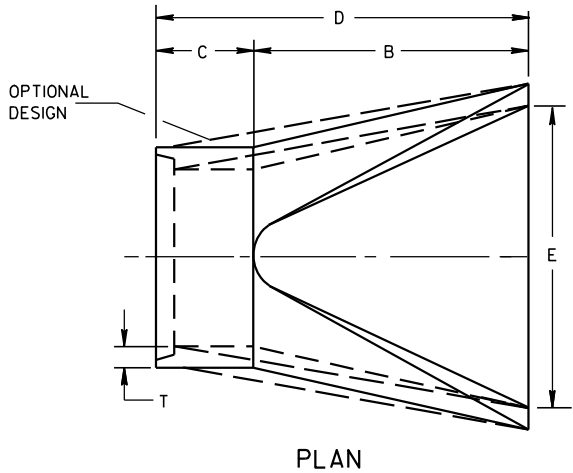
REINFORCED
EDGE (SEE
SECTION A-A)



SIDE ELEVATION
METAL ENDWALLS

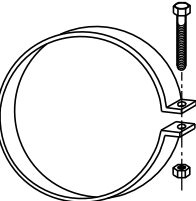
REINFORCED CONCRETE APRON ENDWALLS									
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE	
	T	A	B	C	D	E	G		
12	2	4	24	48 7/8	72 7/8	24	2	3 to 1	
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1	
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1	
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1	
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1	
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1	
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1	
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1	
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1	
48	5	24	72	26	98	84	5	3 to 1	
54	5 1/2	27	65	33 1/4-35	98 1/4-100	90	5 1/2	2 2/5 to 1	
60	6	30-35	60	39	99	96	5	2 to 1	
66	6 1/2	24-30	72-78	21-27	99	102	5 1/2	2 to 1	
72	7	24-36	78	21	99	108	6	2 to 1	
78	7 1/2	24-36	78	21	99	114	6 1/2	2 to 1	
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1	
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1	

*MINIMUM
**MAXIMUM

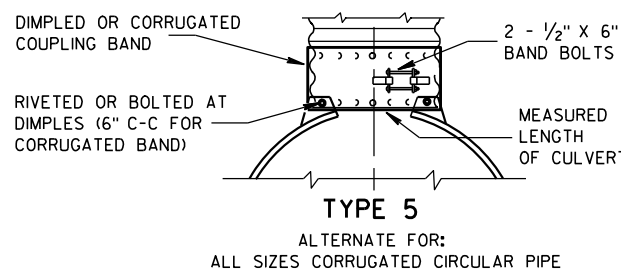
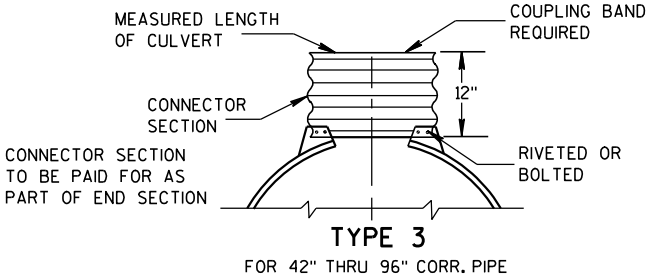
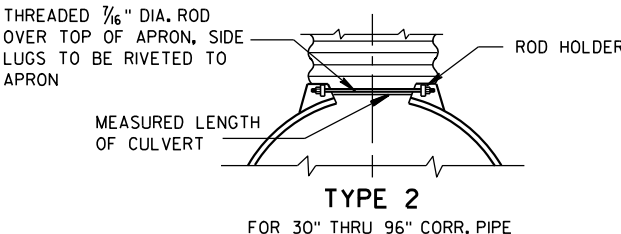
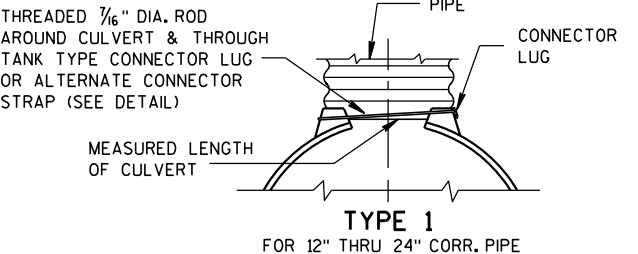


LONGITUDINAL SECTION
CONCRETE ENDWALLS

1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



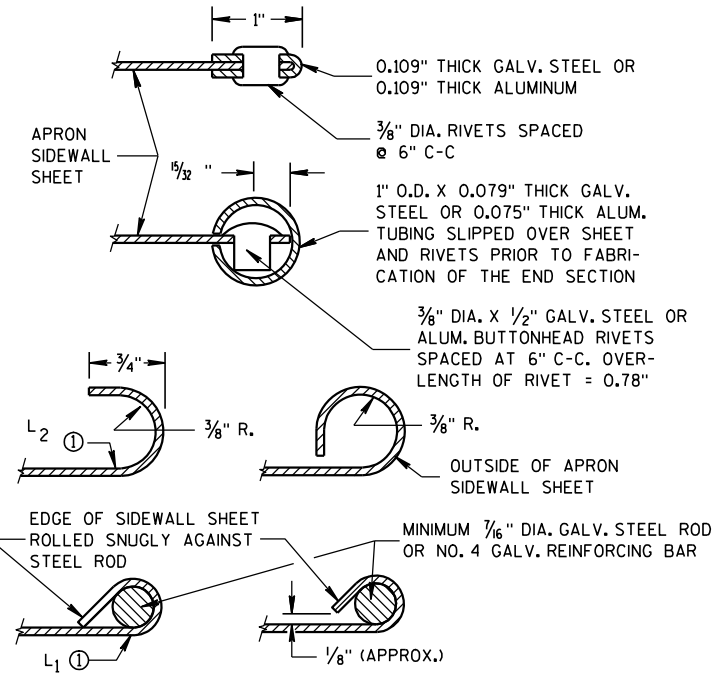
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

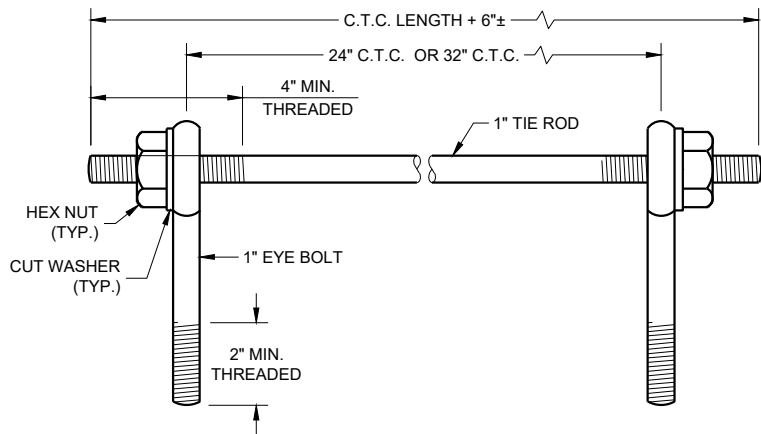
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

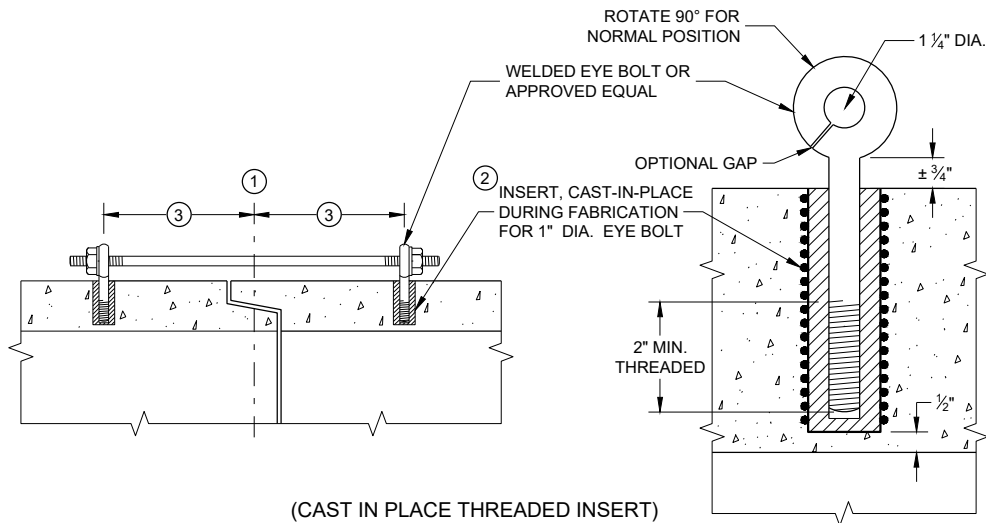
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED 11/30/94 DATE	/S/ Rory L. Rhin... CHIEF ROADWAY DEVELOP 69	NEER	
FHWA			



EYE BOLTS AND TIE ROD

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

GENERAL NOTES

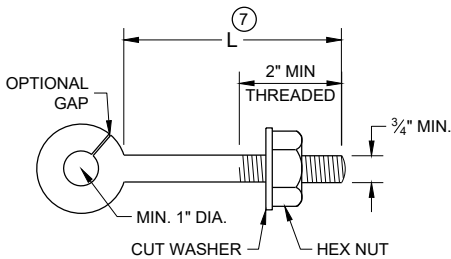
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

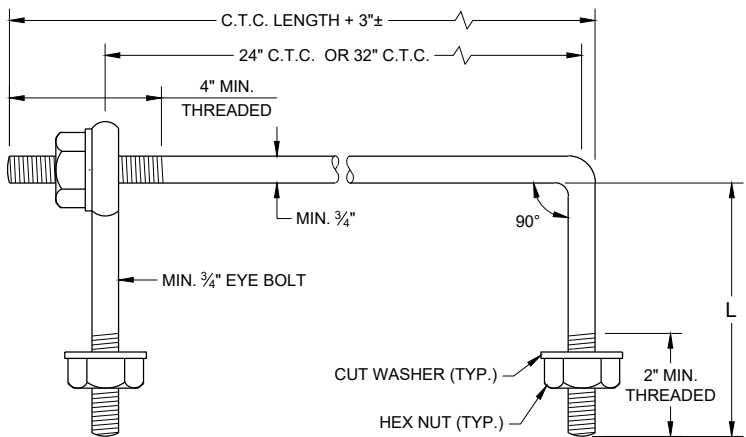
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- 1 CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- 2 THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- 3 HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- 4 BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- 5 OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- 6 LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.
- 7 EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

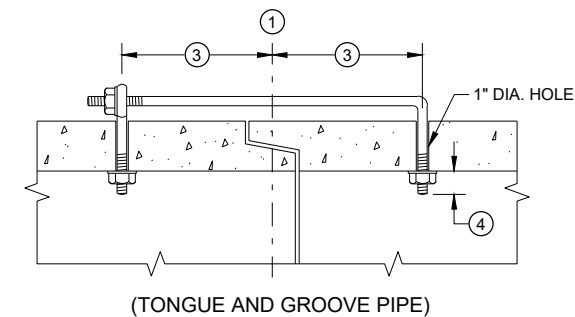


EYE BOLT 7

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

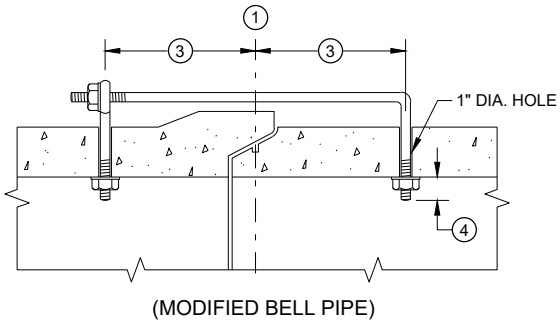


(TONGUE AND GROOVE PIPE)

LONGITUDINAL SECTION

(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

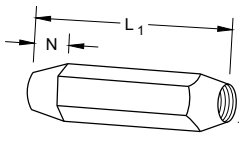


(MODIFIED BELL PIPE)

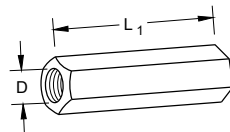
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L ₁	N
12 - 60	5/8	5/8	5	1/2
66 - 84	3/4	3/4	5	1/2
90 - 144	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES

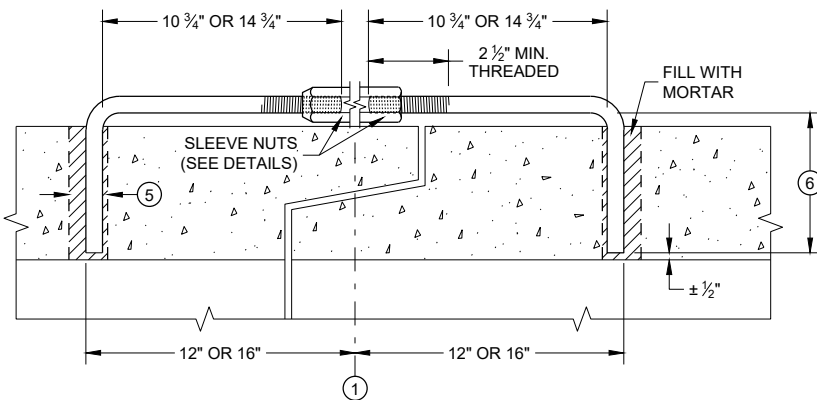


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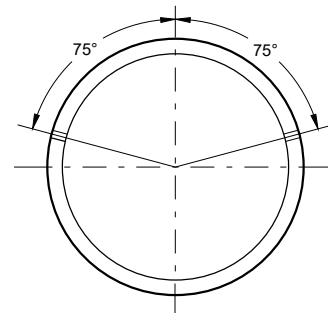
PLAIN

RIGHT AND LEFT THREADS
SLEEVE NUTS



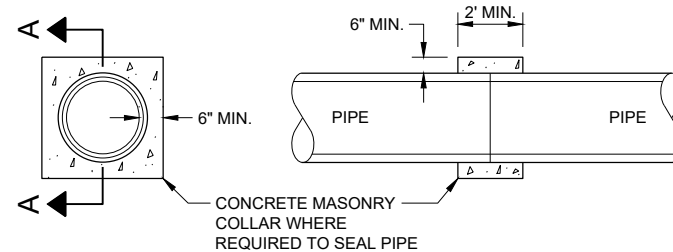
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



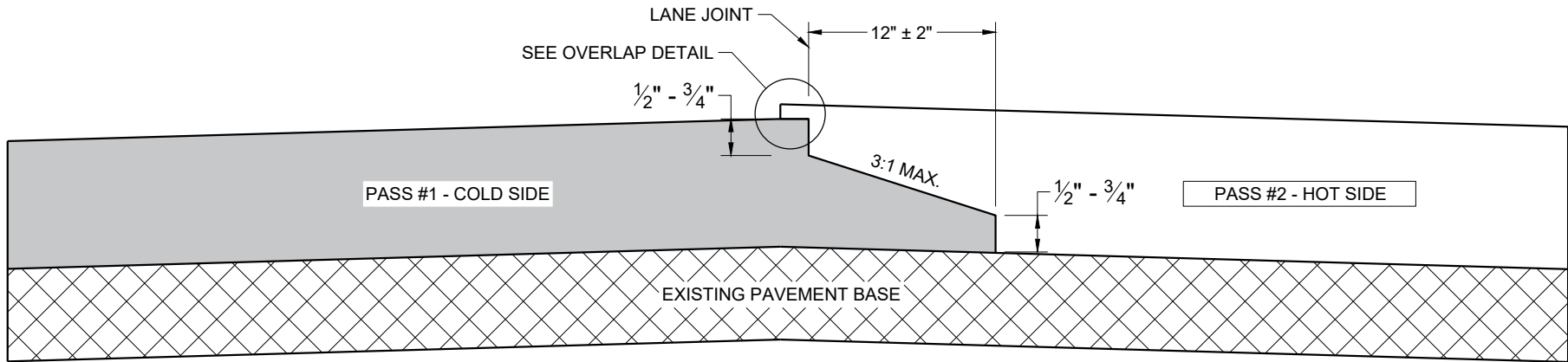
SECTION A - A

CONCRETE COLLAR DETAIL

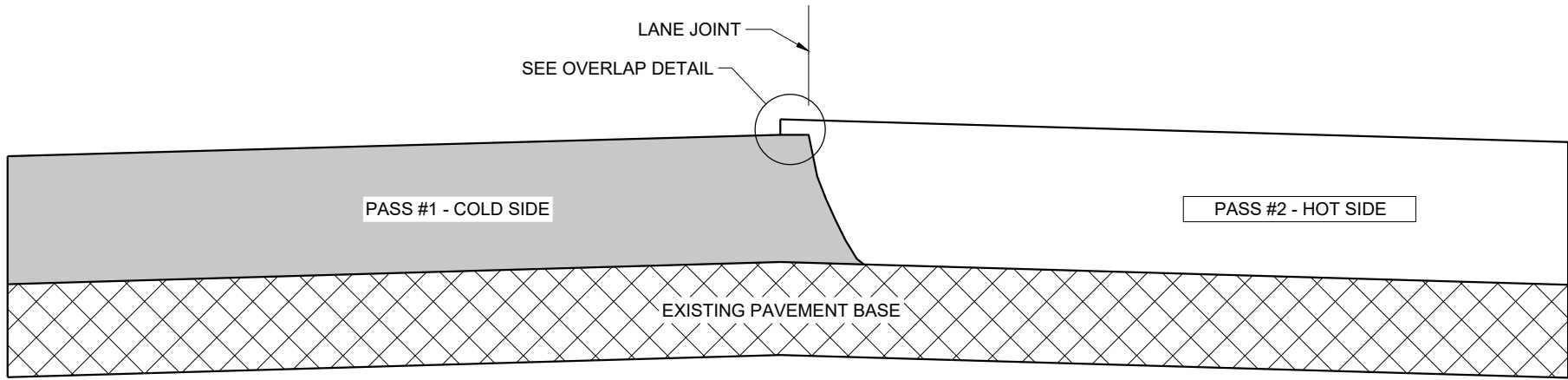
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

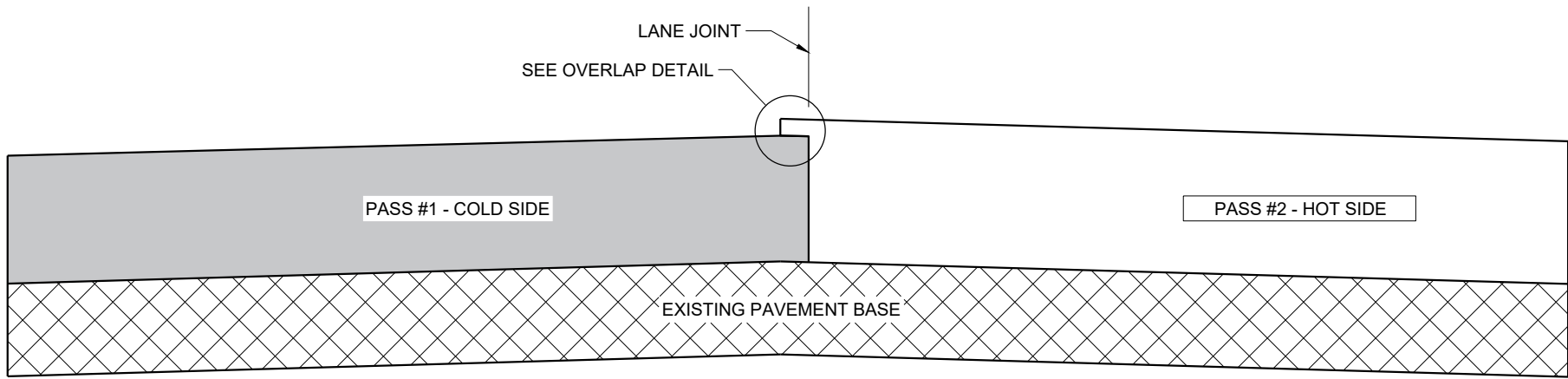
APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 70
FHWA



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

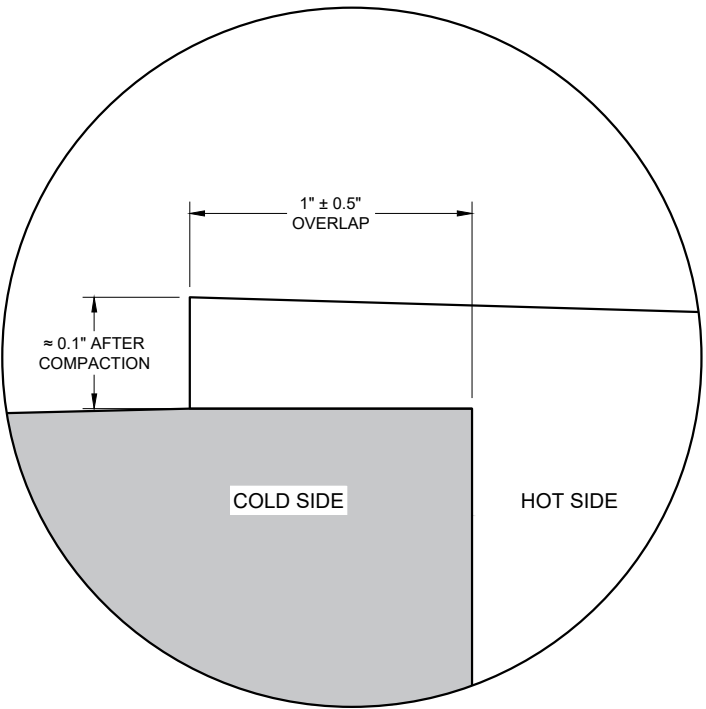
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.

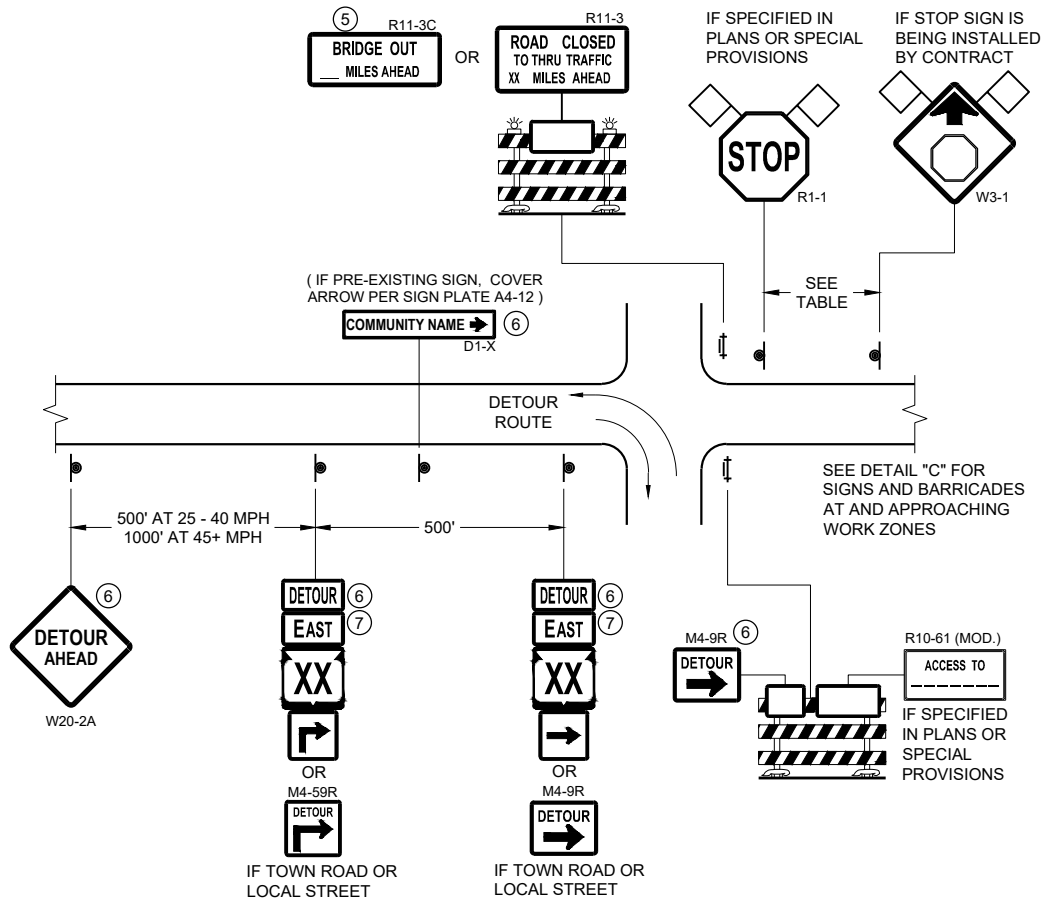


OVERLAP DETAIL (TYPICAL)

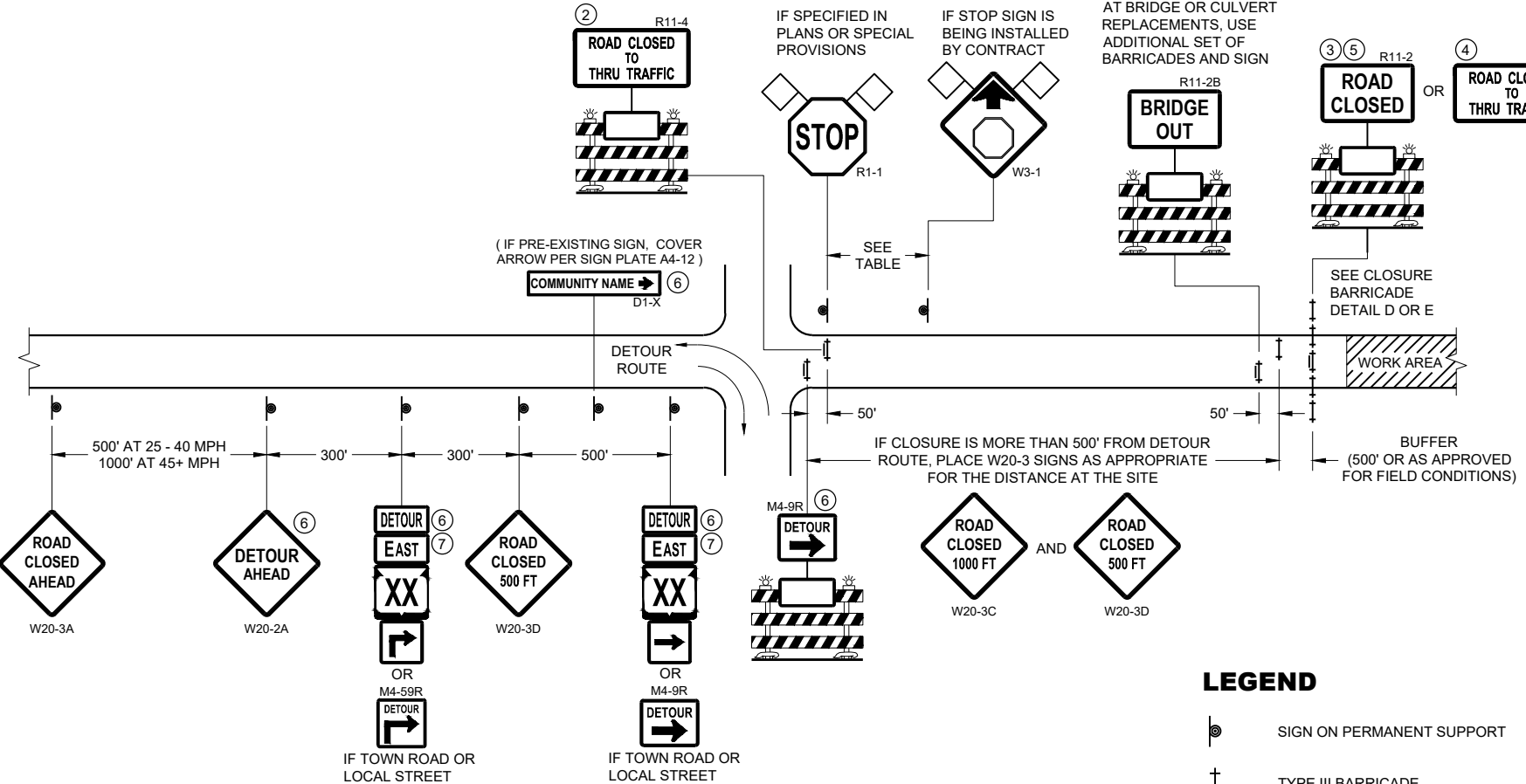
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGIN 71
FHWA



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



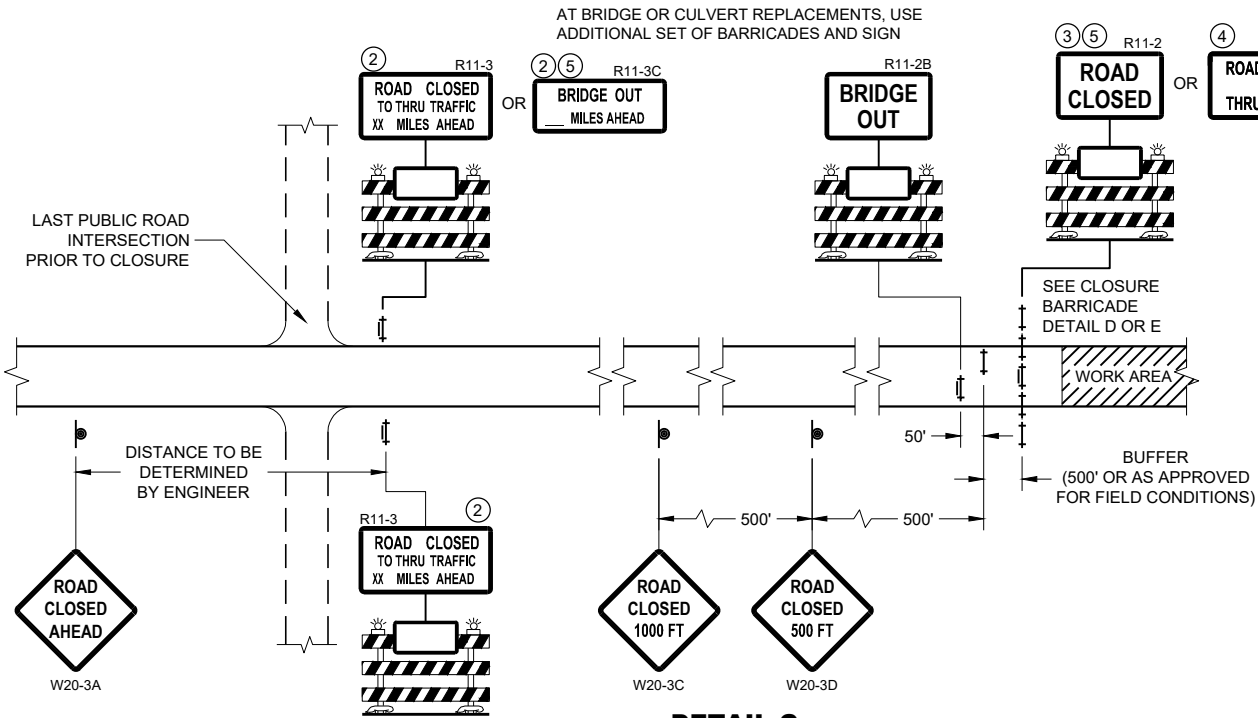
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

- LEGEND**
- SIGN ON PERMANENT SUPPORT
 - TYPE III BARRICADE
 - TYPE III BARRICADE WITH ATTACHED SIGN
 - TYPE "A" WARNING LIGHT (FLASHING)
 - WORK AREA
 - FLAGS, 16" X 16" MIN. (ORANGE)

- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY M1 - 5A
- OR M05 - 1 OR M06 - 1

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦



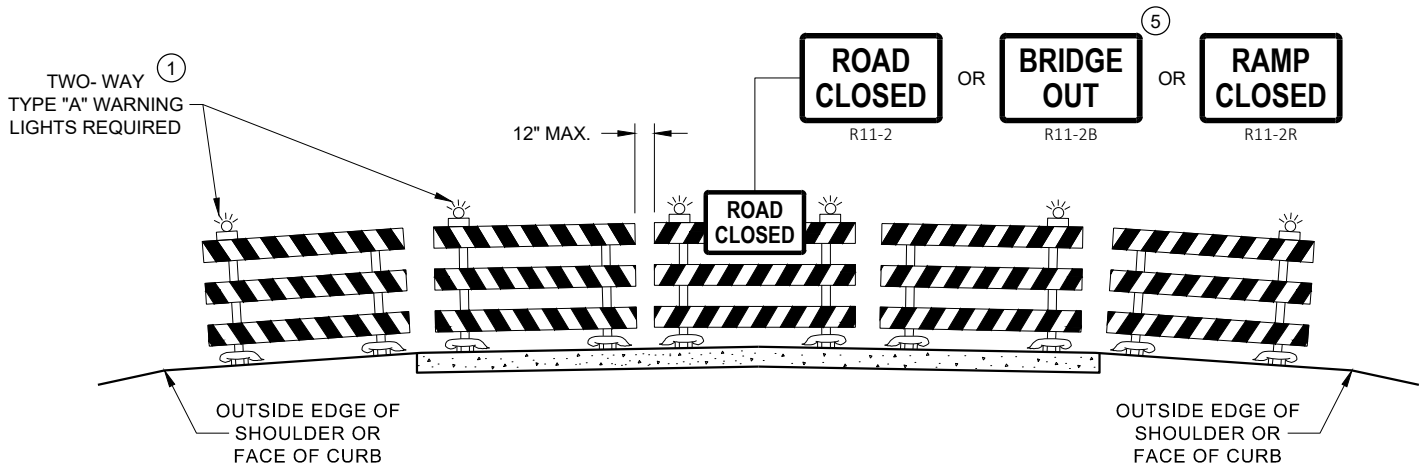
DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

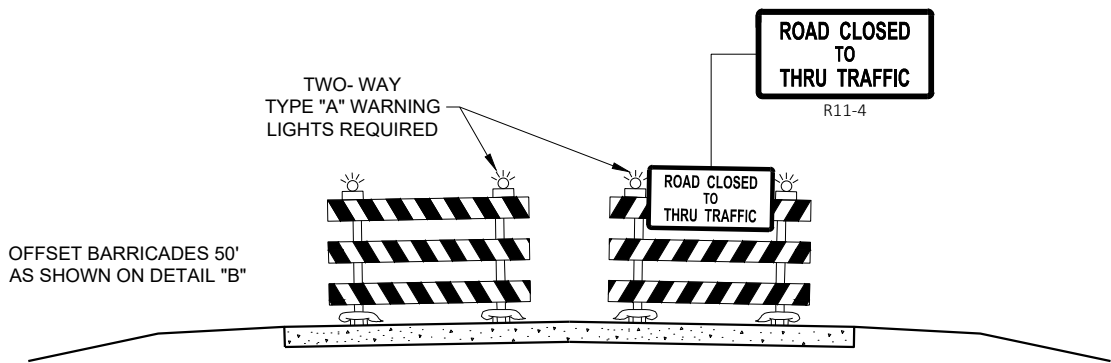
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 72

FHWA



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

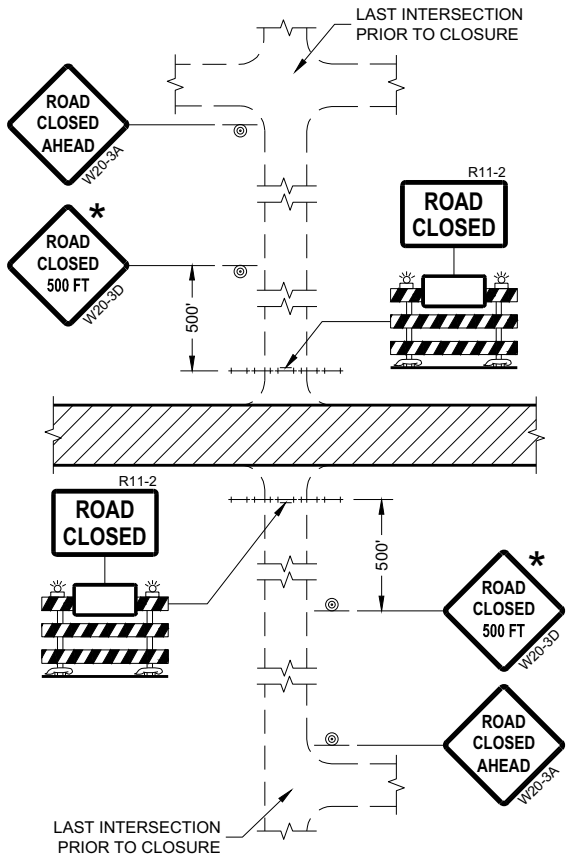
- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- 3 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- 4 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- 5 FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- 6 INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- 7 "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES

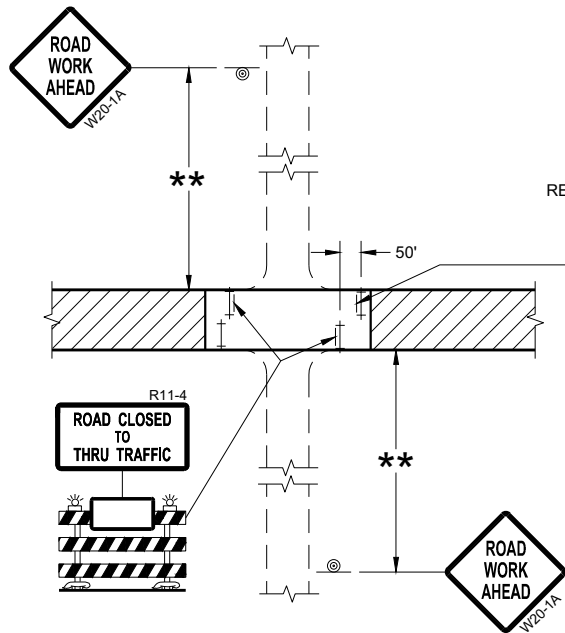
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 73

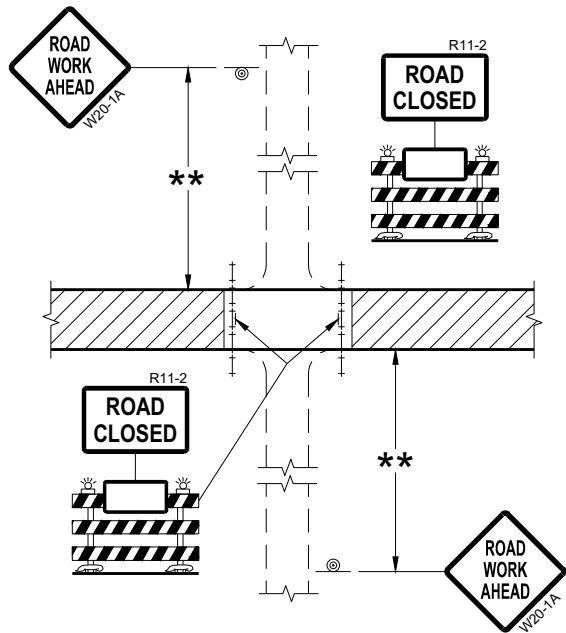
FHWA



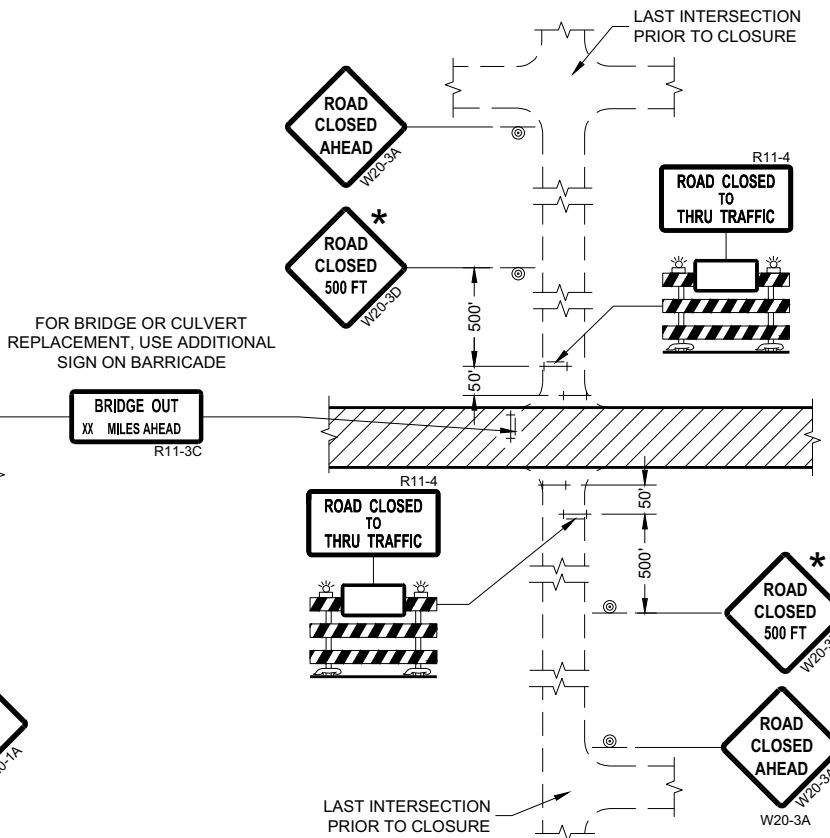
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

- * OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.
- ** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

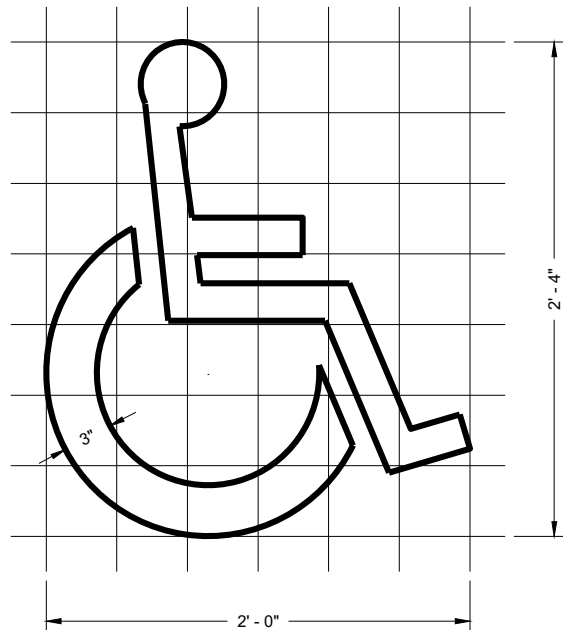
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

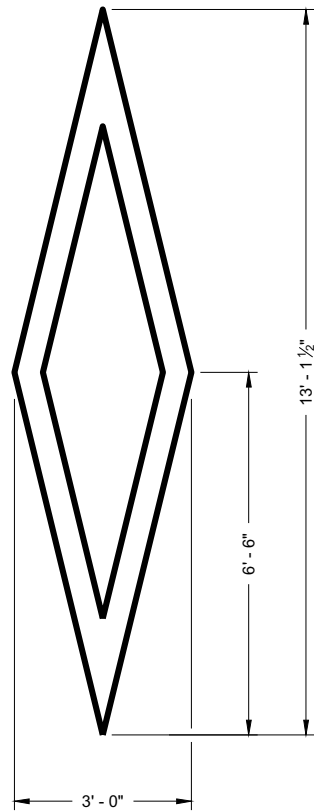
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 74

