

RHI

PROJECT ID: 9000-13-70

WITH:

COUNTY: LINCOLN

JUNE 2014

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 = 170

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MERRILL - ANTIGO

CTH W TO LANGLADE COUNTY LINE

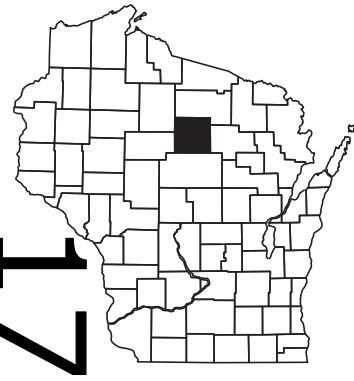
STH 64

LINCOLN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9000-13-70		

STATE PROJECT NUMBER

9000-13-70



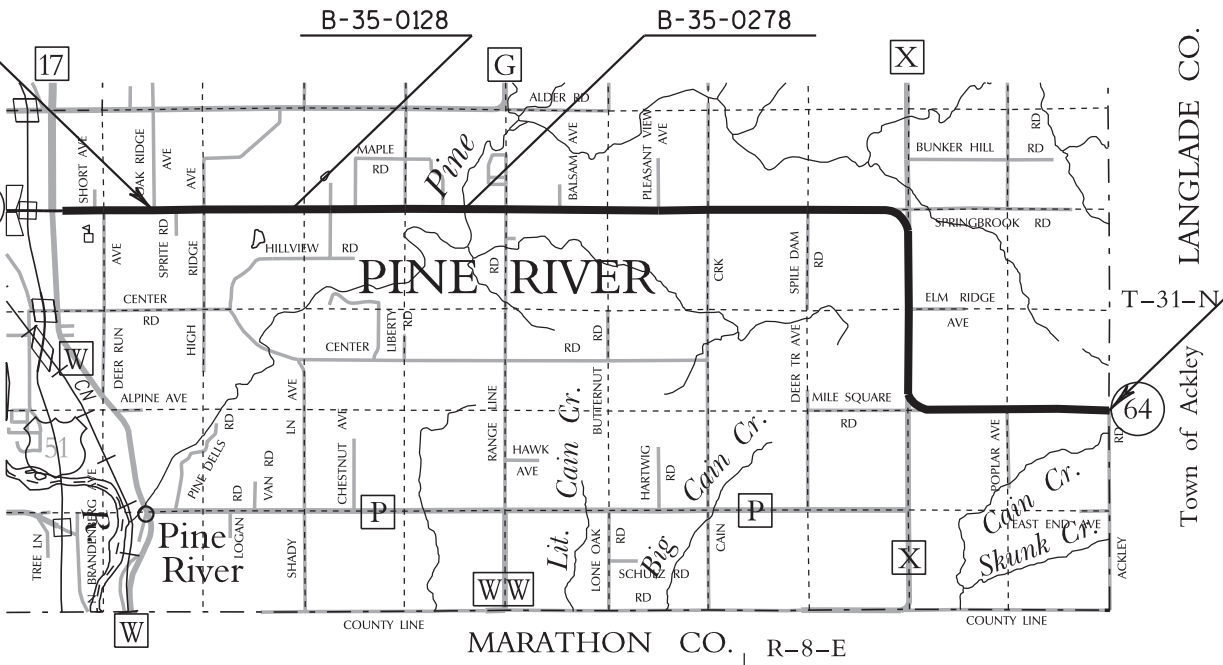
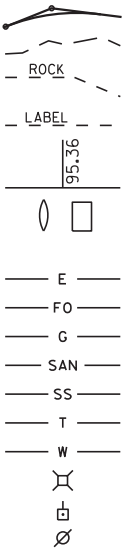
DESIGN DESIGNATION

A.A.D.T. (2010)	=	2,900
A.A.D.T. (2033)	=	3,600
D.H.V.	=	
D.	=	62-38
T.	=	19.6%
DESIGN SPEED	=	55 mph
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	
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	



LAYOUT

SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 12.26 MI

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

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 NAVD 88 (91)

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	MITCHELL L. LAVIN
Designer	RICHARD A. SIMON
Project Manager	CHERYL L. SIMON
Regional Examiner	ROBIN W. STAFFORD
Regional Supervisor	
C.O. Examiner	
APPROVED FOR THE DEPARTMENT	
DATE: 4/1/2014	(Signature)

GENERAL NOTES

- 1. MAINTAIN EXISTING SUPERELEVATIONS.
- 2. WHEN THE QUANTITY OF THE ITEM HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLAN IS APPROXIMATE & THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION ON THE MATERIAL AS DIRECTED BY THE ENGINEER.
- 3. PERMANENT SIGNING STATIONING WAS CALCULATED FROM THE PHOTOLOG & MAY BE PLUS OR MINUS 75 FEET.
- 4. THE LOCATION OF EXISTING & PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLAN.
- 5. NO PASSING ZONE SIGNS, W14-3, SHOULD BE PLACED ACCORDING TO THE RESULTS FOR LOCATING NO PASSING ZONES.



Dial  or (800) 242-8511
www.DiggersHotline.com

UTILITIES & OTHER CONTACTS

DEPARTMENT OF NATURAL RESOURCES
NORTH CENTRAL DISTRICT
107 SUTLIFF AVENUE
RHINELANDER, WI. 54501
JON SIMONSEN
715-365-8916

FRONTIER COMMUNICATIONS of WI LLC
1851 N. 14TH AVENUE
WAUSAU, WI 54401
CALVIN KLADE
715-847-1525 - OFFICE
715-573-2110 - MOBILE

Wisconsin Public Service - GAS
2850 S. ASHLAND AVE
GREENBAY, WI 54307
ADAM LAWNICZAK
920-617-5073 - OFFICE
920-819-2336 - MOBILE

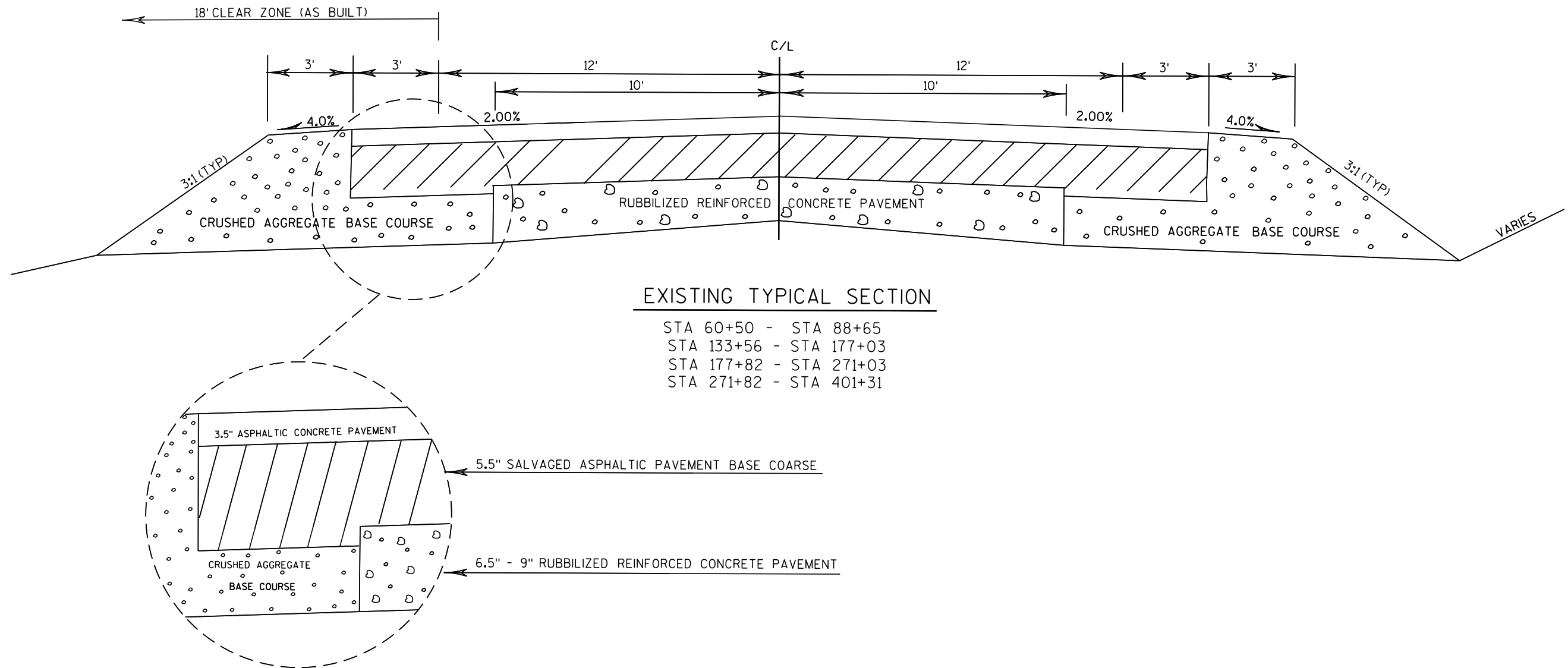
Wisconsin Public Service - ELECTRIC
3200 E MAIN ST
MERRILL, WI 54452
MIKE REHWINKEL
1-800-450-7260
715-351-0221 - MOBILE

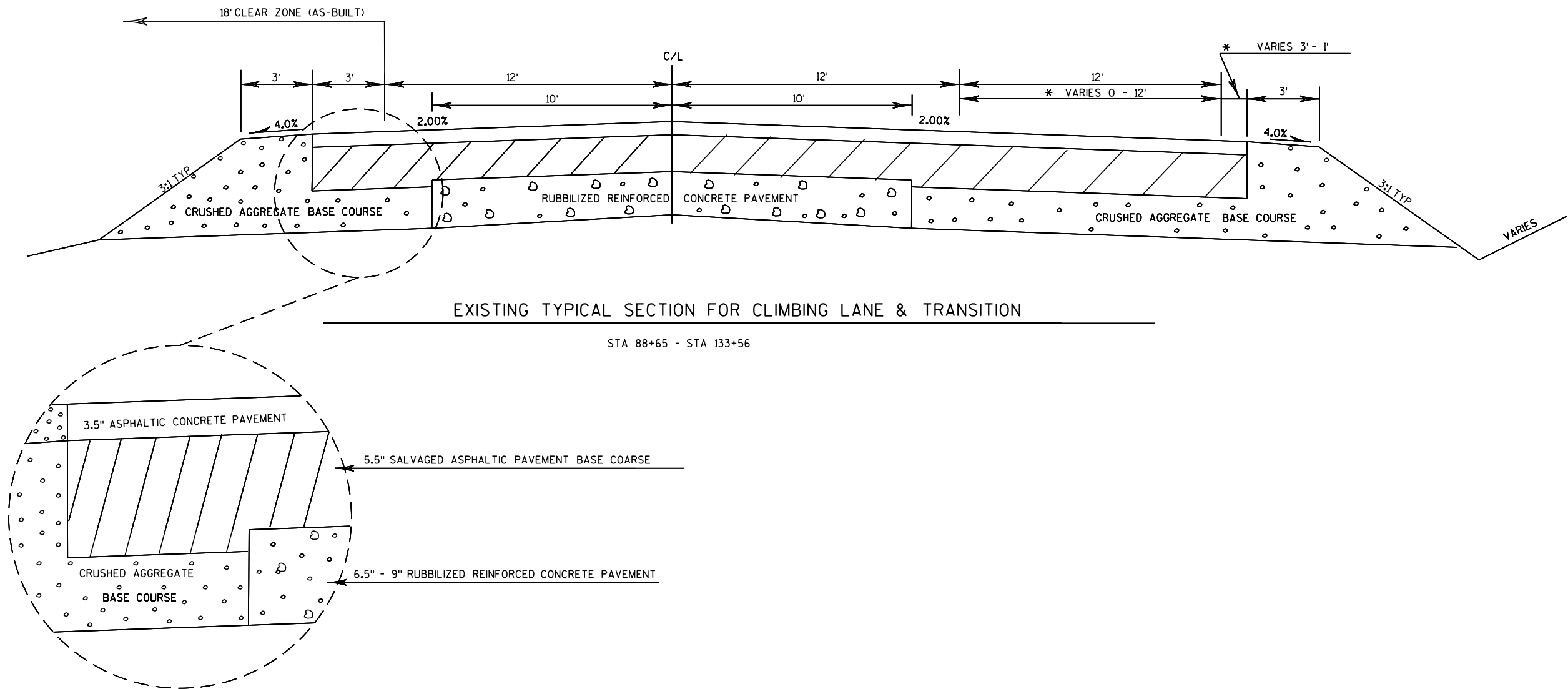
ATC
MIKE OLSEN
801 O' KEEFE ROAD
PO BOX 6113
DE PERE, WI 54115-6113
920-338-6582

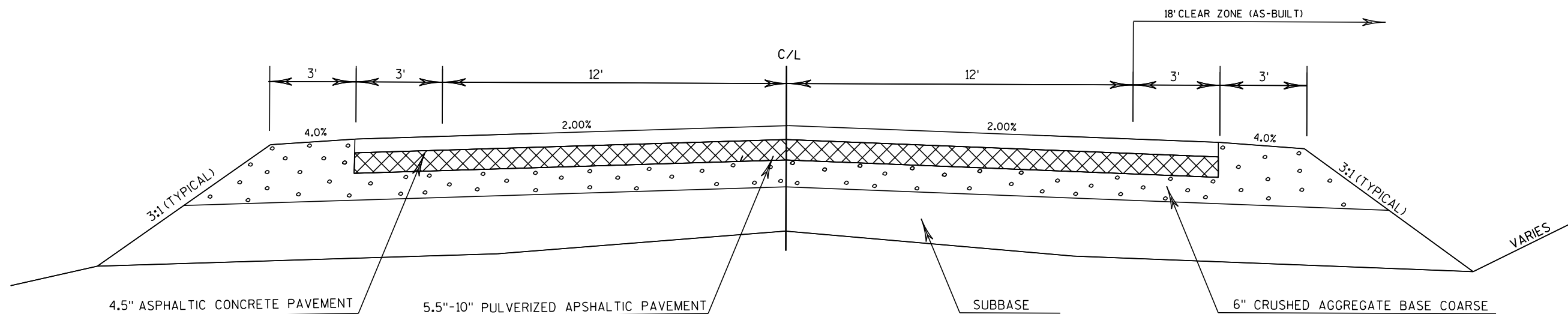
NET LEC
DENNIS LA FAVE
1700 INDUSTRIAL DRIVE
GREEN BAY, WI 54302
920-619-9774
DLAFAVE@MI-TECH.US

AS-BUILT PLANS

9000-07-70
9015-09-70
9000-06-70
9015-04-70
T 0393 (1)
7069

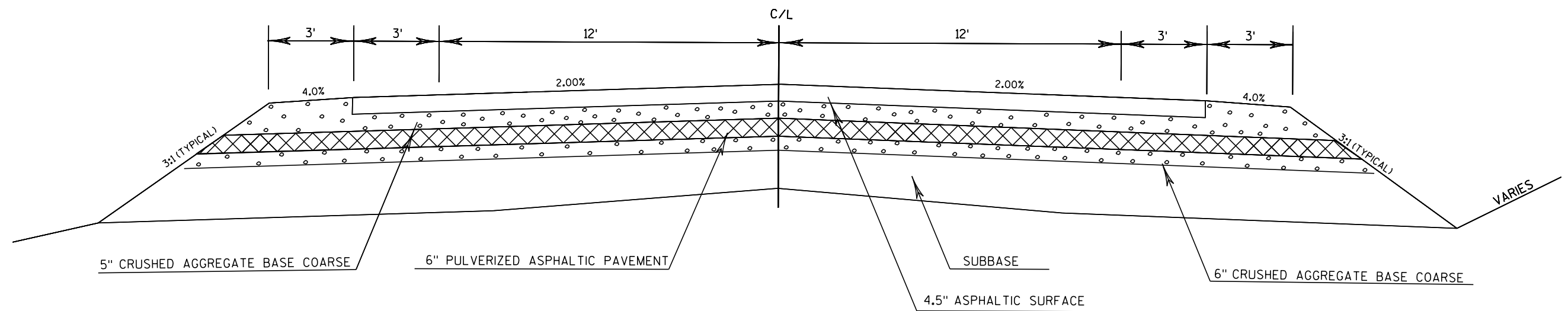






EXISTING TYPICAL SECTION

STA 401+31 - STA 561+32
STA 575+30 - STA 621+33
STA 632+32 - STA 708+12

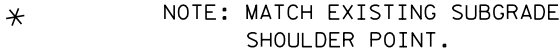


EXISTING TYPICAL SECTION

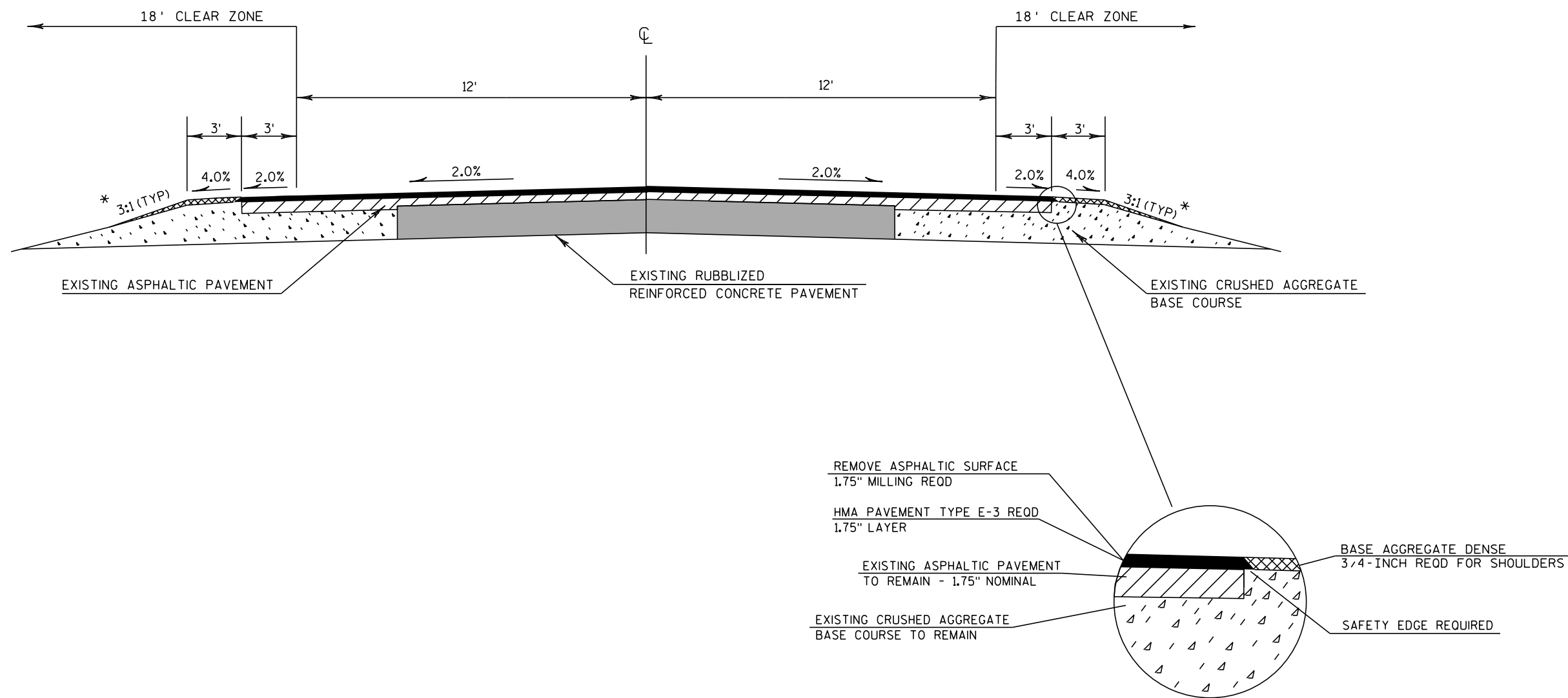
STA 561+32 - STA 575+30
STA 621+33 - STA 632+32

2

2



STA 60+50 - STA 81+16

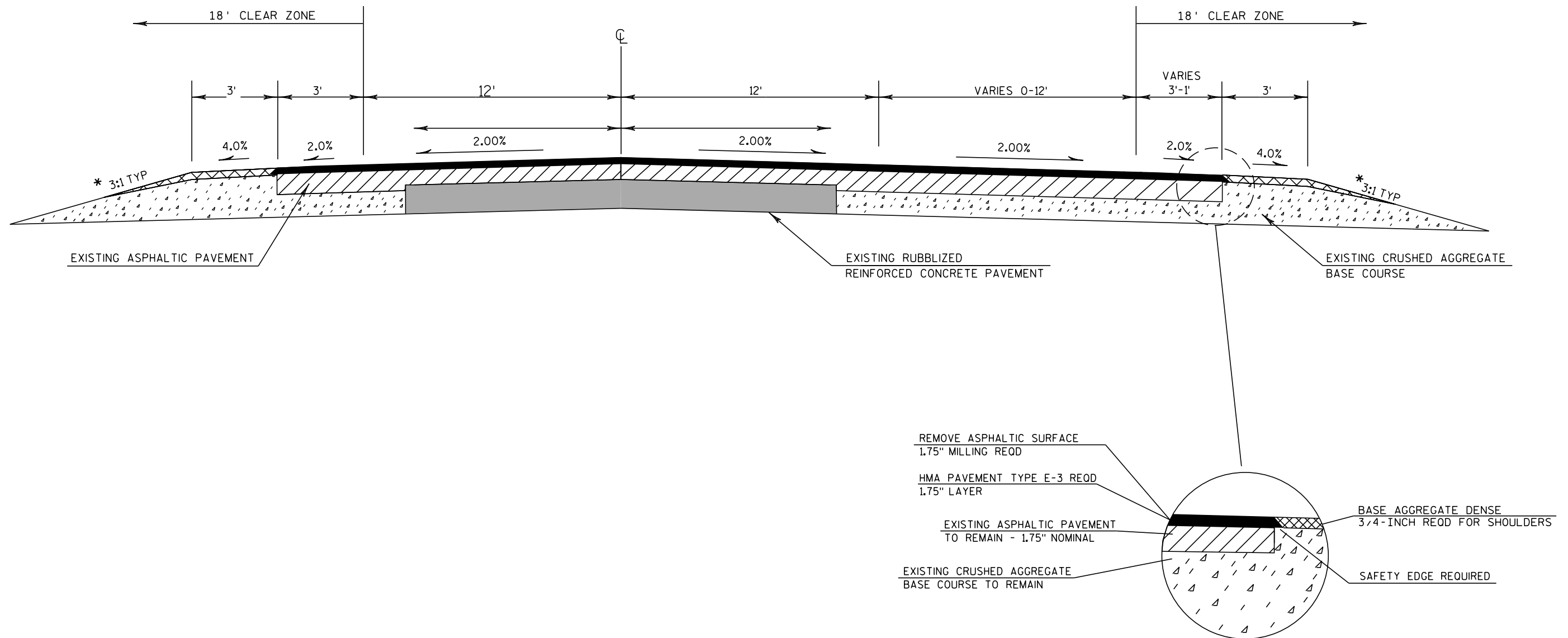


* NOTE: MATCH EXISTING SUBGRADE SHOULDER POINT.

PROPOSED TYPICAL SECTION

STA 81+16 - STA 90+52
* STA 133+56 - STA 401+31

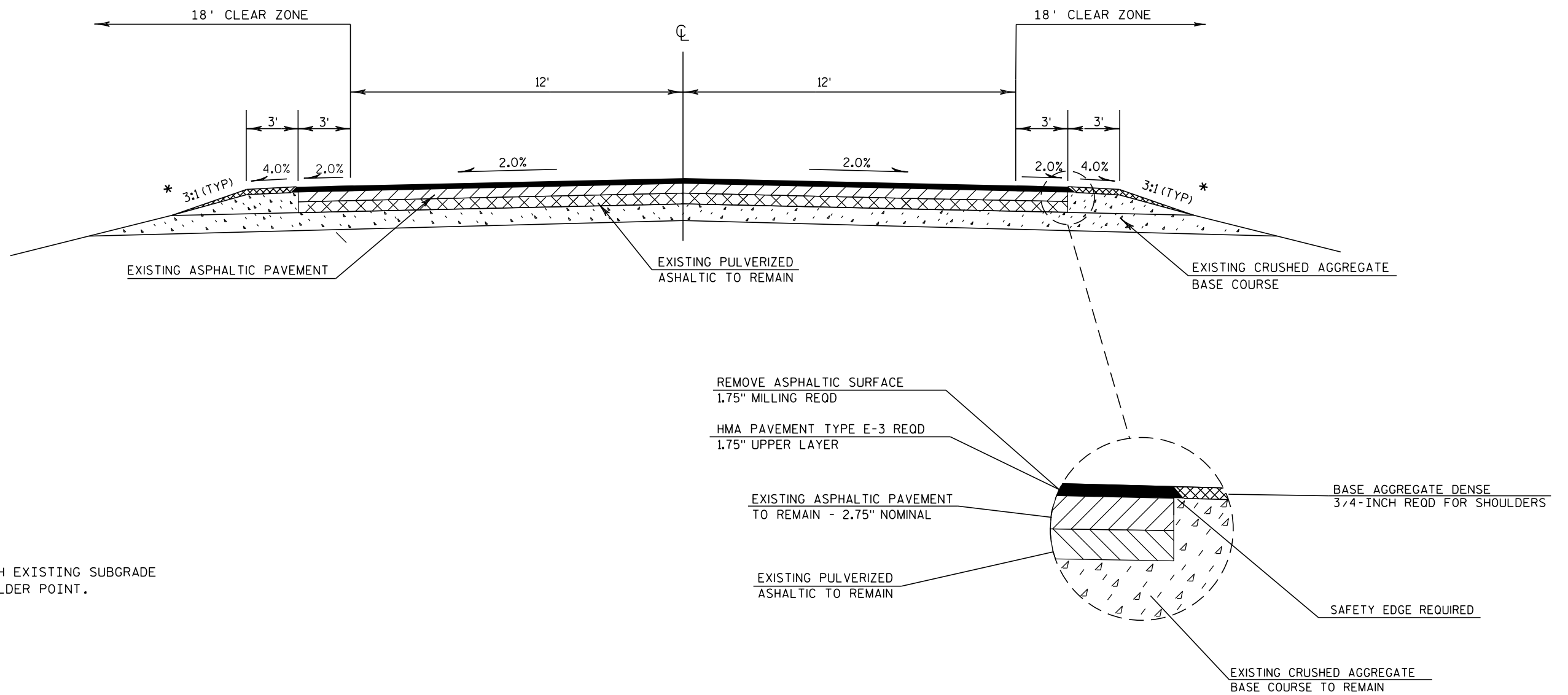
* EXCEPTION TO LENGTH
B-35-0128 + B-35-0278



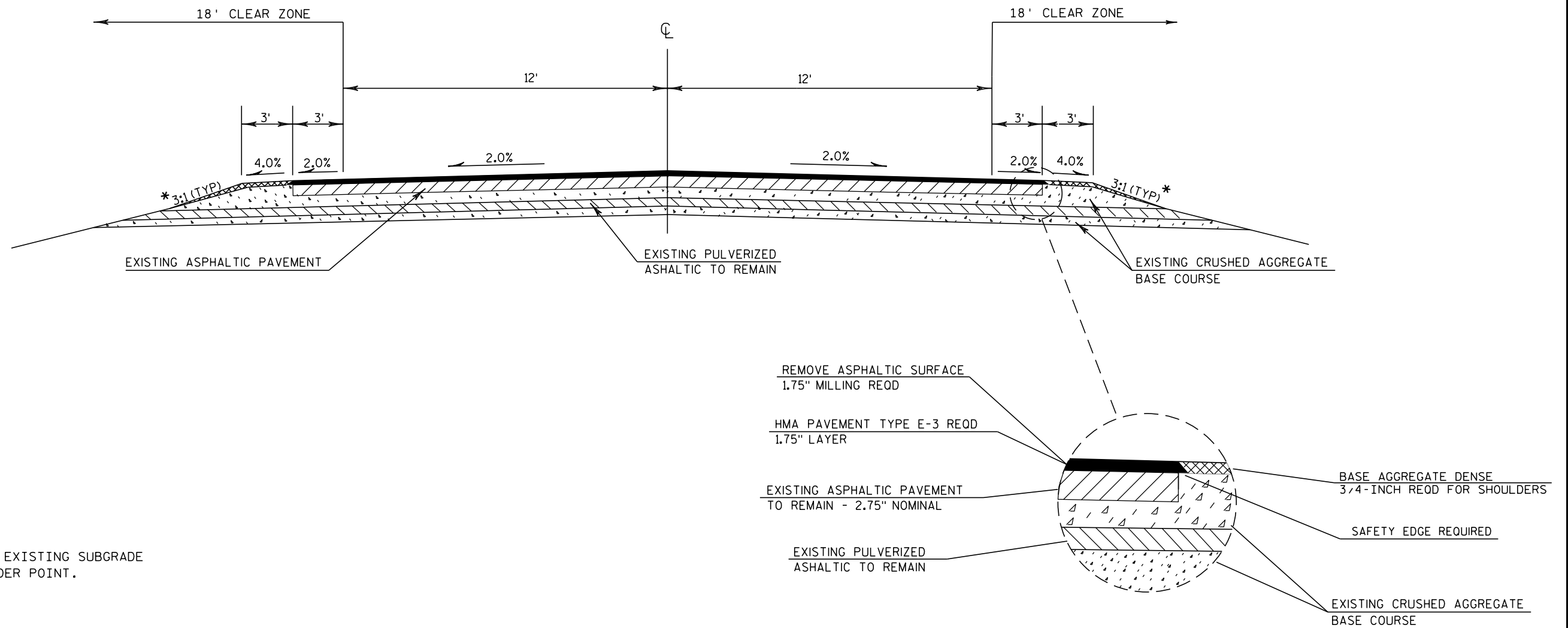
* NOTE: MATCH EXISTING SUBGRADE
SHOULDER POINT.

**PROPOSED TYPICAL SECTION
FOR CLIMBING LANE & TRANSITION**

STA 90+52 - STA 133+56

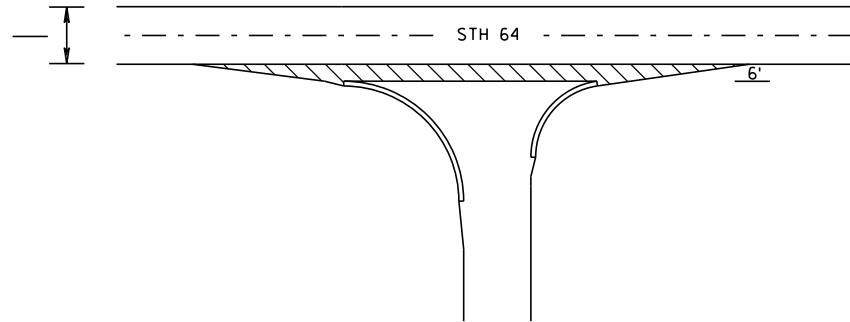
**PROPOSED TYPICAL SECTION**

STA 401+31 - STA 561+02
STA 574+80 - STA 621+72
STA 632+32 - STA 708+12

**PROPOSED TYPICAL SECTION**

STA 561+02 - STA 574+80
STA 621+72 - STA 632+32

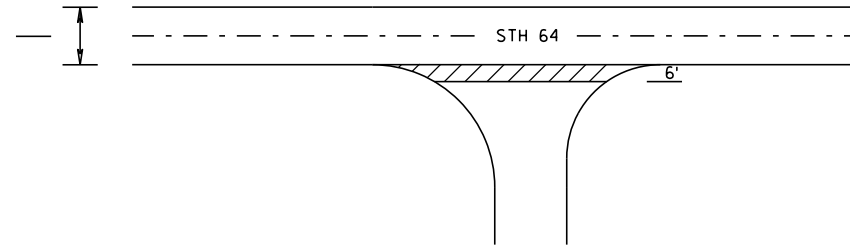
REMOVING ASPHALTIC SURFACE MILLING
(SEE PROPOSED TYPICAL)



REMOVING ASPHALTIC SURFACE, BUTT JOINTS

BUTT JOINT DETAIL
SIDE ROADS WITH CURB AND GUTTER

REMOVING ASPHALTIC SURFACE MILLING
(SEE PROPOSED TYPICAL)



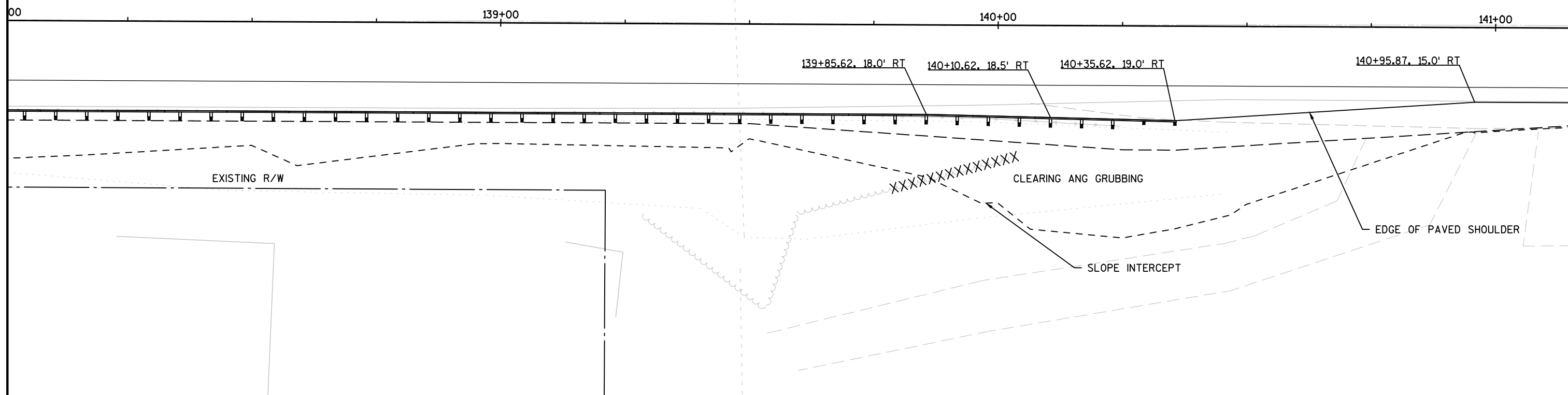
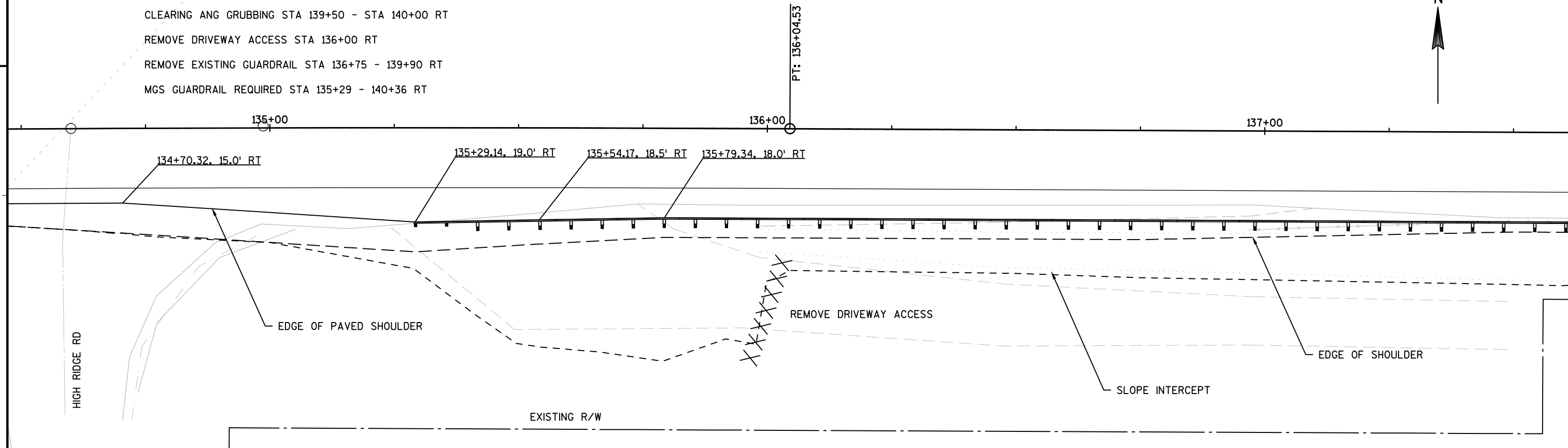
REMOVING ASPHALTIC SURFACE, BUTT JOINTS

BUTT JOINT DETAIL
SIDE ROADS WITHOUT CURB AND GUTTER
AND DRIVEWAYS

2

2

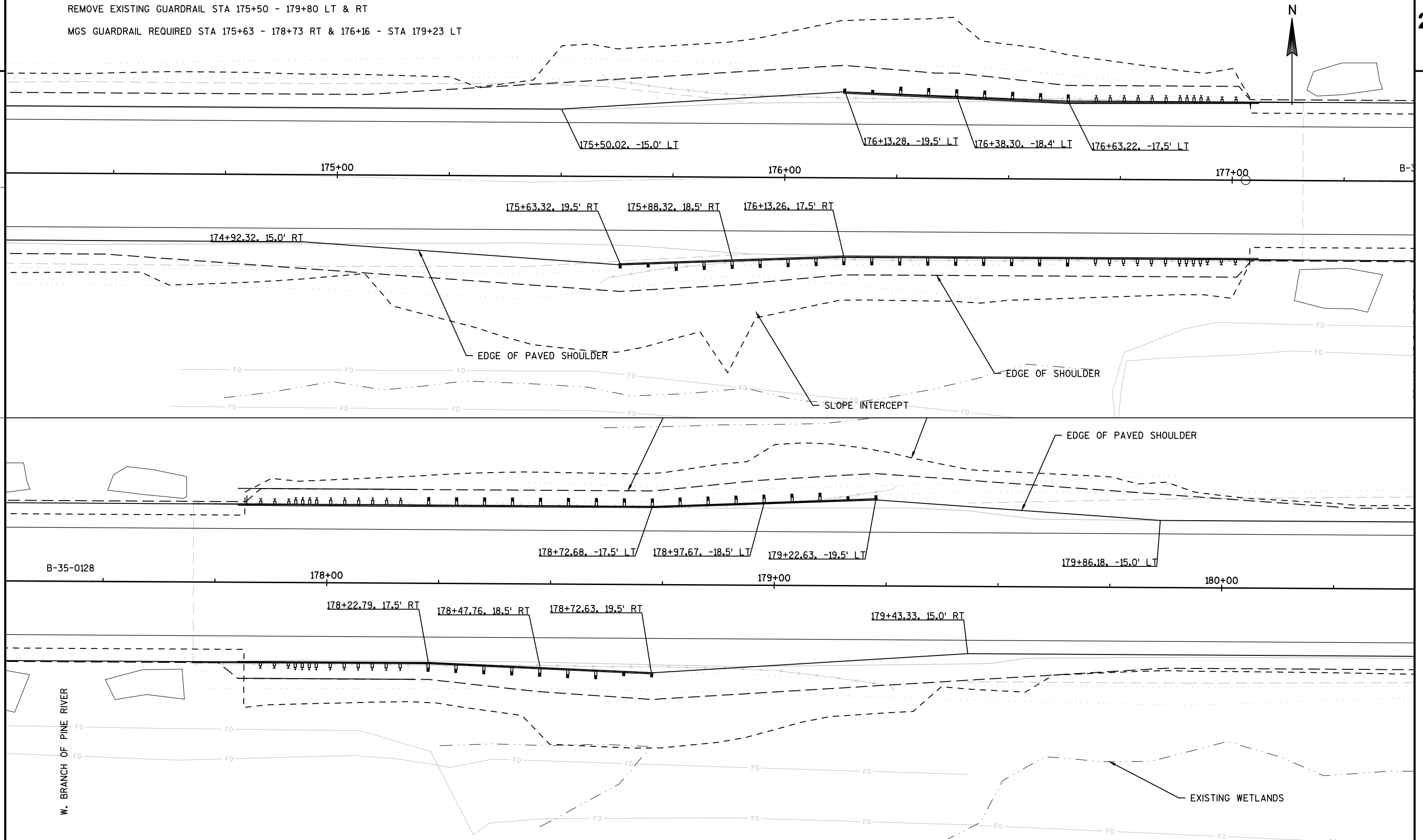
CLEARING ANG GRUBBING STA 139+50 - STA 140+00 RT
REMOVE DRIVEWAY ACCESS STA 136+00 RT
REMOVE EXISTING GUARDRAIL STA 136+75 - 139+90 RT
MGS GUARDRAIL REQUIRED STA 135+29 - 140+36 RT

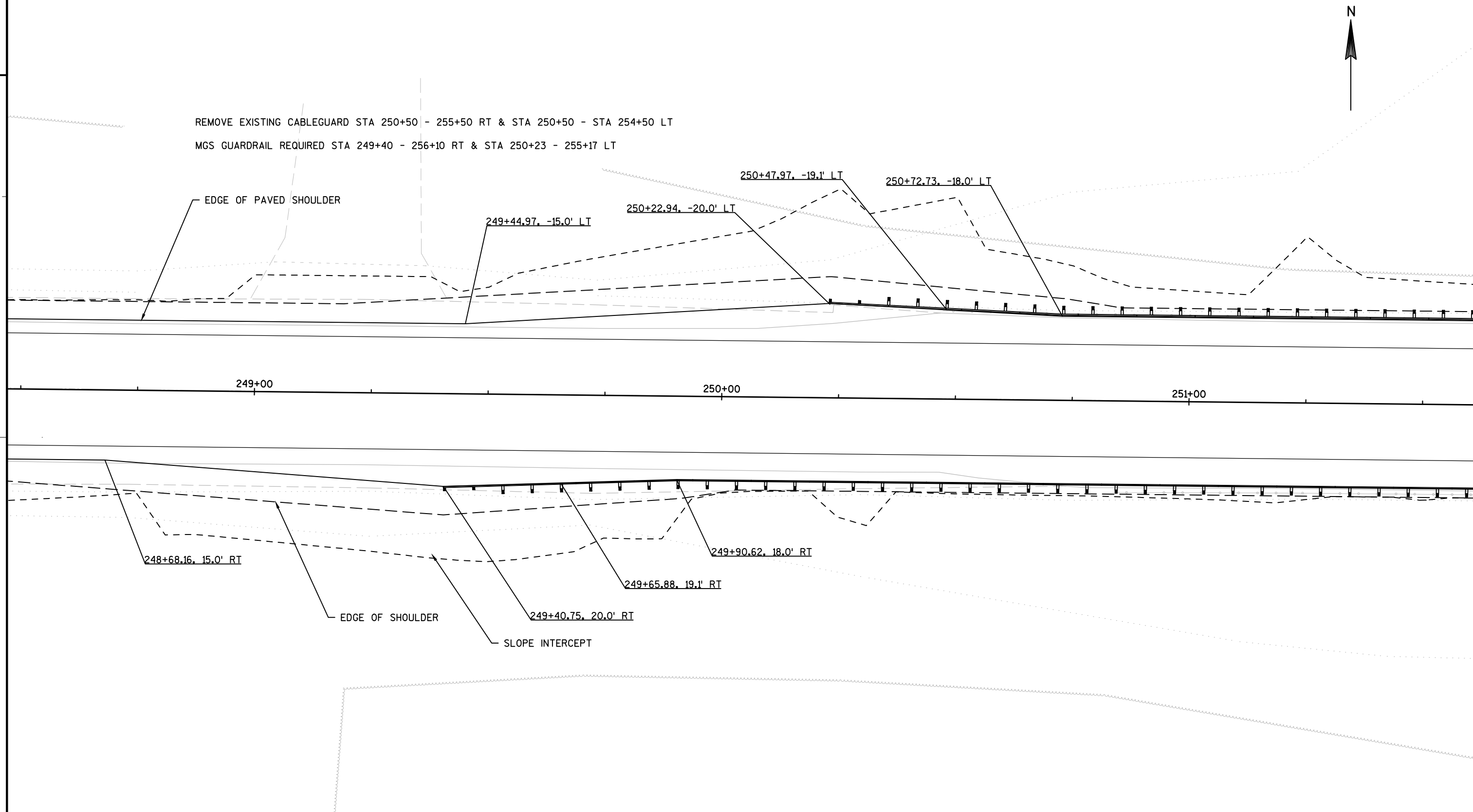


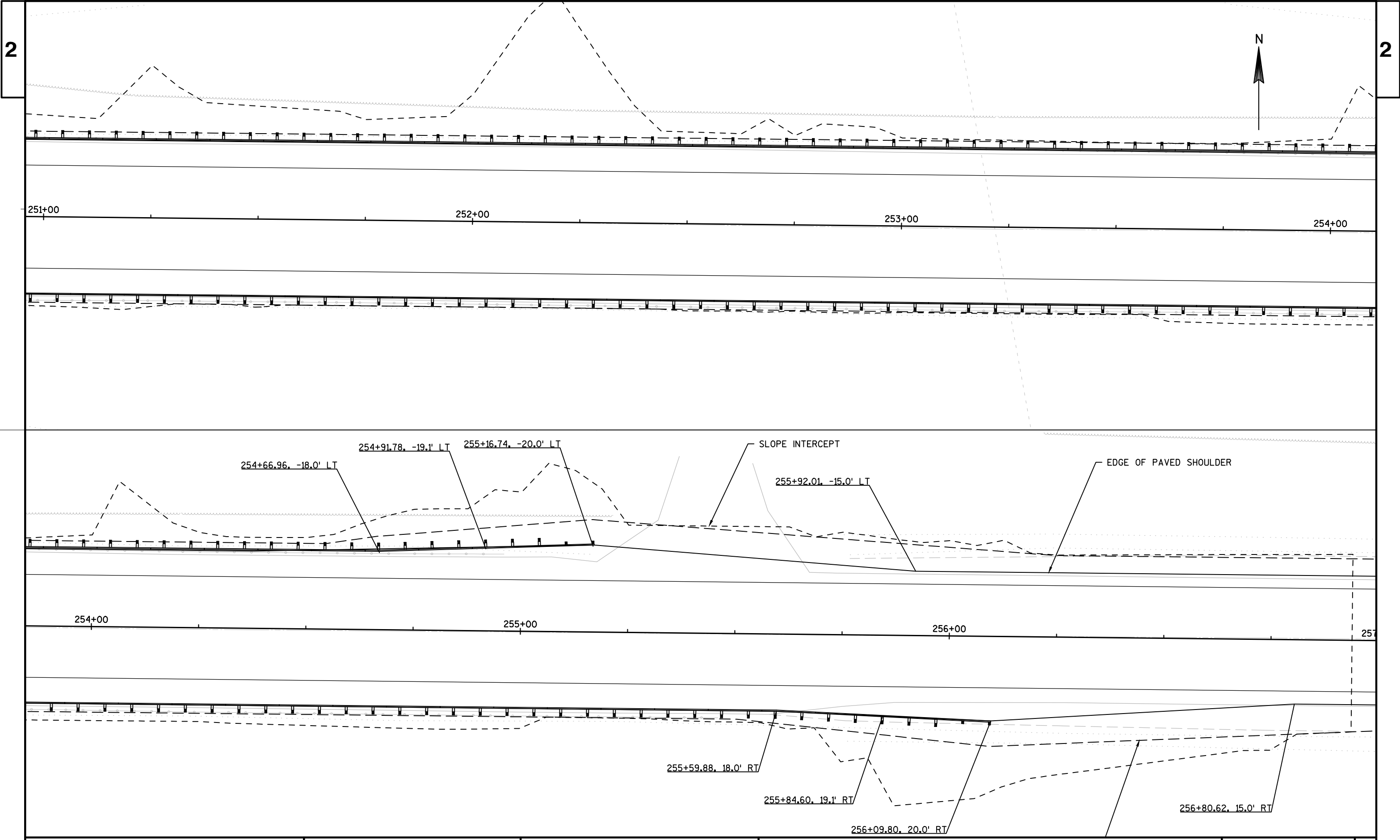
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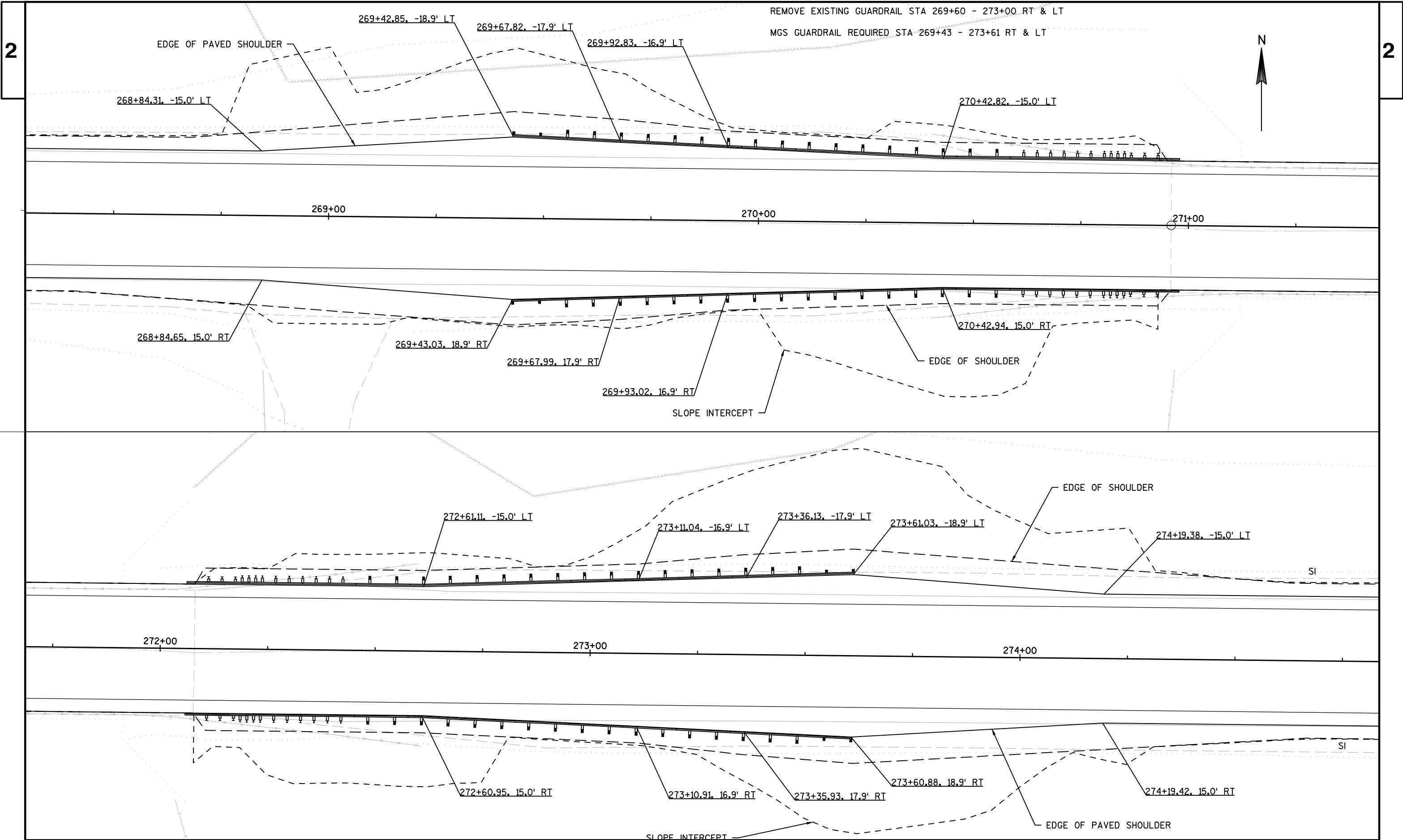
REMOVE EXISTING GUARDRAIL STA 175+50 - 179+80 LT & RT
MGS GUARDRAIL REQUIRED STA 175+63 - 178+73 RT & 176+16 - STA 179+23 LT

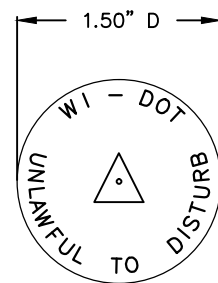
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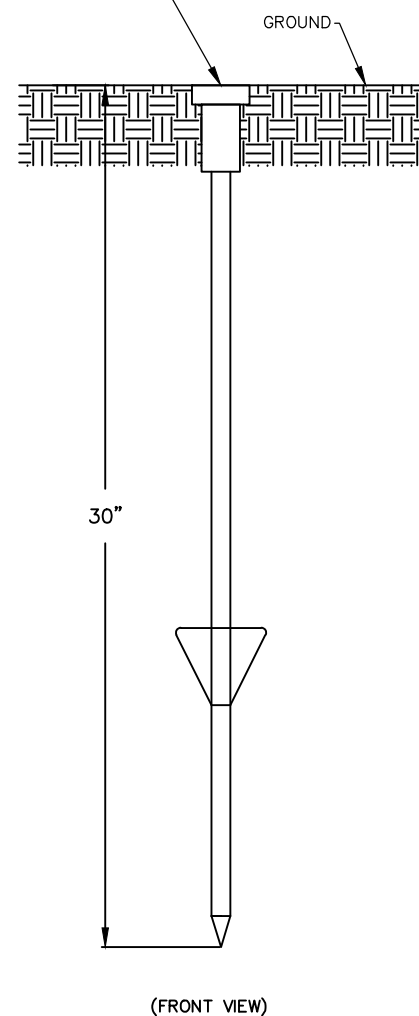




② WIS DOT MONUMENT CAP MARKER LOGO (SSDR130)

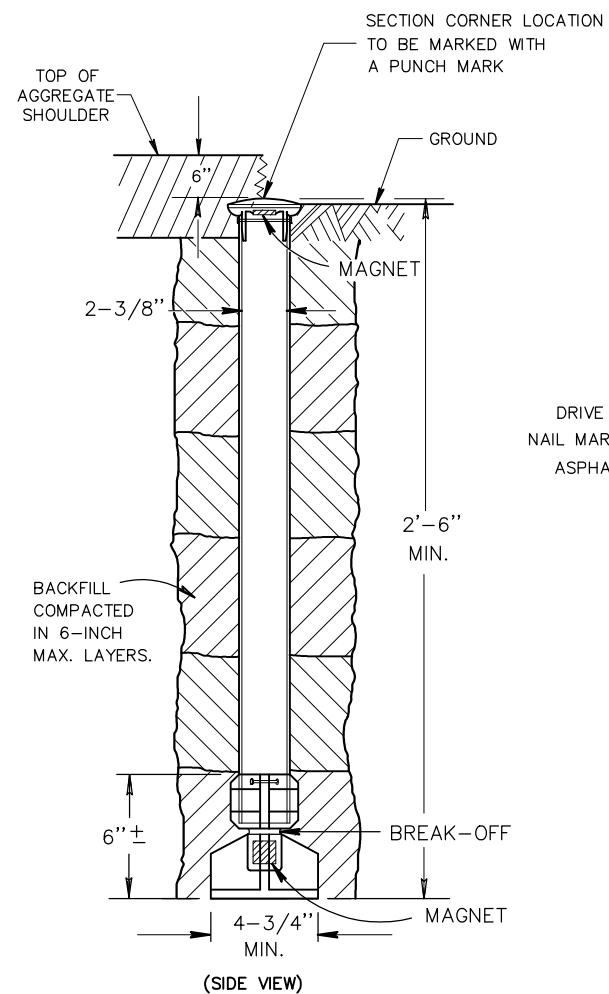
CONTRACTOR TO ORDER LANDMARK REFERENCE MONUMENTS WITH THE ABOVE STAMPING

② MONUMENT MARKER FURNISHED BY CONTRACTOR TO BE FLUSH WITH GROUND SURFACE OR DEPRESSED IN PAVED SURFACE.



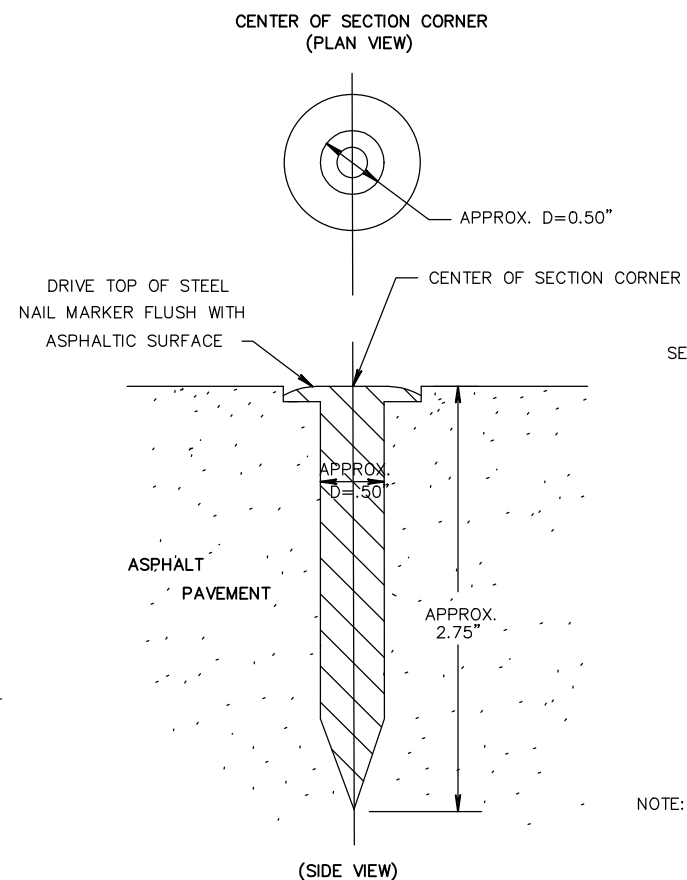
BERNSTEN DRIVABLE MONUMENT SSDR130

LANDMARK REFERENCE MONUMENT (TIES ONLY)



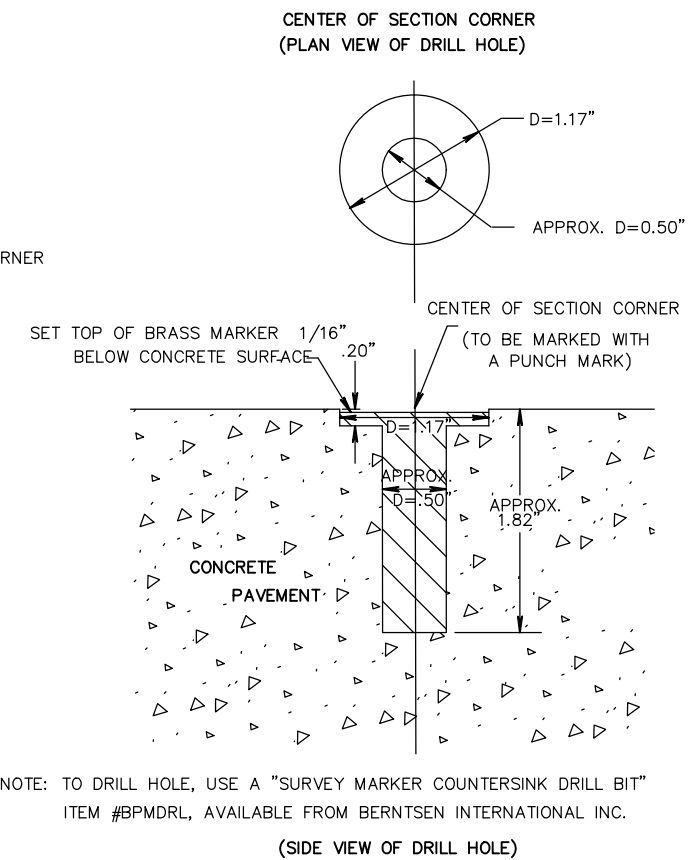
OUTSIDE OF PAVEMENT

① BERNTSEN A1BR30 ALUMINUM BREAK-OFF MONUMENT



IN ASPHALTIC PAVEMENT

① BERNTSEN SNM1 STEEL NAIL MARKER



IN CONCRETE PAVEMENT

① BERNTSEN BP - 1 BRASS MARKER WITH ANCHOR PLUG

SECTION CORNER MONUMENTS

GENERAL NOTES

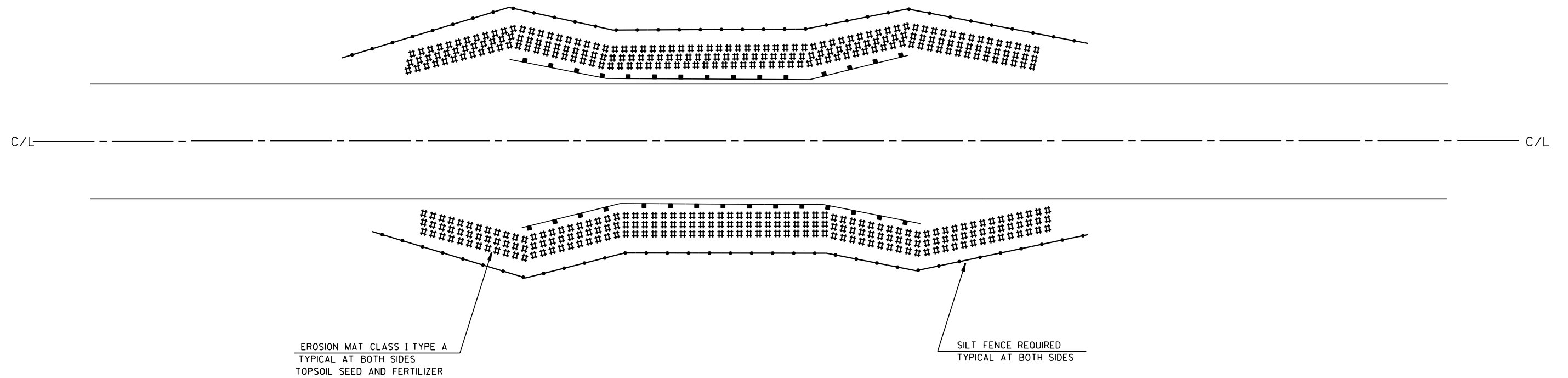
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

LOCATE LANDMARK REFERENCE MONUMENTS OUTSIDE THE CONSTRUCTION LIMITS AND WITHIN WISDOT RIGHT OF WAY. LOCATION TO BE APPROVED BY THE ENGINEER.

① THE REGIONAL SURVEY COORDINATOR WILL SUPPLY.

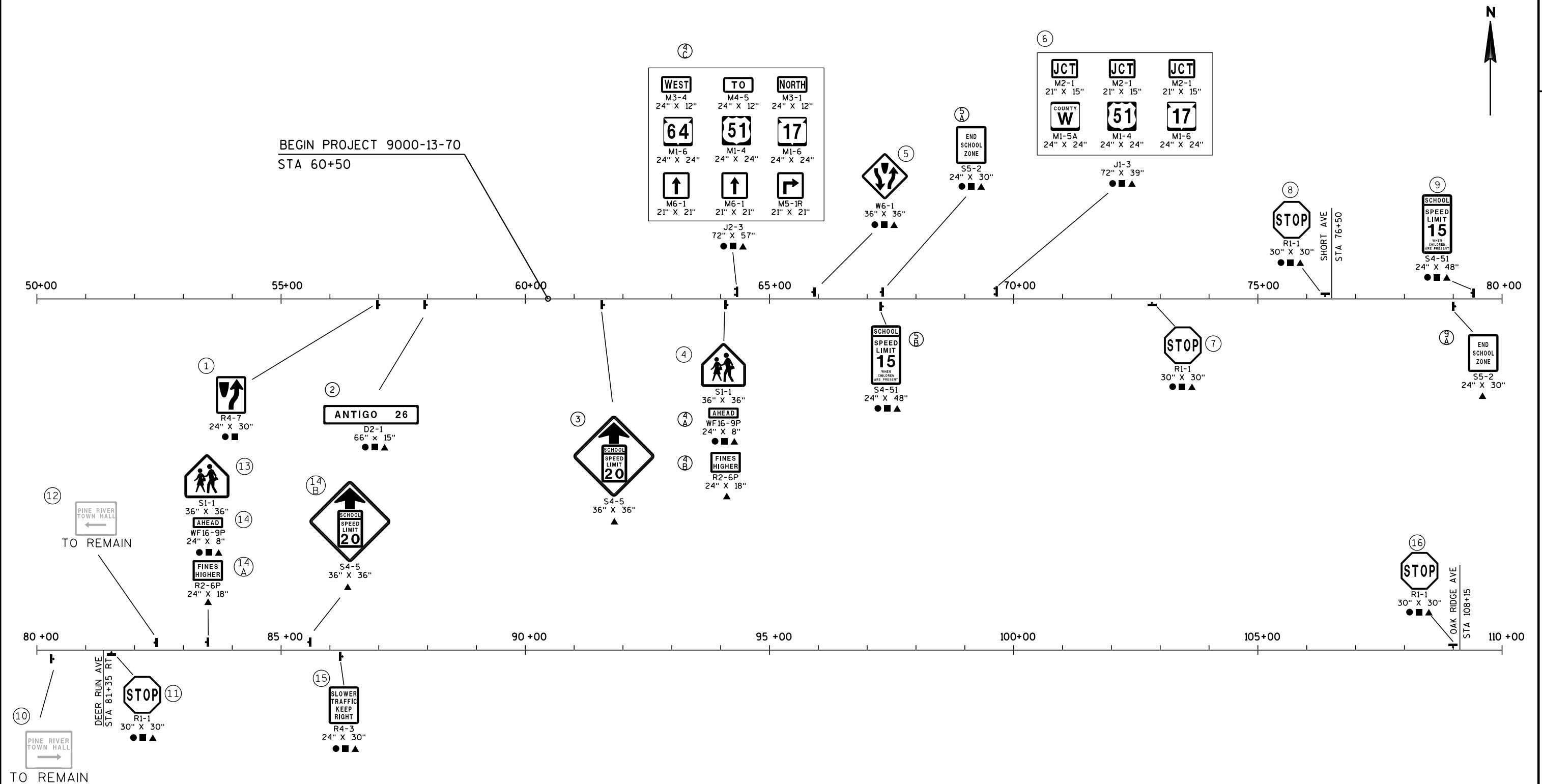
② CONTRACTOR WILL SUPPLY.

SECTION CORNER MONUMENT AND LANDMARK REFERENCE MONUMENT DETAIL



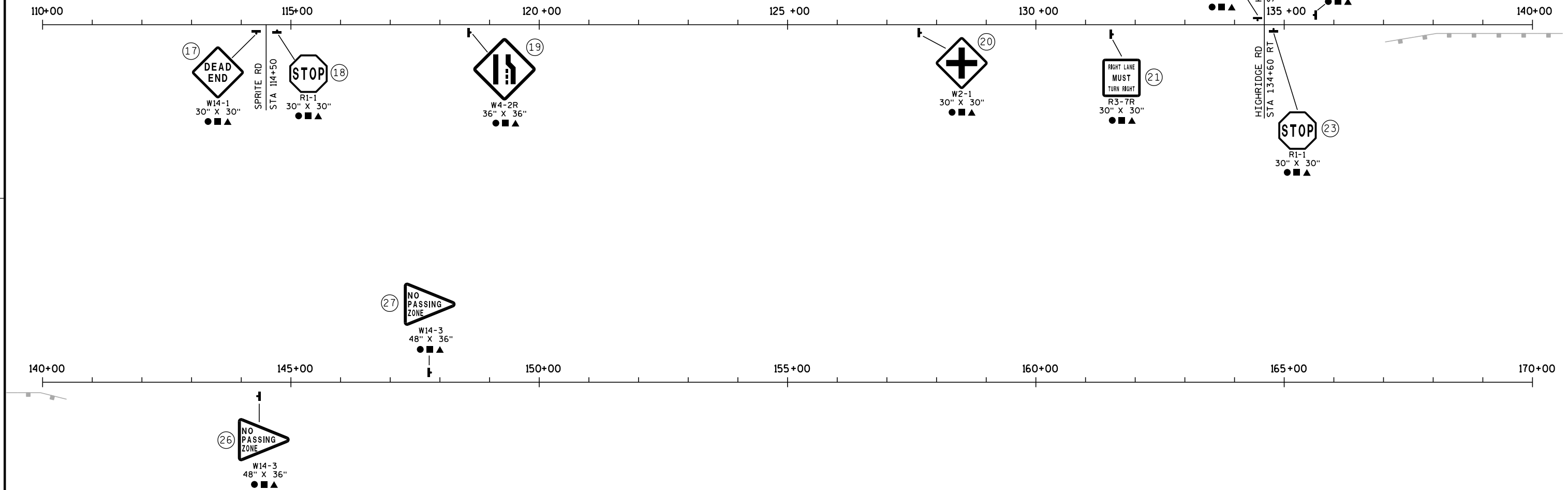
EROSION CONTROL
TYPICAL GUARDRAIL DETAIL

NOT TO SCALE.
FOR EROSION CONTROL AND GUARDRAIL LOCATIONS
SEE LINE DIAGRAM AND MISCELLANEOUS QUANTITIES.

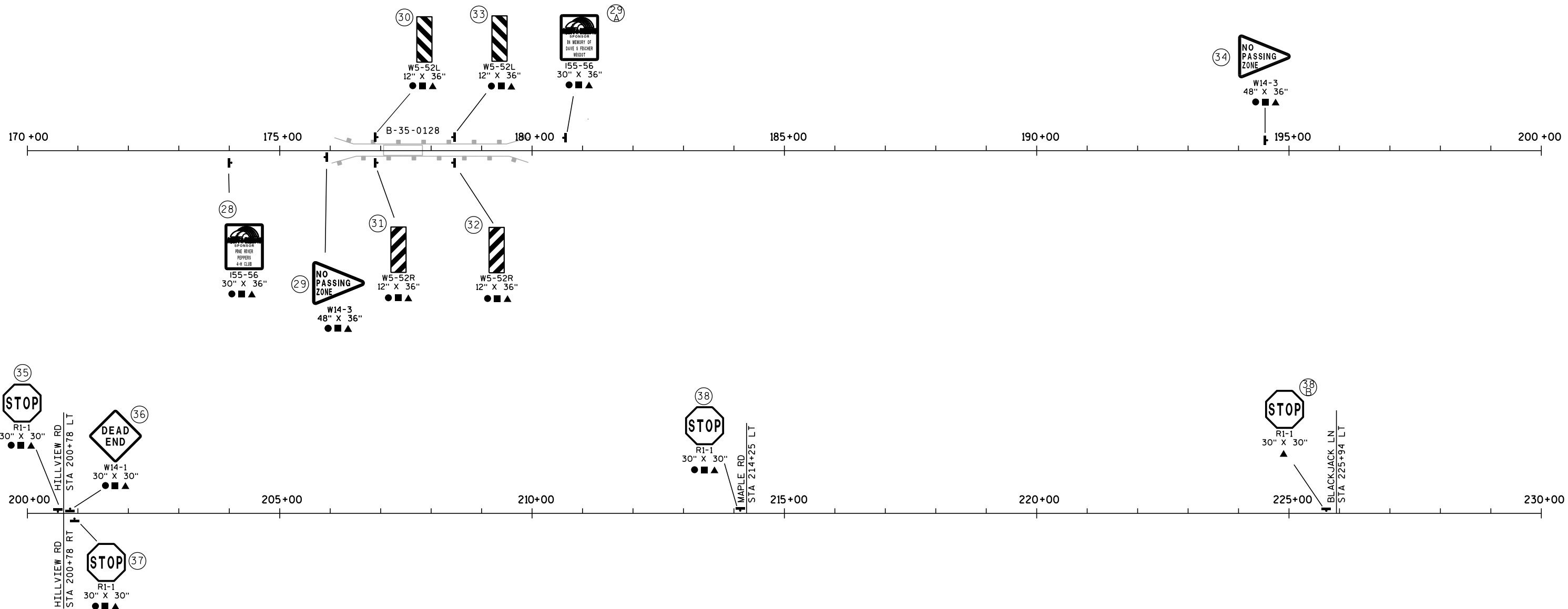


KEY

- REMOVING SIGNS TYPE 2
- REMOVING SMALL SIGN SUPPORTS
- ▲ SIGNS REFLECTIVE TYPE 2
- ┌ SIGNS ON DOUBLE SUPPORT
- └ SIGNS ON SINGLE SUPPORT



KEY	
●	REMOVING SIGNS TYPE 2
■	REMOVING SMALL SIGN SUPPORTS
▲	SIGNS REFLECTIVE TYPE 2
⌋	SIGNS ON DOUBLE SUPPORT
⌋	SIGNS ON SINGLE SUPPORT



KEY

●

 REMOVING SIGNS TYPE 2

■

 REMOVING SMALL SIGN SUPPORTS

▲

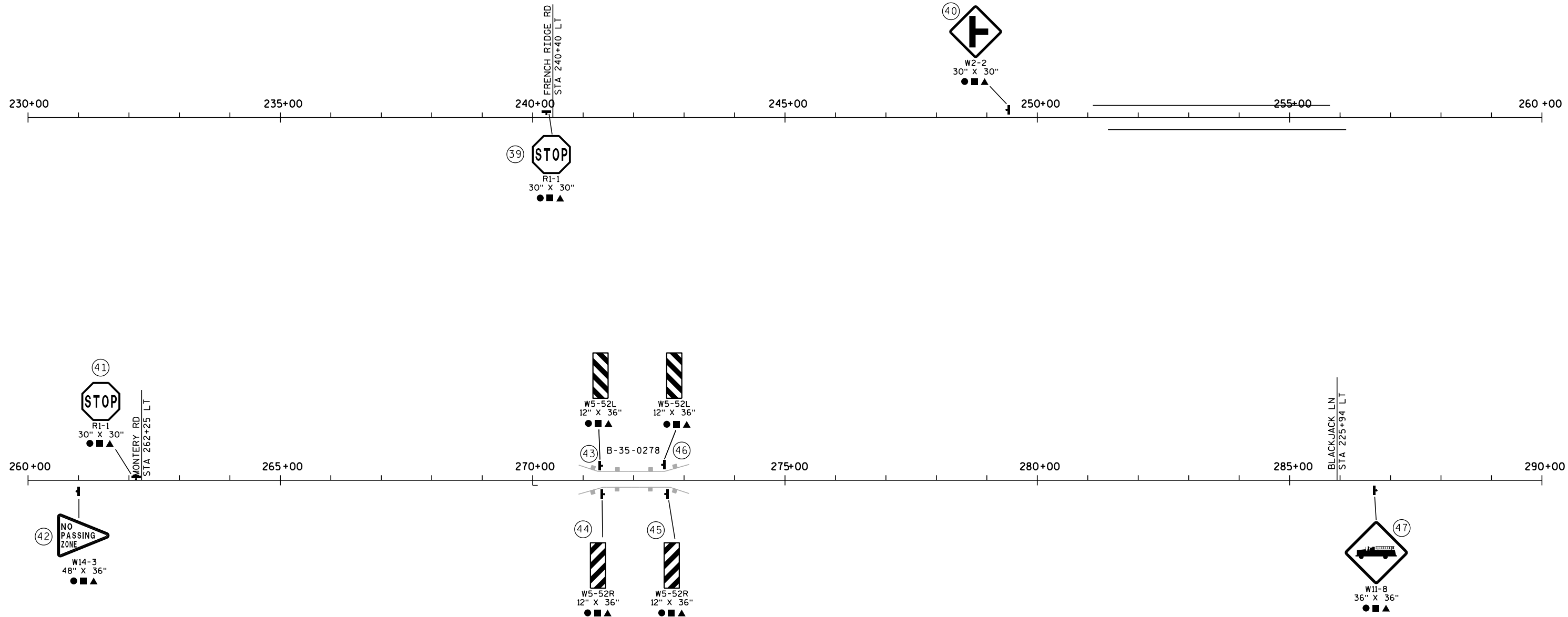
 SIGNS REFLECTIVE TYPE 2

┌┐

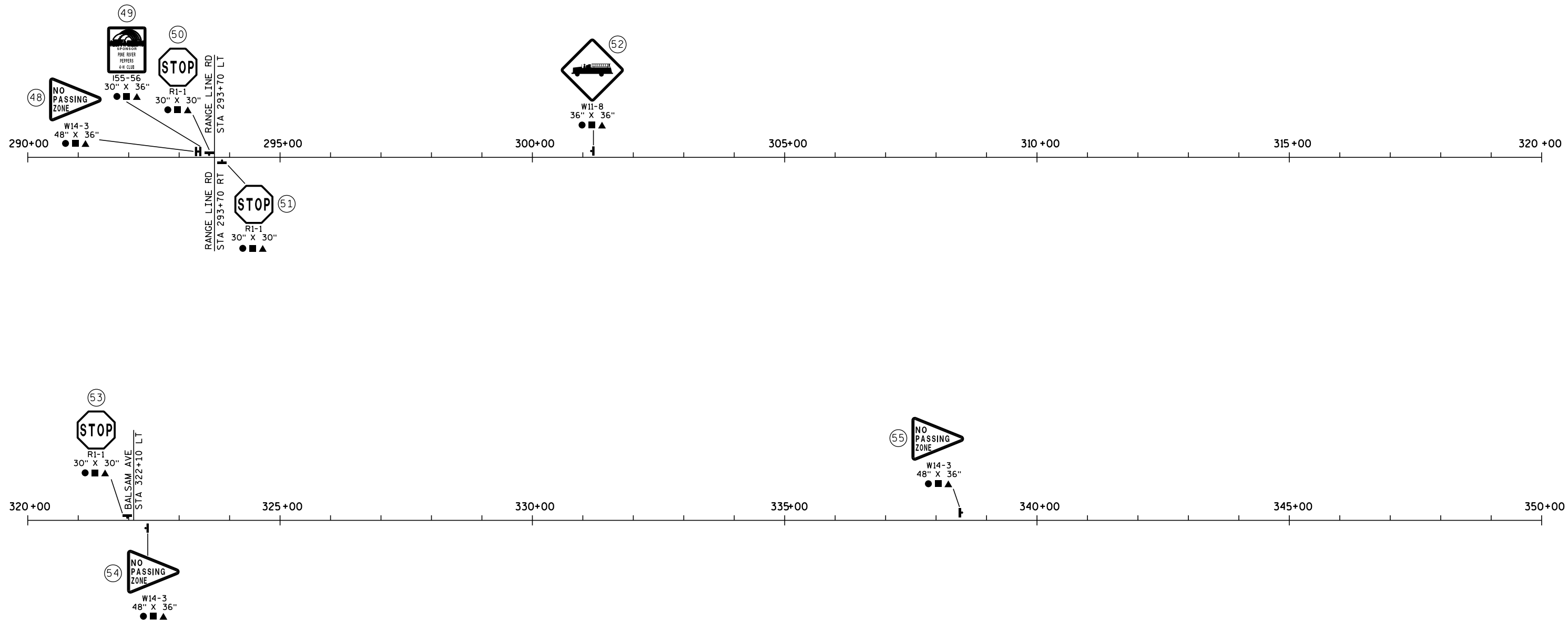
 SIGNS ON DOUBLE SUPPORT

┌

 SIGNS ON SINGLE SUPPORT

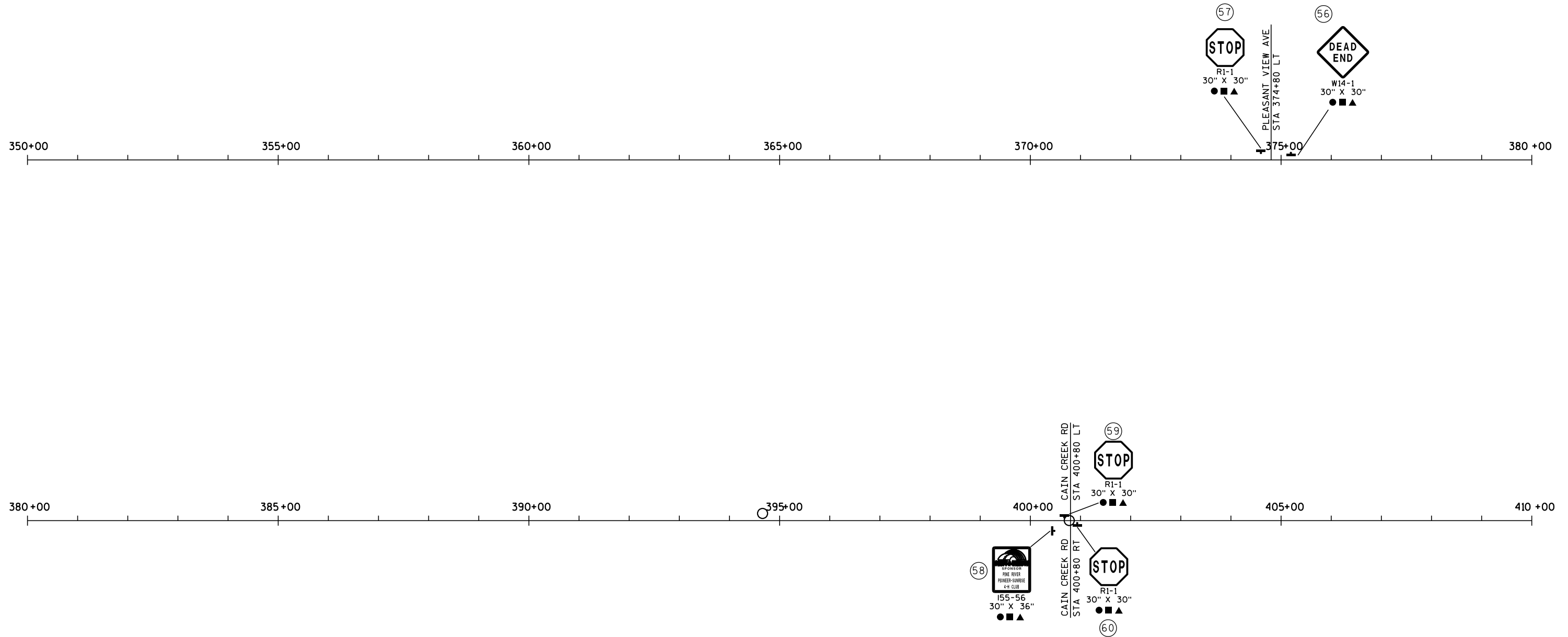


KEY	
●	REMOVING SIGNS TYPE 2
■	REMOVING SMALL SIGN SUPPORTS
▲	SIGNS REFLECTIVE TYPE 2
┌	SIGNS ON DOUBLE SUPPORT
└	SIGNS ON SINGLE SUPPORT



KEY

- REMOVING SIGNS TYPE 2
- REMOVING SMALL SIGN SUPPORTS
- ▲ SIGNS REFLECTIVE TYPE 2
- ┌ SIGNS ON DOUBLE SUPPORT
- └ SIGNS ON SINGLE SUPPORT

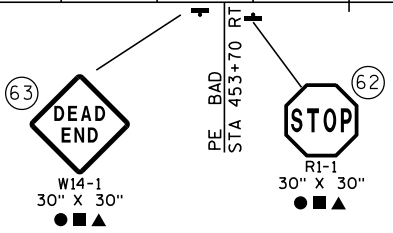




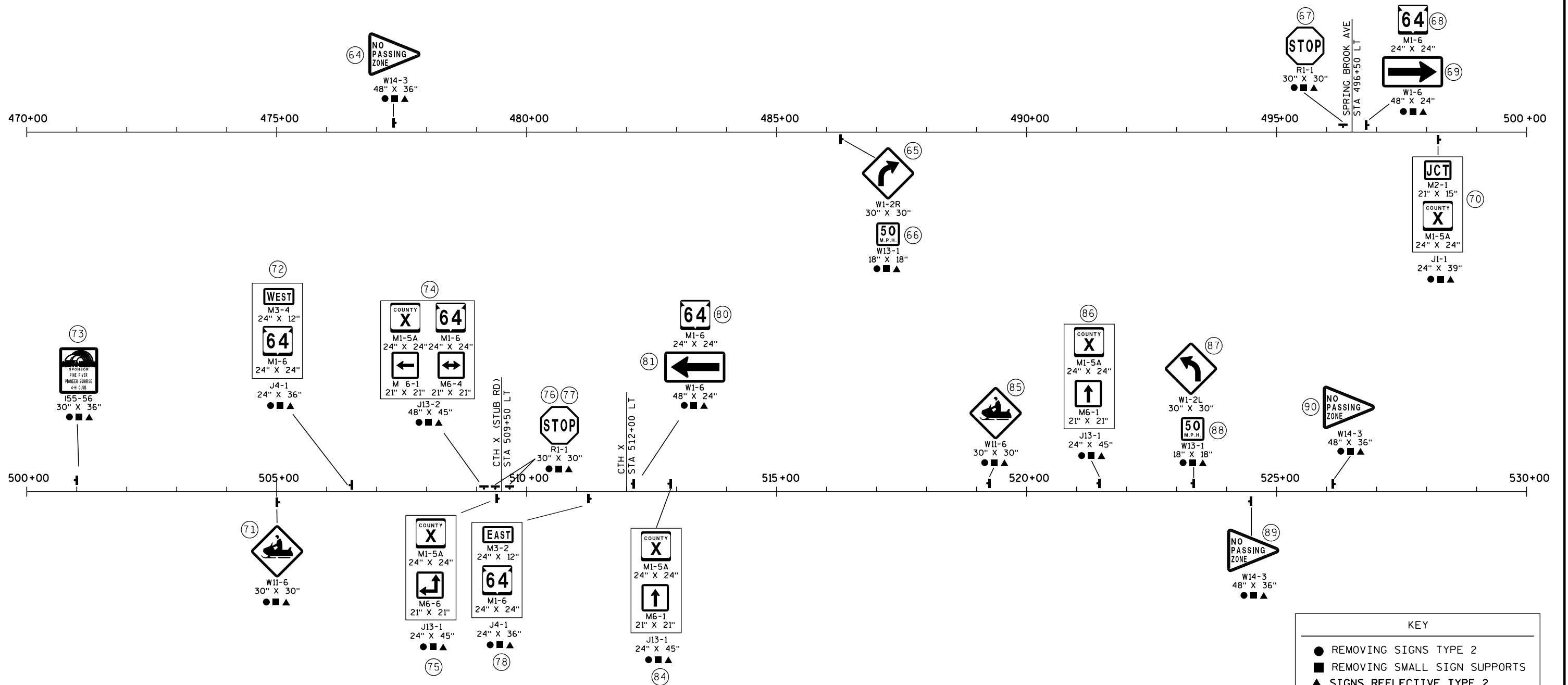
410+00 415+00 420+00 425+00 430+00 435+00 440+00

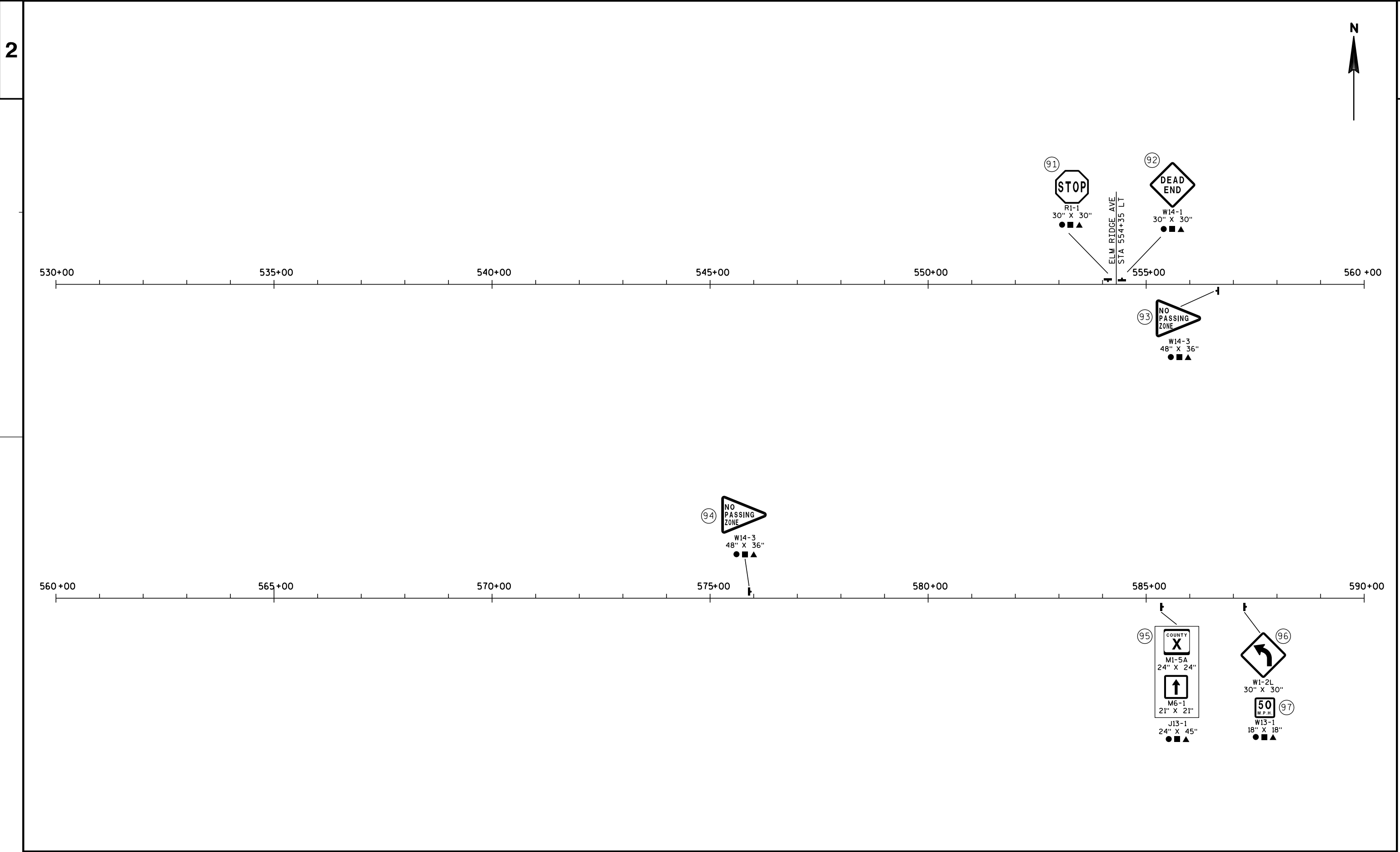


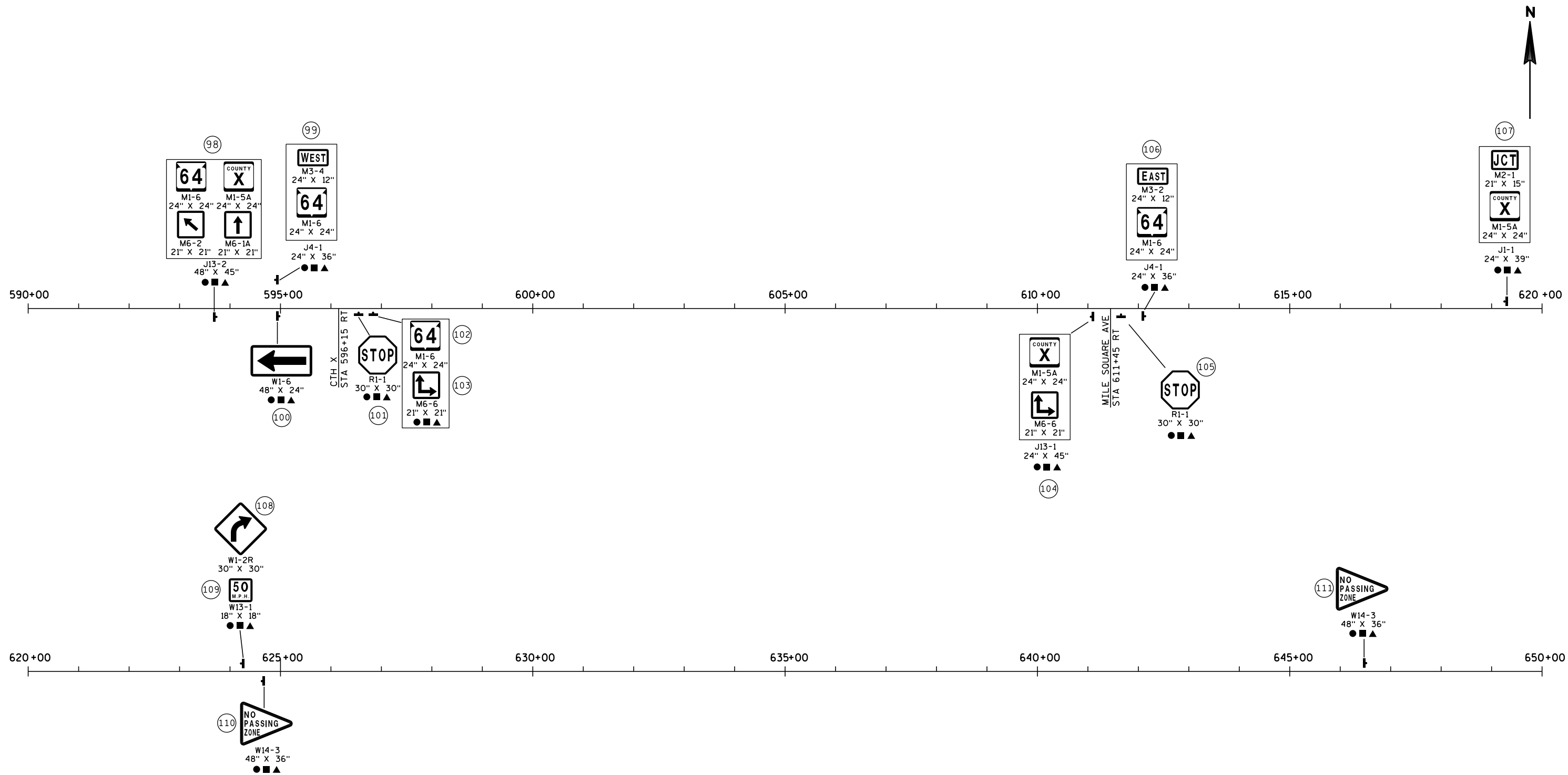
440+00 445+00 450+00 455+00 460+00 465+00 470+00



KEY	
●	REMOVING SIGNS TYPE 2
■	REMOVING SMALL SIGN SUPPORTS
▲	SIGNS REFLECTIVE TYPE 2
┌	SIGNS ON DOUBLE SUPPORT
└	SIGNS ON SINGLE SUPPORT

