

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 = 22



DESIGN DESIGNATION

A.A.D.T.	=
A.A.D.T.	=
D.H.V.	=
D.D.	=
T.	=
DESIGN SPEED	=
ESALS	=

CONVENTIONAL SYMBOLS

PLAN

CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	

SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	

COMBUSTIBLE FLUIDS



MARSH AREA



WOODED OR SHRUB AREA



PROFILE

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

GRADE ELEVATION

CULVERT (Profile View)

UTILITIES

ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
SW REGION PVMT MARKING EASTERN CTYS
STN LOCATIONS PER ANNUAL PLAN
VAR HWY
SW REGION WIDE

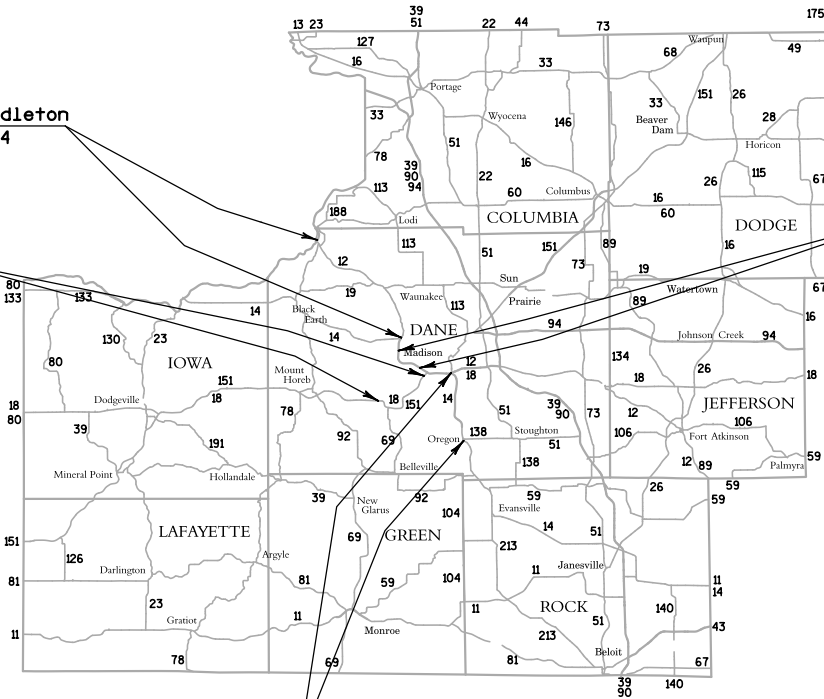
STATE PROJECT NUMBER
1009-11-97

USH 12 EB & WB, Sauk City - Middleton
Sauk / Dane County Line - USH 14

USH 18 / 151, Verona - Madison
Mile 76 - Raymond Rd

USH 14 EB & WB, Madison - Oregon
USH 12 & 18 - STH 138

USH 12 EB & WB, Madison
East of Old Sauk Rd - West of Whitney Way



LAYOUT
SCALE 0 MI.

TOTAL NET LENGTH OF CENTERLINE = MI.

STATE PROJECT

1009-11-97

FEDERAL PROJECT

PROJECT

WISC 2016046

CONTRACT

1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

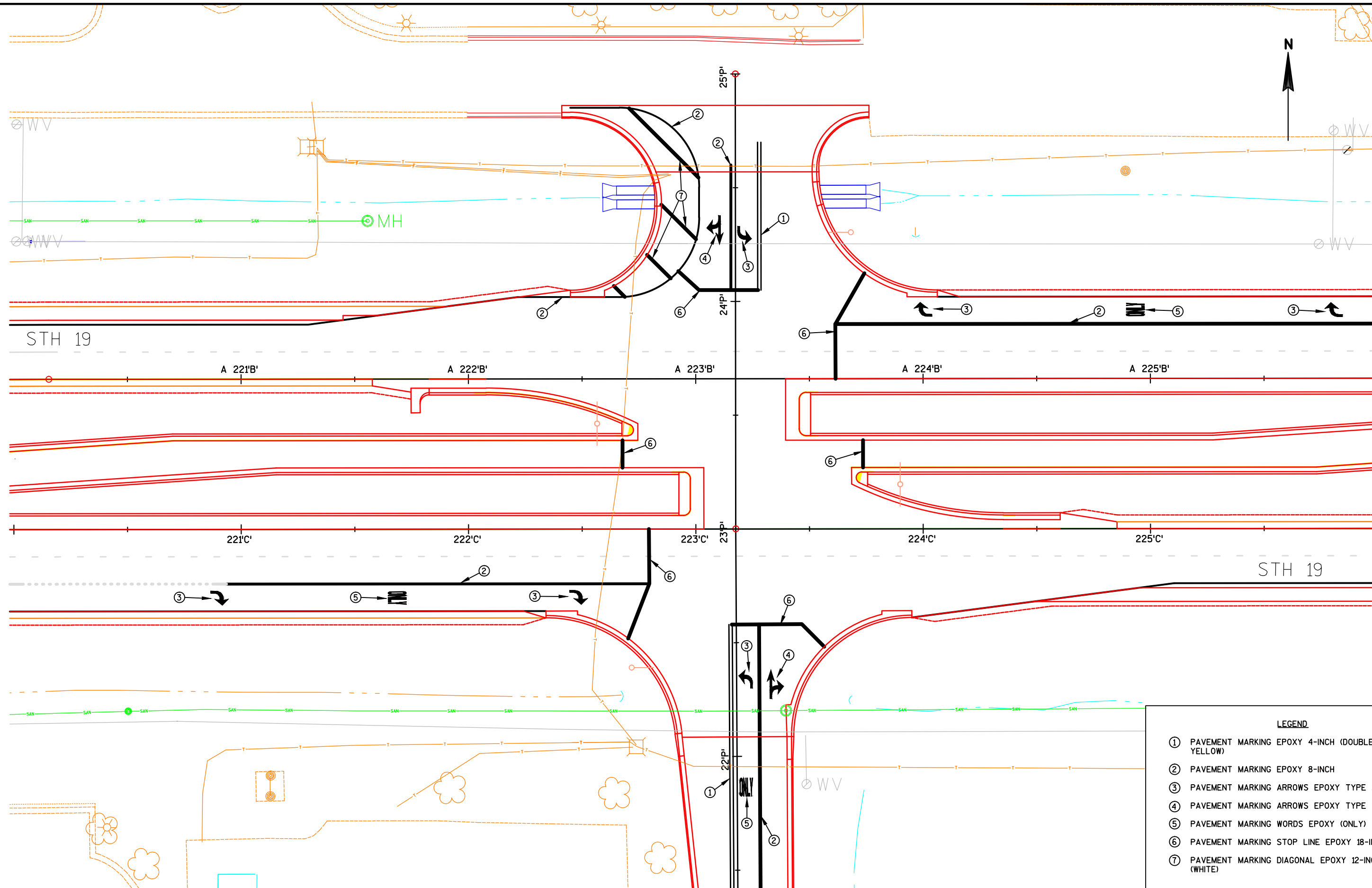
Surveyor	IVER PETERSON
Designer	
Project Manager	
Regional Examiner	
Regional Supervisor	KAREN OLSON
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 10-27-2015

Karen L Olson
(Signature)

E



DATE 08JAN16		E S T I M A T E O F Q U A N T I T I E S				
LINE						1009-11-97
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY	
0010	619.1000	Mobilization	EACH	1.000	1.000	
0020	643.0100	Traffic Control (project) 01.	EACH	1.000	1.000	
0030	646.0106	Pavement Marking Epoxy 4-Inch	LF	1,031,127.000	1,031,127.000	
0040	646.0126	Pavement Marking Epoxy 8-Inch	LF	78,297.000	78,297.000	
0050	647.0110	Pavement Marking Railroad Crossings Epoxy	EACH	75.000	75.000	
0060	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	6.000	6.000	
0070	647.0176	Pavement Marking Arrows Epoxy Type 3	EACH	2.000	2.000	
0080	647.0196	Pavement Marking Arrows Epoxy Type 5	EACH	3.000	3.000	
0090	647.0356	Pavement Marking Words Epoxy	EACH	3.000	3.000	
0100	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	239.000	239.000	
0110	647.0726	Pavement Marking Diagonal Epoxy 12-Inch	LF	90.000	90.000	
0120	647.0960	Removing Pavement Markings Symbols	EACH	1.000	1.000	

PAVEMENT MARKING EPOXY (DIVIDED HIGHWAYS)			646.0106			4-INCH CENTERLINE NO PASSING YELLOW L.F.	646.0126		
Dane County			4-INCH EDGE LINE YELLOW L.F.	4-INCH LANE LINE WHITE L.F.	4-INCH EDGE LINE WHITE L.F.		8-INCH CHANNELIZING WHITE (MAINLINE) L.F.	8-INCH CHANNELIZING WHITE (RAMP) L.F.	8-INCH CHANNELIZING WHITE (ISLAND GORE) L.F.
HIGHWAY	LOCATION (From)	LOCATION (To)							
USH 12 EB	Sauk / Dane Co Line (Sauk City)	500' East of USH 14 Bridge	91051	24288	85228		11133		
	Exit 249 for Parmenter St (Middleton)	OFF Ramp	1167		1702		357	357	
	Exit 249 for Parmenter St (Middleton)	ON Ramp	990		2426		720	720	
	Exit 250 for Airport Rd/CTH M (Middleton)	OFF Ramp	1004		1505		367	367	187
	Exit 250 at Airport Rd/CTH M (Middleton)	ON Ramp	994	94	2438		731	731	
	Exit 251A for USH 14 (Middleton)	OFF Ramp	2086		3233		435	335	126
	Exit 251A for USH 14 (Middleton)	ON Ramp	1259		4656		1033	569	
USH 12 EB	0.4 Mile East of Old Sauk Rd Bridge East side of bridge deck)	0.325 Mile West of Whitney Way Bridge Mile Marker 257.0	16104		9240		415		
	Exit 254 for Mineral Point Rd (Madison)	OFF Ramp	530	115	2270				425
	Exit 254 for Mineral Point Rd (Madison)	ON Ramp	545		2112				
	Exit 255 for Gammon Rd	OFF Ramp	686	230	2534				400
	Exit 255 for Gammon Rd	ON Ramp	686	170	1954				
USH 12 WB	0.325 Mile West of Whitney Way Bridge Mile Marker 257.0	0.4 Mile East of Old Sauk Rd Bridge East side of bridge deck)	16104		1584				
	Exit 254 for Mineral Point Rd (Madison)	OFF Ramp	580	126	1848				175
	Exit 254 for Mineral Point Rd (Madison)	ON Ramp	580		1531				
	Exit 255 for Gammon Rd	OFF Ramp	711	126	2532				873
	Exit 255 for Gammon Rd	ON Ramp	633		1636				
USH 12 WB	500' East of USH 14 Bridge	Sauk Co line North end of bridge at signals	91321	23885	84277		11813		
	Exit 251A-B for USH 14 (Middleton)	OFF Ramp	2709	150	3408		497	497	
	Exit 251A-B for USH 14 (Middleton)	ON Ramp	1582		2320		653	700	
	Exit 250 for Airport Rd/CTH M (Middleton)	OFF Ramp	947		2264		408	408	420
	Exit 250 for Airport Rd/CTH M (Middleton)	ON Ramp	979		2346		820	820	
	Exit 249 for Parmenter St (Middleton)	OFF Ramp	942		1734		398	398	178
	Exit 249 for Parmenter St (Middleton)	ON Ramp	847		2293		686	686	
USH 18/151 EB	200' north of MM 76 (Sugar River Bridge- Verona)	Raymond Rd (Madison)	48313	12791	42486		2954	490	252
	Exit 76 for Epic Ln	OFF RAMP	2143	99	2914		230	230	241
	Exit 76 for Epic Ln	ON RAMP	2428		3573		406	406	
	Exit 77 for STH 69	OFF RAMP	1046		1584		262	262	72
	Exit 77 for STH 69	ON RAMP	1062		2496		774	774	
	Exit 79 for CTH PB & CTH M	OFF RAMP	1518		2735		601	601	80
	Exit 79 for CTH PB & CTH M	ON RAMP	1145		2276		527	527	
	Exit 81 for E Verona Ave	ON RAMP	2390		3580		667	667	
USH 18/151 WB	Raymond Rd (Madison)	200' North of Mile Marker 76 (Sugar River Bridge) (Verona)	47919	13285	39142		2387	1638	359
	Exit 81 for E Verona Ave	OFF Ramp	802	107	2480		476	476	
	Exit 79 for CTH PB & CTH M	OFF Ramp	1814	150	3008		965	390	230
	Exit 79 for CTH PB & CTH M	ON Ramp	1342		2850		877	877	
	Exit 77 for STH 69	OFF Ramp	942		2012		389	389	106
	Exit 77 for STH 69	ON Ramp	1174		2105		275	275	
	Exit 76 for Epic Ln	OFF Ramp	1202		2108		273	273	110
	Exit 76 for Epic Ln	ON Ramp	1299	40	2757		730	730	
USH 14 EB	USH 12/18	STH 138 Overpass Bridge (south end of bridge deck)	48985	11430	43862	2217	250		
	Exit 133 for McCoy Rd	OFF Ramp	740		1430		264	264	50
	Exit 134 for Lacy Rd	OFF Ramp	1162		1689		316	316	
	Exit 134 for Lacy Rd	ON Ramp	792		2006		739	739	
	Exit 139 for CTH MM (Oregon)	OFF Ramp	581		1425		264	264	
	Exit 139 for CTH MM (Oregon)	ON Ramp	897		2430		739	739	
	Exit 140 for STH 138 (Oregon)	OFF Ramp	1110		2376		422	422	
	Exit 140 for STH 138 (Oregon)	ON Ramp	633		1953		739	739	
USH 14 WB	STH 138 Overpass Bridge (south end of bridge deck)	USH 12/18	50810	11616	41950	1670	250		
	Exit 140 for STH 138 (Oregon)	OFF Ramp	1003		1584		396		
	Exit 140 for STH 138 (Oregon)	ON Ramp	844	265	3065		1425	396	400
	Exit 139 for CTH MM (Oregon)	OFF Ramp	686		1742		315	315	
	Exit 139 for CTH MM (Oregon)	ON Ramp	844		2006		580	580	
	Exit 134 for Lacy Rd	OFF Ramp	1160		1670		316	316	
	Exit 134 for Lacy Rd	ON Ramp	844		1954		215	215	
	Exit 133 for McCoy Rd	ON Ramp	580		2060		528	528	
	Exit 132A for East 12/East 18 (Madison)	OFF Ramp	740	250	1108				
	Exit 132B for West 12/West 14/West18 South 151 (Madison)	OFF Ramp	2060	175	1848				
Sub Totals			466047	99392	461335	3887	51017	21822	4684
			Total 4 - Inch 1030661				Total 8 - Inch 77523		

