

PROJECT ID: 6990-03-73
WITH: N/A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

PLOVER - WAUPACA

STH 54 & CTH A INTERSECTION

STH 54

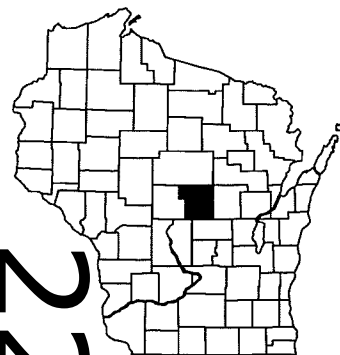
PORTAGE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6990-03-73	WISC 2014079	1

ORDER OF SHEETS

Section No. 1	Title
Section No. 2	Typical Sections and Details
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 = 116



DESIGN DESIGNATION STH 54

A.A.D.T.	2014	=	3400
A.A.D.T.	2034	=	4500
D.H.V.		=	2790
D.D.		=	62/38
T.		=	19.0 %
DESIGN SPEED		=	60 MPH
ESALS		=	1,416,200

DESIGN DESIGNATION CTH A

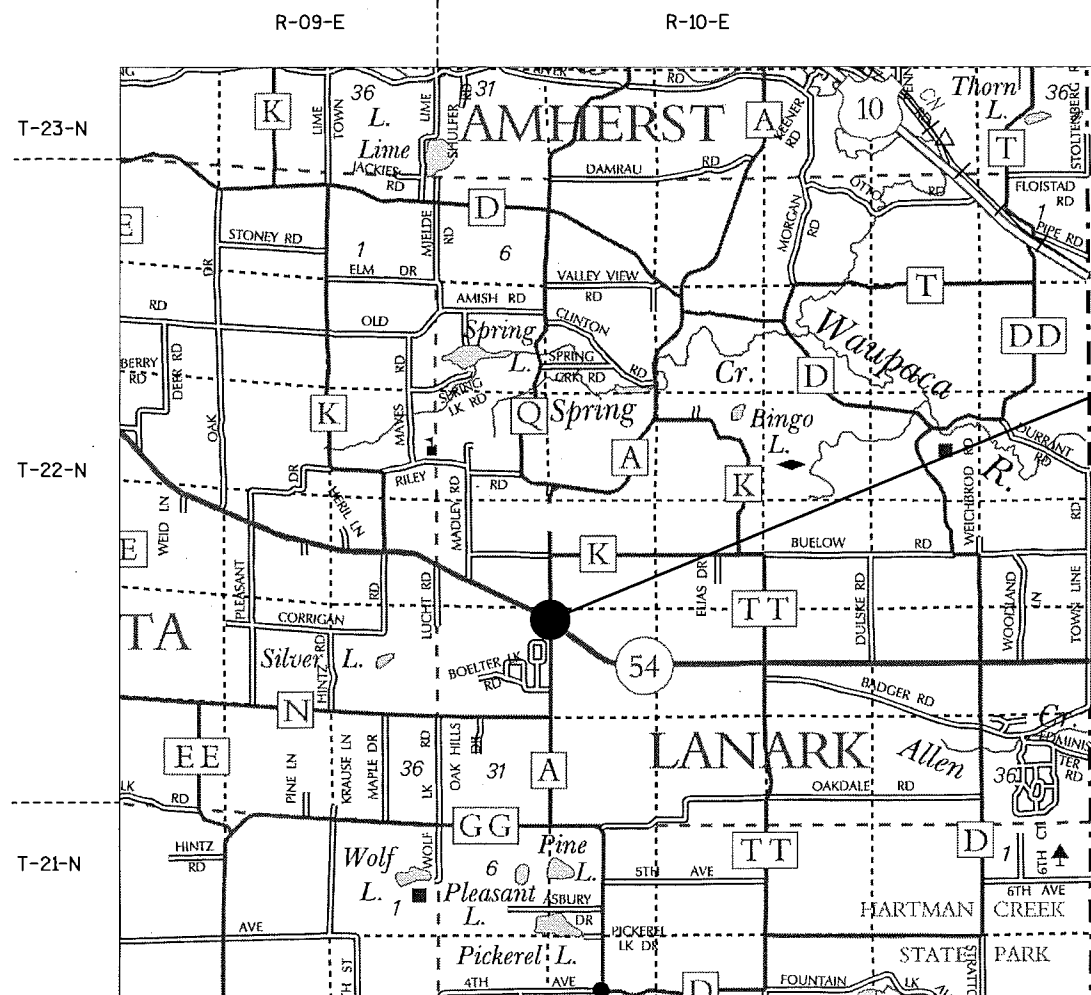
A.A.D.T.	2014	=	1300
A.A.D.T.	2034	=	1700
D.H.V.		=	
D.D.		=	
T.		=	
DESIGN SPEED		=	
ESALS		=	

CONVENTIONAL SYMBOLS

PLAN	
CORPORATE LIMITS	////
PROPERTY LINE	---
LOT LINE	---
LIMITED HIGHWAY EASEMENT	---
EXISTING RIGHT OF WAY	---
PROPOSED OR NEW R/W LINE	---
SLOPE INTERCEPT	---
REFERENCE LINE	---
EXISTING CULVERT	---
PROPOSED CULVERT (Box or Pipe)	---
COMBUSTIBLE FLUIDS	CAUTION
MARSH AREA	---
WOODED OR SHRUB AREA	---

PROFILE	
GRADE LINE	---
ORIGINAL GROUND	---
MARSH OR ROCK PROFILE (To be noted as such)	---
SPECIAL DITCH	---
GRADE ELEVATION	---
CULVERT (Profile View)	---
UTILITIES	
ELECTRIC	---
FIBER OPTIC	---
GAS	---
SANITARY SEWER	---
STORM SEWER	---
TELEPHONE	---
WATER	---
UTILITY PEDESTAL	---
POWER POLE	---
TELEPHONE POLE	---

STATE PROJECT NUMBER
6990-03-73



LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), PORTAGE COUNTY, NAD 1983 (91)

BEGIN PROJECT CTH A
STA 40+75.00A

END PROJECT CTH A
STA 53+50.00A

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	NCR
Designer	ALEIGHA AHLSTROM
Project Manager	WENDY ARNESON
Regional Examiner	CHERYL SIMON
Regional Supervisor	SHANNON RILEY
APPROVED FOR THE DEPARTMENT	
DATE: 10/23/13	(Signature)

GENERAL NOTES

CLEARING AND GRUBBING SHALL INCLUDE ADJACENT VISION CORNERS AS DIRECTED BY THE ENGINEER. NO TREES OR SHRUBS OUTSIDE THE GRADING LIMITS SHALL BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

PURSUANT TO CHAPTER 59 OF THE WISCONSIN STATUTES, THE CONTRACTOR SHALL CAREFULLY MAKE A SEARCH FOR EVIDENCE OF A LANDMARK IN ALL AREAS WHERE SUCH A LANDMARK MAY EXIST.

THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH 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.

UTILITY CONTACTS

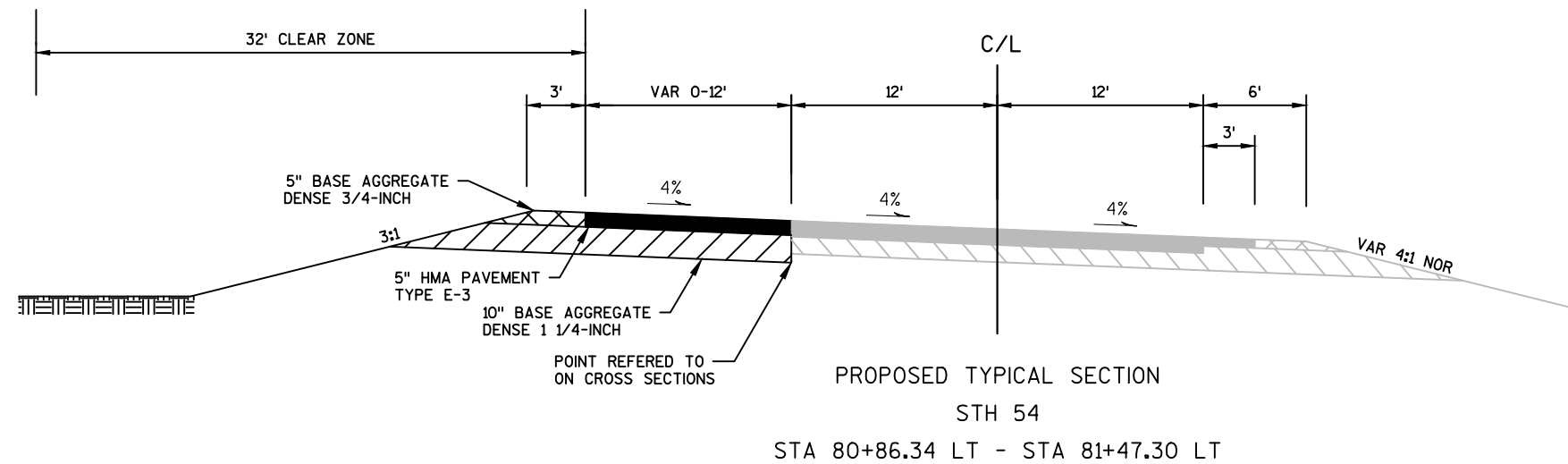
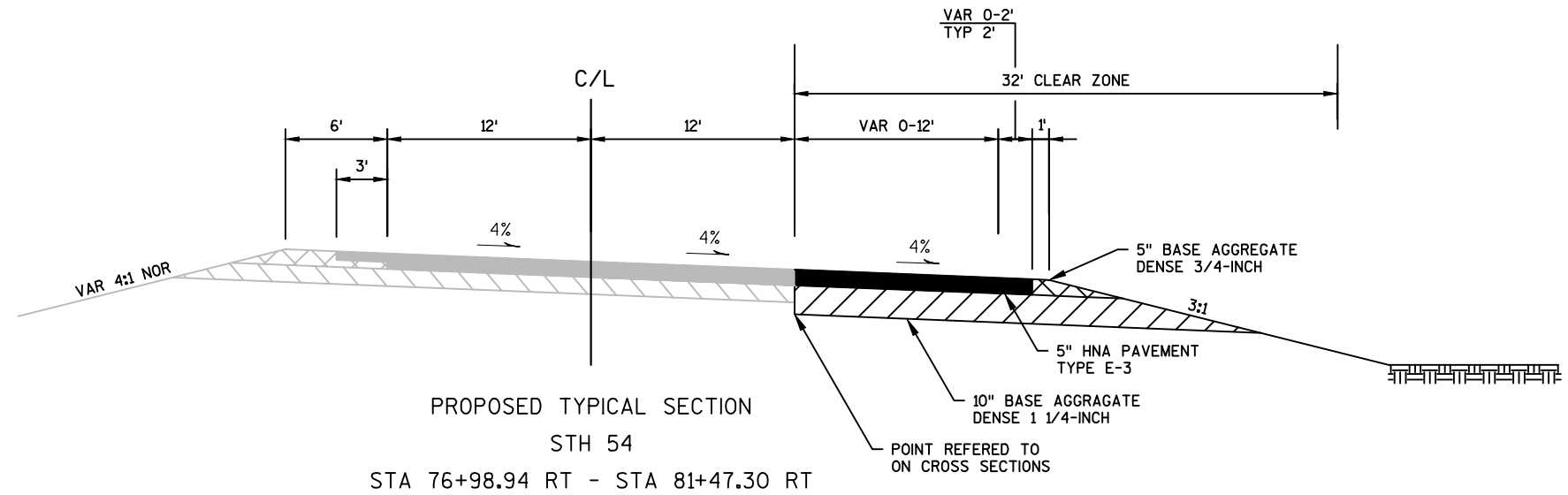
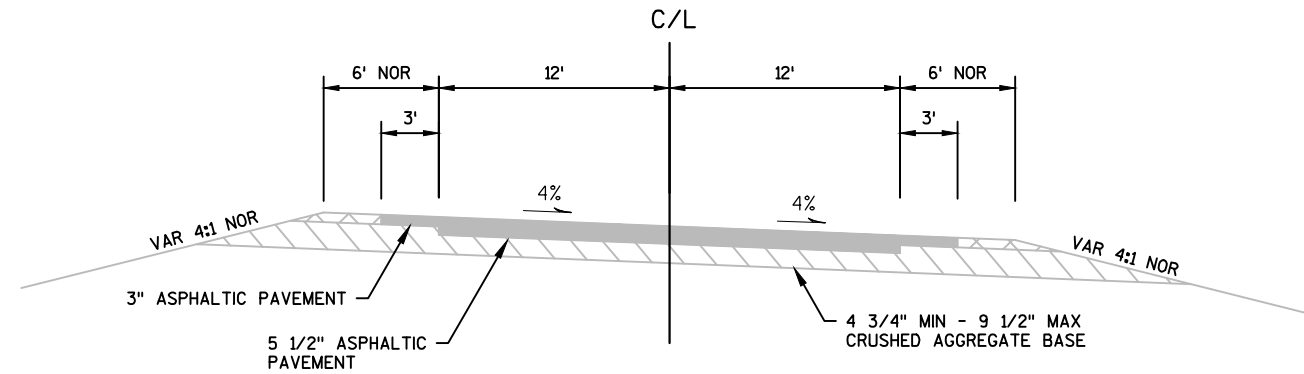
AMHESRT TELEPHONE COMPANY, COMMUNICATION TOM IVERSON PO BOX 279 AMHERST, WI 54406 PHONE: (715) 824-2006 MOBILE: (715) 572-5630	ATC MANAGEMENT INC, ELECTRIC MIKE OLSEN 1303 O'KEEFE RD, PO BOX 6113 DE PERE, WI 54115-6113 PHONE: (920) 338-6582 MOBILE: (920) 660-2390
UNION TELEPHONE COMPANY, COMMUNICATION RONALD BOWDEN 100 W NORTH ST PLAINFIELD, WI 5466-0096 PHONE: (715) 355-6301 MOBILE: N/A	CHARTER COMMUNICATIONS, COMMUNICATION RUDI RUDIGER 5024 HEFFRON ST STEVENS POINT, WI 54481 PHONE: N/A MOBILE: (715) 302-1550
WISCONSIN PUBLIC SERVICE CORPORATION, ELECTRIC STEVE HARVEY 2001 PLOVER ROAD PLOVE, WI 54467 PHONE: (715) 345-7527 MOBILE: (715) 451-5115	AT&T WISCONSIN, COMMUNICATION MIKE HAHN 221 W WAHSINGTON ST 4TH FL APPLETON, WI 54911 PHONE: (920) 735-3358 MOBILE: N/A

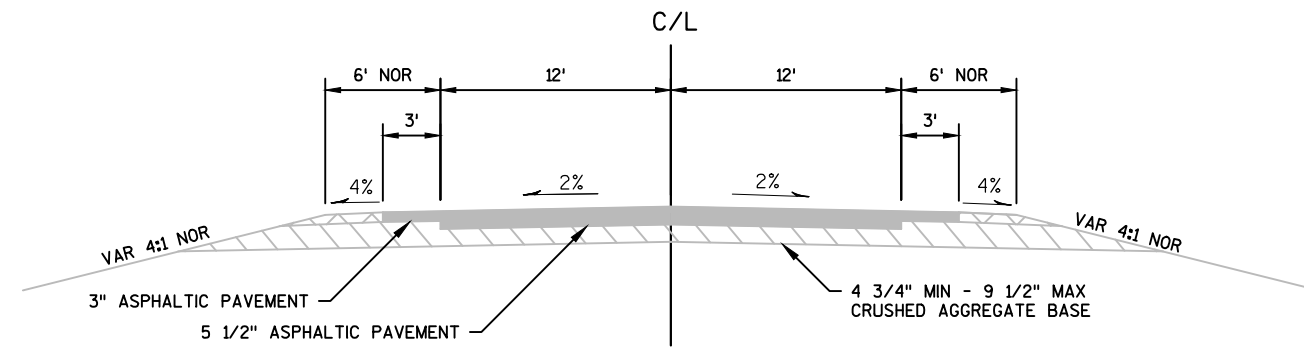
ENVIRONMENTAL CONTACTS

DEPARTMENT OF NATURAL RESOURCES
DNR LIASION PORTAGE COUNTY
MARC HERSHFIELD
473 GRIFFITH DRIVE
WISCONSIN RAPIDS, WI 54494
PHONE: 715-421-7867
EMAIL: marc.hershfield@wisconsin.gov

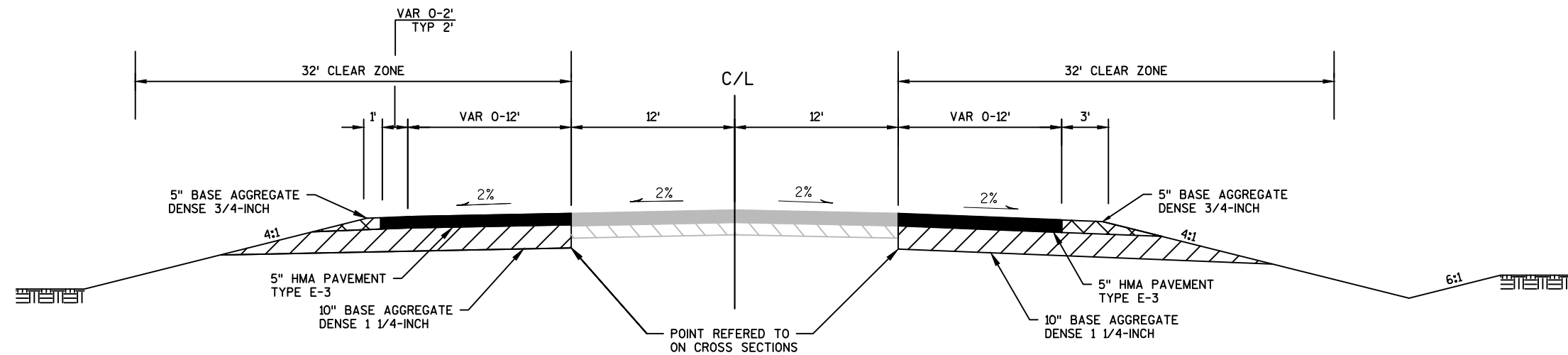






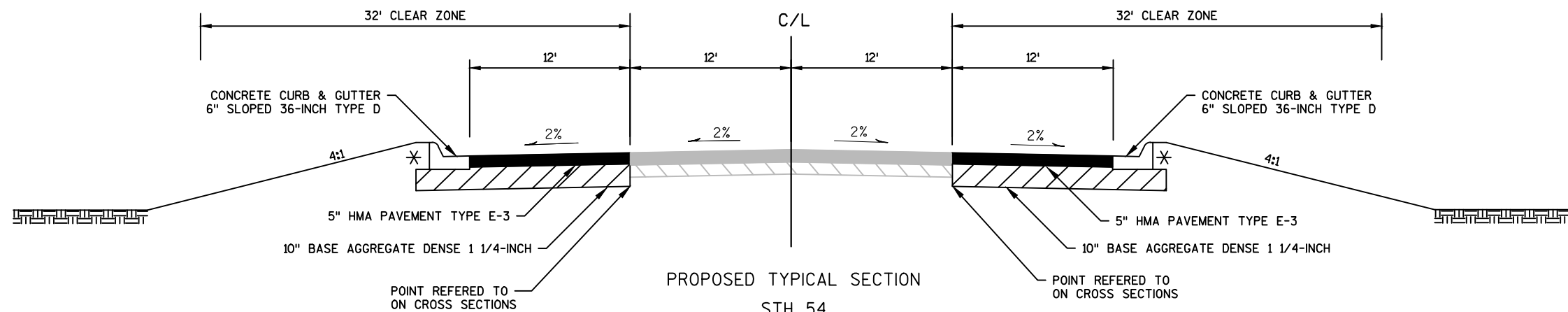


EXISTING TYPICAL SECTION
STH 54
STA 81+47.30 - STA 87+44.69



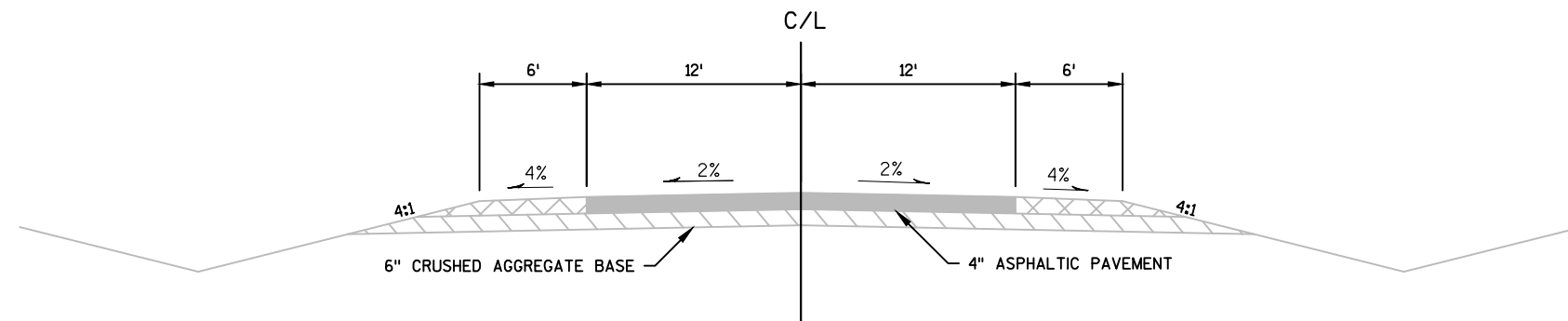
STA 81+47.30 LT - STA 81+64.35 LT
STA 82+95.72 LT - STA 87+44.69 LT

STA 82+79.49 RT - STA 85+40.00 RT

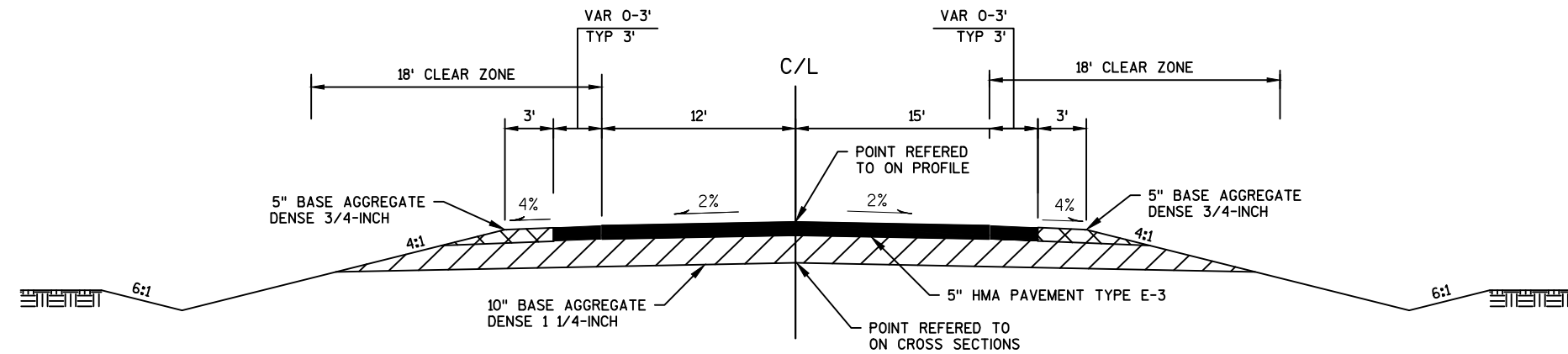


STA 81+47.30 RT - STA 82+79.49 RT
STA 81+64.35 LT - STA 82+95.72 LT

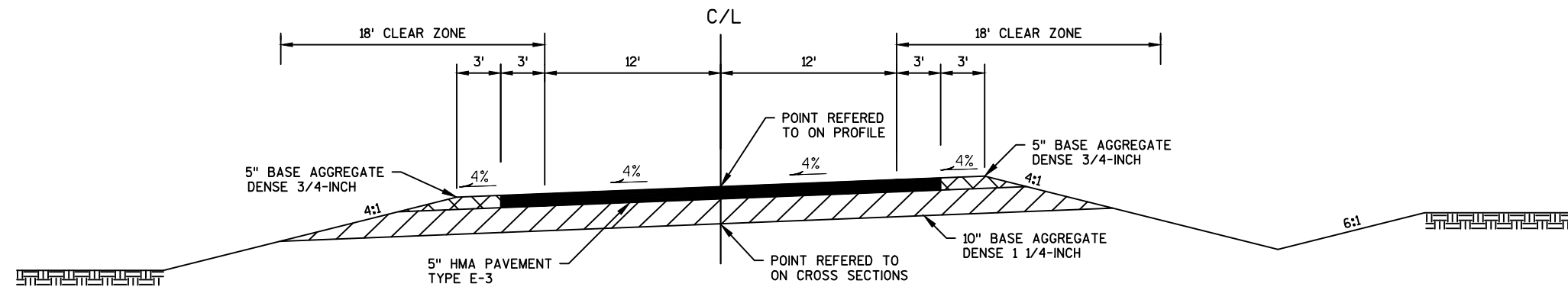
*SEE CONSTRUCTION DETAIL TYPICAL FOR SLOPE TREATMENT
BEHIND CURB AND GUTTER AT RURAL SIDEROAD INTERSECTIONS



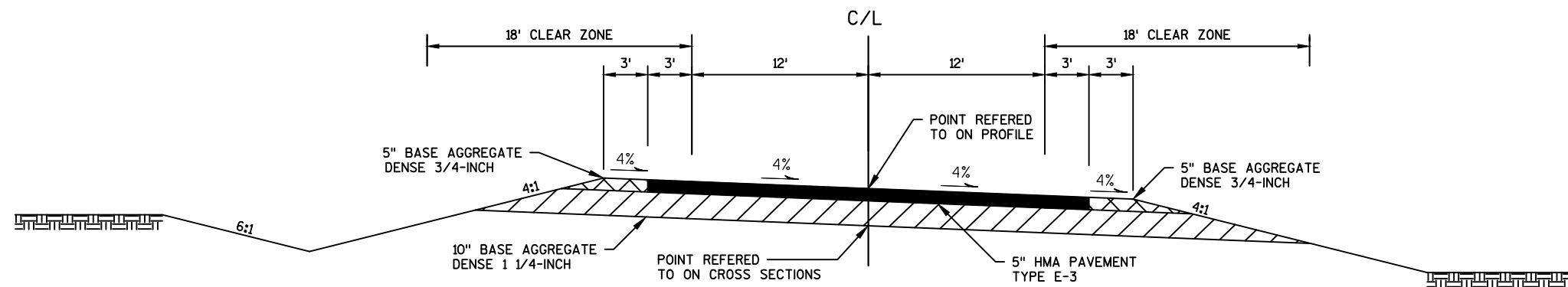
EXISTING TYPICAL SECTION
CTH A
STA 40+75.00A - STA 53+50.00A



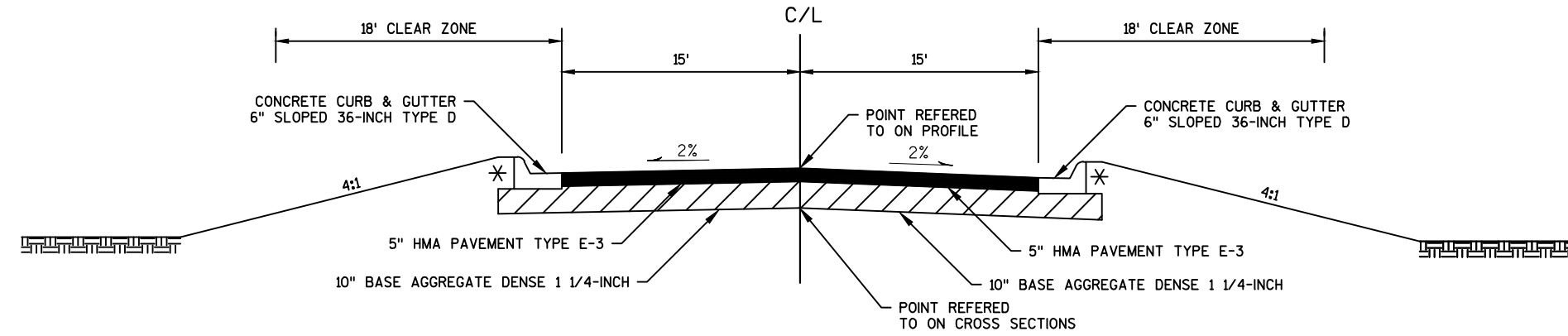
PROPOSED TYPICAL SECTION
CTH A
STA 40+75.00A - STA 41+83.68A
STA 45+31.51A - STA 46+59+.06A
STA 49+15.13A - STA 49+34.51A RT
STA 49+15.13A - STA 49+17.70A LT
STA 50+83.13A - STA 50+86.82A RT
STA 50+66.35A - STA 50+86.82A LT
STA 52+51.71A - STA 53+50.00A



PROPOSED TYPICAL SECTION
CTH A
STA 41+83.68A - STA 45+31.51A
STA 50+86.82A - STA 52+51.71A



PROPOSED TYPICAL SECTION
CTH A
STA 46+59.06A - STA 49+15.13A



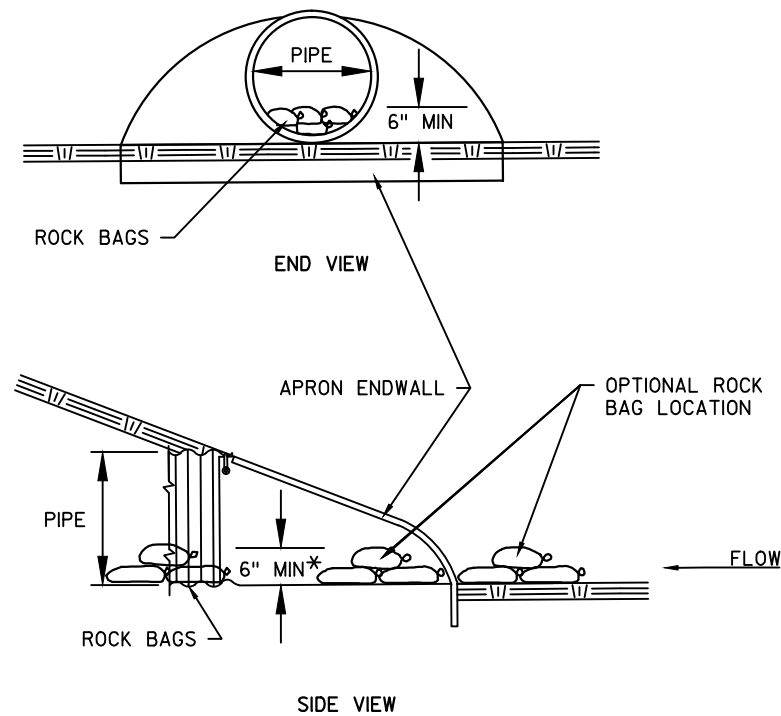
PROPOSED TYPICAL SECTION

CTH A

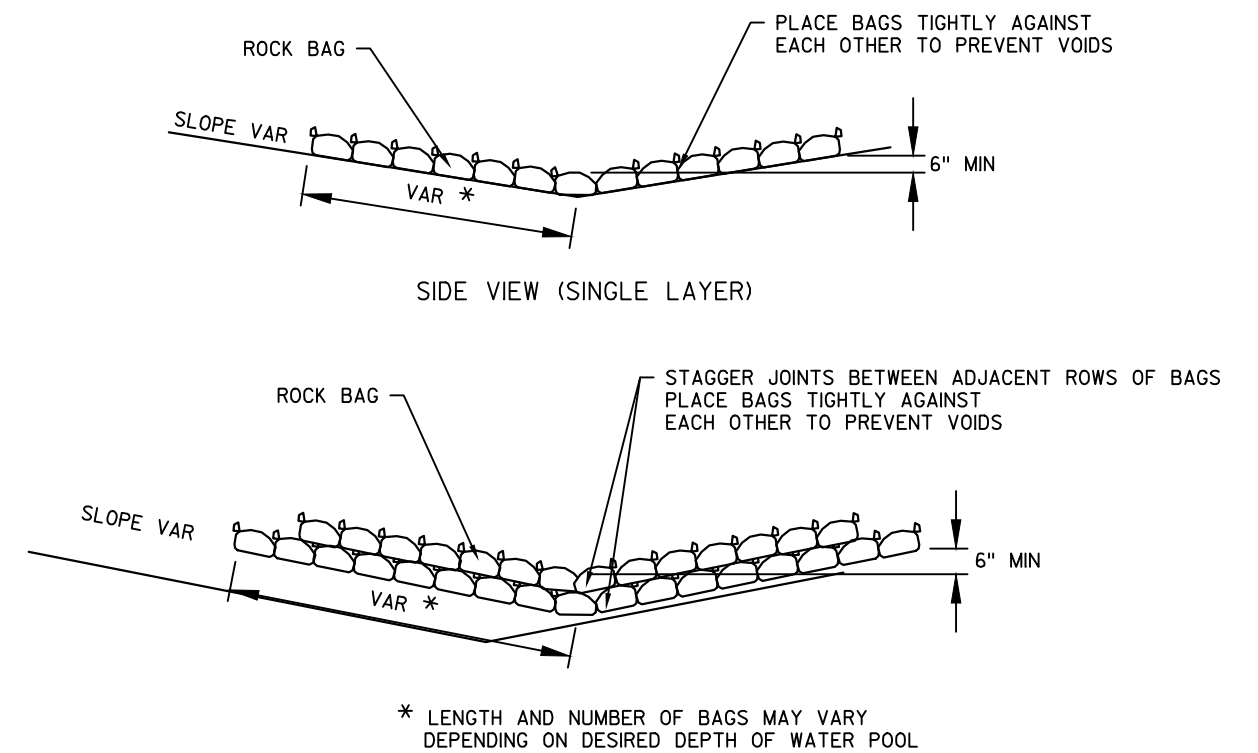
STA 49+34.51A RT - STA 50+83.13A RT

STA 49+17.70A LT - STA 50+66.35A LT

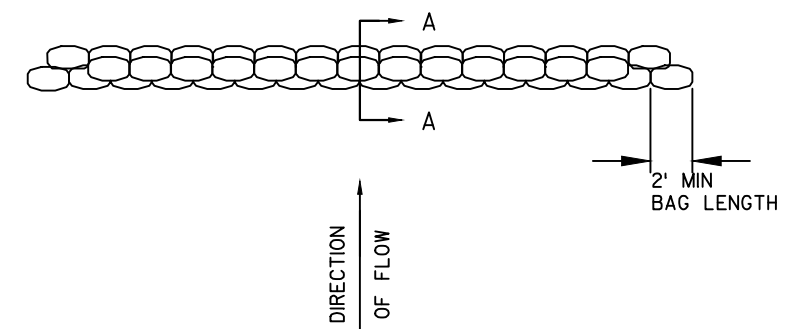
*SEE CONSTRUCTION DETAIL TYPICAL FOR SLOPE TREATMENT
BEHIND CURB AND GUTTER AT RURAL SIDEROAD INTERSECTIONS



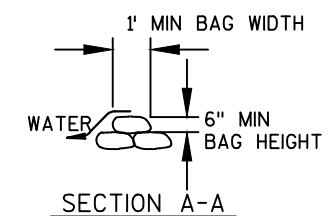
CULVERET PIPE DITCH CHECK
(INSTALL ON INLET END ONLY)



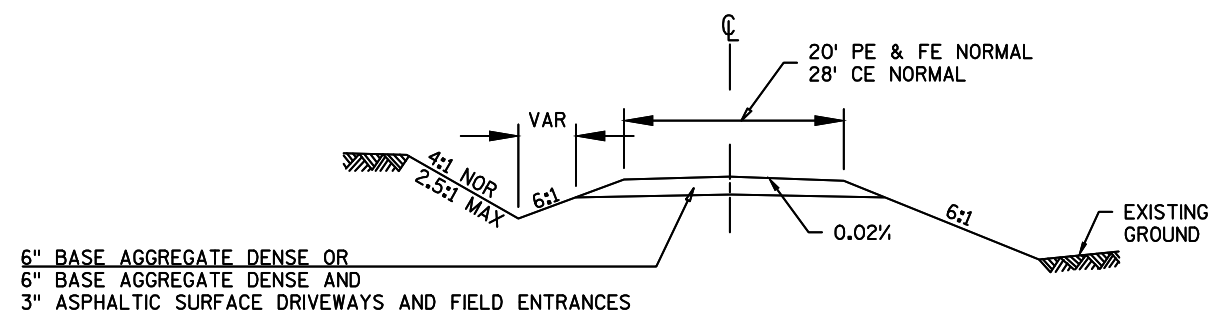
SIDE VIEW (MULTIPLE LAYER)



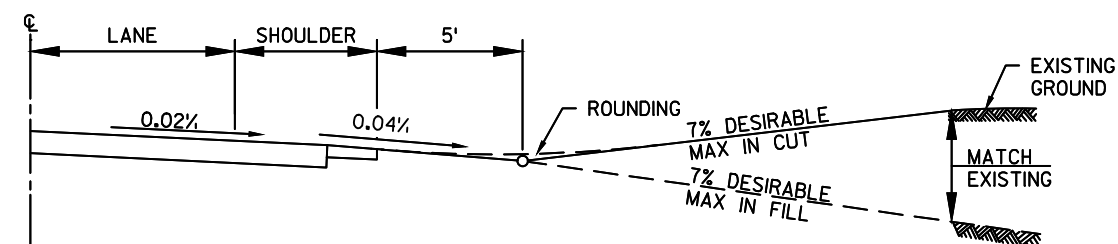
TOP VIEW (MULTIPLE LAYER)



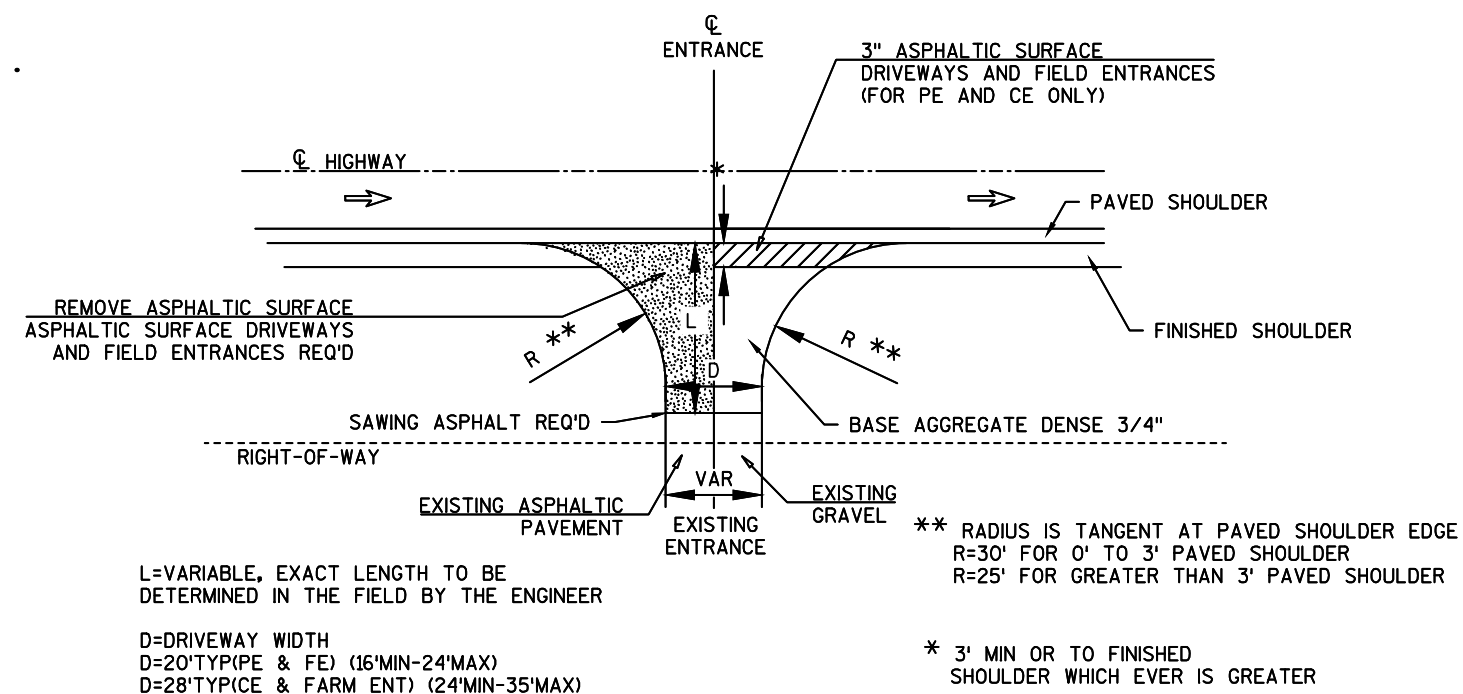
ROCK BAGS USED FOR DITCH CHECKS



TYPICAL CROSS SECTION



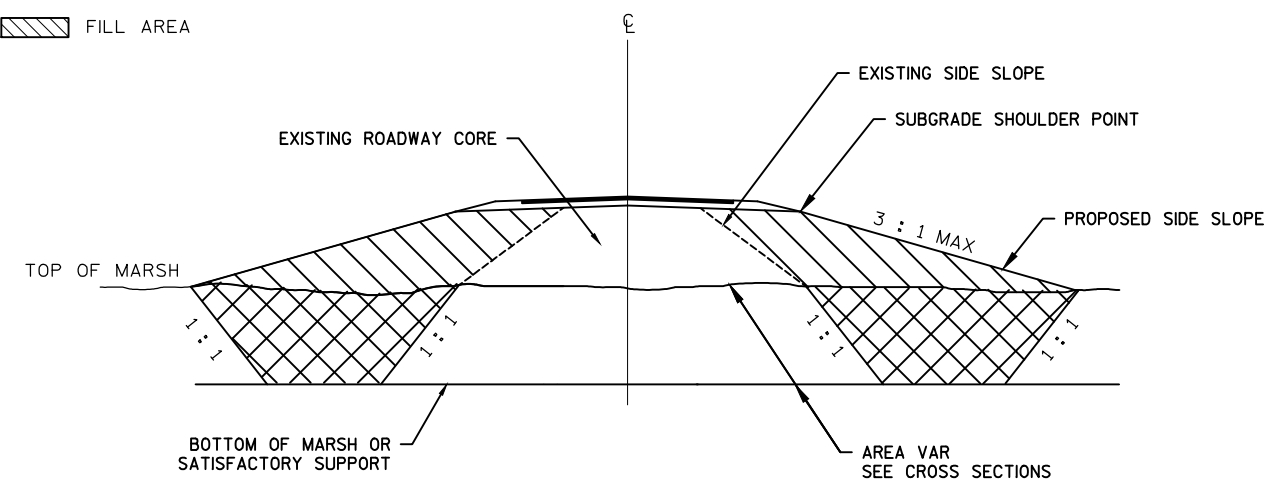
TYPICAL PROFILE VIEW



PLAN VIEW

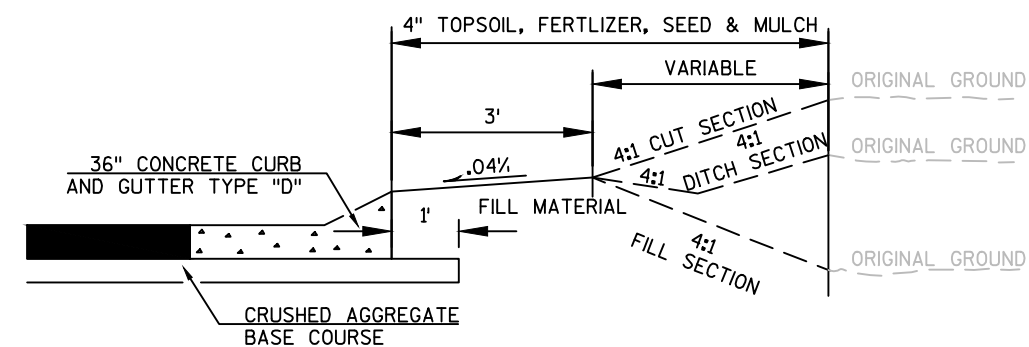
RURAL DRIVEWAY INTERSECTION
(PE, FE & CE)
(FOR NEW CONSTRUCTION)

MARSH EXCAVATION AREA
FILL AREA

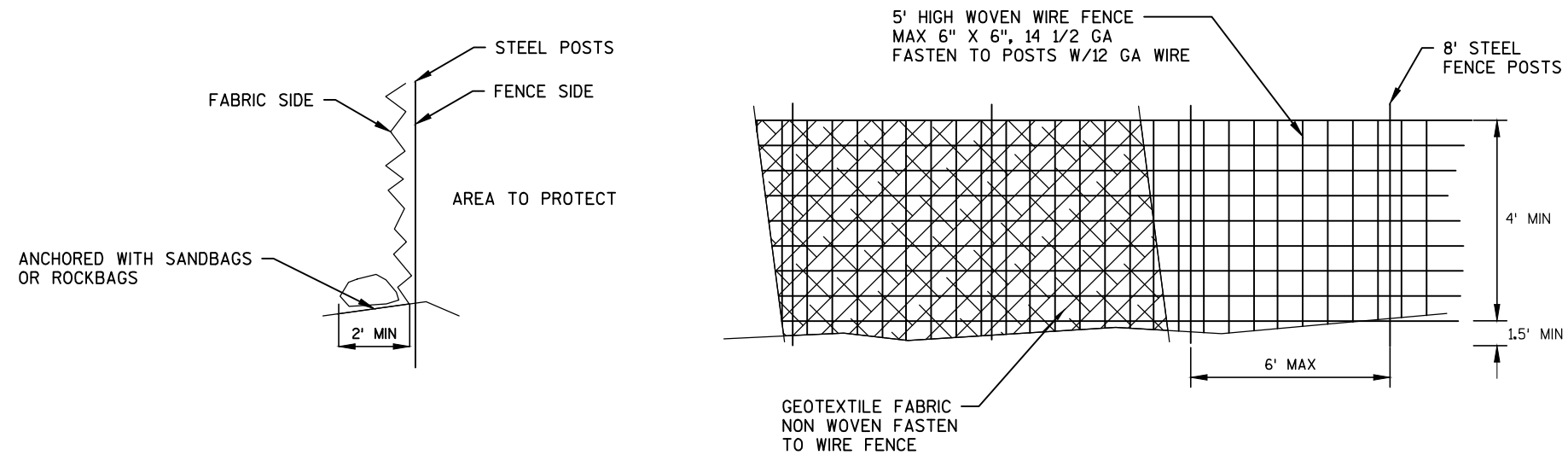


TYPICAL MARSH EXCAVATION SECTION

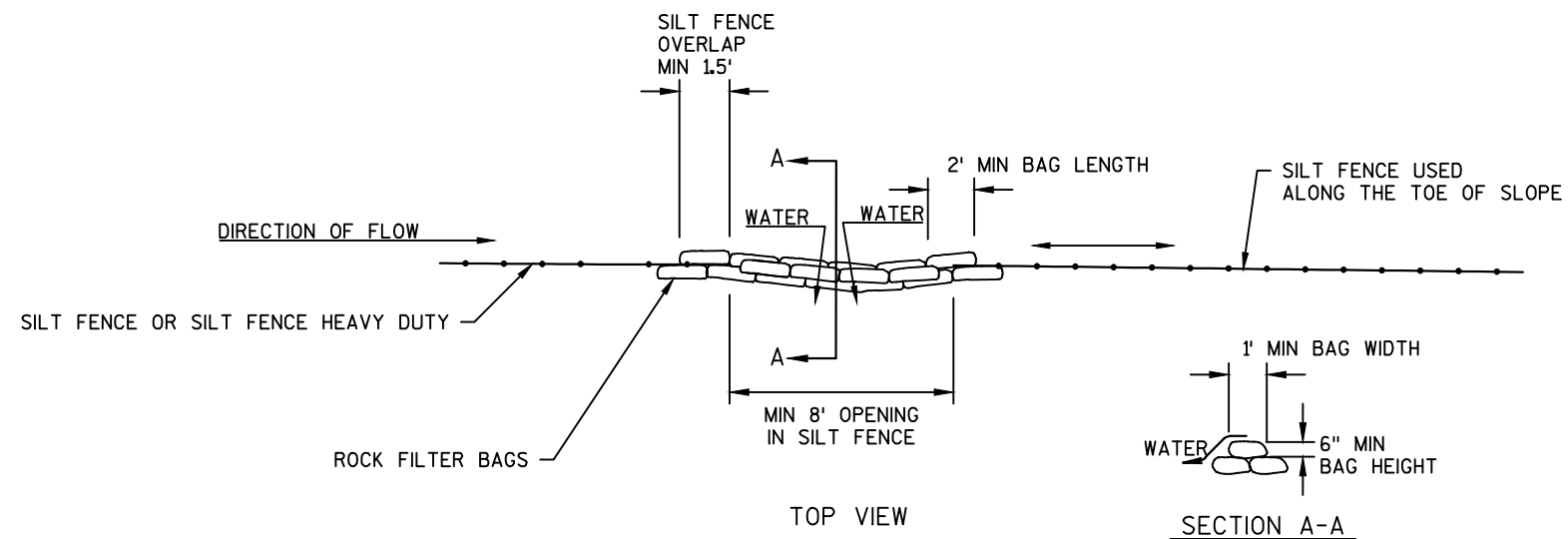
NOTE: SEE CROSS SECTION FOR MARSH EXCAVATION LIMITS



TYPICAL FOR SLOPE TREATMENT BEHIND CURB AND
GUTTER AT RURAL SIDEROAD INTERSECTIONS



SILT FENCE HEAVY DUTY

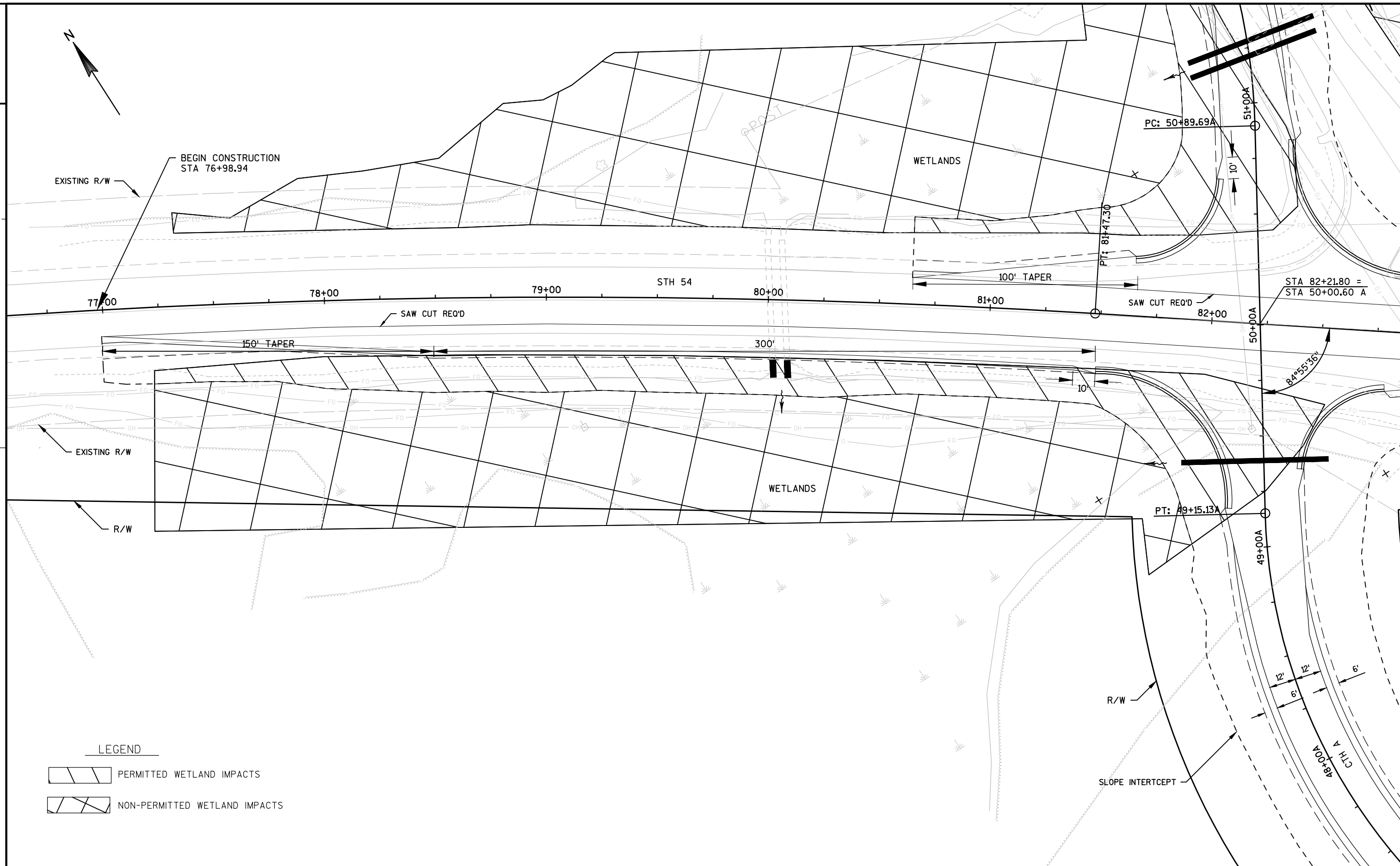


ROCK BAGS USED FOR SILT FENCE RELIEF

NOTE: PLACE ROCK FILTER BAGS, AT
MINIMUM, HALF THE HEIGHT OF THE SILT
FENCE OR SILT FENCE HEAVY DUTY

2

2



PROJECT NO:6990-03-73

HWY:STH 54

COUNTY:PORTAGE

PLAN: INTERSECTION DETAIL

SHEET _____

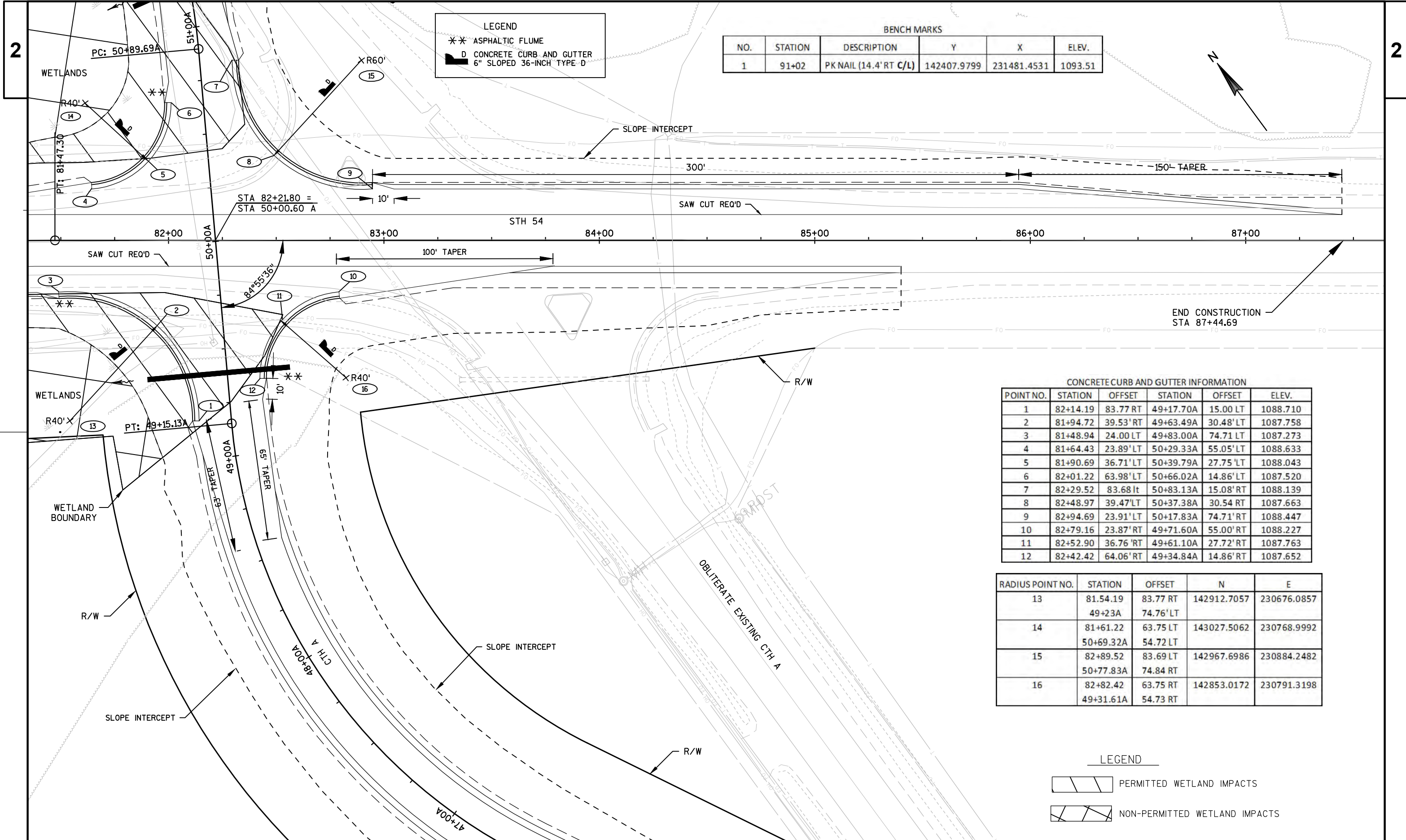
E

FILE NAME : N:\PDS\C3D\69900303\SHEETSPLAN\021101_ID.DWG

PLOT DATE : 10/31/2013 7:41 AM

PLOT BY : AHLSTROM, ALEIGHA J PLOT NAME : _____ PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



LEGEND

- ✱✱ ASPHALTIC FLUME
- D CONCRETE CURB AND GUTTER
- 6" SLOPED 36-INCH TYPE D

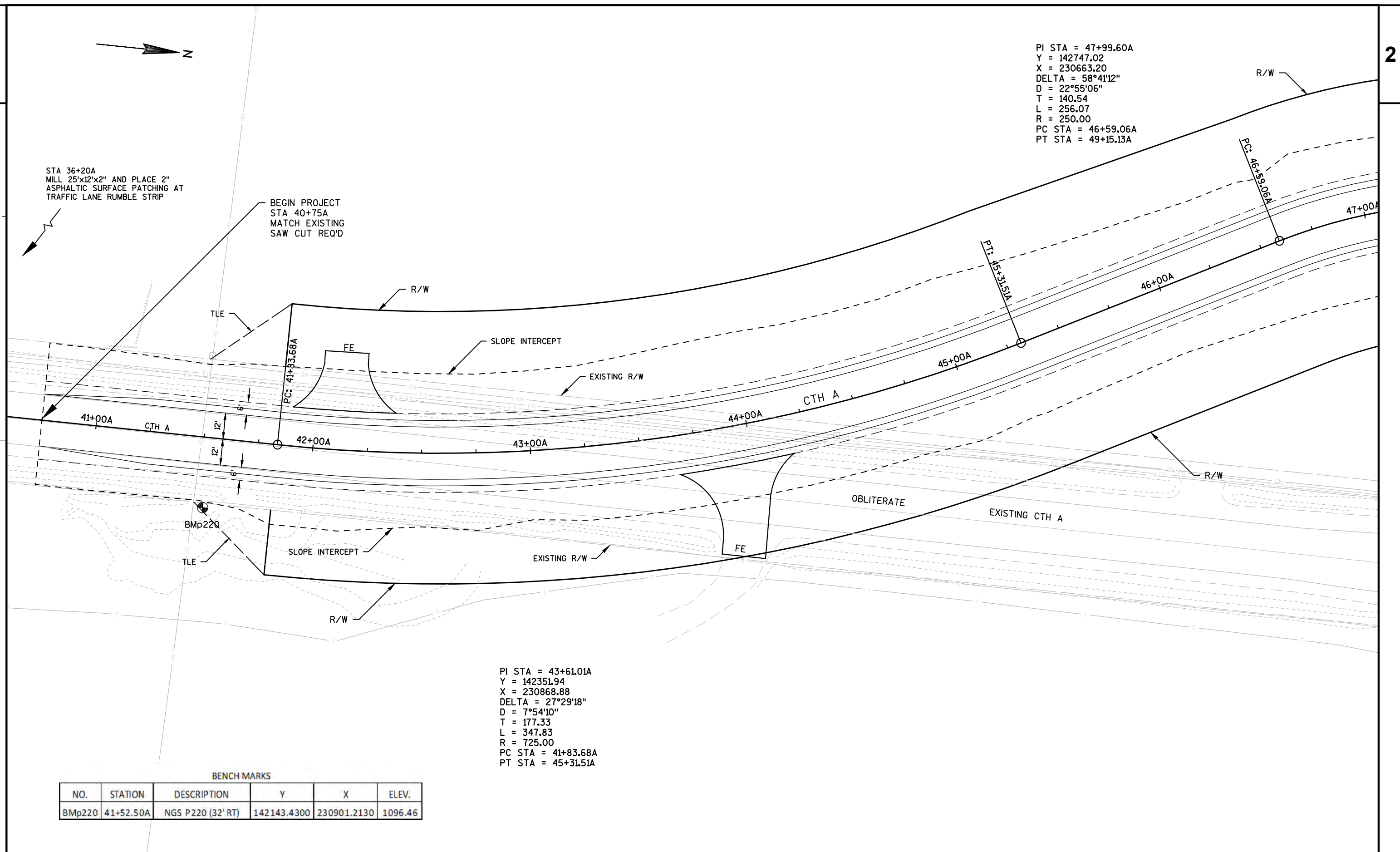
BENCH MARKS					
NO.	STATION	DESCRIPTION	Y	X	ELEV.
1	91+02	PK NAIL (14.4' RT C/L)	142407.9799	231481.4531	1093.51

