

SUP MAY 2016

PROJECT ID: 1610-03-62

COUNTY: TAYLOR

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 = 102

PROJECT LOCATION

47

DESIGN DESIGNATION

A.A.D.T.	2011	=	2733
A.A.D.T.	2036	=	3400
D.H.V.	2036	=	354
D.D.		=	60/40
T.		=	17.0%
DESIGN SPEED		=	55 MPH
ESALS		=	1,182,600

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

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MEDFORD - WESTBORO

STH 102 TO NORTH COUNTY LINE

STH 13

TAYLOR COUNTY

STATE PROJECT NUMBER 1610-03-62

END PROJECT STA. 755+50

BEGIN PROJECT STA. 454+50

X=662121.01 Y=399508.88

LAYOUT

SCALE 0 2 MILE

TOTAL NET LENGTH OF CENTERLINE = 5.638

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, TAYLOR COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor QUEST ENGINEERS

Designer WILLIAM WILLS

Project Manager PHILIP KEPPERS

Regional Examiner CHRISTINE KOSKI

Regional Supervisor DAVID OSTROWSKI

APPROVED FOR THE DEPARTMENT

DATE 1/20/2016

Signature

E

FILE NAME : N:\PDS\C3D\16100362\SHEETS\PLAN\010101_TI.DWG LAYOUT NAME - *****

PLOT DATE : 1/20/2016 8:08 AM

PLOT BY : MEIR, RALPH L

PLOT NAME :

WISDOT/CADDs SHEET 10

GENERAL NOTES

WHEN THE QUANTITY OF DENSE AGGREGATE BASE AND HMA PAVEMENT ARE MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS AS SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND UPON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER IN THE FIELD.

RESTORE SIDEROAD INTERSECTIONS AND PRIVATE ENTRANCES TO EXISTING CONDITIONS UNLESS SHOWN OTHERWISE.

THE EXACT CONSTRUCTION LIMITS OF PRIVATE ENTRANCES SHALL BE COORDINATED WITH THE ENGINEER IN THE FIELD.

PRIOR TO THE PLACEMENT OF BEAMGUARD, THE SHOULDERS SHALL BE IN PLACE, SHAPED, AND COMPACTED UNLESS SHOWN OTHERWISE.

IN BEAMGUARD AREAS, EXTEND PAVED SHOULDER OUT TO BEAMGUARD FACE.

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

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED AND COVERED WITH EROSION MAT.

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

Wisconsin Department Of Natural Resources

ATTN: JON SIMONSEN
DEPT OF NATURAL RESOURCES
107 SUTLIFF AVENUE
RHINELANDER, WI. 54501
PHONE: 715 365-8916
jonathan.simonsen@wi.gov

UTILITIES

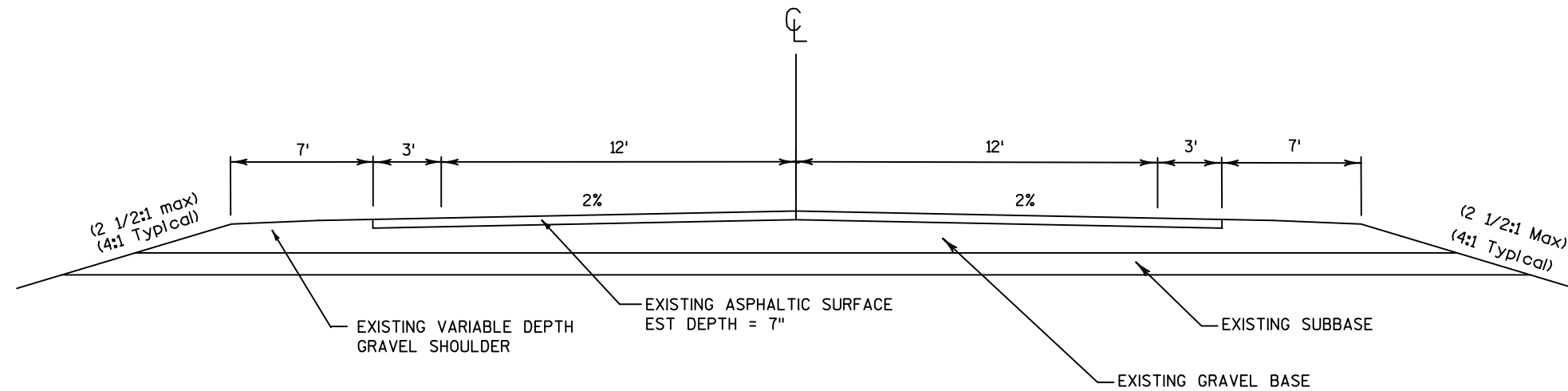
CENTURYLINK
Brian Huhn
400 W 9th street Suite#5
Ladysmith, WI 54848
715 532-0023
715 563-8294 Cell

XCEL ENERGY
Pam Taylor
1414 W. HAMILTON AVE.
P.O. BOX 8
EAU CLAIRE, WI 54702
715 737-1306

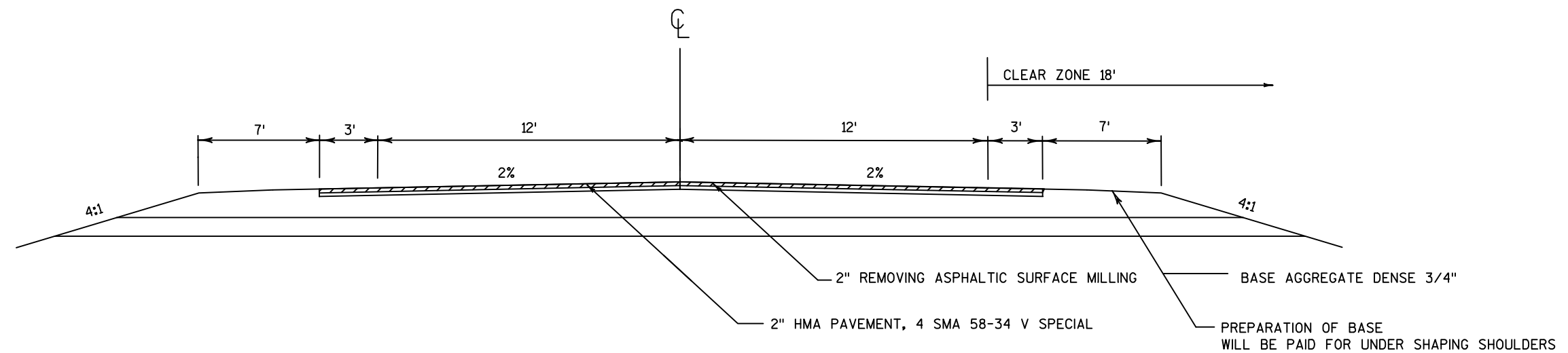
DIGGERSHOTLINE

Dial 811 or (800)242-8511

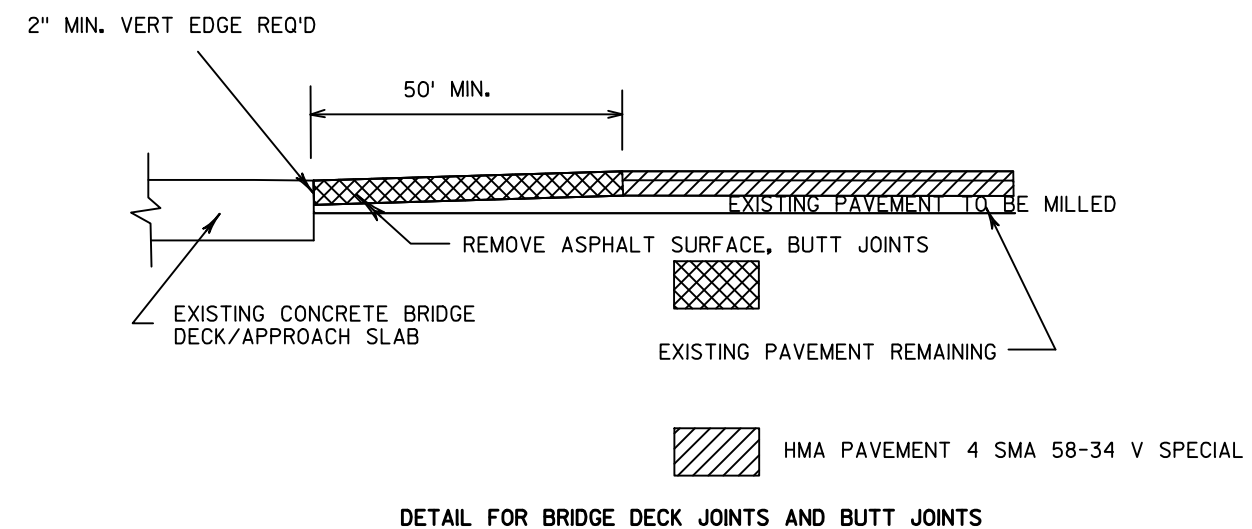
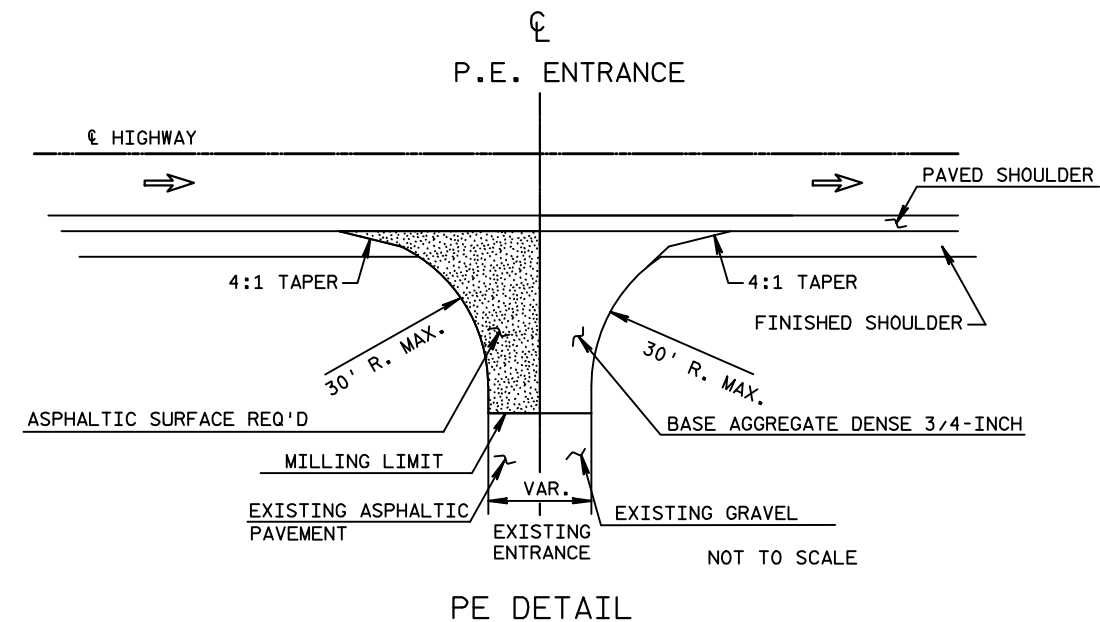
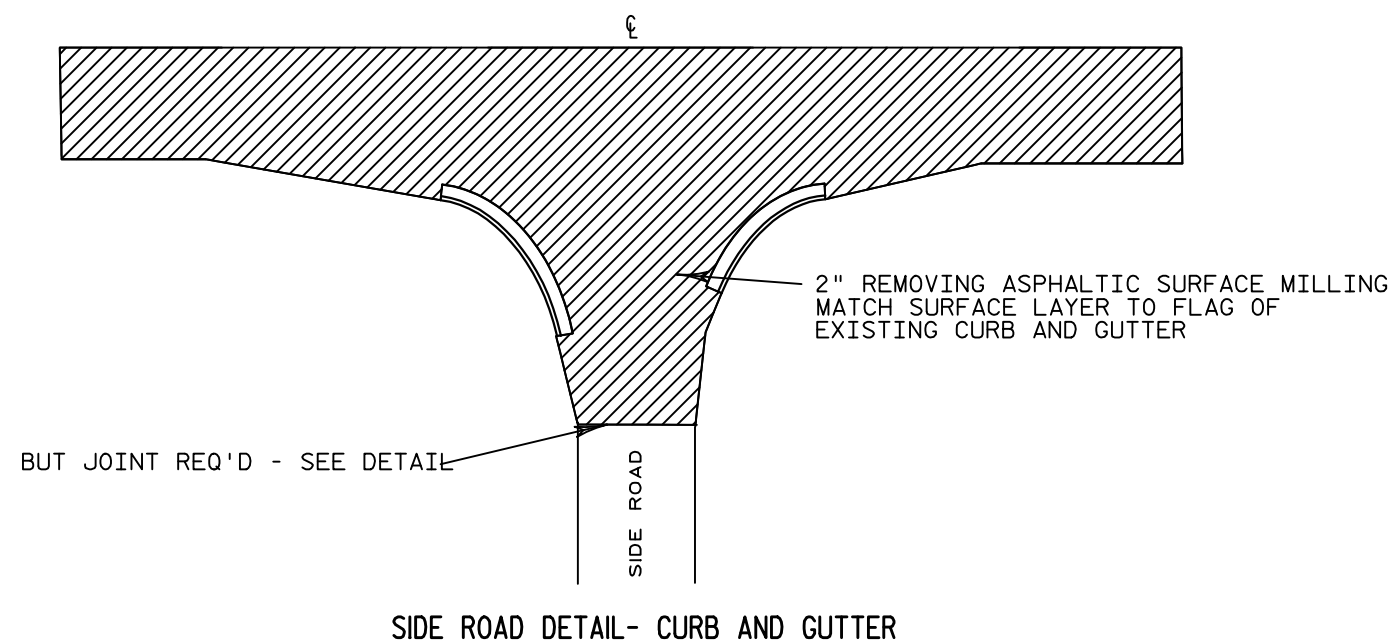
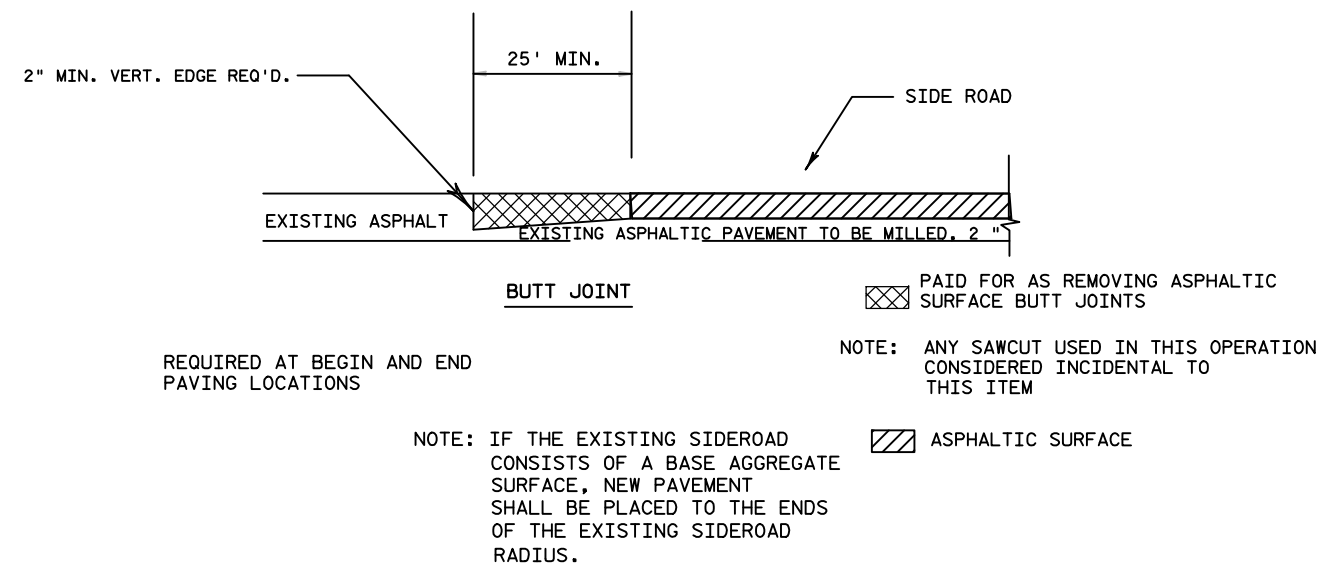
www.DiggersHotline.com

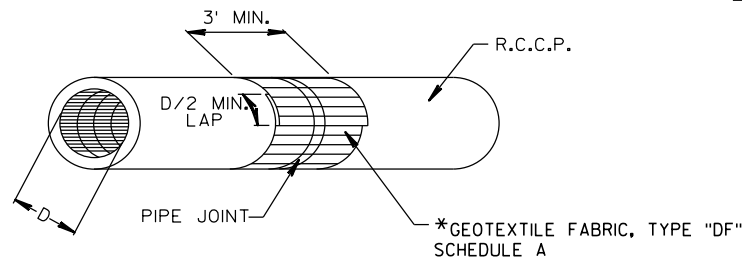


TYPICAL EXISTING SECTION



FINISHED TYPICAL SECTION





GEOTEXTILE FABRIC REQUIRED FOR PIPE JOINTS

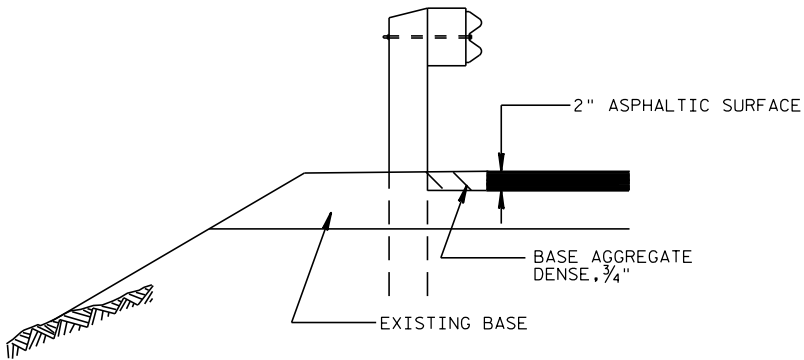
PIPE DIA. (IN.)	PIPE O.D. (IN.)	FABRIC/JOINT (S.Y.)
18	23	2.3
21	26.5	2.6
24	30	3.0
27	33.5	3.3
30	37	3.6
36	44	4.3
42	51	5.0
48	58	5.7
54	65	6.4
60	72	7.1
66	79	7.8
72	86	8.5

DETAIL OF WRAPPED PIPE JOINT

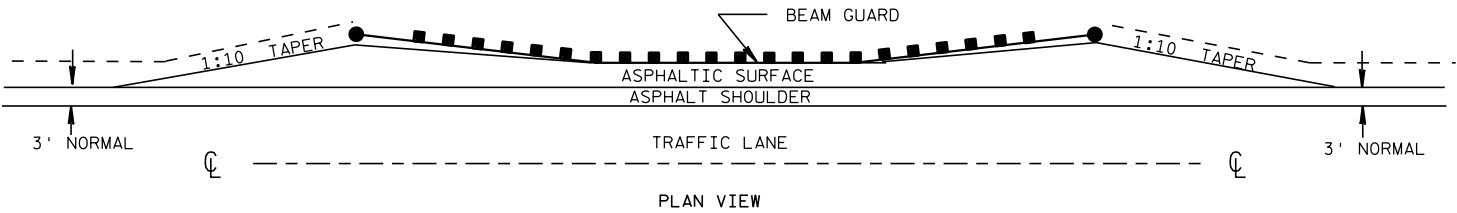
WRAP ALL JOINTS

STA 586+86 LT
STA 592+05 LT
STA 592+05 RT

* INCIDENTAL TO ITEM SPV.0060.01 RESETTNG CULVERT SECTIONS



CROSS SECTIONAL VIEW



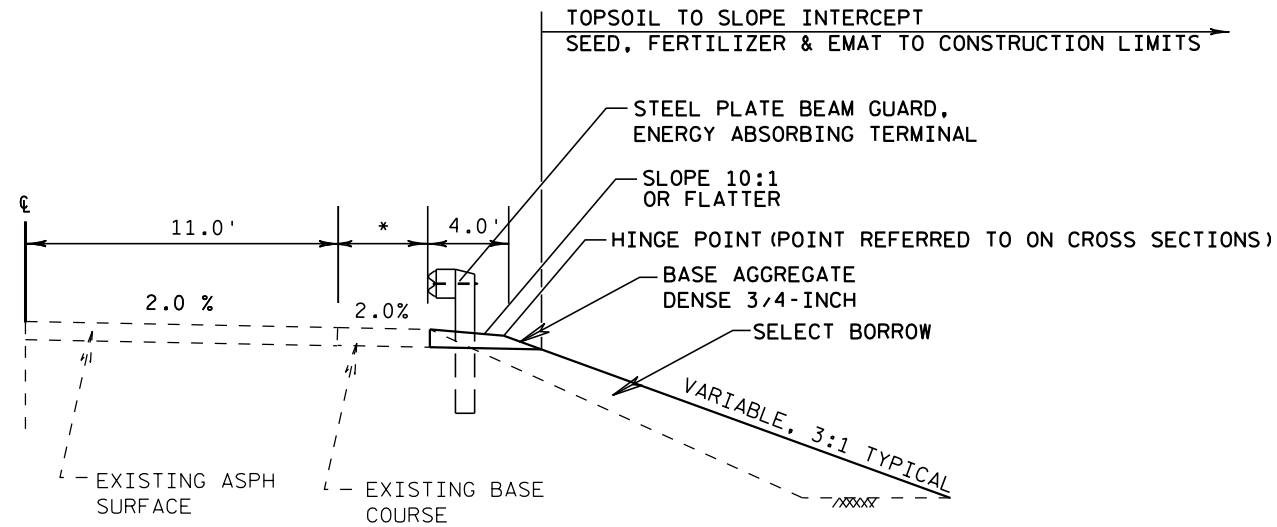
PLAN VIEW

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 34 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.3 ACRES

DETAIL FOR ASPHALTIC SURFACE PAVING AT BEAMGUARD



GENERAL NOTES FOR ENERGY ABSORBING TERMINAL INSTALLATION:

THERE IS NO TERMINAL HEAD OFFSET.

DISTANCE FROM BACK OF BEAM GUARD POST TO HINGE POINT IS 2 FT.

SLOPE BEYOND THE HINGE POINT IS 3:1.

THE APPROACH TAPER IS 4:1.

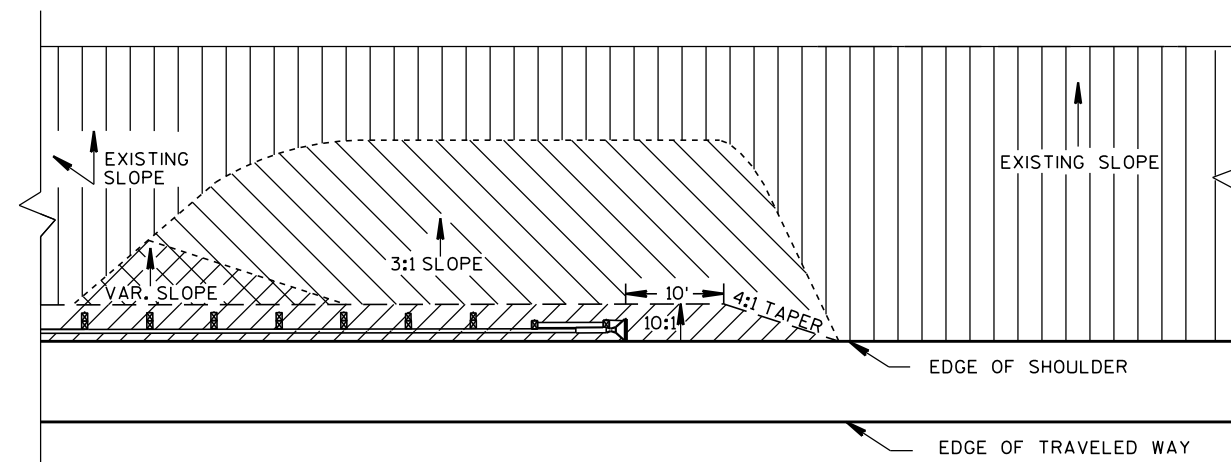
REMOVE EXISTING TYPE 2 ANCHORAGES PRIOR TO ATTACHING ENERGY ABSORBING TERMINAL TO END OF EXISTING GUARDRAIL.

REMOVAL OF TYPE 2 ANCHORAGES IS INCIDENTAL TO ITEM 614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL.

GRADING, SHAPING AND FINISHING OF EMBANKMENT SLOPES FOR BARRIER SYSTEM IS PAID FOR UNDER ITEM SPV.0060.04 BARRIER SYSTEM GRADING SHAPING FINISHING SPECIAL.

STEEL PLATE BEAM GUARD, ENERGY ABSORBING TERMINAL TYPICAL FINISHED SECTION

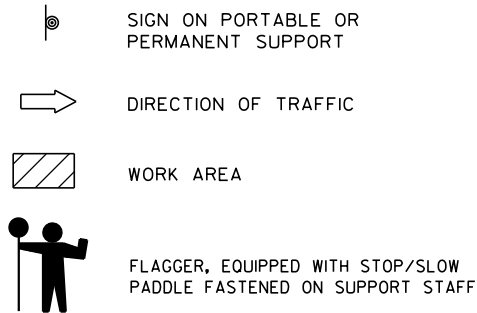
FISCHER CREEK RD STA. 16+60 TO STA. 17+10 RT * = 3.0'
 FISCHER CREEK RD STA. 16+95 TO STA. 17+40 LT * = 3.0'
 BUSINESS 13 STA. 20+10 TO STA. 20+60 RT * = 4.0'



STEEL PLATE BEAM GUARD, ENERGY ABSORBING TERMINAL INSTALLATION PLAN VIEW

FISCHER CREEK RD LT & RT
 BUSINESS 13 RT

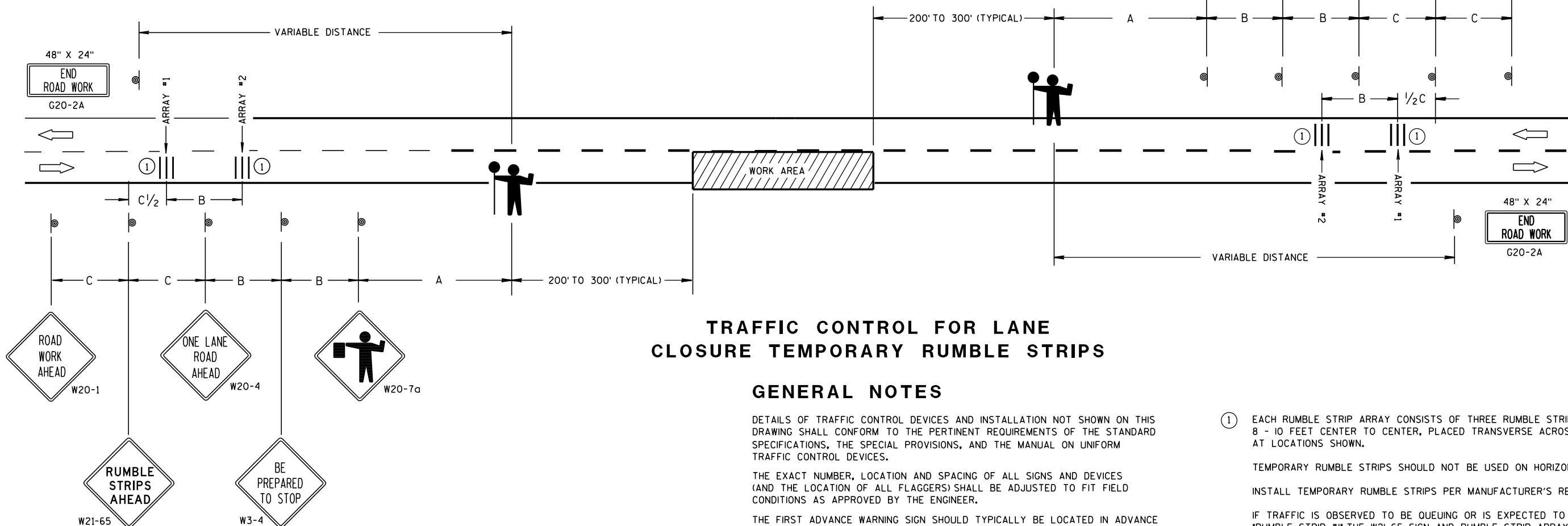
LEGEND



SPEED LIMIT (MPH)	ADT	SIGN SPACING A,B,C	TAPER LENGTH (FT)	BUFFER ZONE (FT)	DEVICE SPACING (FT)	WORK ZONE LENGTH
35 OR LESS	LESS THAN 2,500	200'	50'	200'	40'	2.5 MI.
	2,500 - 5,000	200'	50'	200'	40'	2.0 MI.
	GREATER THAN 5,000	200'	50'	200'	40'	1.5 MI.
40-45	LESS THAN 2,500	350'	100'	200'	80'	2.5 MI.
	2,500 - 5,000	350'	100'	200'	80'	2.0 MI.
	GREATER THAN 5,000	700'	100'	300'	80'	1.5 MI.
50 OR GREATER	LESS THAN 2,500	500'	100'	300'	100'	2.5 MI.
	2,500 - 5,000	500'	100'	300'	100'	2.0 MI.
	GREATER THAN 5,000	1000'	100'	300'	100'	1.5 MI.



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.



TRAFFIC CONTROL FOR LANE CLOSURE TEMPORARY RUMBLE STRIPS

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.

- ① EACH RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED 8 - 10 FEET CENTER TO CENTER, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

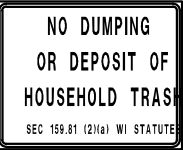
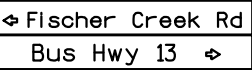
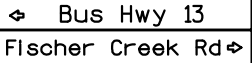
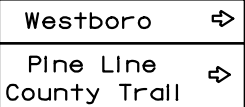
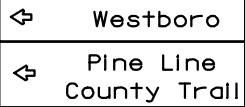
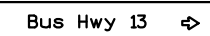
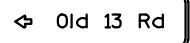
TEMPORARY RUMBLE STRIPS SHOULD NOT BE USED ON HORIZONTAL CURVES.

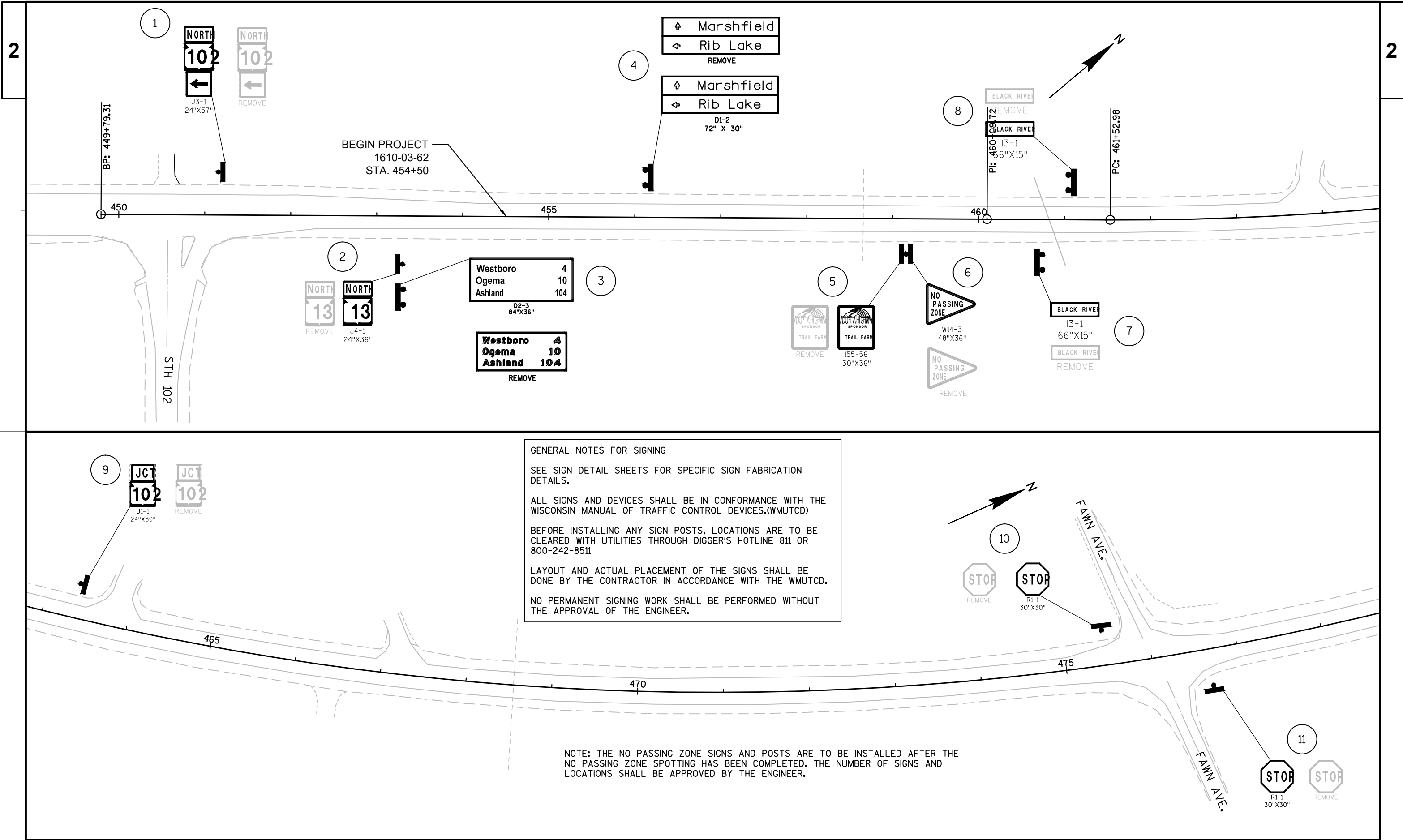
INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

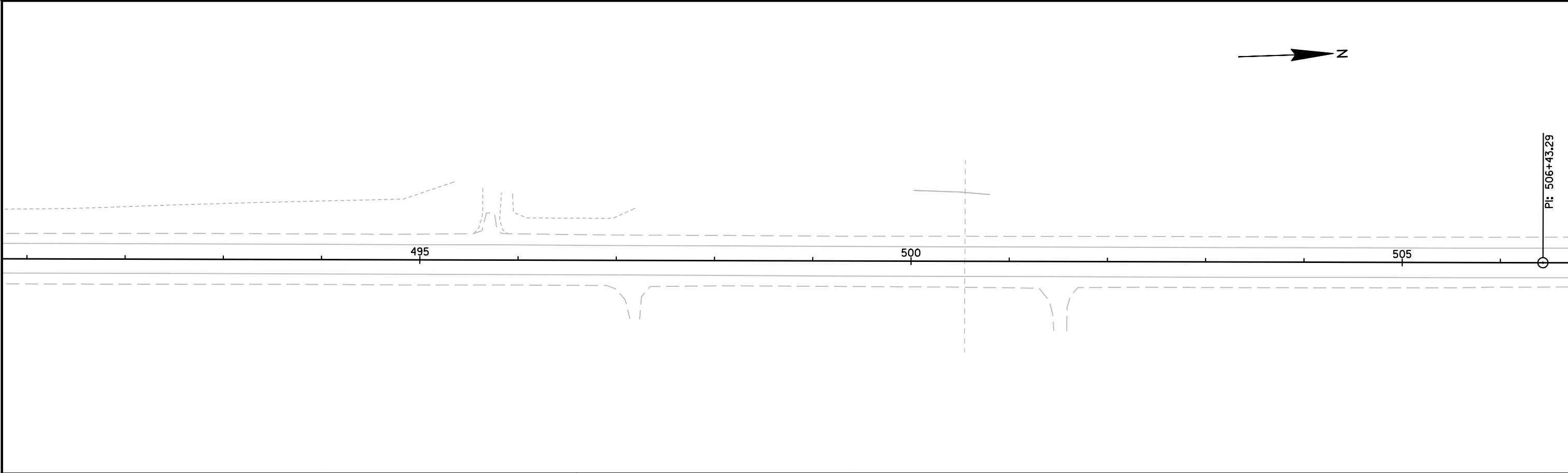
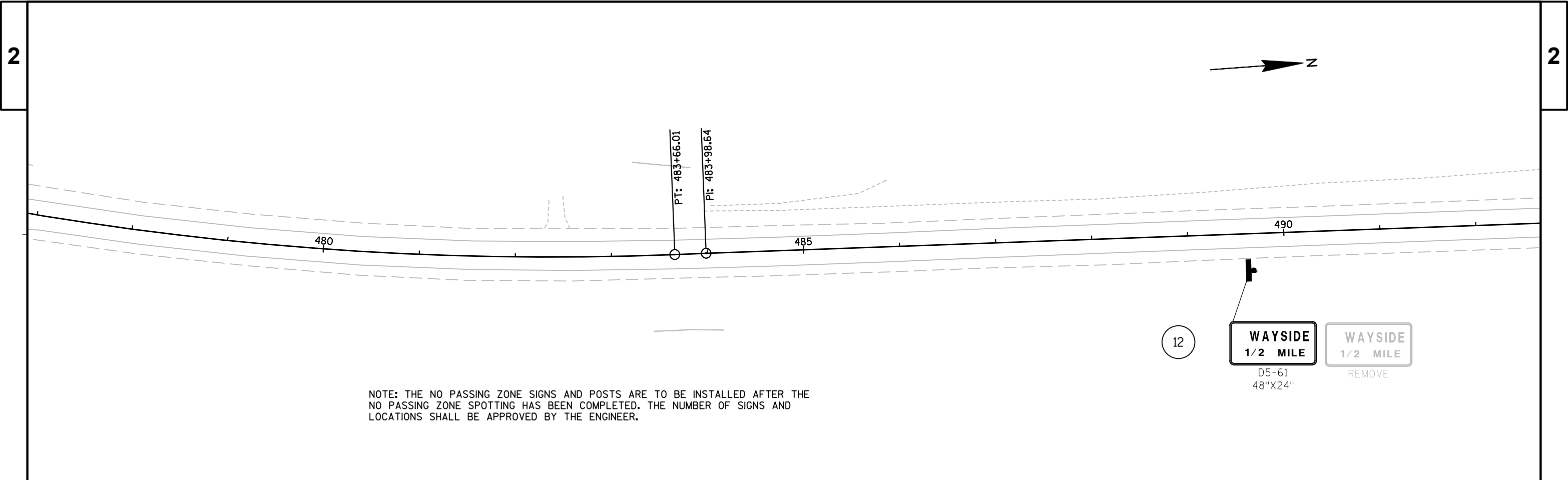
IF TRAFFIC IS OBSERVED TO BE QUEUEING OR IS EXPECTED TO QUEUE BEYOND "RUMBLE STRIP #1" THE W21-65 SIGN AND RUMBLE STRIP ARRAY #1 MAY BE RELOCATED UPSTREAM OF THE W20-1 SIGN AS NECESSARY TO PROVIDE NEEDED WARNING

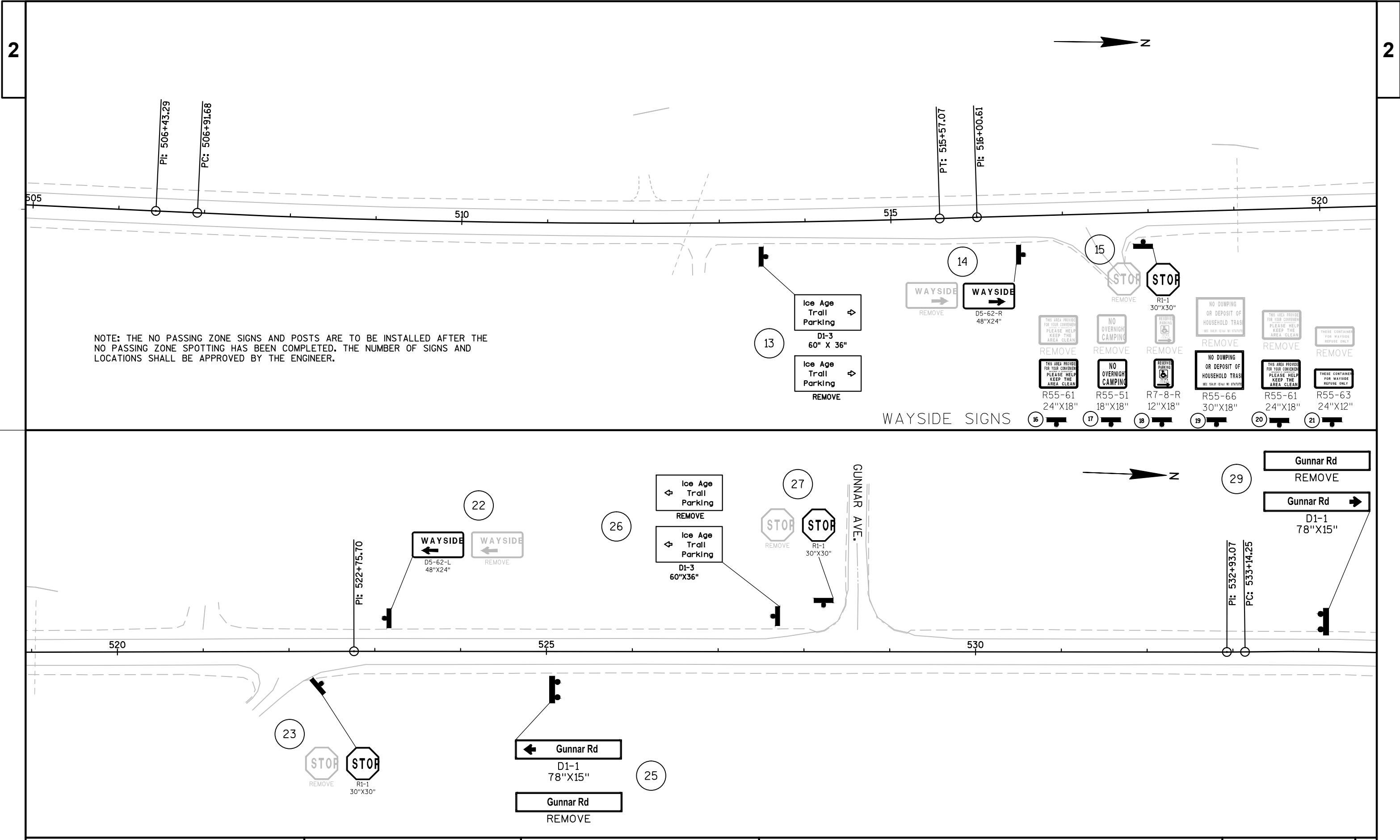
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

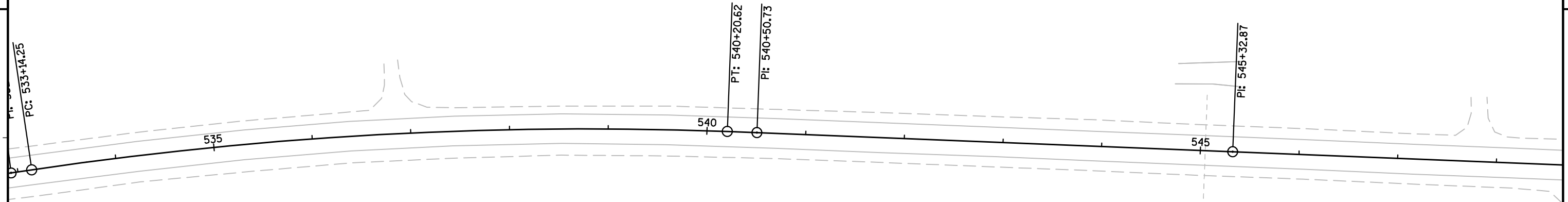
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, REMOVE TEMPORARY RUMBLE STRIPS AND COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

ESTIMATE OF QUANTITIES FOR PERMANENT SIGNING																			
SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D	SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D	SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D	SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D	SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D
	R1-1	30"x30"	12		I55-56	30"x36"	2		R55-51	18"x18"	1		D2-3	84"x36"	1		D1-3	60"x36"	1
	R1-1	36"x36"	4		I55-56	30"x36"	2		R7-8-R	12"x18"	1		D1-2	72"x30"	1		D1-3	60"x36"	1
	J4-1	24"x36"	1		I55-56	30"x36"	2		R55-66	30"x18"	1		D1-2	108"x30"	1		D7-62	60"x42"	2
	J4-1	24"x36"	2		J13-1	24"x45"	2		R55-63	24"x12"	1		D1-2	108"x30"	1		D7-63R	60"x36"	1
	J1-1	24"x39"	2		D5-61	48"x24"	2		R55-61	24"x18"	2		D1-2	84"x36"	1		D7-63L	60"x36"	1
	J1-1	24"x39"	1		D5-62-R	48"x24"	1		I3-1	36"x24"	2		D1-2	84"x36"	1		W14-3	48"x36"	7
	J3-1	24"x57"	1		D5-62-L	48"x24"	1		D1-1	78"x15"	1		I3-1	66"x15"	2		I2-2	54"x15"	1
	J13-1	24"x45"	2		D1-1	66"x24"	2		D1-1	78"x15"	1		D1-1	90"x15"	1		I2-2	54"x15"	1
									M1-94	72"x15"	1		D1-1	84"x15"	1				
									M1-94	72"x15"	1		D1-1	84"x15"	1				

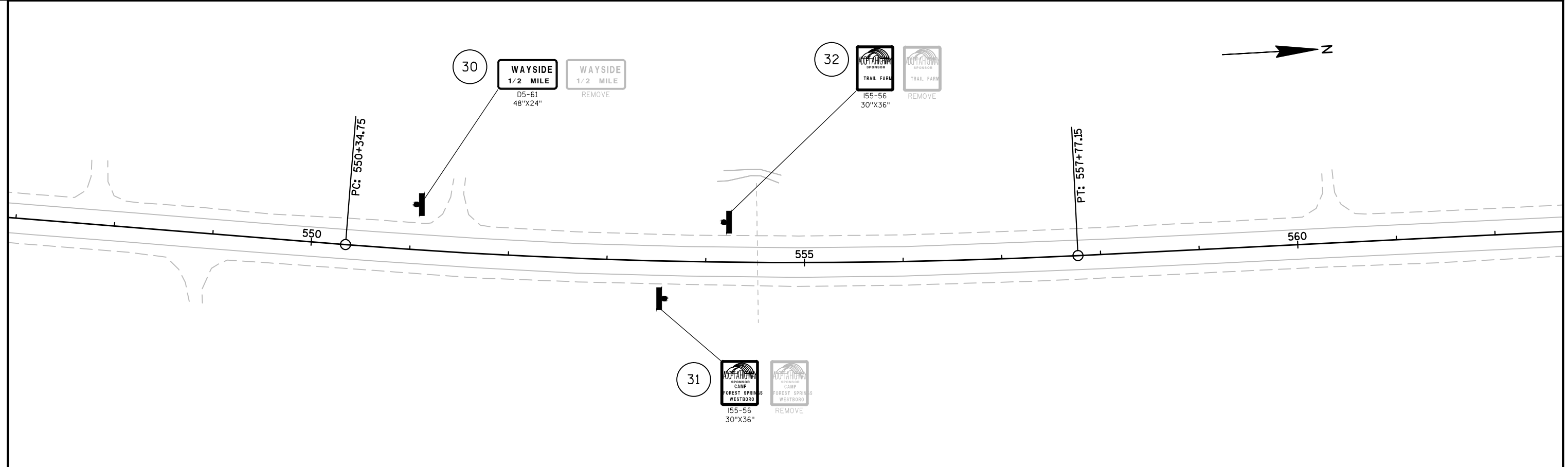


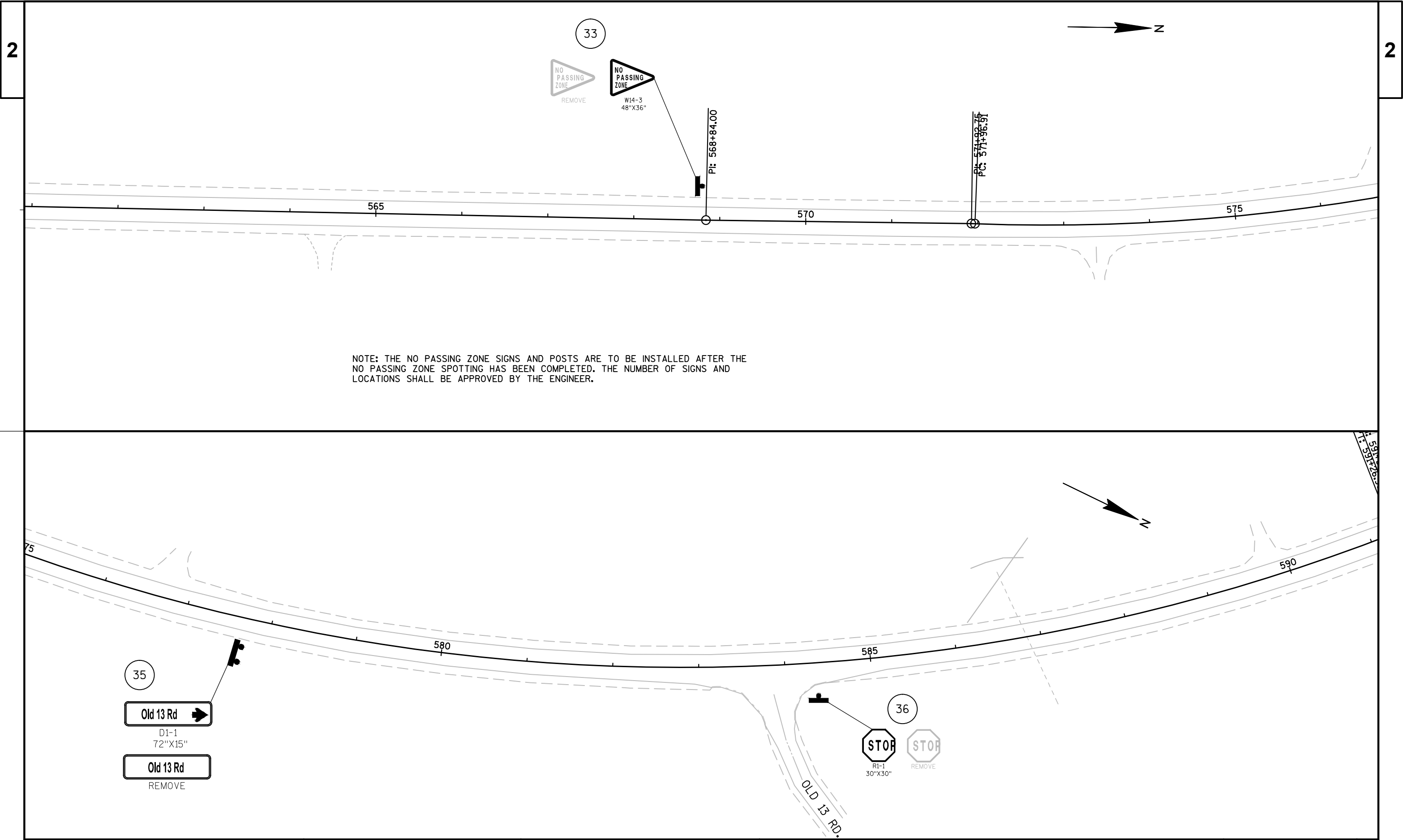


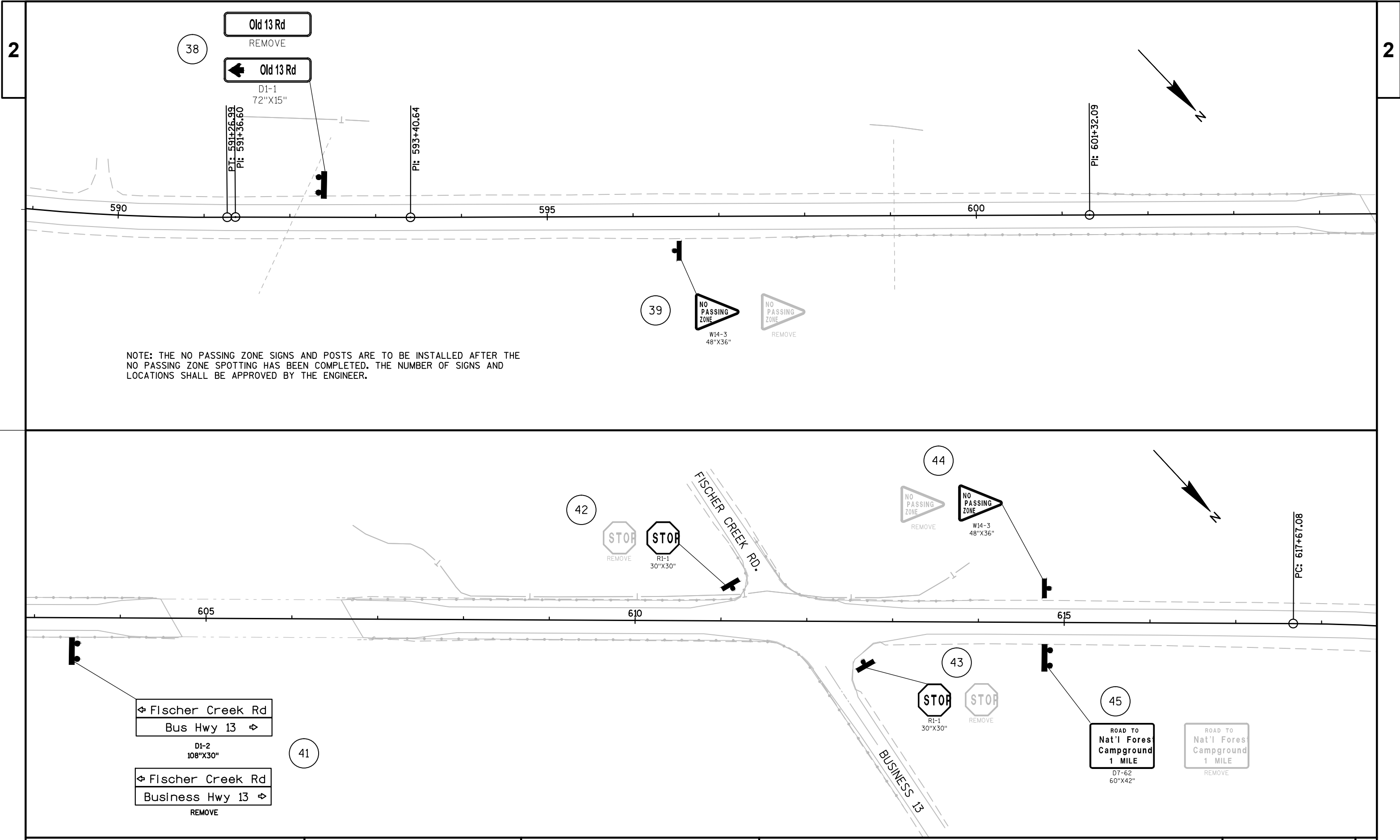




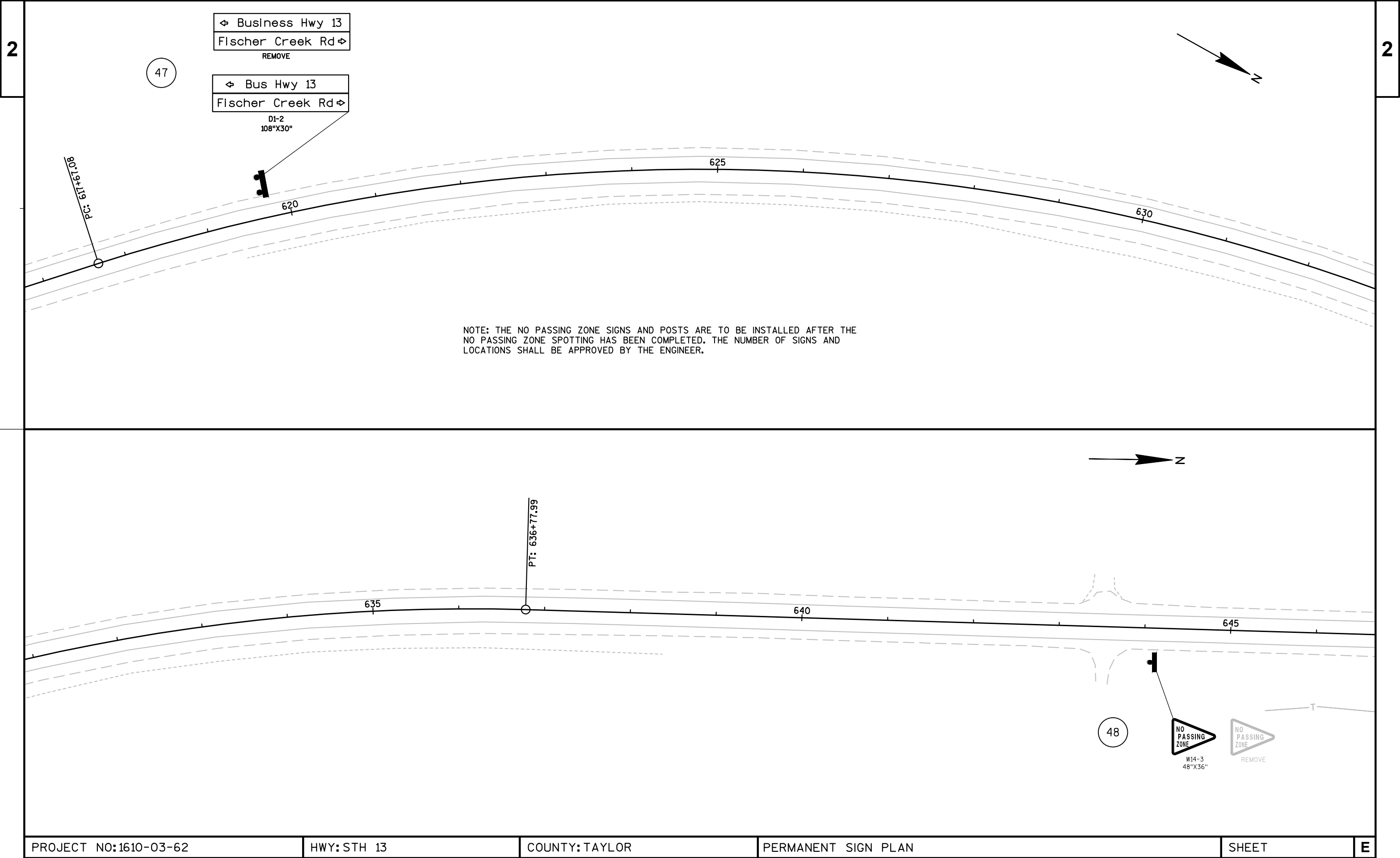
NOTE: THE NO PASSING ZONE SIGNS AND POSTS ARE TO BE INSTALLED AFTER THE NO PASSING ZONE SPOTTING HAS BEEN COMPLETED. THE NUMBER OF SIGNS AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.

