

RHI

PROJECT ID:

1610-44-70

COUNTY:

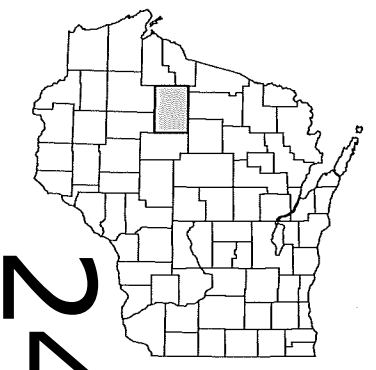
PRICE

MAY 2018

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 = 124



DESIGN DESIGNATION 1610-44-70

A.A.D.T.	2019	=	3,300
A.A.D.T.	2039	=	3,600
D.H.V.		=	378
D.D.		=	60 / 40
T.		=	13.4%
DESIGN SPEED		=	55 MPH
ESALS		=	1,175,000

CONVENTIONAL SYMBOLS

<u>PLAN</u>	
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	

<u>PROFILE</u>	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
<u>UTILITIES</u>	
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

PRENTICE - PARK FALLS

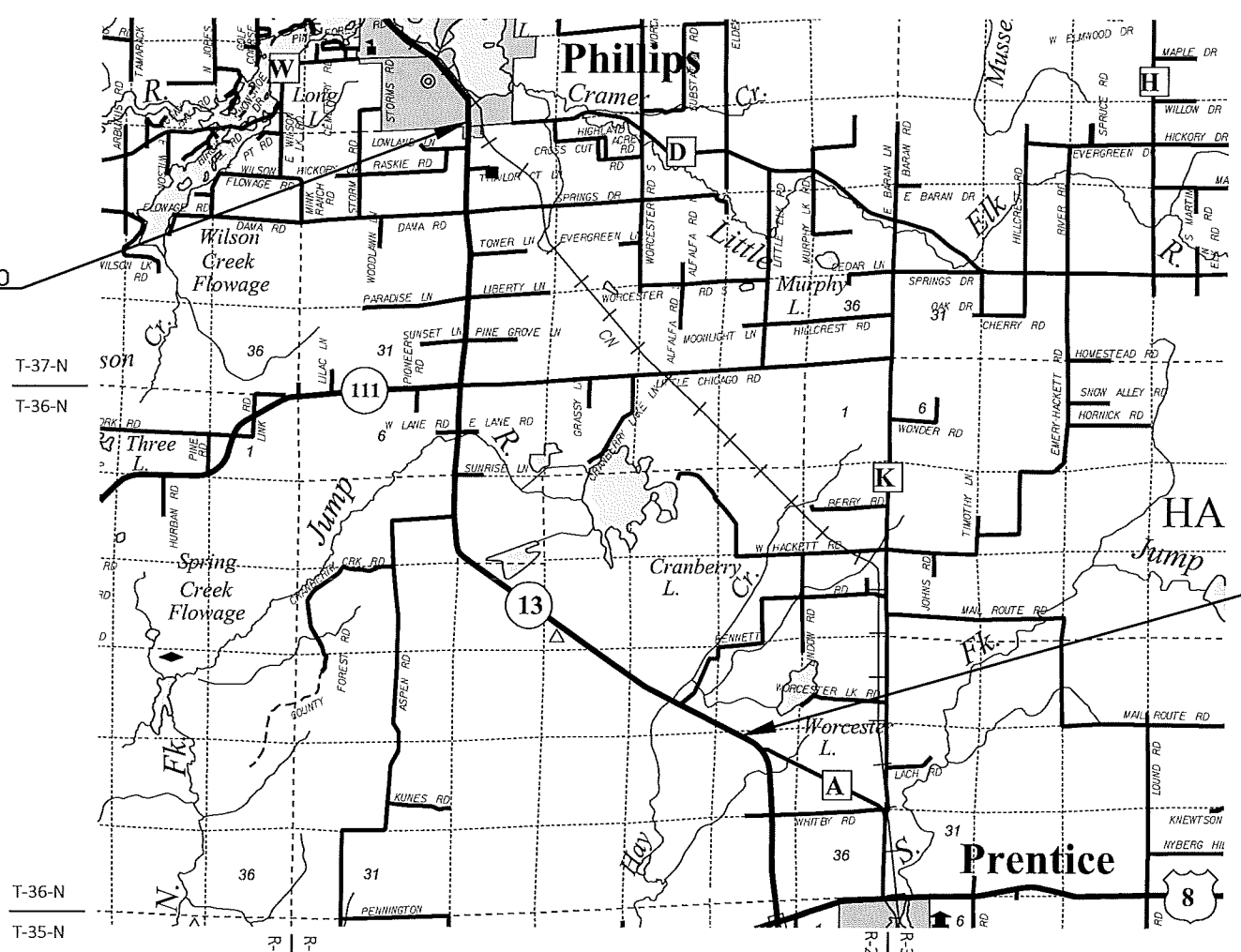
CTH A TO CTH D

STH 13

PRICE COUNTY

STATE PROJECT NUMBER

1610-44-70



LAYOUT

SCALE 0 2 MILE

TOTAL NET LENGTH OF CENTERLINE = 8.727

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). 2012

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, PRICE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1610-44-70	WISC 2018249	1

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	MSA
Designer	AARON J. WALLNER
Project Manager	STACY A. HAGENBUCHER
Regional Examiner	CHERYL L. SIMON
Regional Supervisor	ROBIN W. STAFFORD
APPROVED FOR THE DEPARTMENT	
DATE: 2/1/18	(Signature)
E	

GENERAL NOTES

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

UTILITIES

NORTHERN NATURAL GAS COMPANY

PHILLIPS MUNICIPAL WATER WORKS-SEWER

PHILLIPS MUNICIPAL WATER WORKS-WATER

PRICE COUNTRY TELEPHONE COMPANY

NORTHERN STATES POWER COMPANY
A WISCONSIN CORPORATION DBA XCEL
ENERGY-ELECTRICITY/TRANSMITION

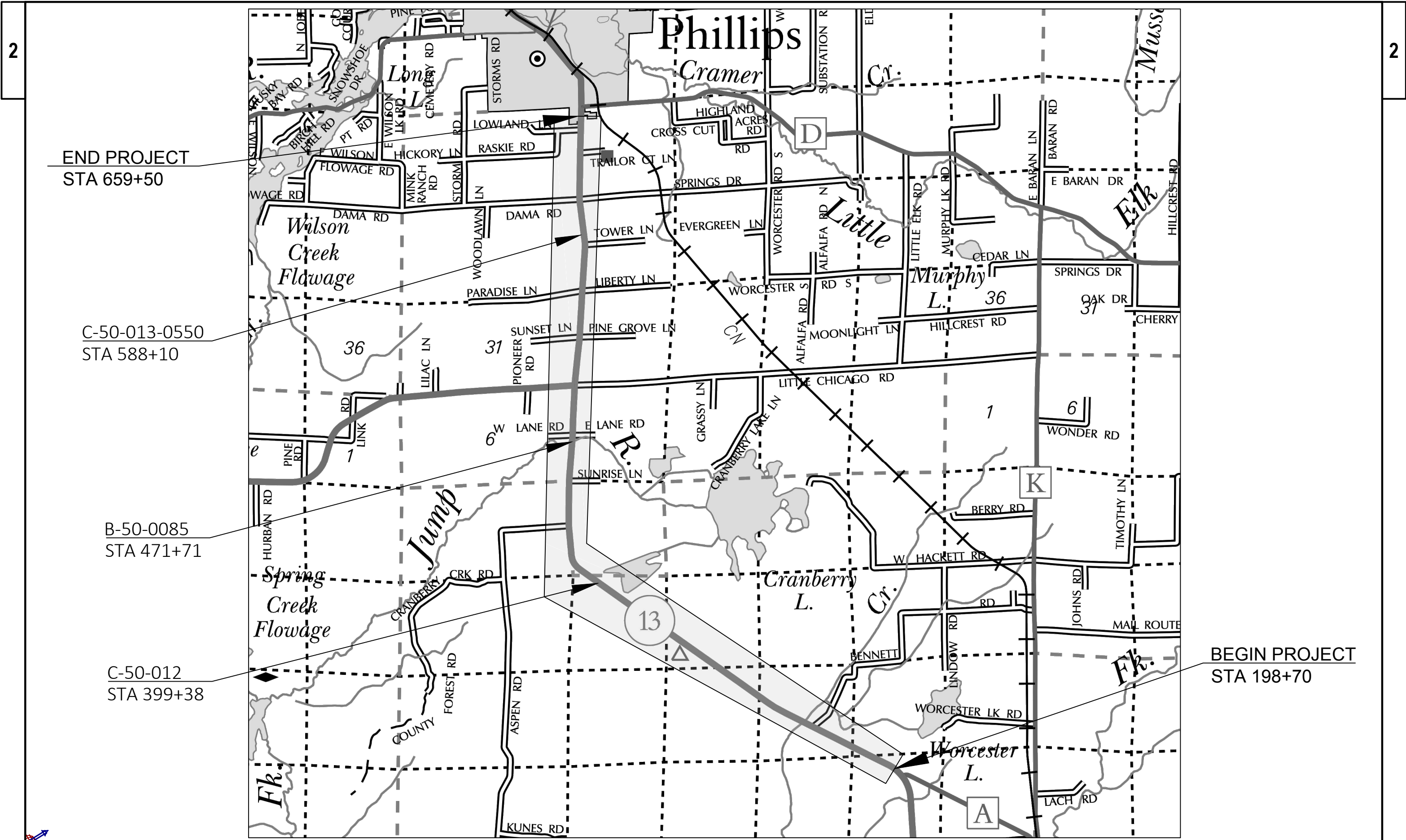
NORTHERN STATES POWER COMPANY
A WISCONSIN CORPORATION DBA XCEL
ENERGY-ELECTRICITY

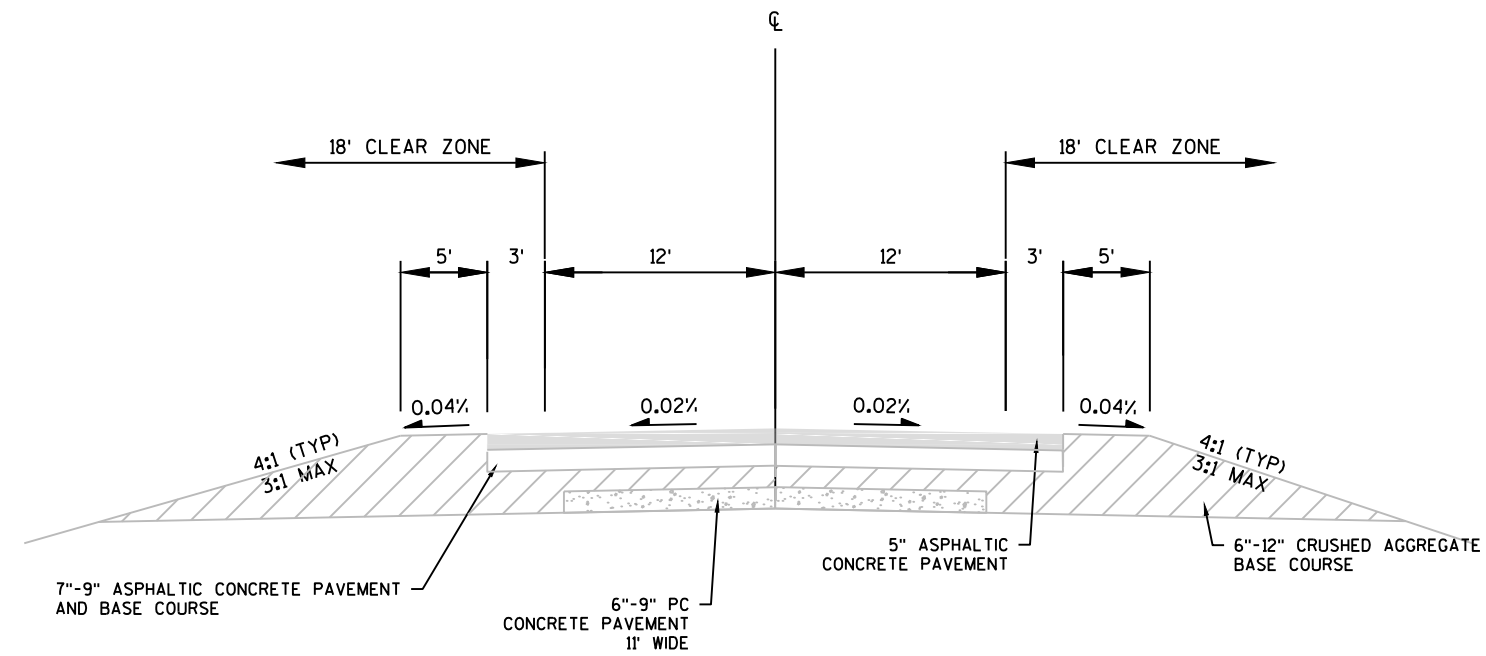
NORTHERN STATES POWER COMPANY
A WISCONSIN CORPORATION DBA XCEL
ENERGY-GAS/PETROLEUM

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

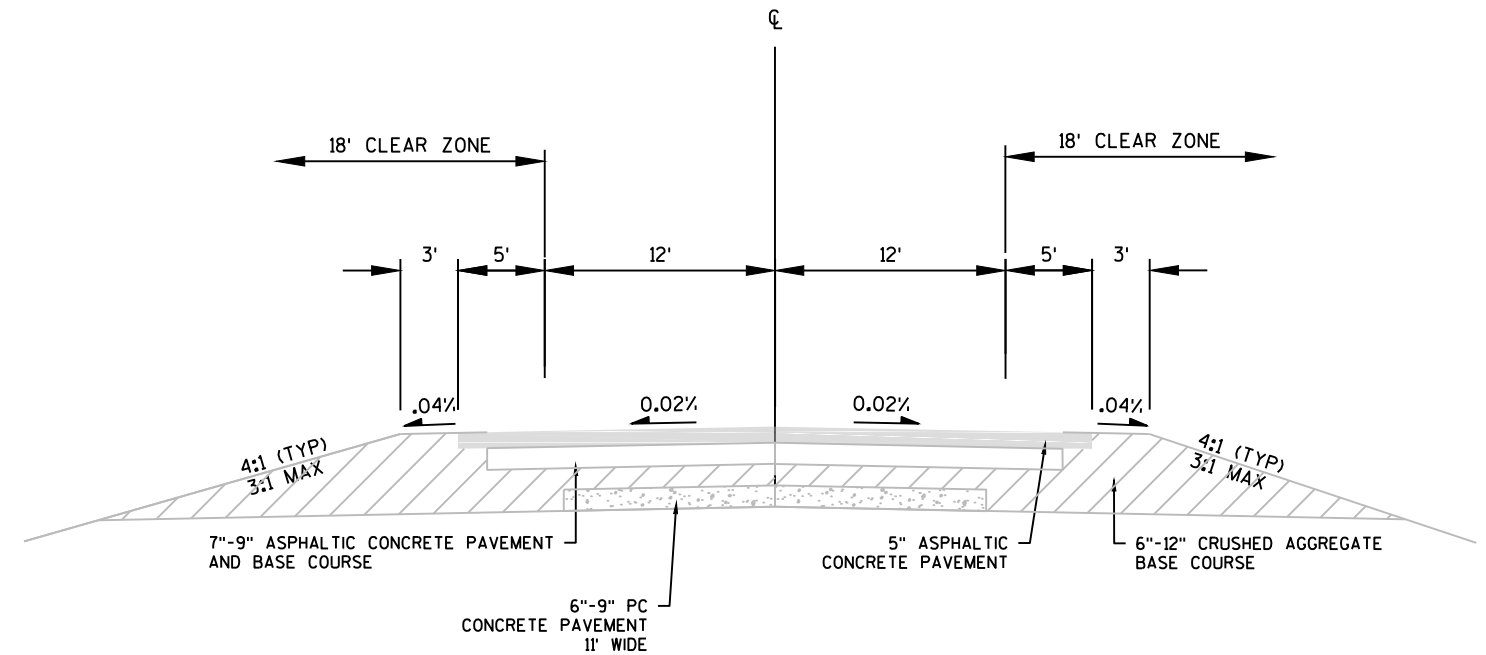
NORTHERN REGION HEADQUARTERS
WENDY HENNIGES
107 SUTLIFF AVE.
RHINELANDER, WI 54501
(715) 365-8932





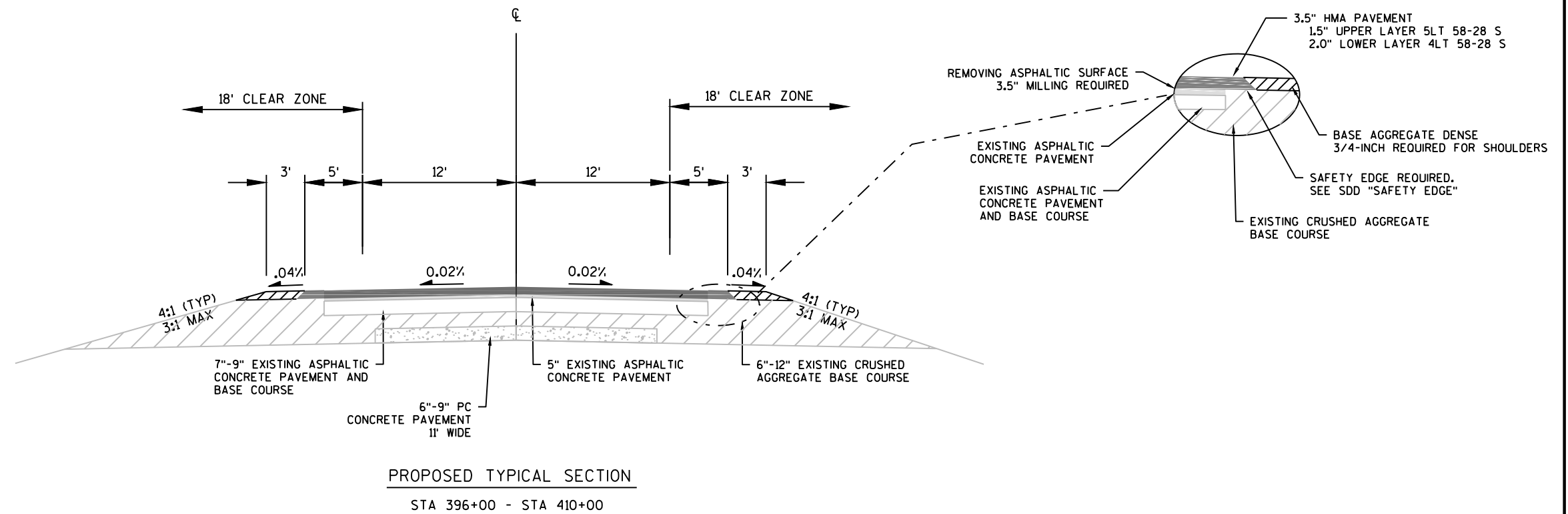
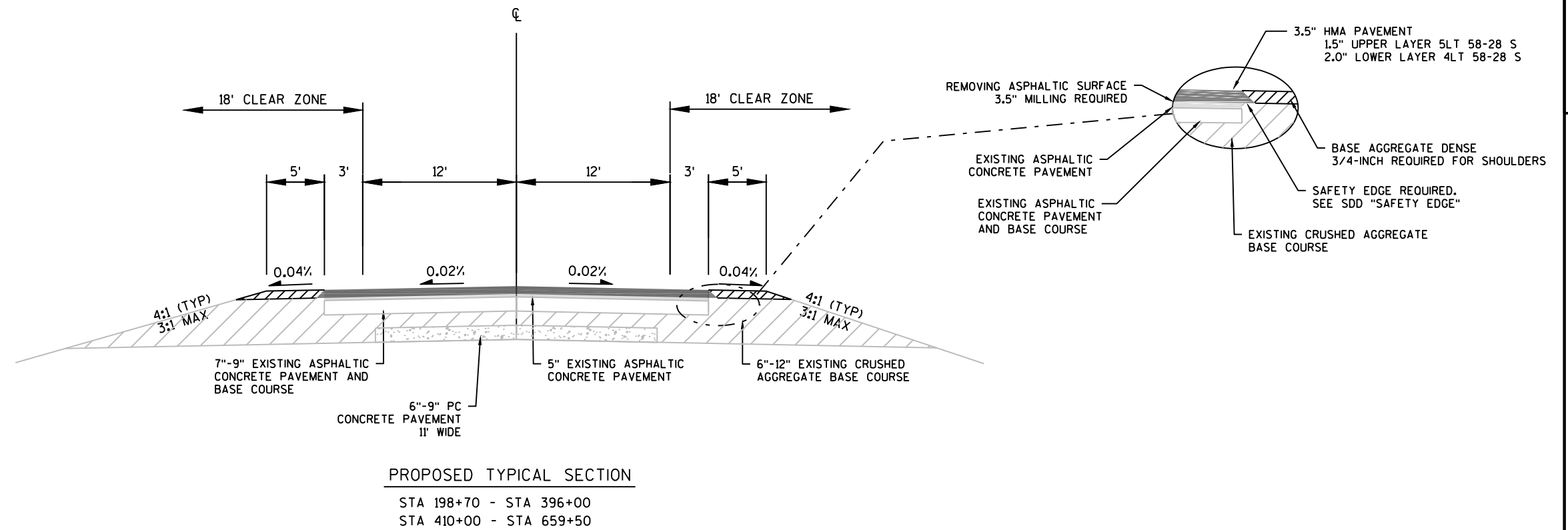


EXISTING TYPICAL SECTION

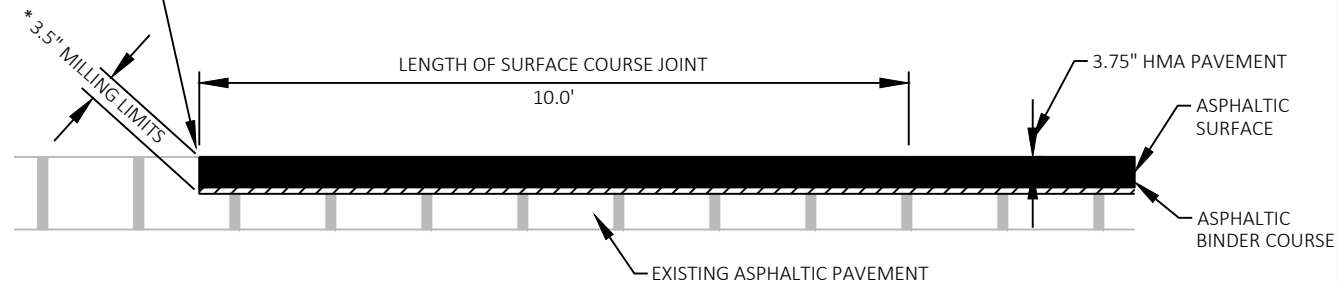
STA 198+70 - STA 396+00
STA 410+00 - STA 659+50

EXISTING TYPICAL SECTION

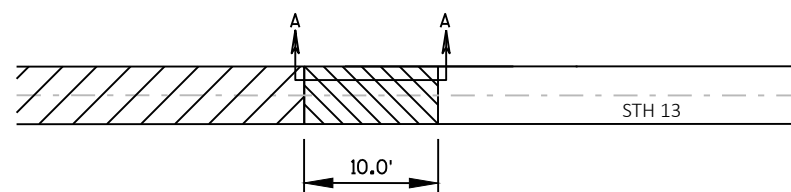
STA 396+00 - STA 410+00

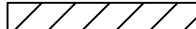
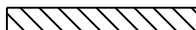


EXACT LOCATION SHALL BE
DETERMINED BY THE ENGINEER



SECTION A-A



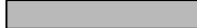
-  REMOVING ASPHALTIC SURFACE MILLING
-  REMOVING ASPHALTIC SURFACE, BUTT JOINT

NOTE: EXACT DIMENSIONS AND LOCATIONS TO BE
DETERMINED BY THE ENGINEER IN THE FIELD.

MAINLINE BUTT JOINT DETAIL

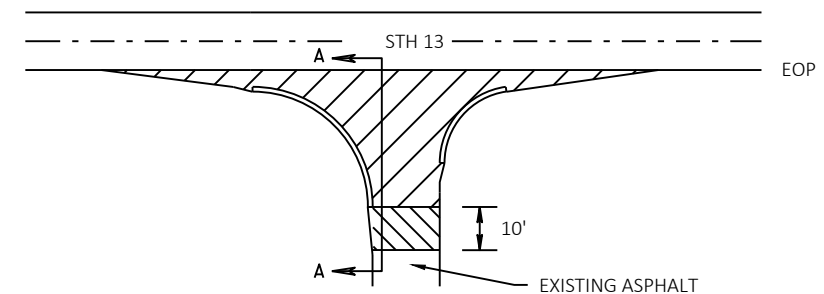
STA 198+70
STA 659+50

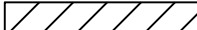
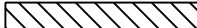


-  HMA PAVEMENT - 1.5" UPPER LAYER 5LT 58-28 S
2.0" LOWER LAYER 4LT 58-28 S
-  REMOVING ASPHALTIC SURFACE MILLING
-  REMOVING ASPHALTIC SURFACE, BUTT JOINT

NOTE: EXACT DIMENSIONS AND LOCATIONS TO BE
DETERMINED BY THE ENGINEER IN THE FIELD.

SECTION A-A

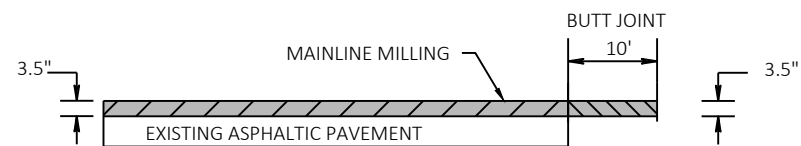


-  REMOVING ASPHALTIC SURFACE MILLING
-  REMOVING ASPHALTIC SURFACE, BUTT JOINT

NOTE: EXACT DIMENSIONS AND LOCATIONS TO BE
DETERMINED BY THE ENGINEER IN THE FIELD.

BUTT JOINT DETAIL

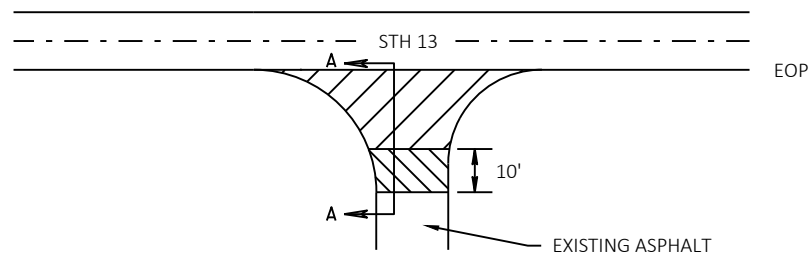
SIDE ROADS WITH CURB AND GUTTER



- HMA PAVEMENT - 1.5" UPPER LAYER 5LT 58-28 S
2.0" LOWER LAYER 4LT 58-28 S
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING ASPHALTIC SURFACE, BUTT JOINT

NOTE: EXACT DIMENSIONS AND LOCATIONS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

SECTION A-A

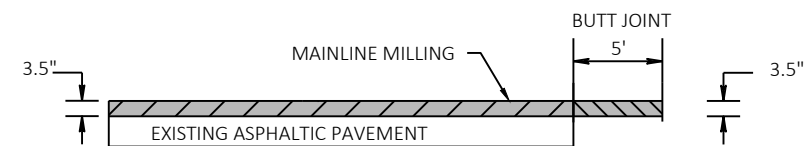


- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING ASPHALTIC SURFACE, BUTT JOINT

NOTE: EXACT DIMENSIONS AND LOCATIONS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

BUTT JOINT DETAIL

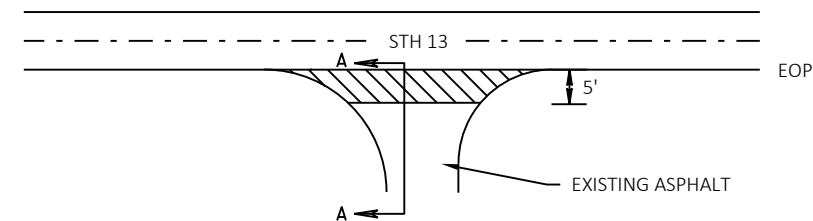
SIDE ROADS WITHOUT CURB AND GUTTER



- ASPHALTIC SURFACE - 1.5" UPPER LAYER
2.0" LOWER LAYER
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING ASPHALTIC SURFACE, BUTT JOINT

NOTE: EXACT DIMENSIONS AND LOCATIONS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

SECTION A-A

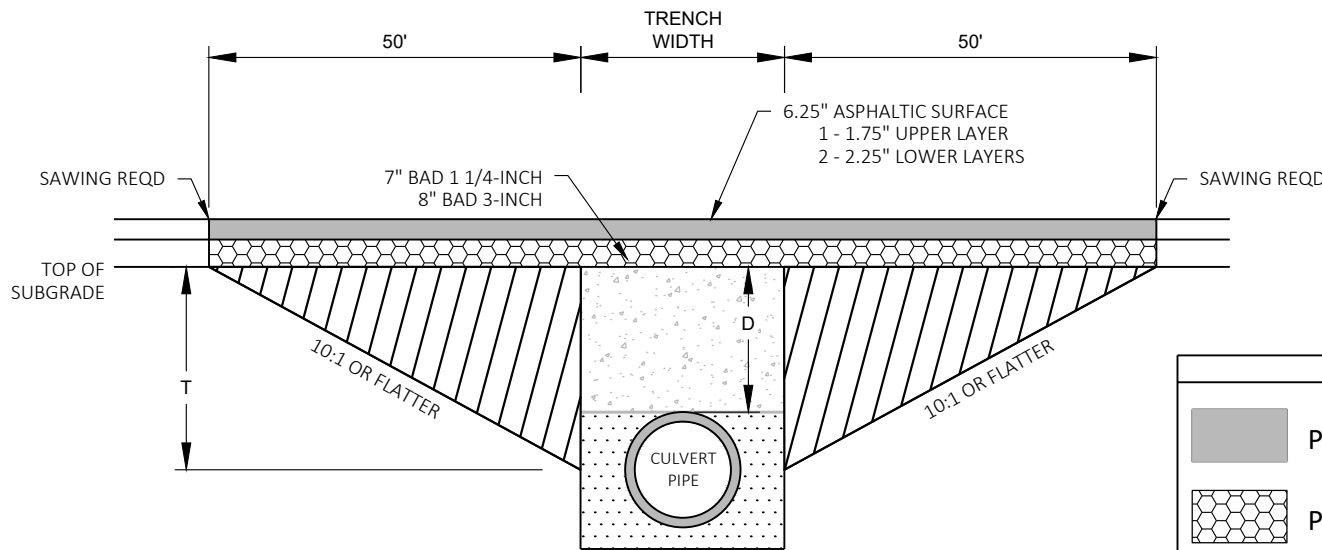


- REMOVING ASPHALTIC SURFACE, BUTT JOINT

NOTE: EXACT DIMENSIONS AND LOCATIONS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

BUTT JOINT DETAIL

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES



TRANSITION CUT DEPTH (T) = THE LESSER OF
DEPTH TO CENTER OF PIPE OR 5 FT.
DO NOT EXTEND TRANSITION CUT BELOW HORIZONTAL CENTER OF PIPE.

DEPTH D < 6 FT

KEY

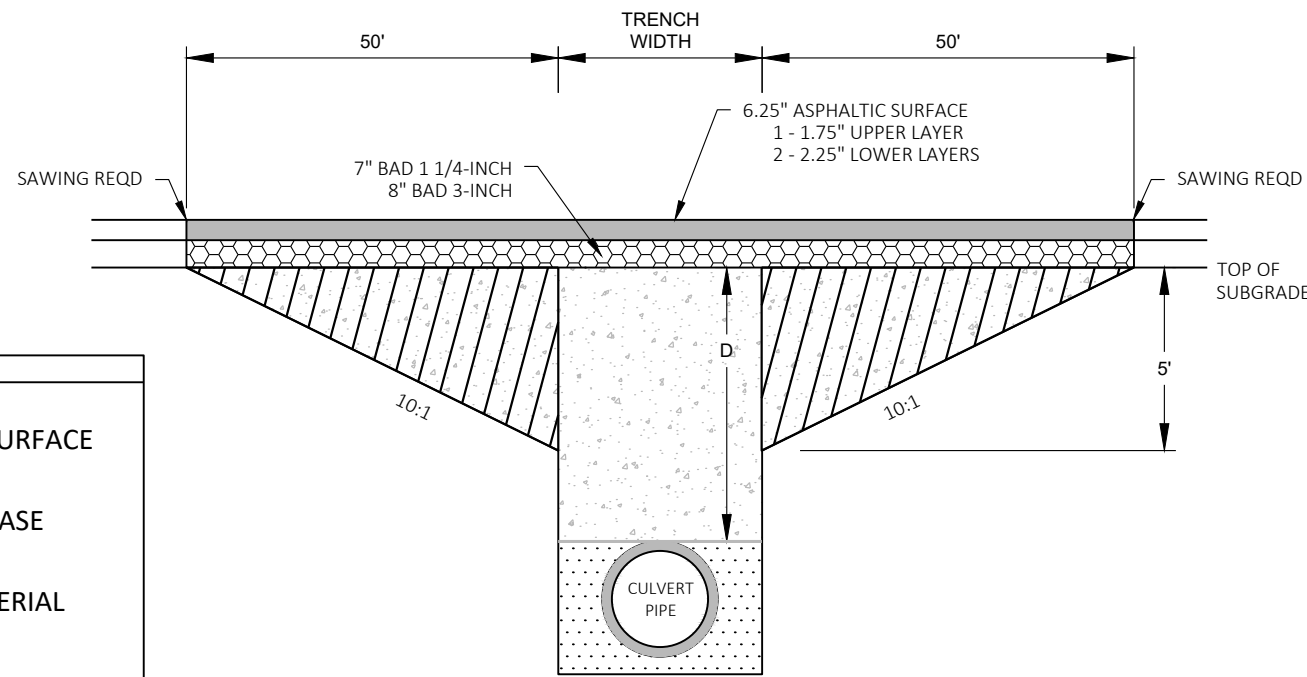
PROPOSED SURFACE

PROPOSED BASE

NATIVE MATERIAL

FLOWABLE FILL

TRANSITION CUT



DEPTH D ≥ 6 FT

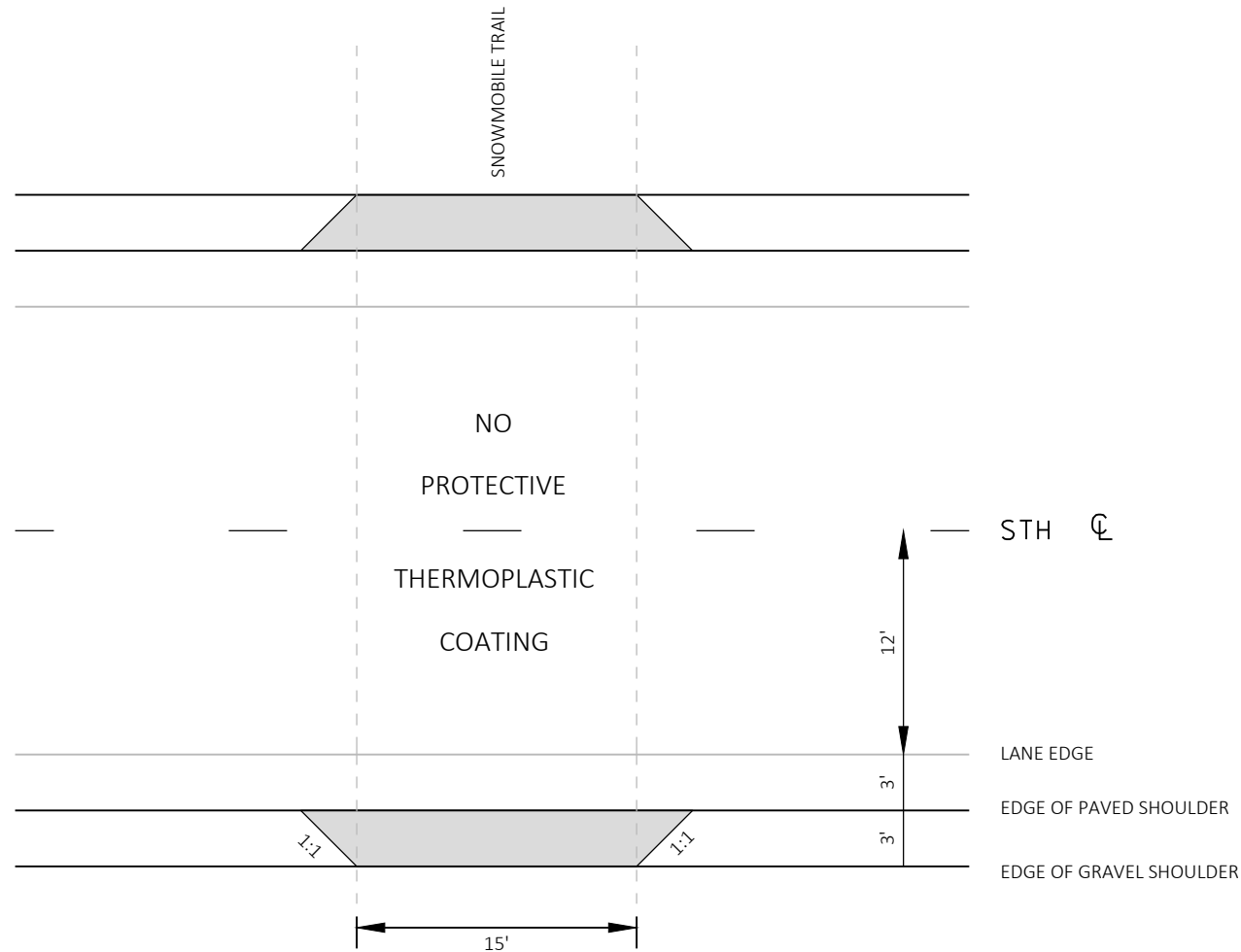
*USE HMA PAVEMENT 4 LT 58-28 S FOR ASPHALTIC MIXTURE.

NOTES

- TRANSITION CUT IS PAID AS EXCAVATION COMMON.
- TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT.
- TRENCH BACKFILL IS INCIDENTAL TO CULVERT PIPE BID ITEMS.
- PERFORM CULVERT PIPE REPLACEMENT BEFORE REMOVING ASPHALTIC SURFACE MILLING.
- PLACE ASPHALTIC SURFACE AFTER CULVERT PIPE CONSTRUCTION AND BEFORE REMOVING ASPHALTIC SURFACE MILLING.
- PAY FOR ALL NATIVE MATERIAL THROUGH REPLACING CULVERT PIPE BACKFILL, ITEM SPV.0035.01
- CULVERT TRENCH EXCAVATION IS INCIDENTAL TO CULVERT PIPE ITEMS

CULVERT PIPE TRANSITION

CULVERT ID	CL STA	D DEPTH (FT)	PIPE DIA (IN)	PIPE TYPE
C-50-012	399+31	5.5	38x60	CPRCHE IV
B-50-0085	471+71	4.0	63x98	CPRCHE IV
C-50-0013-0550	588+10	4.0	24x36	CPRCHE III

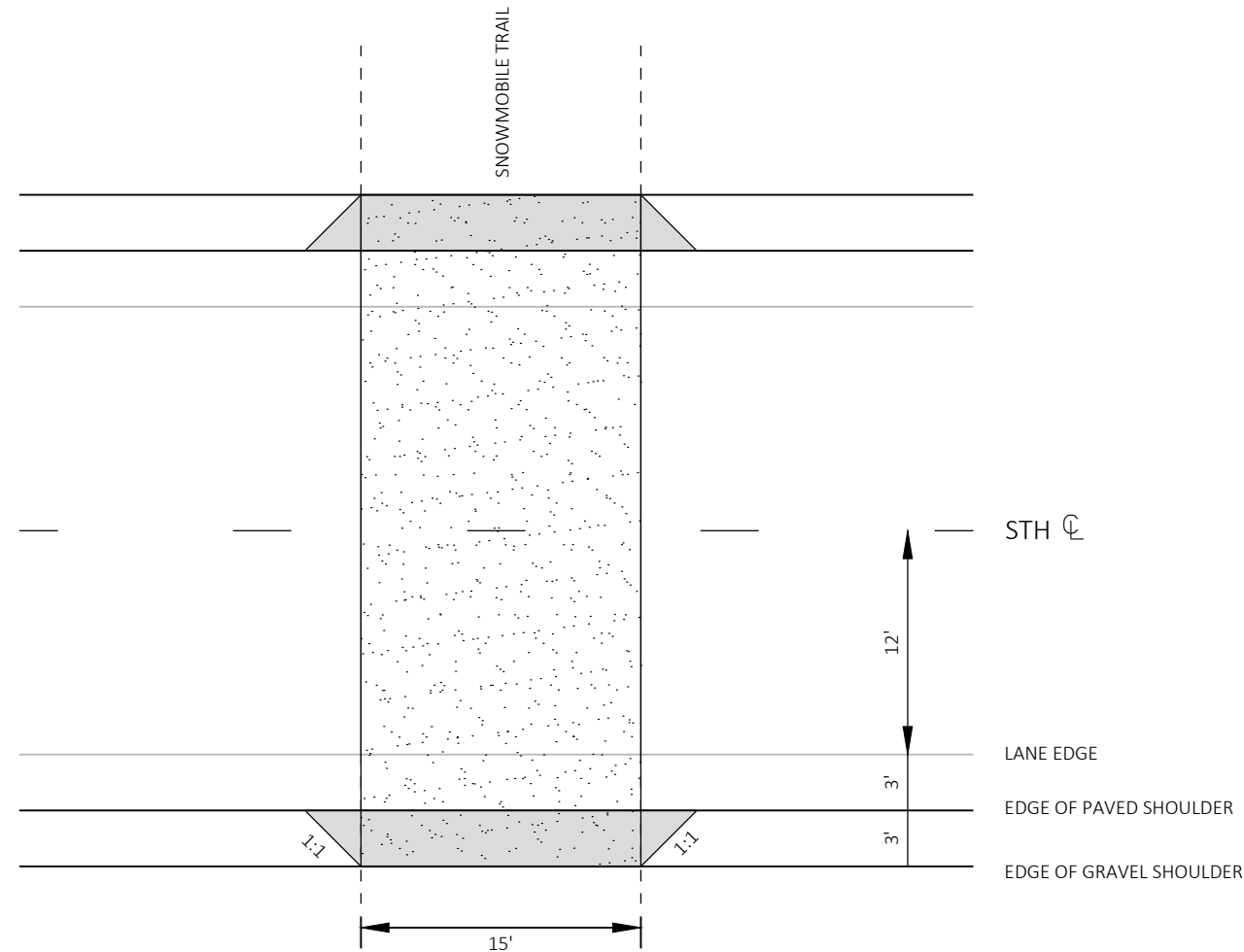


HMA TYPE 4LT 58-28 S PAVEMENT WIDENING
4-INCHES FOR SNOWMOBILE TRAIL CROSSING

NOTE:PREPARATION FOR PAVEMENT WIDENING
FALLS UNDER PREPARE FOUNDATION
FOR ASPHALTIC SHOULDERS

PAVING FULL WIDTH SHOULDERS AT
SNOWMOBILE TRAIL CROSSING

STA 269+33
STA 502+65



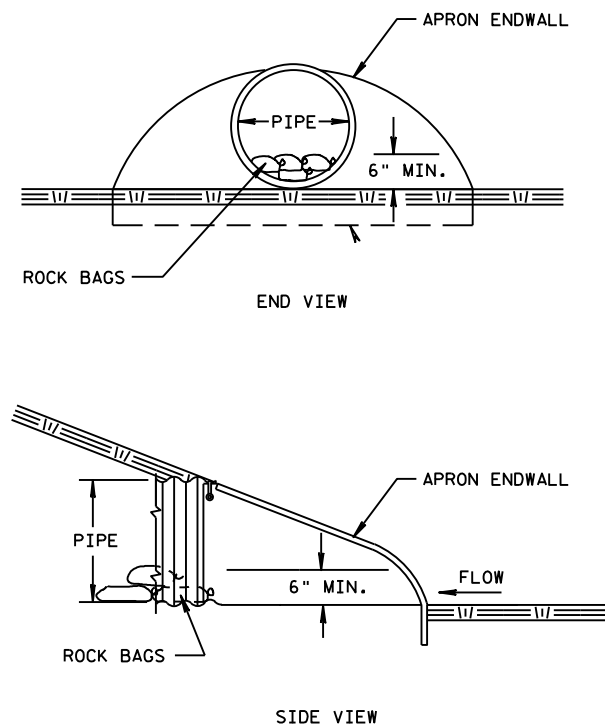
PROTECTIVE THERMOPLASTIC COATING
AT SNOWMOBILE TRAIL CROSSING

HMA TYPE 4LT 58-28 S PAVEMENT WIDENING
4-INCHES FOR SNOWMOBILE TRAIL CROSSING

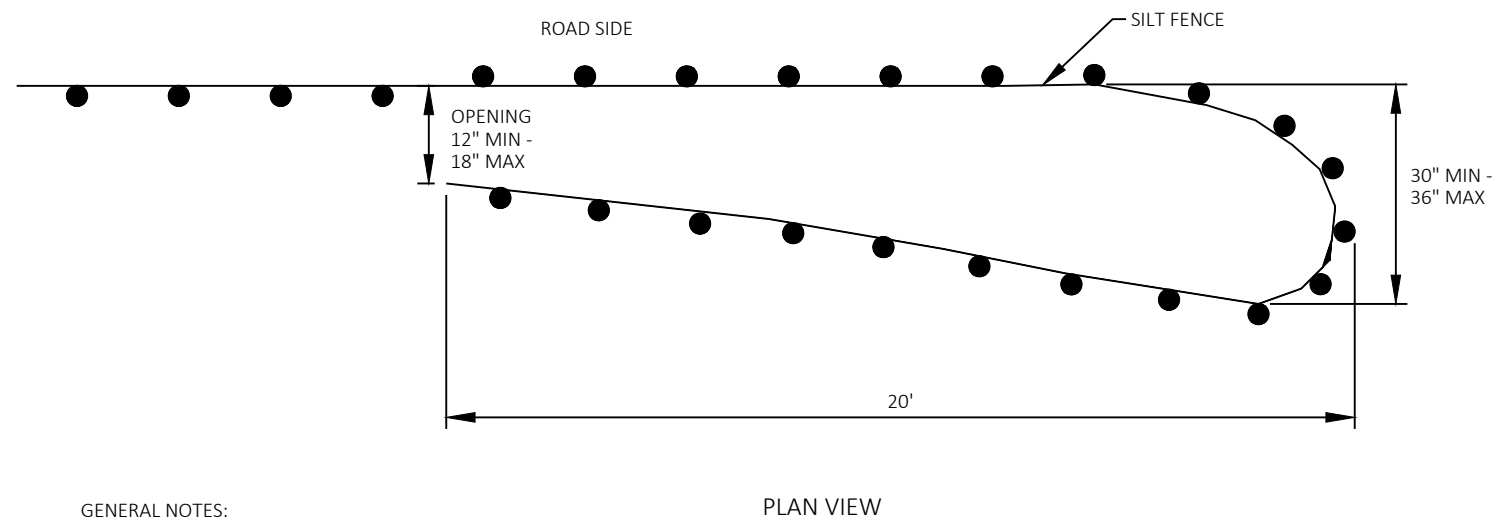
NOTE:PREPARATION FOR PAVEMENT WIDENING
FALLS UNDER PREPARE FOUNDATION
FOR ASPHALTIC SHOULDERS

SNOWMOBILE TRAIL CROSSING
WITH FULL WIDTH SHOULDERS AND PROTECTIVE COATING

STA 598+97
STA 657+69



CULVERT PIPE DITCH CHECK

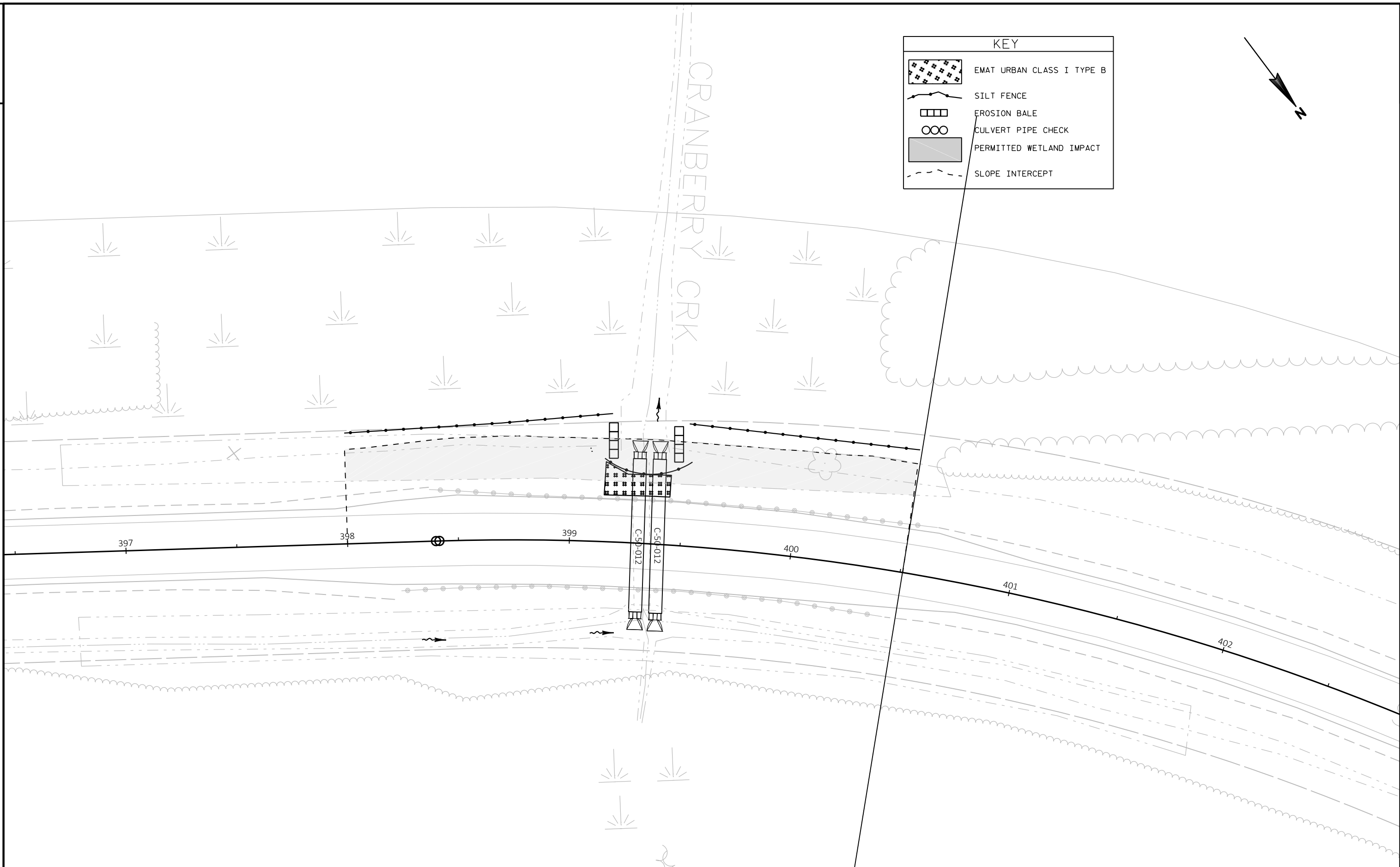


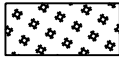
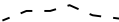
GENERAL NOTES:

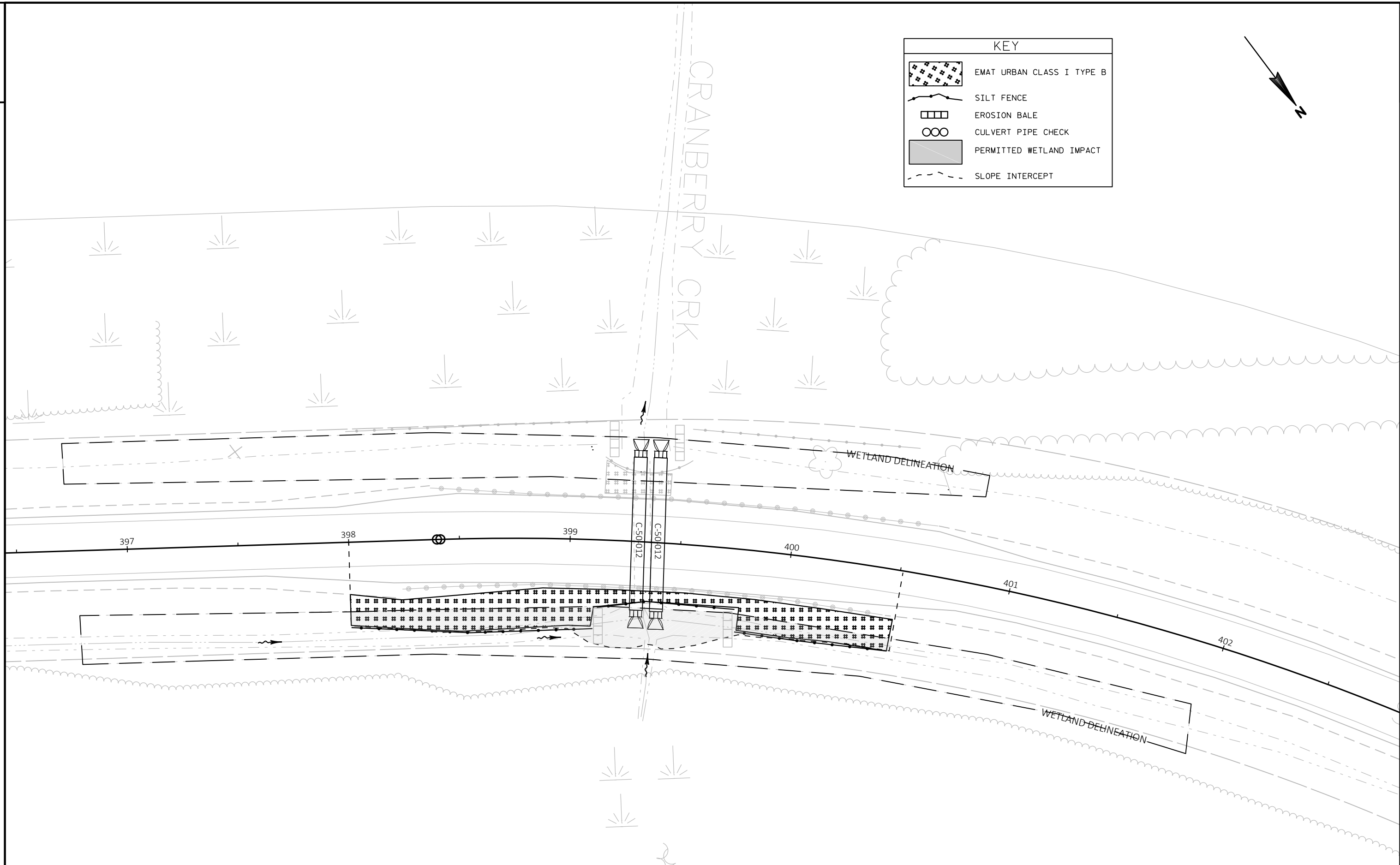
- FOR THE TURN-AROUND SILT FENCE AND POSTS
- PLACE POSTS ON THE OUTSIDE OF THE TURN-AROUND
- TRENCH SILT FENCE ACCORDING TO SILT FENCE REQUIREMENTS

TEMPORARY SMALL ANIMAL TURN-AROUND

CULVERT ID	CL STA
C-50-012	399+31
B-50-0085	471+71



KEY	
	EMAT URBAN CLASS I TYPE B
	SILT FENCE
	EROSION BALE
	CULVERT PIPE CHECK
	PERMITTED WETLAND IMPACT
	SLOPE INTERCEPT



PROJECT NO:1610-44-70	HWY: STH 13	COUNTY: PRICE	EROSION CONTROL - STAGE 2	SHEET	E
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KEY

EMAT URBAN CLASS I TYPE B

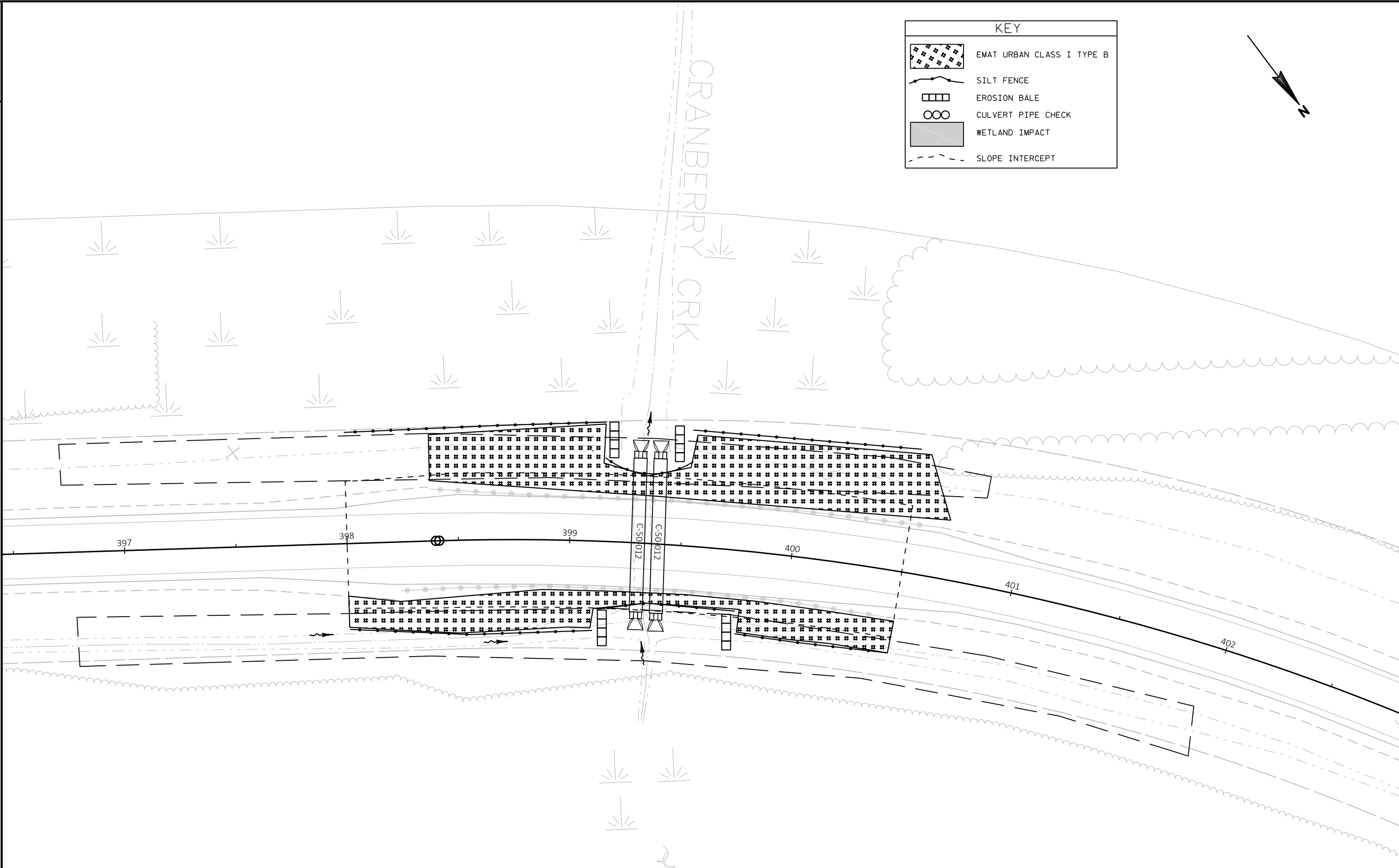
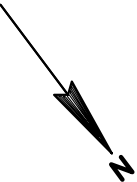
SILT FENCE

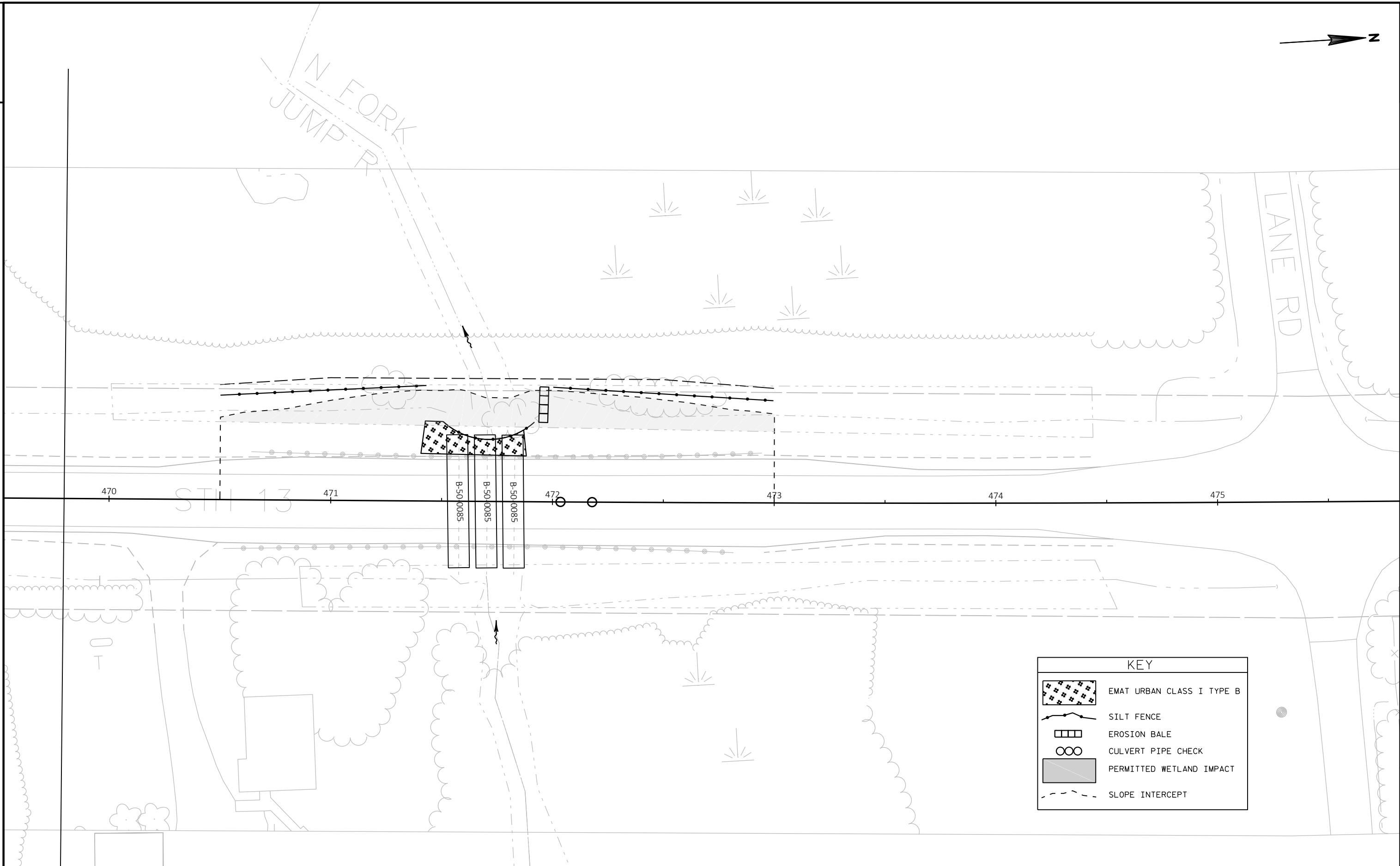
EROSION BALE

CULVERT PIPE CHECK

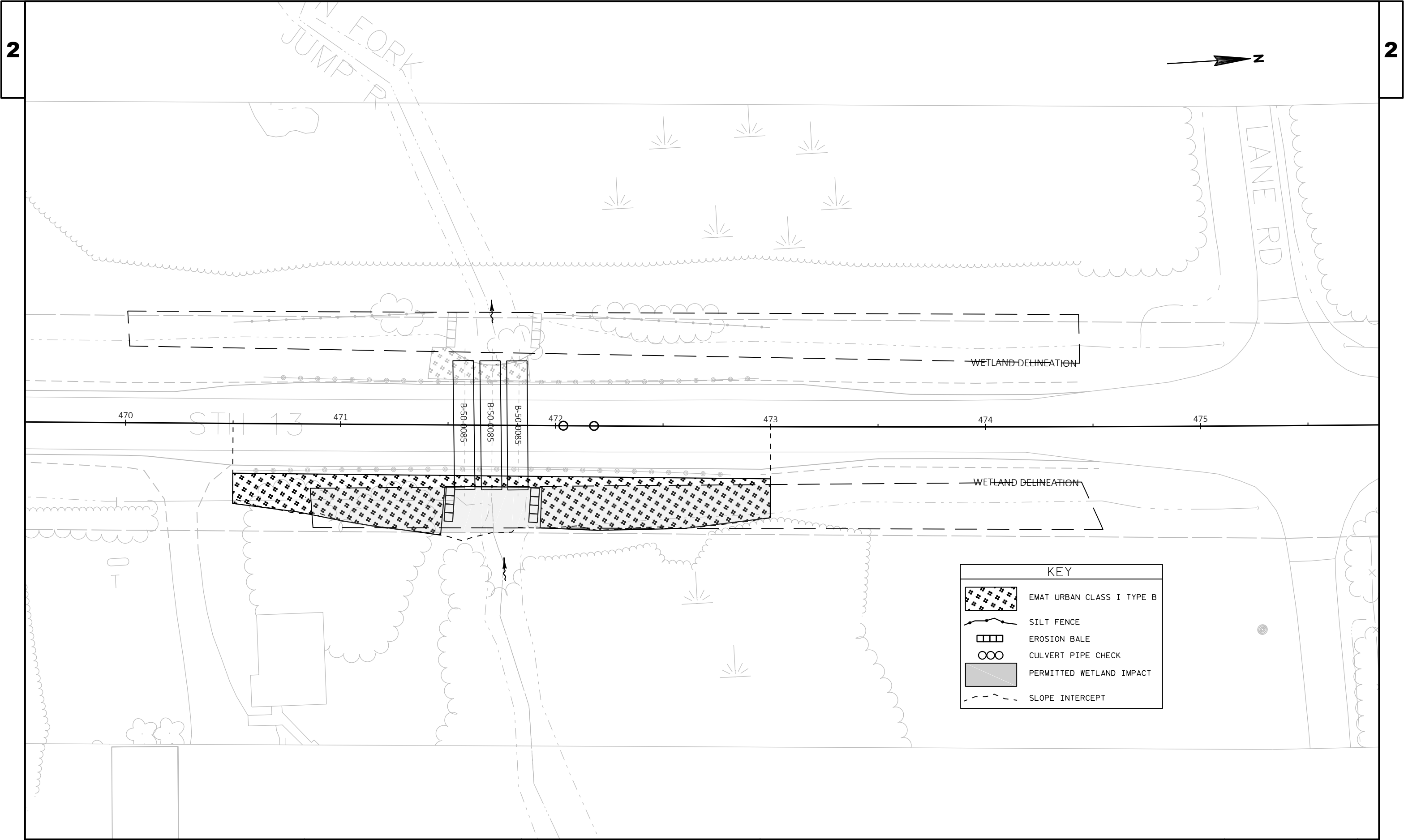
WETLAND IMPACT

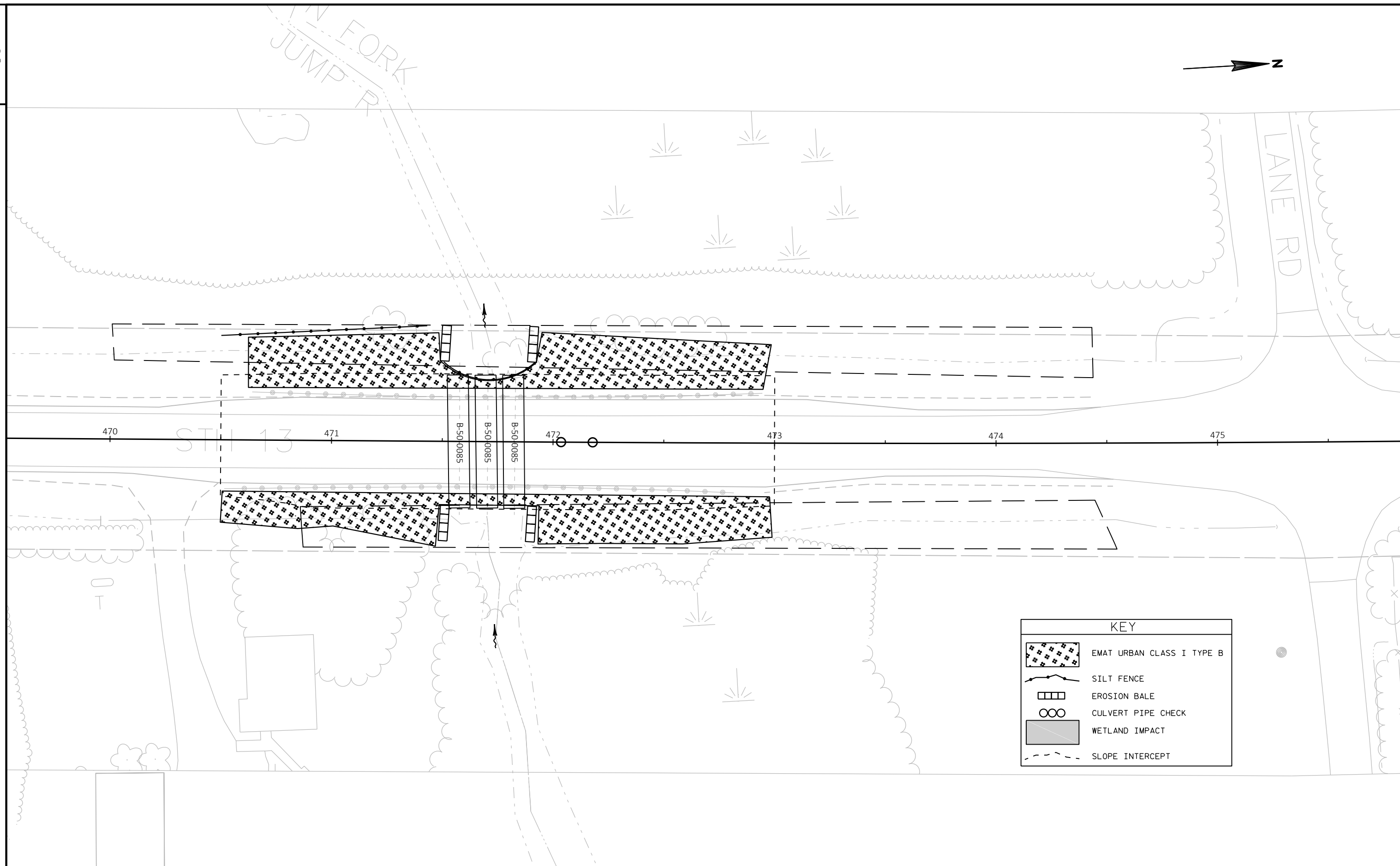
SLOPE INTERCEPT





KEY	
	EMAT URBAN CLASS I TYPE B
	SILT FENCE
	EROSION BALE
	CULVERT PIPE CHECK
	PERMITTED WETLAND IMPACT
	SLOPE INTERCEPT





WETLAND IMPACTS = 0.038 ACRES

KEY



EMAT URBAN CLASS I TYPE B



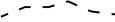
SILT FENCE



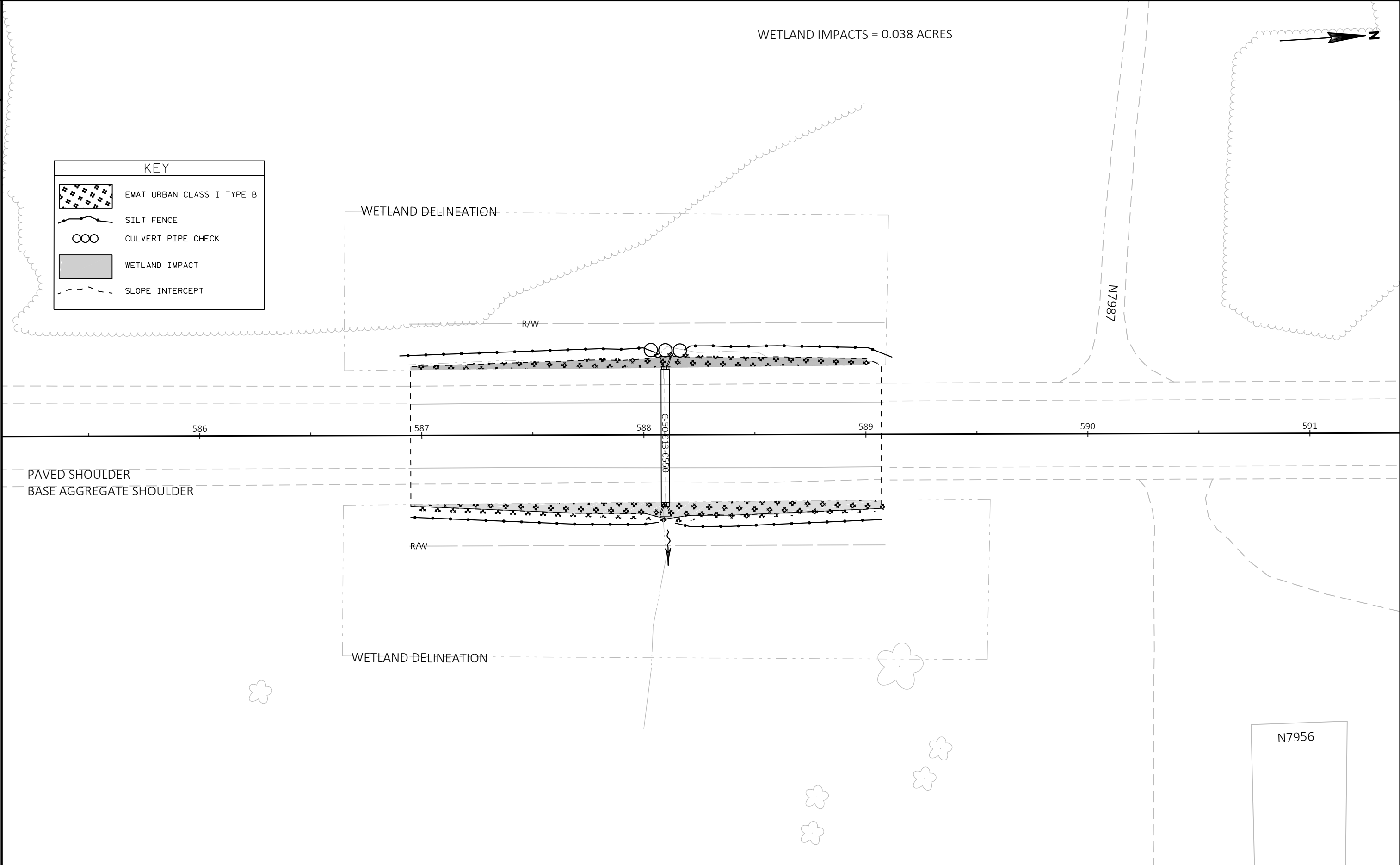
CULVERT PIPE CHECK

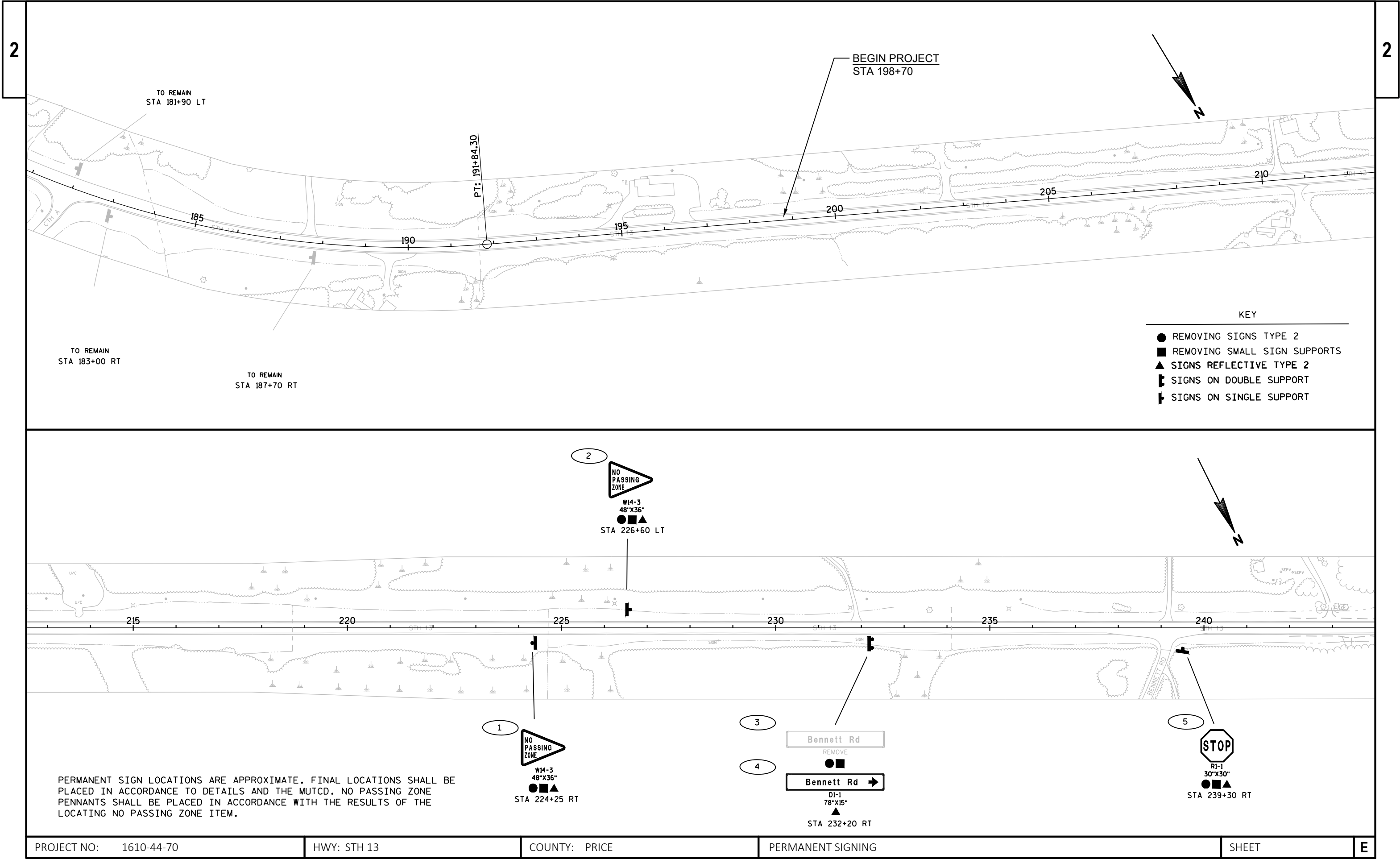


WETLAND IMPACT



SLOPE INTERCEPT





PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD. NO PASSING ZONE PENNANTS SHALL BE PLACED IN ACCORDANCE WITH THE RESULTS OF THE LOCATING NO PASSING ZONE ITEM.