FHWA



HANDICAP SYMBOL



PREFERENTIAL
LANE SYMBOL

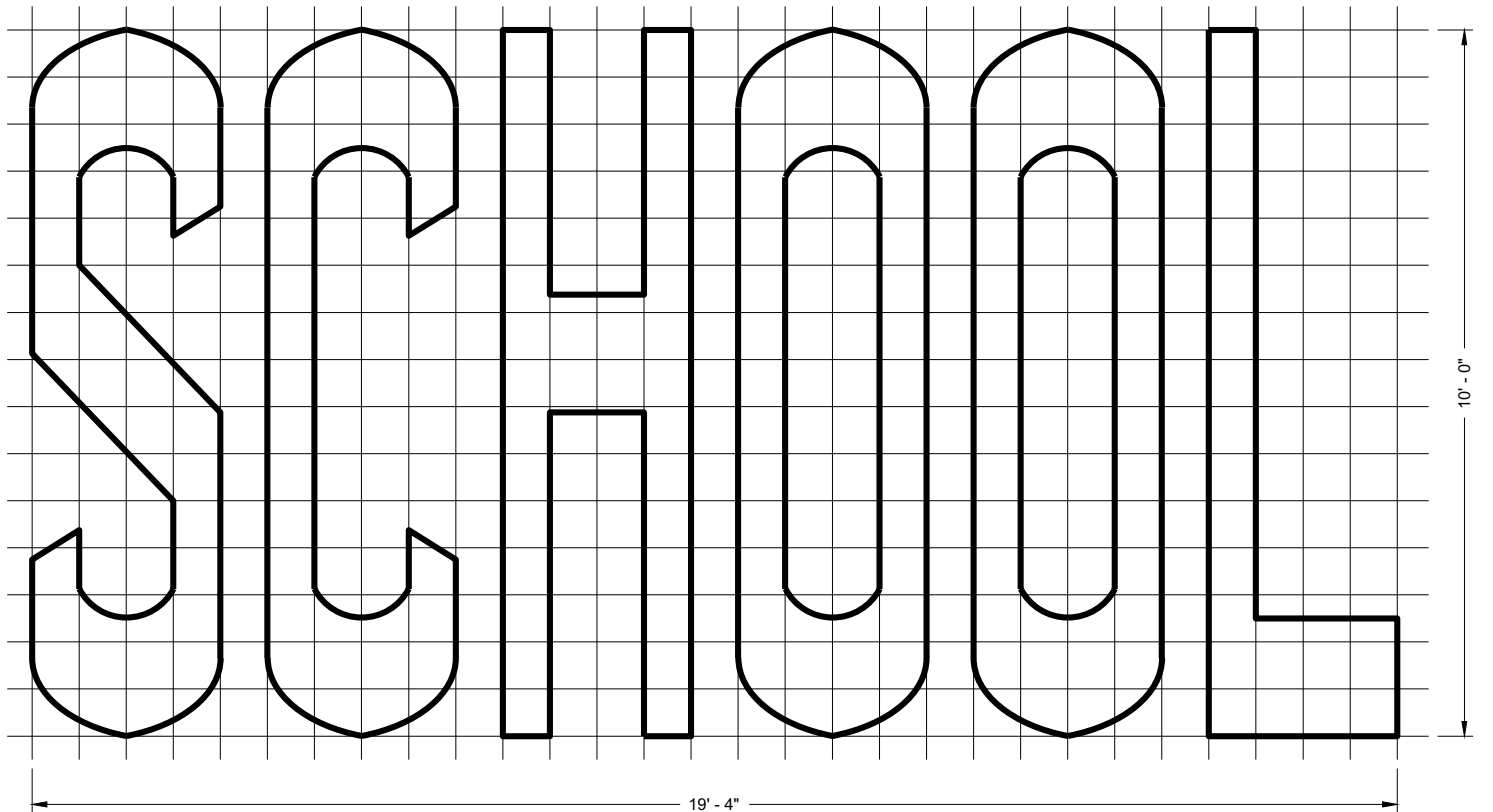
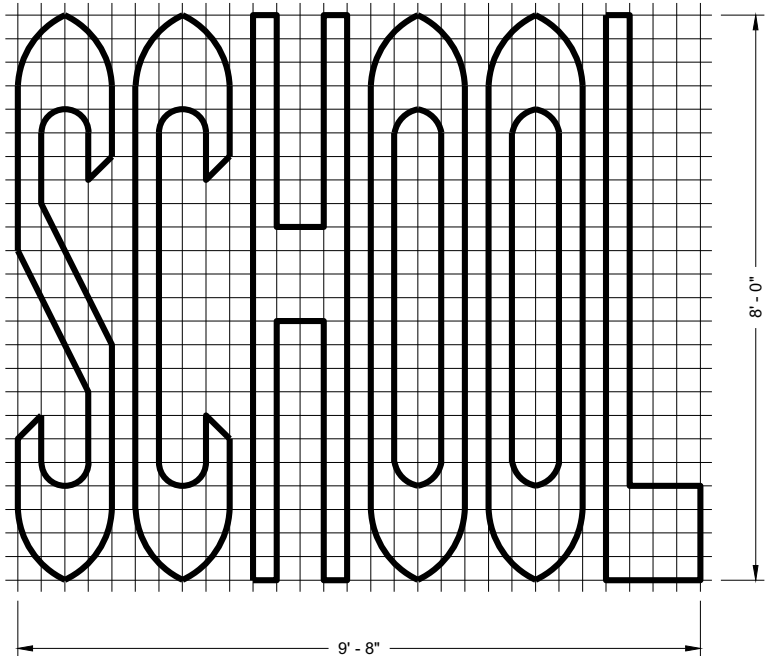
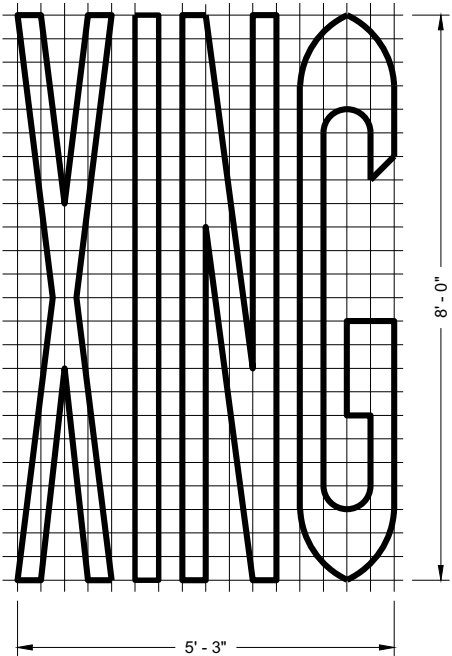
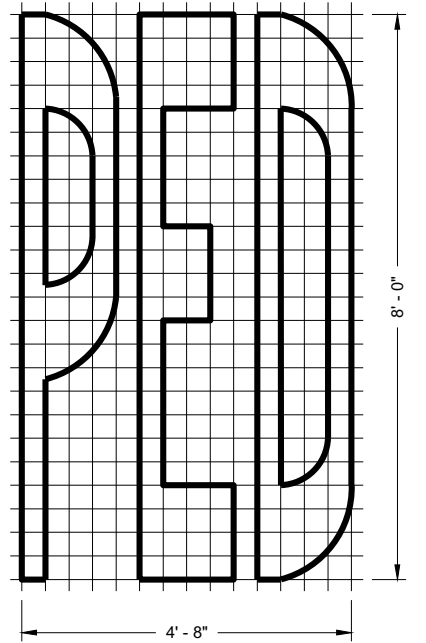
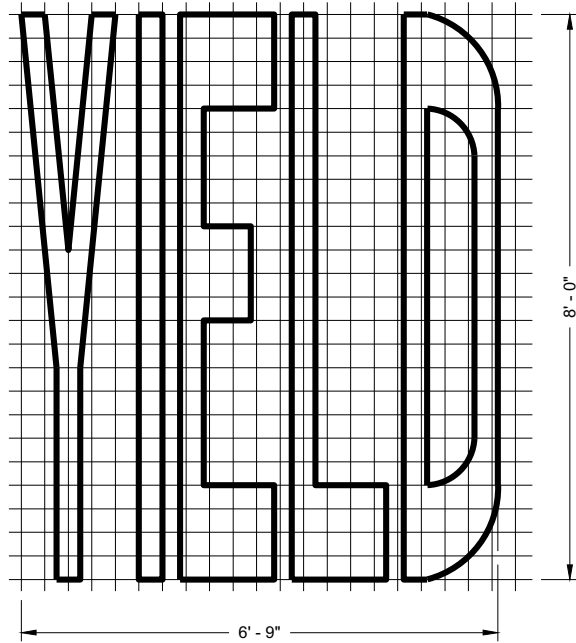
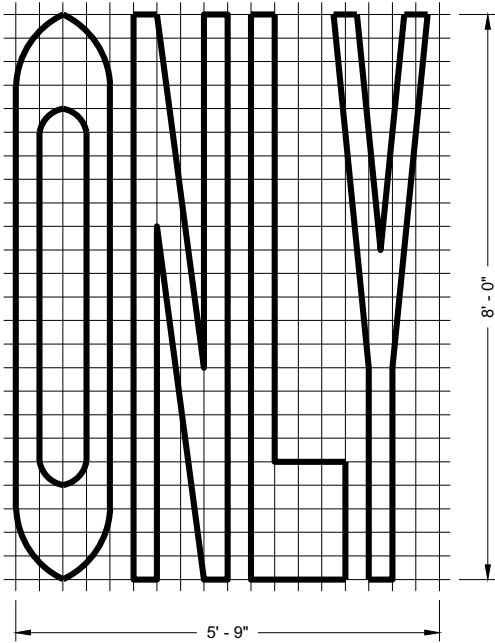
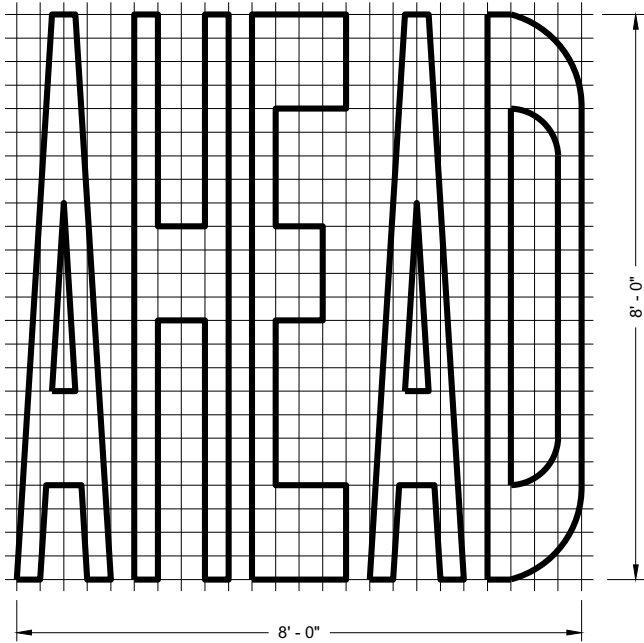
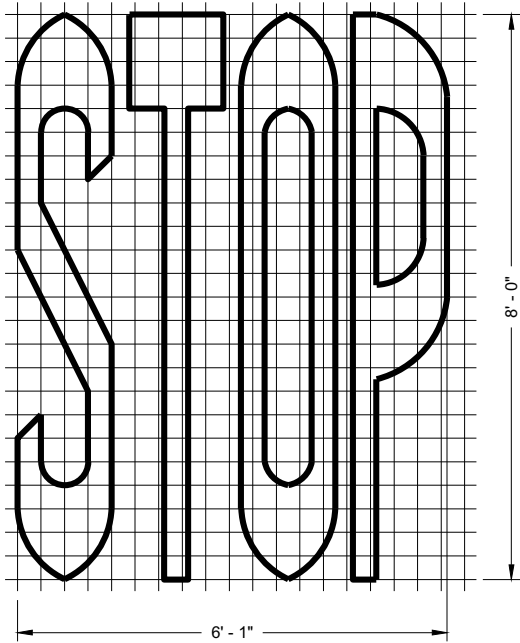
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING SYMBOLS

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APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 75
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SINGLE LANE

TWO - LANE

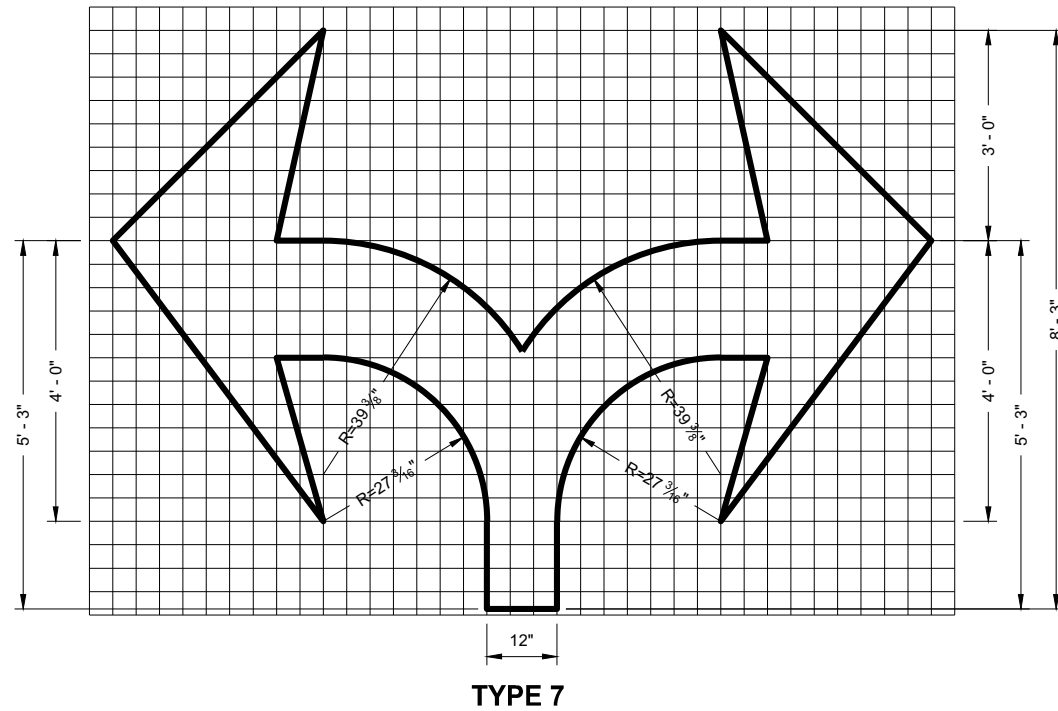
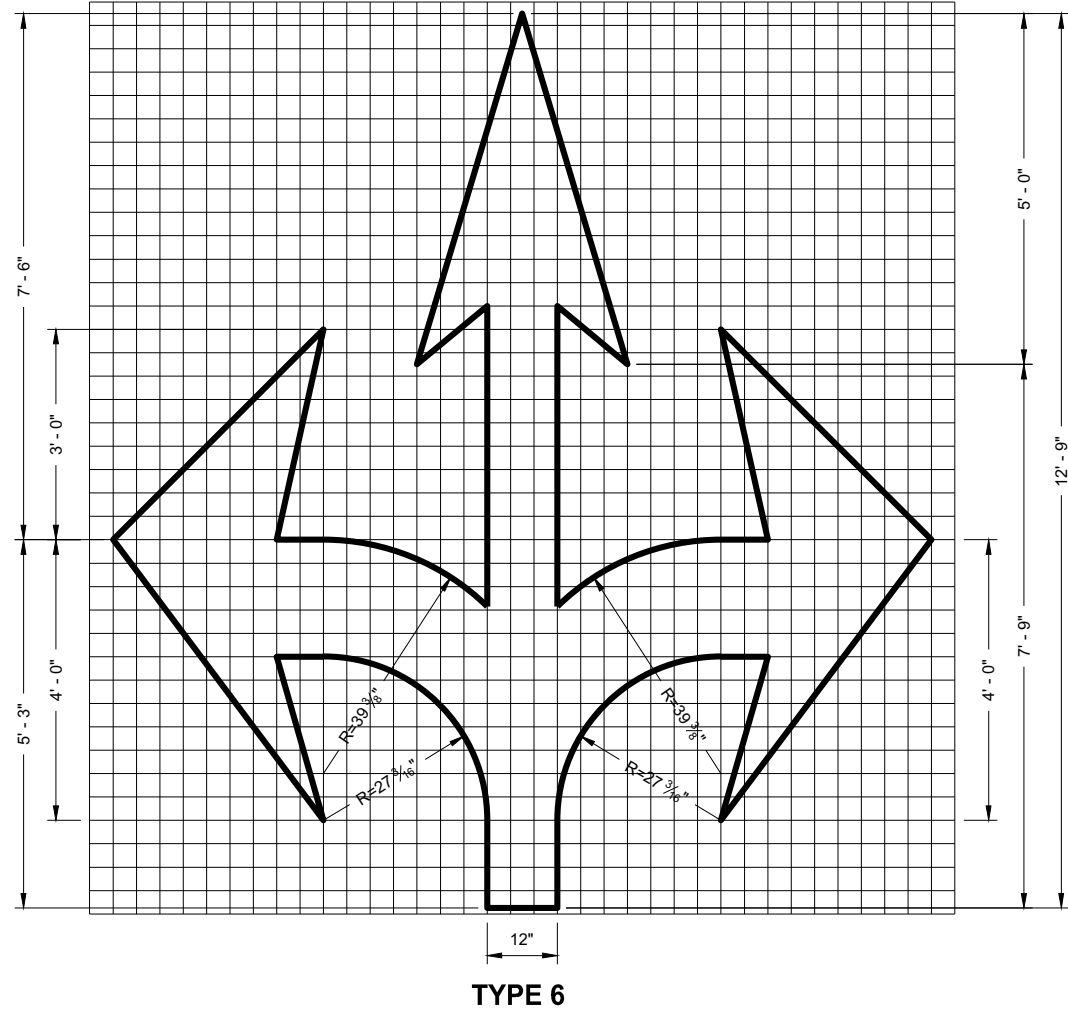
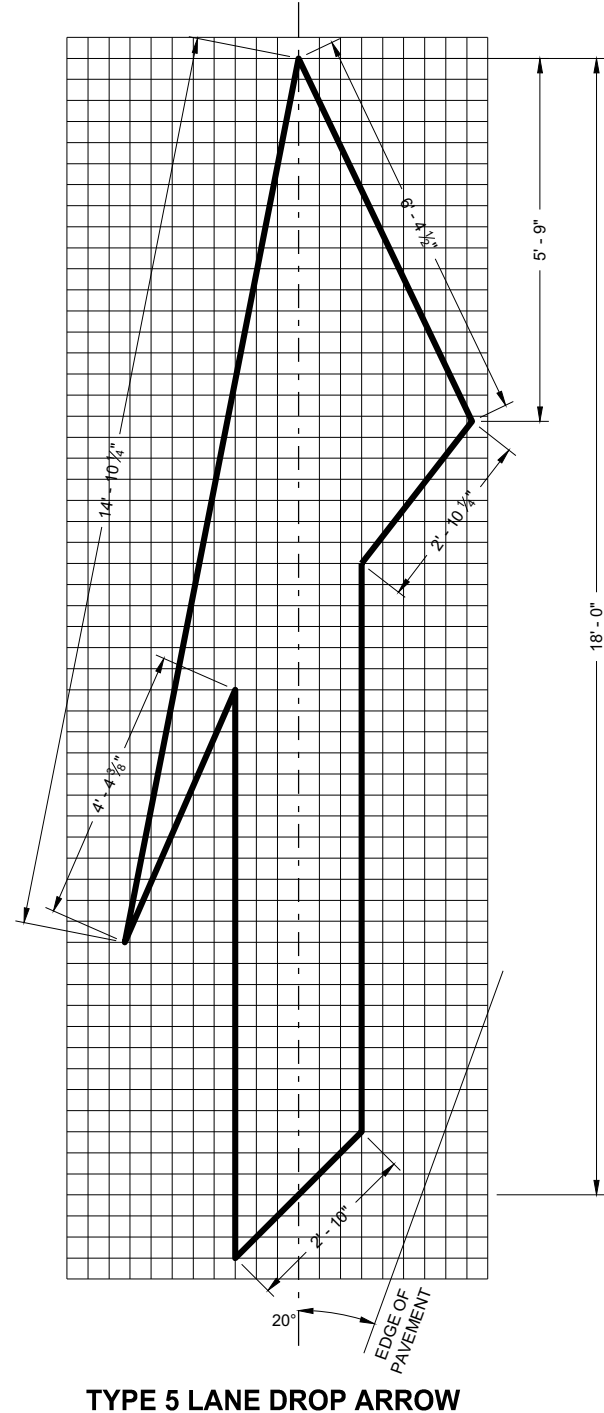
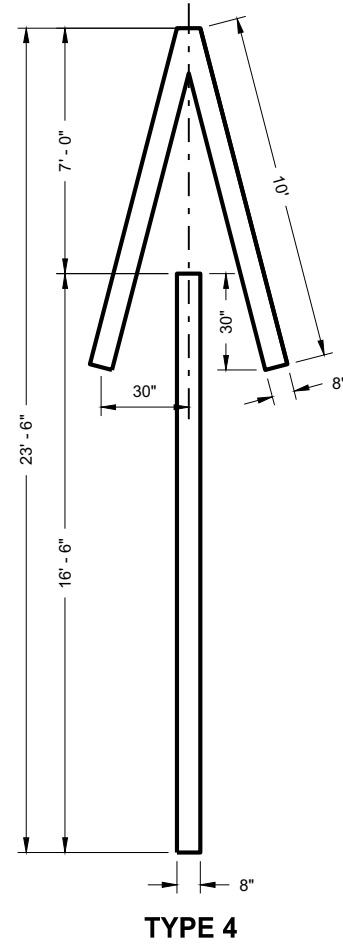
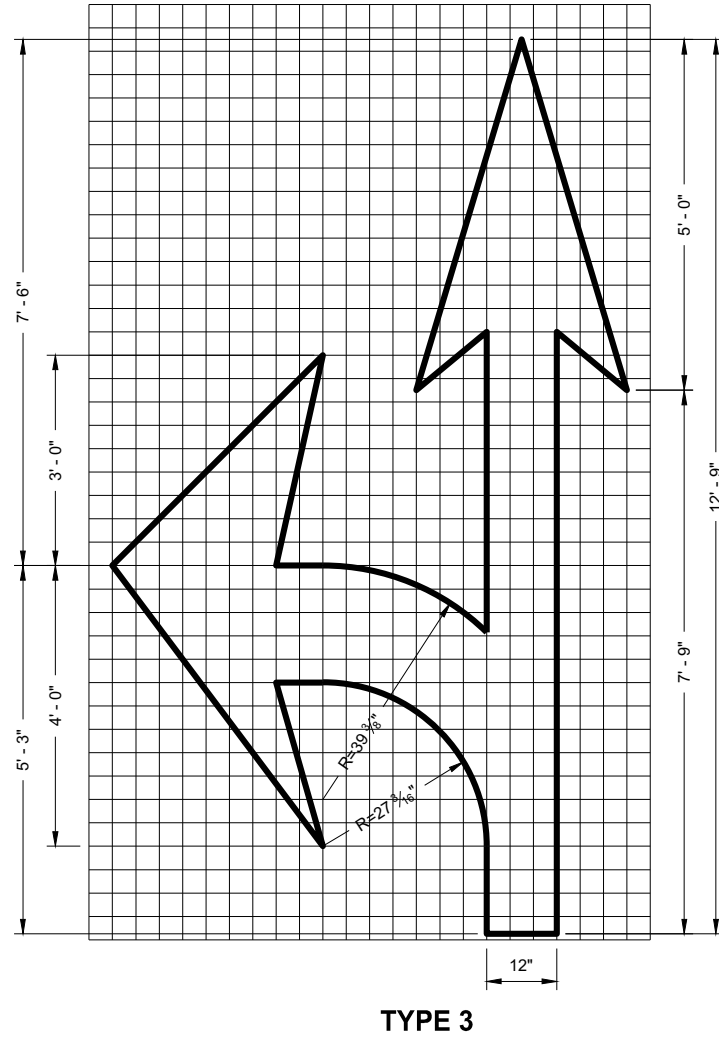
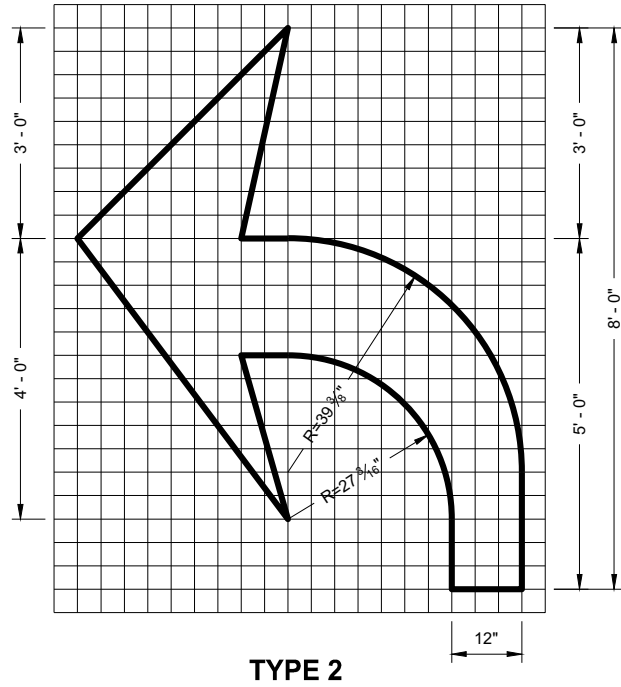
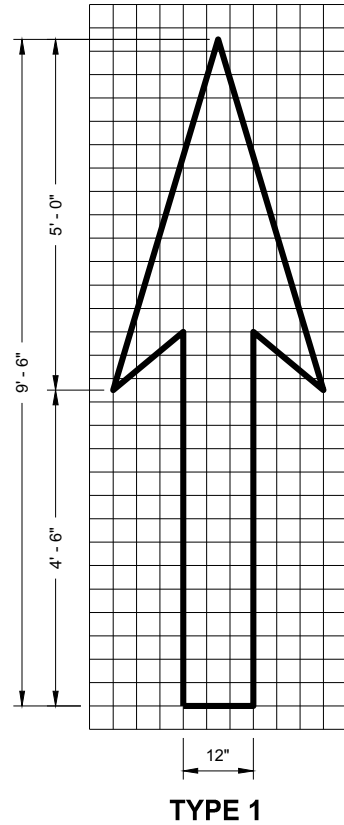
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING WORDS

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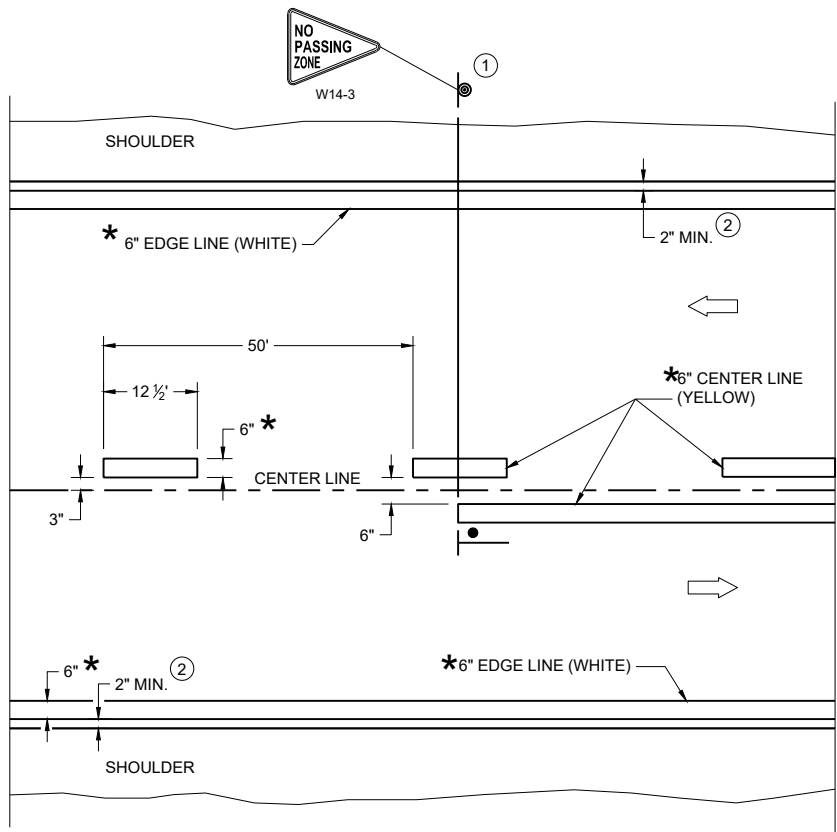
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

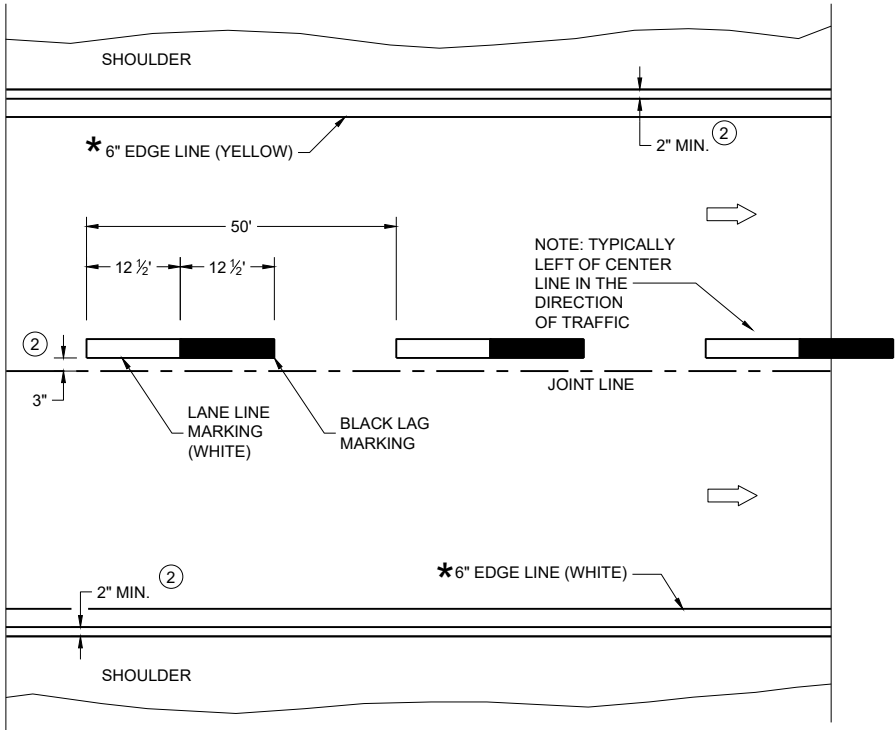
PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
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APPROVED
November 2019
DATE
/S/ Matthew Rauch
STATE SIGNING AND MAP ENGINEER 77
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TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

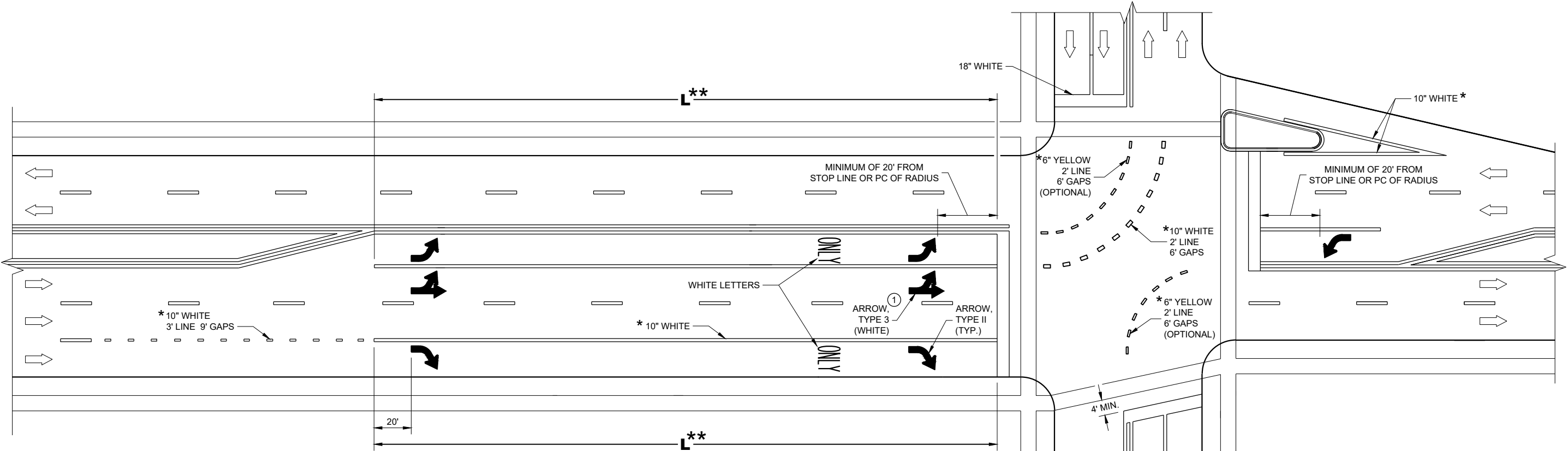
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

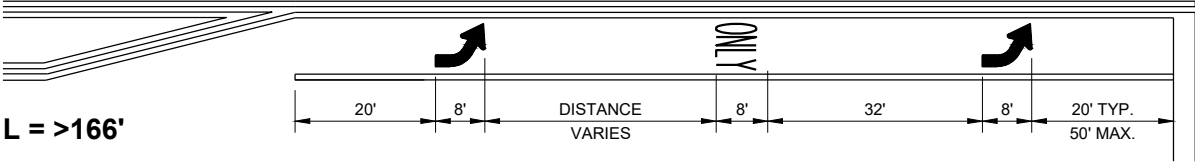
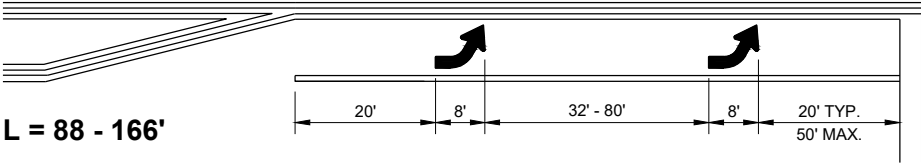
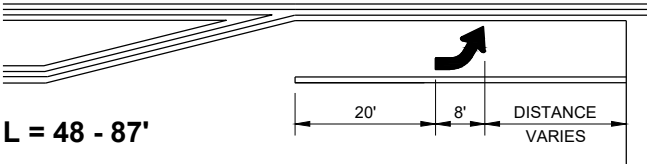
PERMANENT LONGITUDINAL PAVEMENT MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer



** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

LENGTH OF TURN BAY (L) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



GENERAL NOTES

① QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

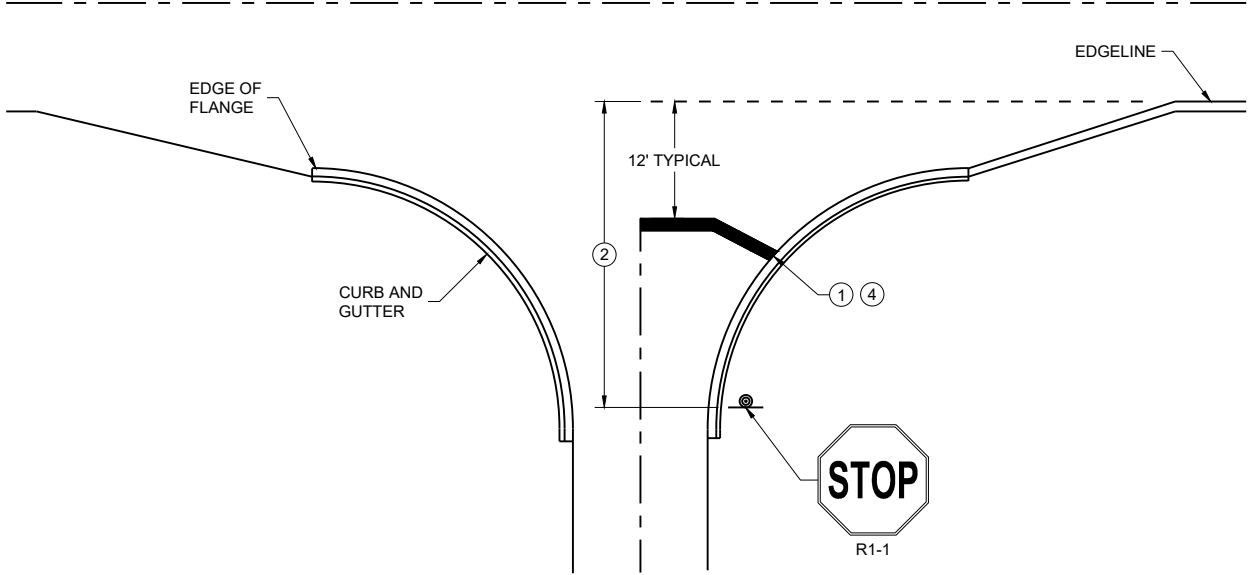
➡ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

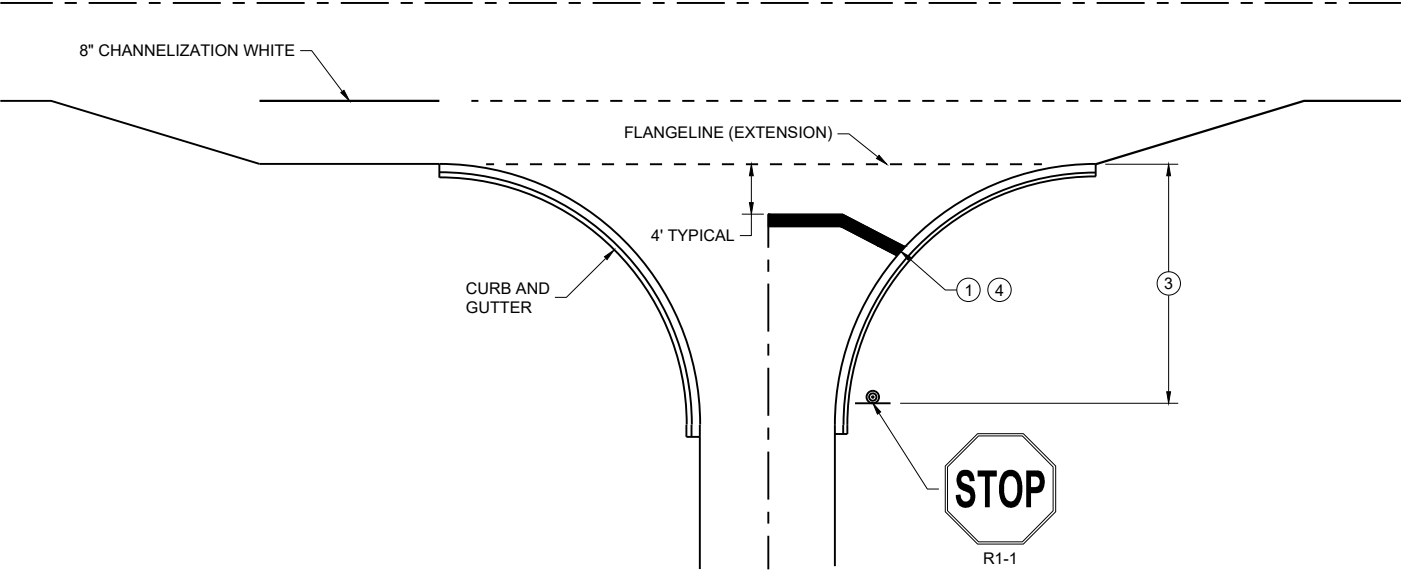
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING (TURN LANES)

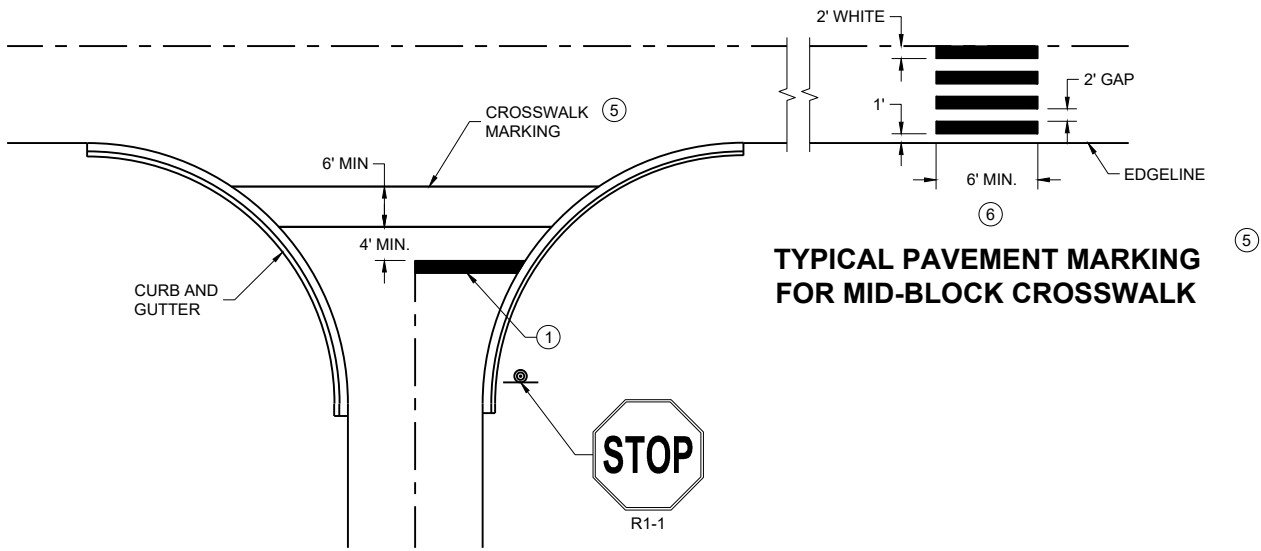
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION 79



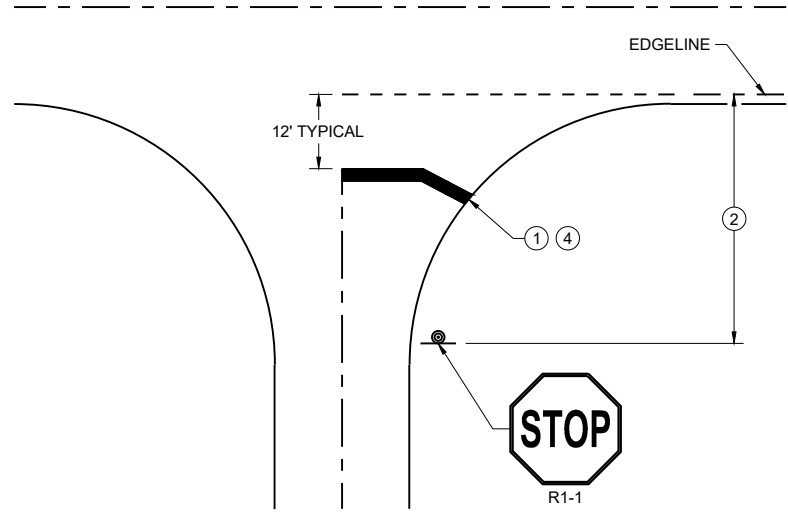
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

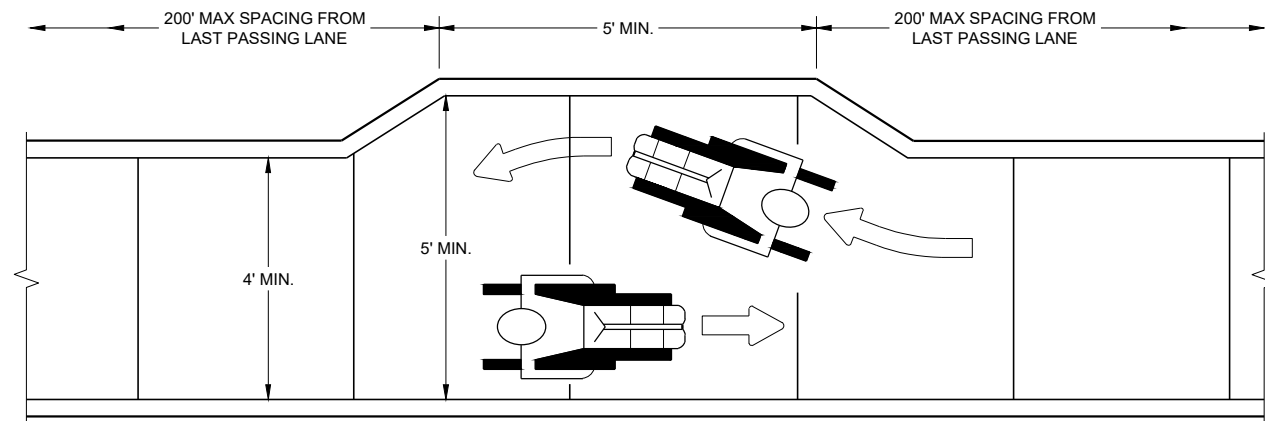
- 1 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- 2 NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- 3 NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
- 4 MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- 5 LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES.
- 6 POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS

STOP LINE AND CROSSWALK PAVEMENT MARKING

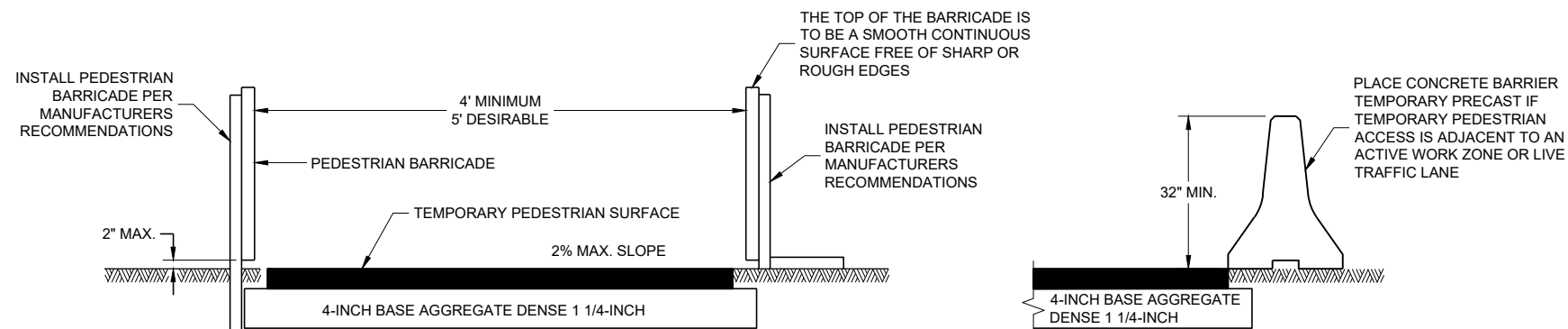
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING
ENGINEER

FHWA



NARROW SIDEWALK PASSING DETAIL



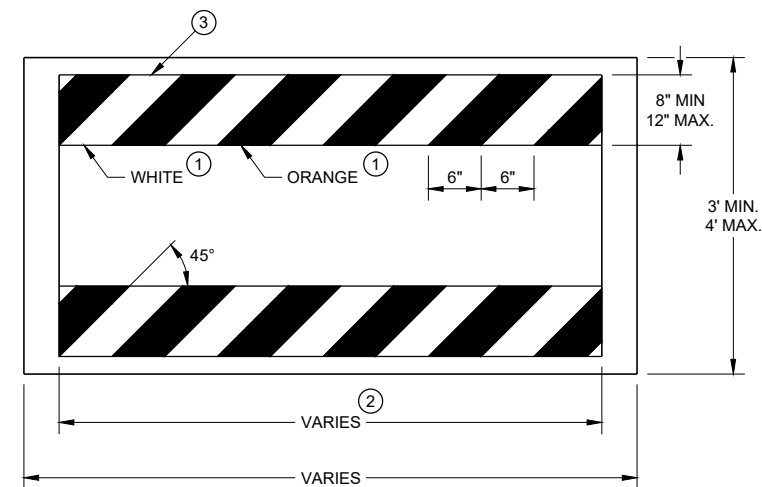
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

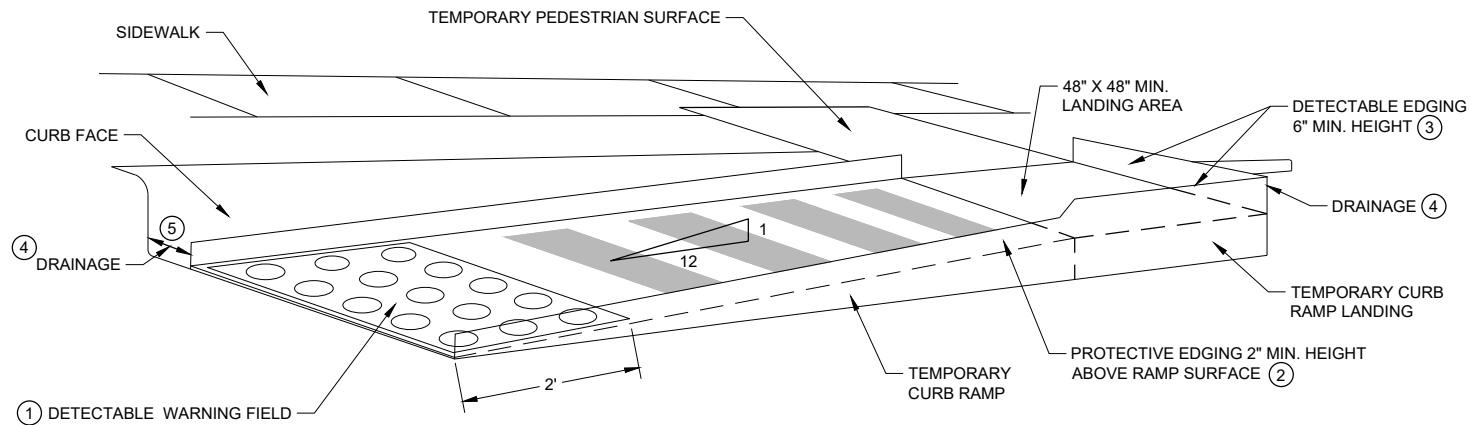
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
- ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

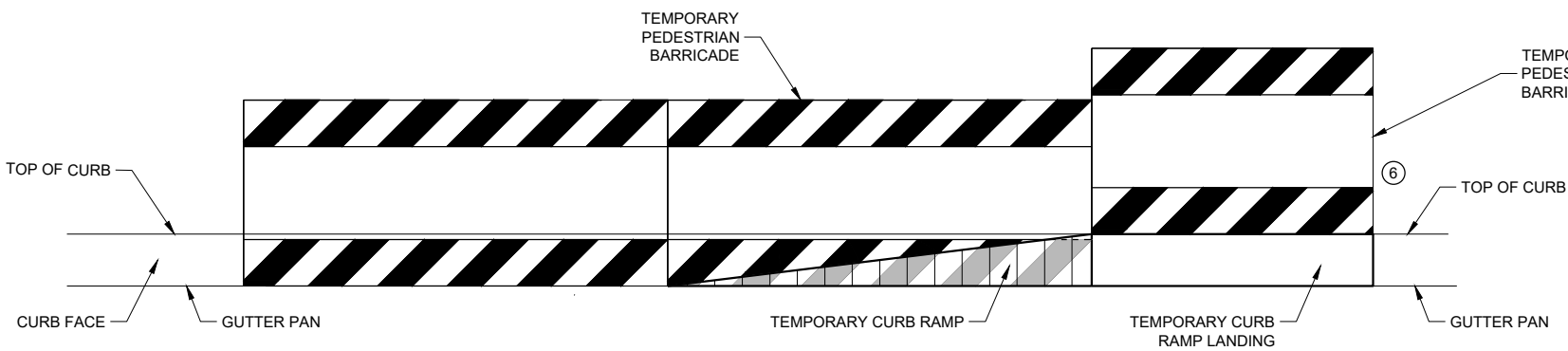
★ USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



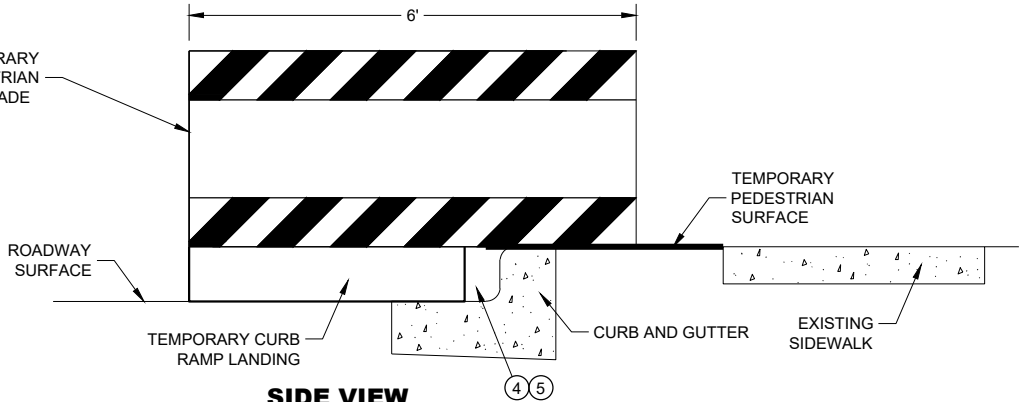
TEMPORARY PEDESTRIAN BARRICADE*



PERSPECTIVE VIEW



FRONT VIEW



SIDE VIEW

TEMPORARY CURB RAMP PARALLEL TO CURB

GENERAL NOTES

- CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.
- CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
- CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

- ① INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- ③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- ④ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ⑤ ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.
- ⑥ IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.