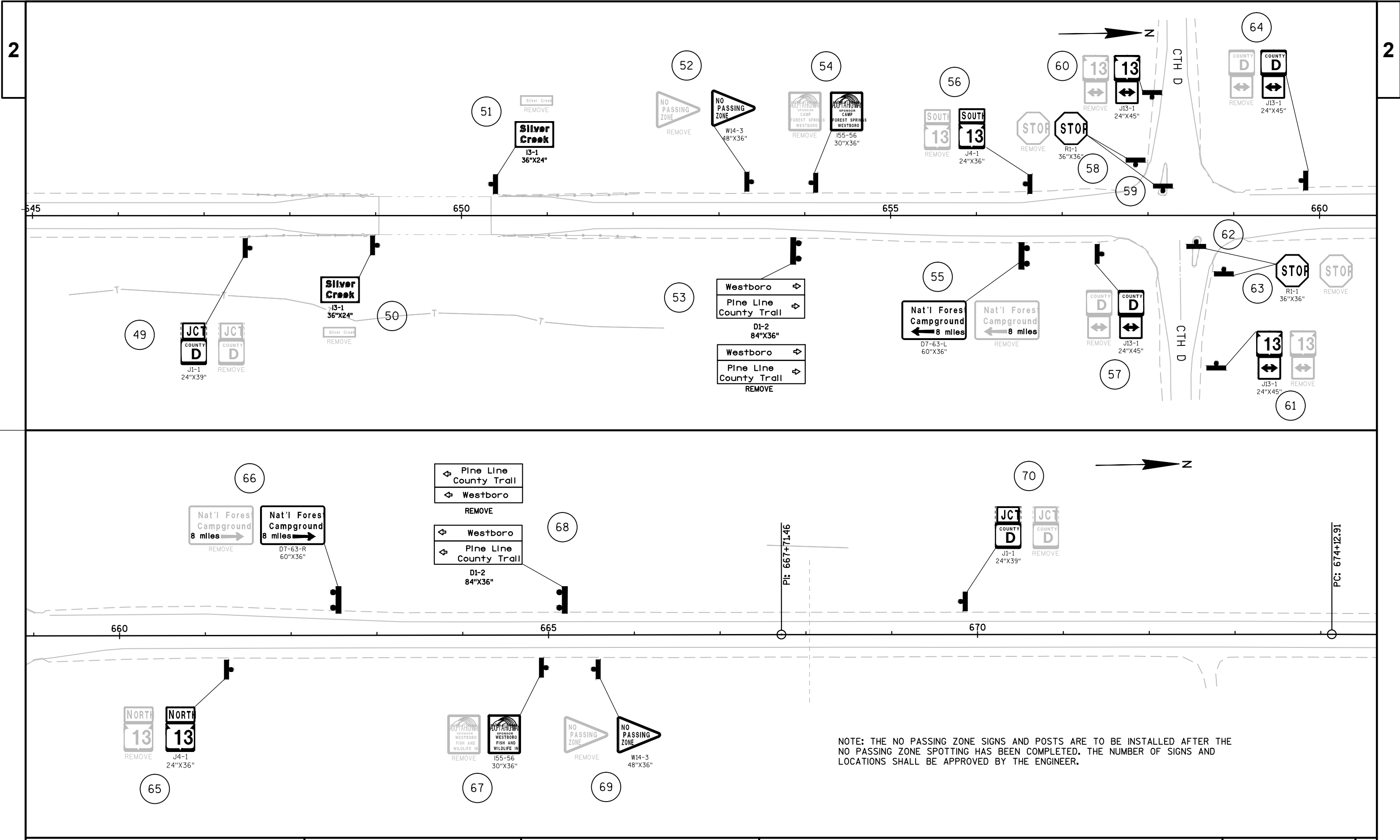






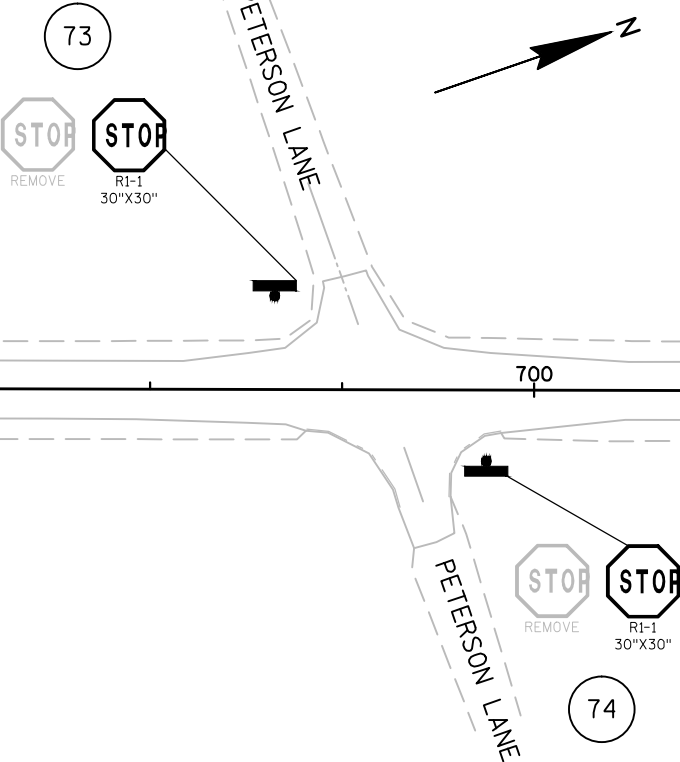
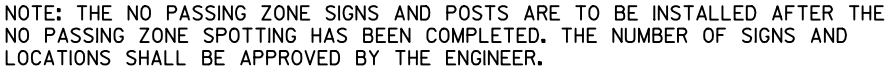
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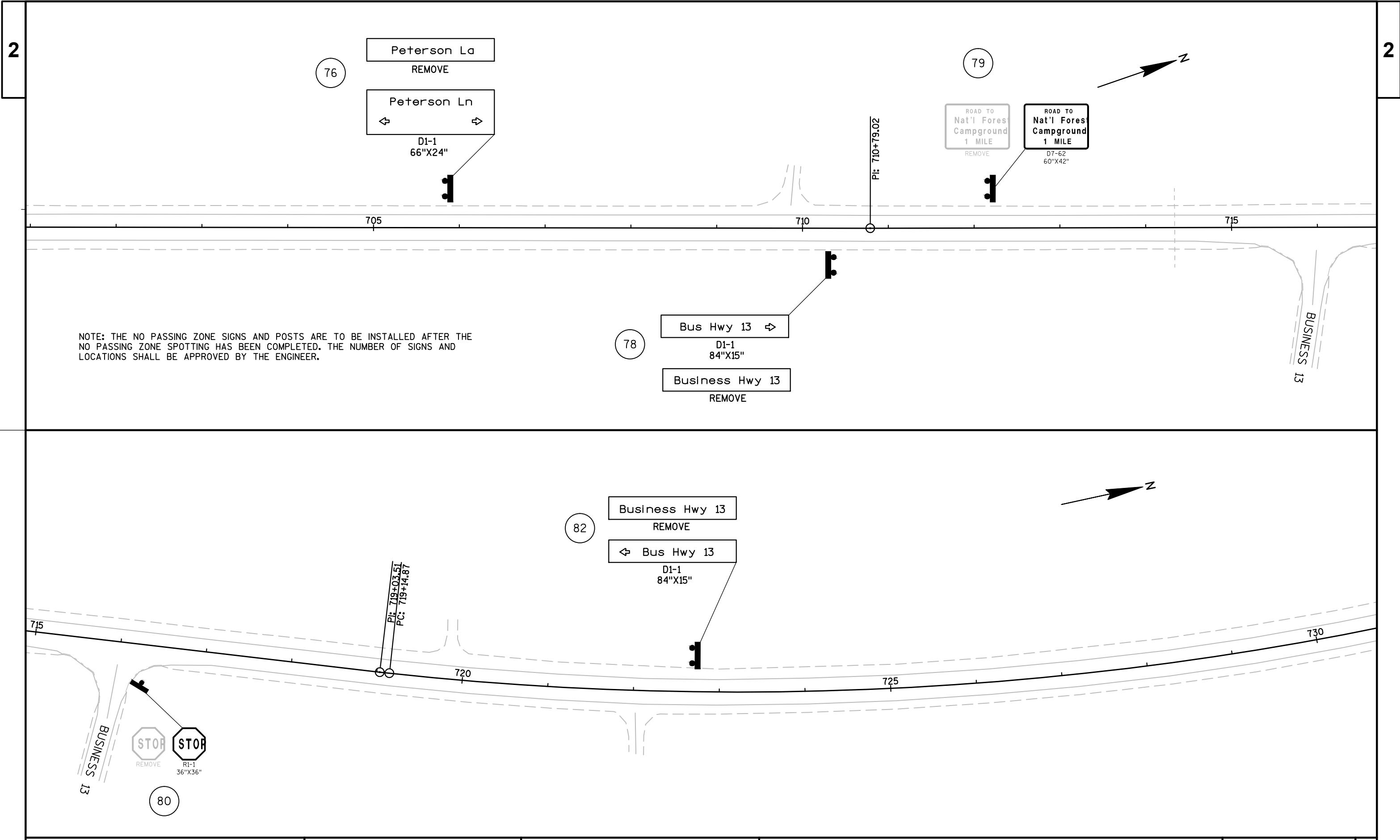


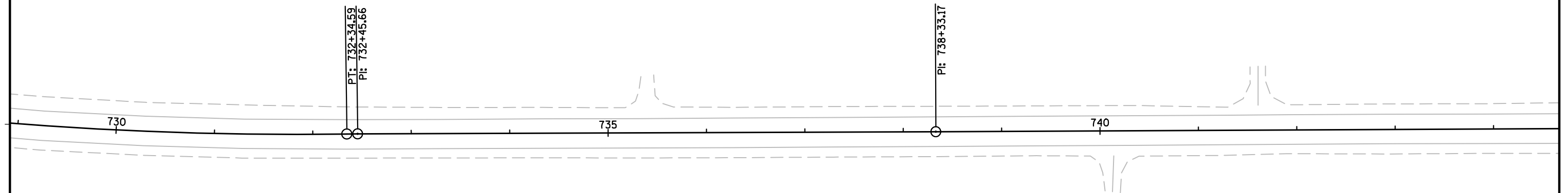


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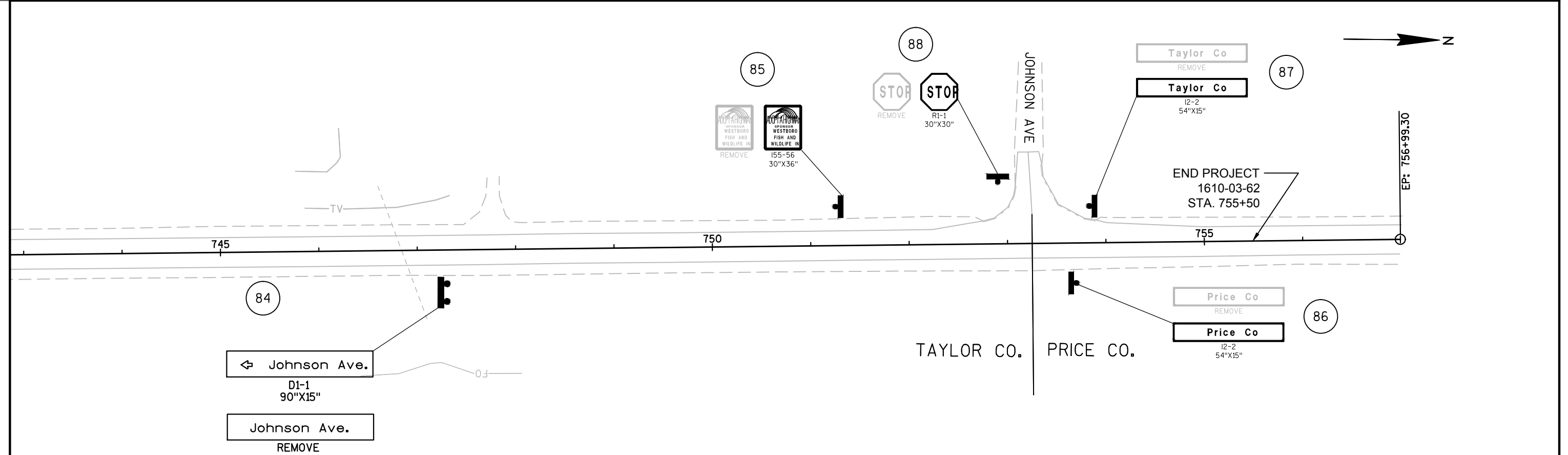
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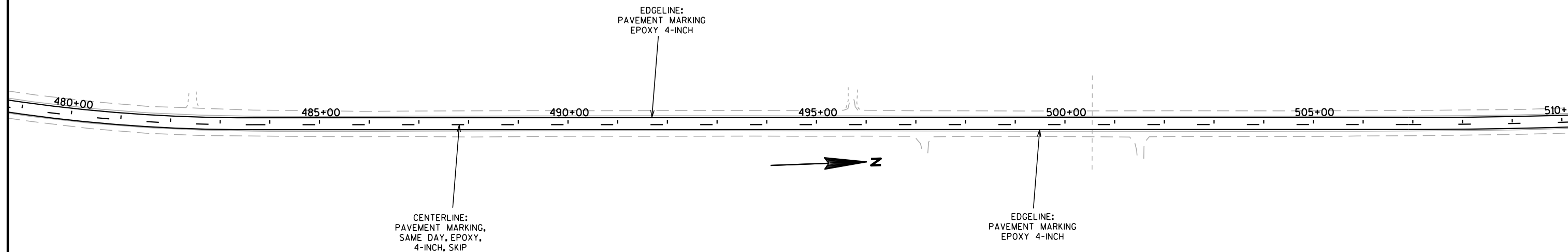
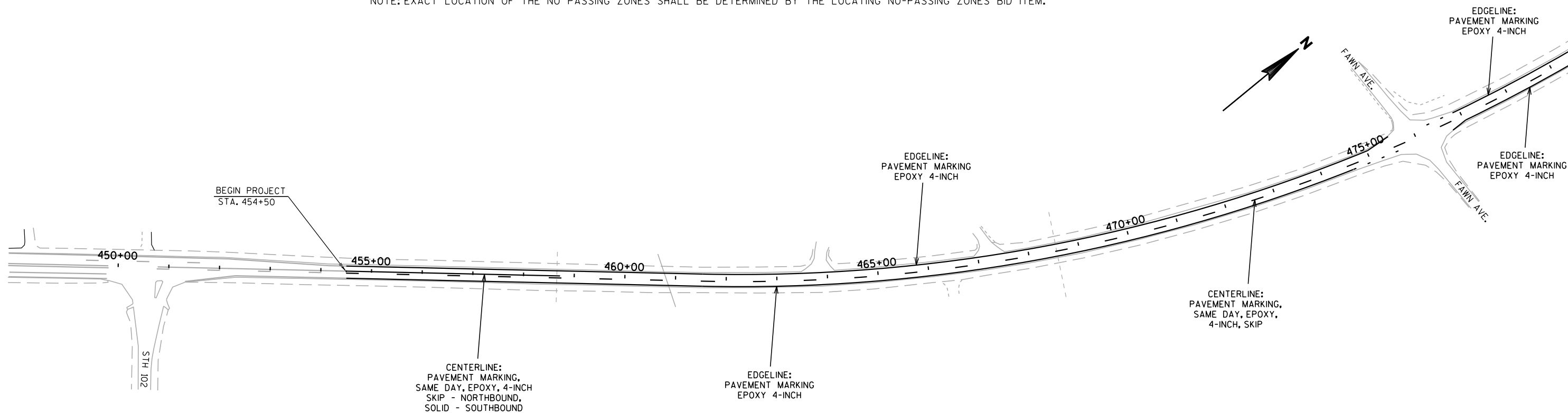




NOTE: THE NO PASSING ZONE SIGNS AND POSTS ARE TO BE INSTALLED AFTER THE NO PASSING ZONE SPOTTING HAS BEEN COMPLETED. THE NUMBER OF SIGNS AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.



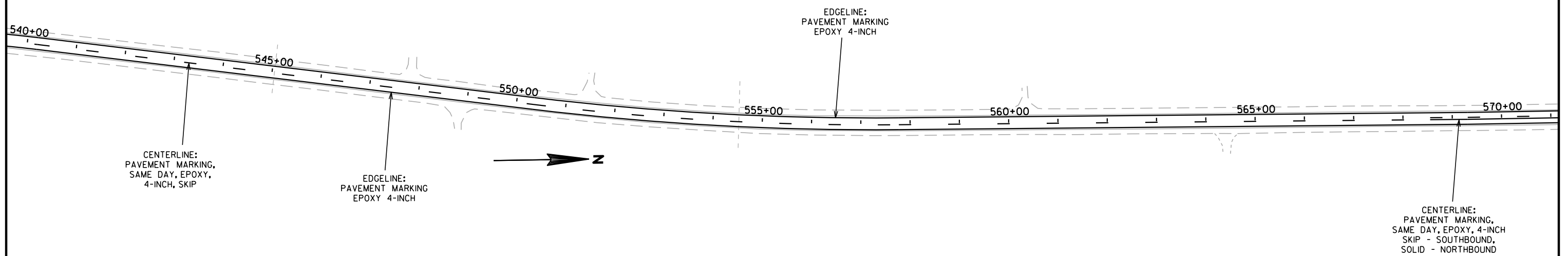
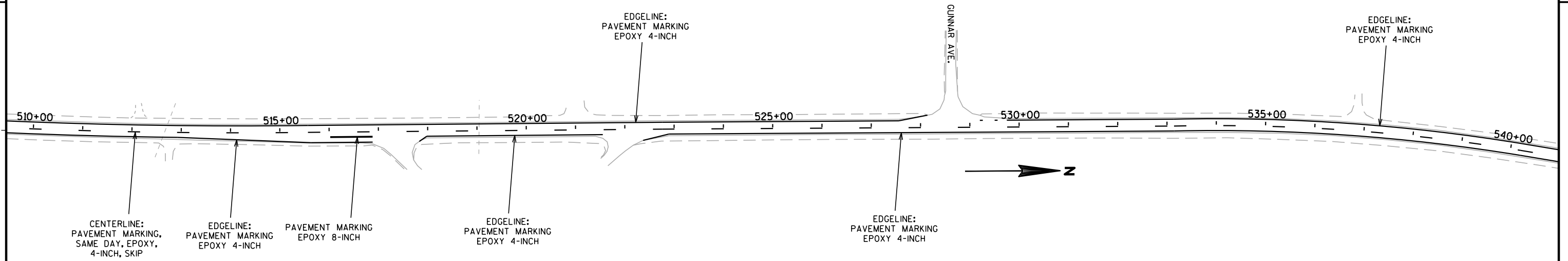
NOTE: EXACT LOCATION OF THE NO PASSING ZONES SHALL BE DETERMINED BY THE LOCATING NO-PASSING ZONES BID ITEM.



2

2 |

NOTE: EXACT LOCATION OF THE NO PASSING ZONES SHALL BE DETERMINED BY THE LOCATING NO-PASSING ZONES BID ITEM.



PROJECT NO: 1610-03-62

HWY: STH 13

COUNTY: TAYLOR

PAVEMENT MARKING

SHEET

3

FILE NAME : 2

PLOT DATE : 19-JAN-2016 08:15

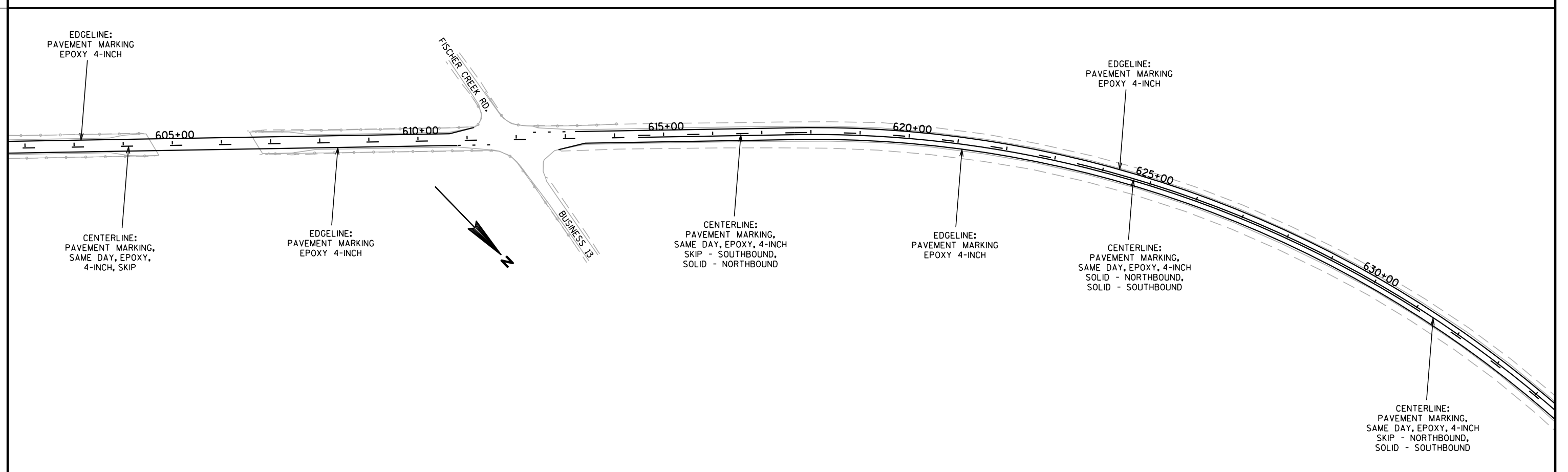
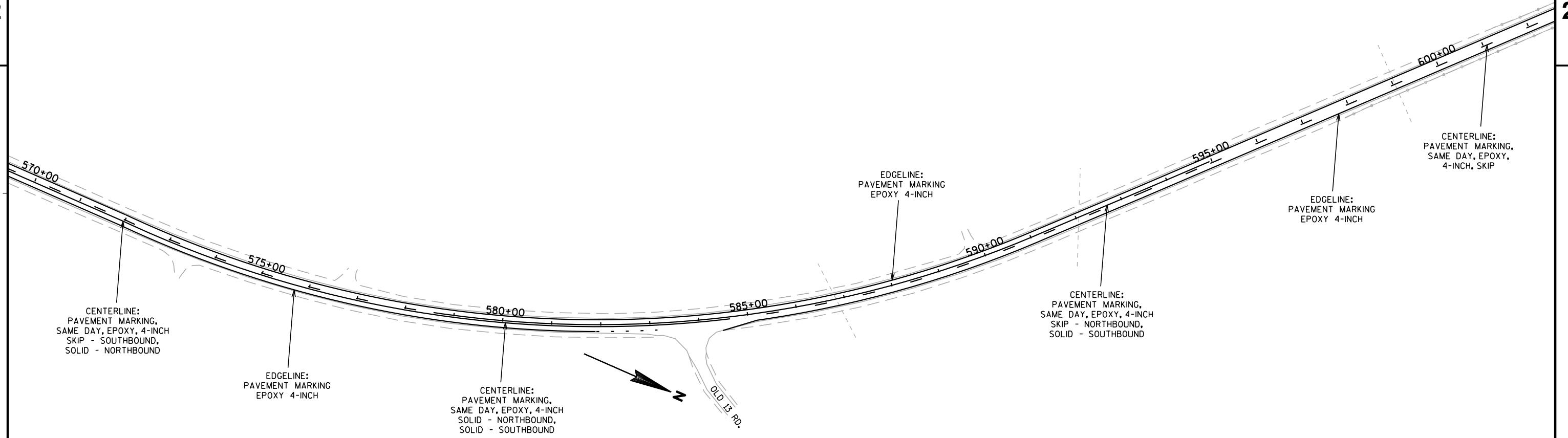
PLOT BY :

PLOT NAME :

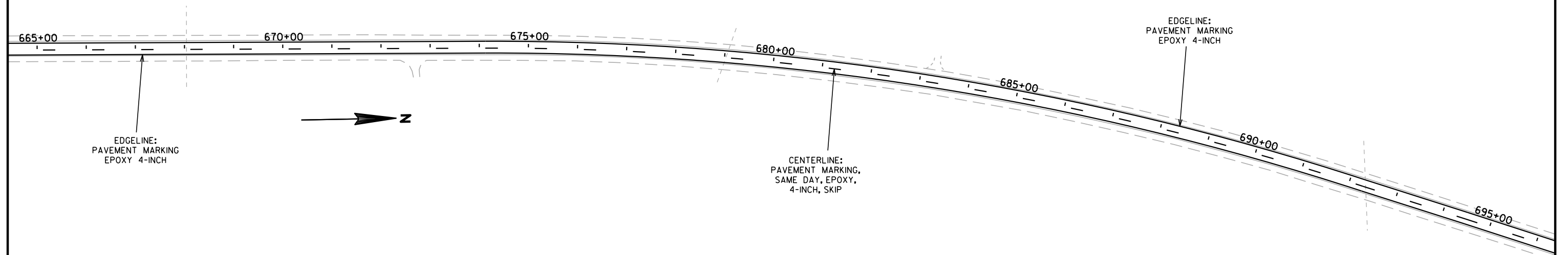
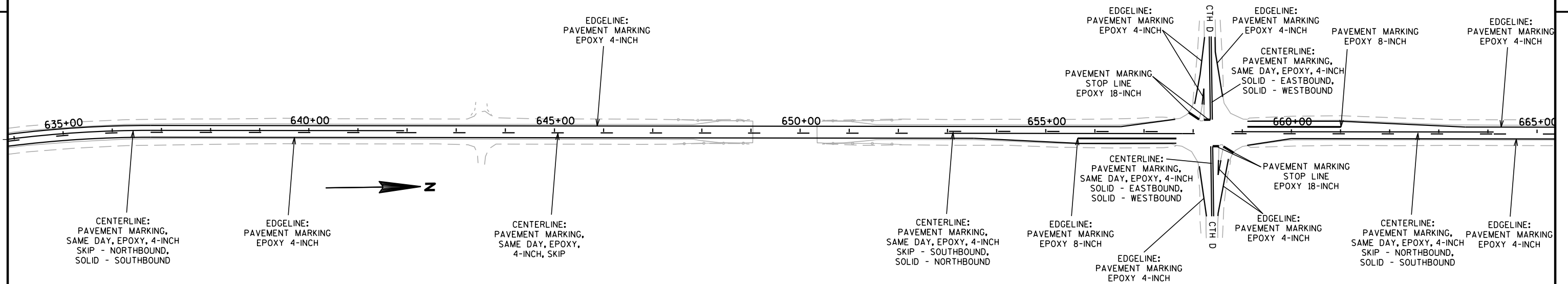
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WISDOT/CADDS SHEET 42

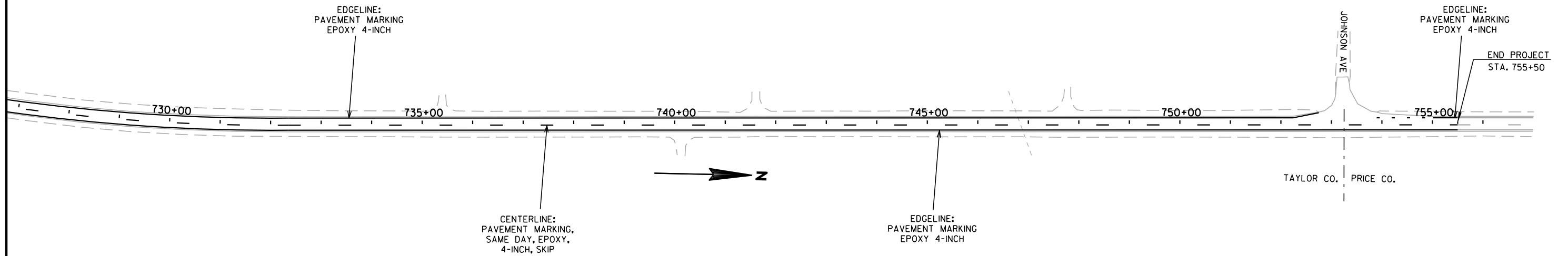
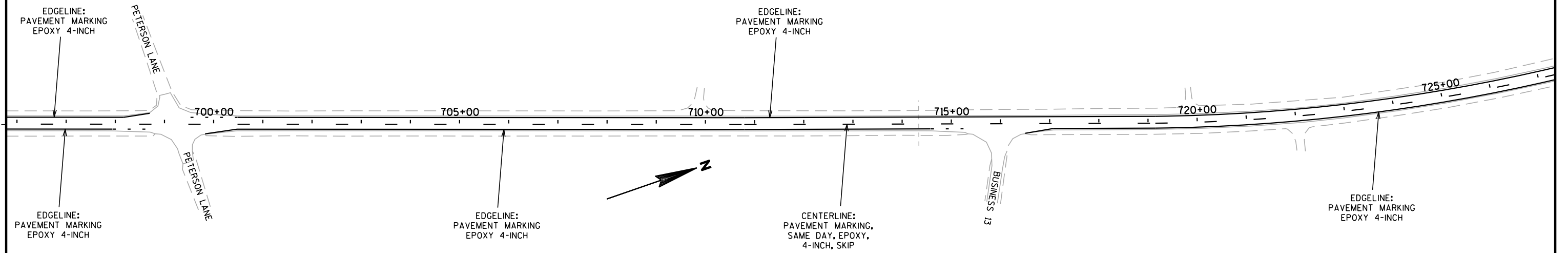
NOTE: EXACT LOCATION OF THE NO PASSING ZONES SHALL BE DETERMINED BY THE LOCATING NO-PASSING ZONES BID ITEM.



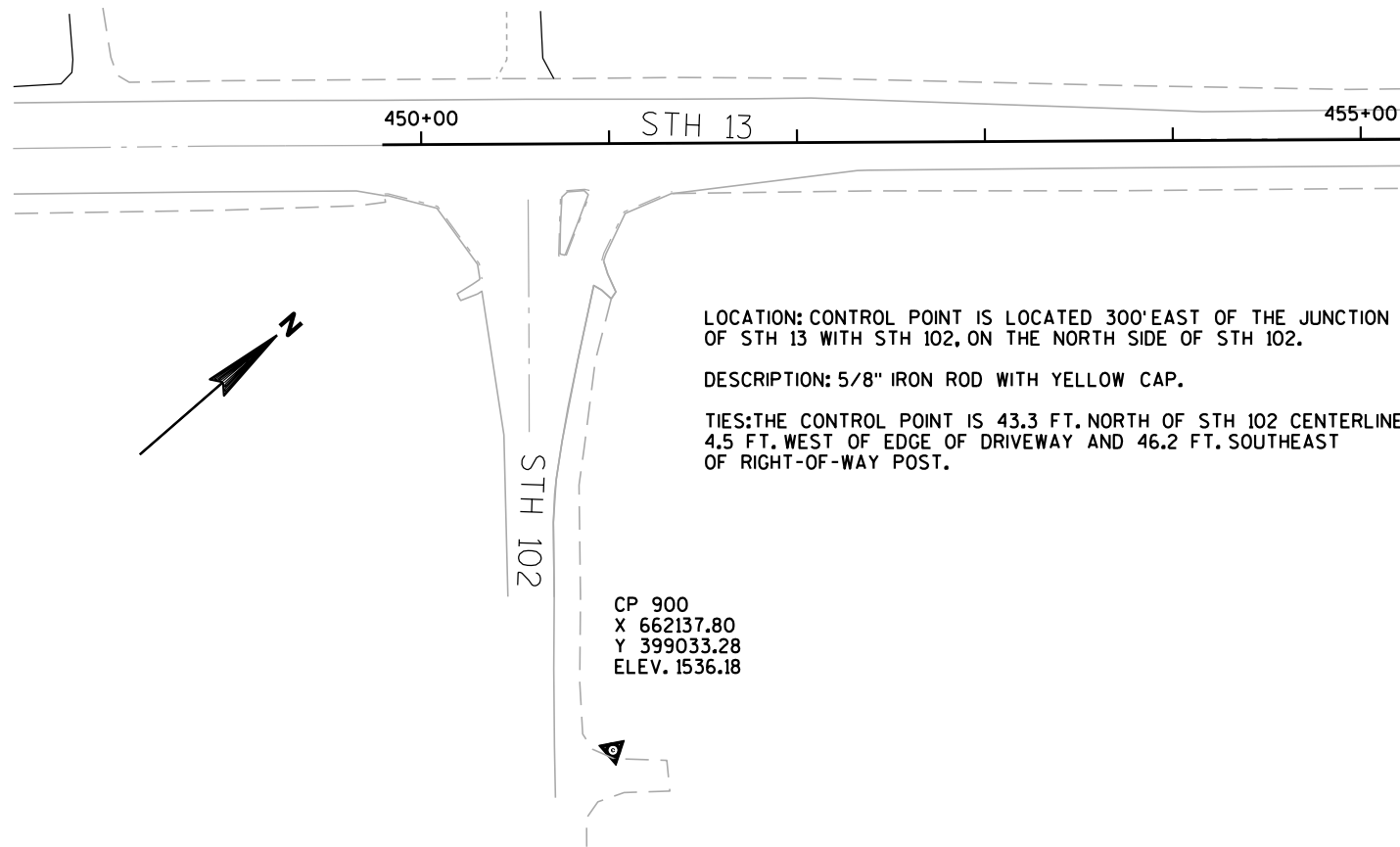
NOTE: EXACT LOCATION OF THE NO PASSING ZONES SHALL BE DETERMINED BY THE LOCATING NO-PASSING ZONES BID ITEM.



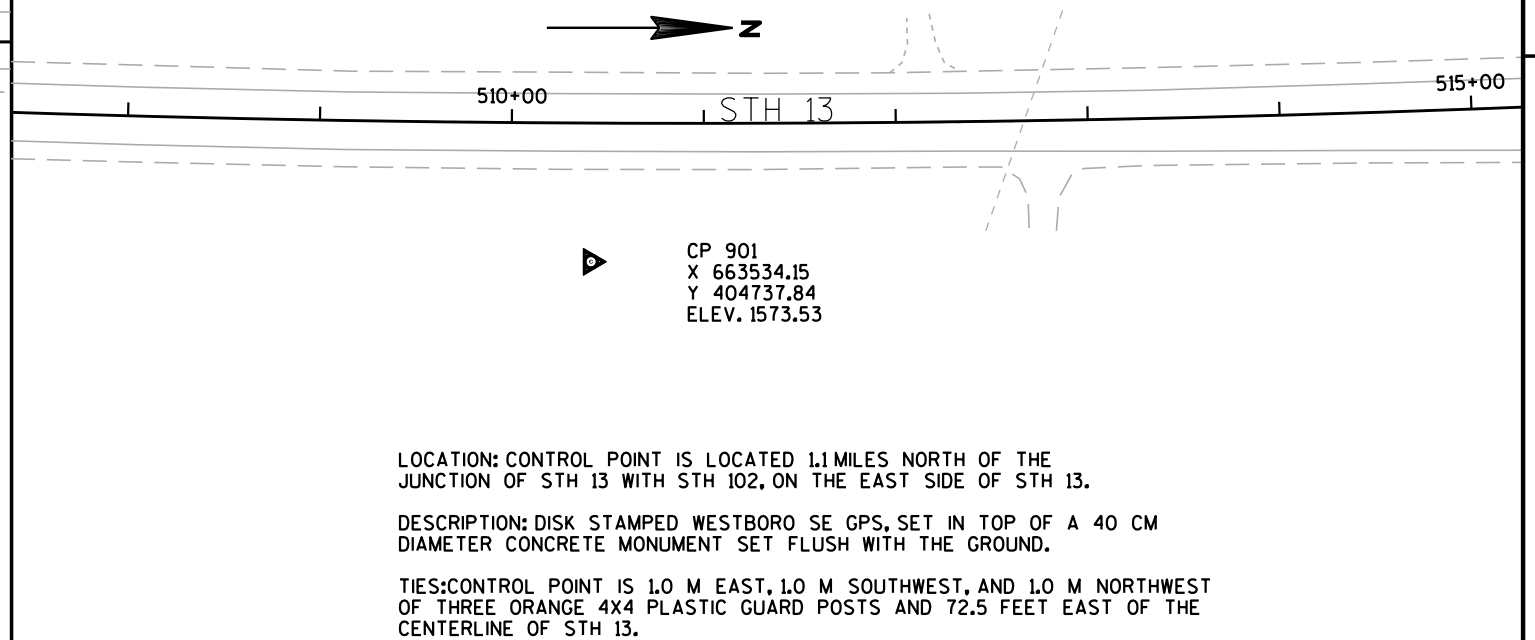
NOTE: EXACT LOCATION OF THE NO PASSING ZONES SHALL BE DETERMINED BY THE LOCATING NO-PASSING ZONES BID ITEM.



2



2



CP 902
X 663521.78
Y 409706.16
ELEV. 1575.43

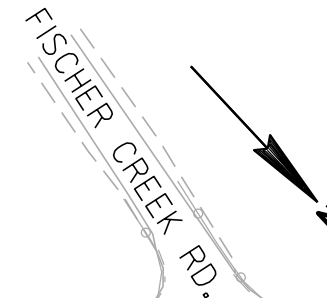


560+00 STH 13 565+00

LOCATION: CONTROL POINT IS LOCATED 0.6 MILE NORTH OF THE JUNCTION OF STH 13 WITH GUNNAR ROAD, ON THE WEST SIDE OF STH 13.

DESCRIPTION: 5/8" IRON ROD WITH YELLOW CAP.

TIES: CONTROL POINT IS 86.5 FT. WEST OF STH 13 CENTERLINE, 41.8 FT. EAST OF A GATE, 25.8 FT NORTHWEST OF CULVERT END AND 3.8 FT. SOUTH OF EDGE OF DRIVEWAY.



610+00 STH 13 615+00

LOCATION: CONTROL POINT IS LOCATED 350' NORTH OF THE JUNCTION OF STH 13 WITH BUSINESS 13, ON THE WEST SIDE OF BUSINESS 13.

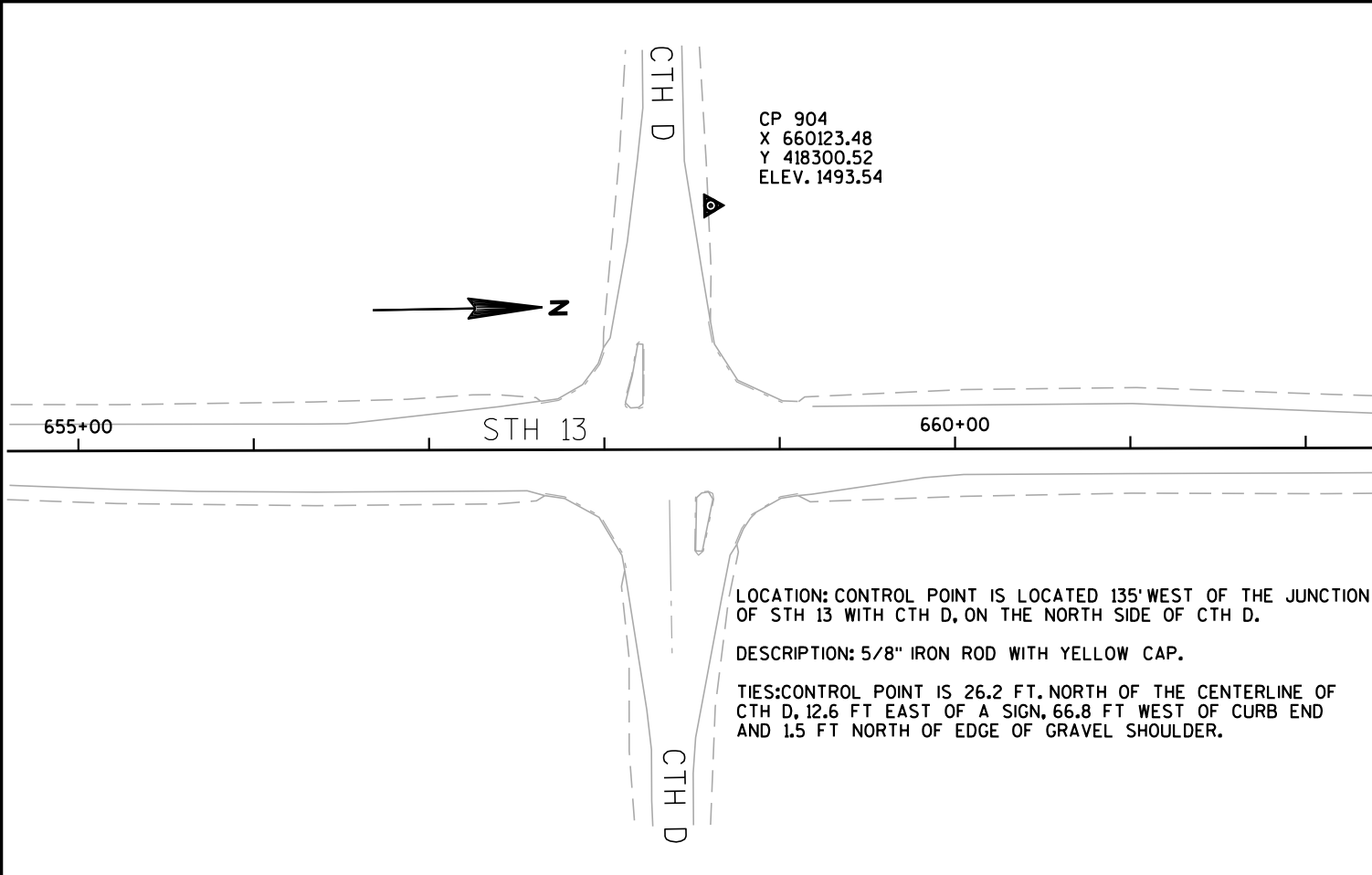
DESCRIPTION: 5/8" IRON ROD WITH YELLOW CAP.

TIES: CONTROL POINT IS 65 FT WEST OF THE CENTERLINE OF BUSINESS 13, 16.2 FT NORTHWEST OF CULVERT PIPE END, 63.1 FT NORTH WEST OF POWER POLE AND 11.7 FT. SOUTH OF EDGE OF DRIVEWAY.

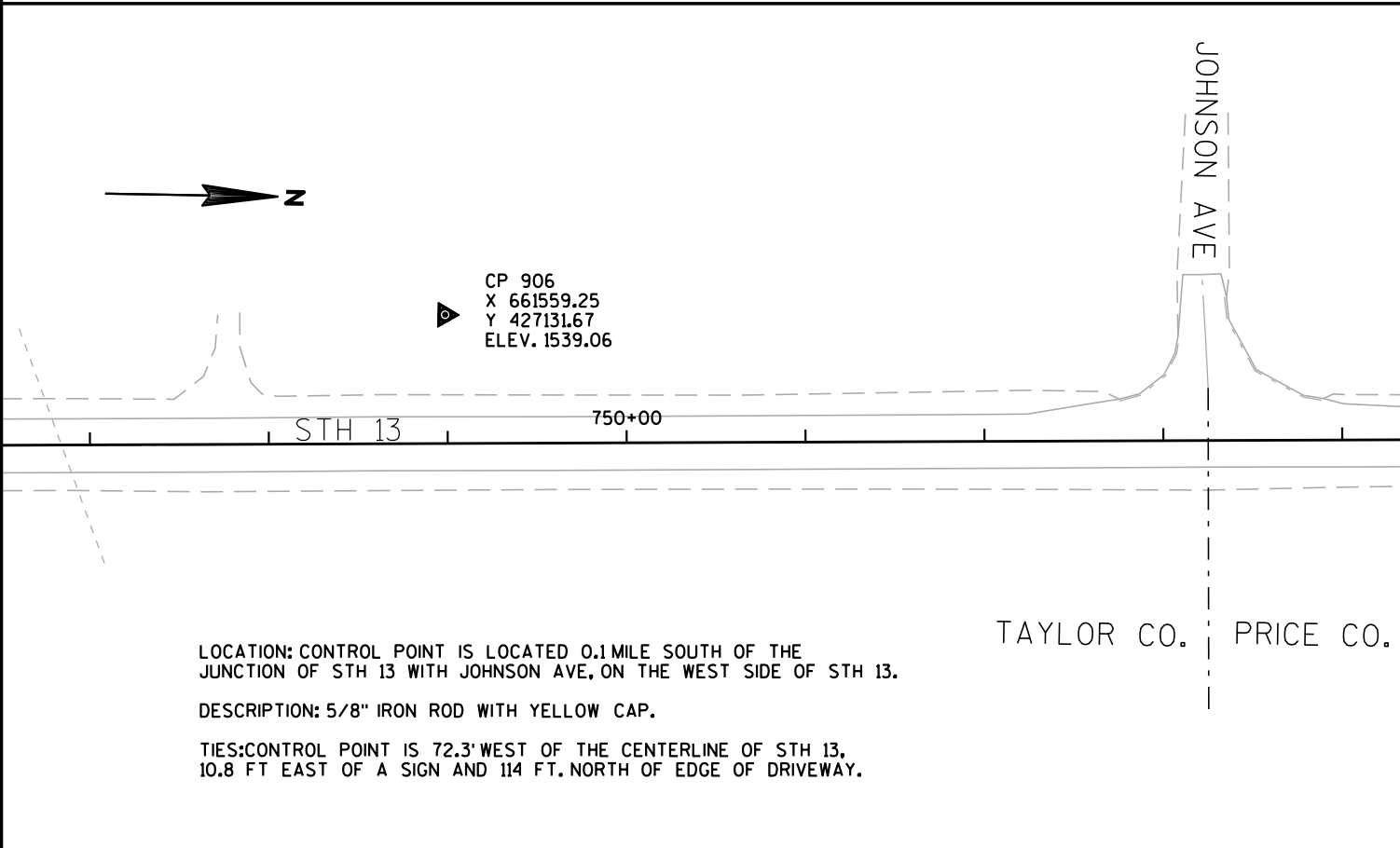
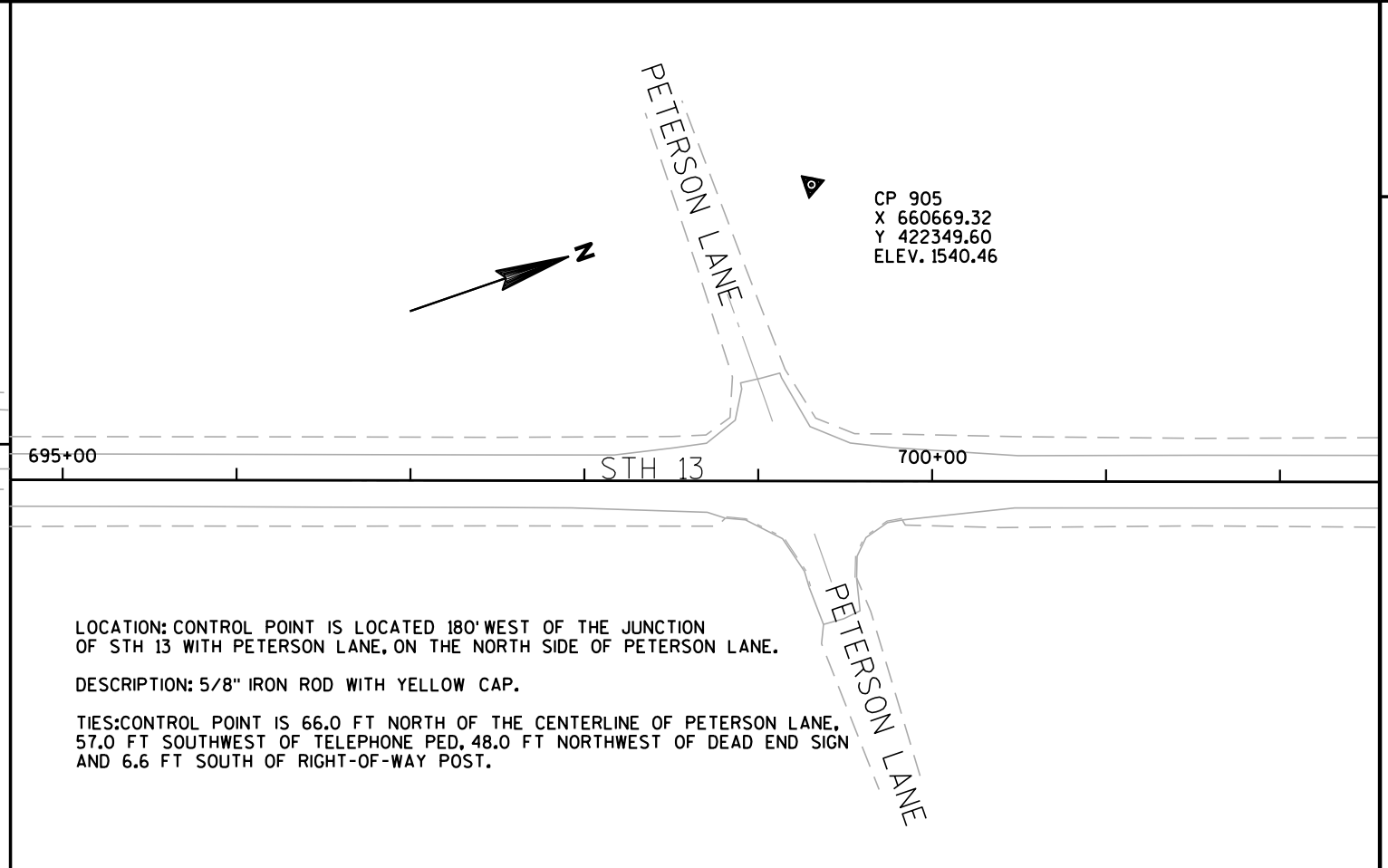
CP 903
X 661369.35
Y 414357.95
ELEV. 1505.04

BUSINESS 13

2



2



PROJECT NO: 1610-03-62	HWY: STH 13	COUNTY: TAYLOR	CONTROL POINTS	SHEET	E
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DATE 09MAR16		E S T I M A T E O F Q U A N T I T I E S			
LINE		1610-03-62			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,752.000	1,752.000
0020	204.0120	Removing Asphaltic Surface Milling	SY	104,600.000	104,600.000
0030	204.0150	Removing Curb & Gutter	LF	185.000	185.000
0040	204.9060.S	Removing (item description) 01. Apron Endwalls	EACH	5.000	5.000
0050	209.0100	Backfill Granular	CY	45.000	45.000
0060	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 1610-03-62	LS	1.000	1.000
0070	213.0100	Finishing Roadway (project) 01. 1610-03-62	EACH	1.000	1.000
0080	305.0110	Base Aggregate Dense 3/4-Inch	TON	6,169.000	6,169.000
0090	305.0500	Shaping Shoulders	STA	596.000	596.000
0100	440.4410	Incentive IRI Ride	DOL	9,136.000	9,136.000
0110	455.0605	Tack Coat	GAL	7,744.000	7,744.000
0120	465.0105	Asphaltic Surface	TON	1,560.000	1,560.000
0130	465.0475	Asphalt Center Line Rumble Strips 2-Lane Rural	LF	26,010.000	26,010.000
0140	520.8000	Concrete Collars for Pipe	EACH	5.000	5.000
0150	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	3.000	3.000
0160	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	1.000	1.000
0170	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	1.000	1.000
0180	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	185.000	185.000
0190	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	3.000	3.000
0200	614.0950	Replacing Guardrail Posts and Blocks	EACH	35.000	35.000
0210	618.0100	Maintenance And Repair of Haul Roads (project) 01.1610-03-62	EACH	1.000	1.000
0220	619.1000	Mobilization	EACH	1.000	1.000
0230	628.1504	Silt Fence	LF	1,050.000	1,050.000
0240	628.1520	Silt Fence Maintenance	LF	1,050.000	1,050.000
0250	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0260	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0270	628.2008	Erosion Mat Urban Class I Type B	SY	1,490.000	1,490.000
0280	629.0210	Fertilizer Type B	CWT	1.700	1.700
0290	630.0110	Seeding Mixture No. 10	LB	23.000	23.000
0300	633.5200	Markers Culvert End	EACH	32.000	32.000
0310	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	97.000	97.000
0320	637.2210	Signs Type II Reflective H	SF	596.660	596.660
0330	637.2230	Signs Type II Reflective F	SF	42.000	42.000
0340	638.2602	Removing Signs Type II	EACH	75.000	75.000
0350	638.3000	Removing Small Sign Supports	EACH	97.000	97.000
0360	642.5001	Field Office Type B	EACH	1.000	1.000
0370	643.0100	Traffic Control (project) 01.1610-03-62	EACH	1.000	1.000
0380	643.0300	Traffic Control Drums	DAY	150.000	150.000
0390	643.0900	Traffic Control Signs	DAY	1,081.000	1,081.000
0400	646.0106	Pavement Marking Epoxy 4-Inch	LF	76,795.000	76,795.000
0410	646.0126	Pavement Marking Epoxy 8-Inch	LF	450.000	450.000
0420	646.0406	Pavement Marking Same Day Epoxy 4-Inch	LF	15,325.000	15,325.000
0430	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	70.000	70.000
0440	648.0100	Locating No-Passing Zones	MI	6.000	6.000
0450	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	10,430.000	10,430.000

DATE 09MAR16		E S T I M A T E O F Q U A N T I T I E S			
LINE					1610-03-62
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0460	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	185.000	185.000
0470	650.8000	Construction Staking Resurfacing Reference	LF	30,100.000	30,100.000
0480	650.9910	Construction Staking Supplemental Control (project) 01.1610-03-62	LS	1.000	1.000
0490	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0500	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	300.000	300.000
0510	SPV.0060	Special 01. Resetting Culvert Sections	EACH	8.000	8.000
0520	SPV.0060	Special 02. Cleaning Culvert Pipes Minimal	EACH	14.000	14.000
0530	SPV.0060	Special 03. Cleaning Culvert Pipes Full	EACH	9.000	9.000
0540	SPV.0060	Special 04. Barrier System Grading Shaping Finishing Special	EACH	3.000	3.000
0550	SPV.0060	Special 05. Temporary Portable Rumble Strip Array	EACH	4.000	4.000
0560	SPV.0090	Special 01. Concrete Curb and Gutter Cure and Seal Treatment	LF	185.000	185.000
0570	SPV.0105	Special 01. Material Transfer Vehicle	LS	1.000	1.000
0580	SPV.0105	Special 02. Milling and Removing Temporary Joint	LS	1.000	1.000
0590	SPV.0170	Special 01. Reheating HMA Pavement Longitudinal Joints Special	STA	301.000	301.000
0600	SPV.0195	Special 01. HMA Pavement 4 SMA 58-34 V Special	TON	11,235.000	11,235.000
0610	SPV.0195	Special 02. SMA Pavement Compaction Acceptance	TON	11,235.000	11,235.000
0620	SPV.0195	Special 03. HMA Longitudinal Crack Repair	TON	750.000	750.000

Removing Asphaltic Surface Butt Joints

204.0115				
CAT	STATION TO	STATION	LOCATION	SY
0010	454+50 -	455+00		167
0010	604+10 -	604+60		167
0010	606+70 -	607+20		167
0010	648+54 -	649+04		167
0010	650+34 -	650+84		167
0010	755+00 -	755+50		167
0010	454+50 -	755+50	Intersections	750
TOTAL 0010				1752

Removing Asphaltic Surface Milling

204.0120				
CAT	STATION TO	STATION	LOCATION	SY
0010	455+00 -	604+10	Mainline	49700
0010	607+20 -	648+54		13780
0010	650+84 -	755+00		34720
0010	Intersections, Turn Lanes & PEs			6400
TOTAL 0010				104600

Removing Curb & Gutter

204.0150				
CAT	STATION TO	STATION	LOCATION	LF
0010	611+15 -	611+30	Lt	45
0010	611+50 -	612+10	Rt	65
0010	611+65 -	612+35	Lt	75
TOTAL 0010				185

REMOVING APRON ENDWALLS

204.9060.S			
CATEGORY	STATION	LOCATION	EACH
0010	458+65	Rt	1
0010	586+86	Rt	1
0010	592+05	Lt	1
0010	679+05	Lt	1
0010	746+80	Lt	1
TOTAL 0010			5

Backfill Granular

209.0100			
CAT	STATION	LOCATION	CY
0010	458+60	Rt	5
0010	586+86	Rt	10
0010	592+05	Lt & Rt	20
0010	679+05	Lt	5
0010	746+80	Rt	5
TOTAL 0010			45

Base Aggregate Dense 3/4-Inch

305.0110				
CAT	STATION TO	STATION	LOCATION	TON
0010	454+50 -	755+50	Mainline	5619
0010	454+50 -	755+50	Intersections	250
0010	454+50 -	755+50	PEs	300
TOTAL 0010				6169

Shaping Shoulders

305.0500				
CAT	STATION TO	STATION	LOCATION	STA
0010	454+50 -	604+10	Lt & Rt	300
0010	607+20 -	648+54	Lt & Rt	84
0010	650+84 -	755+50	Lt & Rt	212
TOTAL 0010				596

Tack Coat

455.0605				
CAT	STATION TO	STATION	LOCATION	GAL
0010	454+50	- 755+50	Mainline	6944
0010	454+50	- 755+50	Intersections, Turn Lanes & PEs	500
0010	Leveling			300
TOTAL 0010				7744

Asphaltic Surface

465.0105				
CAT	STATION TO	STATION	LOCATION	TON
0010	454+50	- 755+50	Leveling	500
0010	Intersections, Turn Lanes & PEs			800
0010	Beam Guard Shoulder Paving			210
0010	Prep of Foundation			50
TOTAL 0010				1560

ASPHALT CENTER LINE RUMBLE STRIPS 2-LANE RURAL

465.0475				
CATEGORY	STATION	TO	STATION	LF
0010	454+50	-	751+00	26010
TOTAL 0010				26010

CONCRETE COLLARS FOR PIPE

CATEGORY	STATION	LOCATION	520.8000 EACH
0010	458+65	Rt	1
0010	586+86	Rt	1
0010	592+05	Lt	1
0010	679+05	Lt	1
0010	746+80	Lt	1
TOTAL 0010			5

Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch

CAT	STATION	LOCATION	522.1024 EACH
0010	458+65	Rt	1
0010	586+86	Rt	1
0010	746+80	Lt	1
TOTAL 0010			3

Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch

CAT	STATION	LOCATION	522.1030 EACH
0010	592+05	Lt	1
TOTAL 0010			1

Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch

CAT	STATION	LOCATION	522.1036 EACH
0010	679+05	Lt	1
TOTAL 0010			1

Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D

CAT	STATION TO	STATION	LOCATION	601.0557 LF
0010	611+15	- 611+30	Lt	45
0010	611+50	- 612+10	Rt	65
0010	611+65	- 612+35	Lt	75
TOTAL 0010				185

Steel Plate Beam Guard Energy Absorbing Terminal

CAT	STATION	LOCATION	614.0370 EACH
0010		Fischer Creek Rd Rt	1
0010		Fischer Creek Rd Lt	1
0010		Business 13 Rt	1
TOTAL 0010			3

Replacing Guardrail Posts and Blocks

CAT	STATION TO	STATION	LOCATION	614.0950 EACH
0010	611+15	- 611+30	Lt	10
0010	611+50	- 612+10	Rt	10
0010	611+65	- 612+35	Lt	15
TOTAL 0010				35

Silt Fence

CAT	STATION TO	STATION	LOCATION	628.1504 LF
0010	458+60	- 458+60	Rt	100
0010	586+86	- 586+86	Rt	150
0010	592+05	- 592+05	Lt & Rt	300
0010		Fischer Creek Rd Rt		100
0010		Fischer Creek Rd Lt		100
0010		Business 13 Rt		100
0010	679+05	- 679+05	Lt	100
0010	746+80	- 746+80	Lt	100
TOTAL 0010				1050

Silt Fence Maintenance

CAT	STATION TO	STATION	LOCATION	628.1520 LF
0010	458+60	- 458+60	Rt	100
0010	586+86	- 586+86	Rt	150
0010	592+05	- 592+05	Lt & Rt	300
0010		Fischer Creek Rd Rt		100
0010		Fischer Creek Rd Lt		100
0010		Business 13 Rt		100
0010	679+05	- 679+05	Lt	100
0010	746+80	- 746+80	Lt	100
TOTAL 0010				1050

Erosion Mat Urban Class I Type B

CAT	STATION	LOCATION	628.2008 SY
0010	458+65	Lt & Rt	60
0010	460+80	Lt & Rt	60
0010	468+55	Lt & Rt	60
0010	500+55	Lt & Rt	60
0010	512+65	Lt & Rt	60
0010	545+05	Lt & Rt	60
0010	554+52	Lt & Rt	60
0010	586+86	Lt	30
0010	586+86	Rt	300
0010	592+05	Lt & Rt	500
0010	668+05	Rt	30
0010	679+05	Lt & Rt	60
0010	692+35	Lt	30
0010	714+35	Lt & Rt	60
0010	746+80	Lt & Rt	60
TOTAL 0010			1490

3

Fertilizer Type B

629.0210			
CAT	STATION	LOCATION	CWT
0010	458+65	Lt & Rt	0.1
0010	460+80	Lt & Rt	0.1
0010	468+55	Lt & Rt	0.1
0010	500+55	Lt & Rt	0.1
0010	512+65	Lt & Rt	0.1
0010	545+05	Lt & Rt	0.1
0010	554+52	Lt & Rt	0.1
0010	586+86	Lt & Rt	0.2
0010	592+05	Lt & Rt	0.3
0010	668+05	Rt	0.1
0010	679+05	Lt & Rt	0.1
0010	692+35	Lt	0.1
0010	714+35	Lt & Rt	0.1
0010	746+80	Lt & Rt	0.1
TOTAL 0010			1.7

Seeding Mixture No. 10

630.0110			
CAT	STATION	LOCATION	LB
0010	458+65	Lt & Rt	1
0010	460+80	Lt & Rt	1
0010	468+55	Lt & Rt	1
0010	500+55	Lt & Rt	1
0010	512+65	Lt & Rt	1
0010	545+05	Lt & Rt	1
0010	554+52	Lt & Rt	1
0010	586+86	Lt & Rt	4
0010	592+05	Lt & Rt	7
0010	668+05	Rt	1
0010	679+05	Lt & Rt	1
0010	692+35	Lt	1
0010	714+35	Lt & Rt	1
0010	746+80	Lt & Rt	1
TOTAL 0010			23

Markers Culvert End

633.5200			
CAT	STATION	LOCATION	EACH
0010	458+65	Lt & Rt	2
0010	460+80	Lt & Rt	2
0010	468+55	Lt & Rt	2
0010	500+55	Lt & Rt	2
0010	512+65	Lt & Rt	2
0010	519+05	Lt & Rt	2
0010	545+05	Lt & Rt	2
0010	554+52	Lt & Rt	2
0010	586+86	Lt & Rt	2
0010	592+05	Lt & Rt	2
0010	599+05	Lt & Rt	2
0010	668+05	Lt & Rt	2
0010	679+05	Lt & Rt	2
0010	692+35	Lt & Rt	2
0010	714+35	Lt & Rt	2
0010	746+80	Lt & Rt	2
TOTAL 0010			32

TRAFFIC CONTROL DRUMS

643.0300						
CATEGORY	STATION	TO	STATION	LOCATION	DAY	REMARKS
0010	611+15	-	611+30	Lt	50	Curb and Gutter Replacement
0010	611+50	-	612+10	Rt	50	Curb and Gutter Replacement
0010	611+65	-	612+35	Lt	50	Curb and Gutter Replacement
TOTAL 0010					150	

Pavement Marking Epoxy 4-Inch

646.0106					
CAT	STATION	TO	STATION	LOCATION	LF
0010	454+50	-	755+50	Mainline	15325
0010	454+50	-	755+50	Mainline	60190
0010				CTH D West	320
0010				CTH D East	320
0010				CTH D West	320
0010				CTH D East	320
TOTAL 0010					76795

TRAFFIC CONTROL SIGNS

643.0900										DAY
CATEGORY	STATION	LOC	SIGN	CODE	SIGN MESSAGE	SIZE				
0010	434+50	RT	W20-1	ROAD WORK AHEAD	48x48	47				
0010	444+50	RT	W20-1C	ROAD WORK 1000 FT	48x48	47				
0010	449+50	RT	W20-1D	ROAD WORK 500 FT	48x48	47				
0010	452+00	RT	G20-1	ROAD WORK NEXT 6 MILES	60x24	47				
0010	452+00	LT	G20-2A	END ROAD WORK	42x24	47				
0010	STH 102	RT	W20-1	ROAD WORK AHEAD	48x48	47				
0010	Fawn Ave	LT	W20-1	ROAD WORK AHEAD	48x48	47				
0010	Fawn Ave	RT	W20-1	ROAD WORK AHEAD	48x48	47				
0010	Gunnar Ave	LT	W20-1	ROAD WORK AHEAD	48x48	47				
0010	Old 13 Rd	RT	W20-1	ROAD WORK AHEAD	48x48	47				
0010	Fischer Creek Rd	LT	W20-1	ROAD WORK AHEAD	48x48	47				
0010	Business 13	RT	W20-1	ROAD WORK AHEAD	48x48	47				
0010	CTH D	LT	W20-1	ROAD WORK AHEAD	48x48	47				
0010	CTH D	RT	W20-1	ROAD WORK AHEAD	48x48	47				
0010	Peterson Lane	LT	W20-1	ROAD WORK AHEAD	48x48	47				
0010	Peterson Lane	RT	W20-1	ROAD WORK AHEAD	48x48	47				
0010	Business 13	RT	W20-1	ROAD WORK AHEAD	48x48	47				
0010	Johnson Ave	LT	W20-1	ROAD WORK AHEAD	48x48	47				
0010	758+00	LT	G20-1	ROAD WORK NEXT 6 MILES	60x24	47				
0010	758+00	RT	G20-2A	END ROAD WORK	42x24	47				
0010	760+50	LT	W20-1D	ROAD WORK 500 FT	48x48	47				
0010	765+50	LT	W20-1C	ROAD WORK 1000 FT	48x48	47				
0010	775+50	LT	W20-1	ROAD WORK AHEAD	48x48	47				

TOTAL 0010 1081

Pavement Marking Epoxy 8-Inch

646.0126		
CAT	LOCATION	LF
0010	Wayside Rt Turn Lane	100
0010	CTH D East Rt Turn Lane	175
0010	CTH D West Rt Turn Lane	175
TOTAL 0010		450

PAVEMENT MARKING STOP LINE EPOXY 18-INCH

647.0566			
CATEGORY	STATION	LOCATION	LF
0010	658+10	Lt	20
0010	658+30	Lt	15
0010	658+45	Rt	15
0010	658+70	Rt	20
TOTAL 0010			70

3

														634.0616 POSTS WOOD 4'x6'x16'	637.2210 SIGNS TYPE II REFLECTIVE TYPE H	637.2230 SIGNS TYPE II REFLECTIVE TYPE F	638.2602 REMOVE SIGNS TYPE II	638.3000 REMOVE SMALL SIGN SUPPORTS														
CAT	NO.	STATION	TO	STATION	CODE	SIZE	LOC	EACH	SF	SF	EACH	EACH	MESSAGE																			
0010	1	451+14	-	451+14	J3-1	24"x57"	LT	1	9.50		1	1	NORTH 102 [LA]																			
0010	2	453+25	-	453+25	J4-1	24"x36"	RT	1	6.00			1	NORTH 13																			
0010	3	453+25	-	453+25	D2-3	84"x36"	RT	2	21.00		1	2	WESTBORO 4 OGEMA 10 ASHLAND 104																			
0010	4	456+06	-	456+06	D1-2	72"x30"	LT	2	15.00		1	2	[UA] MARSHFIELD [LA] RIB LAKE																			
0010	5	459+11	-	459+11	I-55-56	30"x36"	RT	1	7.50			1	ADOPT-A-HIGHWAY (TRAIL FARM)																			
0010	6	459+11	-	459+11	W14-3	48"x36"	RT			6.00	1		NO PASSING ZONE																			
0010	7	460+70	-	460+70	I-3-1	66"x15"	RT	2	6.88		1	2	BLACK RIVER																			
0010	8	461+00	-	461+00	I-3-1	66"x15"	LT	2	6.88		1	2	BLACK RIVER																			
0010	9	463+45	-	463+45	J1-1	24"x39"	LT	1	6.50		1	1	JCT 102																			
0010	10	475+65	-	475+65	R1-1	30"x30"	LT	1	5.18		1	1	STOP																			
0010	11	476+54	-	476+54	R1-1	30"x30"	RT	1	5.18		1	1	STOP																			
0010	12	489+68	-	489+68	D5-61	48"x24"	RT	1	8.00		1	1	WAYSIDE 1/2 MILE																			
0010	13	513+44	-	513+44	SP	60"x36"	RT	1	15.00		1	1	ICE AGE TRAIL [RA] PARKING																			
0010	14	516+50	-	516+50	D5-62-R	48"x24"	RT	1	8.00		1	1	WAYSIDE [RA]																			
0010	15	518+00	-	518+00	R1-1	30"x30"	RT	1	5.18		1	1	STOP																			
0010	16	518+19	-	518+19	R55-61	24"x18"	RT	1	3.00		1	1	THIS AREA PROVIDED FOR YOU																			
0010	17	518+19	-	518+19	R55-51	18"x18"	RT	1	2.25		1	1	NO OVERNIGHT CAMPING																			
0010	18	518+19	-	518+19	R7-8-A	12"x18"	RT	1	1.50		1	1	RESERVED PARKING HANDICAPPED																			
0010	19	518+19	-	518+19	R55-66	30"x18"	RT	1	3.75		1	1	NO DUMPING OF HOUSEHOLD TRASH																			
0010	20	518+19	-	518+19	R55-61	24"x18"	RT	1	3.00		1	1	THIS AREA PROVIDED FOR YOU																			
0010	21	518+19	-	518+19	R55-63	24"x12"	RT	1	2.00		1	1	THESE CONTAINERS FOR REFUSE																			
0010	22	523+11	-	523+11	D5-62-L	48"x24"	LT	1	8.00		1	1	WAYSIDE [LA]																			
0010	23	522+40	-	522+40	R1-1	30"x30"	RT	1	5.18		1	1	STOP																			
0010	24	525+06	-	525+06	M1-94	60"x15"	RT				1	2	GUNNAR RD																			
0010	25	525+06	-	525+06	D1-1	78"x15"	RT	2	8.13				[LA] GUNNAR RD																			
0010	26	527+75	-	527+75	D1-1	60"x36"	LT	1	15.00		1	1	ICE AGE [LA] TRAIL PARKING																			
0010	27	528+30	-	528+30	R1-1	30"x30"	LT	1	5.18		1	1	STOP																			
0010	28	534+00	-	534+00	M1-94	60"x15"	LT				1	2	GUNNAR RD																			
0010	29	534+00	-	534+00	D1-1	78"x15"	LT	2	8.13				GUNNAR RD [RA]																			
0010	30	551+10	-	551+10	D5-61	48"x24"	LT	1	8.00		1	1	WAYSIDE 1/2 MILE																			
0010	31	553+57	-	553+57	I-55-56	30"x36"	RT	1	7.50		1	1	ADOPT-A-HIGHWAY (CAMP FOREST SPRINGS WESTBORO)																			
0010	32	554+27	-	554+27	I-55-56	30"x36"	LT	1	7.50		1	1	ADOPT-A-HIGHWAY (TRAIL FARM)																			
0010	33	568+88	-	568+88	W14-3	48"x36"	LT	1		6.00	1	1	NO PASSING ZONE																			
0010	34	577+86	-	577+86	M1-94	60"x15"	RT				1	2	OLD 13 RD																			
0010	35	577+86	-	577+86	D1-1	72"x15"	RT	2	7.50				OLD 13 RD [RA]																			