PROJECT NO: 1610-44-70

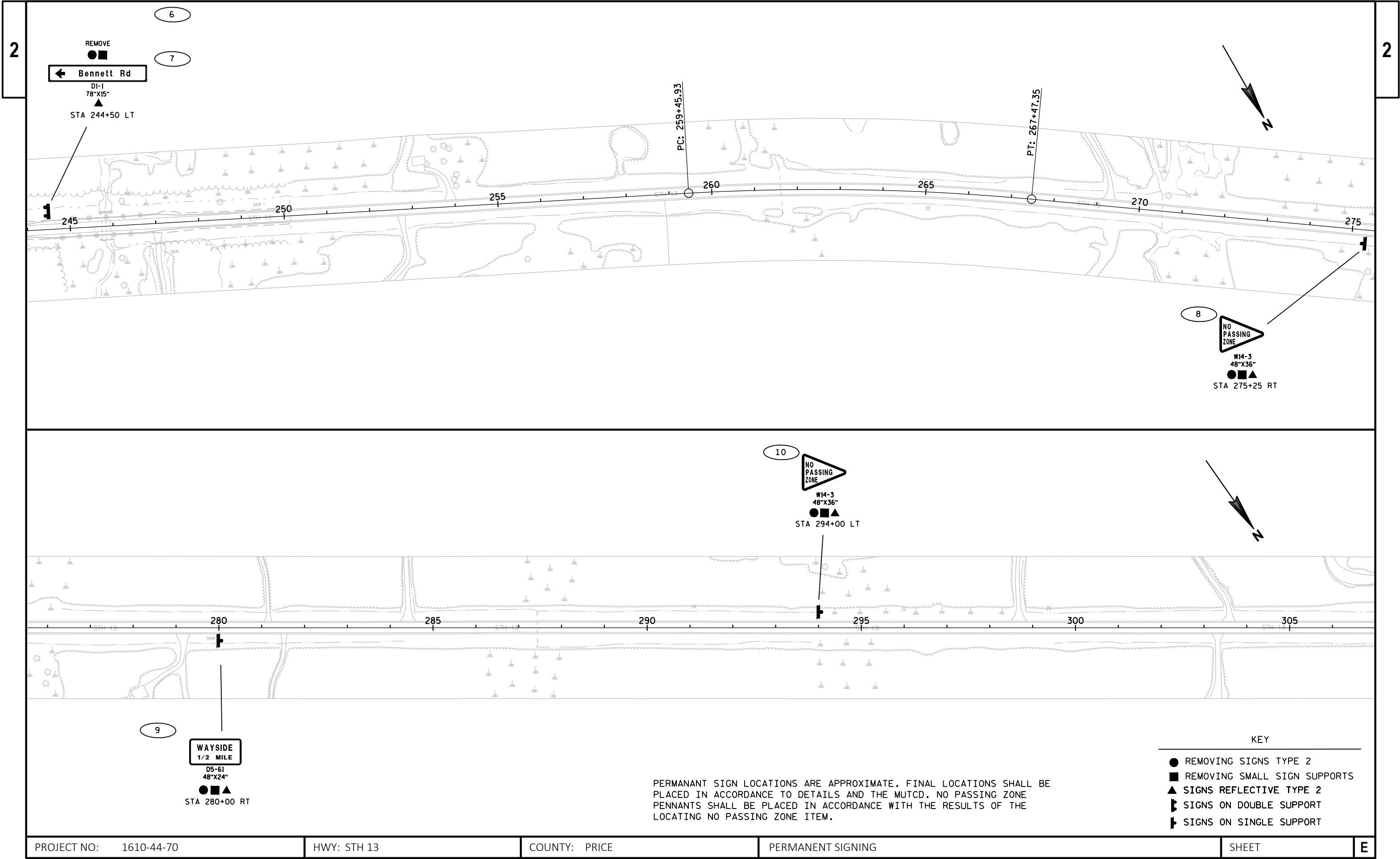
HWY: STH 13

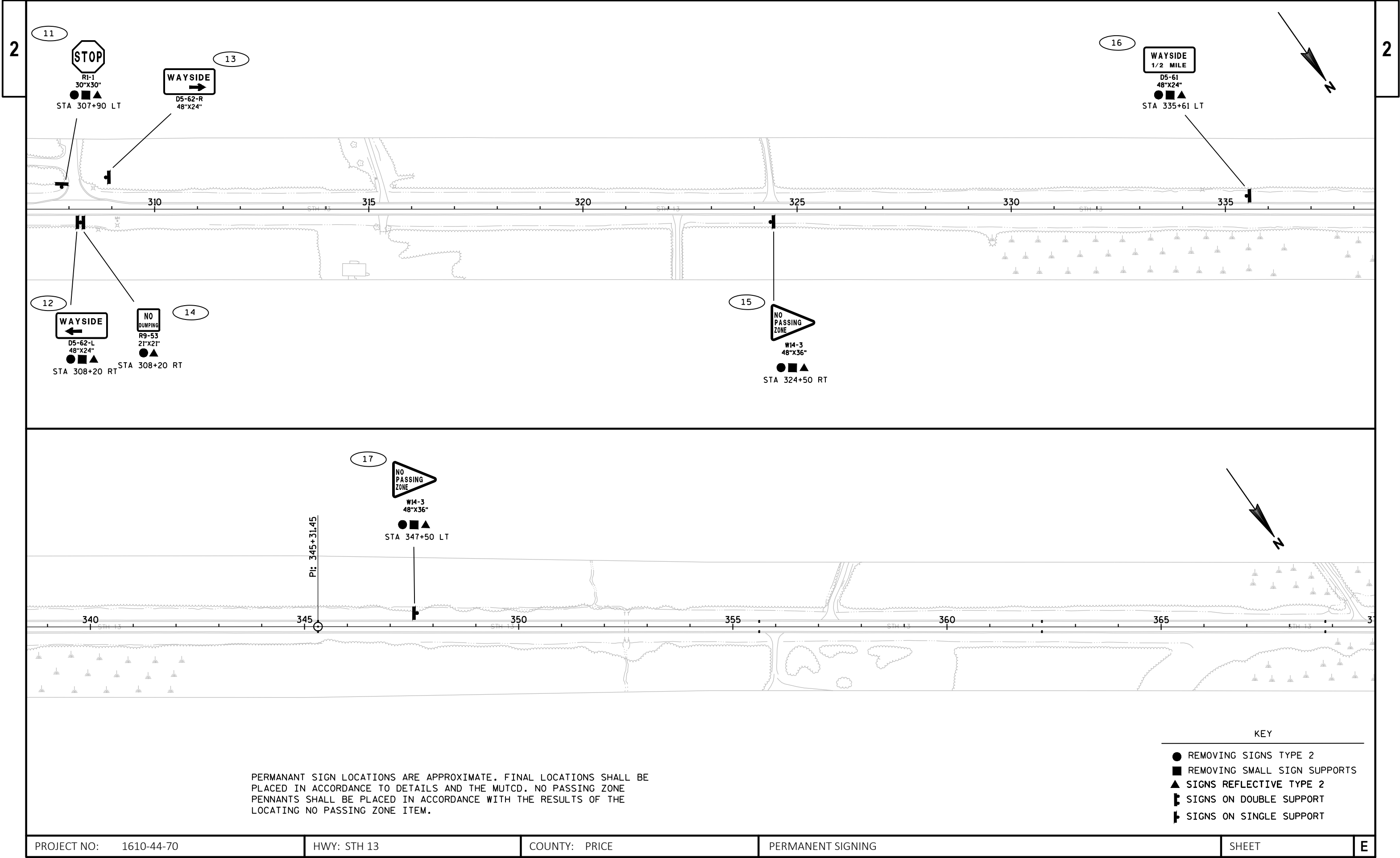
COUNTY: PRICE

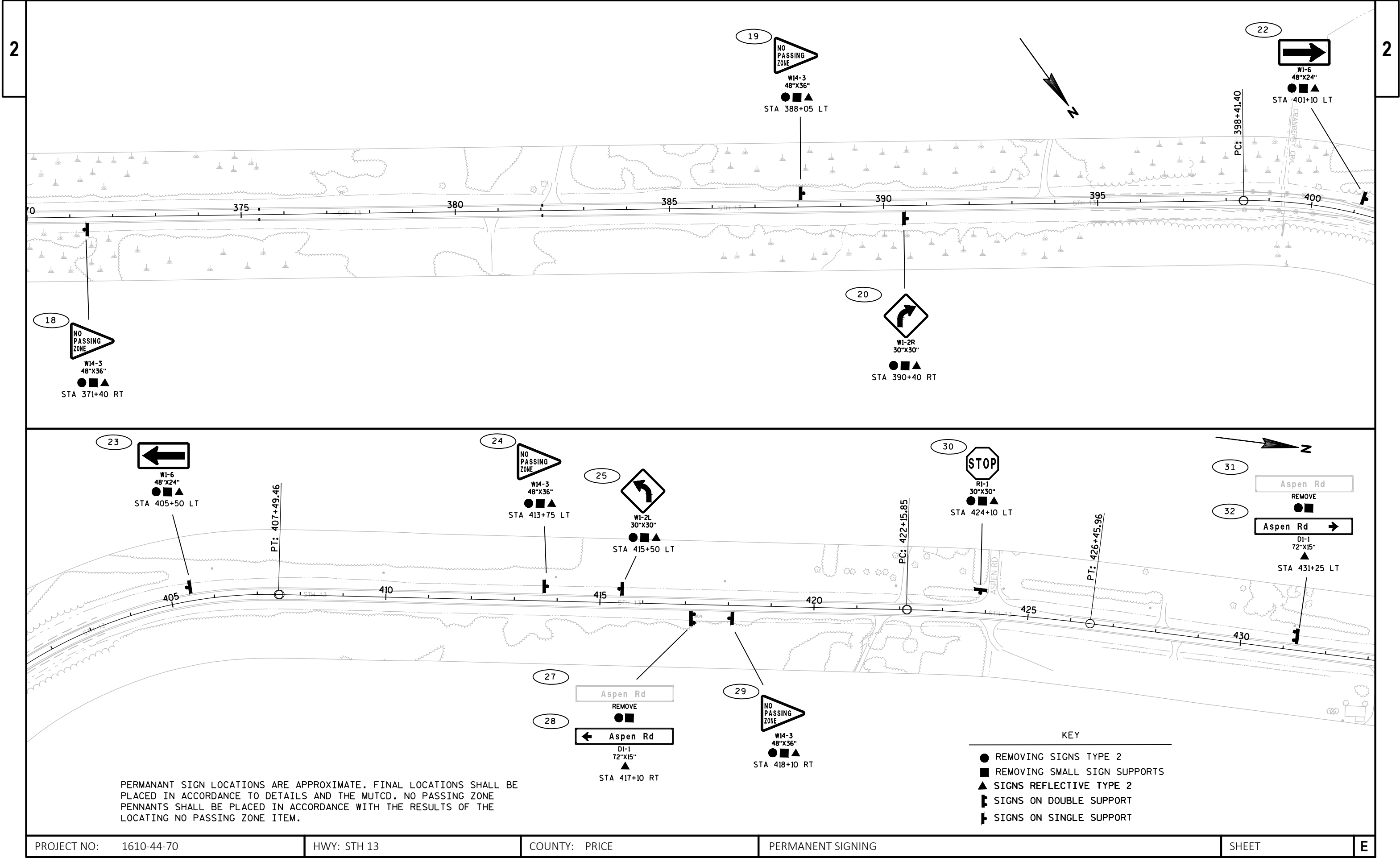
PERMANENT SIGNING

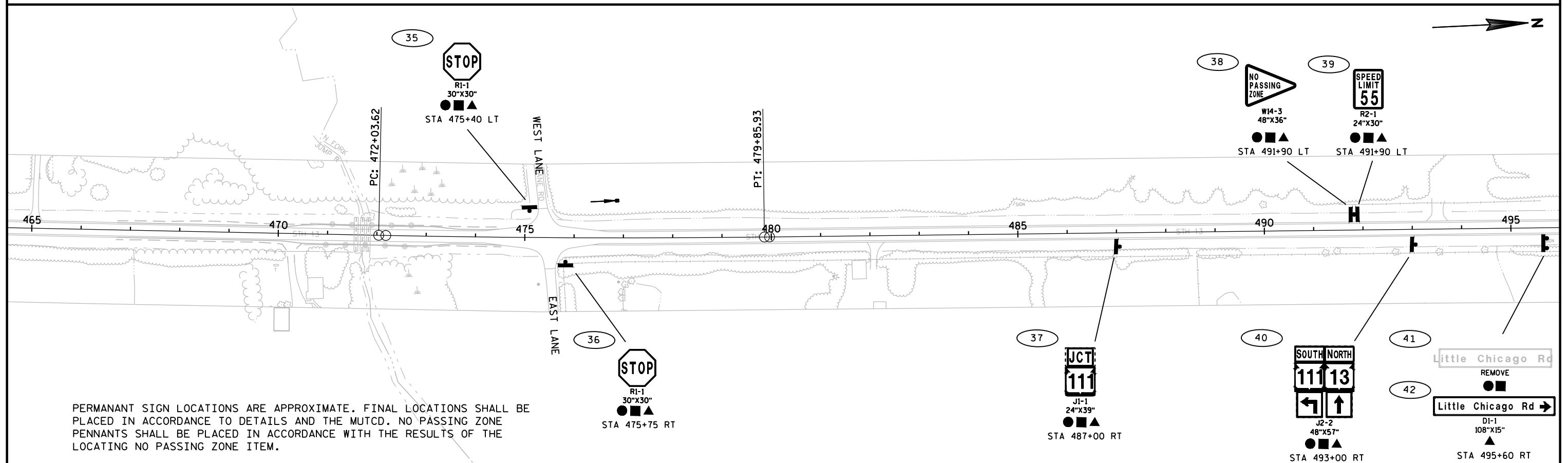
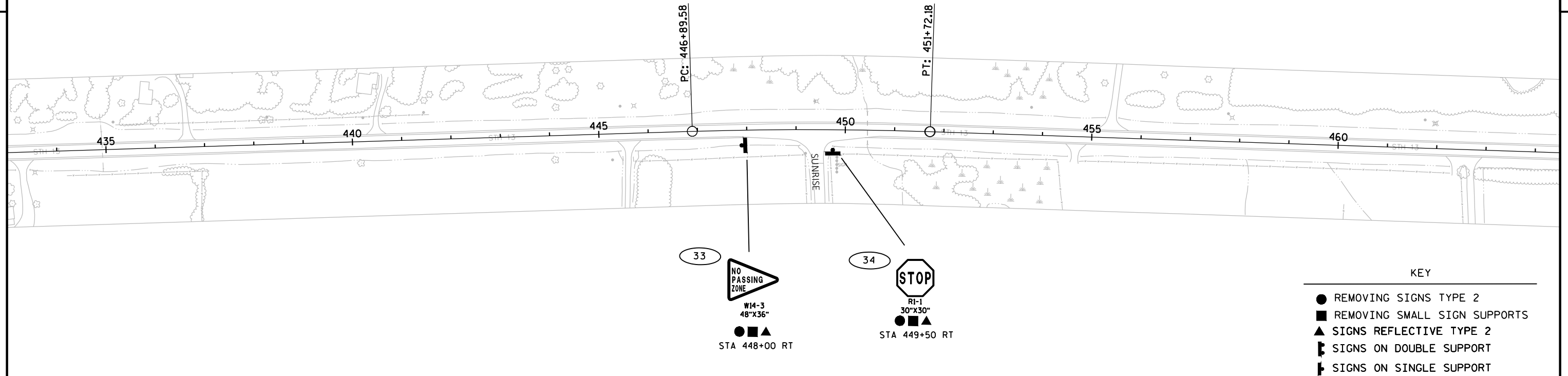
SHEET

E









PROJECT NO: 1610-44-70

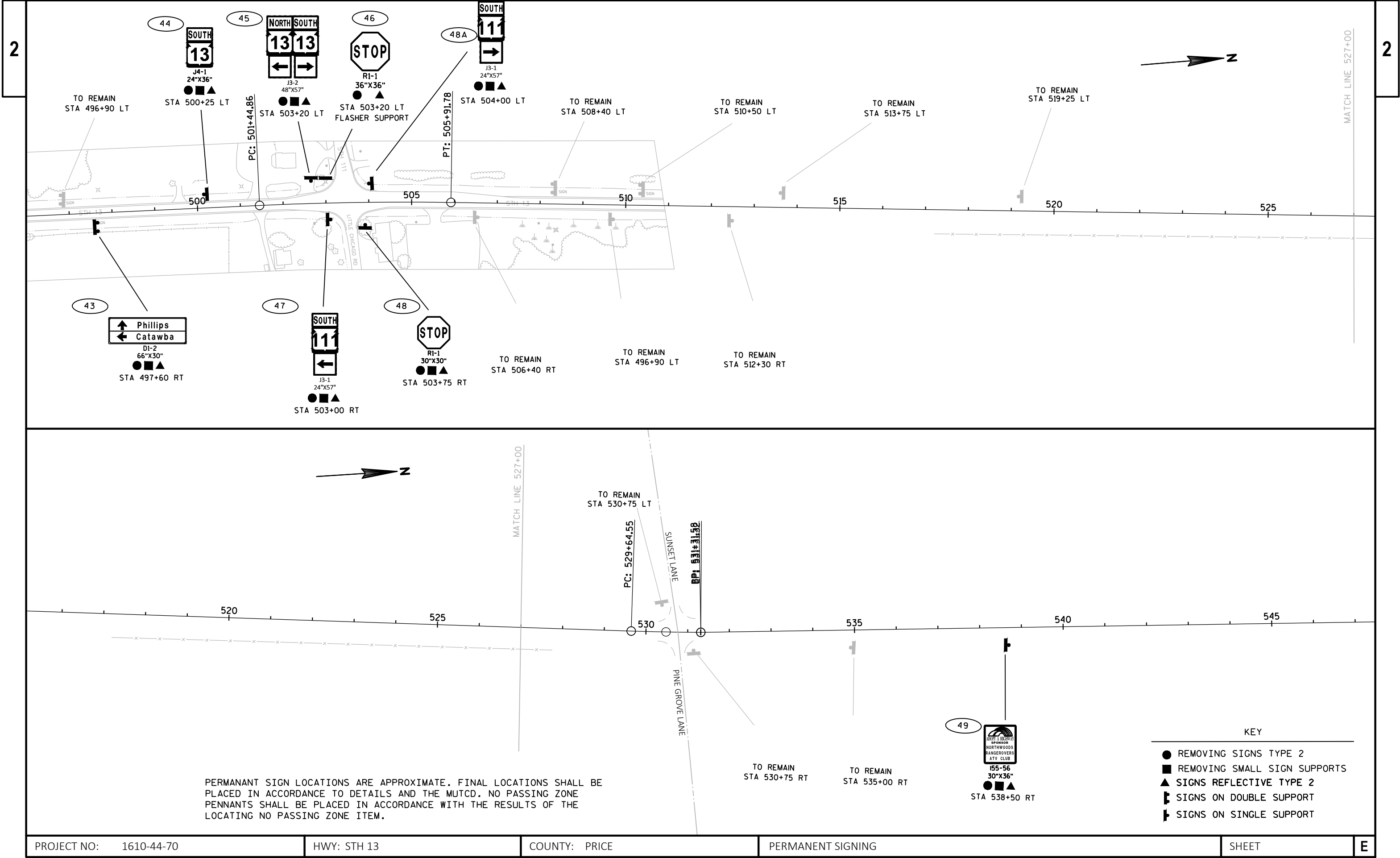
HWY: STH 13

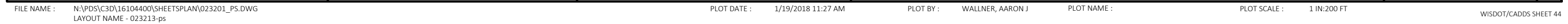
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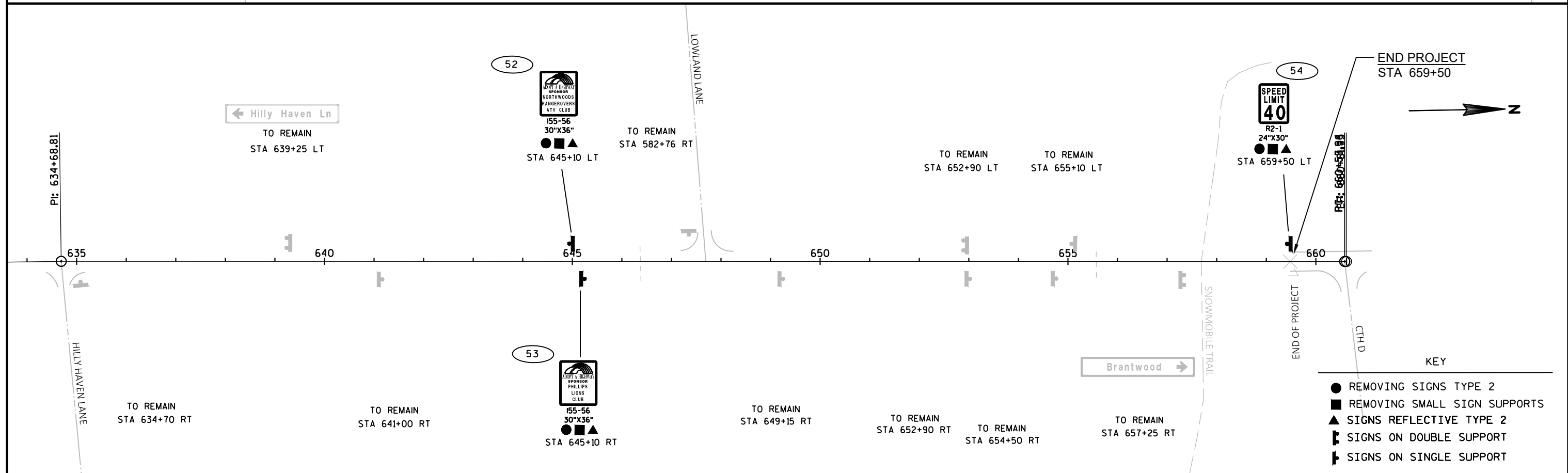
PERMANENT SIGNING

SHEET

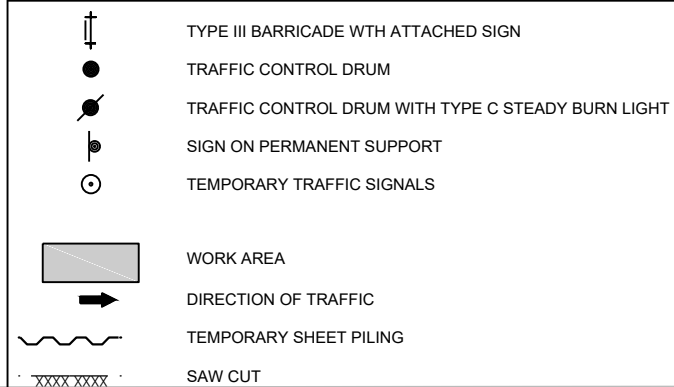
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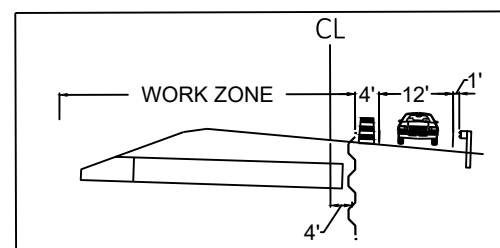
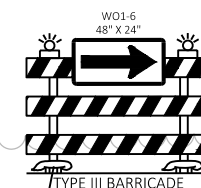
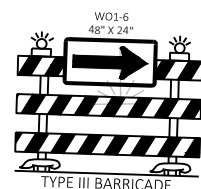
KEY



STAGE 1

1. INSTALL TEMPORARY SIGNALS
2. SHIFT TRAFFIC TO EXISTING NB LANE
3. INSTALL EROSION CONTROL DEVICES ON WEST SIDE OF STH 13 AND REMOVE EXISTING GUARDRAIL
4. DIVERT FLOW TO EXISTING SOUTH PIPE AND INSTALL SHEET PILE BETWEEN PIPES
5. REMOVE EXISTING AND INSTALL WEST HALF OF NORTH PIPE AND APRON ENDWALL

REFER TO "SDD: TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" FOR SIGN REQUIREMENTS AND LOCATIONS

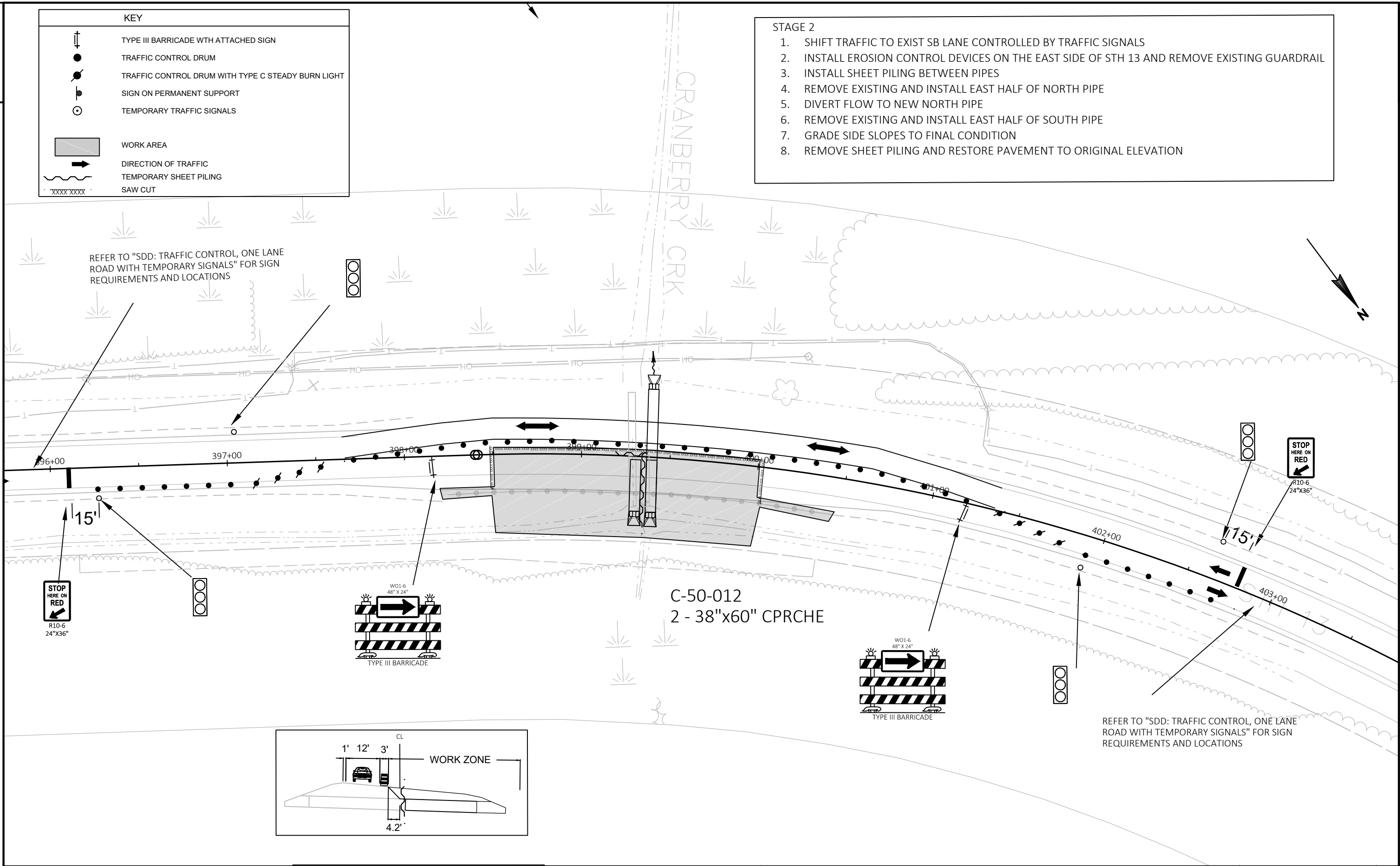


C-50-012
2 - 38"x60" CPRCHE

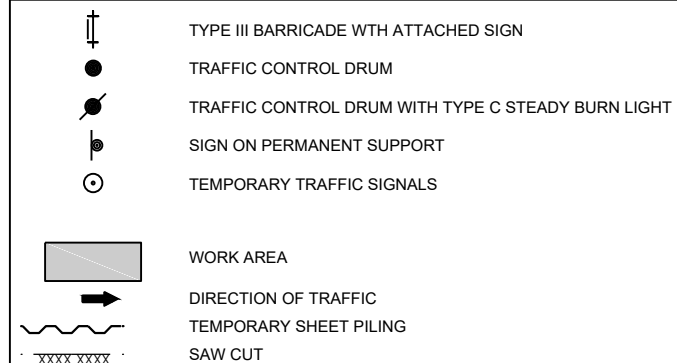
REFER TO "SDD: TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" FOR SIGN REQUIREMENTS AND LOCATIONS

KEY	
	TYPE III BARRICADE WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	SIGN ON PERMANENT SUPPORT
	TEMPORARY TRAFFIC SIGNALS
	WORK AREA
	DIRECTION OF TRAFFIC
	TEMPORARY SHEET PILING
	SAW CUT

- STAGE 2
1. SHIFT TRAFFIC TO EXIST SB LANE CONTROLLED BY TRAFFIC SIGNALS
 2. INSTALL EROSION CONTROL DEVICES ON THE EAST SIDE OF STH 13 AND REMOVE EXISTING GUARDRAIL
 3. INSTALL SHEET PILING BETWEEN PIPES
 4. REMOVE EXISTING AND INSTALL EAST HALF OF NORTH PIPE
 5. DIVERT FLOW TO NEW NORTH PIPE
 6. REMOVE EXISTING AND INSTALL EAST HALF OF SOUTH PIPE
 7. GRADE SIDE SLOPES TO FINAL CONDITION
 8. REMOVE SHEET PILING AND RESTORE PAVEMENT TO ORIGINAL ELEVATION

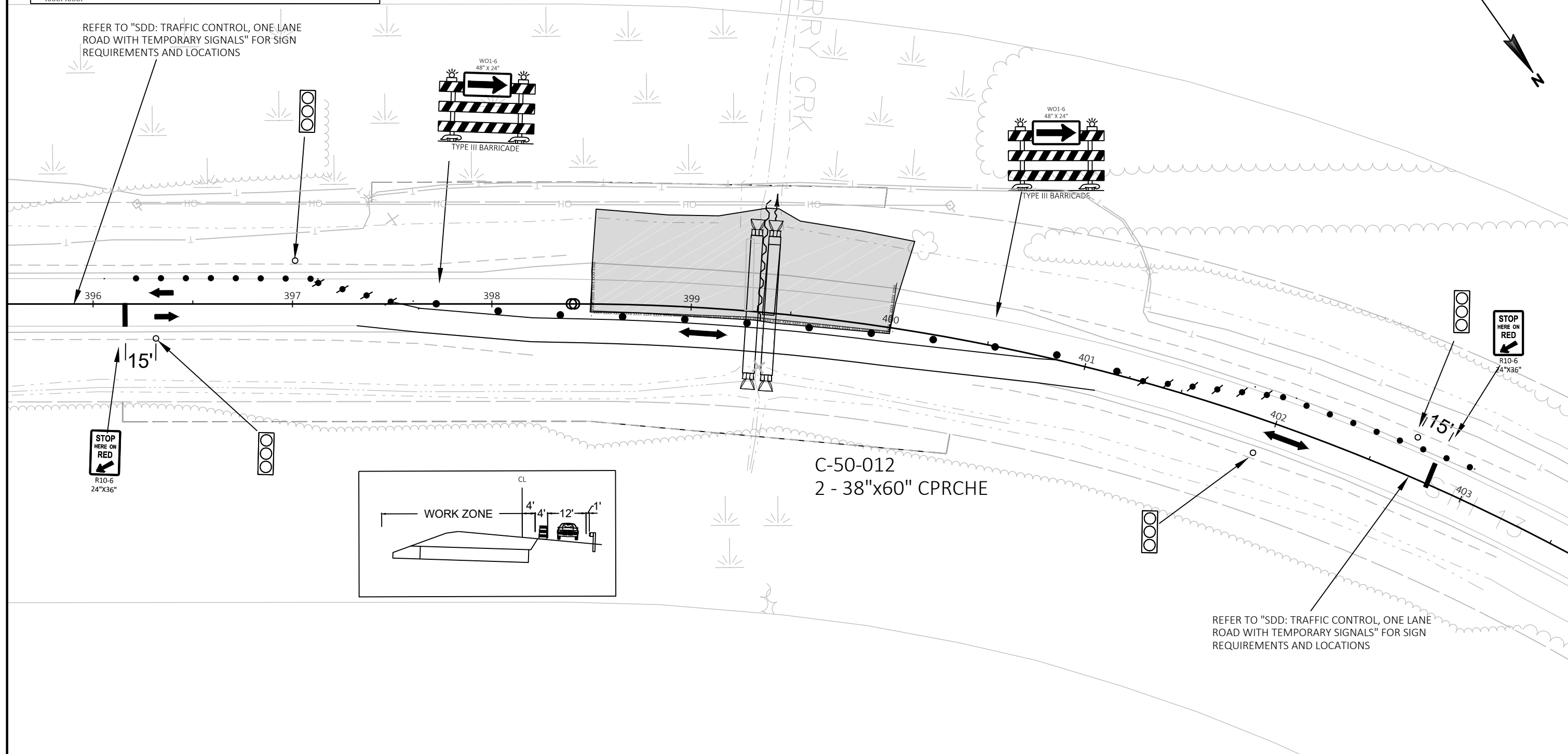


KEY



STAGE 3

1. SHIFT TRAFFIC TO EXISTING NB LANE
2. REMOVE EXISTING AND INSTALL WEST HALF OF SOUTH PIPE AND APRON END WALL
3. REMOVE SHEET PILING
4. GRADE SIDE SLOPES TO FINAL CONDITION
5. RESTORE PAVEMENT TO ORIGINAL ELEVATION



KEY



TYPE III BARRICADE WITH ATTACHED SIGN
TRAFFIC CONTROL DRUM
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
SIGN ON PERMANENT SUPPORT
TEMPORARY TRAFFIC SIGNALS



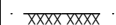
WORK AREA



DIRECTION OF TRAFFIC



TEMPORARY SHEET PILING

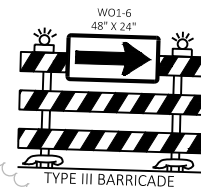


SAW CUT

STAGE 1

1. INSTALL TEMPORARY SIGNALS
2. SHIFT TRAFFIC TO EXISTING NB LANE
3. INSTALL EROSION CONTROL DEVICES ON WEST SIDE OF STH 13 AND REMOVE EXISTING GUARDRAIL
4. DIVERT FLOW TO EXISTING NORTH PIPE AND INSTALL SHEET PILE BETWEEN NORTH PIPE AND CENTER PIPE
5. INSTALL WEST HALF OF SOUTH PIPES
6. INSTALL SOUTH PORTION OF CONCRETE MASONRY ENDWALL

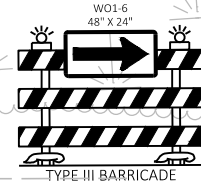
REFER TO "SDD: TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" FOR SIGN REQUIREMENTS AND LOCATIONS



TYPE III BARRICADE

TEMPORARY SHEET PILING FOR STAGE 1

TEMPORARY SHEET PILING REMAIN FOR STAGE 3



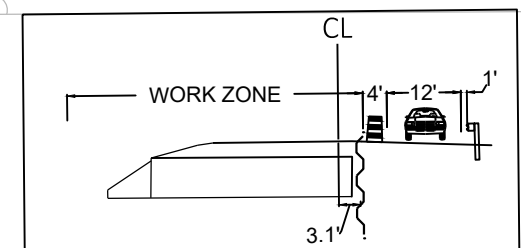
TYPE III BARRICADE

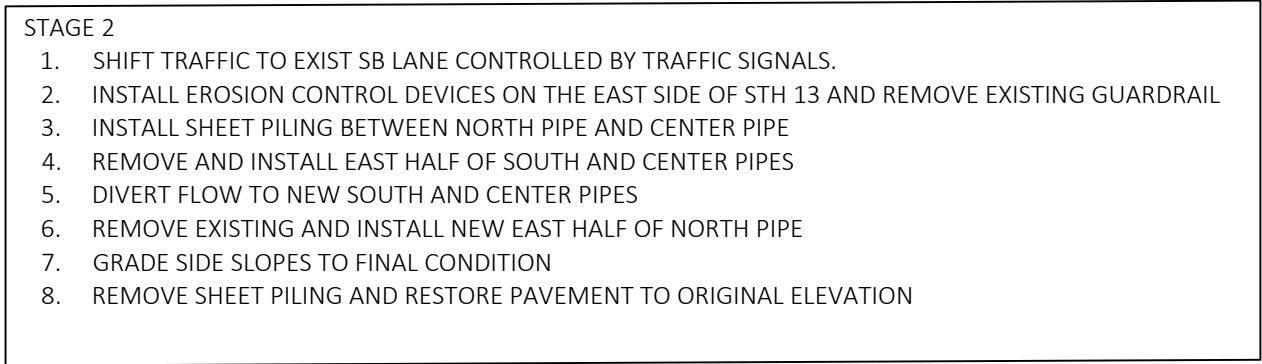
R10-6
24"x36"

REFER TO "SDD: TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" FOR SIGN REQUIREMENTS AND LOCATIONS

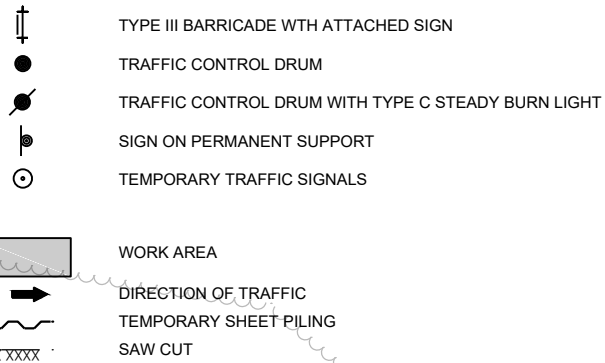
R10-6
24"x36"

B-50-0085
3 - 63" x 98" CPRCHE





KEY

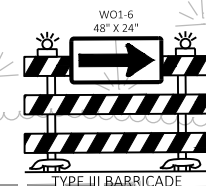
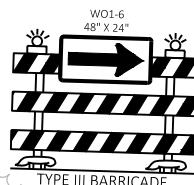


STAGE 3

1. SHIFT TRAFFIC TO EXISTING NB LANE
2. REMOVE EXISTING WEST HALF OF NORTH PIPE
3. INSTALL NEW WEST HALF OF NORTH PIPE AND FINISH HEADWALL INSTALLATION
4. REMOVE SHEET PILING
5. GRADE SIDE SLOPES TO FINAL CONDITION
6. RESTORE PAVEMENT TO ORIGINAL ELEVATION



REFER TO "SDD: TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" FOR SIGN REQUIREMENTS AND LOCATIONS

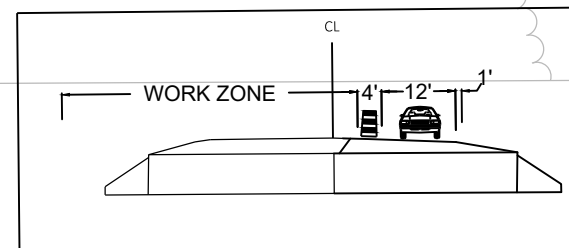


15'

B-50-0085
3 - 63"x98" CPRCHE



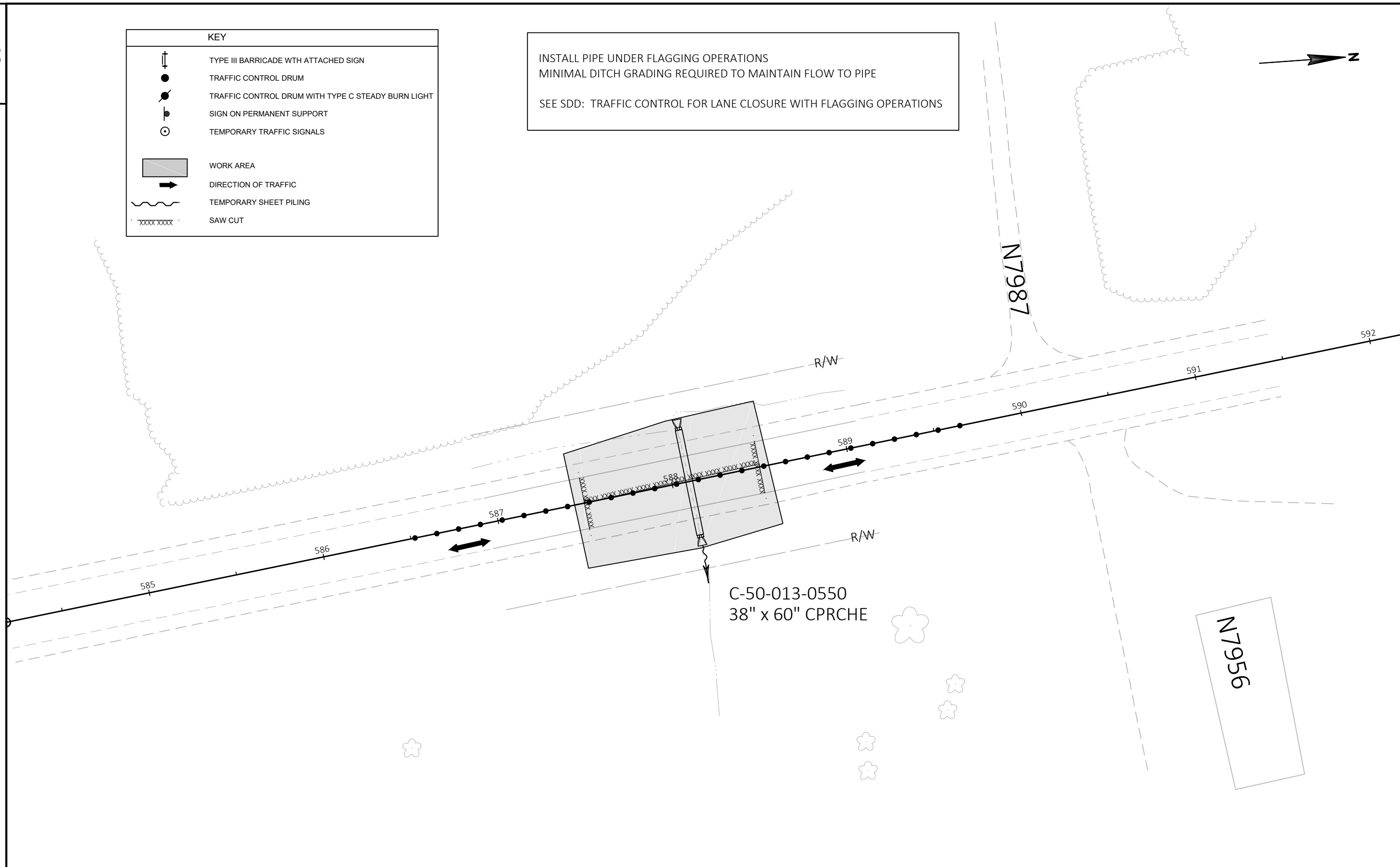
REFER TO "SDD: TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" FOR SIGN REQUIREMENTS AND LOCATIONS



KEY	
	TYPE III BARRICADE WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	SIGN ON PERMANENT SUPPORT
	TEMPORARY TRAFFIC SIGNALS
	WORK AREA
	DIRECTION OF TRAFFIC
	TEMPORARY SHEET PILING
	SAW CUT

INSTALL PIPE UNDER FLAGGING OPERATIONS
MINIMAL DITCH GRADING REQUIRED TO MAINTAIN FLOW TO PIPE

SEE SDD: TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS



Estimate Of Quantities

1610-44-70					
Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	6.000	6.000
0004	201.0205	Grubbing	STA	6.000	6.000
0006	203.0100	Removing Small Pipe Culverts	EACH	3.000	3.000
0008	203.0200	Removing Old Structure (station) 01. 471+71	LS	1.000	1.000
0010	204.0100	Removing Pavement	SY	181.000	181.000
0012	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,000.000	1,000.000
0014	204.0120	Removing Asphaltic Surface Milling	SY	154,692.000	154,692.000
0016	205.0100	Excavation Common **P**	CY	2,455.000	2,455.000
0018	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	8.000	8.000
0020	213.0100	Finishing Roadway (project) 01. 1610-44-70	EACH	1.000	1.000
0022	305.0110	Base Aggregate Dense 3/4-Inch	TON	9,600.000	9,600.000
0024	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,450.000	1,450.000
0026	305.0130	Base Aggregate Dense 3-Inch	TON	2,050.000	2,050.000
0028	305.0500	Shaping Shoulders	STA	922.000	922.000
0030	440.4410	Incentive IRI Ride	DOL	34,900.000	34,900.000
0032	455.0605	Tack Coat	GAL	18,430.000	18,430.000
0034	460.2000	Incentive Density HMA Pavement	DOL	20,440.000	20,440.000
0036	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	46,080.000	46,080.000
0038	460.5224	HMA Pavement 4 LT 58-28 S	TON	18,250.000	18,250.000
0040	460.5225	HMA Pavement 5 LT 58-28 S	TON	13,680.000	13,680.000
0042	465.0105	Asphaltic Surface	TON	3,000.000	3,000.000
0044	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	400.000	400.000
0046	465.0125	Asphaltic Surface Temporary	TON	15.000	15.000
0048	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	38,800.000	38,800.000
0050	504.0900	Concrete Masonry Endwalls	CY	38.000	38.000
0052	512.1000	Piling Steel Sheet Temporary	SF	3,400.000	3,400.000
0054	522.2424	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 24x38-Inch	LF	60.000	60.000
0056	522.2624	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 24x38-Inch	EACH	2.000	2.000
0058	522.2638	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 38x60-Inch	EACH	4.000	4.000
0060	614.0920	Salvaged Rail	LF	910.000	910.000
0062	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1610-44-70	EACH	1.000	1.000
0064	619.1000	Mobilization	EACH	1.000	1.000
0066	621.0100	Landmark Reference Monuments	EACH	9.000	9.000
0068	624.0100	Water	MGAL	900.000	900.000
0070	625.0100	Topsoil	SY	2,500.000	2,500.000
0072	628.1104	Erosion Bales	EACH	60.000	60.000
0074	628.1504	Silt Fence	LF	1,250.000	1,250.000

Estimate Of Quantities

1610-44-70

Line	Item	Item Description	Unit	Total	Qty
0076	628.1520	Silt Fence Maintenance	LF	1,250.000	1,250.000
0078	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0080	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0082	628.2008	Erosion Mat Urban Class I Type B	SY	4,330.000	4,330.000
0084	628.7555	Culvert Pipe Checks	EACH	6.000	6.000
0086	628.7570	Rock Bags	EACH	12.000	12.000
0088	629.0210	Fertilizer Type B	CWT	2.000	2.000
0090	630.0130	Seeding Mixture No. 30	LB	60.000	60.000
0092	633.5200	Markers Culvert End	EACH	20.000	20.000
0094	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	47.000	47.000
0096	637.2210	Signs Type II Reflective H	SF	232.030	232.030
0098	637.2230	Signs Type II Reflective F	SF	107.720	107.720
0100	638.2102	Moving Signs Type II	EACH	1.000	1.000
0102	638.2602	Removing Signs Type II	EACH	44.000	44.000
0104	638.3000	Removing Small Sign Supports	EACH	50.000	50.000
0106	642.5001	Field Office Type B	EACH	1.000	1.000
0108	643.0300	Traffic Control Drums	DAY	7,920.000	7,920.000
0110	643.0310.S	Temporary Portable Rumble Strips	LS	1.000	1.000
0112	643.0420	Traffic Control Barricades Type III	DAY	264.000	264.000
0114	643.0705	Traffic Control Warning Lights Type A	DAY	528.000	528.000
0116	643.0715	Traffic Control Warning Lights Type C	DAY	1,320.000	1,320.000
0118	643.0900	Traffic Control Signs	DAY	1,980.000	1,980.000
0120	643.5000	Traffic Control	EACH	1.000	1.000
0122	646.1020	Marking Line Epoxy 4-Inch	LF	88,700.000	88,700.000
0124	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	5,200.000	5,200.000
0126	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	58,700.000	58,700.000
0128	646.5420	Marking Aerial Enforcement Bar Epoxy	EACH	10.000	10.000
0130	646.9000	Marking Removal Line 4-Inch	LF	5,400.000	5,400.000
0132	648.0100	Locating No-Passing Zones	MI	8.700	8.700
0134	649.0105	Temporary Marking Line Paint 4-Inch	LF	5,400.000	5,400.000
0136	649.0805	Temporary Marking Stop Line Paint 18-Inch	LF	48.000	48.000
0138	650.4500	Construction Staking Subgrade	LF	700.000	700.000
0140	650.6000	Construction Staking Pipe Culverts	EACH	6.000	6.000
0142	650.8000	Construction Staking Resurfacing Reference	LF	45,380.000	45,380.000
0144	650.9910	Construction Staking Supplemental Control (project) 01. 1610-44-70	LS	1.000	1.000
0146	650.9920	Construction Staking Slope Stakes	LF	700.000	700.000
0148	661.0100	Temporary Traffic Signals for Bridges (structure) 01. B-50-0085	LS	1.000	1.000
0150	661.0100	Temporary Traffic Signals for Bridges (structure) 02. C-	LS	1.000	1.000

Estimate Of Quantities

1610-44-70

Line	Item	Item Description	Unit	Total	Qty
		50-012			
0152	690.0150	Sawing Asphalt	LF	920.000	920.000
0154	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,000.000	2,000.000
0156	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,260.000	1,260.000
0158	SPV.0035	Special 01. Replacing Culvert Pipe Backfill **P**	CY	845.000	845.000
0160	SPV.0035	Special 02. Flowable Fill	CY	400.000	400.000
0162	SPV.0060	Special 01. Reestablish Section Corner Monuments	EACH	3.000	3.000
0164	SPV.0090	Special 01. Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 38x60-In	LF	140.000	140.000
0166	SPV.0090	Special 02. Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 63x98-In	LF	180.000	180.000
0168	SPV.0105	Special 01. Temporary Water Diversion - Cranberry Creek	LS	1.000	1.000
0170	SPV.0105	Special 02. Temporary Water Diversion - N Fork Jump River	LS	1.000	1.000
0172	SPV.0180	Special 01. Protective Thermoplastic Coating At Snowmobile Trail Crossing	SY	132.000	132.000
0174	SPV.0195	Special 01. Base Aggregate Disintegrated Granite	TON	20.000	20.000

3

										ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE																																																																																																																																																																
CLEARING & GRUBBING <table><tr><td colspan="2">201.0105</td><td colspan="2">201.0205</td></tr><tr><td>CLEARING</td><td>GRUBBING</td><td></td><td></td></tr><tr><td>STATION</td><td>STA</td><td>STA</td><td>REMARKS</td></tr><tr><td>400+00 - 401+00</td><td>1</td><td>1</td><td>C 50-0012</td></tr><tr><td>470+00 - 473+00</td><td>3</td><td>3</td><td>B 50-0085</td></tr><tr><td>609+00 - 611+00</td><td>2</td><td>2</td><td>CLEAR TO 50' R/W RT</td></tr><tr><td>TOTAL</td><td>6</td><td>6</td><td></td></tr></table>															201.0105		201.0205		CLEARING	GRUBBING			STATION	STA	STA	REMARKS	400+00 - 401+00	1	1	C 50-0012	470+00 - 473+00	3	3	B 50-0085	609+00 - 611+00	2	2	CLEAR TO 50' R/W RT	TOTAL	6	6		REMOVING ASPHALTIC SURFACE BUTT JOINT <table><tr><td colspan="2">204.0115</td></tr><tr><td>STATION</td><td>SY</td></tr><tr><td>198+70 - 199+10</td><td>33</td></tr><tr><td>659+40 - 659+80</td><td>33</td></tr><tr><td>SIDEROADS (11)</td><td>450</td></tr><tr><td>DRIVEWAYS (24)</td><td>400</td></tr><tr><td>UNDISTRIBUTED</td><td>83</td></tr><tr><td>TOTAL</td><td>1,000</td></tr></table>															204.0115		STATION	SY	198+70 - 199+10	33	659+40 - 659+80	33	SIDEROADS (11)	450	DRIVEWAYS (24)	400	UNDISTRIBUTED	83	TOTAL	1,000	PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS <table><tr><td colspan="2">211.0400</td></tr><tr><td>STATION</td><td>STATION</td><td>REMARKS</td></tr><tr><td>269+16 - 269+41 LT</td><td>1.0</td><td>SNOWMOBILE XING</td></tr><tr><td>269+16 - 269+41 RT</td><td>1.0</td><td>SNOWMOBILE XING</td></tr><tr><td>502+58 - 502+73 LT</td><td>1.0</td><td>SNOWMOBILE XING</td></tr><tr><td>502+58 - 502+73 RT</td><td>1.0</td><td>SNOWMOBILE XING</td></tr><tr><td>598+90 - 599+05 LT</td><td>1.0</td><td>SNOWMOBILE XING</td></tr><tr><td>598+90 - 599+05 RT</td><td>1.0</td><td>SNOWMOBILE XING</td></tr><tr><td>657+62 - 657+77 LT</td><td>1.0</td><td>SNOWMOBILE XING</td></tr><tr><td>657+62 - 657+77 RT</td><td>1.0</td><td>SNOWMOBILE XING</td></tr><tr><td>TOTAL</td><td>8.0</td><td></td></tr></table>															211.0400		STATION	STATION	REMARKS	269+16 - 269+41 LT	1.0	SNOWMOBILE XING	269+16 - 269+41 RT	1.0	SNOWMOBILE XING	502+58 - 502+73 LT	1.0	SNOWMOBILE XING	502+58 - 502+73 RT	1.0	SNOWMOBILE XING	598+90 - 599+05 LT	1.0	SNOWMOBILE XING	598+90 - 599+05 RT	1.0	SNOWMOBILE XING	657+62 - 657+77 LT	1.0	SNOWMOBILE XING	657+62 - 657+77 RT	1.0	SNOWMOBILE XING	TOTAL	8.0																																																			
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REMOVING SMALL PIPE CULVERTS <table><tr><td colspan="2">203.0100</td></tr><tr><td>STATION</td><td>LOCATION</td><td>EACH</td><td>REMARKS</td></tr><tr><td>399+29</td><td>C 50-012</td><td>1</td><td>48" x 64' CPCM</td></tr><tr><td>399+36</td><td>C 50-012</td><td>1</td><td>48" x 64' CPCM</td></tr><tr><td>588+10</td><td>C 50-013-0550</td><td>1</td><td>30" x 51' CPCM WITH LINER</td></tr><tr><td>TOTAL</td><td></td><td>3</td><td></td></tr></table>															203.0100		STATION	LOCATION	EACH	REMARKS	399+29	C 50-012	1	48" x 64' CPCM	399+36	C 50-012	1	48" x 64' CPCM	588+10	C 50-013-0550	1	30" x 51' CPCM WITH LINER	TOTAL		3		REMOVING ASPHALTIC SURFACE MILLING <table><tr><td colspan="2">204.0120</td></tr><tr><td>STATION</td><td>SY</td></tr><tr><td>199+10 - 659+40</td><td>154,222</td></tr><tr><td>SIDEROADS (11)</td><td>430</td></tr><tr><td>UNDISTRIUBTED</td><td>40</td></tr><tr><td>TOTAL</td><td>154,692</td></tr></table>															204.0120		STATION	SY	199+10 - 659+40	154,222	SIDEROADS (11)	430	UNDISTRIUBTED	40	TOTAL	154,692	BASE AGGREGATE DENSE <table><tr><td colspan="2"></td><td colspan="2"></td><td colspan="2">SPV.0195.01</td></tr><tr><td colspan="2"></td><td colspan="2"></td><td colspan="2">BASE</td></tr><tr><td colspan="2"></td><td colspan="2"></td><td colspan="2">AGGREGATE</td></tr><tr><td colspan="2"></td><td colspan="2">305.0110</td><td colspan="2">305.0120</td><td colspan="2">305.0130</td><td colspan="2">DISINTEGRATED</td></tr><tr><td colspan="2"></td><td colspan="2">3/4-INCH</td><td colspan="2">1 1/4-INCH</td><td colspan="2">3-INCH</td><td colspan="2">GRANITE</td></tr><tr><td>STATION</td><td>LOCATION</td><td>TON</td><td>TON</td><td>TON</td><td>TON</td></tr><tr><td>GROUP 0010</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>198+70 - 659+50</td><td></td><td>9,200</td><td>-</td><td>-</td><td>-</td></tr><tr><td>398+00 - 400+50</td><td>C-50-012</td><td>85</td><td>500</td><td>715</td><td>-</td></tr><tr><td>470+25</td><td>RT PE</td><td>-</td><td>-</td><td>-</td><td>15</td></tr><tr><td>470+50 - 473+00</td><td>B-50-0085</td><td>120</td><td>500</td><td>710</td><td>-</td></tr><tr><td>587+50 - 589+00</td><td>C-50-013-0550</td><td>95</td><td>400</td><td>570</td><td>-</td></tr><tr><td>UNDISTRIBUTED</td><td></td><td>100</td><td>50</td><td>55</td><td>5</td></tr><tr><td>TOTAL</td><td></td><td>9,600</td><td>1,450</td><td>2,050</td><td>20</td></tr></table>																			SPV.0195.01						BASE						AGGREGATE				305.0110		305.0120		305.0130		DISINTEGRATED				3/4-INCH		1 1/4-INCH		3-INCH		GRANITE		STATION	LOCATION	TON	TON	TON	TON	GROUP 0010						198+70 - 659+50		9,200	-	-	-	398+00 - 400+50	C-50-012	85	500	715	-	470+25	RT PE	-	-	-	15	470+50 - 473+00	B-50-0085	120	500	710	-	587+50 - 589+00	C-50-013-0550	95	400	570	-	UNDISTRIBUTED		100	50	55	5	TOTAL		9,600	1,450	2,050	20
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399+36	C 50-012	1	48" x 64' CPCM																																																																																																																																																																							
588+10	C 50-013-0550	1	30" x 51' CPCM WITH LINER																																																																																																																																																																							
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PROJECT NO: 1610-44-70					HWY: STH 13					COUNTY: PRICE					MISCELLANEOUS QUANTITIES					SHEET: 1					E																																																																																																																																																	

3

EARTHWORK SUMMARY

Division	From/To Station	Location	ITEM # 205.0100 Excavation Common	SPV.0035 SPECIAL 01. REPLACING CULVERT PIPE BACKFILL	Available Material	Unexpanded Fill	Expanded Fill	Mass Ordinate +/-	SPV.0035 SPECAIL 02. FLOWABLE FILL
GROUP 0010							Factor 1.25		
C-50-012	398+75 - 399+95	PIPE TRANSITION		370	370	370	463	-93	110
C-50-012	398+00 - 400+50	SLOPES	898		898	228	285	613	-
B-50-0085	471+00 - 472+45	PIPE TRANSITION		237	237	238	298	-61	290
B-50-0085	470+50 - 473+00	SLOPES	933		933	221	276	657	-
C-50-013-0550	587+00 - 589+00	PIPE TRANSITION		238	238	237	296	-58	-
C-50-013-0550	587+00 - 589+00	SLOPES	624		624	88	110	514	-
TOTAL			2,455	845	3,300	1,382	1,728	1,573	400

CROSS DRAINS & SIDE ROAD CULVERT PIPES

STATION	LOCATION	CPRCHE PIPE			JOINT	APRON ENDWALLS		CONCRETE
		CLASS HE-IV	CLASS HE-IV	CLASS HE-IV	TIES	24x38-INCH	38x60-INCH	MASONRY
		522.2424	SPV.0090.01	SPV.0090.02	**			504.0900
		24x38-INCH	38x60-INCH	63x98-INCH	LF	24x38-INCH	38x60-INCH	ENDWALLS
		LF	LF	LF	EACH	EACH	EACH	CY
CATEGORY 0010								
399+31	C 50-012 CRANBERRY CRK	-	70	-	18	-	2	-
399+44	C 50-012 CRANBERRY CRK	-	70	-	18	-	2	-
588+10	CENTERLINE	60	-	-	16	2	-	-
SUBTOTAL		60	140		52	2	4	
CATEGORY 0020								
471+57	B 50-0085 N FORK JUMP RIVER	-	-	60	16	-	-	19
471+71	B 50-0085 N FORK JUMP RIVER	-	-	60	16	-	-	-
471+82	B 50-0085 N FORK JUMP RIVER	-	-	60	16	-	-	19
SUBTOTAL				180	48			38
TOTAL		60	140	180	100	2	4	38

** FOR INFORMATIONAL PURPOSES ONLY. NOT A BID ITEM. TIE ALL JOINTS

PILING STEEL SHEET TEMPORARY

		512.1000	
STATION	LOCATION	SF	REMARKS
<u>C-50-012</u>			
399+37 - 399+52	PARALLEL TO CL - NORTH	150	STAGE 1 - NORTH PIPE
399+37	PARALLEL TO EXISTING PIPES	600	STAGE 1
399+37	PARALLEL TO EXISTING PIPES	500	STAGE 2
399+22 - 399+37	PARALLEL TO CL - SOUTH	150	STAGE 2 - SOUTH PIPE
399+37	PARALLEL TO NEW PIPES	<u>600</u>	STAGE 3
SUBTOTAL		2,000	
<u>B-50-0085</u>			
471+47 - 471+77	PARALLEL TO CL - SOUTH/CENTER	300	STAGE 1
471+77	PARALLEL TO PIPES	500	STAGE 1 - REMAIN IN PLACE FOR STAGE 3
471+77	PARALLEL TO PIPES	450	STAGE 2
471+77 - 471+92	PARALLEL TO CL - NORTH	<u>150</u>	STAGE 2
SUBTOTAL		1,400	
TOTAL		3,400	

TACK COAT			
	RATE	455.0605	
STATION	GAL/SY	GAL	REMARKS
198+70 - 659+50	0.07	10,750	MILL SURFACE
198+70 - 659+50	0.05	<u>7,680</u>	LOWER SURFACE
TOTAL		18,430	

REHEATING HMA PAVEMENT LONGITUDINAL JOINTS			
		460.4110.S	
STATION	LOCATION	LF	
198+70 - 659+50	UPPER, LOWER	46,080	
TOTAL		46,080	

HMA PAVEMENT			
	460.5224	460.5225	
	4 LT	5 LT	
	58-28 S	58-28 S	
STATION	TON	TON	
198+70 - 659+50	17,664	13,248	
SIDEROADS (11)	<u>586</u>	<u>432</u>	
TOTAL	18,250	13,680	

ASPHALTIC SURFACE			
		465.0105	
STATION	LOCATION	TON	
398+00 - 400+50 RT	STAGE 2 C-50-012	240	
470+50 - 473+00 RT	STAGE 2 B-50-0085	240	
398+00 - 400+50 LT	STAGE 3 C-50-012	160	
470+50 - 473+00 LT	STAGE 3 B-50-0085	101	
586+96 - 589+05 LT & RT	C-50-013-0550	250	
UNDISTRIBUTED	MILLED SURF MAINT	<u>2,010</u>	
TOTAL		3,000	

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES			
		465.0120	
STATION		TON	
DRIVEWAYS (24)		400	

ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL			
		465.0475	
STATION	LOCATION	LF	
198+70 - 658+58	MAINLINE	38,800	

EROSION CONTROL ITEMS							
		628.1104	628.1504	628.1520	628.2008	628.7555	628.7570
		EROSION	SILT	SILT	URBAN	CULVERT	ROCK
		BALES	FENCE	FENCE	CLASS I	PIPE	BAGS
		EACH	LF	LF	SY	EACH	EACH
398+00 - 400+50	LT STAGE 1	12	265	265	35	-	-
470+50 - 473+00	LT STAGE 1	12	240	240	52	-	-
398+00 - 400+50	RT STAGE2	12	240	240	341	-	-
470+50 - 473+00	RT STAGE2	12	-	-	462	-	-
398+00 - 400+50	LT STAGE3	-	-	-	632	-	-
470+50 - 473+00	LT STAGE3	-	-	-	522	-	-
586+95 - 589+07	LT	-	210	210	763	3	5
586+95 - 589+07	RT	-	205	205	1,315	0	5
UNDISTRIBUTED		<u>12</u>	<u>90</u>	<u>90</u>	<u>208</u>	<u>3</u>	<u>2</u>
TOTAL		60	1,250	1,250	4,330	6	12

ASPHALTIC SURFACE TEMPORARY				
			465.0125	
STATION	LOCATION		TON	
399+25 - 399+35 RT	STAGE 1 C 50-012		<u>5</u>	
471+50 - 471+75 RT	STAGE 1 B 50-0085		<u>10</u>	
TOTAL			15	

LANDSCAPING ITEMS				
		625.0100	629.0210	630.0130
		TOPSOIL	FERTILIZER	SEEDING
		SY	TYPE B	MIXTURE
			CWT	NO. 30
STATION	LOCATION	SY		LB
396+00 - 402+00	C 50-012	973	0.64	18
470+00 - 474+25	B 50-0085	984	0.62	19
587+00 - 589+00	C 50-013-0550	253	0.20	13
UNDISTRIBUTED		<u>290</u>	<u>0.50</u>	<u>10</u>
TOTAL		2,500	2	60

WATER <table><tr><td>624.0100</td><td></td><td></td></tr><tr><td>LOCATION</td><td>MGAL</td><td>REMARKS</td></tr><tr><td>UNDISTRIBUTED</td><td>720</td><td>COMPACTION</td></tr><tr><td>UNDISTRIBUTED</td><td><u>180</u></td><td>DUST CONTROL</td></tr><tr><td>TOTAL</td><td>900</td><td></td></tr></table>			624.0100			LOCATION	MGAL	REMARKS	UNDISTRIBUTED	720	COMPACTION	UNDISTRIBUTED	<u>180</u>	DUST CONTROL	TOTAL	900		TRAFFIC CONTROL ITEMS <table><tr><td></td><td></td><td>643.0300</td><td>643.0420</td><td>643.0705</td><td>643.0715</td><td>643.0900</td></tr><tr><td></td><td></td><td>DRUMS</td><td>BARRICADES</td><td>WARNING</td><td>WARNING</td><td>SIGNS</td></tr><tr><td></td><td></td><td></td><td>TYPE III</td><td>LIGHTS</td><td>LIGHTS</td><td></td></tr><tr><td>OPERATIONS</td><td>DURATION</td><td></td><td></td><td>TYPE A</td><td>TYPE C</td><td></td></tr><tr><td></td><td>DAYS</td><td>DAYS</td><td>DAYS</td><td>DAYS</td><td>DAYS</td><td>DAYS</td></tr><tr><td>STAGE 1</td><td>15</td><td>1,800</td><td>60</td><td>120</td><td>300</td><td>450</td></tr><tr><td>STAGE 2</td><td>30</td><td>3,600</td><td>120</td><td>240</td><td>600</td><td>900</td></tr><tr><td>STAGE 3</td><td>15</td><td>1,800</td><td>60</td><td>120</td><td>300</td><td>450</td></tr><tr><td>UDISTRIBUTED</td><td></td><td><u>720</u></td><td><u>24</u></td><td><u>48</u></td><td><u>120</u></td><td><u>180</u></td></tr><tr><td>TOTAL</td><td>60</td><td>7,920</td><td>264</td><td>528</td><td>1,320</td><td>1,980</td></tr></table>								643.0300	643.0420	643.0705	643.0715	643.0900			DRUMS	BARRICADES	WARNING	WARNING	SIGNS				TYPE III	LIGHTS	LIGHTS		OPERATIONS	DURATION			TYPE A	TYPE C			DAYS	DAYS	DAYS	DAYS	DAYS	DAYS	STAGE 1	15	1,800	60	120	300	450	STAGE 2	30	3,600	120	240	600	900	STAGE 3	15	1,800	60	120	300	450	UDISTRIBUTED		<u>720</u>	<u>24</u>	<u>48</u>	<u>120</u>	<u>180</u>	TOTAL	60	7,920	264	528	1,320	1,980	MARKERS CULVERT END <table><tr><td></td><td></td><td>633.5200</td></tr><tr><td>STATION</td><td>LOCATION</td><td>EACH</td></tr><tr><td>250+15</td><td></td><td>2</td></tr><tr><td>399+31</td><td>C 50-012</td><td>2</td></tr><tr><td>399+44</td><td>C 50-012</td><td>2</td></tr><tr><td>435+00</td><td></td><td>2</td></tr><tr><td>471+57</td><td>B 50-0085</td><td>2</td></tr><tr><td>471+71</td><td>B 50-0085</td><td>2</td></tr><tr><td>471+82</td><td>B 50-0085</td><td>2</td></tr><tr><td>588+10</td><td>C 50-013-0550</td><td>2</td></tr><tr><td>UNDISTRIBUTED</td><td></td><td><u>4</u></td></tr><tr><td>TOTAL</td><td></td><td>20</td></tr></table>					633.5200	STATION	LOCATION	EACH	250+15		2	399+31	C 50-012	2	399+44	C 50-012	2	435+00		2	471+57	B 50-0085	2	471+71	B 50-0085	2	471+82	B 50-0085	2	588+10	C 50-013-0550	2	UNDISTRIBUTED		<u>4</u>	TOTAL		20
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PROJECT NO: 1610-44-70		HWY: STH 13	COUNTY: PRICE		MISCELLANEOUS QUANTITIES		SHEET: 4	E																																																																																																																												

3

3

PROJECT NO: 1610-44-70	HWY: STH 13	COUNTY: PRICE	MISCELLANEOUS QUANTITIES	SHEET: 6
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41	495+60		N		Little Chicago Rd							1	2	
42	496+50		N	D1-1	Little Chicago Rd ==>	108	15	2	11.25	--		0	0	
43	497+60		N	D1-2	UA Phillips	66	30	2	13.75	--		1	2	
					LA Catawba									
44	500+25	S		J4-1	SOUTH 13	24	36	1	6.00	--		1	1	
45	503+20	E		J3-2	NORTH 13 LA SOUTH 13 RA	48	57	1	19.00	--		1	1	
46	503+20	E		R1-1	STOP	36	36	1	7.46	--		1	0	STH 111
47	503+00		N	J3-1	SOUTH 111 LA	24	57	1	9.50	--		1	1	
48	503+75	E		R1-1	STOP	30	30	1	5.18			1	1	Little Chicago
48A	504+00		S	J3-1	SOUTH 111 LA	24	57	1	9.50	--		1	1	
49	538+50		N	I-55-56	ADOPT A HIGHWAY SPONSOR	30	36	1	7.50	--		1	1	
					NORTHWOODS RANGEROVERS ATV CLUB									
50	632+60	S			SCHOOL BUS STOP AHEAD			1			1	0	0	
51	633+25	S		R2-1	SPEED LIMIT 40	30	36	1	--	7.50		1	1	
52	645+10	S		I-55-56	ADOPT A HIGHWAY SPONSOR	30	36	1	7.50	--		1	1	
					NORTHWOODS RANGEROVERS ATV CLUB									
53	645+10		N	I-55-56	ADOPT A HIGHWAY SPONSOR	30	36	1	7.50	--		1	1	
					PHILLIPS LIONS CLUB									
54	659+50	S		R2-1	SPEED LIMIT 40	24	30	1	5.00	--		1	1	
						TOTAL	47		232.03	107.72		1	44	50

<u>LOCATING NO-PASSING ZONES</u> STATION 648.0100 MILES 198+70 - 659+50 8.7		<u>SAWING ASPHALT</u> STATION LOCATION LF REMARKS 399+37 C-50-12 60 STAGE 1 471+77 B-50-0085 70 STAGE 1 588+10 C-50-013-0550 140 STAGE 1 399+37 C-50-12 200 STAGE 2 471+77 B-50-0085 150 STAGE 2 399+37 C-50-12 150 STAGE 3 471+77 B-50-0085 150 STAGE 3 TOTAL 920		<u>REESTABLISH SECTION CORNER MONUMENTS</u> STATION SY MARKER TYPE 424+15 RT 1 BERNTSEN STEEL NAIL 449+44 LT 1 BERNTSEN STEEL NAIL 475+41 RT 1 BERNTSEN STEEL NAIL TOTAL 3		<u>PROTECTIVE THERMOPLASTIC COATING AT SNOWMOBILE TRAIL CROSSING</u> STATION SY 598+97 66 657+69 66 TOTAL 132	
<u>TEMPORARY WATER DIVERSION</u> STATION LOCATION LS LS C-50-012 398+70 - 400+00 C-50-012 CRANBERRY CRK 1 - B-50-0085 470+99 - 472+41 B-50-0085 N FORK JUMP RIVER - 1							
PROJECT NO: 1610-44-70		HWY: STH 13		COUNTY: PRICE		MISCELLANEOUS QUANTITIES	
						SHEET: 5	
						E	

CONVENTIONAL SYMBOLS

SECTION LINE	-----	SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	●
QUARTER LINE	-----	SECTION CORNER MONUMENT		NON-MONUMENTED R/W POINT	○
SIXTEENTH LINE	-----	GEODETIC SURVEY MONUMENT		FOUND IRON PIN (1-INCH UNLESS NOTED)	IP
NEW REFERENCE LINE	-----	SIXTEENTH CORNER MONUMENT			
NEW R/W LINE	-----	SIGN		OFF-PREMISE SIGN	
EXISTING R/W OR HE LINE	-----				
PROPERTY LINE	-----				
LOT, TIE & OTHER MINOR LINES	-----				
SLOPE INTERCEPT	-----				
CORPORATE LIMITS	-----				
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)	-----				
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)	-----				
TEMPORARY LIMITED EASEMENT AREA	-----				
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)	-----				
TRANSMISSION STRUCTURES	-----				
BUILDING	-----				
BRIDGE	-----				
SECTION LINE S/L	-----				
REFERENCE LINE R/L	-----				

NOTES:

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS AND ARE REFERENCED TO THE US PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" X 24" IRON PIPE) AND WILL BE PLACED PRIOR TO COMPLETION OF PROJECT.