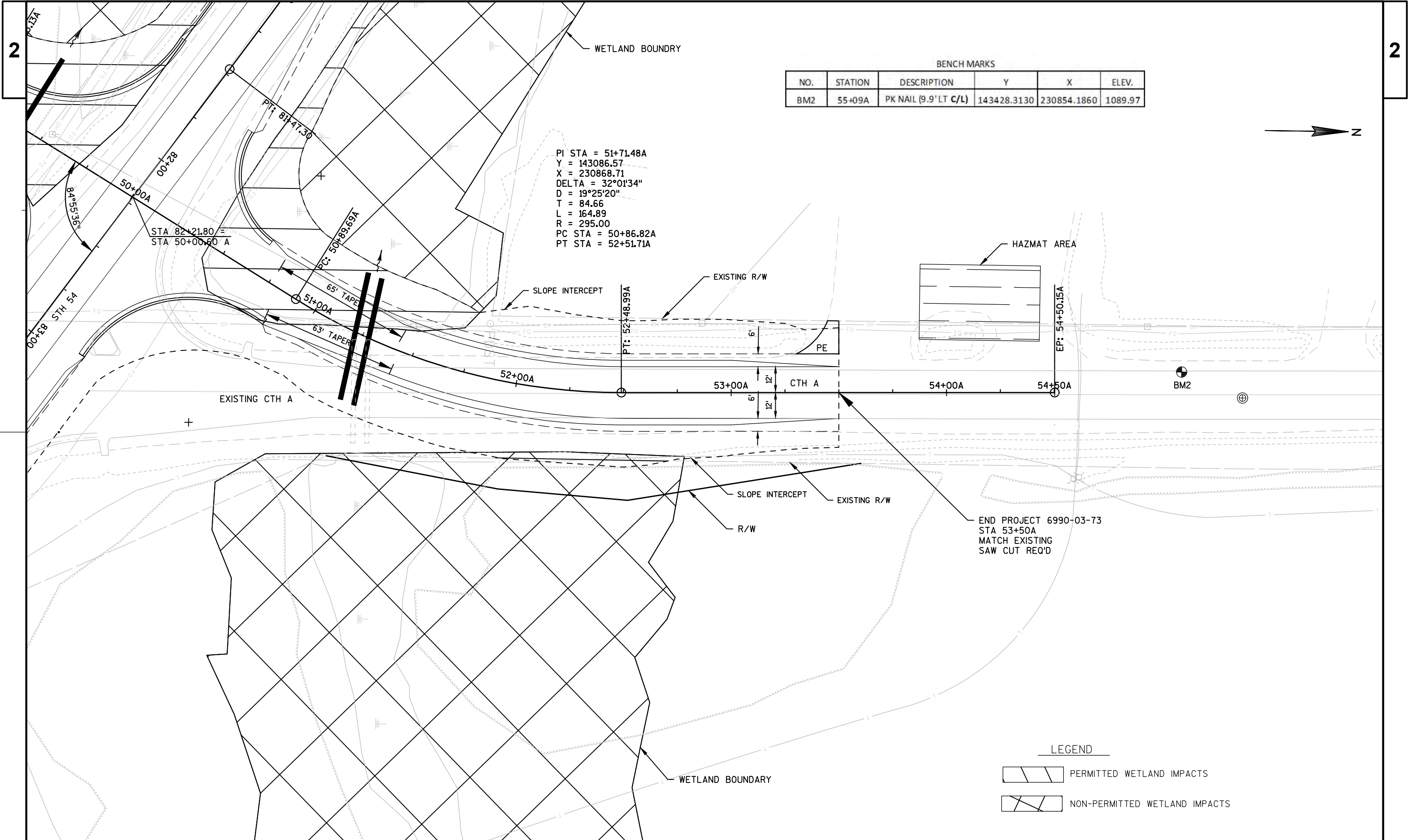
CONCRETE CURB AND GUTTER INFORMATION					
POINT NO.	STATION	OFFSET	STATION	OFFSET	ELEV.
1	82+14.19	83.77 RT	49+17.70A	15.00 LT	1088.710
2	81+94.72	39.53' RT	49+63.49A	30.48' LT	1087.758
3	81+48.94	24.00 LT	49+83.00A	74.71 LT	1087.273
4	81+64.43	23.89' LT	50+29.33A	55.05' LT	1088.633
5	81+90.69	36.71' LT	50+39.79A	27.75' LT	1088.043
6	82+01.22	63.98' LT	50+66.02A	14.86' LT	1087.520
7	82+29.52	83.68 lt	50+83.13A	15.08' RT	1088.139
8	82+48.97	39.47' LT	50+37.38A	30.54 RT	1087.663
9	82+94.69	23.91' LT	50+17.83A	74.71' RT	1088.447
10	82+79.16	23.87' RT	49+71.60A	55.00' RT	1088.227
11	82+52.90	36.76' RT	49+61.10A	27.72' RT	1087.763
12	82+42.42	64.06' RT	49+34.84A	14.86' RT	1087.652

RADIUS POINT NO.	STATION	OFFSET	N	E
13	81.54.19	83.77 RT	142912.7057	230676.0857
	49+23A	74.76' LT		
14	81+61.22	63.75 LT	143027.5062	230768.9992
	50+69.32A	54.72 LT		
15	82+89.52	83.69 LT	142967.6986	230884.2482
	50+77.83A	74.84 RT		
16	82+82.42	63.75 RT	142853.0172	230791.3198
	49+31.61A	54.73 RT		

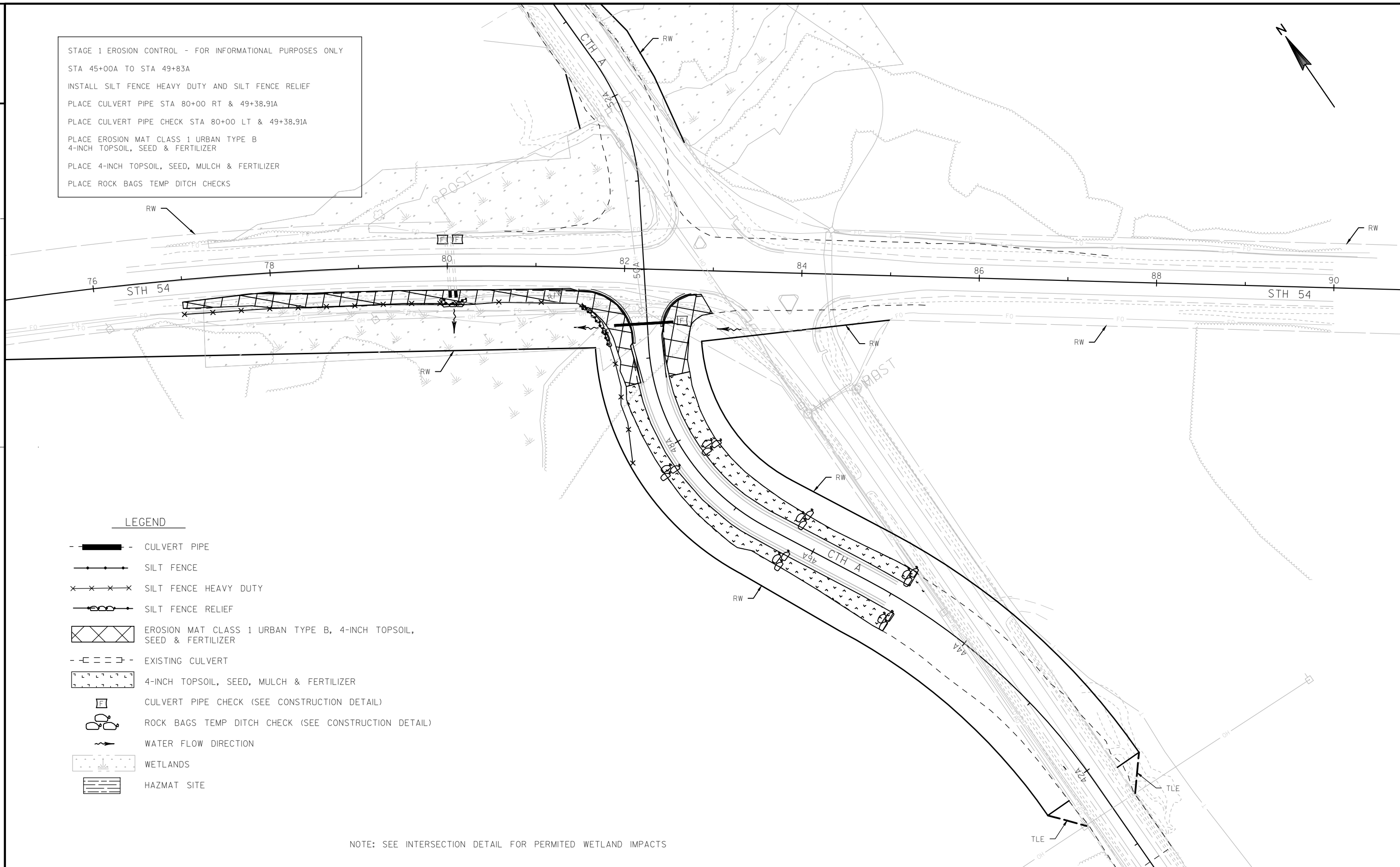
LEGEND

- PERMITTED WETLAND IMPACTS
- NON-PERMITTED WETLAND IMPACTS





STAGE 1 EROSION CONTROL - FOR INFORMATIONAL PURPOSES ONLY
STA 45+00A TO STA 49+83A
INSTALL SILT FENCE HEAVY DUTY AND SILT FENCE RELIEF
PLACE CULVERT PIPE STA 80+00 RT & 49+38.91A
PLACE CULVERT PIPE CHECK STA 80+00 LT & 49+38.91A
PLACE EROSION MAT CLASS 1 URBAN TYPE B
4-INCH TOPSOIL, SEED & FERTILIZER
PLACE 4-INCH TOPSOIL, SEED, MULCH & FERTILIZER
PLACE ROCK BAGS TEMP DITCH CHECKS



LEGEND

- [thick dashed line] - CULVERT PIPE
- [line with dots] - SILT FENCE
- [line with 'x' marks] - SILT FENCE HEAVY DUTY
- [line with loops] - SILT FENCE RELIEF
- [hatched box] - EROSION MAT CLASS 1 URBAN TYPE B, 4-INCH TOPSOIL, SEED & FERTILIZER
- [dashed line with 'x' marks] - EXISTING CULVERT
- [dotted box] - 4-INCH TOPSOIL, SEED, MULCH & FERTILIZER
- [box with 'E'] - CULVERT PIPE CHECK (SEE CONSTRUCTION DETAIL)
- [box with rock bags] - ROCK BAGS TEMP DITCH CHECK (SEE CONSTRUCTION DETAIL)
- [arrow] - WATER FLOW DIRECTION
- [wavy line box] - WETLANDS
- [cross-hatched box] - HAZMAT SITE

NOTE: SEE INTERSECTION DETAIL FOR PERMITTED WETLAND IMPACTS

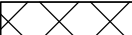
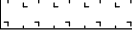
STAGE 2 EROSION CONTROL - FOR INFORMATIONAL PURPOSES ONLY

STA 40+75A TO STA 45+00A AND OBLITERATION

PLACE EROSION MAT CLASS 1 URBAN TYPE B, 4-INCH
TOPSOIL, SEED & FERTILIZER

PLACE 4-INCH TOPSOIL, SEED, MULCH & FERTILIZER

LEGEND

-  - CULVERT PIPE
-  - SILT FENCE
-  - SILT FENCE HEAVY DUTY
-  - SILT FENCE RELIEF
-  - EROSION MAT CLASS 1 URBAN TYPE B, 4-INCH TOPSOIL,
SEED & FERTILIZER
-  - EXISTING CULVERT
-  - 4-INCH TOPSOIL, SEED, MULCH & FERTILIZER
-  - CULVERT PIPE CHECK (SEE CONSTRUCTION DETAIL)
-  - ROCK BAGS TEMP DITCH CHECK (SEE CONSTRUCTION DETAIL)
-  - WATER FLOW DIRECTION
-  - WETLANDS
-  - HAZMAT SITE

NOTE: SEE INTERSECTION DETAIL FOR PERMITTED WETLAND IMPACTS

PROJECT NO: 6990-03-73

HWY: STH 54

COUNTY: PORTAGE

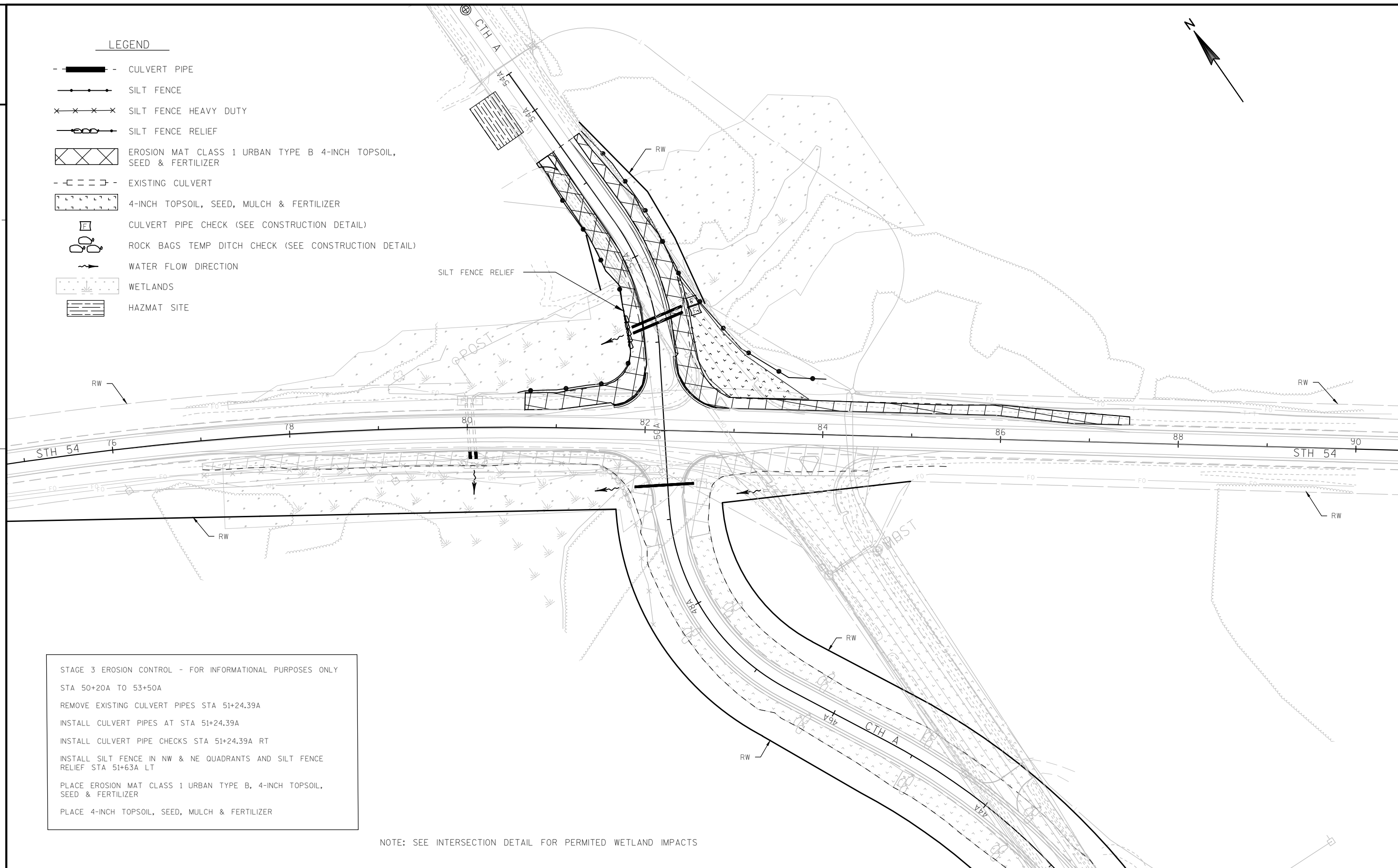
PLAN: EROSION CONTROL - STAGE 2

SHEET

E

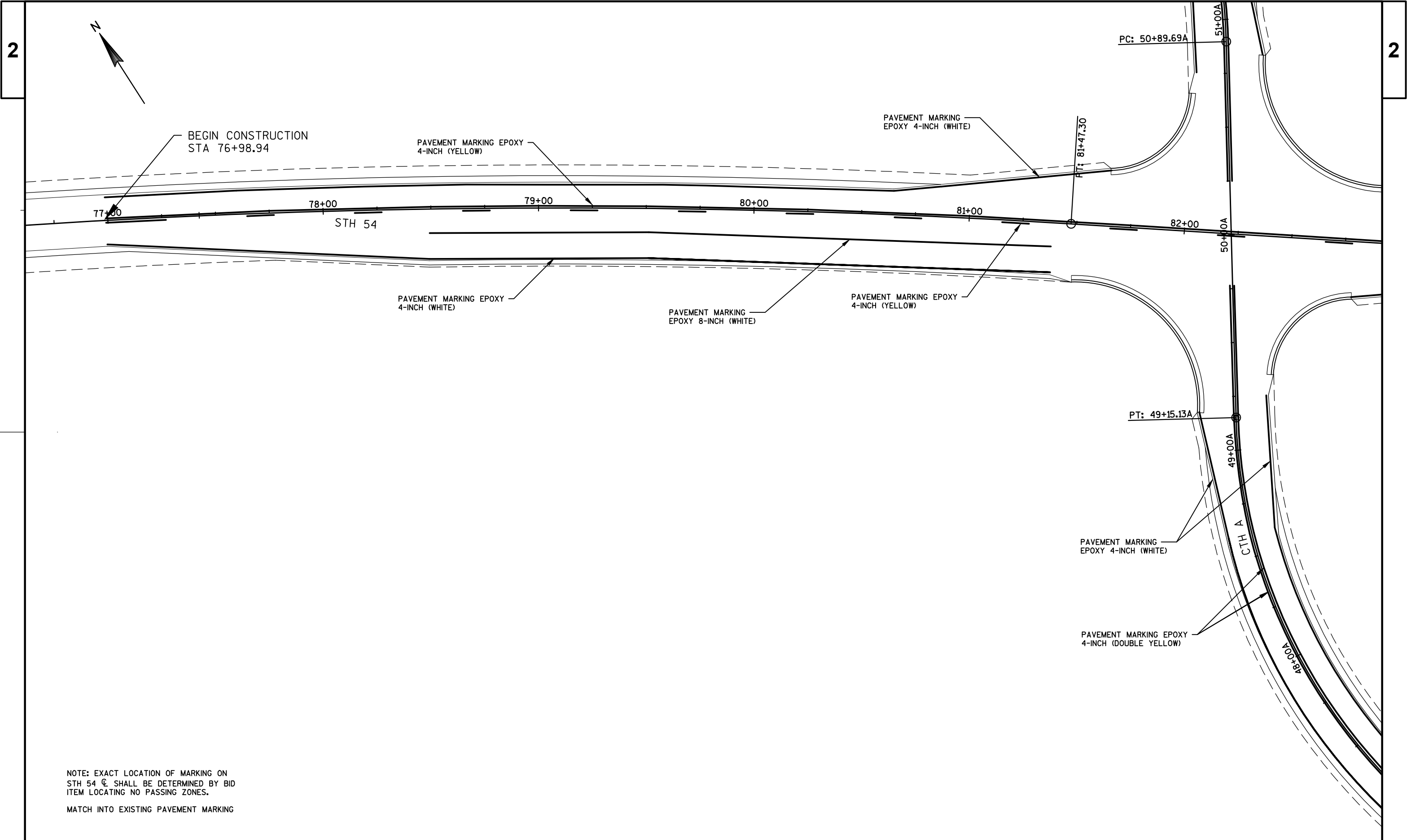
LEGEND

- - - - - CULVERT PIPE
- - - - - SILT FENCE
- x x x x x SILT FENCE HEAVY DUTY
- - - - - SILT FENCE RELIEF
- [X] EROSION MAT CLASS 1 URBAN TYPE B 4-INCH TOPSOIL, SEED & FERTILIZER
- - - - - EXISTING CULVERT
- [] 4-INCH TOPSOIL, SEED, MULCH & FERTILIZER
- [F] CULVERT PIPE CHECK (SEE CONSTRUCTION DETAIL)
- [] ROCK BAGS TEMP DITCH CHECK (SEE CONSTRUCTION DETAIL)
- WATER FLOW DIRECTION
- [] WETLANDS
- [] HAZMAT SITE

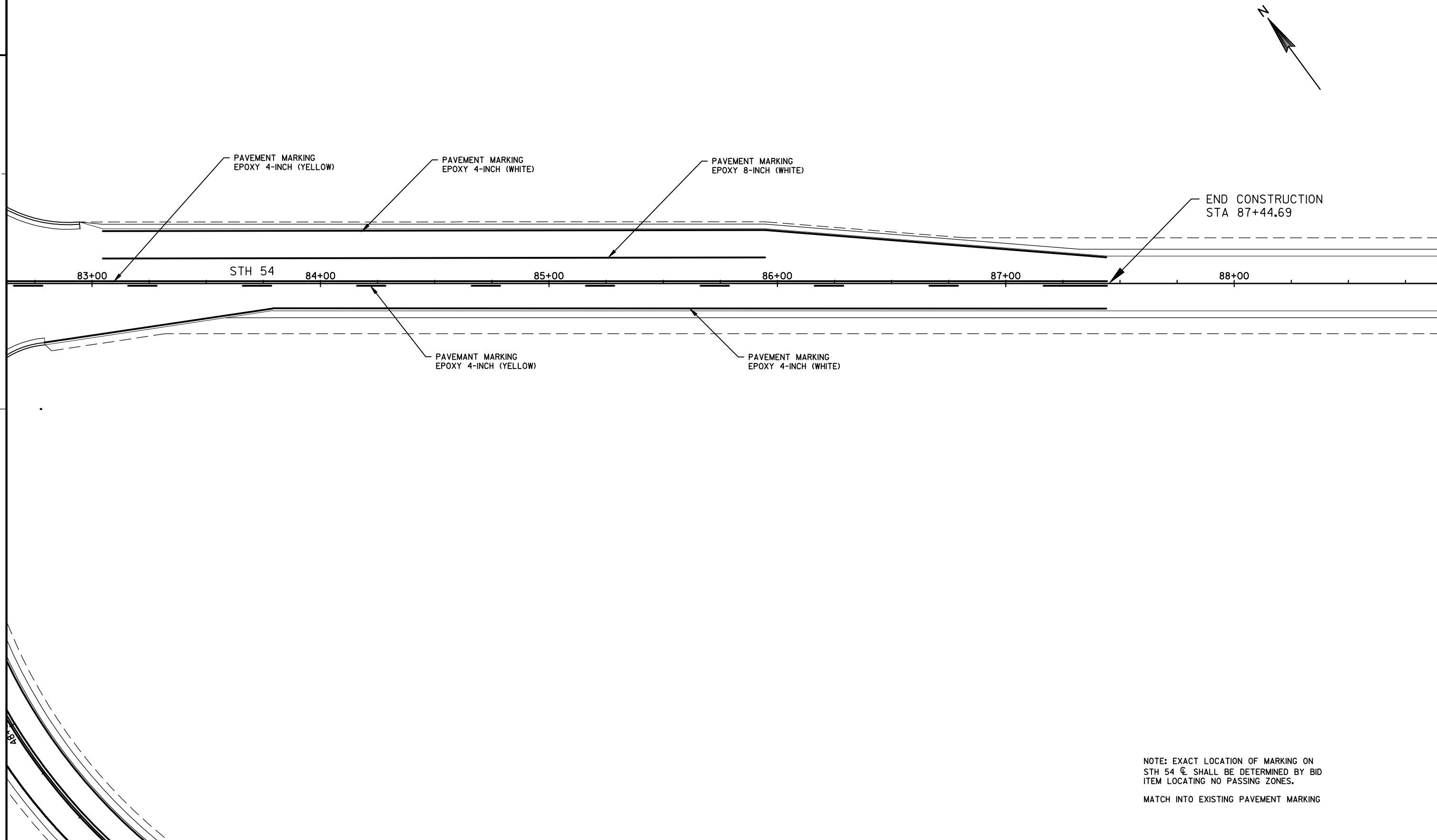


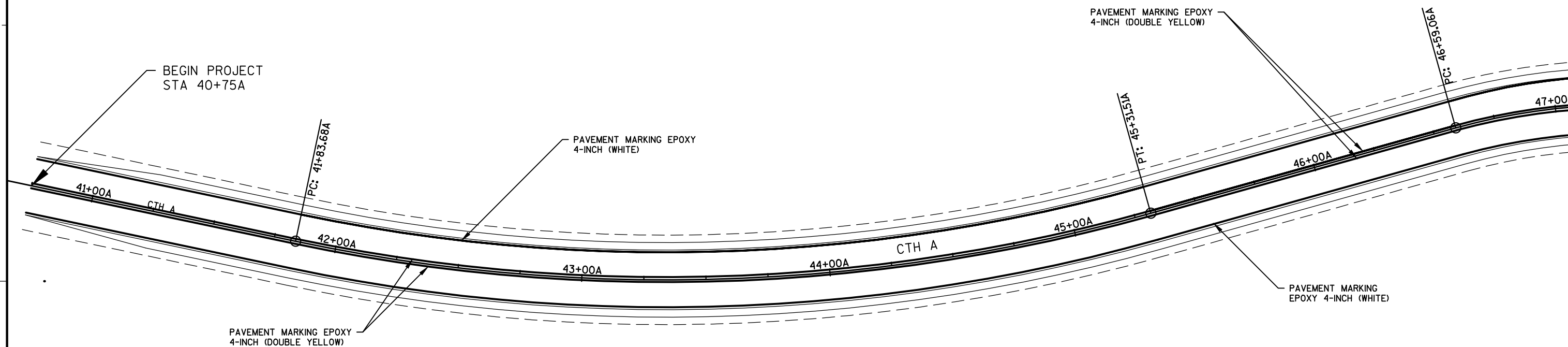
STAGE 3 EROSION CONTROL - FOR INFORMATIONAL PURPOSES ONLY
STA 50+20A TO 53+50A
REMOVE EXISTING CULVERT PIPES STA 51+24.39A
INSTALL CULVERT PIPES AT STA 51+24.39A
INSTALL CULVERT PIPE CHECKS STA 51+24.39A RT
INSTALL SILT FENCE IN NW & NE QUADRANTS AND SILT FENCE RELIEF STA 51+63A LT
PLACE EROSION MAT CLASS 1 URBAN TYPE B, 4-INCH TOPSOIL, SEED & FERTILIZER
PLACE 4-INCH TOPSOIL, SEED, MULCH & FERTILIZER

NOTE: SEE INTERSECTION DETAIL FOR PERMITTED WETLAND IMPACTS

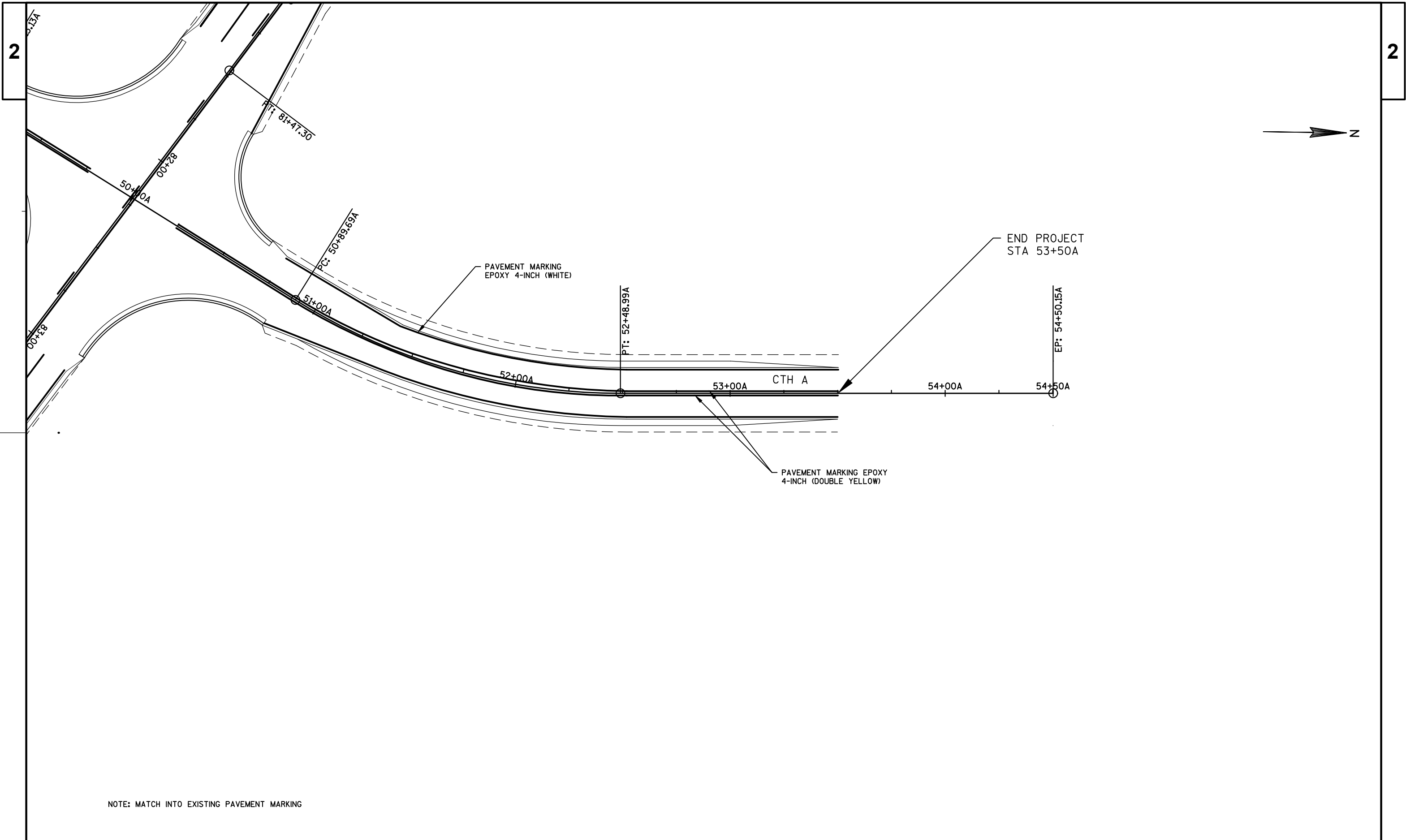


PROJECT NO:6990-03-73	HWY:STH 54	COUNTY:PORTAGE	PLAN: PAVEMENT MARKING	SHEET	E
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NOTE: MATCH INTO EXISTING PAVEMENT MARKING



PROJECT NO:6990-03-73	HWY:STH 54	COUNTY:PORTAGE	PLAN: PAVEMENT MARKING	SHEET -----	E
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FILE NAME : N:\PDS\C3D\69900303\SHEETSPLAN\024501.PM.DWG

PLOT DATE : 10/21/2013 7:40 AM

PLOT BY : AHLSTROM, ALEIGHA J PLOT NAME : -----PLOT SCALE : 1 IN:40 FT

WISDOT/CADDs SHEET 42

PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS)		
SITE NO	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)
SITE 1, STAGE 1 STA 76+00 RT	COUNTY A SOUTH CLOSES	MONTH XX USE ALT ROUTE
SITE 1, STAGE 3 STA 76+00 RT	COUNTY A NORTH CLOSES	MONTH XX USE ALT ROUTE
SITE 2, STAGE 1 STA 85+00 LT	COUNTY A SOUTH CLOSES	MONTH XX USE ALT ROUTE
SITE 2, STAGE 3 STA 85+00 LT	COUNTY A NORTH CLOSES	MONTH XX USE ALT ROUTE

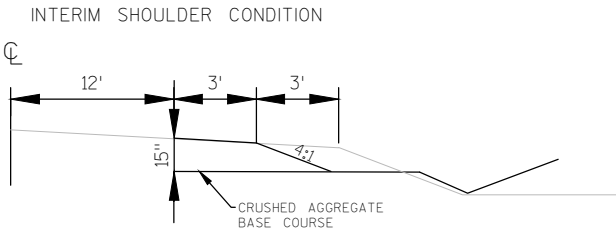
GENERAL NOTES

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

ALL PERMANENT SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE SHALL BE COVERED.

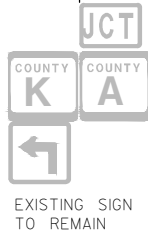
NOTE: SEE SDD BARRICADES AND SIGNS FOR SIDEROAD CLOSURES, BARRICADES AND SIGNS FOR MAINLINE CLOSURES, TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS) AND TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY FOR MORE DETAILS.

- STAGE 1: CONSTRUCT EASTBOUND STH 54 TURN LANE AND PORTION OF NEW CTH A SOUTH OF STH 54.
- STAGE 2A: CONSTRUCT REMAINING PORTION OF NEW CTH A.
STAGE 2B: OBLITERATE OLD CTH A SOUTH OF STH 54.
- STAGE 3: CONSTRUCT WESTBOUND STH 54 TURN LANE AND NEW CTH A NORTH OF STH 54. OBLITERAT





END
ROAD WORK
G20-2A
48" X 24"

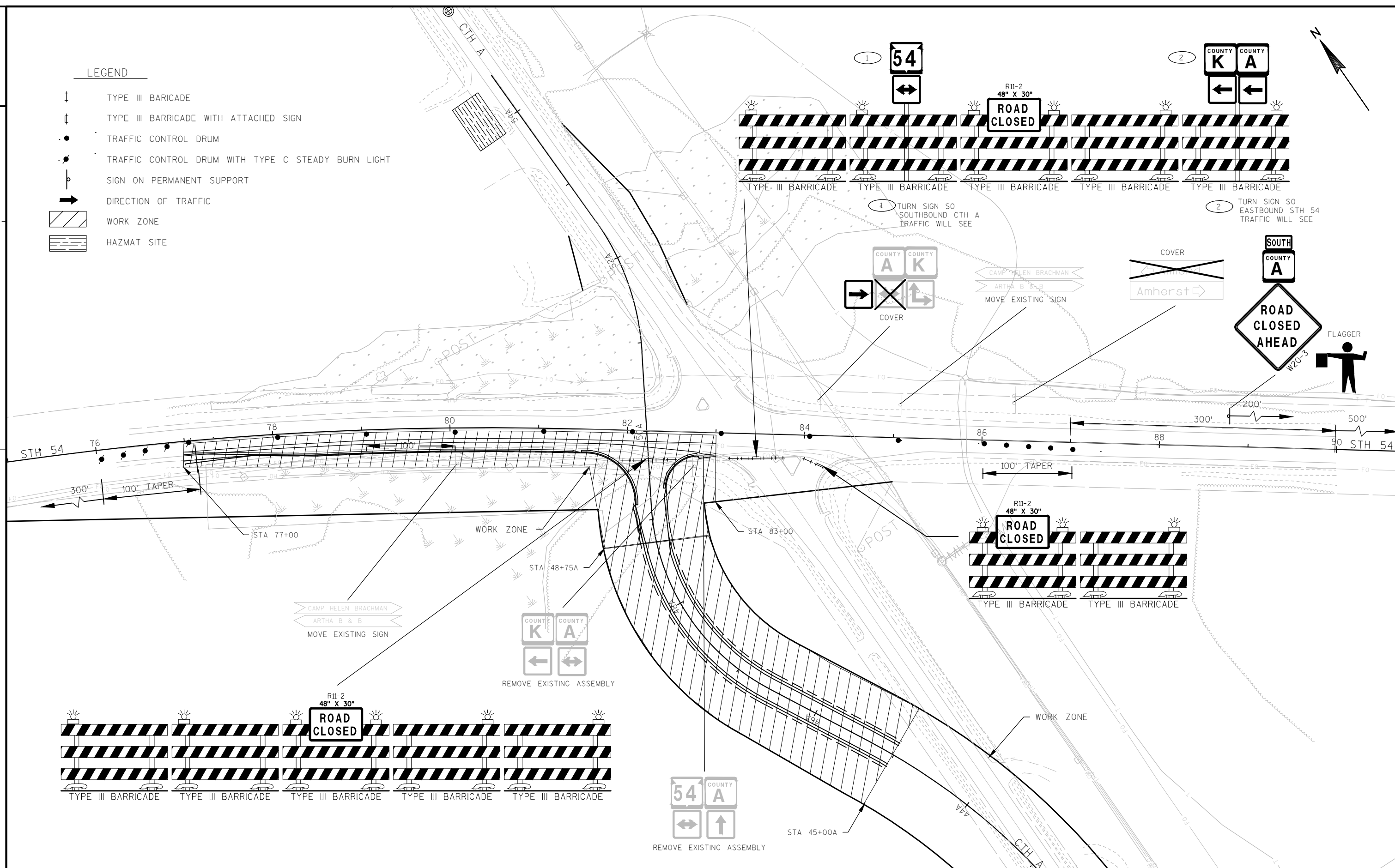


LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK ZONE
- HAZMAT SITE

LEGEND

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PROJECT NO: 6990-03-73

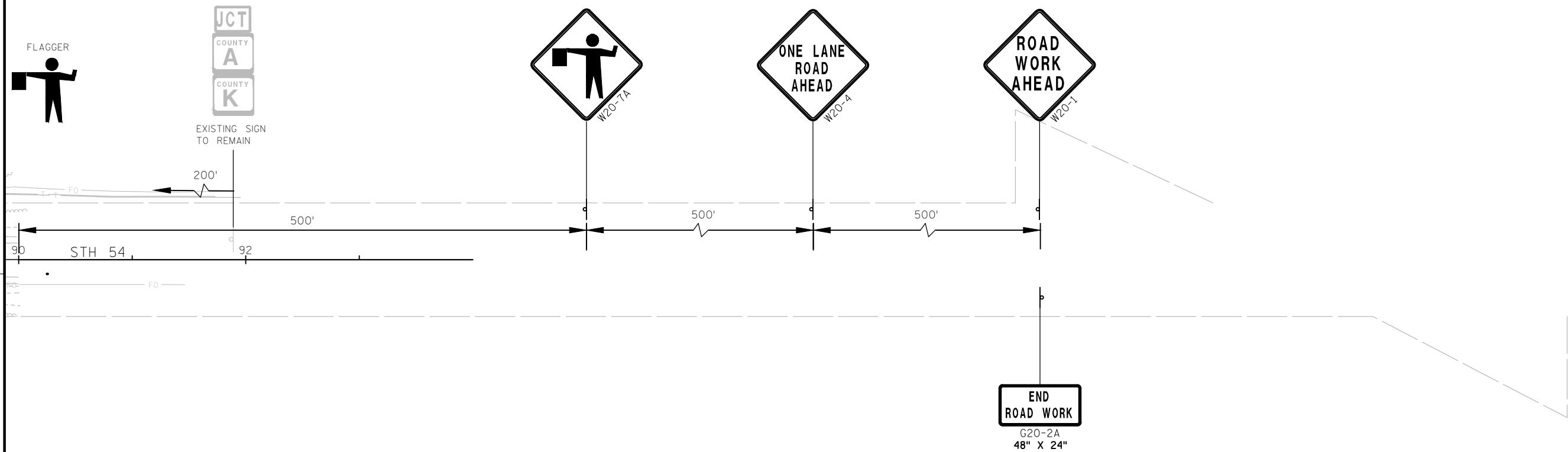
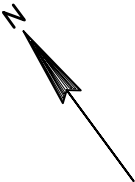
HWY: STH 54

COUNTY: PORTAGE

PLAN: STAGE CONSTRUCTION - STAGE 1

SHEET

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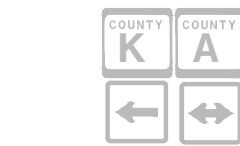
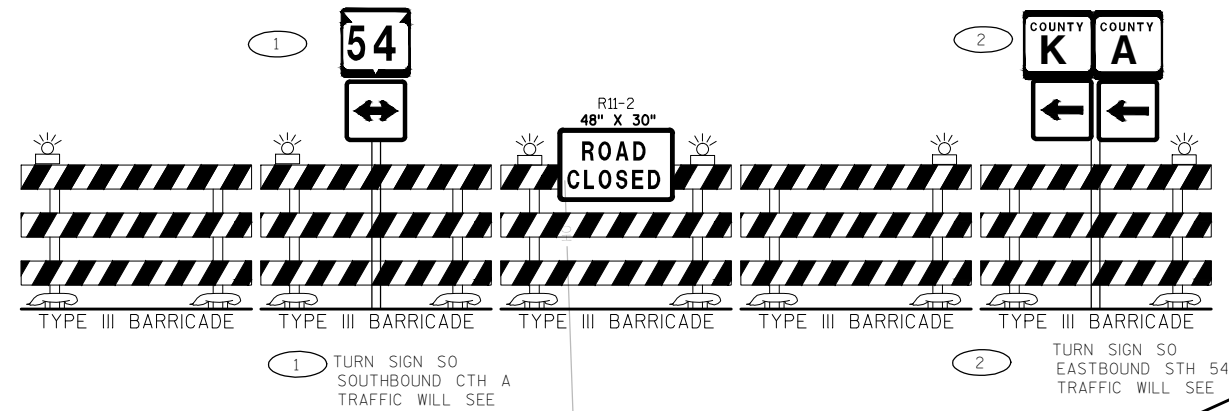
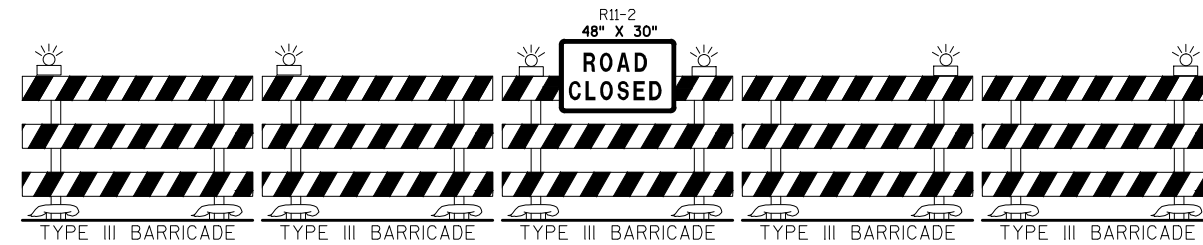


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- HAZMAT SITE



REMOVE EXISTING ASSEMBLY

STA 48+75A

STA 83+00

WORK ZONE

STA 45+00A

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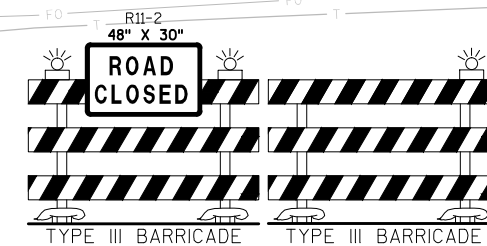
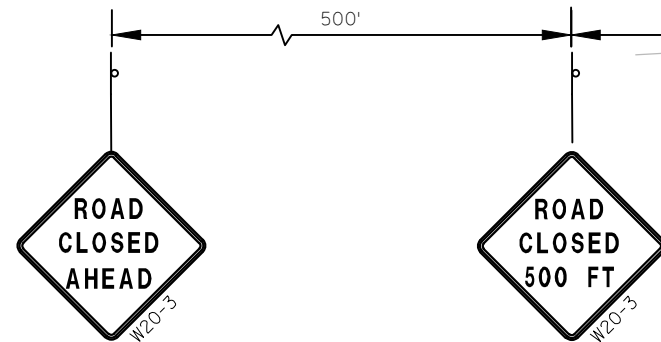
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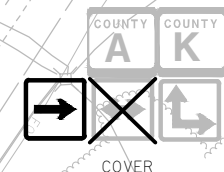
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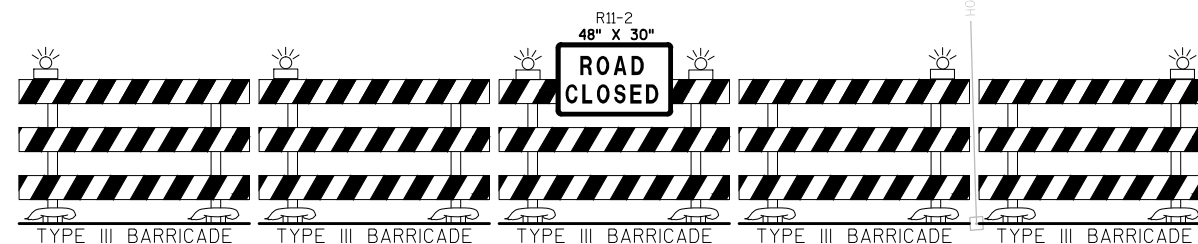
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REMOVE EXISTING ASSEMBLY

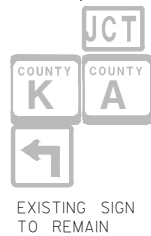


COVER





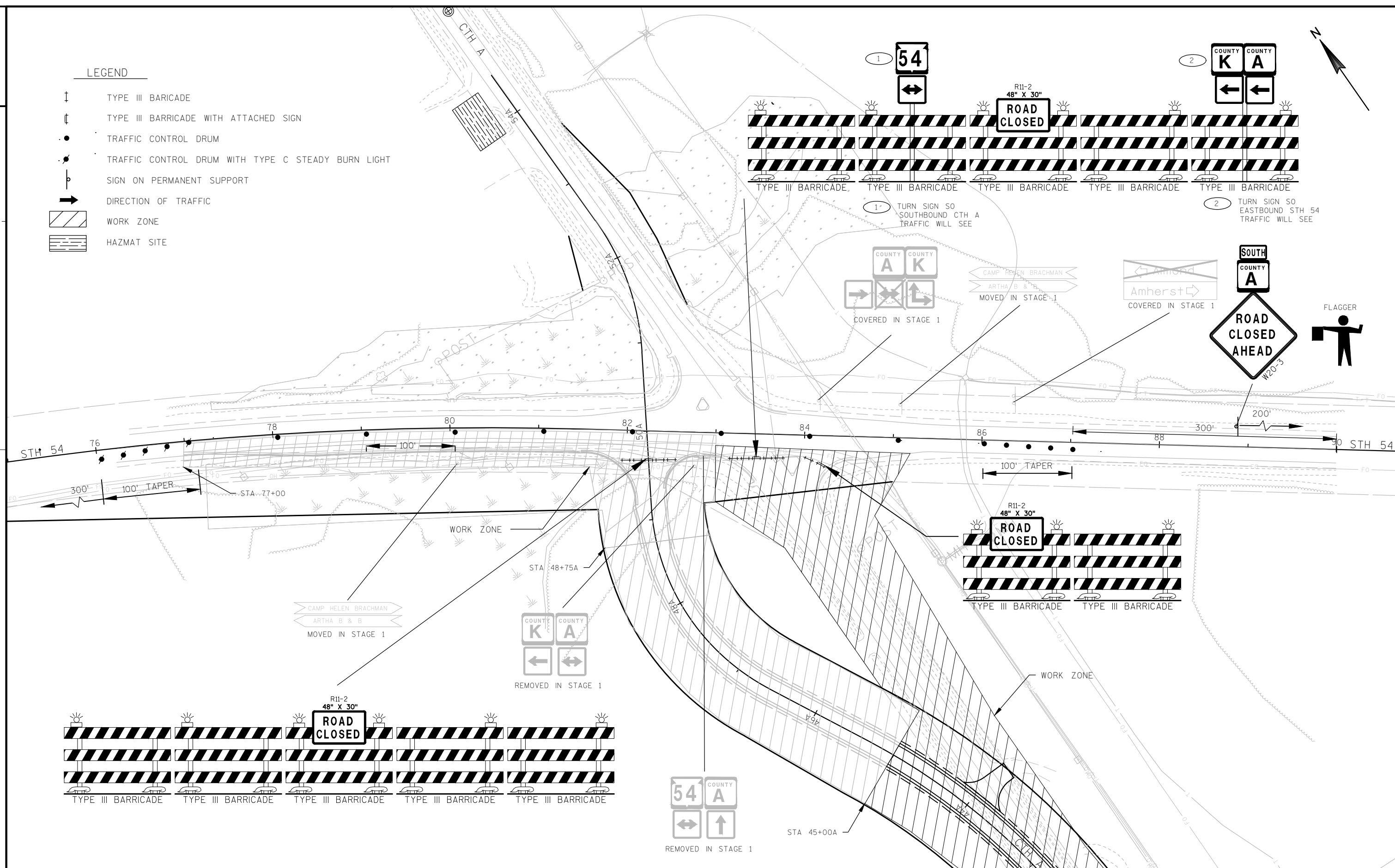
END
ROAD WORK
G20-2A
48" X 24"

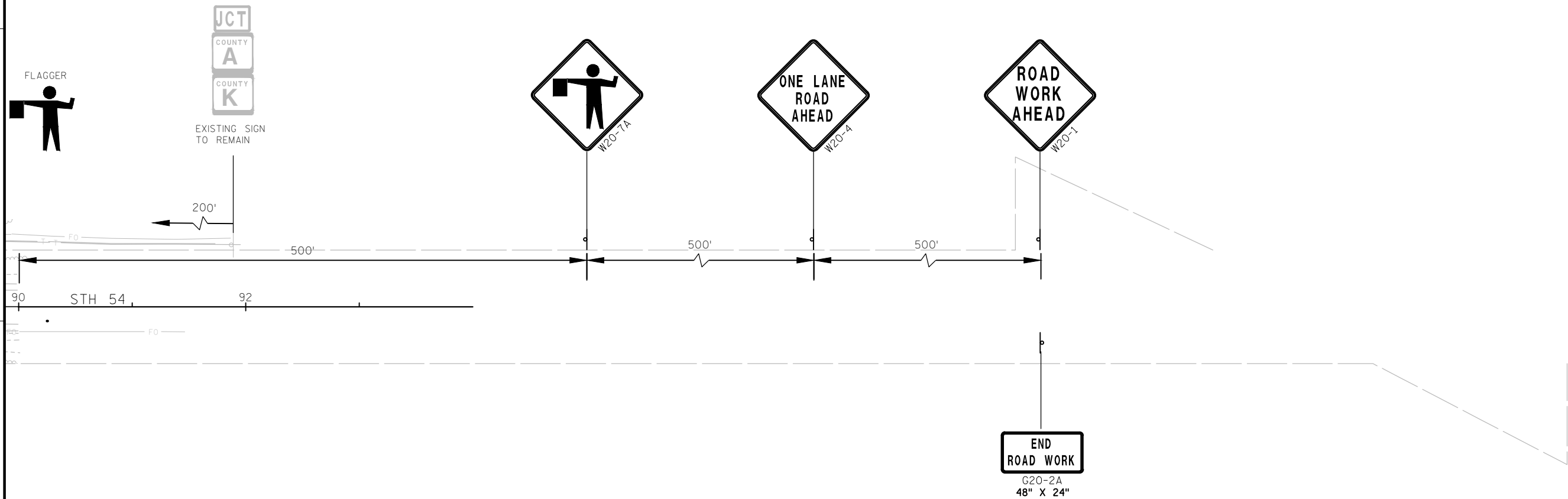
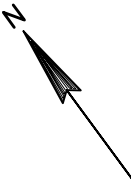


LEGEND

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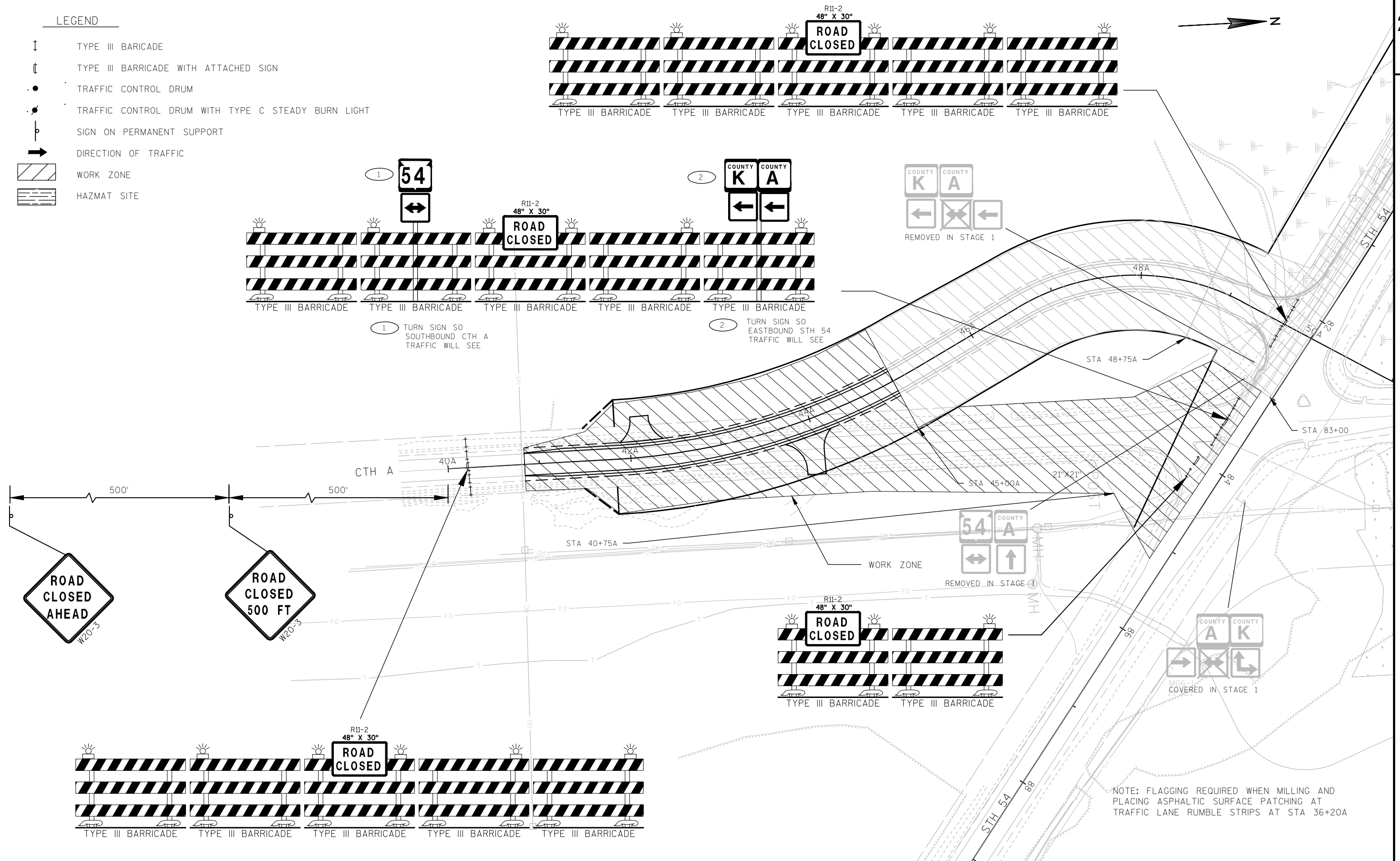


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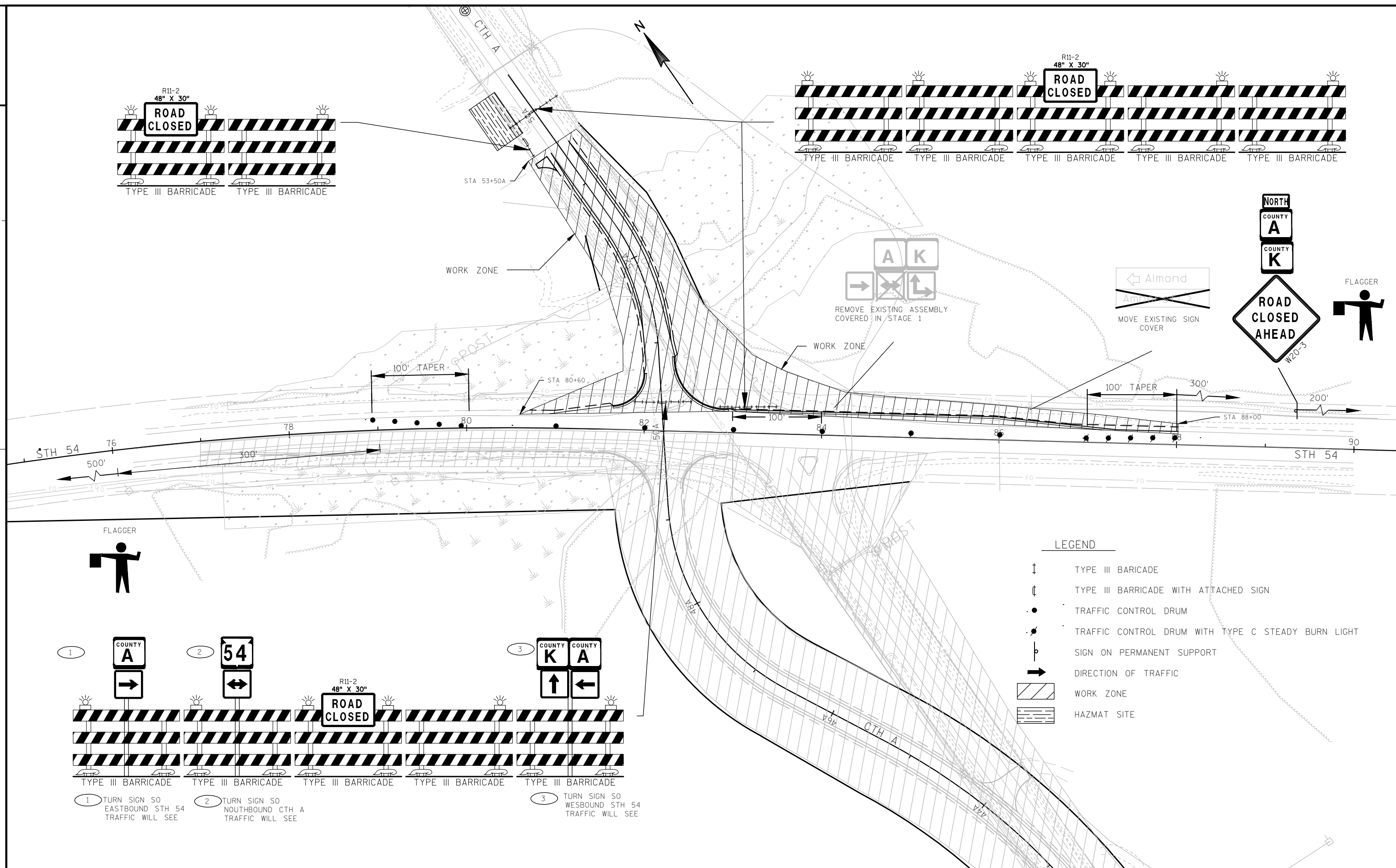
LEGEND

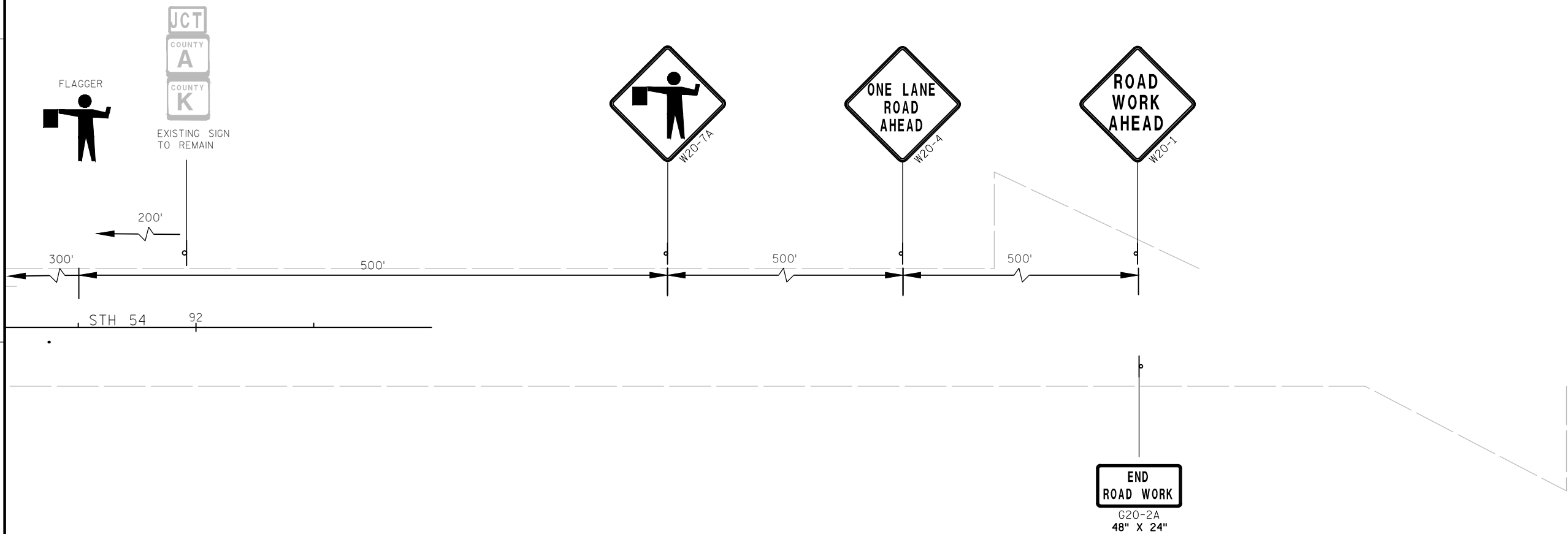
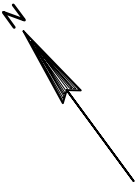
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- WISDOT/CADDS SHEET 42



