

NEL

JULY 2015

PROJECT ID: 9286-04-71
WITH: N/A

COUNTY: BROWN

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 = 30



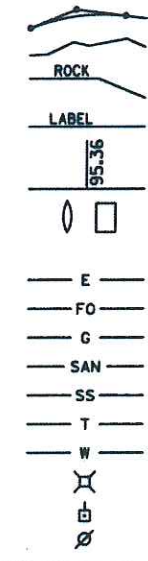
DESIGN DESIGNATION

- A.A.D.T. (2015) = 1,700
- A.A.D.T. (2035) = 2,500
- D.H.V. = 273
- D.D. = 60/40
- T. = 6.2%
- DESIGN SPEED = 30/45
- ESALS = N/A

CONVENTIONAL SYMBOLS

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

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



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

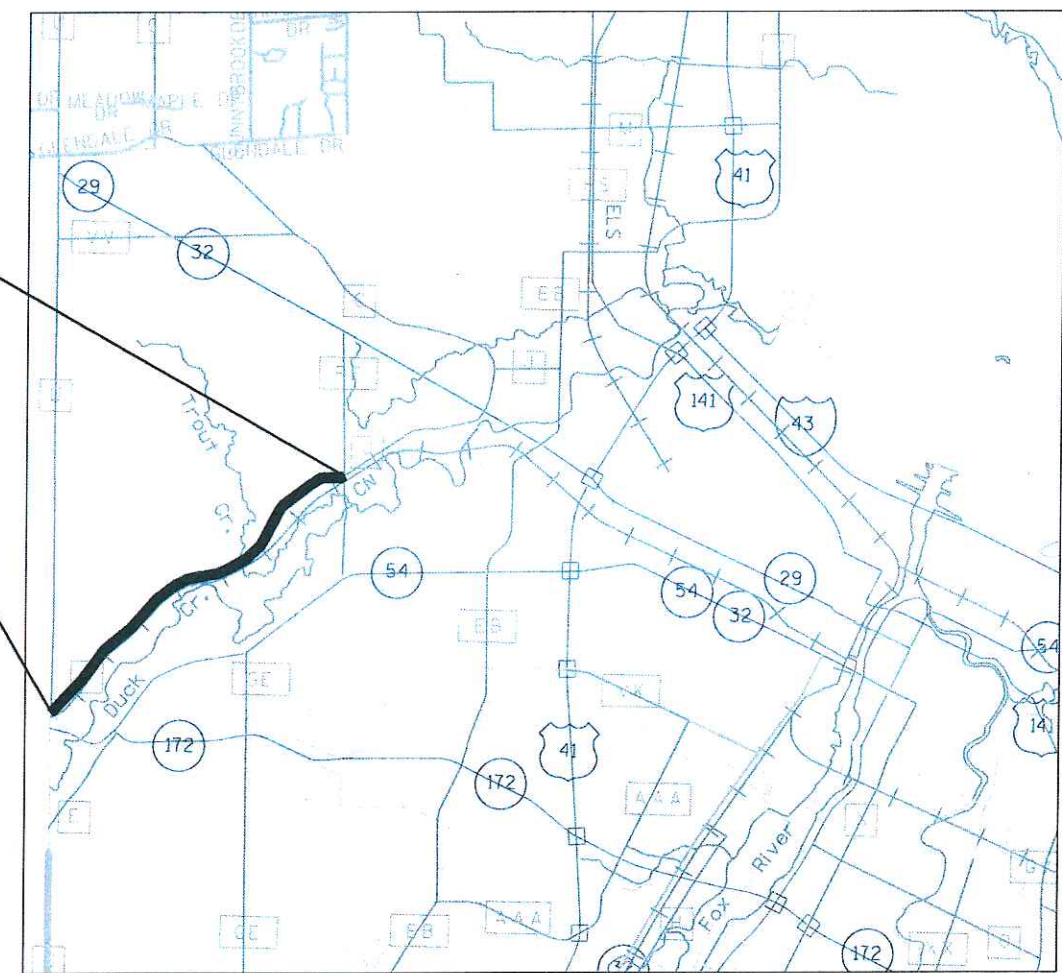
PLAN OF PROPOSED IMPROVEMENT

V HOBART, CTH J
COUNTY LINE RD - HILLCREST DR
CTH J
BROWN COUNTY

STATE PROJECT NUMBER
9286-04-71

END PROJECT
STA. 216+88.04
Y = 575960.358
X = 69795.334

BEGIN PROJECT
STA. 6+11.94
Y = 563184.668
X = 54094.921



LAYOUT
SCALE 0 2 MILES

TOTAL NET LENGTH OF CENTERLINE = 3.992

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, BROWN COUNTY, NAD83 (1991), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9286-04-71	WISC 2015431	1

ACCEPTED FOR
BROWN COUNTY

1/13/15
(Date)
Paul [Signature]
(Engineering Manager)

ORIGINAL PLANS PREPARED BY
Brown County
PUBLIC WORKS DEPARTMENT



1-13-2015 [Signature]
(Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor BROWN COUNTY
Designer BROWN COUNTY
Management Consultant SEH, INC.

APPROVED FOR THE DEPARTMENT
DATE: 1-27-2015 [Signature]
(Management Consultant Signature)

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS, AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE ALL UTILITIES LOCATED BEFORE EXCAVATION.

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE FIRST BEEN INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD.

UTILITY OWNERS

AT&T DISTRIBUTION
JOE KASSAB
205 SOUTH JEFFERSON STREET
GREEN BAY, WI 54301
(920) 735-3206
JK572K@ATT.COM

CENTRAL BROWN COUNTY WATER AUTHORITY
ROBERT MICHAELSON
1303 S. 8TH STREET
MANITOWOC, WI 54221
(920) 686-4354
RMICHAELSON@MPU.ORG

ONEIDA UTILITIES DEPARTMENT
SCOTT COTRELL
3783 W. MASON STREET
ONEIDA, WI 54155
(920) 562-2911
SCOTTREL@ONEIDANATION.ORG

VILLAGE OF HOBART
JERRY LANCELLE
2990 S. PINE TREE ROAD
HOBART, WI 54155
(920) 869-3807
JERRY@HOBART-WI.ORG

AT&T TRANSMISSION
CARL DONAHUE
866 ROCK CREEK ROAD
PLANO, IL 60545
(630) 552-4677
CD8729@ATT.COM

NSIGHT TELESERVICES
RICK VINCENT
450 SECURITY BLVD PO BOX 199079
GREEN BAY, WI 54307
(920) 617-7316
RICK.VINCENT@NSIGHT.COM

TIME WARNER
VINCE ALBIN
3520 E. DESTINATION DRIVE
APPLETON, WI 54915
(920) 831-9249
VINCE.ALBIN@TWCABLE.COM

WISCONSIN PUBLIC SERVICE
JEFF HENKELMANN
2850 S. ASHLAND AVENUE
GREEN BAY, WI 54304
(920) 617-2757
JPHENKELMANN@WISCONSINPUBLICSERVICE.COM



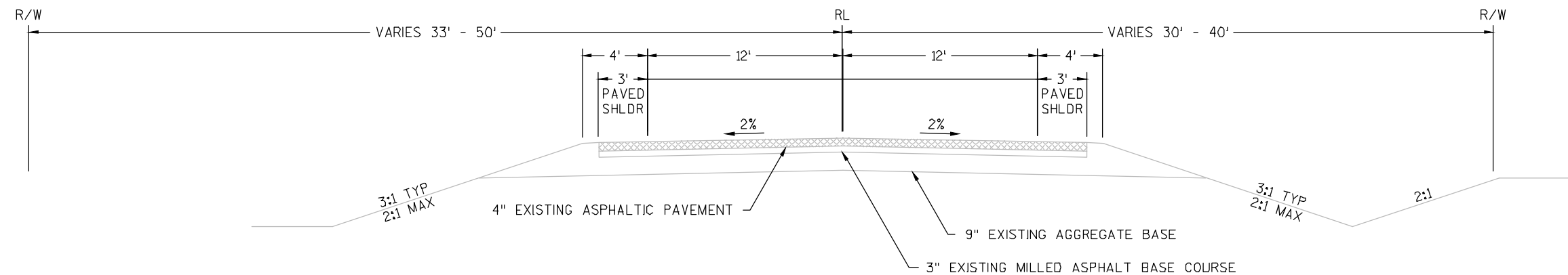
Dial 811 or (800)242-8511
www.DiggersHotline.com

WISCONSIN DEPARTMENT
OF NATURAL RESOURCES (WDNR)

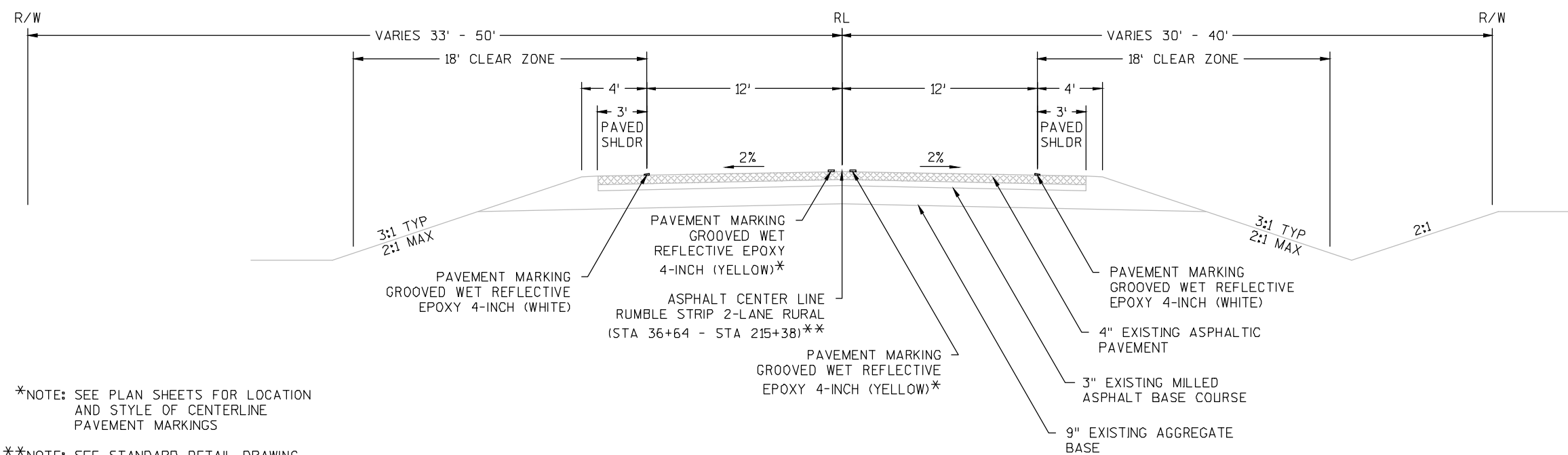
JIM DOPERALSKI
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
(920) 662-5119
JAMES.DOPERALSKI@WISCONSIN.GOV



PROJECT NO: 9286-04-71	HWY: CTH J	COUNTY: BROWN	PROJECT OVERVIEW	SHEET	E
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TYPICAL EXISTING SECTION - CTH J
STA 6+12 - STA 216+88



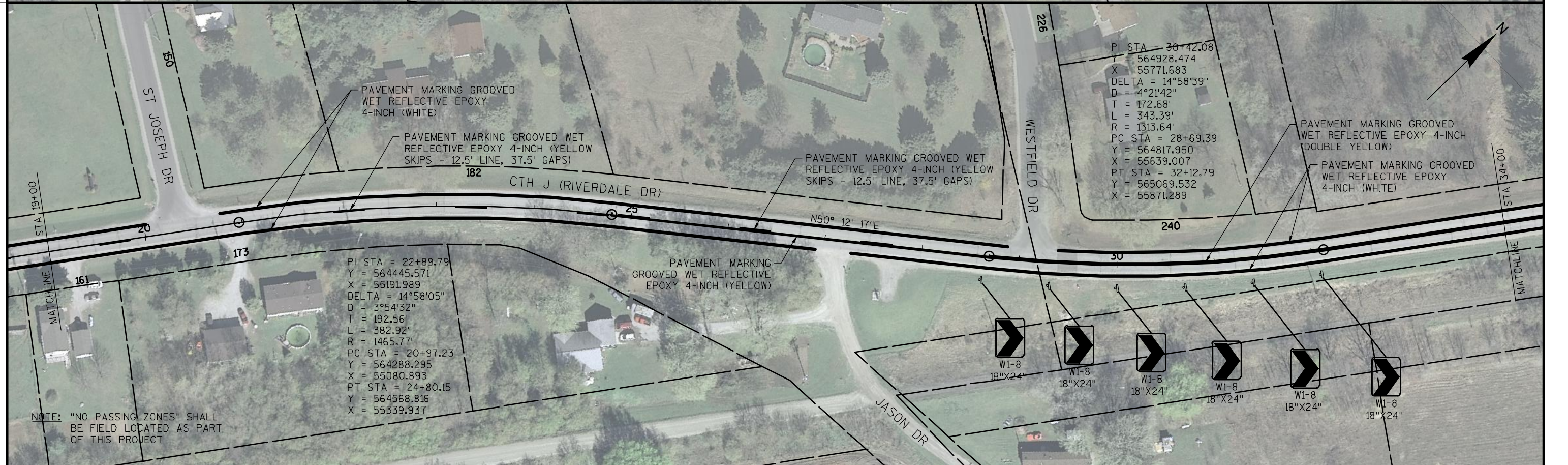
*NOTE: SEE PLAN SHEETS FOR LOCATION AND STYLE OF CENTERLINE PAVEMENT MARKINGS

**NOTE: SEE STANDARD DETAIL DRAWING "2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING" FOR GROOVE SPACING AND GAP LOCATIONS

