

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 = 76

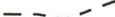
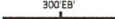
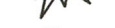
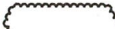


DESIGN DESIGNATION 1610-01-11

A.A.D.T.	(2027)	=	3,590
A.A.D.T.	(2047)	=	3,590
D.H.V.		=	--
D.D.		=	50/50
T.		=	18.6 %
DESIGN SPEED		=	55 MPH
ESALS		=	1,160,000

CONVENTIONAL SYMBOLS

PLAN

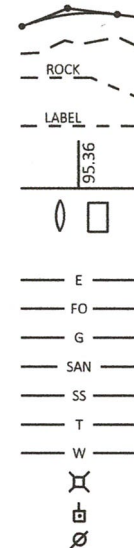
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE

GRADE LINE
ORIGINAL GROUND
MARSH OR ROCK PROFILE
(To be noted as such)
SPECIAL DITCH

GRADE ELEVATION

CULVERT (Profile View)
UTILITIES
ELECTRIC
FIBER OPTIC
GAS
SANITARY SEWER
STORM SEWER
TELEPHONE
WATER
UTILITY PEDESTAL
POWER POLE
TELEPHONE POLE



END PROJECT
STA 1154+43

BEGIN PROJECT
STA 850+65.00
Y=370059.309
X=658061.975

**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

PLAN OF PROPOSED IMPROVEMENT

MEDFORD - PRENTICE

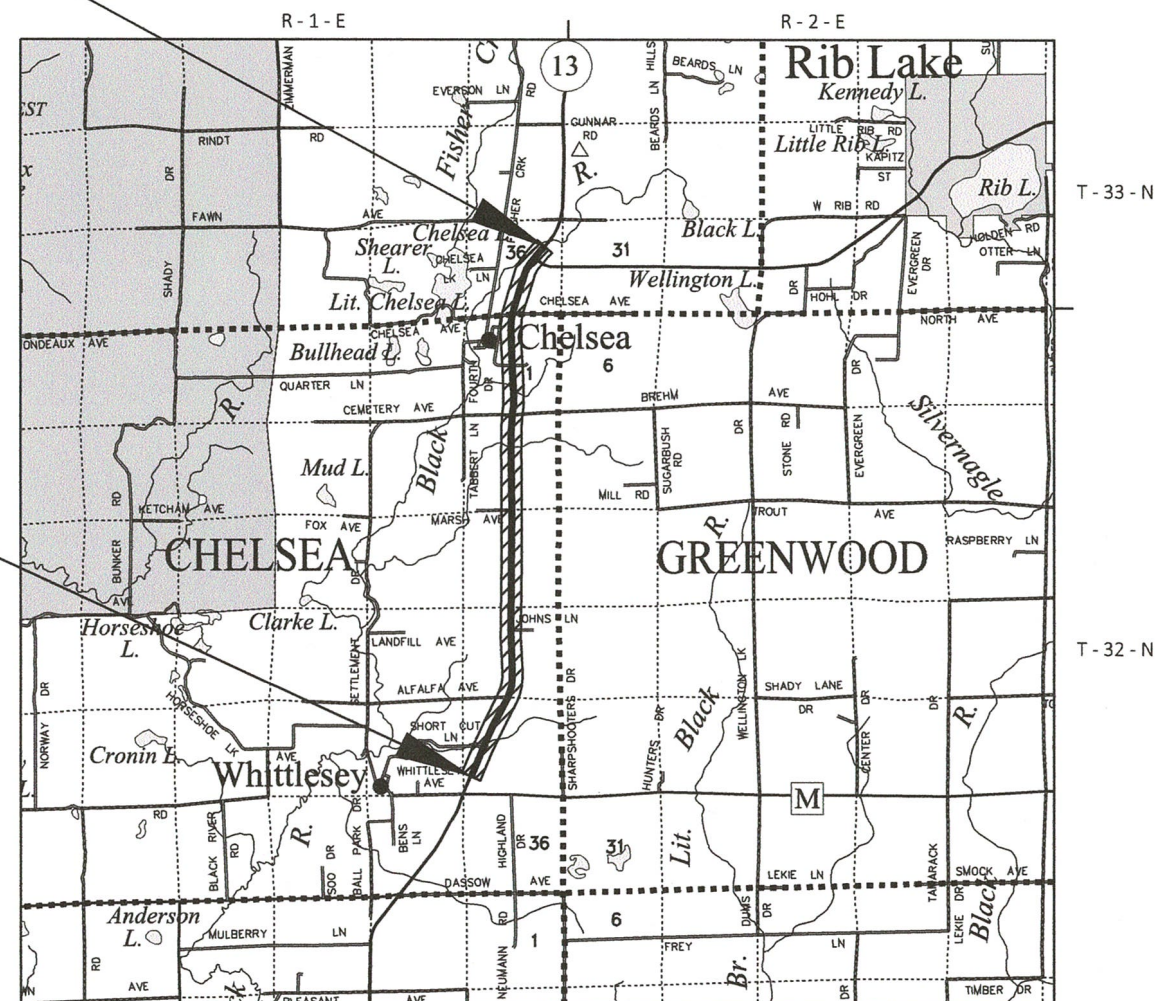
CTH M E TO STH 102

STH 13

TAYLOR

STATE PROJECT NUMBER

1610-01-81



LAYOUT

SCALE 0 2 MI

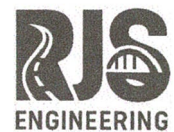
TOTAL NET LENGTH OF CENTERLINE = 5.753 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), TAYLOR COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1610-01-81		

ORIGINAL PLANS PREPARED BY



DATE: 6/22/2026 Brian Smith
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	<u>AYRES ASSOCIATES</u>
Designer	<u>RJS ENGINEERING, LLC</u>
Project Manager	<u>DAN RAMBO, P.E.</u>
Regional Examiner	<u>REGIONAL EXAMINER</u>
Regional Supervisor	<u>NICOLE PASSUELLO, P.E.</u>

APPROVED FOR THE DEPARTMENT

DATE: 6-22-2026

David Rando

(Signature)

FILE NAME : C:\USERS\BSMIT.DESKTOP-91F8FBD\ONEDRIVE - RJS-ENGINEERING.COM\1610-01-11 STH 13 TAYLOR CO\DESIGN\C3D\16100111\SHEETS\010101-TI.DWG

PLOT DATE : 6/16/2026 9:00 PM

PLOT BY : ANGELA DOCKSEY

PLOT NAME :

E

STANDARD ABBREVIATIONS

AGG	AGGREGATE	NB	NORTHBOUND
AADT	ANNUAL AVERAGE DAILY TRAFFIC	OD	OUTSIDE DIAMETER
ASPH	ASPHALTIC	PAVT	PAVEMENT
CL OR C/L	CENTER LINE	PLE	PERMANENT LIMITED EASEMENT
Δ	CENTRAL ANGLE OR DELTA	PC	POINT OF CURVATURE
CONC	CONCRETE	PI	POINT OF INTERSECTION
CTH	COUNTY TRUCK HIGHWAY	PT	POINT OF TANGENCY
CY	CUBIC YARD	LB	POUND
CP	CULVERT PIPE	R	RADIUS
CPCS	CULVERT PIPE CORRUGATED STEEL	RL OR R/L	REFERENCE LINE
CPRC	CULVERT PIPE REINFORCED CONCRETE	RT	RIGHT
CPS	CULVERT PIPE SALVAGED	RHF	RIGHT HAND FORWARD
C & G	CURB AND GUTTER	R/W	RIGHT OF WAY
D	DEGREE OF CURVE	RD	ROAD
DHV	DESIGN HOUR VOLUME	RDWY	ROADWAY
DIA	DIAMETER	SHLDR	SHOULDER
DD	DIRECTIONAL DISTRIBUTION	SW	SIDEWALK
DWY	DRIVEWAY	SB	SOUTHBOUND
EB	EASTBOUND	SPECS	SPECIFICATIONS
EW	ENDWALL	SF	SQUARE FEET
ESALS	EQUIVALENT SINGLE AXLE LOADS	SY	SQUARE YARD
EXC	EXCAVATION	SDD	STANDARD DETAIL DRAWINGS
EXIST	EXISTING	STH	STATE TRUNK HIGHWAY
FL OR F/L	FLOW LINE	STA	STATION
FT	FOOT	SE	SUPERELEVATION
FTMS	FREE TRAFFIC MANAGEMENT SYSTEM	SL OR S/L	SURVEY LINE
IN DIA	INCH DIAMETER	TEMP	TEMPORARY
ID	INSIDE DIAMETER	TLE	TEMPORARY LIMITED EASEMENT
JT	JOINT	TYP	TYPICAL
LT	LEFT	USH	UNITED STATES HIGHWAY
LHF	LEFT HAND FORWARD	VAR	VARIABLE
L	LENGTH OF CURVE	W	WEST
LF	LINEAR FOOT	WB	WESTBOUND
MH	MANHOLE		
ML OR M/L	MATCH LINE		
NC	NORMAL CROWN		

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 110 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.300 ACRES

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITES WITH A CALL TO DIGGER'S HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA.

THE LOCATION OF THE CONSTRUCTION MATCH POINTS ON THE SIDE ROADS SHALL BE AT THE FURTHEST OUT RADIUS RETURN POINT AS SHOWN IN THE DETAILS OR AS DETERMINED BY THE ENGINEER.

ALL SUPERELEVATION VALUES LISTED IN THE CURVE TABLES ON THE PLAN SHEETS WERE DETERMINED FROM AVAILABLE AS-BUILTS. ADJUST AS NEEDED TO FIT EXISTING FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ALL CURB AND GUTTER RADII, PAVEMENT DIMENSIONS, AND STATIONS ARE SHOWN TO THE EDGE OF GUTTER UNLESS NOTED OTHERWISE.

UTILITY CONTACTS

BUG TUSSEL WIRELESS, LLC COMMUNICATION GEREMIAH YOUNG 417 PINE ST GREEN BAY, WI 54301 PHONE: (920) 328-3442 EMAIL: Geremiah.young@btussel.com	SPECTRUM COMMUNICATION JAY HALL 5024 HEFFRON ST STEVENS POINT, WI 54481 PHONE: (715) 204-8801 EMAIL: jay.hall@charter.net
CHELSEA SANITARY DISTRICT SEWER DENNIS JENSEN N7068 2ND ST MEDFORD, WI 54451 PHONE: (715) 748-5845 EMAIL: Sjdjensen@tds.net	TAYLOR COUNTY ELECTRIC COOPERATIVE ELECTRIC WADE MATYKA N1831 STATE HWY 13 MEDFORD, WI 54451 PHONE: (715) 678-6204 EMAIL: wade@taylorelectric.org
FRONTIER COMMUNICATIONS OF WI, LLC COMMUNICATION CHRISTOPHER POLLACK 521 N 4TH ST WAUSAU, WI 54403 PHONE: (715) 847-1240 EMAIL: christopher.pollack@ftr.com	TDS TELECOM COMMUNICATION NATE ANDERSON 202 OGDEN ST PO BOX 240 MEDFORD, WI 54451 PHONE: (715) 965-0661 EMAIL: Nate.Anderson@tdstelecom.com
MEDFORD ELECTRIC UTILITY ELECTRIC JON VISSERS 639 S 2ND ST MEDFORD, WI 54451 PHONE: (715) 748-1521 EMAIL: jvissers@medfordwi.gov	XCEL ENERGY ELECTRIC JOHN KELSER 1400 WESTERN AVE EAU CLAIRE, WI 54701 PHONE: (715) 737-6020 EMAIL: john.kelser@xcelenergy.com



Dial  or (800)242-8511

www.DiggersHotline.com

DESIGN PROJECT MANAGER

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PHONE: (715) 836-5181
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DESIGN PROJECT LEADER

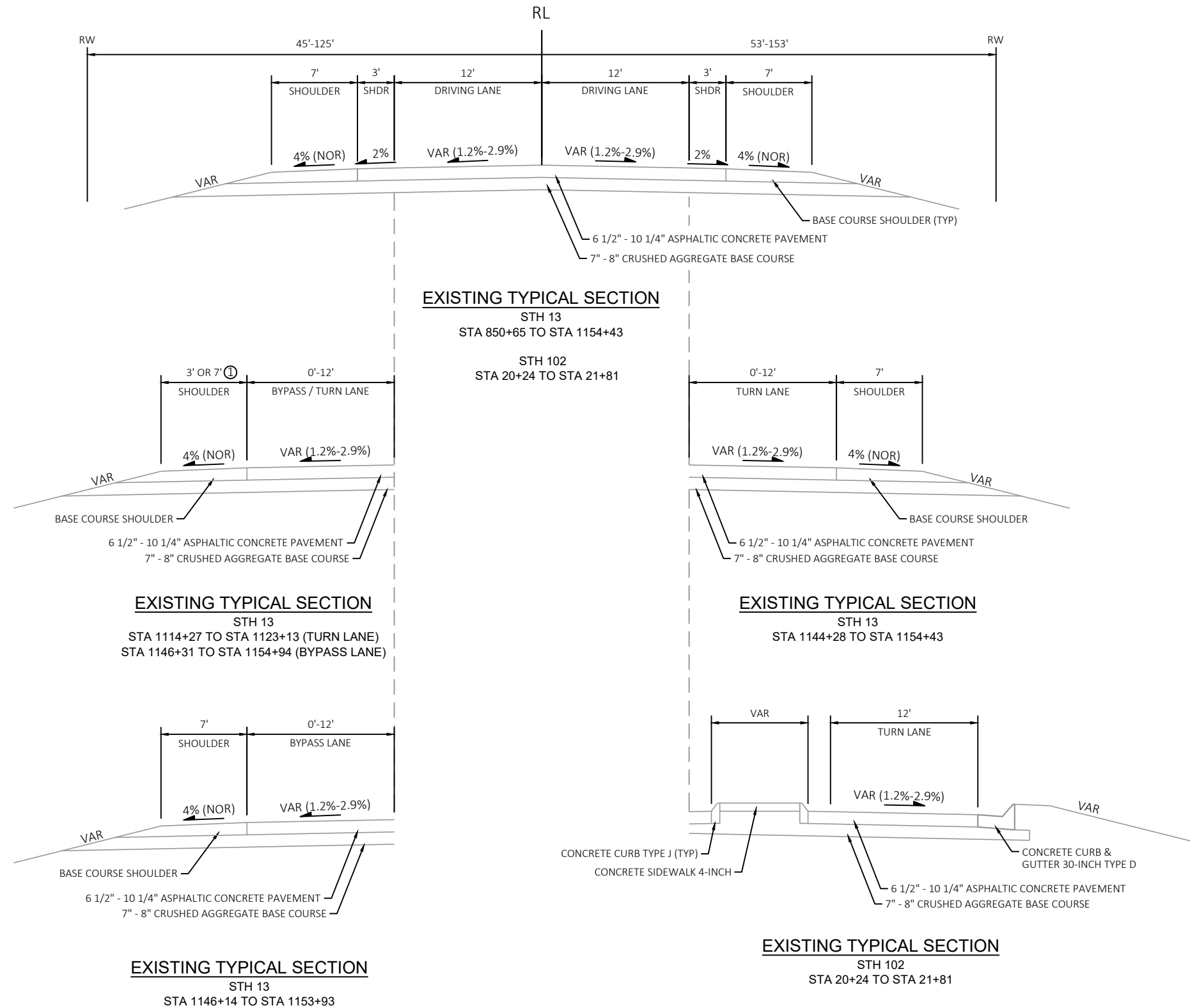
BRIAN SMITS
RJS ENGINEERING, LLC
19151 70TH AVE
CHIPPEWA FALLS, WI 54729
PHONE: (715) 450-4263
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WISCONSIN DNR LIAISON

WENDY HENNIGES
DNR NORTHERN REGION HEADQUARTERS
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RHINELANDER, WI 54501
wendy.henniges@wisconsin.gov

NOTES

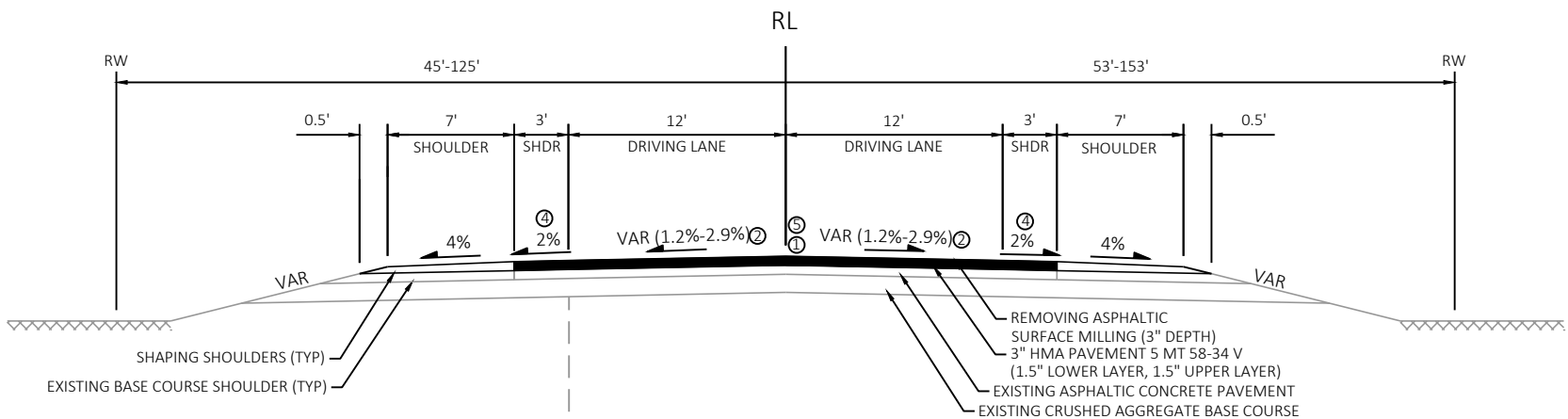
- ① 3' FOR TURN LANE.
7' FOR BYPASS LANE.



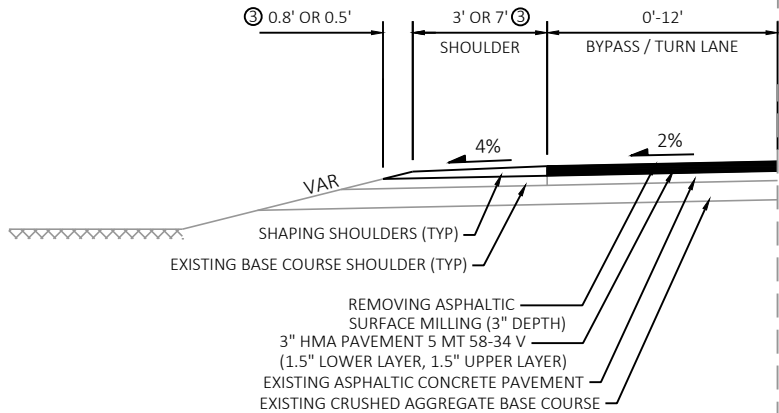
2

1001

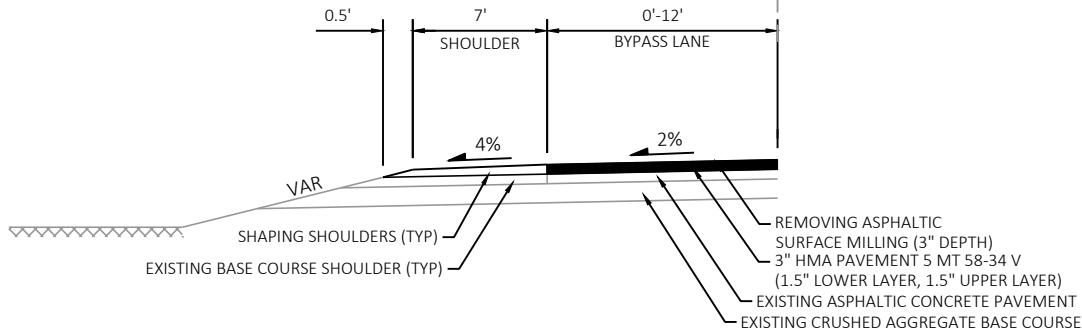
- ① ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL.
- ② MATCH EXISTING CROSS SLOPES AND SUPER ELEVATIONS.
- ③ SHOULDER WIDTH = 3' FOR TURN LANE AND 7' FOR BYPASS LANE.
GRAVEL RUN OUT WIDTH = 0.8' FOR TURN LANE AND 0.2' FOR BYPASS LANE.
- ④ MATCH ADJACENT TRAVEL LANE CROSS SLOPE.
- ⑤ NOTCHED WEDGE JOINT REQUIRED



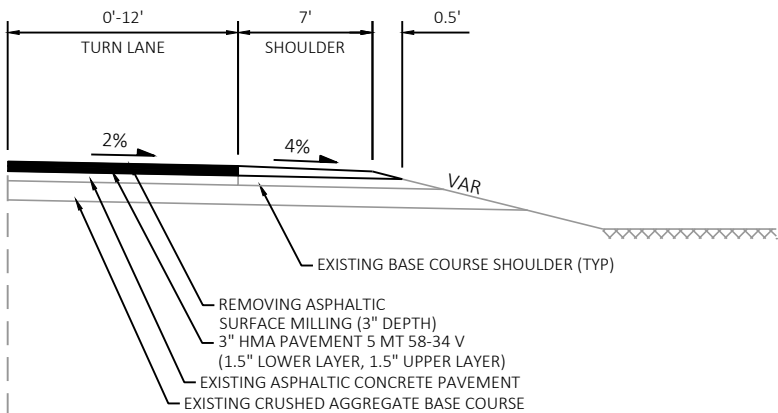
STH 13
STA 850+65 TO STA 1154+43



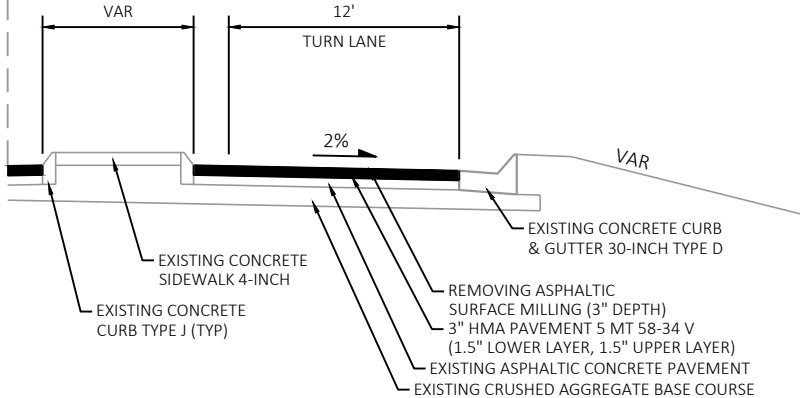
STH 13
STA 1114+27 TO STA 1123+13 (TURN LANE)
STA 1146+31 TO STA 1154+43 (BYPASS LANE)



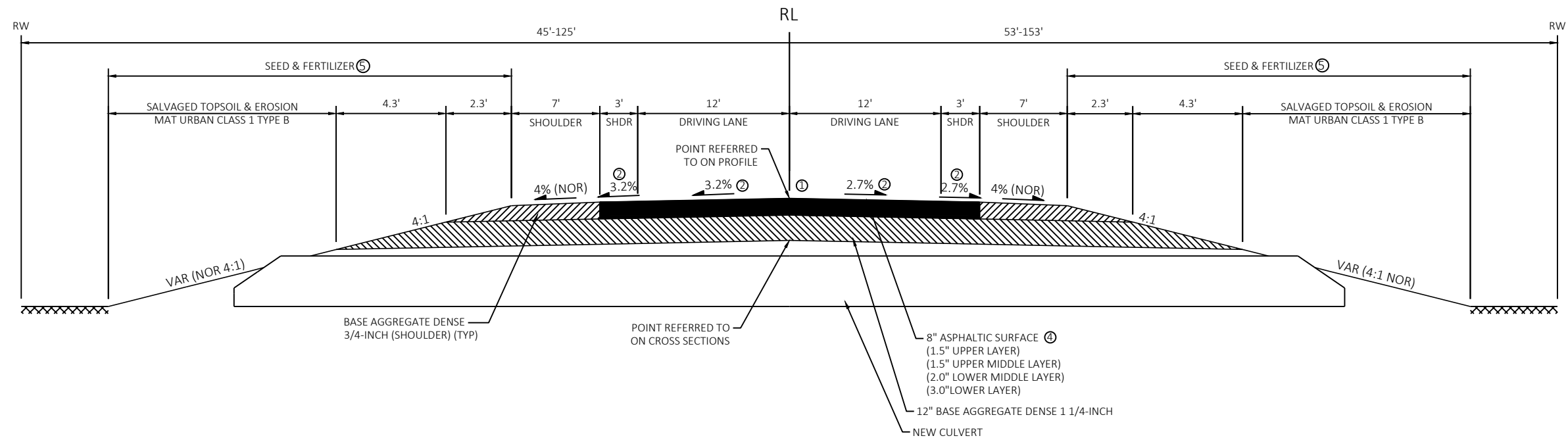
STH 13
STA 1146+14 TO STA 1153+93



STH 13
STA 1144+28 TO STA 1154+43



STH 102
STA 20+24 TO STA 21+81



FINISHED TYPICAL SECTION - OVER CULVERT REPLACEMENTS

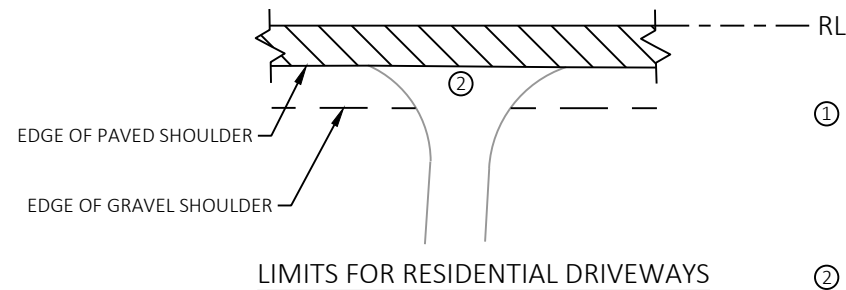
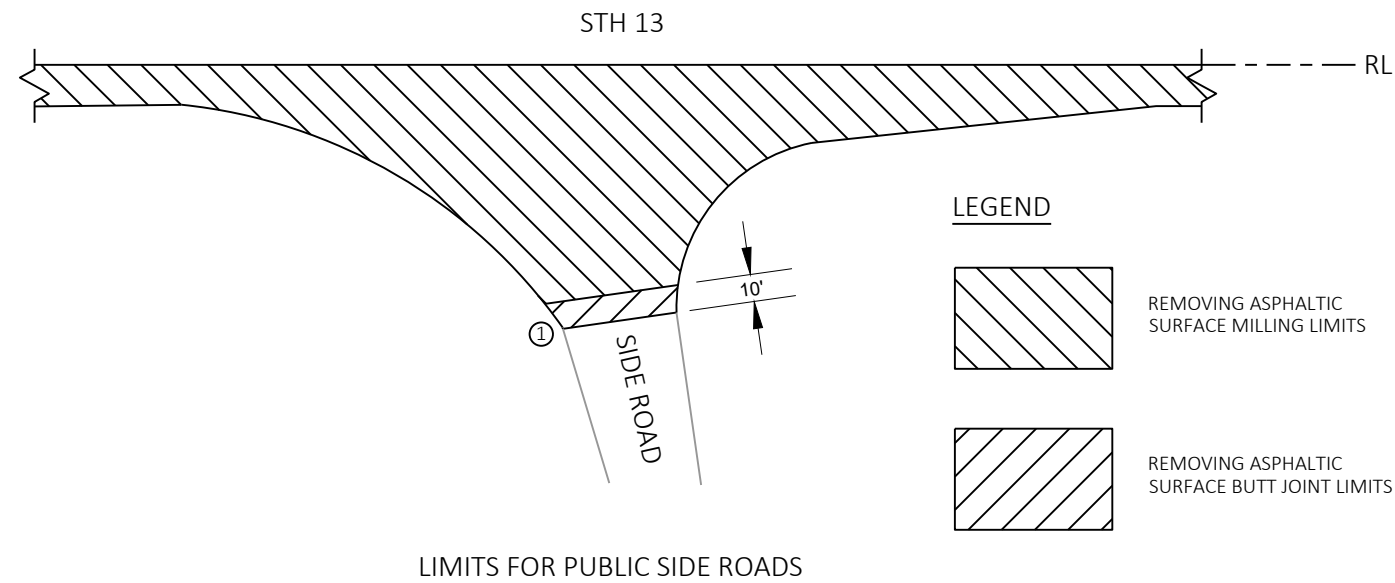
STH 13
STA 852+27 TO STA 853+37 ③
STA 1030+46 TO STA 1031+59 ③

NOTES

- ① ASPHALTIC CENTERLINE RUMBLE STRIPS
2-LANE RURAL.
- ② MATCH EXISTING CROSS SLOPE AT FULL
DEPTH REMOVAL LIMITS.
- ③ ADJUST LIMITS TO FIT FIELD CONDITIONS
AS NEEDED FOR CULVERT REPLACEMENT
OR WHEN DIRECTED BY ENGINEER.
- ④ COMPLETE CULVERT PIPE INSTALLATION
BEFORE MILLING AND OVERLAY
OPERATIONS. MILL 3" OF ASPHALTIC
SURFACE AND PAVE 3" OF HMA DURING
OVERLAY OPERATIONS.
- ⑤ DO NOT APPLY FERTILIZER WITHIN 20'
OF WATERWAY.

PAVEMENT CORE LOG				
BORING	STATION	OFFSET	THICKNESS (INCHES)	NB/SB LANE
211	850+30	2	7	NB
212	880+29	5	8.75	NB
213	910+41	3	8.75	NB
214	940+39	2.5	7.5	NB
215	970+40	5	6.5	NB
216	1000+80	3	6	NB
217	1031+21	2.5	8.5	NB
218	1061+47	4	8	NB
219	1090+62	2	10.25	NB
220	1120+75	2	11.25	NB
221	1149+79	5.5	9.5	NB
222	1135+48	-7.5	6.5	SB
223	1105+81	-3	10	SB
224	1075+56	-4	7	SB
225	1046+83	-5	6.5	SB
226	1016+86	-4.5	8	SB
227	985+71	-5	7	SB
228	955+36	-4	6	SB
229	925+39	-5	7.5	SB
230	895+52	-5.5	5	SB
231	865+30	-5	5.5	SB

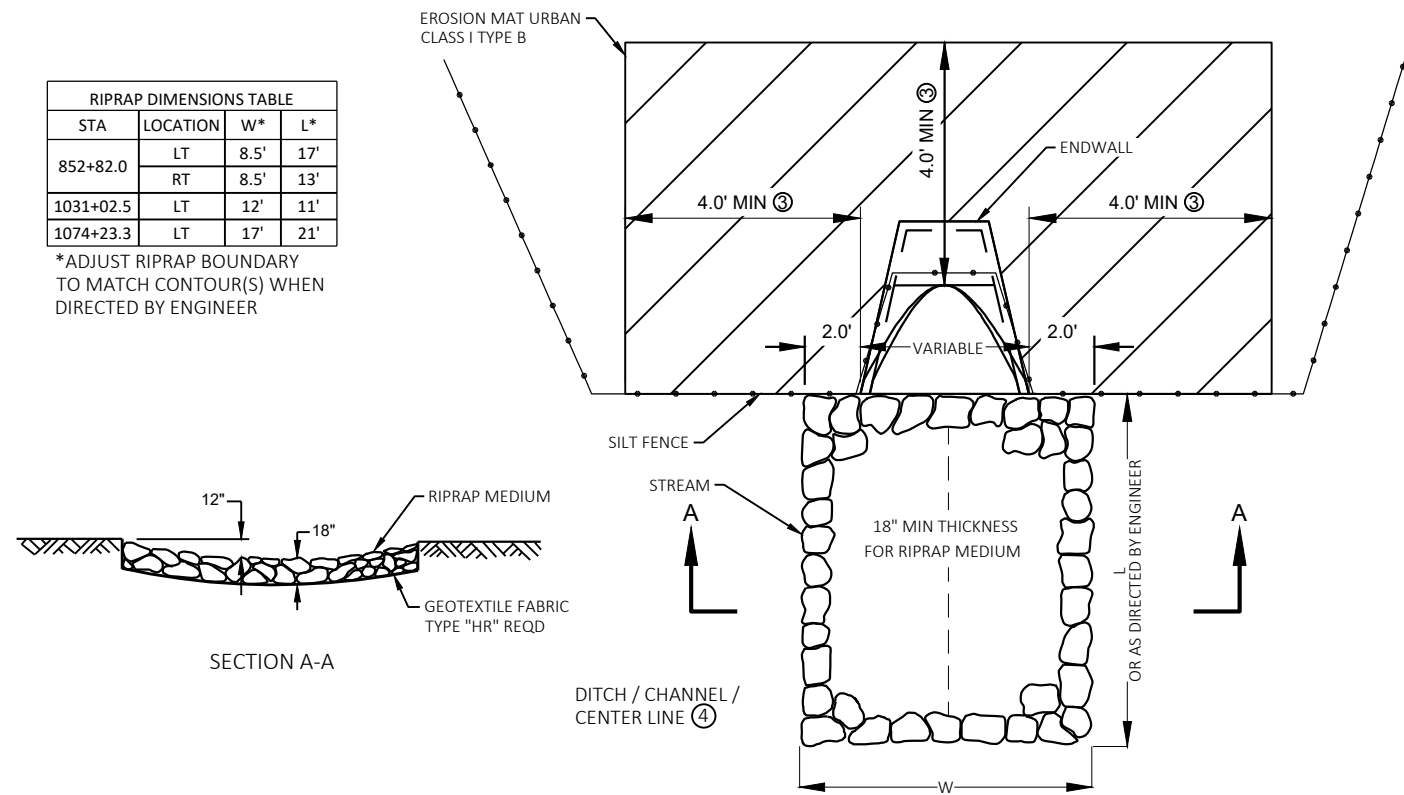
CONTROL POINT TABLE				
POINT #	EASTING	NORTHING	ELEVATION	DESCRIPTION
1	660109.130	374612.720	1496.07	120D SPIKE
2	660163.265	374815.938	1496.72	120D SPIKE
30	661939.198	399112.382	1535.47	HUB
31	662110.842	398970.379	1538.32	HUB
32	660472.235	395468.050	1544.17	HUB
33	660468.273	395212.195	1541.87	HUB
34	660648.347	391875.574	1526.60	HUB
35	660637.067	392185.428	1525.67	HUB
1200	660502.492	379342.598	1497.63	120D SPIKE
1201	660461.343	379549.709	1497.43	120D SPIKE
1350	660549.275	384132.392	1514.86	120D SPIKE
1351	660508.260	384379.151	1515.37	120D SPIKE
1500	660547.786	385409.261	1519.43	120D SPIKE
1501	660507.860	385650.697	1520.40	120D SPIKE
1600	660506.764	385894.867	1521.61	120D SPIKE
1601	660548.134	385894.584	1521.52	120D SPIKE
1723	660548.725	385679.808	1520.52	120D SPIKE
1850	660544.131	387566.052	1542.41	120D SPIKE
1851	660548.835	387363.859	1543.66	120D SPIKE
1852	660498.901	387565.054	1542.17	120D SPIKE
1953	660530.605	388868.346	1533.13	120D SPIKE
1954	660528.933	388664.722	1534.71	120D SPIKE



- ① LIMITS OF CONSTRUCTION ON SIDE ROADS IS THE RADIUS RETURN FURTHEST FROM STH 13 IF THE SIDE ROAD IS PAVED, OR TO THE EDGE OF ASPHALTIC PAVEMENT IF THE SIDE ROAD IS GRAVEL. BUTT JOINTS REQUIRED AT THE LIMITS OF ALL SIDE ROADS THAT ARE PAVED.
- ② MILL THRU DRIVEWAYS AND MATCH THE NEW MAIN LINE PAVEMENT TO THE DRIVEWAY'S EXISTING ASPHALTIC SURFACE. IF DRIVEWAY IS GRAVEL, SHAPE GRAVEL TO MATCH NEW MAIN LINE PAVEMENT UNDER THE SHAPING SHOULDER ITEM.

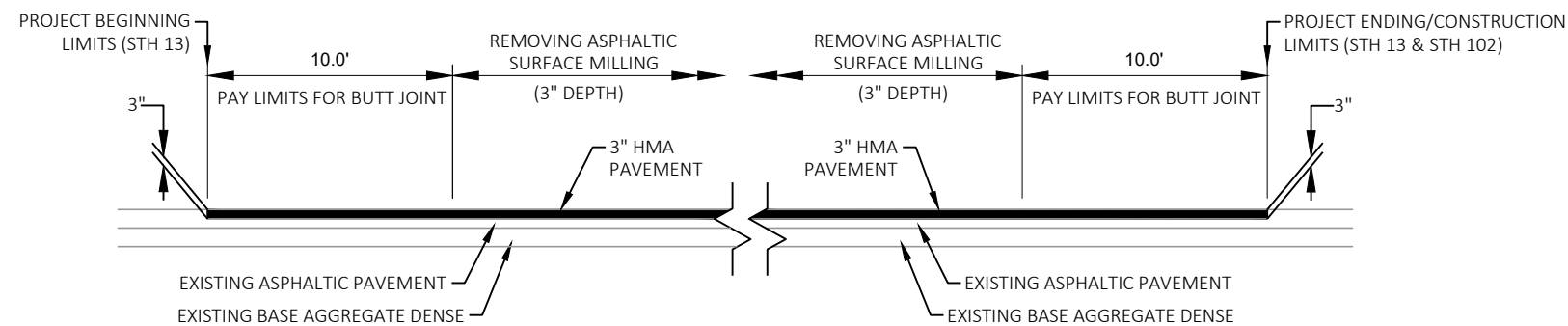
RIPRAP DIMENSIONS TABLE			
STA	LOCATION	W*	L*
852+82.0	LT	8.5'	17'
	RT	8.5'	13'
1031+02.5	LT	12'	11'
1074+23.3	LT	17'	21'

*ADJUST RIPRAP BOUNDARY TO MATCH CONTOUR(S) WHEN DIRECTED BY ENGINEER

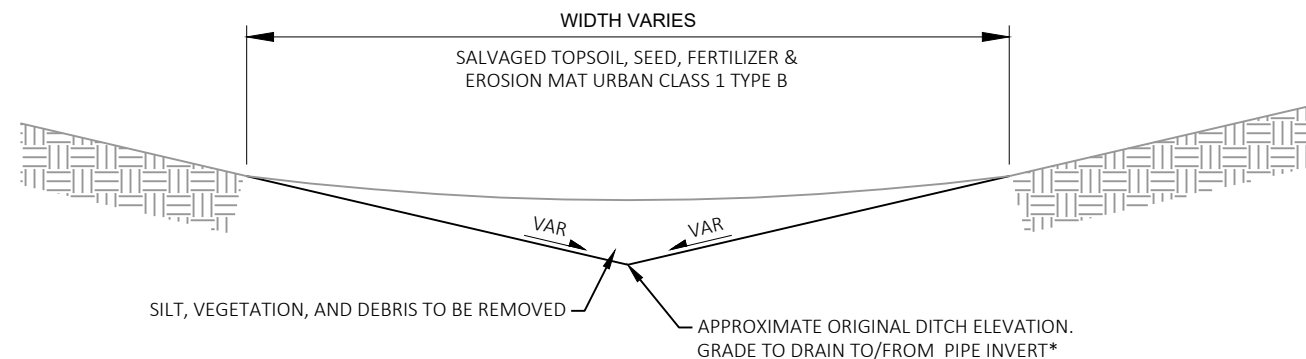


RIPRAP, EROSION MAT, AND SILT FENCE TREATMENT AT CULVERT ENDWALLS

- ③ EXTEND EROSION MAT TO LIMITS OF DISTURBANCE FROM ACCESSING ENDWALL AND NEWLY INSTALLED SALVAGED TOPSOIL OR AS DIRECTED BY ENGINEER.
- ④ PLACE RIPRAP TO FOLLOW CENTERLINE OF DITCH / CHANNEL / STREAM.

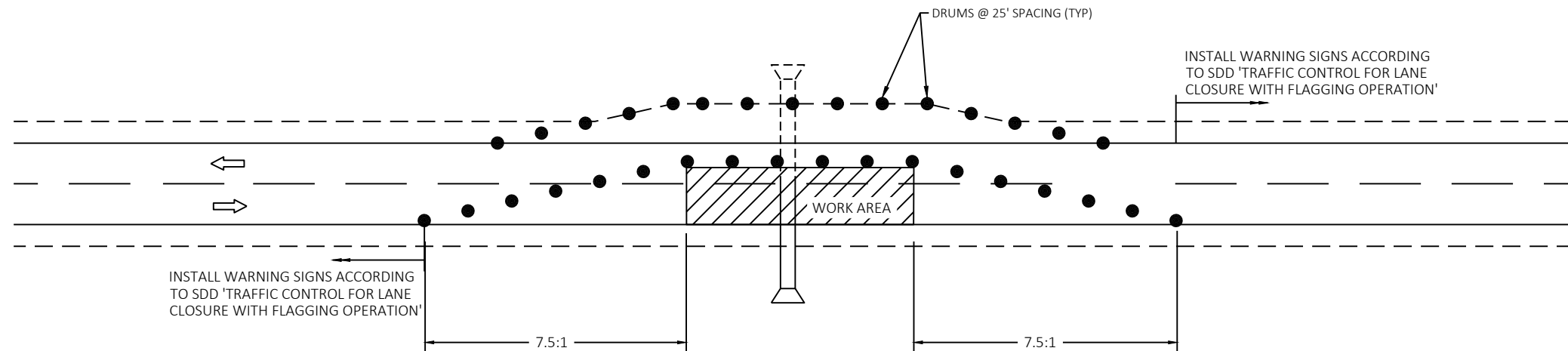


STH 13 & STH 102 BUTT JOINTS



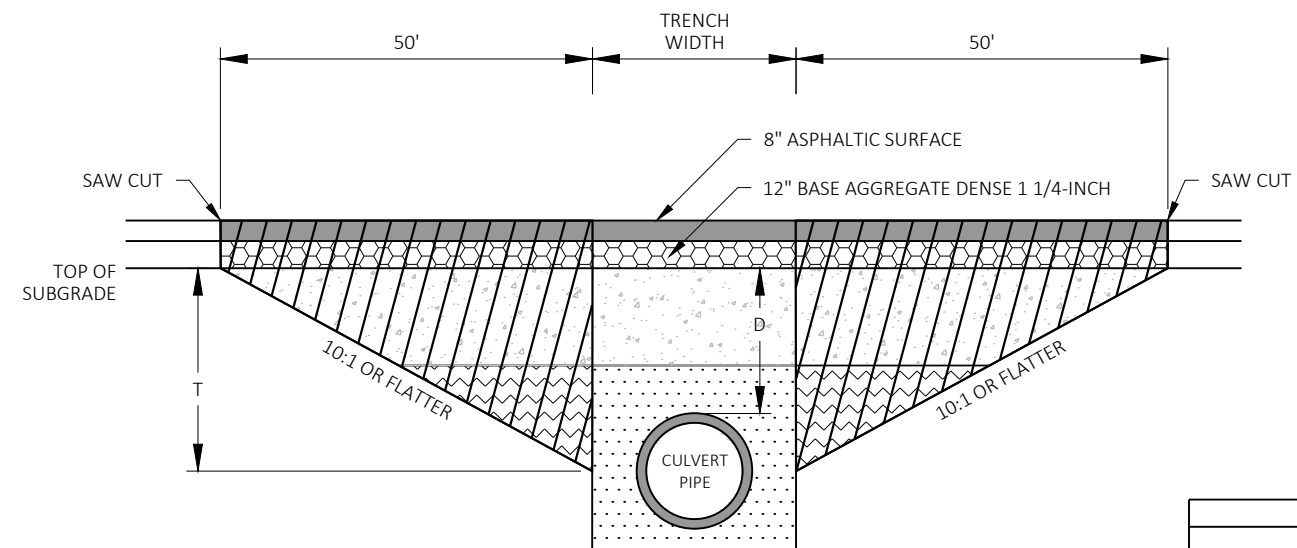
DITCH CLEANING

SEE PLAN VIEW SHEETS FOR LOCATIONS



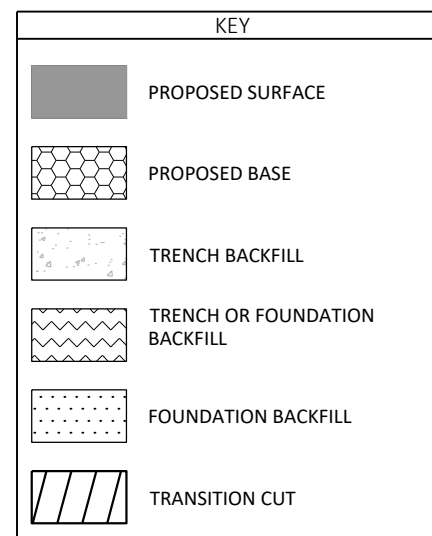
TRAFFIC CONTROL AT PIPE REPLACEMENTS*

*REFER TO SDD "TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION" FOR ADDITIONAL INFORMATION NOT SHOWN IN THIS DETAIL. MIRROR TRAFFIC CONTROL LAYOUT WHEN COMPLETING OTHER HALF OF PIPE.