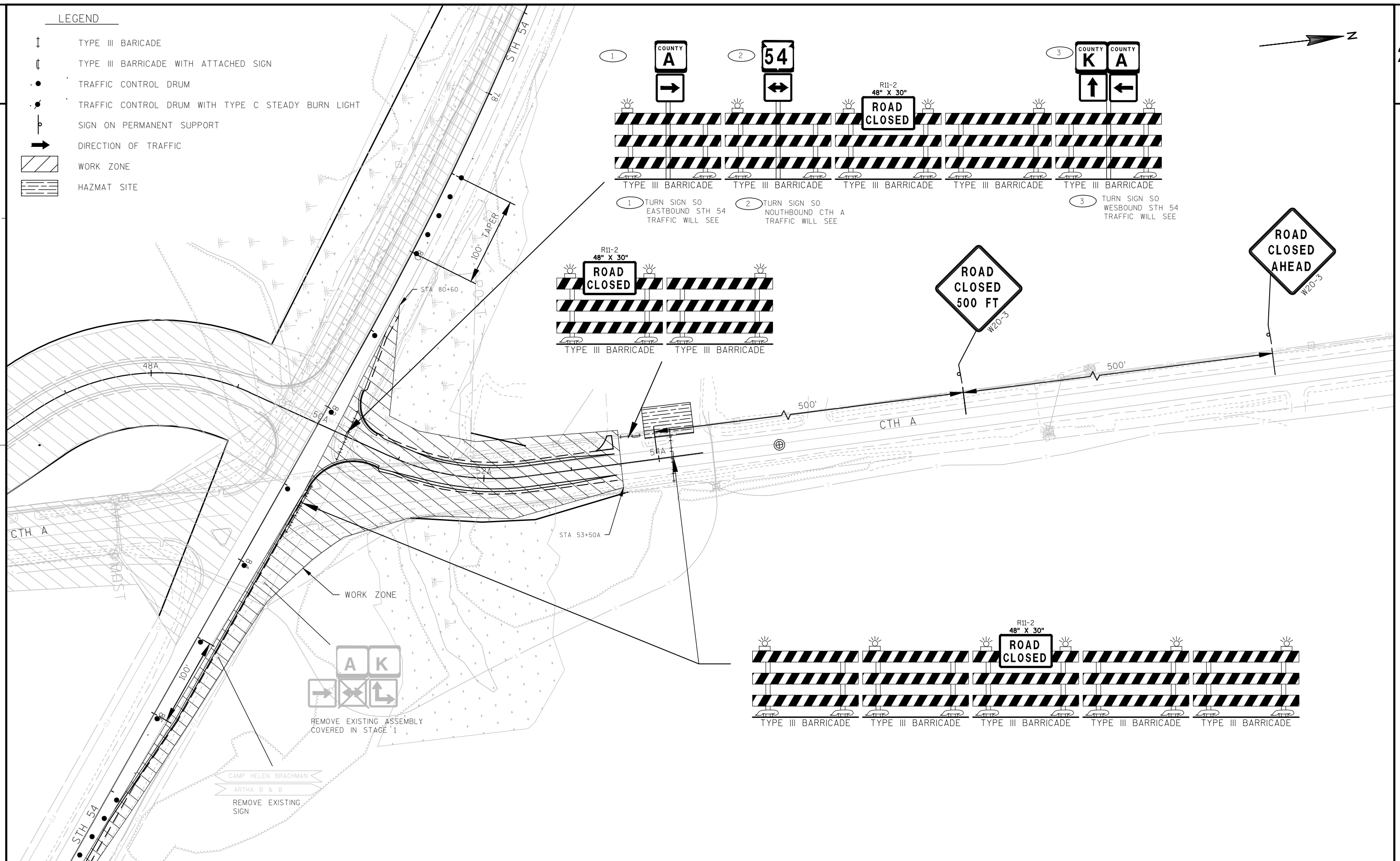


LEGEND

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LEGEND

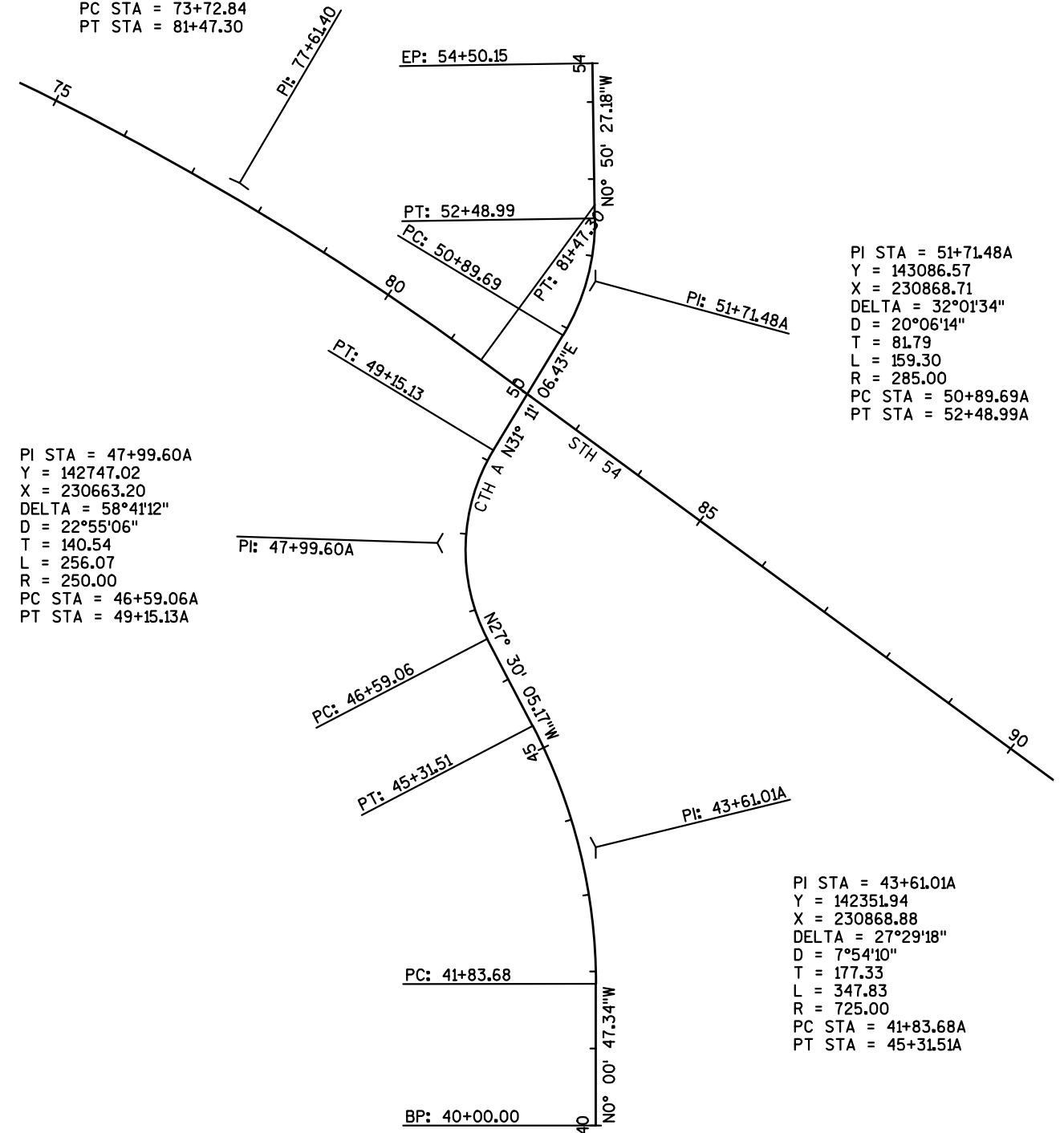
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SUPERELEVATION TABLE STH 54			
Station	Description	Left Outside Lane	Right Outside Lane
77+00.00	Full Super	4.00%	-4.00%
81+20.00	End Full Super	4.00%	-4.00%
81+40.00	Reverse Crown	2.00%	-2.00%
81+70.00	Level Crown	0.00%	-2.00%
81+90.00	Begin Normal Crown	-2.00%	-2.00%

SUPERELEVATION TABLE CTH A					
Station	Description	Left Outside Shoulder	Left Outside Lane	Right Outside Lane	Right Outside Shoulder
40+00.00A	Begin Alignment	-4.00%	-2.00%	-2.00%	-4.00%
40+79.85A	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
40+79.85A	End Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
41+24.35A	Level Crown	-4.00%	-2.00%	0.00%	0.00%
41+68.85A	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
42+13.35A	Begin Full Super	-4.00%	-4.00%	4.00%	4.00%
45+01.85A	End Full Super	-4.00%	-4.00%	4.00%	4.00%
46+83.39A	Begin Full Super	4.00%	4.00%	-4.00%	-4.00%
48+90.80A	End Full Super	4.00%	4.00%	-4.00%	-4.00%
49+27.30A	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
49+63.80A	Level Crown	0.00%	0.00%	-2.00%	-4.00%
50+00.30A	Begin Normal Crown	-2.00%	-2.00%	-2.00%	-4.00%
50+00.30A	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
50+04.52A	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
50+04.52A	End Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
50+41.02A	Level Crown	-4.00%	-2.00%	0.00%	0.00%
50+77.52A	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
51+14.02A	Begin Full Super	-4.00%	-4.00%	4.00%	4.00%
52+24.66A	End Full Super	-4.00%	-4.00%	4.00%	4.00%
52+61.16A	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
52+97.66A	Level Crown	-4.00%	-2.00%	0.00%	0.00%
53+34.16A	Begin Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
53+34.16A	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
54+50.15A	End Alignment	-4.00%	-2.00%	-2.00%	-4.00%

PI STA = 77+61.40
Y = 143214.14
X = 230406.75
DELTA = 11°36'58"
D = 1°30'00"
T = 388.56
L = 774.46
R = 3820.00
PC STA = 73+72.84
PT STA = 81+47.30



DATE 09JAN14		E S T I M A T E O F Q U A N T I T I E S			
LINE		6990-03-73			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0120	CLEARING	ID	400.000	400.000
0020	201.0220	GRUBBING	ID	300.000	300.000
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	3.000	3.000
0040	204.0110	REMOVING ASPHALTIC SURFACE	SY	460.000	460.000
0050	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	35.000	35.000
0060	204.0150	REMOVING CURB & GUTTER	LF	304.000	304.000
0070	204.0180	REMOVING DELINEATORS AND MARKERS	EACH	5.000	5.000
0080	205.0100	EXCAVATION COMMON	CY	2,533.000	2,533.000
0090	205.0400	EXCAVATION MARSH	CY	1,176.000	1,176.000
0100	208.1100	SELECT BORROW	CY	1,541.000	1,541.000
0110	209.0100	BACKFILL GRANULAR	CY	1,795.000	1,795.000
0120	213.0100	FINISHING ROADWAY (PROJECT) 01.6990-03-73	EACH	1.000	1.000
0130	214.0100	OBLITERATING OLD ROAD	STA	6.300	6.300
0140	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	606.000	606.000
0150	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	4,134.000	4,134.000
0160	305.0500	SHAPING SHOULDERS	STA	10.000	10.000
0170	455.0105	ASPHALTIC MATERIAL PG58-28	TON	61.200	61.200
0180	455.0605	TACK COAT	GAL	104.000	104.000
0190	460.1103	HMA PAVEMENT TYPE E-3	TON	1,111.000	1,111.000
0200	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	710.000	710.000
0210	465.0110	ASPHALTIC SURFACE PATCHING	TON	3.700	3.700
0220	465.0315	ASPHALTIC FLUMES	SY	27.000	27.000
0230	520.7000	CLEANING CULVERT PIPES	EACH	2.000	2.000
0240	521.0124	CULVERT PIPE CORRUGATED STEEL 24-INCH	LF	186.000	186.000
0250	521.0130	CULVERT PIPE CORRUGATED STEEL 30-INCH	LF	16.000	16.000
0260	521.1024	APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH	EACH	6.000	6.000
0270	521.1030	APRON ENDWALLS FOR CULVERT PIPE STEEL 30-INCH	EACH	2.000	2.000
0280	601.0557	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D	LF	314.000	314.000
0290	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01.6990-03-73	EACH	1.000	1.000
0300	619.1000	MOBILIZATION	EACH	1.000	1.000
0310	624.0100	WATER	MGAL	240.000	240.000
0320	625.0100	TOPSOIL	SY	13,540.000	13,540.000
0330	627.0200	MULCHING	SY	9,253.000	9,253.000
0340	628.1504	SILT FENCE	LF	1,538.000	1,538.000
0350	628.1520	SILT FENCE MAINTENANCE	LF	2,625.000	2,625.000
0360	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	12.000	12.000
0370	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	2.000	2.000
0380	628.2008	EROSION MAT URBAN CLASS I TYPE B	SY	4,288.000	4,288.000
0390	628.7504	TEMPORARY DITCH CHECKS	LF	105.000	105.000
0400	628.7555	CULVERT PIPE CHECKS	EACH	25.000	25.000
0410	628.7570	ROCK BAGS	EACH	279.000	279.000
0420	629.0210	FERTILIZER TYPE B	CWT	8.500	8.500
0430	630.0120	SEEDING MIXTURE NO. 20	LB	253.000	253.000
0440	630.0160	SEEDING MIXTURE NO. 60	LB	56.000	56.000
0450	630.0200	SEEDING TEMPORARY	LB	97.000	97.000
0460	633.5100	MARKERS ROW	EACH	25.000	25.000
0470	633.5200	MARKERS CULVERT END	EACH	5.000	5.000
0480	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	9.000	9.000
0490	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	4.000	4.000
0500	637.2210	SIGNS TYPE II REFLECTIVE H	SF	79.360	79.360

DATE 09JAN14		E S T I M A T E O F Q U A N T I T I E S			
LINE				6990-03-73	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0510	637.2230	SIGNS TYPE II REFLECTIVE F	SF	26.500	26.500
0520	638.2102	MOVING SIGNS TYPE II	EACH	3.000	3.000
0530	638.2602	REMOVING SIGNS TYPE II	EACH	14.000	14.000
0540	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	14.000	14.000
0550	642.5201	FIELD OFFICE TYPE C	EACH	1.000	1.000
0560	643.0100	TRAFFIC CONTROL (PROJECT) 01.6990-03-73	EACH	1.000	1.000
0570	643.0300	TRAFFIC CONTROL DRUMS	DAY	756.000	756.000
0580	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	714.000	714.000
0590	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	882.000	882.000
0600	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	210.000	210.000
0610	643.0900	TRAFFIC CONTROL SIGNS	DAY	1,204.000	1,204.000
0620	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	5.000	5.000
0630	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	14.000	14.000
0640	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	7,805.000	7,805.000
0650	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	580.000	580.000
0660	646.0600	REMOVING PAVEMENT MARKINGS	LF	1,521.000	1,521.000
0670	648.0100	LOCATING NO-PASSING ZONES	MI	0.200	0.200
0680	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	2,320.000	2,320.000
0690	650.5000	CONSTRUCTION STAKING BASE	LF	2,320.000	2,320.000
0700	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	314.000	314.000
0710	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	5.000	5.000
0720	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01.6990-03-73	LS	1.000	1.000
0730	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	2,320.000	2,320.000
0740	690.0150	SAWING ASPHALT	LF	1,573.000	1,573.000
0750	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR	HRS	150.000	150.000
0760	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT \$5.00/HR	HRS	300.000	300.000
0770	SPV.0060	SPECIAL 01.REMOVING GEODETIC SURVEY MONUMENT (LOGO COVER/COLLAR)	EACH	1.000	1.000
0780	SPV.0090	SPECIAL 01.SILT FENCE HEAVY DUTY	LF	600.000	600.000
0790	SPV.0120	SPECIAL 01.WATER FOR SEEDED AREAS	MGAL	150.000	150.000

3

CLEARING & GRUBBING

STATION	LOCATION	201.0120 CLEARING ID	201.0220 GRUBBING ID	REMARKS
76+39.00 - 77+90.00	RT	100	---	70' RT OF CENTERLINE
48+94.00A - 49+45.00A	RT	150	150	---
48+45.00A - 49+44.00A	LT	150	150	---
TOTAL		400	300	

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	203.0100 EACH	REMARKS
49+38.88A	RT	1	24"X88'
51+24.39A	RT	2	24"X48'
TOTAL		3	

3

REMOVING ASPHALTIC SURFACE

STATION - STATION	LOCATION	204.0110 SY	204.0120 MILLING SY	REMARKS
76+98.94 - 83+79.09	RT	230	---	---
80+64.42 - 87+44.69	LT	230	---	---
36+20A	CL	---	35	TRAFFIC LANE RUMBLE STRIP AT 7136 CTH A
TOTAL		460	35	

REMOVING DELINEATORS AND MARKERS

STATION	LOCATION	204.0180 EACH	REMARKS
80+00.00	RT	1	MARKERS CULVERT END
49+38.88A	RT	2	MARKERS CULVERT END
51+24.39A	RT	2	MARKERS CULVERT END
TOTAL		5	

REMOVING CURB & GUTTER

STATION - STATION	LOCATION	204.0150 LF	REMARKS
82+20.42 - 82+59.06	NW	84	36" C&G
85+85.61 - 83+46.94	SW	70	36" C&G
83+19.21 - 83+78.89	NE	68	36" C&G
84+13.84 - 84+55.17	SE	82	36" C&G
TOTAL		304	

BACKFILL GRANULAR

LOCATION	LOCATION	209.0100 CY	REMARKS
80+00.00	RT	2	CULVERT
49+38.91A	RT/LT	10	CULVERT
51+24.39A	RT/LT	20	CULVERT
PROJECT	RT/LT	1763	WETLAND FILL
TOTAL		1795	

OBLITERATING OLD ROAD

STATION - STATION	LOCATION	214.0100 STATION
44+00.00A - 49+50.15A	RT	5.5
50+31.20A - 51+15.00A	RT	0.8
TOTAL		6.3

EARTHWORK SUMMARY

Division	From / To Station	Location	ITEM # 205.0100 Common Excavation	Available Material	ITEM # 205.0500 Marsh Excavation	Reduced Marsh in Fill	Expanded Marsh Backfill	Unexpanded Fill	Expanded Fill	Mass Ordinate + / -	Waste	ITEM # 208.1100 Select Borrow	Comment:
						Factor 0.60	Factor 1.50		Factor 1.25				
Division 1													
Stage 1 STH 54	76+98.94/83+00.00		268	268	723	434	1,085	497	621	-353	0	-353	
Stage 1 CTH A	45+00.00A/50+12.51A		301	301	157	94	236	803	1,004	-703	0	-703	
Division 1 Subtotal			569	569	881	528	1,321	1,301	1,626	-1,057	0	-1,057	
Division 2													
Stage 2 STH 54	83+00.00/85+40.02		301	301	0	0	0	2	3	298	298	0	
Stage 2 CTH A	40+75.00A/45+00.00A		795	795	0	0	0	210	262	532	532	0	
Division 2 Subtotal			1,096	1,096	0	0	0	212	265	830	830	0	
Division 3													
Stage 3 STH 54	80+64.49/87+44.69		415	415	51	30	76	263	329	86	86	0	
Stage 3 CTH A	50+15.00A/53+50.00A		453	453	244	146	366	749	937	-484	0	-484	
Division 3 Subtotal			868	868	295	177	442	1,013	1,266	-398	86	-484	
Project Total			2,533	2,533	1,176	705	1,763	2,526	3,157	-624	916	-1,541	

SHAPING SHOULDERS

STATION - STATION	LOCATION	305.0500 STATION
76+98.94 - 81+47.30	RT	4
82+79.49 - 83+58.97	RT	1
80+86.34 - 81+64.35	LT	1
82+95.72 - 87+44.69	LT	4
TOTAL		10

HMA PAVEMENT

STATION - STATION	LOCATION	455.0105 ASPHALTIC MATERIAL PG58-28 TON	455.0605 TACK COAT GAL	460.1103 HMA PAVEMENT TYPE E-3 TON	REMARKS
		TON	GAL	TON	
76+98.94 - 81+47.30	RT	8.8	15	160	STH 54
82+79.49 - 83+58.97	RT	1.0	2	18	STH 54
80+86.34 - 81+64.35	LT	1.0	2	18	STH 54
82+95.72 - 87+44.69	LT	8.8	15	160	STH 54
40+75.00A - 49+88.00A	RT/LT	28.1	45	510	CTH A
50+12.00A - 53+50.00A	RT/LT	13.5	25	245	CTH A
TOTALS		61.2	104	1111	

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON	REMARKS
		TON	TON	
76+98.94 - 81+47.30	RT	37	491	12' LANE,3' SHOULDER
82+79.49 - 85+40.00	RT	45	88	12' LANE,3' SHOULDER
80+86.34 - 81+64.35	LT	15	85	12' LANE,3' SHOULDER
82+95.72 - 87+44.69	LT	37	492	12' LANE,3' SHOULDER
40+75.00A - 49+34.51A	RT	150	1045	12' LANE, 6' SHOULDER
40+75.00A - 49+17.70A	LT	147	1045	12' LANE, 6' SHOULDER
49+34.51A - 49+88.00A	RT	---	59	INTERSECTION
49+17.70A - 49+88.00A	LT	---	78	INTERSECTION
50+12.00A - 50+83.13A	RT	---	79	INTERSECTION
50+12.00A - 50+66.35A	LT	---	60	INTERSECTION
50+12.00A - 50+66.35A	RT	47	297	12' LANE, 6' SHOULDER
50+12.00A - 50+66.35A	LT	50	315	12' LANE, 6' SHOULDER
42+00.00A	LT	27	---	DRIVEWAY
44+00.00A	RT	45	---	DRIVEWAY
53+50.00A	LT	6	---	DRIVEWAY
TOTALS		606	4134	

ASPHALTIC SURFACE PATCHING

ADDRESS	465.0110 TON	REMARKS
36+20A	3.7	TRAFFIC LANE RUMBLE STRIP AT 7136 CTH A
TOTAL	3.7	

ASPHALTIC FLUMES

STATION	LOCATION	465.0315 SY	REMARKS
81+49.46	RT	8	SW QUAD
49+34.52A	LT	9	SE QUAD
50+66.09A	LT	10	NW QUAD
TOTAL		27	

CLEANING CULVERT PIPES

STATION	520.7000 EACH	DIA
80+00.00	2	30"
TOTAL	2	

3

CROSS DRAINS & SIDE ROAD CULVERT PIPES CORR. STEEL

STATION	CULVERT PIPE CORR. STEEL		APRON ENDWALLS FOR CULVERT PIPE STEEL		MIN THICKNESS IN	BOP INVERT ELEV	EOP INVERT ELEV	SLOPE %	REMARKS
	521.0124 24-INCH LF	521.0130 30-INCH LF	521.1024 24-INCH EACH	521.1030 30-INCH EACH					
80+00.00	---	16	---	2	0.079	---	---	0.5	2 PIPES AT 8'
49+38.91A	66	---	2	---	0.064	1083.43	1083.10	0.5	1 PIPE AT 66'
51+24.39A	120	---	4	---	0.064	1083.10	1082.74	0.6	2 PIPES AT 60'
TOTALS	186	16	6	2					

CONCRETE CURB & GUTTER

STATION - STATION	LOCATION	601.0557 6-INCH SLOPED 36-INCH TYPE D LF
50+29.33A - 50+66.35A	NW	63
49+34.51A - 49+83.00A	SW	94
50+17.83A - 50+83.13A	NE	94
49+34.51A - 49+71.60A	SE	63
TOTAL		314

3

WATER

LOCATION	624.0100 MGAL	SPV.0120.01 WATER SEEDED AREAS MGAL	REMARKS
PROJECT LIMITS	192	---	BASE & SHLD
PROJECT LIMITS	---	120	
UNDISTRIBUTED	48	30	
TOTAL	240	150	

SILT FENCE

STAGE	LOCATION	628.1504 LF	628.1520 MAINTENANCE LF
1	SW QUAD	600	600
3	NW QUAD	350	700
3	NE QUAD	400	800
PROJECT LIMITS	UNDISTRIBUTED	188	525
TOTALS		1538	2625

SILT FENCE HEAVY DUTY

STAGE	LOCATION	SPV.0090.01 LF
1	SW QUAD	600
TOTAL		600

TOPSOIL, MULCHING, EROSION MAT, FERTILIZER, AND SEEDING

STAGE	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO 20 LB	630.0160 SEEDING MIXTURE NO 60 LB	630.0200 SEEDING TEMPORARY LB	REMARKS
1	RT/LT	2615	1427	1188	1.6	47	12	---	STH 54 & S CTH A
2	RT/LT	5763	5313	450	3.6	156	---	---	S CTH A & OBLIT
3	RT/LT	2454	662	1792	1.5	---	33	---	STH 54 & N CTH A
PROJECT LIMITS	UNDISTRIBUTED	2708	1851	858	1.7	51	11	97	---
TOTALS		13540	9253	4288	8.5	253	56	97	

PROJECT NO: 6990-03-73

HWY: STH54

COUNTY: PORTAGE

MISCELLANEOUS QUANTITIES

SHEET:

E

FILE NAME :

PLOT DATE :

PLOT BY :

PLOT NAME :

PLOT SCALE : 1:1

MOBILIZATIONS EROSION CONTROL

STAGE	628.1905	628.1910
	MOBILIZATIONS EROSION CONTROL EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
1	3	---
2	3	---
3	3	---
PROJECT LIMITS	---	2
TOTALS	12	2

TEMPORARY DITCH CHECKS

STAGE	628.7504	REMARKS
	LF	
1	39	CTH A
2	66	CTH A
TOTAL	105	

CULVERT PIPE CHECKS

STATION	LOCATION	628.7555	REMARKS
		EACH	
80+00.00	LT	10	STH 54
49+38.88A	RT	5	CTH A
51+24.39A	RT	10	CTH A
	TOTAL	25	

ROCK BAGS

STAGE	628.7570	DITCH CHECKS
	SILT FENCE RELIEF	
1	47	72
2	---	132
3	28	---
TOTALS	75	204
PROJECT TOTAL		279

MARKERS ROW

STATION	R/W POINT NO PRW	R/W POINT NO ERW	633.5100 MARKERS ROW EACH	REMARKS
40+75.00A - 53+50.00A	18	7	25	SEE SECTION NO.4
		TOTAL	25	

MARKERS CULVERT END

STATION	LOCATION	633.5200	REMARKS
		EACH	
80+00.00	RT	1	STH 54
49+38.91A	RT/LT	2	CTH A
51+24.39A	RT/LT	2	CTH A
	TOTAL	5	

SIGN LISTING

SIGN NO.	SIGN CODE	MESSAGE	SIZE INCHES	POSTS WOOD 4X6-INCH		637.2230	637.2210	638.2102	638.2602	638.3000	REMARKS
				634.0616	634.0618	SIGNS	SIGNS	MOVING	REMOVING	REMOVING	
				16-FT EACH	18-FT EACH	REFLECT TYPE F SF	REFLECT TYPE H SF	SIGNS TYPE II EACH	SIGNS TYPE II EACH	SMALL SIGN SUPPORTS EACH	
1-01	W13-1	ADVISORY SPEED PLATE	18X18	---	---	2.25	---	---	---	---	SHARES SAME POST AS 1-02
1-02	W1-4L	LEFT REVERSE CURVE	30X30	1	---	6.25	---	---	---	---	---
1-03	W3-1	STOP AHEAD	36X36	---	1	9.00	---	---	---	---	---
1-04	J4-1		24X36	---	---	---	---	---	1	1	---
---	M3-2	EAST	---	---	---	---	---	---	---	---	---
---	M1-6	STH 54	---	---	---	---	---	---	---	---	---
1-05	R4-7	KEEP RIGHT	24X30	---	---	---	---	---	1	1	---
1-06	R1-1	STOP	30X30	---	---	---	---	---	1	1	---
1-07	R1-1	STOP	30X30	---	---	---	---	---	1	1	---
1-08	W12-1D	DOUBLE DOWN ARROWS	24X24	---	---	---	---	---	1	1	---
1-09	W12-1D	DOUBLE DOWN ARROWS	24X24	---	---	---	---	---	1	1	---
1-10	J4-1		24X36	1	---	---	6.00	---	---	---	---
---	M3-2	EAST	---	---	---	---	---	---	---	---	---
---	M1-6	STH 54	---	---	---	---	---	---	---	---	---
1-11	J13-2		48X45	---	---	---	---	---	1	1	---
---	M1-5A	COUNTY A	---	---	---	---	---	---	---	---	---
---	M6-4	DOUBLE ARROW LT/RT	---	---	---	---	---	---	---	---	---
---	M1-5A	COUNTY K	---	---	---	---	---	---	---	---	---
---	M6-6	AHEAD ARROW/RT	---	---	---	---	---	---	---	---	---
1-12	J13-2		48X45	---	---	---	---	---	1	1	---
---	M1-6	STH 54	---	---	---	---	---	---	---	---	---
---	M6-4	DOUBLE ARROW LT/RT	---	---	---	---	---	---	---	---	---
---	M1-5A	COUNTY A	---	---	---	---	---	---	---	---	---
---	M6-1	AHEAD ARROW	---	---	---	---	---	---	---	---	---
1-13	J13-2		48X45	1	---	---	15.00	---	---	---	---
---	M1-5A	COUNTY A	---	---	---	---	---	---	---	---	---
---	M6-4	DOUBLE ARROW LT/RT	---	---	---	---	---	---	---	---	---
---	M1-5A	COUNTY K	---	---	---	---	---	---	---	---	---
---	M6-6	AHEAD ARROW/RT	---	---	---	---	---	---	---	---	---
1-14	R1-1	STOP	30X30	---	---	---	---	---	1	1	---
1-15	R1-1	STOP	30X30	---	---	---	---	---	1	1	---
1-16	J13-2		48X45	---	---	---	---	---	1	1	---
---	M1-5A	COUNTY A	---	---	---	---	---	---	---	---	---
---	M6-1	AHEAD ARROW	---	---	---	---	---	---	---	---	---
---	M1-6	STH 54	---	---	---	---	---	---	---	---	---
---	M6-4	DOUBLE ARROW LT/RT	---	---	---	---	---	---	---	---	---
1-17	J13-2		24X45	---	1	---	7.50	---	---	---	---
---	M1-6	STH 54	---	---	---	---	---	---	---	---	---
---	M6-4	DOUBLE ARROW LT/RT	---	---	---	---	---	---	---	---	---
1-18	J13-2		48X45	---	---	---	---	---	1	1	---
---	M1-5A	COUNTY K	---	---	---	---	---	---	---	---	---
---	M6-1	LEFT ARROW	---	---	---	---	---	---	---	---	---
---	M1-5A	COUNTY A	---	---	---	---	---	---	---	---	---
---	M6-4	DOUBLE ARROW LT/RT	---	---	---	---	---	---	---	---	---

SIGN LISTING

SIGN NO.	SIGN CODE	MESSAGE	SIZE INCHES	POSTS WOOD 4X6-INCH		637.2230	637.2210	638.2102	638.2602	638.3000	REMARKS
				634.0616	634.0618	SIGNS	SIGNS	MOVING	REMOVING	REMOVING	
				16-FT EACH	18-FT EACH	REFLECT TYPE F SF	REFLECT TYPE H SF	SIGNS TYPE II EACH	SIGNS TYPE II EACH	SMALL SIGN SUPPORTS EACH	
1-19	M1-5A	COUNTY A	24X24	1	---	---	4.00	---	---	---	---
1-20	R1-1	STOP	30X30	1	---	---	5.18	---	---	---	---
1-21	R1-1	STOP	30X30	1	---	---	5.18	---	---	---	---
1-22	J13-2		48X45	1	---	---	15.00	---	---	---	---
---	M1-5A	COUNTY K	---	---	---	---	---	---	---	---	---
---	M6-1	LEFT ARROW	---	---	---	---	---	---	---	---	---
---	M1-5A	COUNTY A	---	---	---	---	---	---	---	---	---
---	M6-4	DOUBLE ARROW LT/RT	---	---	---	---	---	---	---	---	---
1-23	J4-1		24X36	1	---	---	6.00	---	---	---	---
---	M3-4	WEST	---	---	---	---	---	---	---	---	---
---	M1-6	STH 54	---	---	---	---	---	---	---	---	---
1-24	J4-1		24X36	---	---	---	---	---	1	1	---
---	M3-4	WEST	---	---	---	---	---	---	---	---	---
---	M1-6	STH 54	---	---	---	---	---	---	---	---	---
1-25	J13-2		24X45	---	1	---	7.50	---	---	---	---
---	M1-6	STH 54	---	---	---	---	---	---	---	---	---
---	M6-4	DOUBLE ARROW LT/RT	---	---	---	---	---	---	---	---	---
1-26	R4-7	KEEP RIGHT	24X30	---	---	---	---	---	1	1	---
1-27	M1-5A	COUNTY A	24X24	1	---	---	4.00	---	---	---	---
1-28	W3-1	STOP AHEAD	36X36	---	1	9.00	---	---	---	---	---
1-29	M1-5A	COUNTY K	24X24	---	---	---	4.00	---	---	---	---
---	D1-2	< CAMP HELEN BRACHMAN	30X66	---	---	---	---	1	---	---	SHARES SAME POST AS 1-27
---	---	ARTHA B&B >	---	---	---	---	---	---	---	---	NOT A STATE SIGN, MOVE IN
---	D1-2	CAMP HELEN BRACHMAN >	30X66	---	---	---	---	1	---	---	STAGE 1 AND INSTALL IN STAGE 3
---	---	< ARTHA B&B	---	---	---	---	---	---	---	---	---
---	D1-2	<ALMOND	30X66	---	---	---	---	1	---	---	NOT A STATE SIGN, MOVE IN
---	---	AMHERST >	---	---	---	---	---	---	---	---	STAGE 1 AND INSTALL IN STAGE 3
TOTALS				9	4	26.50	79.36	3	14	14	

TRAFFIC CONTROL												
STAGE	SERVICE PERIOD DAYS	643.0100 TRAFFIC CONTROL PROJECT EACH	643.0300		643.0420		643.0705		643.0715		643.1050	
			DRUMS		BARRICADES		WARNING		WARNING		PORTABLE	
					TYPE III		LIGHTS		LIGHTS		CHANGEABLE	
							TYPE A		TYPE C		MESSAGE	
			NO.	DAYS	NO.	DAYS	NO.	DAYS	NO.	DAYS	NO.	DAYS
PROJECT LIMITS	7	1	---	---	---	---	---	---	---	---	4	28
1	14	---	18	252	17	238	21	294	5	70	---	---
2	14	---	18	252	17	238	21	294	5	70	---	---
3	14	---	18	252	17	238	21	294	5	70	---	---
TOTALS	49	1	756		714		882		210		14	

TRAFFIC CONTROL COVERING SIGNS TYPE II			
STAGE	NUMBER OF CYCLES	NUMBER OF SIGNS	643.0920 EACH
1	1	3	3
3	1	2	2
TOTAL			5

TRAFFIC CONTROL SIGNS					
STAGE	DURATION DAYS	SIGN CODE	MESSAGE	643.0900 SIGNS	
				NO.	DAYS
1	14	G20-2A	END ROAD WORK	2	28
		W20-1	ROAD WORK AHEAD	2	28
		W20-4	ONE LANE ROAD AHEAD	2	28
		W20-7A	FLAGGER	2	28
		W20-3	ROAD CLOSED AHEAD	3	42
		M1-5A	COUNTY A	4	56
		M3-3	SOUTH	2	28
		R11-2	ROAD CLOSED	4	56
		M1-5A	COUNTY K	2	28
		M6-1	RIGHT ARROW	3	42
		M1-6	STH 54	1	14
		M6-4	TWO WAY ARROW	1	14
		W20-3	ROAD CLOSED 500 FT	1	14
		2	14	G20-2A	END ROAD WORK
W20-1	ROAD WORK AHEAD			2	28
W20-4	ONE LANE ROAD AHEAD			2	28
W20-7A	FLAGGER			2	28
W20-3	ROAD CLOSED AHEAD			3	42
M1-5A	COUNTY A			4	56
M3-3	SOUTH			2	28
R11-2	ROAD CLOSED			4	56
M1-5A	COUNTY K			2	28
M6-1	RIGHT ARROW			2	28
M1-6	STH 54			1	14
M6-4	TWO WAY ARROW			1	14
W20-3	ROAD CLOSED 500 FT			1	14
3	14			G20-2A	END ROAD WORK
		W20-1	ROAD WORK AHEAD	2	28
		W20-4	ONE LANE ROAD AHEAD	2	28
		W20-7A	FLAGGER	2	28
		W20-3	ROAD CLOSED AHEAD	3	42
		M3-1	NORTH	2	28
		M1-5A	COUNTY A	4	56
		M1-5A	COUNTY K	3	42
		M6-1	LEFT ARROW	2	28
		M6-2	AHEAD ARROW	1	14
		M6-4	TWO WAY ARROW	1	14
		R11-2	ROAD CLOSED	4	56
		W20-3	ROAD CLOSED 500 FT	1	14
		TOTAL			

3

PAVEMENT MARKING EPOXY

STATION - STATION	LOCATION	646.0106	646.0106	646.0126
		4-INCH EDGE LINE WHITE LF	4-INCH CENTER LINE YELLOW LF	8-INCH WHITE LF
76+98.94 - 81+38.89	RT	440	---	---
82+79.32 - 87+44.69	RT	465	---	---
78+49.26 - 81+38.89	RT	---	---	290
76+98.94 - 87+44.69	CL	---	1046	---
76+98.94 - 87+44.69	CL	---	261	---
76+98.94 - 81+64.27	LT	465	---	---
83+04.69 - 87+44.69	LT	440	---	---
83+04.69 - 85+94.60	LT	---	---	290
40+75.00A - 49+25.07A	RT	850	---	---
50+83.24A - 53+50.00A	RT	267	---	---
40+75.00A - 49+76.00A	CL	---	1802	---
50+24.00A - 53+50.00A	CL	---	652	---
40+75.00A - 49+17.87A	LT	843	---	---
50+75.77A - 53+50.00A	LT	274	---	---
SUB TOTALS		4044	3761	580
PROJECT TOTAL		7805		

CONSTRUCTION STAKING

STATION - STATION	650.4500	650.5000	650.5500	650.6000	650.9910	650.9920
	SUBGRADE LF	CONSTRUCTION STAKING BASE LF	CURB & GUTTER LF	PIPE CULVERTS EACH	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) LS	CONSTRUCTION STAKING SLOPE STAKES LF
PROJECT	---	---	---	---	1	---
NE QUADRANT	---	---	94	---	---	---
NW QUADRANT	---	---	63	---	---	---
SW QUADRANT	---	---	94	---	---	---
SE QUADRANT	---	---	63	---	---	---
80+00.00	---	---	---	2	---	---
49+38.91A	---	---	---	1	---	---
51+24.39A	---	---	---	2	---	---
76+98.94 - 87+44.69	1045	1045	---	---	---	1045
40+75.00A - 53+50.00A	1275	1275	---	---	---	1275
TOTALS	2320	2320	314	5	1	2320

REMOVING PAVEMENT MARKING

STATION - STATION	LOCATION	646.0600 LF
76+98.94 - 85+40.02	RT	841
80+64.42 - 87+44.69	LT	680
TOTAL		1521

LOCATING NO-PASSING ZONES

STATION - STATION	648.0100 MILES
76+98.94 - 87+44.69	0.20
TOTAL	0.20

SAWING ASPHALT

STATION	LOCATION	690.0150 LF	REMARKS
76+98.94 - 83+58.97	RT	660	12' OFFSET SAWCUT
83+58.97 - 85+40.00	RT	180	12' OFFSET SAWCUT
80+64.42 - 87+44.69	LT	685	15' OFFSET SAWCUT
40+75.00A	CL	24	---
53+50.00A	CL	24	---
TOTAL		1573	

3

DOT COMPOSITE: ORIGINAL DOCUMENT LOCATED AT THE REGISTER OF DEEDS OFFICE

UTILITY INTERESTS REQUIRED			SCHEDULE OF LANDS & INTERESTS REQUIRED				
UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED	PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	NEW	EXISTING
10	WISCONSIN PUBLIC SERVICE	RELEASE OF RIGHTS	1	ROBERT P. HELBACH SR. & HELENA HELBACH, Trustees of the ELIZABETH INCOME TRUST	FEEL, TLL	0.16	0.00
11	AMHERST TELEPHONE COMPANY	RELEASE OF RIGHTS	2	GEORGE F. & RACHELA HELBACH REVOCABLE TRUST	FEEL, TLL	2.18	0.00
12	ATC	RELEASE OF RIGHTS	3	WILLIAM A. & ANITA M. THOMPSON	FEEL	0.016	0.00

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LANDS TO THE DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PROJECT PLAT NO: 6990-03-23 - 4.01 AMENDMENT NO. 1

AMENDS PARCELS 1 AND 2 AND UTILITY NO. 12 OF TRANSPORTATION PROJECT PLAT 6990-03-23-4.01 RECORDED AS DOCUMENT NO. 786839 IN ENVELOPE NO.51

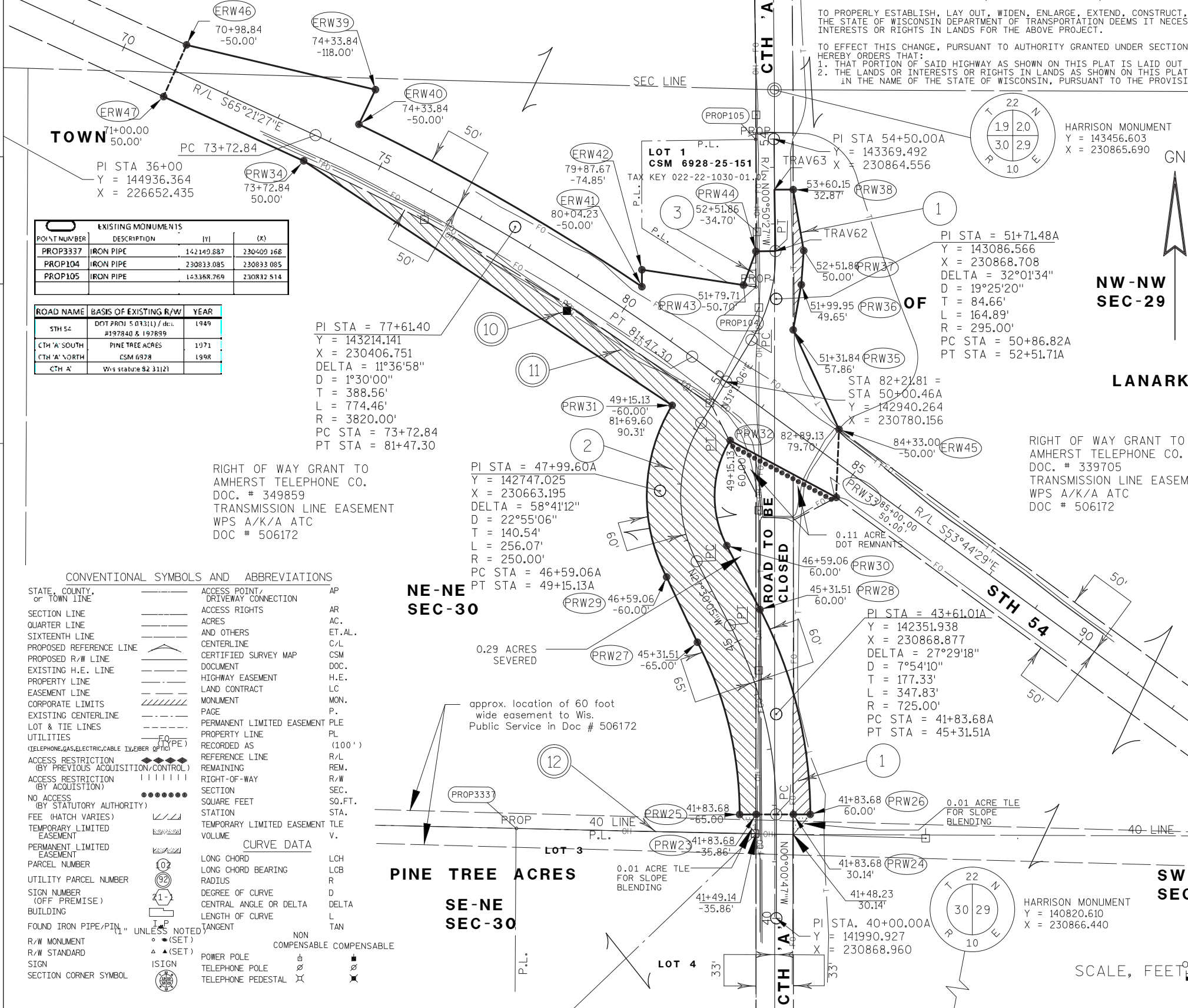
PART OF LOT 1 OF CSM 6928 AND PART OF THE NE-NE OF SECTION 30: PART OF THE NW-NW OF SECTION 29, ALL IN TOWN 22 NORTH, RANGE 10 EAST, TOWN OF LANARK, PORTAGE COUNTY, WISCONSIN
RELOCATION ORDER STH 54, PLOVER - WAUPACA, (STH 54 & CTH 'A' INTERSECTION)

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

Doc # 789163
REGISTER'S OFFICE
PORTAGE COUNTY, WI
RECEIVED FOR RECORD } ss
SEP 03, 2013
TIME: 10:09 A.M.
DANIEL A. WILSON, REGISTER OF DEEDS
PL 525.00

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6990-03-23-4.01
AMENDMENT NO.1



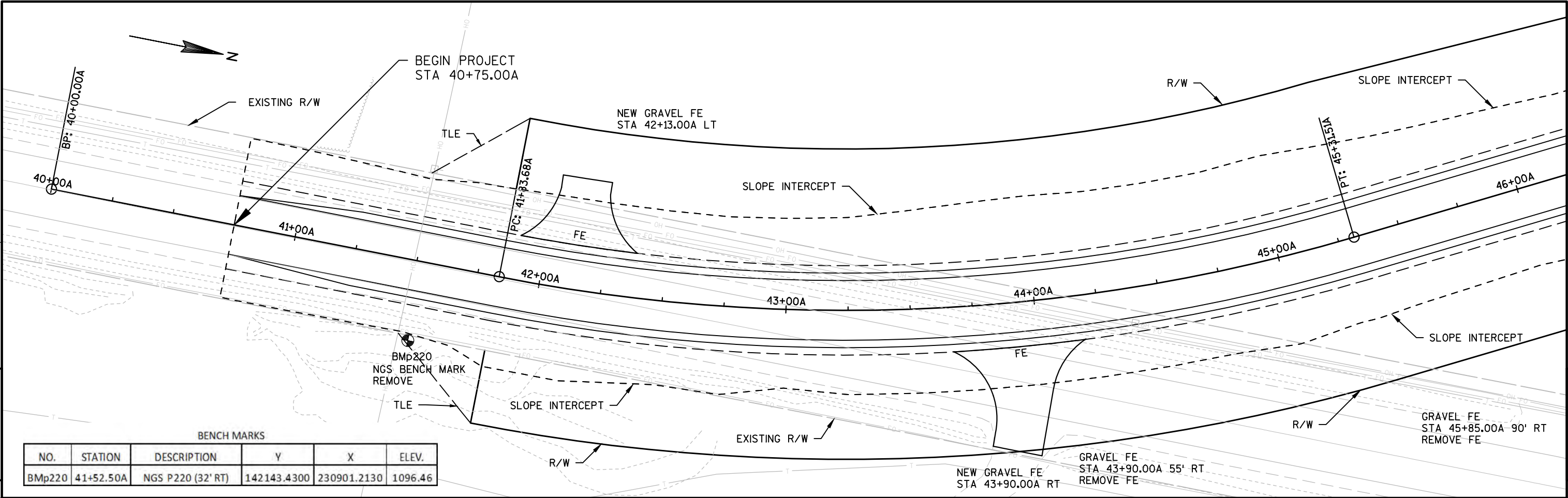
COURSE TABLE			POINT TABLE - COORDINATES		
PT. NO. - PT. NO.	BEARING	DIST.	POINT NO.	Y	X
NW COR SEC 29 - TRAV 63	S 00°00'59" E	176.63'	prw24	142174.617	230899.055
TRAV 63 - PRW 38	N 89°59'01" E	33.00'	prw25	142174.600	230833.055
PRW 38 - PRW 37	S 09°49'53" L	109.64'	prw26	142174.592	230803.918
PRW 37 - PRW 36	S 04°10'51" W	60.40'	prw27	142174.624	230928.918
PRW 36 - PRW 35	S 10°06'26" W	81.18'	prw28	142479.213	230729.337
PRW 35 - ERW 45	S 24°45'11" E	193.94'	prw29	142536.934	230840.212
ERW 45 - PRW 33	S 02°26'11" W	120.37'	prw30	142594.658	230674.874
PRW 33 - PRW 32	N 61°45'27" W	212.96'	prw31	142650.071	230781.314
PRW 32 - PRW 28	S 27°30'25" L	127.55'	prw32	142735.418	230974.903
PRW 28 - PRW 24	S 89°59'07" W	29.86'	prw33	142836.190	230787.299
PRW 24 - PRW 23	S 89°59'07" W	66.00'	erw42	142855.680	230980.020
PRW 23 - PRW 25	S 89°59'07" W	20.14'	prw35	142898.327	230684.639
PRW 27 - PRW 29	N 25°15'24" W	127.65'	prw36	143031.797	230898.811
PRW 31 - PRW 34	N 56°26'44" W	782.26'	erw41	143108.164	230631.193
PRW 34 - ERW 47	N 65°21'27" W	272.84'	prw43	143111.117	230810.759
ERW 47 - ERW 46	N 23°58'35" E	100.01'	prw36	143111.717	230913.058
ERW 46 - ERW 39	S 76°41'15" L	343.58'	erw42	143138.176	230631.127
ERW 39 - ERW 40	S 25°33'28" W	68.00'	prw44	143170.710	230837.770
ERW 41 - ERW 42	N 00°07'31" W	30.01'	trav62	143170.720	230865.771
ERW 42 - PRW 43	S 81°26'01" L	181.96'	prw37	143171.953	230917.461
PRW 43 - ERW 44	N 20°00'28" E	63.47'	trav63	143279.971	230805.740
PRW 44 - TRAV 62	N 89°59'01" E	33.00'	prw38	143279.981	230898.740
TRAV 62 - TRAV 63	N 00°00'59" W	109.25'	prw34	143330.706	230032.730
			erw40	143395.386	230130.385
			erw39	143456.732	230159.721
			erw46	143535.846	229825.377
			erw47	143444.468	229784.738

R/W CURVE TABLE				
PT. NO. - PT. NO.	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
PRW 23 - PRW 30	190.00'	194.61'	S 01°50'31" W	186.22'
PRW 28 - PRW 26	785.00'	376.61'	S 13°45'26" E	373.01'
PRW 25 - PRW 27	660.00'	316.65'	N 13°45'26" W	313.67'
PRW 29 - PRW 31	310.00'	317.52'	N 01°50'31" E	303.83'
ERW 40 - ERW 41	3870.00'	577.86'	S 60°09'54" E	577.31'

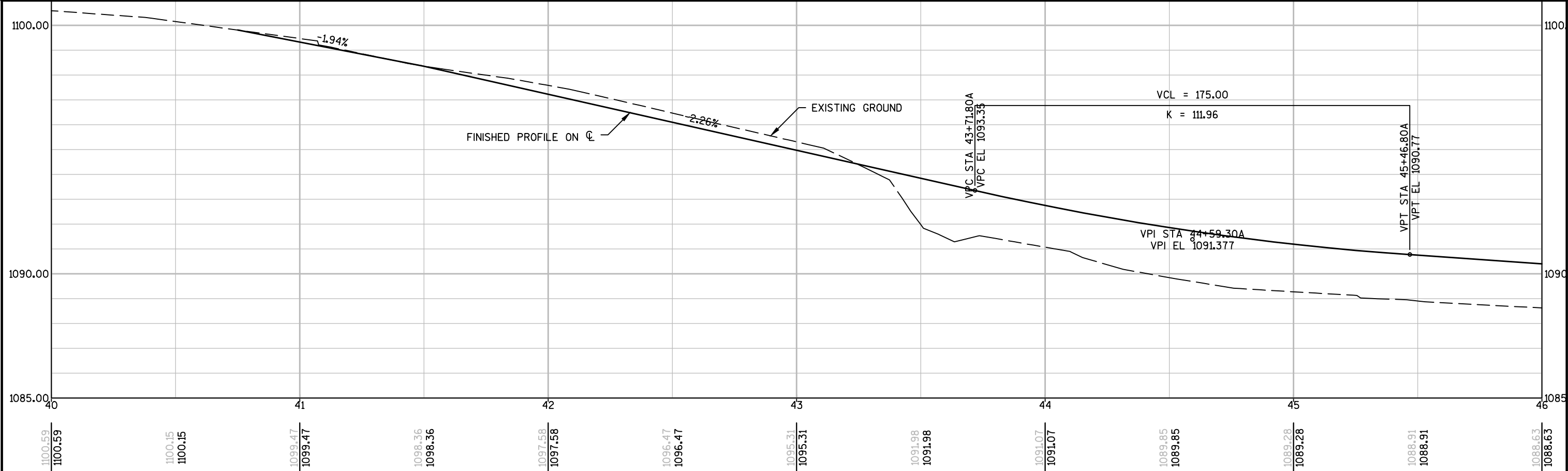
NOTES:
HORIZONTAL POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, PORTAGE COUNTY, NAD 83 (2007) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.
RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.
RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".
PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.
A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.
DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

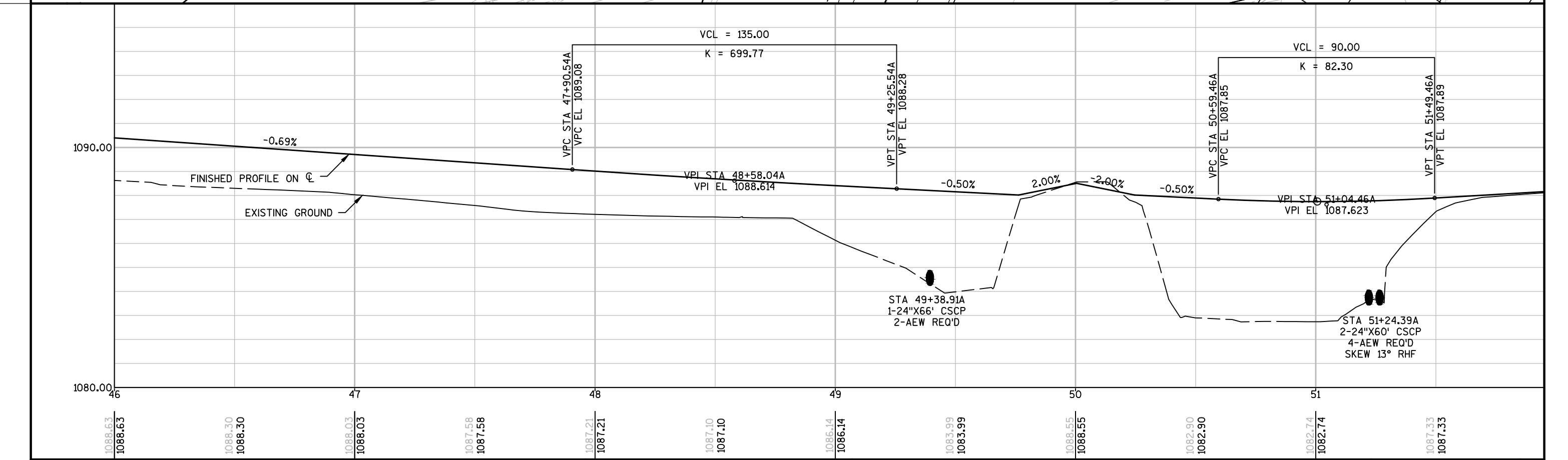
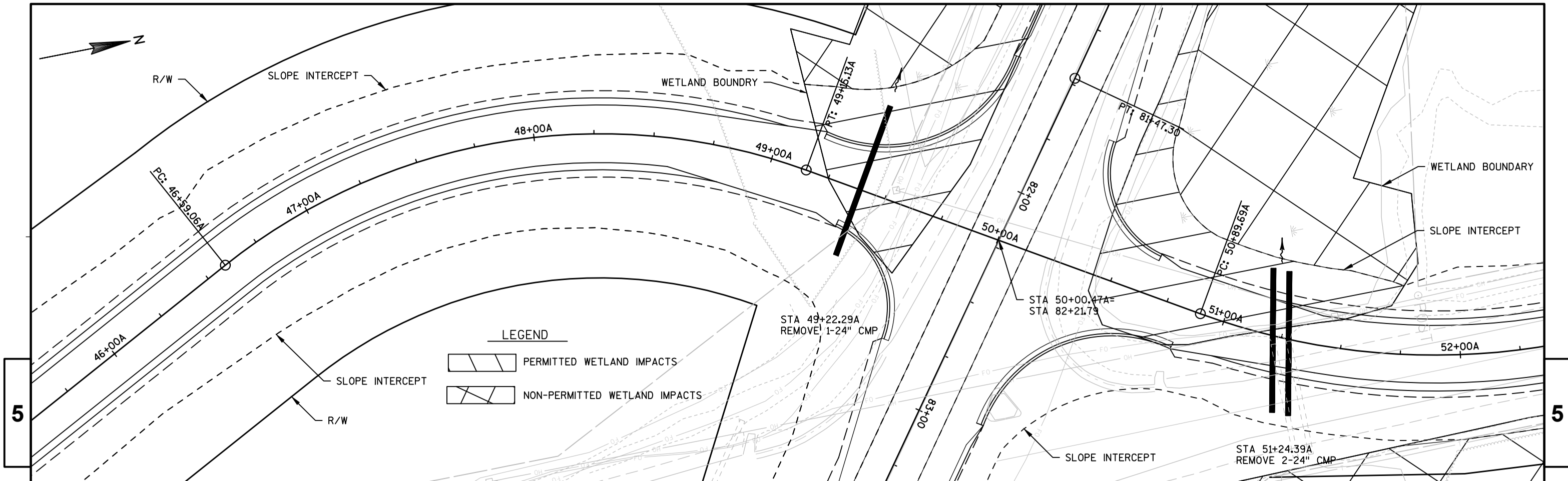
I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF
JEFFREY T. BROCK
PRINTED NAME SIGNATURE DATE 8-20-2013
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
BRENT L. STELLA
PRINTED NAME SIGNATURE DATE 8-20-13