TYPICAL FINISHED SECTION - CTH J
STA 6+12 - STA 216+88

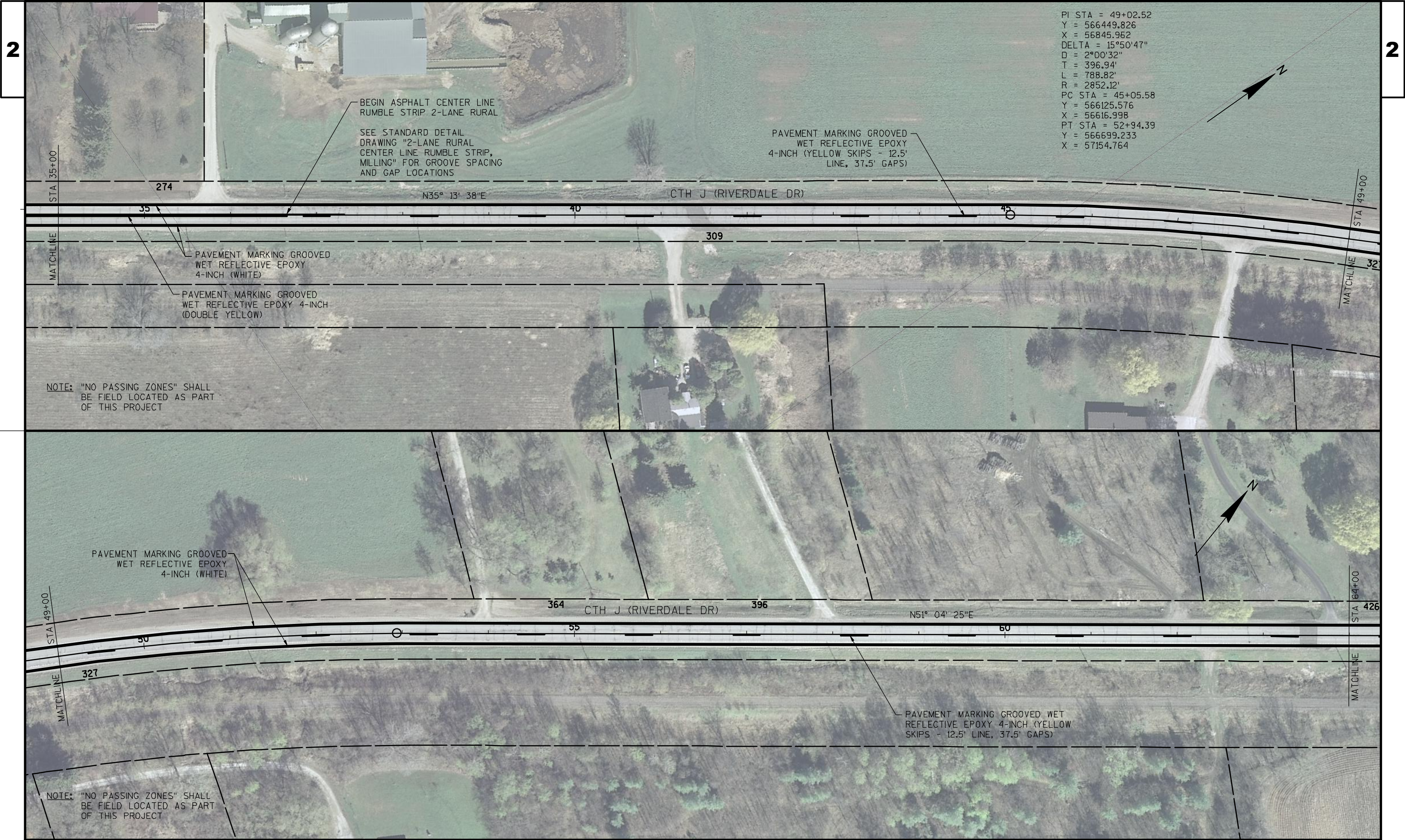
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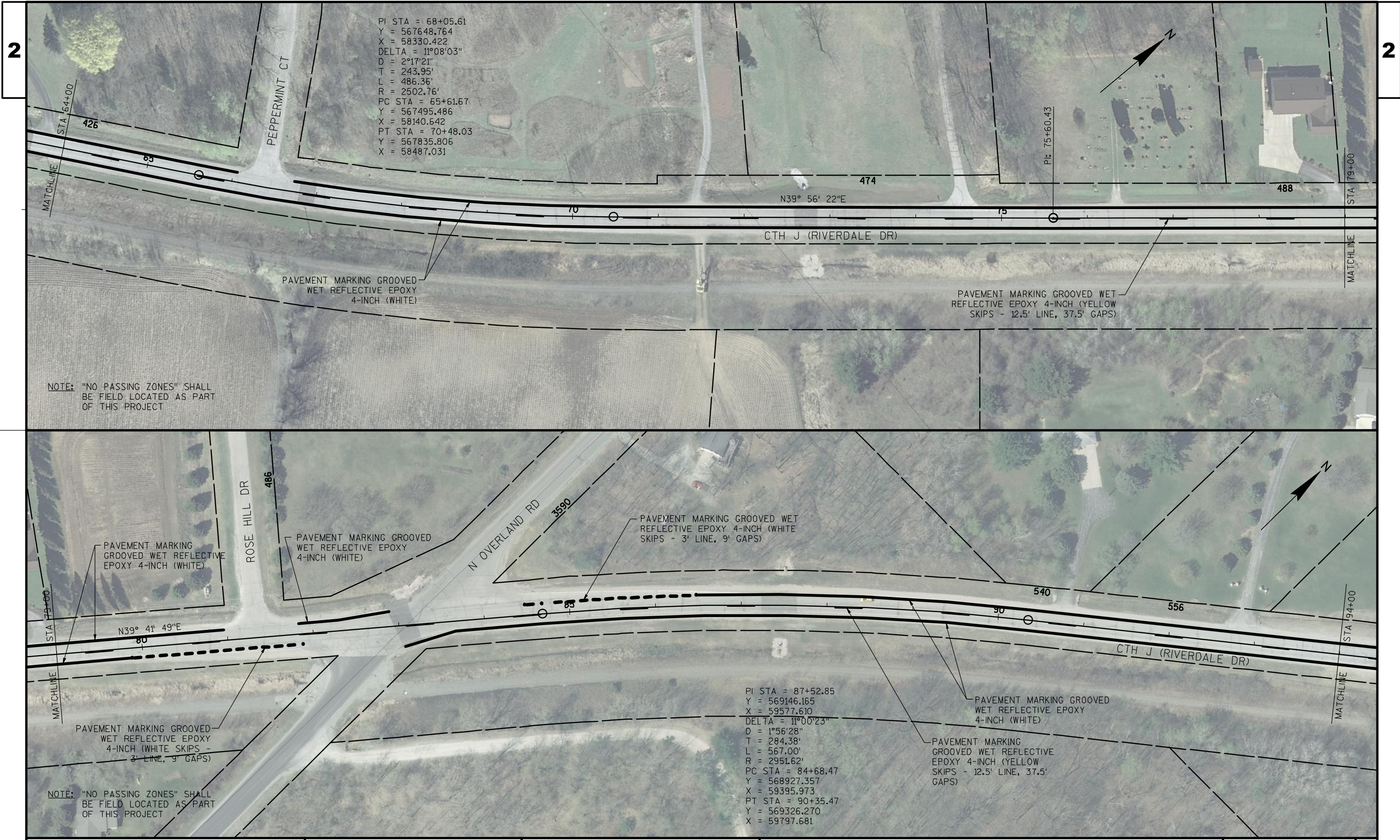
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E

WISDOT/CADDS SHEET 44

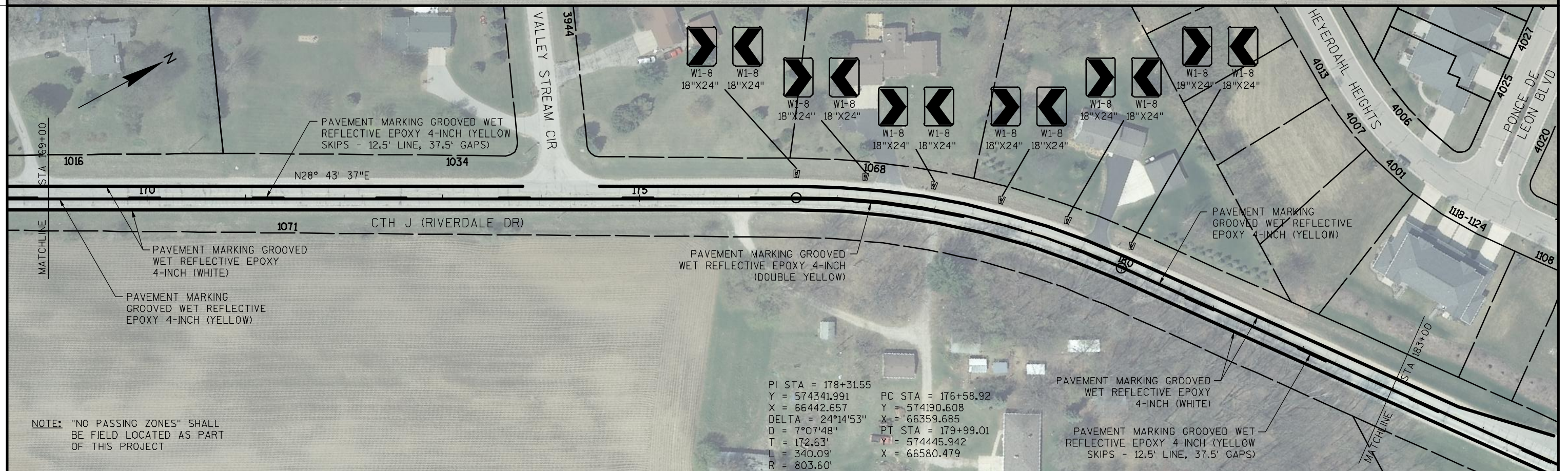
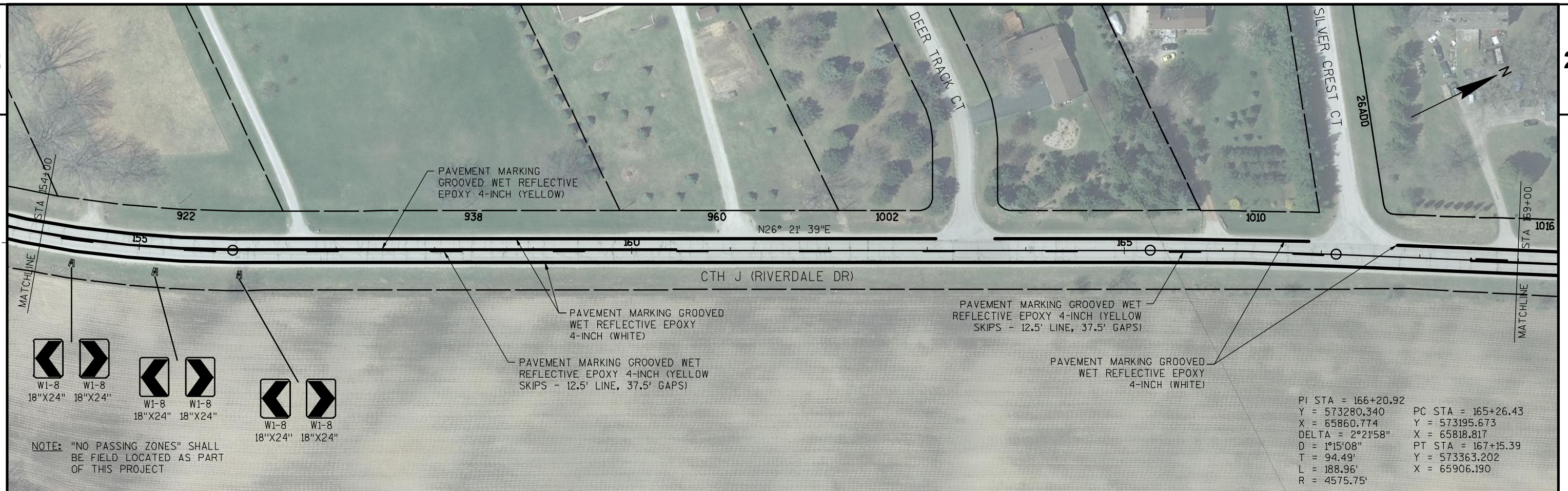