AREAS SHOWN IN THE TOTAL ACRES COLUMN OF THE SCHEDULE OF LANDS & INTEREST TABLE MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

COORDINATES AS SHOWN ARE NOT INTENDED TO BE USED FOR RETRACEMENT PURPOSES AND MUST BE VERIFIED WITH THE COUNTY SURVEY DEPARTMENT.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, PRICE COUNTY, NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

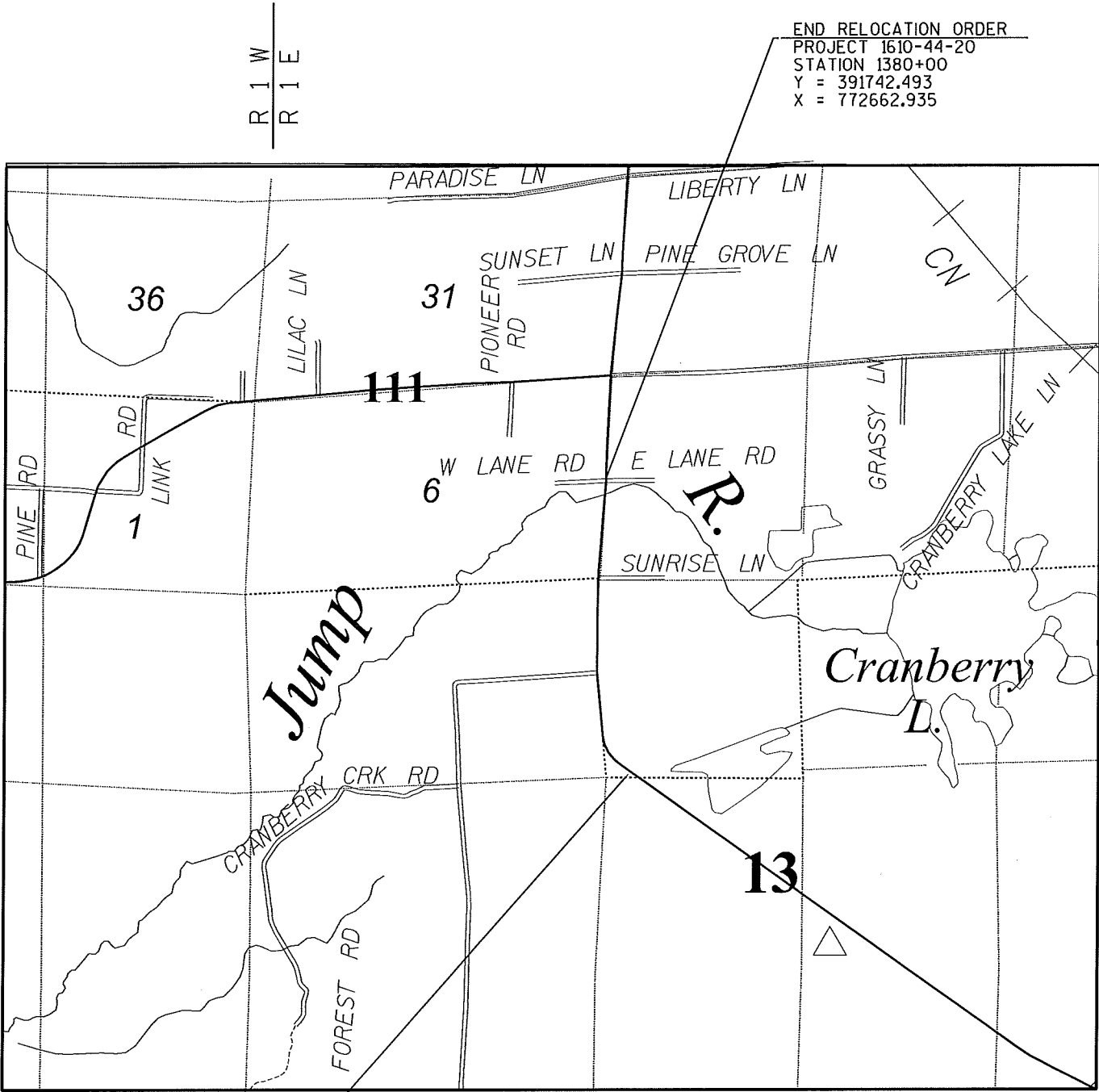
A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE, ALL TLE'S TERMINATE ON THE DATE THE CONSTRUCTION OF THIS PROJECT IS COMPLETED.

EXISTING RIGHT OF WAY WAS ACQUIRED FROM PROJECT(S): DJ 7756 AND T04-5(1)

EXISTING ACCESS CONTROL WAS ACQUIRED UNDER PROJECT: 1614-15-29

RIGHT OF WAY REFERENCE LINE MAY NOT BE THE SAME AS THE CONSTRUCTION REFERENCE LINE.

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO DEPARTMENT OF TRANSPORTATION.



BEGIN RELOCATION ORDER
PROJECT 1610-44-20
STATION 1301+00
Y = 384103.305
X = 773273.216

LAYOUT
0 1.0 MI.
SCALE
TOTAL NET LENGTH OF CENTERLINE = 1.53 MI.

END RELOCATION ORDER
PROJECT 1610-44-20
STATION 1380+00
Y = 391742.493
X = 772662.935

R/W PROJECT NUMBER 1610-44-20	SHEET NUMBER	TOTAL SHEET
FEDERAL PROJECT NUMBER -----	4.01	3
PLAT OF RIGHT OF WAY REQUIRED FOR PRENTICE - PARK FALLS CTH A - CTH D		
STH 13		PRICE COUNTY



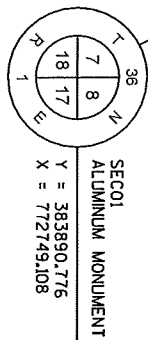
Jeffrey T. Brock
9/5/2017

REVISION DATE	STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED:	Brent L. Stella
DATE: 9-13-17	BRENT L. STELLA

PRICE COUNTY TELEPHONE
NO EASEMENT OF RECORD, PARCEL 1

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
101	PRICE COUNTY TELEPHONE	RELEASE OF RIGHTS



STATION - OFFSET TABLE		
POINT	STATION	OFFSET
XRW111	1301+00.00	50.00' LT
T1	1301+00.00	0.00' LT
TLE101	1301+00.00	60.00' RT
TLE102	1301+00.00	60.00' RT
TLE103	1303+34.18	60.00' RT
TLE104	1305+25.00	60.00' RT
TLE105	1305+25.00	50.00' RT
T2	1305+25.00	0.00' LT
TLE106	1304+75.00	57.05' LT
TLE107	1304+75.00	67.05' LT
TLE108	1303+34.18	60.00' LT
TLE109	1302+25.00	60.00' LT
TLE110	1302+25.00	50.00' LT

R/W REFERENCE LINE COURSE TABLE			
Tangent	N 384103.305 E 773273.216	1301+00.00	
Distance	234.18'	Bearing	N 55° 2' 28" W
Arc	PC N 384237.485 E 773081.294	1303+34.18	
CC	N 385091.307 E 773678.232		
PI	N 384511.835 E 772688.881	1308+12.98	
TAN	478.807'		
DB	N 55° 2' 28" W		
DA	N 5° 40' 28" W		
LChord	870.12' N 30° 21' 28" W		
Radius	1041.80'		
LENGTH	897.63'		
PT	N 384988.296 E 772641.537	1312+31.80	
Tangent	N 384988.296 E 772641.537	1312+31.80	
Distance	1520.40'	Bearing	N 5° 40' 28" W
Arc	PC N 386501.249 E 772491.202	1327+52.21	
CC	N 386784.528 E 775342.093		
PI	N 386648.007 E 772476.619	1328+99.69	
TAN	147.48'		
DB	N 5° 40' 28" W		
DA	N 0° 13' 09" E		
LChord	294.57' N 2° 43' 40" W		
Radius	2864.93'		
LENGTH	294.70'		
PT	N 386795.487 E 772477.184	1330+46.91	
Tangent	N 386795.487 E 772477.184	1330+46.91	
Distance	2379.49'	Bearing	N 0° 13' 09" E
Tangent	N 389174.963 E 772486.286	1354+26.4	
Distance	2573.60'	Bearing	N 3° 56' 09" E
Tangent	N 391742.493 E 772662.935	1380+00.00	

FROM	TO	BEARING	DISTANCE
XRW111	T1	N34°57'32"E	50.00'
T1	TLE101	N34°57'32"E	50.00'
TLE101	TLE102	N34°57'32"E	10.00'
TLE102	TLE103	N55°02'28"W	234.18'
TLE103	TLE104	N49°47'37"W	179.58'
TLE104	TLE105	S45°27'13"W	10.00'
TLE105	T2	S45°27'13"W	50.00'
T2	TLE106	S02°04'18"W	76.75'
TLE106	TLE107	S42°42'13"W	10.00'
TLE107	TLE108	S53°51'58"E	149.46'
TLE108	TLE109	S55°02'28"E	109.18'
TLE109	TLE110	N34°57'32"E	10.00'
TLE110	XRW111	S55°02'28"E	125.00'

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTEREST REQUIRED	FEE ACRES	T.L.E. SO. FT.	P.L.E. ACRES	EXISTING ACRES
1	FLATIRON FARMS LLC	TLE	-	7070	-	-

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

REVISION DATE	DATE 9/05/2017	SCALE, FEET	HWY: STH 13	STATE R/W PROJECT NUMBER 1610-44-20	PLAT SHEET 4.02
GRID FACTOR N/A		0 50 100	COUNTY: PRICE	CONSTRUCTION PROJECT NUMBER 1610-44-70	PS&E SHEET E

SCHEDULE OF LANDS & INTERESTS REQUIRED

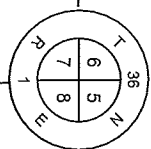
PARCEL NUMBER	OWNER	INTEREST REQUIRED	FEE ACRES	T.L.E. SO. FT.	P.L.E. ACRES	EXISTING ACRES
2	FLAT IRON FARMS LLC	TLE	-	2250	-	-
3	JAMES E & DAWN M. KELLY	TLE	-	3750	-	-

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

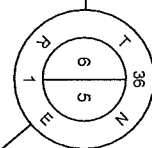
STATION - OFFSET TABLE

POINT	STATION	OFFSET
T1	1379+00	0.13' RT
TLE201	1379+00	50.00' RT
TLE202	1378+00	50.00' RT
TLE203	1378+00	60.00' RT
TLE204	1375+50	60.00' RT
TLE205	1375+50	70.00' RT
TLE206	1375+00	70.00' RT
TLE207	1374+75	50.00' RT
XRW208	1372+50	50.00' RT
T2	1379+00	0.79' RT
XRW209	1372+50	50.00' LT
TLE210	1375+75	50.00' LT
TLE211	1375+75	60.00' LT
TLE212	1378+00	60.00' LT
TLE213	1378+00	50.00' LT
XRW214	1379+00	50.00' LT

SECO4
PK NAIL
Y = 389180.273
X = 772489.281



OTR05
PK NAIL
Y = 391714.425
X = 772664.926



R/W REFERENCE LINE COURSE TABLE

Tangent N 384103.305E 773273.216 1301+00.00
Distance 234.18' Bearing N 55° 2' 28 W"

Arc
PC N 384237.485 E 773081.294 1303+34.18
CC N 385091.307 E 773678.232
PI N 384511.835 E 772688.881 1308+12.98
TAN 478.807'
DB N 55° 2' 28 W"
DA N 5° 40' 28 W"
LChord 870.12' N 30° 21' 28 W"
Radius 1041.80'
LENGTH 897.63'

PT N 384988.296 E 772641.537 1312+31.80
Tangent N 384988.296 E 772641.537 1312+31.80
Distance 1520.40' Bearing N 5° 40' 28 W"

Arc
PC N 386501.249 E 772491.202 1327+52.21
CC N 386784.528 E 775342.093
PI N 386648.007 E 772476.619 1328+99.69
TAN 147.48'
DB N 5° 40' 28 W"
DA N 0° 13' 09" E
LChord 294.57' N 2° 43' 40 W"
Radius 2864.93'
LENGTH 294.70'

PT N 386795.487 E 772477.184 1330+46.91
Tangent N 386795.487E 772477.184 1330+46.91
Distance 2379.49' Bearing N 0° 13' 09" E
Tangent N 389174.963E 772486.286 1354+26.4
Distance 2573.600' Bearing N 3° 56' 09" E
Tangent N 391742.493E 772662.935 1380+00.00

NW 1/4 - SW 1/4
SECTION 5, T36N, R1E

NE 1/4 - SE 1/4
SECTION 6, T36N, R1E

WORCESTER

STH 13

TOWN

COURSE TABLE

FROM	TO	BEARING	DISTANCE
T1	XRW201	S86°03'51"E	49.87'
XRW201	TLE202	S03°56'09"W	100.00'
TLE202	TLE203	S86°03'51"E	10.00'
TLE203	TLE204	S03°56'09"W	250.00'
TLE204	TLE205	S86°03'51"E	10.00'
TLE205	TLE206	S03°56'09"W	50.00'
TLE206	TLE207	S42°35'46"W	32.02'
TLE207	XRW208	S03°56'09"W	225.00'
XRW208	T2	N86°03'51"W	49.21'
T2	XRW209	N86°03'51"W	50.79'
XRW209	TLE210	N03°56'09"E	325.00'
TLE210	TLE211	N86°03'51"W	10.00'
TLE211	TLE212	N03°56'09"E	225.00'
TLE212	TLE213	S86°03'51"E	10.00'
TLE213	XRW214	N03°56'09"E	100.00'
XRW214	T1	S86°03'51"E	50.13'

REVISION DATE

DATE 9/05/2017

SCALE, FEET

0 50 100

HWY: STH 13

STATE R/W PROJECT NUMBER 1610-44-20

PLAT SHEET 4.03

GRID FACTOR N/A

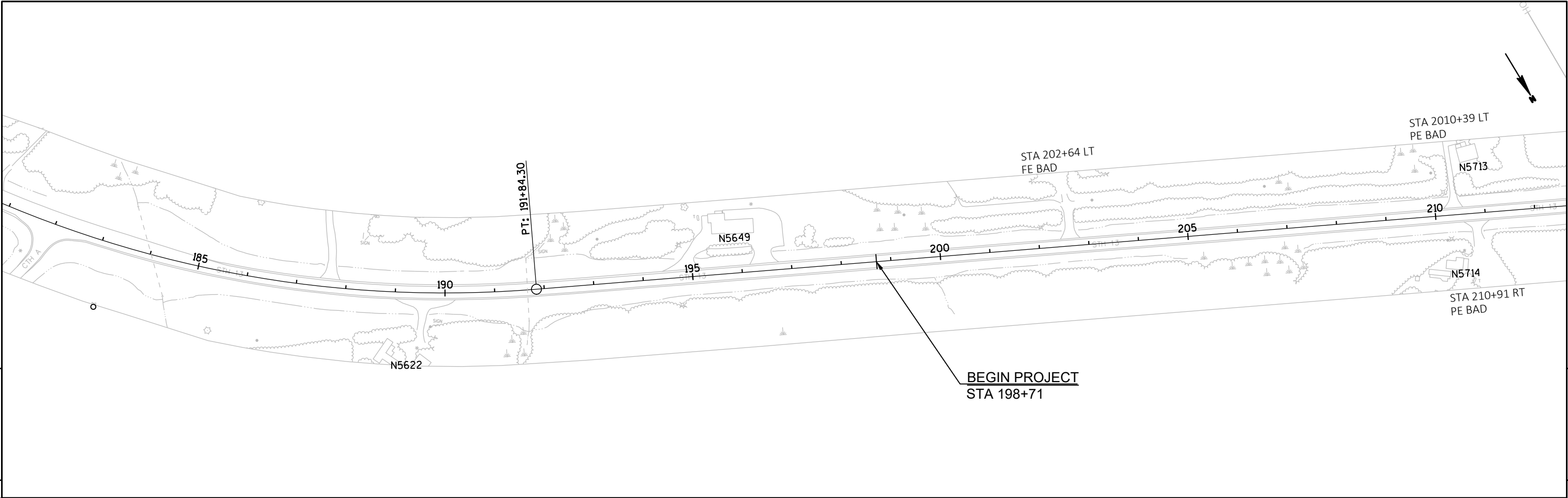
COUNTY: PRICE

CONSTRUCTION PROJECT NUMBER 1610-44-70

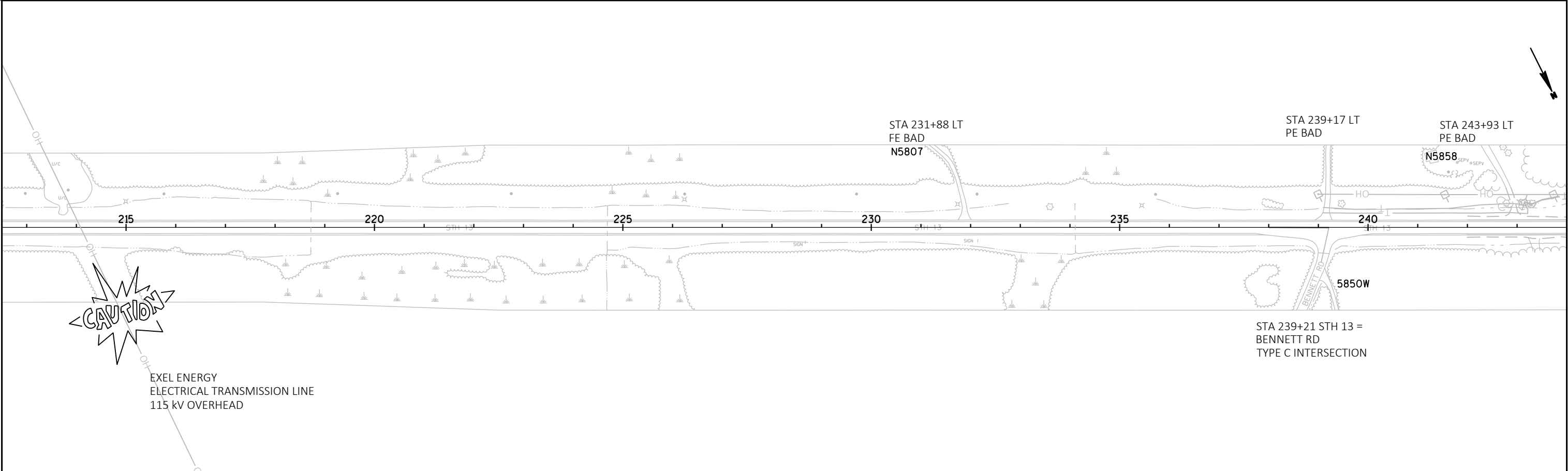
PS&E SHEET

E

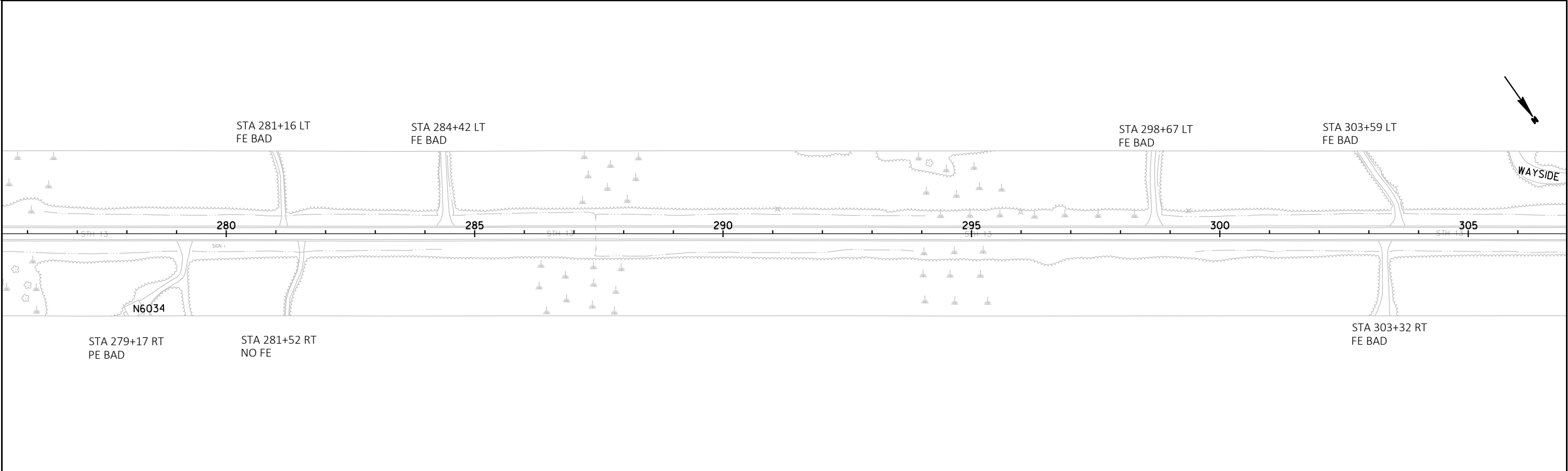
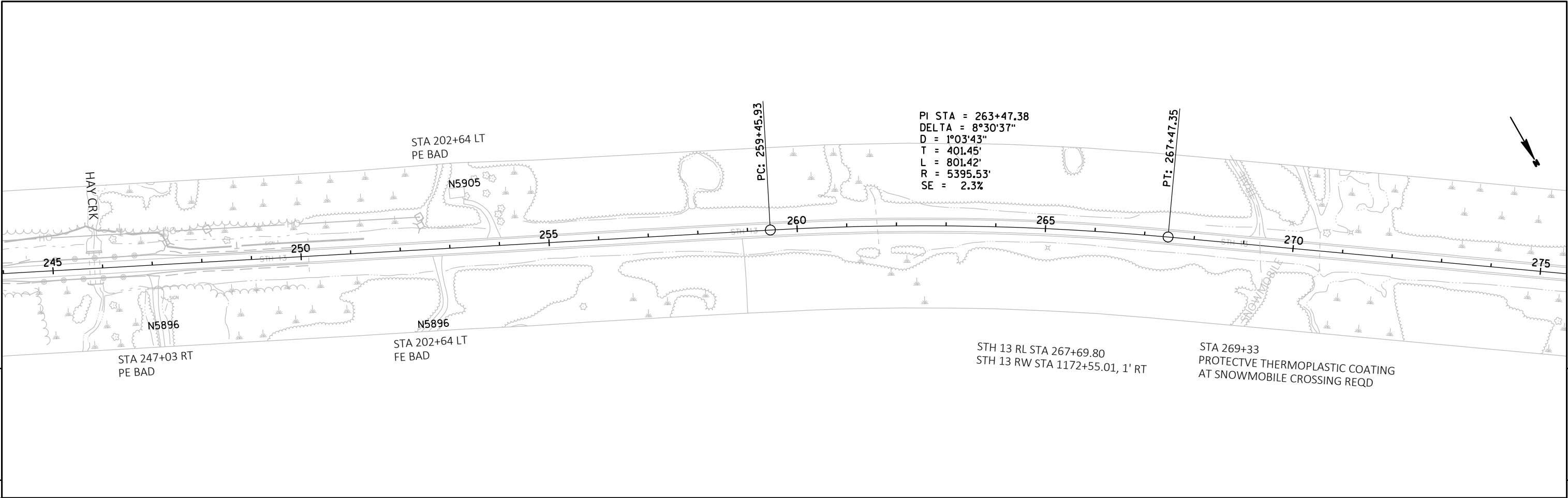
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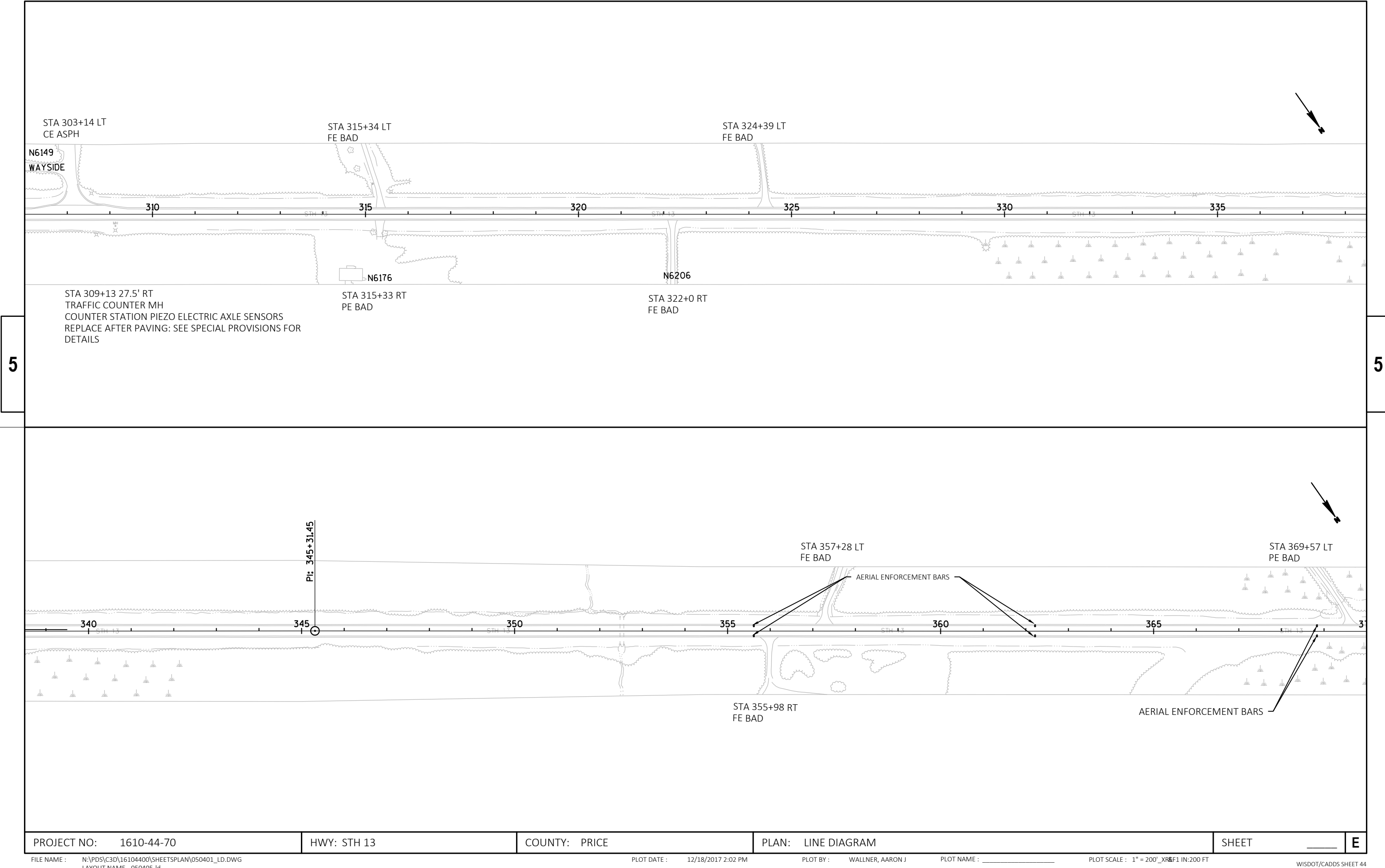
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PROJECT NO: 1610-44-70	HWY: STH 13	COUNTY: PRICE	PLAN: LINE DIAGRAM	SHEET	E
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PROJECT NO: 1610-44-70	HWY: STH 13	COUNTY: PRICE	PLAN: LINE DIAGRAM	SHEET	E
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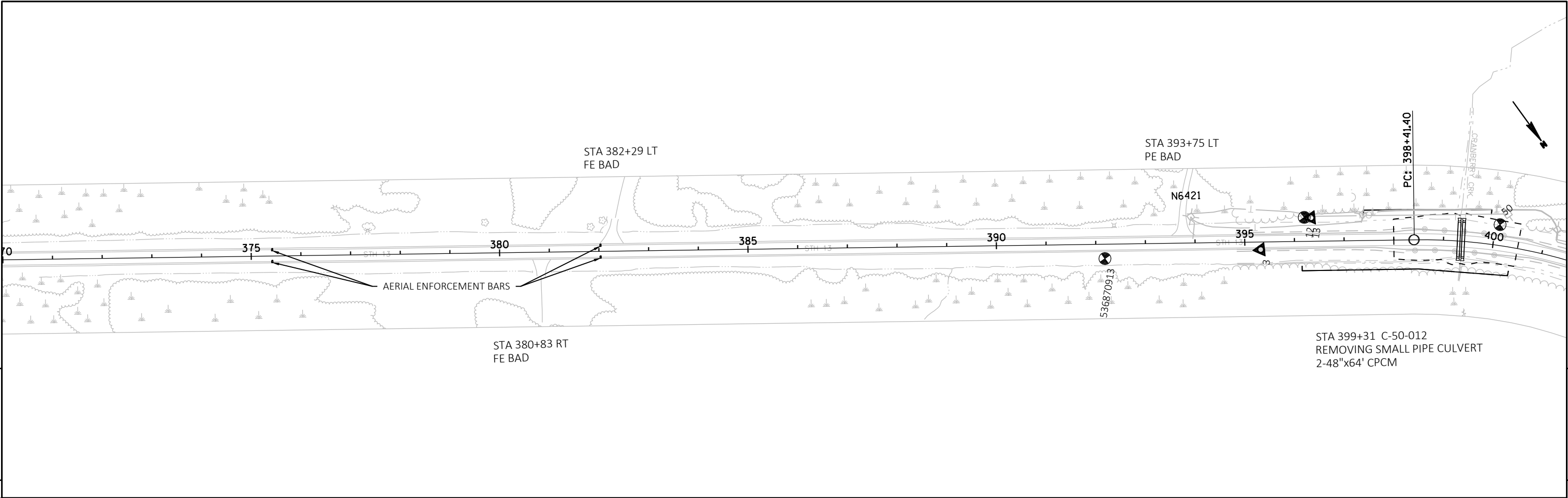


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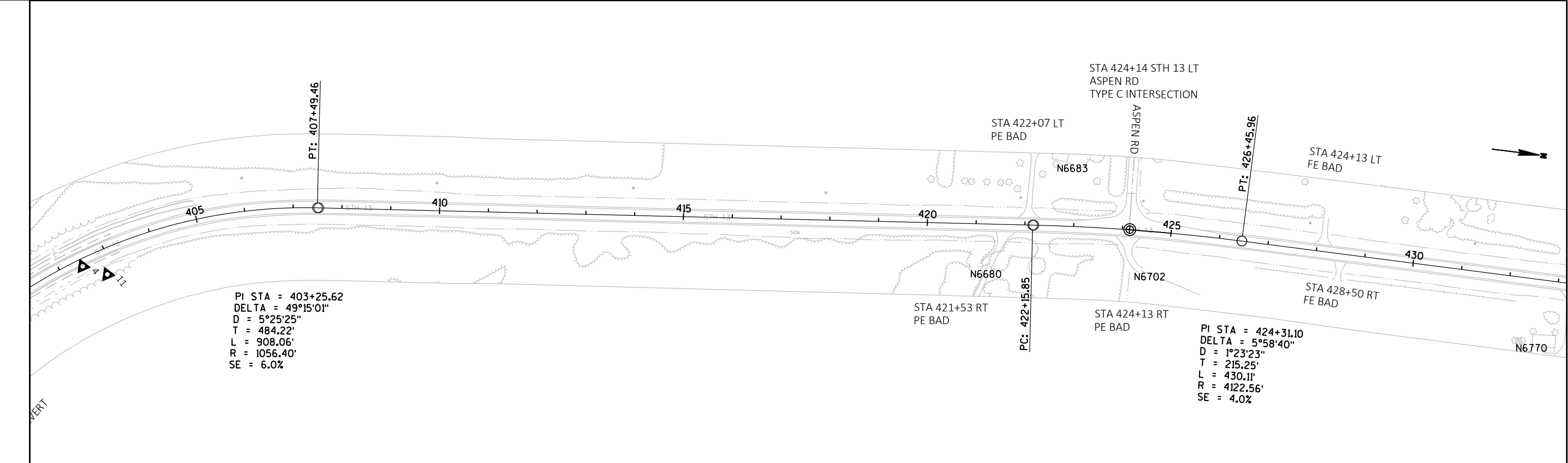
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PROJECT NO: 1610-44-70	HWY: STH 13	COUNTY: PRICE	PLAN: LINE DIAGRAM	SHEET	E
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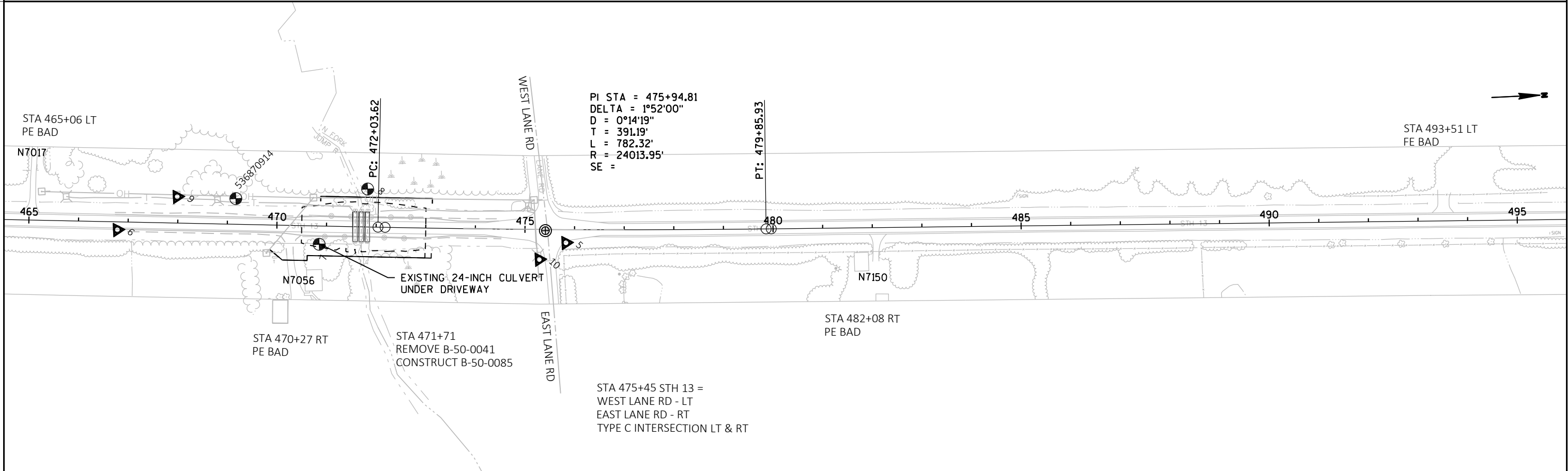
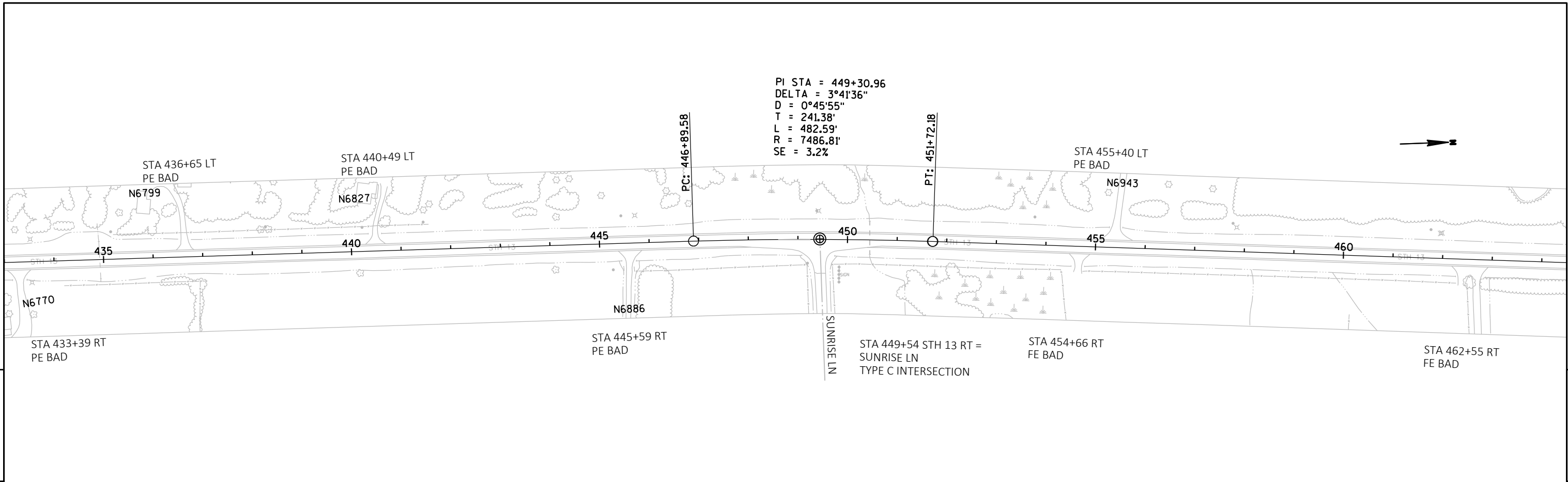
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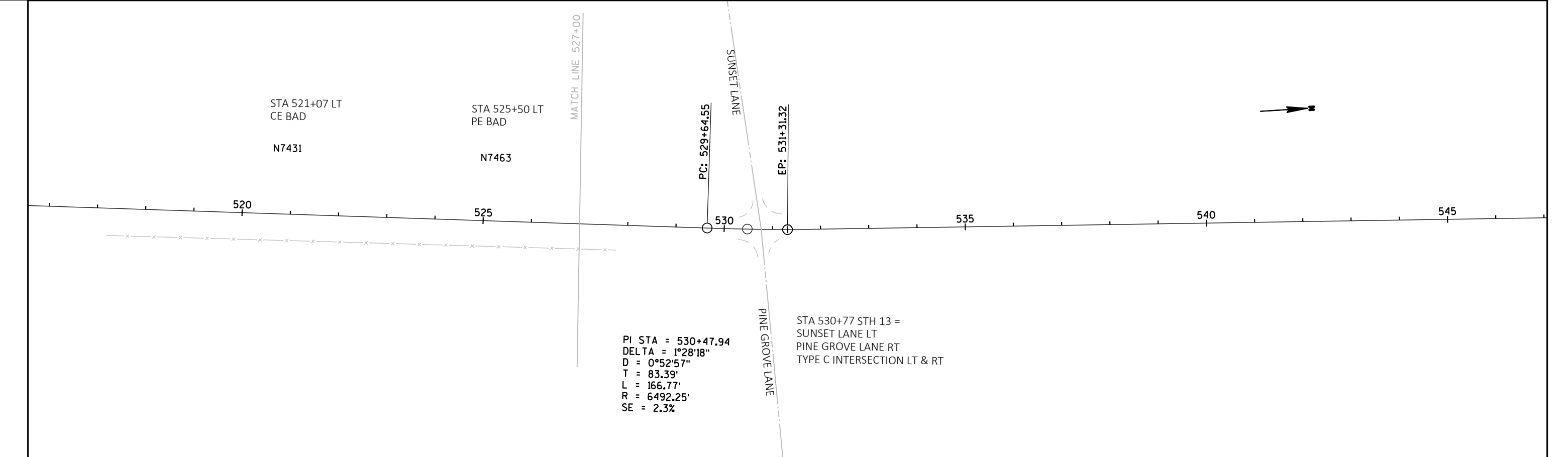
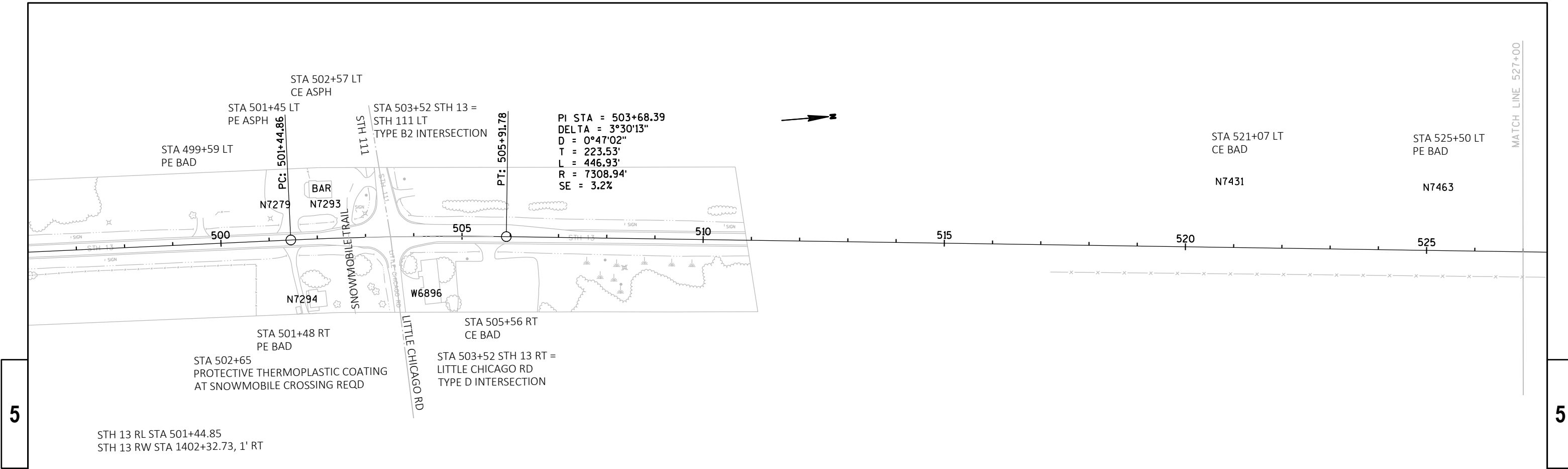
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PROJECT NO: 1610-44-70	HWY: STH 13	COUNTY: PRICE	PLAN: LINE DIAGRAM	SHEET	E
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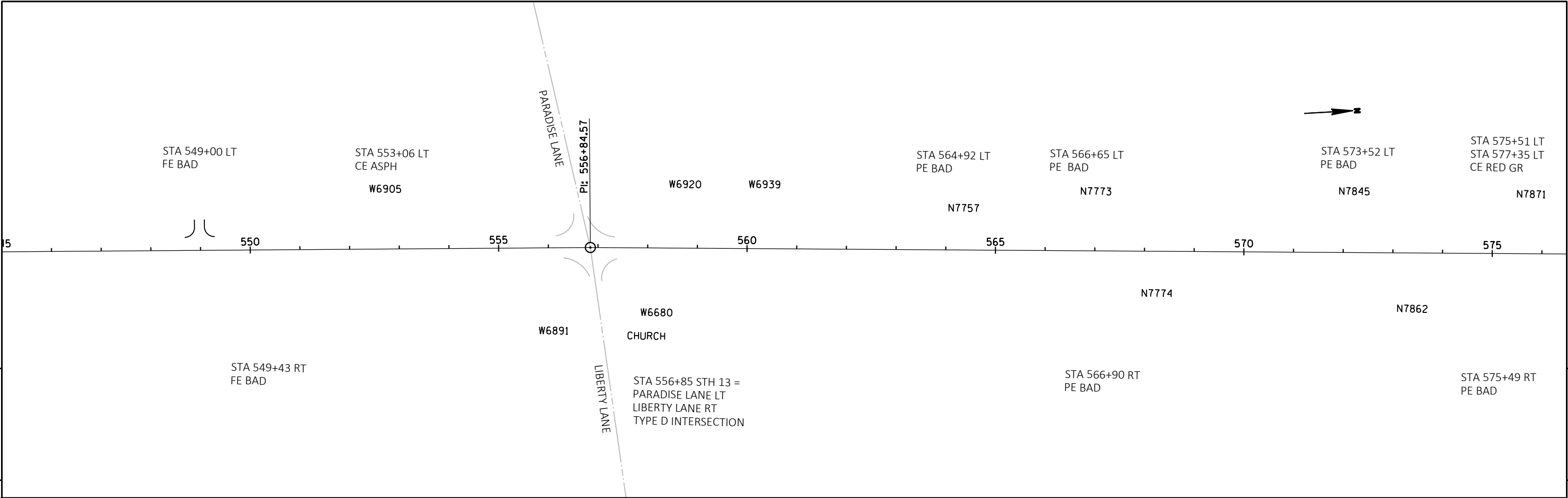


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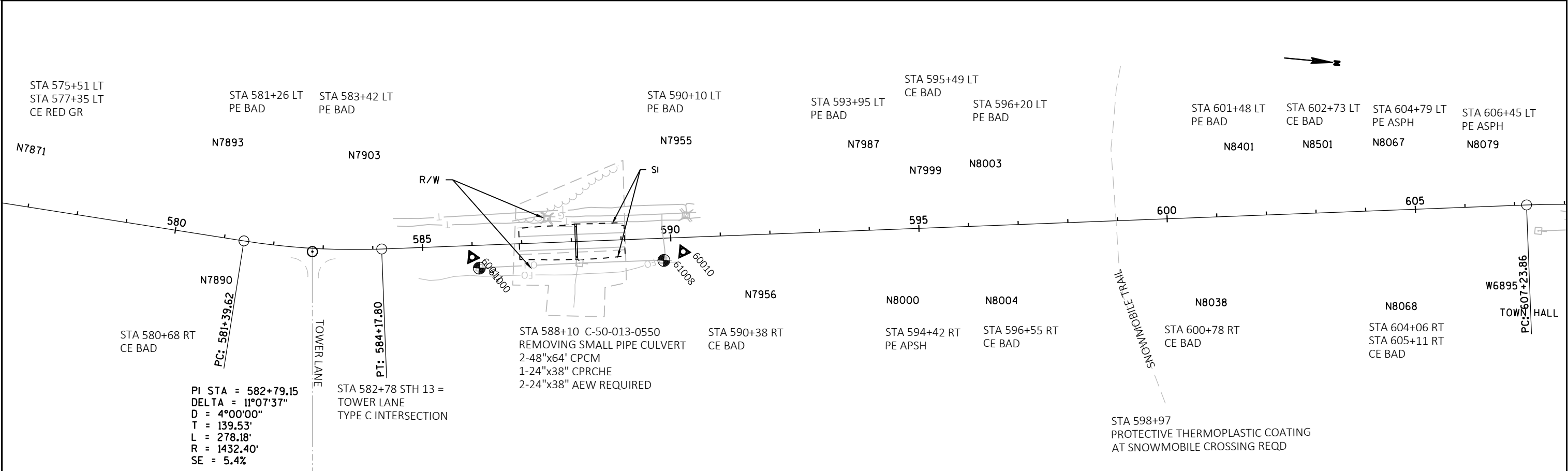


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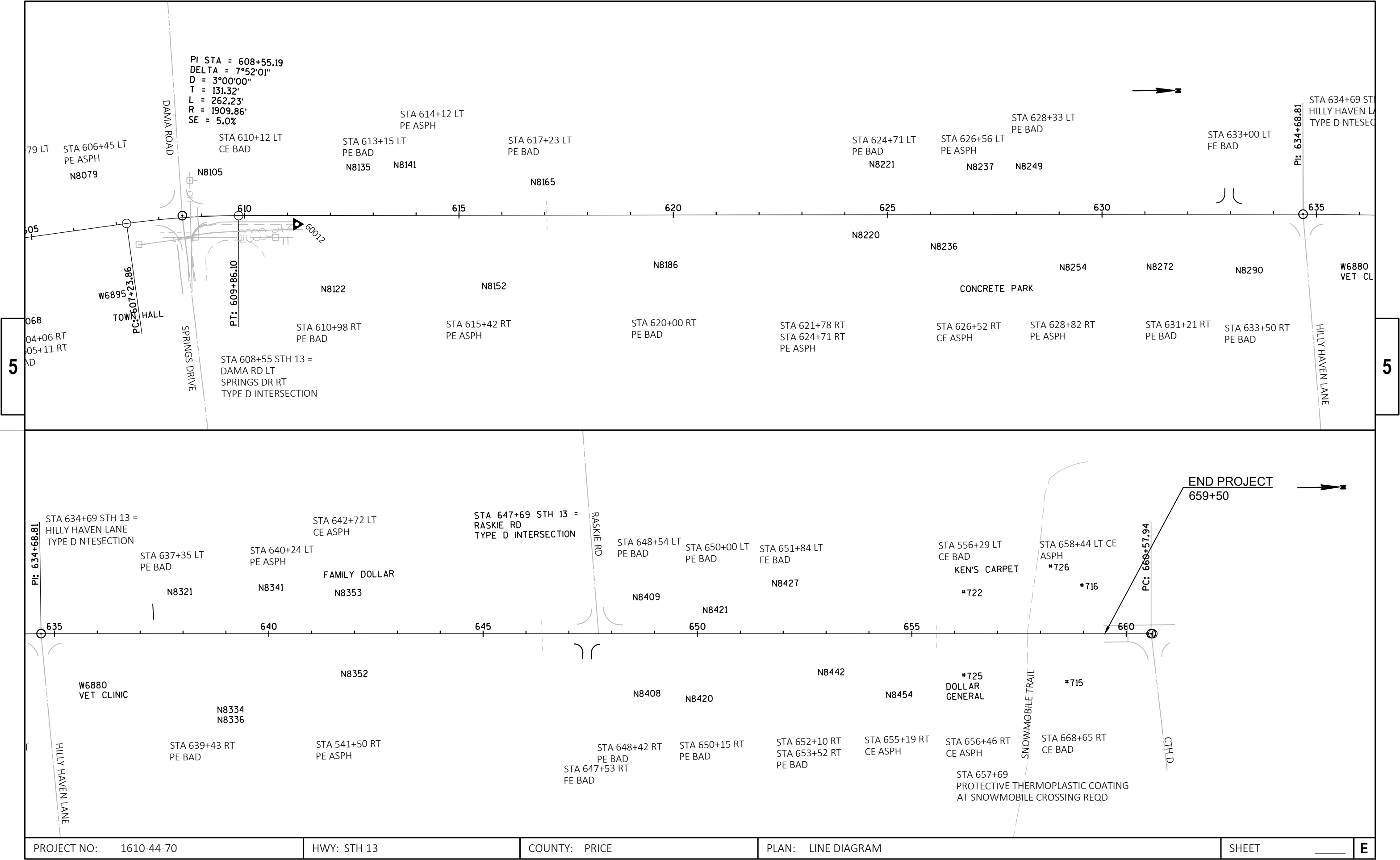
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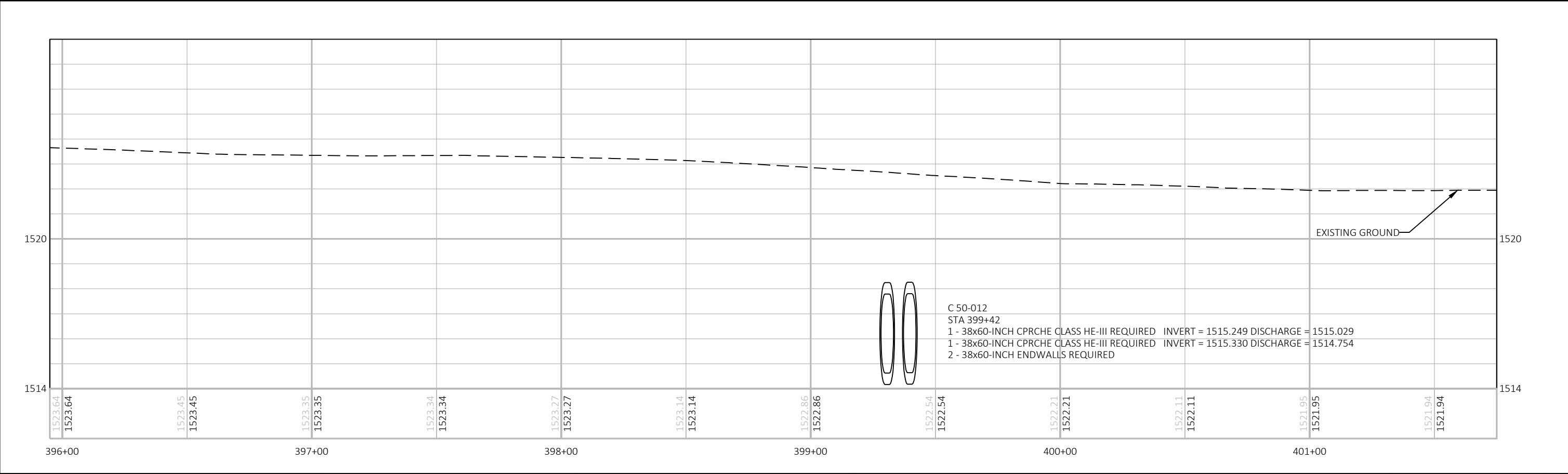
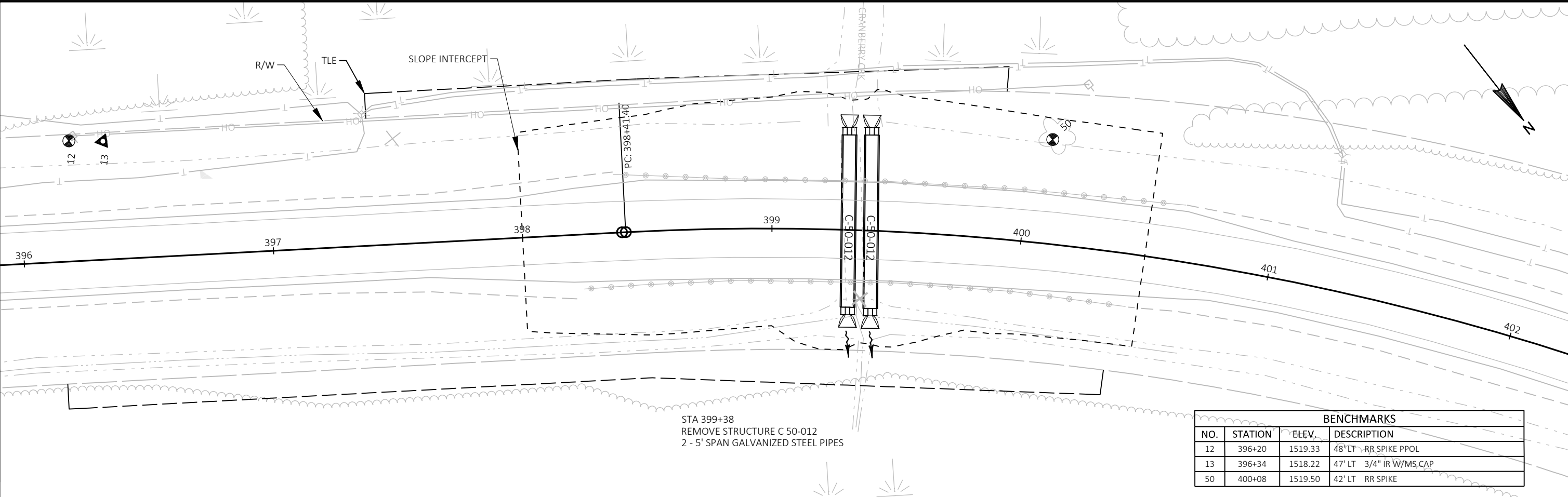
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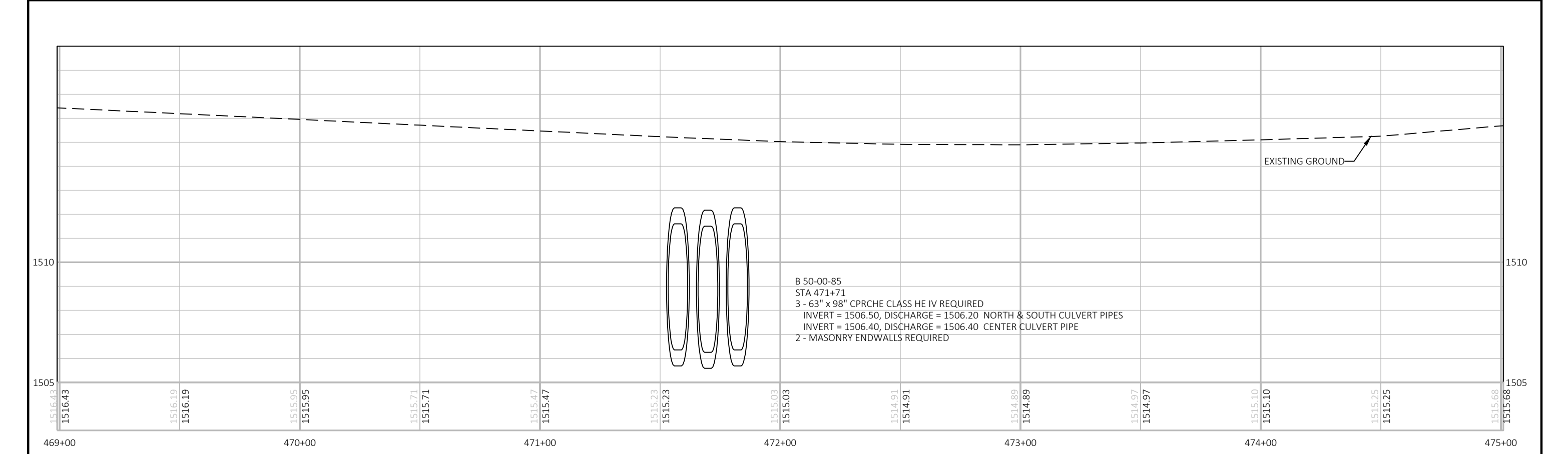
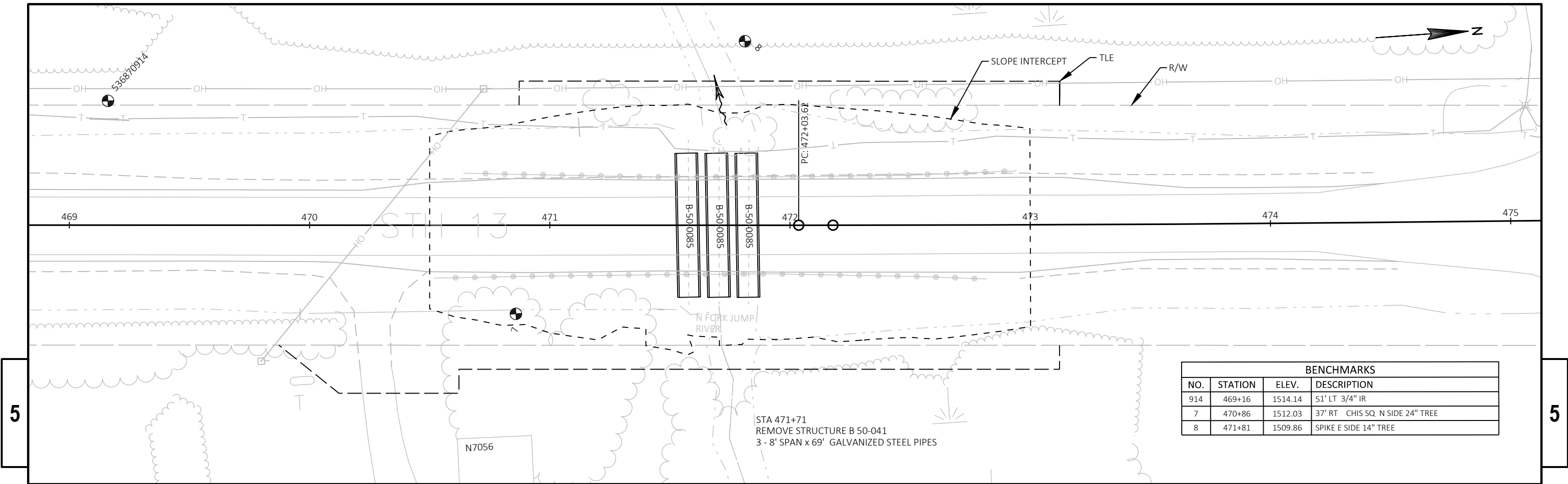


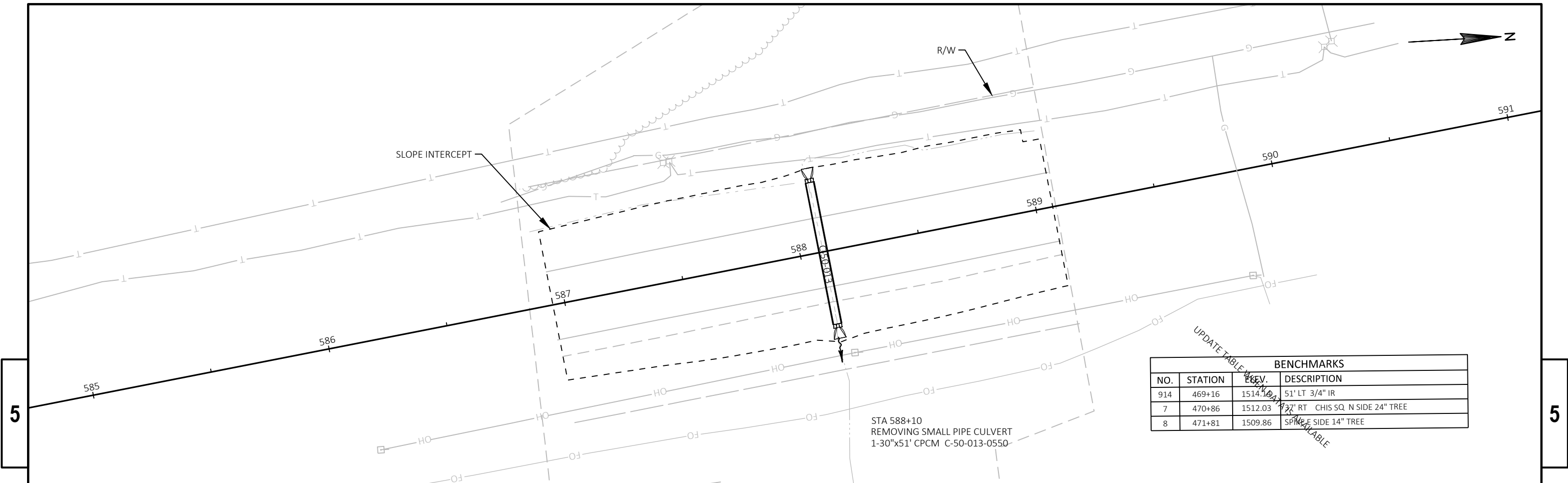
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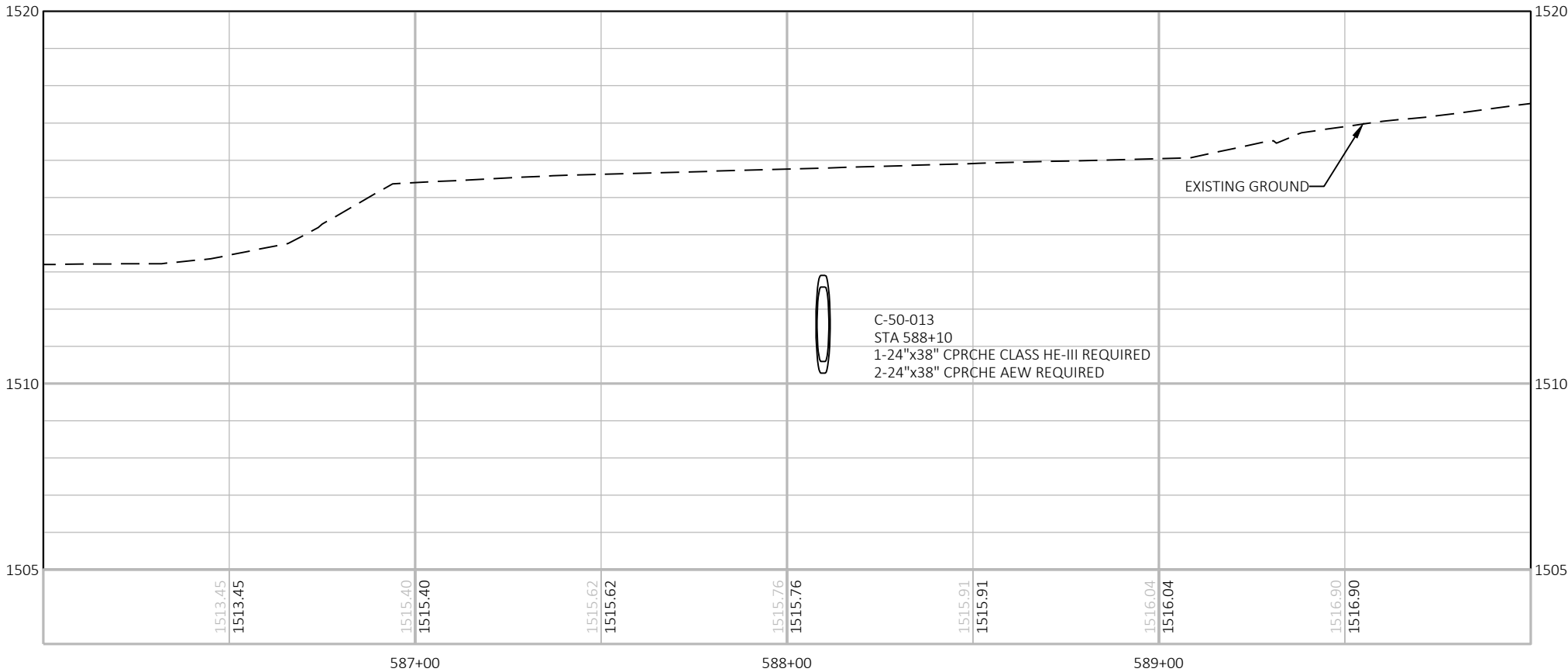
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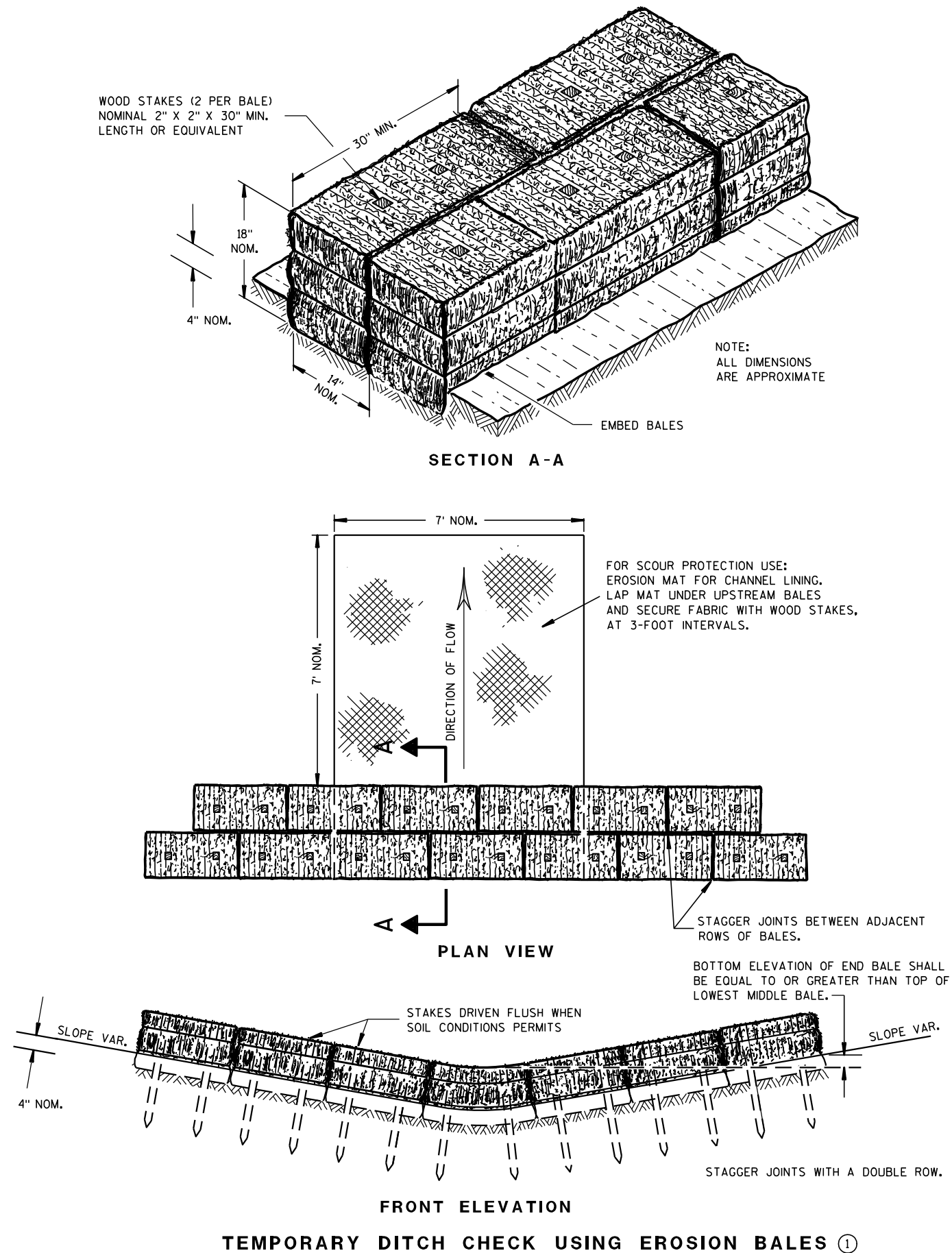


BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
914	469+16	1514.10	51' LT 3/4" IR
7	470+86	1512.03	37' RT CHIS SQ N SIDE 24" TREE
8	471+81	1509.86	SPYRE E SIDE 14" TREE



Standard Detail Drawing List

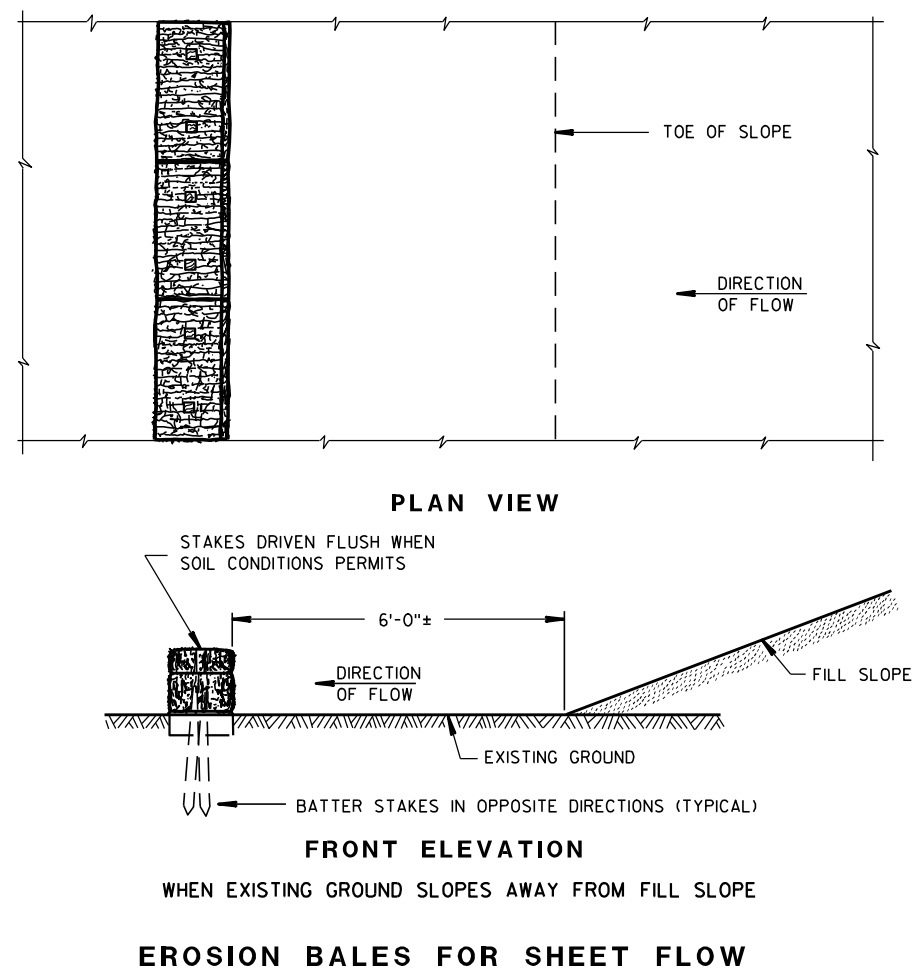
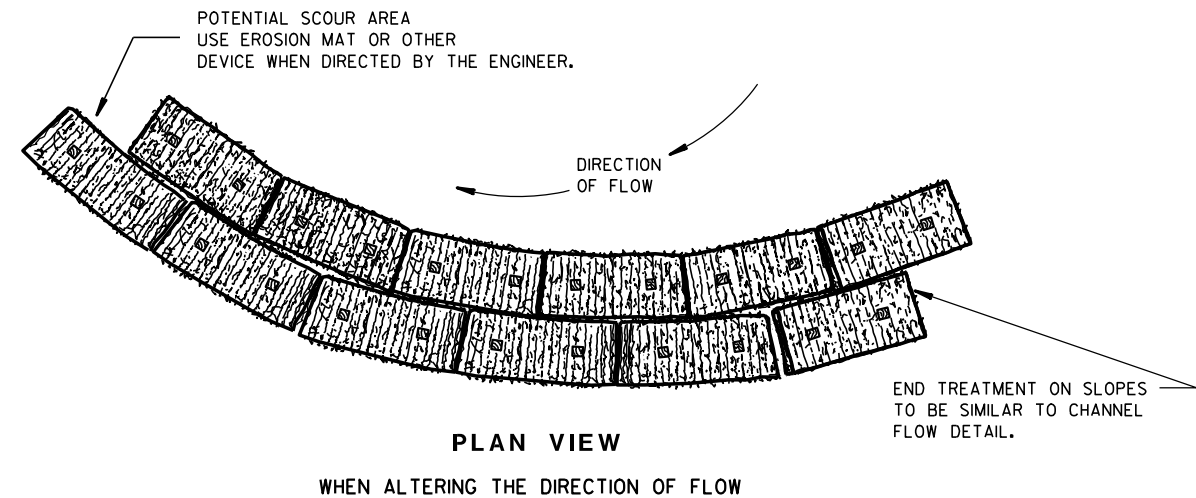
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F10-01	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
09G02-04A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-04B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-04C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C08-18A	LONGITUDINAL MARKING (MAINLINE)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C14-03	AERIAL ENFORCEMENT BARS PAVEMENT MARKING DETAILS
15C19-05A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C35-02A	PAVEMENT MARKING (INTERSECTIONS)
15D33-04	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-01	TRAFFIC CONTROL, DROP-OFF SIGNING
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS



GENERAL NOTES

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

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

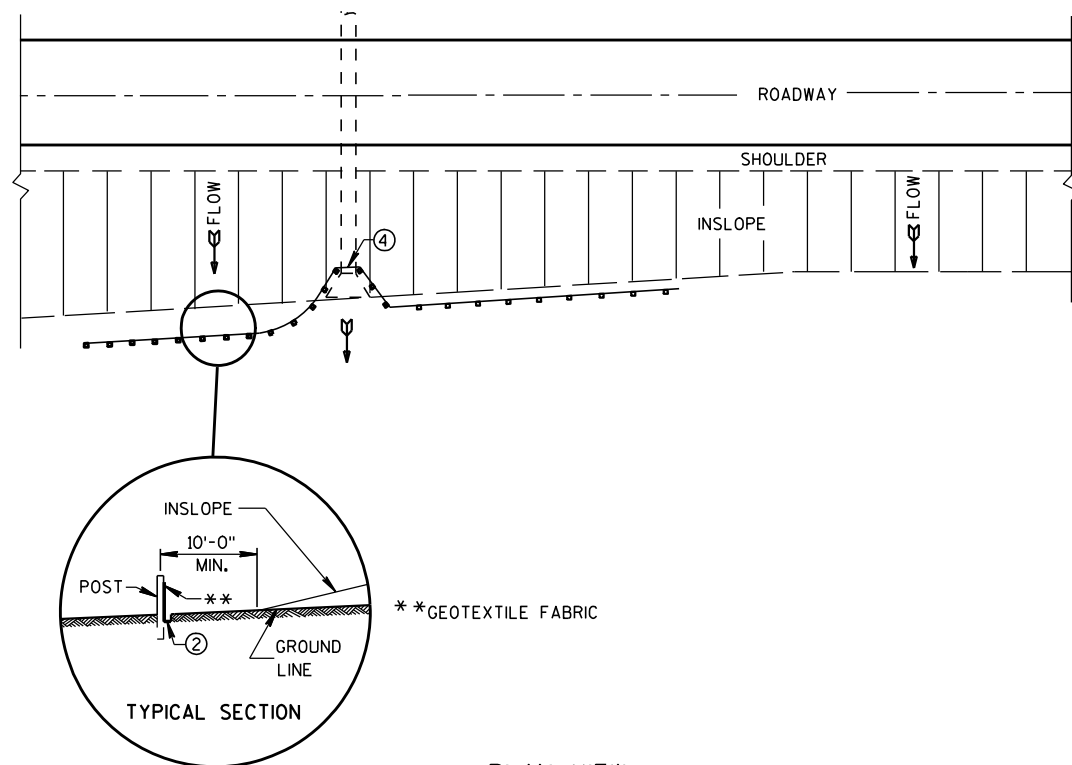
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

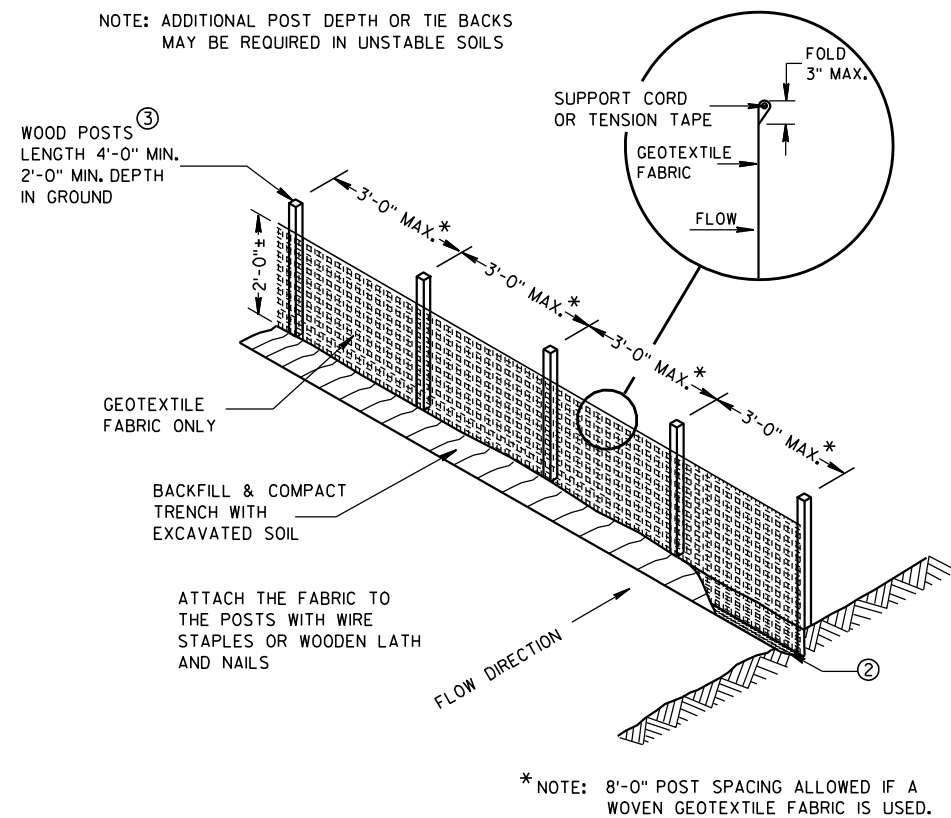
6/04/02
DATE/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

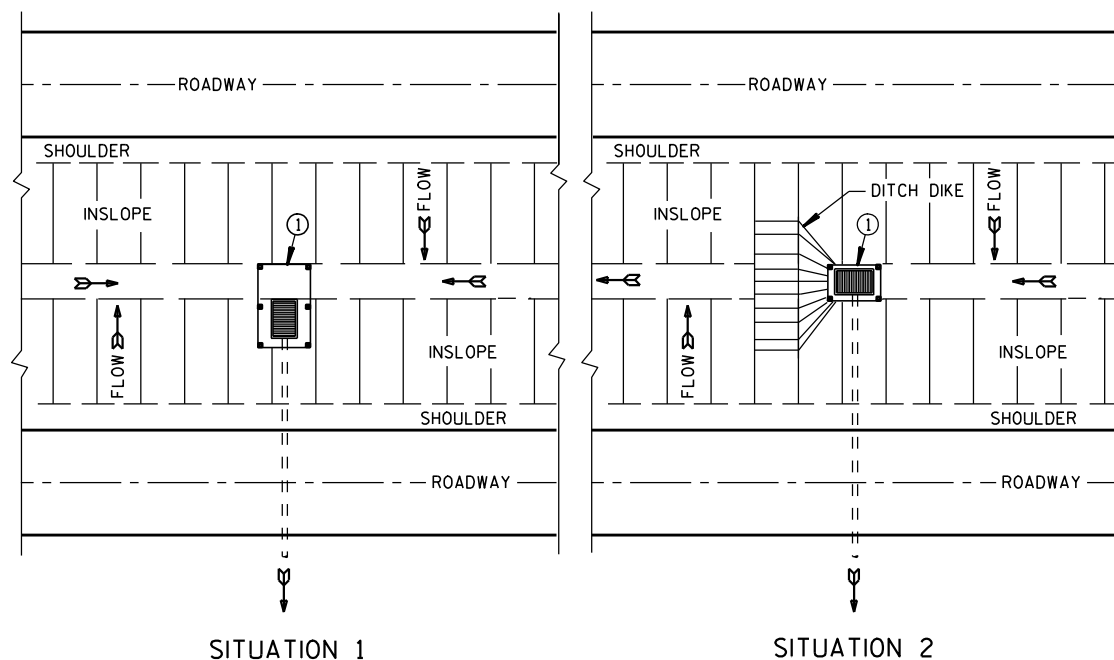


TYPICAL APPLICATION OF SILT FENCE

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

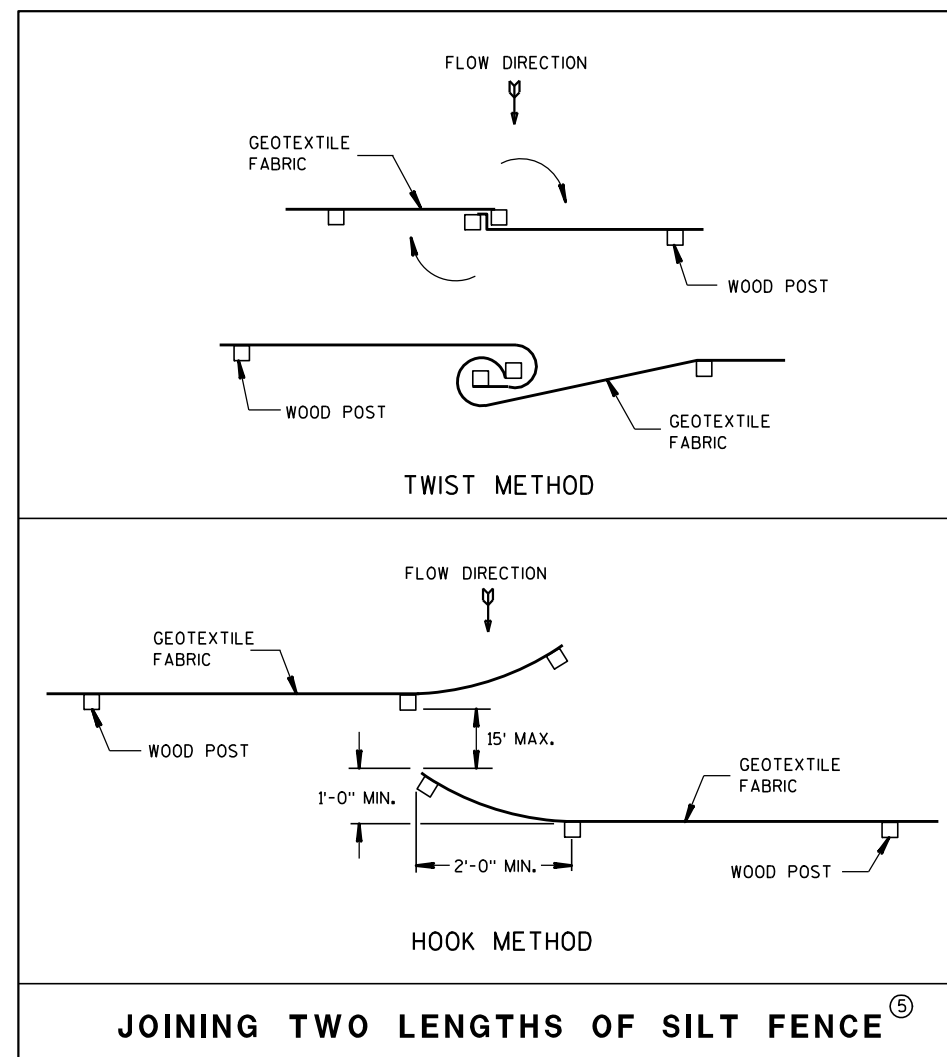


SILT FENCE



PLAN VIEW

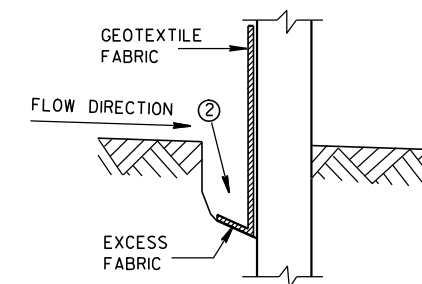
SILT FENCE AT MEDIAN SURFACE DRAINS



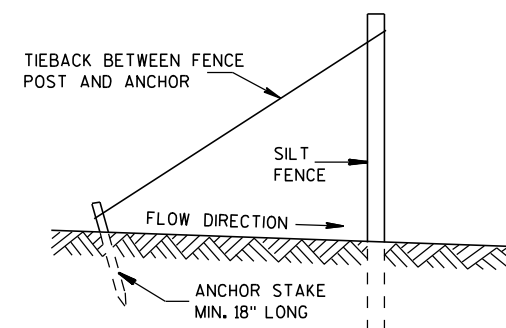
GENERAL NOTES

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

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK (WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

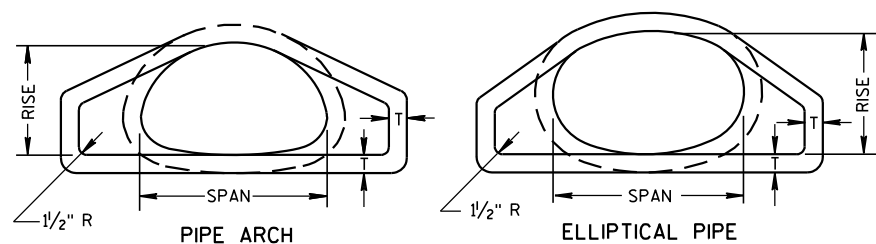
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

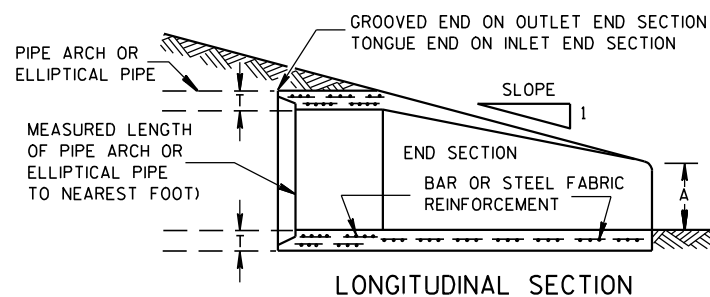
4-29-05
DATE

FHWA

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

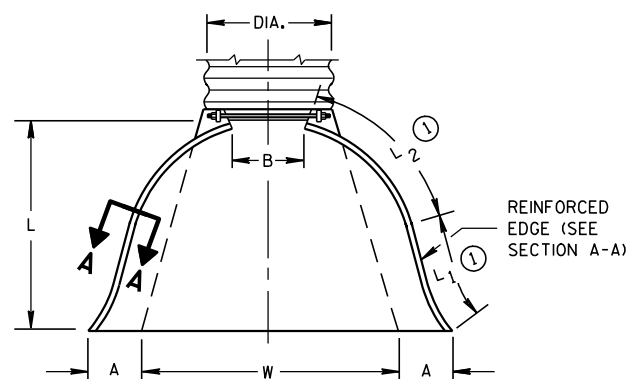


END VIEW



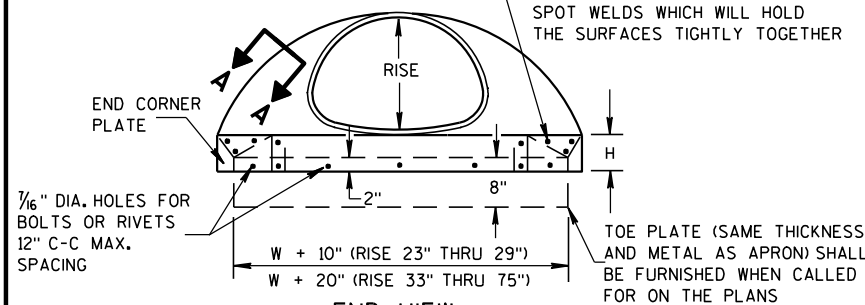
LONGITUDINAL SECTION

CONCRETE ENDWALLS

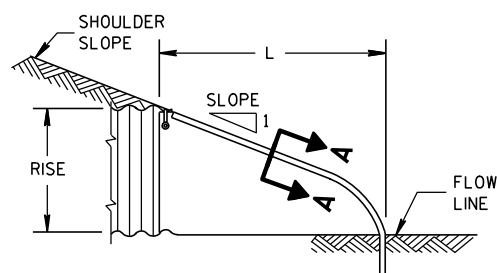
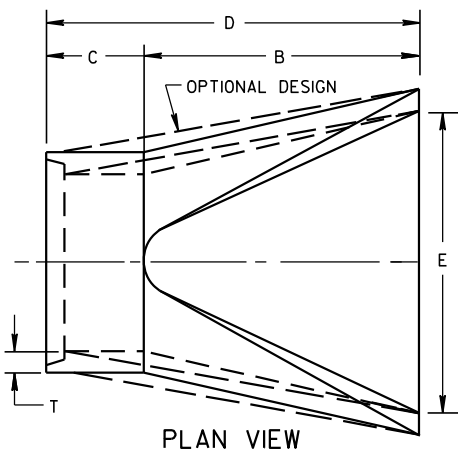


PLAN VIEW

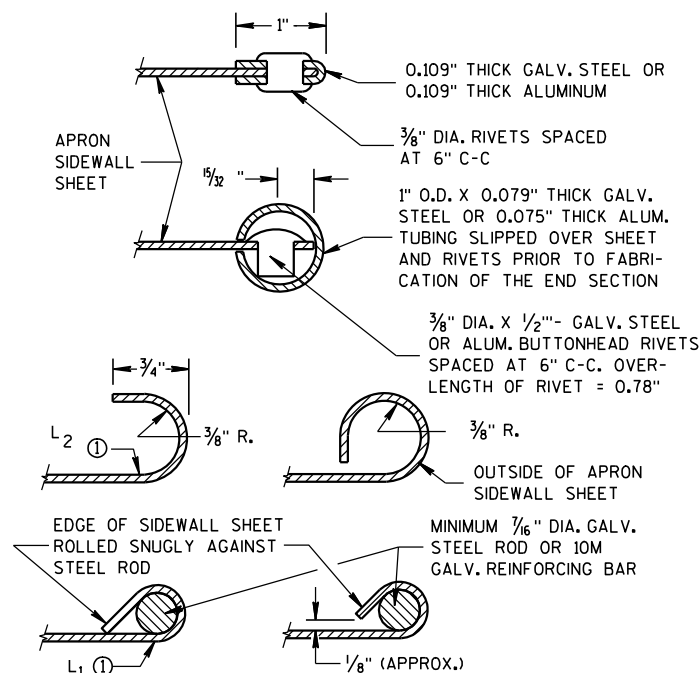
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



END VIEW

SIDE ELEVATION
METAL ENDWALLS

PLAN VIEW



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
15	17	13	.064	.060	7	9	6	19	14	16	30	2 1/2 to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 3/8	36	2 1/2 to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21 3/4	42	2 1/2 to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27 1/2	48	2 1/2 to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 5/8	60	2 1/2 to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 3/8	75	2 1/2 to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54 3/4	85	2 1/2 to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2 1/2 to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72 3/4	102	2 1/4 to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82 1/4	114	2 1/4 to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

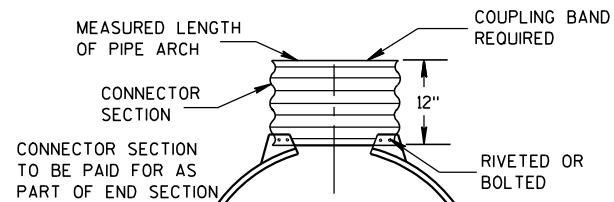
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
48	53	41	.109	.105	18	26	12	63	24	72 3/4	90	2 1/2 to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82 1/4	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1 1/2 to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1 1/2 to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1 1/2 to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1 1/2 to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1 1/2 to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1 1/2 to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES

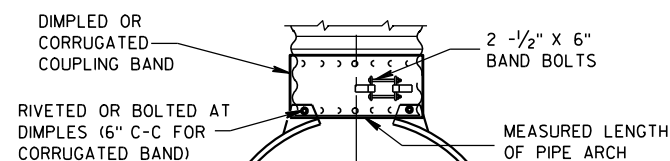
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL,
AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	29	18	3	8 1/2	39	33	72	48	3 to 1
30	36	22	3 1/2	9 1/2	50	46	96	60	3 to 1
36	44	27	4	11 1/8	60	36	96	72	3 to 1
42	51	31	4 1/2	15 1/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5 1/2	25 1/2	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28 1/2	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	30	19	3 1/4	8 1/2	39	33	72	48	3 to 1
30	38	24	3 3/4	9 1/2	54	18	72	60	3 to 1
36	45	29	4 1/2	11 1/8	60	24	84	72	2 1/2 to 1
42	53	34	5	15 1/4	60	36	96	78	2 1/2 to 1
48	60	38	5 1/2	21	60	36	96	84	2 1/2 to 1
54	68	43	6	25 1/2	60	36	96	90	2 1/2 to 1
60	76	48	6 1/2	30	60	36	96	96	2 1/2 to 1

**NOMINAL SIZE

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH 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 ARCH 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 77" X 52" THROUGH 112" X 75" 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.

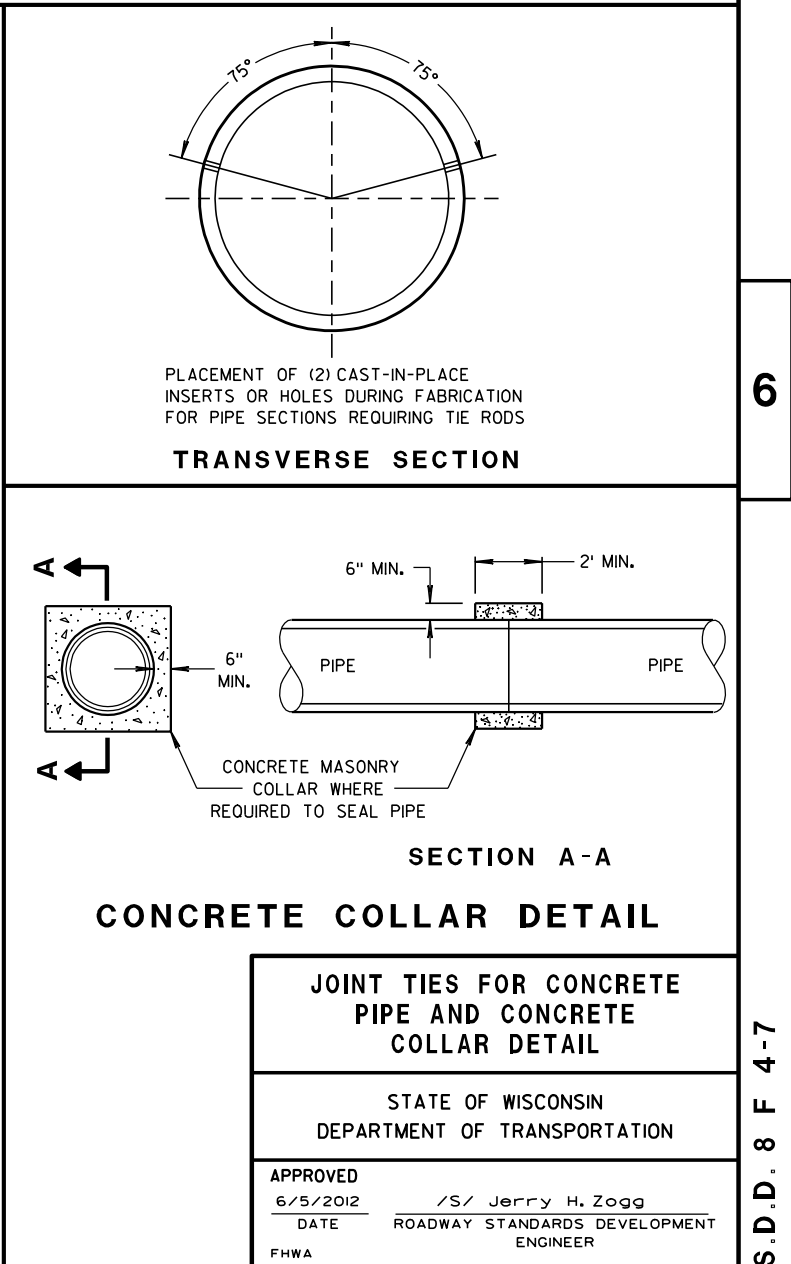
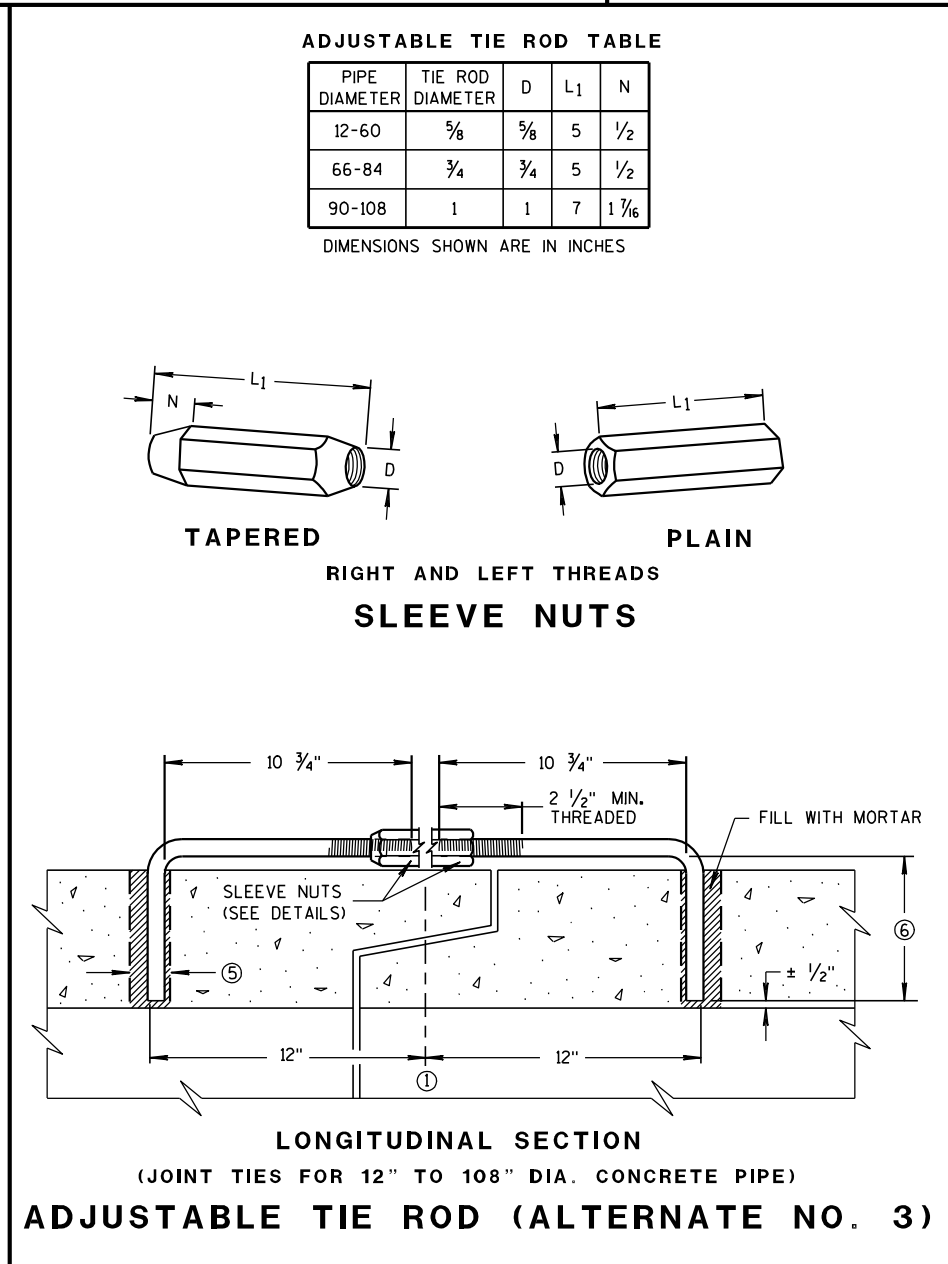
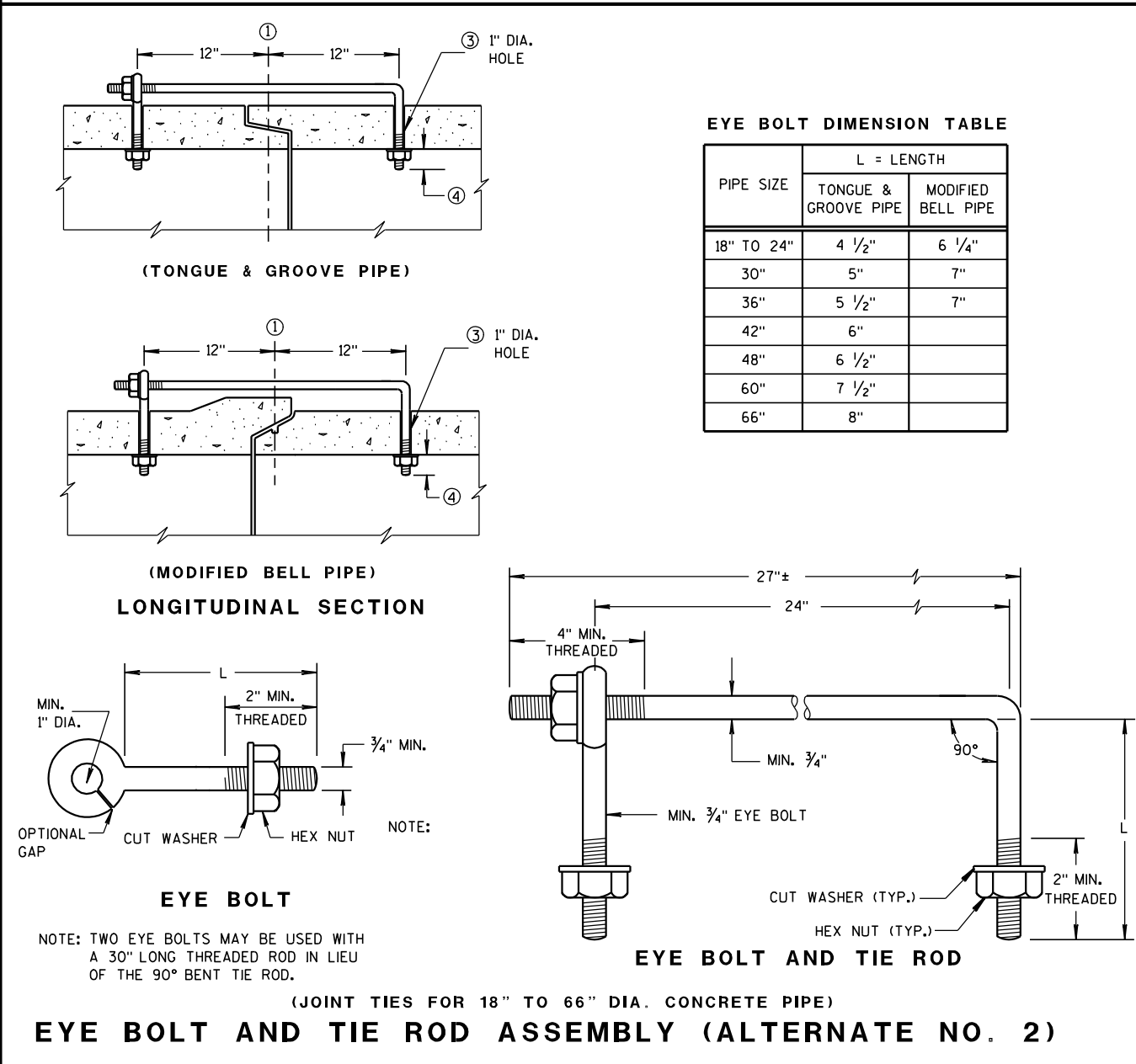
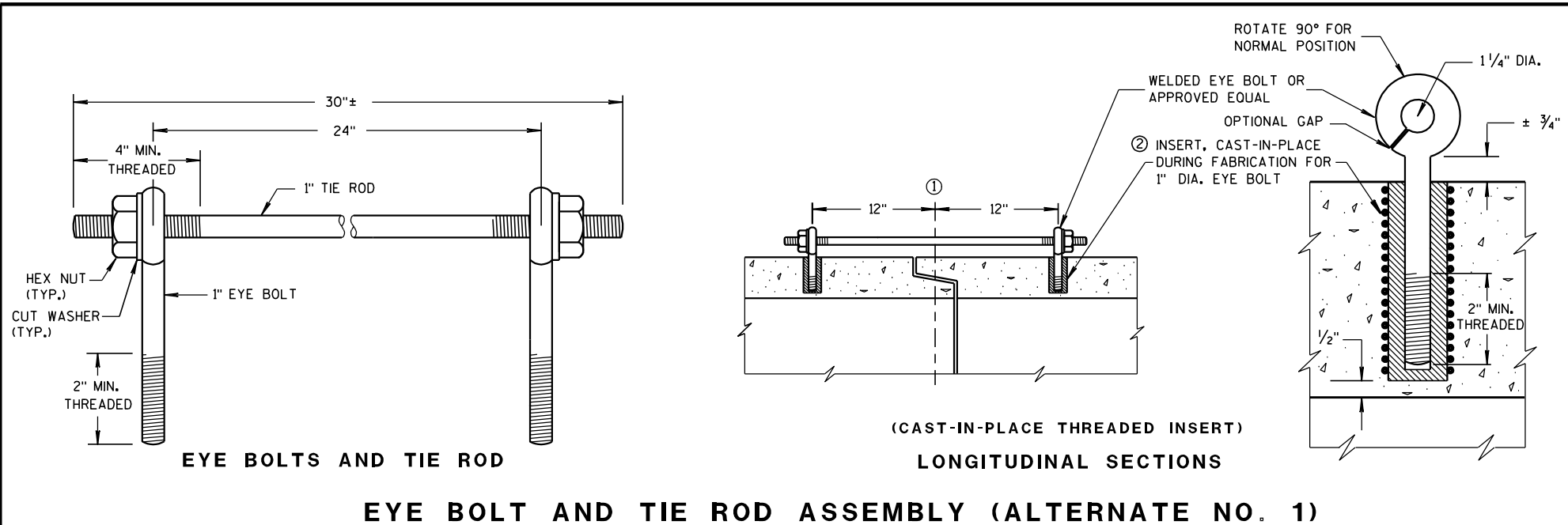
① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

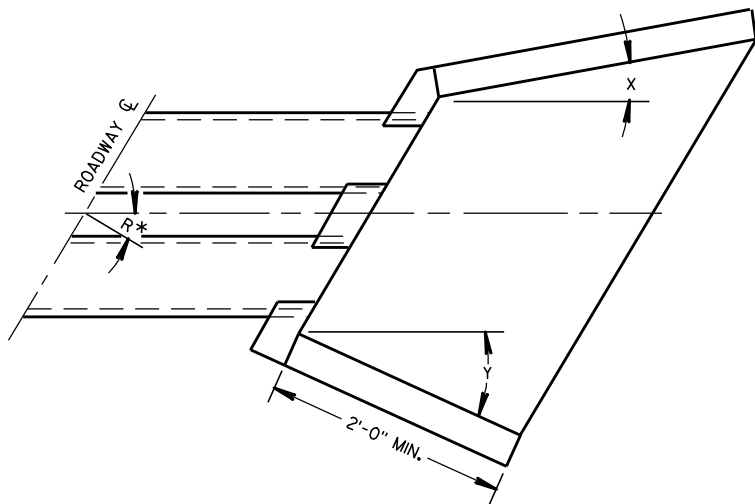
APRON ENDWALLS FOR
PIPE ARCH AND
ELLIPTICAL PIPESTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

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

FHWA





WINGWALL ANGLE DETAILS

INLET			OUTLET		
R*	X	Y	R*	X	Y
0 - 7°	30°	30°	0 - 15°	15°	15°
8 - 22°	25°	"	16 - 45°	10°	"
23 - 37°	20°	"	46 - 75°	5°	"
38 - 52°	15°	"	OVER 75°	0°	"
53 - 67°	10°	"			
68 - 82°	5°	"			
OVER 82°	0°	"			

*R = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD

GENERAL NOTES

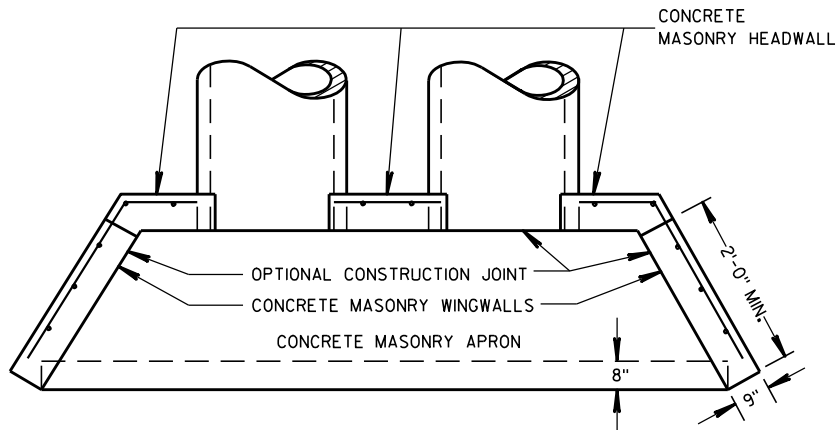
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

FILL SLOPES FLATTER THAN 2 1/2:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

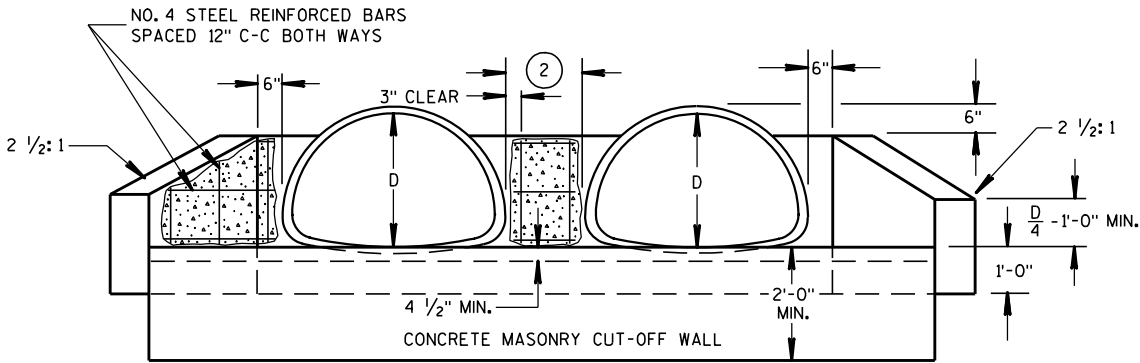
ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

- 1 MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.
- 2 THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

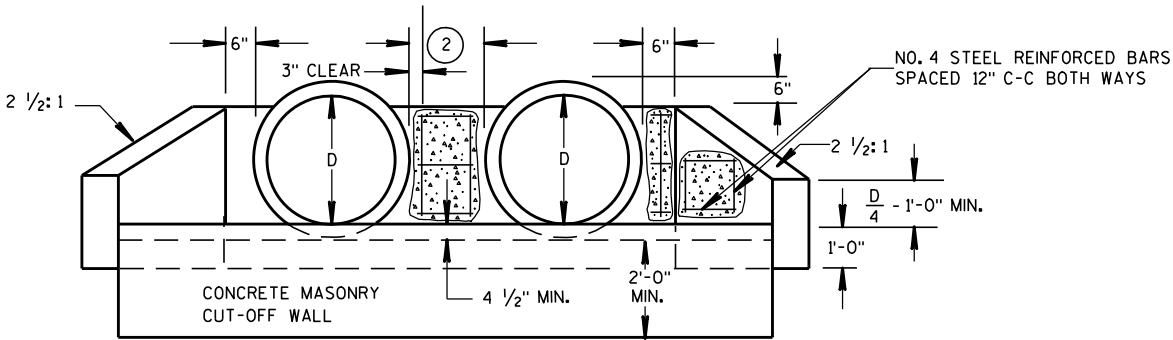
DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2'-0"
OVER 48" TO 72"	1/2 DIA. OR SPAN
OVER 72"	3'-0"



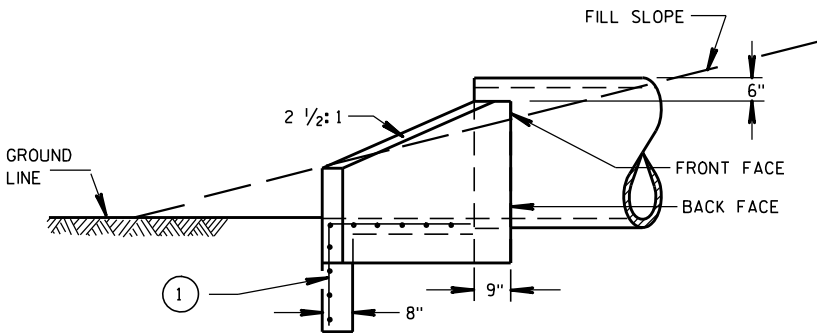
PLAN VIEW
CULVERT PIPE AND PIPE ARCH



END ELEVATION
PIPE ARCH



END ELEVATION
CULVERT PIPE



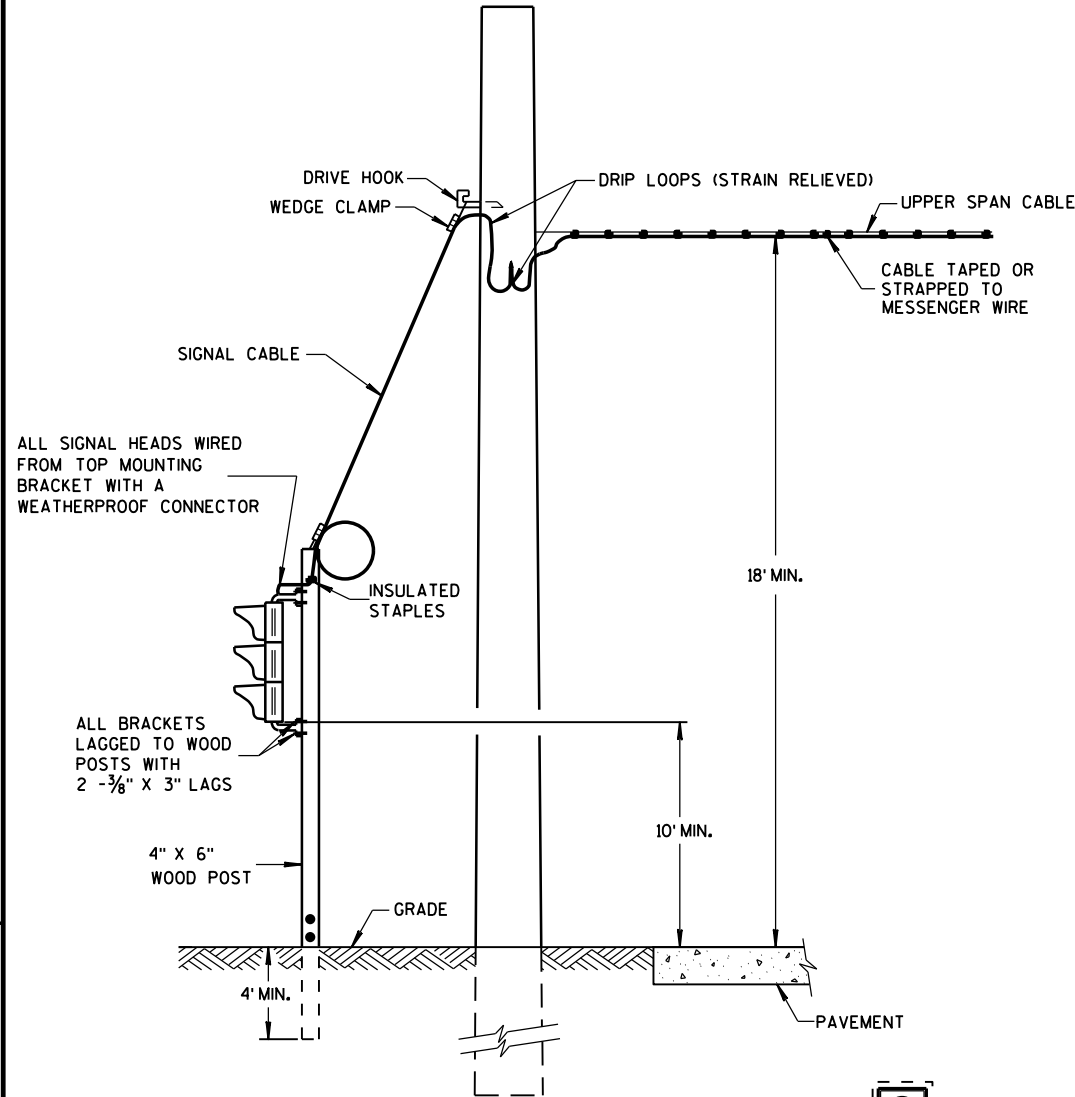
SIDE ELEVATION
CULVERT PIPE AND PIPE ARCH

CONCRETE MASONRY ENDWALLS
FOR CULVERT PIPE AND
PIPE ARCH

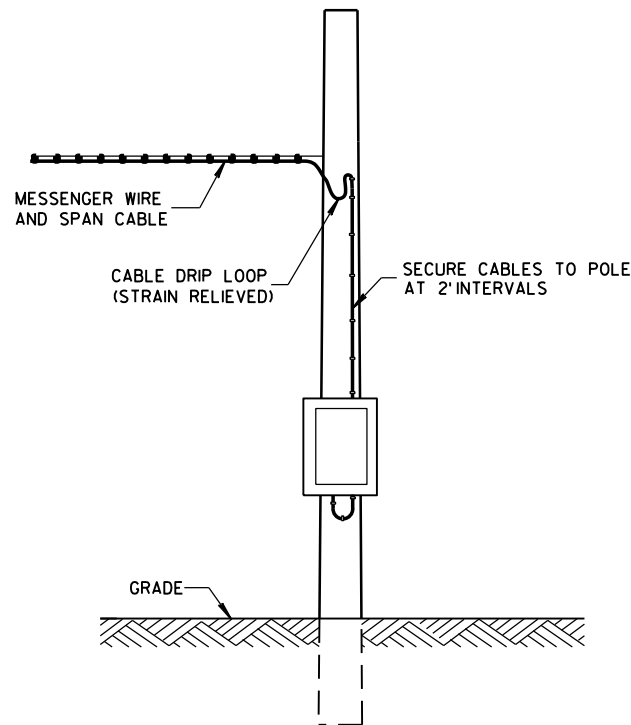
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/14/98 /S/ Rory L. Rhinesmith
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

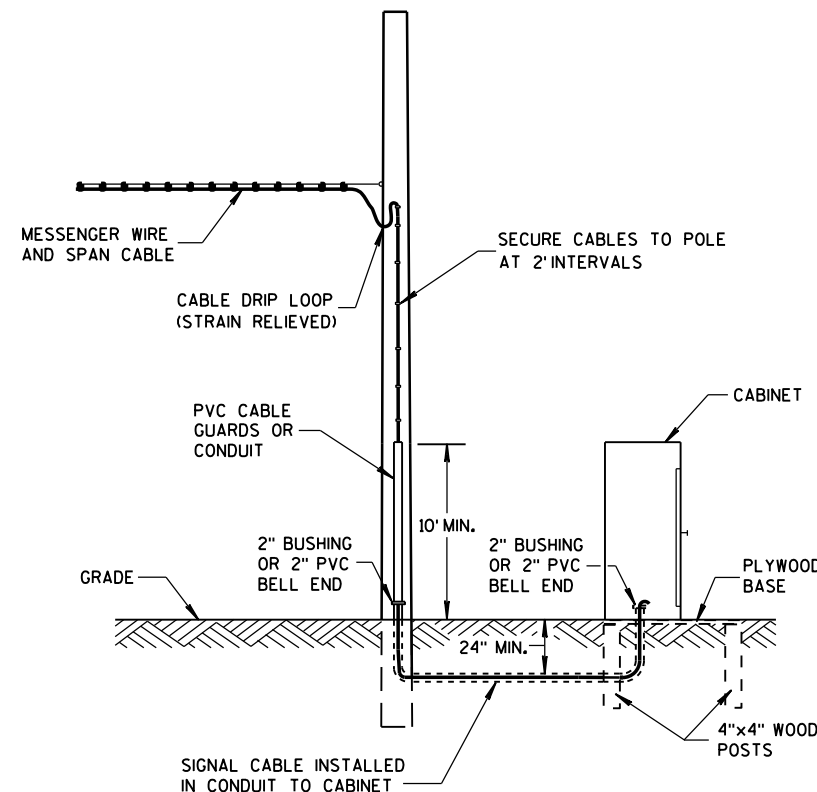
TYPICAL DROP TO TRAFFIC SIGNAL FACE



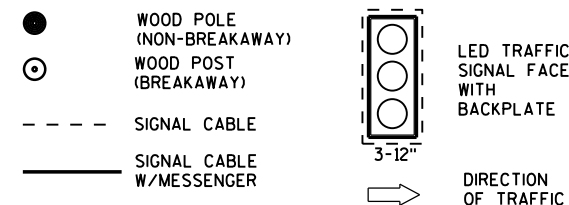
POLE MOUNT CABINET INSTALLATION



GROUND MOUNT CABINET INSTALLATION



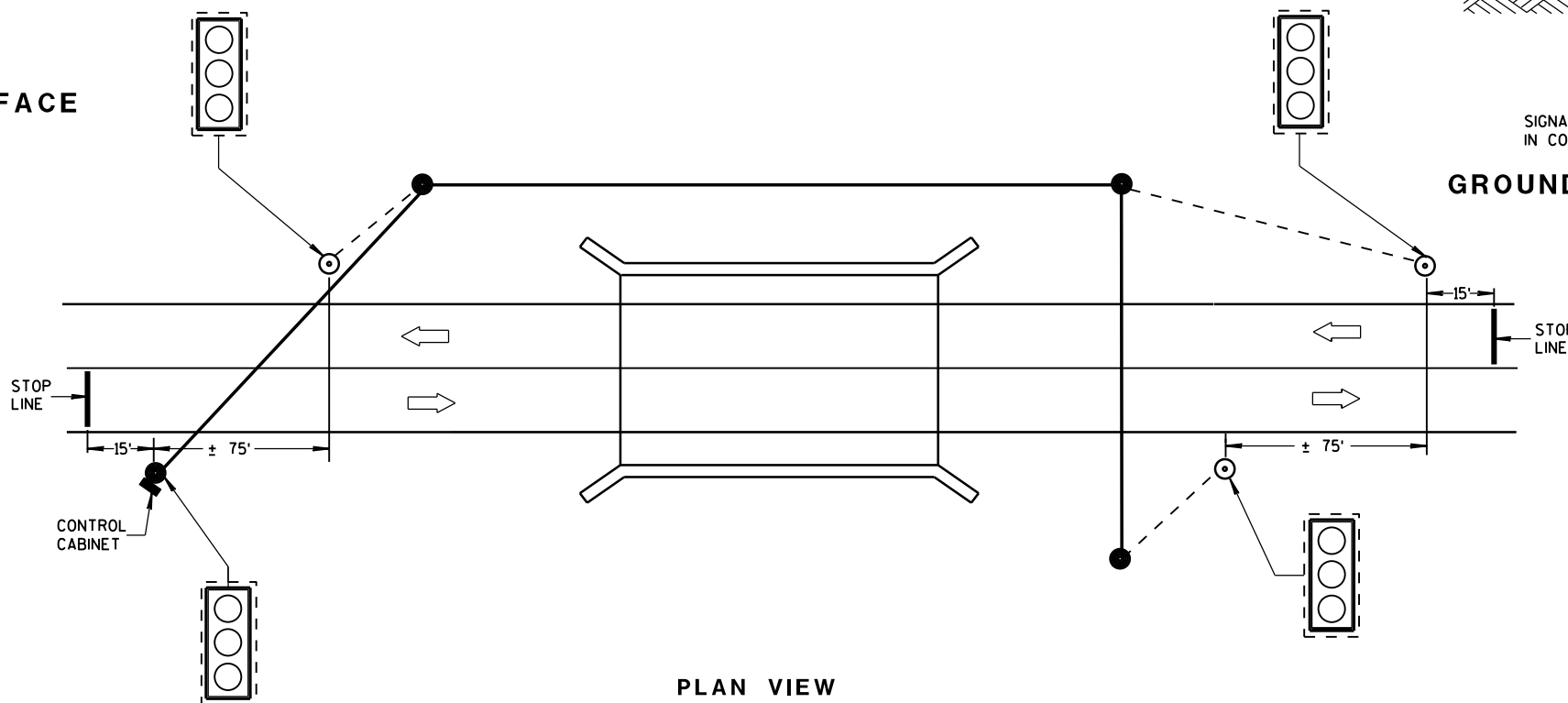
LEGEND



OFFSET DISTANCES FOR TEMPORARY NON-BREAKAWAY POLES	
SPEED LIMIT	OFFSET DISTANCE**
GREATER THAN 45 MPH	18 FT
45 MPH OR LESS	12 FT
45 MPH OR LESS W/ CURBS	2 FT
**NOTE: OFFSET MEASURED FROM OUTER EDGE OF OUTSIDE THRU LANE.	

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

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



BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: Sept., 2016 /S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER
FHWA

GENERAL NOTES

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

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

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

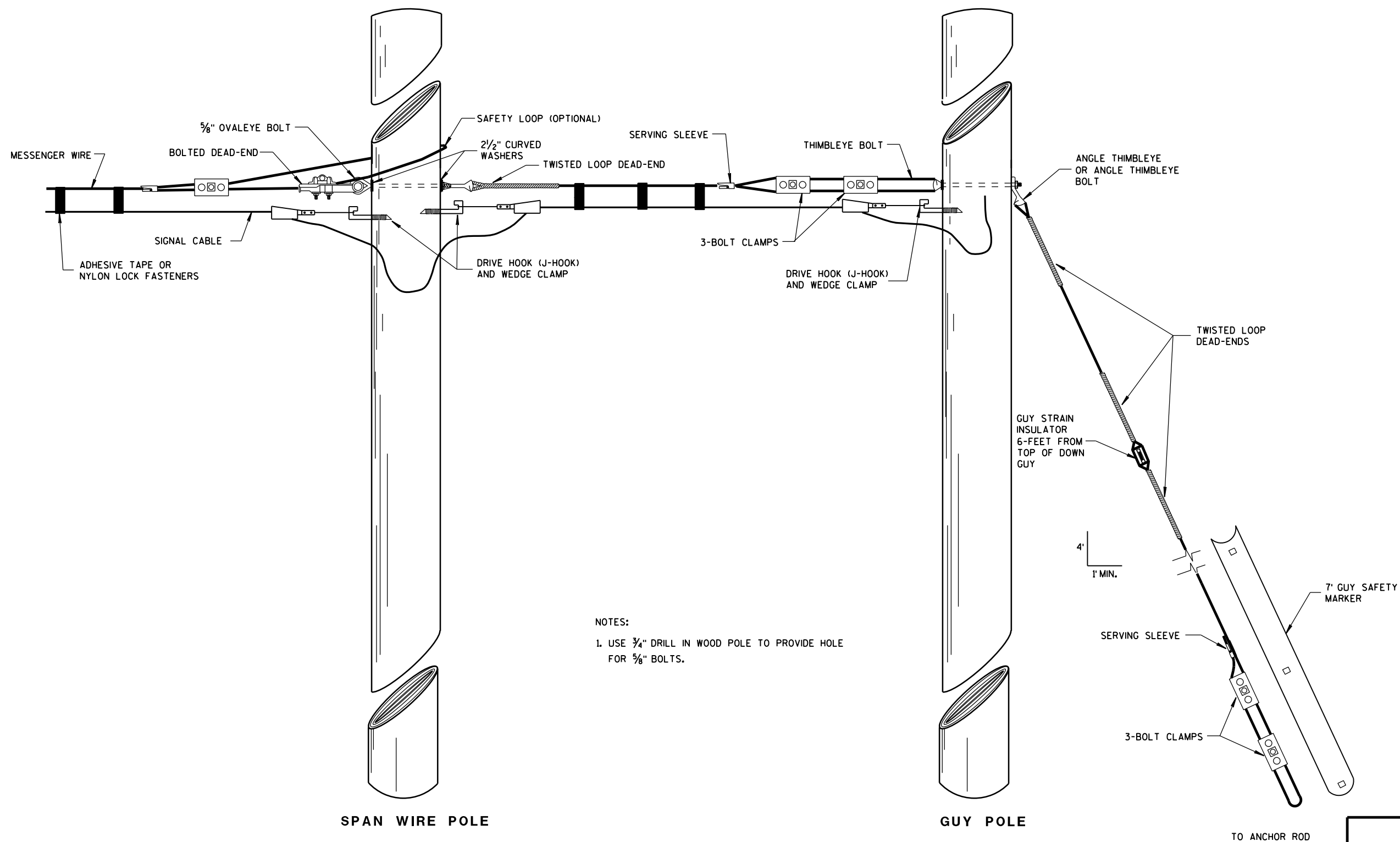
WOOD POLES (NONBREAKAWAY) SHALL BE NO CLOSER TO EDGE OF PAVEMENT THAN OFFSET DISTANCE CHART ALLOWS OR 4 FEET BEHIND PROTECTIVE BARRIER (BEAM GUARD, ETC.).

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

VERTICAL CLEARANCE ETC. PER NEC.

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

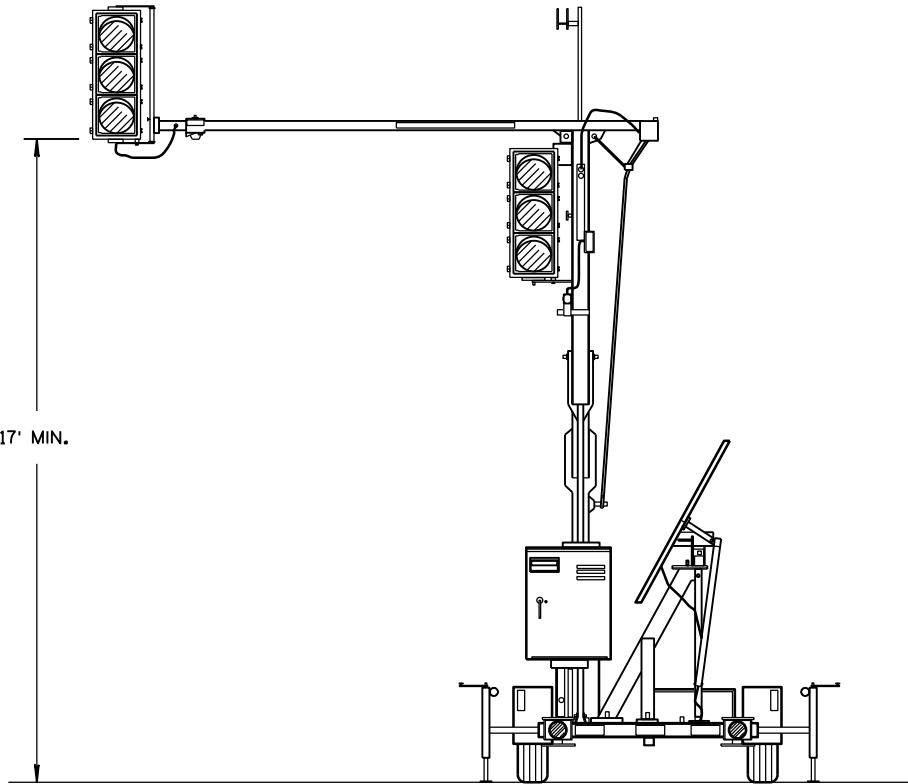
EACH TRAFFIC SIGNAL FACE SHALL HAVE A BACKPLATE.