DEPTH D < 6 FT

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.



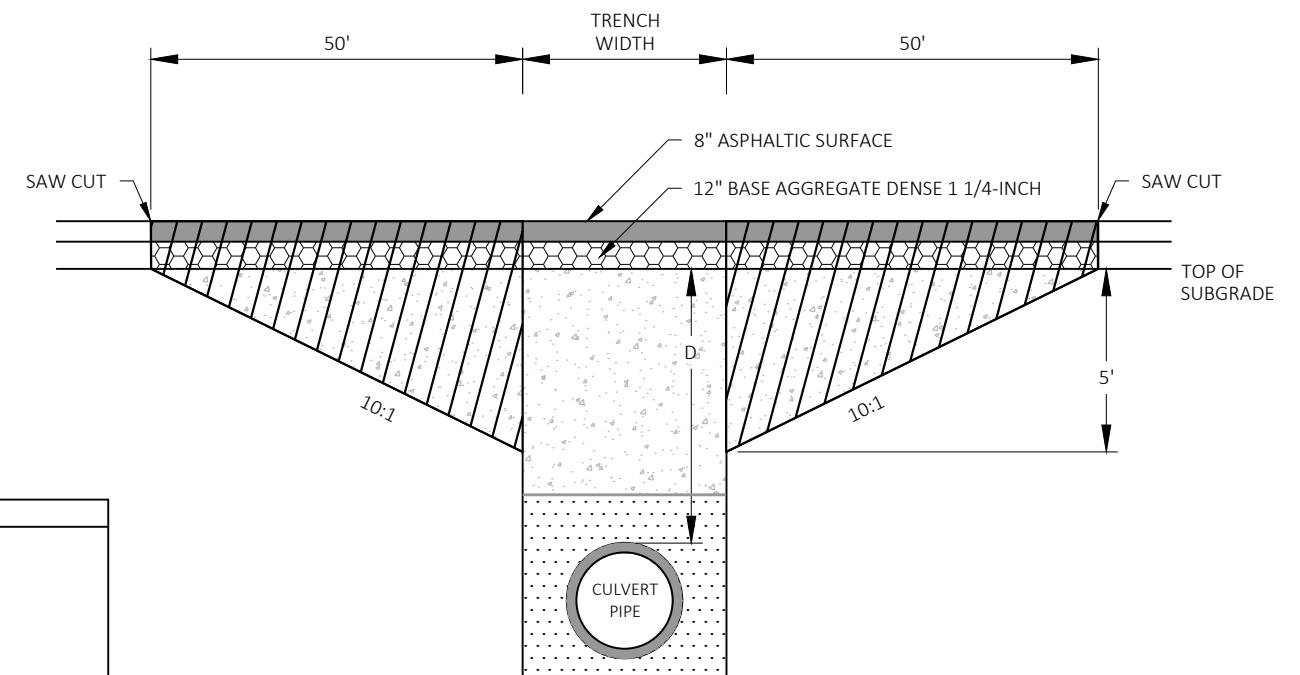
NOTES

TRANSITION CUT IS PAID AS EXCAVATION COMMON.

TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT.

BACKFILL THE TRANSITION CUT AREAS WITH FOUNDATION AND TRENCH BACKFILL AS SPECIFIED IN STANDARD SPEC 520.

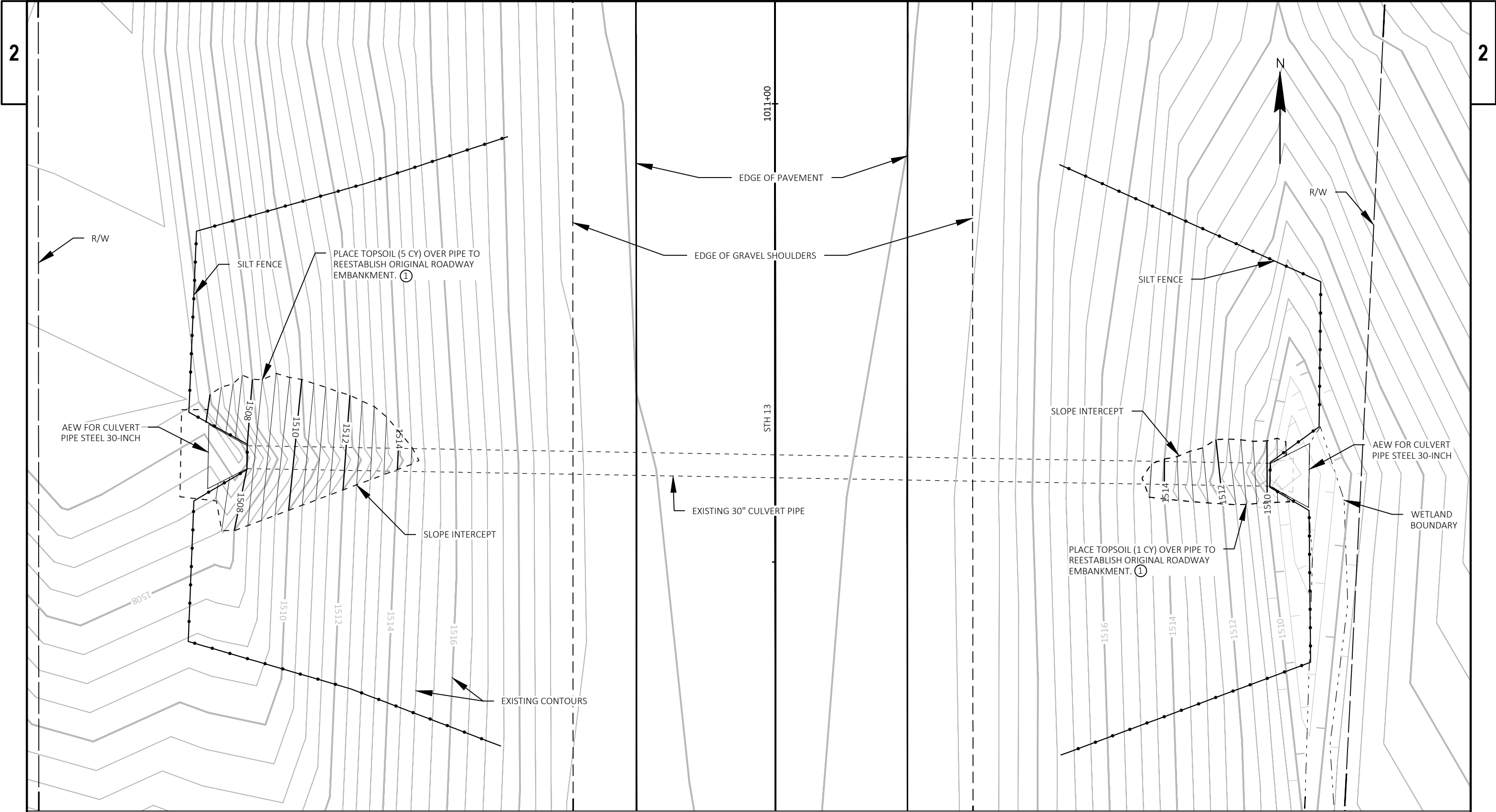
PERFORM CULVERT PIPE INSTALLATION BEFORE MILLING AND PAVING.



DEPTH D ≥ 6 FT

CULVERT PIPE TRANSITION

ROUTE	STA (CL)	DEPTH D (FT)	PIPE DIA (IN)	REMARKS
STH 13	852+82	2.8	24	
STH 13	1031+02.5	8.8	48	SKEWED



EMBANKMENT RESTORATION - PIPE STA 1010+60.4

① INSTALL SEEDING MIXTURE NO. 30 AND EROSION MAT URBAN CLASS 1 TYPE B ON ALL DISTURBED AREAS.

PROJECT NO: 1610-01-81	HWY: STH 13	COUNTY: TAYLOR	CONSTRUCTION DETAILS	SHEET 11	E
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TRAFFIC CONTROL GENERAL NOTES:

DRAWING IS NOT TO SCALE

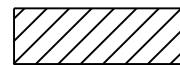
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

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

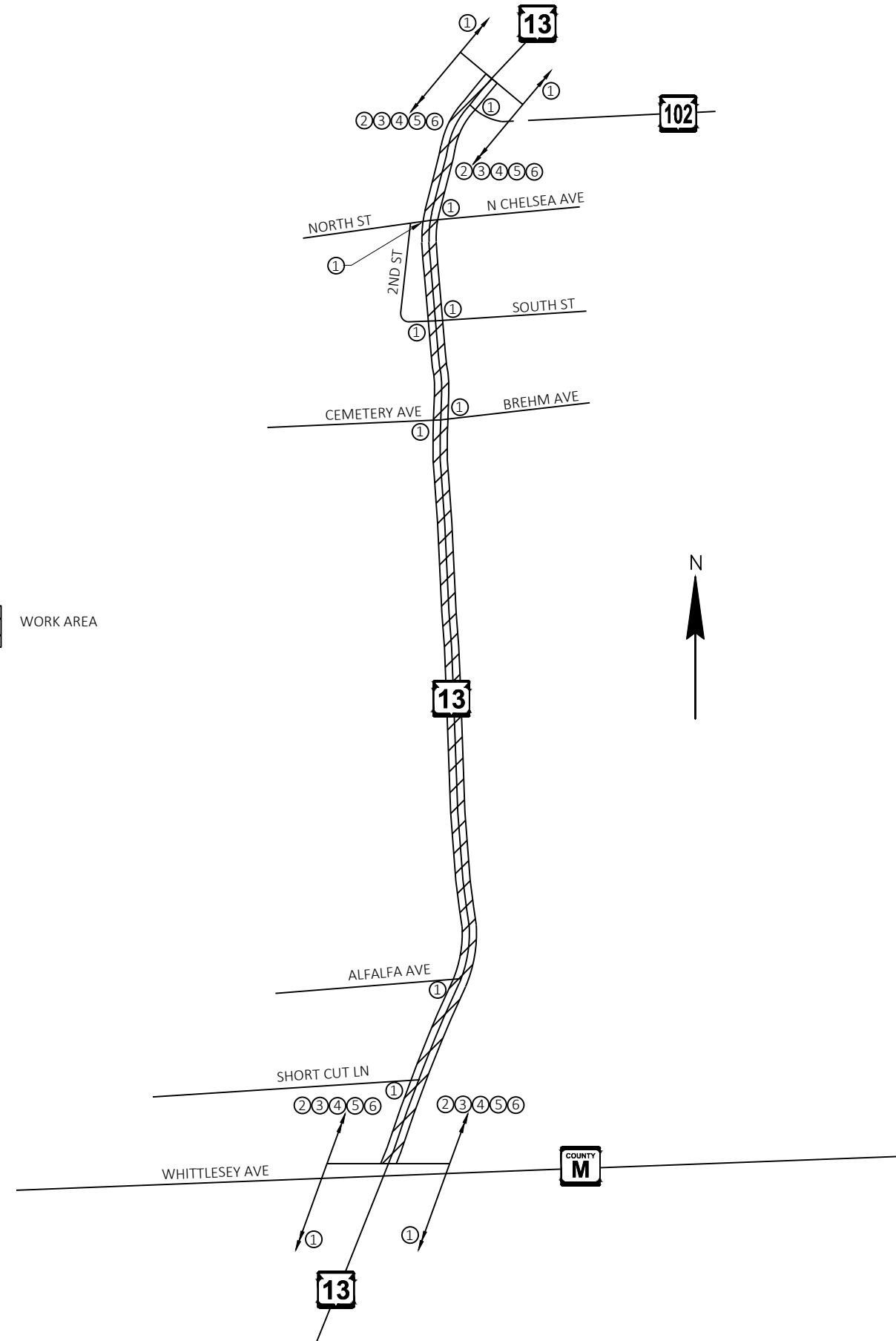
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

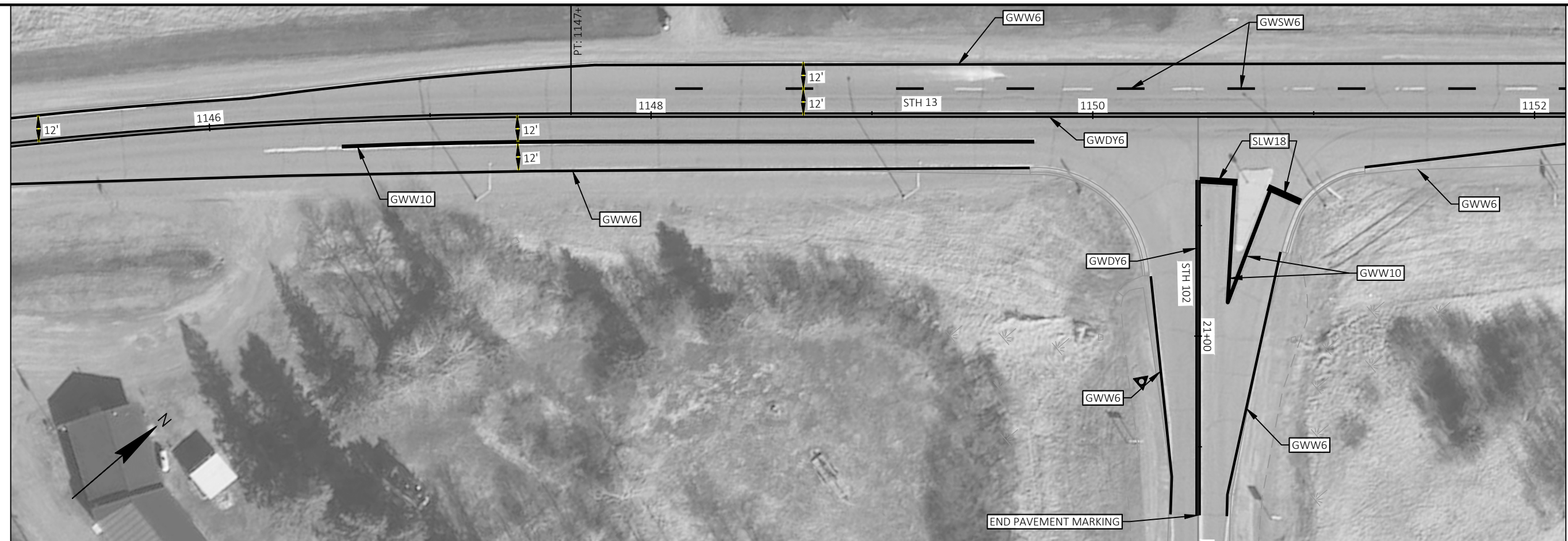
- ① INSTALL ADVANCED WARNING SIGNS ON STH 13 PRIOR TO THE WORK AREA AND ON ALL SIDEROADS WITHIN THE PROJECT LIMITS IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER, UNDIVIDED ROAD OPEN TO TRAFFIC".
- ② UTILIZE FLAGGING OPERATIONS IN ACCORDANCE WITH SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" AND CONFORMING TO THE STANDARD SPECIFICATIONS WHEN CLOSING A LANE FOR CONSTRUCTION OPERATIONS.
- ③ INSTALL TRAFFIC CONTROL DRUMS IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" WHEN WORKING ON OR OUTSIDE OF SHOULDER AREAS THAT ARE NOT ALREADY CLOSED UNDER THE FLAGGING OPERATIONS.
- ④ INSTALL TRAFFIC CONTROL SIGNS IN ACCORDANCE WITH SDD "TRAFFIC CONTROL FOR DROP-OFF SIGNING" DURING WORK OPERATIONS THAT CREATE DROP-OFFS OR HAZARDS AS DEFINED BY STANDARD SPECIFICATIONS "DROP-OFF AND HAZARD PROTECTION."
- ⑤ INSTALL SIGNING IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES" DURING THE MILLING OPERATIONS.
- ⑥ INSTALL SIGNING IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL" AT THE TWO PIPE REPLACEMENT LOCATIONS WHEN GRAVEL SURFACE IS BEING USED PRIOR TO PAVING.

LEGEND:

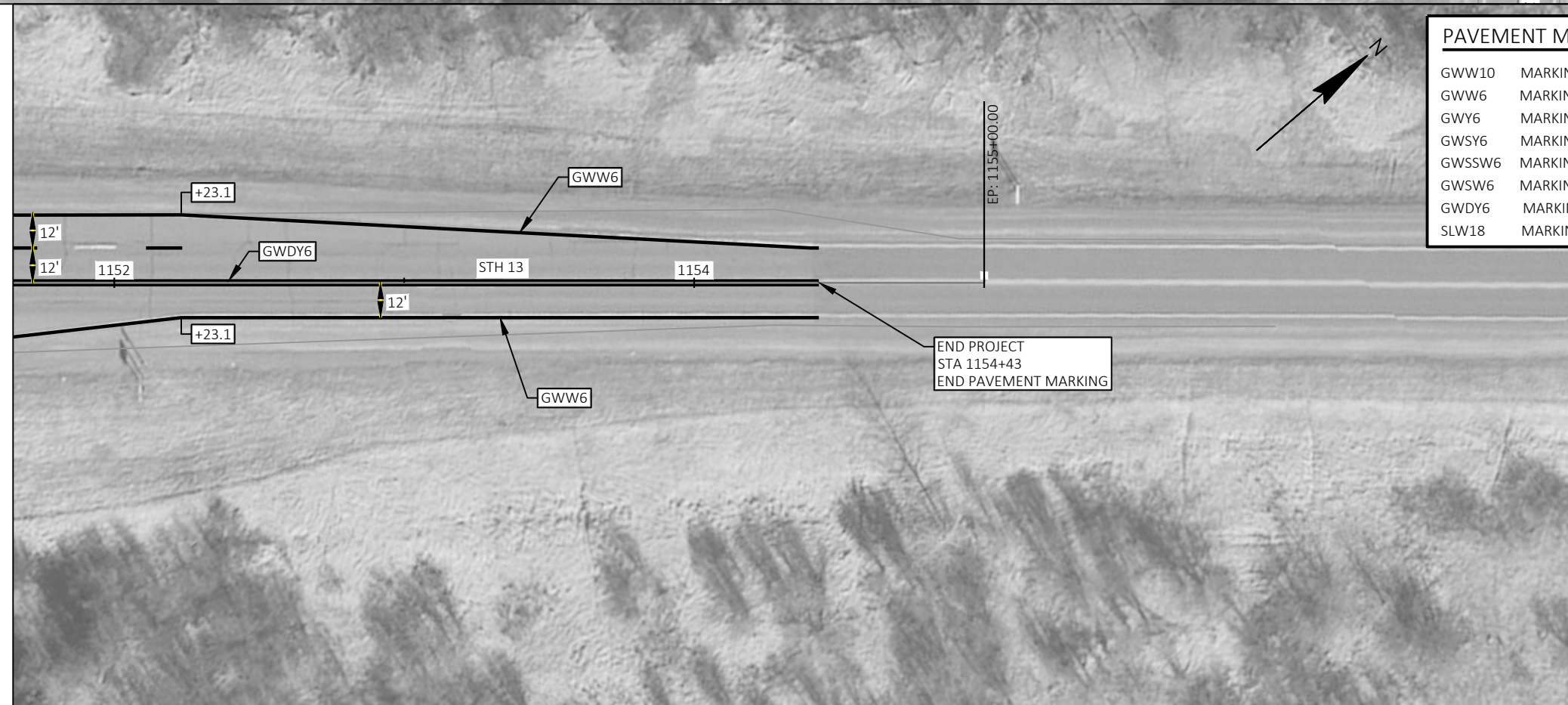
WORK AREA



2



2 |



PAVEMENT MARKING LEGEND

GWW10	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
GWW6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
GWY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
GWSY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (SKIP, YELLOW) (12.5' SEG, 37.5' GAP)
GWSSW6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (SHORT SKIP, WHITE) (3' SEG, 9' GAP)
GWSW6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (SKIP, WHITE) (12.5' SEG, 37.5' GAP)
GW DY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (DOUBLE YELLOW)
SLW18	MARKING STOP LINE EPOXY 18-INCH (WHITE)

PROJECT NO:	1610-01-81
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HWY: STH 13

COUNTY: TAYLOR

PAVEMENT MARKING

SHEET

5

11

Estimate Of Quantities

1610-01-81					
Line	Item	Item Description	Unit	Total	Qty
0002	202.0110	Roadside Clearing	SY	135.000	135.000
0004	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0006	204.0115	Removing Asphaltic Surface Butt Joints	SY	334.000	334.000
0008	204.0120	Removing Asphaltic Surface Milling	SY	107,646.000	107,646.000
0010	204.0170	Removing Fence	LF	100.000	100.000
0012	205.0100	Excavation Common	CY	1,210.000	1,210.000
0014	208.1500.S	Temporary Lane Shift During Culvert Work	EACH	4.000	4.000
0016	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 1610-01-81	EACH	1.000	1.000
0018	213.0100	Finishing Roadway (project) 01. 1610-01-81	EACH	1.000	1.000
0020	305.0110	Base Aggregate Dense 3/4-Inch	TON	120.000	120.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	875.000	875.000
0024	305.0500	Shaping Shoulders	STA	610.000	610.000
0026	455.0605	Tack Coat	GAL	12,843.000	12,843.000
0028	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0030	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0032	460.2005	Incentive Density PWL HMA Pavement	DOL	13,610.000	13,610.000
0034	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	6,090.000	6,090.000
0036	460.2010	Incentive Air Voids HMA Pavement	DOL	17,979.000	17,979.000
0038	460.6645	HMA Pavement 5 MT 58-34 V	TON	17,979.000	17,979.000
0040	460.9000.S	Material Transfer Vehicle	EACH	1.000	1.000
0042	465.0105	Asphaltic Surface	TON	634.000	634.000
0044	465.0110	Asphaltic Surface Patching	TON	100.000	100.000
0046	465.0315	Asphaltic Flumes	SY	6.000	6.000
0048	465.0560	Asphaltic Rumble Strips, Centerline	LF	27,978.000	27,978.000
0050	520.8700	Cleaning Culvert Pipes	EACH	2.000	2.000
0052	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	2.000	2.000
0054	521.1030	Apron Endwalls for Culvert Pipe Steel 30-Inch	EACH	2.000	2.000
0056	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	82.000	82.000
0058	522.0148	Culvert Pipe Reinforced Concrete Class III 48-Inch	LF	104.000	104.000
0060	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0062	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	1.000	1.000
0064	522.1048	Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	EACH	2.000	2.000
0066	524.0136	Culvert Pipe Salvaged 36-Inch	LF	30.000	30.000
0068	524.0142	Culvert Pipe Salvaged 42-Inch	LF	38.000	38.000
0070	524.0160	Culvert Pipe Salvaged 60-Inch	LF	48.000	48.000
0072	524.0636	Apron Endwalls for Culvert Pipe Salvaged 36-Inch	EACH	1.000	1.000
0074	524.0642	Apron Endwalls for Culvert Pipe Salvaged 42-Inch	EACH	1.000	1.000
0076	524.0660	Apron Endwalls for Culvert Pipe Salvaged 60-Inch	EACH	2.000	2.000
0078	606.0200	Riprap Medium	CY	43.000	43.000
0080	618.0100	Maintenance and Repair of Haul Roads (project) 01. 1610-01-81	EACH	1.000	1.000
0082	619.1000	Mobilization	EACH	1.000	1.000
0084	624.0100	Water	MGAL	16.000	16.000
0086	625.0105	Topsoil	CY	7.000	7.000
0088	625.0500	Salvaged Topsoil	SY	1,084.000	1,084.000
0090	628.1504	Silt Fence	LF	1,768.000	1,768.000
0092	628.1520	Silt Fence Maintenance	LF	3,536.000	3,536.000
0094	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0096	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0098	628.2008	Erosion Mat Urban Class I Type B	SY	1,389.000	1,389.000

Estimate Of Quantities

1610-01-81

Line	Item	Item Description	Unit	Total	Qty
0100	628.7555	Culvert Pipe Checks	EACH	138.000	138.000
0102	629.0210	Fertilizer Type B	CWT	2.100	2.100
0104	630.0130	Seeding Mixture No. 30	LB	89.000	89.000
0106	630.0500	Seed Water	MGAL	43.000	43.000
0108	633.5200	Markers Culvert End	EACH	11.000	11.000
0110	642.5001	Field Office Type B	EACH	1.000	1.000
0112	643.0300	Traffic Control Drums	DAY	431.000	431.000
0114	643.0900	Traffic Control Signs	DAY	2,175.000	2,175.000
0116	643.3165	Temporary Marking Line Paint 6-Inch	LF	41,319.000	41,319.000
0118	643.5000	Traffic Control	EACH	1.000	1.000
0120	645.0120	Geotextile Type HR	SY	121.000	121.000
0122	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	85,815.000	85,815.000
0124	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	892.000	892.000
0126	646.6120	Marking Stop Line Epoxy 18-Inch	LF	68.000	68.000
0128	650.4500	Construction Staking Subgrade	LF	223.000	223.000
0130	650.5000	Construction Staking Base	LF	223.000	223.000
0132	650.6000	Construction Staking Pipe Culverts	EACH	5.000	5.000
0134	650.8000	Construction Staking Resurfacing Reference	LF	30,616.000	30,616.000
0136	650.9911	Construction Staking Supplemental Control (project) 01. 1610-01-81	EACH	1.000	1.000
0138	650.9920	Construction Staking Slope Stakes	LF	223.000	223.000
0140	680.0100	Public Land Survey Monument Verify and Reset	EACH	4.000	4.000
0142	690.0150	Sawing Asphalt	LF	120.000	120.000
0144	740.0440	Incentive IRI Ride	DOL	23,057.000	23,057.000
0146	SPV.0090	Special 01. Ditch Cleaning	LF	50.000	50.000

3

ROADSIDE CLEARING									ASPHALT REMOVAL ITEMS						
			202.0110									204.0115	204.0120		
CATEGORY	STATION	LOCATION	SY	REMOVING SMALL PIPE CULVERTS								REMOVING ASPHALTIC SURFACE			
				CATEGORY	STATION	LOCATION	203.0100	REMARKS	CATEGORY	STATION	TO	STATION	LOCATION	SY	SY
0010	949+78.8	LT & RT	22	0010	852+82.0	STH 13	1	24" X 80' CMP	0010	850+65	-	915+00	LT & RT	120	22,237
0010	1014+14.7	LT & RT	16	0010	1031+02.5	STH 13	1	36" X 100' CMP	0010	915+00	-	980+00	LT & RT	0	21,625
0010	1043+89.1	LT	12						0010	980+00	-	1044+00	LT & RT	0	21,333
0010	1074+23.3	LT & RT	65						0010	1044+00	-	1105+00	LT & RT	82	21,797
0010	1096+43.2	RT	20						0010	1105+00	-	1155+00	LT & RT	132	20,654
TOTAL 0010			135									TOTAL 0010		334	107,646

3

REMOVING FENCE									TEMPORARY LANE SHIFT DURING CULVERT WORK						
			204.0170	EXCAVATION COMMON								208.1500.S			
CATEGORY	STATION	LOCATION	LF	REMARKS	CATEGORY	STATION	LOCATION	205.0100	REMARKS	CATEGORY	STATION	LOCATION	EACH		
0010	1074+26	RT	100	NEAR CULVERT END	0010	852+82	STH 13	670	PIPE REPLACEMENT	0010	852+82.0	STH 13	2		
TOTAL 0010			100		0010	1031+06	STH 13	540	PIPE REPLACEMENT	0010	1031+02.5	STH 13	2		
					TOTAL 0010					TOTAL 0010				4	

SHAPING SHOULDERS						BASE AGGREGATE ITEMS									
					305.0500						305.0110	305.0120	624.0100		
CATEGORY	STATION	TO	STATION	LOCATION	STA						BASE AGGREGATE DENSE				
0010	850+66	-	852+27	STH 13	4						3/4-INCH	1 1/4-INCH	WATER		
0010	853+37	-	915+00	STH 13	124						TON	TON	MGAL		
0010	915+00	-	980+00	STH 13	130	CATEGORY	STATION	TO	STATION	LOCATION	0010	852+27	-	853+37	LT & RT
0010	980+00	-	1030+46	STH 13	101	0010	1030+46	-	1031+59	LT & RT	0010	1030+46	-	1031+59	LT & RT
0010	1031+59	-	1044+00	STH 13	25						61	443	8		
0010	1044+00	-	1105+00	STH 13	122						TOTAL 0010	875	16		
0010	1105+00	-	1155+00	STH 13	100										
0010	20+24	-	21+81	STH 102	4										
TOTAL 0010					610										

ASPHALT PAVEMENT ITEMS									
					455.0605	460.6645	465.0105	465.0110	
					HMA PAVEMENT 5		ASPHALTIC SURFACE		
					TACK COAT	MT 58-34 V	PATCHING		
CATEGORY	STATION	TO	STATION	LOCATION	GAL	TON	TON	TON	REMARKS
0010	850+66	-	915+00	LT & RT	2,669	3,736	165		ASPHALTIC SURFACE FOR PIPE REPLACEMENT AT 852+82
0010	915+00	-	980+00	LT & RT	2,595	3,633			
0010	980+00	-	1044+00	LT & RT	2,560	3,584	169		ASPHALTIC SURFACE FOR PIPE REPLACEMENT AT 1031+02
0010	1044+00	-	1105+00	LT & RT	2,616	3,662			
0010	1105+00	-	1155+00	LT & RT	2,403	3,364			
0010	UNDISTRIBUTED			LT & RT			300	100	
TOTAL 0010					12,843	17,979	634	100	

PWL MIXTURE USE TABLE								
THE FOLLOWING ACCEPTANCE CRITERIA ARE APPLICABLE FOR THIS PROJECT								
LOCATION / DESCRIPTION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO USE	
							MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
STH 13 NB/SB DRIVING LANES	850+65 - 1154+43	LOWER LAYER	MILLED HMA SURFACE	460.6645 (5 MT 58-34 V)	6,805	1.5"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
STH 13 NB/SB DRIVING LANES	850+65 - 1154+43	UPPER LAYER	5 MT 58-34 V	460.6645 (5 MT 58-34 V)	6,805	1.5"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
STH 13 NB/SB SHOULDERS, TURN / BYPASS LANES, AND SIDE ROADS	850+65 - 1154+43	LOWER LAYER	MILLED HMA SURFACE	460.6645 (5 MT 58-34 V)	2,185	1.5"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE
STH 13 NB/SB SHOULDERS, TURN / BYPASS LANES, AND SIDE ROADS	850+65 - 1154+43	UPPER LAYER	5 MT 58-34 V	460.6645 (5 MT 58-34 V)	2,185	1.5"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE
CULVERT PATCHES	852+84 & 1031+08	ALL LAYERS	BASE AGGREGATE	ASPHALTIC SURFACE	334	8" TOTAL	SS 465	ORDINARY COMPACTION

3

ASPHALTIC FLUMES			
CATEGORY	STATION	LOCATION	465.0315 SY
0010	20+68	RT	6
TOTAL 0010			6

ASPHALTIC RUMBLE STRIPS, CENTERLINE					
CATEGORY	STATION	TO	STATION	LOCATION	465.0560 LF
0010	850+65	-	1155+00	CL	27,978
TOTAL 0010					27,978

3

CULVERT PIPE ITEMS																	
			520.8700 CLEANING CULVERT PIPES	521.1024 APRON ENDWALLS FOR CULVERT PIPE STEEL	521.1030 APRON ENDWALLS FOR CULVERT PIPE STEEL	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III	522.0148 CULVERT PIPE REINFORCED CONCRETE CLASS III	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE	522.1048 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE	524.0136 524.0142 524.0160 CULVERT PIPE SALVAGED			524.0636 524.0642 524.0660 APRON ENDWALLS FOR CULVERT PIPE SALVAGED			633.5200 MARKERS CULVERT END
CATEGORY	STATION	LOCATION	EACH	24-INCH EACH	30-INCH EACH	24-INCH LF	48-INCH LF	24-INCH EACH	30-INCH EACH	48-INCH EACH	36-INCH LF	42-INCH LF	60-INCH LF	36-INCH EACH	42-INCH EACH	60-INCH EACH	EACH
0010	852+82.0	STH 13				82		2									2
0010	875+76.0	STH 13															1
0010	900+58.6	STH 13		2													1
0010	943+90.0	STH 13															2
0010	993+18.0	STH 13															1
0010	997+88.4	STH 13										38			1		
0010	1010+60.4	STH 13			2												1
0010	1014+14.7	STH 13							1								
0010	1031+02.5	STH 13					104			2							2
0010	1043+89.1	STH 13										48			2		
0010	1096+43.2	STH 13	1								30			1			1
0010	21+01.1	STH 102	1														
TOTAL 0010			2	2	2	82	104	2	1	2	30	38	48	1	1	2	11

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RIPRAP ITEMS				
CATEGORY	STATION	LOCATION	606.0200	645.0120
			RIPRAP MEDIUM CY	GEOTEXTILE TYPE HR SY
0010	852+82.0	LT & RT	15	45
0010	1031+02.5	LT	8	23
0010	1074+23.3	LT	20	53
TOTAL 0010			43	121

RESTORATION ITEMS							
CATEGORY	STATION	LOCATION	625.0105	625.0500	629.0210	630.0130	630.0500
			TOPSOIL CY	SALVAGED TOPSOIL SY	FERTILIZER TYPE B * CWT	SEEDING MIXTURE NO. 30 LB	SEED WATER MGAL
0010	852+82.0	LT & RT		190	0.3	15	7.4
0010	900+58.6	LT & RT		15	0.1	4	2.0
0010	949+78.8	LT & RT		47	0.1	5	2.2
0010	997+88.4	RT		52	0.1	3	1.2
0010	1010+60.4	LT & RT	6	0	0.0	2	0.9
0010	1014+14.7	LT & RT		25	0.2	8	3.9
0010	1031+02.5	LT & RT		337	0.3	22	11.0
0010	1043+89.1	LT & RT		208	0.2	10	5.0
0010	1074+23.3	LT & RT		91	0.2	11	5.3
0010	1096+43.2	RT		52	0.1	3	1.2
0010	21+01.1	LT & RT		15	0.1	1	0.4
	UNDISTRIBUTED		1	52	0.4	5	2.5
TOTAL 0010			7	1,084	2.1	89	43

*DO NOT APPLY FERTILIZER WITHIN 20' OF ANY WATERWAY

TOPSOIL FOR EMBANKMENT
RESTORATION

3

EROSION CONTROL ITEMS								
CATEGORY	STATION	LOCATION	628.1504	628.1520	628.1905	628.1910	628.2008	628.7555
			SILT FENCE LF	SILT FENCE MAINTENANCE LF	MOBILIZATIONS EROSION CONTROL EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	EROSION MAT URBAN CLASS I TYPE B SY	CULVERT PIPE CHECKS EACH
0010	852+82.0	LT & RT	223	446			190	8
0010	900+58.6	LT & RT	220	440			15	8
0010	949+81.0						47	12
0010	997+88.4	RT	106	212			52	13
0010	1010+60.4	LT & RT	231	462			210	10
0010	1014+14.7	LT	119	238			25	10
0010	1031+02.5	LT & RT	291	582			337	14
0010	1043+89.1	LT & RT	207	414			208	16
0010	1074+23.3						91	16
0010	1096+43.2	RT	103	206			52	12
0010	21+01.1		103	206			52	12
0010	UNDISTRIBUTED		165	330	4	2	110	7
TOTAL 0010			1,768	3,536	4	2	1,389	138

TRAFFIC CONTROL ITEMS											
					643.0300			643.0900			
					TRAFFIC CONTROL						
CATEGORY	STATION	TO	STATION	LOCATION	DRUMS			SIGNS			REMARKS
					UNITS	DURATION	DAY	UNITS	DURATION	DAY	
0010	850+65	-	1154+43					19	71	1,349	ADVANCE SIGNING
0010	850+65	-	1154+43		64	5	320	4	5	20	PIPE REPLACEMENTS
0010	850+65	-	1154+43					31	26	806	MILLING & PAVING
0010	850+65	-	1154+43		13	3	39				SHOULDER CLOSURES
0010			UNDISTRIBUTED				72				SHOULDER CLOSURES
TOTAL 0010					431			2,175			

PROJECT NO: 1610-01-81

HWY: STH 13

COUNTY: TAYLOR

MISCELLANEOUS QUANTITIES

SHEET

20

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3

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PAVEMENT MARKING ITEMS									
					643.3165	646.2040	646.4040	646.6120	
					MARKING LINE				
					GROOVED WET REF EPOXY **				
					TEMPORARY MARKING LINE PAINT 6-INCH *	6-INCH (YELLOW)	6-INCH (WHITE)	10-INCH (WHITE)	MARKING STOP LINE EPOXY 18-INCH
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	LF	LF	LF
0010	850+66	-	915+00	STH 13	8,240	5,022	12,577		
0010	915+00	-	980+00	STH 13	7,016	3,766	12,899		
0010	980+00	-	1044+00	STH 13	8,783	5,583	12,800		
0010	1044+00	-	1105+00	STH 13	7,272	4,222	11,624		
0010	1105+00	-	1155+00	STH 13	9,615	7,115	9,674	663	
0010	20+00	-	21+81	STH 102	393	302	231	109	34
				NORTH ST				120	34
				SUBTOTAL		26,010	59,805		
				TOTAL 0010	41,319	85,815	892	68	

*APPLIED TO MILLED SURFACE AND LOWER LAYER OF HMA (CENTER SKIPS ONLY) AND TO TOP SURFACE PRIOR TO INSTALLATION OF RUMBLE STRIPS (CENTER SKIPS ONLY).
**APPLIED TO TOP SURFACE AFTER INSTALLATION OF RUMBLE STRIPS.

CONSTRUCTION STAKING ITEMS									
					650.4500	650.5000	650.6000	650.8000	650.9911.01
					CONSTRUCTION STAKING				
					SUPPLEMENTAL CONTROL (01. 1610-01-81)				
					SUBGRADE	BASE	PIPE CULVERTS	RESURFACING	SLOPE STAKES
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	EACH	REFERENCE	LF
0010	852+27	-	853+37		110	110			
0010	1030+46	-	1031+59		113	113			
0010	852+82.0						1		
0010	997+88.4						1		
0010	1031+02.5						1		
0010	1043+89.1						1		
0010	1096+43.2						1		
0010	850+66	-	1155+00					30,434	1
0010	20+00	-	21+81					181	
				TOTAL 0010	223	223	5	30,615	1

PUBLIC LAND REFERENCE MONUMENT VERIFY AND RESET				
680.0100				
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	955+92.91	18.09' RT	1	QTR CRNR - REBAR W ALUM CAP 12" BELOW GRADE
0010	1008+47.62	0.06' LT	1	QTR CRNR - PK NAIL
0010	1060+78.08	18.89' LT	1	QTR CRNR - COTTON GIN SPIKE
0010	1116+31.00	42.32' RT	1	QTR CRNR - 2.5" CONC FILLED IRON PIPE 7" BELOW GRADE
		TOTAL 0010	4	

SAWING ASPHALT				
690.0150				
CATEGORY	STATION	LOCATION	LF	REMARKS
0010	852+82.0		60	PIPE REPLACEMENT
0010	1031+02.5		60	PIPE REPLACEMENT
		TOTAL 0010	120	

DITCH CLEANING			
SPV.0090.01			
CATEGORY	STATION	LOCATION	LF
0010	21+01.1	LT & RT	50
		TOTAL 0010	50

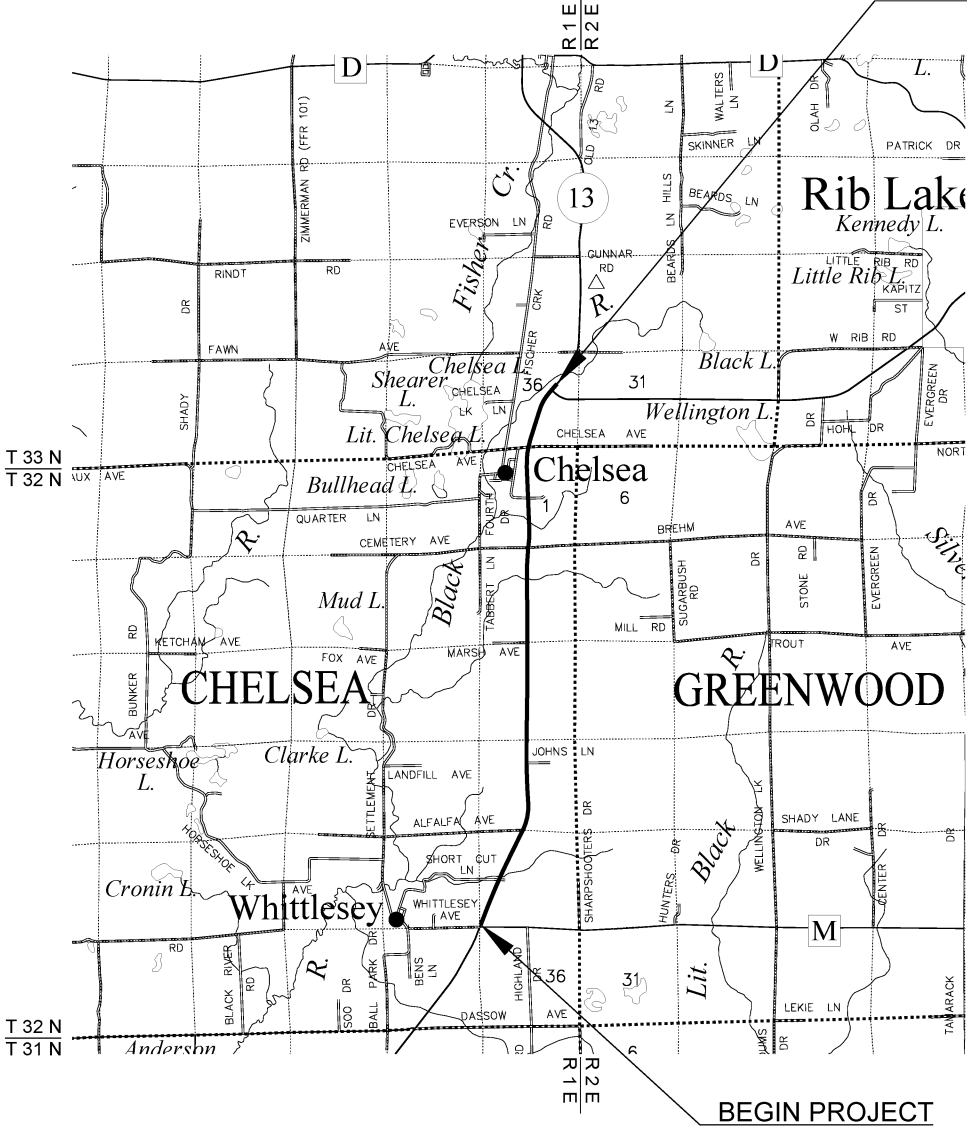


STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
1610-01-21
MEDFORD - PRENTICE

CTH M E. TO STH 102

STH 13
TAYLOR COUNTY

END PROJECT



LAYOUT
SCALE 0 1 MI.

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 SURVEY MONUMENT (SEE FOUND MONUMENT TABLE)	IP
NEW REFERENCE LINE	---	SIGN		PERMITTED SIGN	
NEW R/W LINE	---	ACCESS RESTRICTED BY ACQUISITION			
EXISTING R/W OR HE LINE	---	NO ACCESS (BY STATUTORY AUTHORITY)			
PROPERTY LINE	---	ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)			
LOT, TIE & OTHER MINOR LINES	---	NO ACCESS (NEW HIGHWAY)			
EXISTING CENTERLINE	---	PARCEL NUMBER	25	UTILITY NUMBER	40
CORPORATE LIMITS	---				
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)	---				
TEMPORARY LIMITED EASEMENT AREA	---				
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)	---				
BUILDING		TO BE REMOVED			
BRIDGE		CULVERT			

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	RECORDED AS	(100')
ACRES	AC	REEL / IMAGE	R/I
ALUMINUM	ALUM	REFERENCE LINE	R/L
AND OTHERS	ET AL	REMAINING	REM
BLOCK	BLK	RESTRICTIVE DEVELOPMENT	RDE
CENTERLINE	C/L	EASEMENT	
CERTIFIED SURVEY MAP	CSM	RIGHT	RT
CONCRETE	CONC	RIGHT OF WAY	R/W
COUNTY TRUNK HIGHWAY	CTH	SECTION	SEC
CORNER	COR	SEPTIC VENT	SEPV
DOCUMENT NUMBER	DOC	SQUARE FEET	SF
EASEMENT	EASE	STATE TRUNK HIGHWAY	STH
EXISTING	EX	STATION	STA
GAS VALVE	GV	TELEPHONE PEDESTAL	TP
GRID NORTH	GN	TRANSPORTATION PROJECT PLAT	TPP
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LEFT	LT	VOLUME	V
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		
POINT OF COMPOUND CURVE	PCC		
POINT OF INTERSECTION	PI		
PROPERTY LINE	PL		

CURVE DATA ABBREVIATIONS

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
DELTA ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 1610-01-21.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), TAYLOR 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.

