LAX

PROJECT ID: **5865-02-65**

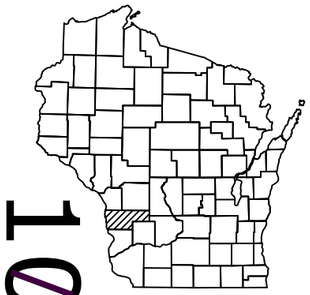
WITH: N/A

COUNTY: **VERNON**

APRIL 2022
ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes Erosion Control Plan)
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 = 46



10

N

DESIGN DESIGNATION

A.A.D.T.	(2022)	=	990
A.A.D.T.	(2042)	=	990
D.H.V.		=	90
D.D.		=	60/40
T.		=	15 %
DESIGN SPEED		=	55 MPH
ESALS		=	350,000

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 (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STODDARD - COON VALLEY

CTH KK TO USH 14

STH 162

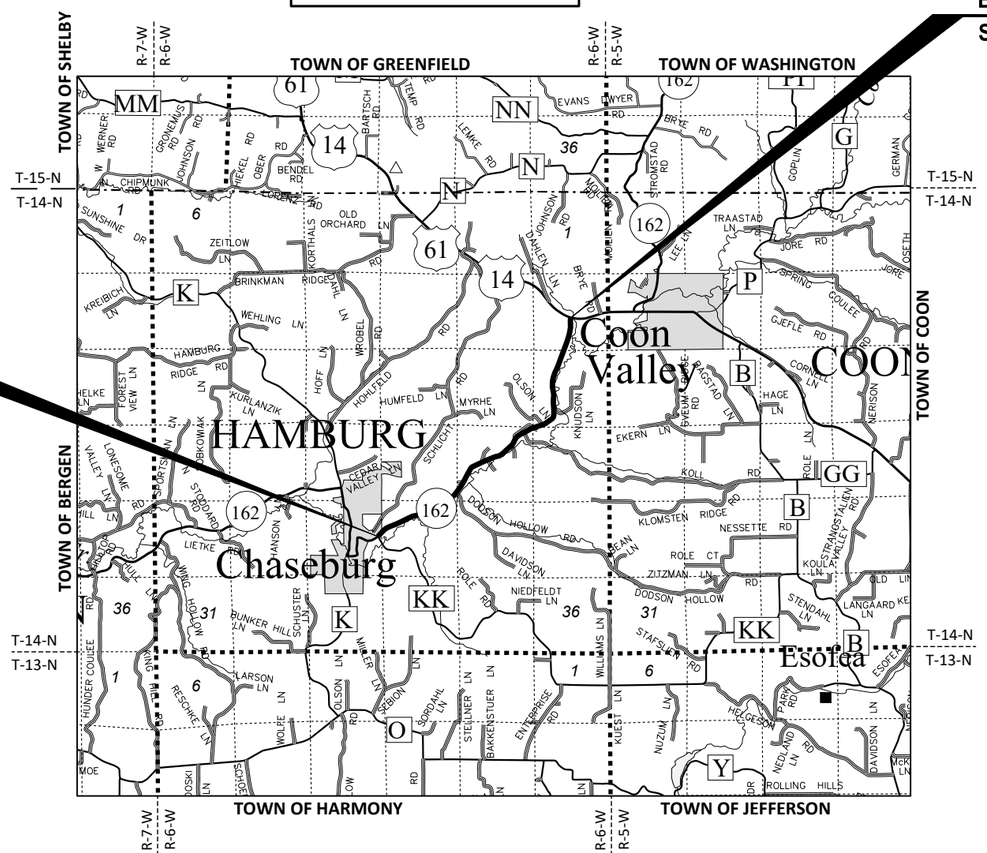
VERNON COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5865-02-65	WISC 2022291	1

STATE PROJECT NUMBER
5865-02-65

BEGIN PROJECT
STA. 10+00
Y = 186,775.47
X = 648,607.72

END PROJECT
STA. 234+57.54



LAYOUT
SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 4.253 MI

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

ELEVATION SHOWN ON THIS PLAN ARE REFERENCE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

ORIGINAL PLANS PREPARED BY

JEWELL
associates engineers, inc
Engineers - Architects - Surveyors

WISCONSIN
DANIEL J. TRACY
E-47578-6
MUSCODA, WI
PROFESSIONAL ENGINEER

Dan Tracy
10/25/2021

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	JEWELL ASSOCIATES ENGINEERS, INC.
Designer	JEWELL ASSOCIATES ENGINEERS, INC.
Project Manager	JOHN BAINTER, P.E.
Regional Examiner	SW REGION
Regional Supervisor	JAMES SAVOLDELLI, P.E.

APPROVED FOR THE DEPARTMENT
DATE: 10/13/2021 (Signature)

E

GENERAL NOTES

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.

EXISTING SHOULDER AGGREGATE SHALL BE INCORPORATED INTO THE NEW SHOULDERS UNLESS OTHERWISE DIRECTED BY THE ENGINEER IN THE FIELD.

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

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A VERTICAL EDGE MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

HMA PAVEMENT QUANTITIES WERE CALCULATED USING 112 LB/SY/IN.

2-INCHES OF HMA PAVEMENT SHALL BE CONSTRUCTED WITH A SINGLE 2-INCH LAYER OF HMA PAVEMENT 4 LT 58-28 S.

PAVING LIMITS AT INTERSECTIONS ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE EXACT LOCATIONS AND LIMITS OF PRIVATE ENTRANCES, COMMERCIAL, AND FIELD ENTRANCES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

IF CONTRACTOR ELECTS TO USE SAWCUTS WHERE REMOVING ASPHALTIC SURFACE BUTT JOINTS IS REQUIRED, IT IS INCIDENTAL TO REMOVING ASPHALTIC SURFACE BUTT JOINTS ITEM.

APPLY TACK COAT TO MILLED SURFACE PRIOR TO PLACEMENT OF HMA PAVEMENT AT A RATE OF 0.07 GAL/SY.

THE LOW SIDE SHOULDER SLOPE ON SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION WHEN THE SUPERELEVATION IS GREATER THAN 0.04 FT./FT. IF THE SUPERELEVATION IS LESS THAN OR EQUALS 0.04 FT./FT., THEN THE LOW SIDE SHOULDER SLOPE IS 0.04 FT./FT. THE HIGH SIDE SHOULDER SLOPE ON THE SUPERELEVATED SECTION EQUALS THE SUPERELEVATION.

CURVE DATA IS BASED ON THE ARC DEFINITION.

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO "DIGGERS HOTLINE" AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

IF THERE ARE UTILITY CONFLICTS WITH SIGNS OR OTHER WORK UNDER THIS PROJECT, THE CONTRACTOR WILL WORK AROUND THE UTILITY FACILITIES.

CONTACTS

WISCONSIN DEPARTMENT OF TRANSPORTATION:

WisDOT PROJECT MANAGER
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
ATTN: JOHN BAINTER, P.E.
PH: (608) 785-9729
CELL: (608) 518-0033
EMAIL: John.bainter@dot.wi.gov

DESIGN CONSULTANT:

JEWELL ASSOCIATES ENGINEERS, INC.
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
ATTN: DAN TRACY, P.E.
PH: (608) 459-6052
CELL: (608) 604-6905
EMAIL: dan.tracy@jewellassoc.com

WDNR LIAISON:

STATE OF WISCONSIN
DNR SERVICE CENTER
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
ATTN: KAREN KALVELAGE
PH: (608) 406-7880
EMAIL: Karen.Kalvelage@wisconsin.gov

UTILITIES

COMMUNICATION LINE

COON VALLEY FARMERS TELEPHONE CO.
ATTN: TRAVIS FRONK
105 CENTRAL AVE
COON VALLEY, WI 54623
CELL: (608) 452-3101
EMAIL: bradpeters@mwt.net

COON VALLEY TELECOMMUNICATIONS INC.
ATTN: TRAVIS FRONK
105 CENTRAL AVE
COON VALLEY, WI 54623
CELL: (608) 452-3101
EMAIL: bradpeters@mwt.net

MEDIACOM WISCONSIN, LLC.
ATTN: CRAIG EGGERT
1240 HIGHWAY 52 SOUTH
CHATFIELD, MN 55923
OFFICE: (563) 419-5160
EMAIL: ceggert@mediacomcc.com

ELECTRICITY

XCEL ENERGY
ATTN: JOE MOEN
3215 COMMERCE ST
LA CROSSE, WI 54603
CELL: (715) 566-2495
EMAIL: joe.j.moen@xcelenergy.com

ELECTRICITY - TRANSMISSION

XCEL ENERGY
ATTN: MITCHELL DIENGER
414 NICOLLET MALL, 5TH FLOOR
MINNEAPOLIS, MN 55401
OFFICE: (612) 321-3109
EMAIL: mitchell.a.dienger@xcelenergy.com

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

LIST OF STANDARD ABBREVIATIONS

ABUT	Abutment	INV	Invert	RDWY	Roadway
AC	Acre	IP	Iron Pipe or Pin	SALV	Salvaged
AGG	Aggregate	IRS	Iron Rod Set	SAN S	Sanitary Sewer
AH	Ahead	JT	Joint	SEC	Section
<	Angle	JCT	Junction	SHLDR	Shoulder
ASPH	Asphaltic	LHF	Left-Hand Forward	SHR	Shrinkage
AVG	Average	L	Length of Curve	SW	Sidewalk
ADT	Average Daily Traffic	LIN FT or LF	Linear Foot	S	South
BAD	Base Aggregate Dense	LC	Long Chord of Curve	SQ	Square
BK	Back	MH	Manhole	SF or SQ FT	Square Feet
BF	Back Face	MB	Mailbox	SY or SQ YD	Square Yard
BM	Bench Mark	ML or M/L	Match Line	STD	Standard
BR	Bridge	N	North	SDD	Standard Detail Drawings
C or C/L	Center Line	Y	North Grid Coordinate	STH	State Trunk Highways
CC	Center to Center	OD	Outside Diameter	STA	Station
C.E.	Commercial Entrance	PLE	Permanent Limited Easement	SS	Storm Sewer
CTH	County Trunk Highway	PT	Point	SG	Subgrade
CR	Creek	PC	Point of Curvature	SE	Superelevation
CR	Crushed	PI	Point of Intersection	SL or S/L	Survey Line
CY or CU YD	Cubic Yard	PRC	Point of Reverse Curvature	SV	Septic Vent
CP	Culvert Pipe	PT	Point of Tangency	T	Tangent
C & G	Curb and Gutter	POC	Point On Curve	TEL	Telephone
D	Degree of Curve	POT	Point on Tangent	TEMP	Temporary
DHV	Design Hour Volume	PVC	Polyvinyl Chloride	TI	Temporary Interest
DIA	Diameter	PCC	Portland Cement Concrete	TLE	Temporary Limited Easement
E	East	LB	Pound	t	Ton
X	East Grid Coordinate	PSI	Pounds Per Square Inch	T or TN	Town
ELEC	Electric (al)	P.E.	Private Entrance	TRANS	Transition
EL or ELEV	Elevation	R	Radius	TL or T/L	Transit Line
ESALS	Equivalent Single Axle Loads	RR	Railroad	T	Trucks (percent of)
EBS	Excavation Below Subgrade	R	Range	TYP	Typical
FF	Face to Face	RL or R/L	Reference Line	UNCL	Unclassified
F.E.	Field Entrance	RP	Reference Point	UG	Underground Cable
F	Fill	RCCP	Reinforced Concrete Culvert Pipe	USH	United States Highway
FG	Finished Grade	REQD	Required	VAR	Variable
FL or F/L	Flow Line	RES	Residence or Residential	V	Velocity or Design Speed
FT	Foot	RW	Retaining Wall	VERT	Vertical
FTG	Footing	RT	Right	VC	Vertical Curve
GN	Grid North	RHF	Right-Hand Forward	VOL	Volume
HT	Height	R/W	Right-of-Way	WM	Water Main
CWT	Hundredweight	RD	Road	WV	Water Valve
HYD	Hydrant	R	River	W	West
INL	Inlet			WB	Westbound
ID	Inside Diameter			YD	Yard

ORDER OF SECTION 2 SHEETS:

- WRITTEN MATERIAL
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PLAN DETAILS

CONTROL POINTS

NO.	STA.	DESCRIPTION	Y	X	Z
1	58+50	¾" I.R.S., 29.4' LT.	188,920.01	652,884.15	697.39
2	110+70	¾" I.R.S., 33.9' RT.	192,248.57	656,616.25	701.33
3	163+53	¾" I.R.S., 36.8' RT.	195,100.10	660,917.72	732.25
4	215+76	¾" I.R.S., 30.0' LT.	200,165.90	661,722.99	710.63

2

VILLAGE OF CHASEBURG

BEGIN PROJECT
STA. 10+00

CTH KK

ENVIRONMENTALLY SENSITIVE AREA
47VE1303 (GILBERTSON)
APPROXIMATE BOUNDARY

FINISHED C/L STH 162

ENVIRONMENTALLY SENSITIVE AREA
47VE1306 (CORN COULEE)
APPROXIMATE BOUNDARY

WESTFIELD LN

DODSON HOLLOW RD

COON CREEK

ERNIES LN

PETERSON LN

MATCHLINE STA. 110+00

15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105

MATCHLINE STA. 110+00

ENVIRONMENTALLY SENSITIVE AREA
47VE531 (KNUDSON)
APPROXIMATE BOUNDARY

ENVIRONMENTALLY SENSITIVE AREA
47VE903 (BLIHOVDE SITE)
APPROXIMATE BOUNDARY

HAGEN LN

KOLL RD

PETTICOAT JCT (SOUTH)

PETTICOAT JCT (NORTH)

VALLEY CT

OLSON LN

ENVIRONMENTALLY SENSITIVE AREA
47VE999 (KOHL SITE)
APPROXIMATE BOUNDARY

ENVIRONMENTALLY SENSITIVE AREA
47VE1000(GILBERTSON TERRACE)
APPROXIMATE BOUNDARY

ENVIRONMENTALLY SENSITIVE AREA
47VE1305 (DRY GULLY)
APPROXIMATE BOUNDARY

ENVIRONMENTALLY SENSITIVE AREA
47VE745 (TERRY)
APPROXIMATE BOUNDARY

KNUDSON LN

COON CREEK

ENVIRONMENTALLY SENSITIVE AREA
47VE1024 (MAGGIE MAY)
APPROXIMATE BOUNDARY

ENVIRONMENTALLY SENSITIVE AREA
47VE987 (AMY KING SITE)
APPROXIMATE BOUNDARY

FINISHED C/L STH 162

ENVIRONMENTALLY SENSITIVE AREA
47VE776 (KING WEST)
APPROXIMATE BOUNDARY

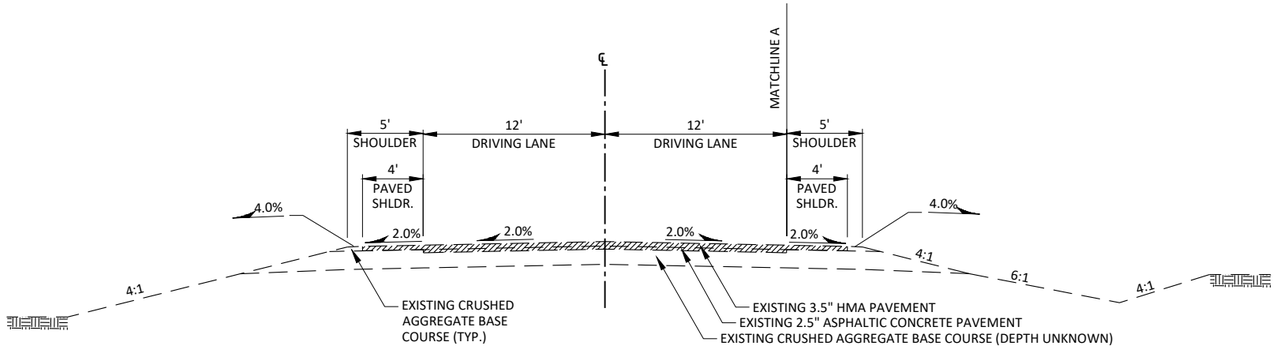
END PROJECT
STA. 234+57.54

USH 14

0 115 120 125 130 135 140 145 150 155 160 165 170 175 180 185 190 195 200 205 210 215 220 225 230