TYPICAL DEAD-ENDINGS OR GUYING

BRIDGE TEMPORARY
TRAFFIC SIGNAL INSTALLATIONSTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATIONAPPROVED
Sept., 2016
DATE/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER

FHWA

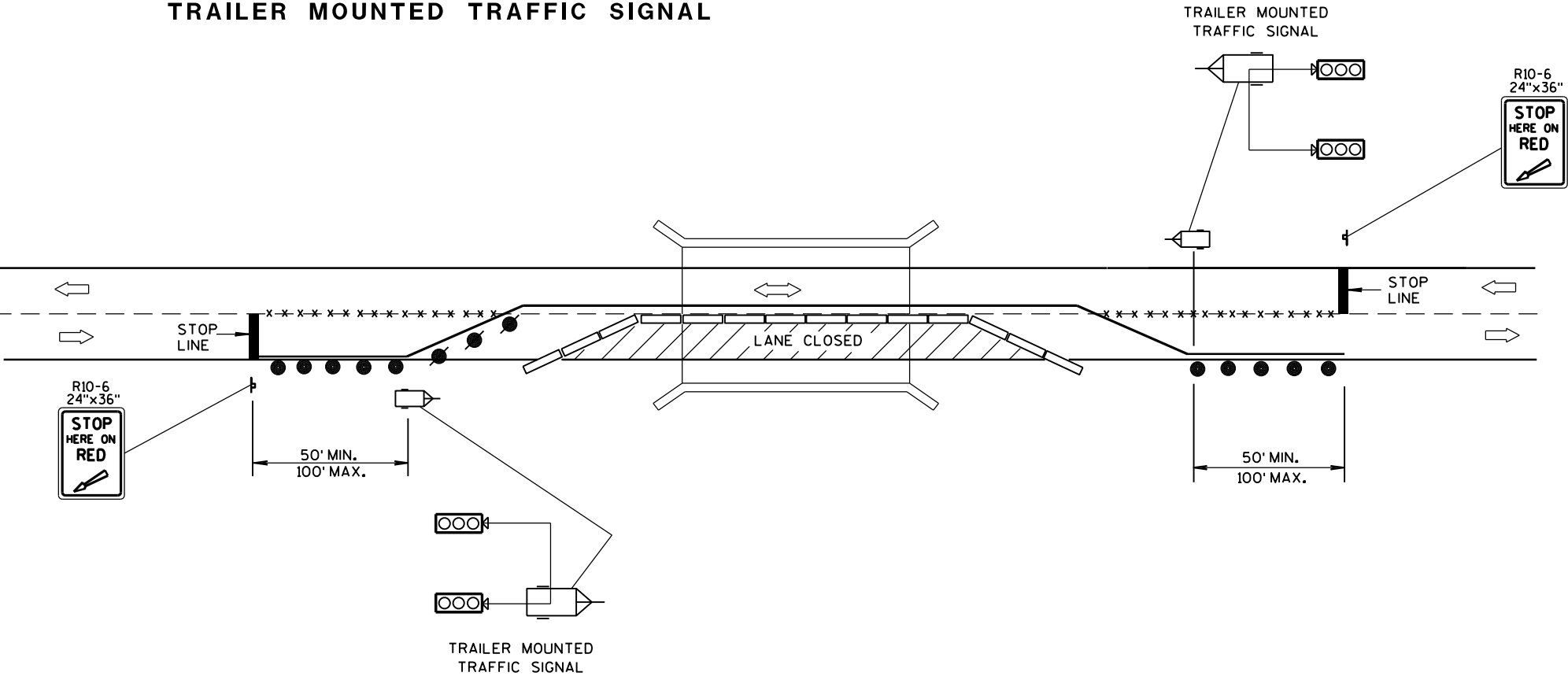


TRAILER MOUNTED TRAFFIC SIGNAL

GENERAL NOTES

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

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



TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

LEGEND

- POST MOUNTED SIGN
- REMOVING PAVEMENT MARKING
- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- TEMPORARY PRECAST CONCRETE BARRIER
- TRAILER MOUNTED TRAFFIC SIGNAL
- DIRECTION OF TRAFFIC FLOW

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGINEER
FHWA

GENERAL NOTES

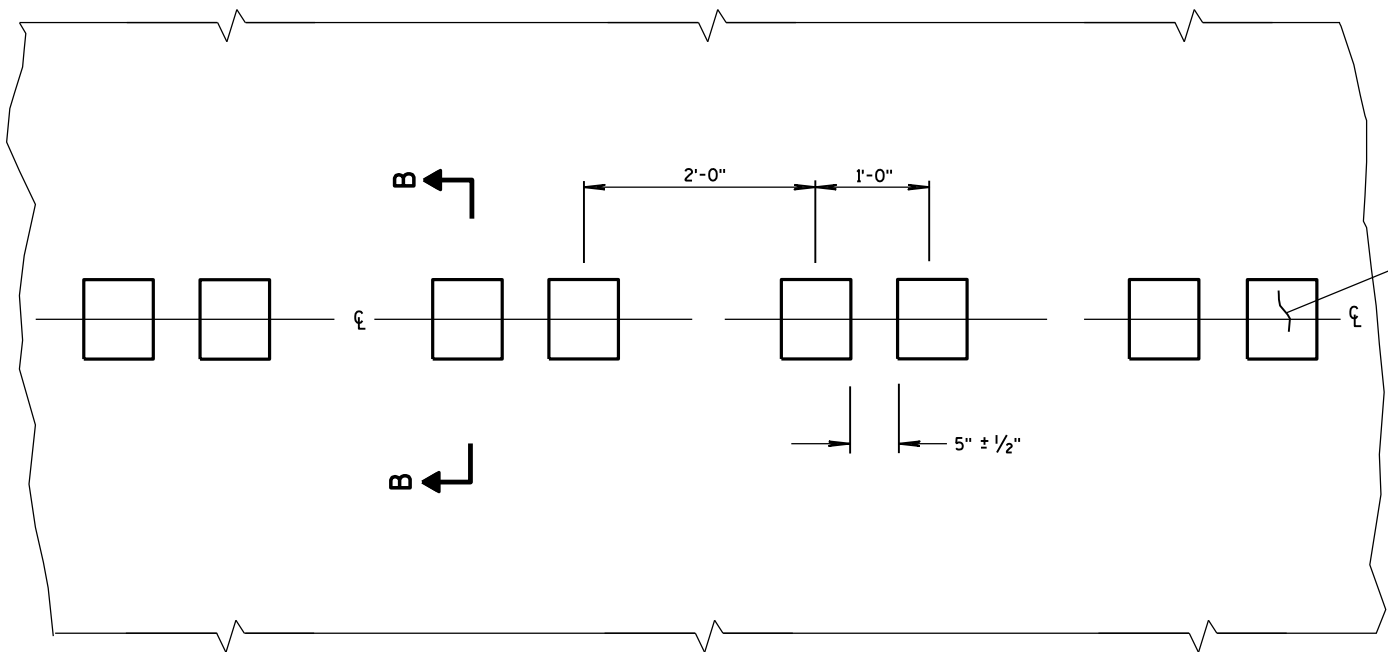
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

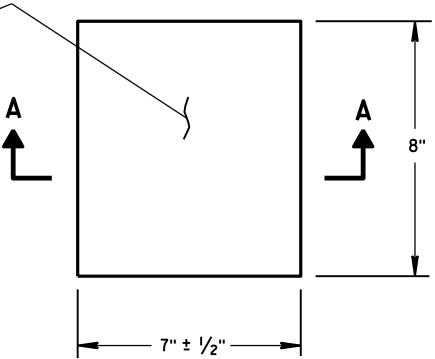
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

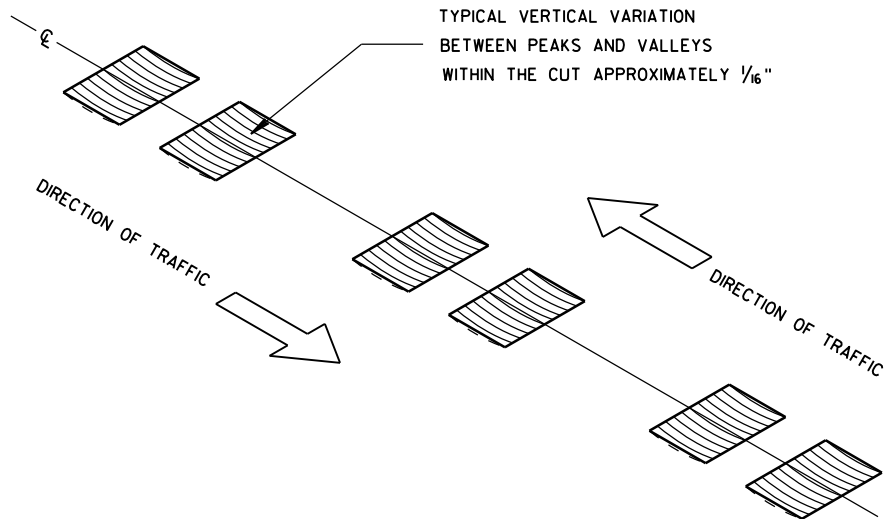
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



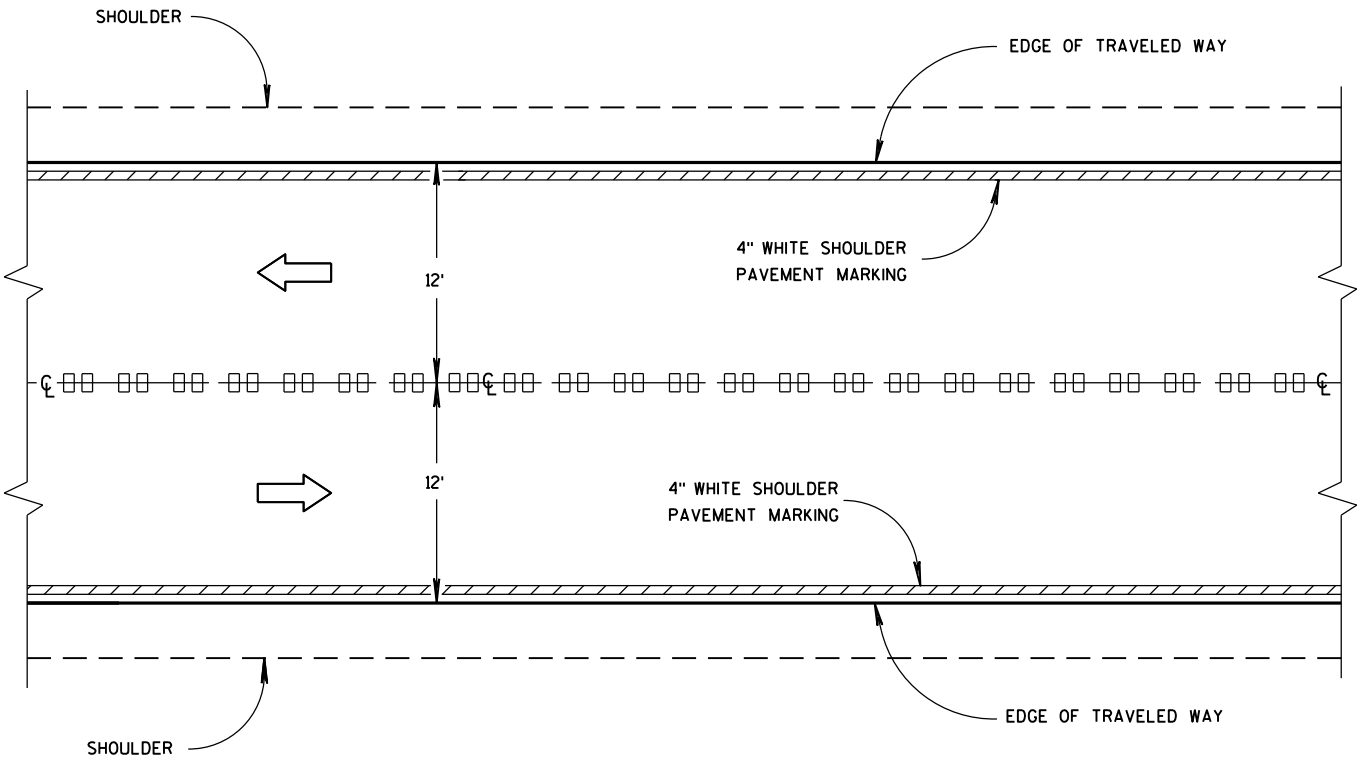
PLAN VIEW
CENTER LINE WITH GROOVES



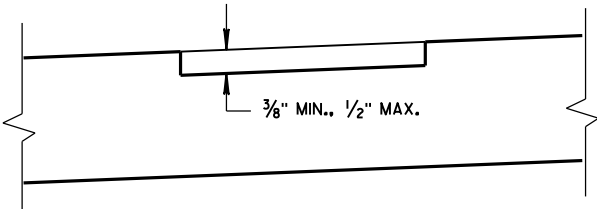
PLAN VIEW
(SINGLE GROOVE)



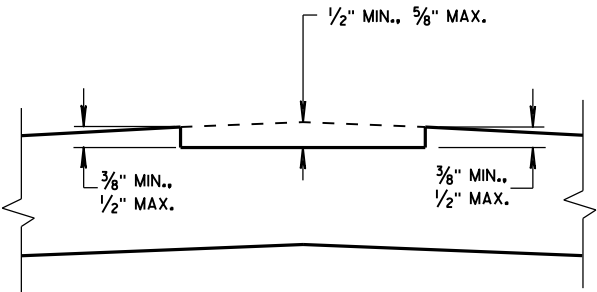
ISOMETRIC



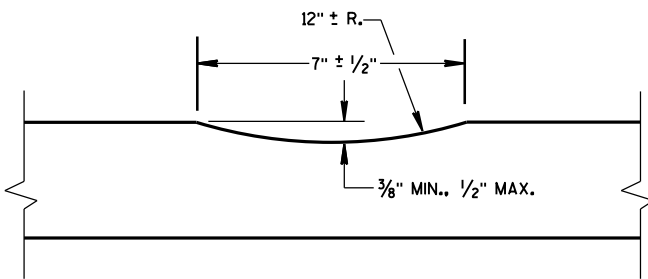
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



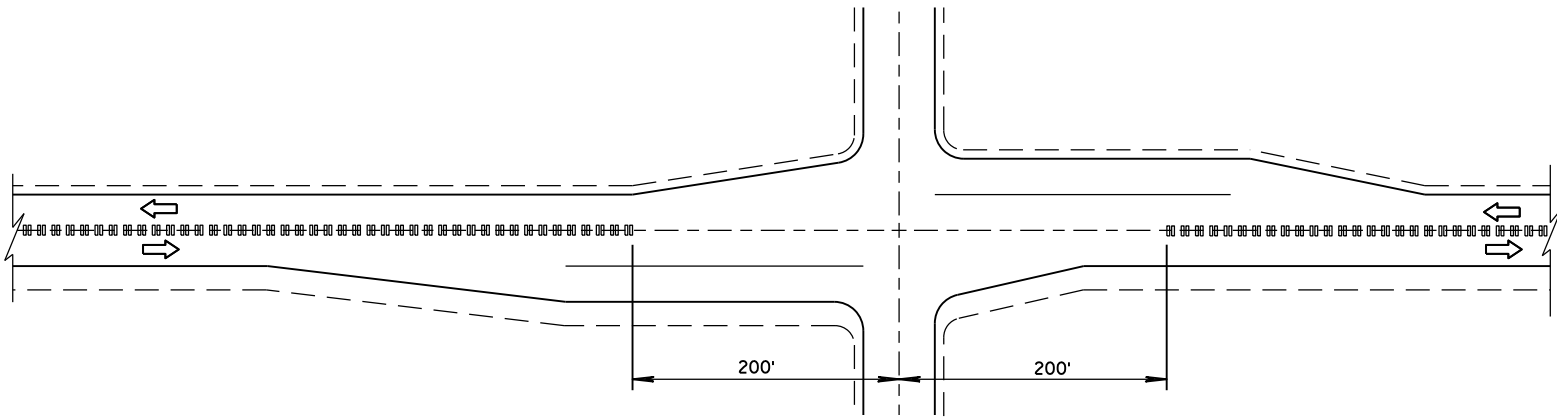
SECTION B-B
CROWNED ROADWAY



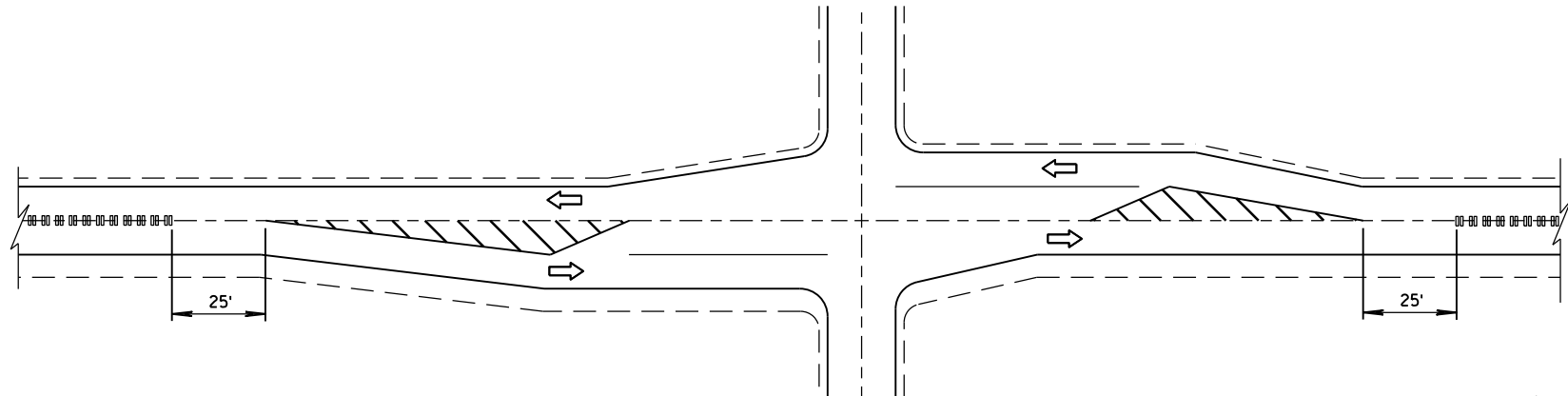
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

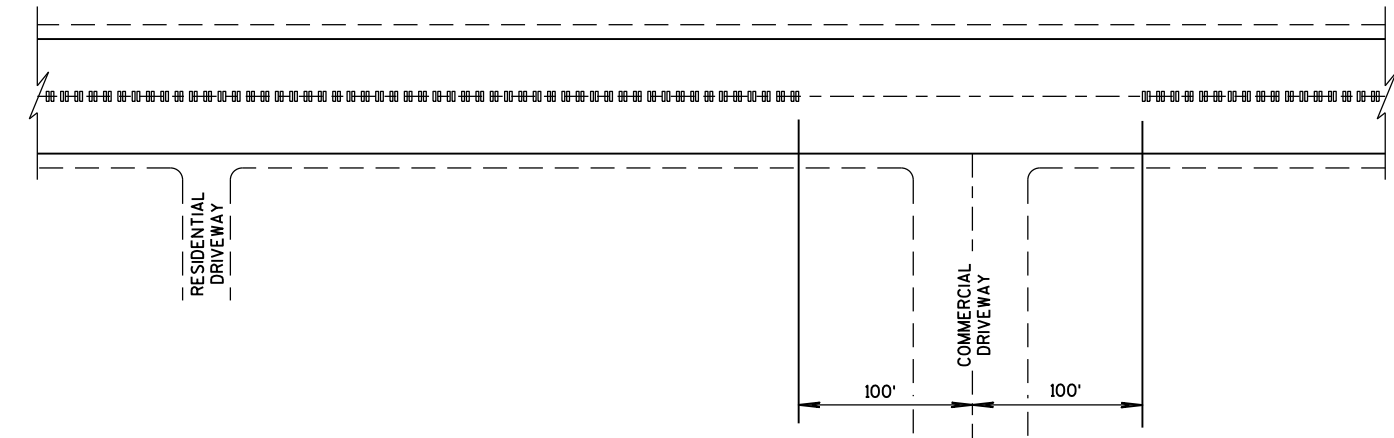
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

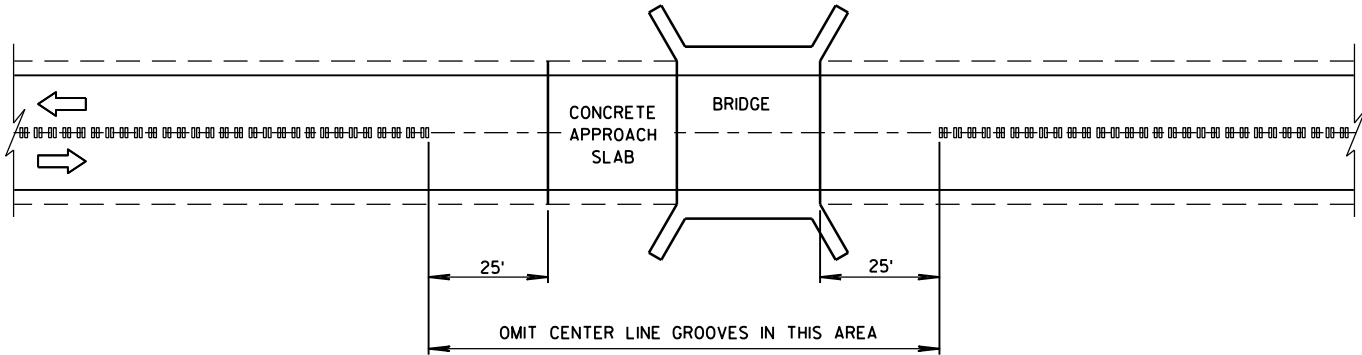


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

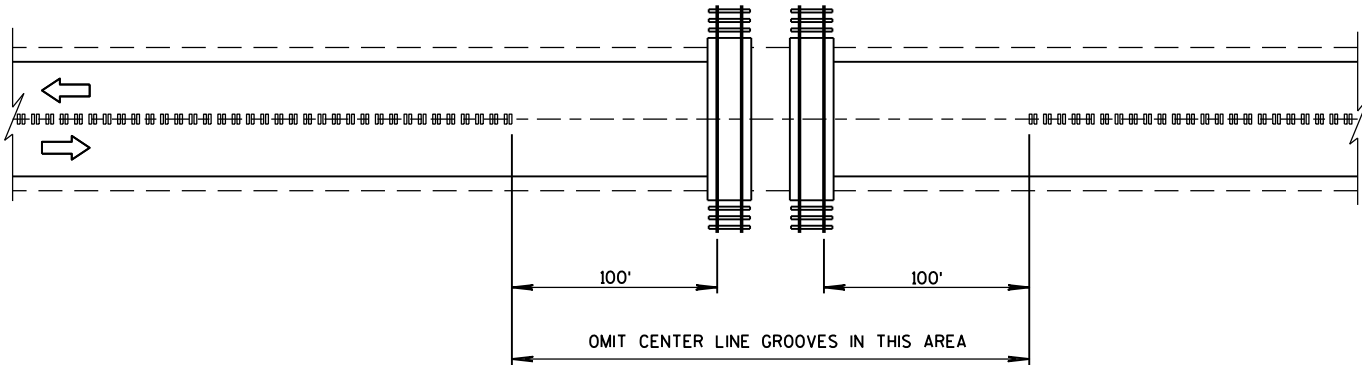


CENTER LINE GROOVES AT DRIVEWAYS^①

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

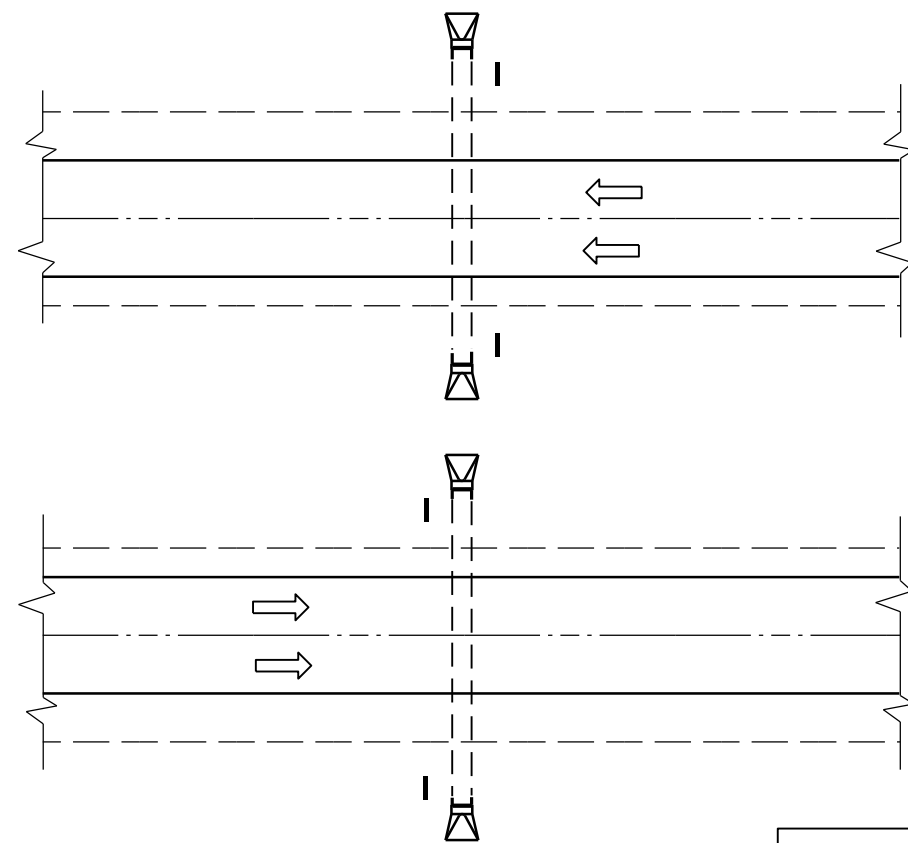


CENTER LINE GROOVES AT BRIDGES

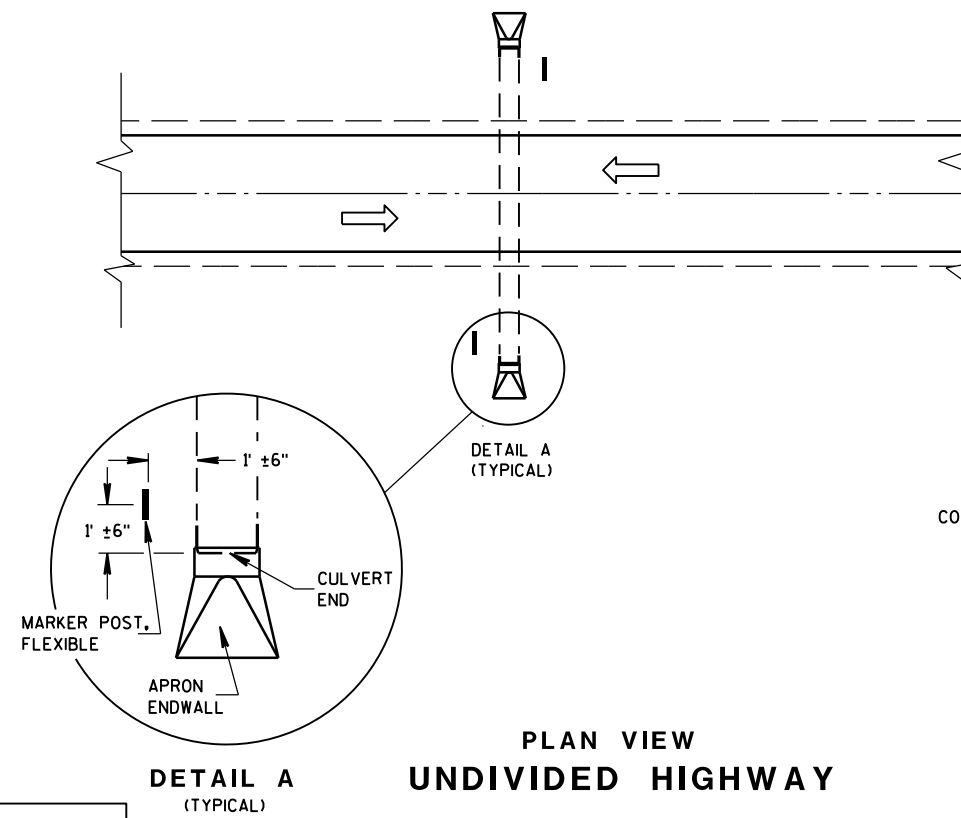
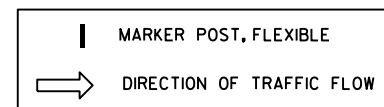


CENTER LINE GROOVES AT RAILROADS

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	



PLAN VIEW
DIVIDED HIGHWAY

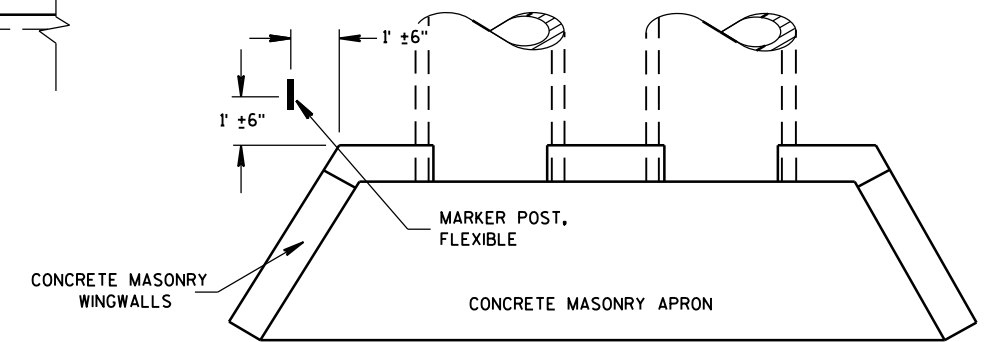


PLAN VIEW
UNDIVIDED HIGHWAY

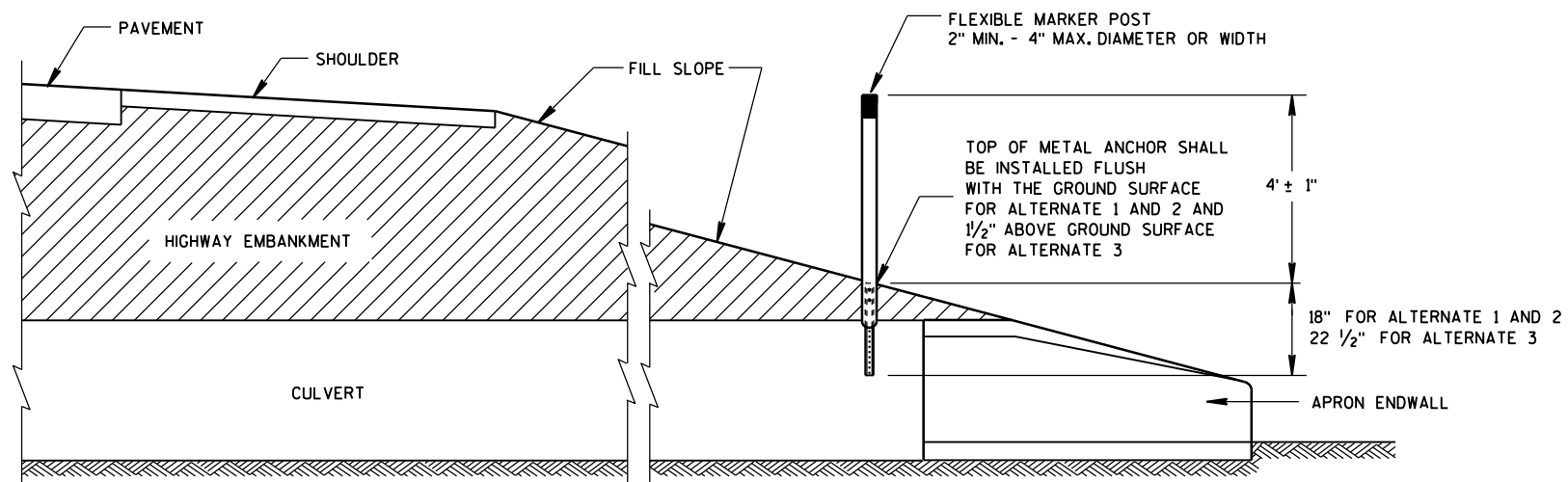
FLEXIBLE MARKER POST LOCATION

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.



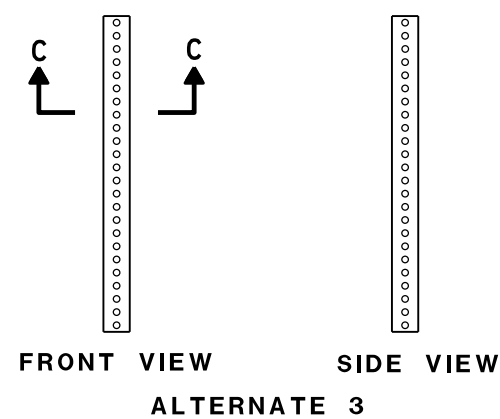
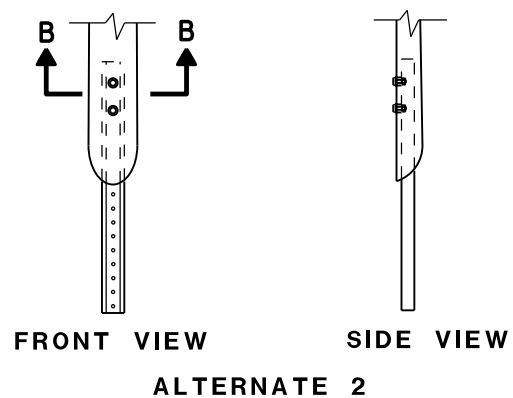
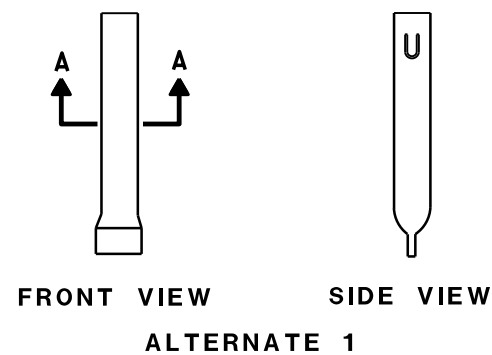
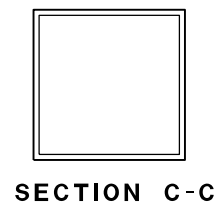
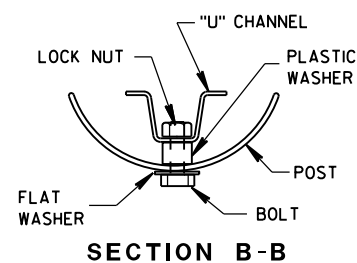
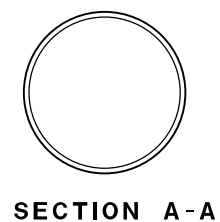
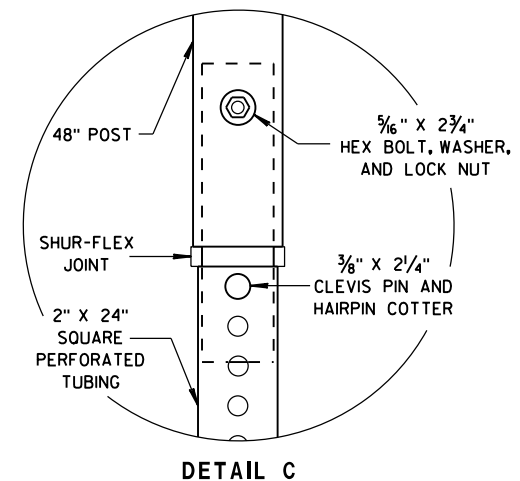
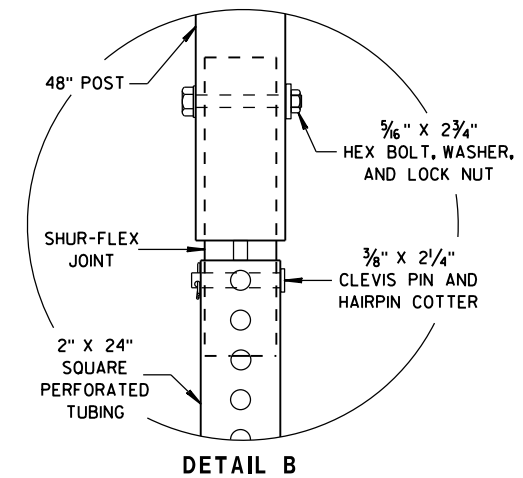
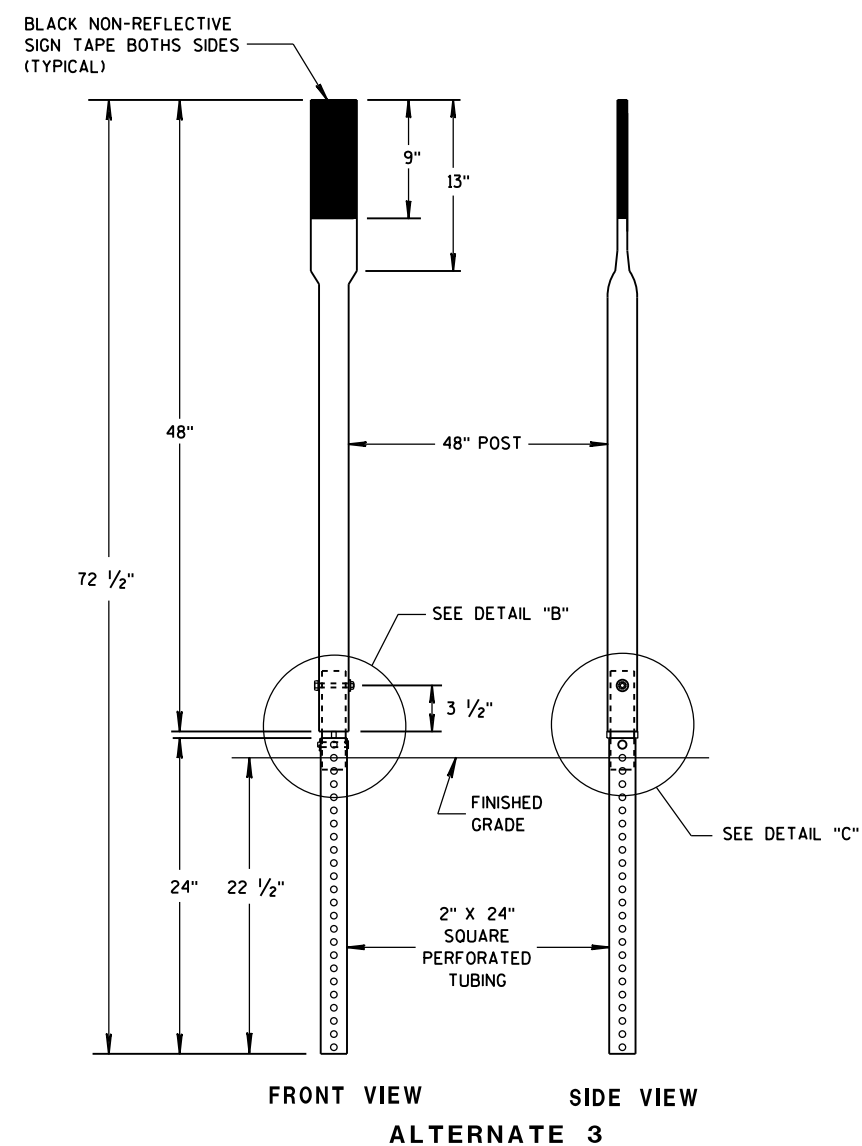
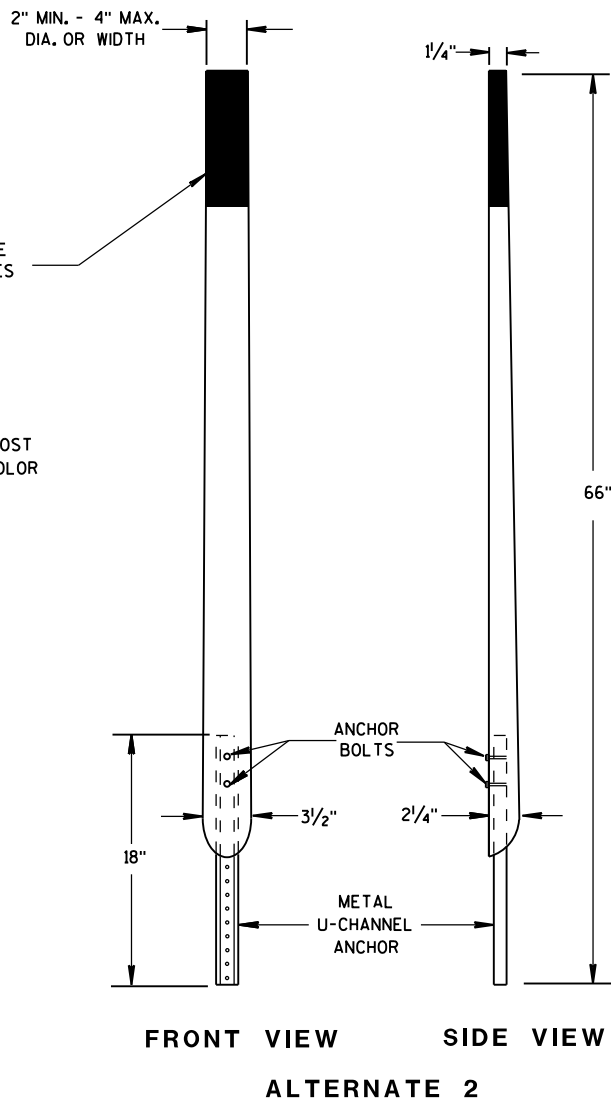
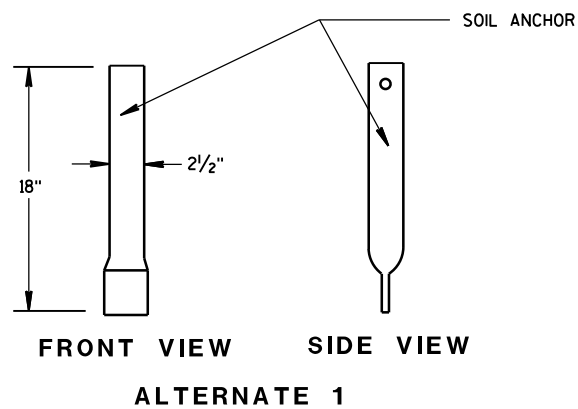
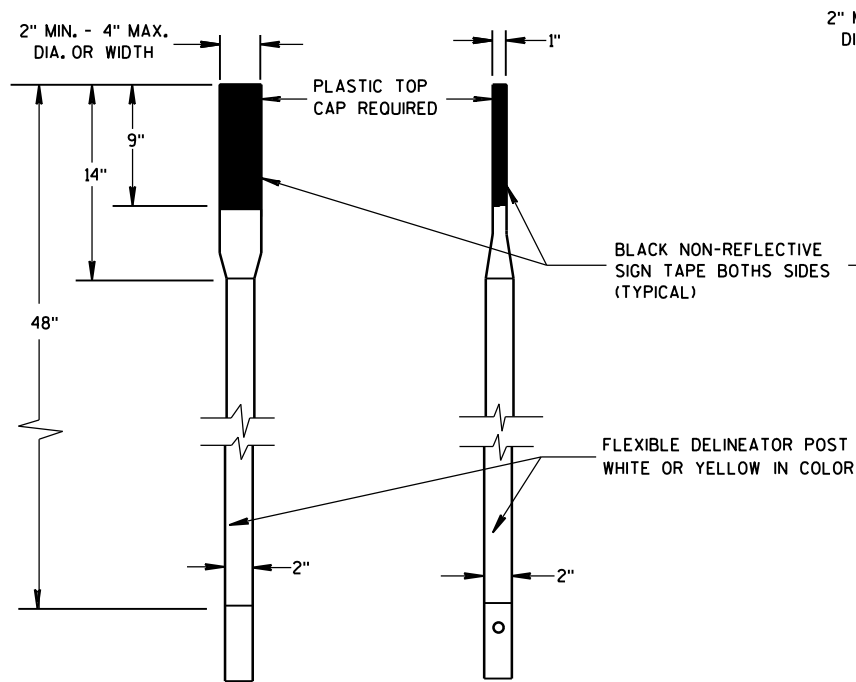
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

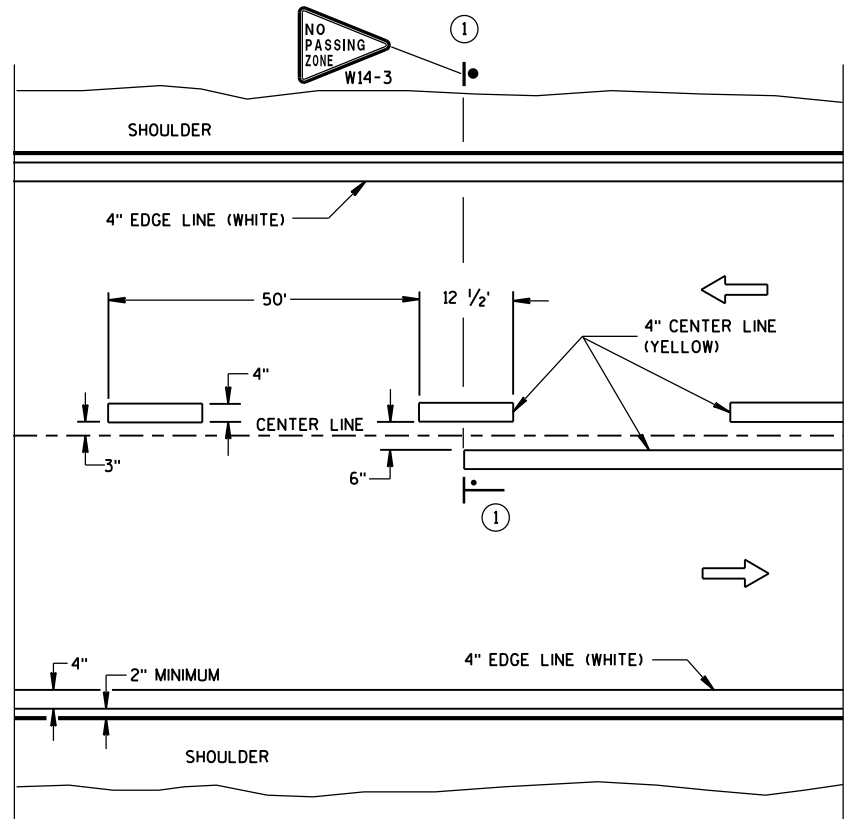


FLEXIBLE MARKER POST FOR CULVERT END

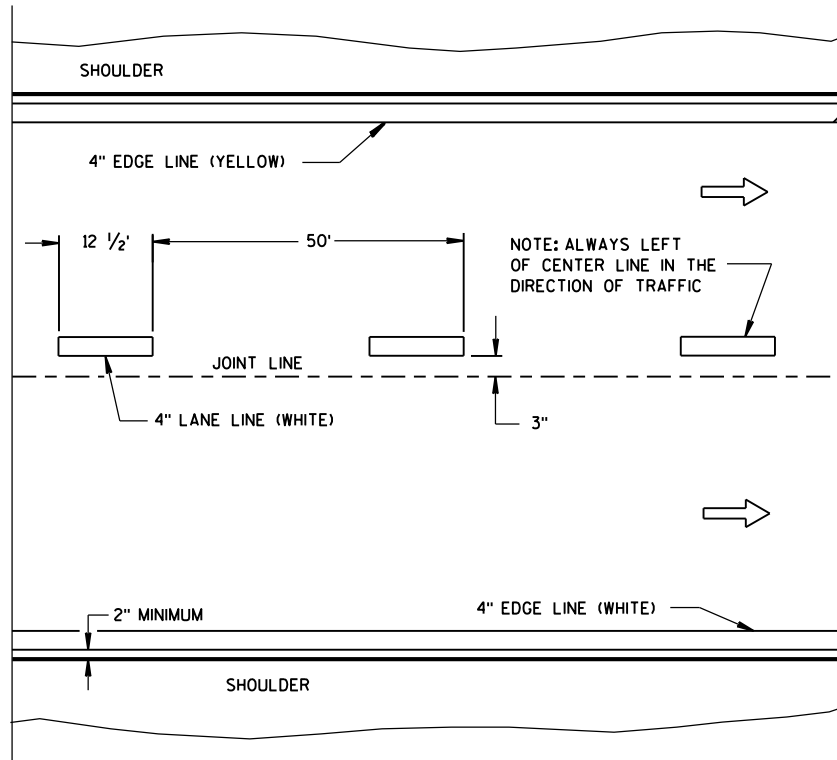
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012
DATE
FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN

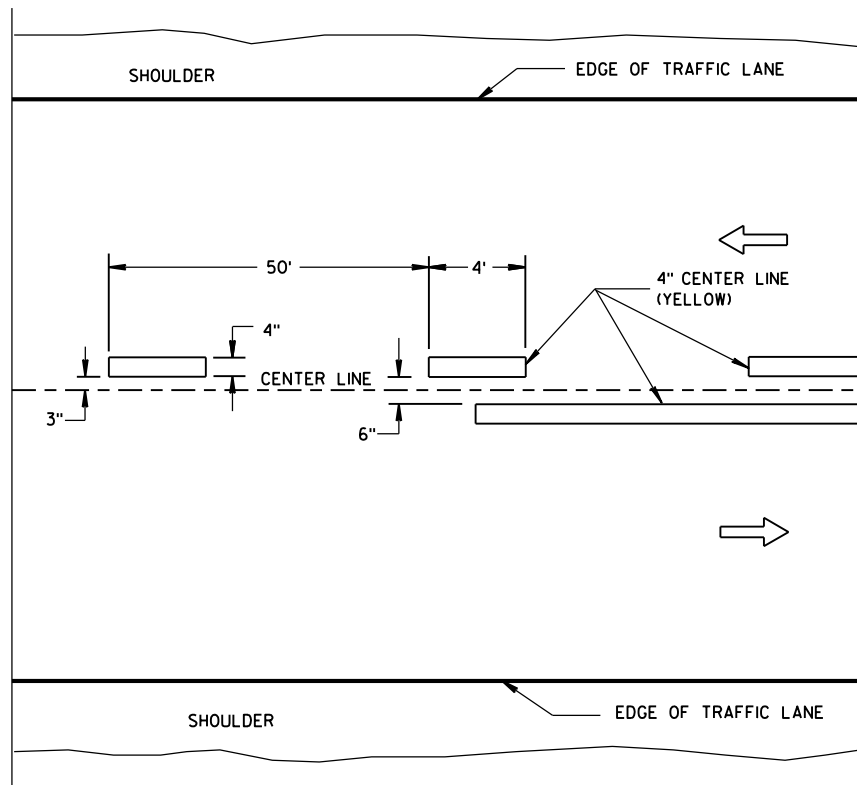


TWO WAY TRAFFIC

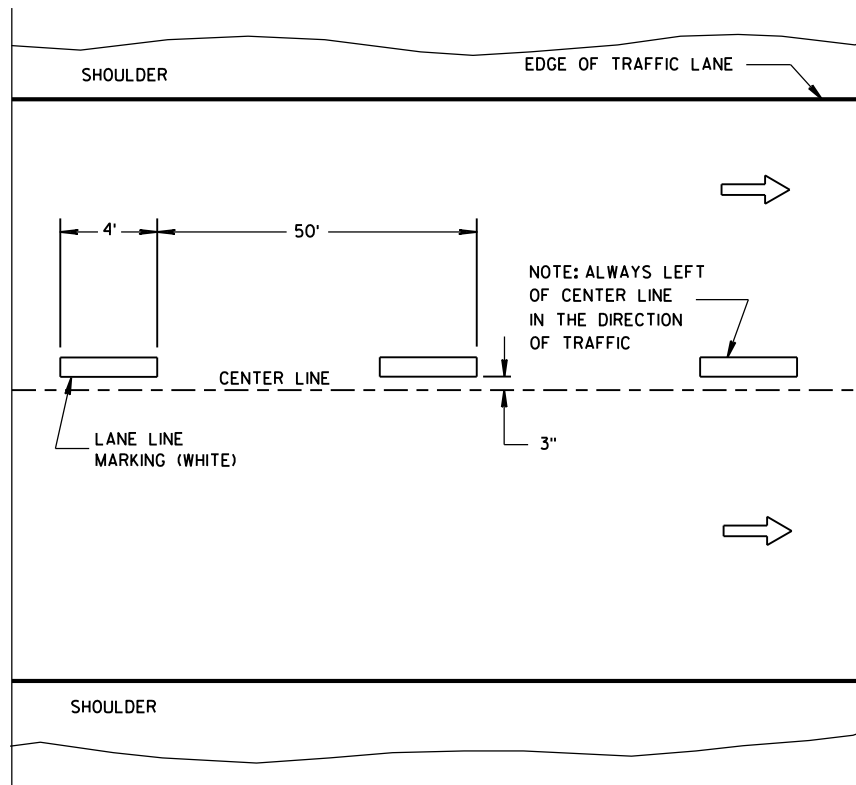


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

LEGEND

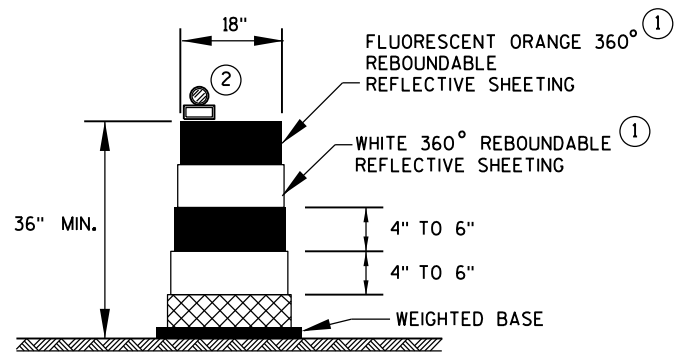
—•— "T" MARKING

● POST MOUNTED SIGN

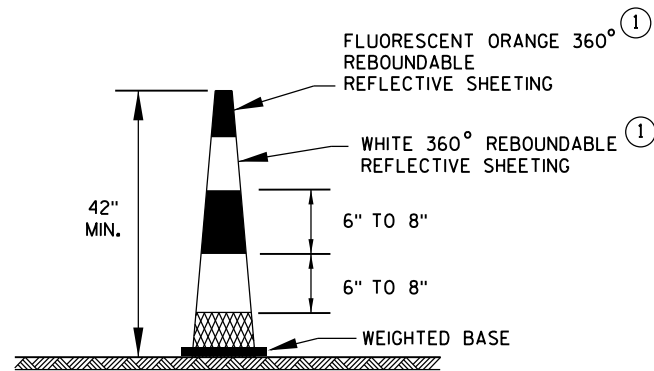
LONGITUDINAL MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June 2017 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



DRUM

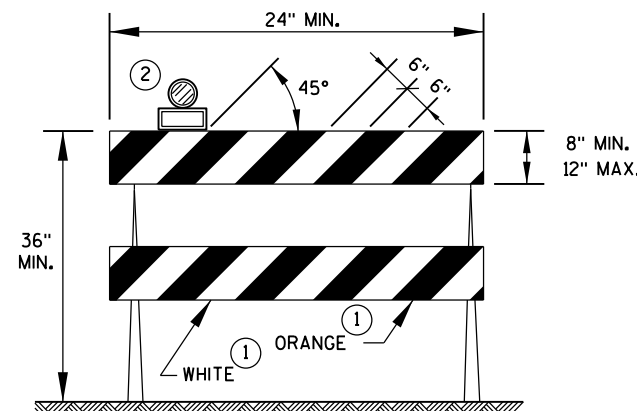


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

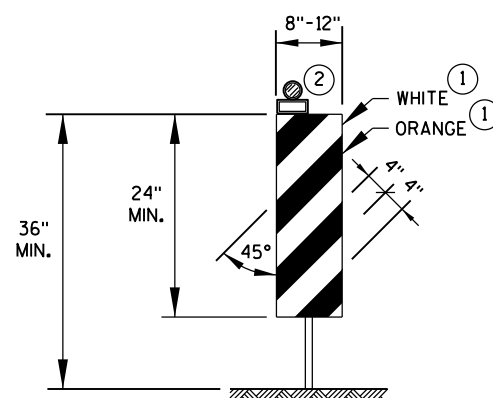
GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



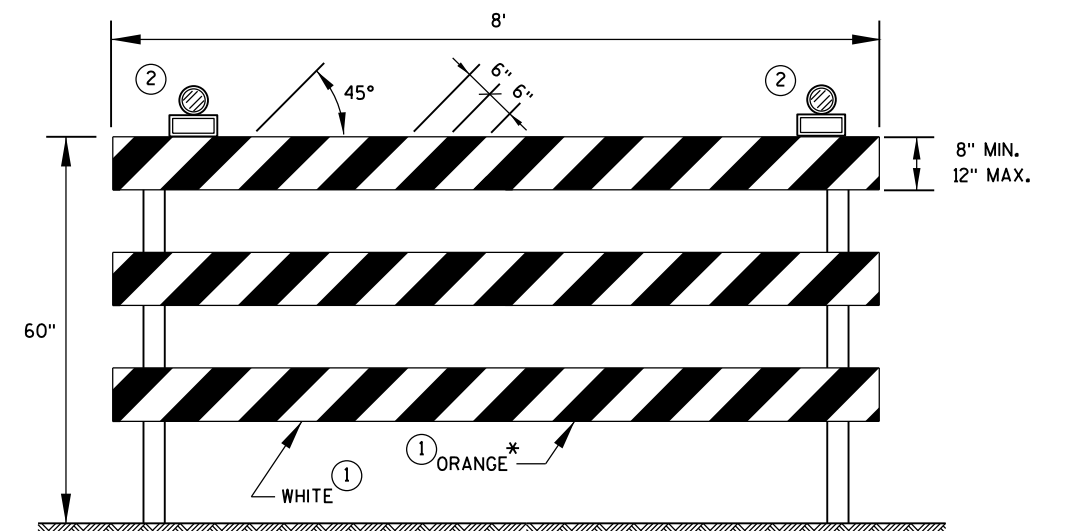
TYPE 2 BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.
ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE 3 BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

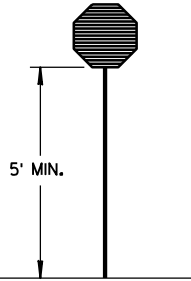
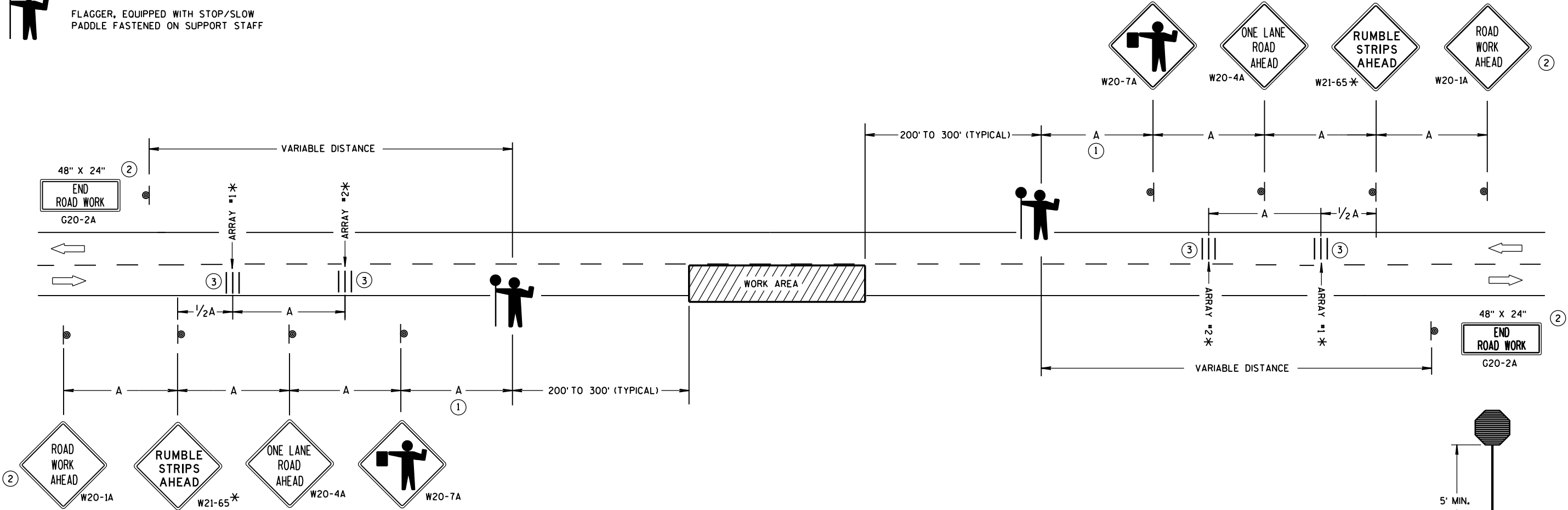
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING A
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 W20-4A SIGNS, USING SPACING A.



STOP/SLOW PADDLE ON SUPPORT STAFF

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

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.

"W0" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS. PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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 PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

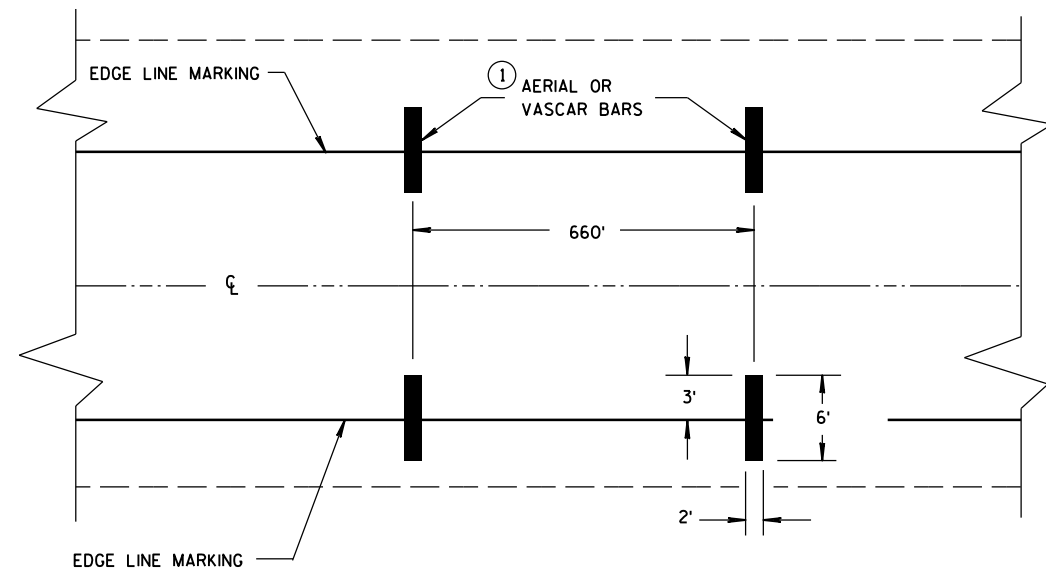
* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

- FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

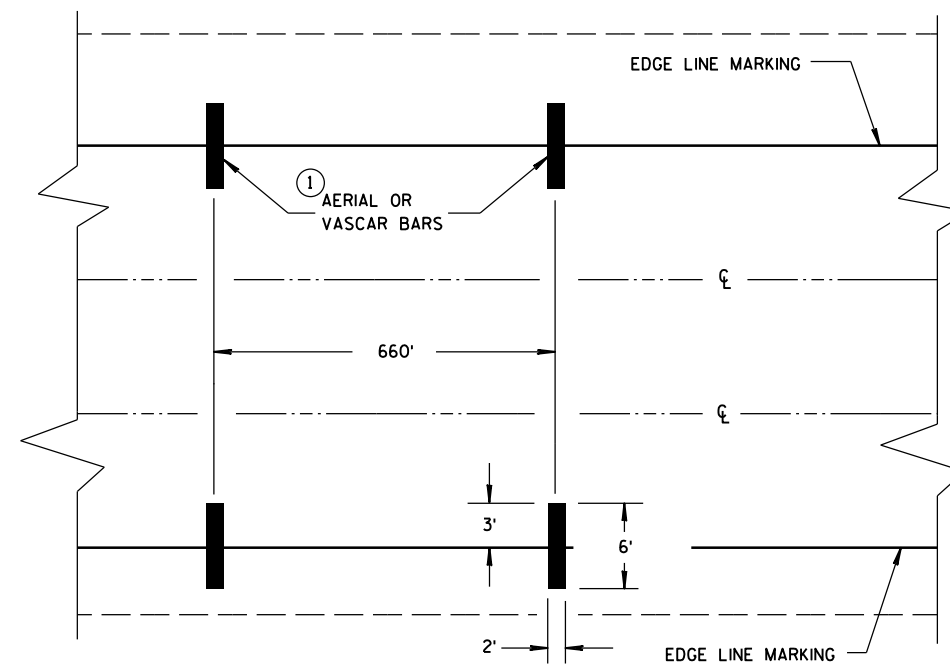
TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Andrew Heldtke
DATE WORK ZONE ENGINEER
FHWA



TYPICAL FOR TWO WAY OR ONE WAY TRAFFIC



TYPICAL FOR MULTILANE TRAFFIC

SPEED ENFORCEMENT ZONE WITH AERIAL OR VASCAR BARS

GENERAL NOTES

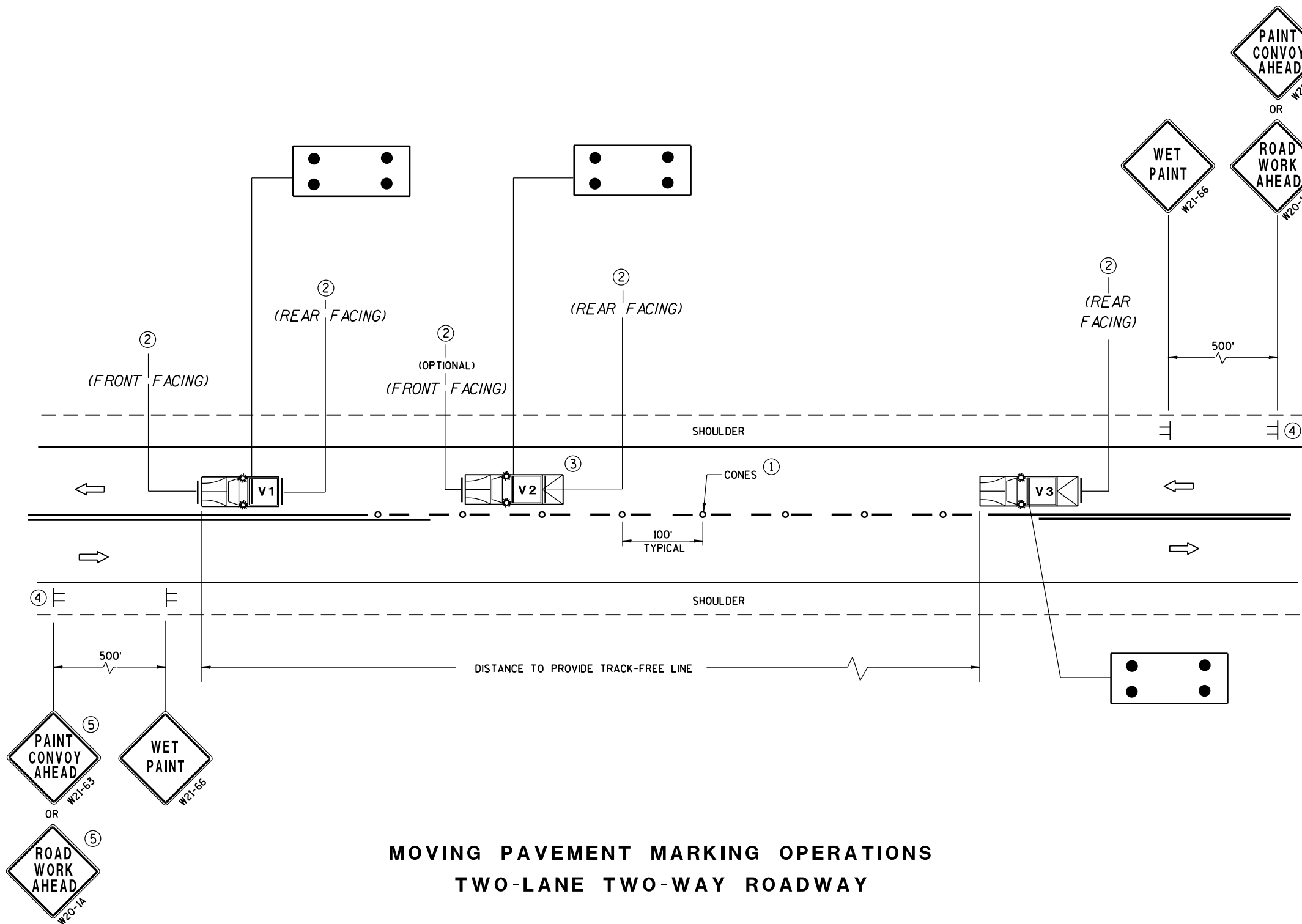
① PLACE TWO TO FIVE AERIAL OR VASCAR BARS AT 660 FOOT SPACING.

A CAR CAN BE PROVIDED BY THE WISCONSIN STATE PATROL FOR TRAFFIC CONTROL.

AERIAL ENFORCEMENT BARS
PAVEMENT MARKING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

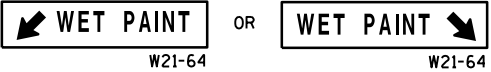
APPROVED
June 2017 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

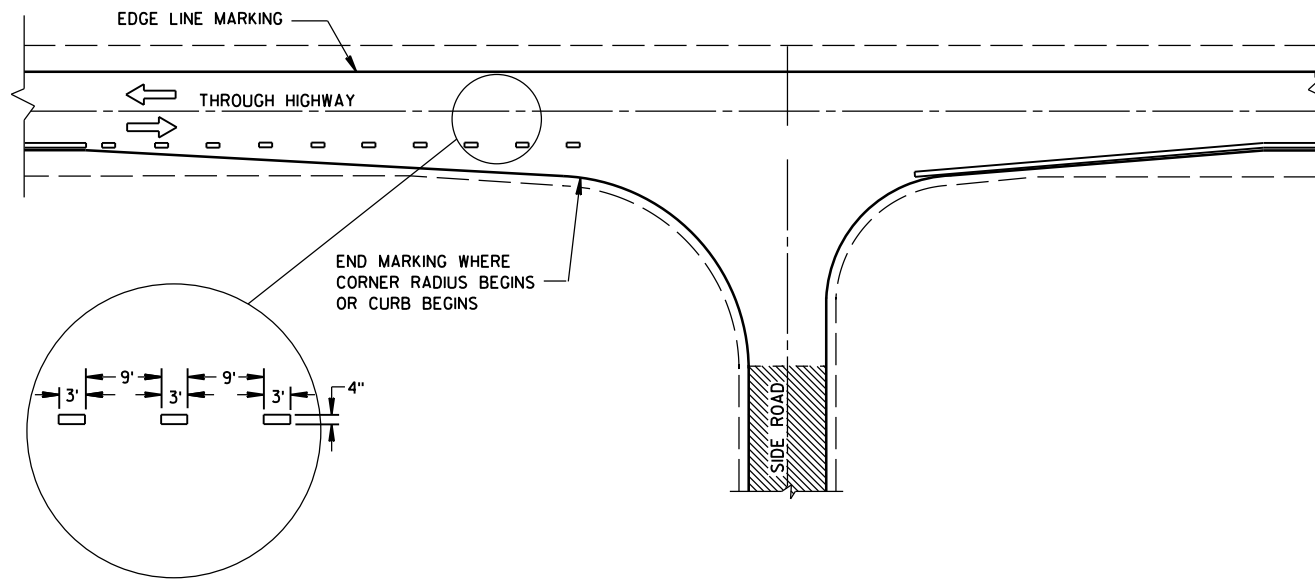
GENERAL NOTES

- ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.
- VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.
- IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.
- ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.
- DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.
- THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.
- WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.
- ① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.
- ② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.
- ③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.
- ④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.



- LEGEND**
- V1** LEAD VEHICLE
- V2** SHADOW VEHICLE
- V3** TRAIL VEHICLE WITH TMA
- TMA** TRUCK-MOUNTED ATTENUATOR
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONES
- FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Sept., 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



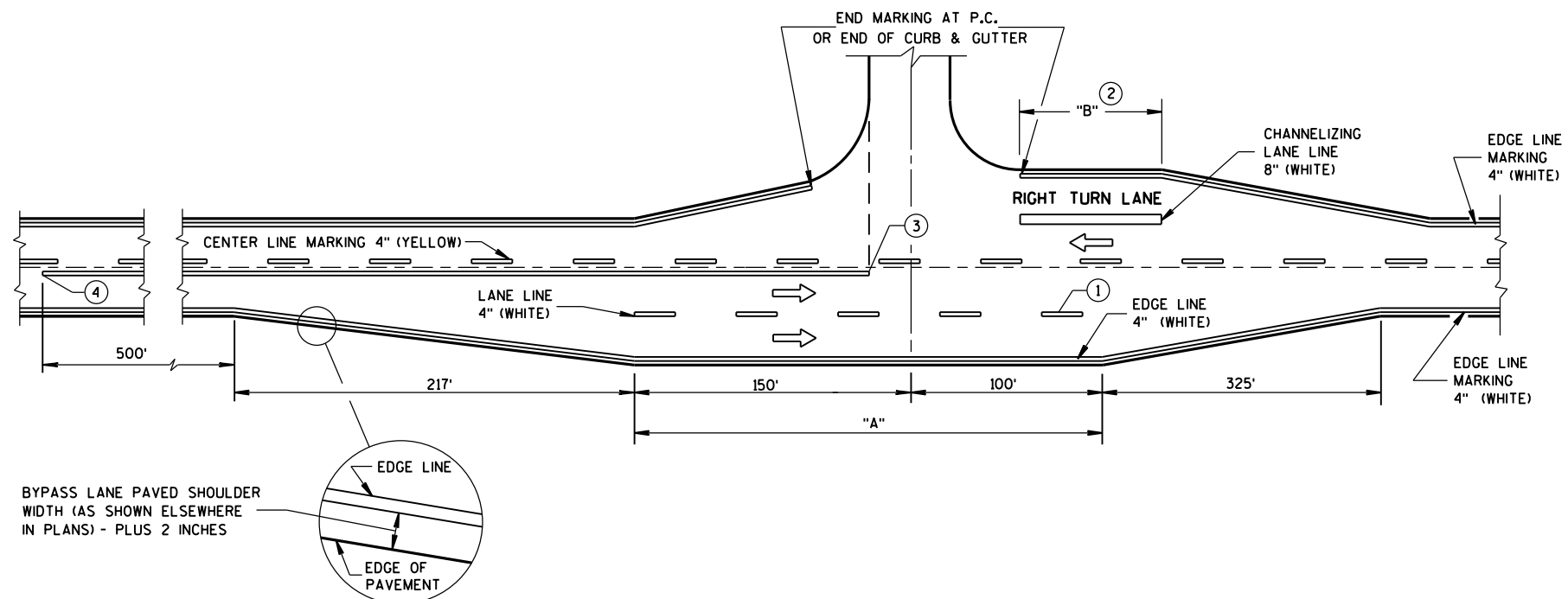
MINOR INTERSECTION

GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES 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 BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL



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

**PAVEMENT MARKING
(INTERSECTIONS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

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

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

GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

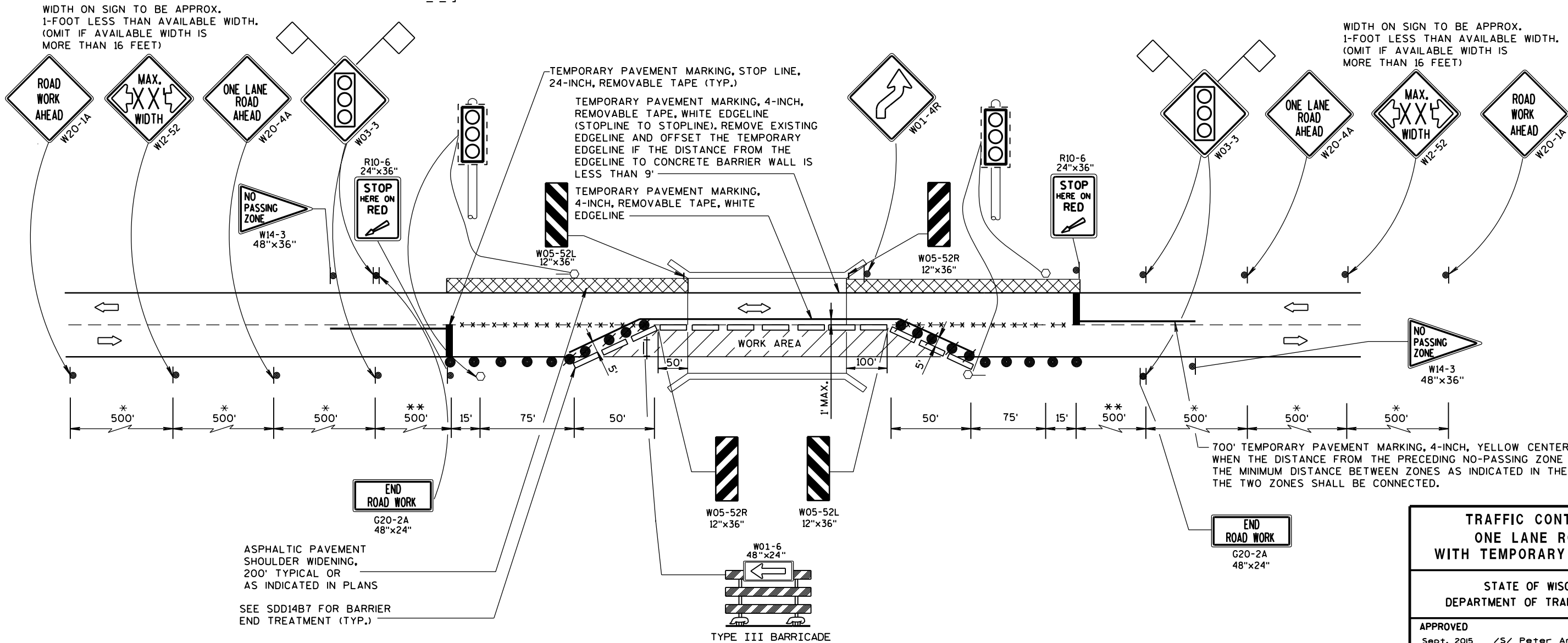
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

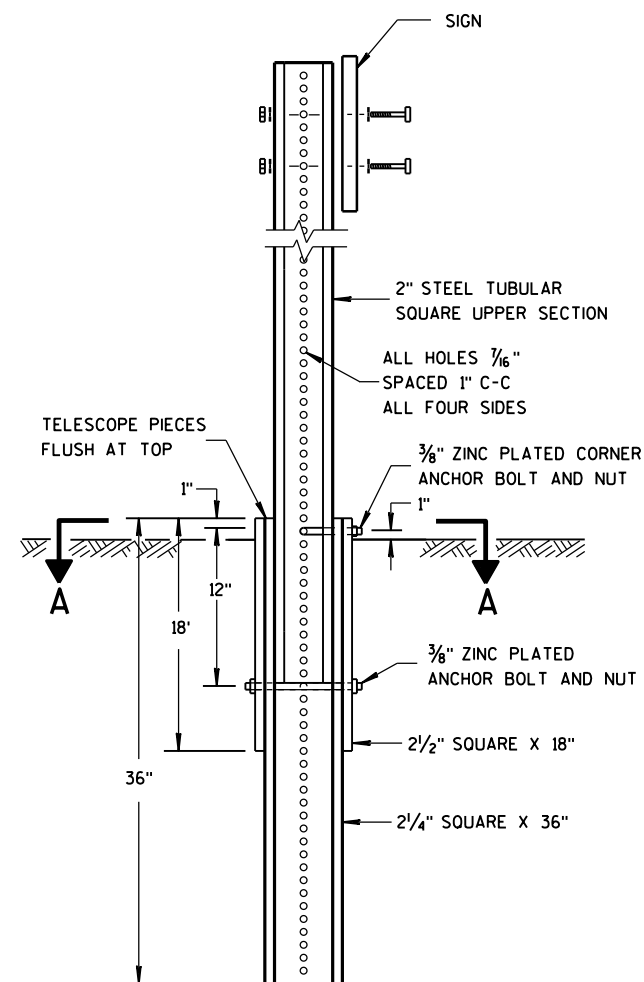
* 500-FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350-FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200-FOOT TYPICAL SPACING.