ALL NEW RIGHT-OF-WAY AND PERMANENT MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, CENTERLINE OF EXISTING PAVEMENTS AND/OR EXISTING OCCUPATIONAL LINES.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, 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 DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE 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 DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

AN EASEMENT FOR HIGHWAY PURPOSES (HE), AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE.

PROPERTY LINES SHOWN ON THIS PLAT FOR PROPERTIES BEING IMPACTED ARE DRAWN FROM DATA DERIVED FROM FILED/RECORDED MAPS AND DOCUMENTS OF PUBLIC RECORD. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN SUPERIOR

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

CONVENTIONAL UTILITY SYMBOLS

WATER	---	W
GAS	---	G
TELEPHONE	---	T
OVERHEAD TRANSMISSION LINES	---	OH
ELECTRIC	---	E
CABLE TELEVISION	---	TV
FIBER OPTIC	---	FO
SANITARY SEWER	---	SAN
STORM SEWER	---	SS
COMBINED SEWER	---	SSS
ELECTRIC TOWER		
TRANSMISSION STRUCTURES		

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		

PROJECT NUMBER 1610-01-21-4.01
SHEET 2 OF 3

TRANSPORTATION PROJECT PLAT NO: 1610-01-21-4.01

THAT PART OF LOT 1 OF CERTIFIED SURVEY MAP 1934, VOLUME 9-5, PAGE 182-183, DOCUMENT NUMBER 325215 LOCATED IN AND INCLUDING PART OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 25, TOWNSHIP 32 NORTH, RANGE 1 EAST, TOWN OF CHELSEA, TAYLOR COUNTY, WISCONSIN.

RELOCATION ORDER STH 13, MEDFORD - PENITENCE, CTH M.E. TO STH 102, TAYLOR COUNTY

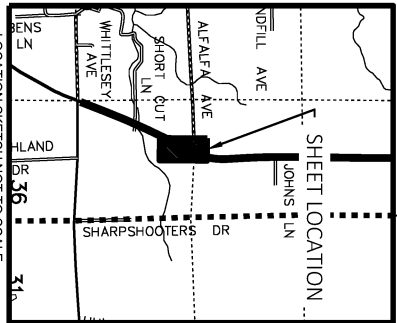
A PROPERTY ESTABLISH LAY OUT WHEN, ENLARGE, EXTEND, CONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE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

- TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
- THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED BY THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
 - THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

PARCEL NO.	OWNER(S)	INTERESTS REQUIRED		FEE R/W (SQUARE FEET)	PLE SF
		NEW	EXISTING		
1	JUSTIN L. NIGGEMANN AND EMILY A. NIGGEMANN	364	-----	364	-----
2	HARTLAND PROPERTIES LLC	FEE & PLE	64	-----	326

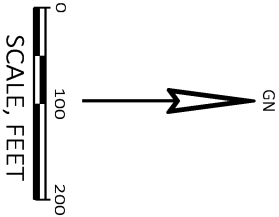
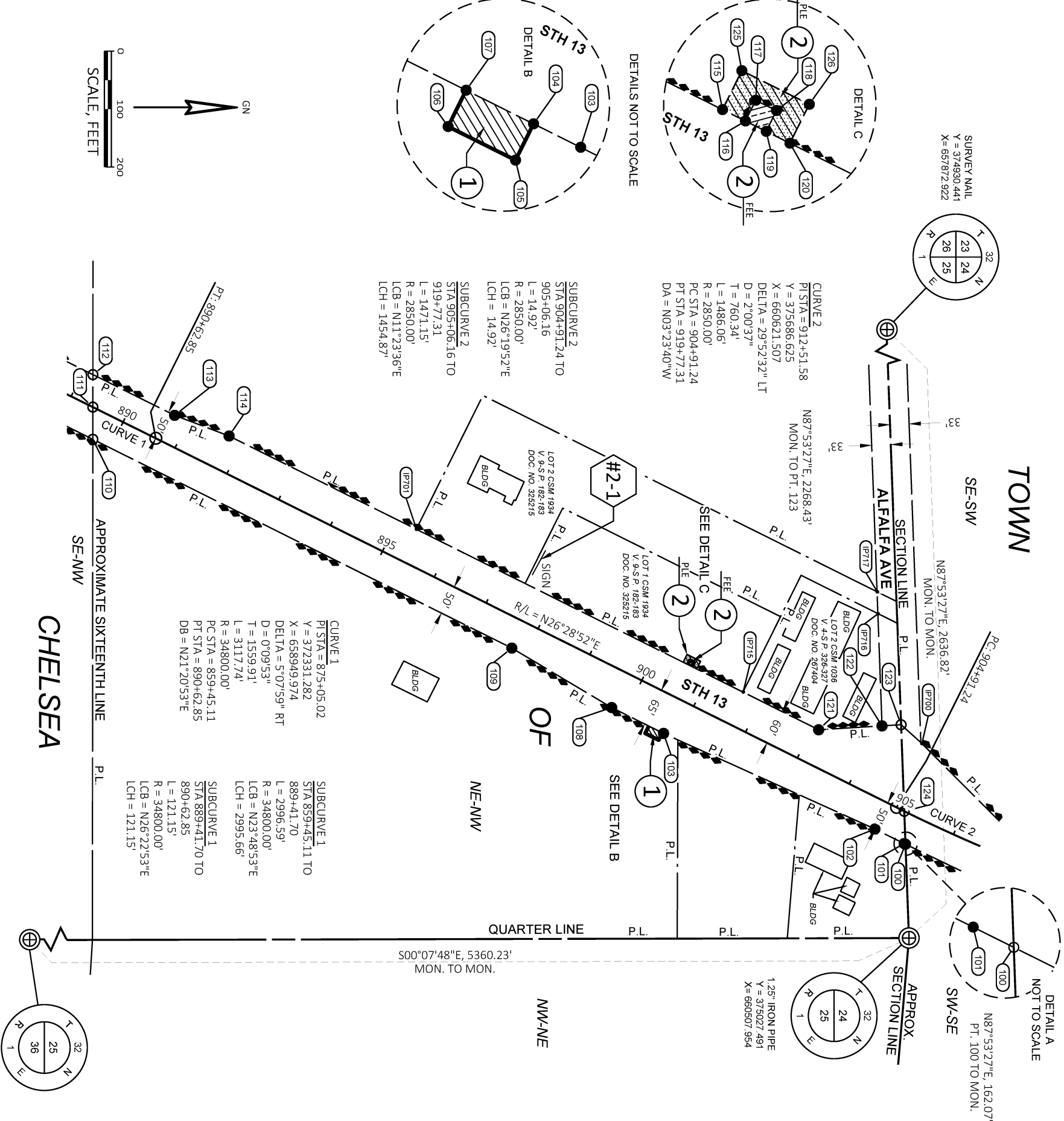
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PURPOSE OF THE PLE IS FOR CULVERT AREA RIPRAP AND MAINTENANCE.



DOCUMENT#: 393710
Recorded January 31, 2025 at 2:47 PM
JAVNI S KOHN
REGISTER OF DEEDS
TAYLOR COUNTY, WI
Pages: 3 Fee Amount: \$25.00
Reburt To: WISDOT - NW Region - Eau Claire
***The above recording information verifies the document has been electronically recorded ***

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1610-01-21-4.01
SHEET 1 OF 3



NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCONS), TAYLOR 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.

ALL NEW RIGHT-OF-WAY AND PERMANENT MONUMENTS WILL BE TYPE 2 (TYPICALLY 1/2" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

STH 13: PREVIOUS PROJECTS DIVISION JOB 6079 AND 1619-02-22

ALFAFA AVENUE: PREVIOUS PROJECT 1619-02-22, CSM 1036, AND PRESUMED TO BE 66 FEET IN WIDTH CENTERED ON THE EXISTING CENTERLINE OF TRAVELED WAY PER STATE STATUTE 82.31(2).

EXISTING ACCESS CONTROL, SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

STH 13: PREVIOUS PROJECT 1619-02-22.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN SUPERIOR.

FOUND MONUMENT INFORMATION SHOWN REPRESENTS TYPE AND LOCATION OF EXISTING MONUMENTS WITHOUT OPINION AS TO THEIR VALIDITY AND USE AS A PROPERTY CORNER.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3

SCHEDULE OF SIGN STRUCTURES		
SIGN NO.	SIGN OWNER(S)	PERMIT NUMBER
2-1	LINK MEDIA WISCONSIN, LLC	019773

COMPUTED FROM REFERENCE MONUMENTS PER THE SHEET BY ROBERT B. MEYER DATED 3/25/2022
Y = 369667.272
X = 660520.128

SIGNATURE: _____ DATE: 01/29/2025

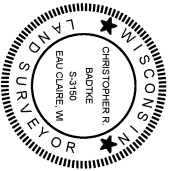
PRINT NAME: CHRISTOPHER R. BATOTIE

REGISTRATION NUMBER: S-3150

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION - NORTHWEST REGION.

SIGNATURE: *Shawn Gustafson* DATE: 01/29/2025
PRINT NAME: AARON G. GUSTAFSON

AYRES



TRANSPORTATION PROJECT PLAT NO: 1610-01-21-4.01 - EXTENSION SHEET

RELOCATION ORDER STH 13, MEDFORD - PRENTICE, CTH M E. TO STH 102, TAYLOR COUNTY

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
100-101	S25°37'25"W	2.58'
101-102	S26°28'52"W	56.44'
102-103	S24°20'01"W	400.28'
103-104	S26°28'52"W	2.40'
104-105	S63°31'08"E	14.00'
105-106	S26°28'52"W	26.00'
106-107	N63°31'08"W	14.00'
107-108	S26°28'52"W	71.60'
108-109	S30°46'13"W	200.56'
109-110	S26°28'52"W	807.95'
110-111	N89°57'02"W	55.61'
111-112	N89°57'02"W	56.07'
112-113	N26°28'52"E	157.66'
113-114	N20°46'14"E	100.50'
114-115	N26°28'52"E	875.60'
115-116	N26°28'52"E	8.84'
116-117	N63°31'08"W	8.00'
117-118	N26°28'52"E	8.00'
118-119	S63°31'08"E	8.00'
119-120	N26°28'52"E	9.16'
120-121	N26°28'52"E	235.18'
121-122	N03°28'51"W	109.55'
122-123	N03°28'51"W	33.01'
123-124	N87°53'27"E	149.37'
124-100	N87°53'27"E	56.95'

PLE COURSE TABLE		
COURSE	BEARING	DISTANCE
115-125	N63°31'08"W	15.00'
125-126	N26°28'52"E	26.00'
126-120	S63°31'08"E	15.00'

R/W STATION & OFFSET TABLE		
POINT	STATION	OFFSET
100	905+32.68	50.27' RT
101	905+30.15	50.28' RT
102	904+74.40	50.00' RT
103	900+74.40	65.00' RT
104	900+72.00	65.00' RT
105	900+72.00	79.00' RT
106	900+46.00	79.00' RT
107	900+46.00	65.00' RT
108	899+74.40	65.00' RT
109	897+74.40	50.00' RT
110	889+66.31	49.87' RT
111	889+41.70	0.00'
112	889+16.95	50.31' LT
113	890+74.40	50.00' LT
114	891+74.40	60.00' LT
115	900+50.00	60.00' LT
116	900+58.84	60.00' LT
117	900+58.84	68.00' LT
118	900+66.84	68.00' LT
119	900+66.84	60.00' LT
120	900+76.00	60.00' LT
121	903+11.18	60.00' LT
122	904+06.08	114.71' LT
123	904+34.68	131.20' LT
124	905+06.16	0.00'
125	900+50.00	75.00' LT
126	900+76.00	75.00' LT

FOUND MONUMENT TABLE			
POINT	Y	X	DESCRIPTION
700	375049.839	660172.220	3/4" REBAR W/CAP
701	374177.519	659802.511	1-1/4" IRON PIPE
715	374741.438	660083.173	1-3/4" IRON PIPE
716	374973.988	659948.461	1-3/4" IRON PIPE
717	374972.687	659910.214	1" REBAR

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), TAYLOR 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.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3

TRANSPORTATION PROJECT PLAT NO: 1610-01-21-4.02
THAT PART OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 12, TOWNSHIP 32 NORTH,
RANGE 1 EAST, TOWN OF CHELSEA, TAYLOR COUNTY, WISCONSIN.

RELOCATION ORDER STH 13, MEDFORD - PRENTICE, CTH M E. TO STH 102, TAYLOR COUNTY
TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE
HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEMS IT NECESSARY TO RELOCATE OR
CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

- TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE
DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
- THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS Laid OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO
SHOWN FOR THE ABOVE PROJECT.
 - THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE
PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09
(1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS AND INTERESTS REQUIRED				
PARCEL NO.	OWNER(S)	INTERESTS REQUIRED	FEE R/W (SQUARE FEET)	
3	SHARON MALLIEN	FEE	407	407

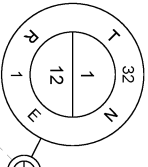
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO
CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

UTILITY INTERESTS REQUIRED

UTILITY NO.	OWNER(S)	INTEREST REQUIRED
50	TAYLOR ELECTRIC COOPERATIVE	RELEASE OF RIGHTS

50 TAYLOR ELECTRIC COOPERATIVE
NO EASEMENTS OF RECORD - PARCEL 3

COTTON GIN SPIKE
Y = 390542.809
X = 660557.772



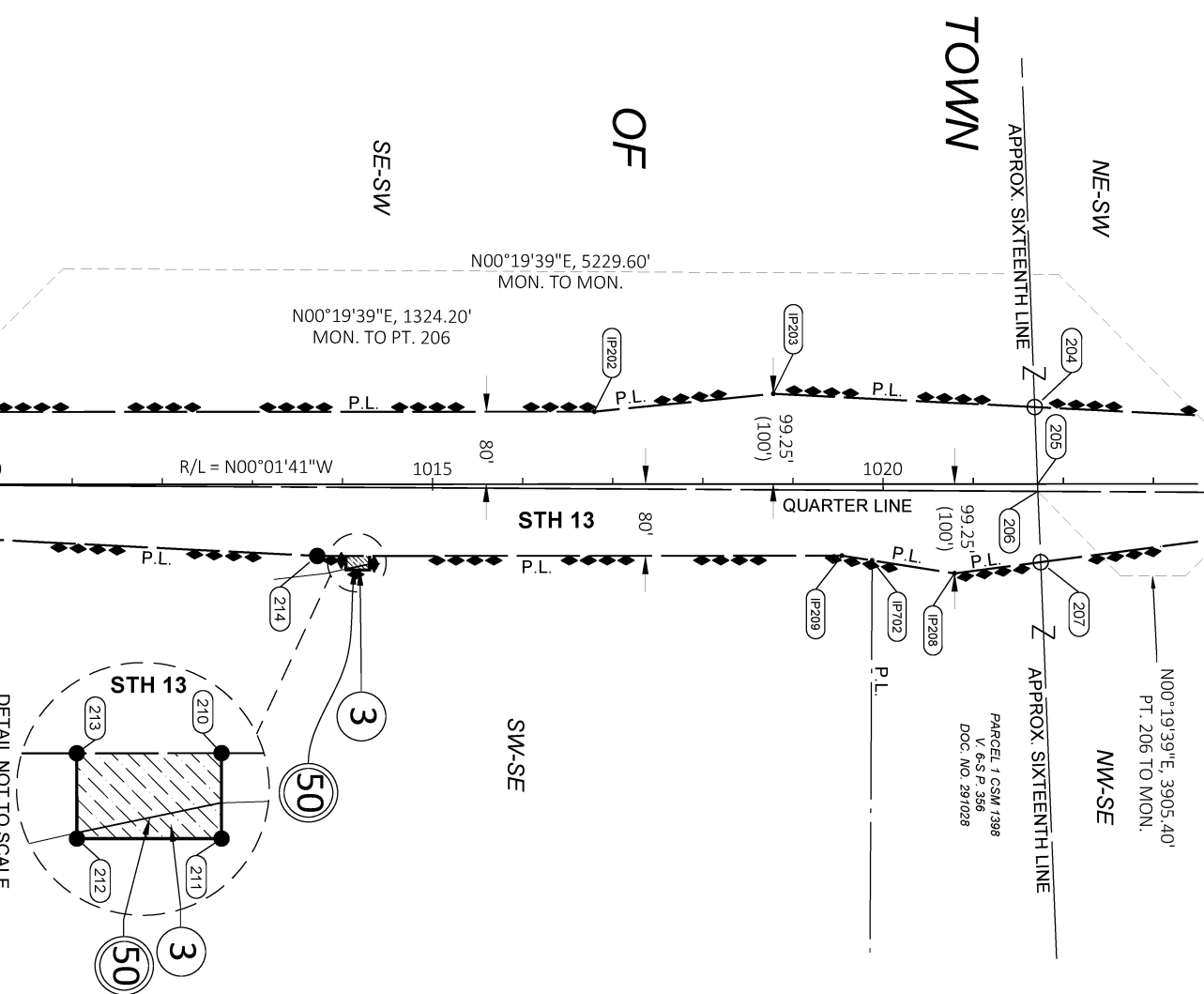
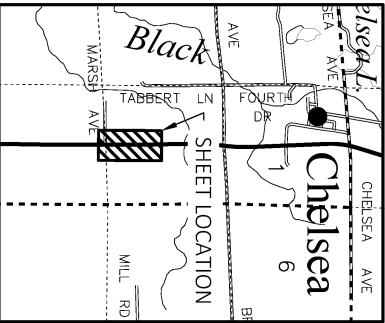
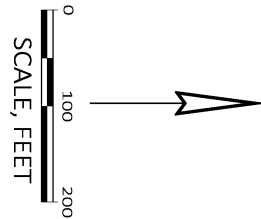
N00°19'39"E, 3905.40'
PT. 206 TO MON.

NE-SW

NW-SE

APPROX. SIXTEENTH LINE

TOWN



COURSE TABLE		
COURSE	BEARING	DISTANCE
SEC-200	S87°53'29"W	80.47'
200-201	N00°01'41"W	24.57'
201-IP202	N00°01'41"W	810.25'
IP202-IP203	N05°41'27"W (N05°24'30"W)	199.56' (201.00')
IP203-204	N02°53'25"E	290.61'
204-205	N87°51'07"E	85.44'
205-206	N87°51'07"E	8.15'
206-207	N87°42'26"E	78.71'
207-IP208	S07°26'53"E	96.44'
IP208-IP209	S08°56'45"W (S09°23'33"W)	126.54' (126.59')
IP209-210	S00°01'41"E	524.28'
210-211	N89°58'19"E	15.49'
211-212	S00°01'41"E	26.25'
212-213	S89°58'19"W	15.49'
213-214	S00°01'41"E	31.85'
214-IP215	S02°51'42"W	522.74'
IP215-216	S87°36'08"W	53.21'
216-SEC	S87°36'08"W	0.06'

R/W STATION & OFFSET TABLE		
POINT	STATION	OFFSET
200	1008+44.70	80.48' LT
201	1008+69.26	80.48' LT
IP202	1016+79.51	80.48' LT
IP203	1018+78.10	100.18' LT
204	1021+68.33	85.38' LT
205	1021+71.49	0.00'
206	1021+71.80	8.15' RT
207	1021+74.91	86.80' RT
IP208	1020+79.27	99.25' RT
IP209	1019+54.28	79.51' RT
210	1014+30.00	79.51' RT
211	1014+30.00	95.00' RT
212	1014+03.75	95.00' RT
213	1014+03.75	79.51' RT
214	1013+79.45	79.89' RT
IP215	1008+49.88	53.16' RT
216	1008+47.62	0.00'

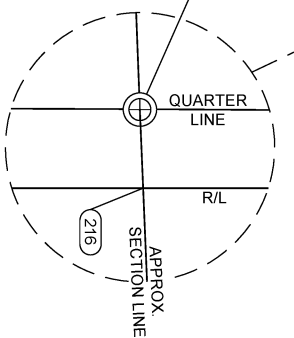
CHELSEA

MARSH AVE

NW-NE

PARCEL 2 CSM 641
V. 3 S P. 8
DOC. NO. 245014

PARCEL 1 CSM 1398
V. 6 S P. 386
DOC. NO. 297028



DETAIL NOT TO SCALE

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES
(WISGRS), TAYLOR COUNTY, MAD31(2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID
BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY AND PERMANENT MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON
REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
STH 13: PREVIOUS PROJECTS DIVISION JOB 6079 AND 1619-02-22.
MARSH AVENUE: TOWN ROAD RECORDS, PREVIOUS PROJECT 1619-02-22, AND CSM 1668.

EXISTING ACCESS CONTROL SHOWN HEREIN S BASED ON THE FOLLOWING POINTS OF REFERENCE:
STH 13: PREVIOUS PROJECT 1619-02-22.

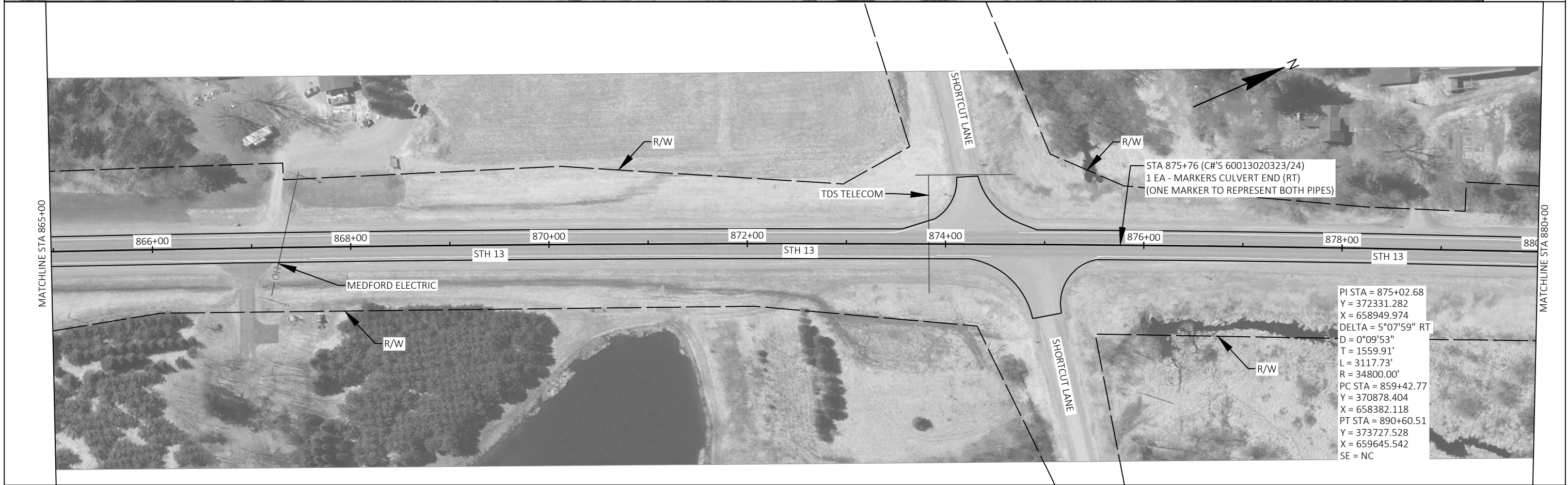
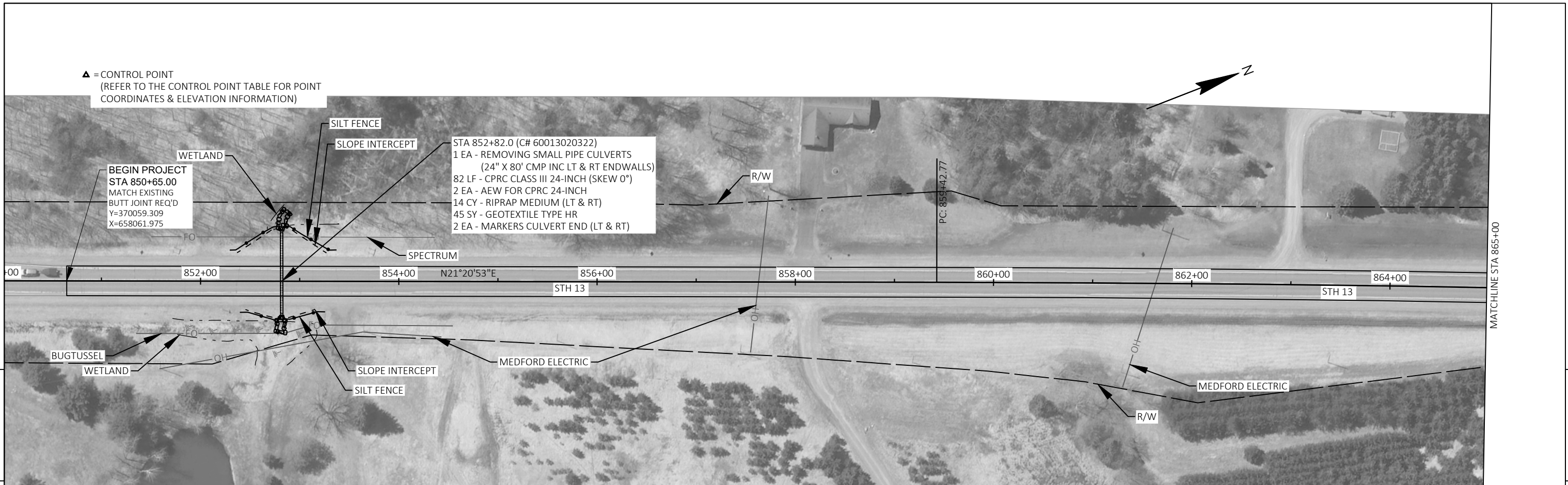
FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN
DEPARTMENT OF TRANSPORTATION OFFICE IN SUPERIOR.

FOUND MONUMENT INFORMATION SHOWN REPRESENTS TYPE AND LOCATION OF EXISTING MONUMENTS
WITHOUT OPINION AS TO THEIR VALIDITY AND USE AS A PROPERTY CORNER.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 7 OF 2 OF DOCUMENT
NUMBER 393710.

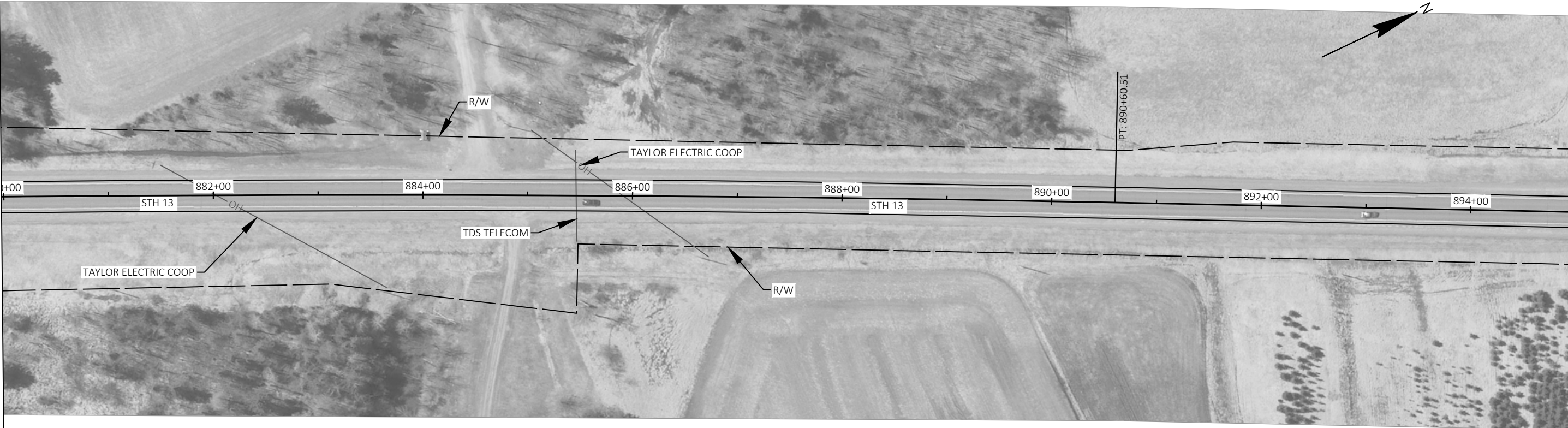
1. CHRISTOPHER R. BATJOTE, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL
COMPLIANCE WITH THE PROVISIONS OF SECTION 84.09S OF THE WISCONSIN STATUTES
AND UNDER THE DIRECTION OF WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE
CORRECTLY REPRESENTED ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: *Christopher R. Batjote* DATE: 02/12/2025
PRINT NAME: CHRISTOPHER R. BATJOTE
REGISTRATION NUMBER: 5-3150
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR
THE WISCONSIN DEPARTMENT OF TRANSPORTATION -
NORTHWEST REGION.
SIGNATURE: *Aaron G. Gustafson* DATE: 02/25/2025
PRINT NAME: AARON G. GUSTAFSON

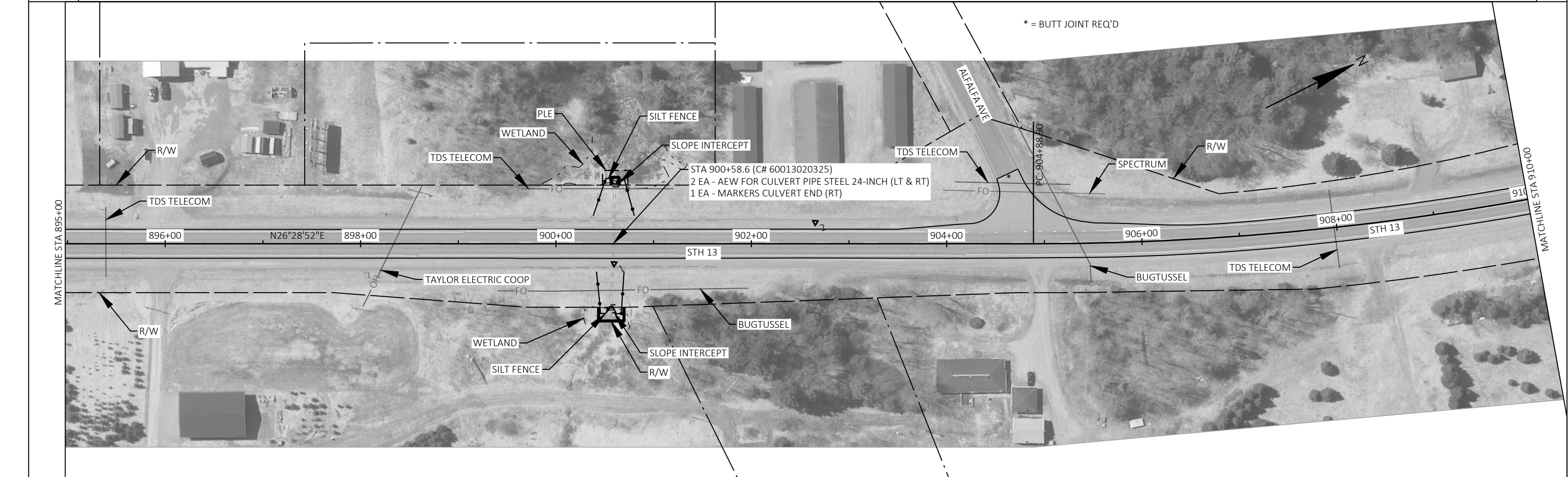


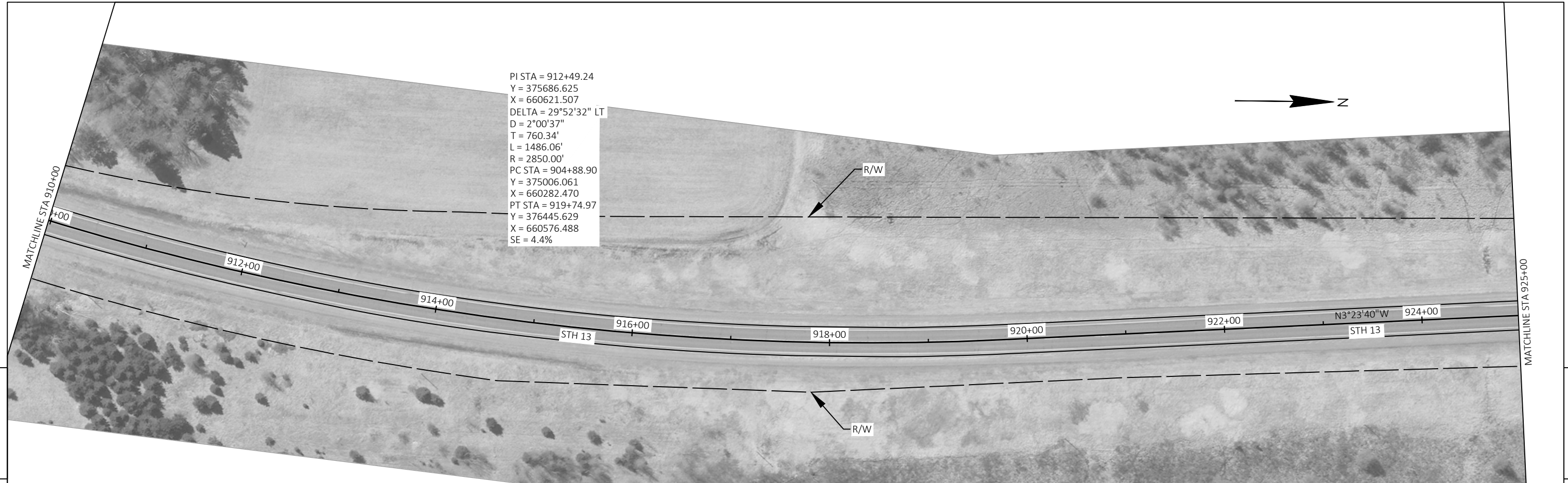
PROJECT NO: 1610-01-81	HWY: STH 13	COUNTY: TAYLOR	PLAN VIEW	SHEET 27	E
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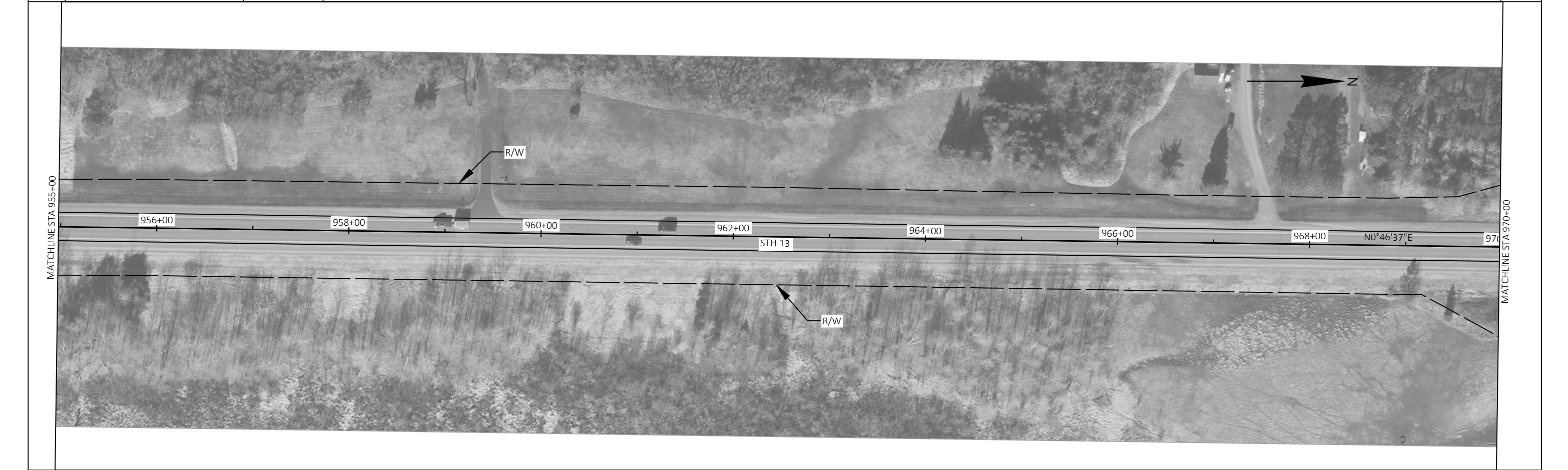
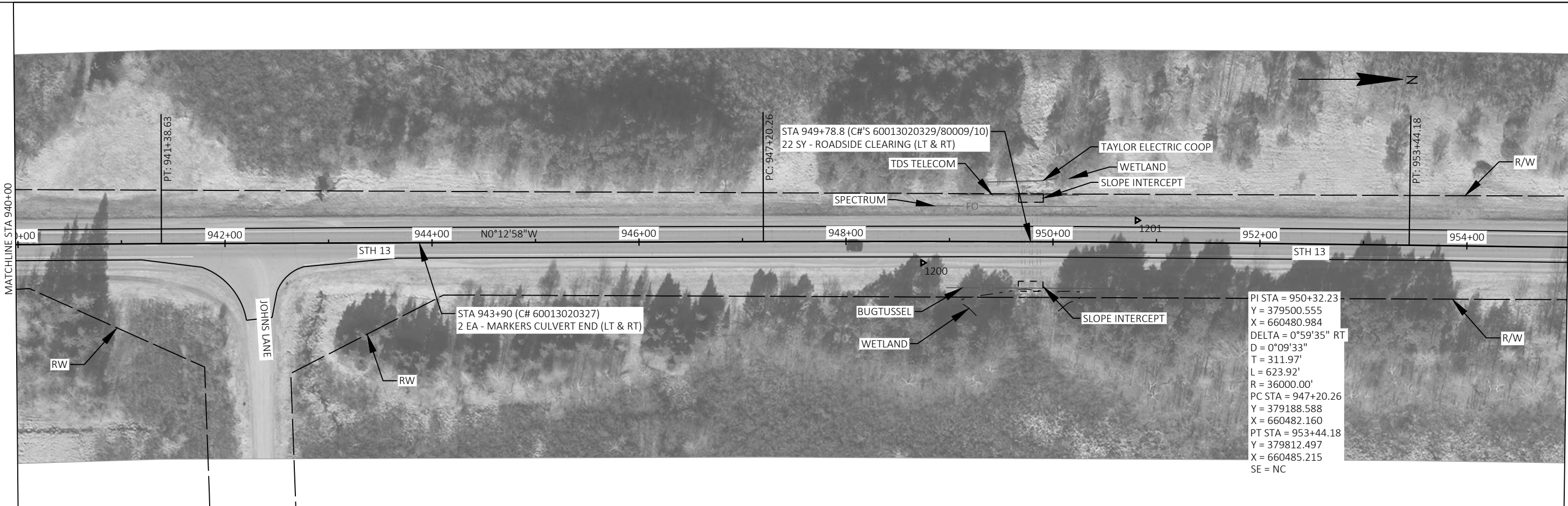


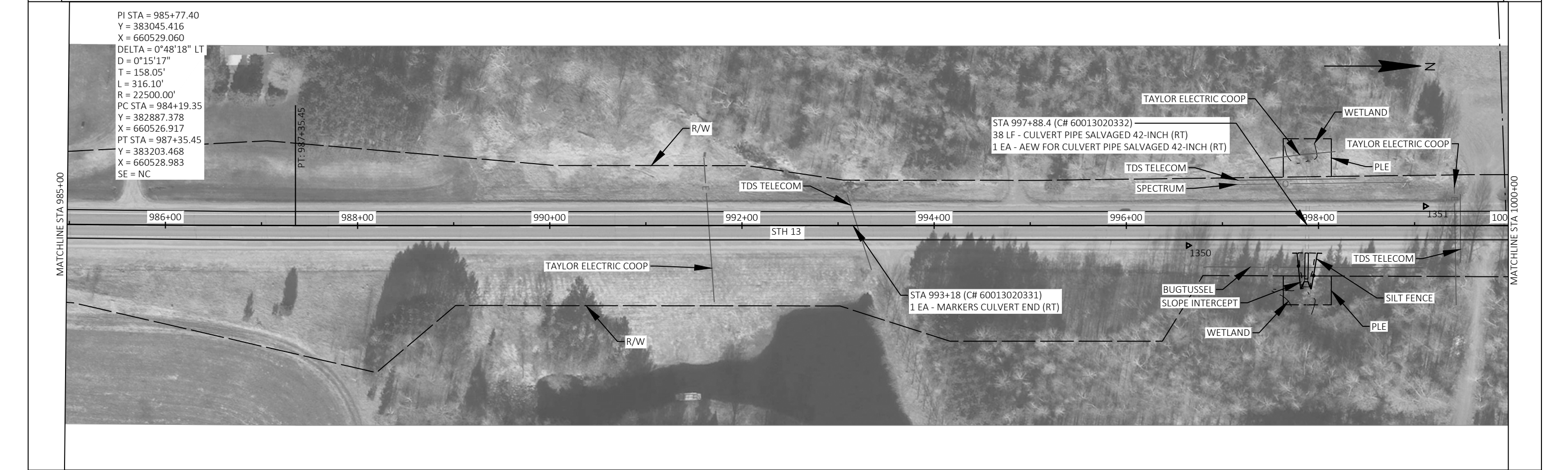
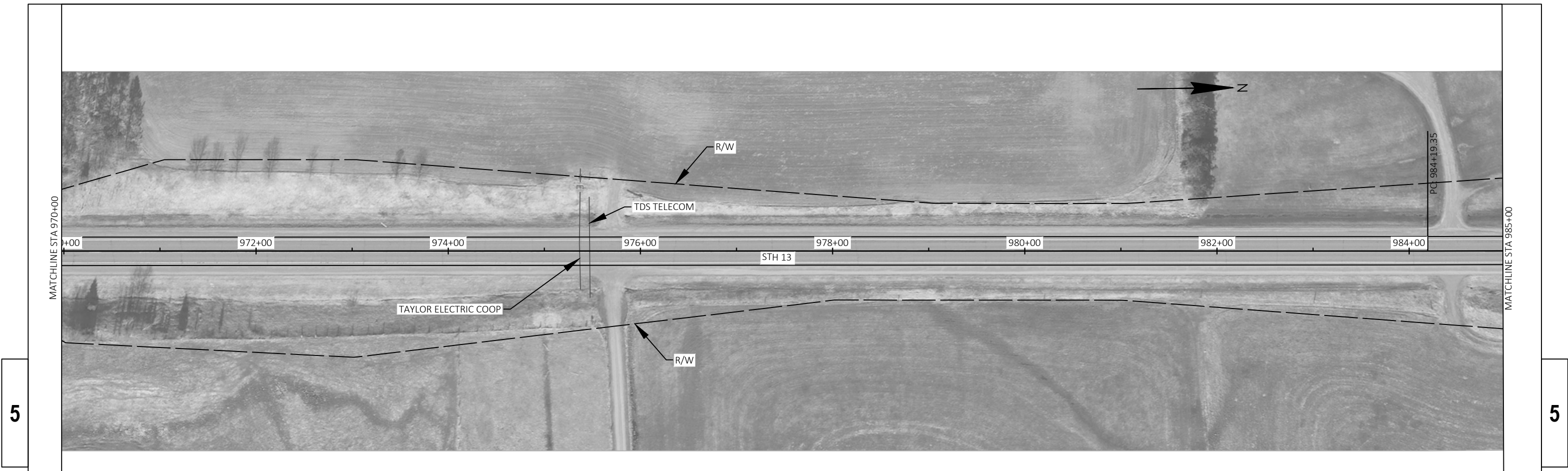
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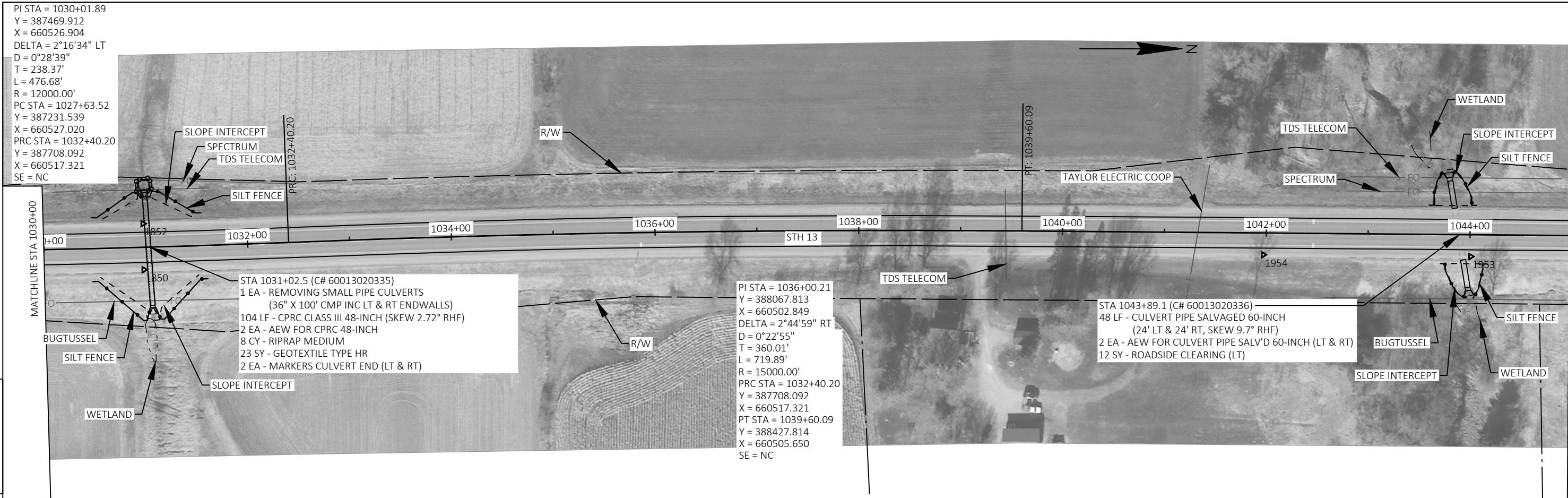