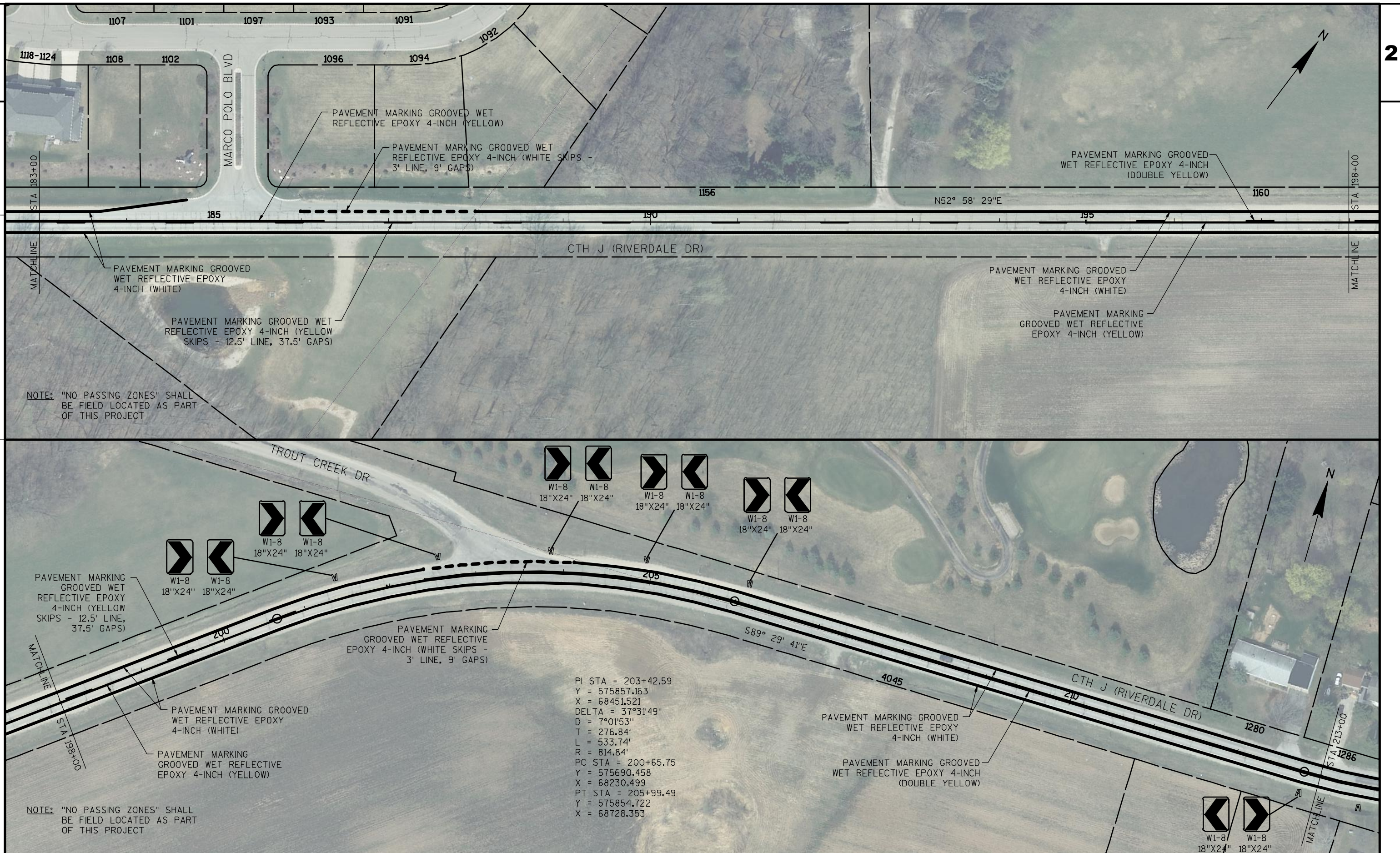


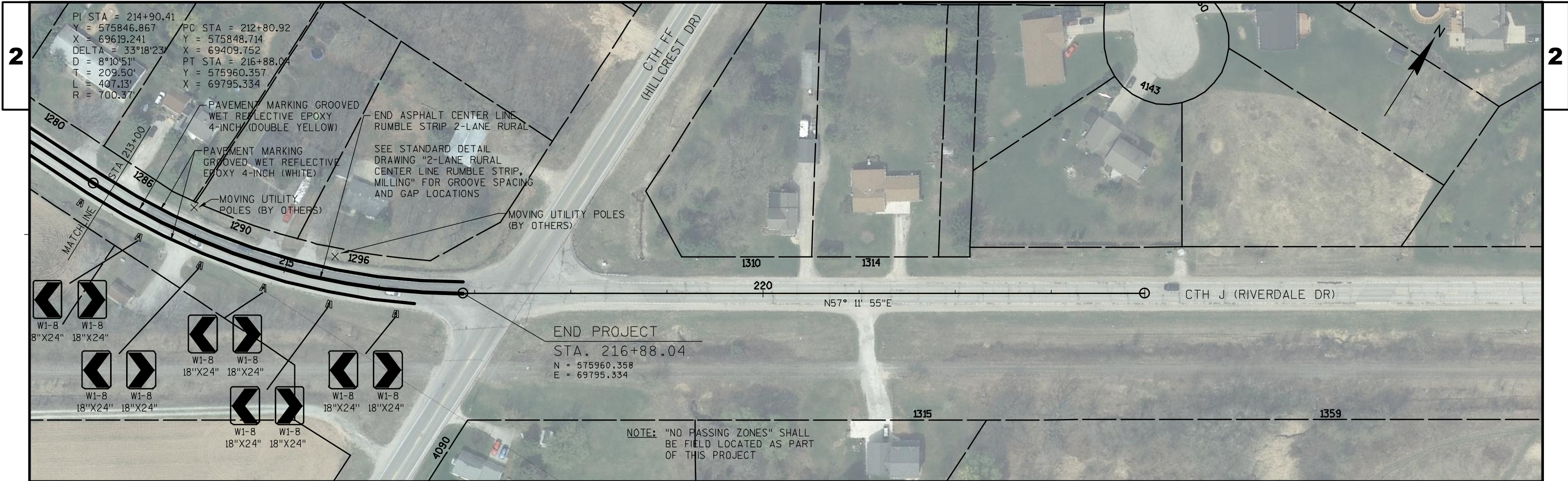
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PROJECT NO: 9286-04-71	HWY: CTH J	COUNTY: BROWN	PROJECT DETAIL	SHEET	E
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DATE 24APR15			E S T I M A T E O F Q U A N T I T I E S		
LINE					9286-04-71
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	213.0100	Finishing Roadway (project) 01. 9286-04-71	EACH	1.000	1.000
0020	465.0475	Asphalt Center Line Rumble Strips 2-Lane Rural	LF	13,500.000	13,500.000
0030	619.1000	Mobilization	EACH	1.000	1.000
0040	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	9.000	9.000
0050	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	37.000	37.000
0060	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	6.000	6.000
0070	637.2230	Signs Type II Reflective F	SF	156.000	156.000
0080	643.0100	Traffic Control (project) 01. 9286-04-71	EACH	1.000	1.000
0090	643.0300	Traffic Control Drums	DAY	120.000	120.000
0100	643.0900	Traffic Control Signs	DAY	336.000	336.000
0110	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0120	646.2304.S	Pavement Marking Grooved Wet Reflective Epoxy 4-Inch	LF	56,225.000	56,225.000
0130	648.0100	Locating No-Passing Zones	MI	3.990	3.990
0140	650.9910	Construction Staking Supplemental Control (project) 01. 9286-04-71	LS	1.000	1.000
0150	ASP.1TOA	On-the-Job Training Apprentice at \$5.00/HR	HRS	150.000	150.000
0160	ASP.1TOG	On-the-Job Training Graduate at \$5.00/HR	HRS	300.000	300.000

3

ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL			
		465.0475	
STATION		LF	
36+64	-	64+38	2,775
68+38	-	79+38	1,100
85+19	-	104+63	1,945
108+63	-	113+88	525
117+88	-	126+43	855
130+43	-	144+13	1,370
146+13	-	161+39	1,525
169+36	-	172+19	285
176+19	-	183+28	710
187+28	-	201+52	1,425
205+52	-	215+38	985
TOTAL		13,500	

MOBILIZATION	
619.1000	
PROJECT	EACH
PROJECT 9286-04-71	1
TOTAL	1

TRAFFIC CONTROL (PROJECT)	
643.0100	
PROJECT	EACH
PROJECT 9286-04-71	1
TOTAL	1

TRAFFIC CONTROL ITEMS							
		643.0300		643.0900		643.1050	
		TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL SIGNS PCMS	
STAGE	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS
PRECONSTRUCTION	7	-	-	-	-	2	14
CONSTRUCTION	12	10	120	28	336	-	-
TOTAL			120		336		14

LOCATING NO-PASSING ZONES			
		648.0100	
STATION		MI	
6+12	-	216+88	3.99
TOTAL		3.99	

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL	
650.9910	
PROJECT	LS
PROJECT 9286-04-71	1
TOTAL	1

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 0010

PERMANENT SIGNING

STATION	LOCATION	CODE	SIZE (IN X IN)	634.0614	634.0616	634.0618	637.2230
				POSTS WOOD 4X6-INCH X 14-FT EACH	POSTS WOOD 4X6-INCH X 16-FT EACH	POSTS WOOD 4X6-INCH X 18-FT EACH	SIGNS TYPE II REFLECTIVE F SF
28+62	RT	W1-8	18 X 24	1	-	-	3
29+31	RT	W1-8	18 X 24	-	1	-	3
29+99	RT	W1-8	18 X 24	-	1	-	3
30+68	RT	W1-8	18 X 24	-	1	-	3
31+37	RT	W1-8	18 X 24	-	1	-	3
32+06	RT	W1-8	18 X 24	-	1	-	3
151+83	RT	W1-8	18 X 24	-	1	-	3
151+87	RT	W1-8	18 X 24	-	1	-	3
152+66	RT	W1-8	18 X 24	-	1	-	3
152+70	RT	W1-8	18 X 24	-	1	-	3
153+50	RT	W1-8	18 X 24	1	-	-	3
153+54	RT	W1-8	18 X 24	1	-	-	3
154+33	RT	W1-8	18 X 24	-	-	1	3
154+37	RT	W1-8	18 X 24	-	-	1	3
155+16	RT	W1-8	18 X 24	-	-	1	3
155+20	RT	W1-8	18 X 24	-	-	1	3
156+00	RT	W1-8	18 X 24	-	-	1	3
156+04	RT	W1-8	18 X 24	-	-	1	3
176+57	LT	W1-8	18 X 24	-	1	-	3
176+61	LT	W1-8	18 X 24	-	1	-	3
177+25	LT	W1-8	18 X 24	-	1	-	3
177+29	LT	W1-8	18 X 24	-	1	-	3
177+93	LT	W1-8	18 X 24	-	1	-	3
177+97	LT	W1-8	18 X 24	-	1	-	3
178+61	LT	W1-8	18 X 24	-	1	-	3
178+65	LT	W1-8	18 X 24	-	1	-	3
179+29	LT	W1-8	18 X 24	-	1	-	3
179+33	LT	W1-8	18 X 24	-	1	-	3
179+97	LT	W1-8	18 X 24	-	1	-	3
180+01	LT	W1-8	18 X 24	-	1	-	3
201+40	LT	W1-8	18 X 24	-	1	-	3
201+44	LT	W1-8	18 X 24	-	1	-	3
202+57	LT	W1-8	18 X 24	1	-	-	3
202+61	LT	W1-8	18 X 24	1	-	-	3
203+83	LT	W1-8	18 X 24	1	-	-	3
203+87	LT	W1-8	18 X 24	1	-	-	3
204+90	LT	W1-8	18 X 24	-	1	-	3
204+94	LT	W1-8	18 X 24	-	1	-	3
206+08	LT	W1-8	18 X 24	-	1	-	3
206+12	LT	W1-8	18 X 24	-	1	-	3
212+89	RT	W1-8	18 X 24	-	1	-	3
212+93	RT	W1-8	18 X 24	-	1	-	3
213+47	RT	W1-8	18 X 24	-	1	-	3
213+51	RT	W1-8	18 X 24	-	1	-	3
214+15	RT	W1-8	18 X 24	-	1	-	3
214+19	RT	W1-8	18 X 24	-	1	-	3
214+82	RT	W1-8	18 X 24	-	1	-	3
214+86	RT	W1-8	18 X 24	-	1	-	3
215+50	RT	W1-8	18 X 24	-	1	-	3
215+54	RT	W1-8	18 X 24	-	1	-	3
216+18	RT	W1-8	18 X 24	1	-	-	3
216+22	RT	W1-8	18 X 24	1	-	-	3
TOTAL				9	37	6	156

3

PROJECT NO: 9286-04-71

HWY: CTH J

COUNTY: BROWN

MISCELLANEOUS QUANTITIES

SHEET

E

3

3

PAVEMENT MARKING GROOVED WET REFLECTIVE EPOXY 4-INCH							
				646.2304.S			
		LOCATION	LF	WHITE	DASHED WHITE 3-FOOT LINE 9-FOOT SKIP	YELLOW	DASHED YELLOW 12.5-FOOT LINE 37.5-FOOT SKIP
STATION				LF	LF	LF	LF
6+12	- 14+98	LT	885	-	-	-	-
6+12	- 8+09	CENTERLINE	-	-	-	195	-
6+12	- 8+09	CENTERLINE	-	-	-	195	-
6+12	- 26+91	RT	2,080	-	-	-	-
8+09	- 24+80	CENTERLINE	-	-	-	-	420
15+56	- 20+02	LT	445	-	-	-	-
20+79	- 28+87	LT	810	-	-	-	-
24+80	- 28+69	CENTERLINE	-	-	-	-	95
24+80	- 36+65	CENTERLINE	-	-	-	1,185	-
27+28	- 79+87	RT	5,260	-	-	-	-
28+69	- 37+32	CENTERLINE	-	-	-	860	-
29+40	- 66+05	LT	3,665	-	-	-	-
36+65	- 97+03	CENTERLINE	-	-	-	-	1,510
66+72	- 80+96	LT	1,420	-	-	-	-
79+87	- 81+87	RT	-	50	-	-	-
81+84	- 82+90	LT	105	-	-	-	-
83+06	- 144+55	RT	6,150	-	-	-	-
84+48	- 86+47	LT	-	50	-	-	-
86+47	- 106+20	LT	1,975	-	-	-	-
97+03	- 104+66	CENTERLINE	-	-	-	-	190
97+03	- 104+66	CENTERLINE	-	-	-	765	-
104+66	- 113+25	CENTERLINE	-	-	-	860	-
104+66	- 143+04	CENTERLINE	-	-	-	-	960
107+12	- 115+52	LT	845	-	-	-	-
116+59	- 128+01	LT	1,135	-	-	-	-
129+03	- 163+08	LT	3,395	-	-	-	-
143+04	- 150+99	CENTERLINE	-	-	-	-	200
143+04	- 152+40	CENTERLINE	-	-	-	935	-
145+64	- 216+38	RT	7,070	-	-	-	-
150+99	- 160+45	CENTERLINE	-	-	-	945	-
152+40	- 168+52	CENTERLINE	-	-	-	-	405
163+68	- 166+87	LT	320	-	-	-	-
167+76	- 173+81	LT	605	-	-	-	-
168+52	- 176+12	CENTERLINE	-	-	-	-	190
168+52	- 178+30	CENTERLINE	-	-	-	975	-
174+59	- 184+69	LT	1,015	-	-	-	-
176+12	- 186+26	CENTERLINE	-	-	-	1,015	-
178+30	- 194+99	CENTERLINE	-	-	-	-	415
186+00	- 188+00	LT	-	50	-	-	-
188+00	- 202+41	LT	1,445	-	-	-	-
194+99	- 202+41	CENTERLINE	-	-	-	-	185
194+99	- 216+88	CENTERLINE	-	-	-	2,190	-
202+41	- 204+11	LT	-	45	-	-	-
202+41	- 216+88	CENTERLINE	-	-	-	1,445	-
204+11	- 216+88	LT	1,270	-	-	-	-
SUBTOTAL			39,895		195	11,565	4,570
TOTAL				56,225			

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 0010

Standard Detail Drawing List

13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M. P. H. OR LESS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-02A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