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

6



6



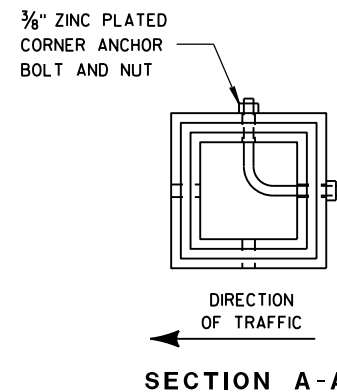
DETAIL OF TUBULAR
STEEL SIGN POST

TUBULAR STEEL POSTS

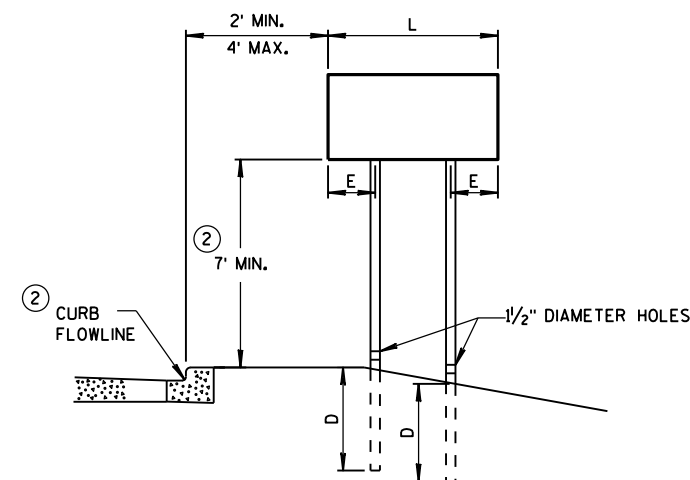
AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL
BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED
ON TUBULAR STEEL POSTS.



SECTION A-A

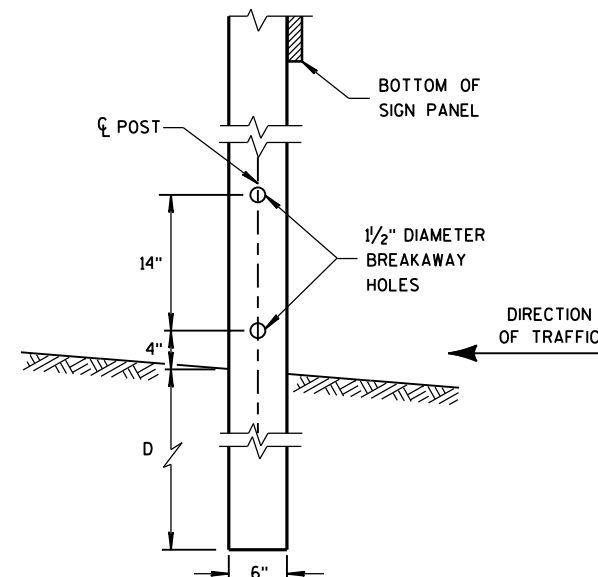


URBAN AREA

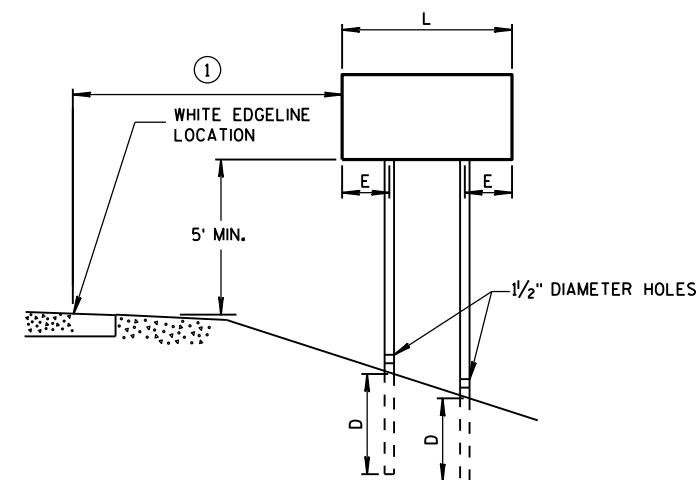
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST
EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



4 "x6 " WOOD POST
MODIFICATION



RURAL AREA

4 " X 6 " WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

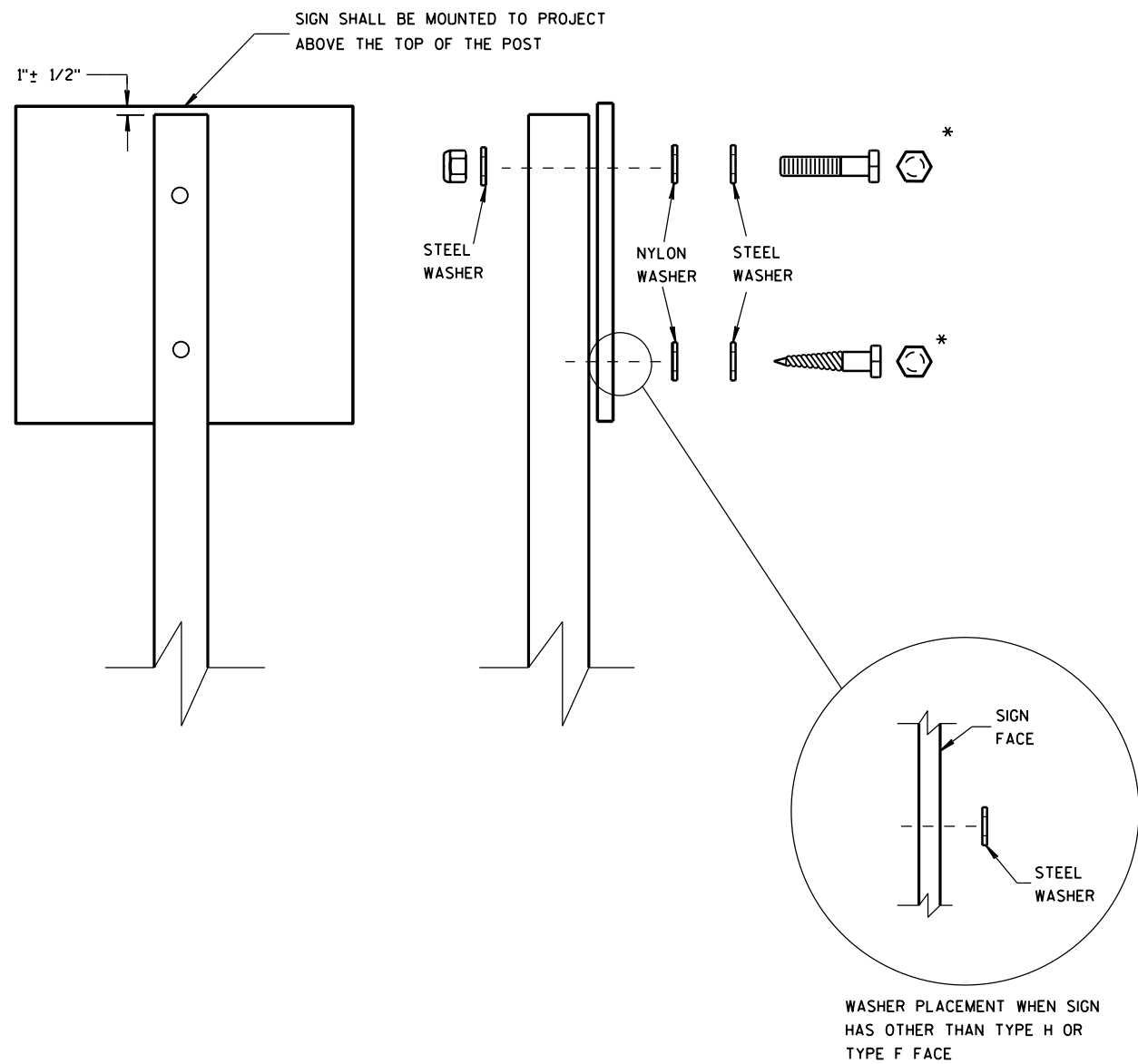
SEE NOTE ③

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② 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. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

TEMPORARY TRAFFIC CONTROL
SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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.

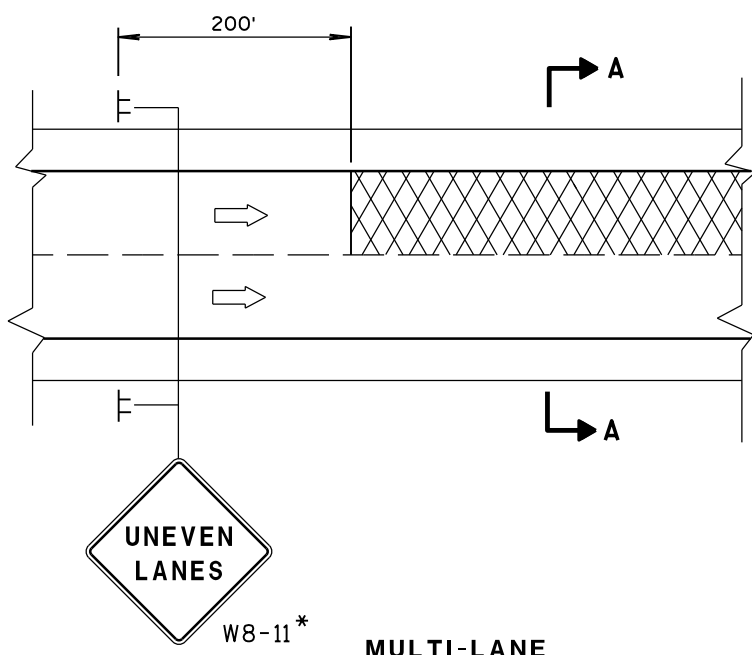
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" x 3"
 - MACHINE BOLTS - 5/16" x 6-1/2" OR 7" LENGTH W/ NUTS

- 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

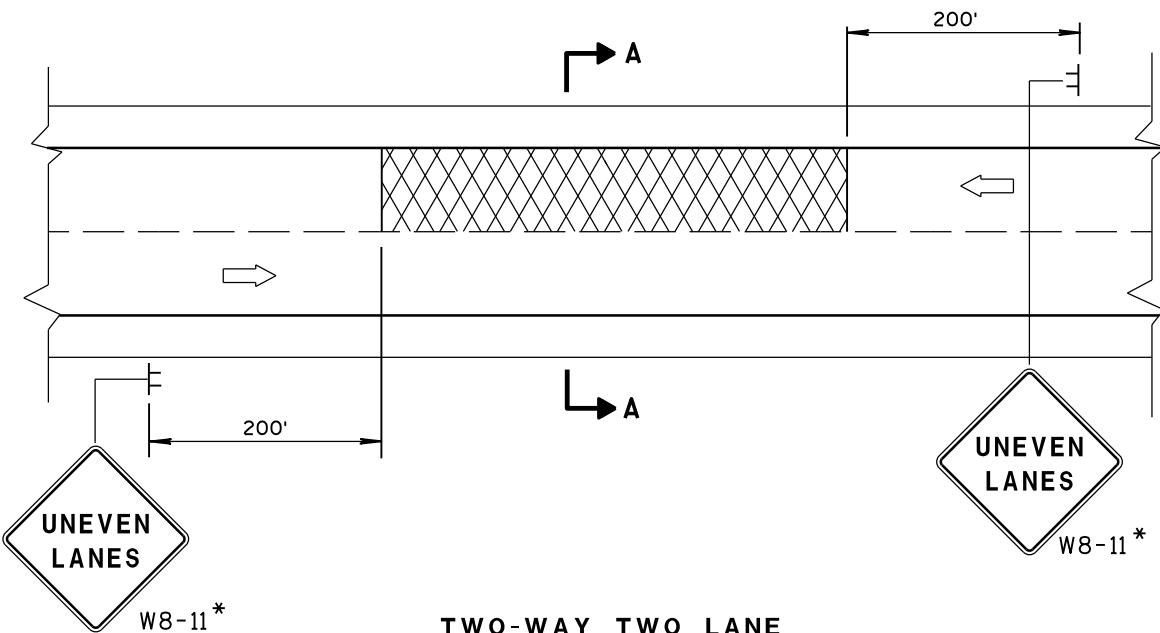
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. x 3/8" I.D. x 1/16" STEEL
 - 1-1/4" O.D. x 3/8" I.D. x .080 NYLON FOR ALL TYPE H SIGNS

* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

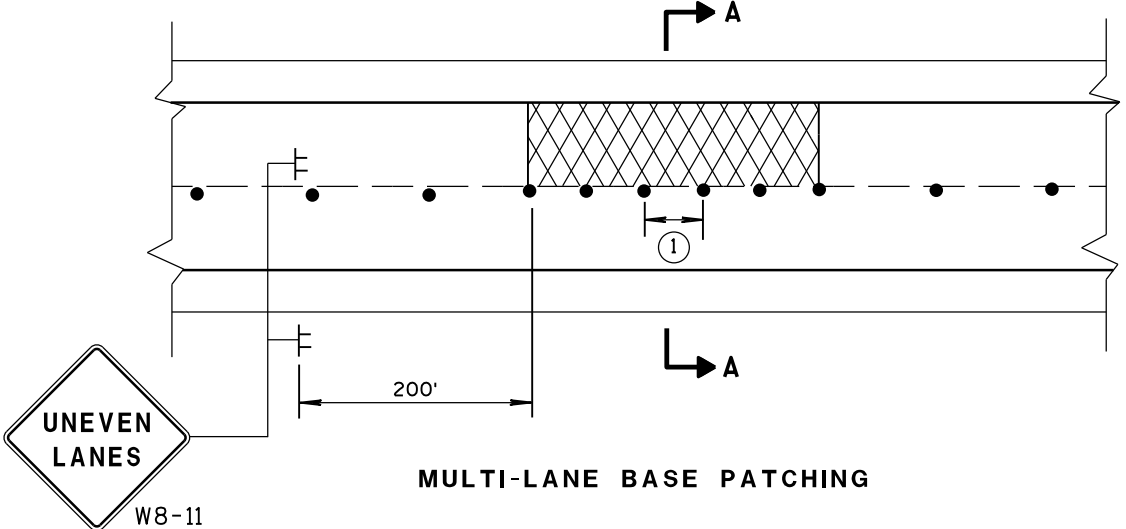
ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heldtke WORK ZONE ENGINEER
FHWA	



MULTI-LANE

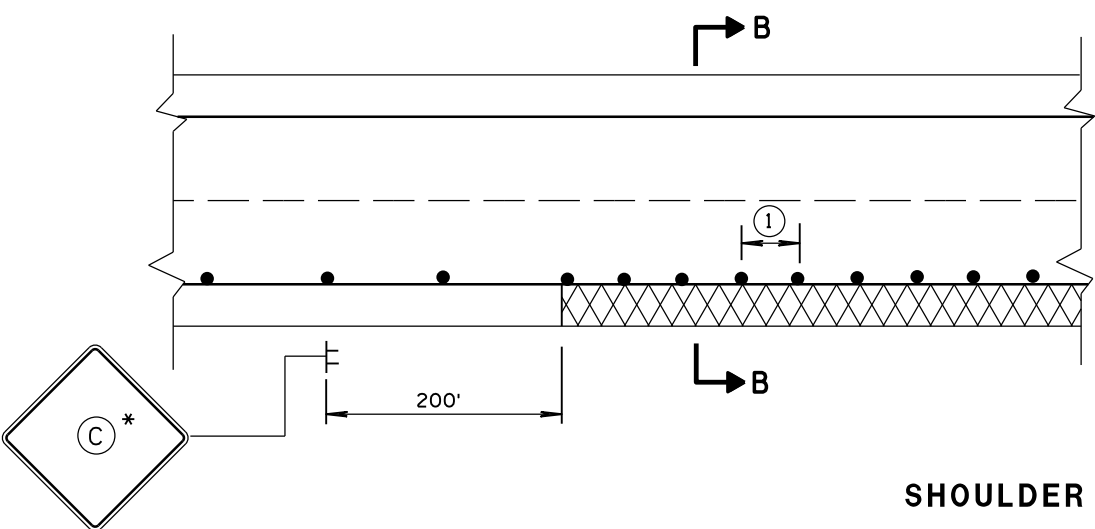
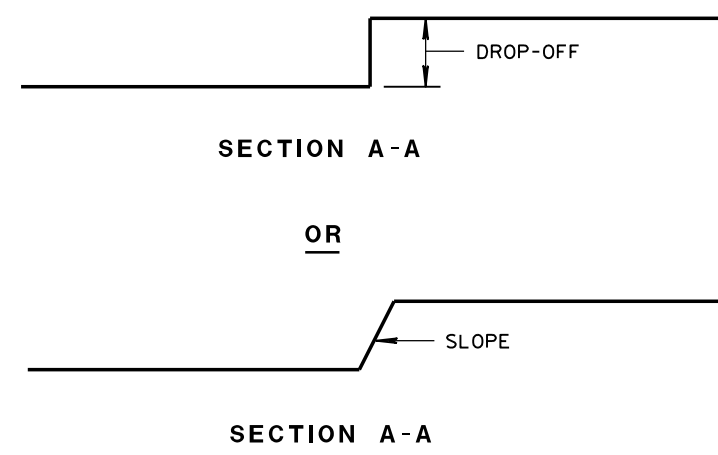


TWO-WAY TWO LANE

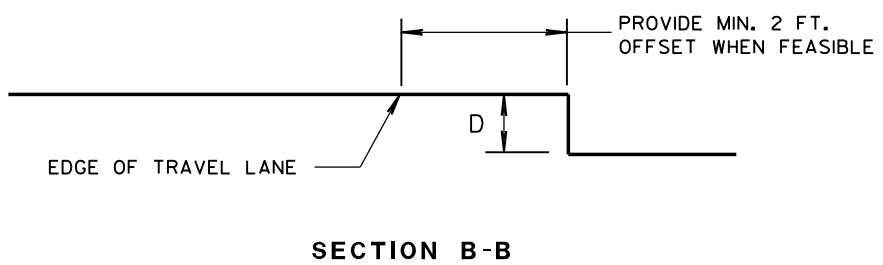


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B-B

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1/2 MILE.

① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

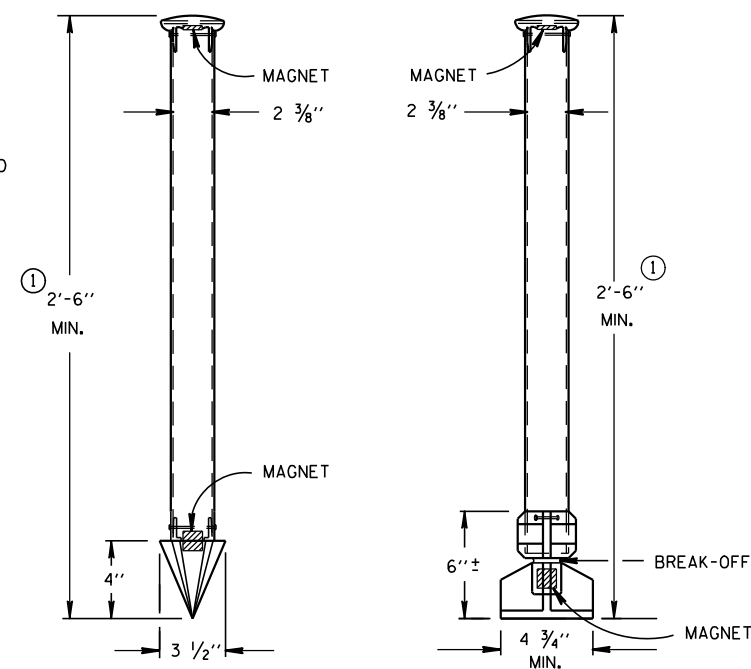
- Sign on temporary support
- Traffic control drum
- Direction of traffic
- Work area with drop-off

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER W08-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP-OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

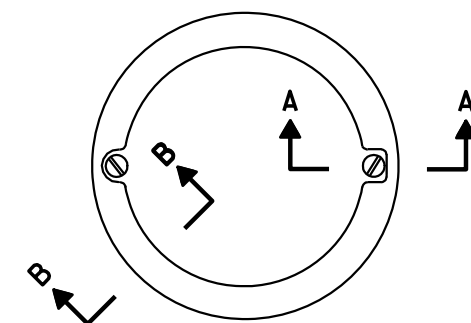
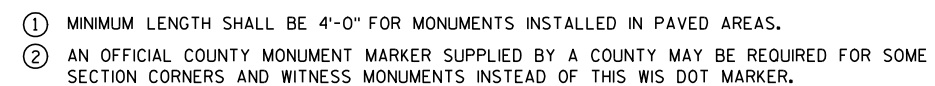
TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

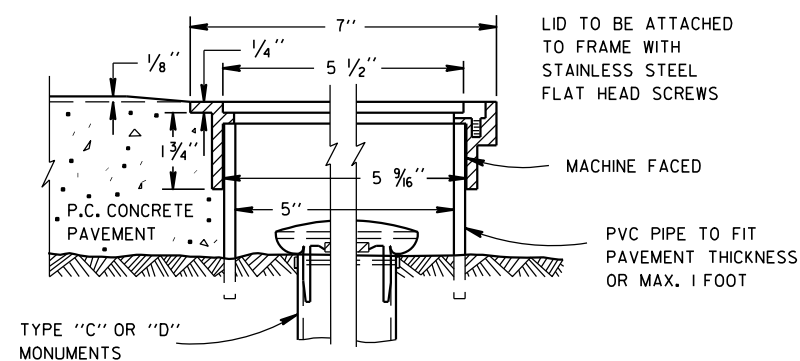
APPROVED
March, 2017 /S/ Andrew Heldtke
DATE WORK ZONE ENGINEER
FHWA



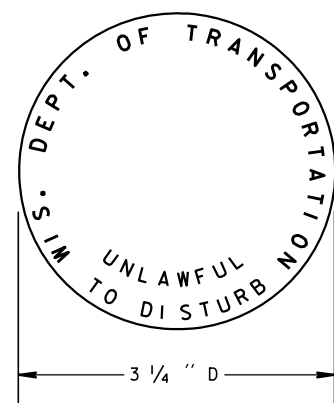
TYPE C	TYPE D
DRIVE-IN MONUMENT	BREAK-OFF MONUMENT
ALUMINUM MONUMENTS	
(INCLUDES MARKER)	



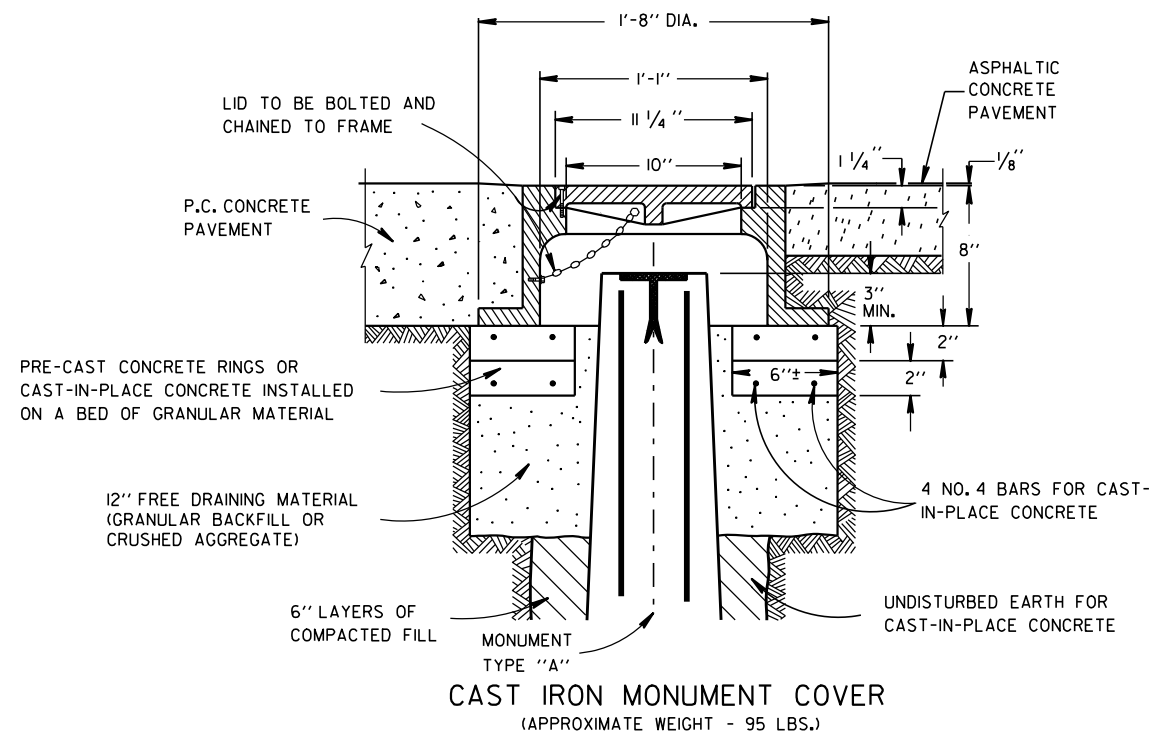
TOP VIEW



SECTION B-B SECTION A-A
ALUMINUM MONUMENT COVER
(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)



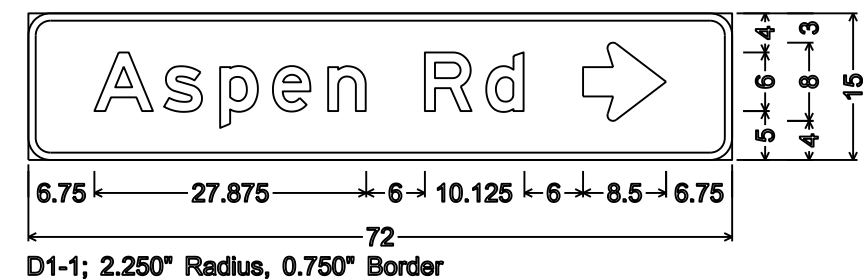
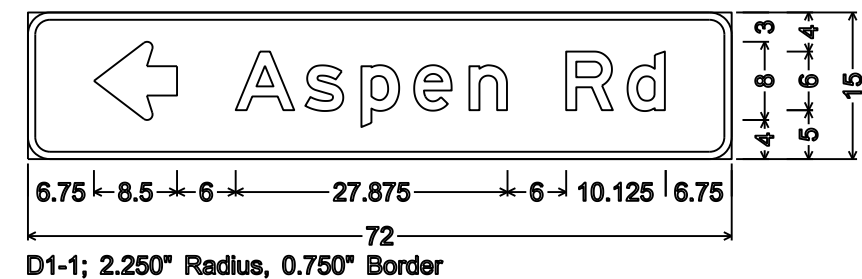
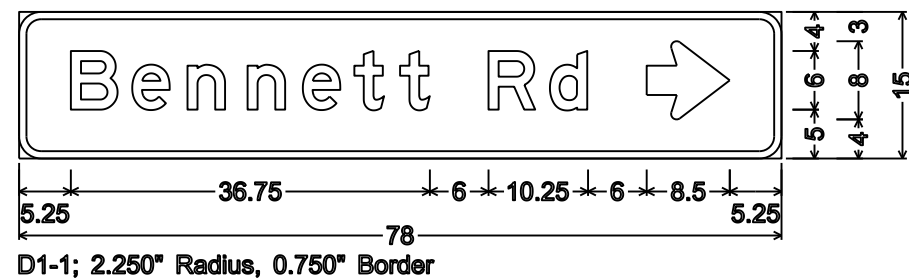
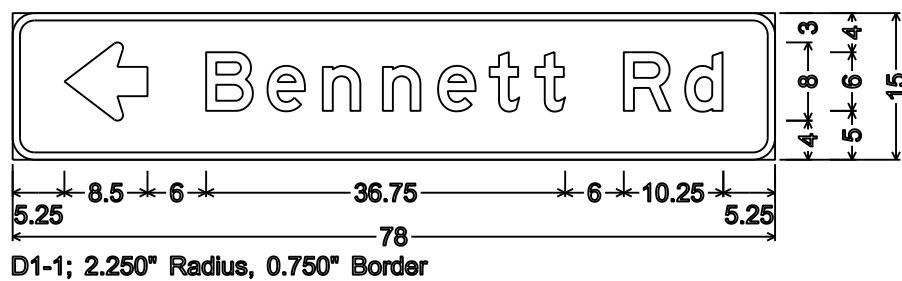
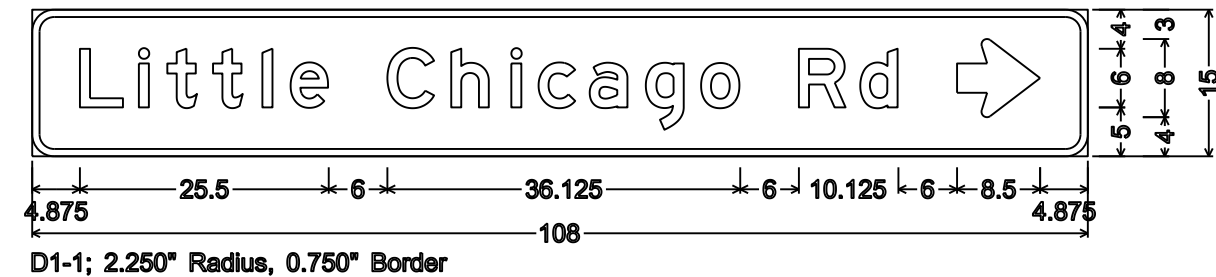
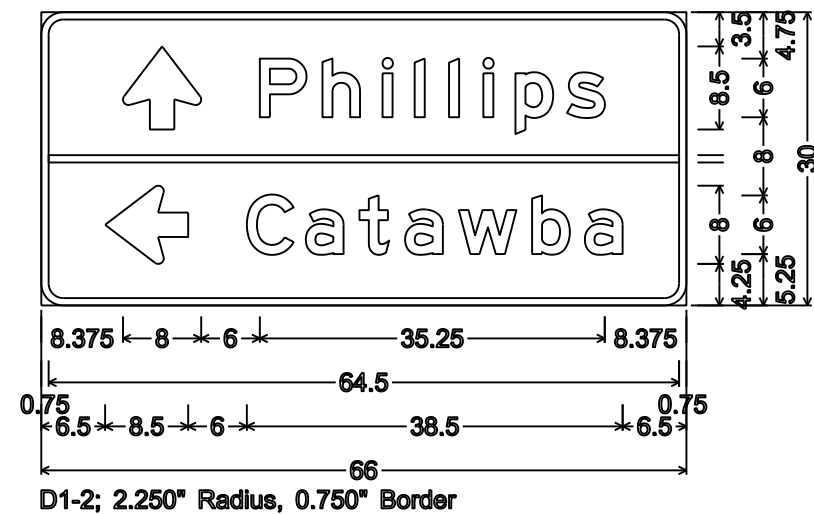
② WIS DOT MONUMENT MARKER LOGO
FOR TYPES "A", "C" & "D"



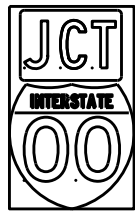
APPROVED	
9/22/1999	/S/ Rory L. Rhinesmith
DATE	CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

NOTES

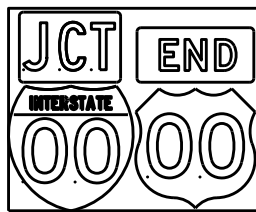
1. All Signs Type II - Type H Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E



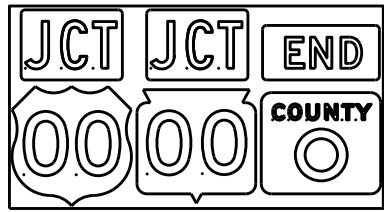
TYPICAL ASSEMBLIES



J1-1



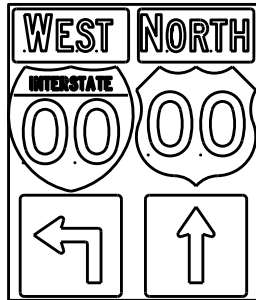
J1-2



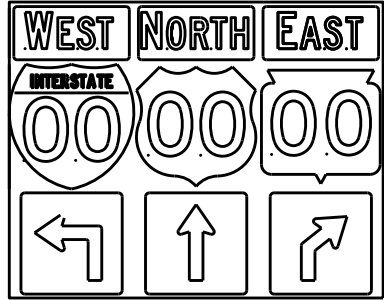
J1-3



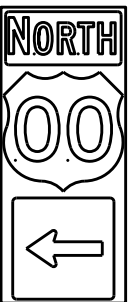
J2-1



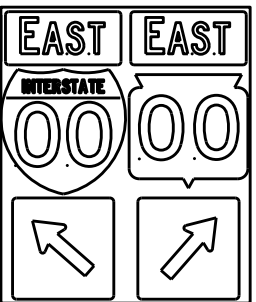
J2-2



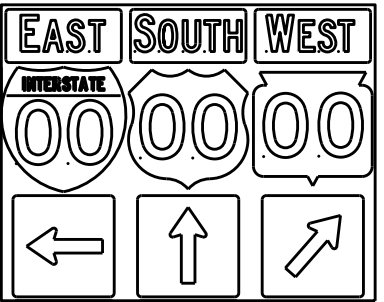
J2-3



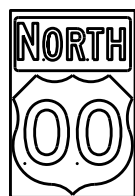
J3-1



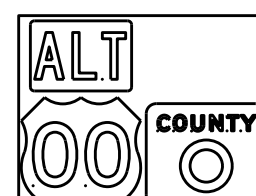
J3-2



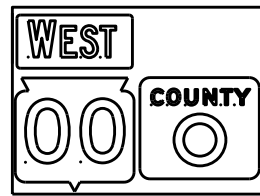
J3-3



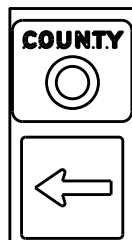
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

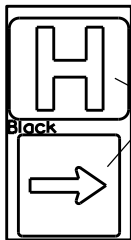


J22-1



JV

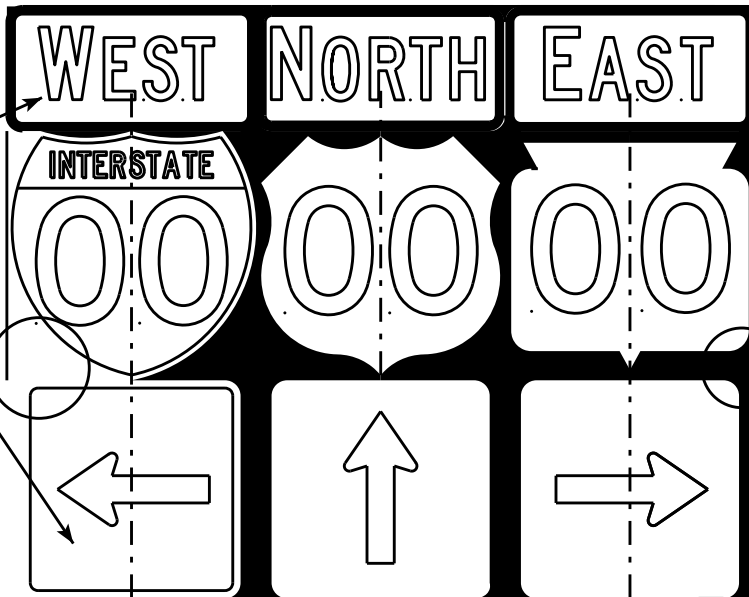
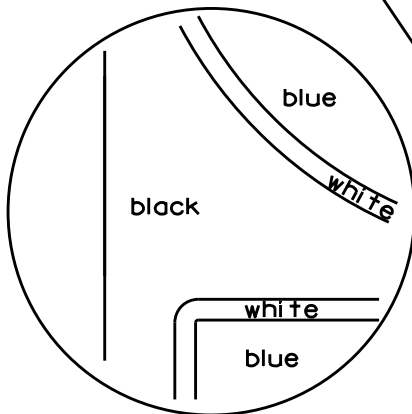
(Typical Vertical J-Assembly
See Note 10 and 11)



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.

PROJECT NO:

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN

PLOT DATE : 06-FEB-2014 14:10

PLOT BY : mscs.ja

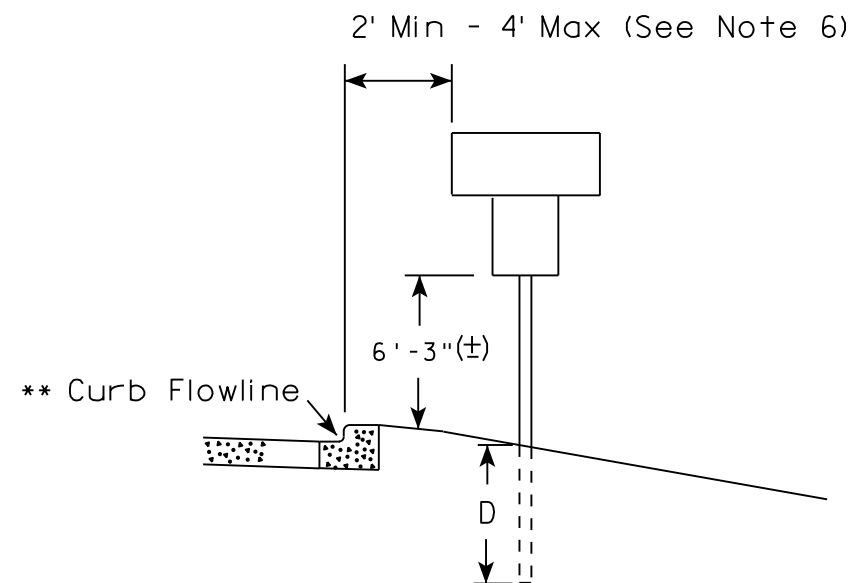
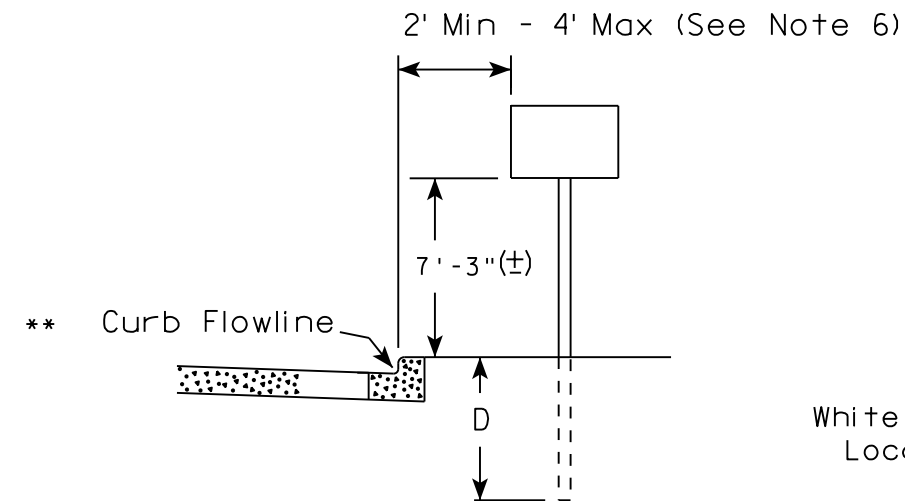
PLOT NAME :

SHEET NO:

E

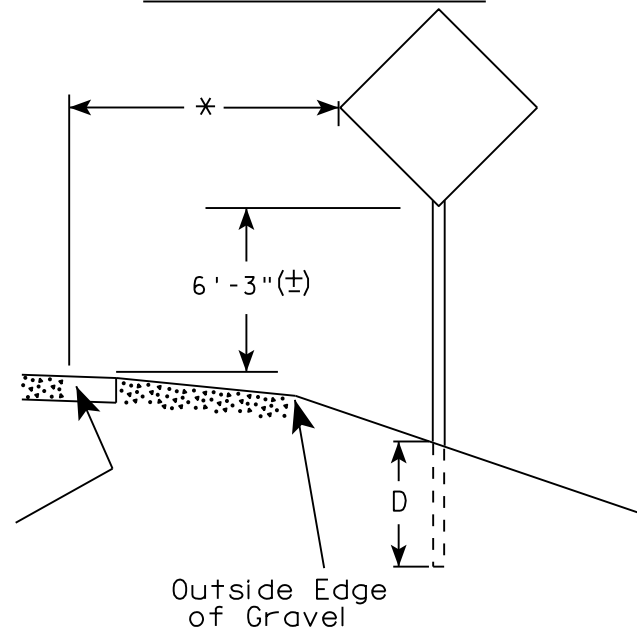
WISDOT/CADDs SHEET 42

URBAN AREA

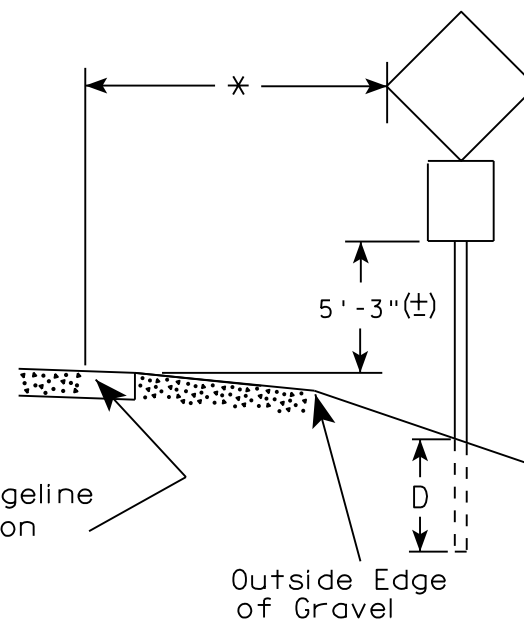


White Edgeline
Location

RURAL AREA (See Note 2)



White Edgeline
Location



Outside Edge
of Gravel

POST EMBEDMENT DEPTH

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

* 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.

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. J-Assemblies are considered to be one sign for mounting height.
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" (±).

** 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.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

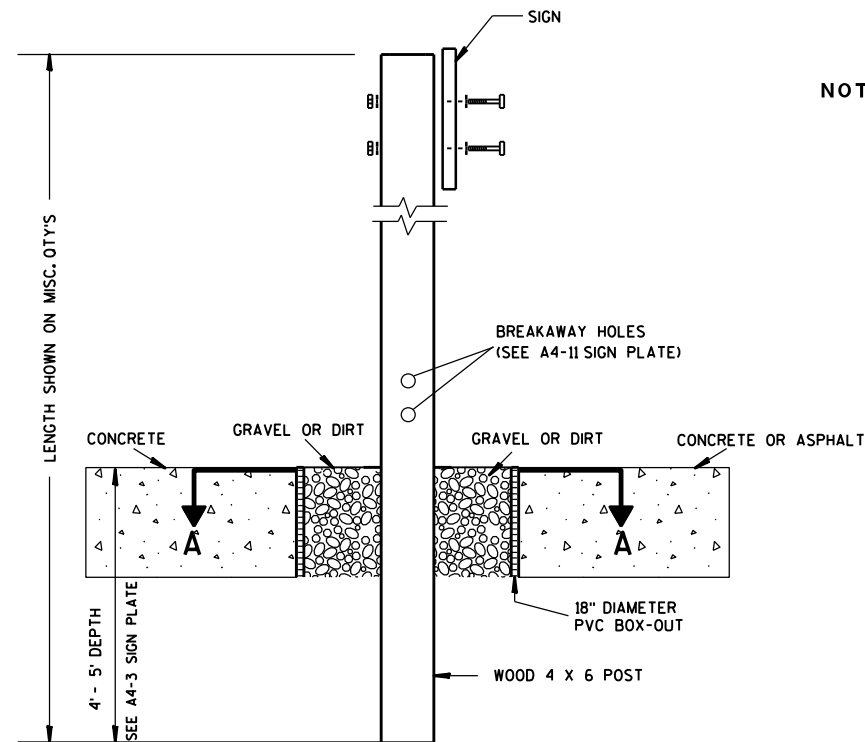
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

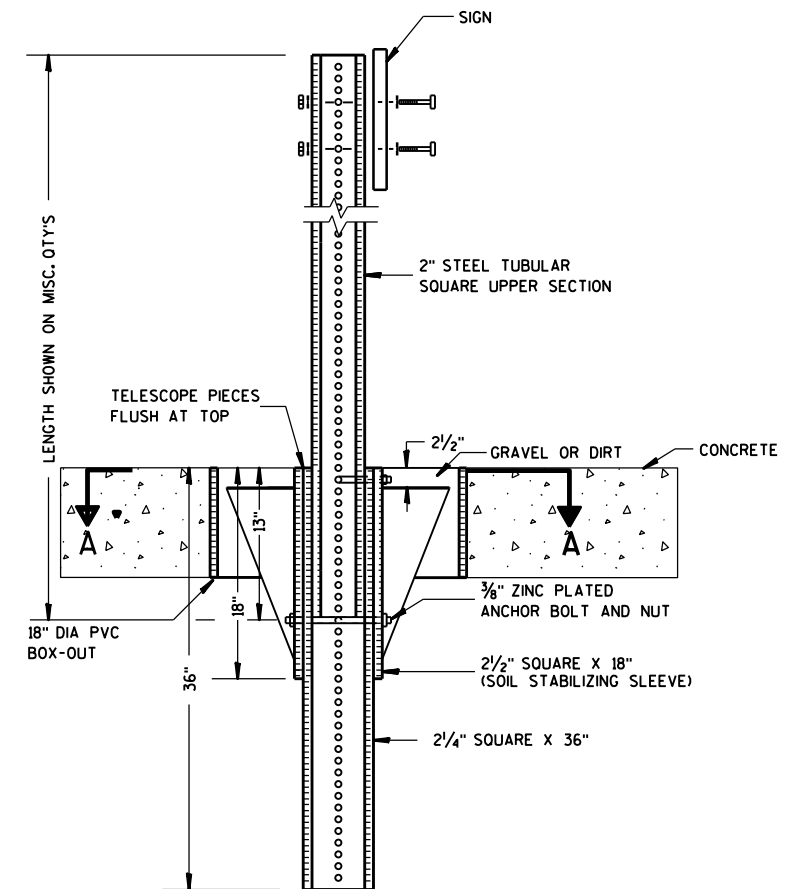
E



ELEVATION VIEW

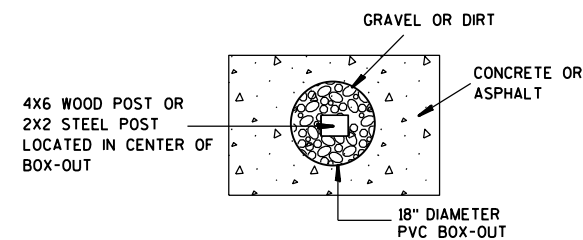
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

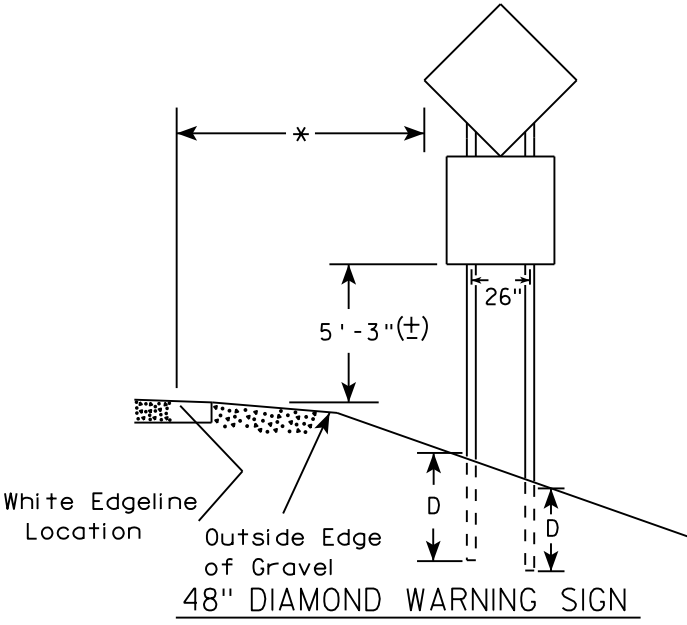
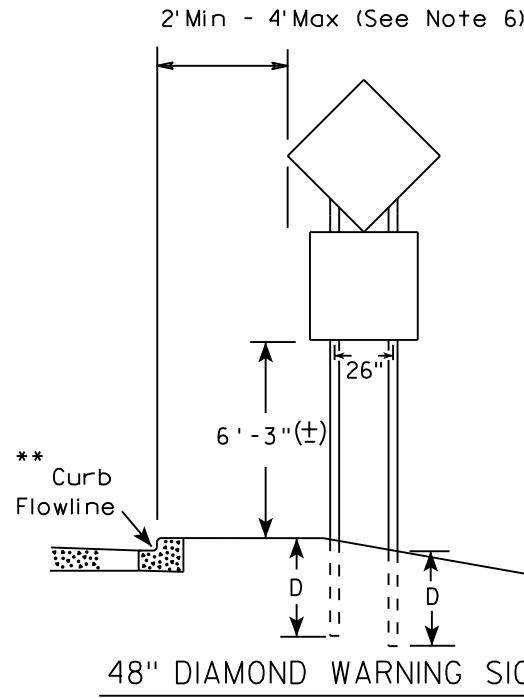
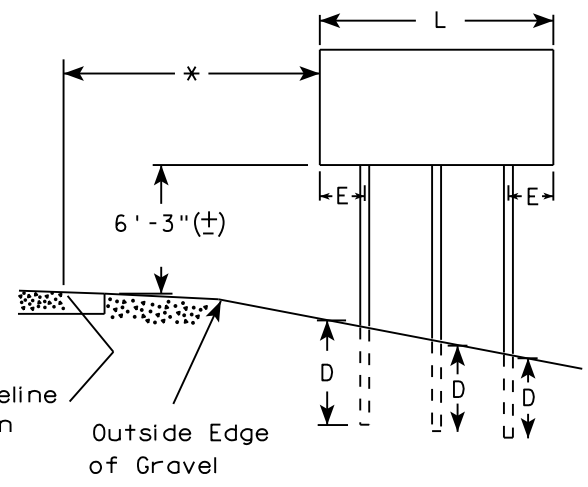
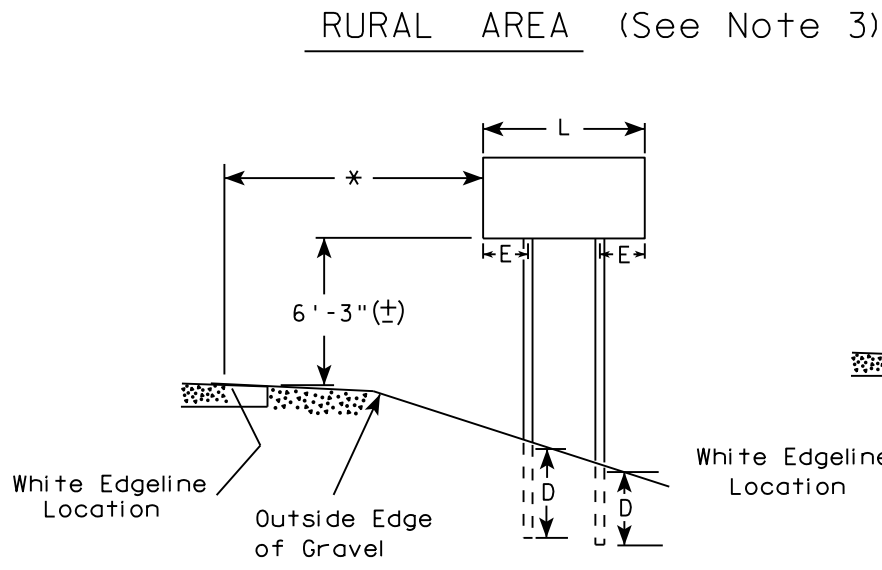
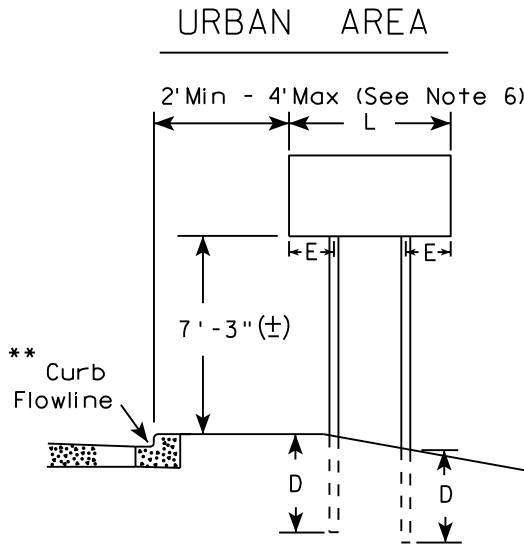
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



- GENERAL NOTES
1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
 2. See tables below for required number of posts.
 3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
 4. The (±) tolerance for mounting height is 3 inches.
 5. J-Assemblies are considered to be one sign for mounting height.
 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.

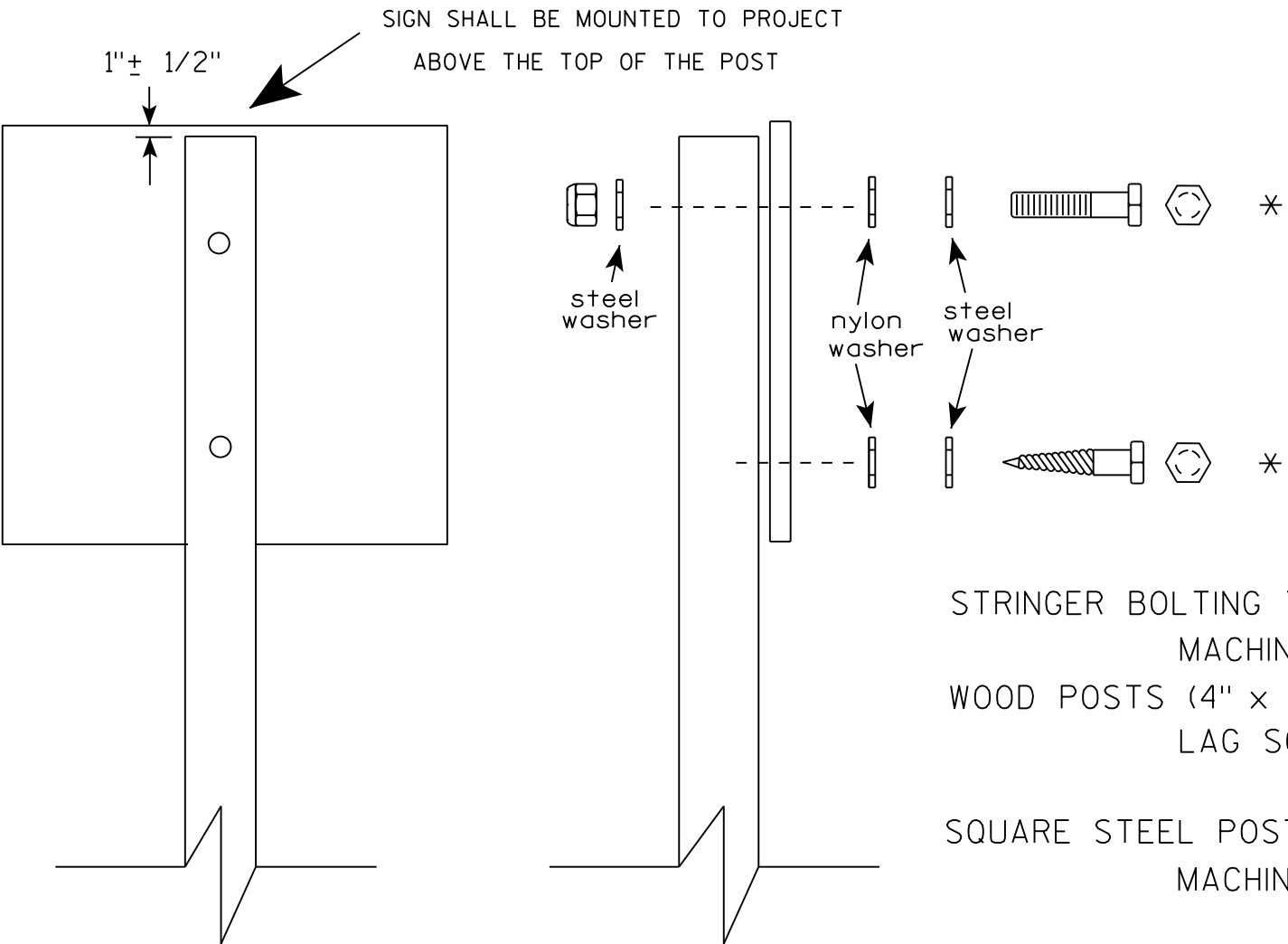
SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 8/21/17	PLATE NO. A4-4.15



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

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

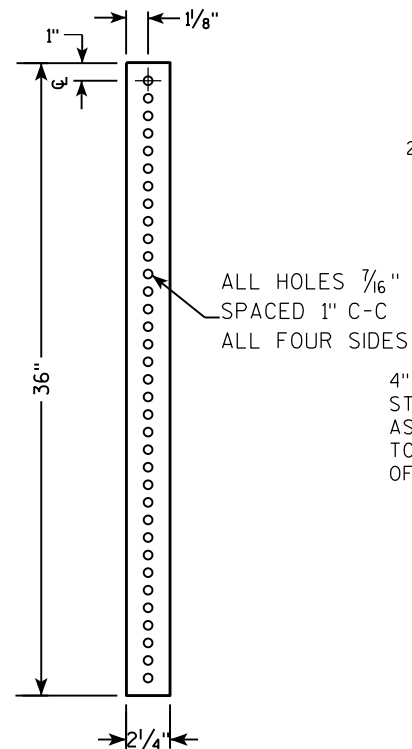
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
 - 3/8" X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 - 3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- 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

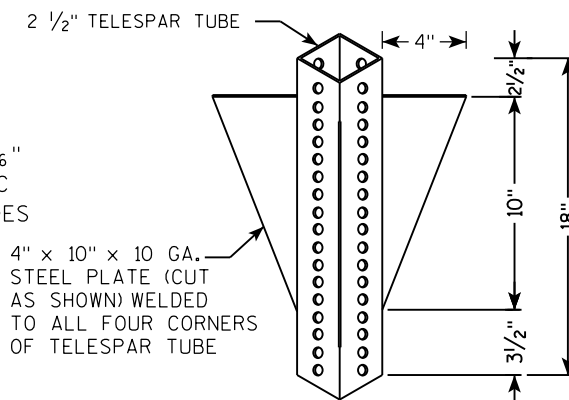
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require 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 8/11/16	PLATE NO. A4-8.8

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



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



LENGTH SHOWN ON MISC. QTY'S
 18" DIA SCHEDULE 40 PVC BOX-OUT
 TELESCOPE PIECES FLUSH AT TOP
 36"
 18"
 13"
 2 1/2"
 2 1/4" SQUARE X 36"
 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
 3/8" ZINC PLATED ANCHOR BOLT AND NUT
 2 1/2" GRAVEL OR DIRT
 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT
 ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES
 2" STEEL TUBULAR SQUARE UPPER SECTION
 SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
 SIGN

LENGTH SHOWN ON MISC. QTY'S

TELESCOPE PIECES FLUSH AT TOP

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES

$\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT

1"

$\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT

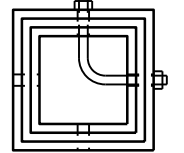
2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)

2 1/4" SQUARE X 36"

SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL

SIGN

3/8" ZINC PLATED CORNER
ANCHOR BOLT AND NUT



DIRECTION
OF TRAFFIC

SECTION A-A

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

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

PROJECT NO:

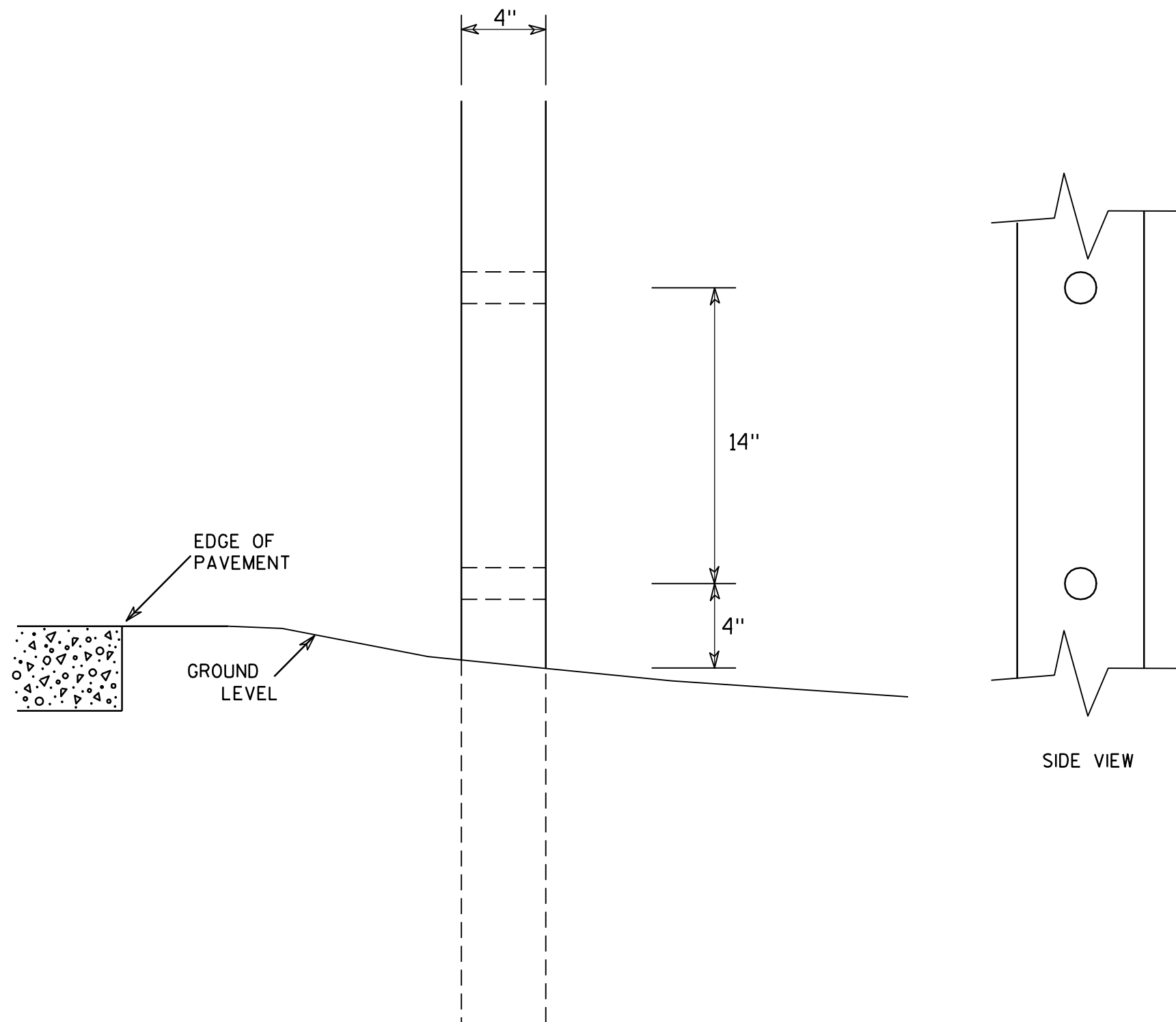
HWY:

COUNTY:

SHEET NO:

11

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

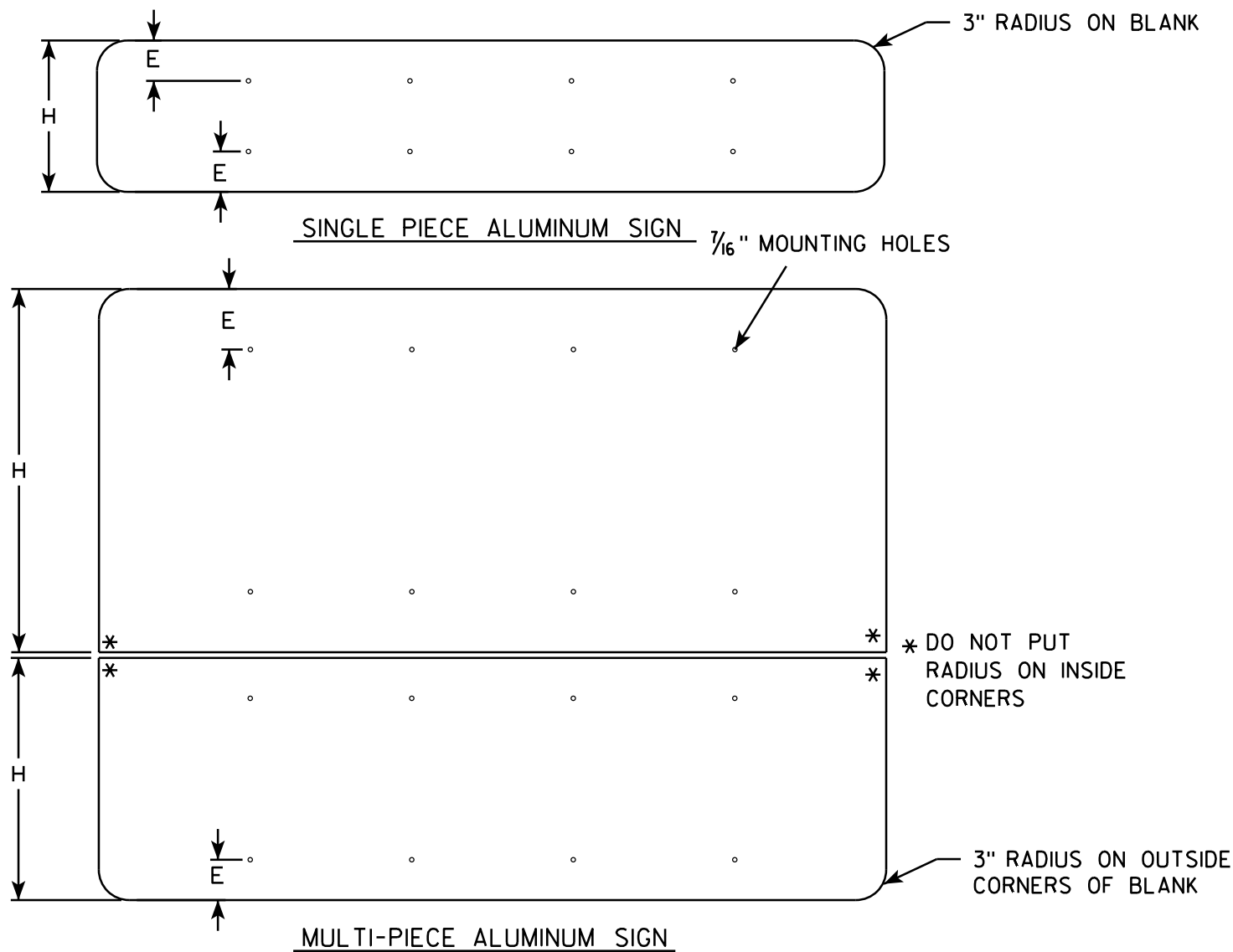
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HWY:

COUNTY:

SHEET NO:

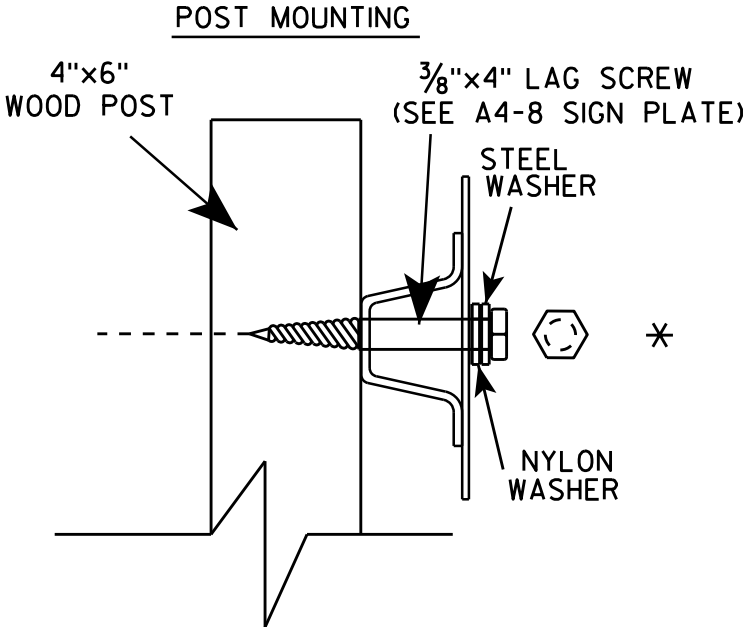
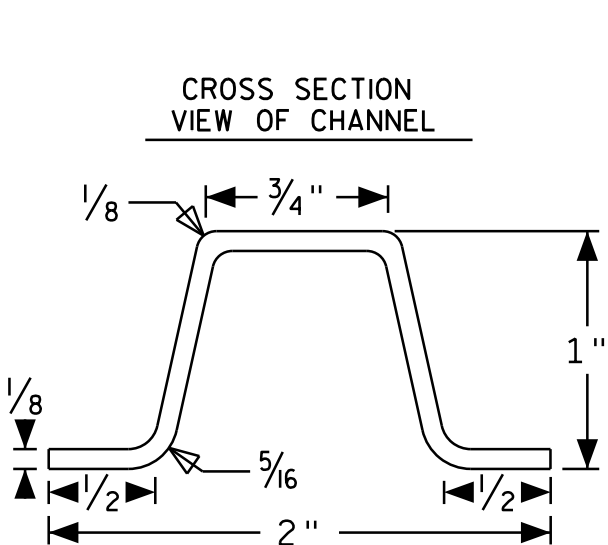
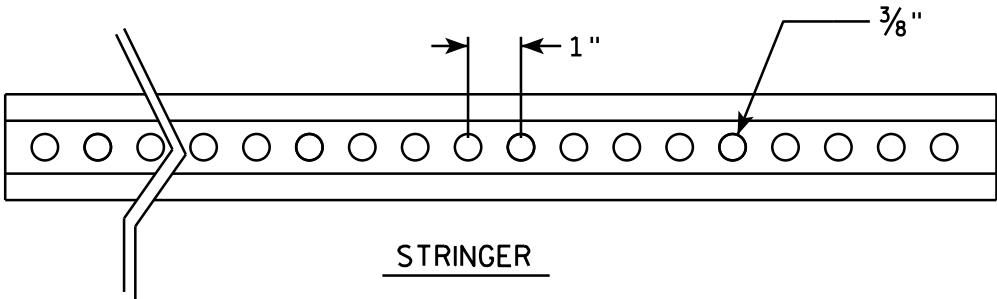
E