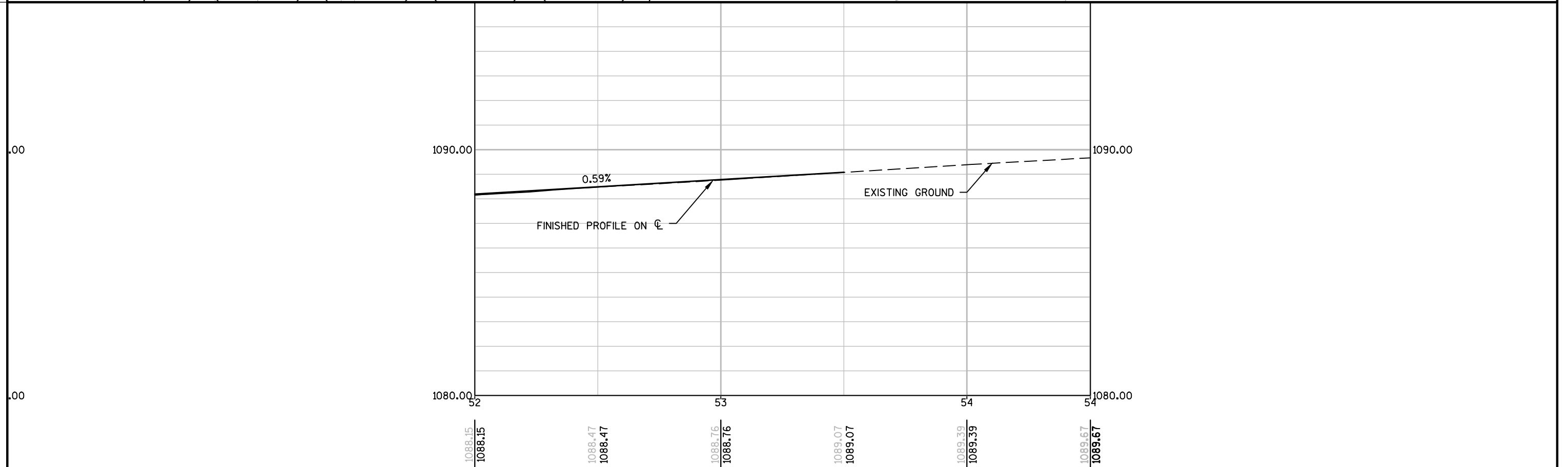
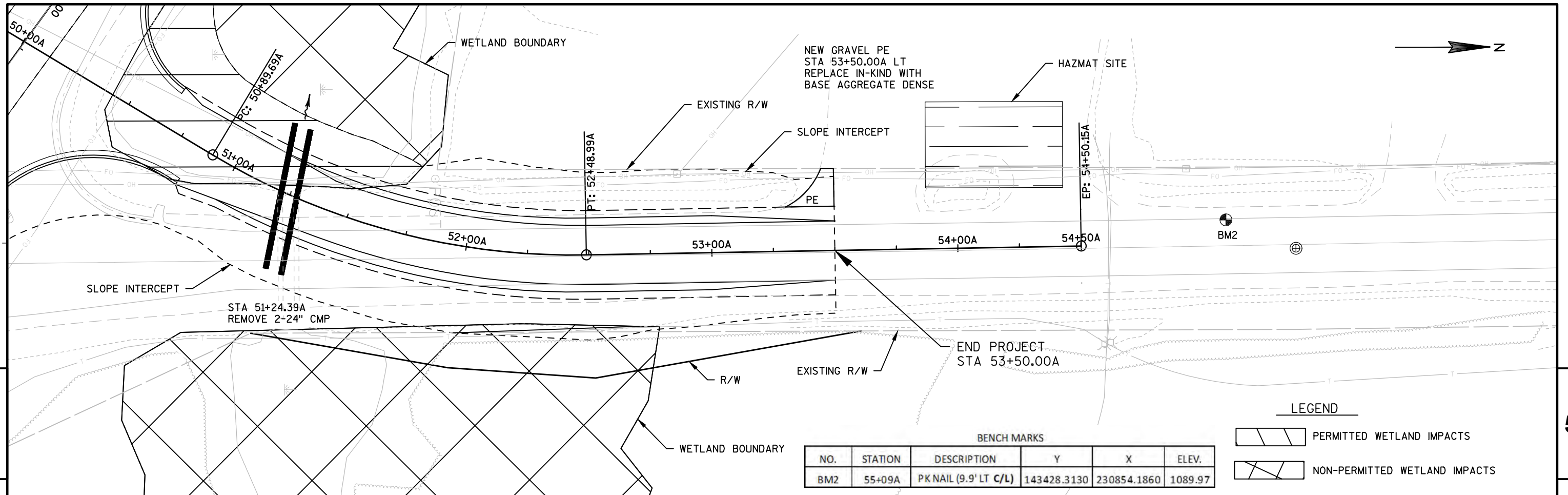
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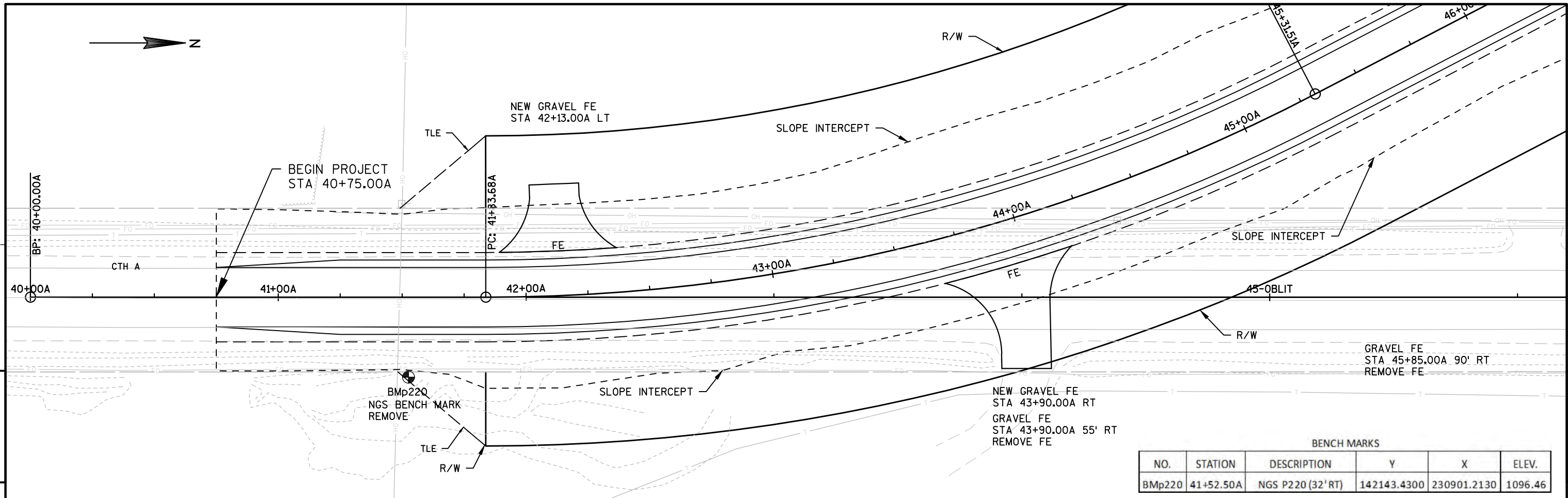


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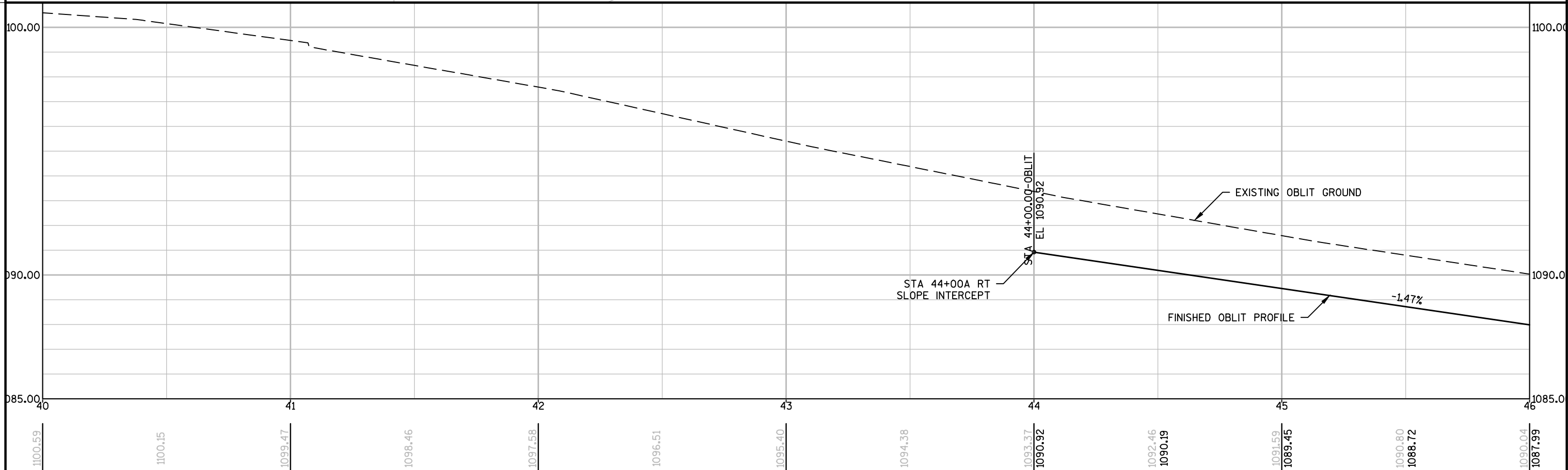


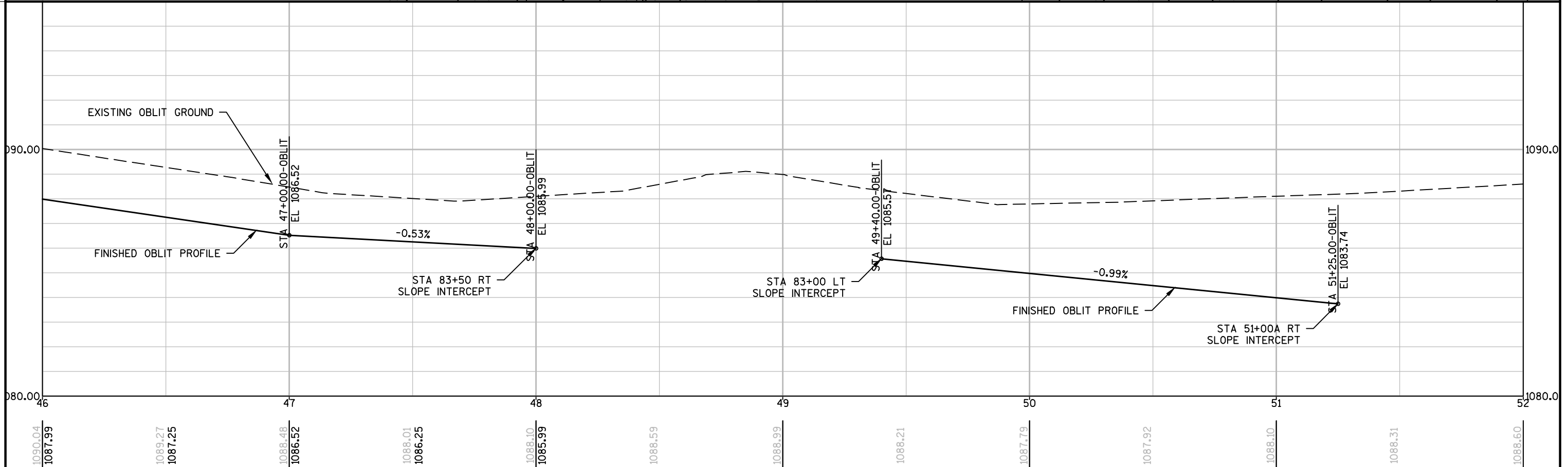
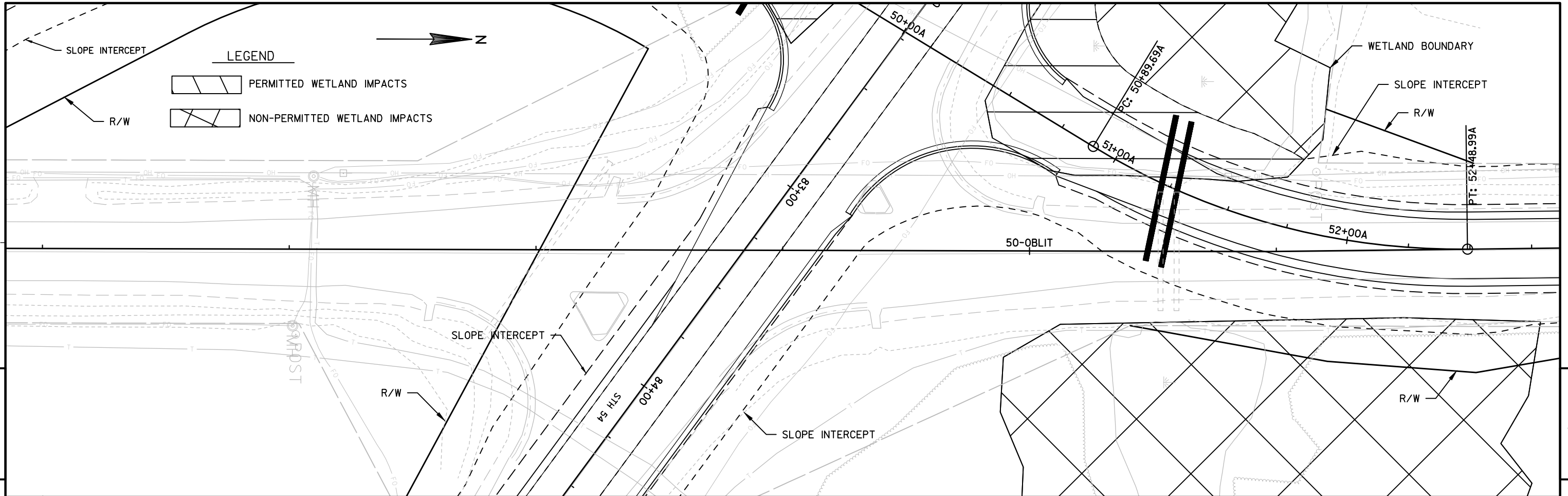






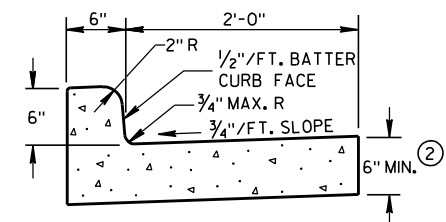
BENCH MARKS					
NO.	STATION	DESCRIPTION	Y	X	ELEV.
BMP220	41+52.50A	NGS P220 (32' RT)	142143.4300	230901.2130	1096.46



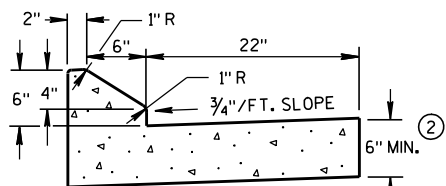


Standard Detail Drawing List

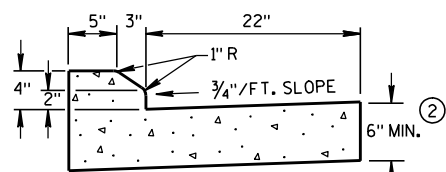
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
15A01-11	MARKER POST FOR RIGHT-OF-WAY
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-02	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15D28-02	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



TYPES A & D ①



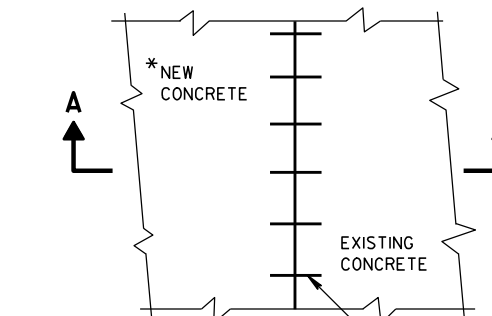
6" SLOPED CURB TYPES G & J ①



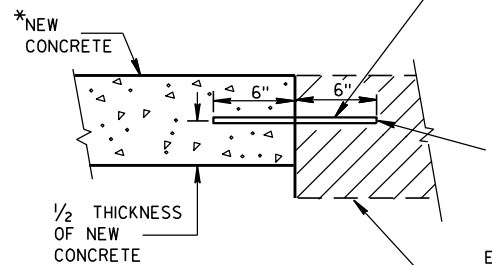
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

* NEW CURB & GUTTER,
SURFACE DRAINS,
CONCRETE PAVEMENT
OR OTHER NEW CONCRETE.



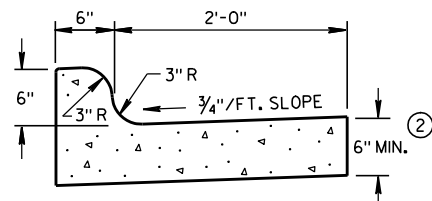
PLAN VIEW

SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

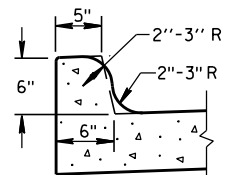
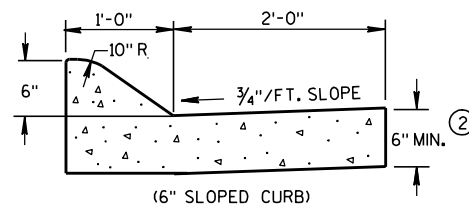
NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.

MAXIMUM DRILL HOLE
SIZE IS 1/8" GREATER
THAN TIE BAR DIAMETER

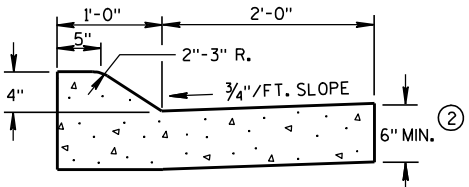
EXISTING
CONCRETE



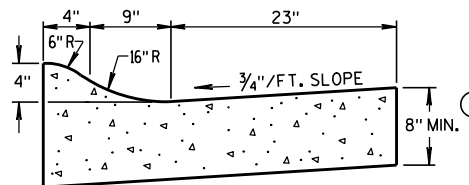
TYPES K & L ①

OPTIONAL CURB SHAPE
FOR TYPES K & L ①

(6" SLOPED CURB)

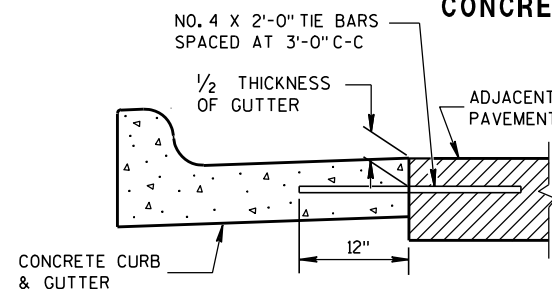


TYPES A & D ①

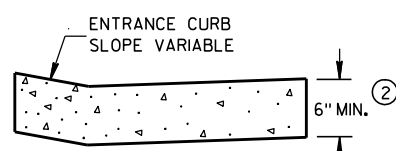


4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

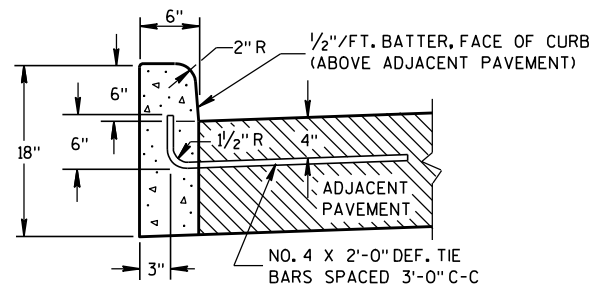


TYPICAL TIE BAR LOCATION ①



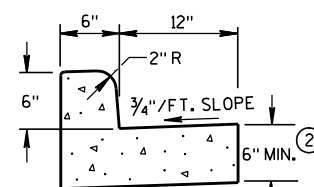
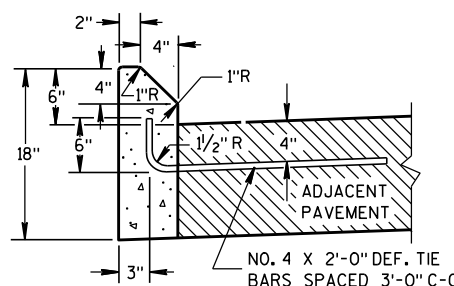
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



TYPES A & D ①

CONCRETE CURB

TYPES A & D
CONCRETE CURB & GUTTER 18"

TYPES G & J ①

GENERAL NOTES

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

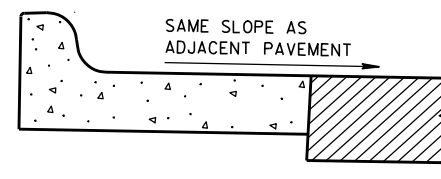
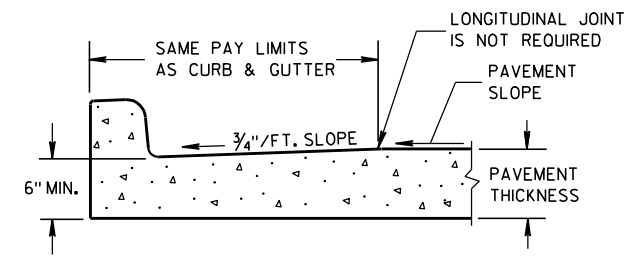
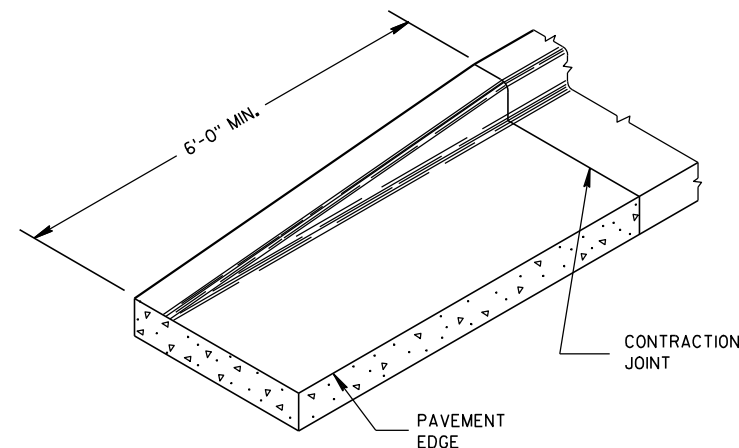
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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 GUTTER TYPES A, G, K AND R.
- 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 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.
- ④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER

END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/4/08

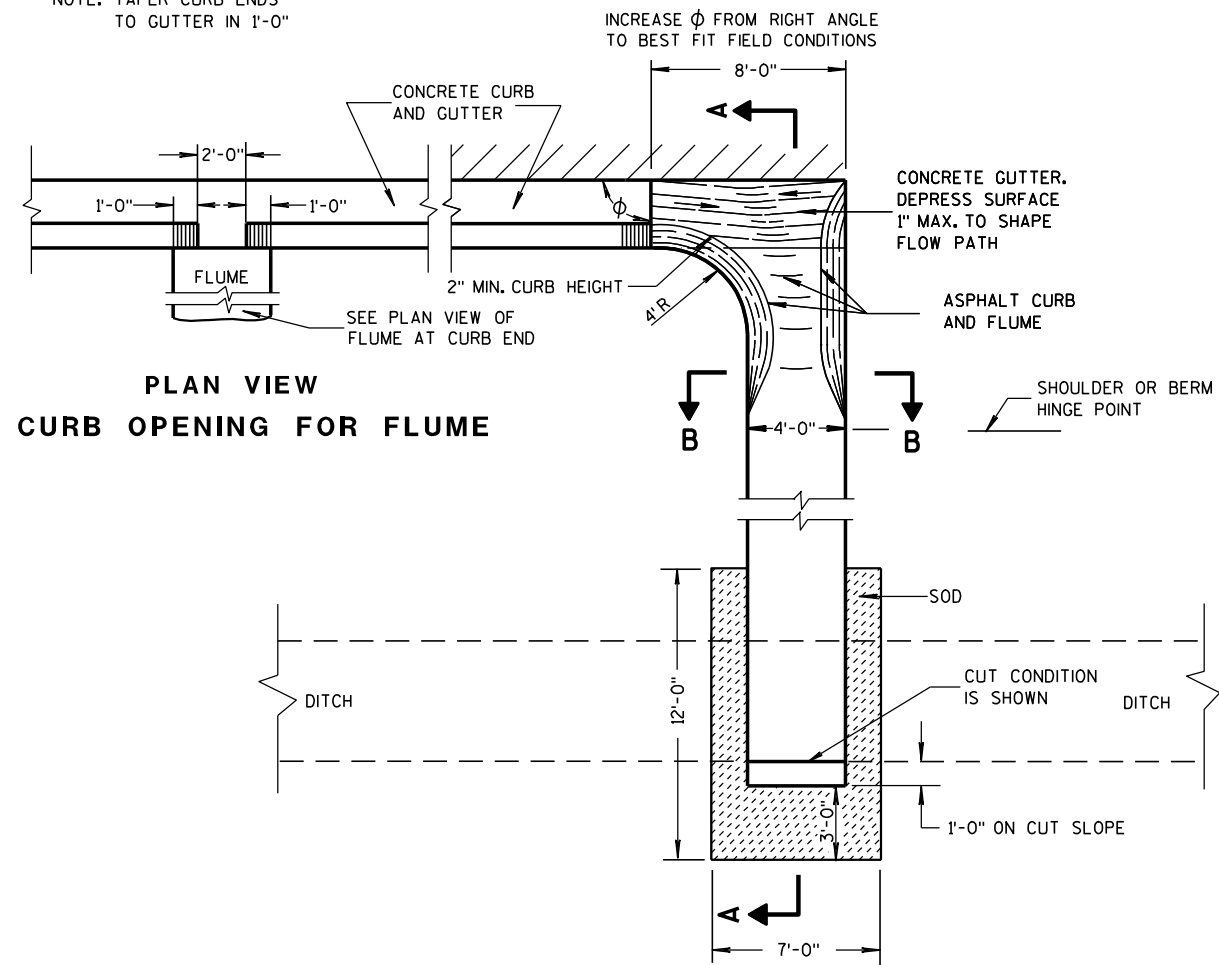
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

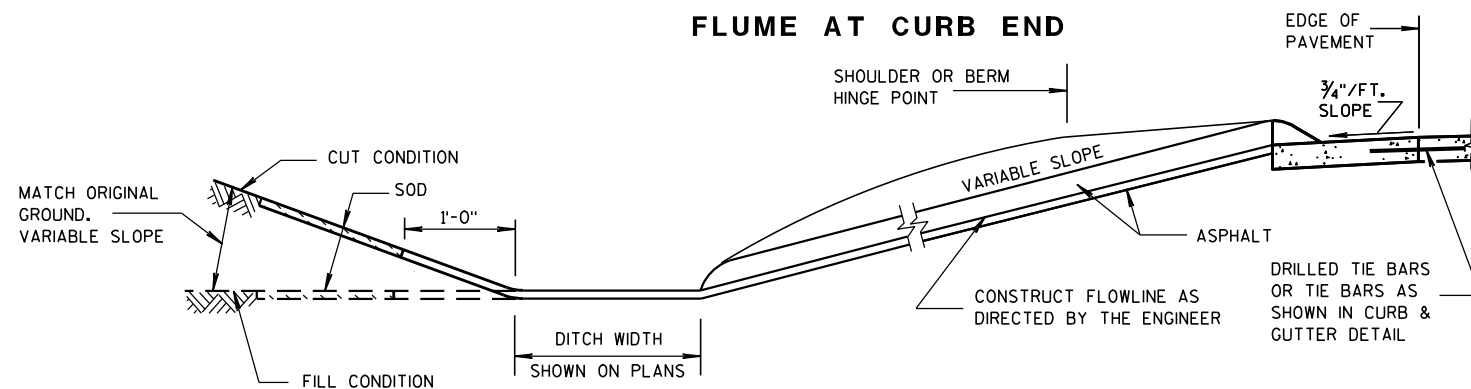
ASPHALTIC FLUME

NOTE: TAPER CURB ENDS
TO GUTTER IN 1'-0"

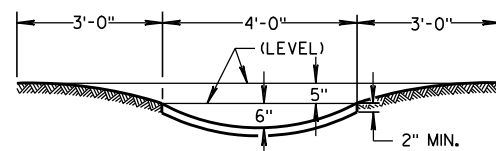


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

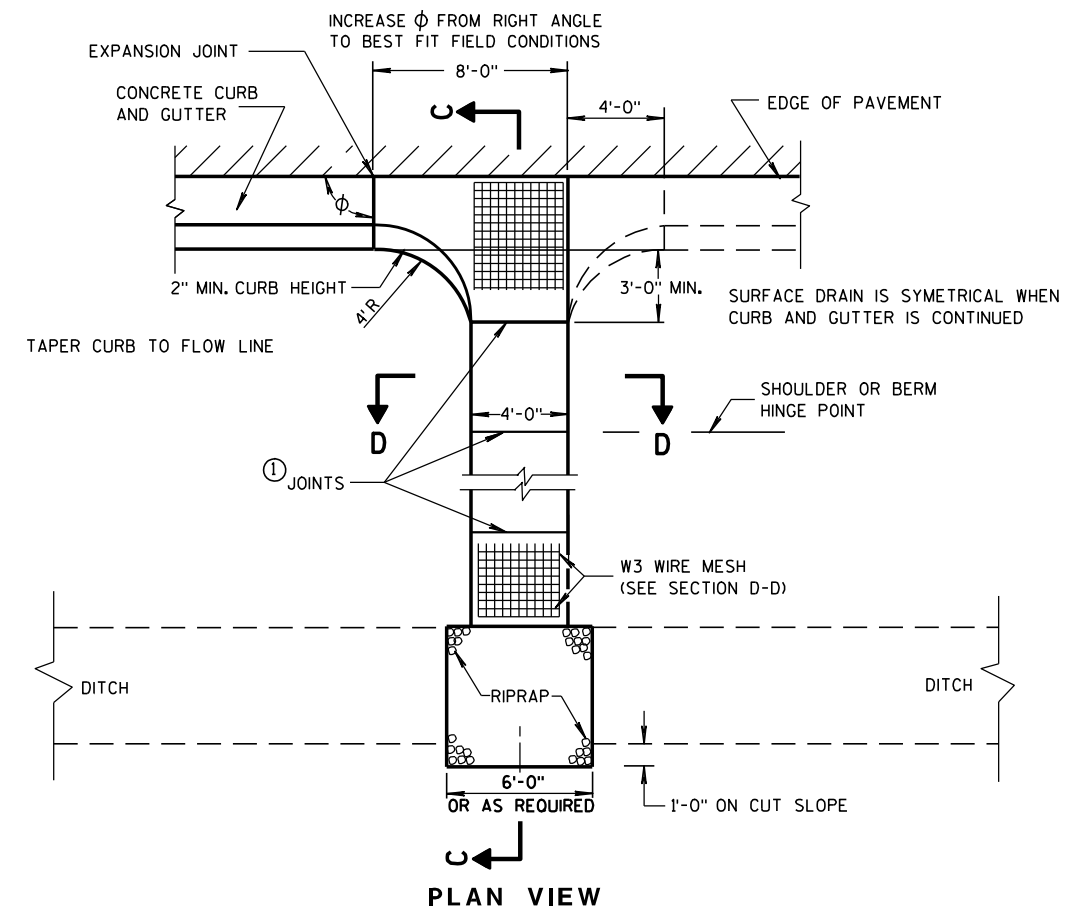
GENERAL NOTES

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

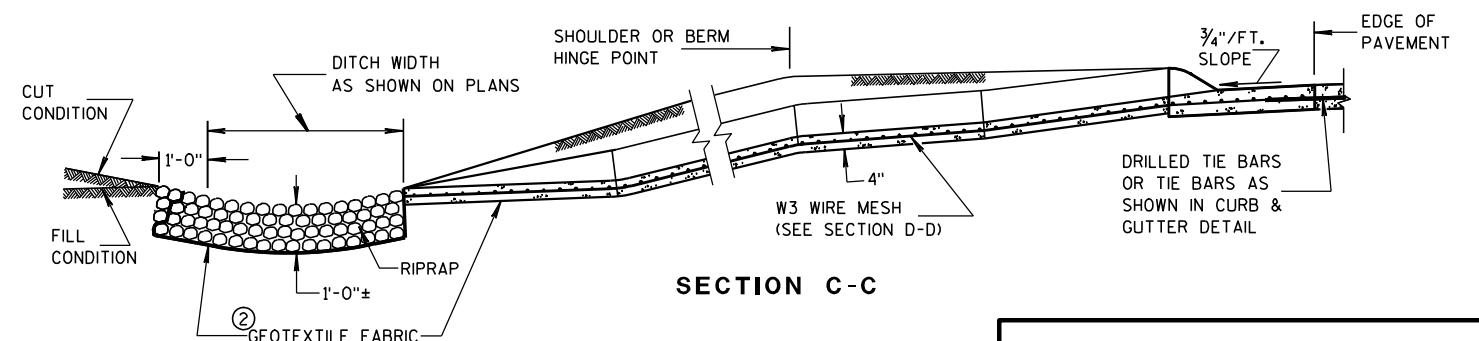
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

- ① JOINTS SHALL BE 1/8" TO 1/4" INCH WIDE BY 1 1/2" INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

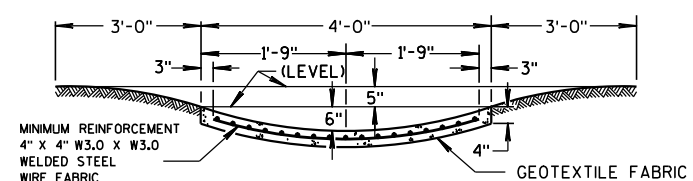
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-4-08

DATE

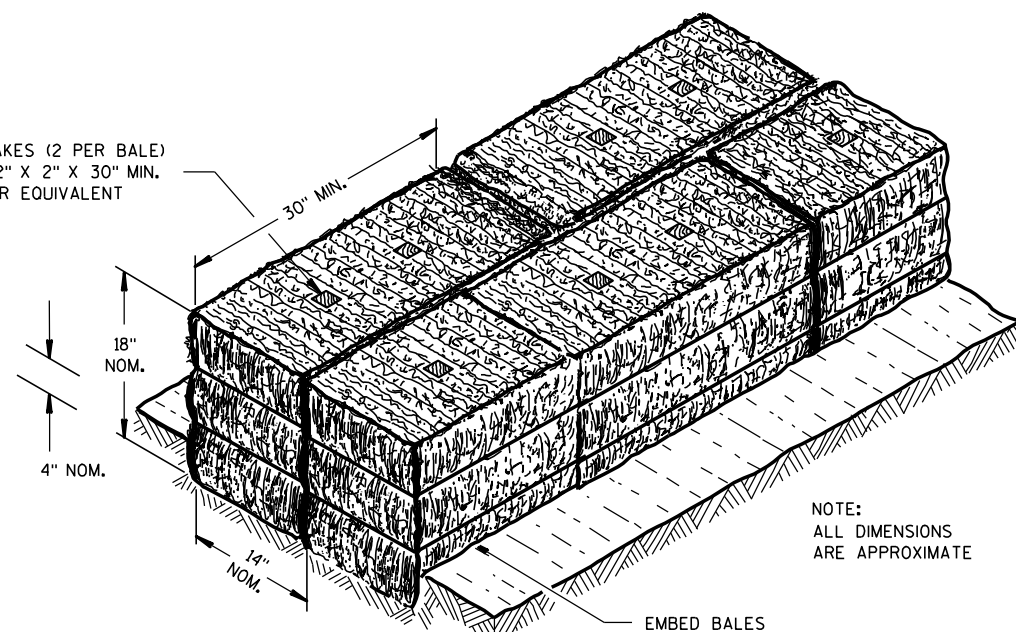
FHWA

/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

ENGINEER

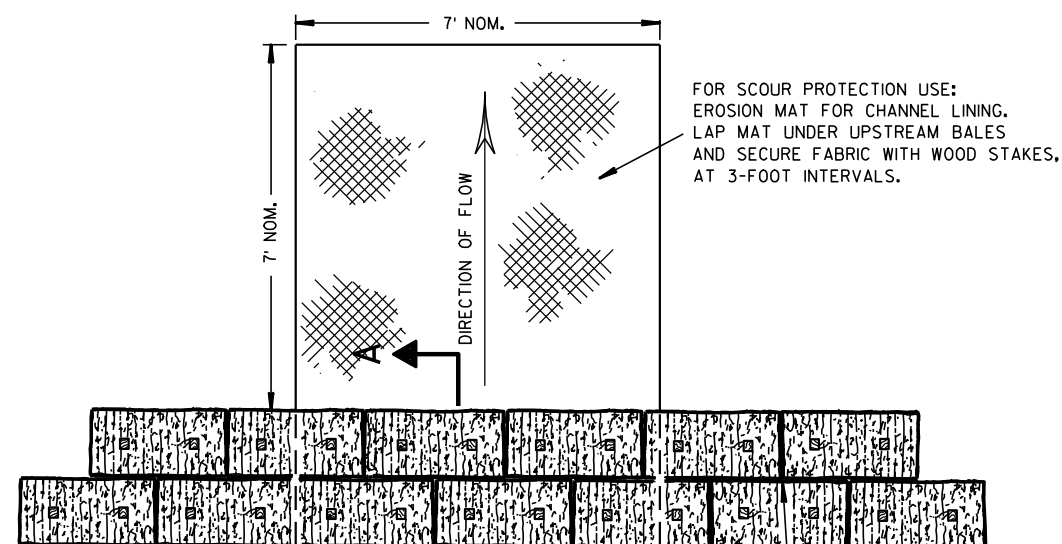
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

EMBED BALES

SECTION A-A

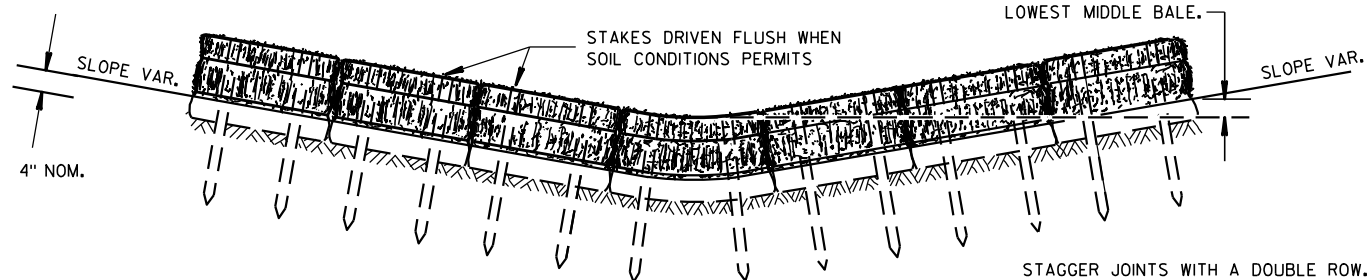


FOR SCOUR PROTECTION USE:
EROSION MAT FOR CHANNEL LINING.
LAP MAT UNDER UPSTREAM BALES
AND SECURE FABRIC WITH WOOD STAKES,
AT 3-FOOT INTERVALS.

PLAN VIEW

STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.

BOTTOM ELEVATION OF END BALE SHALL
BE EQUAL TO OR GREATER THAN TOP OF
LOWEST MIDDLE BALE.



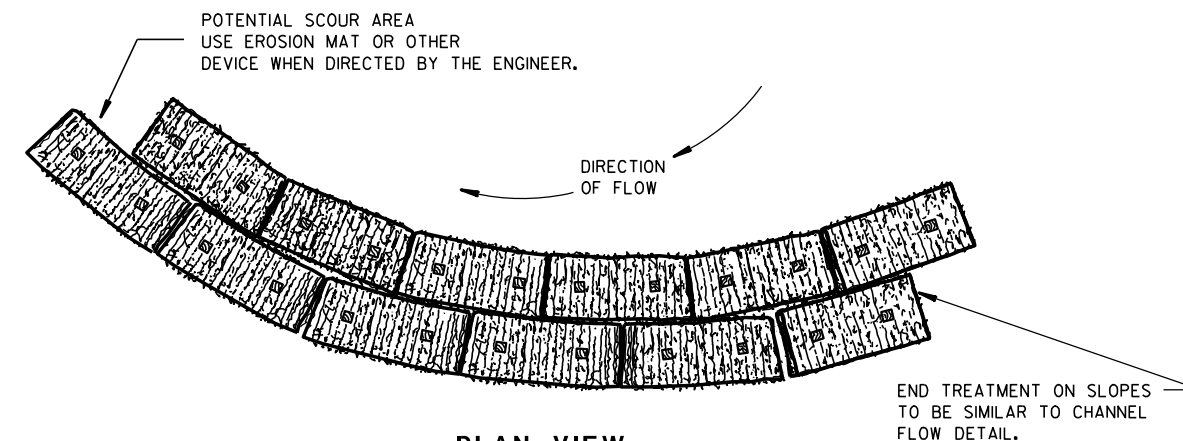
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

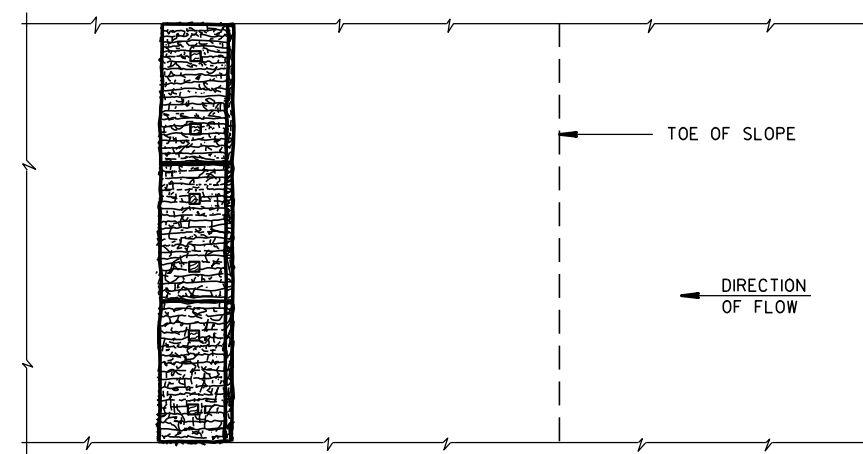
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

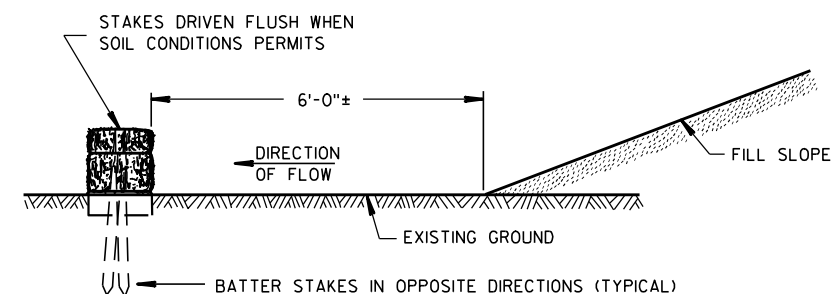


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

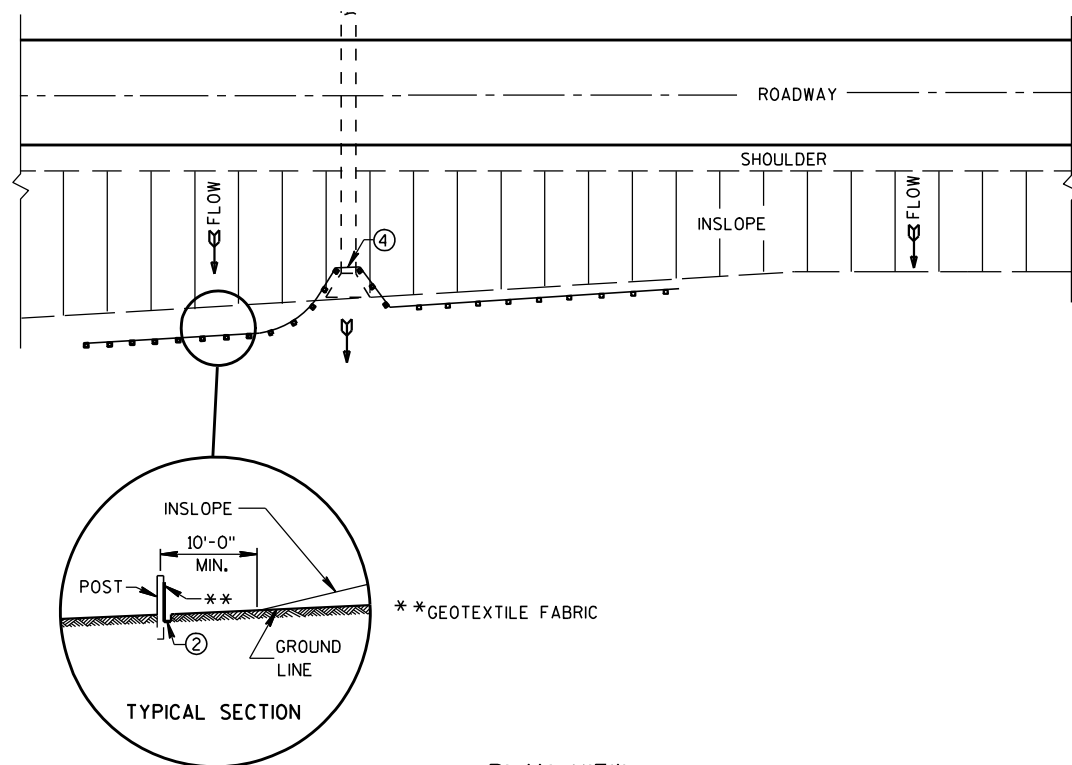
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE

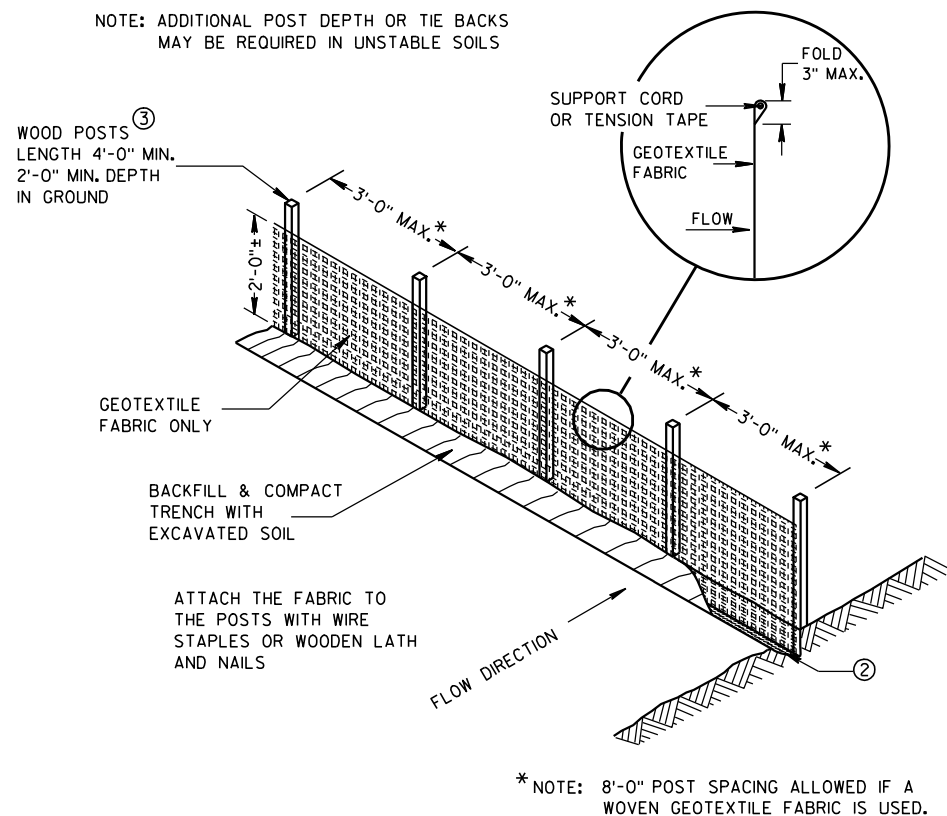
/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

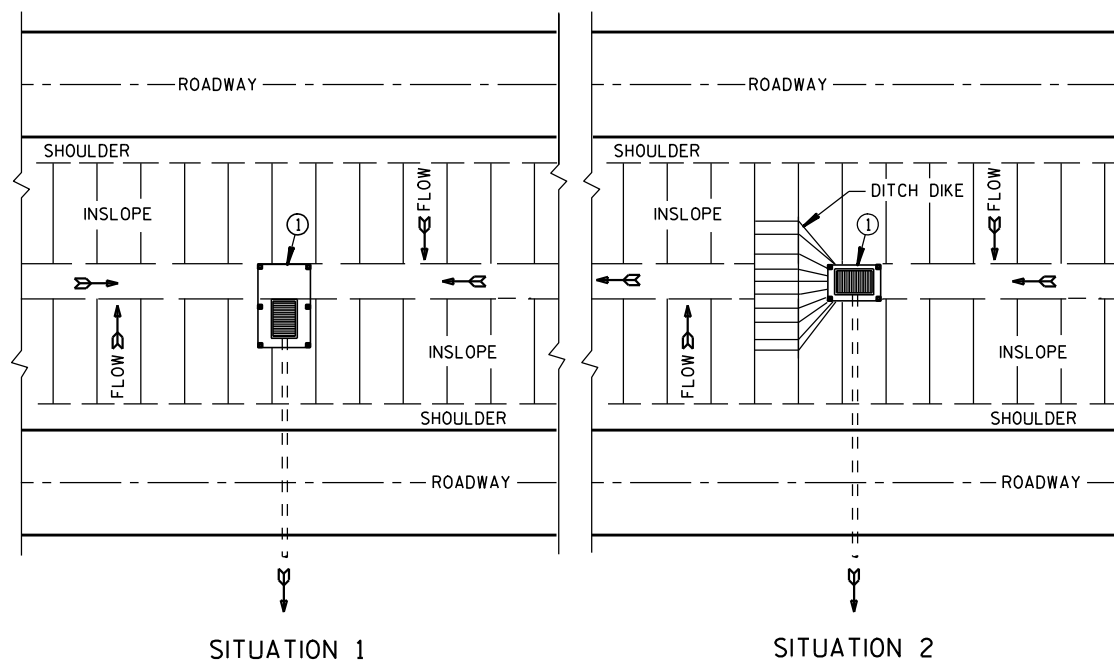


TYPICAL APPLICATION OF SILT FENCE

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

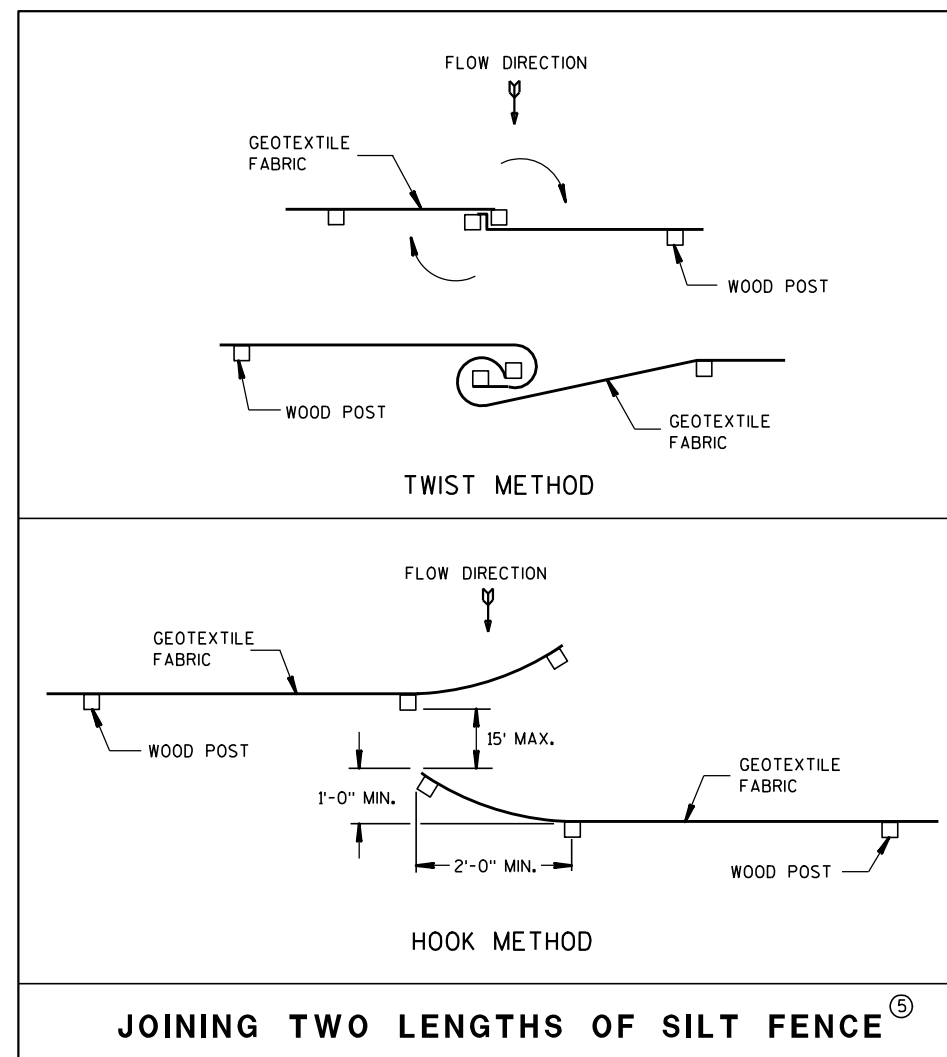


SILT FENCE



PLAN VIEW

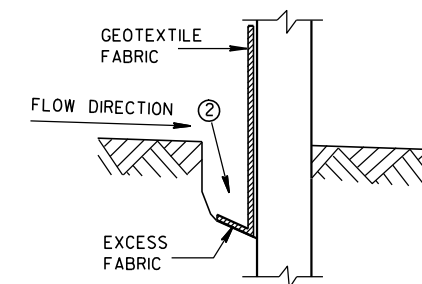
SILT FENCE AT MEDIAN SURFACE DRAINS



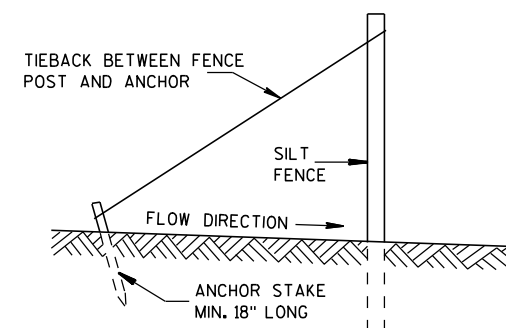
GENERAL NOTES

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

- 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 1 1/8" X 1 1/8" 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.



TRENCH DETAIL



SILT FENCE TIE BACK (WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

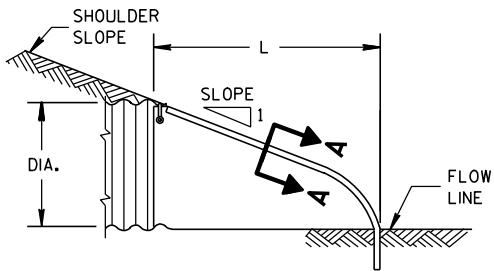
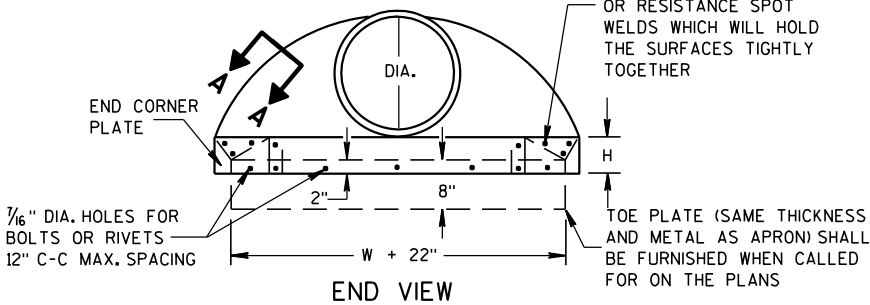
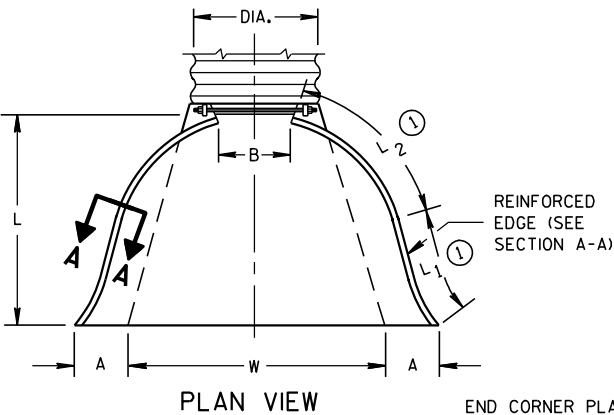
4-29-05
DATE

FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

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.

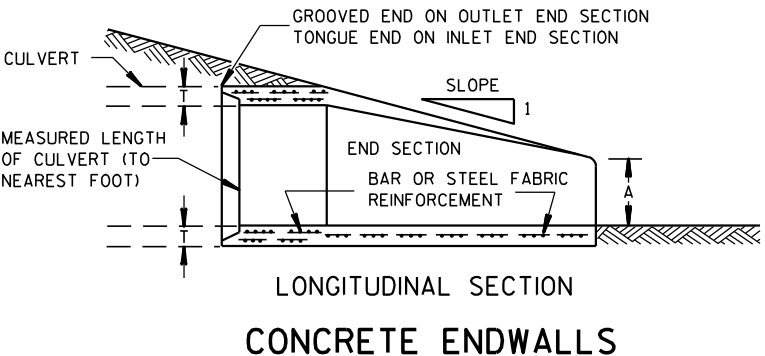
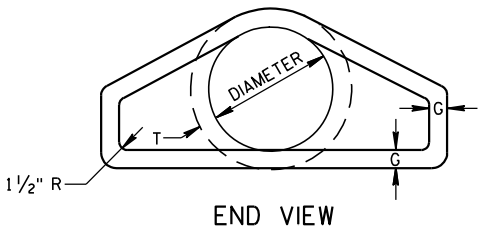
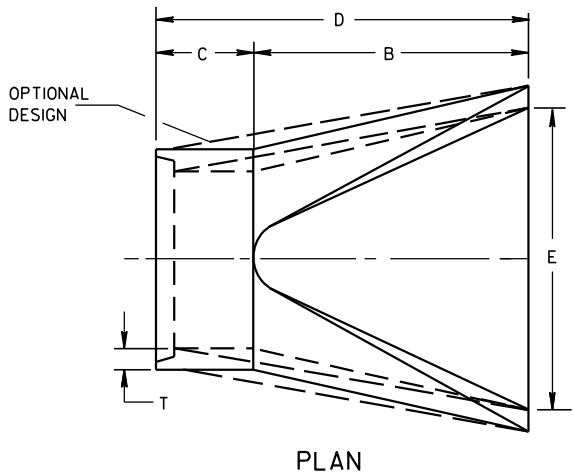
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



SIDE ELEVATION
METAL ENDWALLS

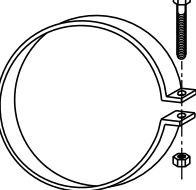
REINFORCED CONCRETE APRON ENDWALLS											
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE			
	T	A	B	C	D	E	G				
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1			
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1			
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1			
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1			
24	3	9 1/2	43 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	98 1/4	90	5 1/2	2 1/2 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

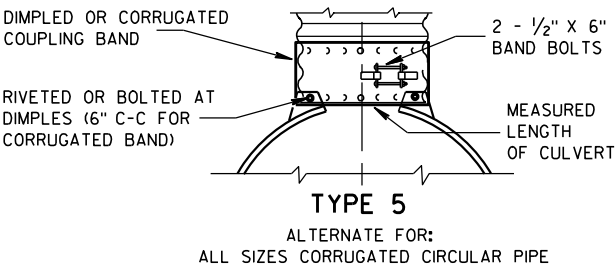
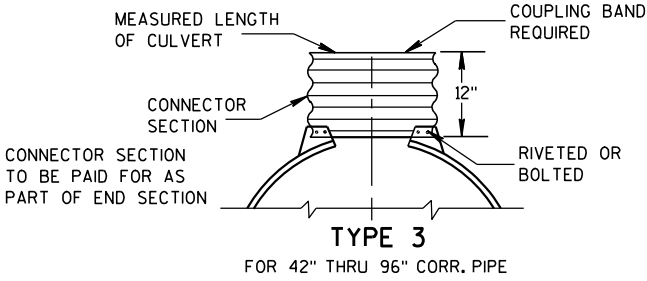
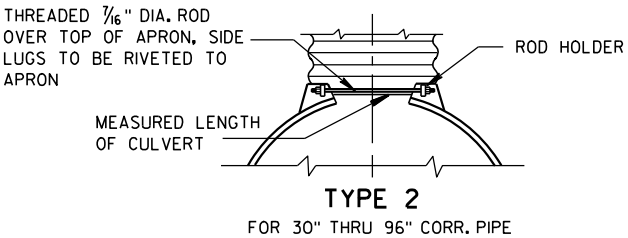
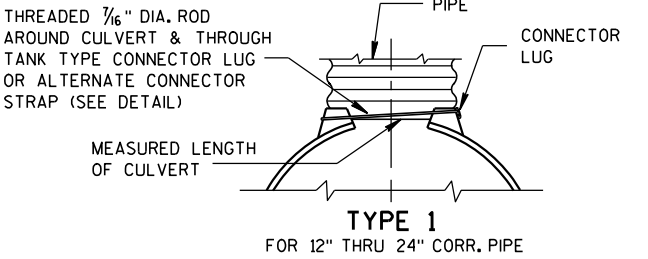


LONGITUDINAL SECTION
CONCRETE ENDWALLS

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



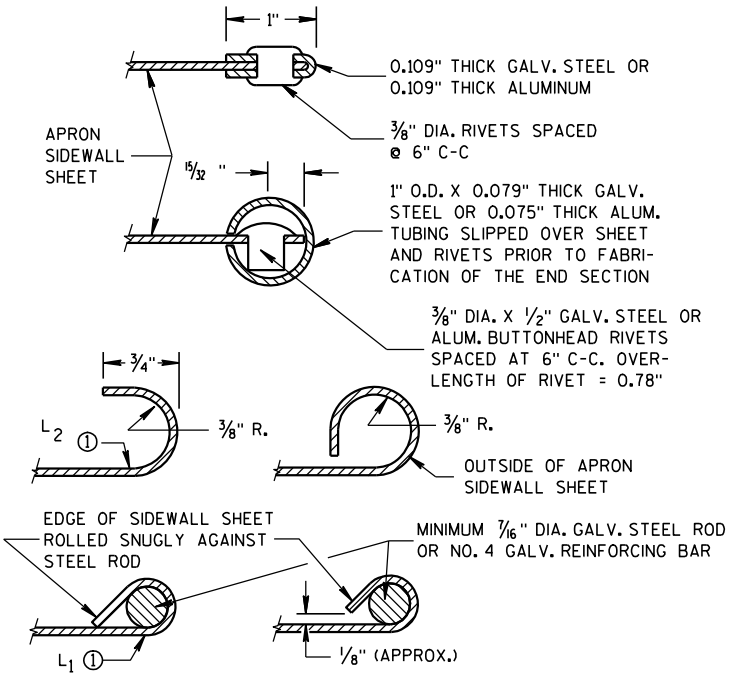
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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



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.