TEMPORARY CURB RAMP PERPENDICULAR TO CURB

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

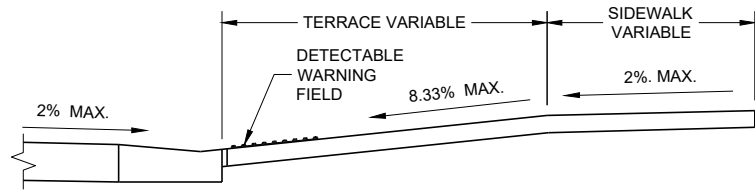
CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

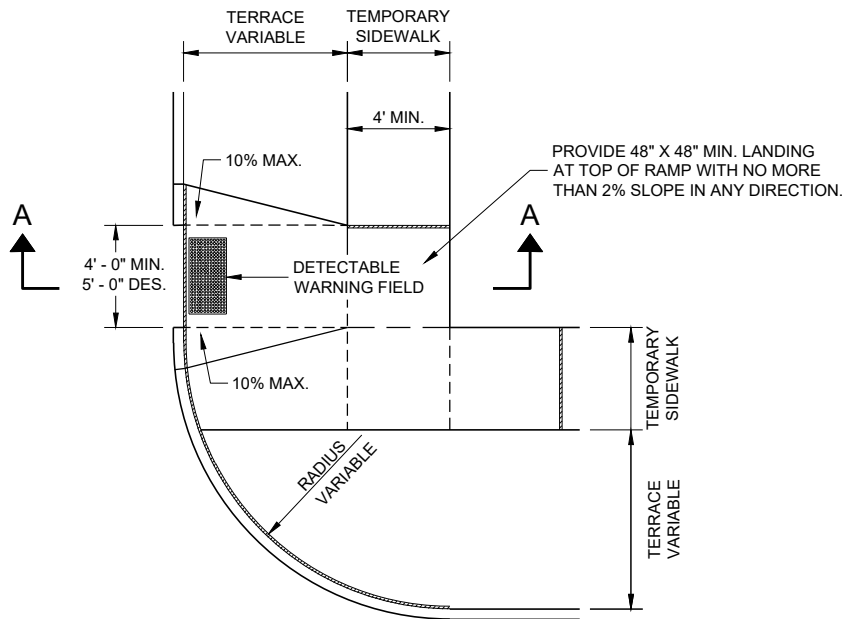
LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

- ① INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- ③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- ④ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ⑤ CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.



SECTION A - A



PLAN VIEW
TEMPORARY TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

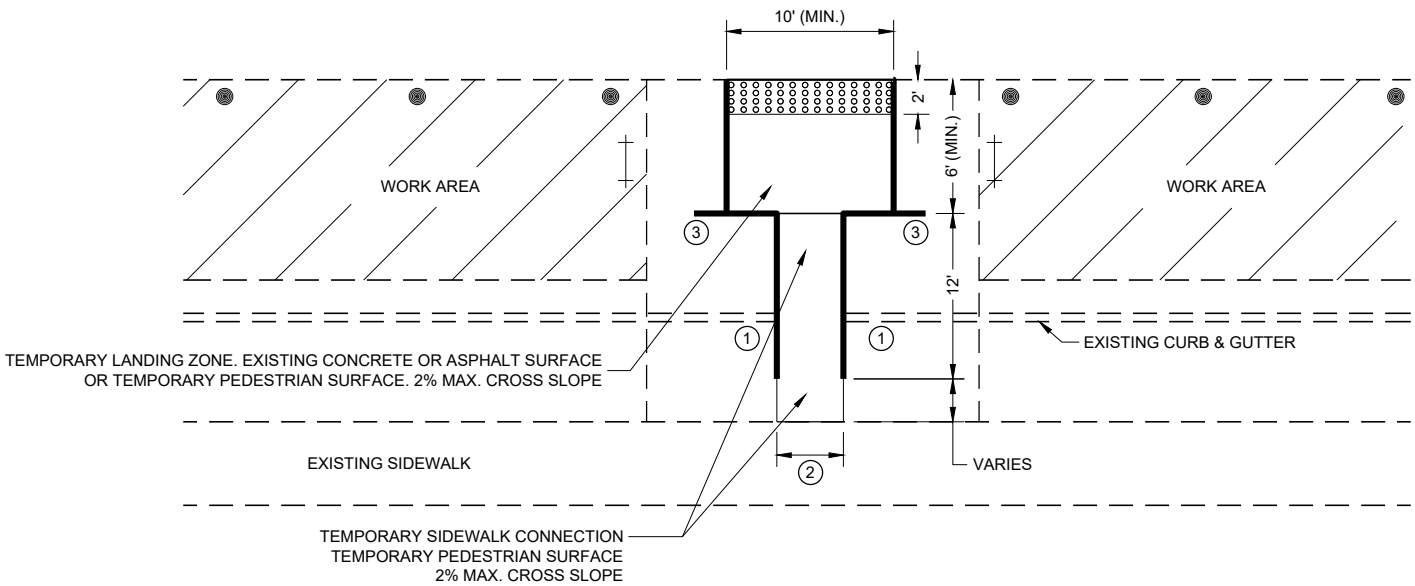
GENERAL NOTES

- BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
 - ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
 - ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.
- ★ USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

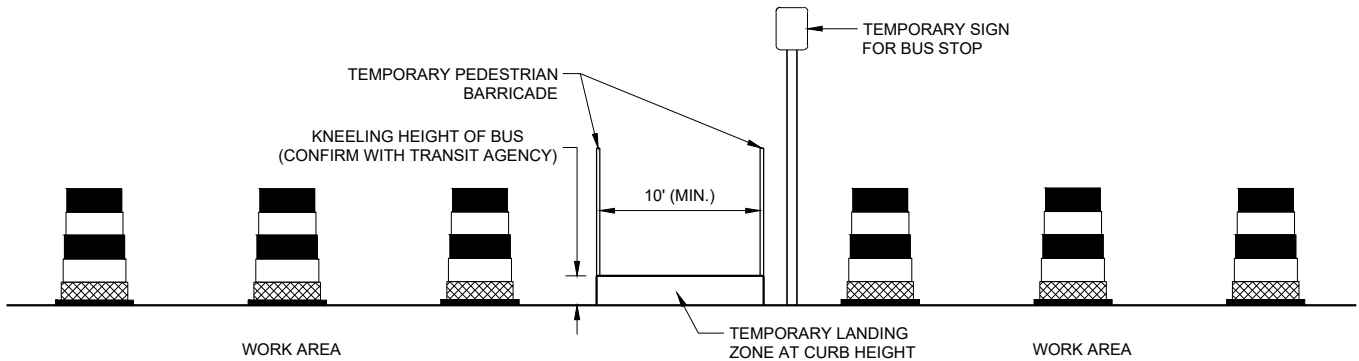
TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 84
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PLAN VIEW



PROFILE VIEW
TEMPORARY BUS STOP PAD

GENERAL NOTES

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.
- PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMP OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
- CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".
- CURB RAMP AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

- ① DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ② 5' WIDE MIN. WITH TEMPORARY PEDESTRIAN BARRICADE, 10' WIDE MIN. WITHOUT TEMPORARY PEDESTRIAN BARRICADE.
- ③ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE INTO THIS SPACE.

LEGEND

- TRAFFIC CONTROL DRUM
- ⊥ TYPE III BARRICADE
- TEMPORARY PEDESTRIAN BARRICADE
- ⊞ TEMPORARY DETECTABLE WARNING FIELD
- ▨ WORK AREA

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

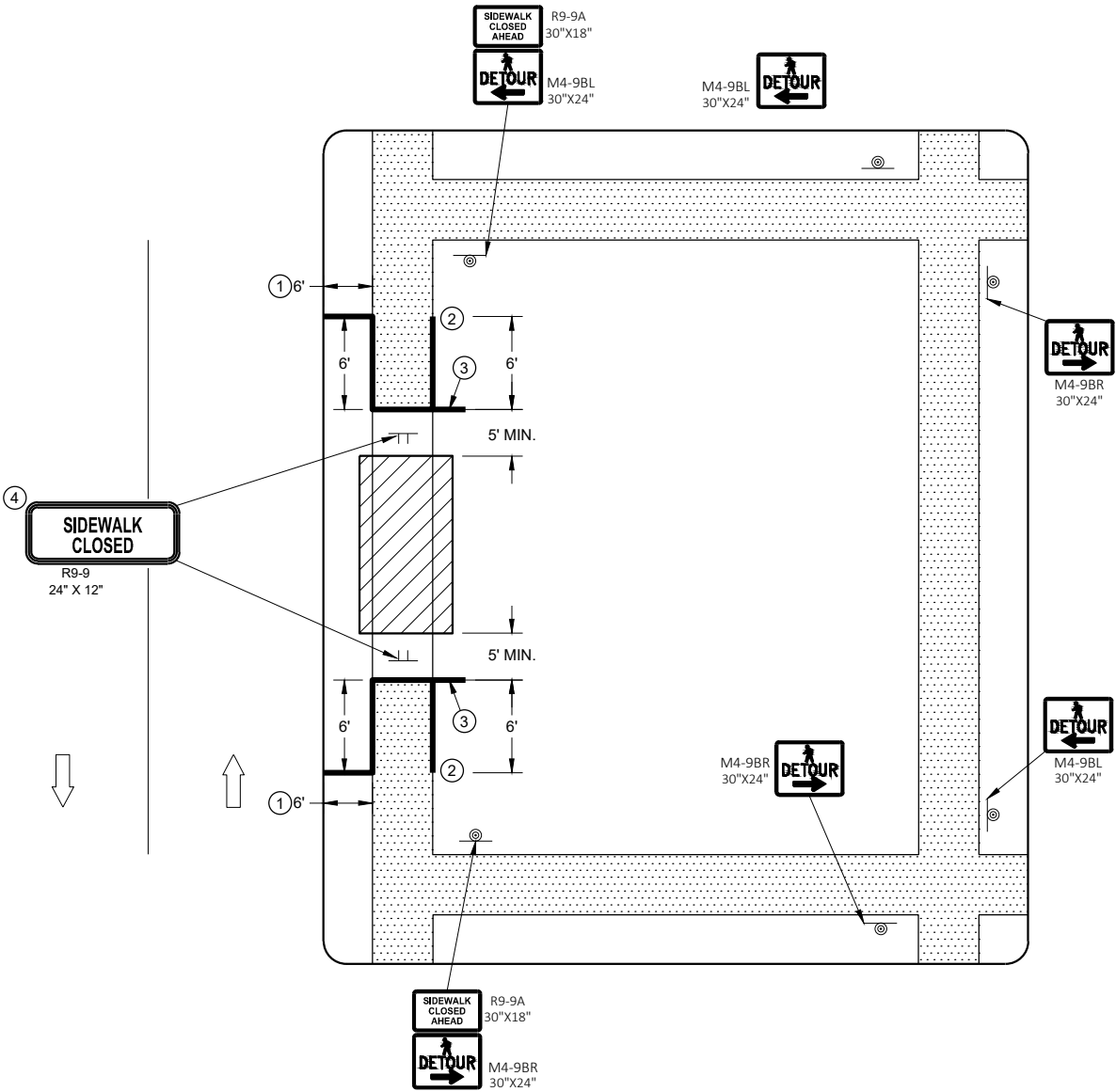
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICTS WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

- 1 IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
- 2 PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
- 3 IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- 4 MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

LEGEND

- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY PEDESTRIAN SURFACE
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

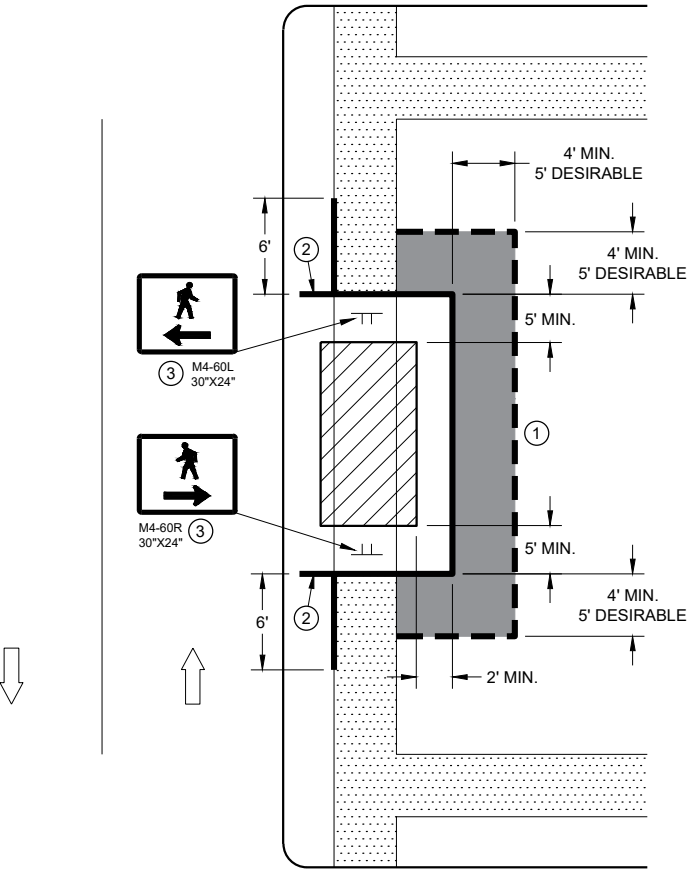
GENERAL NOTES

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- ①

USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ②

IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ③

MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



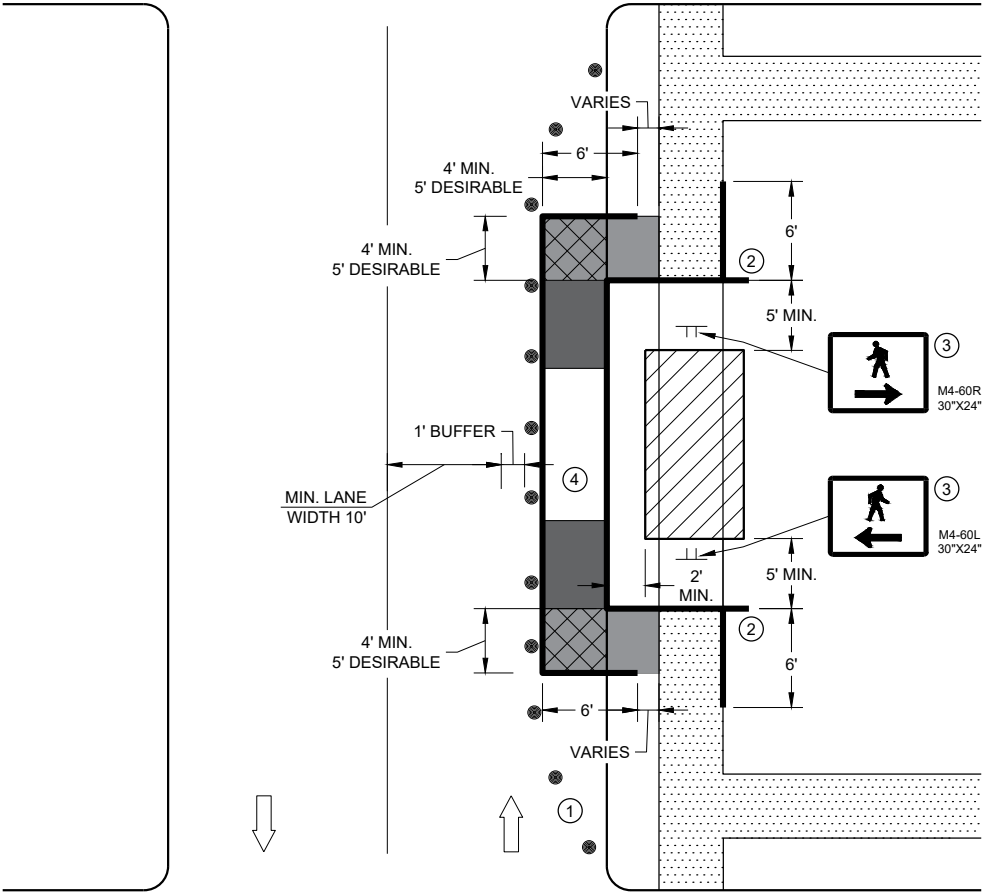
SIDEWALK DIVERSION
SINGLE SIDE

LEGEND

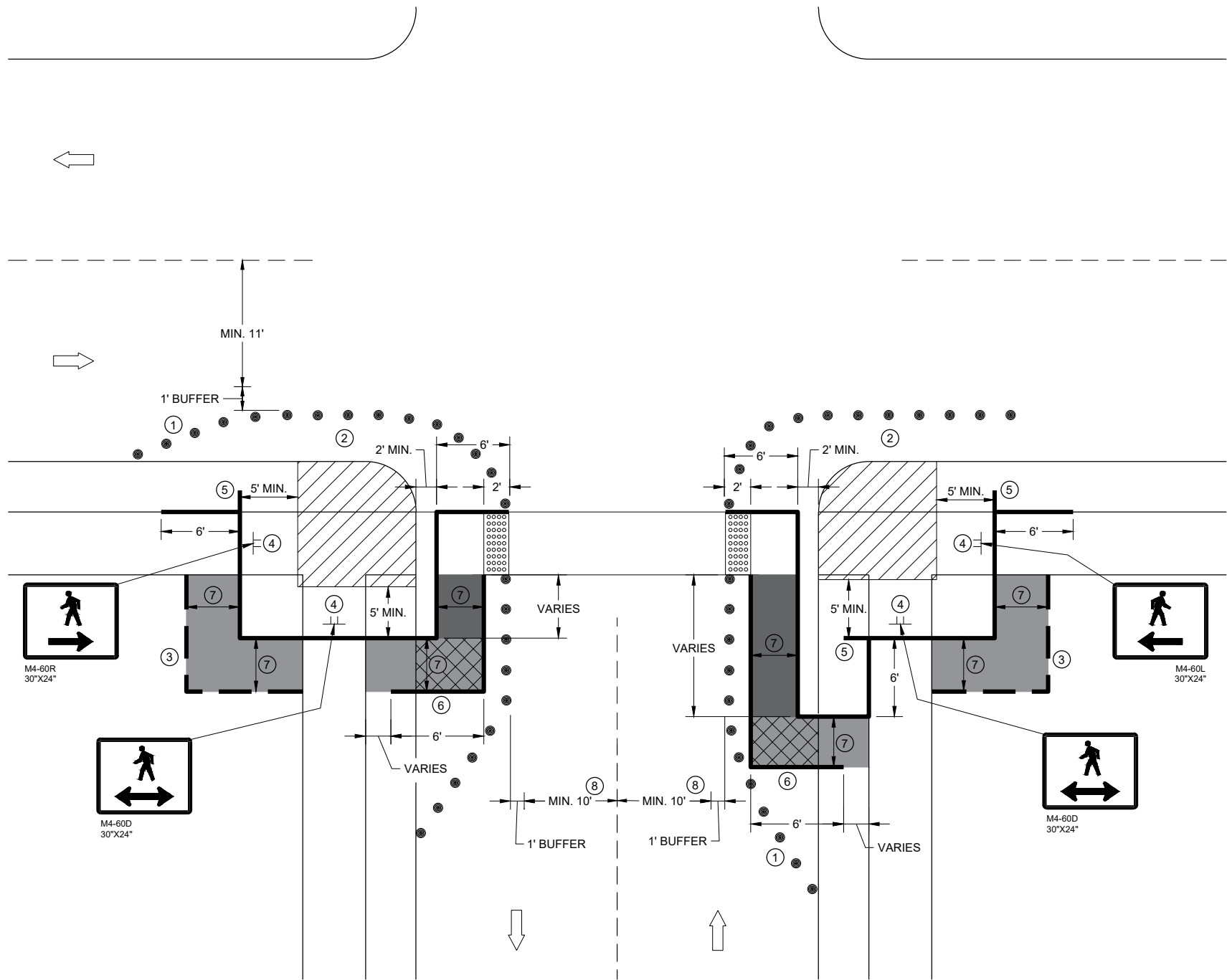
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND BUFFER SPACE REQUIRED.
 - ② PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL PAST THE SIDEWALK ON THE SIDE AWAY FROM THE ROAD.
 - ③ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.
 - ④ USE EXISTING PAVEMENT SURFACE. IF EXISTING PAVEMENT SURACE HAS BEEN REMOVED, USE A TEMPORARY PEDESTRIAN SURFACE.



SIDEWALK DIVERSION, SINGLE SIDE



**CURB RAMP PEDESTRIAN TRAFFIC CONTROL
SIDEWALK ON SINGLE SIDE**

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

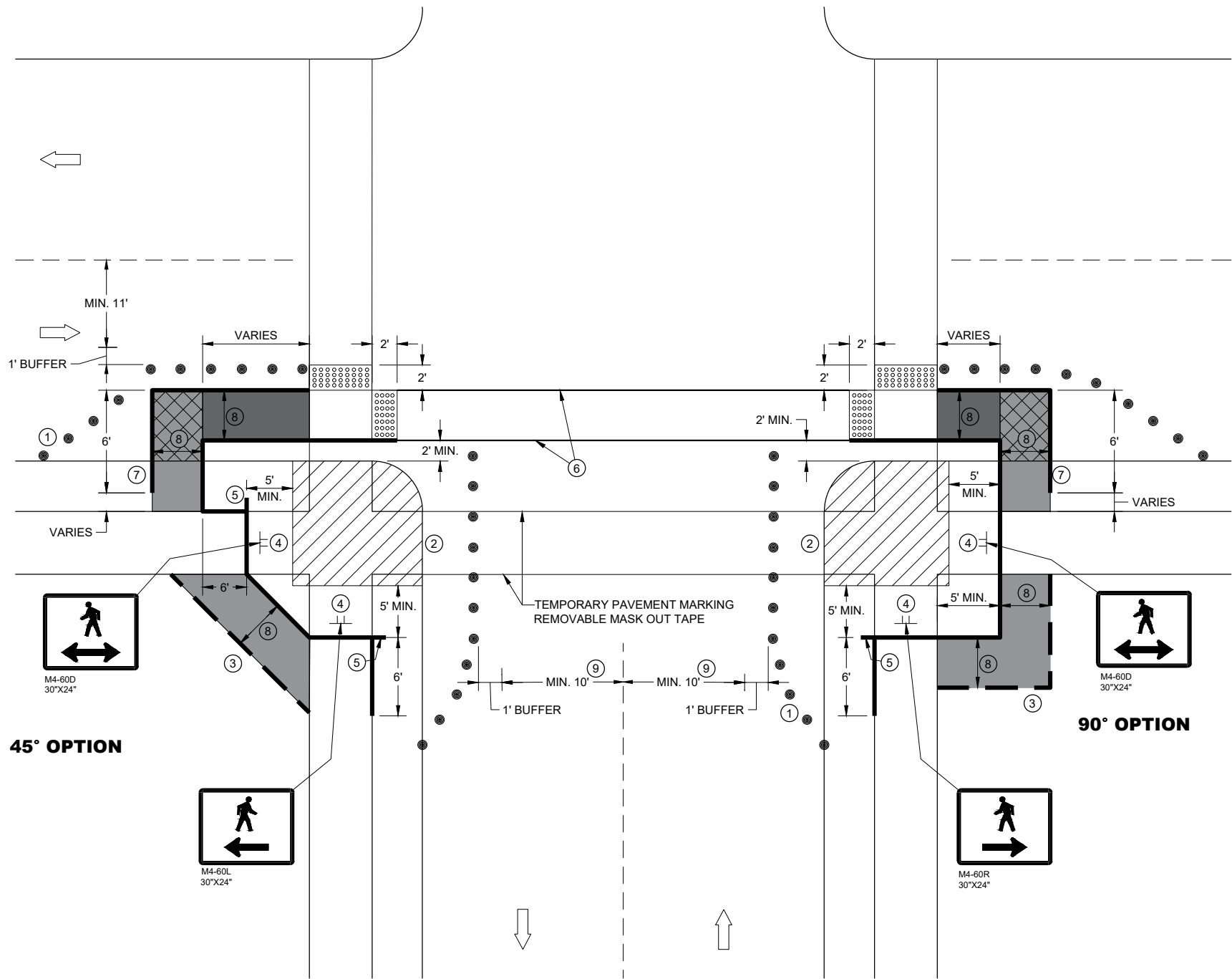
- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
- ② PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
- ③ USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ④ MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
- ⑤ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
- ⑥ IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
- ⑦ 4 FEET MINIMUM, 5 FEET DESIRABLE
- ⑧ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

**TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

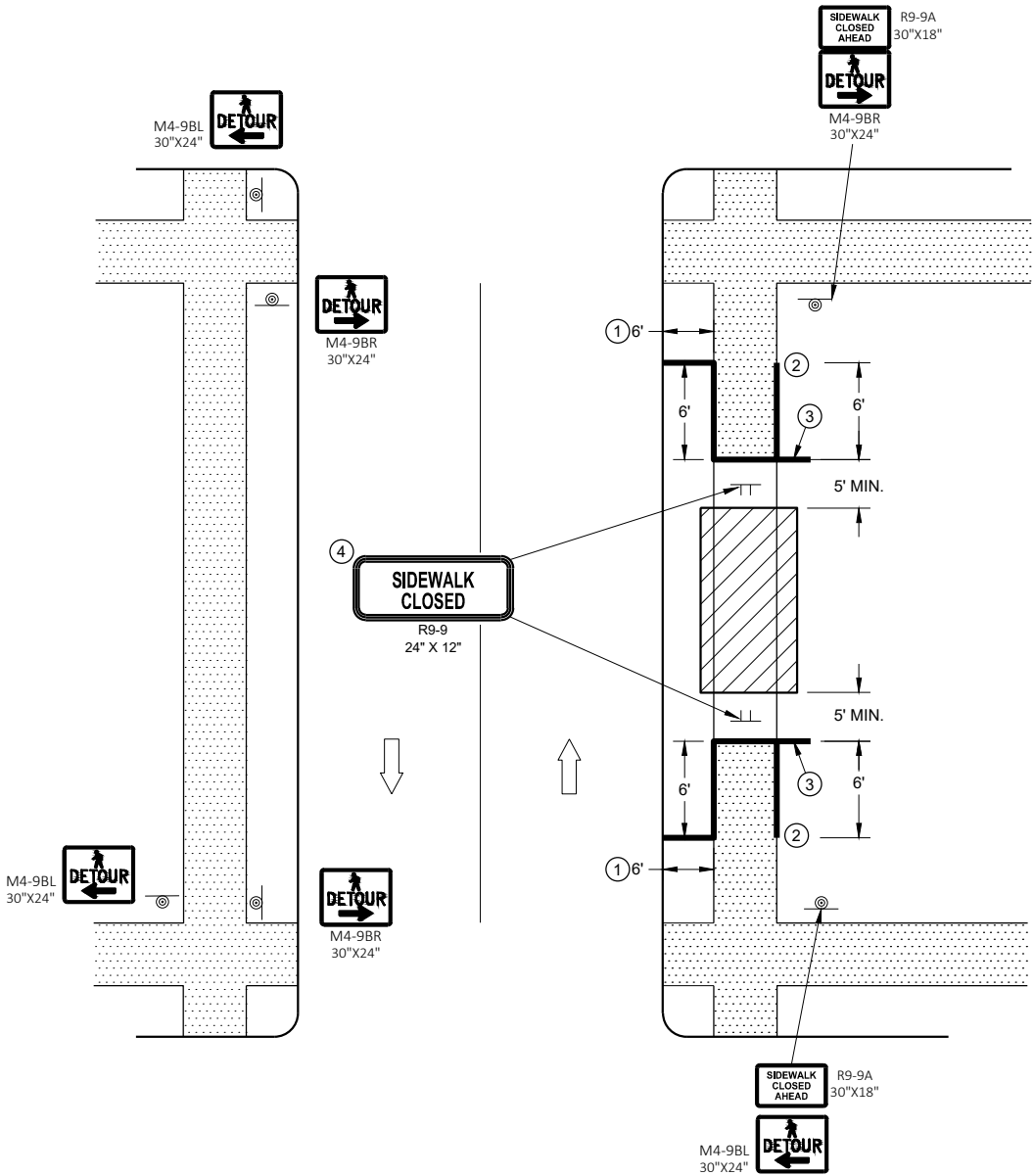
- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
- ② PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
- ③ USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ④ MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
- ⑤ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
- ⑥ WHITE 6" TEMPORARY PAVEMENT MARKING
- ⑦ IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
- ⑧ 4 FEET MINIMUM, 5 FEET DESIRABLE
- ⑨ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  UNDER PEDESTRIAN TRAFFIC
-  WORK AREA
-  TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC



SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

GENERAL NOTES

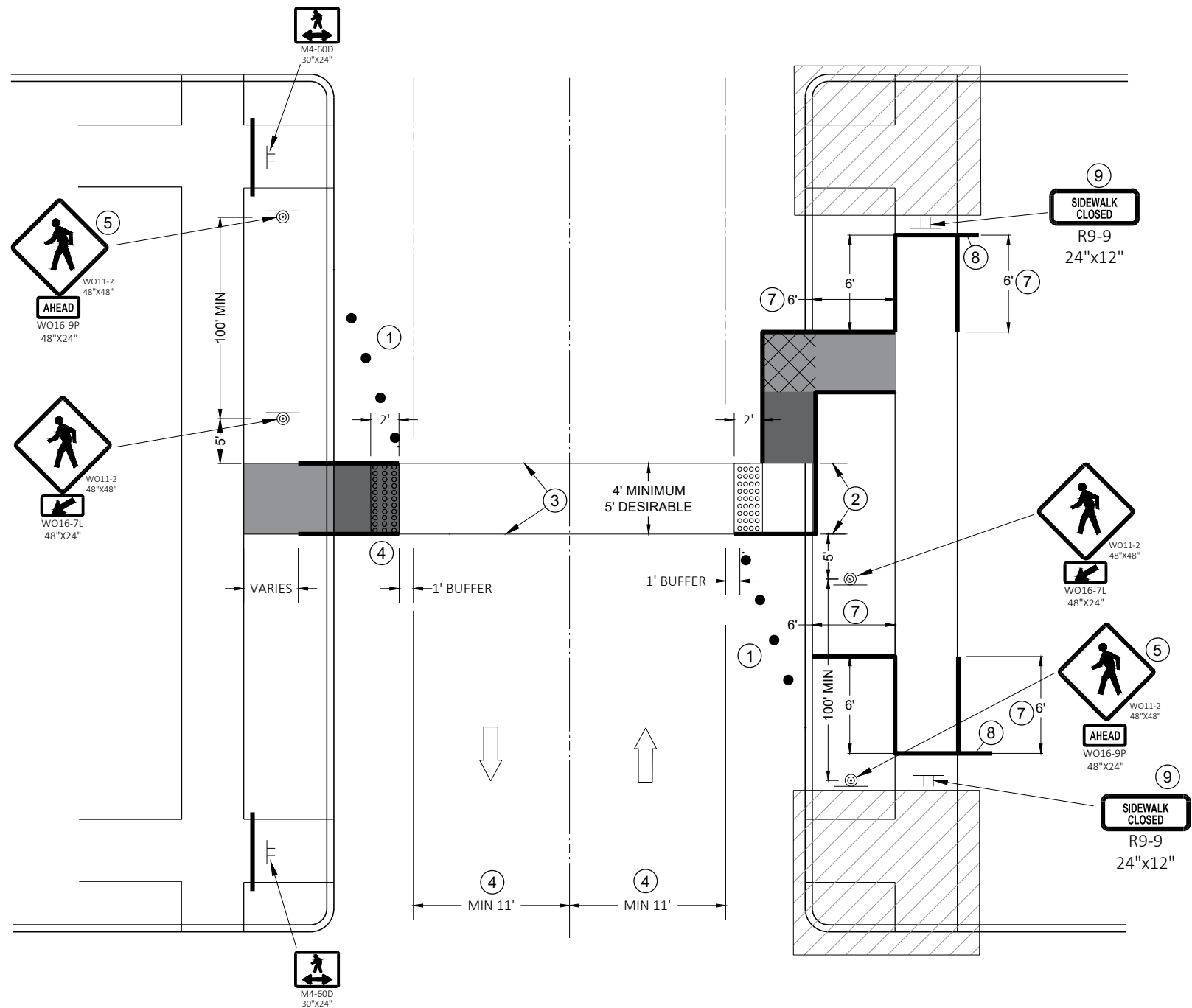
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICT WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

- ① IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
- ② PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
- ③ IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ④ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



TEMPORARY PEDESTRIAN CROSSING

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

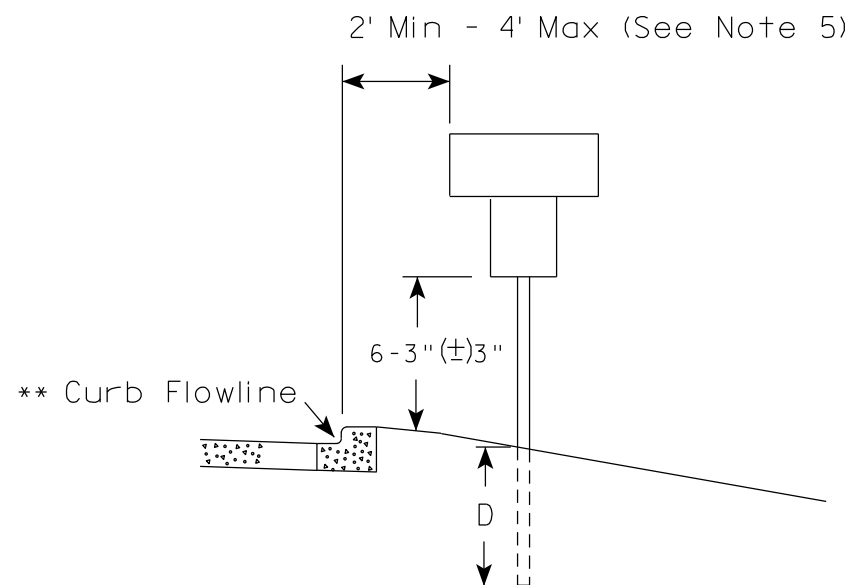
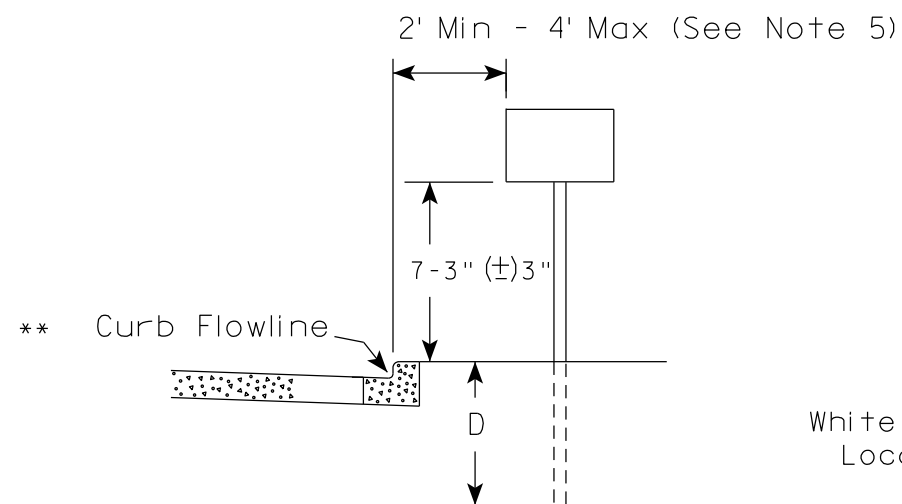
SEE OTHER PEDESTRIAN ACCOMMODATION DETAILS FOR SIGNING AND DEVICES FOR DIFFERENT PEDESTRIAN FACILITIES CLOSURES.

- 1 SHOULDER OR LANE CLOSURE ADVANCED WARNING AND PROPER BUFFER SPACE REQUIRED.
- 2 4 FEET MINIMUM, 5 FEET DESIRABLE.
- 3 WHITE 6" TEMPORARY PAVEMENT MARKING.
- 4 IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, PERPENDICULAR CURB RAMPS MAY NEED TO BE UTILIZED.
- 5 IF MINIMUM 100' SPACING FROM THE MID-BLOCK CROSSING CANNOT BE ATTAINED BEFORE THE INTERSECTION, REMOVE THIS SIGN ASSEMBLY.
- 6 IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
- 7 PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
- 8 IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF THE EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- 9 MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF THE SIGN.