												634.0616 POSTS WOOD 4'x6'x16'	637.2210 SIGNS TYPE II REFLECTIVE TYPE H	637.2230 SIGNS TYPE II REFLECTIVE TYPE F	638.2602 REMOVE SIGNS TYPE II	638.3000 REMOVE SMALL SIGN SUPPORTS						
CAT	NO.	STATION	TO	STATION	CODE	SIZE	LOC	EACH	SF	SF	EACH	EACH	MESSAGE									
0010	36	584+25	-	584+25	R1-1	30"x30"	RT	1	5.18		1	1	STOP									
0010	37	592+28	-	592+28	M1-94	60"x15"	LT				1	2	OLD 13 RD									
0010	38	592+28	-	592+28	D1-1	72"x15"	LT	2	7.50				[LA] OLD 13 RD									
0010	39	596+51	-	596+51	W14-3	48"x36"	RT	1		6.00	1	1	NO PASSING ZONE									
0010	40	603+50	-	603+50	M1-94	96"x24"	RT				1	2	[LA] FISCHER CREEK RD BUSINESS HWY 13 [RA]									
0010	41	603+50	-	603+50	D1-2	108"x30"	RT	2	22.50				[LA] FISCHER CREEK RD BUS HWY 13 [RA]									
0010	42	611+10	-	611+10	R1-1	30"x30"	LT	1	5.18		1	1	STOP									
0010	43	612+60	-	612+60	R1-1	30"x30"	RT	1	5.18		1	1	STOP									
0010	44	614+82	-	614+82	W14-3	48"x36"	LT	1		6.00	1	1	NO PASSING ZONE									
0010	45	614+82	-	614+82	D7-62	60"x42"	RT	2	17.50		1	2	ROAD TO NAT'L FOREST CAMPGROUND 1 MILE									
0010	46	619+74	-	619+74	M1-94	96"x24"	LT				1	2	[LA] BUSINESS HWY 13 FISCHER CREEK RD [RA]									
0010	47	619+74	-	619+74	D1-2	108"x30"	LT	2	22.50				[LA] BUS HWY 13 FISCHER CREEK RD [RA]									
0010	48	644+03	-	644+03	W14-3	48"x36"	RT	1		6.00	1	1	NO PASSING ZONE									
0010	49	647+55	-	647+55	J1-1	24"x39"	RT	1	6.50		1	1	JCT COUNTY D									
0010	50	649+00	-	649+00	I-3-1	36"x24"	RT	1	6.00		1	2	SILVER CREEK									
0010	51	650+35	-	650+35	I-3-1	36"x24"	LT	1	6.00		1	2	SILVER CREEK									
0010	52	653+36	-	653+36	W14-3	48"x36"	LT	1		6.00	1	1	NO PASSING ZONE									
0010	53	653+89	-	653+89	D1-2	84"x36"	RT	2	21.00		1	2	WESTBORO [RA] PINE LINE COUNTY TRAIL [RA]									
0010	54	654+06	-	654+06	I-55-56	30"x36"	LT	1	7.50		1	1	ADOPT-A-HIGHWAY (CAMP FOREST SPRINGS WESTBORO)									
0010	55	656+53	-	656+53	D7-63-L	60"x36"	RT	2	15.00		1	1	NAT'L FOREST CAMPGROUND [LA]									
0010	56	656+75	-	656+75	J4-1	24"x36"	LT	1	6.00		1	1	SOUTH 13									
0010	57	657+50	-	657+50	J13-1	24"x45"	RT	1	7.50		1	1	COUNTY D [DBA]									
0010	58	657+90	-	657+90	R1-1	36"x36"	LT	1	7.46		1	1	STOP									
0010	59	658+10	-	658+10	R1-1	36"x36"	LT	1	7.46		1	1	STOP									
0010	60	658+00	-	658+00	J13-1	24"x45"	LT	1	7.50		1	1	13 [DBA]									
0010	61	658+80	-	658+80	J13-1	24"x45"	RT	1	7.50		1	1	13 [DBA]									
0010	62	658+60	-	658+60	R1-1	36"x36"	RT	1	7.46		1	1	STOP									
0010	63	658+70	-	658+70	R1-1	36"x36"	RT	1	7.46		1	1	STOP									
0010	64	659+87	-	659+87	J13-1	24"x45"	LT	1	7.50		1	1	COUNTY D [DBA]									
0010	65	661+28	-	661+28	J4-1	24"x36"	RT	1	6.00		1	1	NORTH 13									
0010	66	662+51	-	662+51	D7-63-R	60"x36"	LT	2	15.00		1	1	NAT'L FOREST CAMPGROUND 8 MILES [RA]									
0010	67	664+98	-	664+98	I-55-56	30"x36"	RT	1	7.50		1	1	ADOPT-A-HIGHWAY (WESTBORO FISH AND WILDLIFE INC)									
0010	68	665+15	-	665+15	D1-2	84"x36"	LT	2	21.00		1	2	[LA] WESTBORO [LA] PINE LINE COUNTY TRAIL									
0010	69	665+67	-	665+67	W14-3	48"x36"	RT	1		6.00	1	1	NO PASSING ZONE									
0010	70	669+90	-	669+90	J1-1	24"x39"	LT	1	6.50		1	1	JCT COUNTY D									
								PAGE	TOTAL	40	269.38	30.00	32	40								

								634.0616 POSTS WOOD 4'x6'x16'	637.2210 SIGNS TYPE II REFLECTIVE TYPE H	637.2230 SIGNS TYPE II REFLECTIVE TYPE F	638.2602 REMOVE SIGNS TYPE II	638.3000 REMOVE SMALL SIGN SUPPORTS		
CAT	NO.	STATION	TO	STATION	CODE	SIZE	LOC	EACH	SF	SF	EACH	EACH	MESSAGE	
0010	71	693+49	-	693+49	M1-94	72"x15"	RT				1	2	PETERSON LA	
0010	72	693+49	-	693+49	D1-61	66"x24"	RT	2	11.00				PETERSON LN [DBA]	
0010	73	698+75	-	698+75	R1-1	30"x30"	LT	1	5.18		1	1	STOP	
0010	74	699+75	-	699+75	R1-1	30"x30"	RT	1	5.18		1	1	STOP	
0010	75	705+86	-	705+86	M1-94	72"x15"	LT				1	2	PETERSON LA	
0010	76	705+86	-	705+86	D1-61	66"x24"	LT	2	11.00				PETERSON LN [DBA]	
0010	77	710+39	-	710+39	M1-94	96"x15"	RT				1	2	BUSINESS HWY 13	
0010	78	710+39	-	710+39	D1-1	84"x15"	RT	2	8.75				BUS HWY 13 [RA]	
0010	79	712+14	-	712+14	D7-62	60"x42"	LT	2	17.50		1	2	ROAD TO NAT'L FOREST CAMPGROUND 1 MILE	
0010	80	716+25	-	716+25	R1-1	30"x30"	RT	1	5.18		1	1	STOP	
0010	81	722+75	-	722+75	M1-94	96"x15"	LT				1	2	BUSINESS HWY 13	
0010	82	722+75	-	722+75	D1-1	84"x15"	LT	2	8.75				[LA] BUS HWY 13	
0010	83	747+35	-	747+35	M1-94	60"x15"	RT				1	2	JOHNSON AVE	
0010	84	747+35	-	747+35	D1-1	90"x15"	RT	2	9.38				[LA] JOHNSON AVE	
0010	85	751+21	-	751+21	I-55-56	30"x36"	LT	1	7.50		1	1	ADOPT-A-HIGHWAY (WESTBORO FISH AND WILDLIFE INC)	
0010	86	753+68	-	753+68	I-2-2	54"x15"	RT	1	5.63		1	1	PRICE CO	
0010	87	753+85	-	753+85	I-2-2	54"x15"	LT	1	5.63		1	1	TAYLOR CO	
0010	88	752+85	-	752+85	R1-1	30"x30"	LT	1	5.18		1	1	STOP	
PAGE TOTAL							19	105.86	0.00	13	19			
PROJECT TOTAL 0010							97	596.66	42.00	75	97			

Pavement Marking Same Day Epoxy 4-Inch						Locating No-Passing Zones					Temporary Pavement Marking Paint 4-Inch					
646.0406						648.0100					649.0402					
CAT	STATION TO	STATION	LOCATION	LF	REMARKS	CAT	STATION TO	STATION	LOCATION	MI	CAT	STATION TO	STATION	LOCATION	LF	REMARKS
0010	454+50	- 755+50	Mainline	15325	Centerline	0010	454+50	- 755+50	Project	6	0010	454+50	- 755+50	Mainline	10430	Milled Surface
TOTAL 0010				15325		TOTAL 0010				6	TOTAL 0010				10430	

CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER

650.5500					
CATEGORY	STATION	TO	STATION	LOCATION	LF
0010	611+15	-	611+30	Lt	45
0010	611+50	-	612+10	Rt	65
0010	611+65	-	612+35	Lt	75
TOTAL 0010					185

Construction Staking Resurfacing Reference

650.8000				
CAT	STATION	TO	STATION	LOCATION LF
0010	454+50	-	755+50	Project 30100
TOTAL 0010				30100

Special 01. Resetting Culvert Sections

SPV.0060.01			
CAT	STATION	LOCATION	EACH
0010	586+86	Lt	4
0010	592+05	Rt	3
0010	592+05	Lt	1
TOTAL 0010			8

Special 02. Cleaning Culvert Pipes Minimal

SPV.0060.02			
CAT	STATION	LOCATION	EACH
0010	458+65	Lt	1
0010	460+80	Lt & Rt	2
0010	550+55	Rt	1
0010	545+05	Lt & Rt	2
0010	554+52	Lt & Rt	2
0010	586+86	Lt	1
0010	592+05	Lt	1
0010	668+05	Rt	1
0010	679+05	Rt	1
0010	714+35	Lt & Rt	2
TOTAL 0010			14

Special 03. Cleaning Culvert Pipes Full

SPV.0060.03			
CAT	STATION	LOCATION	EACH
0010	468+55	Lt & Rt	2
0010	500+55	Lt	1
0010	512+65	Lt & Rt	2
0010	586+86	Rt	1
0010	592+05	Rt	1
0010	692+35	Lt	1
0010	746+80	Lt	1
TOTAL 0010			9

Special 04. Barrier System Grading Shaping Finishing Special

SPV.0060.04		
CAT	LOCATION	EACH
0010	Fischer Creek Rd Rt	1
0010	Fischer Creek Rd Lt	1
0010	Business 13 Rt	1
TOTAL 0010		3

Barrier System Grading Shaping Finishing Special, Item SPV.0060.04							
Location	*Excavation Common	*Select Borrow	*Topsoil	*Fert Type B	*Seeding Mix No 10	*Erosion Mat Urban CL I Type B	Each
	CY	CY	SY	CWT	LB	SY	
Fischer Creek Rd Rt	0	120	240	0.2	3	240	1
Fischer Creek Rd Lt	0	135	255	0.2	3	255	1
Business 13 Rt	0	135	205	0.1	3	205	1
Totals	0	390	700	0.5	9	700	3

* Items & Quantities listed for Bid Information Only.

Special 05. Temporary Portable Rumble Strip Array

		SPV.0060.05
CAT	LOCATION	EACH
0010	Undistributed	4
TOTAL 0010		4

SPECIAL 01. CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT

					SPV.0090.01
CATEGORY	STATION	TO	STATION	LOCATION	LF
0010	611+15	-	611+30	Lt	45
0010	611+50	-	612+10	Rt	65
0010	611+65	-	612+35	Lt	75
TOTAL 0010					185

Special 01. Reheating HMA Pavement Longitudinal Joints Special

					SPV.0170.01
CAT	STATION	TO	STATION	LOCATION	STA
0010	454+50	-	755+50	Project	301
TOTAL 0010					301

Special 01. HMA Pavement 4 SMA 58-34 V Special

				SPV.0195.01
CAT	STATION	TO	STATION	TON
0010	454+50	-	755+50	11235
TOTAL 0010				11235

Special 02. SMA Pavement Compaction Acceptance

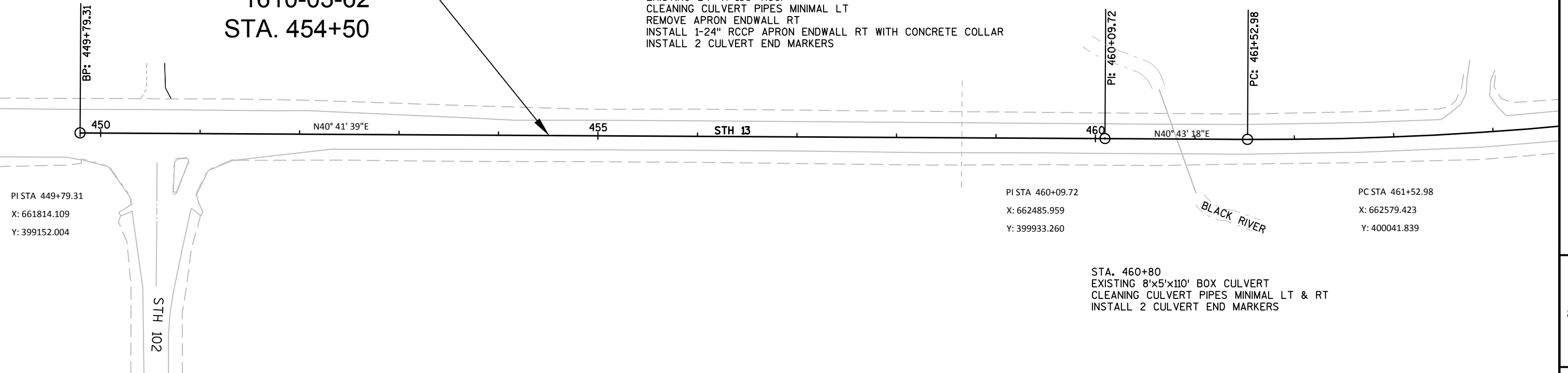
				SPV.0195.02
CAT	STATION	TO	STATION	TON
0010	454+50	-	755+50	11235
TOTAL 0010				11235

Special 03. HMA Longitudinal Crack Repair

				SPV.0195.03
CAT	STATION	TO	STATION	TON
0010	454+50	-	755+50	750
TOTAL 0010				750

BEGIN PROJECT
1610-03-62
STA. 454+50

STA. 458+65
EXISTING 24" X 106' RCCP
CLEANING CULVERT PIPES MINIMAL LT
REMOVE APRON ENDWALL RT
INSTALL 1-24" RCCP APRON ENDWALL RT WITH CONCRETE COLLAR
INSTALL 2 CULVERT END MARKERS



PI STA 449+79.31
X: 661814.109
Y: 399152.004

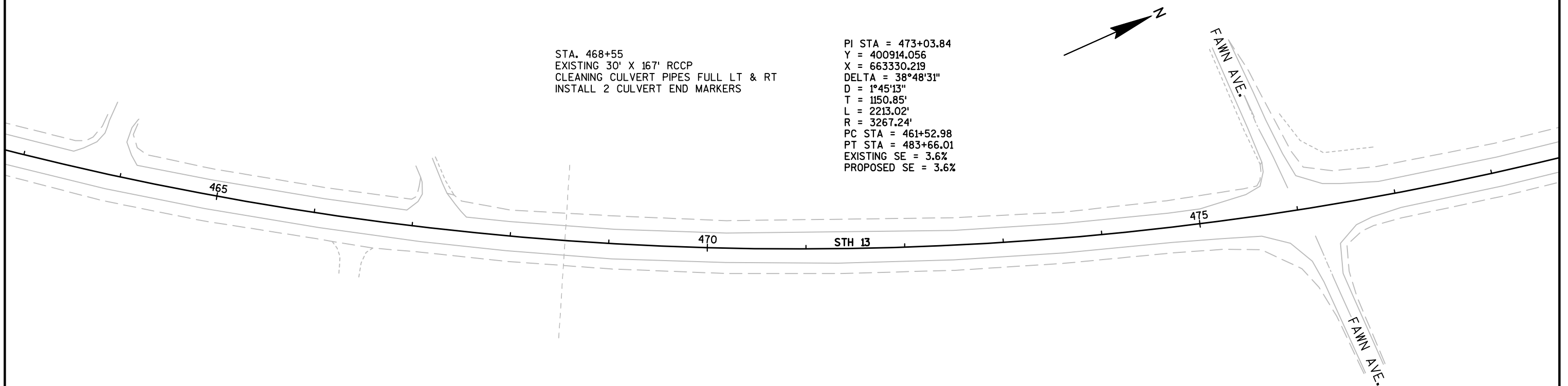
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X: 662485.959
Y: 399933.260

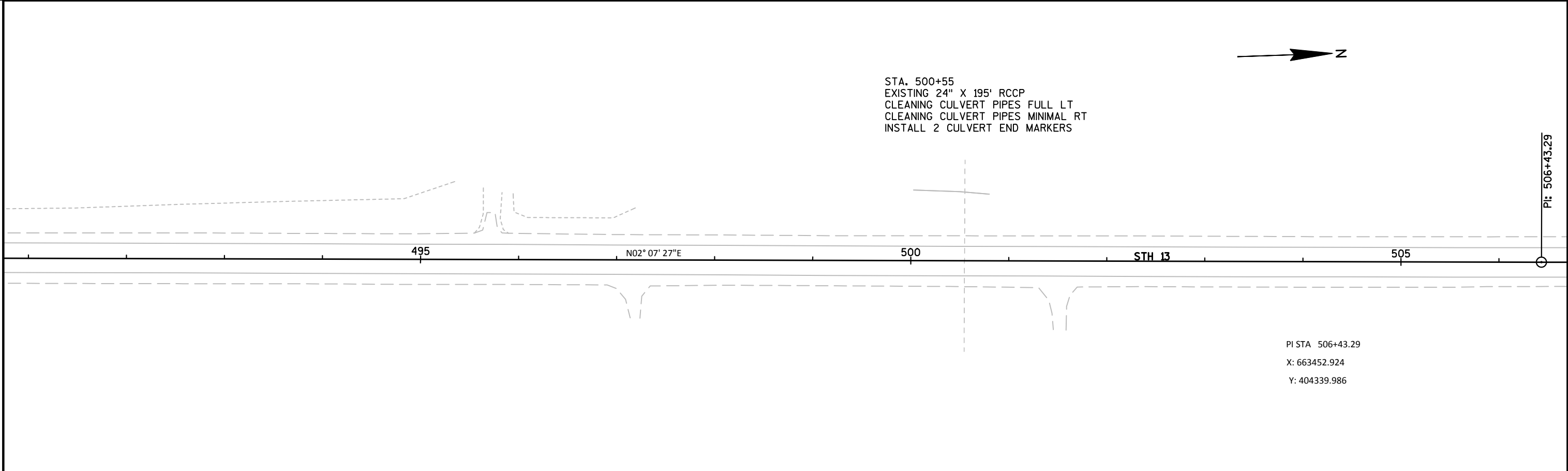
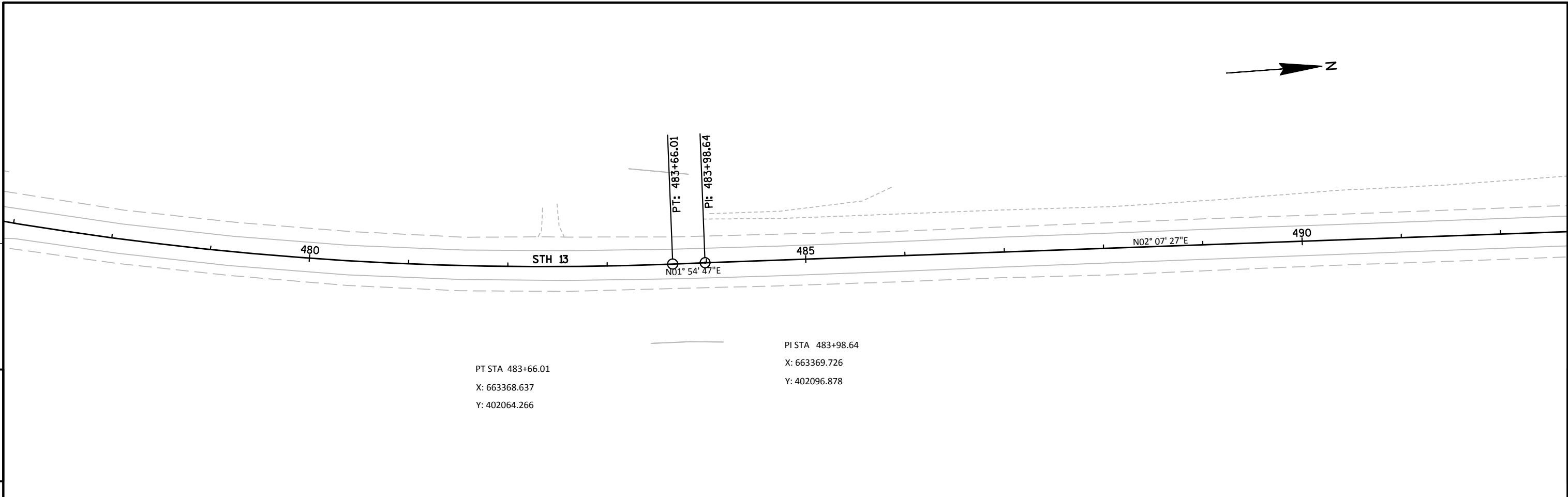
PC STA 461+52.98
X: 662579.423
Y: 400041.839

STA. 460+80
EXISTING 8'x5'x110' BOX CULVERT
CLEANING CULVERT PIPES MINIMAL LT & RT
INSTALL 2 CULVERT END MARKERS

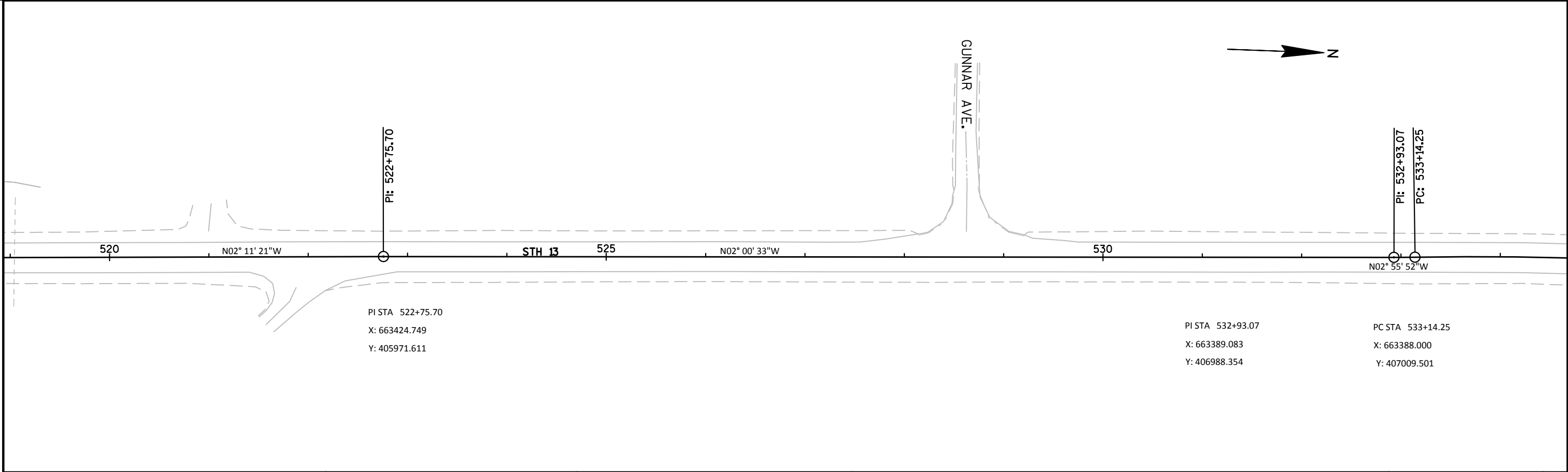
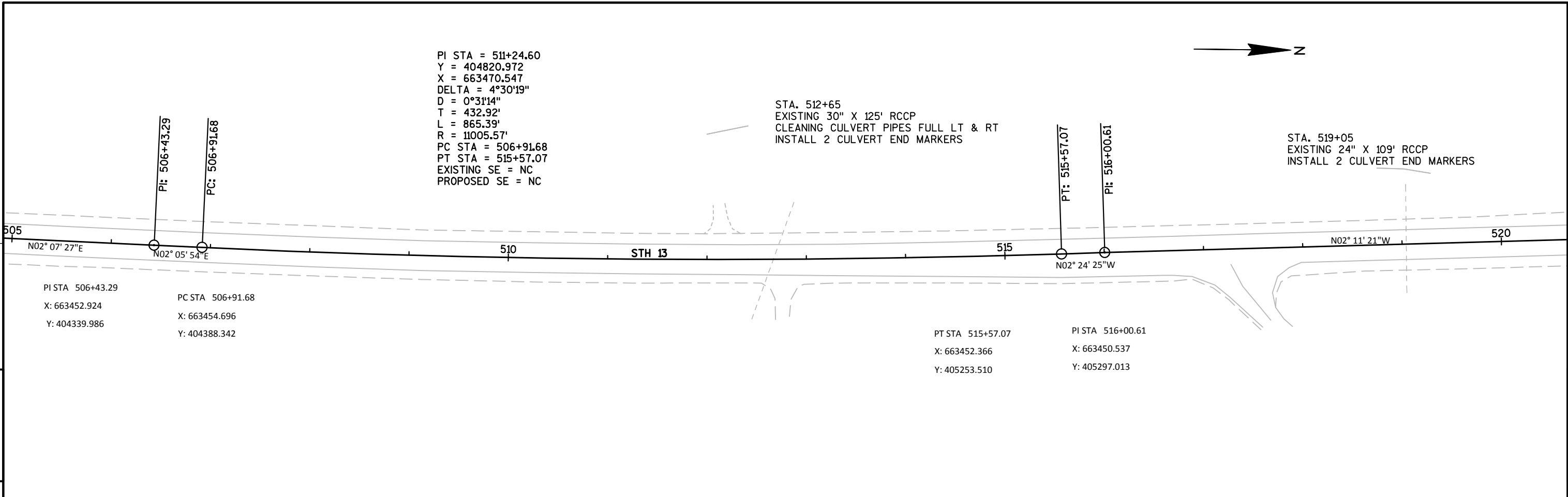
STA. 468+55
EXISTING 30' X 167' RCCP
CLEANING CULVERT PIPES FULL LT & RT
INSTALL 2 CULVERT END MARKERS

PI STA = 473+03.84
Y = 400914.056
X = 663330.219
DELTA = 38°48'31"
D = 1°45'13"
T = 1150.85'
L = 2213.02'
R = 3267.24'
PC STA = 461+52.98
PT STA = 483+66.01
EXISTING SE = 3.6%
PROPOSED SE = 3.6%

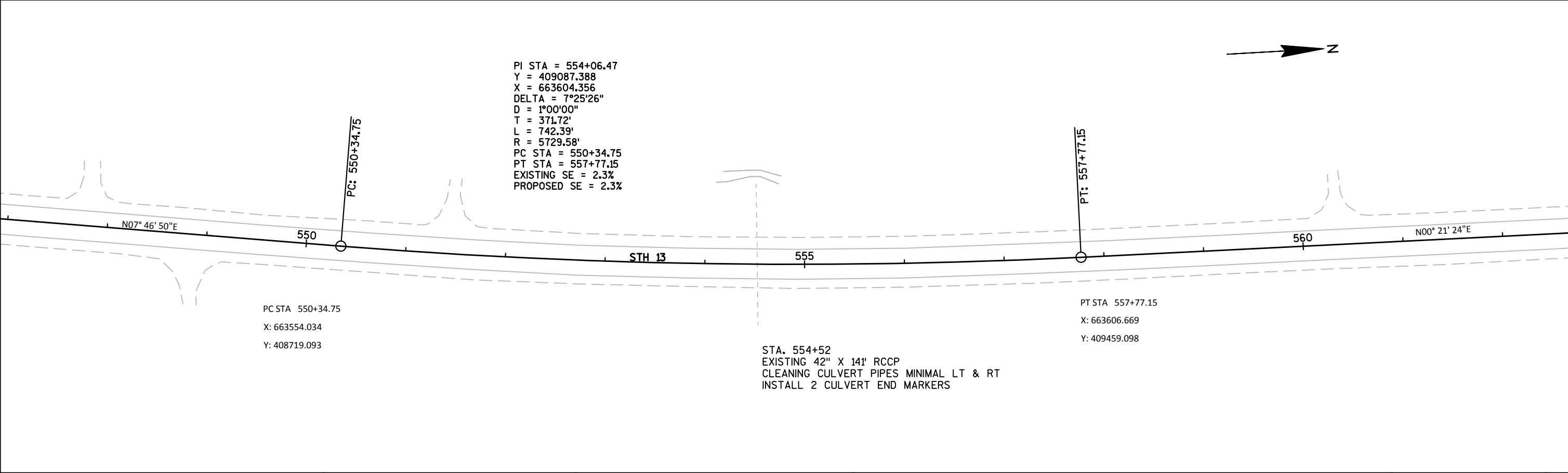
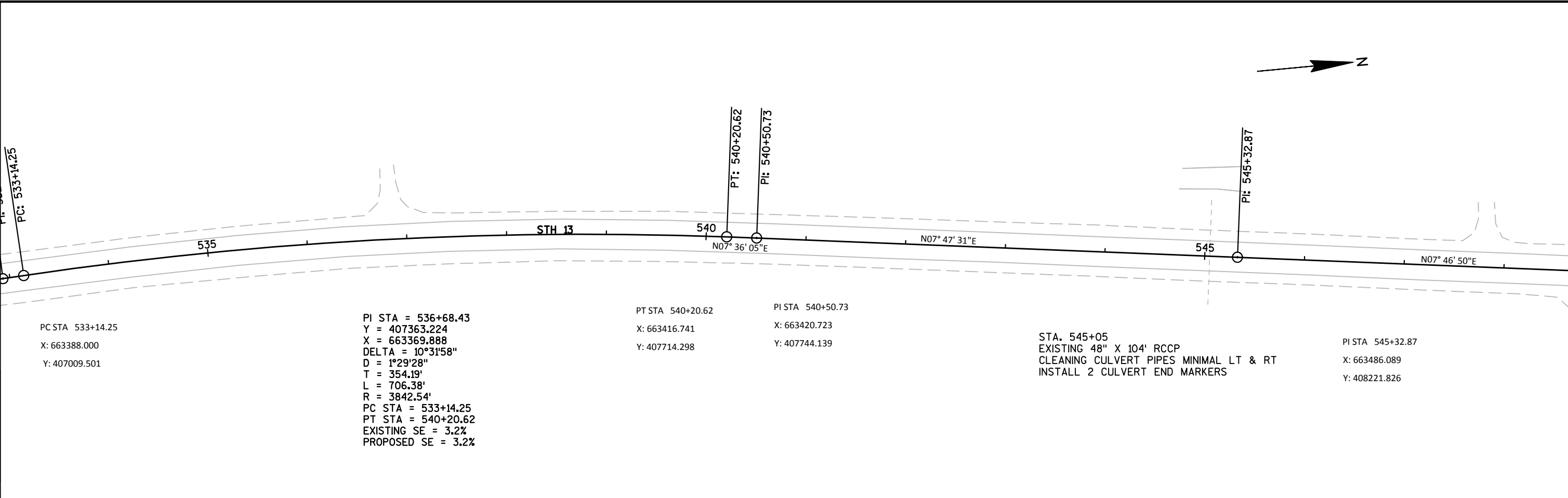


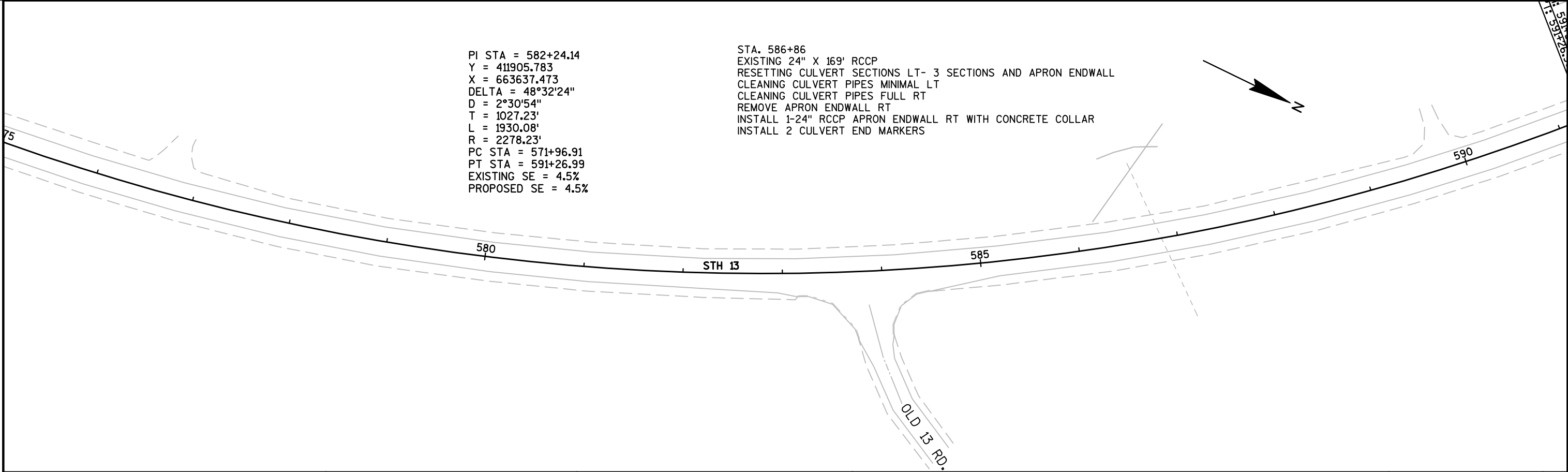
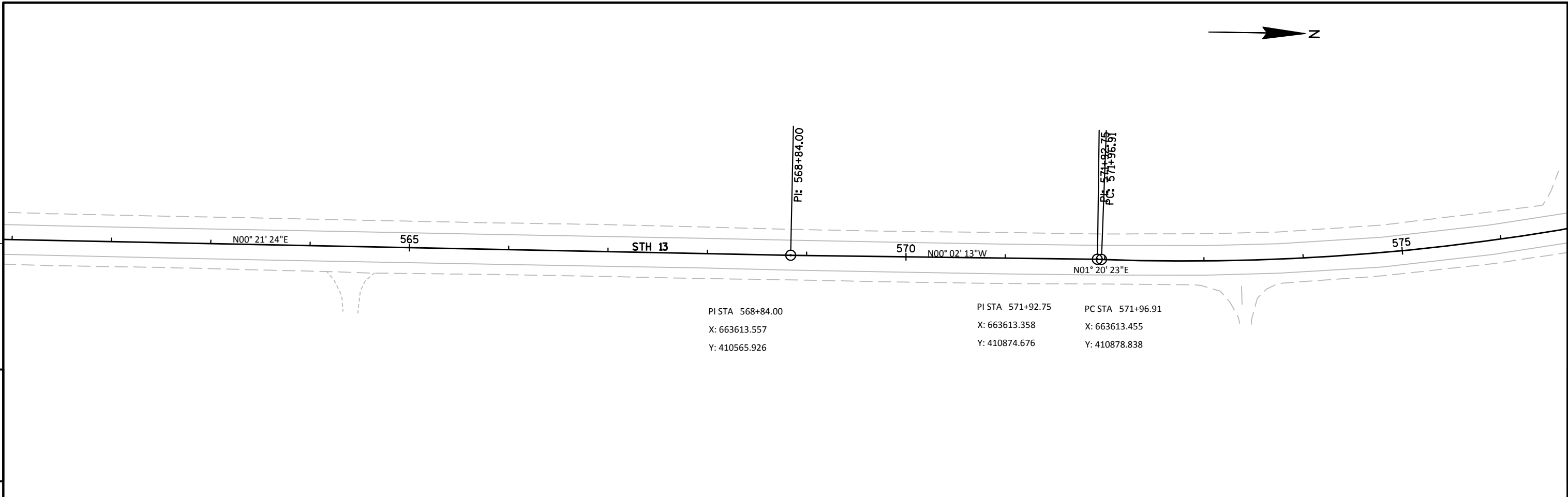


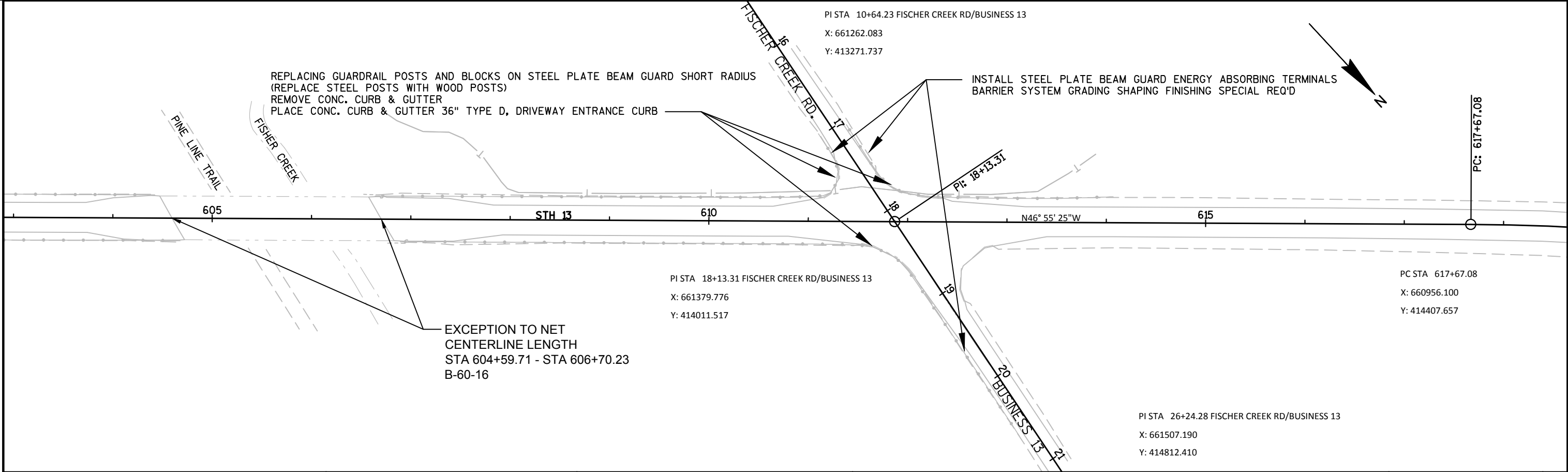
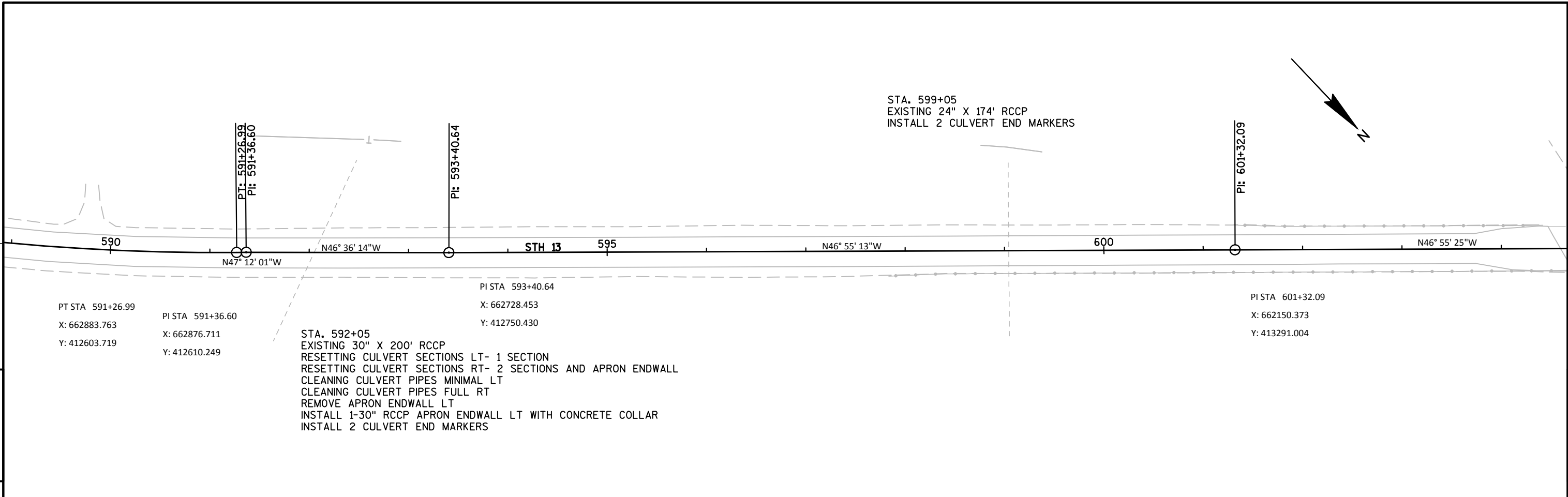
PROJECT NO:1610-03-62	HWY:STH 13	COUNTY:TAYLOR	PLAN	SHEET	E
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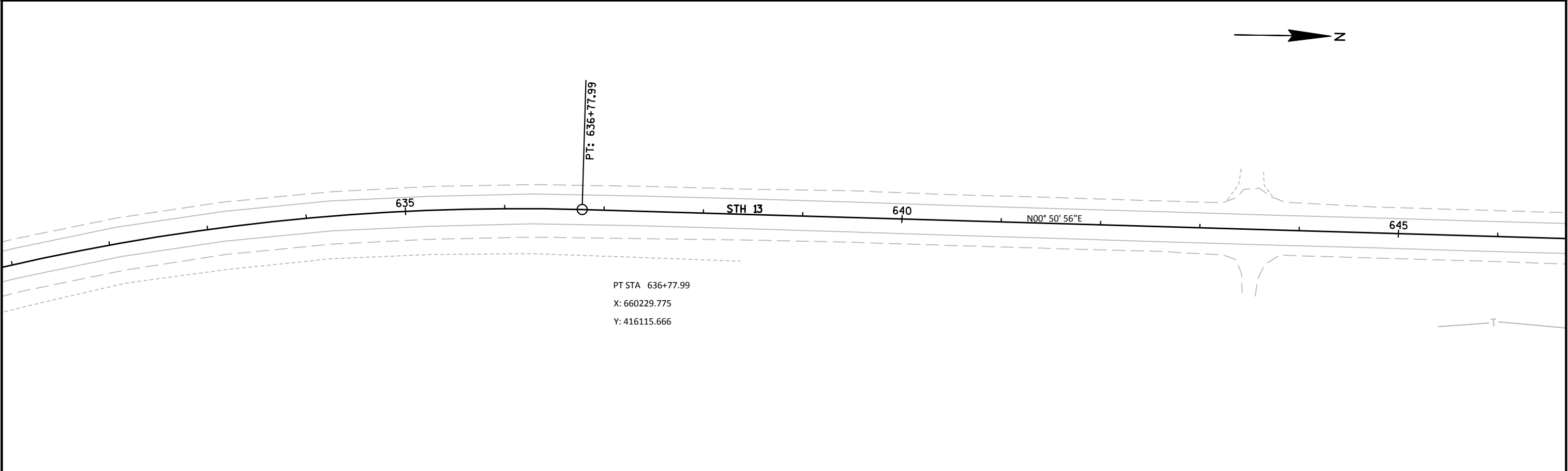
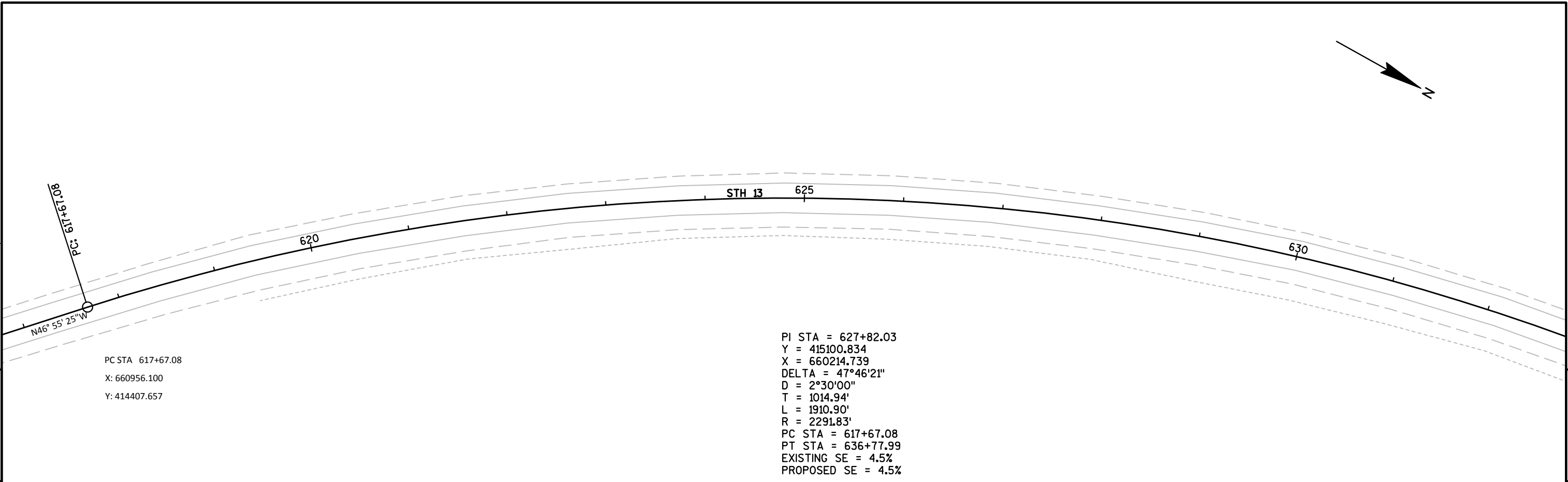


PROJECT NO:1610-03-62	HWY:STH 13	COUNTY:TAYLOR	PLAN	SHEET	E
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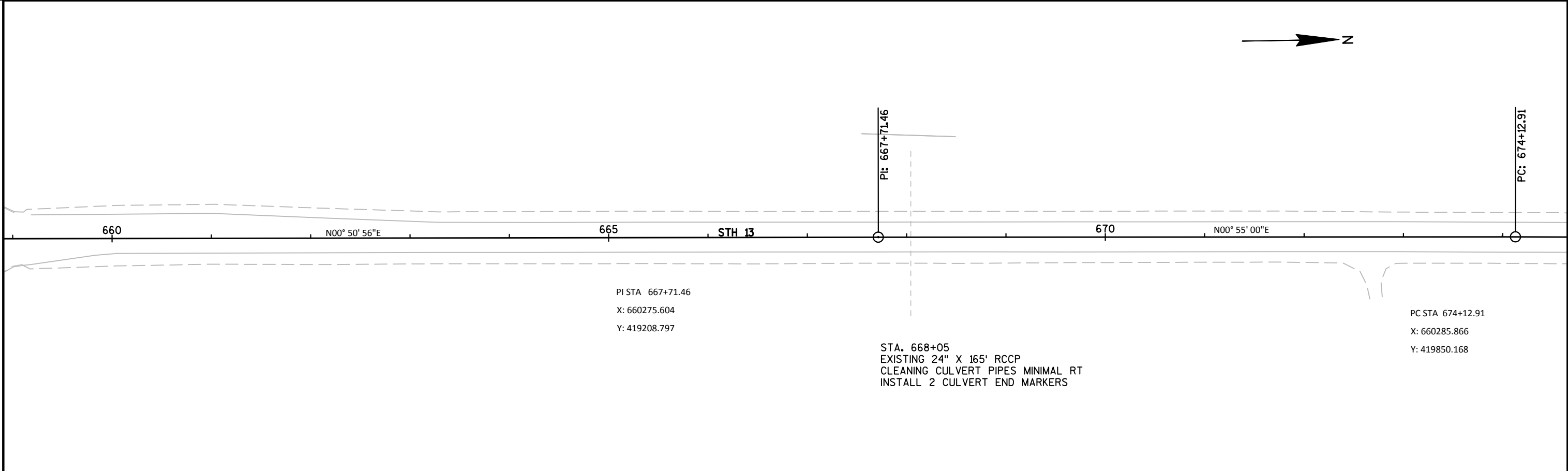
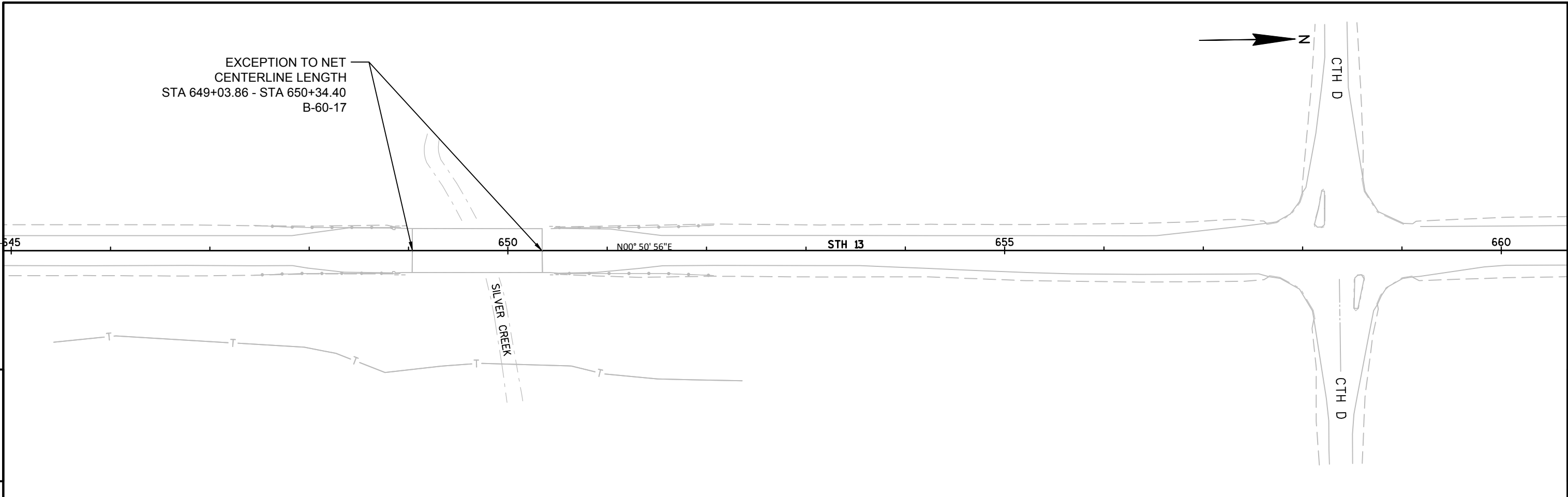




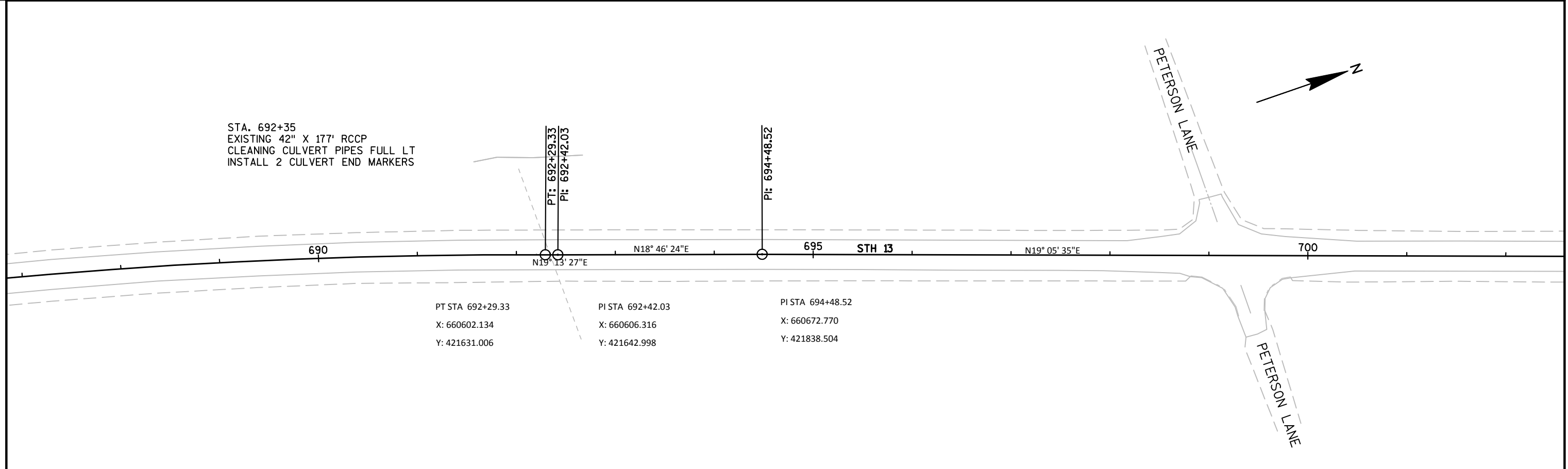
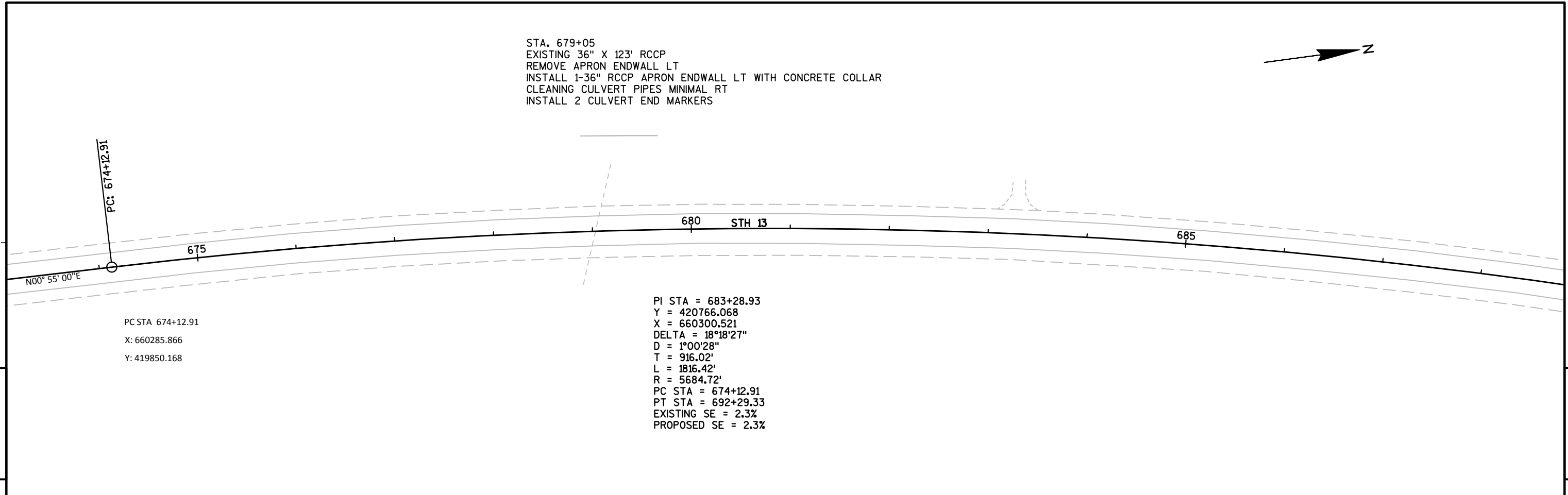




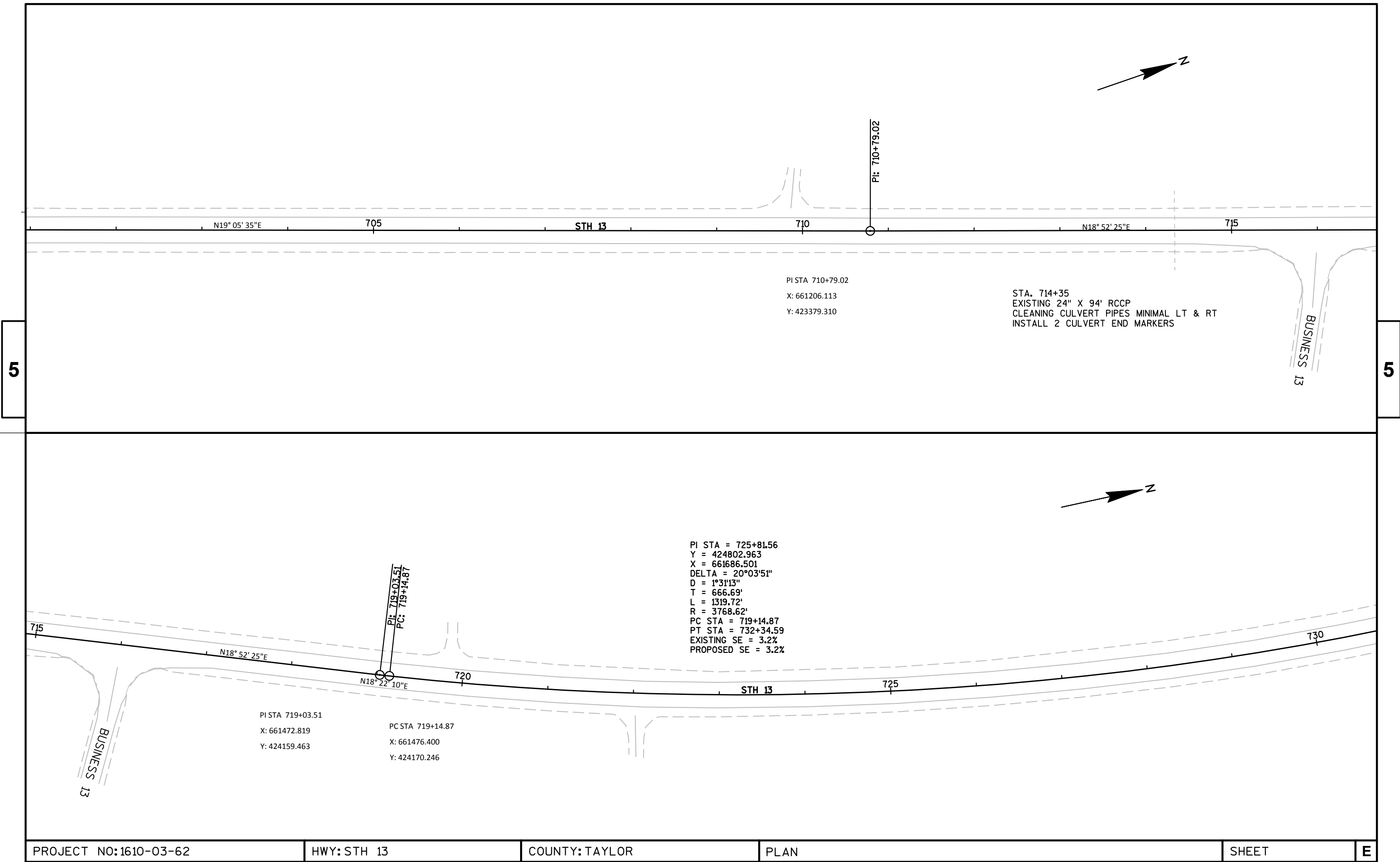
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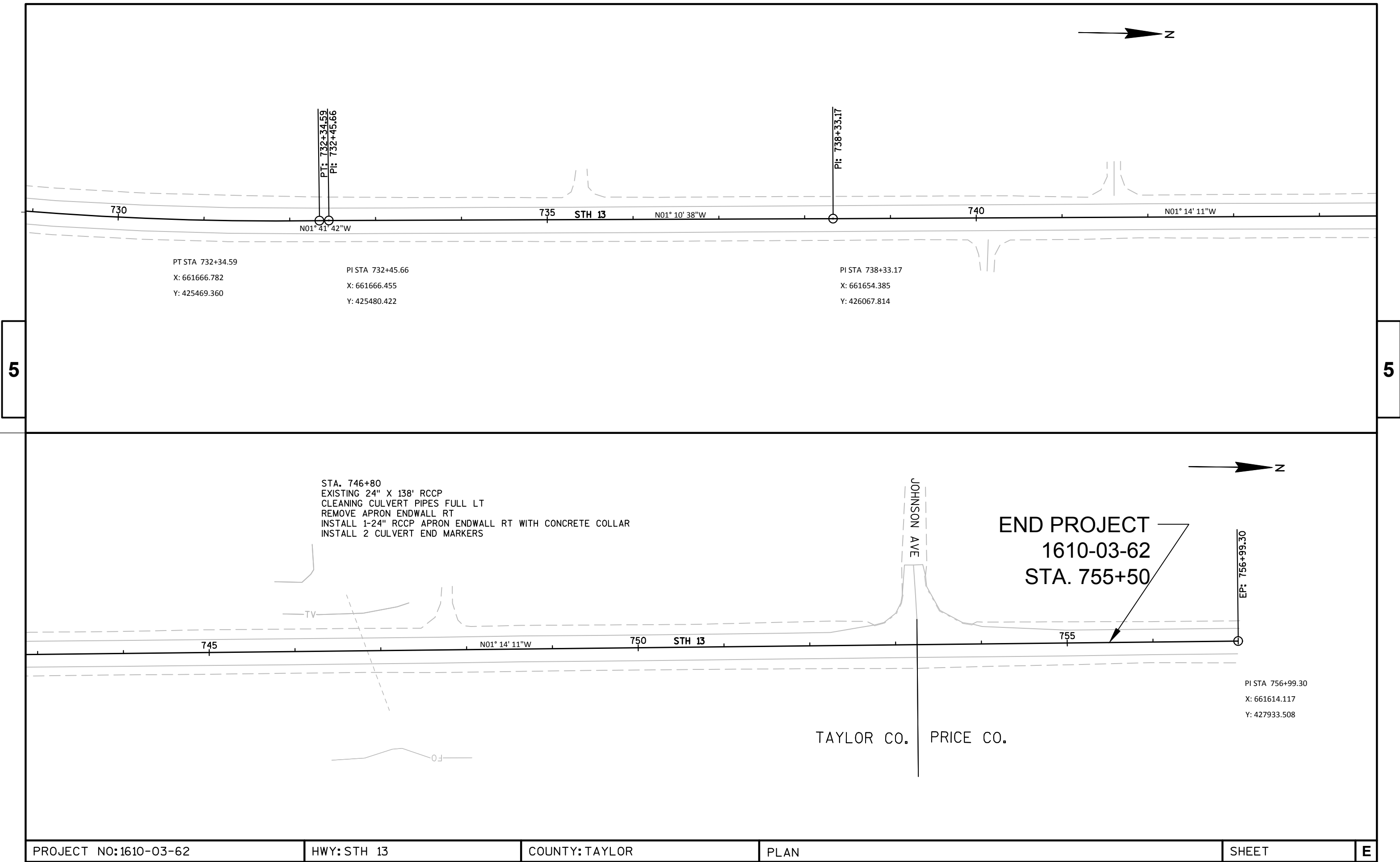


PROJECT NO:1610-03-62	HWY:STH 13	COUNTY:TAYLOR	PLAN	SHEET	E
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PROJECT NO:1610-03-62	HWY:STH 13	COUNTY:TAYLOR	PLAN	SHEET	E
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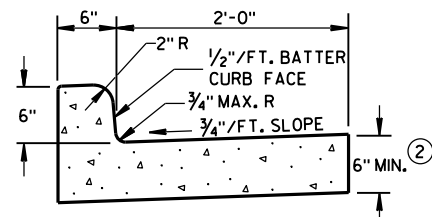




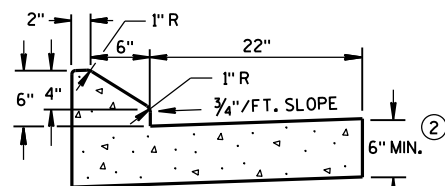
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Standard Detail Drawing List

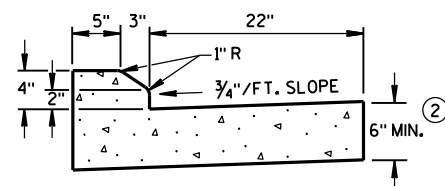
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B24-08A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-08B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-08C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B29-01	SAFETY EDGE
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C04-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-03A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



TYPES A & D ①

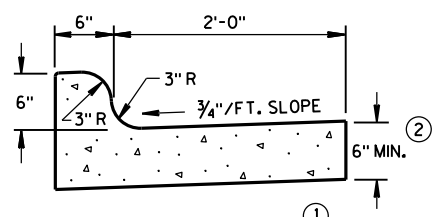


6" SLOPED CURB TYPES G & J ①



4" SLOPED CURB TYPES G & J ①

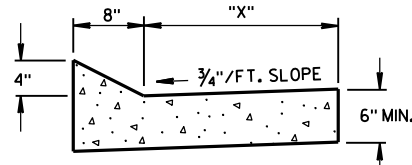
CONCRETE CURB & GUTTER 30"