PROJECT NO: 5865-02-65	HWY: STH 162	COUNTY: VERNON	PROJECT OVERVIEW	SHEET	E

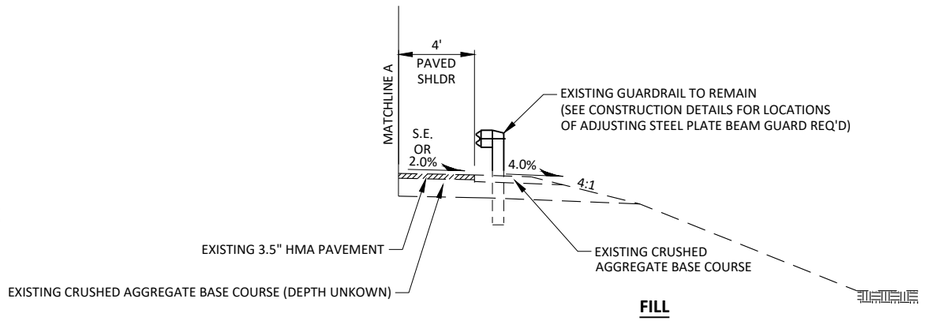
FILE NAME : S:\PROJECTS\W11629 WISDOT - STH 162 VERNON CO\SHEETSPLAN\DETAILS\W11629_OVERVIEW.DWG PLOT DATE : 10/25/2021 3:16:12 PM PLOT BY : TRACY, DAN PLOT SCALE : 1" = 1' LAYOUT : LAYOUT1



TYPICAL EXISTING SECTION

FILL **CUT**

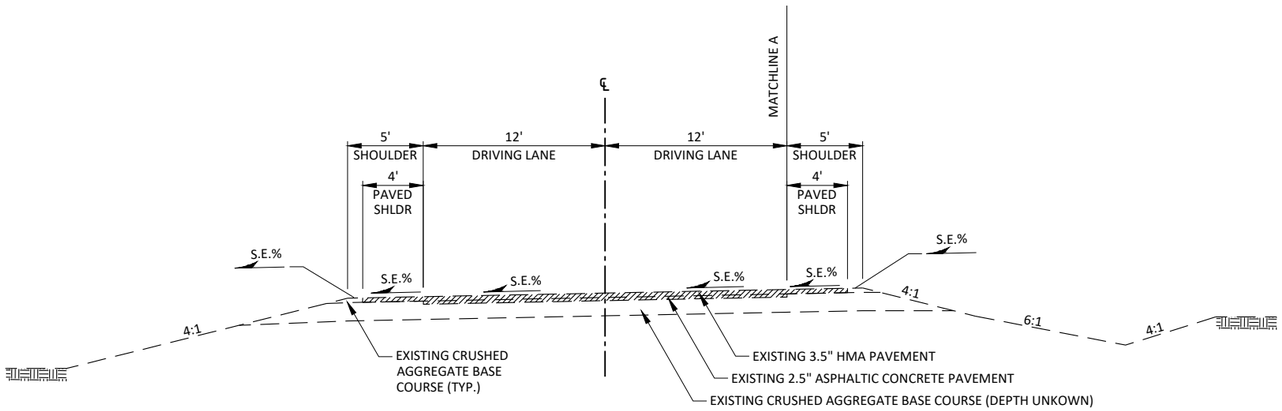
STA. 12+92 - STA. 15+45	STA. 149+56 - STA. 153+37
STA. 22+41 - STA. 36+61	STA. 157+98 - STA. 160+32
STA. 47+55 - STA. 58+31	STA. 166+64 - STA. 169+23
STA. 68+30 - STA. 78+34	STA. 171+93 - STA. 172+39
STA. 83+34 - STA. 92+32	STA. 200+26 - STA. 218+82
STA. 97+93 - STA. 110+83	STA. 222+48 - STA. 225+93
STA. 119+97 - STA. 125+61	STA. 230+05 - STA. 234+57.54
STA. 137+79 - STA. 144+49	



FILL

TYPICAL EXISTING PARTIAL BEAMGUARD SECTION

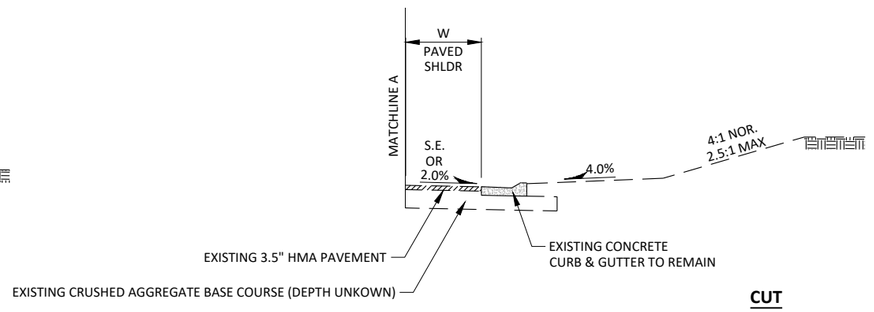
STA. 35+36 - STA. 37+40, RT.
STA. 111+82 - STA. 114+64, RT.



TYPICAL EXISTING SUPERELEVATED SECTION

FILL **CUT**

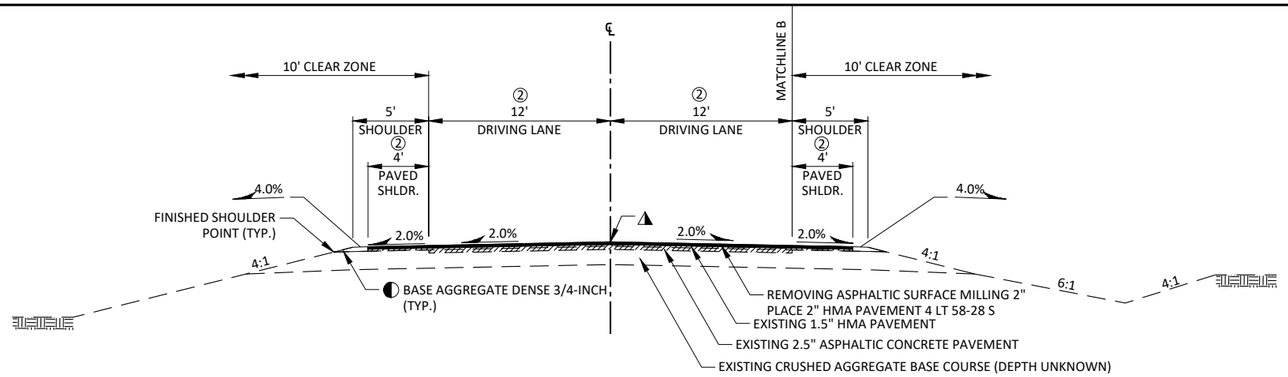
STA. 10+00 - STA. 12+92	STA. 144+49 - STA. 149+56
STA. 15+45 - STA. 22+41	STA. 153+37 - STA. 157+98
STA. 36+61 - STA. 47+55	STA. 160+32 - STA. 166+64
STA. 58+31 - STA. 68+30	STA. 169+23 - STA. 171+93
STA. 78+34 - STA. 83+34	STA. 172+39 - STA. 200+26
STA. 92+32 - STA. 97+93	STA. 218+82 - STA. 222+48
STA. 110+83 - STA. 119+97	STA. 225+93 - STA. 230+05
STA. 125+61 - STA. 137+79	



CUT

TYPICAL EXISTING PARTIAL CURB AND GUTTER SECTION

STA. - STA.	W (FT.)
STA. 58+24 - STA. 65+13, RT.	VARIES 2'-8'
STA. 68+93 - STA. 82+79, LT.	VARIES 2'-3'
STA. 91+86 - STA. 94+45, LT	4'
STA. 114+54 - STA. 118+05, LT.	VARIES 0'-3'
STA. 134+26 - STA. 146+87, LT.	4'
STA. 160+35 - STA. 172+02, LT	VARIES 2'-4'
STA. 182+91 - STA. 190+41, LT.	VARIES 5'-7'
STA. 196+16 - STA. 197+90, LT.	VARIES 5'-6'
STA. 201+91 - STA. 205+11, LT.	5'
STA. 224+77 - STA. 234+57.54, LT.	VARIES 3'-11'
STA. 229+86 - STA. 234+57.54, RT.	VARIES 2'-9'

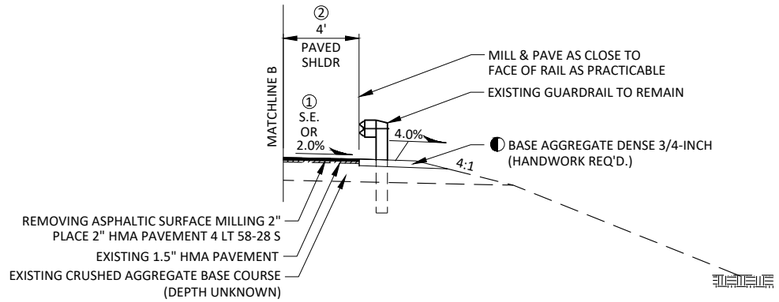


TYPICAL FINISHED SECTION

FILL

STA. 12+92 - STA. 15+45
STA. 22+41 - STA. 36+61
STA. 47+55 - STA. 58+31
STA. 68+30 - STA. 78+34
STA. 83+34 - STA. 92+32
STA. 97+93 - STA. 110+83
STA. 119+97 - STA. 125+61
STA. 137+79 - STA. 144+49
STA. 149+56 - STA. 153+37
STA. 157+98 - STA. 160+32
STA. 166+64 - STA. 169+23
STA. 171+93 - STA. 172+39
STA. 200+26 - STA. 218+82
STA. 222+48 - STA. 225+93
STA. 230+05 - STA. 234+57.54

CUT



FILL

TYPICAL PARTIAL FINISHED BEAMGUARD SECTION

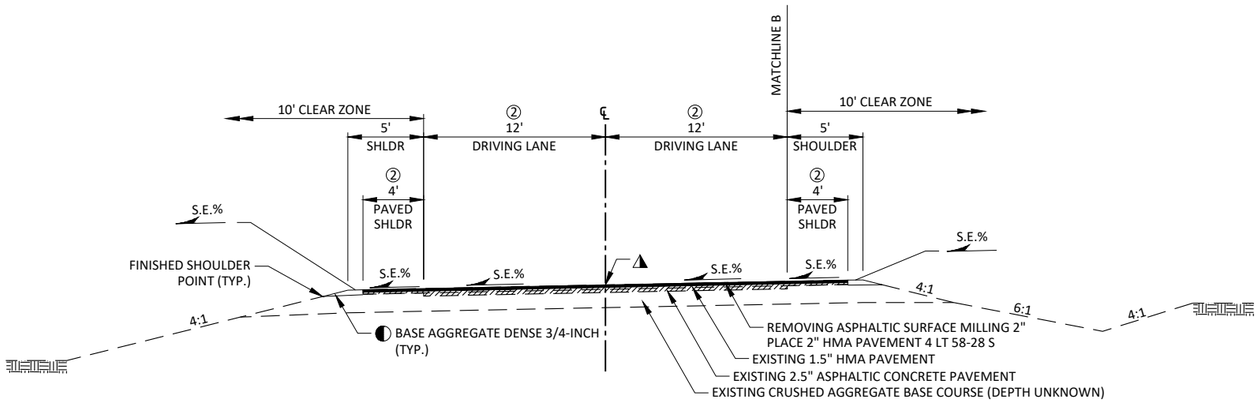
STA. 35+36 - STA. 37+40, RT.
STA. 111+82 - STA. 114+64, RT.

▲ ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL REQ'D.
SEE MISCELLANEOUS QUANTITIES AND STANDARD DETAIL DRAWINGS FOR DETAILS.

① SEE CONSTRUCTION DETAILS FOR LOCATIONS OF CROSS SLOPE CORRECTION

② PREPARE FOUNDATION FOR ASPHALTIC PAVING

◐ INCORPORATE EXISTING SHOULDER AGGREGATE TO GREATEST EXTENT PRACTICABLE PRIOR TO PLACEMENT OF BASE AGGREGATE DENSE 3/4-INCH

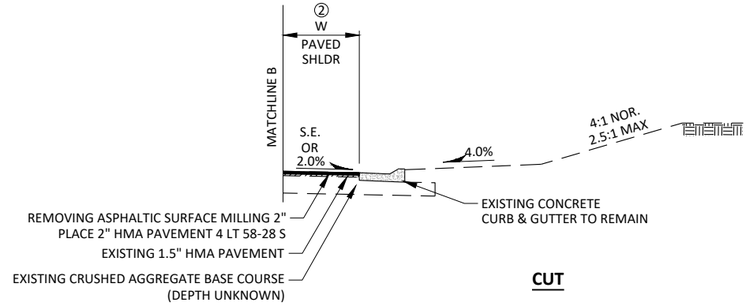


TYPICAL FINISHED SUPERELEVATED SECTION

FILL

STA. 10+00 - STA. 12+92
STA. 15+45 - STA. 22+41
STA. 36+61 - STA. 47+55
STA. 58+31 - STA. 68+30
STA. 78+34 - STA. 83+34
STA. 92+32 - STA. 97+93
STA. 110+83 - STA. 119+97
STA. 125+61 - STA. 137+79
STA. 144+49 - STA. 149+56
STA. 153+37 - STA. 157+98
STA. 160+32 - STA. 166+64
STA. 169+23 - STA. 171+93
STA. 172+39 - STA. 200+26
STA. 218+82 - STA. 222+48
STA. 225+93 - STA. 230+05

CUT



CUT

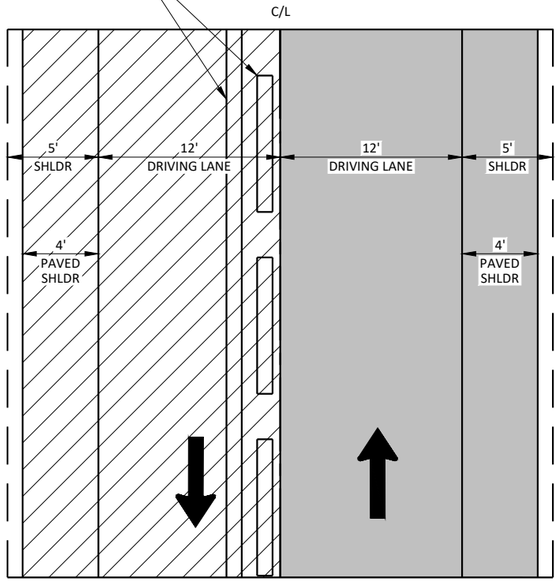
TYPICAL PARTIAL FINISHED CURB AND GUTTER SECTION

STA. - STA.	W (FT.)
STA. 58+24 - STA. 65+13, RT.	VARIES 2'-8'
STA. 68+93 - STA. 82+79, LT.	VARIES 2'-3'
STA. 91+86 - STA. 94+45, LT	4'
STA. 114+54 - STA. 118+05, LT.	VARIES 0'-3'
STA. 134+26 - STA. 146+87, LT.	4'
STA. 160+35 - STA. 172+02, LT	VARIES 2'-4'
STA. 182+91 - STA. 190+41, LT.	VARIES 5'-7'
STA. 196+16 - STA. 197+90, LT.	VARIES 5'-6'
STA. 201+91 - STA. 205+11, LT.	5'
STA. 224+77 - STA. 234+57.54, LT.	VARIES 3'-11'
STA. 229+86 - STA. 234+57.54, RT.	VARIES 2'-9'

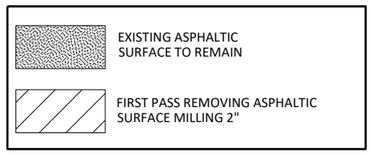
PROJECT NO: 5865-02-65	HWY: STH 162	COUNTY: VERNON	TYPICAL FINISHED SECTIONS	SHEET 5	E