LEGEND

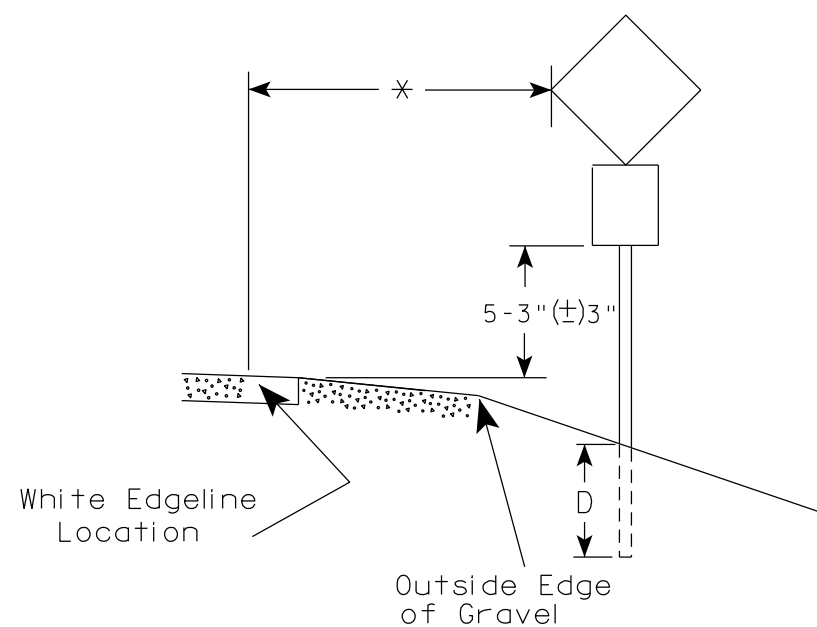
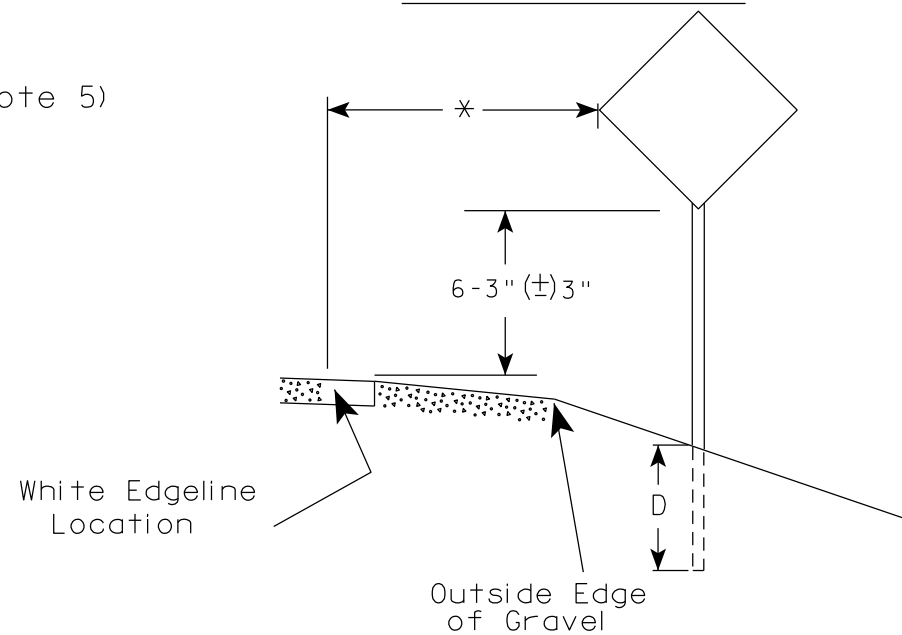
- TRAFFIC CONTROL DRUM
- ⊥ SIGN ON TEMPORARY SUPPORT
- TEMPORARY CURB RAMP
- ◻ TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- ▨ WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- ➡ DIRECTION OF TRAFFIC

URBAN AREA



* * The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

RURAL AREA (See Note 2)



* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

- Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
- If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".
- For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
- Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the Engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 12/6/23

PLATE NO. A4-3.23

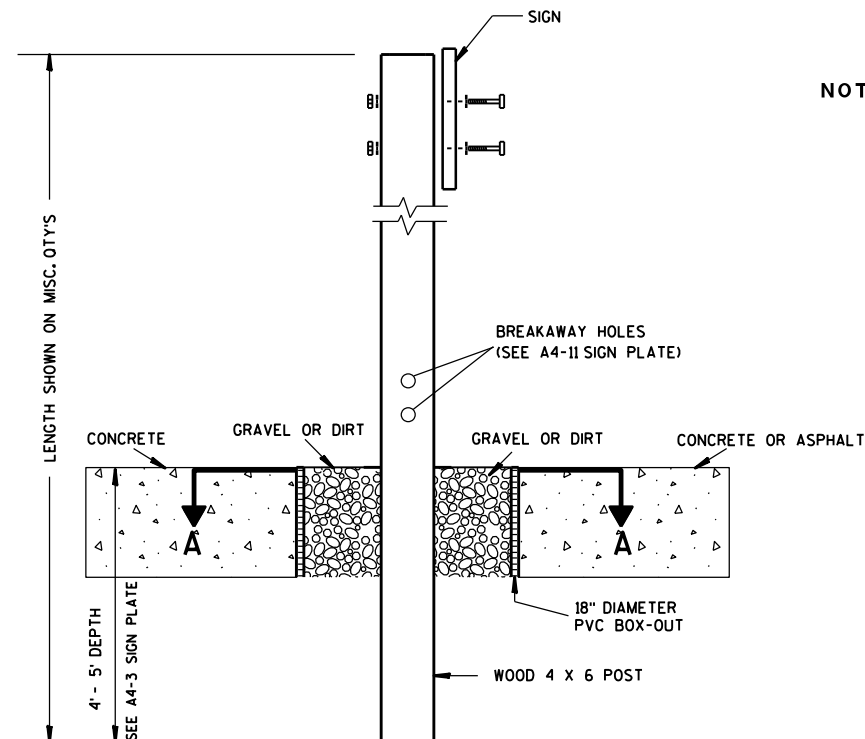
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 93

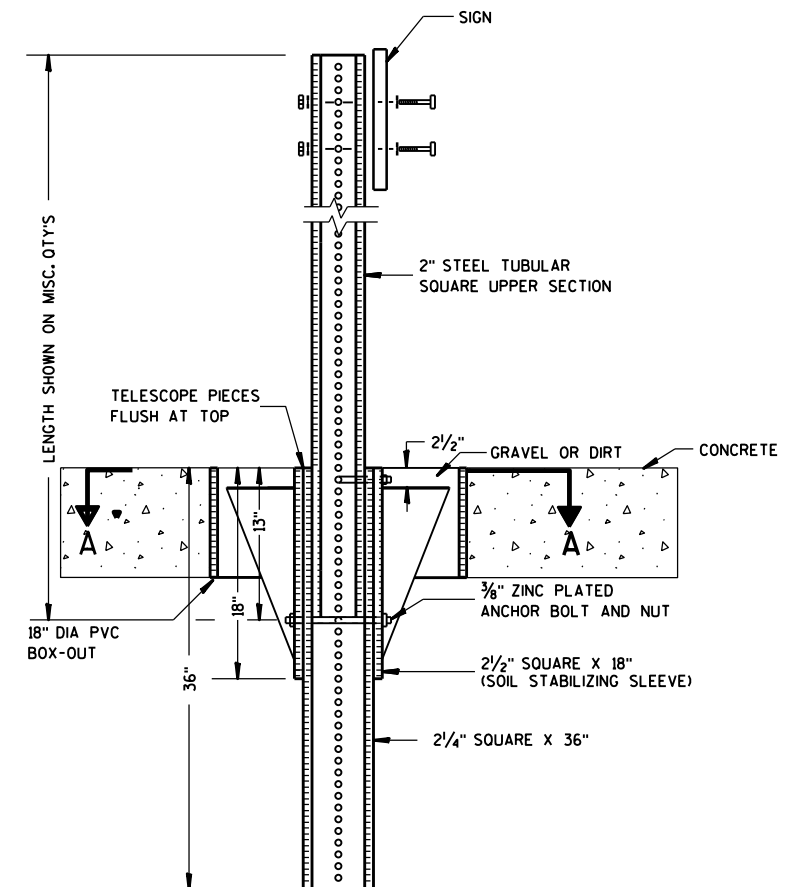
E



ELEVATION VIEW

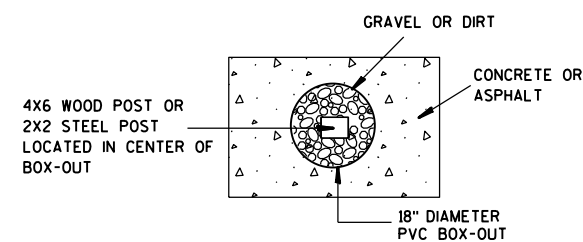
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 94 A4-3B.1

PROJECT NO:

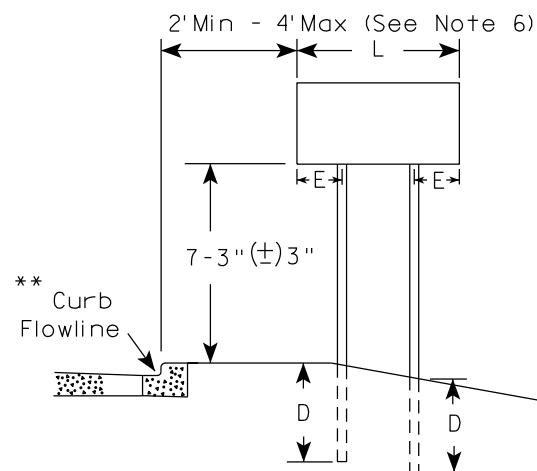
HWY:

COUNTY:

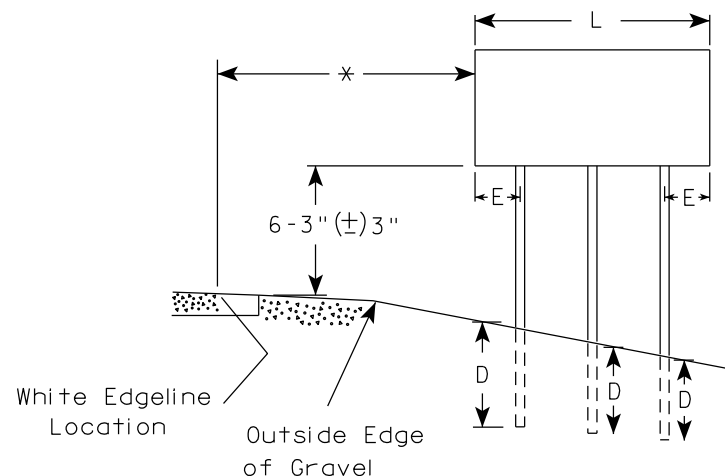
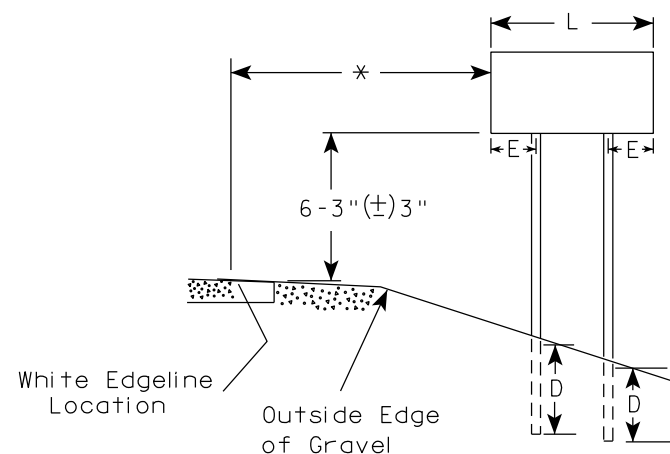
SHEET NO:

E

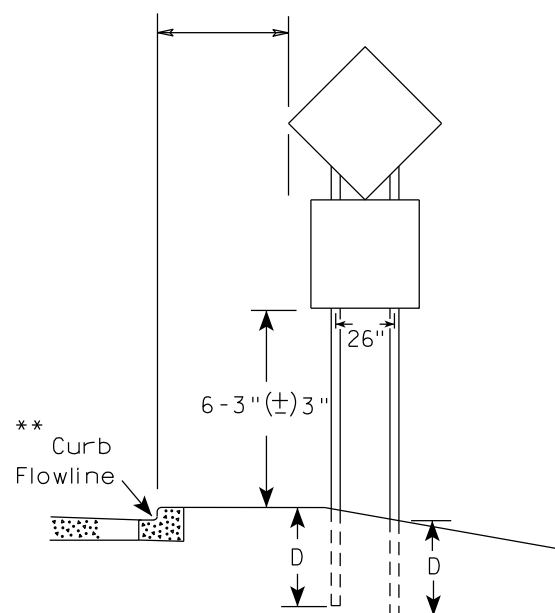
URBAN AREA



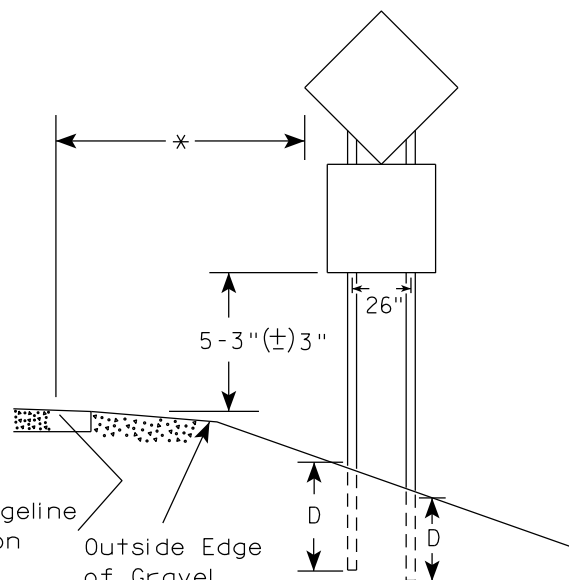
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

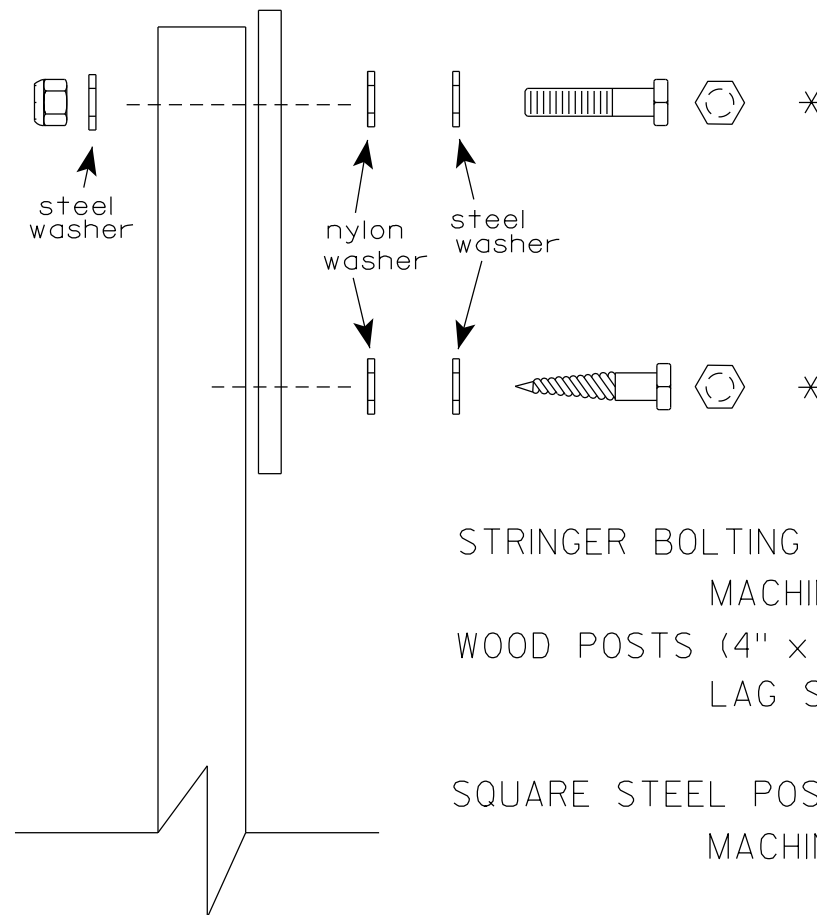
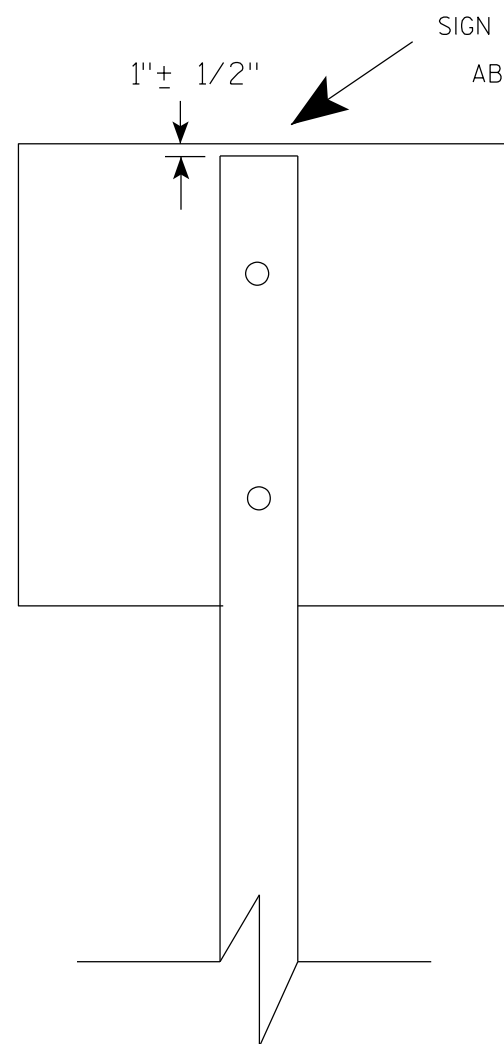
GENERAL NOTES

- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.
- J-Assemblies are considered to be one sign for mounting height.
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

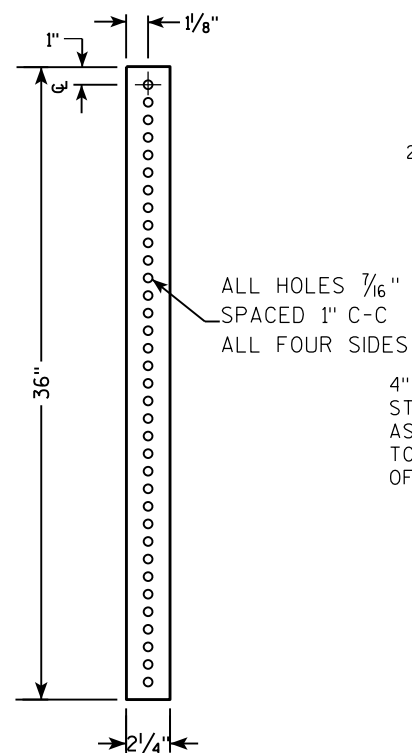
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

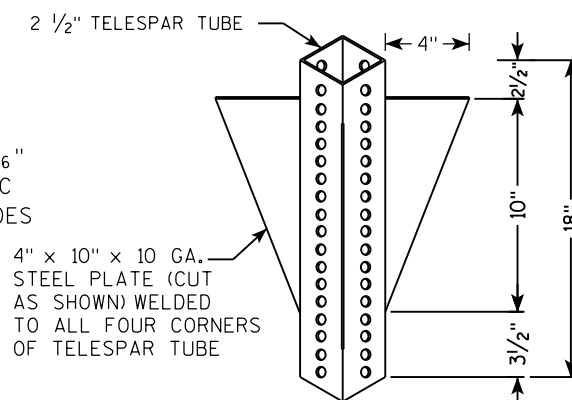
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



**2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH**



TECHNICAL DRAWING OF A SIGN POST ASSEMBLY.

Side View Labels:

- SIGN
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
- 2" STEEL TUBULAR SQUARE UPPER SECTION
- ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES
- $\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT
- 2 1/2" GRAVEL OR DIRT
- $\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
- 2 1/4" SQUARE X 36"

Cross Section Labels:

- TELESCOPE PIECES FLUSH AT TOP
- 13"
- 18"
- 36"
- 18" DIA SCHEDULE 40 PVC BOX-OUT

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY.

Side View Dimensions:

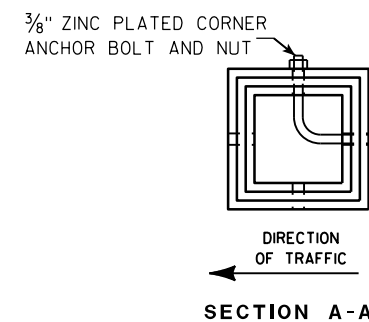
- Overall height: LENGTH SHOWN ON MISC. Q'TYS
- Section 1: 2" STEEL TUBULAR SQUARE UPPER SECTION
- Section 2: 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
- Section 3: 2 1/4" SQUARE X 36"
- Section 4: 36" (Total length of the lower square section)
- Section 5: 18"
- Section 6: 12"

Top View Dimensions:

- Overall width: 36"
- Section 1: 18"
- Section 2: 12"

Material and Assembly Specifications:

- ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES
- 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT
- 3/8" ZINC PLATED ANCHOR BOLT AND NUT
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
- 2 1/4" SQUARE X 36"
- TELESCOPE PIECES FLUSH AT TOP
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
- SIGN



Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch

for State Traffic Engineer

DATE 2/05/15 PLAT 107 14-9.9

PROJECT NO:

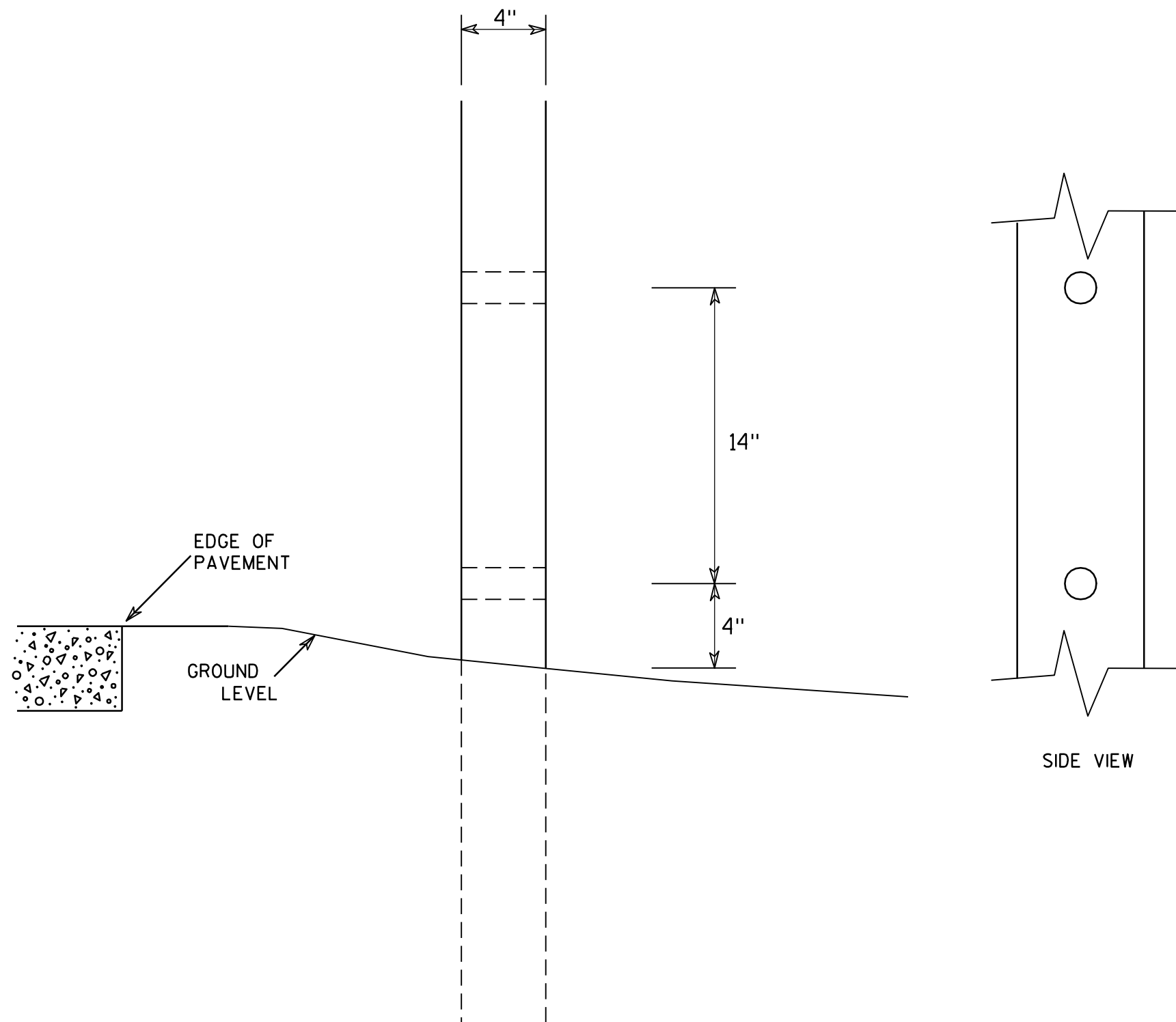
HWY:

COUNTY:

SHEET NO:

E

7



GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

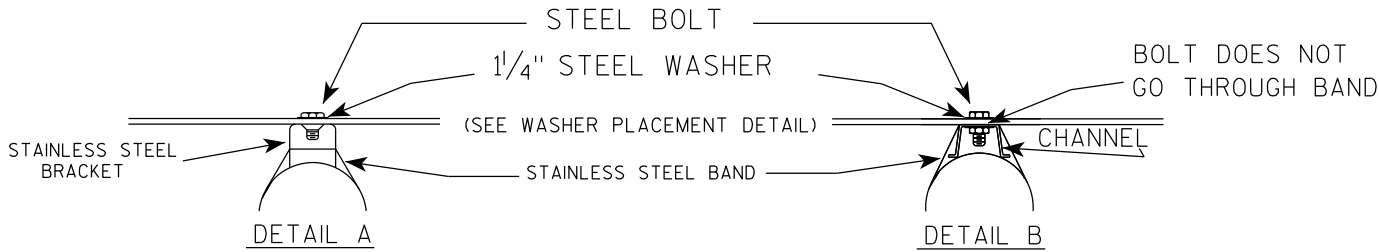
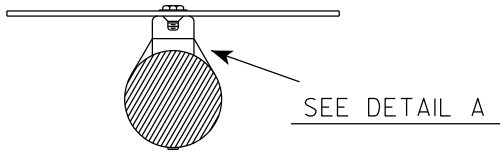
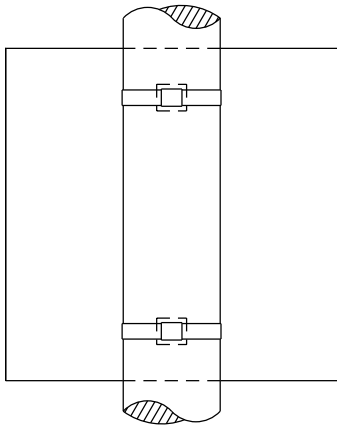
COUNTY:

SHEET NO: 98

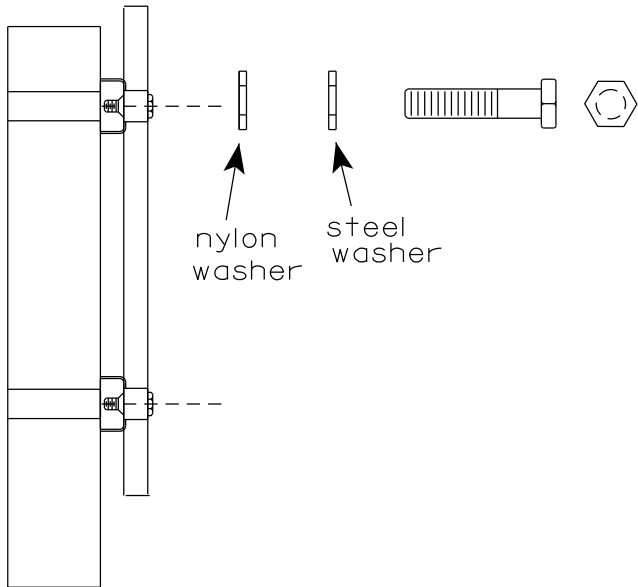
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

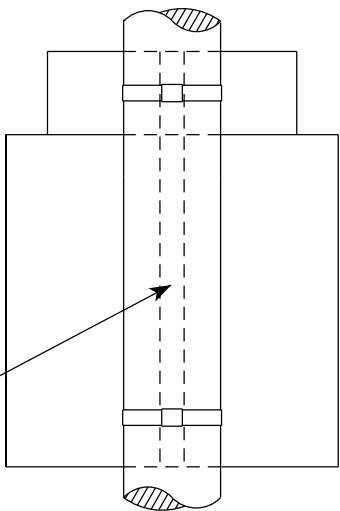


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

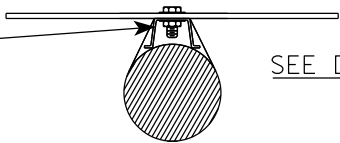
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



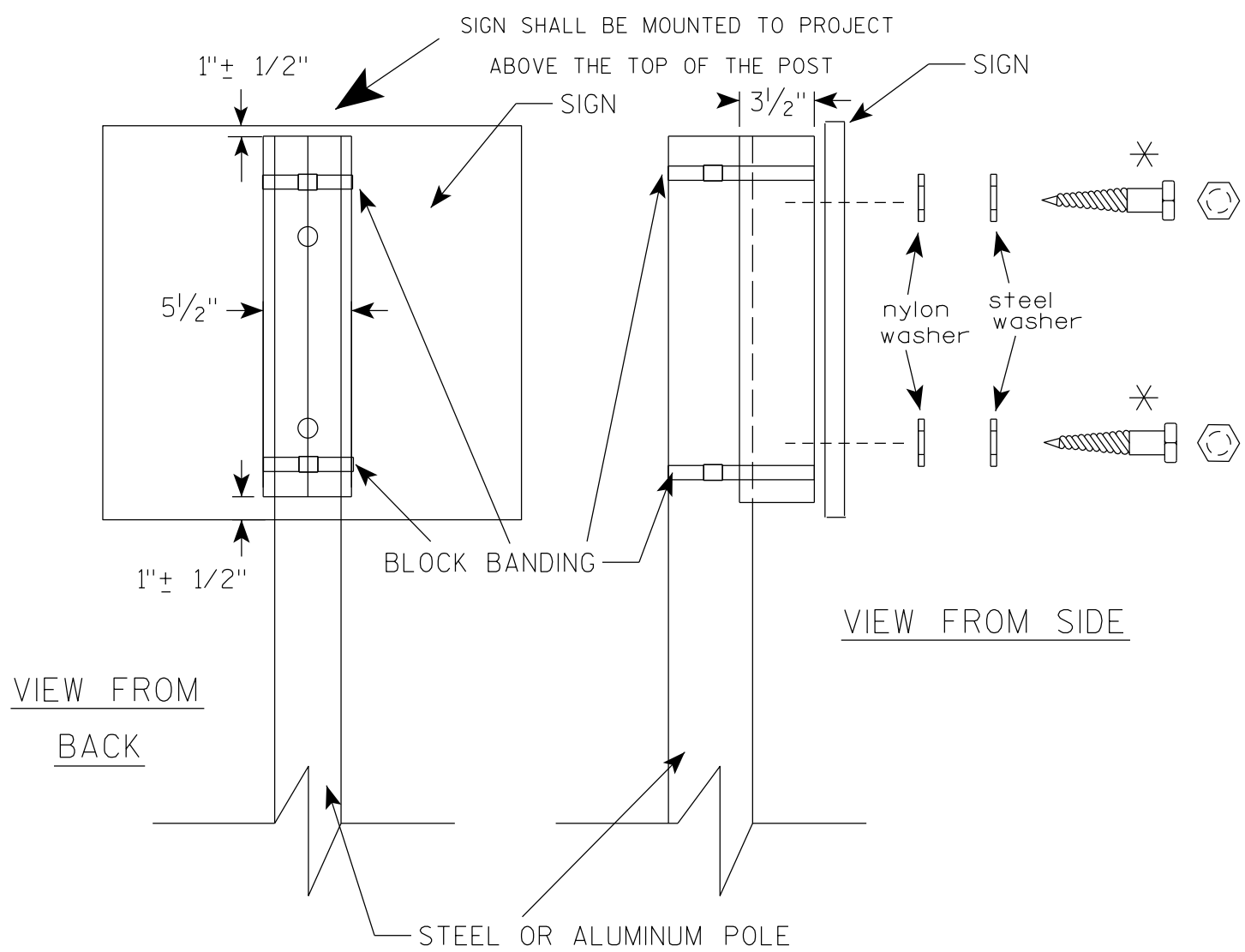
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



STANDARD SIGN
SIGN BANDING DETAILS

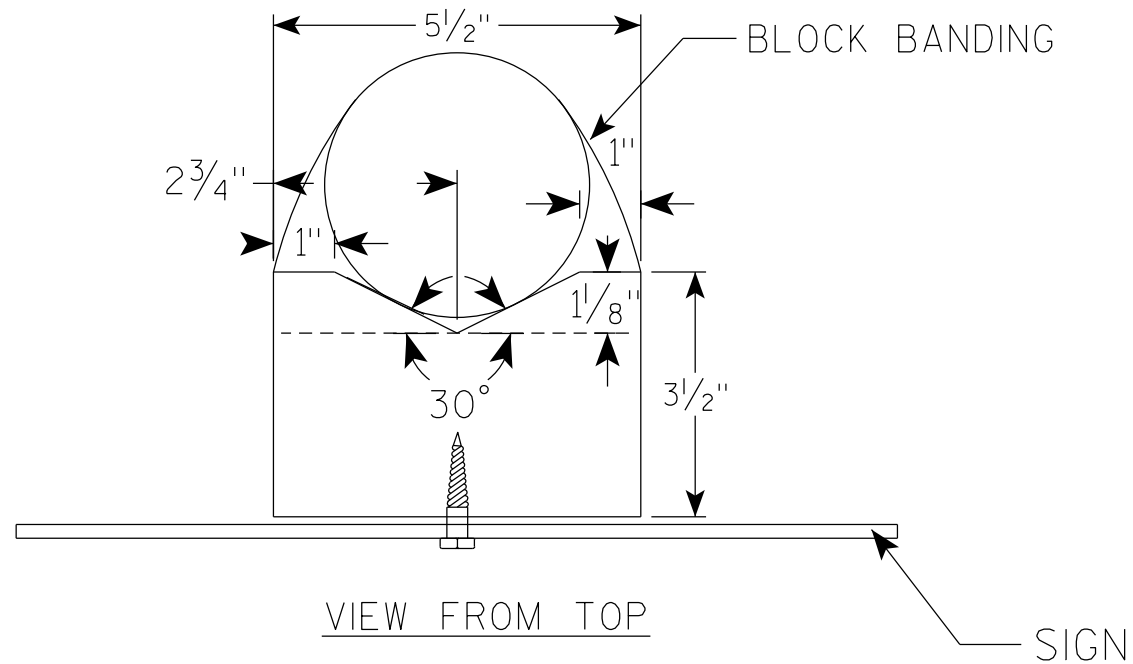
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4



VIEW FROM
BACK

VIEW FROM SIDE



VIEW FROM TOP

GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

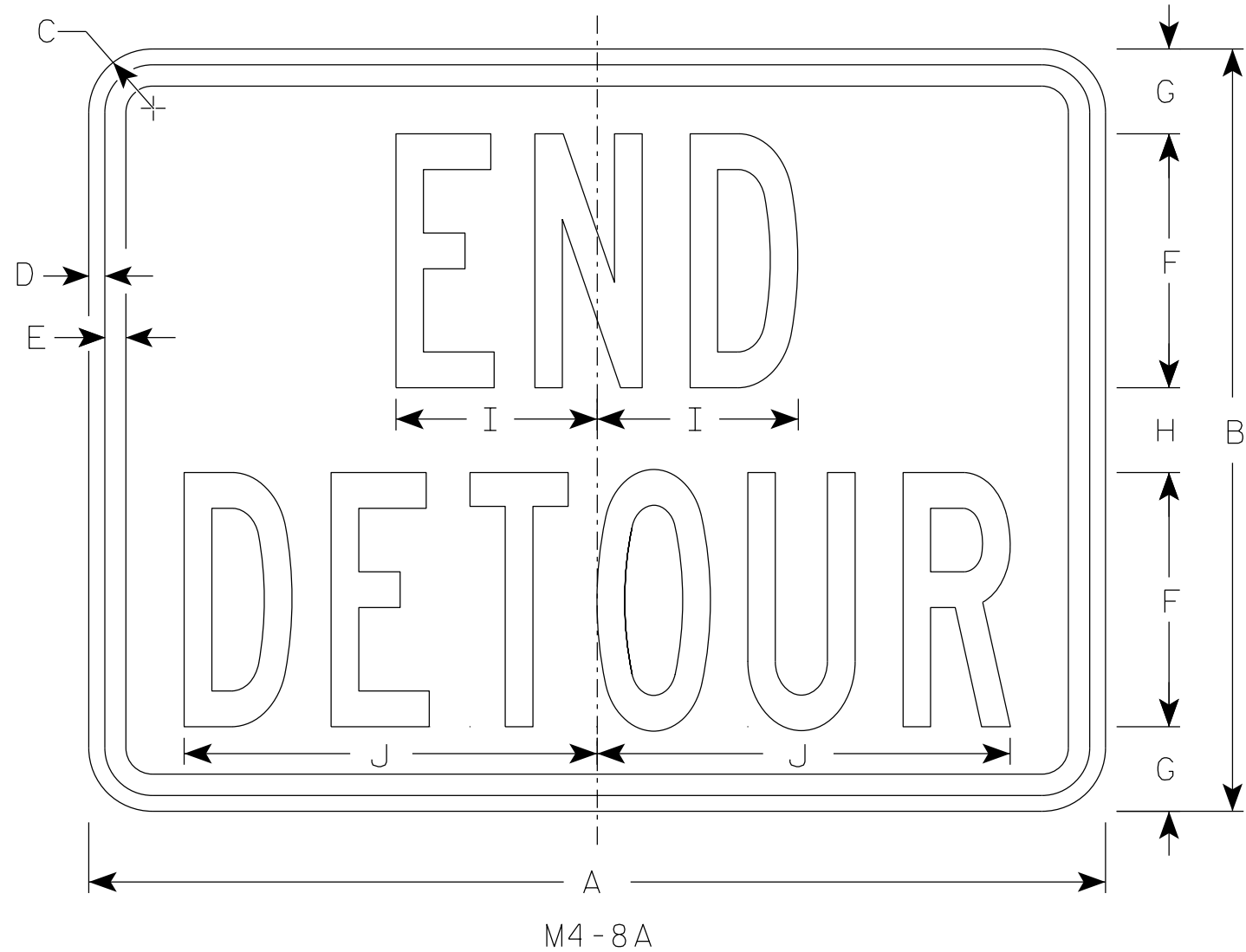
DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 100

E

7



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - B
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
2M	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
5	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0

STANDARD SIGN

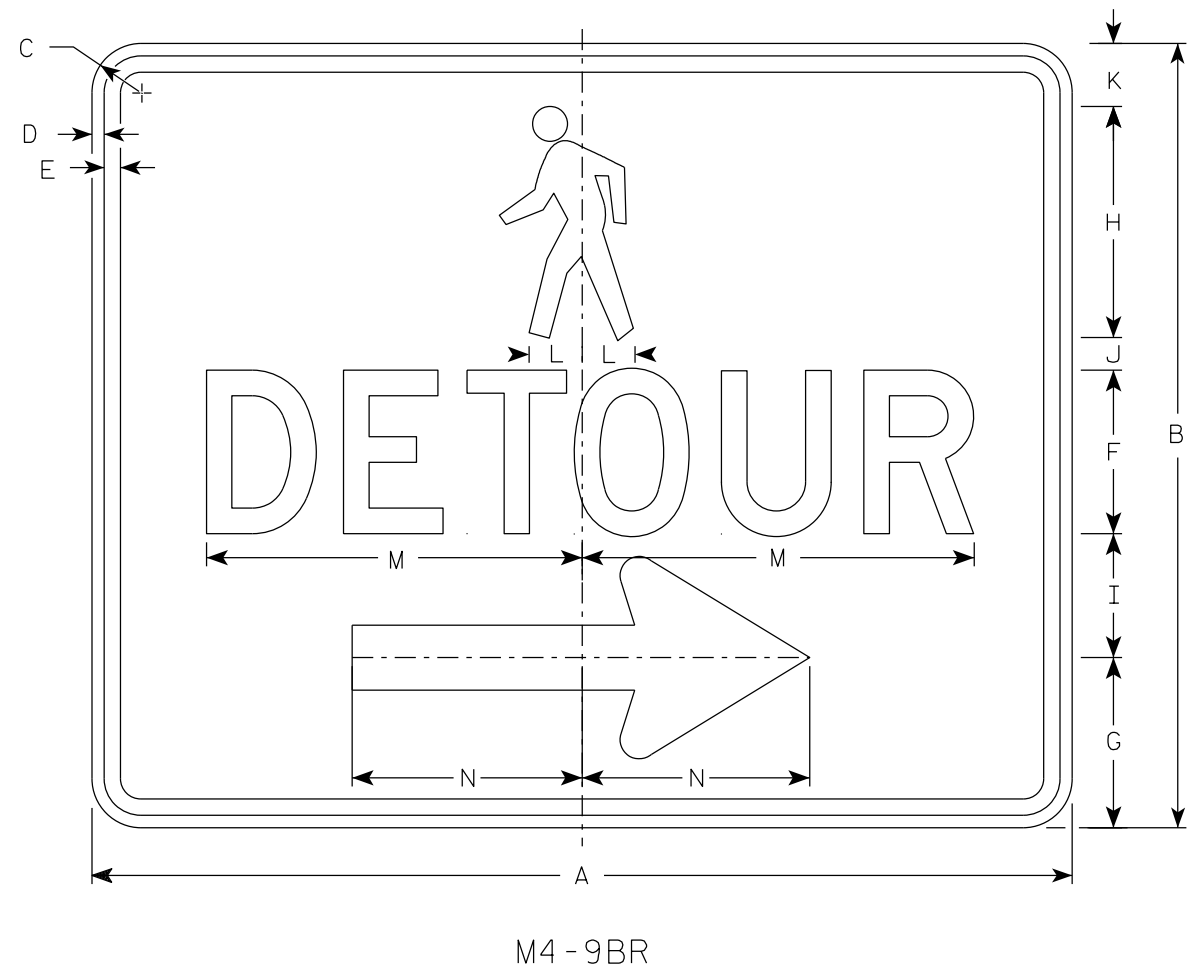
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4

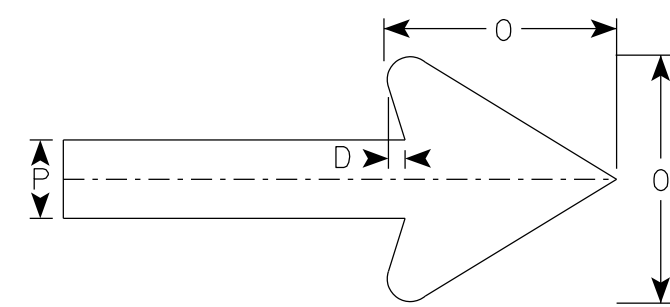
7



M4-9BR

NOTES

1. Sign is Type II-Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9BL is the same as M4-9BR except the arrow is reversed.



Arrow Detail

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
2M	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
3																											
4																											
5																											

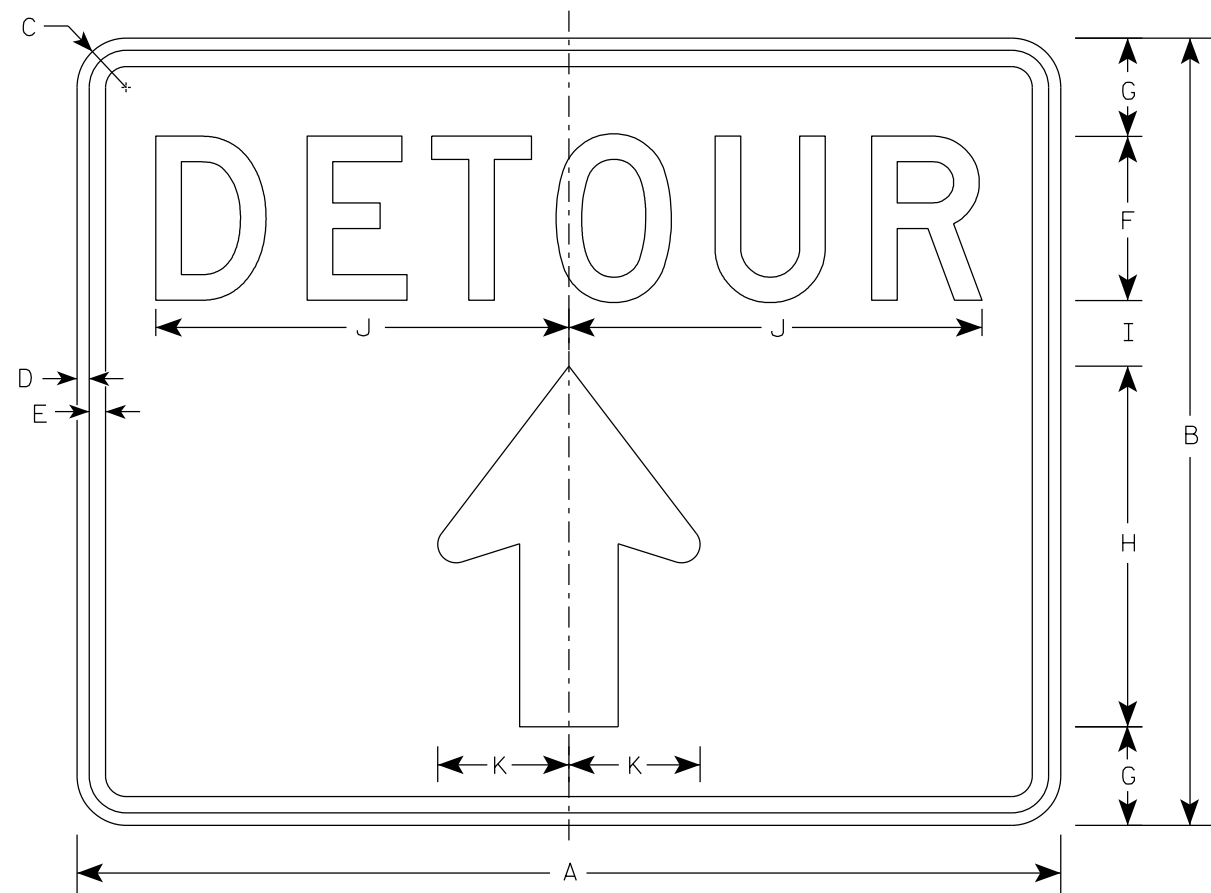
STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9B.4

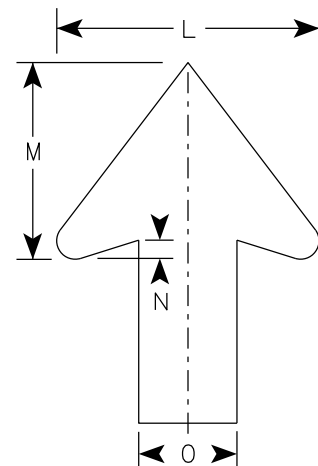
7



M4 - 9RA

NOTES

- 1. Sign is Type II-Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - D



Arrow Detail

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	3/8	1/2	5	3	11	2	12 5/8	4	8	6	1/2	3												5.00
2M	30	24	1 1/2	3/8	1/2	5	3	11	2	12 5/8	4	8	6	1/2	3												5.00
3																											
4																											
5																											

STANDARD SIGN

M4-9RA

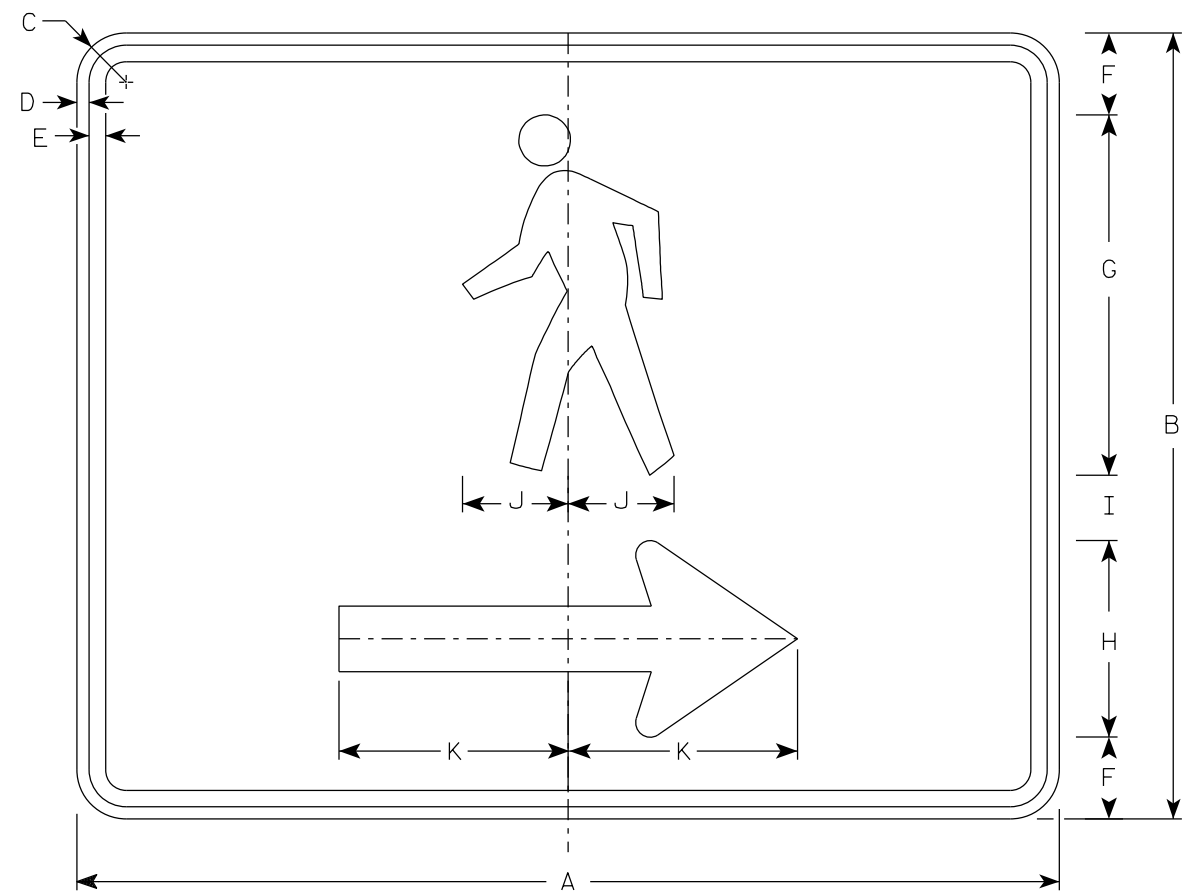
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

for State Traffic Engineer

DATE 2/9/2023

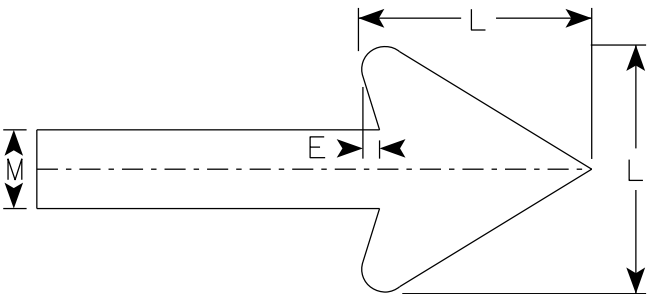
PLATE NO. M4-9RA.3



M4-60R

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M4-60L is the same as M4-60R except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	3/8	1/2	2 1/2	11	6	2	3 1/4	7	6	2														5.00
2M	30	24	1 1/2	3/8	1/2	2 1/2	11	6	2	3 1/4	7	6	2														5.00
3																											
4																											
5																											