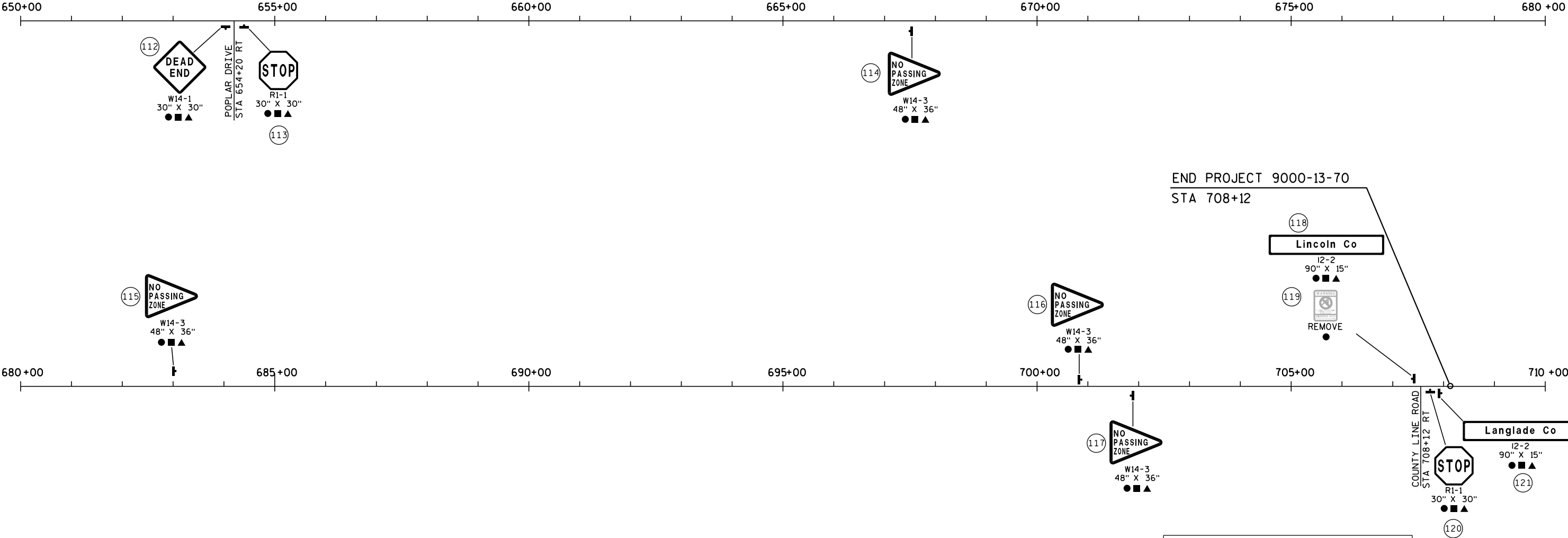






KEY

- REMOVING SIGNS TYPE 2
- REMOVING SMALL SIGN SUPPORTS
- ▲ SIGNS REFLECTIVE TYPE 2
- ┌ SIGNS ON DOUBLE SUPPORT
- └ SIGNS ON SINGLE SUPPORT



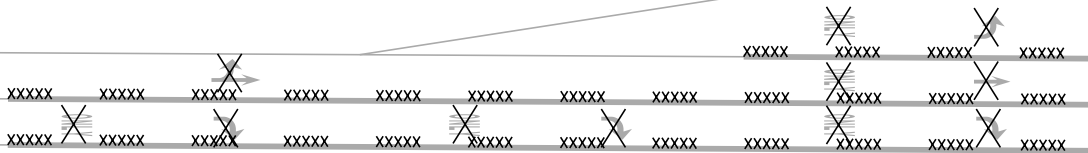
XXXX XXXX REMOVING EXISTING PAVEMENT MARKING
X REMOVE EXISTING SYMBOLS/WORDS



STH 64

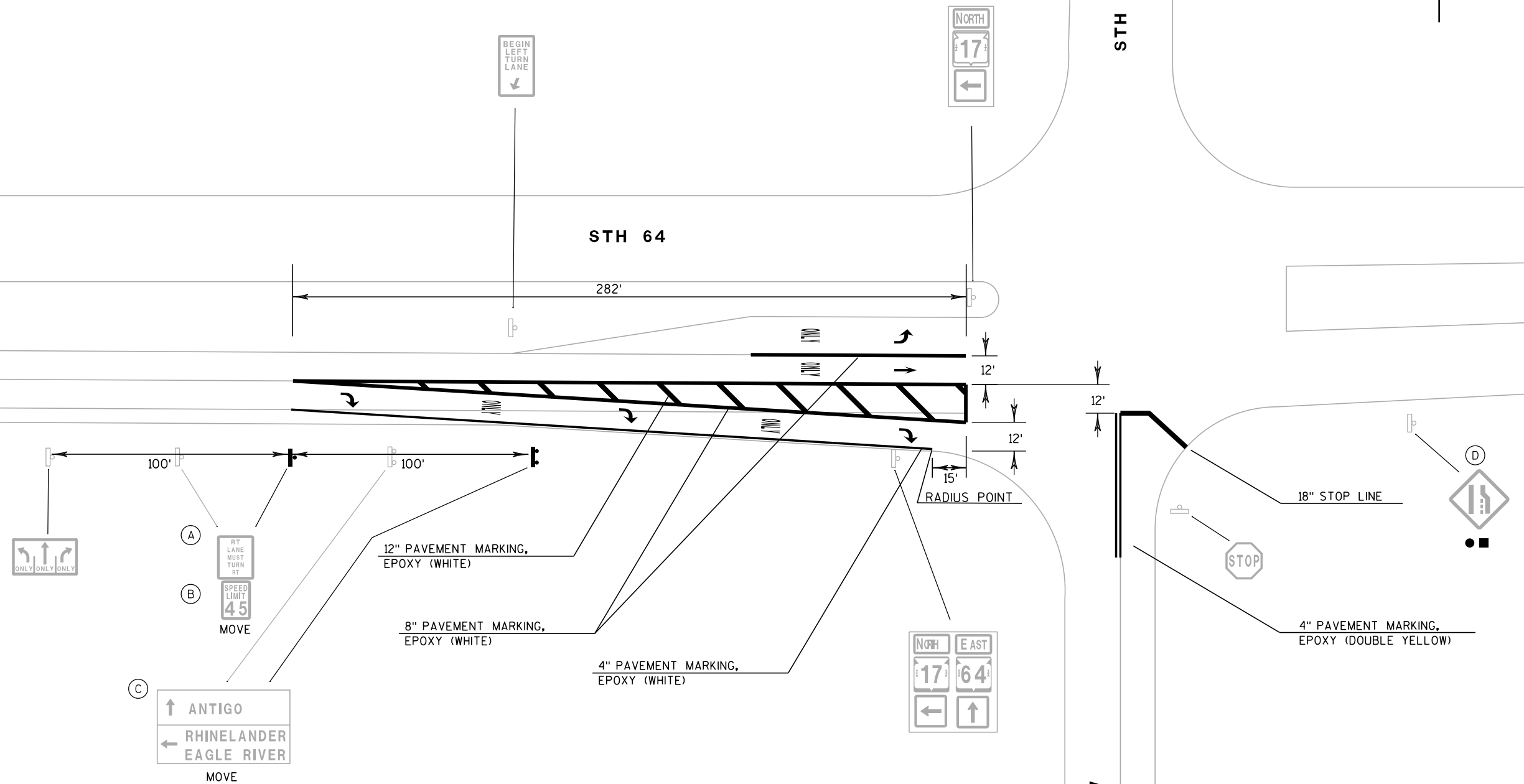
STH 17

CTH W

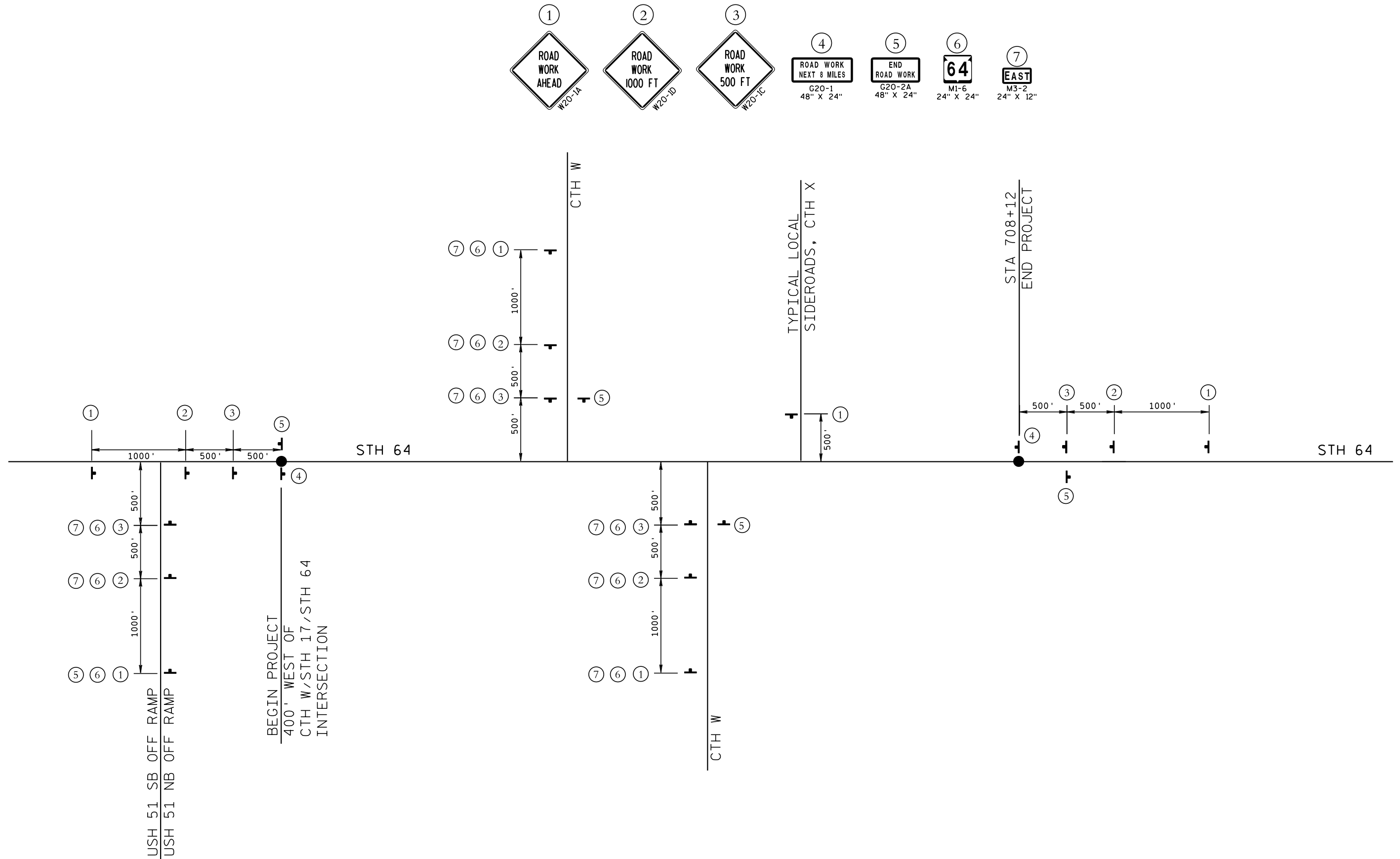


XXXXX

*NOT TO SCALE



*NOT TO SCALE



LEGEND

-  TYPE III BARRICADE WITH SIGN
 REMOVING OF PAVEMENT MARKINGS
 TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES ON BREAKAWAY POLE. THE CONTRACTOR MAY PROVIDE PORTABLE SIGNALS WITH APPROVAL OF PROJECT ENGINEER.
 DIRECTION OF TRAFFIC FLOW
 DRUM WITH WARNING LIGHT, TYPE C (STEADY BURN)
 TRAFFIC DRUM

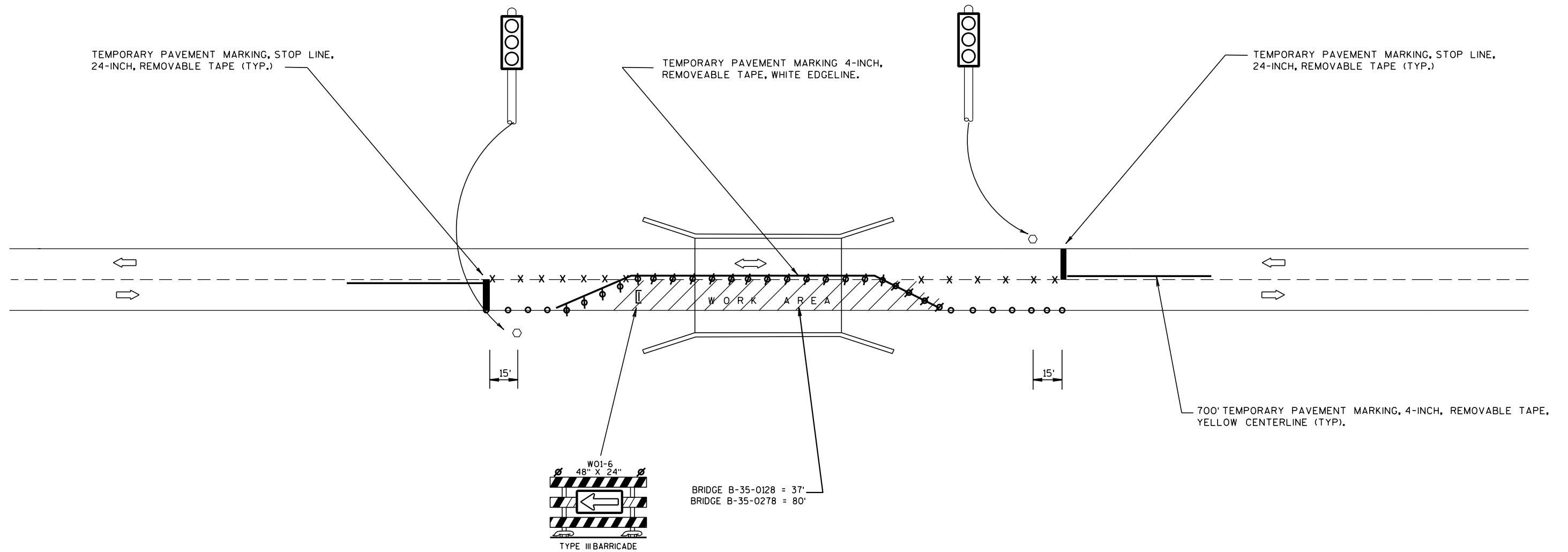
NOT TO SCALE

* SEE SDD TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS AND MARKING GUIDANCE.

42" CHANNELIZERS TO BE PLACED ON STH 64 CENTERLINE SPACE TO BE PAID FOR AS TRAFFIC CONTROL DRUMS.

BASE TO WEIGH A MINIMUM OF 15 LBS.

42"



TEMPORARY SIGNAL DETAIL
(REVERSE FOR OPPOSITE DIRECTION)

B-35-0128

CYCLE 1 = 98 SECONDS
6:00 AM - 8:00 PM

SEQUENCE OF OPERATION				
PRE - TIMED				
INTERVAL	STH 64			
	E.B.	W.B.	INTERVAL LENGTH (SEC)	% OF GREEN TIME
CLEARANCE	R	R	23	23
A	G	R	22	22
CLEARANCE	Y	R	4	5
CLEARANCE	R	R	23	23
B	R	G	22	22
CLEARANCE	R	Y	4	5
			98	100%

CYCLE 2 = 86 SECONDS
8:01 PM - 5:59 AM

SEQUENCE OF OPERATION				
PRE - TIMED				
INTERVAL	STH 64			
	E.B.	W.B.	INTERVAL LENGTH (SEC)	% OF GREEN TIME
CLEARANCE	R	R	23	27
A	G	R	16	19
CLEARANCE	Y	R	4	4
CLEARANCE	R	R	23	27
B	R	G	16	19
CLEARANCE	R	Y	4	4
			86	100%

NOTE: BASED ON STOP BAR DISTNACE OF 600 FT.
IF STOP BAR DISTANCE CHANGES - CONTACT REGION TRAFFIC ENGINEER.

DATE 01APR14		E S T I M A T E O F Q U A N T I T I E S			
LINE		9000-13-70			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0105	CLEARING	STA	1.000	1.000
0020	201.0205	GRUBBING	STA	1.000	1.000
0030	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	4,785.000	4,785.000
0040	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	213,750.000	213,750.000
0050	204.0165	REMOVING GUARDRAIL	LF	2,850.000	2,850.000
0060	205.0100	EXCAVATION COMMON **P**	CY	116.000	116.000
0070	208.0100	BORROW **P**	CY	433.300	433.300
0080	211.0400	PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS	STA	42.000	42.000
0090	213.0100	FINISHING ROADWAY (PROJECT) 01. 9000-13-70	EACH	1.000	1.000
0100	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	6,370.000	6,370.000
0110	305.0500	SHAPING SHOULDERS	STA	1,254.000	1,254.000
0120	440.4410.S	INCENTIVE IRI RIDE	DOL	48,000.000	48,000.000
0130	455.0105	ASPHALTIC MATERIAL PG58-28	TON	1,203.700	1,203.700
0140	455.0605	TACK COAT	GAL	5,605.000	5,605.000
0150	460.1103	HMA PAVEMENT TYPE E-3	TON	21,885.000	21,885.000
0160	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	14,010.000	14,010.000
0170	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	20.300	20.300
0180	465.0475	ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL	LF	55,320.000	55,320.000
0190	509.5100.S	POLYMER OVERLAY 02. B-35-0128	SY	149.000	149.000
0200	614.2300	MGS GUARDRAIL 3	LF	575.000	575.000
0210	614.2330	MGS GUARDRAIL 3 K	LF	1,125.000	1,125.000
0220	614.2500	MGS THRIE BEAM TRANSITION	LF	312.000	312.000
0230	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	14.000	14.000
0240	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 9000-13-70	EACH	1.000	1.000
0250	619.1000	MOBILIZATION	EACH	1.000	1.000
0260	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	92.000	92.000
0270	624.0100	WATER	MGAL	10.000	10.000
0280	625.0100	TOPSOIL	SY	2,650.000	2,650.000
0290	628.1504	SILT FENCE	LF	2,750.000	2,750.000
0300	628.1520	SILT FENCE MAINTENANCE	LF	2,750.000	2,750.000
0310	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	3.000	3.000
0320	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	2.000	2.000
0330	628.2002	EROSION MAT CLASS I TYPE A	SY	2,650.000	2,650.000
0340	629.0210	FERTILIZER TYPE B	CWT	1.700	1.700
0350	630.0120	SEEDING MIXTURE NO. 20	LB	72.000	72.000
0360	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	114.000	114.000
0370	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	8.000	8.000
0380	637.2210	SIGNS TYPE II REFLECTIVE H	SF	563.220	563.220
0390	637.2230	SIGNS TYPE II REFLECTIVE F	SF	328.410	328.410
0400	638.2102	MOVING SIGNS TYPE II	EACH	3.000	3.000
0410	638.2602	REMOVING SIGNS TYPE II	EACH	139.000	139.000
0420	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	116.000	116.000
0430	642.5201	FIELD OFFICE TYPE C	EACH	1.000	1.000
0440	643.0100	TRAFFIC CONTROL (PROJECT) 01. 9000-13-70	EACH	1.000	1.000
0450	643.0300	TRAFFIC CONTROL DRUMS	DAY	960.000	960.000
0460	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	12.000	12.000
0470	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	264.000	264.000
0480	643.0900	TRAFFIC CONTROL SIGNS	DAY	4,954.000	4,954.000
0490	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	213,745.000	213,745.000
0500	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	770.000	770.000

DATE 01APR14		E S T I M A T E O F Q U A N T I T I E S			
LINE				9000-13-70	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0510	646.0406	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	LF	82,130.000	82,130.000
0520	646.0600	REMOVING PAVEMENT MARKINGS	LF	1,170.000	1,170.000
0530	647.0156	PAVEMENT MARKING ARROWS EPOXY TYPE 1	EACH	1.000	1.000
0540	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	4.000	4.000
0550	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	4.000	4.000
0560	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	35.000	35.000
0570	647.0726	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	LF	120.000	120.000
0580	647.0955	REMOVING PAVEMENT MARKINGS ARROWS	EACH	6.000	6.000
0590	647.0965	REMOVING PAVEMENT MARKINGS WORDS	EACH	4.000	4.000
0600	648.0100	LOCATING NO-PASSING ZONES	MI	12.200	12.200
0610	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	82,130.000	82,130.000
0620	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	3,420.000	3,420.000
0630	649.1400	TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 24-INCH	LF	60.000	60.000
0640	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	64,762.000	64,762.000
0650	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 9000-13-70	LS	1.000	1.000
0660	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	4,685.000	4,685.000
0670	661.0100	TEMPORARY TRAFFIC SIGNALS FOR BRIDGES (STRUCTURE) 02. B-35-0128	LS	1.000	1.000
0680	690.0150	SAWING ASPHALT	LF	2,500.000	2,500.000
0690	SPV.0060	SPECIAL 01. RAILING ATTACHMENT SPECIAL B-35-0278	EACH	4.000	4.000
0700	SPV.0060	SPECIAL 02. ERECTING STATE OWNED SIGN SHROUD	EACH	1.000	1.000
0710	SPV.0060	SPECIAL 03. REESTABLISH SECTION CORNER MONUMENTS	EACH	23.000	23.000

3

CLEARING AND GRUBBING

STATION - STATION	LOCATION	201.0105 STA	201.0205 STA	REMARKS
139+50 - 140+50	RT	1	1	
TOTAL		1	1	

REMOVING ASPHALTIC SURFACE MILLING

STATION - STATION	LOCATION	204.0120 SY	REMARKS
61+50 - 88+66	LT & RT	9050	
88+66 - 90+53	LT & RT	750	
90+53 - 131+94	LT & RT	13800	
131+94 - 133+58	LT & RT	650	
133+58 - 176+32	LT & RT	14250	
178+70 - 270+04	LT & RT	30450	
272+83 - 707+12	LT & RT	144800	
TOTAL		213750	

REMOVING GUARDRAIL

STATION - STATION	LOCATION	204.0165 LF	REMARKS
136+75 - 139+90	RT	370	
175+20 - 177+20	LT & RT	390	
177+80 - 179+80	LT & RT	390	
250+50 - 255+50	RT	500	CABLE GUARD FENCE
250+50 - 254+50	LT	400	CABLE GUARD FENCE
269+60 - 270+96	LT & RT	400	
271+71 - 273+00	LT & RT	400	
TOTAL		2850	

PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

STATION - STATION	LOCATION	211.0400 STATION	REMARKS
60+53 - 81+35	RT	21	
60+53 - 81+35	LT	21	
TOTAL		42	

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

REMOVING ASPHALTIC SURFACE MILLING BUTT JOINTS

STATION - STATION	LOCATION	204.0115 SY	REMARKS
60+50 - 61+50	RT & LT	330	
176+32 - 177+32	RT & LT	330	MILL TO CONCRETE SLAB - APPROX 2"
177+70 - 178+70	RT & LT	330	MILL TO CONCRETE SLAB - APPROX 2"
270+04 - 271+04	RT & LT	330	
271+83 - 272+83	RT & LT	330	
707+12 - 708+12	RT & LT	330	
SHORT AVENUE		110	
DEER RUN AVENUE		120	
OAK RIDGE AVENUE		110	
SPRITE ROAD	RT	80	
HIGH RIDGE ROAD NORTH	LT	110	
HIGH RIDGE ROAD SOUTH	RT	30	APPROACH LANE INCLUDED WITH MAINLINE
HILLVIEW ROAD NORTH	LT	100	
HILLVIEW ROAD SOUTH	RT	140	
MAPLE ROAD		110	
FRENCH RIDGE ROAD	LT	110	
MONTERY ROAD	LT	100	
RANGE LINE ROAD SOUTH	LT	110	
RANGE LINE ROAD NORTH	RT	110	
BALASAM AVENUE		90	
PLEASANT VEIW AVENUE		120	
CAIN CREEK ROAD NORTH	LT	110	
CAIN CREEK ROAD SOUTH	RT	110	
SPILE DAM ROAD	RT	80	
SPRING BROOKE AVENUE	LT	110	
CTH "X"	LT	120	
CTH "X"	LT	30	
ELM RIDGE AVENUE	LT	100	
CTH "X"	RT	160	
MILE SQUARE ROAD	RT	95	
POPLAR DRIVE	RT	80	
COUNTY LINE ROAD	RT	80	
72+37	RT	10	PE
79+10	LT	10	PE
90+25	LT	10	PE
93+50	RT	10	PE
162+90	LT	10	PE
185+00	RT	10	PE
256+10	LT	10	PE
312+80	RT	10	PE
380+45	RT	10	PE
405+55	RT	10	PE
417+68	RT	10	PE
434+50	LT	10	PE
443+47	LT	10	PE
444+85	LT	10	PE
458+00	RT	10	PE
504+50	LT	10	PE
520+50	LT	10	PE
657+50	LT	10	PE
TOTAL		4785	

3

Division	From / To Station	Location	Common Excavation (1)	(item # 205.0100) EBS Excavation (3)	Available Material (5)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate + / - (14)	Borrow (item #208.0100)	Comment:
			Cut (2)				Factor 1.25			
1	134+14 - 141+58	RT	8	0	8	63	79	-71	-71	
2	174+19 - 180+53	B-35-0127	45	0	45	135	169	-124	-124	
3	248+46 - 256+94	RT & LT	14	0	14	151	188	-174	-174	
4	268+20 - 274+87	B-35-0278	49	0	49	91	113	-64	-64	
Grand Total			116	0.00	116.48	439.82	549.78	-433.30	-433.30	
		Total Common Exc		116						

- 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
- 2) Salvaged/Unsuable Pavement Material is included in Cut.
- 3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
- 5) Available Material = Cut - Salvaged/Unusuable Pavement Material
- 13) Expanded Fill. Factor = 1.25
- 14) 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.

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

BASE AGGREGATE DENSE				
STATION - STATION		LOCATION	305.0110 3/4-INCH TON	REMARKS
60+50 - 76+40		LT	75	
60+50 - 81+15		RT	100	
76+60 - 108+05		LT	150	
81+15 - 114+40		RT	160	
108+45 - 134+50		LT	125	
114+40 - 134+50		RT	95	
134+70 - 177+03		LT	200	
134+70 - 17+703		RT	200	
177+82 - 200+33		LT	110	
177+82 - 200+33		RT	110	
200+53 - 214+15		LT	65	
214+35 - 225+84		LT	55	
226+04 - 240+30		LT	70	
240+50 - 262+15		LT	105	
262+35 - 270+96		LT	40	
200+53 - 270+96		RT	340	
271+71 - 293+60		LT	105	
271+71 - 293+60		RT	105	
293+90 - 322+00		LT	135	
322+20 - 374+70		LT	250	
374+90 - 400+70		LT	125	
293+80 - 400+70		RT	510	
400+90 - 453+60		RT	255	
400+90 - 496+40		LT	460	
496+60 - 509+40		LT	60	
509+50 - 554+35		LT	215	
453+80 - 596+05		RT	680	
596+25 - 611+35		RT	70	
611+55 - 654+10		RT	205	
654+30 - 707+45		RT	255	
554+55 - 708+12		LT	735	
707+65 - 708+12		RT	5	
UNDISTRIBUTED			200	
TOTALS			6370	

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

SHAPING SHOULDERS

STATION - STATION		LOCATION	305.0500 STATION	REMARKS
81+35 - 708+12		RT	627	
81+35 - 708+12		LT	627	
TOTAL			1254	

HMA PAVEMENT TYPE E-3

STATION - STATION		LOCATION	460.1103 HMA PAVEMENT TYPE E-3 TON	455.0105 ASPHALTIC MATERIAL PG58-28 MIX @ 5.5% TON	REMARKS
60+50 - 66+04		MAINLINE	275	15.1	
66+04 - 81+35		MAINLINE	515	28.3	
81+35 - 88+66		MAINLINE	255	14.0	
88+66 - 90+53		MAINLINE	80	4.4	
90+53 - 131+94		MAINLINE	1910	105.1	
131+94 - 133+58		MAINLINE	75	4.1	
135+58 - 177+05		MAINLINE	1370	75.4	
177+84 - 271+04		MAINLINE	3070	168.9	
271+83 - 708+12		MAINLINE	14335	788.4	
TOTALS			21885.0	1203.7	

TACK COAT

STATION - STATION		LOCATION	455.0605 GALLONS	REMARKS
60+50 - 81+35		CL	210	
81+35 - 88+66		CL	60	
88+66 - 90+53		CL	20	
90+53 - 131+94		CL	530	
131+94 - 133+58		CL	20	
133+58 - 177+32		CL	345	
177+70 - 271+04		CL	780	
271+83 - 708+12		CL	3640	
TOTAL			5605	

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ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

STATION	LOCATION	465.0120 TON	REMARKS
72+37	RT	1.1	PE
79+10	LT	1.1	PE
90+25	LT	1.1	PE
93+50	RT	1.1	PE
162+90	LT	1.1	PE
185+00	RT	1.1	PE
256+10	LT	1.1	PE
312+80	RT	1.1	PE
380+45	RT	1.1	PE
405+55	RT	1.1	PE
417+68	RT	1.1	PE
434+50	LT	1.1	PE
443+47	LT	1.1	PE
444+85	LT	1.1	PE
458+00	RT	1.1	PE
504+50	LT	1.1	PE
520+50	LT	1.1	PE
657+50	LT	1.1	PE
TOTALS		20.3	

ASPHALTIC CENTERLINE RUMBLE STRIPS 2 LANE RURAL

STATION	465.0475 LF	REMARKS
61+50 - 708+12	55320.0	
		55320.0

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

MGS GUARDRAIL

STATION - STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3 K LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
135+29 - 140+36	RT	225.0	175.0	--	2
175+63 - 177+00	RT	--	--	39	1
176+13 - 177+00	LT	50.0	--	39	1
177+80 - 179+23	RT	50.0	--	39	1
177+80 - 178+73	LT	--	--	39	1
249+40 - 256+10	RT	--	562.5	--	2
250+23 - 255+17	LT	--	387.5	--	2
269+43 - 270+98	RT	62.5	--	39	1
269+43 - 270+98	LT	62.5	--	39	1
272+06 - 273+61	LT	62.5	--	39	1
272+06 - 273+61	RT	62.5	--	39	1
TOTALS		575.0	1125.0	312	14

TOPSOIL, MULCHING, FERTILIZER, AND SEEDING

STATION - STATION	LOCATION	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	628.2002 EMAT CLASS I TYPE A SY	REMARKS
STA 134+00 - STA 141+50	LT	450	0.3	12	450	
STA 174+25 - STA 177+00	LT	200	0.1	5	200	
STA 174+25 - STA 177+00	RT	190	0.1	5	190	
STA 177+75 - STA 180+50	LT	130	0.1	4	130	
STA 177+75 - STA 180+50	RT	90	0.1	2	90	
STA 248+50 - STA 257+00	LT	280	0.2	8	280	
STA 248+50 - STA 257+00	RT	470	0.3	13	470	
STA 268+25 - STA 271+00	LT	250	0.2	7	250	
STA 268+25 - STA 271+00	RT	150	0.1	4	150	
STA 272+00 - STA 275+00	LT	230	0.1	6	230	
STA 272+00 - STA 275+00	RT	210	0.1	6	210	
TOTALS		2650	1.7	72	2650	

WATER

STATION	624.0100 MGAL	REMARKS
61+50 - 708+12	10.0	
		10.0

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SILT FENCE				
STATION	LOCATION	628.1504 LF	628.1520 MAINTENANCE LF	REMARKS
STA 174+25 - STA 177+00	LT	325	325	
STA 174+25 - STA 177+00	RT	325	325	
STA 177+75 - STA 180+50	LT	325	325	
STA 177+75 - STA 180+50	RT	325	325	
STA 268+25 - STA 271+00	LT	325	325	
STA 268+25 - STA 271+00	RT	325	325	
STA 272+00 - STA 275+00	LT	350	350	
STA 272+00 - STA 275+00	RT	350	350	
UNDISTRIBUTED		100	100	
TOTALS		2750	2750	

MOBILIZATIONS EROSION CONTROL			
STATION - STATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	REMARKS
60+50 - 708+12	3	2	
TOTALS	3	2	

3

TRAFFIC CONTROL										
	643.0100 TRAFFIC CONTROL PROJECT EACH	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0715 WARNING LIGHTS TYPE C DAYS	643.0900 SIGNS DAYS	*646.0600 REMOVING PAVEMENT MARKING LF	649.0100 TEMPORARY PAVEMENT MARKING 4-INCH LF	649.0400 TEMP PAV'T MARKING REM. TAPE 4-INCH LF	649.1400 TEMP PAV'T MARKING STOP LINE REM. TAPE 24-INCH LF	661.0100 TEMP TRAFFIC SIGNALS FOR BRIDGES LS
60+50 - 708+12	1	600	--	--	4810	--	82130	--	--	
B-35-0128	--	360	12	264	144	470	--	3420	60	1
TOTALS	1	960	12	264	4954	470	82130	3420	60	1
* ADDITIONAL QUANTITY SHOWN ELSEWHERE IN PLAN										

PAVEMENT MARKING EPOXY															
STATION - STATION	LOCATION	646.0106	646.0106	646.0106	646.0406	646.0126	647.0566	647.0726	647.0156	647.0166	647.0356	*646.0600	647.0955	647.0965	
		4-INCH EDGE LINE WHITE LF	4-INCH LANE LINE WHITE DASHED LF	4-INCH CENTERLINE YELLOW LF	SAME DAY,4-INCH CENTERLINE YELLOW LF	8-INCH WHITE LF	STOPLINE 18-INCH WHITE LF	12-INCH DIAGONAL WHITE LF	ARROWS TYPE 1 EACH	ARROWS TYPE 2 EACH	WORDS EACH	REMOVING PAVEMENT MARKING LF	REMOVING PAVT MKING ARROW EACH	REMOVING PAVT MKING WORDS EACH	
60+50 - 708+12 STH 64/ STH 17 INTER.	MAINLINE	130300	910	82130	82130	110	0	0	0	0	0	0	0	0	
		285	0	120	--	660	35	120	1	4	4	700	6	4	
SUB TOTALS		130585	910	82250	82130	770	35	120	1	4	4	700	6	4	
PROJECT TOTAL		213745													
* ADDITIONAL QUANTITY SHOWN ELSEWHERE IN PLAN					ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED										
PROJECT NO: 9000-13-70		HWY: STH 64			COUNTY: LINCOLN			MISCELLANEOUS QUANTITIES					SHEET:		E

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ADDITIONAL SIGN QUANTITIES ON NEXT PAGE

SIGN LISTING

STA	SIGN NO.	SIGN CODE	MESSAGE	SIZE	POSTS WOOD 4" X 6"		637.2210	637.2230	637.2603	637.3000	638.2102	REMARKS
							SIGNS	SIGNS	REMOVING	REMOVING	MOVING	
							TYPE II	TYPE II	SIGNS	SMALL SIGN	SIGNS	
					634.0616	634.0618	REFLECTIVE	REFLECTIVE	TYPE II	SUPPORTS	TYPE II	
					16-FT	18-FT	H	F	EACH	EACH	EACH	
					EACH	EACH	SF	SF				
STH 64/ STH 17	A		RIGHT TURN LANE MUST TURN RIGHT		---	---	---	---	---	---	1	
STH 64/ STH 17	B		SPEED LIMIT 45		---	---	---	---	---	---	1	
STH 64/ STH 17	C		ANTIGO/RHINELANDER/EAGLE		---	---	---	---	---	---	1	
STH 64/ STH 17	D		RIGHT LANE MERGES		---	---	---	---	1	1	---	
57+00	MED	1	R4-7		---	---	---	---	1	1	---	
58+00	RT	2	D2-1	ANTIGO 26 MILES	66" X 15"	2	6.88	---	1	2	---	
61+50	RT	3	S4-5	SCHOOL SPEED LIMIT AHEAD	36" X 36"	1	9.00	---	---	---	---	
64+00	RT	4	S1-1	SCHOOL ZONE	36" X 36"	---	9.00	---	1	1	---	
64+00	RT	4A	W16-9P	AHEAD	24" X 8"	---	---	1.33	1	---	---	SAME POST AS SIGN 4
64+00	RT	4B	R2-6P	FINES HIGHER	24" X 18"	---	3.00	---	---	---	---	SAME POST AS SIGN 4
64+50	LT	4C	J2-3	JCT ASSEMBLY	72" X 69"	---	34.50	---	1	2	---	
			M3-4	WEST	24" X 12"	---	---	---	1	---	---	
			M1-6	STH 64	24" X 24"	---	---	---	1	---	---	
			M6-1	UP ARROW	21" X 21"	---	---	---	1	---	---	
			M4-5	TO	24" X 12"	---	---	---	1	---	---	
			M1-4	USH 51	24" X 24"	---	---	---	1	---	---	
			M6-1	UP ARROW	21" X 21"	---	---	---	1	---	---	
			M3-1	NORTH	24" X 12"	---	---	---	---	---	---	
			M1-6	STH 17	24" X 24"	---	---	---	1	---	---	
			M5-1R	RIGHT ARROW	21" X 21"	---	---	---	1	---	---	
66+00	LT	5	W6-1	DIVIDED HIGHWAY SYMBOL	36" X 36"	1	---	9.00	1	1	---	
67+50	LT	5A	S5-2	END SCHOOL ZONE	24" X 30"	1	5.00	---	---	---	---	
67+50	RT	5B	S4-51	SCHOOL SPEED LIMIT 15	24" X 48"	1	8.00	---	1	1	---	
69+50	LT	6	J1-3	JCT ASSEMBLY	72" X 39"	2	19.50	---	1	2	---	
			M2-1	JCT	21" X 15"	---	---	---	---	---	---	
			M1-5A	CTY W	24" X 24"	---	---	---	---	---	---	
			M2-1	JCT	21" X 15"	---	---	---	---	---	---	
			M1-4	USH 51	24" X 24"	---	---	---	---	---	---	
			M2-1	JCT	21" X 15"	---	---	---	---	---	---	
			M1-6	STH 17	24" X 24"	---	---	---	---	---	---	
73+00	RT	7	R1-1	STOP	30" X 30"	1	5.18	---	1	1	---	
76+50	LT	8	R1-1	STOP	30" X 30"	1	5.18	---	1	1	---	
79+50	LT	9	S4-51	SCHOOL SPEED LIMIT 15	24" X 48"	1	8.00	---	1	1	---	
79+00	RT	9A	S5-2	END SCHOOL ZONE	24" X 30"	1	5.00	---	---	---	---	
80+50	RT	10		PINE RIVER TOWN HALL		---	---	---	---	---	---	TO REMAIN
81+65	RT	11	R1-1	STOP	30" X 30"	1	5.18	---	1	1	---	
82+50	LT	12		PINE RIVER TOWN HALL		---	---	---	---	---	---	TO REMAIN
83+50	LT	13	S1-1	SCHOOL ZONE	36" X 36"	---	9.00	---	1	1	---	
83+50	LT	14	W16-9P	AHEAD	24" X 8"	---	---	1.33	1	---	---	SAME POST AS SIGN 13
83+50	LT	14A	R2-6P	FINES HIGHER	24" X 18"	---	3.00	---	---	---	---	SAME POST AS SIGN 13
85+50	LT	14B	S4-5	SCHOOL SPEED LIMIT AHEAD	36" X 36"	1	9.00	---	---	---	---	
86+25	RT	15	R4-3	SLOWER TRAFFIC KEEP RIGHT	24" X 30"	1	5.00	---	1	1	---	
TOTALS					15	4	149.42	11.66	24	17	3	

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

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ADDITIONAL SIGN QUANTITIES ON NEXT PAGE

						POSTS WOOD 4" X 6"		637.2210 SIGNS TYPE II	637.2230 SIGNS TYPE II	637.2603 REMOVING SIGNS TYPE II	637.3000 REMOVING SMALL SIGN SUPPORTS	638.2102 MOVING SIGNS TYPE II	REMARKS
STA		SIGN NO.	SIGN CODE	MESSAGE	SIZE	634.0616 16-FT EACH	634.0618 18-FT EACH	H SF	F SF	EACH	EACH	EACH	
108+15	LT	16	R1-1	STOP	30" X 30"	1	---	6.25	---	1	1	---	
114+50	RT	17	W14-1	DEAD END	30" X 30"	1	---	---	6.25	1	1	---	
114+50	RT	18	R1-1	STOP	30" X 30"	1	---	6.25	---	1	1	---	
118+50	RT	19	W4-2B	LEFT LANE ENDS	36" X 36"	1	---	---	9.00	1	1	---	
127+50	RT	20	W2-1	CROSS ROADS SIGN	30" X 30"	1	---	---	6.25	1	1	---	
131+50	RT	21	R3-7R	RIGHT LANE MUST TURN RIGHT	30" X 30"	1	---	6.25	---	1	1	---	
134+60	LT	22	R1-1	STOP	30" X 30"	1	---	6.25	---	1	1	---	
134+60	RT	23	R1-1	STOP	30" X 30"	1	---	6.25	---	1	1	---	
135+50	RT	24	R3-72	ONCOMING TRAFFIC USES CENTER	30" X 36"	1	---	7.50	---	1	1	---	
144+50	RT	26	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---	
148+00	LT	27	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---	
174+00	LT	28	I55-56	ADOPT A HWY IN MEMORY OF	30" X 36"	1	---	7.50	---	1	1	---	
176+00	RT	29	W14-3	NO PASSING ZONE ADOPT A HWY PINE RIVER	48" X 36"	1	---	---	6.00	1	1	---	
181+00	RT	29A	I55-56	PEPPERS 4-H CLUB	30" X 36"	1	---	7.50	---	1	1	---	
177+00	LT	30	W5-52L	BRIDGE HASH MARKS	12" X 36"	1	---	---	3.00	1	1	---	
177+00	RT	31	W5-54R	BRIDGE HASH MARKS	12" X 36"	1	---	---	3.00	1	1	---	
178+50	RT	32	W5-54R	BRIDGE HASH MARKS	12" X 36"	1	---	---	3.00	1	1	---	
178+50	LT	33	W5-52L	BRIDGE HASH MARKS	12" X 36"	1	---	---	3.00	1	1	---	
194+50	LT	34	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---	
200+78	LT	35	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---	
200+78	LT	36	W14-1	`	30" X 30"	1	---	6.25	---	1	1	---	
200+78	RT	37	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---	
214+25	LT	38	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---	
225+94	LT	38B	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---	
240+40	LT	39	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---	
249+50	LT	40	W2-2	CROSS ROADS	30" X 30"	1	---	---	6.25	1	1	---	
262+25	LT	41	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---	
261+00	RT	42	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---	
271+50	LT	43	W5-52L	BRIDGE HASH MARKS	12" X 36"	1	---	---	3.00	1	1	---	
271+50	RT	44	W5-54R	BRIDGE HASH MARKS	12" X 36"	1	---	---	3.00	1	1	---	
272+50	RT	45	W5-54R	BRIDGE HASH MARKS	12" X 36"	1	---	---	3.00	1	1	---	
272+50	LT	46	W5-52L	BRIDGE HASH MARKS	12" X 36"	1	---	---	3.00	1	1	---	
286+75	RT	47	W11-8	FIRE TRUCK ENTRANCE	36" X 36"	1	---	---	9.00	1	1	---	
293+50	LT	48	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---	
293+50	LT	49	I55-56	ADOPT A HWY PINE RIVER	30" X 36"	1	---	7.50	---	1	1	---	
293+70	LT	50	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---	
TOTALS						36	0	103.76	96.75	36	36	0	

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

PROJECT NO: 9000-13-70

HWY: STH 64

COUNTY: LINCOLN

MISCELLANEOUS QUANTITIES

SHEET:

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ADDITIONAL SIGN QUANTITIES ON NEXT PAGE

STA		SIGN NO.	SIGN CODE	MESSAGE	SIZE	POSTS WOOD 4" X 6"		637.2210	637.2230	637.2603	637.3000	638.2102	REMARKS
						634.0616	634.0618	SIGNS	SIGNS				
								TYPE II	TYPE II				
						16-FT	18-FT	REFLECTIVE	REFLECTIVE	SIGNS	REMOVING	MOVING	
						EACH	EACH	H	F	TYPE II	SMALL SIGN	SIGNS	
								SF	SF	EACH	SUPPORTS	TYPE II	
											EACH	EACH	
293+70	RT	51	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---	
301+25	LT	52	W11-8	FIRE TRUCK ENTRANCE	36" X 36"	1	---	---	9.00	1	1	---	
322+10	LT	53	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---	
332+25	RT	54	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---	
338+50	LT	55	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---	
374+80	LT	56	W14-1	DEAD END	30" X 30"	1	---	---	6.25	1	1	---	
374+80	LT	57	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---	
400+50	RT	58	I55-56	ADOPT A HWY PINE RIVER	30" X 36"	1	---	7.50	---	1	1	---	
400+80	LT	59	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---	
400+80	RT	60	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---	
428+50	RT	61	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---	
453+70	RT	62	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---	
453+70	RT	63	W14-1	DEAD END	30" X 30"	1	---	---	6.25	1	1	---	
477+50	LT	64	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---	
486+25	RT	65	W1-2R	CURVE	30" X 30"	---	1	---	6.25	1	1	---	
486+25	RT	66	W13-1	50 MPH ADVISORY	18" X 18"	---	---	---	2.25	1	---	---	SAME POST AS SIGN 65
496+50	LT	67	R1-1	STOP	30" X 30"	1	---	---	---	1	1	---	REMOVE AND REPLACE STATE SUPPLIED SIGN SHROUD
496+75	LT	68	M1-6	STH 64	24" X 24"	2	---	4.00	---	1	2	---	
496+75	LT	69	W1-6	ARROW	48" X 24"	---	---	---	8.00	1	---	---	SAME POST AS SIGN 68
498+25	RT	70	J1-1	JCT ASSEMBLY	24" X 39"	1	---	6.50	---	---	1	---	
			M201	JCT	21" X 15"	---	---	---	---	1	---	---	
			M1-5A	CTY X	24" X 24"	---	---	---	---	1	---	---	
505+00	RT	71	W11-6	SNOWMOBILE CROSSING	30" X 30"	1	---	---	6.25	1	1	---	
506+50	LT	72	J4-1	JCT ASSEMBLY	24" X 36"	1	---	6.00	---	---	1	---	
			M3-4	WEST	24" X 12"	---	---	---	---	1	---	---	
			M1-6	STH 64	24" X 24"	---	---	---	---	1	---	---	
506+50	LT	73	I55-56	ADOPT A HWY PINE RIVER	30" X 36"	1	---	7.50	---	1	1	---	
509+50	LT	74	J13-2	JCT ASSEMBLY	48" X 45"	2	---	15.00	---	1	1	---	
			M1-5A	CTY X	24" X 24"	---	---	---	---	---	---	---	
			M6-1	ARROW	21" X 21"	---	---	---	---	---	---	---	
			M1-6	STH 64	24" X 24"	---	---	---	---	---	---	---	
			M6-4	ARROWS	21" X 21"	---	---	---	---	---	---	---	
509+50	RT	75	J13-1	JCT ASSEMBLY	24" X 45"	1	---	7.50	---	---	1	---	
			M1-5A	CTY X	24" X 24"	---	---	---	---	1	---	---	
			M6-6	ARROWS	21" X 21"	---	---	---	---	1	---	---	
509+50	LT	76	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---	
509+50	LT	77	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---	
510+00	RT	78	J4-1	JCT ASSEMBLY	24" X 24"	1	---	4.00	---	---	1	---	
			M3-2	EAST	24" X 12"	---	---	---	---	1	---	---	
			M1-6	STH 64	24" X 12"	---	---	---	---	1	---	---	
512+00	LT	80	M1-6	STH 64	24" X 24"	2	---	4.00	---	1	1	---	
512+00	LT	81	W1-6	ARROW	48" X 24"	---	---	---	8.00	1	---	---	SAME POST AS SIGN 80
TOTALS						29	1	179.69	110.25	34	28	0	

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

ADDITIONAL SIGN QUANTITIES ON NEXT PAGE

						POSTS WOOD 4" X 6"		637.2210 SIGN TYPE II	637.2230 SIGN TYPE II	637.2603 REMOVING SIGN TYPE II	637.3000 REMOVING SMALL SIGN SUPPORTS	638.2102 MOVING SIGN TYPE II	REMARKS
STA		SIGN NO.	SIGN CODE	MESSAGE	SIZE	634.0616 16-FT EACH	634.0618 18-FT EACH	H SF	F SF	EACH	EACH	EACH	
513+00	LT	84	J13-1	JCT ASSEMBLY	24" X 45"	1	---	7.50	---	---	1	---	
			M1-5A	CTY X	24" X 24"	---	---	---	---	1	---	---	
			M6-1	UP ARROW	21" X 21"	---	---	---	---	1	---	---	
519+25	LT	85	W11-6	SNOWMOBILE CROSSING	30" X 30"	1	---	---	6.25	1	1	---	
521+50	LT	86	J13-1	JCT ASSEMBLY	24" X 45"	1	---	7.50	---	---	1	---	
			M1-5A	CTY X	24" X 24"	---	---	---	---	1	---	---	
			M6-1	UP ARROW	21" X 21"	---	---	---	---	1	---	---	
523+50	LT	87	W1-2R	CURVE	30" X 30"	---	1	---	7.50	1	1	---	
523+50	LT	88	W13-1	50 MPH ADVISORY	18" X 18"	---	---	---	2.25	1	---	---	SAME POST AS SIGN 87
524+50	RT	89	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---	
526+00	LT	90	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---	
554+34	LT	91	W14-1	DEAD END	30" X 30"	1	---	---	6.25	1	1	---	
554+34	LT	92	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---	
556+75	RT	93	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---	
576+00	LT	94	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---	
585+50	RT	95	J13-1	JCT ASSEMBLY	24" X 45"	1	---	7.50	---	---	1	---	
			M1-5A	CTY X	24" X 24"	---	---	---	---	1	---	---	
			M6-1	UP ARROW	21" X 21"	---	---	---	---	1	---	---	
587+00	RT	96	W1-2R	CURVE	30" X 30"	---	1	---	7.50	1	1	---	
587+00	RT	97	W13-1	50 MPH ADVISORY	18" X 18"	---	---	---	2.25	1	---	---	SAME POST AS SIGN 96
593+50	RT	98	J13-2	JCT ASSEMBLY	48" X 45"	2	---	15.00	---	1	1	---	
			M1-5A	CTY X	24" X 24"	---	---	---	---	---	---	---	
			M6-1	ARROW	21" X 21"	---	---	---	---	---	---	---	
			M1-6	STH 64	24" X 24"	---	---	---	---	---	---	---	
			M6-4	ARROWS	21" X 21"	---	---	---	---	---	---	---	
595+00	LT	99	J4-1	WEST STH 64	24" X 36"	1	---	6.00	---	---	1	---	
			M3-4	WEST	24" X 12"	---	---	---	---	1	---	---	
			M1-6	STH 64	24" X 24"	---	---	---	---	1	---	---	
595+00	RT	100	W1-6	ARROW	48" X 24"	2	---	---	8.00	1	1	---	
596+15	RT	101	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---	
596+15	RT	102	J13-1	JCT ASSEMBLY	24" X 45"	1	---	7.50	---	---	1	---	
			M1-6	STH 64	24" X 24"	---	---	7.50	---	1	---	---	
			M6-6	ARROWS	21" X 21"	---	---	6.25	---	1	---	---	
TOTALS						17	2	75.11	64.00	24	17	0	

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

ADDITIONAL SIGN QUANTITIES ON PREVIOUS PAGE

						637.2210		637.2230		637.2603	637.3000	638.2102		
						POSTS WOOD 4" X 6"		SIGNS	SIGNS	REMOVING	REMOVING	MOVING		
						634.0616	634.0618	TYPE II	TYPE II	SIGNS	SMALL SIGN	SIGNS		
STA		SIGN NO.	SIGN CODE	MESSAGE	SIZE	16-FT EACH	18-FT EACH	H SF	F SF	TYPE II EACH	SUPPORTS EACH	TYPE II EACH	REMARKS	
611+45	RT	104	J13-1	JCT ASSEMBLY	24" X 45"	1	---	7.50	---	---	1	---		
			M1-5A	CTY X	24" X 24"	---	---	---	---	1	---	---		
			M6-6	ARROWS	21" X 21"	---	---	---	---	1	---	---		
611+45	RT	105	R1-1	STOP	30" X 30"	1	---	6.25	---	1	1	---		
612+00	RT	106	J4-1	JCT ASSEMBLY	24" X 24"	1	---	4.00	---	---	1	---		
			M3-2	EAST	24" X 12"	---	---	---	---	1	---	---		
			M1-6	STH 64	24" X 12"	---	---	---	---	1	---	---		
619+50	LT	107	J1-1	JCT ASSEMBLY	24" X 39"	1	---	6.50	---	---	1	---		
			M2-1	JCT	21" X 15"	---	---	---	---	1	---	---		
			M1-5A	CTY X	24" X 24"	---	---	---	---	1	---	---		
624+25	LT	108	W1-2R	CURVE	30" X 30"	---	1	7.50	---	1	1	---		
624+25	LT	109	W13-1	50 MPH ADVISORY	18" X 18"	---	---	---	2.25	1	---	---	SAME POST AS 108	
624+50	RT	110	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---		
646+50	LT	111	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---		
654+20	RT	112	W14-1	DEAD END	30" X 30"	1	---	---	7.50	1	1	---		
654+20	RT	113	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---		
667+50	RT	114	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---		
683+00	LT	115	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---		
701+00	LT	116	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---		
702+00	RT	117	W14-3	NO PASSING ZONE	48" X 36"	1	---	---	6.00	1	1	---		
707+50	LT	118	I2-2	LINCOLN CO	60" X 15"	2	---	6.25	---	1	2	---		
707+50	LT	119		CRIME STOPPERS		---	---	---	---	1	---	---	REMOVE	
708+12	RT	120	R1-1	STOP	30" X 30"	1	---	5.18	---	1	1	---		
709+00	RT	121	I2-2	LANGLADE CO	66" X 15"	2	---	6.88	---	1	2	---		
TOTALS						17	1	55.24	45.75	21	18	0		
GRAND TOTAL						114	8	563.22	328.41	139	116	3		

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

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CONSTRUCTION STAKING				
STATION - STATION		650.8000 RESURFACING REFERENCE LF	650.9910 SUPPLEMENTAL CONTROL LS	650.9920 SLOPE STAKES LF
60+50 - 708+12		64762	1	--
134+15 - 141+60	RT	--	--	745
174+20 - 177+00	LT & RT	--	--	560
177+80 - 180+50	LT & RT	--	--	560
248+50 - 257+00	LT & RT	--	--	1700
268+20 - 271+00	LT & RT	--	--	560
272+00 - 274+80	LT & RT	--	--	560
TOTALS		64762	1	4685

SPECIAL 02. ERECTING STATE OWNED SIGN SHROUD		
SPV.0060.02 ERECTING STATE OWNED SIGN SHROUD		
STATION	EACH	REMARKS
496+50	1	
TOTALS	1	
ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED		

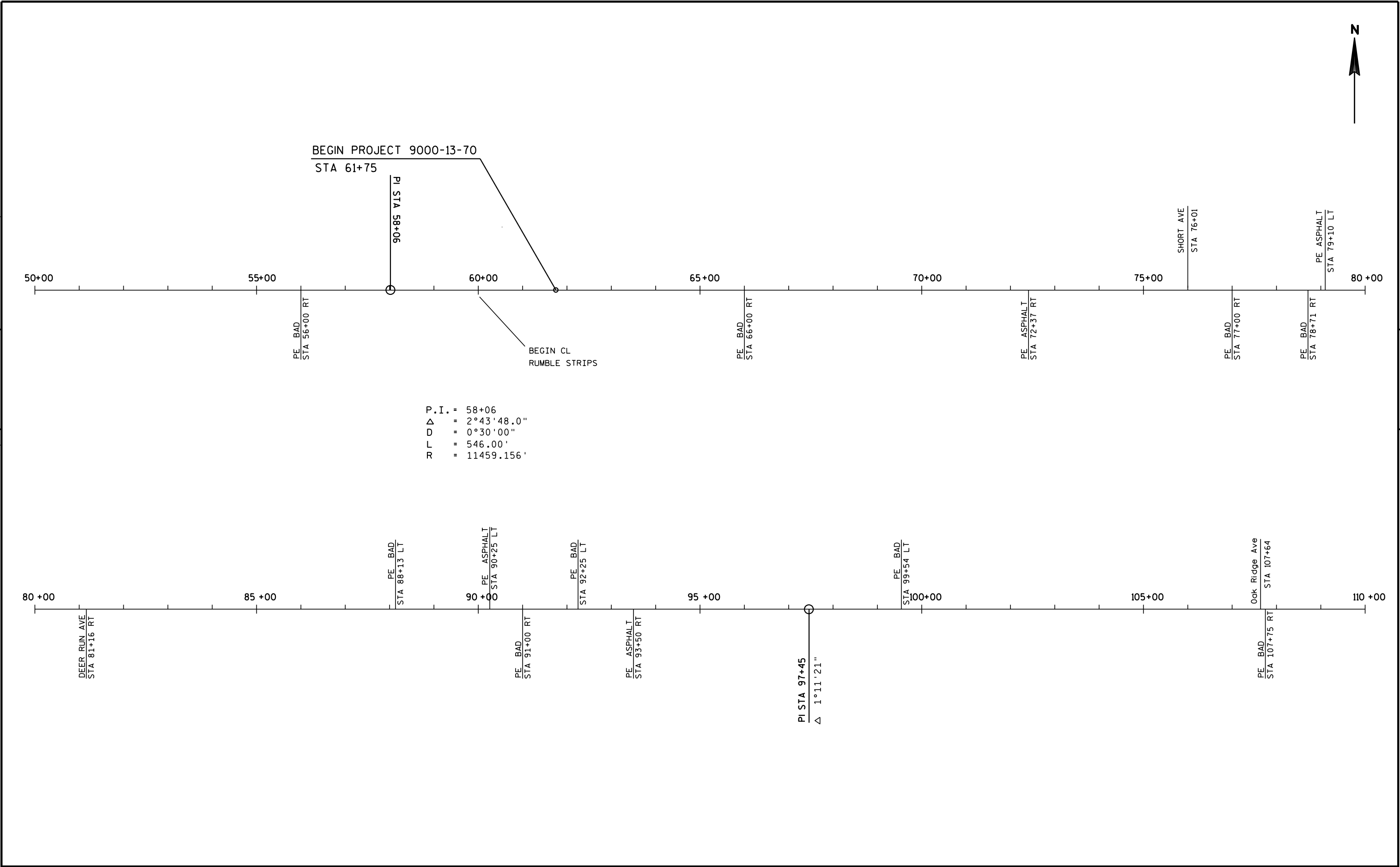
REFERENCE MONUMENTS

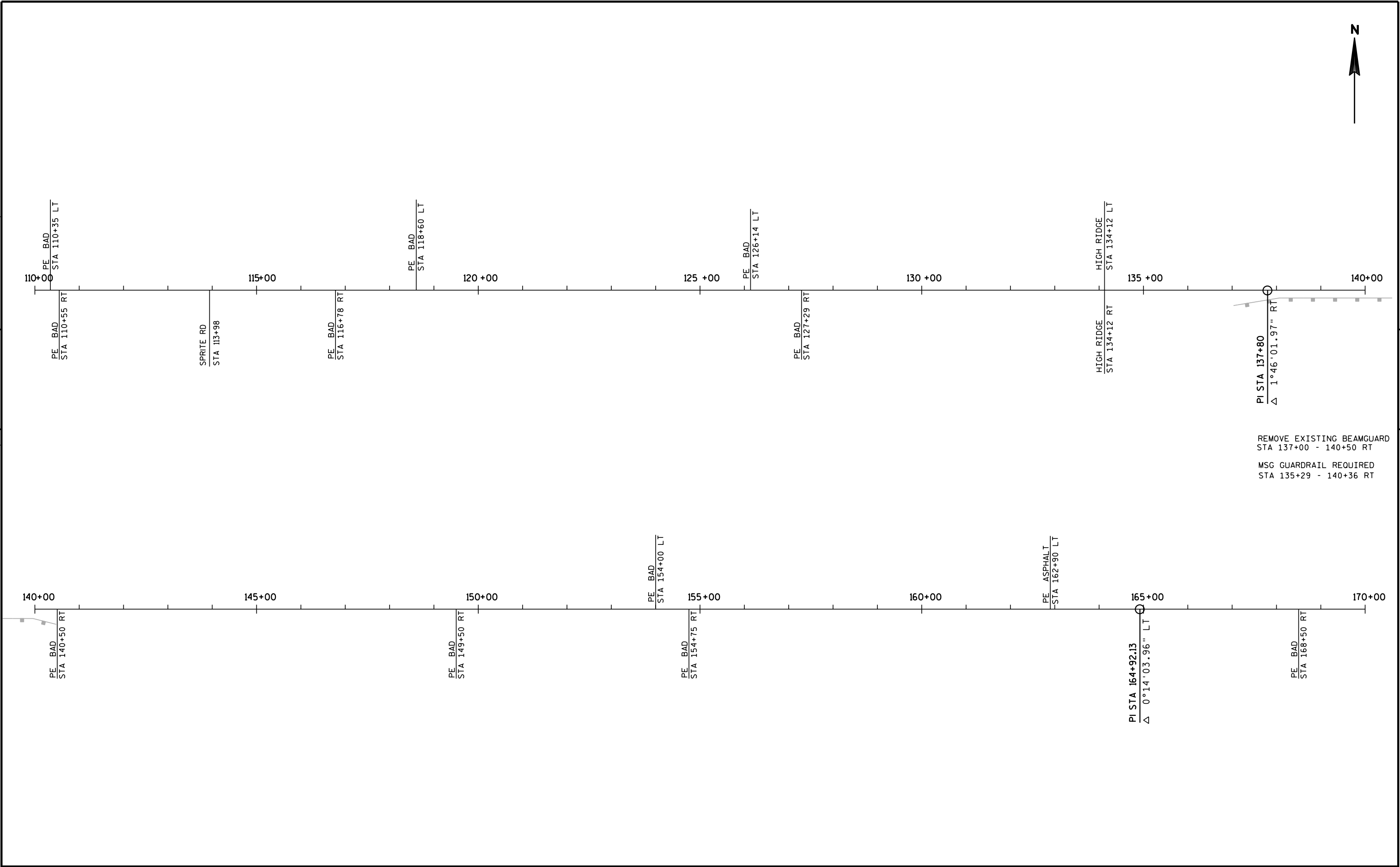
LOCATION	621.0100 LANDMARK REFERENCE MONUMENTS EACH	SPV.0060.03 REESTABLISH SECTION CORNER MONUMENTS EACH
NW Corner, Section 16 T31N, R7E	4	1
N1/4 Corner, Section 16 T31N, R7E	4	1
NE Corner, Section 16 T31N, R7E	4	1
N1/4 Corner, Section 15 T31N, R7E	4	1
NE Corner, Section 15 T31N, R7E	4	1
N1/4 Corner, Section 14 T31N, R7E	4	1
NE Corner, Section 14 T31N, R7E	4	1
N1/4 Corner, Section 13 T31N, R7E	4	1
NE Corner, Section 13 T31N, R7E	4	1
N1/4 Corner, Section 18 T31N, R8E	4	1
NE Corner, Section 18 T31N, R8E	4	1
N1/4 Corner, Section 17 T31N, R8E	4	1
NE Corner, Section 17 T31N, R8E	4	1
N1/4 Corner, Section 16 T31N, R8E	4	1
NE Corner, Section 16 T31N, R8E	4	1
N1/4 Corner, Section 15 T31N, R8E	4	1
E1/4 Corner, Section 15 T31N, R8E	4	1
SE Corner, Section 15 T31N, R8E	4	1
E1/4 Corner, Section 22 T31N, R8E	4	1
S1/4 Corner, Section 23 T31N, R8E	4	1
SE Corner, Section 23 T31N, R8E	4	1
S1/4 Corner, Section 24 T31N, R8E	4	1
SE Corner, Section 24 T31N, R8E	4	1

TOTAL	92	23
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SAWING ASPHALT			
STATION	LOCATION	690.0150 LF	REMARKS
60+50	MAINLINE	40	
708+12	MAINLINE	30	
SHORT AVENUE		90	
DEER RUN AVENUE		90	
OAK RIDGE AVENUE		90	
HIGH RIDGE ROAD NORTH	LT	90	
HIGH RIDGE ROAD SOUTH	RT	90	
HILLVIEW ROAD NORTH	LT	90	
HILLVIEW ROAD SOUTH	RT	90	
MAPLE ROAD		90	
FRENCH RIDGE ROAD	LT	90	
MONTERY ROAD	LT	90	
RANGE LINE ROAD SOUTH	LT	90	
RANGE LINE ROAD NORTH	RT	90	
BALASAM AVENUE		90	
PLEASANT VEIW AVENUE		90	
CAIN CREEK ROAD NORTH	LT	90	
CAIN CREEK ROAD SOUTH	RT	90	
SPILE DAM ROAD	RT	90	
SPRING BROOKE AVENUE	LT	90	
CTH "X"	LT	90	
CTH "X"	LT	90	
ELM RIDGE AVENUE	LT	90	
CTH "X"	RT	90	
MILE SQUARE ROAD	RT	90	
POPLAR DRIVE	RT	90	
COUNTY LINE ROAD	RT	90	
72+37	RT	10	
79+10	LT	10	
90+25	LT	10	
93+50	RT	10	
162+90	LT	10	
185+00	RT	10	
256+10	LT	10	
312+80	RT	10	
380+45	RT	10	
405+55	RT	10	
417+68	RT	10	
434+50	LT	10	
443+47	LT	10	
444+85	LT	10	
458+00	RT	10	
504+50	LT	10	
520+50	LT	10	
657+50	LT	10	
TOTAL		2500	

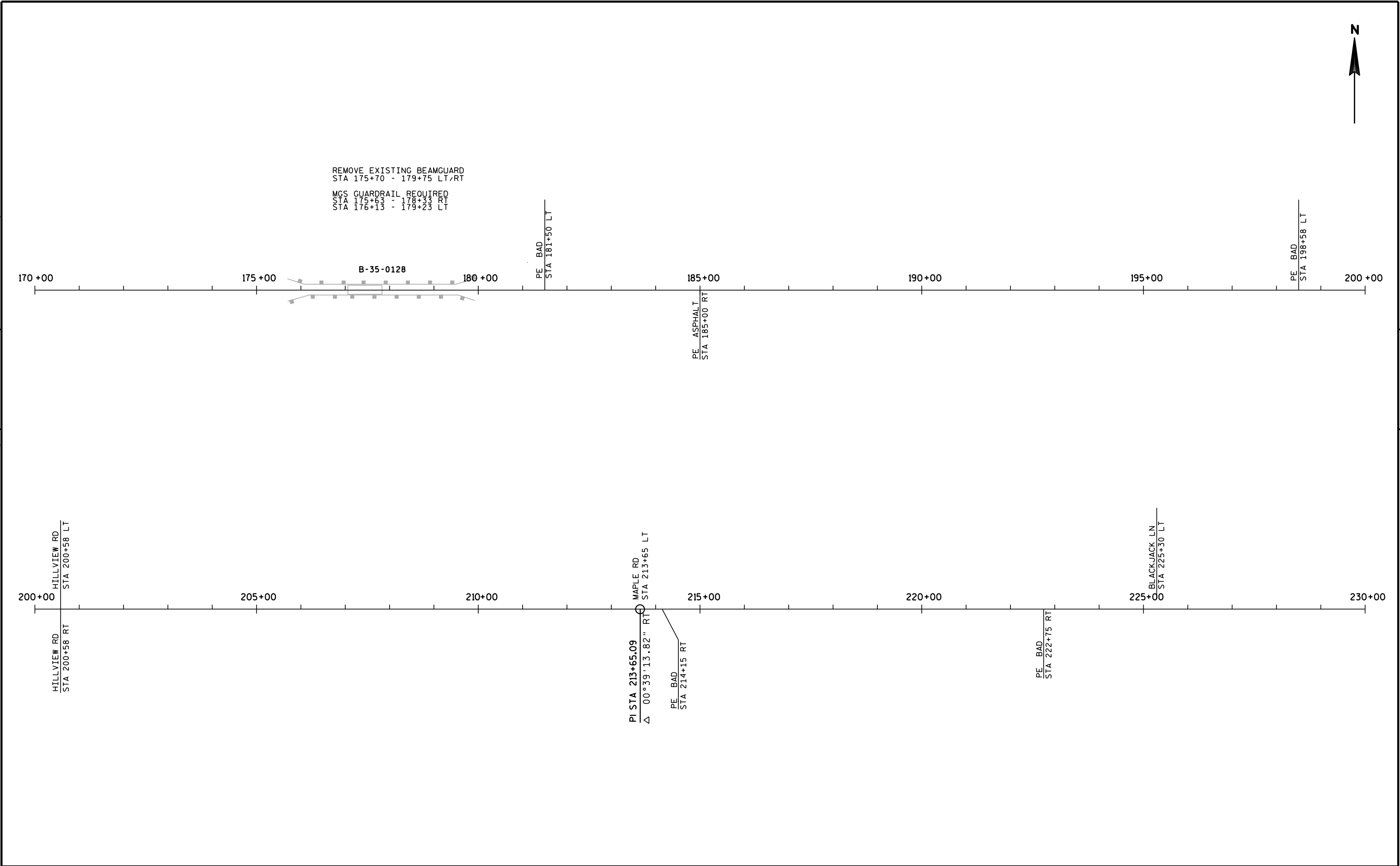
3





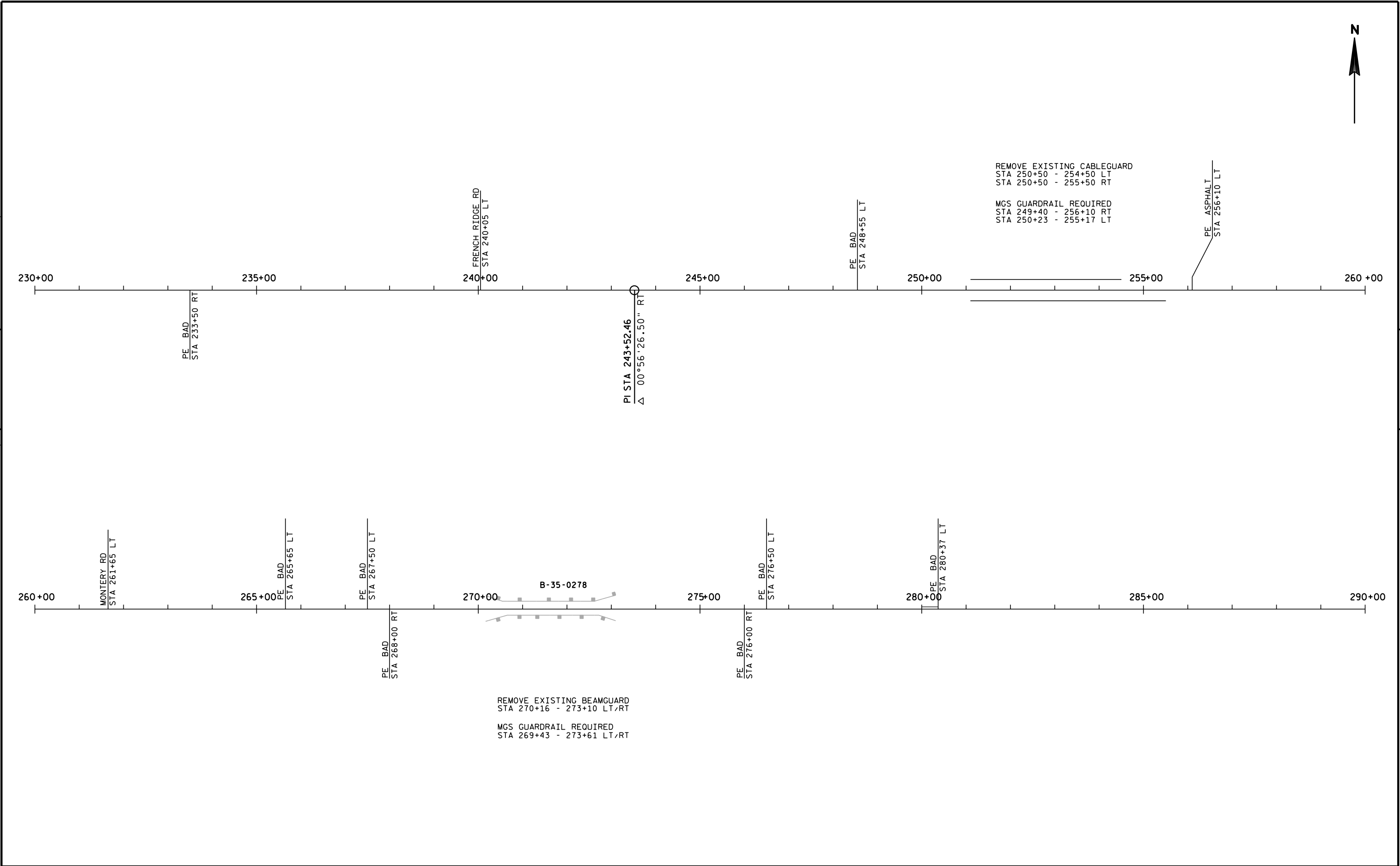
PROJECT NO: 9000-13-70	HWY: STH 64	COUNTY: LINCOLN	LINE DIAGRAM STA 110+00 - 170+00	SHEET	E
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5



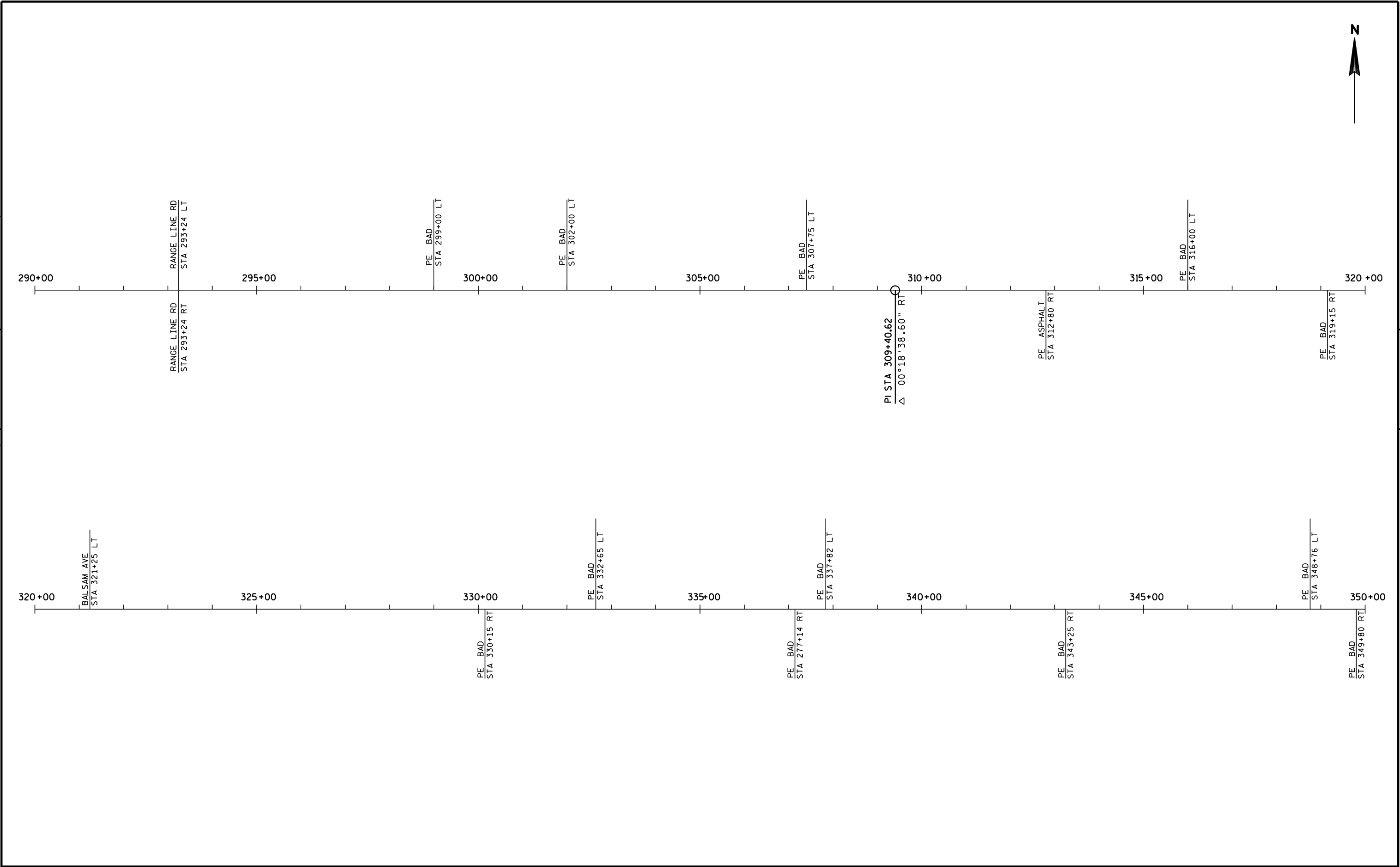
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PROJECT NO: 9000-13-70	HWY: STH 64	COUNTY: LINCOLN	LINE DIAGRAM STA 170+00 - 230+00	SHEET	E
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5

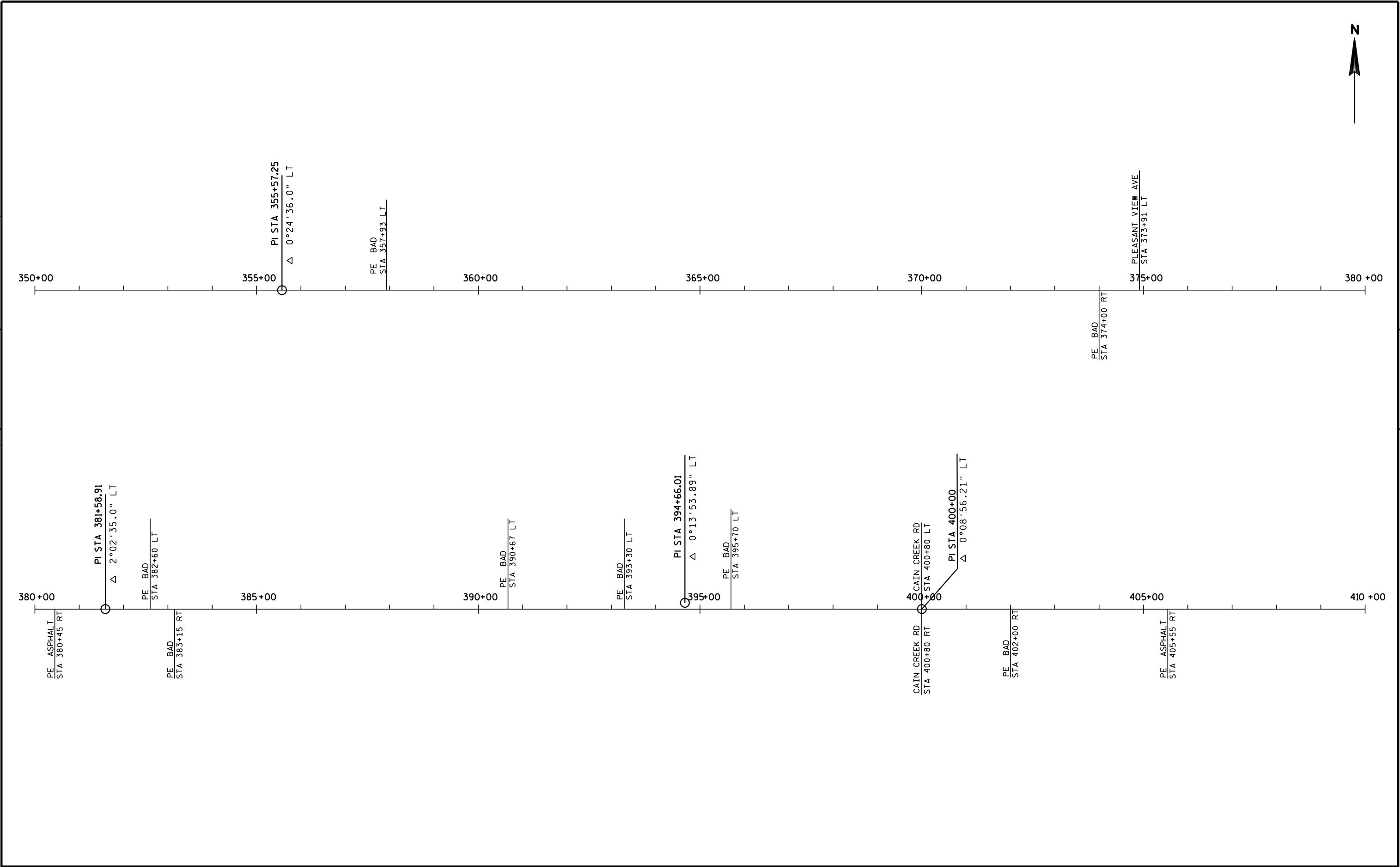
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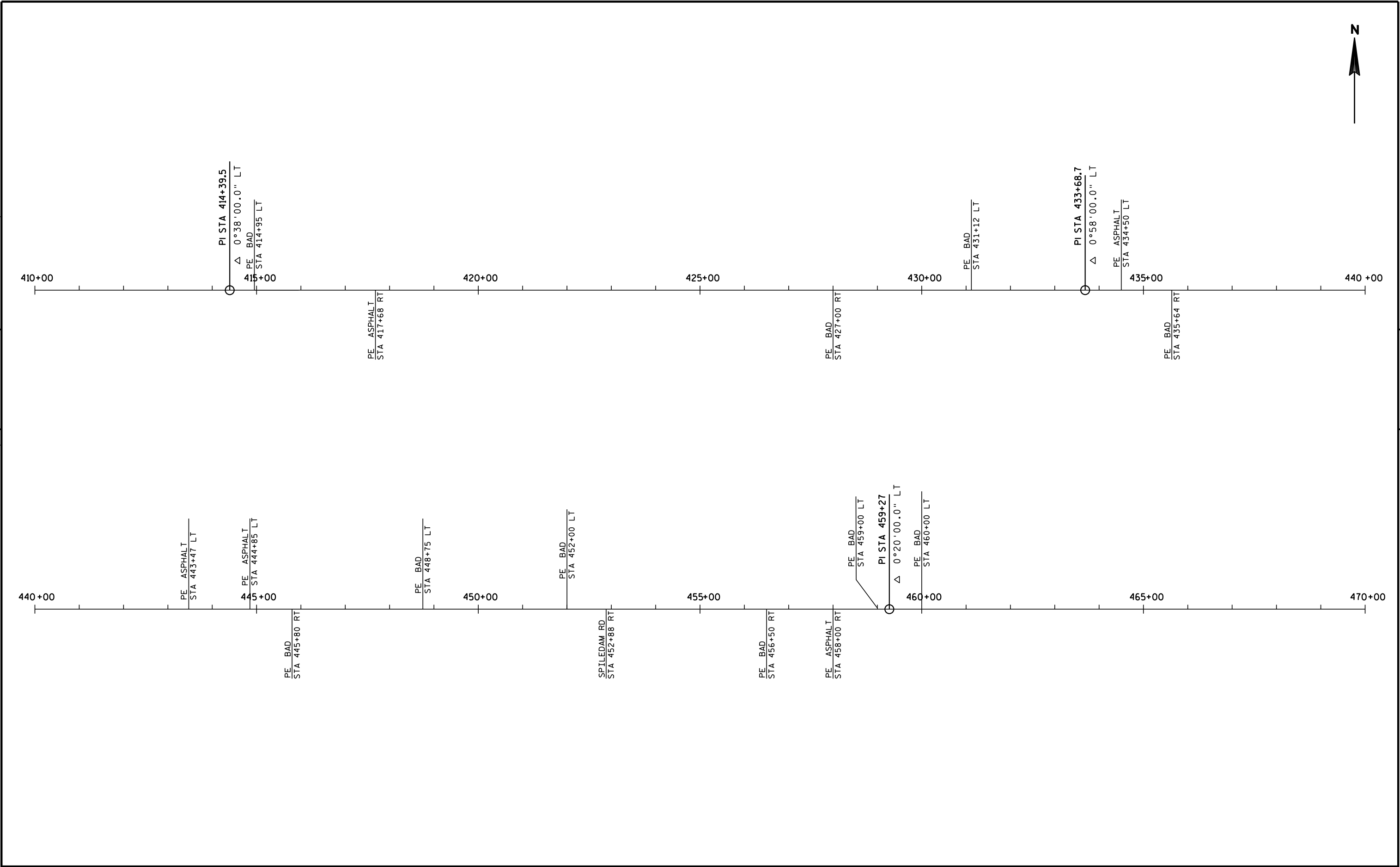
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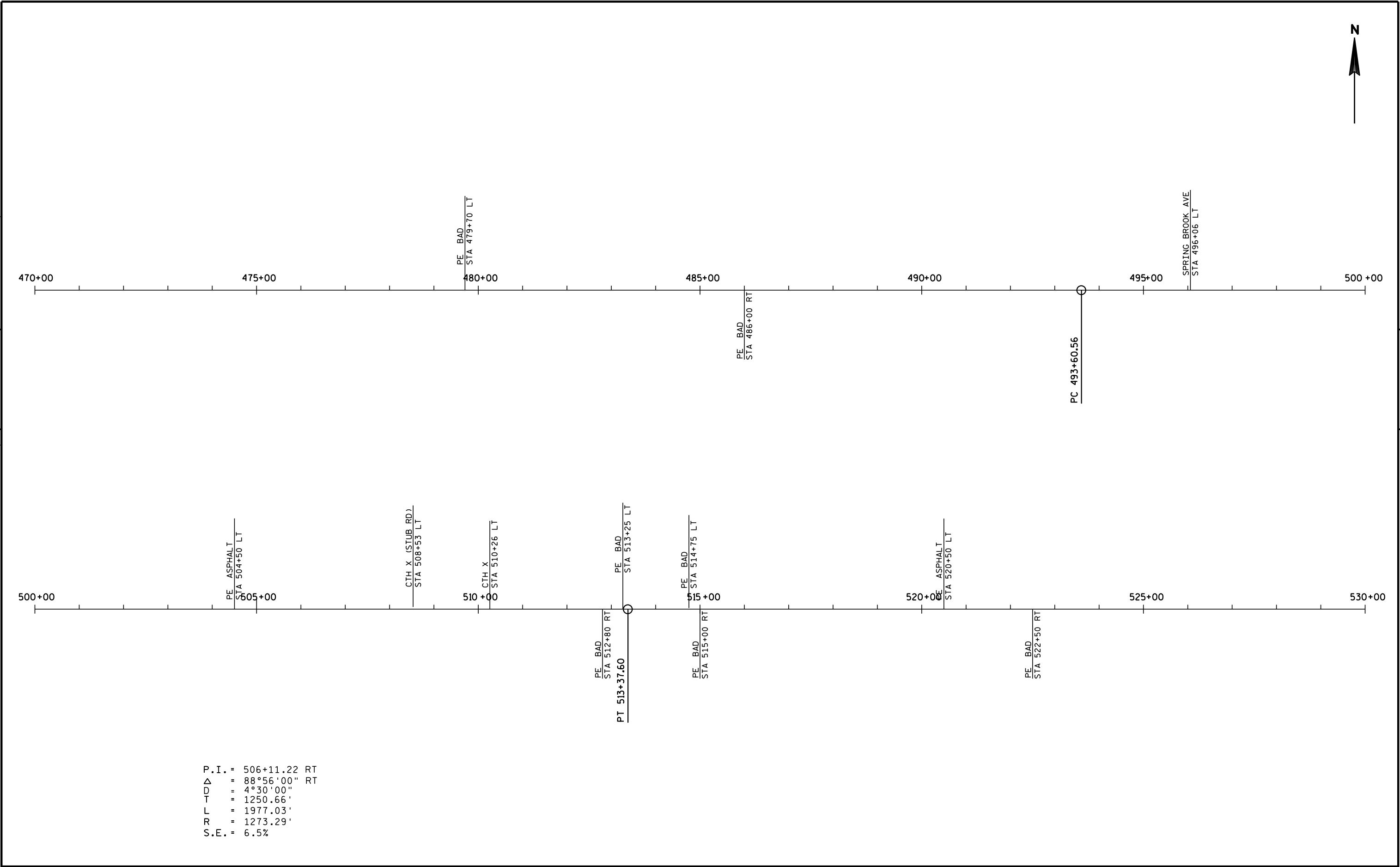
PROJECT NO: 9000-13-70	HWY: STH 64	COUNTY: LINCOLN	LINE DIAGRAM STA 290+00 - 350+00	SHEET	E
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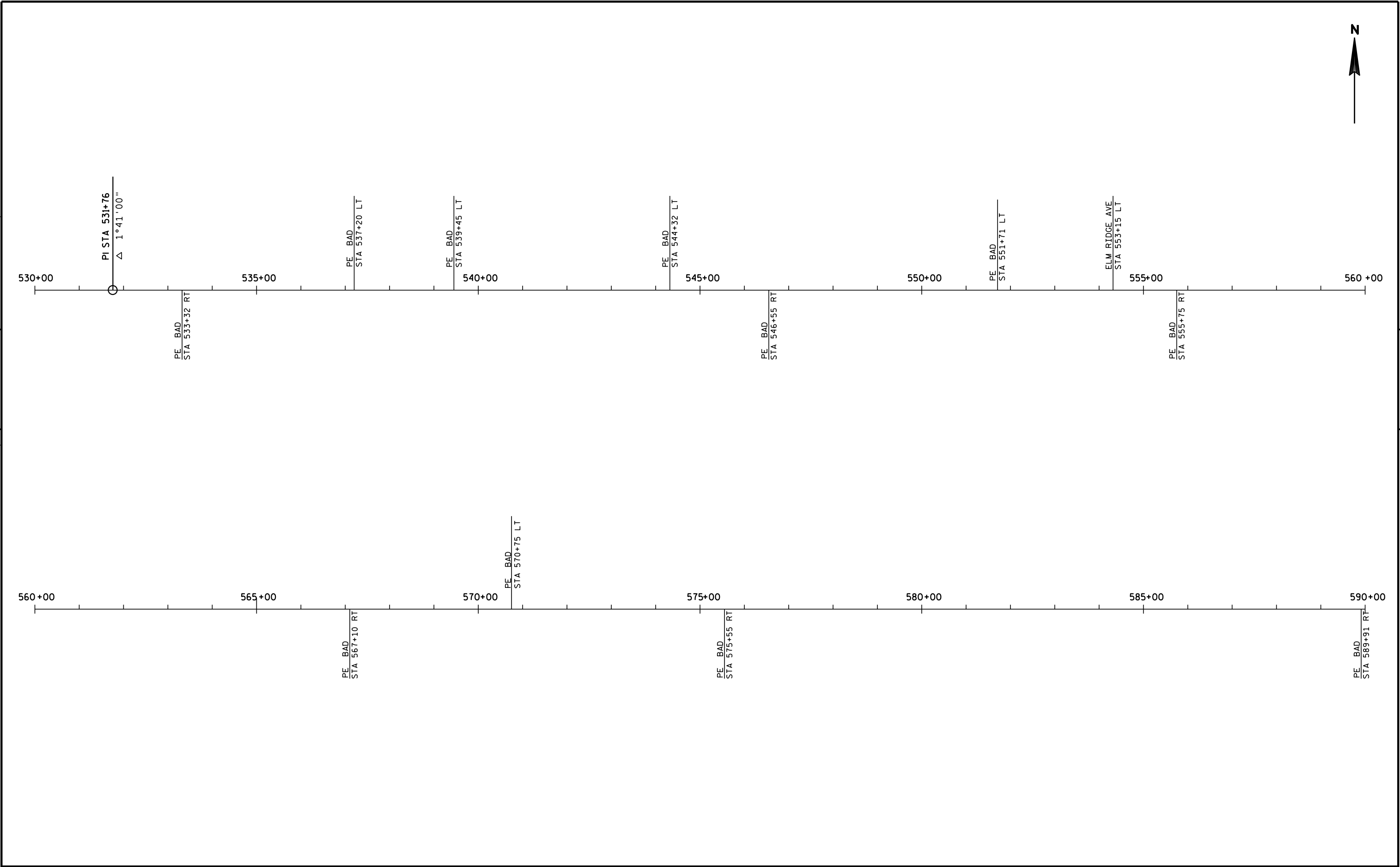
PROJECT NO: 9000-13-70	HWY: STH 64	COUNTY: LINCOLN	LINE DIAGRAM STA 350+00 - 410+00	SHEET	E
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PROJECT NO: 9000-13-70	HWY: STH 64	COUNTY: LINCOLN	LINE DIAGRAM STA 410+00 - 470+00	SHEET	E
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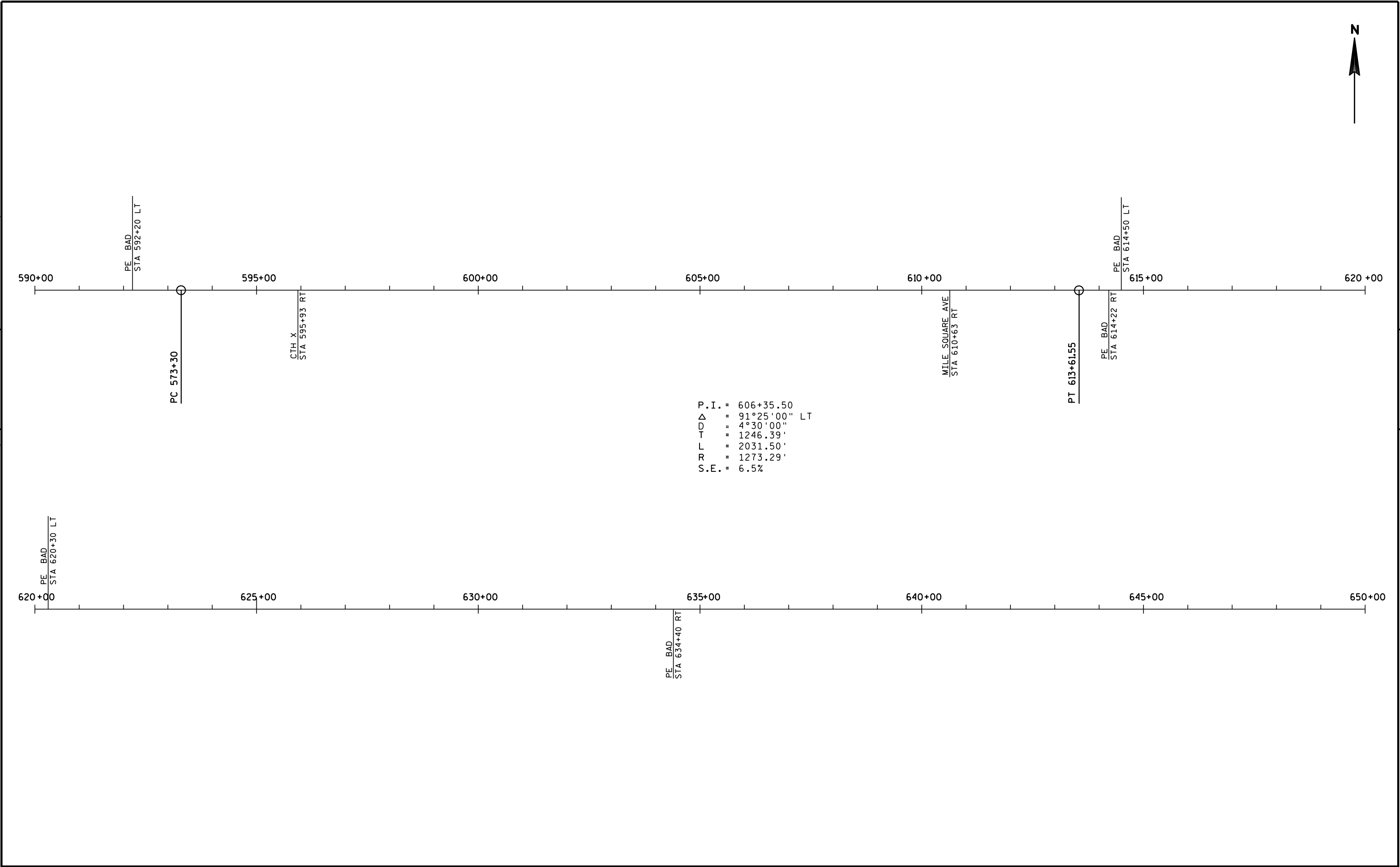
P.I. = 506+11.22 RT
Δ = 88°56'00" RT
D = 4°30'00"
T = 1250.66'
L = 1977.03'
R = 1273.29'
S.E. = 6.5%