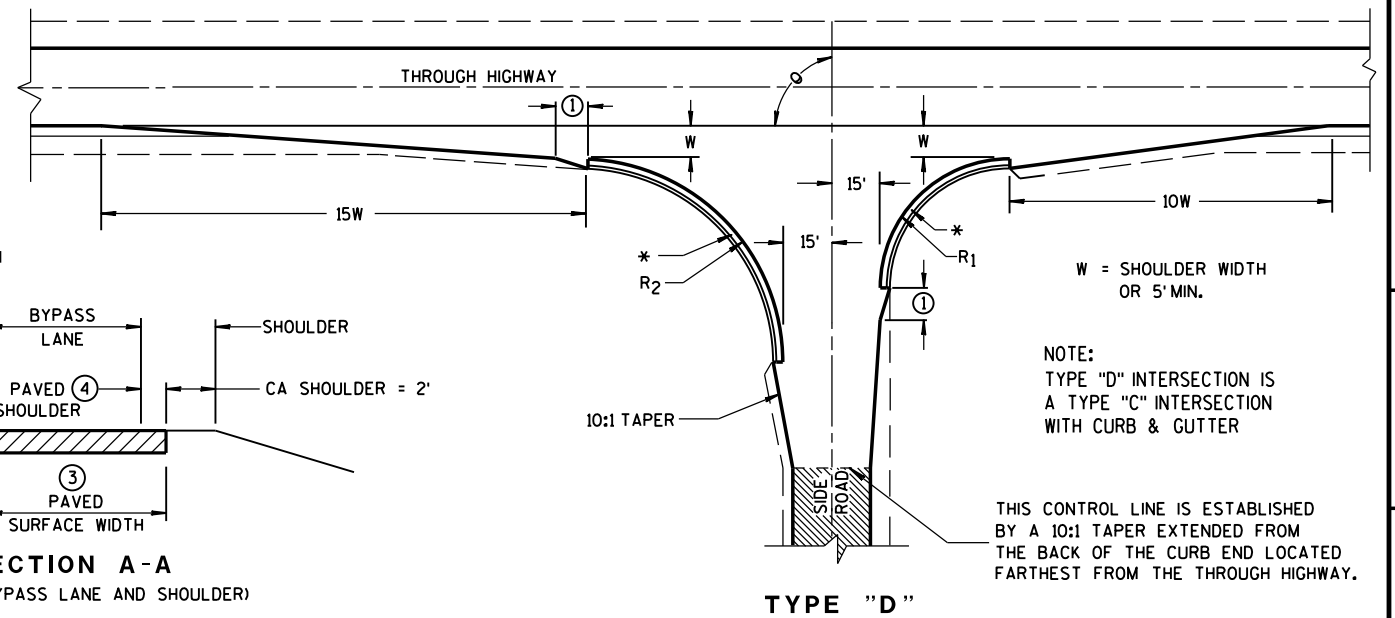
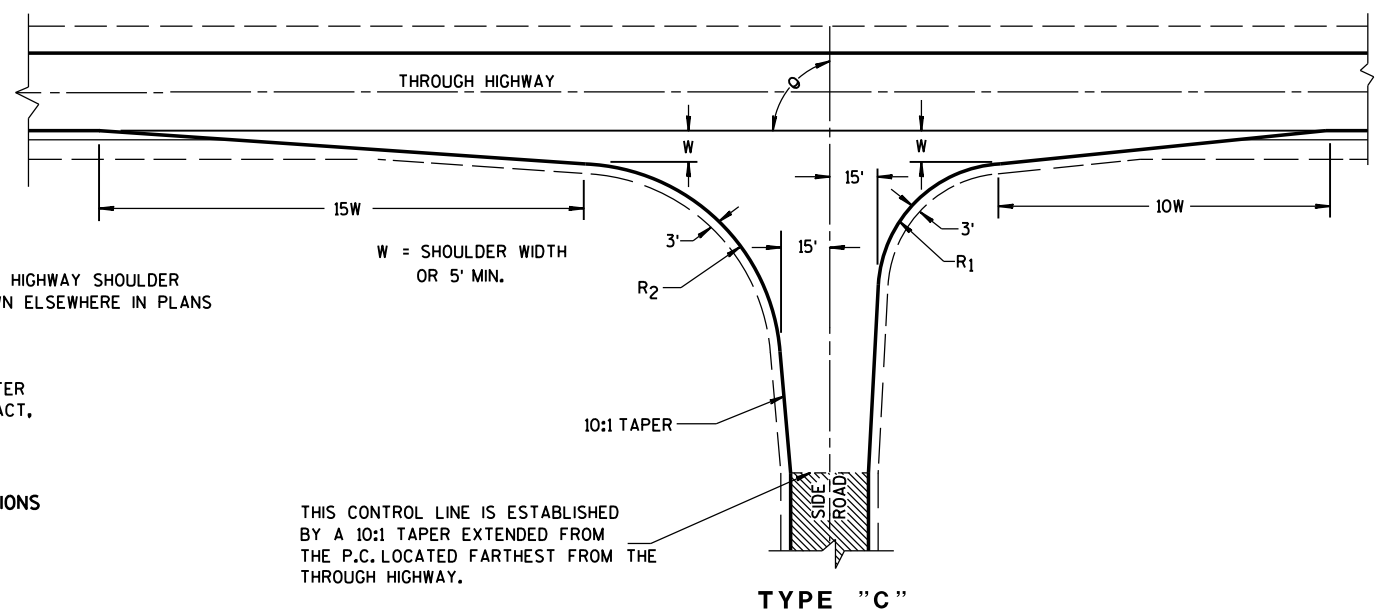
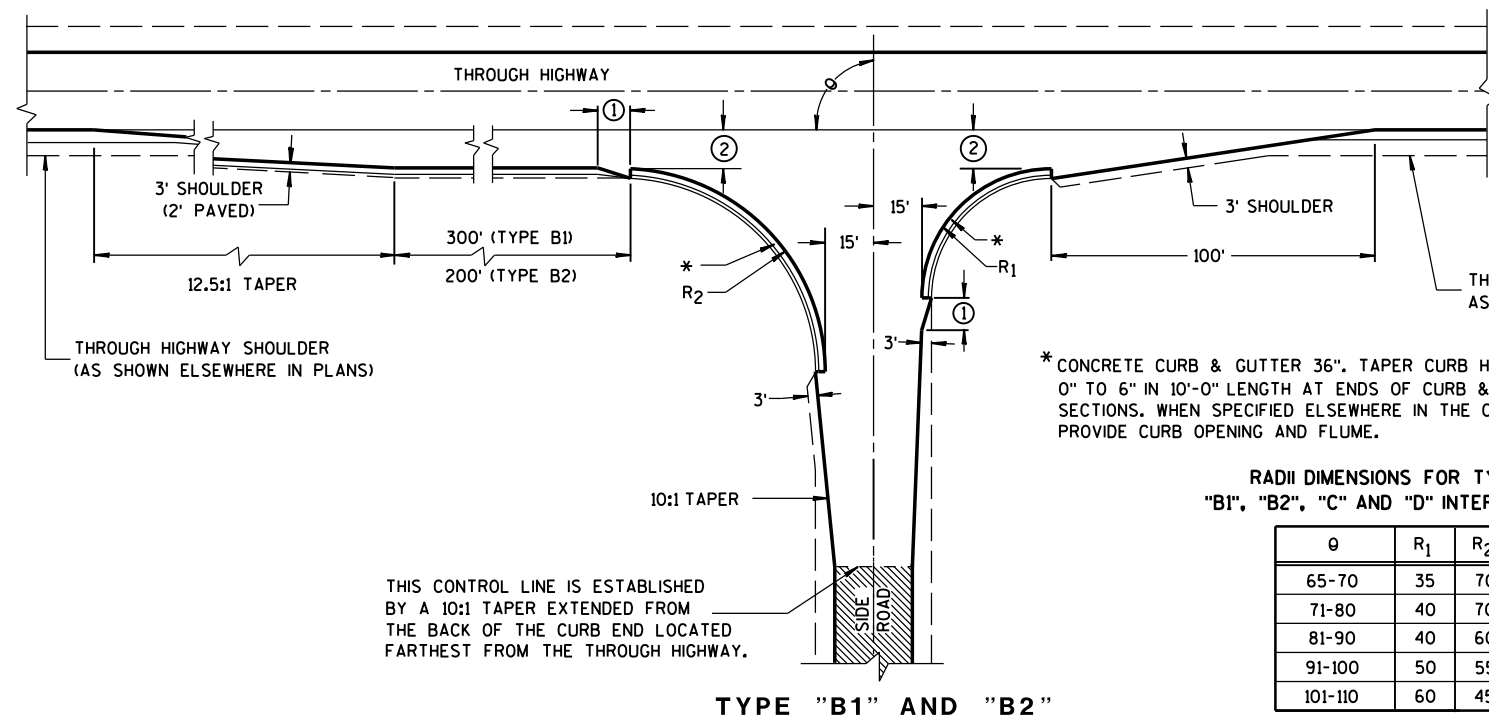
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

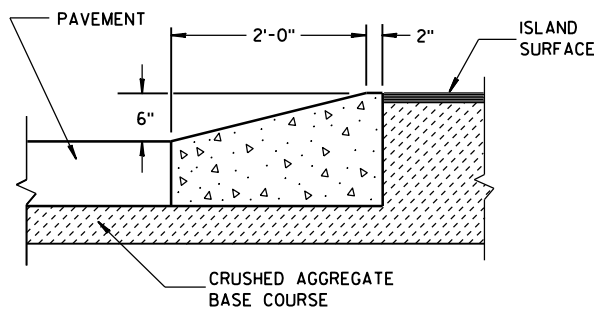
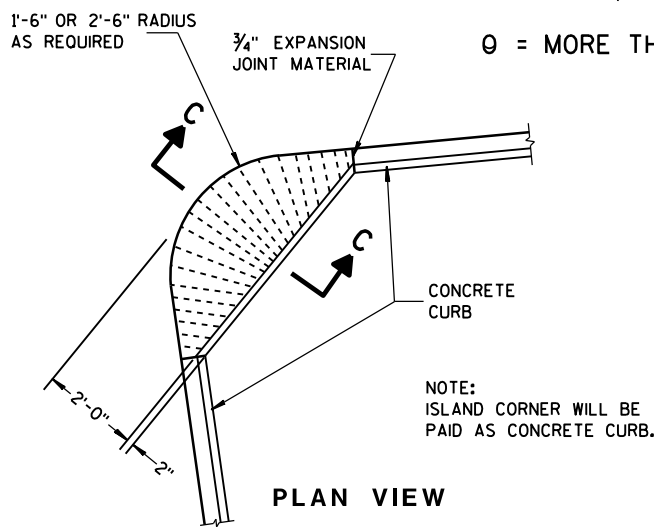
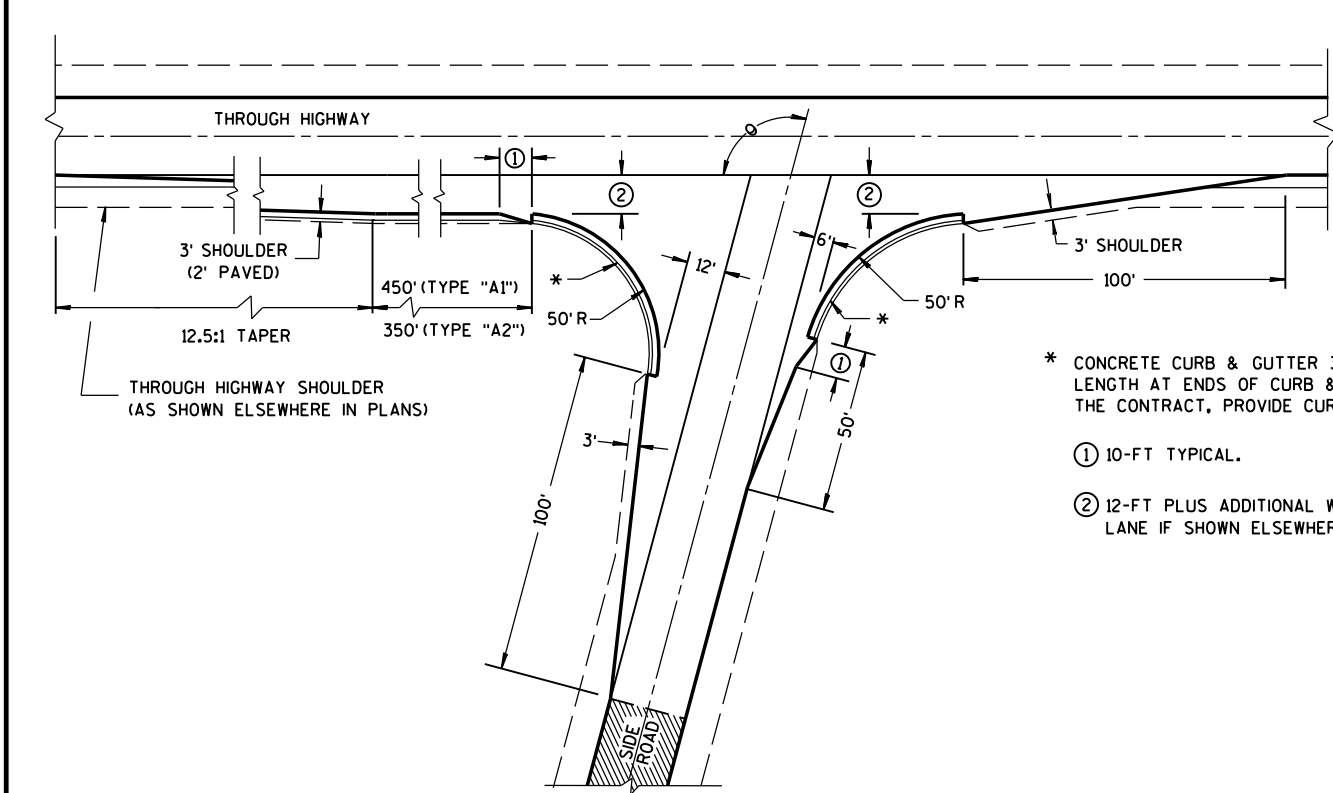
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR
CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94
DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

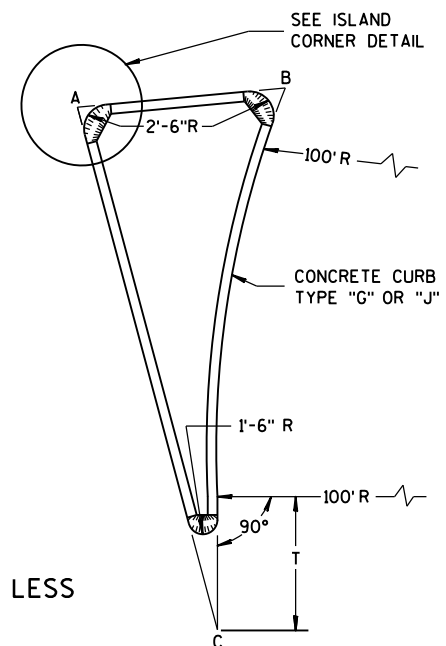
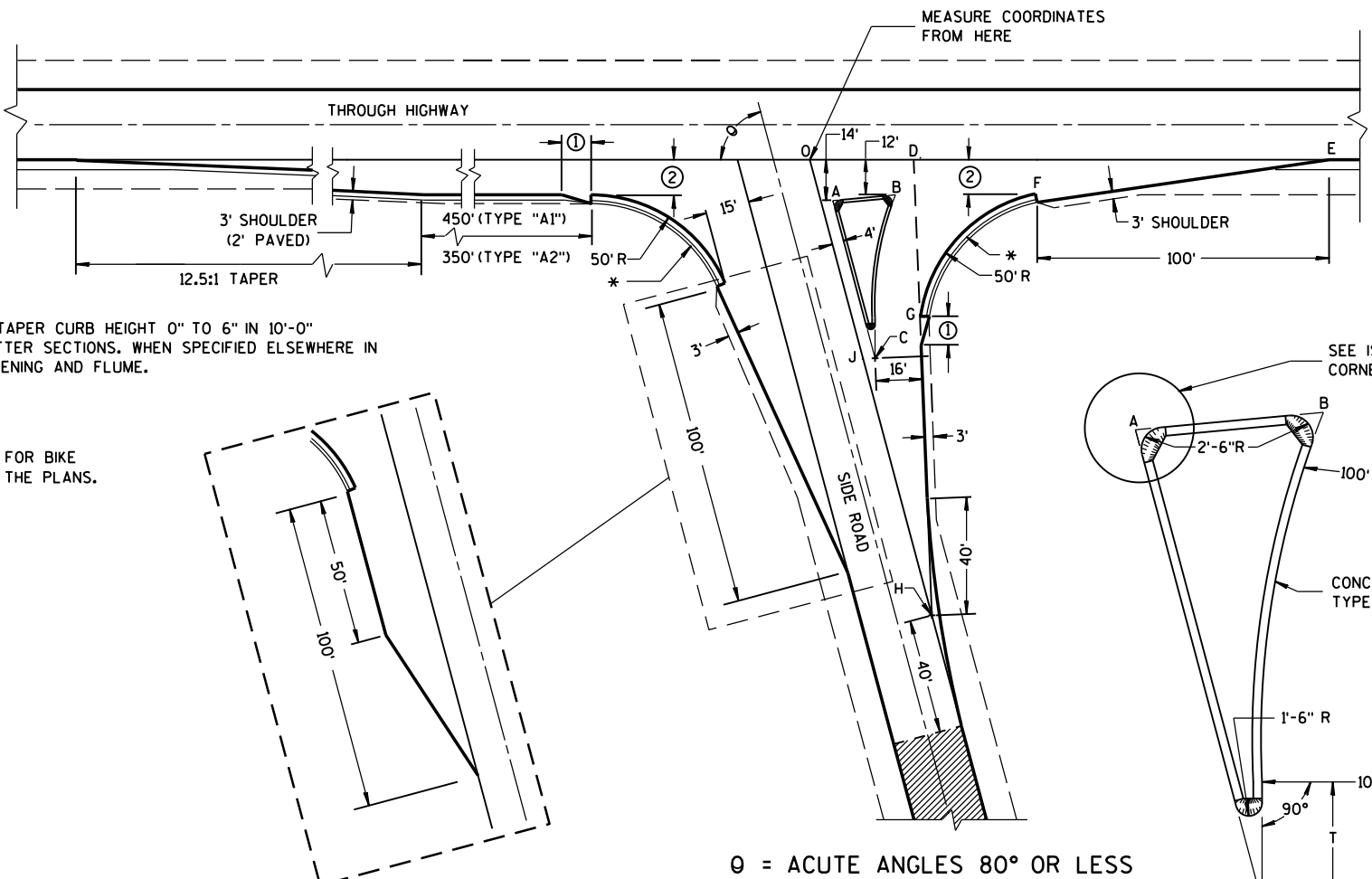




SECTION C-C

ISLAND CORNER DETAIL
(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

- * CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.
- ① 10-FT TYPICAL.
- ② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.



SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
 θ = ACUTE ANGLES 70° OR LESS

TABLE OF DIMENSIONS FOR
VARIABLE SIDE ROAD INTERSECTION ANGLES
(INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

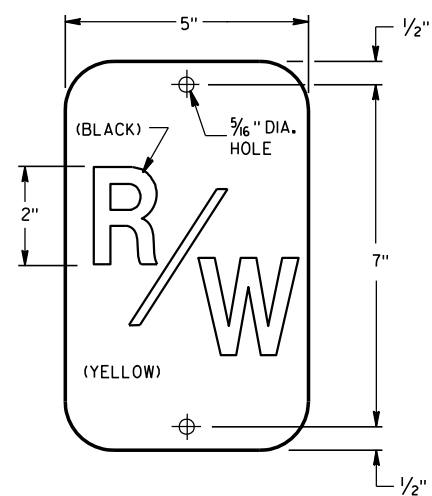
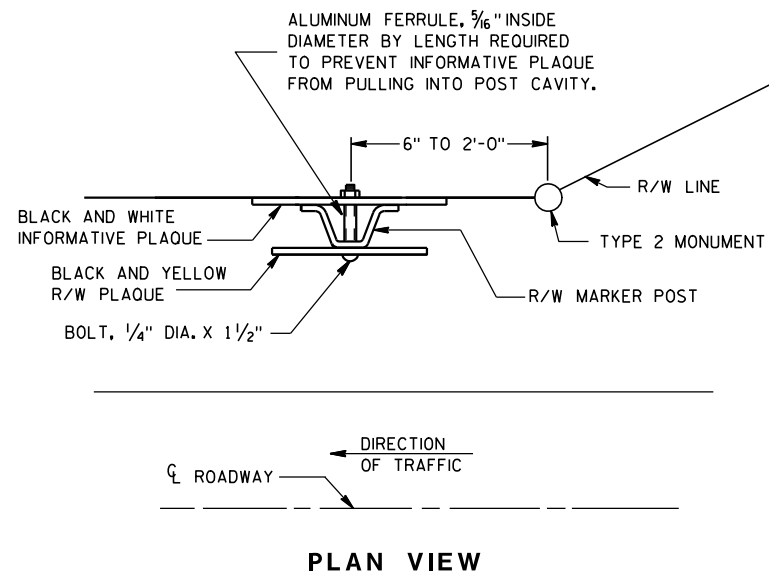
ANGLE θ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT "O")								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7 -14.0	44.9 -12.0	46.4 -72.4	41.9 0.0	205.0 0.0	104.6 -12.0	64.0 -75.5	85.0 -147.1	32.3	67.4	4.9	85.9	169.9
65	10.9 -14.0	39.0 -12.0	37.8 -71.6	39.4 0.0	196.1 0.0	95.7 -12.0	54.1 -71.5	70.5 -151.3	28.2	63.6	8.5	80.9	166.9
70	9.4 -14.0	33.9 -12.0	29.8 -70.1	37.4 0.0	188.3 0.0	87.8 -12.0	45.6 -67.5	56.1 -154.2	24.6	59.7	11.5	76.1	164.1
75	7.9 -14.0	29.3 -12.0	22.3 -67.9	35.7 0.0	181.2 0.0	80.7 -12.0	38.2 -63.4	41.8 -155.9	21.5	55.8	13.8	71.4	161.4
80	6.5 -14.0	25.4 -12.0	15.6 -65.2	34.4 0.0	174.8 0.0	74.4 -12.0	31.8 -59.3	27.6 -156.5	18.9	52.0	15.6	66.9	158.9

TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS

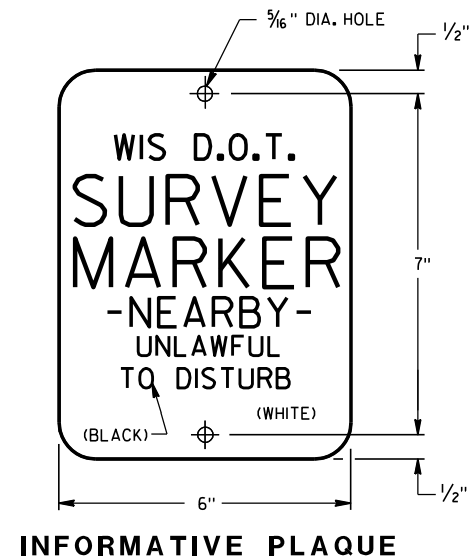
**AT-GRADE SIDE ROAD
INTERSECTION, TYPE "A1" & "A2"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE 12/18/12
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



GENERAL NOTES

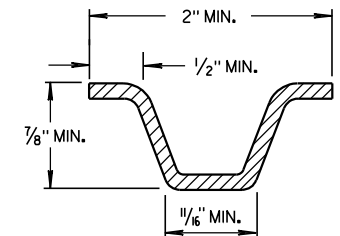
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A STEEL MARKER POST FOR RIGHT-OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY, WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

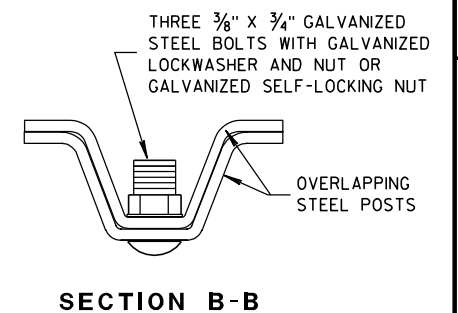
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. R/W AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE DEPARTMENT OF TRANSPORTATION.

STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

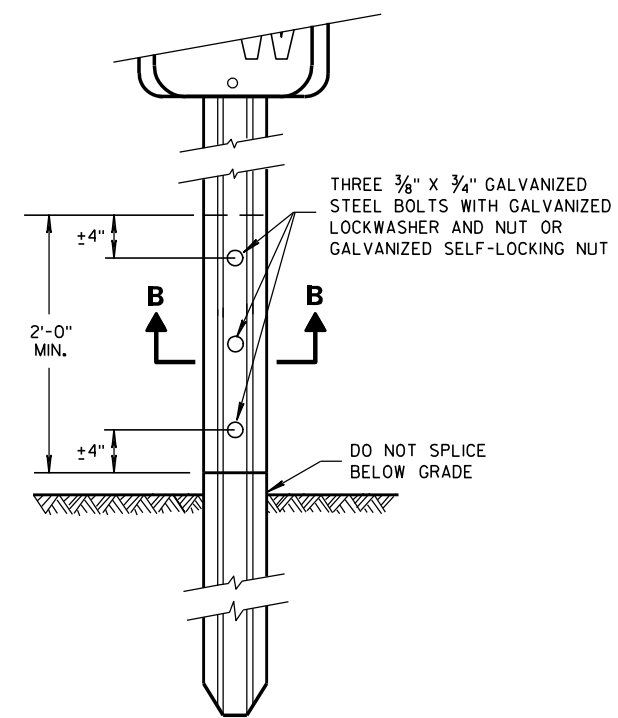
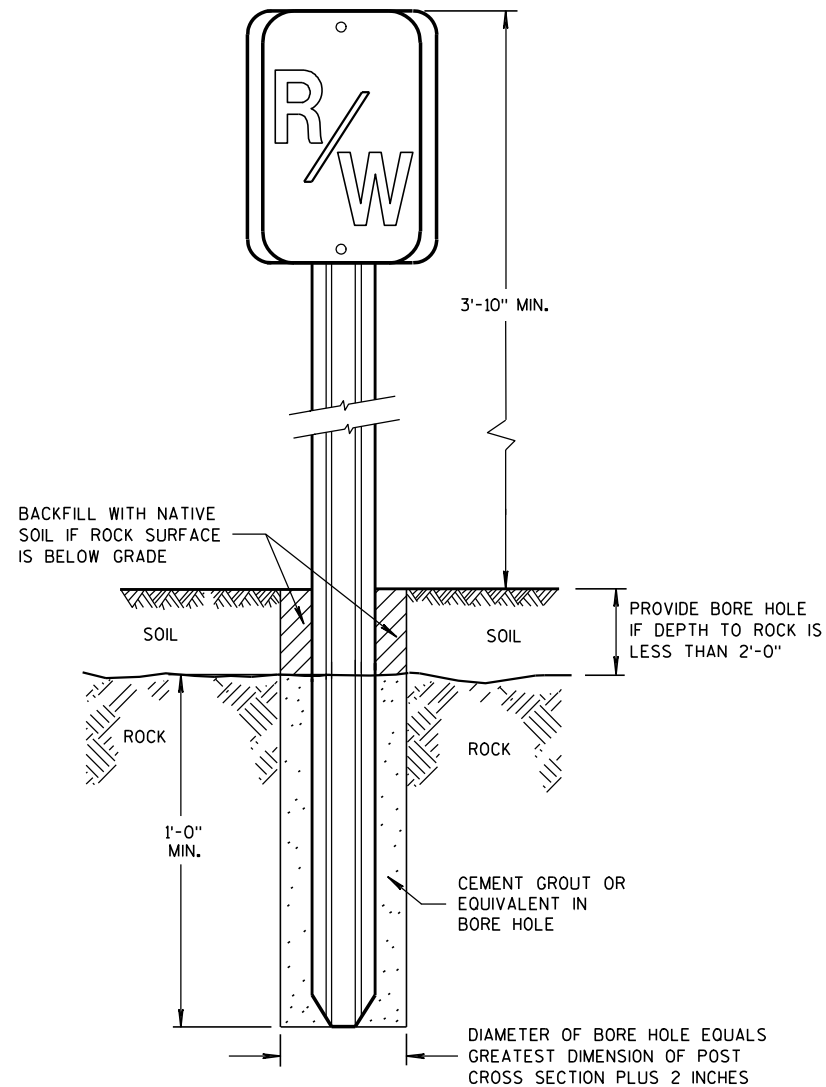
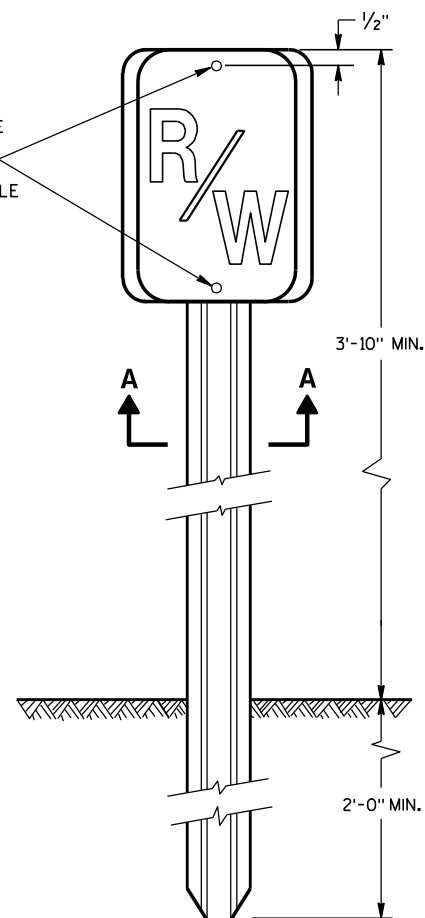
- ① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK TO A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3'-10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT, OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



MIN. WEIGHT 1.12 LB./FT.
SECTION A-A



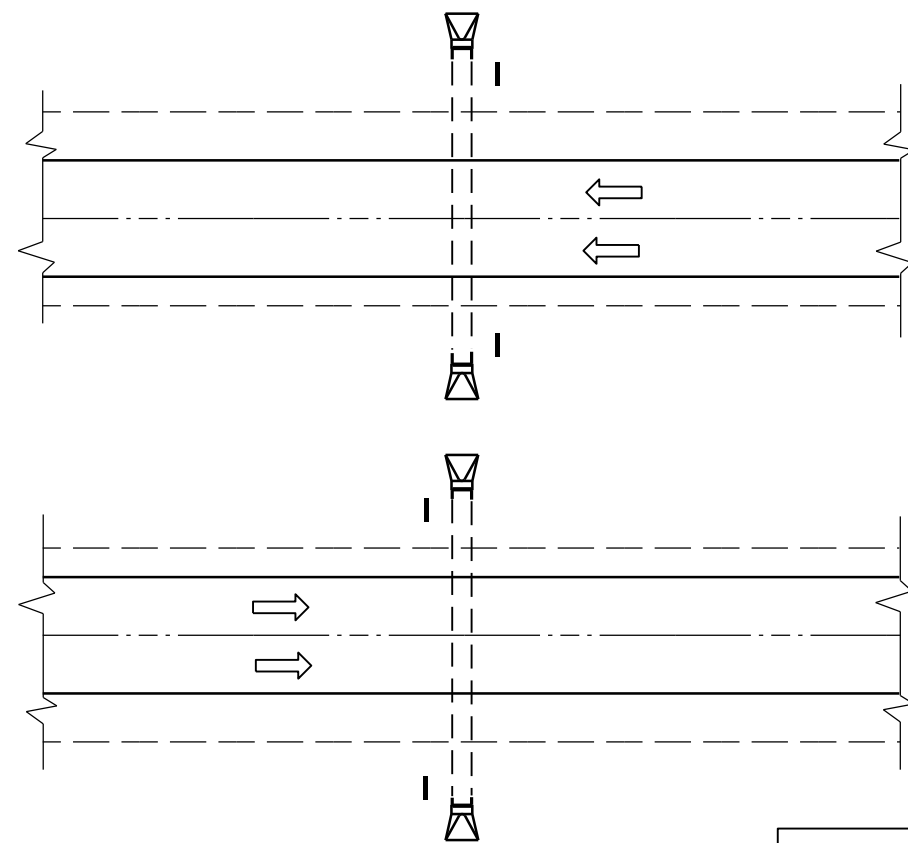
STEEL POSTS SHALL HAVE 2 - $\frac{3}{8}$ " HOLES 7" APART. POST WITH ADDITIONAL HOLES WILL BE ACCEPTABLE



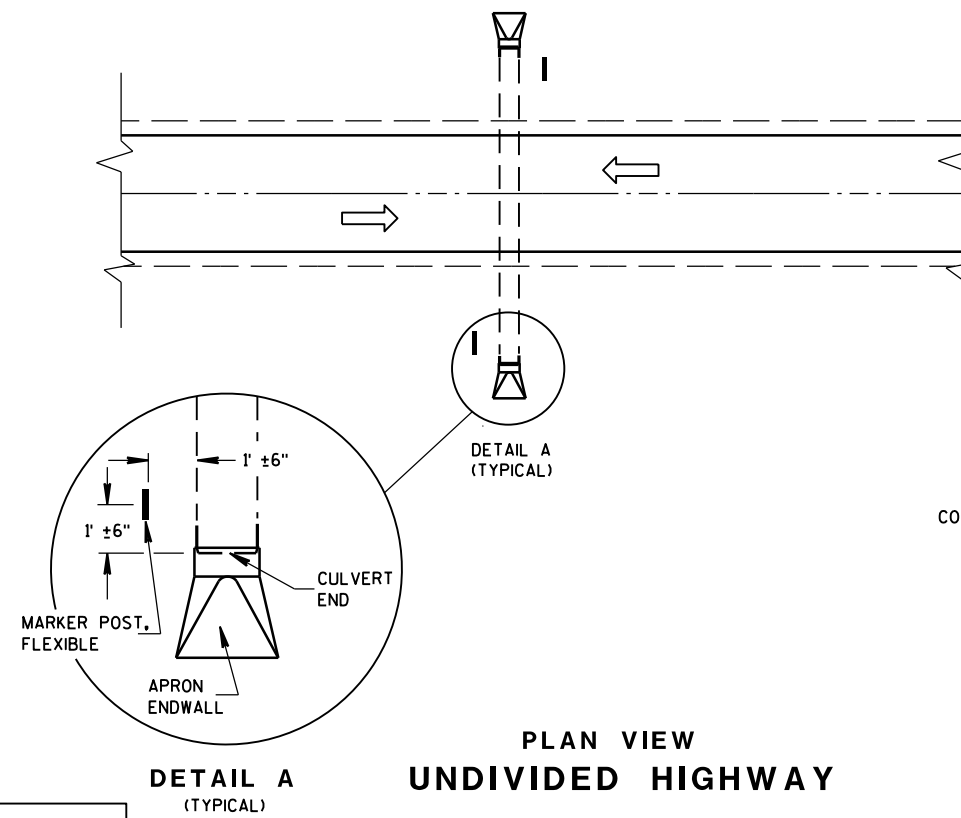
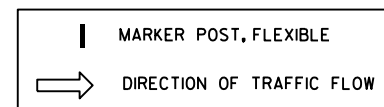
**MARKER POST
FOR RIGHT-OF-WAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/27/09 /S/ Ray Kumapayi
DATE CHIEF SURVEYING AND MAPPING ENGINEER
FHWA



PLAN VIEW
DIVIDED HIGHWAY

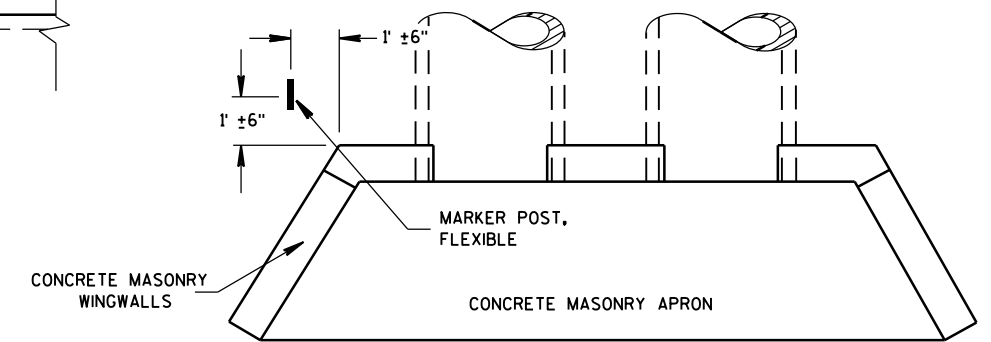


PLAN VIEW
UNDIVIDED HIGHWAY

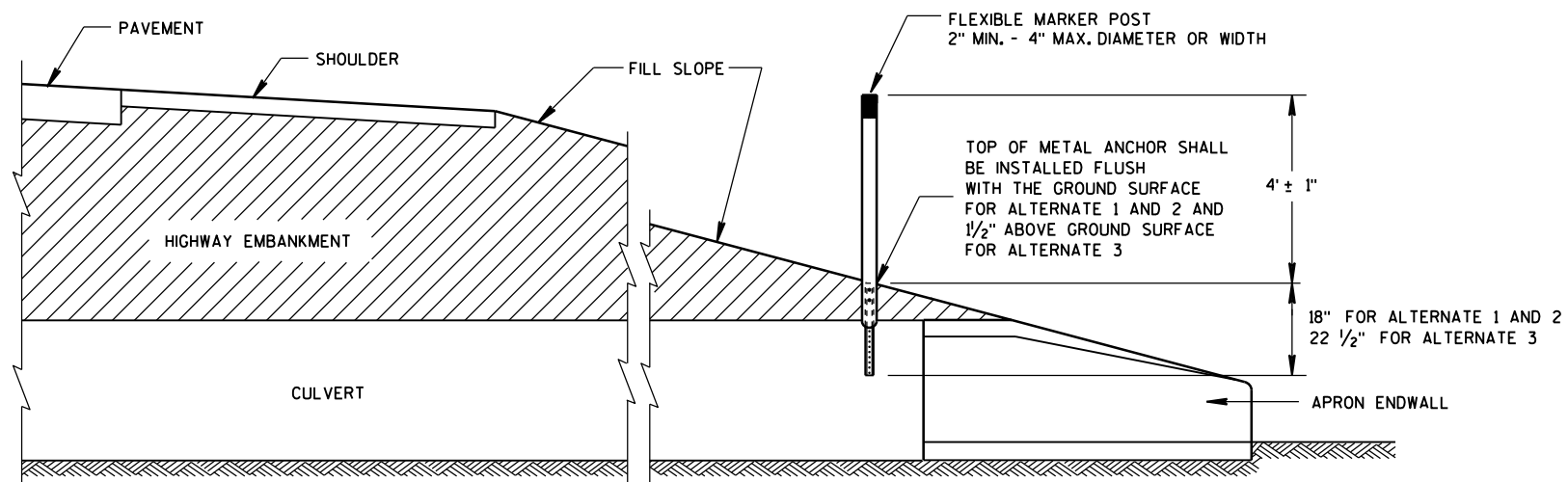
FLEXIBLE MARKER POST LOCATION

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.



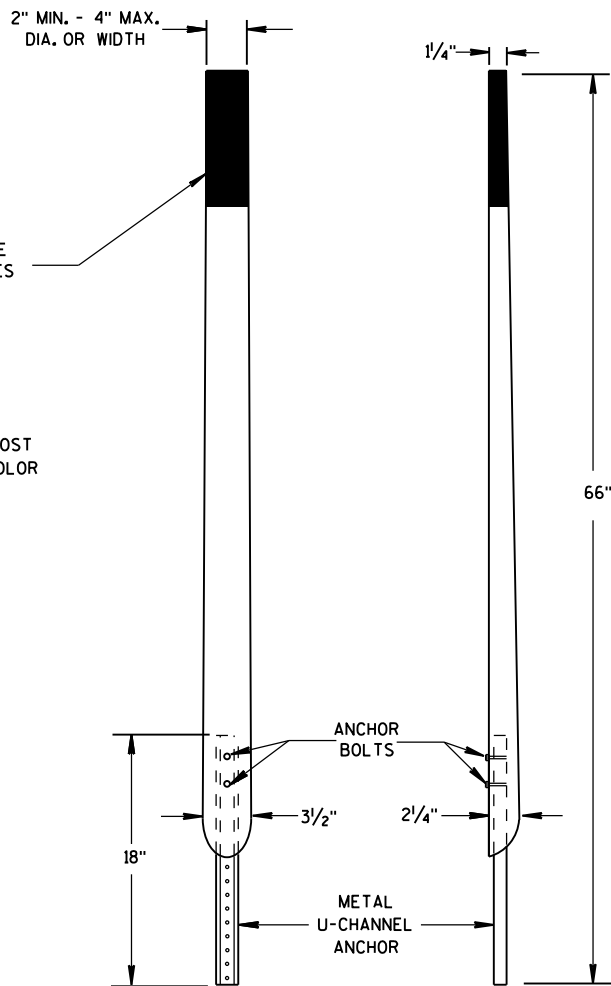
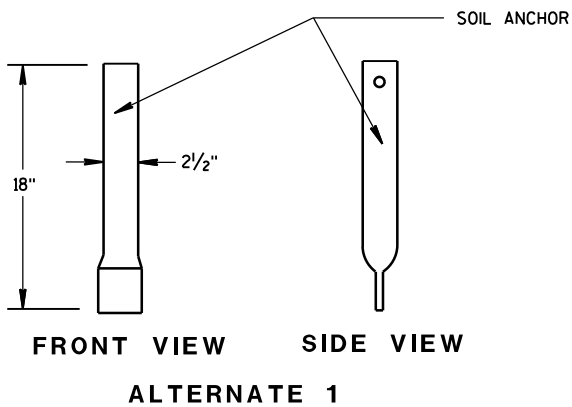
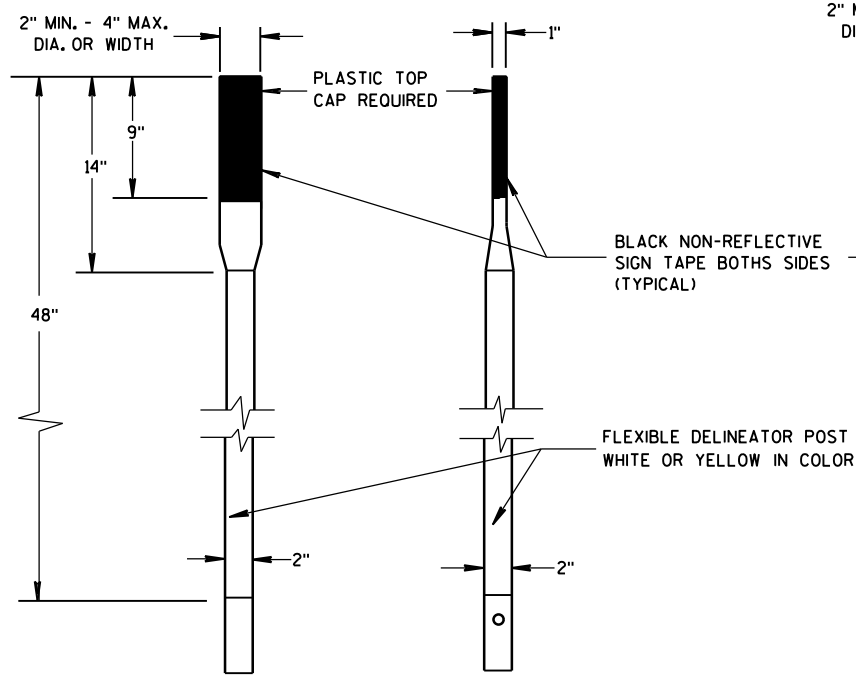
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



CROSS SECTION
FLEXIBLE MARKER POST

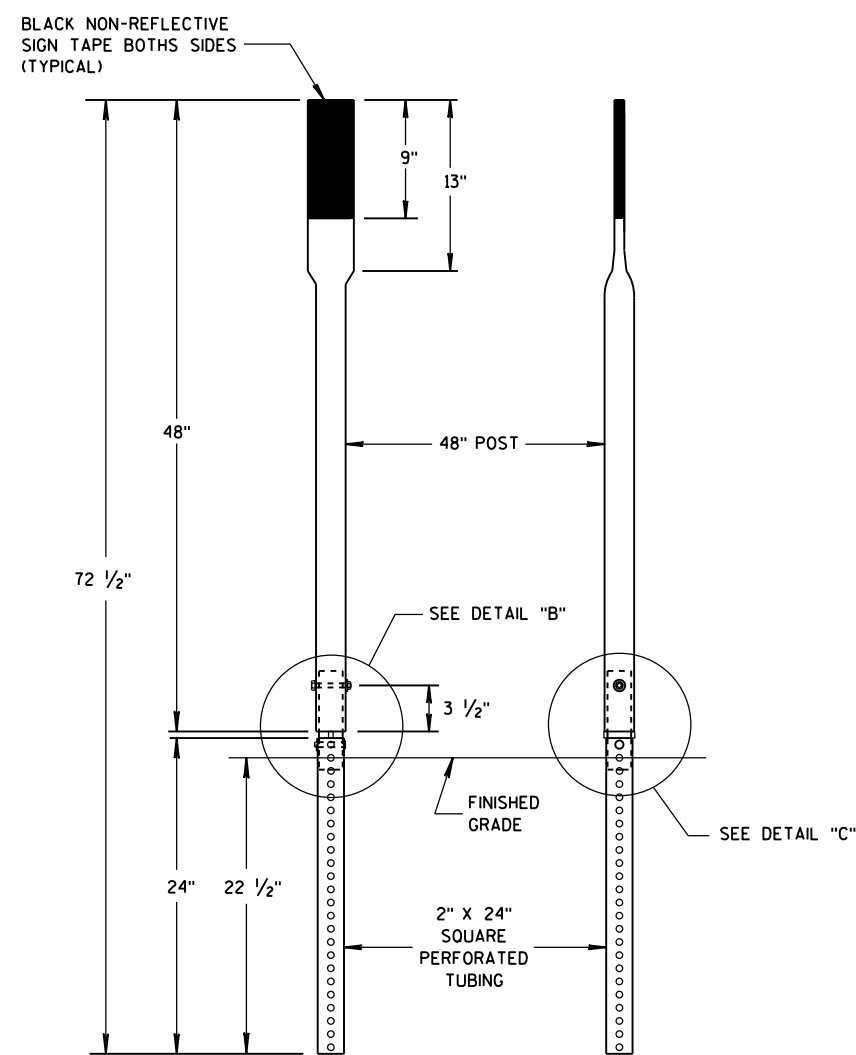
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

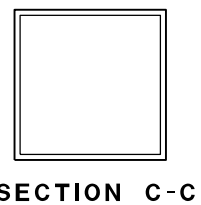


FRONT VIEW SIDE VIEW
ALTERNATE 2

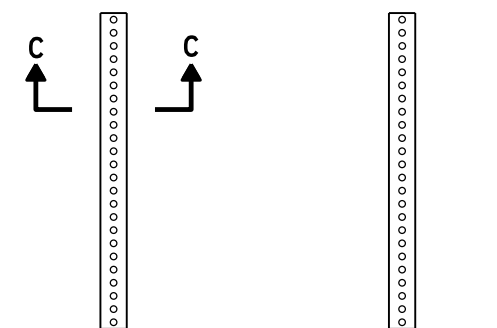
FLEXIBLE MARKER POSTS



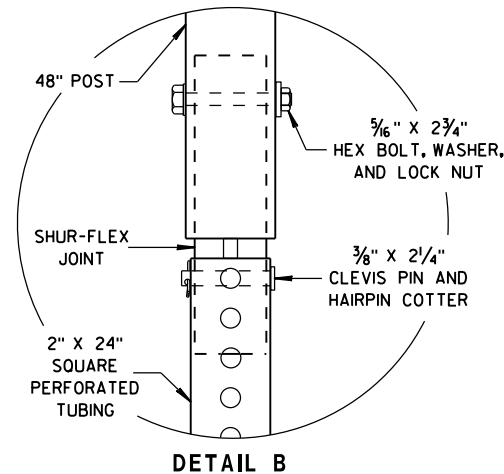
FRONT VIEW SIDE VIEW
ALTERNATE 3



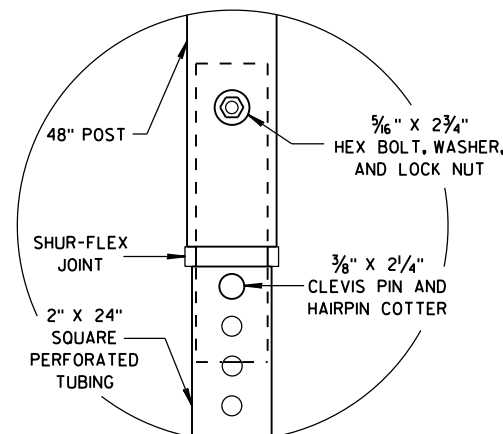
SECTION C-C



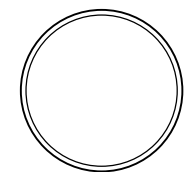
FRONT VIEW SIDE VIEW
ALTERNATE 3



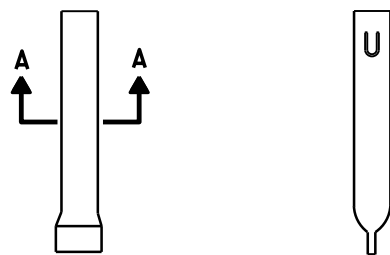
DETAIL B



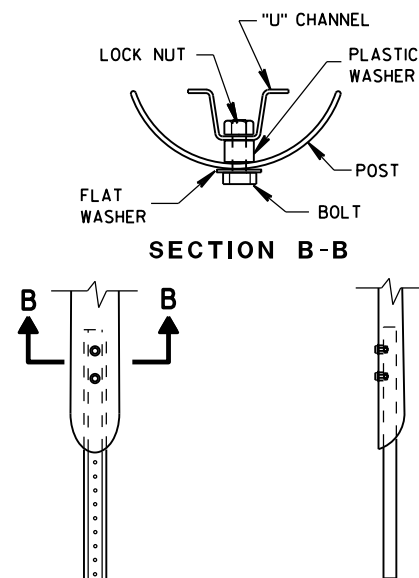
DETAIL C



SECTION A-A



FRONT VIEW SIDE VIEW
ALTERNATE 1



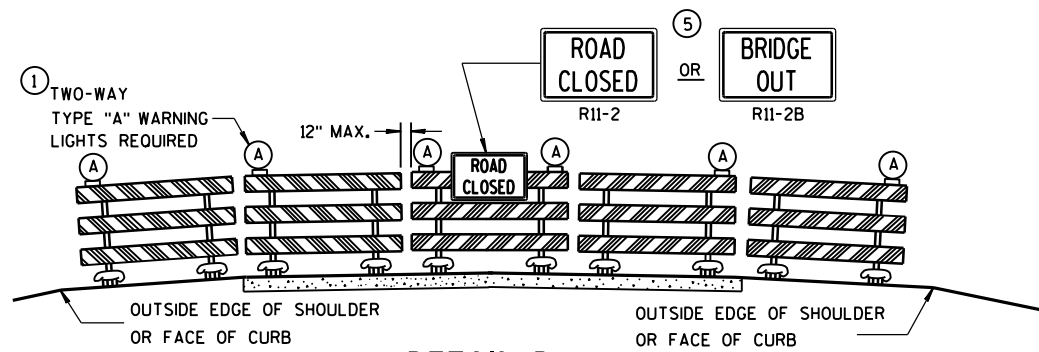
FRONT VIEW SIDE VIEW
ALTERNATE 2

FLEXIBLE MARKER POST ANCHORS

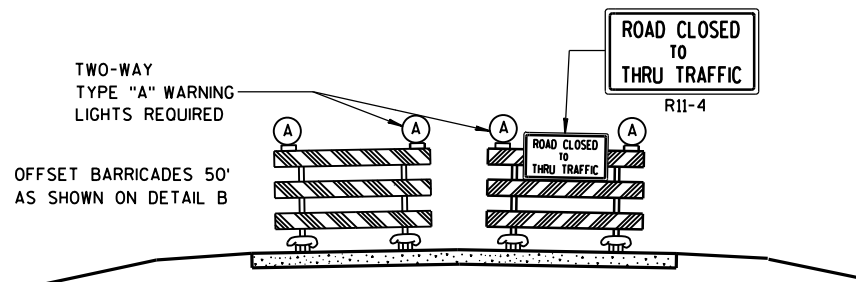
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
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 BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE 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, 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". (30" X 15" 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.)

M05-1 AND M06-1 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 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 LANE 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.

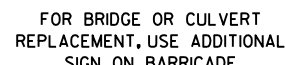
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



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



BRIDGE OUT
XX MILES AHEAD

R11-3C

DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

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.

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 RE-ESTABLISHED.

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 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".

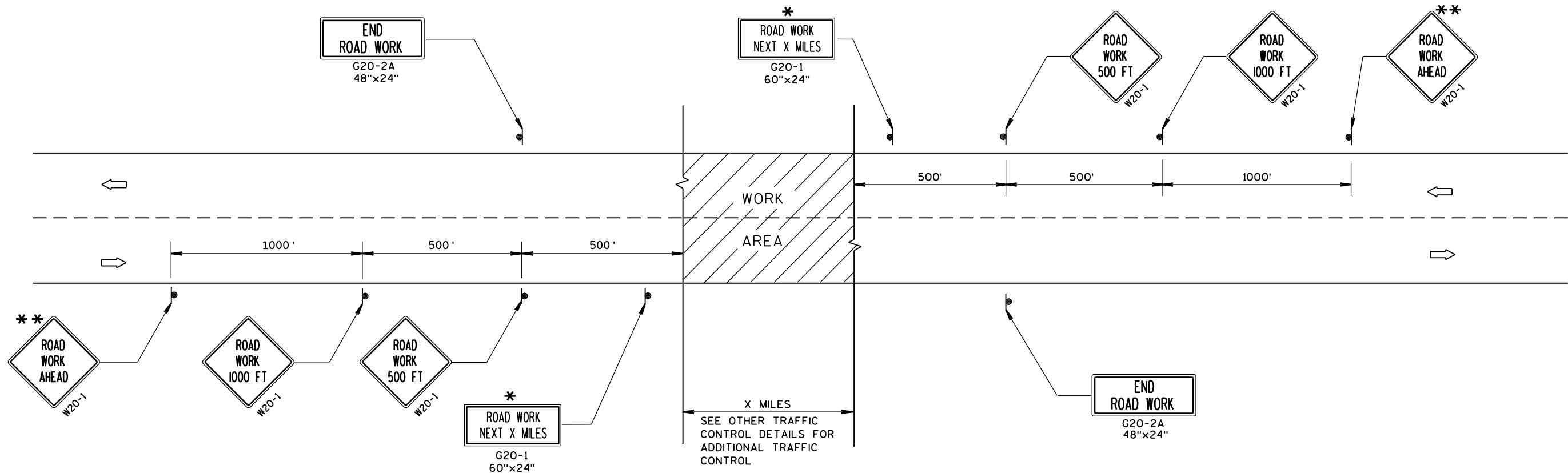
*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION
WHICHEVER IS CLOSER.