PROJECT NO:

HWY:

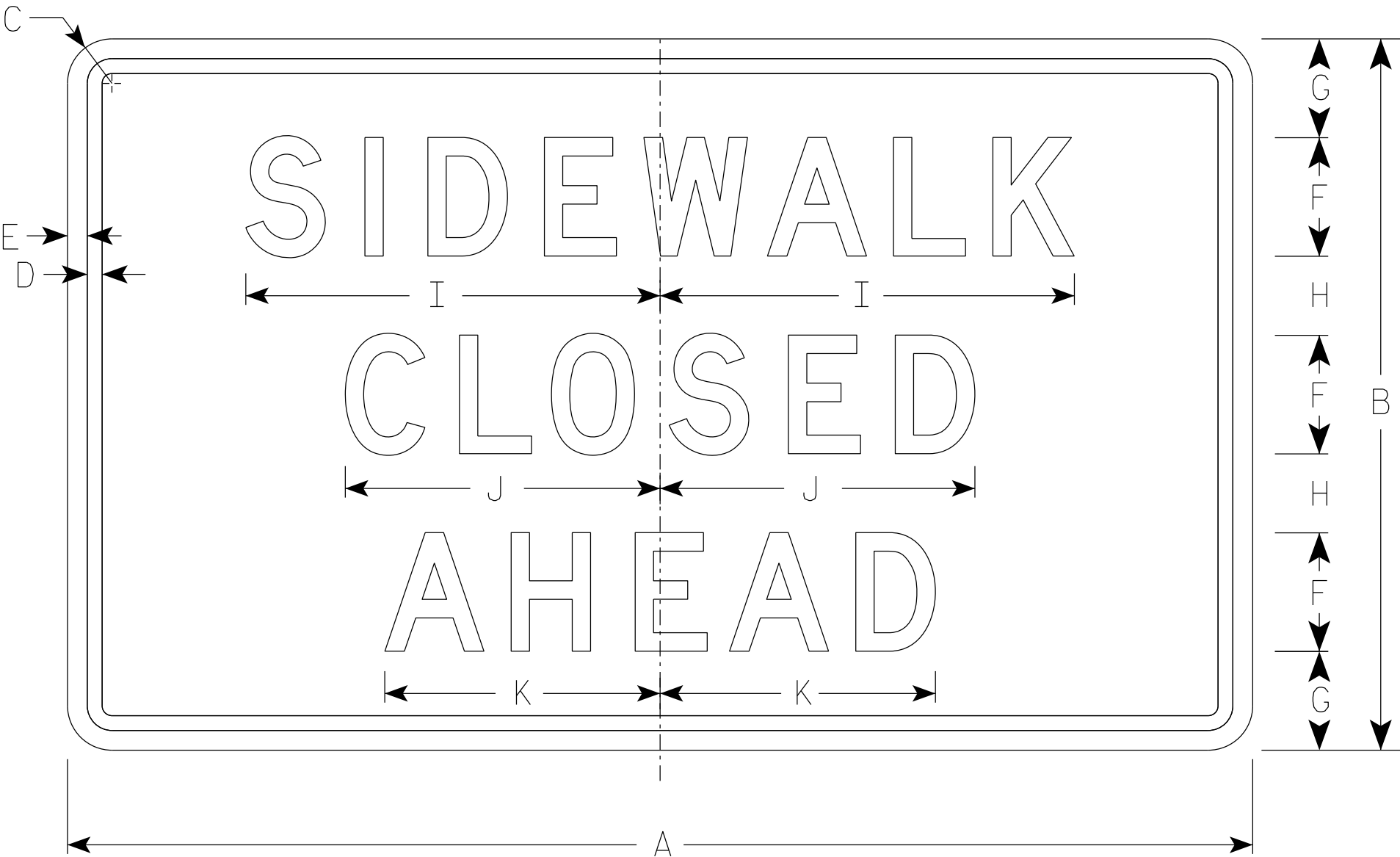
COUNTY:

SHEET NO: 104

E

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - D



R9-9A

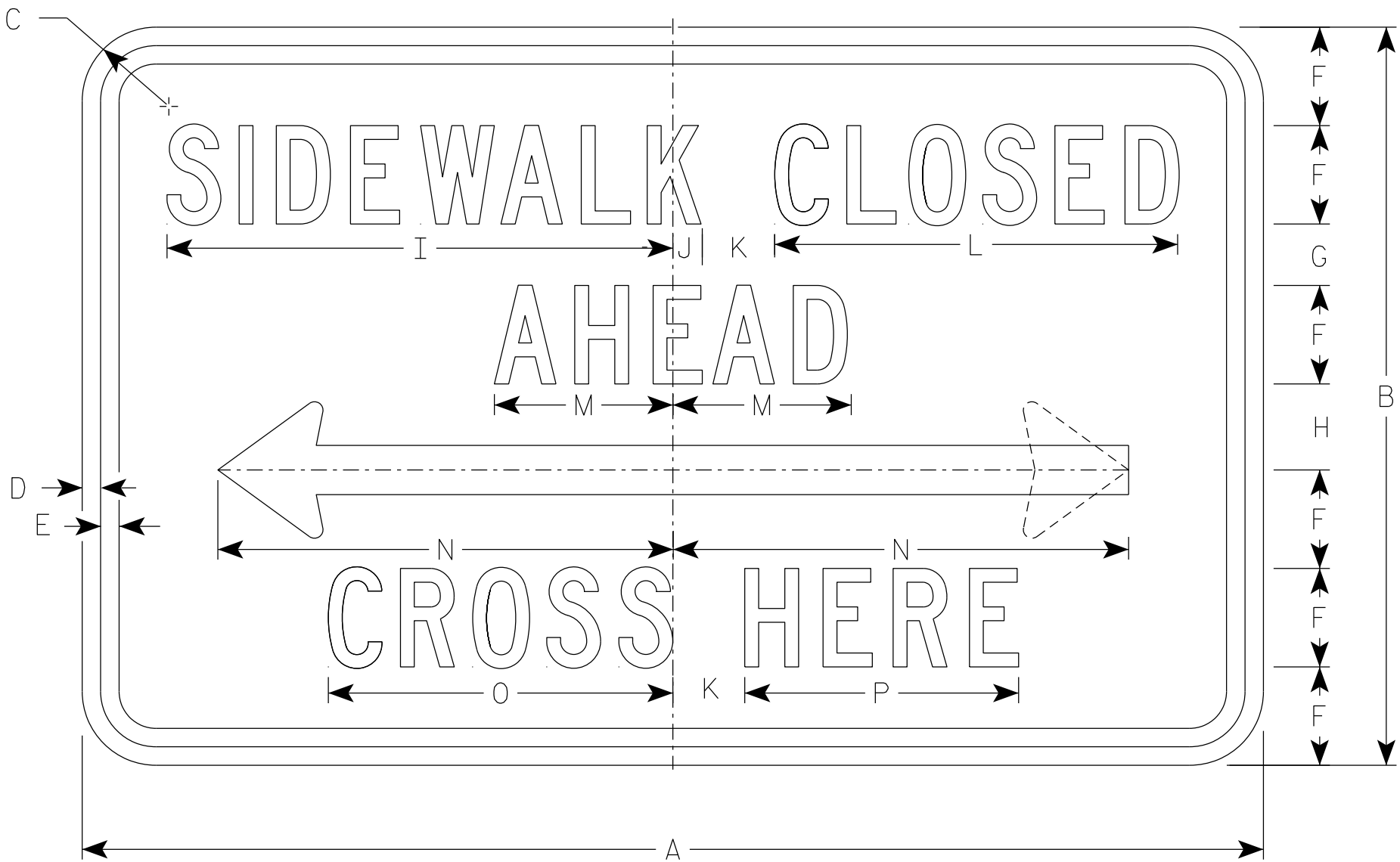
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
2M	30	18	1 1/2	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
3																											
4																											
5																											

STANDARD SIGN
R9-9A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

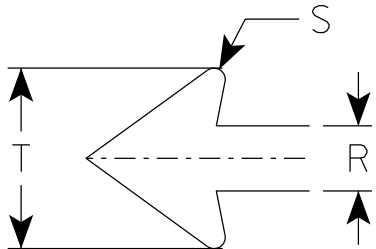
DATE 1/24/24 PLATE NO. R9-9A.2



R9-11

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - C except Size 1 is Series D
- 4. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.
- 5. R9-11 D (double arrow)
R9-11 L (left arrow)
R9-11 R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/2	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
3	30	15	1 1/2	3/8	1/2	2	1 1/2	1 1/2	13	3/4	2	10 1/4	4 5/8	12 3/8	8 7/8	6 7/8		1 1/4	1/4	3 5/8							3.125
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 106

E

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)	
			CUT	FILL	EBS (40% OF CUT)	CUT	FILL	EBS	CUT	EXPANDED FILL
						NOTE 1	NOTE 3		1.00 NOTE 1	1.25
11+25.00	1125.00	0.00	47.43	0.01	9	0	0	0	0	0
11+41.37	1141.37	16.37	47.63	0.03	10	29	0	6	29	-8
11+50.00	1150.00	8.63	50.73	0.05	10	16	0	3	45	-11
11+75.00	1175.00	25.00	75.86	3.21	15	59	2	12	104	-24
12+00.00	1200.00	25.00	49.06	3.15	10	58	3	12	162	-35
12+25.00	1225.00	25.00	48.89	1.35	10	45	2	9	207	-44
12+50.00	1250.00	25.00	46.02	0.00	9	44	1	9	251	-54
12+50.47	1250.47	0.47	45.58	0.00	9	1	0	0	252	-54
12+75.00	1275.00	24.53	40.89	4.49	8	39	2	8	291	-61
13+00.00	1300.00	25.00	38.08	13.36	8	37	8	7	328	-60
13+25.00	1325.00	25.00	41.36	14.86	8	37	13	7	365	-53
13+50.00	1350.00	25.00	44.21	15.91	9	40	14	8	405	-45
13+75.00	1375.00	25.00	40.13	12.48	8	39	13	8	444	-39
14+00.00	1400.00	25.00	40.78	8.88	8	37	10	7	481	-35
14+15.71	1415.71	15.71	43.76	8.36	9	25	5	5	506	-35
14+25.00	1425.00	9.29	48.85	6.28	10	16	3	3	522	-35
14+50.00	1450.00	25.00	53.46	0.71	11	47	3	9	569	-43
14+75.00	1475.00	25.00	48.61	1.09	10	47	1	9	616	-53
15+00.00	1500.00	25.00	43.97	6.16	9	43	3	9	659	-60
15+25.00	1525.00	25.00	46.79	7.21	9	42	6	8	701	-63
15+28.47	1528.47	3.47	47.36	7.34	9	6	1	1	707	-63
15+50.00	1550.00	21.53	44.77	10.96	9	37	7	7	744	-63
15+75.00	1575.00	25.00	47.59	14.34	10	43	12	9	787	-59
16+00.00	1600.00	25.00	48.79	6.22	10	45	10	9	832	-58
16+25.00	1625.00	25.00	46.20	0.00	9	44	3	9	876	-65
16+41.22	1641.22	16.22	48.80	0.00	10	29	0	6	905	-73
16+50.00	1650.00	8.78	49.61	0.00	10	16	0	3	921	-76
16+75.00	1675.00	25.00	50.90	0.00	10	47	0	9	968	-88
17+00.00	1700.00	25.00	58.09	5.45	12	50	3	10	1,018	-96
17+25.00	1725.00	25.00	57.69	7.80	12	54	6	11	1,072	-103
17+50.00	1750.00	25.00	58.67	7.54	12	54	7	11	1,126	-108
17+75.00	1775.00	25.00	59.09	7.60	12	55	7	11	1,181	-113
18+00.00	1800.00	25.00	60.76	7.81	12	55	7	11	1,236	-118
18+25.00	1825.00	25.00	59.94	6.75	12	56	7	11	1,292	-123
18+50.00	1850.00	25.00	62.84	4.46	13	57	5	11	1,349	-130
18+75.00	1875.00	25.00	68.81	2.08	14	61	3	12	1,410	-141
19+00.00	1900.00	25.00	67.33	1.95	13	63	2	13	1,473	-155
19+25.00	1925.00	25.00	59.08	4.33	12	59	3	12	1,532	-166
19+29.05	1929.05	4.05	58.87	4.41	12	9	1	2	1,541	-168
19+50.00	1950.00	20.95	58.71	4.55	12	46	3	9	1,587	-175

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)	
			CUT	FILL	EBS (40% OF CUT)	CUT	FILL	EBS	CUT	EXPANDED FILL
						NOTE 1	NOTE 3		1.00 NOTE 1	1.25
19+75.00	1975.00	25.00	56.00	5.68	11	53	5	11	1,640	-183
19+95.79	1995.79	20.79	52.06	6.70	10	42	5	8	1,682	-186
20+00.00	2000.00	4.21	52.10	6.82	10	8	1	2	1,690	-188
20+25.00	2025.00	25.00	54.74	8.33	11	49	7	10	1,739	-191
20+50.00	2050.00	25.00	58.49	17.77	12	52	12	10	1,791	-189
20+62.53	2062.53	12.53	58.88	22.60	12	27	9	5	1,818	-184
20+75.00	2075.00	12.47	61.44	22.50	12	28	10	6	1,846	-179
21+00.00	2100.00	25.00	66.37	20.24	13	59	20	12	1,905	-169
21+25.00	2125.00	25.00	66.50	19.40	13	62	18	12	1,967	-161
21+50.00	2150.00	25.00	68.80	18.32	14	63	17	13	2,030	-156
21+75.00	2175.00	25.00	73.34	18.13	15	66	17	13	2,096	-151
22+00.00	2200.00	25.00	66.57	18.05	13	65	17	13	2,161	-146
22+25.00	2225.00	25.00	63.48	18.69	13	60	17	12	2,221	-140
22+50.00	2250.00	25.00	65.40	18.20	13	60	17	12	2,281	-134
22+64.42	2264.42	14.42	65.91	18.76	13	35	10	7	2,316	-130
22+75.00	2275.00	10.58	65.73	18.60	13	26	7	5	2,342	-128
23+00.00	2300.00	25.00	67.53	16.41	14	62	16	12	2,404	-123
23+25.00	2325.00	25.00	65.33	8.98	13	62	12	12	2,466	-123
23+50.00	2350.00	25.00	75.32	0.71	15	65	4	13	2,531	-134
23+75.00	2375.00	25.00	88.60	0.00	18	76	0	15	2,607	-153
23+81.84	2381.84	6.84	78.35	0.73	16	21	0	4	2,628	-158
24+00.00	2400.00	18.16	74.32	1.85	15	51	1	10	2,679	-169
24+25.00	2425.00	25.00	62.97	2.10	13	64	2	13	2,743	-183
24+50.00	2450.00	25.00	58.12	4.38	12	56	3	11	2,799	-193
24+75.00	2475.00	25.00	54.65	3.52	11	52	4	10	2,851	-200
24+99.26	2499.26	24.26	54.83	1.99	11	49	2	10	2,900	-210
25+00.00	2500.00	0.74	55.16	2.02	11	2	0	0	2,902	-210
25+25.00	2525.00	25.00	55.83	1.92	11	51	2	10	2,953	-220
25+50.00	2550.00	25.00	48.36	5.04	10	48	3	10	3,001	-229
25+75.00	2575.00	25.00	62.10	5.62	12	51	5	10	3,052	-235
26+00.00	2600.00	25.00	62.15	6.87	12	58	6	12	3,110	-243
26+25.00	2625.00	25.00	60.86	6.79	12	57	6	11	3,167	-249
26+50.00	2650.00	25.00	63.58	3.48	13	58	5	12	3,225	-258
26+69.87	2669.87	19.87	30.07	0.00	6	34	1	7	3,259	-265
26+75.00	2675.00	5.13	45.36	2.25	9	7	0	1	3,266	-266
27+00.00	2700.00	25.00	60.94	0.00	12	49	1	10	3,315	-278
27+34.35	2734.35	34.35	56.50	0.00	11	75	0	15	3,390	-296
27+50.00	2750.00	15.65	59.55	0.00	12	34	0	7	3,424	-305
27+75.00	2775.00	25.00	63.79	0.00	13	57	0	11	3,481	-319
28+00.00	2800.00	25.00	64.80	0.00	13	60	0	12	3,541	-334
28+25.00	2825.00	25.00	62.89	0.00	13	59	0	12	3,600	-349
28+28.70	2828.70	3.70	63.42	0.00	13	9	0	2	3,609	-351
28+50.00	2850.00	21.30	0.00	0.00	0	25	0	5	3,634	-358

COLUMN TOTALS	3,634	438	724
* ADDITIONAL EARTHWORK FOR SIDE STREETS NOT INCLUDED			

9

9

PROJECT NO: 5998-00-01

HWY: S FOURTH ST

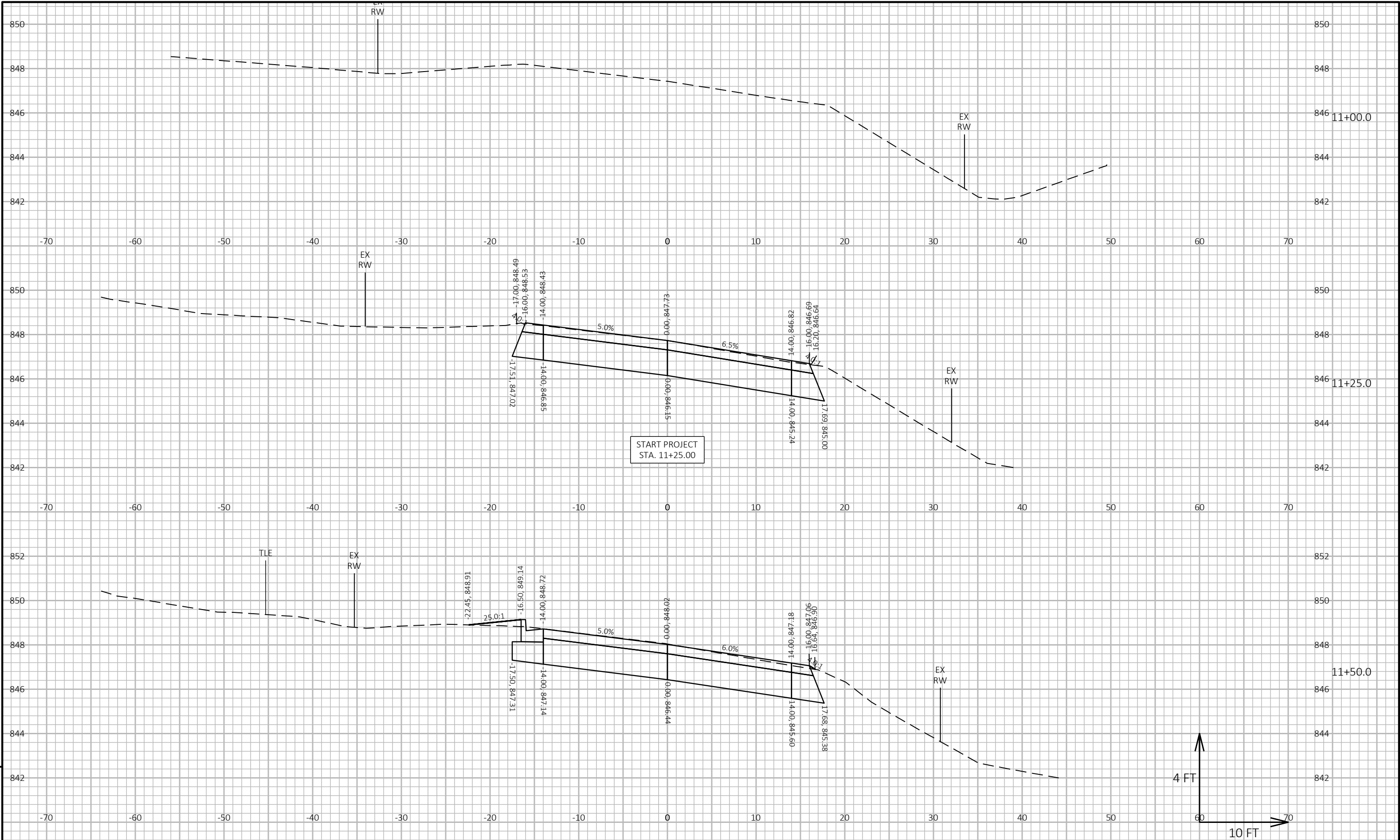
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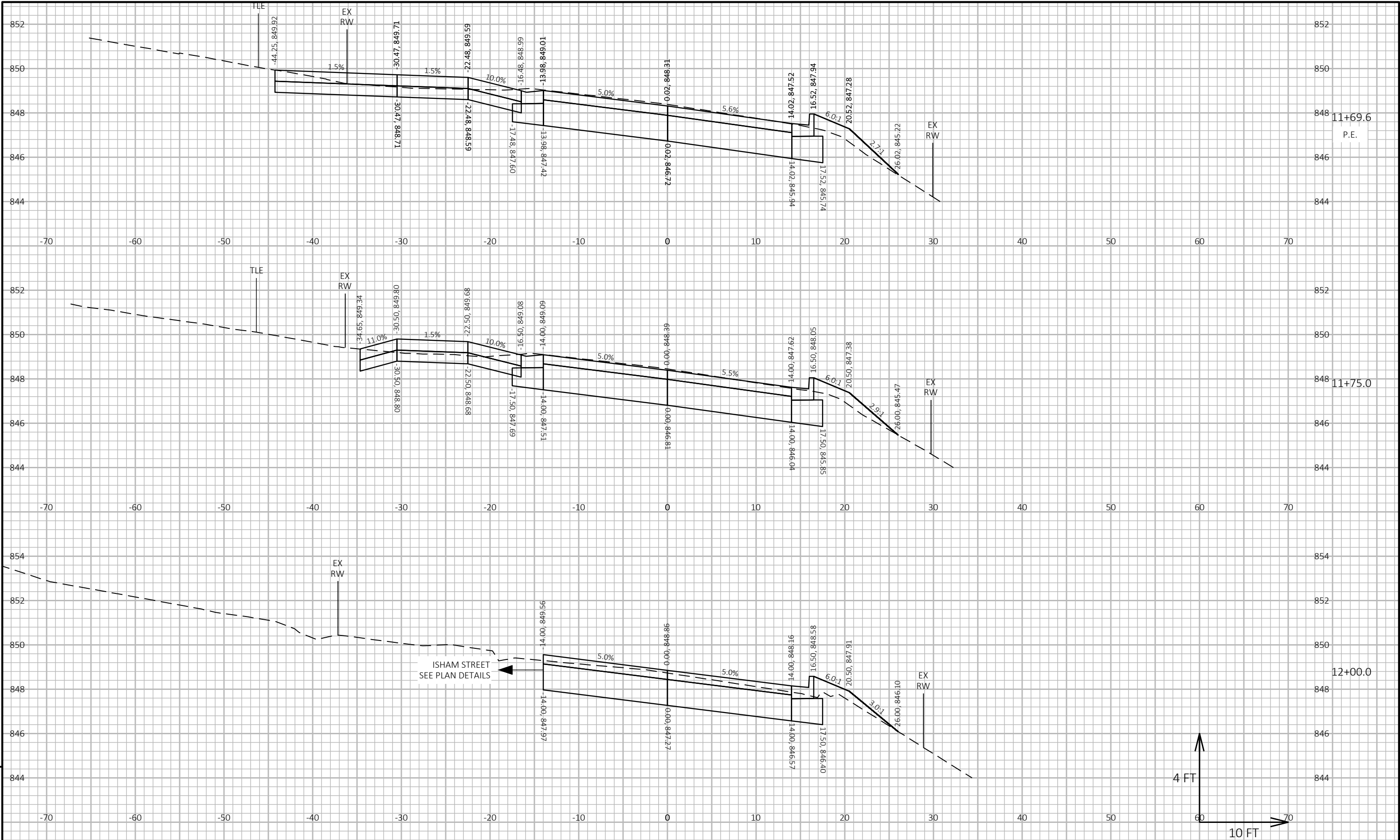
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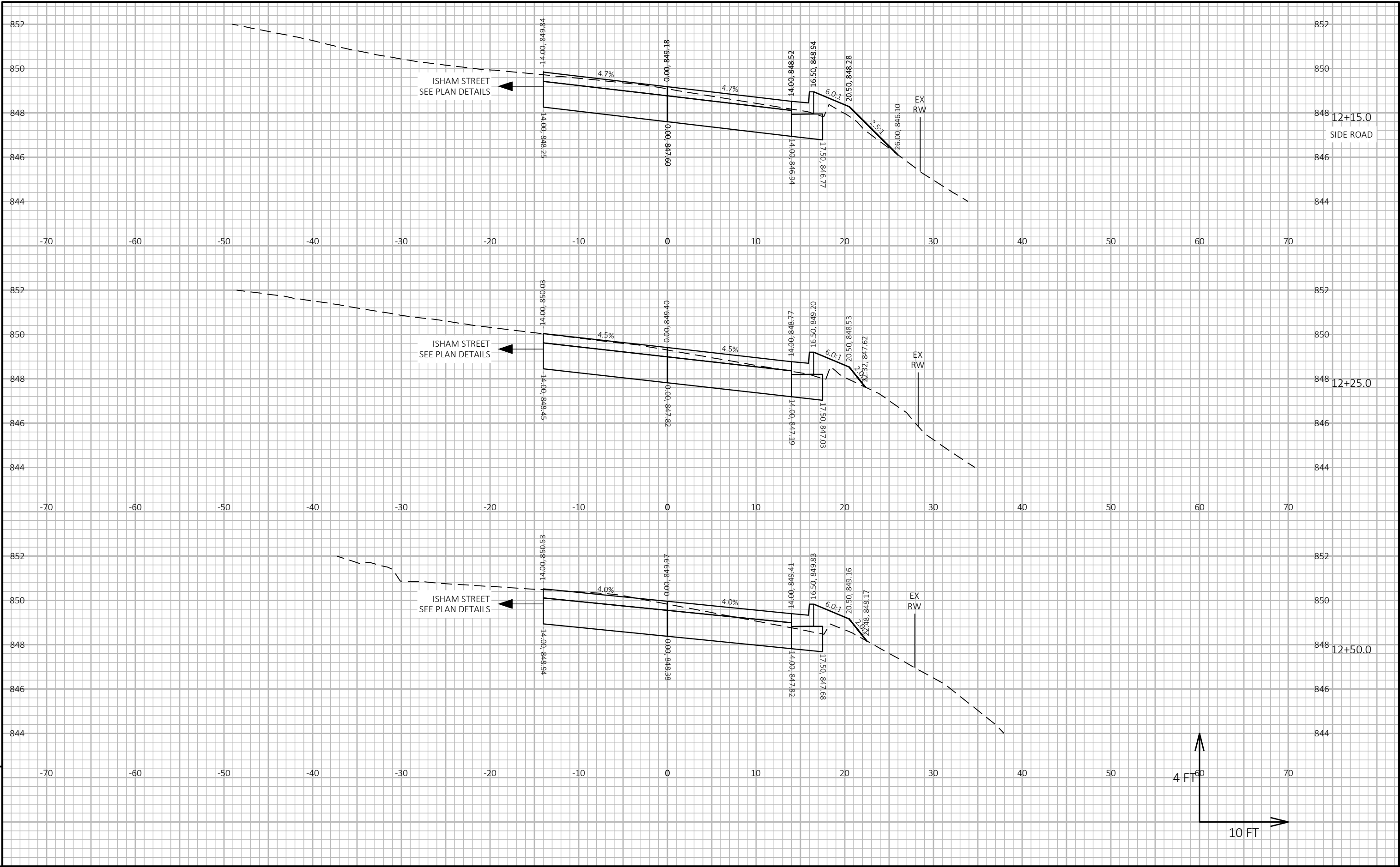
SHEET

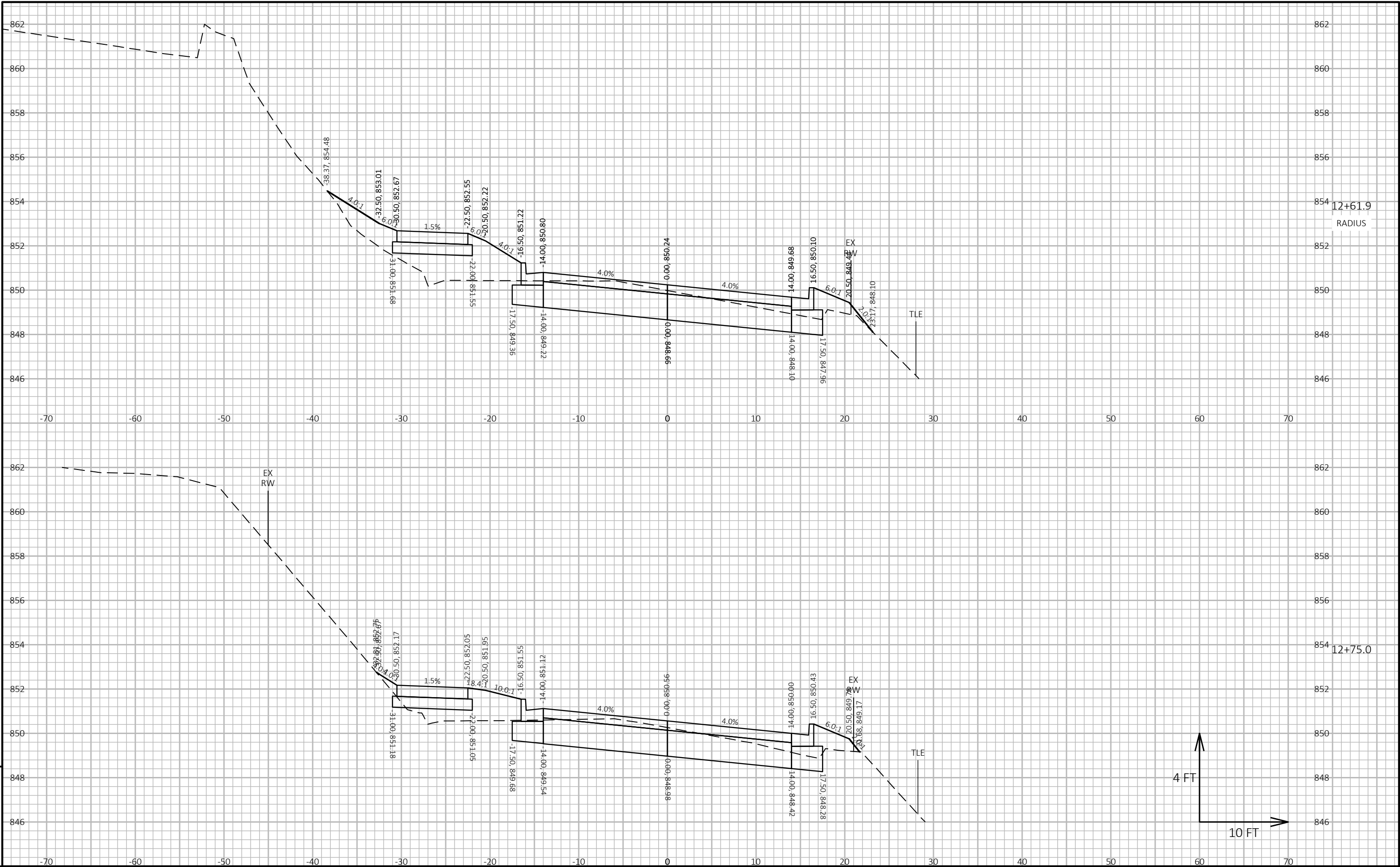
107

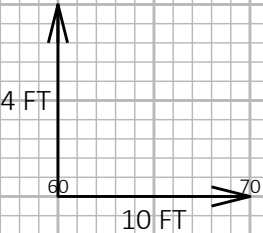
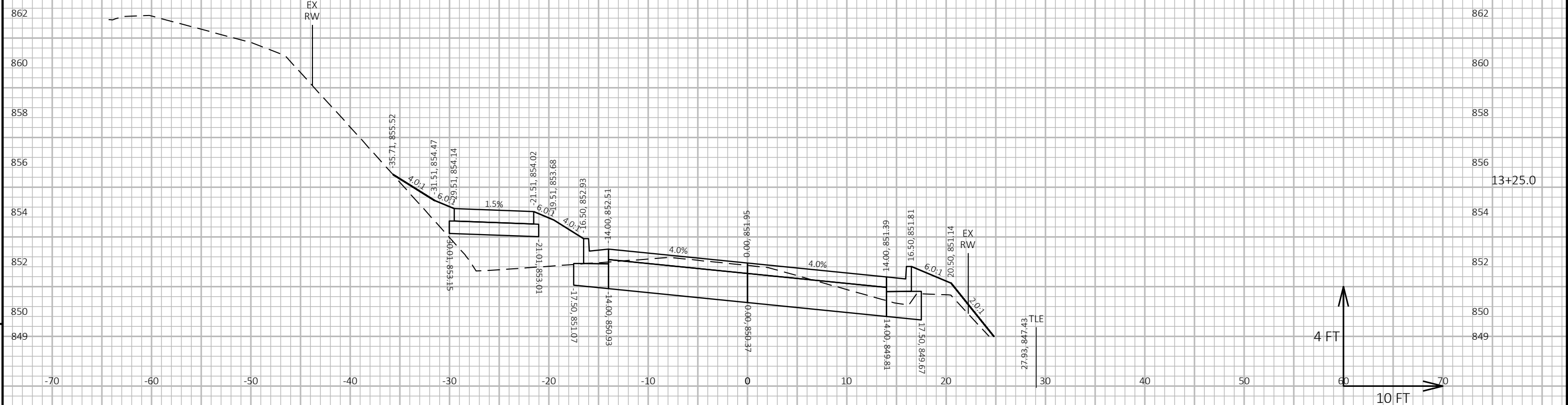
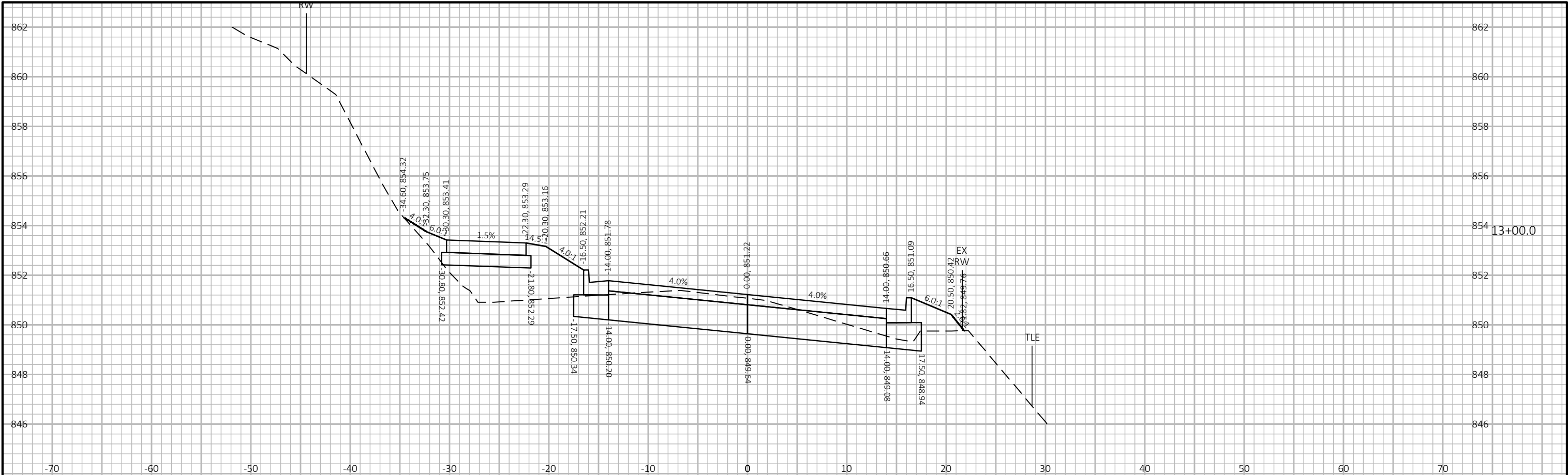
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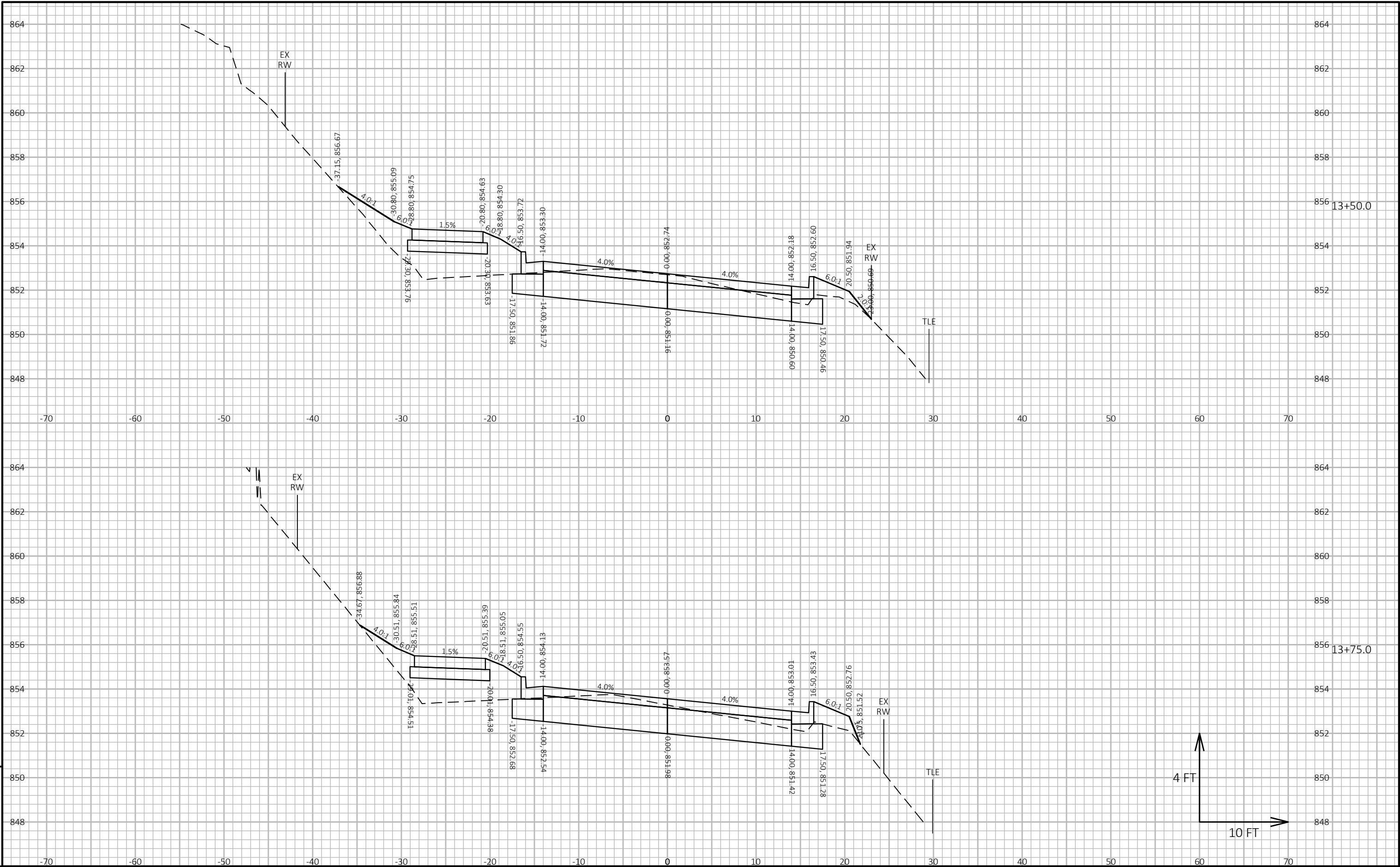