TYPES K & L ①

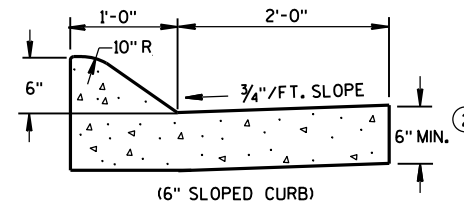
OPTIONAL CURB SHAPE
FOR TYPES K & L ①

CONCRETE CURB & GUTTER 30"

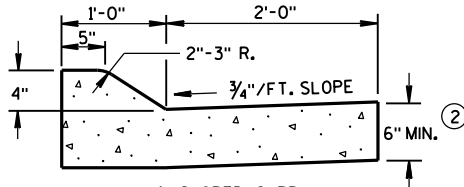


TYPES TBT & TBT ①
CONCRETE CURB & GUTTER

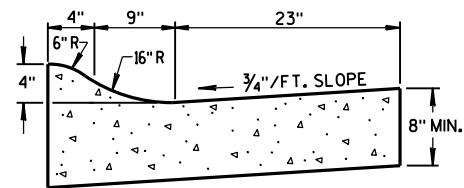
TBT & TBT	"X"
30"	22"
36"	28"



(6" SLOPED CURB)

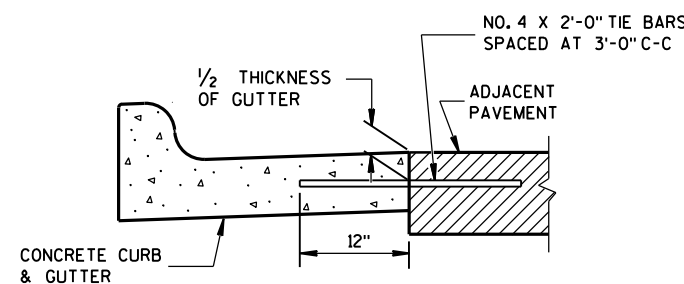


TYPES A & D ①

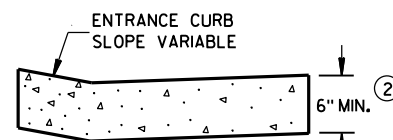


4" SLOPED CURB TYPES R & T ① ④

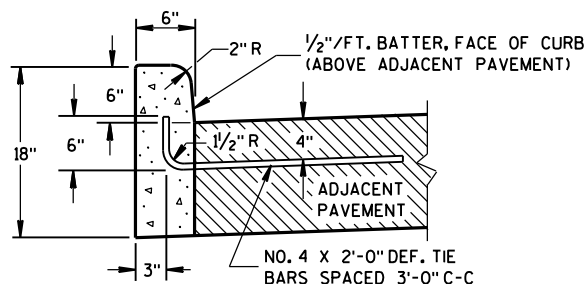
CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION ①

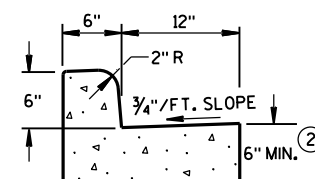


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

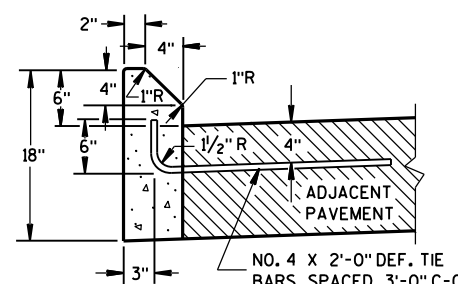


TYPES A & D ①

CONCRETE CURB



TYPES A & D
CONCRETE CURB & GUTTER 18"



TYPES G & J ①

GENERAL NOTES

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

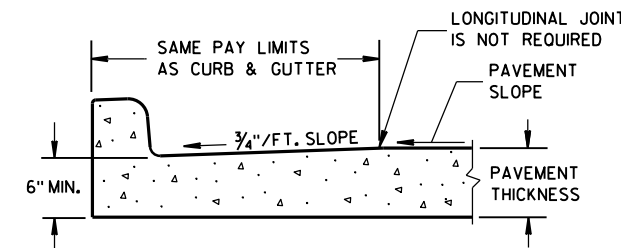
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

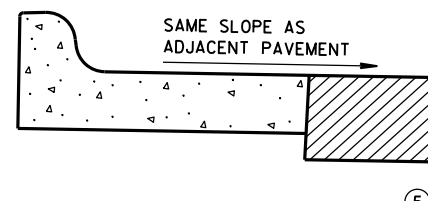
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

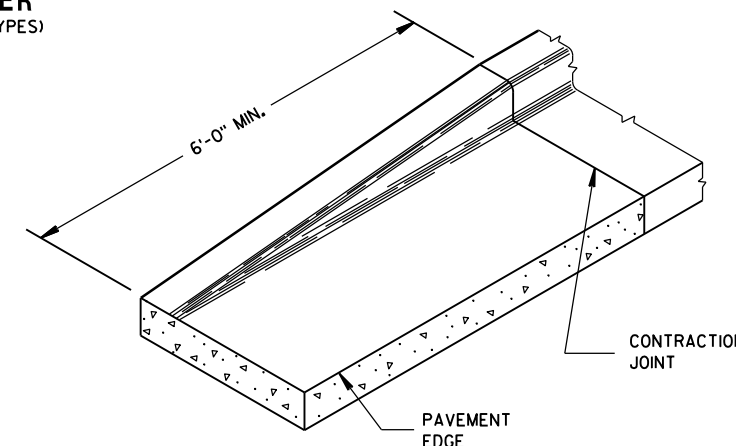
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



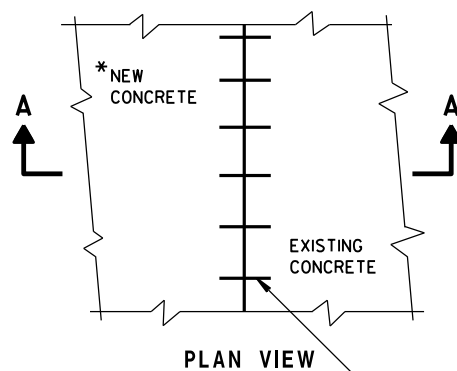
PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



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



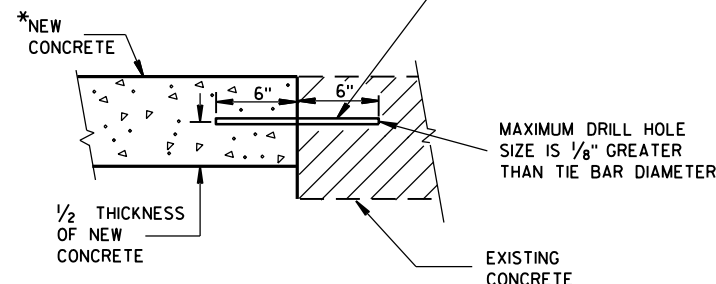
END SECTION CURB & GUTTER



PLAN VIEW

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

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



SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

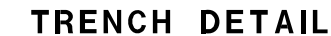
CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



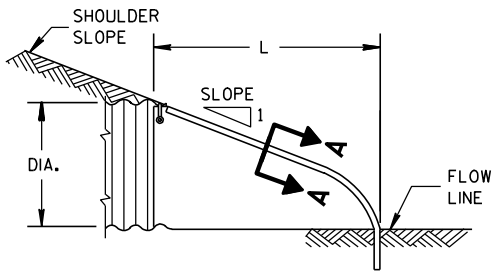
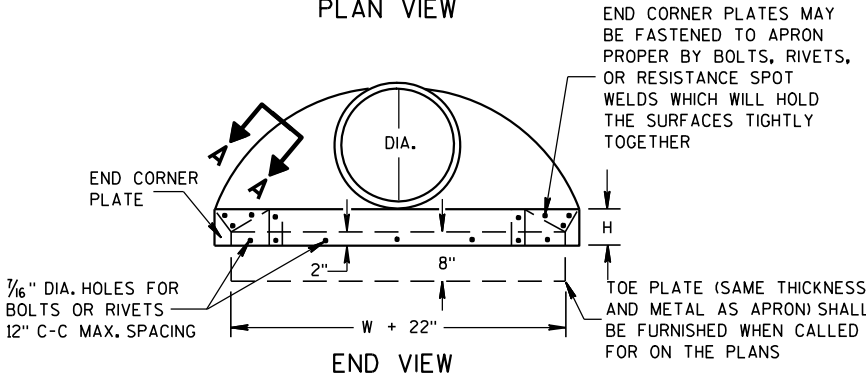
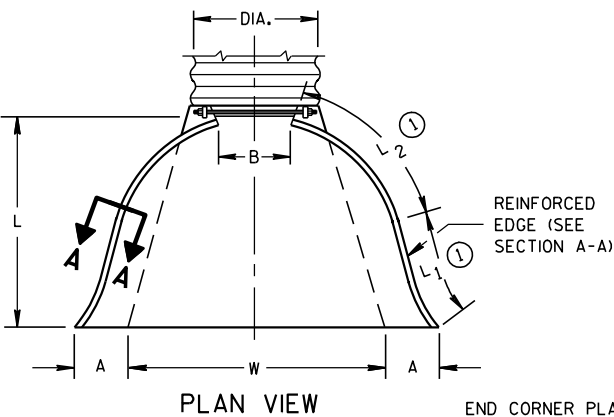
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS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



SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED <u>4-29-05</u> DATE	<u>/S/ Beth Cannestra</u> CHIEF ROADWAY DEVELOPMENT ENGINEER

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

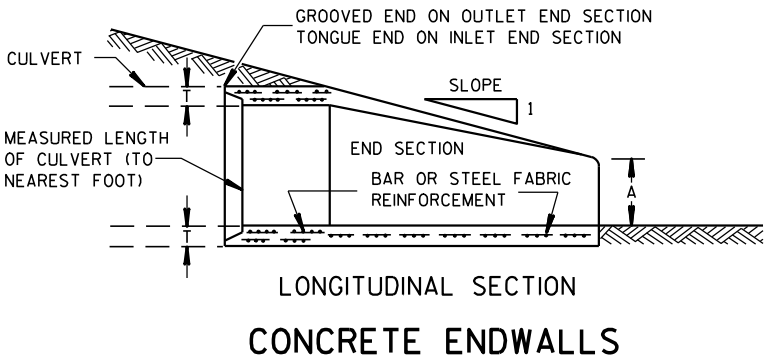
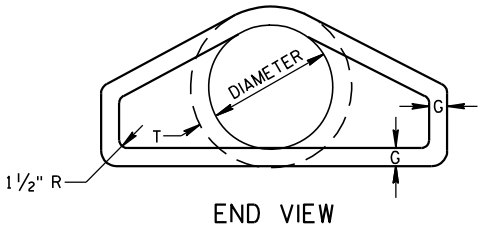
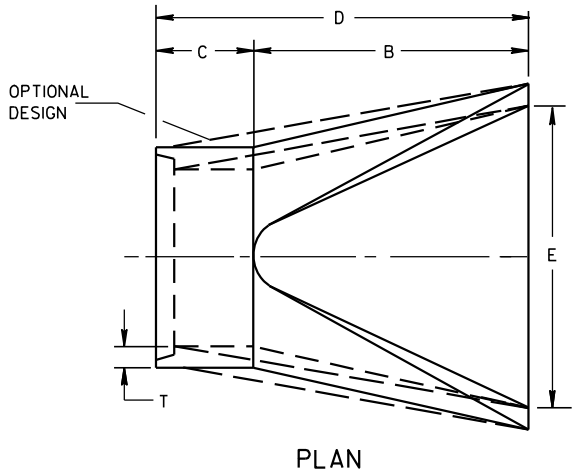
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



SIDE ELEVATION
METAL ENDWALLS

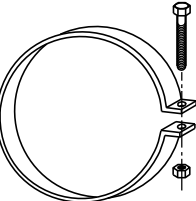
REINFORCED CONCRETE APRON ENDWALLS								
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
12	2	4	24	48 ⁷ / ₈	72 ⁷ / ₈	24	2	3 to 1
15	2 ¹ / ₄	6	27	46	73	30	2 ¹ / ₄	3 to 1
18	2 ¹ / ₂	9	27	46	73	36	2 ¹ / ₂	3 to 1
21	2 ³ / ₄	9	36	37 ¹ / ₂	73 ¹ / ₂	42	2 ³ / ₄	3 to 1
24	3	9 ¹ / ₂	43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

* MINIMUM
** MAXIMUM

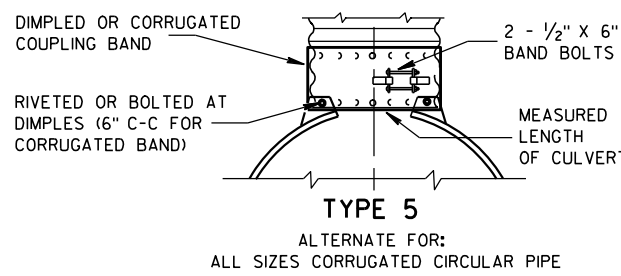
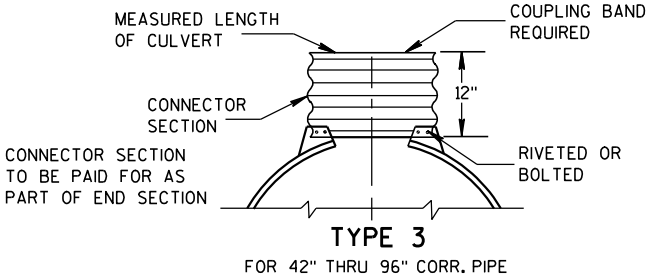
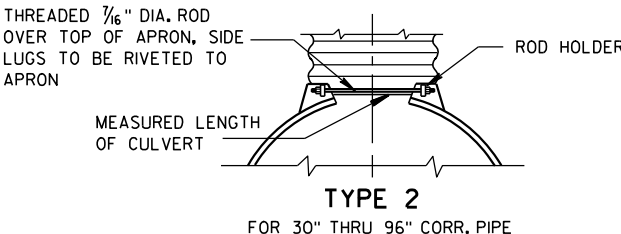
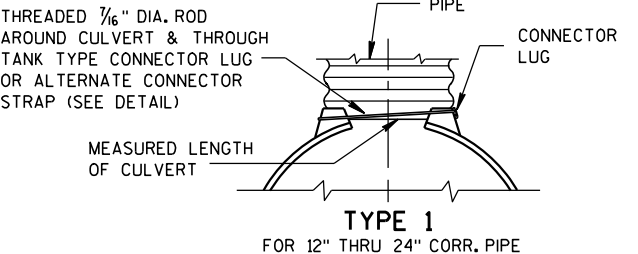


LONGITUDINAL SECTION
CONCRETE ENDWALLS

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



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



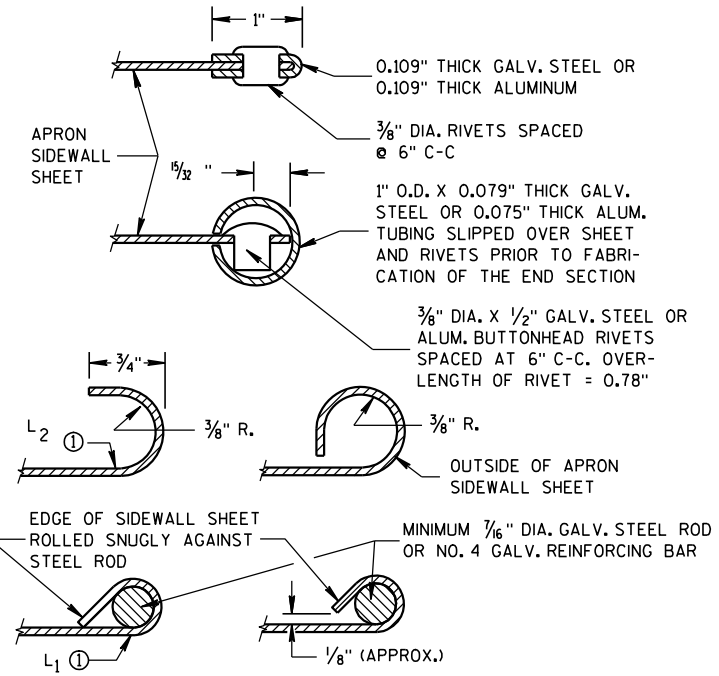
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

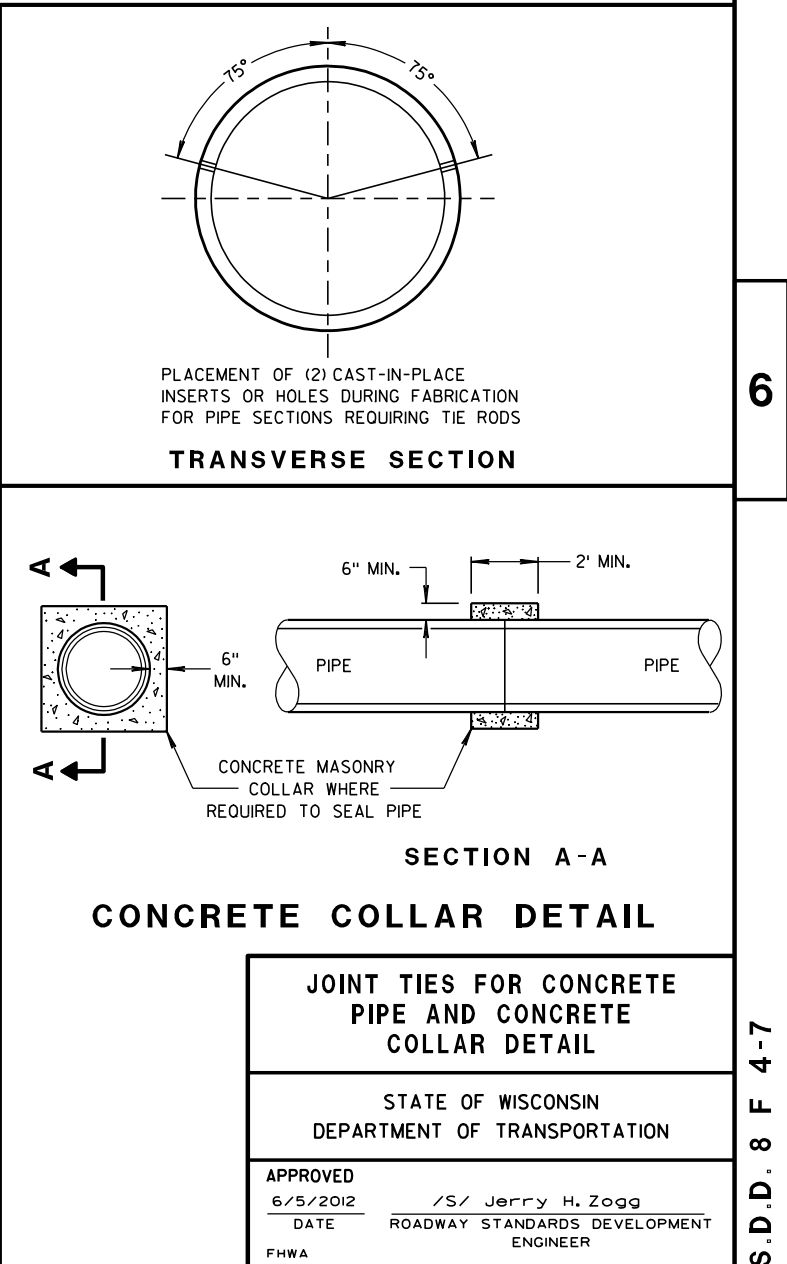
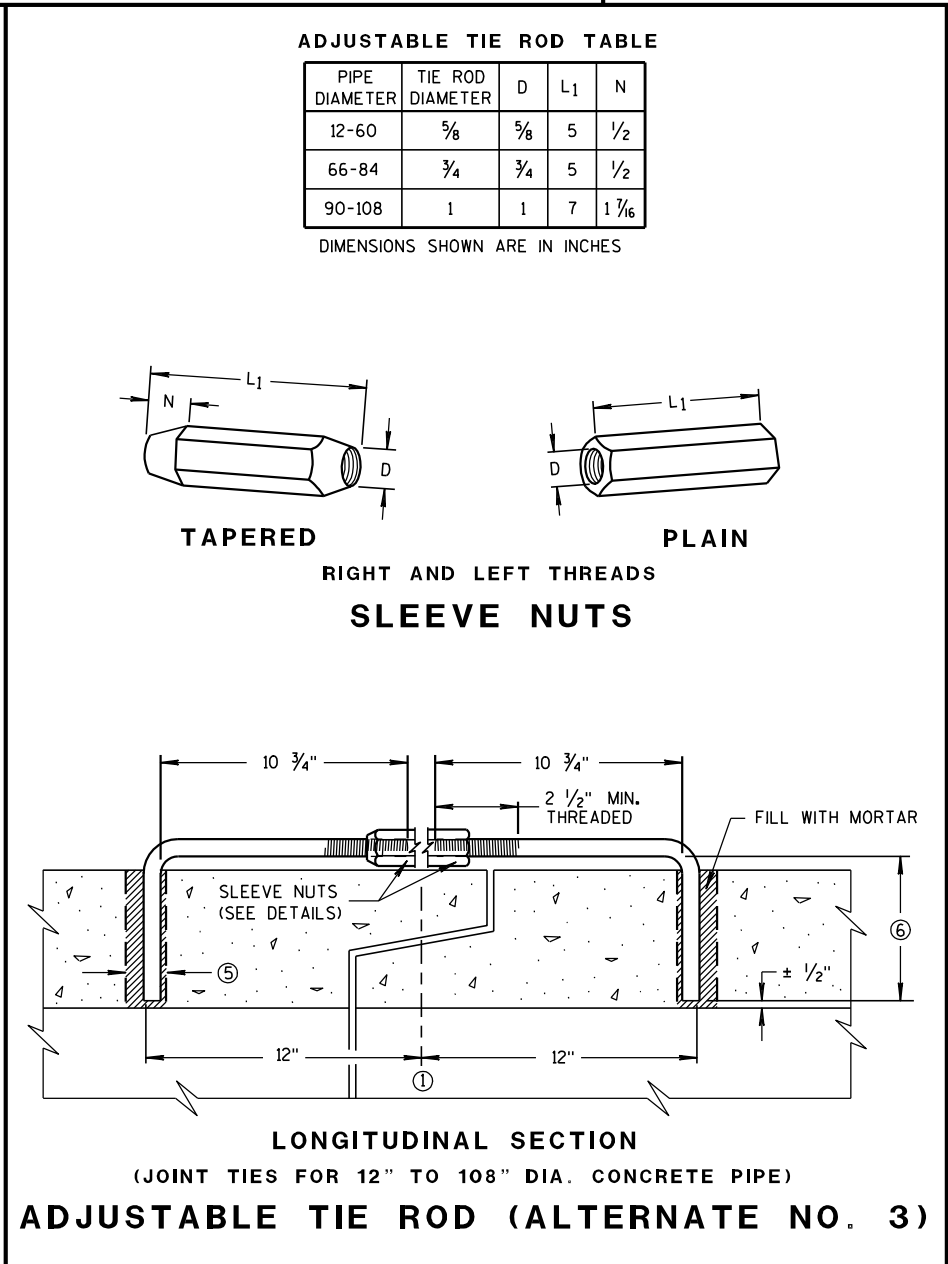
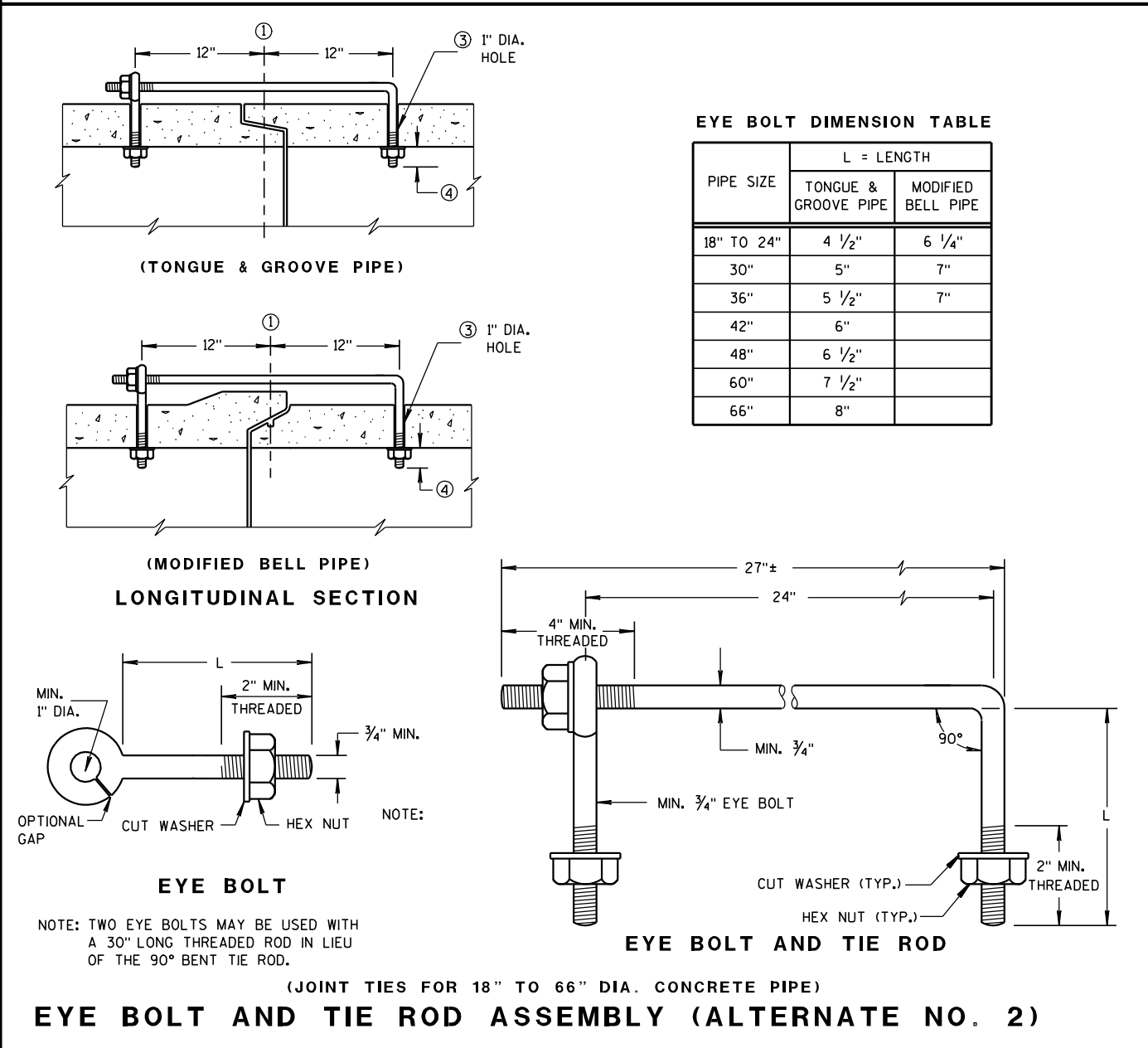
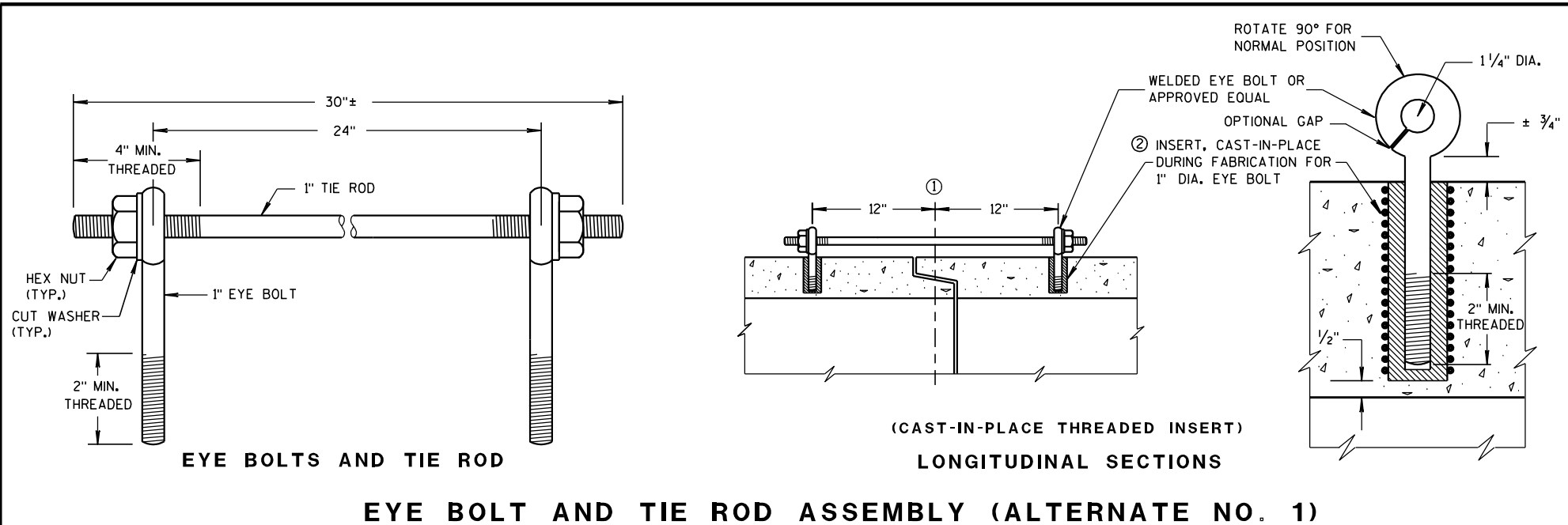
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

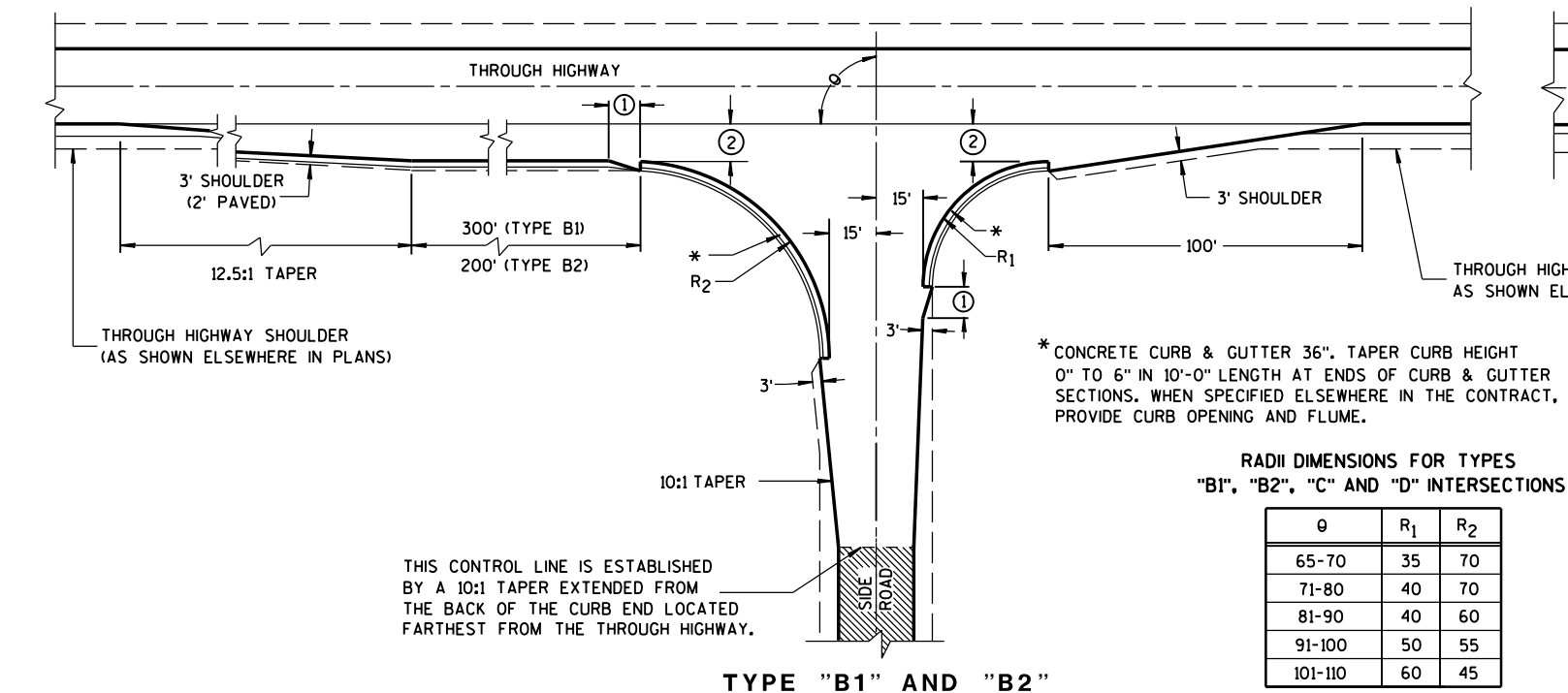
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR
CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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





RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R ₁	R ₂
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

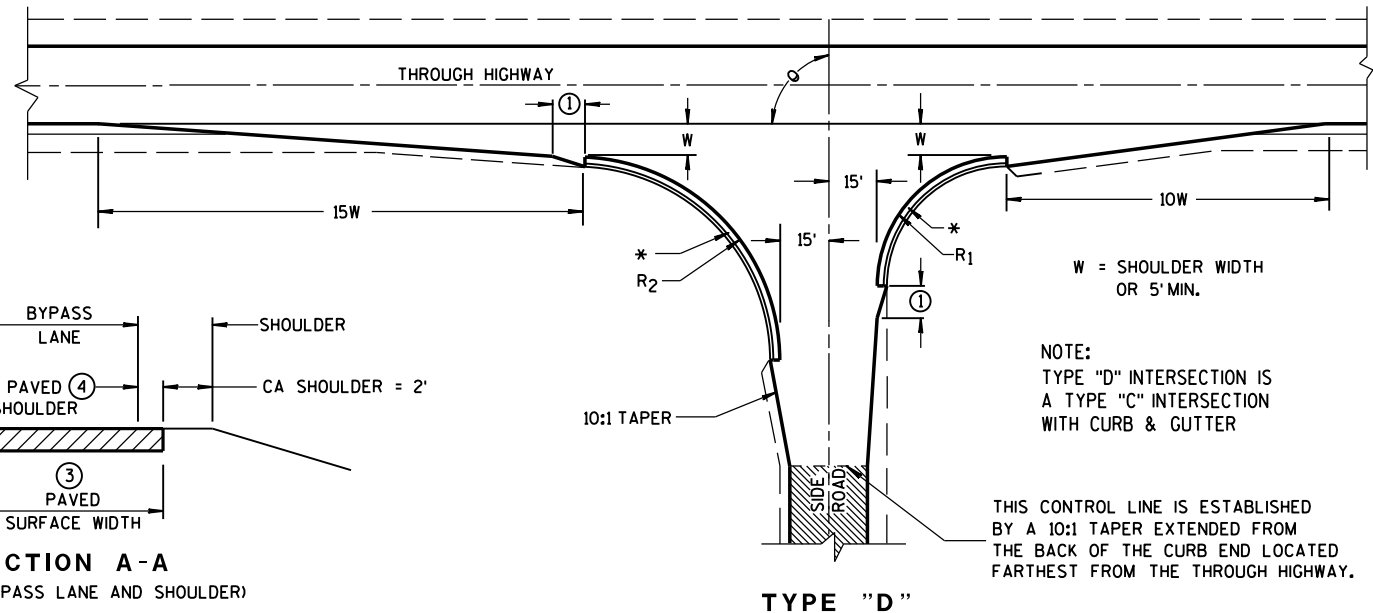
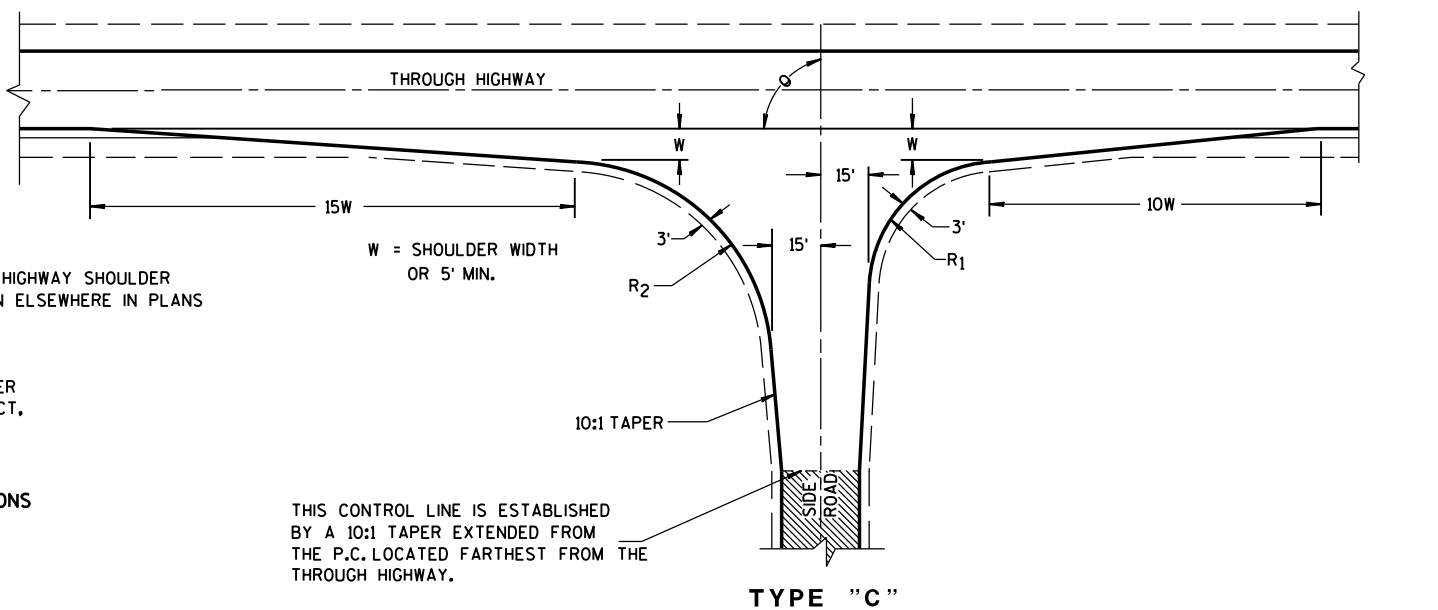
WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

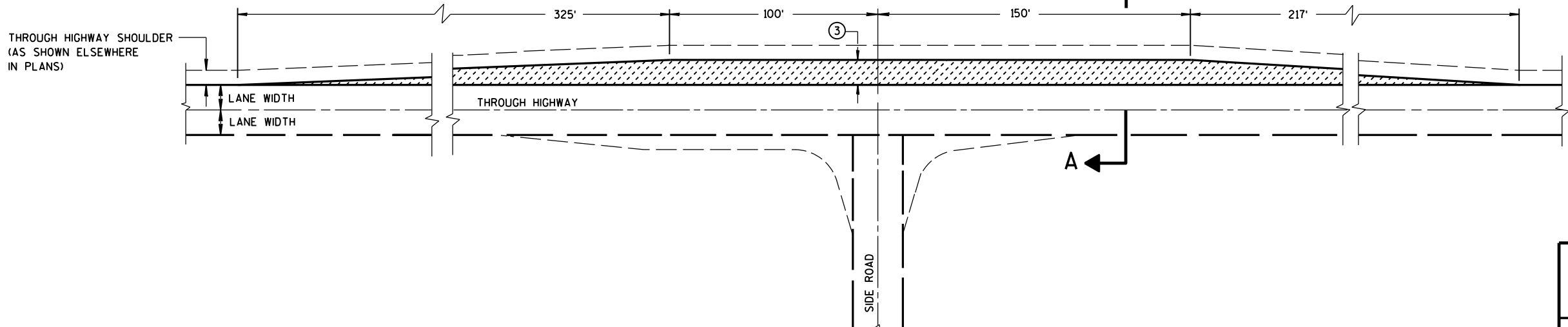
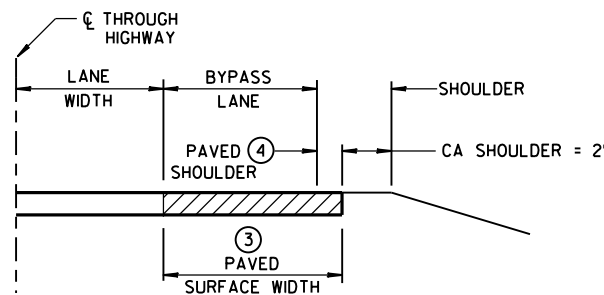
BYPASS LANE

- 10-FT TYPICAL.
- 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.
- BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.
- BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



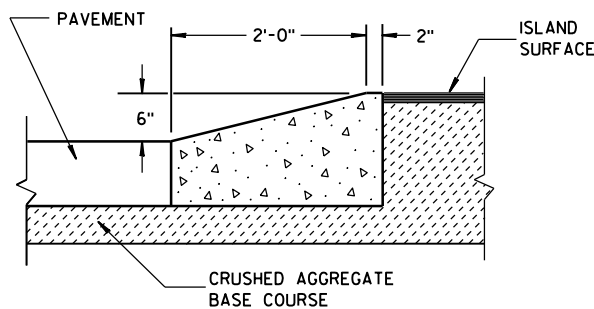
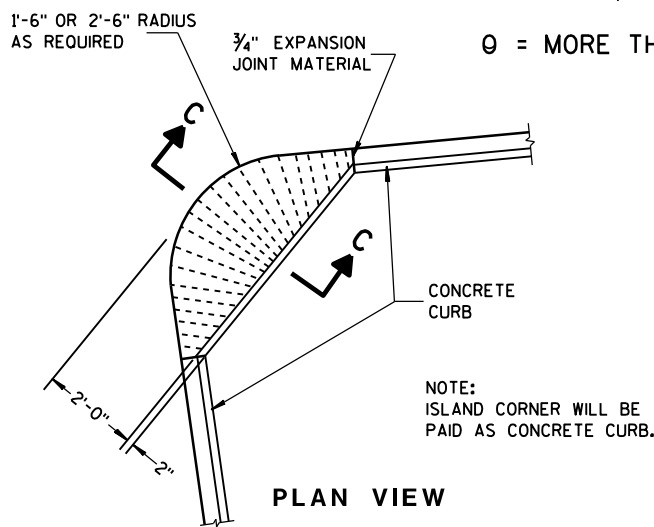
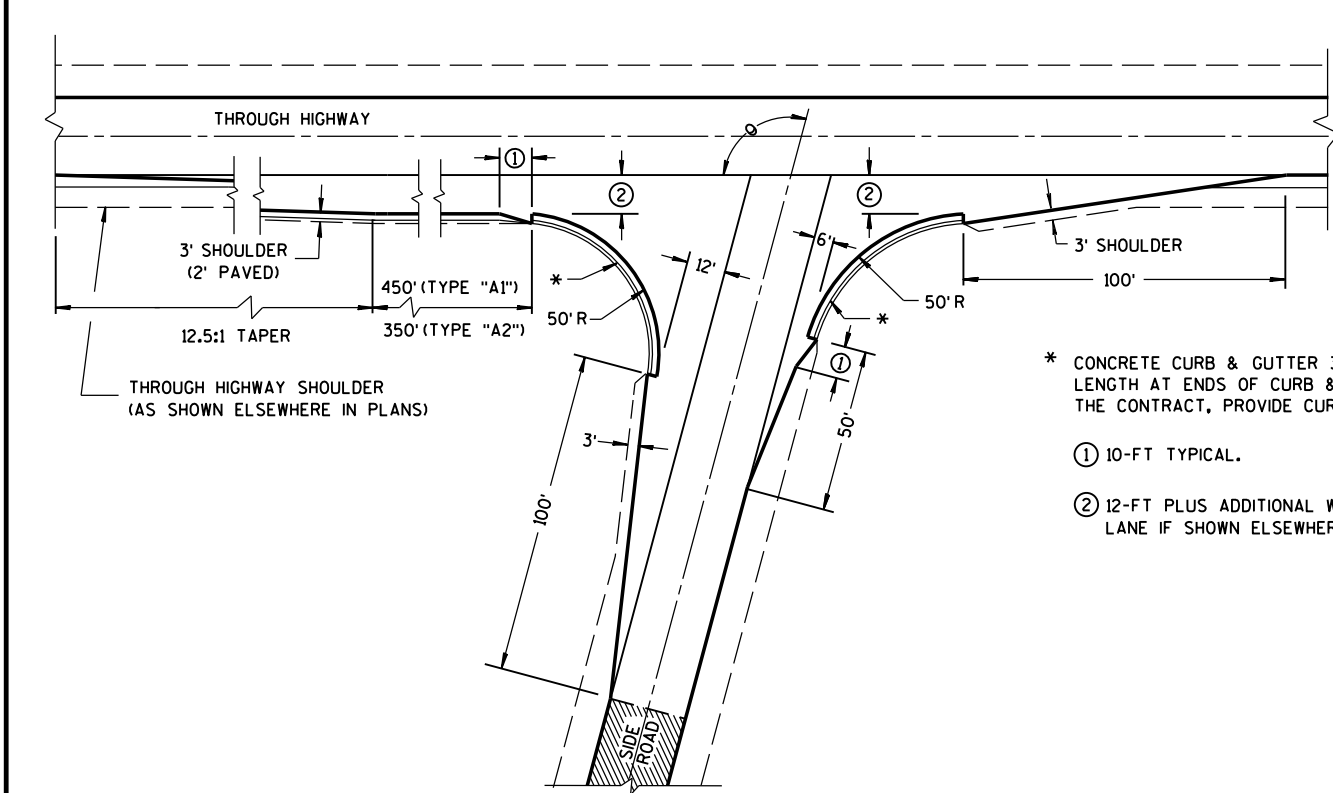
NOTE:
TYPE "D" INTERSECTION IS A TYPE "C" INTERSECTION WITH CURB & GUTTER



TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

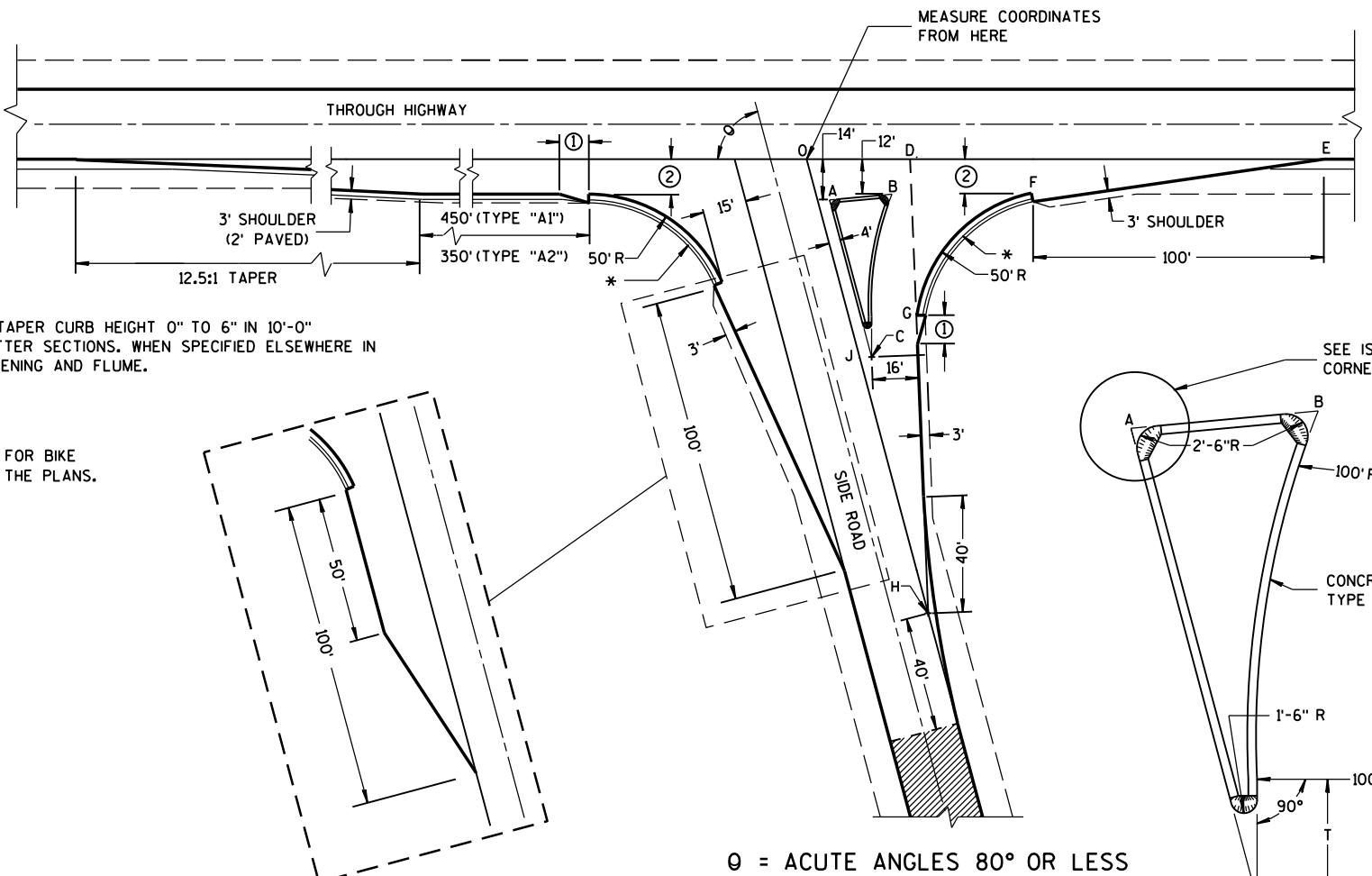
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



SECTION C-C

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

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



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

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

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

GENERAL NOTES

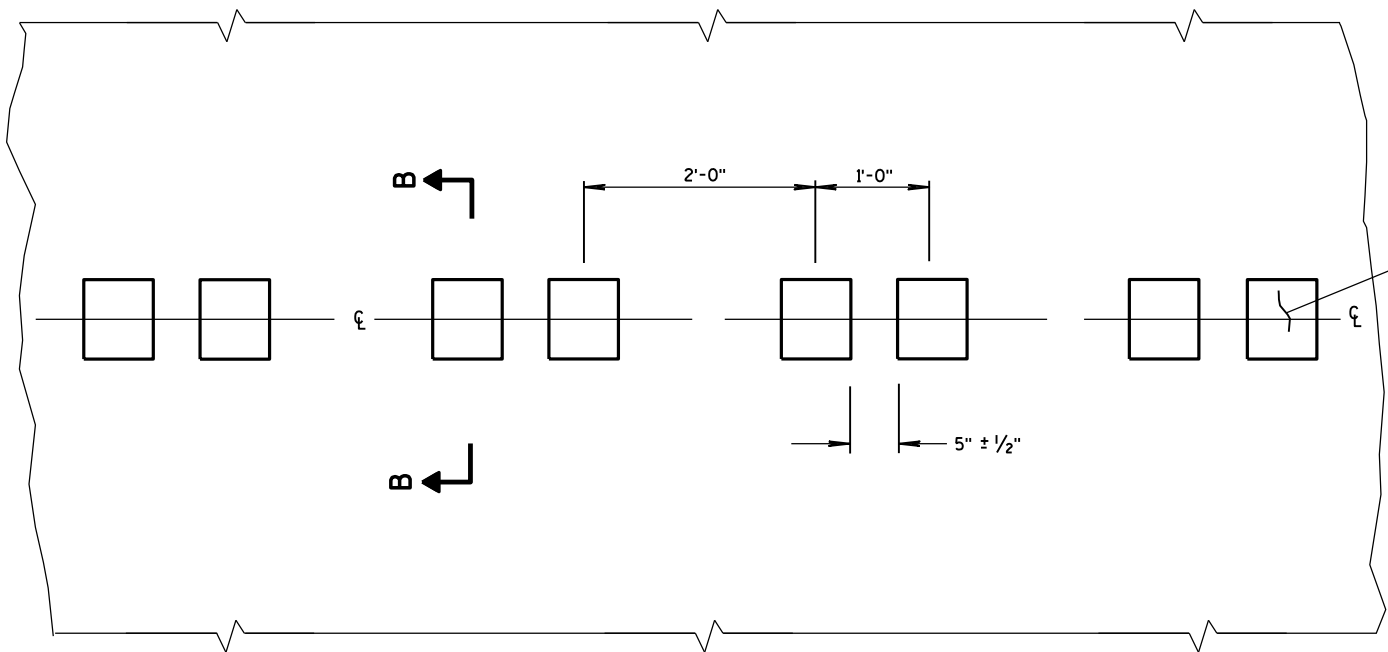
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

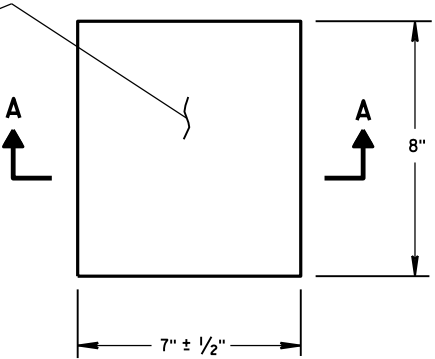
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

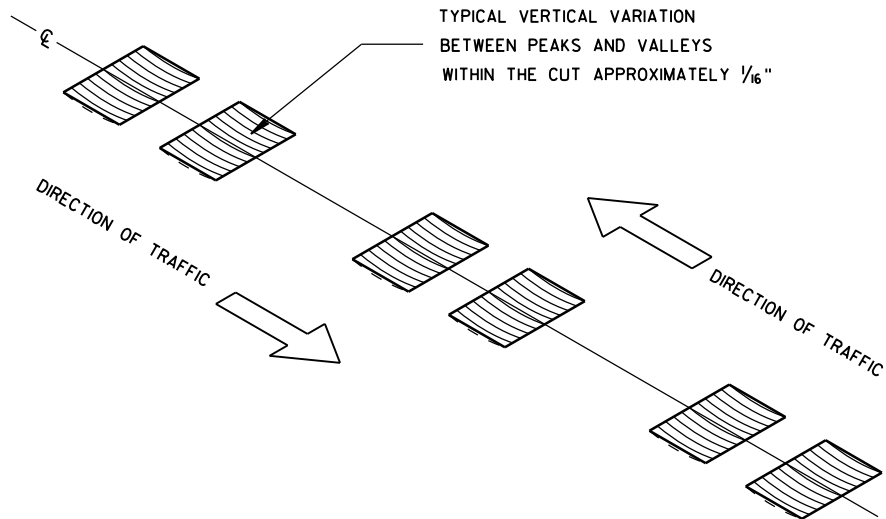
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



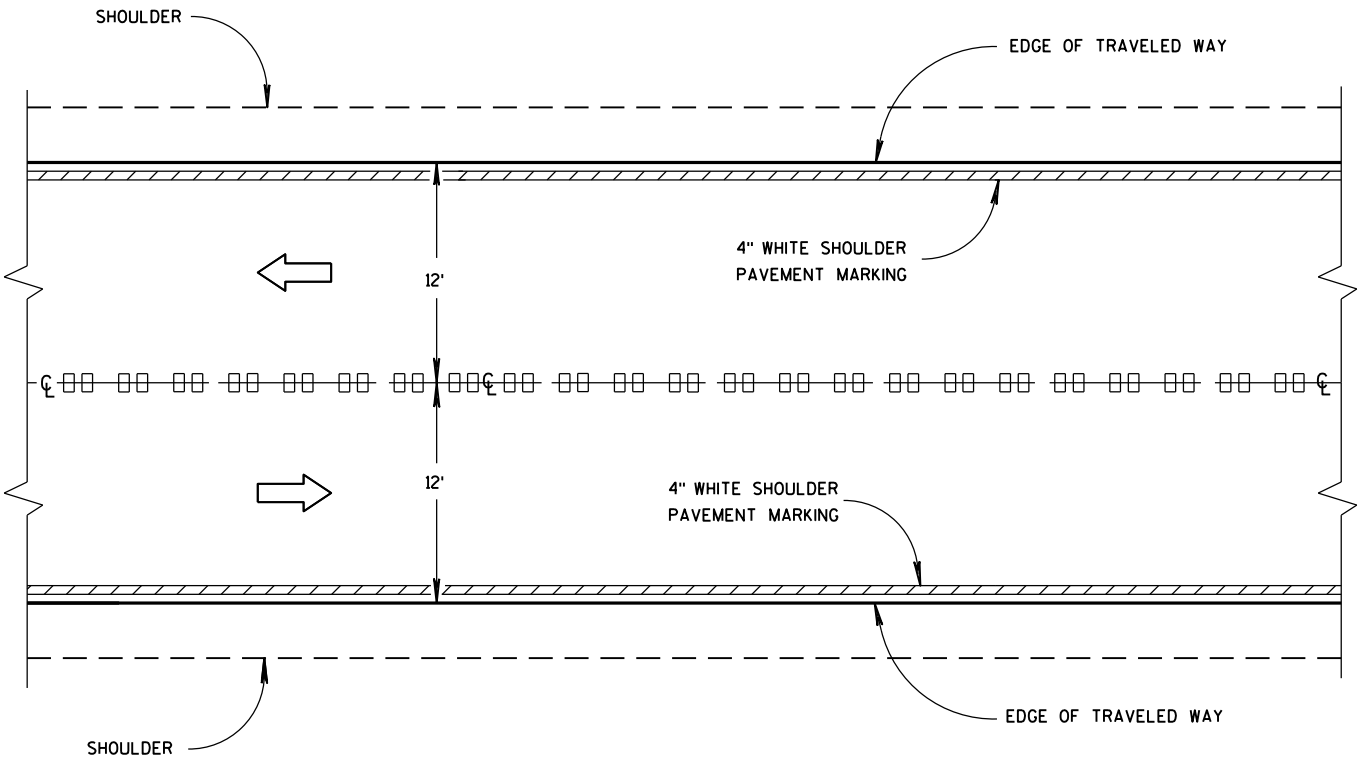
PLAN VIEW
CENTER LINE WITH GROOVES



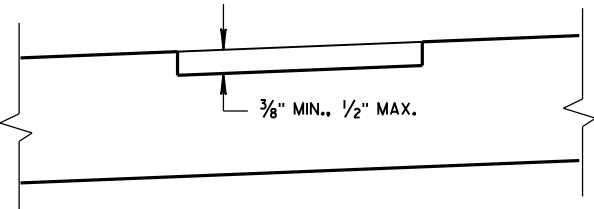
PLAN VIEW
(SINGLE GROOVE)



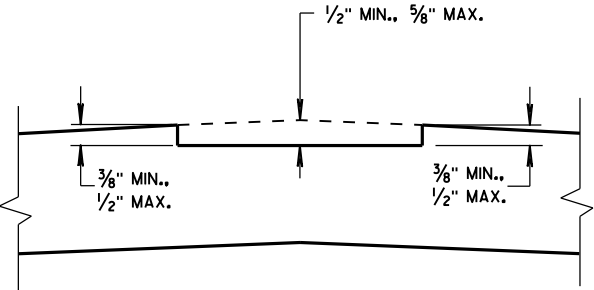
ISOMETRIC



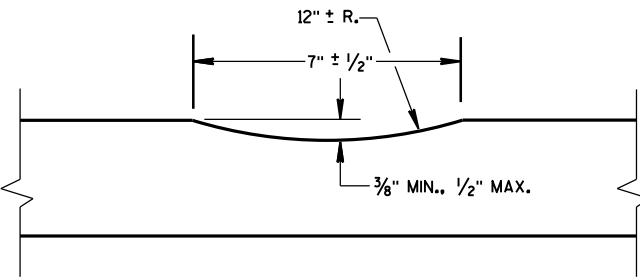
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



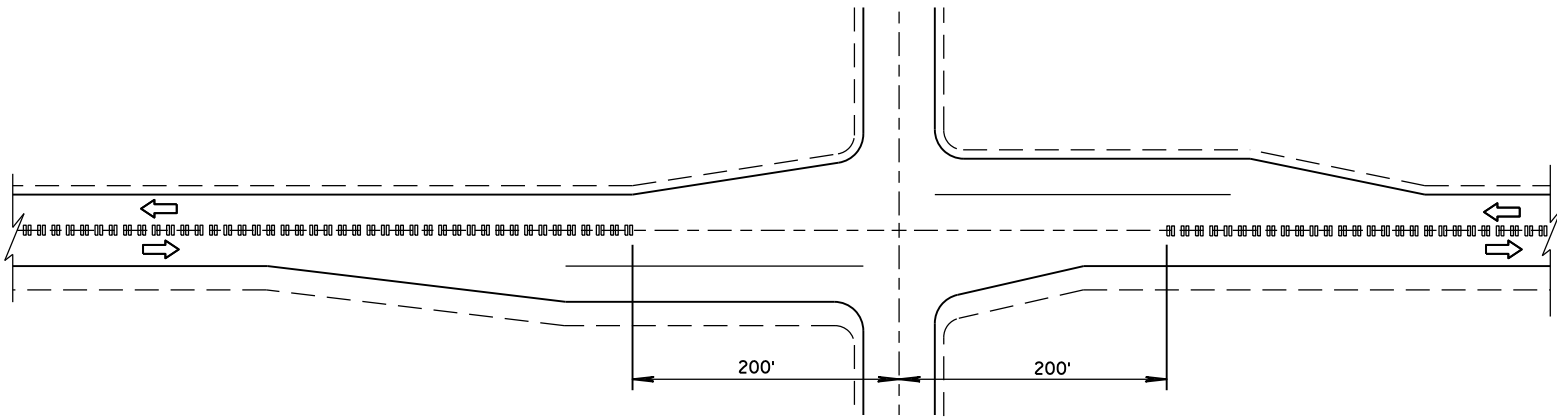
SECTION B-B
CROWNED ROADWAY



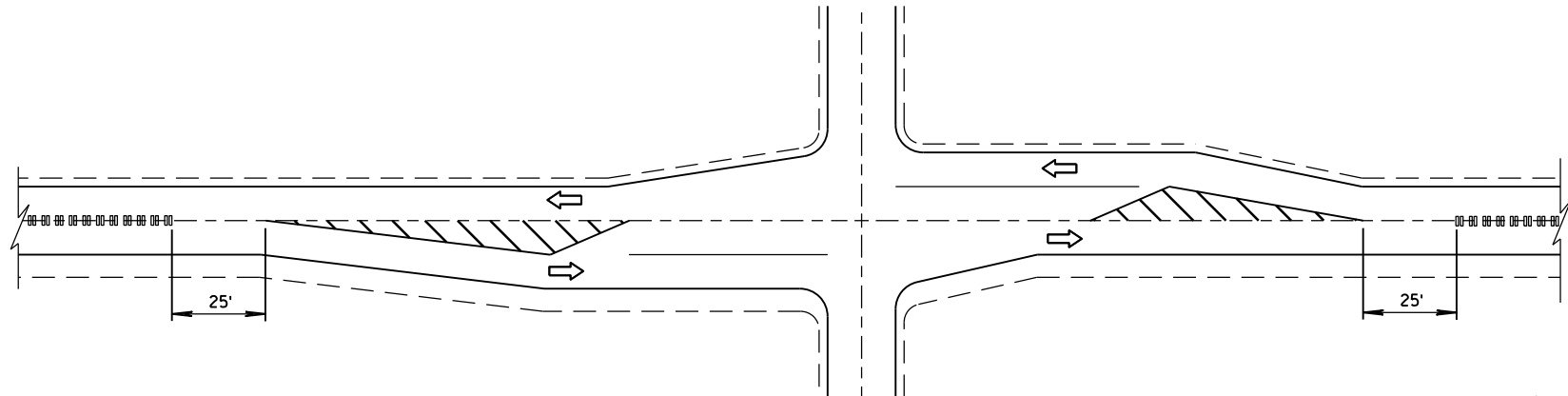
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

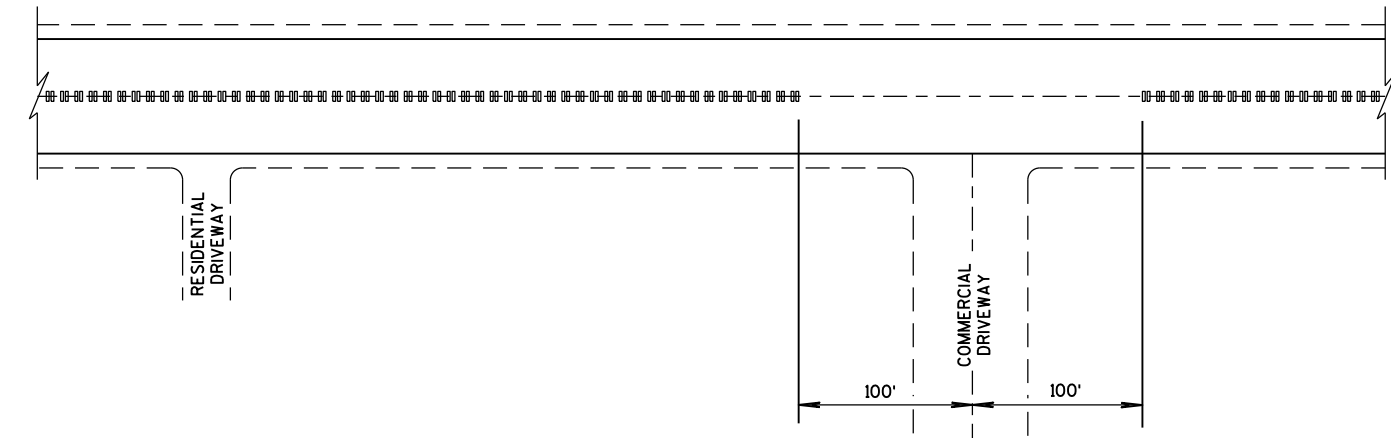
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

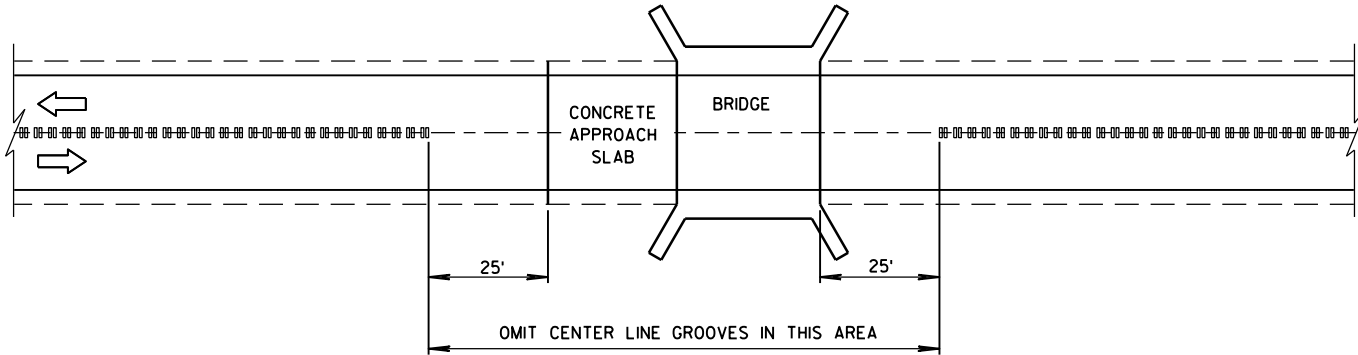


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

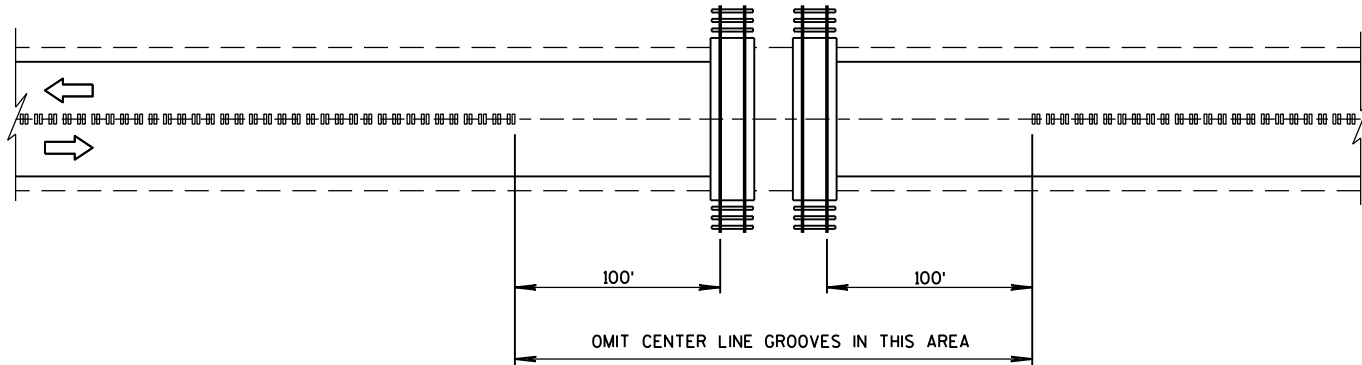


CENTER LINE GROOVES AT DRIVEWAYS^①

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	

BILL OF MATERIALS

NOTE NO.	QTY.	DESCRIPTION
①	4	WOOD BREAKAWAY TERMINAL POST: 5 1/2" X 7 1/2" X 3'-9"
②	**	STEEL TUBE: OPTION 1 - QUANTITY OF 4 TS 8" X 6" X 0.188", 4'-6" LONG OR OPTION 2 - QUANTITY OF 2 TS 8" X 6" X 0.188", 6'-0" AND 2 TS 8" X 6" X 0.188", 4'-6" LONG
③	2	SOIL PLATE: 2'-0" X 1'-6" X 1/4" **
④	4	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	6	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	1	PIPE SLEEVE: 2" X 5 1/2" STANDARD PIPE
⑦	1	BEARING PLATE
⑧	1	BCT CABLE ASSEMBLY
⑨	1	CABLE ANCHOR BOX
⑩	1	STRUT & YOKE
⑪	1	STEEL PLATE BEAM, END PANEL 12 GA. 13'-6 1/2" LONG FOR SKT-350, ET-2000 AND ET-2000 PLUS
⑫	3	STEEL PLATE BEAM: 12 GA. 13'-6 1/2"
⑬	1	ET-2000/ET-2000 PLUS GUARDRAIL EXTRUDER OR SKT-350 IMPACT HEAD: AS FURNISHED BY MANUFACTURER
⑭	1	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
⑮	1	E.A.T. MARKER POST

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS, IF NONE ARE AVAILABLE, INSTALL 3/8" ϕ X 1'-6" BUTTON HEAD BOLTS AT ALL POSTS EXCEPT FOR POST 1.