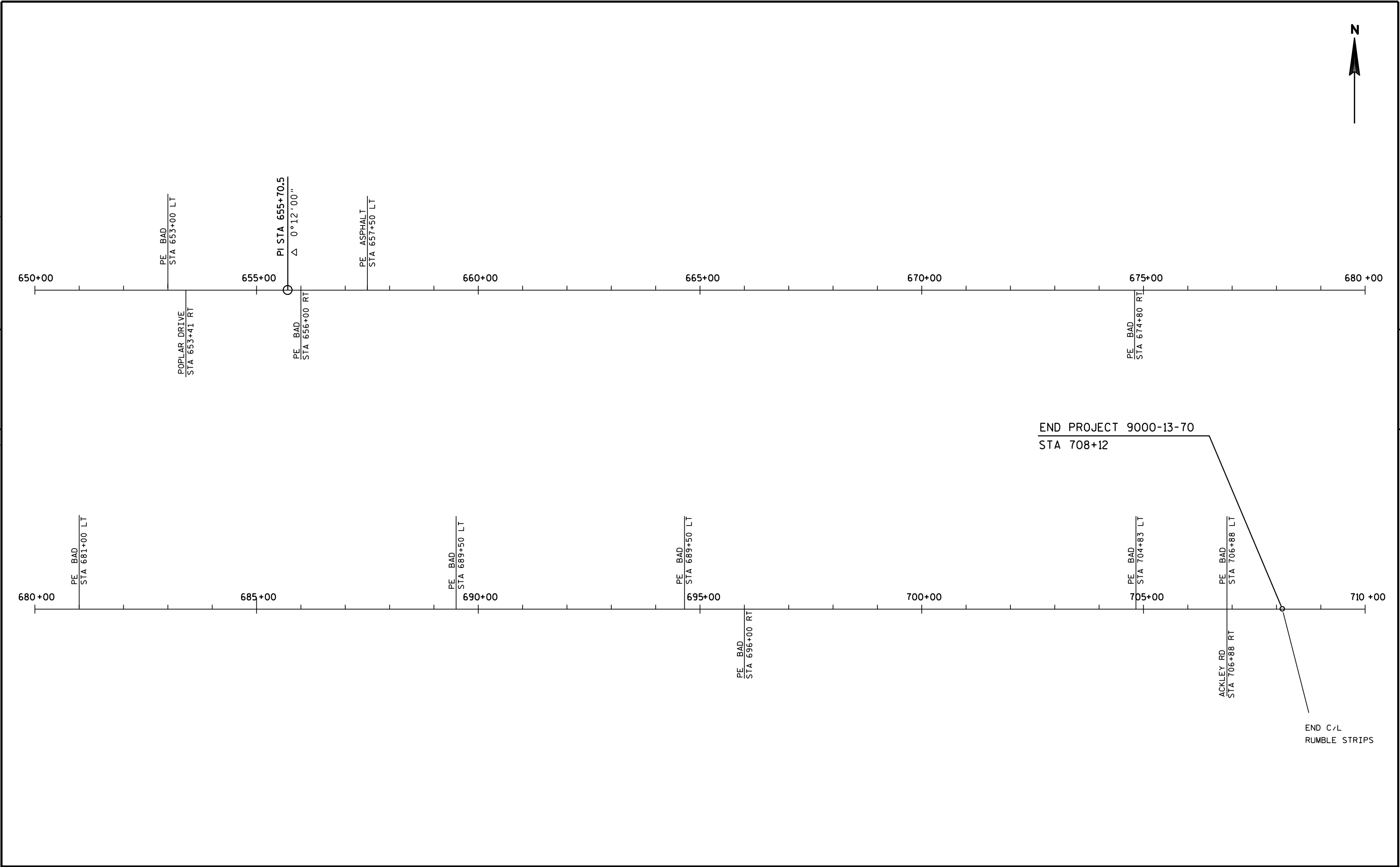
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5

PROJECT NO: 9000-13-70	HWY: STH 64	COUNTY: LINCOLN	LINE DIAGRAM STA 530+00 - 590+00	SHEET	E
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P.I. = 606+35.50
Δ = 91°25'00" LT
D = 4°30'00"
T = 1246.39'
L = 2031.50'
R = 1273.29'
S.E. = 6.5%



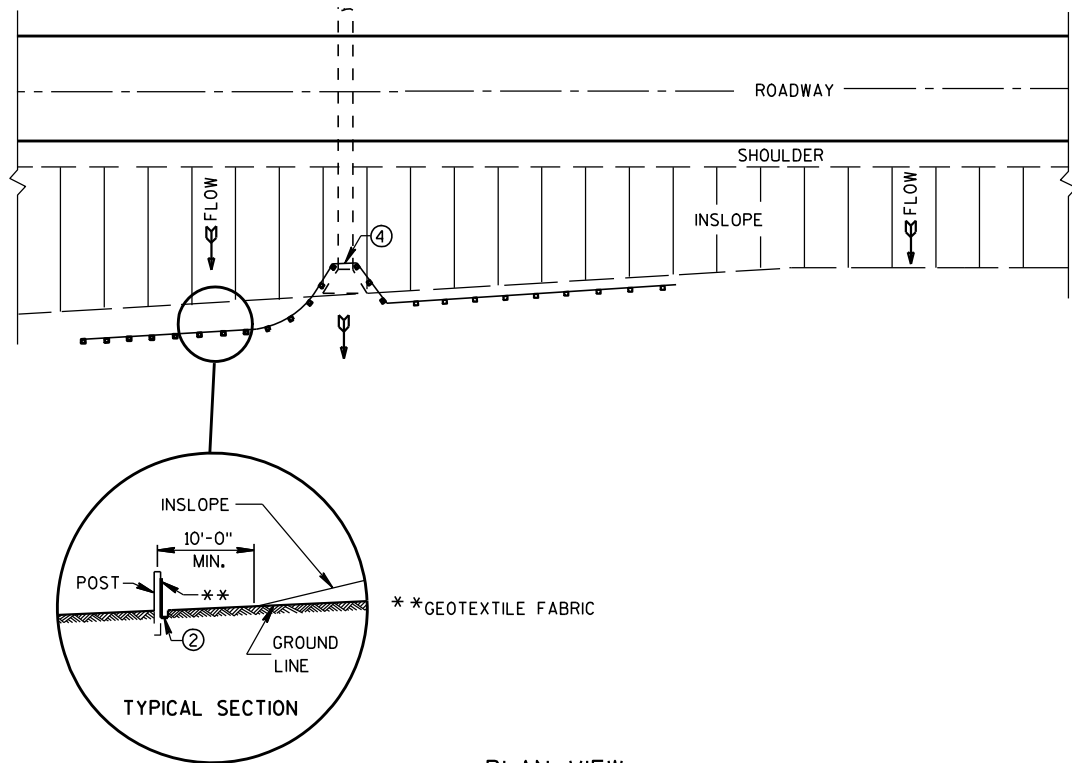
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5

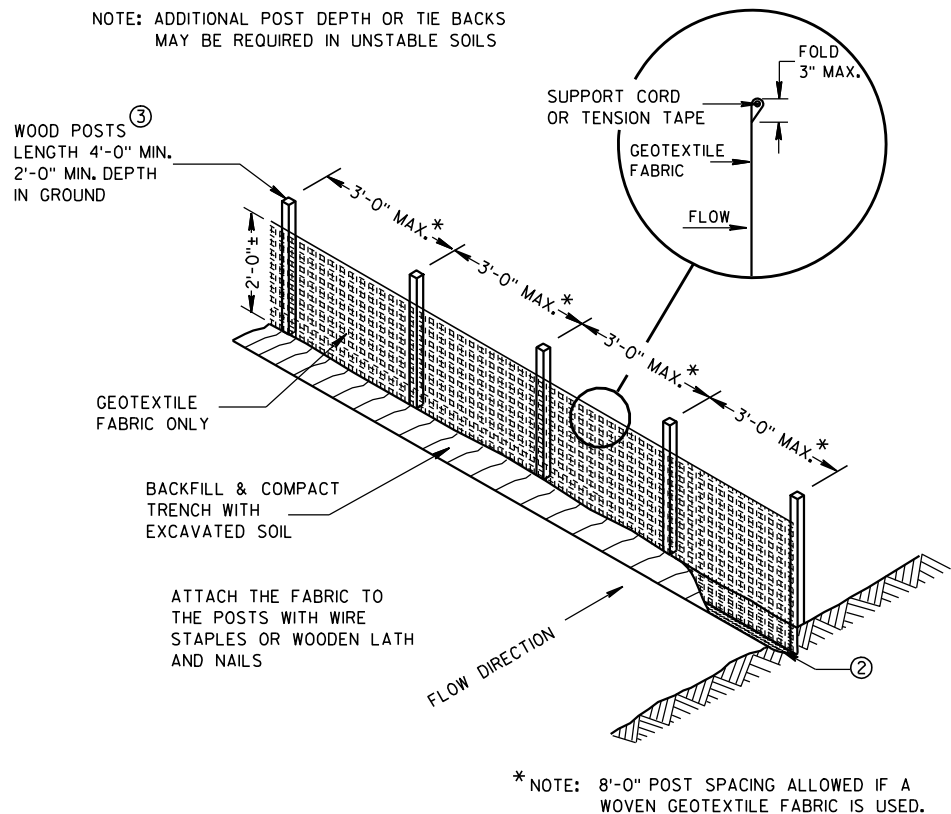
PROJECT NO: 9000-13-70	HWY: STH 64	COUNTY: LINCOLN	LINE DIAGRAM STA 650+00 - 710+00	SHEET	E
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Standard Detail Drawing List

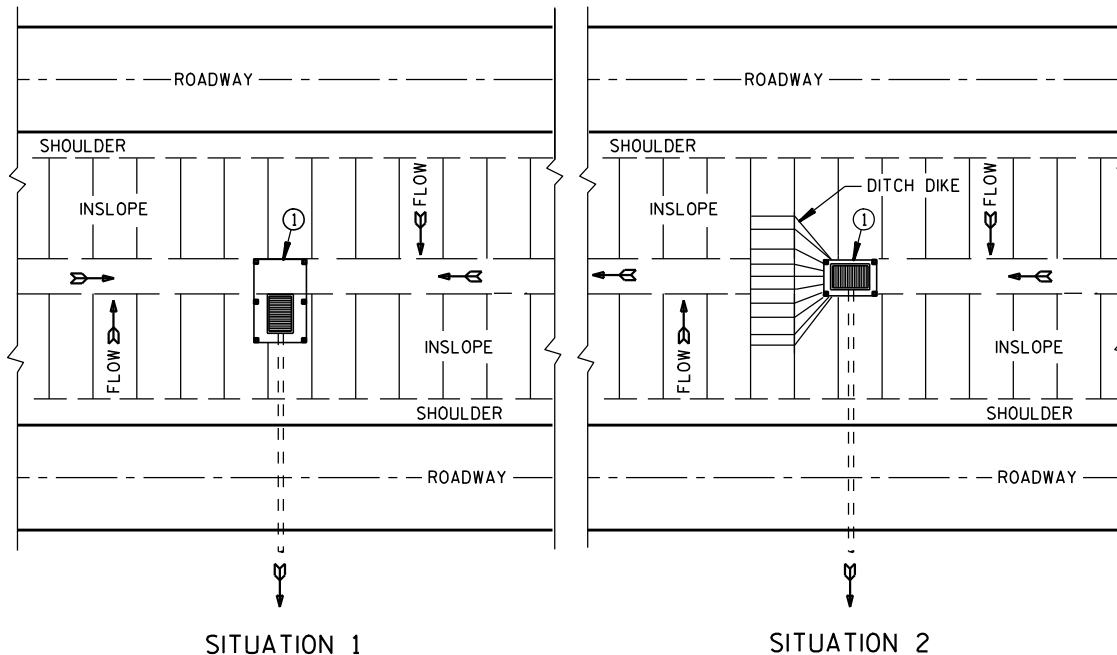
08E09-06	SILT FENCE
09G02-03A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-03B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-03C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B29-01	SAFETY EDGE
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C06-06	SIGNING & MARKING FOR TWO LANE BRIDGES
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-02A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D33-03	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS



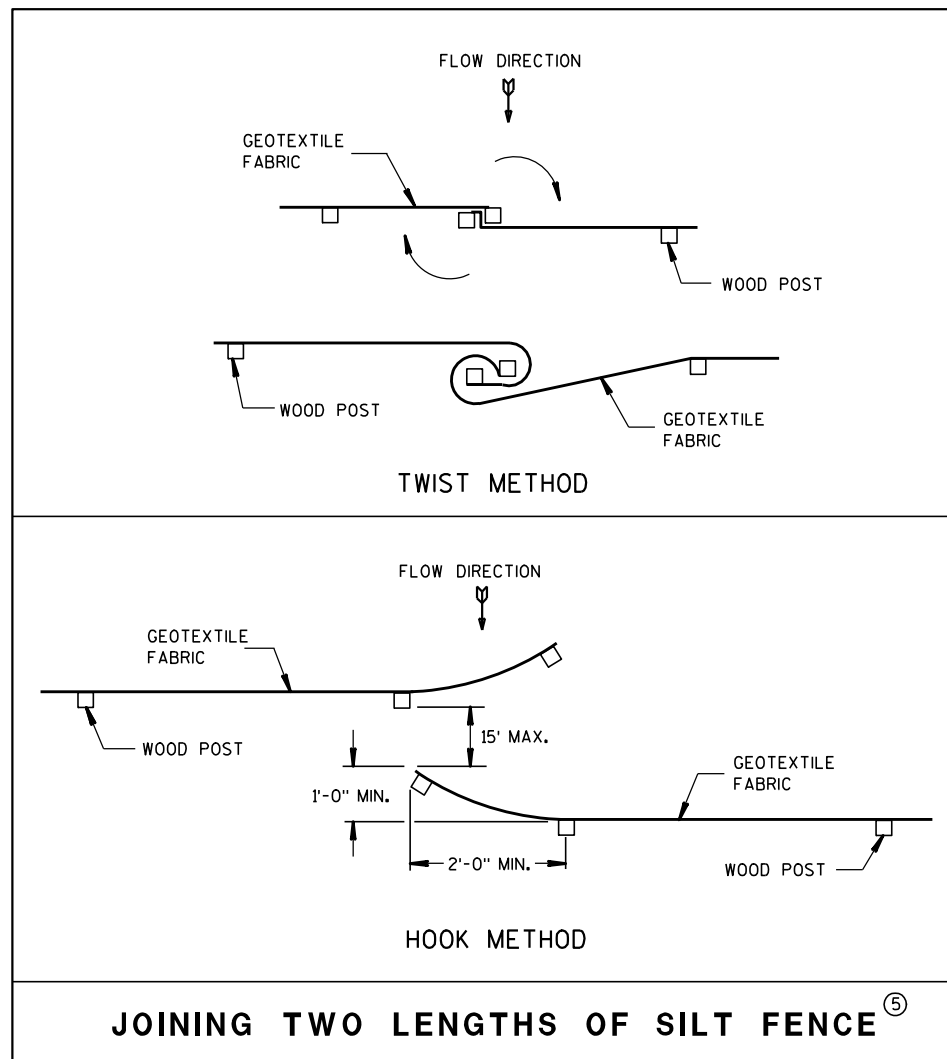
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

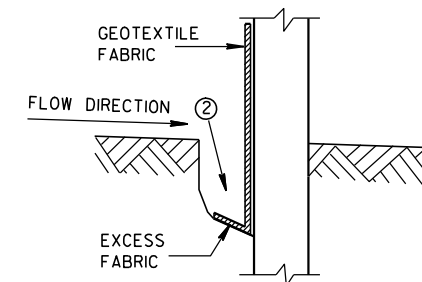


JOINING TWO LENGTHS OF SILT FENCE^⑤

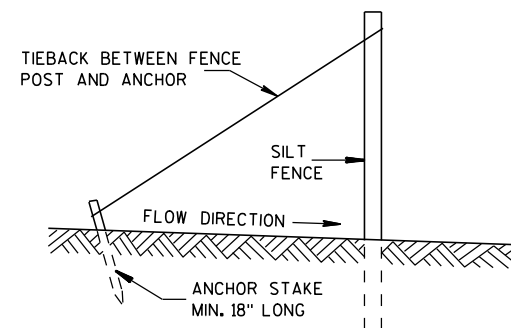
GENERAL NOTES

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.

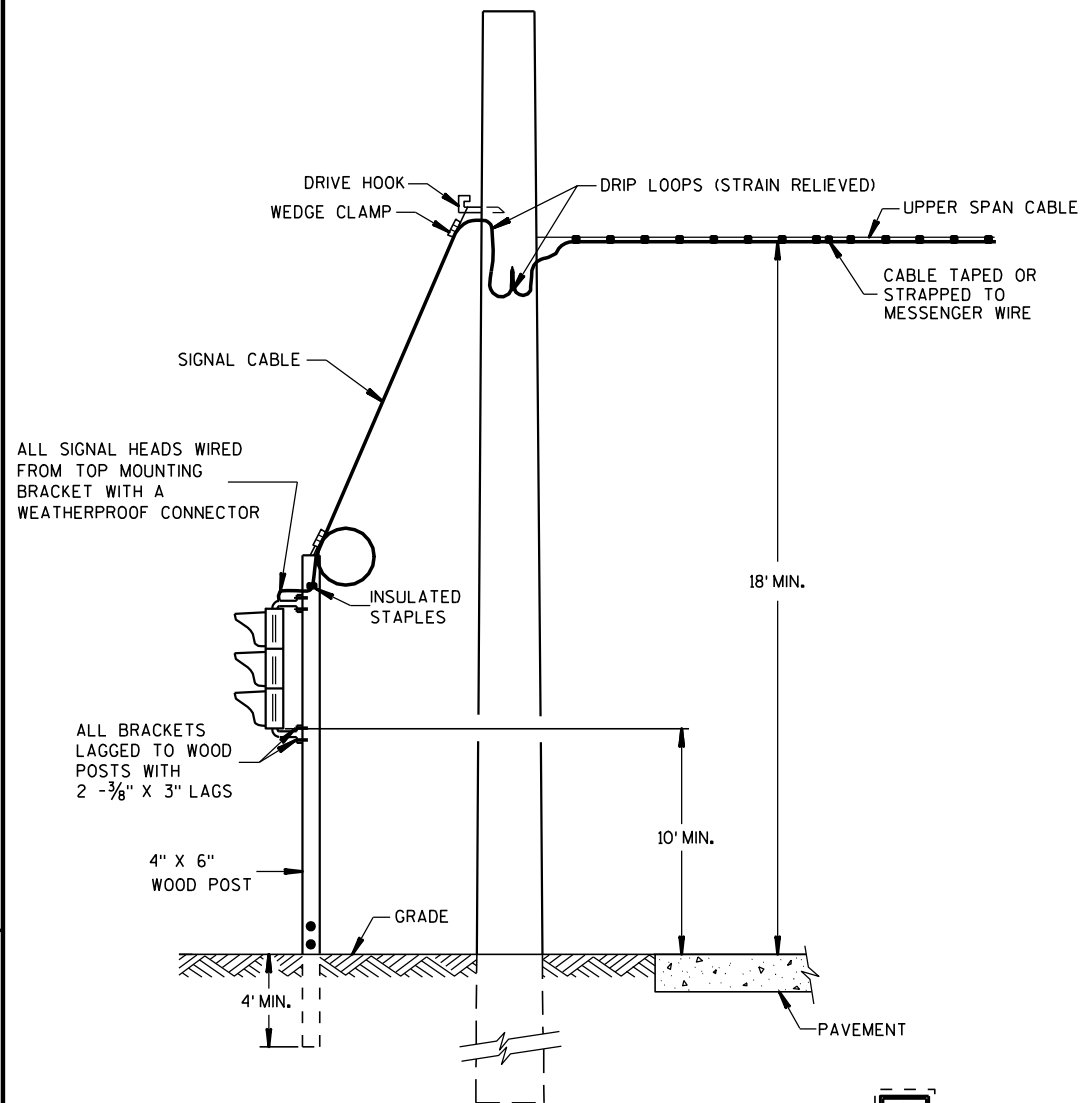


TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Canestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

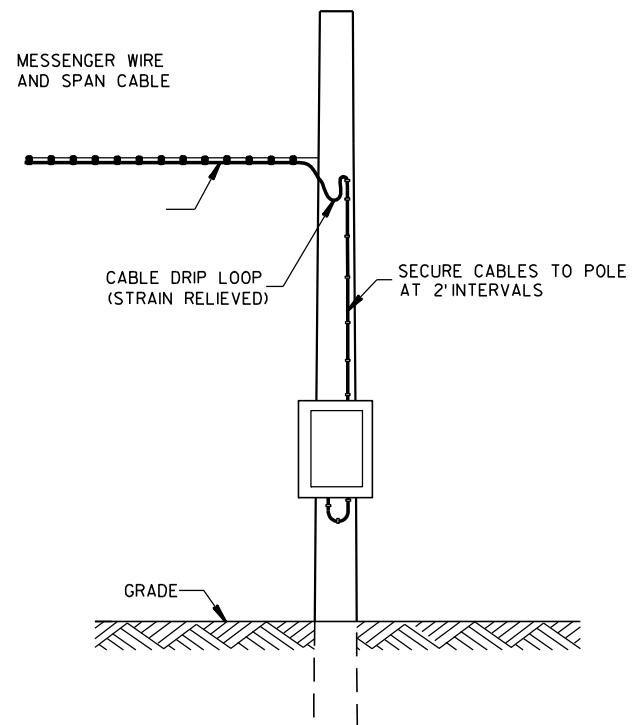


**TYPICAL DROP
TO TRAFFIC SIGNAL FACE**

OFFSET DISTANCES FOR TEMPORARY NON-BREAKAWAY POLES	
SPEED LIMIT	OFFSET DISTANCE**
GREATER THAN 45 MPH	18 FT
45 MPH OR LESS	12 FT
45 MPH OR LESS W/ CURBS	2 FT

**NOTE: OFFSET MEASURED FROM OUTER EDGE OF OUTSIDE THRU LANE.

MINIMUM POLE LENGTHS	CLASS	MINIMUM BURIAL DEPTHS
25 FEET	V	5 FEET
30 FEET	V	6 FEET
35 FEET	IV	7 FEET
40 FEET	IV	8 FEET
45 FEET	IV	9 FEET



**POLE MOUNT
CABINET INSTALLATION**

GENERAL NOTES

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

POLE MOUNTED TRAFFIC SIGNAL CONTROL CABINET MAYBE MOUNTED ON THE SERVICE POLE IF THE ELECTRICAL UTILITY ALLOWS THE INSTALLATION.

WHEN UTILITY POLES ARE USED TO SPAN THE TEMPORARY OVERHEAD CABLE, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER OF THE POLES AND GIVEN TO THE PROJECT MANAGER. ALL PERTINENT UTILITY AND CODE CLEARANCES SHALL BE MAINTAINED.

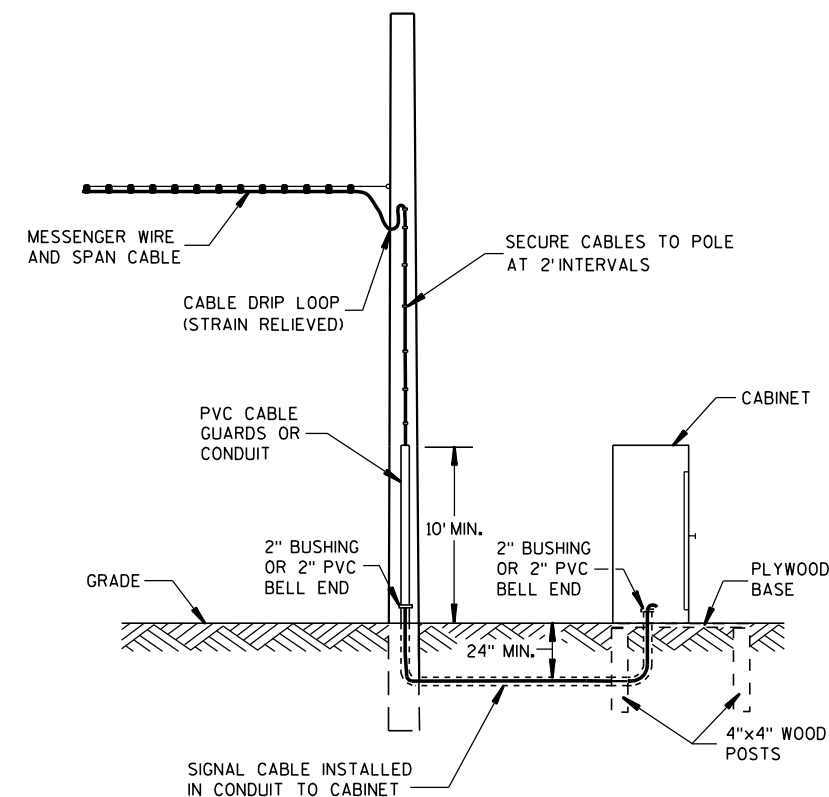
WOOD POLES (NONBREAKAWAY) SHALL BE NO CLOSER TO EDGE OF PAVEMENT THAN OFFSET DISTANCE CHART ALLOWS OR 4 FEET BEHIND PROTECTIVE BARRIER (BEAMGUARD, ETC.).

WOOD POSTS (BREAKAWAY) SHALL BE NO CLOSER THAN 2 FEET OUTSIDE OF SHOULDER.

VERTICAL CLEARANCE ETC. PER NEC.

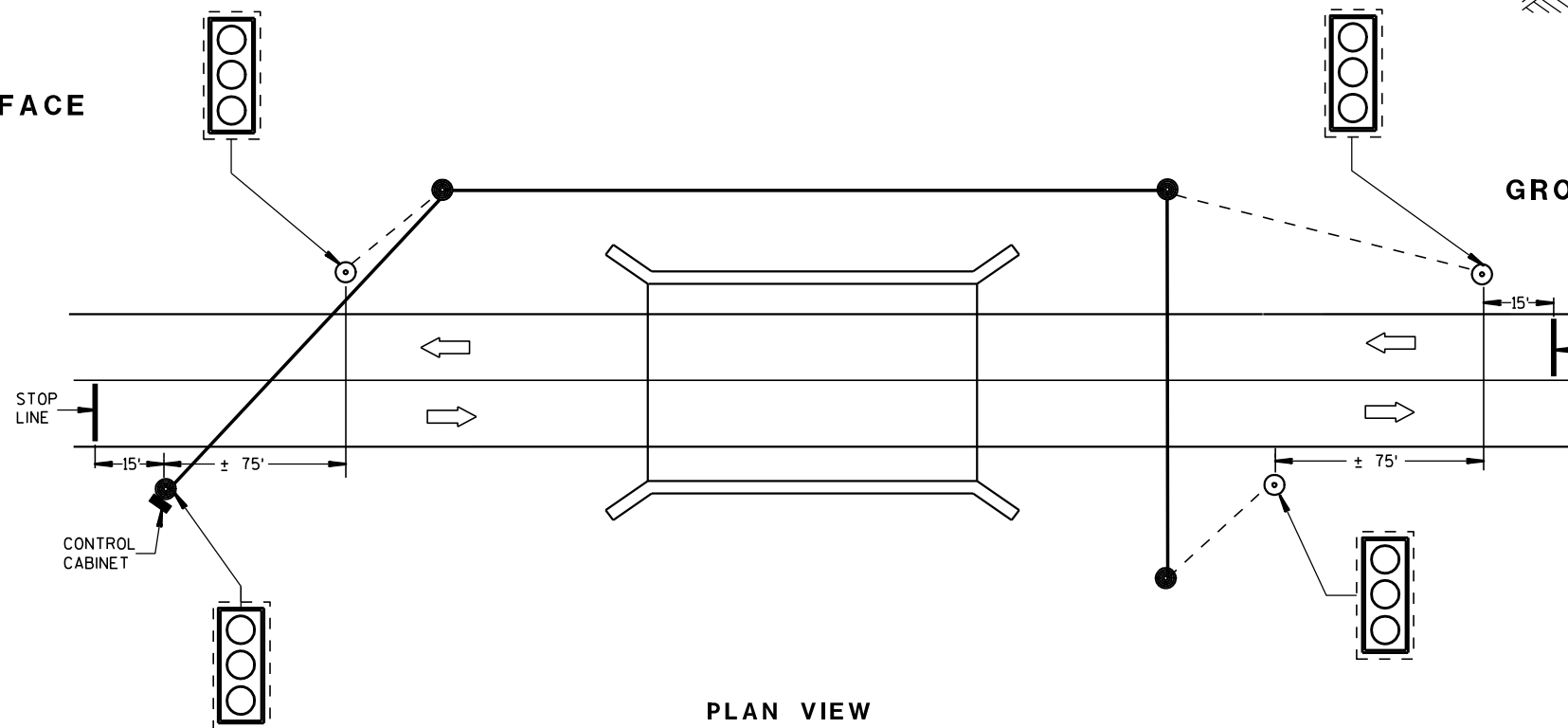
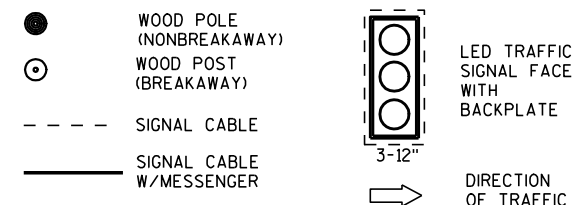
TRAFFIC SIGNAL FACES SHALL BE TYPICALLY PLACED 12 FEET FROM EDGE OF PAVEMENT.

EACH TRAFFIC SIGNAL FACE SHALL HAVE A BACKPLATE.



GROUND MOUNT CABINET INSTALLATION

LEGEND



**PLAN VIEW
TYPICAL BRIDGE TEMPORARY TRAFFIC SIGNAL LOCATION**

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

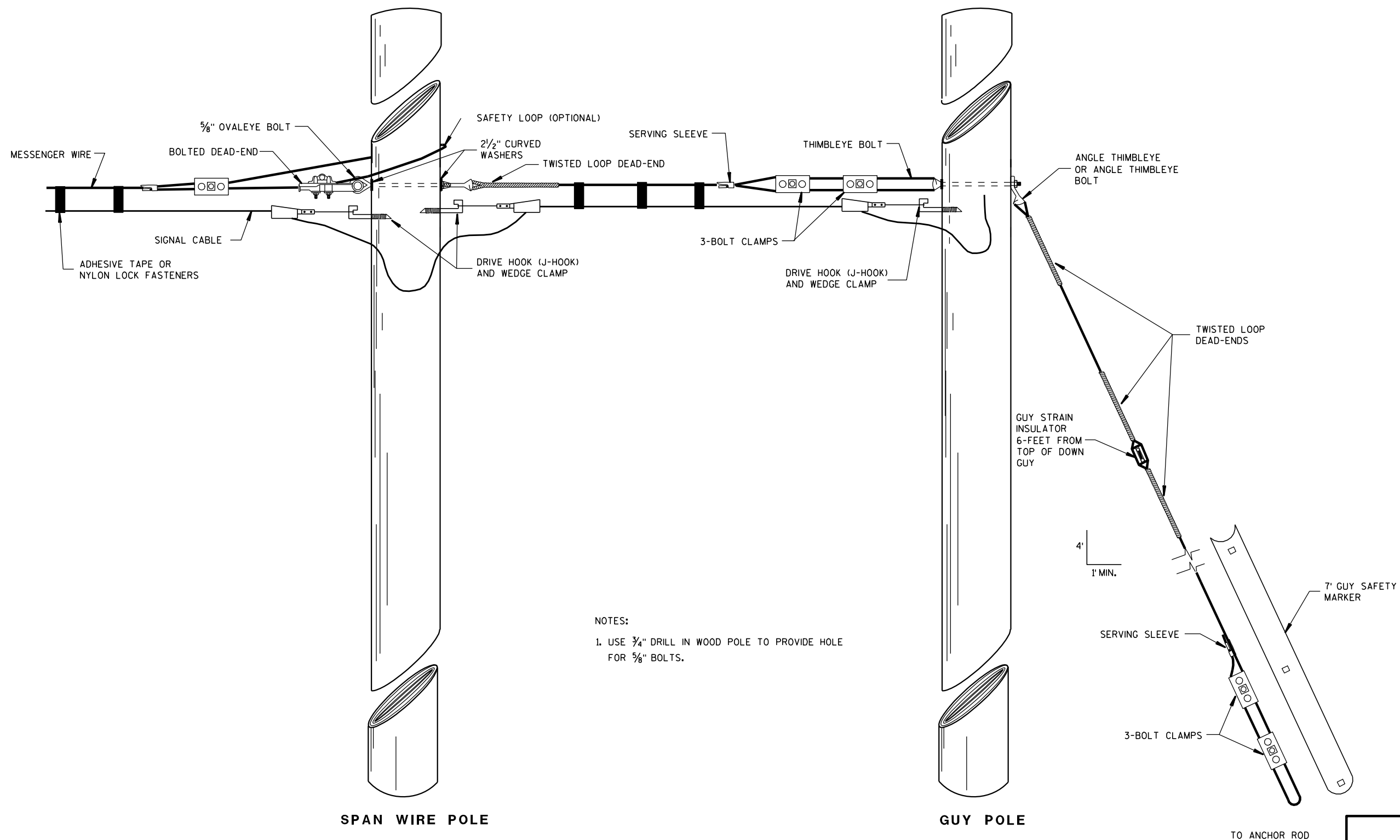
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011
DATE

/S/ Thomas J. Goring
STATE ELECTRICAL ENGINEER FOR HWYS

FHWA



NOTES:

1. USE 3/4" DRILL IN WOOD POLE TO PROVIDE HOLE FOR 5/8" BOLTS.

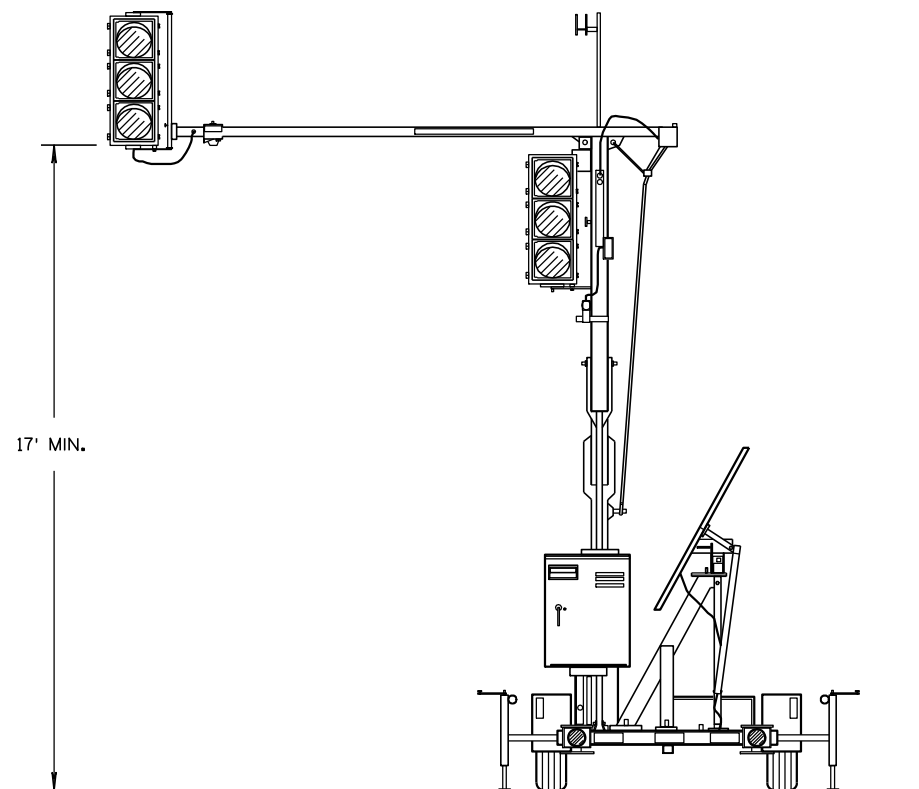
TYPICAL DEAD-ENDINGS OR GUYING

BRIDGE TEMPORARY
TRAFFIC SIGNAL INSTALLATIONSTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011
DATE/S/ Thomas J. Goring
STATE ELECTRICAL ENGINEER FOR HWYS

FHWA

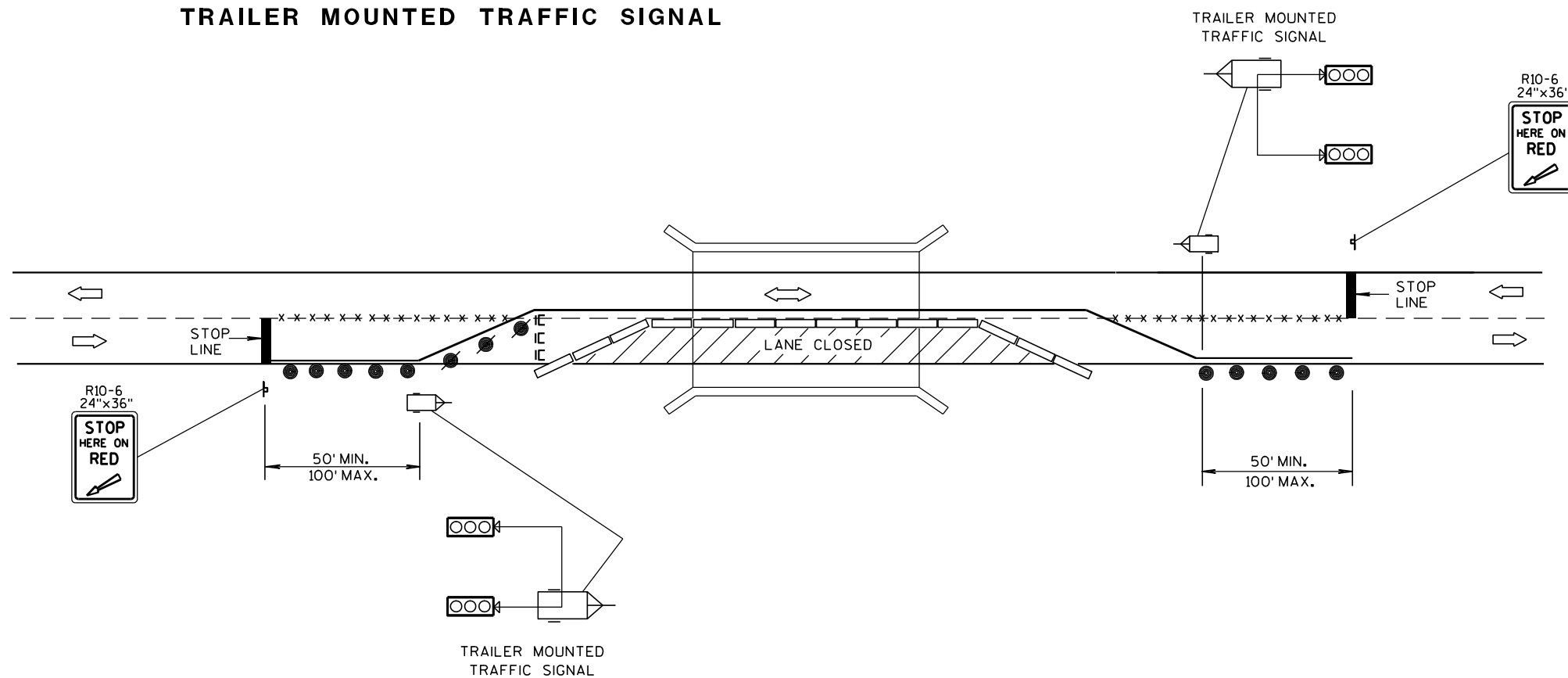


TRAILER MOUNTED TRAFFIC SIGNAL

GENERAL NOTES

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

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15 D 33.



TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

LEGEND

- ⌵ POST MOUNTED SIGN
- *-x-* REMOVING PAVEMENT MARKING
- IC TYPE III BARRICADE WITH SIGN
- /● DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- ▬ TEMPORARY PRECAST CONCRETE BARRIER
- ⌵ TRAILER MOUNTED TRAFFIC SIGNAL
- ➡ DIRECTION OF TRAFFIC FLOW

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011

DATE

FHWA

/S/ Thomas J. Goring
STATE ELECTRICAL ENGINEER FOR HWYS

GENERAL NOTES

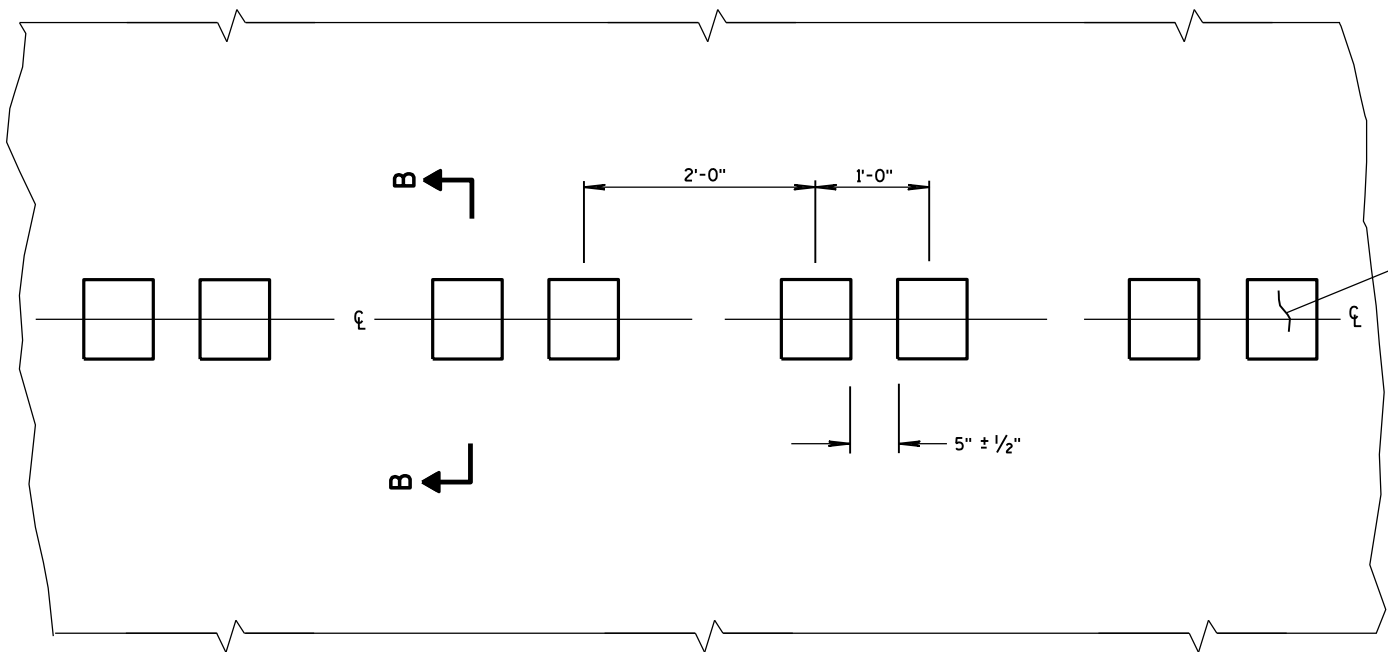
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTER LINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

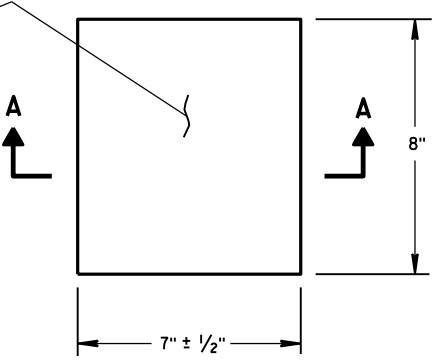
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

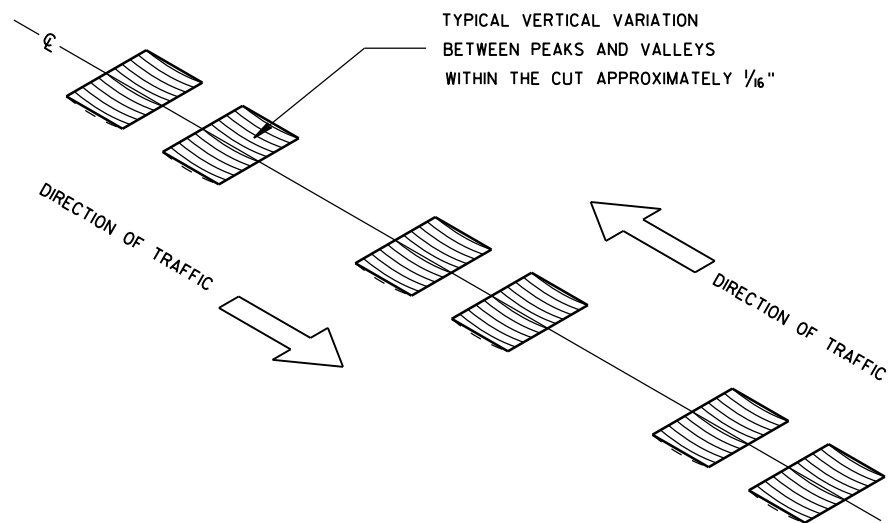
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



PLAN VIEW
CENTER LINE WITH GROOVES

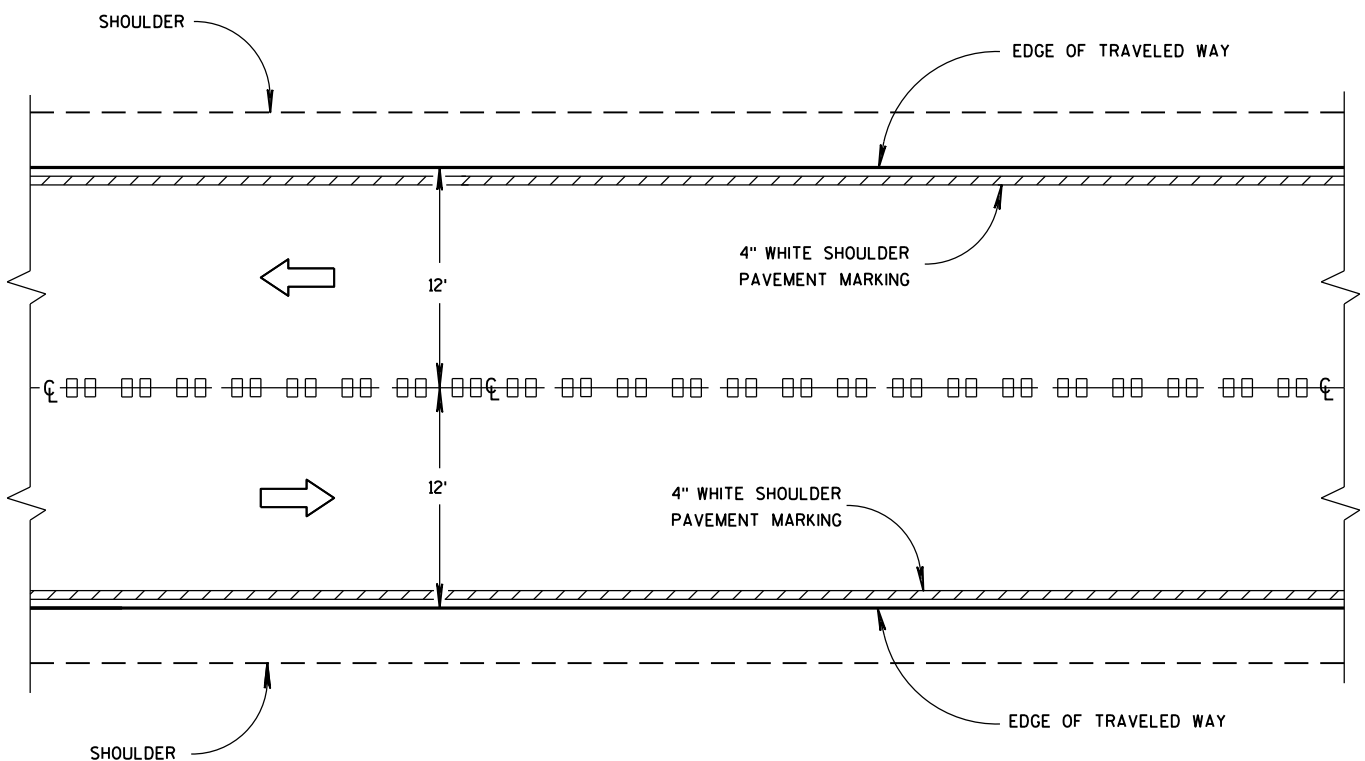


PLAN VIEW
(SINGLE GROOVE)

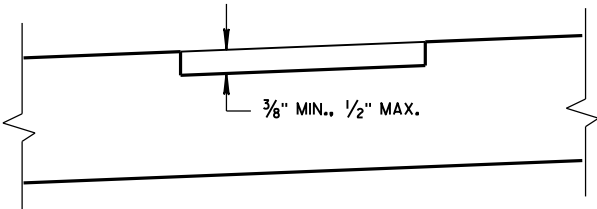


ISOMETRIC

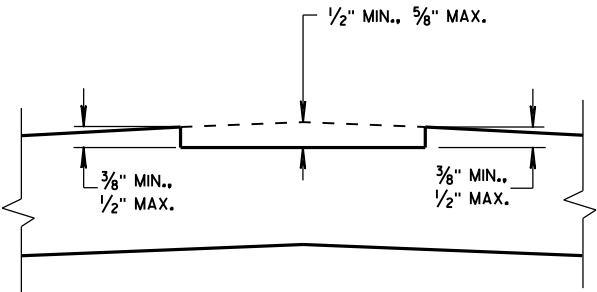
PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



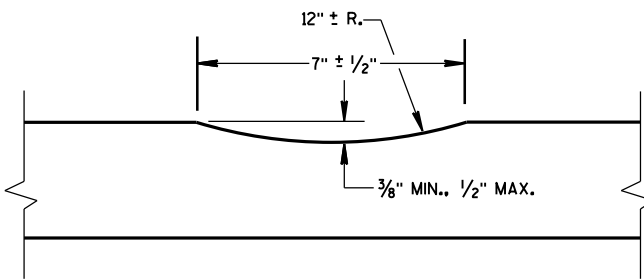
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



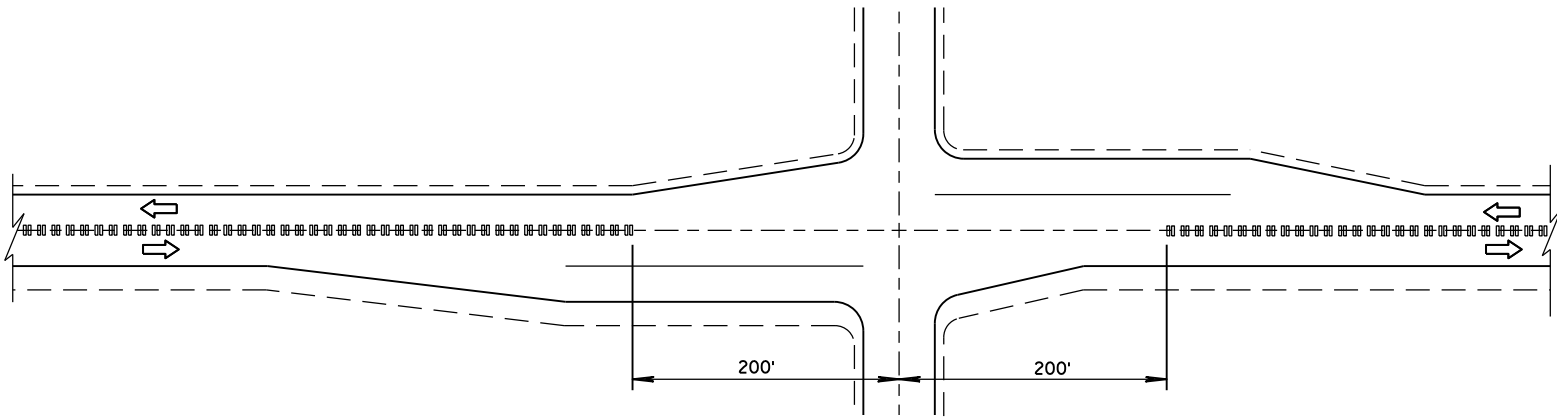
SECTION B-B
CROWNED ROADWAY



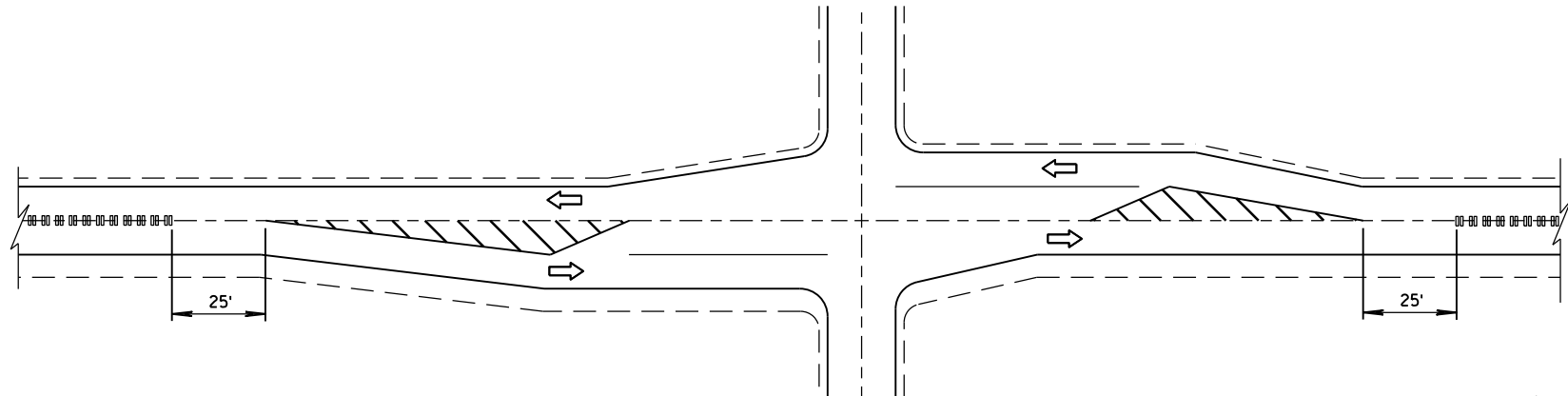
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

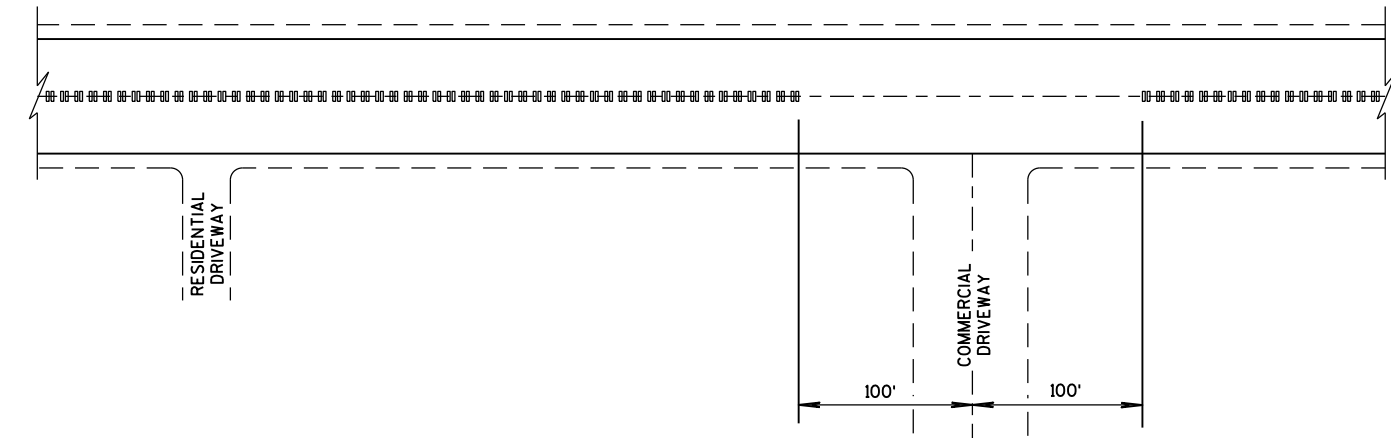
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

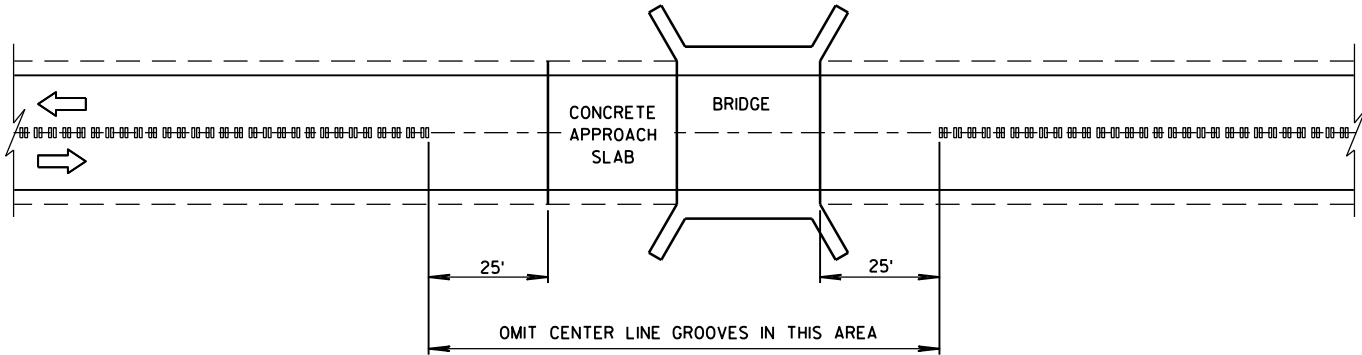


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

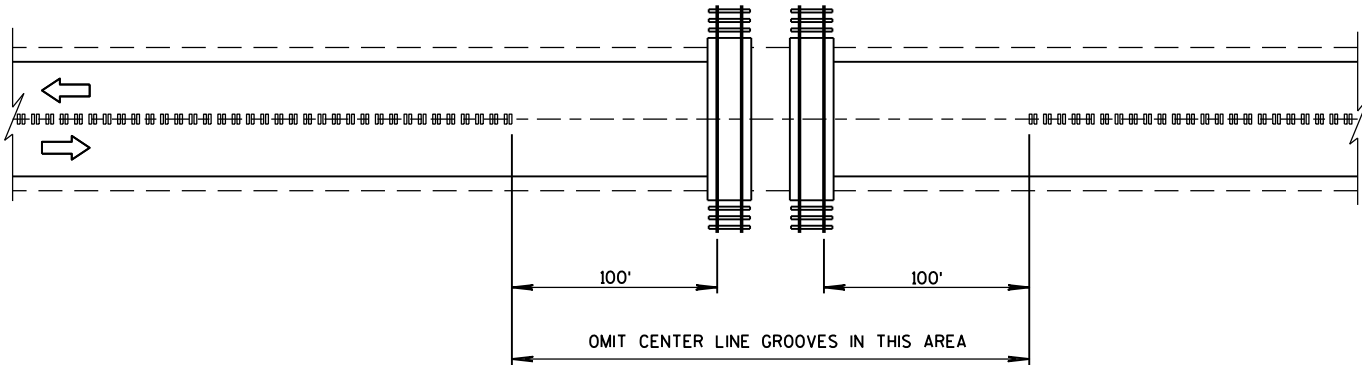


CENTER LINE GROOVES AT DRIVEWAYS^①

① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.

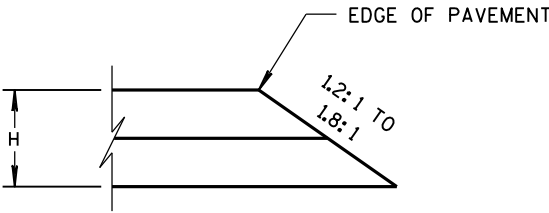


CENTER LINE GROOVES AT BRIDGES

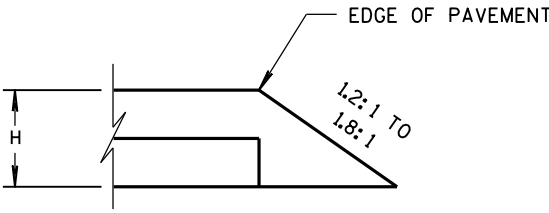


CENTER LINE GROOVES AT RAILROADS

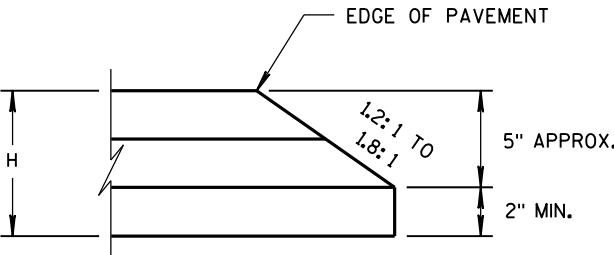
2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/15/2013 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



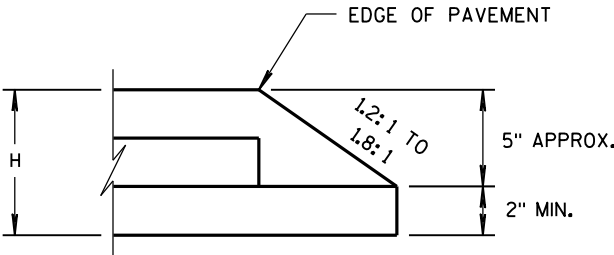
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

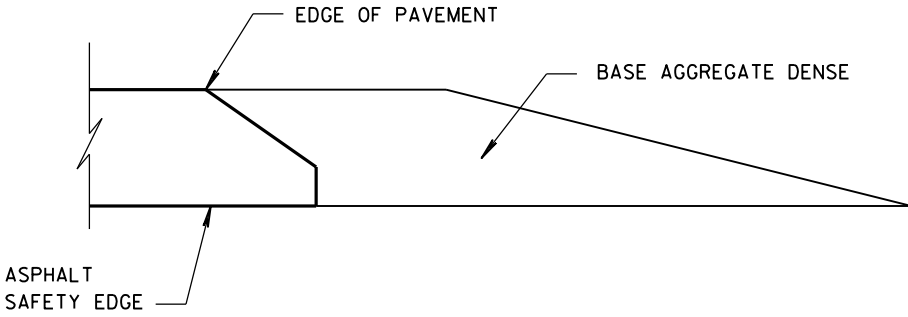


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS

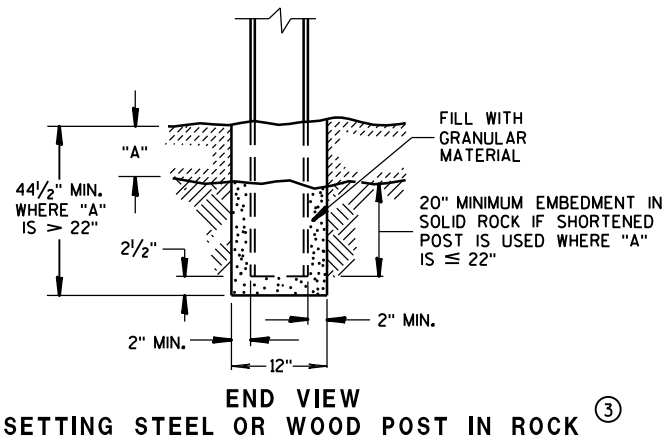


FINISHED SHOULDER AGGREGATE PLACEMENT

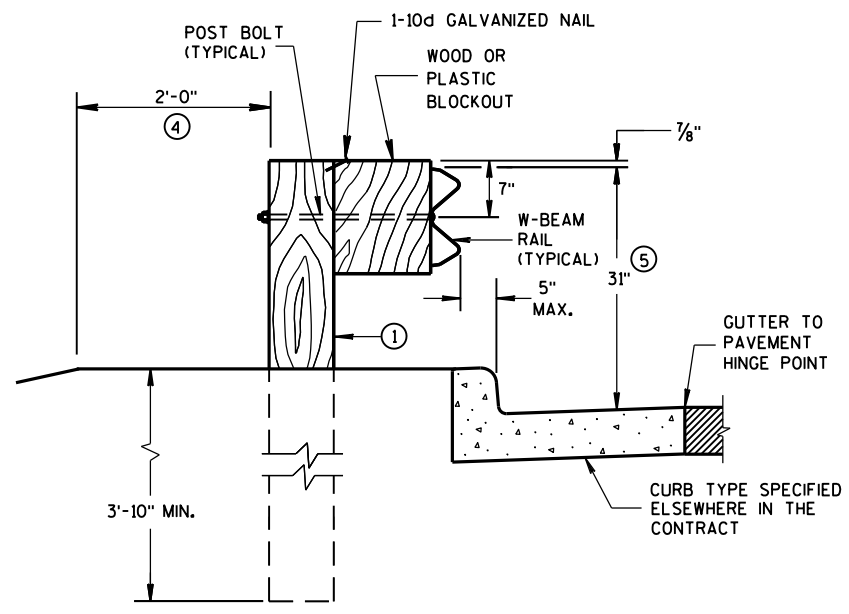
SAFETY EDGE _{SM}	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 11/30/2012	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER FHWA

GENERAL NOTES

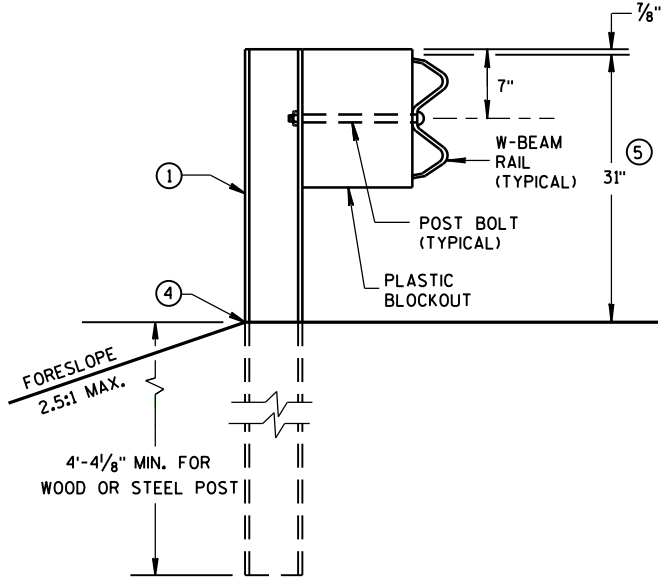
- ① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- ③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2 INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AND INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.
- ④ WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).
- ⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 3/4" TO 32".



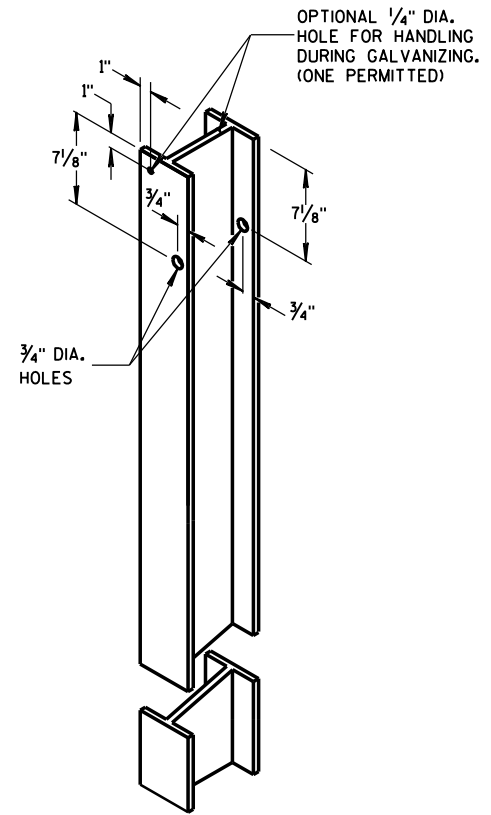
END VIEW
SETTING STEEL OR WOOD POST IN ROCK ③



END VIEW
LOCATED ALONG A CURBED ROADWAY



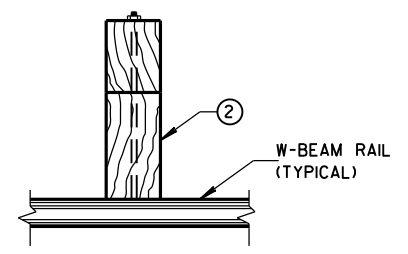
END VIEW
MGS LONGER POST AT HALFPST SPACING W BEAM (K)



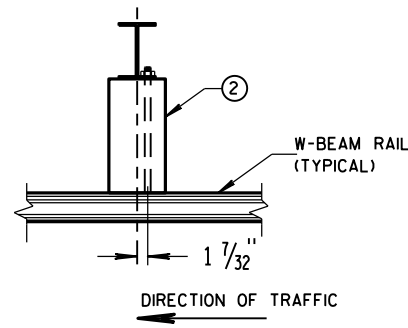
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



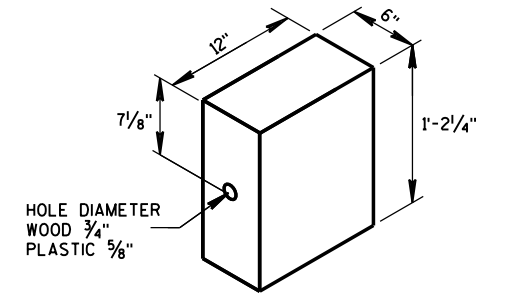
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



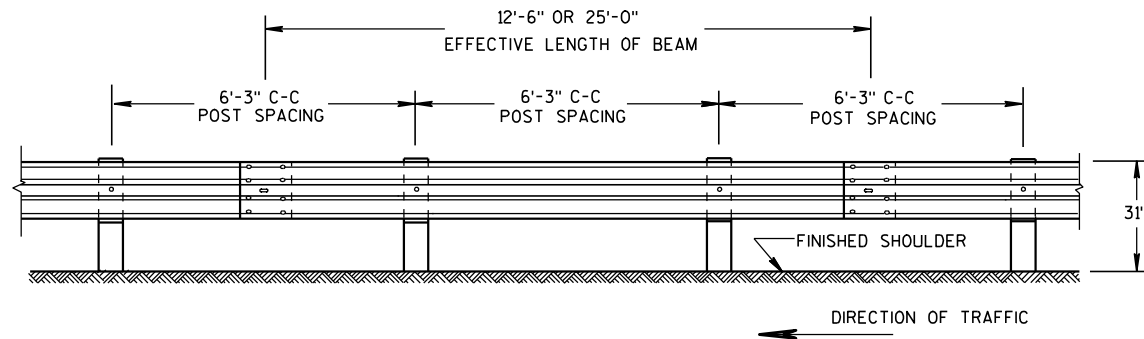
PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

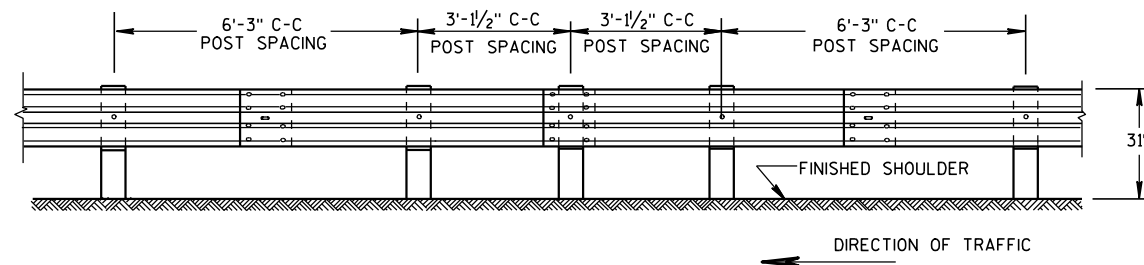
MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



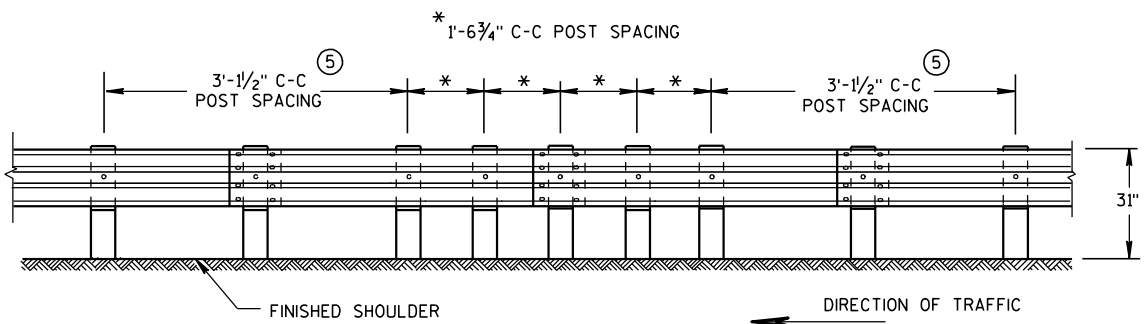
FRONT VIEW

POST SPACING STANDARD INSTALLATION



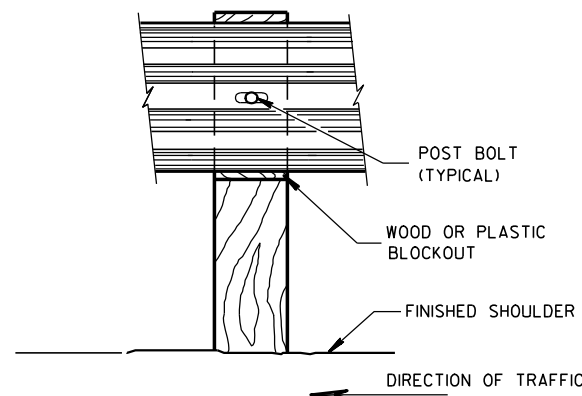
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

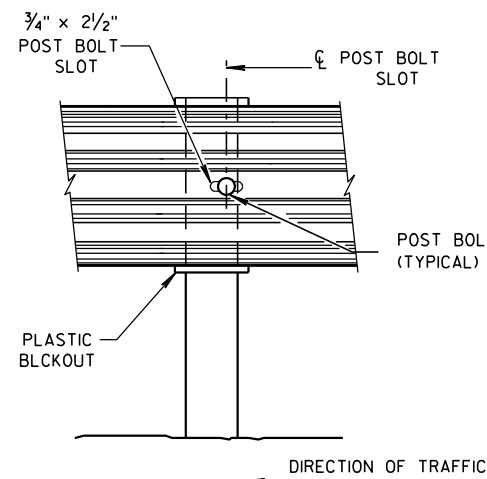


FRONT VIEW

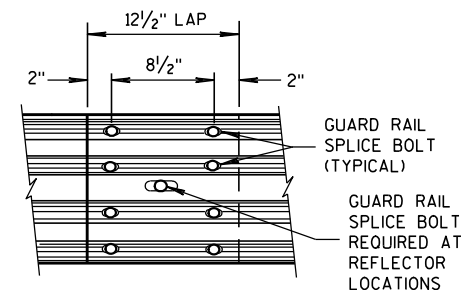
QUARTER POST SPACING (QS)



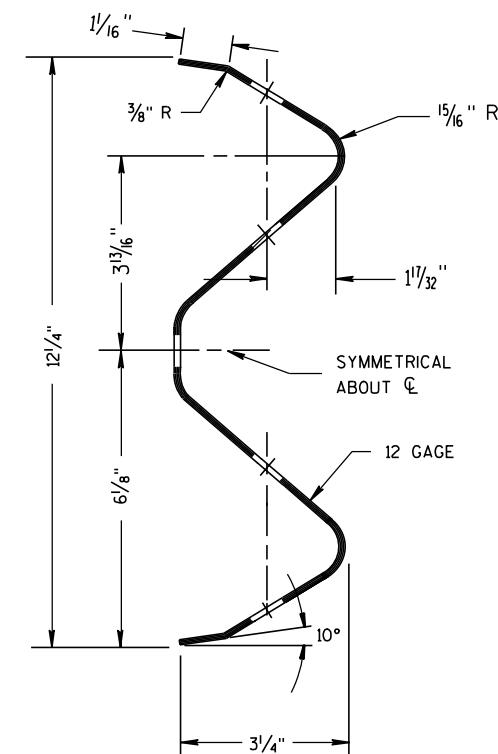
FRONT VIEW AT WOOD POST



FRONT VIEW AT STEEL POST



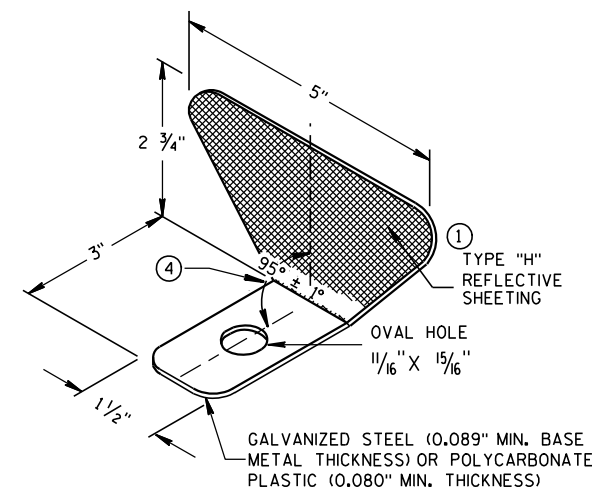
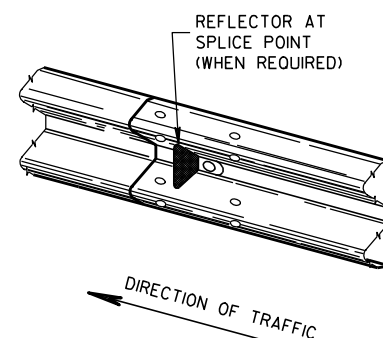
FRONT VIEW
MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL

REFLECTOR SPACING

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ③	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2 ④	3
	> 200'	100' C-C	2	



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

GENERAL NOTES

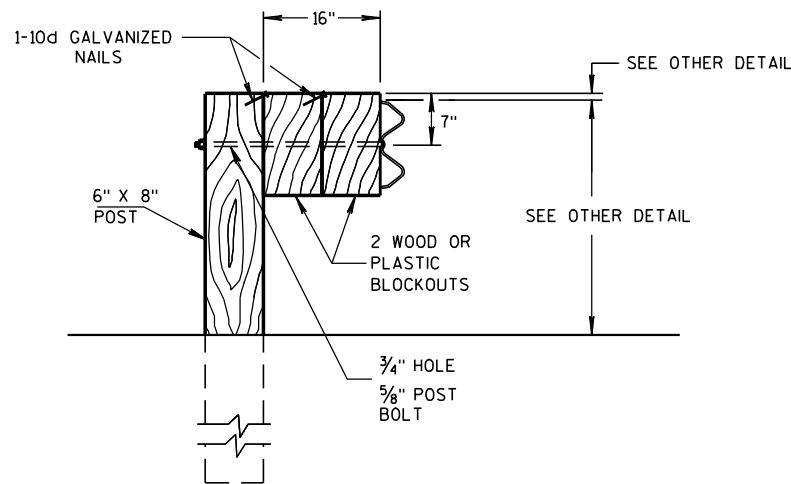
- ① PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
- ② DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
- ③ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
- ④ PROVIDE AN ANGLE OF BEND OF $90^\circ \pm 1^\circ$ FOR TWO-SIDED REFLECTORS.
- ⑤ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND $\frac{5}{8}$ " DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

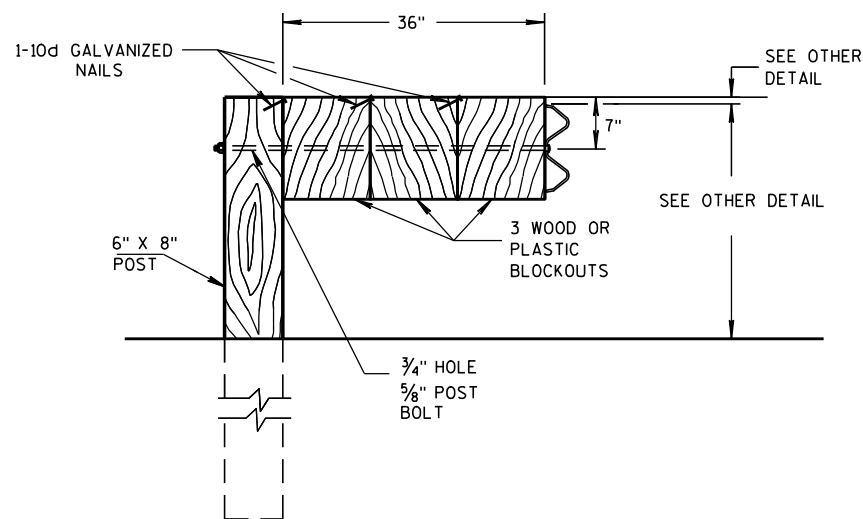
MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR 16" BLOCKOUT DEPTH

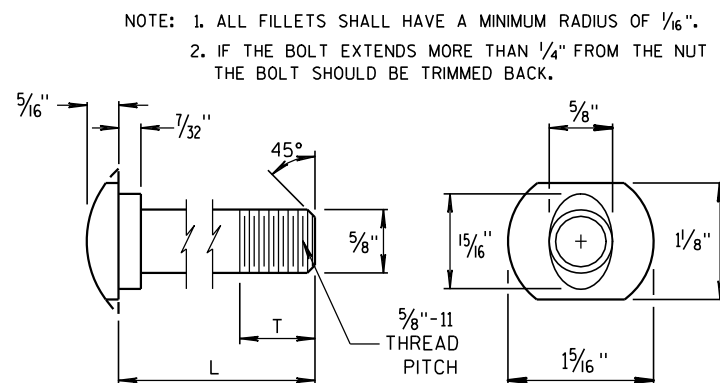
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



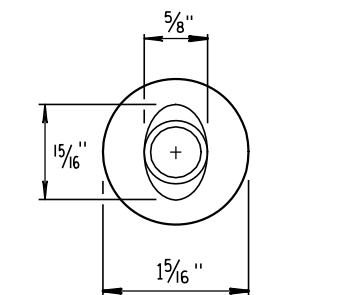
DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

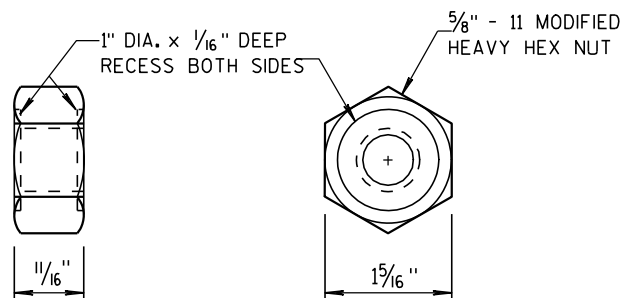
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



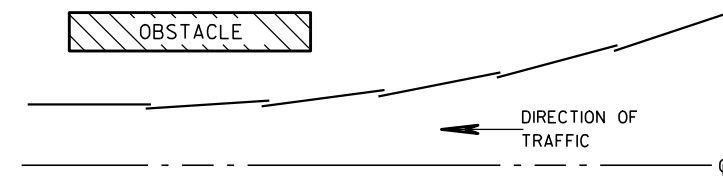
POST BOLT TABLE



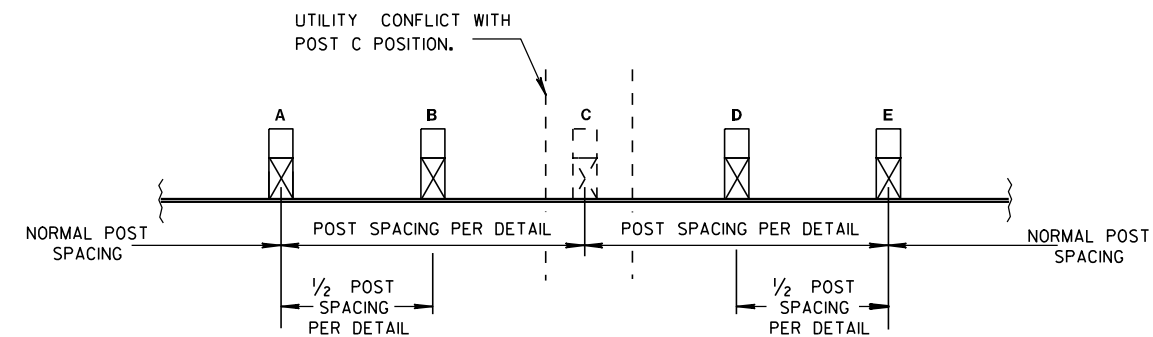
ALTERNATE BOLT HEAD



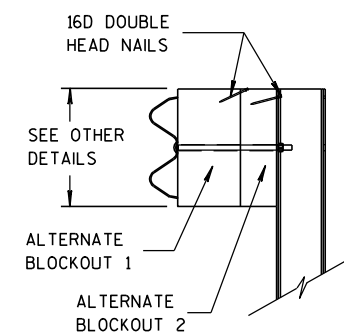
POST BOLT AND RECESS NUT



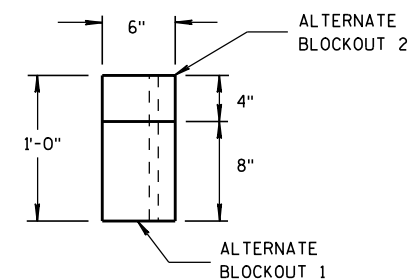
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/15/2011
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

GENERAL NOTES

- (A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.
- (C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.
- (D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.
- (F) 1/2" DIAMETER X 3" LONG LAG BOLT AND WASHER.
- (H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.
- (I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

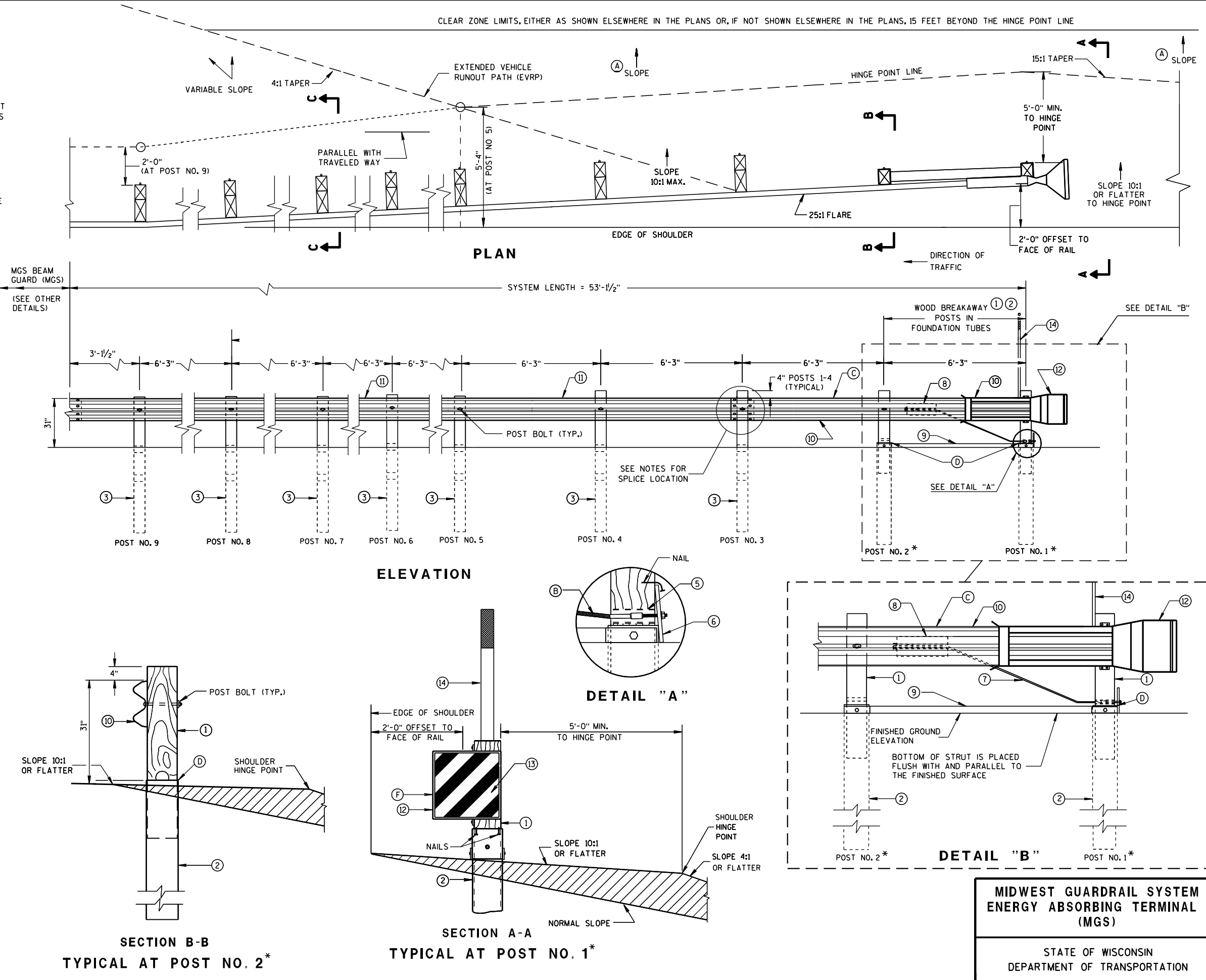
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

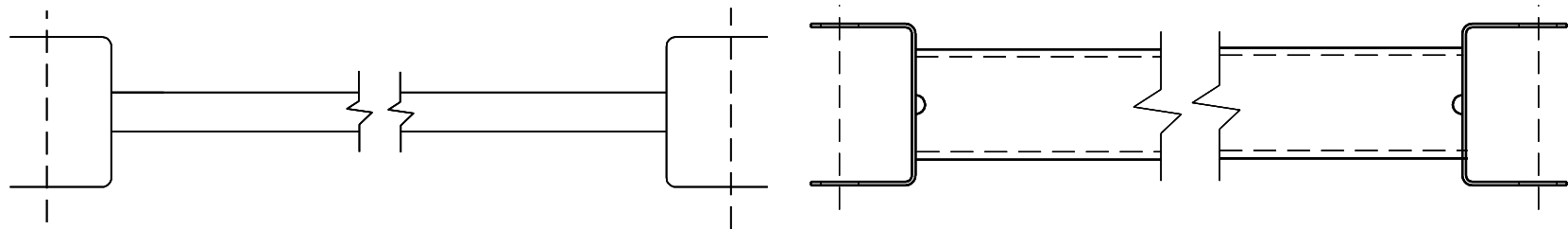
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

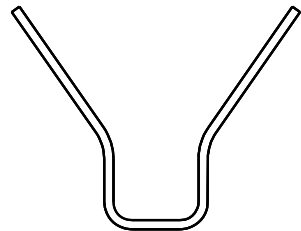
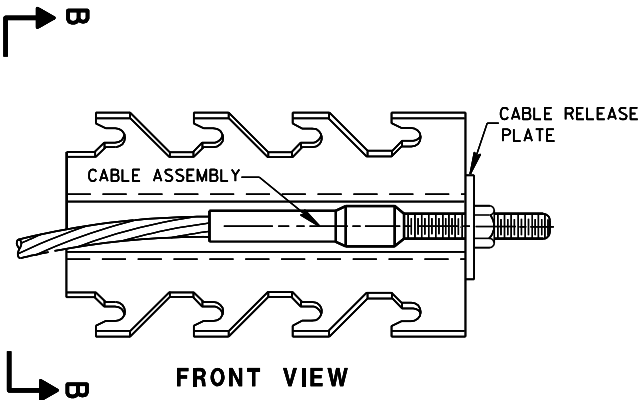
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE ($\pm \frac{3}{4}$ ")