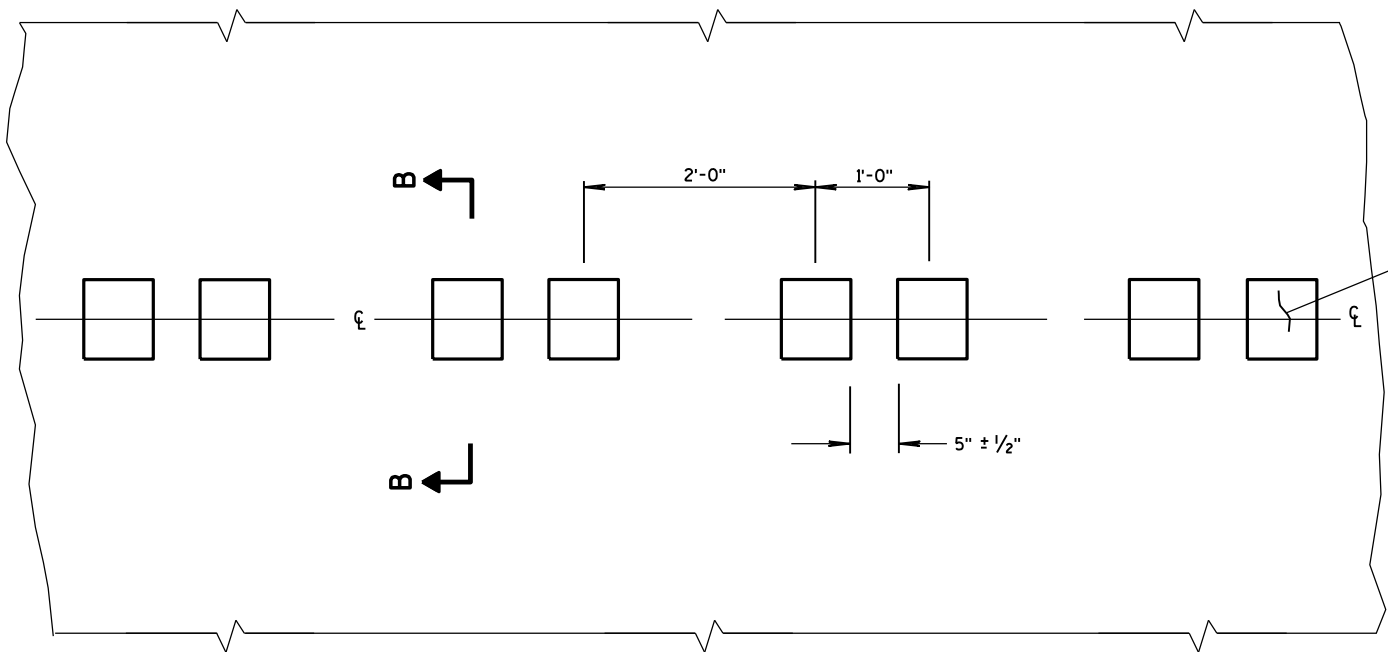
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

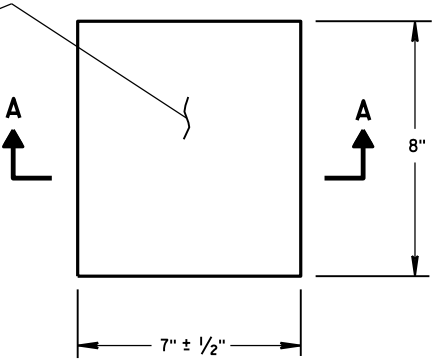
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

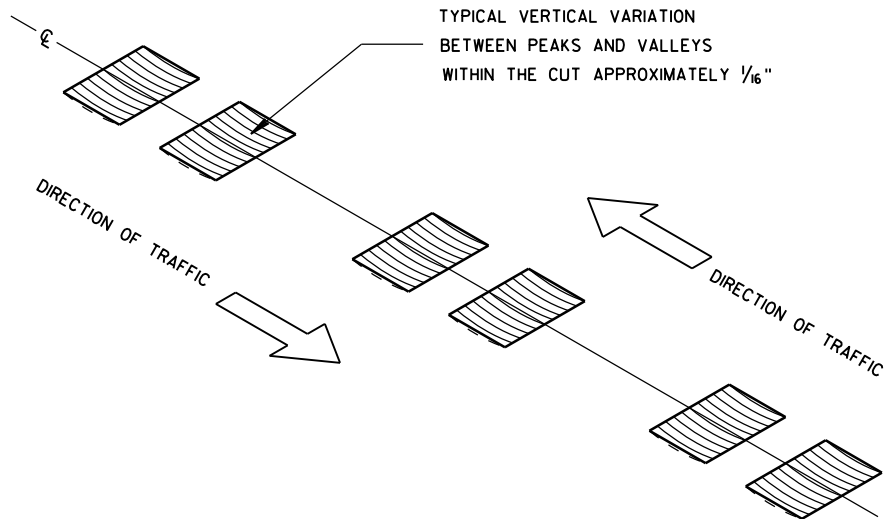
① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



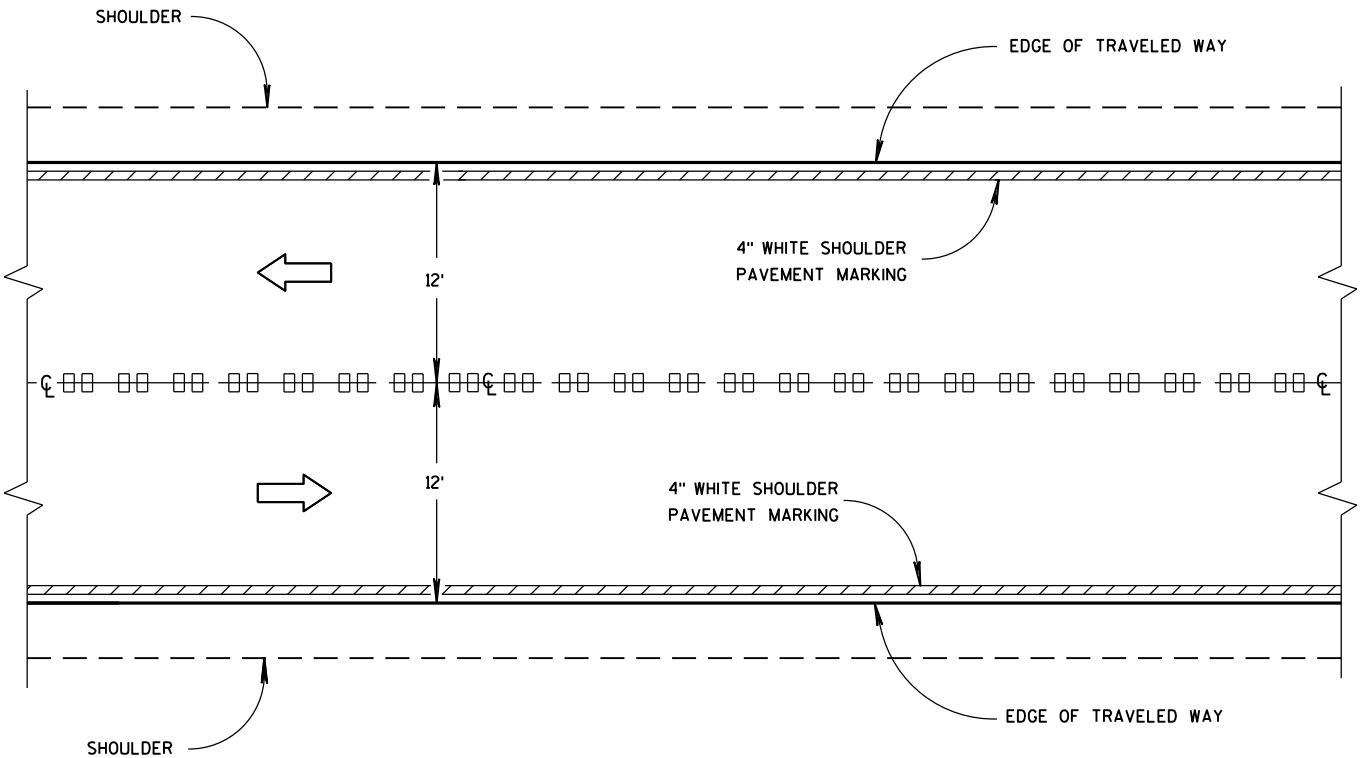
PLAN VIEW
CENTER LINE WITH GROOVES



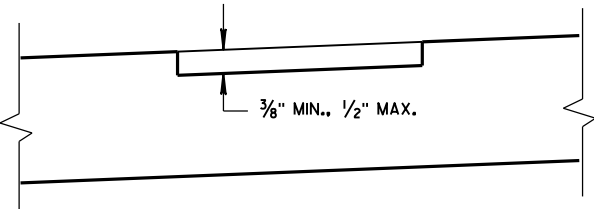
PLAN VIEW
(SINGLE GROOVE)



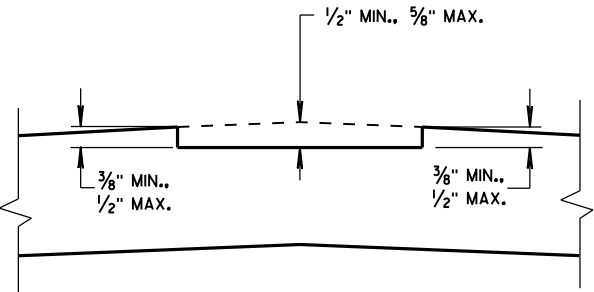
ISOMETRIC



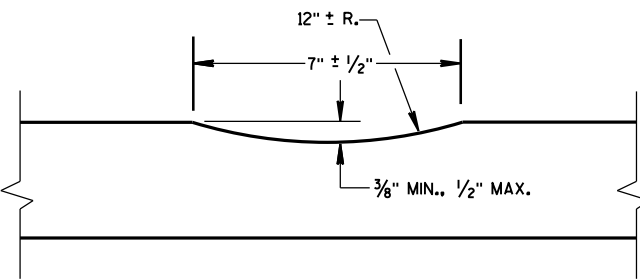
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



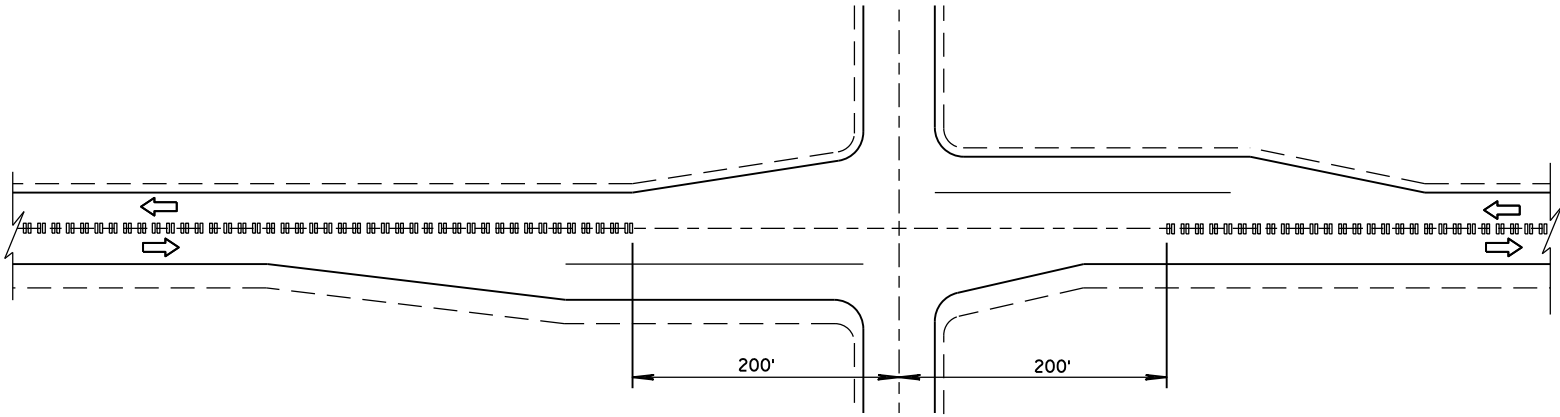
SECTION B-B
CROWNED ROADWAY



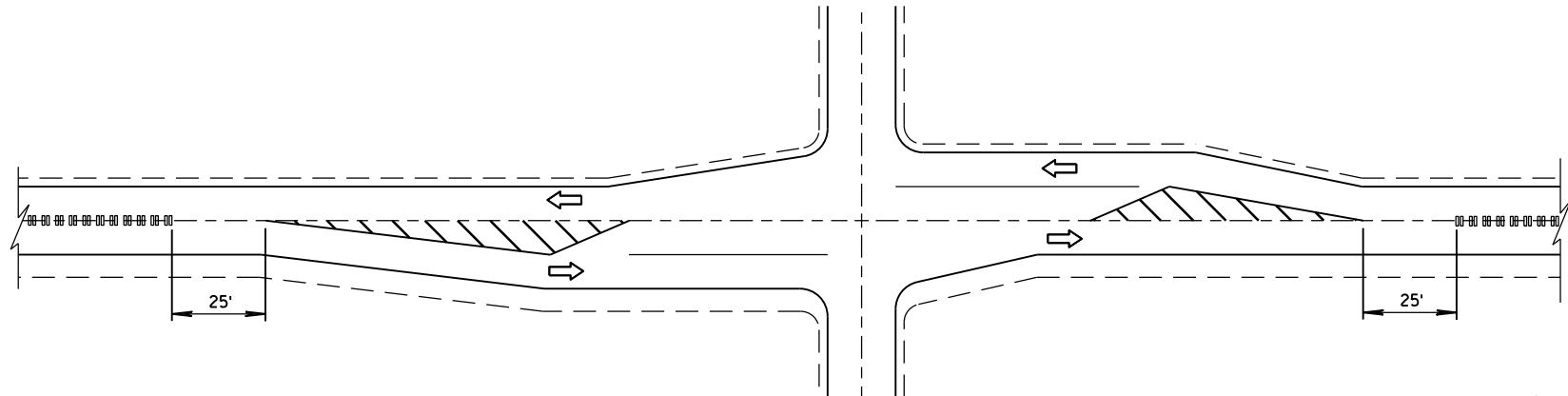
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

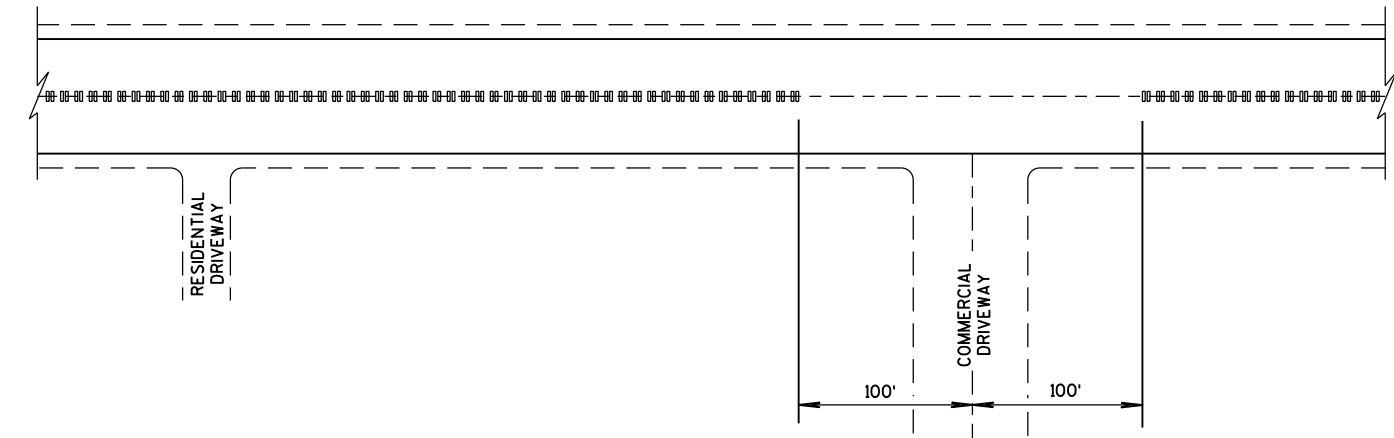
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