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, 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) THE 13 SLOT FIRST RAIL PANEL MAY BE USED IN LIEU OF THE 3 SLOT RAIL PANEL ON SKT-350 ONLY.

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 THROUGH 4 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(E) THE CENTER OF THE UPPER 3/2" DIAMETER HOLE ON POST 5 THROUGH 8 SHALL BE 3/4" ABOVE THE FINISHED GROUND LINE.

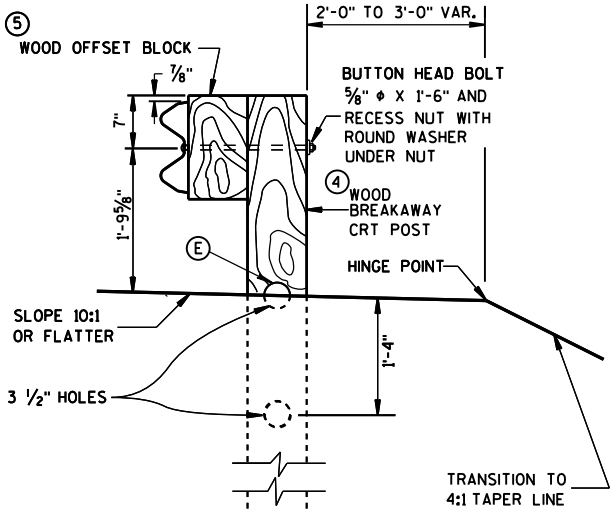
(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER.

STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

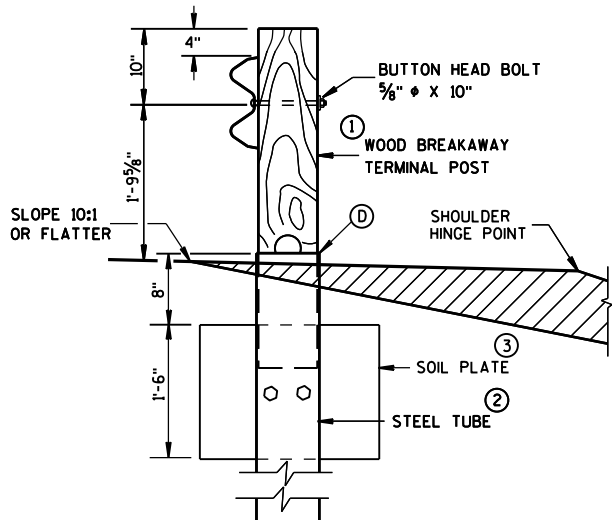
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

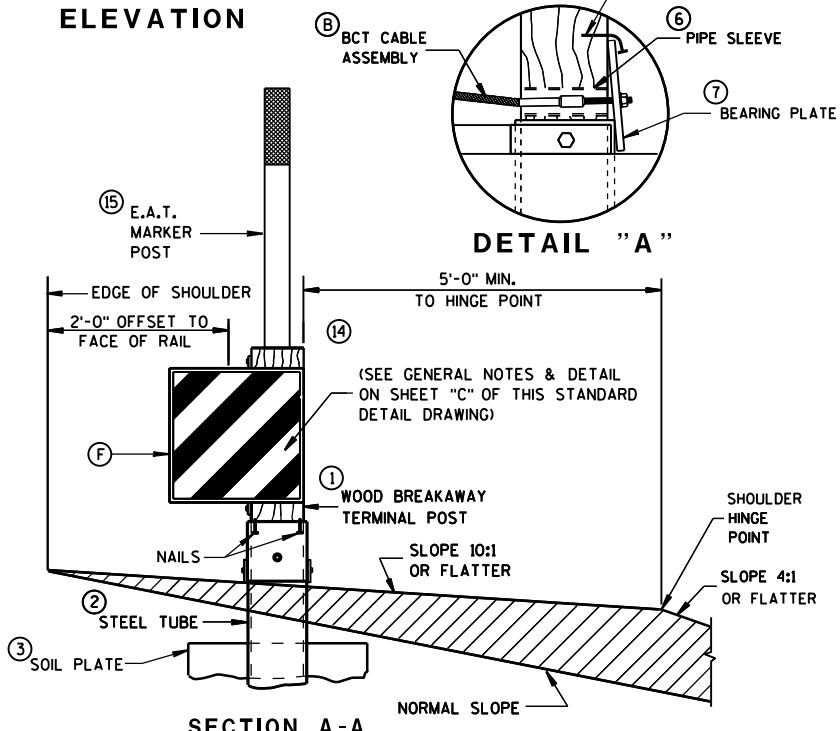
** SDD SHOWS 4 - 54 INCH STEEL TUBES WITH SOIL PLATES INSTALLED ON POST 1 AND POST 2. POST 3 AND 4 DO NOT NEED SOIL PLATES. AN ALTERNATIVE INSTALLATION WOULD CONSIST OF 2 - 72 INCH STEEL TUBES ON POST 1 AND POST 2 AND 54 INCH SOIL TUBES ON POSTS 3 AND 4. THE ALTERNATIVE INSTALLATION DOES NOT REQUIRE SOIL PLATES.



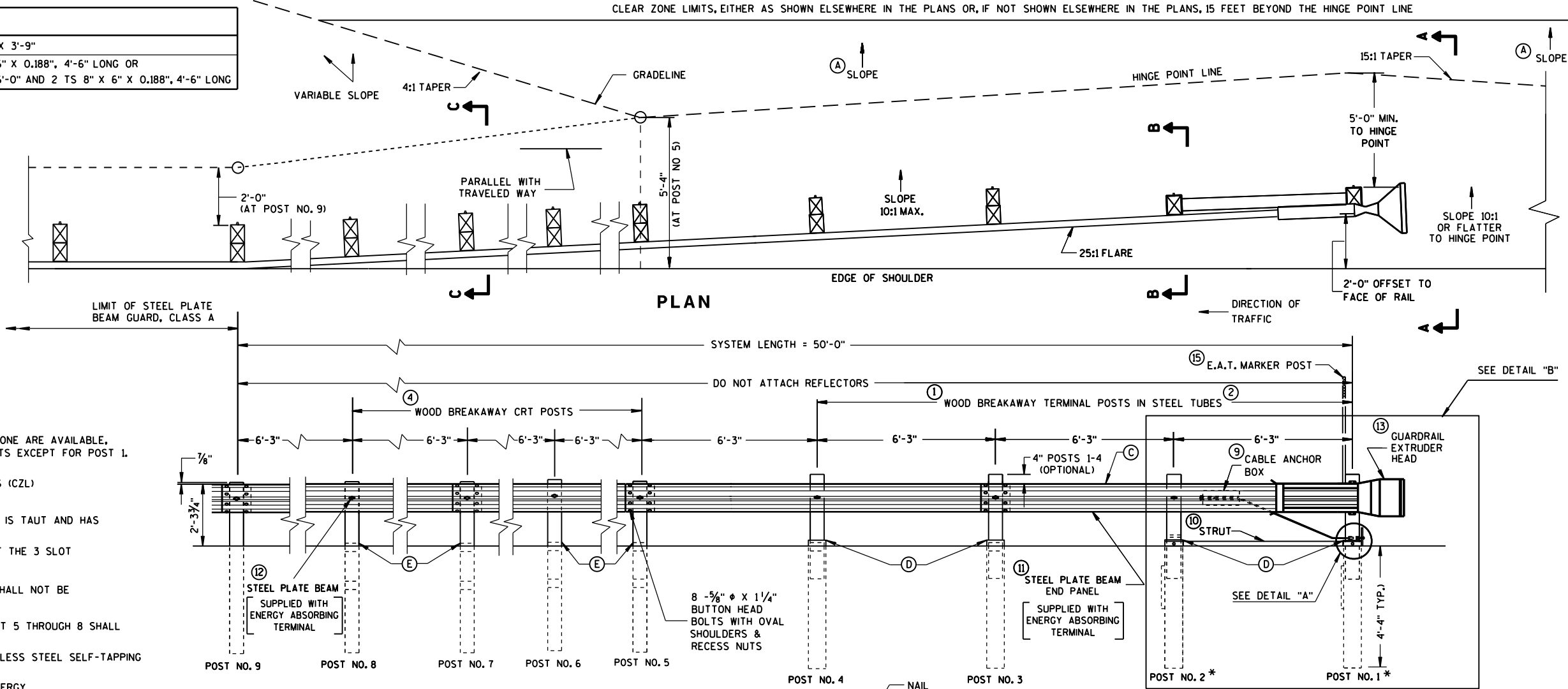
SECTION C-C
TYPICAL AT POST NOS. 6, 8



SECTION B-B
TYPICAL AT POST NO. 2 *



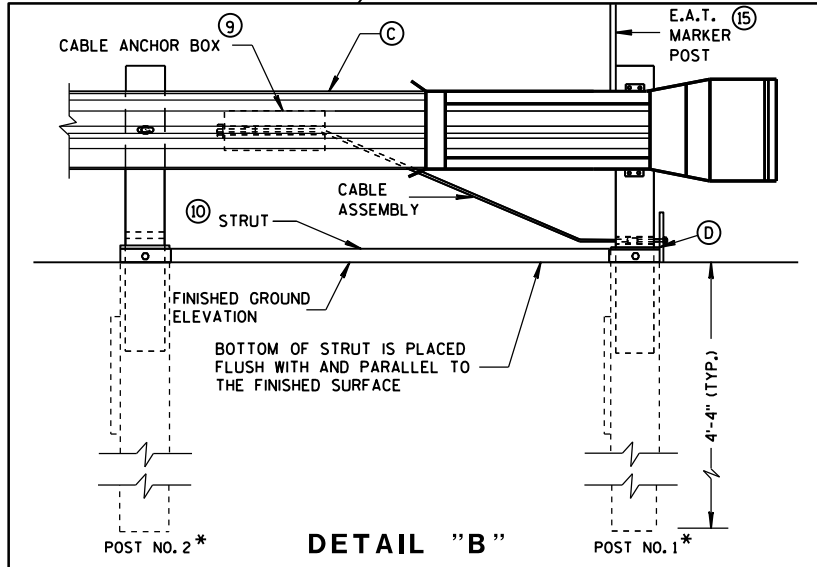
SECTION A-A
TYPICAL AT POST NO. 1 *



PLAN

ELEVATION

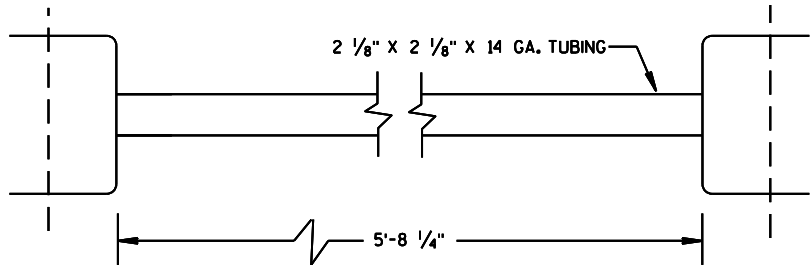
DETAIL "A"



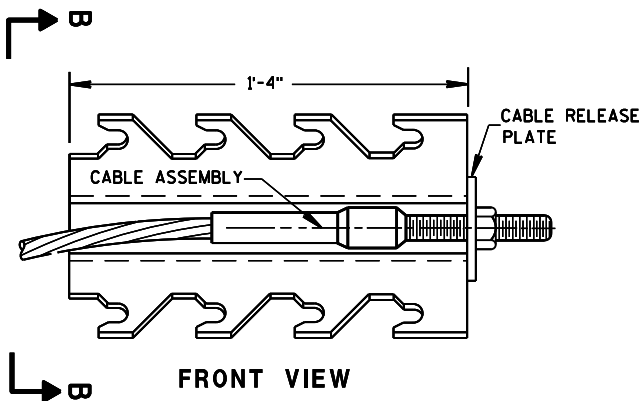
DETAIL "B"

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

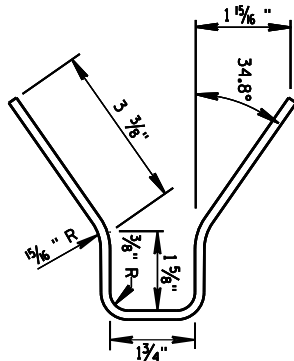
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



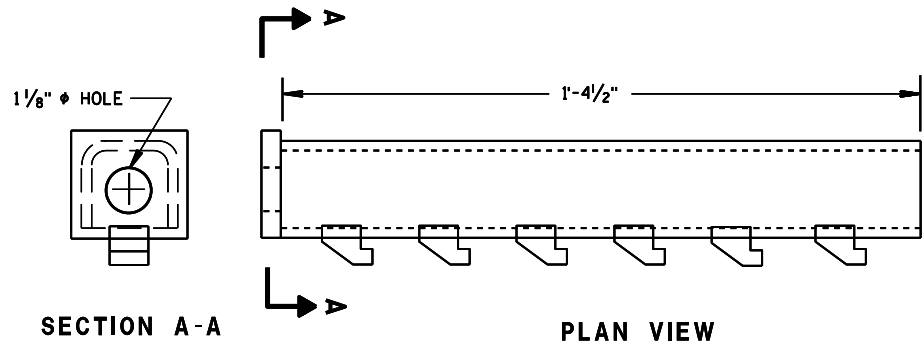
10 STRUT DETAIL (SKT-350)



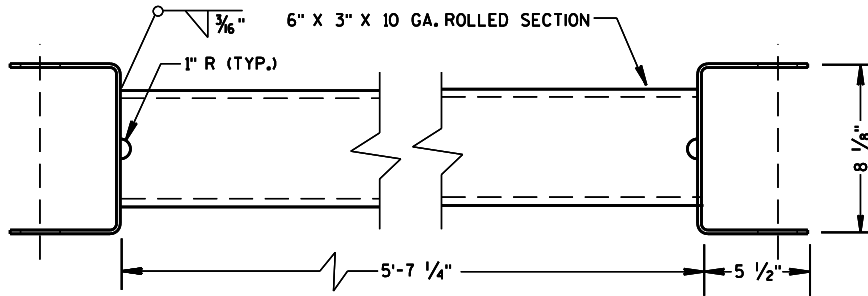
9 CABLE ANCHOR BOX (SKT-350)
(SKT-350)



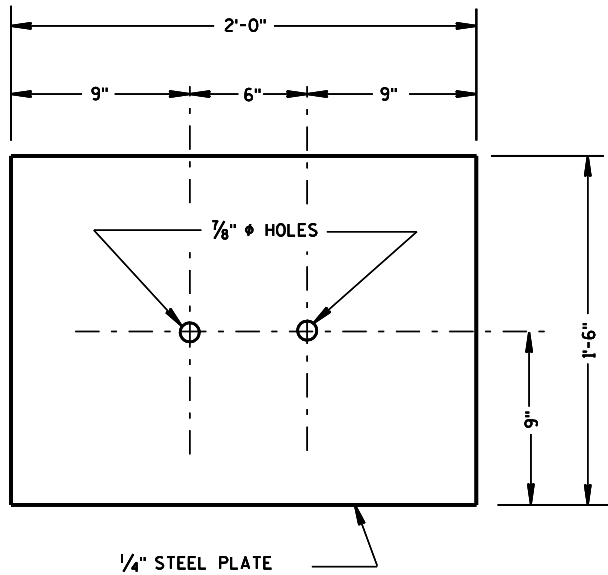
SECTION B-B



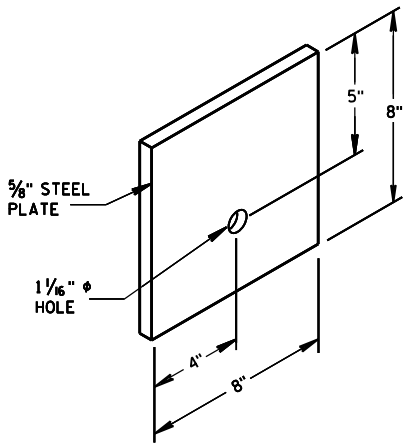
9 CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)



10 STRUT DETAIL (ET-2000/ET-2000 PLUS)
(ET-2000/ET-2000 PLUS)



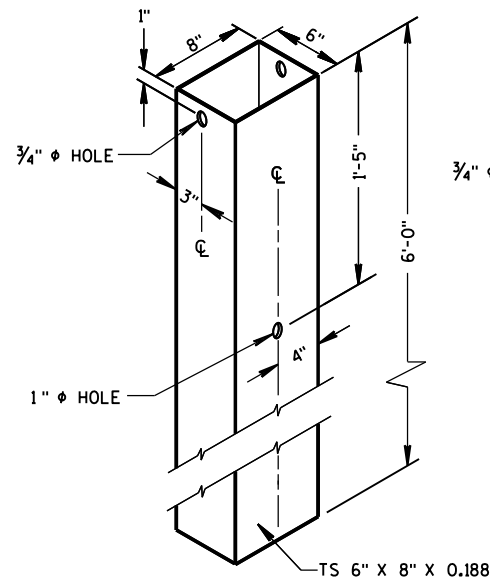
3 SOIL PLATE
(SKT-350, ET-2000/ET-2000 PLUS)



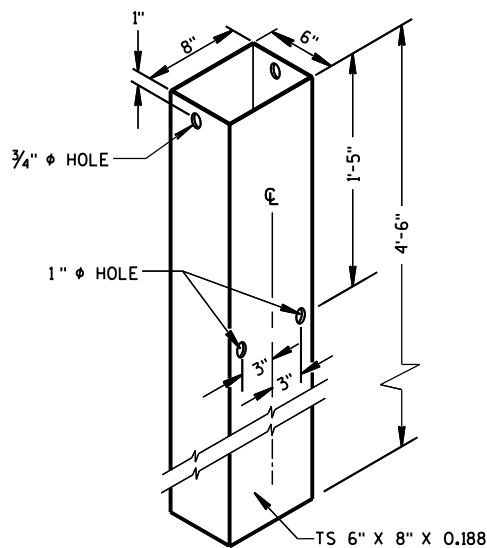
7 STEEL BEARING PLATE
(SKT-350, ET-2000/ET-2000 PLUS)

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

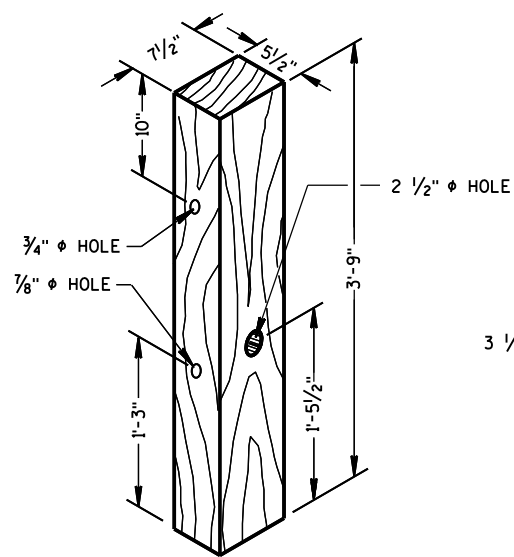
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



② **72" STEEL TUBE**
(POSTS NO. 1-4)

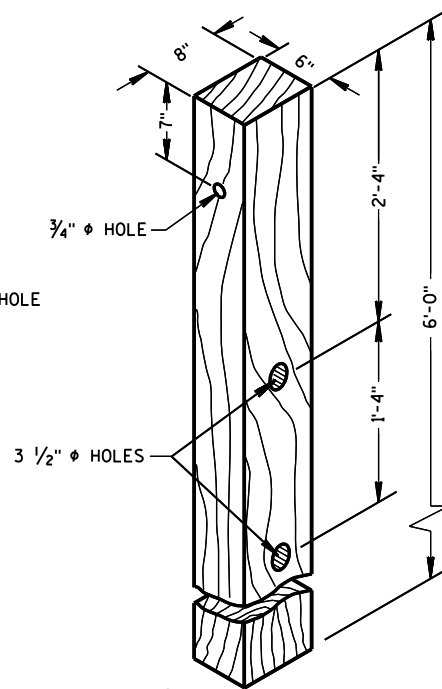


② **54" STEEL TUBE**
(POSTS NO. 1-4)



① **TERMINAL POST**
(POSTS NO. 1-4)

WOOD BREAKAWAY POSTS



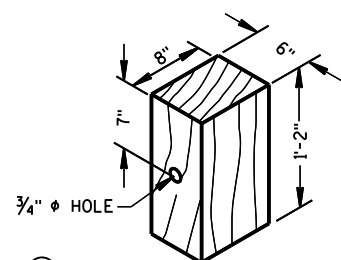
④ **CRT POST**
(POSTS NO'S 5-8)

GENERAL NOTES

WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

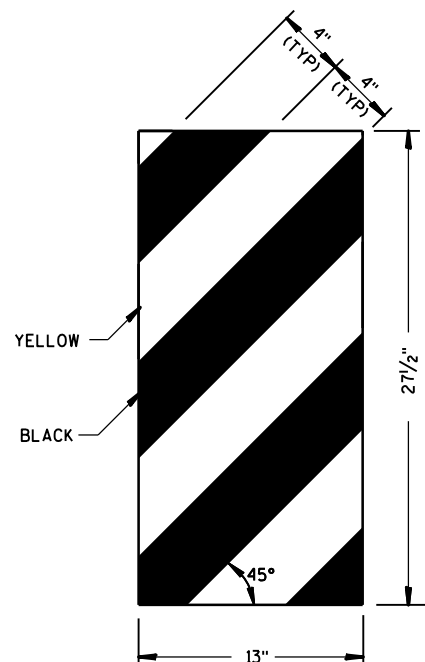
SEE APPROVED PRODUCTS LIST FOR ACCEPTABLE E. A. T. MARKER POST.

ⓐ 1/2" DIA. X 3" LAG BOLT WITH WASHER.

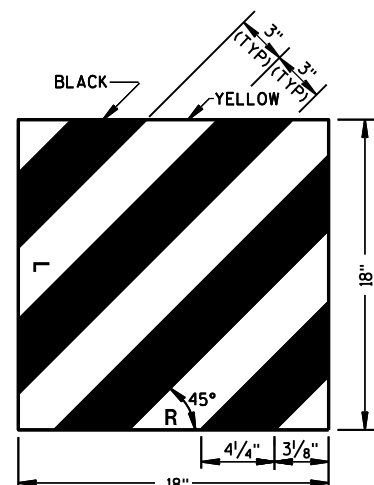


⑤ **WOOD OFFSET BLOCK**
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

TYPE H
YELLOW REFLECTIVE
SHEETING 3" X 9"
SEE STANDARD
SPECIFICATION 637

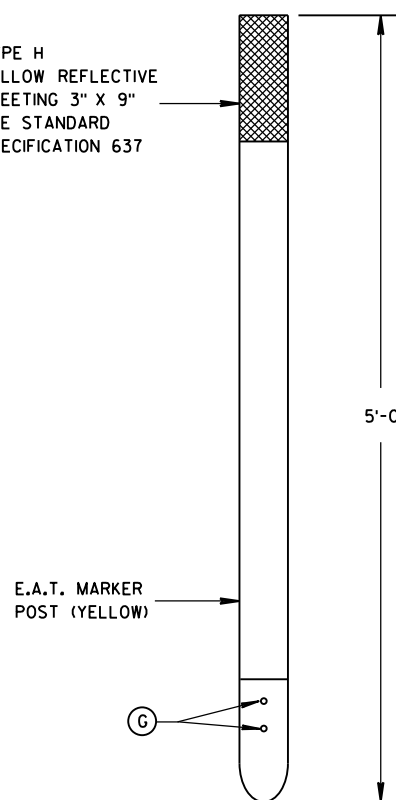


ET-2000 PLUS ONLY

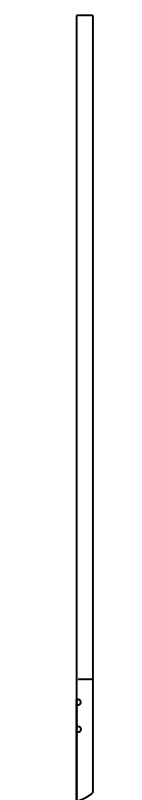


ET-2000 AND SKT-350

⑭ **REFLECTIVE SHEETING DETAILS**

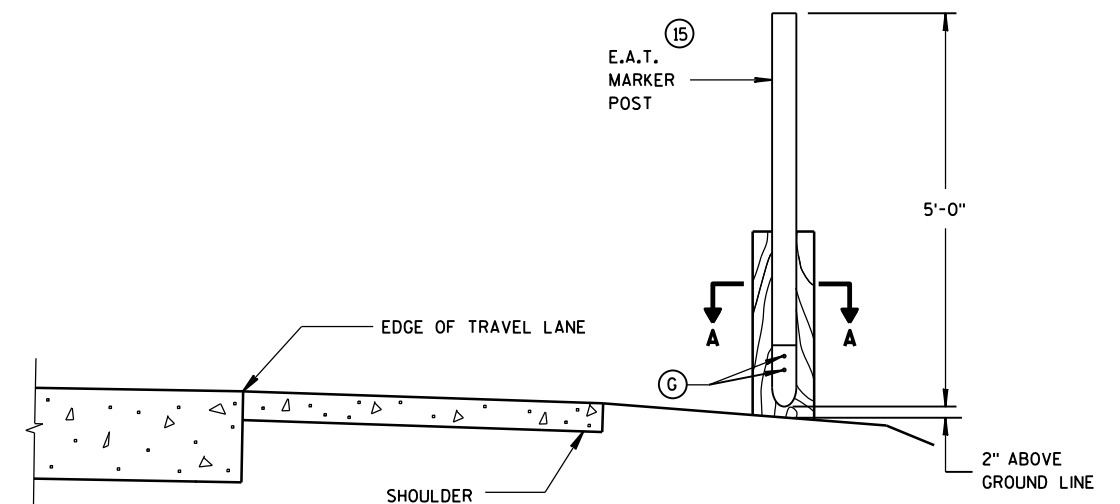


FRONT VIEW

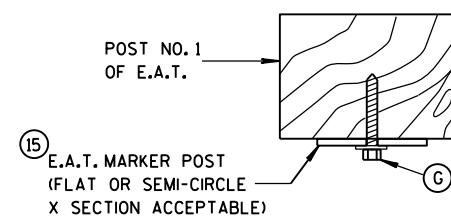


SIDE VIEW

⑮ **E.A.T. MARKER POST**



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



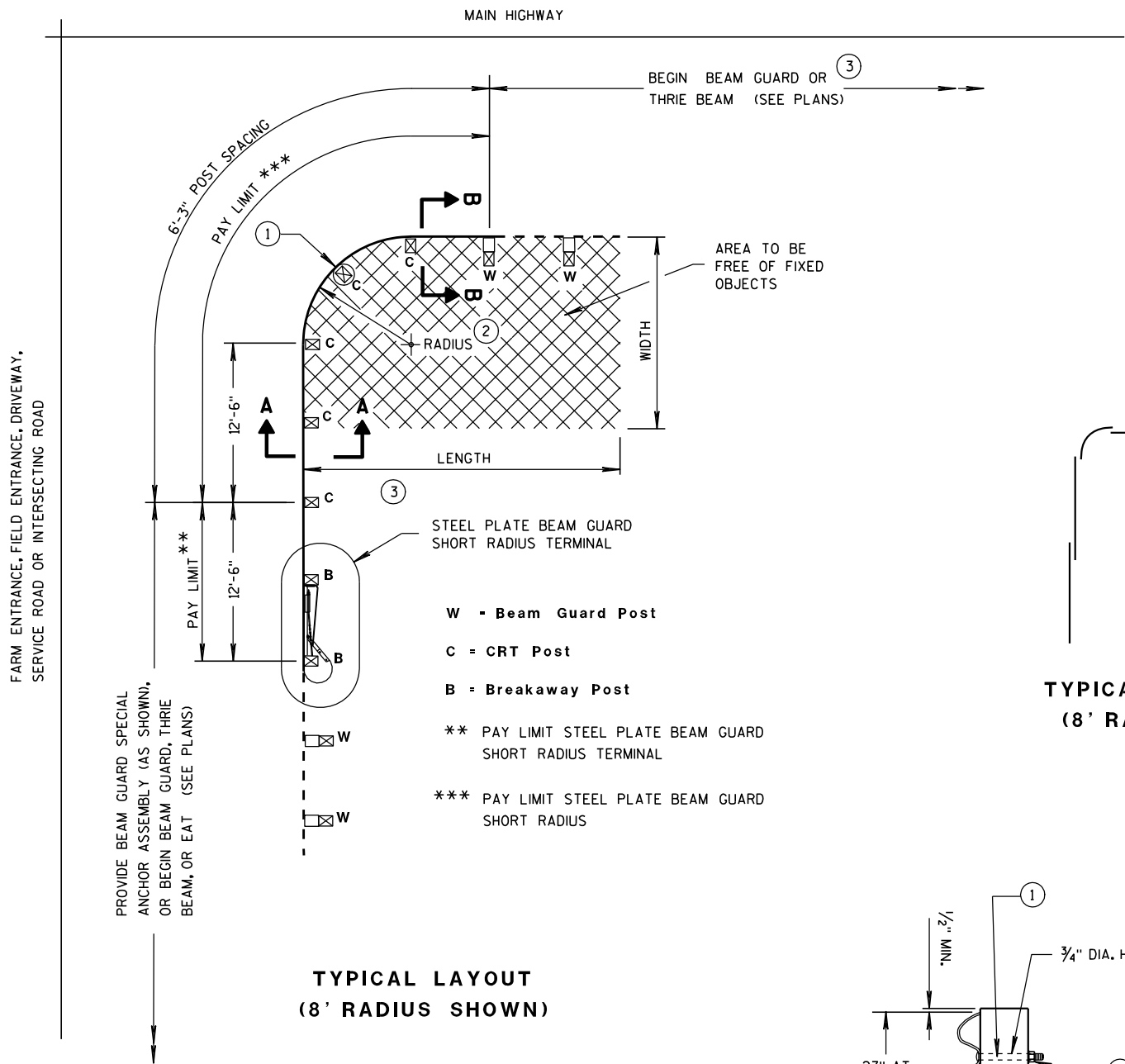
SECTION A-A

**STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL**

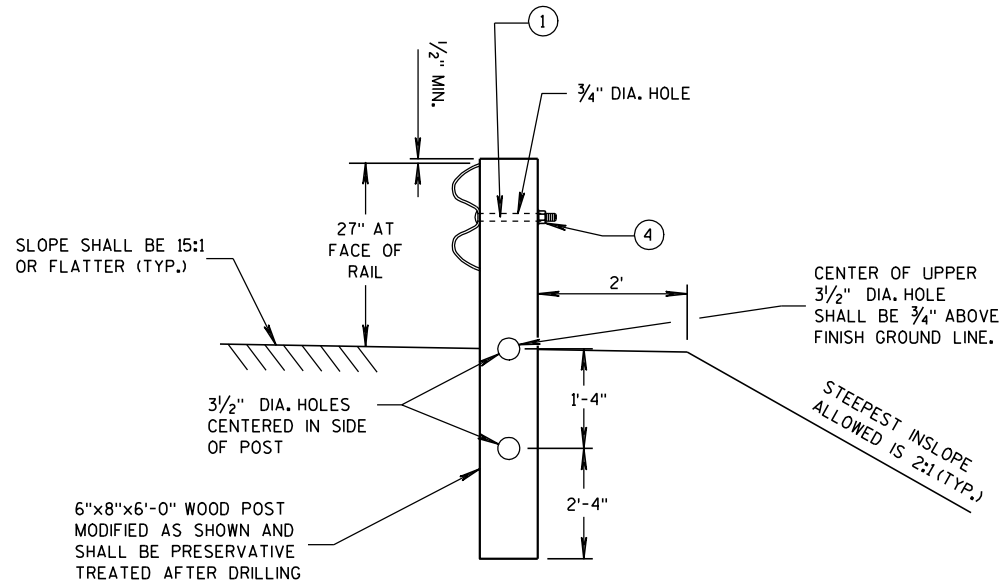
**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

APPROVED
June 2014
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



TYPICAL LAYOUT
(8' RADIUS SHOWN)



SECTION A-A
(CRT POST)

TYPICAL LAP SPLICES
(8' RADIUS SHOWN)

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2, UNLESS NOTED OTHERWISE.

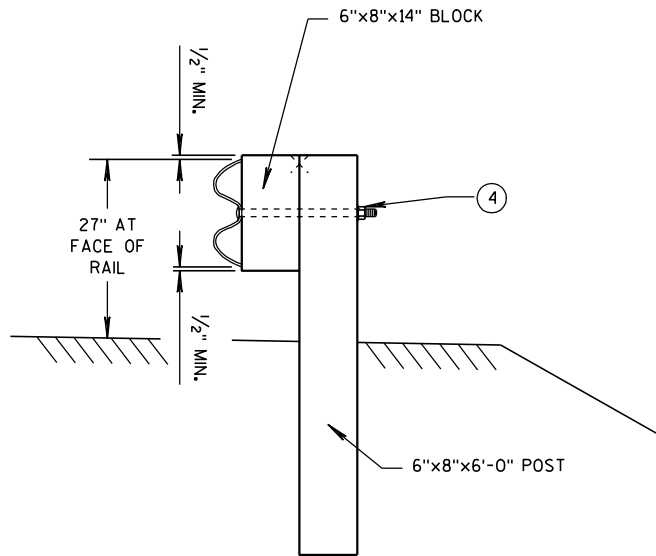
SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

- ① ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.
- ② RADIUS FROM 8' - 36'. SEE PLAN.
- ③ HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.
- ④ 5/8" Ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

RADIUS	NUMBER OF CRT POSTS	*NUMBER AND LENGTH OF CURVED RAILS	REQUIRED AREA FREE OF FIXED OBJECTS (LENGTH x WIDTH)
8'	5	1 at 12.5'	25' x 15'
16'	7	1 at 25'	30' x 15'
24'	9	1 at 25' and 1 at 12.5'	40' x 20'
32'	11	2 at 25'	50' x 20'

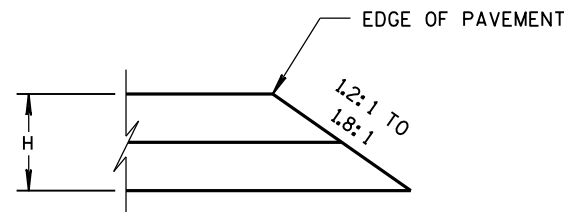
* THE NUMBER OF RAILS IS BASED ON A 90° INTERSECTION. SEE PLAN FOR NON 90° INSTALLATIONS.



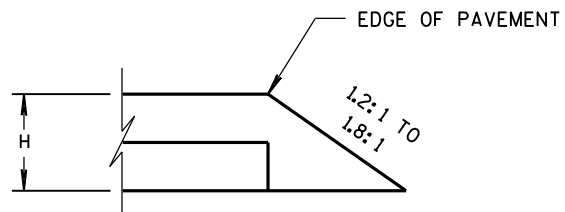
SECTION B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL

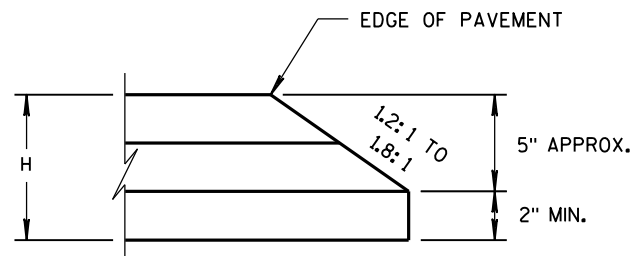
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



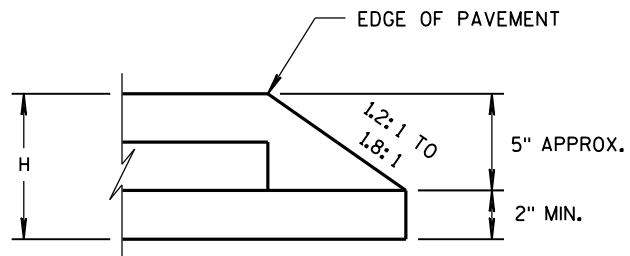
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

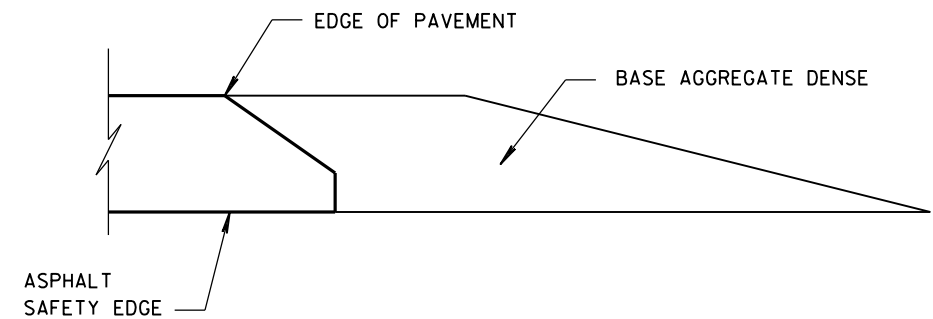


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



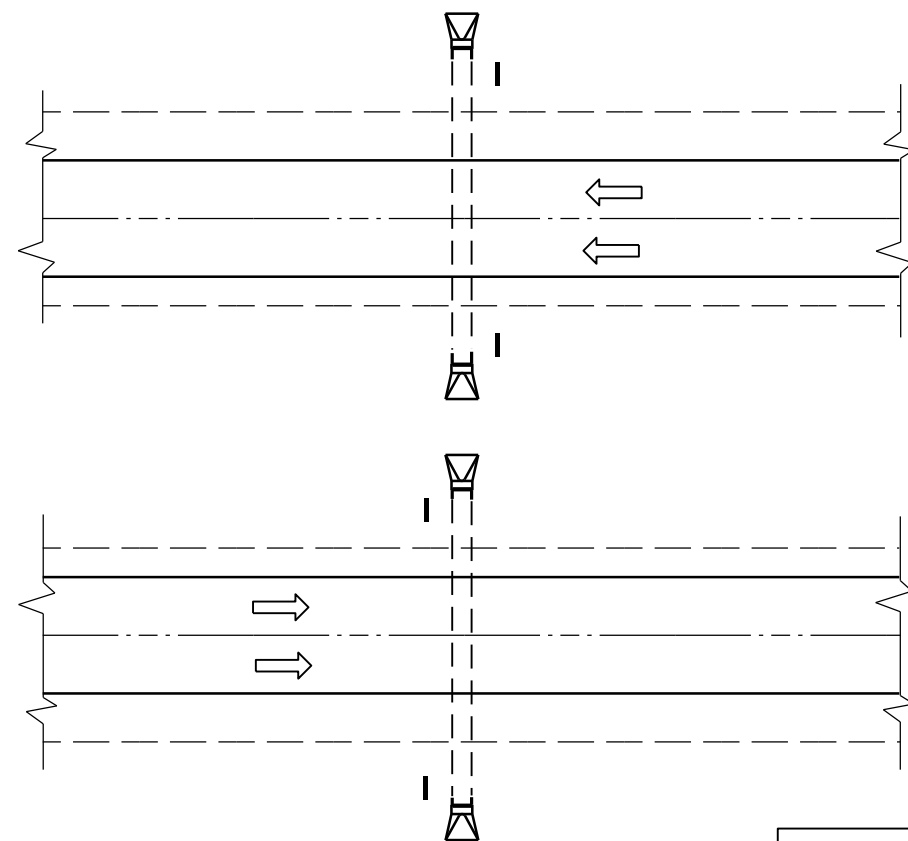
FINISHED SHOULDER AGGREGATE PLACEMENT

SAFETY EDGE_{SM}

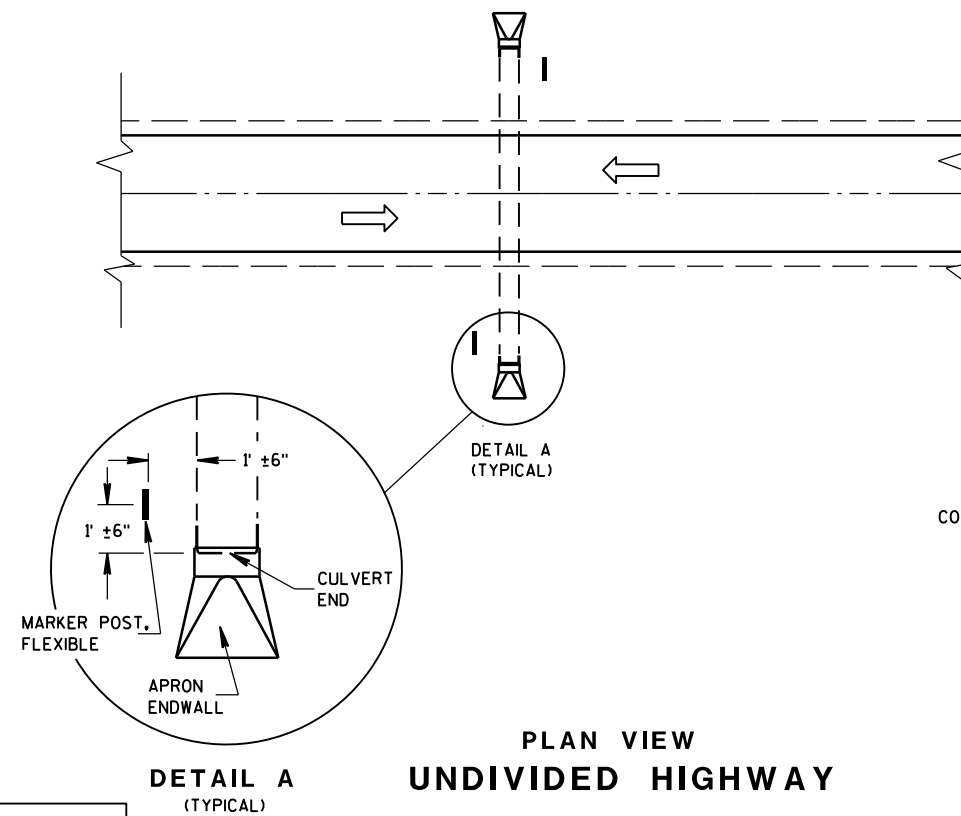
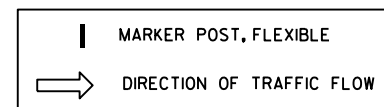
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/2012
DATE
FHWA

/s/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



PLAN VIEW
DIVIDED HIGHWAY

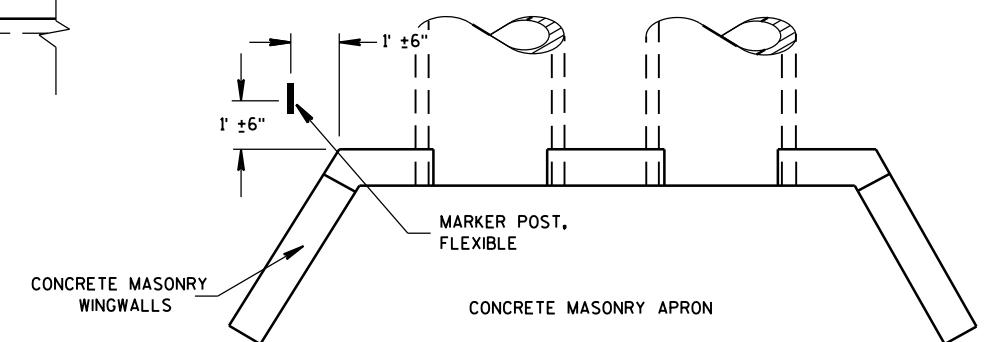


PLAN VIEW
UNDIVIDED HIGHWAY

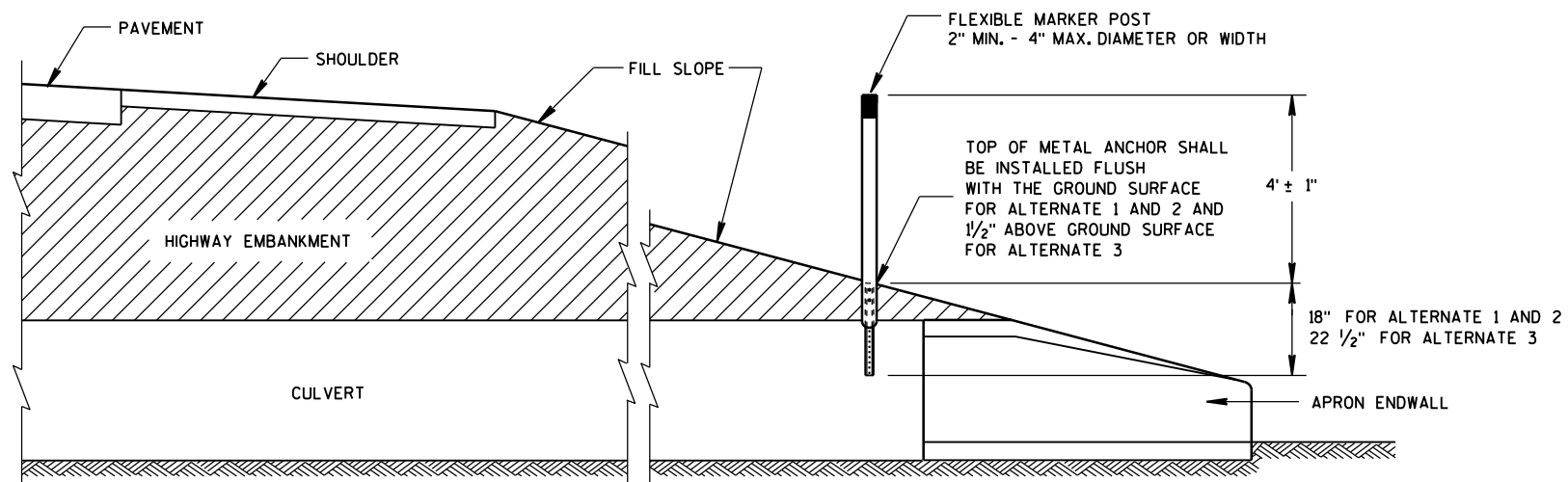
FLEXIBLE MARKER POST LOCATION

GENERAL NOTES

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



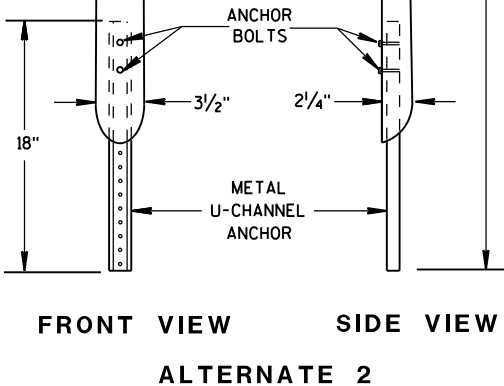
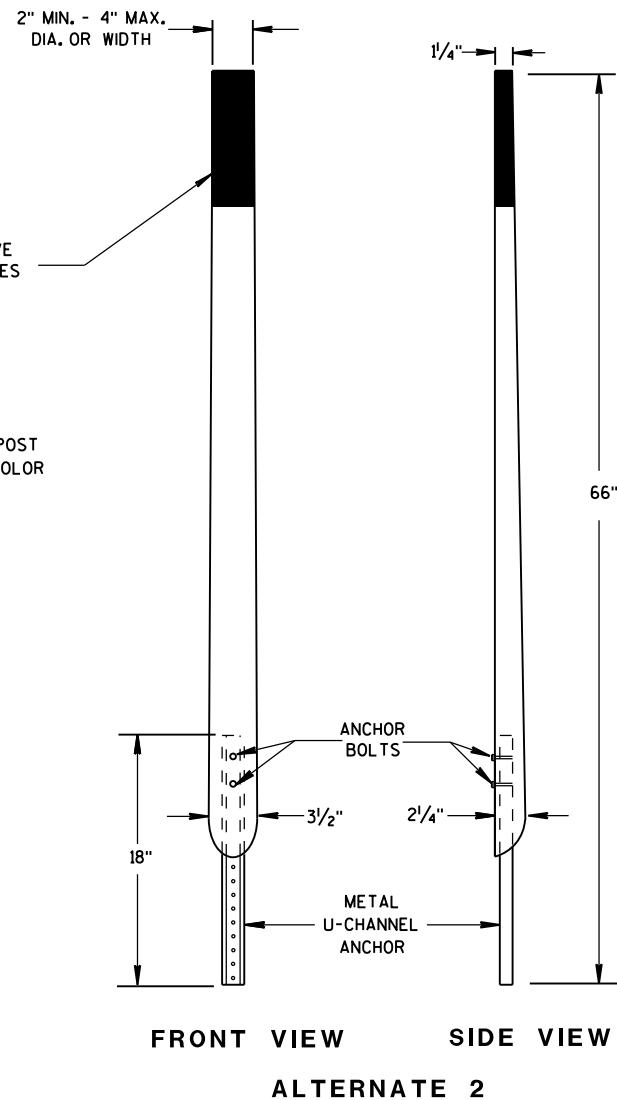
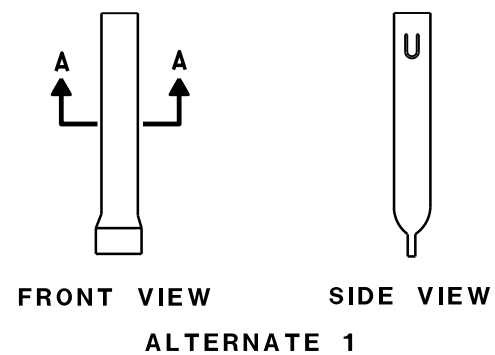
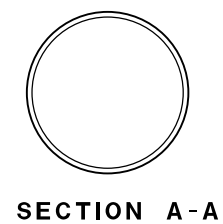
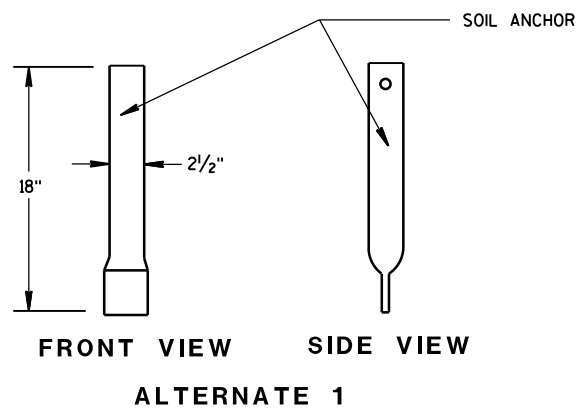
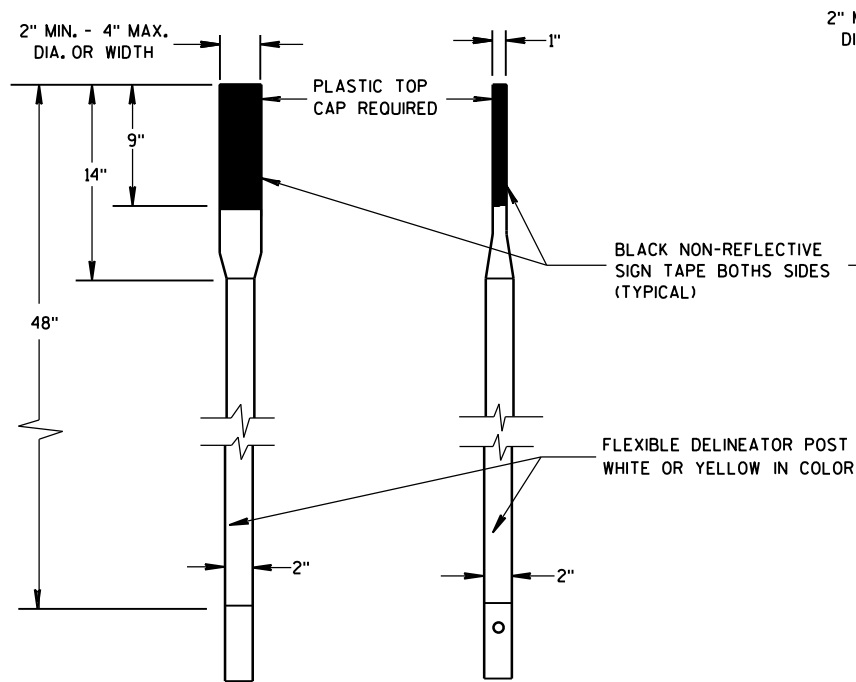
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



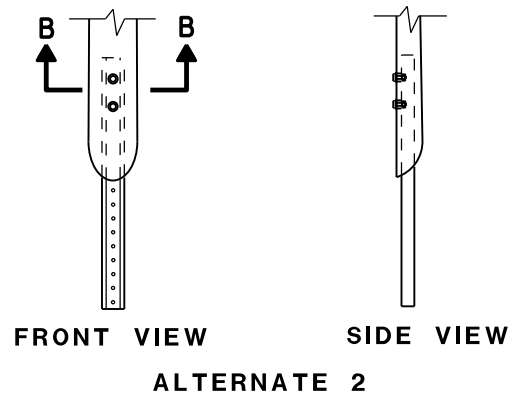
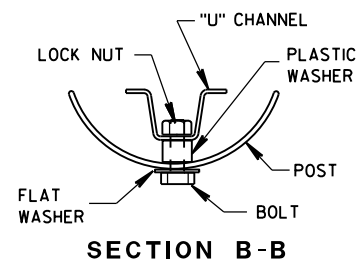
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

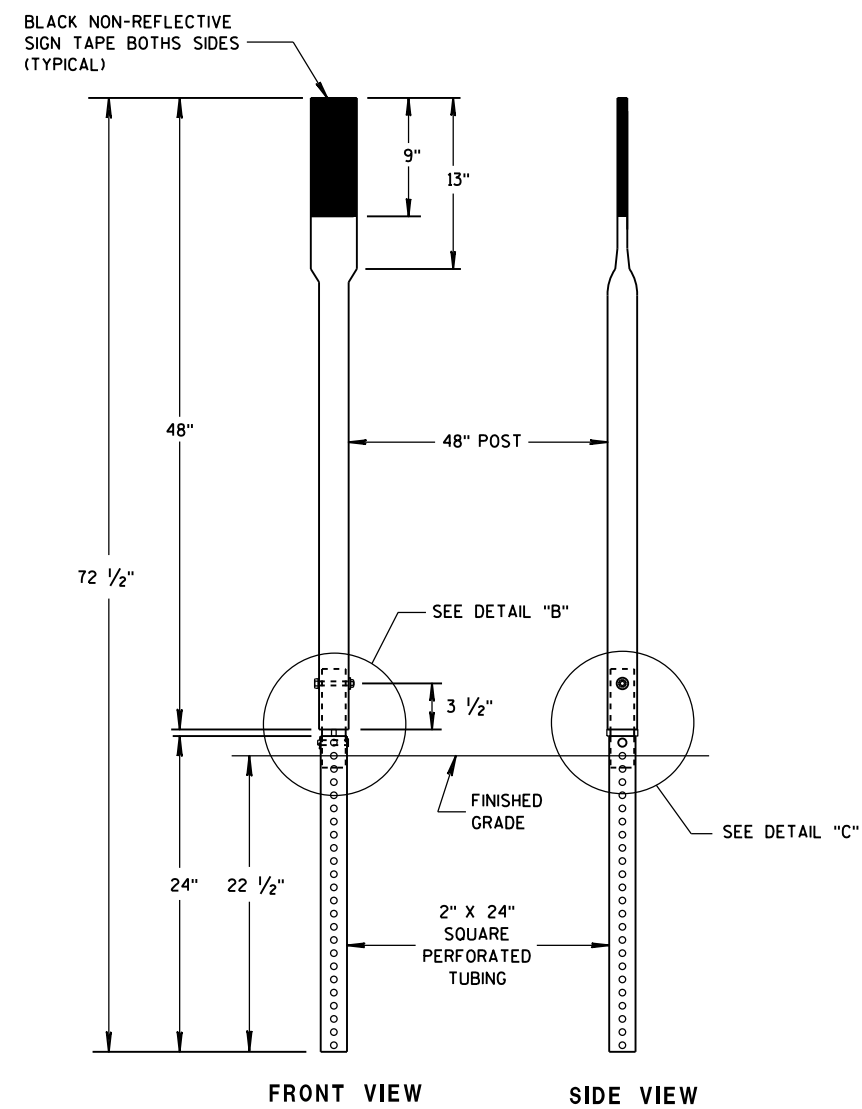
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



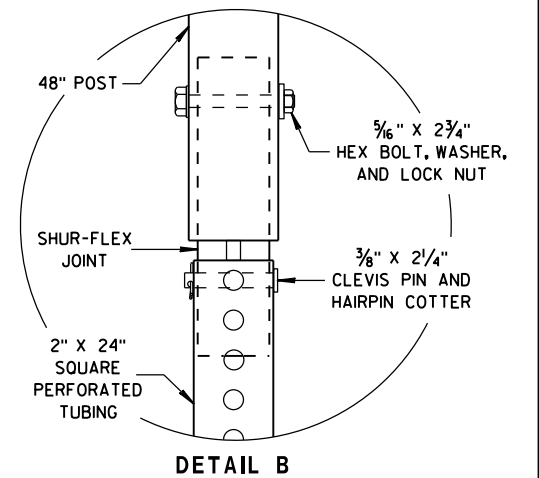
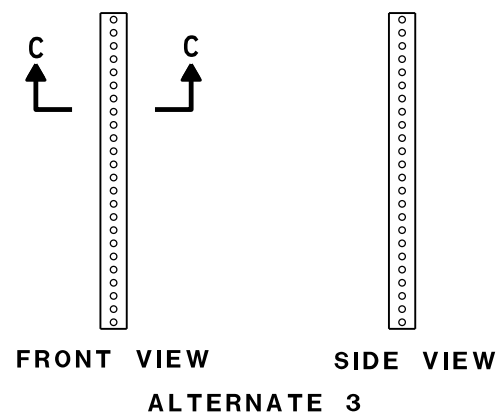
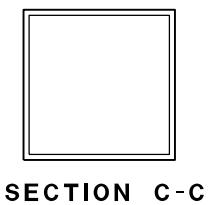
FLEXIBLE MARKER POSTS



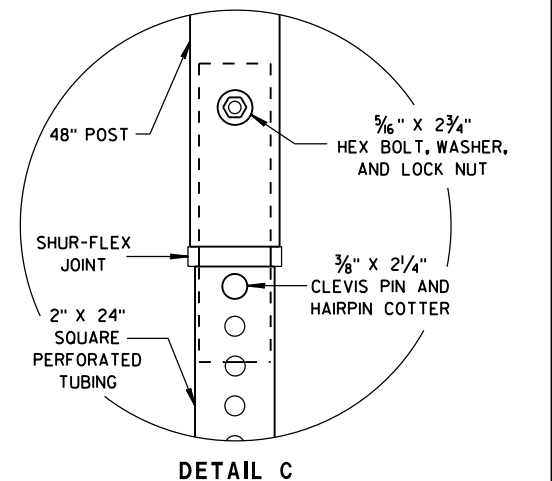
FLEXIBLE MARKER POST ANCHORS



FRONT VIEW SIDE VIEW
ALTERNATE 3



DETAIL B



DETAIL C

FLEXIBLE MARKER POST FOR CULVERT END

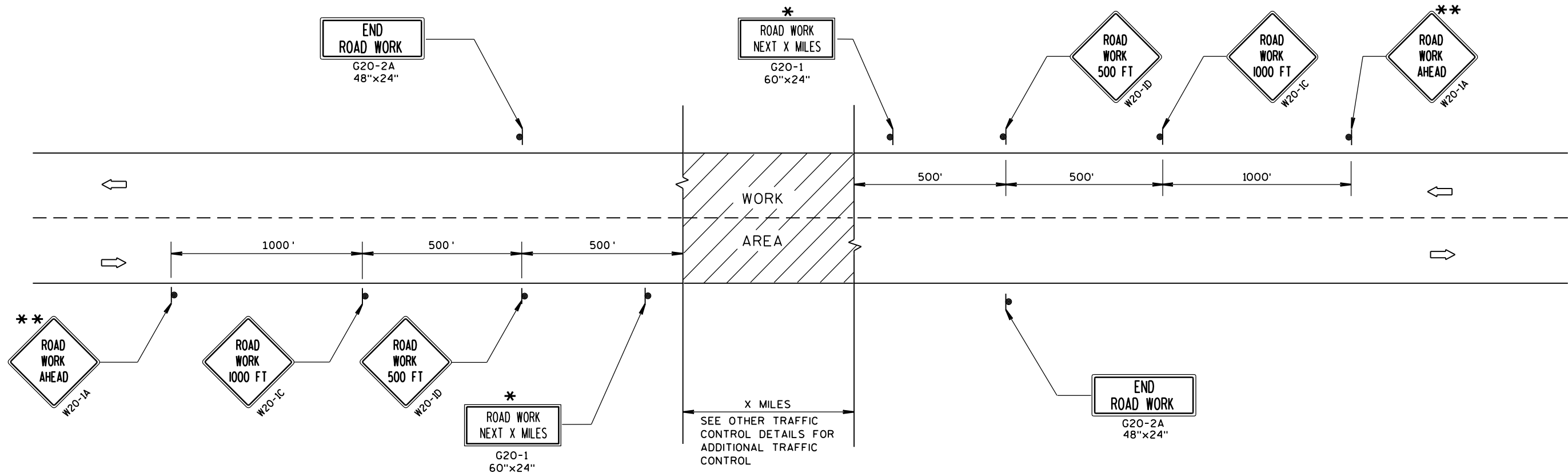
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/1/2012
DATE

FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN



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.