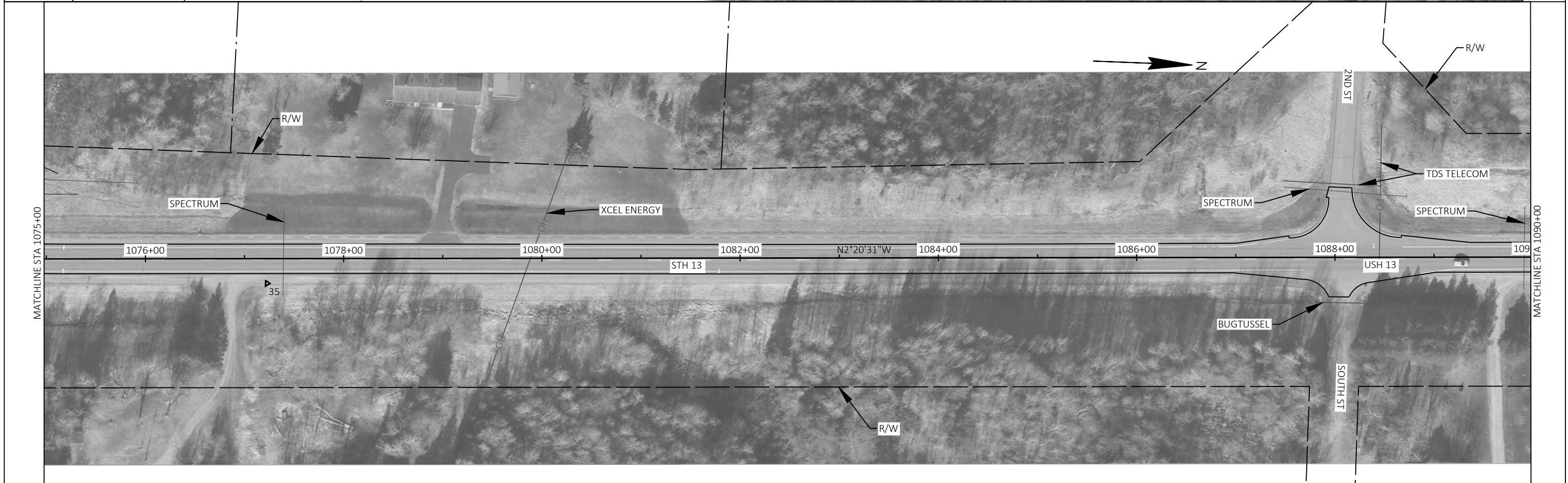
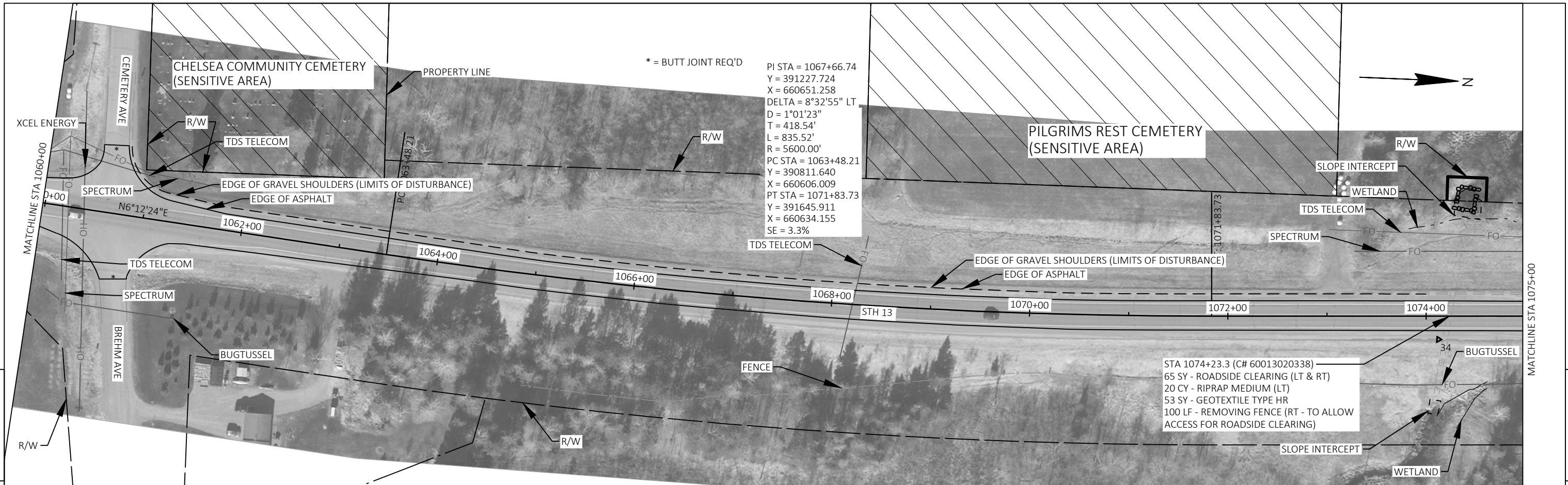
PROJECT NO: 1610-01-81	HWY: STH 13	COUNTY: TAYLOR	PLAN VIEW	SHEET 29	E
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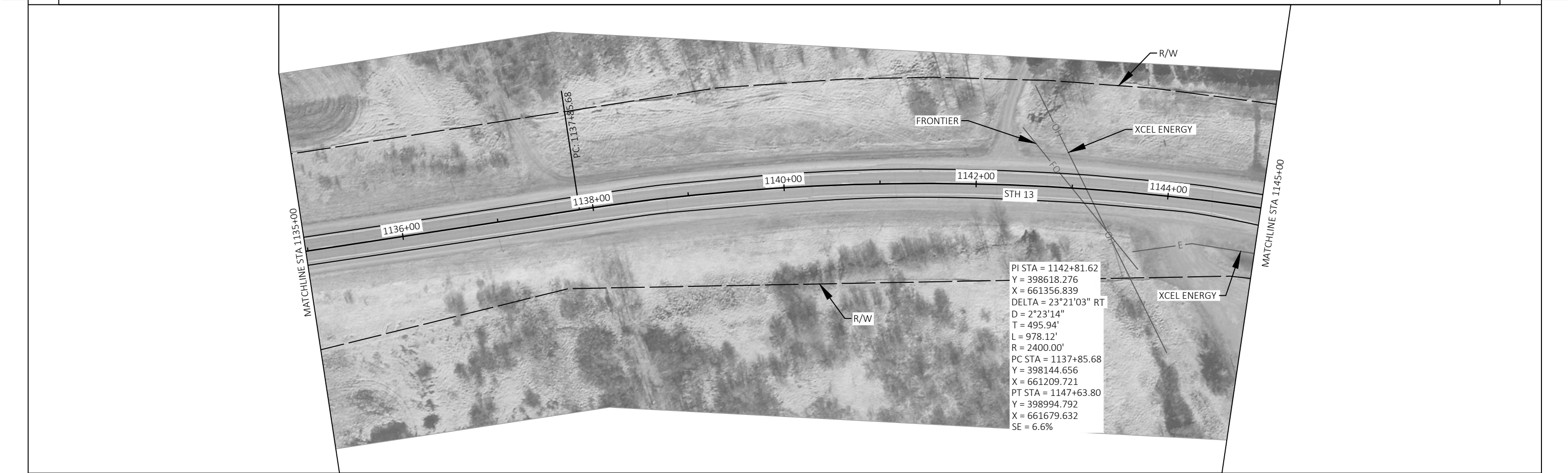
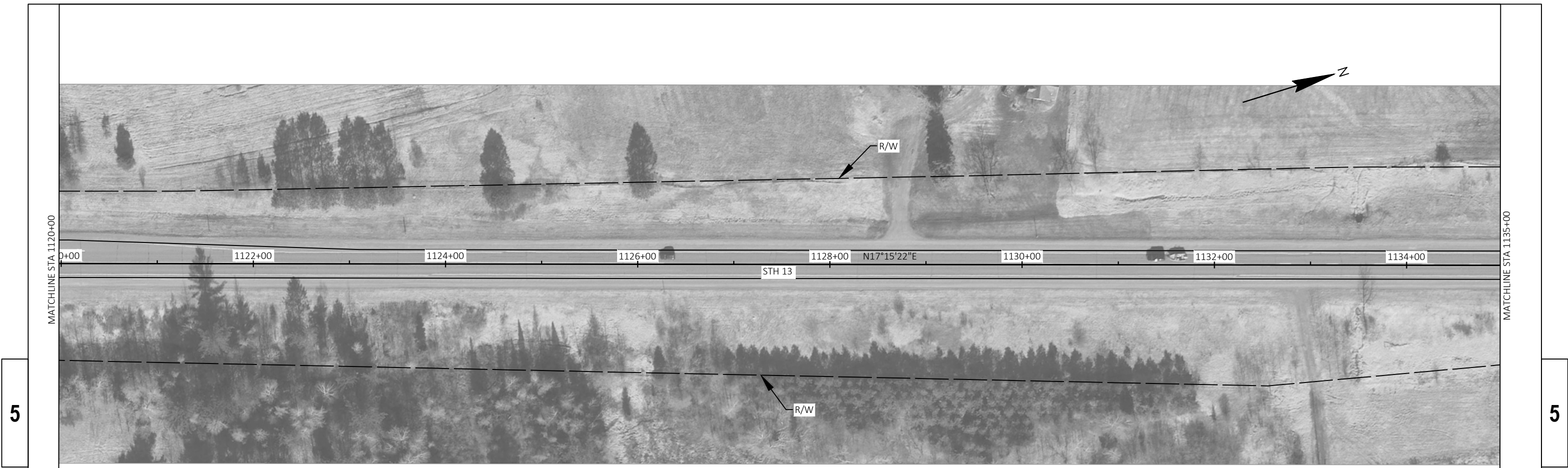




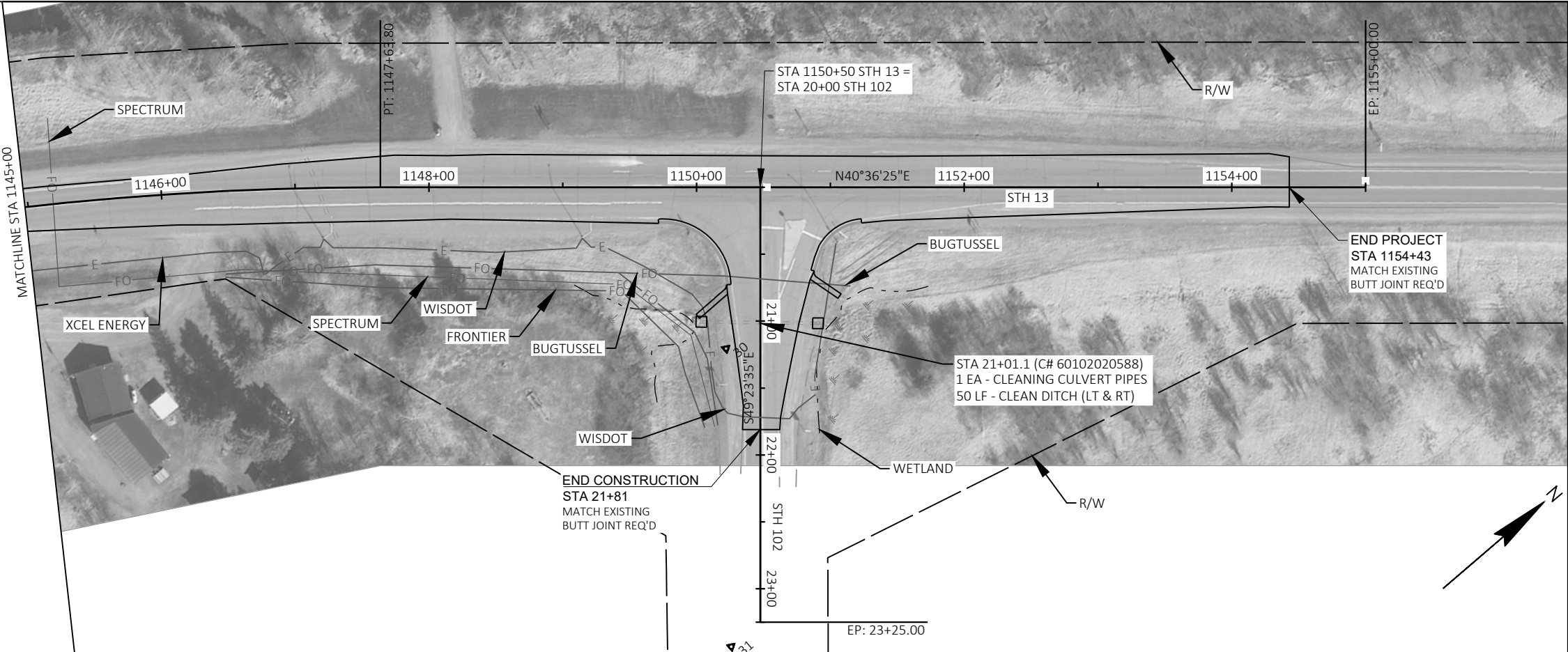








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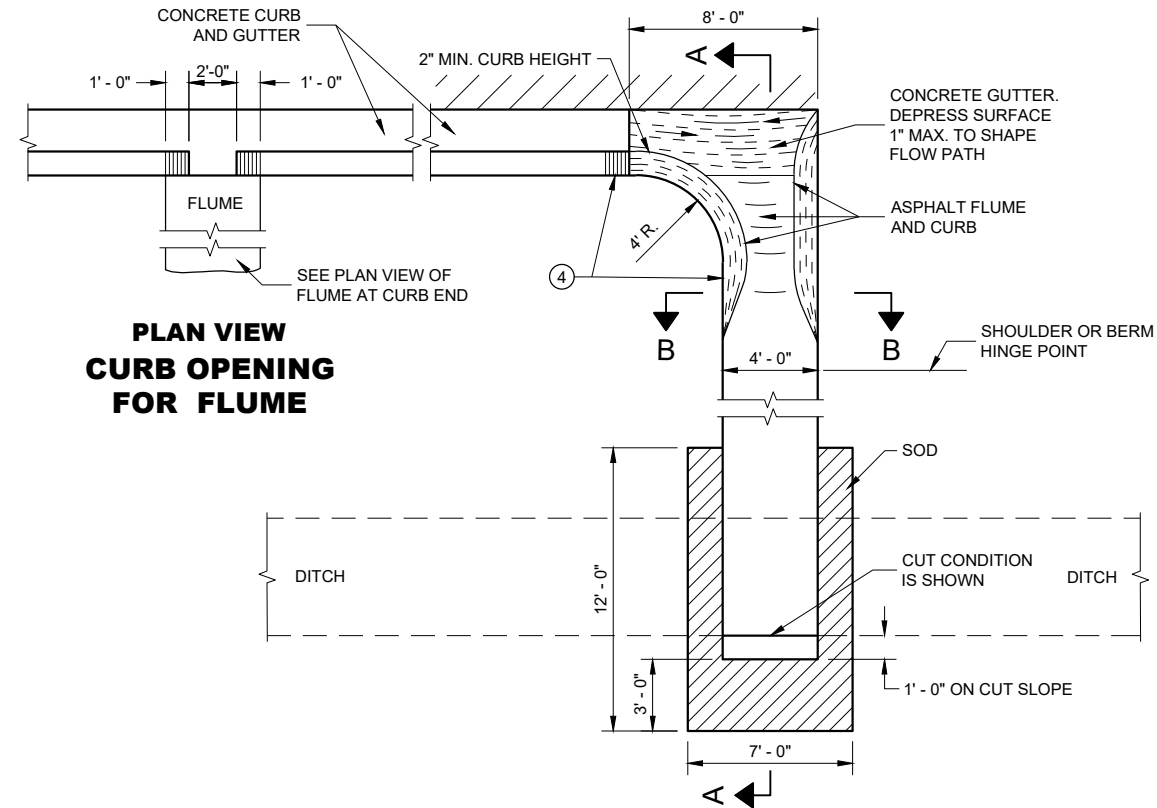
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Standard Detail Drawing List

08D04-07	CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13C19-03	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C11-11B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-09A	MEDIAN ISLAND PAVEMENT MARKINGS
15C19-11A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15C35-06B	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15C35-06C	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15D28-06	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D39-03	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D48-01	TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION

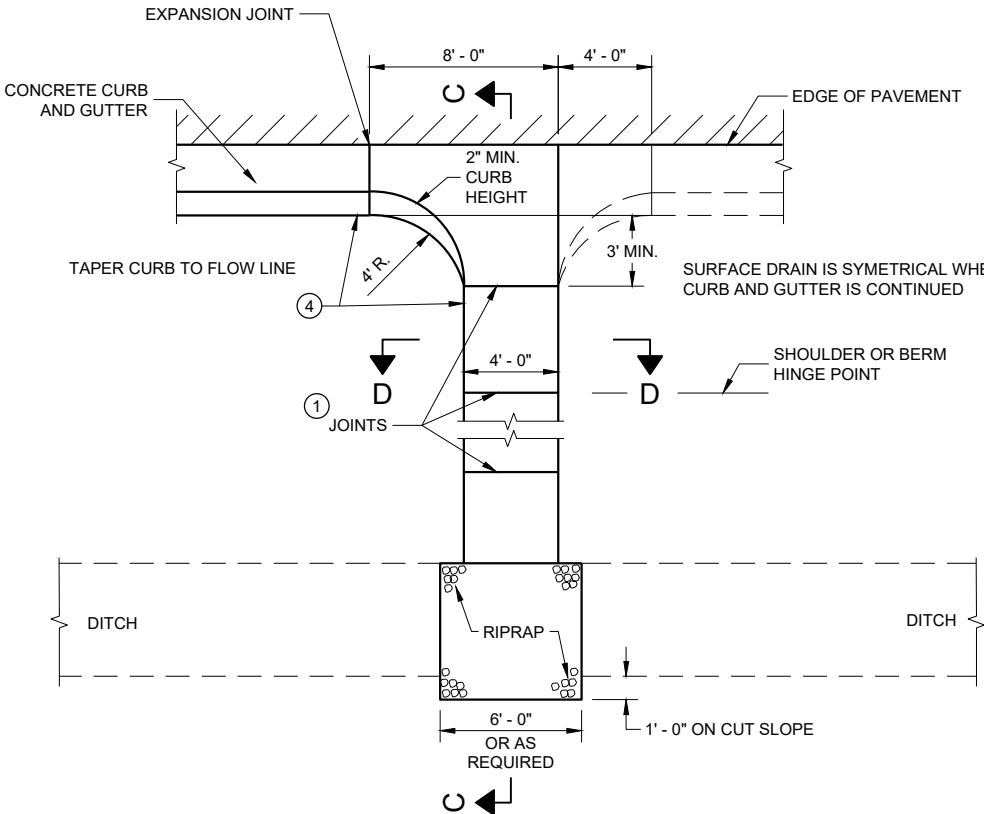
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING
FOR FLUME

PLAN VIEW
FLUME AT CURB END



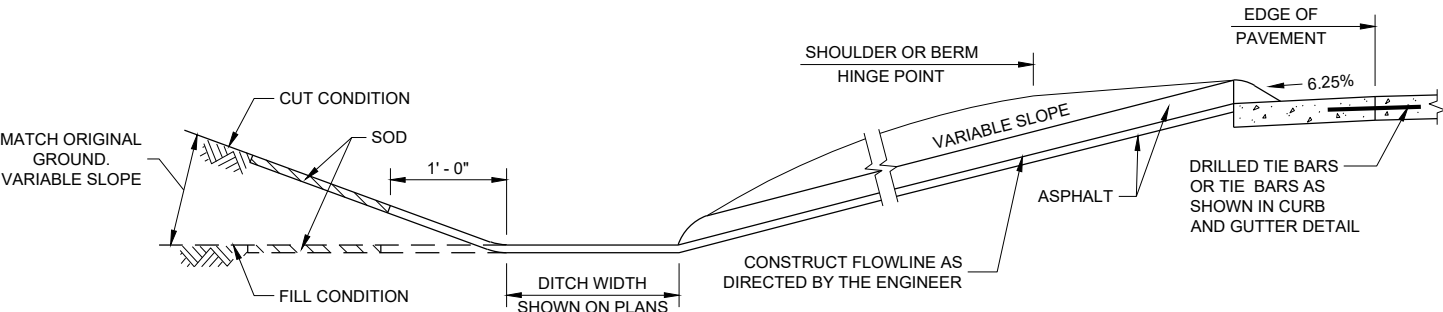
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

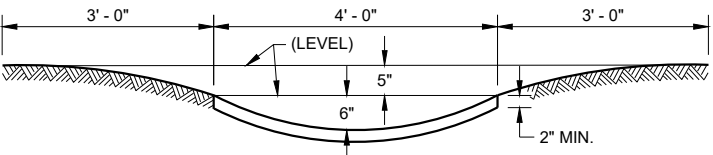
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

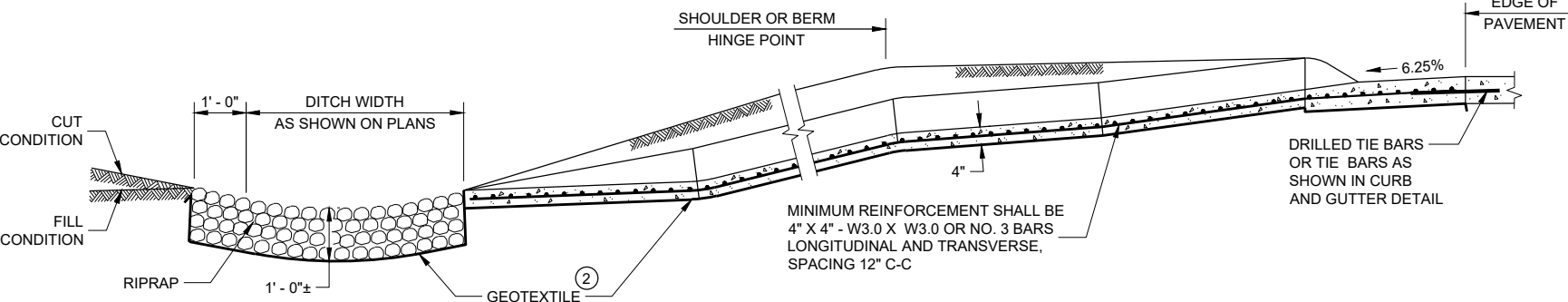
- ① JOINTS SHALL BE 1/8" TO 1/4" WIDE BY 1 1/2" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
- ④ ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.



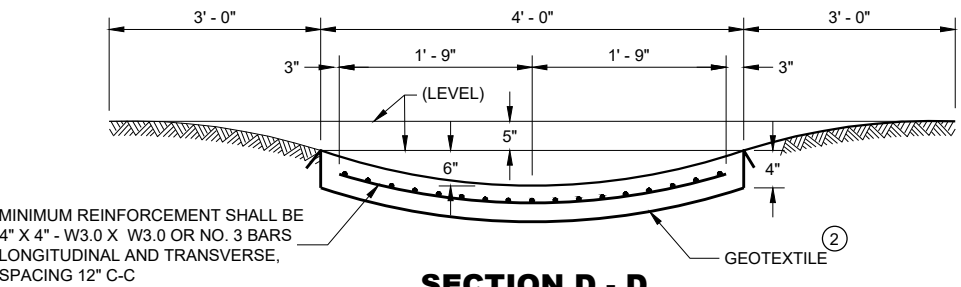
SECTION A - A



SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE
DRAINS AND
ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023

DATE

FHWA

/S/ Rodney Taylor

ROADWAY STANDARDS DEVELOPMENT ENGINEER

39



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



SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

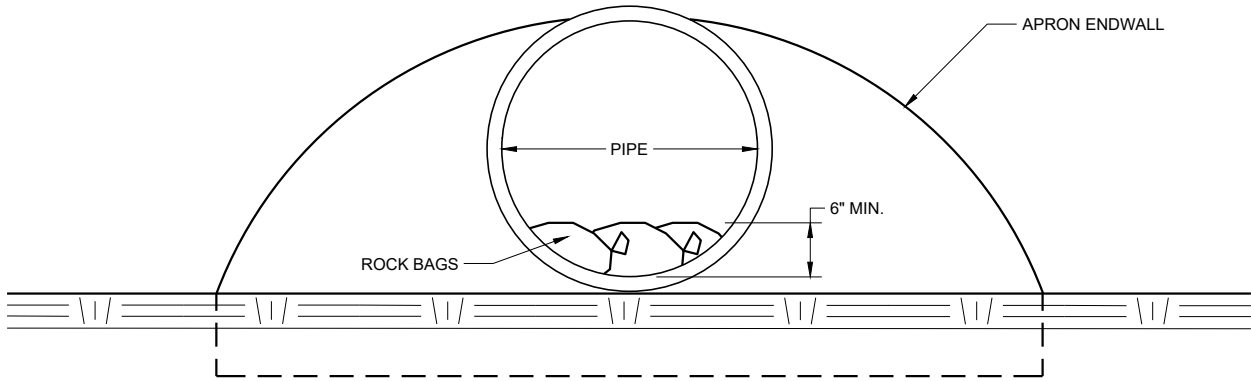
APPROVED
4-29-05
DATE

/S/ Beth Connolly
CHIEF ROADWAY DEVELOPMENT

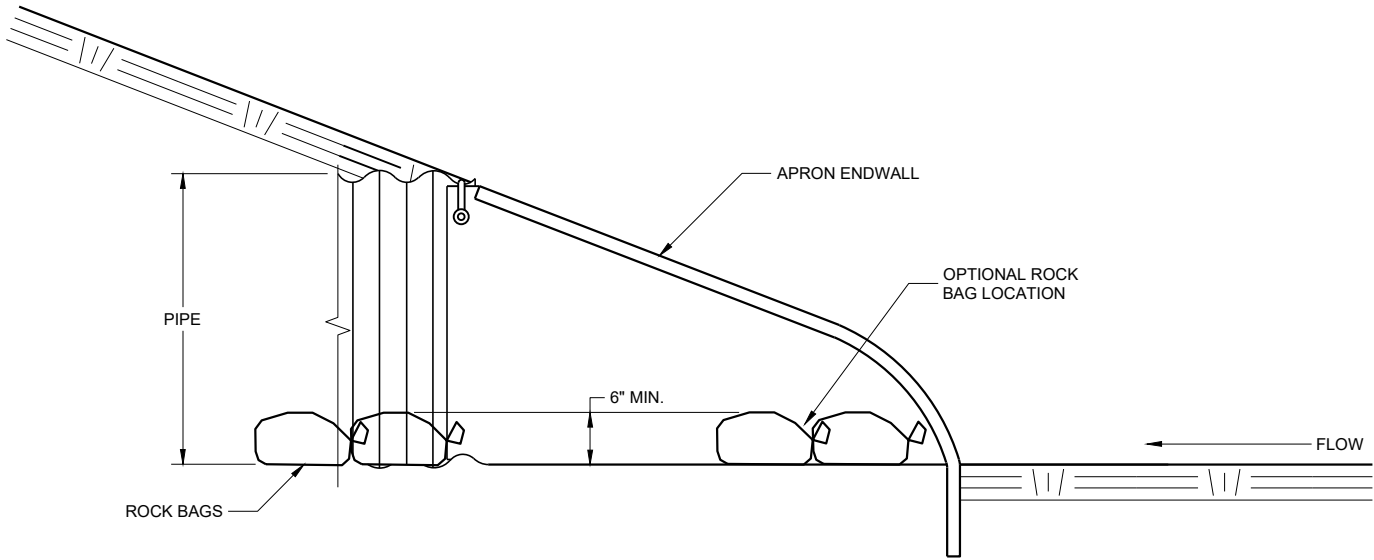
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ENGINEER

FHWA



END VIEW



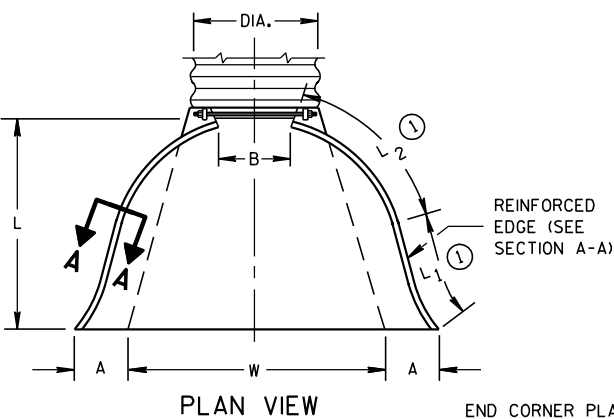
SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

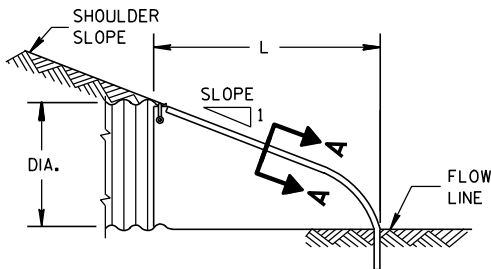
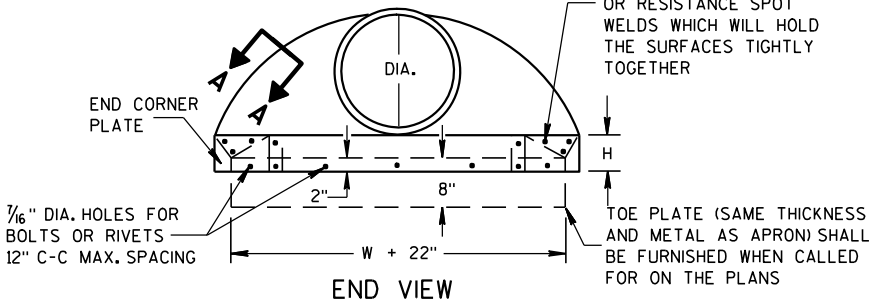
CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI 41
FHWA	

METAL APRON ENDWALLS												
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY	
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1½")	L ₁ ①	L ₂ ①	W (±2")			
12	.064	.060	6	6	6	21	12	17½	24	2½ to 1	1 Pc.	
15	.064	.060	7	8	6	26	14	21¾	30	2½ to 1	1 Pc.	
18	.064	.060	8	10	6	31	15	28¼	36	2½ to 1	1 Pc.	
21	.064	.060	9	12	6	36	18	29⅝	42	2½ to 1	1 Pc.	
24	.064	.075	10	13	6	41	18	37¼	48	2½ to 1	1 Pc.	
30	.079	.075	12	16	8	51	18	52¼	60	2½ to 1	1 Pc.	
36	.079	.105	14	19	9	60	24	59¾	72	2½ to 1	2 Pc.	
42	.109	.105	16	22	11	69	24	75⅝	84	2½ to 1	2 Pc.	
48	.109	.105	18	27	12	78	24	81	90	2¼ to 1	3 Pc.	
54	.109	.105	18	30	12	84	30	85½	102	2¼ to 1	3 Pc.	
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.	
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.	
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.	
78	.109x	.105x	18	42	12	87	—	—	132	1½ to 1	3 Pc.	
84	.109x	.105x	18	45	12	87	—	—	138	1½ to 1	3 Pc.	
90	.109x	.105x	18	37	12	87	—	—	144	1½ to 1	3 Pc.	
96	.109x	.105x	18	35	12	87	—	—	150	1½ to 1	3 Pc.	

* EXCEPT CENTER PANEL
SEE GENERAL NOTES



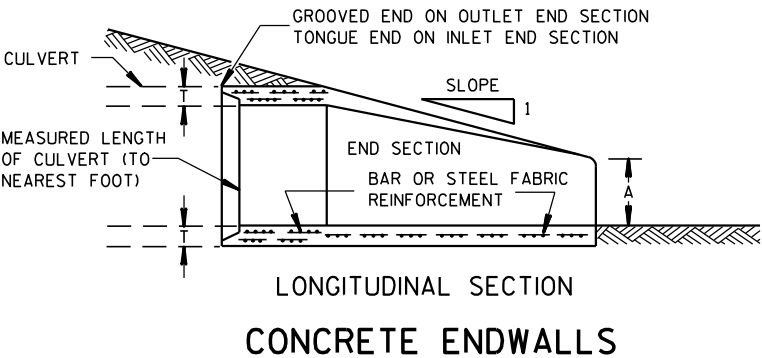
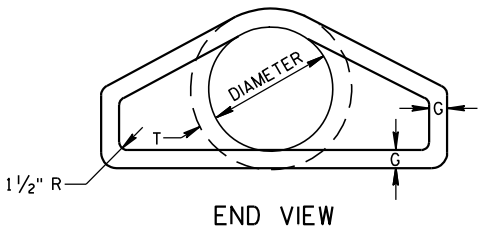
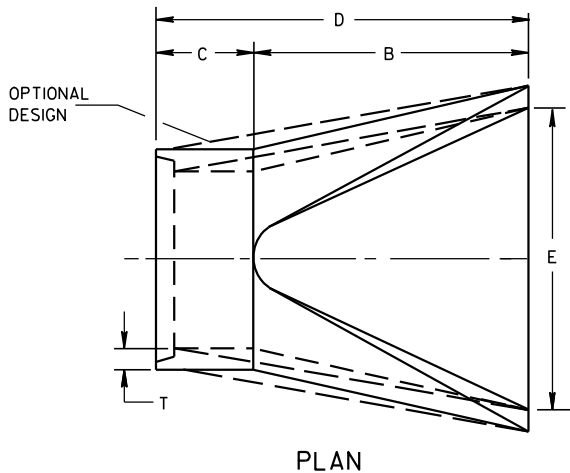
END CORNER PLATES MAY
BE FASTENED TO APRON
PROPER BY BOLTS, RIVETS,
OR RESISTANCE SPOT
WELDS WHICH WILL HOLD
THE SURFACES TIGHTLY
TOGETHER



SIDE ELEVATION
METAL ENDWALLS

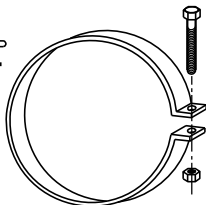
REINFORCED CONCRETE APRON ENDWALLS								
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
12	2	4	24	48 ¹ / ₈	72 ¹ / ₈	24	2	3 to 1
15	2 ¹ / ₄	6	27	46	73	30	2 ¹ / ₄	3 to 1
18	2 ¹ / ₂	9	27	46	73	36	2 ¹ / ₂	3 to 1
21	2 ³ / ₄	9	36	37 ¹ / ₂	73 ¹ / ₂	42	2 ³ / ₄	3 to 1
24	3	9 ¹ / ₂	43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

* MINIMUM
** MAXIMUM

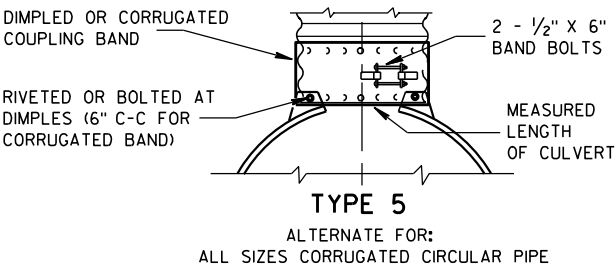
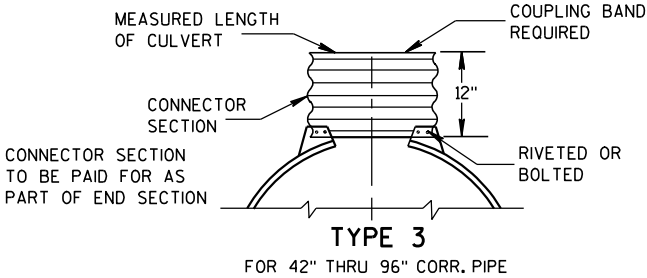
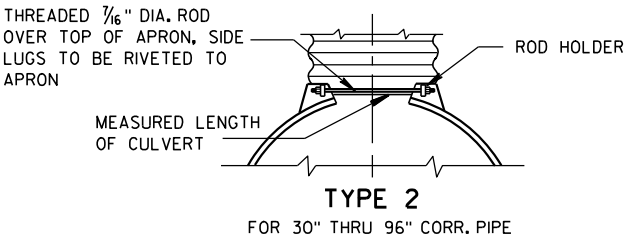
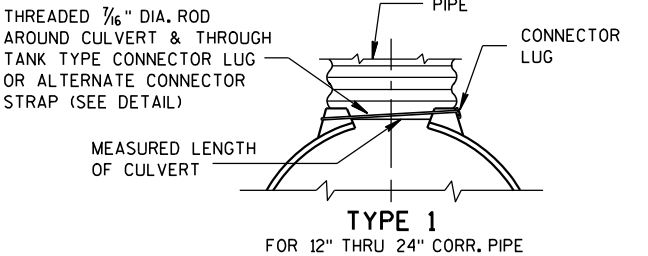


LONGITUDINAL SECTION
CONCRETE ENDWALLS

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



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



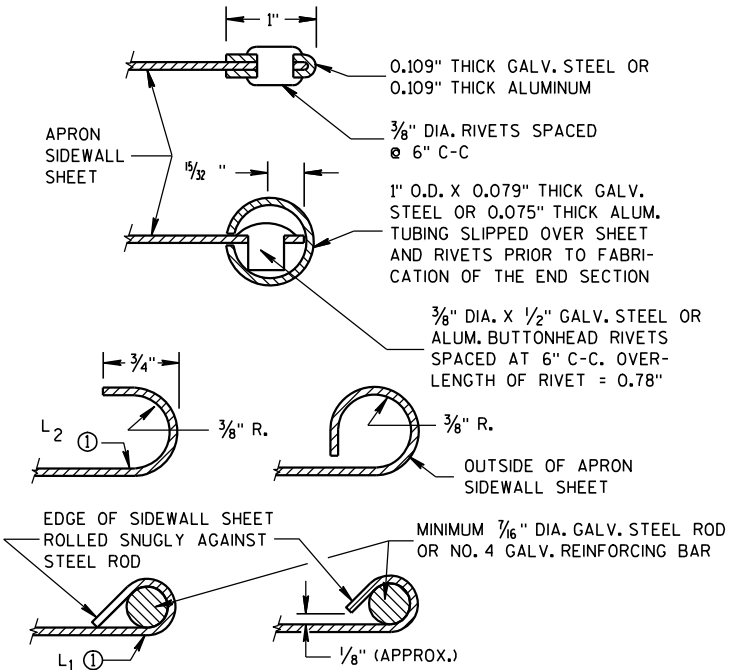
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL,
AND CORRUGATED BAND FITS INSIDE ENDWALL.
DIMPLED BAND MAY BE USED WITH HELICALLY
CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

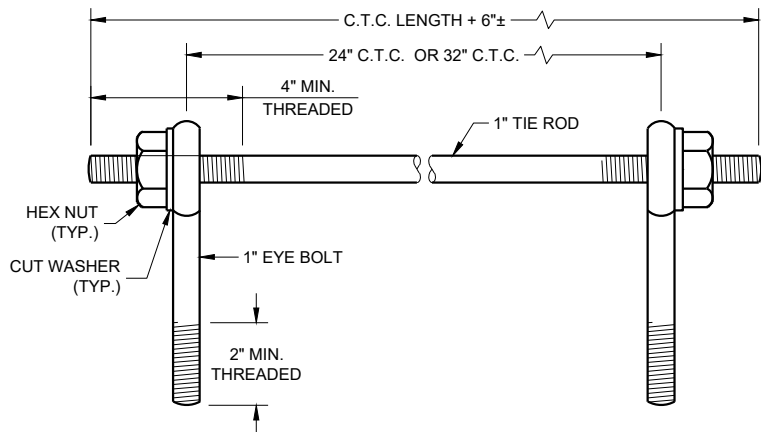
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND
LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL
THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND
LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH
OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT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

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

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

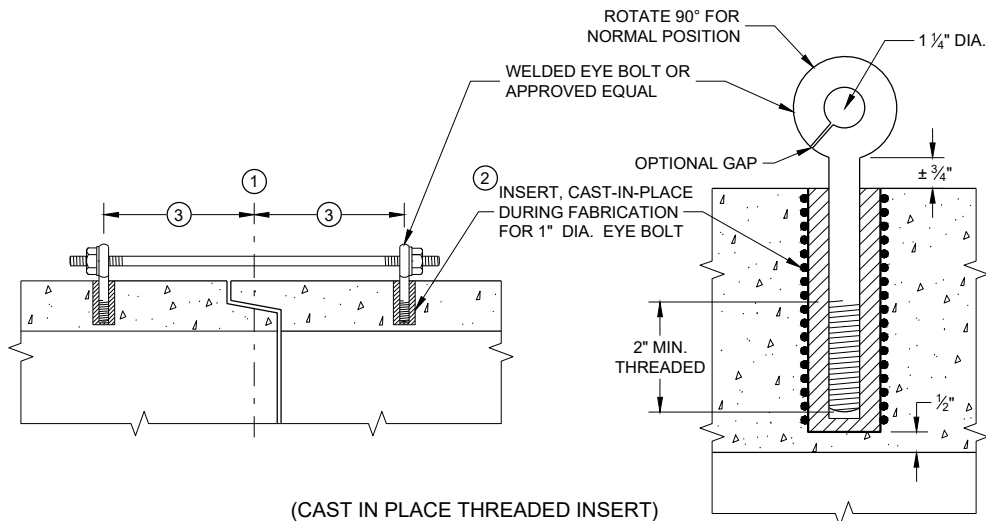
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED
INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 11/30/94 DATE	/S/ Rory L. Rhinehart CHIEF ROADWAY DEVELOP 42 NEER
FHWA	



EYE BOLTS AND TIE ROD

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



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

GENERAL NOTES

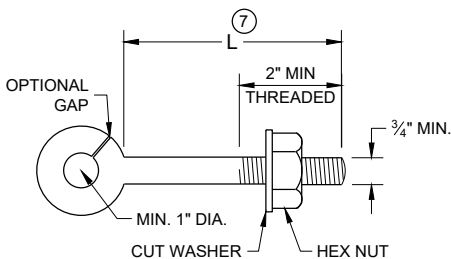
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

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

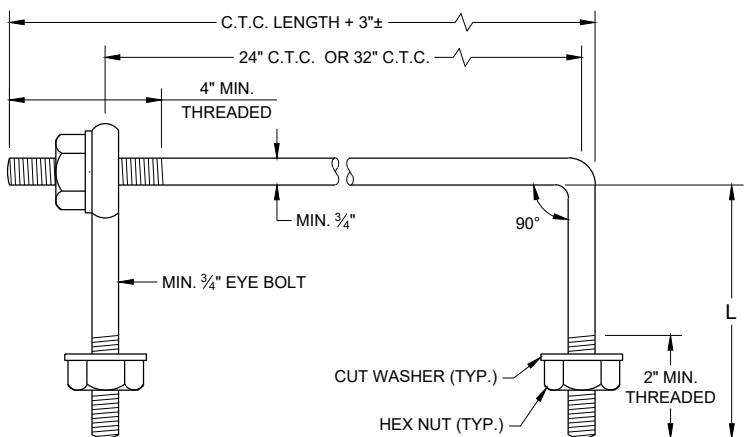
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