2

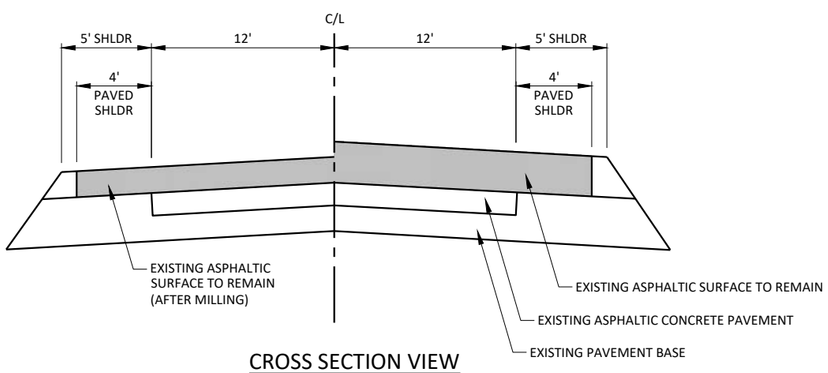
TEMPORARY MARKING LINE PAINT 4-INCH TO BE PLACED ON MILLED SURFACE SAME DAY AS MILLING OPERATION



PLAN VIEW



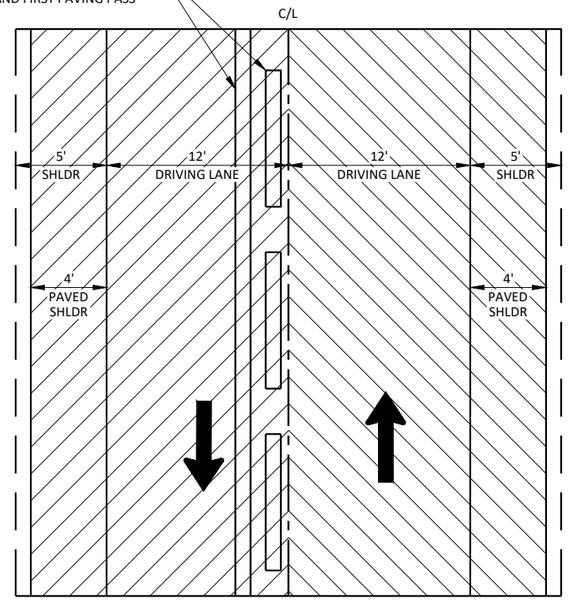
NOTE: REFER TO STANDARD DETAIL DRAWING "LONGITUDINAL MARKING (MAINLINE)" FOR ADDITIONAL INFORMATION



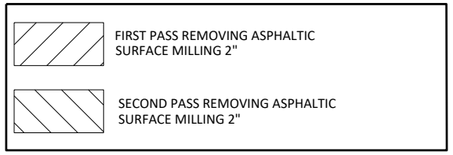
CROSS SECTION VIEW

FIRST MILLING PASS DETAIL

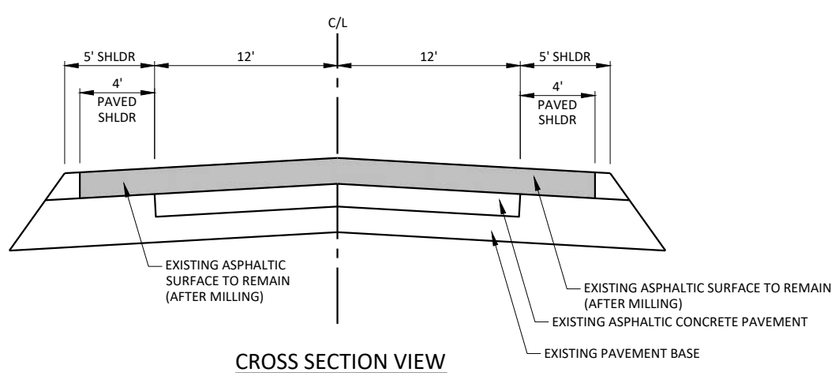
TEMPORARY MARKING LINE PAINT 4-INCH PLACED AFTER FIRST MILLING PASS TO REMAIN FOR SECOND MILLING PASS AND FIRST PAVING PASS



PLAN VIEW



NOTE: REFER TO STANDARD DETAIL DRAWING "LONGITUDINAL MARKING (MAINLINE)" FOR ADDITIONAL INFORMATION



CROSS SECTION VIEW

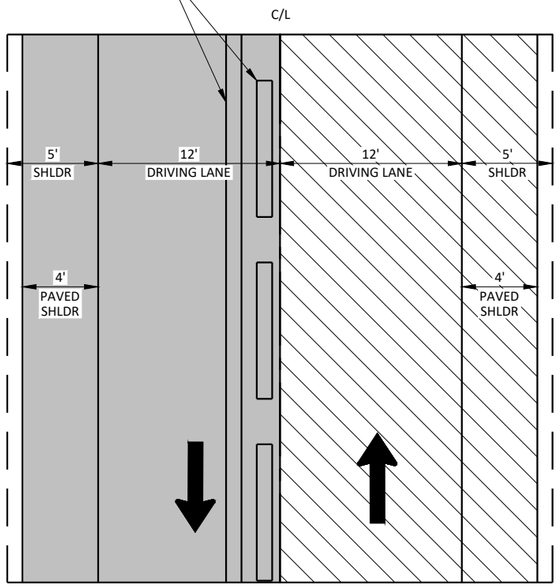
SECOND MILLING PASS DETAIL

2

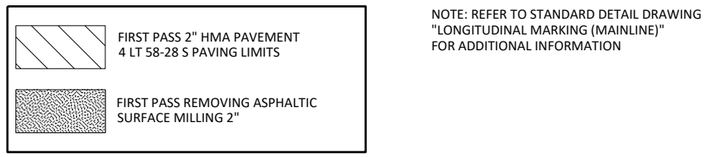
PROJECT NO: 5865-02-65	HWY: STH 162	COUNTY: VERNON	CONSTRUCTION DETAILS: PAVING SEQUENCE OF OPERATIONS	SHEET 6	E

FILE NAME : S:\PROJECTS\W11629 WISDOT - STH 162 VERNON CO\SHEETSPLAN\DETAILS\W11629_CONSTRUCTION DETAILS.DWG PLOT DATE : 10/25/2021 3:16:30 PM PLOT BY : TRACY, DAN PLOT SCALE : 1" = 1' LAYOUT : PAVING SEQUENCE 1

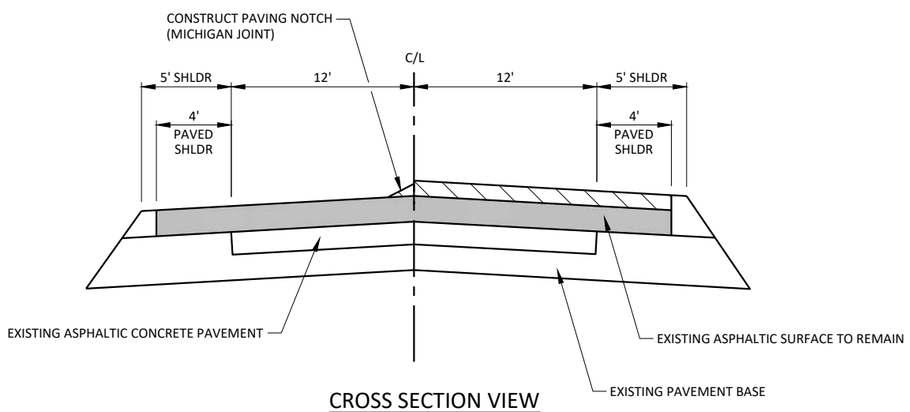
TEMPORARY MARKING LINE PAINT 4-INCH PLACED AFTER FIRST MILLING PASS TO REMAIN FOR SECOND MILLING PASS AND FIRST PAVING PASS



PLAN VIEW



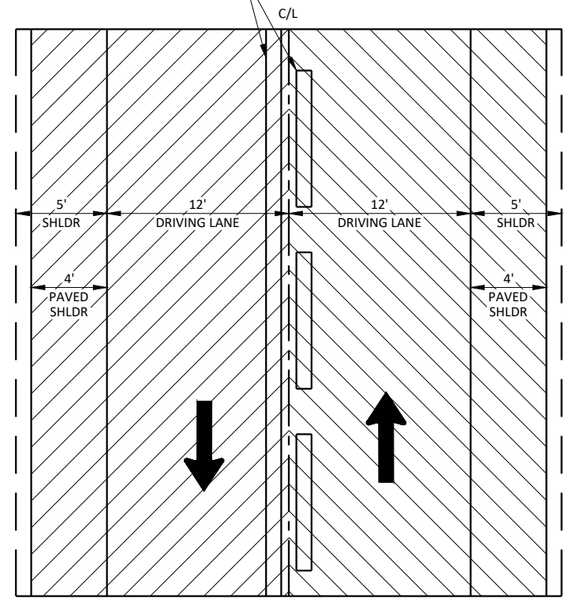
NOTE: REFER TO STANDARD DETAIL DRAWING "LONGITUDINAL MARKING (MAINLINE)" FOR ADDITIONAL INFORMATION



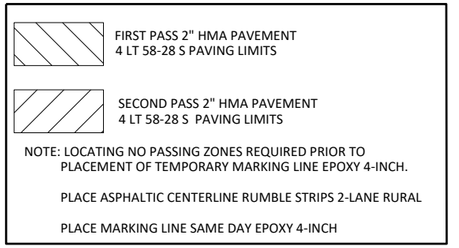
CROSS SECTION VIEW

FIRST PAVING PASS DETAIL

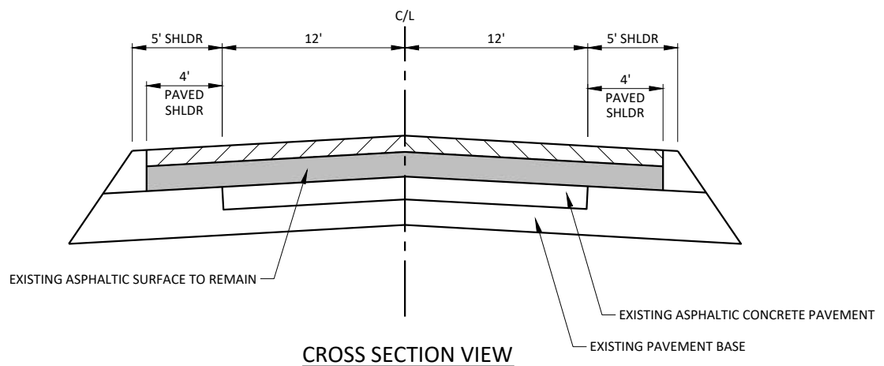
TEMPORARY MARKING LINE EPOXY 4-INCH TO BE PLACED SAME DAY AS PAVING OPERATION.



PLAN VIEW

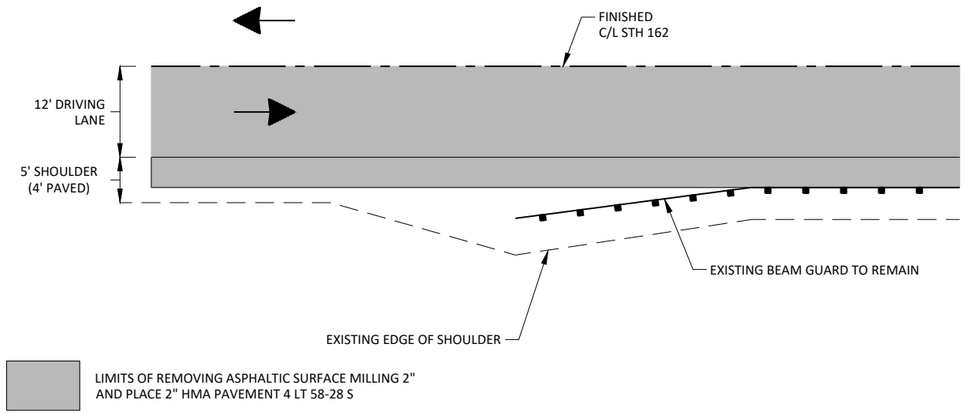


NOTE: REFER TO STANDARD DETAIL DRAWING "LONGITUDINAL MARKING (MAINLINE)" FOR ADDITIONAL INFORMATION

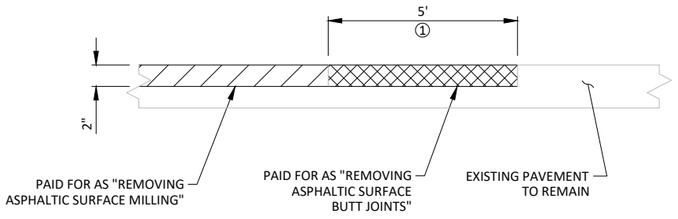


CROSS SECTION VIEW

SECOND PAVING PASS DETAIL



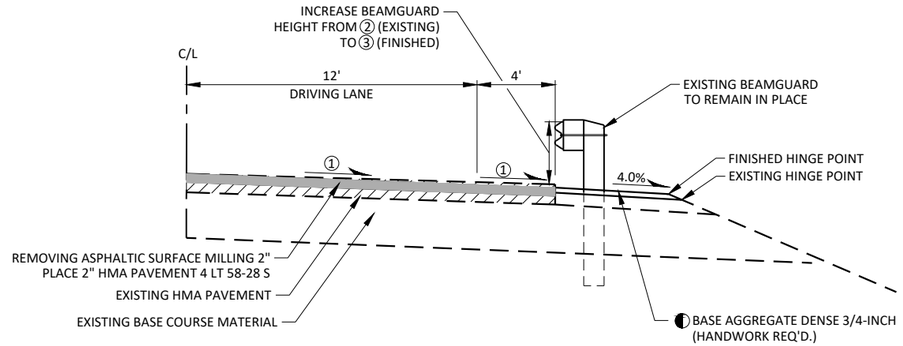
BEAM GUARD PAVING DETAIL



REMOVING ASPHALTIC SURFACE BUTT JOINTS DETAIL

STA. 10+00	PETTICOAT JCT (SOUTH)
CTH KK	KOLL RD
DODSON HOLLOW RD	PETTICOAT JCT (NORTH)
WESTFIELD LN	VALLEY CT
ERNIES LN	OLSON RD
PETERSON LN	KNUDSON LN
HAGEN LN	STA. 234+57.54

① LIMITS OF REMOVING ASPHALTIC SURFACE BUTT JOINTS REQ'D.

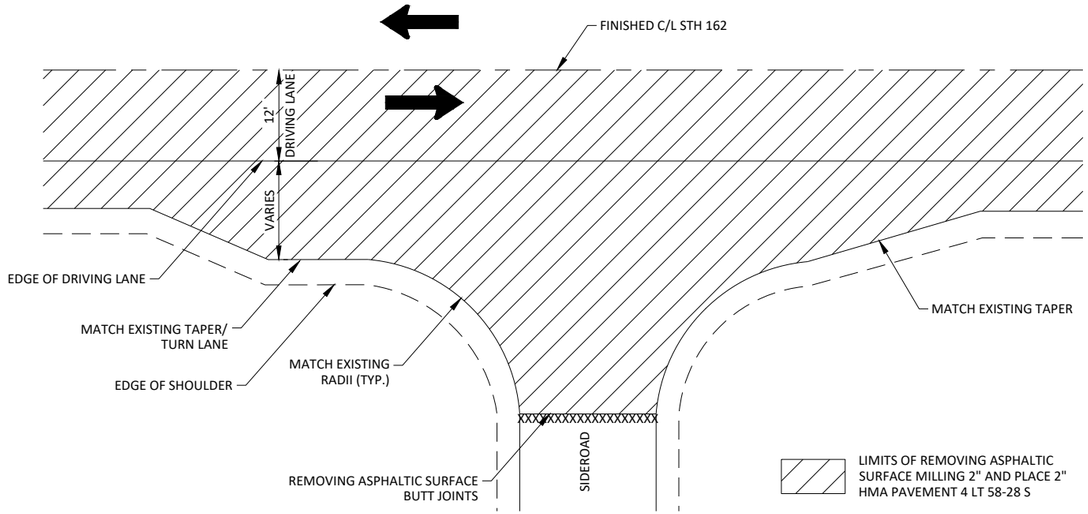


BEAMGUARD HEIGHT ADJUSTMENT (INCREASE GUARDRAIL HEIGHT)

STATION - STATION	LOCATION	② EXISTING BEAM GUARD HEIGHT PRIOR TO CROSS SLOPE ADJUSTMENT	REMARKS	③ EXISTING BEAM GUARD HEIGHT AFTER CROSS SLOPE ADJUSTMENT	CROSS SLOPE ADJUSTMENT		
					① SLOPE		
					EXISTING	FINISHED	CROSS SLOPE ADJUSTMENT WIDTH
35+36 - 37+40	MAINLINE, RT.	24.6" - 27.6"	INCREASE 2.2" - 3.6"	28.0" - 30.0"	0.8 % - 1.6 %	2.7 %	16'
114+02 - 114+63	MAINLINE, RT.	26.4" - 28.8"	INCREASE 0" - 1.6"	28.0" - 28.8"	2.5 %	3.3 %	16'

NOTE: ALLOWABLE GUARDRAIL HEIGHT RANGE IS 27.75" - 32". ENGINEER IN FIELD TO VERIFY EXISTING GUARDRAIL HEIGHT PRIOR TO CROSS SLOPE ADJUSTMENT. FINAL CROSS SLOPE ADJUSTMENT TO BE DETERMINED BY ENGINEER IN FIELD. ALL WORK REQUIRED TO ACHIEVE DESIRED GUARDRAIL HEIGHT IS PAID FOR UNDER THE HMA PAVEMENT 4 LT 58-28 S BID ITEM.