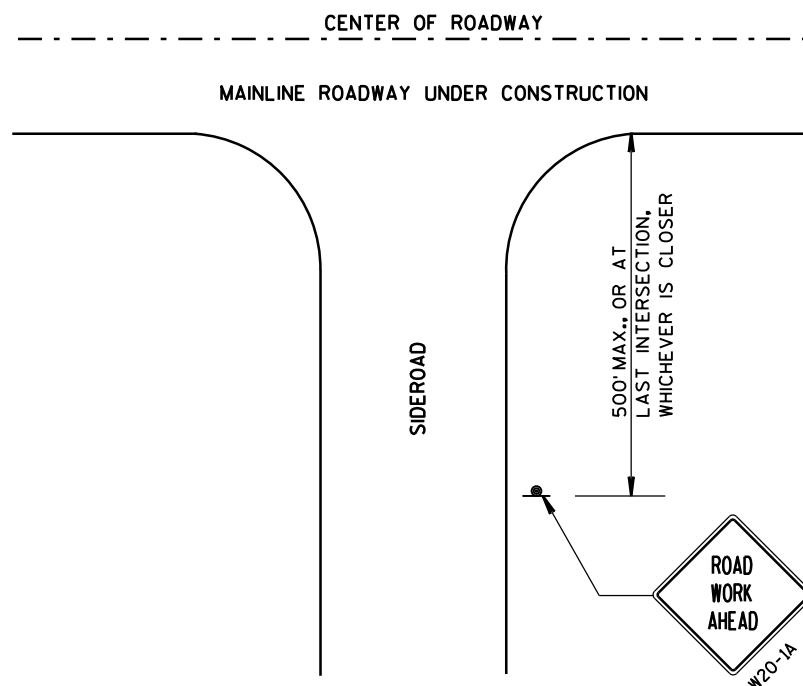
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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



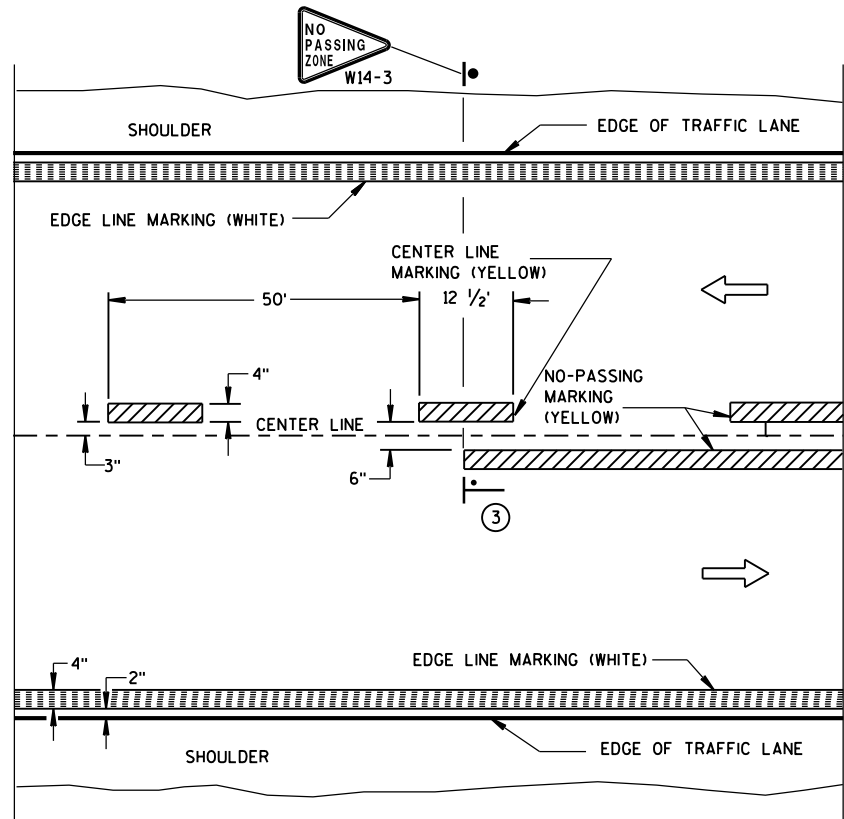
LEGEND

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

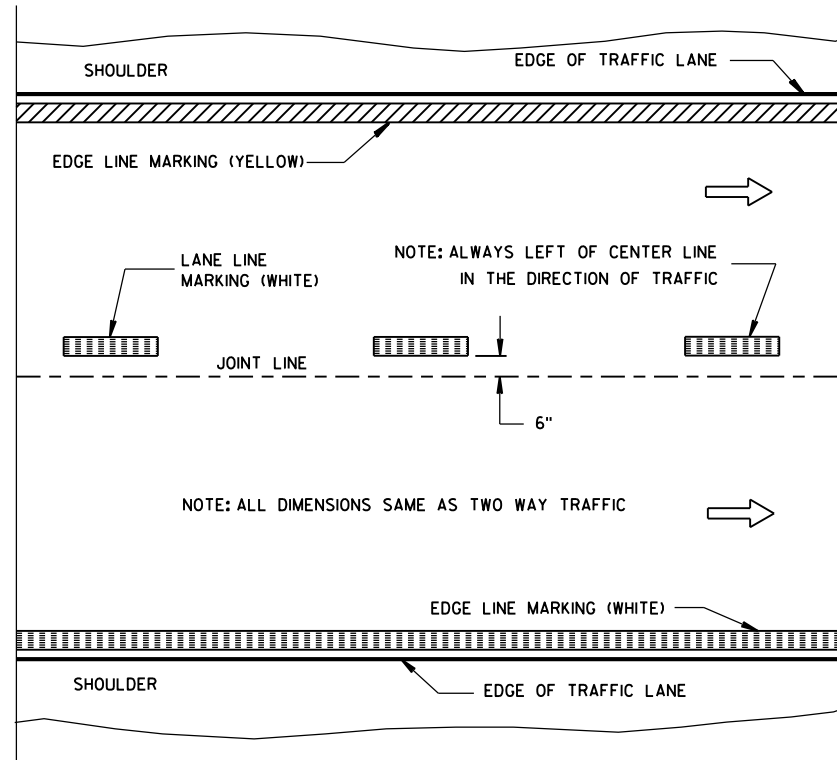
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 45 M.P.H.
OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED	/S/ Peter Amokobe Atepe
DATE	STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	

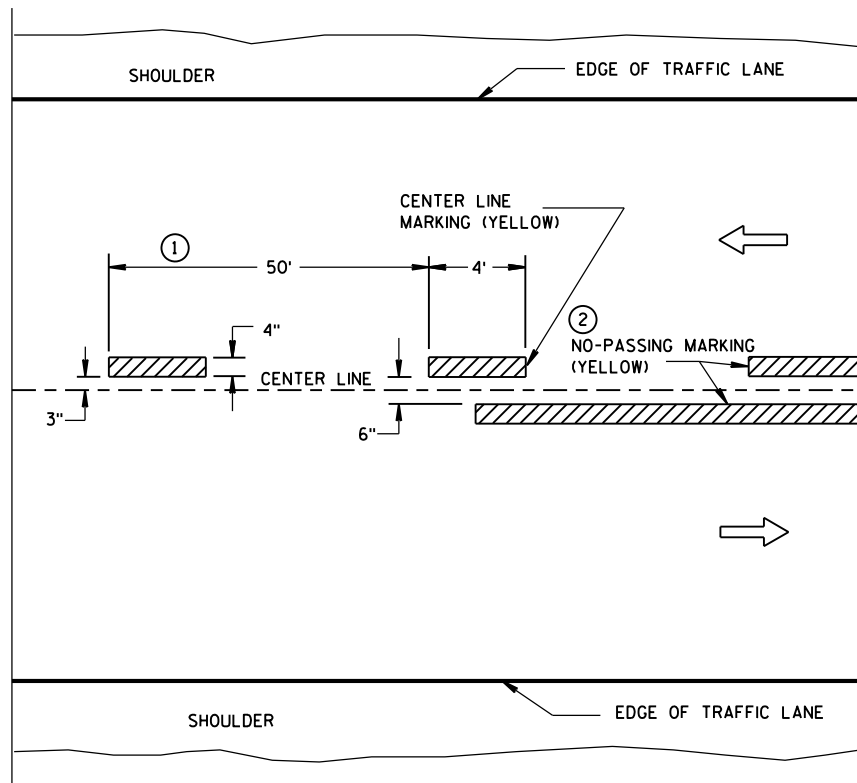


TWO WAY TRAFFIC

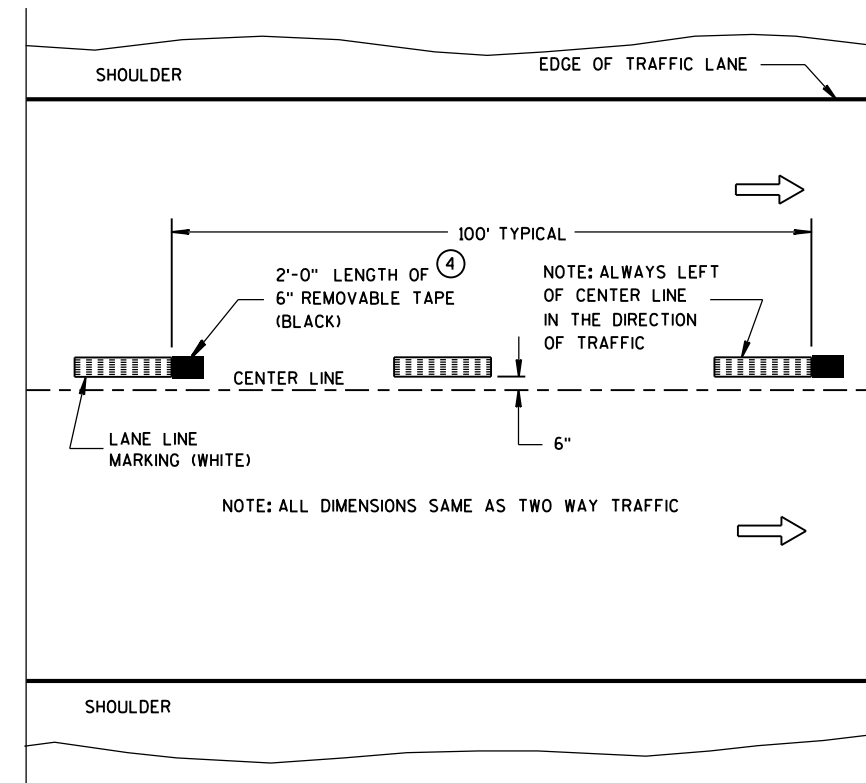


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

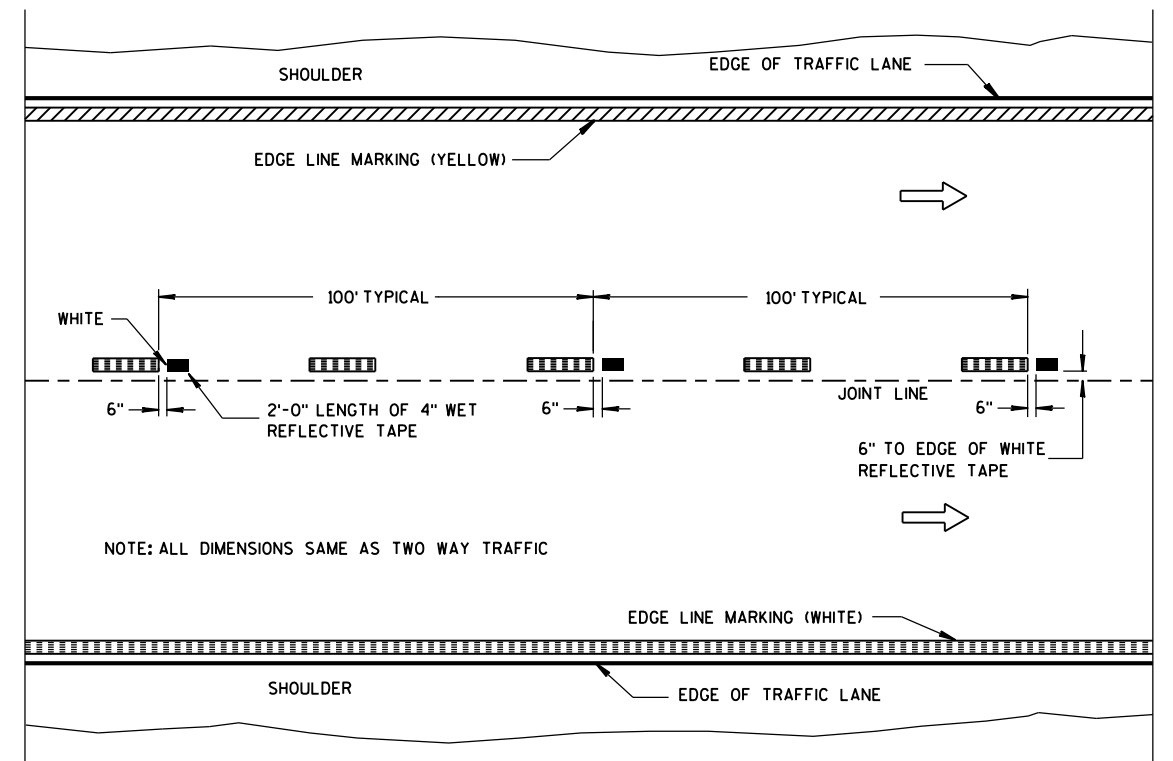
GENERAL NOTES

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

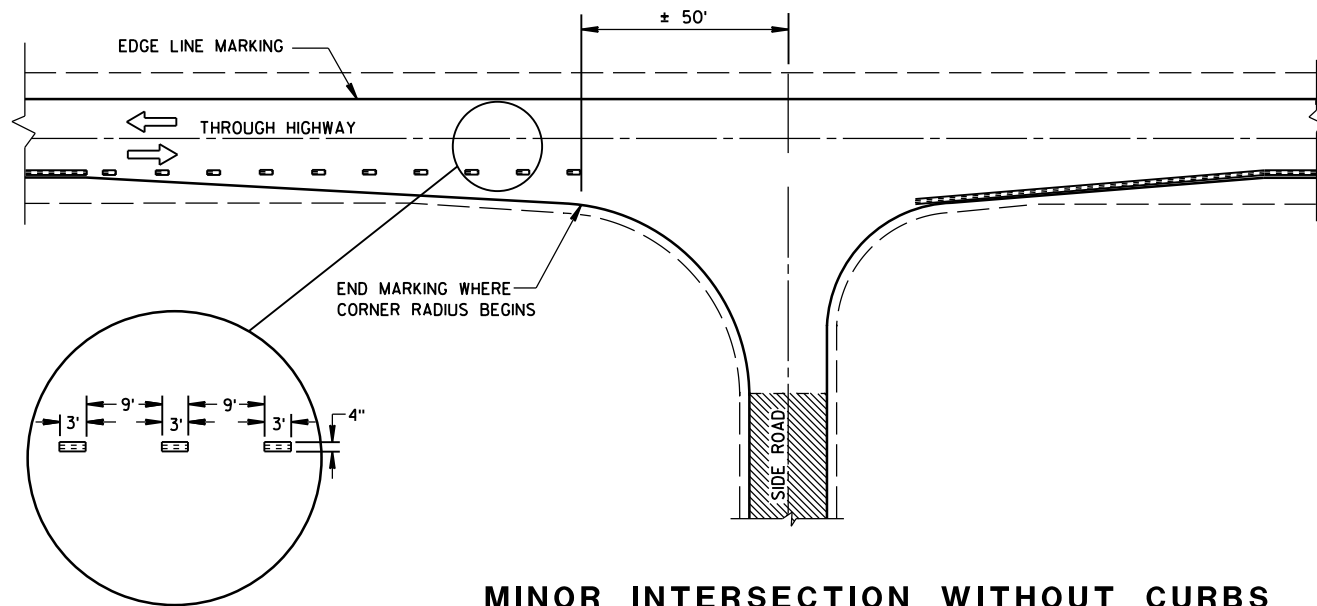
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

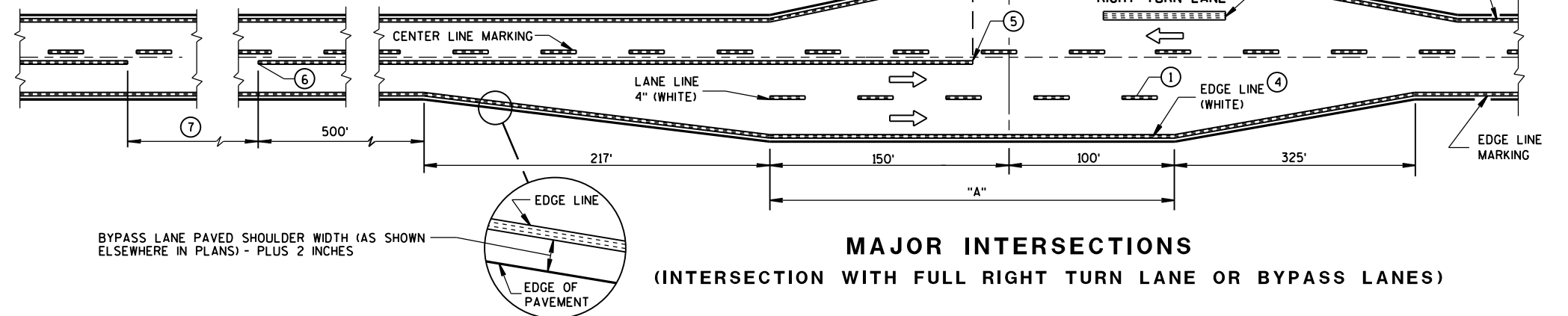
APPROVED
5-13-2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER
FHWA



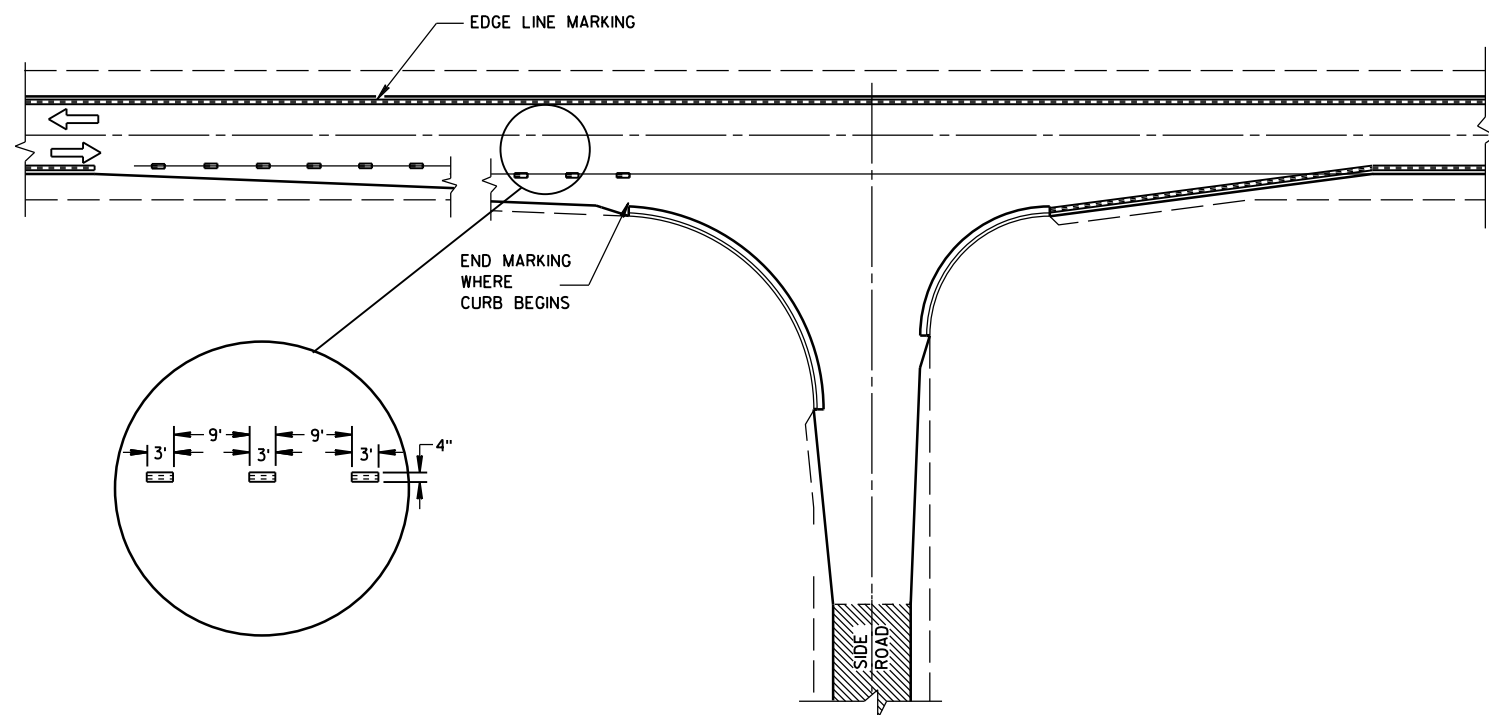
MINOR INTERSECTION WITHOUT CURBS

⑦

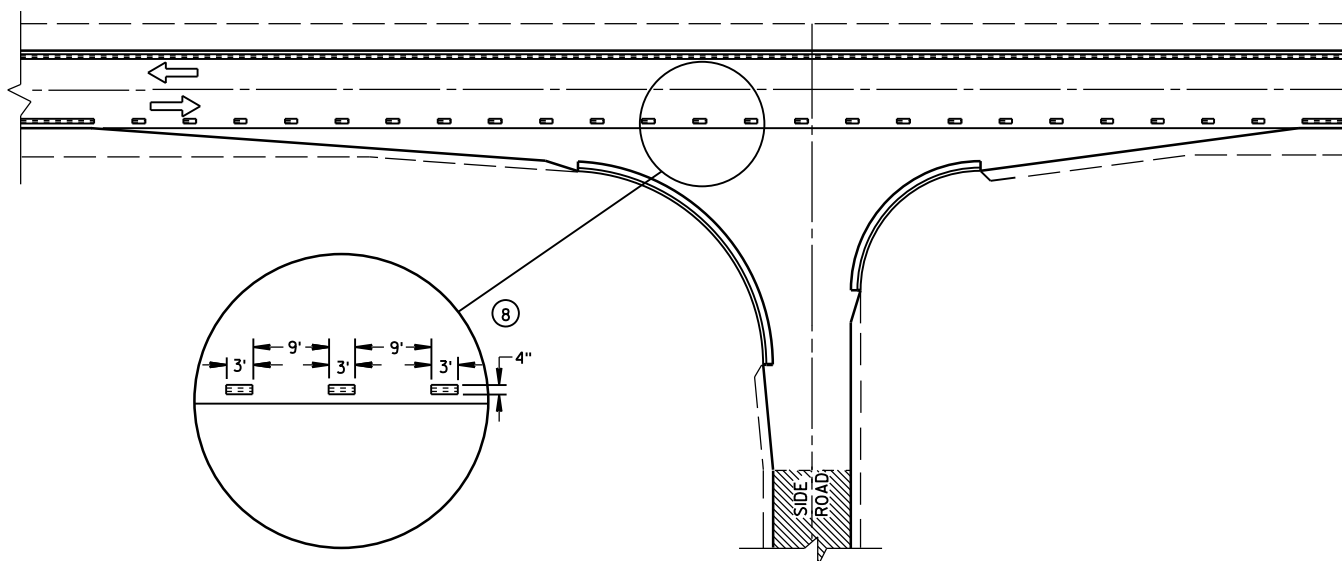
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



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



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



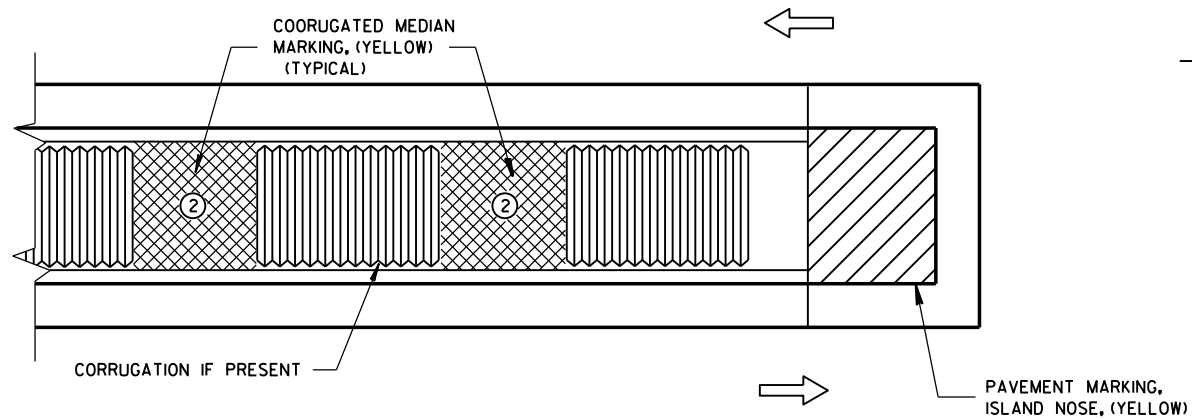
MINOR INTERSECTION WITH CURBS
③ (FOR SPECIAL CONDITIONS AS SPECIFIED)

GENERAL NOTES

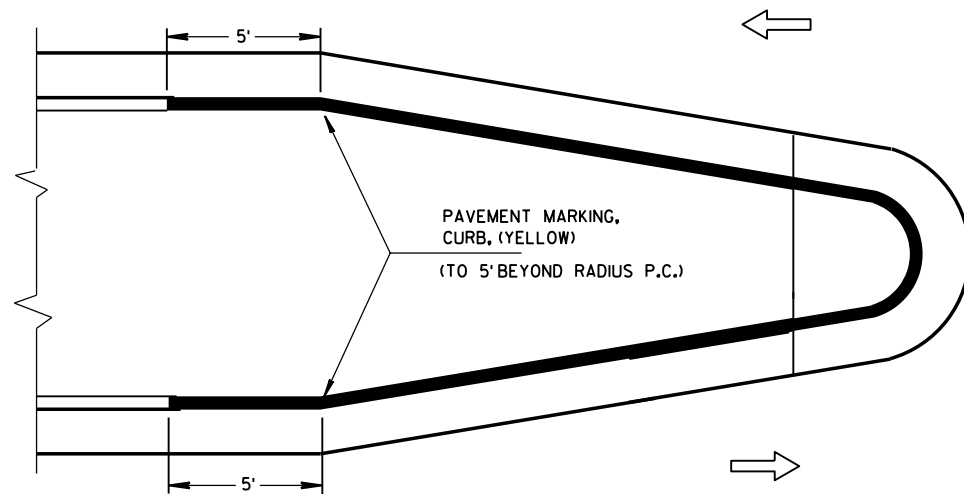
- EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
 - ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
 - ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE 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)

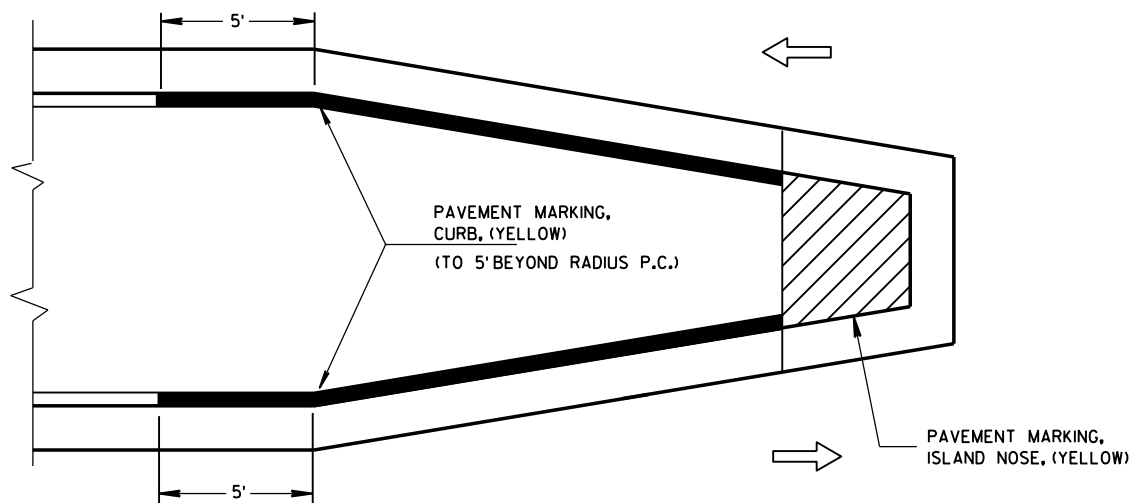
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

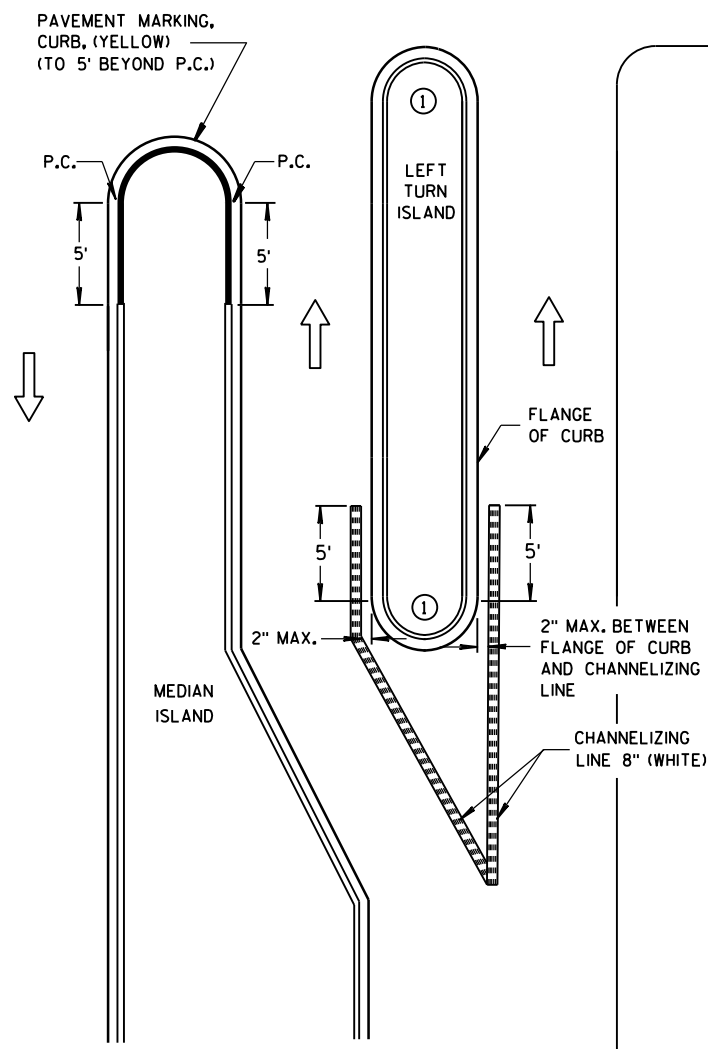


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

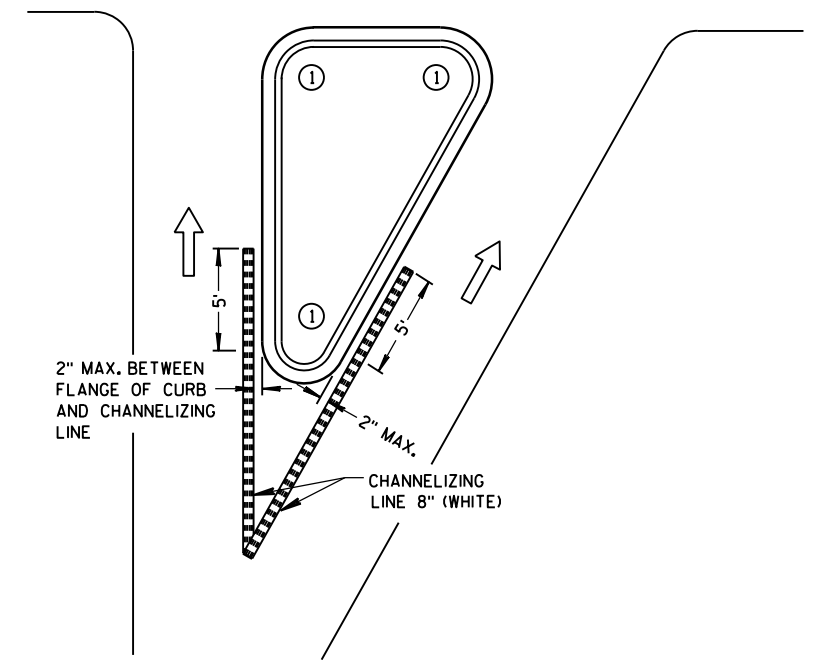
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

- 1 DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
- 2 WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN, THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING (ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

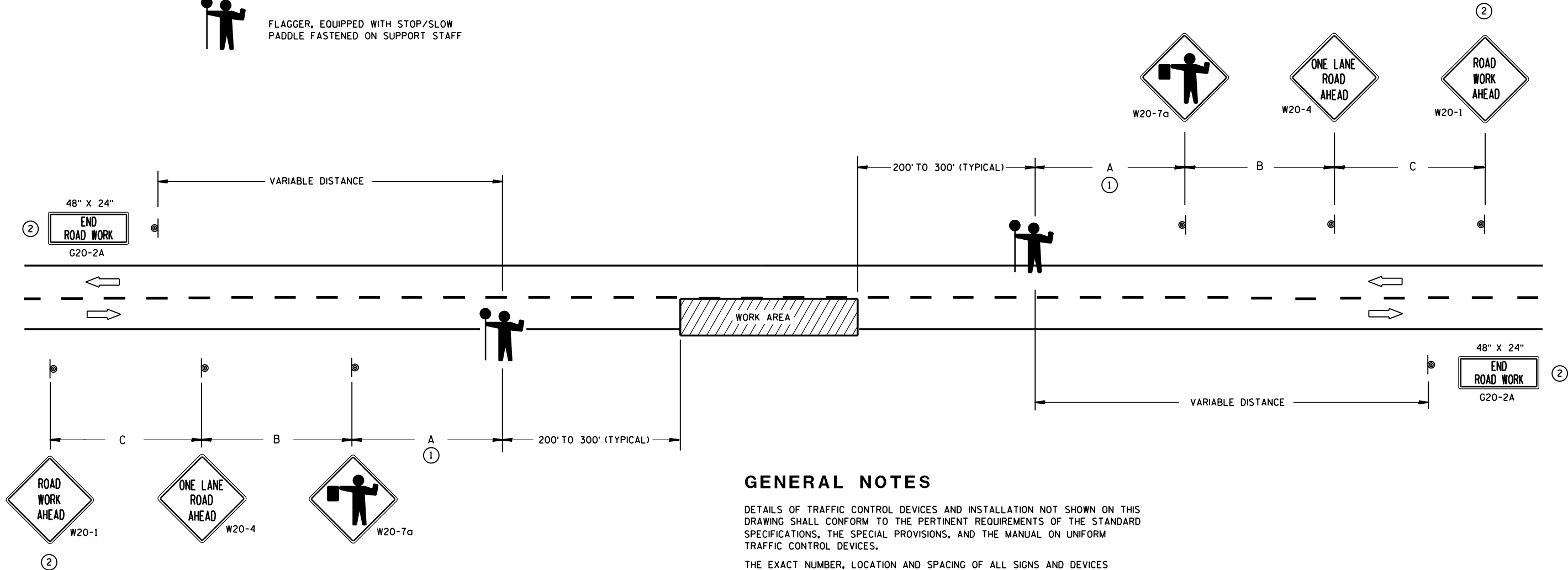
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

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.

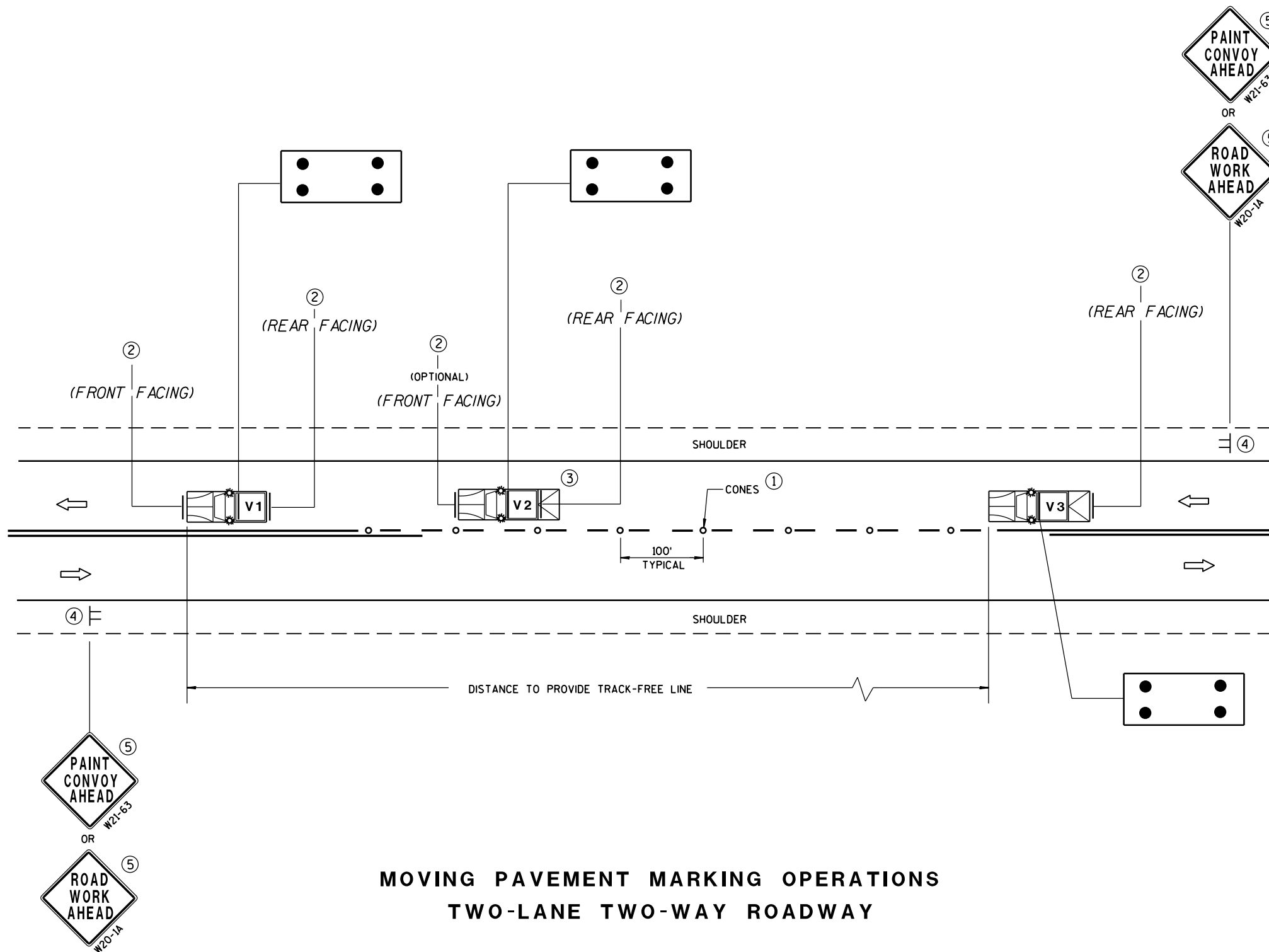
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

- 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.



OR



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

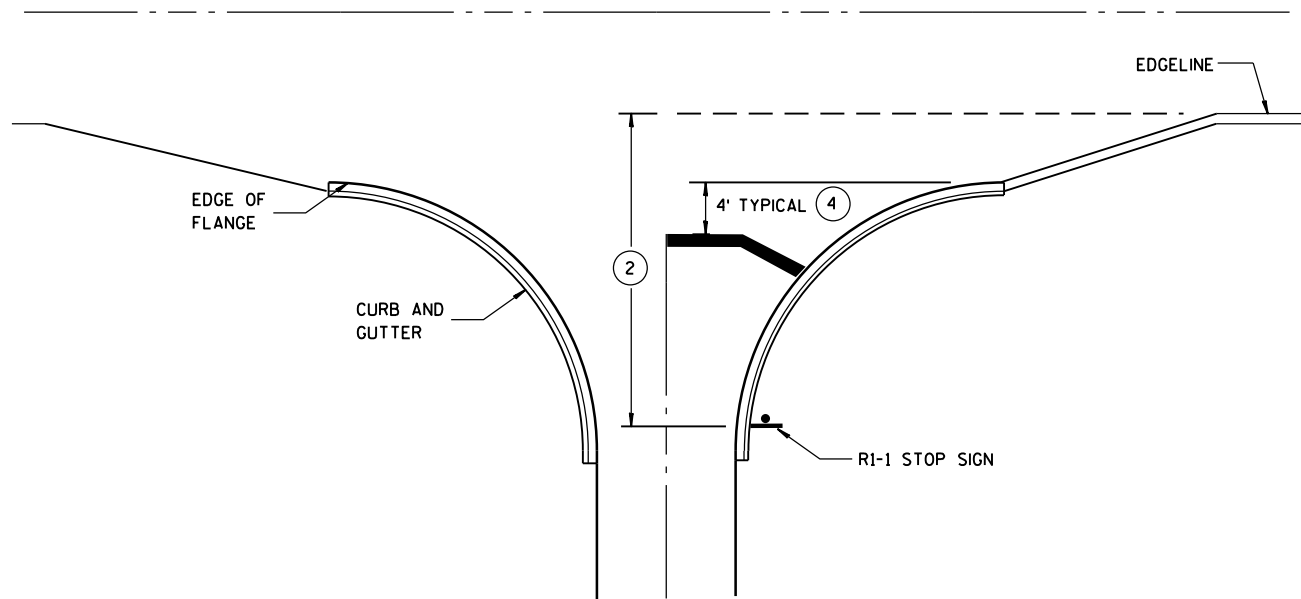
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

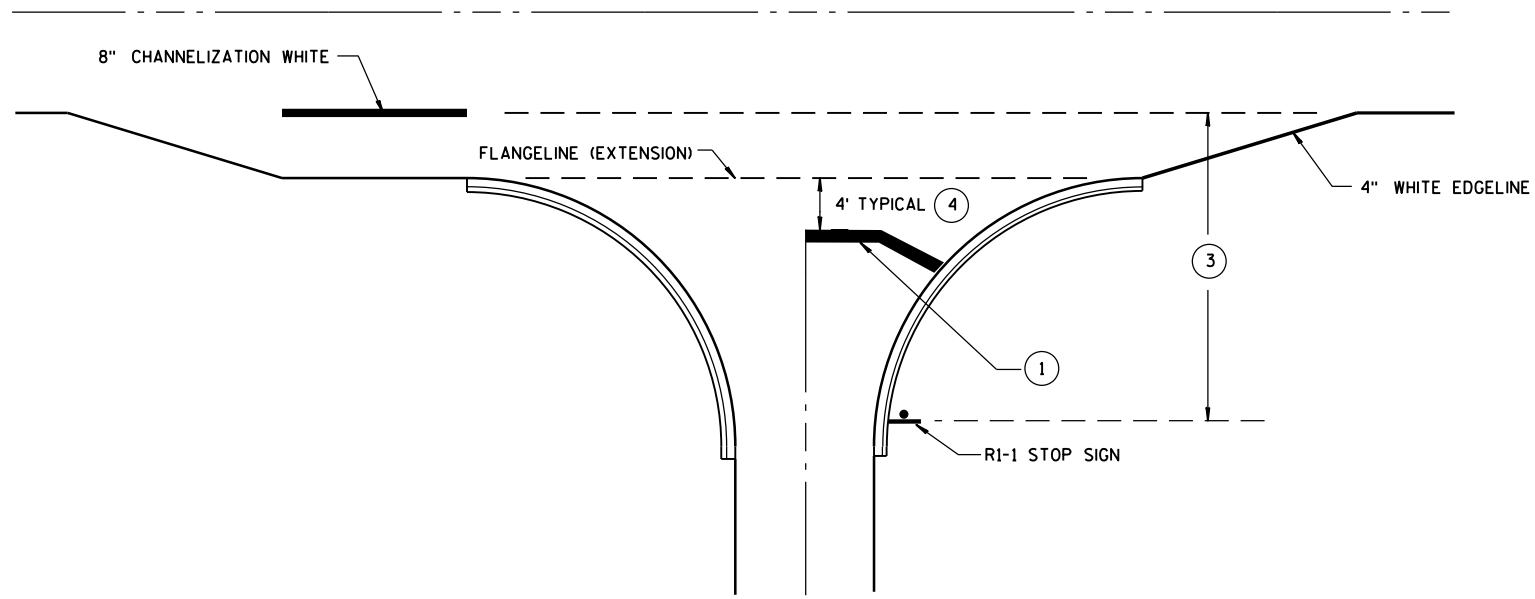
DATE

FHWA

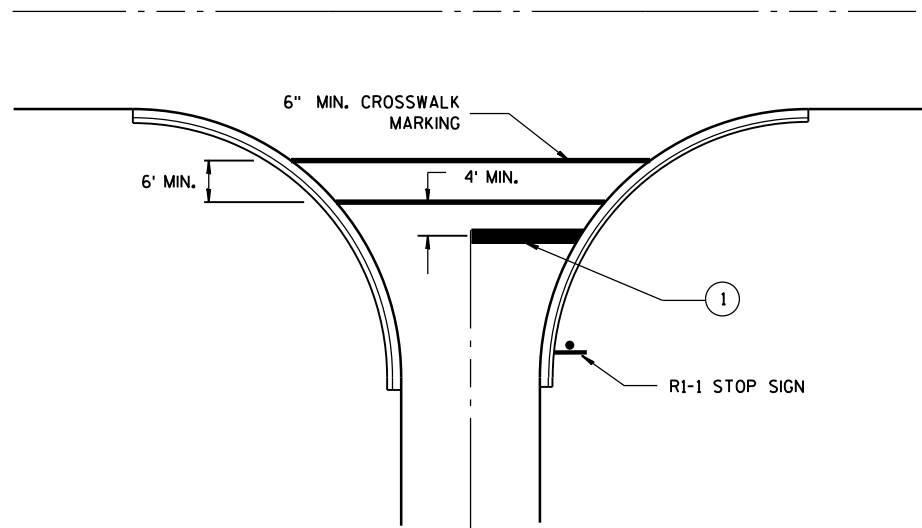
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER



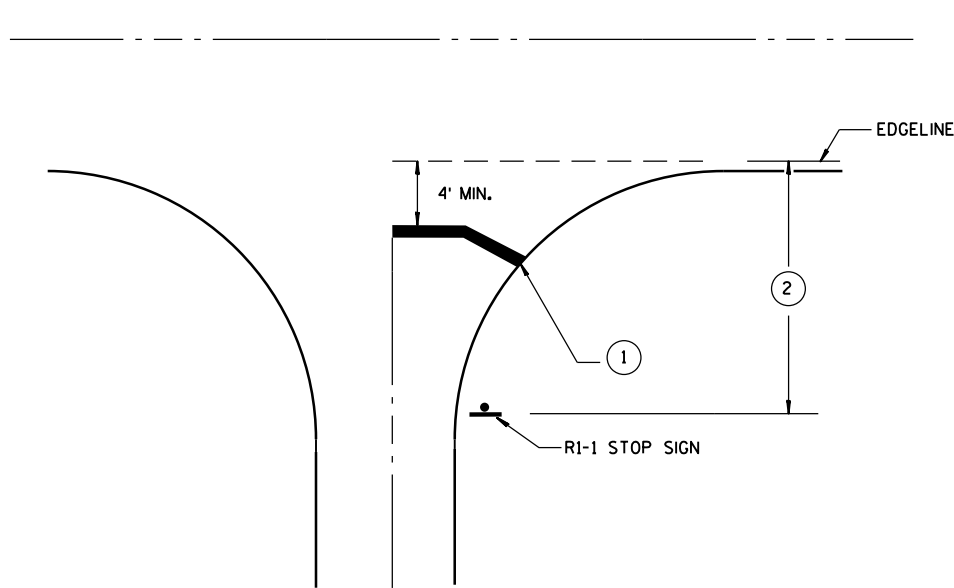
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE THAN NO STOP LINE IS REQUIRED.
- ③ IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
- ④ MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/30/2013 DATE /S/ Travis Feltz
STATE TRAFFIC ENGINEER
FHWA

GENERAL NOTES

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

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

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

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

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

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

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

TABLE A

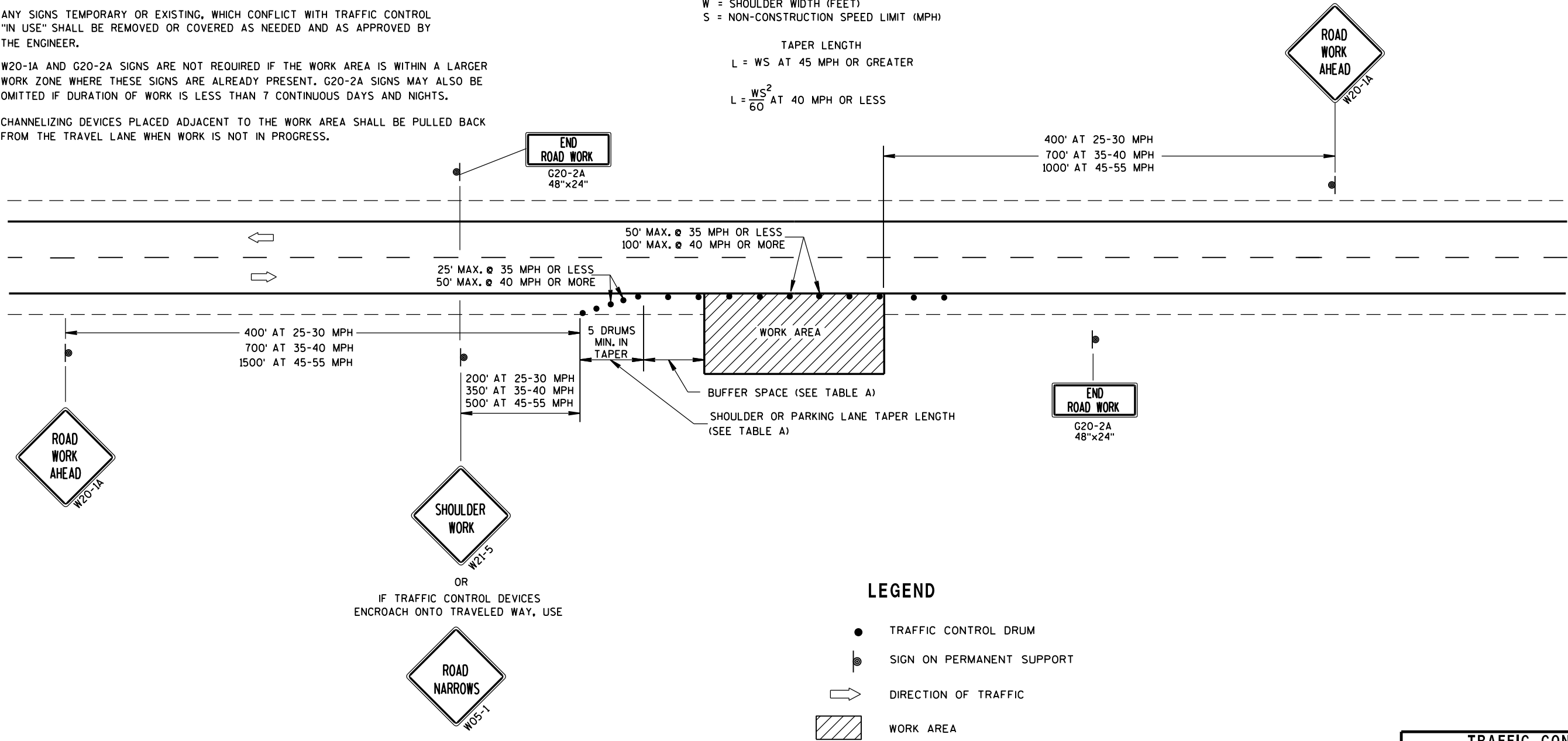
SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S \ W	4	6	8	10	
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

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

TAPER LENGTH
L = WS AT 45 MPH OR GREATER

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

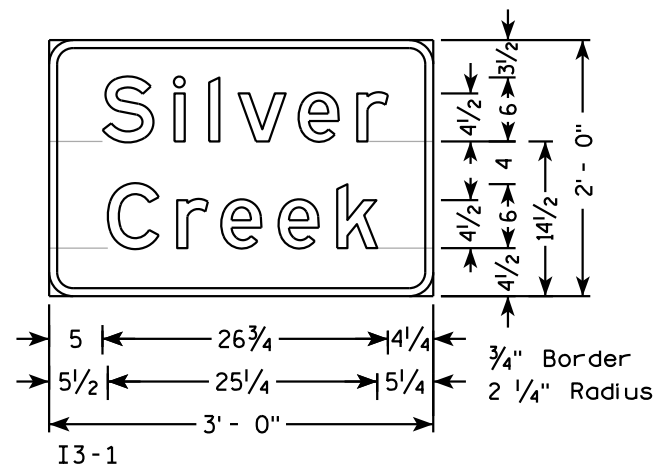
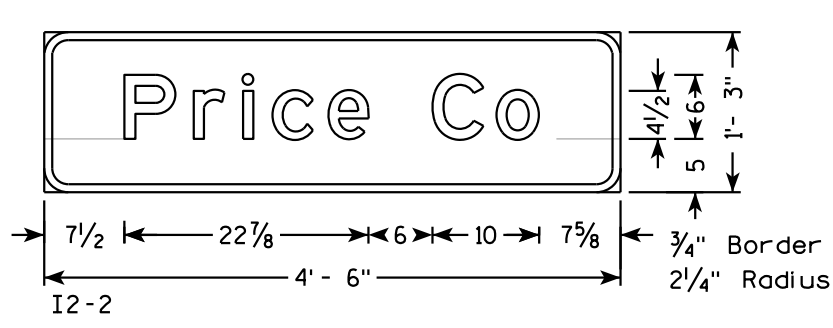
SHOULDER TAPER LENGTH = $\frac{1}{3}L$



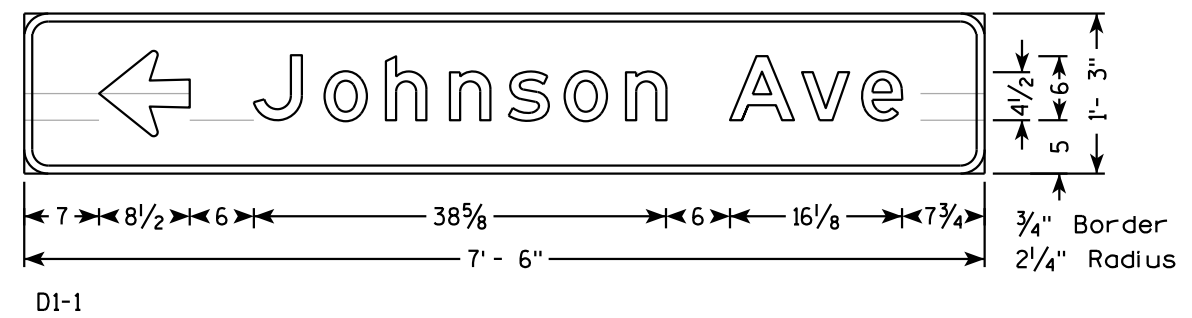
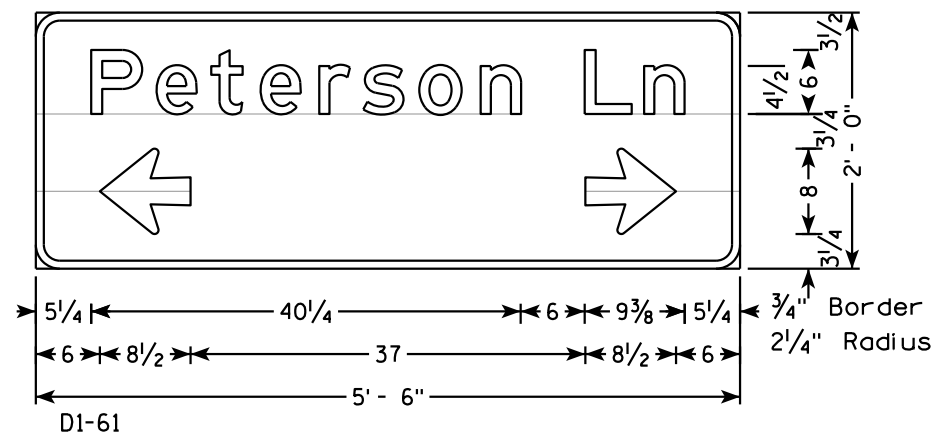
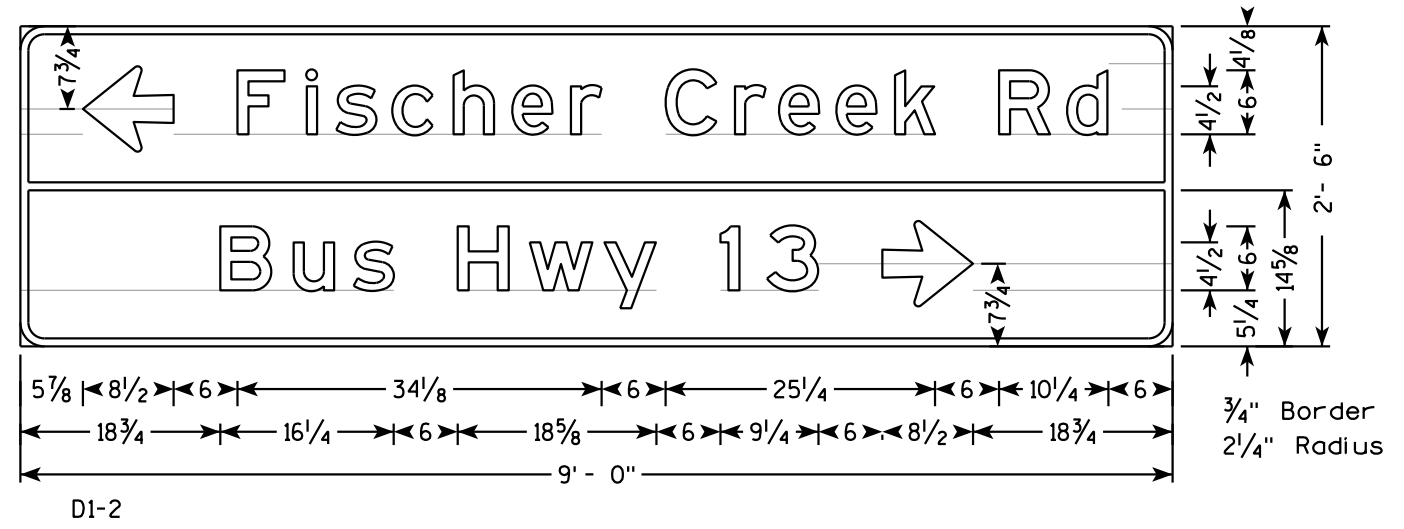
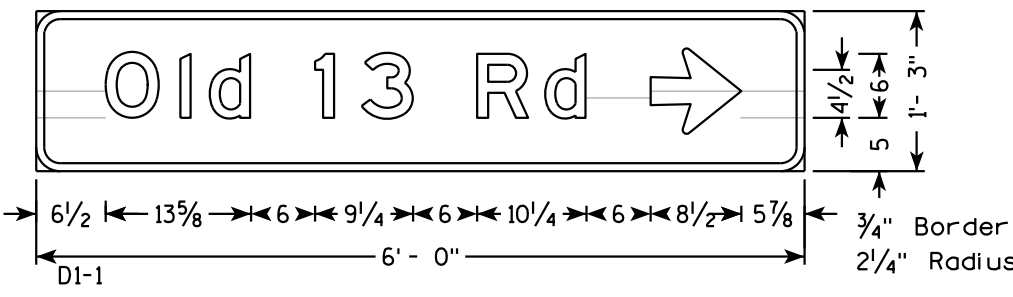
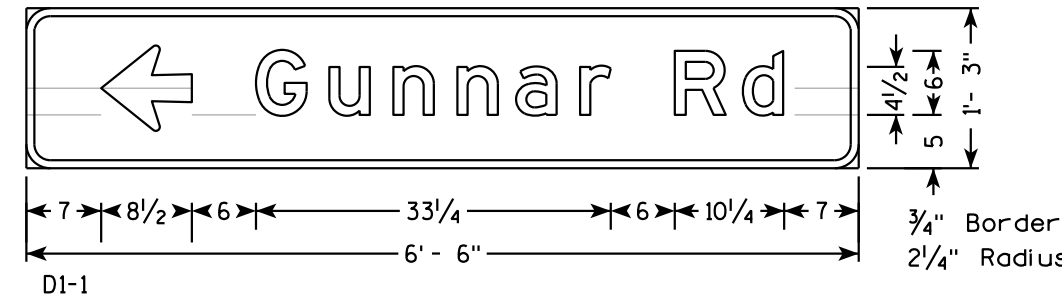
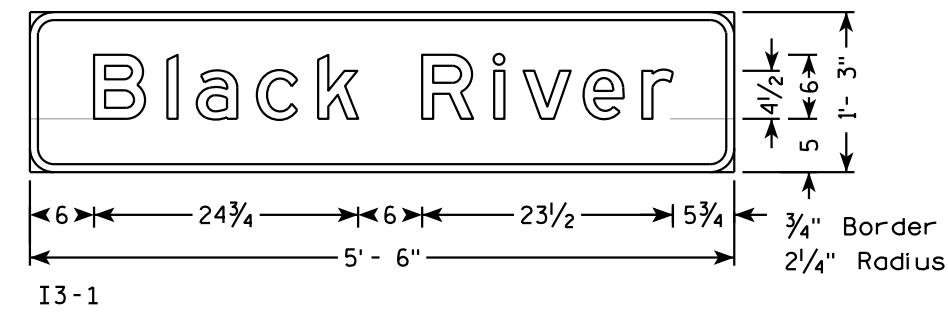
LEGEND