	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 <u>8/2013</u> DATE	<u>/S/ Travis Feltes</u> STATE TRAFFIC ENGINEER OF DESIGN

FHWA



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

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

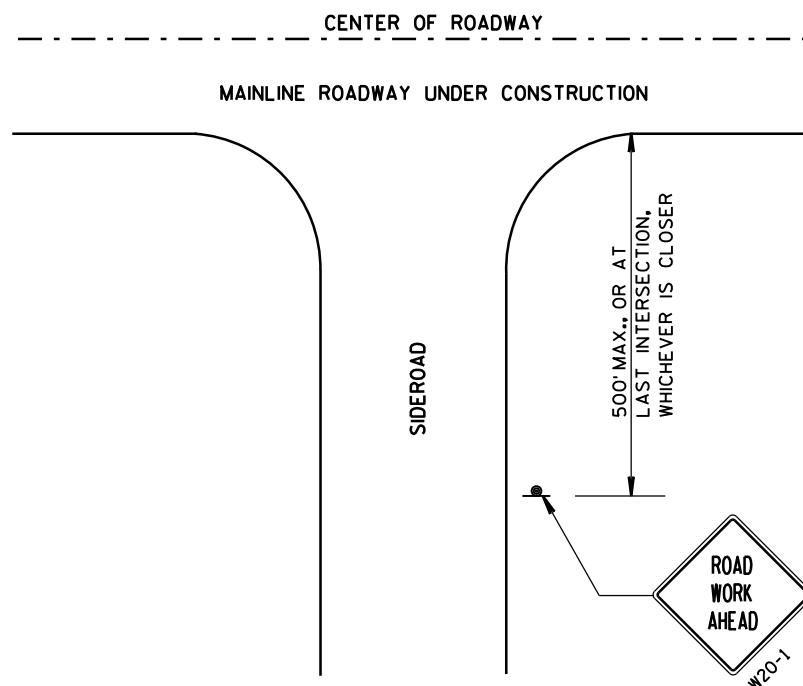
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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 RE-ESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

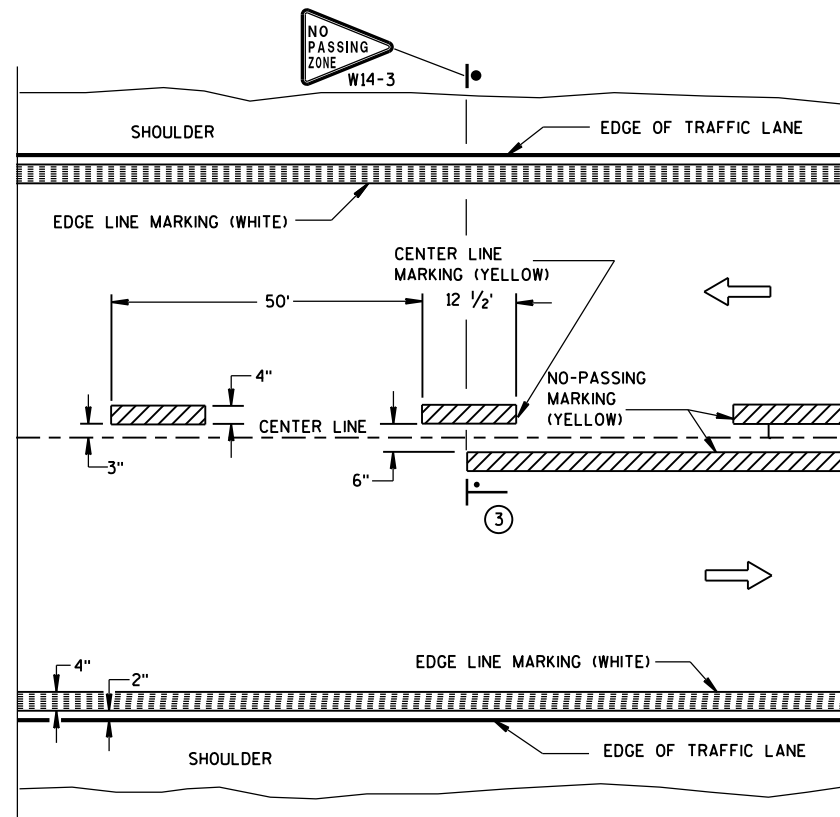
** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



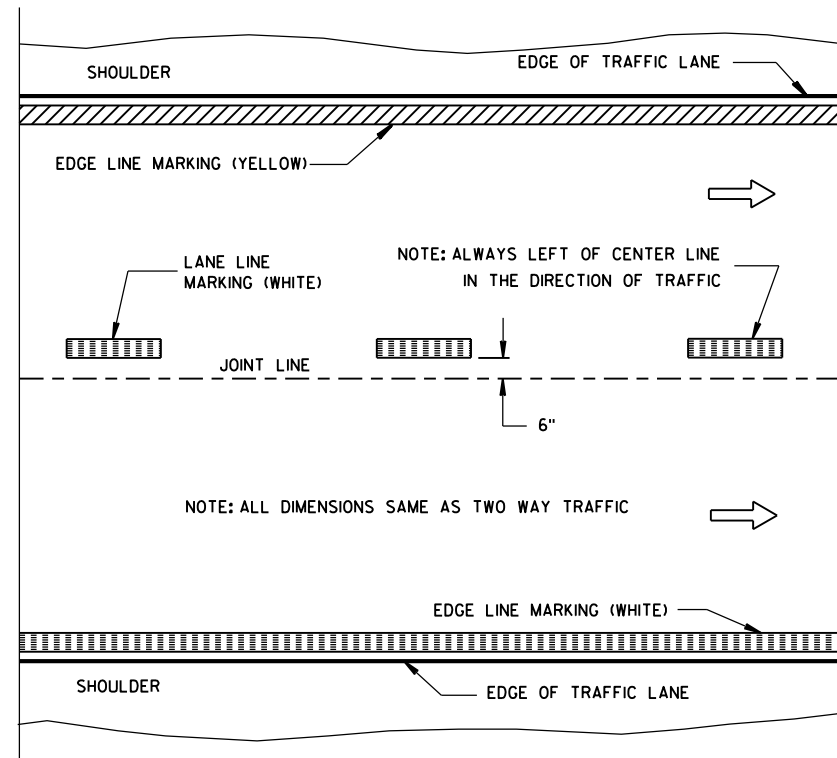
LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	

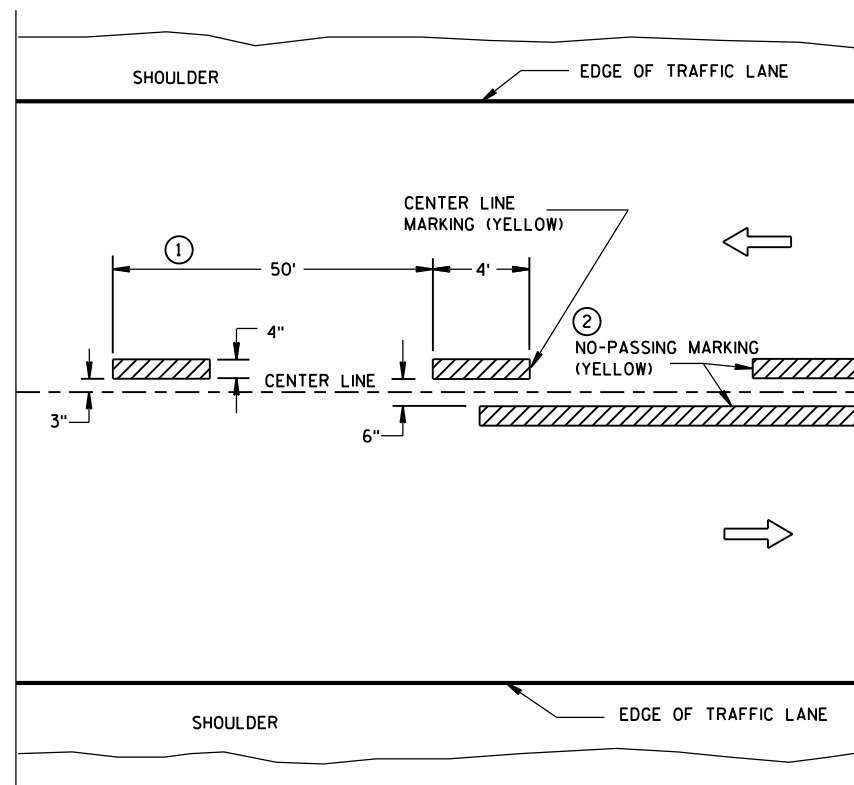


TWO WAY TRAFFIC

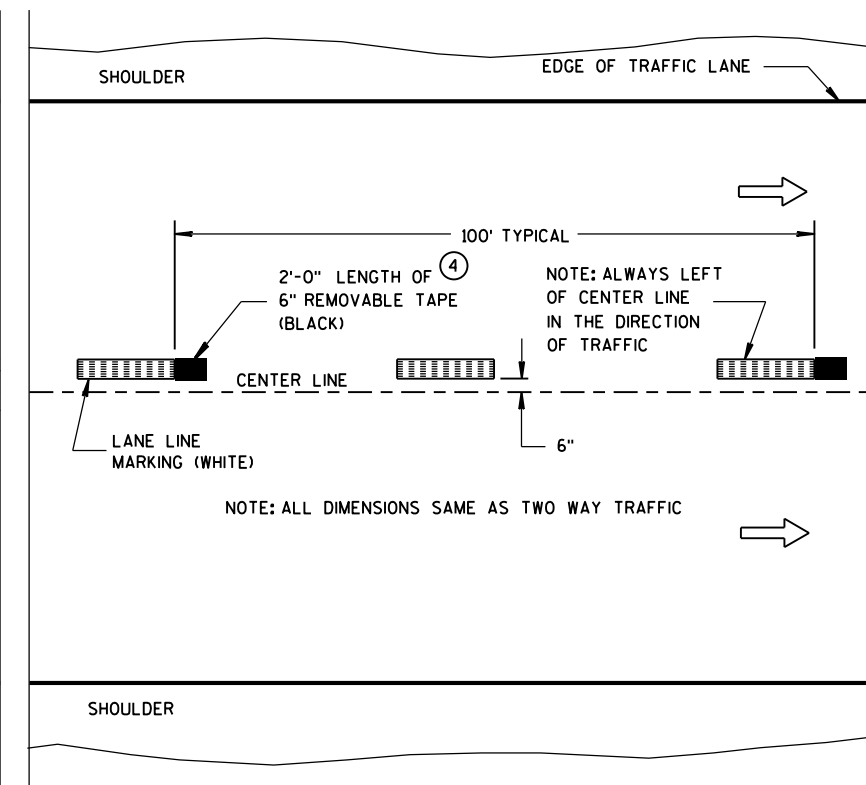


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING
(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

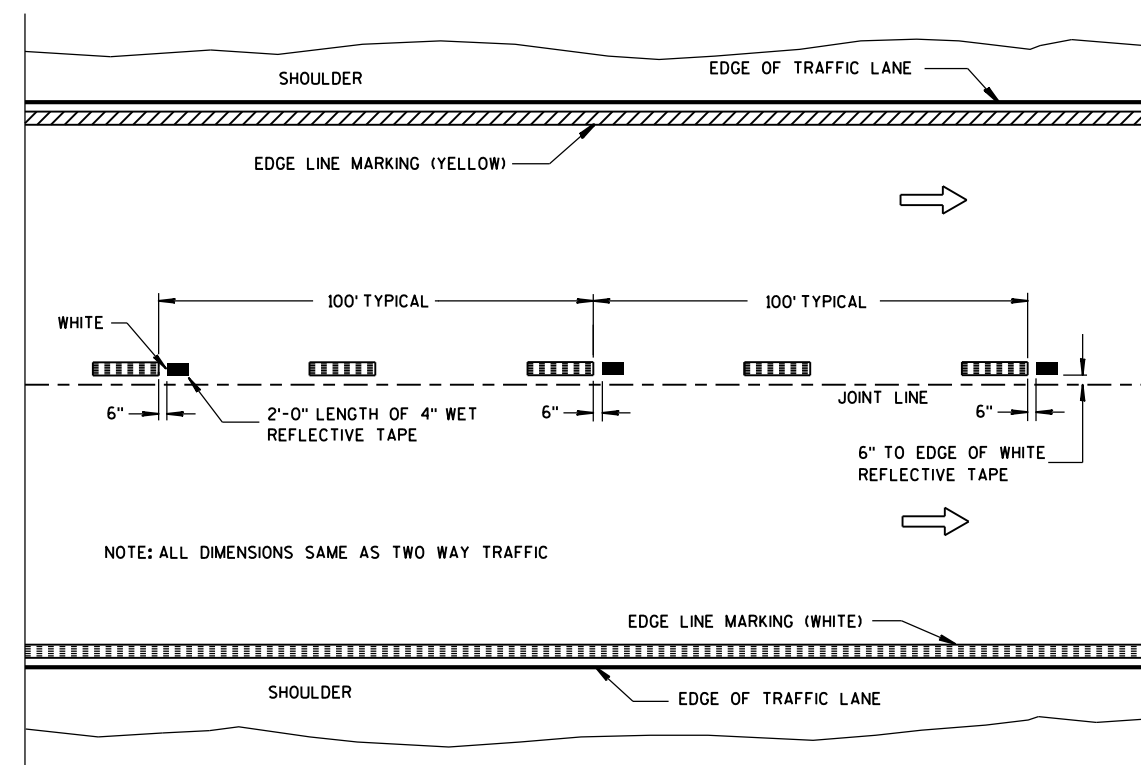
GENERAL NOTES

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

- ① HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- ② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
- ③ NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
- ④ CONCRETE ONLY.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

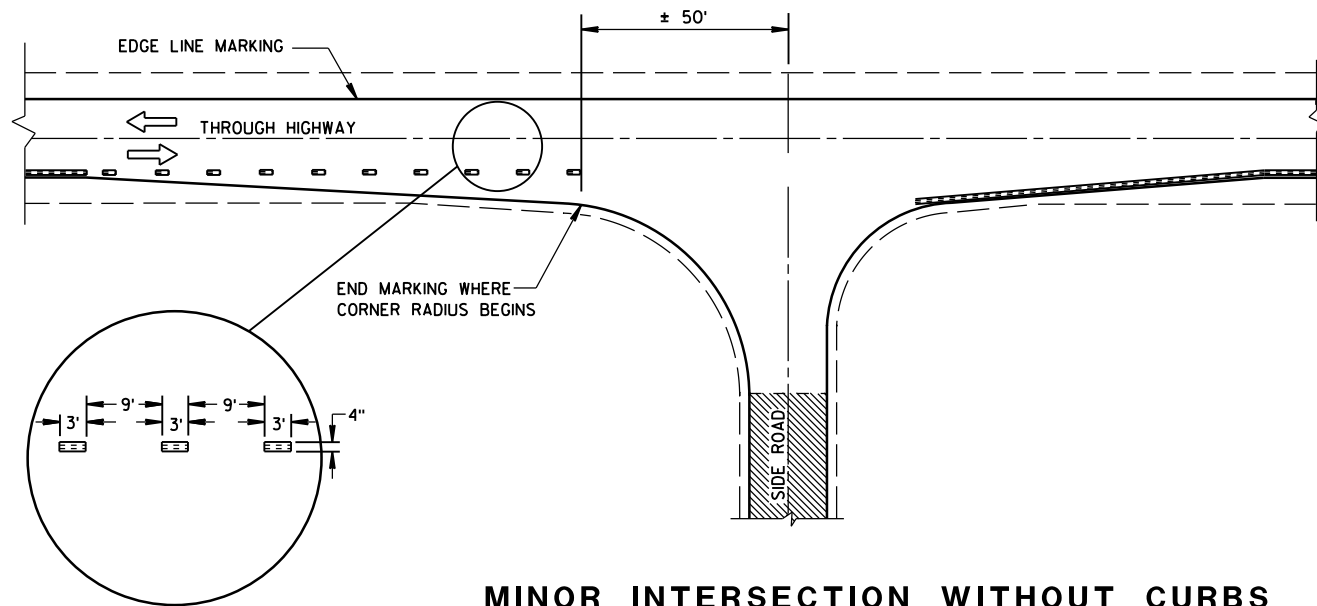
- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013
DATE
FHWA

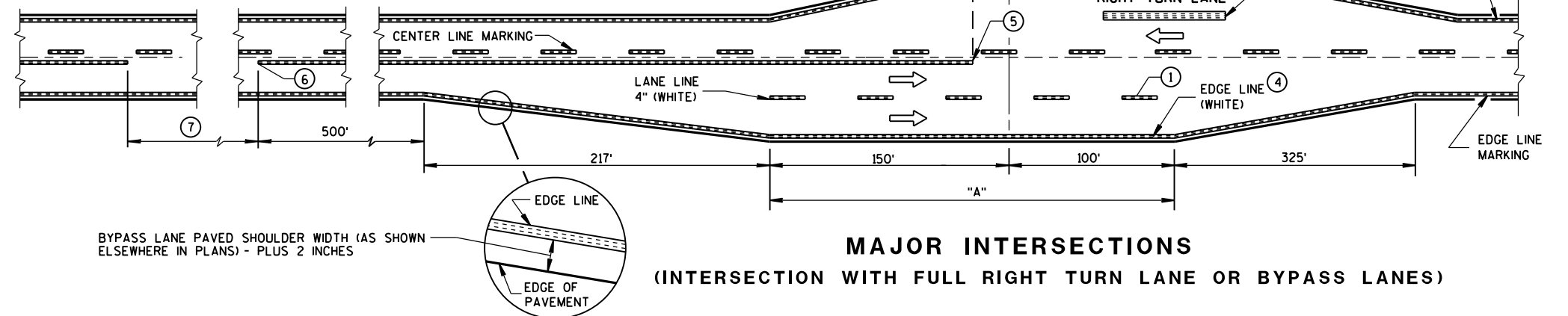
/S/ Travis Feltes
STATE TRAFFIC ENGINEER



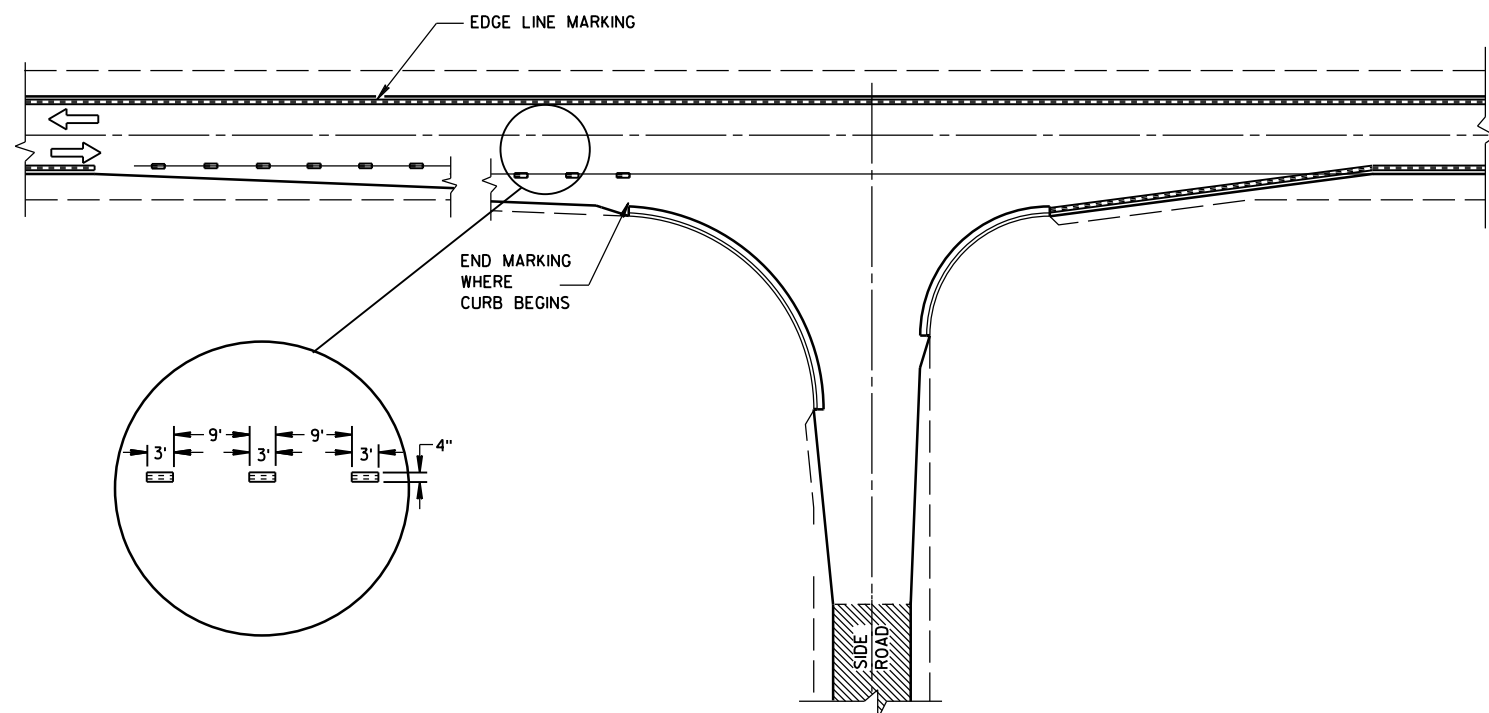
MINOR INTERSECTION WITHOUT CURBS

⑦

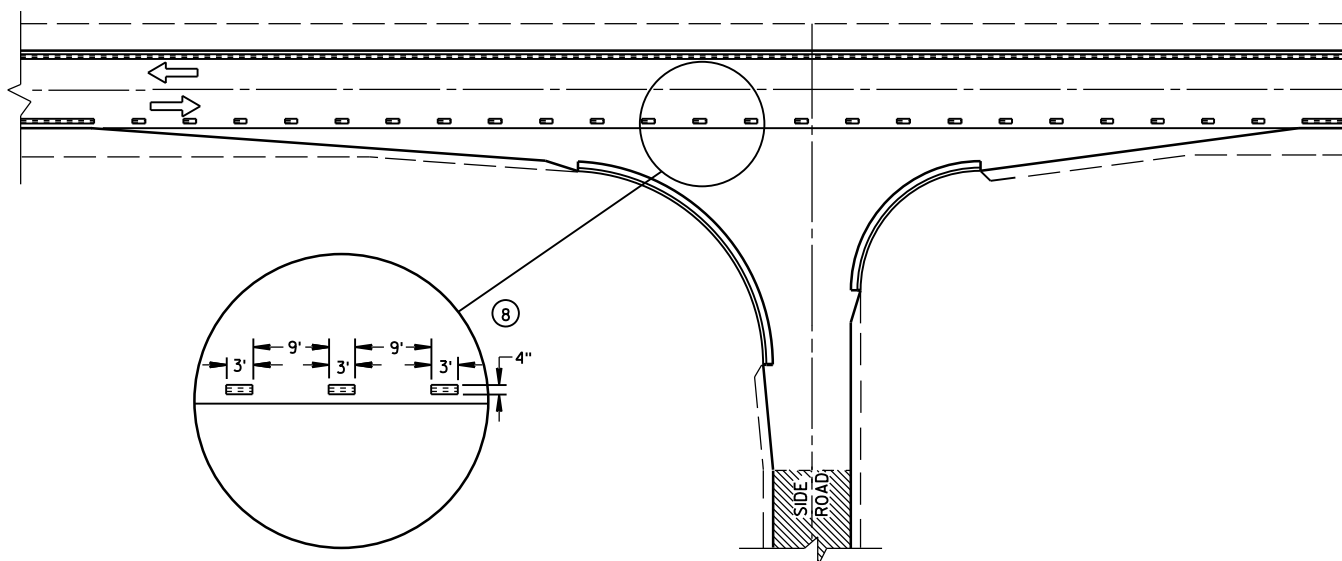
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS
⑧ (FOR SPECIAL CONDITIONS AS SPECIFIED)

GENERAL NOTES

- EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
 - ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
 - ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.
 - ④ THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.
 - ⑤ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
 - ⑥ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
 - ⑦ IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.
 - ⑧ 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

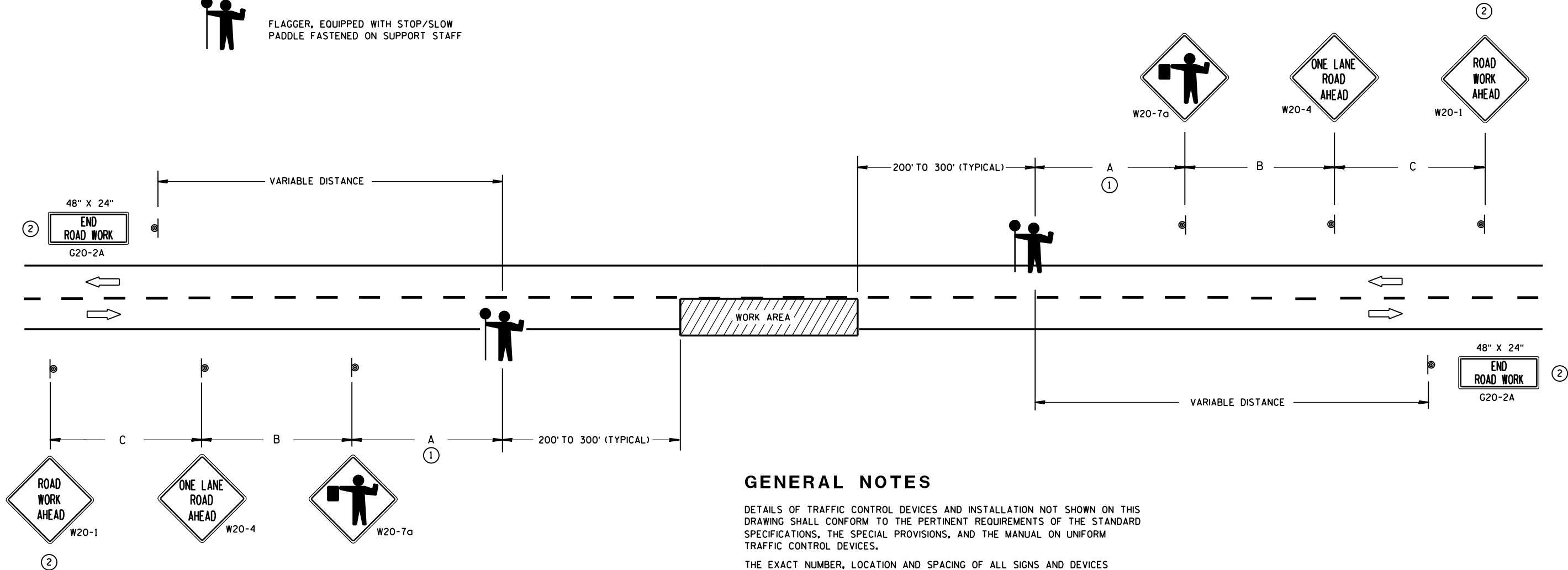
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA

GENERAL NOTES

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

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.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

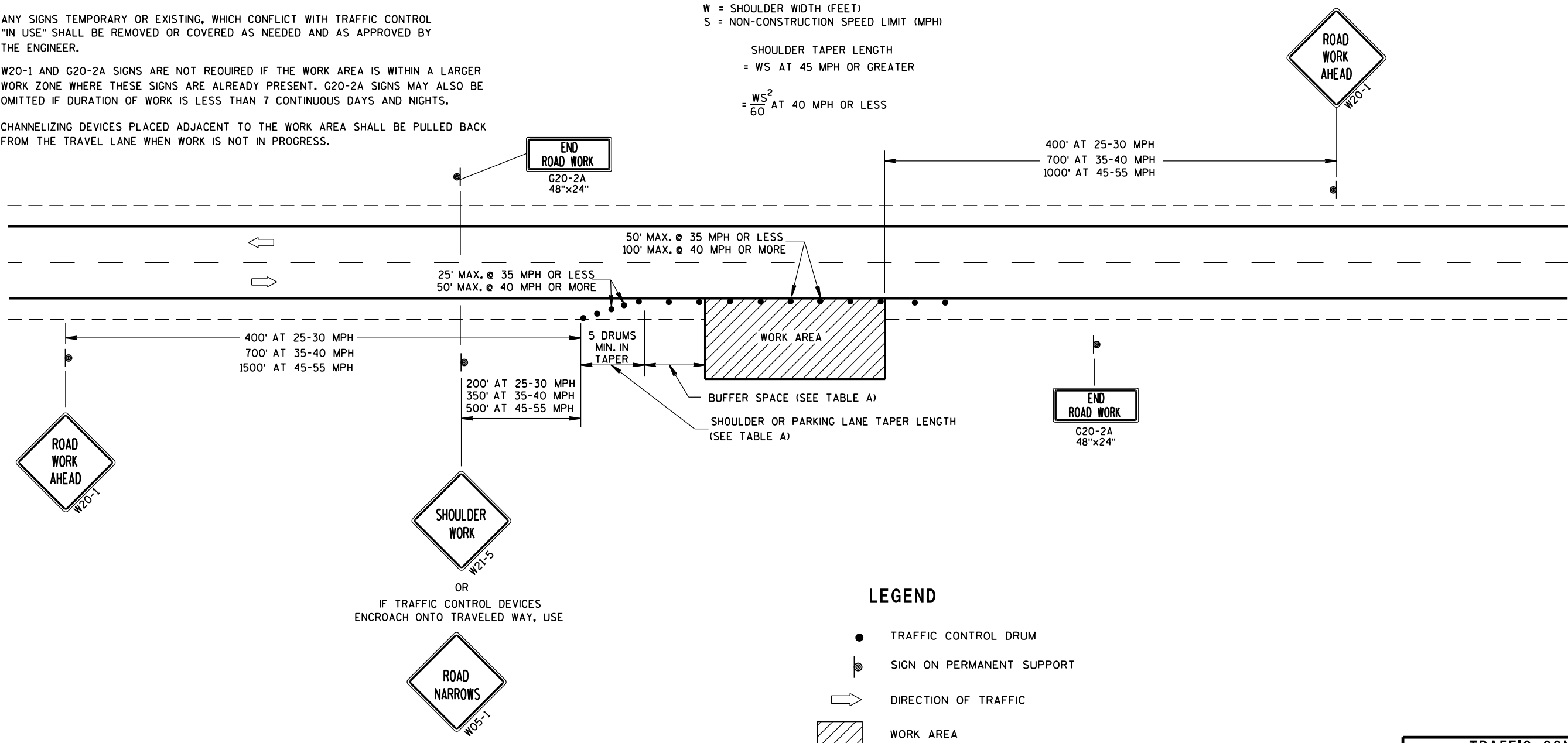
TABLE A

SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S \ W	4	6	8	10	
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
= WS AT 45 MPH OR GREATER

= $\frac{WS^2}{60}$ AT 40 MPH OR LESS

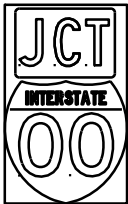


LEGEND

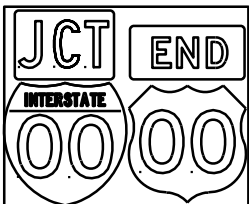
- TRAFFIC CONTROL DRUM
- ⦿ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK AREA

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	

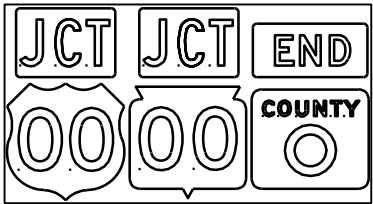
TYPICAL ASSEMBLIES



J1-1



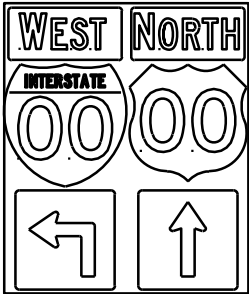
J1-2



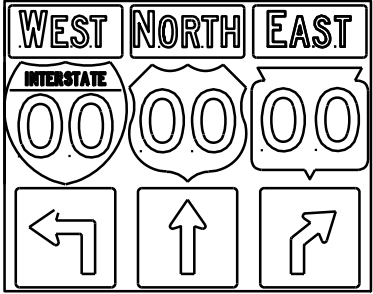
J1-3



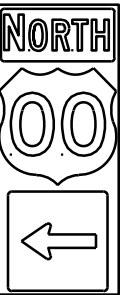
J2-1



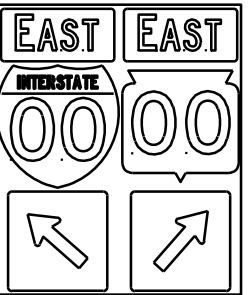
J2-2



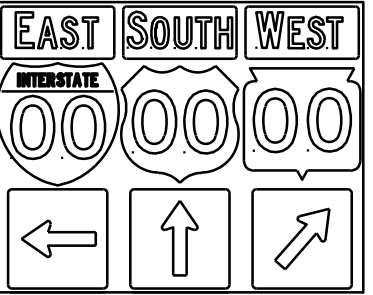
J2-3



J3-1



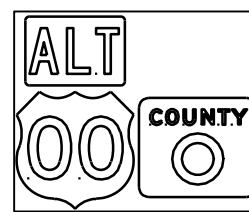
J3-2



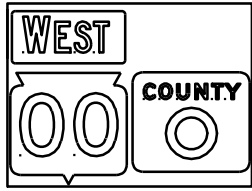
J3-3



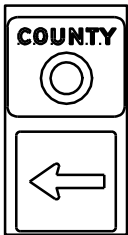
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

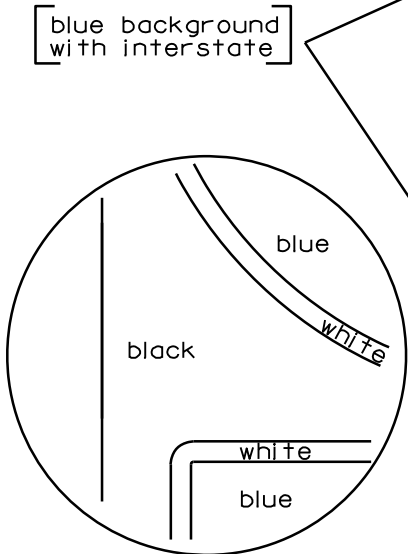


J22-1



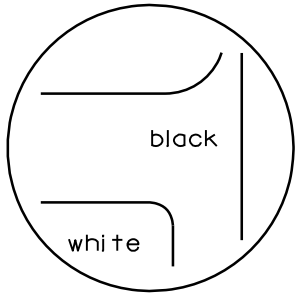
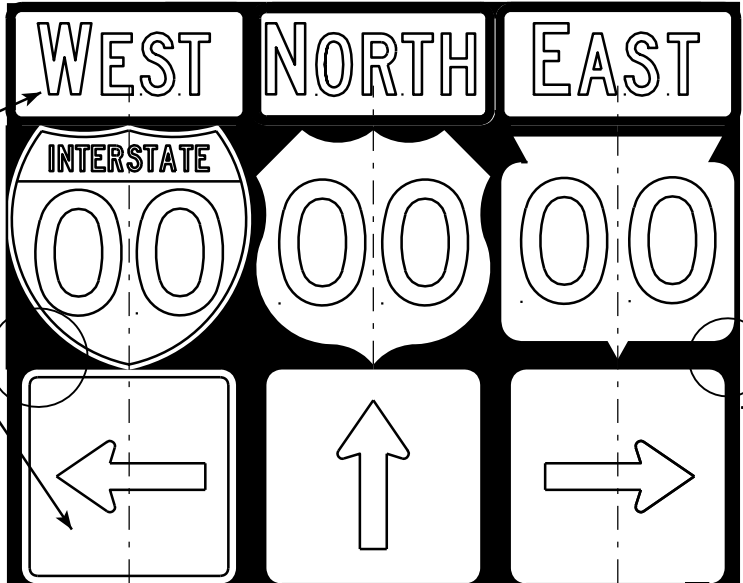
JV

(Typical Vertical J-Assembly
See Note 10 and 11)



NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Black Non-reflective
Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.



[black background]

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

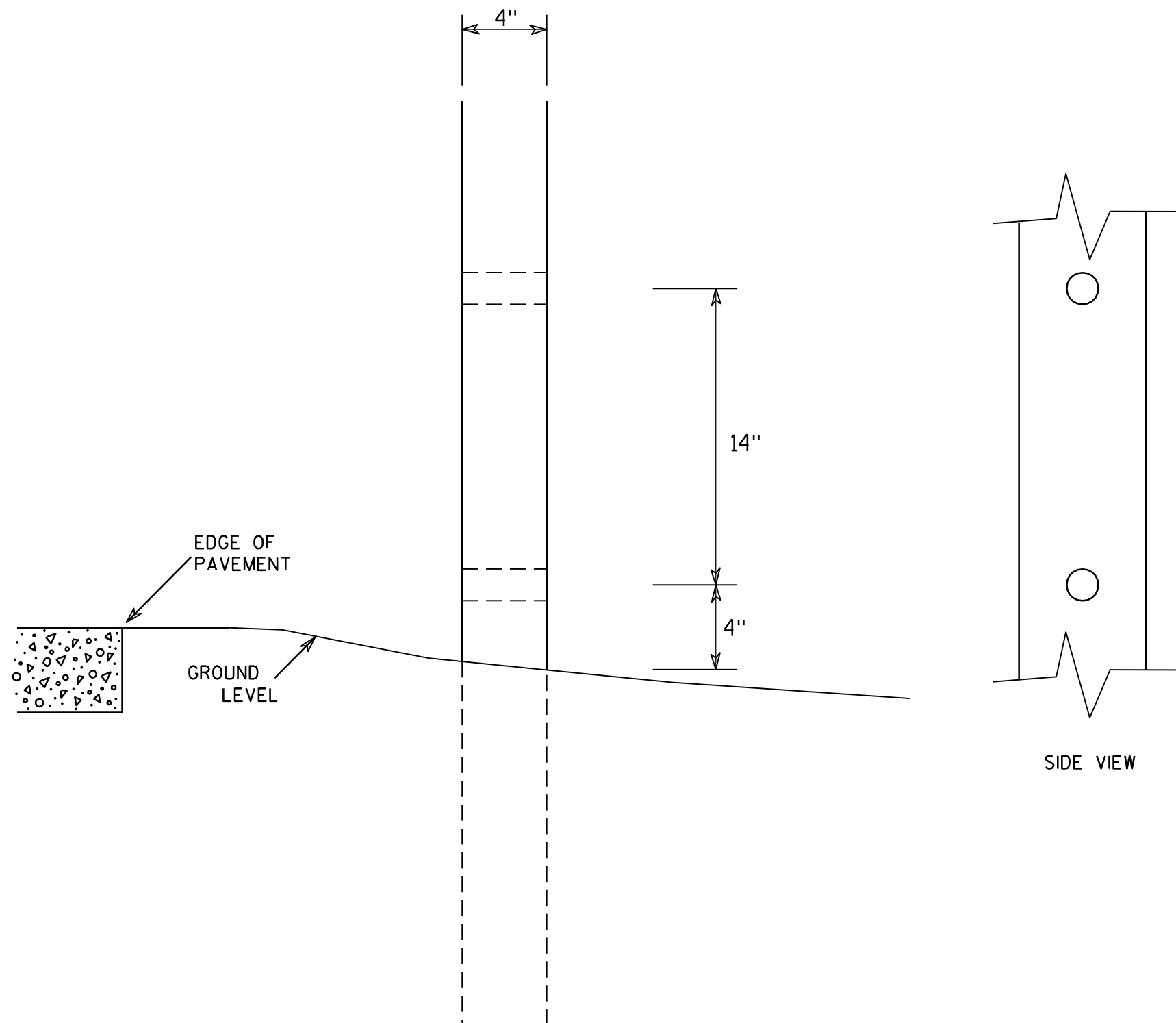
APPROVED

Matthew R. Rauch
For State Traffic Engineer

DATE 3/25/13

PLATE NO. A2-1S.7

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:

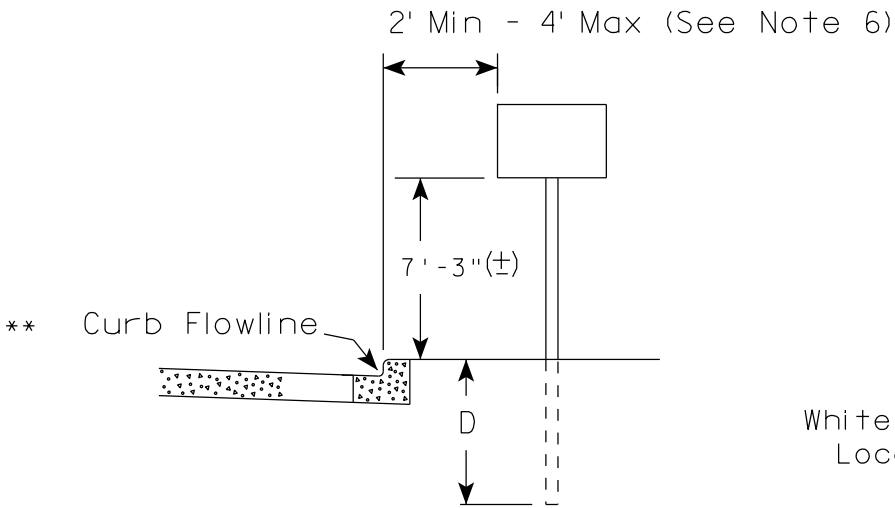
HWY:

COUNTY:

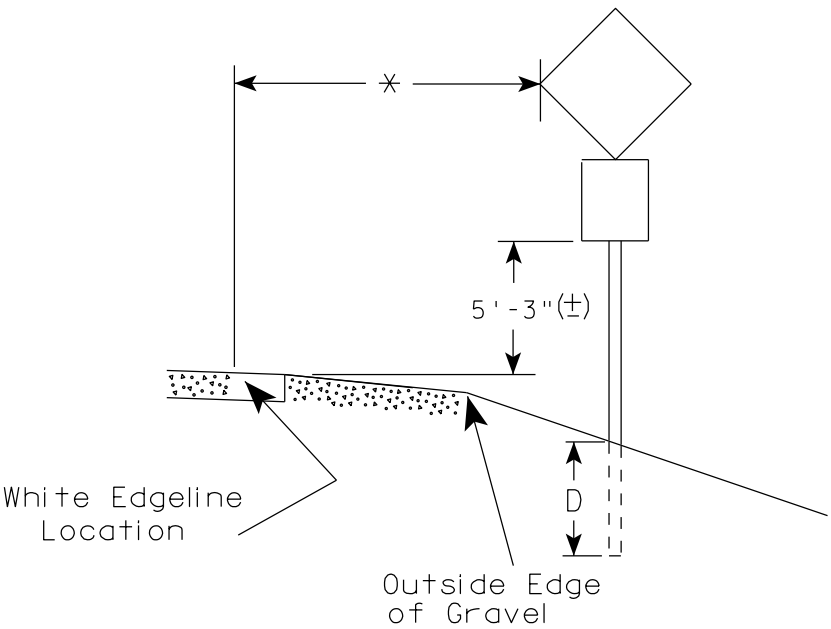
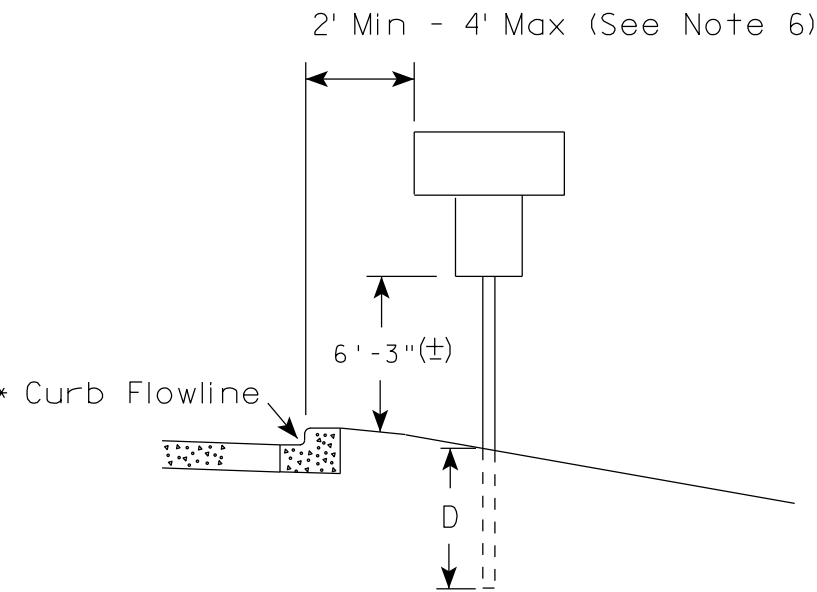
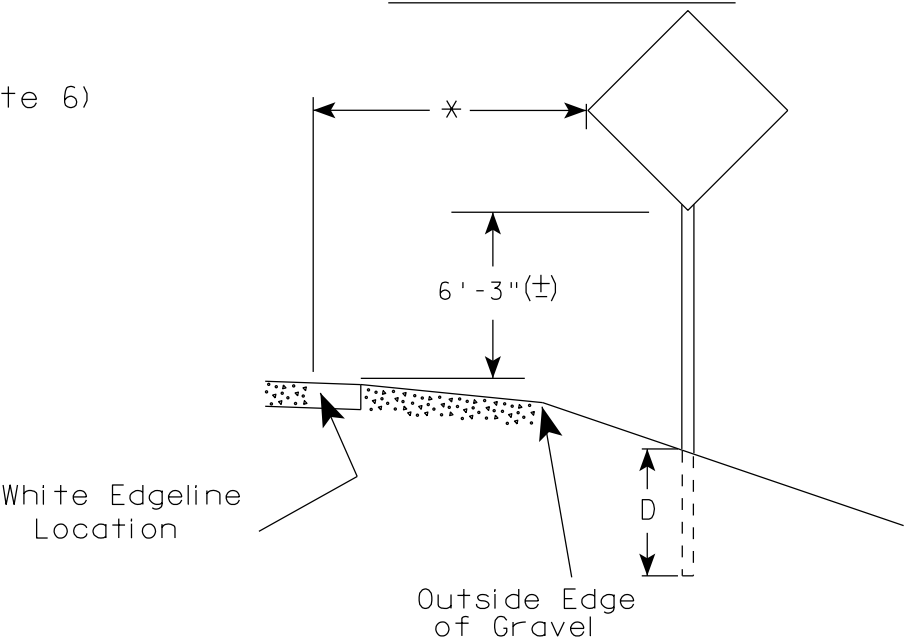
SHEET NO:

E

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

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

×× 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.

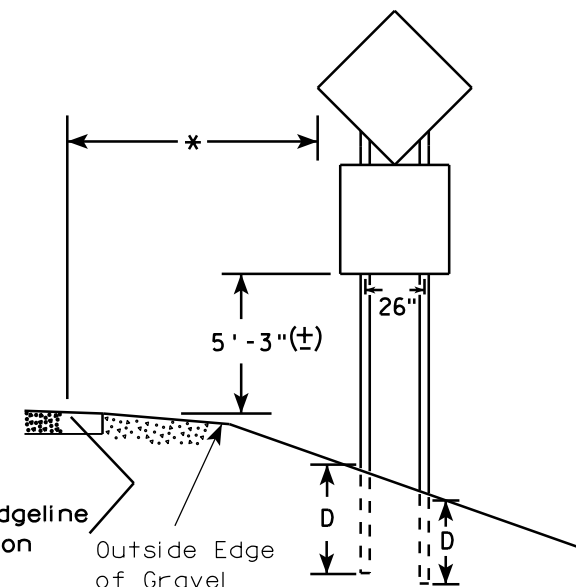
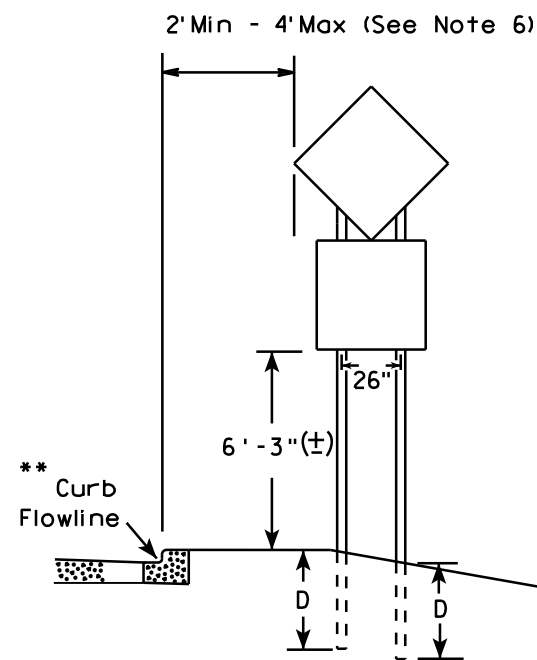
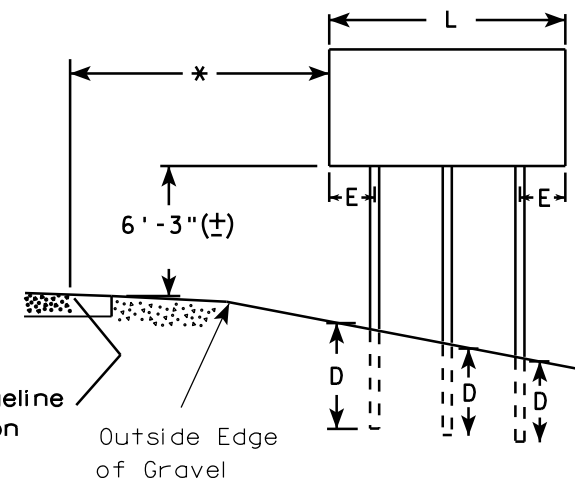
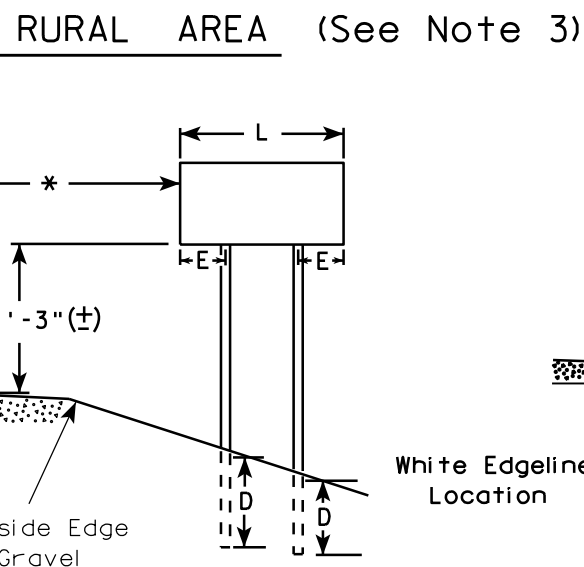
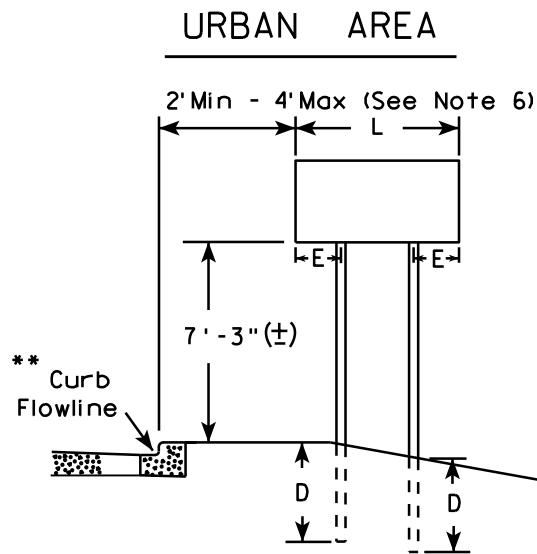
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-3.18



48" DIAMOND WARNING SIGN

48" DIAMOND WARNING SIGN

- 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" (±) or 6'-3" (±) depending upon existence of sub-sign.
 - The (±) tolerance for mounting height is 3 inches.
 - Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 - Offset distance shall be consistent with existing signs or consistent throughout length of project.
 - Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
 - The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-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 or 20 S.F. or less in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

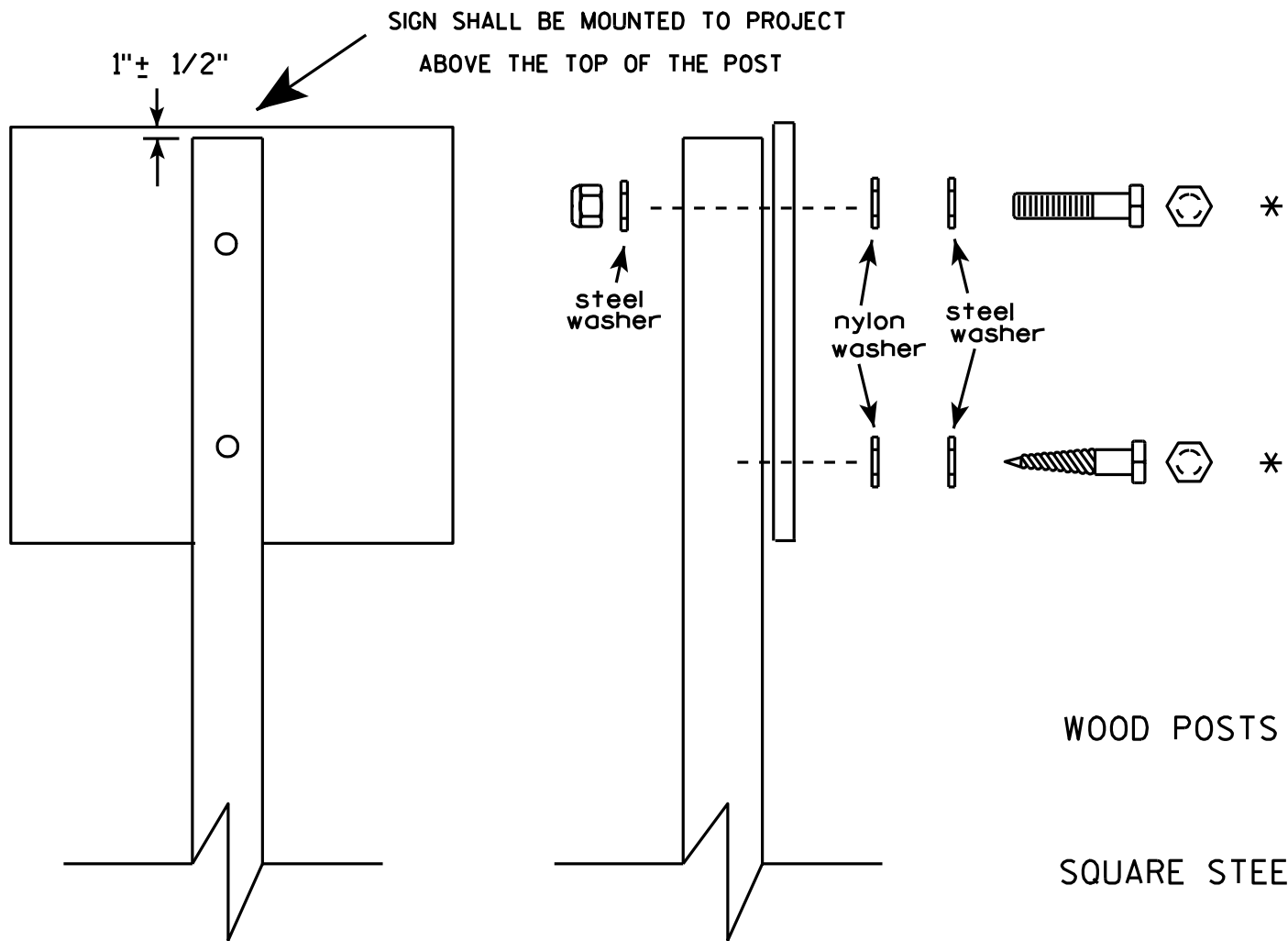
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-4.12

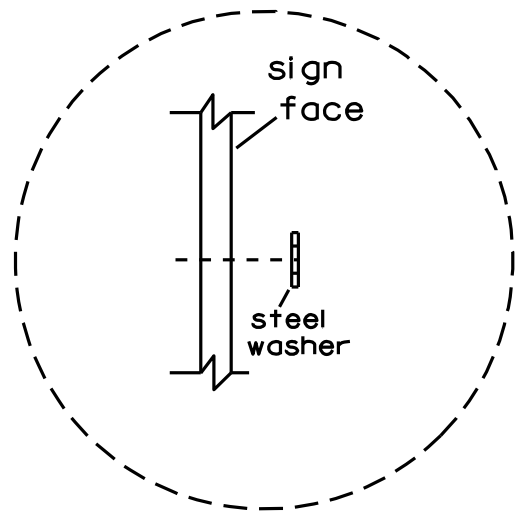


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- 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.

- WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 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 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.

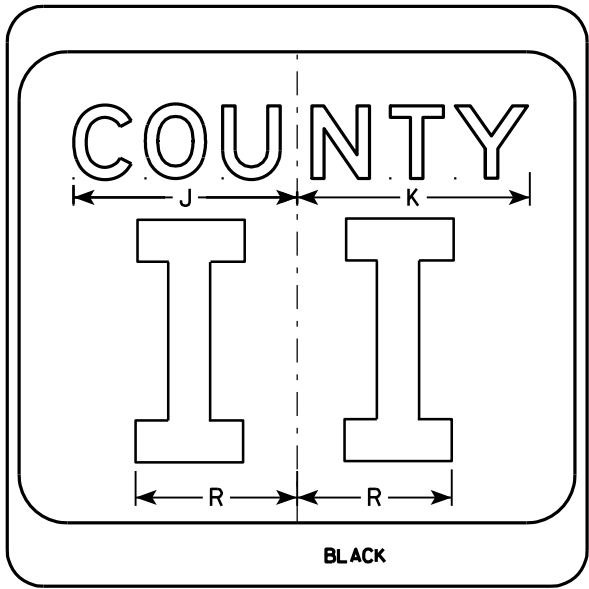
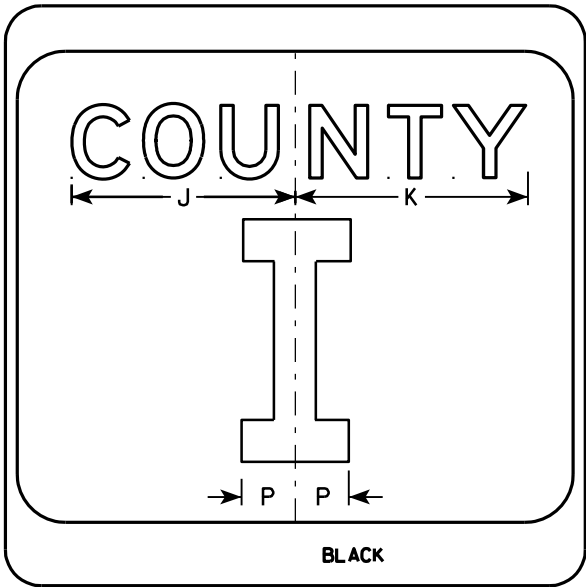
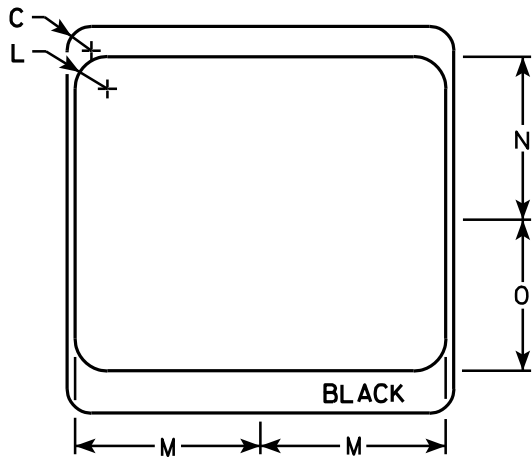
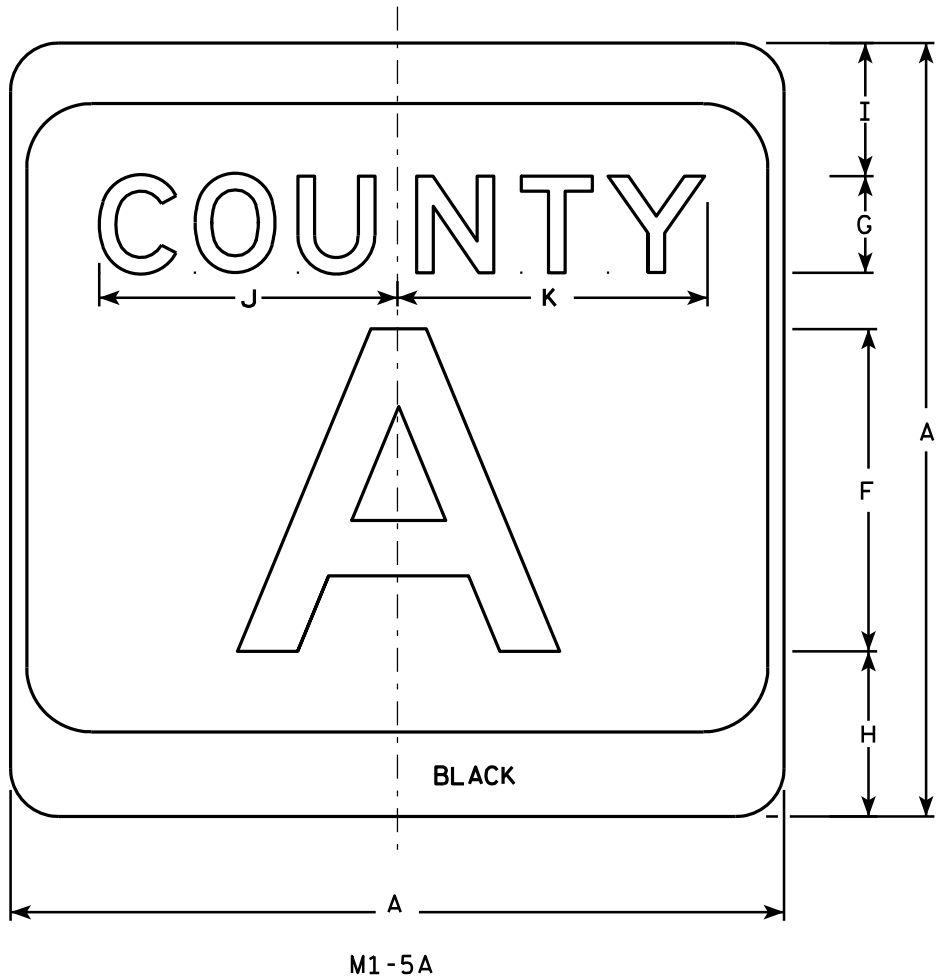


Washer Placement when Sign Has Other Than Type H or Type F Face

* 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 3/23/10	PLATE NO. A4-8.7

7



NOTES

- Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - White & Black - See Note 7
Message - Black
- Message Series - see Note 5
- 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.
- Message Series E for 1 letter.
Message Series D for 2 letters unless message is too big then Series C.
Message Series C for 3 letters unless message is too big then Series B.
- Substitute appropriate letters & optically center to achieve proper balance.
- Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective

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		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

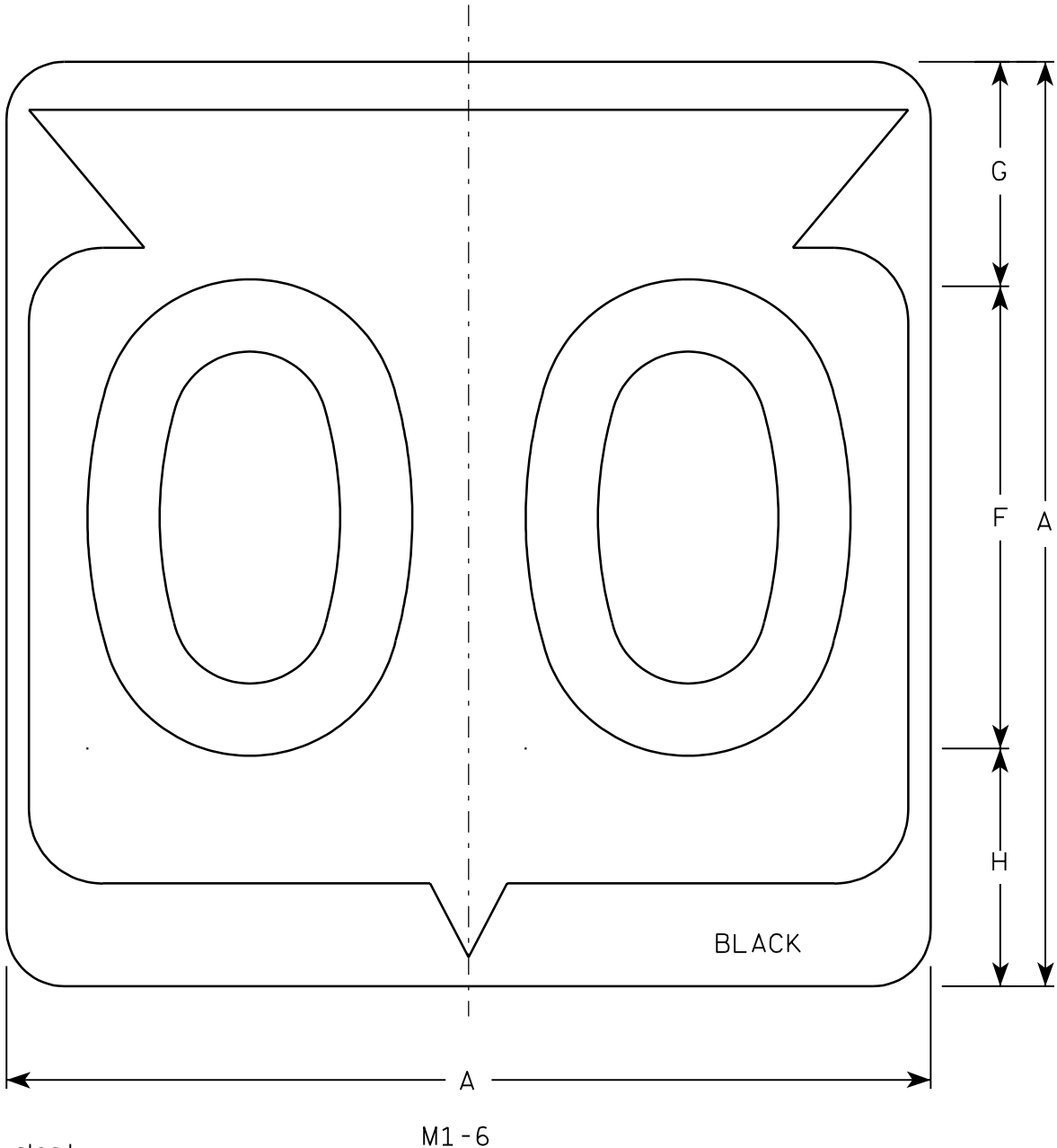
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