GENERAL NOTES

- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES			
78"	72"	2	16"	15"	31"	47"	63"
84"	72"	2	17"	16 1/2"	33 1/2"	50 1/2"	67 1/2"
90"	72"	2	18"	18"	36"	54"	72"
96"	90"	2	19"	19 1/2"	38 1/2"	57 1/2"	76 1/2"
102"	90"	2	20"	21"	41"	61"	81"
108"	90"	2	21"	22 1/2"	43 1/2"	64 1/2"	85 1/2"
114"	108"	3	15"	12"	27"	42"	57" 72" 87" 102"
120"	108"	3	16"	12"	28"	44"	60" 76" 92" 108"
126"	108"	3	17"	12"	29"	46"	63" 80" 97" 114"
132"	126"	3	18"	12"	30"	48"	66" 84" 102" 120"
138"	126"	3	19"	12"	31"	50"	69" 88" 107" 126"
144"	126"	3	20"	12"	32"	52"	72" 92" 112" 132"



SIGN STRINGER
MOUNTING REQUIREMENTS

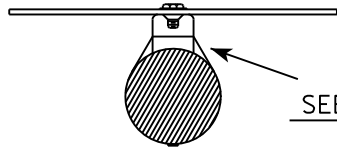
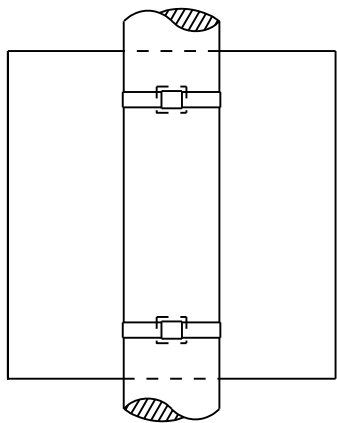
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/26/16 PLATE NO. A4-18.1

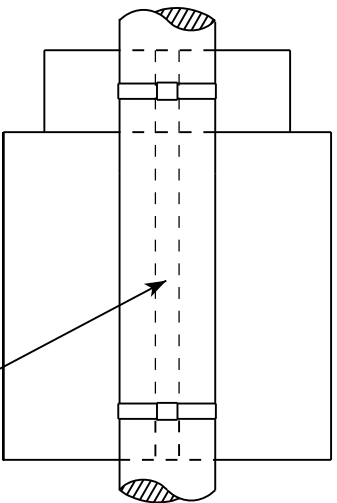
BANDING

SINGLE SIGN

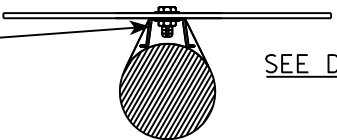


SEE DETAIL A

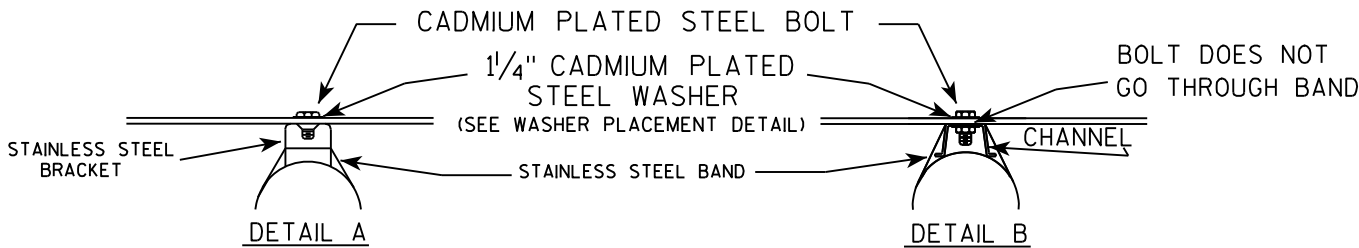
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



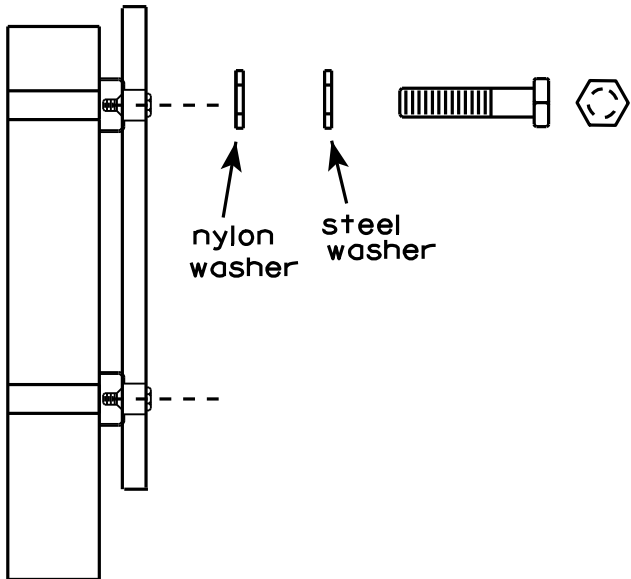
SEE DETAIL B



GENERAL NOTES

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

WASHER PLACEMENT



nylon washer

steel washer

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

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 8/16/13

PLATE NO. A5-9.3

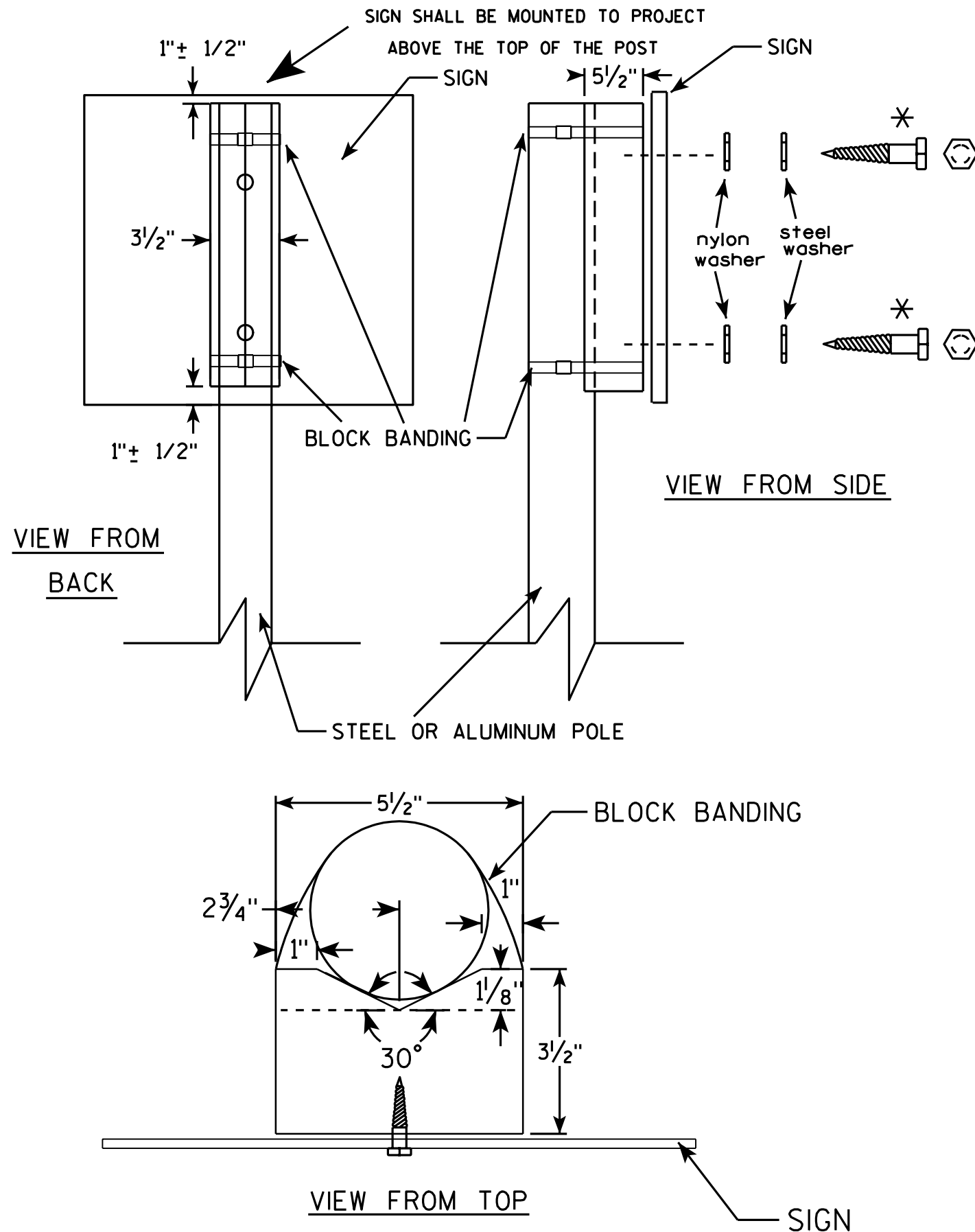
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



GENERAL NOTES

1. WOOD 4"x6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
 - b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
 - c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

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

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

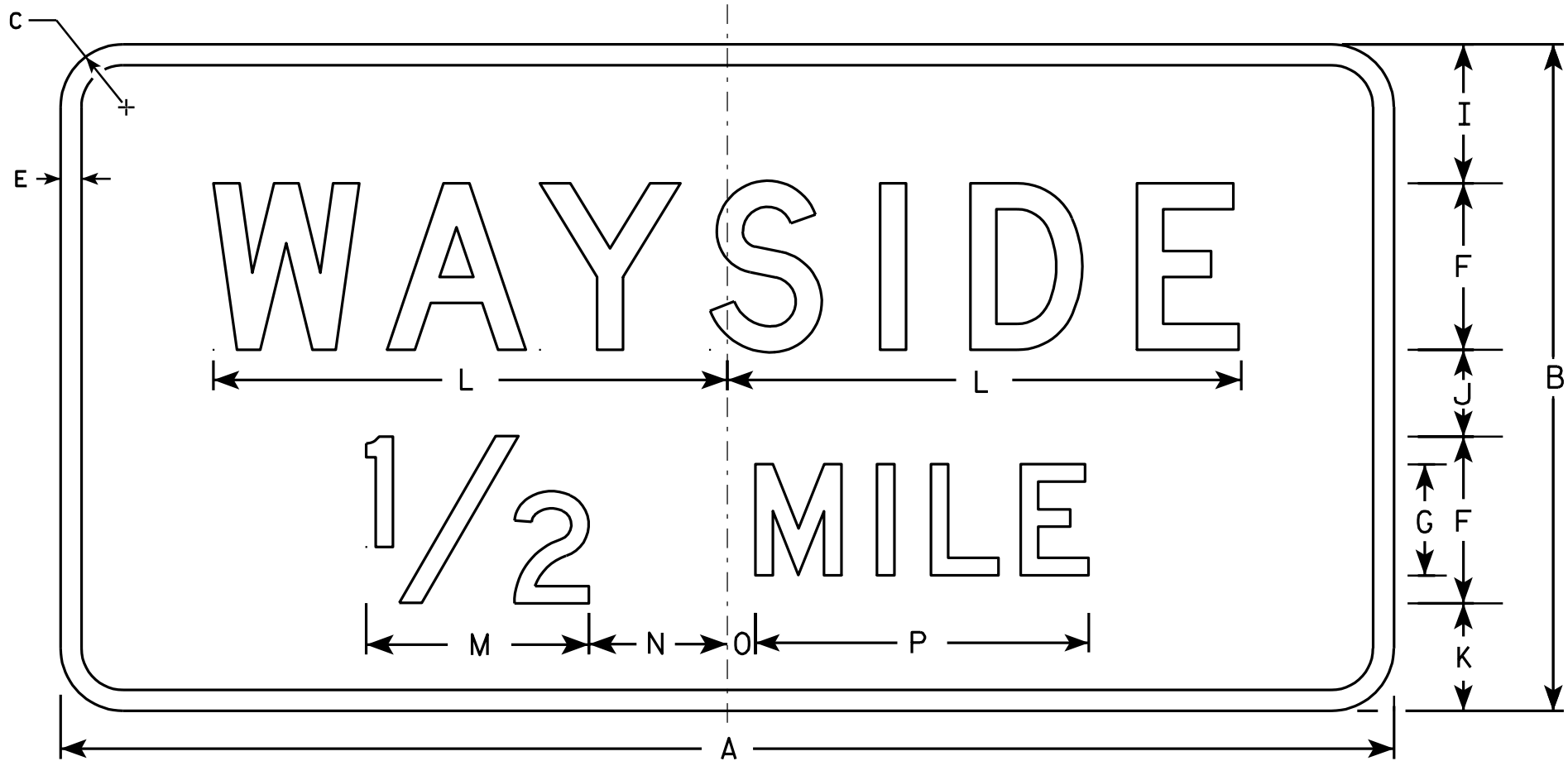
SHEET NO:

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:

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

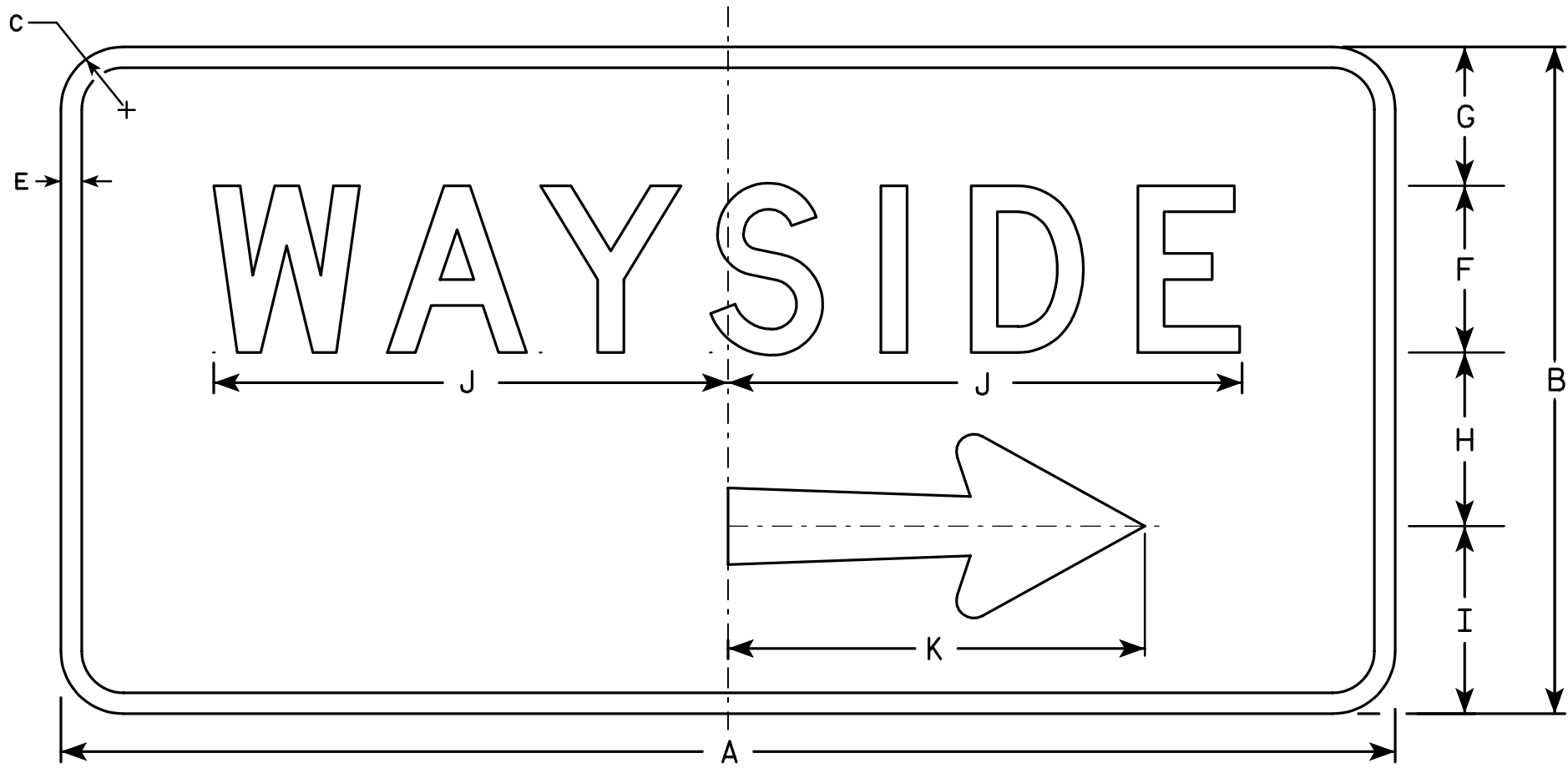
NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Blue
Message - White
- 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, 14, 10, 14



D5-62R

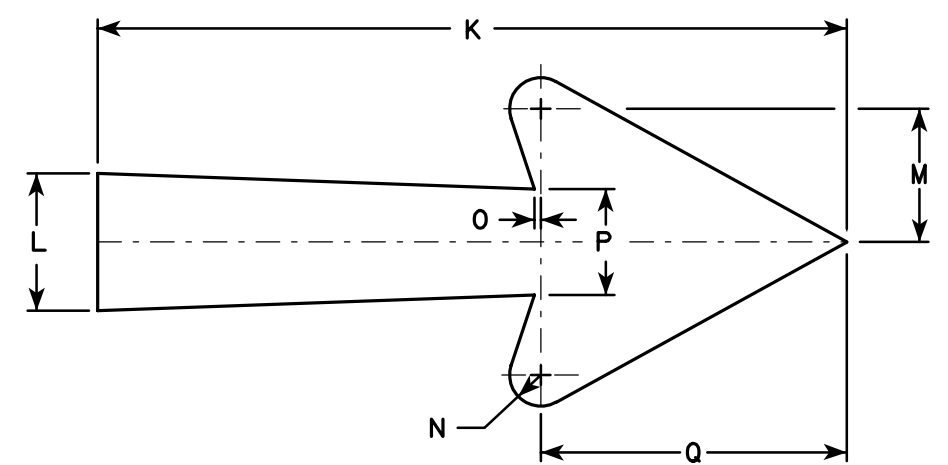
Metric equivalent for this sign is:

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.



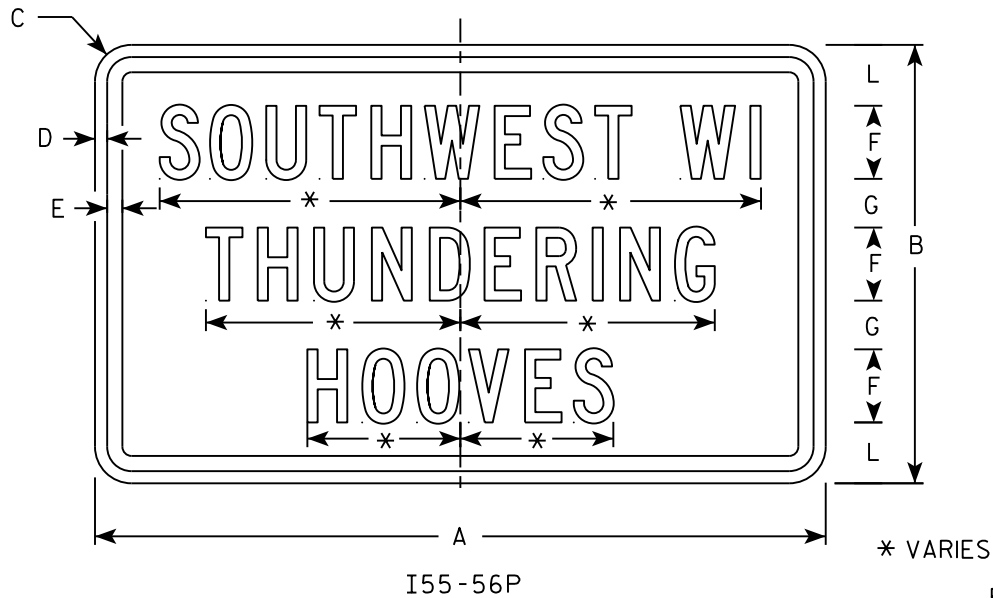
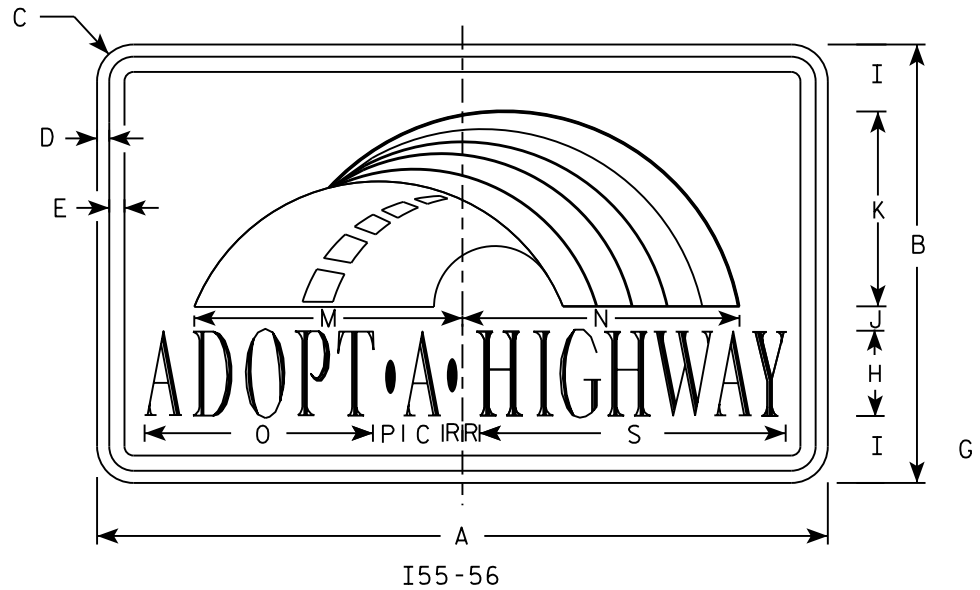
Arrow Detail

STANDARD SIGN
D5-62

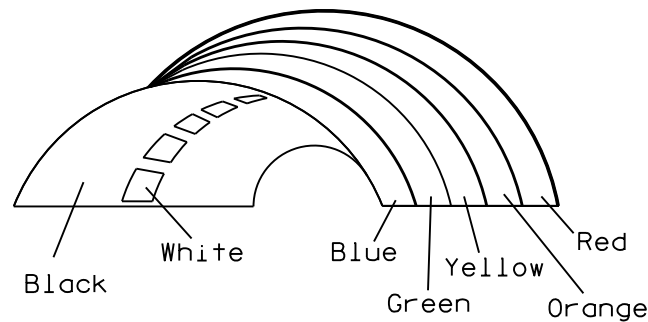
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Christa J. Spang*
for State Traffic Engineer

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



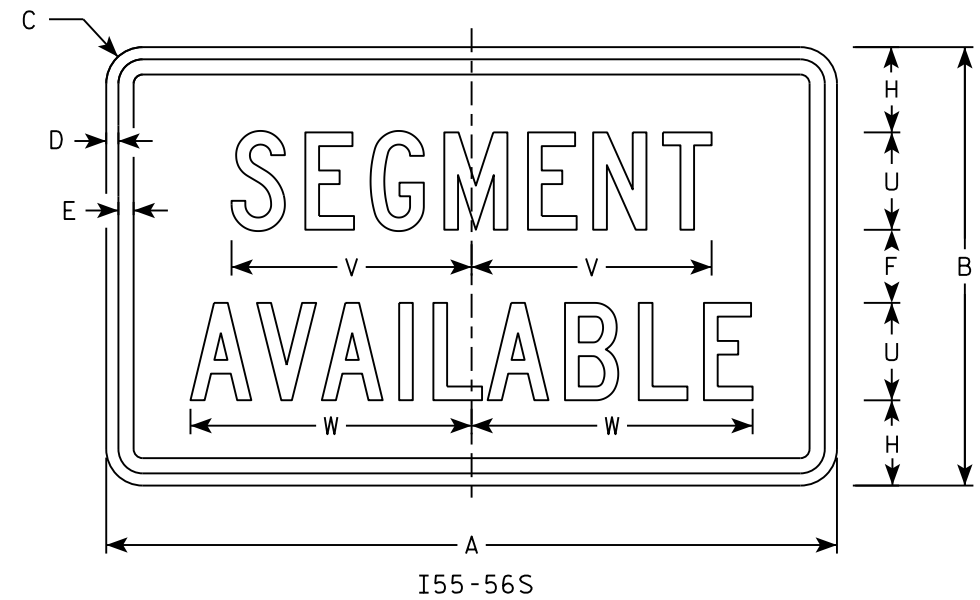
Background Colors of Symbol*



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

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - (See Note 4)
3. Message Series - (See Note 5)
4. Border - Blue
Adopt a Highway - Red
All other Text - Blue
5. Adopt a Highway - Dutch 8011L
All other Text - Series C
6. 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	18	1 1/2	1/2	5/8	3	2	3 1/2	2 3/4	1	8	2 1/2	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2	4	9 7/8	11 1/2				3.75
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

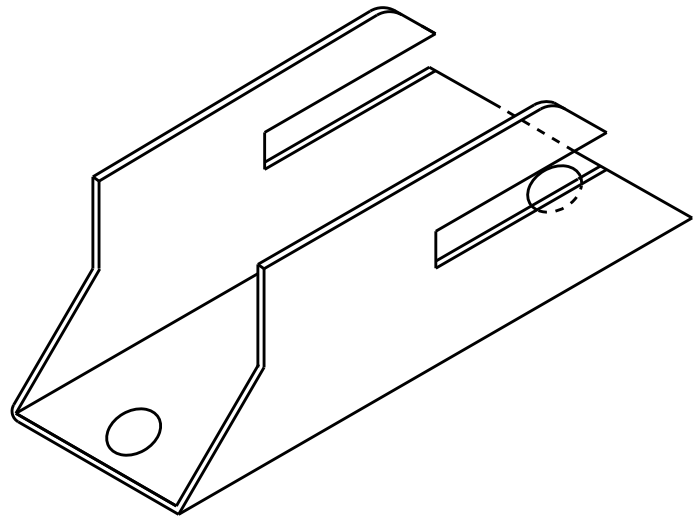
STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION

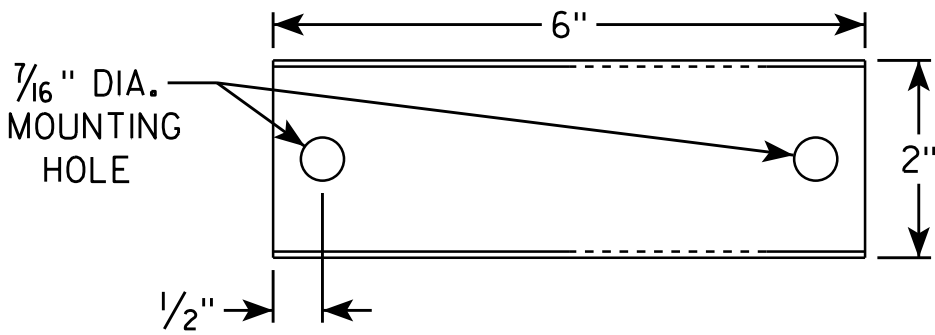
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/20/18 PLATE NO. I55-56.4

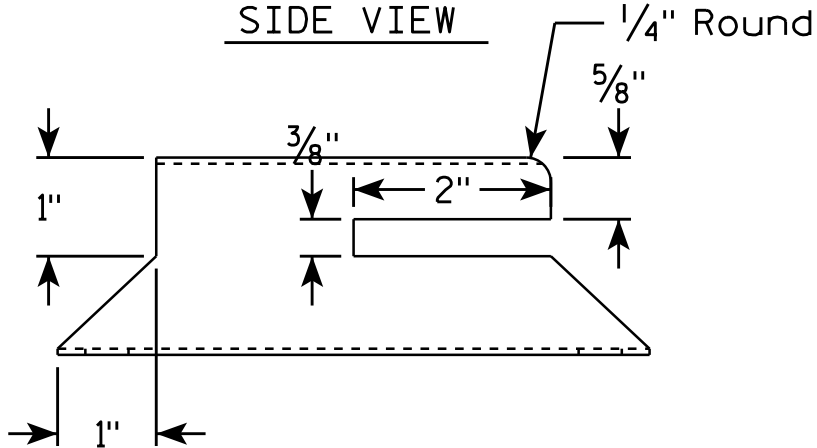
ISOMETRIC VIEW



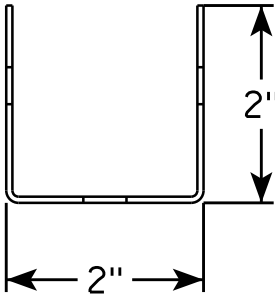
TOP VIEW



SIDE VIEW



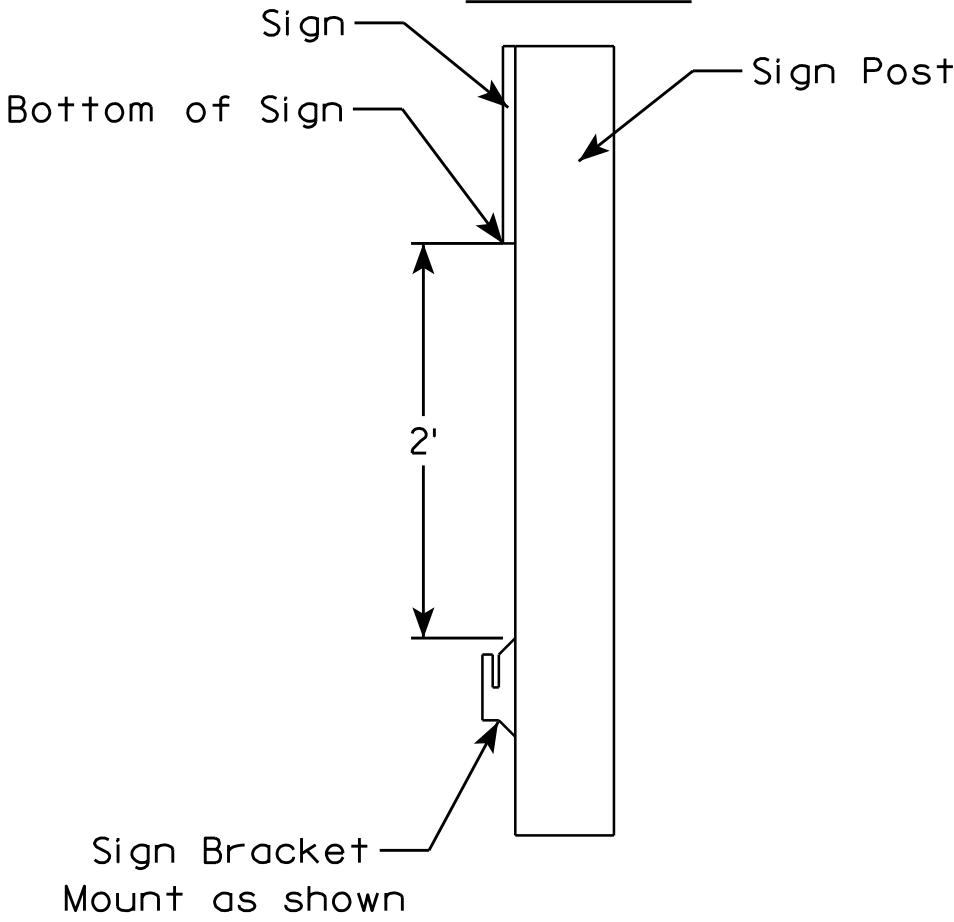
END VIEW



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.

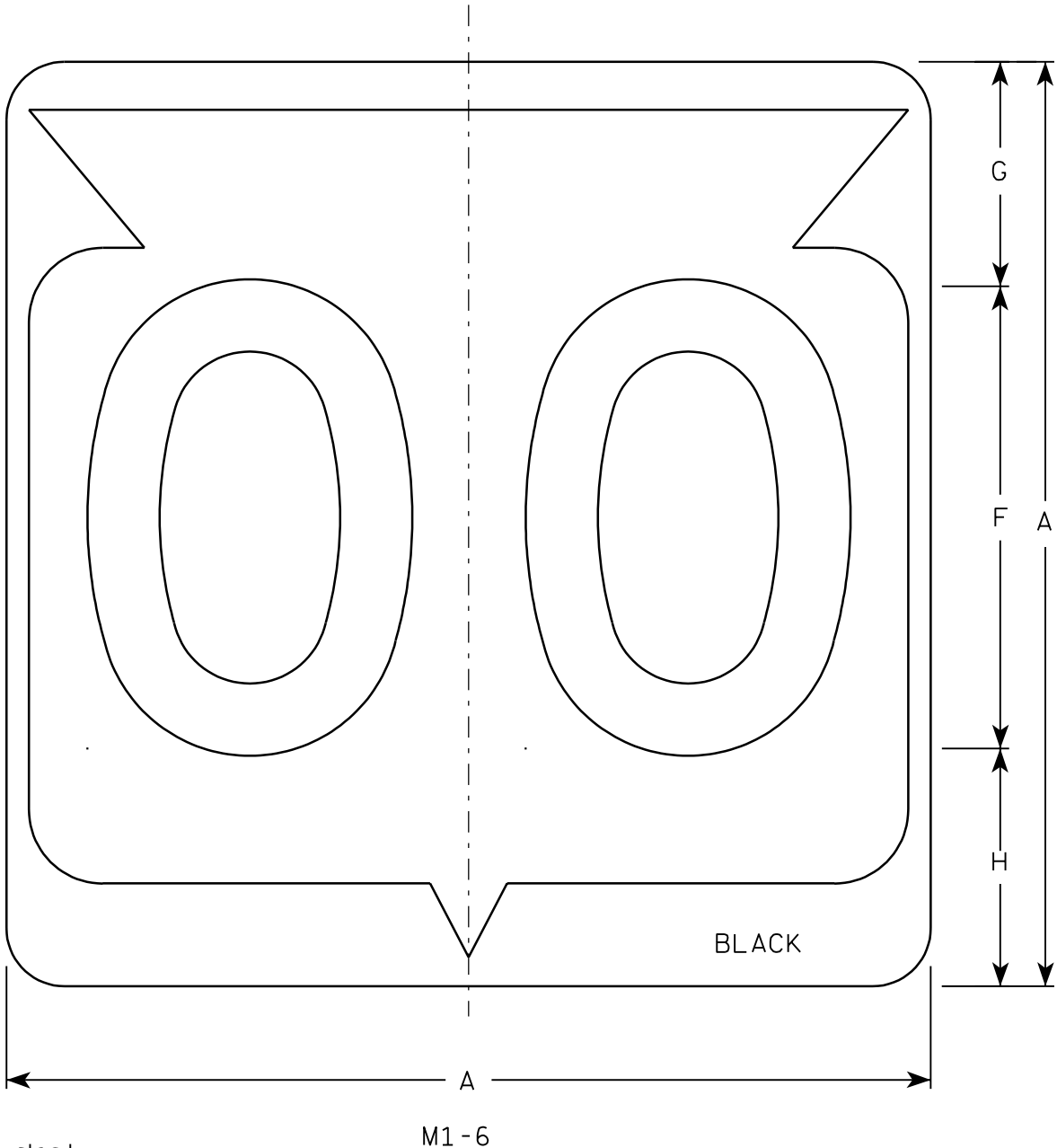
SIDE VIEW



ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 4/26/16 PLATE NO. I55-56B.2

7



Metric equivalent
for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

FILE NAME : C:\Users\Projects\tr_std\plate\M16.DGN

PLOT DATE : 13-OCT-2005 14:55

PLOT BY : DITJPH

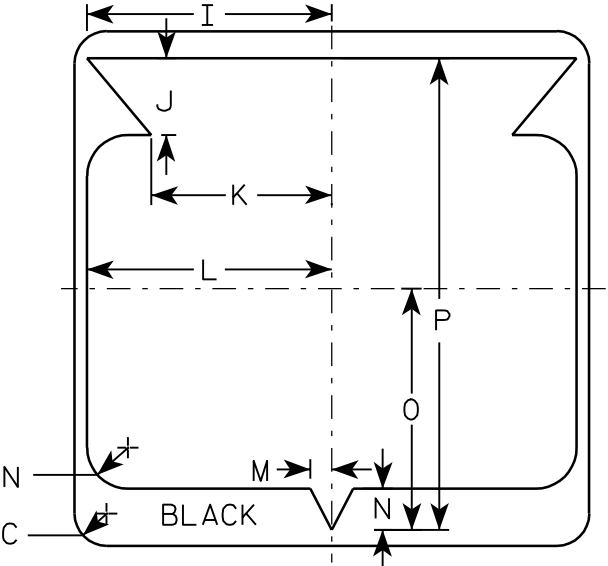
PLOT NAME :

PLOT SCALE : 6.715871:1.000000

WISDOT/CADDs SHEET 42

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective



STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

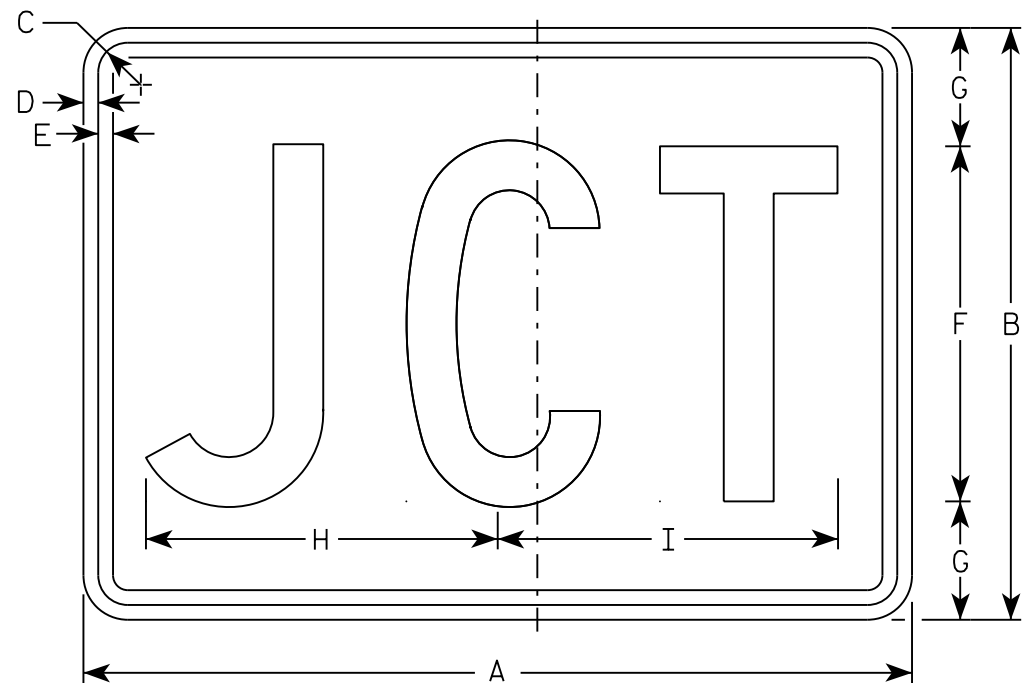
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

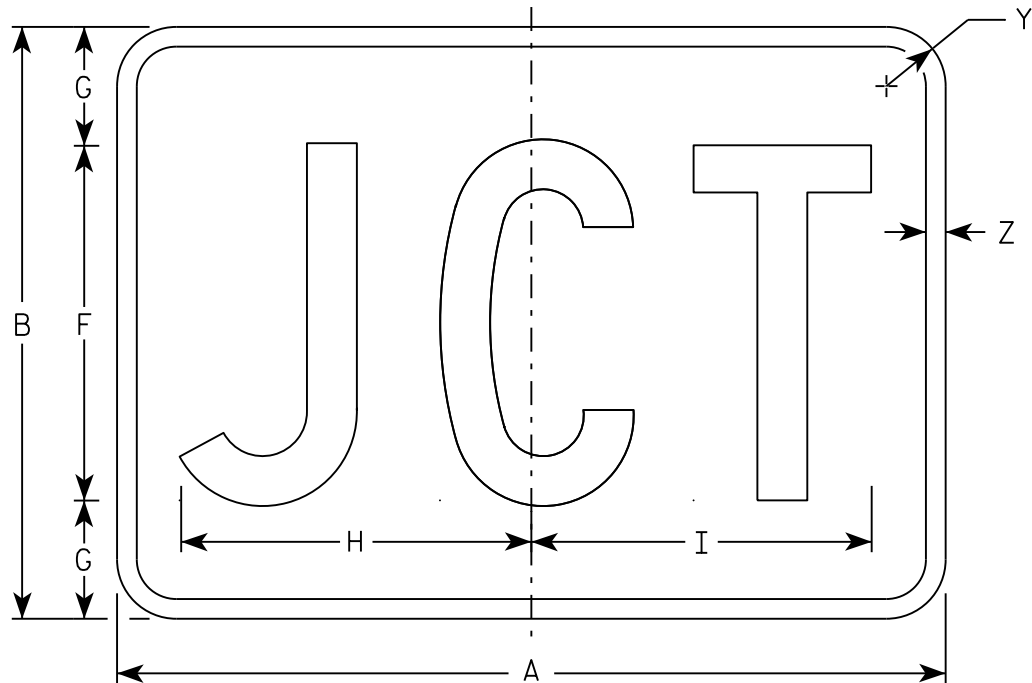
Chester J. Spang
for State Traffic Engineer

DATE 3/20/02

PLATE NO. M1-6.9



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

- 1. Sign is 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. M2-1 Background - White
 Message - Black
 MB2-1 Background - Blue
 Message - White
 MK2-1 Background - Green
 Message - White
 MM2-1 Background - White
 Message - Green
 MN2-1 Background - Brown
 Message - White
 MP2-1 Background - White
 Message - Blue
 MR2-1 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	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

STANDARD SIGN

M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

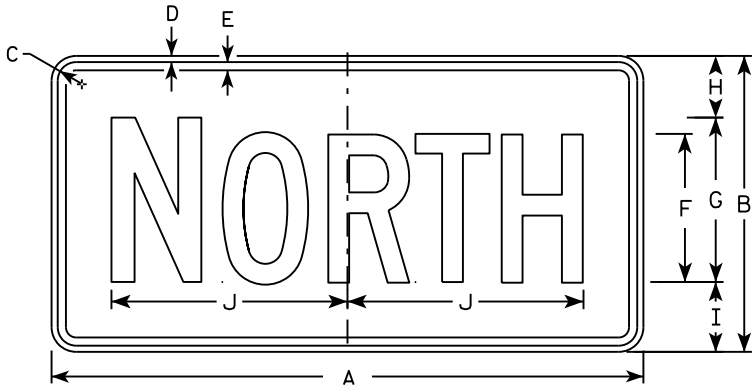
APPROVED

Matthew R. Rauch

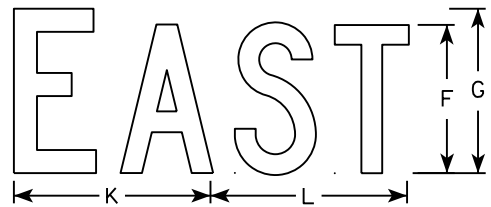
For State Traffic Engineer

DATE 10/15/15

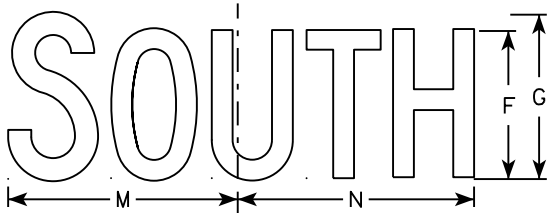
PLATE NO. M2-1.12



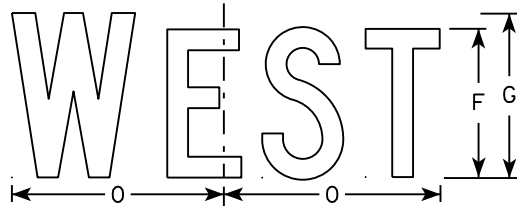
M3-1
MM3-1
MP3-1



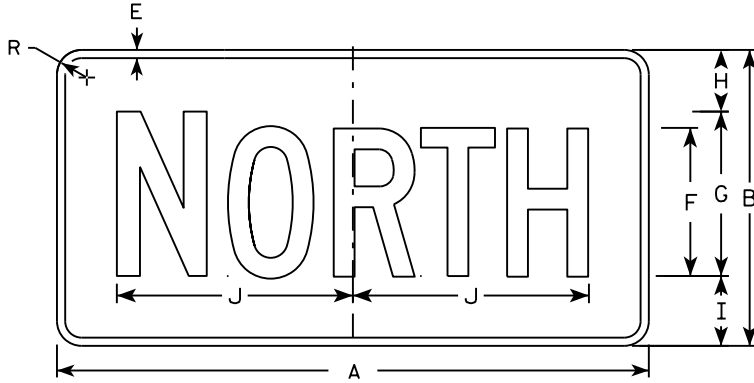
M3-2
MM3-2
MP3-2



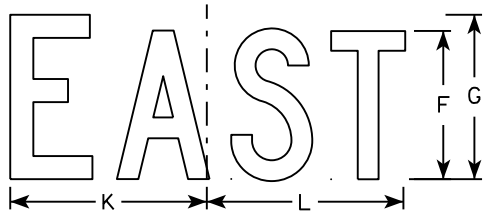
M3-3
MM3-3
MP3-3



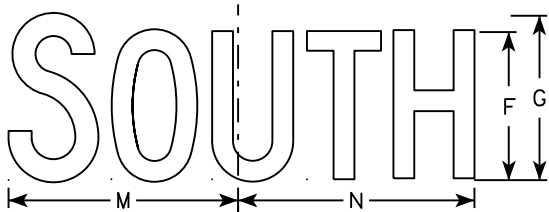
M3-4
MM3-4
MP3-4



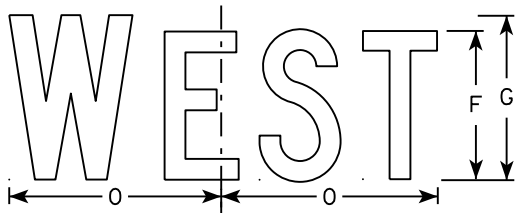
MB3-1
MK3-1
MN3-1



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.

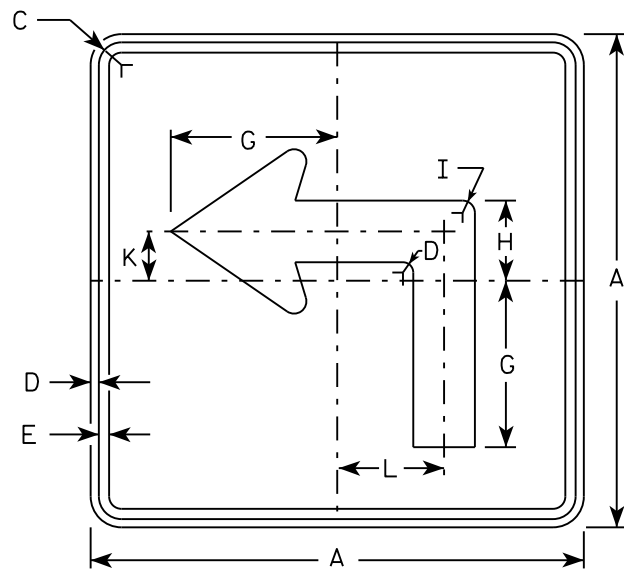
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8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

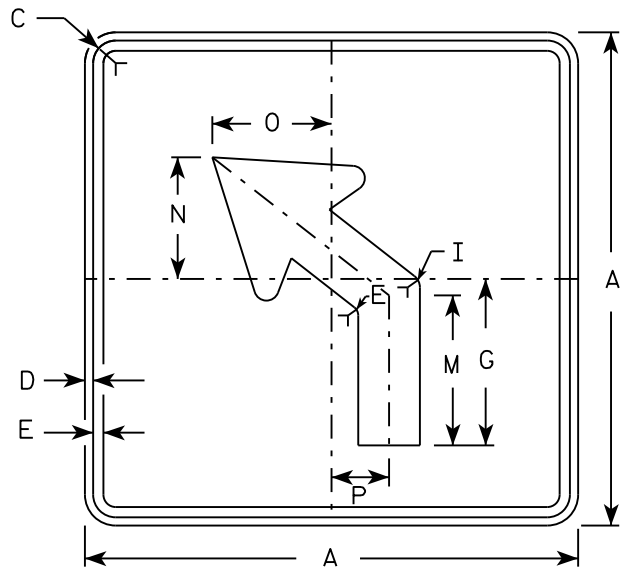
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

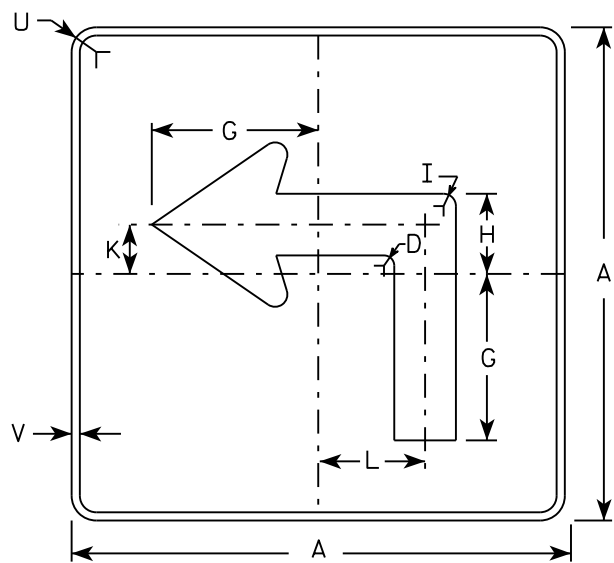
DATE 10/15/15 PLATE NO. M3-1.14



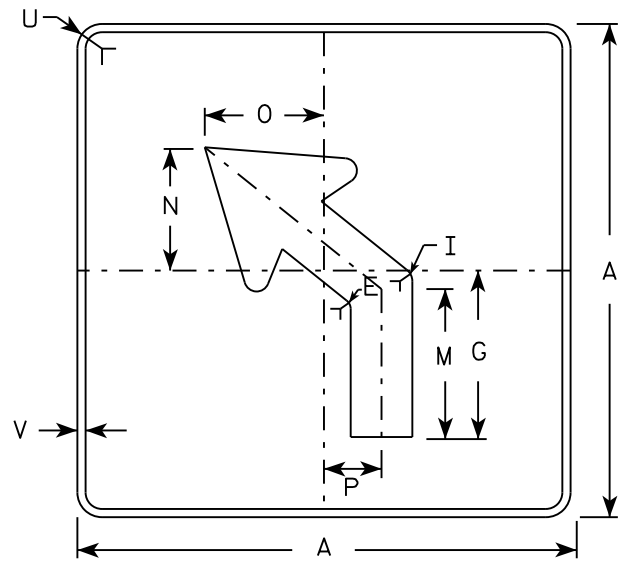
M5-1L
MM5-1L
M05-1L
MP5-1L



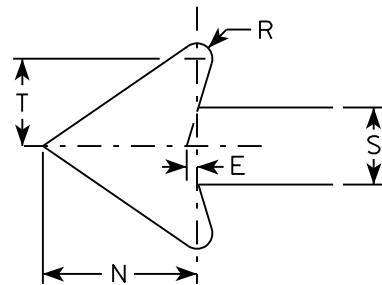
M5-2L
MM5-2L
M05-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

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

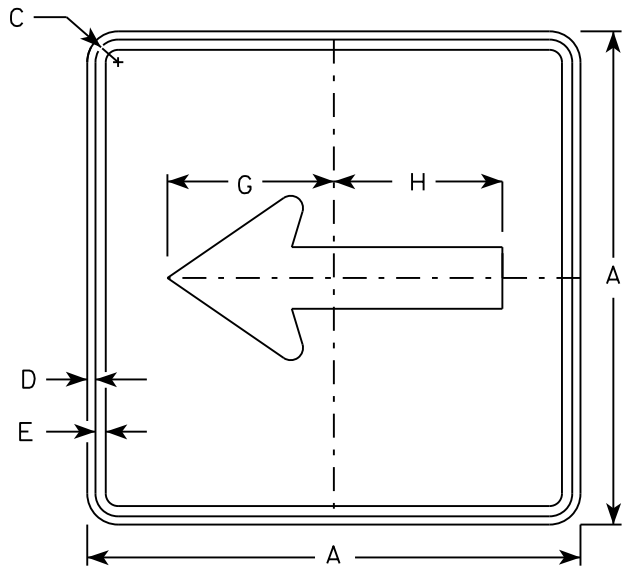
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25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

STANDARD SIGN
M5-1 & M5-2

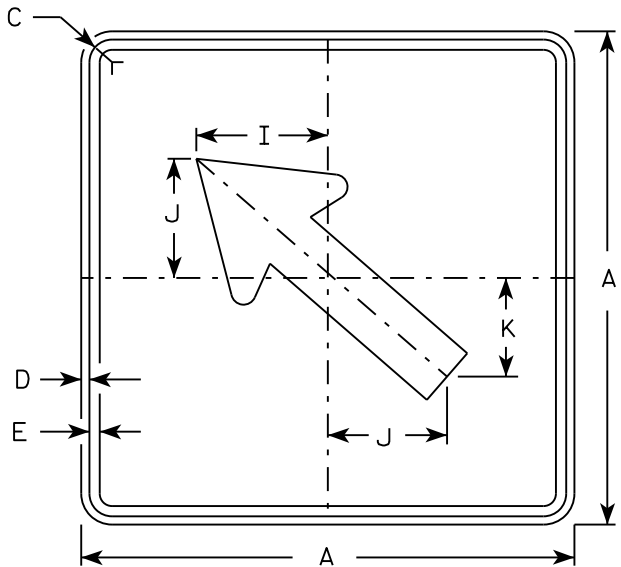
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

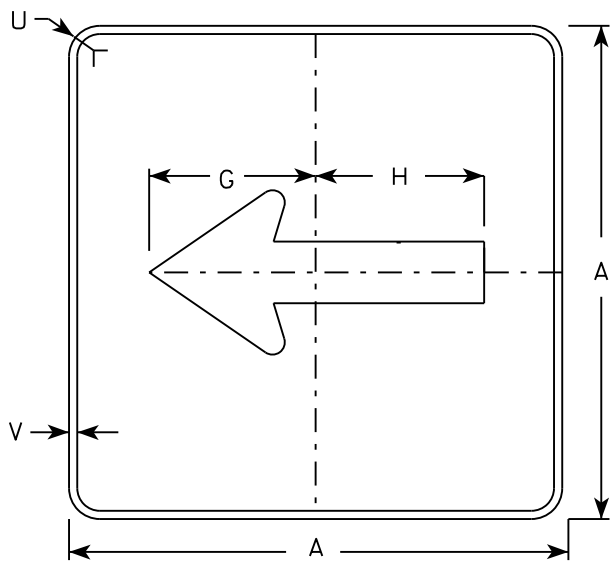
DATE 10/15/15 PLATE NO. M5-1.13



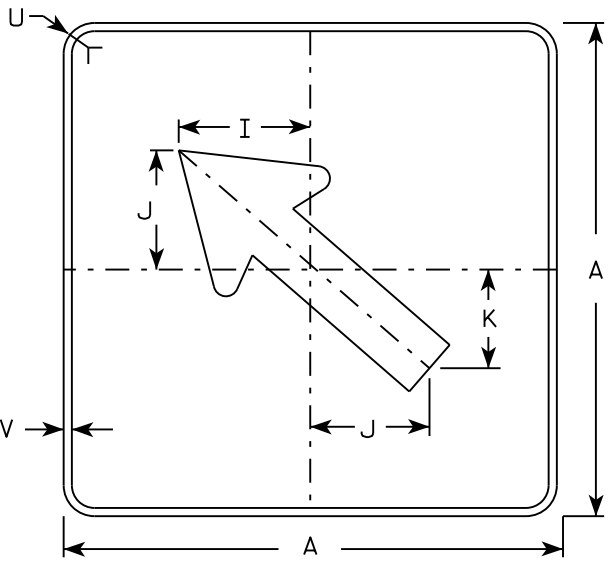
M6 - 1
MM6 - 1
M06 - 1
MP6 - 1



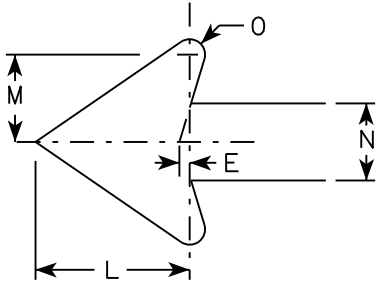
M6 - 2
MM6 - 2
M06 - 2
MP6 - 2



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

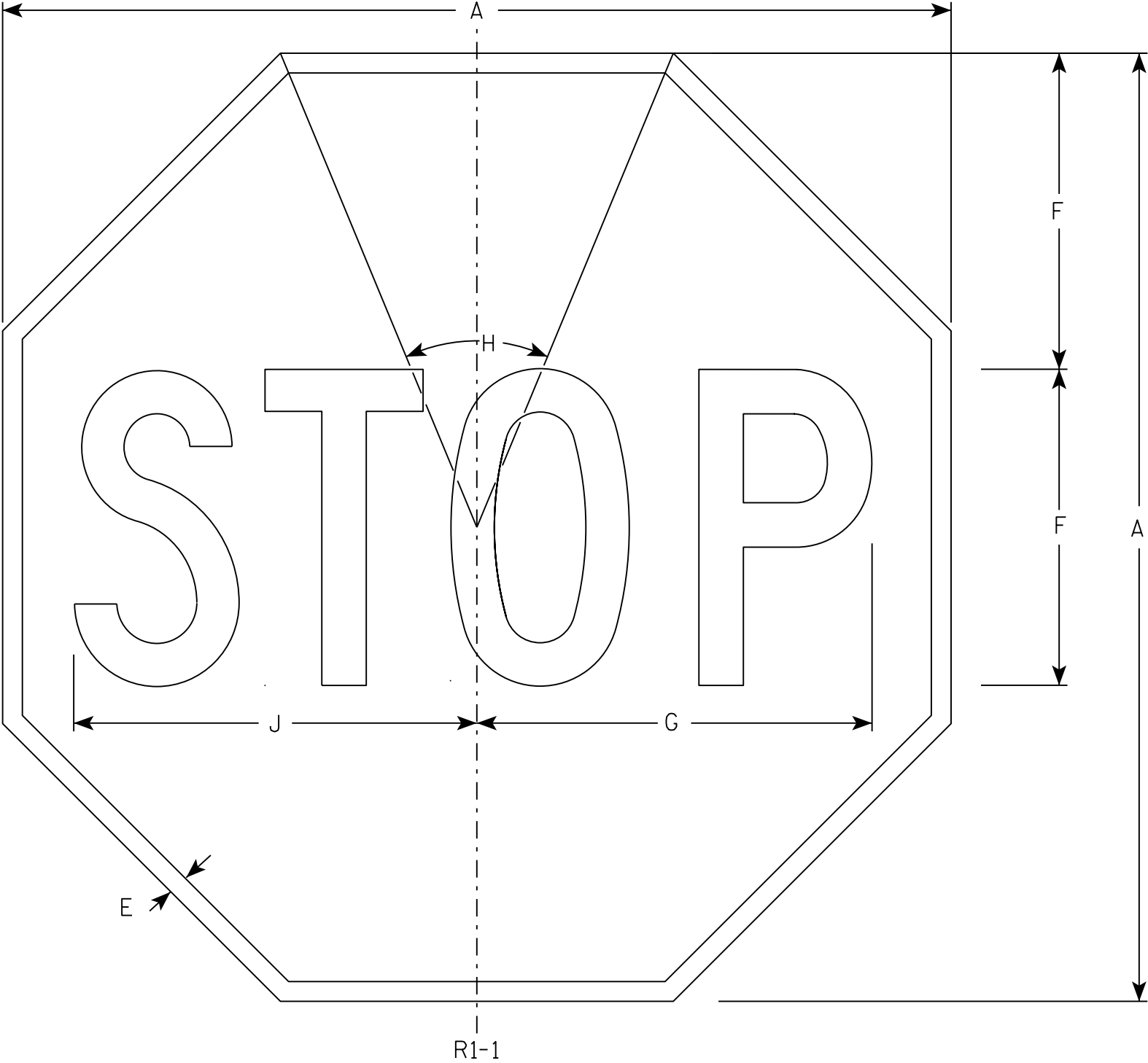
STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

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

7



NOTES

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

7

R1-1

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	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

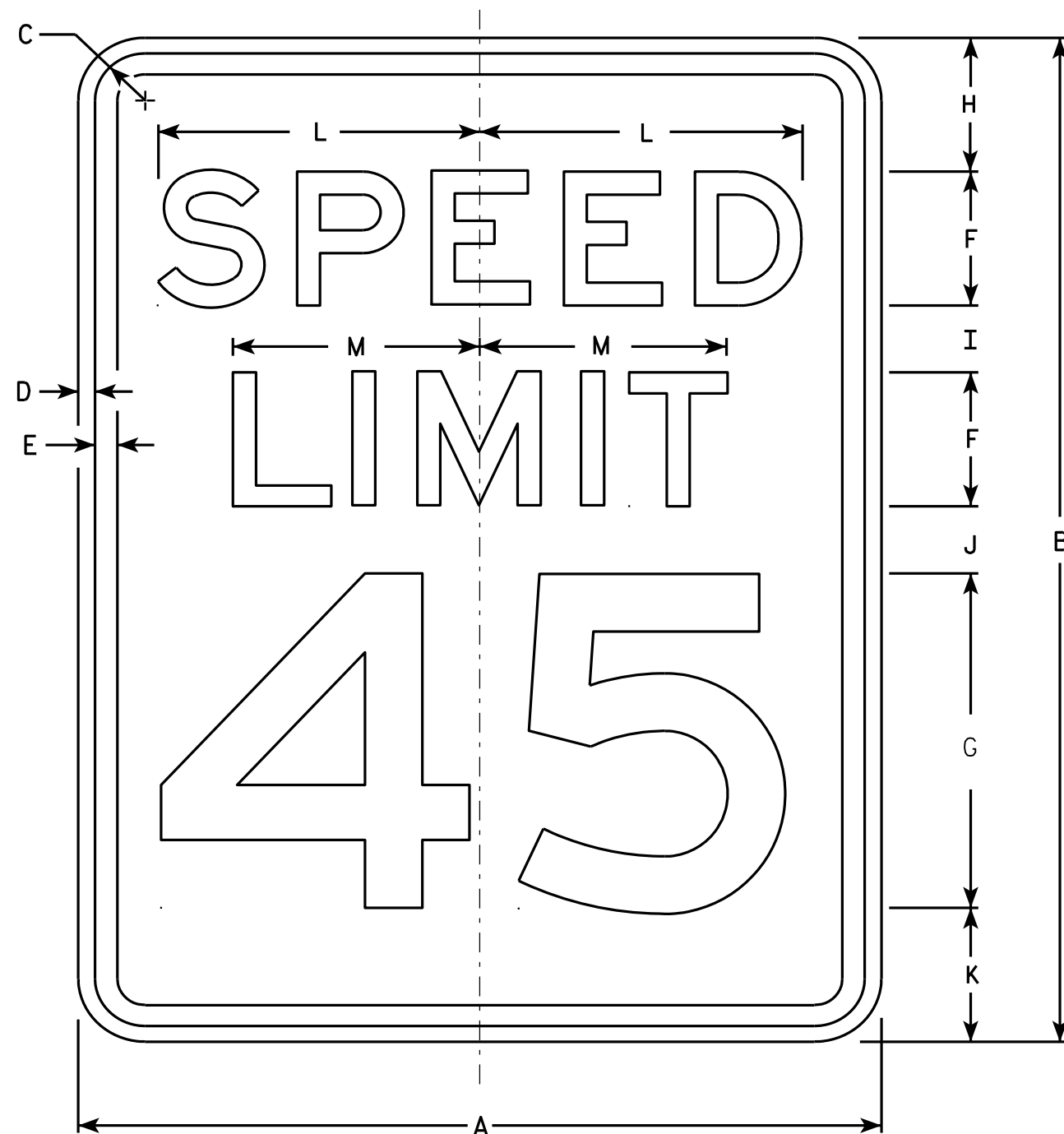
STANDARD SIGN

R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



R2-1

NOTES

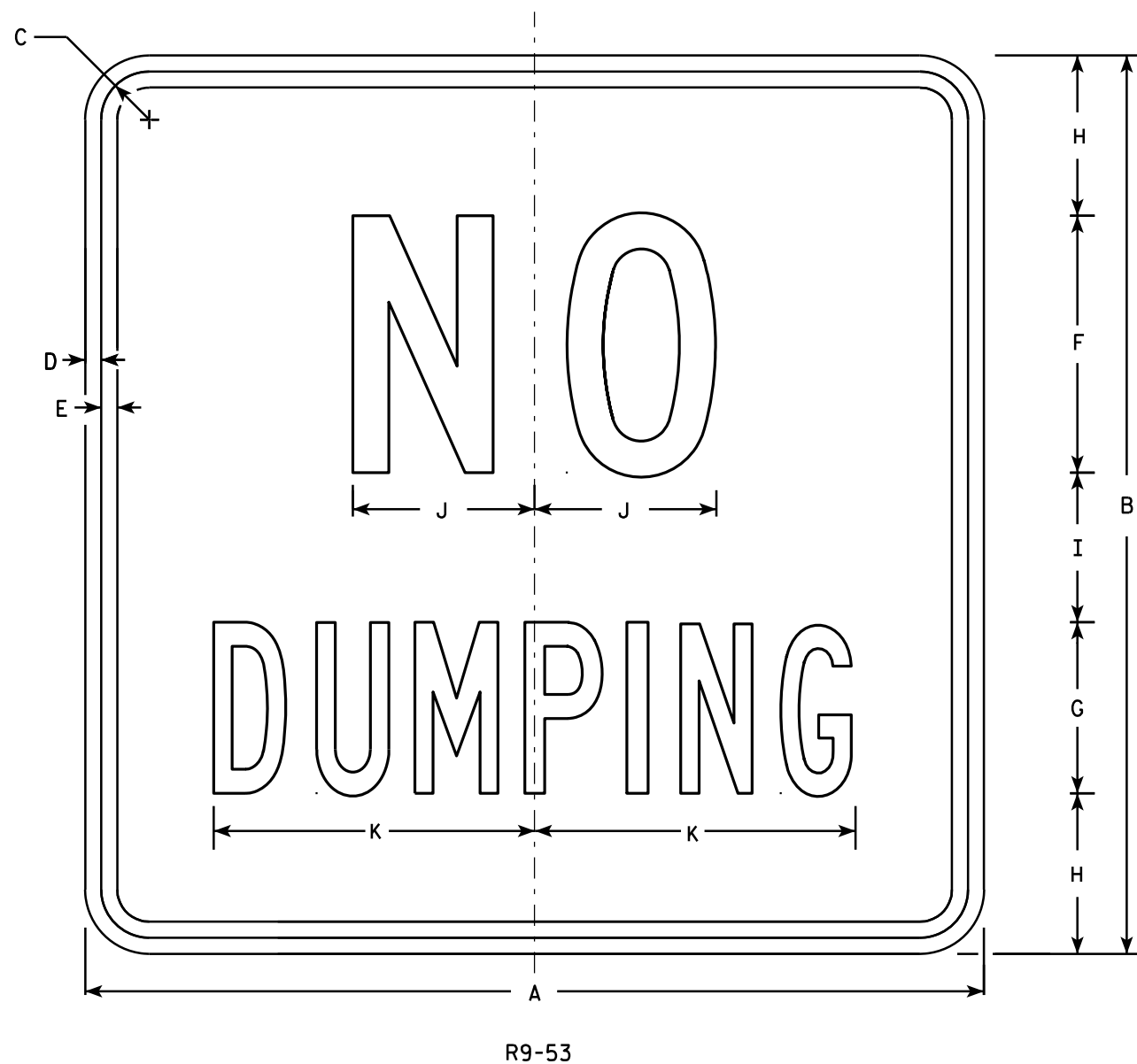
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN R2-1

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/26/10 PLATE NO. R2-1.13

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 - Line 1 is Series C
Line 2 is 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	21		1 1/8	3/8	1/2	6	4	3 3/4	3 1/2	4 1/4	7 1/2																3.06
2S	21		1 1/8	3/8	1/2	6	4	3 3/4	3 1/2	4 1/4	7 1/2																3.06
2M	21		1 1/8	3/8	1/2	6	4	3 3/4	3 1/2	4 1/4	7 1/2																3.06
3																											
4																											
5																											

STANDARD SIGN
R9-53

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/1/2011 PLATE NO. R9-53.5

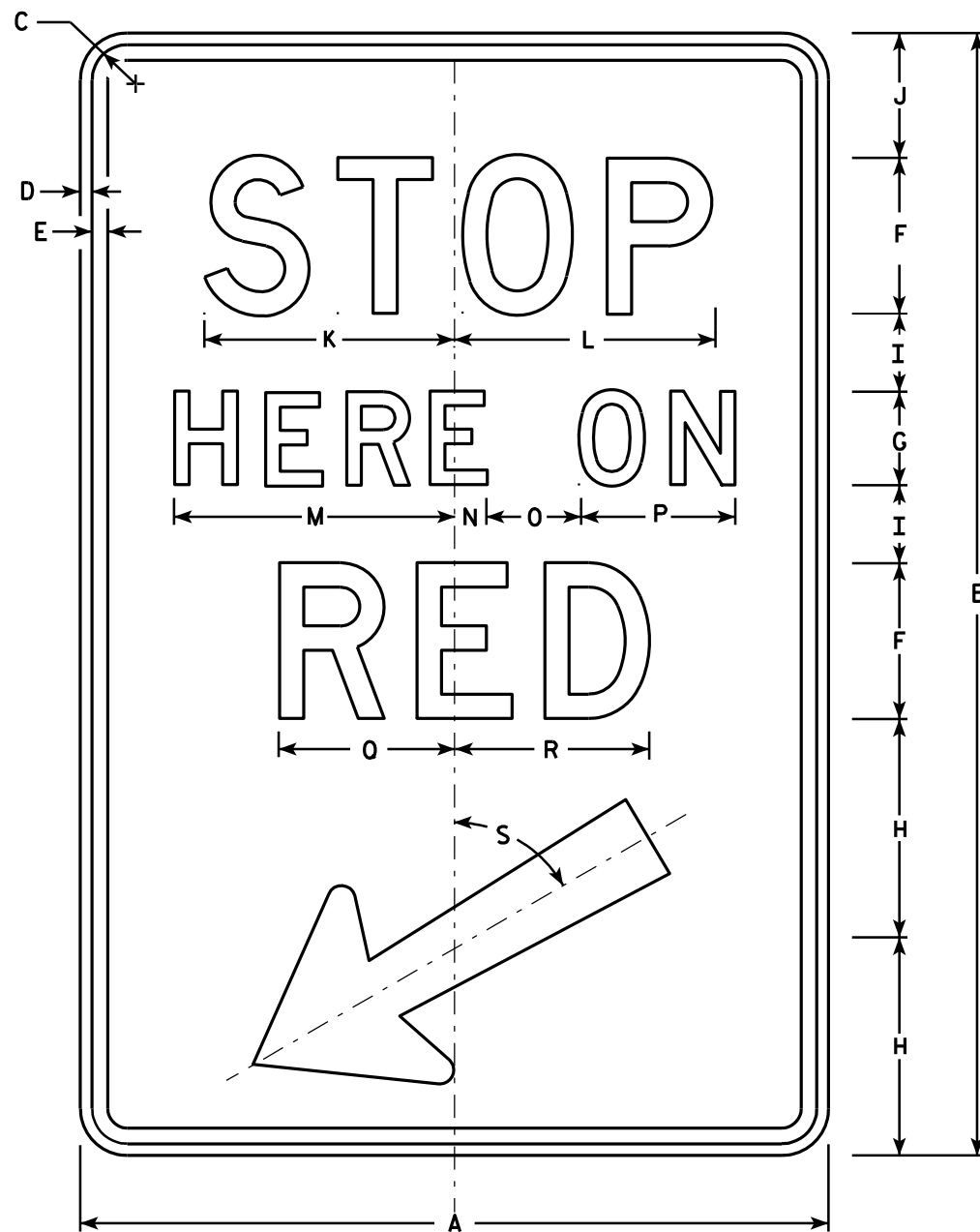
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

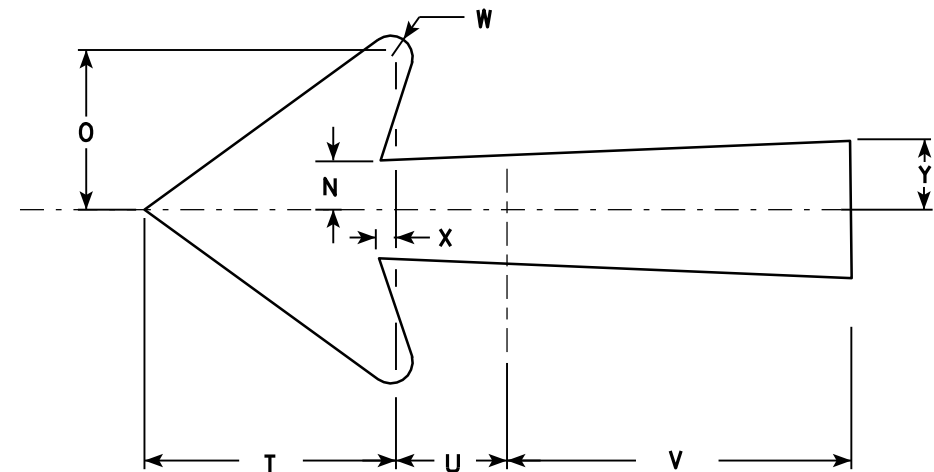
E



R10-6

NOTES

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



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
2M	24	36	1 1/8	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
3																											
4																											
5																											

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN
R10-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

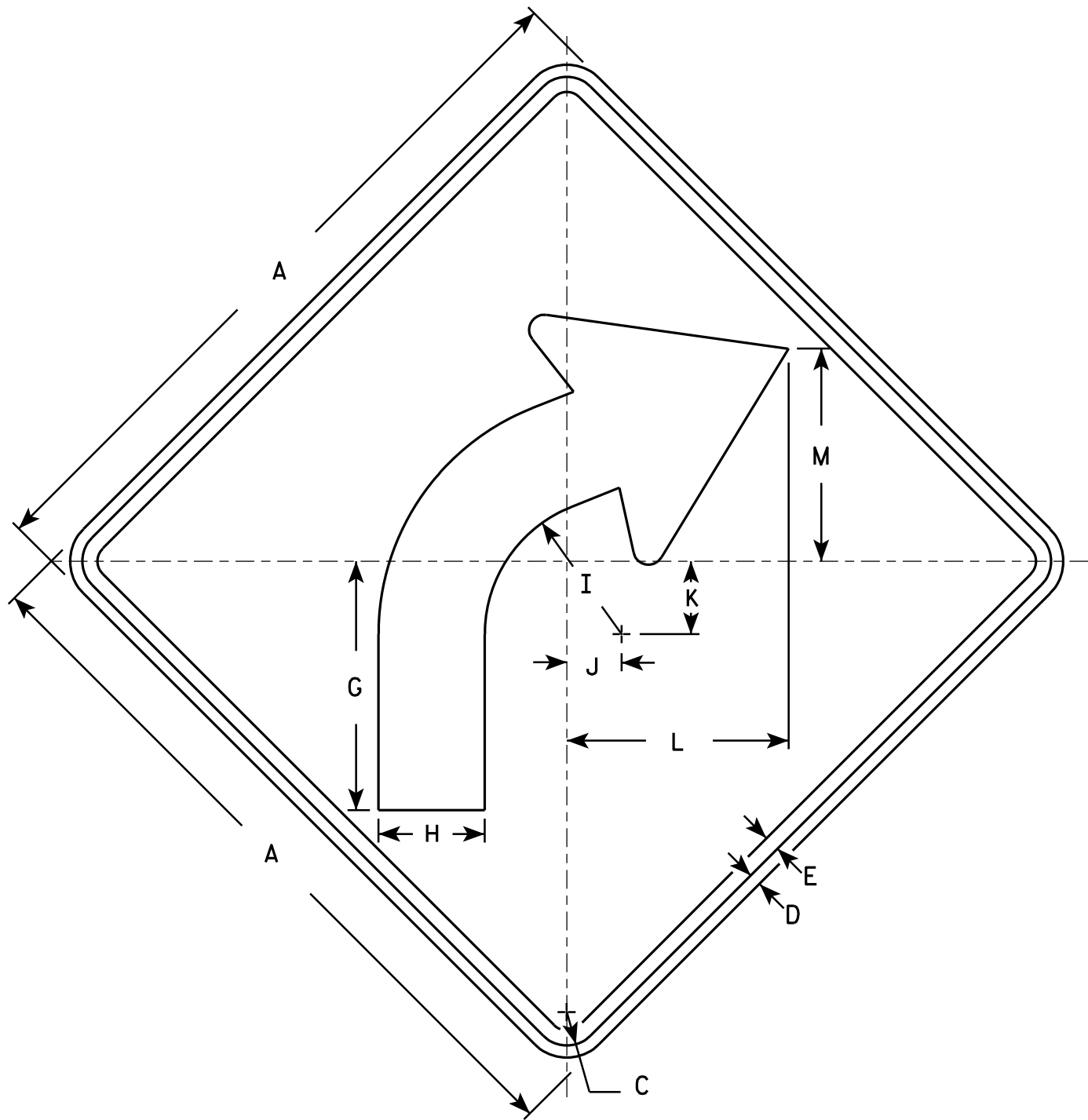
Matthew R. Rauch

for State Traffic Engineer

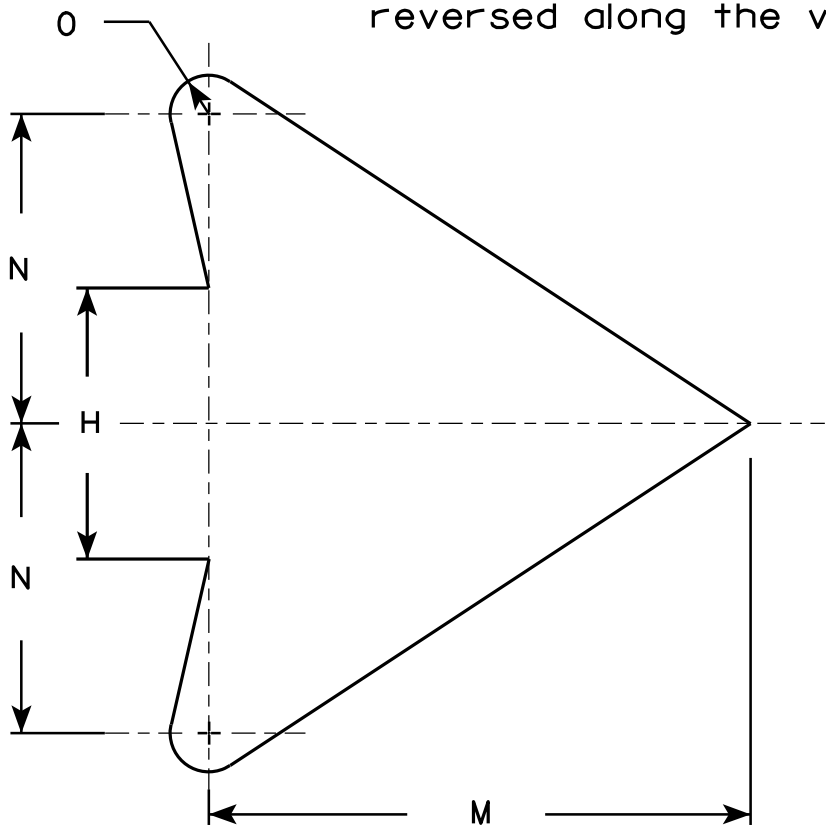
DATE 4/5/11
PLATE NO. R10-6.6

NOTES

1. Sign is Type II - Type F Reflective - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base
material is plywood but borders shall be rounded
as shown. When base material is metal, the
corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is
reversed along the vertical centerline.