PAVEMENT MARKING EPOXY (SPECIAL MARKINGS)		647.0110 RAILROAD CROSSINGS WHITE EACH	647.0176 ARROWS TYPE 5 WHITE EACH	646.0960 REMOVAL PAVEMENT MARKING SYMBOLS EACH
HIGHWAY	LOCATION			
	Columbia County		3	
STH 78 NB	Left Lane Drop (Merge with IH 39 NB) (South of Portage)			
USH 51 NB	North of STH 16 (South of Portage)	2		
USH 51 SB	North of STH 16 (South of Portage)	1		
USH 51 NB	CTH P Portage	2		
USH 51 SB	CTH P Portage	2		
STH 60 EB	West of Commercial St (Arlington)	1		
STH 60WB	East of Commercial St (Arlington)	1		
STH 113 SB	County Line Rd (South of Lodi)	1		
STH 146 NB	North of Cabbage Rd (Cambria)	1		
STH 146 SB	South of Commerce St (Cambria)	1		
	Dane County			1
USH 12 WB	Exit 252 Geenway Blvd Off Ramp (Madison) (Type 4 Arrow)			
STH 19 EB	CTH CV (Windsor)	2		
STH 19 WB	CTH CV (Windsor)	2		
USH 51 NB	Lexington Ave (Madison)	3		
USH 51 SB	Lexington Ave (Madison)	3		
STH 73 NB	North of Freidel Dr (Marshall)	1		
STH 73 SB	North of Freidel Dr (Marshall)	1		
STH 78 NB	South of Webb St (Black Earth)	1		
STH 78 SB	North of Webb St (Black Earth)	1		
STH 113 NB	South of Verleen St (Waunakee)	1		
STH 113 SB	North of Verleen St (Waunakee)	1		
STH 113 NB	Dane St. (Dane)	1		
STH 113 SB	Railroad St (Dane)	1		
STH 113 NB	County Line Rd (South of Lodi)	1		
	Dodge County			
STH 26 NB	South of Maple Dr (Minnesota Jct)	1		
STH 26 SB	North of Maple Dr (Minnesota Jct)	1		
STH 26 NB	CTH BI (Burnette)	1		
STH 26 SB	CTH BI (Burnette)	1		
STH 49 NB	Old 41 Rd. (East of Lomira)	1		
STH 49 SB	Old 41 Rd. (East of Lomira)	1		
STH 67 NB	CTH O (Ashippun)	1		
STH 67 SB	CTH O (Ashippun)	1		
Sub Total		39	3	1

PAVEMENT MARKING EPOXY (SPECIAL MARKINGS)		647.0110 RAILROAD CROSSINGS WHITE EACH
HIGHWAY	LOCATION	
	Dodge County (cont.)	
STH 67 NB	Downer Rd (Iron Ridge)	1
STH 67 SB	Downer Rd (Iron Ridge)	1
STH 67 NB	North of STH 33	1
STH 67 SB	North of STH 33	1
STH 73 NB	North of Center St (Randolph)	1
STH 73 SB	North of Stark St (Randolph)	1
USH 151 NB	South of CTH E (Beaver Dam)	2
USH 151 SB	North of CTH E (Beaver Dam)	2
USH 151 NB	3000' South of STH 26 (Waupun)	2
USH 151 SB	4000' South of STH 26 (Waupun)	2
	Green County	
STH 11 EB	West of CTH KS (East of Juda)	1
STH 11 WB	East of CTH KS (East of Juda)	1
	Jefferson County	
STH 89 NB	South of Hunters Ln (South of Waterloo)	1
STH 89 SB	North of Hunters Ln (South of Waterloo)	1
	Rock County	
STH 11 EB	CTH D (Janesville)	2
STH 11 WB	CTH D (Janesville)	2
STH 11 EB	West of Hanover Rd (Janesville)	1
STH 11 WB	West of Hanover Rd (Janesville)	1
USH 14 EB	Newville Rd (Janesville)	2
USH 14 WB	Newville Rd (Janesville)	2
STH 140 NB	South of Avalon Rd (Avalon)	1
STH 140 SB	North of Avalon Rd (Avalon)	1
STH 140 NB	Front St (Clinton)	1
STH 140 SB	Front St (Clinton)	1
STH 140 NB	Southside of Clinton	1
STH 140 SB	Southsde of Clinton	1
STH 213 NB	Spring St (Orfordville)	1
STH 213 SB	Spring St (Orfordville)	1
Sub Total		36

SUMMARY OF RAILROAD CROSSING (SPECIAL MARKING)				
HIGHWAY	LOCATIONS	647.0110 RAILROAD CROSSINGS WHITE EACH	647.0176 ARROWS TYPE 5 WHITE EACH	646.0960 REMOVAL PAVEMENT MARKING SYMBOLS EACH
Various	Columbia, Dane & Dodge Counties	39	3	1
Various	Dodge (cont), Green, Jefferson & Rock Counties	36		
Totals		75	3	1

PAVEMENT MARKING EPOXY (SPECIAL MARKING)			646.0106 4-INCH CENTERLINE YELLOW L.F.	646.0126 8-INCH CHANNELIZING WHITE L.F.	647.0166 ARROWS TYPE 2 WHITE EACH	647.0176 ARROWS TYPE 3 WHITE EACH	647.0356 WORDS "ONLY" WHITE EACH	647.0566 18-INCH STOP LINE WHITE L.F.	647.0726 12-INCH DIAGONAL WHITE L.F.
HIGHWAY	LOCATION (AT)	LOCATION							
STH 19 EB	Pepsi Way	Mainline						51	
	Pepsi Way	Left Turn Lane						18	
	Pepsi Way	Right Turn lane		182	2		1		
Pepsi Way NB	STH 19 EB	Side Street	370	125	1	1	1	41	
STH 19 WB	Pepsi Way	Mainline						51	
	Pepsi Way	Left Turn Lane						18	
	Pepsi Way	Right Turn lane		250	2		1		
Commercial Entrance	STH 19 WB	Entrance	96	47	1	1		60	
	STH 19 WB (Radius at Commerical Entrance)	Entrance		170					90
Totals			466	774	6	2	3	239	90

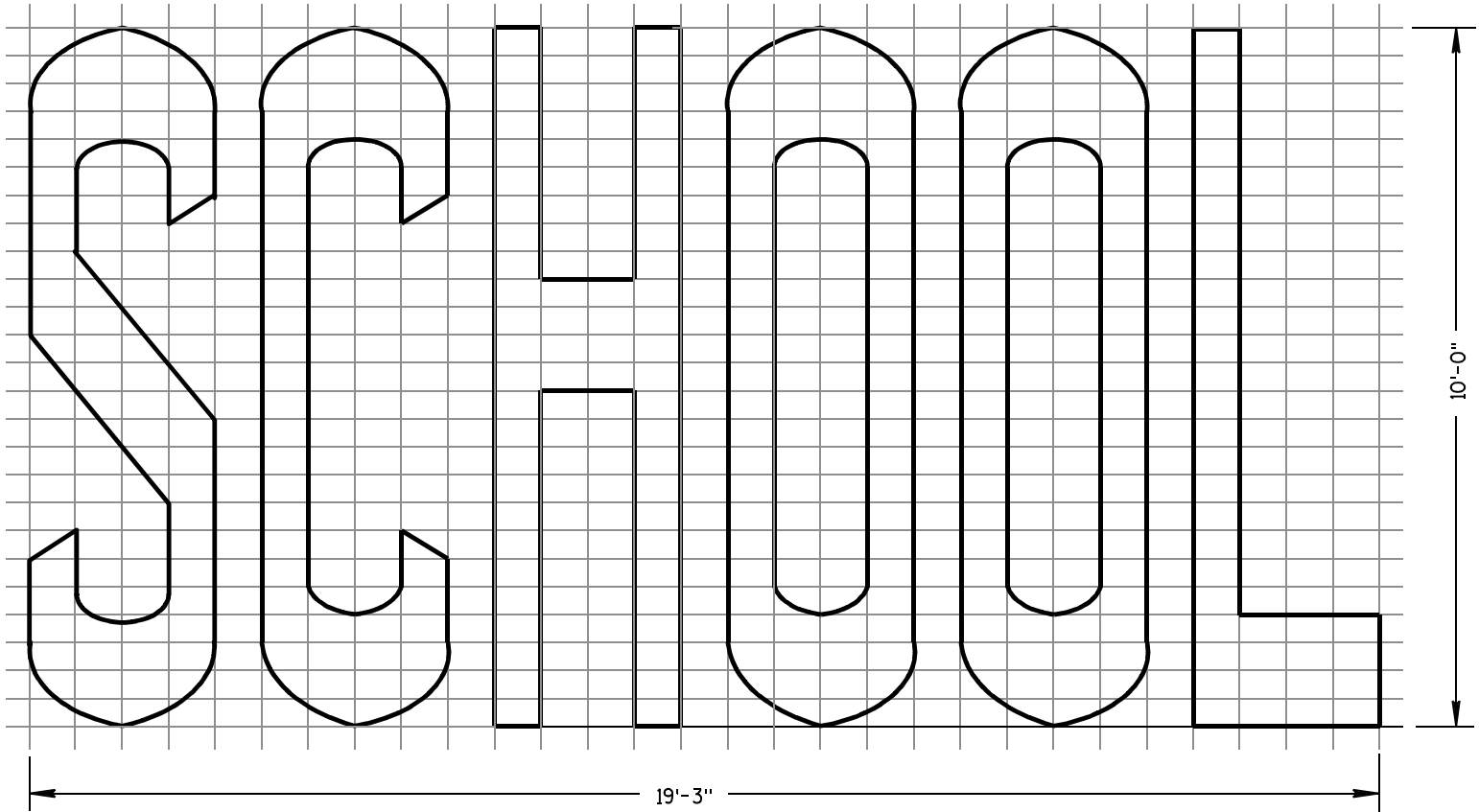
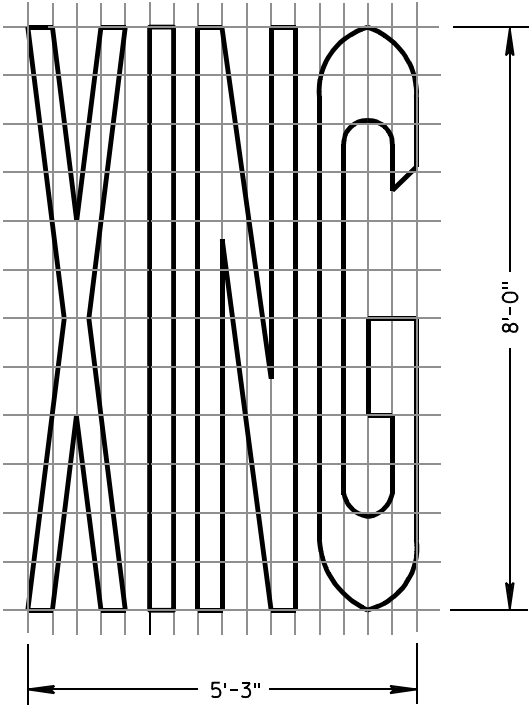
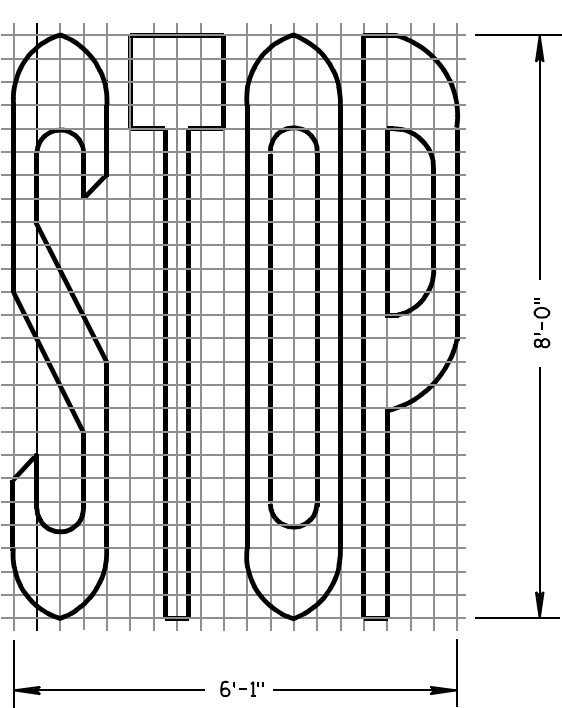
Standard Detail Drawing List

15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C09-09A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-03A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-03B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C19-03C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C21-06	SIGNING AND MARKING FOR TWO LANE TO FOUR LANE DIVIDED TRANSITIONS
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING

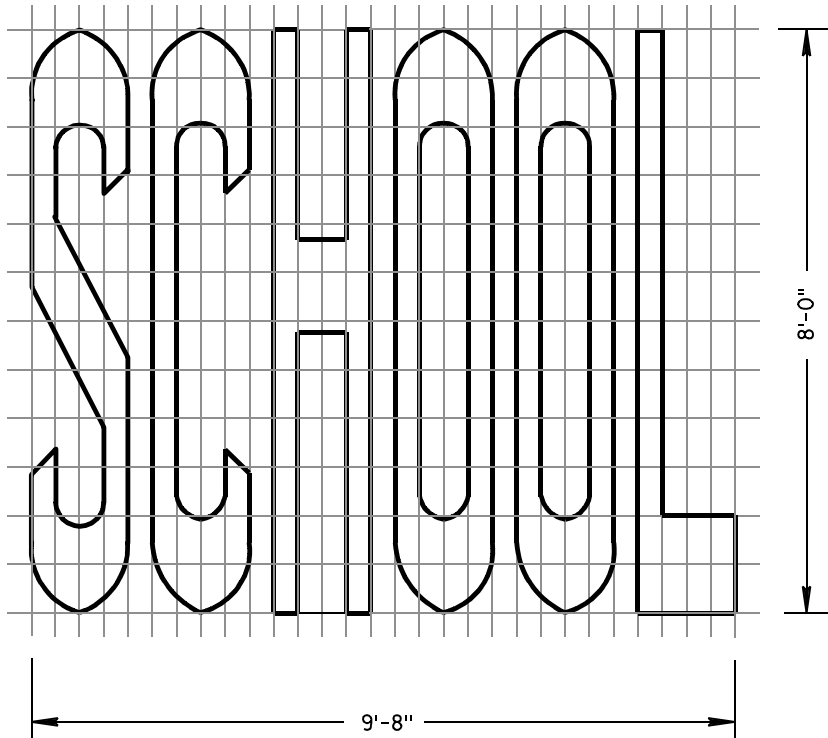
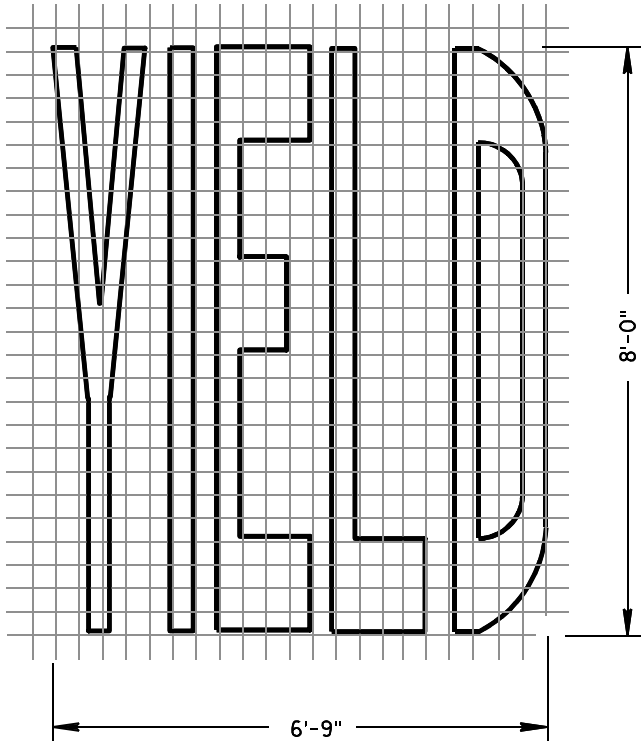
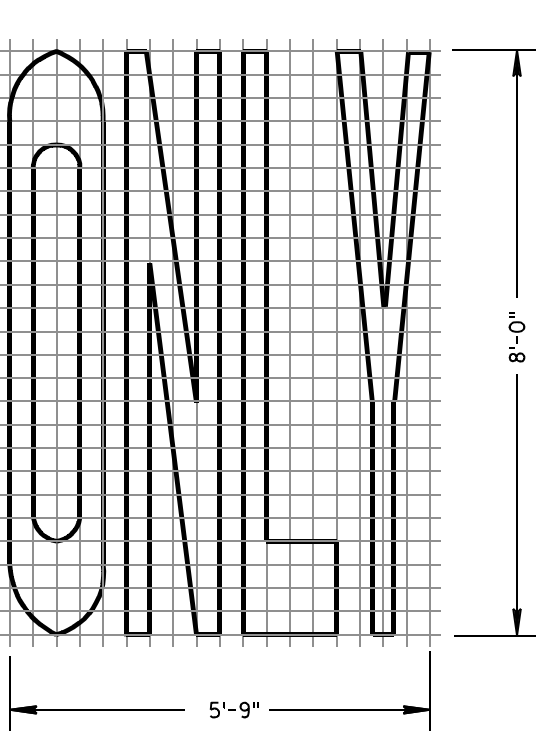
GENERAL NOTES