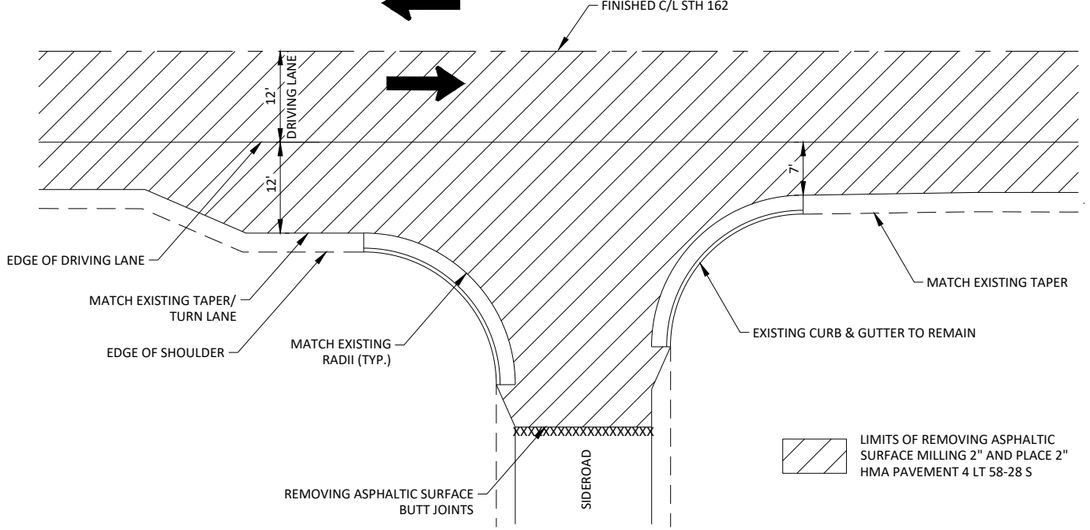
◐ INCORPORATE EXISTING SHOULDER AGGREGATE TO THE GREATEST EXTENT PRACTICABLE PRIOR TO THE PLACEMENT OF BASE AGGREGATE DENSE 3/4-INCH.



TYPICAL RURAL SIDEROAD DETAIL WITHOUT CURB & GUTTER

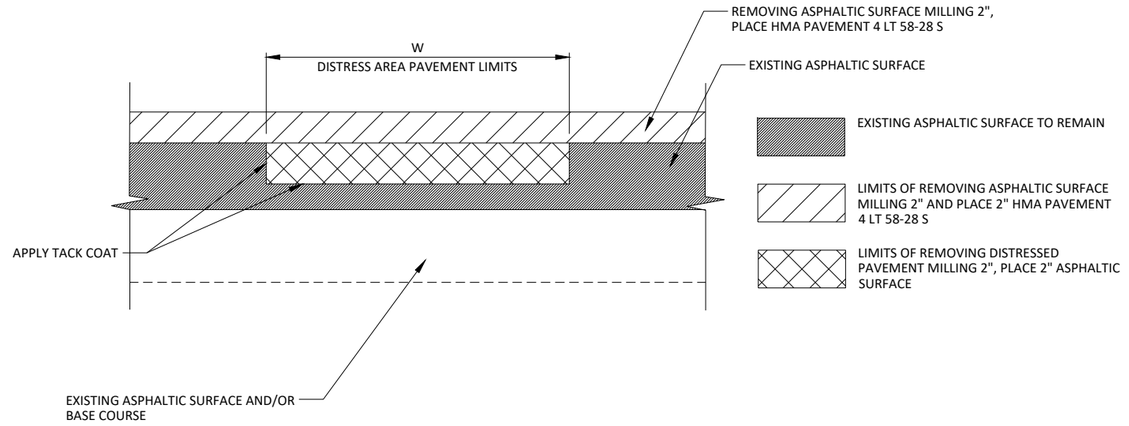
DODSON HOLLOW ROAD	KOLL ROAD
WESTFIELD LANE	PETTICOAT JUNCTION (NORTH)
ERNIES LANE	VALLEY COURT
PETERSON LANE	OLSON LANE
HAGEN LANE	KNUDSON LANE
PETTICOAT JUNCTION (SOUTH)	

NOTE: PETERSON LANE (B.A.D.) - REMOVING ASPHALTIC SURFACE BUTT JOINTS NOT REQ'D. EXTEND REMOVING ASPHALTIC SURFACE MILLING AND HMA PAVEMENT 4 LT 58-28S LIMITS TO INSIDE RADII OF PETERSON LANE INTERSECTION

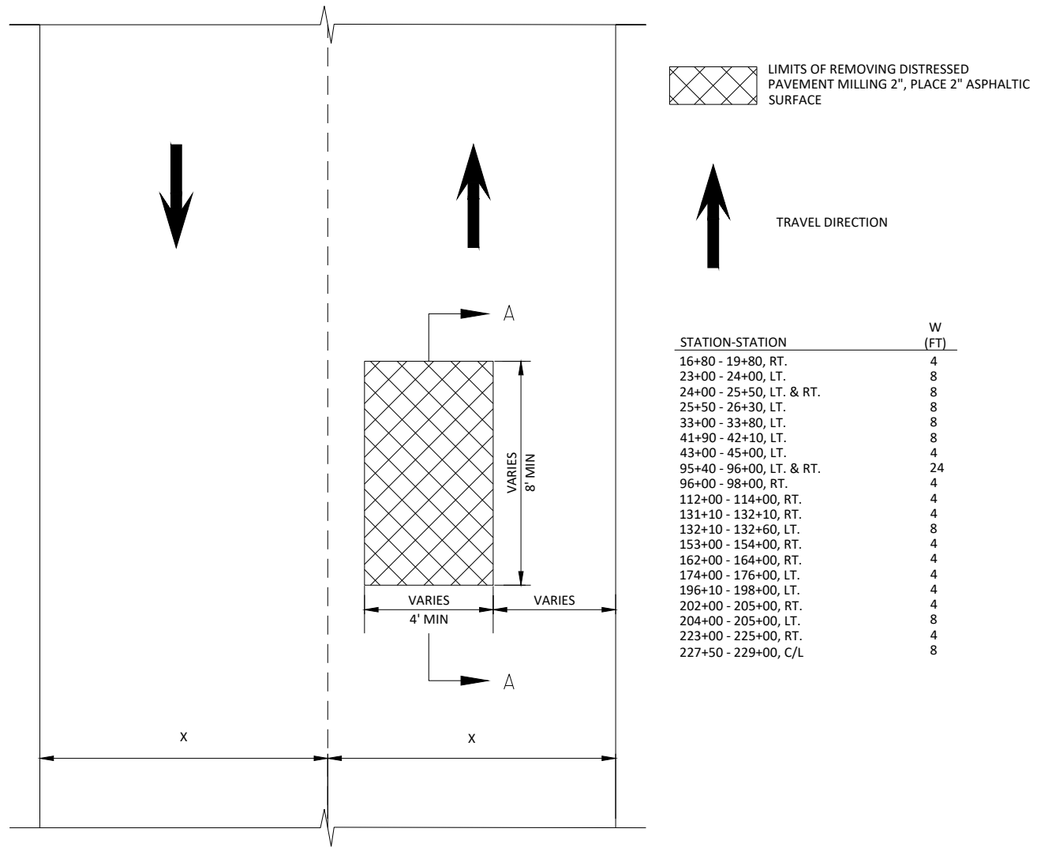


TYPICAL RURAL SIDEROAD DETAIL WITH CURB & GUTTER

CTH KK



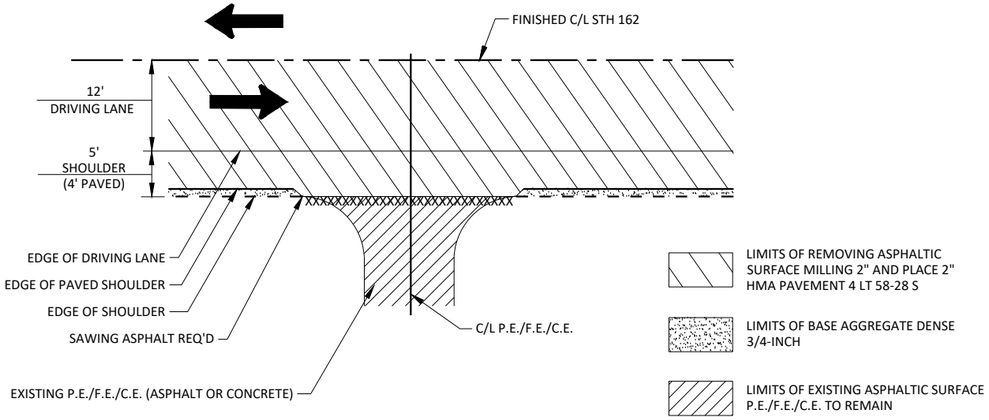
REMOVING DISTRESS PAVEMENT MILLING
SECTION A-A



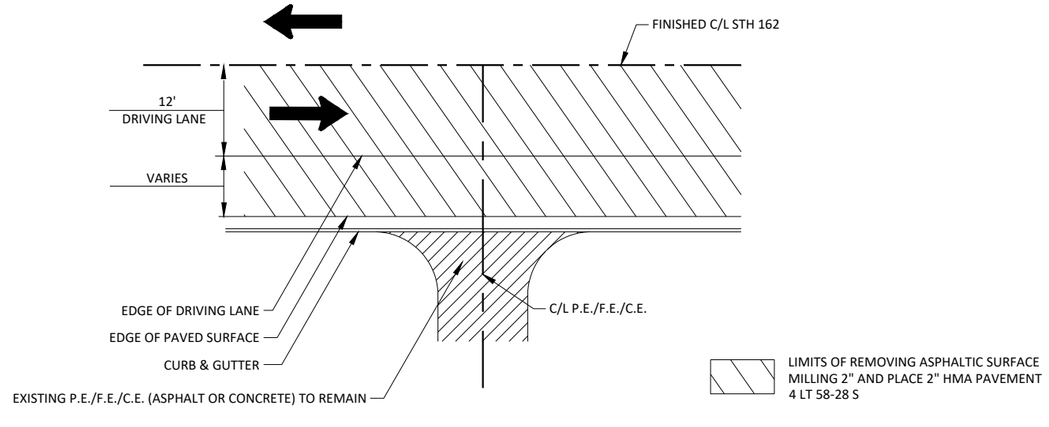
STATION-STATION	W (FT)
16+80 - 19+80, RT.	4
23+00 - 24+00, LT.	8
24+00 - 25+50, LT. & RT.	8
25+50 - 26+30, LT.	8
33+00 - 33+80, LT.	8
41+90 - 42+10, LT.	8
43+00 - 45+00, LT.	4
95+40 - 96+00, LT. & RT.	24
96+00 - 98+00, RT.	4
112+00 - 114+00, RT.	4
131+10 - 132+10, RT.	4
132+10 - 132+60, LT.	8
153+00 - 154+00, RT.	4
162+00 - 164+00, RT.	4
174+00 - 176+00, LT.	4
196+10 - 198+00, LT.	4
202+00 - 205+00, RT.	4
204+00 - 205+00, LT.	8
223+00 - 225+00, RT.	4
227+50 - 229+00, C/L	8

PLAN VIEW

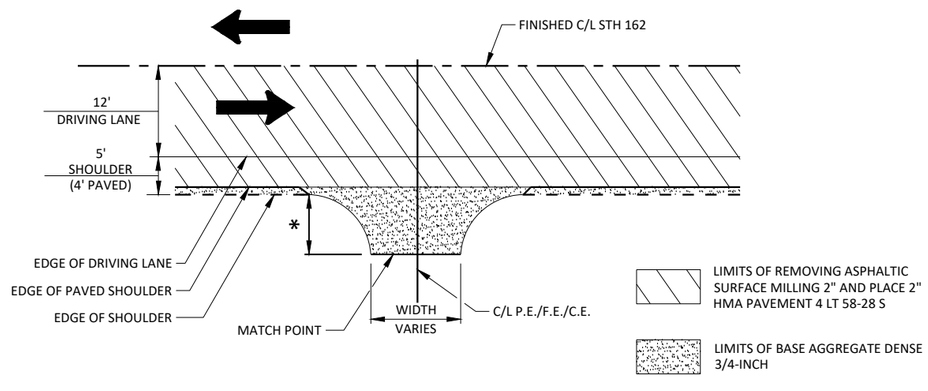
EXACT LOCATION AND LIMITS OF REMOVING DISTRESSED PAVEMENT MILLING TO BE DETERMINED BY THE ENGINEER IN THE FIELD.