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

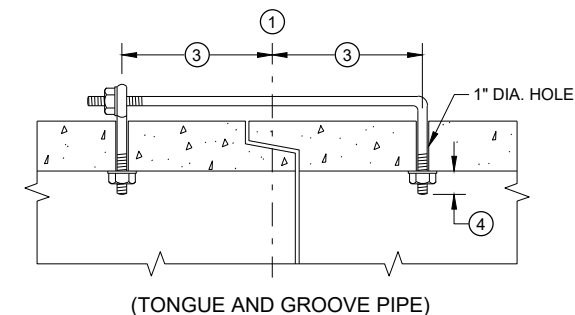


EYE BOLT 7

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



EYE BOLT AND TIE ROD

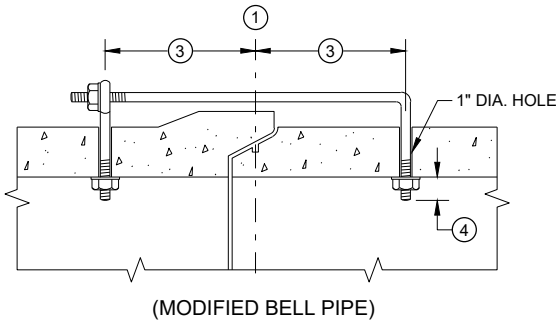


(TONGUE AND GROOVE PIPE)

LONGITUDINAL SECTION

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

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

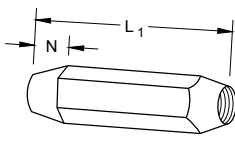


(MODIFIED BELL PIPE)

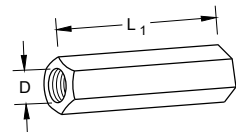
ADJUSTABLE TIE ROD TABLE

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

DIMENSIONS SHOWN ARE IN INCHES

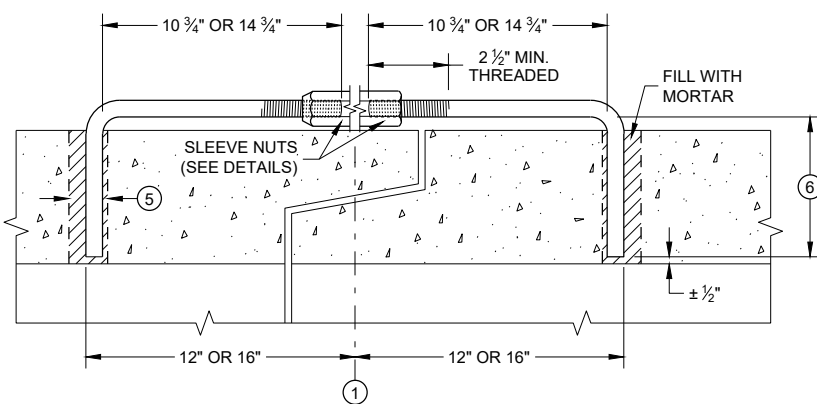


TAPERED



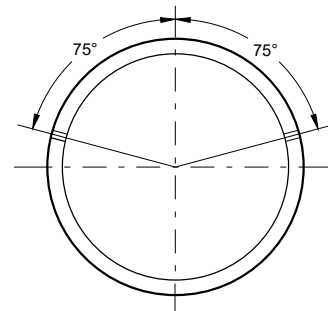
PLAIN

RIGHT AND LEFT THREADS
SLEEVE NUTS



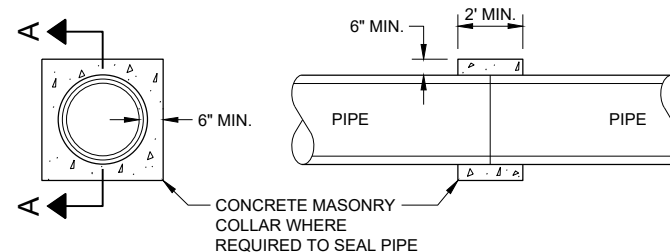
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



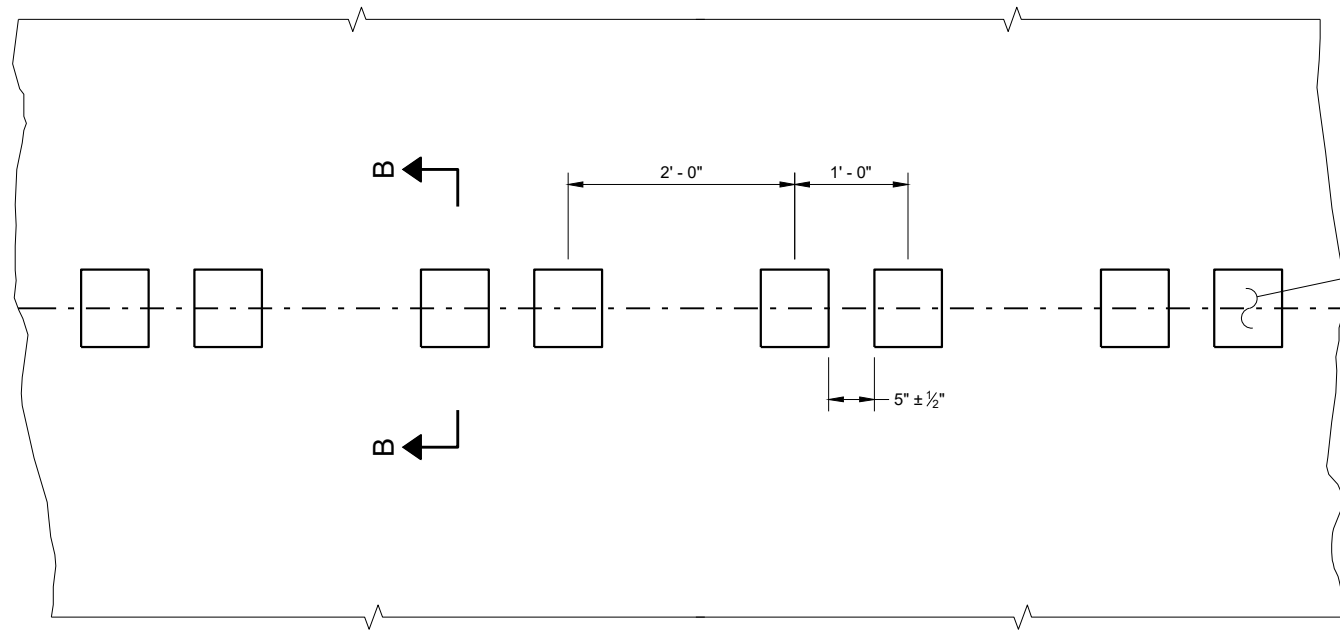
SECTION A - A

CONCRETE COLLAR DETAIL

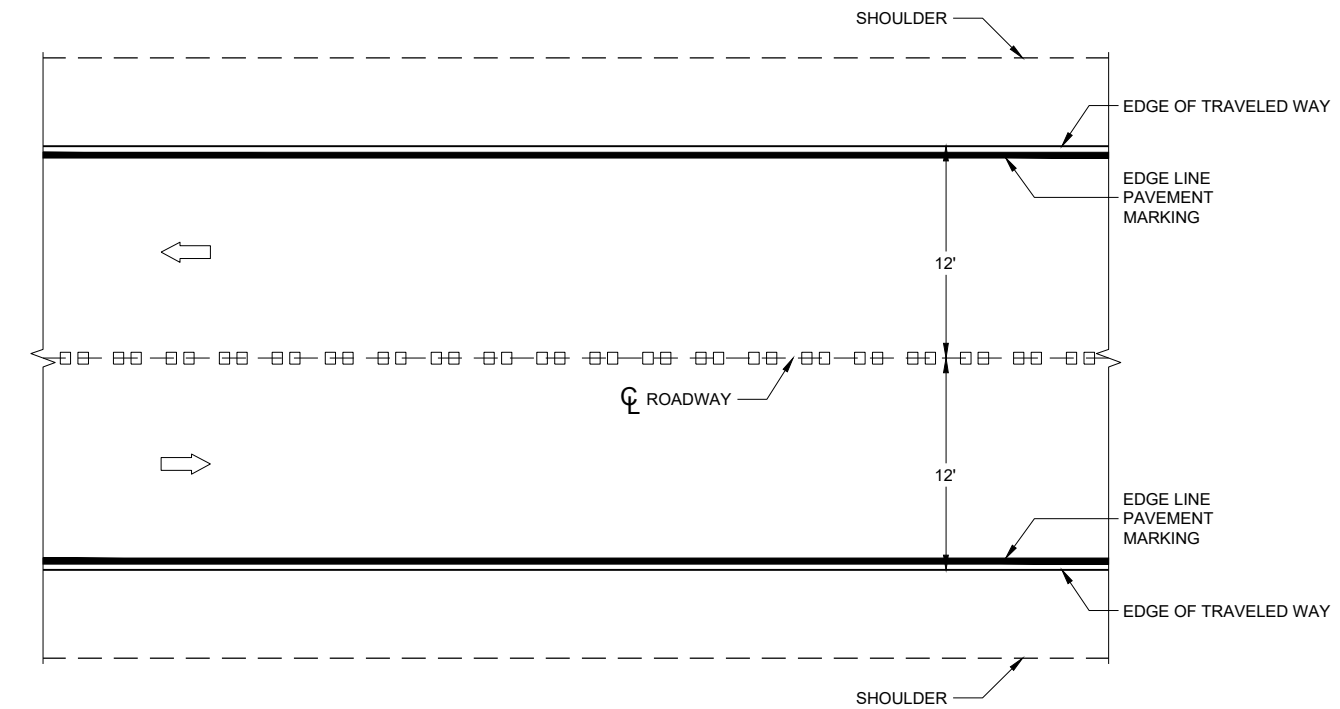
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 43
FHWA

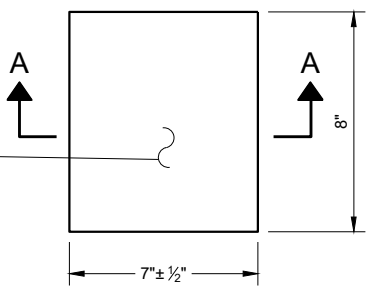


PLAN DETAIL VIEW

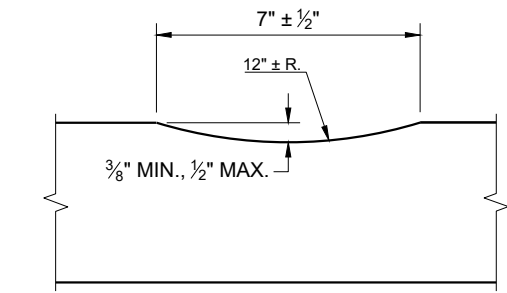


PLAN VIEW

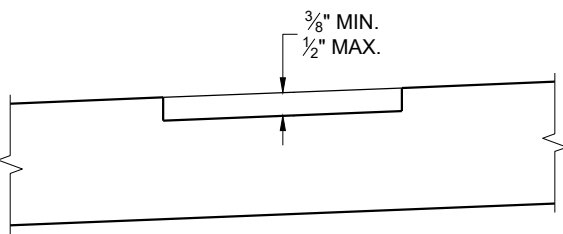
CENTERLINE RUMBLE STRIPS - ASPHALT



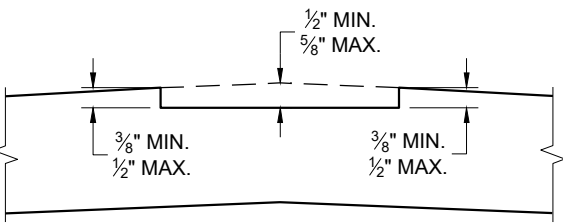
PLAN VIEW
(SINGLE GROOVE)



SECTION A - A



SECTION B - B
SUPERELEVATED ROADWAY

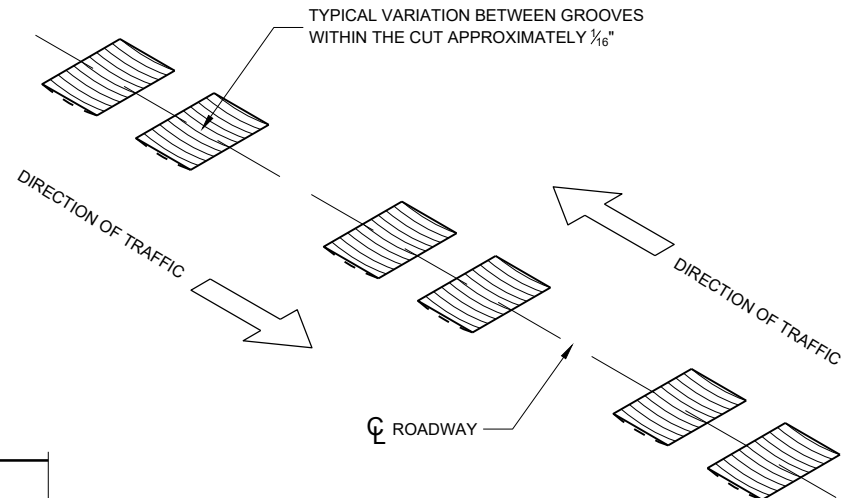


SECTION B - B
CROWNED ROADWAY

GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

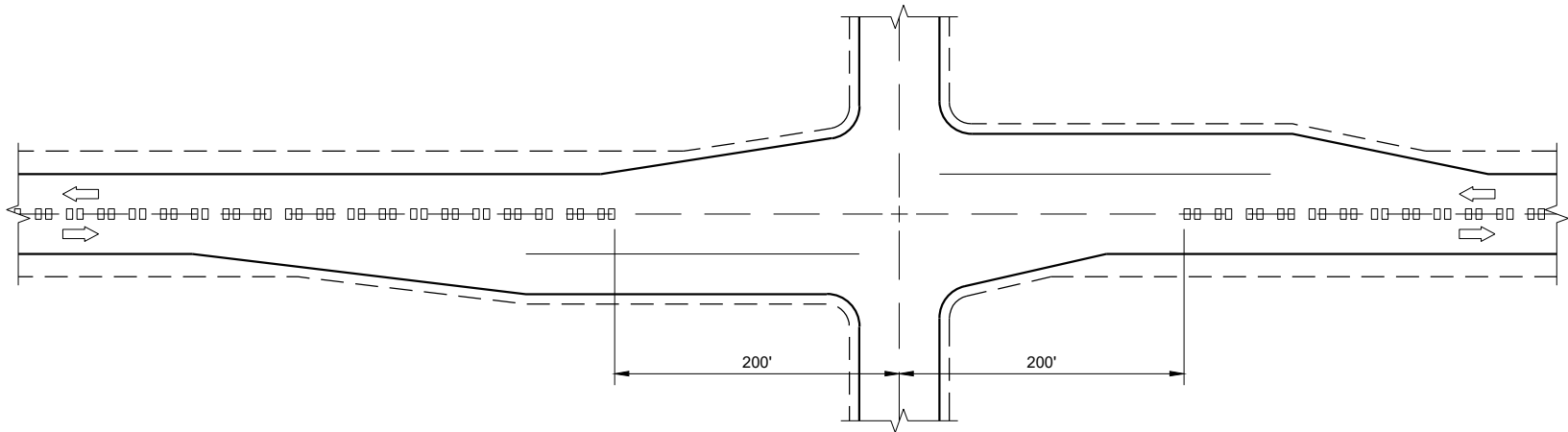
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



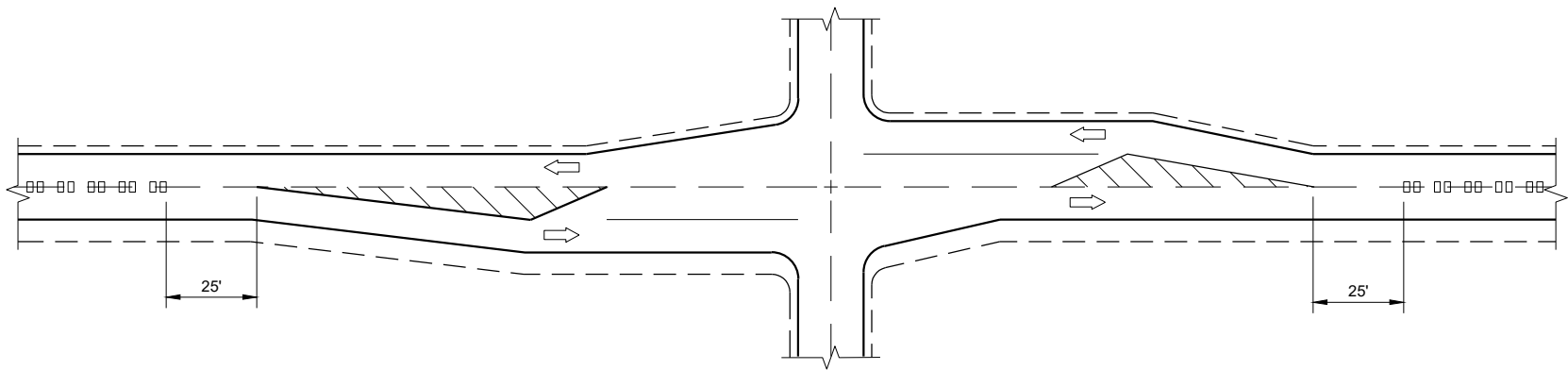
ISOMETRIC

CENTERLINE RUMBLE STRIPS - ASPHALT

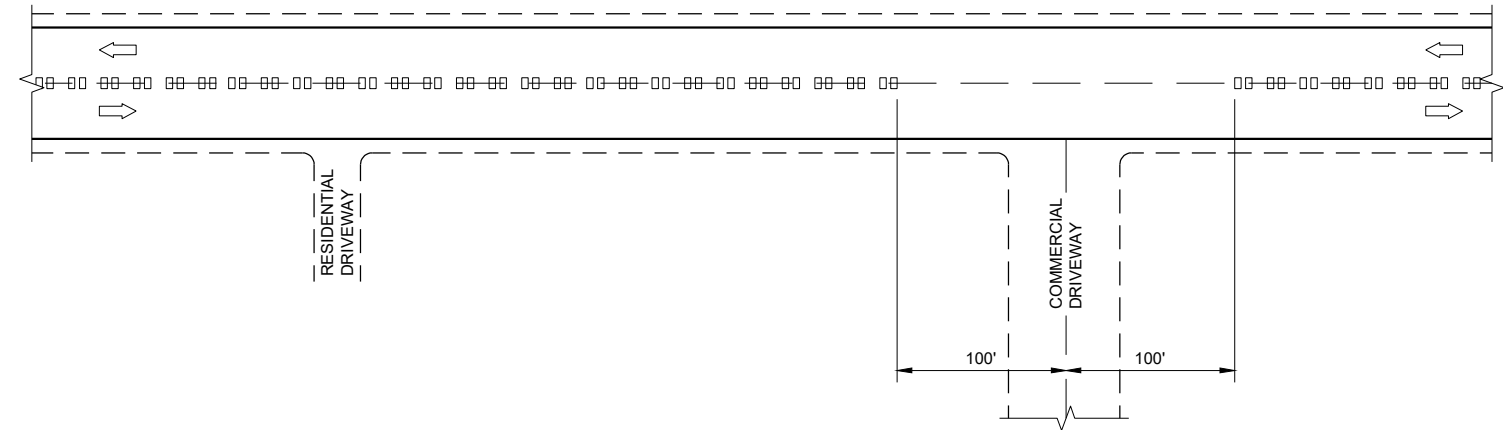
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



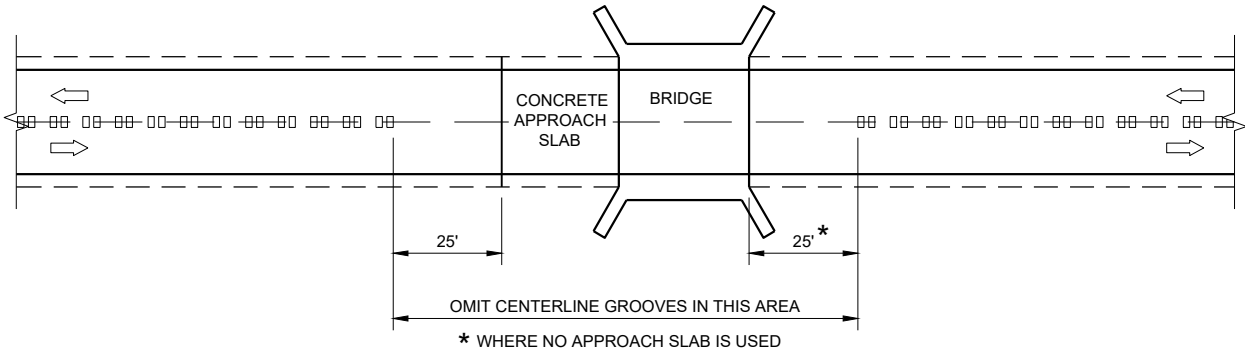
CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)



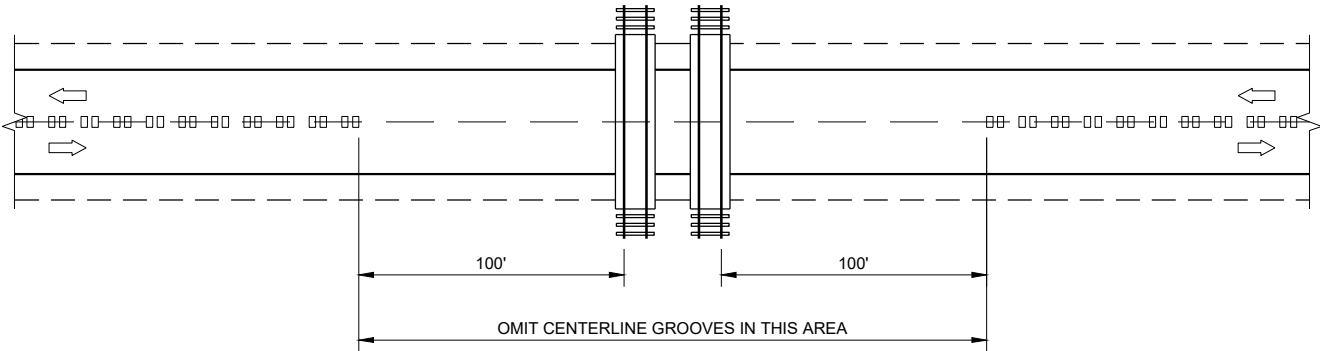
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES

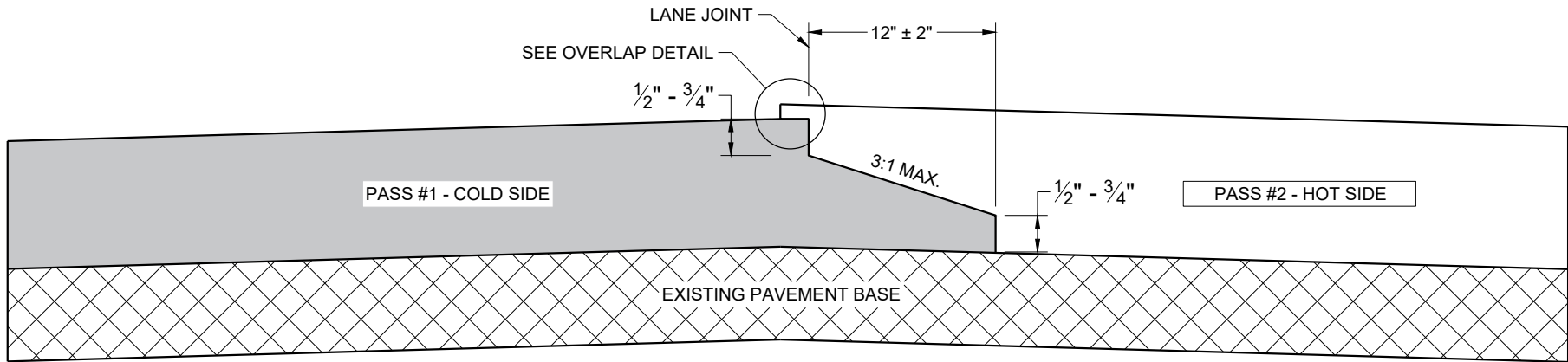


CENTERLINE GROOVES AT RAILROADS

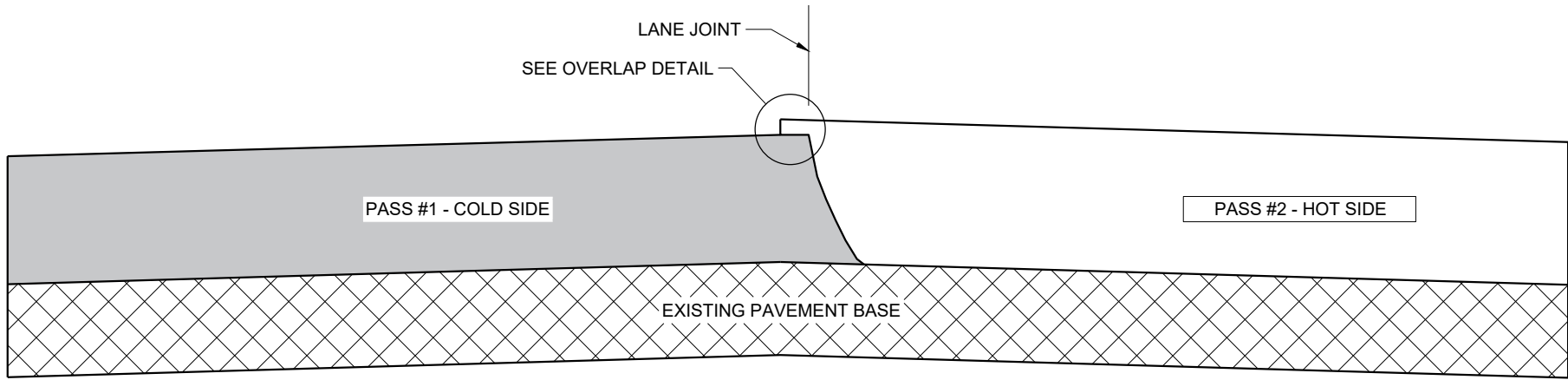
CENTER LINE
RUMBLE STRIPS -
INTERSECTIONS, DRIVEWAYS,
BRIDGES, RAIL ROADS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

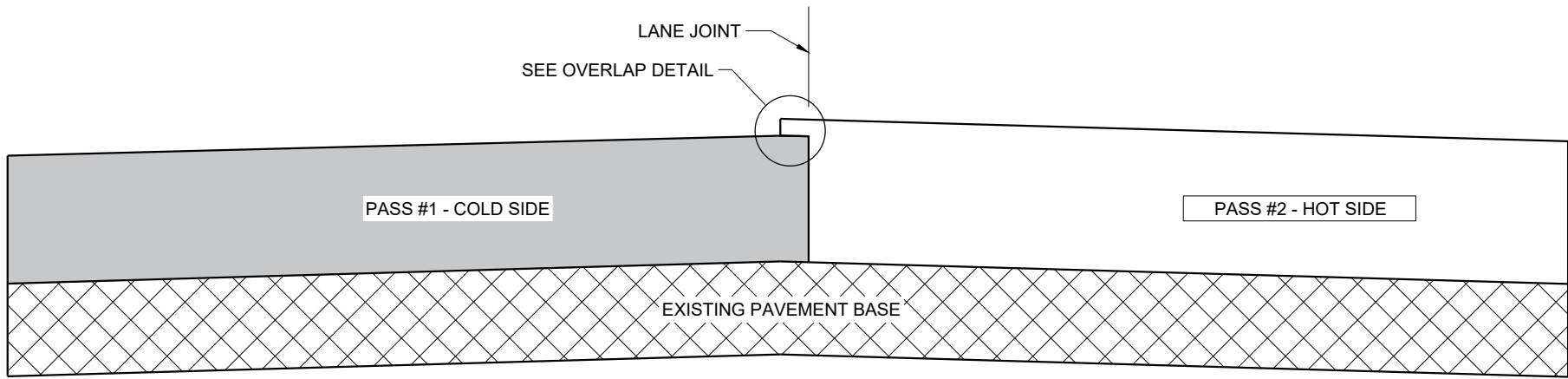
APPROVED
May 2023
DATE
/S/ John Jenkins
ROADWAY STANDARDS DEVELOPMENT ENGINEER
45
FHWA



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

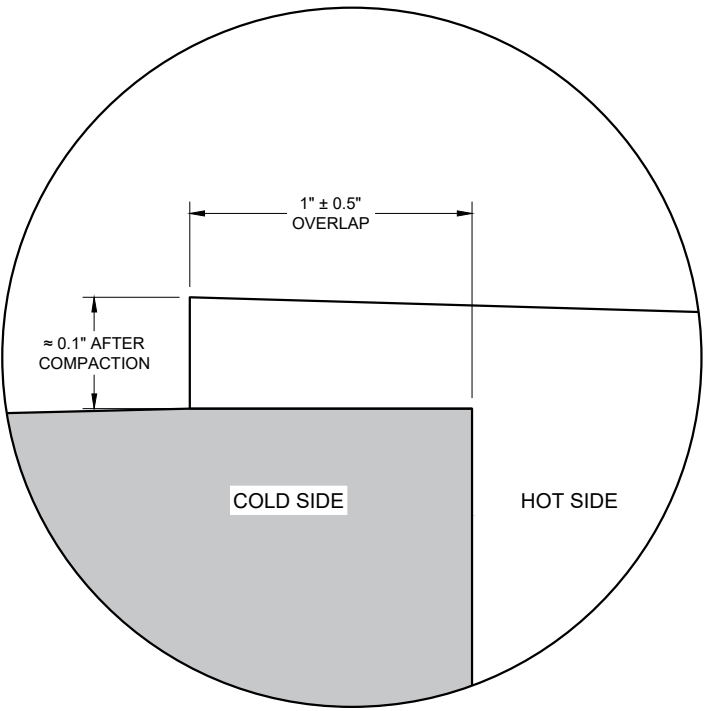
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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

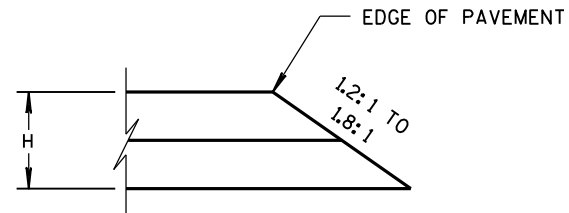


OVERLAP DETAIL (TYPICAL)

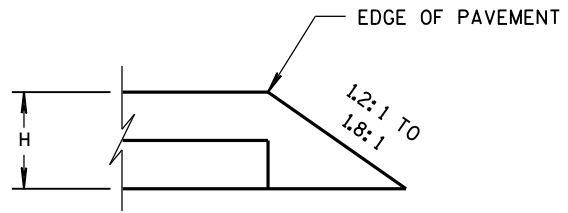
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

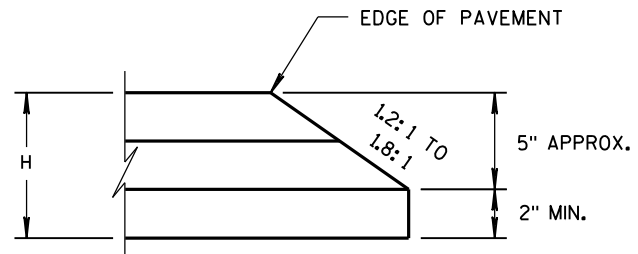
APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGIN 46
FHWA



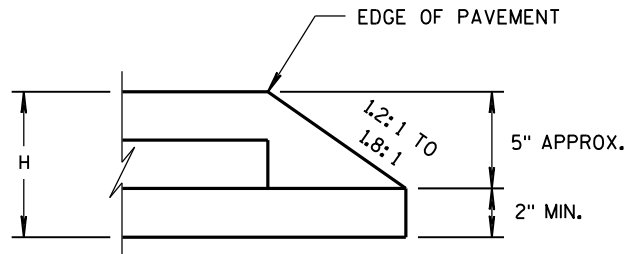
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

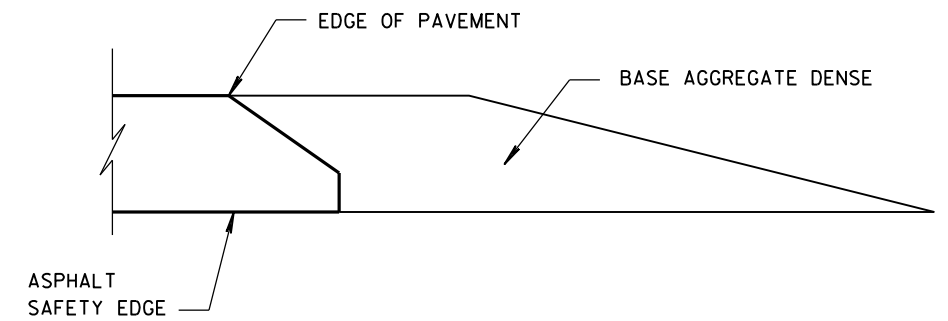


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

SAFETY EDGE_{SM}

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

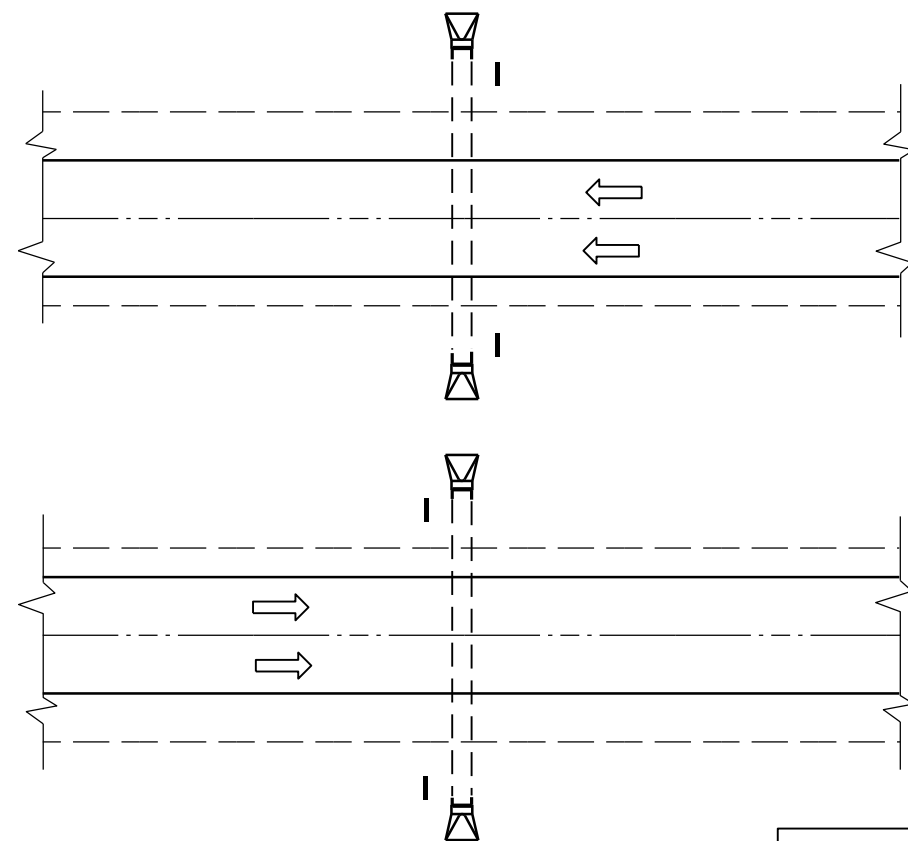
11/30/2012
DATE

FHWA

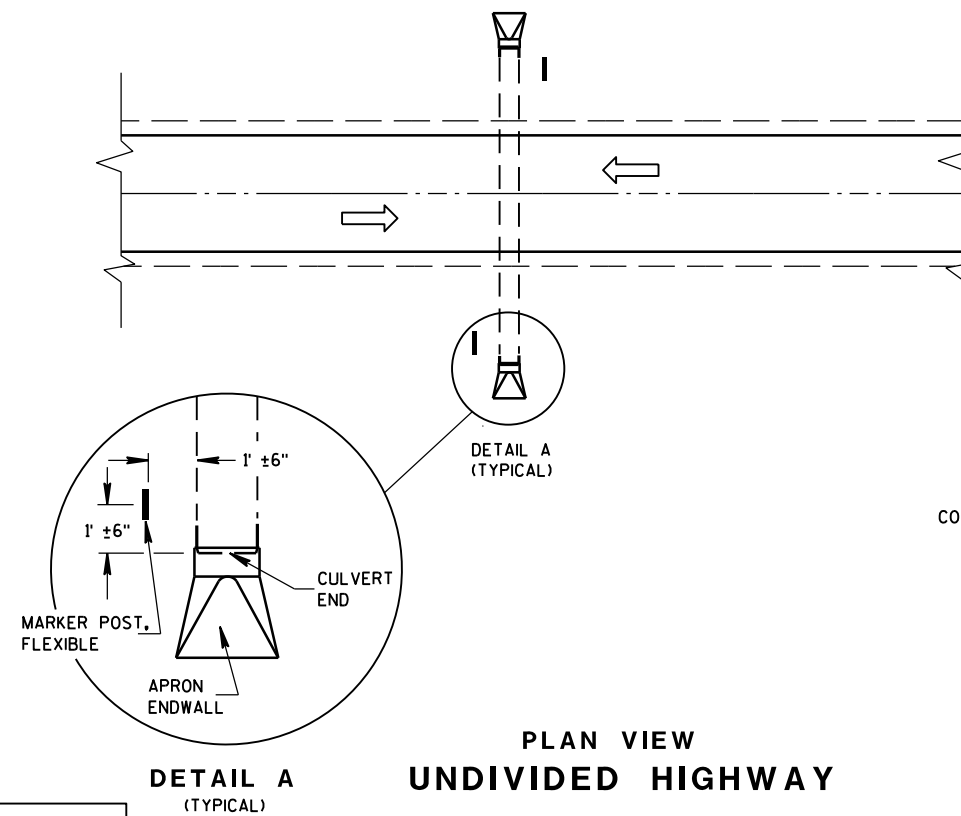
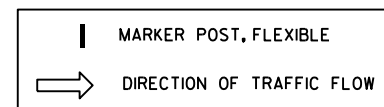
/s/ Jerry H. Zoaga
ROADWAY STANDARDS
ENGINEER

47

ENT



PLAN VIEW
DIVIDED HIGHWAY

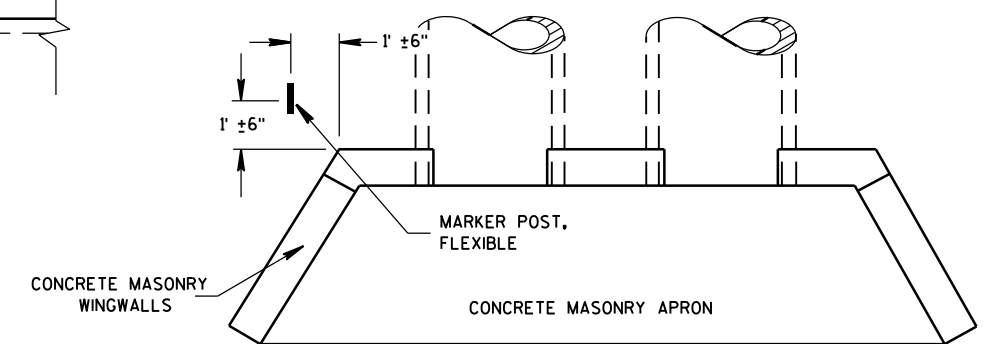


PLAN VIEW
UNDIVIDED HIGHWAY

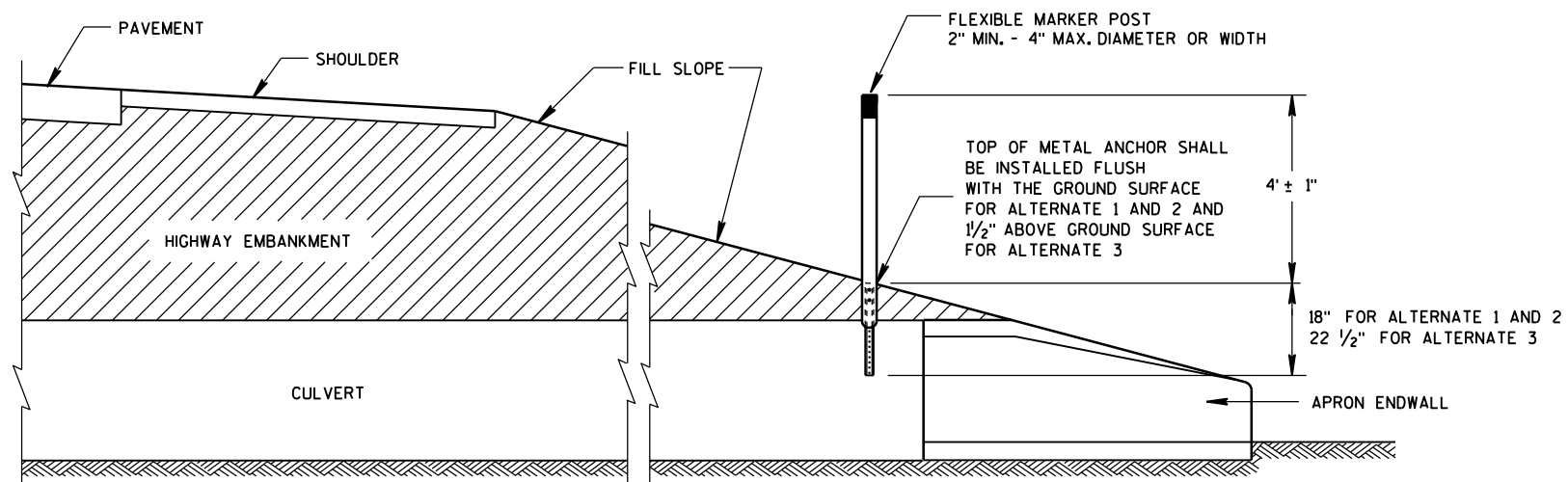
FLEXIBLE MARKER POST LOCATION

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.