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

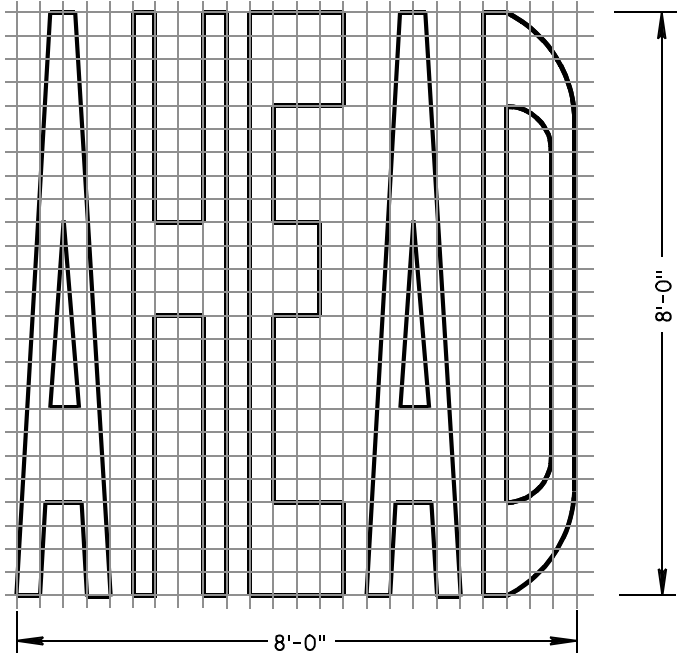
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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



TWO-LANE



SINGLE-LANE



PAVEMENT MARKING WORDS

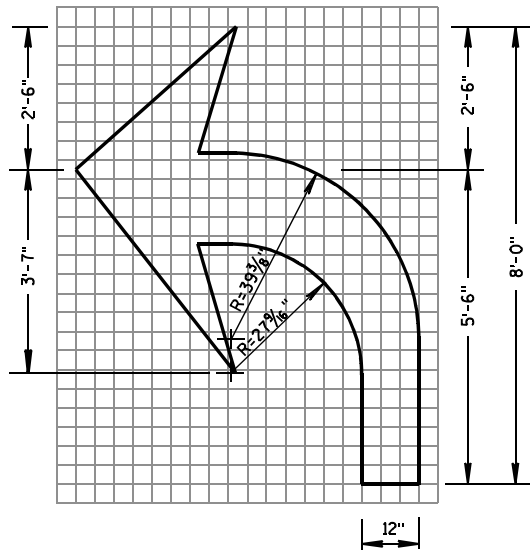
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