P.E./F.E./C.E. (EXISTING ASPHALT)
DRIVEWAY DETAIL-RURAL

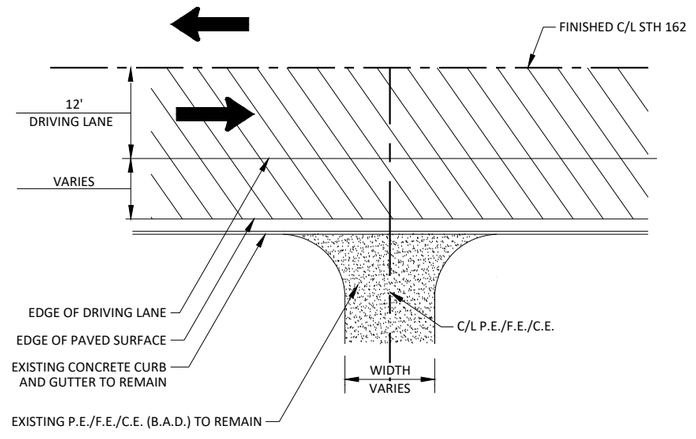


P.E./F.E./C.E.
(EXISTING ASPHALT OR CONRETE)
DRIVEWAY DETAIL - URBAN

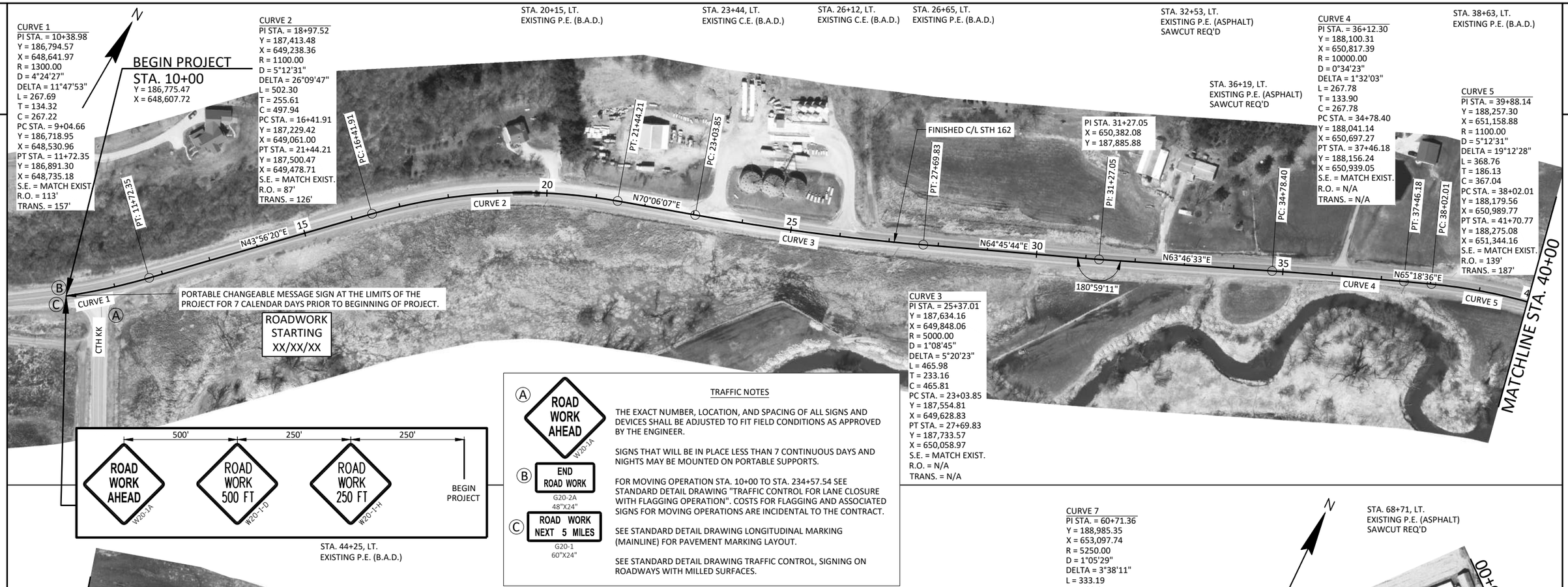


P.E./F.E./C.E. (EXISTING B.A.D.)
DRIVEWAY DETAIL-RURAL

* REPLACE IN KIND TO THE RADIUS POINTS OF EACH DRIVEWAY



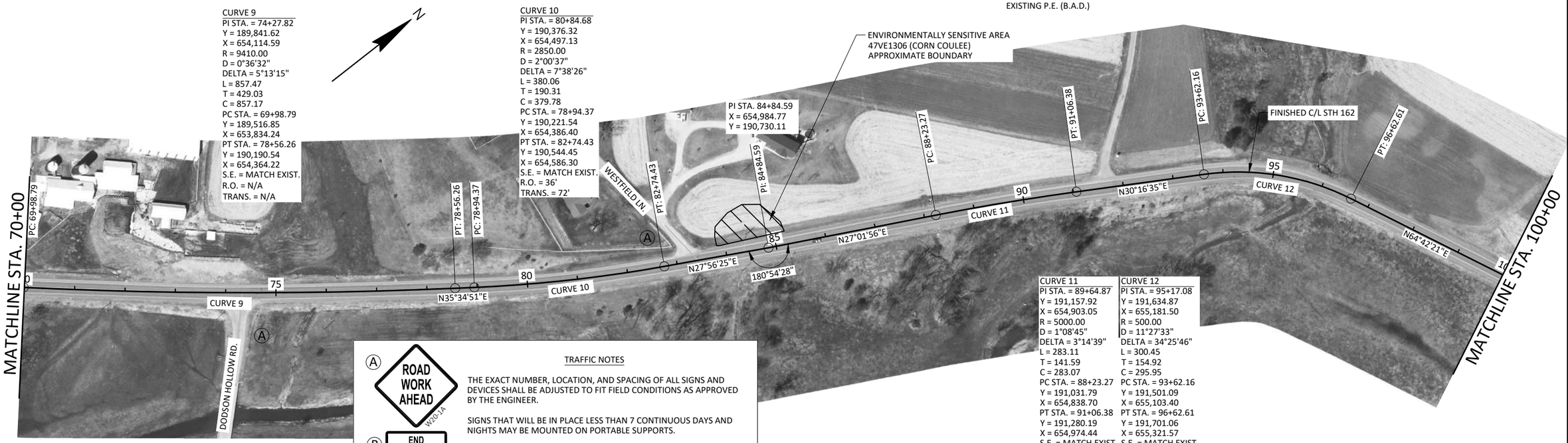
P.E./F.E./C.E. (EXISTING B.A.D.)
DRIVEWAY DETAIL-URBAN



PROJECT NO: 5865-02-65	HWY: STH 162	COUNTY: VERNON	PLAN DETAILS	SHEET	E

FILE NAME : S:\PROJECTS\W11629 WISDOT - STH 162 VERNON CO\SHEETSPLAN\DETAILS\W11629_PLAN DETAILS.DWG
PLOT DATE : 10/25/2021 3:17:02 PM
PLOT BY : TRACY, DAN
PLOT SCALE : 1" = 1'
LAYOUT : LAYOUT1

2



Ⓐ ROAD WORK AHEAD — W20-1A

Ⓑ END ROAD WORK — G20-2A, 48"X24"

Ⓒ ROAD WORK NEXT 5 MILES — G20-1, 60"X24"

TRAFFIC NOTES

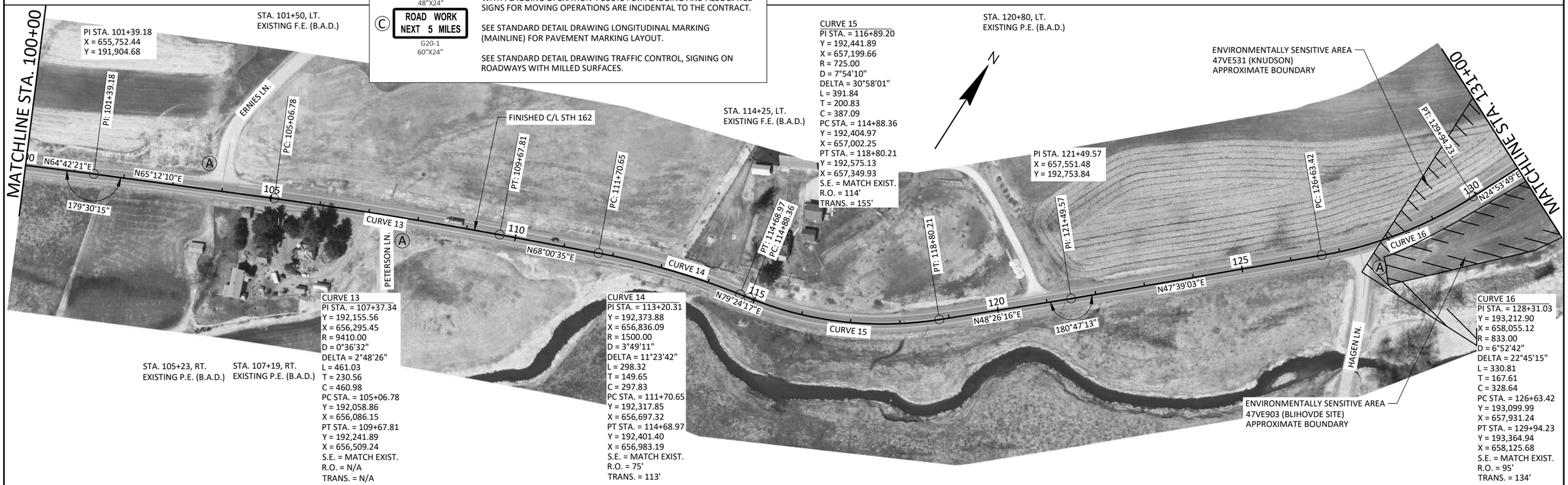
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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

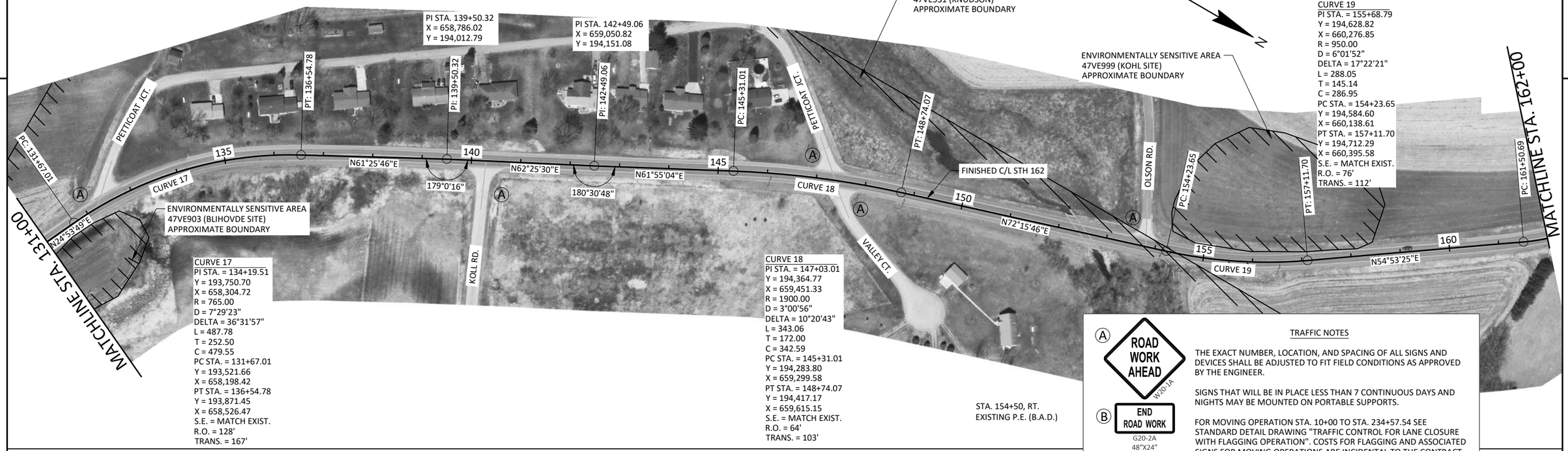
FOR MOVING OPERATION STA. 10+00 TO STA. 234+57.54 SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION". COSTS FOR FLAGGING AND ASSOCIATED SIGNS FOR MOVING OPERATIONS ARE INCIDENTAL TO THE CONTRACT.

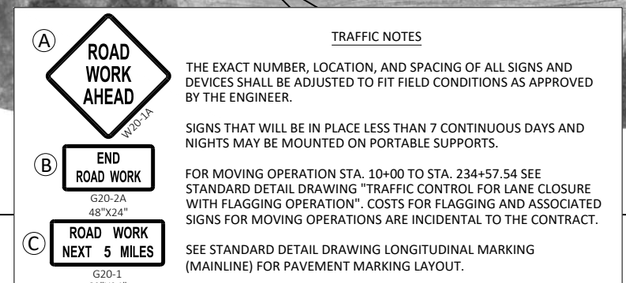
SEE STANDARD DETAIL DRAWING LONGITUDINAL MARKING (MAINLINE) FOR PAVEMENT MARKING LAYOUT.

SEE STANDARD DETAIL DRAWING TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES.



PROJECT NO: 5865-02-65	HWY: STH 162	COUNTY: VERNON	PLAN DETAILS	SHEET 12	E





TRAFFIC NOTES

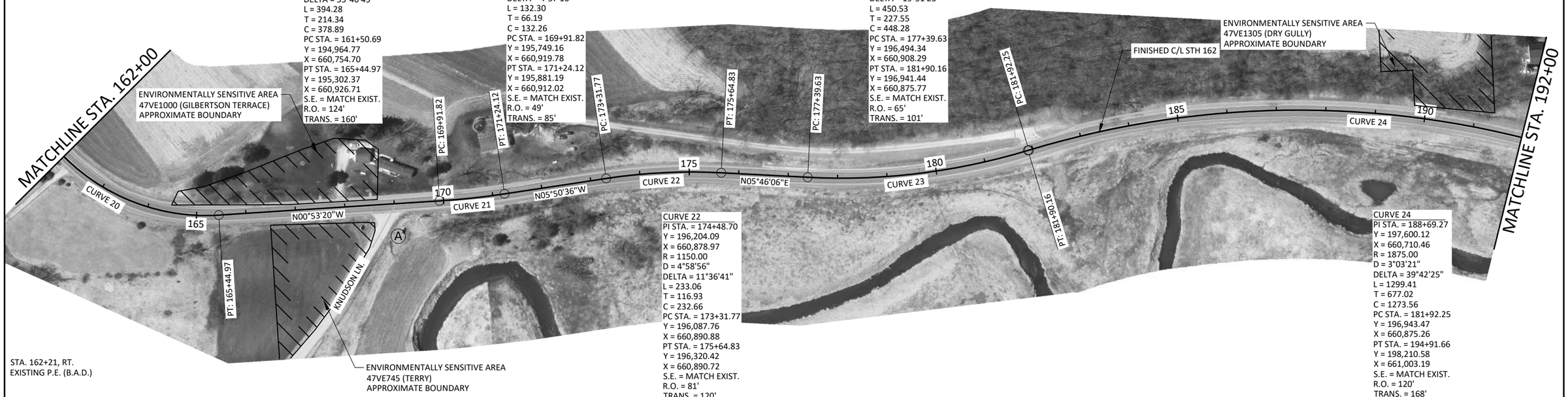
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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

FOR MOVING OPERATION STA. 10+00 TO STA. 234+57.54 SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION". COSTS FOR FLAGGING AND ASSOCIATED SIGNS FOR MOVING OPERATIONS ARE INCIDENTAL TO THE CONTRACT.

SEE STANDARD DETAIL DRAWING LONGITUDINAL MARKING (MAINLINE) FOR PAVEMENT MARKING LAYOUT.

SEE STANDARD DETAIL DRAWING TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES.



PROJECT NO: 5865-02-65	HWY: STH 162	COUNTY: VERNON	PLAN DETAILS	SHEET	E

FILE NAME : S:\PROJECTS\W11629 WISDOT - STH 162 VERNON CO\SHEETSPLAN\DETAILS\W11629_PLAN DETAILS.DWG PLOT DATE : 10/25/2021 3:17:21 PM PLOT BY : TRACY, DAN PLOT SCALE : 1" = 1' LAYOUT : LAYOUT3

2

STA. 193+20, LT.
EXISTING P.E. (B.A.D.)

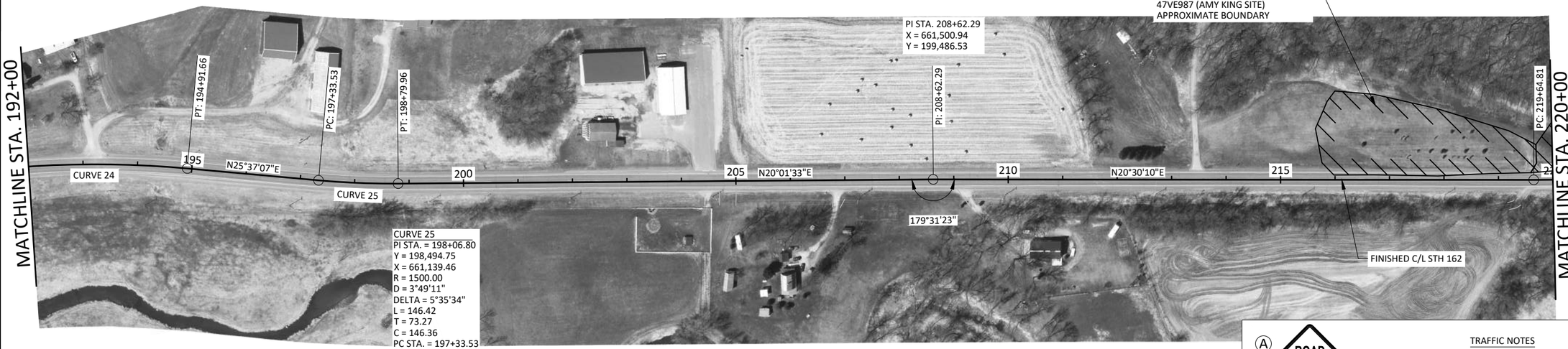
STA. 204+43, LT.
EXISTING C.E. (ASPHALT)
SAWCUT REQ'D

STA. 213+46, LT.
EXISTING P.E. (ASPHALT)
SAWCUT REQ'D

STA. 219+60, LT.
EXISTING F.E. (B.A.D.)