7



Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

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.	Area m ²
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

FILE NAME : C:\Users\Projects\tr_stdp\late\M16.DGN

PLOT DATE : 13-OCT-2005 14:55

PLOT BY : DITJPH

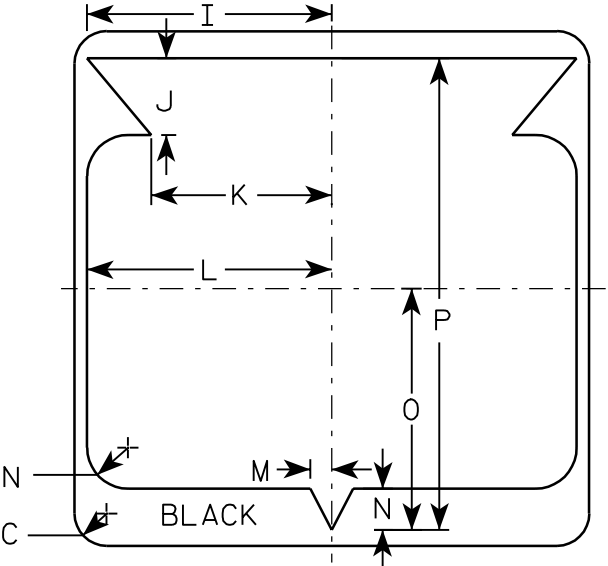
PLOT NAME :

PLOT SCALE : 6.715871:1.000000

WISDOT/CADDs SHEET 42

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
Message - Black
3. Message Series - See note 5
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. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective



STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

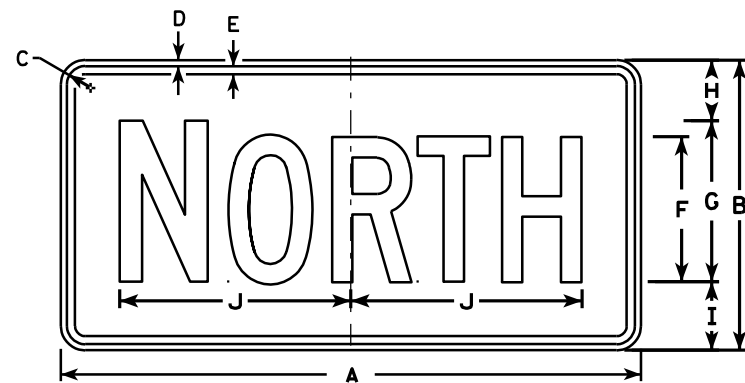
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/20/02

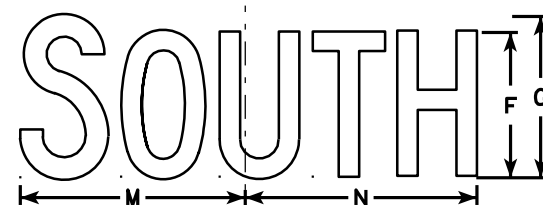
PLATE NO. M1-6.9



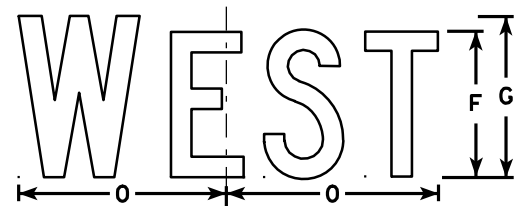
M3-1
MK3-1
M03-1



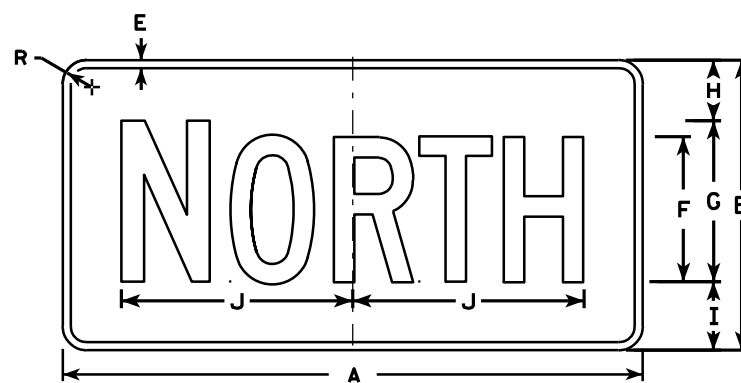
M3-2
MK3-2
M03-2



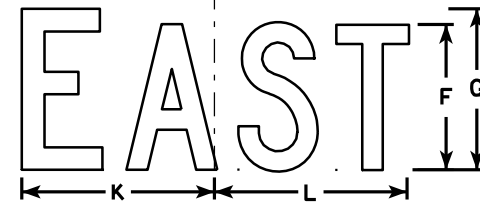
M3-3
MK3-3
M03-3



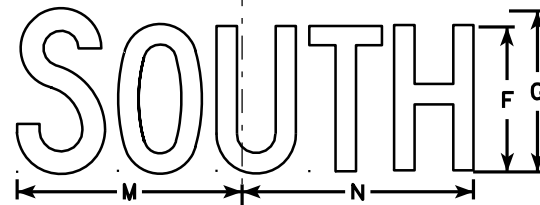
M3-4
MK3-4
M03-4



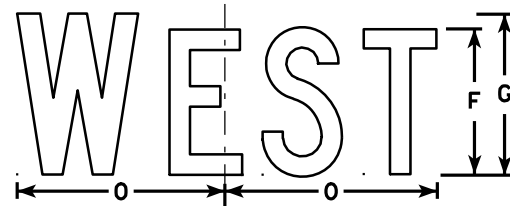
MB3-1
MG3-1
MM3-1
MN3-1



MB3-2
MG3-2
MM3-2
MN3-2



MB3-3
MG3-3
MM3-3
MN3-3



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
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. M3-1 thru M3-4 Background - White - Type H Reflective (Detour or temporary signs - Reflective)
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White - Type H Reflective (Detour or temporary signs - Reflective)
MG3-1 thru MG3-4 Background - Green
Message - White - Type H Reflective
MK3-1 thru MK3-4 Background - Green
Message - White - Type H Reflective
MM3-1 thru MM3-4 Background - White - Type H Reflective
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White - Type H Reflective
M03-1 thru M03-4 Background - Orange - Reflective
Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

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	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

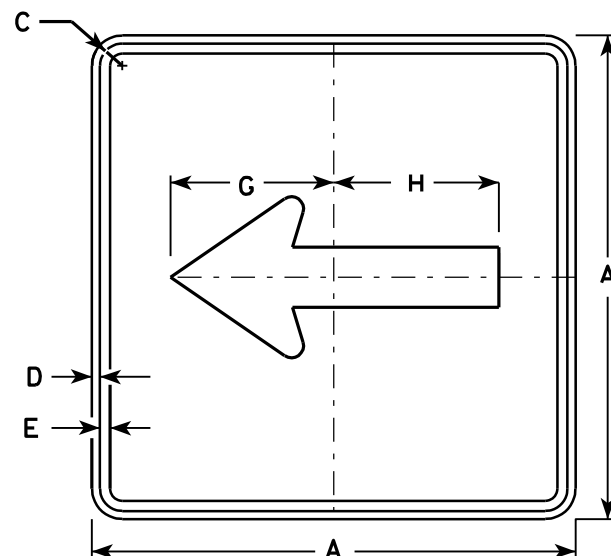
PROJECT NO: HWY: COUNTY: SHEET NO: E

STANDARD SIGNS
M3-1 thru M3-4
SERIES

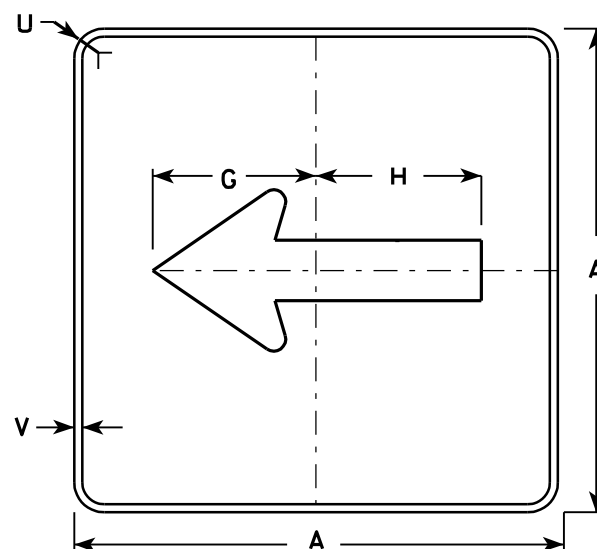
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

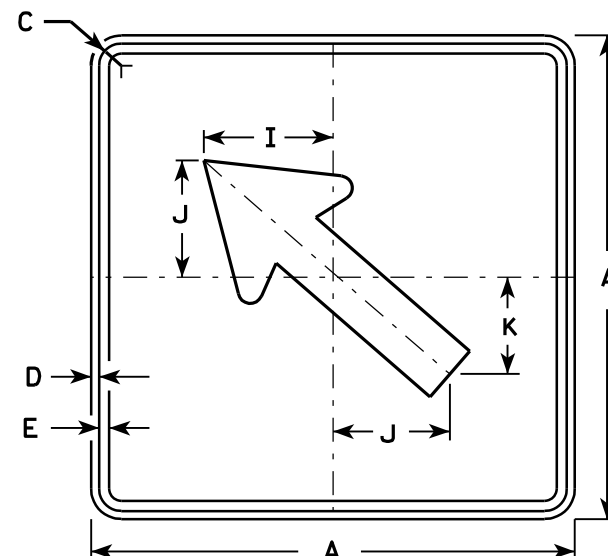
DATE 11/10/10 PLATE NO. M3-1.12



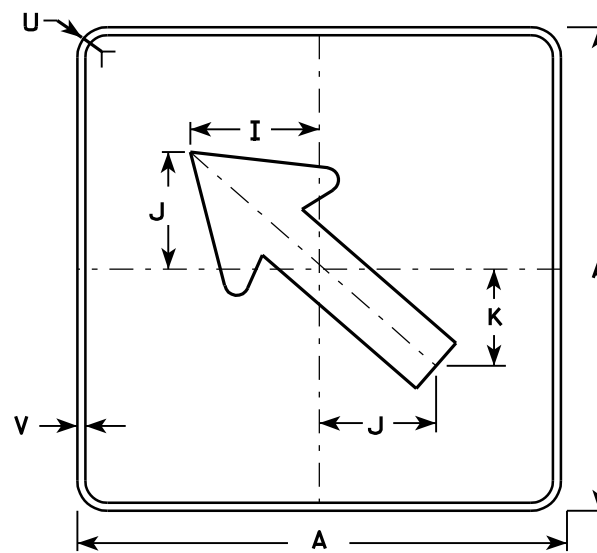
M6-1
MK6-1
MM6-1
MO6-1
MP6-1
MR6-1



MB6-1
MG6-1
MN6-1



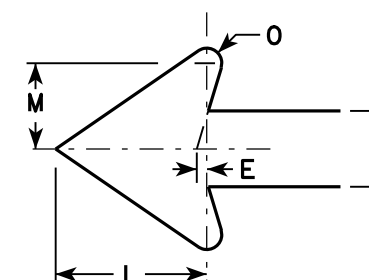
M6-2
MK6-2
MM6-2
MO6-2
MP6-2
MR6-2



MB6-2
MG6-2
MN6-2

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
 - Background - See note 4
 - Message - See note 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.
- M6-1 and M6-2 Background - White - Type H Reflective Message - Black
 - MB6-1 and MB6-2 Background - Blue Message - White - Type H Reflective
 - MG6-1 and MG6-2 Background - Green Message - White - Type H Reflective
 - MK6-1 and MK6-2 Background - Green Message - White - Type H Reflective
 - MM6-1 and MM6-2 Background - White - Type H Reflective Message - Green
 - MN6-1 and MN6-2 Background - Brown Message - White - Type H Reflective
 - MO6-1 and MO6-2 Background - Orange - Type F Reflective Message - Black
 - MP6-1 and MP6-2 Background - White - Type H Reflective Message - Blue
 - MR6-1 and MR6-2 Background - Brown Message - Yellow - Type H Reflective



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	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-1.13

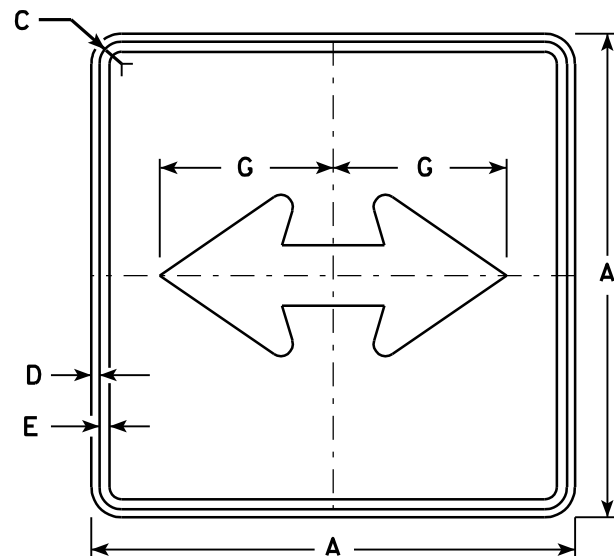
PROJECT NO:

HWY:

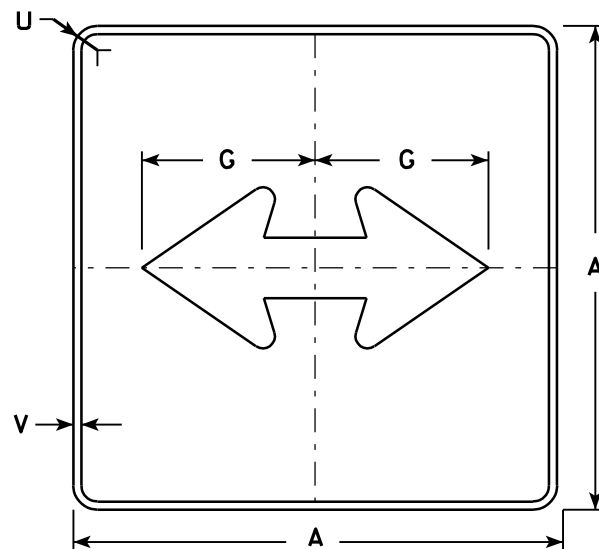
COUNTY:

SHEET NO:

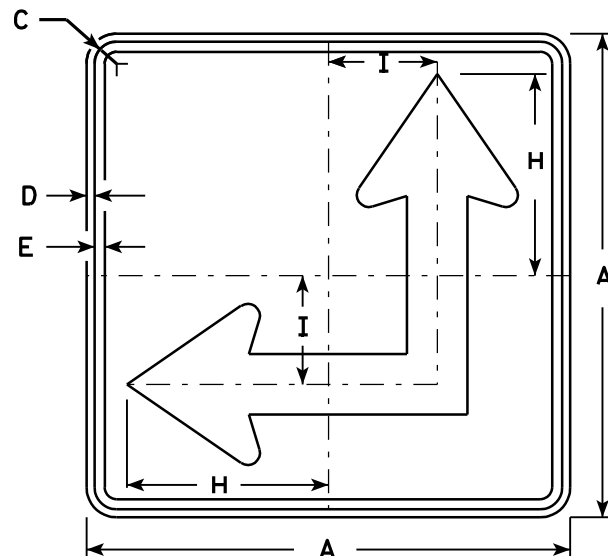
E



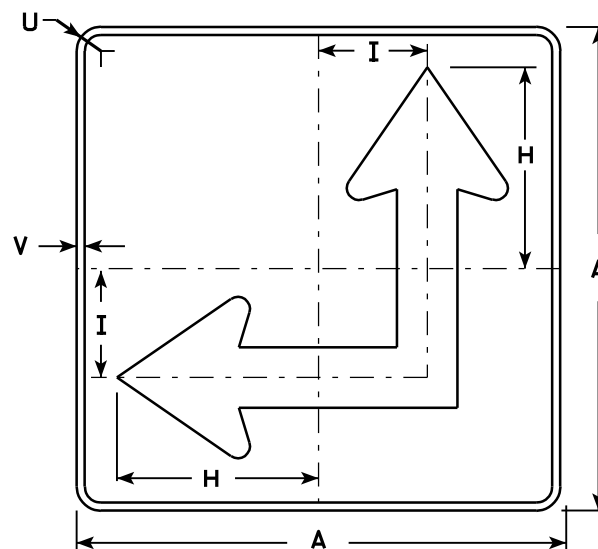
M6 - 4
MK6 - 4
MM6 - 4
MO6 - 4
MP6 - 4
MR6 - 4



MB6 - 4
MG6 - 4
MN6 - 4



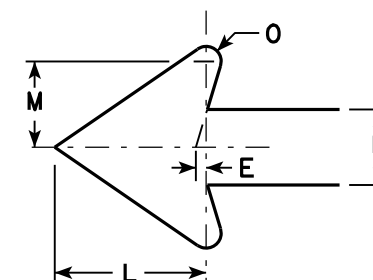
M6 - 6
MK6 - 6
MM6 - 6
MO6 - 6
MP6 - 6
MR6 - 6



MB6 - 6
MG6 - 6
MN6 - 6

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See Note 4
Message - See Note 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.
- M6-4 and M6-6 Background - White - Type H Reflective
Message - Black
MB6-4 and MB6-6 Background - Blue
Message - White - Type H Reflective
MG6-4 and MG6-6 Background - Green
Message - White - Type H Reflective
MK6-4 and MK6-6 Background - Green
Message - White - Type H Reflective
MM6-4 and MM6-6 Background - White - Type H Reflective
Message - Green
MN6-4 and MN6-6 Background - Brown
Message - White - Type H Reflective
MO6-4 and MO6-6 Background - Orange - Type F Reflective
Message - Black
MP6-4 and MP6-6 Background - White - Type H Reflective
Message - Blue
MR6-4 and MR6-6 Background - Brown
Message - Yellow - Type H Reflective
- M6-6R same as M6-6L except arrow points ahead and right.



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	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

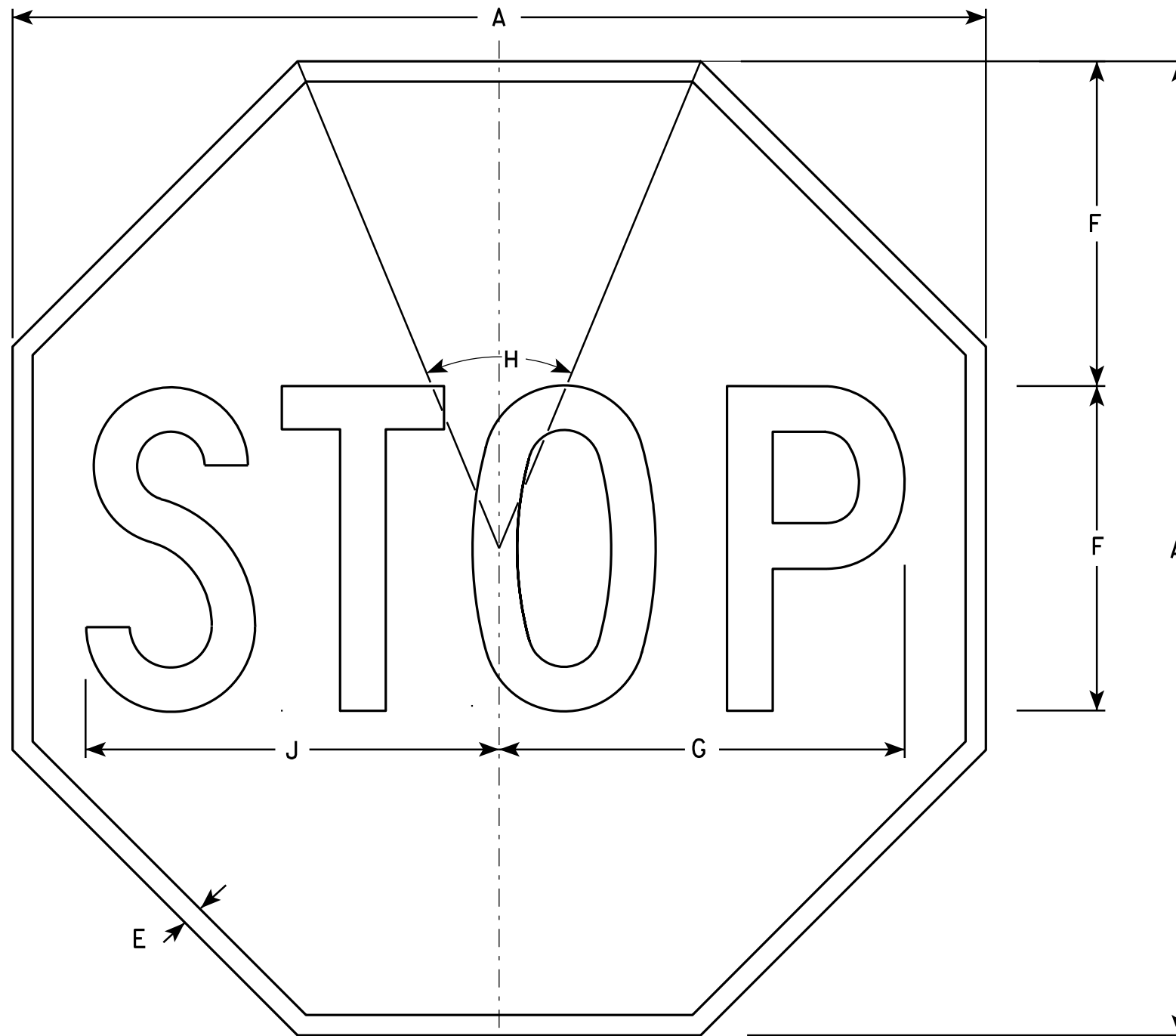
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E
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STANDARD SIGN
M6 - 4 & M6 - 6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-4.8



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Red
Message - White
3. Message Series - C

R1-1

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	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

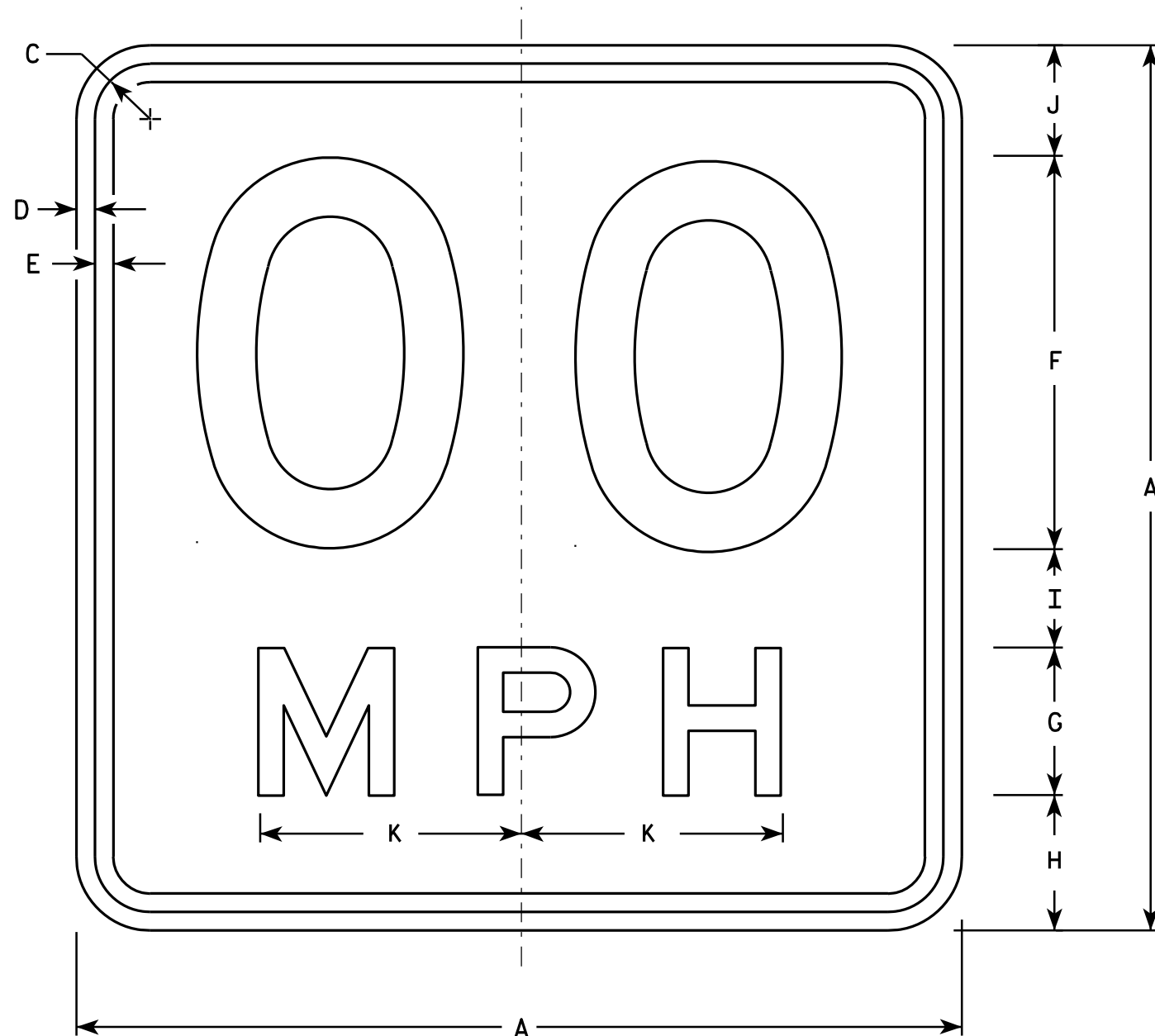
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - See Note 6
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. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
Line 2 is Series E

W13-1

- * For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

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	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN

W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

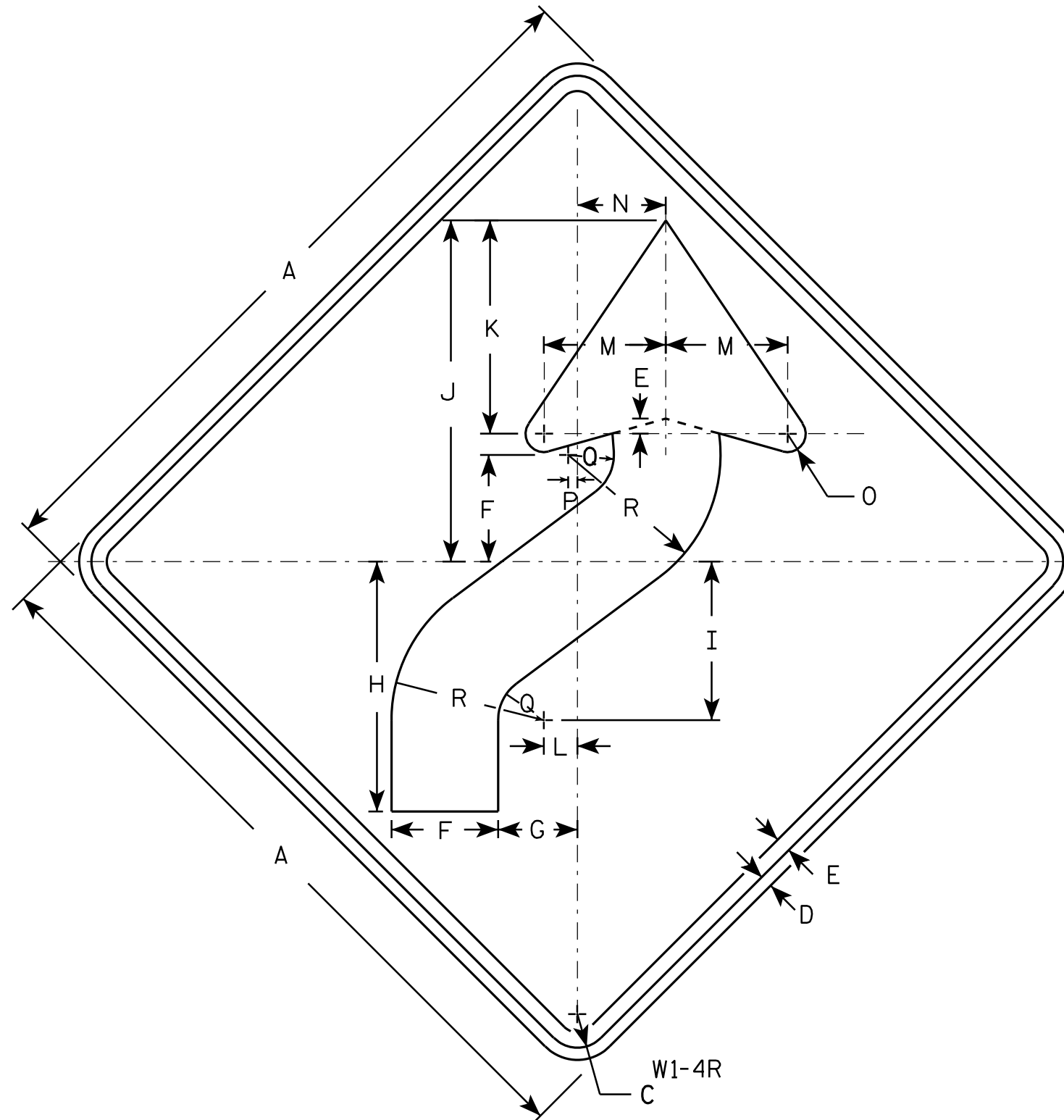
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Yellow
Message - Black
- 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.
- W1-4L is the same as W1-4R except the arrow is reversed along the vertical centerline.

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	24		1 1/8	3/8	1/2	3 1/2	2 5/8	8 1/4	5 1/4	11 1/4	7	1 1/8	4	3	5/8	1/4	1 1/2	5									4.0
2S	30		1 3/8	1/2	5/8	4 3/8	3 1/4	10 1/4	6 1/2	14	8 3/4	1 3/8	5	3 5/8	3/4	3/8	1 7/8	6 1/4									6.25
2M	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
3	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
4	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN

W1 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-4.11

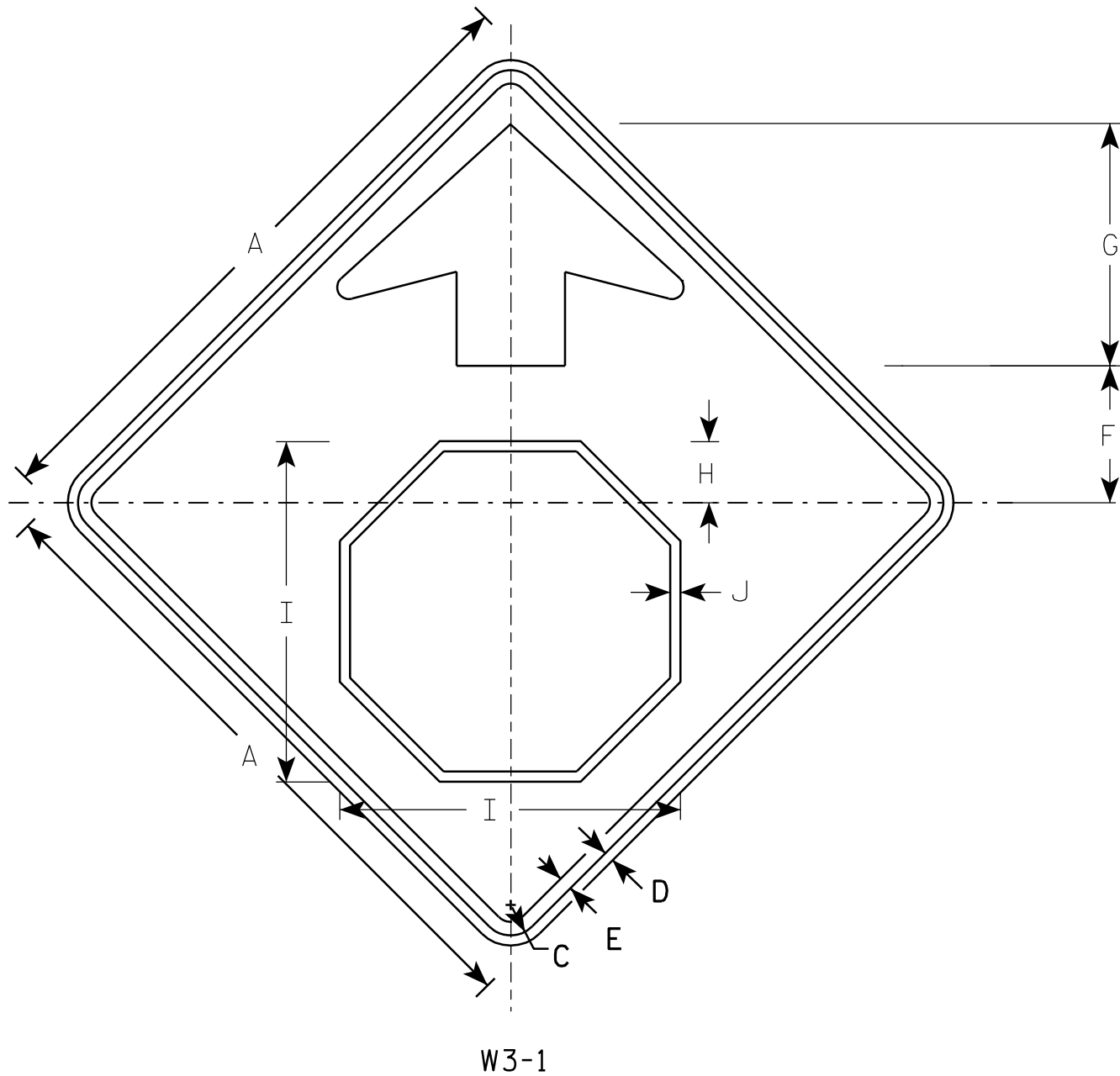
PROJECT NO:

HWY:

COUNTY:

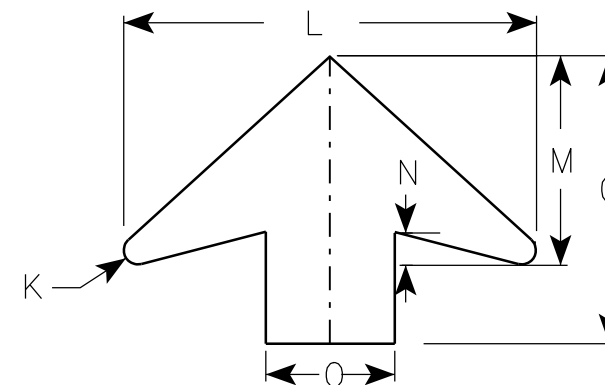
SHEET NO:

E



NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - YELLOW
Arrow & Border - BLACK
Stop Symbol - WHITE BORDER ON RED BACKGROUND



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	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

PROJECT NO:

STANDARD SIGN
W3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/7/10 PLATE NO. W3-1.12

SHEET NO:

E

STAGE 1 (STH 54) EARTHWORK SUMMARY

STATION	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
	Cut	Fill	Marsh Exc	Cut	Fill	Marsh Exc	Cut 1.00 Note 1	Expanded Fill 1.25 Note 2	Expanded Marsh Backfill 1.50 Note 3	
45+00	48.50	9.08	0.00	0	0	0	0	0	0	0.00
45+50	11.37	28.88	0.00	55	35	0	55	44	0	11.50
46+00	6.61	25.44	0.00	17	50	0	72	107	0	-34.73
46+50	8.86	25.29	0.00	14	47	0	86	166	0	-79.13
47+00	17.10	24.69	0.00	24	46	0	110	223	0	-112.93
47+50	14.41	33.90	0.00	29	54	0	140	291	0	-151.56
48+00	15.79	35.97	0.00	28	65	0	168	372	0	-204.46
48+50	25.10	24.31	0.00	38	56	0	205	442	0	-236.36
48+75	32.63	27.11	0.00	27	24	0	232	472	0	-239.39
49+00	36.48	65.08	0.00	32	43	0	264	525	0	-260.75
49+03.77	30.41	72.84	0.00	5	10	0	269	537	0	-268.11
49+15.13	17.32	101.12	45.78	10	37	10	279	583	14	-303.81
49+20	12.54	112.08	66.43	3	19	10	282	607	30	-325.16
49+25	10.94	127.52	85.75	2	22	14	284	634	51	-350.72
49+30	10.17	143.74	89.66	2	25	16	286	666	75	-380.16
49+35	10.35	164.83	88.90	2	29	17	288	702	100	-413.97
49+40	8.87	186.48	73.71	2	33	15	289	742	123	-452.85
49+45	1.14	221.09	64.58	1	38	13	290	789	142	-499.10
49+50	0.00	234.93	56.95	0	42	11	290	842	159	-551.77
49+55	0.00	219.27	51.15	0	42	10	290	895	174	-604.34
49+60	0.00	179.40	46.97	0	37	9	290	941	187	-650.49
49+65	0.00	133.36	51.73	0	29	9	290	977	201	-686.69
49+70	0.00	49.16	69.85	0	17	11	290	998	218	-707.81
49+75	11.74	2.05	30.74	1	5	9	291	1,004	232	-712.65
49+80	18.69	0.00	0.00	3	0	3	294	1,004	236	-710.07
49+85	8.48	0.00	0.00	3	0	0	297	1,004	236	-707.55
50+12.51	0.00	0.00	0.00	4	0	0	301	1,004	236	-703.24

Note 1: Common Excavation is the sum of the Cut column.

Note 2: Backfill with Select Borrow material. Expanded Fill Factor = 1.25.

Note 3: Backfill with Select Borrow material. Expanded Fill Factor = 1.5.

Note 4: The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

STAGE 1 (SOUTH CTH A) EARTHWORK SUMMARY

STATION	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
	Cut	Fill	Marsh Exc	Cut	Fill	Marsh Exc	Cut	Expanded Fill	Expanded Marsh	
				Note 1	Note 2		1.00 Note 1	1.25 Note 2	1.50 Note 3	
45+00	48.50	9.08	0.00	0	0	0	0	0	0	0.00
45+50	11.37	28.88	0.00	55	35	0	55	44	0	11.50
46+00	6.61	25.44	0.00	17	50	0	72	107	0	- 34.73
46+50	8.86	25.29	0.00	14	47	0	86	166	0	- 79.13
47+00	17.10	24.69	0.00	24	46	0	110	223	0	- 112.93
47+50	14.41	33.90	0.00	29	54	0	140	291	0	- 151.56
48+00	15.79	35.97	0.00	28	65	0	168	372	0	- 204.46
48+50	25.10	24.31	0.00	38	56	0	205	442	0	- 236.36
48+75	32.63	27.11	0.00	27	24	0	232	472	0	- 239.39
49+00	36.48	65.08	0.00	32	43	0	264	525	0	- 260.75
49+03.77	30.41	72.84	0.00	5	10	0	269	537	0	- 268.11
49+15.13	17.32	101.12	45.78	10	37	10	279	583	14	- 303.81
49+20	12.54	112.08	66.43	3	19	10	282	607	30	- 325.16
49+25	10.94	127.52	85.75	2	22	14	284	634	51	- 350.72
49+30	10.17	143.74	89.66	2	25	16	286	666	75	- 380.16
49+35	10.35	164.83	88.90	2	29	17	288	702	100	- 413.97
49+40	8.87	186.48	73.71	2	33	15	289	742	123	- 452.85
49+45	1.14	221.09	64.58	1	38	13	290	789	142	- 499.10
49+50	0.00	234.93	56.95	0	42	11	290	842	159	- 551.77
49+55	0.00	219.27	51.15	0	42	10	290	895	174	- 604.34
49+60	0.00	179.40	46.97	0	37	9	290	941	187	- 650.49
49+65	0.00	133.36	51.73	0	29	9	290	977	201	- 686.69
49+70	0.00	49.16	69.85	0	17	11	290	998	218	- 707.81
49+75	11.74	2.05	30.74	1	5	9	291	1,004	232	- 712.65
49+80	18.69	0.00	0.00	3	0	3	294	1,004	236	- 710.07
49+85	8.48	0.00	0.00	3	0	0	297	1,004	236	- 707.55
50+12.51	0.00	0.00	0.00	4	0	0	301	1,004	236	- 703.24

Note 1: Common Excavation is the sum of the Cut column.

Note 2: Backfill with Select Borrow material. Expanded Fill Factor = 1.25.

Note 3: Backfill with Select Borrow material. Expanded Fill Factor = 1.5.

Note 4: The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

STAGE 2 (STH 54) EARTHWORK SUMMARY

STATION	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
	Cut	Fill	Marsh Exc	Cut	Fill	Marsh Exc	Cut	Expanded Fill	Expanded Marsh	
				Note 1	Note 2		1.00 Note 1	1.25 Note 2	1.50 Note 3	
83+00	32.10	1.26	0.00	0	0	0	0	0	0	0.00
83+50	54.83	0.00	0.00	80	1	0	80	1	0	79.04
84+00	41.47	0.00	0.00	89	0	0	170	1	0	168.20
84+50	33.31	0.06	0.00	69	0	0	239	2	0	237.37
85+00	14.20	0.00	0.00	44	0	0	283	2	0	281.30
85+40.02	9.86	1.33	0.00	18	1	0	301	3	0	297.90

STAGE 2 (SOUTH CTH A) EARTHWORK SUMMARY

STATION	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
	Cut	Fill	Marsh Exc	Cut	Fill	Marsh Exc	Cut	Expanded Fill	Expanded Marsh	
				Note 1	Note 2		1.00 Note 1	1.25 Note 2	1.50 Note 3	
40+75	48.50	9.08	0.00	0	0	0	0	0	0	0.00
41+00	54.50	7.91	0.00	48	8	0	48	10	0	37.85
41+50	50.18	7.73	0.00	97	14	0	145	28	0	116.68
42+00	62.67	9.61	0.00	104	16	0	249	48	0	201.10
42+50	57.95	10.43	0.00	112	19	0	361	71	0	289.58
43+00	54.06	2.65	0.00	104	12	0	465	86	0	378.15
43+50	63.17	5.72	0.00	109	8	0	573	96	0	477.01
44+00	54.51	15.14	0.00	109	19	0	682	120	0	561.83
44+50	20.69	36.43	0.00	70	48	0	752	180	0	571.76
45+00	25.90	34.85	0.00	43	66	0	795	262	0	532.40

Note 1: Common Excavation is the sum of the Cut column.

Note 2: Backfill with Select Borrow material. Expanded Fill Factor = 1.25.

Note 3: Backfill with Select Borrow material. Expanded Fill Factor = 1.5.

Note 4: The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

STAGE 3 (STH 54) EARTHWORK SUMMARY

STATION	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
	Cut	Fill	Marsh Exc	Cut	Fill	Marsh Exc	Cut	Expanded Fill	Expanded Marsh	
				Note 1	Note 2		1.00 Note 1	1.25 Note 2	1.50 Note 3	
80+64.49	6.69	19.87	0.00	0	0	0	0	0	0	0.00
81+00	7.83	21.18	7.99	10	27	5	10	34	8	- 24.19
81+47.3	7.05	52.22	14.30	13	64	20	23	114	37	- 91.52
81+50	8.22	51.06	16.45	1	5	2	23	121	39	- 97.21
81+55	8.65	51.89	20.69	2	10	3	25	132	45	- 107.56
81+60	9.73	50.90	16.83	2	10	3	27	144	50	- 117.75
81+65	10.53	56.95	25.24	2	10	4	28	157	56	- 128.36
81+70	10.64	66.88	20.73	2	11	4	30	171	62	- 140.73
81+75	10.82	71.57	16.62	2	13	3	32	187	67	- 154.77
81+80	10.91	66.11	12.29	2	13	3	34	203	71	- 168.69
81+85	10.89	48.89	8.00	2	11	2	36	216	74	- 179.99
81+90	10.71	23.72	2.99	2	7	1	38	225	76	- 186.39
81+95	10.48	9.44	0.00	2	3	0	40	229	76	- 188.27
82+00	10.86	1.23	0.00	2	1	0	42	230	76	- 187.53
82+05	10.60	0.00	0.00	2	0	0	44	230	76	- 185.68
82+10	7.83	0.00	0.00	2	0	0	46	230	76	- 183.97
82+15	5.19	0.00	0.00	1	0	0	47	230	76	- 182.77
82+20	0.00	0.00	0.00	0	0	0	48	230	76	- 182.29
82+22.88	2.46	0.00	0.00	0	0	0	48	230	76	- 182.16
82+25	4.35	0.00	0.00	0	0	0	48	230	76	- 181.89
82+30	7.11	0.00	0.00	1	0	0	49	230	76	- 180.83
82+35	11.79	0.00	0.00	2	0	0	51	230	76	- 179.08
82+40	18.88	0.00	0.00	3	0	0	54	230	76	- 176.24
82+45	26.92	0.00	0.00	4	0	0	58	230	76	- 172.00
82+50	35.29	0.00	0.00	6	0	0	64	230	76	- 166.24
82+55	34.78	0.76	0.00	6	0	0	70	230	76	- 159.84
82+60	40.72	0.66	0.00	7	0	0	77	230	76	- 153.01
82+65	57.06	0.63	0.00	9	0	0	86	230	76	- 144.11
82+70	57.35	0.57	0.00	11	0	0	97	231	76	- 133.65
82+75	50.43	0.52	0.00	10	0	0	107	231	76	- 123.80
82+80	49.63	0.00	0.00	9	0	0	116	231	76	- 114.60
82+85	48.99	0.00	0.00	9	0	0	125	231	76	- 105.46
82+90	38.77	0.04	0.00	8	0	0	133	231	76	- 97.34
82+93.93	37.94	0.11	0.00	6	0	0	139	231	76	- 91.78

CONTINUED ON NEXT PAGE

- Note 1: Common Excavation is the sum of the Cut column.
- Note 2: Backfill with Select Borrow material. Expanded Fill Factor = 1.25.
- Note 3: Backfill with Select Borrow material. Expanded Fill Factor = 1.5.
- Note 4: The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

STAGE 3 (STH 54) EARTHWORK SUMMARY

STATION	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
	Cut	Fill	Marsh Exc	Cut	Fill	Marsh Exc	Cut 1.00	Expanded Fill 1.25	Expanded Marsh Backfill 1.50	
Note 1	Note 2		Note 1	Note 2	Note 3	Note 4				
83+00	39.17	0.00	0.00	9	0	0	148	231	76	-83.12
83+50	27.96	0.00	0.00	62	0	0	210	231	76	-20.96
84+00	17.31	1.57	0.00	42	1	0	252	233	76	19.13
84+50	15.60	2.03	0.00	30	3	0	282	237	76	45.43
85+00	12.82	4.27	0.00	26	6	0	309	244	76	64.45
85+50	11.49	9.11	0.00	23	12	0	331	260	76	71.47
86+00	11.72	12.75	0.00	21	20	0	353	285	76	67.66
86+50	11.98	7.28	0.00	22	19	0	374	308	76	66.41
87+00	11.64	4.77	0.00	22	11	0	396	322	76	74.33
87+44.69	10.95	2.07	0.00	19	6	0	415	329	76	85.95

Note 1: Common Excavation is the sum of the Cut column.

Note 2: Backfill with Select Borrow material. Expanded Fill Factor = 1.25.

Note 3: Backfill with Select Borrow material. Expanded Fill Factor = 1.5.

Note 4: The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

STAGE 3 (NORH CTH A) EARTHWORK SUMMARY

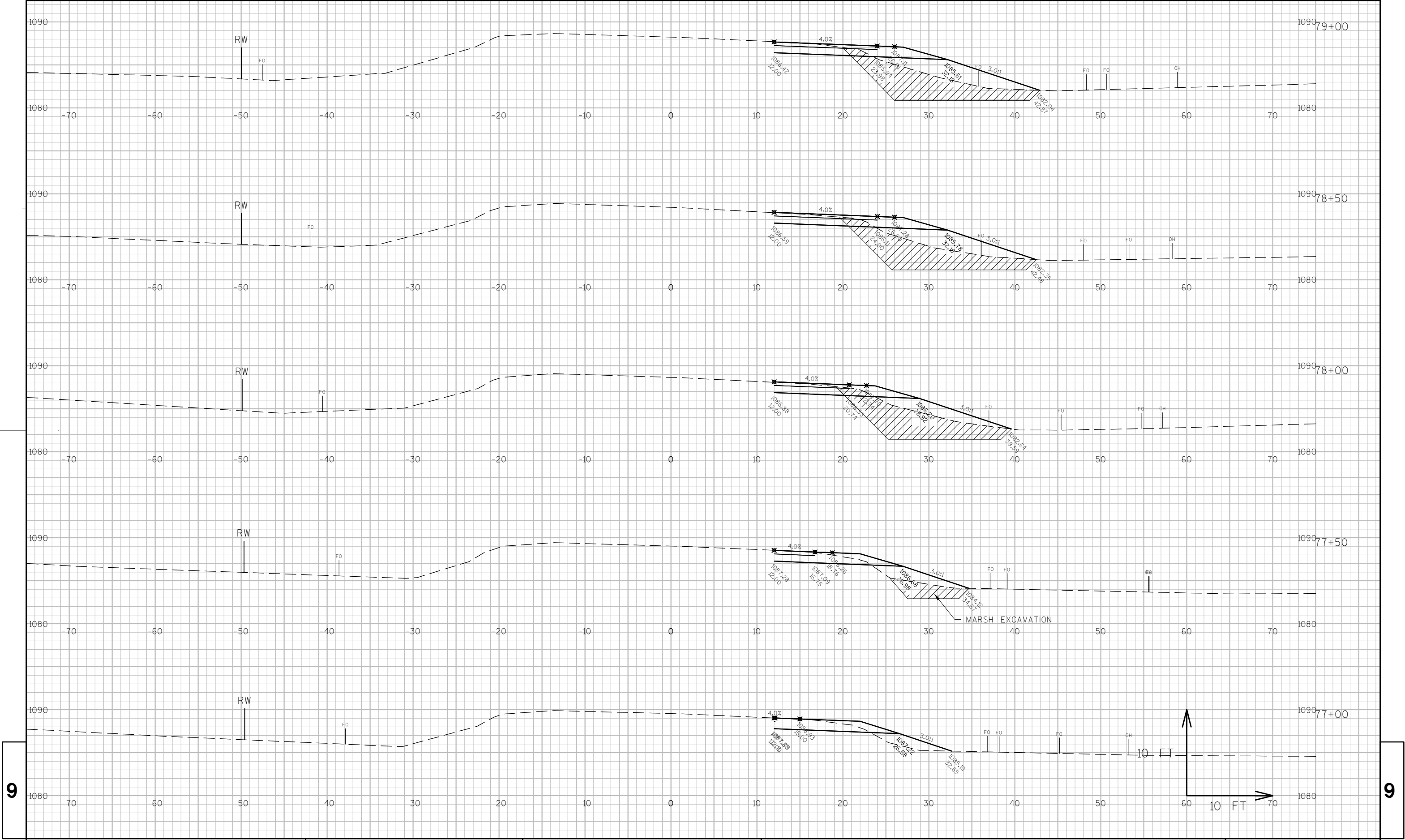
STATION	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
	Cut	Fill	Marsh Exc	Cut	Fill	Marsh Exc	Cut	Expanded Fill	Expanded Marsh Backfill	
				Note 1	Note 2		1.00 Note 1	1.25 Note 2	1.50 Note 3	Note 4
50+15	6.26	0.00	0.00	0	0	0	0	0	0	0.00
50+20	15.88	0.00	0.00	2	0	0	2	0	0	2.05
50+25	23.54	0.00	0.00	4	0	0	6	0	0	5.70
50+30	17.78	0.48	0.00	4	0	0	10	0	0	9.47
50+35	9.25	50.47	0.00	3	5	0	12	6	0	6.08
50+40	9.39	126.46	4.04	2	16	0	14	26	1	-12.67
50+45	4.51	185.17	47.99	1	29	5	15	62	8	-47.46
50+50	12.62	219.41	58.57	2	37	10	17	109	23	-92.70
50+55	31.97	233.63	67.25	4	42	12	21	162	40	-141.00
50+60	32.05	231.83	70.32	6	43	13	27	216	59	-188.95
50+65	27.27	220.57	72.80	5	42	13	32	268	79	-235.82
50+70	23.88	204.70	72.23	5	39	13	37	317	99	-280.30
50+75	20.50	197.34	67.44	4	37	13	41	364	119	-322.72
50+80	16.91	189.31	63.68	3	36	12	44	408	137	-364.01
50+85	12.96	183.69	54.26	3	35	11	47	452	153	-404.42
50+89.69	15.75	172.04	56.81	2	31	10	50	490	168	-440.51
51+00	20.44	145.44	71.35	7	61	24	57	566	204	-509.40
51+50	49.38	57.28	30.04	65	188	94	121	801	345	-679.38
51+75	42.41	19.70	0.02	42	36	14	164	845	366	-681.44
52+00	47.99	9.70	0.00	42	14	0	206	862	366	-656.60
52+50	38.85	17.51	0.00	80	25	0	286	894	366	-607.67
53+00	40.60	9.53	0.00	74	25	0	360	925	366	-565.39
53+49.99	60.11	0.67	0.00	93	9	0	453	937	366	-483.95

Note 1: Common Excavation is the sum of the Cut column.

Note 2: Backfill with Select Borrow material. Expanded Fill Factor = 1.25.

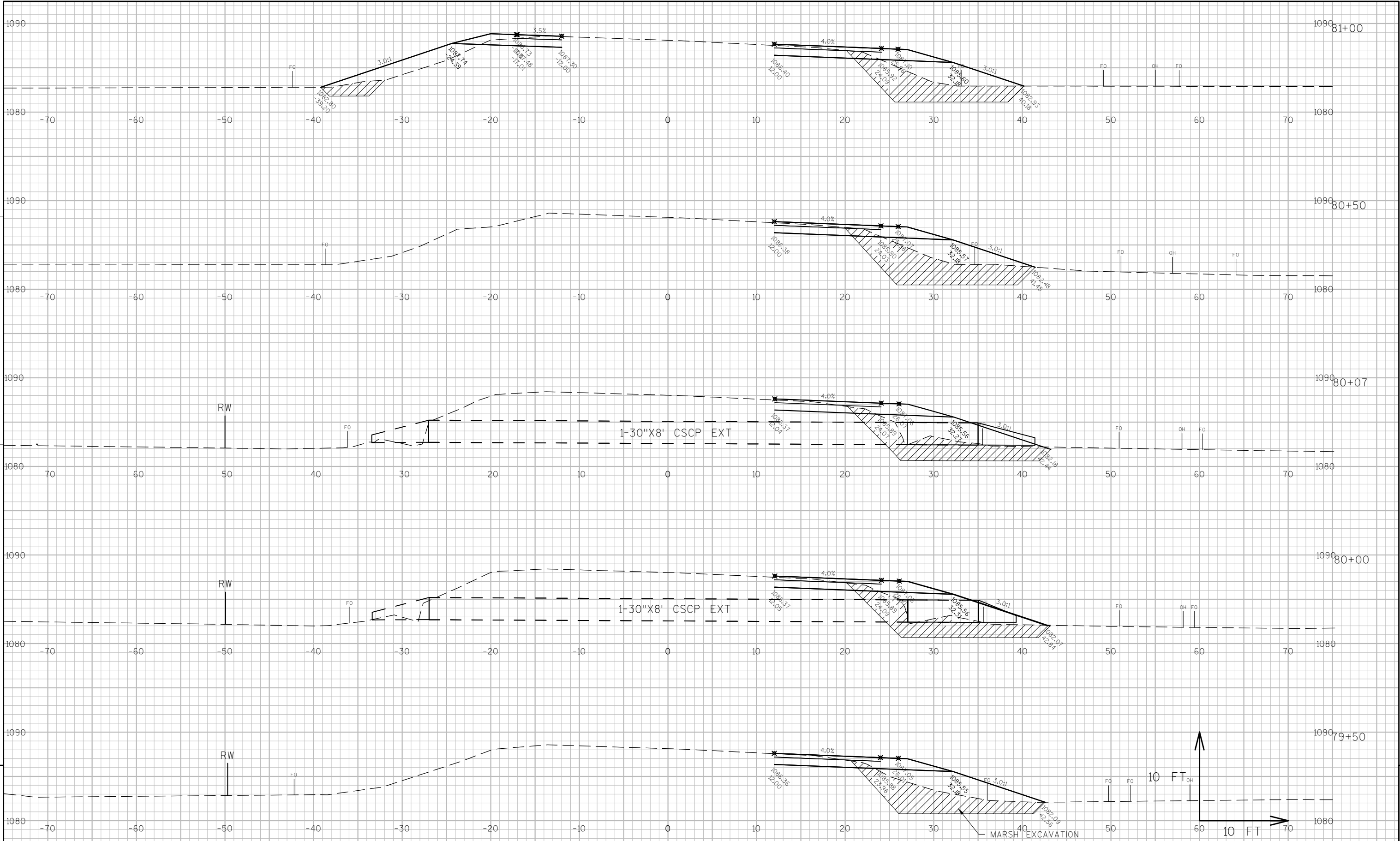
Note 3: Backfill with Select Borrow material. Expanded Fill Factor = 1.5.

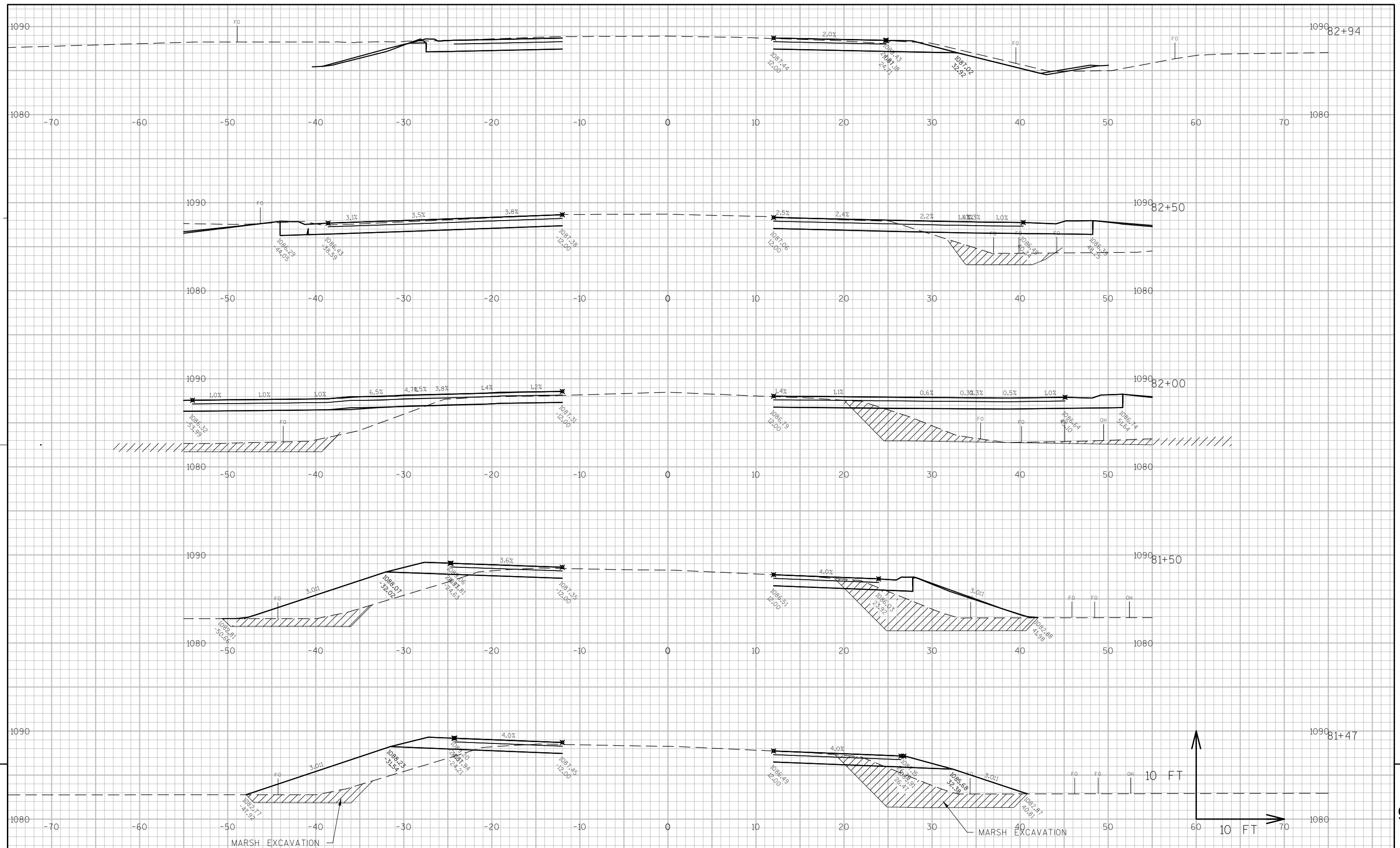
Note 4: The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.