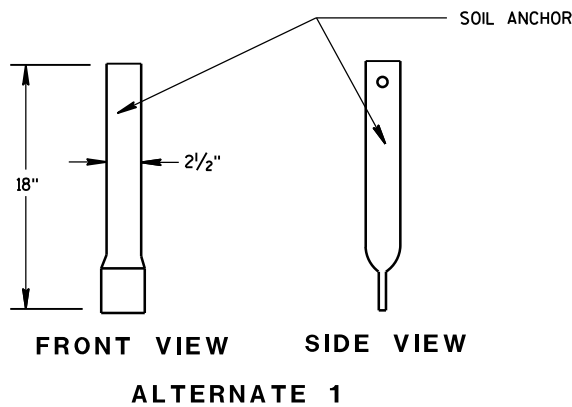
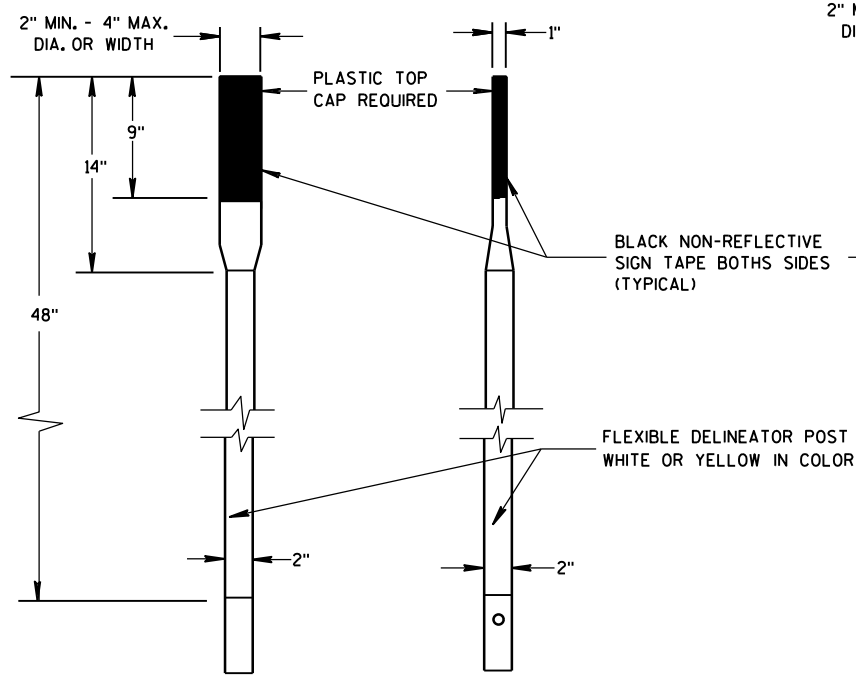
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



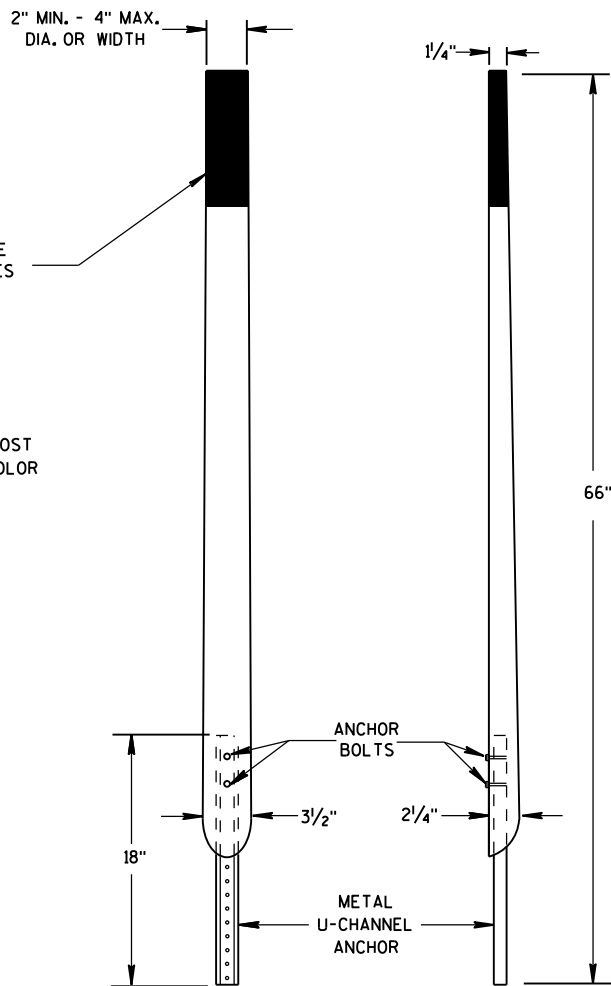
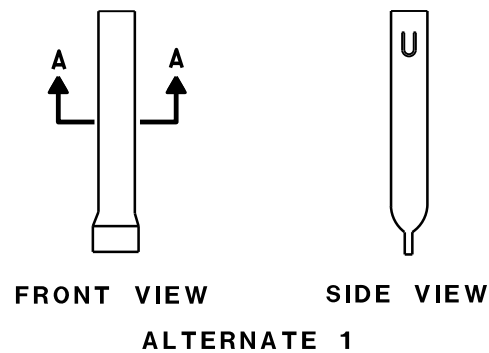
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

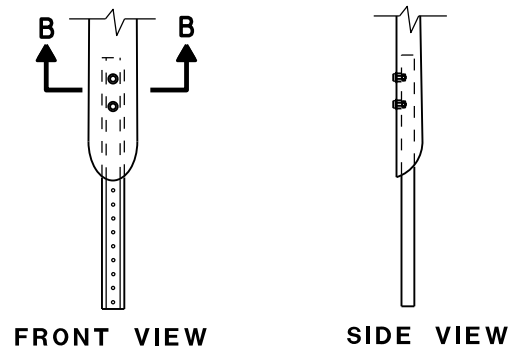
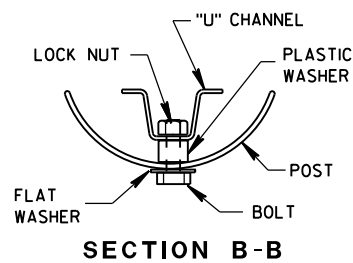


SECTION A-A

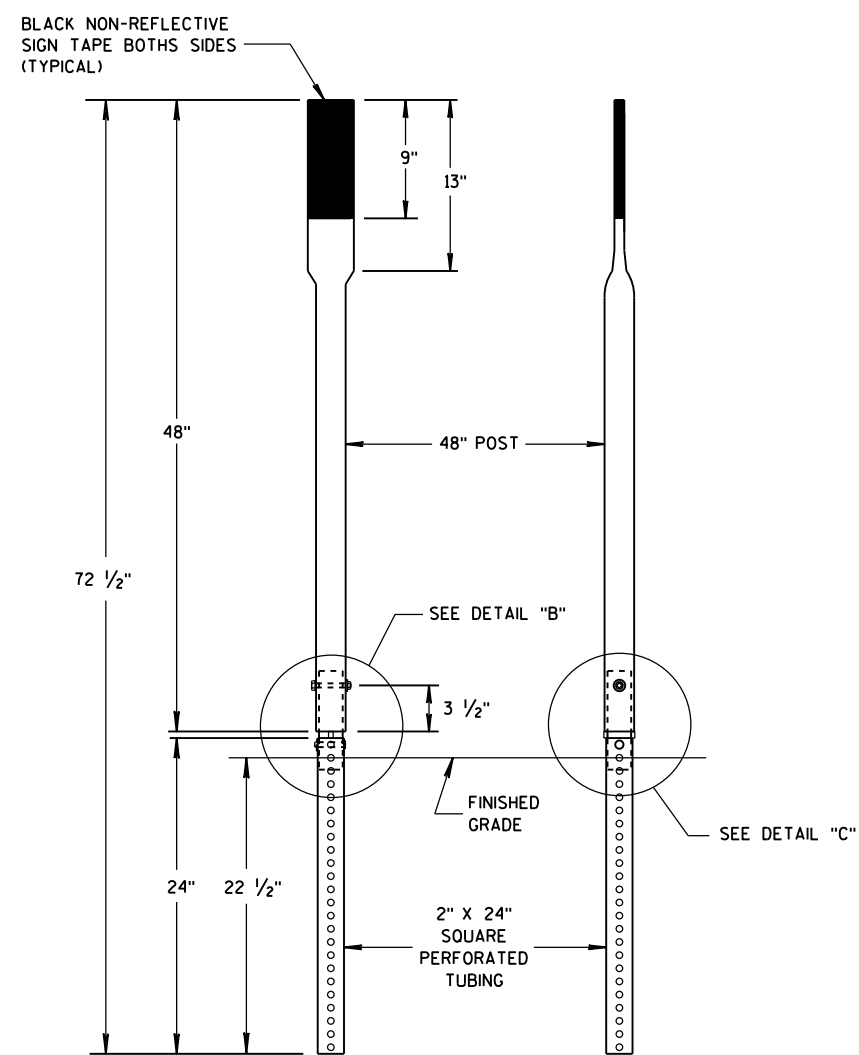


FRONT VIEW SIDE VIEW
ALTERNATE 2

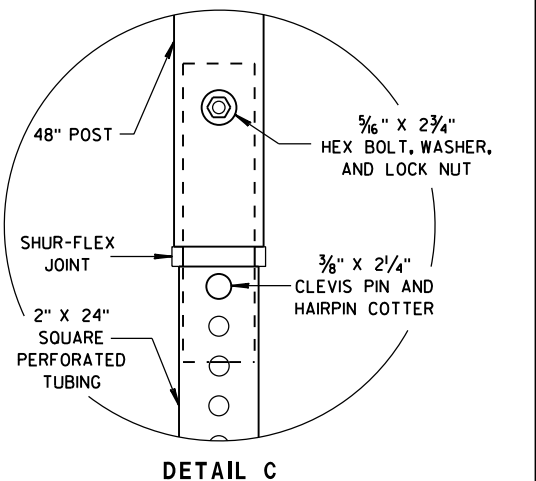
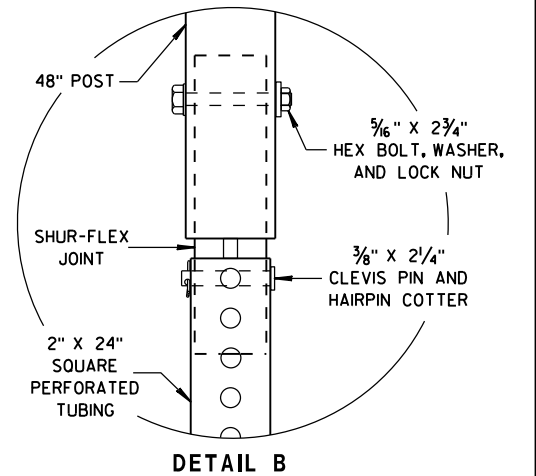
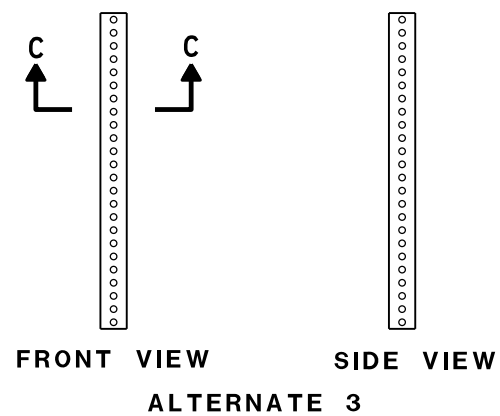
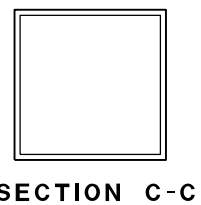
FLEXIBLE MARKER POSTS



FRONT VIEW SIDE VIEW
ALTERNATE 2
FLEXIBLE MARKER POST ANCHORS



FRONT VIEW SIDE VIEW
ALTERNATE 3



FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER 49 IGN
FHWA

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" X 48" UNLESS OTHERWISE NOTED.

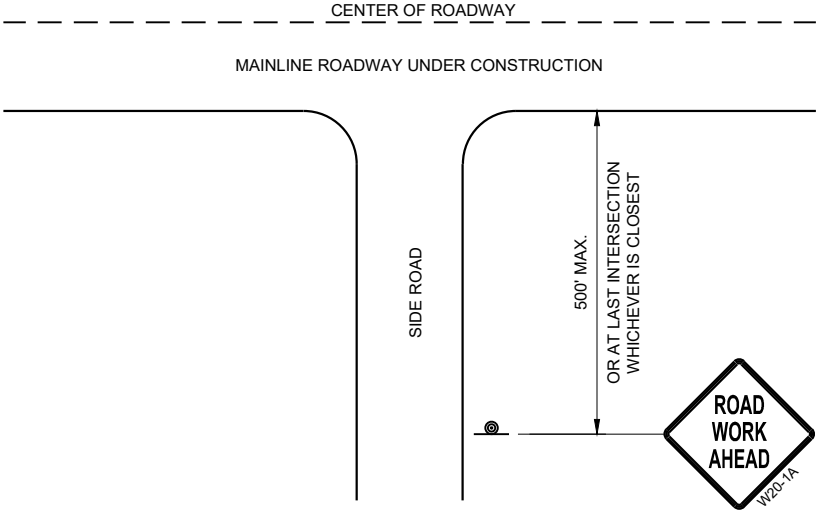
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

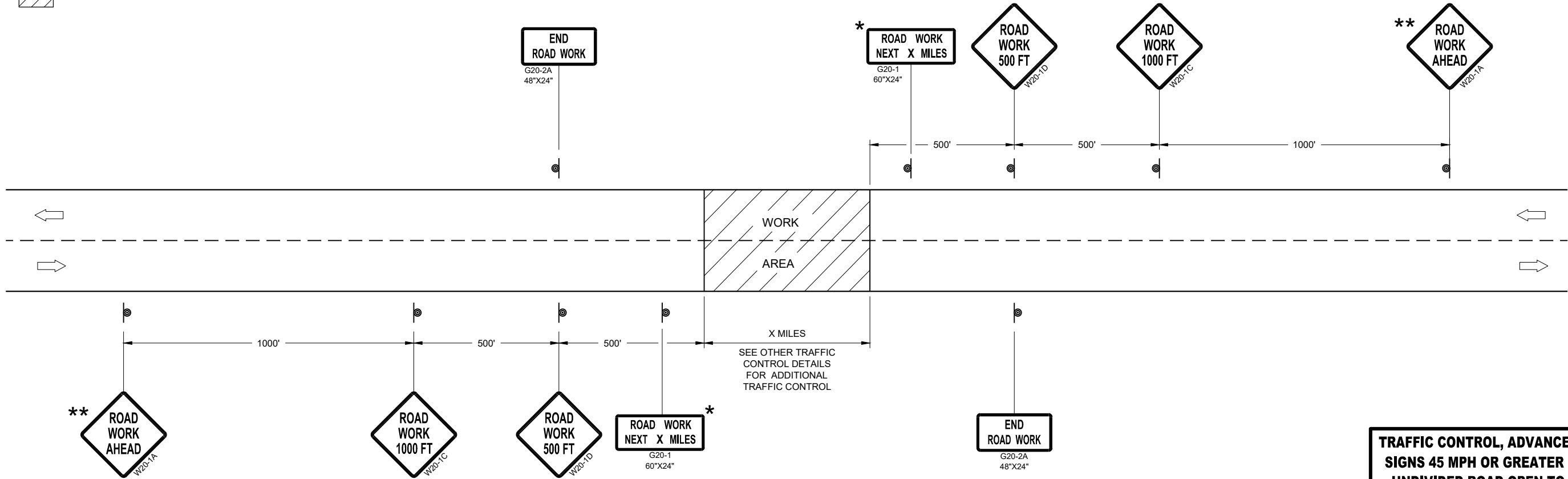
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL



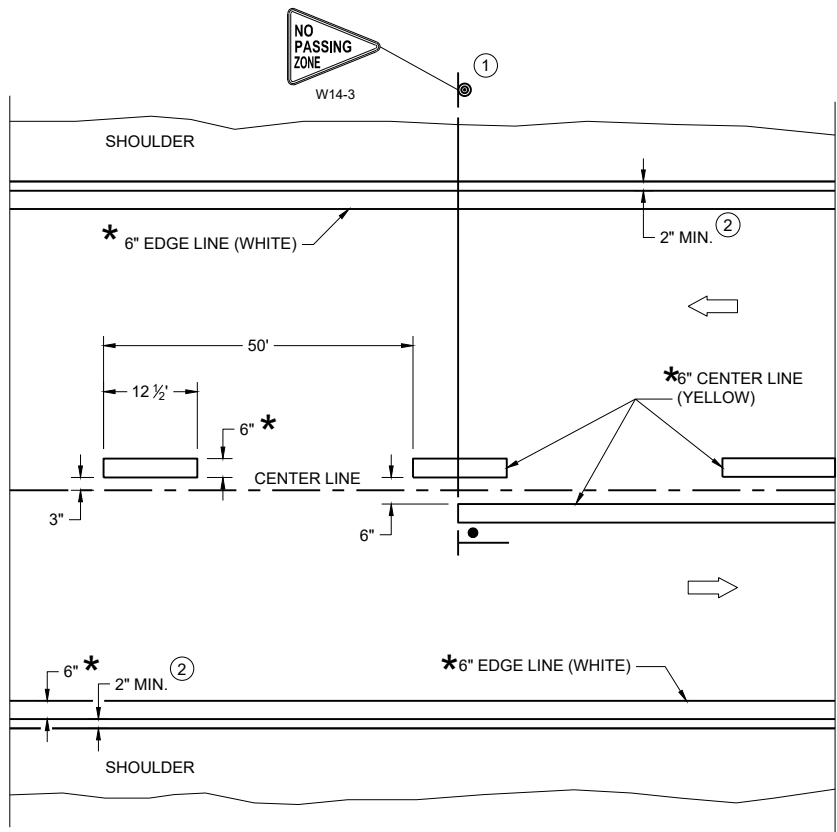
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

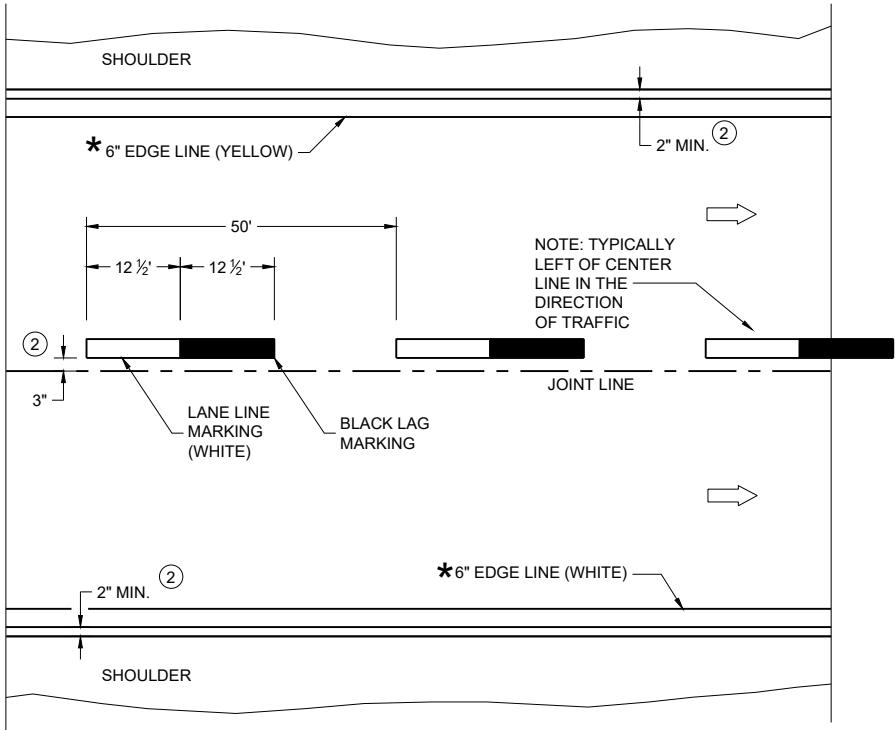
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 50

FHWA



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

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

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

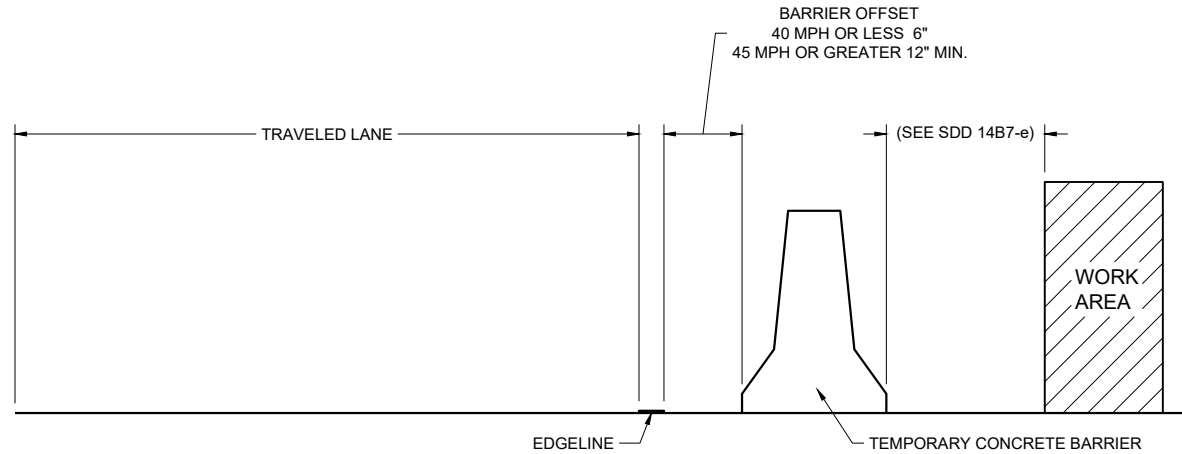
LEGEND

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

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer



TEMPORARY BARRIER OFFSET FROM EDGE LINE

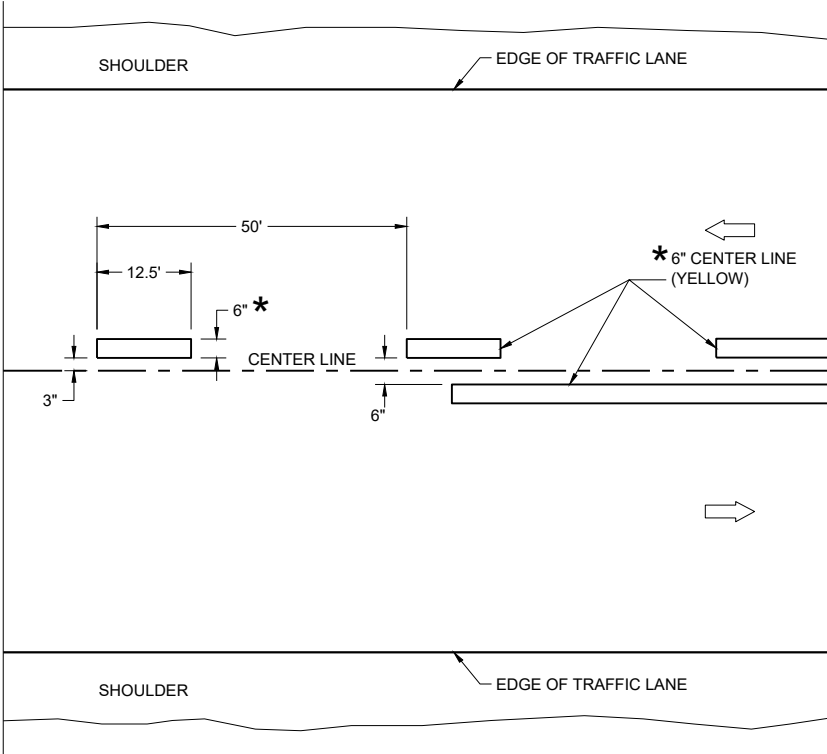
GENERAL NOTES

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

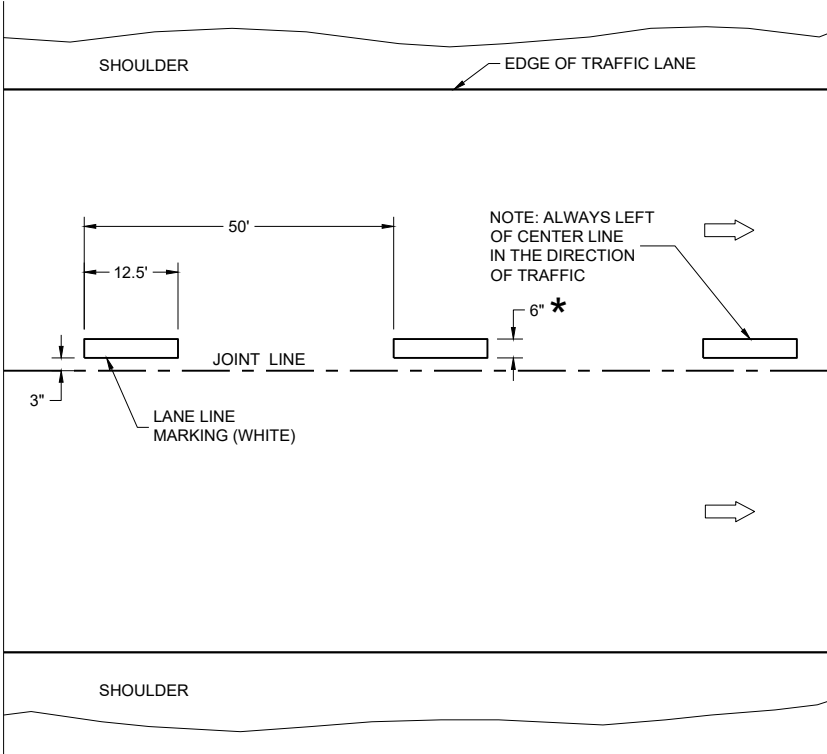
LEGEND

➡ DIRECTION OF TRAFFIC

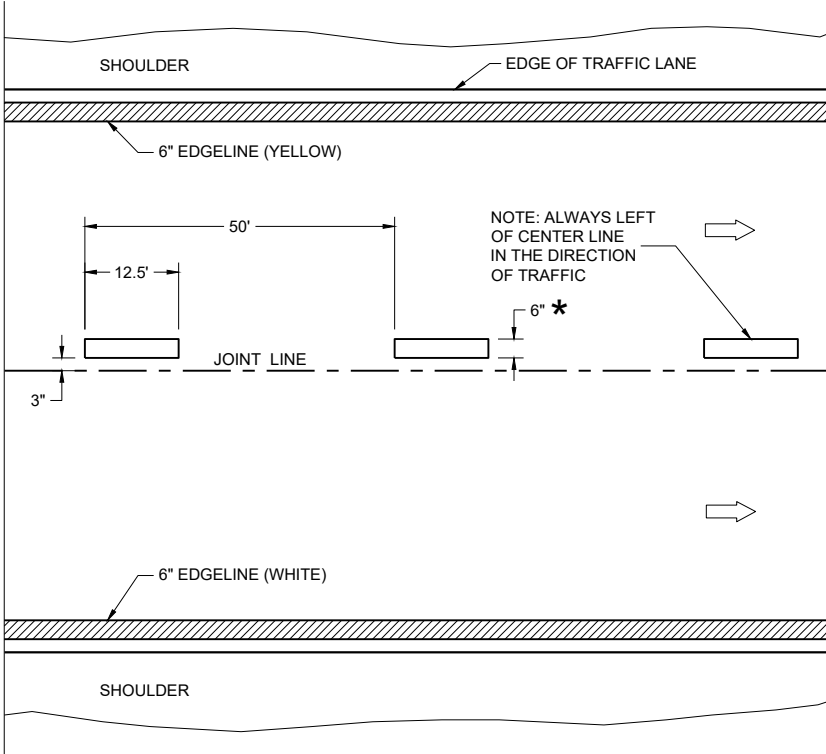
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



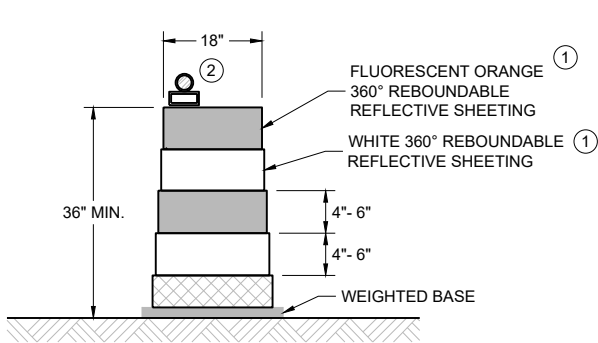
ONE WAY TRAFFIC



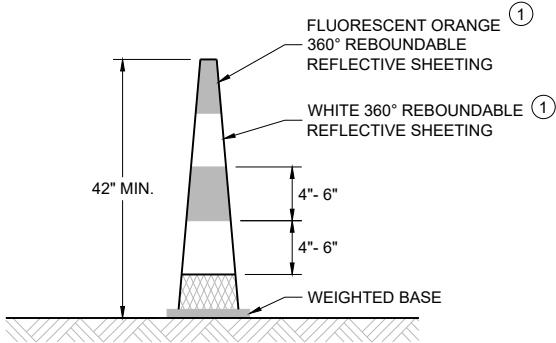
FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

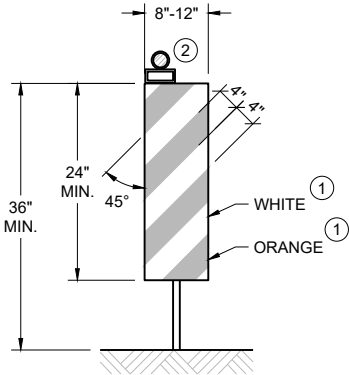
TEMPORARY LONGITUDINAL PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED December 2024 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	52



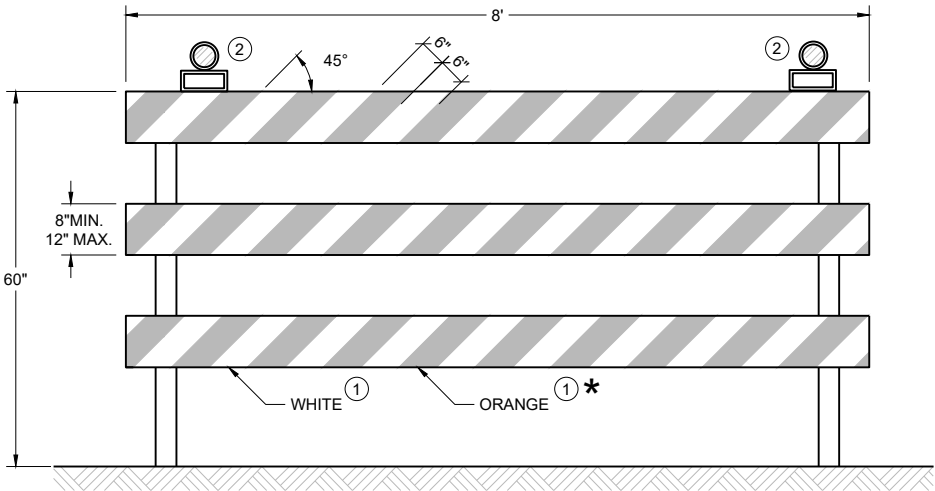
DRUM
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE
DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"



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



TYPE III 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.

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.

**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2026 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

LEGEND

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

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.

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

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

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

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

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

FLAGGING

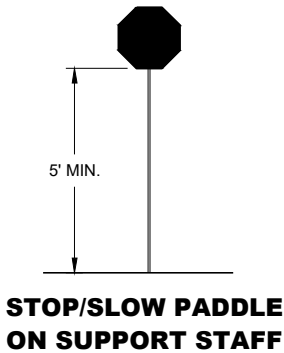
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

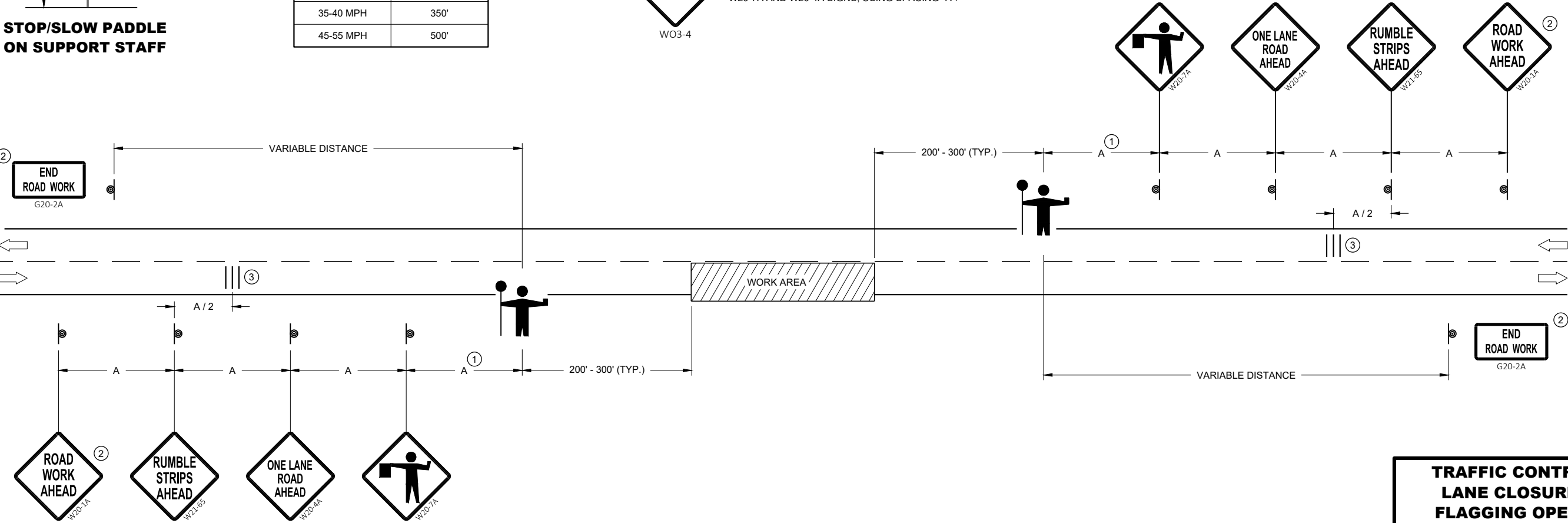


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

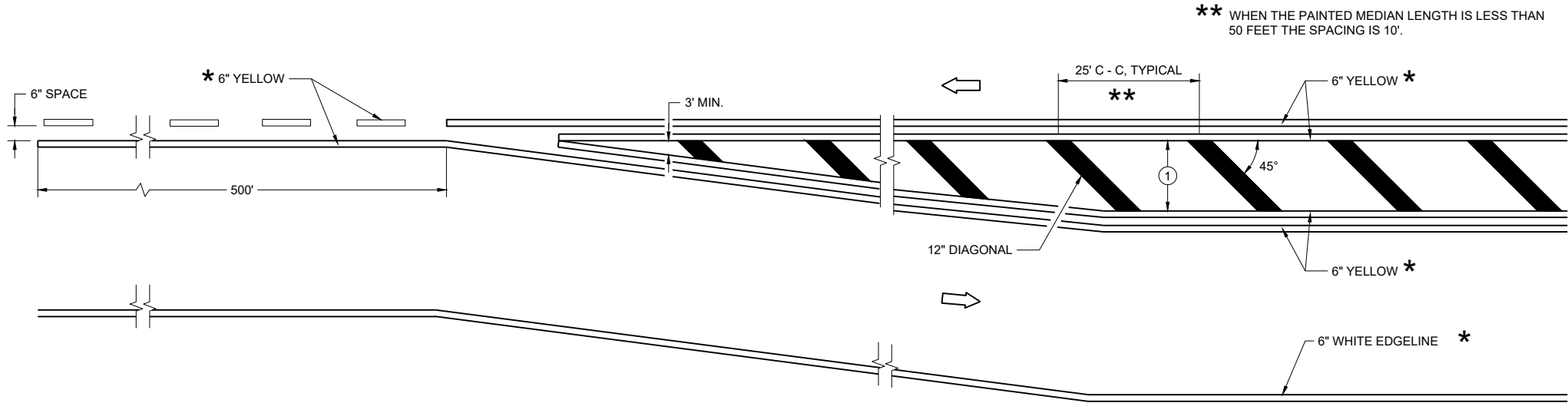
SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



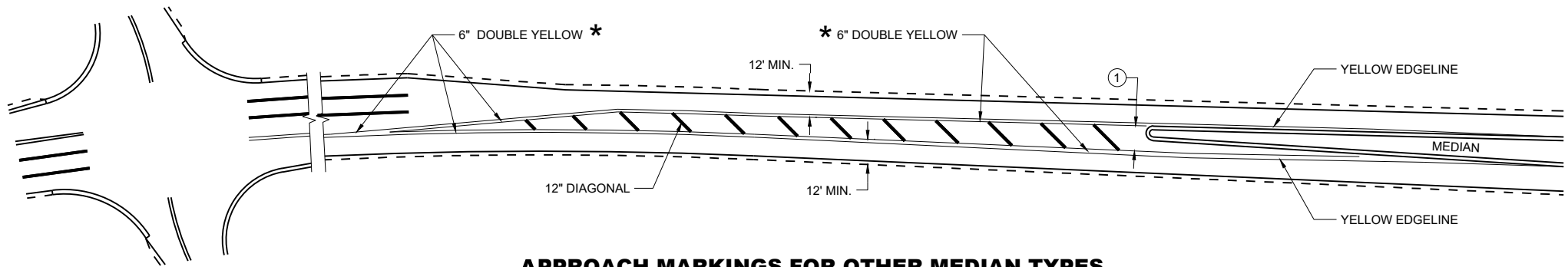
USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



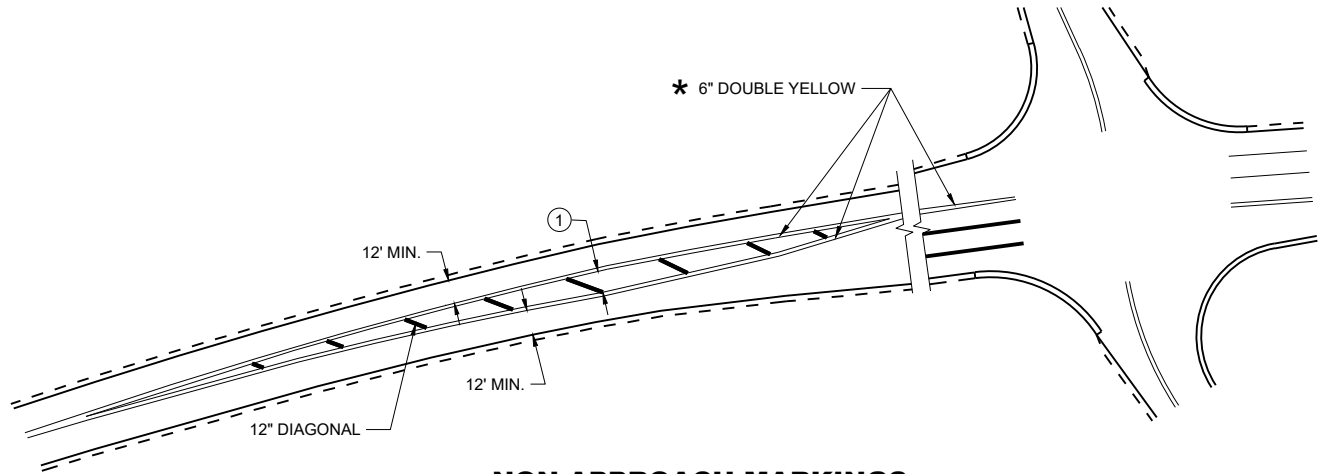
TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 54
FHWA	



MEDIAN ISLAND DETAIL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

GENERAL NOTES

- ① DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

DIRECTION OF TRAVEL

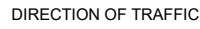
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

MEDIAN ISLAND PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2024 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer

V1	LEAD VEHICLE
V2	MARKING VEHICLE
V3	SHADOW VEHICLE



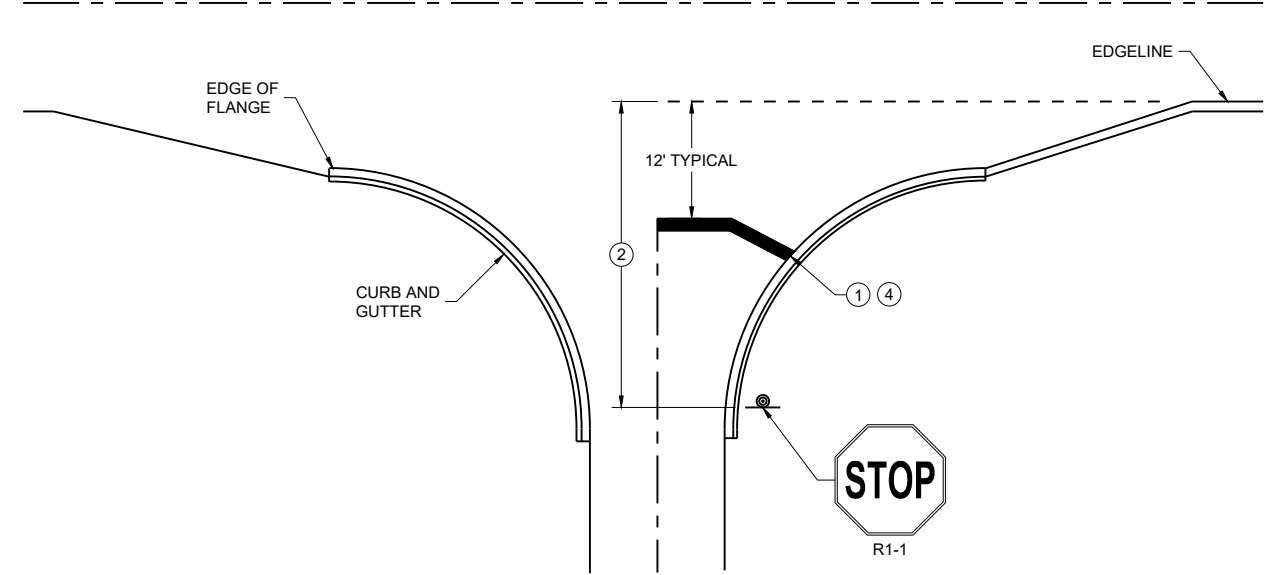
WORKERS SHALL NOT PERFORM WORK FROM ANY SHADOW OR PROTECTION VEHICLES.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING .

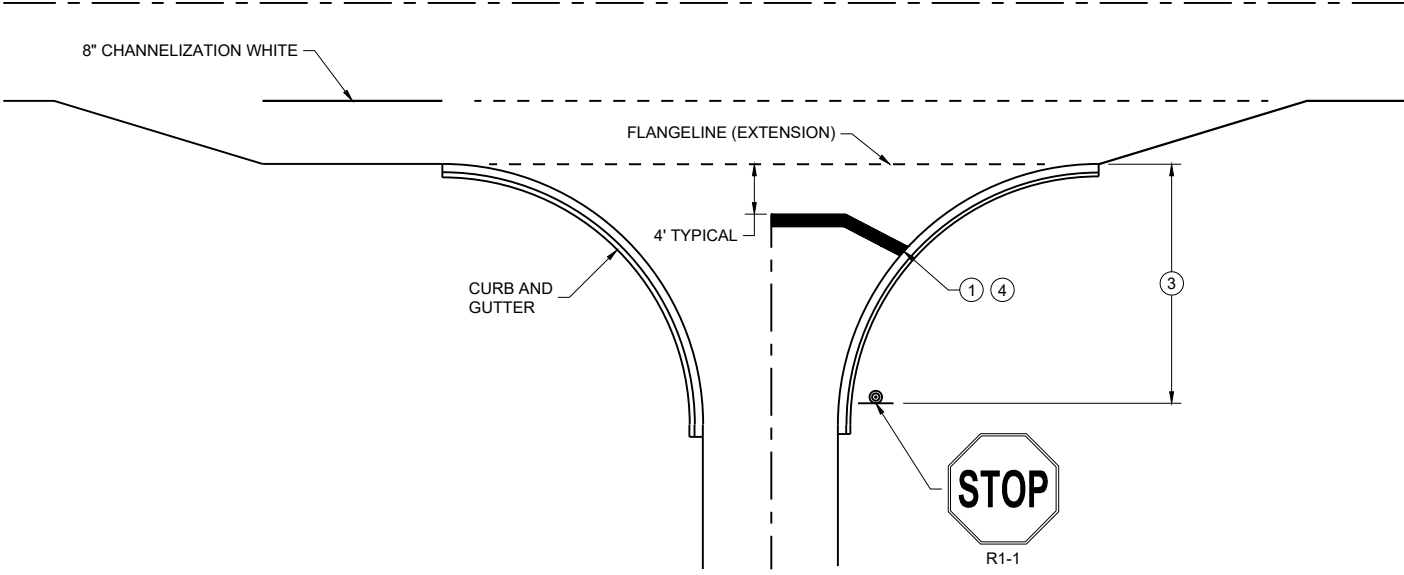
- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY MAJOR INTERSECTION.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.
- ③ V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.