ENVIRONMENTALLY SENSITIVE AREA
47VE987 (AMY KING SITE)
APPROXIMATE BOUNDARY

PI STA. 208+62.29
X = 661,500.94
Y = 199,486.53



CURVE 25
PI STA. = 198+06.80
Y = 198,494.75
X = 661,139.46
R = 1500.00
D = 3°49'11"
DELTA = 5°35'34"
L = 146.42
T = 73.27
C = 146.36
PC STA. = 197+33.53
Y = 198,428.68
X = 661,107.78
PT STA. = 198+79.96
Y = 198,563.59
X = 661,164.55
S.E. = MATCH EXIST.
R.O. = 147'
TRANS. = 195'

STA. 204+86, RT.
EXISTING F.E. (B.A.D.)

STA. 206+92, RT.
EXISTING P.E. (B.A.D.)

STA. 209+24, RT.
EXISTING P.E. (B.A.D.)

STA. 219+50, RT.
EXISTING F.E. (B.A.D.)

TRAFFIC NOTES

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

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

FOR MOVING OPERATION STA. 10+00 TO STA. 234+57.54 SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION". COSTS FOR FLAGGING AND ASSOCIATED SIGNS FOR MOVING OPERATIONS ARE INCIDENTAL TO THE CONTRACT.

SEE STANDARD DETAIL DRAWING LONGITUDINAL MARKING (MAINLINE) FOR PAVEMENT MARKING LAYOUT.

SEE STANDARD DETAIL DRAWING TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES.

Ⓐ ROAD WORK AHEAD — W20-1A

Ⓑ END ROAD WORK — G20-2A 48"X24"

Ⓒ ROAD WORK NEXT 5 MILES — G20-1 60"X24"

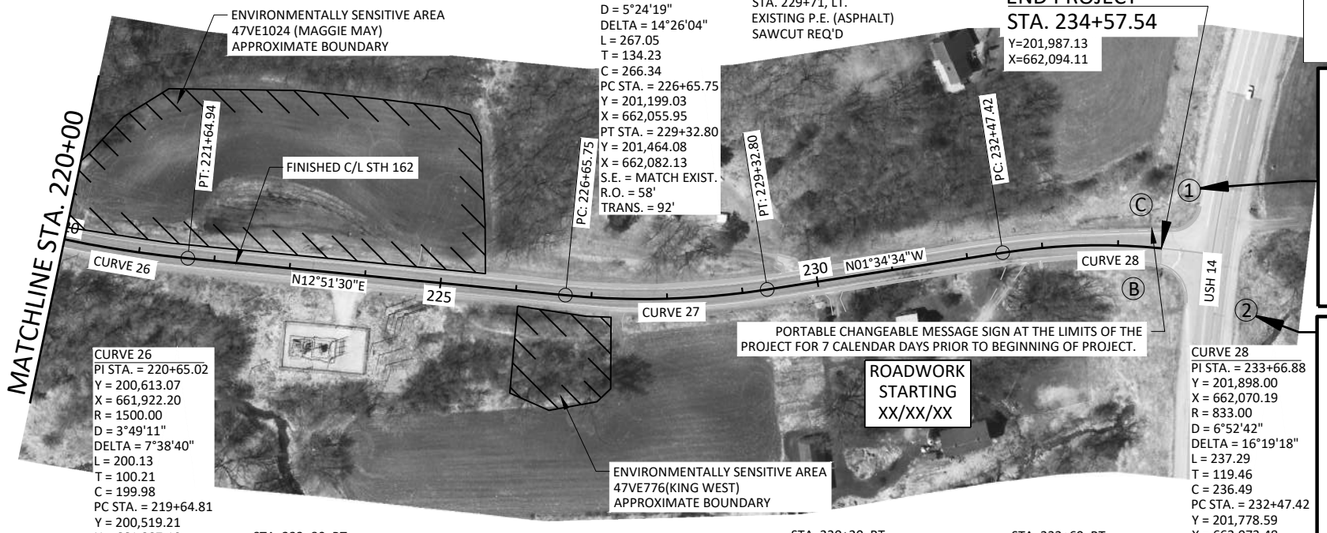
STA. 224+75, LT.
EXISTING F.E. (B.A.D.)

CURVE 27
PI STA. = 227+99.98
Y = 201,329.90
X = 662,085.82
R = 1060.00
D = 5°24'19"
DELTA = 14°26'04"
L = 267.05
T = 134.23
C = 266.34
PC STA. = 226+65.75
Y = 201,199.03
X = 662,055.95
PT STA. = 229+32.80
Y = 201,464.08
X = 662,082.13
S.E. = MATCH EXIST.
R.O. = 58'
TRANS. = 92'

STA. 229+71, LT.
EXISTING P.E. (ASPHALT)
SAWCUT REQ'D

END PROJECT
STA. 234+57.54
Y=201,987.13
X=662,094.11

ENVIRONMENTALLY SENSITIVE AREA
47VE1024 (MAGGIE MAY)
APPROXIMATE BOUNDARY



CURVE 26
PI STA. = 220+65.02
Y = 200,613.07
X = 661,922.20
R = 1500.00
D = 3°49'11"
DELTA = 7°38'40"
L = 200.13
T = 100.21
C = 199.98
PC STA. = 219+64.81
Y = 200,519.21
X = 661,887.10
PT STA. = 221+64.94
Y = 200,710.77
X = 661,944.50
S.E. = MATCH EXIST.
R.O. = 66'
TRANS. = 105'

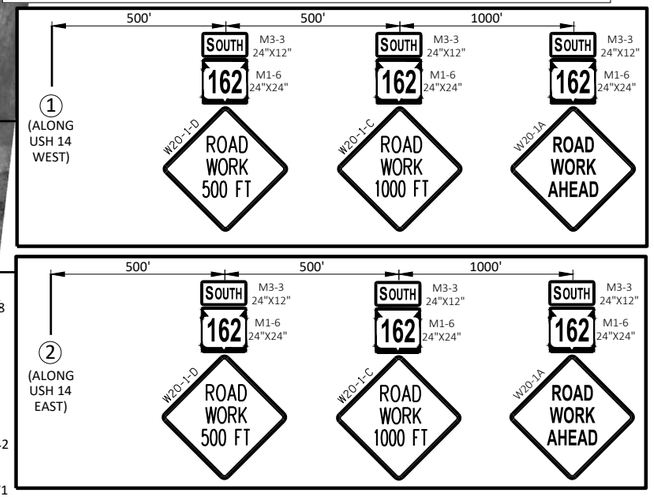
CURVE 28
PI STA. = 233+66.88
Y = 201,898.00
X = 662,070.19
R = 833.00
D = 6°52'42"
DELTA = 16°19'18"
L = 237.29
T = 119.46
C = 236.49
PC STA. = 232+47.42
Y = 201,778.59
X = 662,073.48
PT STA. = 234+84.71
Y = 202,013.52
X = 662,100.60
S.E. = MATCH EXIST.
R.O. = N/A
TRANS. = N/A

STA. 223+80, RT.
EXISTING C.E. (B.A.D.)

STA. 227+35, RT.
EXISTING F.E. (B.A.D.)

STA. 230+20, RT.
EXISTING P.E. (B.A.D.)

STA. 232+60, RT.
EXISTING P.E. (B.A.D.)



PROJECT NO: 5865-02-65	HWY: STH 162	COUNTY: VERNON	PLAN DETAILS	SHEET 14	E

5865-02-65

Line	Item	Item Description	Unit	Total	Qty
0002	204.0115	Removing Asphaltic Surface Butt Joints	SY	200.000	200.000
0004	204.0120	Removing Asphaltic Surface Milling	SY	84,500.000	84,500.000
0006	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 5865-02-65	LS	1.000	1.000
0008	213.0100	Finishing Roadway (project) 01. 5865-02-65	EACH	1.000	1.000
0010	305.0110	Base Aggregate Dense 3/4-Inch	TON	800.000	800.000
0012	455.0605	Tack Coat	GAL	6,060.000	6,060.000
0014	460.2000	Incentive Density HMA Pavement	DOL	6,240.000	6,240.000
0016	460.5224	HMA Pavement 4 LT 58-28 S	TON	9,750.000	9,750.000
0018	465.0105	Asphaltic Surface	TON	210.000	210.000
0020	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	17,200.000	17,200.000
0022	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5865-02-65	EACH	1.000	1.000
0024	619.1000	Mobilization	EACH	1.000	1.000
0026	624.0100	Water	MGAL	13.000	13.000
0028	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	5.000	5.000
0030	638.2102	Moving Signs Type II	EACH	5.000	5.000
0032	638.3000	Removing Small Sign Supports	EACH	5.000	5.000
0034	642.5001	Field Office Type B	EACH	1.000	1.000
0036	643.0300	Traffic Control Drums	DAY	250.000	250.000
0038	643.0900	Traffic Control Signs	DAY	2,115.000	2,115.000
0040	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0042	643.5000	Traffic Control	EACH	1.000	1.000
0044	646.1020	Marking Line Epoxy 4-Inch	LF	48,000.000	48,000.000
0046	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	33,200.000	33,200.000
0048	648.0100	Locating No-Passing Zones	MI	4.260	4.260
0050	649.0105	Temporary Marking Line Paint 4-Inch	LF	31,550.000	31,550.000
0052	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	31,550.000	31,550.000
0054	650.8000	Construction Staking Resurfacing Reference	LF	22,460.000	22,460.000
0056	650.9910	Construction Staking Supplemental Control (project) 01. 5865-02-65	LS	1.000	1.000
0058	690.0150	Sawing Asphalt	LF	270.000	270.000
0060	740.0440	Incentive IRI Ride	DOL	17,020.000	17,020.000
0062	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,000.000	2,000.000
0064	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
0066	SPV.0180	Special 01. Removing Distressed Pavement Milling	SY	1,800.000	1,800.000

REMOVING ASPHALTIC SURFACE BUTT JOINTS

STATION - STATION	LOCATION	204.0115 (SY)
10+00 - 70+00	MAINLINE/SIDEROADS	40
70+00 - 131+00	SIDEROADS	50
131+00 - 192+00	SIDEROADS	80
192+00 - 234+57.54	MAINLINE	30
	TOTAL =	200

REMOVING ASPHALTIC SURFACE MILLING

STATION - STATION	LOCATION	204.0120 (SY)
10+00 - 70+00	MAINLINE	22500
70+00 - 131+00	MAINLINE	22500
131+00 - 192+00	MAINLINE	23000
192+00 - 234+57.54	MAINLINE	16500
	TOTAL =	84500

HMA PAVEMENT

LOCATION	211.0100 PREPARE FOUNDATION FOR ASPHALTIC PAVING (LS)	455.0605 TACK COAT (GAL)	460.6224 HMA PAVEMENT 4 LT 58-28 S (TON)	465.0105 ASPHALTIC SURFACE (TON)	SPV.0180.01 REMOVING DISTRESSED PAVEMENT MILLING (SY)
10+00 - 70+00	-	1620	2600	70	610
70+00 - 131+00	-	1600	2600	40	340
131+00 - 192+00	-	1640	2650	40	320
192+00 - 234+57.54	-	1200	1900	60	530
10+00 - 234+57.54	1	-	-	-	-
TOTALS =	1	6060	9750	210	1800

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)
10+00 - 70+00	MAINLINE	230
70+00 - 131+00	MAINLINE	220
131+00 - 192+00	MAINLINE	180
192+00 - 234+57.54	MAINLINE	130
	DRIVEWAYS	40
	TOTAL =	800

ASPHALTIC RUMBLE STRIPS

STATION - STATION	LOCATION	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL (LF)
10+00 - 70+00	MAINLINE	5200
70+00 - 131+00	MAINLINE	4100
131+00 - 192+00	MAINLINE	4100
192+00 - 234+57.54	MAINLINE	3800
	TOTAL =	17200

WATER

STATION - STATION	624.0100 (MGAL)
10+00 - 70+00	4
70+00 - 131+00	4
131+00 - 192+00	3
192+00 - 234+57.54	2
TOTAL =	13

PERMANENT SIGNING

LOCATION	634.0618 POSTS WOOD 4X6-INCH 18 FT (EACH)	638.2102 MOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)
*UNDISTRIBUTED	5	5	5
TOTAL =	5	5	5

*ONLY USED IF NO PASSING ZONES CHANGE

TRAFFIC CONTROL

LOCATION	643.0300 DRUMS (DAY)	643.0900 SIGNS (DAY)	643.1050 SIGNS PCMS (DAY)	643.5000 TRAFFIC CONTROL (EACH)
PROJECT	250	1143	14	1
SIDEROADS	-	972	-	-
TOTALS =	250	2115	14	1

LOCATING NO PASSING ZONES

PROJECT	STATION - STATION	LOCATION	648.0100 (MI)
5865-02-65	10+00 - 234+57.54	MAINLINE	4.26
		TOTAL =	4.26

CONSTRUCTION STAKING

STATION - STATION	LOCATION	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE (LF)	650.9910 CONSTRUCTION STAKING SUPPLEMENT CONTROL (PROJECT) (LS)
10+00 - 70+00	MAINLINE	6000	-
70+00 - 131+00	MAINLINE	6100	-
131+00 - 192+00	MAINLINE	6100	-
192+00 - 234+57.54	MAINLINE	4260	-
	PROJECT	-	1
	TOTALS =	22460	1

PAVEMENT MARKING

STATION - STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH YELLOW SOLID (LF)	646.1020 MARKING LINE EPOXY 4-INCH WHITE SOLID (LF)	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH YELLOW SOLID (LF)	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH YELLOW 12.5' SKIPS (LF)	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH YELLOW SOLID (LF)	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH YELLOW 12.5' SKIPS (LF)	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH YELLOW SOLID (LF)	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH YELLOW 12.5' SKIPS (LF)
10+00 - 70+00	MAINLINE	-	12000	7400	1200	7400	400	7400	400
70+00 - 131+00	MAINLINE	-	12000	8500	500	8500	180	8500	180
131+00 - 192+00	MAINLINE	-	12200	12200	0	12200	0	12200	0
192+00 - 234+57.54	MAINLINE	-	8600	2600	800	2600	270	2600	270
	*UNDISTRIBUTED	3200	-	-	-	-	-	-	-
	SUBTOTALS =	3200	44800	30700	2500	30700	850	30700	850
	TOTALS=	48000		33200		31550		31550	

*ADDITIONAL QUANTITIY TO ALLOW FOR PAYMENT OF LOCATING NO PASSING ZONES MARKING BEYOND PROJECT LIMITS (USE ONLY IF NEEDED)

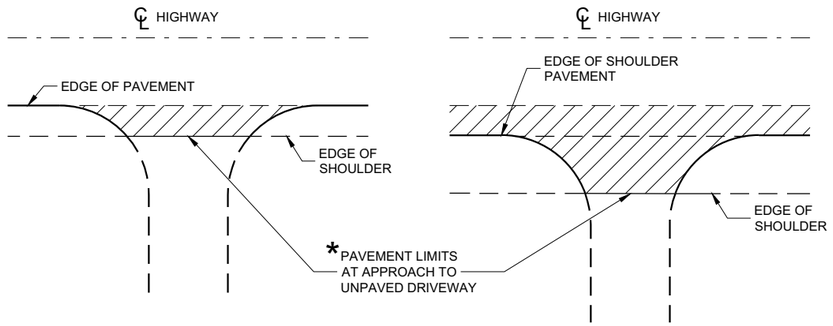
SAWING ASPHALT

STATION - STATION	LOCATION	690.0150 SAWING ASPHALT (LF)
10+00 - 70+00	DRIVEWAYS	150
70+00 - 131+00	DRIVEWAYS	-
131+00 - 192+00	DRIVEWAYS	50
192+00 - 234+57.54	DRIVEWAYS	70
	TOTAL=	270

Standard Detail Drawing List

08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13C19-03	HMA LONGITUDINAL JOINTS
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