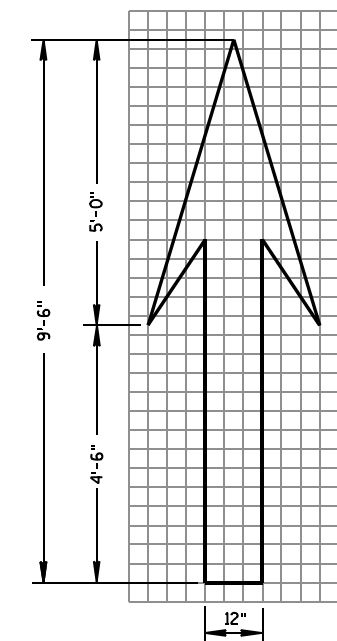
7-1-11
DATE

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

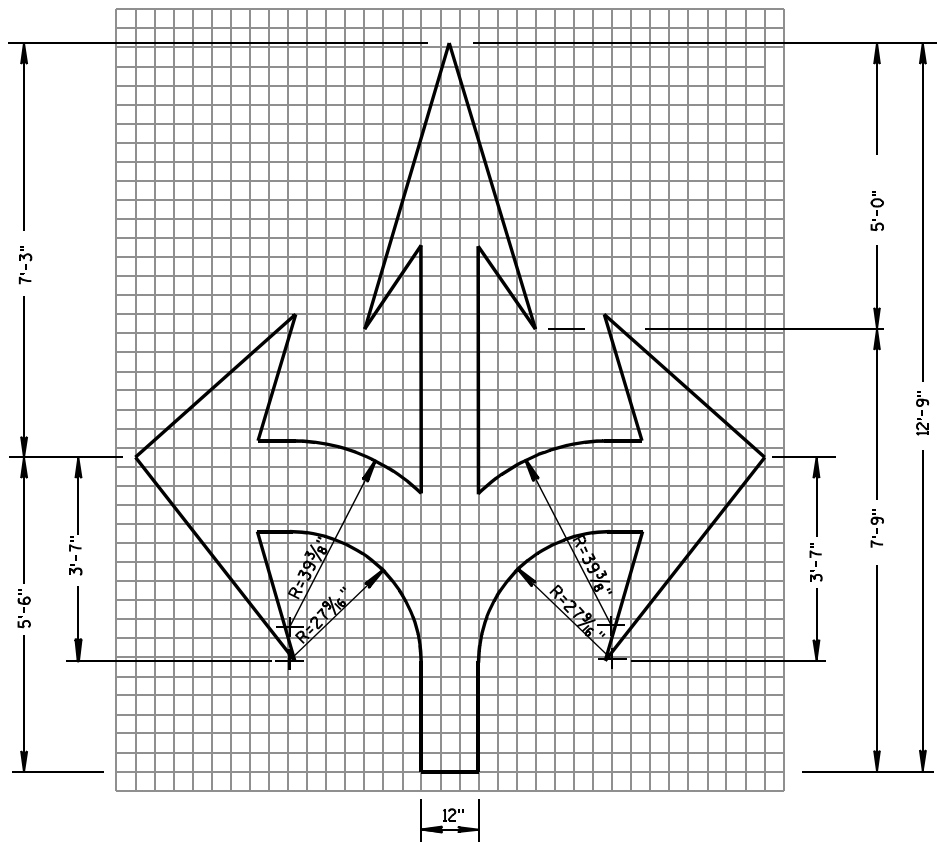
FHWA



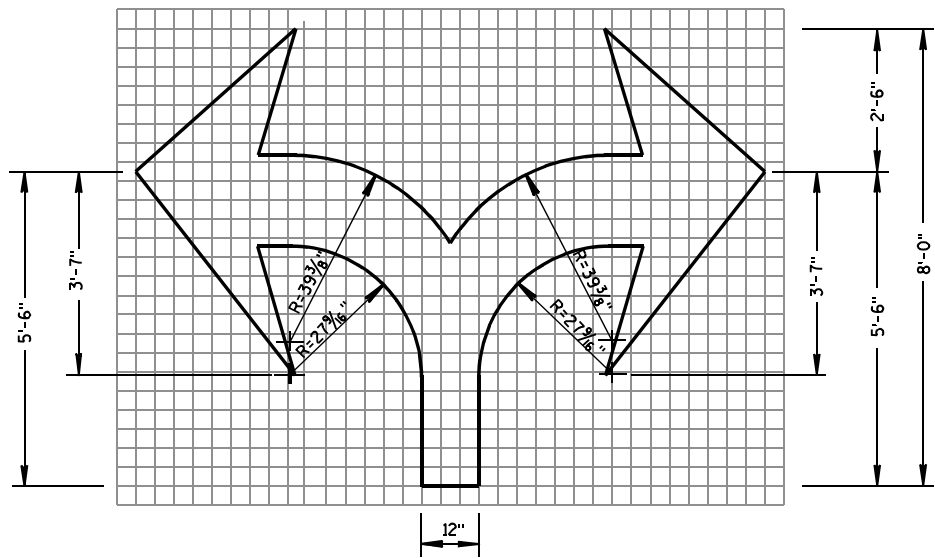
TYPE 2



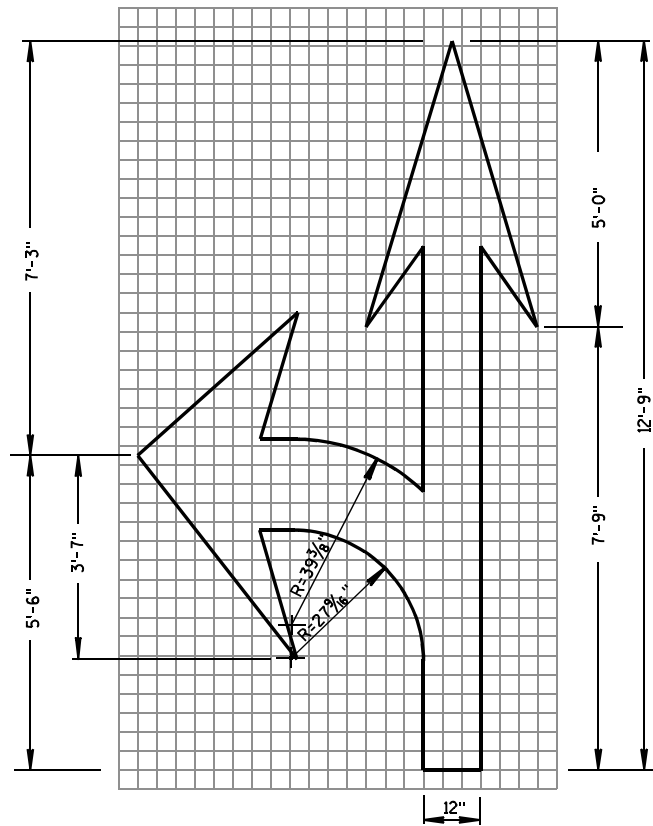
TYPE 1



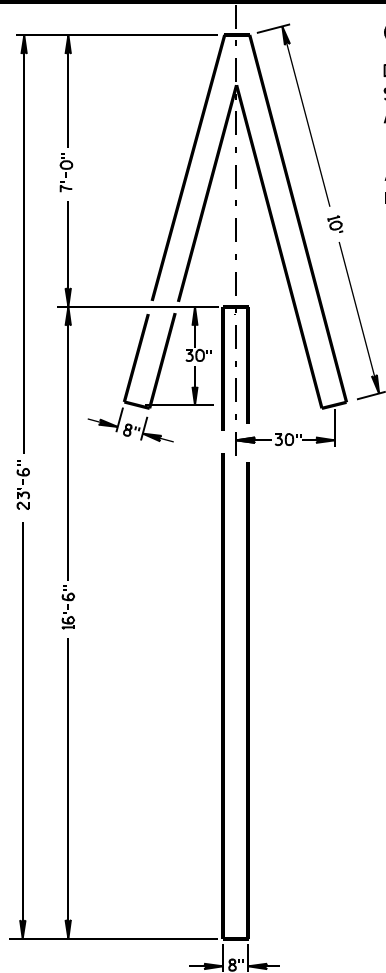
TYPE 6



TYPE 7



TYPE 3

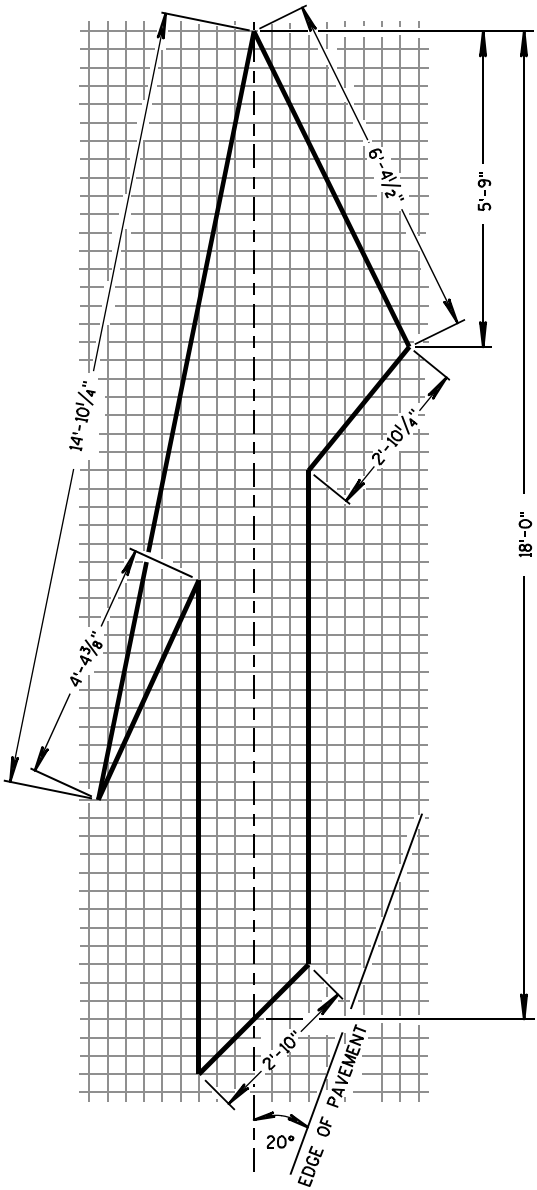


TYPE 4

GENERAL NOTES

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

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

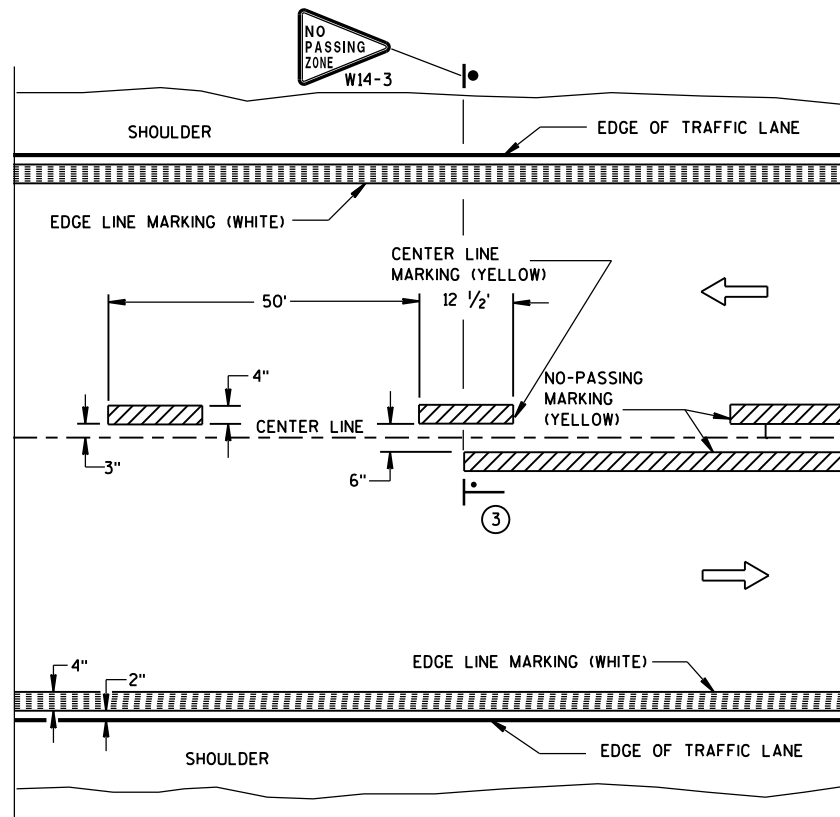


TYPE 5 LANE DROP ARROW

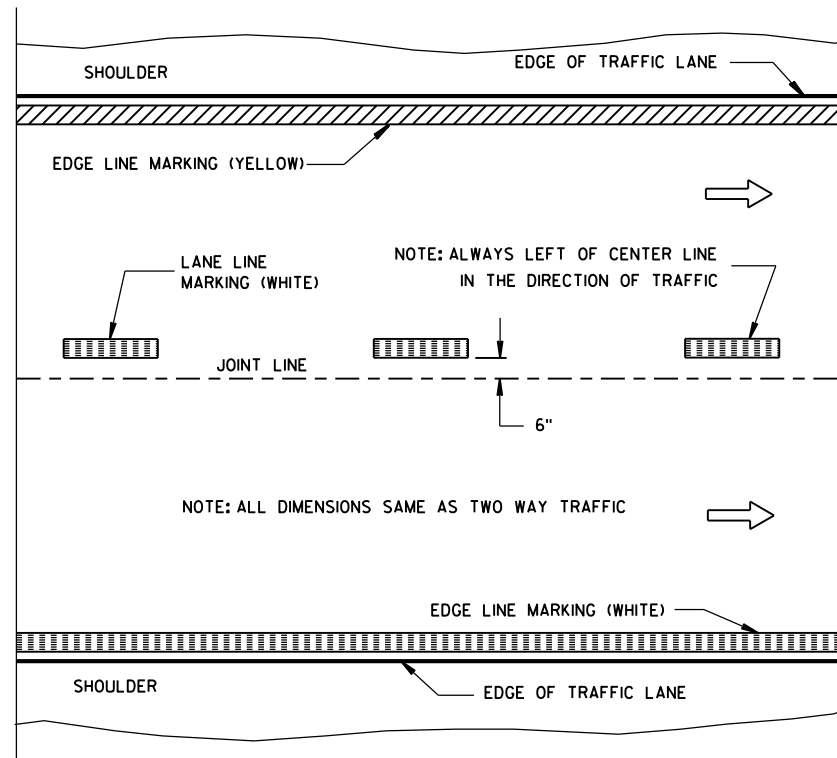
PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/1/11
DATE
/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER OF DESIGN
FHWA

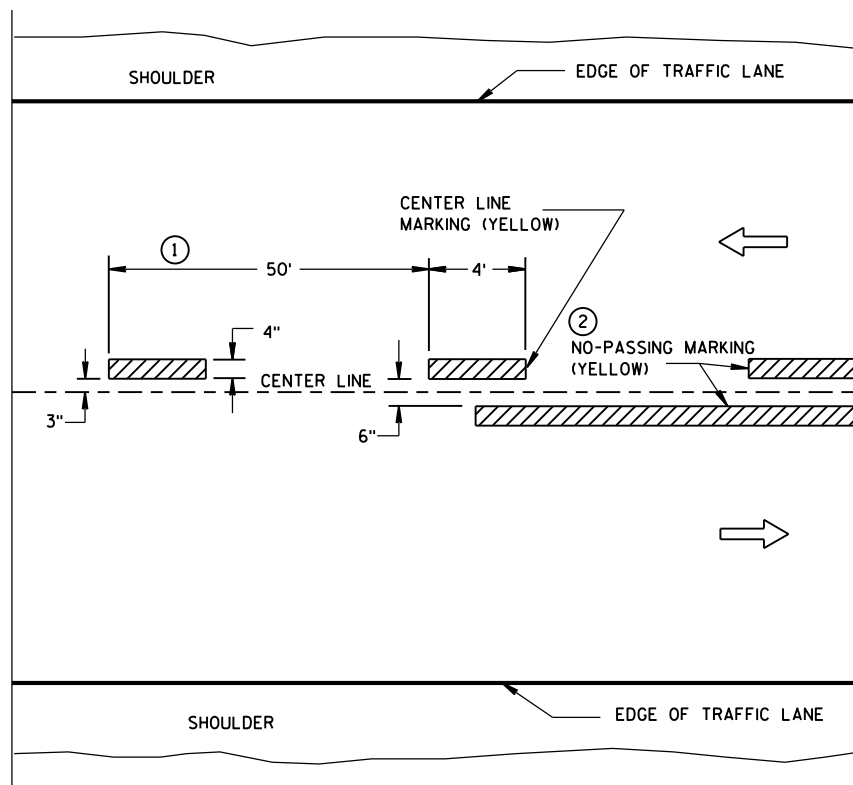


TWO WAY TRAFFIC

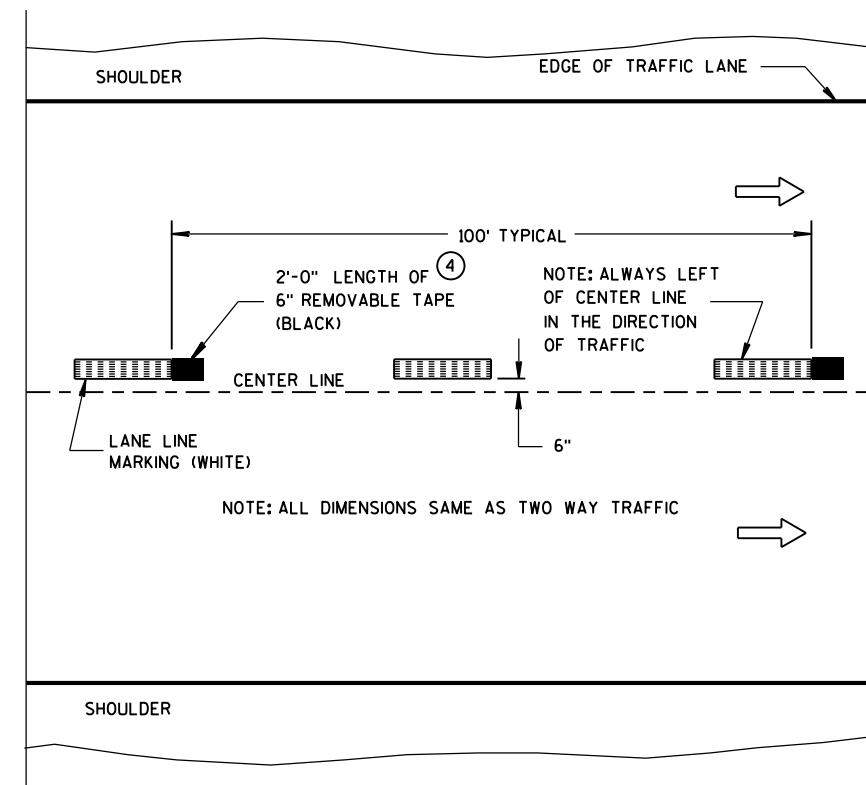


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

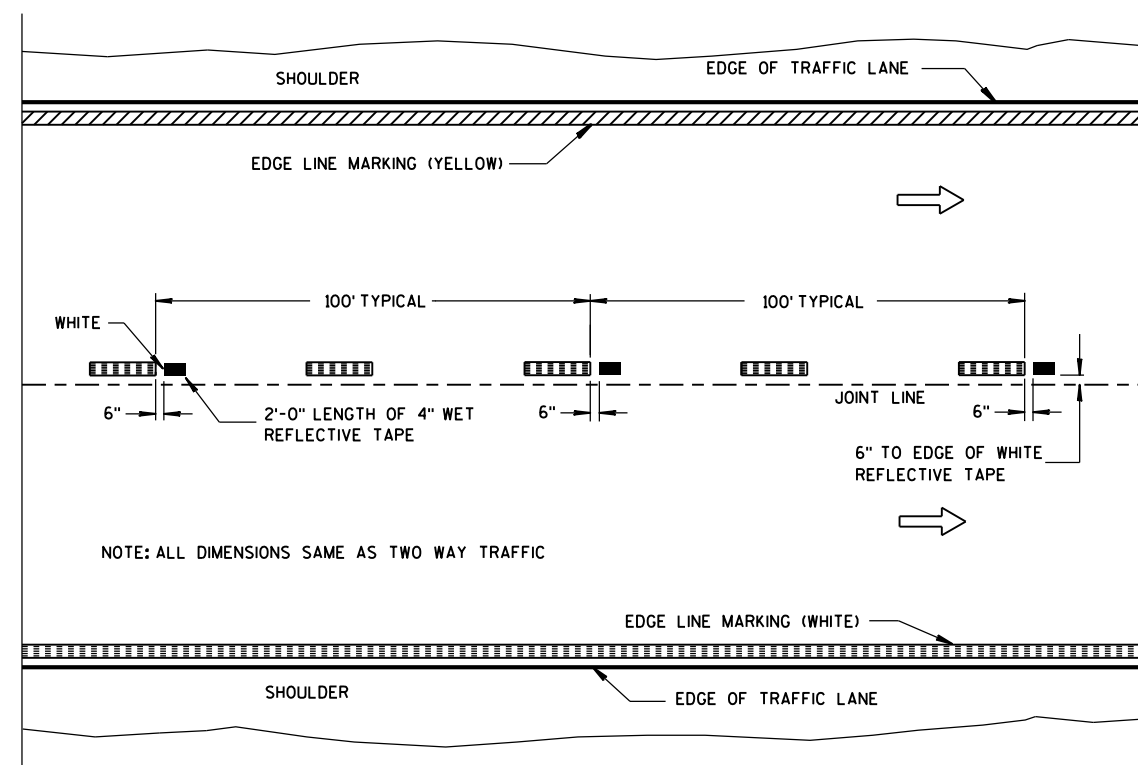
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



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

LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

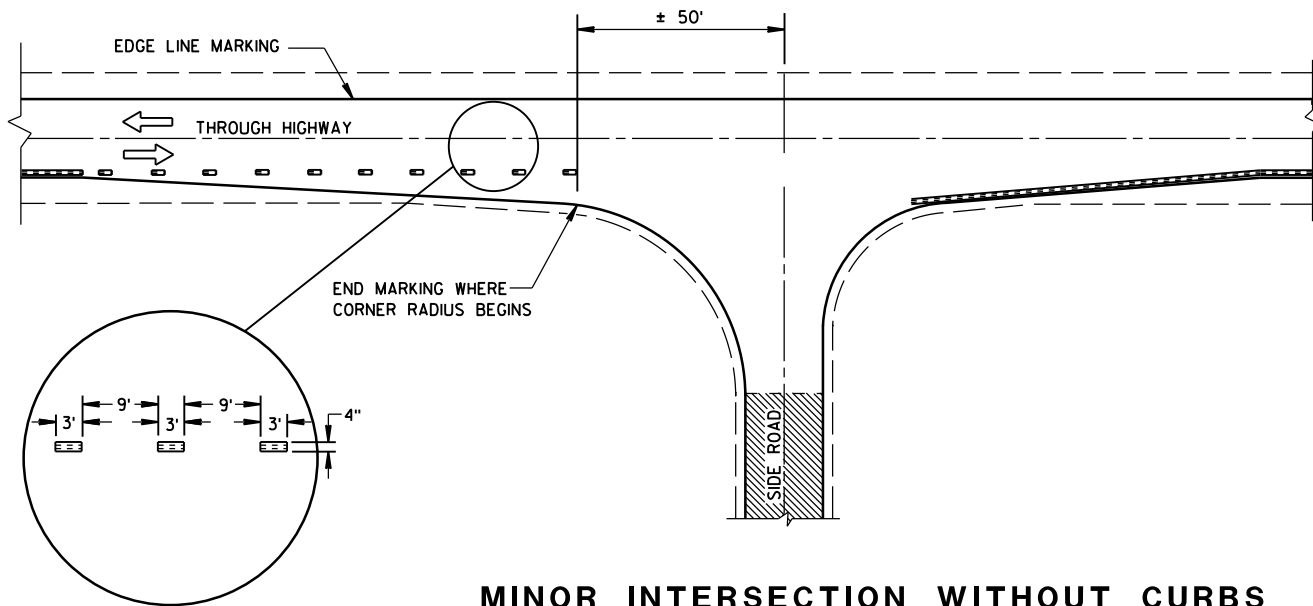
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013
DATE

FHWA

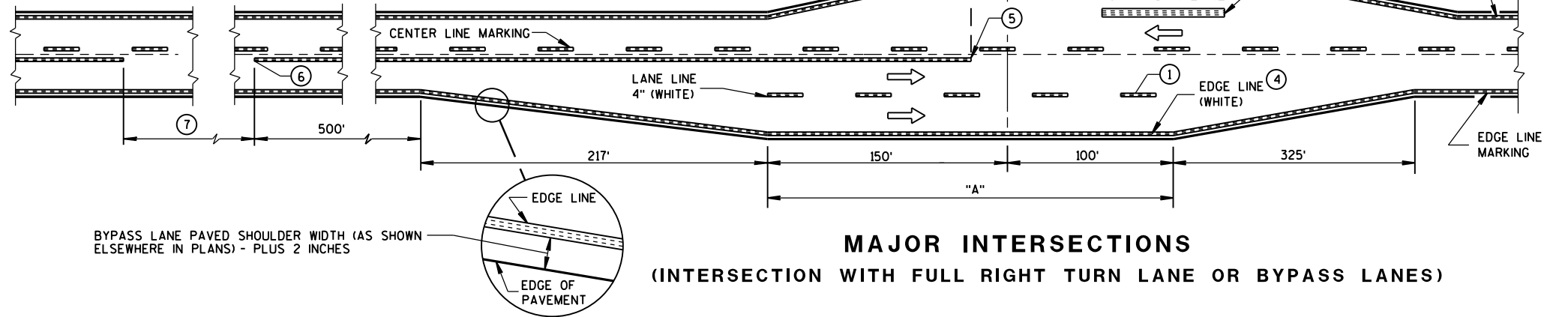
/S/ Travis Feltes
STATE TRAFFIC ENGINEER