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PROJECT NO: 6990-03-73

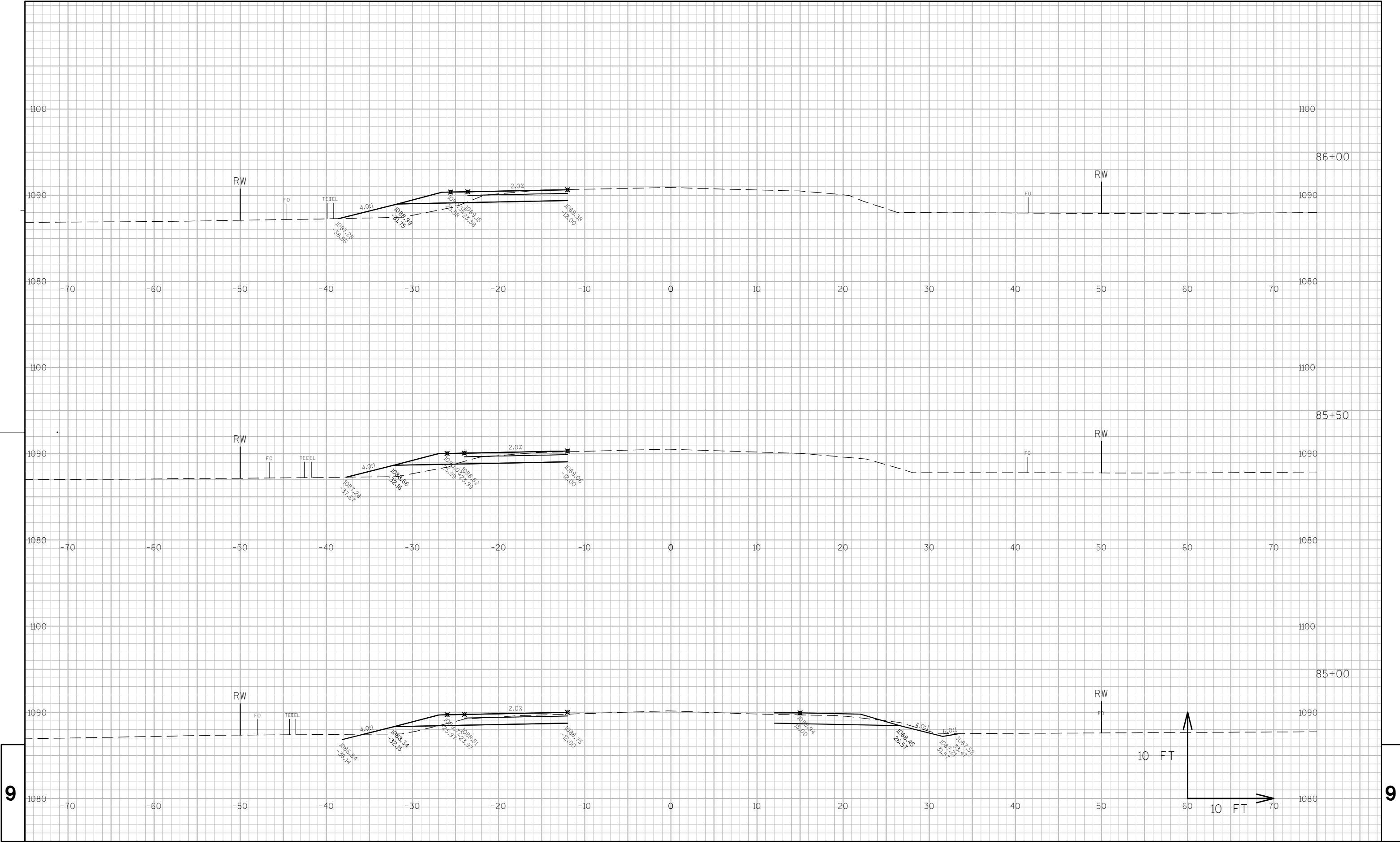
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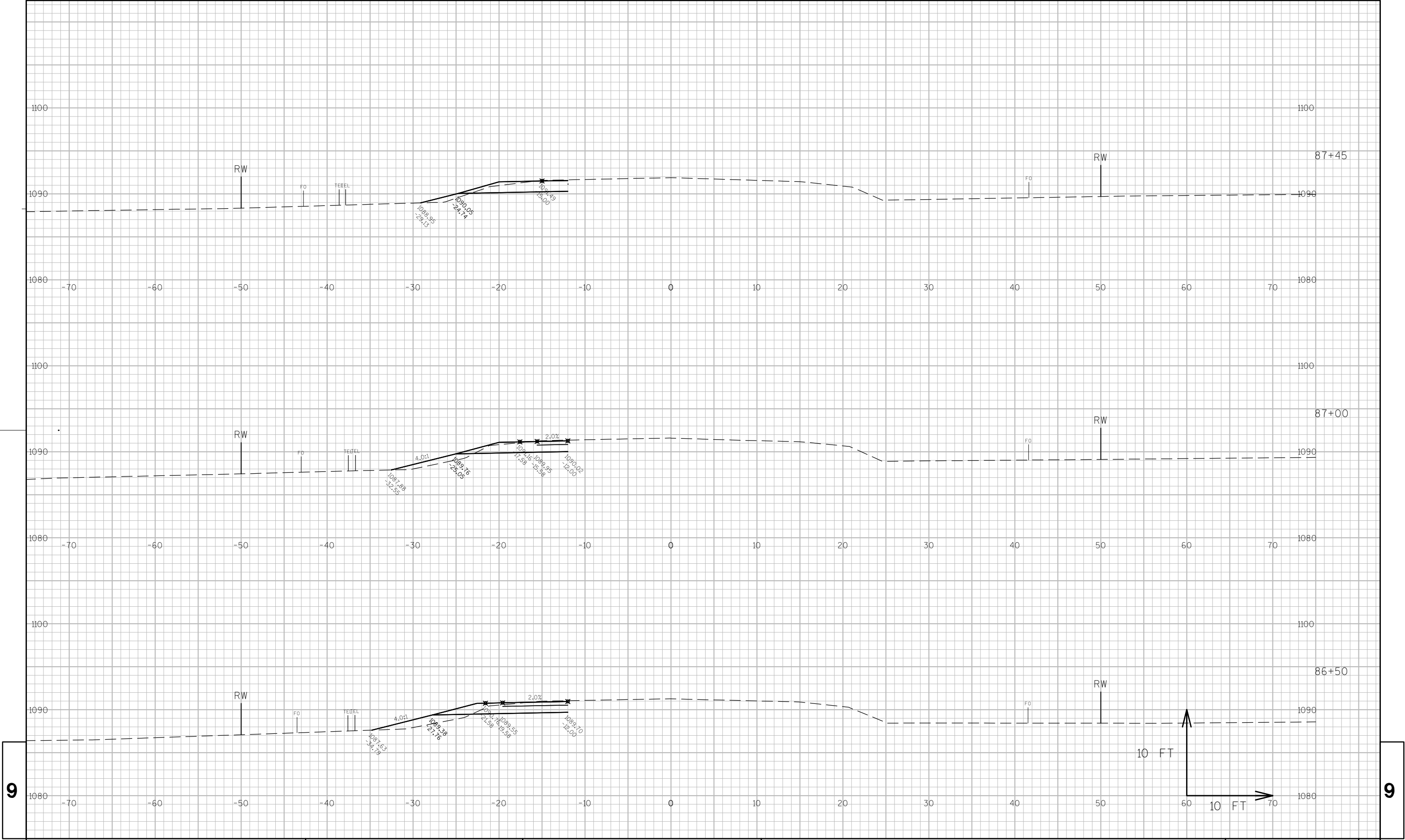
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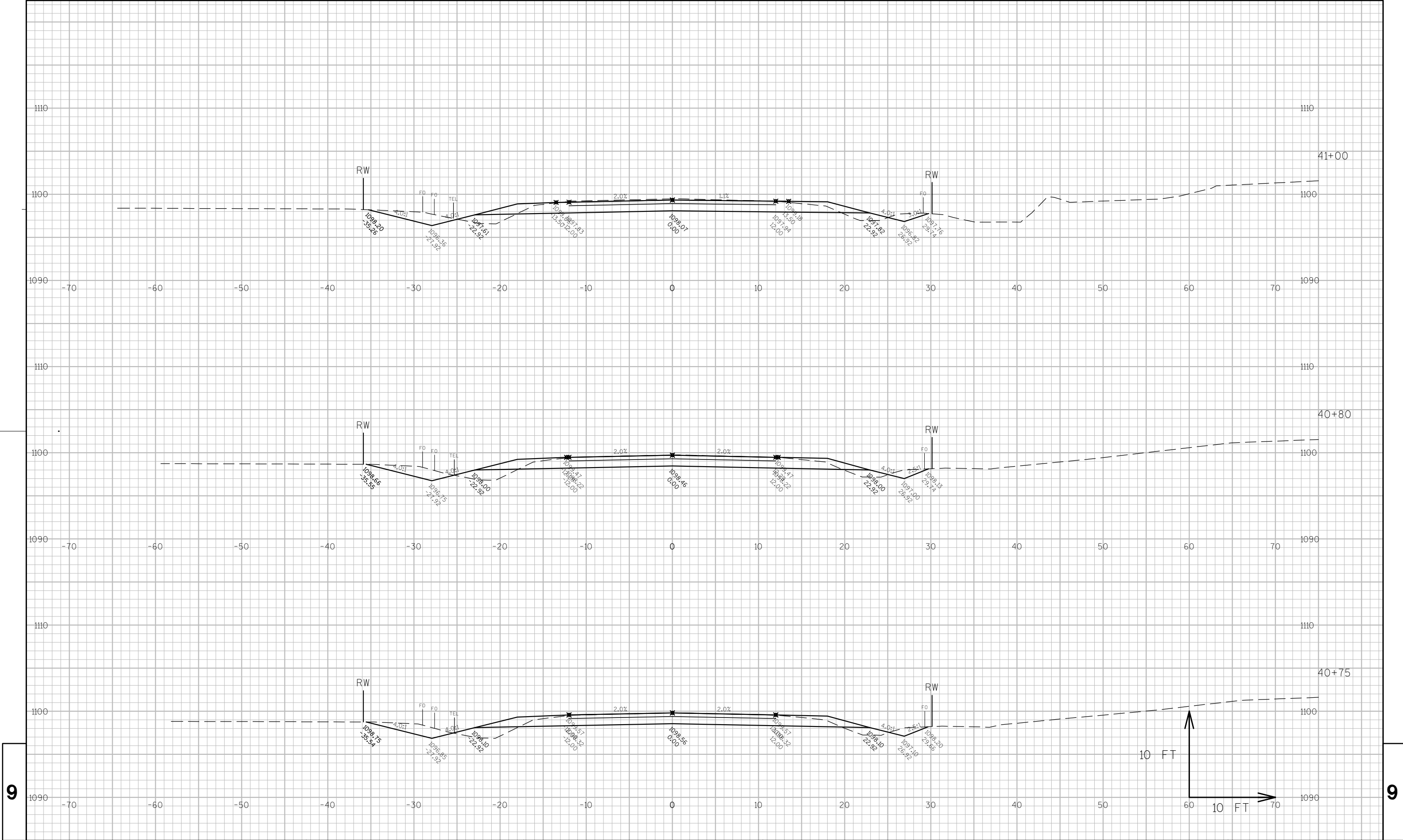
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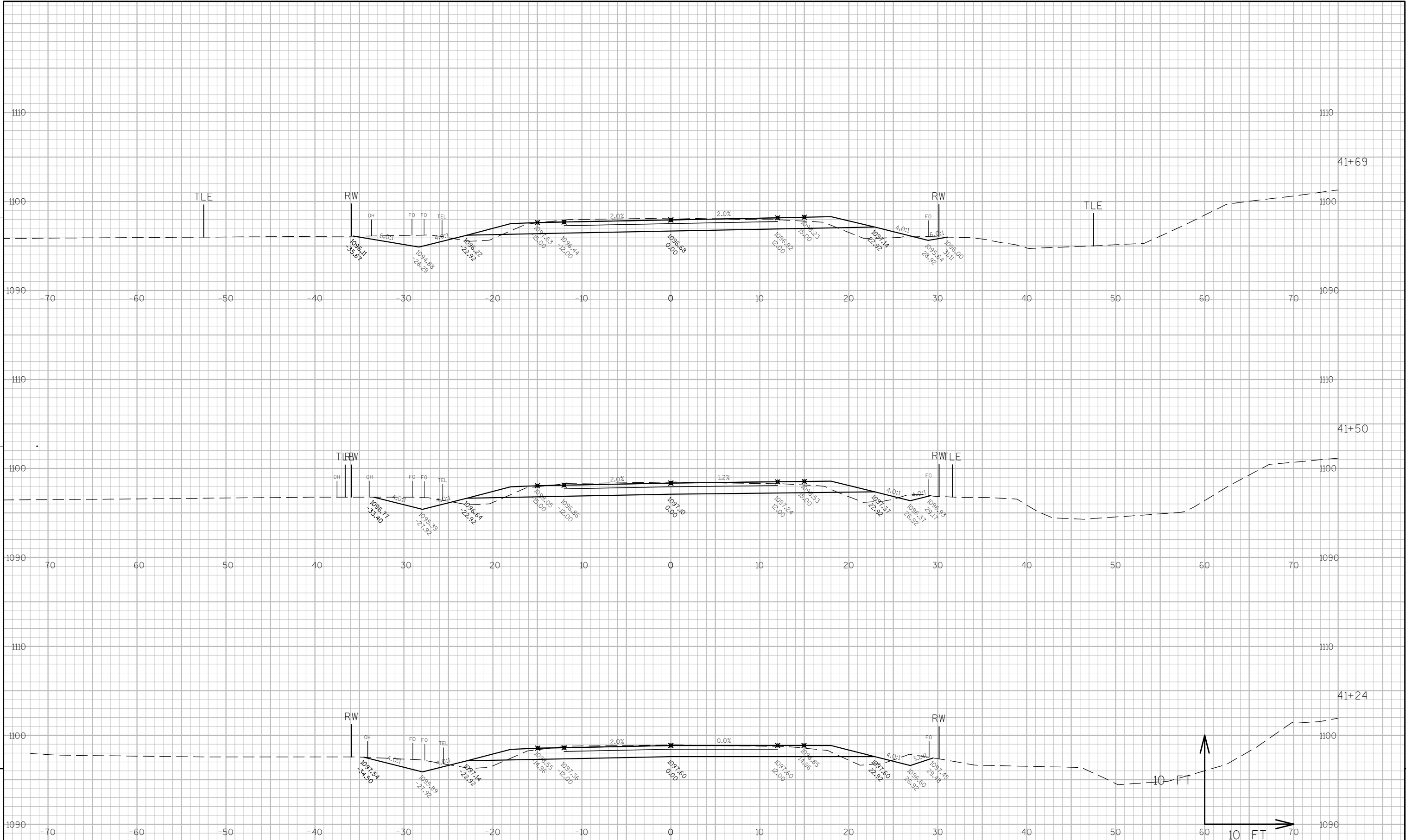


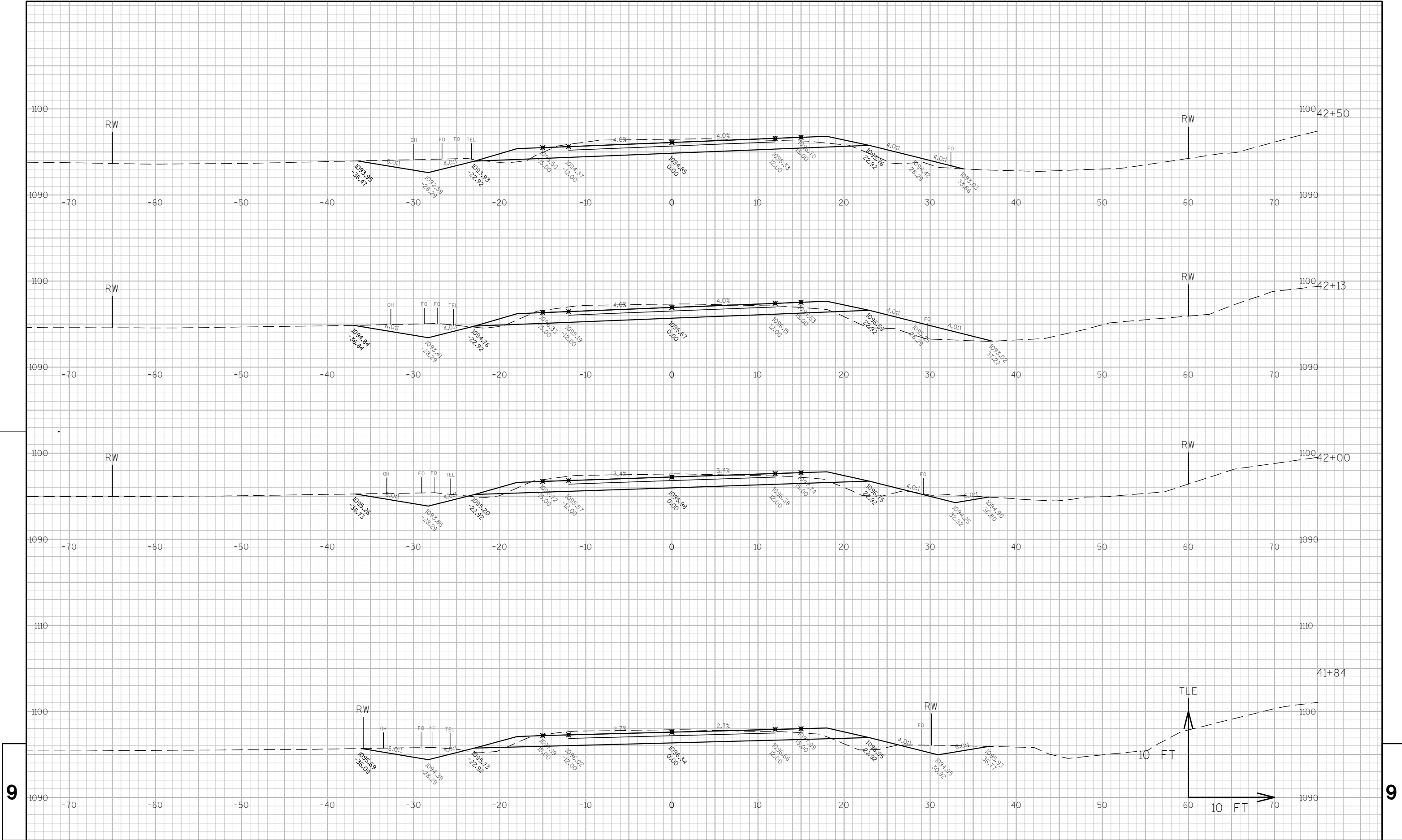
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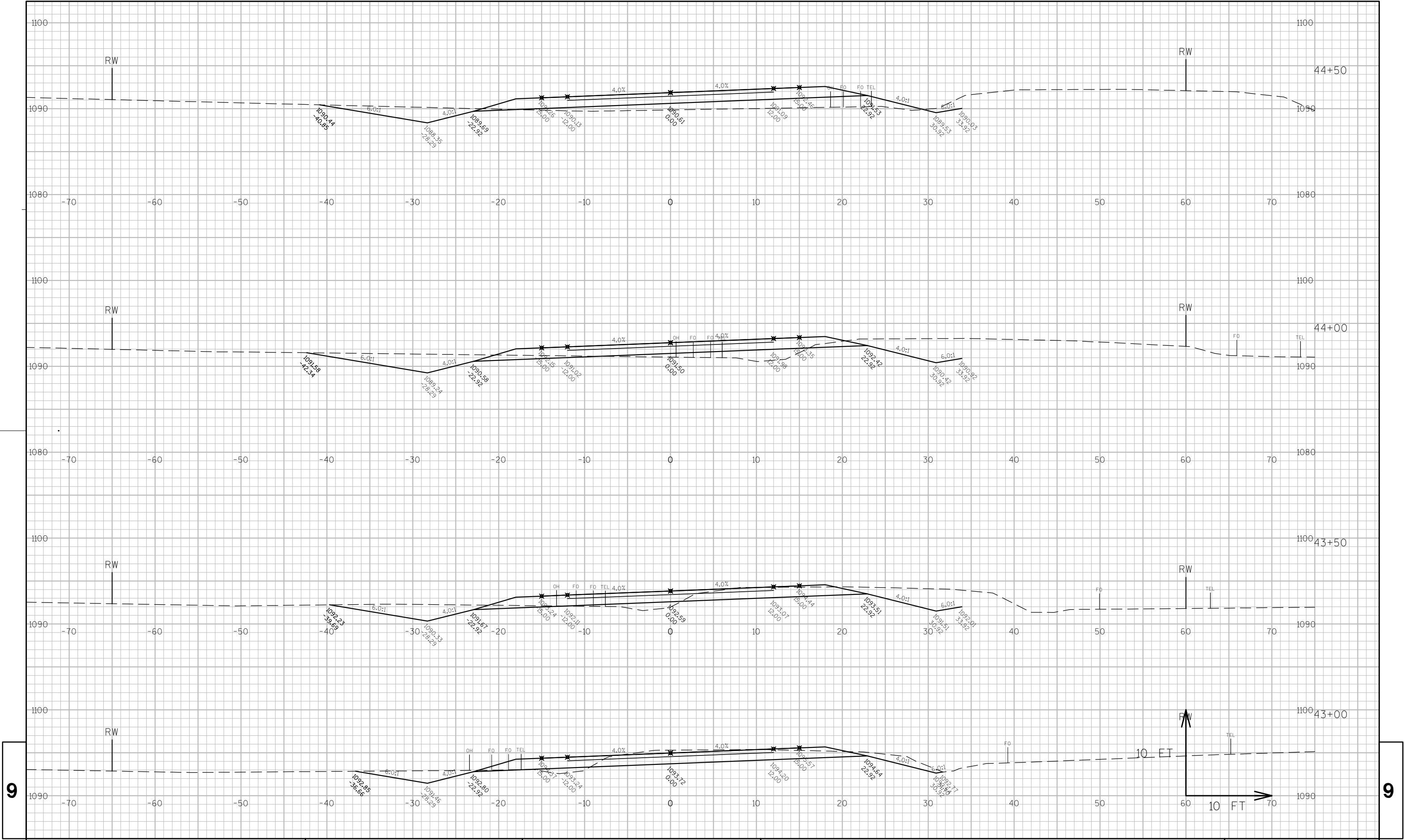


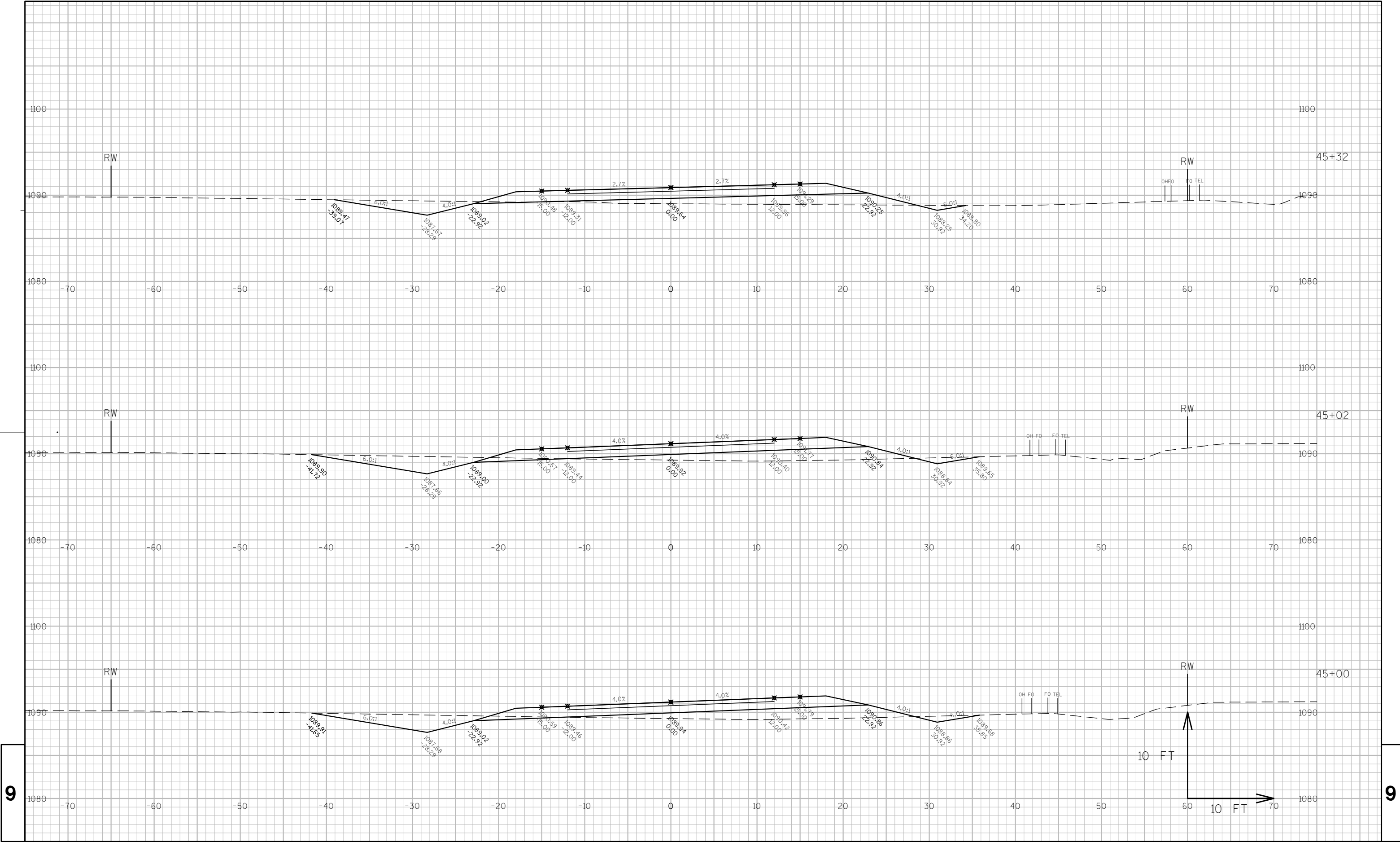
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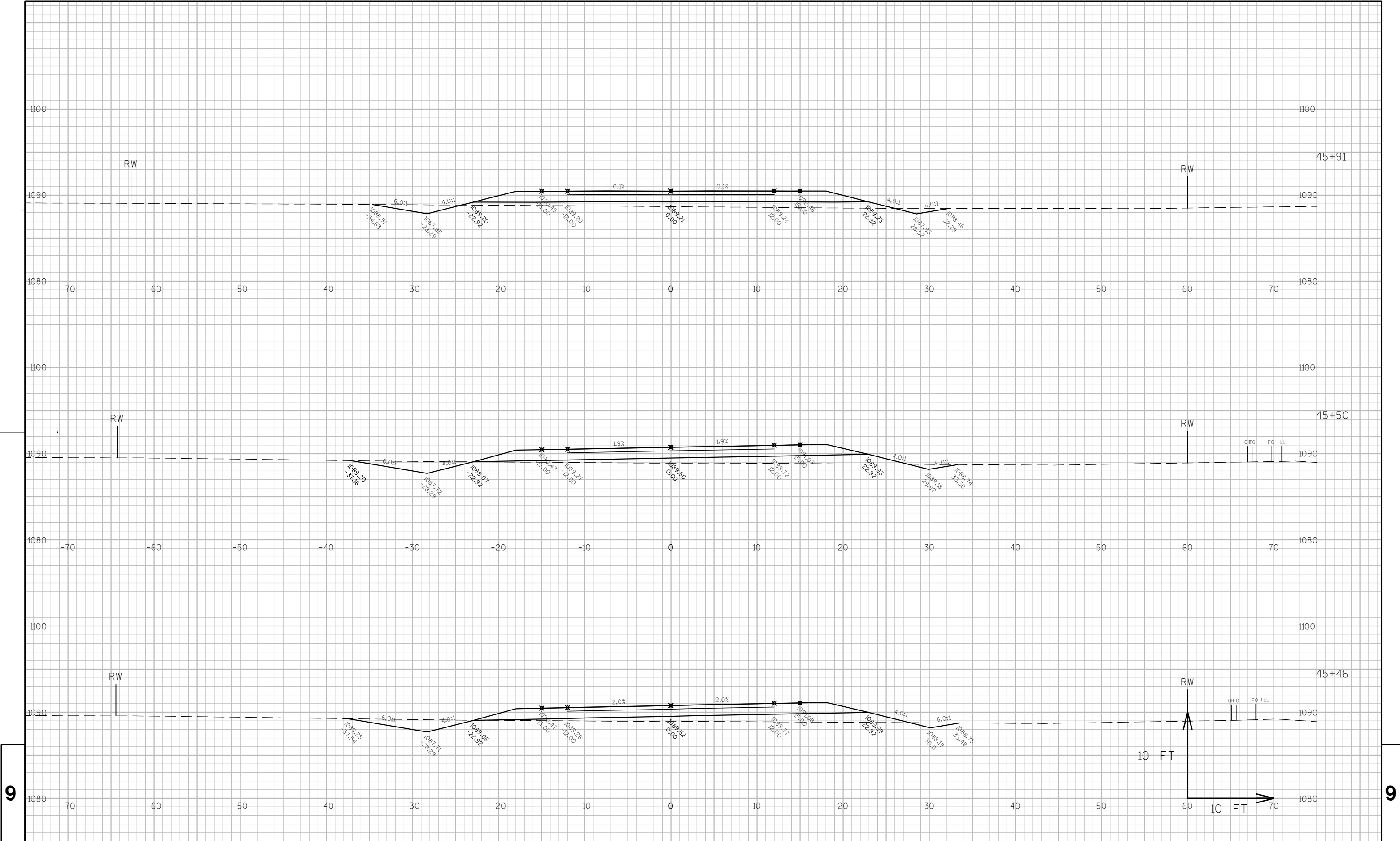
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PROJECT NO: 6990-03-73

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COUNTY: PORTAGE

CROSS SECTIONS: CTH A

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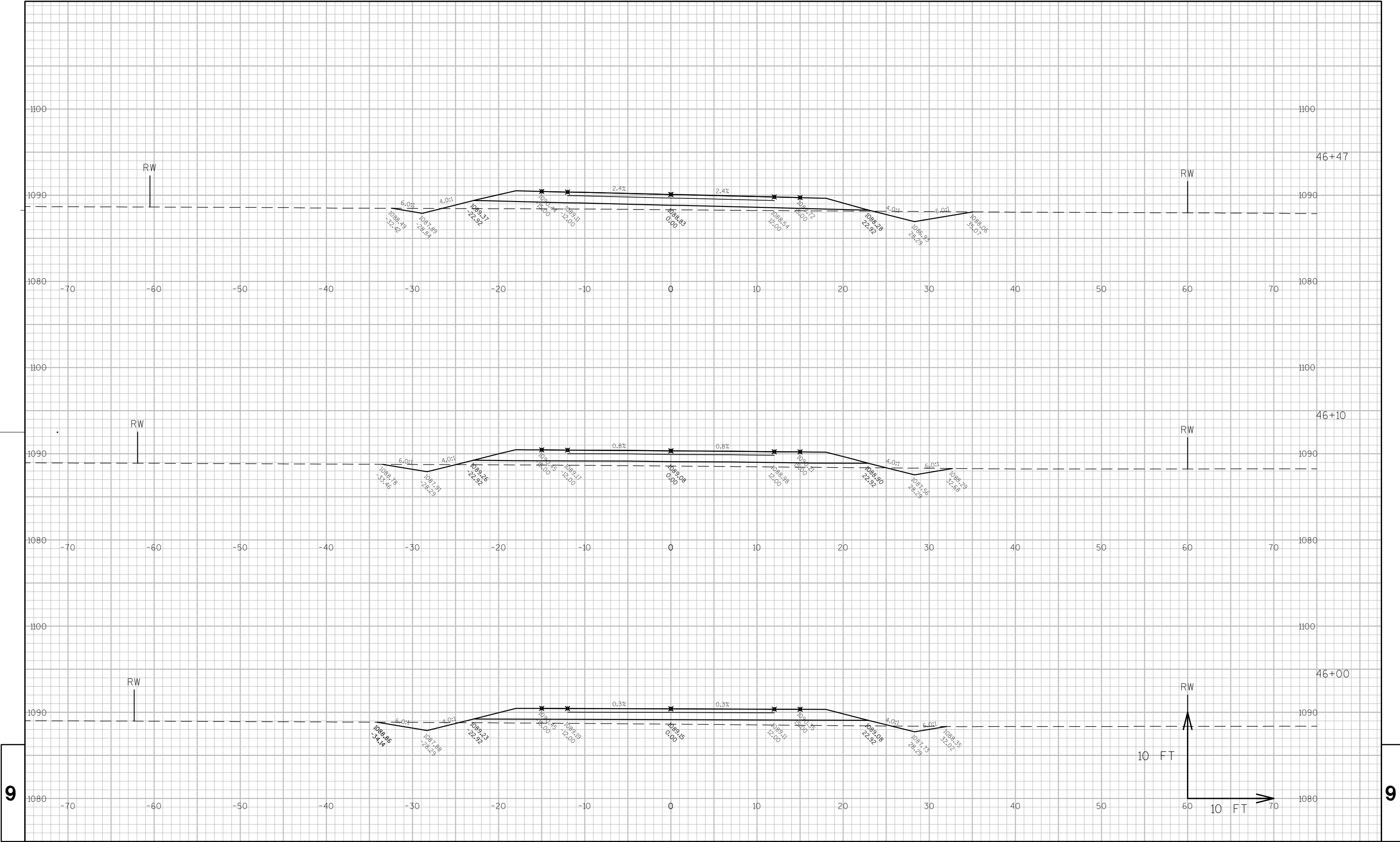
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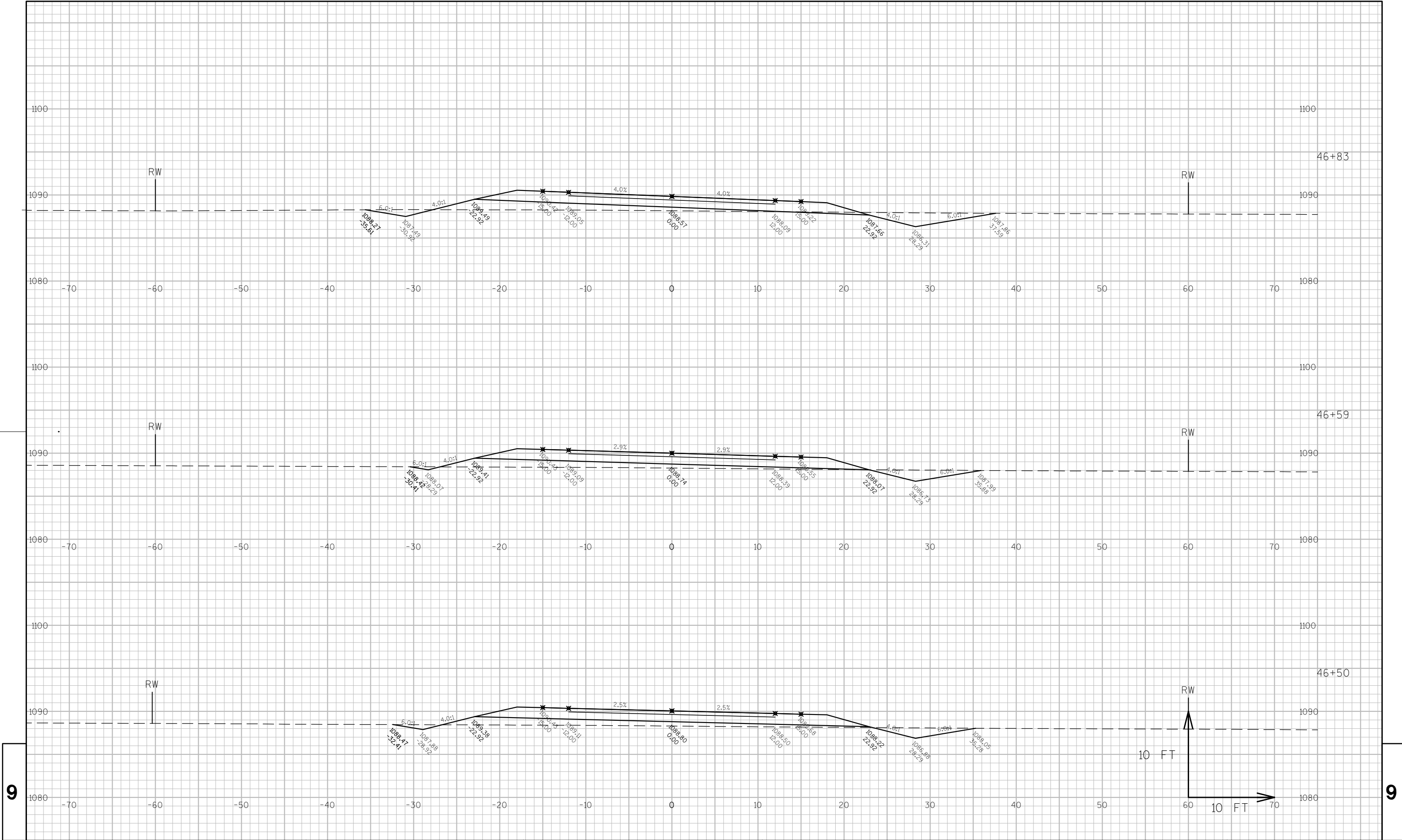
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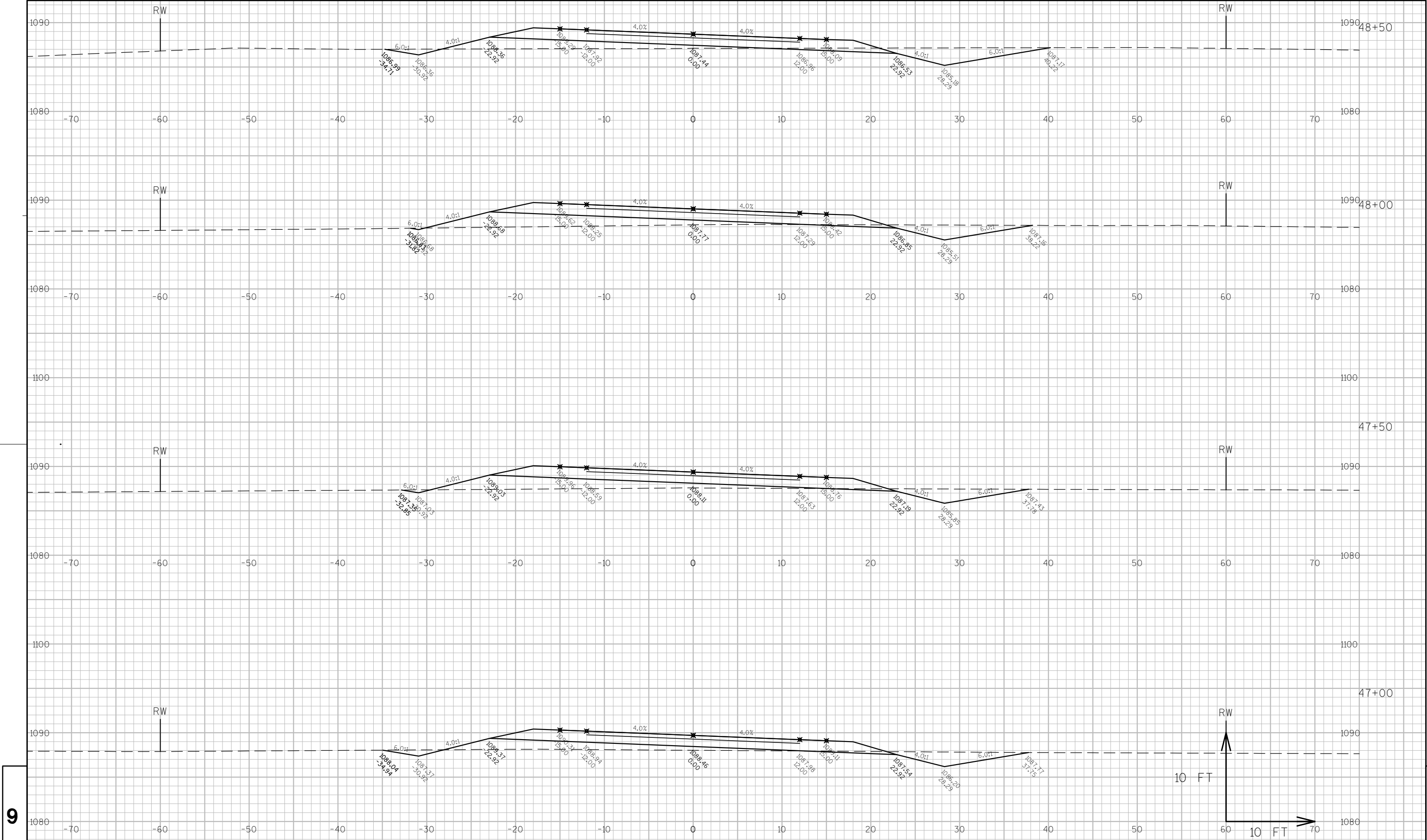
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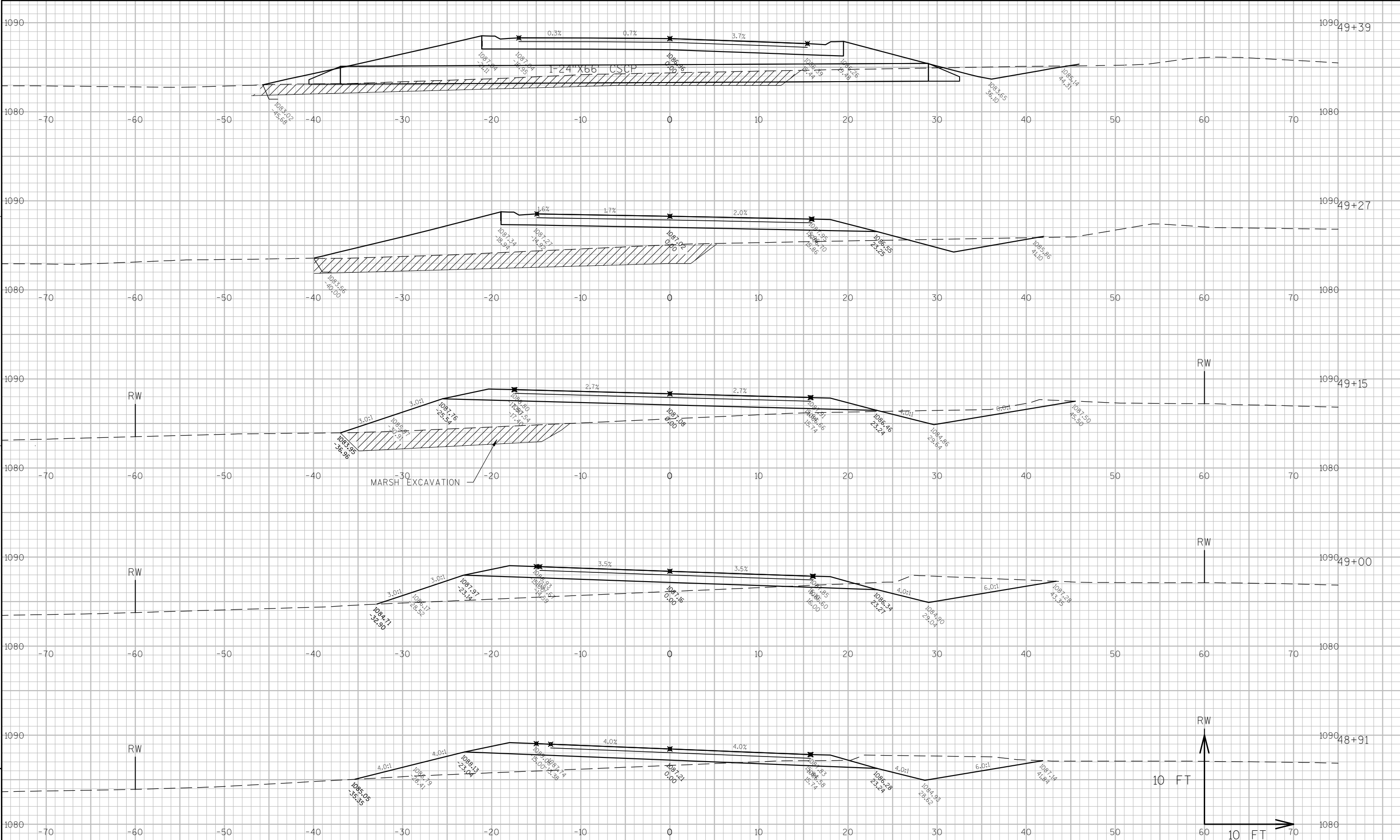
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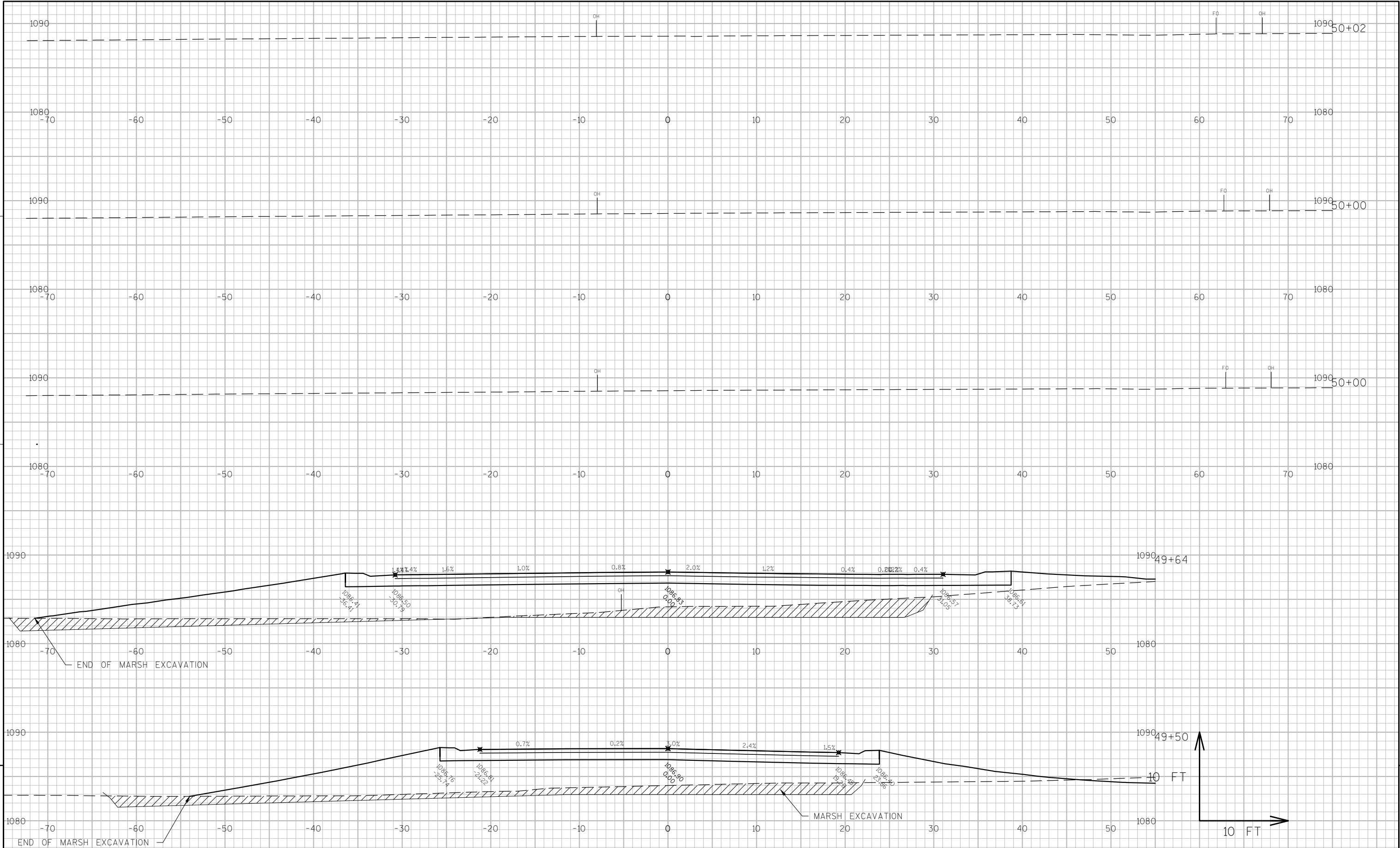
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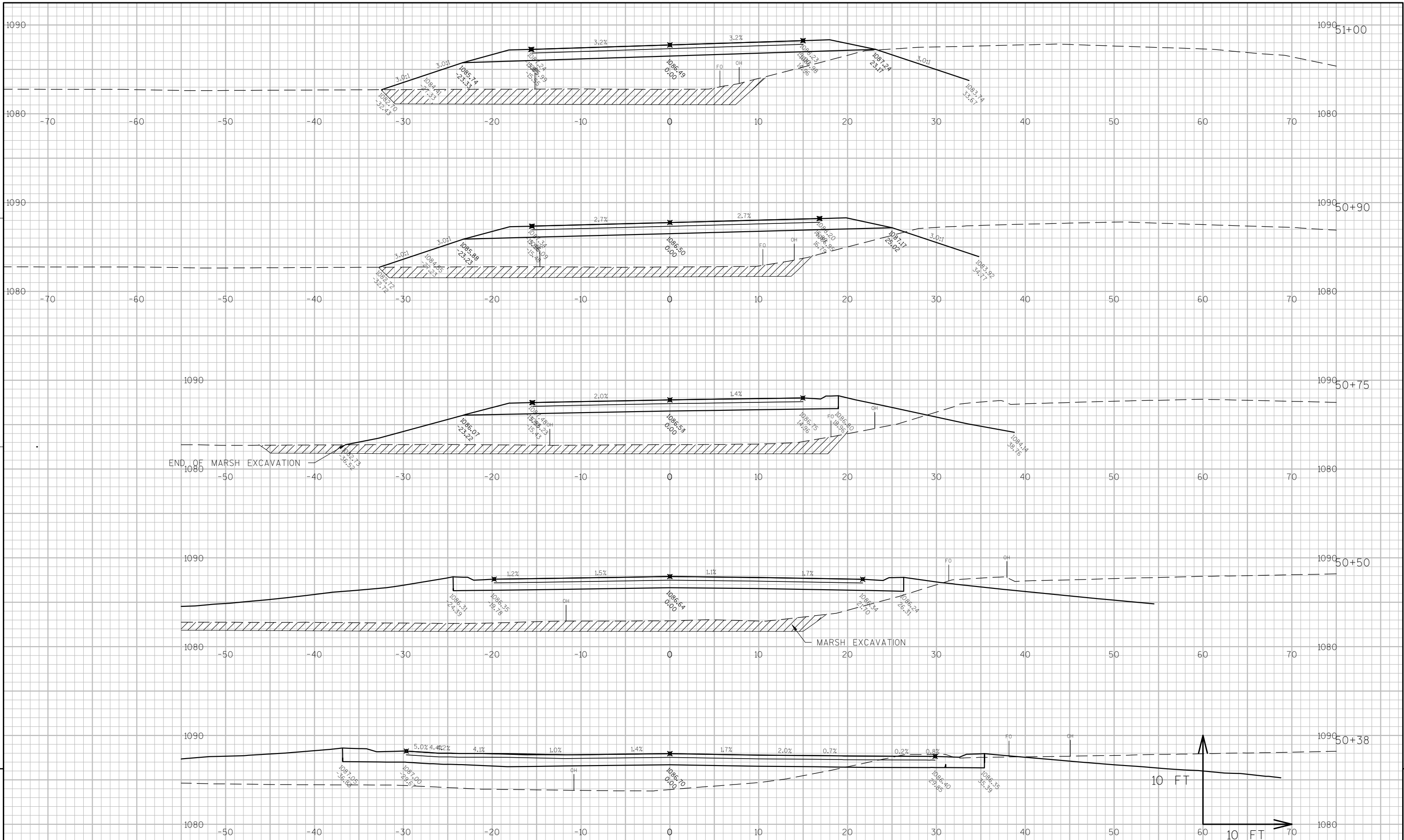






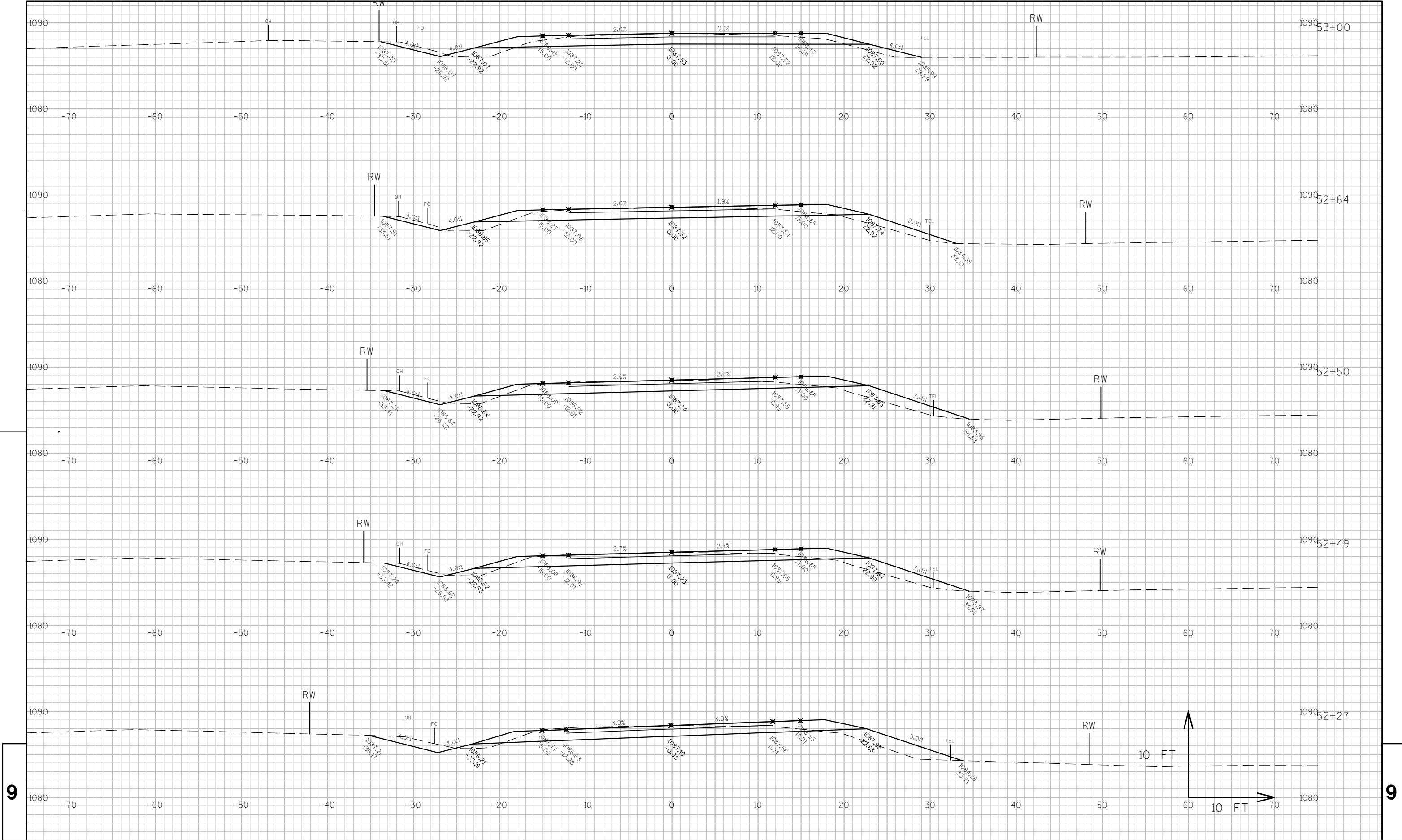


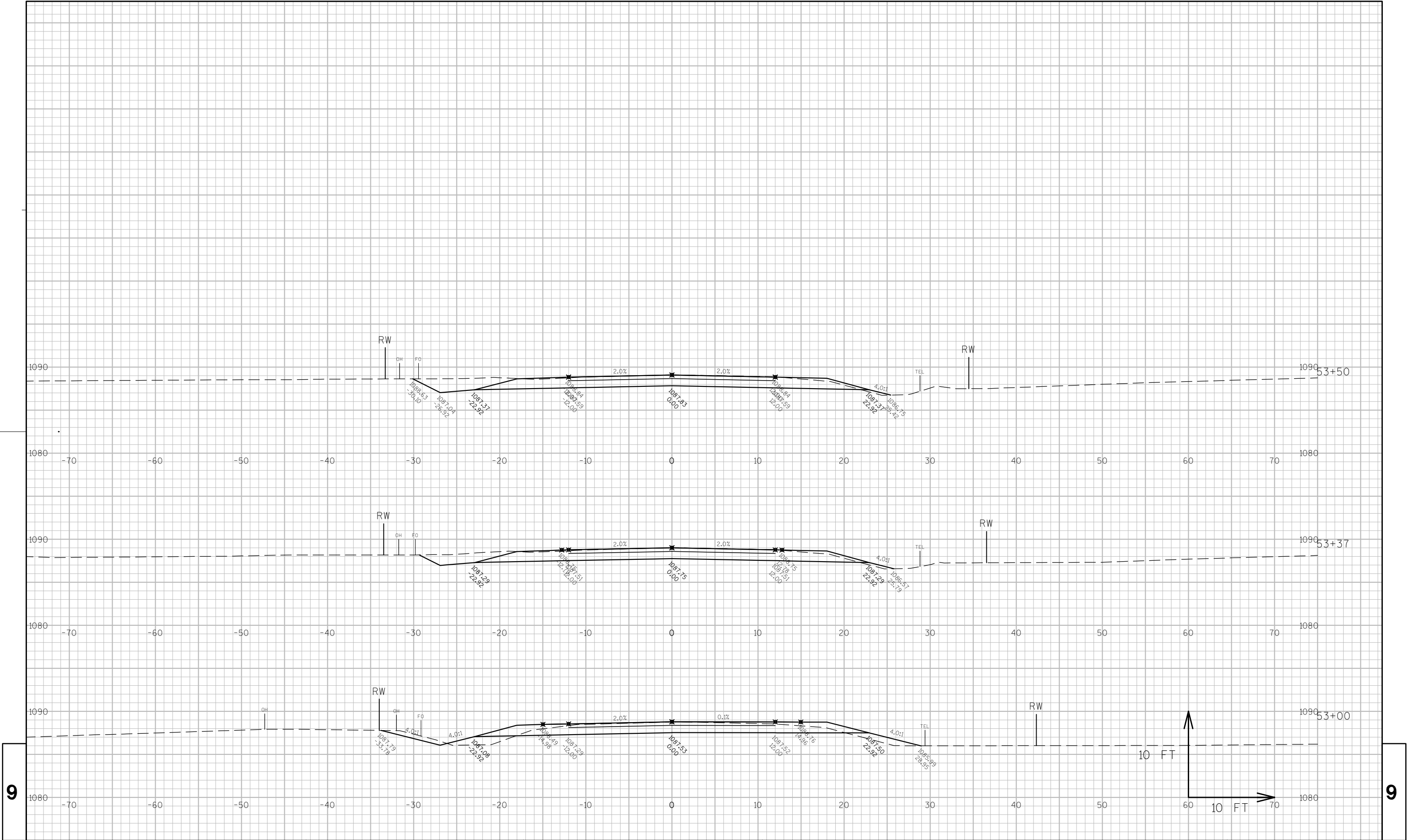




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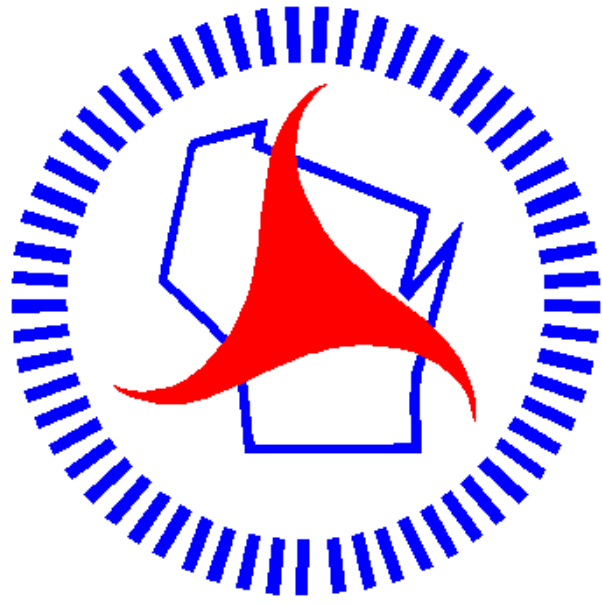
COUNTY: PORTAGE

CROSS SECTIONS: CTH A

SHEET

E

Notes



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