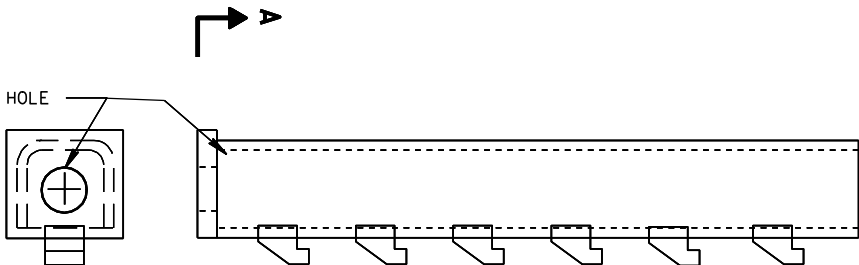




9 H
GENERIC GROUND STRUT



SECTION B-B



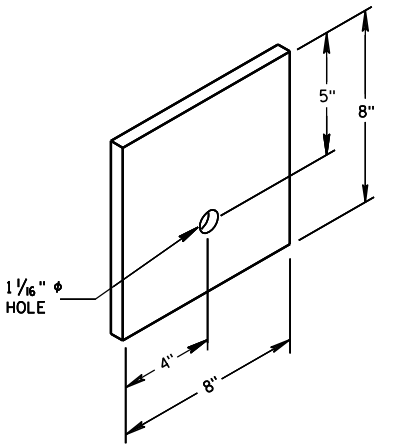
SECTION A-A

PLAN VIEW

8 H
GENERIC ANCHOR CABLE BOX

BILL OF MATERIALS

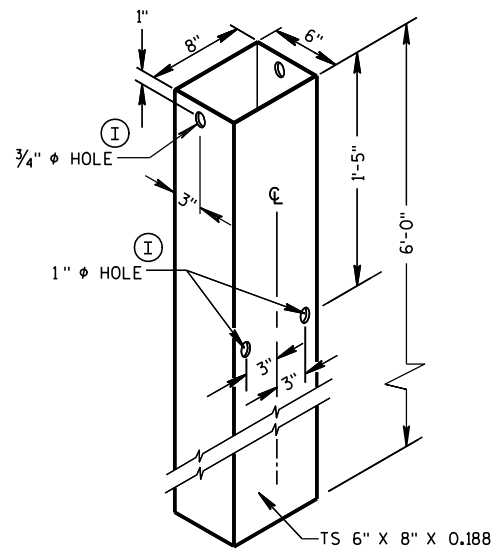
PART NO.	DESCRIPTION
	MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL, MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	END SECTION EAT
⑬	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
⑭	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



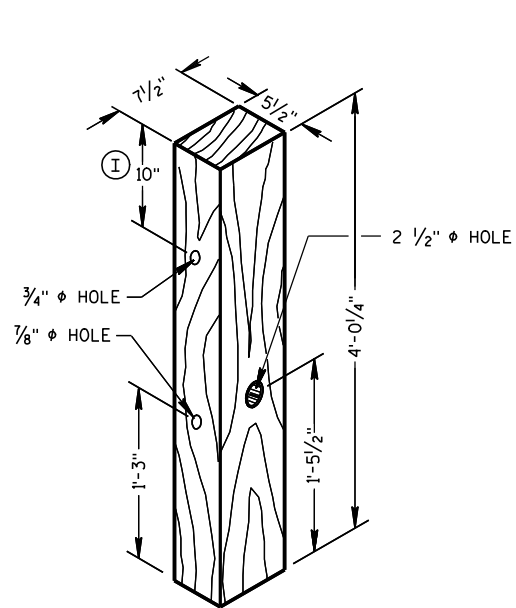
6
BEARING PLATE

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

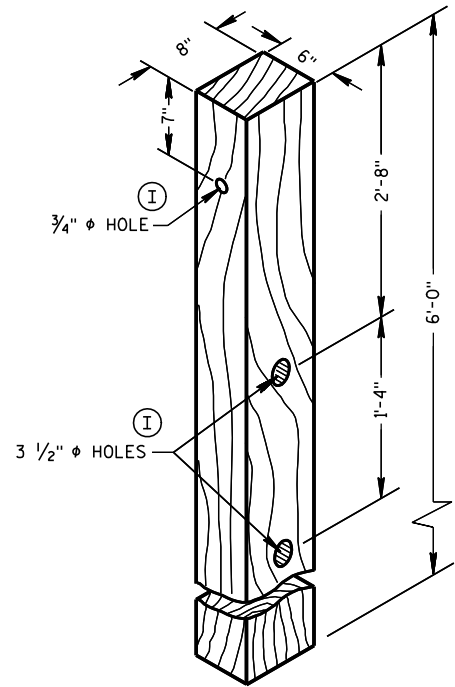
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



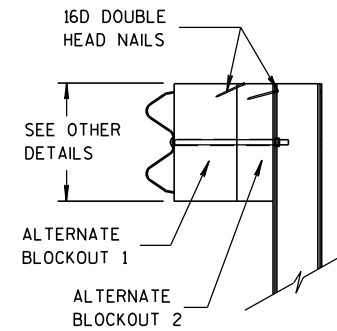
FOUNDATION TUBE ②



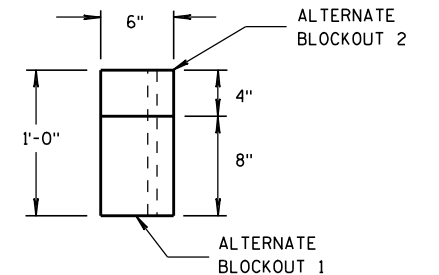
WOOD BREAKAWAY POST ①



WOOD CRT POST ③

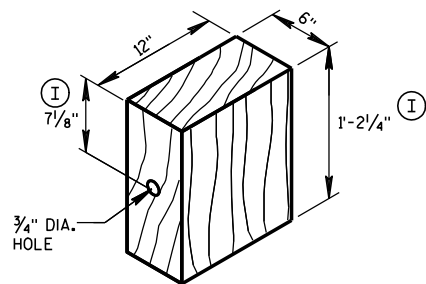


SIDE VIEW



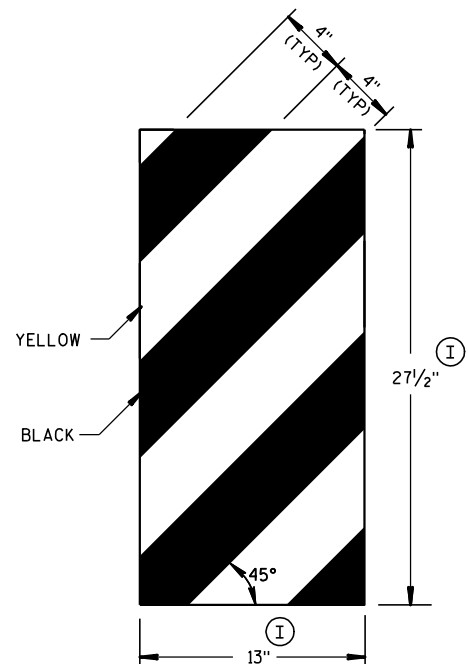
TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

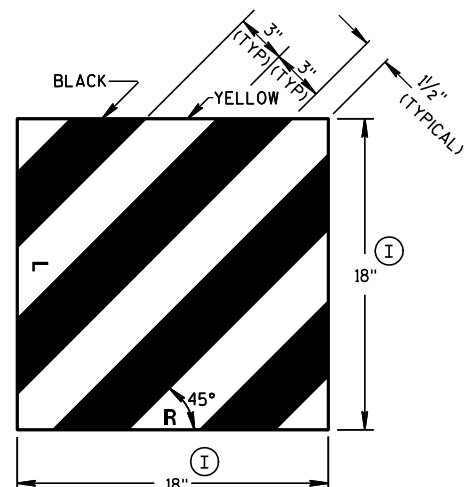


WOOD BLOCKOUT ④

YELLOW REFLECTIVE TAPE
3" X 9" TYPE H
REFLECTIVE SHEETING



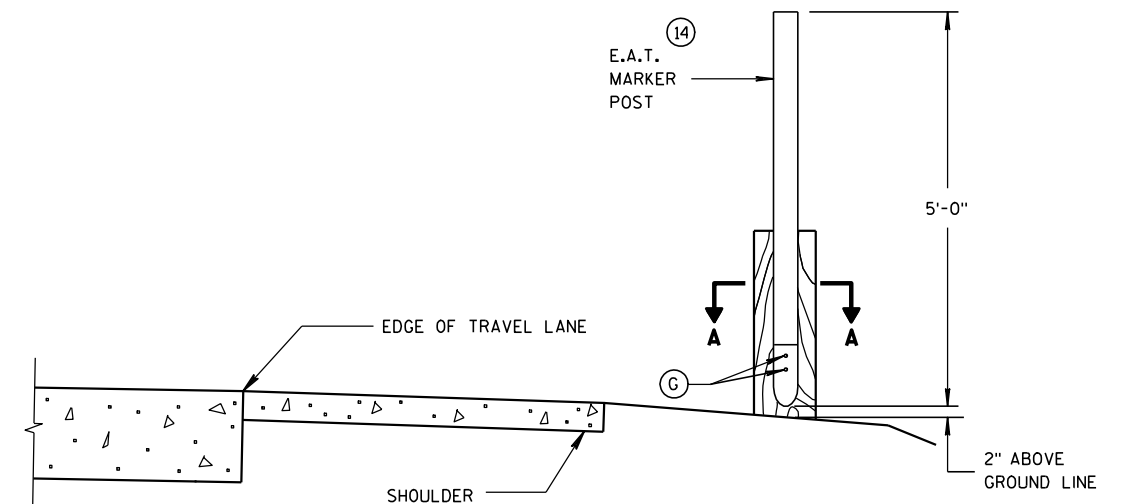
GENERIC REFLECTIVE SHEETING ⑬ ④



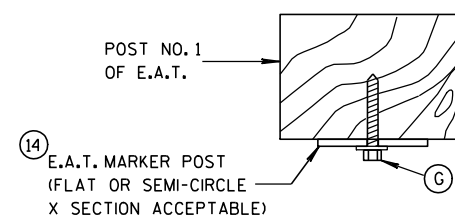
FRONT VIEW

SIDE VIEW

E.A.T. MARKER POST ⑭



TYPICAL INSTALLATION OF E.A.T.
MARKER POST BACKSIDE OF POST NO. 1
(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

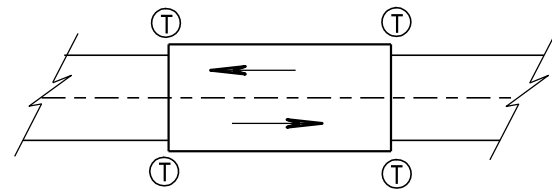
APPROVED

5/23/2011

DATE

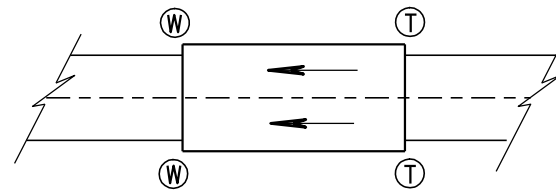
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



TWO WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION



ONE WAY TRAFFIC

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

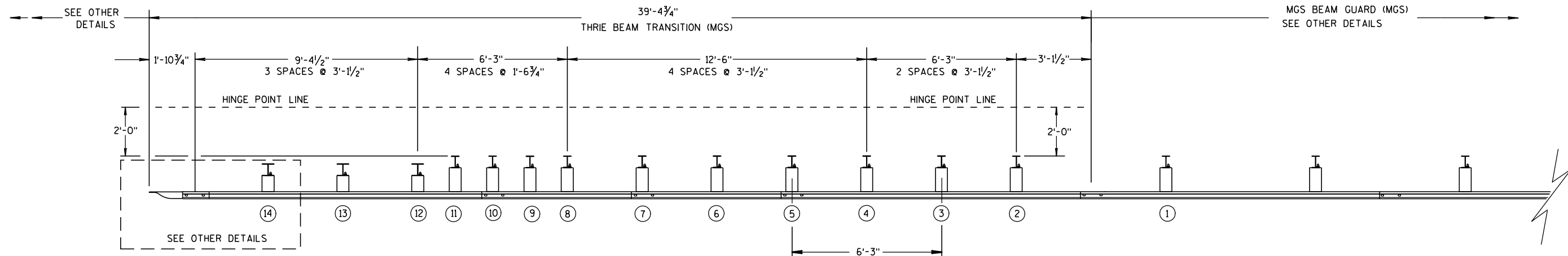
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

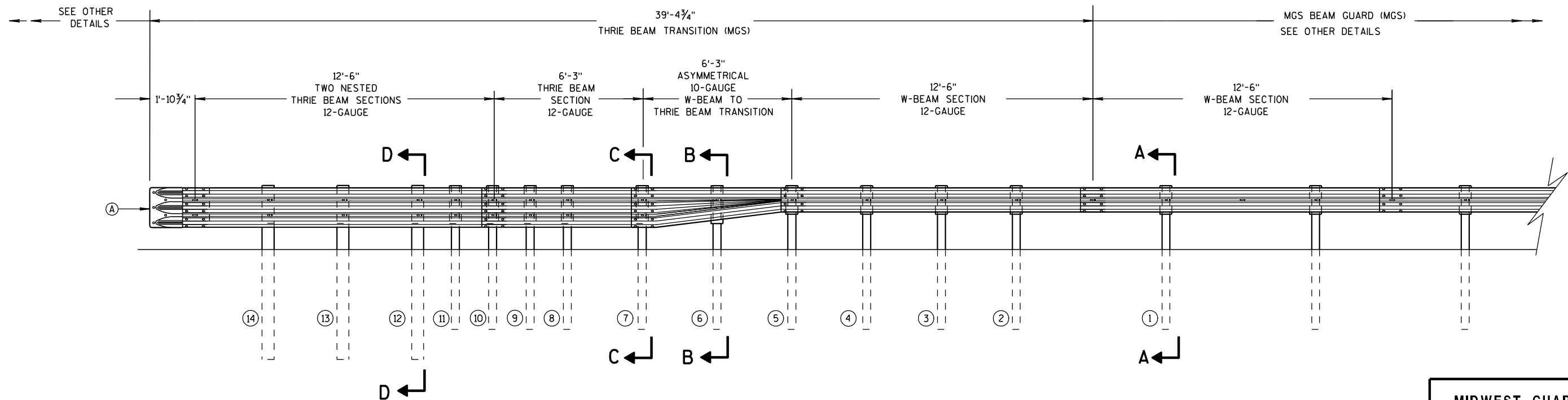
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

Ⓐ BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

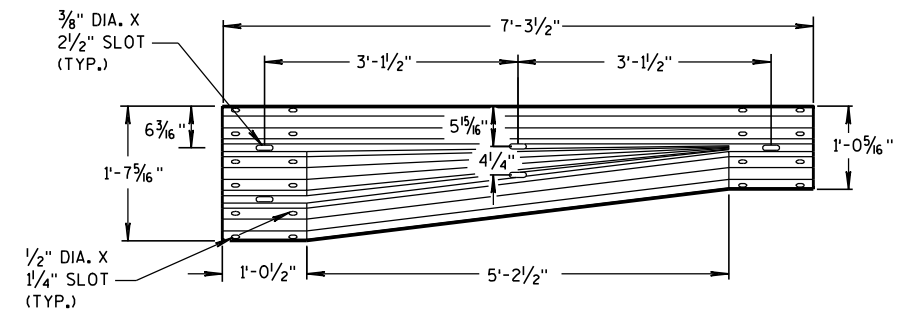
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

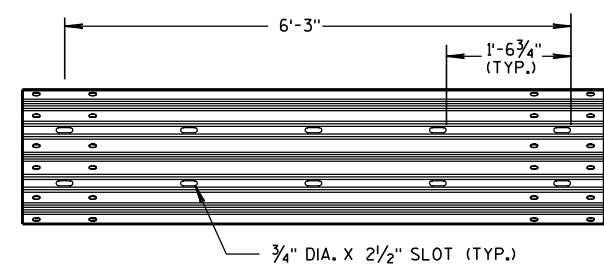
S.D.D. 14 B 45-3b



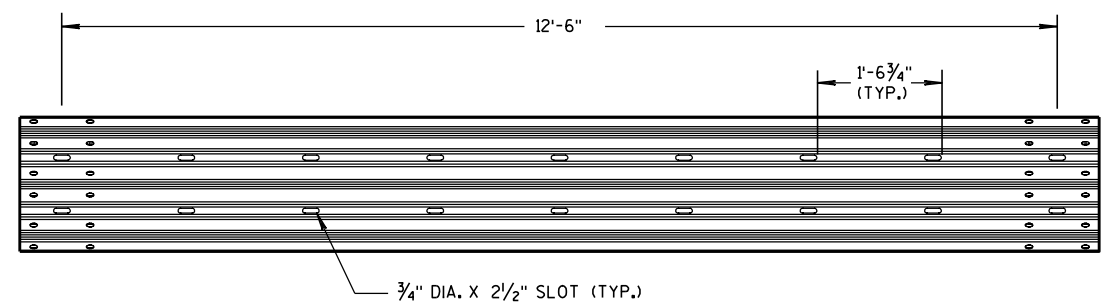
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



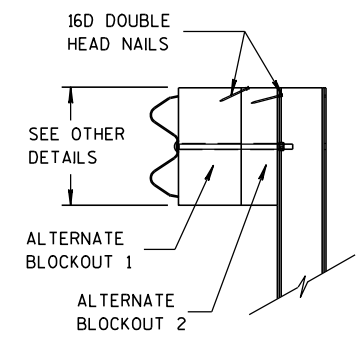
W-BEAM TO THRIE BEAM TRANSITION SECTION



6'-3" THRIE BEAM SECTION

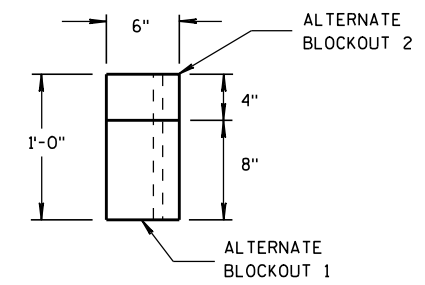


12'-6" THRIE BEAM SECTION

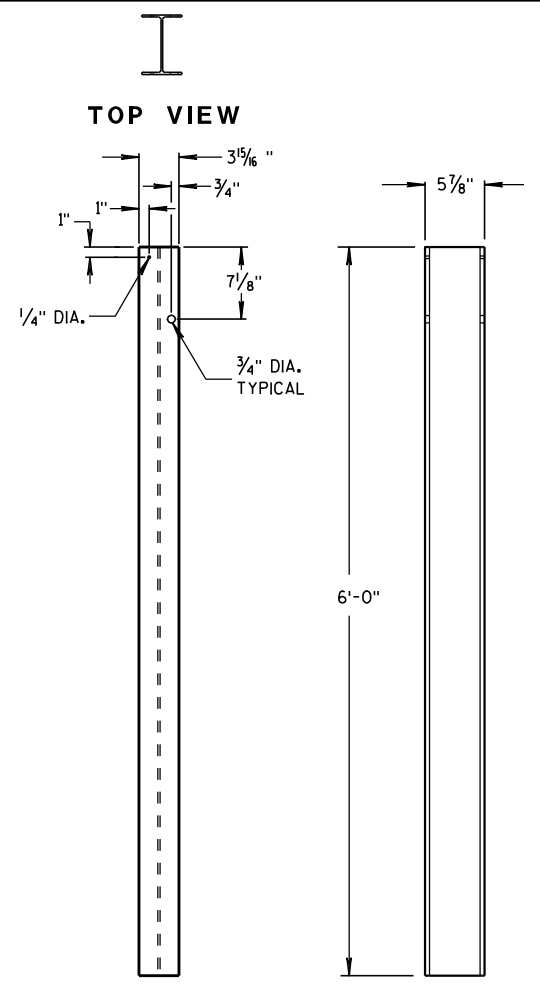


SIDE VIEW

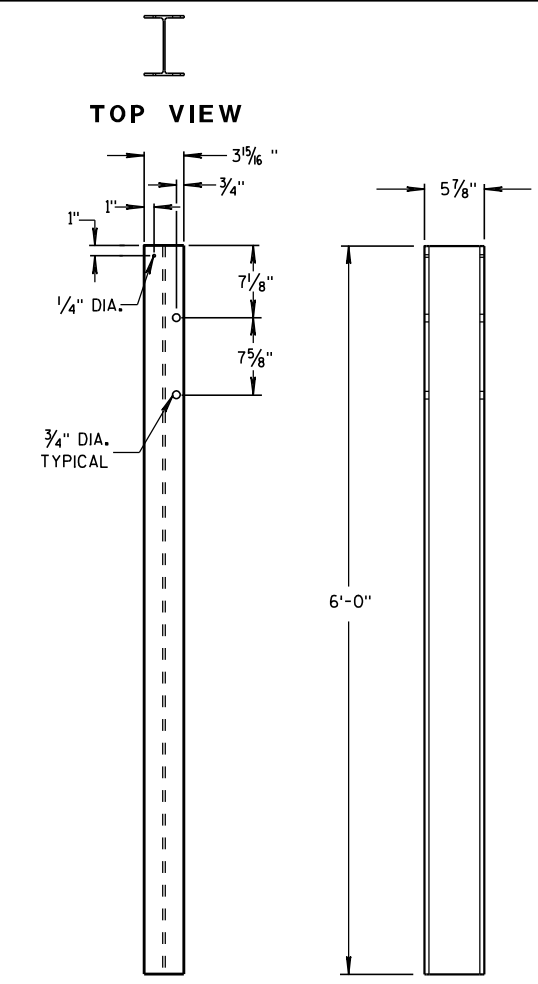
ALTERNATE WOOD BLOCKOUT DETAIL



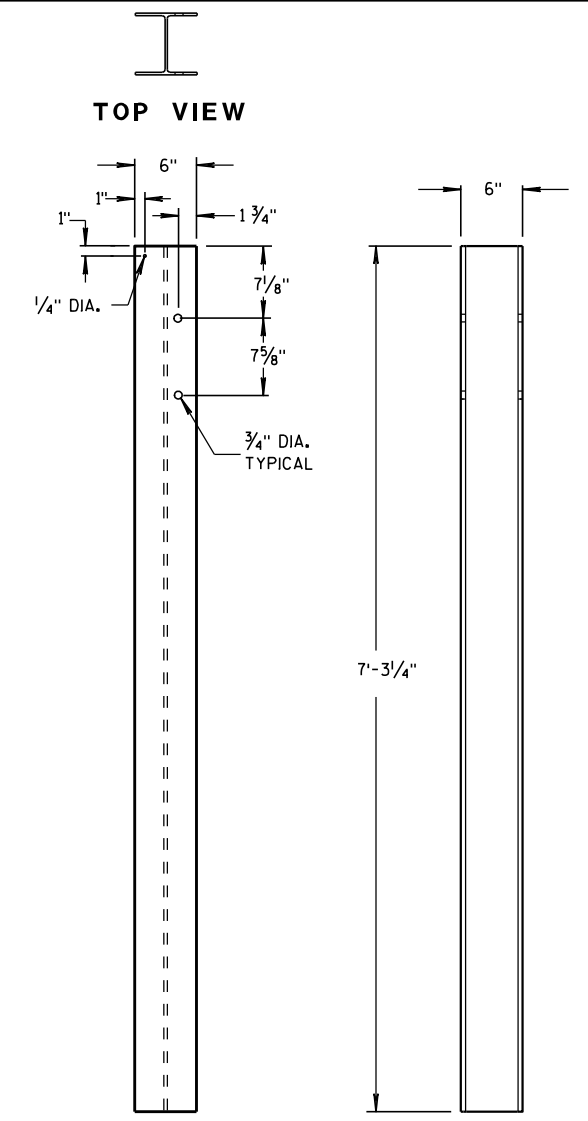
TOP VIEW



FRONT VIEW SIDE VIEW
STEEL POSTS 1-5

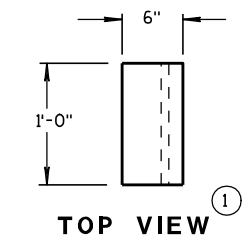


FRONT VIEW SIDE VIEW
STEEL POSTS 6-11

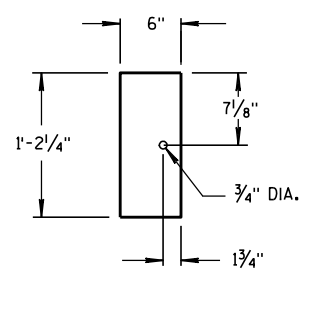


FRONT VIEW SIDE VIEW
STEEL POSTS 12-14

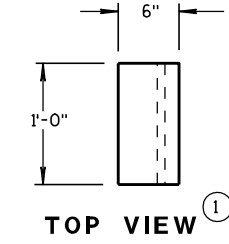
① WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



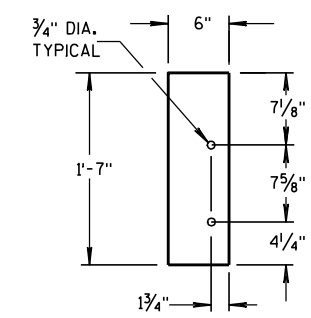
TOP VIEW ①



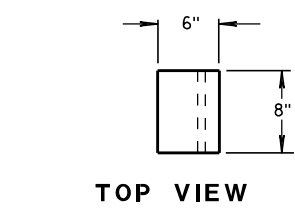
FRONT VIEW
BLOCKOUT POSTS 1-5



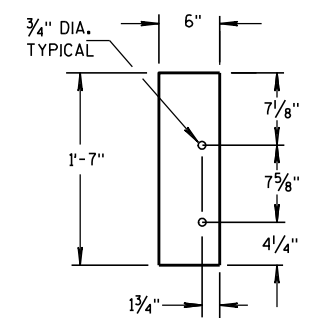
TOP VIEW ①



FRONT VIEW
BLOCKOUT POSTS 6-11



TOP VIEW



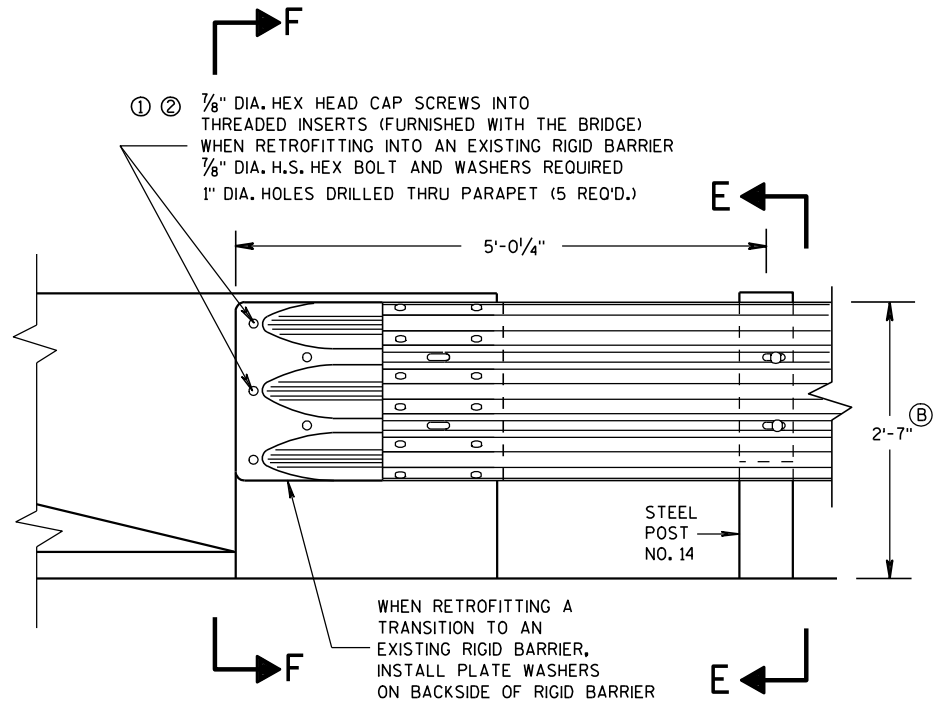
FRONT VIEW
BLOCKOUT POSTS 12-14

STEEL POST SIZES

POST NUMBER	SECTION TYPE	LENGTH
①	W6x9	72"
②	W6x9	72"
③	W6x9	72"
④	W6x9	72"
⑤	W6x9	72"
⑥	W6x9	72"
⑦	W6x9	72"
⑧	W6x9	72"
⑨	W6x9	72"
⑩	W6x9	72"
⑪	W6x9	72"
⑫	W6x15	87 1/8"
⑬	W6x15	87 1/8"
⑭	W6x15	87 1/8"

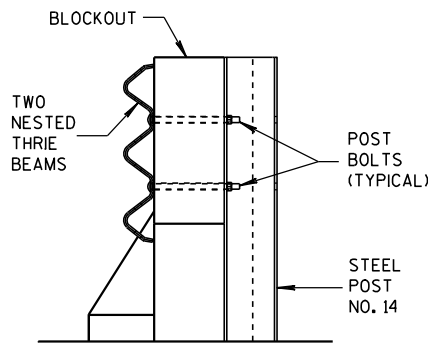
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



FRONT VIEW

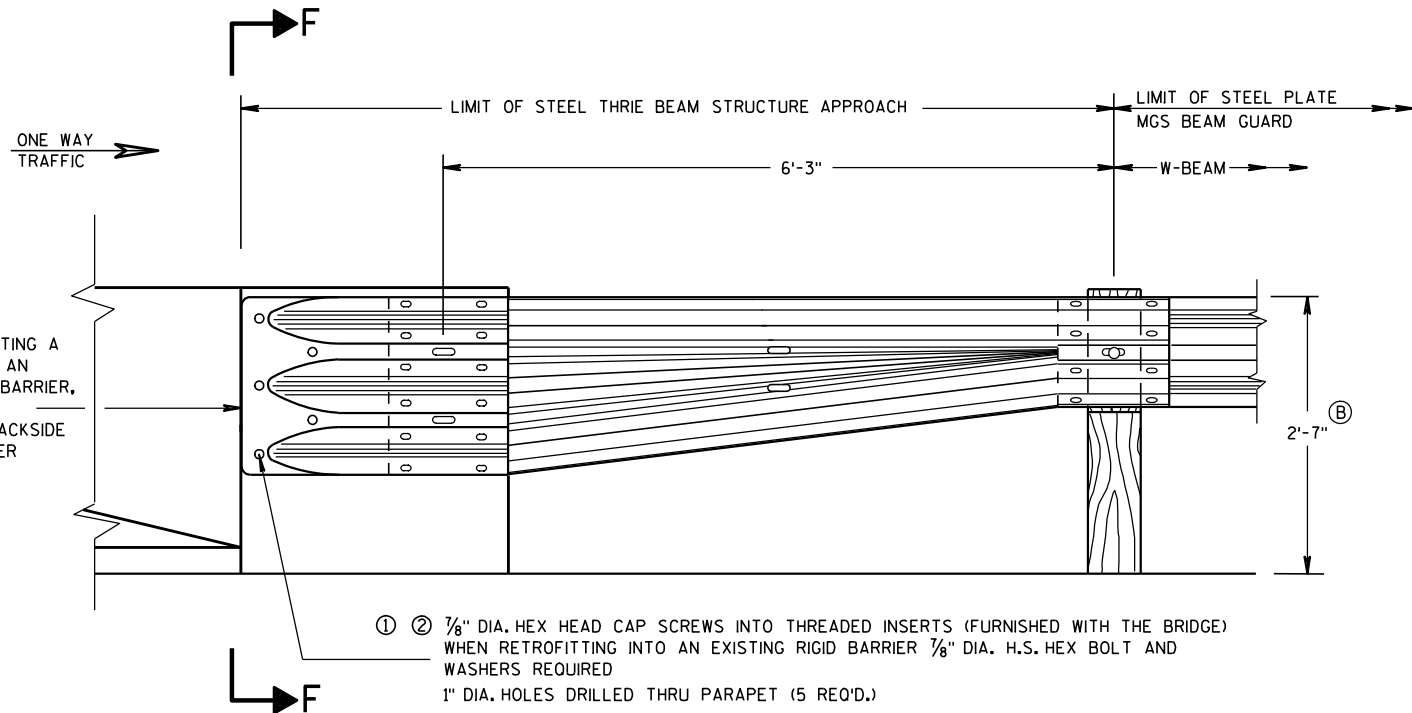
THRIE BEAM CONNECTION TO BRIDGE
PARAPET WITH SQUARE ENDS



SECTION E-E

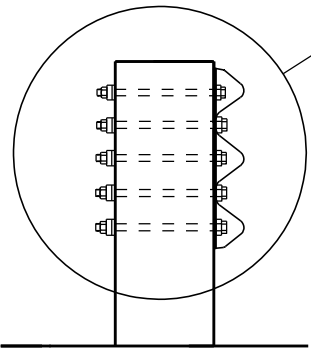
GENERAL NOTES

- THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.
- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
 - ② BOLTS MAY BE A325 BOLTS OR A449 BOLTS, BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
 - ③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".
- ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

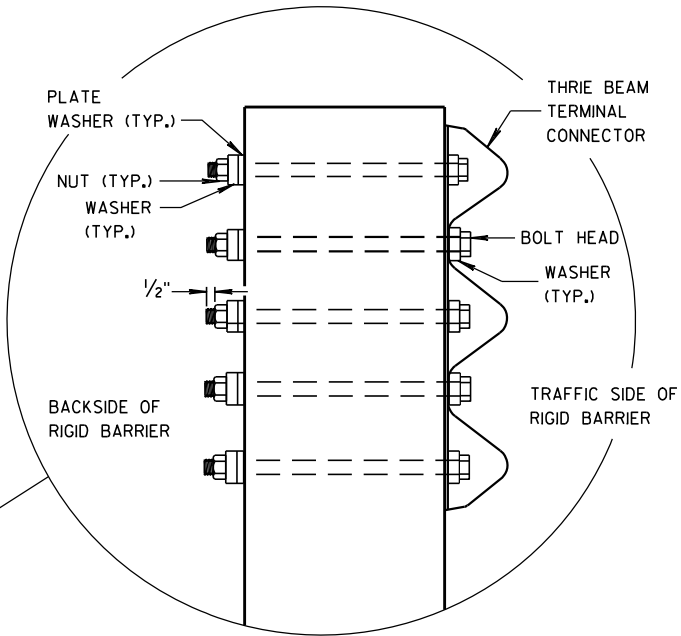


FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO
BRIDGE PARAPETS WITH SQUARE ENDS
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



SECTION F-F

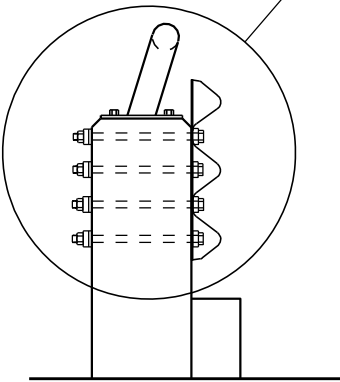
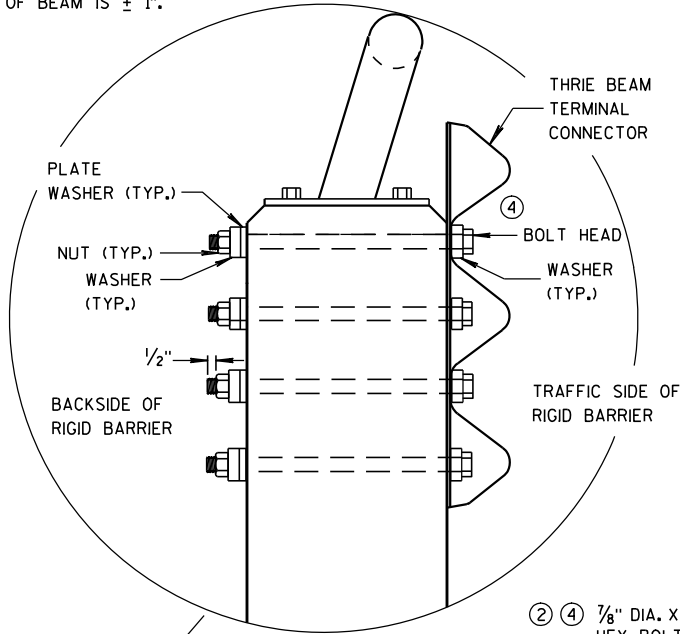


MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/31/2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

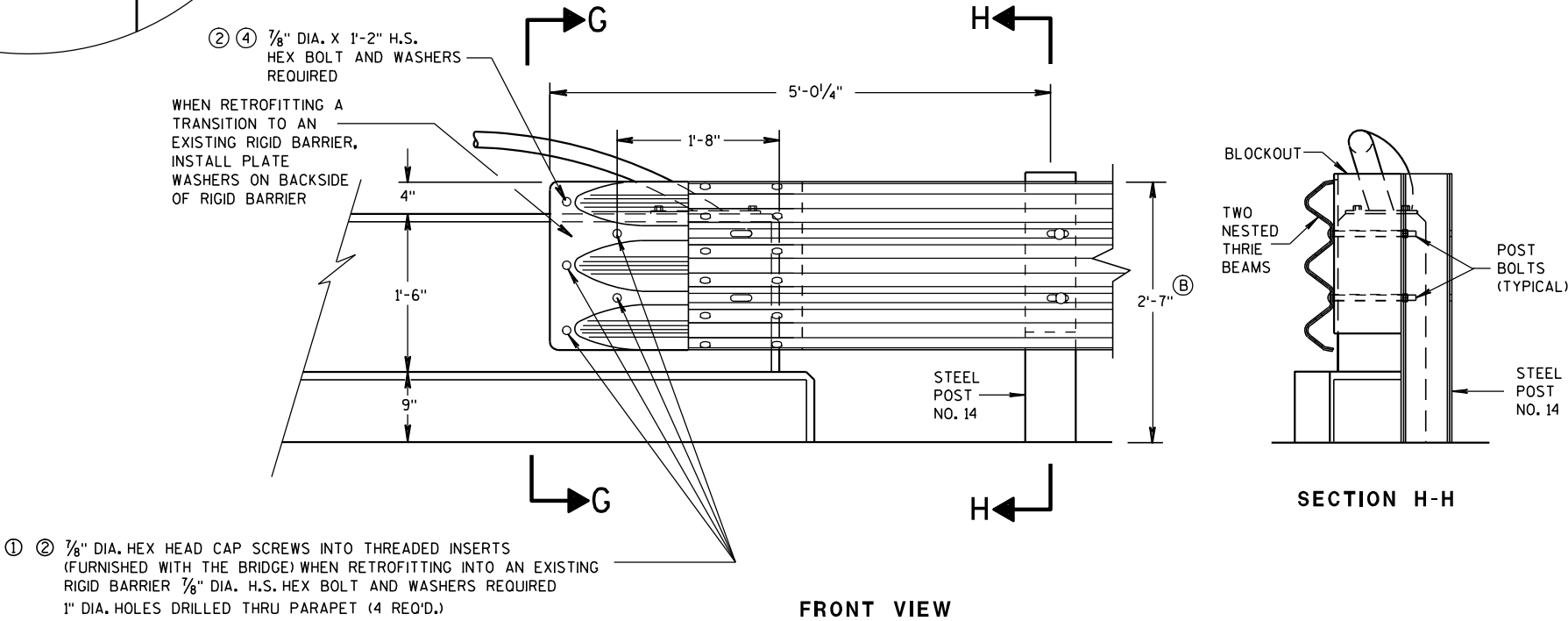
GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSITION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
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- ③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 $\frac{1}{2}$ ". BLOCK IS INCIDENTAL TO THE CONTRACT.
- ④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.
- Ⓑ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.

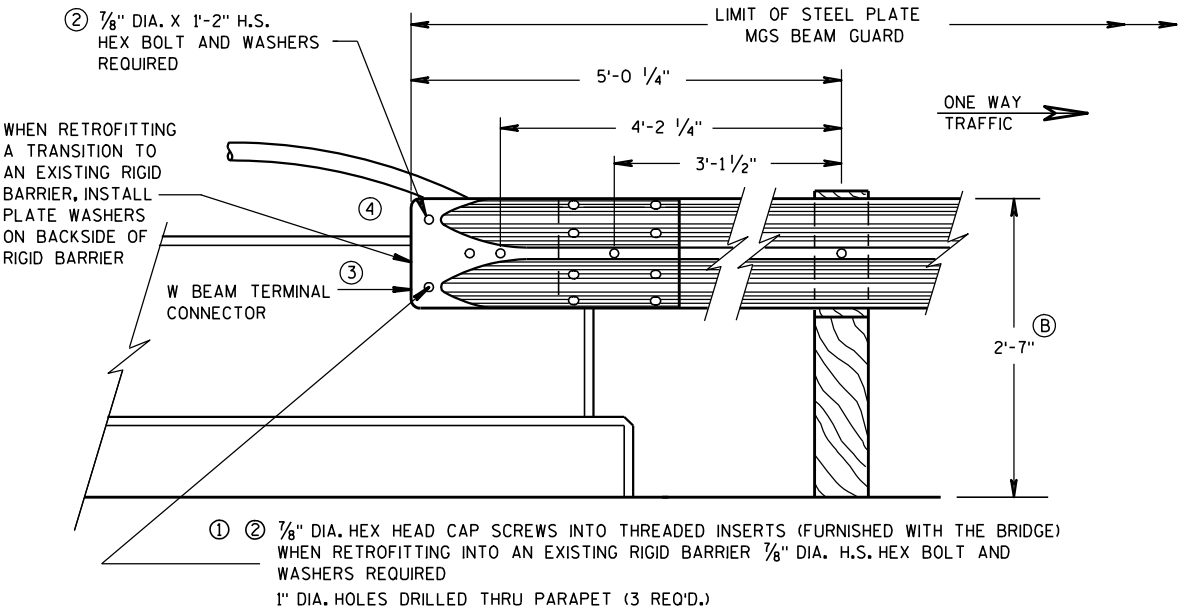


SECTION G-G



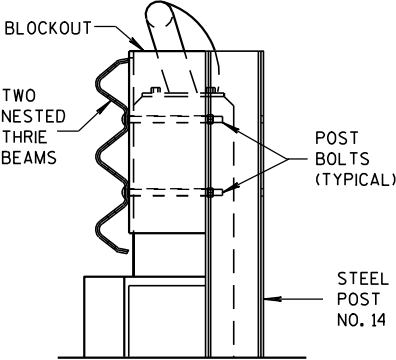
FRONT VIEW

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

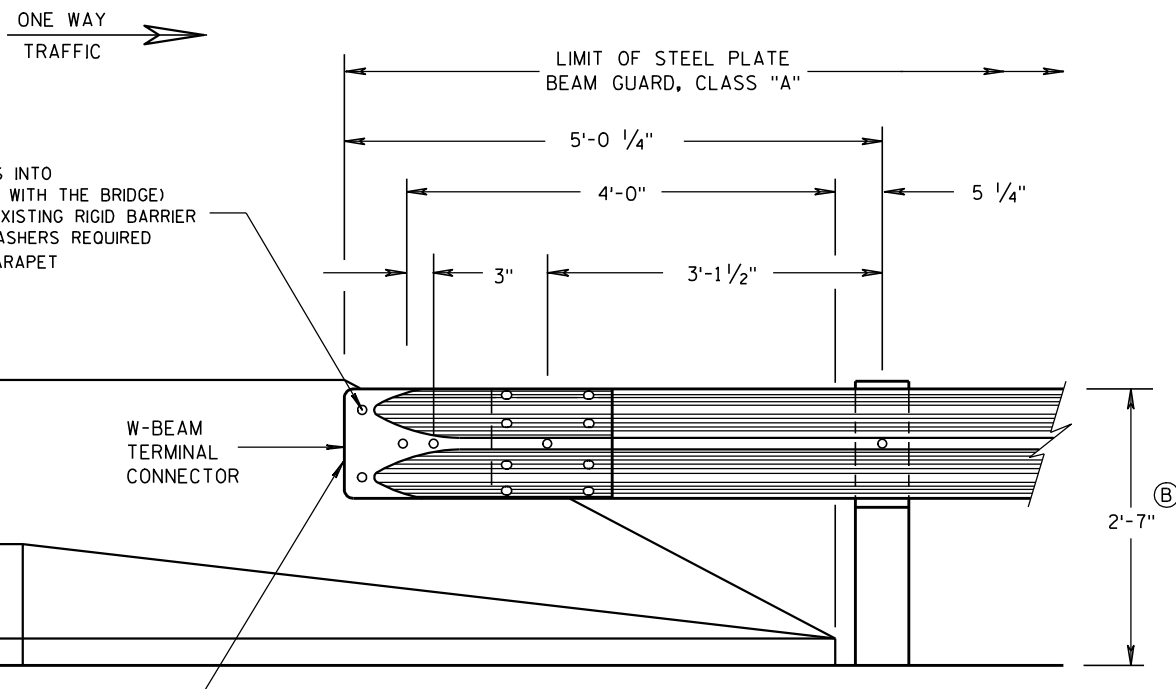


SECTION H-H

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-31-2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



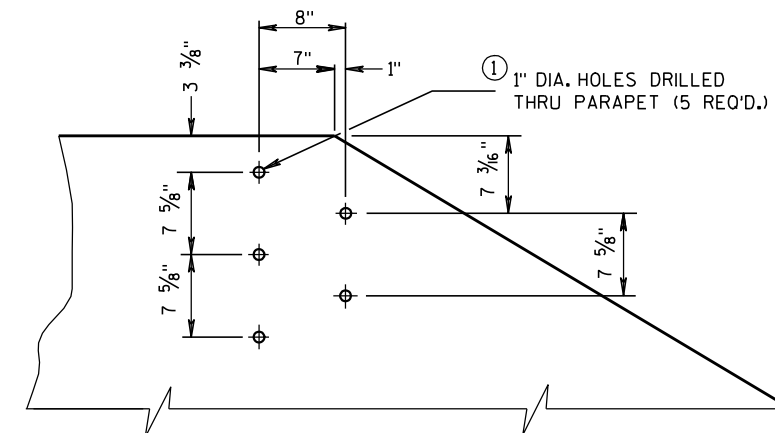
FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

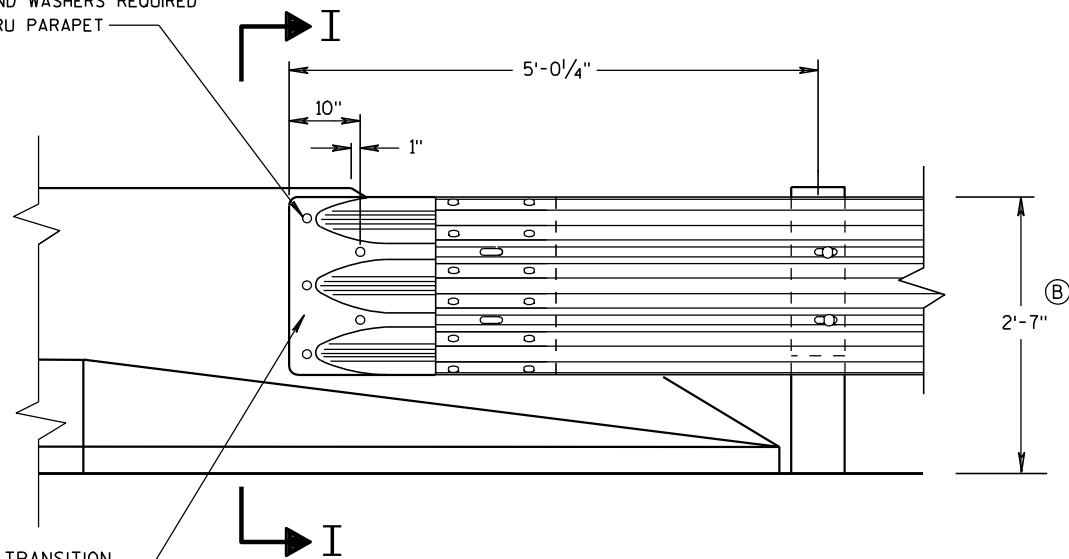
GENERAL NOTES

- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ③ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.



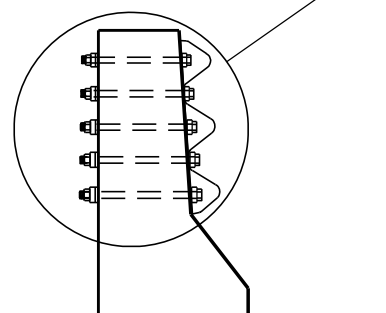
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION

- ① ② 1/8" DIA. HEX HEAD CAP SCREWS INTO
THREADED INSERTS (FURNISHED WITH THE BRIDGE)
WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER
1/8" DIA. H.S. HEX BOLT AND WASHERS REQUIRED
1" DIA. HOLES DRILLED THRU PARAPET
(5 REQ'D.)

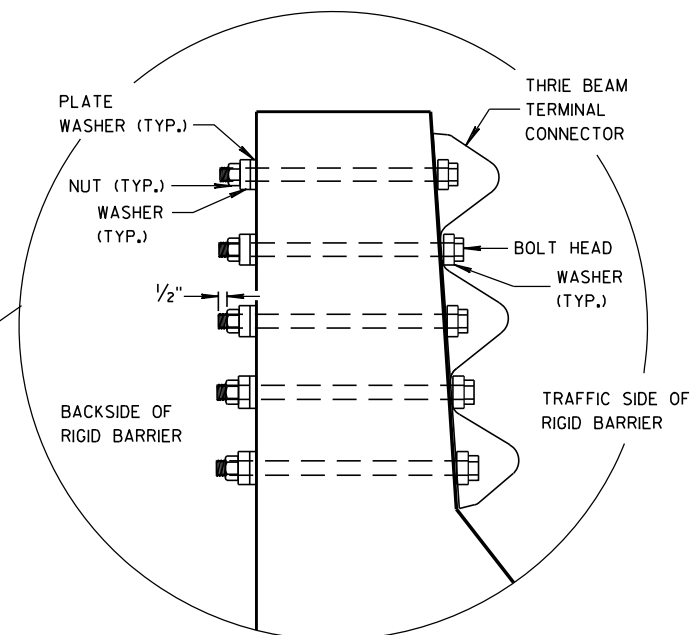


FRONT VIEW

THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS



SECTION I-I

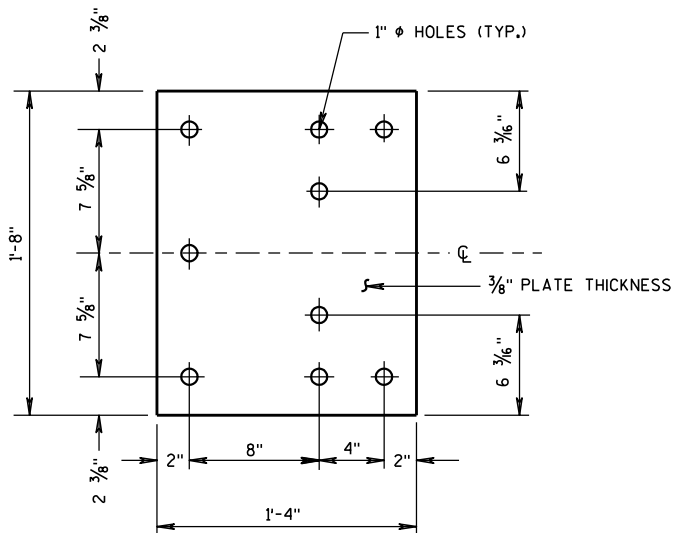


MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

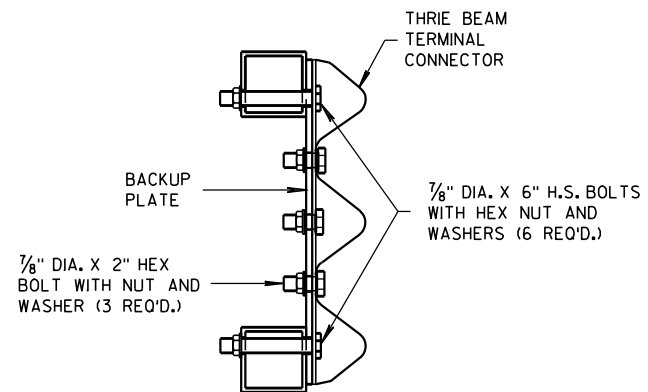
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012
DATE
FHWA

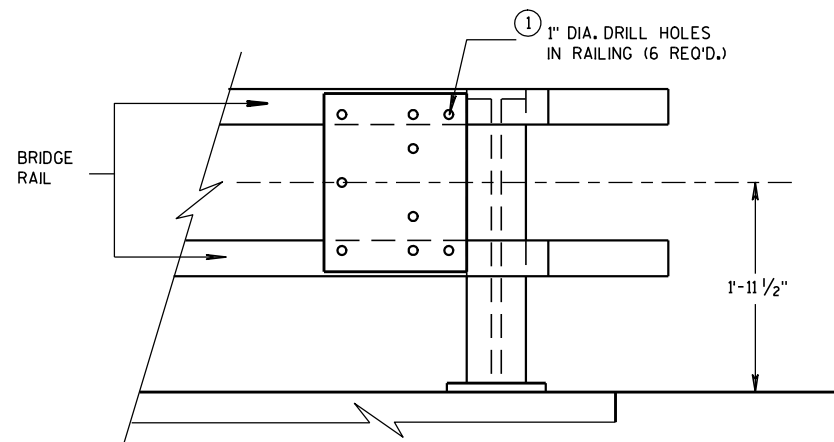
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



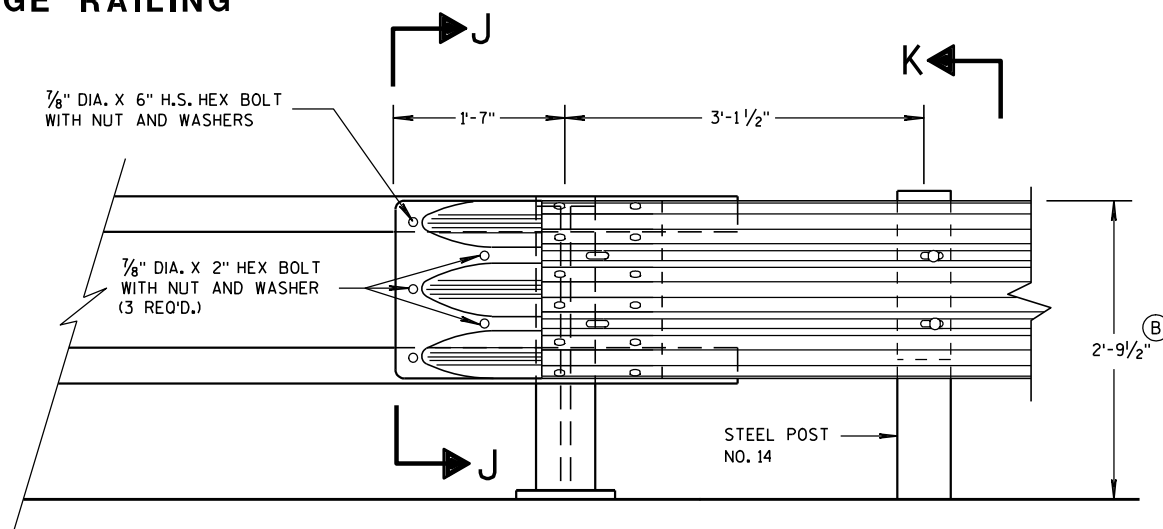
BACK-UP PLATE DETAIL



SECTION J-J

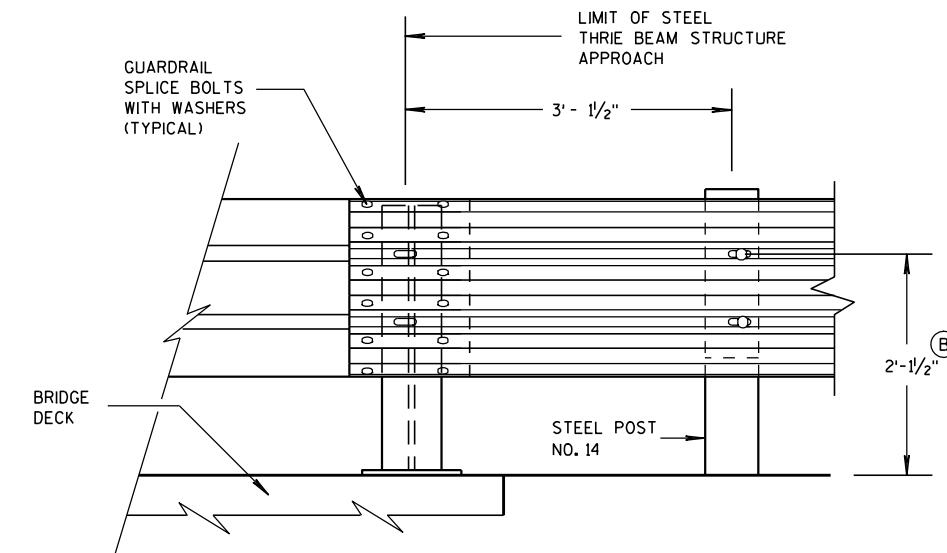


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



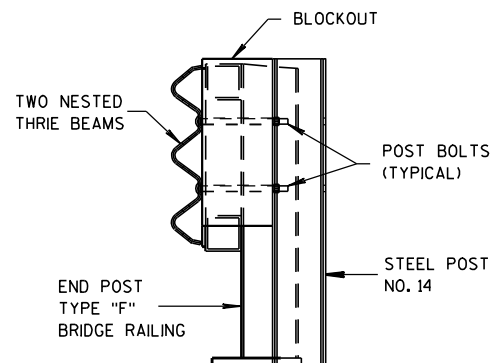
FRONT VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"



FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



SECTION K-K

GENERAL NOTES

- ① DRILLING HOLES THROUGH THE PAPER, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ② TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

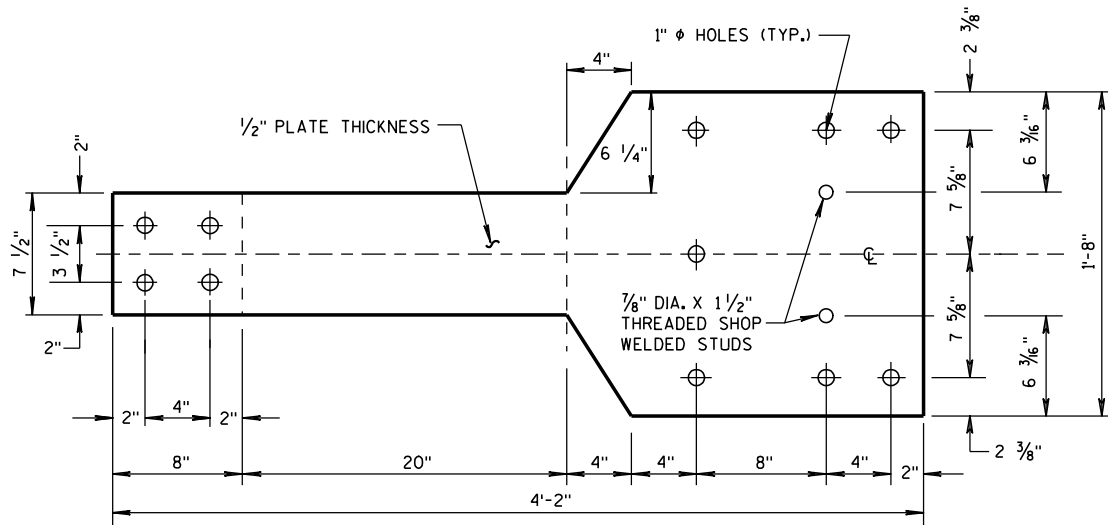
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012
DATE
FHWA

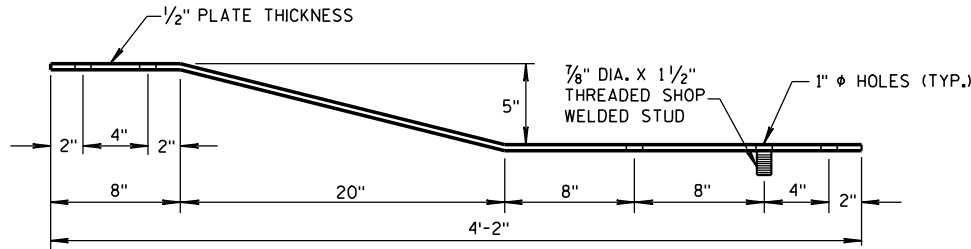
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

GENERAL NOTES

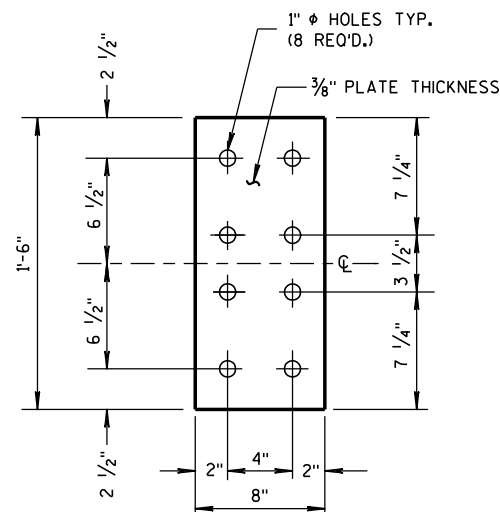
(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS $\pm 1"$.



FRONT VIEW

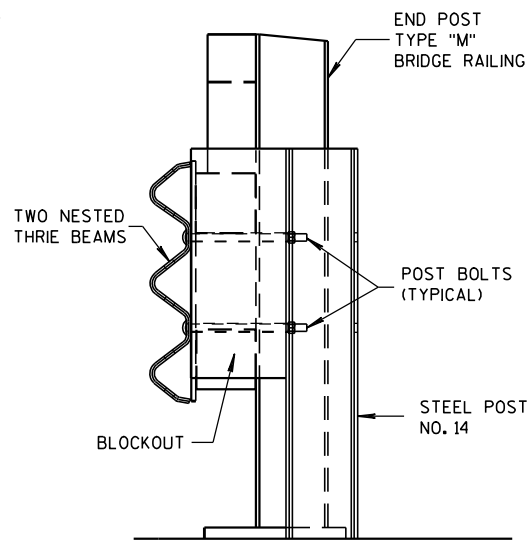


PLAN VIEW
BACK-UP PLATE DETAIL, TYPE "M"

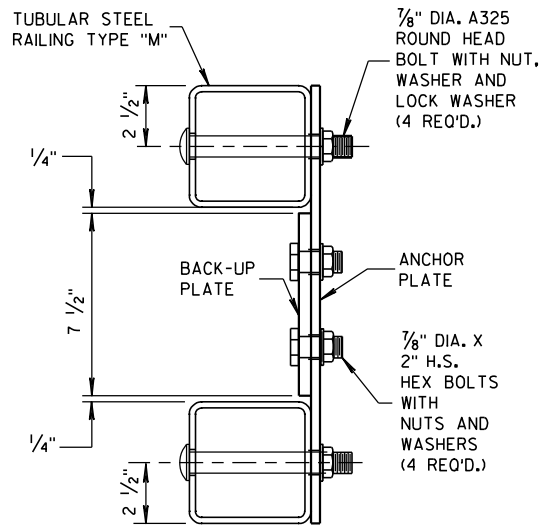


FRONT VIEW

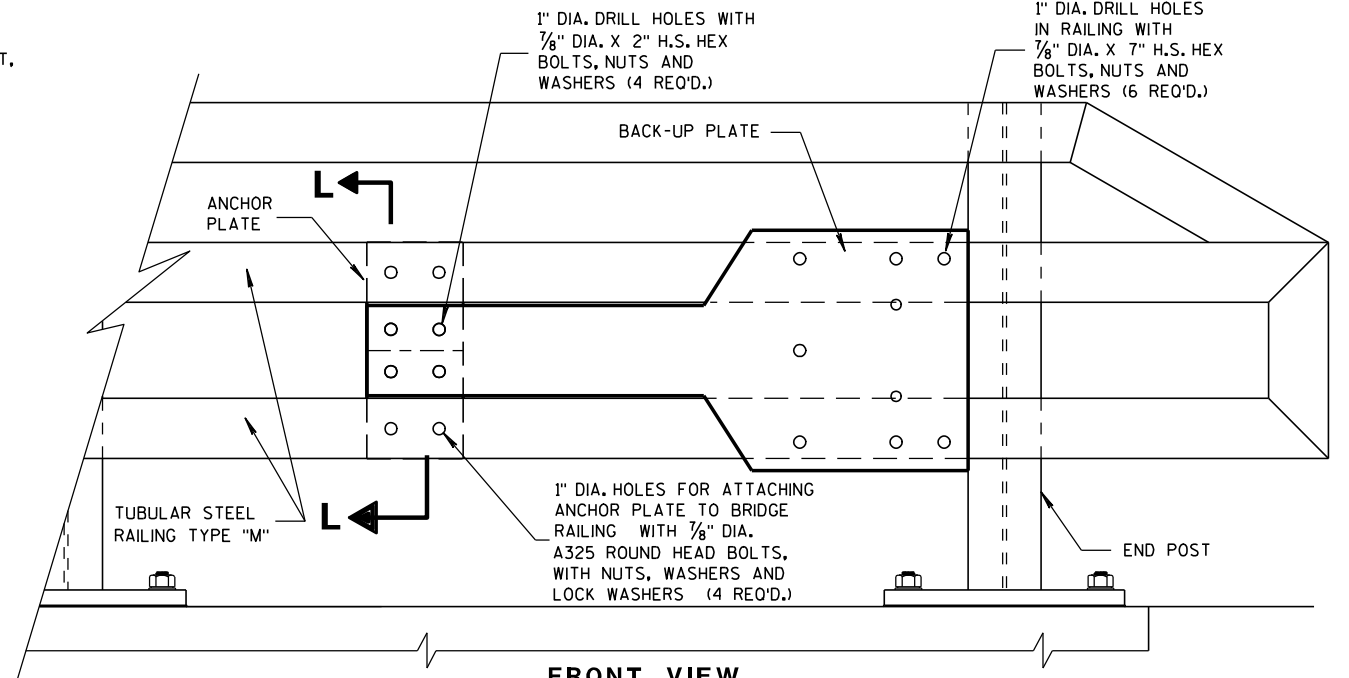
ANCHOR
PLATE DETAIL,
TYPE "M"



SECTION M-M

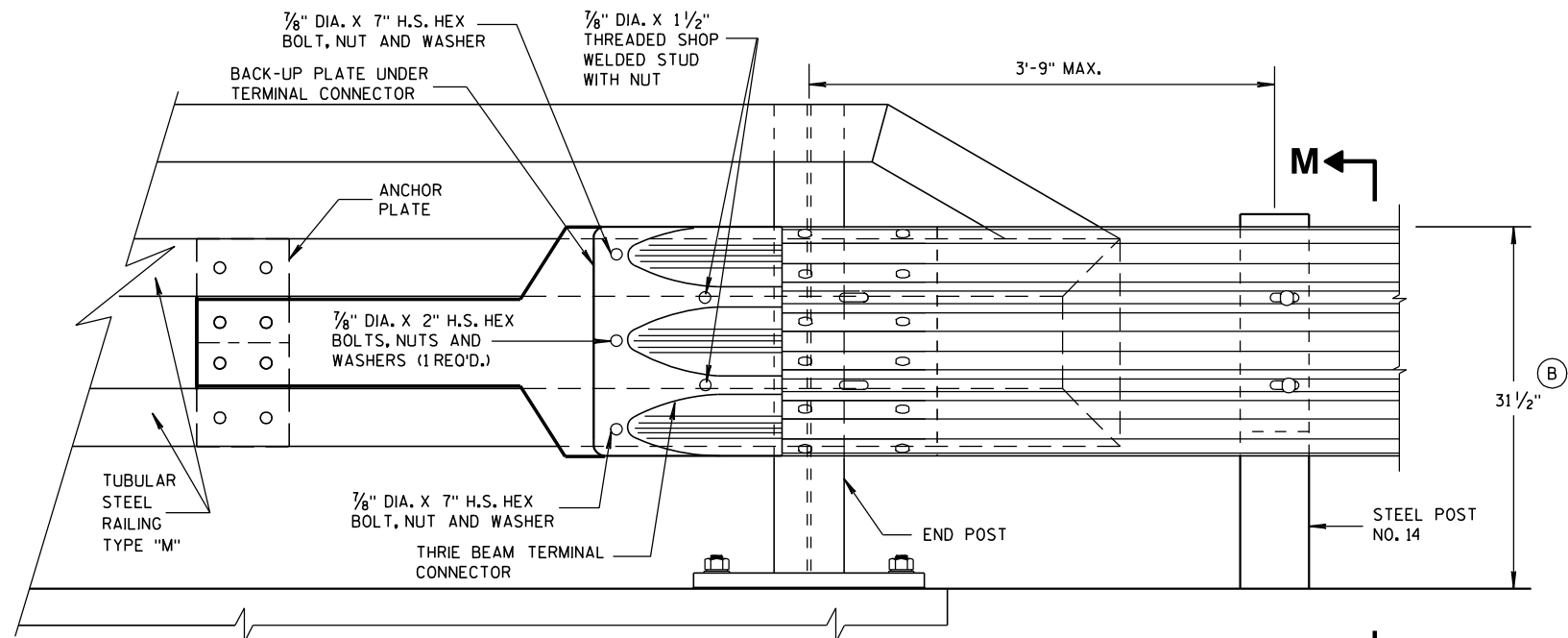


SECTION L-L

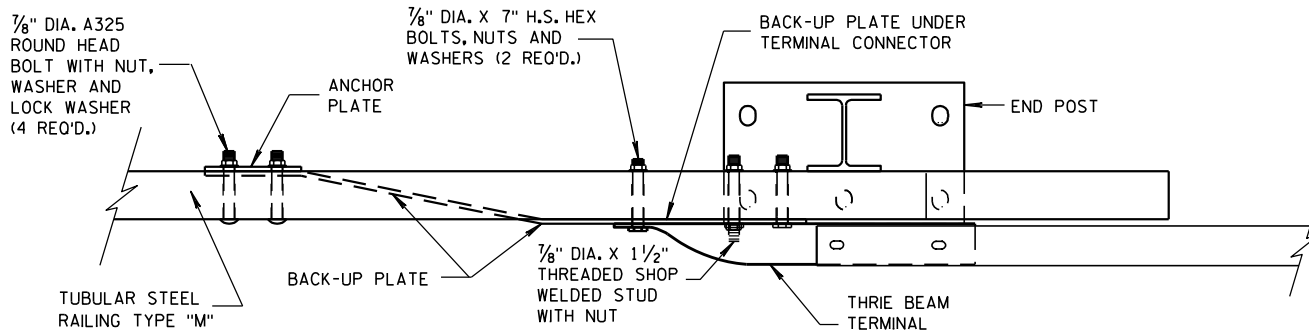


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

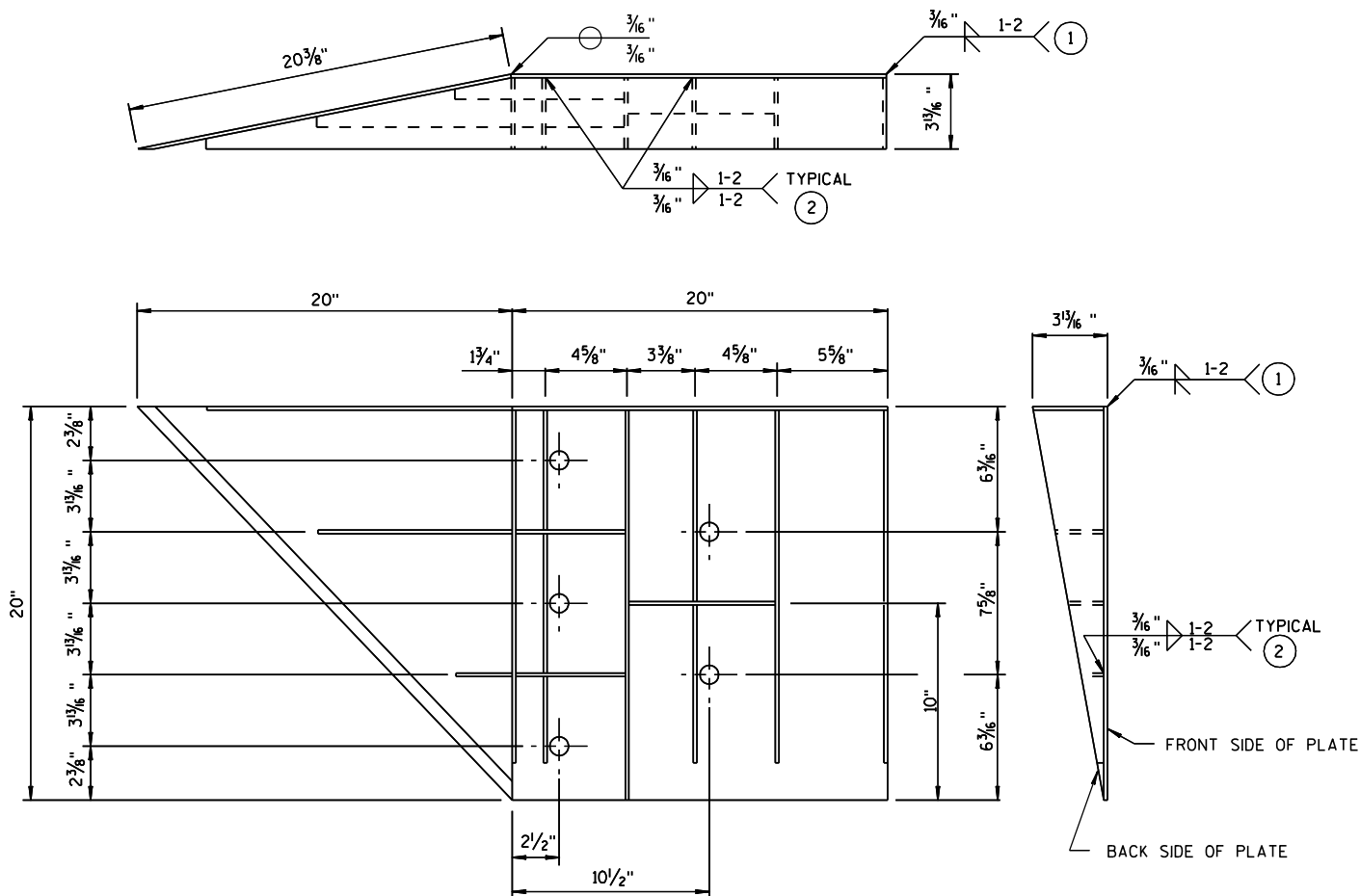
APPROVED

8-31-2012

DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

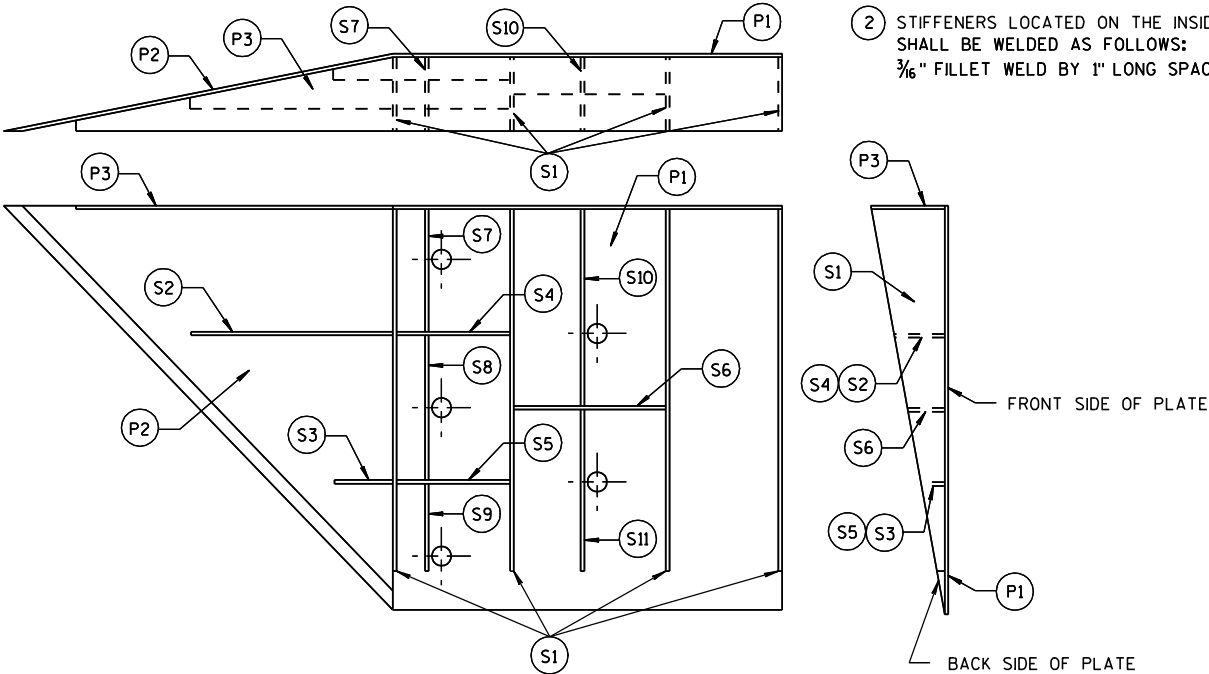


WELDING INSTRUCTION
(VIEWED FROM BACK SIDE OF PLATE)

SINGLE SLOPE CONNECTION PLATE

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)				
PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 5/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 3/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 7/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 1/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 1/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 1/16"	1/4"

PLATE AND STIFFENER IDENTIFICATION
(VIEWED FROM BACK SIDE OF PLATE)



GENERAL NOTES

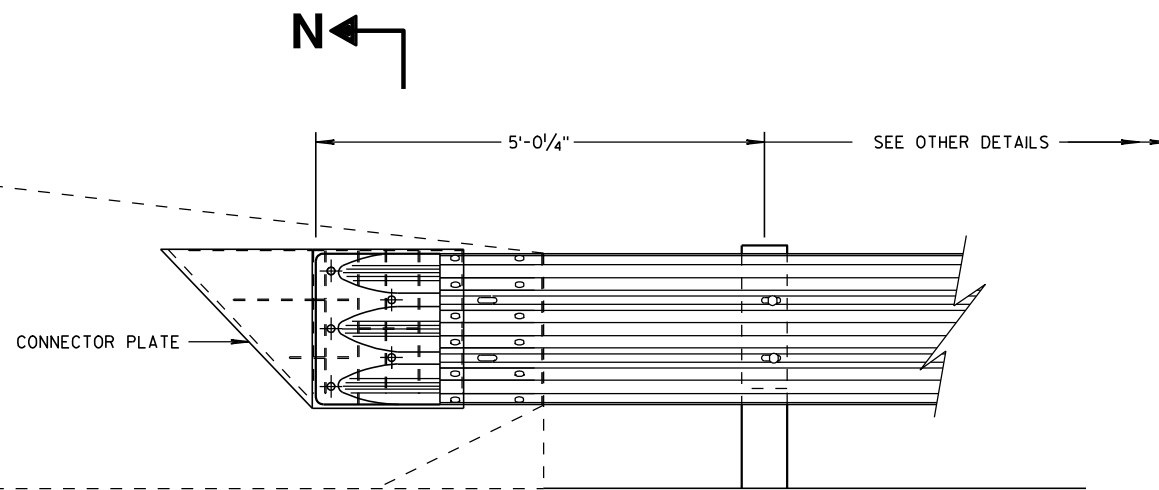
- COVER PLATE PANELS ARE 3/16" THICK.
- ALL STIFFENERS ARE 1/4" THICK.
- CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.
- FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.
- ALL HOLE DIAMETERS SHALL BE 1".
- FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

- 1 STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.
- 2 STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

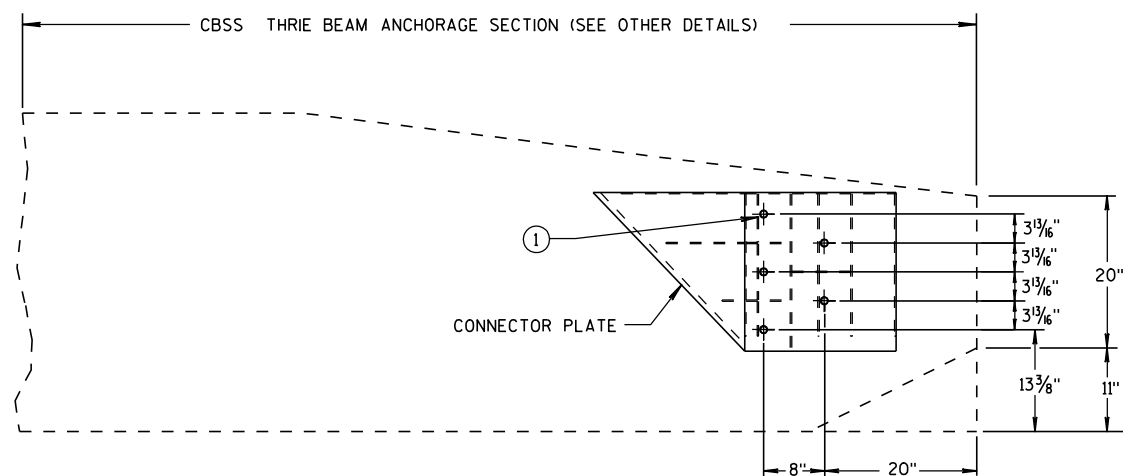
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 DATE /S/ Jerry H. Zogg
FHWA ROADWAY STANDARDS DEVELOPMENT ENGINEER



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

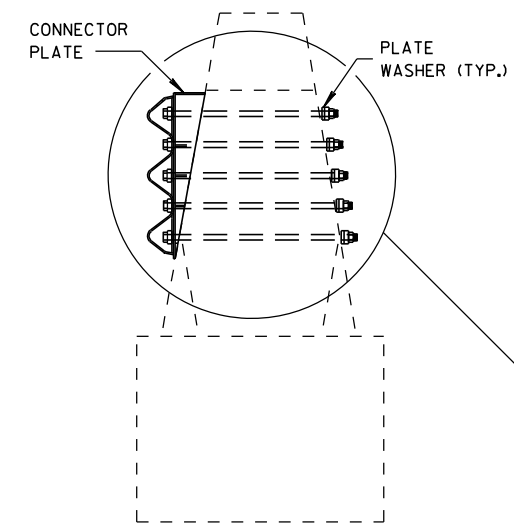


SINGLE SLOPE CONNECTION PLATE PLACEMENT

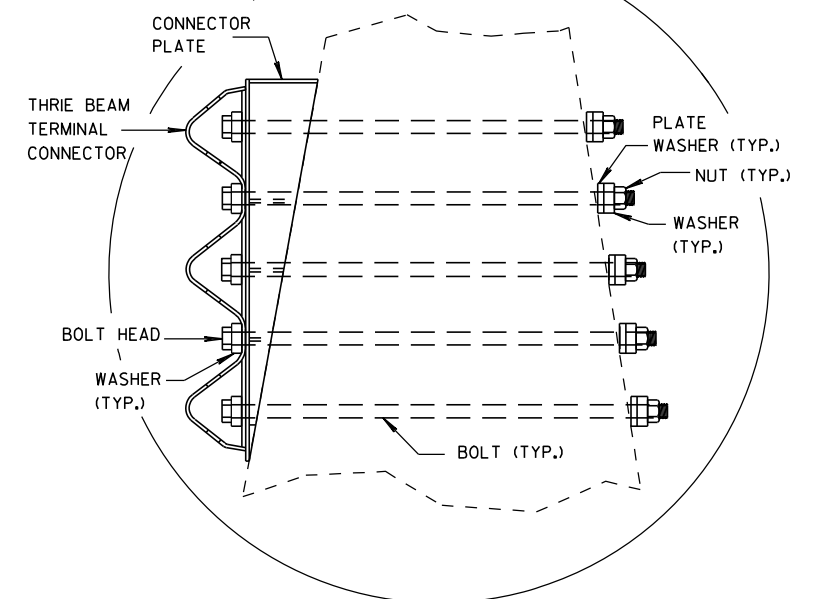
GENERAL NOTES

CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

- ① BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



**MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)**

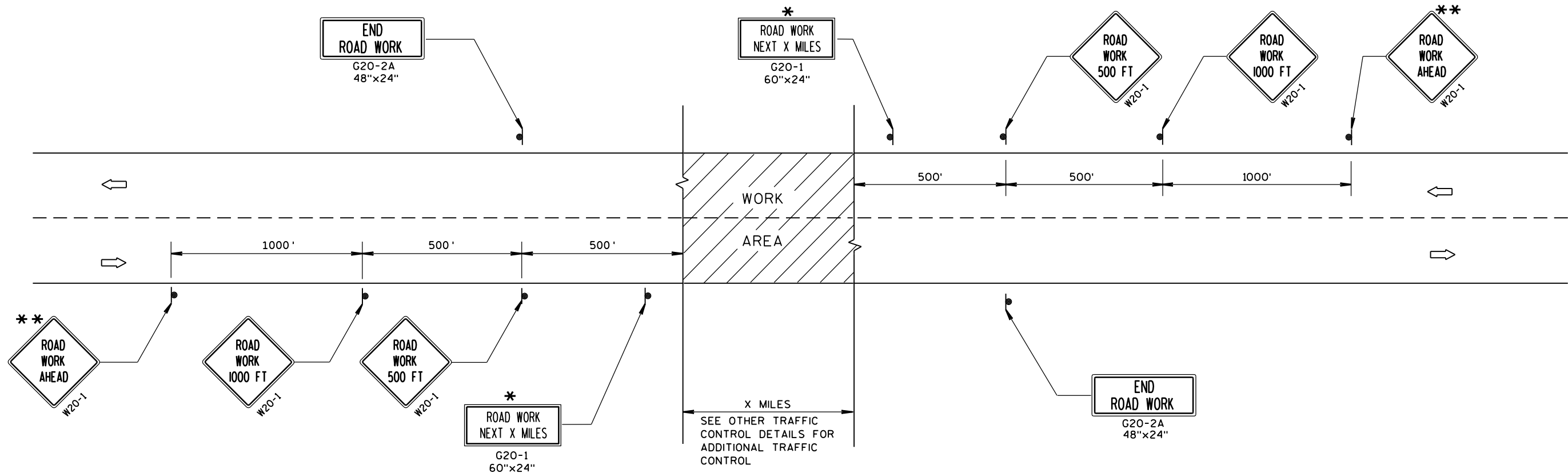
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



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.

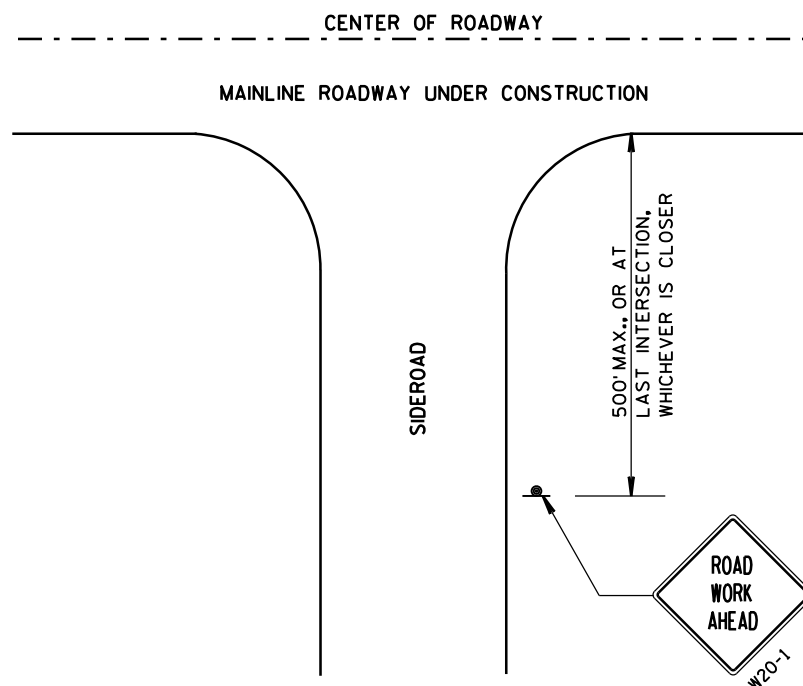
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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.

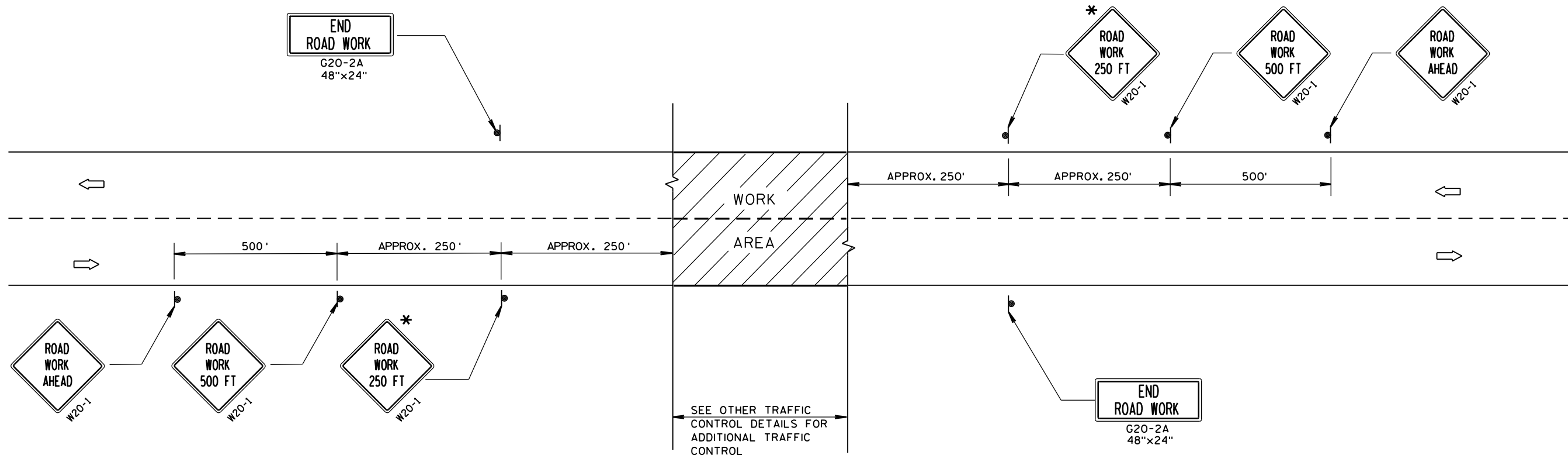
** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



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	



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.

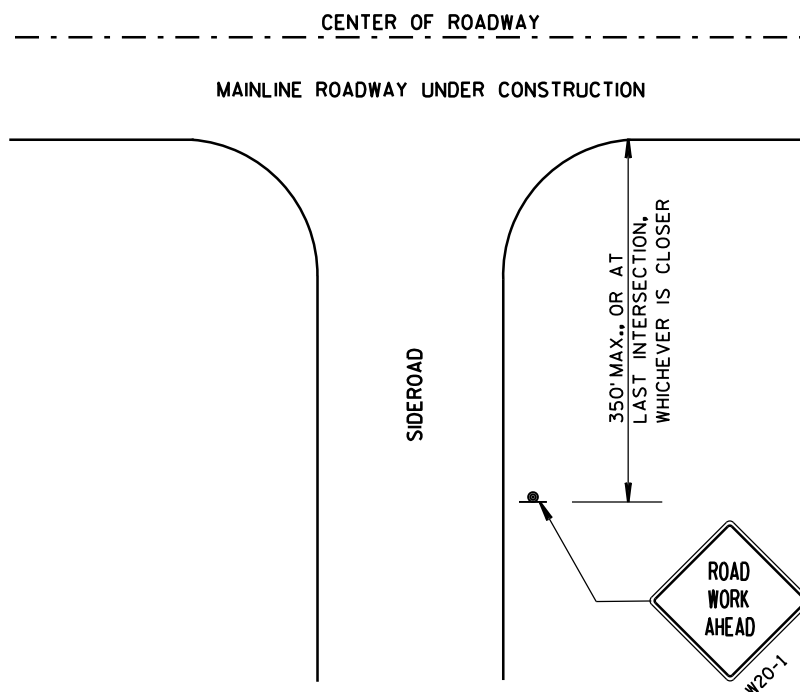
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



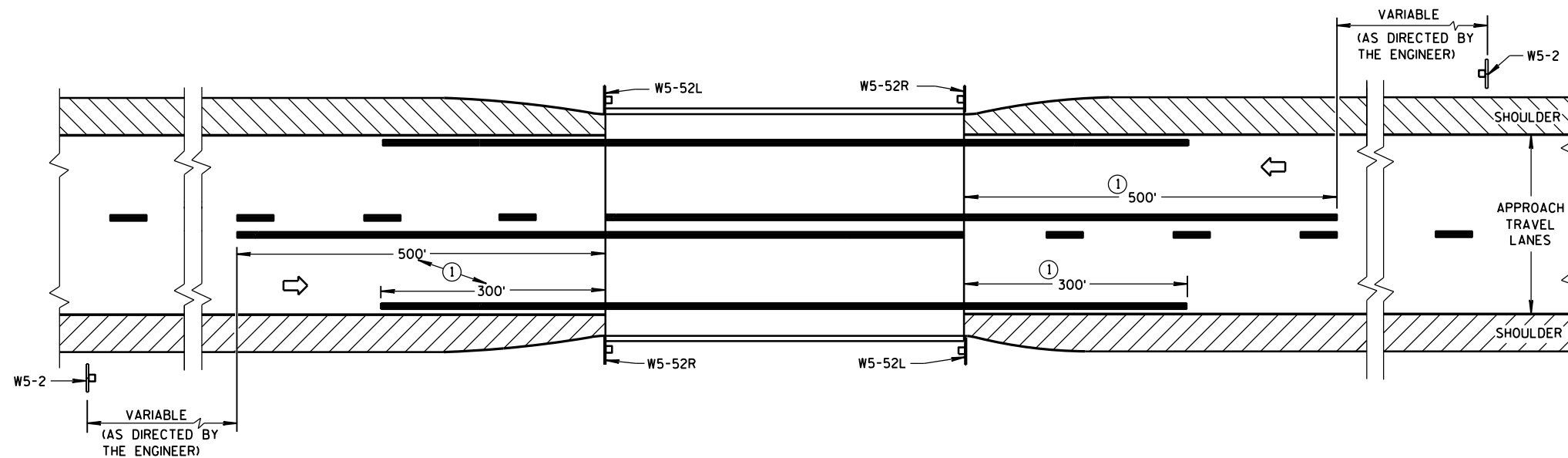
LEGEND

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

TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 40 M.P.H.
OR LESS TWO-WAY UNDIVIDED
ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

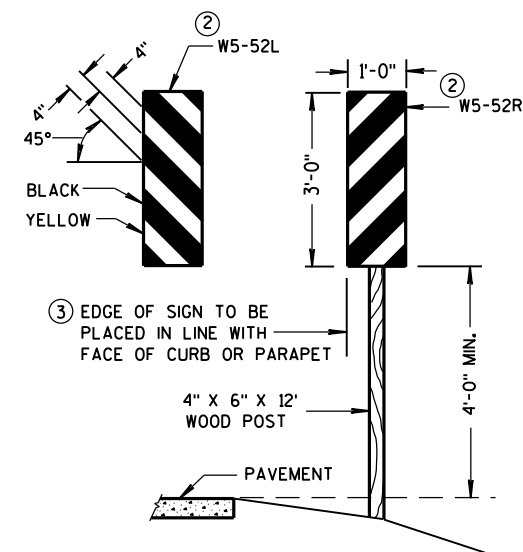
APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 18 FEET BUT LESS THAN 24 FEET



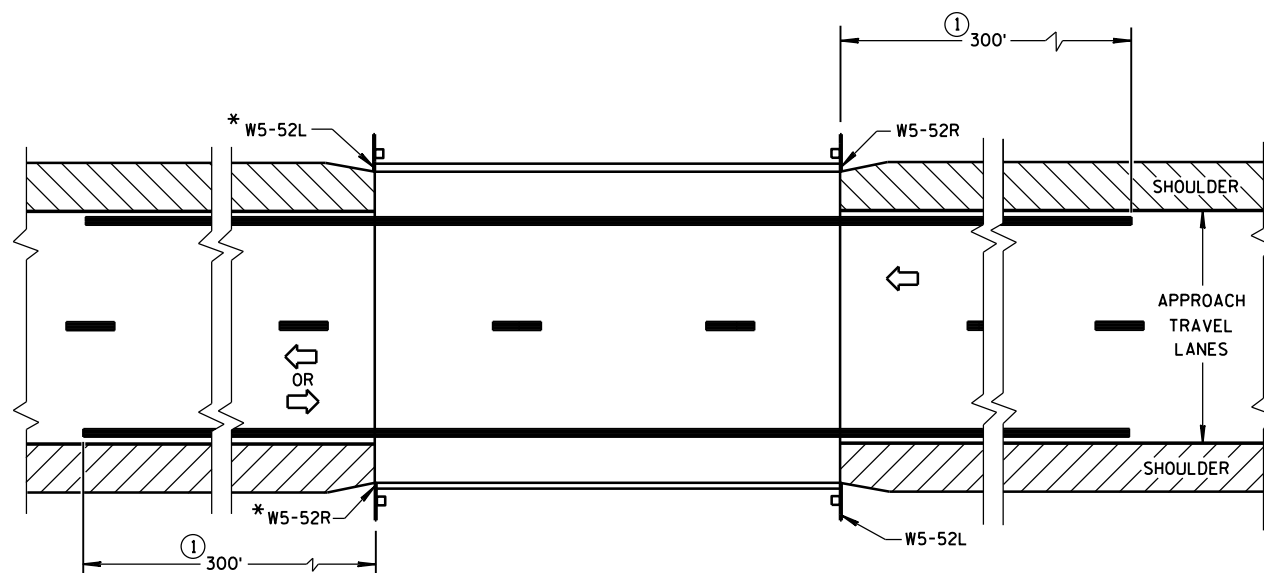
OBJECT MARKER PLACEMENT

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.