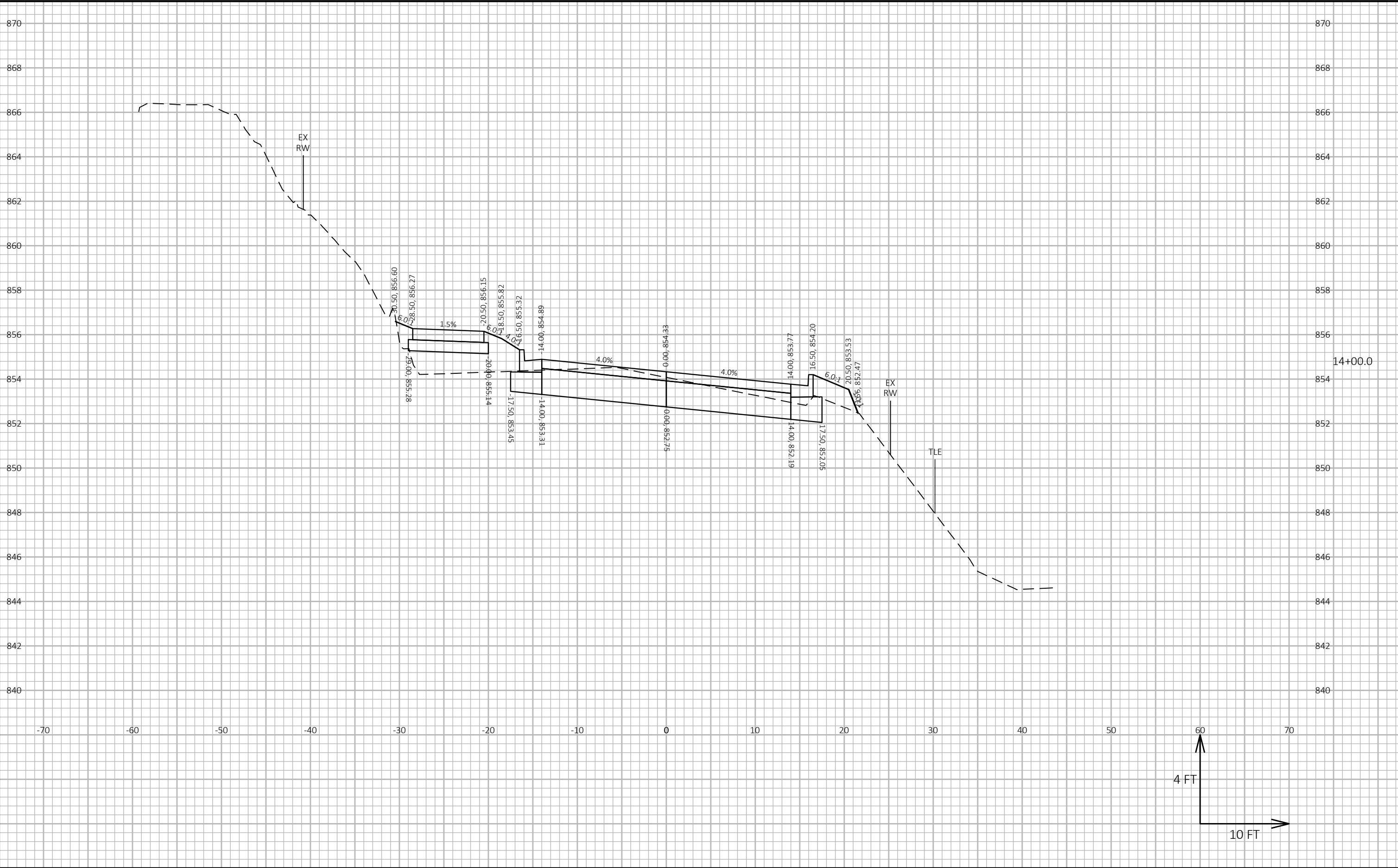


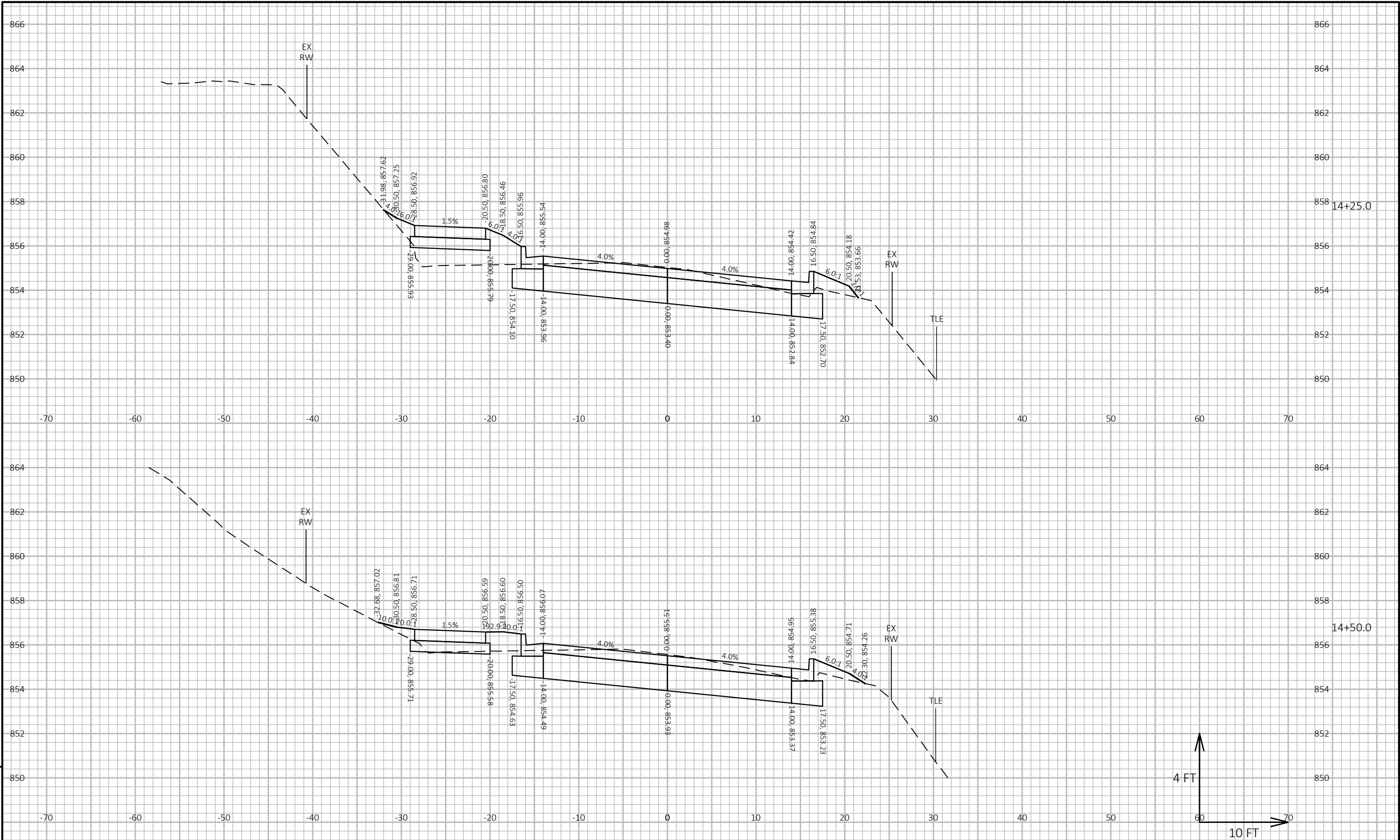


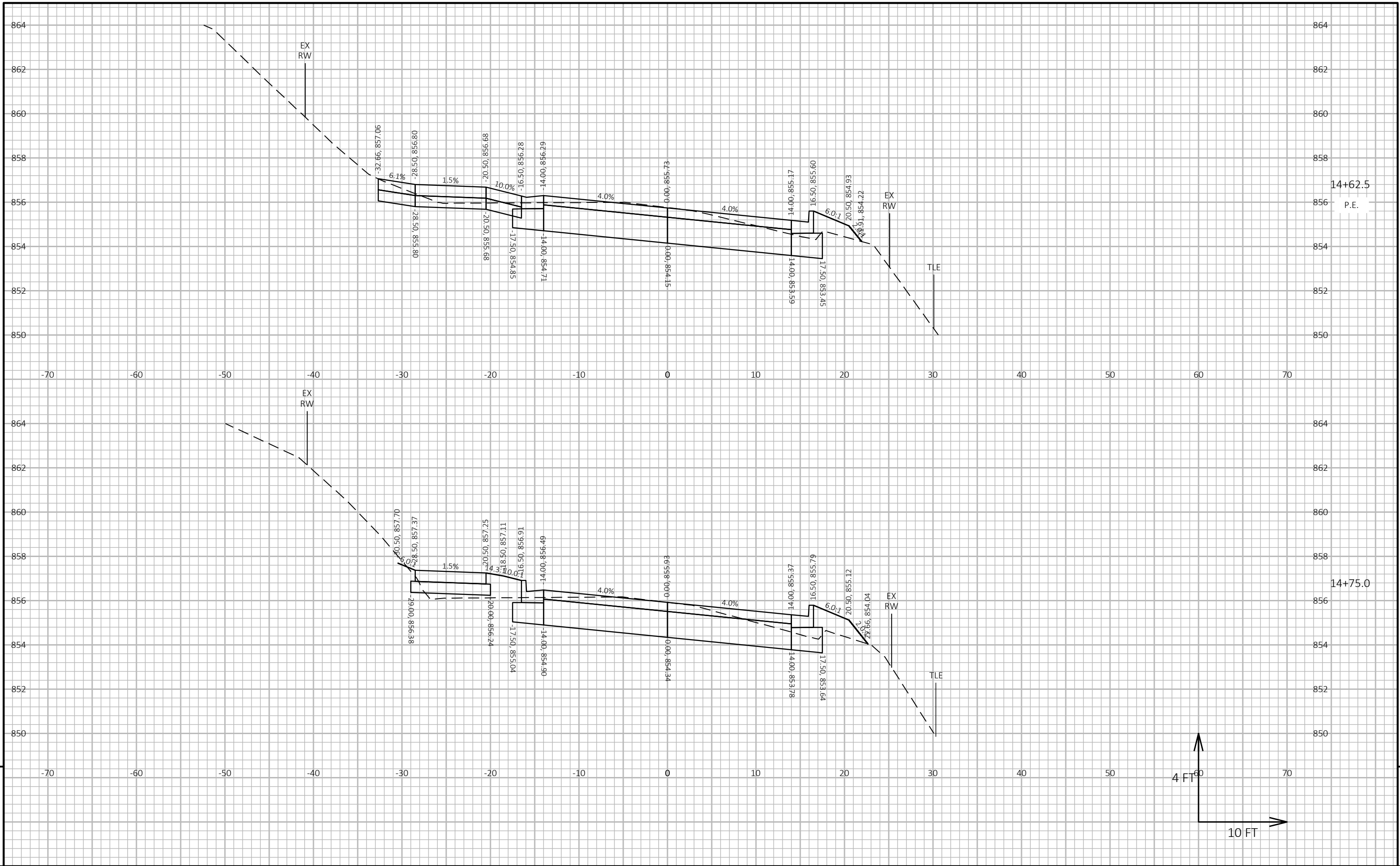


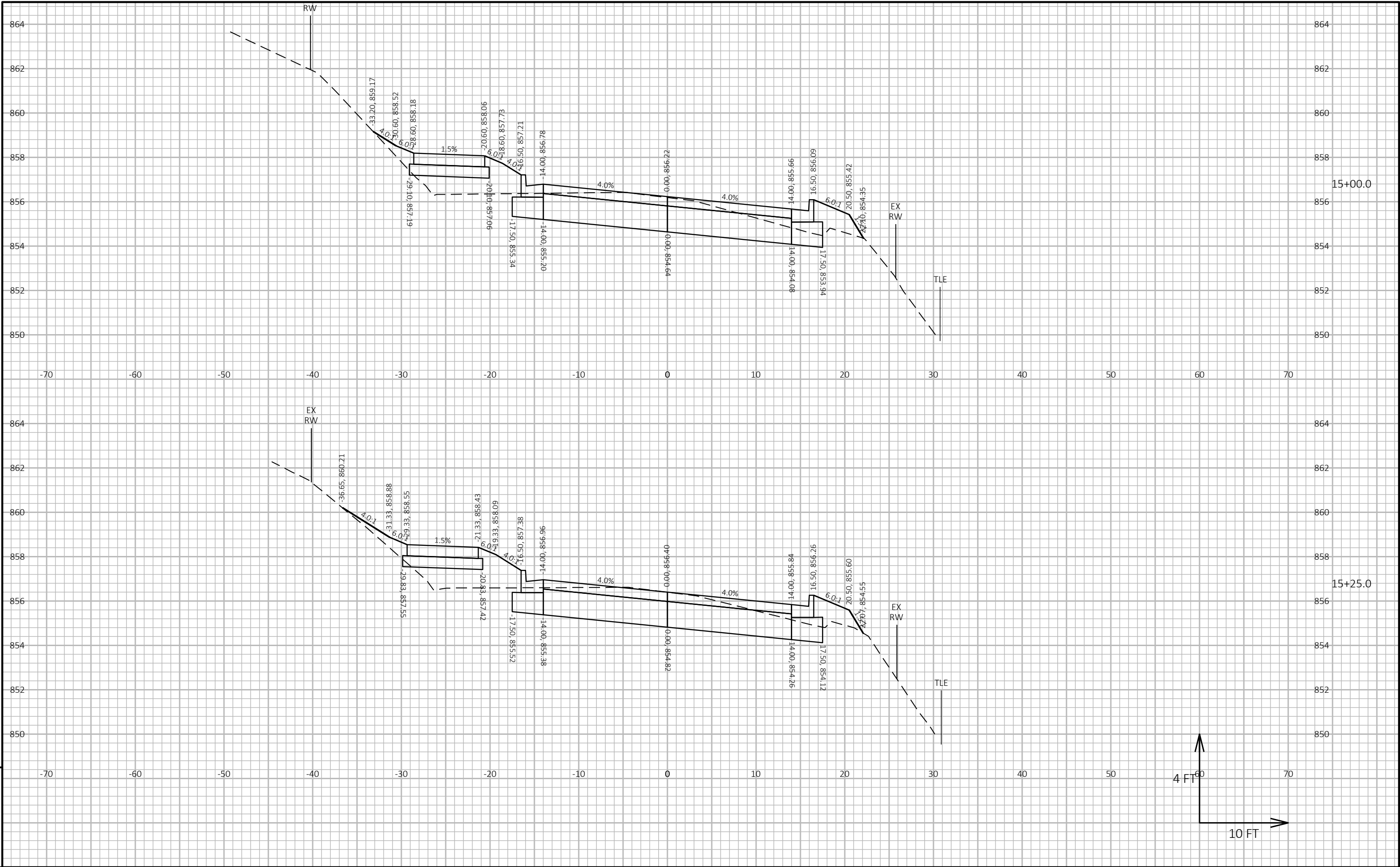


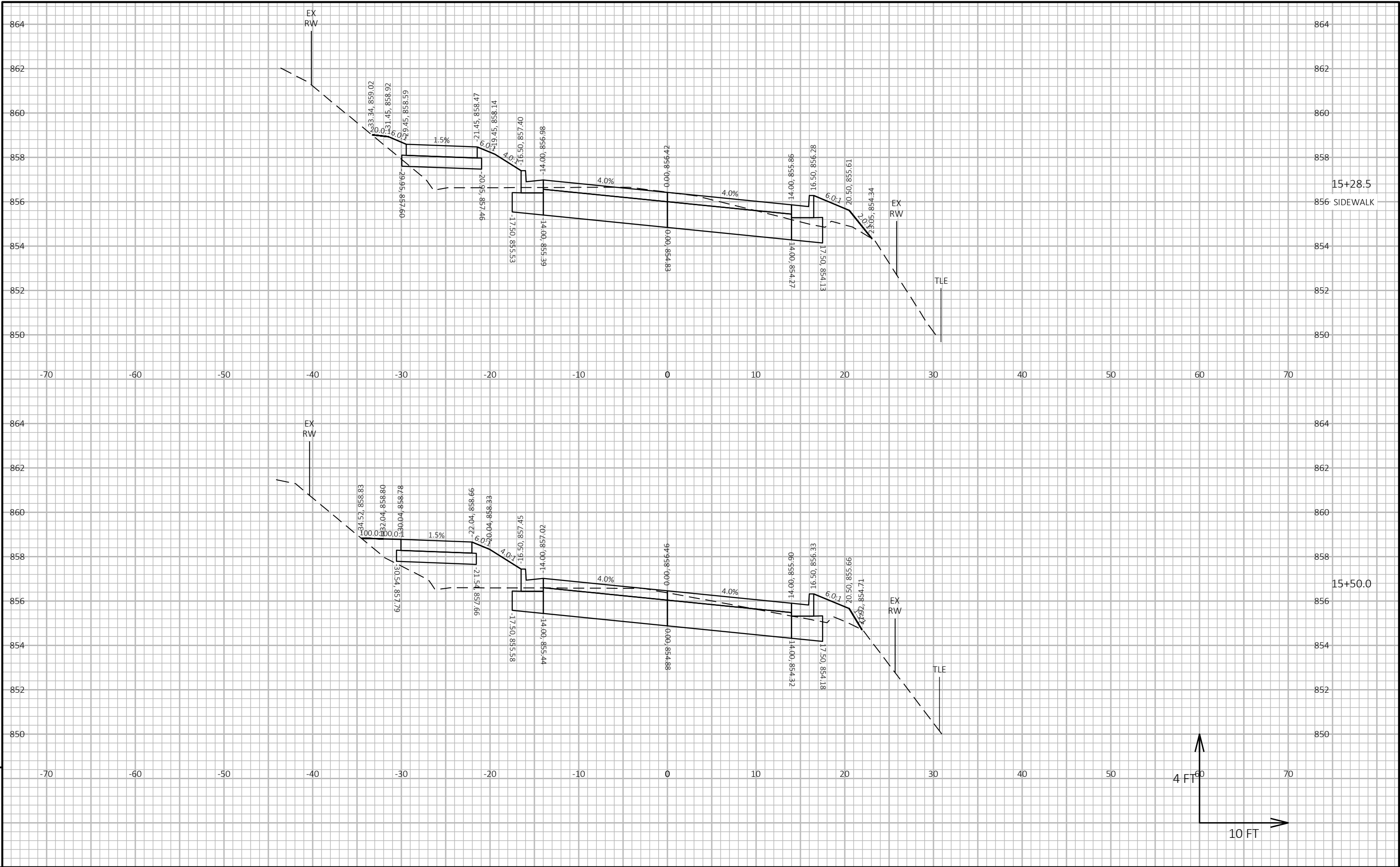


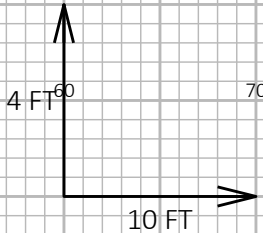
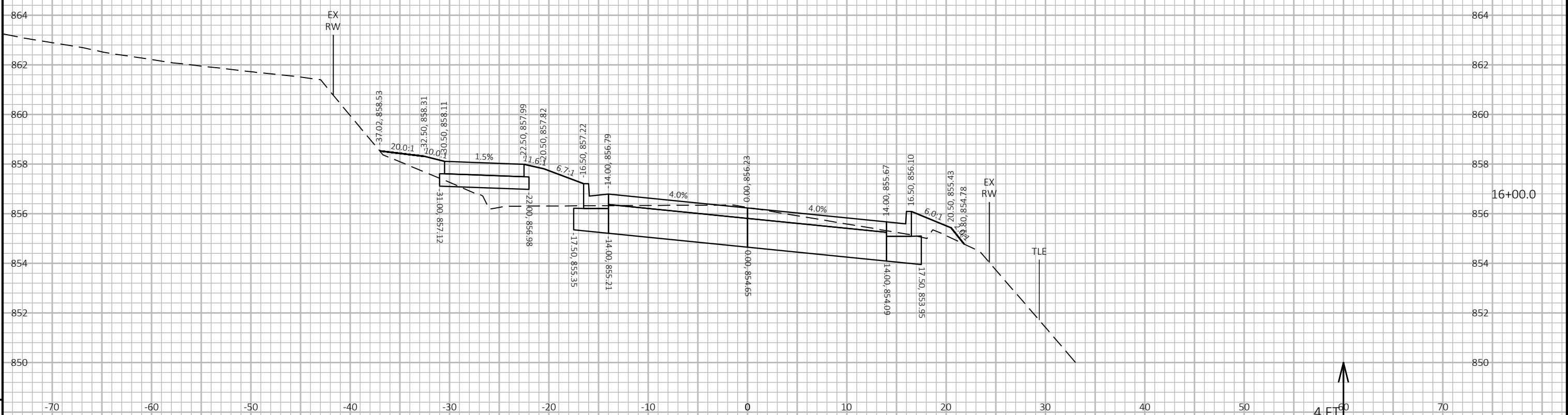
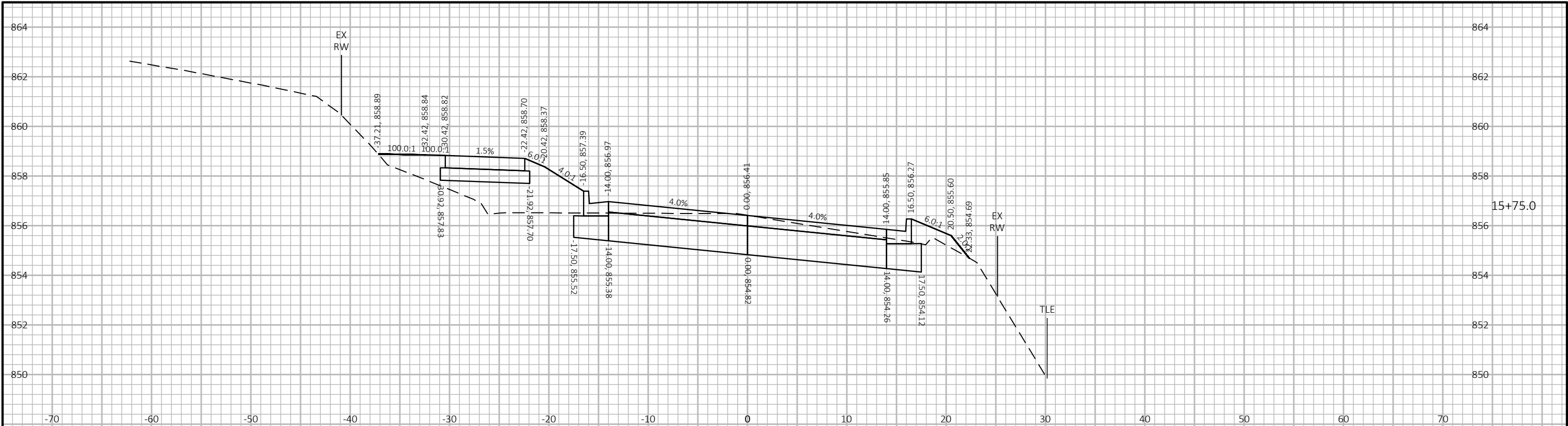


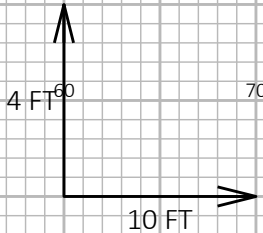
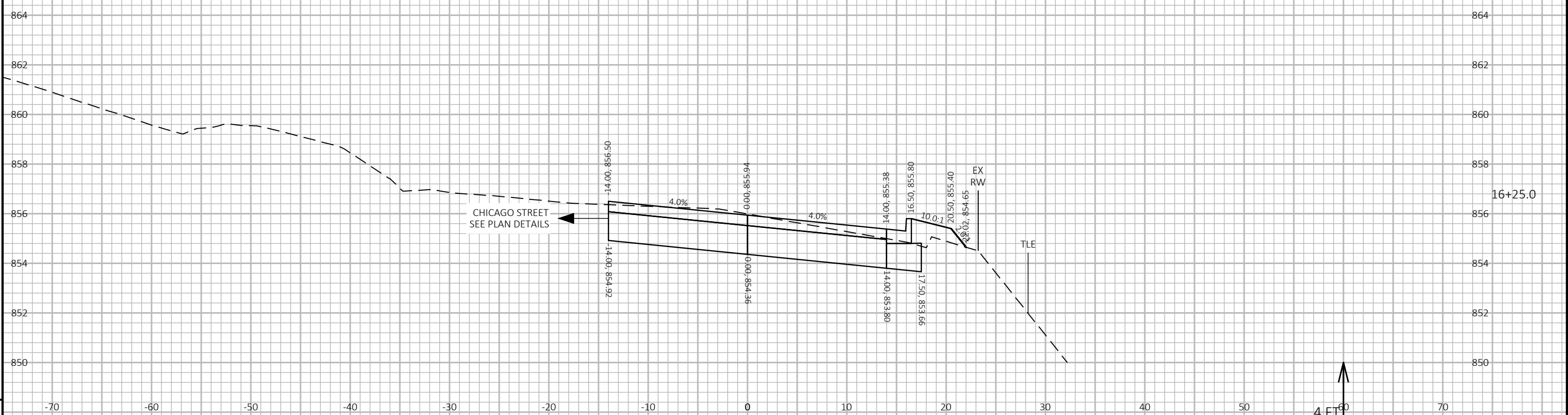
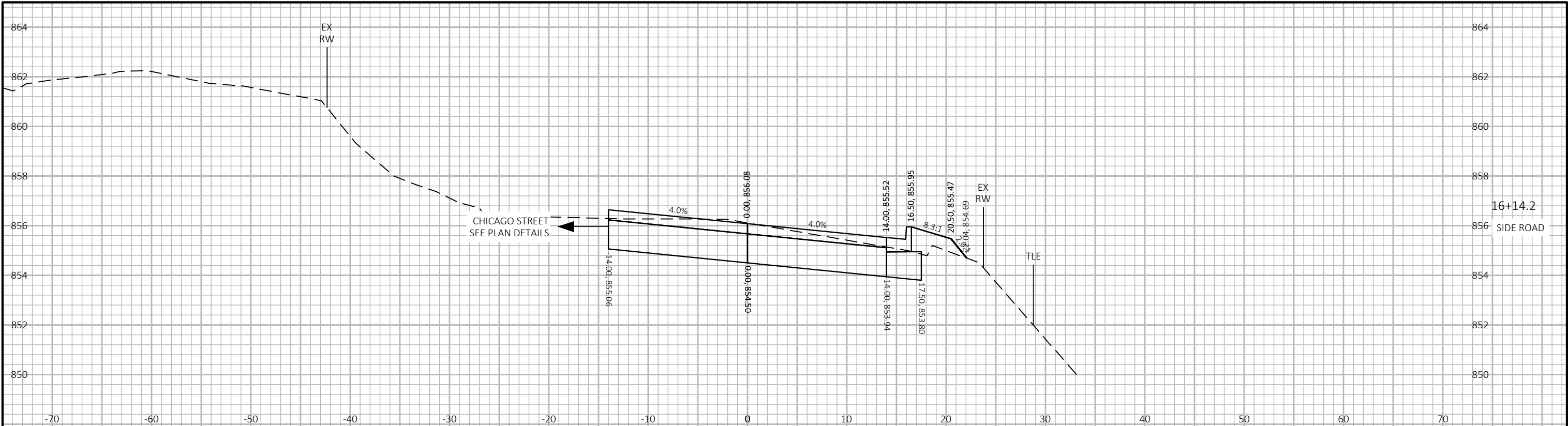


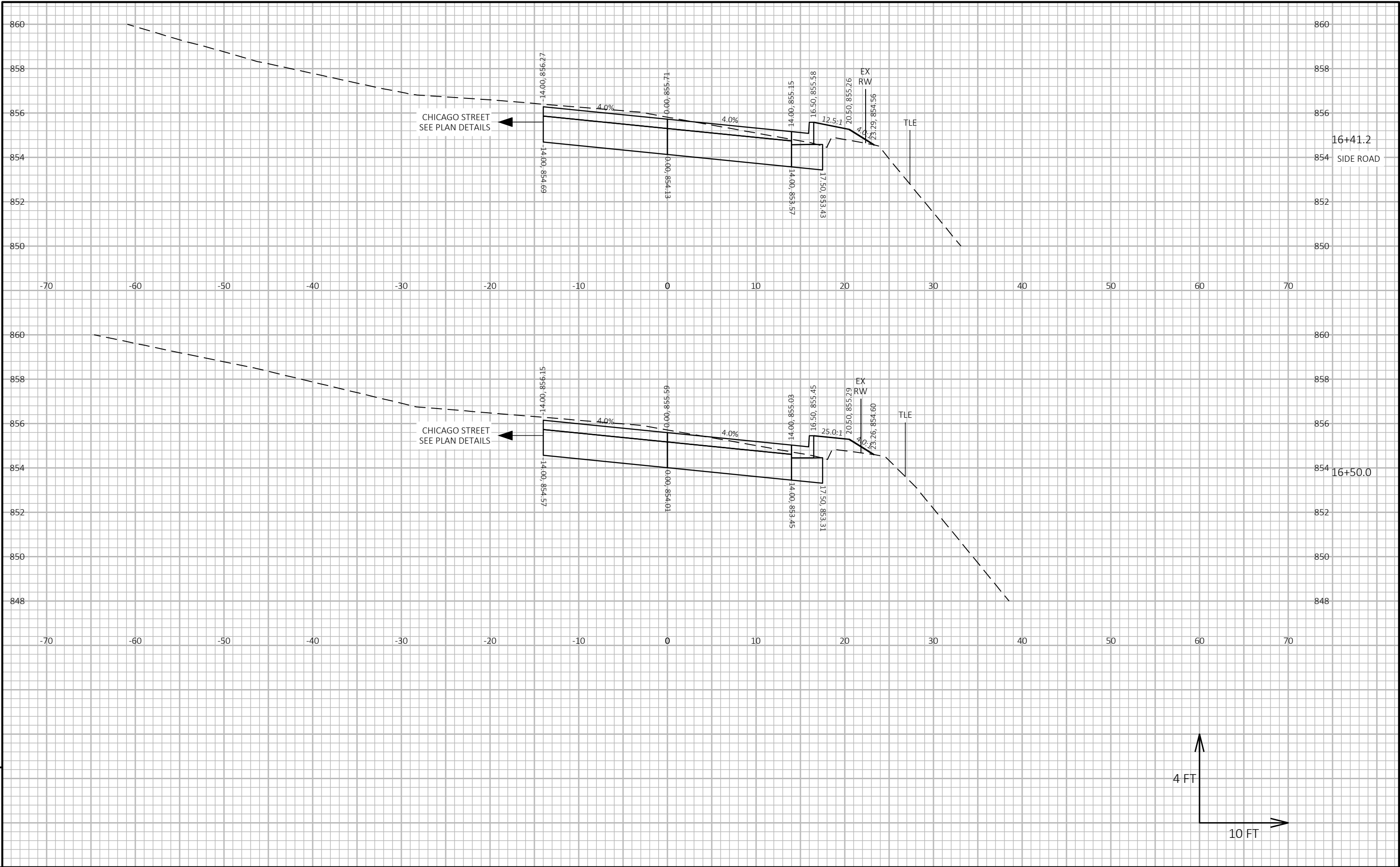








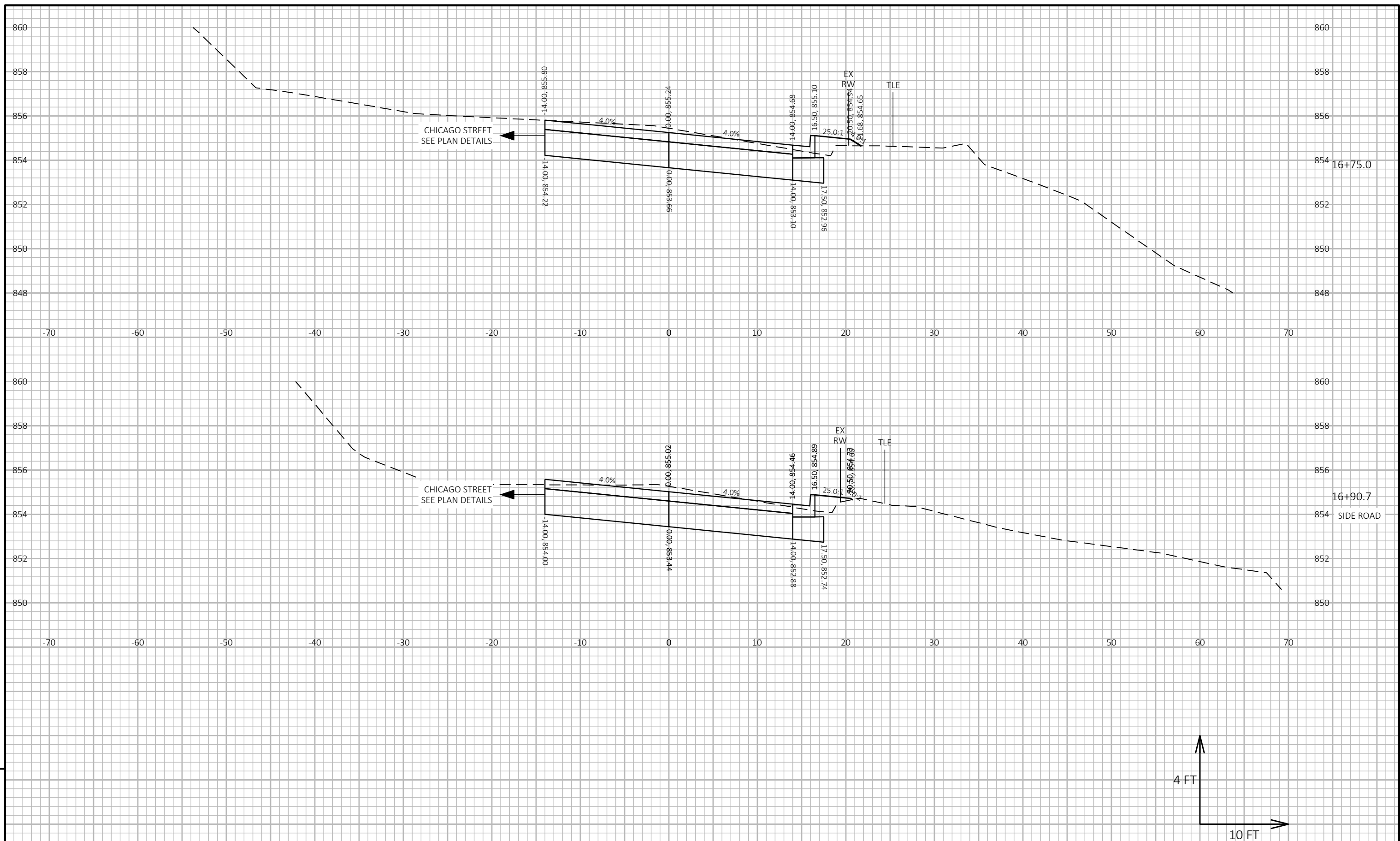


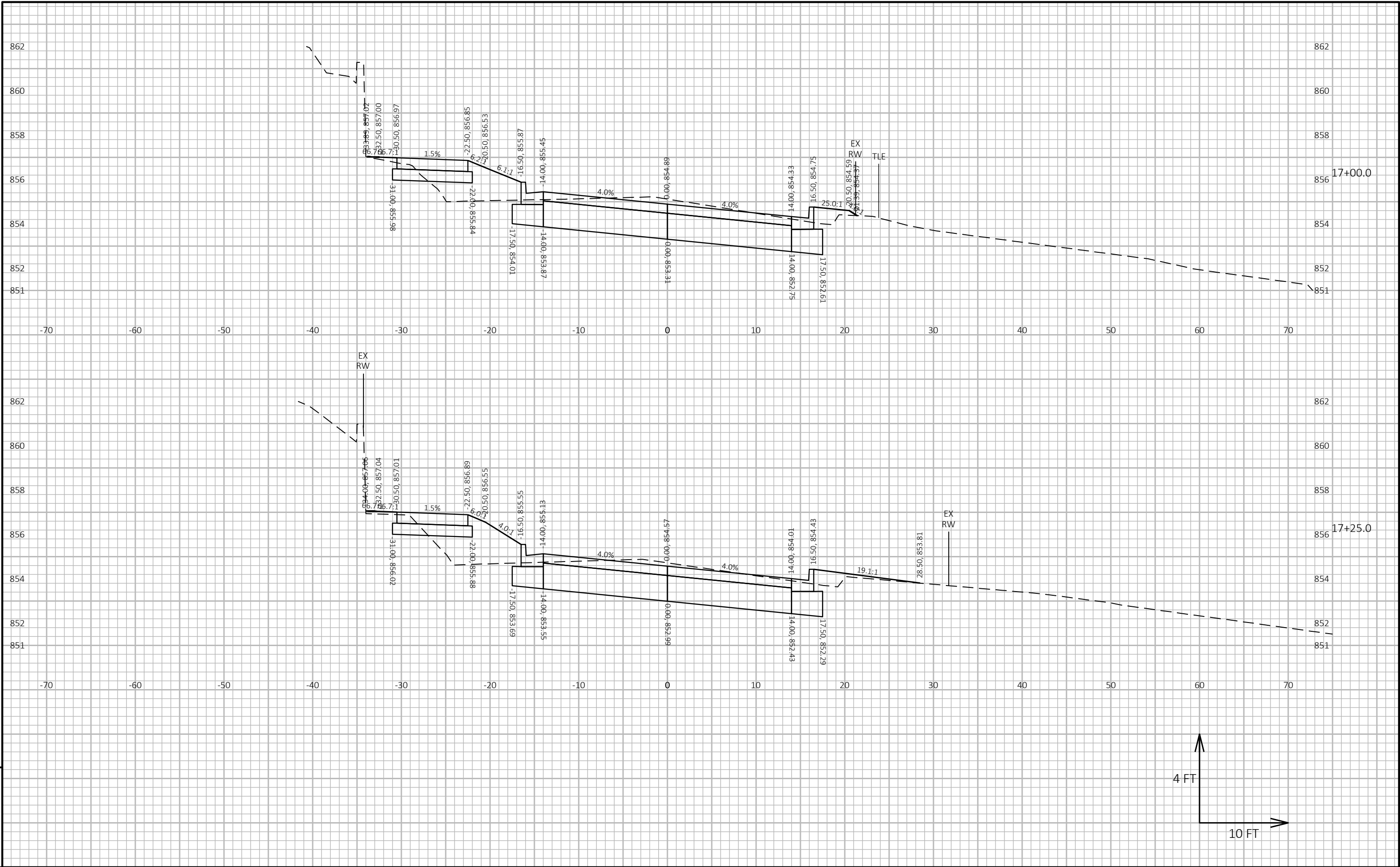


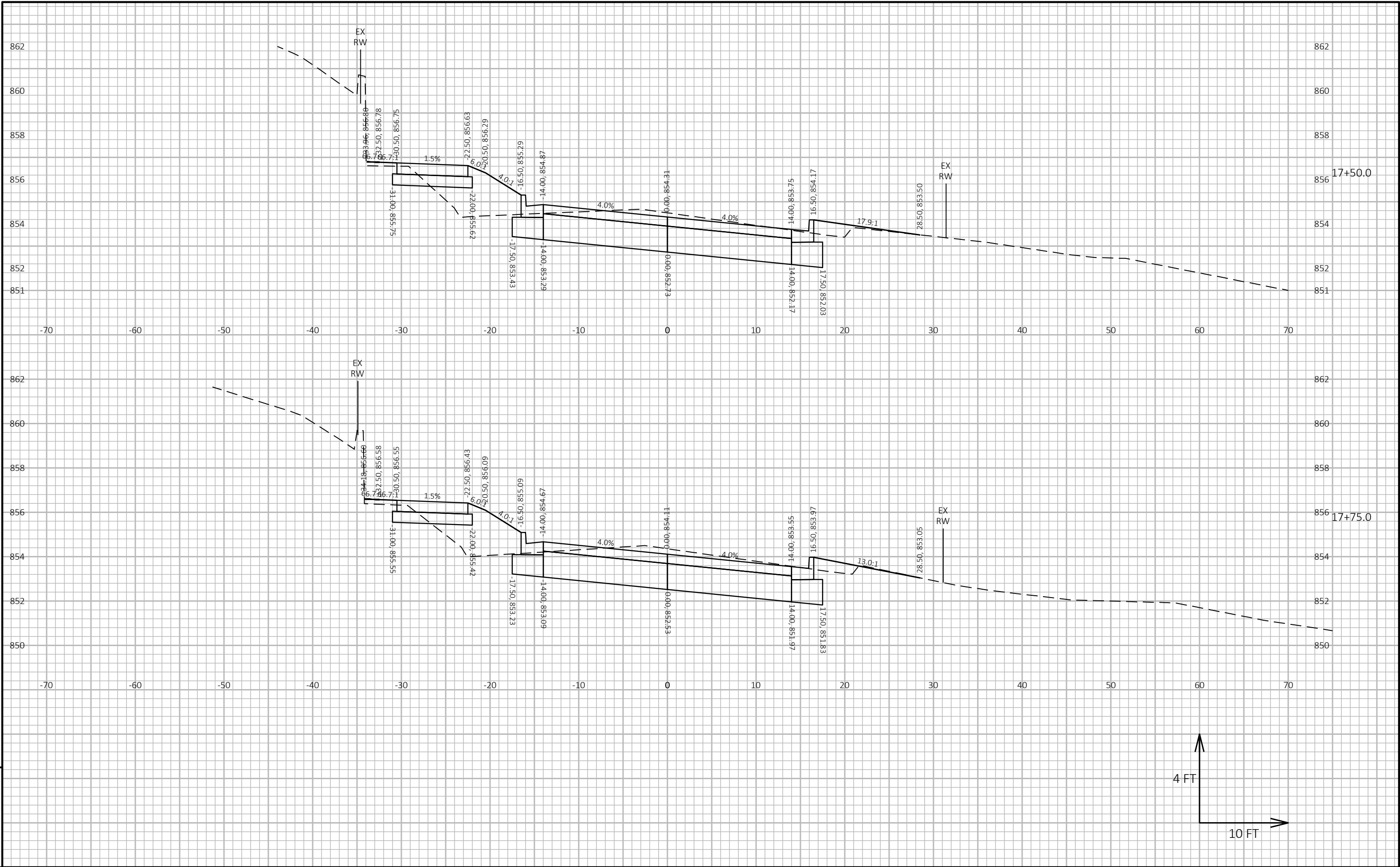
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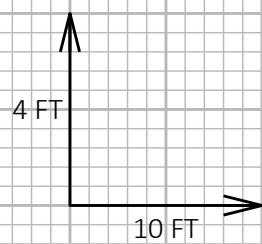
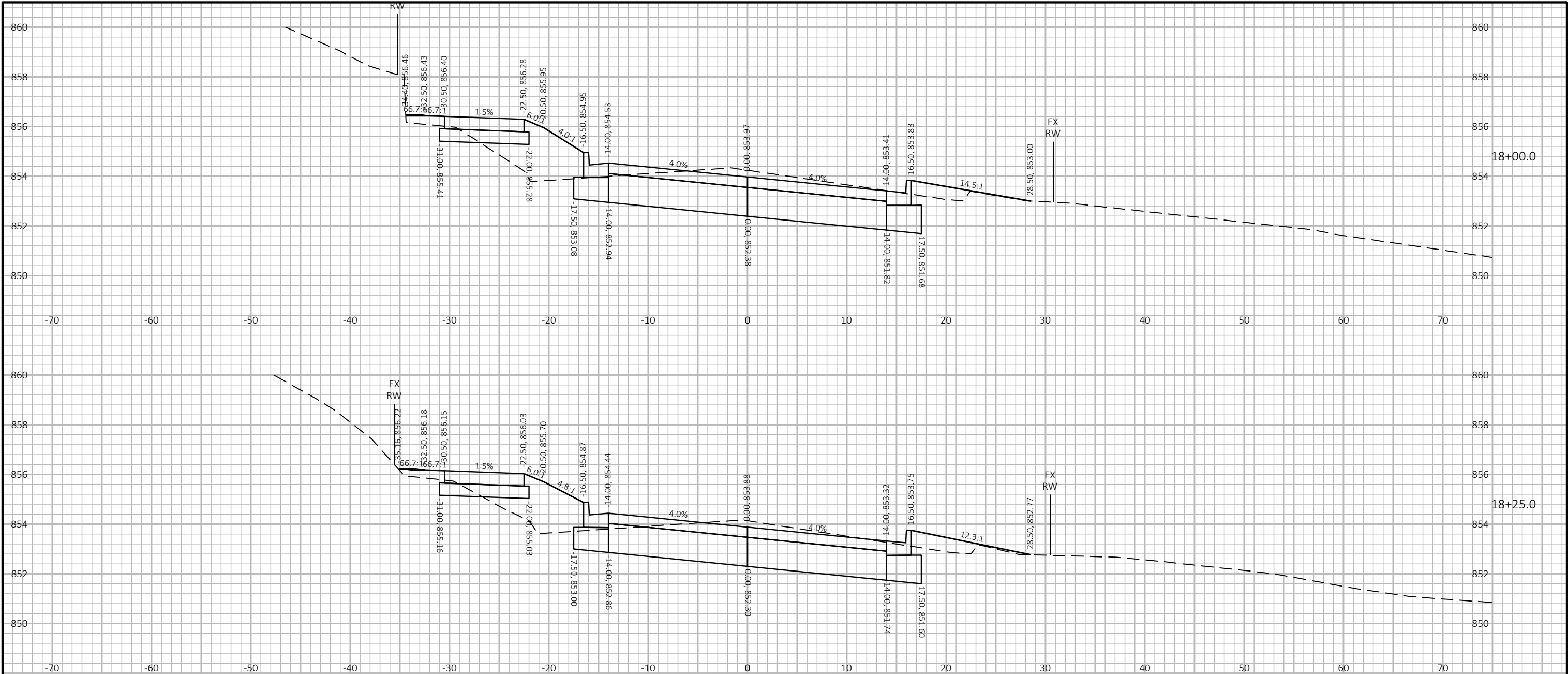
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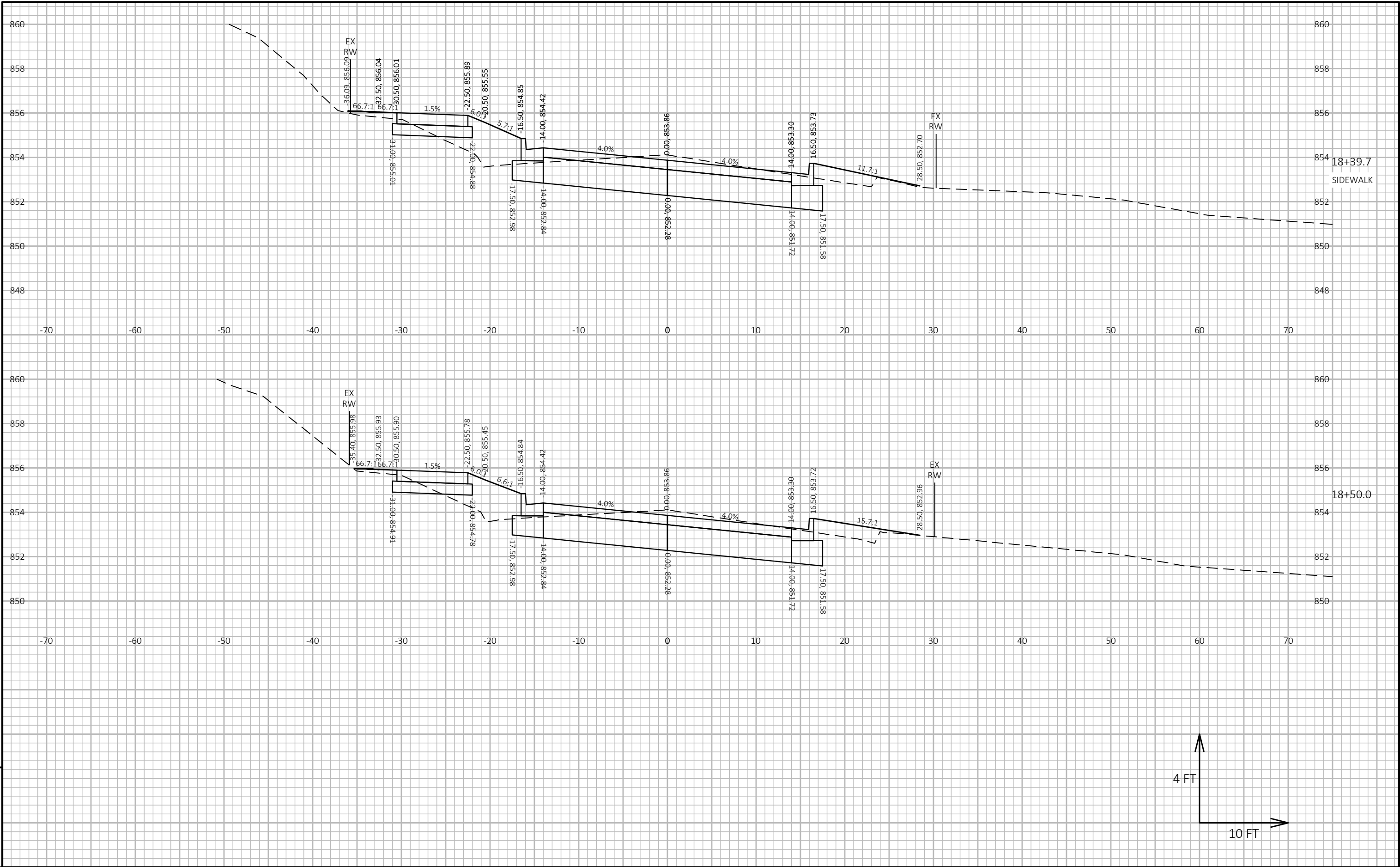
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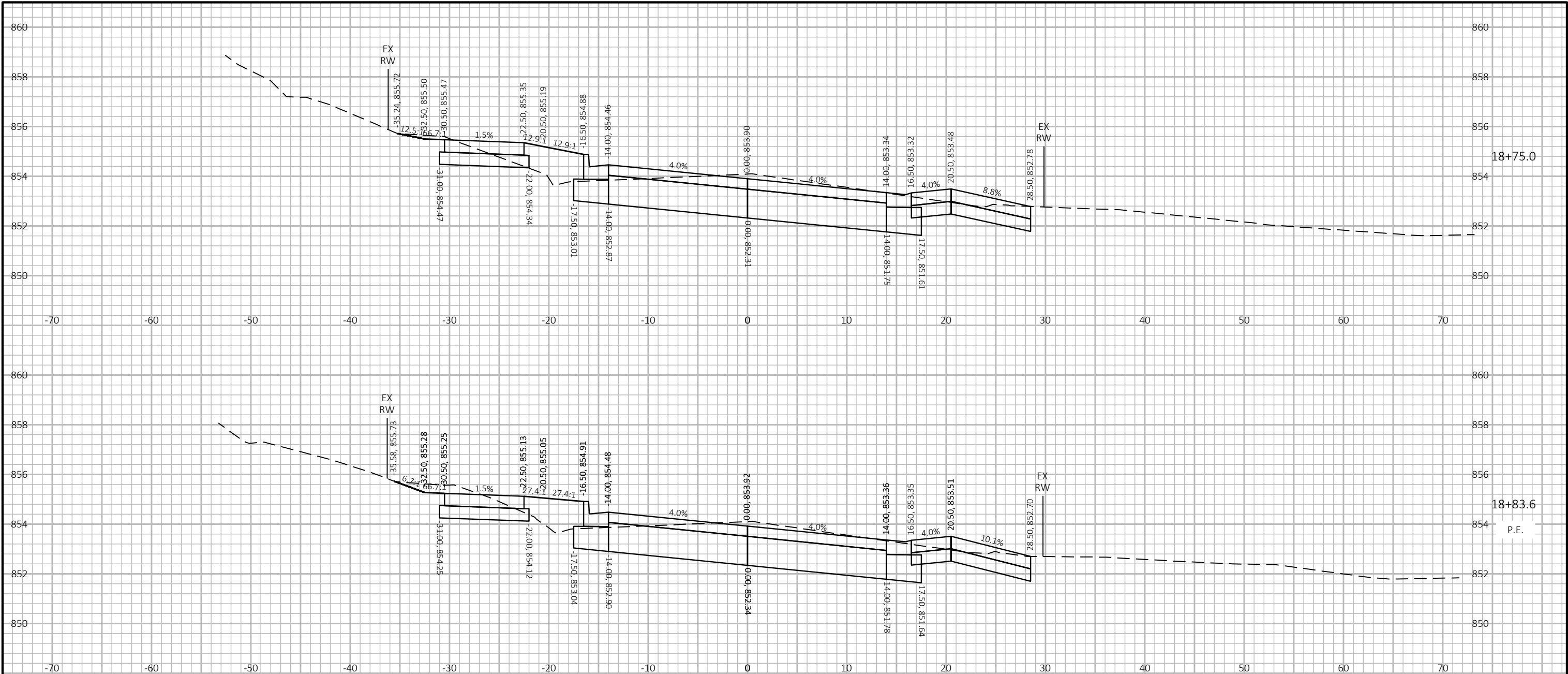