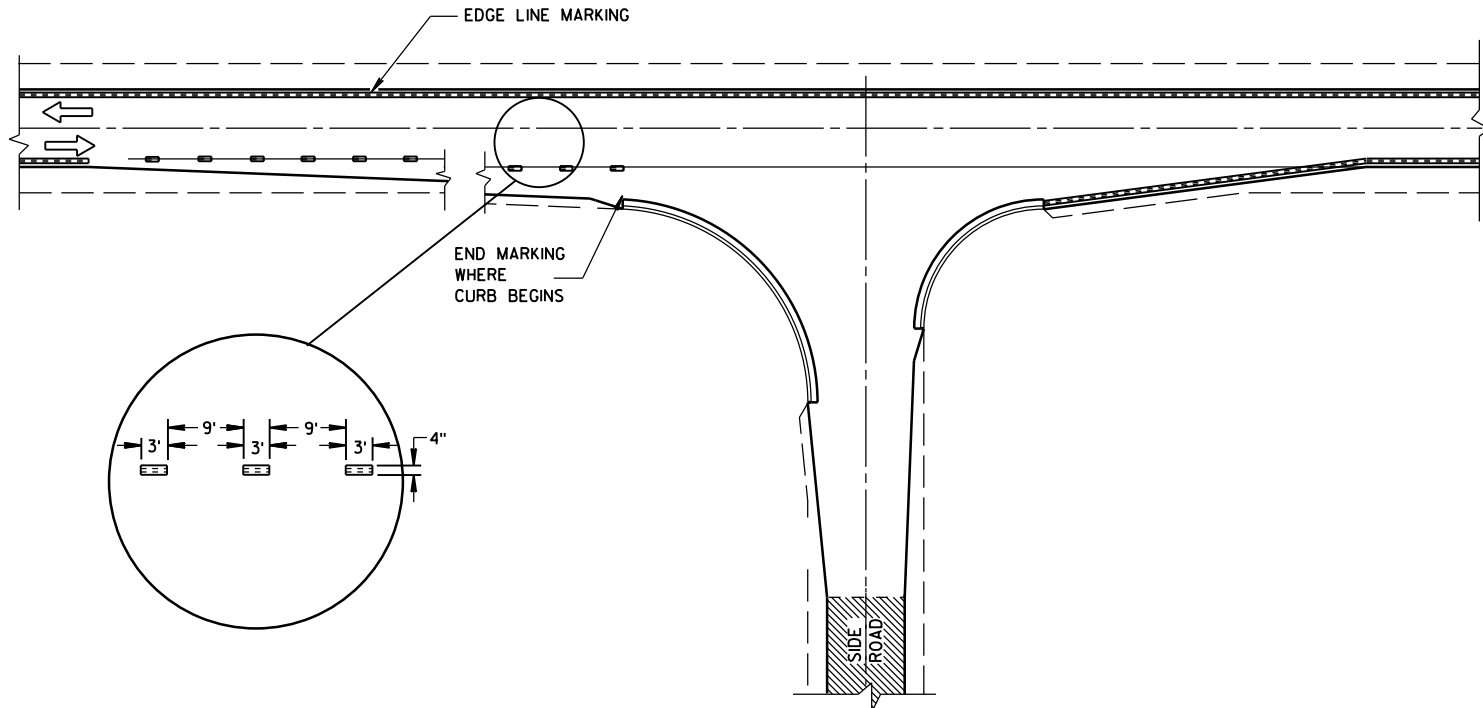
MINOR INTERSECTION WITHOUT CURBS

⑦

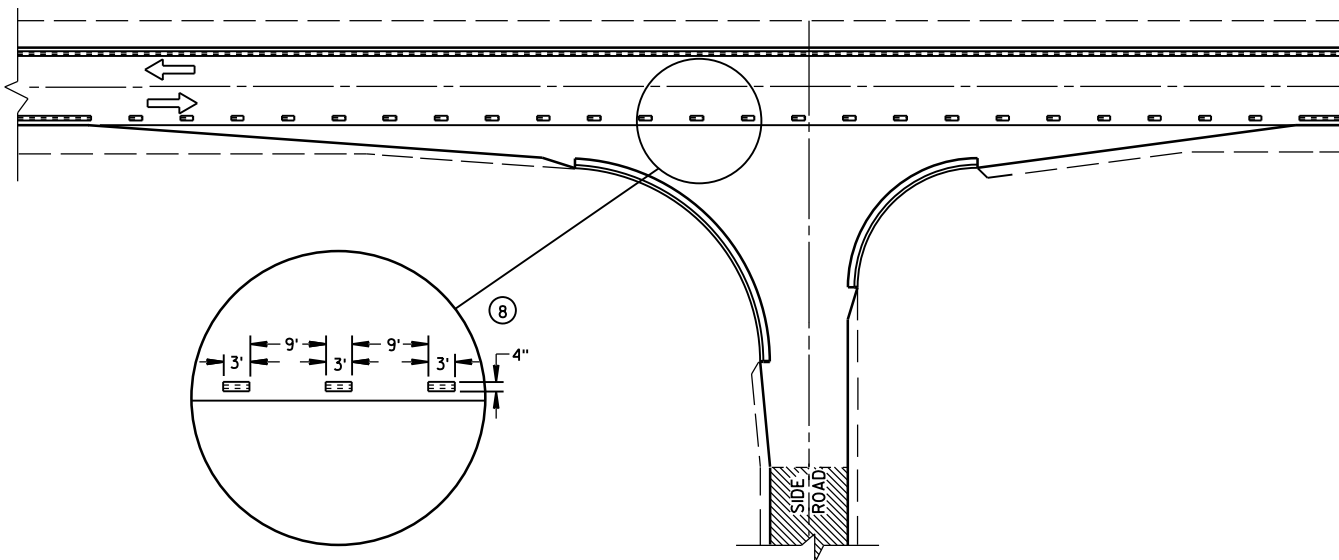
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



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



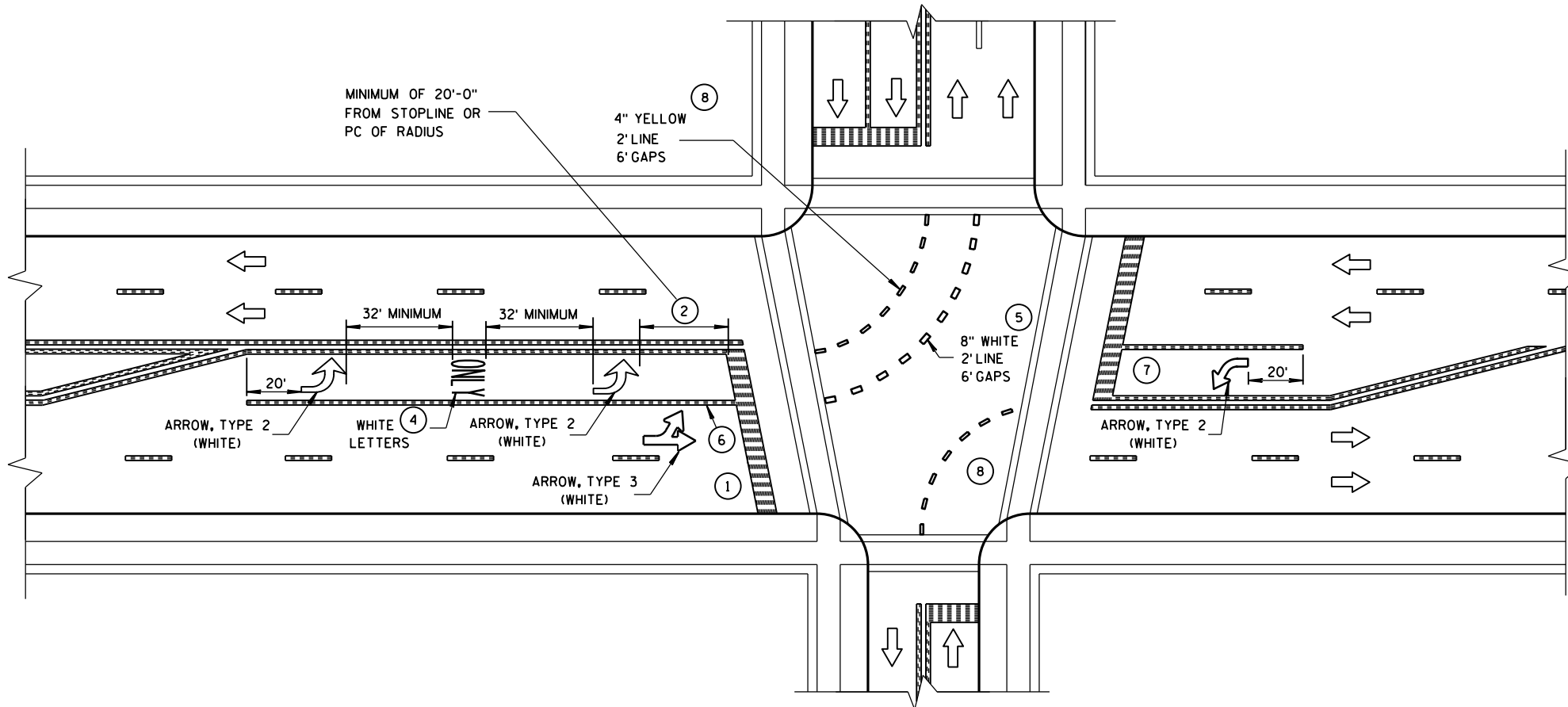
MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



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

GENERAL NOTES

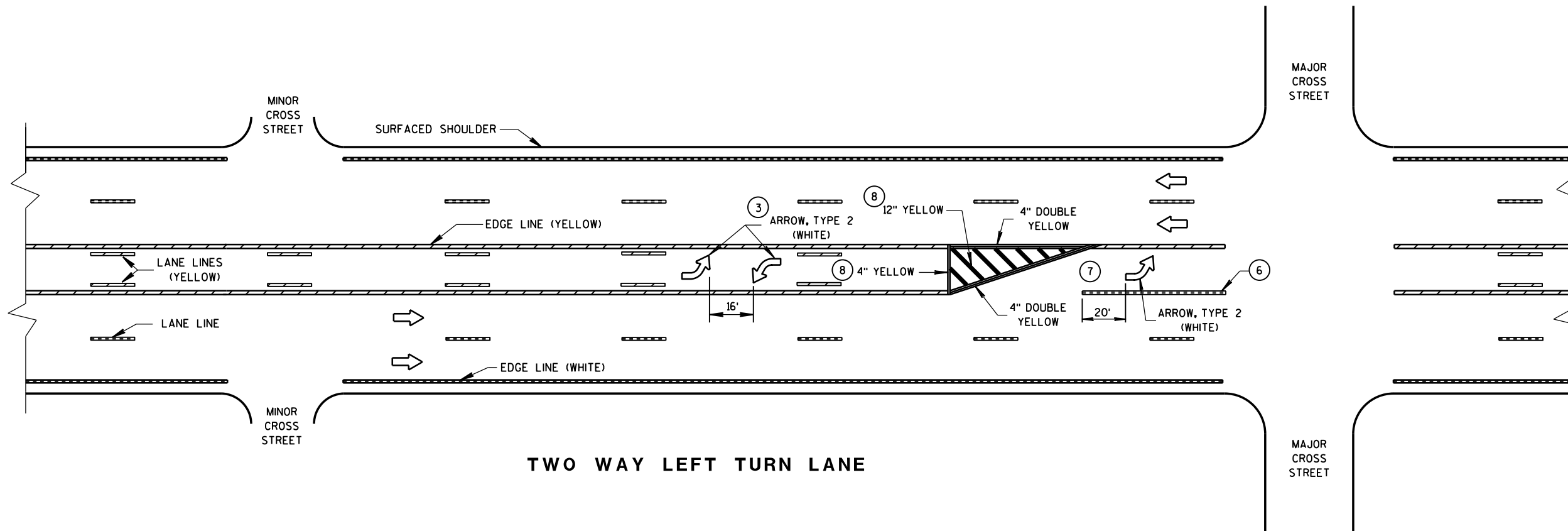
- EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
 - ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
 - ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE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



GENERAL NOTES

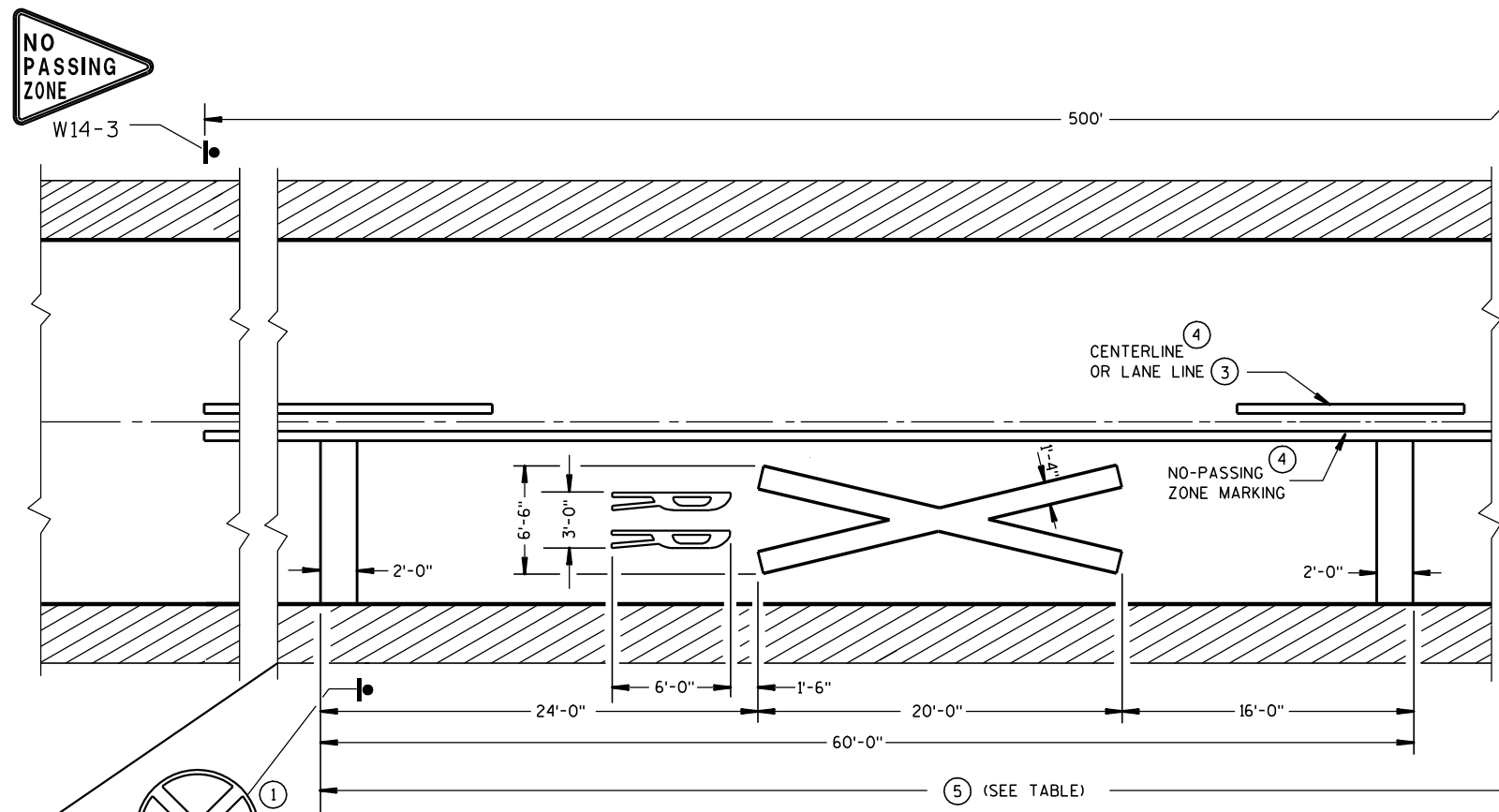
- ① STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- ② DISTANCE MAY BE ADJUSTED TO ACCOMMODATE SHORT LEFT TURN LANES, AS APPROVED BY THE ENGINEER.
- ③ A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ④ ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
- ⑤ 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
- ⑥ 8" WHITE
- ⑦ ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
- ⑧ REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (➡)
SHOWS DIRECTION OF TRAVEL