PAVEMENT MARKING SHOWN ON THIS DRAWING IS NOT REQUIRED UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. WHEN SPECIFIED, PAVEMENT MARKING SHALL CONFORM TO THIS DRAWING AND OTHER CONTRACT REQUIREMENTS.

- ① MINIMUM DISTANCE UNLESS OTHERWISE SHOWN ON THE PLAN.
- ② FACE OF OBJECT MARKERS W5-52R, AND W5-52L SHALL BE COVERED WITH TYPE F REFLECTIVE SHEETING.
- ③ LOCATE OBJECT MARKER POST(S) BEHIND GUARDRAIL WHEN PRESENT.

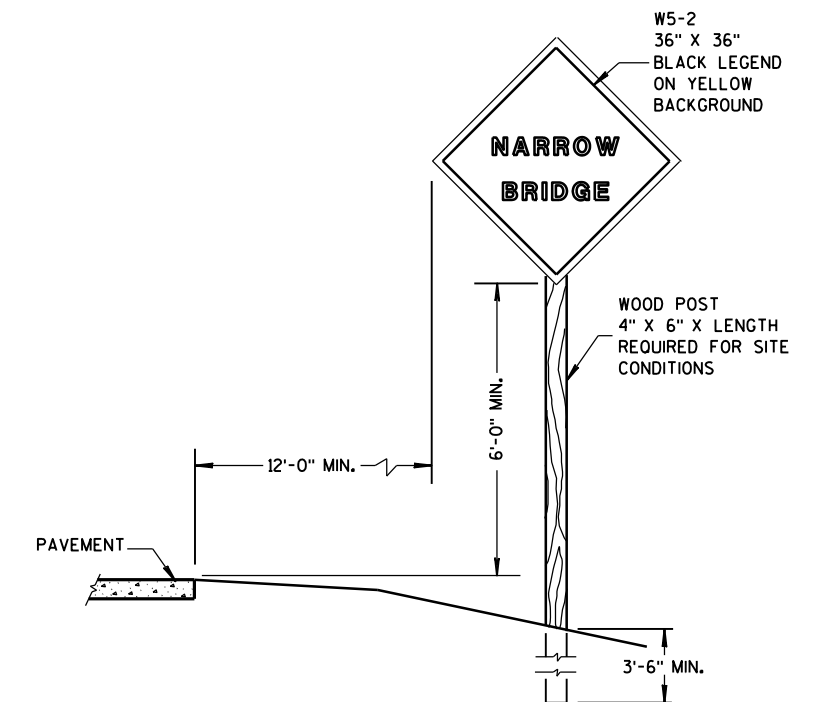


*OMIT ON ONE-WAY TRAVELLED WAYS

SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE IS LESS THAN 6 FEET WIDER (ON EACH SIDE) THAN APPROACH TRAVEL LANES.



SIGN PLACEMENT

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/4/2013

DATE

FHWA

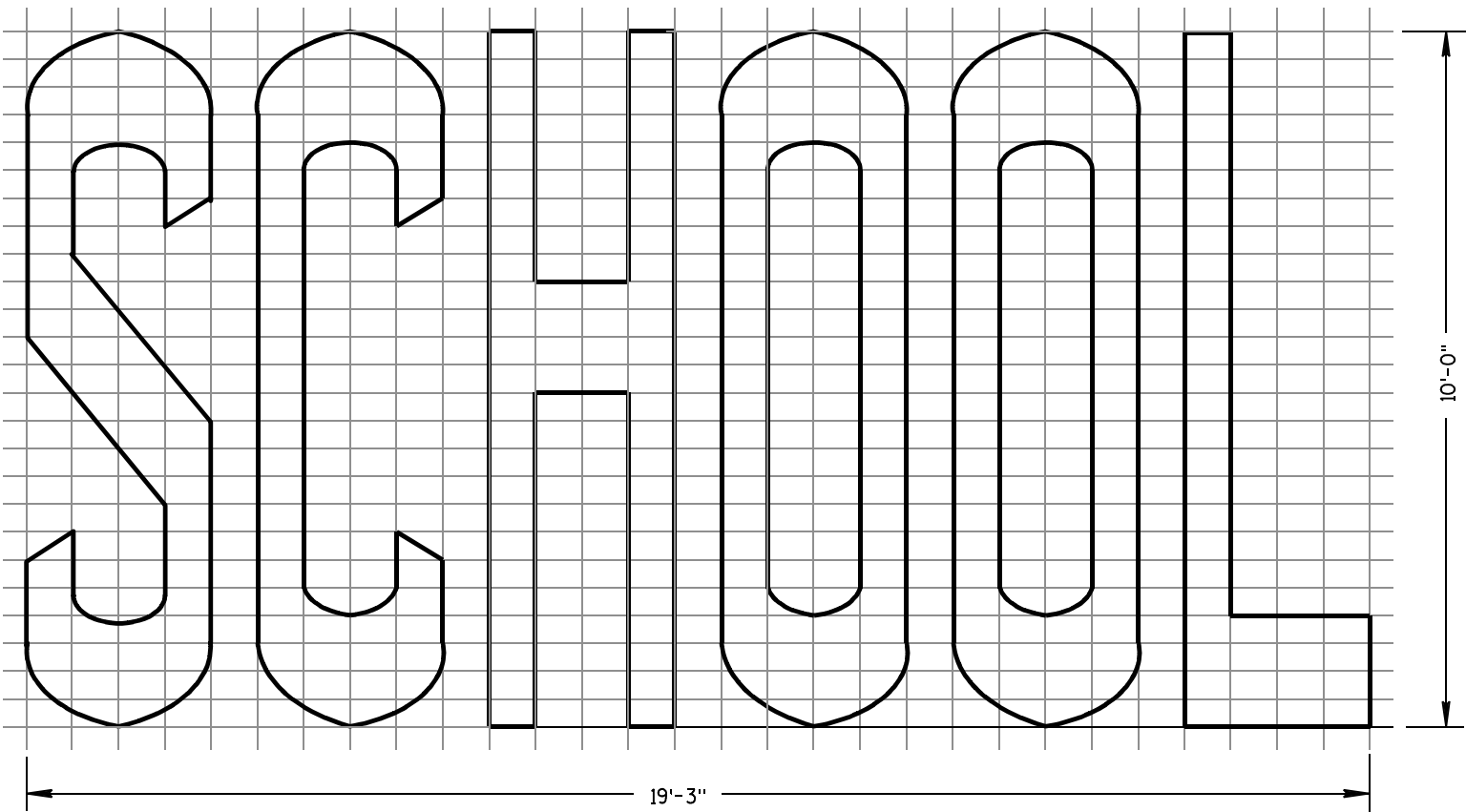
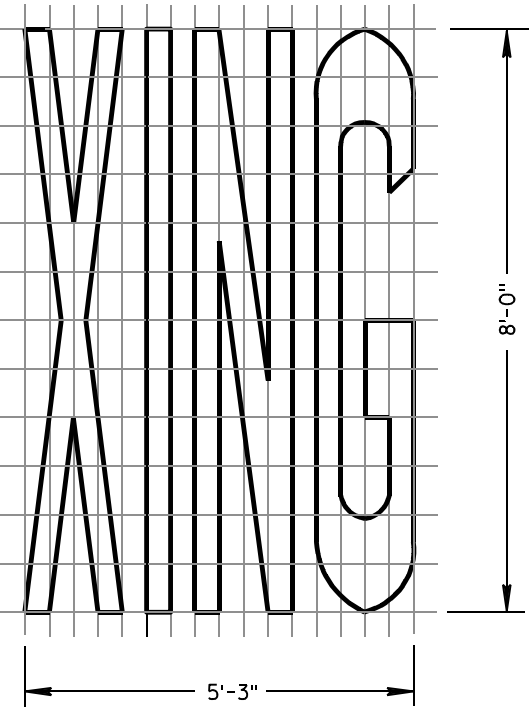
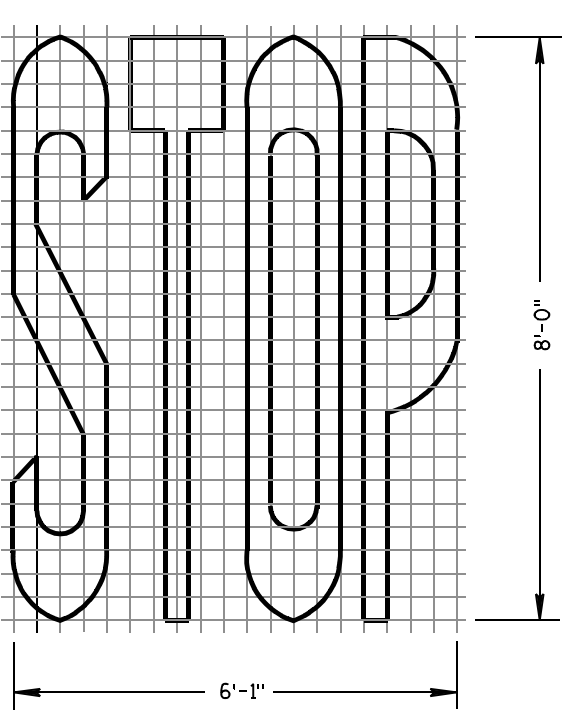
/S/ Travis Feltes

STATE TRAFFIC ENGINEER OF DESIGN

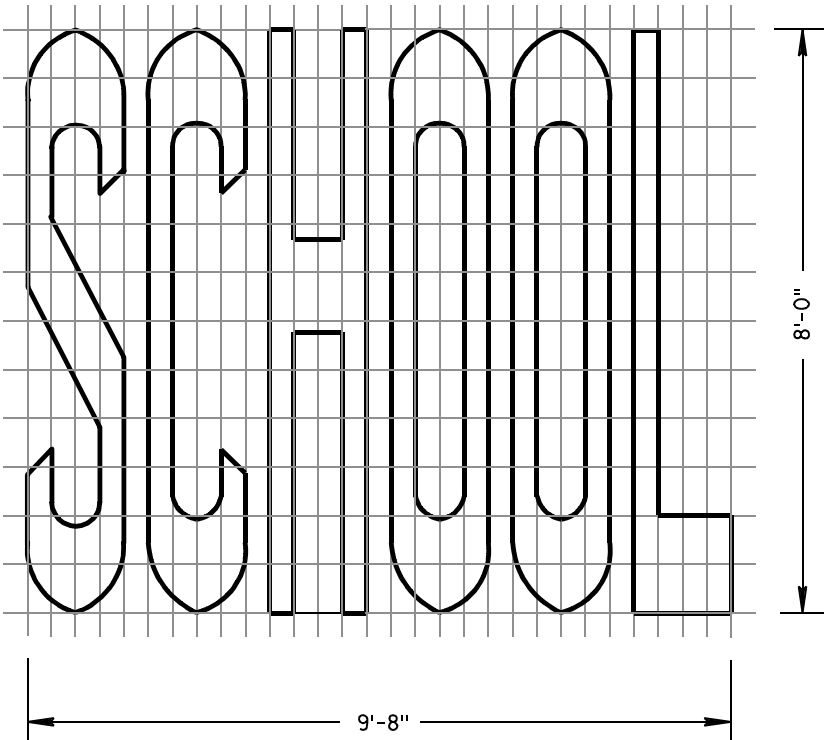
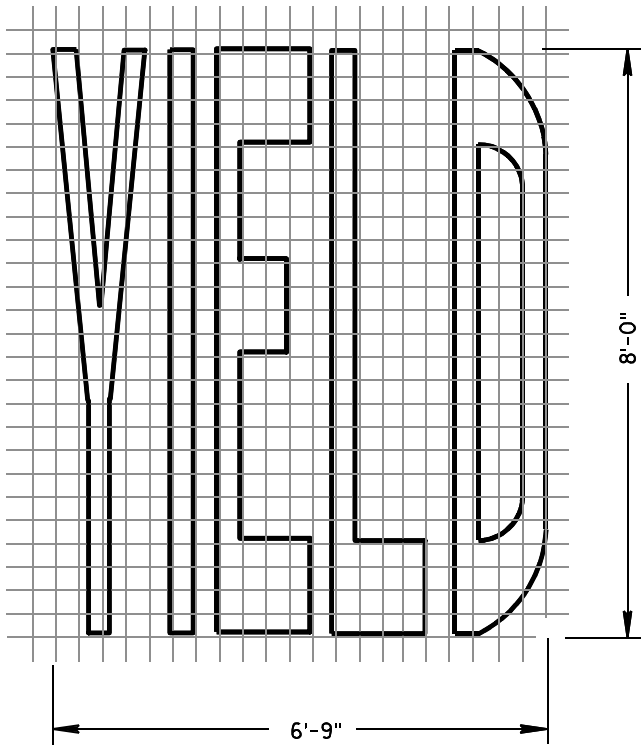
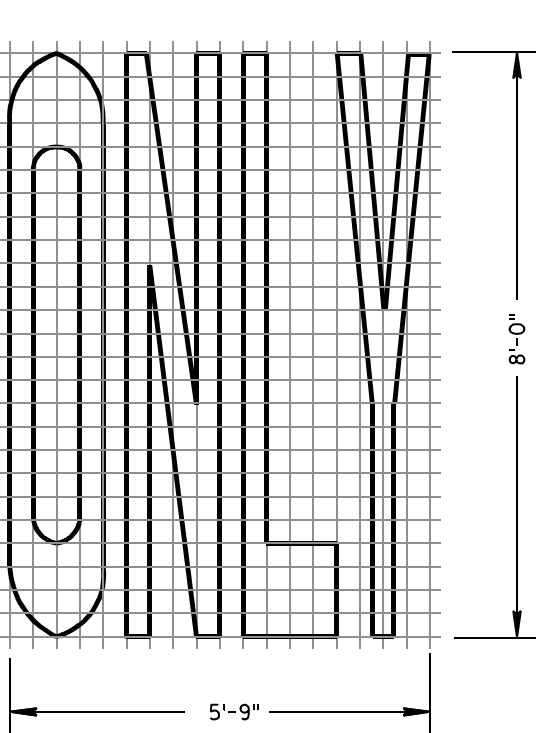
GENERAL NOTES

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

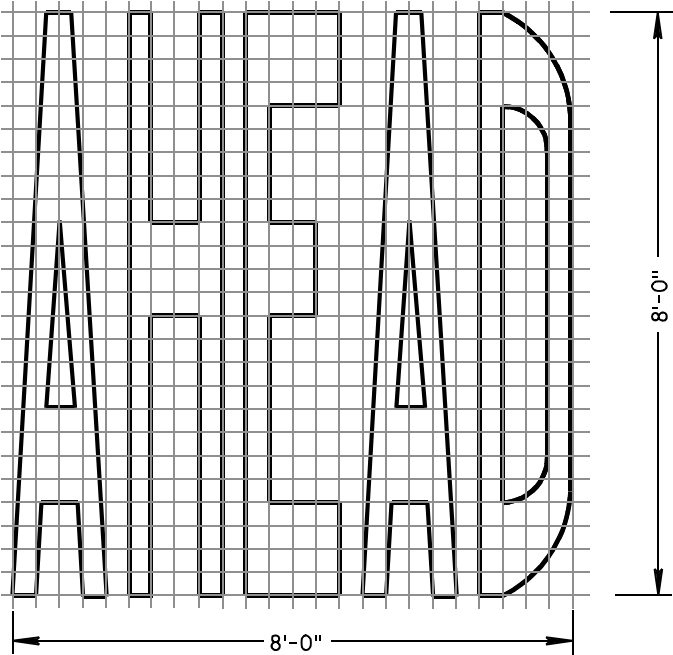
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



TWO-LANE



SINGLE-LANE



PAVEMENT MARKING WORDS

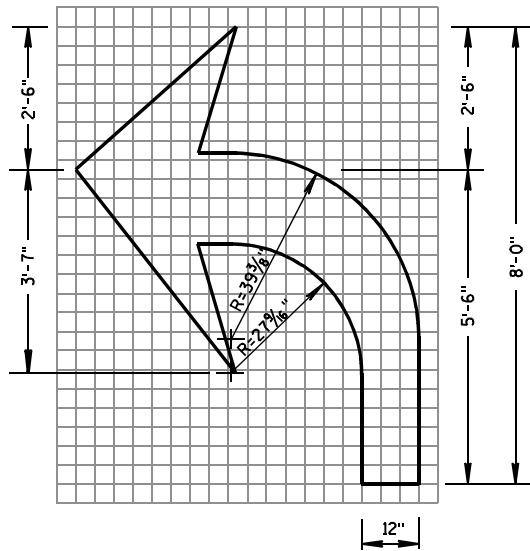
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

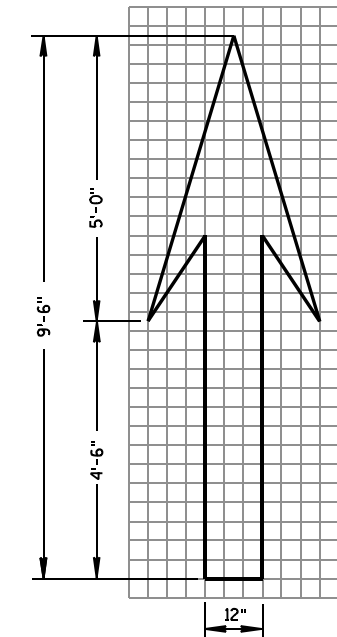
7-1-11
DATE

/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER OF DESIGN

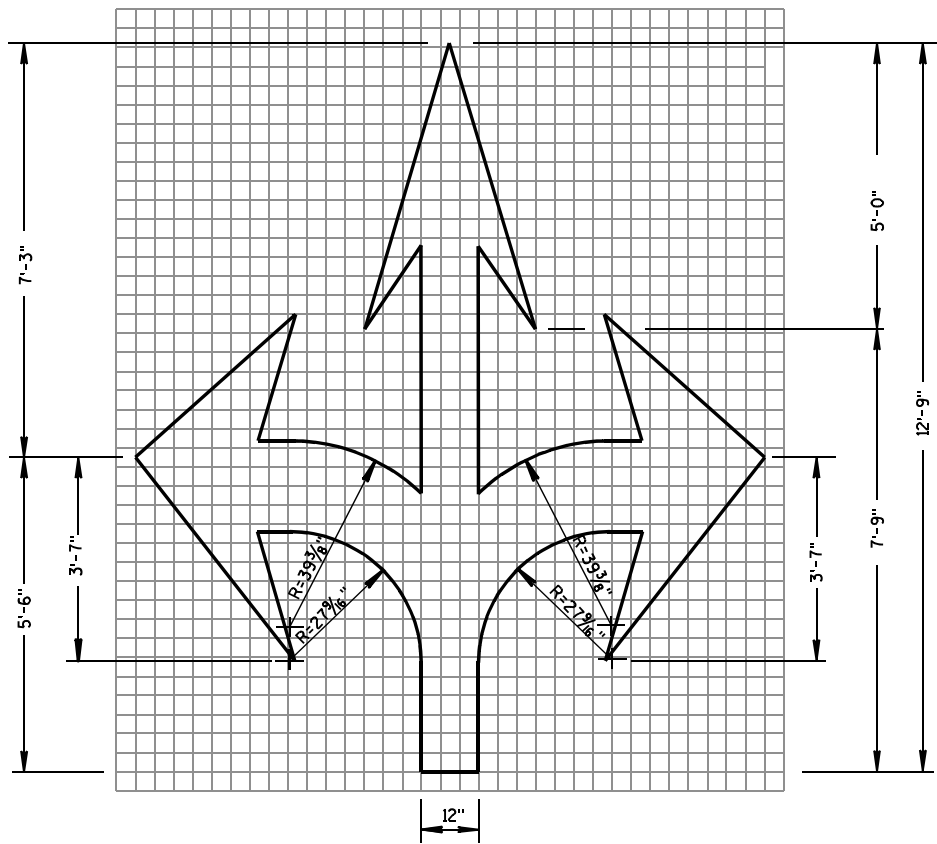
FHWA



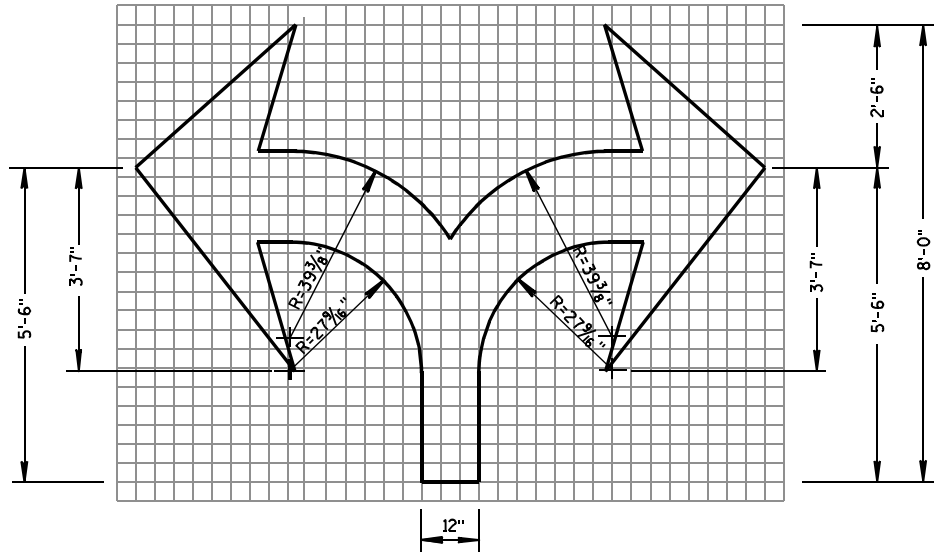
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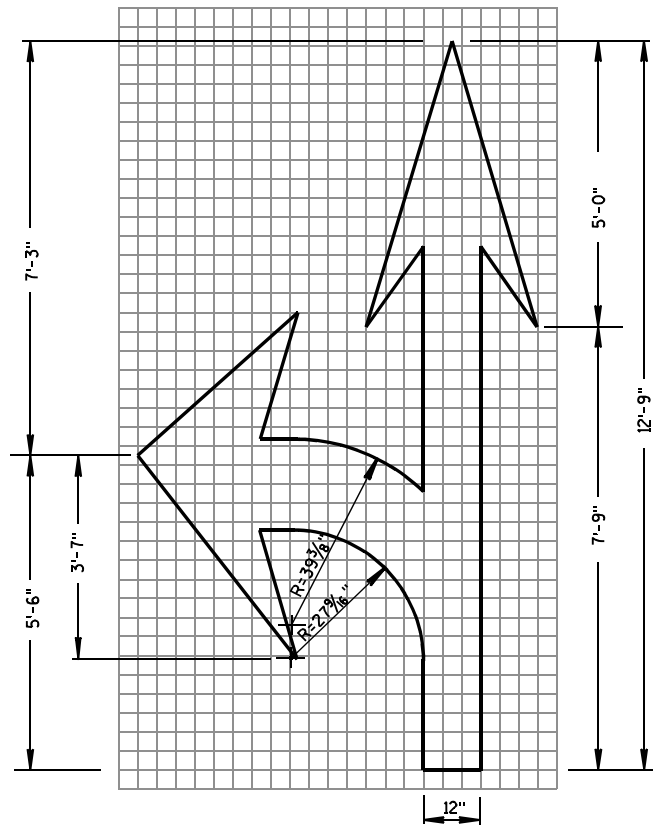
TYPE 1



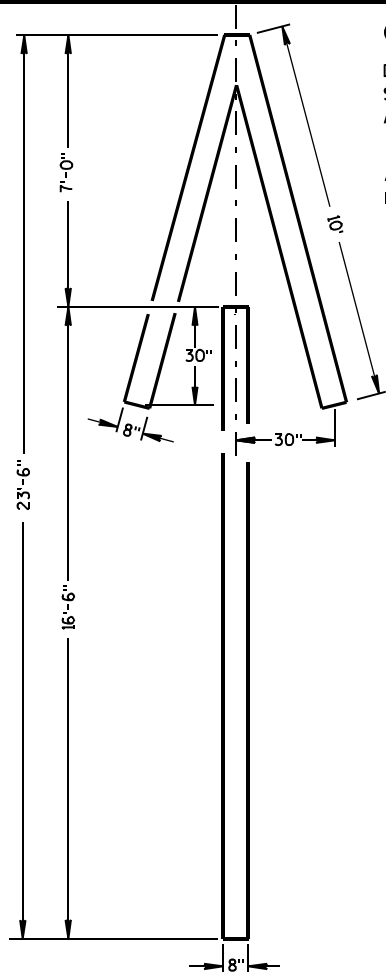
TYPE 6



TYPE 7



TYPE 3

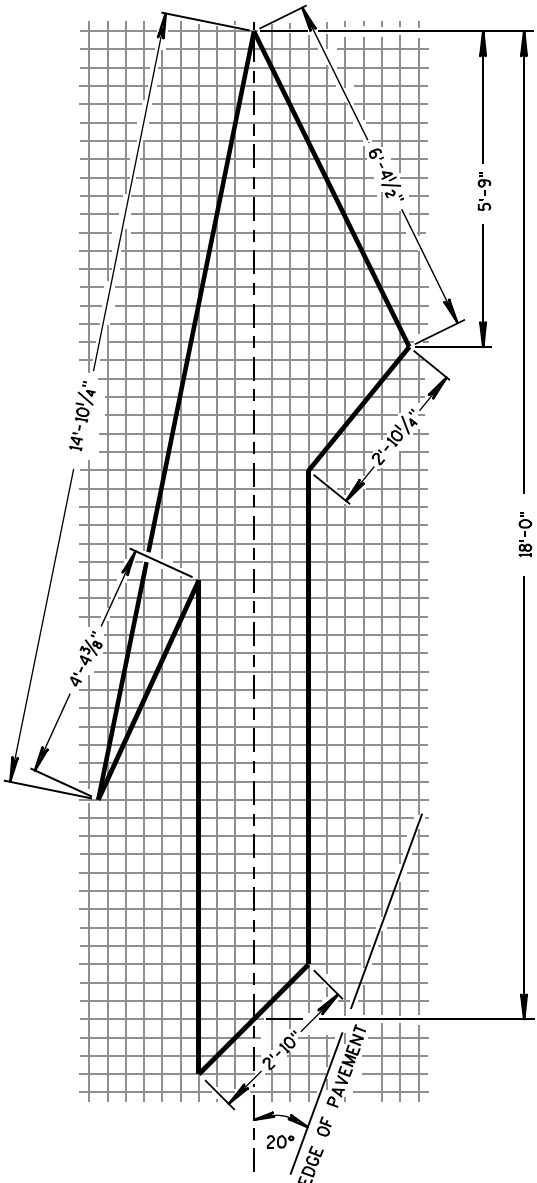


TYPE 4

GENERAL NOTES

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

ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



TYPE 5 LANE DROP ARROW

PAVEMENT MARKING ARROWS

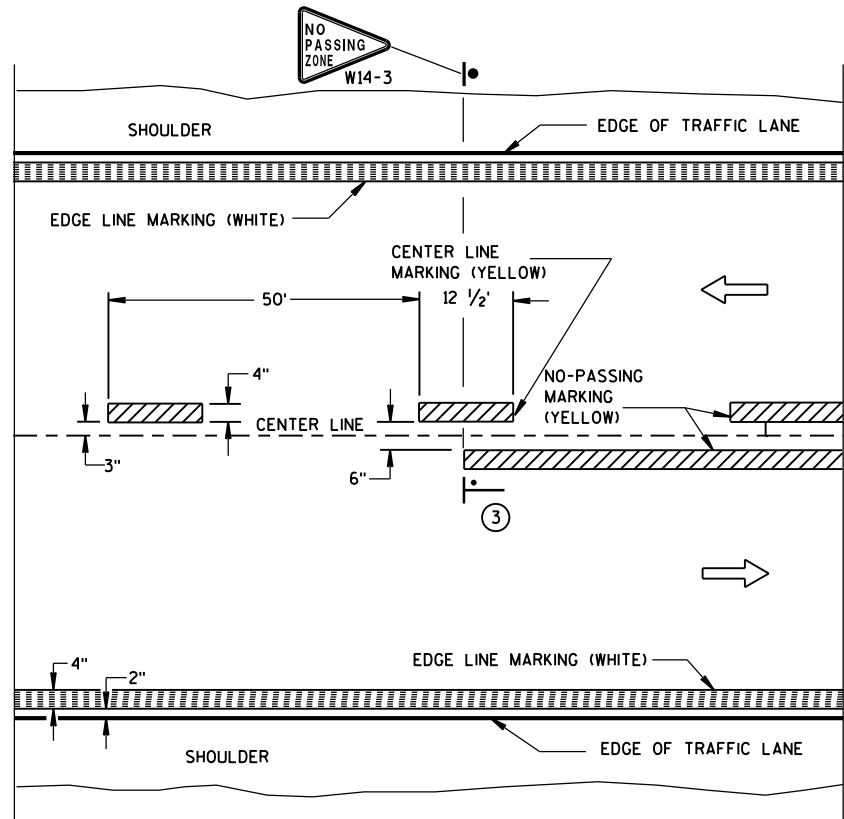
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

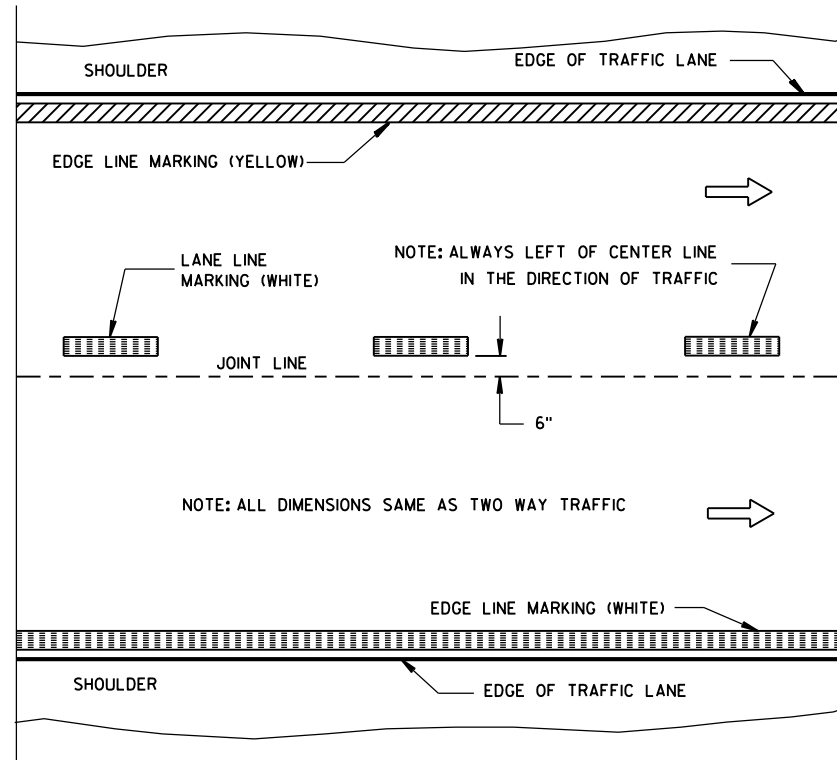
7/1/11
DATE

/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER OF DESIGN

FHWA

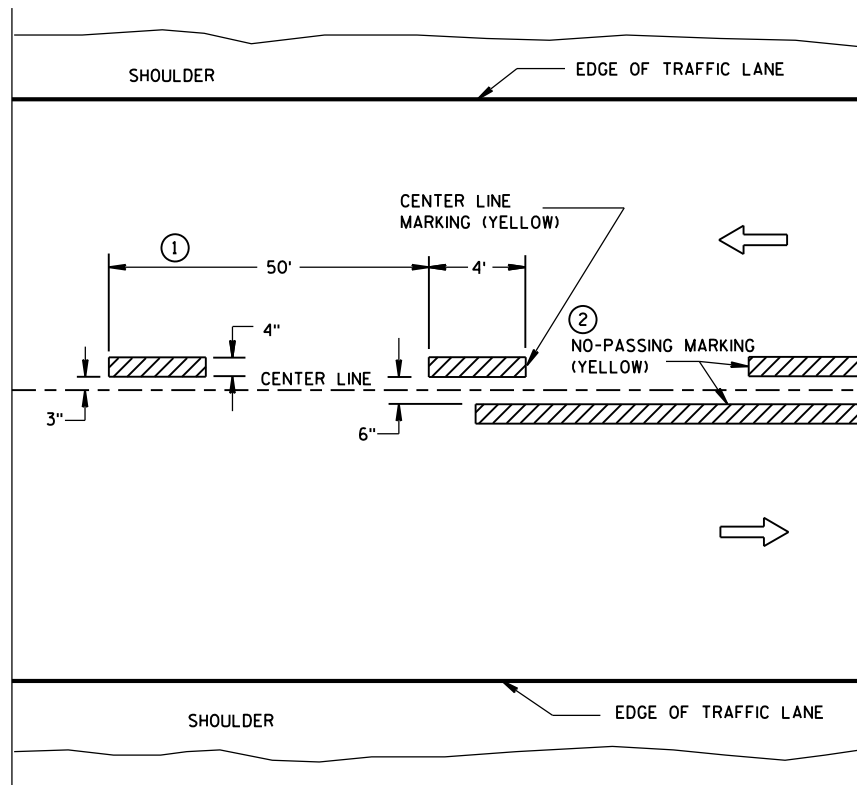


TWO WAY TRAFFIC

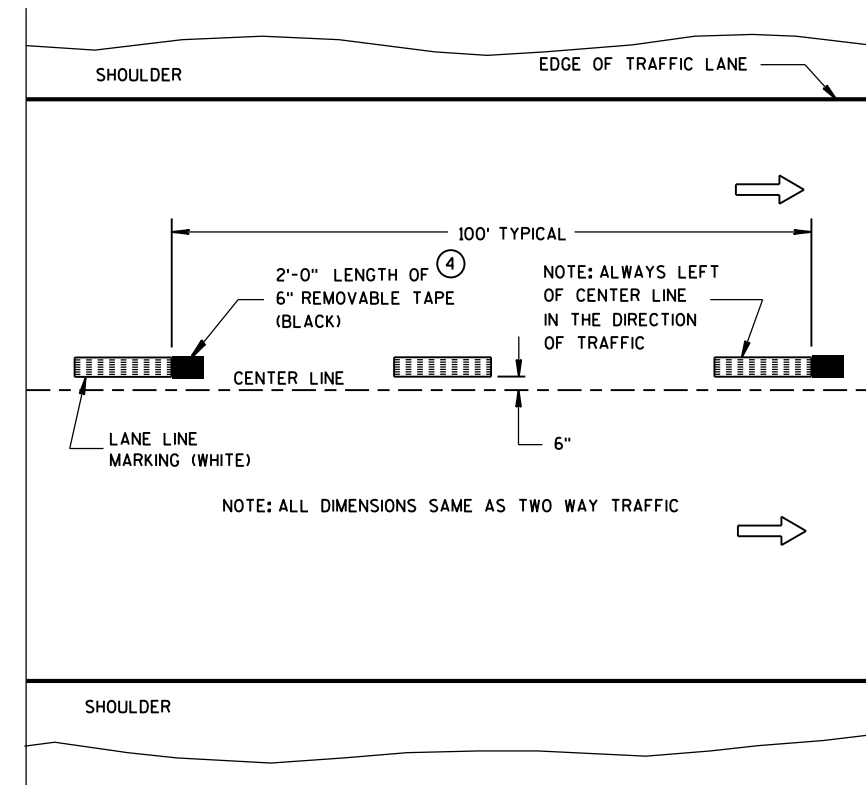


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

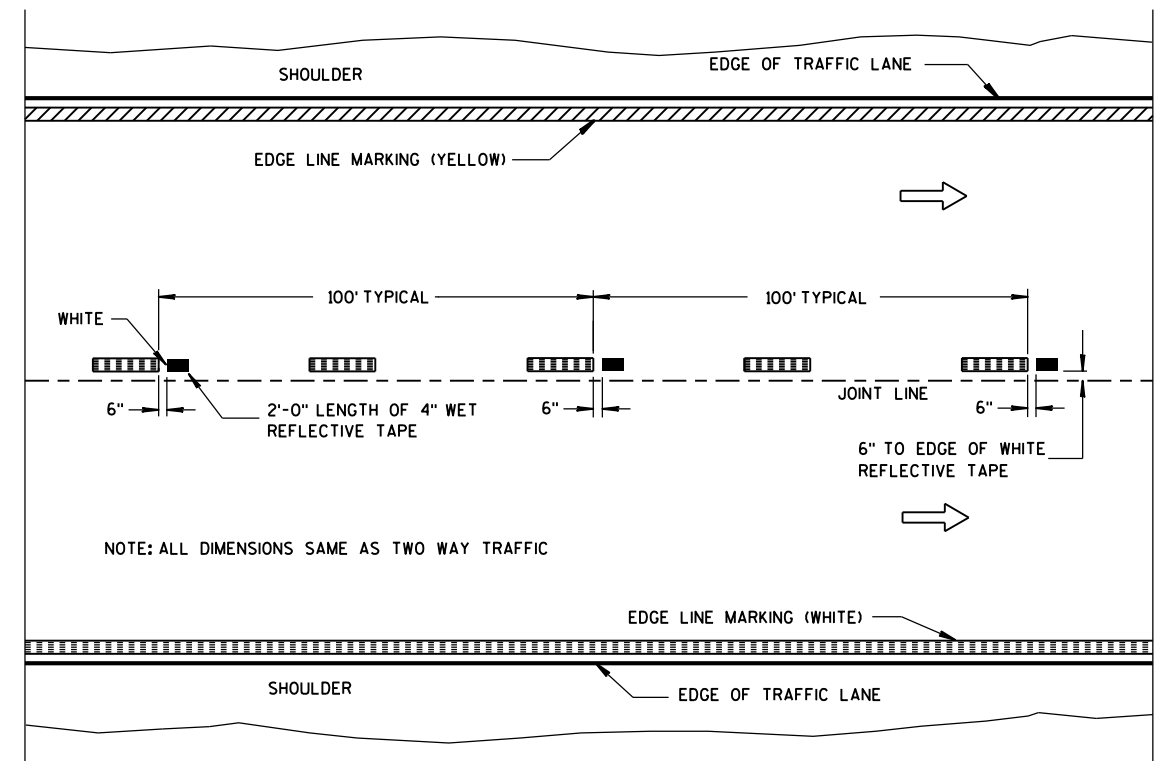
GENERAL NOTES

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

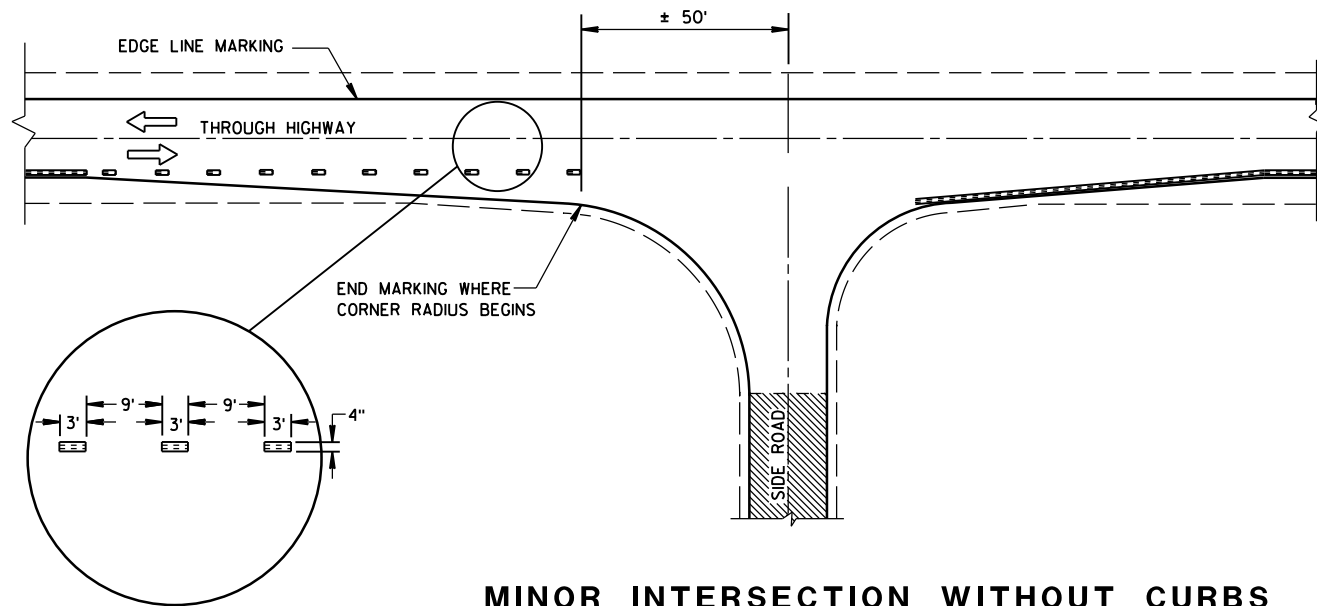
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

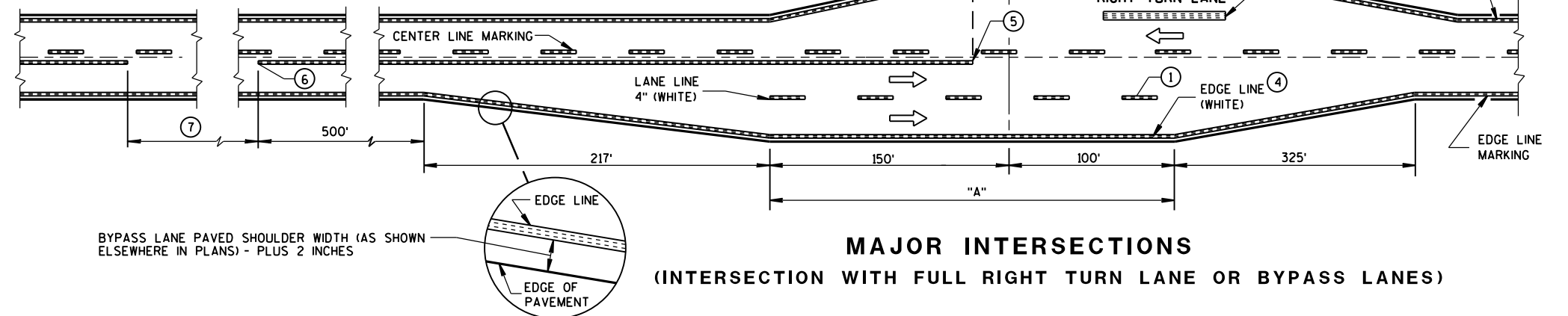
APPROVED
5-13-2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER
FHWA



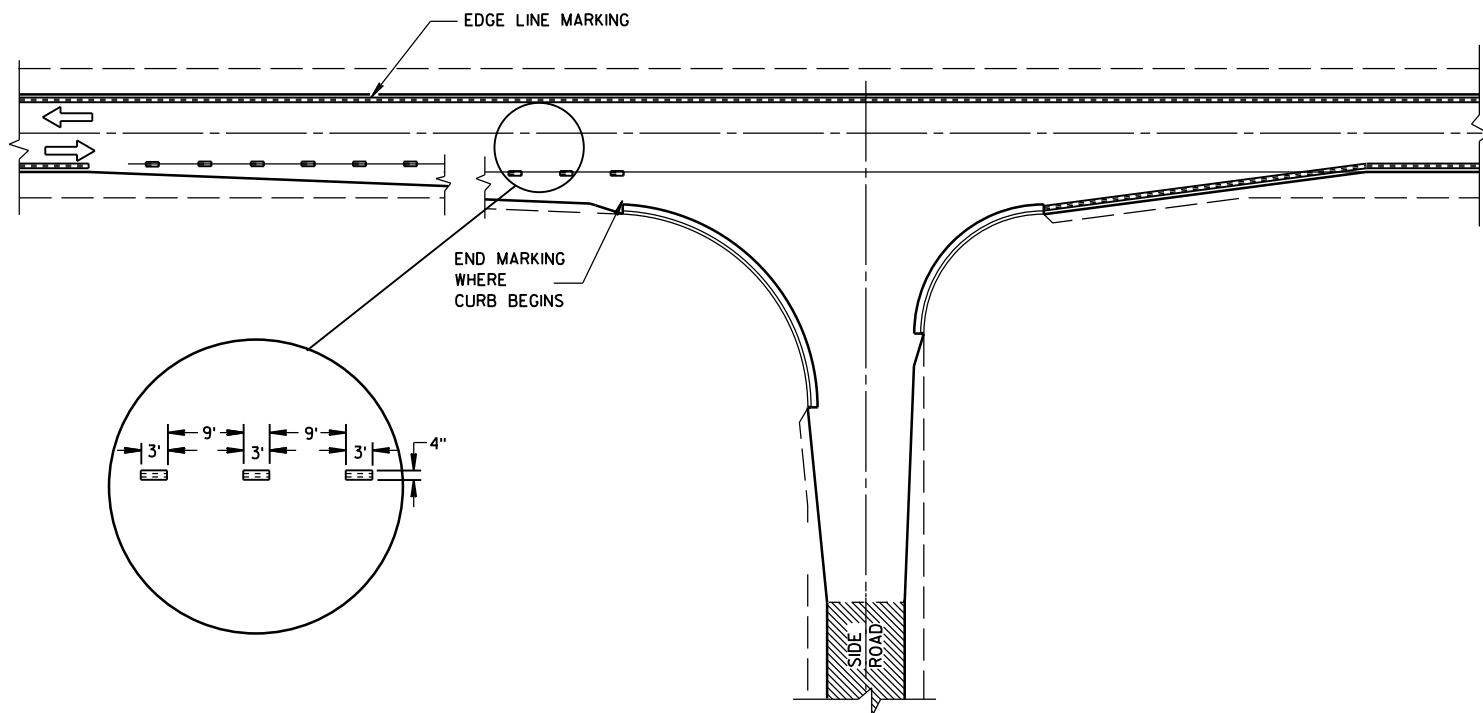
MINOR INTERSECTION WITHOUT CURBS

⑦

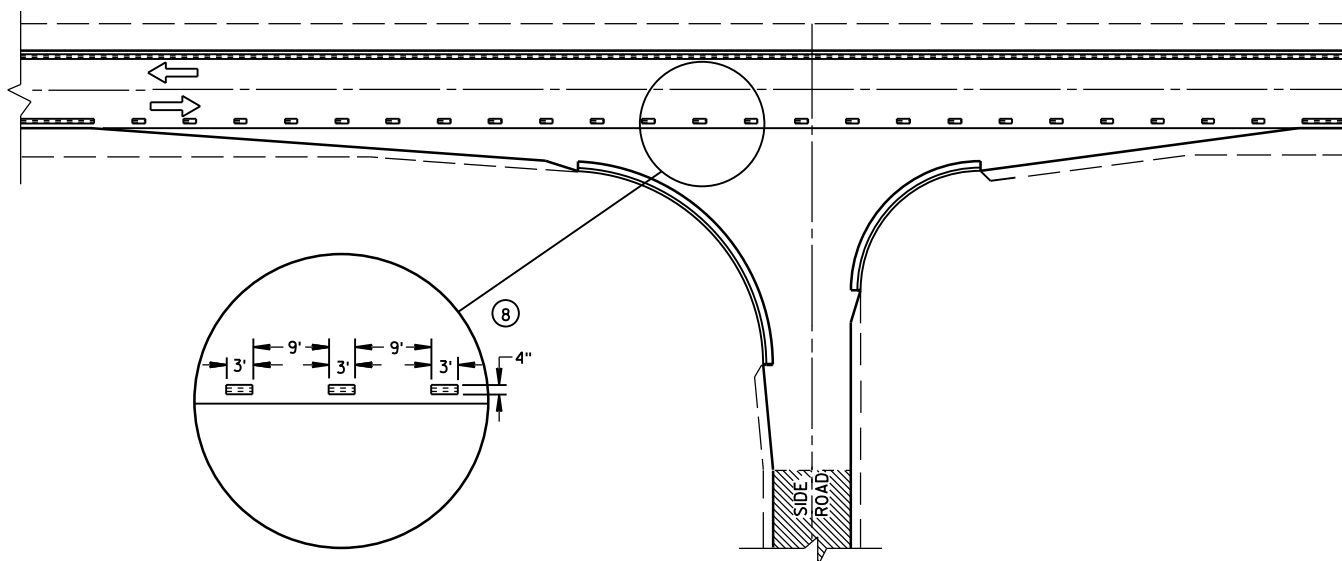
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



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



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS
③ (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

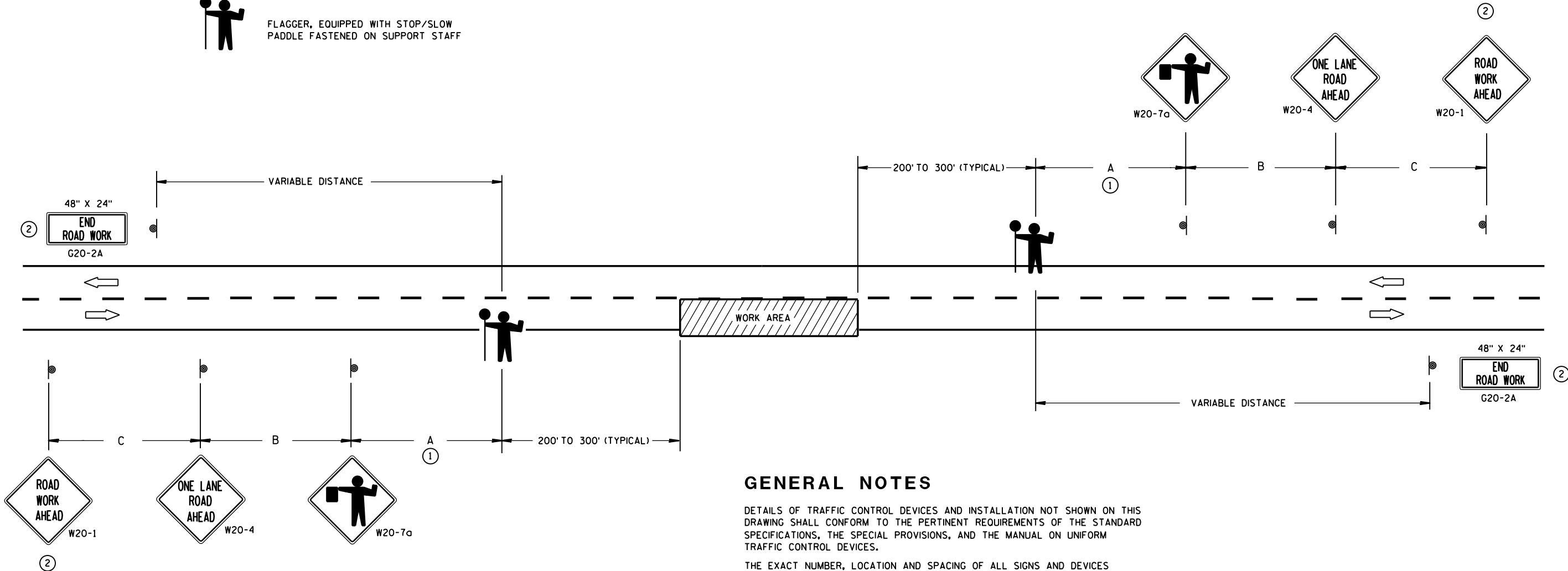
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

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.

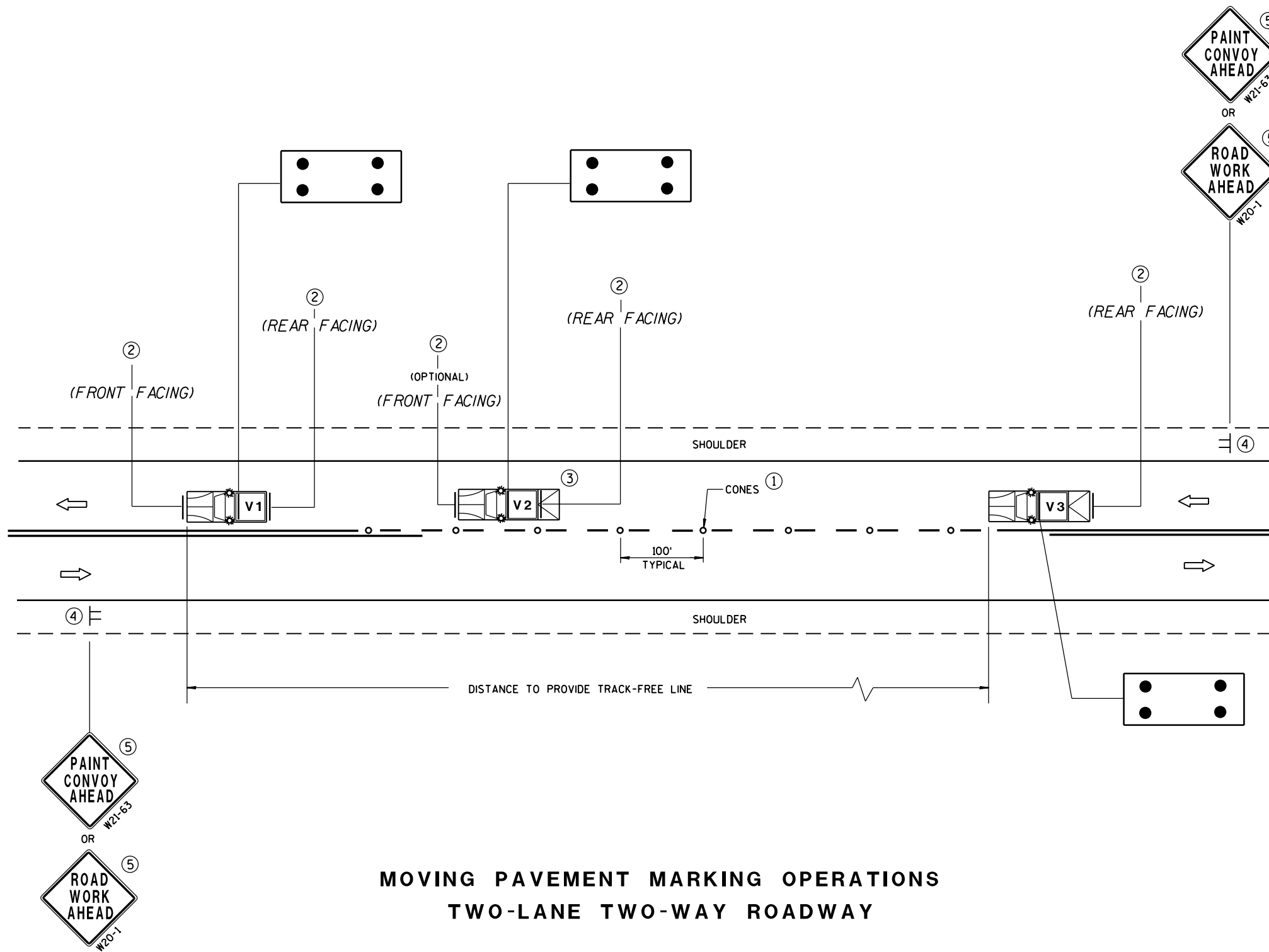
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

- 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



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

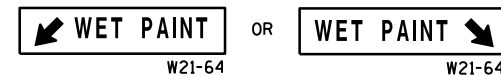
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.



③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1 LEAD VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE WITH TMA

TMA TRUCK-MOUNTED ATTENUATOR

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

CONES

FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING
OPERATION
TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/3/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

LEGEND

- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH ATTACHED SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- FLAGS, 16" x 16" MIN., (ORANGE)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- ASPHALTIC PAVEMENT WIDENING
- DIRECTION OF TRAFFIC
- 4" X 6" WOOD POST
- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES ON BREAKAWAY POLE



INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1-FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET.)

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.

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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.

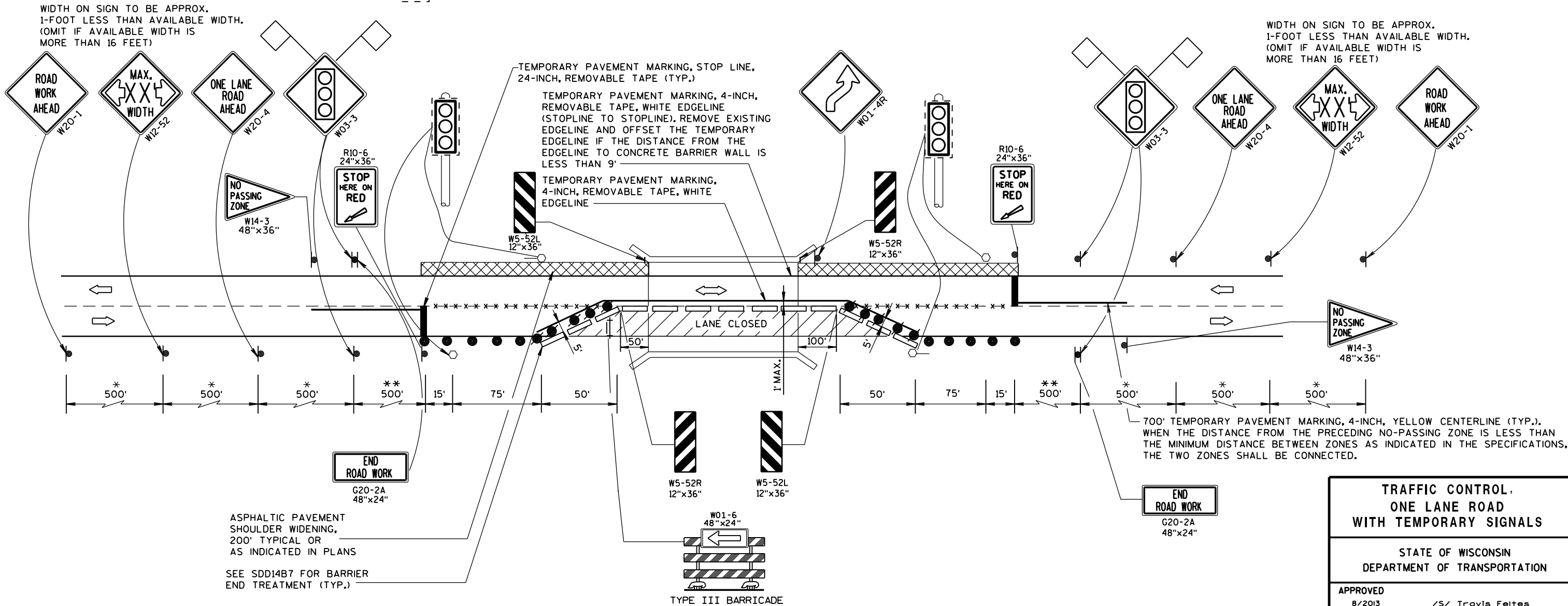
PLACE TEMPORARY PAVEMENT MARKING EDGELINE AND CENTERLINE, AND REMOVE EXISTING PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS OR AS NOTED ON DETAIL.

* 500-FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350-FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200-FOOT TYPICAL SPACING.

** USE 300' SPACING IF PRE-CONSTRUCTION REGULATORY SPEED LIMIT IS 35 MPH OR LESS.

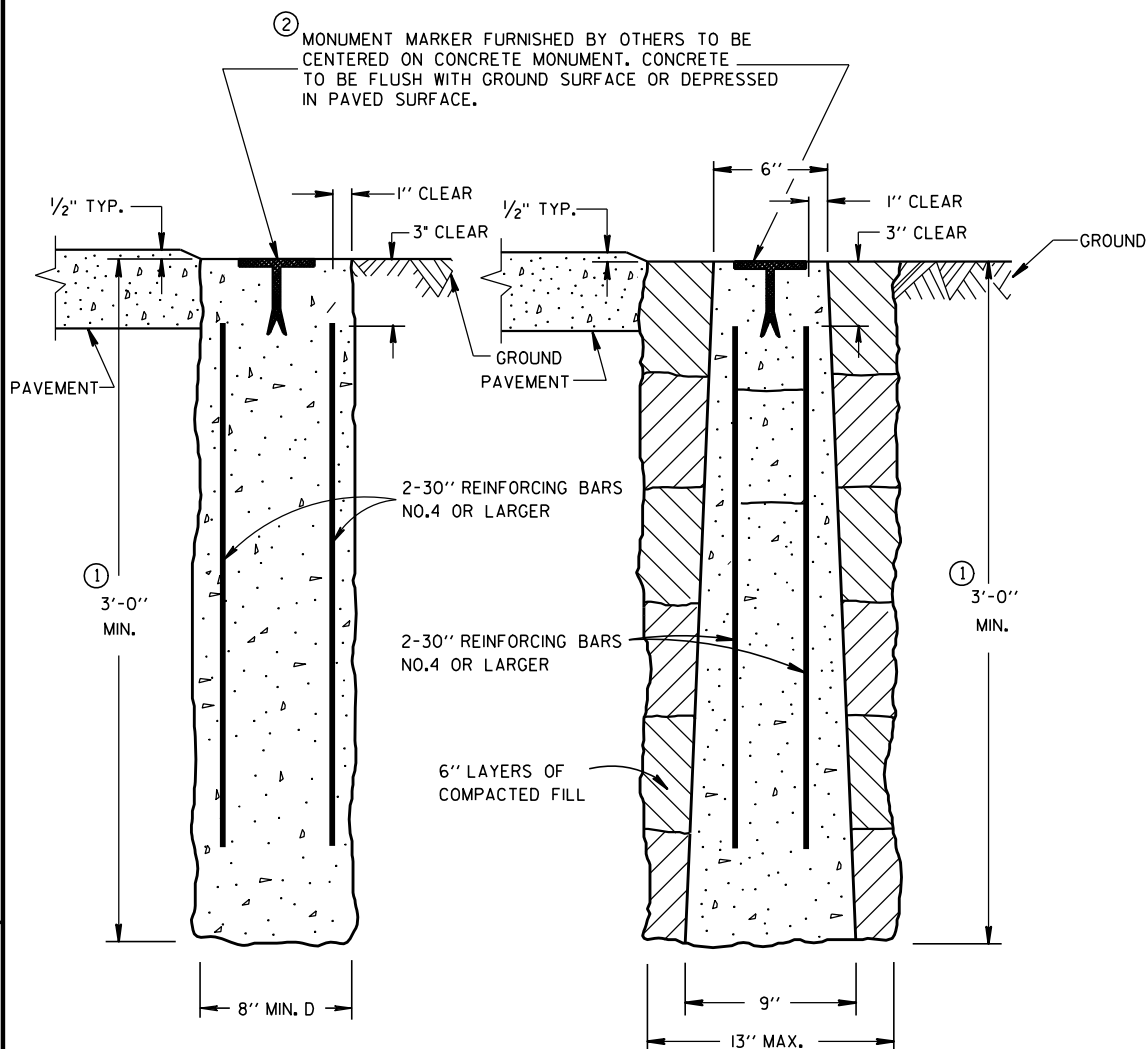
6

S.D.D. 15 D 33-3



6

S.D.D. 15 D 33-3

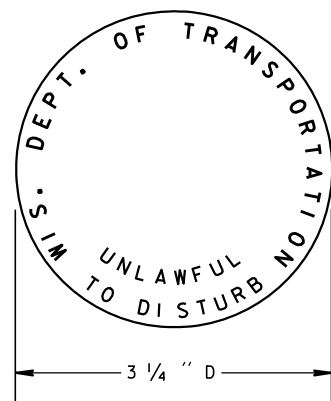


CAST-IN-PLACE

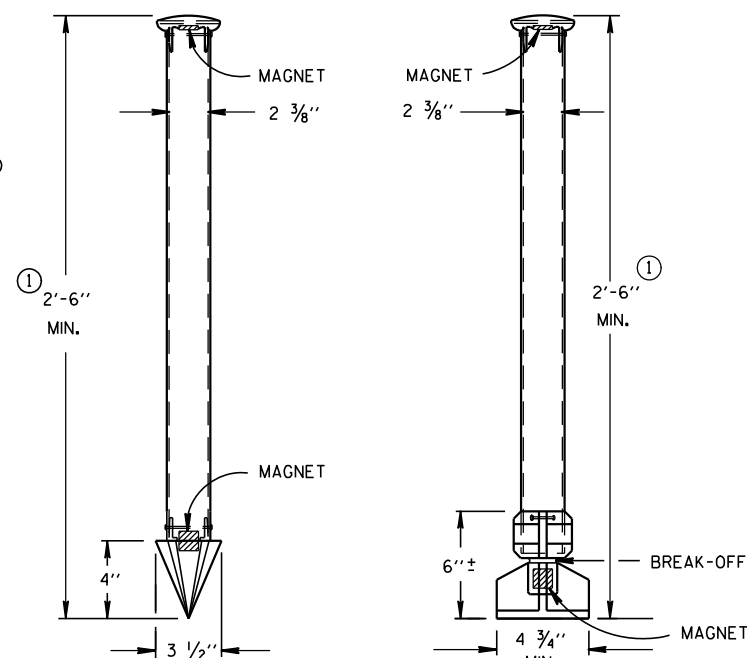
PRECAST

CONCRETE MONUMENTS

TYPE A



② WIS DOT MONUMENT MARKER LOGO
FOR TYPES "A", "C" & "D"



TYPE C

TYPE D

DRIVE-IN MONUMENT

BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

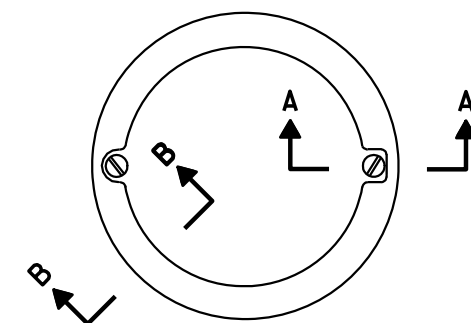
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

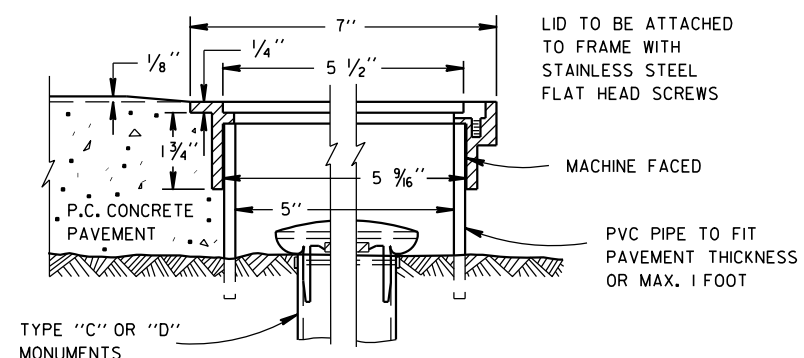
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



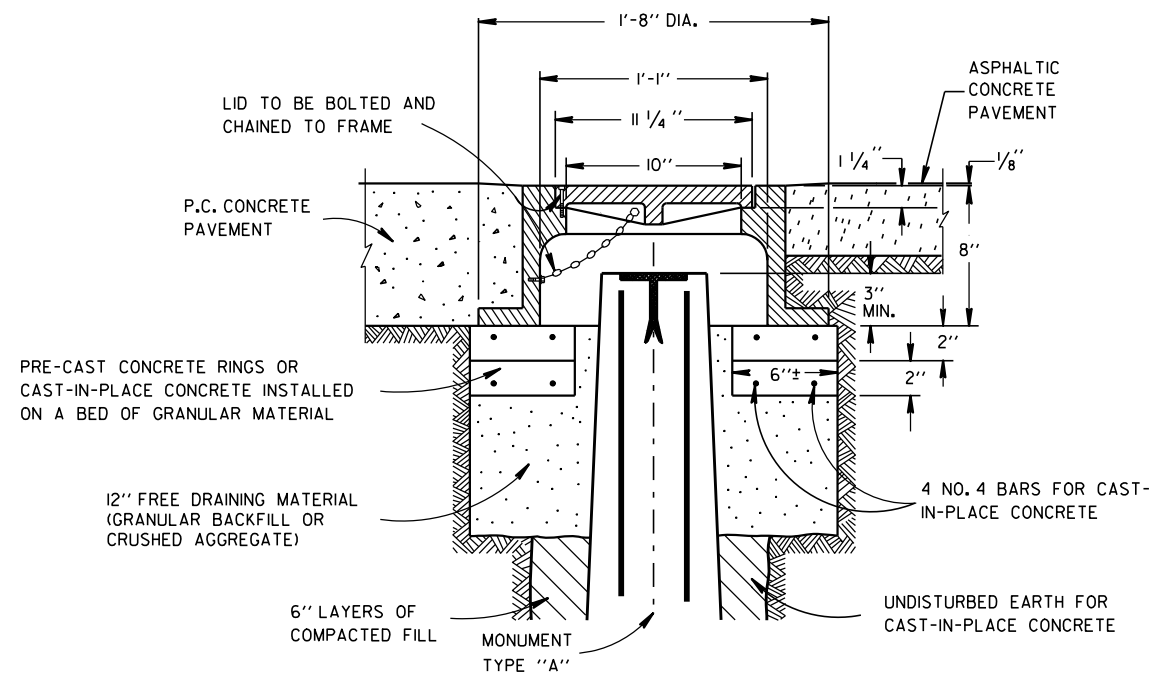
TOP VIEW



TYPE "C" OR "D" MONUMENTS

SECTION B-B SECTION A-A
ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)

LANDMARK REFERENCE
MONUMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

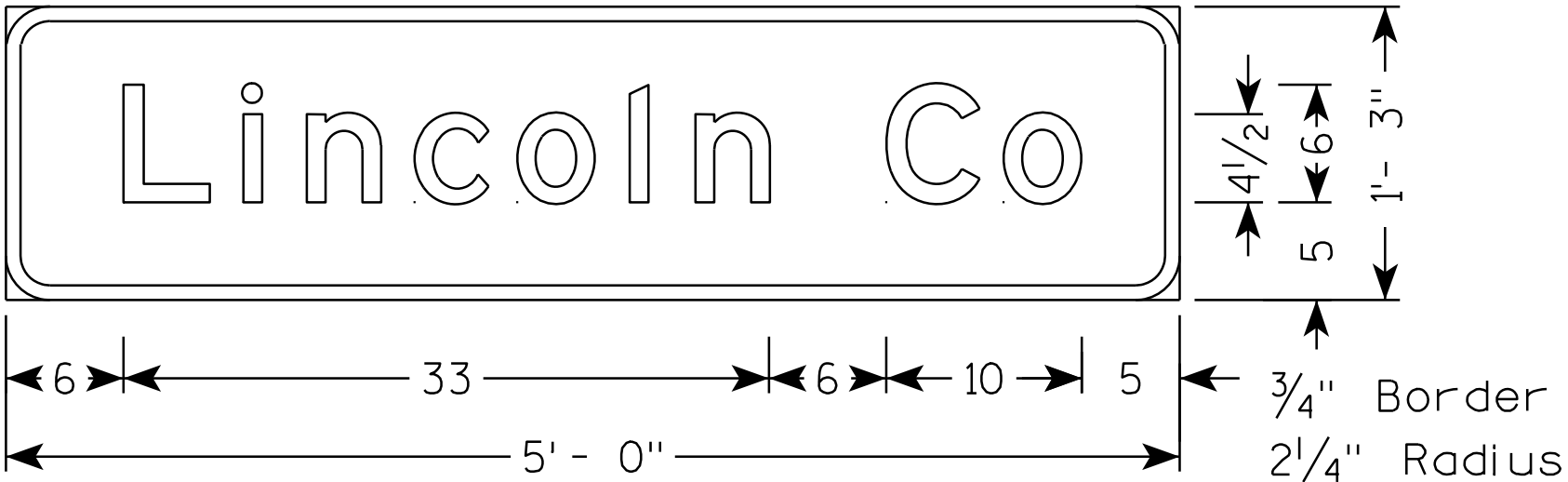
APPROVED

9/22/1999

DATE

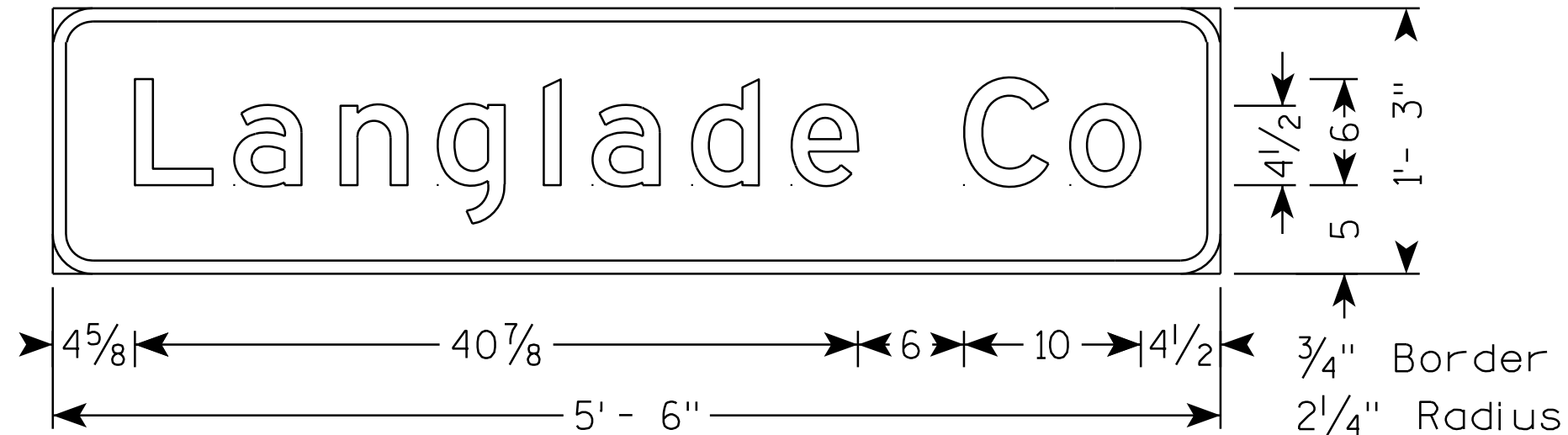
FHWA

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

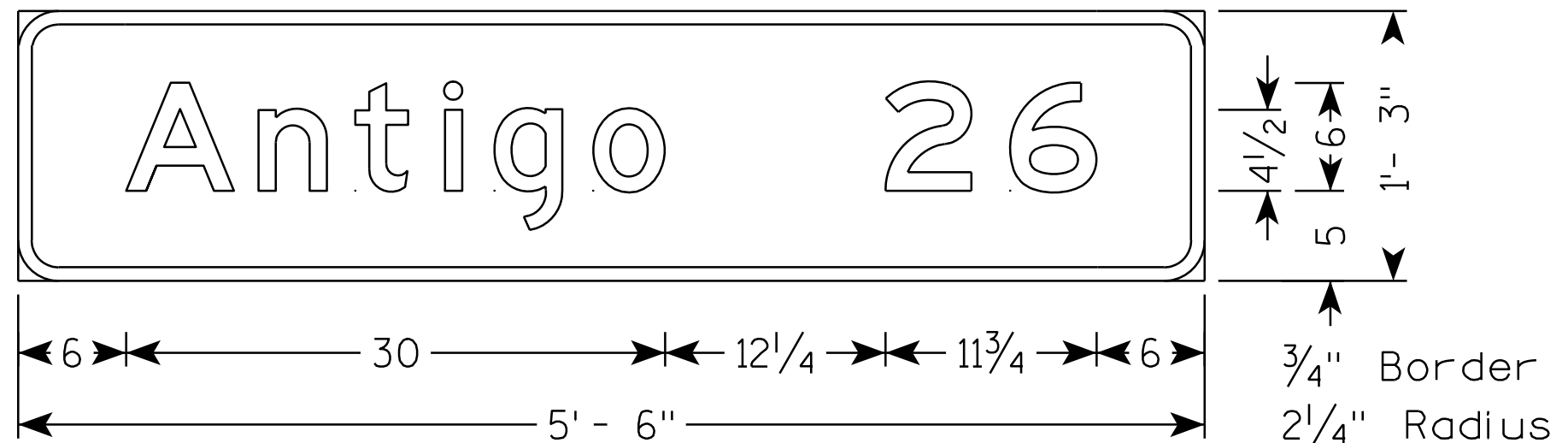


I2 - 2

- NOTES**
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - Green
Message - White
 3. Message Series - E

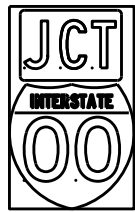


I2 - 2

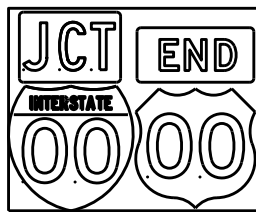


D2 - 1

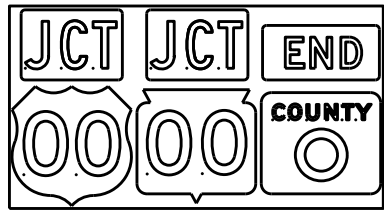
TYPICAL ASSEMBLIES



J1-1



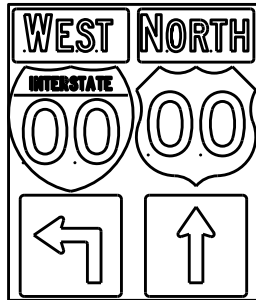
J1-2



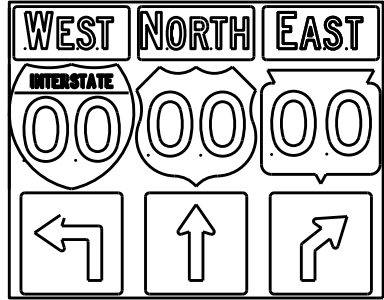
J1-3



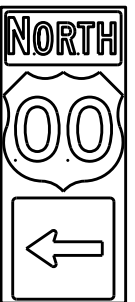
J2-1



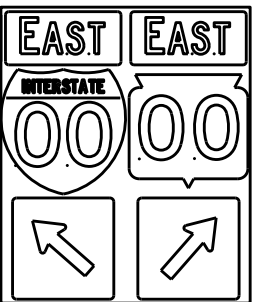
J2-2



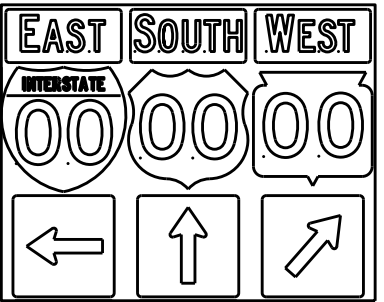
J2-3



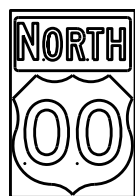
J3-1



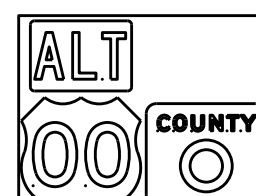
J3-2



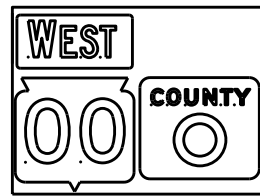
J3-3



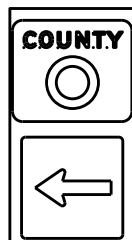
J4-1



J4-2



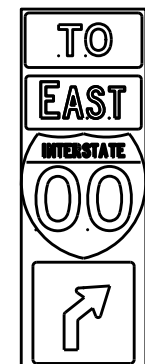
J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

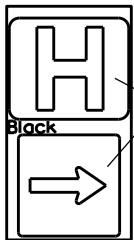


J22-1



JV

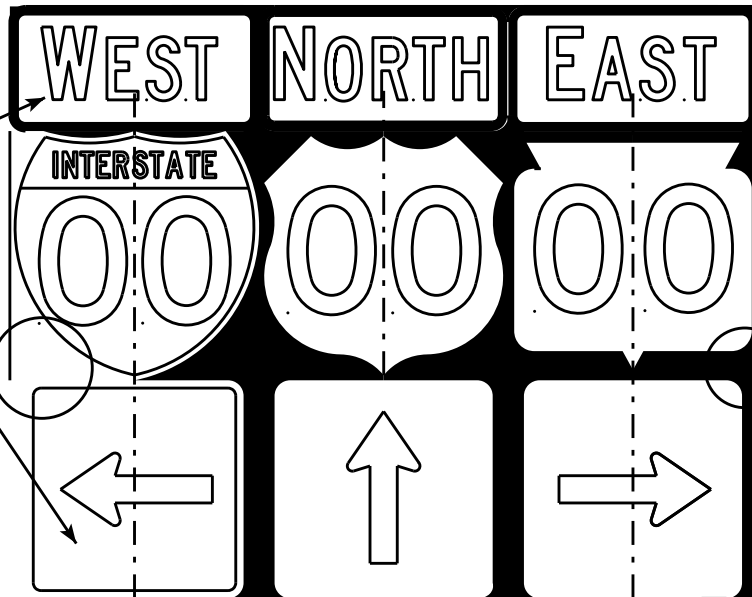
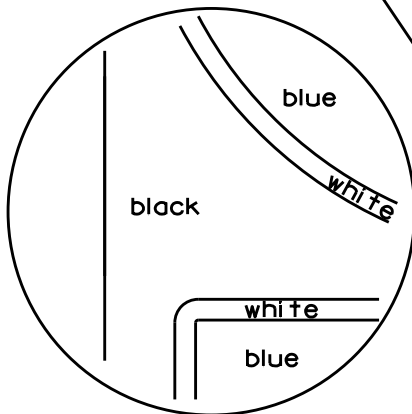
(Typical Vertical J-Assembly
See Note 10 and 11)



JH-1

Blue Background

[blue background
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

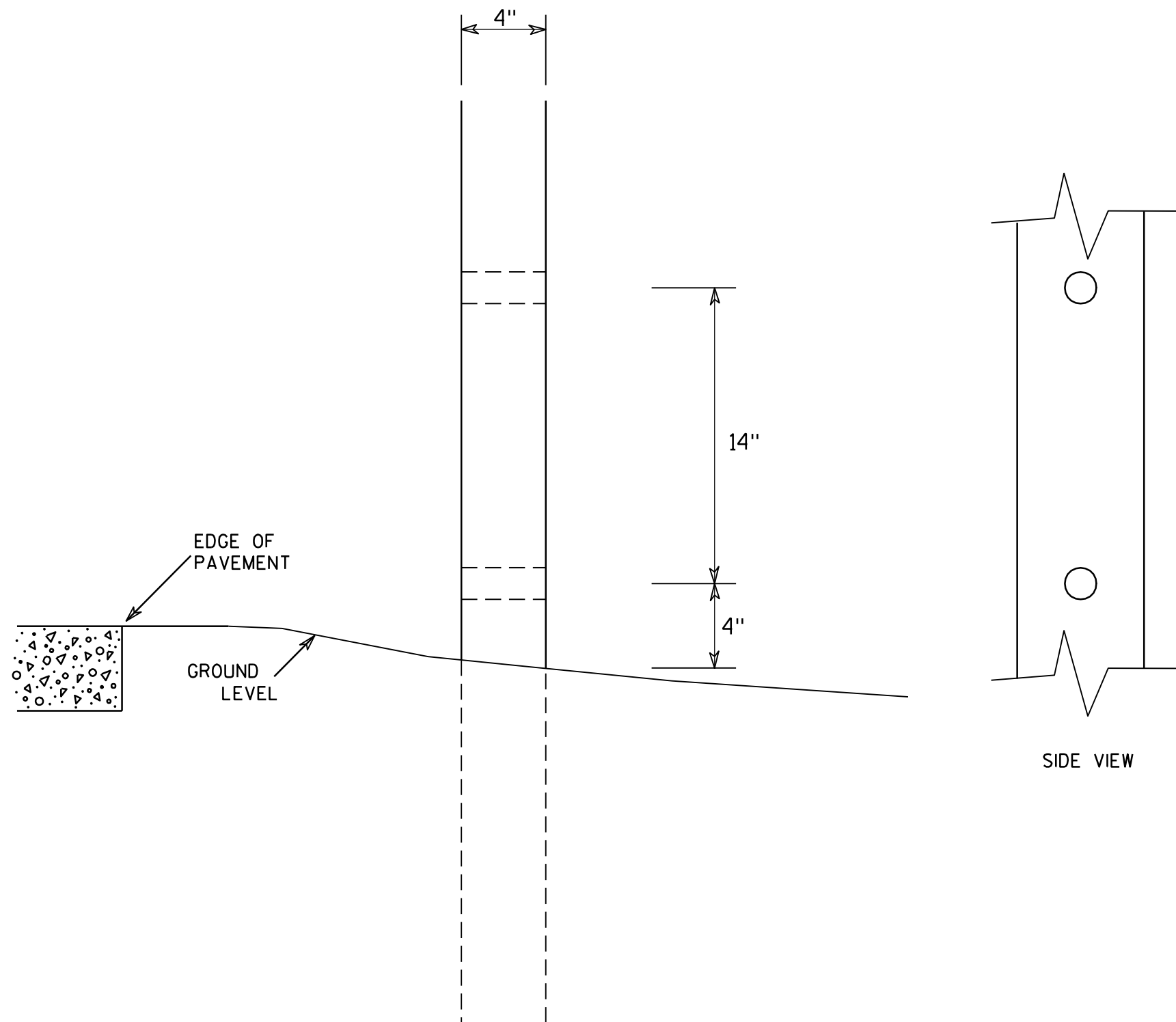
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/06/14 PLATE NO. A2-1S.8

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.

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:

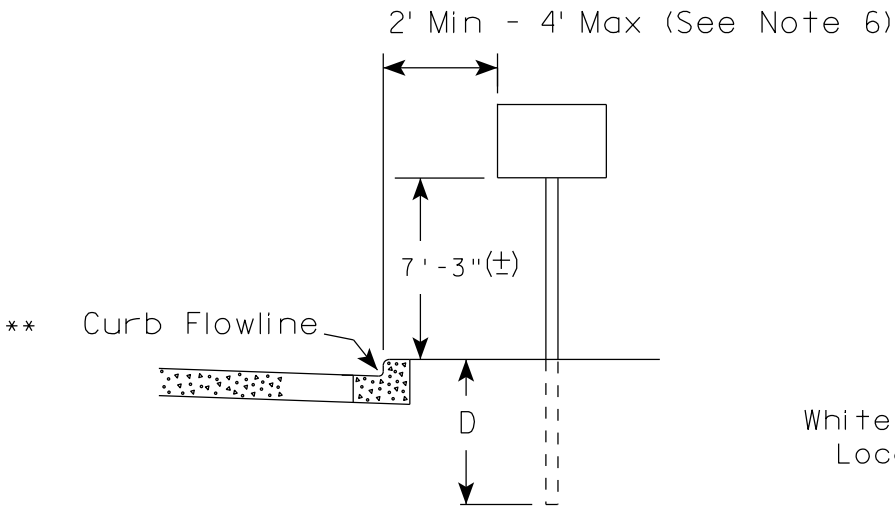
HWY:

COUNTY:

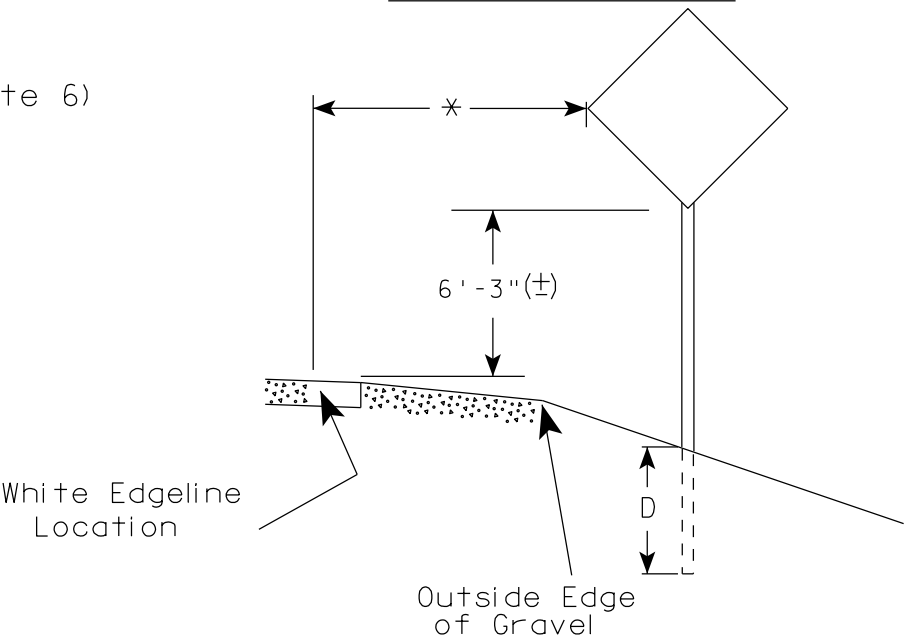
SHEET NO:

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.