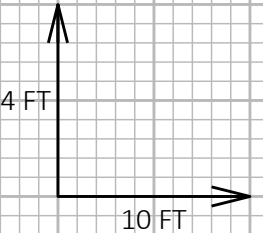
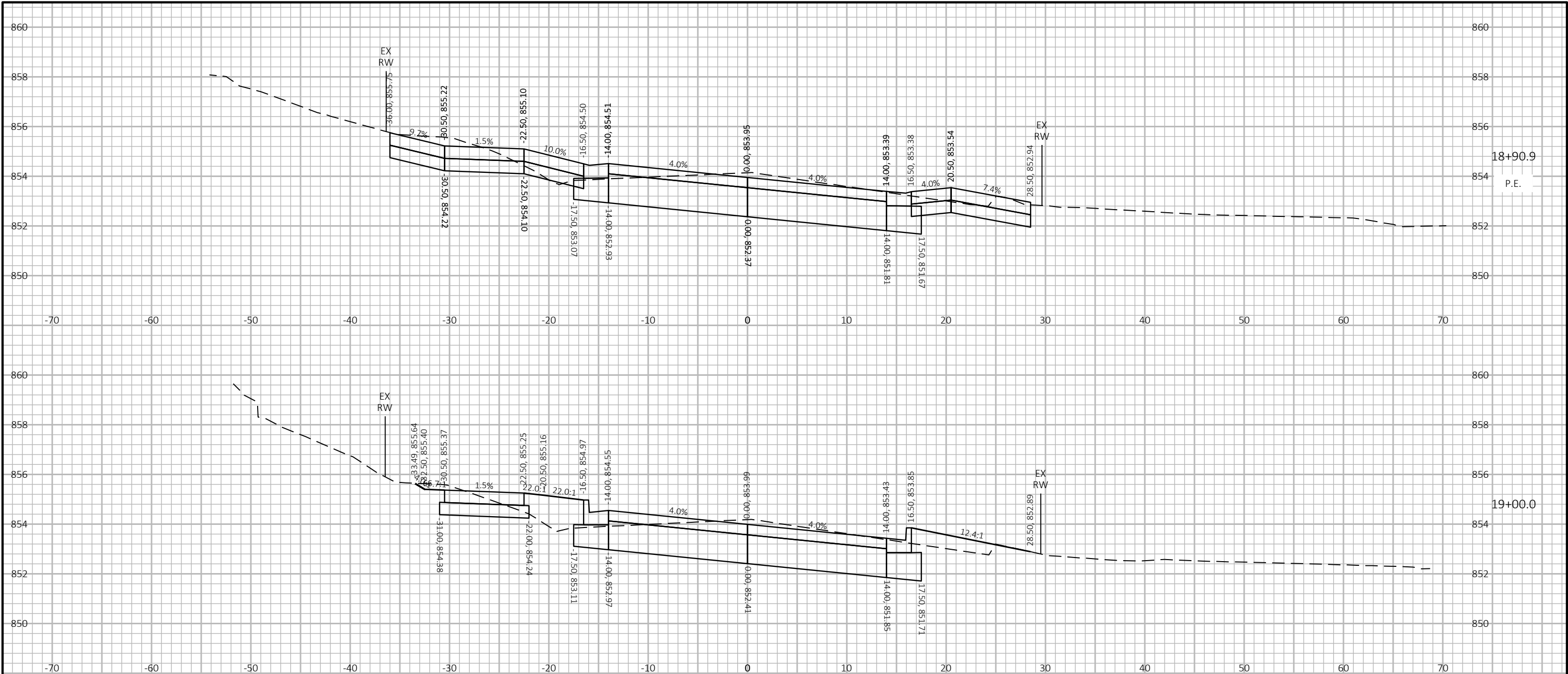


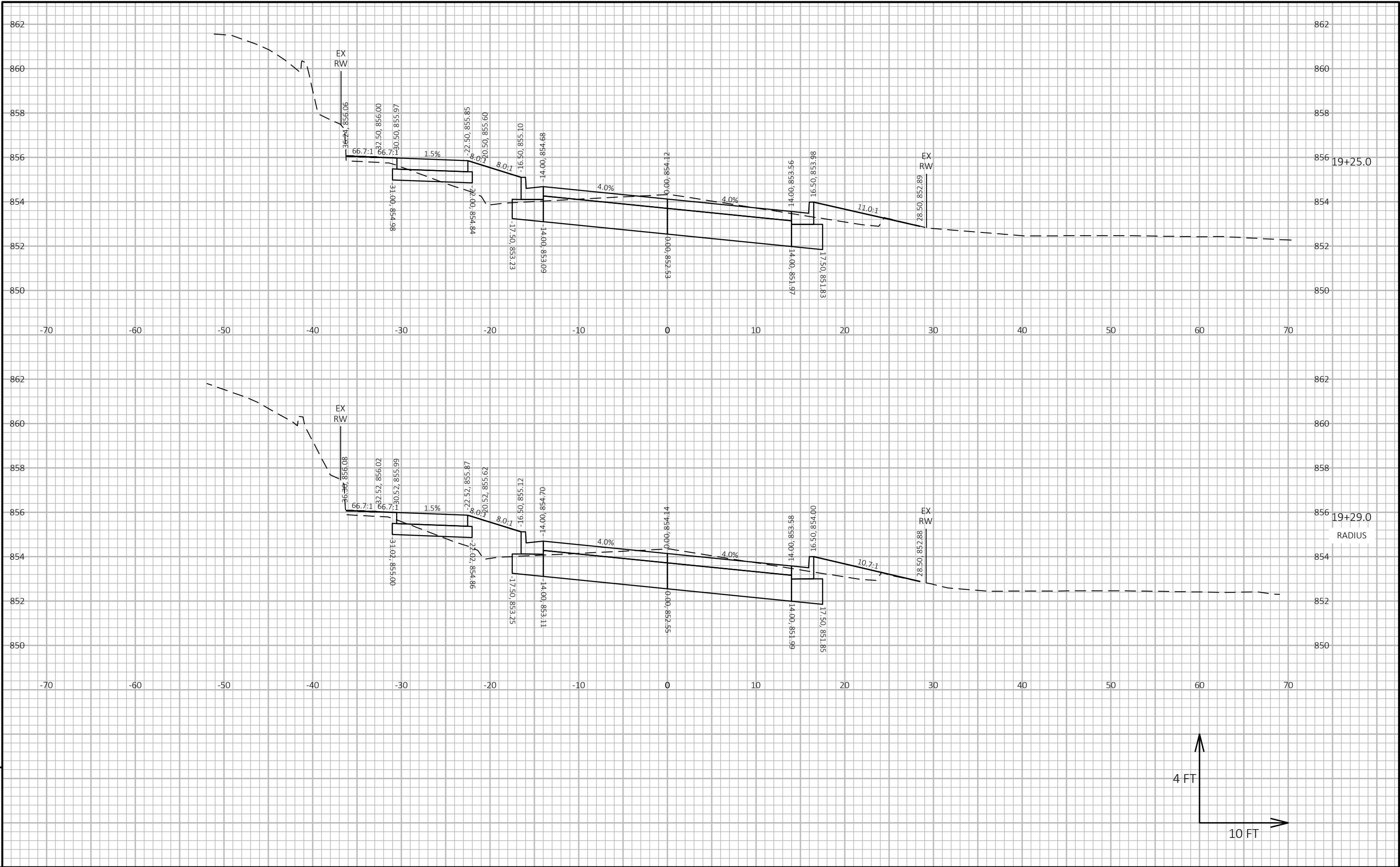


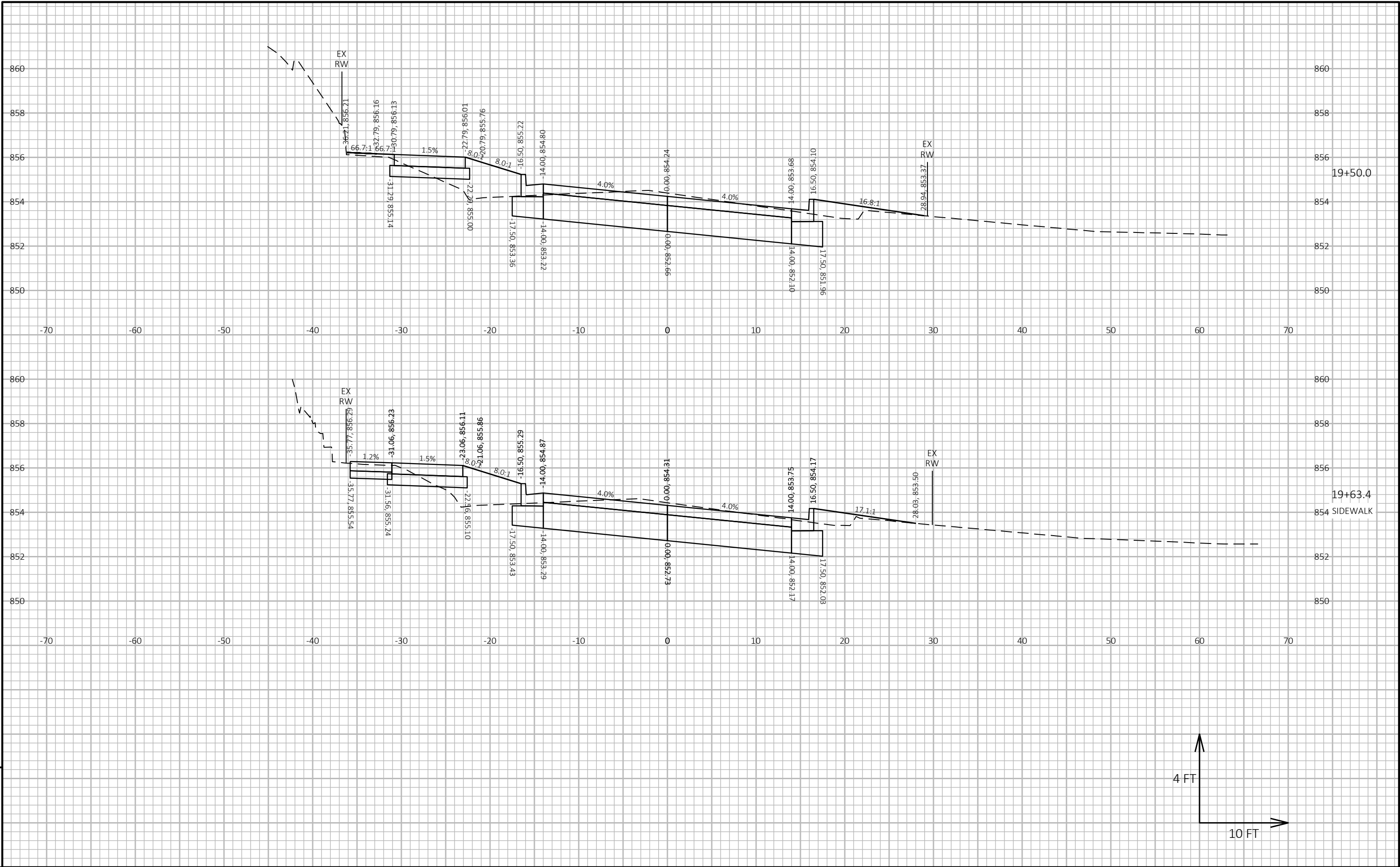


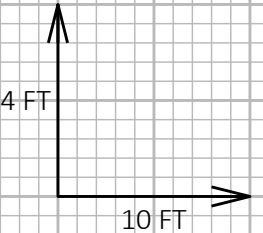
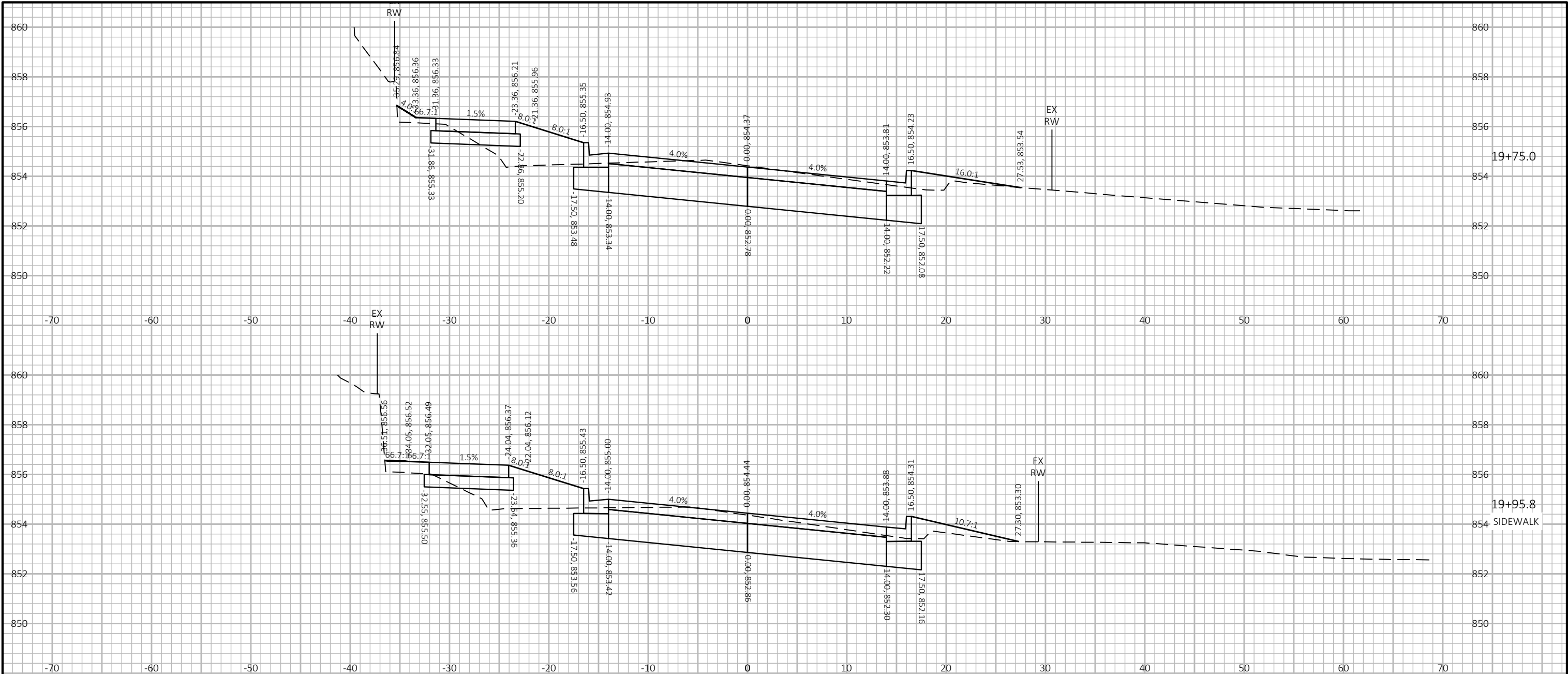
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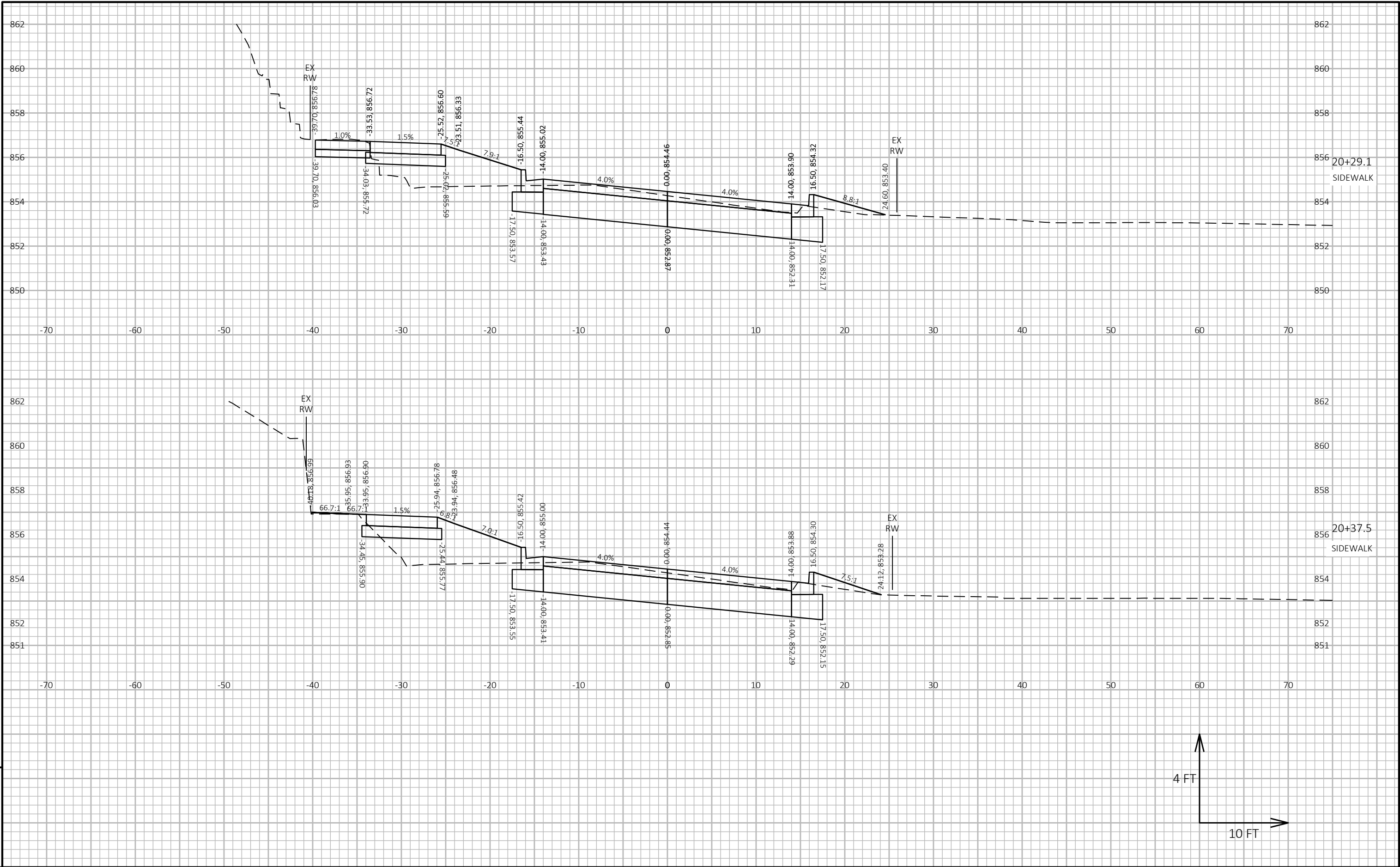
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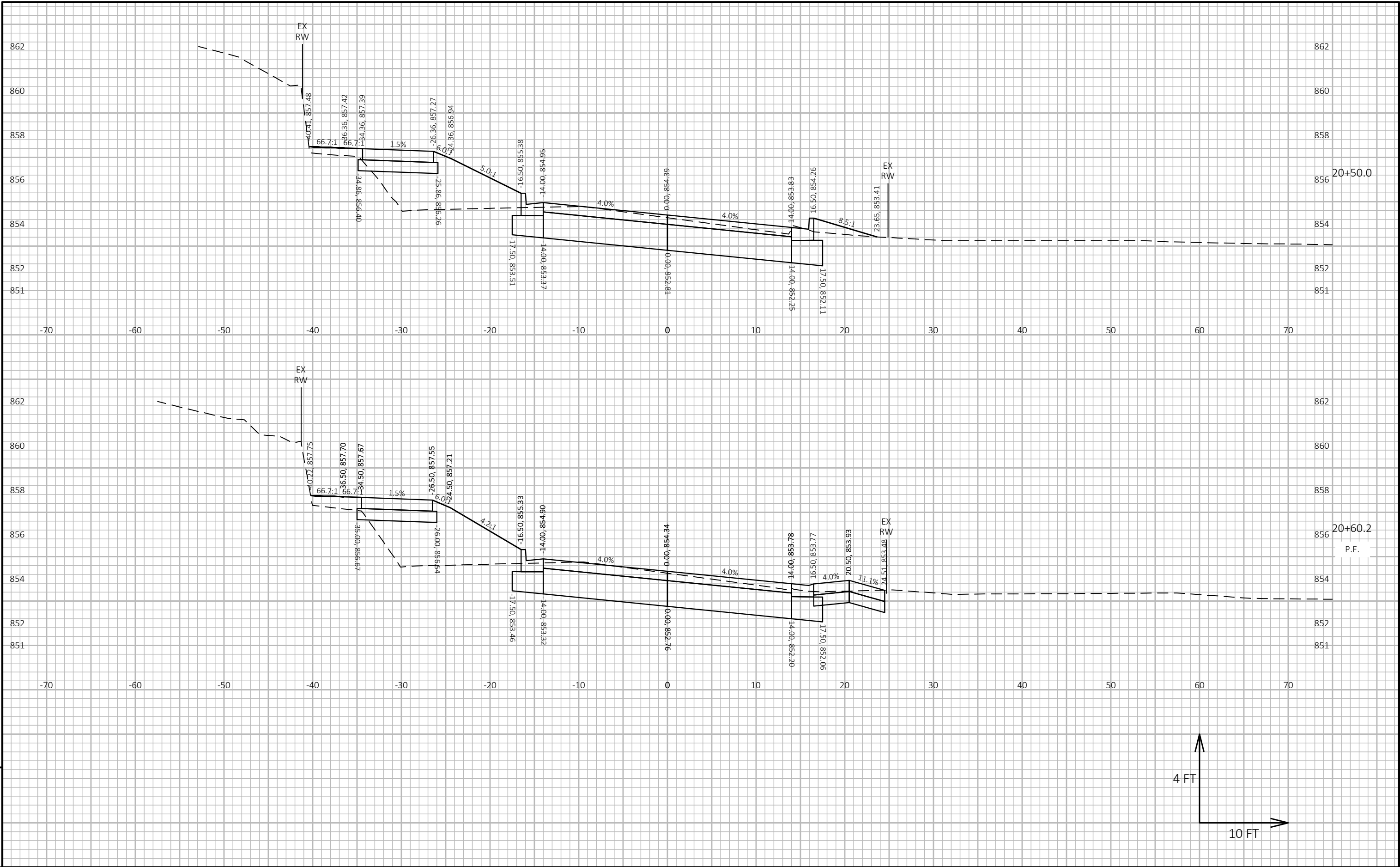


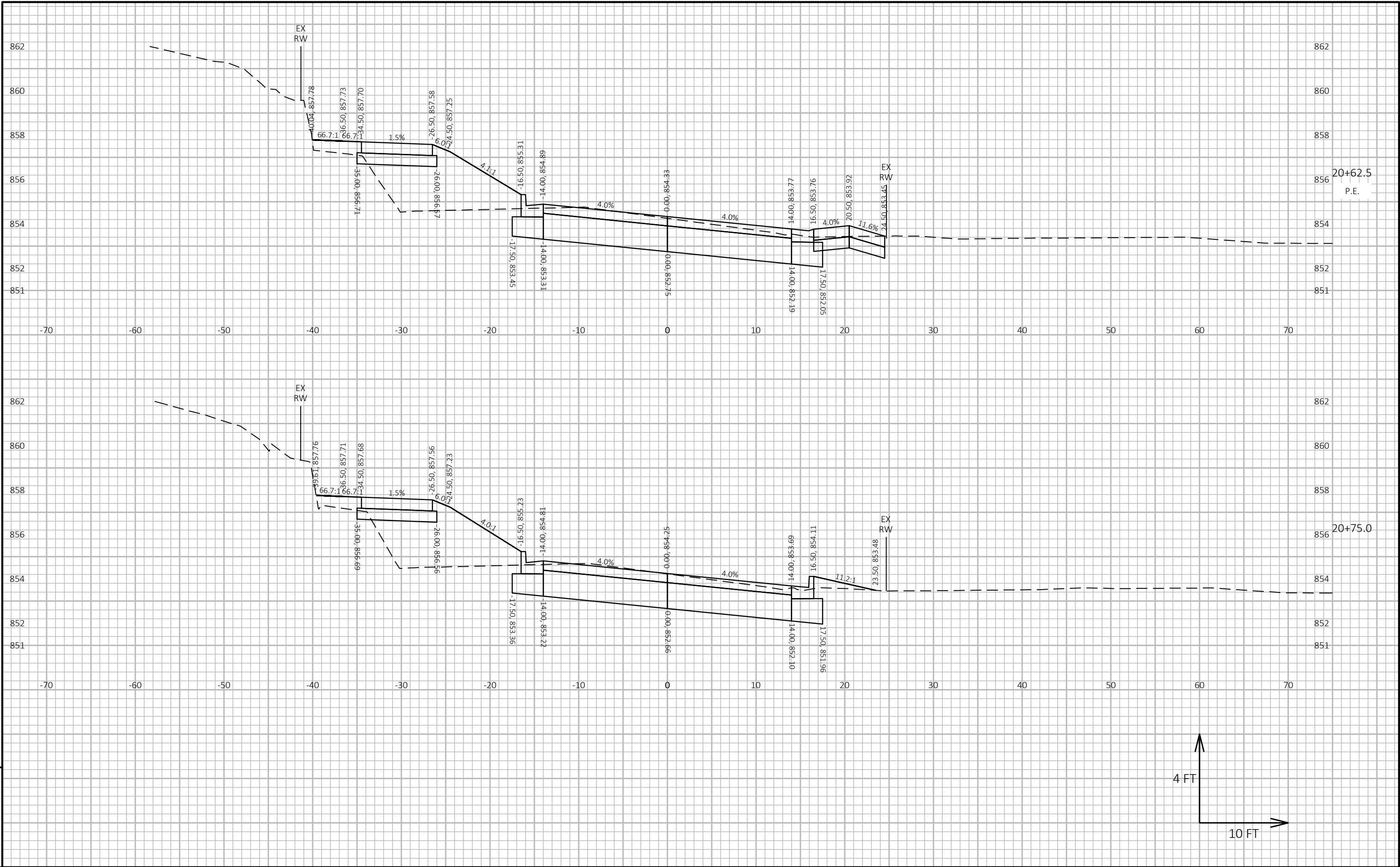


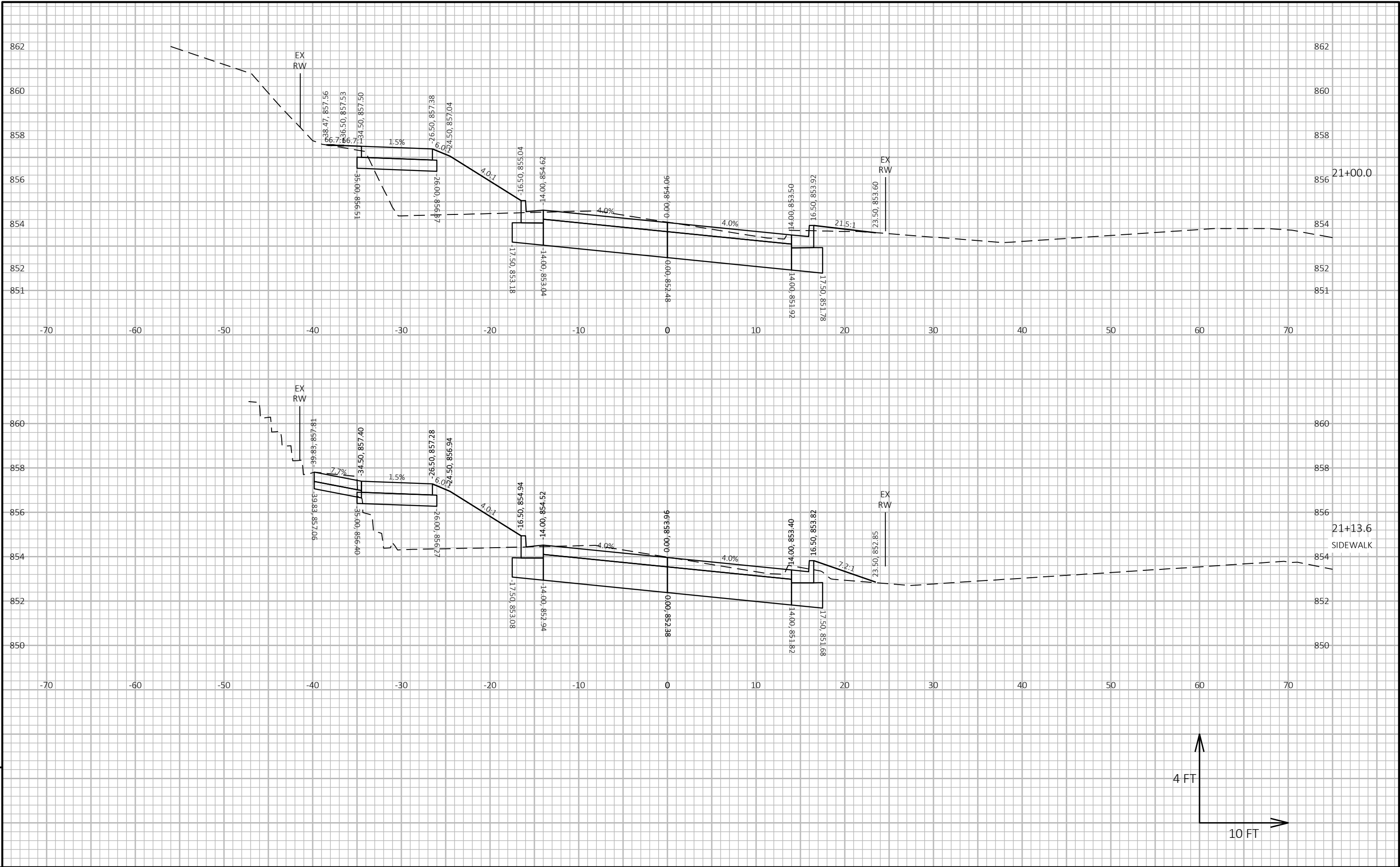


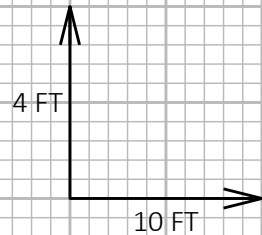
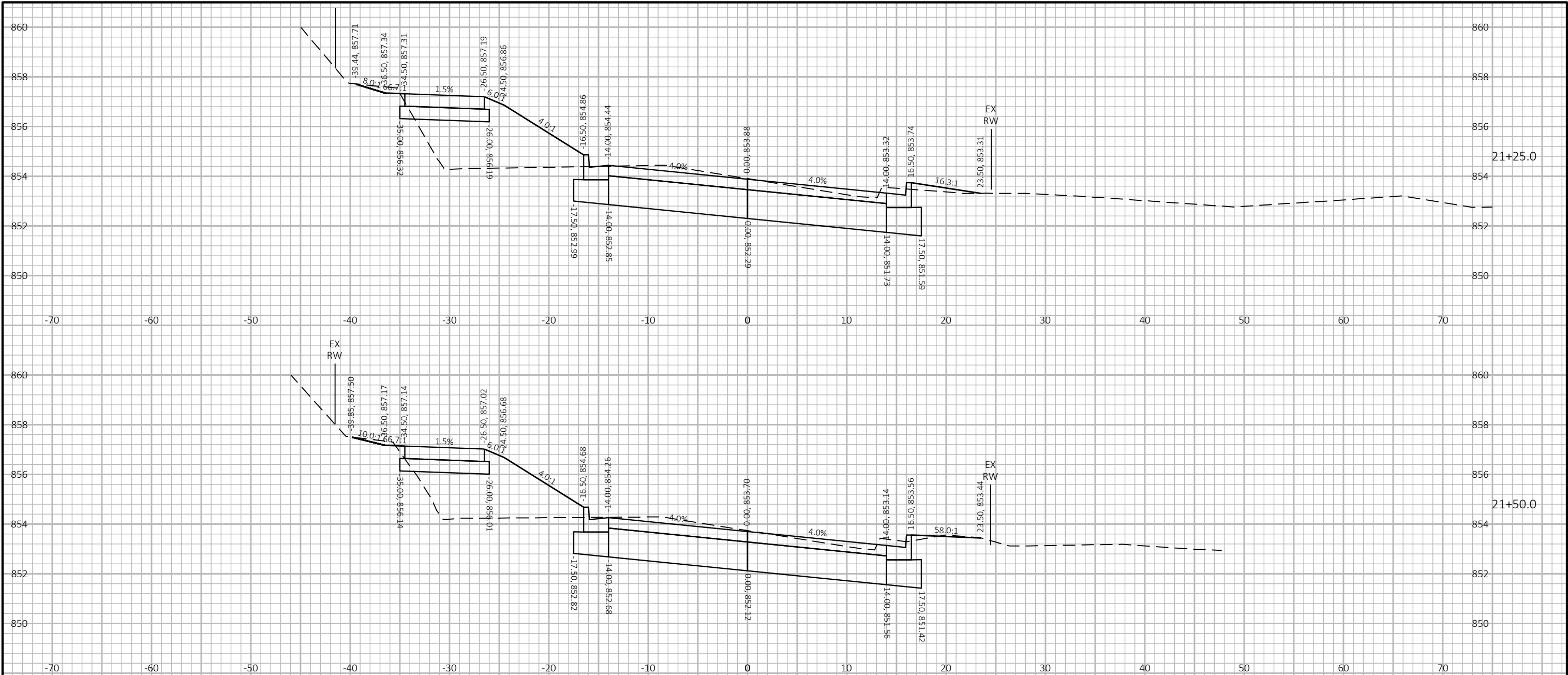






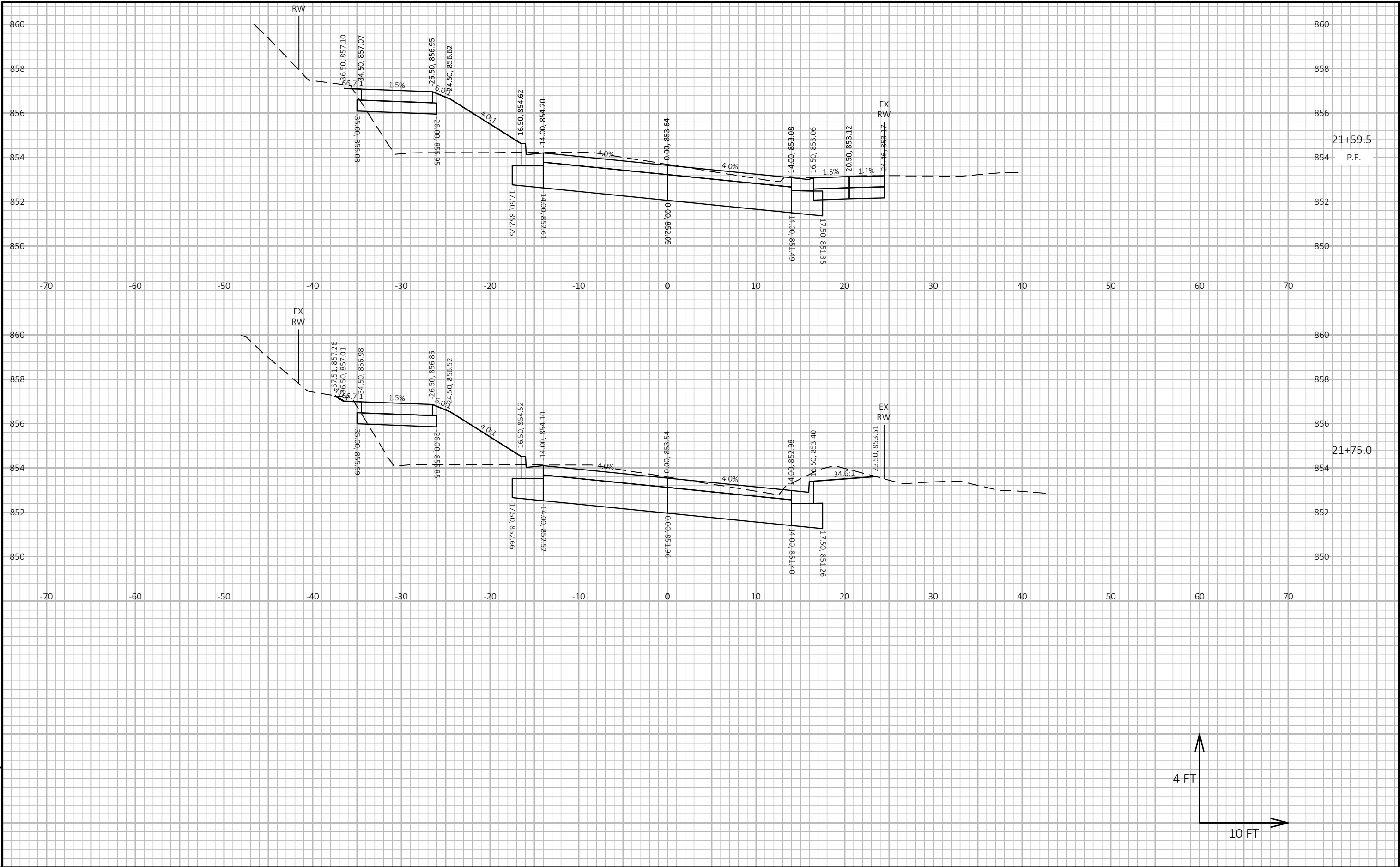


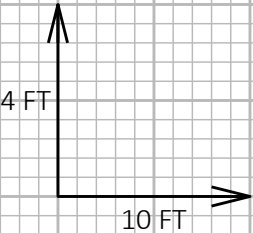
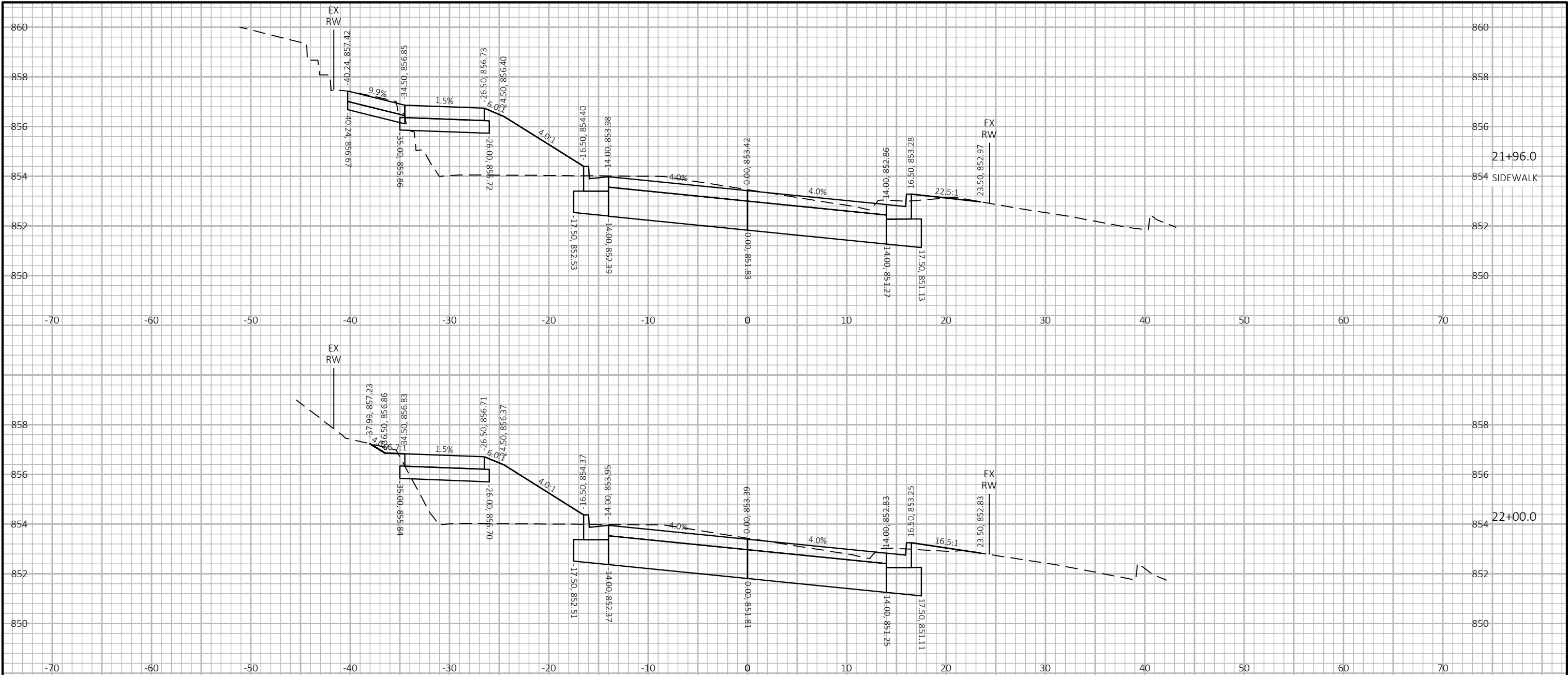