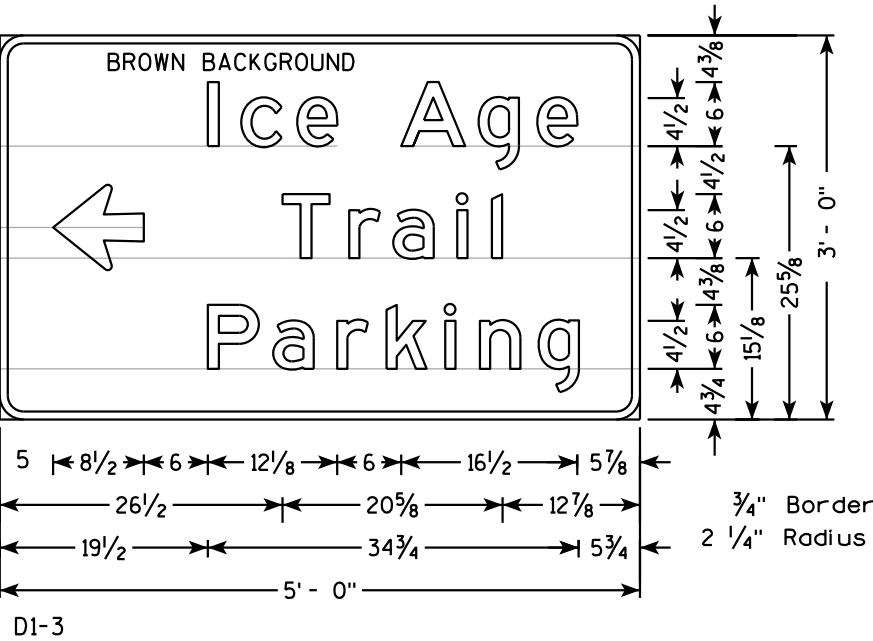
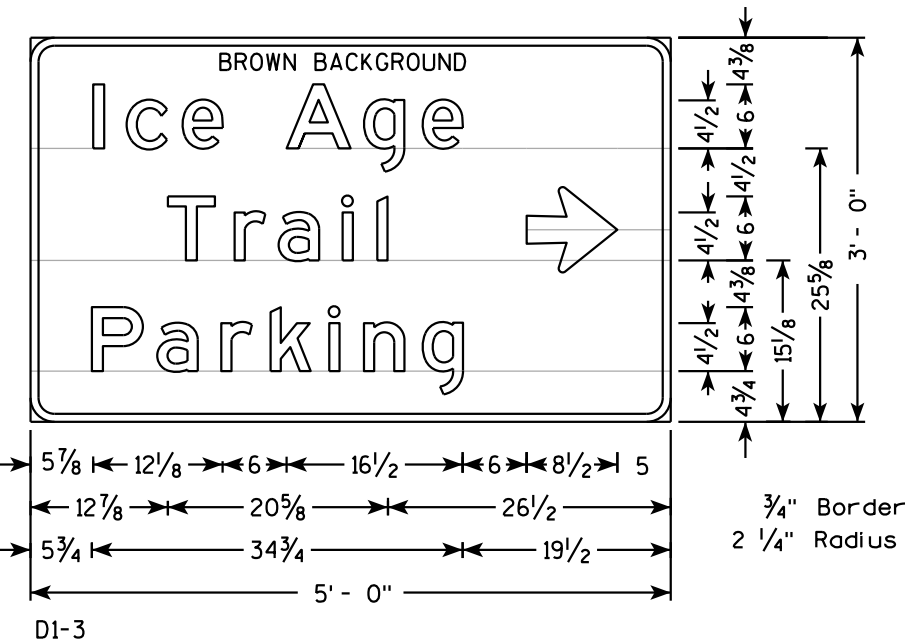
- TRAFFIC CONTROL DRUM
- ⦿ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK AREA

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED July 14, 2015 DATE	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	

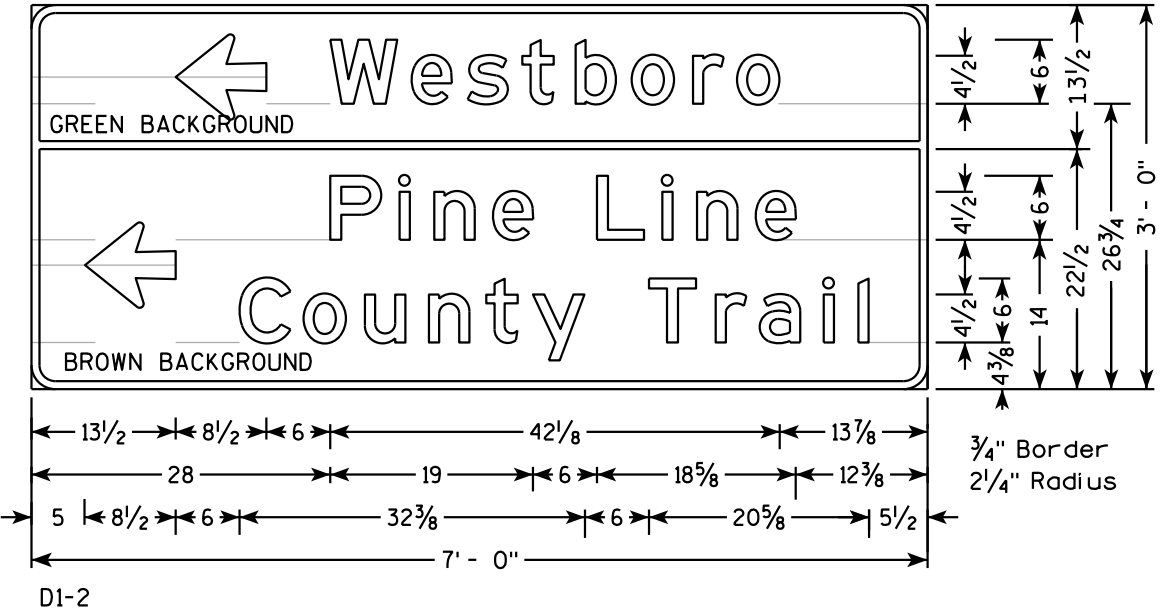
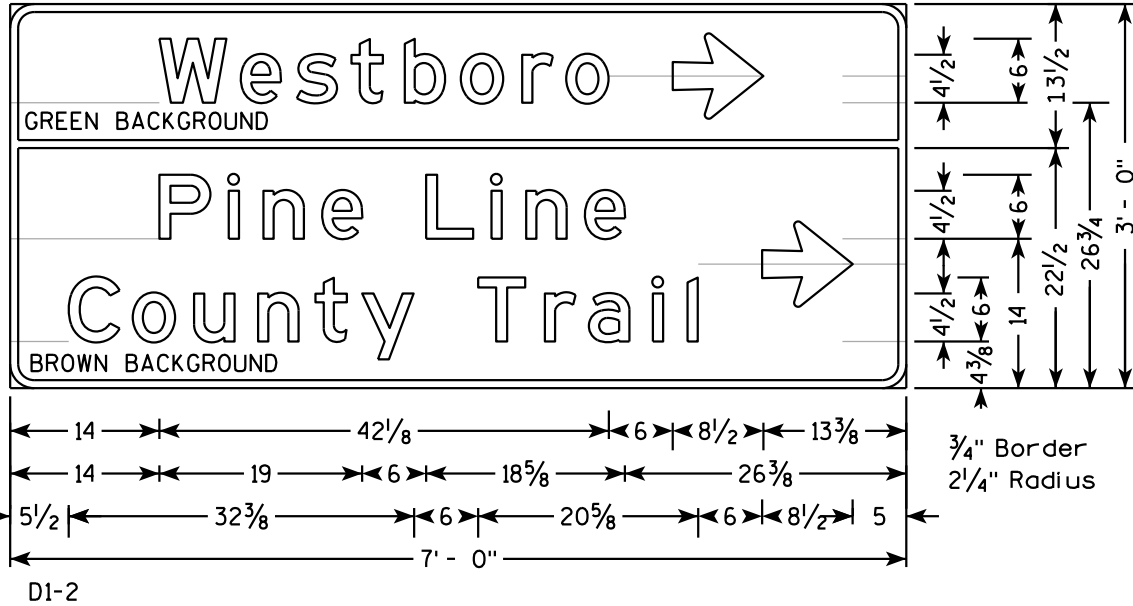


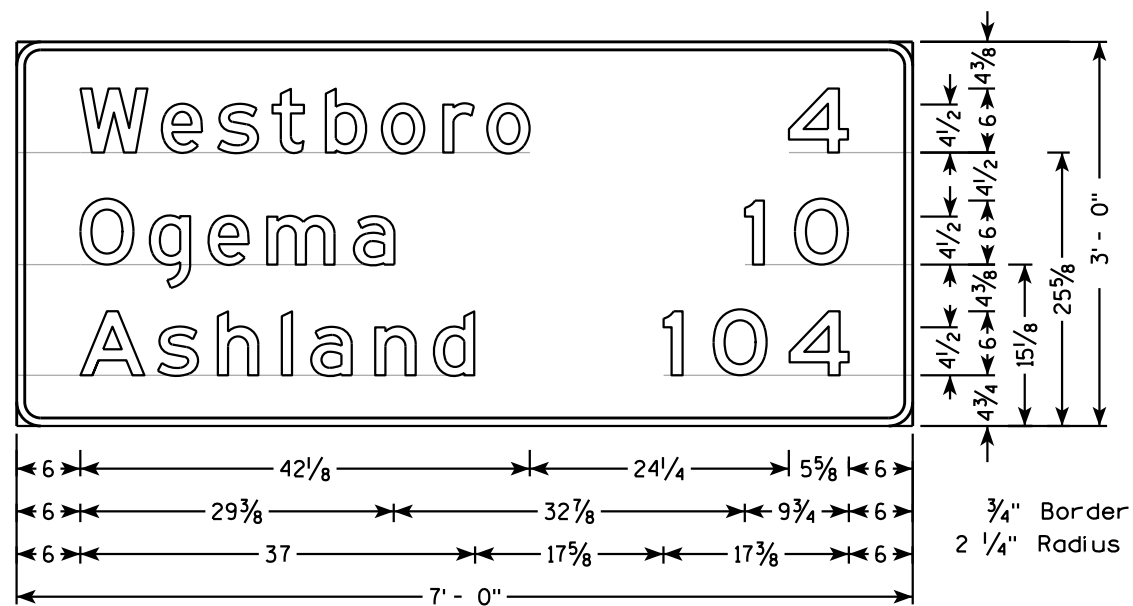
- NOTES
1. All Signs - Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - GREEN
Message - WHITE
 3. Message Series - E



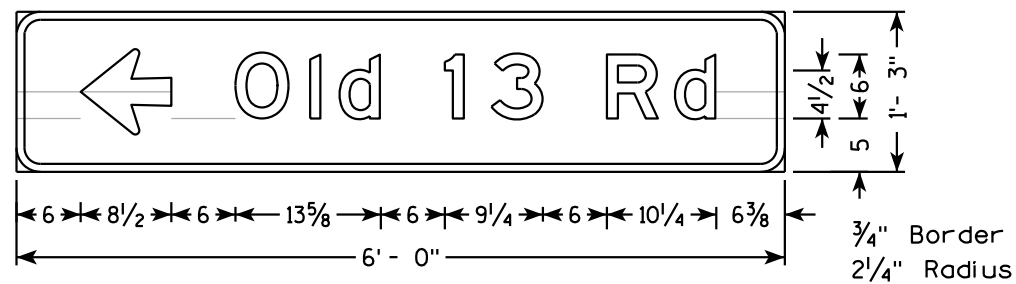


- NOTES
1. All Signs - Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - GREEN except as NOTED
Message - WHITE
 3. Message Series - E

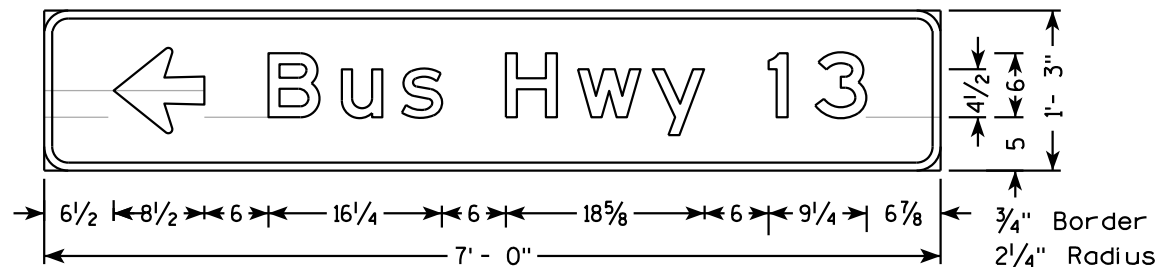




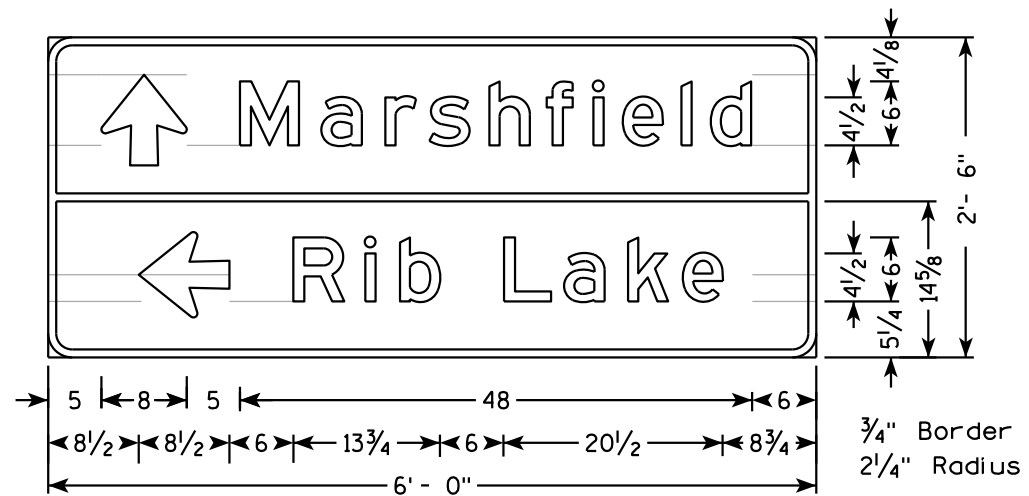
D2-3



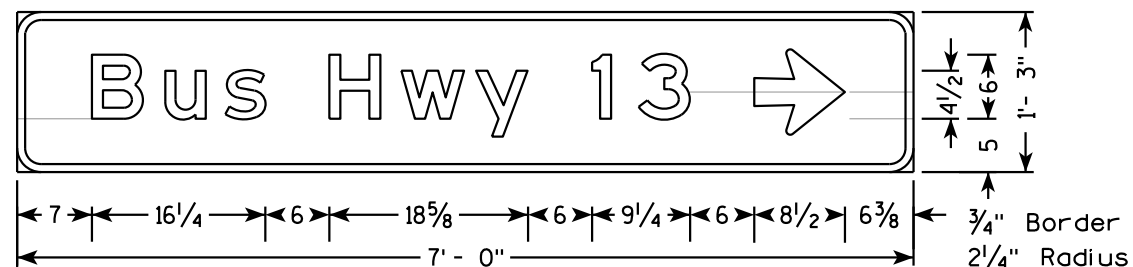
D1-1



D1-1



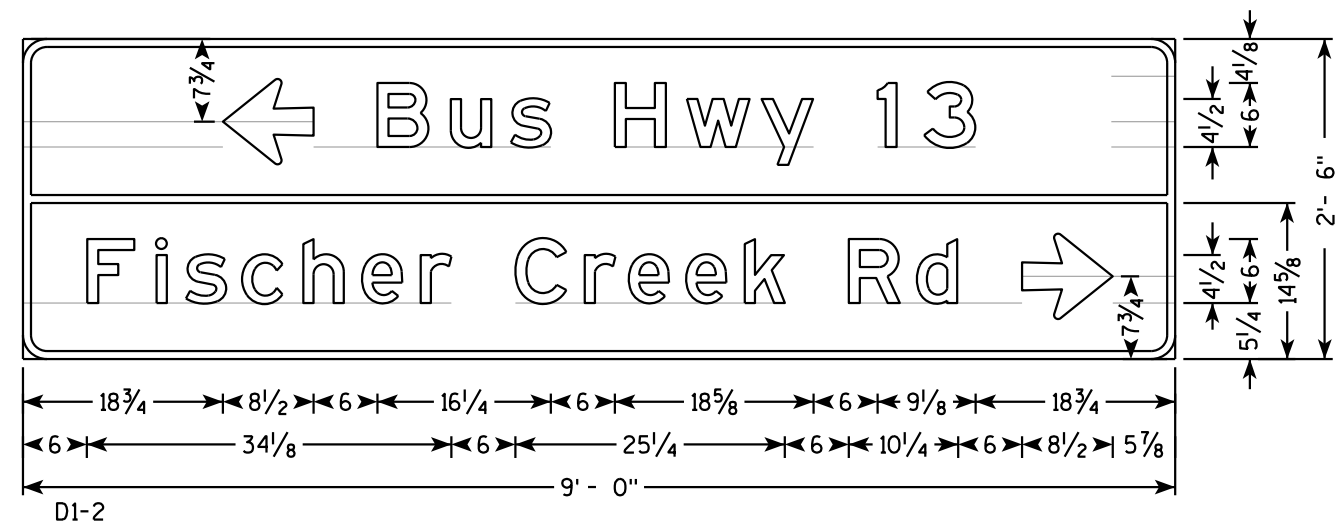
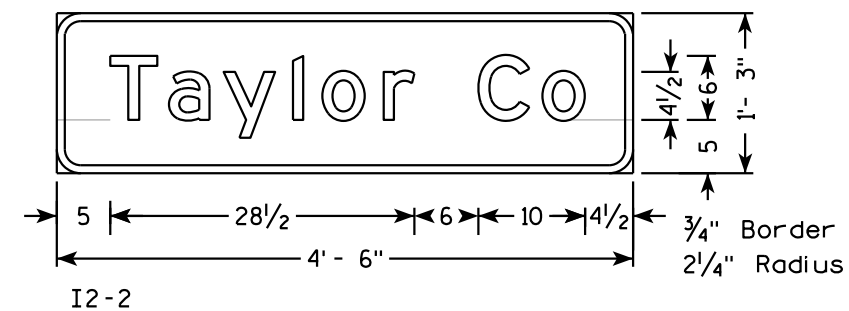
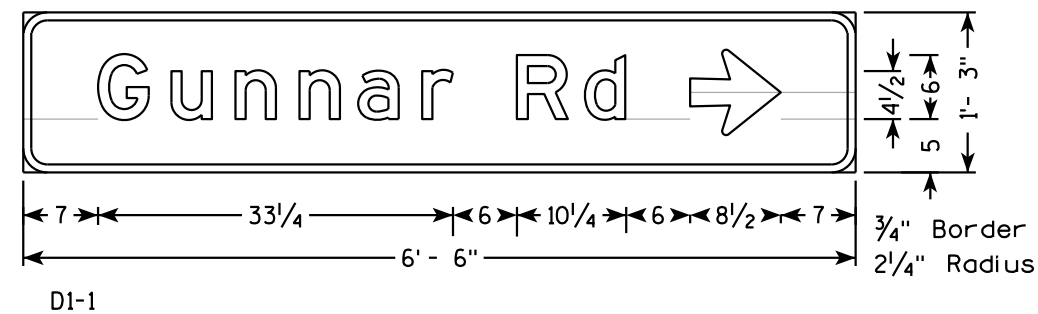
D1-2



D1-1

NOTES

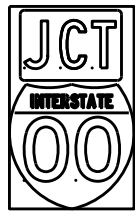
1. All Sign Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - GREEN
Message - WHITE
3. Message Series - E



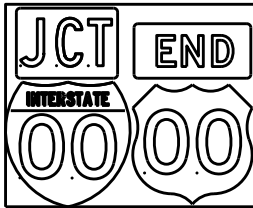
NOTES

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

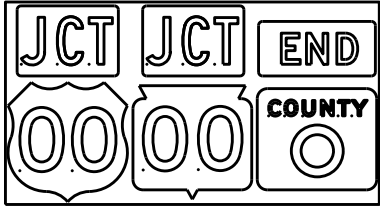
TYPICAL ASSEMBLIES



J1-1



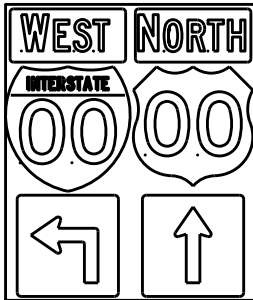
J1-2



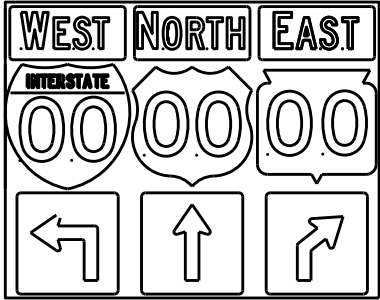
J1-3



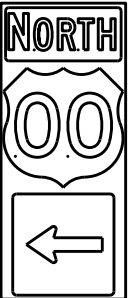
J2-1



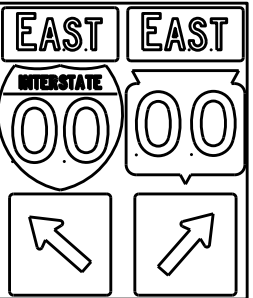
J2-2



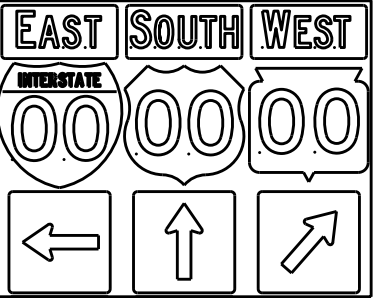
J2-3



J3-1



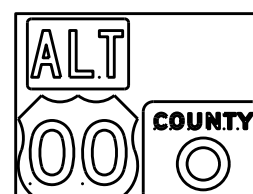
J3-2



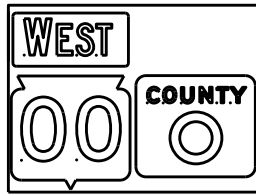
J3-3



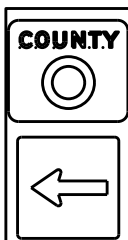
J4-1



J4-2



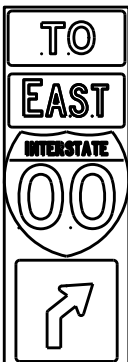
J4-2



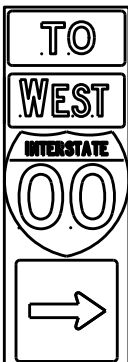
J13-1



J12-1



J32-1



J33-1



J23-1

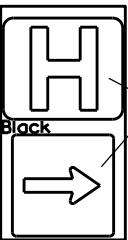


J22-1



JV

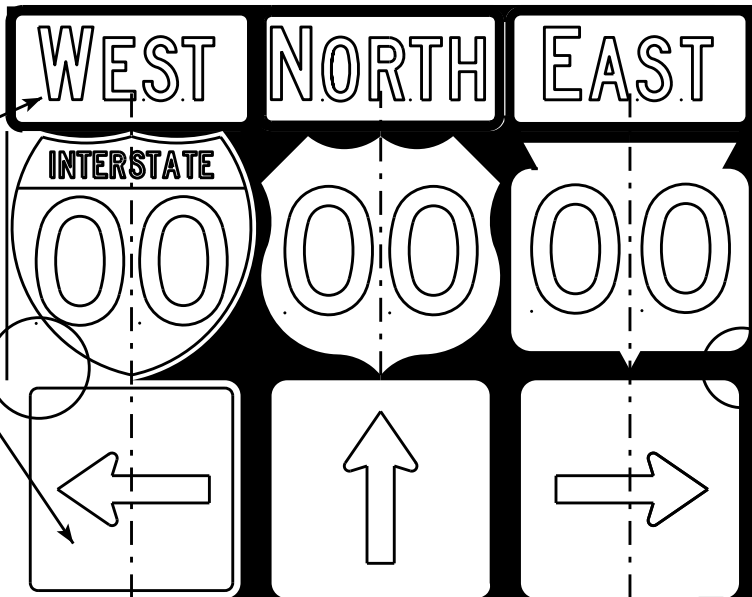
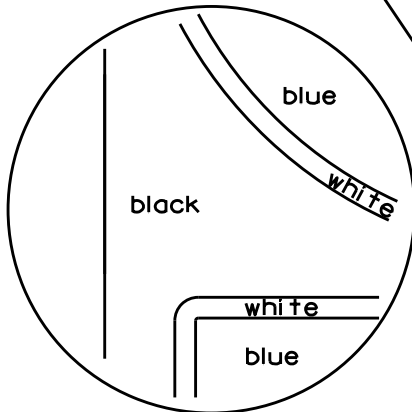
(Typical Vertical J-Assembly
See Note 10 and 11)



JH-1

Blue Background

[blue background
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

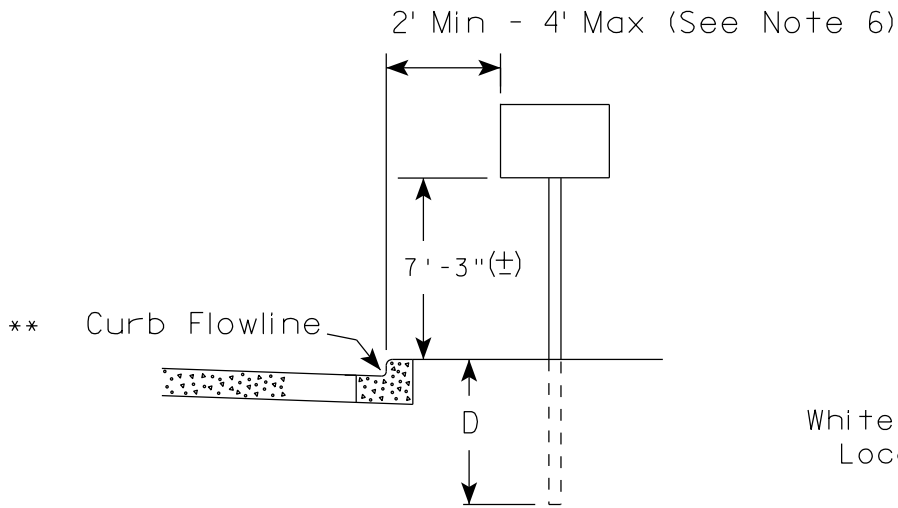
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

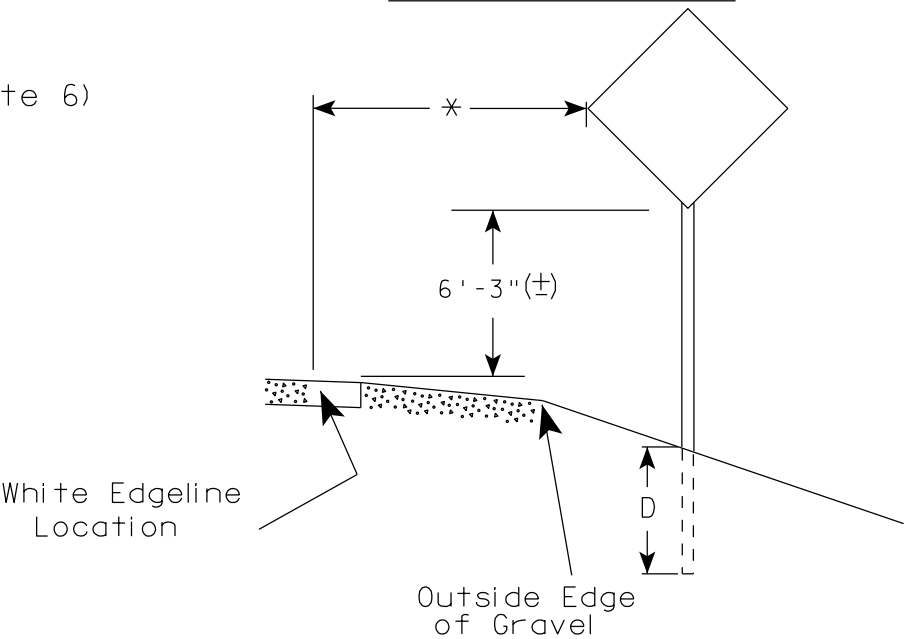
NOTES

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.

URBAN AREA



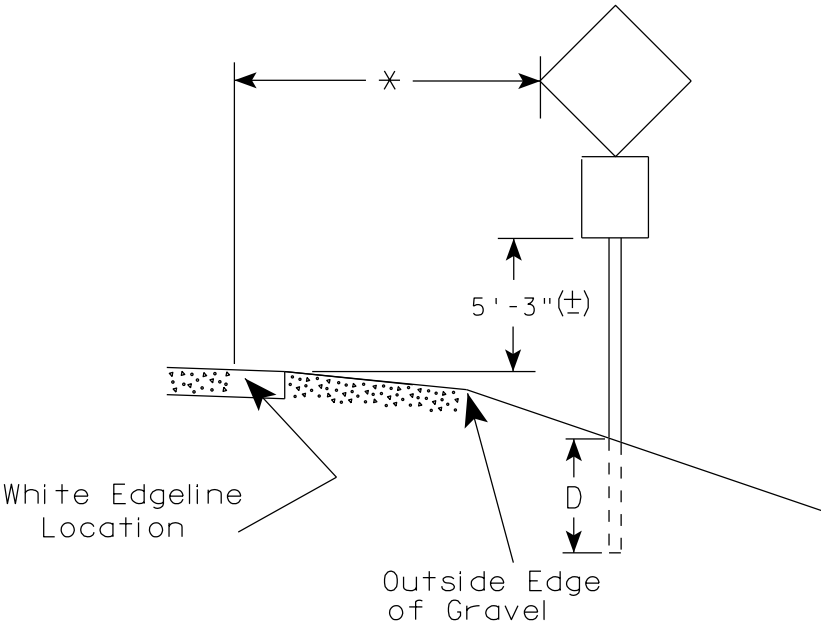
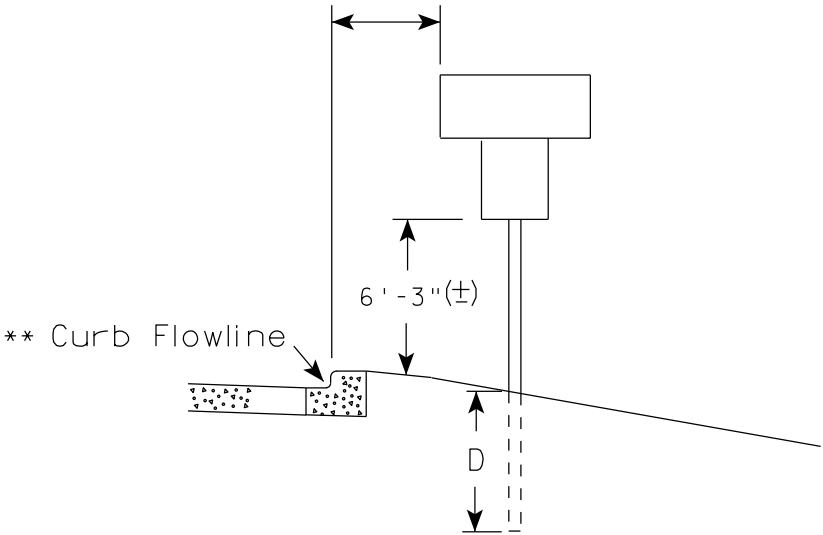
RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or 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 (A2-1S) 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 signs 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), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

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



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.

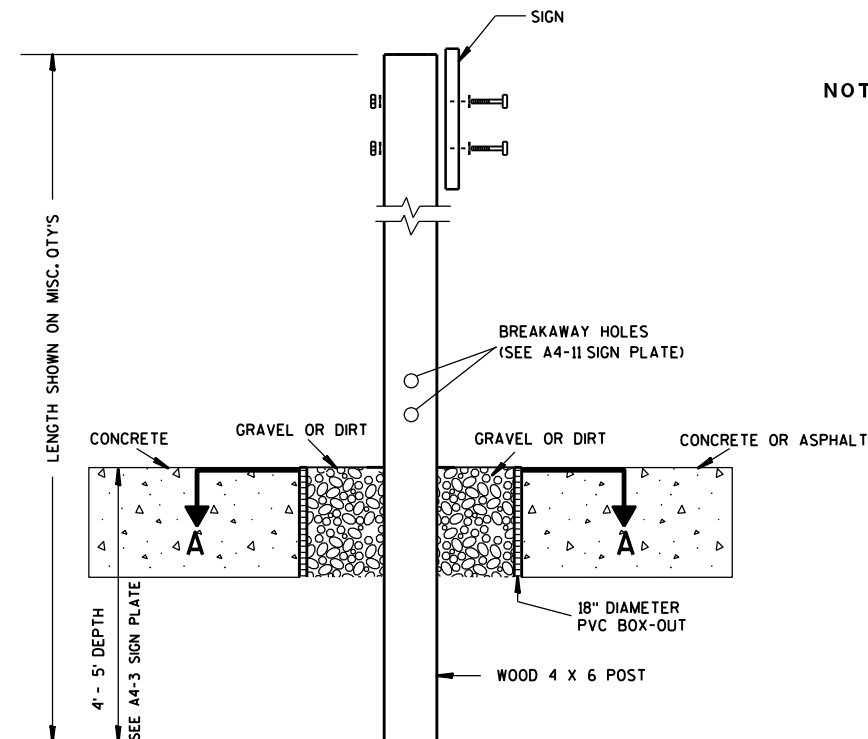
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

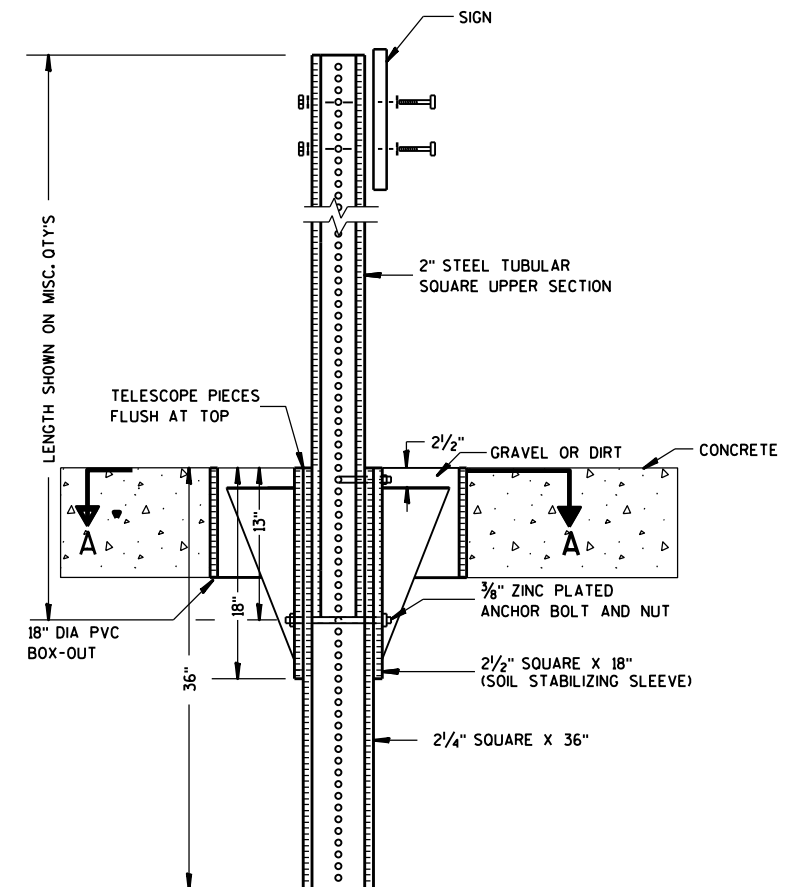
DATE 7/23/15 PLATE NO. A4-3.20



ELEVATION VIEW

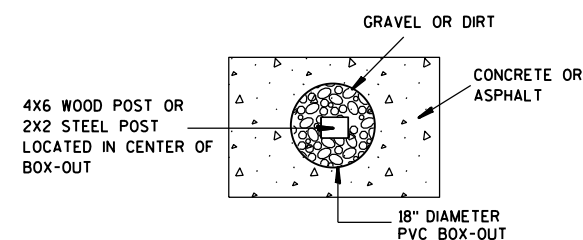
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

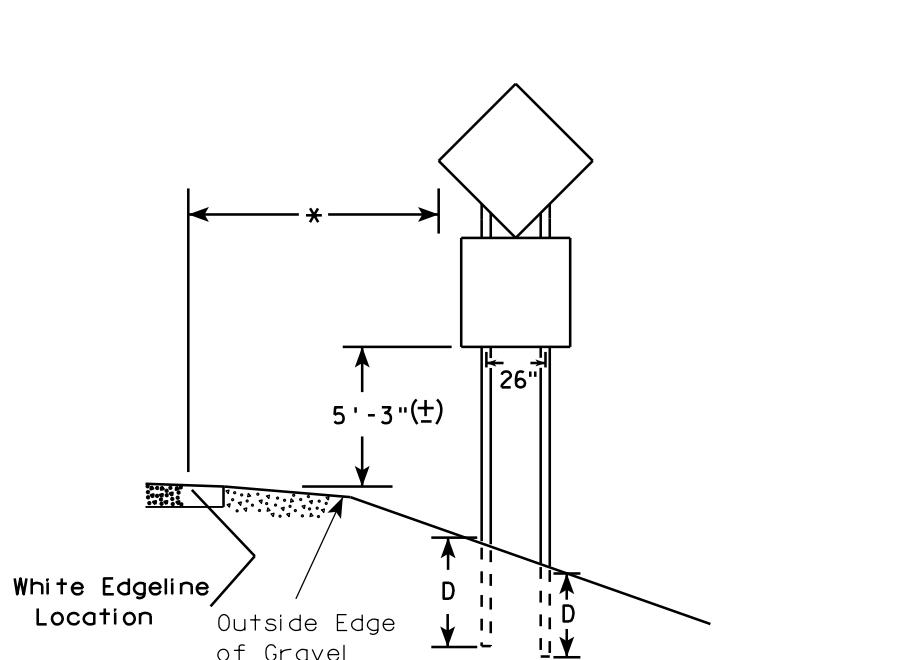
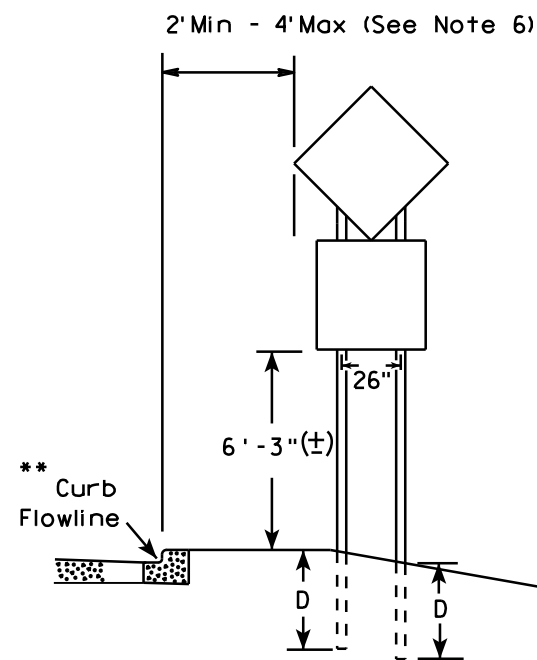
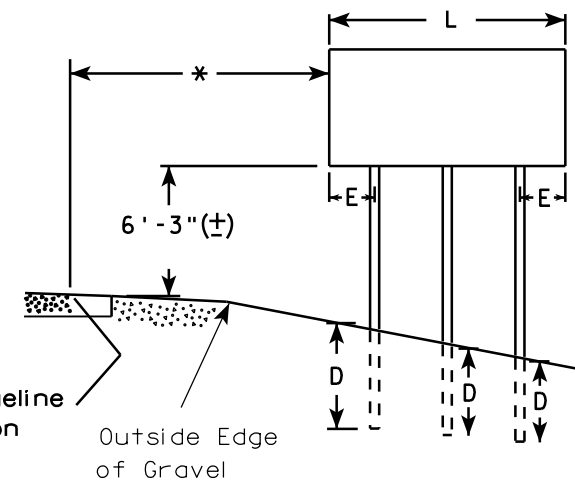
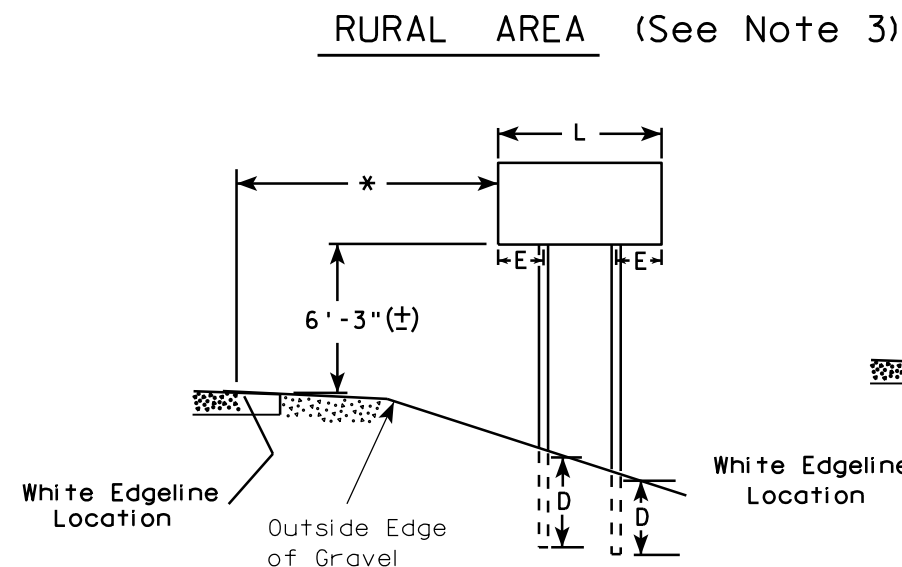
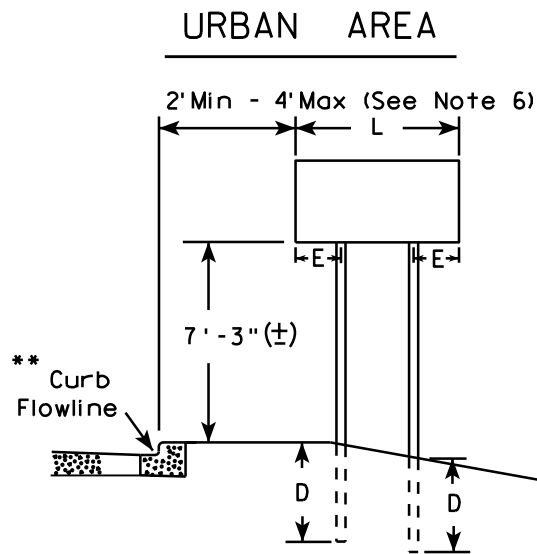
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



48" DIAMOND WARNING SIGN

48" DIAMOND WARNING SIGN

- 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 (A2-1S) 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 signs 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), In Road Object Markers (W5-54) & End of Road Markers (W5-56) 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 and less than 20 S.F. in area.

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

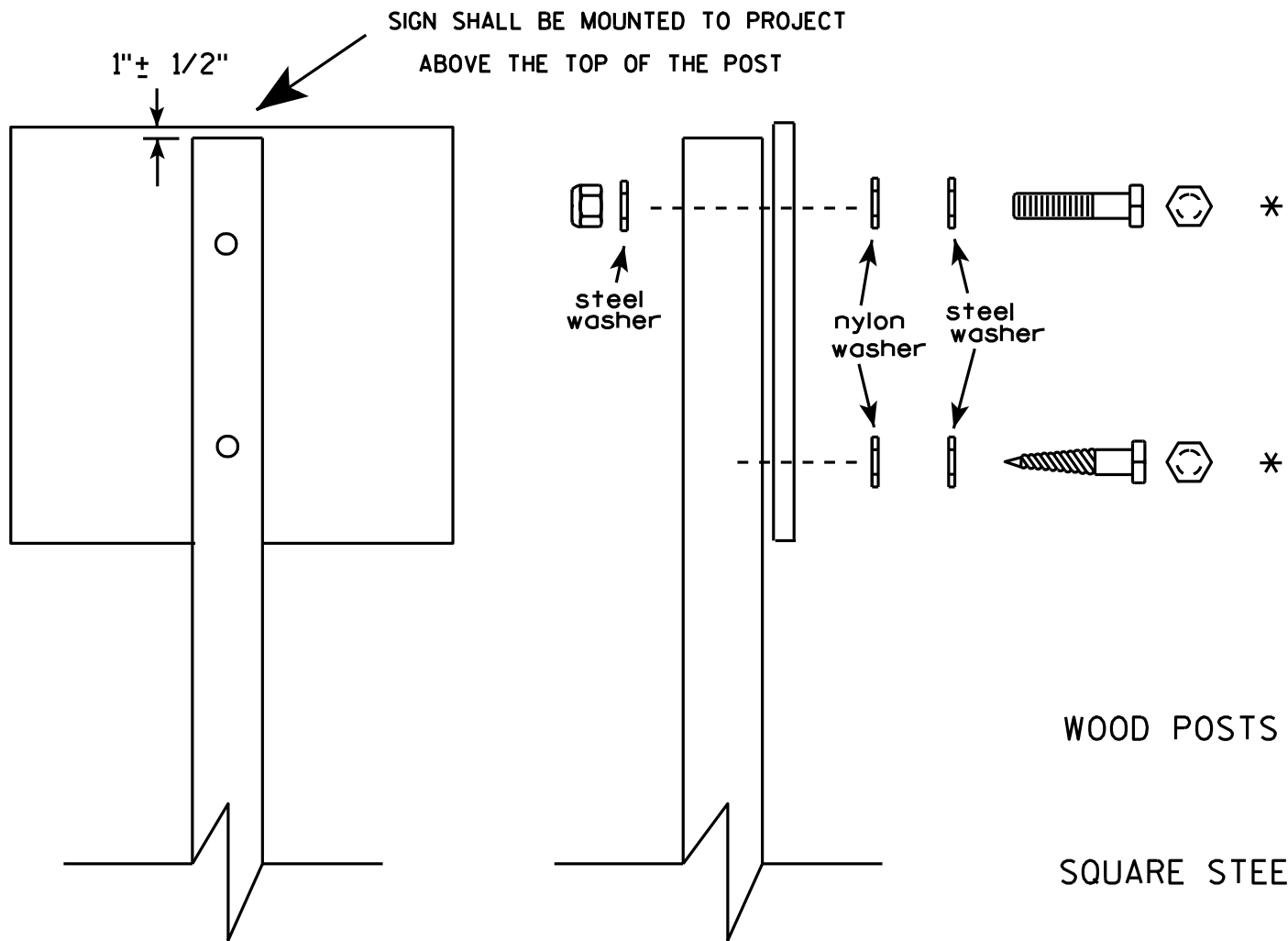
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

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 7/23/15	PLATE NO. A4-4.14

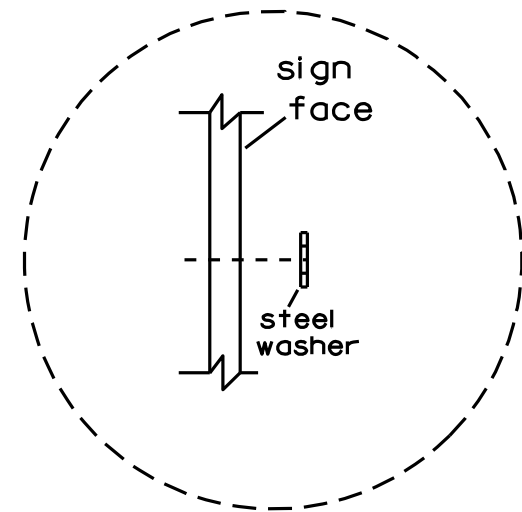


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

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

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

- WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.

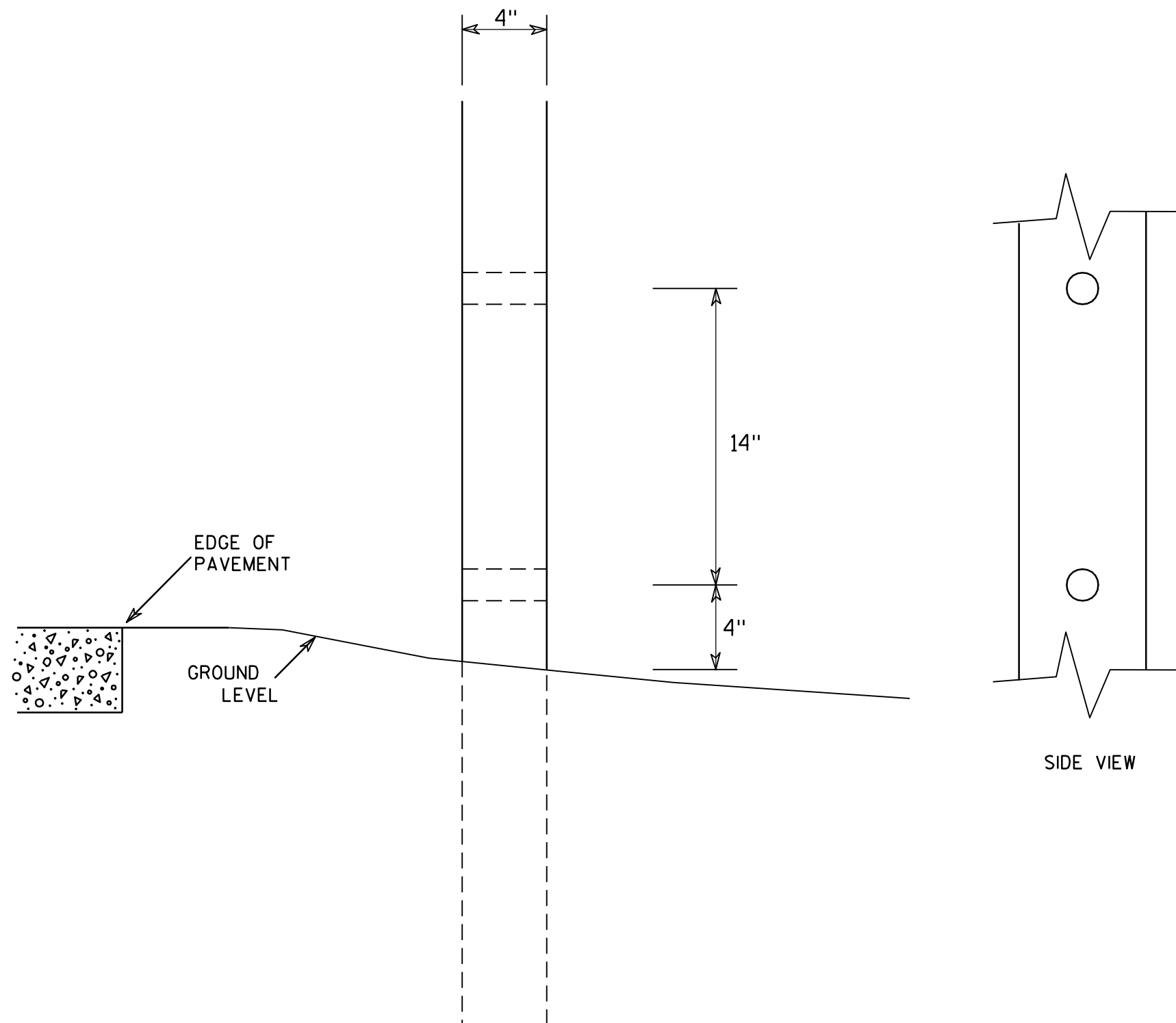


Washer Placement when Sign Has Other Than Type H or Type F Face

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

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

7



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:

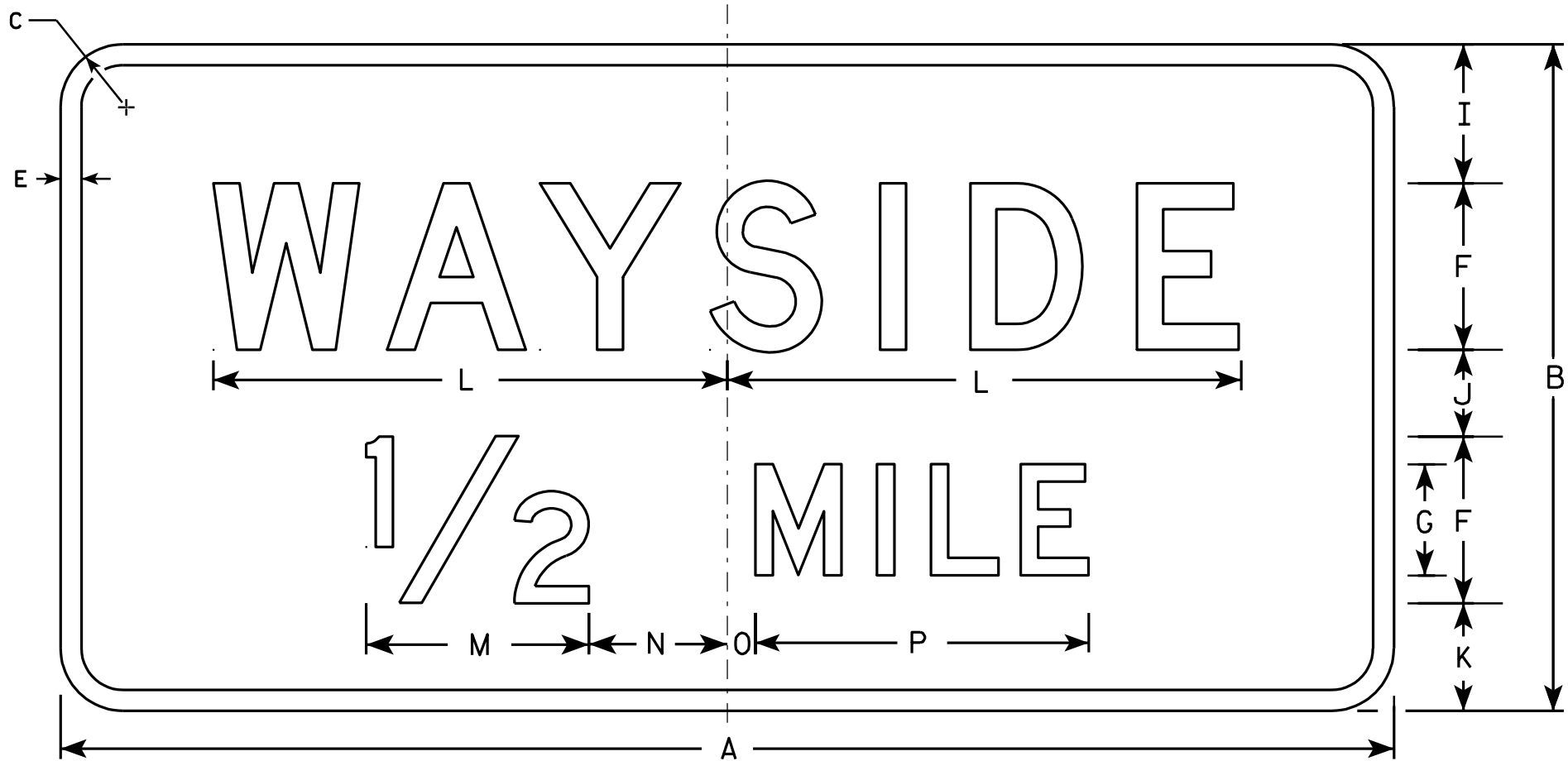
SHEET NO:

E

58, 59, 60, 61, 62, 63

7

LEVELS ON - 2, 3, 5, 6, 10,



D5-61

Metric equivalent
for this sign is:

SIZE	
1	
2	1200 mm X 600 mm
3	
4	1950 mm X 1050 mm
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		
1																												
2	48	24	2 1/4		3/4	6	4	6	5	3 1/8	3 7/8	18 1/2	8	5	1	12											8.0	0.72
3																												
4	78	42	3		1	10	7	10 1/2	8 3/4	5 3/4	7	30 1/8	14	8 3/4	1 3/4	21											22.8	2.05
5																												

STATE PROJECT NUMBER:

FILE NAME : D:\Users\Projects\tr_stdplate\D561.DGN

PLOT DATE : 09-JAN-2002 13:01

ORG DATE : 7/24/97

Originator : Don Kluever

STANDARD SIGN
D5-61

WISCONSIN DEPT OF TRANSPORTATION
APPROVED
Charles J. Spang
for State Traffic Engineer
DATE 1/09/02 PLATE NO. D5-61.9

SHEET NO:

E

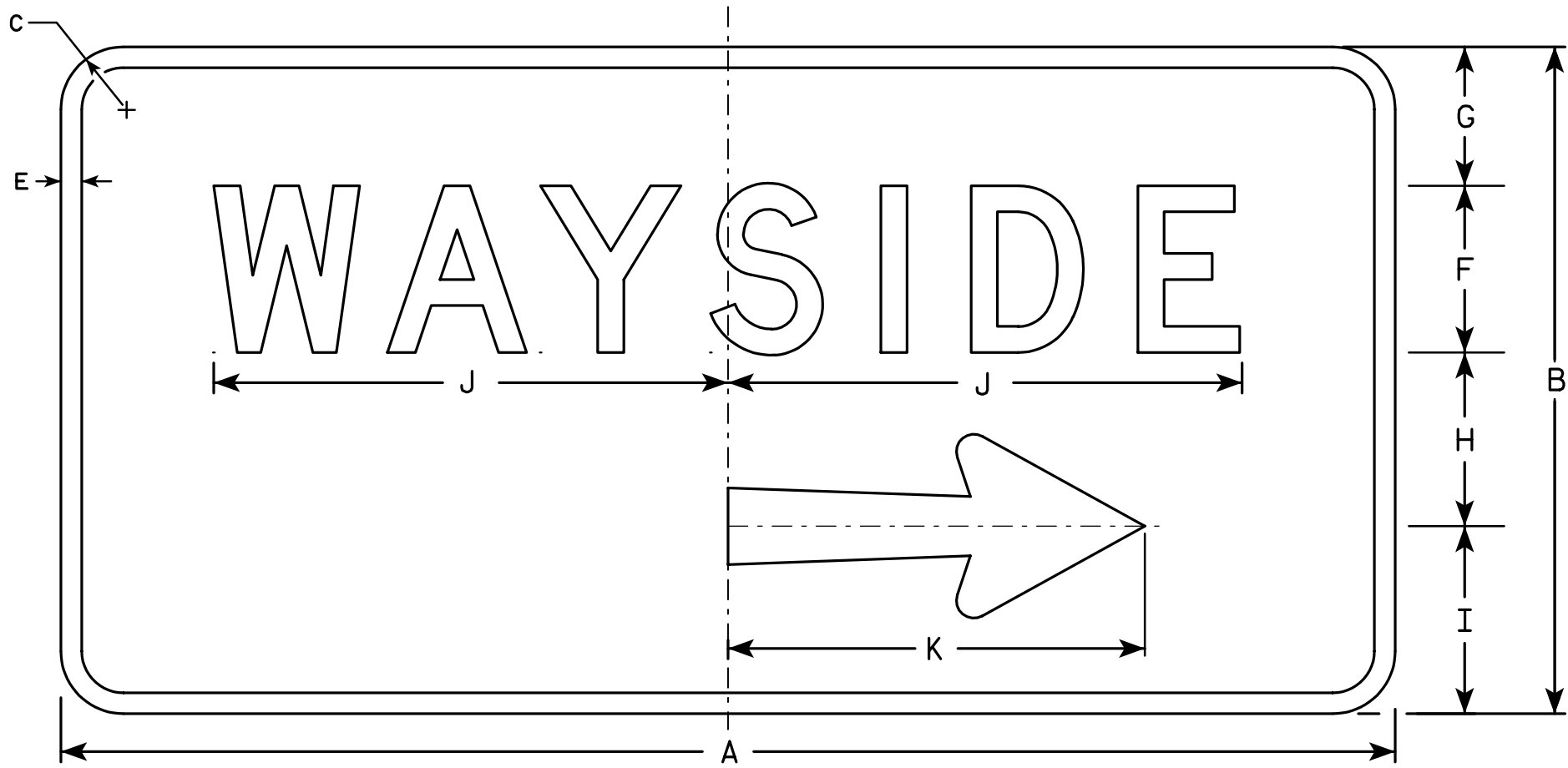
NOTES

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

58, 59, 60, 61, 62, 63

7

LEVELS ON - 2, 3, 5, 6, 14, 10, 14



D5-62R

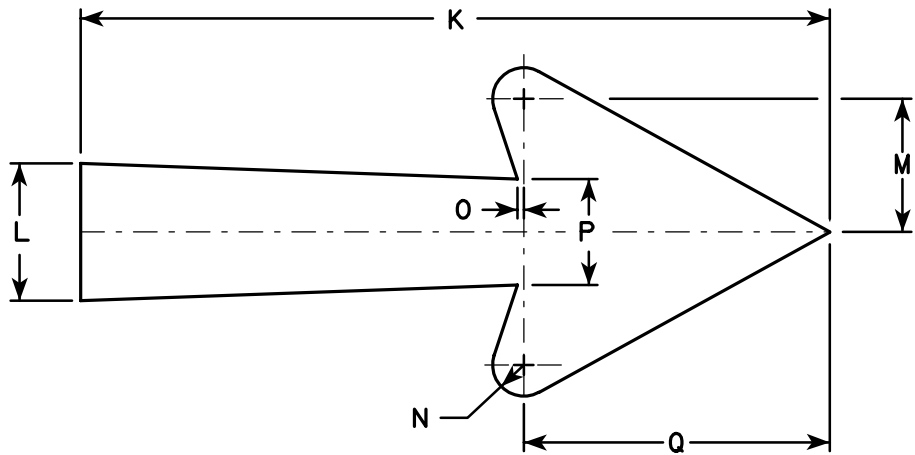
Metric equivalent for this sign is:

SIZE	
1	
2	1200 mm X 600 mm
3	
4	1950 mm X 1050 mm
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	48	24	2 1/4		3/4	6	4	6 1/4	6 3/4	18 1/2	15	2 3/4	3 1/8	5/8	1/8	2 1/8	6 1/8										8.0	0.72
3																												
4	78	42	3		1	10	8 3/4	11	12 1/4	30 1/8	26 1/4	4 3/4	4 5/8	1 1/8	1/4	3 3/4	10 3/4										22.8	2.05
5																												

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Blue
Message - White
- 3. Message Series - D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. D5-62L is the same as D5-62R except that the arrow is rotated 180° about the vertical center line.



Arrow Detail

STANDARD SIGN
D5-62

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Christa J. Spang
for State Traffic Engineer

DATE 1/09/02
PLATE NO. D5-62.10

58, 59, 60, 61, 62, 63

7

LEVELS ON - 2, 3, 5, 6, 10,



D7-62

Metric equivalent
for this sign is:

SIZE	
1	
2	1500 mm X 1050 mm
3	
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	60	42	2 1/4		3/4	4 1/2	6	4	5	4 3/4	3 1/4	4 1/4	11 1/2	2 3/4	3	5 7/8	16 7/8	1	23	24 1/2	1 1/4	4 3/8	10 5/8				17.5	1.58
3																												
4																												
5																												

STATE PROJECT NUMBER:

FILE NAME : C:\Users\Projects\tr_std\late\D762.DGN

PLOT DATE : 22-JAN-2002 08:26

ORG DATE : 6/9/97

Originator : Don Kluever

STANDARD SIGN
D7-62

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Christa J. Spay
State Traffic Engineer

DATE 1/14/02

PLATE NO. D7-62.4

SHEET NO:

E

NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Brown
Message - White - Type H Reflective
- Message Series - D
- 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.

58,59,60,61,62,63

7

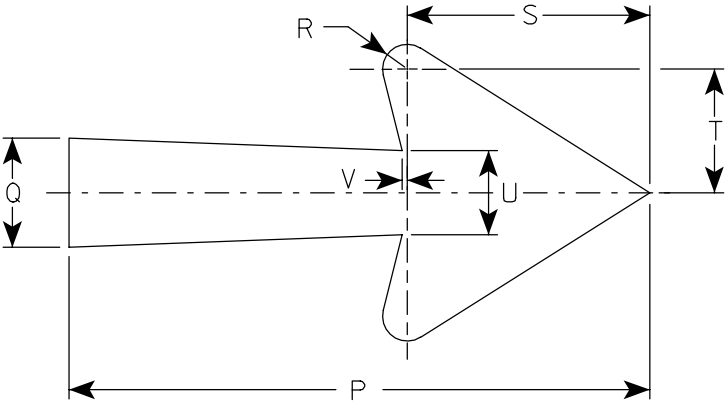
LEVELS ON - 2, 3, 5, 6, 10.



D7-63R

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Brown
Message - White - Type H Reflective
- 3. Message Series - D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. D7-63L is the same as D7-63R except that the arrow is reversed.