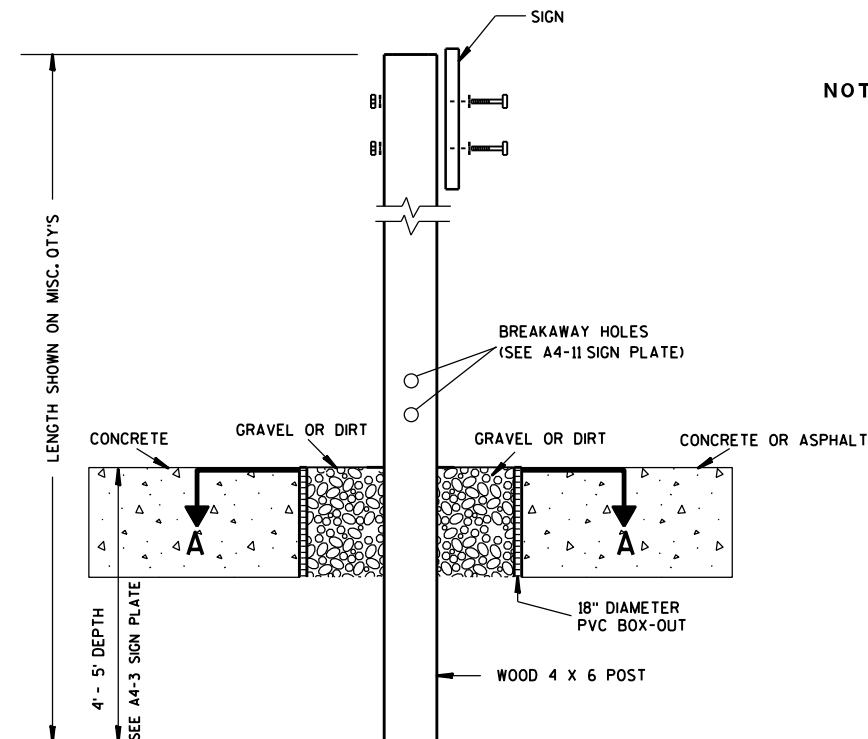
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

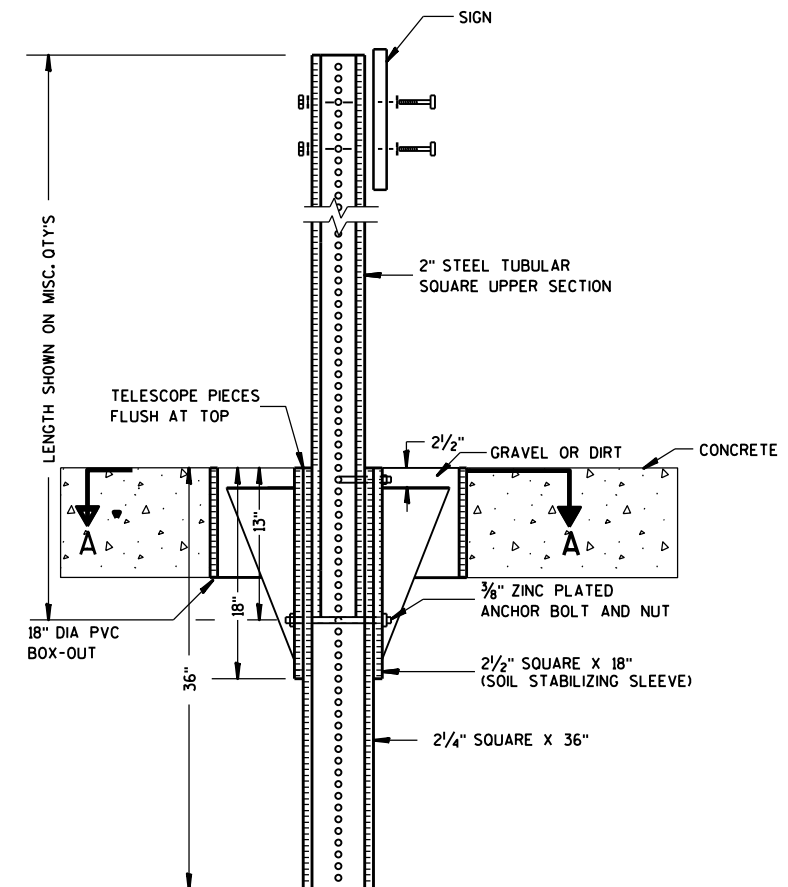
DATE 9/30/13 PLATE NO. A4-3.18



ELEVATION VIEW

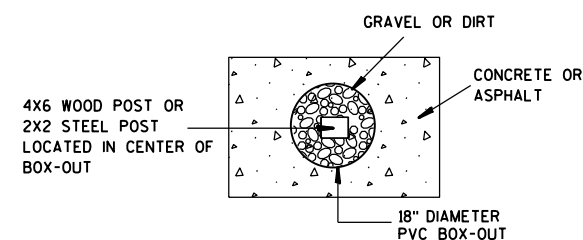
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

**SIGN POST
BOX-OUTS
A4-3B**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

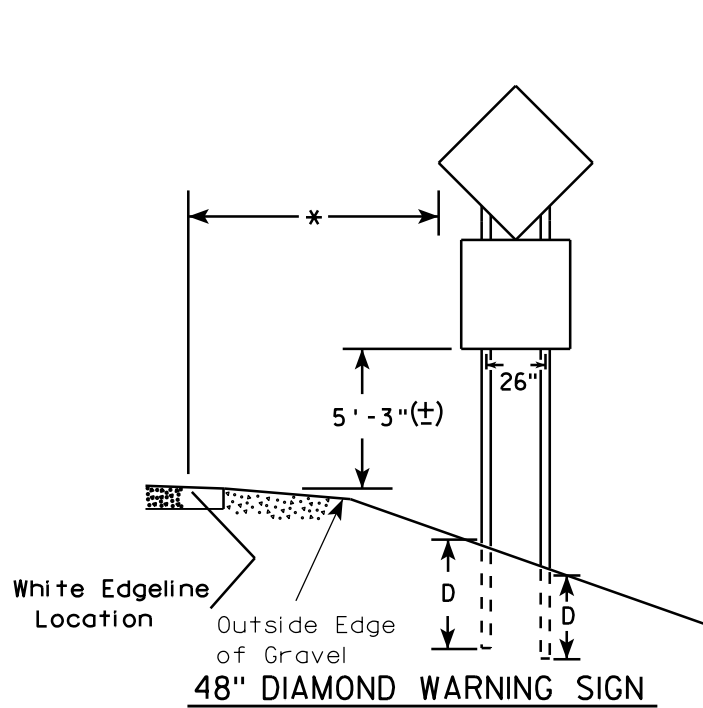
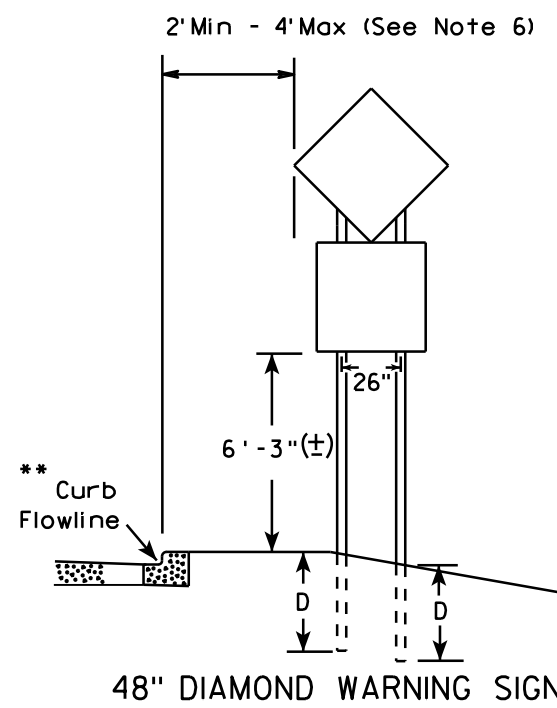
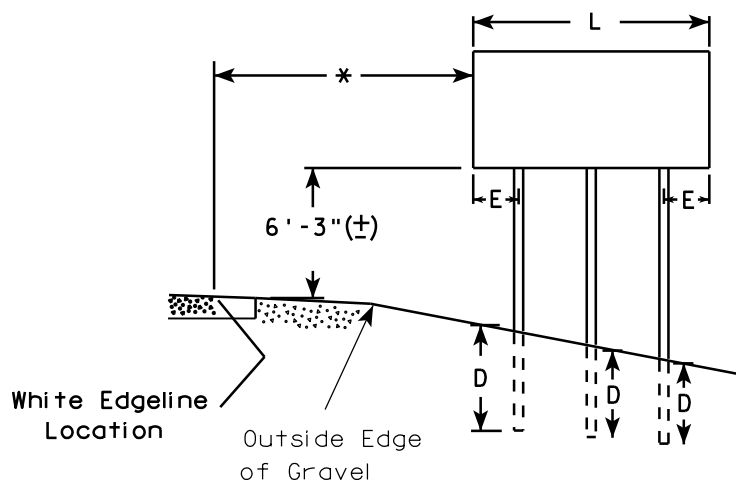
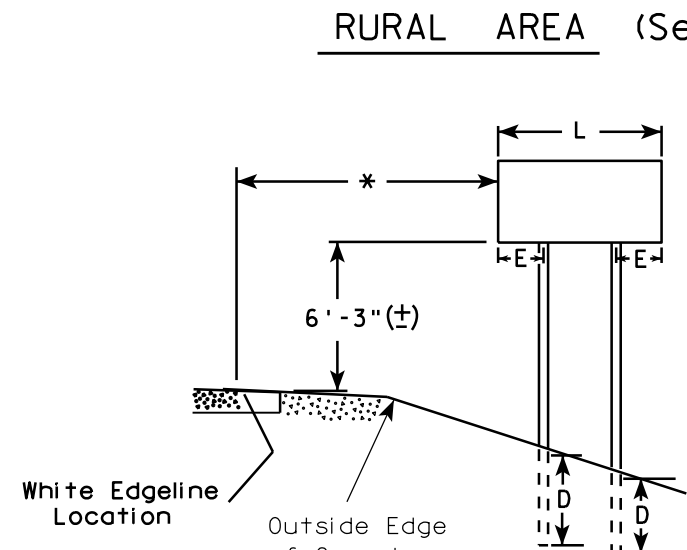
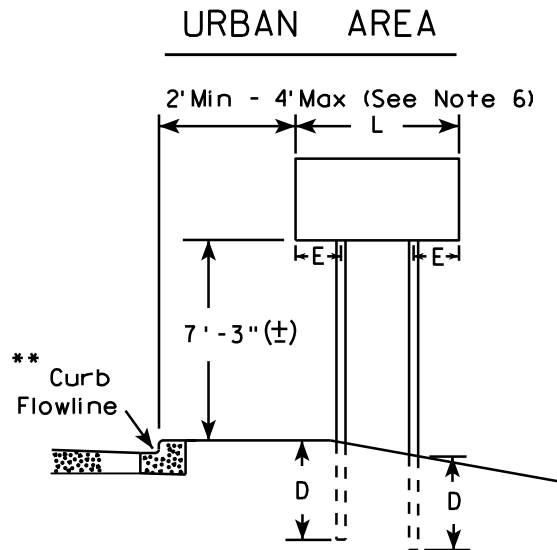
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. 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.

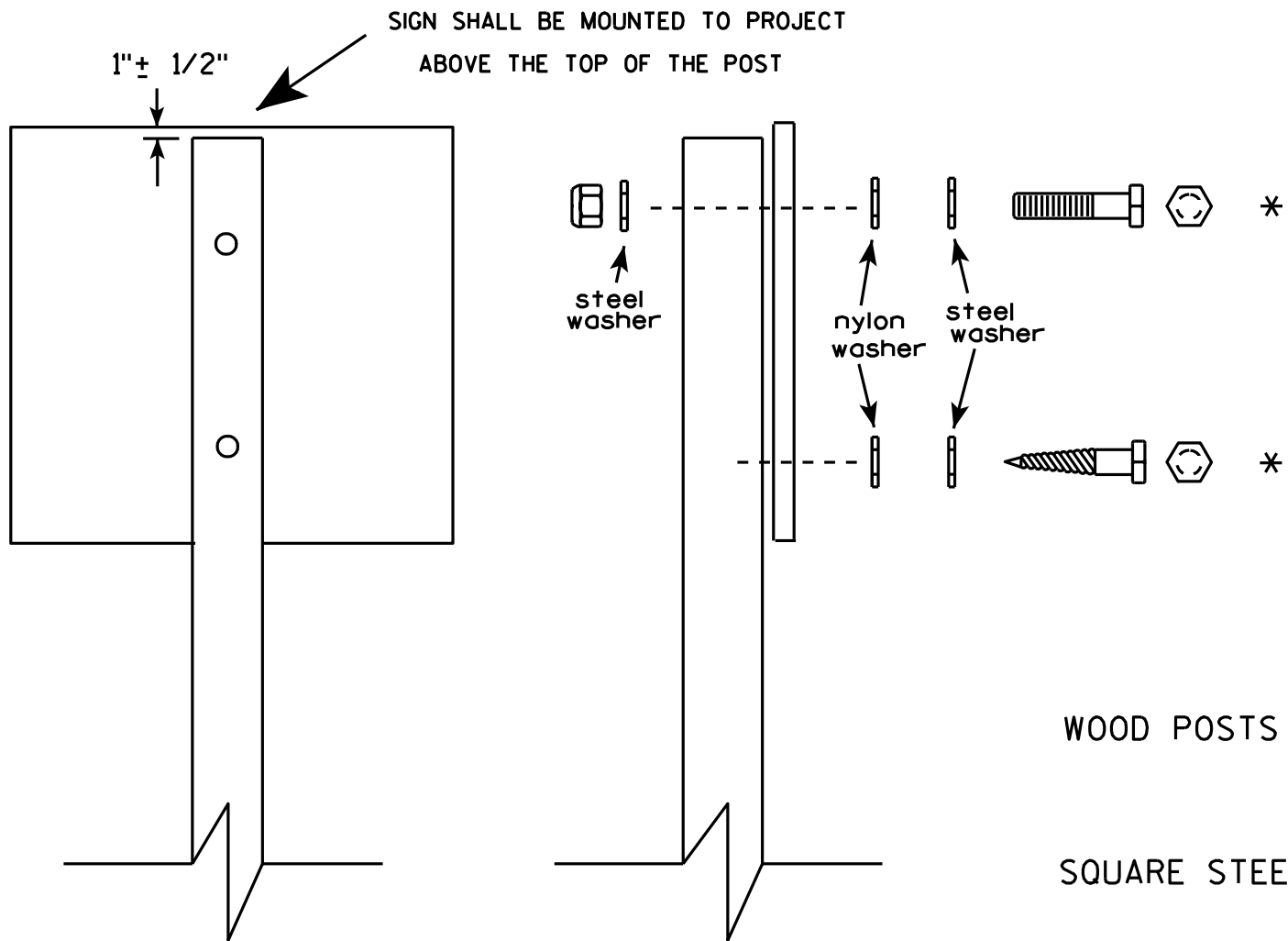
SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

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	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 9/30/13	PLATE NO. A4-4.12

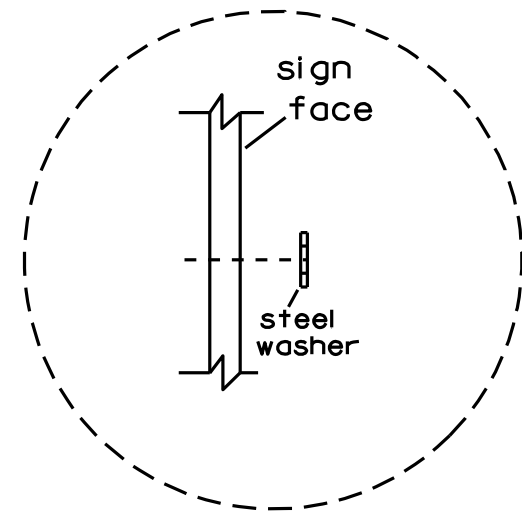


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- 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.



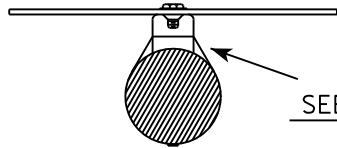
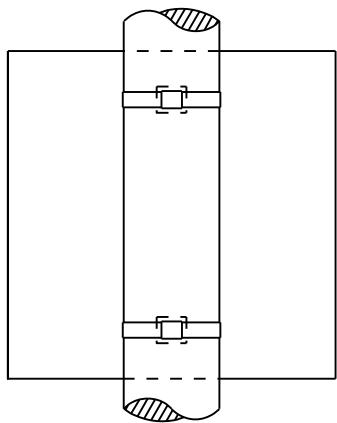
Washer Placement when Sign Has Other Than Type H or Type F Face

* 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.

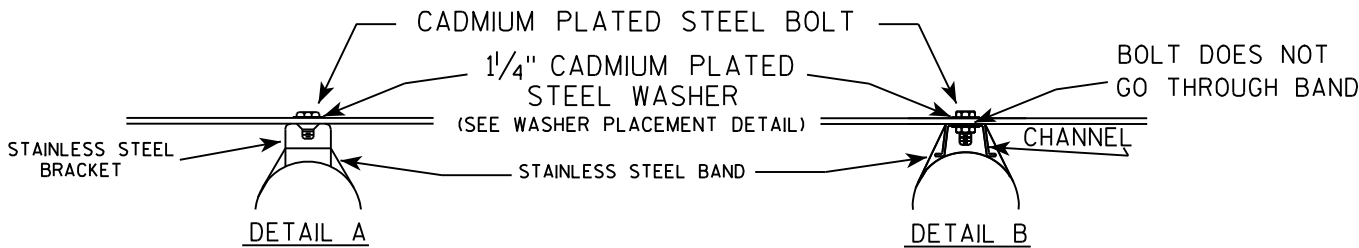
ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/23/10	PLATE NO. A4-8.7

BANDING

SINGLE SIGN



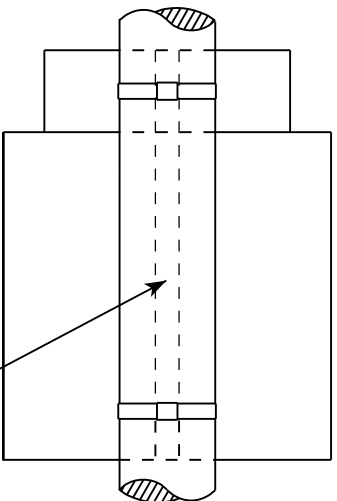
SEE DETAIL A



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

SEE DETAIL B

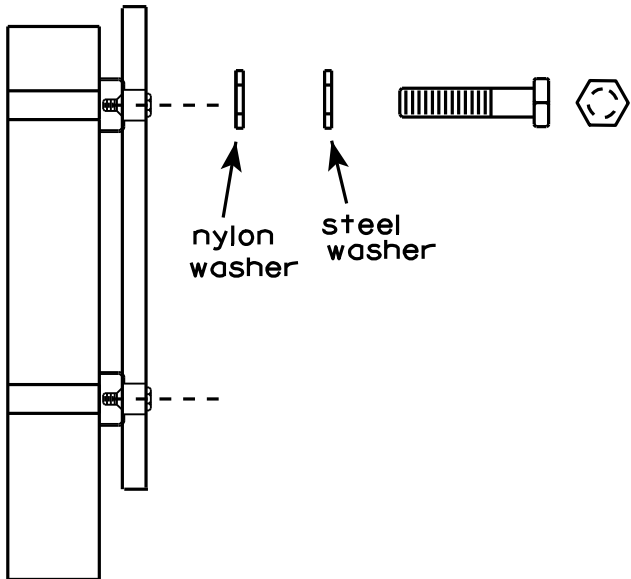
"J" ASSEMBLY



GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be $\frac{3}{4}$ " in width and 0.025" thickness.

WASHER PLACEMENT



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

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

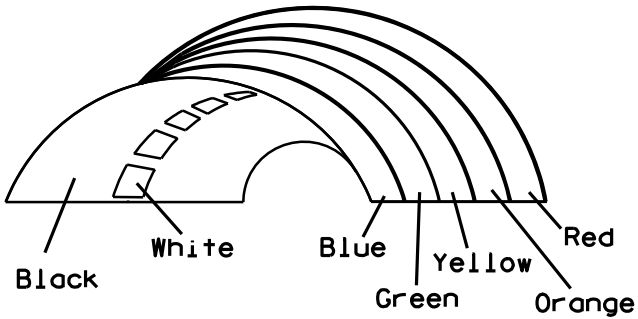
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3



* VARIES

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - (See Note 5)
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. Border - Blue
Line 1 - Red
Line 2 - Black
Line 3-5 - Blue
6. Line 1 - Dutch 8011L
Line 2 - Series E
Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign 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																											
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

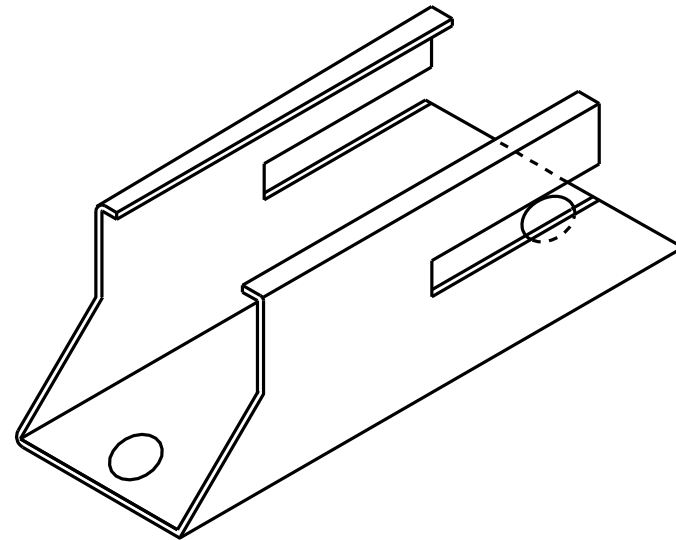
STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION

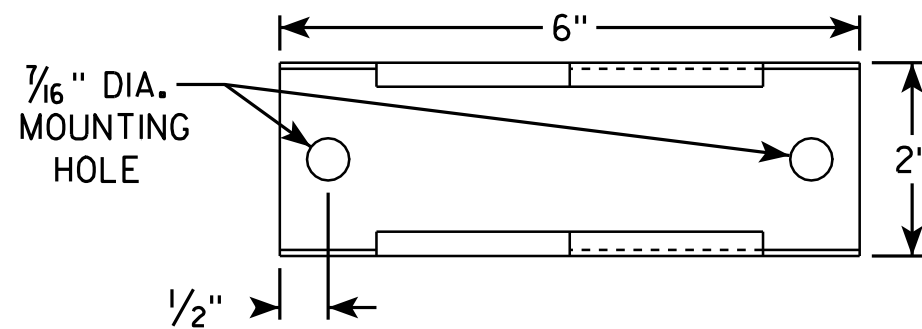
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 4/27/11 PLATE NO. I55-56.3

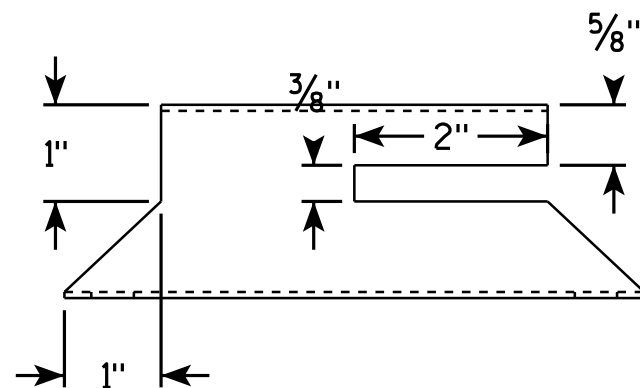
ISOMETRIC VIEW



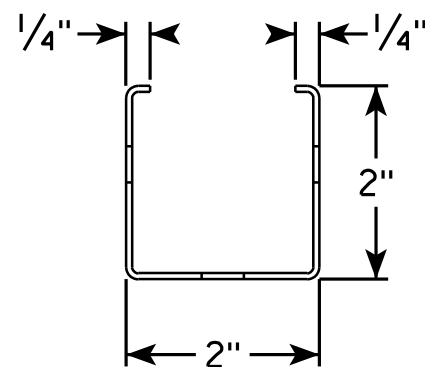
TOP VIEW



SIDE VIEW



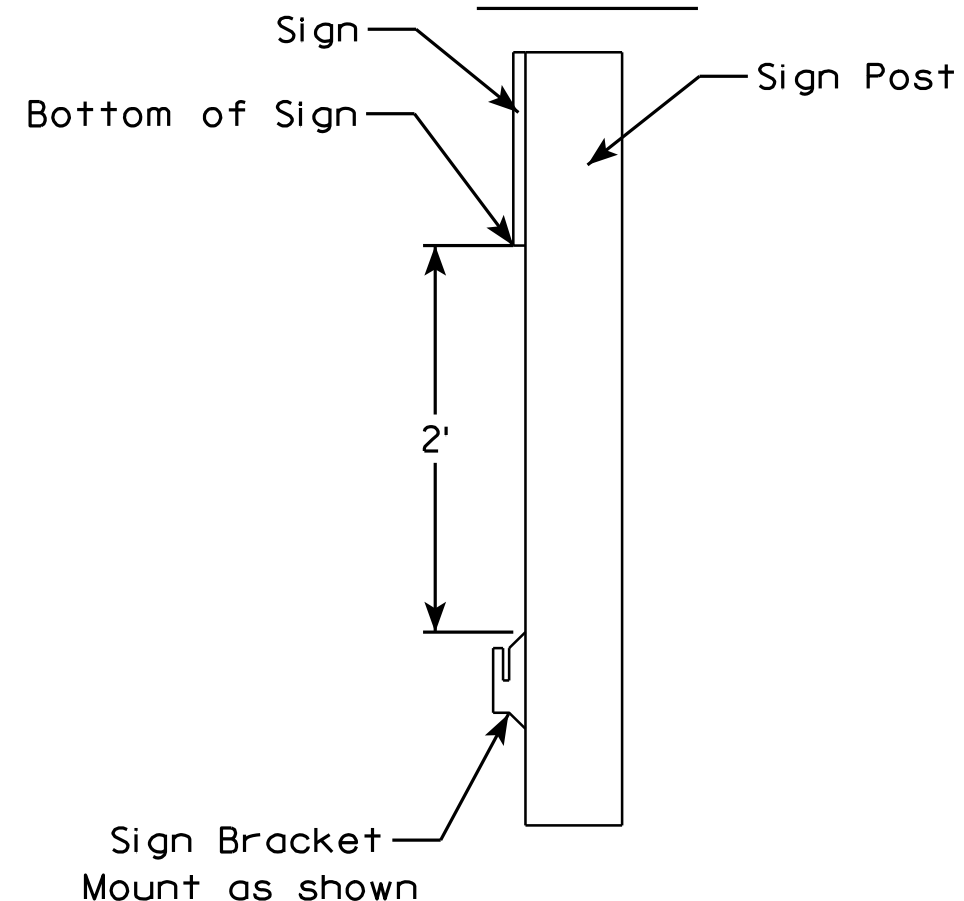
END VIEW



NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

SIDE VIEW



ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/5/10 PLATE NO. I55-56B.1

PROJECT NO:

HWY:

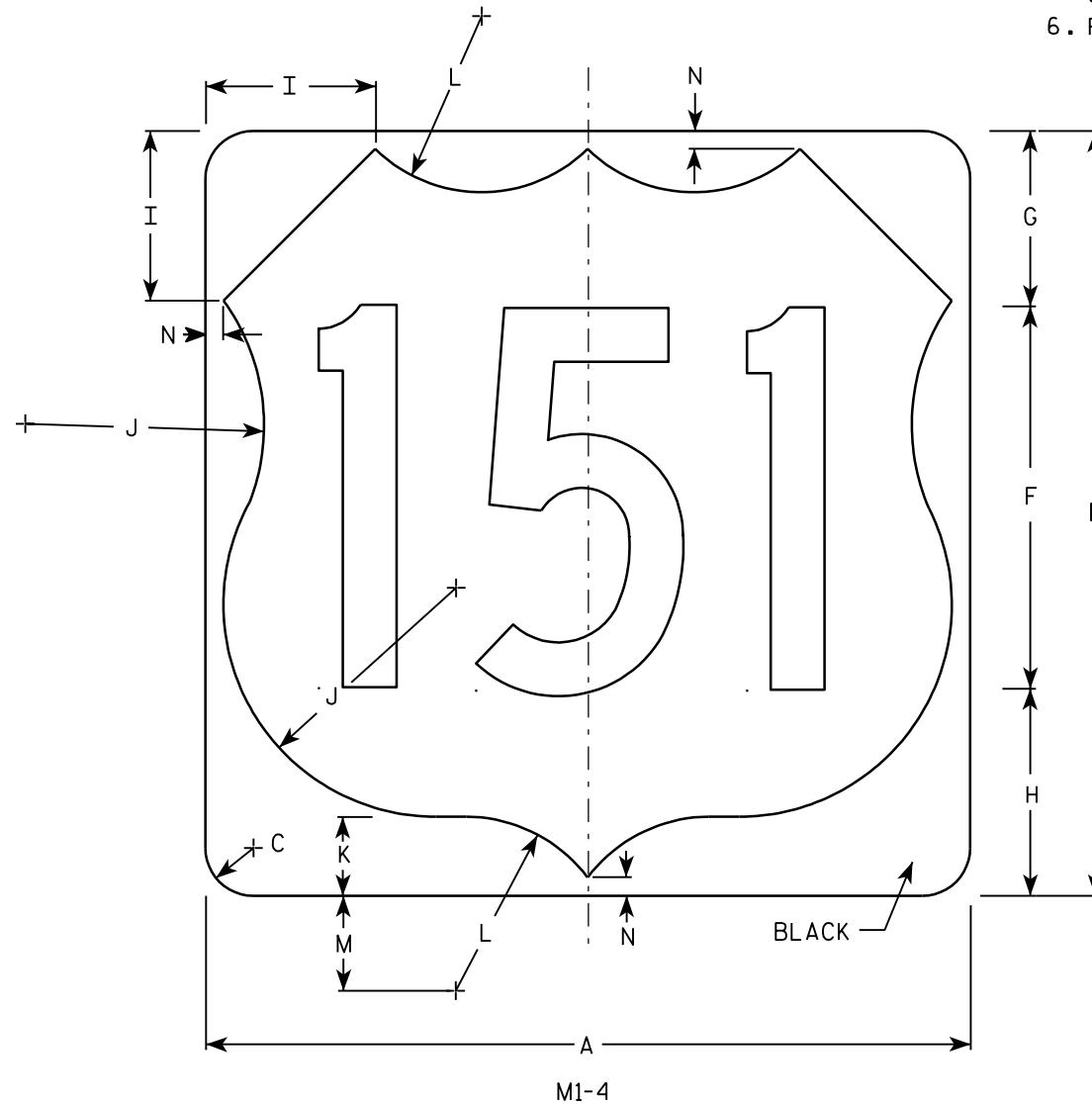
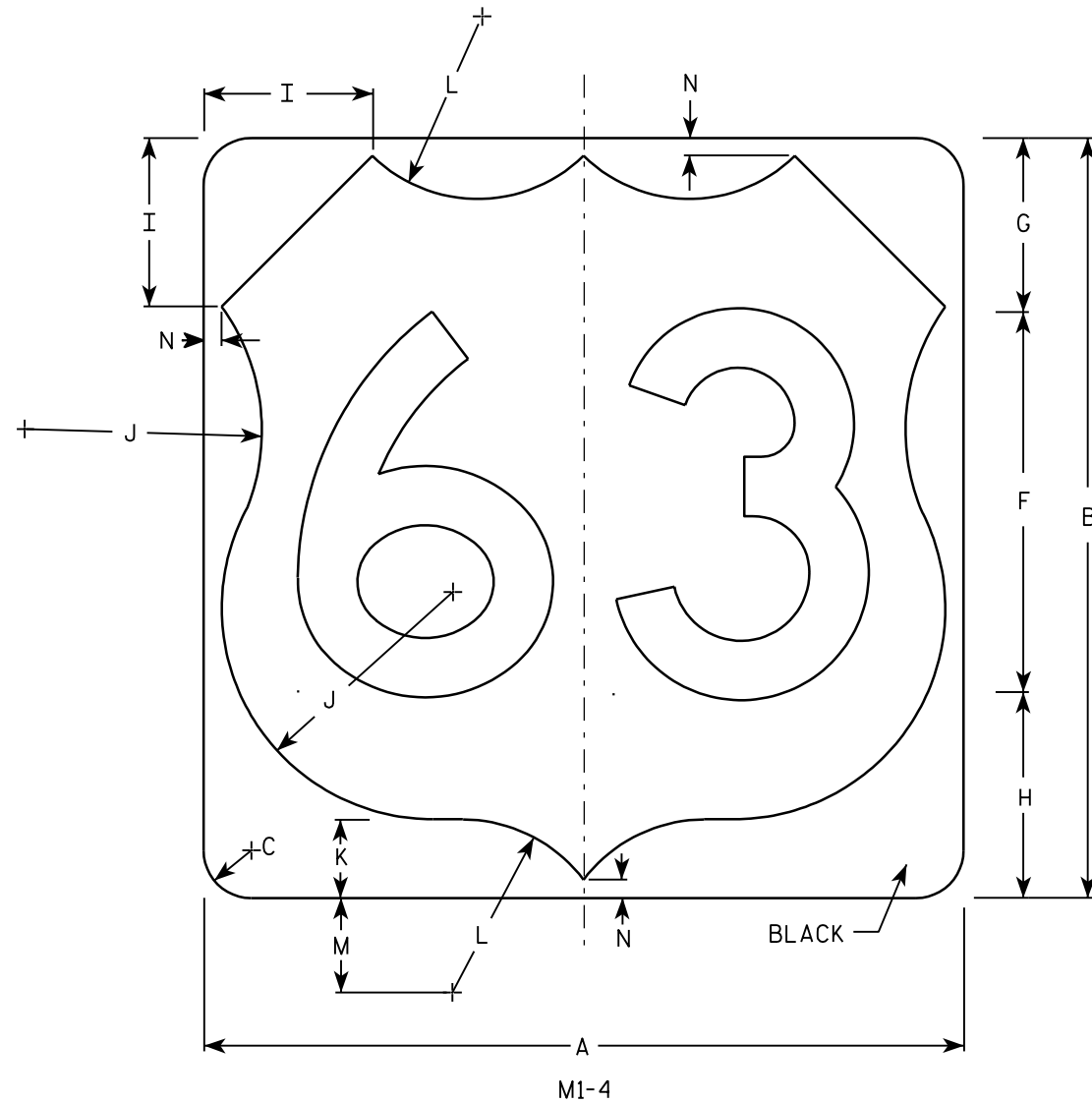
COUNTY:

SHEET NO:

E

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 numerals and adjust
spacing as per Plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or other temporary signs
Background - Reflective



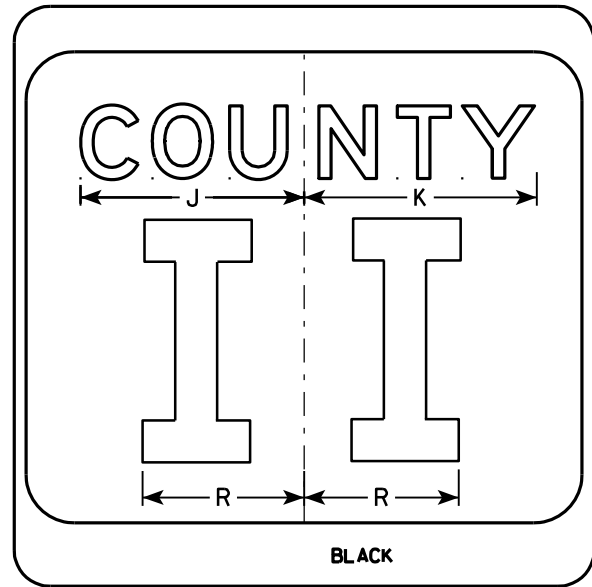
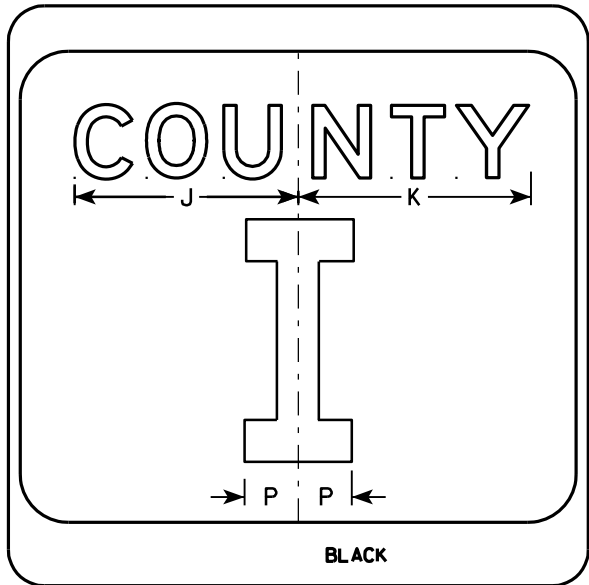
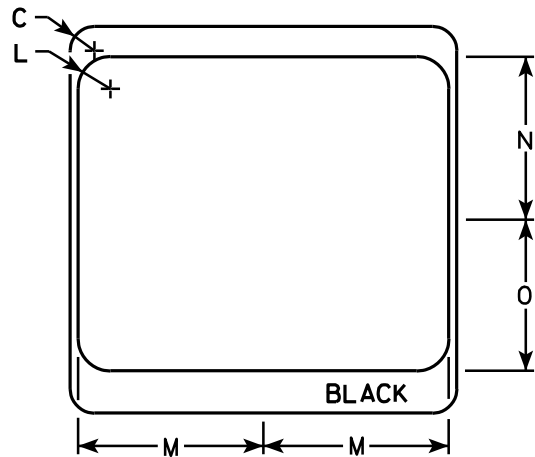
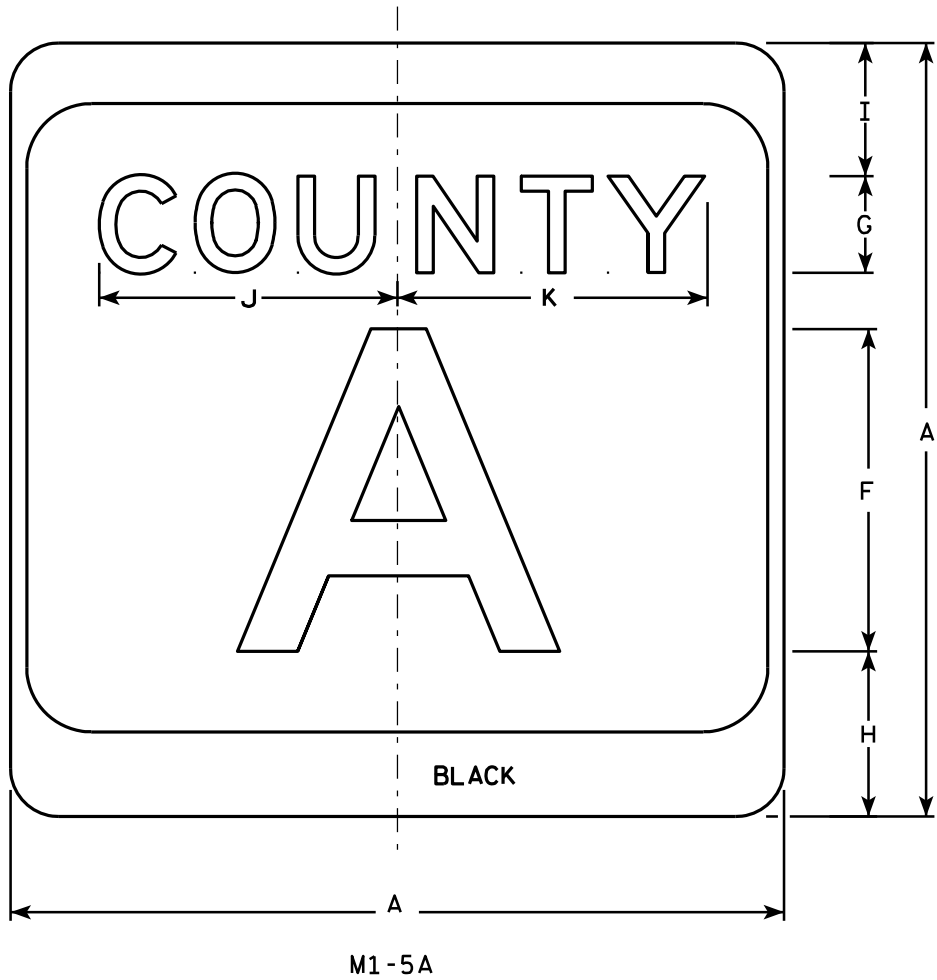
Metric equivalent
for this sign is:

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	Areq sq. ft.	Area m ²
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

PROJECT NO: HWY: COUNTY: SHEET NO: E

7



NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 7
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. 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.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective

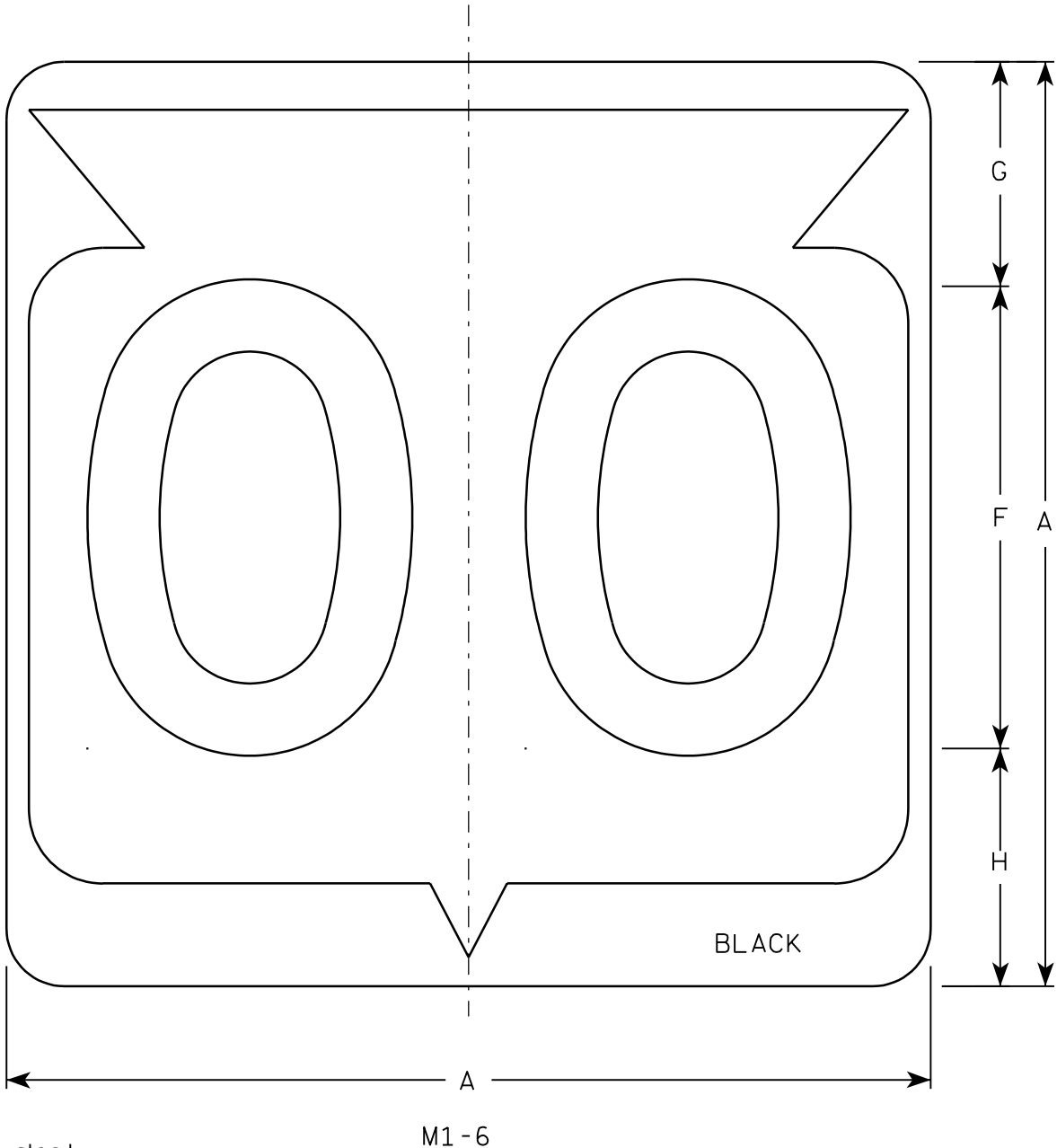
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 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

CTH MARKER	
M1-5A FOR ASSEMBLIES	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 9/27/11	PLATE NO. M1-5A.8

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
-------------	------	---------	-----------	---

7

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

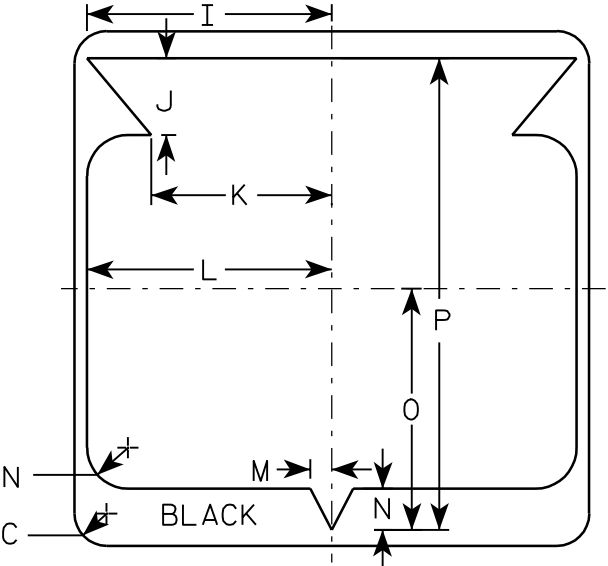
PLOT NAME :

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

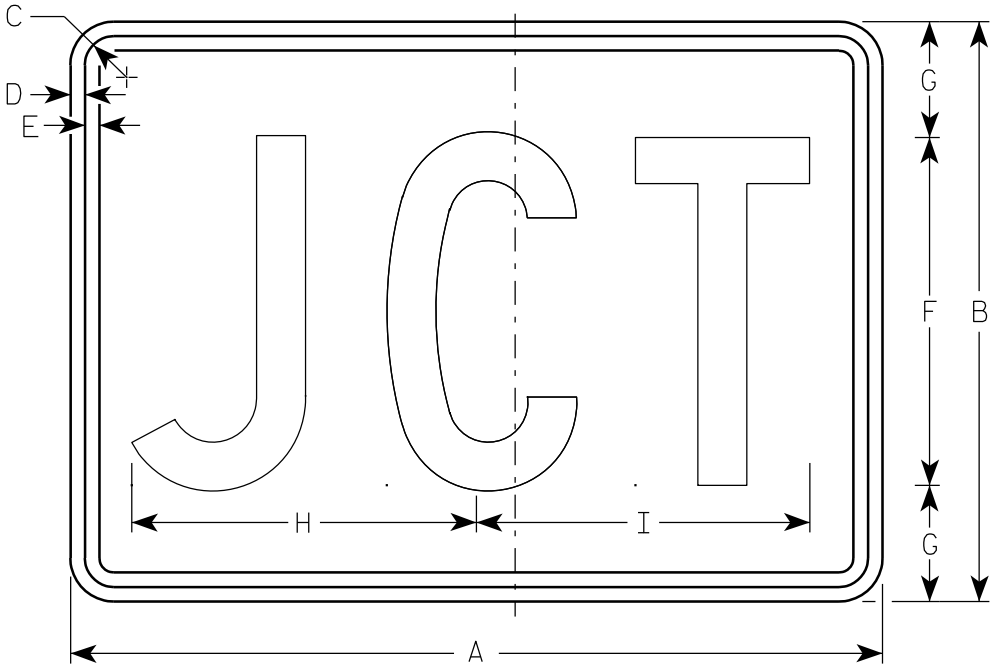
Chester J. Spang
for State Traffic Engineer

DATE 3/20/02

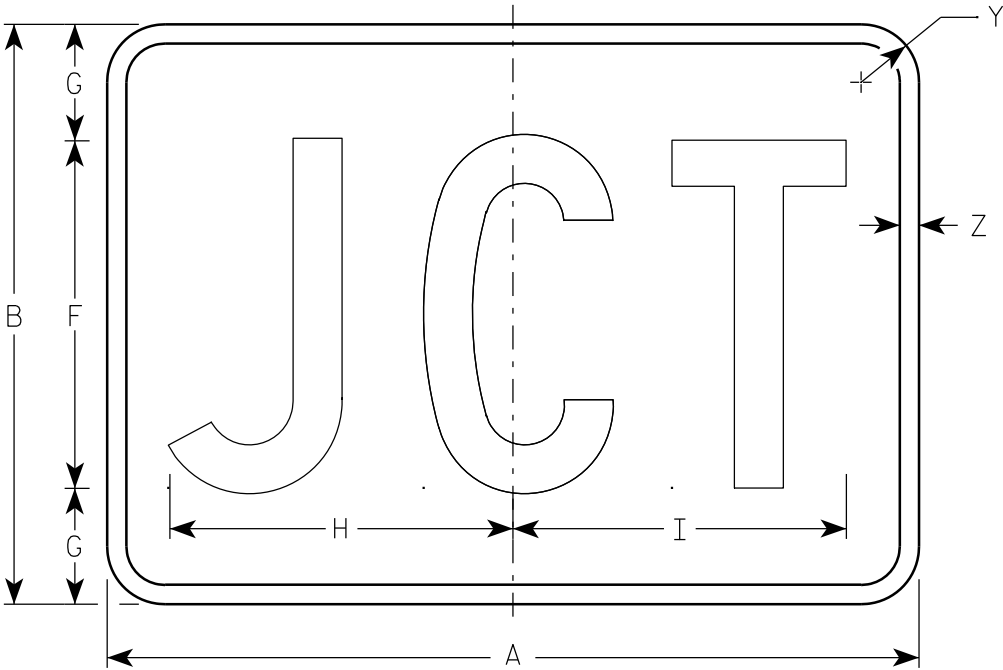
PLATE NO. M1-6.9

NOTES

1. Sign is 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. M2-1 Background - White - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB2-1 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG2-1 Background - Green
Message - White - Type H Reflective
MK2-1 Background - Green
Message - White - Type H Reflective
MM2-1 Background - White - Type H Reflective
Message - Green
MN2-1 Background - Brown
Message - White - Type H Reflective
MR2-1 Background - Brown
Message - Yellow - Type H Reflective



M2-1
MK2-1
MM2-1
MR2-1



MB2-1
MG2-1
MN2-1

Metric equivalent
for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 mm

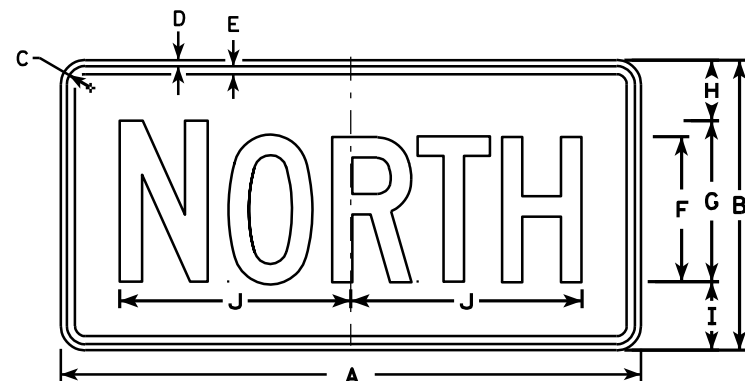
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20

STANDARD SIGN
M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

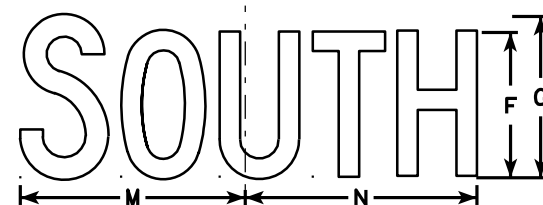
DATE 3/16/10 PLATE NO. M2-1.10



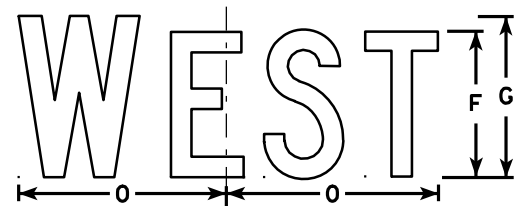
M3-1
MK3-1
M03-1



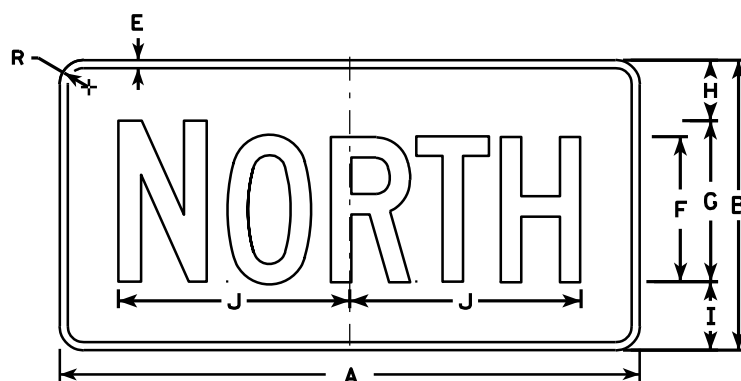
M3-2
MK3-2
M03-2



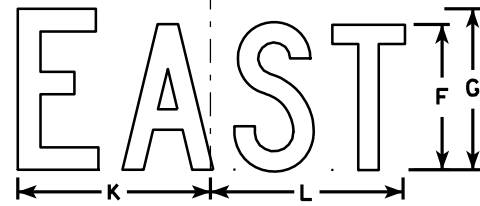
M3-3
MK3-3
M03-3



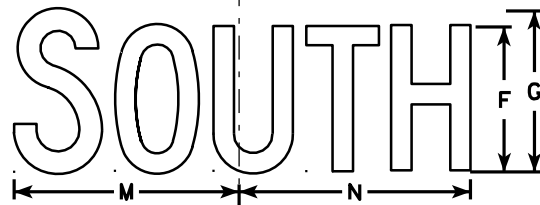
M3-4
MK3-4
M03-4



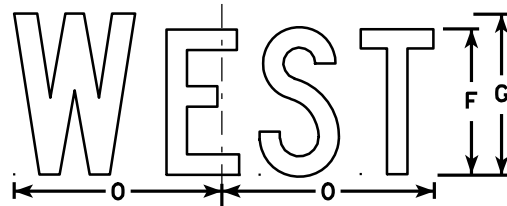
MB3-1
MG3-1
MM3-1
MN3-1



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

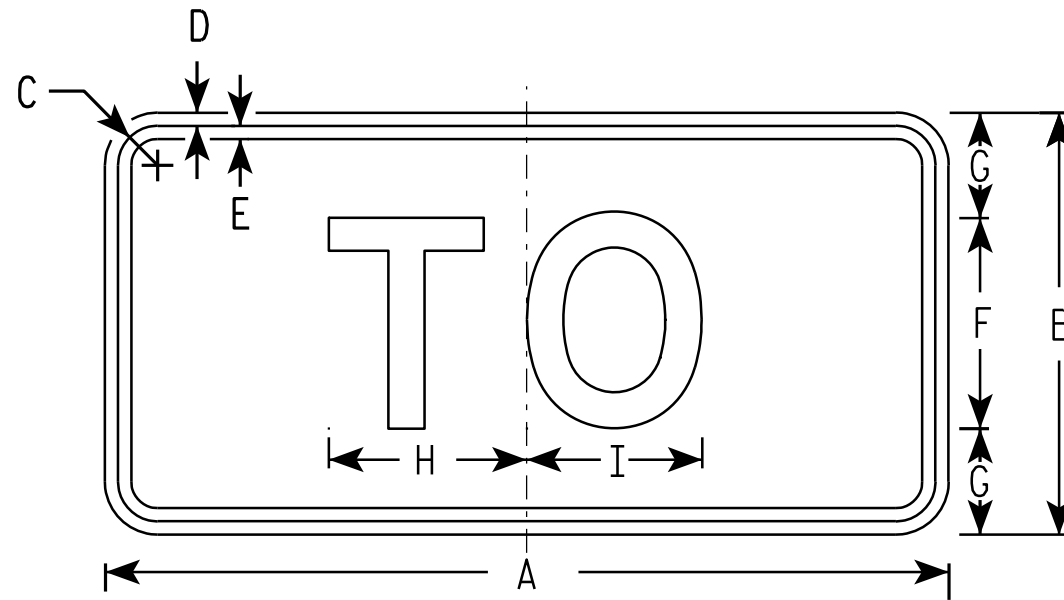
PROJECT NO: HWY: COUNTY: SHEET NO: E

STANDARD SIGNS M3-1 thru M3-4 SERIES

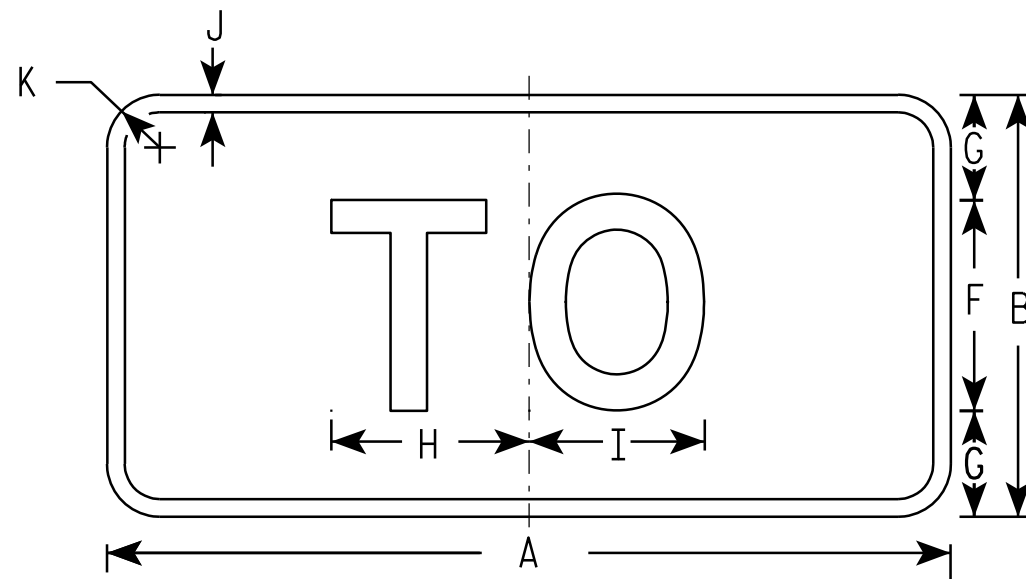
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



M4-5
MK4-5
MM4-5



MB4-5
MG4-5
MN4-5

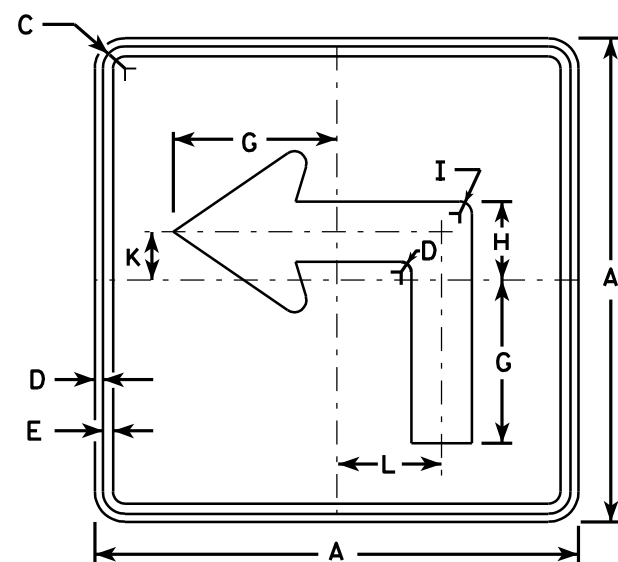
NOTES

- Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See note 5
Message - See note 5
- Message Series - E
- 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.
- M4-5 Background - White - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB4-5 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG4-5 Background - Green
Message - White - Type H Reflective
MK4-5 Background - Green
Message - White - Type H Reflective
MM4-5 Background - White - Type H Reflective
Message - Green
MN4-5 Background - Brown
Message - White - Type H Reflective

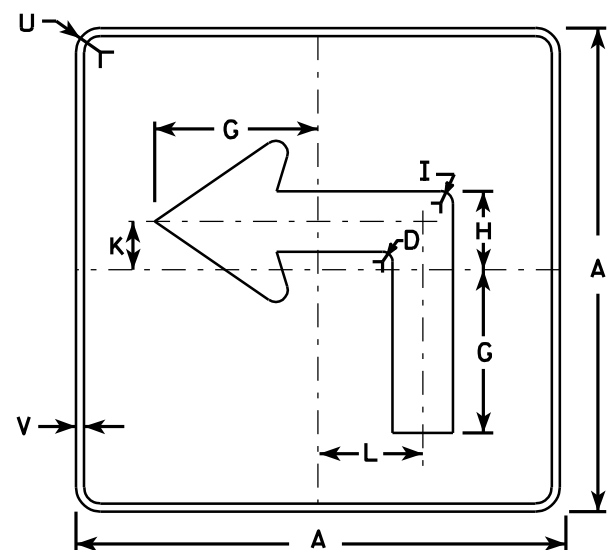
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E

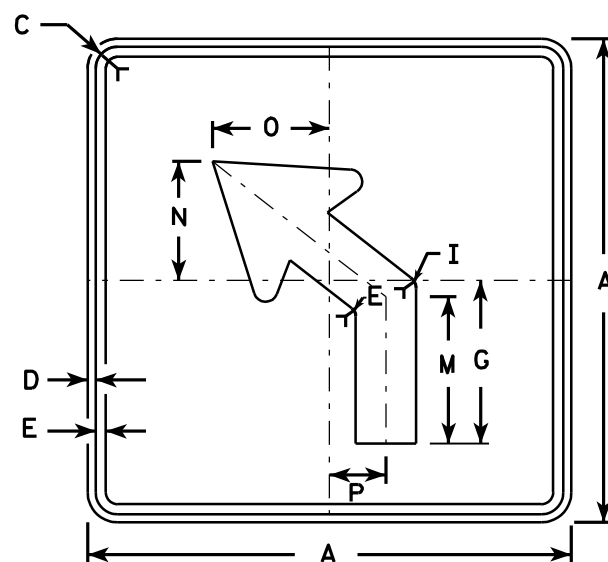
STANDARD SIGN M4 - 5	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 11/10/10	PLATE NO. M4-5.6



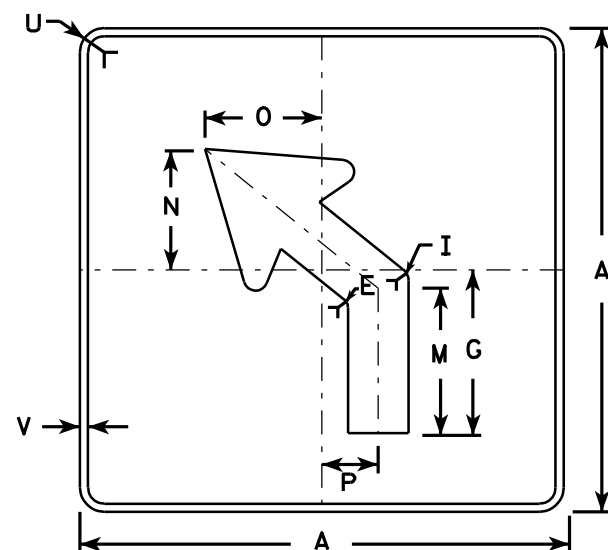
M5-1L
MK5-1L
MM5-1L
M05-1L
MP5-1L
MR5-1L



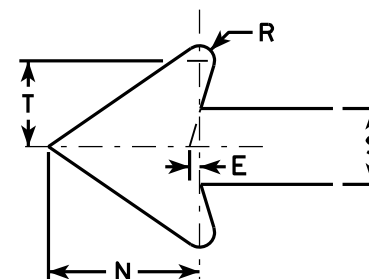
MB5-1L
MG5-1L
MN5-1L



M5-2L
MK5-2L
MM5-2L
M05-2L
MP5-2L
MR5-2L



MB5-2L
MG5-2L
MN5-2L



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.
- M5-1 and M5-2 Background - White - Type H Reflective
Message - Black
MB5-1 and MB5-2 Background - Blue
Message - White - Type H Reflective
MG5-1 and MG5-2 Background - Green
Message - White - Type H Reflective
MK5-1 and MK5-2 Background - Green
Message - White Type H Reflective
MM5-1 and MM5-2 Background - White - Type H Reflective
Message - Green
MN5-1 and MN5-2 Background - Brown
Message - White - Type H Reflective
M05-1 and M05-2 Background - Orange - Type F Reflective
Message - Black
MP5-1 and MP5-2 Background - White - Type H Reflective
Message - Blue
MR5-1 and MR5-2 Background - Brown
Message - Yellow - Type H Reflective
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

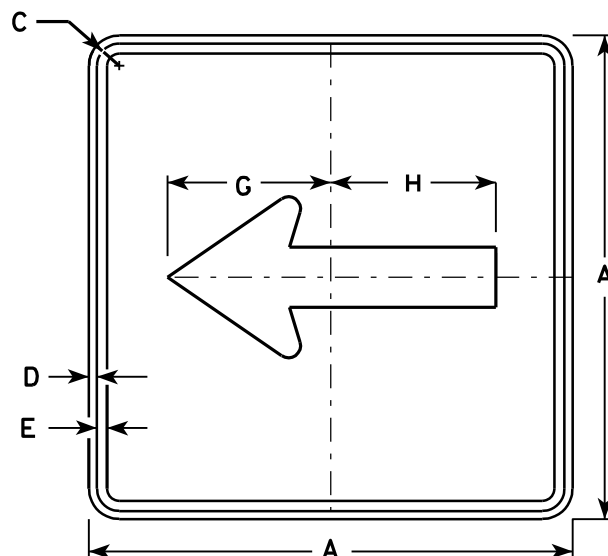
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

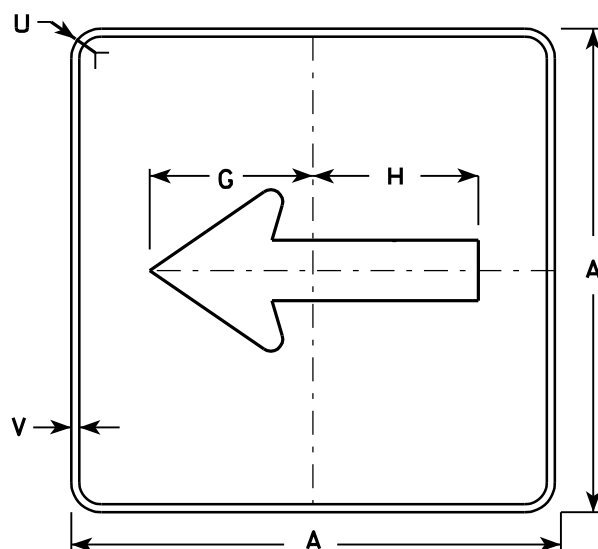
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

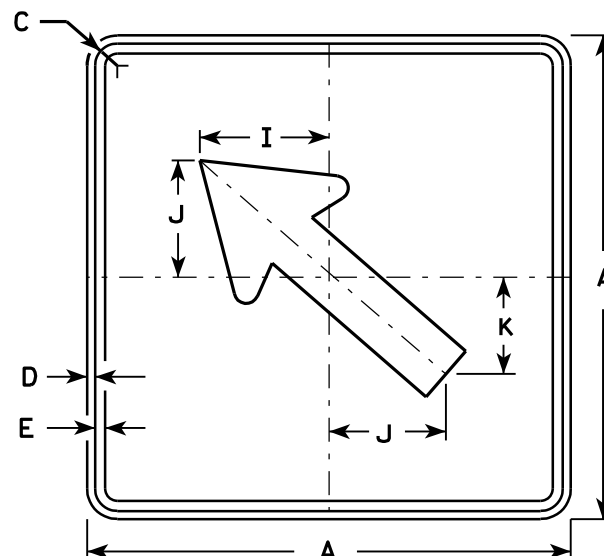
DATE 7/29/13 PLATE NO. M5-1.12



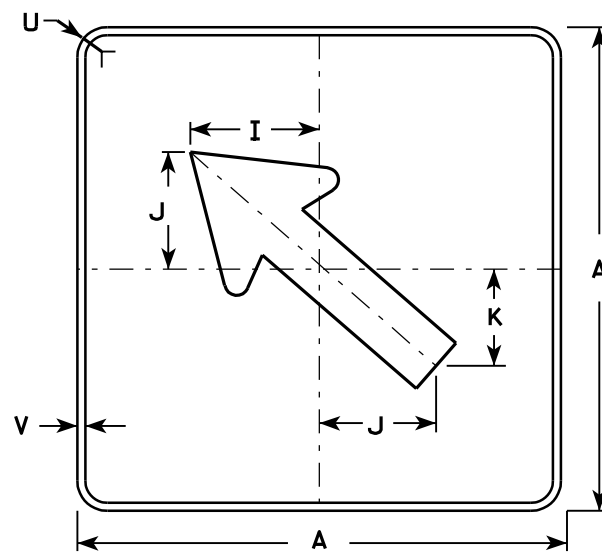
M6-1
MK6-1
MM6-1
MO6-1
MP6-1
MR6-1



MB6-1
MG6-1
MN6-1



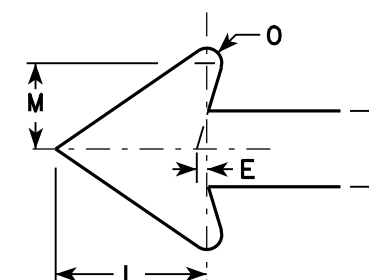
M6-2
MK6-2
MM6-2
MO6-2
MP6-2
MR6-2



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

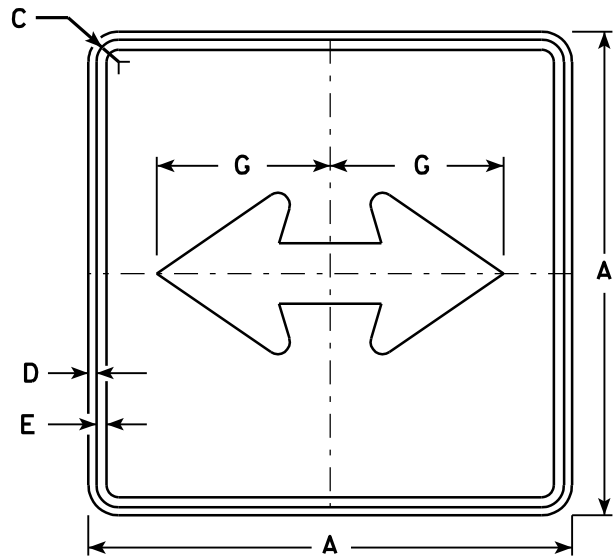
PROJECT NO:

HWY:

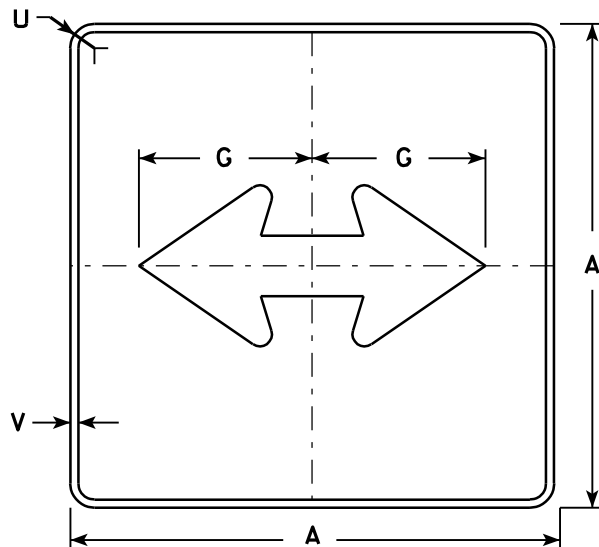
COUNTY:

SHEET NO:

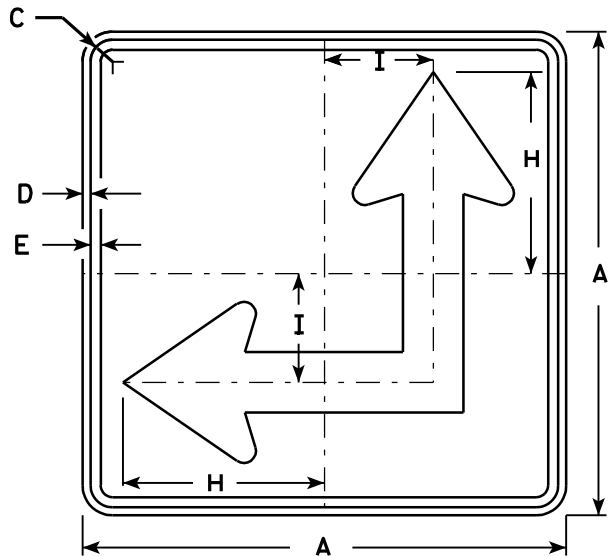
E



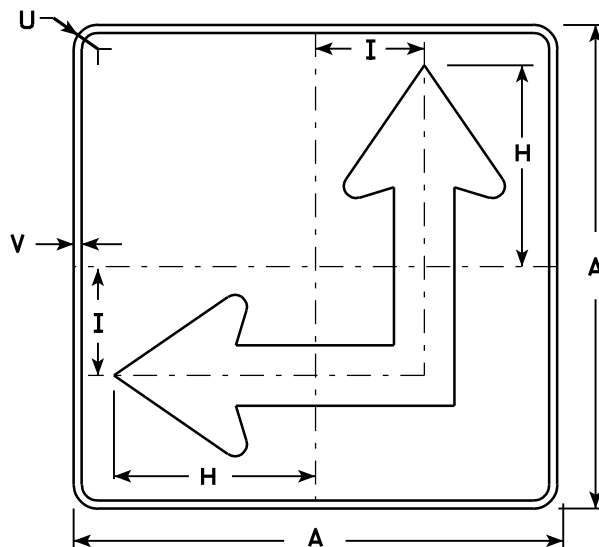
M6 - 4
MK6 - 4
MM6 - 4
MO6 - 4
MP6 - 4
MR6 - 4



MB6 - 4
MG6 - 4
MN6 - 4



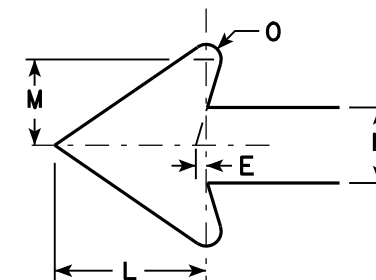
M6 - 6
MK6 - 6
MM6 - 6
MO6 - 6
MP6 - 6
MR6 - 6



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

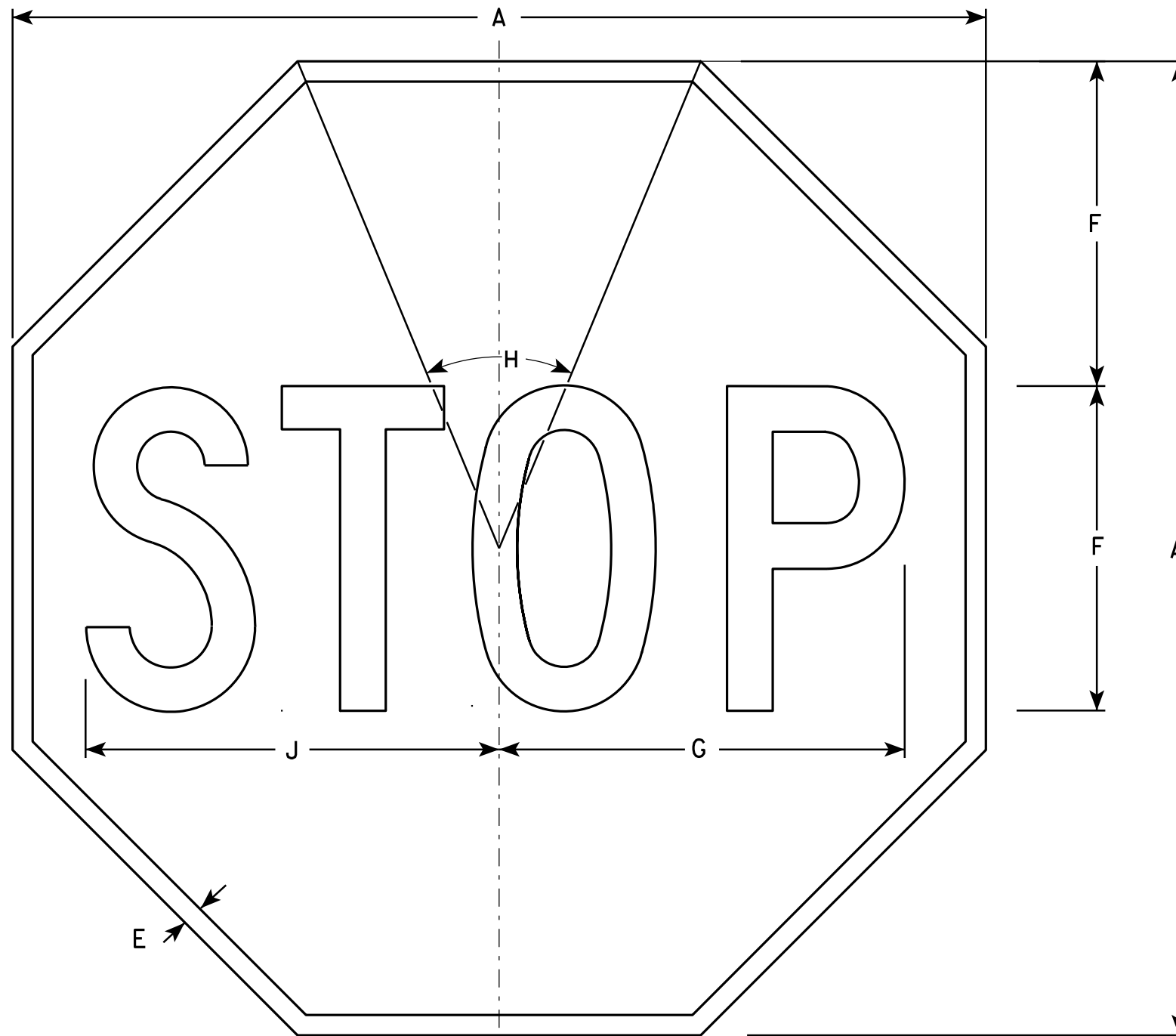
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E
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STANDARD SIGN
M6 - 4 & M6 - 6
SERIES

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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R2-6P

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

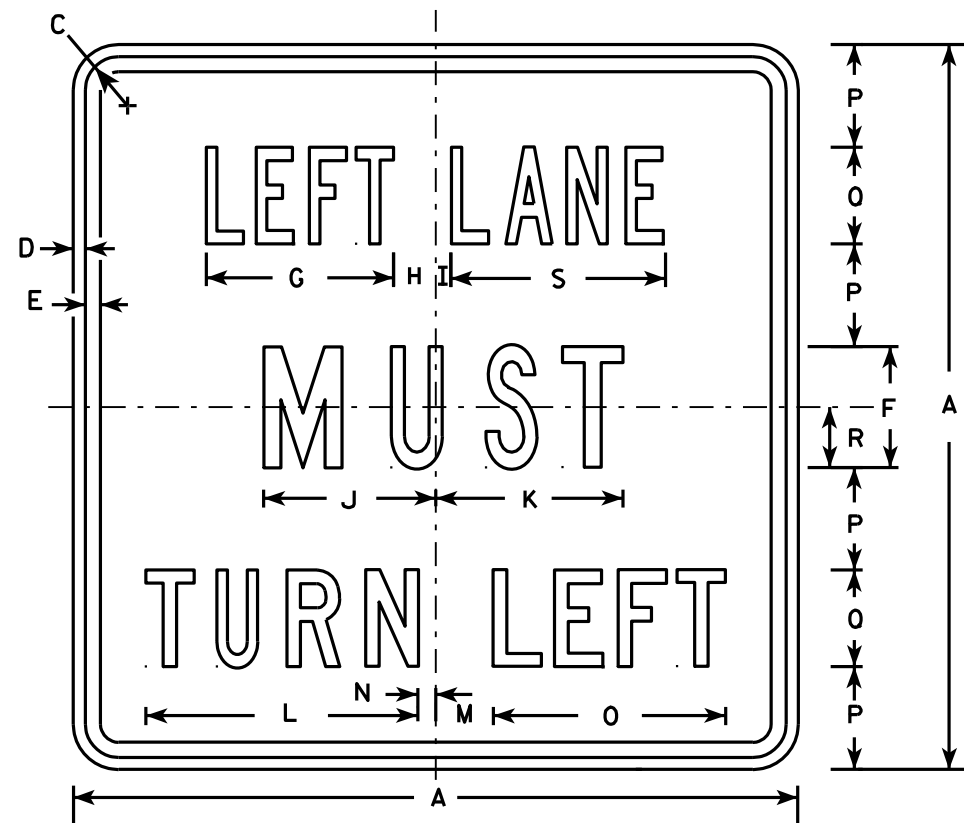
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
2M	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
3	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
4	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
5	48	36	1 3/8	1/2	5/8	8	7	6	15 1/8	19																	12.0

STANDARD SIGN
R2-6P

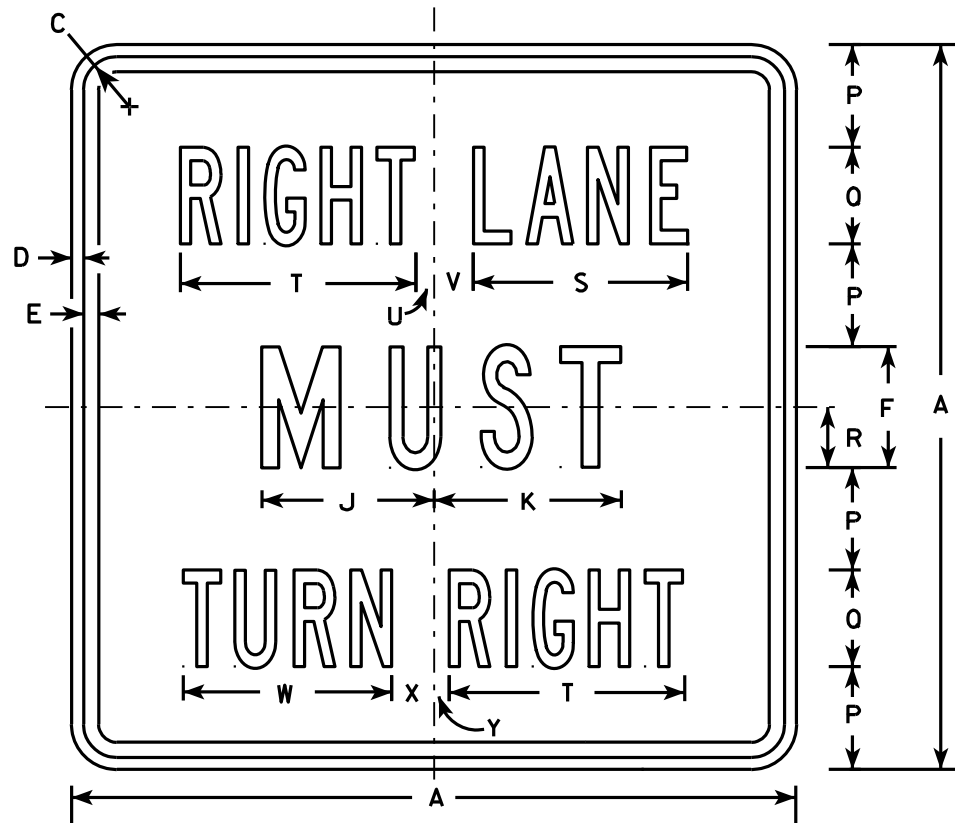
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 12/20/10 PLATE NO. R2-6P.2



R3-7L



R3-7R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - Line 1 is Series B.
Line 2 is Series C.
Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
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.

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	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

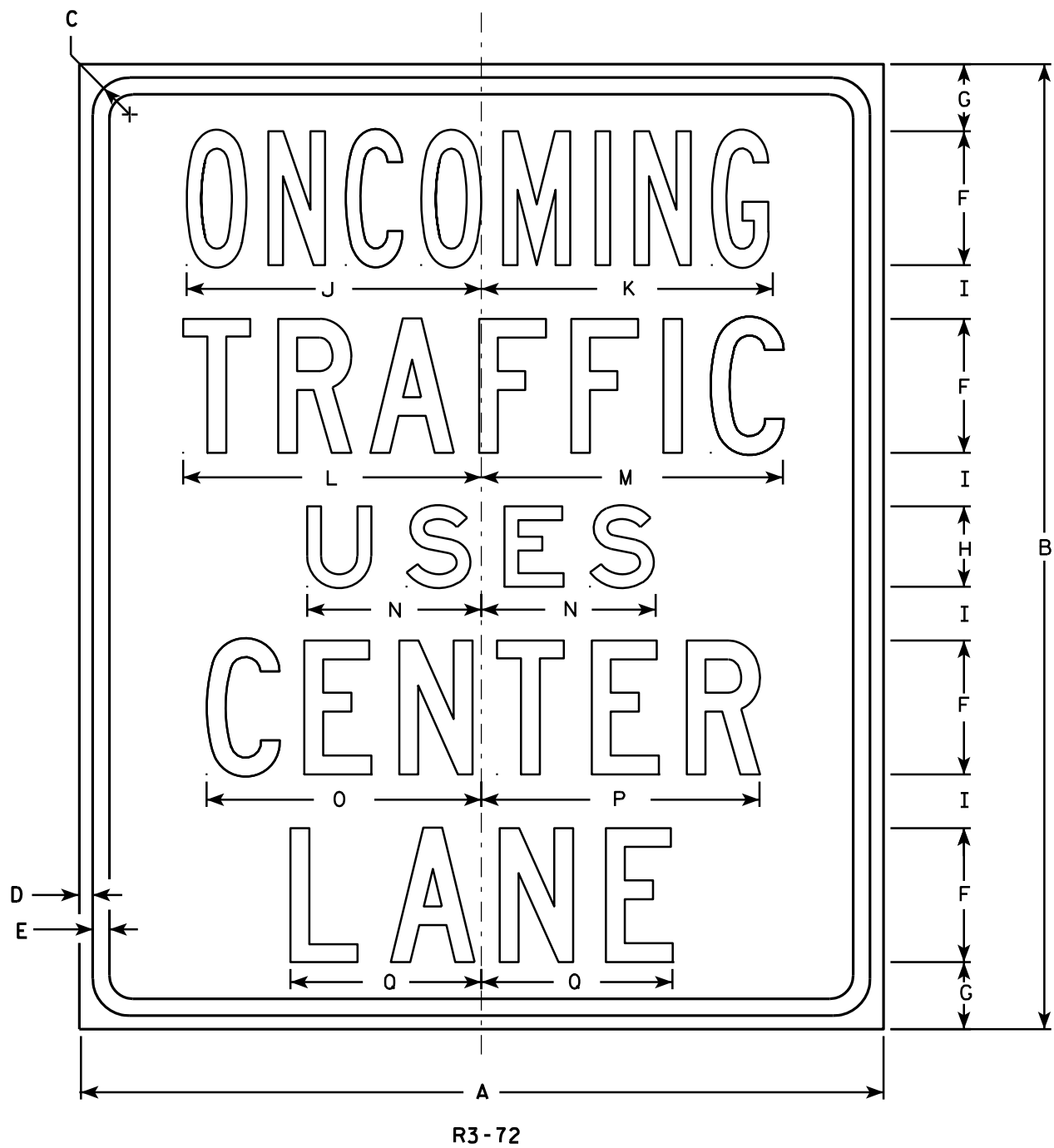
E

STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - Line 1 is Series B, Lines 2, 4 and 5 are Series C, and Line 3 is Series E.
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.

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	36	1 3/8	1/2	5/8	5	2 1/2	3	2	11	10 7/8	11 1/8	11 1/4	6 1/2	10 1/4	10 3/8	7 1/8										7.50
2S	30	36	1 3/8	1/2	5/8	5	2 1/2	3	2	11	10 7/8	11 1/8	11 1/4	6 1/2	10 1/4	10 3/8	7 1/8										7.50
2M	30	36	1 3/8	1/2	5/8	5	2 1/2	3	2	11	10 7/8	11 1/8	11 1/4	6 1/2	10 1/4	10 3/8	7 1/8										7.50
3																											
4																											
5																											

STANDARD SIGN R3-72

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R3-72.5

PROJECT NO: HWY: COUNTY: SHEET NO: E



R4-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
3	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
4	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/2	20	12 1/2	13 1/2	14 1/4	15 1/4													20.0

STANDARD SIGN R4-3

WISCONSIN DEPT OF TRANSPORTATION

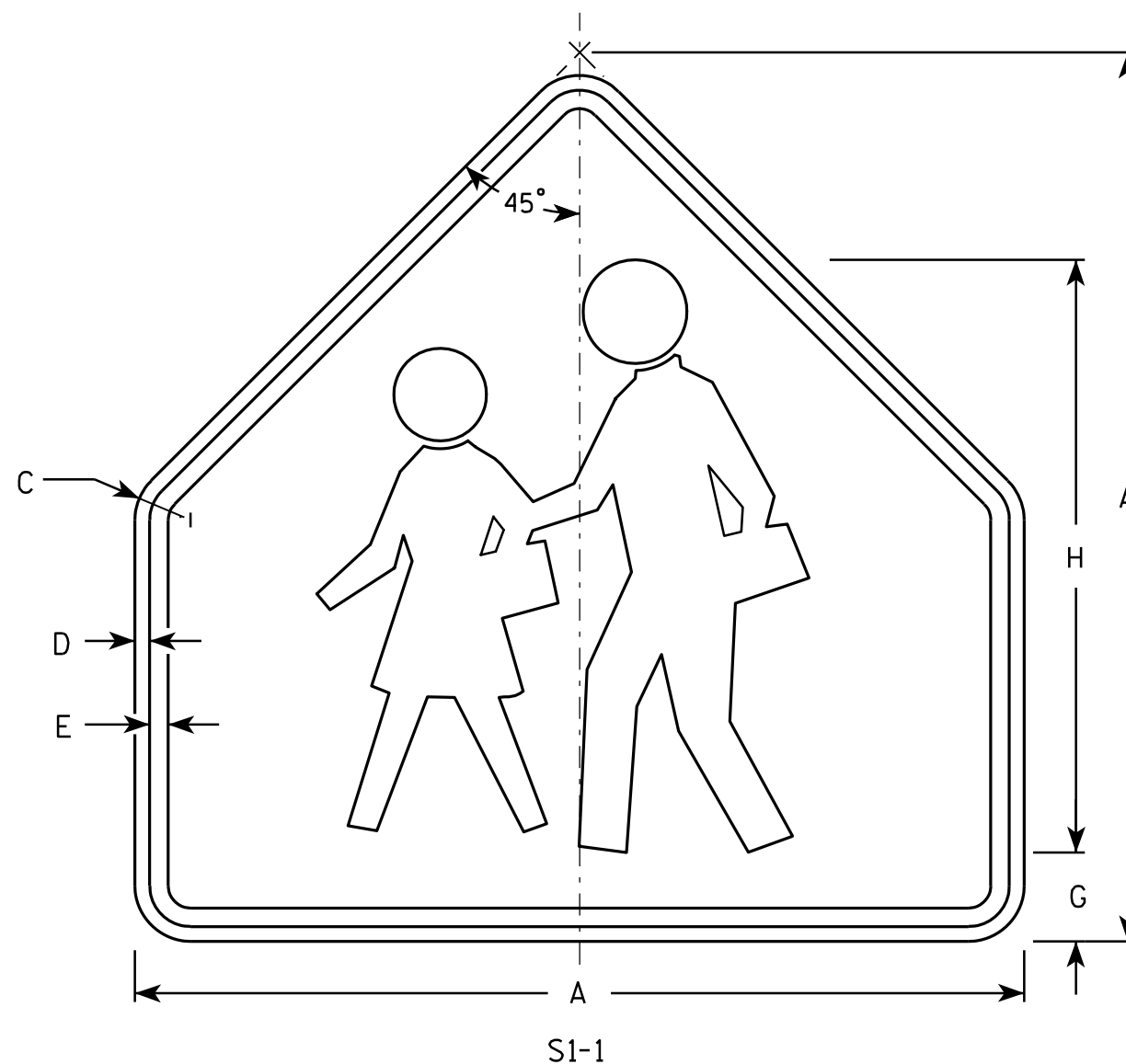
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-3.8

PROJECT NO:

SHEET NO:

E



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-Green
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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		3	20																			4.69
2	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
3	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
4	48		2 1/4	3/4	1		4 3/4	32																			12
5																											

STANDARD SIGN S1-1

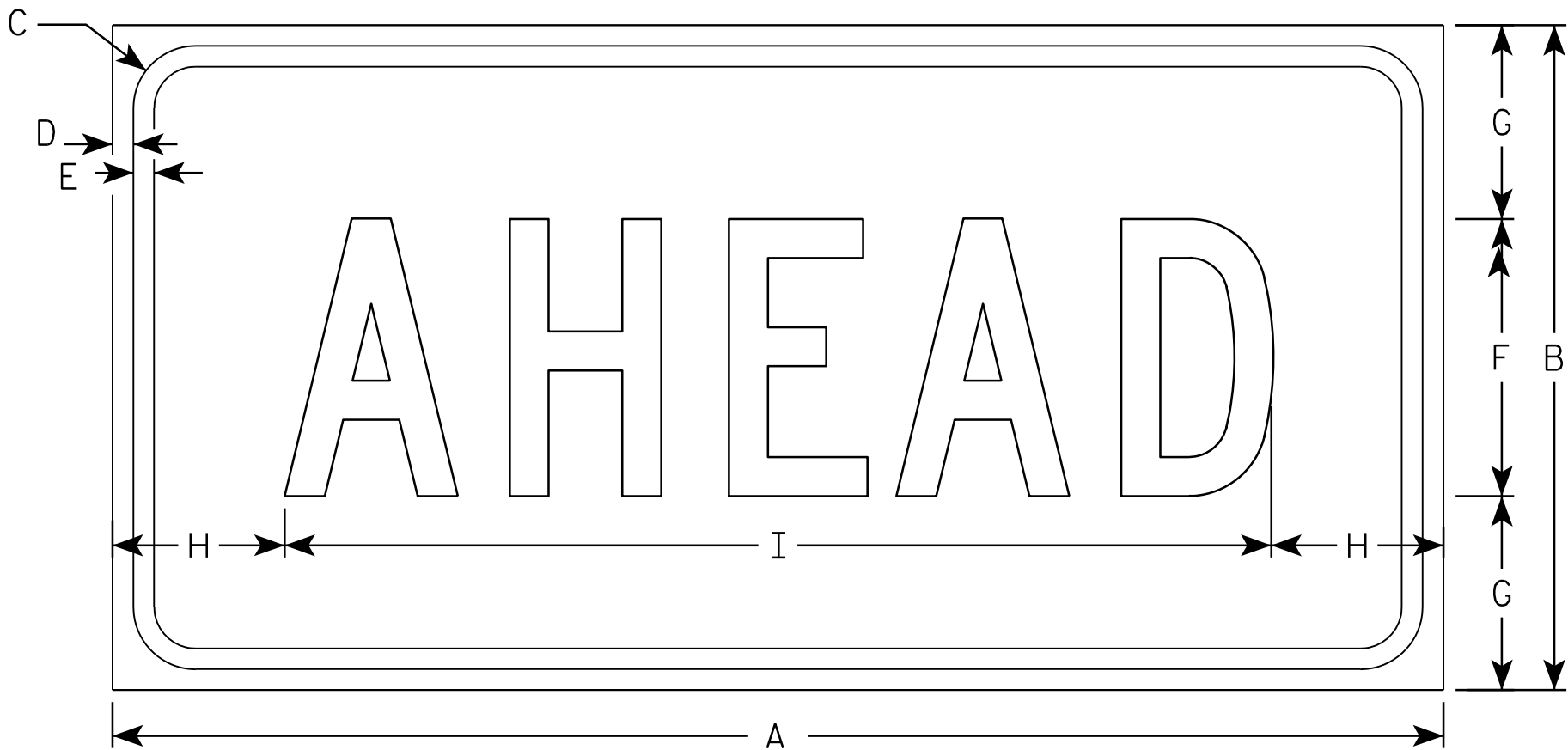
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch
for State Traffic Engineer
DATE 6/30/05 PLATE NO. S1-1.8

PROJECT NO: HWY: COUNTY: SHEET NO: E

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-Green
Message - Black
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.