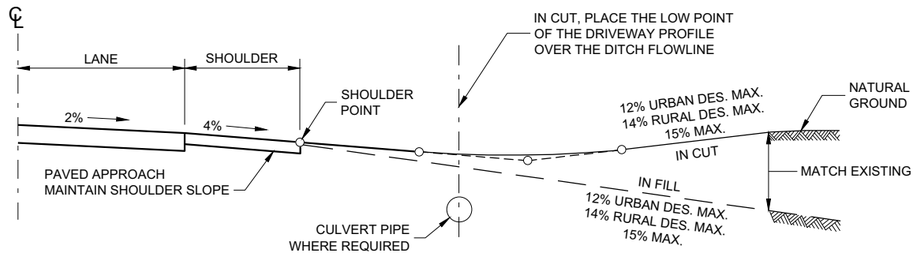
6



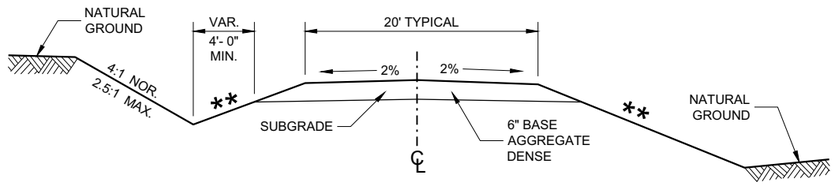
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)



TYPICAL DRIVEWAY PROFILES

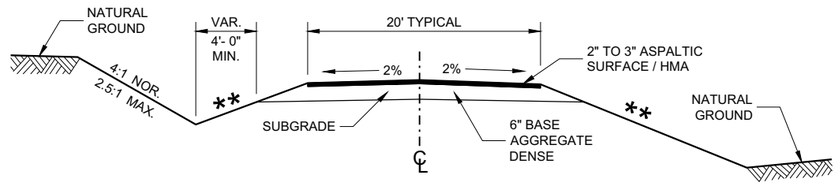


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

6

6

SDD 08D21 - 01

SDD 08D21 - 01

DRIVEWAYS WITHOUT CURB AND GUTTER

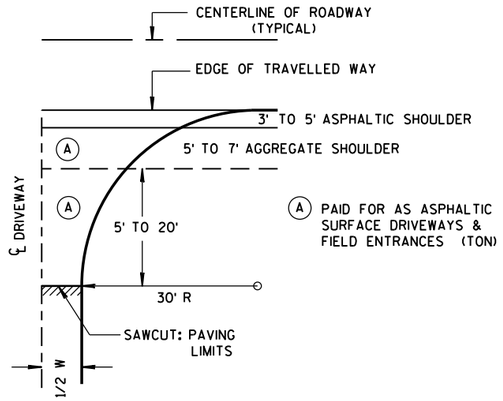
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

December 2017
DATE

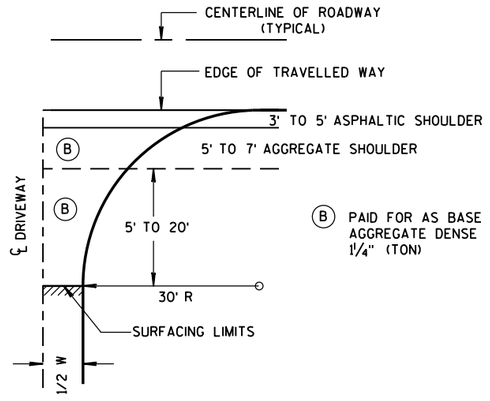
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA



PLAN VIEW
HALF SECTION

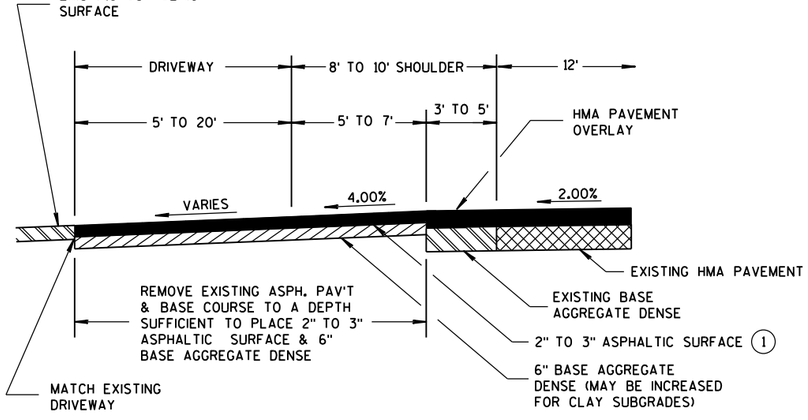
W MIN. = 16'
W MAX. = 24'



PLAN VIEW
HALF SECTION

GENERAL NOTES

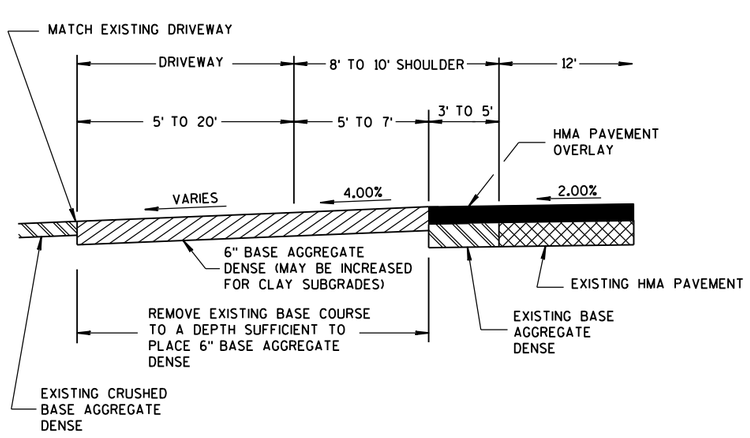
(1) DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.



PROFILE VIEW

RURAL ENTRANCE WITH ASPHALTIC SURFACE

RESURFACING PROJECTS



PROFILE VIEW

RURAL ENTRANCE WITH AGGREGATE SURFACE

6" BASE AGGREGATE DENSE
RESURFACING PROJECTS

DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December, 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
ENT
FHWA

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S.D.D. 8 D 22-1

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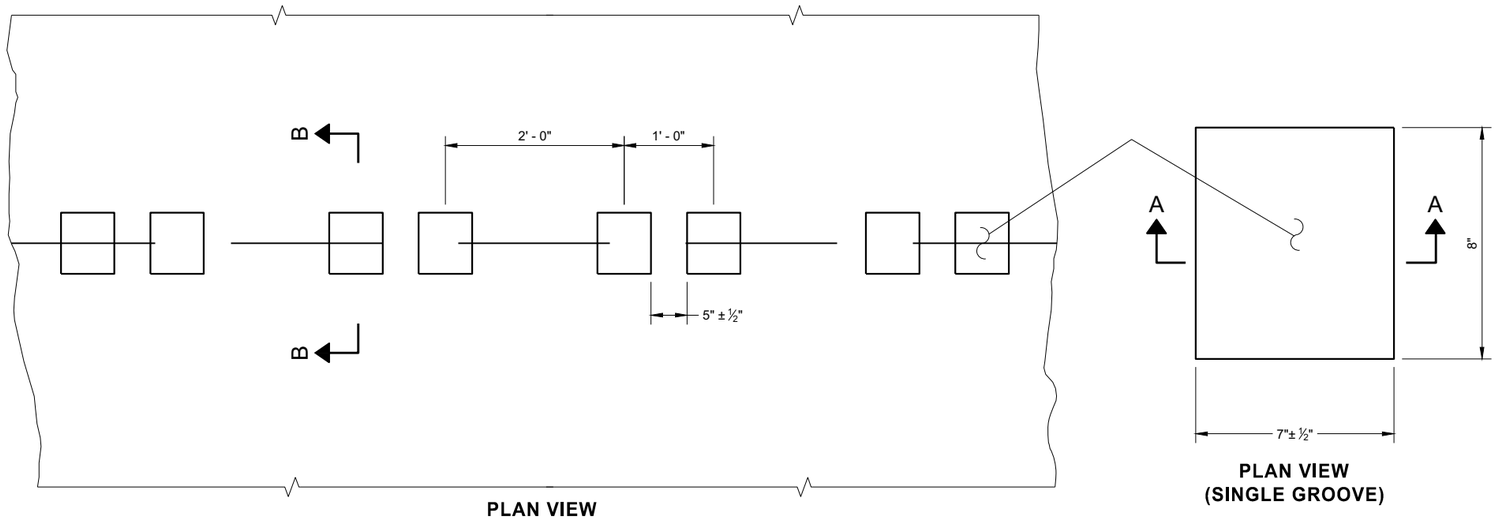
S.D.D. 8 D 22-1



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

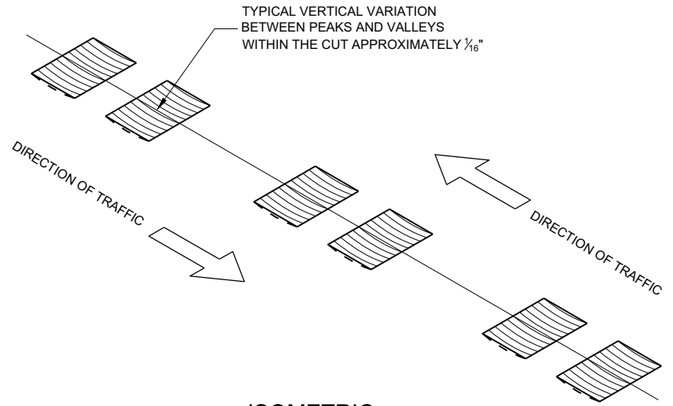
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

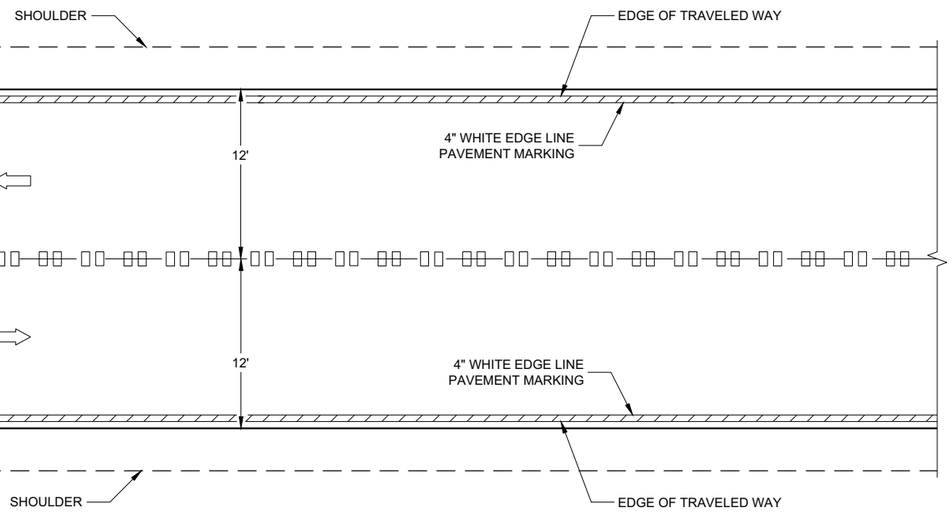
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

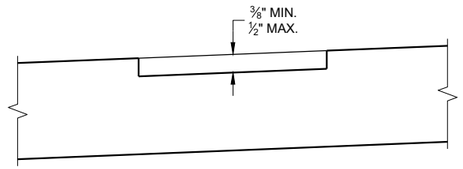
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



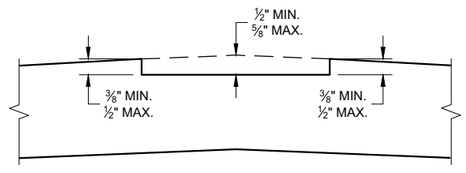
ISOMETRIC



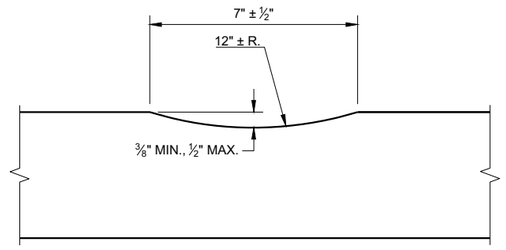
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



SECTION A - A

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

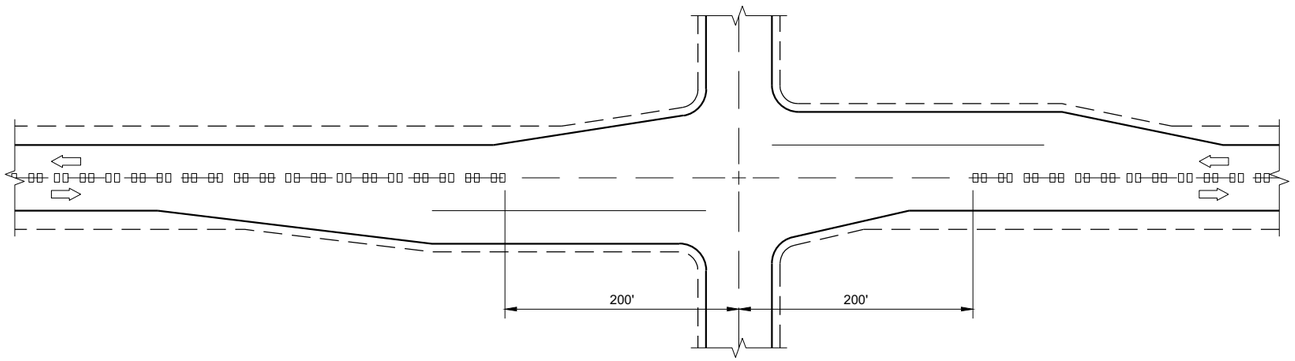
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

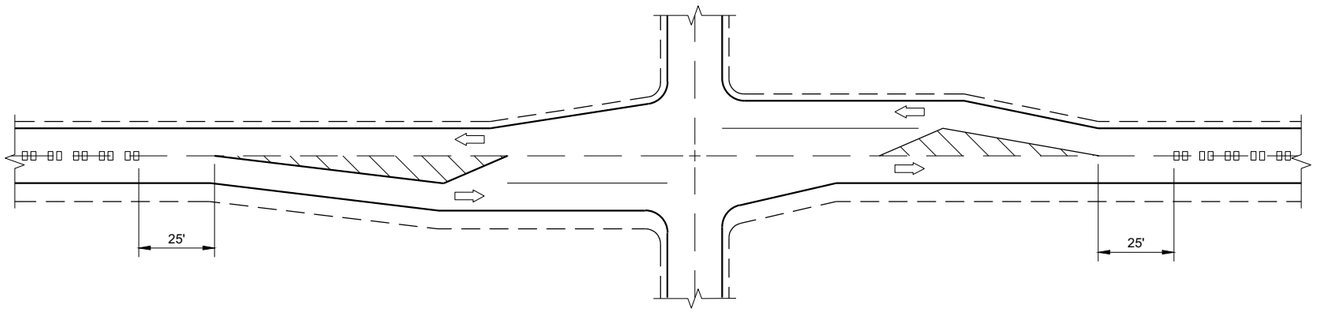
SDD 13A11 - 03a

6

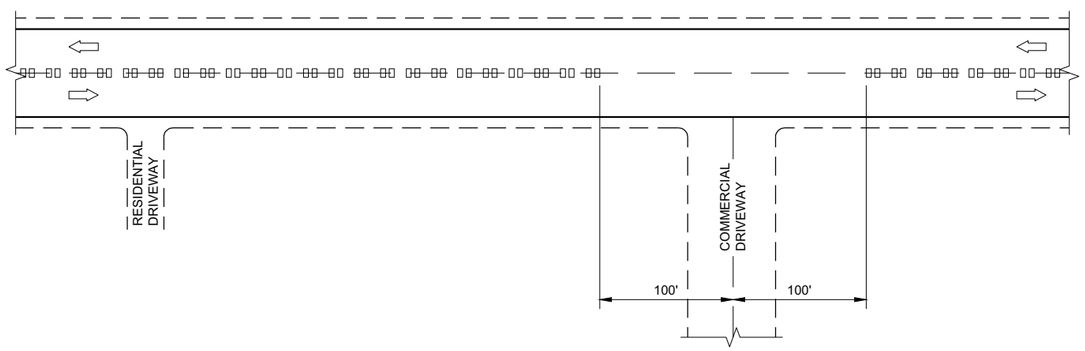
SDD 13A11 - 03a



CENTERLINE GROOVES AT INTERSECTIONS



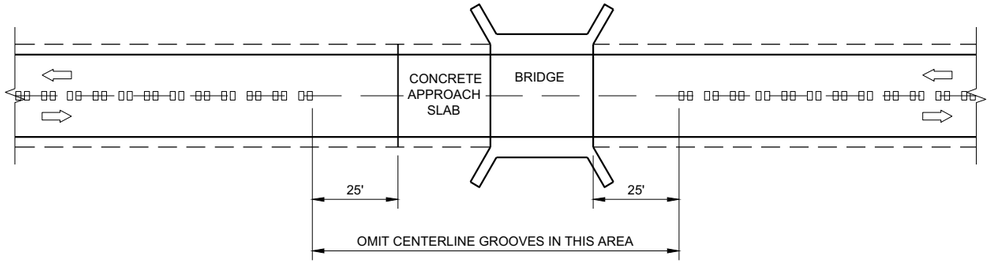
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