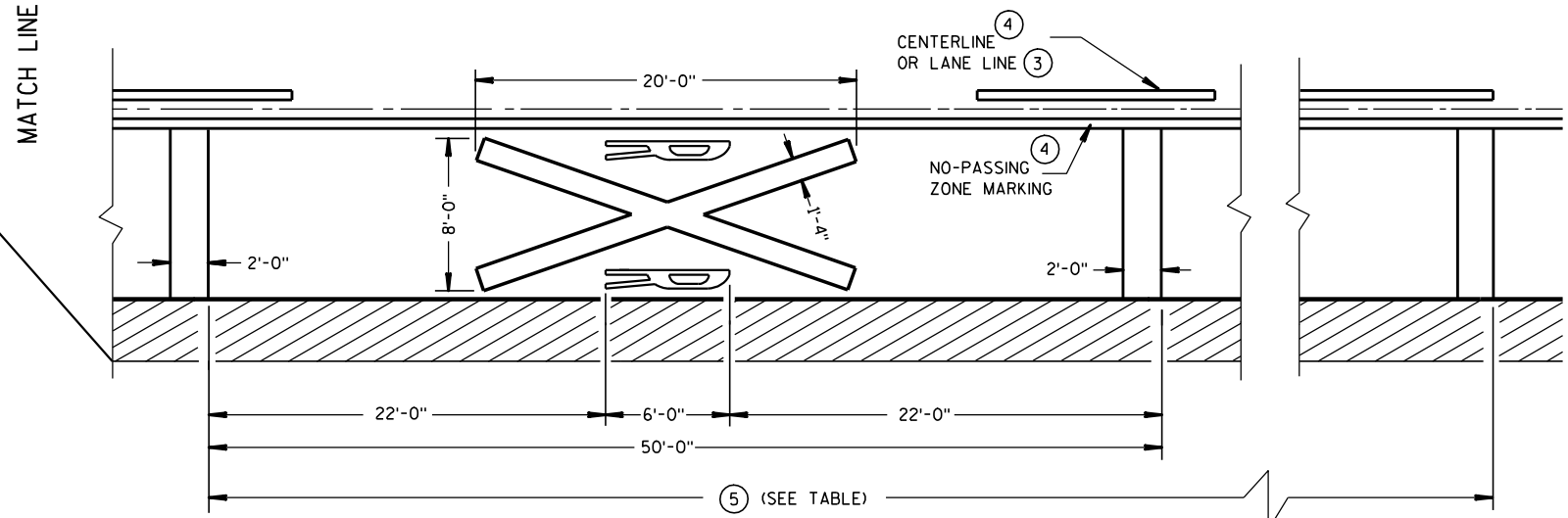


PAVEMENT MARKING
(LEFT TURN LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



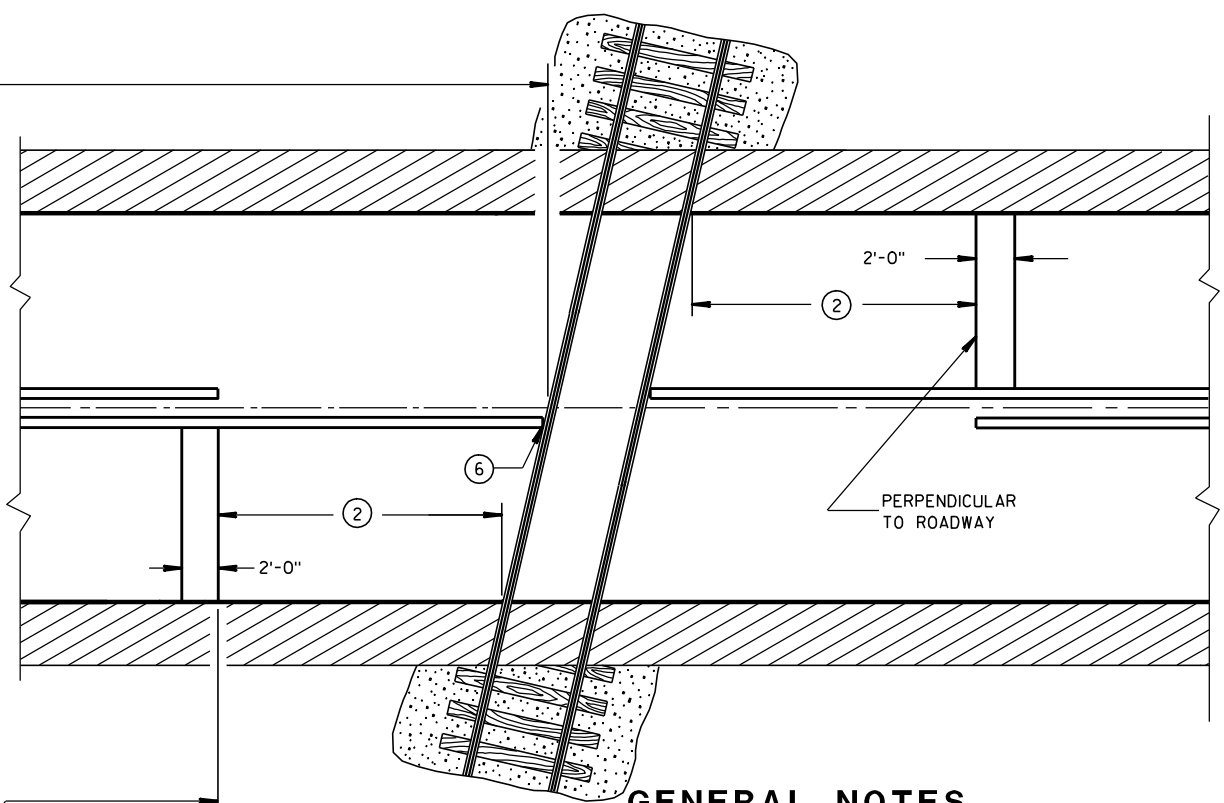
PREFERRED PAVEMENT MARKING



ALTERNATE PAVEMENT MARKING

Posted Speed (M.P.H.)	Dimension Range (Feet)
25	150*- 250
30	200*- 300
35	250*- 450
40	300*- 500
45	400*- 650
50	550*- 800
55	750*- 1000
60	1000*- 1250
65	1000*- 1250

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSE PROXIMITY OF DRIVEWAYS, BRIDGES, SIDEROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.



GENERAL NOTES

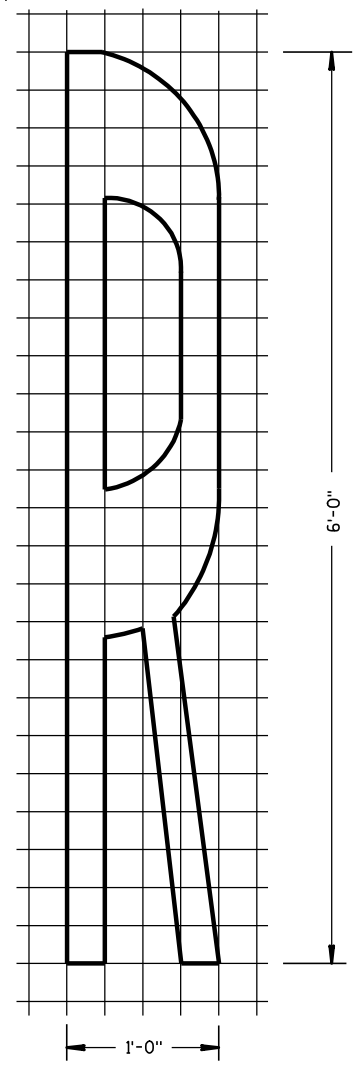
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A THREE-LANE ROADWAY SHOULD BE MARKED WITH A CENTERLINE FOR TWO-LANE APPROACH OPERATION ON THE APPROACH TO A CROSSING.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE. ALL LETTERS AND SYMBOLS SHALL BE IN CONFORMANCE WITH THE "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" (ADOPTED BY THE FEDERAL HIGHWAY ADMINISTRATION).

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

- 1 A PORTION OF THE PAVEMENT MARKING SYMBOL SHOULD BE DIRECTLY OPPOSITE THE ADVANCE WARNING SIGN (W10-1).
- 2 MINIMUM 8' FROM ANY RAILROAD WARNING DEVICES (SIGNALS, GATES, ETC.) OR 25' FROM THE NEAREST RAIL, WHICHEVER DISTANCE IS GREATER.
- 3 REFLECTIVE WHITE.
- 4 REFLECTIVE YELLOW 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.
- 5 TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 6 FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.







**SIGNING AND PAVEMENT MARKING
DETAILS FOR RAILROAD-HIGHWAY
GRADE CROSSINGS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
1-9-2012 /S/ Thomas N. Notbohm
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA

LEGEND

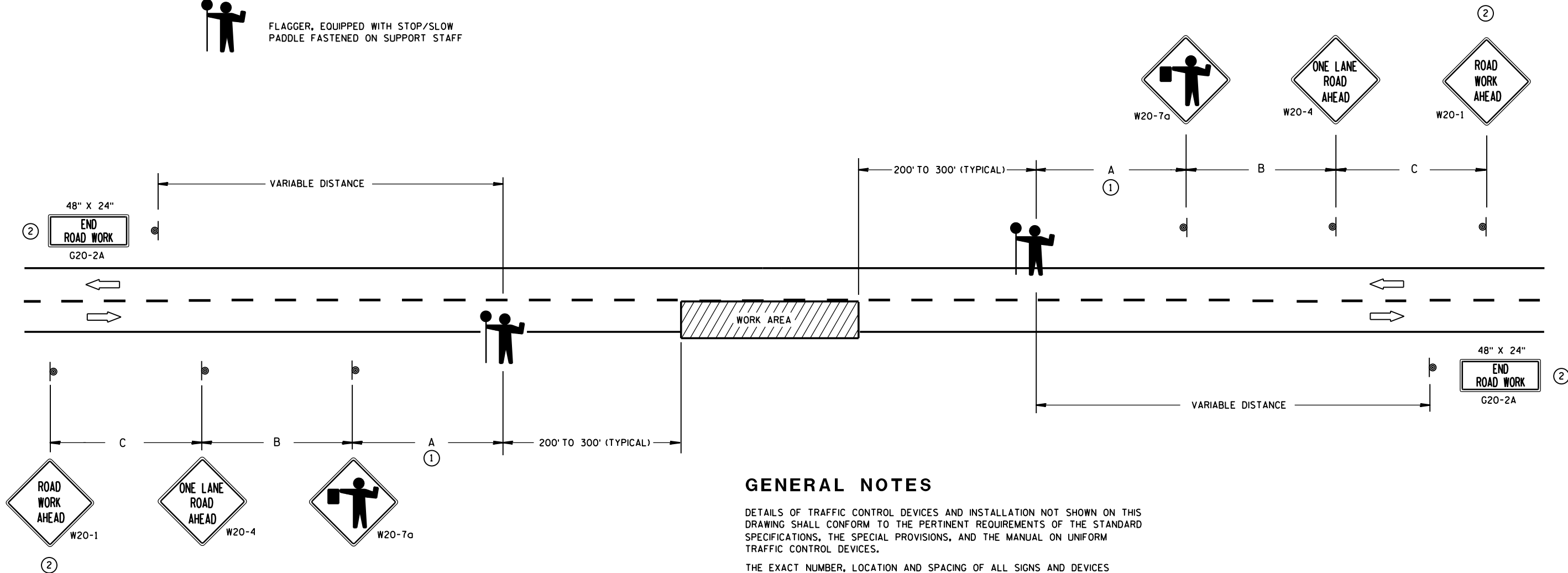
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

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.

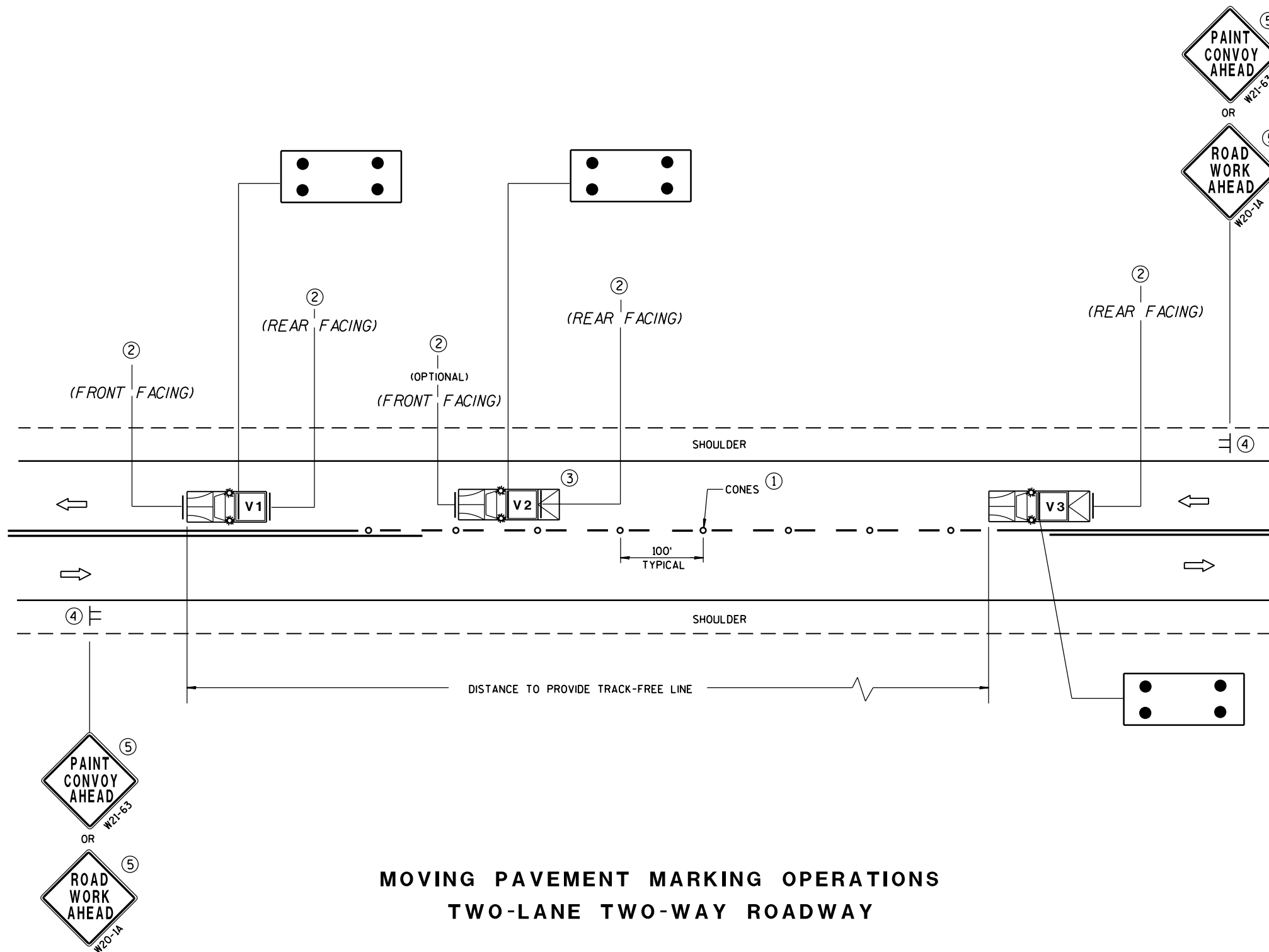
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

- 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.