S16-9P

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	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2S	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN
S16-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-9P.1

PROJECT NO:

HWY:

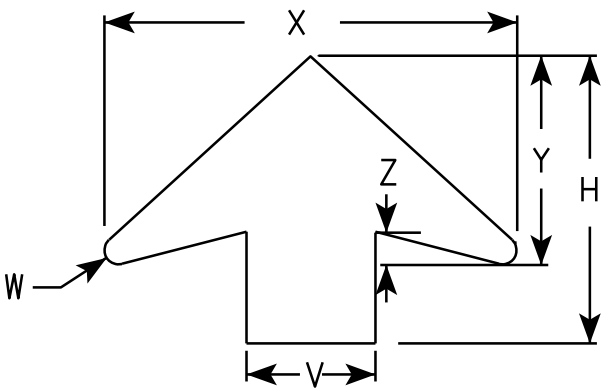
COUNTY:

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: See Note 5
Background - Flourescent Yellow Green
Message - BLACK
3. Message Series - See note 6
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance
5. SCHOOL background - Yellow Green -Type F Reflective.
Speed Limit panel background - White -Type H Reflective.
6. From top to bottom:
School is series D
All other lines are series E
7. 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.



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																											
2	36	1 7⁄8	1 5⁄8	5⁄8	3⁄4	15 3⁄4	6 3⁄4	13 3⁄8	7 5⁄8	15	22 1⁄2	1⁄4	3⁄8	7⁄8	6 1⁄4	1 1⁄4	2 1⁄2	6 3⁄8	4 1⁄2	4 3⁄4	5 3⁄4	6	5⁄8	19 1⁄4	9 3⁄4	1 5⁄8	9.0
3	48	2 3⁄8	2 1⁄4	3⁄4	1	18 3⁄4	10 1⁄8	17 7⁄8	10 1⁄8	20	30	3⁄8	1⁄2	1 1⁄8	8 3⁄8	1 5⁄8	3 3⁄8	8 1⁄2	5 7⁄8	6 3⁄8	7 3⁄4	8	7⁄8	25 5⁄8	13	2	16.0
4	48	2 3⁄8	2 1⁄4	3⁄4	1	18 3⁄4	10 1⁄8	17 7⁄8	10 1⁄8	20	30	3⁄8	1⁄2	1 1⁄8	8 3⁄8	1 5⁄8	3 3⁄8	8 1⁄2	5 7⁄8	6 3⁄8	7 3⁄4	8	7⁄8	25 5⁄8	13	2	16.0
5																											

PROJECT NO:

STANDARD SIGN
S4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 12/21/10

PLATE NO. S4-5.3

SHEET NO:

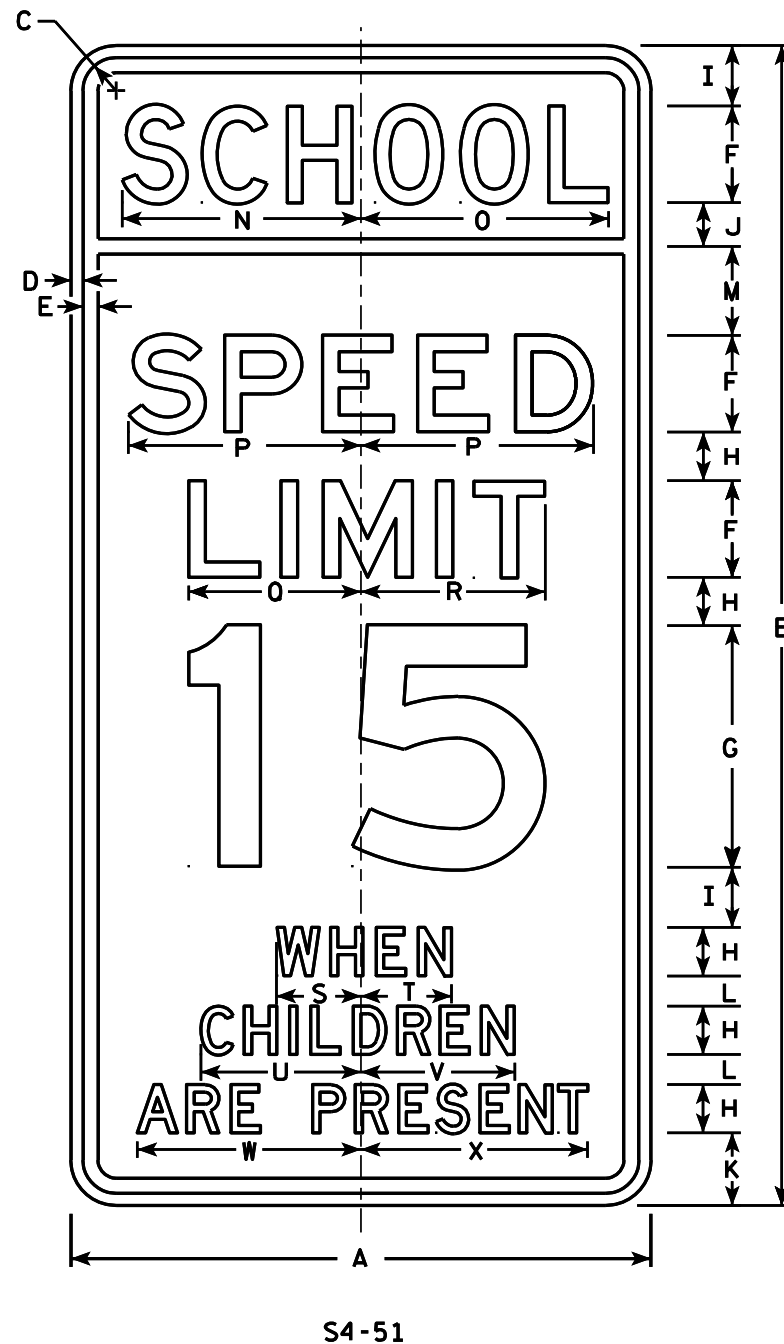
E

Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 1200 mm
3	900 mm X 1800 mm
4	
5	

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	48	1 ⅜	½	⅝	4	10	2	2 ½	1 ¾	3	1 ¼	3 ¾	9 ⅞	10 ¼	9 ⅝	7 ⅛	7 ⅝	3 ½	3 ⅜	6 ⅝	6 ⅜	9 ¼	9 ⅜			8.00	0.72
3	36	72	2 ¼	¾	1	6	15	3	3 ¾	2 ¾	4 ½	1 ⅞	5 ½	15	15 ¼	14 ½	11 ¼	11 ½	5 ½	5 ¾	10	9 ¾	14	14 ⅛			18.00	1.62
4																												
5																												

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

- Sign is Type II - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition. (See note 5).
- Color:
Background - See note 5
Message - Black
- Message Series - See note 6
- 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.
- Top panel (SCH00L) background - Yellow Green -Type F Reflective.
Lower panel background - White -Type H Reflective.
- From top to bottom:
Lines 1, 5, 6 & 7 are series D
Lines 2, 3 & 4 are series E
- Line 4 substitute appropriate numerals and
adjust spacing to achieve proper balance.

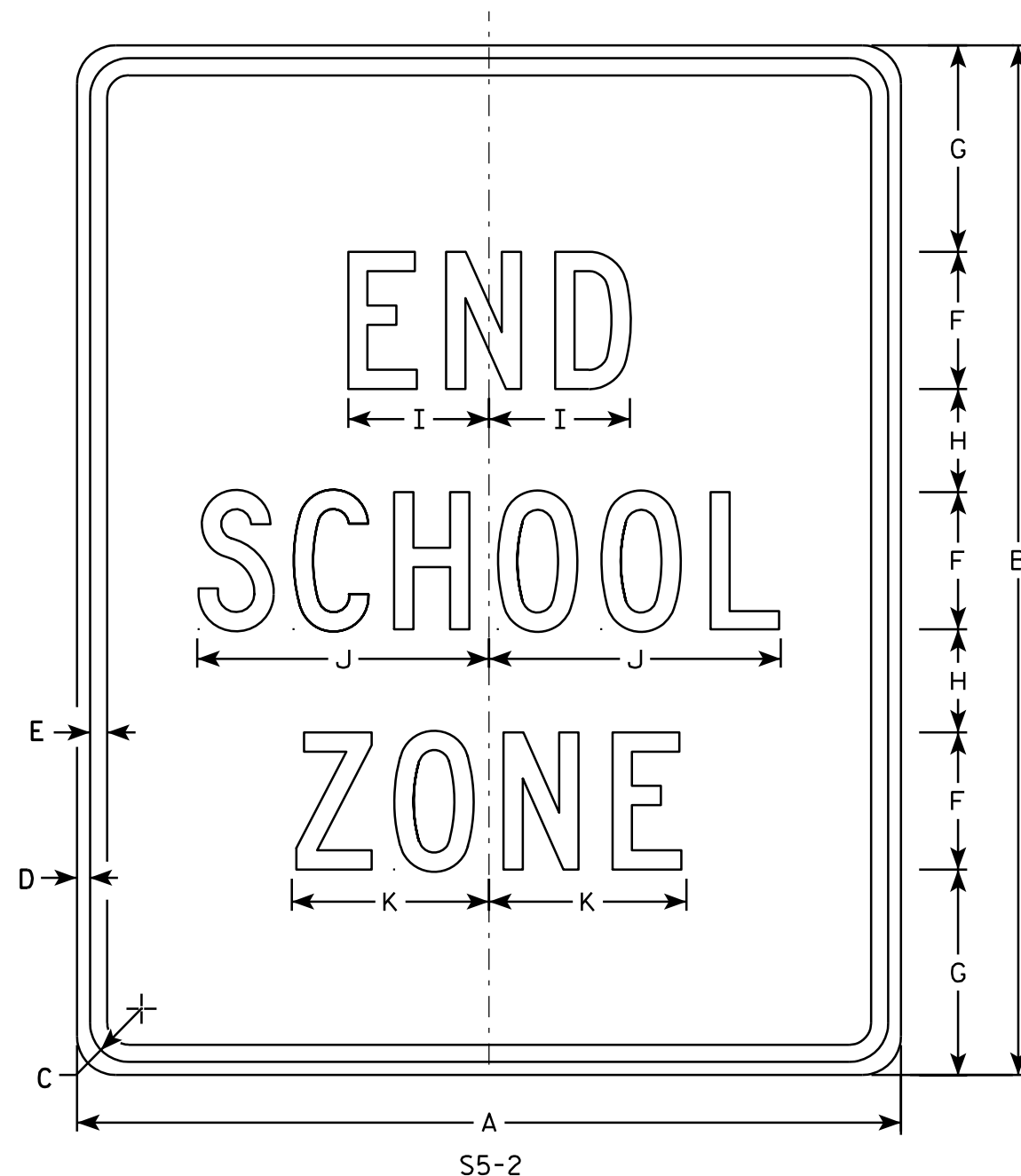
STANDARD SIGN S4-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 4/26/10 PLATE NO. S4-51.9

7



NOTES

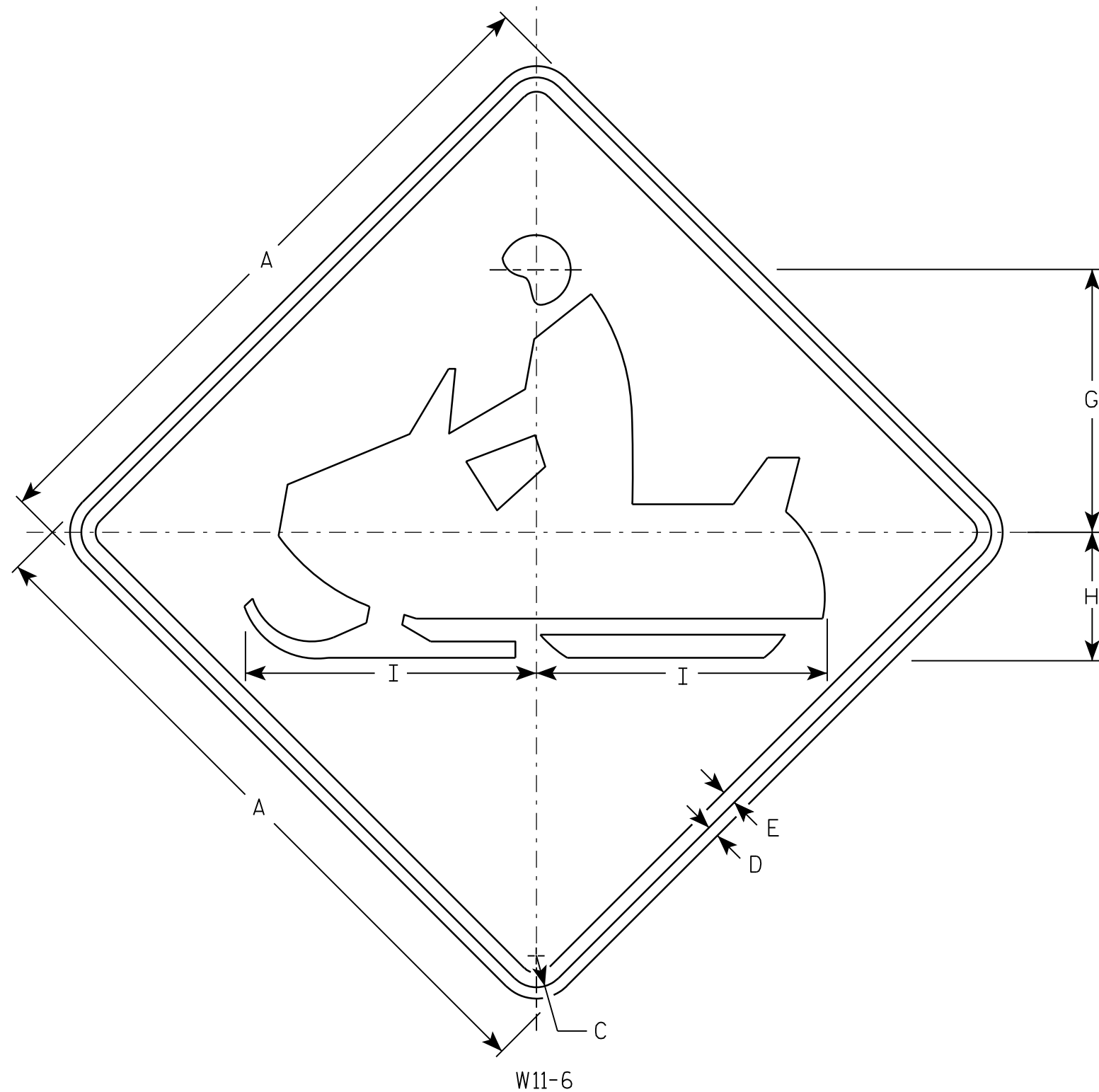
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1																											
2	24	30	1 1/8	3/8	1/2	4	6	3	4 1/8	8 1/2	5 3/4																5.0
3	36	42	1 5/8	5/8	3/4	6	7	5	6 1/8	12 5/8	8 5/8																10.5
4																											
5																											

STANDARD SIGN S5-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/8/11	PLATE NO. S5-2.2

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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W11-6

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. 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.

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		9 1/2	4 1/2	10 1/4																		4.0
2S	30		1 3/8	1/2	5/8		11 1/2	5 5/8	12 3/4																		6.25
2M	30		1 3/8	1/2	5/8		11 1/2	5 5/8	12 3/4																		6.25
3	36		1 5/8	5/8	3/4		14 1/8	6 3/4	15 1/4																		9.0
4	48		2 1/4	3/4	1		19	9	20 1/2																		16.0
5																											

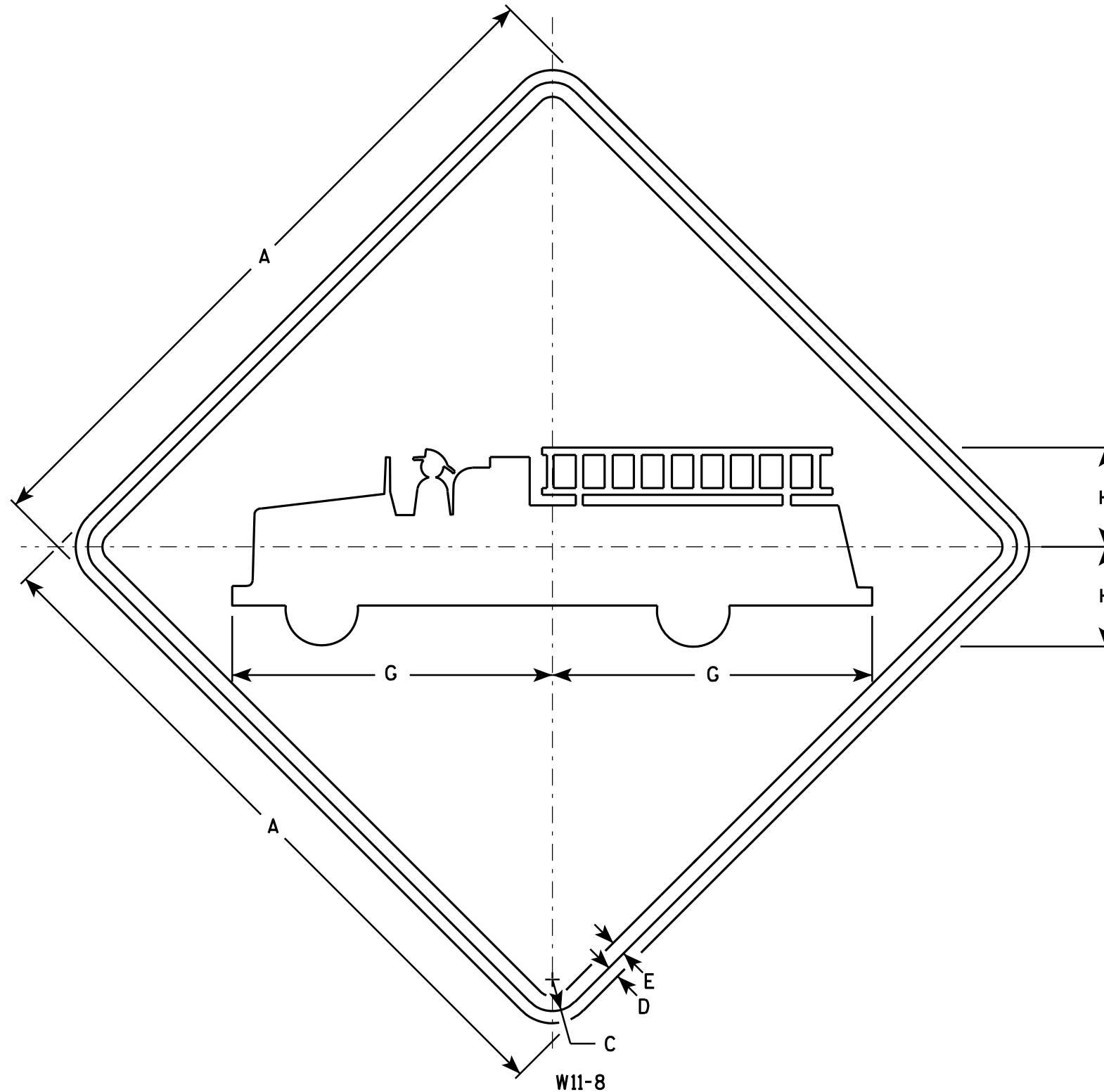
STANDARD SIGN
W11-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W11-6.8

PROJECT NO: HWY: COUNTY: SHEET NO: **E**



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. 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.

W11-8

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		11	3 3/8																			4.0
2S	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
2M	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
3	36		1 5/8	5/8	3/4		16 1/2	5 1/4																			9.0
4	48		2 1/4	3/4	1		22	7																			16.0
5																											

STANDARD SIGN W11-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/13/13 PLATE NO. W11-8.7

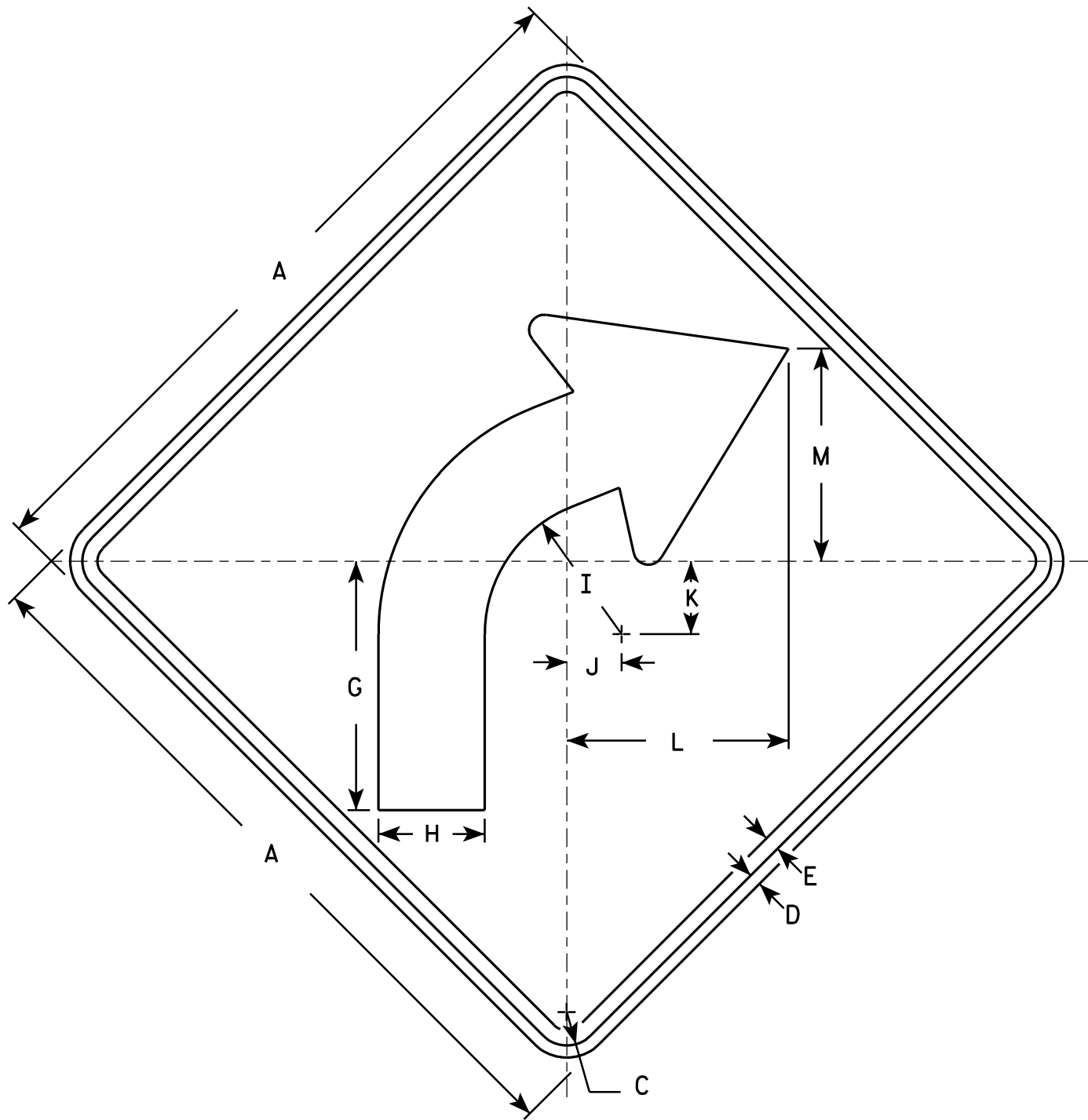
PROJECT NO:

SHEET NO:

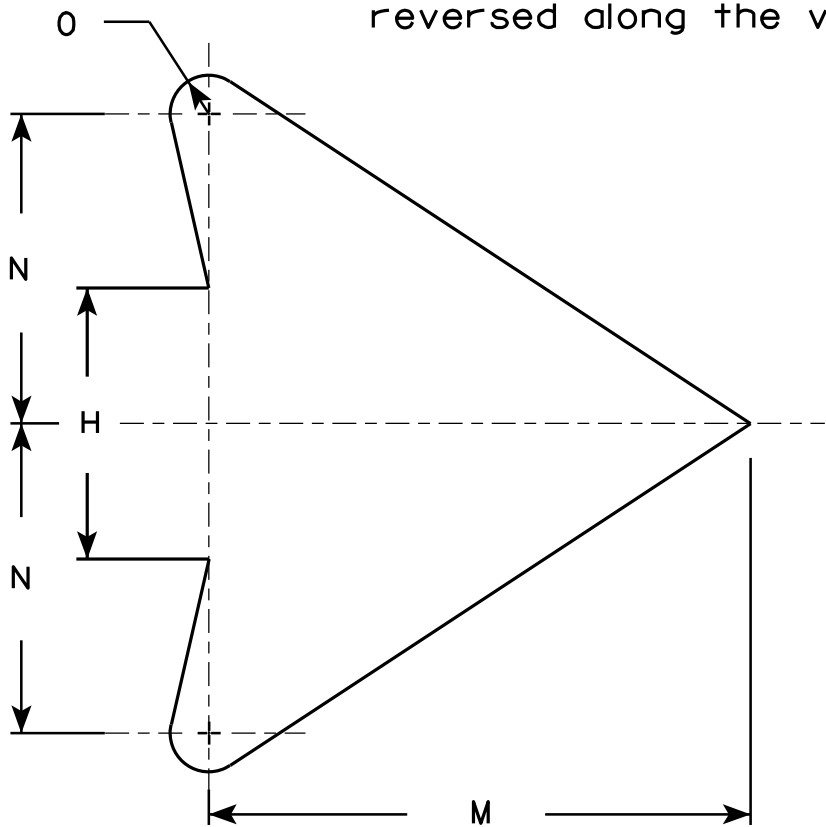
E

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. Corners may be square or rounded when base
material is plywood but borders shall be rounded
as shown. When base material is metal, the
corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is
reversed along the vertical centerline.



W1-2R



ARROW DETAIL

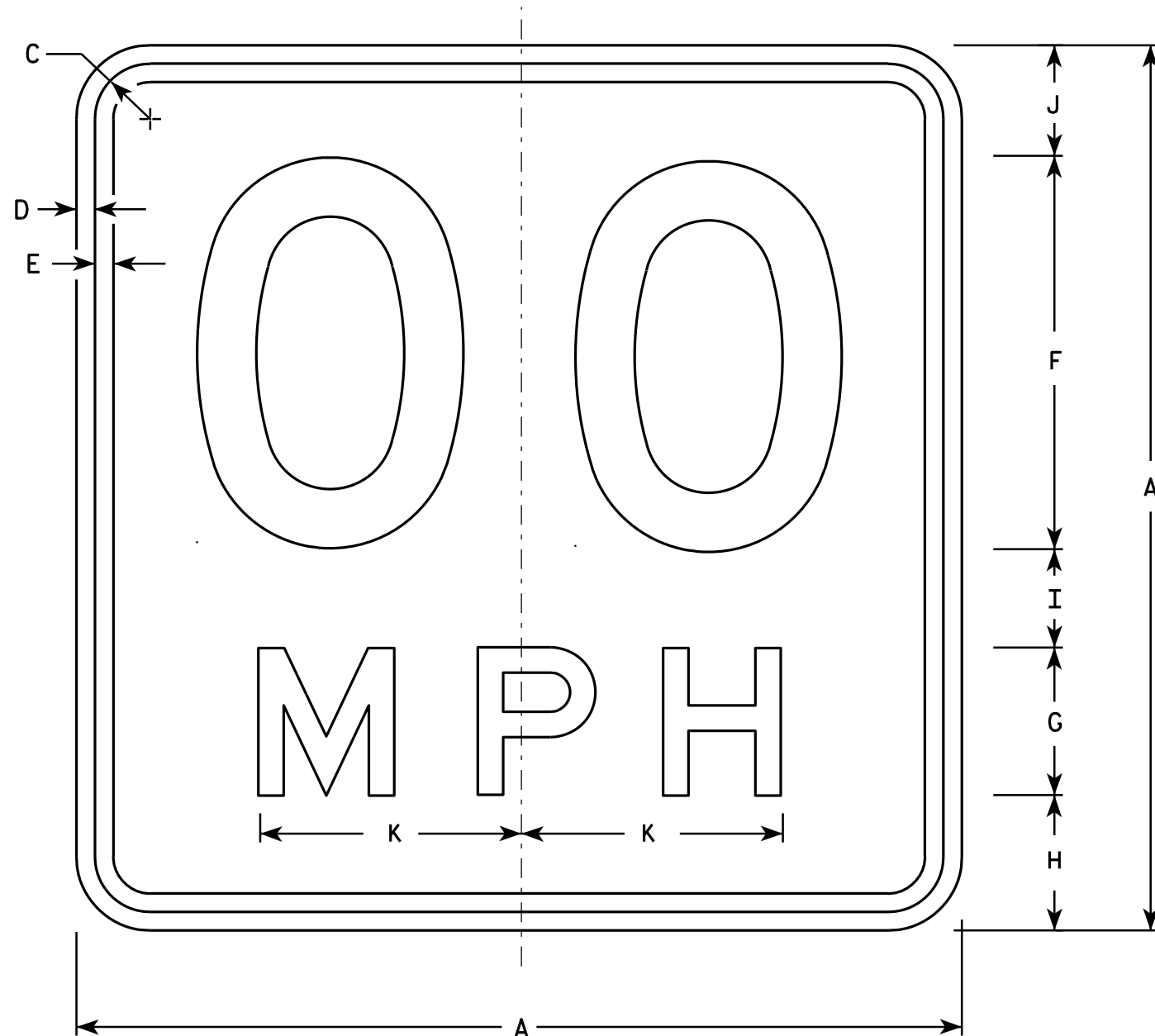
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10



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

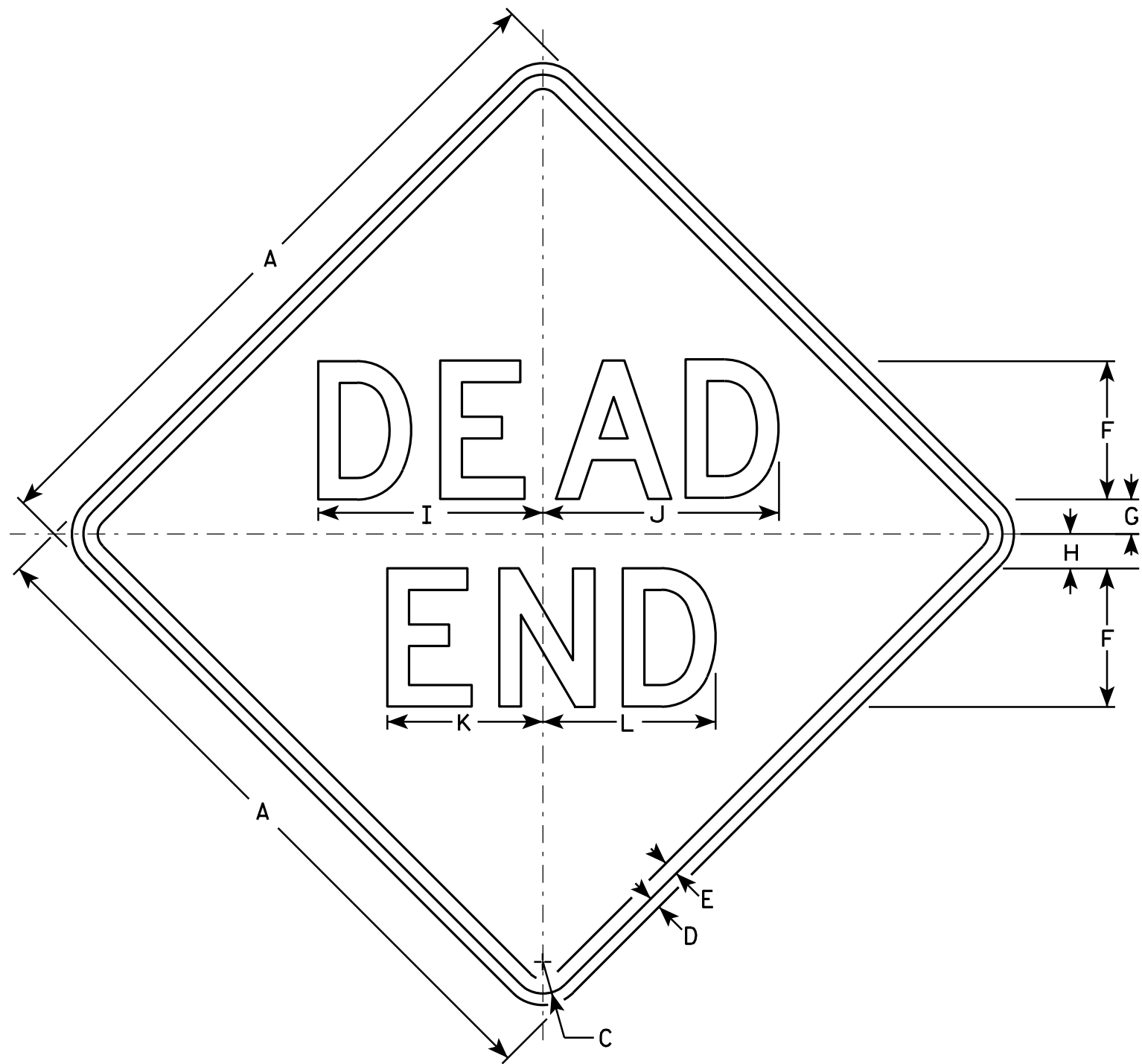
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



W14-1

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 - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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	5	1	2	8 1/4	8 5/8	5 5/8	6 1/4															4.0
2S	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
2M	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
3	36		1 5/8	5/8	3/4	7	2	3	11 3/8	12	7 7/8	8 3/4															9.0
4																											
5																											

STANDARD SIGN
W14-1

WISCONSIN DEPT OF TRANSPORTATION

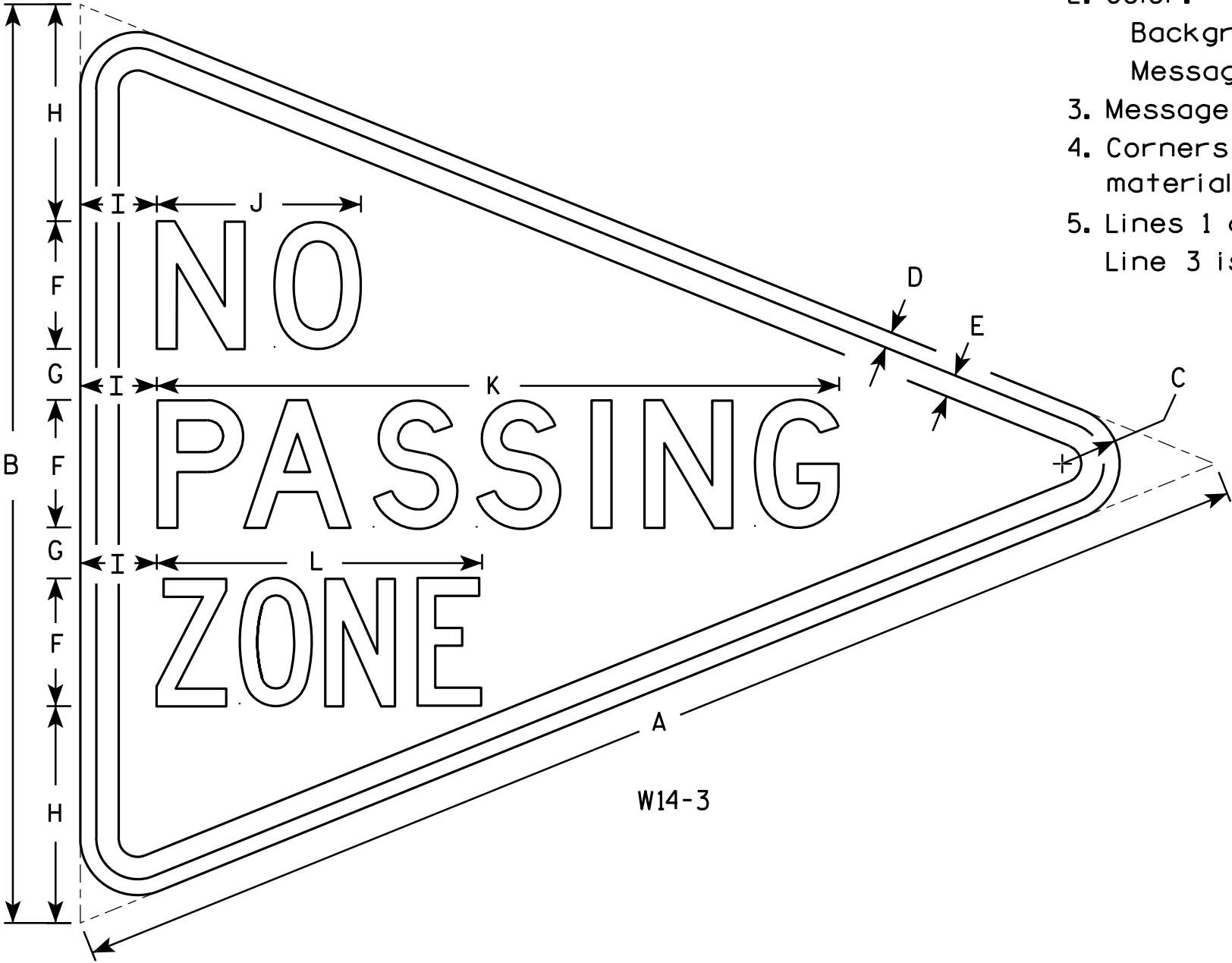
APPROVED Matthew R. Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W14-1.7

PROJECT NO: HWY: COUNTY: SHEET NO: E

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 5
- 4. Corners and borders shall be rounded on all base materials for this sign.
- 5. Lines 1 and 2 are Series D.
Line 3 is series C.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

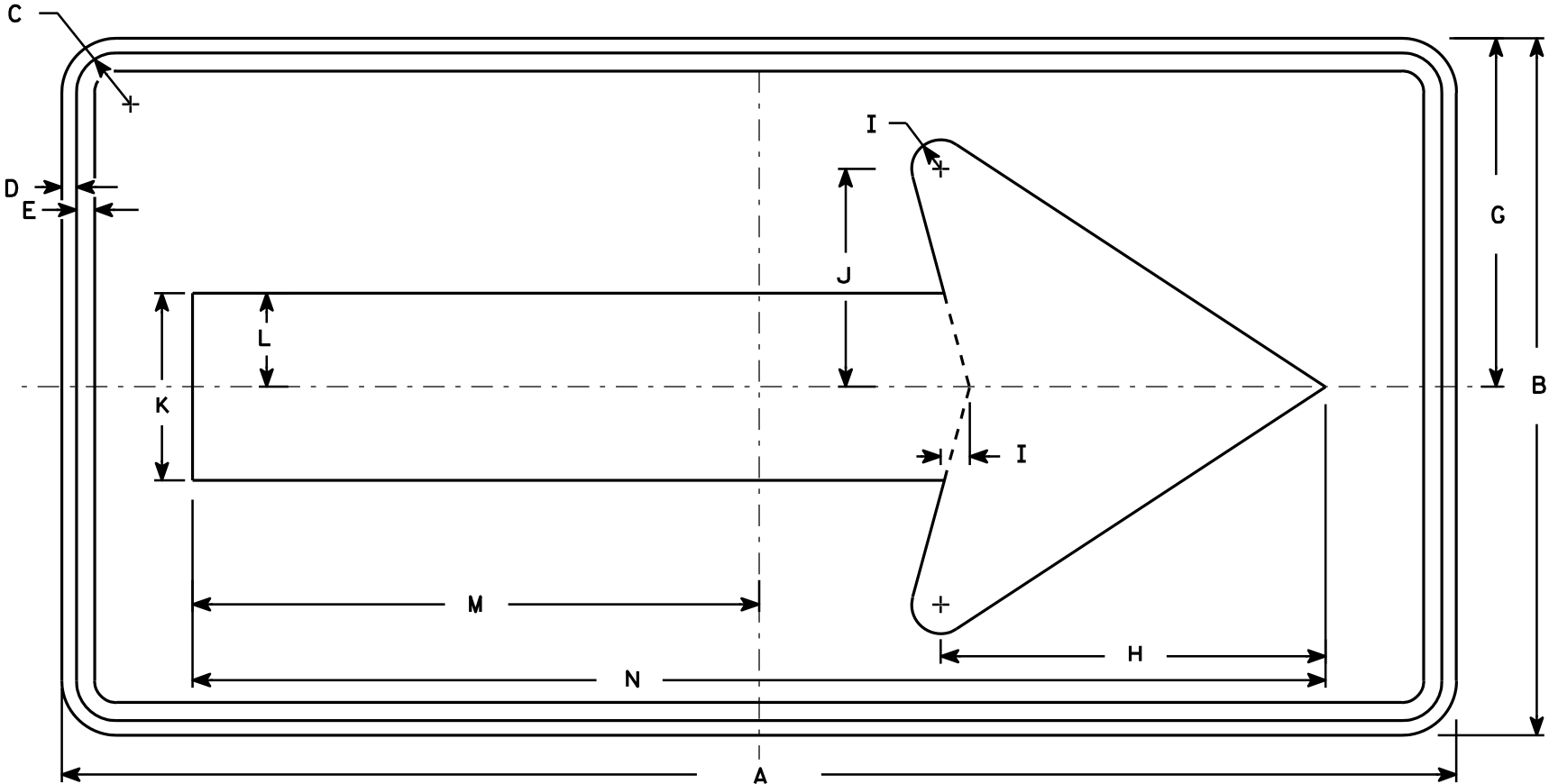
DATE 6/7/10 PLATE NO. W14-3.9

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. 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.



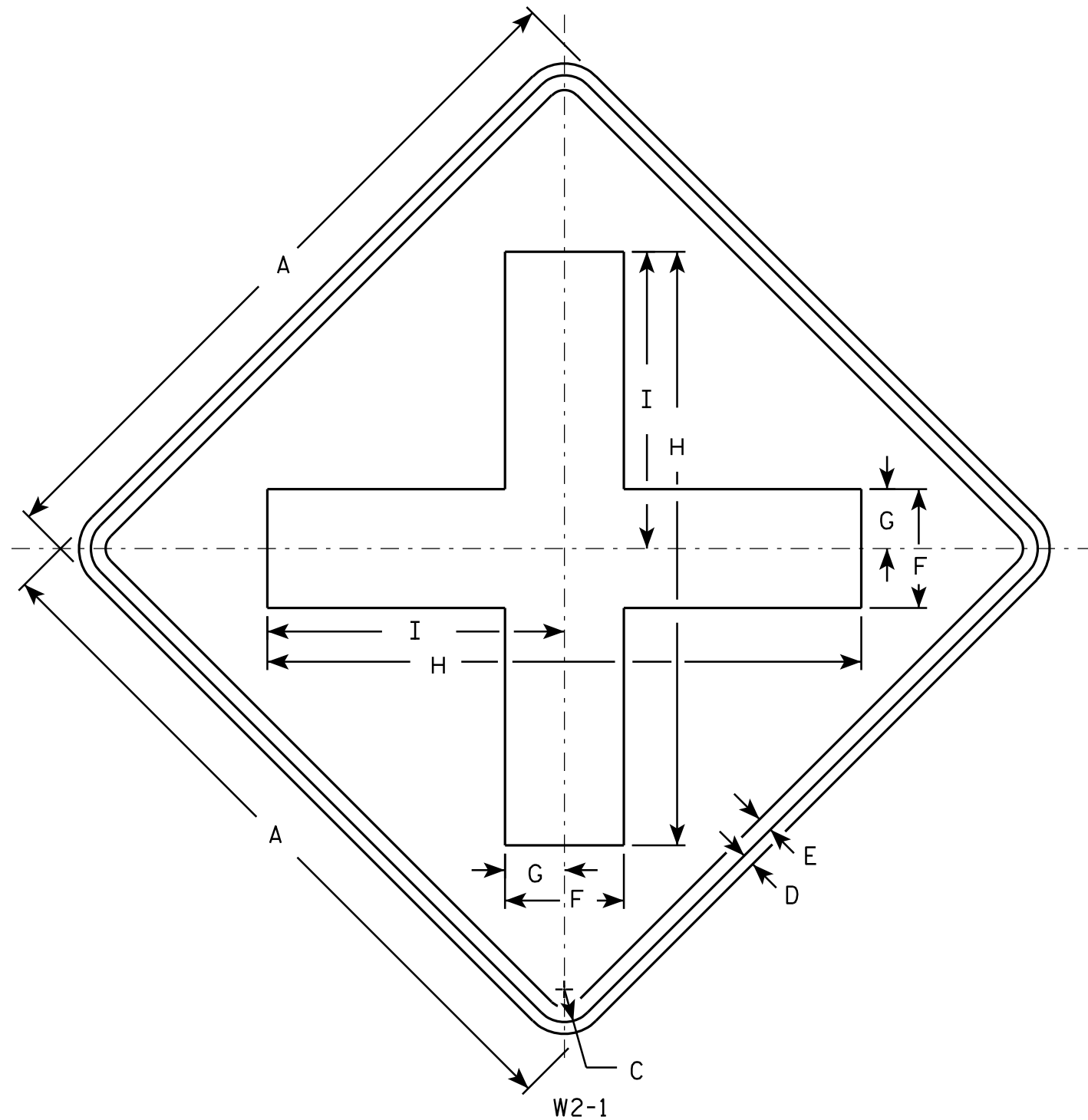
W1-6

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	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/7/10 PLATE NO. W1-6.8



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. 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.

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	4	2	20	10																		4.0
2S	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3	30	15																		9.0
4	48		2 1/4	3/4	1	8	4	40	20																		16.0
5																											

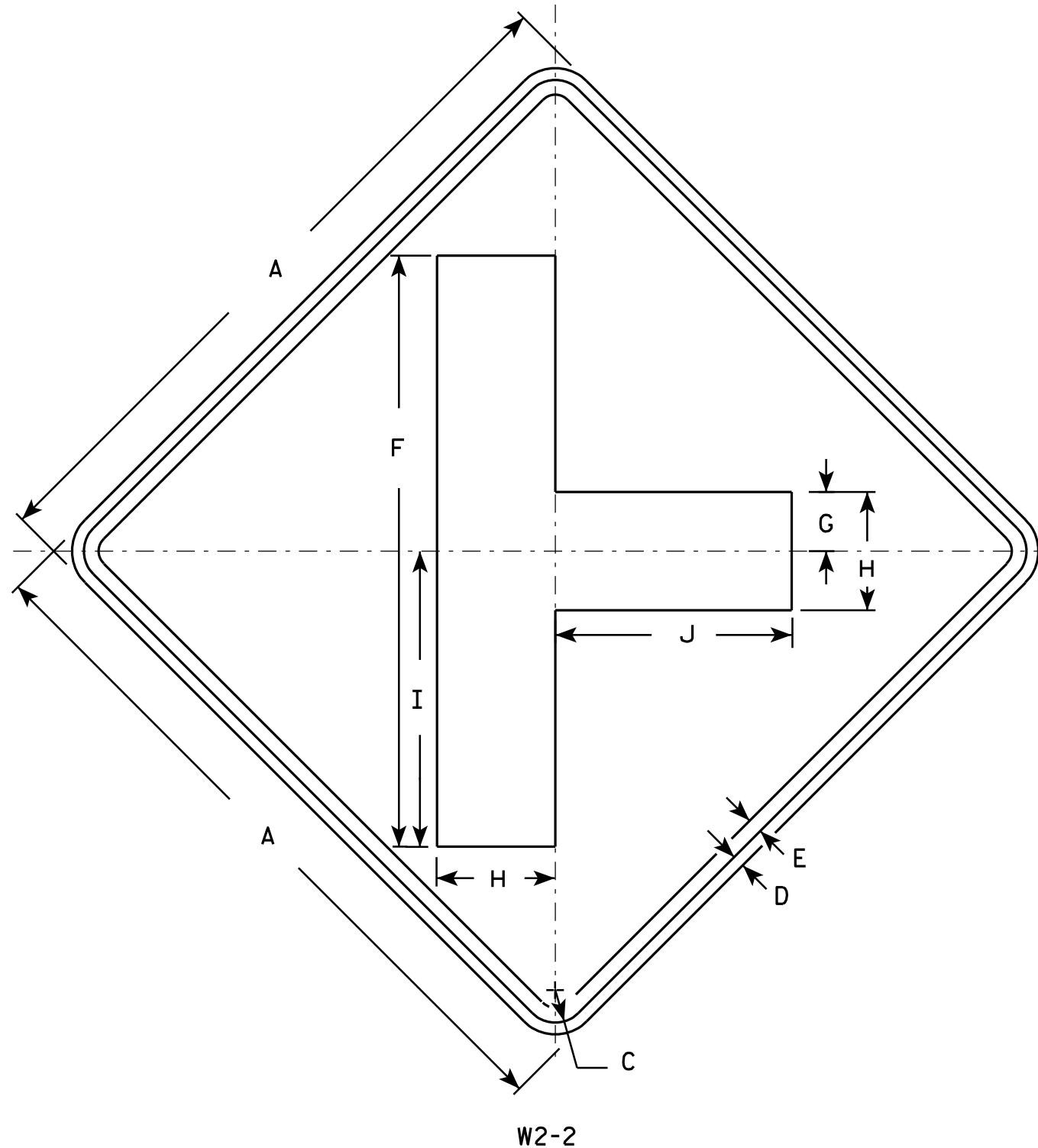
STANDARD SIGN W2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-1.9

PROJECT NO: HWY: COUNTY: SHEET NO: E



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. 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.

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	20	2	4	10	8																	4.0
2S	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
2M	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
3	36		1 5/8	5/8	3/4	30	3	6	15	12																	9.0
4	48		2 1/4	3/4	1	40	4	8	20	16																	16.0
5																											

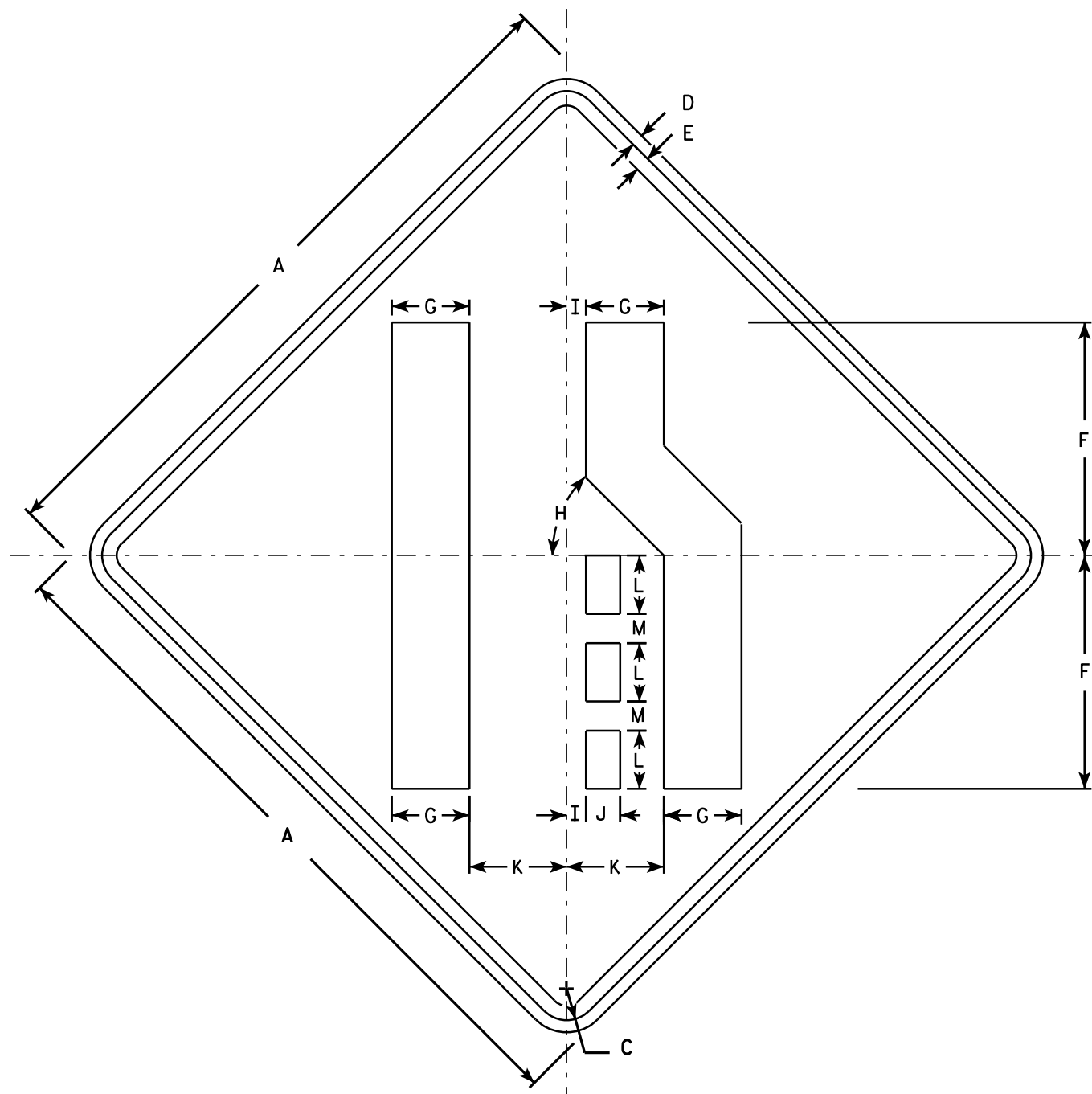
STANDARD SIGN W2-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-2.6

PROJECT NO: HWY: COUNTY: SHEET NO: E



W4-2R

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. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-2L is the same as W4-2R except the symbols 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	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN W4-2

WISCONSIN DEPT OF TRANSPORTATION

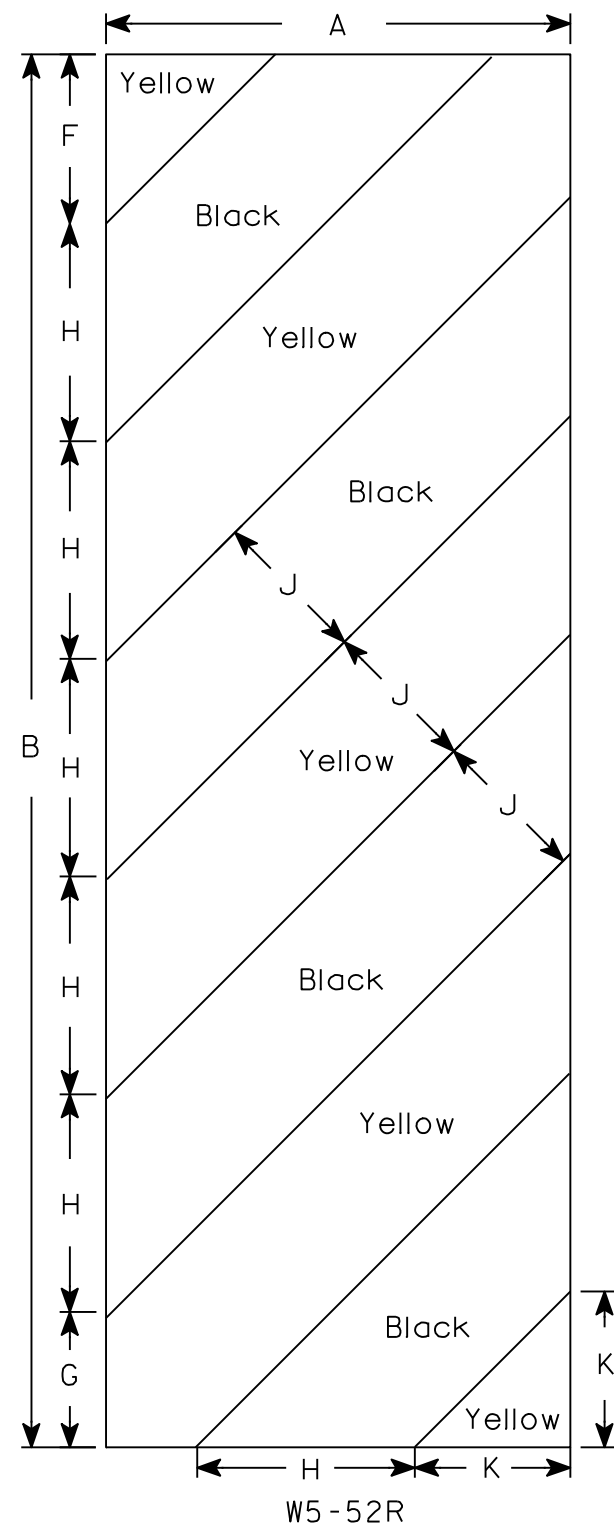
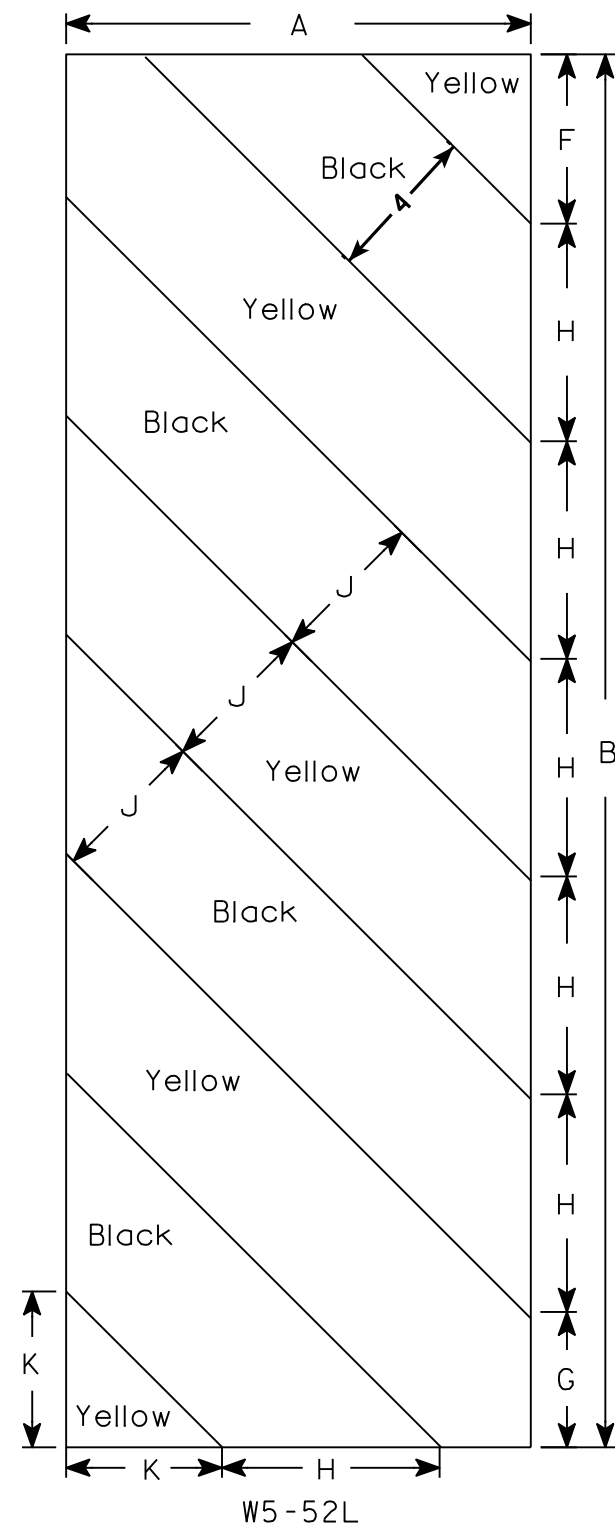
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO:

E



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. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
2M	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
3	18	54				6	5 1⁄2	8 1⁄2	45°	6	6 9⁄16																6.75
4																											
5																											

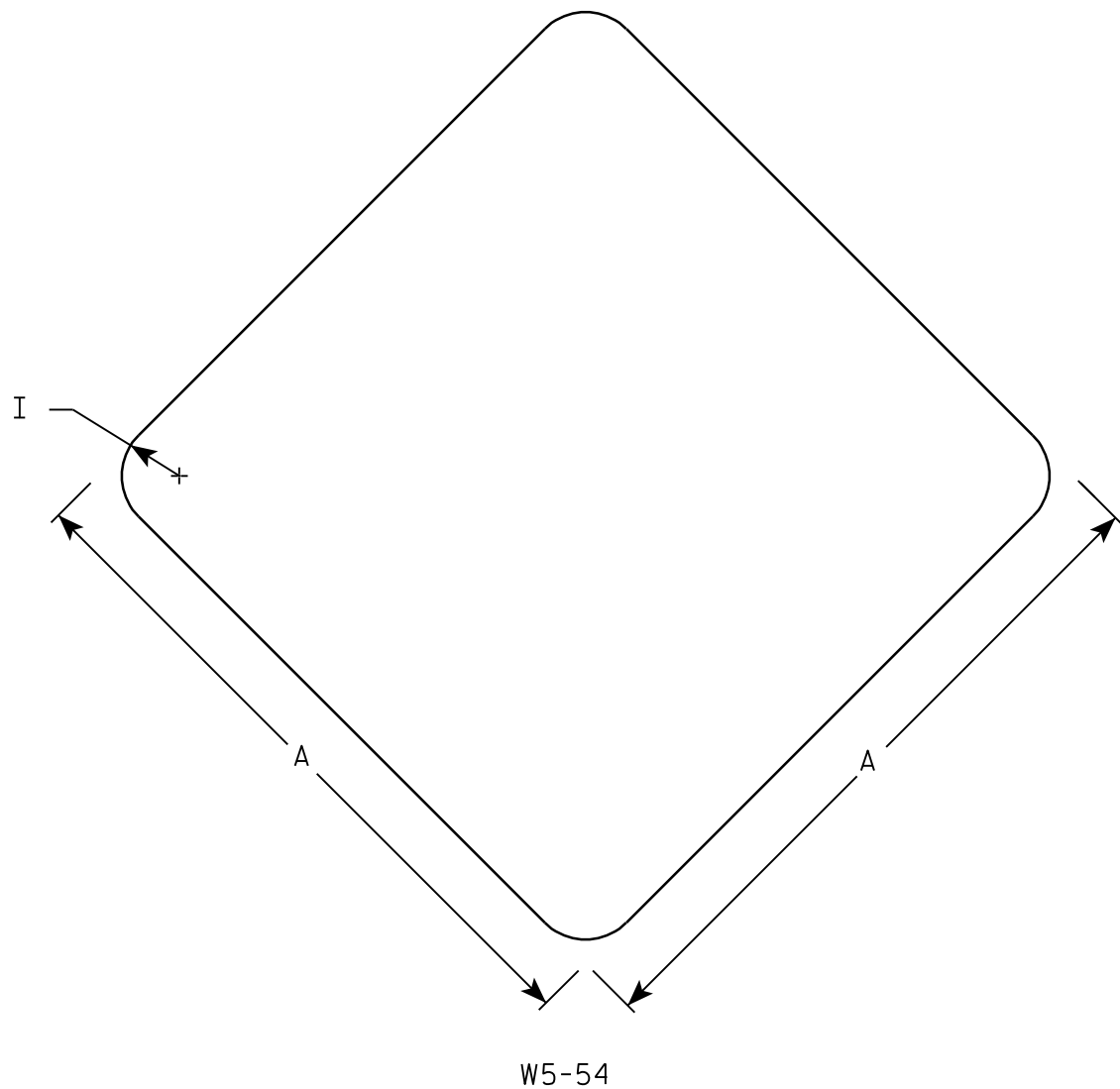
STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

7



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
- 3. Corners may be square or rounded when base material is plywood. When base material is metal the corners shall be rounded.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12								1																		1.0
2S	18								1 1/2																		2.25
2M	18								1 1/2																		2.25
3																											
4																											
5																											

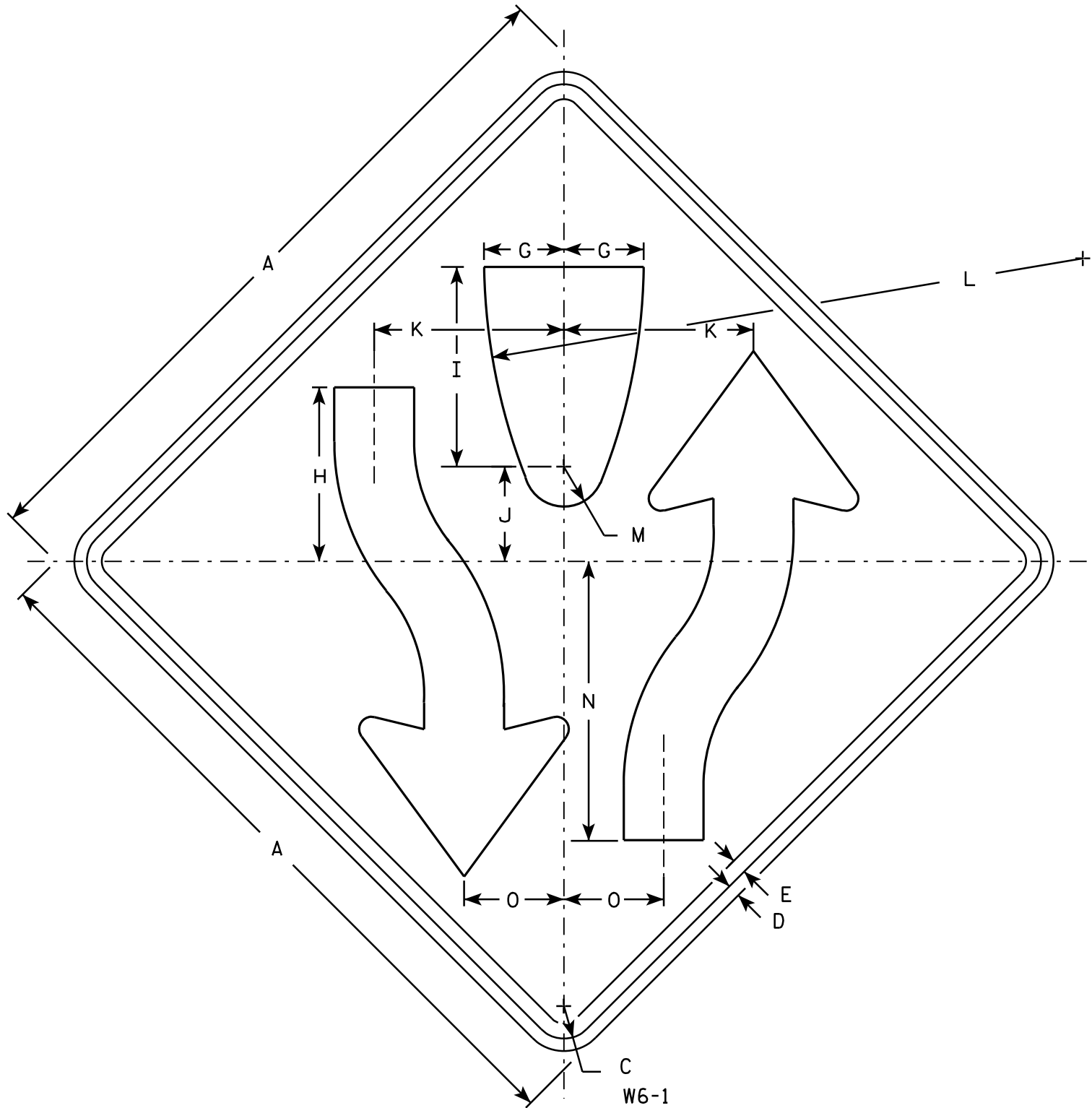
STANDARD SIGN

W5-54

WISCONSIN DEPT OF TRANSPORTATION

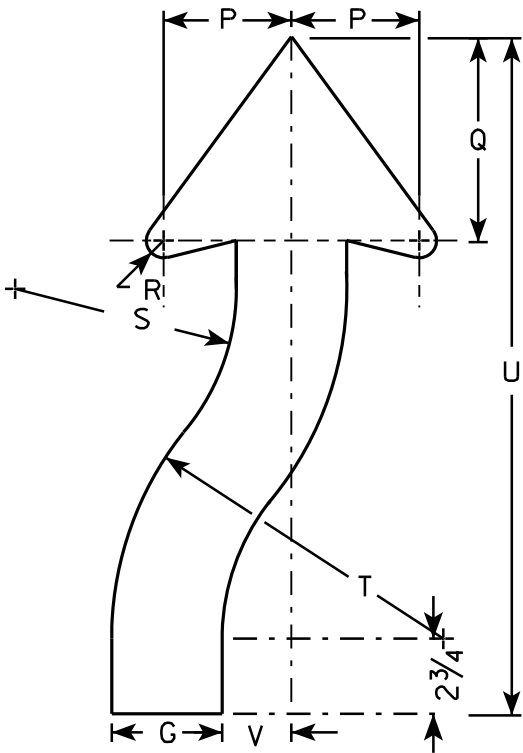
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 11/3/10 PLATE NO. W5-54.8



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. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. W6-2 same as W6-1 but is rotated 180° when mounted.



ARROW DETAIL

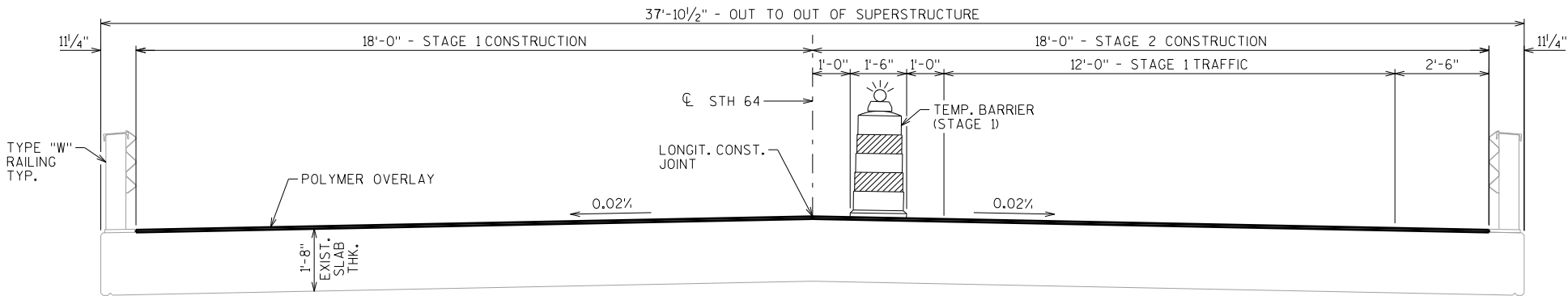
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3⁄8	1⁄2	5⁄8		3 1⁄4	8	8 1⁄4	4 1⁄8	7 7⁄8	25	1 3⁄4	11 5⁄8	4 1⁄8	3 7⁄8	6 3⁄4	5⁄8	6 5⁄8	9 7⁄8	21 5⁄8	2					6.25
2S	36		1 5⁄8	5⁄8	3⁄4		4	8 3⁄4	10	4 3⁄4	9 1⁄2	30	2	14	5	4 5⁄8	7 3⁄8	7⁄8	8	12	24 1⁄2	2 1⁄2					9.0
2M	36		1 5⁄8	5⁄8	3⁄4		4	8 3⁄4	10	4 3⁄4	9 1⁄2	30	2	14	5	4 5⁄8	7 3⁄8	7⁄8	8	12	24 1⁄2	2 1⁄2					9.0
3																											
4	48		2 1⁄4	3⁄4	1		5 3⁄8	11 5⁄8	13 3⁄8	6 3⁄8	12 5⁄8	40	2 5⁄8	18 5⁄8	6 5⁄8	6 1⁄4	9 7⁄8	1 1⁄4	10 5⁄8	16	32 5⁄8	3 3⁄8					16.0
5	48		2 1⁄4	3⁄4	1		5 3⁄8	11 5⁄8	13 3⁄8	6 3⁄8	12 5⁄8	40	2 5⁄8	18 5⁄8	6 5⁄8	6 1⁄4	9 7⁄8	1 1⁄4	10 5⁄8	16	32 5⁄8	3 3⁄8					16.0

STANDARD SIGN
W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

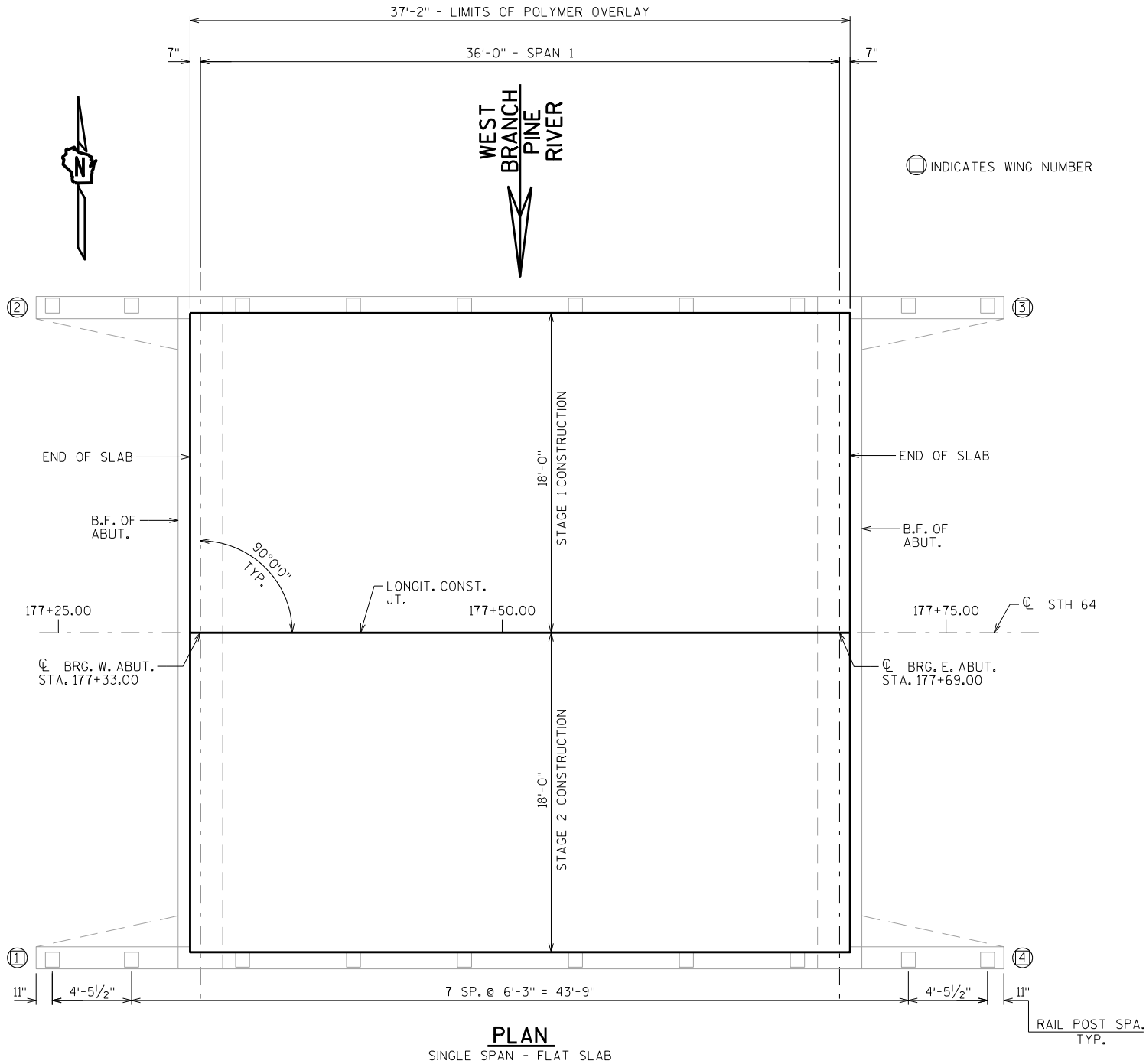
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14



CROSS-SECTION THRU ROADWAY

(STAGE 1 TRAFFIC SHOWN, STAGE 2 TRAFFIC IS SIMILAR)
(LOOKING EAST)



DESIGN DATA

LIVE LOAD:
INVENTORY RATING: HS-29
OPERATIONAL RATING: HS-48
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 250 KIPS

TRAFFIC VOLUME

STH 64
A.D.T. = 3600 (2033)
R.D.S. = 55 M.P.H.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURE PLANS.

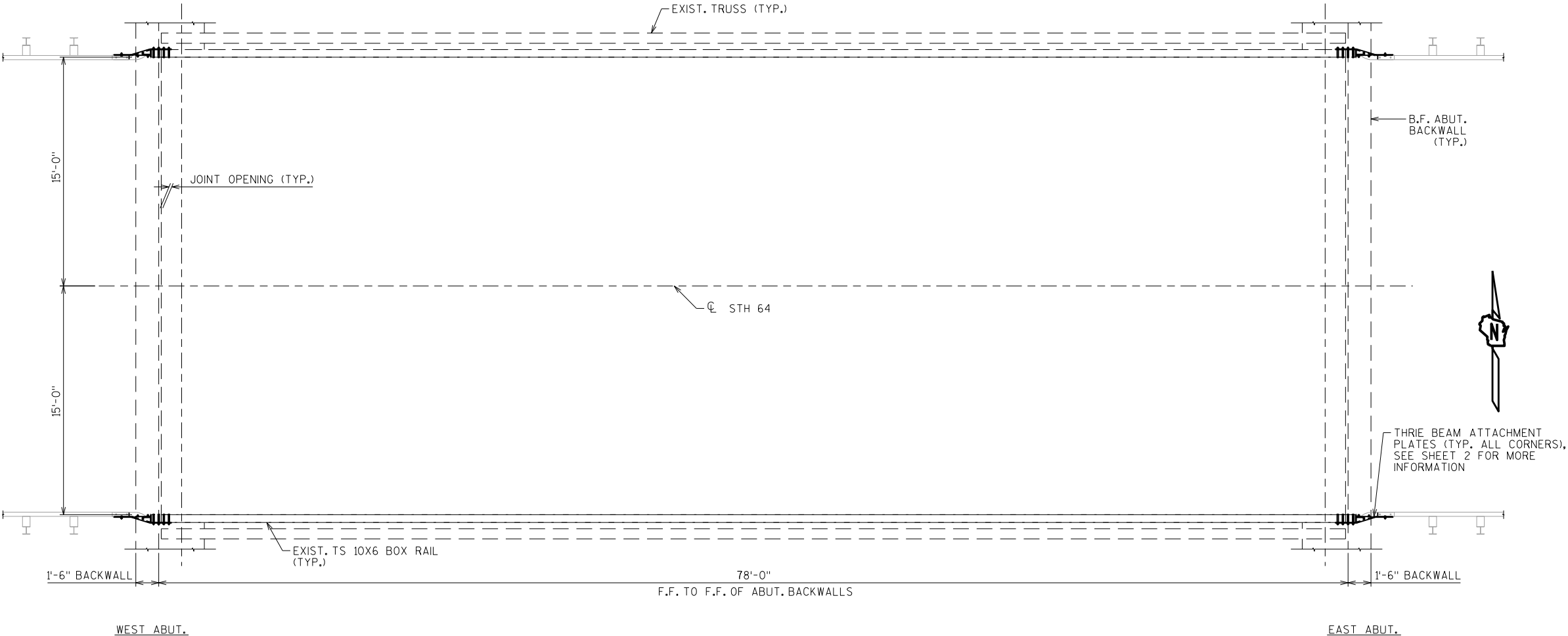
TOTAL ESTIMATED QUANTITIES

509.5100.S POLYMER OVERLAY 149 SY

LIST OF DRAWINGS

1. POLYMER OVERLAY
STRUCTURE DESIGN CONTACT:
NICK RICE (608) 266-5092
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY
 Plans Prepared By WISDOT BUREAU OF STRUCTURES			
ACCEPTED <i>William C. Dickson</i>		1/31/14 DATE	
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE B-35-128			
STH 64 OVER WEST BRANCH OF PINE RIVER			
COUNTY	LINCOLN	TOWN/CITY/VILLAGE	PINE RIVER
DESIGN SPEC.	REHABILITATION	N/A	
DESIGNED BY	NAR	DESIGN CK'D.	EMK
DRAWN BY	NAR	PLANS CK'D.	AMB
POLYMER OVERLAY			SHEET 1 OF 1



PLAN

LIST OF DRAWINGS

1. GENERAL PLAN
2. THRIE BEAM ATTACHMENT

STRUCTURE DESIGN CONTACTS

NICK RICE (608) 266-5092
AARON BONK (608) 261-0261

DESIGN DATA

STRUCTURAL CARBON ——— $f_y = 36,000$ P.S.I.
STEEL, ASTM A709
GRADE 36

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING
ORIGINAL STRUCTURE PLANS.

TOTAL ESTIMATED QUANTITIES

SPV.0060 RAILING ATTACHMENT 4 EACH
SPECIAL B-35-278

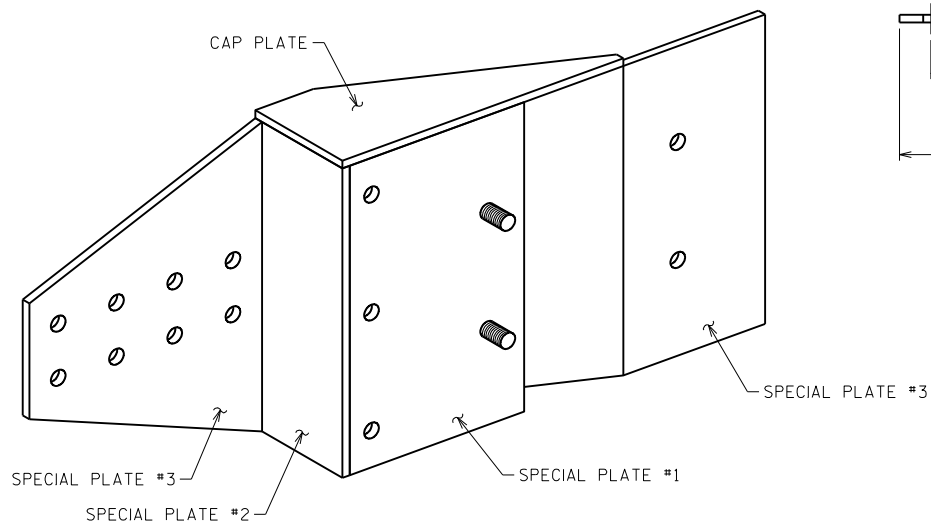
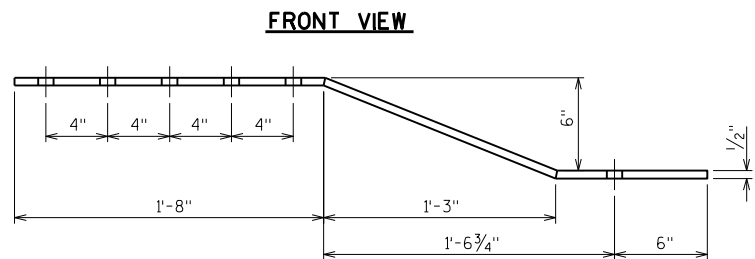
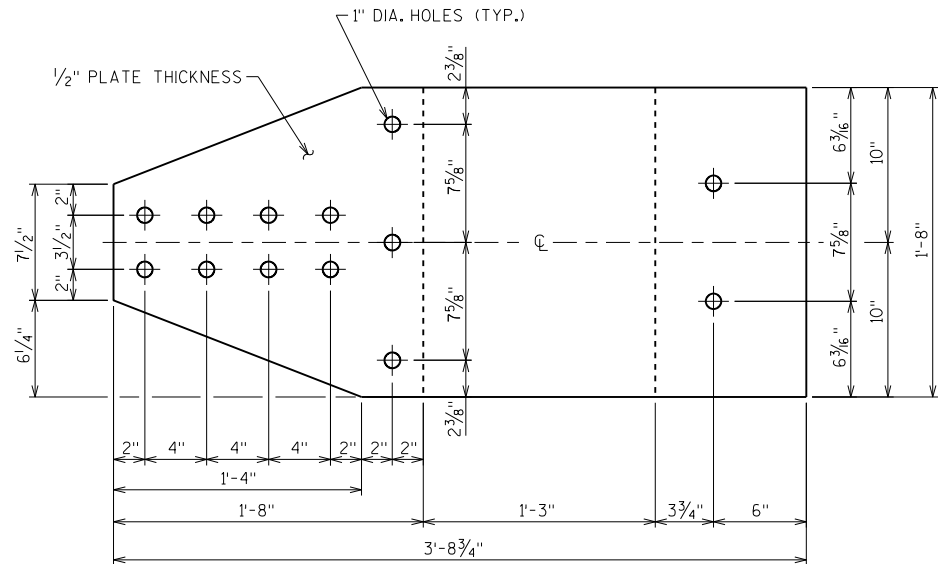
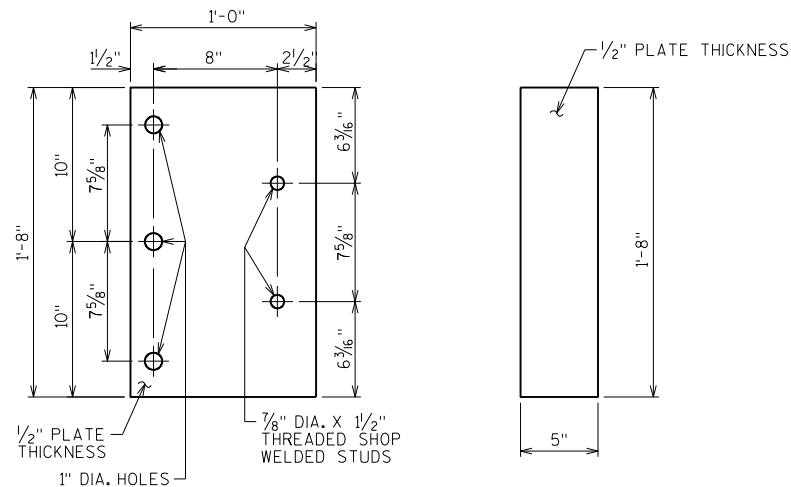
NO.	DATE	REVISION	BY
 Plans Prepared By WISDOT BUREAU OF STRUCTURES			
ACCEPTED 		3/31/14	
CHIEF STRUCTURES DESIGN ENGINEER		DATE	
STRUCTURE B-35-278			
STH 64 OVER PINE RIVER			
COUNTY	LINCOLN	TOWN/CITY/VILLAGE	PINE RIVER
DESIGN SPEC.	REHABILITATION	N/A	
DESIGNED BY	NAR	DESIGN CK'D.	NAR
DRAWN BY	NAR	PLANS CK'D.	EMK
GENERAL PLAN		SHEET 1 OF 2	

GENERAL NOTES

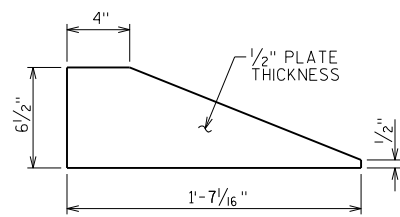
BOLTS, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A325. PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A36. BOLTS, PLATES, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153.

FURNISHING AND CONSTRUCTING PLATES, DRILLING (8) 1" DIAMETER HOLES IN EXISTING RAILING, BOLTS, NUTS AND WASHERS SHALL BE INCIDENTAL TO THE BID ITEM RAILING ATTACHMENT SPECIAL, B-35-278.

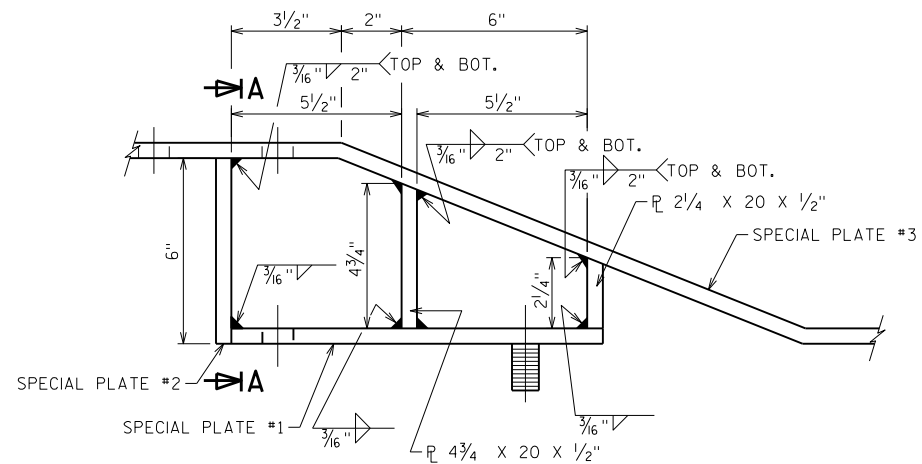
SEE STANDARD DETAIL DRAWING: MIDWEST GUARDRAIL SYSTEM (MGS) THRIE BEAM TRANSITION
VERIFY FIELD CONDITIONS PRIOR TO FABRICATION



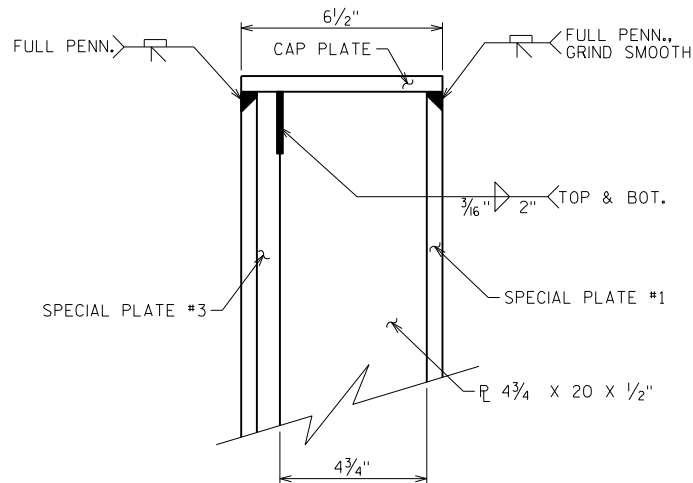
PLAN VIEW SPECIAL PLATE #3



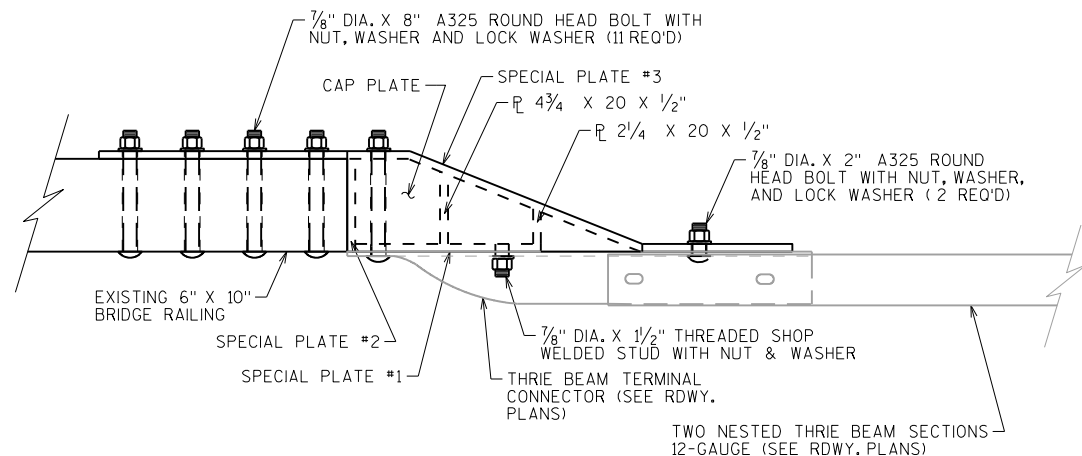
CAP PLATE



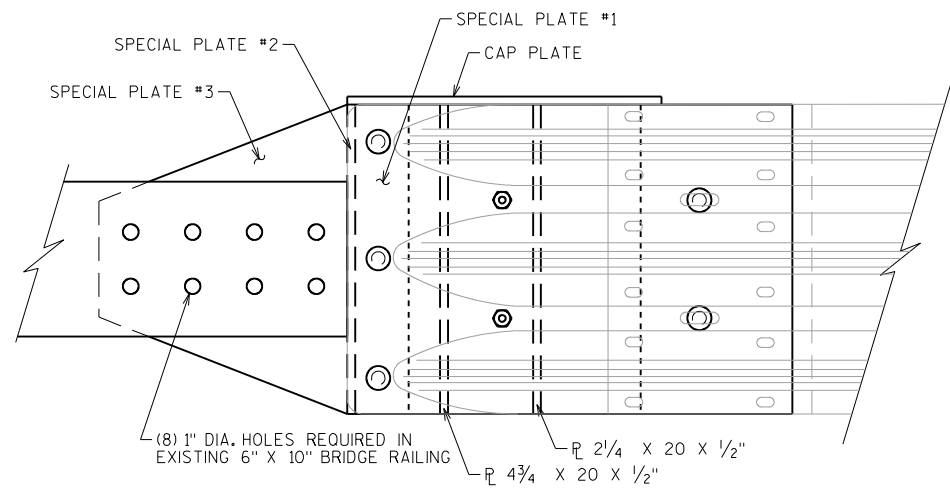
PLAN DETAIL



SECTION A-A



PLAN VIEW



FRONT VIEW

RAILING ATTACHMENT SPECIAL, B-35-278

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-35-278			
DRAWN BY		NAR	PLANS CK'D. EMK
THRIE BEAM ATTACHMENT		SHEET 2	

Division	From / To Station	Location	Common Excavation (1)	(item # 205.0100)	Available Material (5)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate + / - (14)	Borrow	Comment:
			Cut (2)	EBS Excavation (3)			Factor 1.25		(item #208.0100)	
1	134+14 - 141+58	RT	8	0	8	63	79	- 71	- 71	
2	174+19 - 180+53	B-35-0127	45	0	45	135	169	- 124	- 124	
3	248+46 - 256+94	RT & LT	14	0	14	151	188	- 174	- 174	
4	268+20 - 274+87	B-35-0278	49	0	49	91	113	- 64	- 64	
Grand Total			116	0.00	116.48	439.82	549.78	- 433.30	- 433.30	
		Total Common Exc		116						

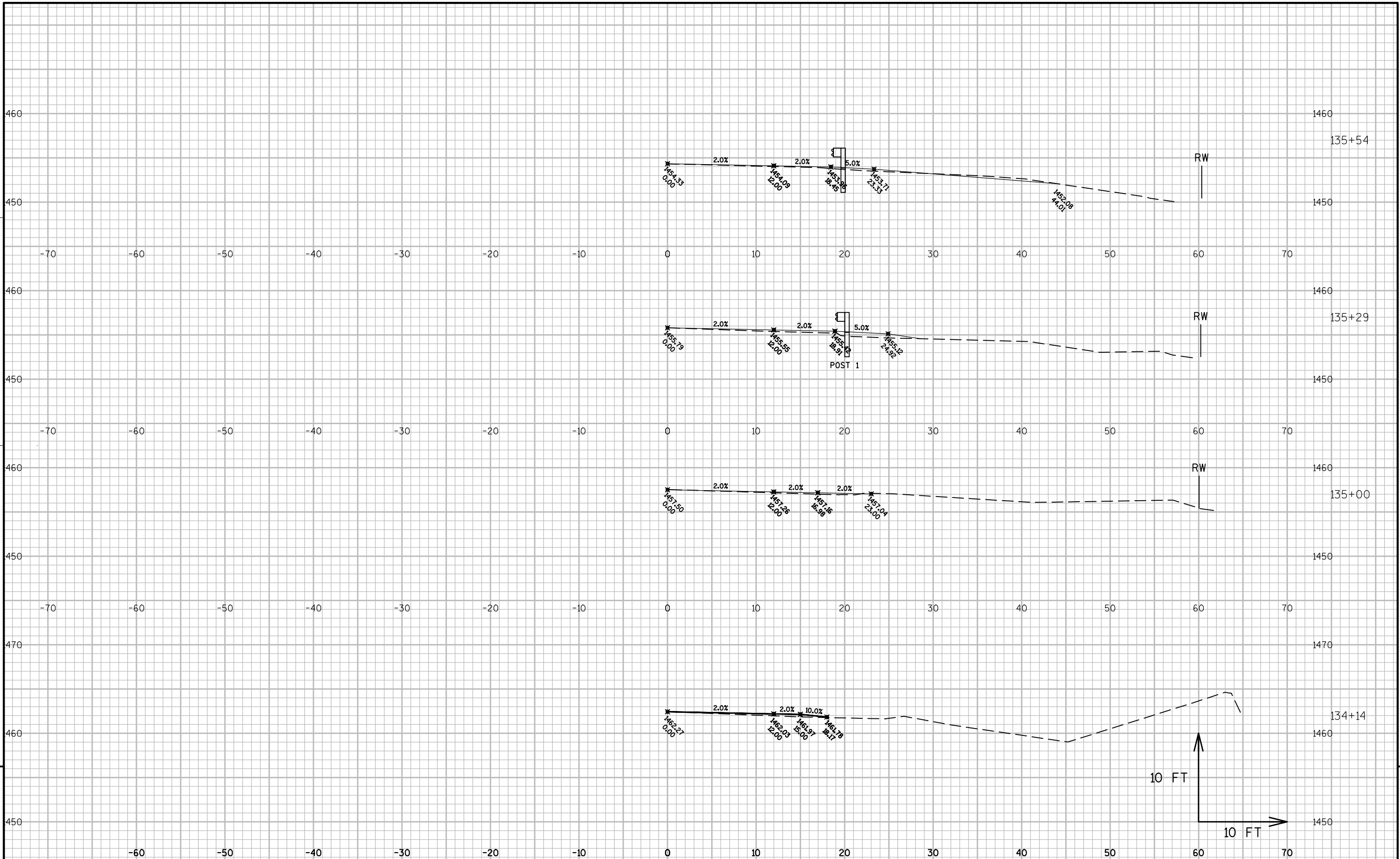
- 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
- 2) Salvaged/Unsuable Pavement Material is included in Cut.
- 3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
- 5) Available Material = Cut - Salvaged/Unusuable Pavement Material
- 13) Expanded Fill. Factor = 1.25
- 14) 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.