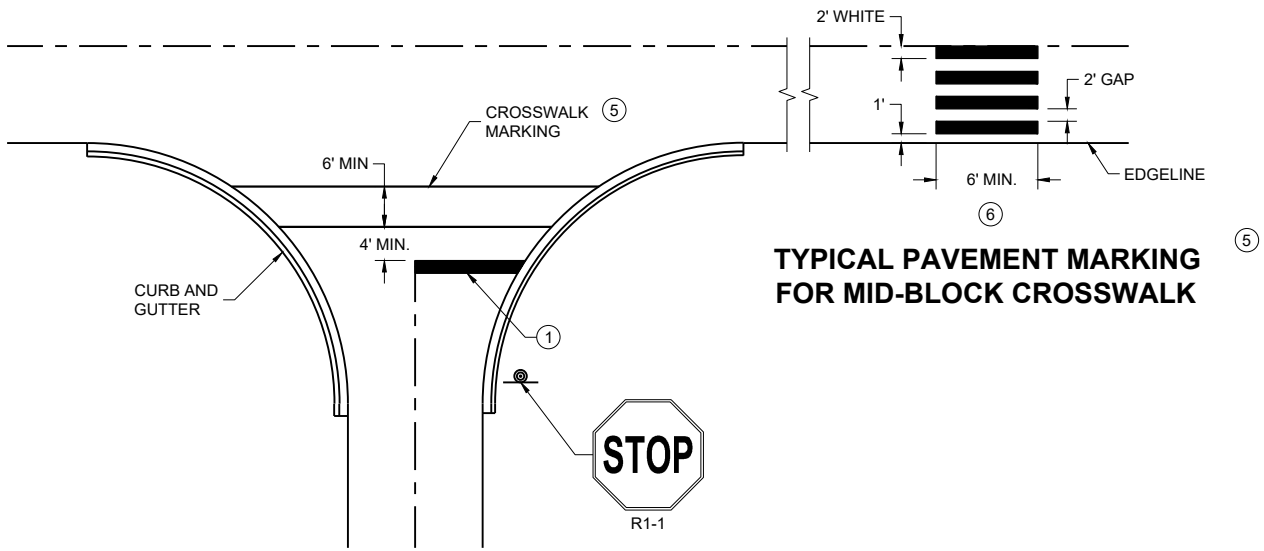
APPROVED
November 2025 /S/ Andrew Heidtke
DATE STATE ELECTRICAL ENGINEER



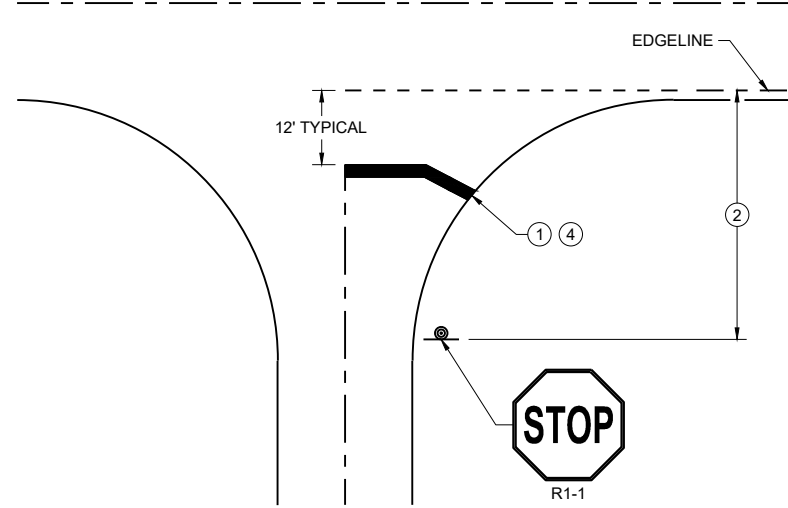
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



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



TYPICAL STOP LINE PAVEMENT MARKING FOR
SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

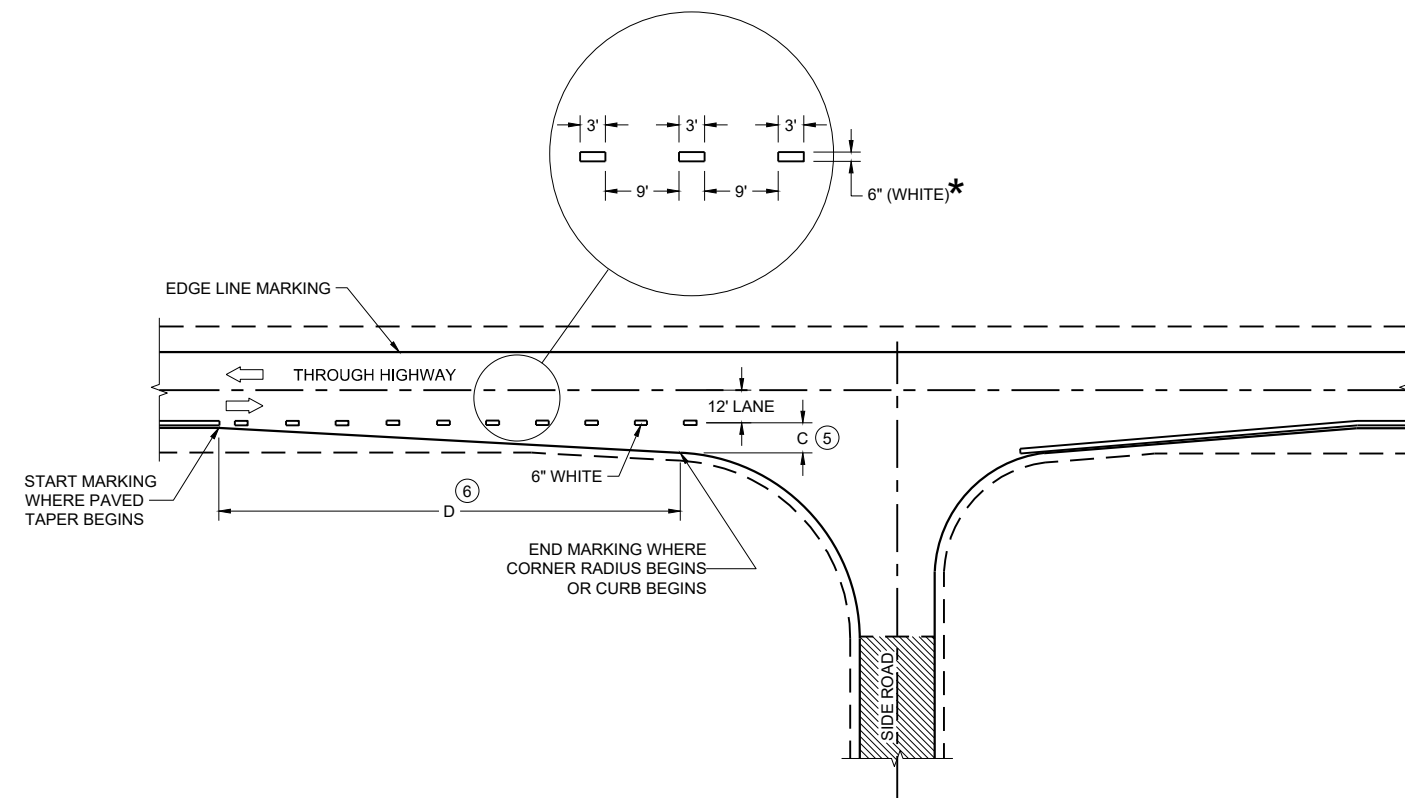
GENERAL NOTES

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

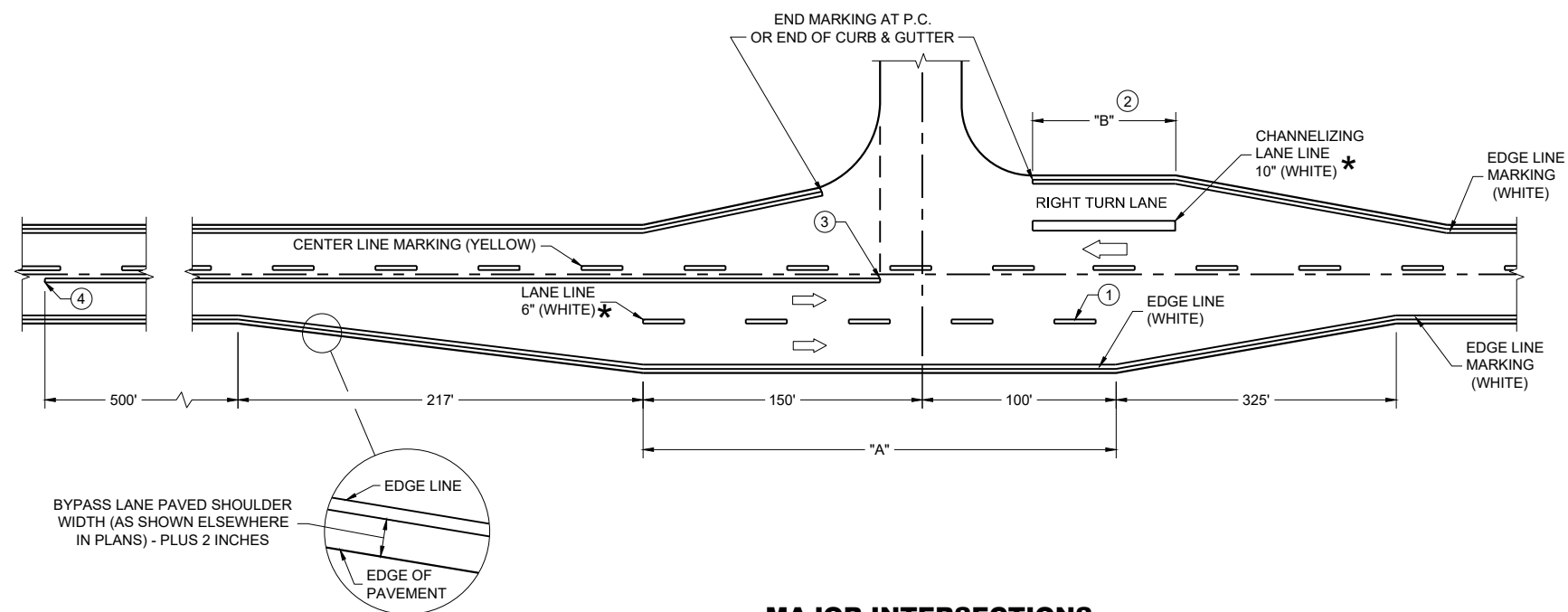
- 1 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- 2 NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- 3 NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE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

STOP LINE AND CROSSWALK PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2024 DATE	/S/ Matthew Rauch STATE SIGNING AND MARKING ENGINEER

FHWA



MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

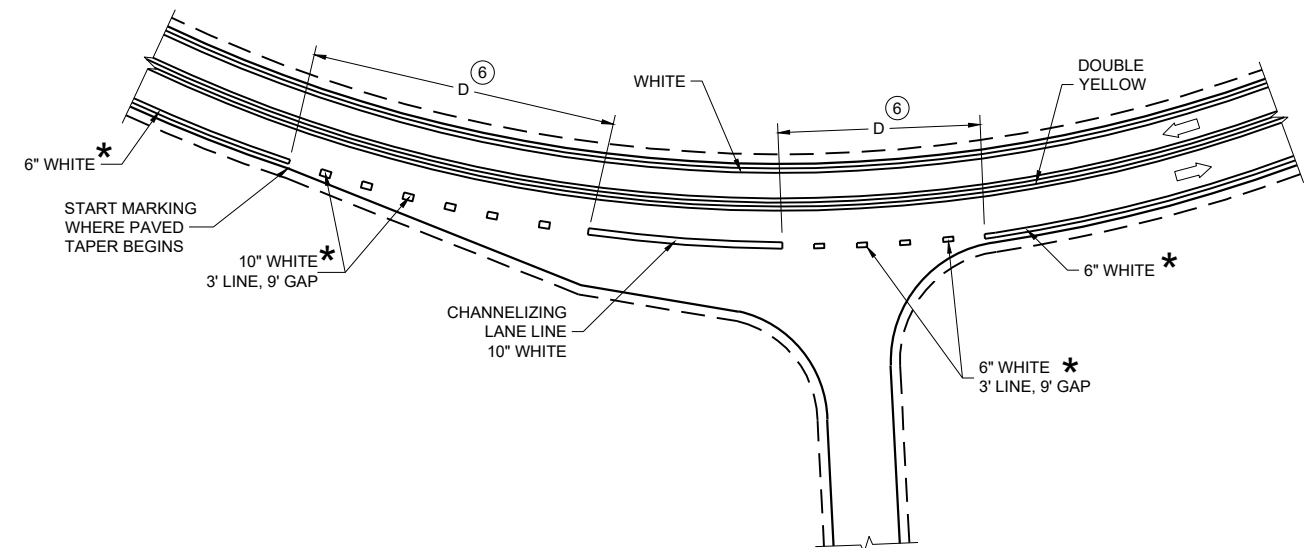
GENERAL NOTES

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.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
- ⑥ WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

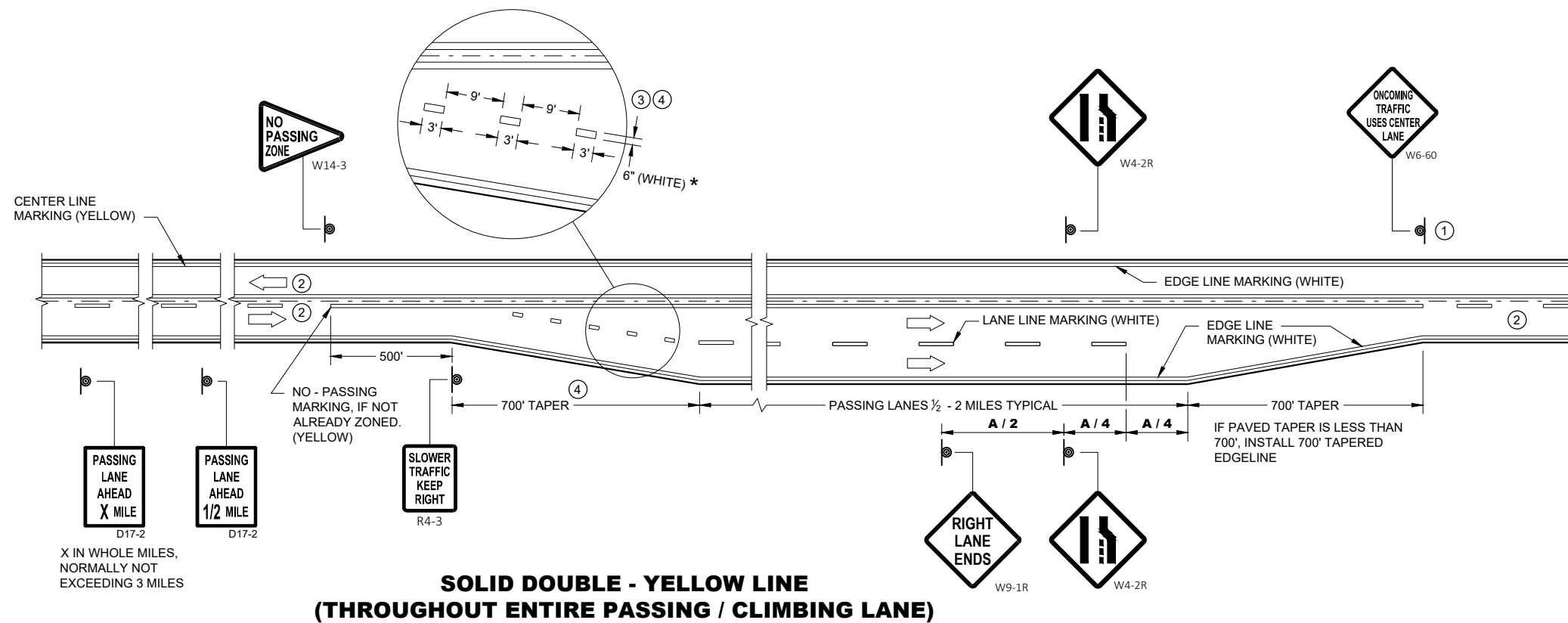
➡ DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

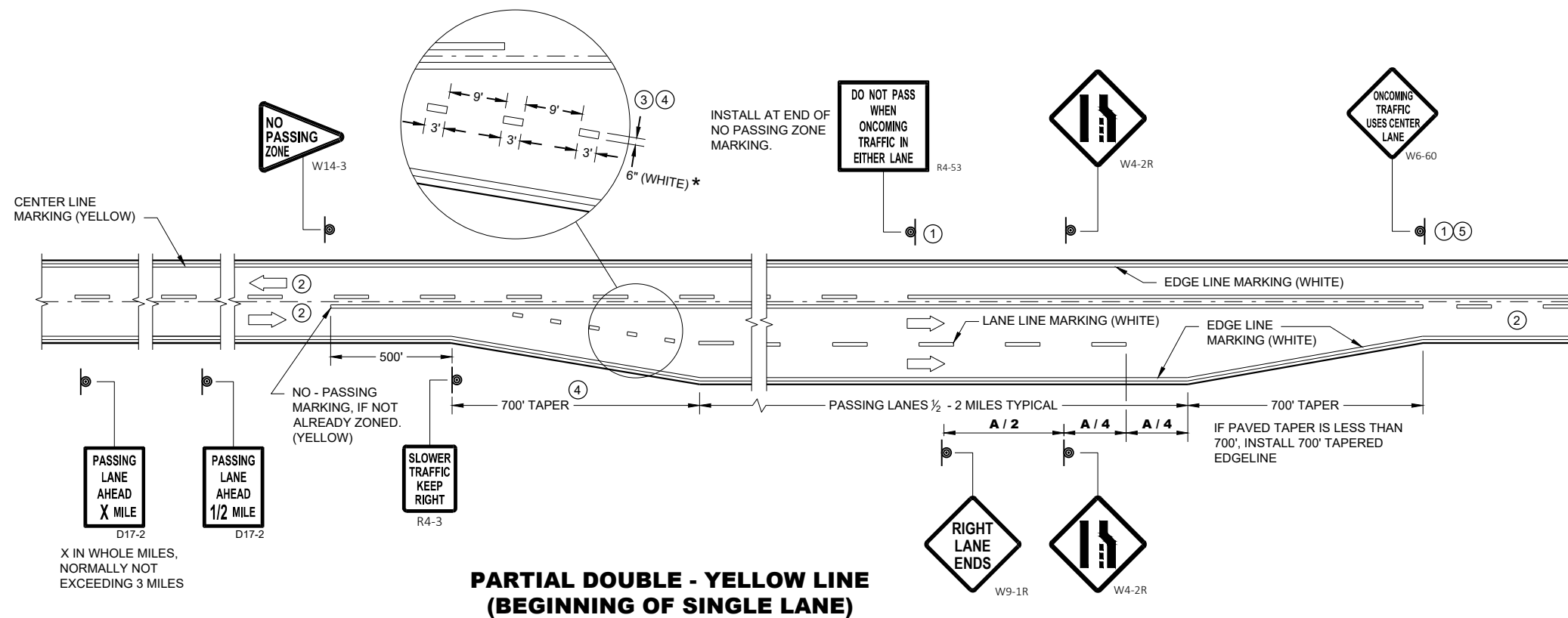


GENERAL NOTES

- ① SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
- ② THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
- ③ THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- ④ WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
- ⑤ REPEAT EVERY 1 MILE UP UNTIL R4-53.

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL

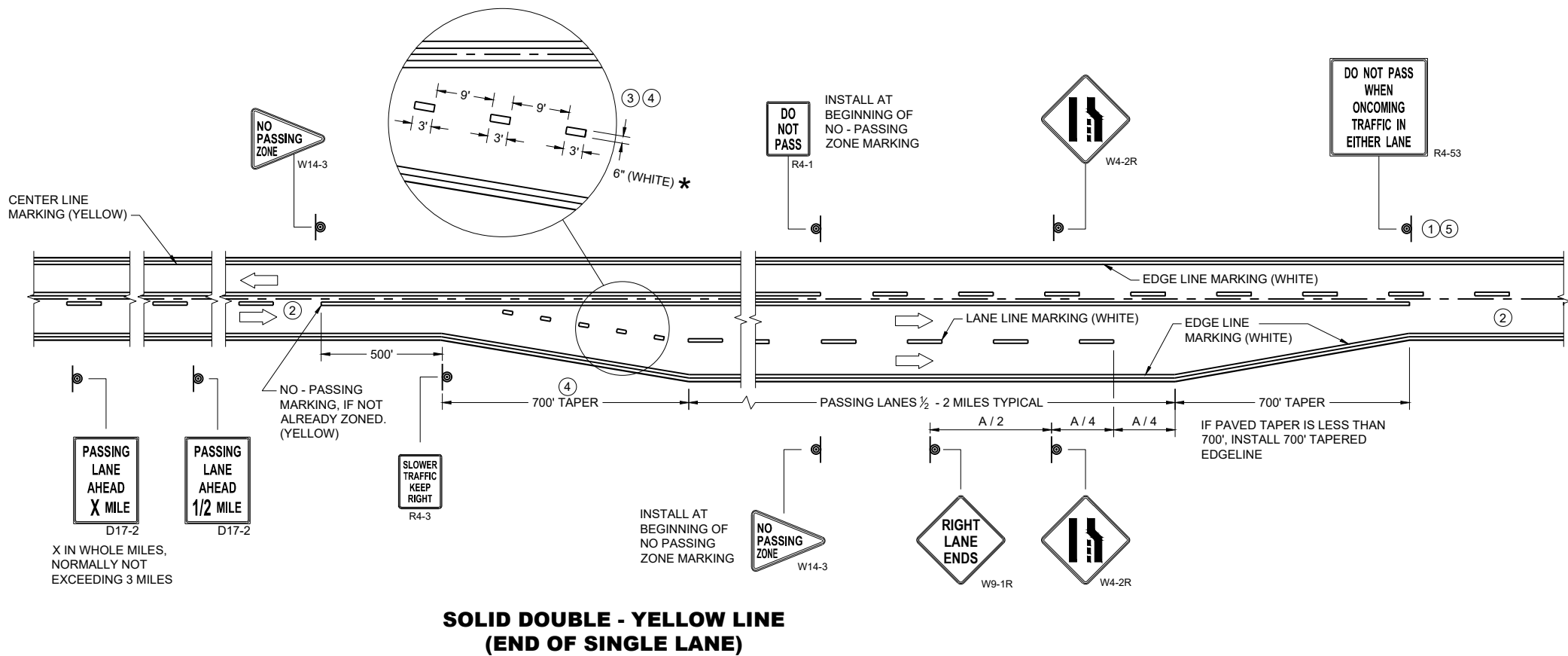
POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990



* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 59



GENERAL NOTES

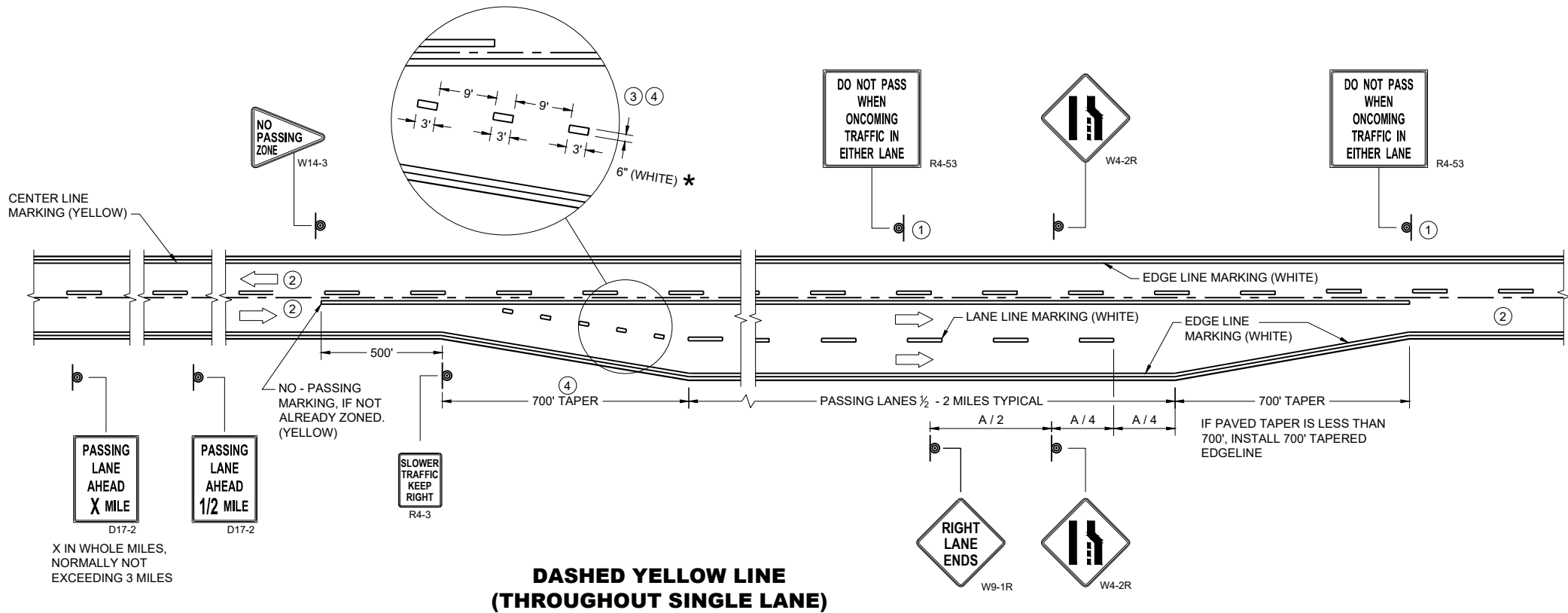
- 1 SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
- 2 THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
- 3 THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- 4 WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
- 5 REPEAT EVERY ONE MILE UP UNTIL NO PASSING ZONE.

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



**PAVEMENT MARKING & SIGNING
(CLIMBING LANE & PASSING LANE)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer
FHWA

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAFFIC
- WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

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

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

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

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

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

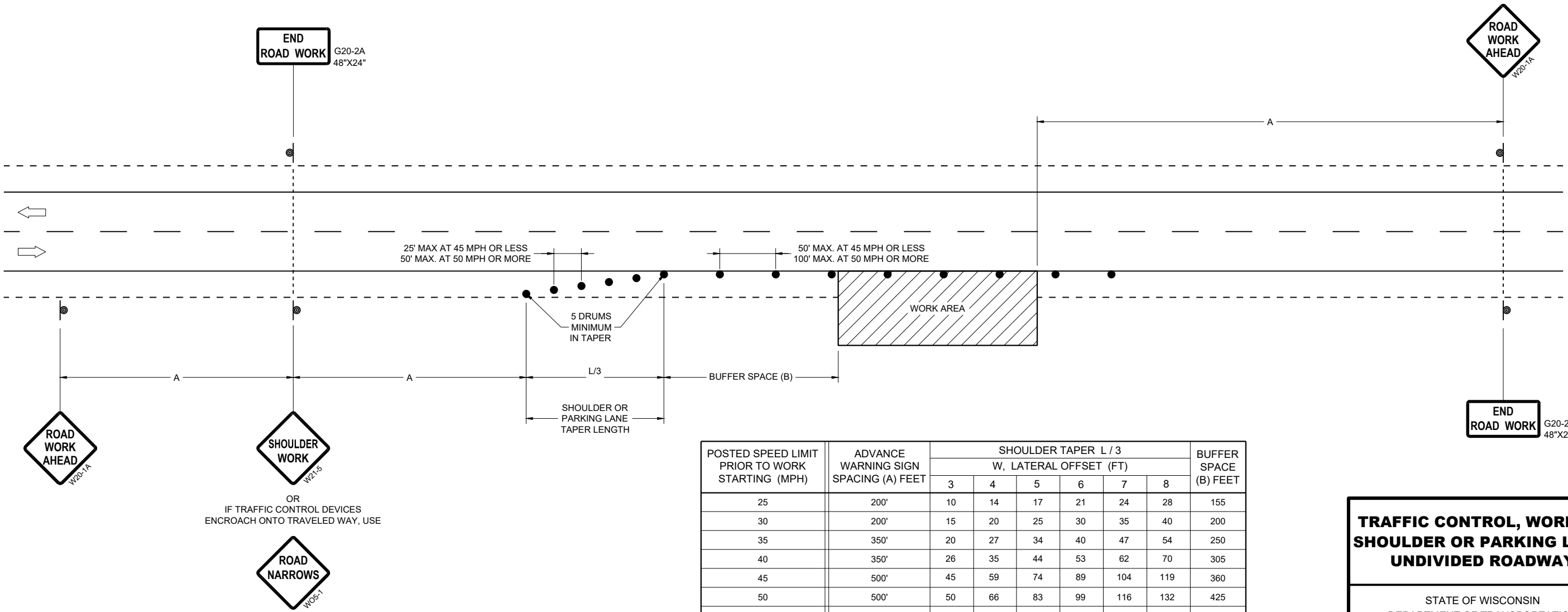
W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

6

6

SDD 15D28-06

SDD 15D28-06

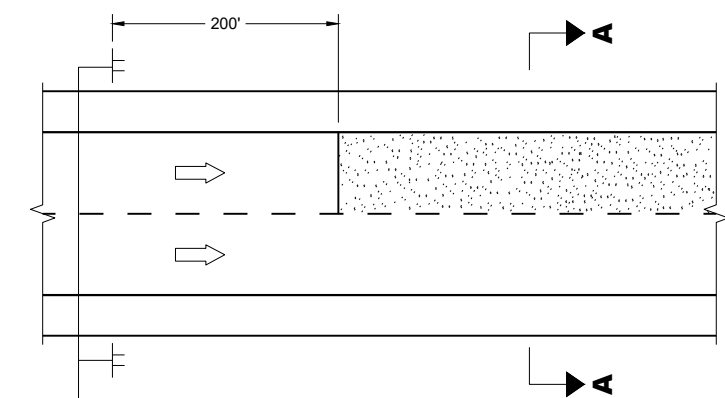


TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

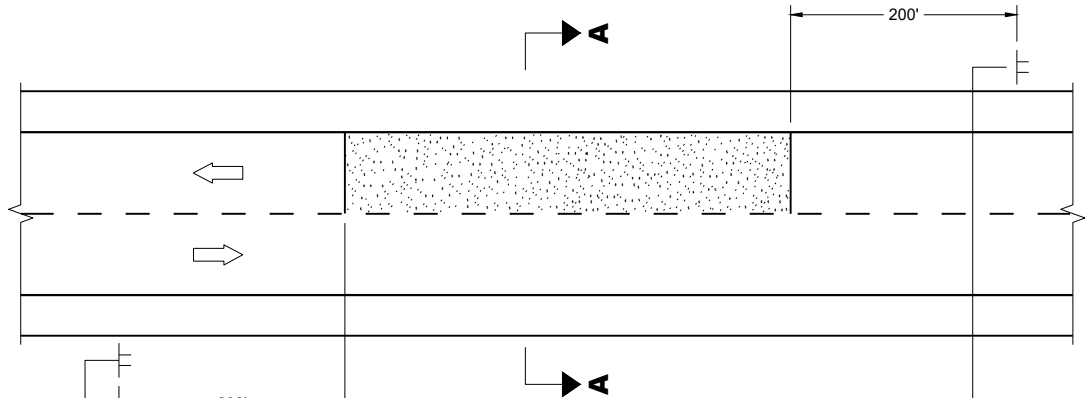
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2026 /S/ ANDREW HEIDTKE
DATE STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER

FHWA



MULTI-LANE

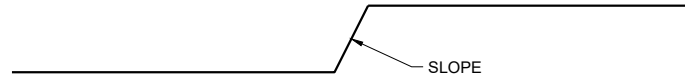


TWO-WAY TWO LANE

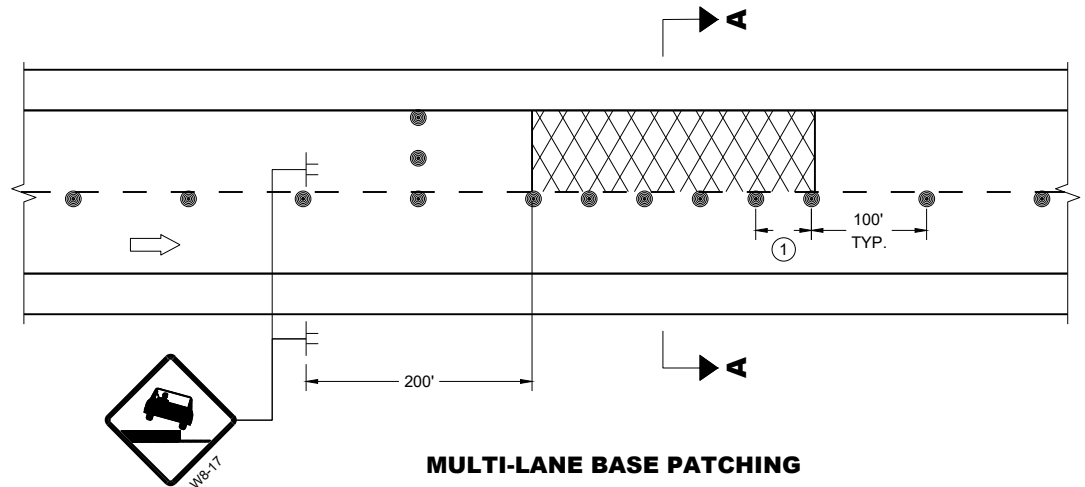


SECTION A - A

OR



SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

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.

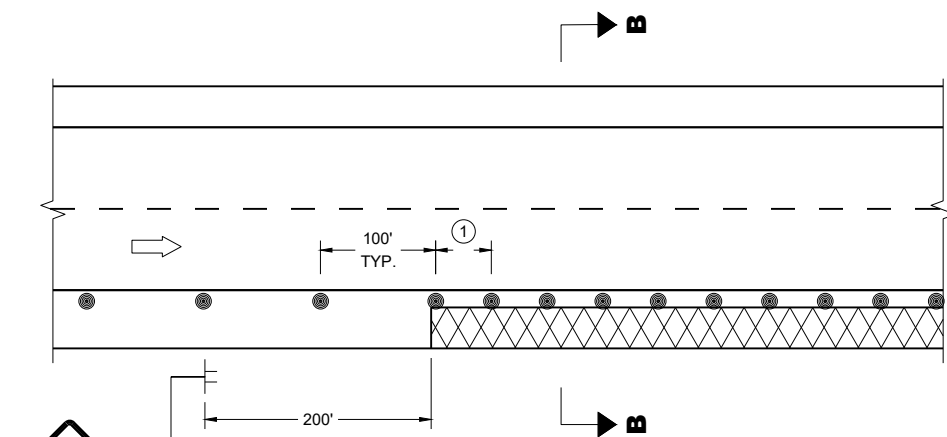
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

★ IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

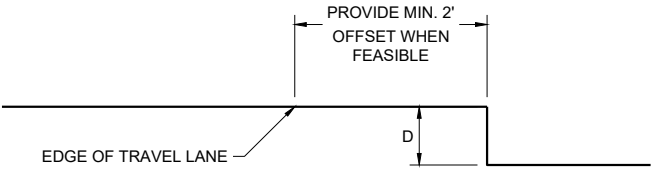
① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN ③
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
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
February 2025 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

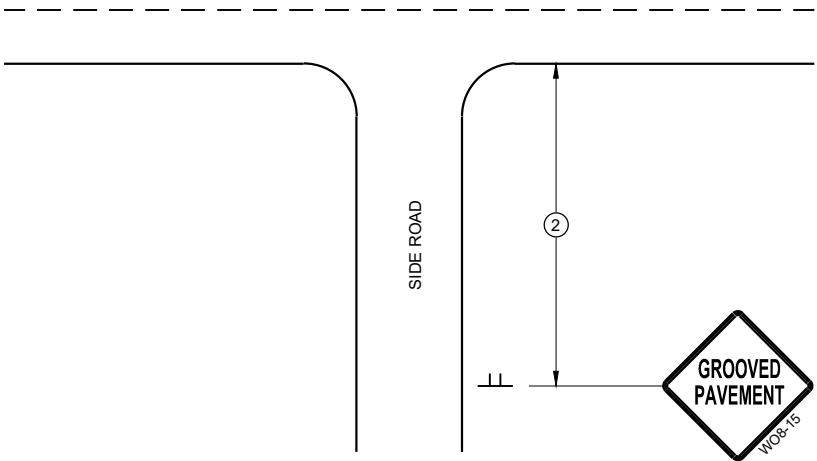
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

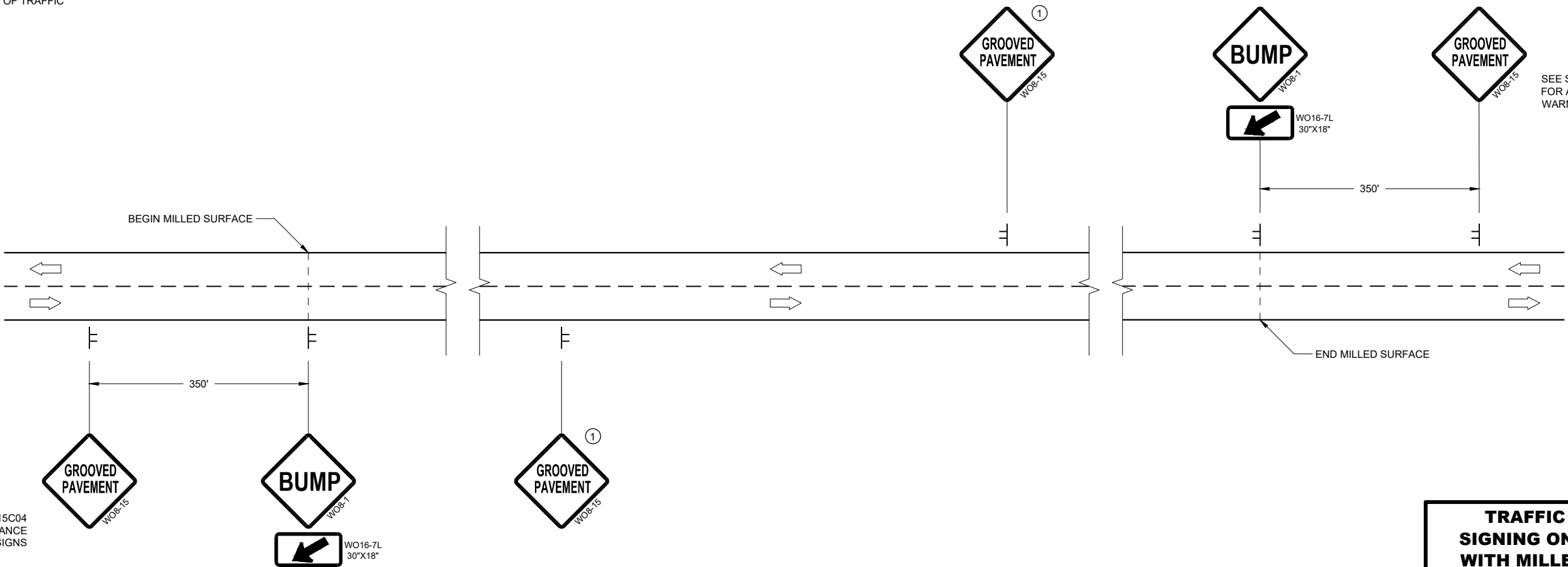
- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH
SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL,
SIGNING ON ROADWAYS
WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 63

FHWA

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

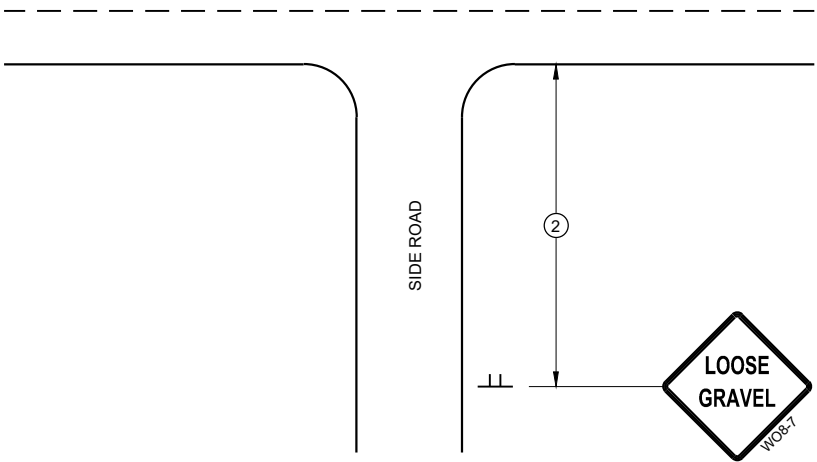
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

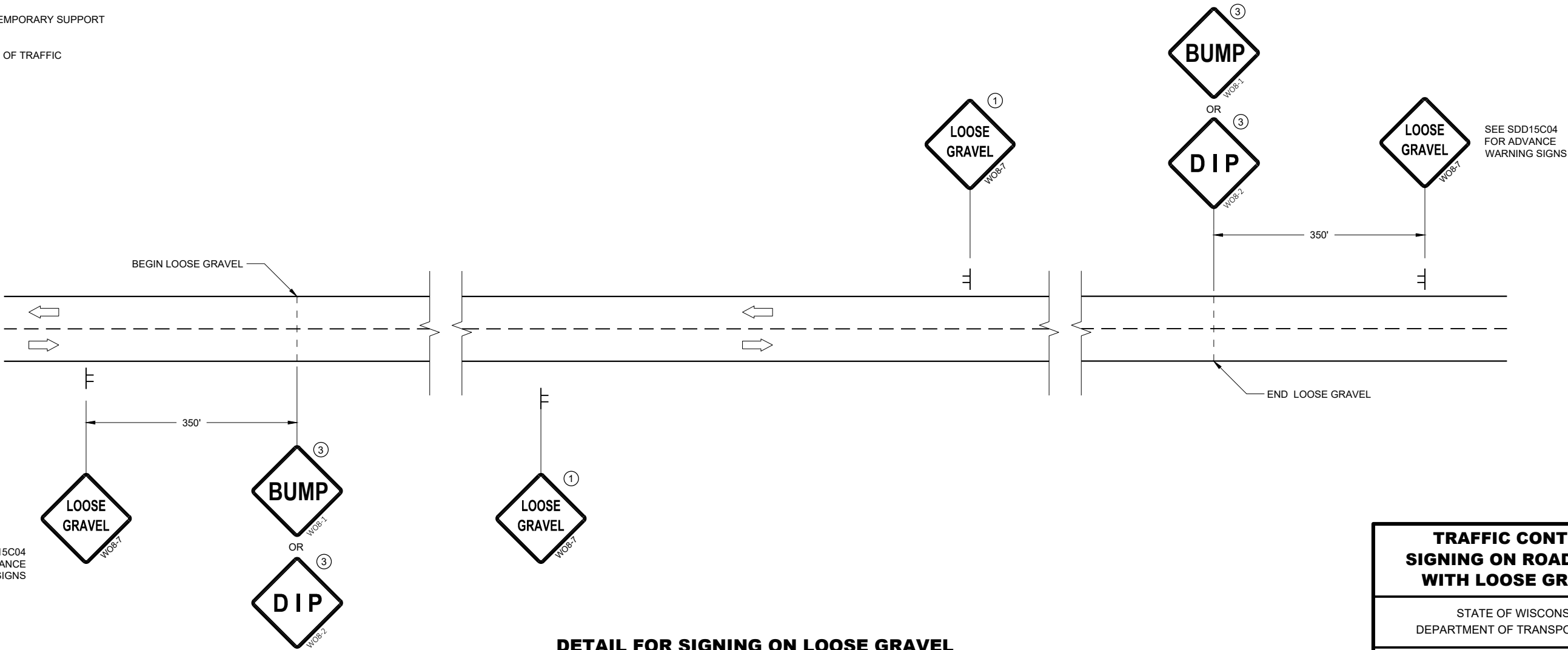
- 1 PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- 2 PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- 3 ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH
SIGN DETAIL

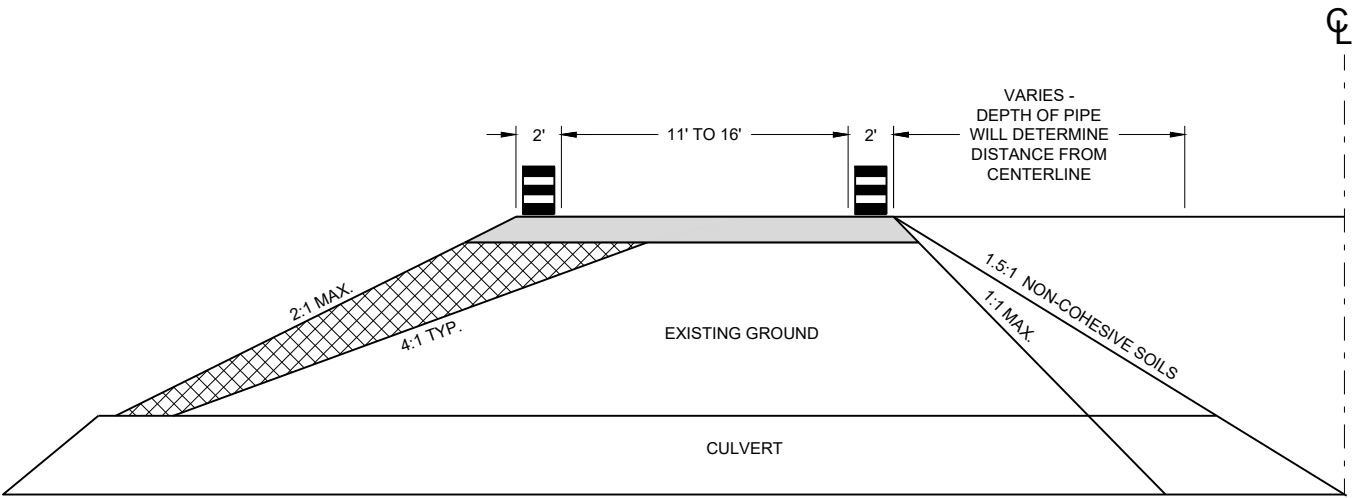


DETAIL FOR SIGNING ON LOOSE GRAVEL
OR CHIP SEALED SURFACES

TRAFFIC CONTROL
SIGNING ON ROADWAYS
WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 64
FHWA



CROSS SECTION

GENERAL NOTES

USE 1:1 FOR COHESIVE CLAYS AND SILTS, LOAMS, SANDY CLAYS AND ANGULAR GRAVEL SOILS.
USE 1.5:1 FOR NON-COHESIVE SOILS.