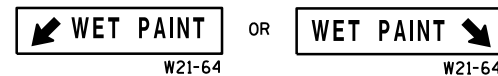
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

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)

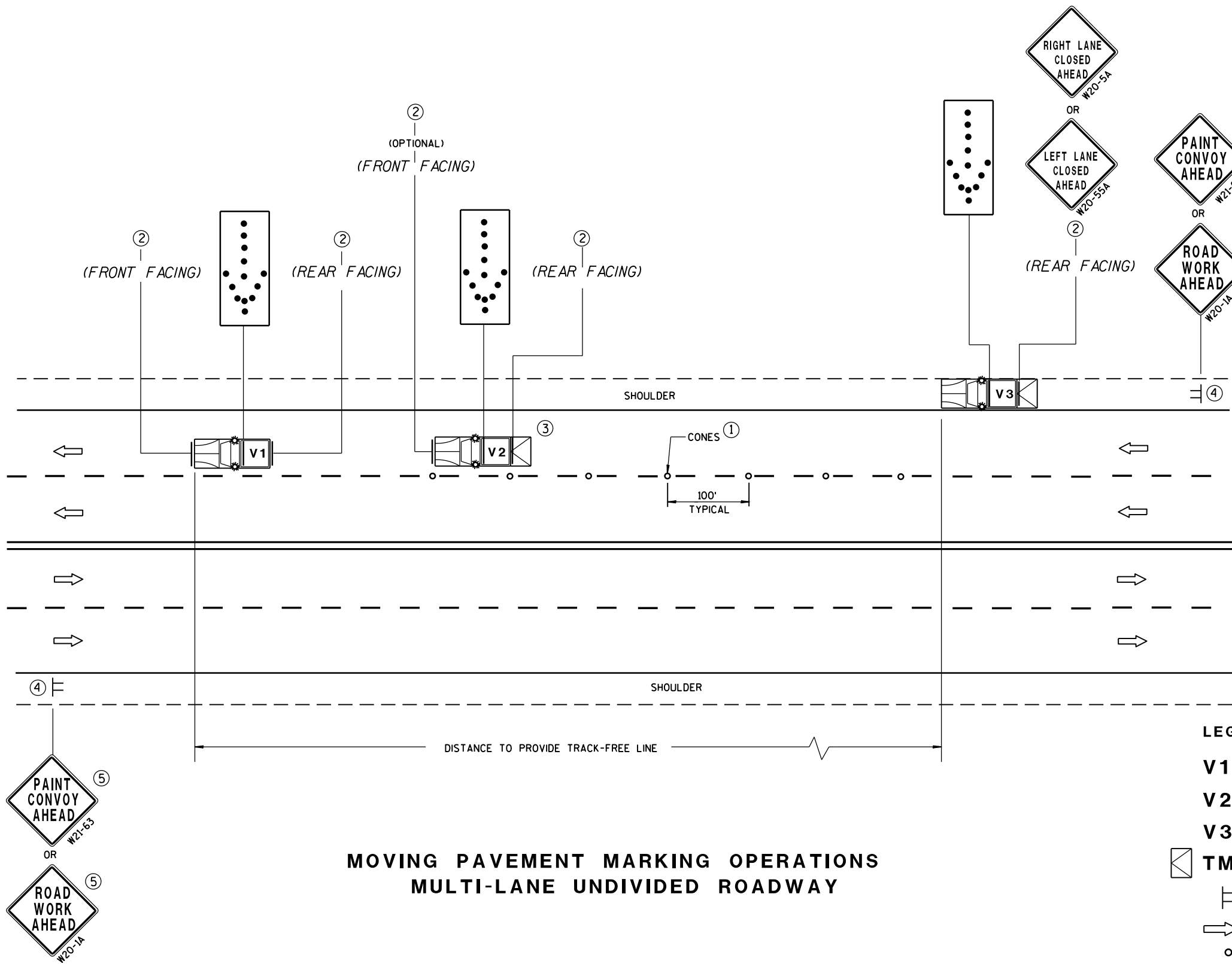
MOVING PAVEMENT MARKING
OPERATION
TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

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

FHWA



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE UNDIVIDED 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.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. 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.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.



WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.





FOR EDGE LINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH.

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

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGE LINE OR LANELINE MARKING FOR MULTILANE UNDIVIDED ROADWAYS.

- ① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.
- ② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.
 OR 
W21-64 W21-64
- 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.

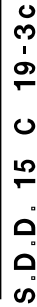
LEGEND

- 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 (MERGE)

MOVING PAVEMENT MARKING
OPERATION
MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER



APPROVED	
Sept. 2015	/S/ Peter Amakobe Atepe
DATE	STATEWIDE WORK ZONE TRAFFIC
	SAFETY ENGINEER
FHWA	

GENERAL NOTES

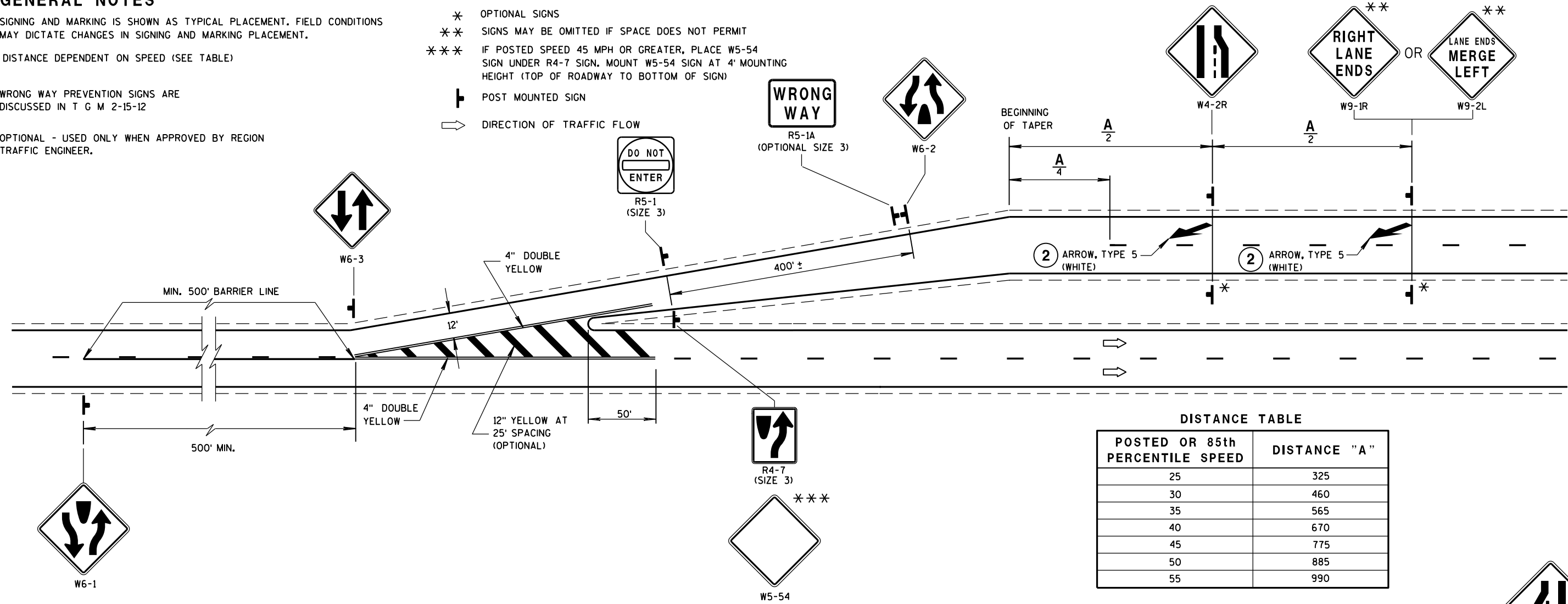
SIGNING AND MARKING IS SHOWN AS TYPICAL PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGNING AND MARKING PLACEMENT.

A DISTANCE DEPENDENT ON SPEED (SEE TABLE)

- 1 WRONG WAY PREVENTION SIGNS ARE DISCUSSED IN T G M 2-15-12
- 2 OPTIONAL - USED ONLY WHEN APPROVED BY REGION TRAFFIC ENGINEER.

SYMBOLS

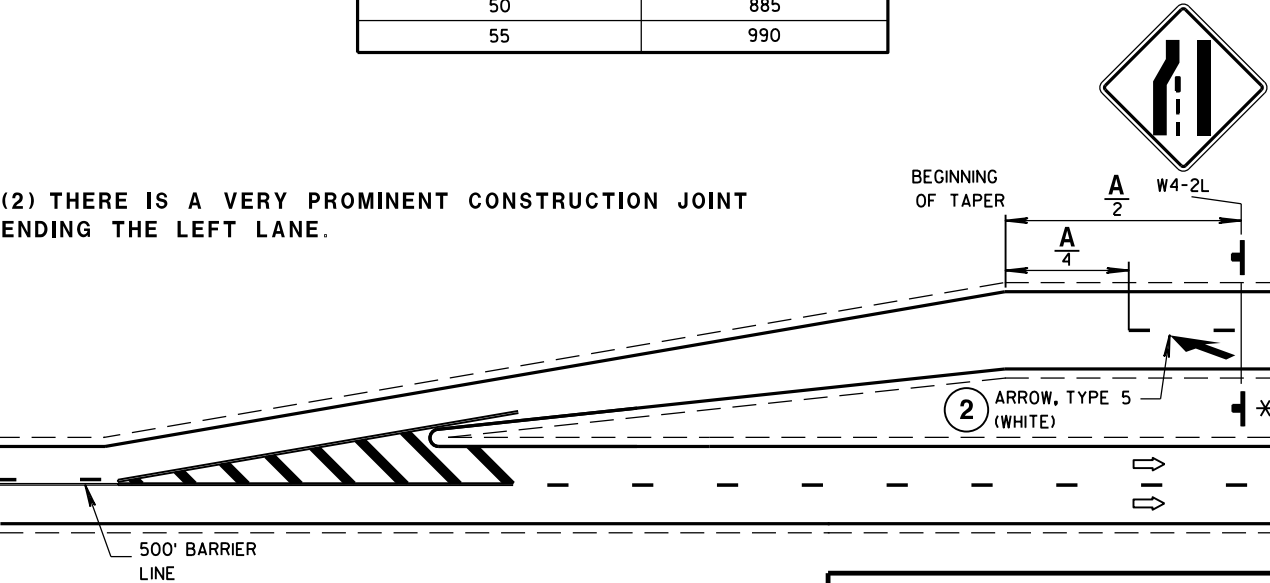
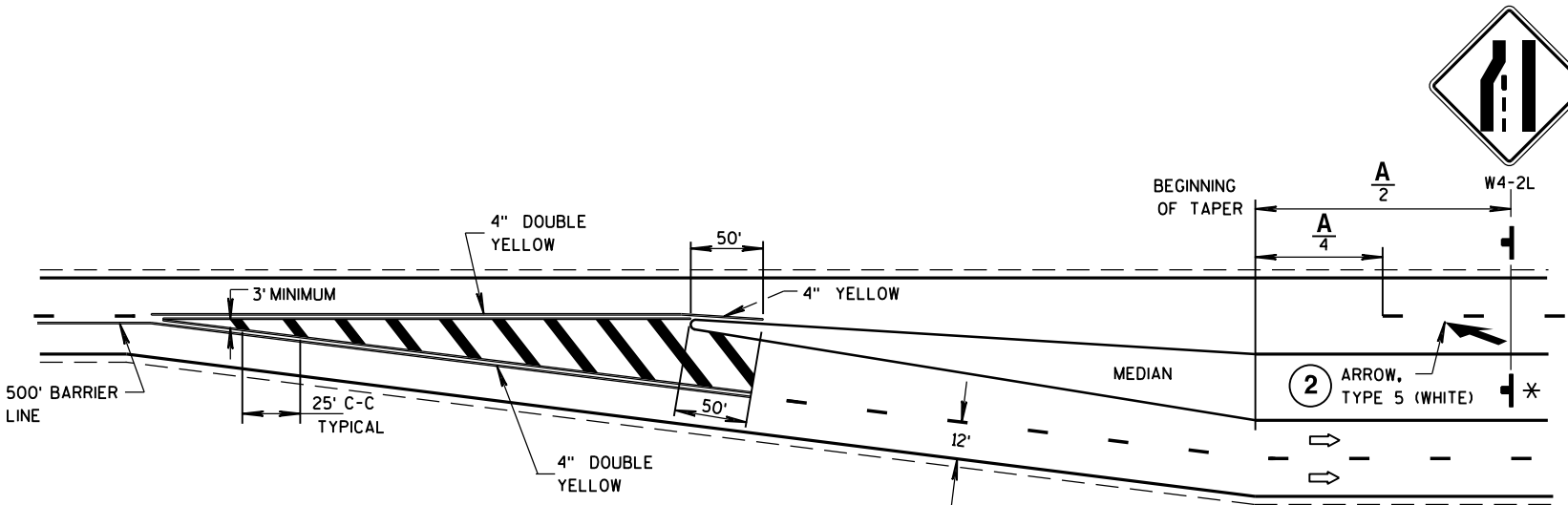
- * OPTIONAL SIGNS
- ** SIGNS MAY BE OMITTED IF SPACE DOES NOT PERMIT
- *** IF POSTED SPEED 45 MPH OR GREATER, PLACE W5-54 SIGN UNDER R4-7 SIGN. MOUNT W5-54 SIGN AT 4' MOUNTING HEIGHT (TOP OF ROADWAY TO BOTTOM OF SIGN)
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW



(1) THE LEFT LANE IS PUSHED TO THE RIGHT:

USE W4-2L IF :
OR

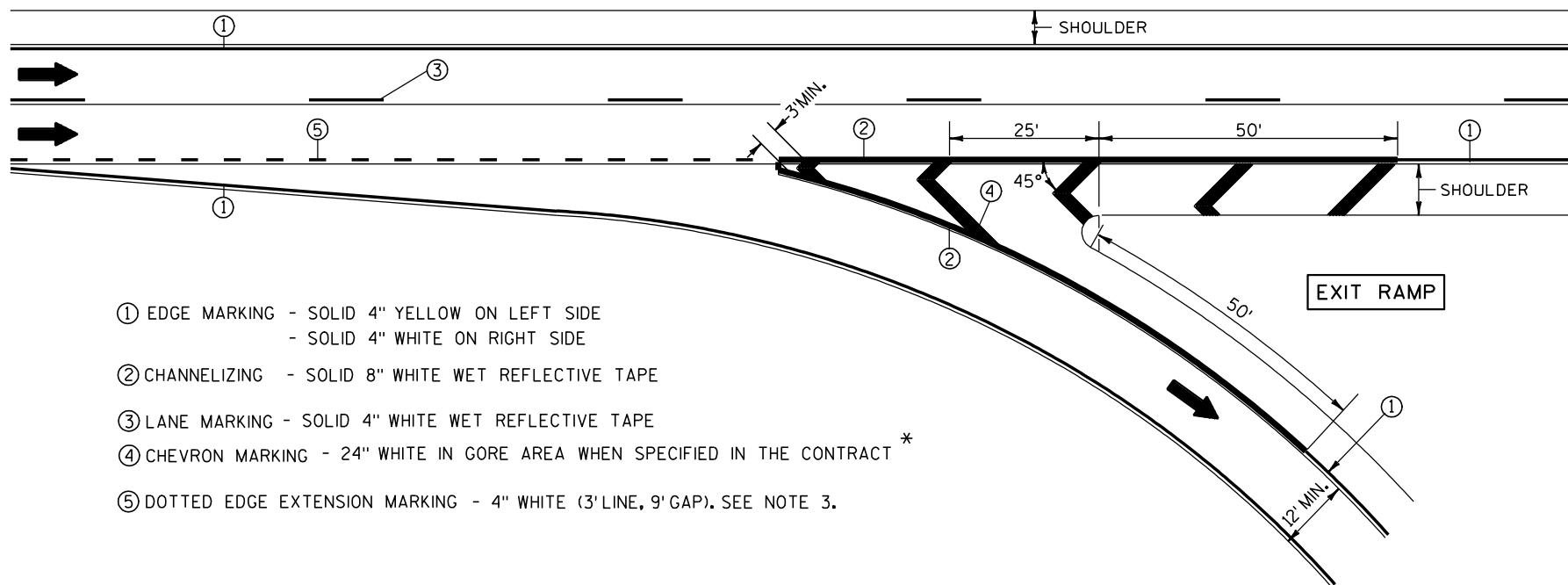
(2) THERE IS A VERY PROMINENT CONSTRUCTION JOINT ENDING THE LEFT LANE.



SIGNING AND MARKING
TWO LANE TO FOUR LANE
DIVIDED TRANSITIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA

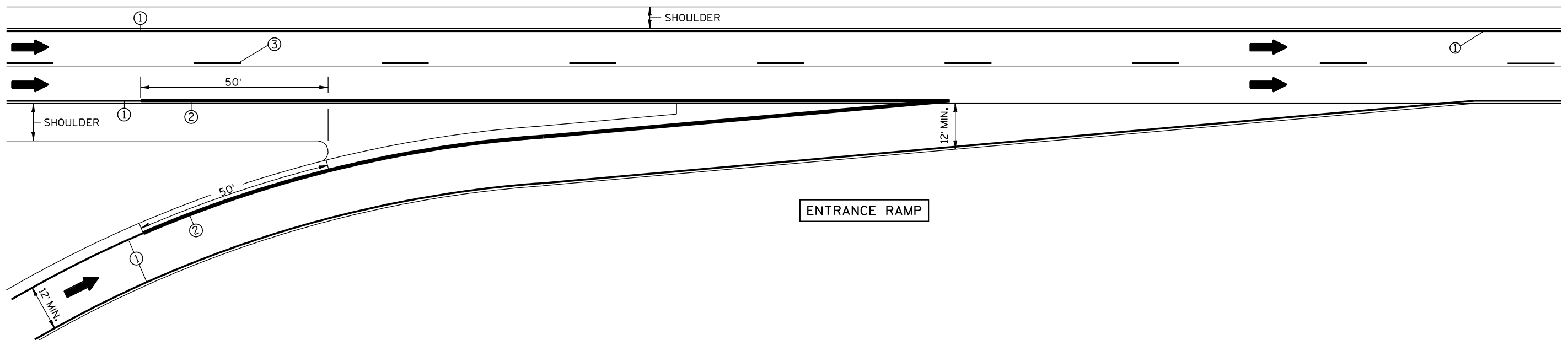


- ① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE
- ② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE
- ③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE
- ④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *
- ⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

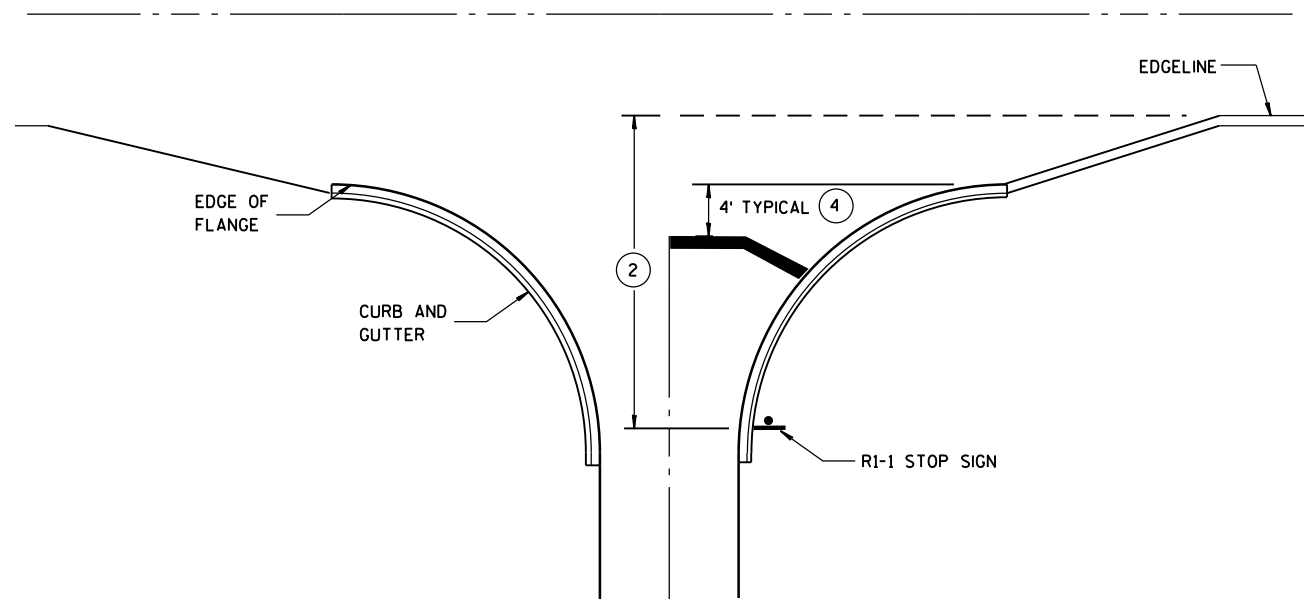
- 1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
- 2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.
- 3. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- 4. RETRACE EXISTING DIAGONAL MARKINGS.

* REFER TO DESIGN NOTES.

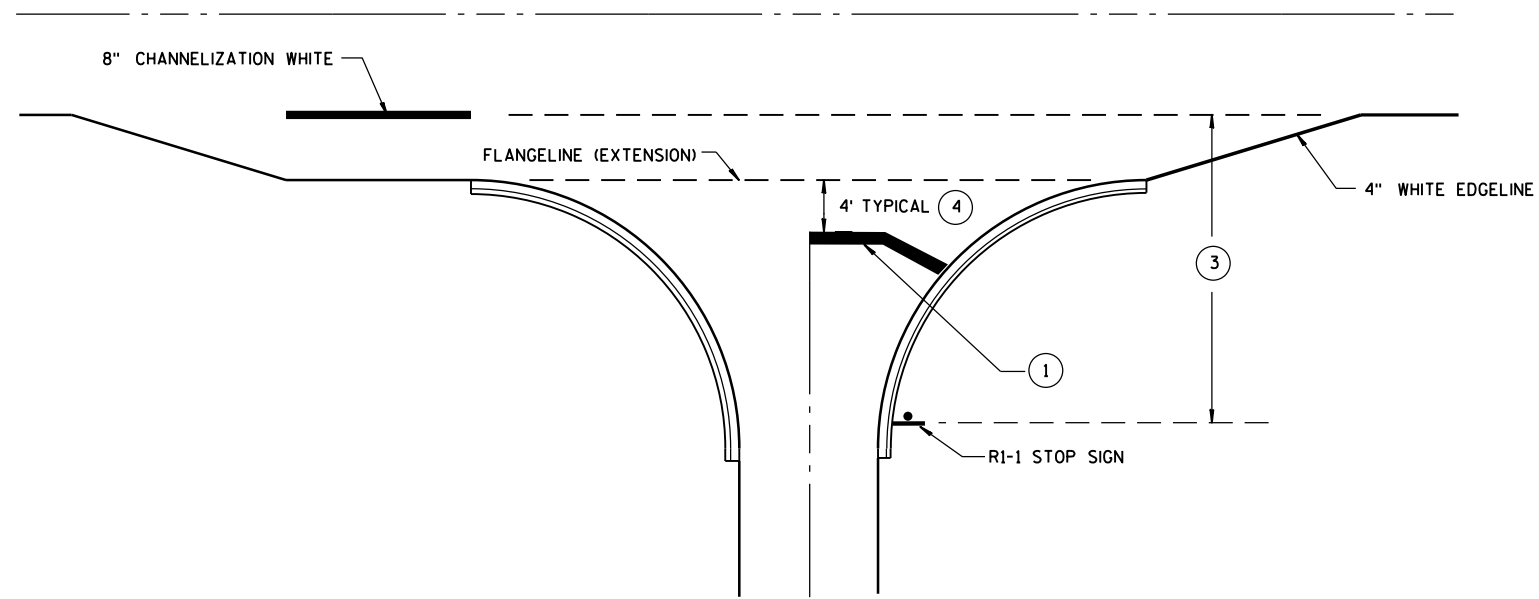


PAVEMENT MARKING
(RAMPS AND GORES)

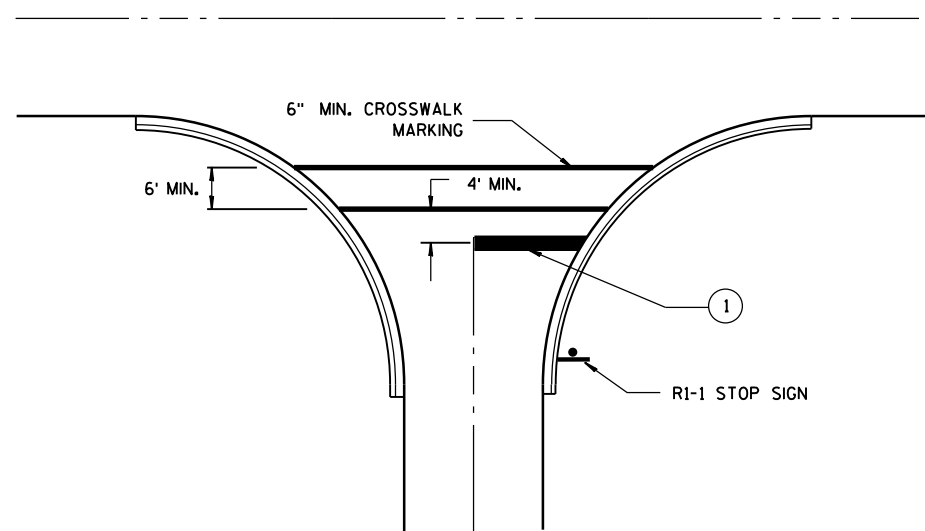
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



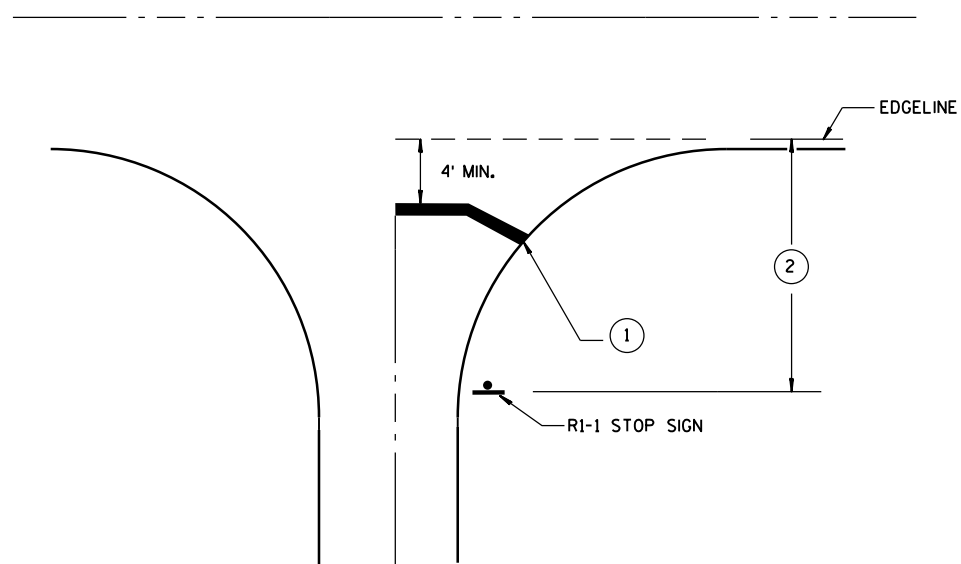
**TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER**



**TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE**



**TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING**



**TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER**

GENERAL NOTES

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

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

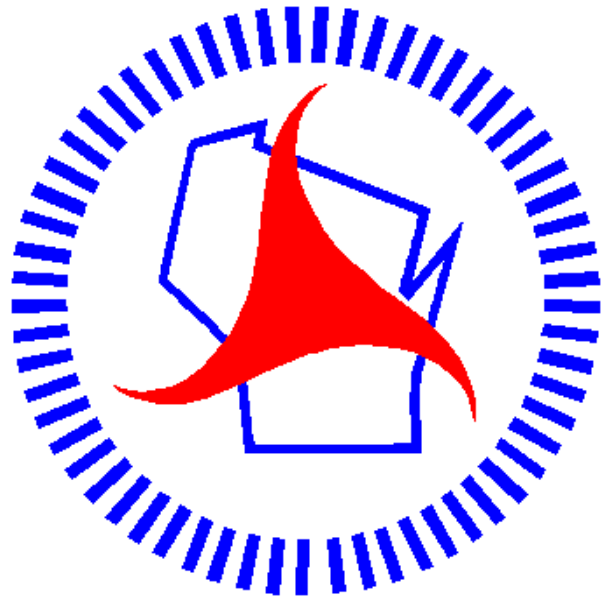
APPROVED

4/30/2013
DATE

FHWA

/S/ Travis Feltz
STATE TRAFFIC ENGINEER

Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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