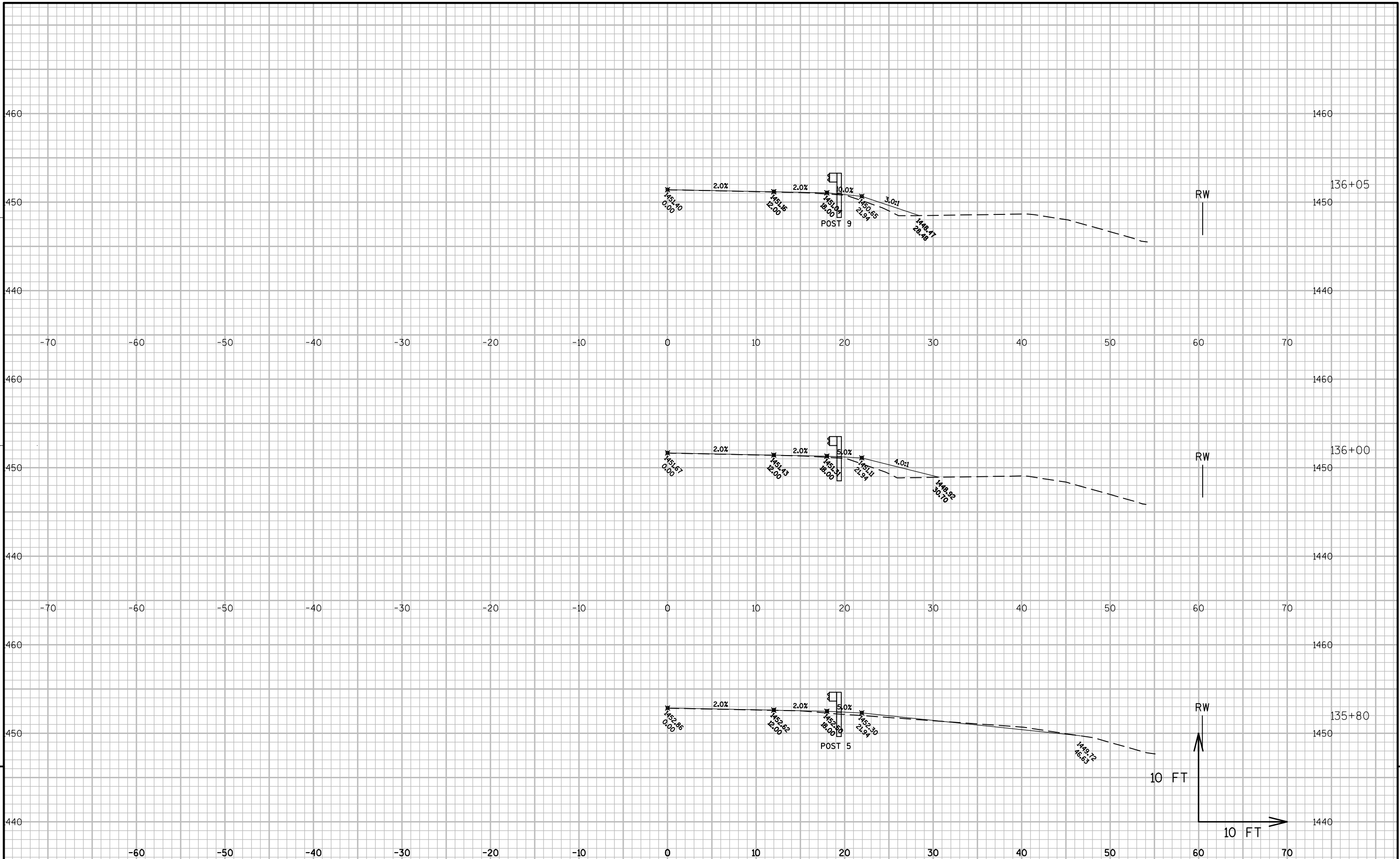
0010 DIVISION 1								
STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		MASS ORDINATE
		CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	
						1.00	1.25	
134+13.56	0.00	0.00	2.56	0.00	0.00	0.00	0.00	0.00
134+50	36.44	0.04	1.64	0.03	2.83	0.03	3.54	-3.51
135+00	50.00	0.11	1.75	0.13	3.13	0.16	7.45	-7.29
135+50	50.00	0.94	2.31	0.96	3.76	1.13	12.15	-11.02
136+00	50.00	0.00	6.12	0.87	7.81	1.99	21.91	-19.92
136+04.53	4.53	0.53	2.26	0.04	0.70	2.04	22.79	-20.75
136+50	45.47	0.40	2.94	0.78	4.38	2.82	28.27	-25.45
137+00	50.00	0.24	2.90	0.59	5.42	3.41	35.04	-31.62
137+50	50.00	0.63	0.02	0.81	2.71	4.22	38.42	-34.20
138+00	50.00	0.44	0.16	0.99	0.17	5.21	38.64	-33.43
138+50	50.00	0.23	0.66	0.62	0.77	5.83	39.60	-33.77
139+00	50.00	0.20	0.54	0.39	1.11	6.22	40.99	-34.77
139+50	50.00	0.19	0.64	0.35	1.09	6.57	42.35	-35.78
140+00	50.00	0.38	9.59	0.53	9.48	7.10	54.20	-47.10
140+50	50.00	0.07	5.76	0.42	14.21	7.52	71.97	-64.45
141+00	50.00	0.00	0.21	0.07	5.52	7.59	78.87	-71.28
141+50	50.00	0.13	0.06	0.12	0.25	7.70	79.18	-71.48
141+57.78	7.78	0.12	0.06	0.03	0.02	7.74	79.20	-71.46
		TOTAL		7.74	63.36			

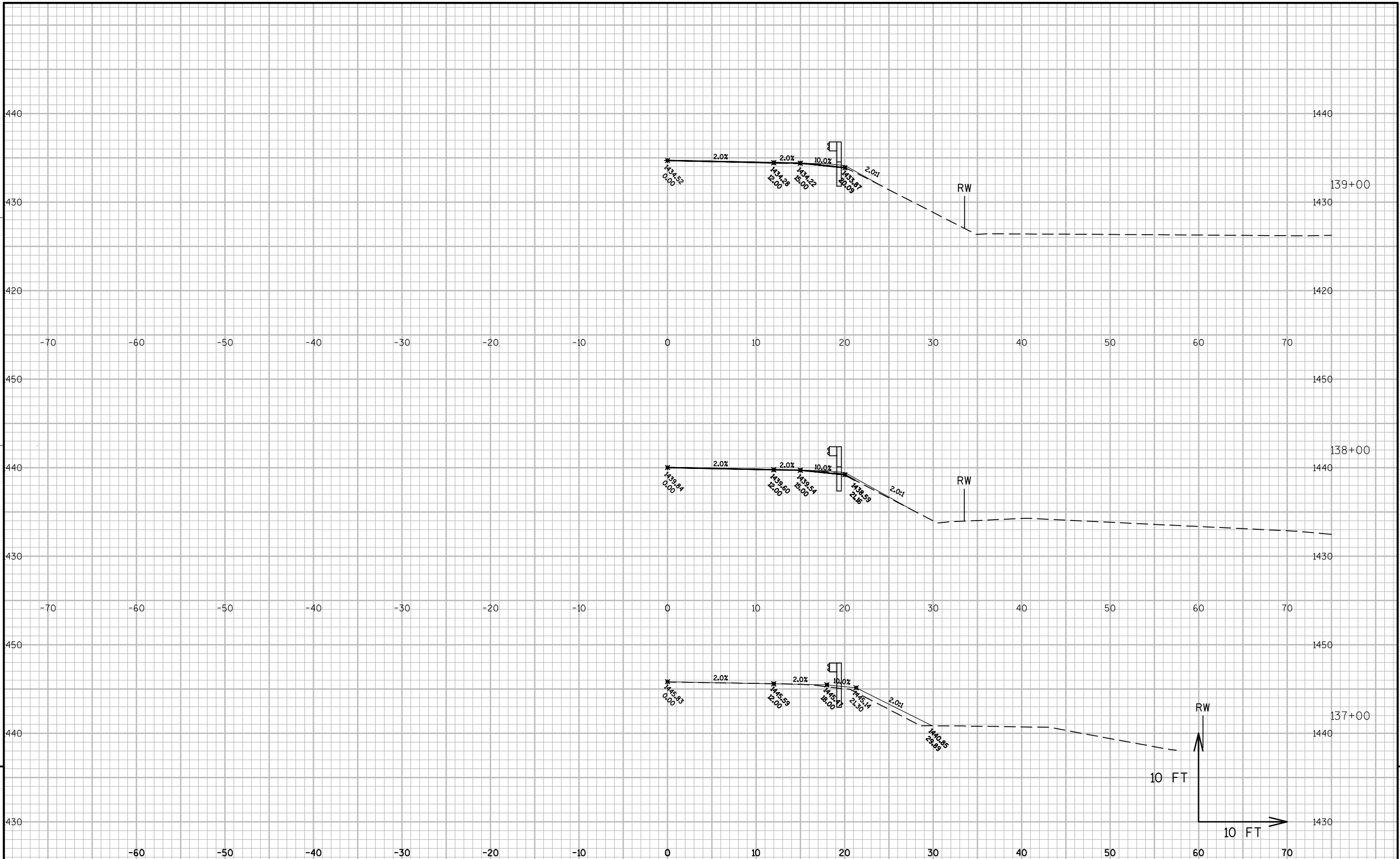
0010 DIVISION 2								
STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		MASS ORDINATE
		CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	
						1.00	1.25	
174+19.33	0.00	8.59	0.00	0.00	0.00	0.00	0.00	0.00
174+50	30.67	7.13	0.00	8.93	0.00	8.93	0.00	8.93
175+00	50.00	6.38	0.00	12.51	0.00	21.44	0.00	21.44
175+50	50.00	1.42	8.44	7.22	7.82	28.65	9.77	18.88
176+00	50.00	1.87	7.33	3.04	14.61	31.69	28.03	3.66
176+50	50.00	1.56	8.51	3.17	14.66	34.86	46.36	-11.50
177+00	50.00	3.07	3.40	4.28	11.03	39.14	60.14	-21.00
177+50	50.00	0.28	0.49	3.10	3.61	42.24	64.65	-22.41
178+00	50.00	0.00	9.39	0.26	9.15	42.50	76.09	-33.59
178+50	50.00	0.05	10.11	0.05	18.06	42.55	98.67	-56.12
179+00	50.00	1.02	7.17	0.99	16.00	43.54	118.67	-75.13
179+50	50.00	0.41	5.95	1.32	12.15	44.86	133.86	-88.99
180+00	50.00	0.00	7.20	0.38	12.18	45.25	149.08	-103.83
180+50	50.00	0.00	8.71	0.00	14.73	45.25	167.49	-122.24
180+53.14	3.14	0.00	8.60	0.00	1.01	45.25	168.75	-123.50
		TOTAL		45.25	135.00			

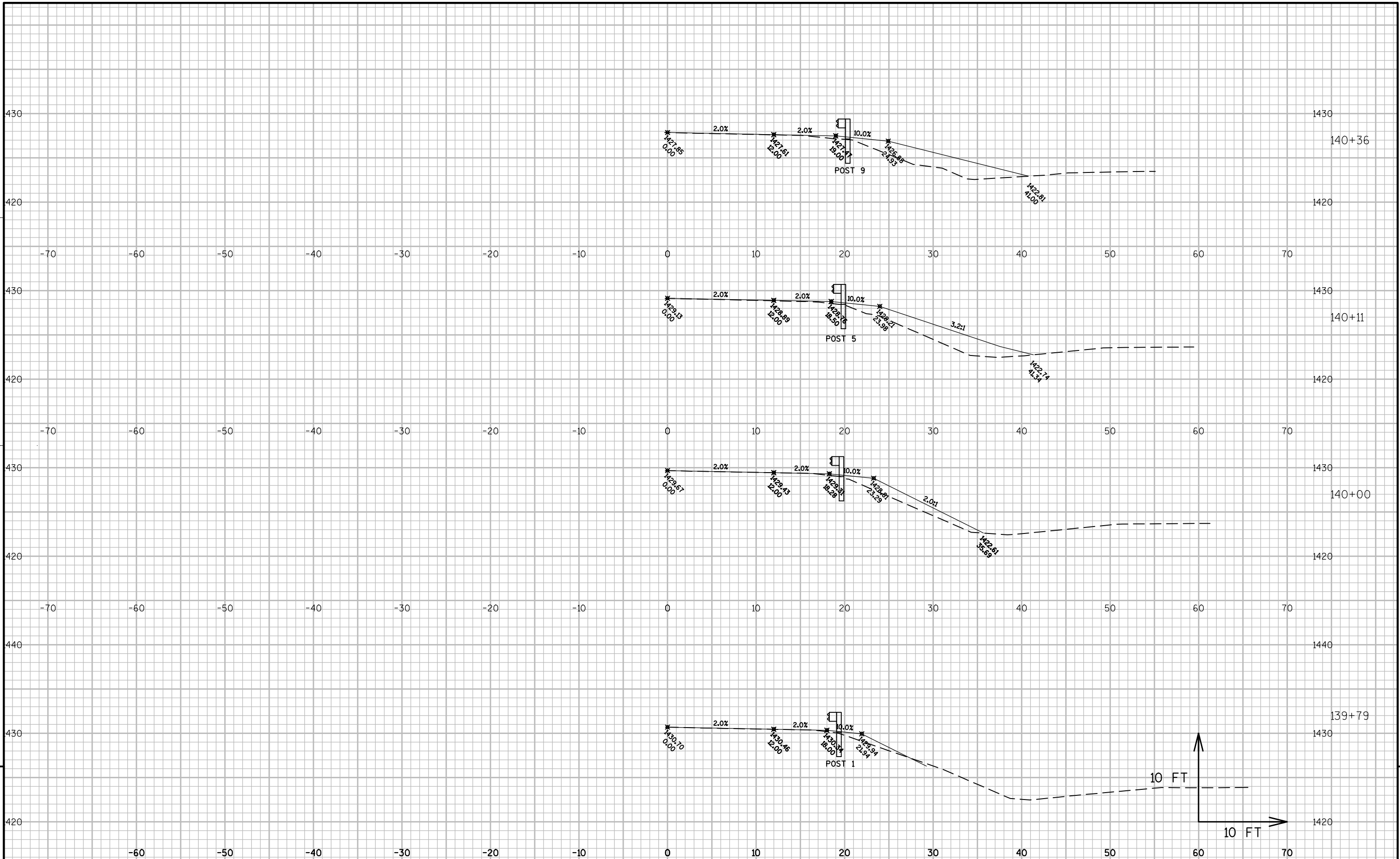
0010 DIVISION 3								
		AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
STATION	DISTANCE					1.00	1.25	
248+45.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
248+50	4.28	1.02	0.55	0.08	0.04	0.08	0.05	0.03
249+00	50.00	1.26	7.26	2.11	7.23	2.19	9.09	-6.90
249+50	50.00	0.82	9.29	1.93	15.33	4.12	28.25	-24.13
250+00	50.00	0.03	11.29	0.79	19.06	4.91	52.08	-47.17
250+50	50.00	0.00	27.67	0.03	36.08	4.94	97.17	-92.23
251+00	50.00	0.00	3.37	0.00	28.74	4.95	133.09	-128.14
251+50	50.00	0.01	2.89	0.01	5.79	4.96	140.33	-135.37
252+00	50.00	0.01	3.45	0.01	5.87	4.97	147.67	-142.70
252+50	50.00	0.09	1.19	0.10	4.29	5.07	153.03	-147.97
253+00	50.00	0.16	0.35	0.23	1.42	5.30	154.81	-149.51
253+50	50.00	0.38	0.18	0.50	0.48	5.79	155.42	-149.62
254+00	50.00	0.56	0.16	0.87	0.32	6.67	155.81	-149.14
254+50	50.00	0.38	0.37	0.88	0.50	7.55	156.43	-148.88
255+00	50.00	0.50	9.31	0.82	8.96	8.37	167.63	-159.26
255+50	50.00	1.80	0.78	2.13	9.34	10.50	179.31	-168.81
256+00	50.00	1.01	2.45	2.60	2.99	13.10	183.05	-169.95
256+50	50.00	0.23	1.14	1.14	3.32	14.25	187.21	-172.96
256+93.92	43.92	0.00	0.00	0.18	0.93	14.43	188.37	-173.94
			TOTAL	14.43	150.69			

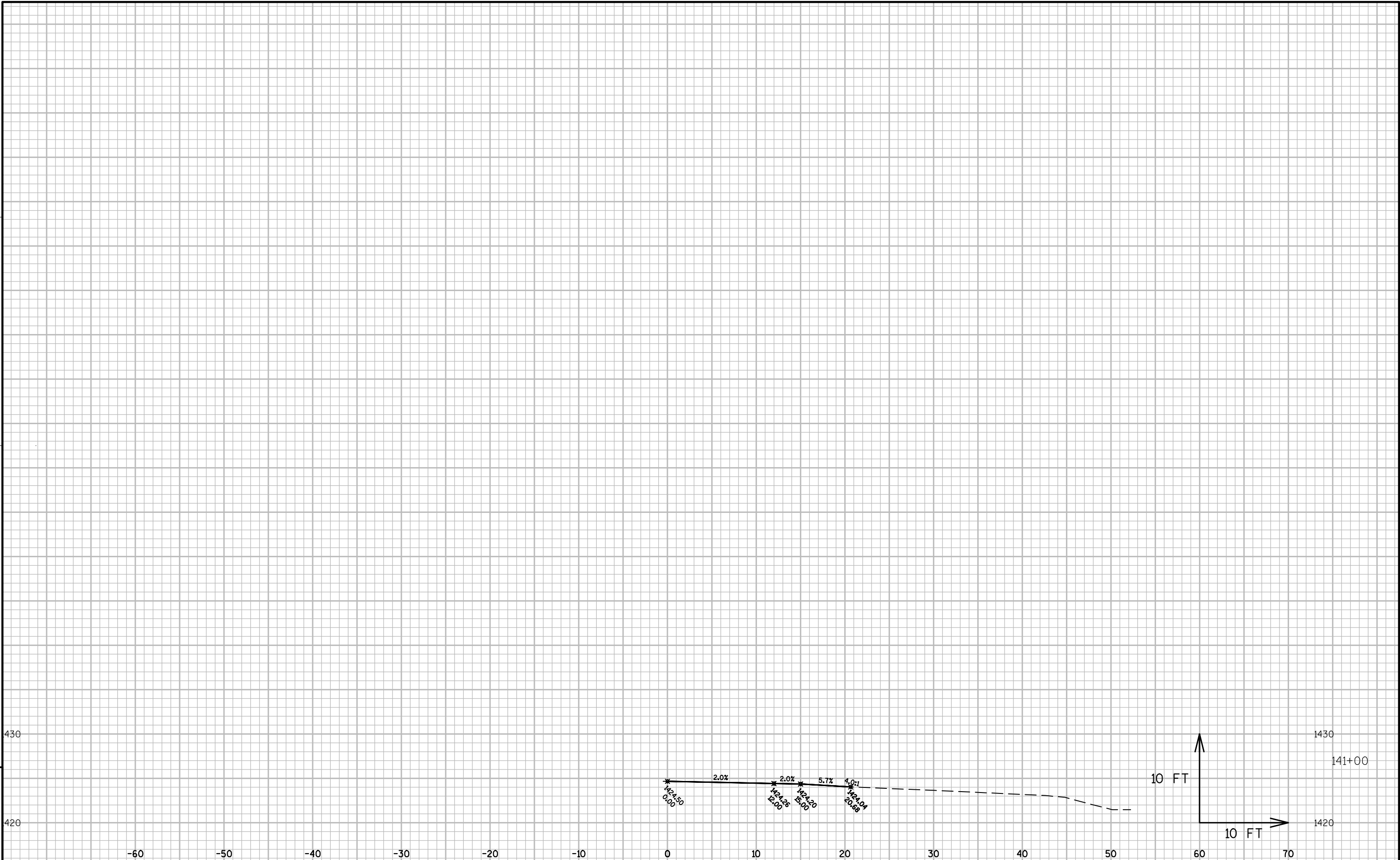
0010 DIVISION 4								
		AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
STATION	DISTANCE					1.00	1.25	
268+19.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
268+50	30.01	0.01	0.30	0.01	0.17	0.01	0.21	-0.21
269+00	50.00	0.00	12.38	0.01	11.74	0.02	14.89	-14.87
269+50	50.00	1.94	7.73	1.80	18.62	1.81	38.16	-36.35
270+00	50.00	3.15	0.45	4.71	7.58	6.52	47.64	-41.12
270+50	50.00	9.84	0.30	12.03	0.70	18.55	48.51	-29.97
271+00	50.00	2.84	0.00	11.74	0.28	30.29	48.86	-18.57
271+50	50.00	1.79	0.00	4.29	0.00	34.58	48.86	-14.28
272+00	50.00	1.06	0.00	2.64	0.00	37.22	48.86	-11.64
272+50	50.00	3.40	0.81	4.13	0.75	41.35	49.80	-8.45
273+00	50.00	2.25	1.64	5.23	2.27	46.58	52.63	-6.06
273+50	50.00	0.13	19.95	2.21	19.99	48.78	77.62	-28.84
274+00	50.00	0.08	4.44	0.20	22.58	48.98	105.85	-56.86
274+50	50.00	0.00	1.22	0.08	5.24	49.06	112.40	-63.34
274+87.45	37.45	0.00	0.00	0.00	0.85	49.06	113.46	-64.40
			TOTAL	49.06	90.77			

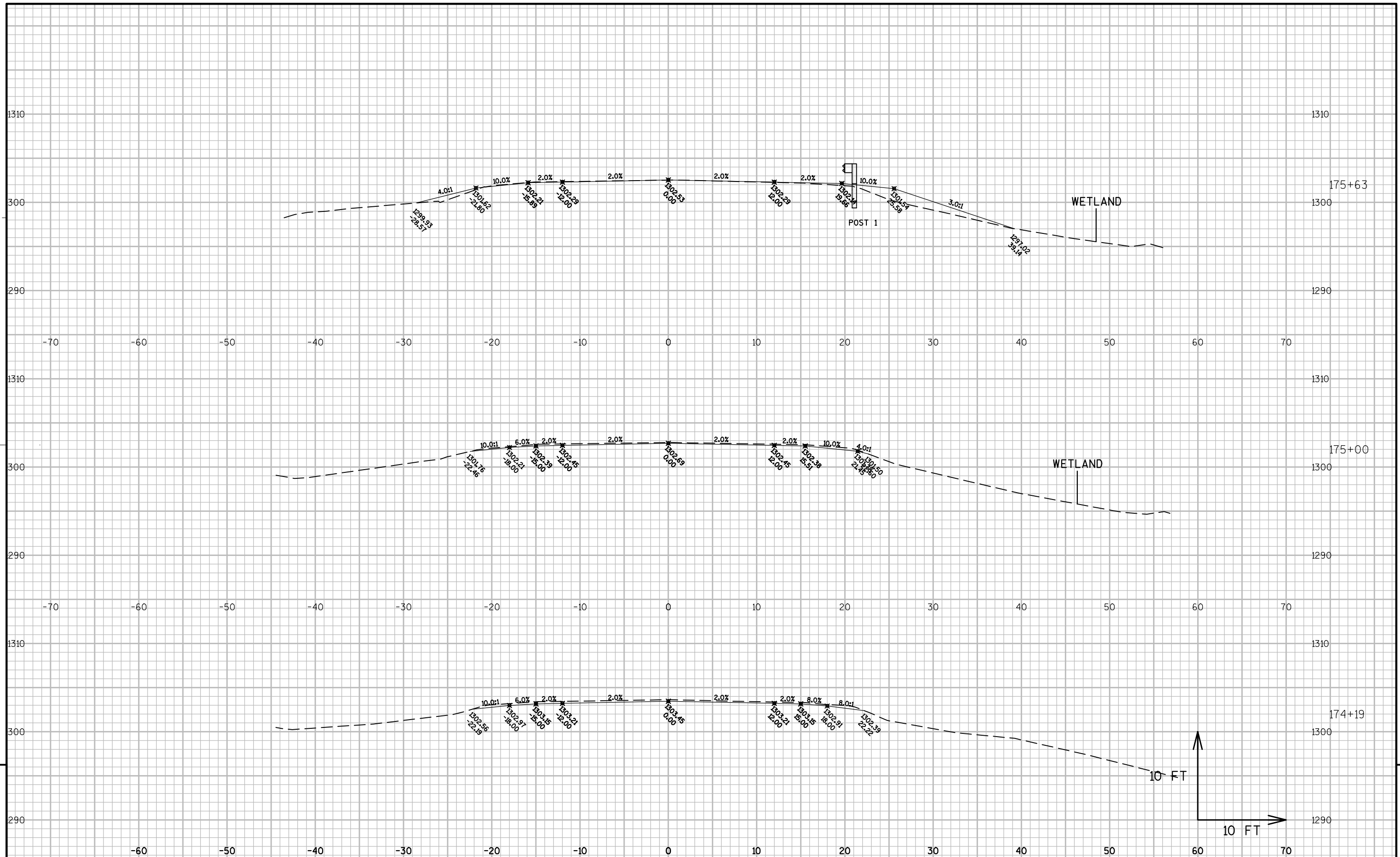


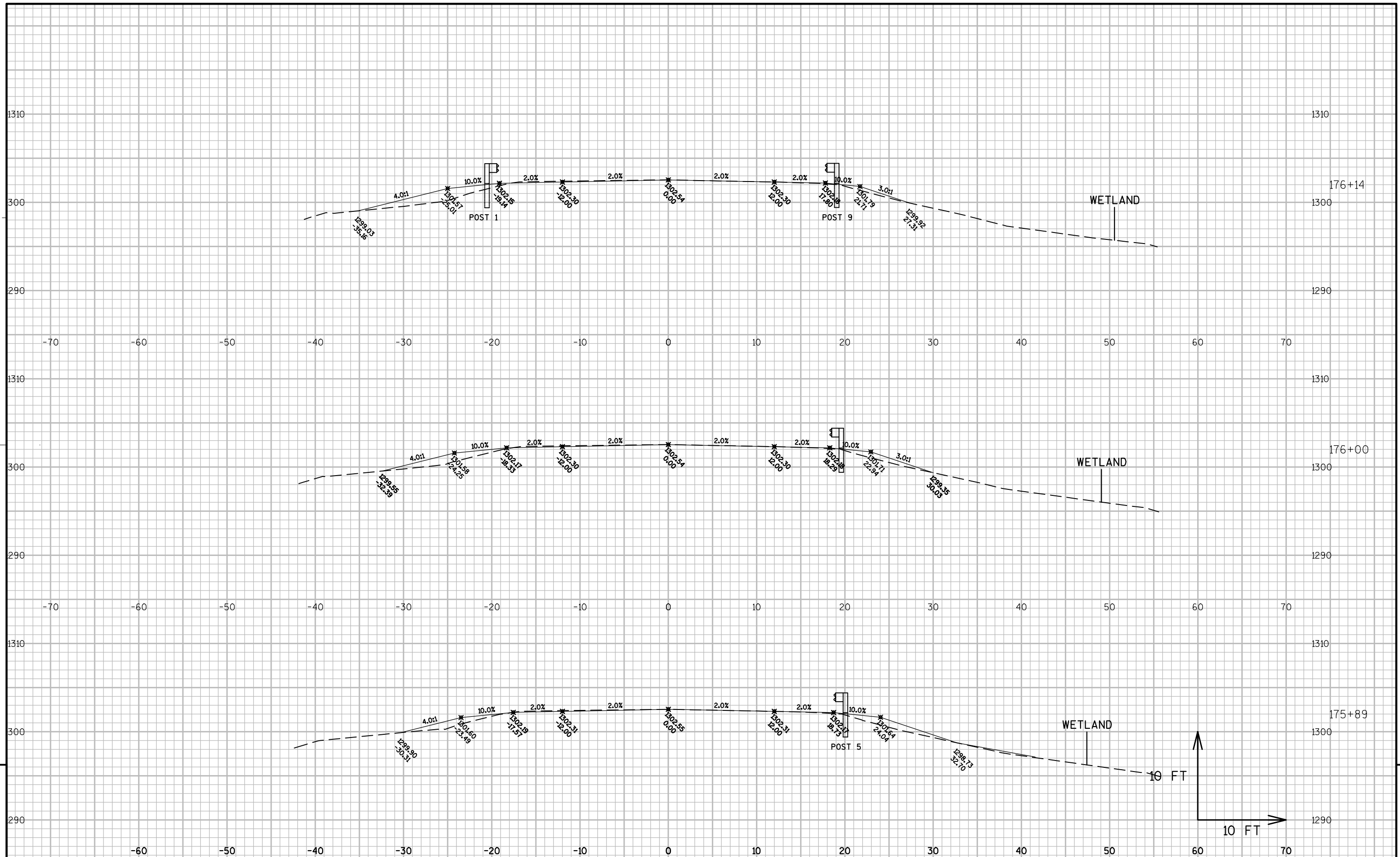


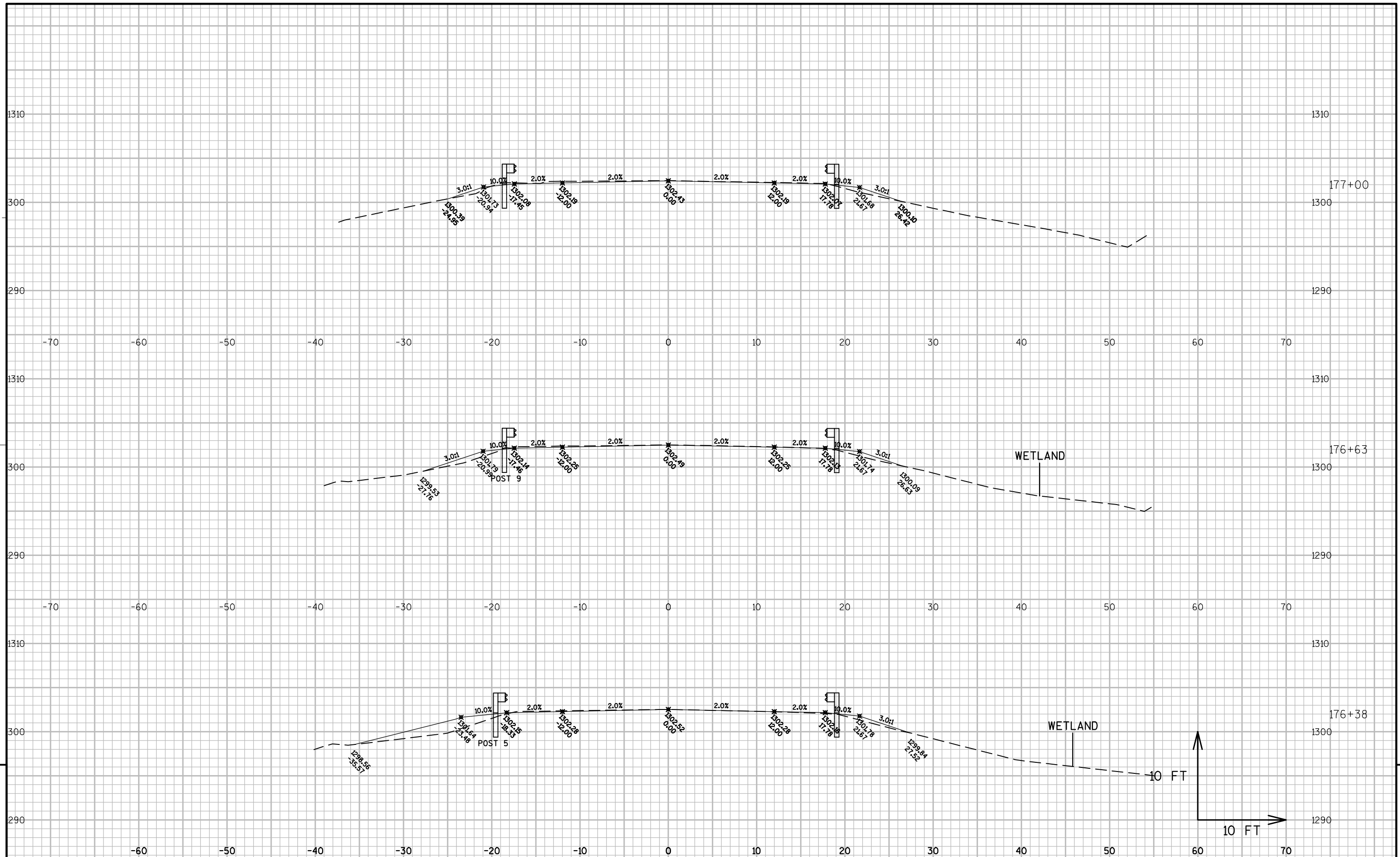


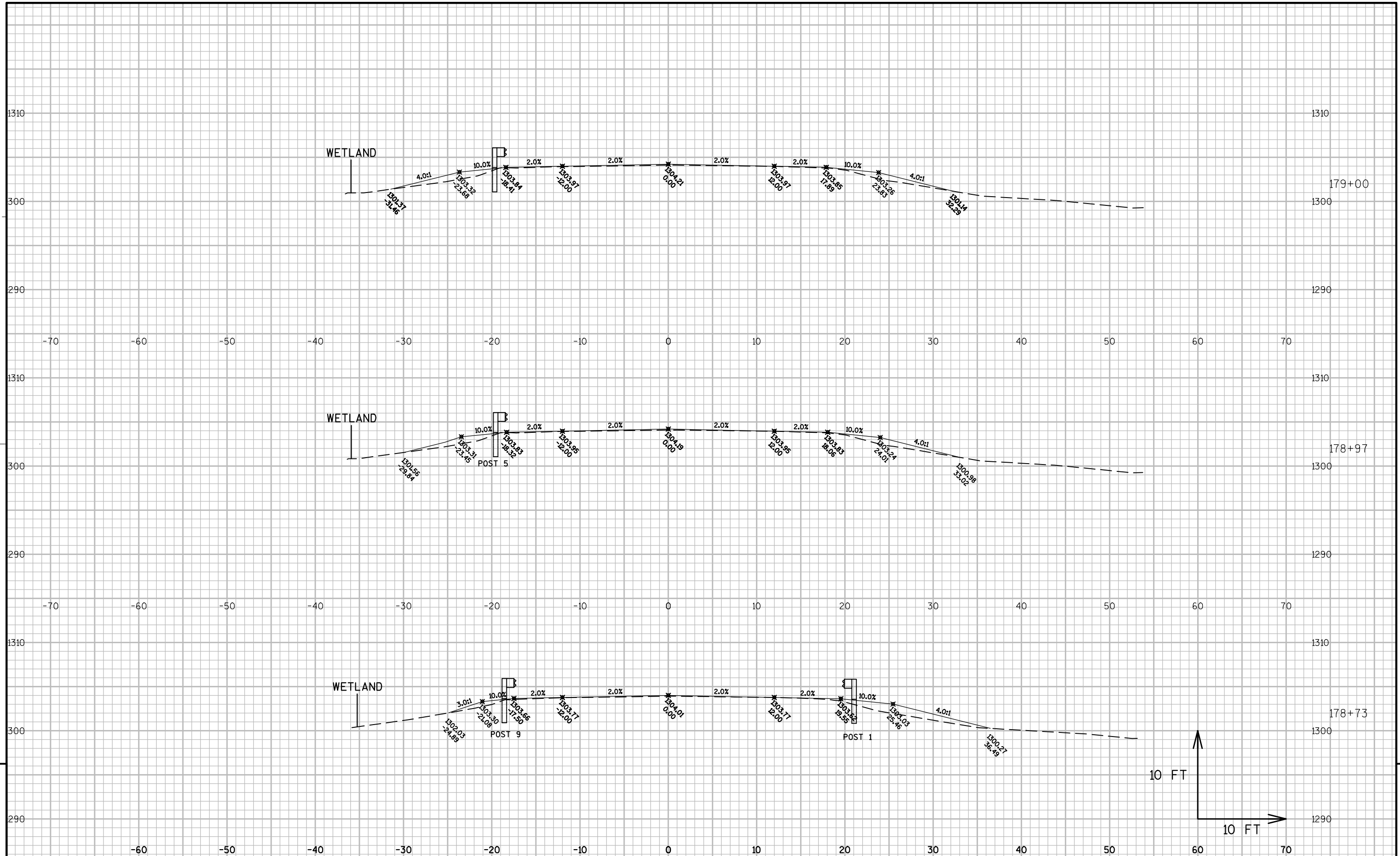


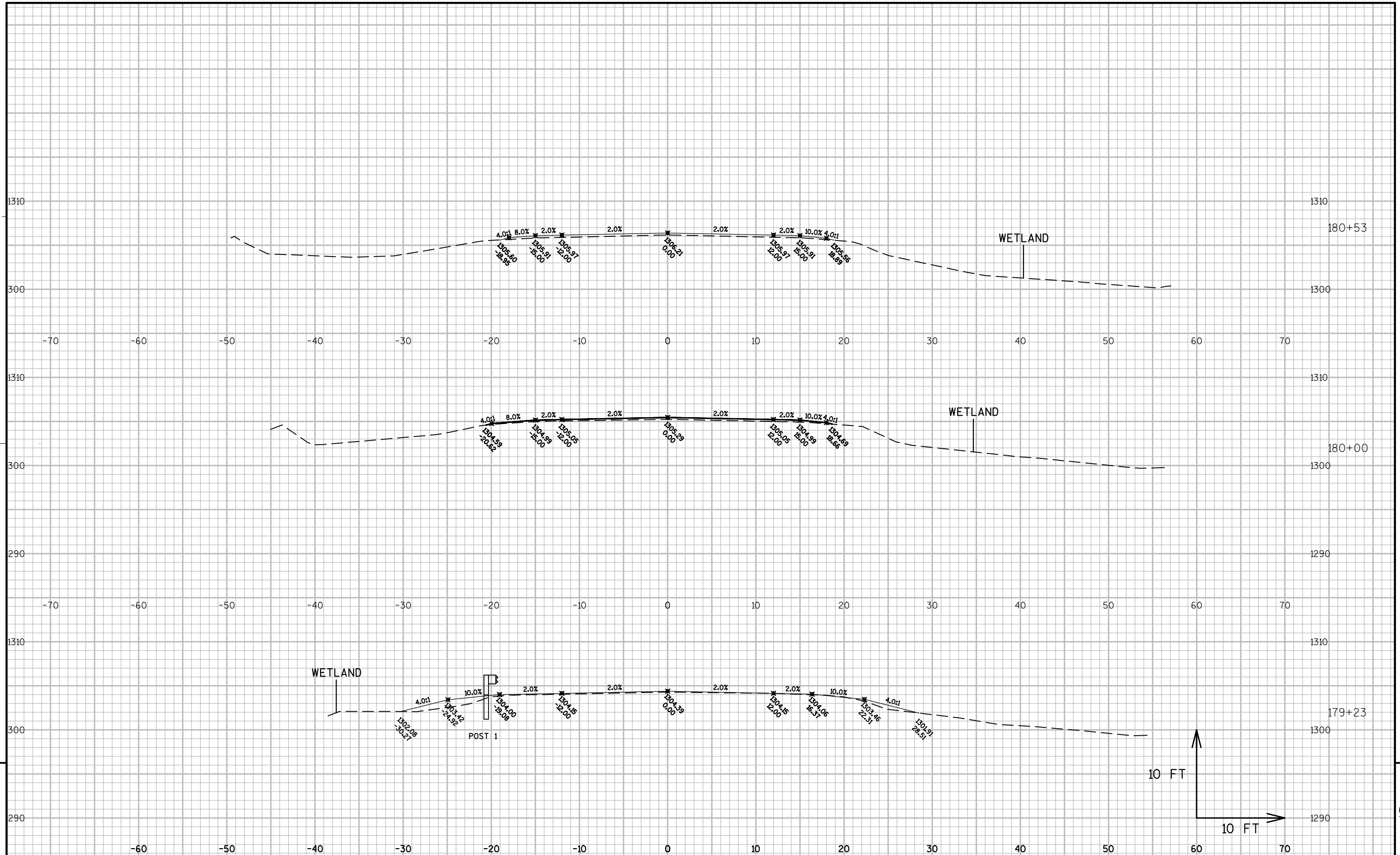


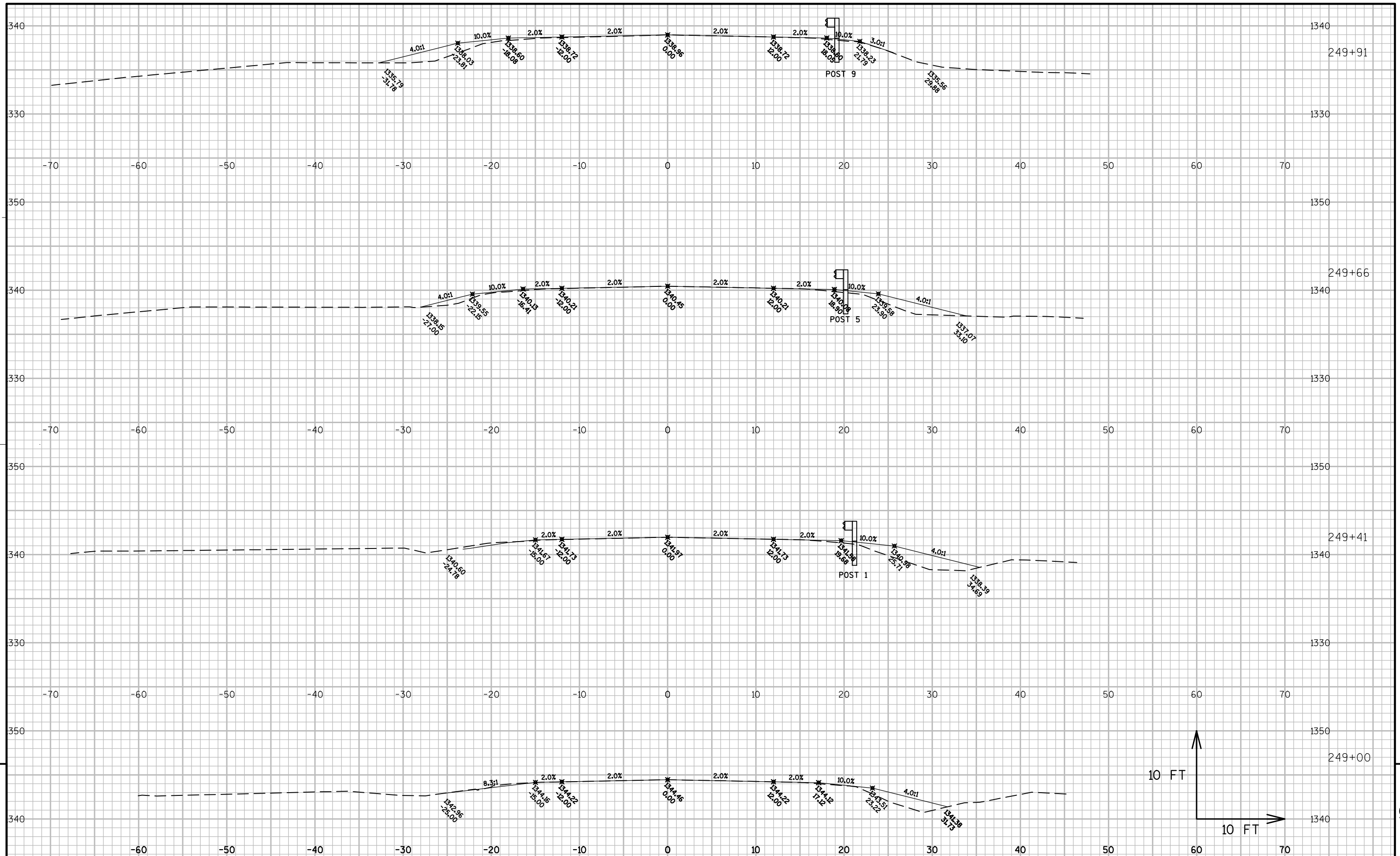


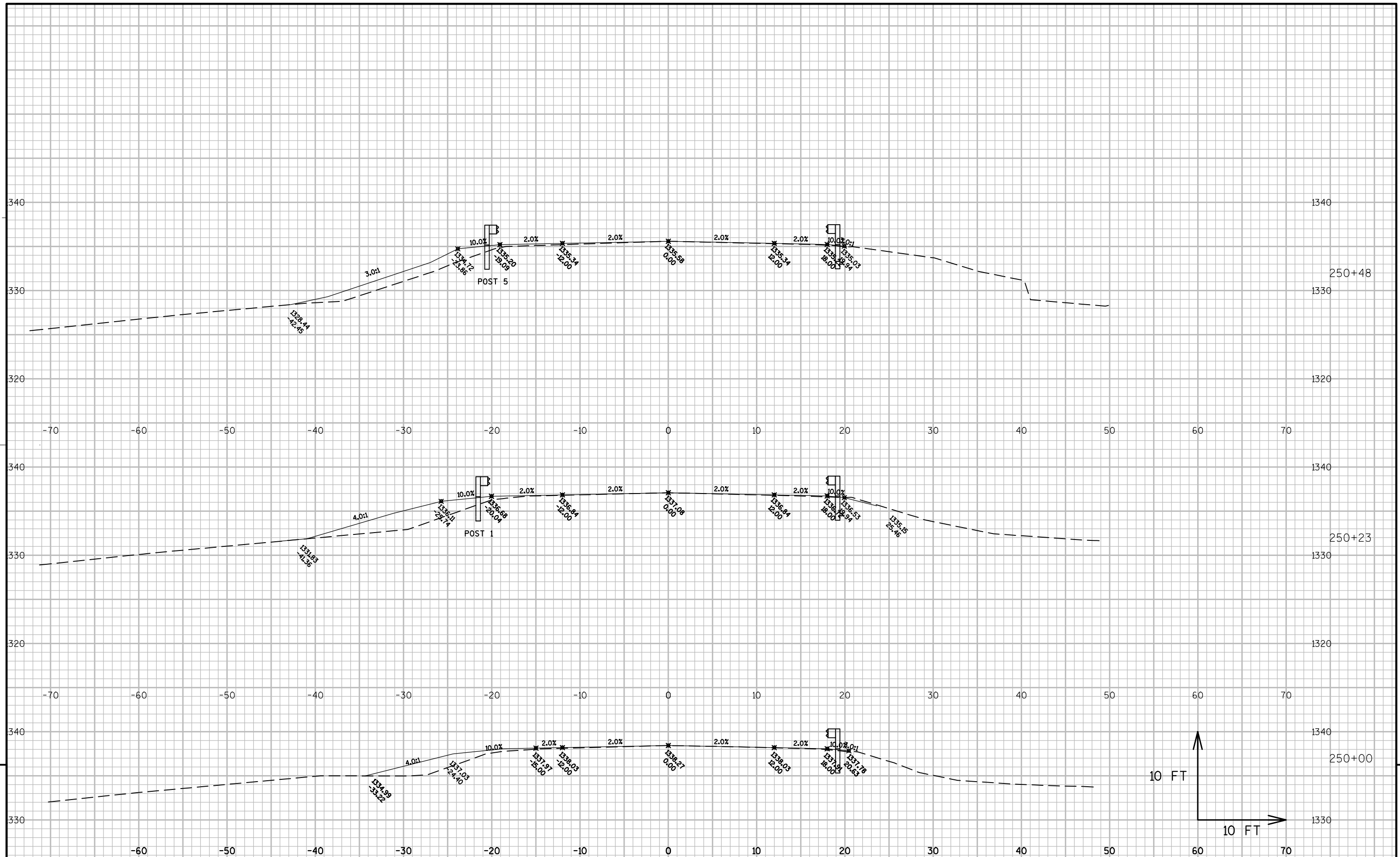


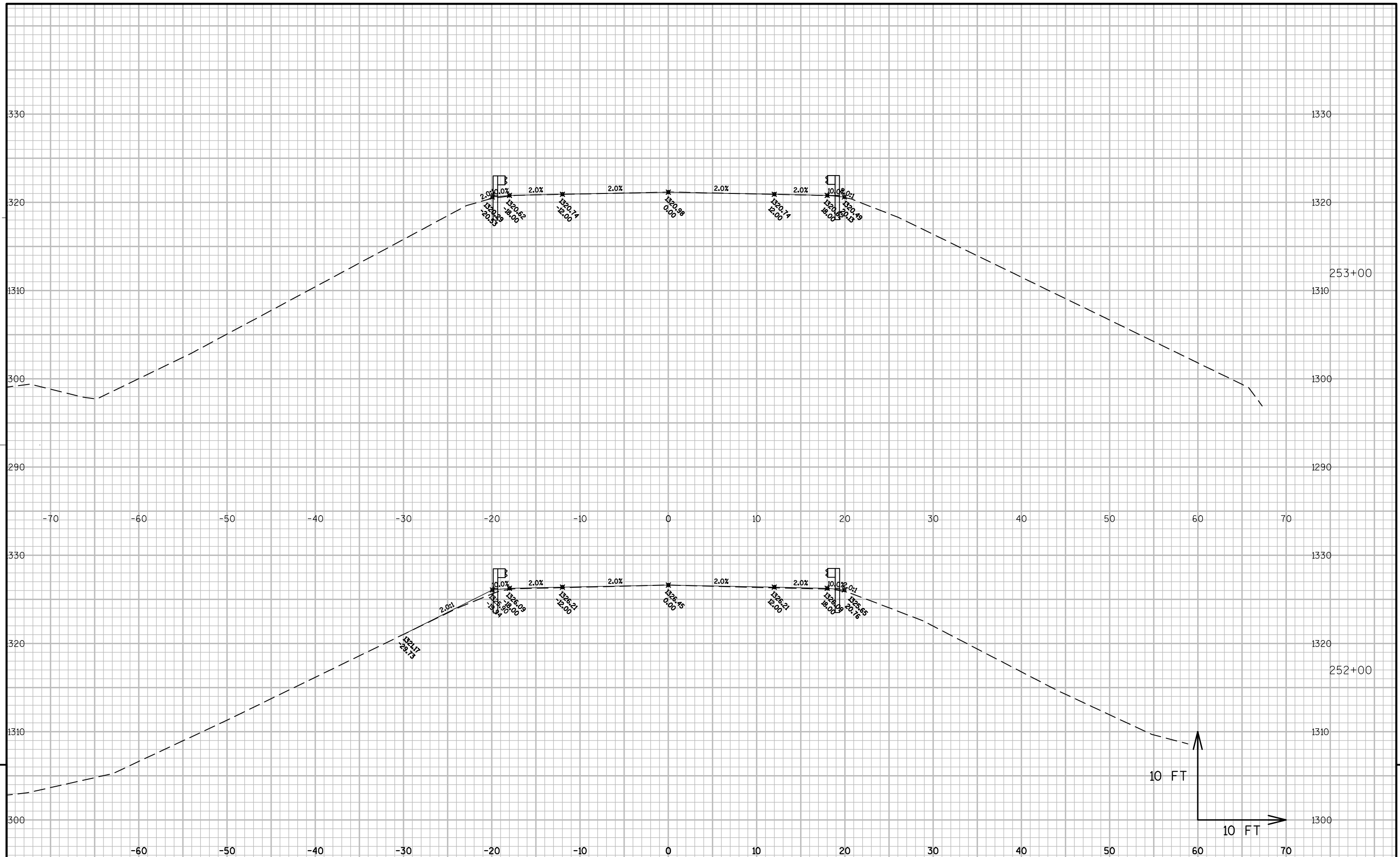


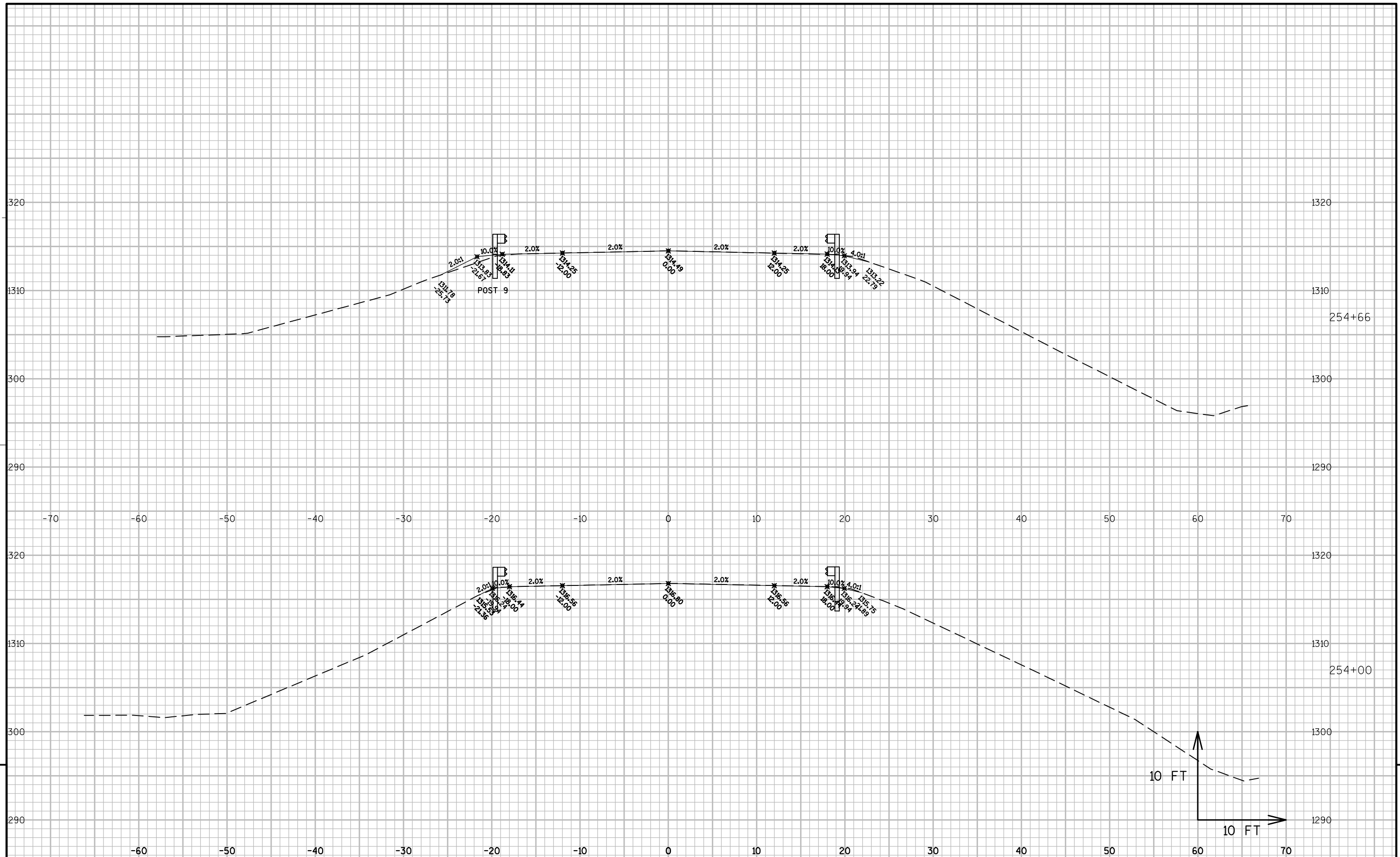


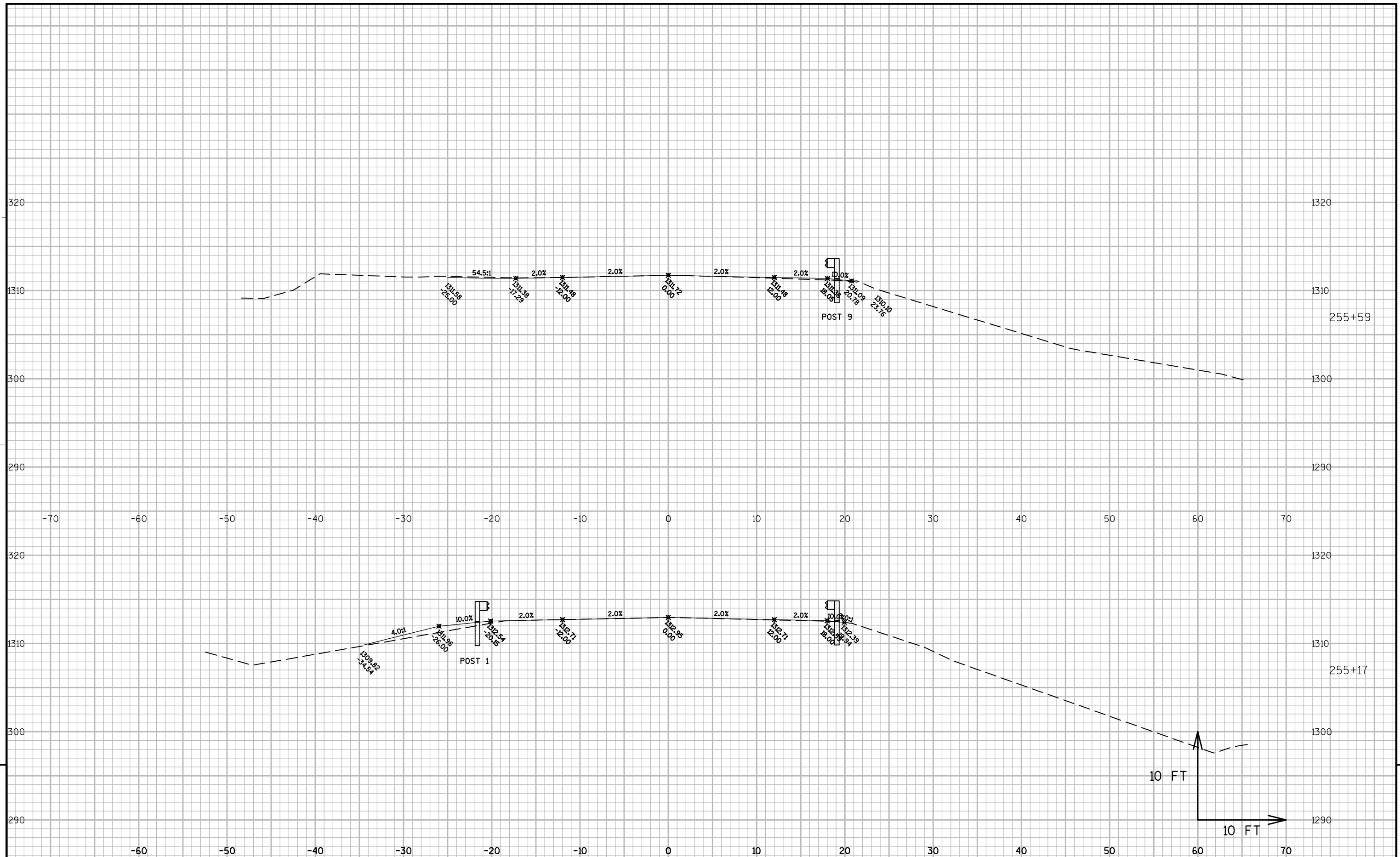


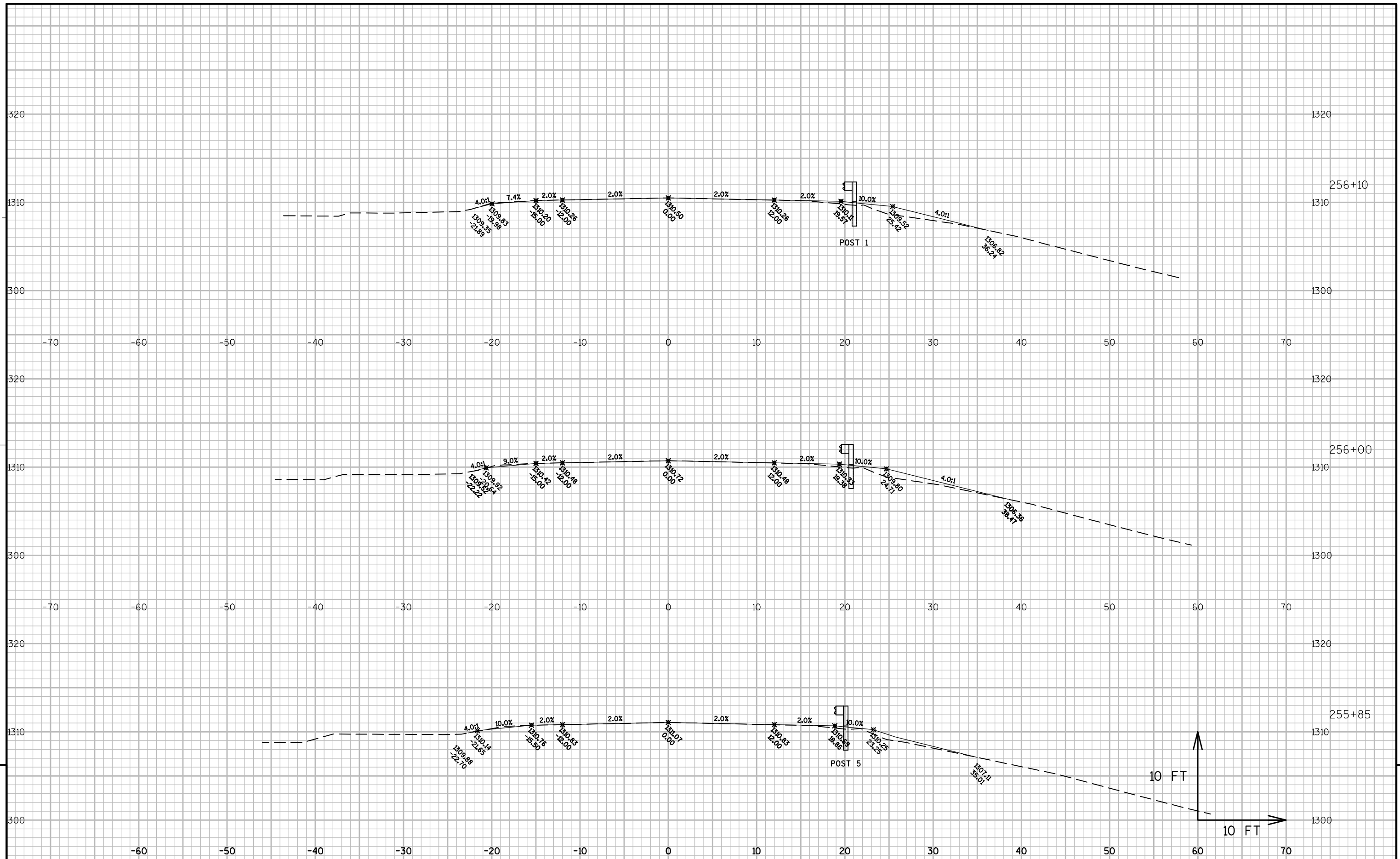


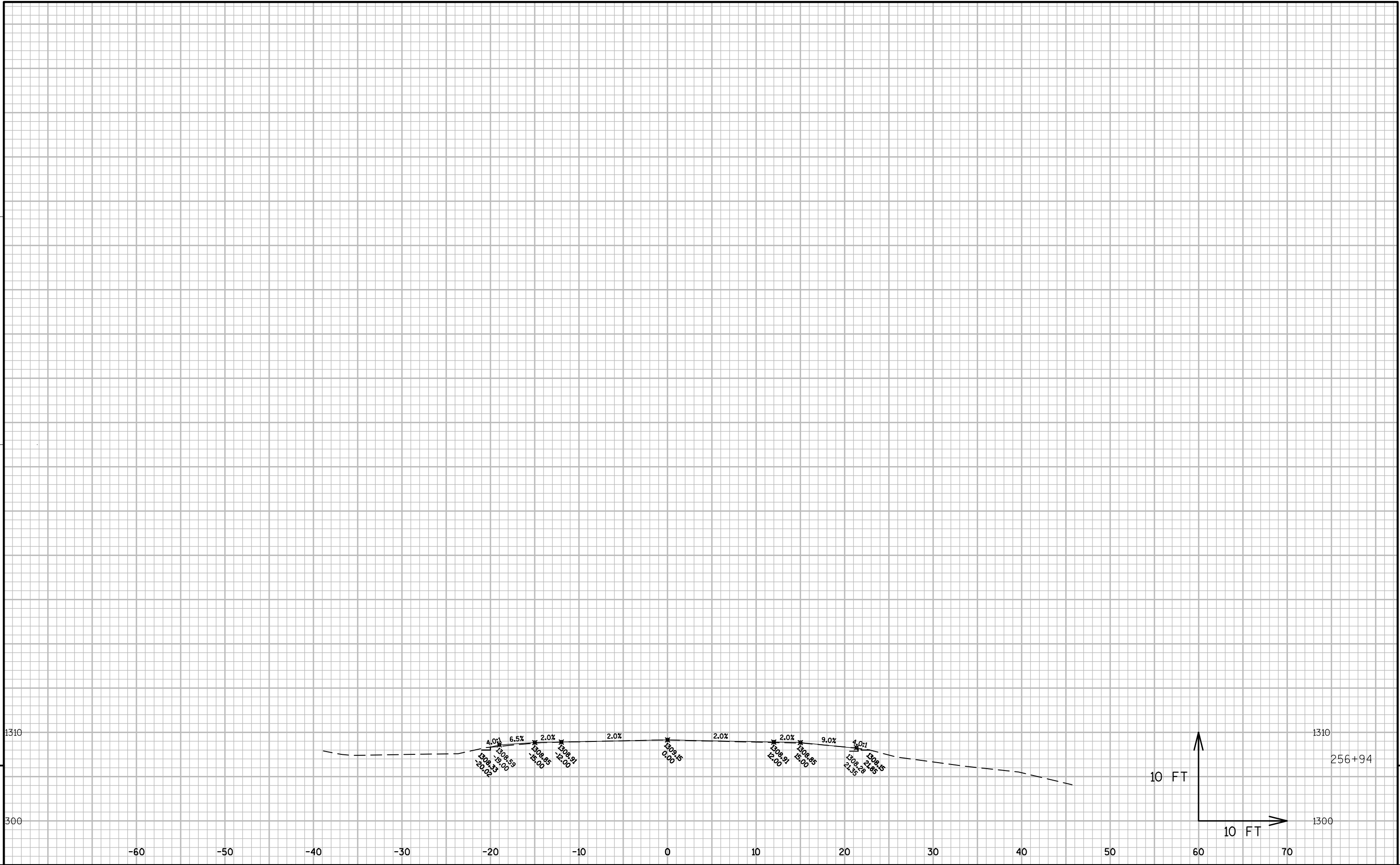


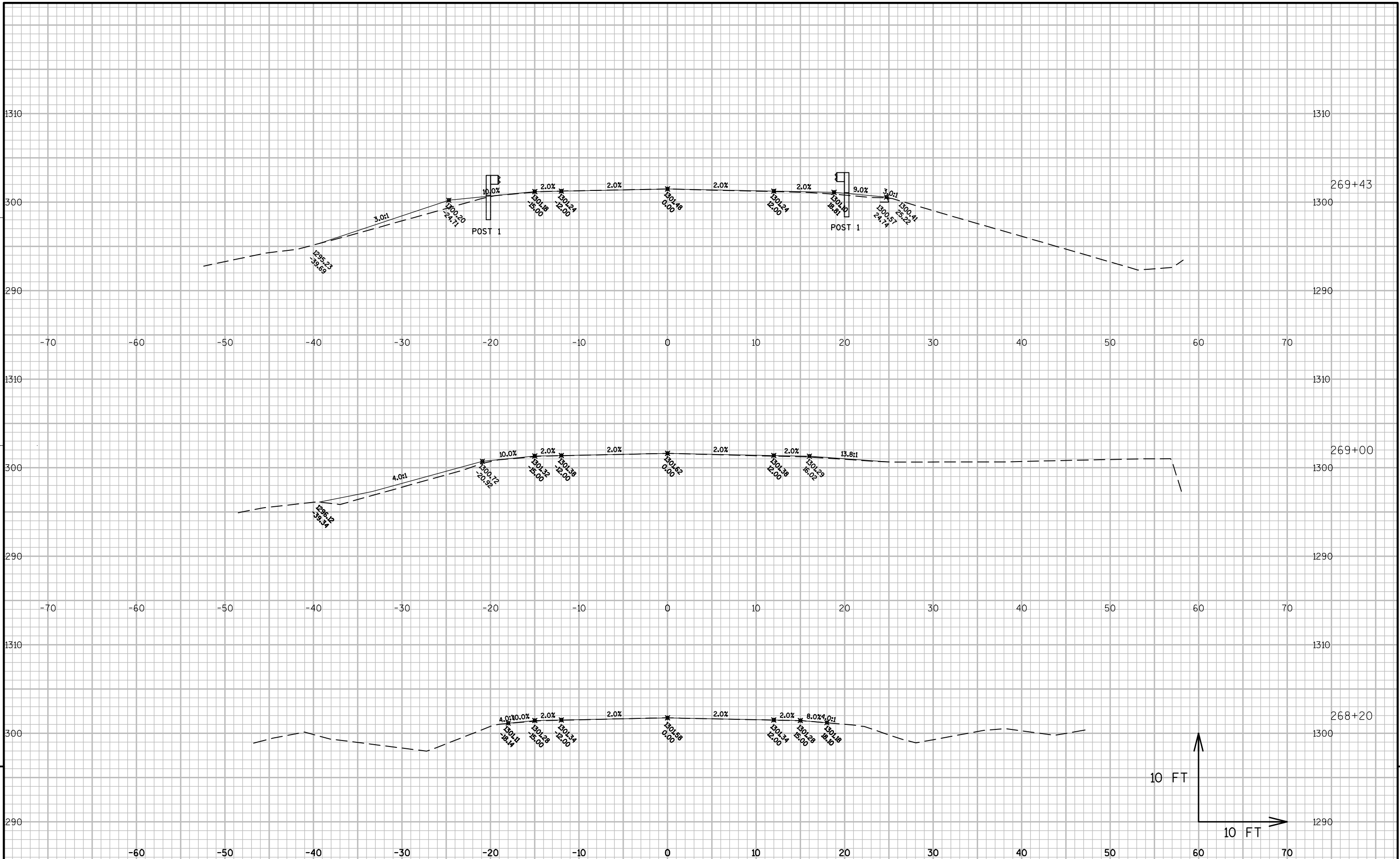


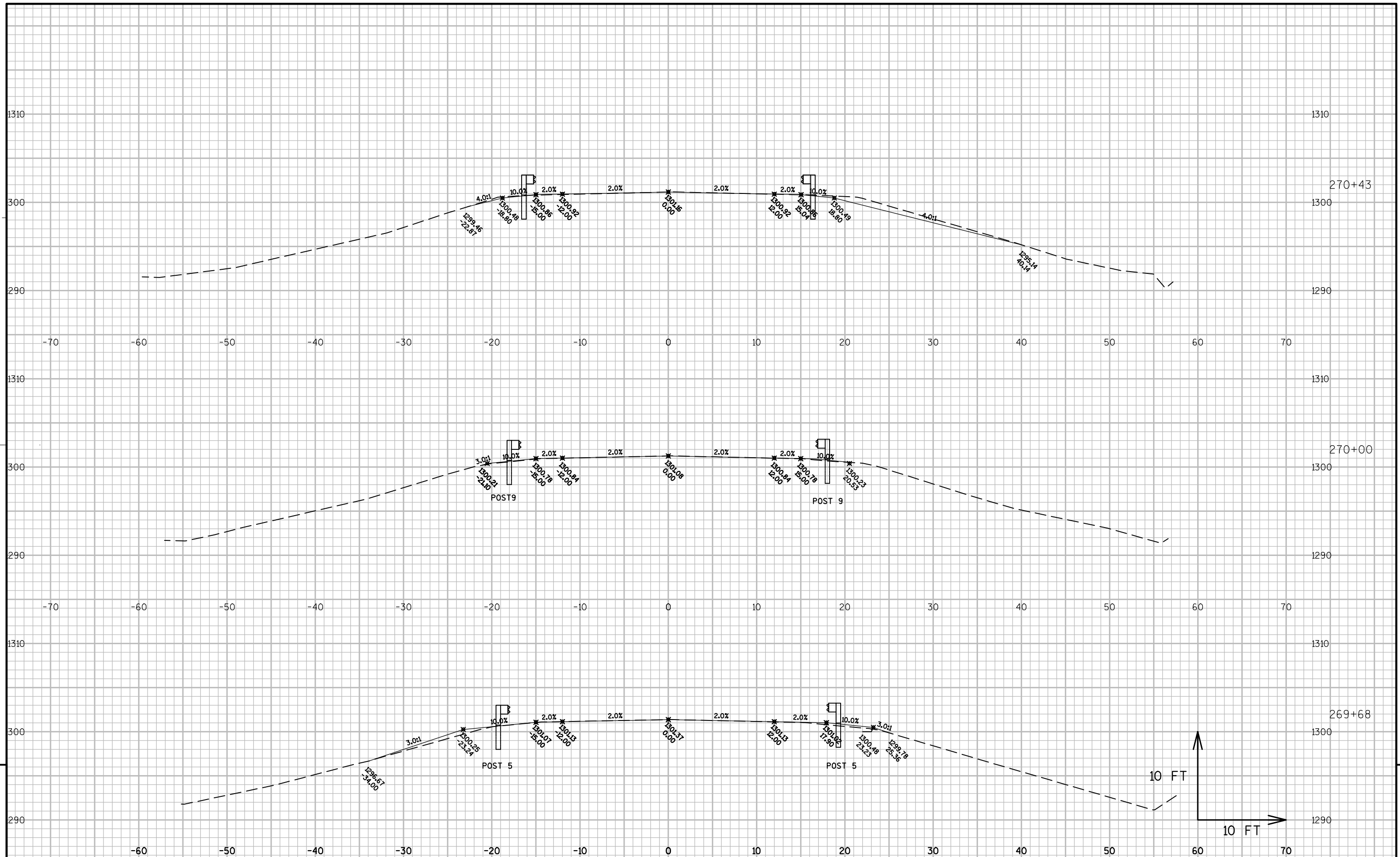


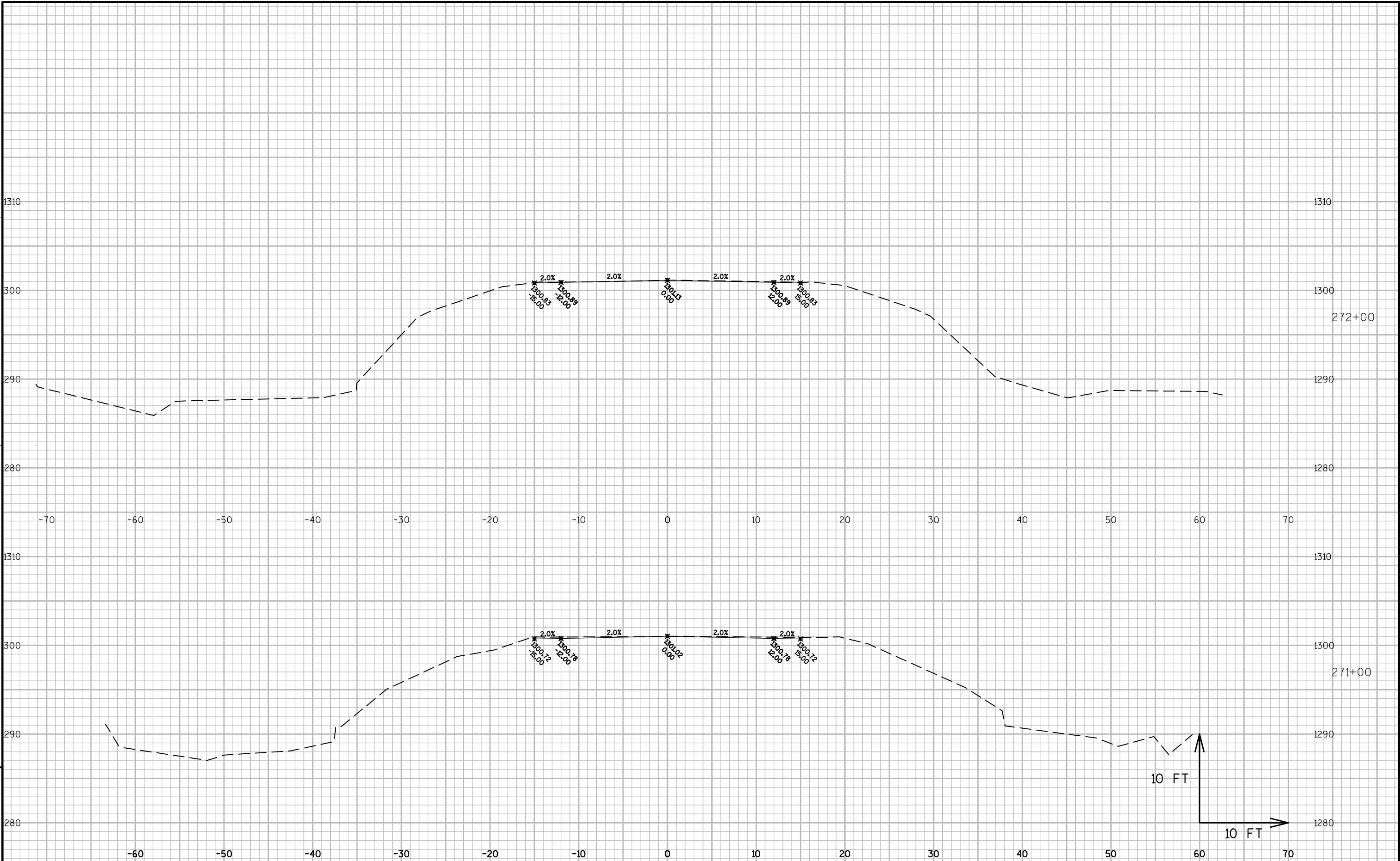


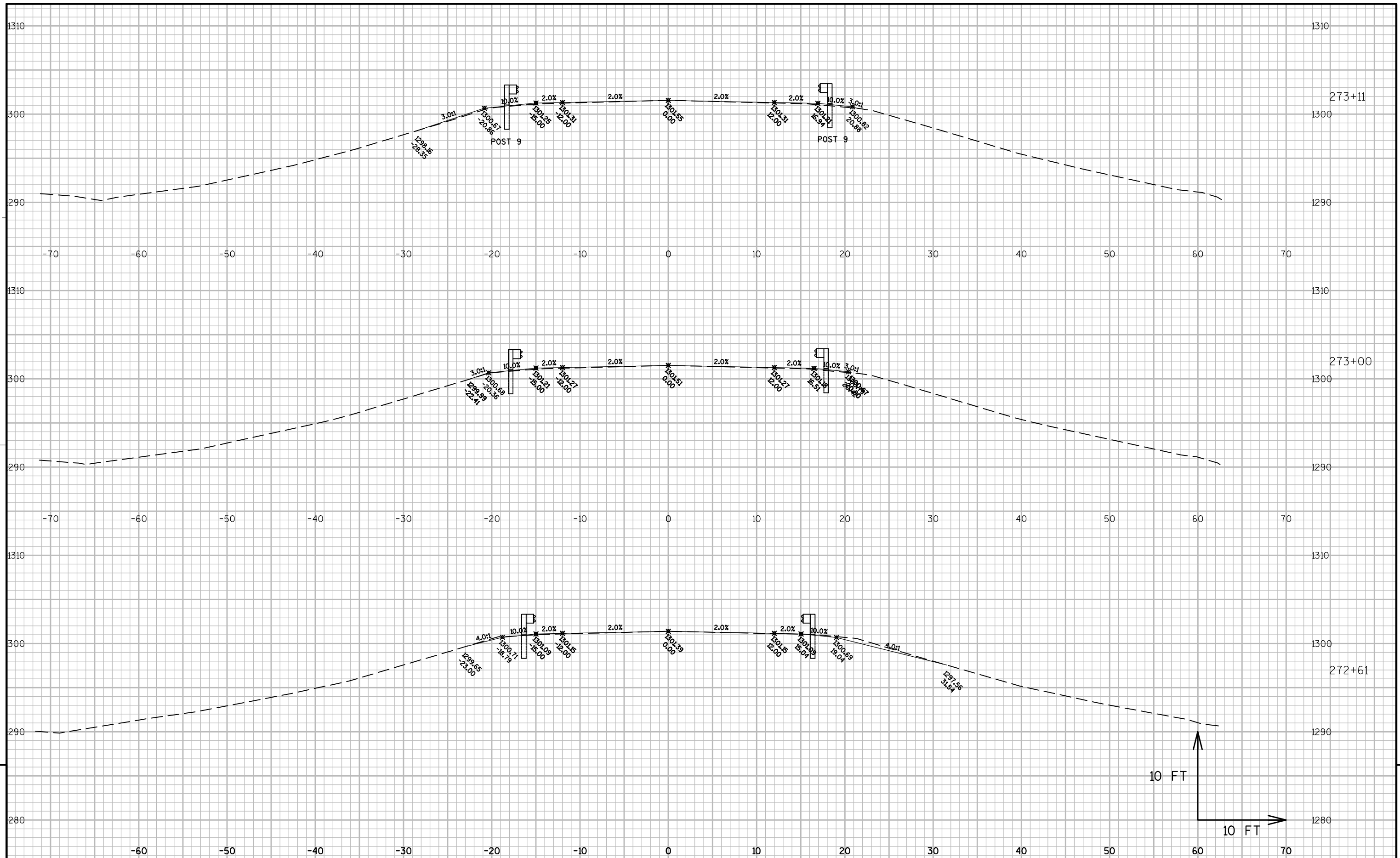


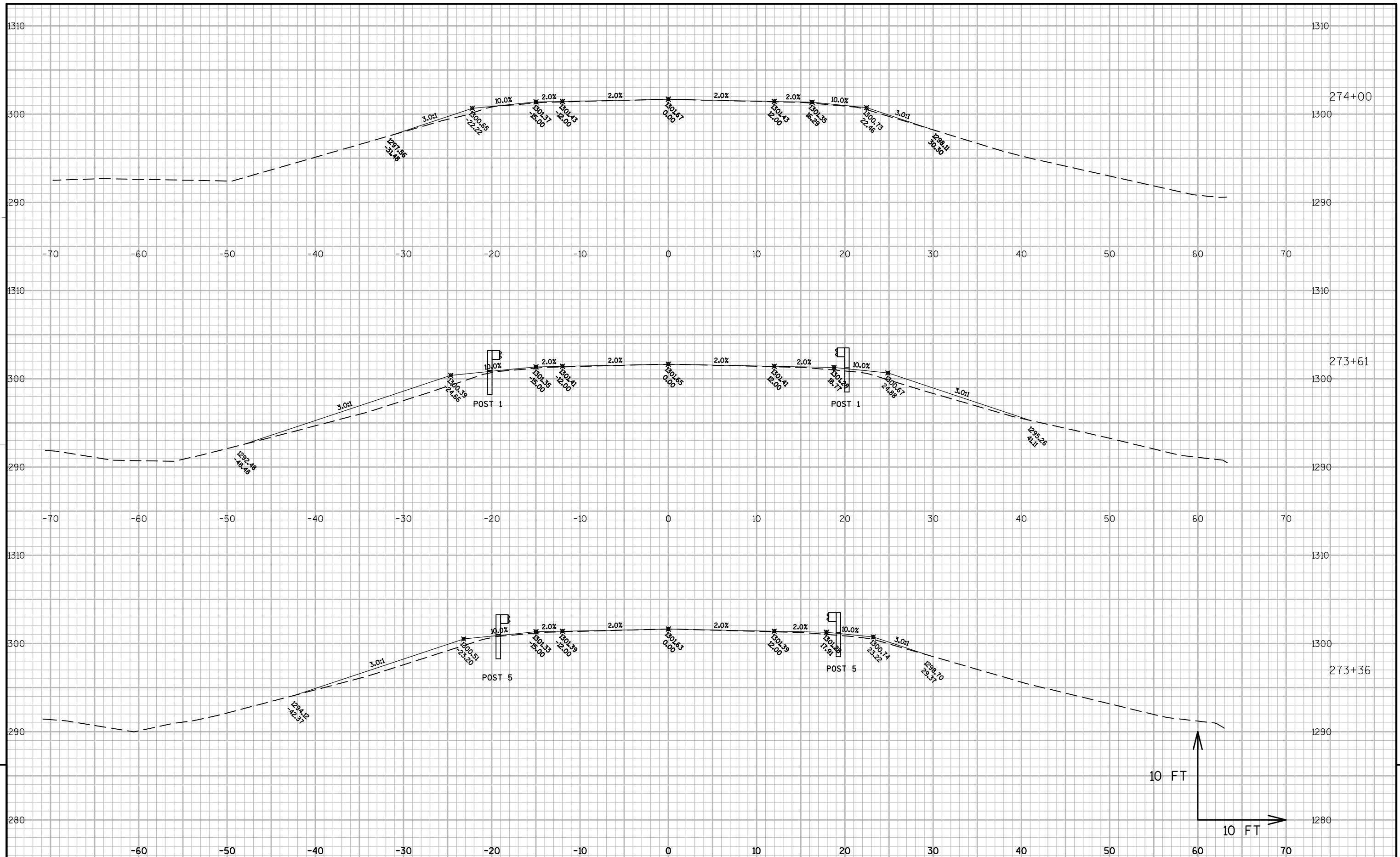


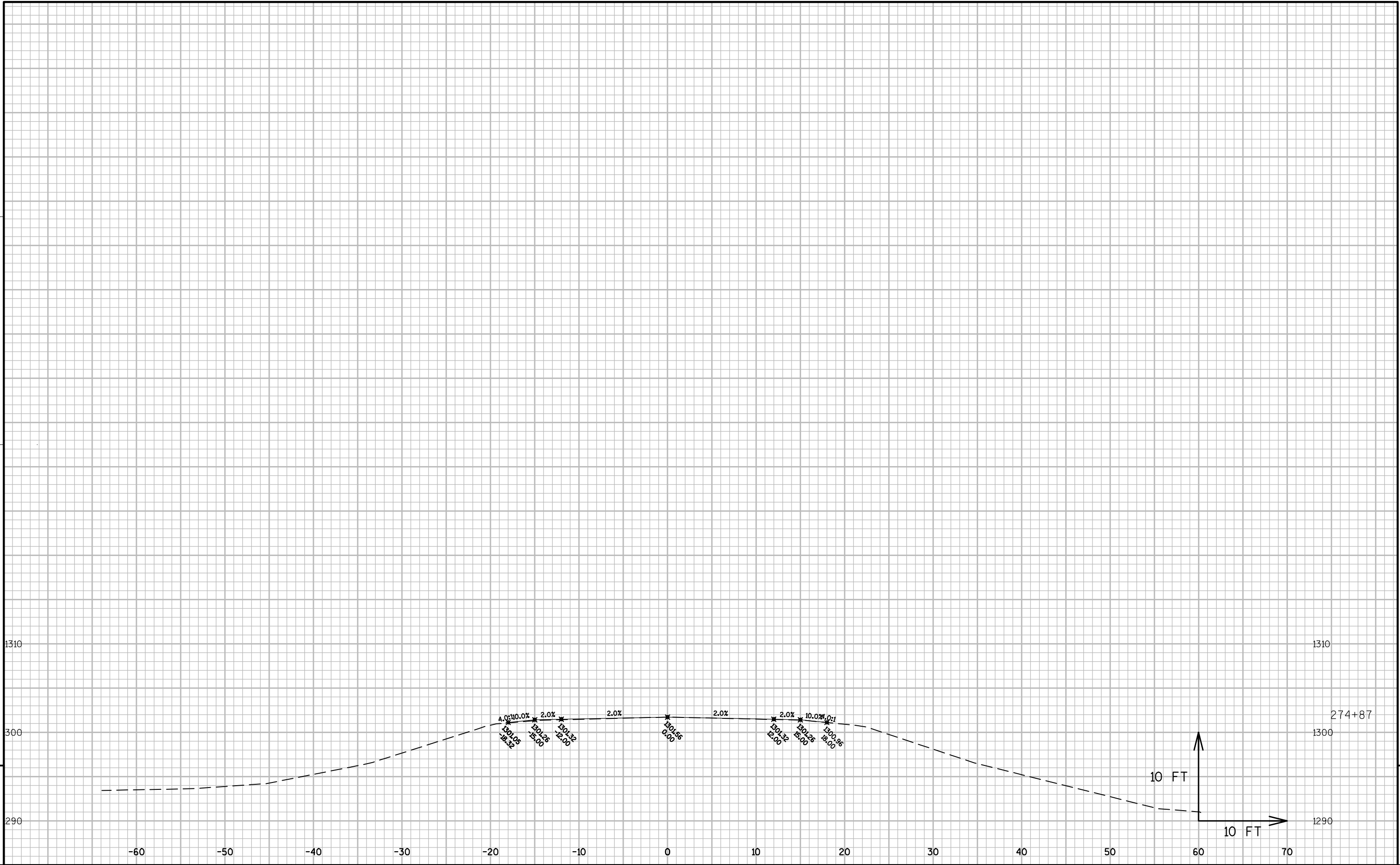




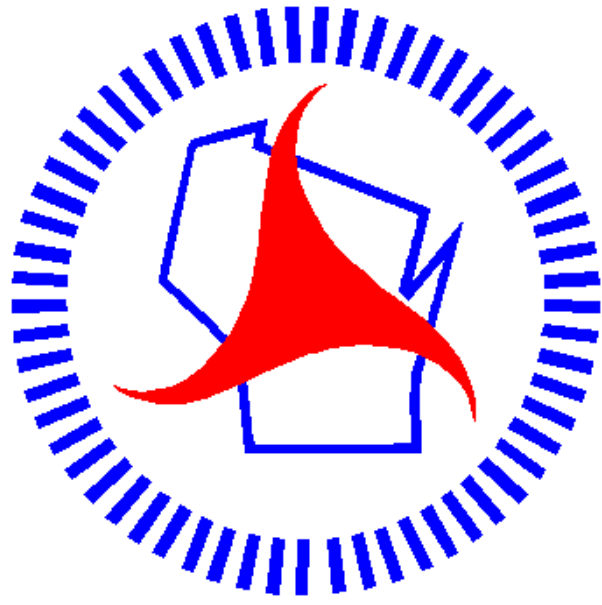








Notes



Wisconsin Department of Transportation

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