THE TAPER SHOULD EXTEND ACROSS THE SHOULDER UNLESS DOING SO WOULD GREATLY CONFLICT WITH THE WORK OPERATION.

ALL LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL DEVICES REMOVED BEYOND THE SHOULDER WHEN WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

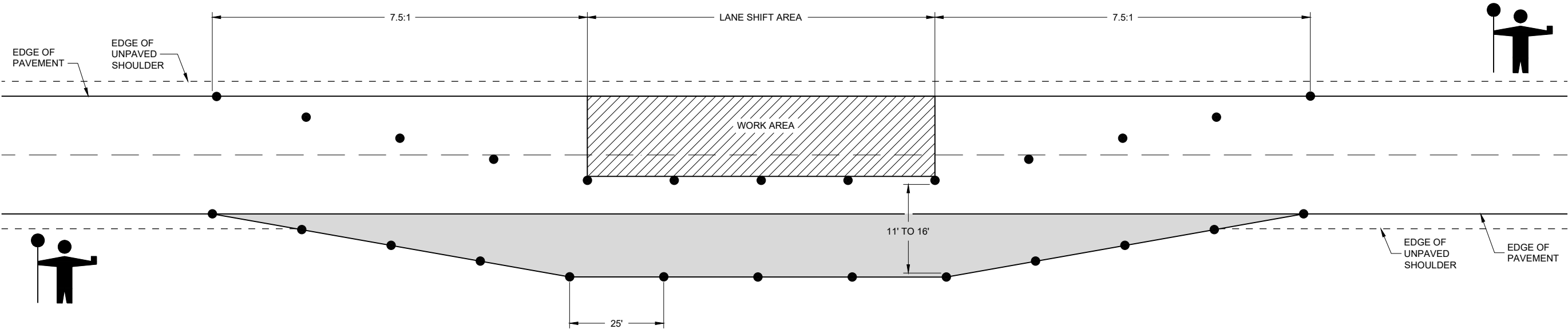
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

USE WITH SDD 15C12 "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS"

USE WITH SDD 15D45 "SIGNING ON ROADWAYS WITH LOOSE GRAVEL"

LEGEND

- DRUM WITHOUT WARNING LIGHT
- 6" BASE AGGREGATE DENSE 1 1/4" - INCIDENTAL TO LANE SHIFT ITEM
- FILL - INCIDENTAL TO LANE SHIFT ITEM
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



LANE SHIFT IN FLAGGING OPERATION

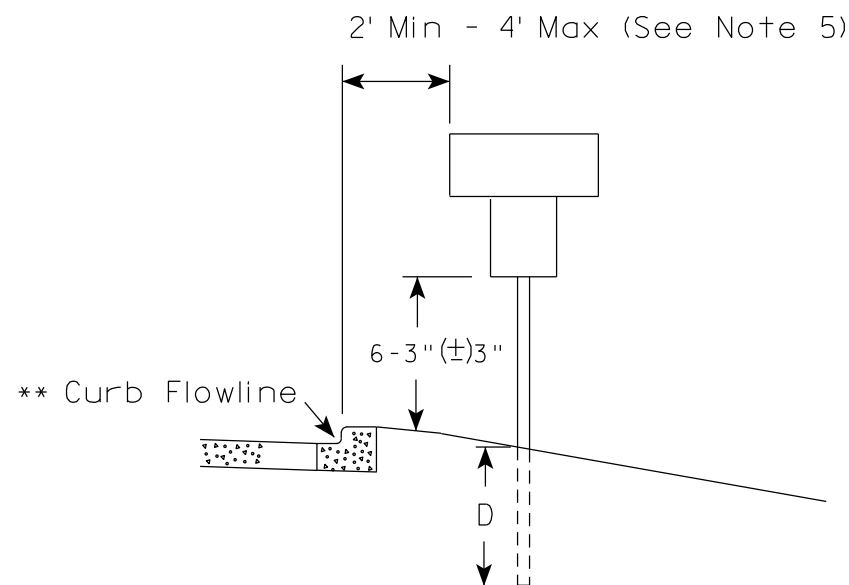
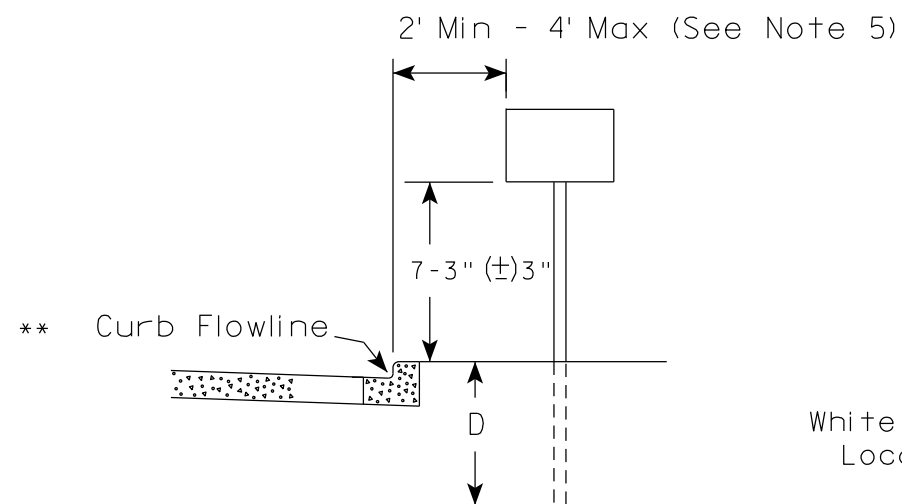
TRAFFIC CONTROL,
TEMPORARY LANE SHIFT
DURING CULVERT WORK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

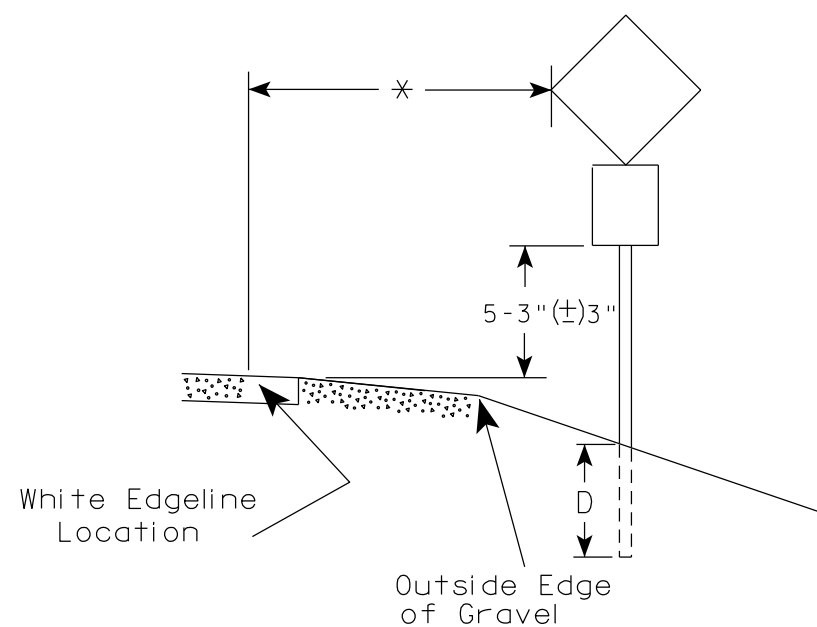
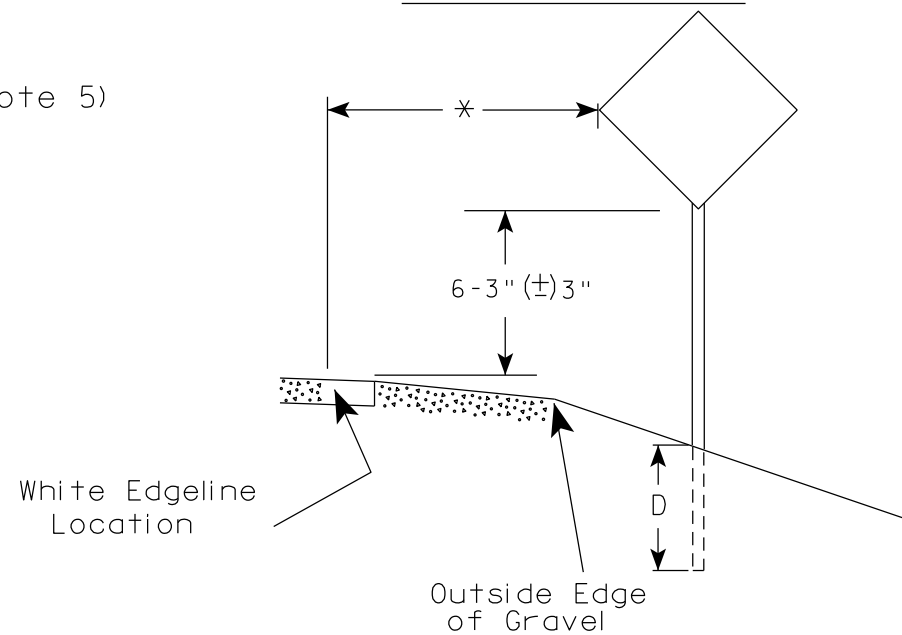
APPROVED
February 2021 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 65

FHWA

URBAN AREA



RURAL AREA (See Note 2)



POST EMBEDMENT DEPTH

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

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

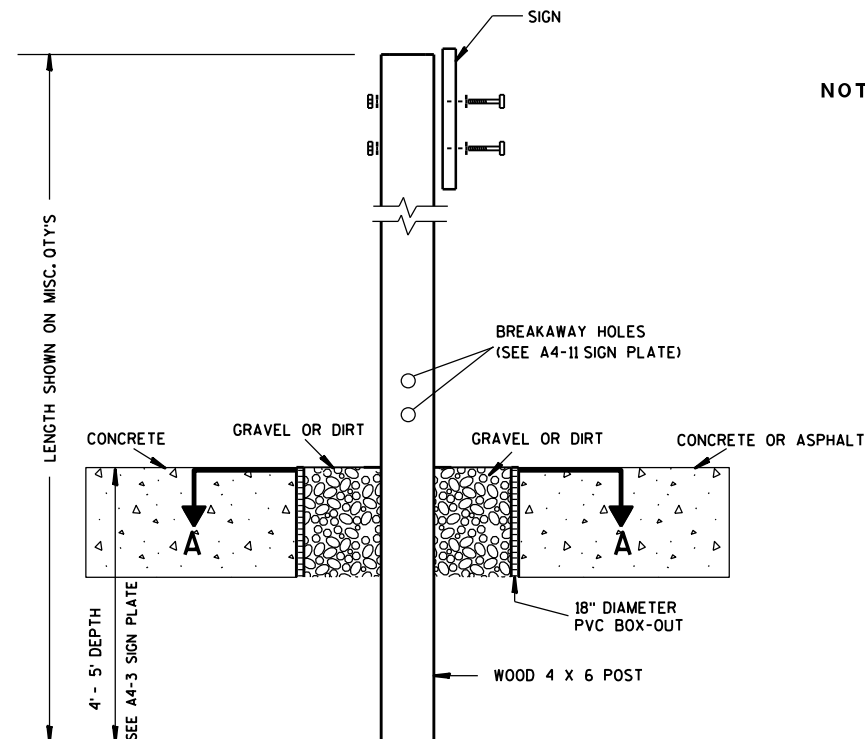
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch
for State Traffic Engineer

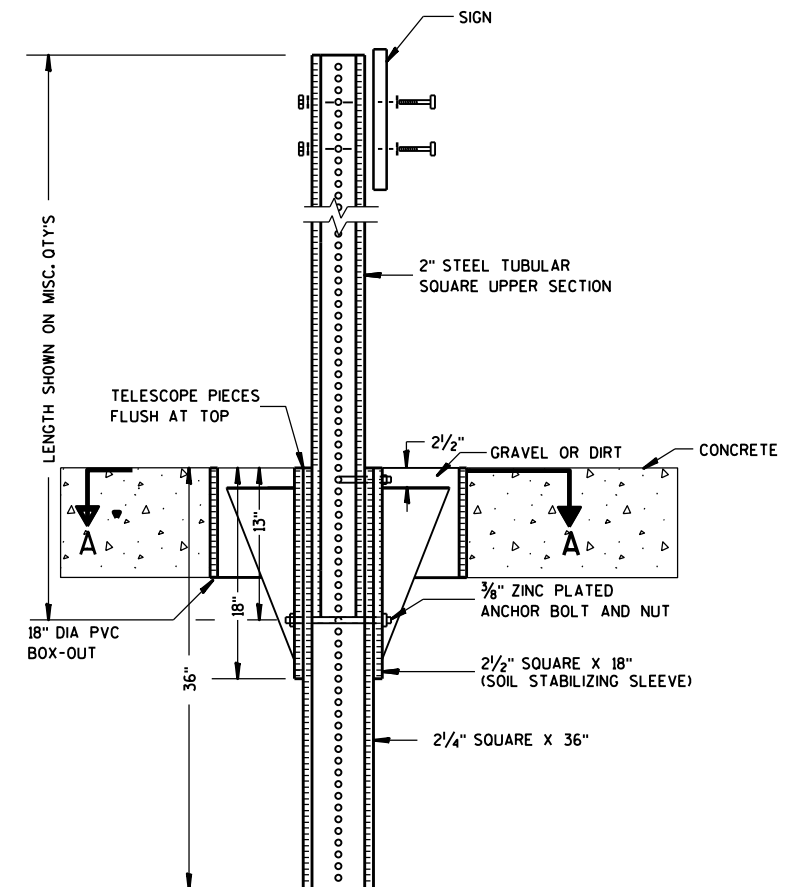
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

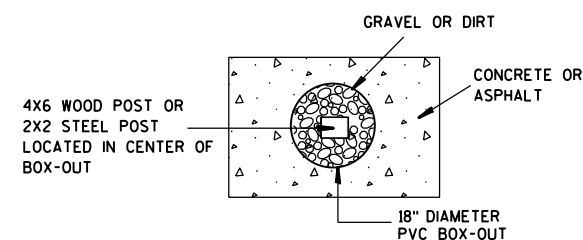
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 67 A4-3B.1

PROJECT NO:

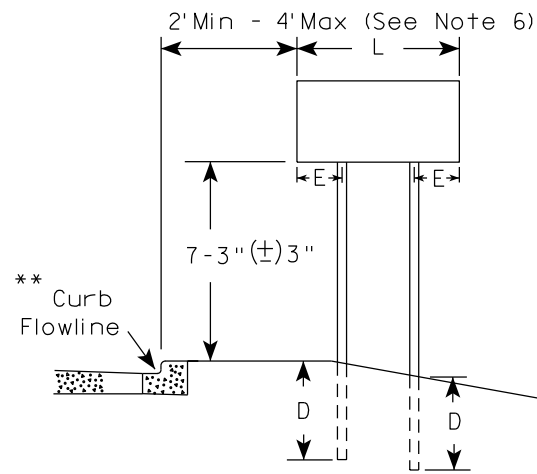
HWY:

COUNTY:

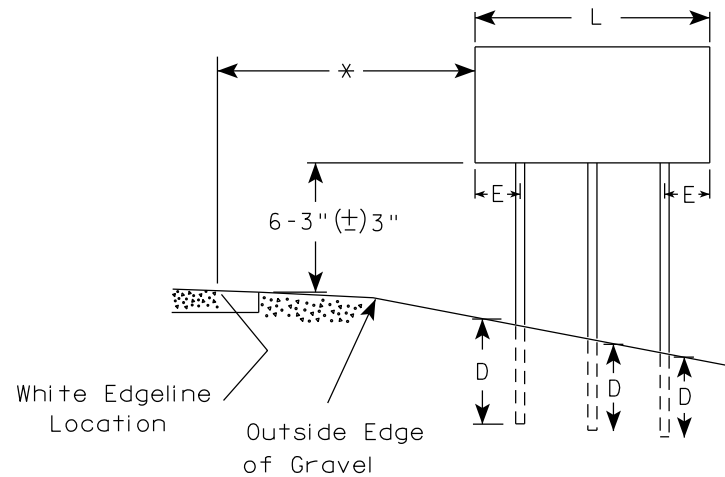
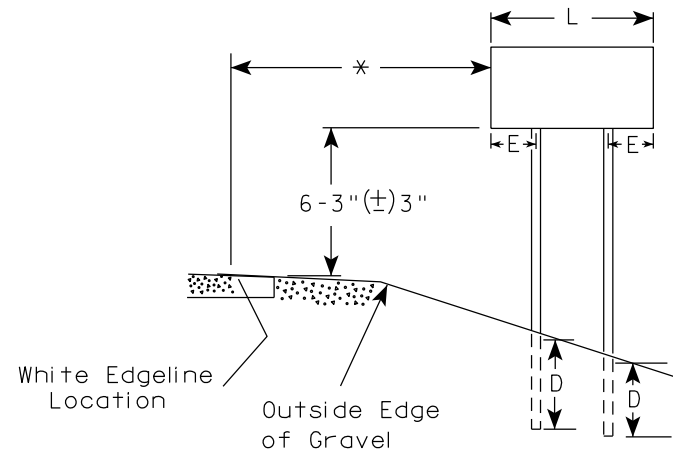
SHEET NO:

E

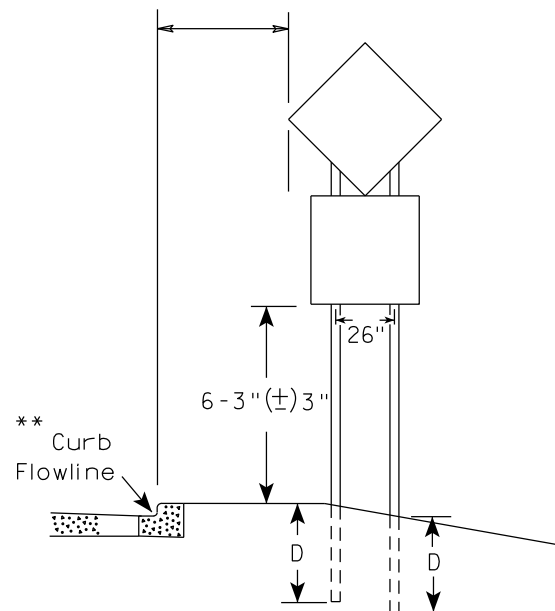
URBAN AREA



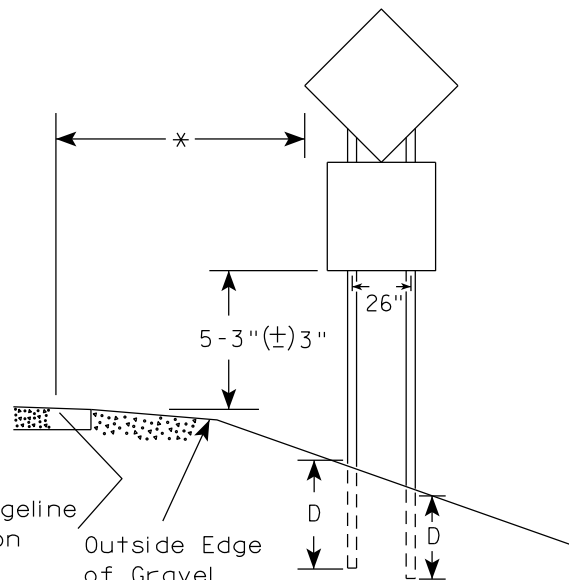
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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" (±) 3" or 6'-3" (±) 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" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".

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

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

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

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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

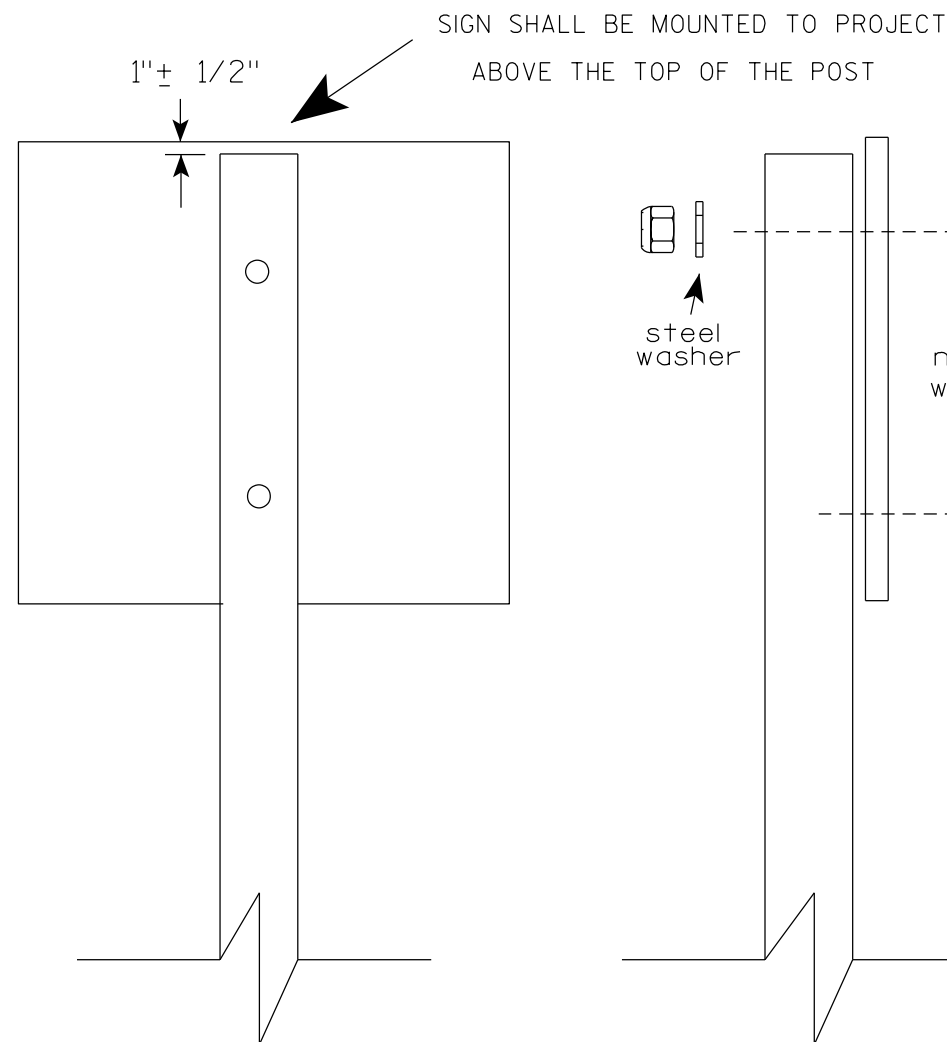
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 68

E



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

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

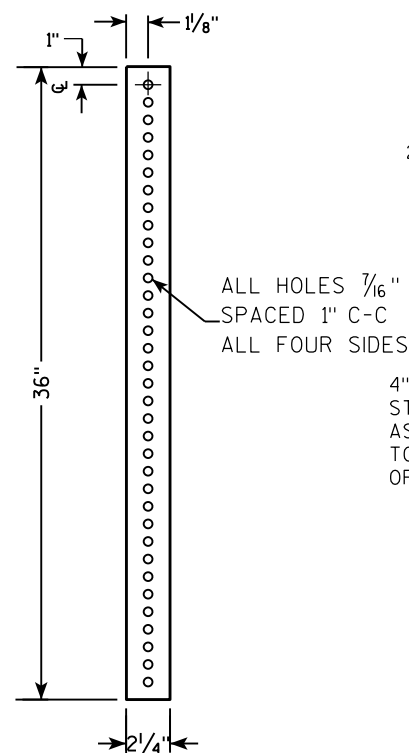
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

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

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

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

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



2 1/2" TELESPAR TUBE

4" x 10" x 10 GA. STEEL PLATE (CUT AS SHOWN) WELDED TO ALL FOUR CORNERS OF TELESPAR TUBE

4"

2 1/2"

10"

3 1/2"

18"

[illegible]

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY:

Side View Dimensions:

- Overall height: LENGTH SHOWN ON MISC. QTYS
- Top section: 2" STEEL TUBULAR SQUARE UPPER SECTION
- Telescope pieces: TELESCOPE PIECES FLUSH AT TOP
- Vertical dimensions from ground line: 36", 18", 12"
- Ground level: Indicated by a hatched line with downward arrows labeled 'A'.

End View Details:

- Top: SIGN
- Fasteners: SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
- Structure: 2" STEEL TUBULAR SQUARE UPPER SECTION
- Perforations: ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES
- Corner fasteners: $\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT (1" from corner)
- Ground level: Indicated by a hatched line with downward arrows labeled 'A'.
- Base fasteners: $\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT
- Soil stabilizing sleeve: 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
- Bottom section: 2 1/4" SQUARE X 36"

A schematic diagram of a square microfluidic chip. It features a central square channel with rounded corners. This central channel is surrounded by a thin, uniform border. The entire structure is enclosed within a larger square frame. Four ports are located at the midpoints of the outer frame's sides: one at the top, one at the bottom, and one on each side. Each port consists of a small rectangular inlet/outlet connected to the central channel by a short, straight segment. The top and bottom ports are connected to the central channel via vertical segments, while the left and right ports are connected via horizontal segments.

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

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

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch

for State Traffic Engineer

DATE 2/05/15 PLAT 70 14-9.9

SHEET NO:

PROJECT NO:

HWY:

COUNTY:

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN

PLOT DATE : 05-FEB-2015 17:09

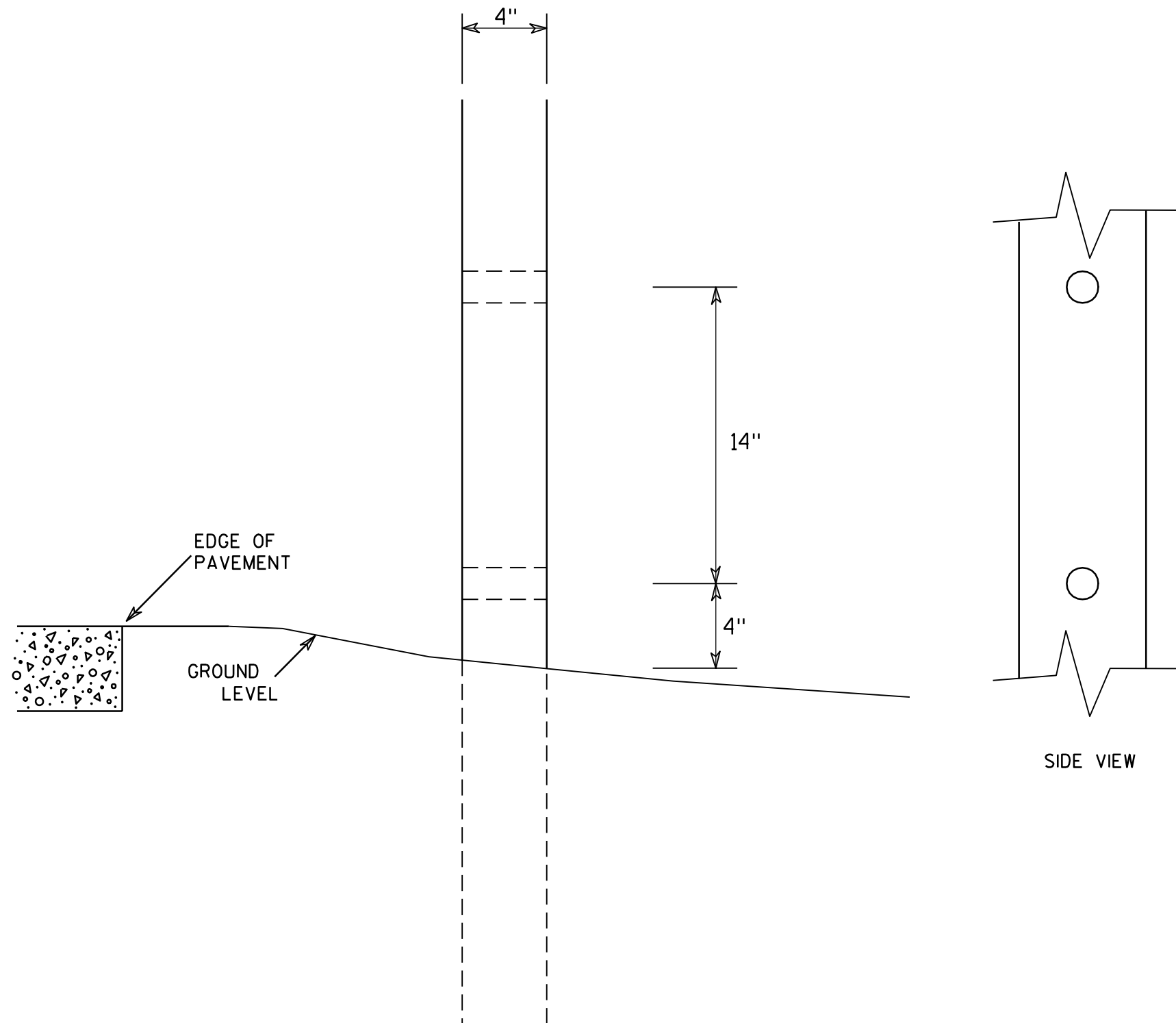
PLOT BY : mscs_ja

PLOT NAME :

PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42

7



GENERAL NOTES

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

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

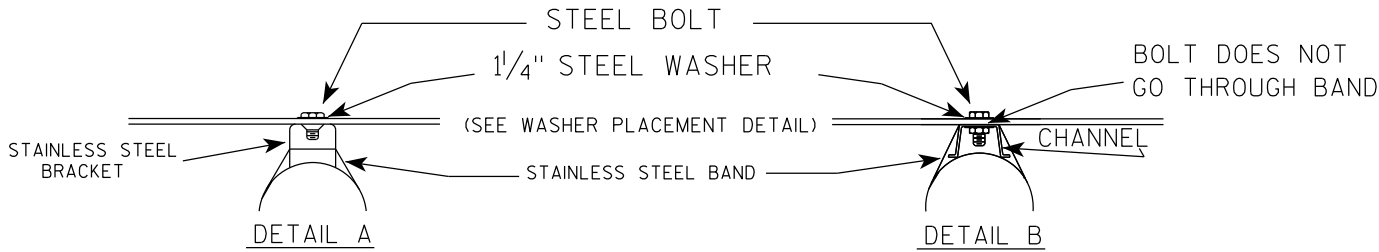
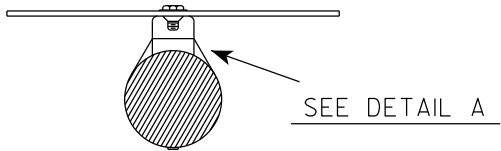
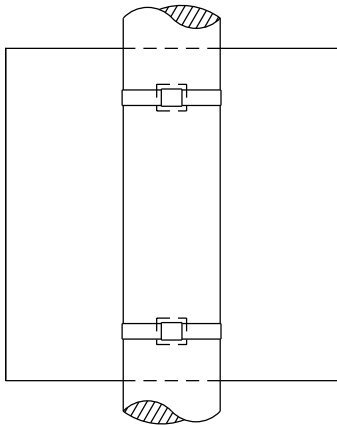
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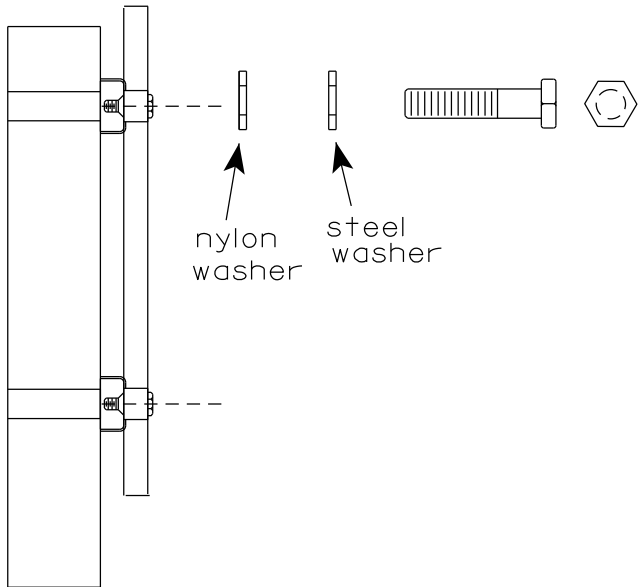
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

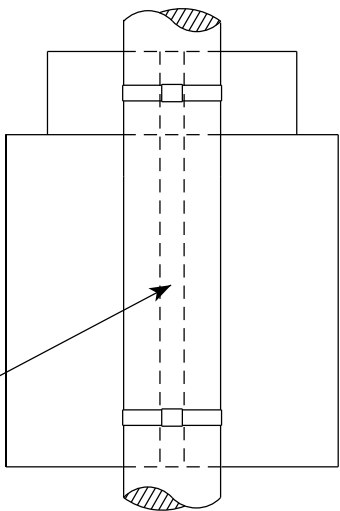


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

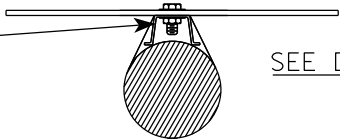
GENERAL NOTES

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

"J" ASSEMBLY



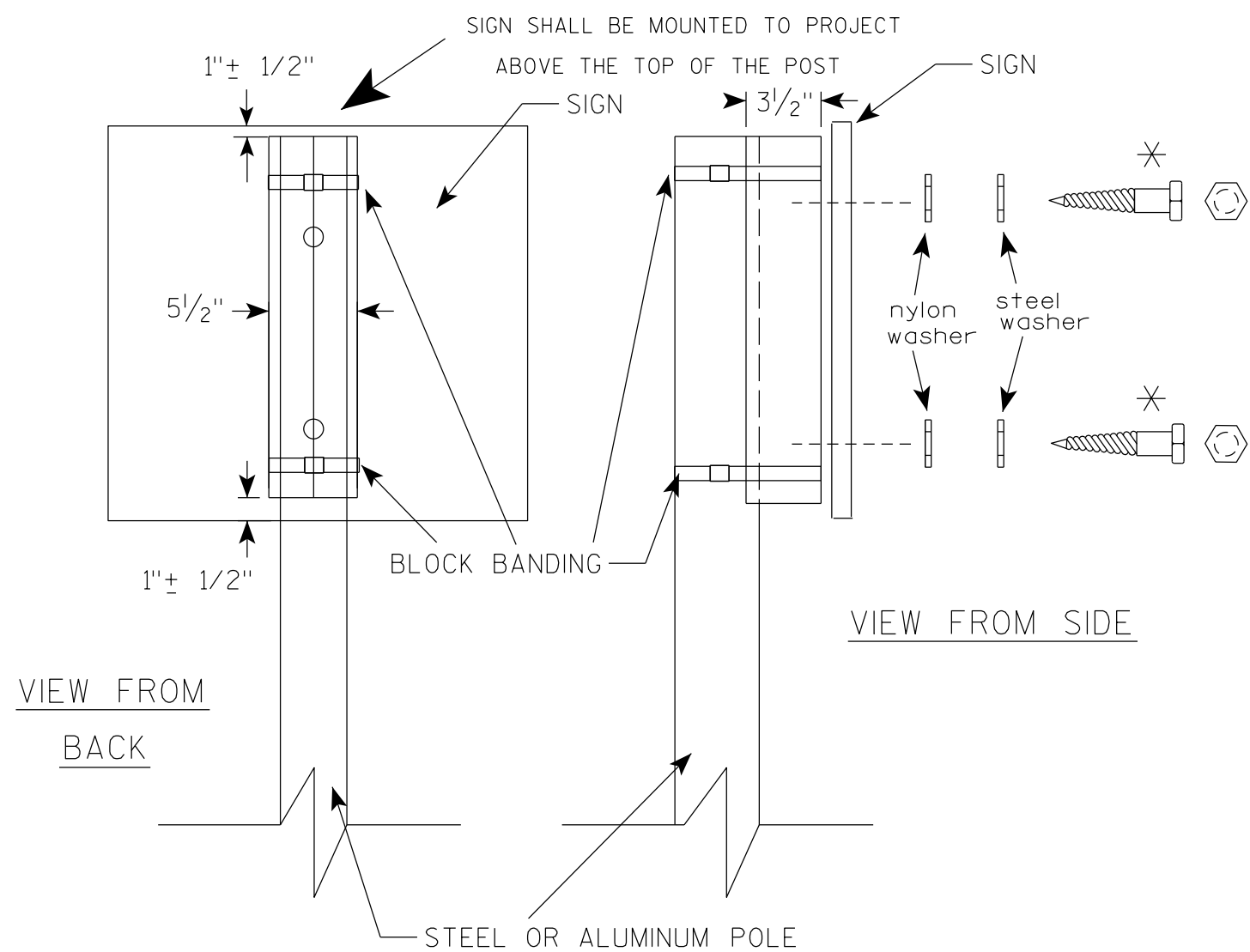
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



STANDARD SIGN
SIGN BANDING DETAILS

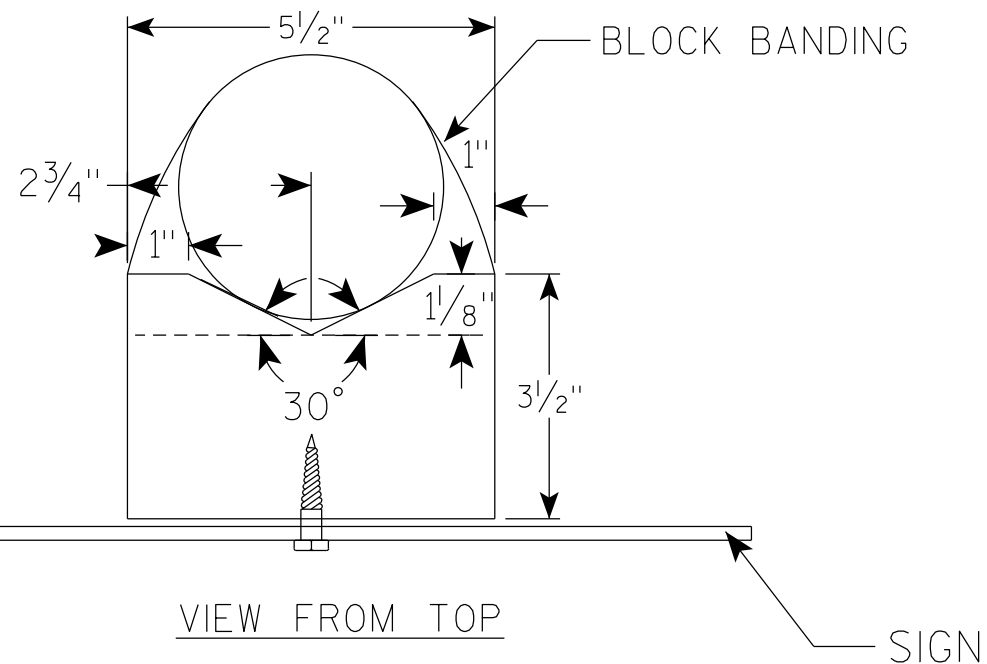
WISCONSIN DEPT OF TRANSPORTATION

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



VIEW FROM
BACK

VIEW FROM SIDE



GENERAL NOTES

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

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

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

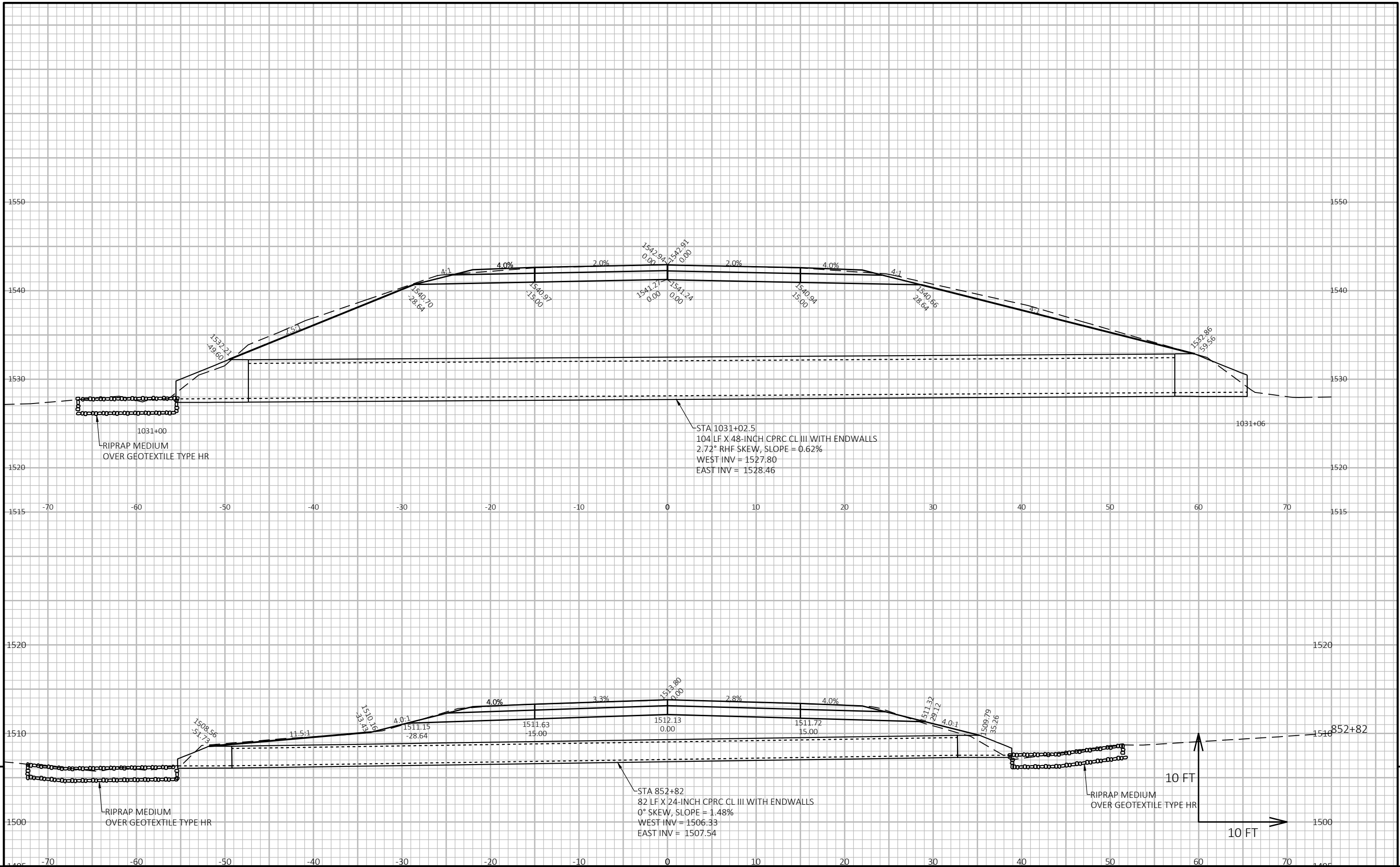
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

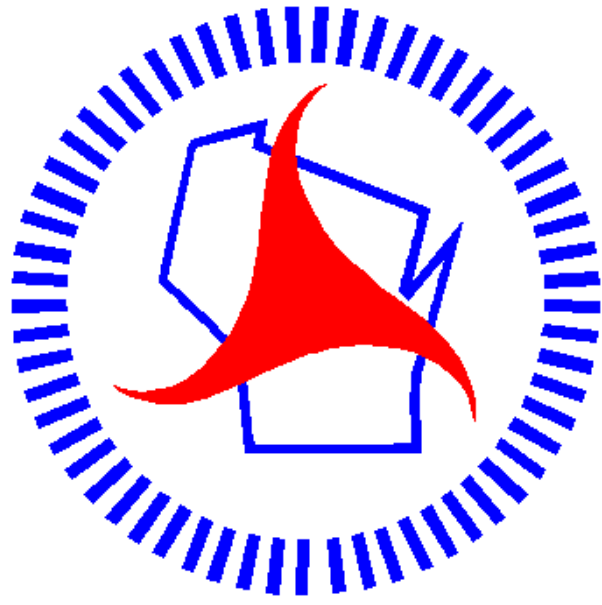
PROJECT NO:

SHEET NO: 73

E



Notes



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