W1-2R



ARROW DETAIL

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

STANDARD SIGN
W1-2

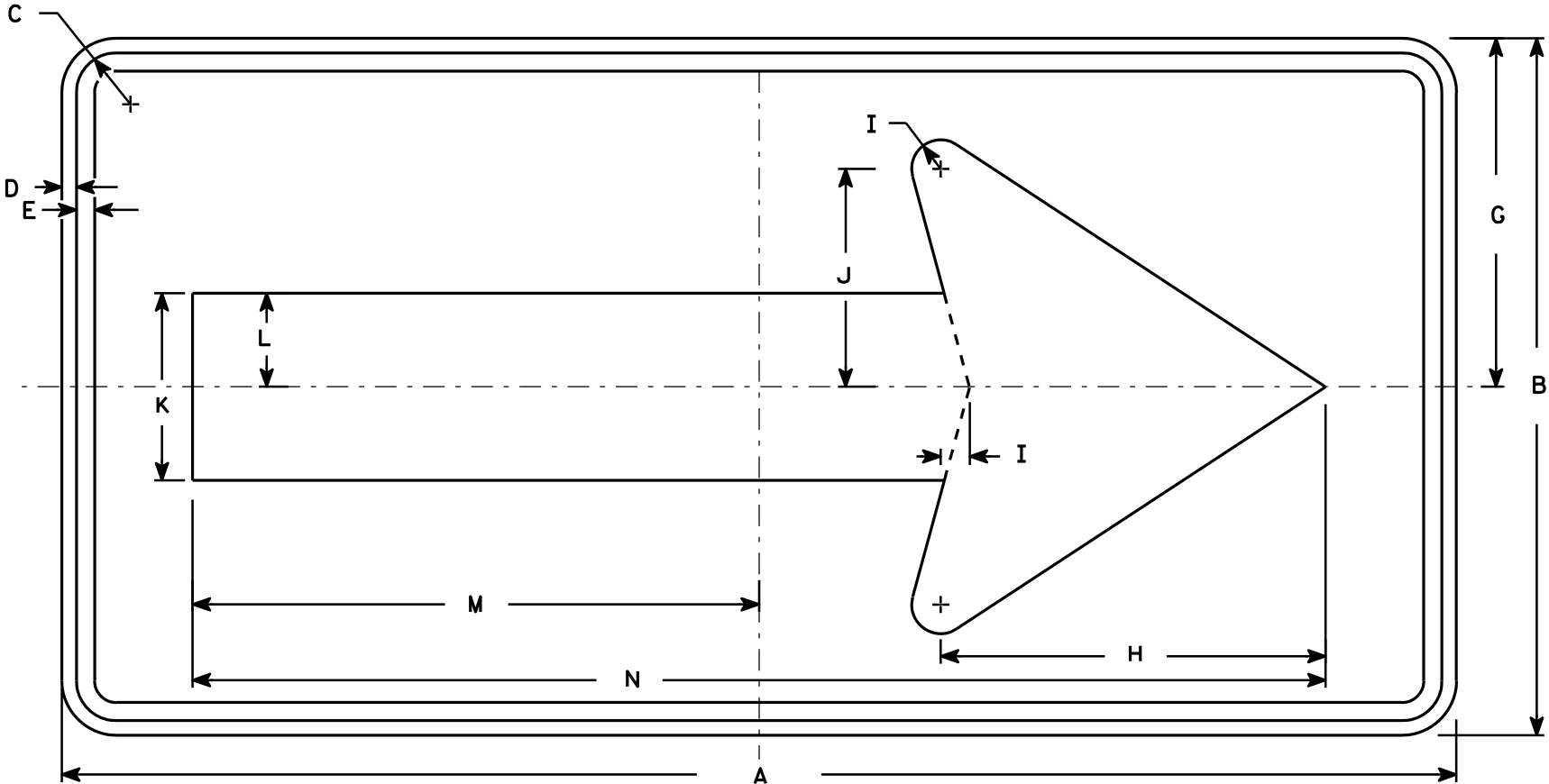
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

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

NOTES

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



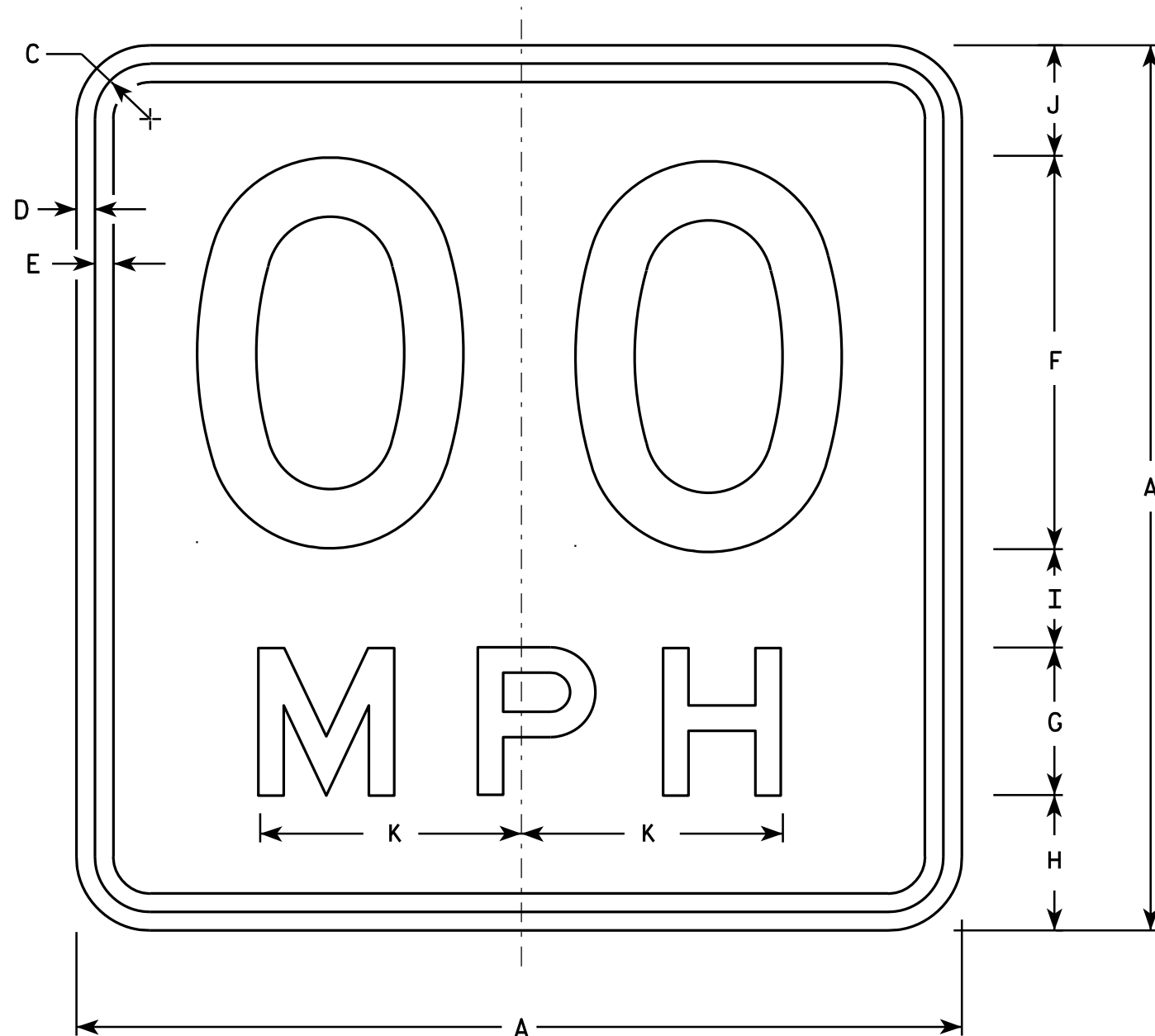
W1-6

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

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



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
Line 2 is Series E

W13-1

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area Sq. Ft.
1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN

W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

PROJECT NO:

HWY:

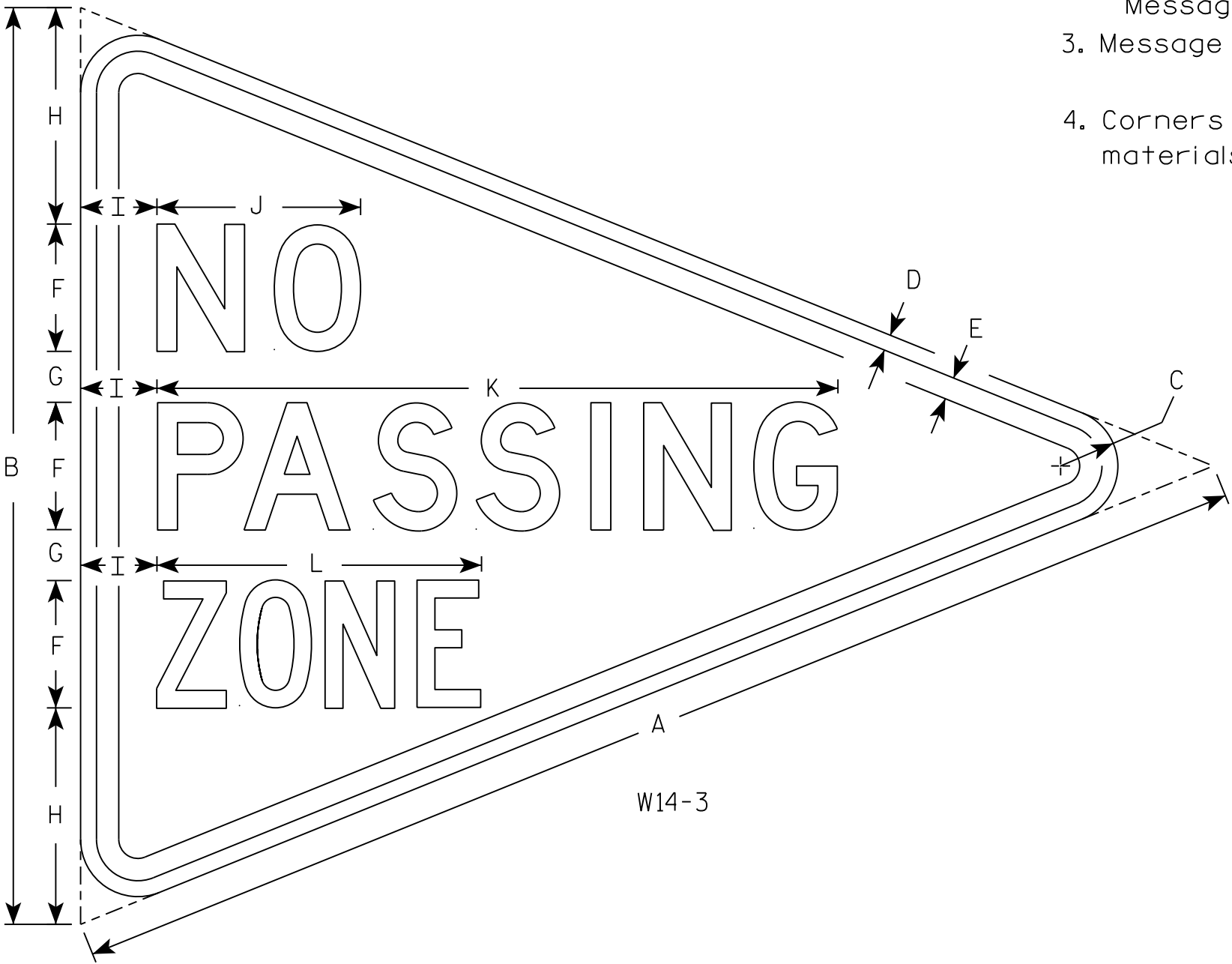
COUNTY:

SHEET NO:

E

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black
- 3. Message Series - Lines 1 and 2 are Series D.
Line 3 is series C.
- 4. Corners and borders shall be rounded on all base materials for this sign.



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															5.56
2M																											
3																											
4																											
5																											

STANDARD SIGN
W14-3

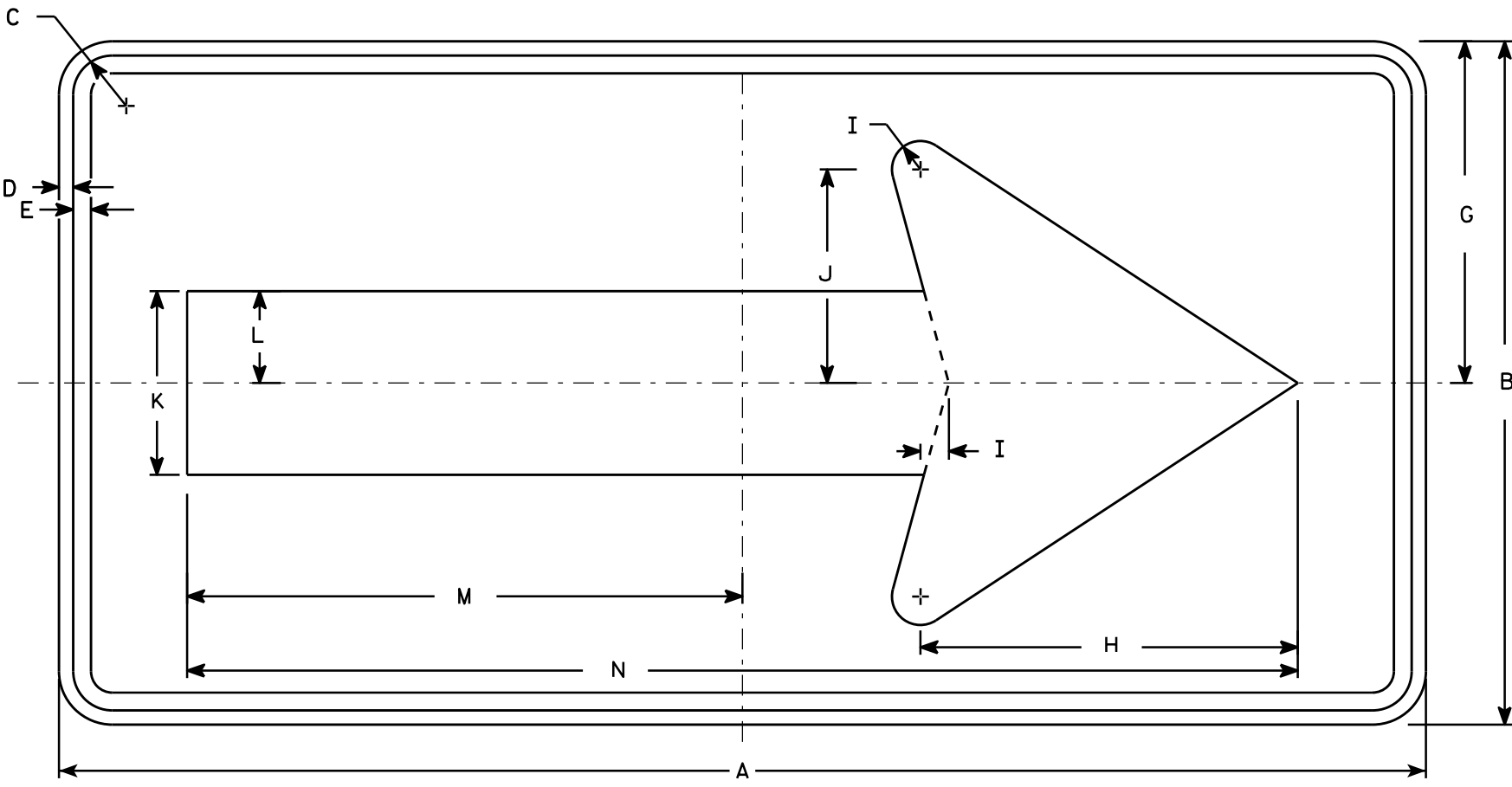
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W14-3.10

NOTES

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



W01-6

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

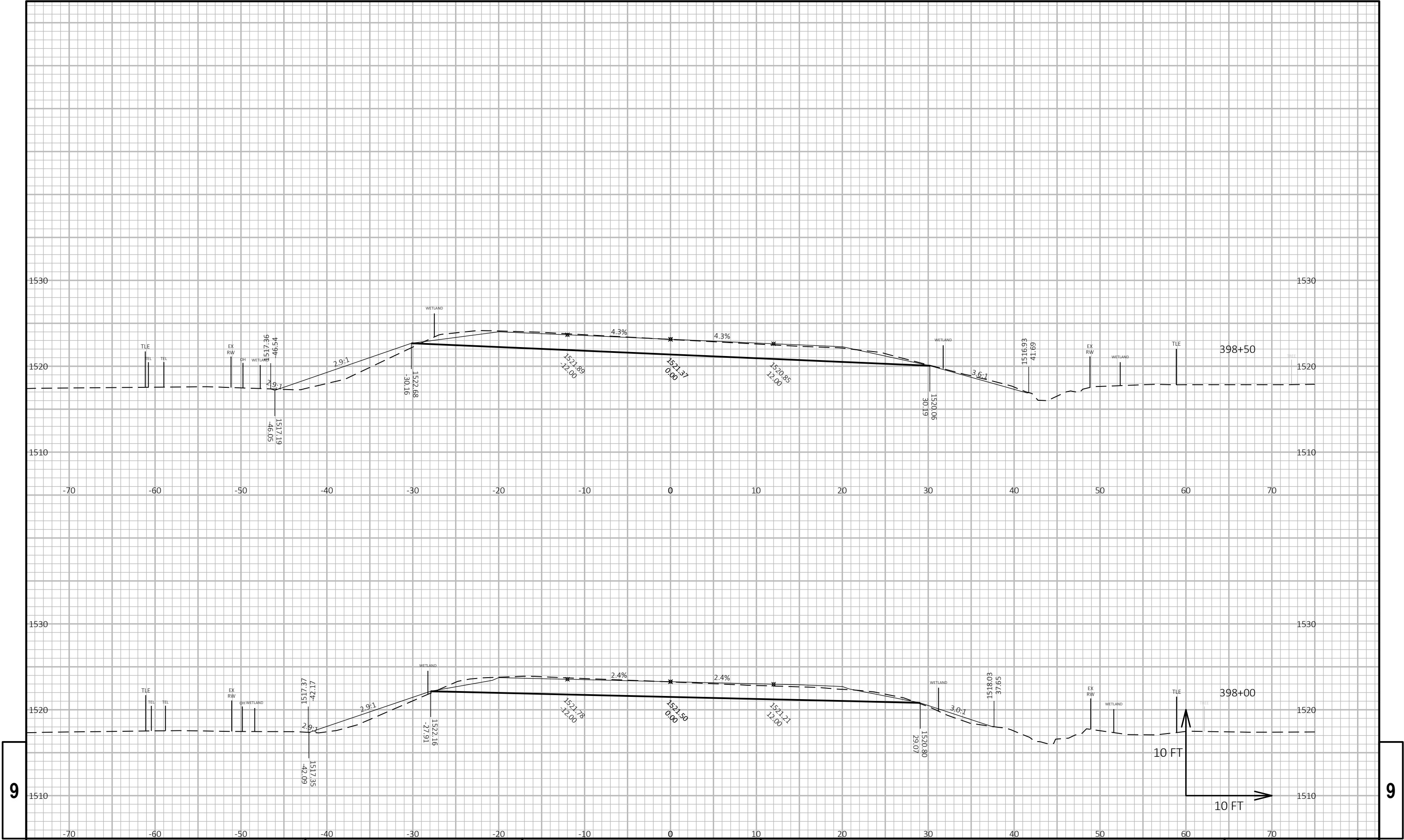
NOTES

- 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100.
- 3) EBS Excavation to be backfilled with Common Excavation.
- 7) The Mass Ordinate + or - Qty calculated for the Division.
- Plus quantity indicates an excess of material within the Division.
- Minus indicates a shortage of material within the Division.

	END AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
	Cut	Fill	EBS	Cut	Fill	EBS	Cut	Expanded	Mass Ordinate
								Fill	
STATION							1.00	1.25	
				Note 1	Note 3		Note 1		Note 8
C-50-012 GROUP 0010									
398+00	87	12	0	0	0	0	0	0	0
398+50	95	16	0	168	25	0	168	32	137
399+00	99	22	0	180	35	0	349	75	273
399+30	92	77	0	106	55	0	455	144	311
399+35.53	90	75	0	19	16	0	474	164	310
399+39.98	101	53	0	16	11	0	489	177	313
399+43.75	105	38	0	14	6	0	504	185	319
399+50	105	33	0	24	8	0	528	195	333
400+00	98	18	0	187	47	0	715	254	461
400+50	99	9	0	182	25	0	898	285	612
TOTAL				898	228	0			

C-50-013-0550 GROUP 0010									
587+00	88	3	0	0	0	0	0	0	0
587+25	86	5	0	81	4	0	81	5	76
587+50	85	8	0	79	6	0	160	12	147
587+75	83	9	0	78	8	0	237	22	216
588+00	83	12	0	77	10	0	314	34	280
588+09.67	81	45	0	29	10	0	344	46	297
588+25	83	16	0	47	17	0	390	68	322
588+50	83	13	0	77	13	0	467	85	382
588+75	85	11	0	78	11	0	545	99	446
589+00	86	8	0	79	9	0	624	110	515
TOTAL				624	88	0			

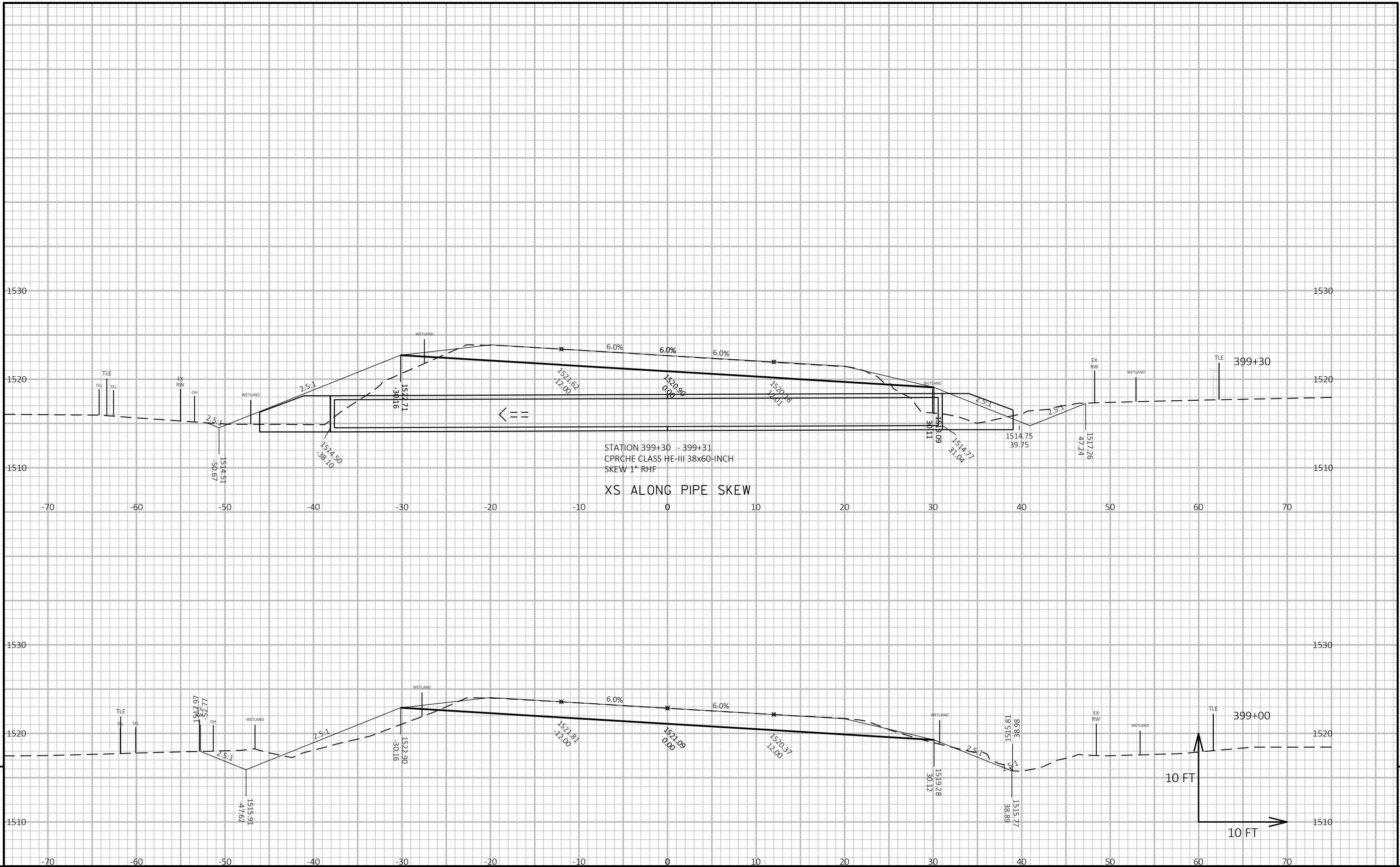
B-50-0085 GROUP 0020									
470+50	85	4	0	0	0	0	0	0	0
471+00	87	25	0	160	26	0	160	33	127
471+50	112	33	0	184	53	0	344	99	245
471+57.39	111	67	0	31	14	0	375	116	258
471+70.85	90	80	0	50	37	0	425	162	263
471+82.55	92	73	0	39	33	0	464	203	261
472+00	125	7	0	70	26	0	535	236	299
472+50	104	11	0	212	17	0	747	257	489
473+00	97	5	0	186	15	0	933	276	657
TOTAL				933	221	0			



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PROJECT NO: 1610-44-70	HWY: STH 13	COUNTY: PRICE	CROSS SECTIONS: C 50-012 CRANBERRY CREEK	SHEET E
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PROJECT NO: 1610-44-70

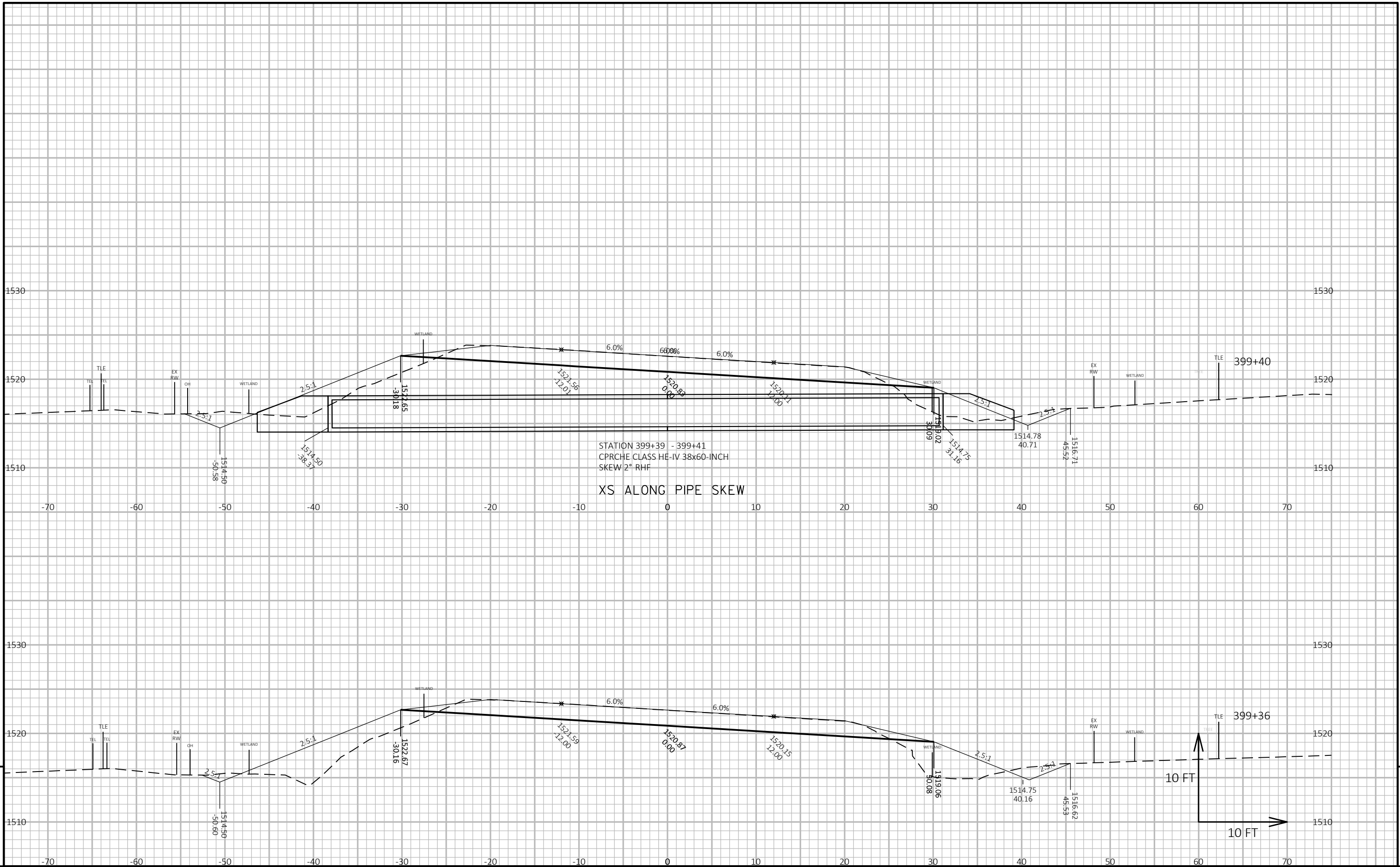
HWY: STH 13

COUNTY: PRICE

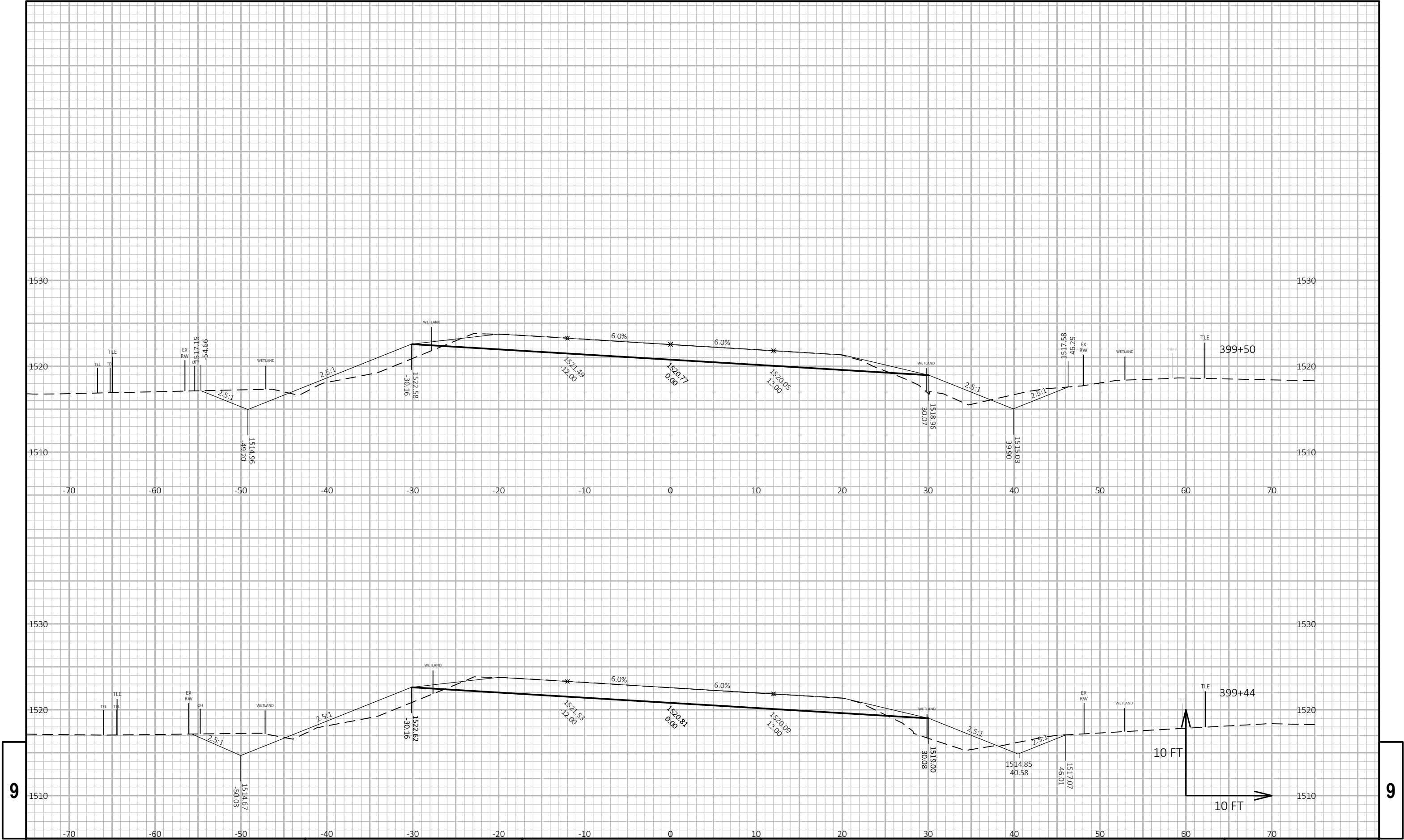
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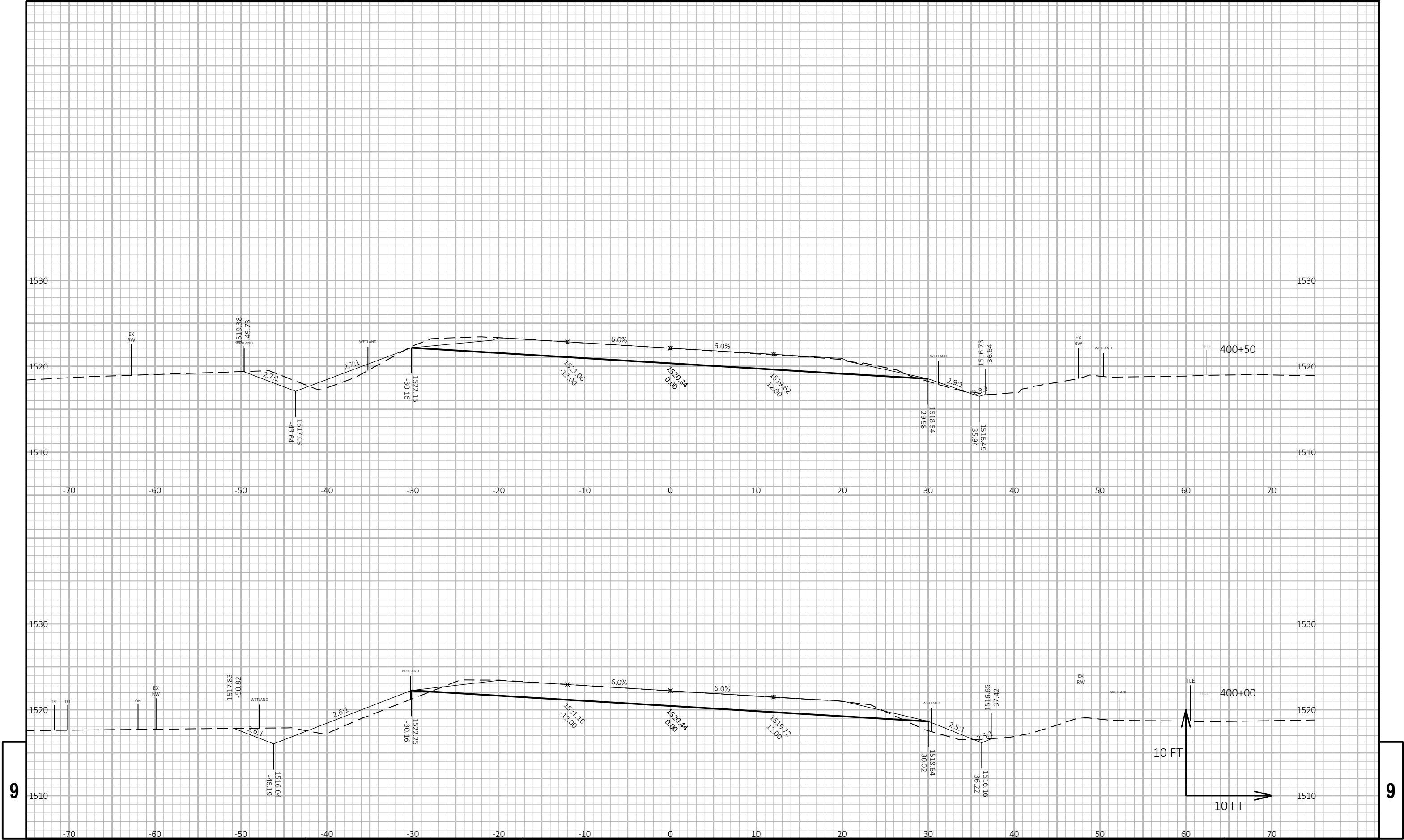
SHEET

E



PROJECT NO: 1610-44-70	HWY: STH 13	COUNTY: PRICE	CROSS SECTIONS: C 50-012 CRANBERRY CREEK	SHEET	E
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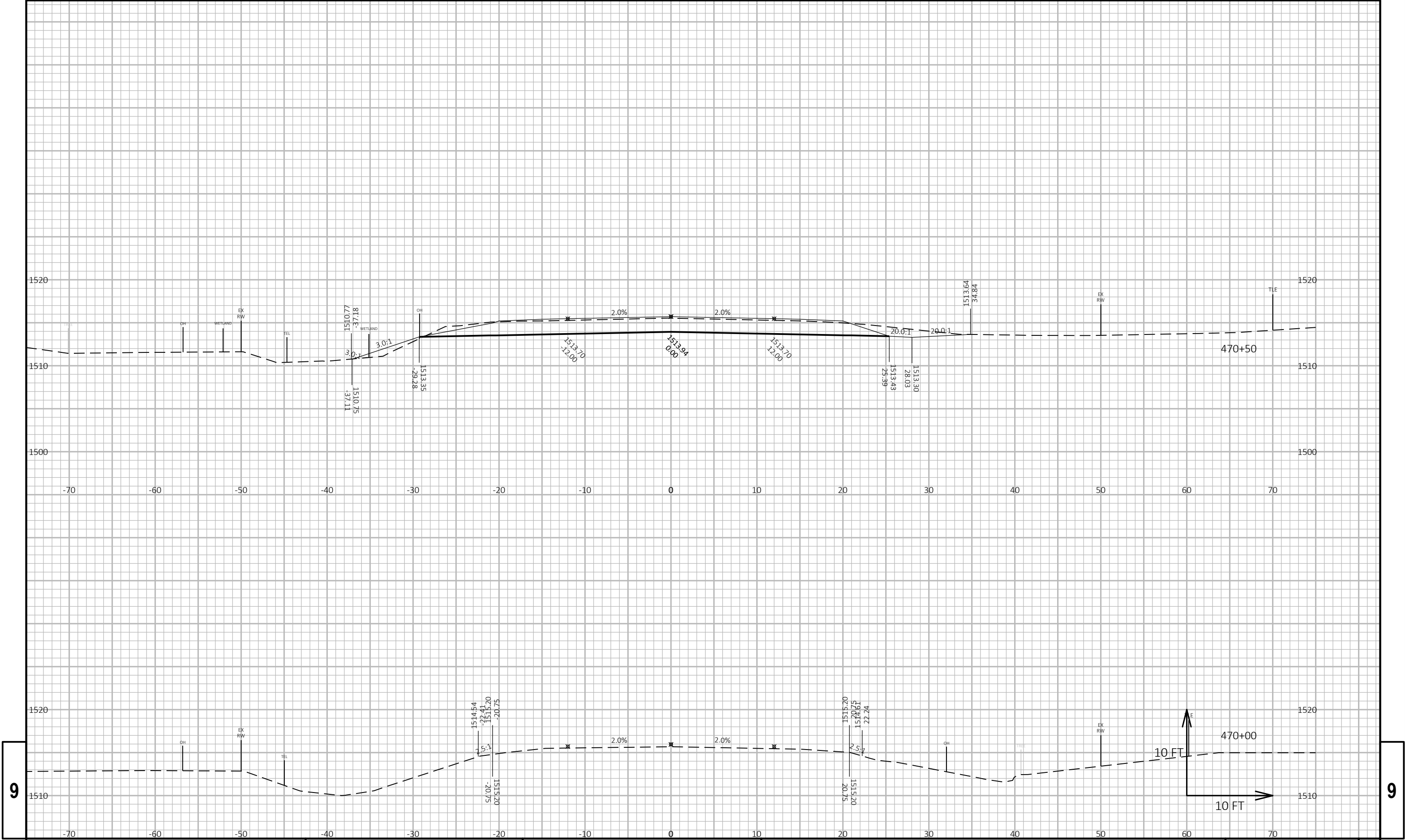




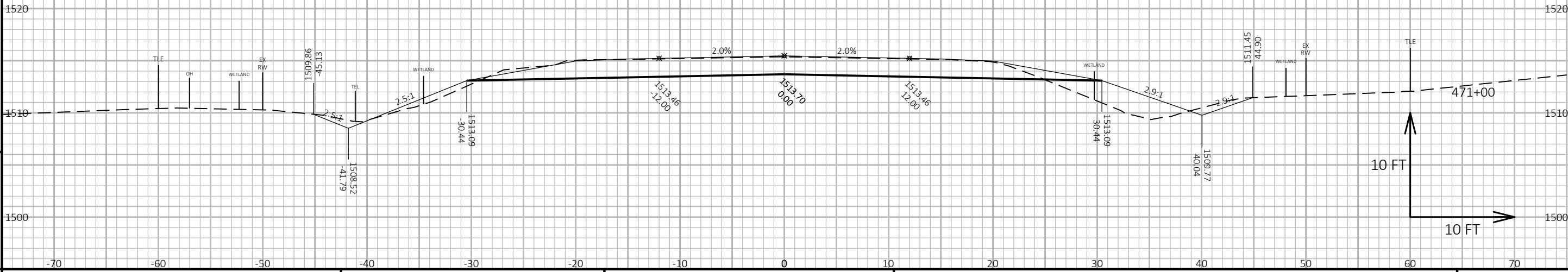
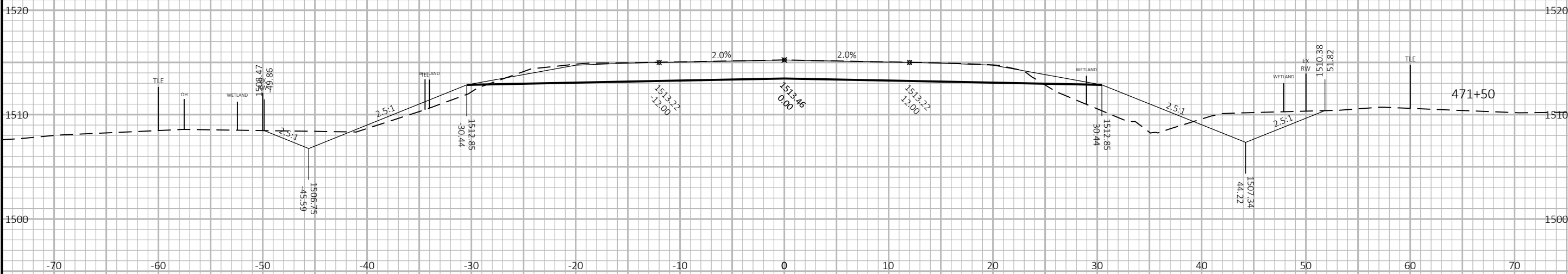
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PROJECT NO: 1610-44-70	HWY: STH 13	COUNTY: PRICE	CROSS SECTIONS: C 50-012 CRANBERRY CREEK	SHEET E
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NOTE: CAST IN PLACE MASONRY ENDWALLS NOT
SHOWN IN CROSS SECTIONS (STA 471+47-471+93)
WILL KEEP GRADING WITHIN RIGHT OF WAY LIMITS

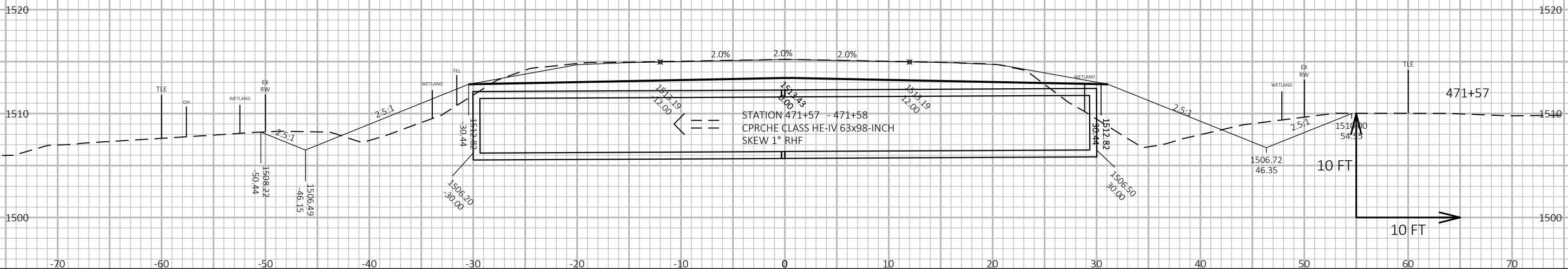
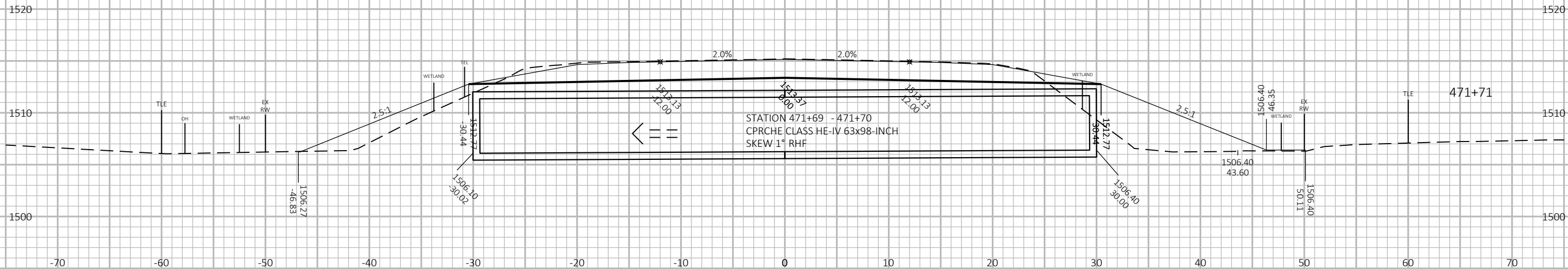


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PROJECT NO: 1610-44-70	HWY: STH 13	COUNTY: PRICE	CROSS SECTIONS: B 50-0085 NORTH FORK JUMP RIVER	SHEET E
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NOTE: CAST IN PLACE MASONRY ENDWALLS NOT SHOWN IN CROSS SECTIONS (STA 471+47-471+93) WILL KEEP GRADING WITHIN RIGHT OF WAY LIMITS



PROJECT NO: 1610-44-70

HWY: STH 13

COUNTY: PRICE

CROSS SECTIONS: B 50-0085 NORTH FORK JUMP RIVER

SHEET

E

FILE NAME : N:\PDS\C3D\16104400\SHEETSP\PLAN\090100_XS.DWG
LAYOUT NAME - N090205

PLOT DATE : 11/2/2017 10:10 AM

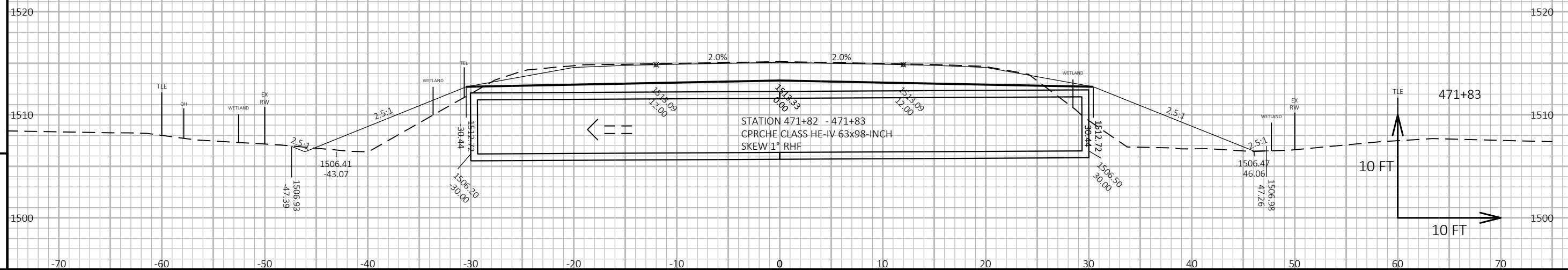
PLOT BY : HETH, BARBARA L

PLOT NAME :

PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

NOTE: CAST IN PLACE MASONRY ENDWALLS NOT SHOWN IN CROSS SECTIONS (STA 471+47-471+93) WILL KEEP GRADING WITHIN RIGHT OF WAY LIMITS



PROJECT NO: 1610-44-70

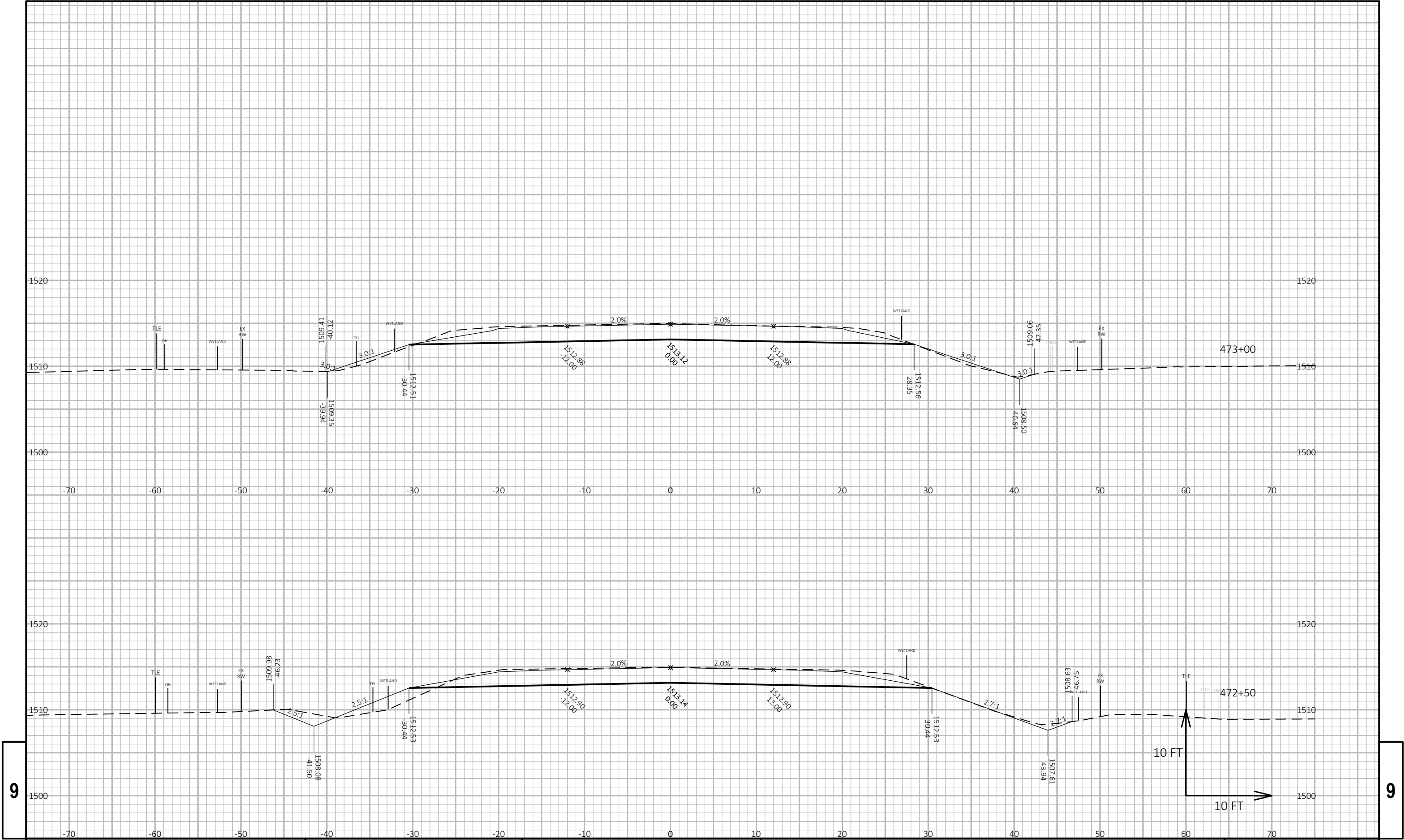
HWY: STH 13

COUNTY:	PRICE
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CROSS SECTIONS: B 50-0085 NORTH FORK JUMP RIVER

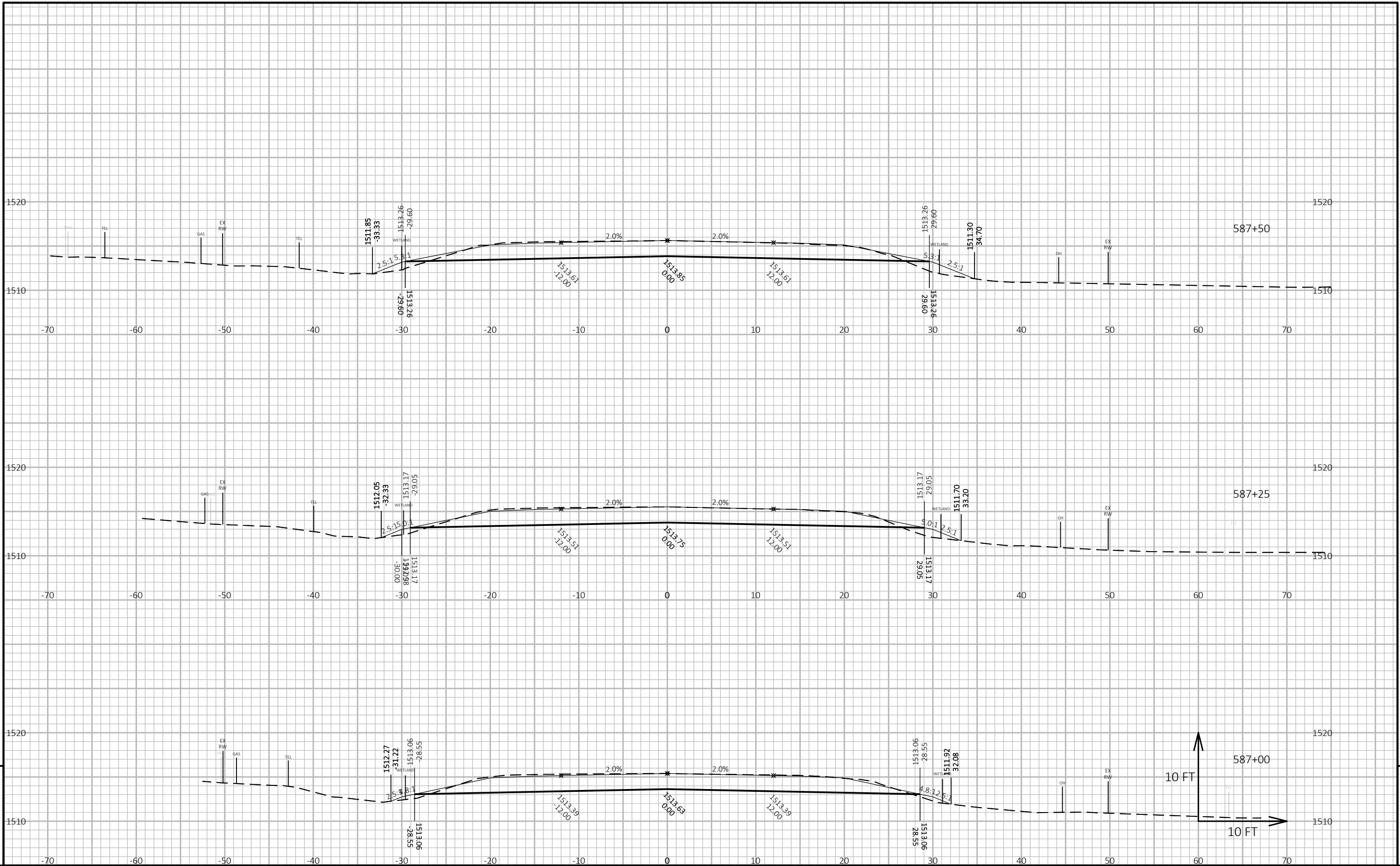
SHEET

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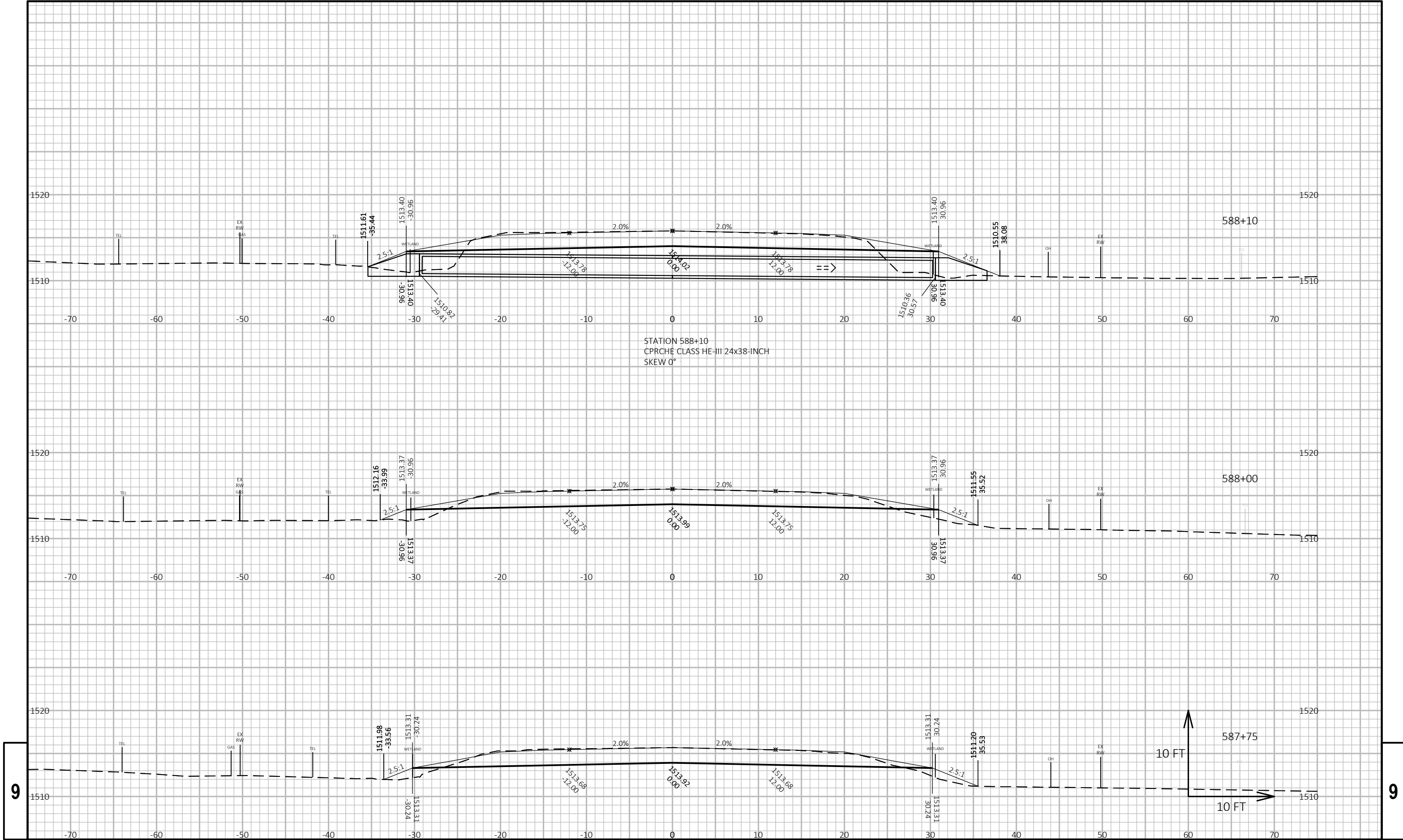


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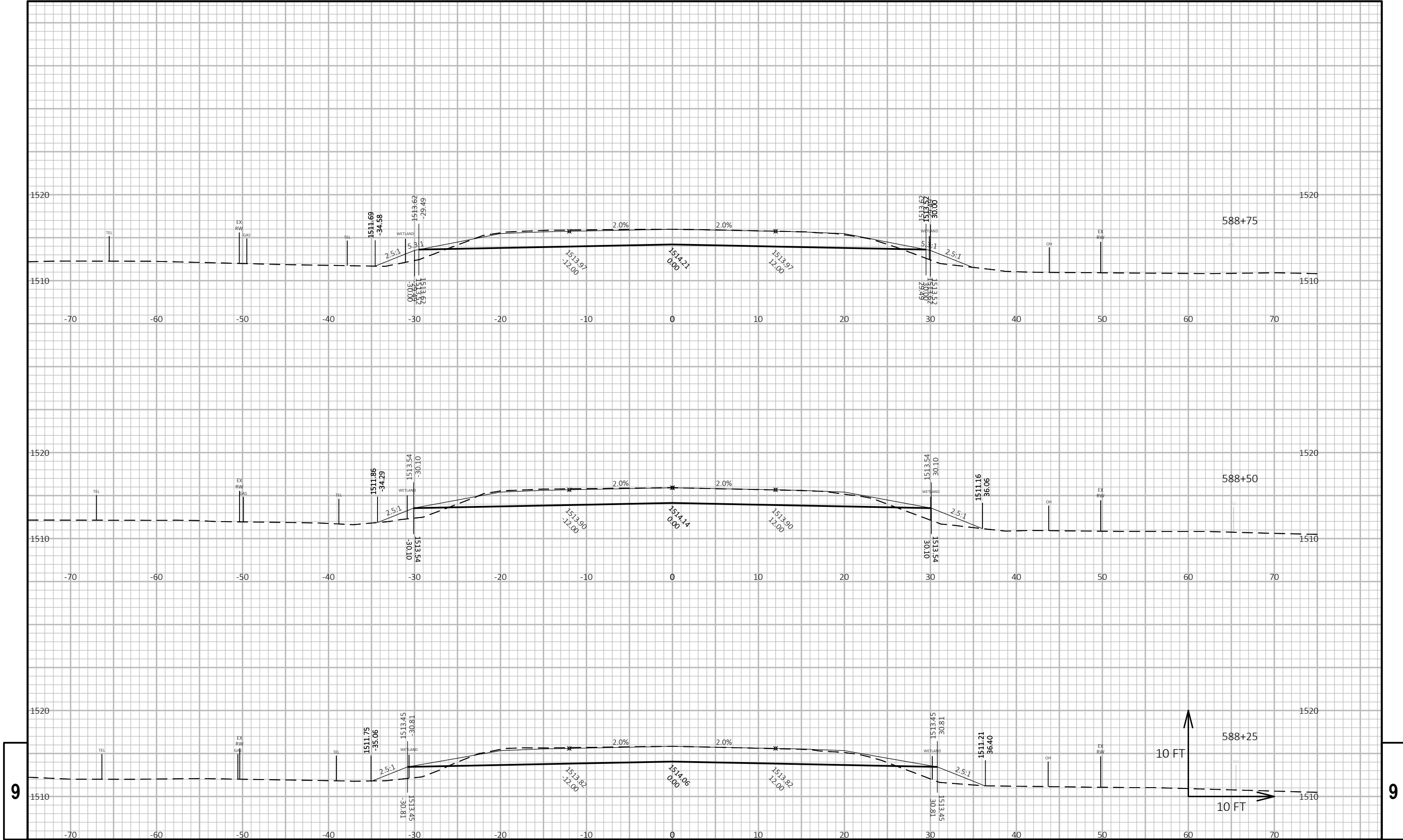
PROJECT NO: 1610-44-70	HWY: STH 13	COUNTY: PRICE	CROSS SECTIONS: C-50-013-0550	SHEET	E
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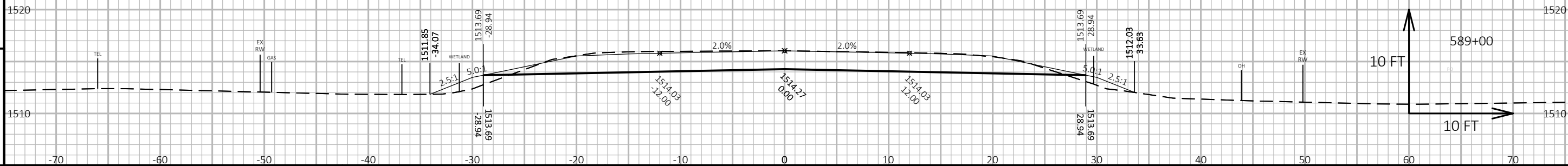
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PROJECT NO: 1610-44-70	HWY: STH 13	COUNTY: PRICE	CROSS SECTIONS: C-50-013-0550	SHEET	E
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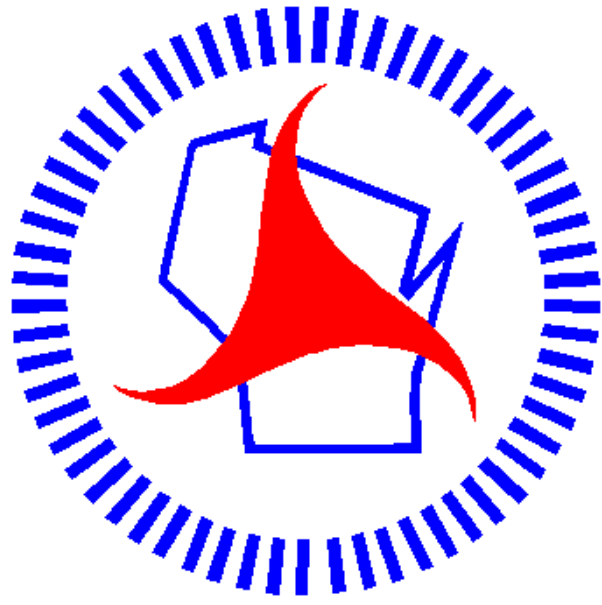


9		PROJECT NO: 1610-44-70		HWY: STH 13		COUNTY: PRICE		CROSS SECTIONS: C-50-013-0550		SHEET		E
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Wisconsin Department of Transportation

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through innovation and exceptional service.

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