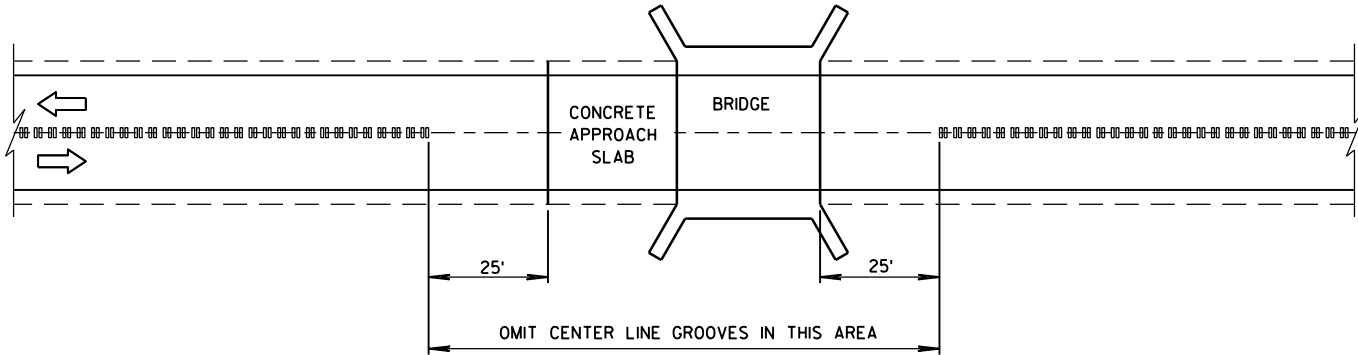


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

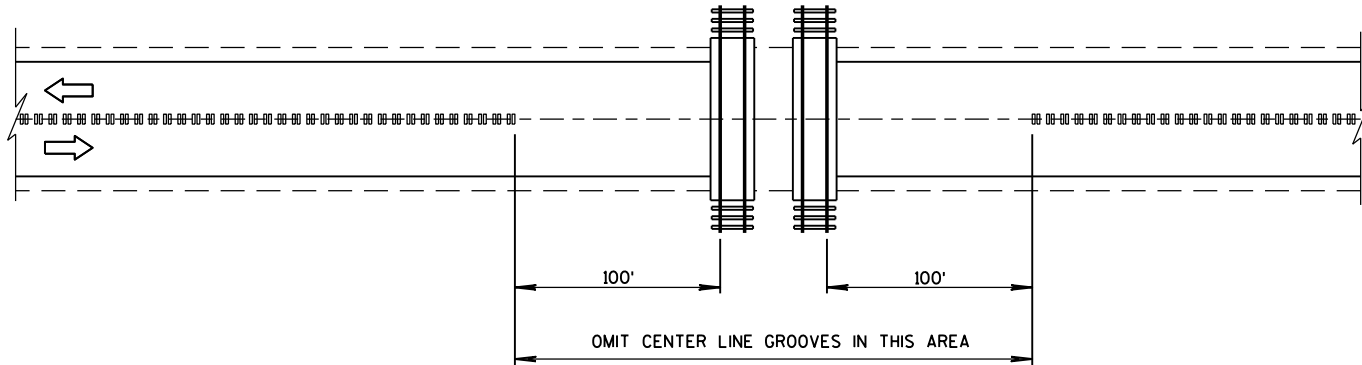


CENTER LINE GROOVES AT DRIVEWAYS¹

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

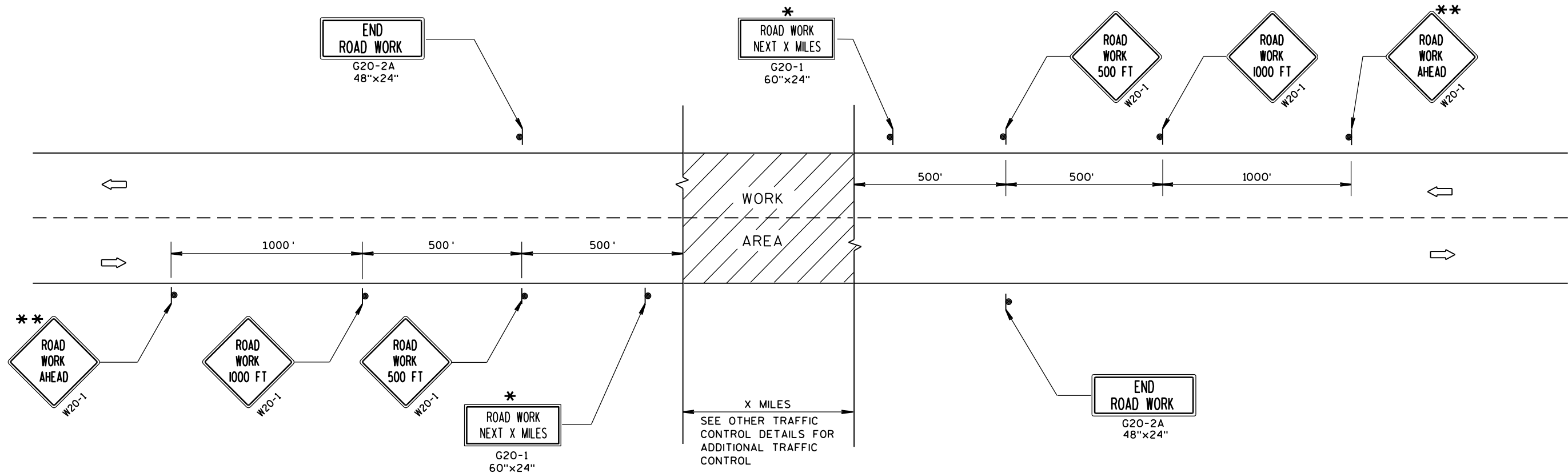


CENTER LINE GROOVES AT BRIDGES



CENTER LINE GROOVES AT RAILROADS

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



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

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

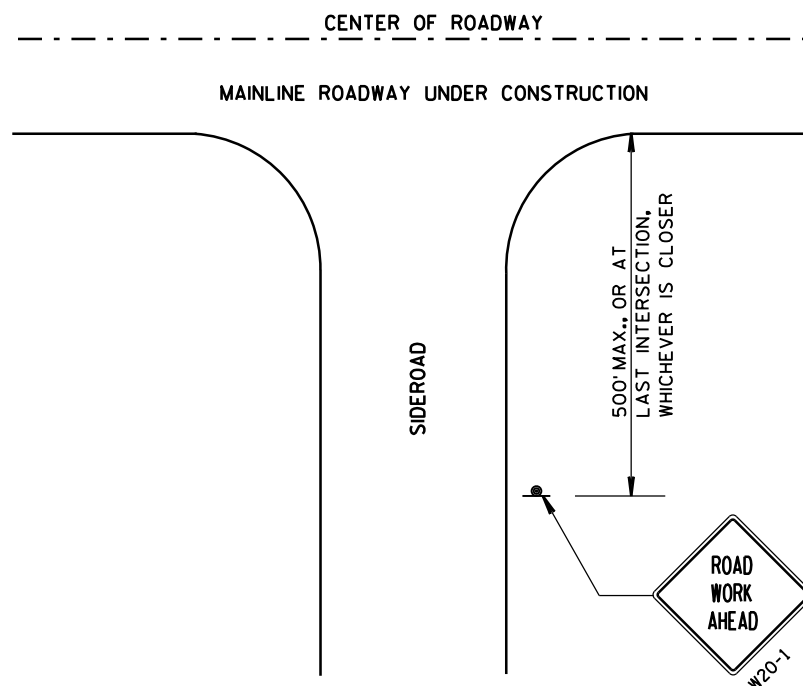
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

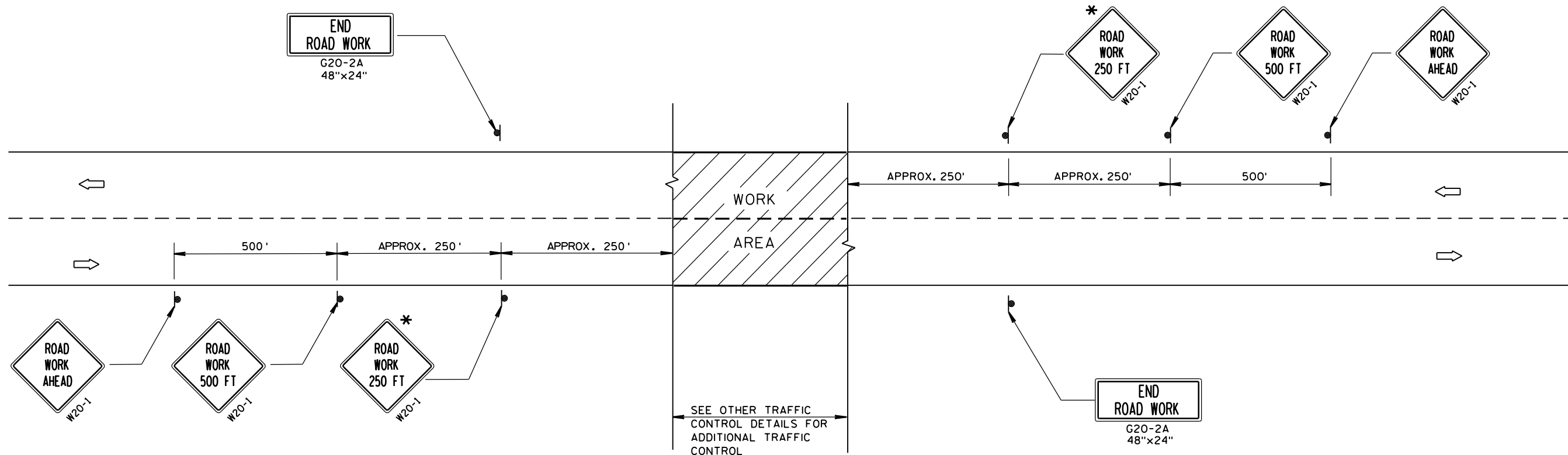
** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



LEGEND

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

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



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

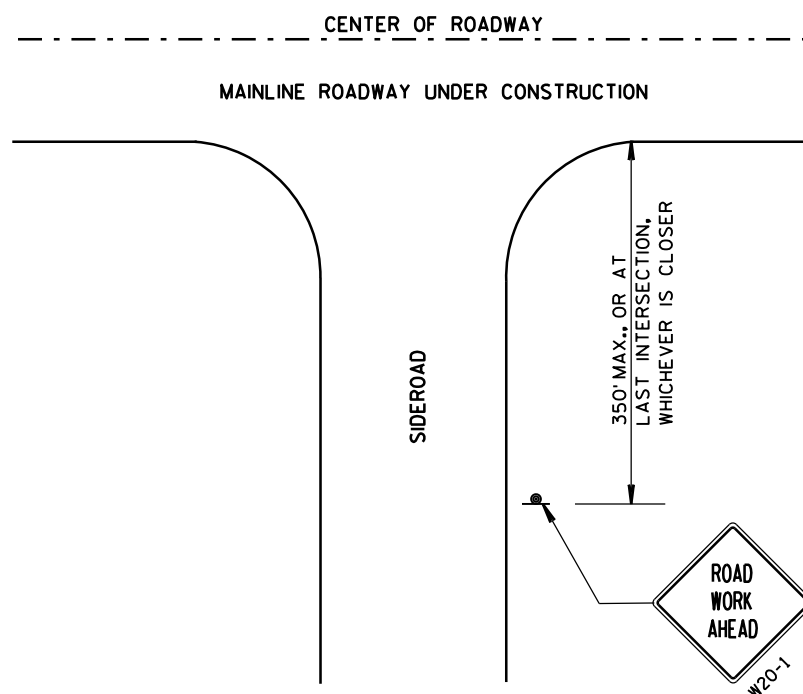
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