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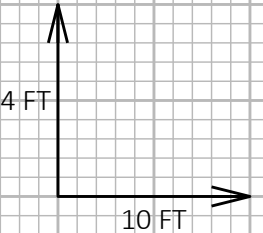
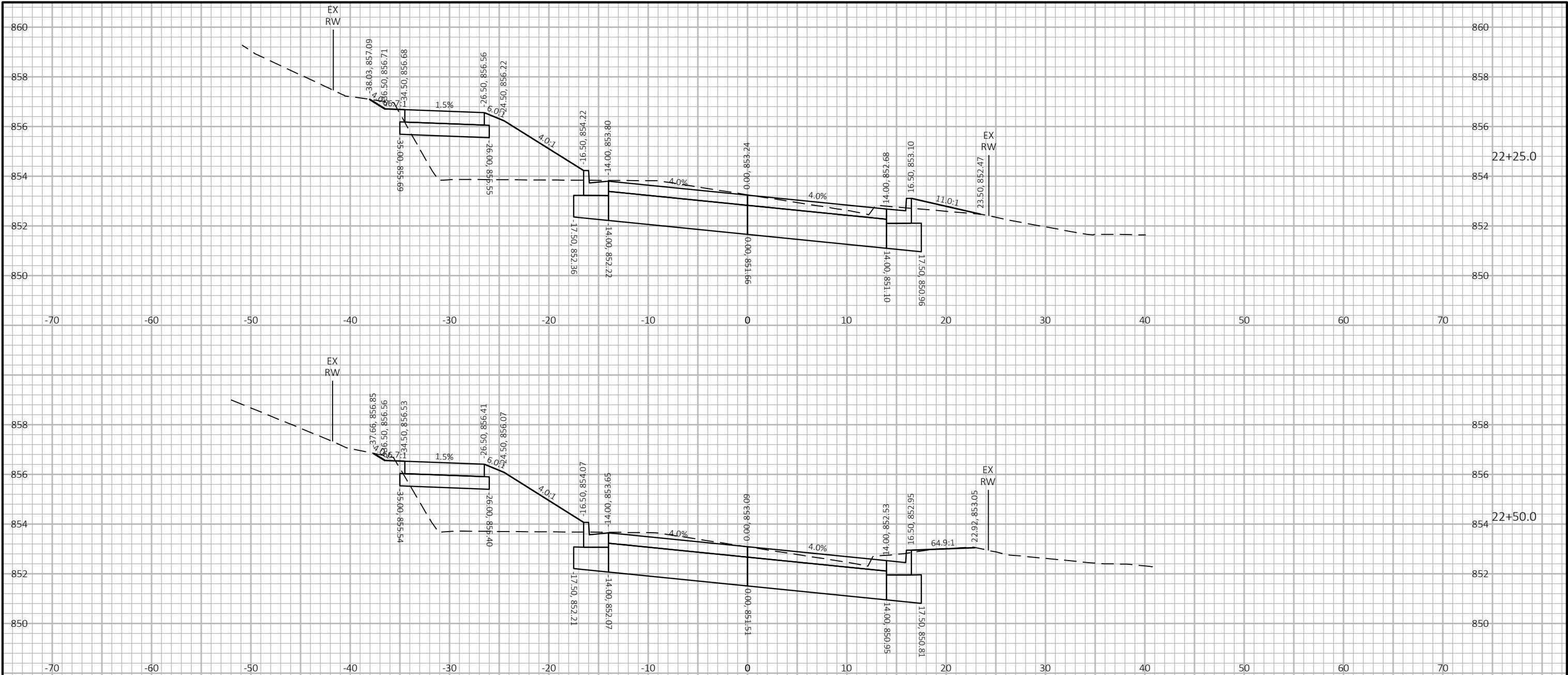
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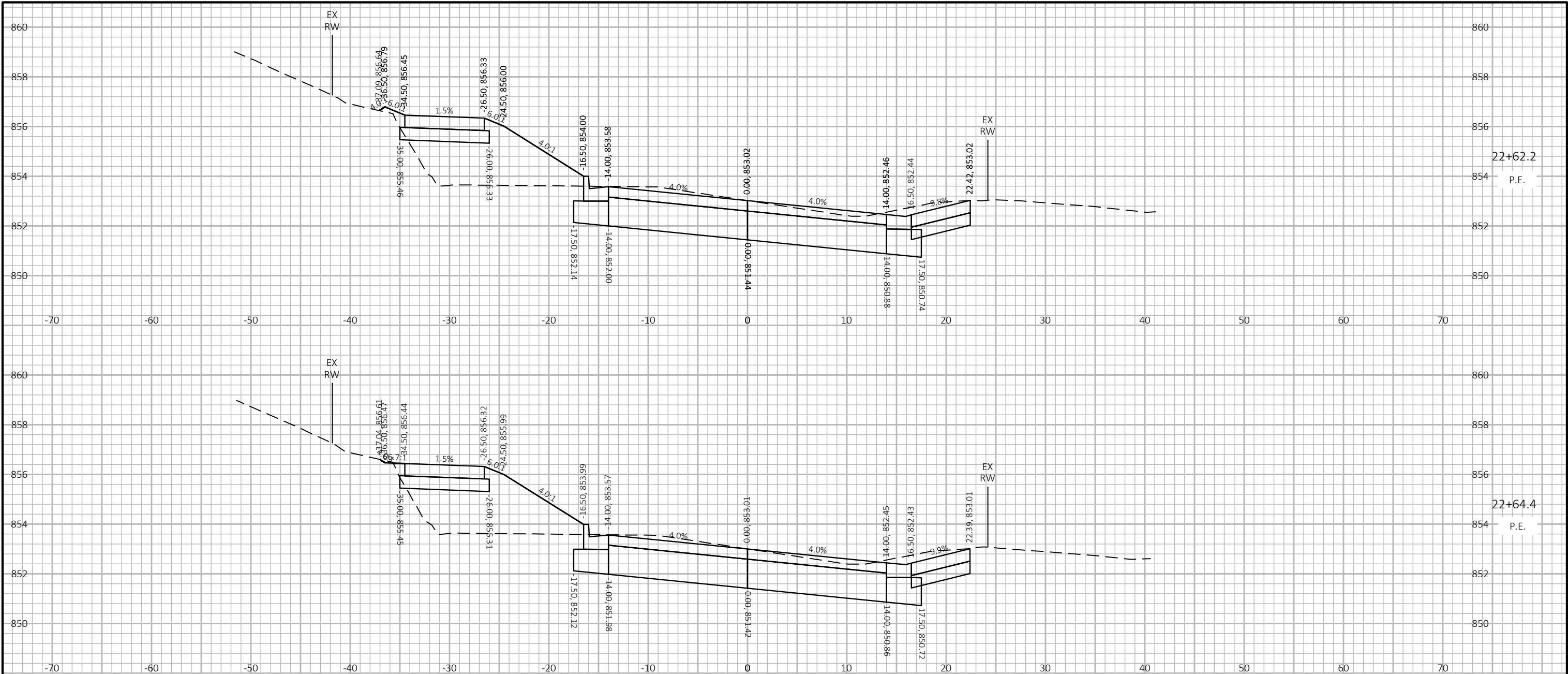
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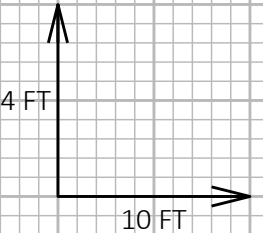
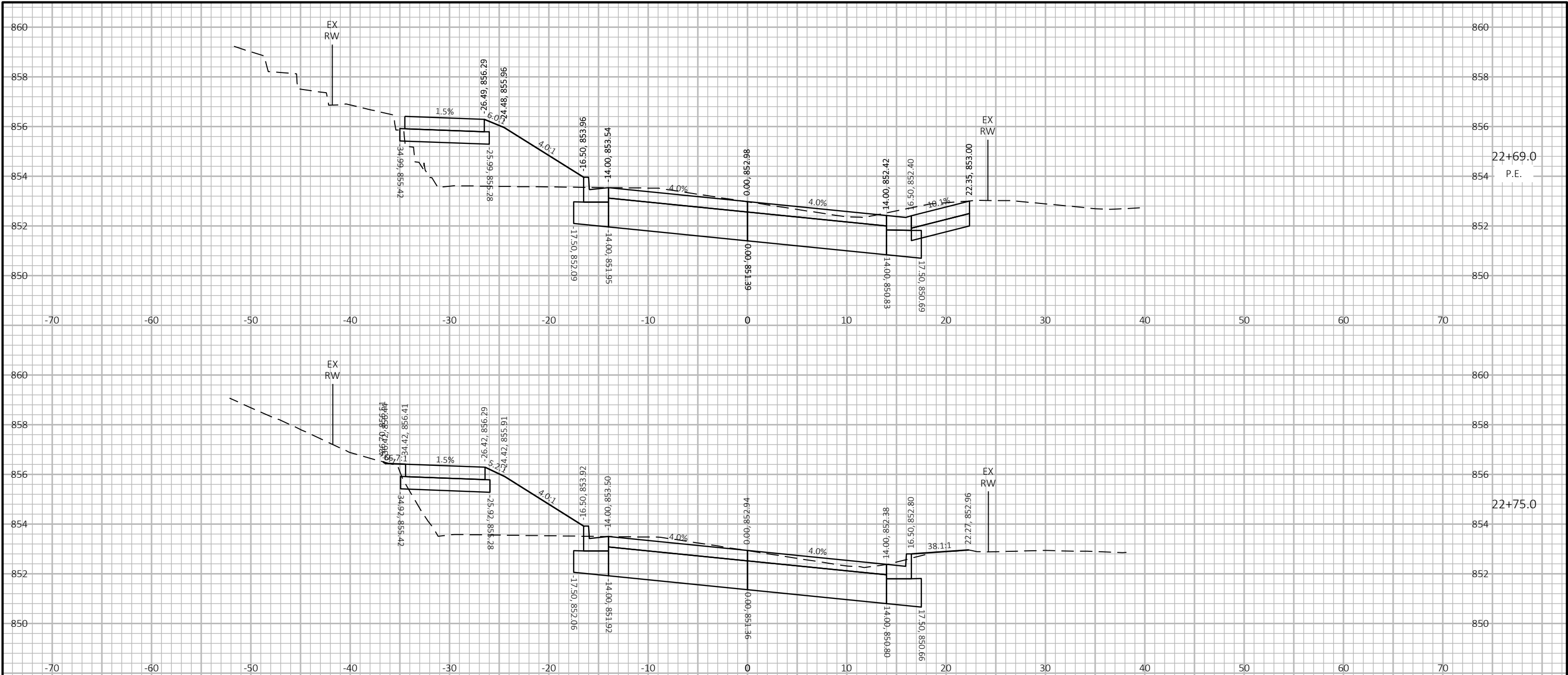
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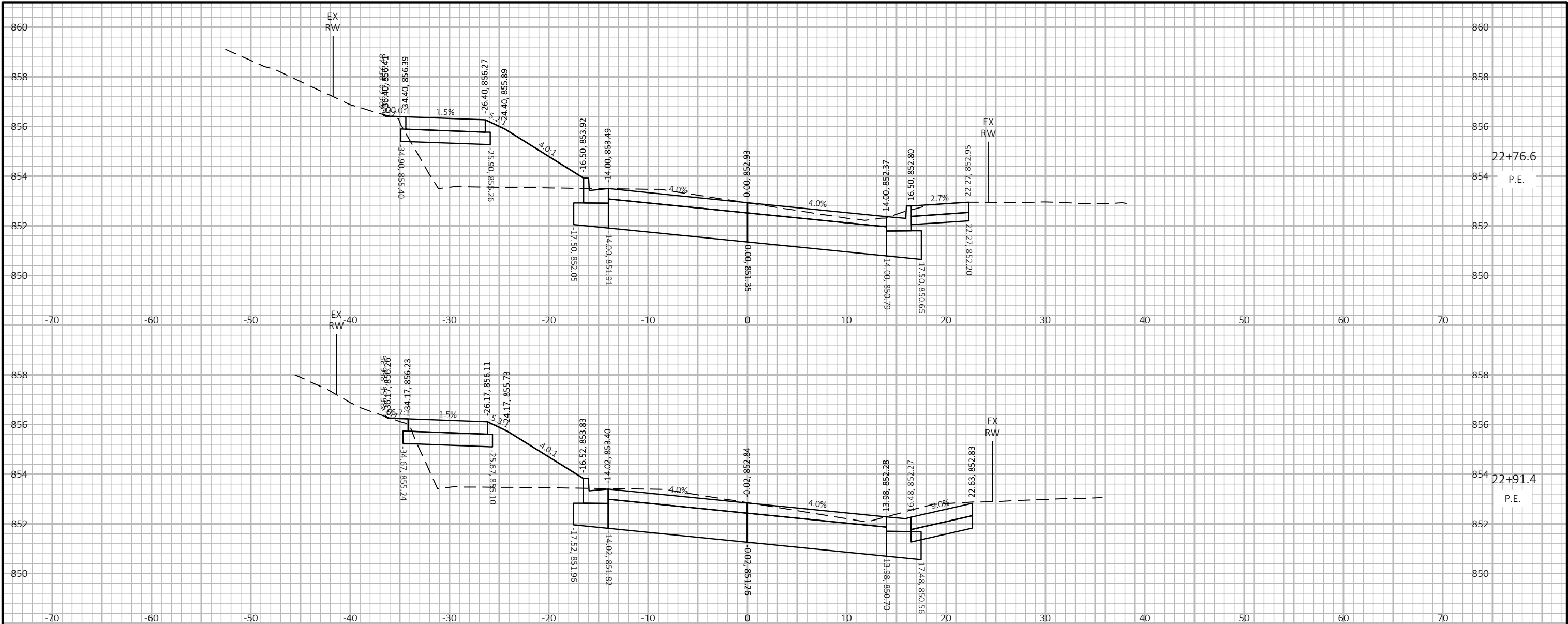


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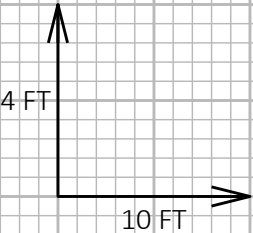
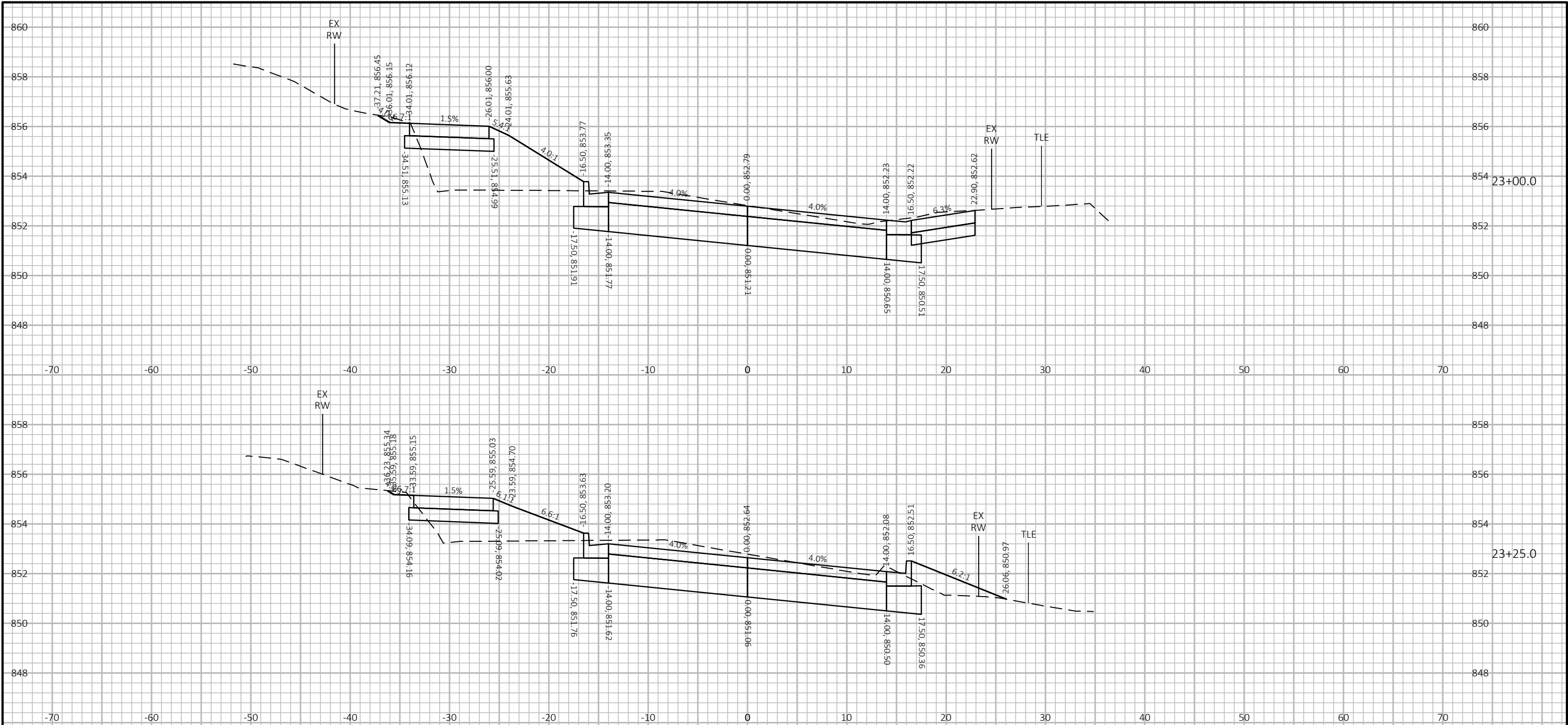


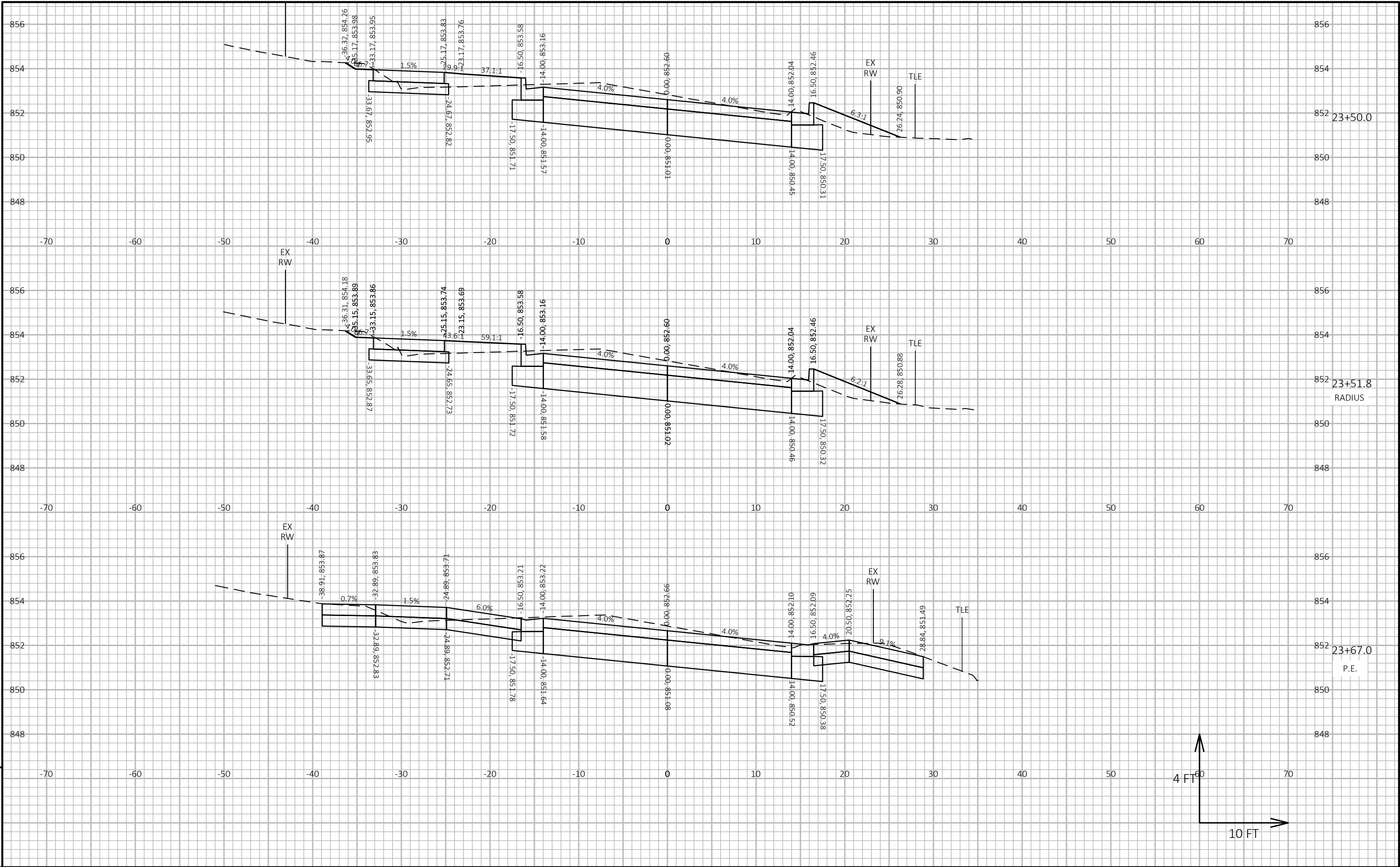


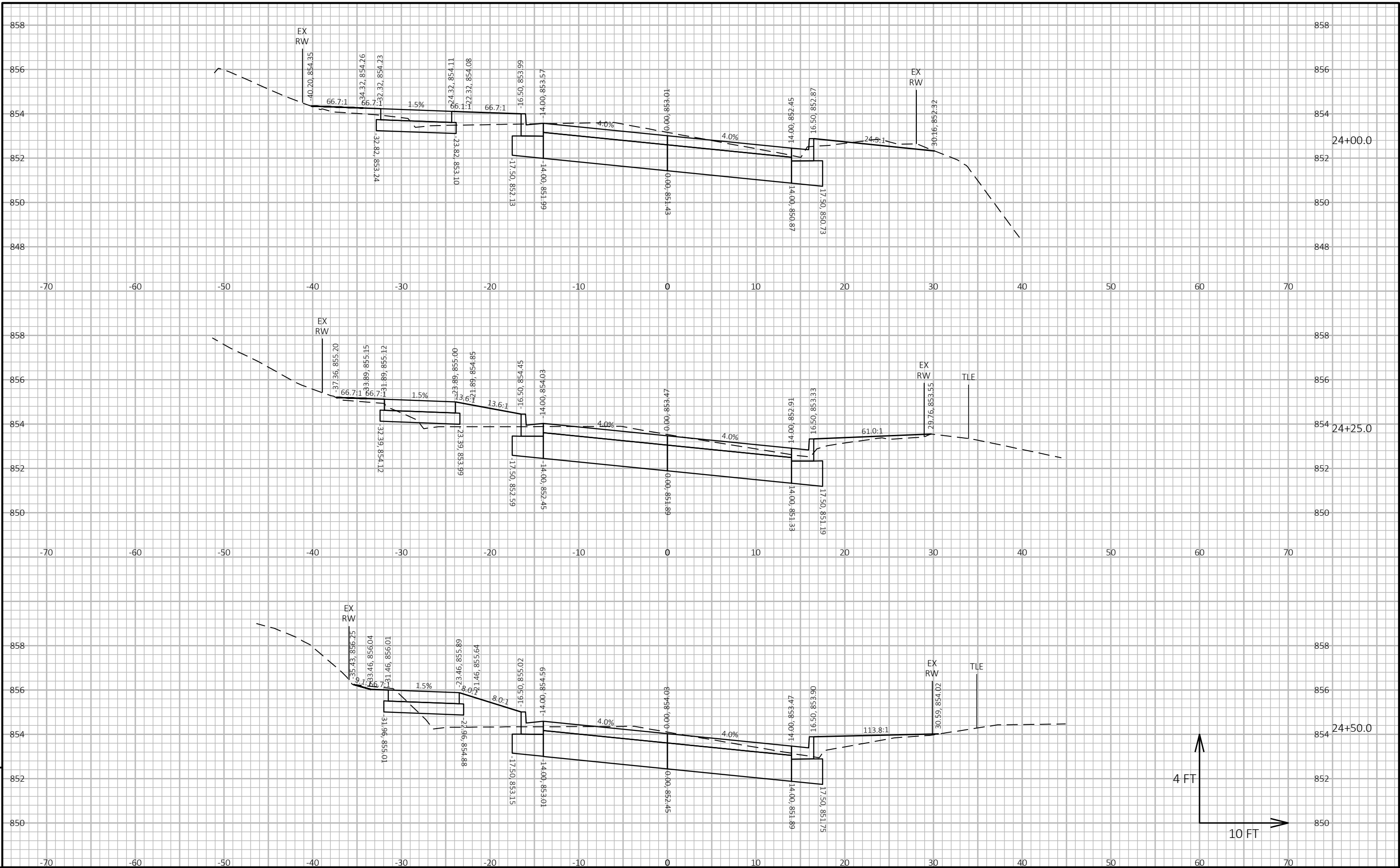


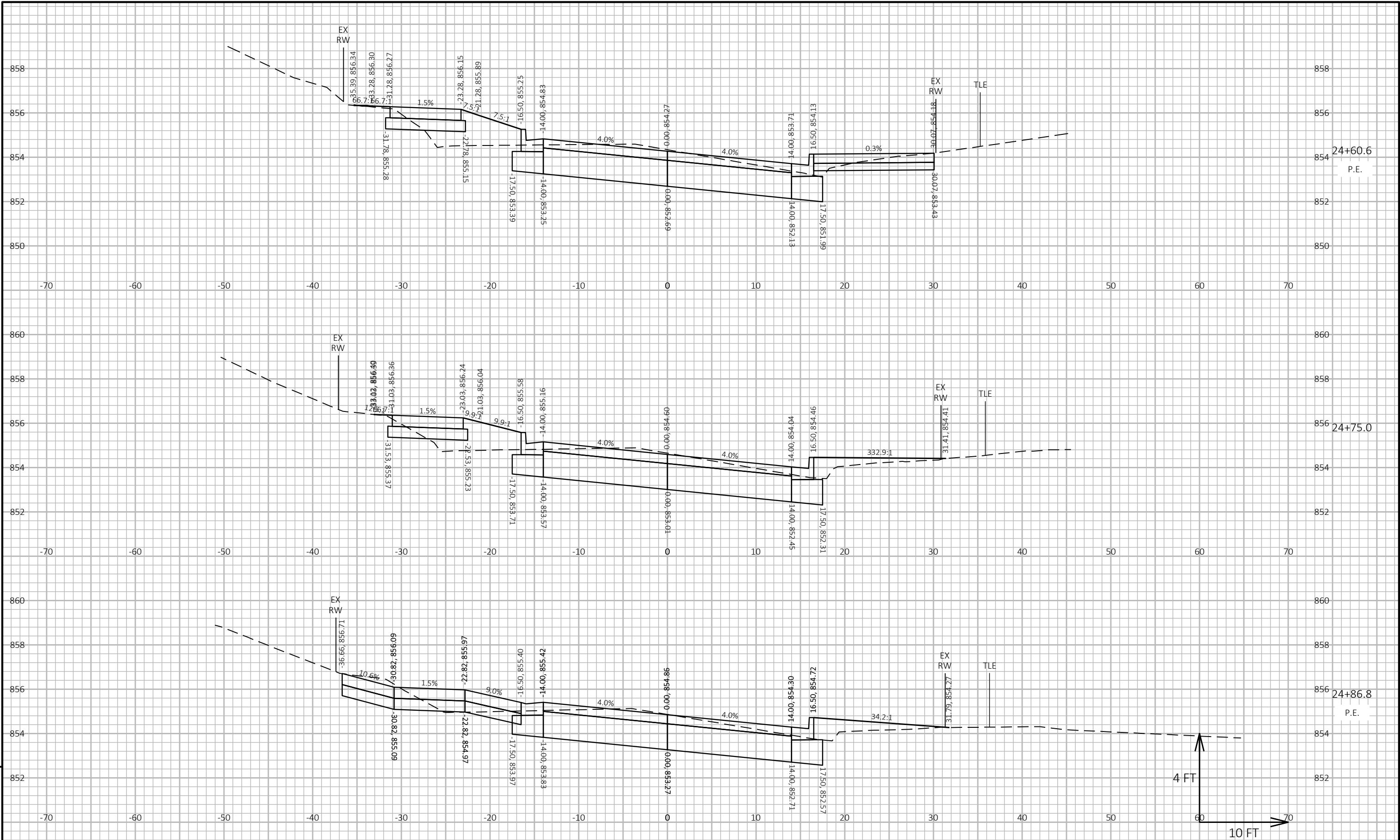
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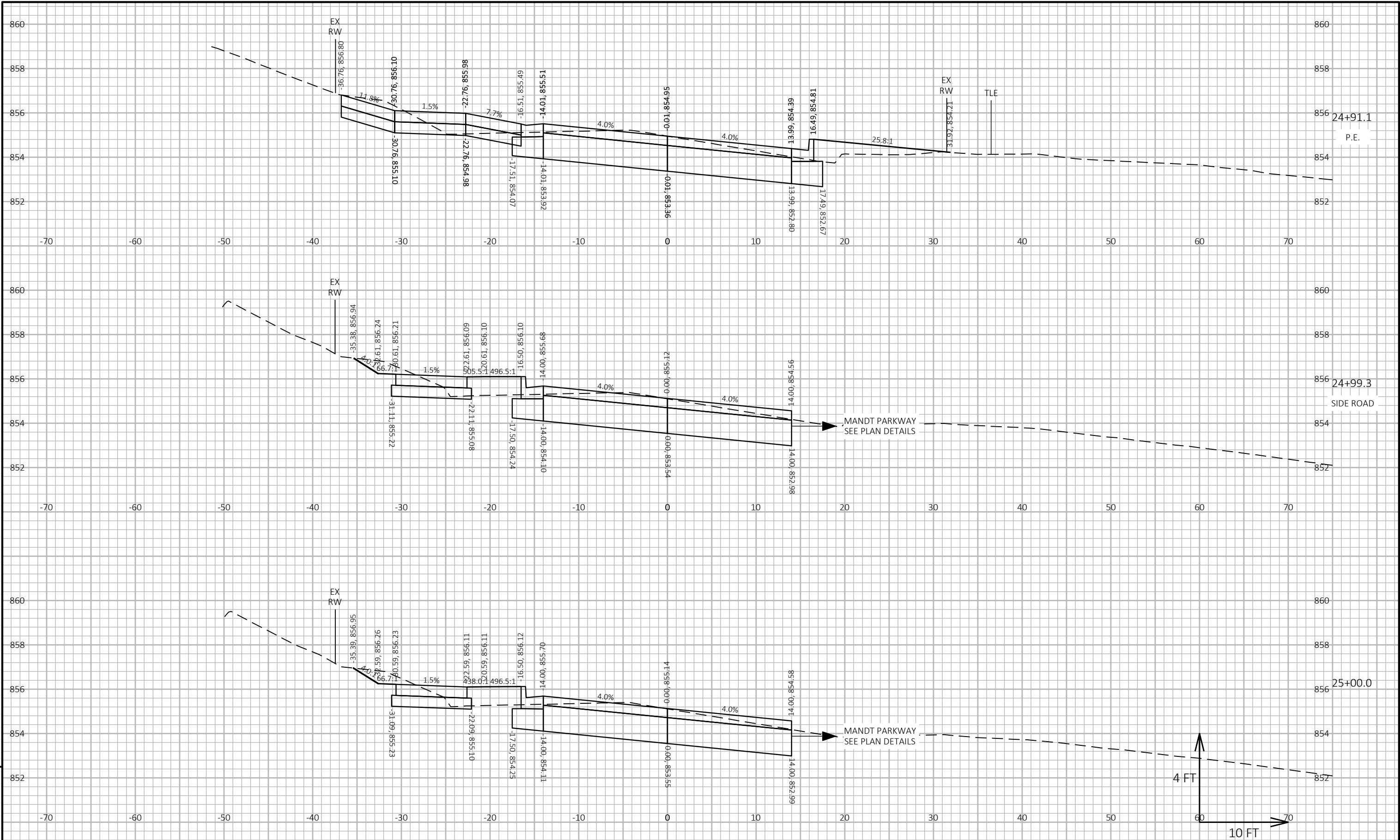
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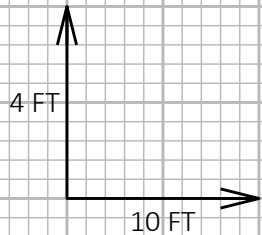
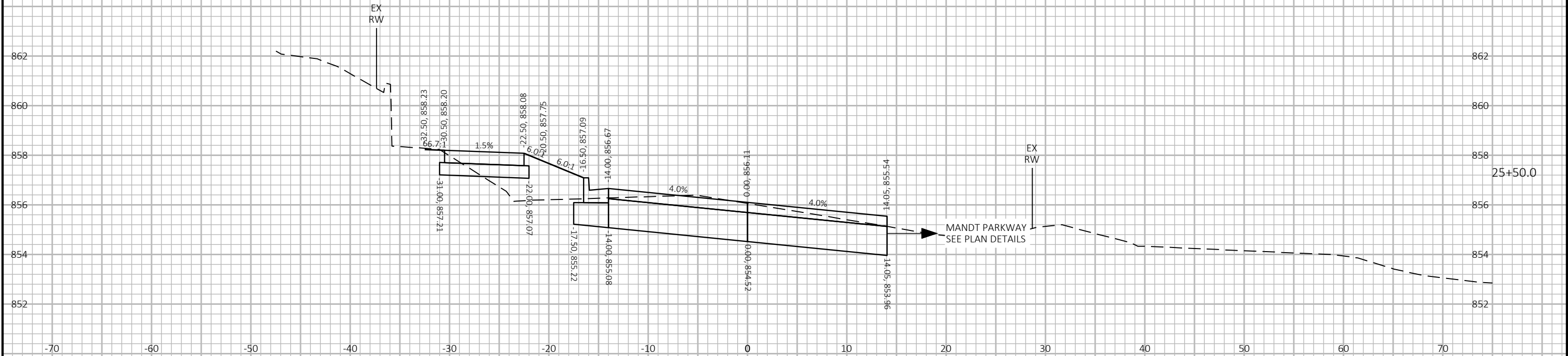
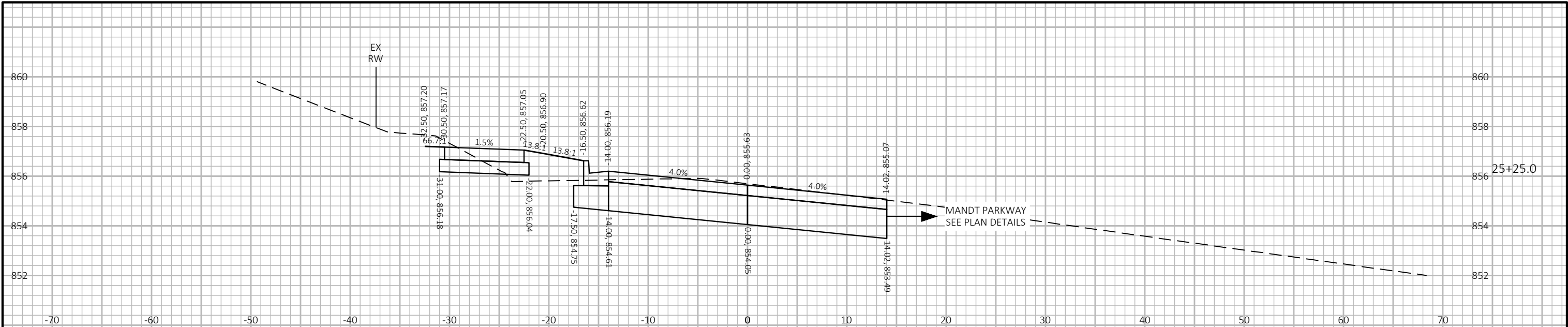






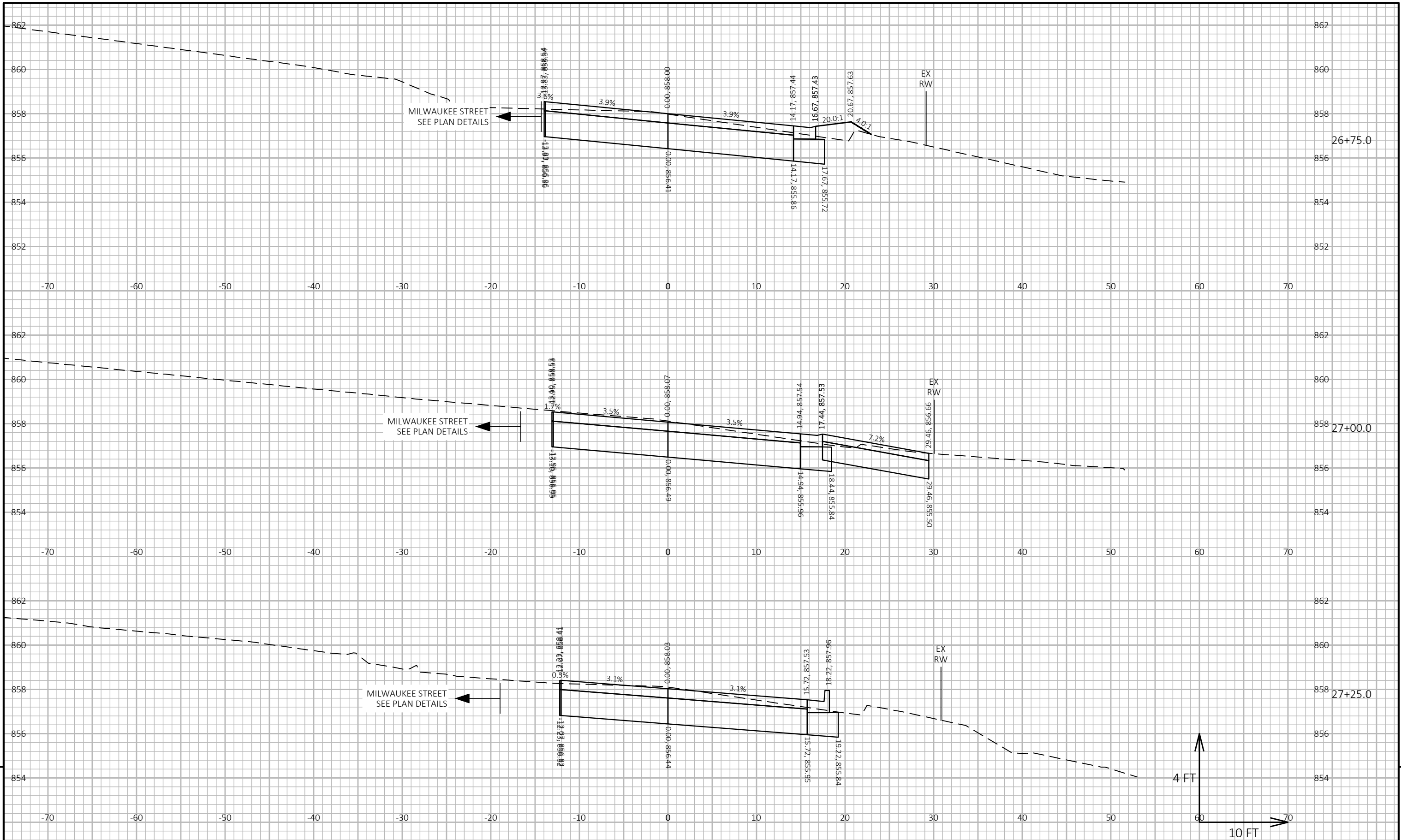






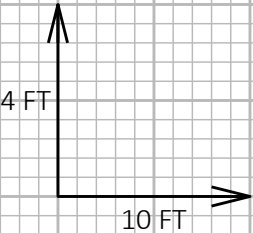
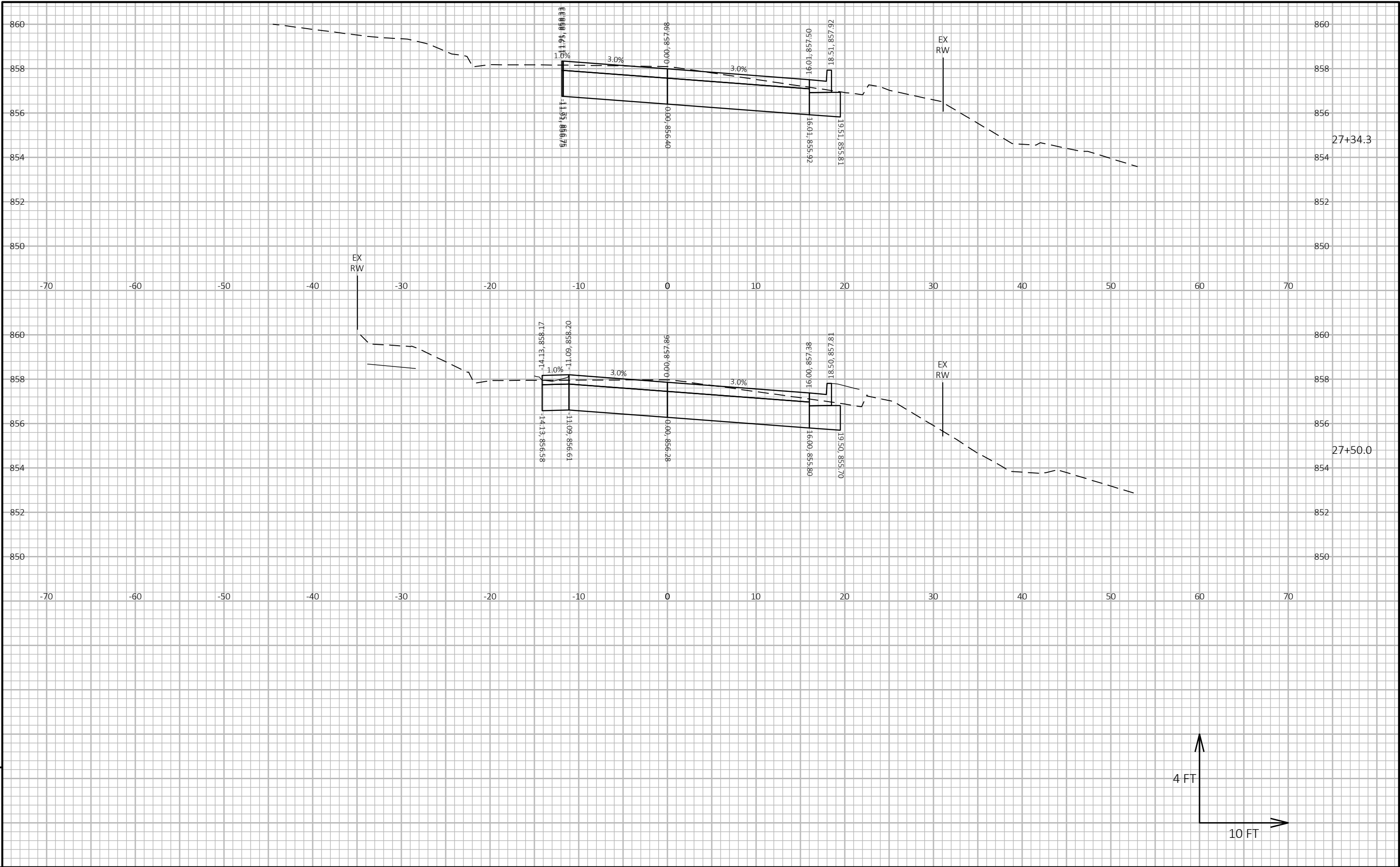
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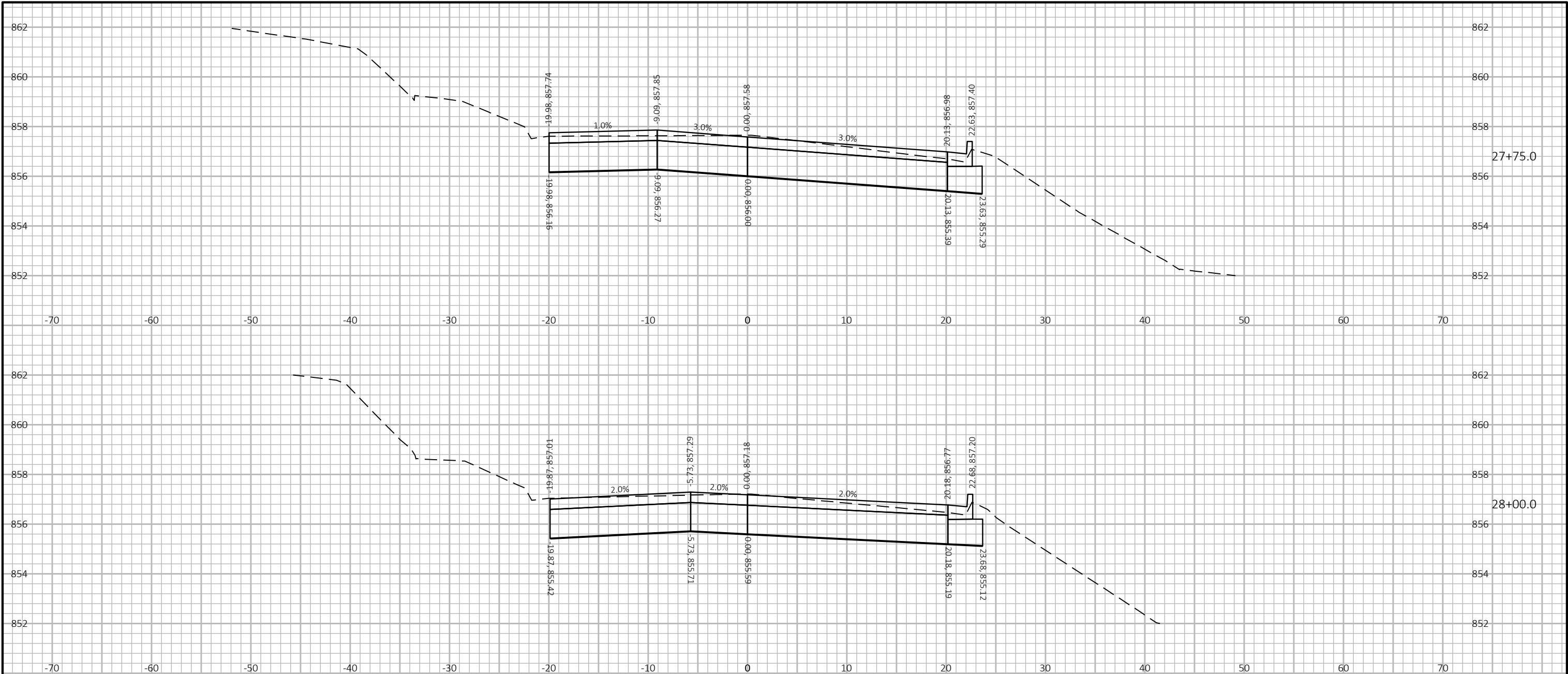
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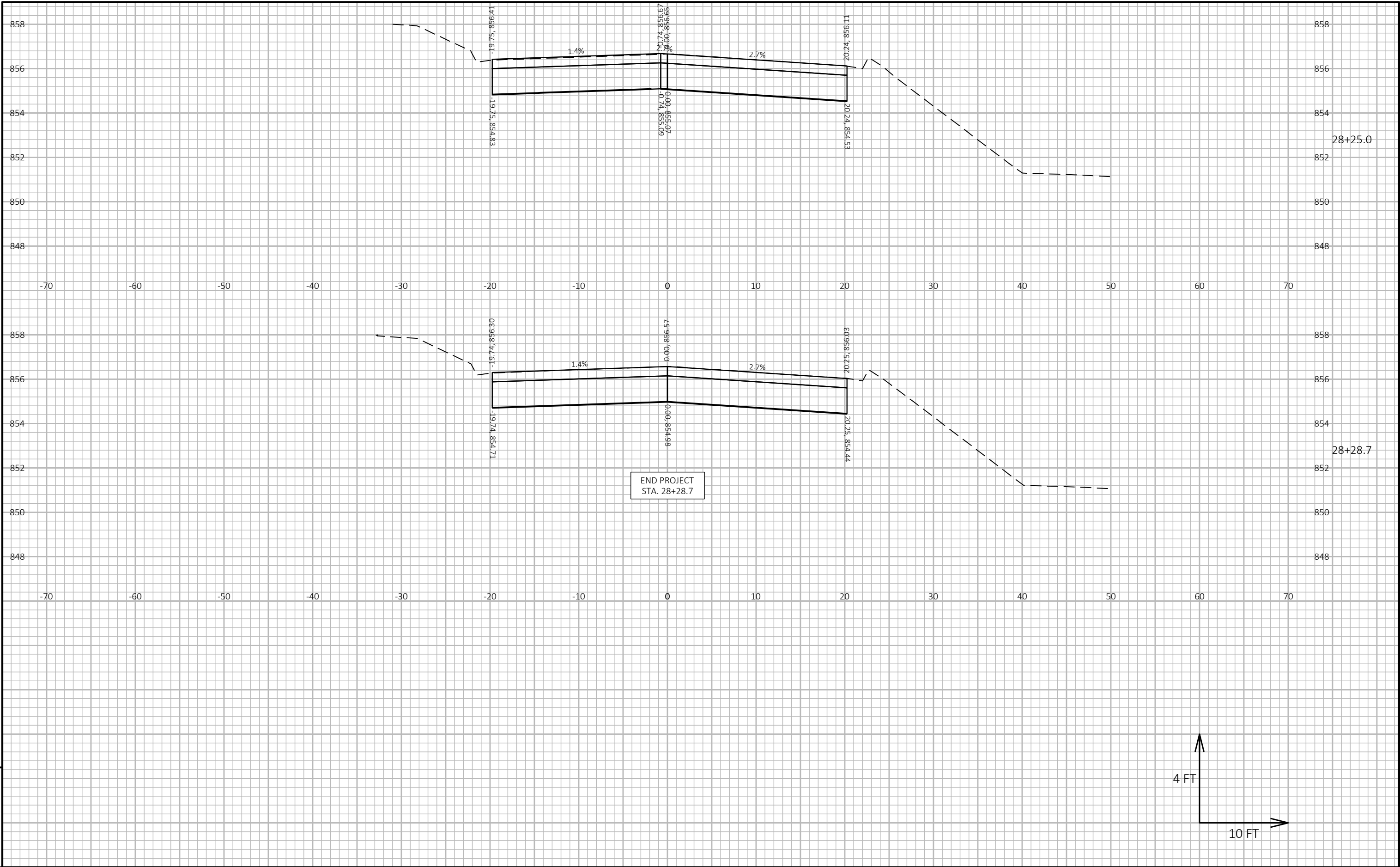
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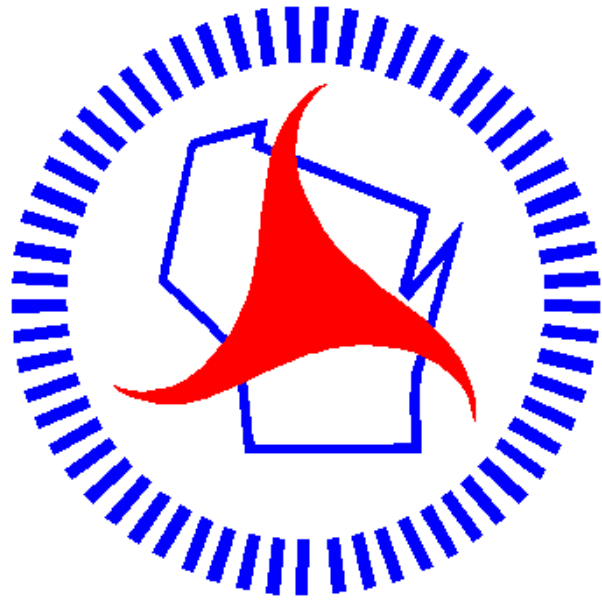




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