Arrow Detail

Metric equivalent for this sign is:

SIZE	
1	
2	1500 mm X 900 mm
3	
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	60	36	2 1/4		3/4	4 1/2	6	5 1/2	4 1/4	7	7 1/4	16 7/8	1	23	24 1/2	21	3 1/4	5/8	6 1/8	3 1/8	2 1/8	1/8	5				15.0	1.35
3																												
4																												
5																												

STANDARD SIGN
D7-63

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Christa J. Sperry
for State Traffic Engineer

DATE 1/14/02

PLATE NO. D7-63.4

STATE PROJECT NUMBER:

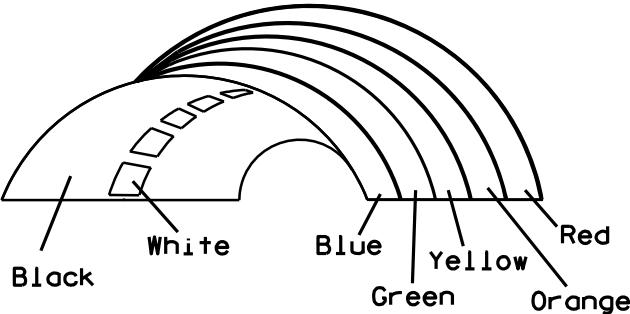
SHEET NO:

E



* 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:

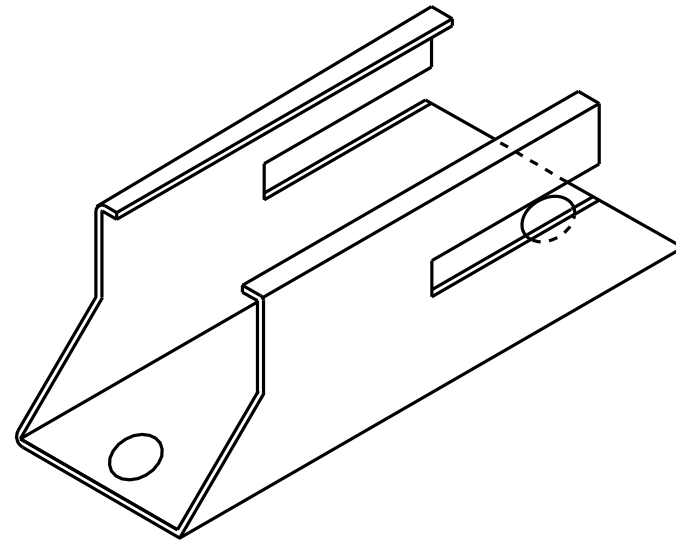
STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION

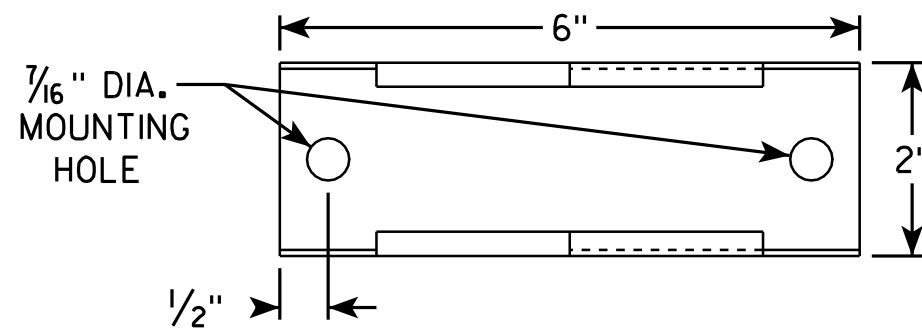
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

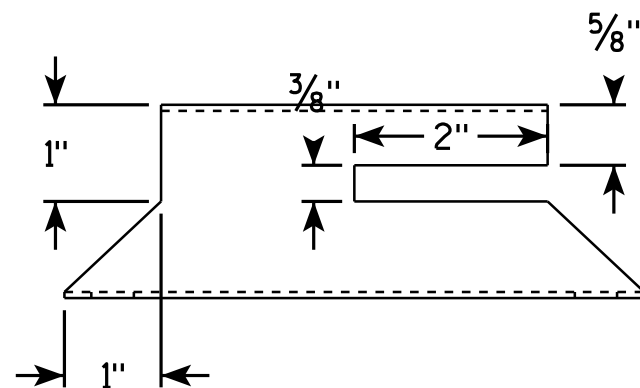
ISOMETRIC VIEW



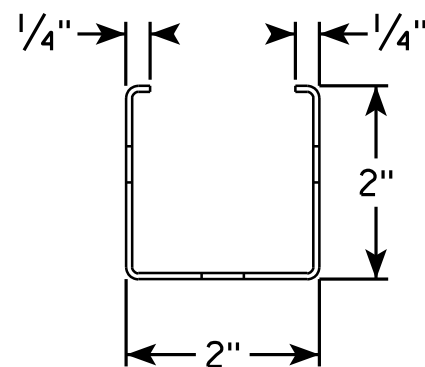
TOP VIEW



SIDE VIEW



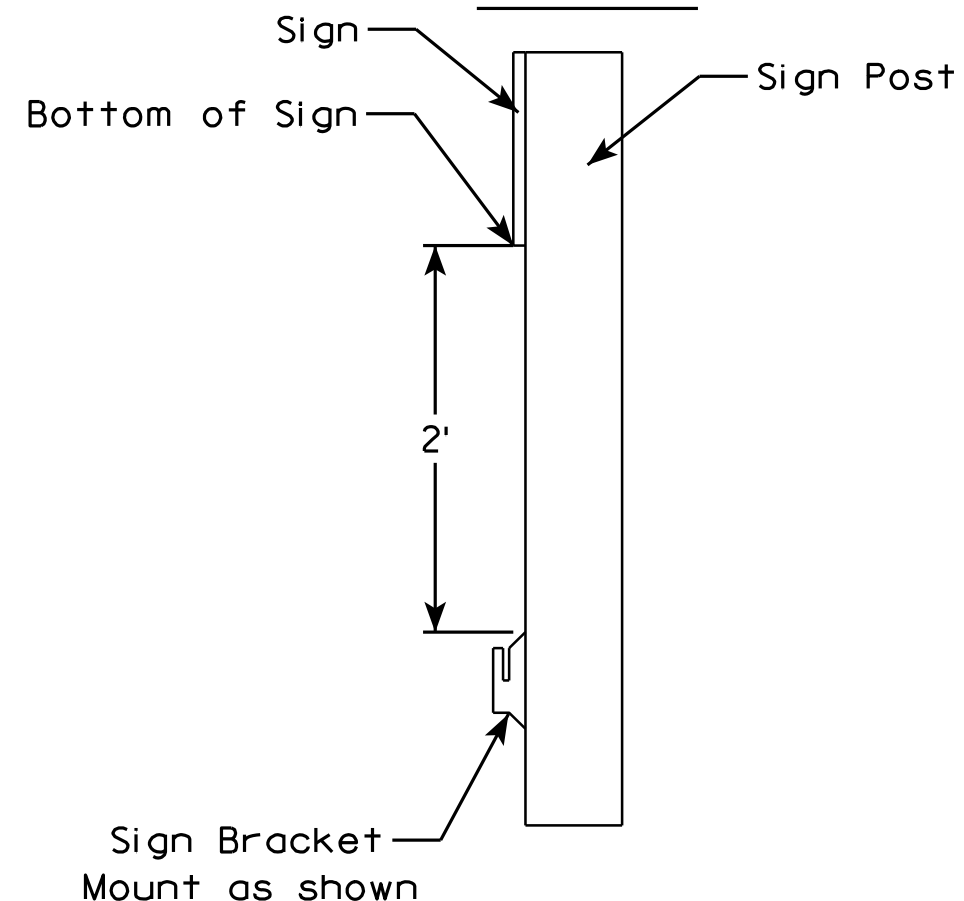
END VIEW



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:

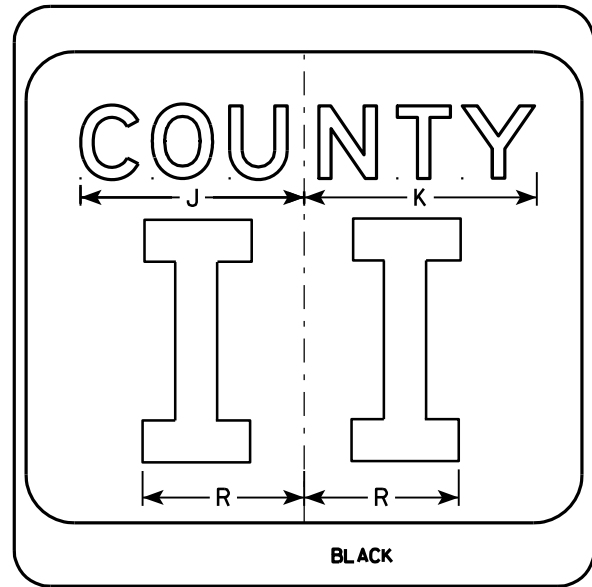
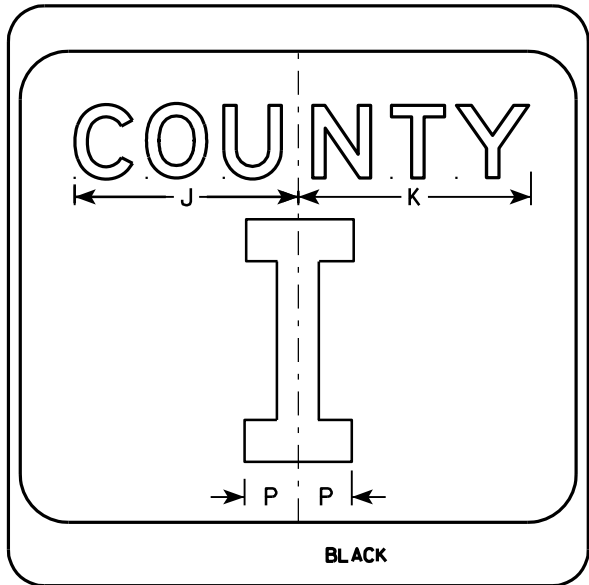
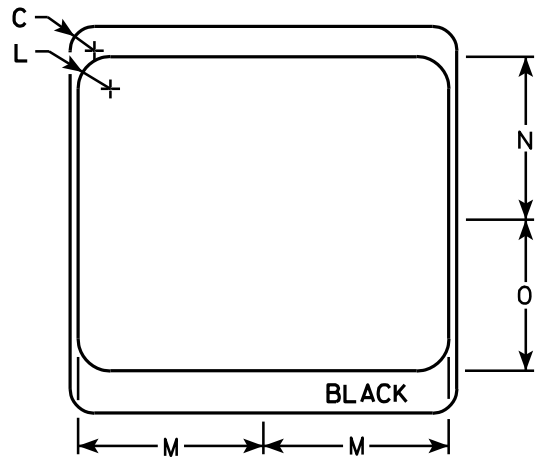
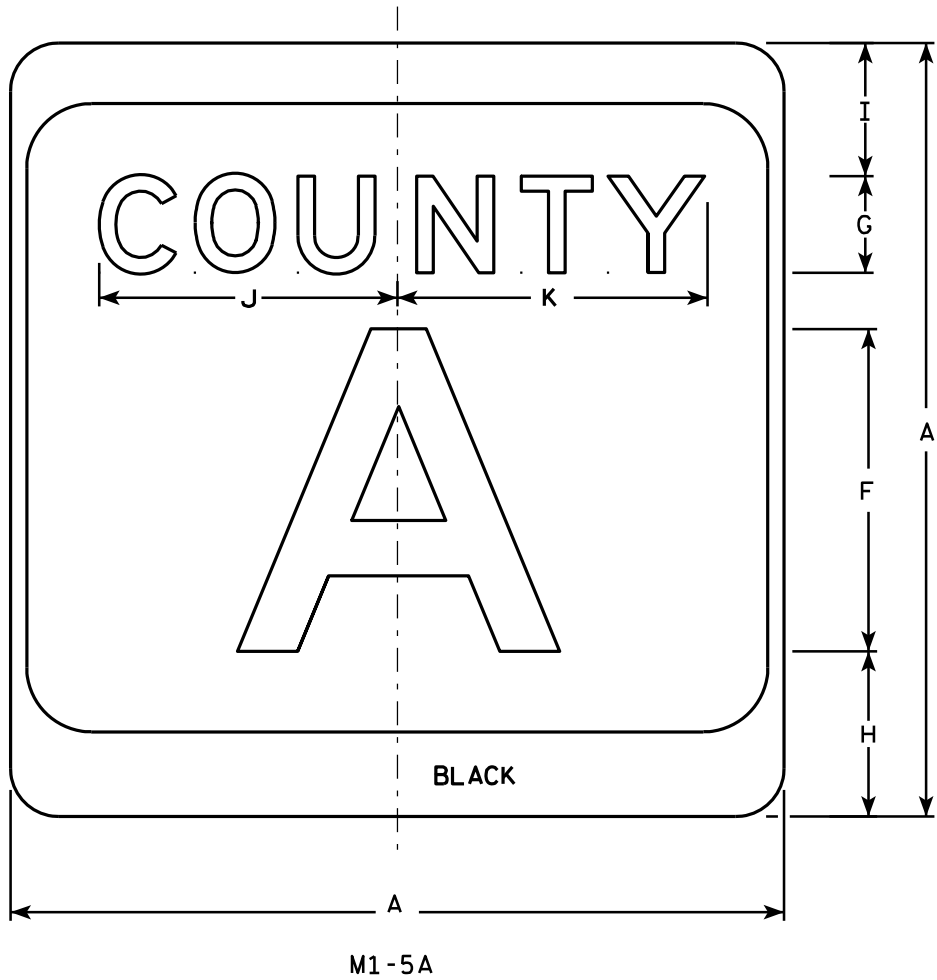
HWY:

COUNTY:

SHEET NO:

E

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

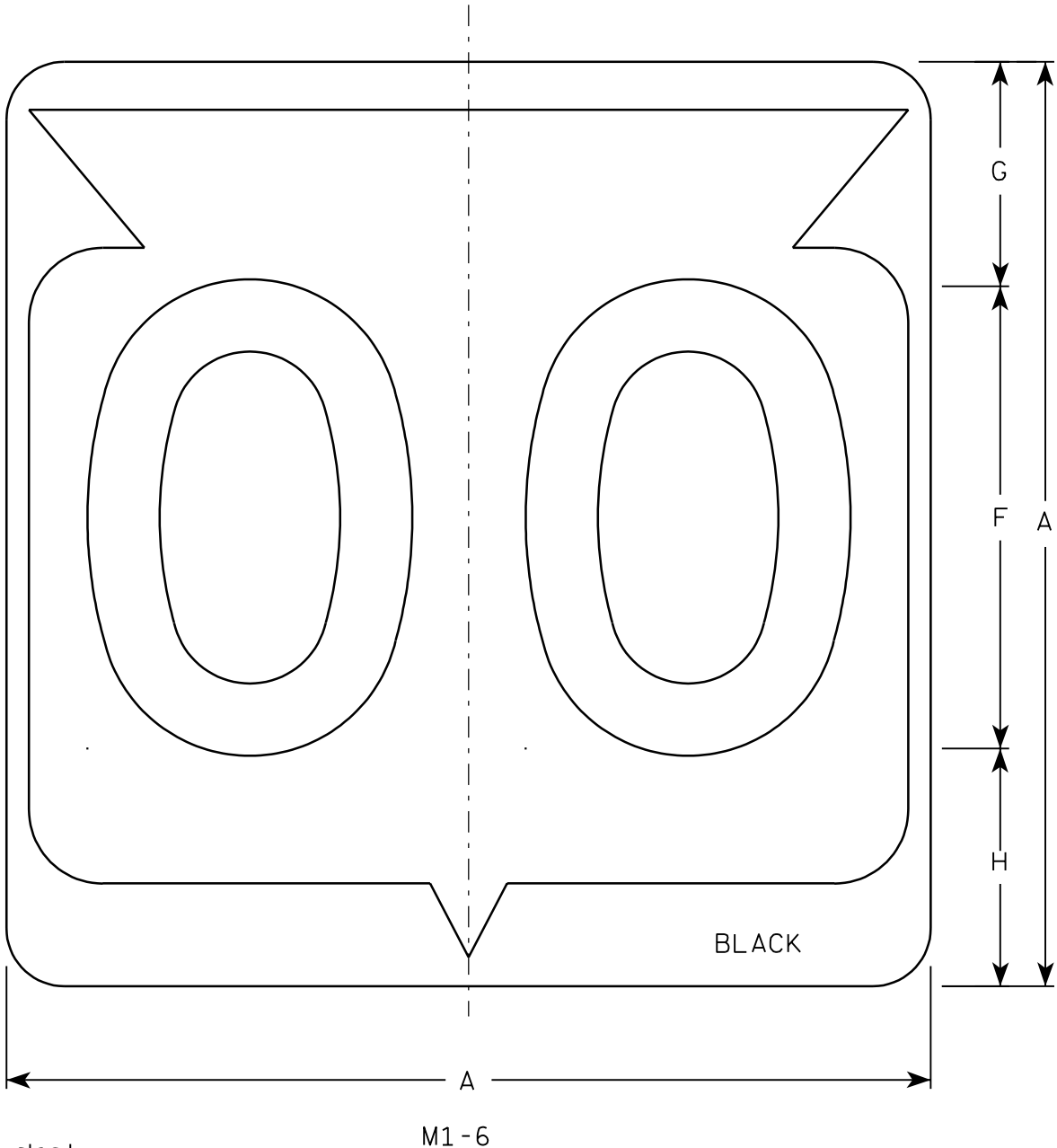
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5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

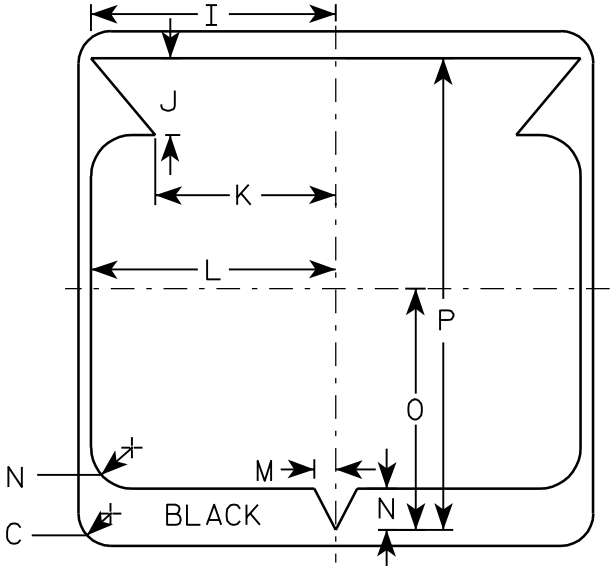
COUNTY:

SHEET NO:

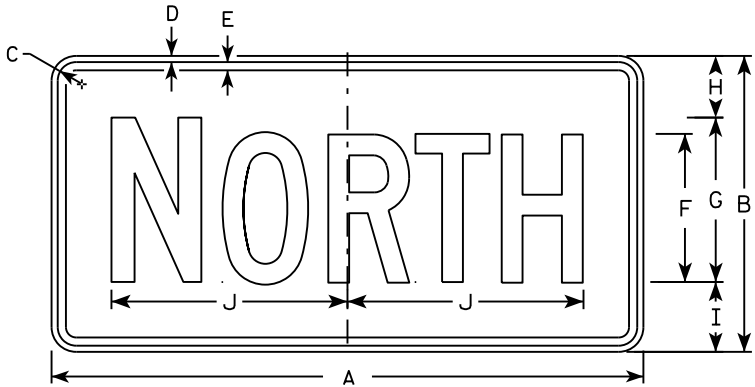
E

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



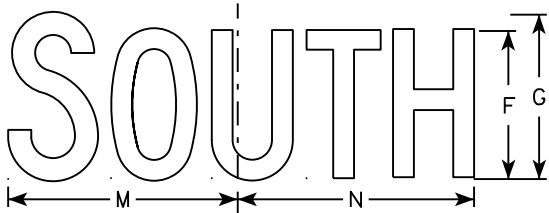
7



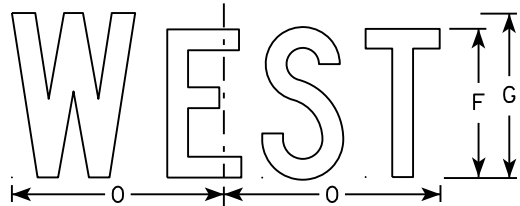
M3-1
MM3-1
MP3-1



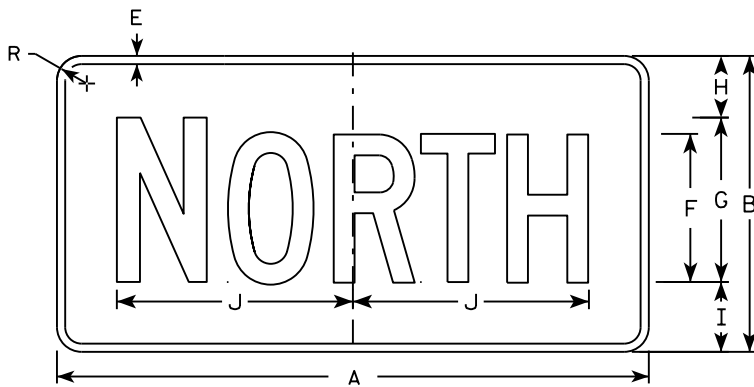
M3-2
MM3-2
MP3-2



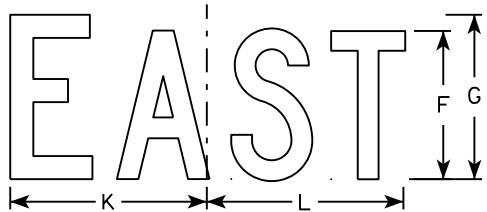
M3-3
MM3-3
MP3-3



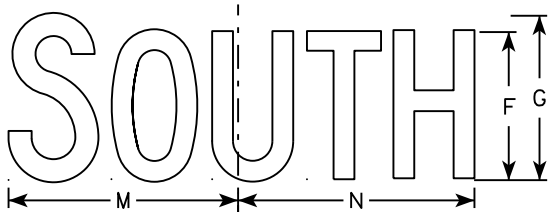
M3-4
MM3-4
MP3-4



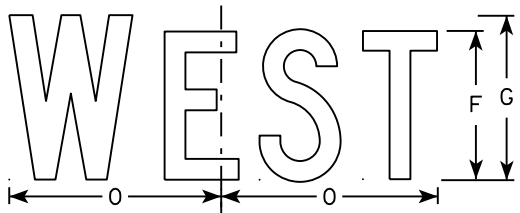
MB3-1
MK3-1
MN3-1



MB3-2
MK3-2
MN3-2



MB3-3
MK3-3
MN3-3



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
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
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
MP3-1 thru MP3-4 Background - White
Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

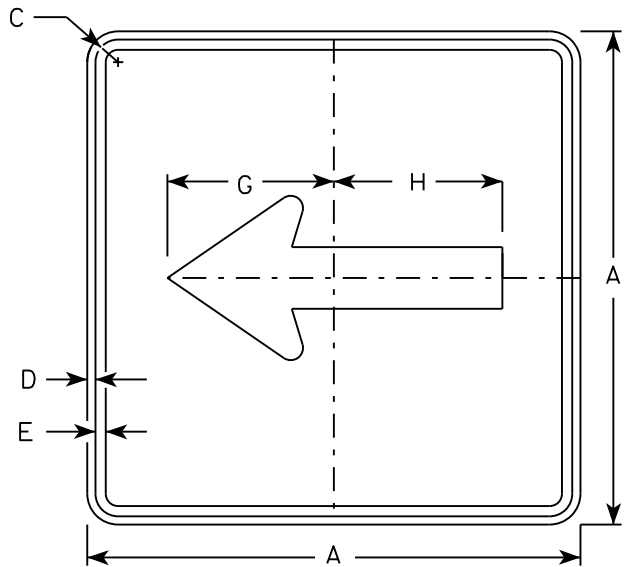
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	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

STANDARD SIGNS
M3-1 thru M3-4
SERIES

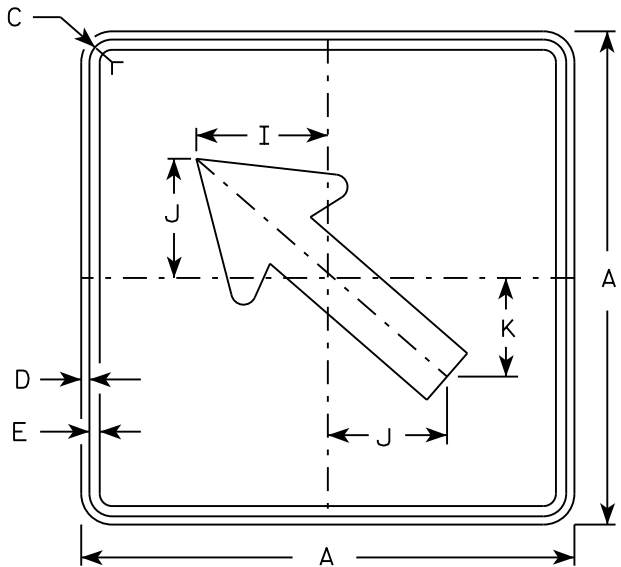
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

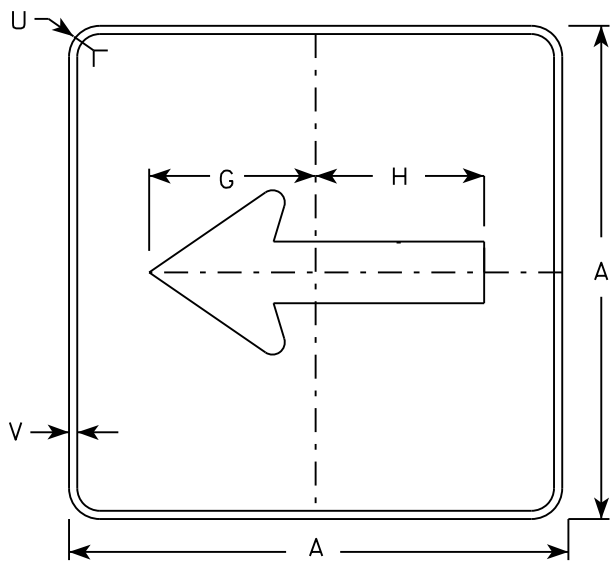
DATE 10/15/15 PLATE NO. M3-1.14



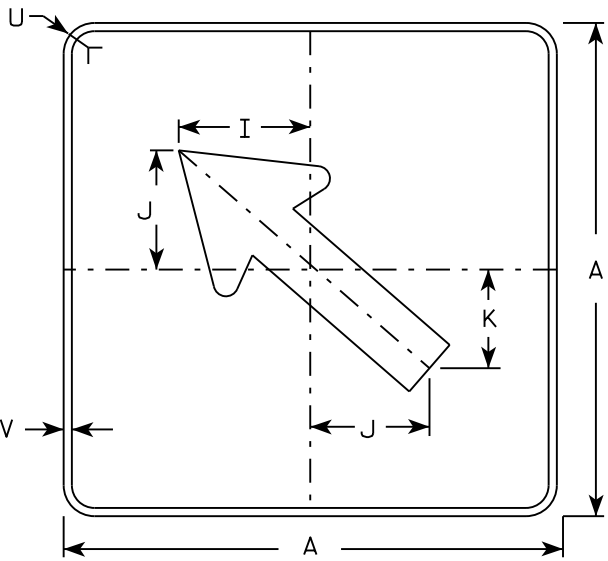
M6 - 1
MM6 - 1
M06 - 1
MP6 - 1



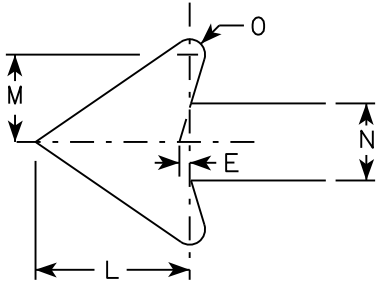
M6 - 2
MM6 - 2
M06 - 2
MP6 - 2



MB6 - 1
MK6 - 1
MN6 - 1
MR6 - 1



MB6 - 2
MK6 - 2
MN6 - 2
MR6 - 2



NOTES

- Signs are Type II - Type H except as Shown
- 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
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

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

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

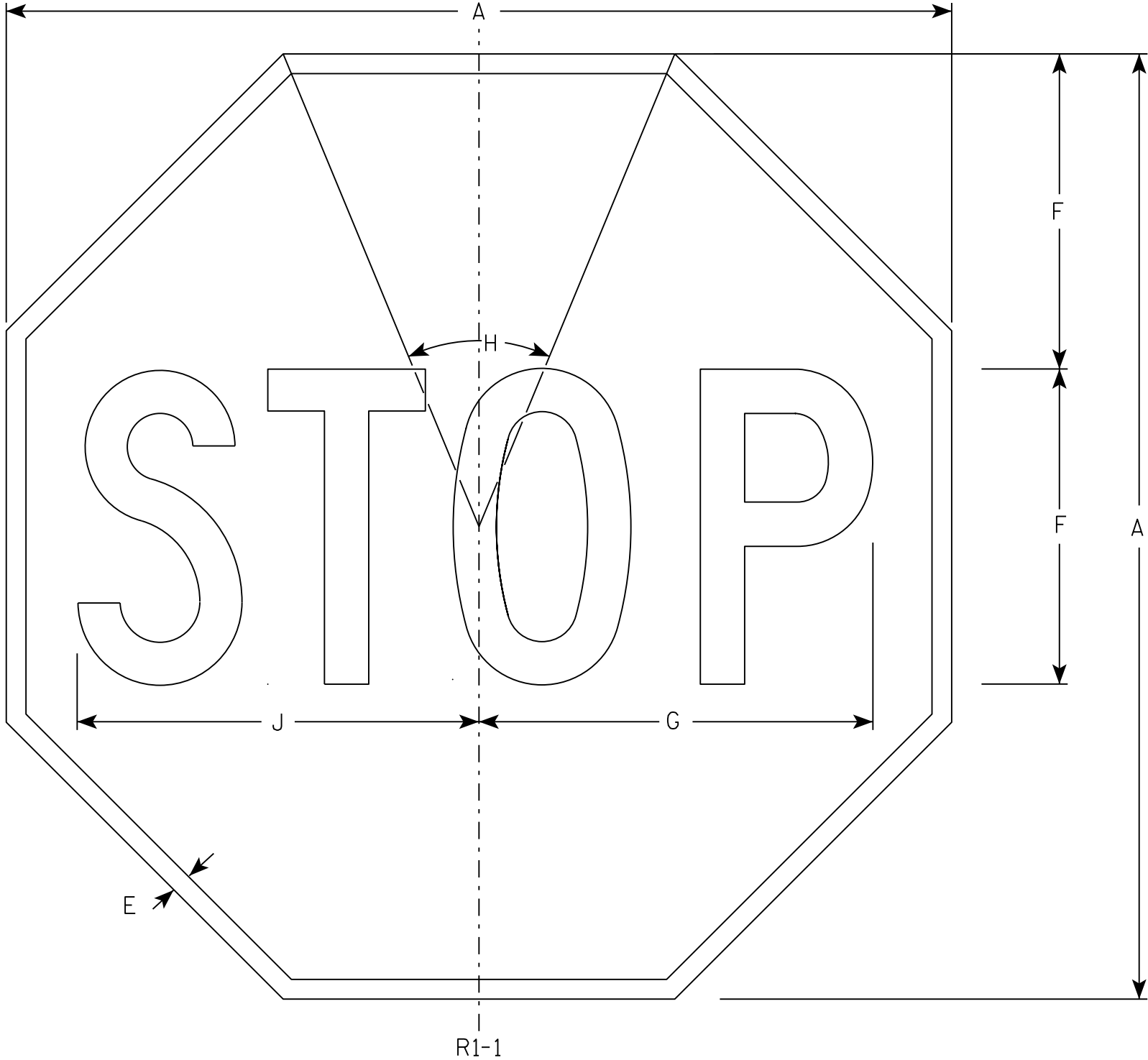
E

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15



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

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				5/8	10	12 1/2	45°		12 3/4																	5.18
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

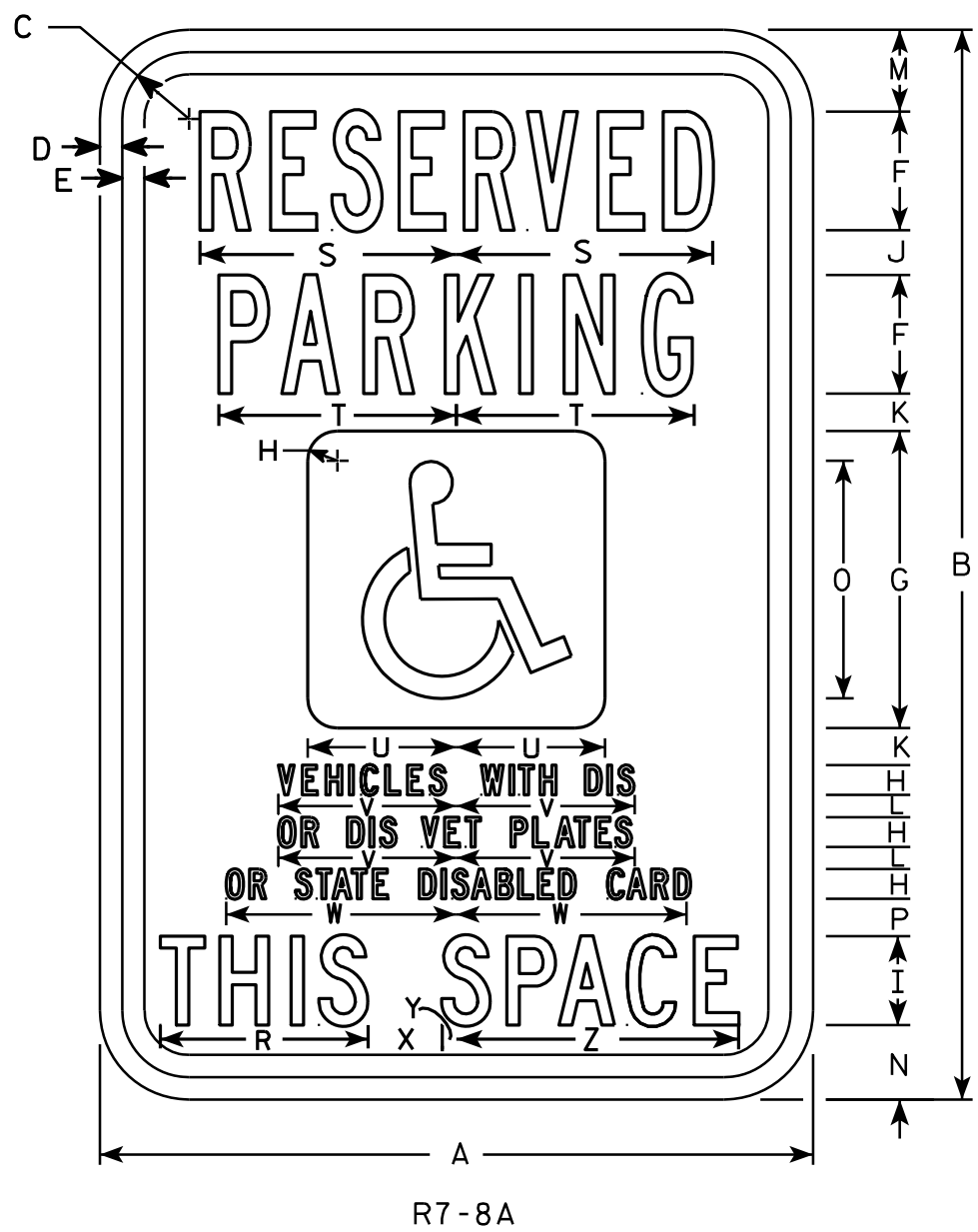
STANDARD SIGN

R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - Sign is white Type H Reflective; paraplegic background is blue.
 - Message - Legend and border are green; paraplegic symbol is white
- 3. Message Series - Lines 1 & 2 are Series B
Lines 3, 4, 5 & 6 are 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.

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	18	1 1/8	3/8	3/8	2	5	1/2	1 1/2	3/4	5/8	3/8	1 3/8	1 1/4	4	5/8		3 1/2	4 3/8	4	2 1/2	3	3 7/8	1 1/4	1/4	4 3/4	1.5
2M	18	24	1 1/8	3/8	1/2	3	6	3/4	2	7/8	5/8	1/2	1 7/8	2	5	3/4		4 5/8	6 1/2	5 3/8	3	4 1/2	5 7/8	1 1/2	1/4	6 3/8	3.0
3	18	24	1 1/8	3/8	1/2	3	6	3/4	2	7/8	5/8	1/2	1 7/8	2	5	3/4		4 5/8	6 1/2	5 3/8	3	4 1/2	5 7/8	1 1/2	1/4	6 3/8	3.0
4																											
5																											

STANDARD SIGN
R7-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/25/2011 PLATE NO. R7-8A.6



R55-51

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

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	18		1 1/2	3/8	3/8	4	3	2	1 1/2	2	2 1/8	6 7/8	7	7 1/4													2.25
2M	18		1 1/2	3/8	3/8	4	3	2	1 1/2	2	2 1/8	6 7/8	7	7 1/4													2.25
3																											
4																											
5																											

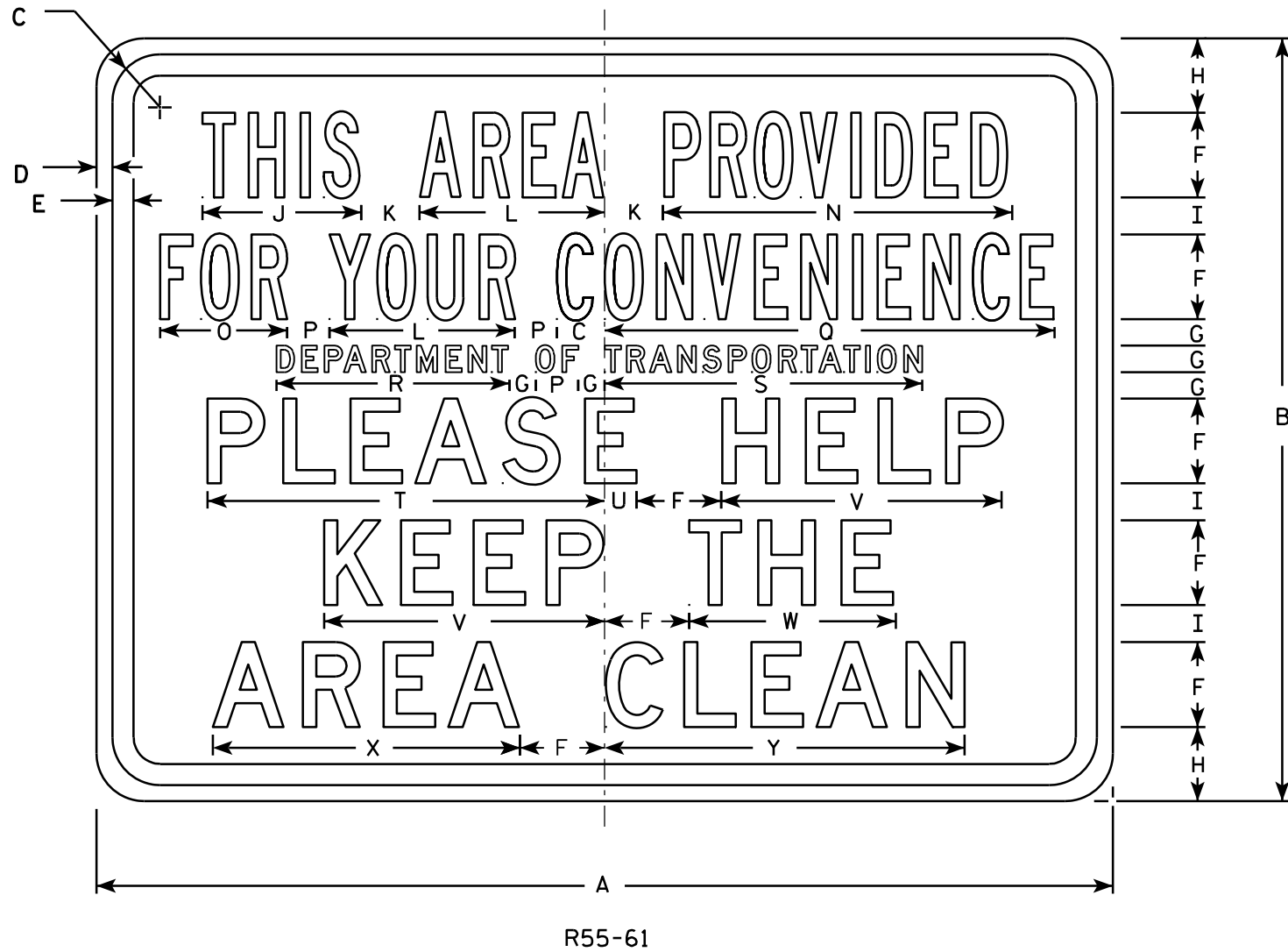
STANDARD SIGN
R55-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/30/11 PLATE NO. R55-51.5

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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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 - 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. Lines 1 and 2 are Series B.
Lines 3, 4, 5 and 6 are Series D.

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	18	1 1/8	3/8	1/2	2	5/8	1 3/4	7/8	3 3/4	1 3/8	4 3/8		8 1/4	3	1	10 5/8	5 1/2	7 1/2	9 3/8	3/4	6 5/8	4 7/8	7 1/4	8 1/2		3.0
2S	24	18	1 1/8	3/8	1/2	2	5/8	1 3/4	7/8	3 3/4	1 3/8	4 3/8		8 1/4	3	1	10 5/8	5 1/2	7 1/2	9 3/8	3/4	6 5/8	4 7/8	7 1/4	8 1/2		3.0
2M	24	18	1 1/8	3/8	1/2	2	5/8	1 3/4	7/8	3 3/4	1 3/8	4 3/8		8 1/4	3	1	10 5/8	5 1/2	7 1/2	9 3/8	3/4	6 5/8	4 7/8	7 1/4	8 1/2		3.0
3																											
4																											
5																											

STANDARD SIGN
R55-61

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/30/11 PLATE NO. R55-61.6

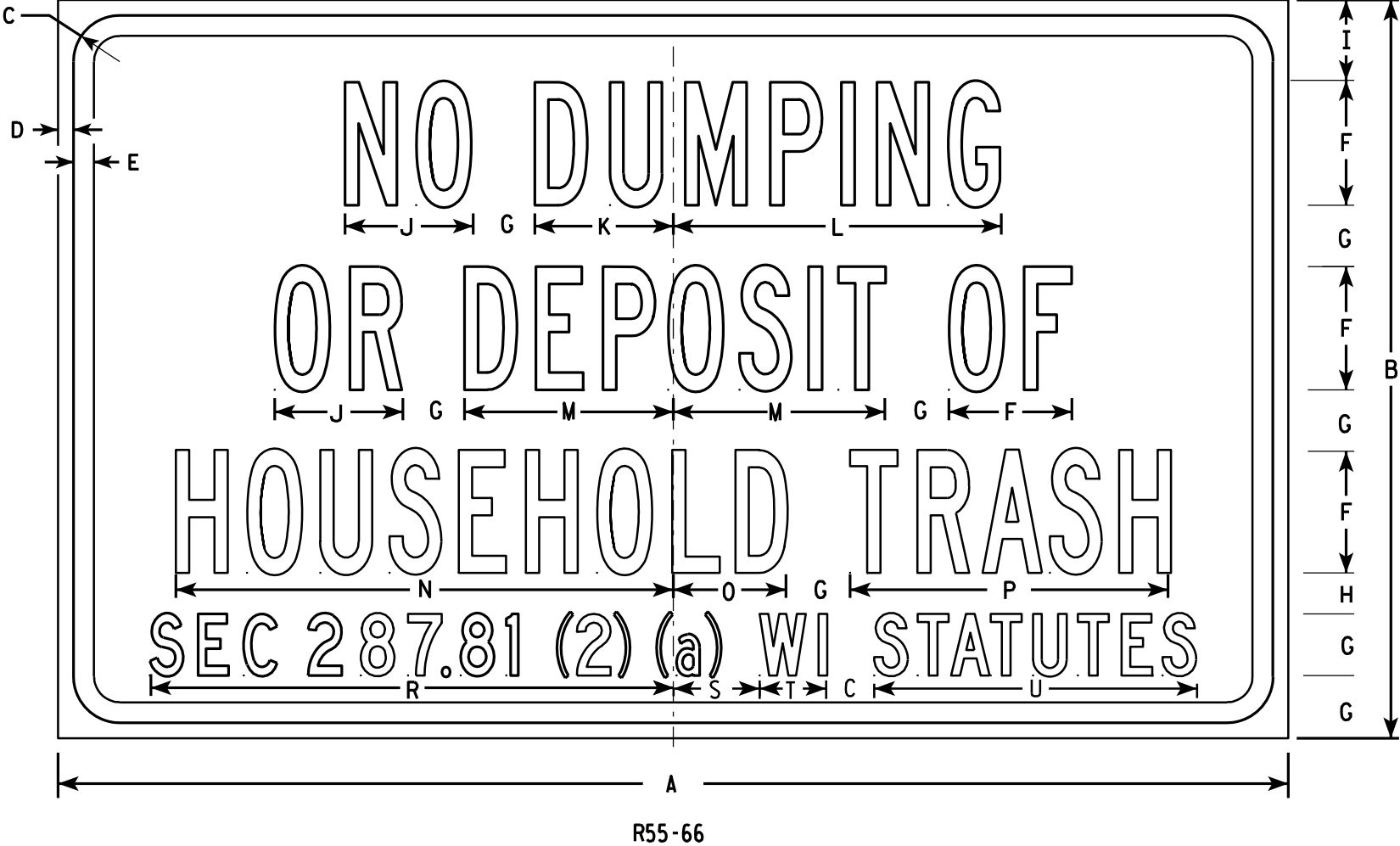
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



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 - B except Line 4 is 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.

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																											
2S	30	18	1 1/8	3/8	1/2	3	1 1/2	1	2	3 1/8	3 3/8	8	5 1/8	12 1/8	2 3/4	7 3/4		12 3/4	2 1/8	1 5/8	7 7/8						3.75
2M	30	18	1 1/8	3/8	1/2	3	1 1/2	1	2	3 1/8	3 3/8	8	5 1/8	12 1/8	2 3/4	7 3/4		12 3/4	2 1/8	1 5/8	7 7/8						3.75
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

STANDARD SIGN
R55-66

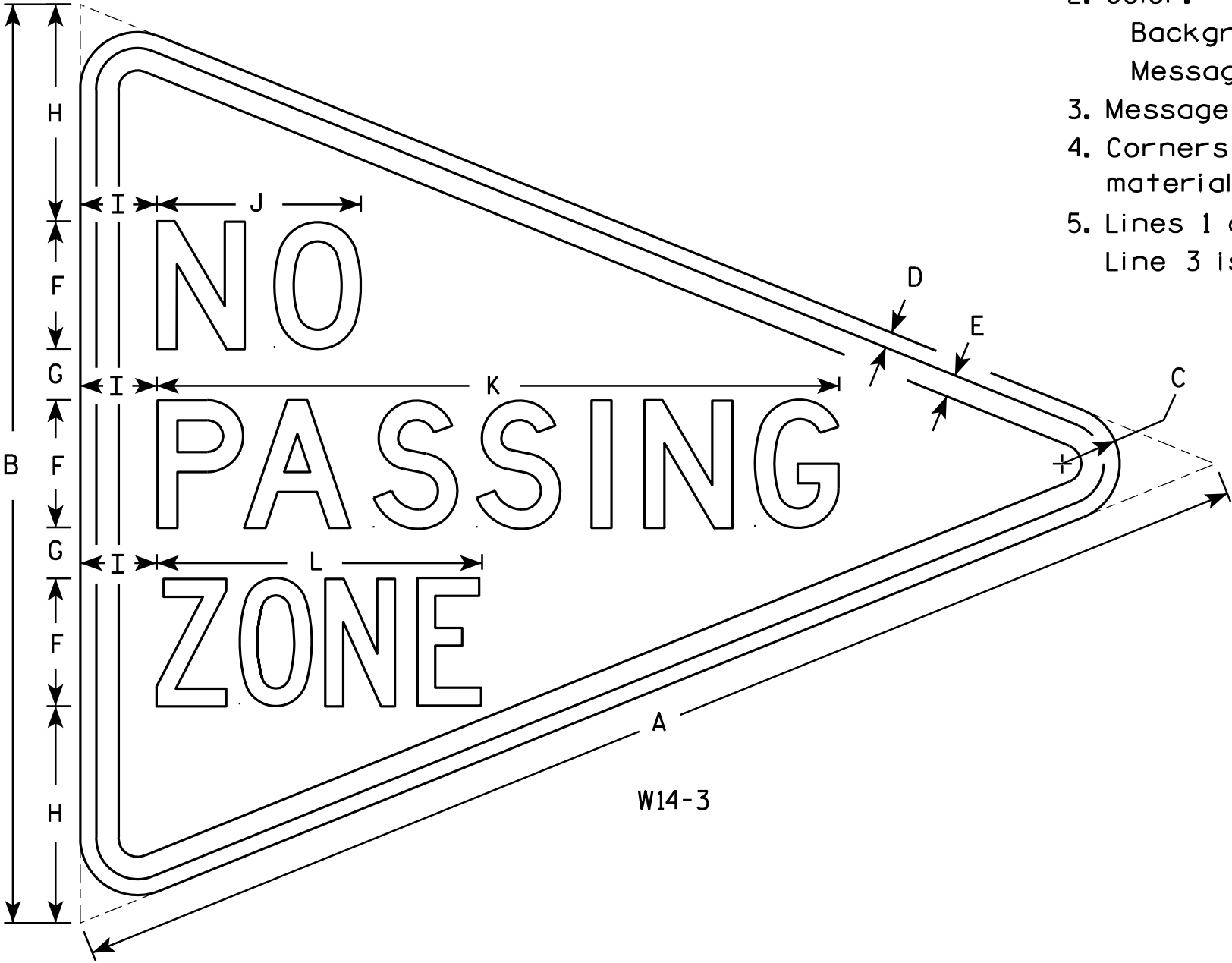
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/30/11 PLATE NO. R55-66.4

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.



W14-3

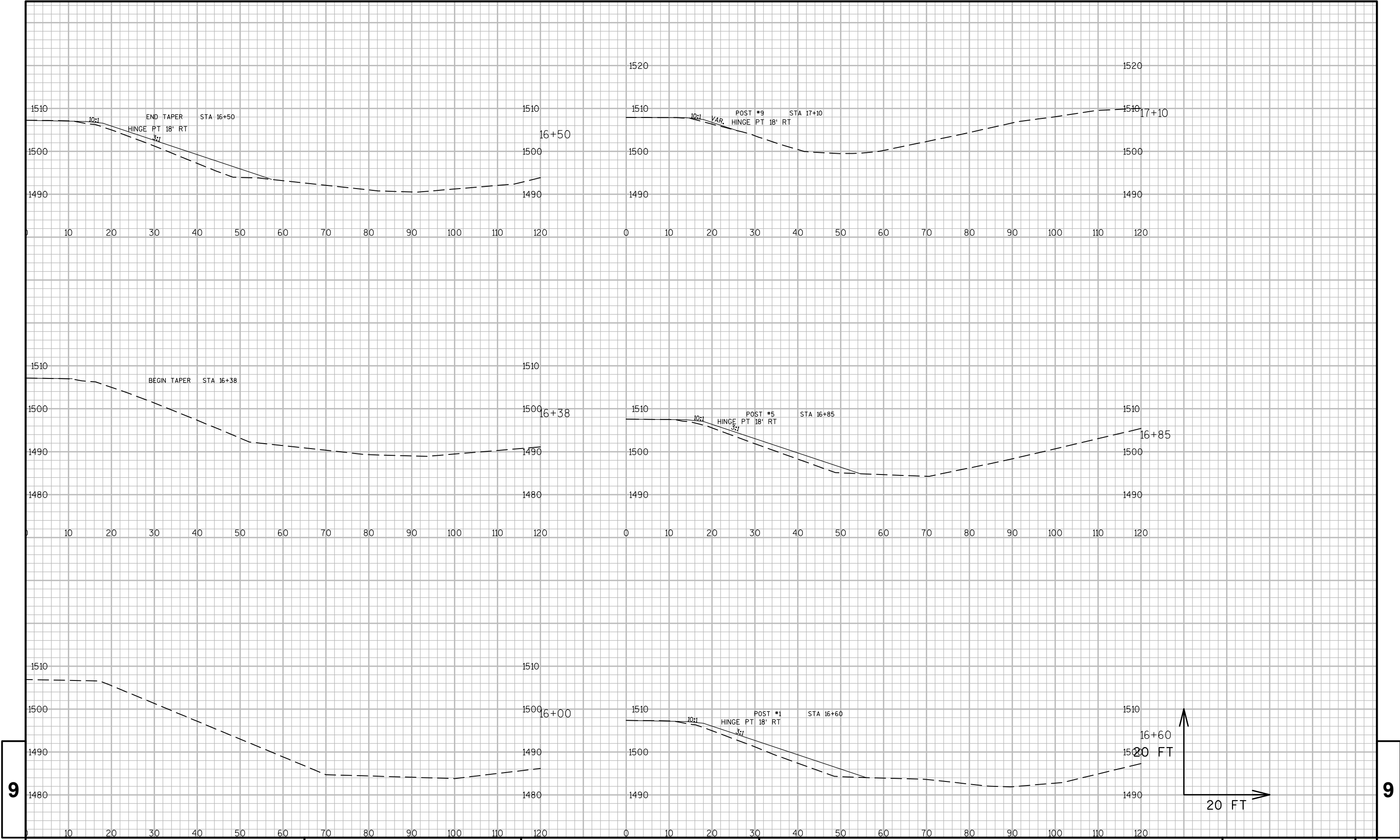
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2														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

STANDARD SIGN
W14-3

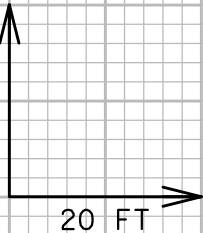
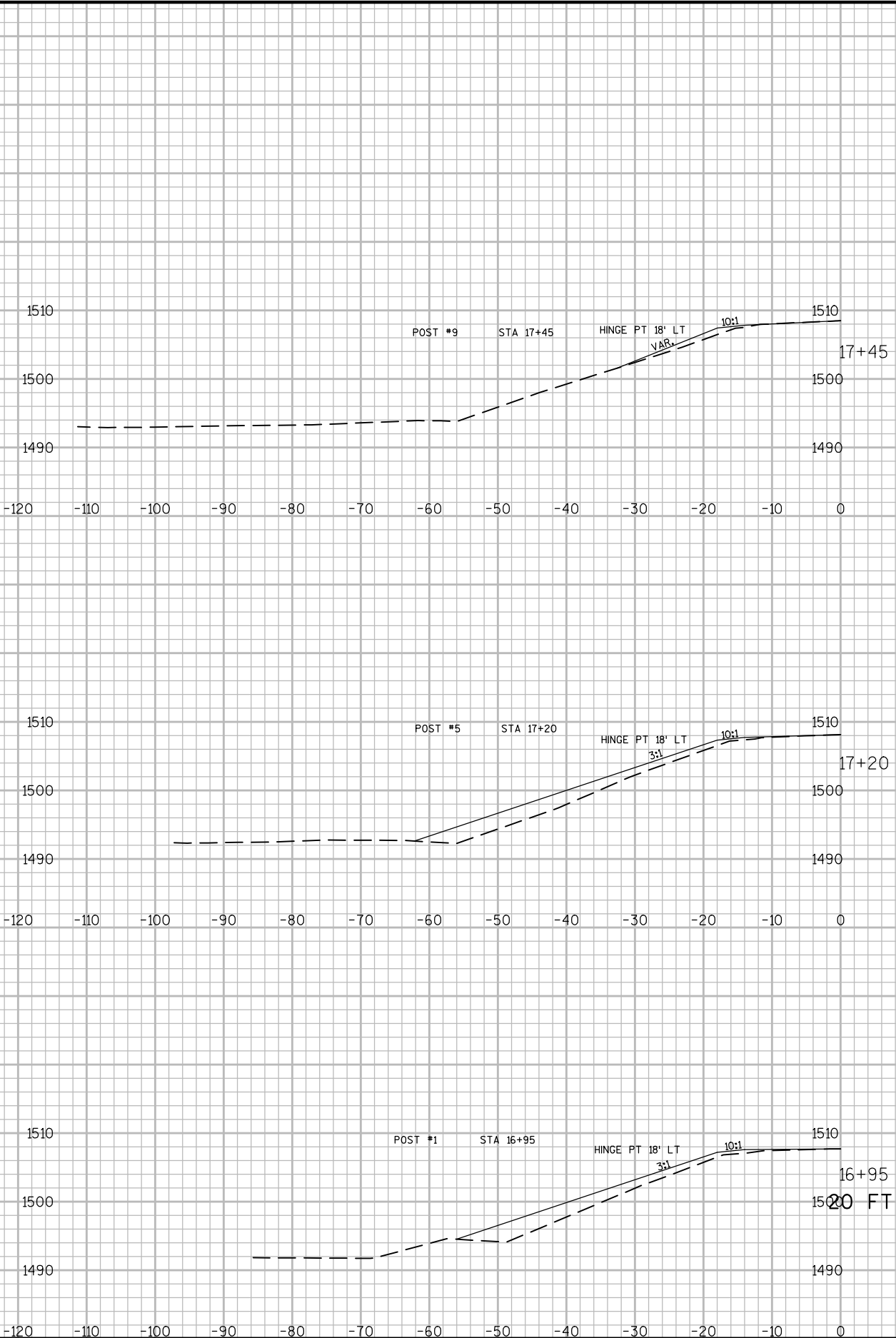
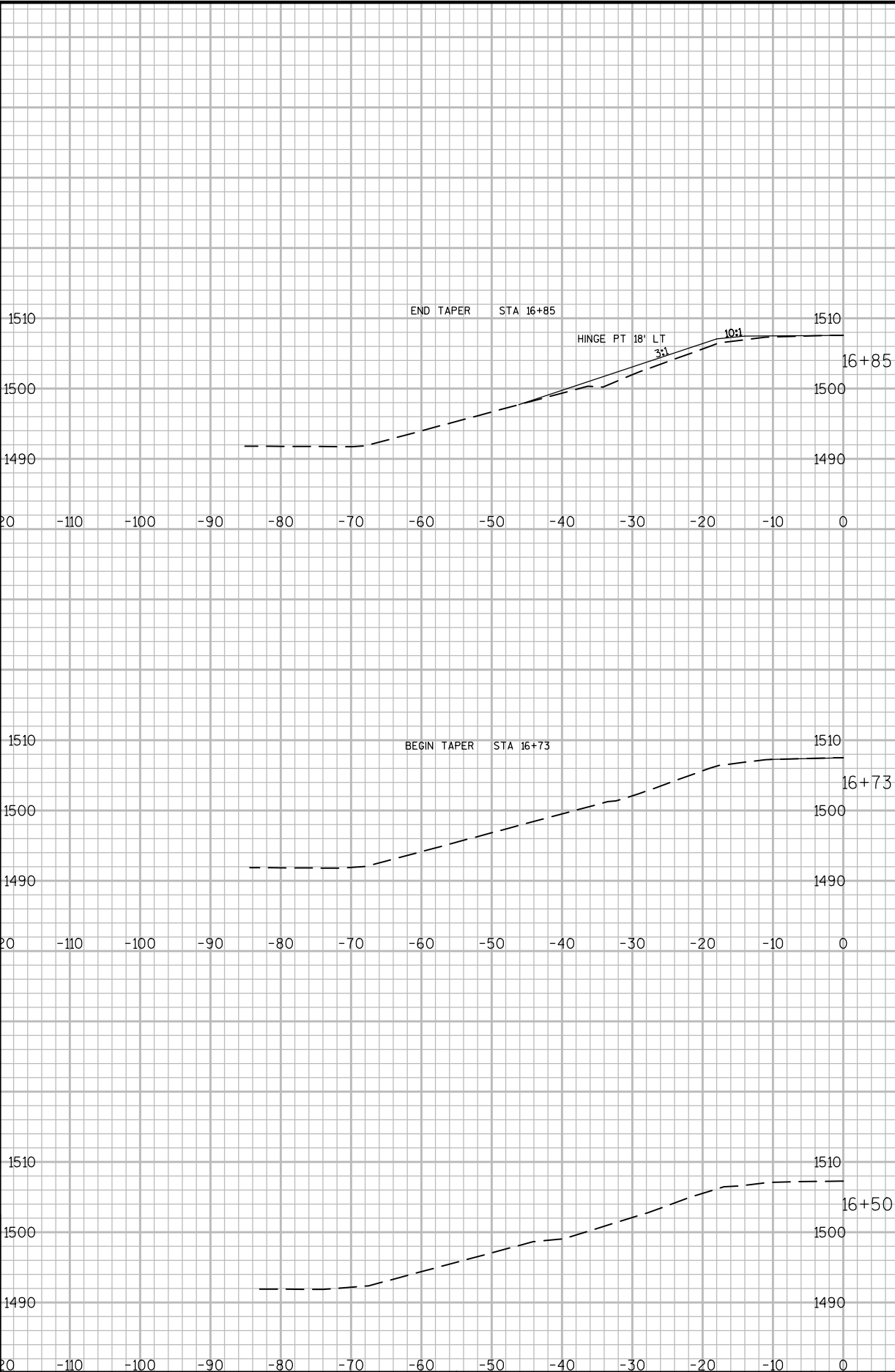
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

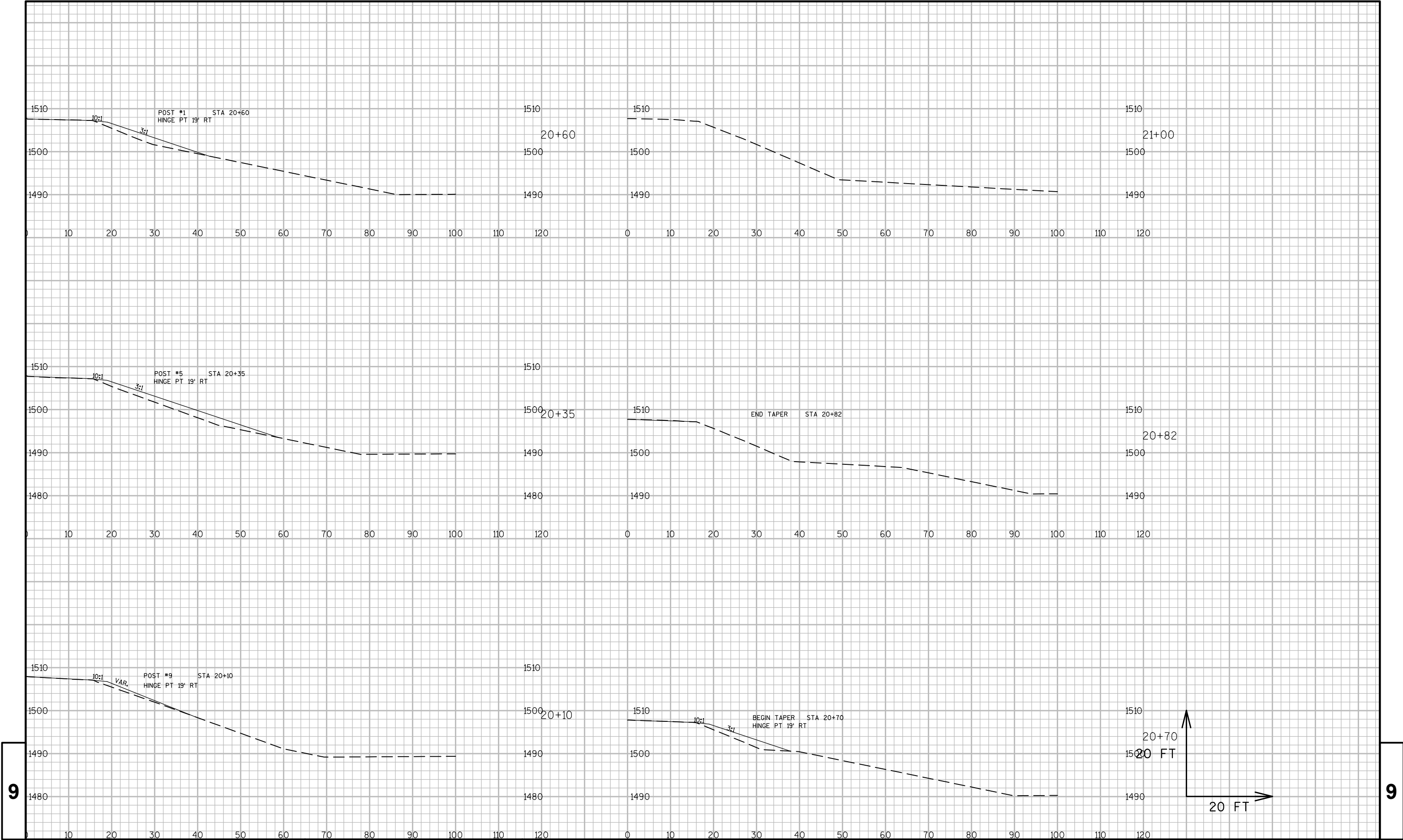
DATE 6/7/10 PLATE NO. W14-3.9



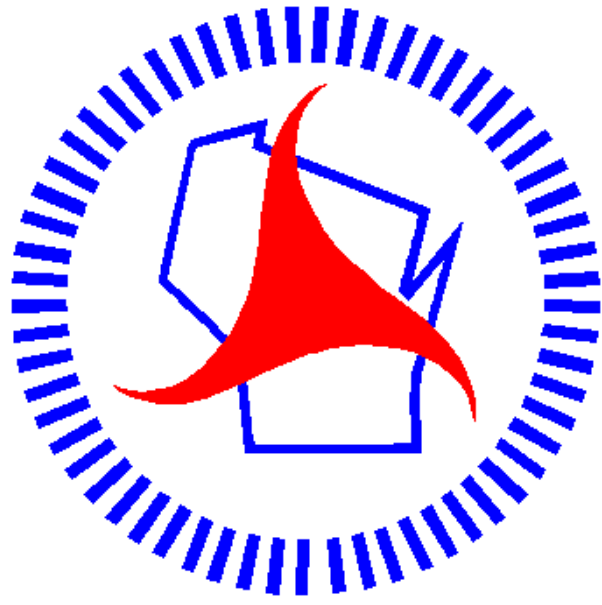
9



9



Notes



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