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



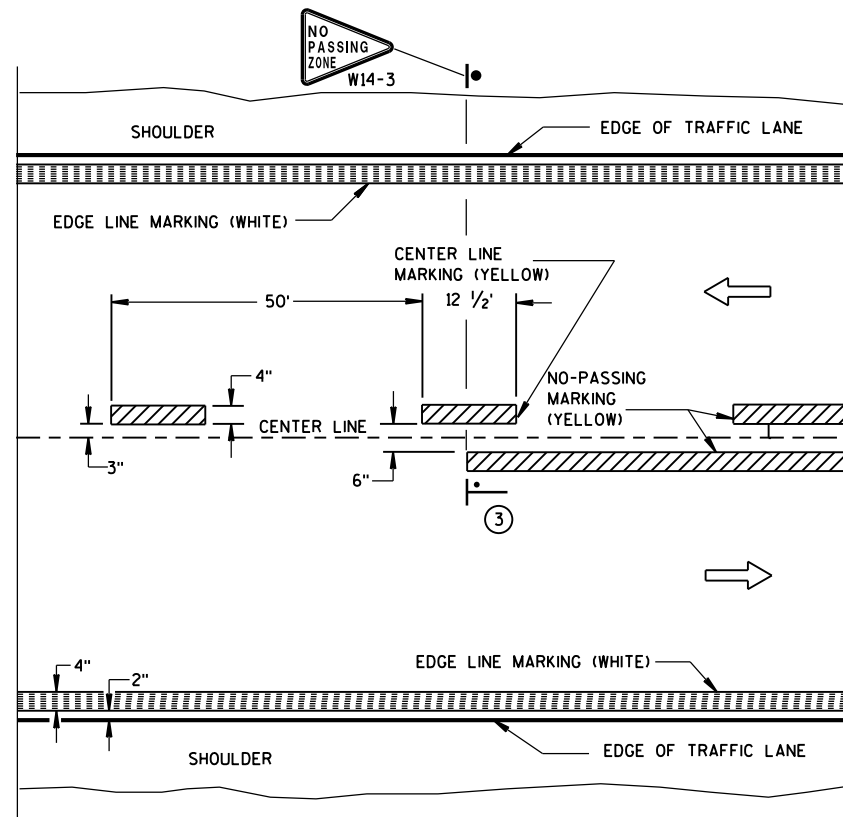
LEGEND

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

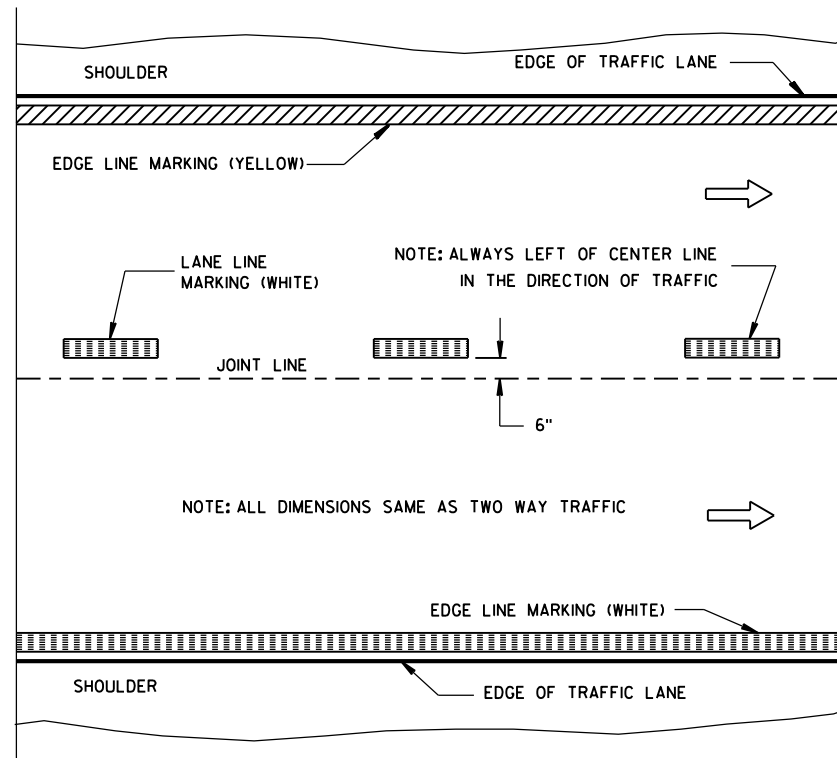
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 40 M.P.H.
OR LESS TWO-WAY UNDIVIDED
ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

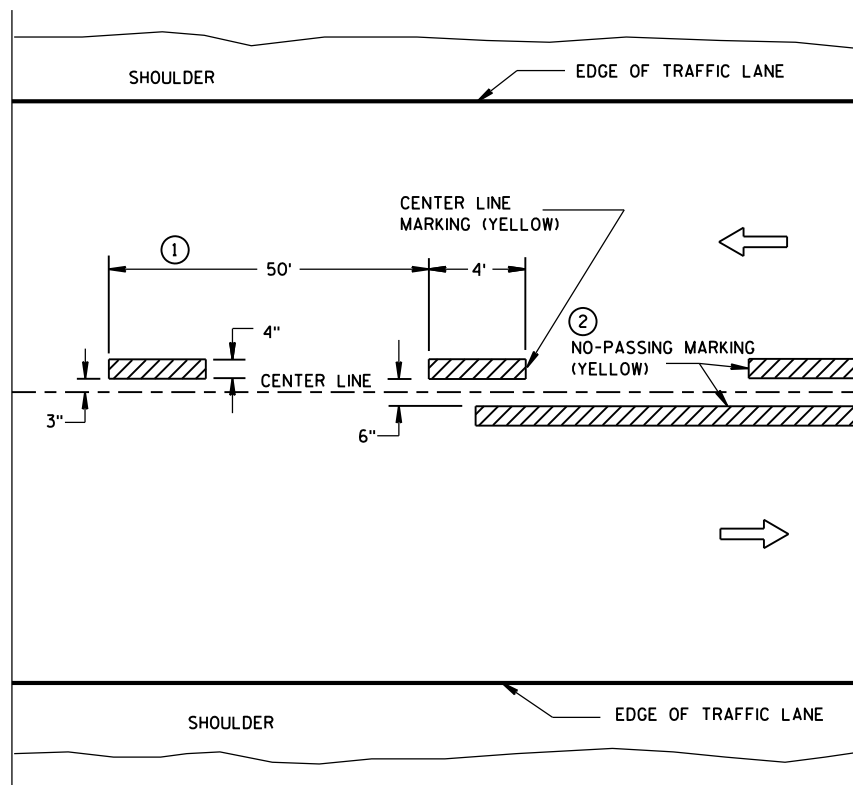


TWO WAY TRAFFIC

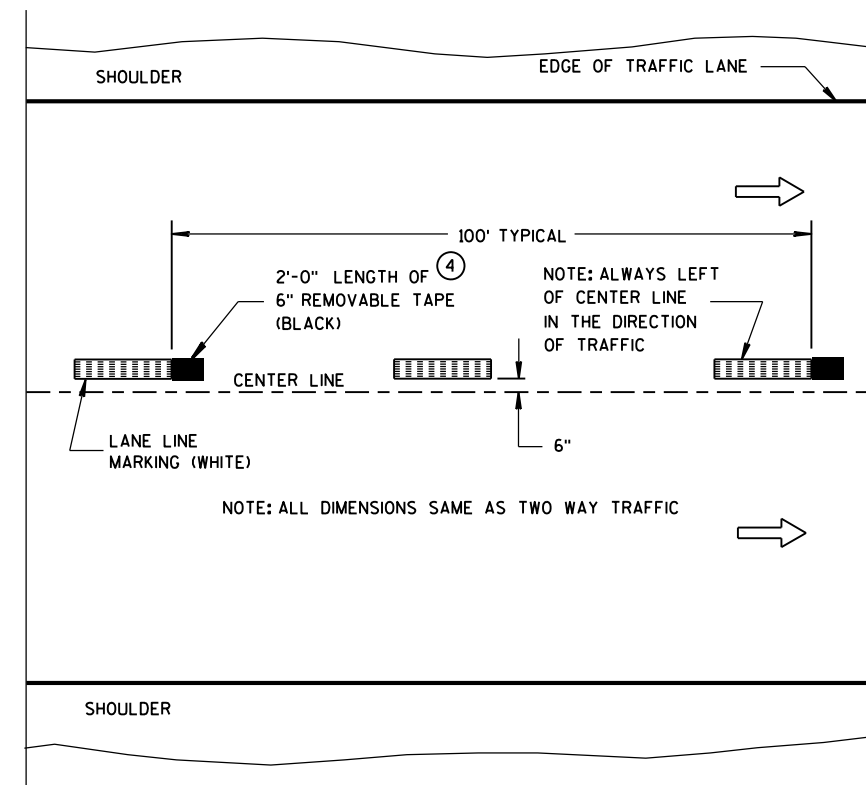


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

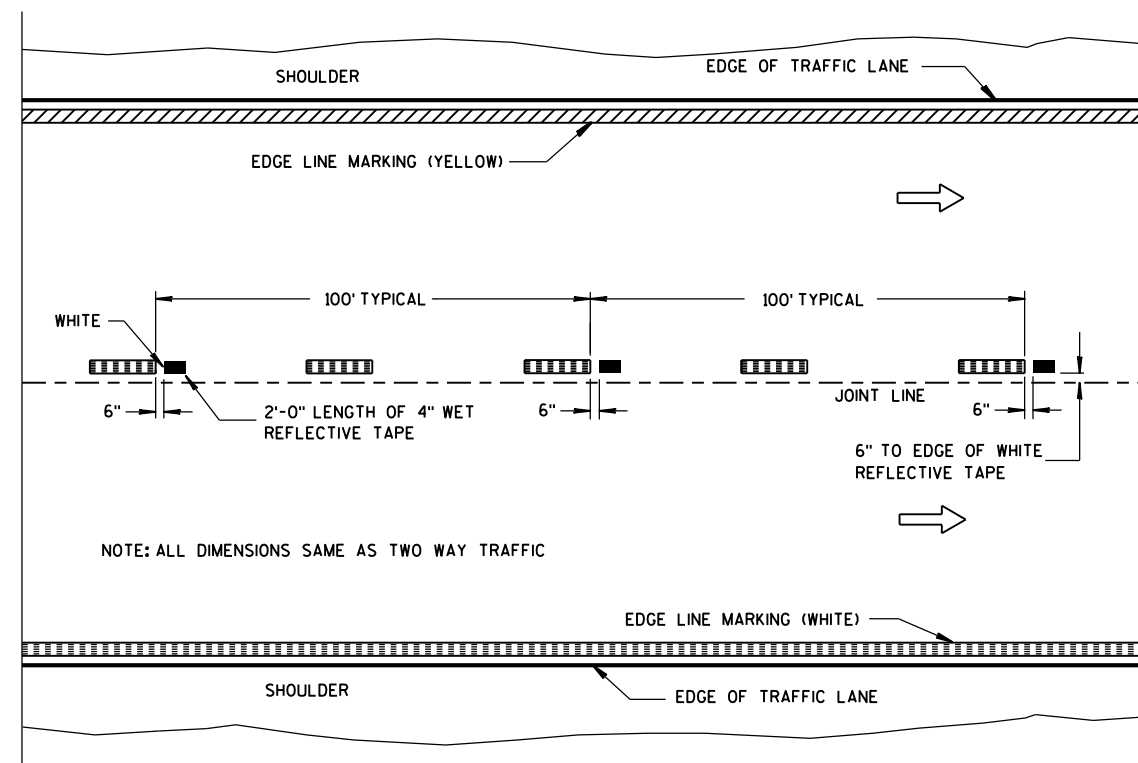
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



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

LEGEND

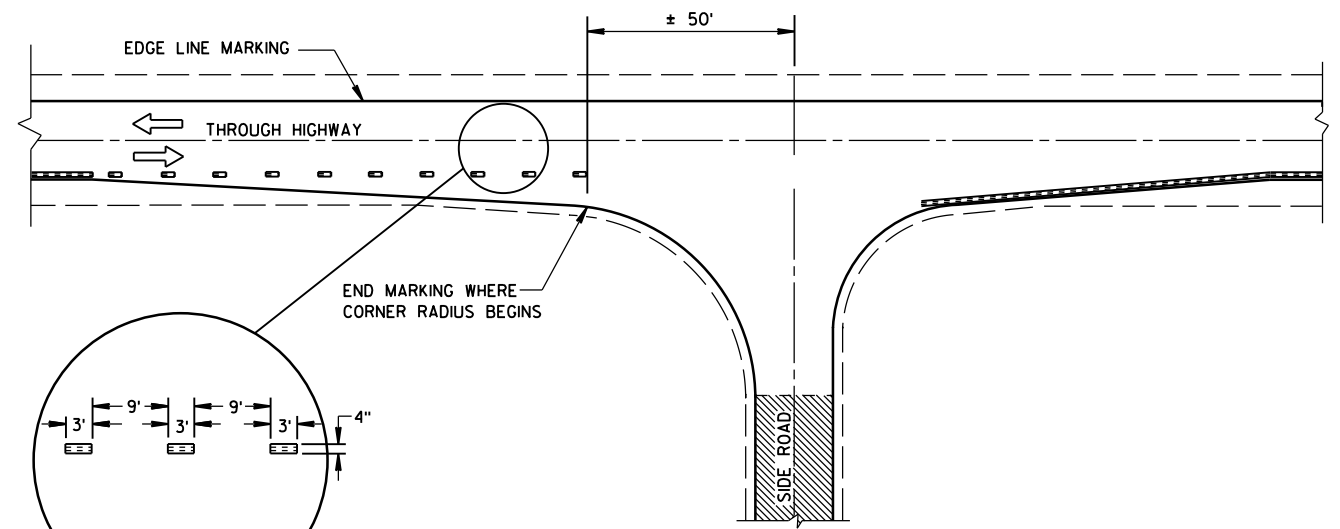
- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013
DATE
FHWA

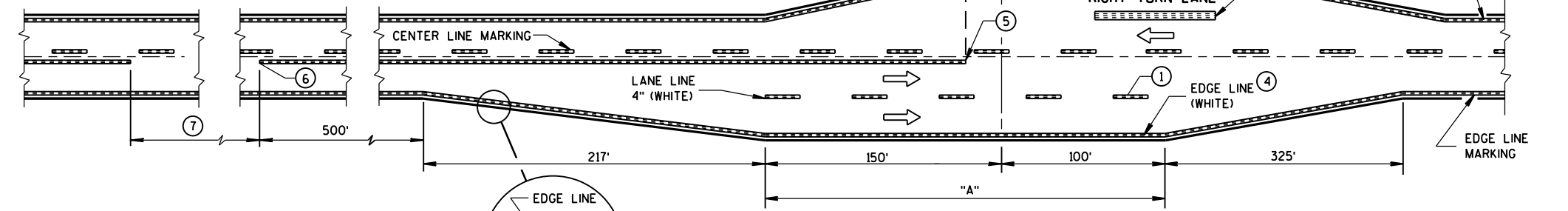
/S/ Travis Feltes
STATE TRAFFIC ENGINEER



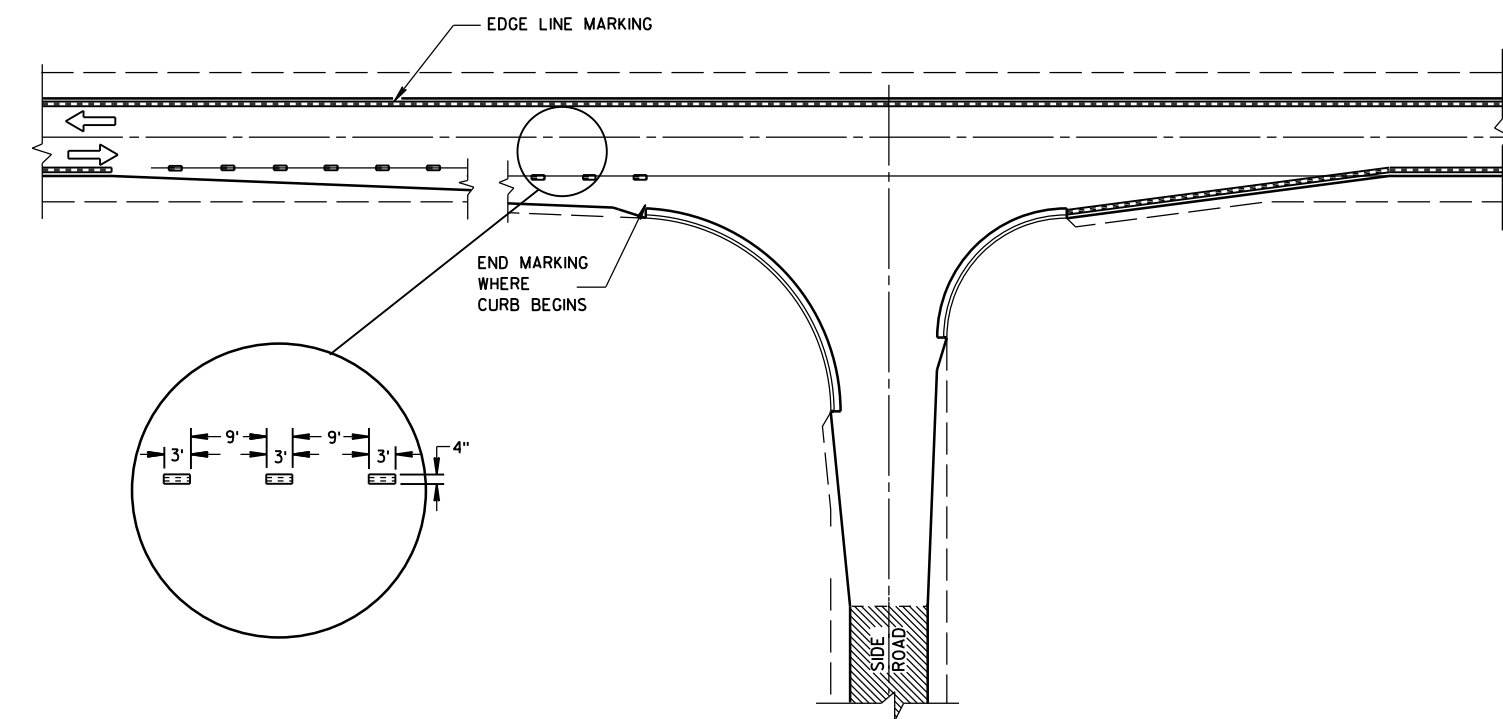
MINOR INTERSECTION WITHOUT CURBS

⑦

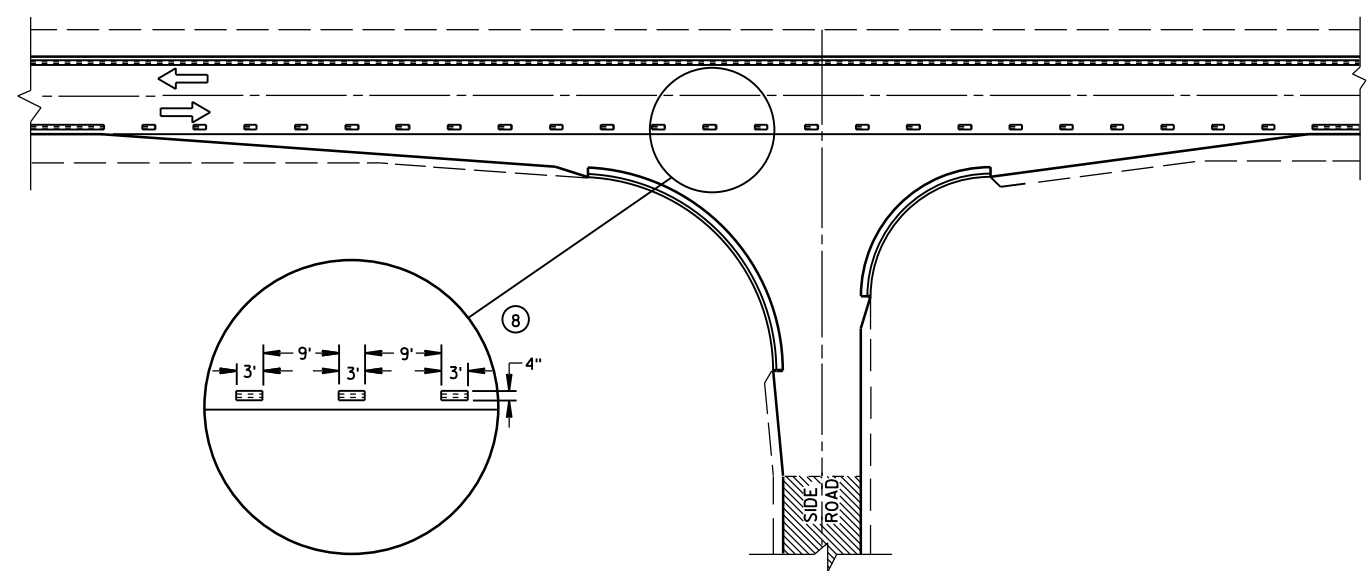
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



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



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



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

GENERAL NOTES

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

LEGEND

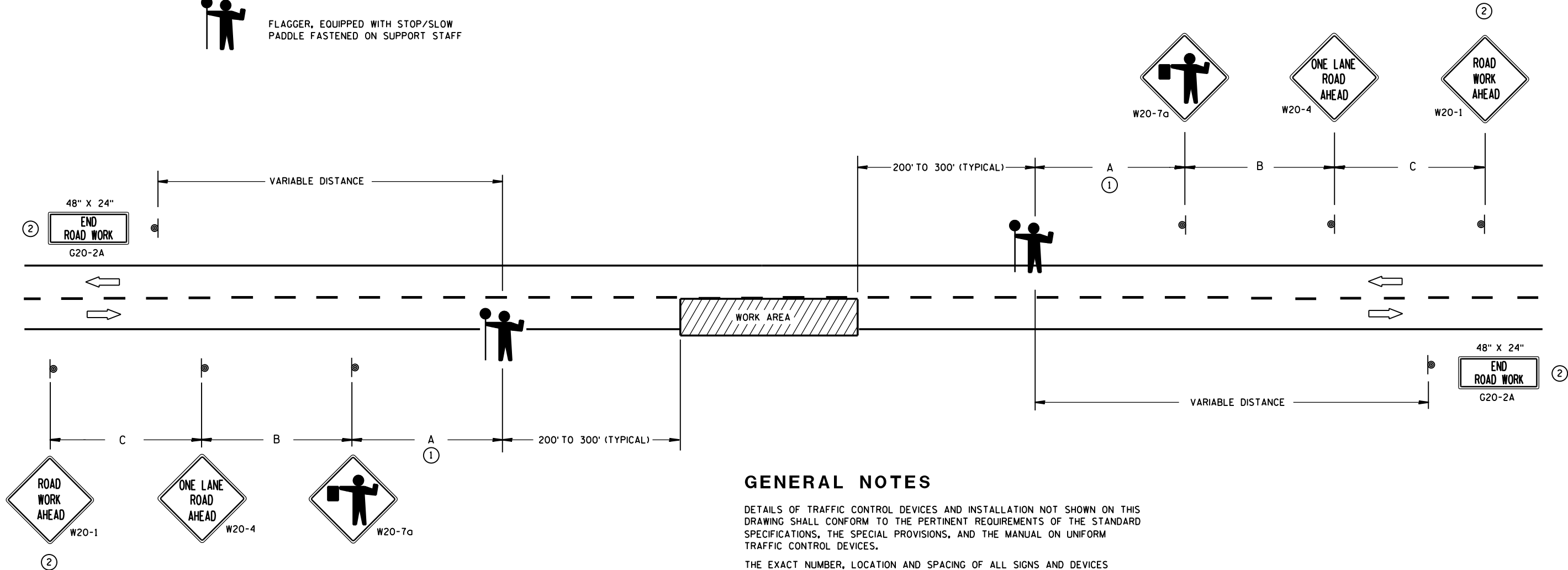
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

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



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



GENERAL NOTES

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

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

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

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

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

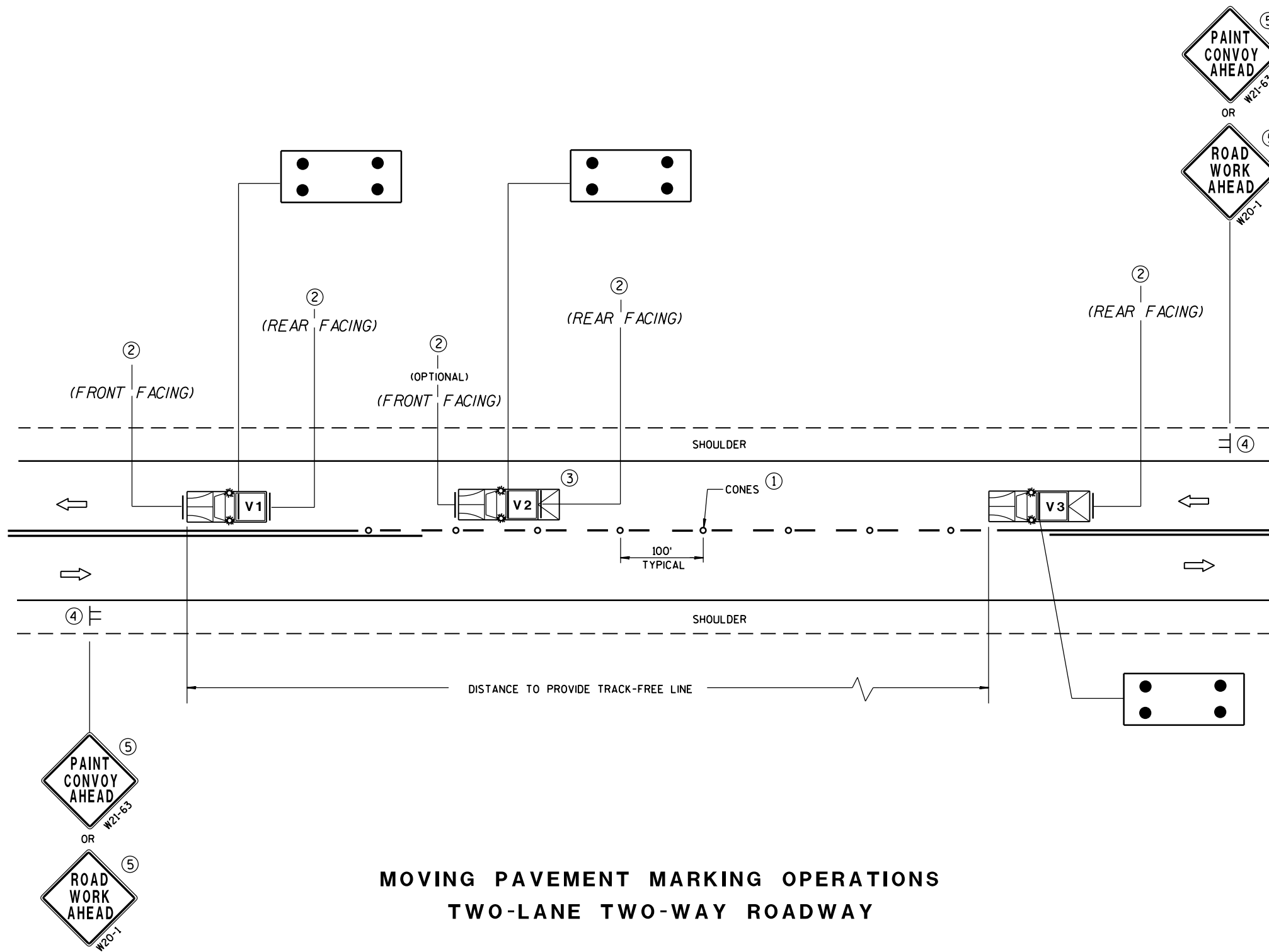
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



MOVING PAVEMENT MARKING OPERATIONS TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

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

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

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

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

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

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

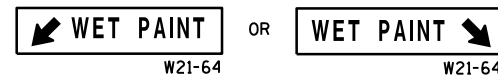
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

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

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

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.



③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

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

LEGEND

V1 LEAD VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE WITH TMA

TMA TRUCK-MOUNTED ATTENUATOR

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

CONES

FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING
OPERATION
TWO-LANE TWO-WAY ROADWAY

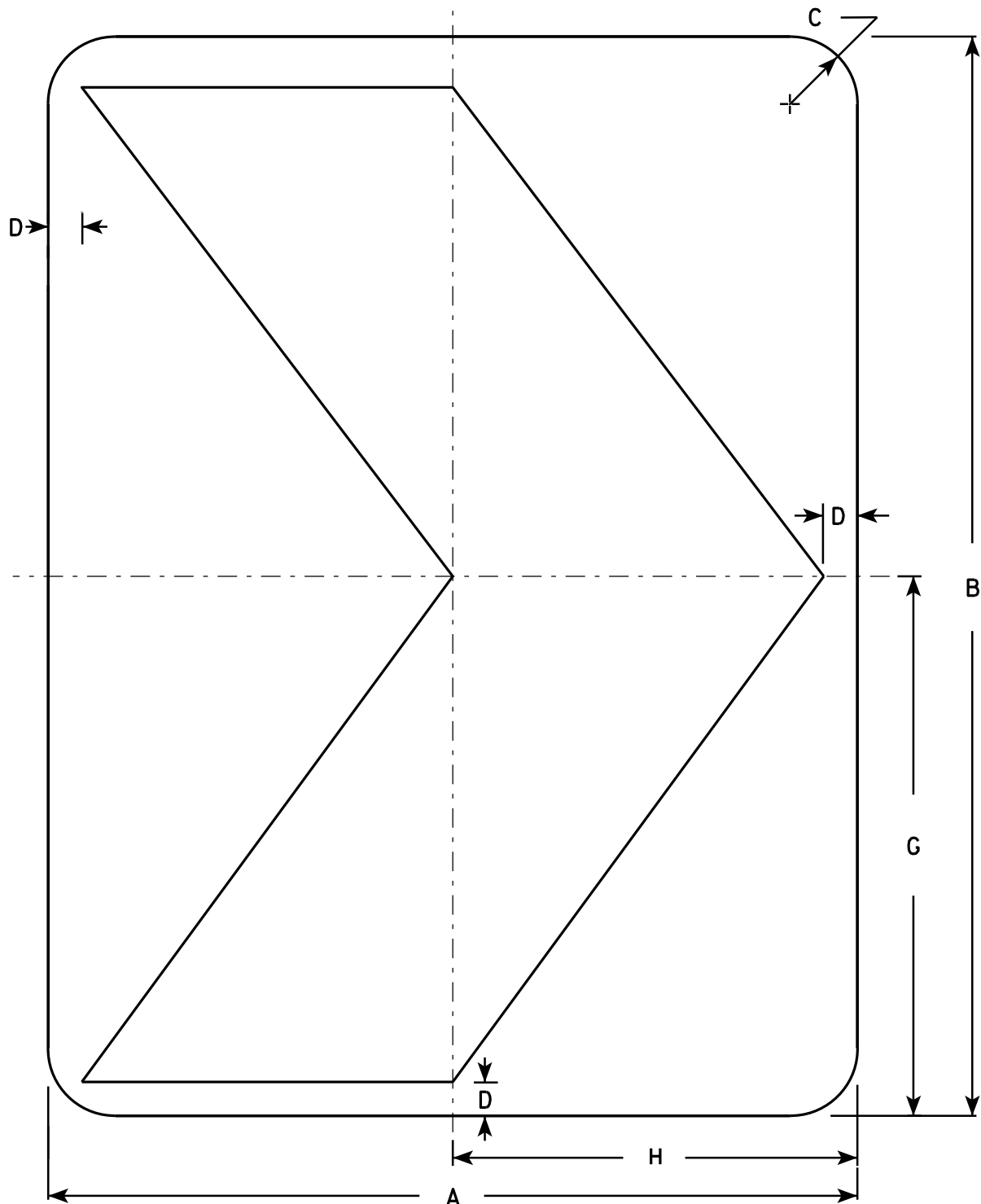
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/3/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA



W1-8

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/2	1/2			9	6																			1.5
2S	18	24	1 1/2	3/4			12	9																			3.0
2M	18	24	1 1/2	3/4			12	9																			3.0
3	24	30	1 1/2	1			15	12																			5.0
4	30	36	1 7/8	1 1/4			18	15																			7.5
5	36	48	2 1/4	1 1/2			24	18																			12.0

STANDARD SIGN

W1-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

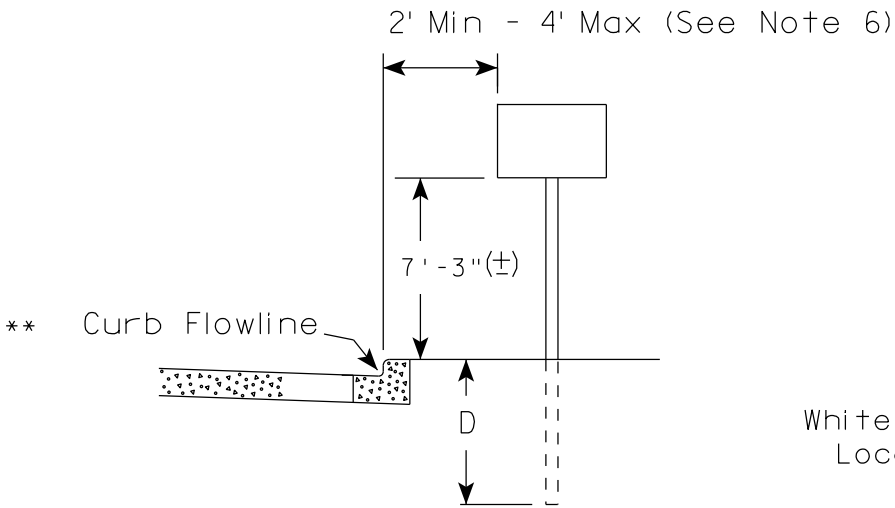
DATE 6/7/10 PLATE NO. W1-8.6

PROJECT NO:

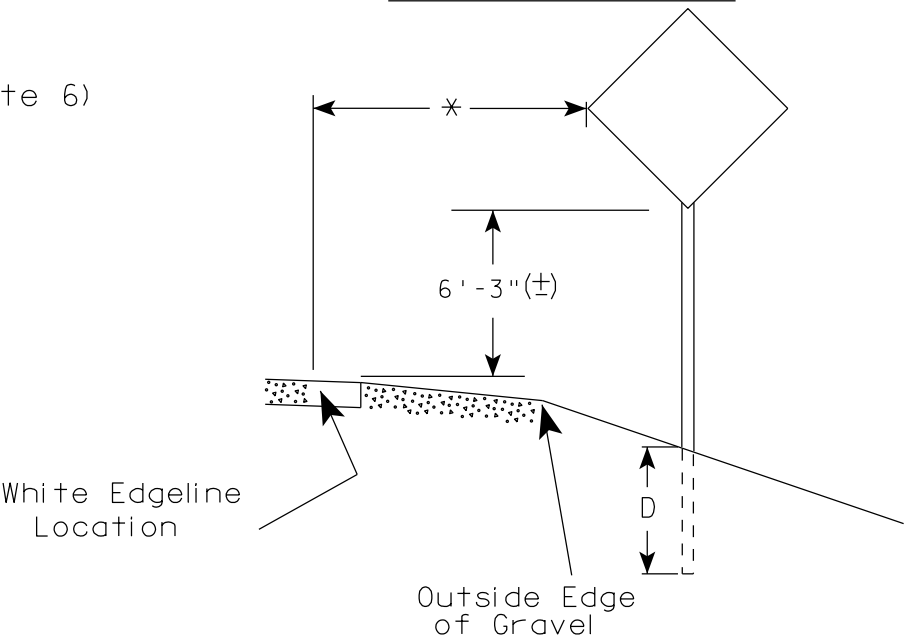
SHEET NO:

E

URBAN AREA



RURAL AREA (See Note 2)



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

POST EMBEDMENT DEPTH

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

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

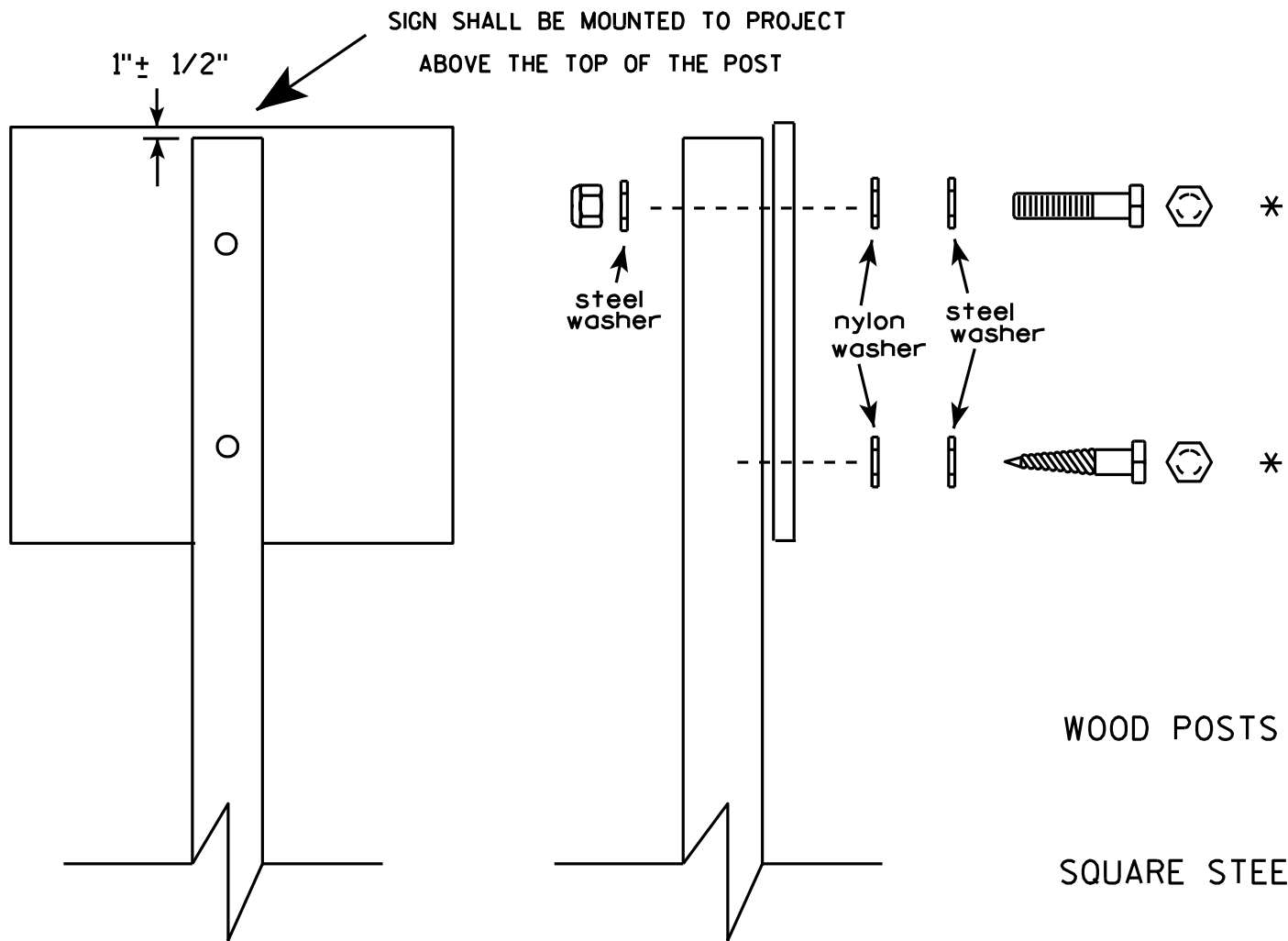
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



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

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

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

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")

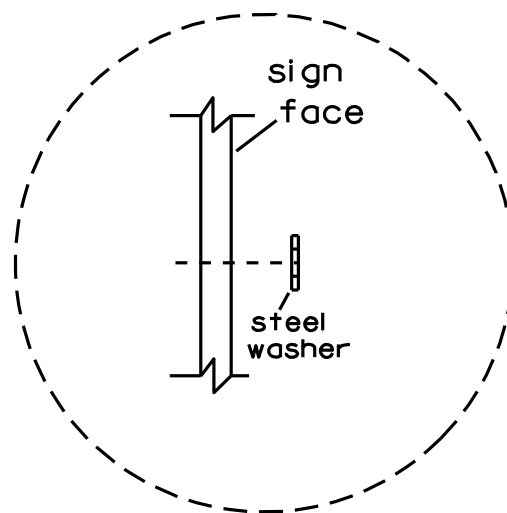
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



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

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

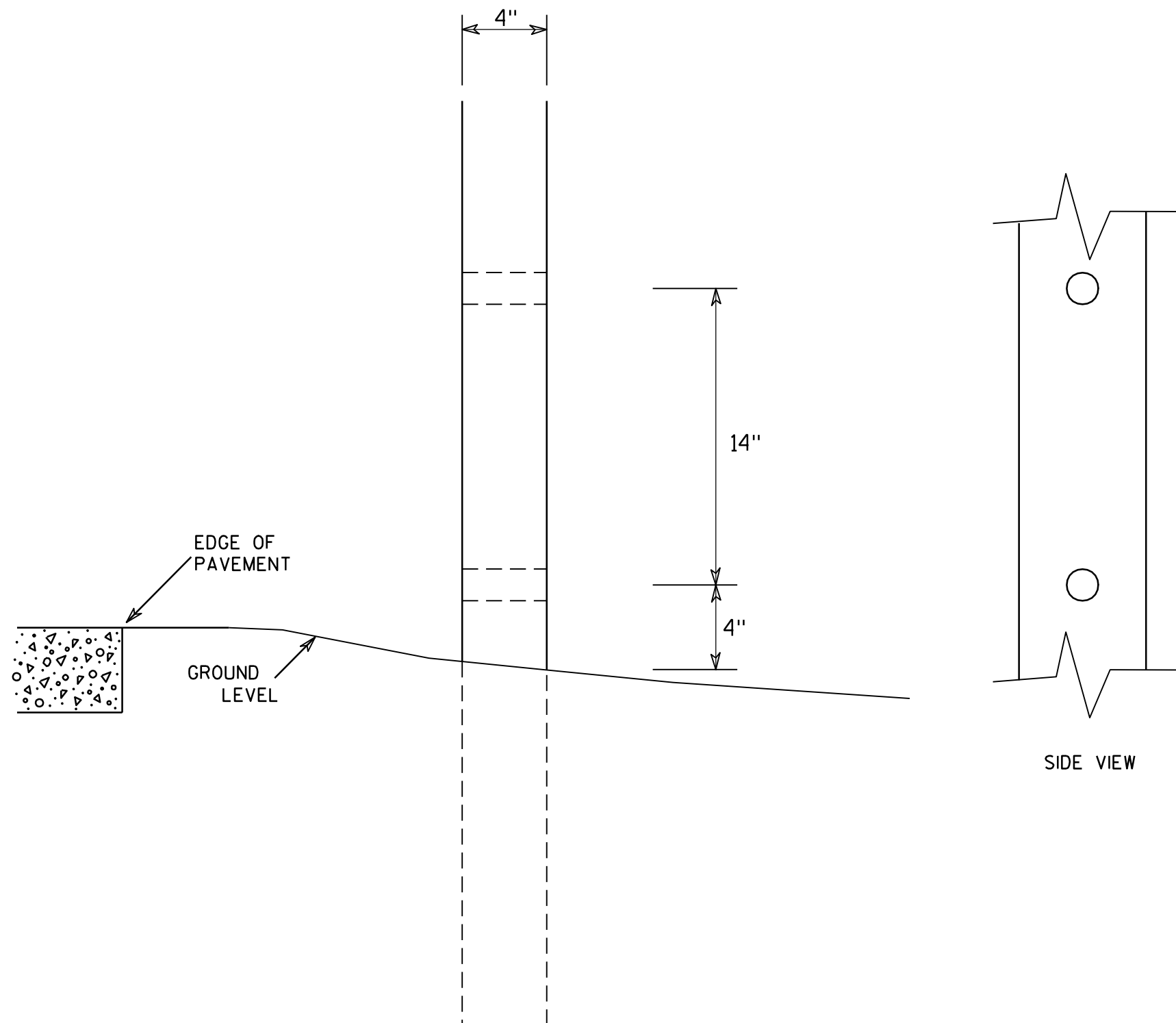
ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

7



GENERAL NOTES

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

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

<http://www.dot.wisconsin.gov>