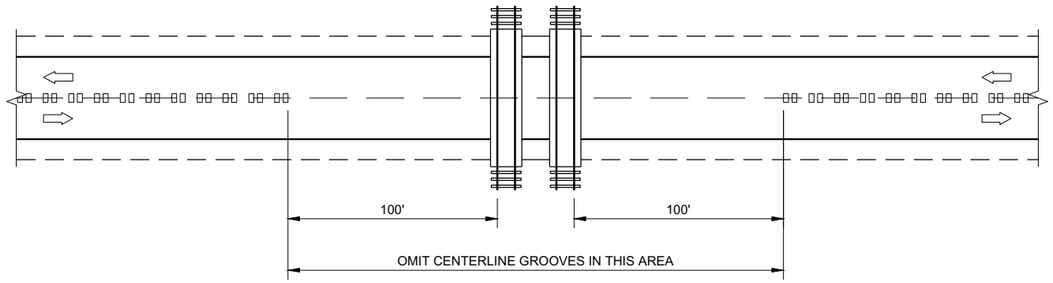
CENTERLINE GROOVES AT DRIVEWAYS (1)

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

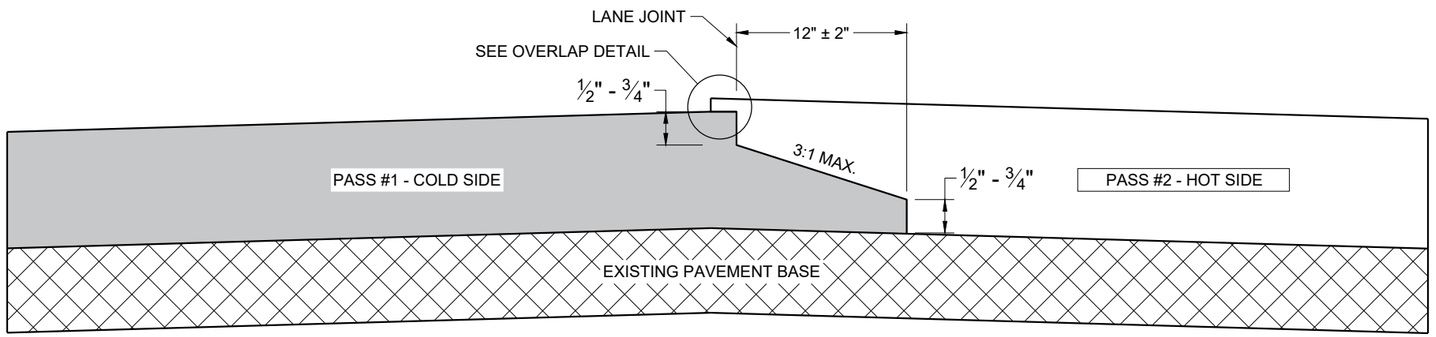
2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

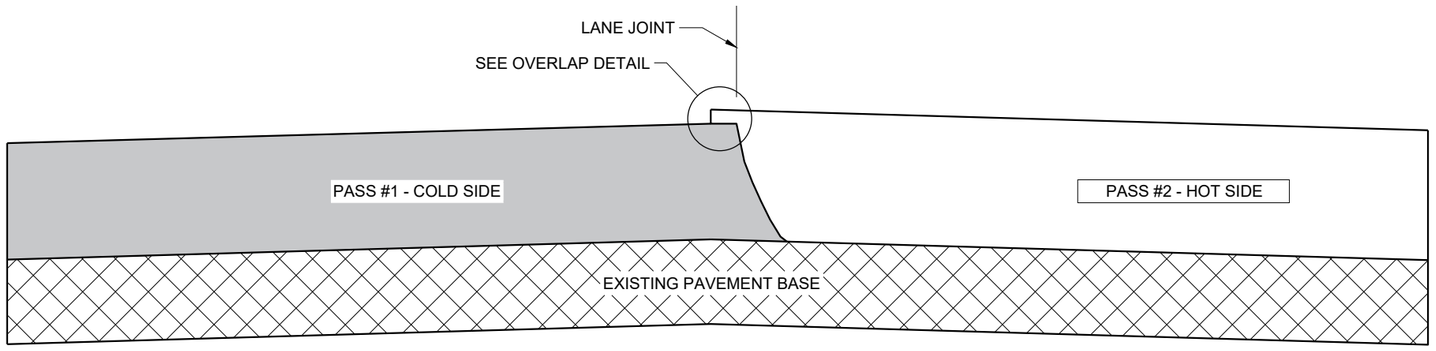
APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

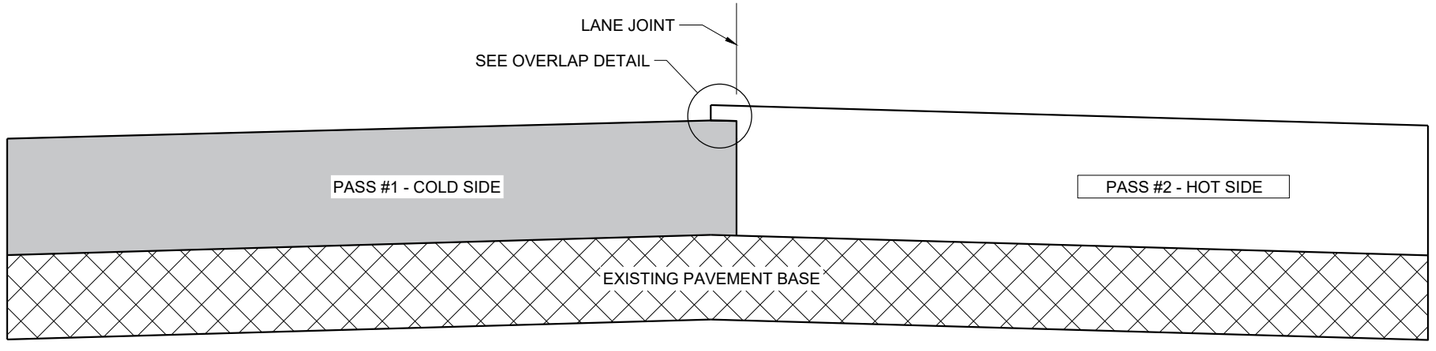
6
SDD13A11 - 03b



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

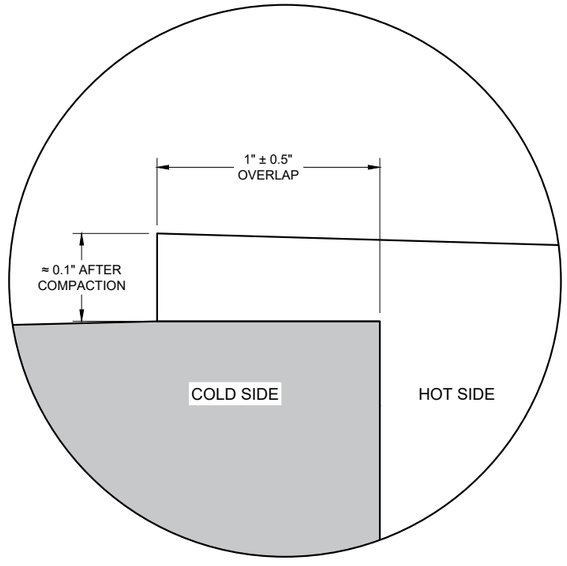
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 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)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

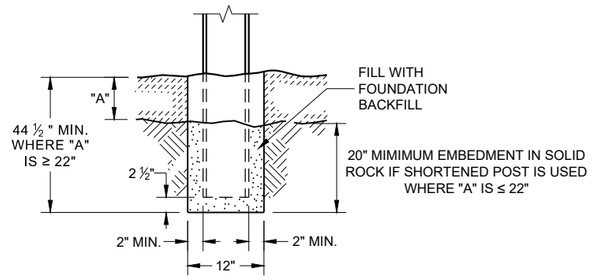
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

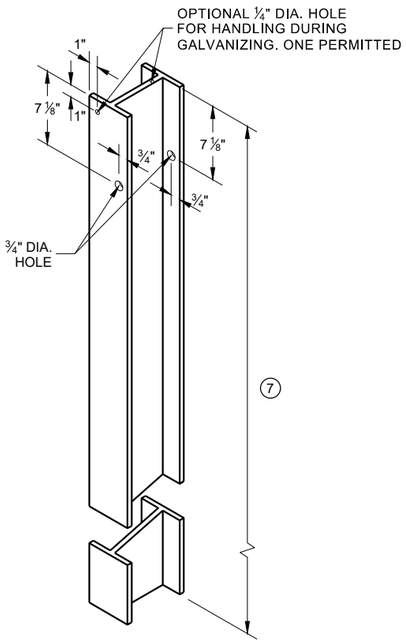
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

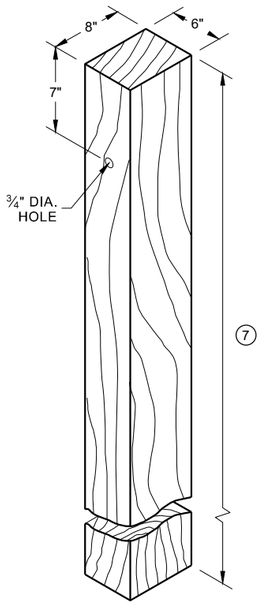
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



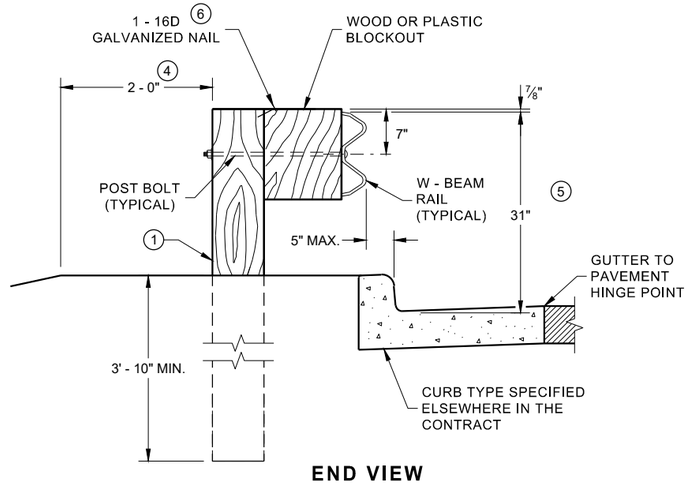
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



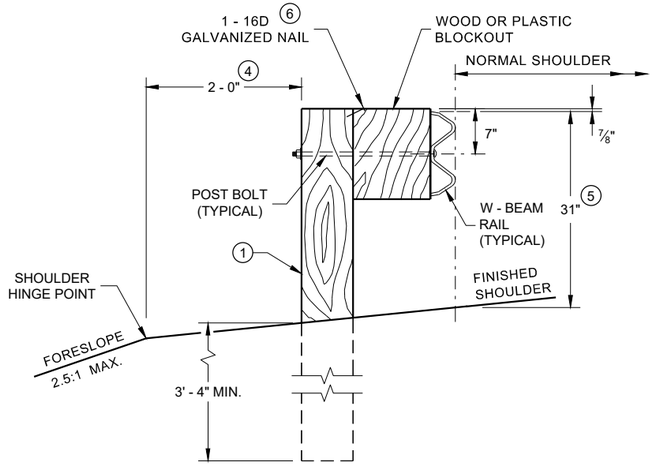
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



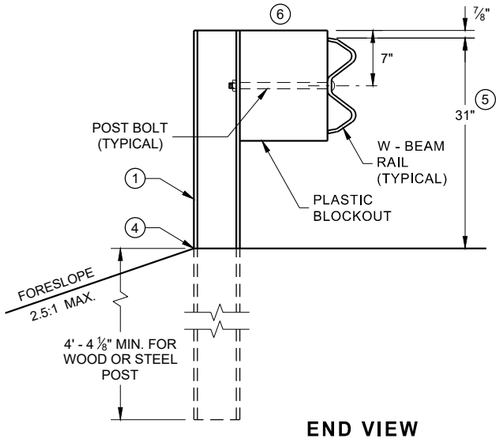
WOOD POST (6" X 8") NOMINAL (1)



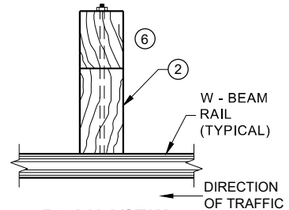
END VIEW
LOCATED ALONG A CURBED ROADWAY



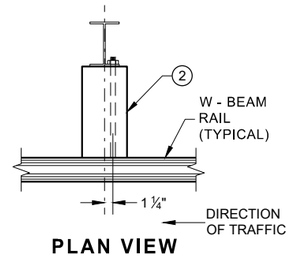
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



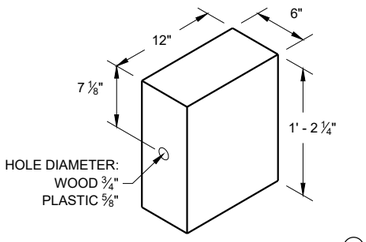
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM

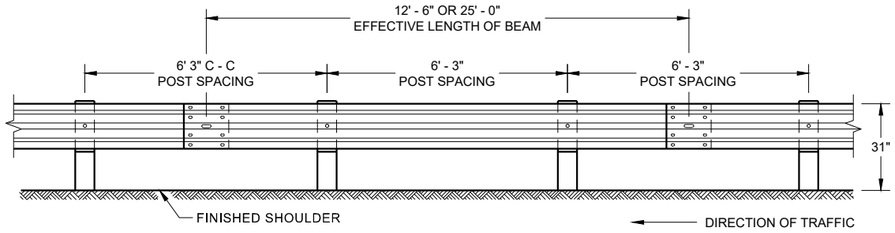


WOOD OR PLASTIC BLOCKOUT (2)

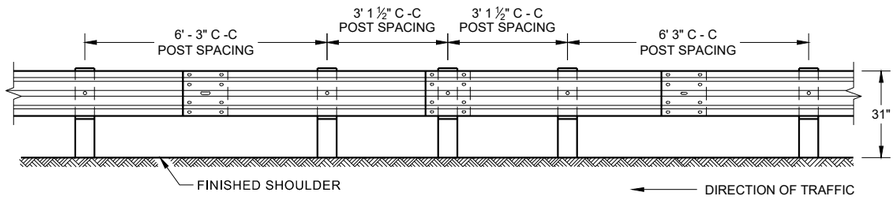
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

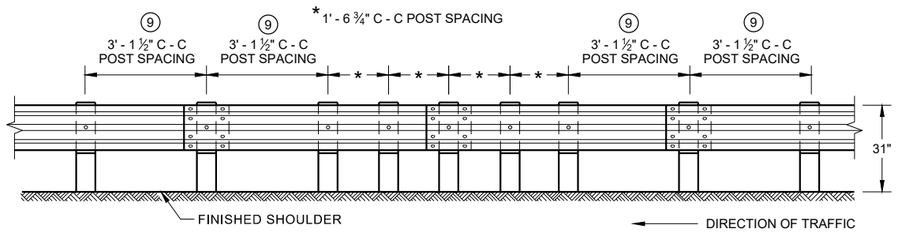
6
SDD 14B42 - 07a



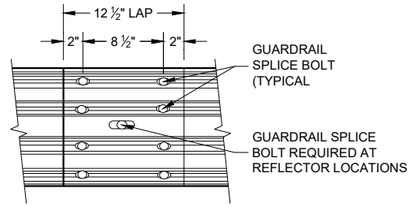
FRONT VIEW
POST SPACING STANDARD INSTALLATION



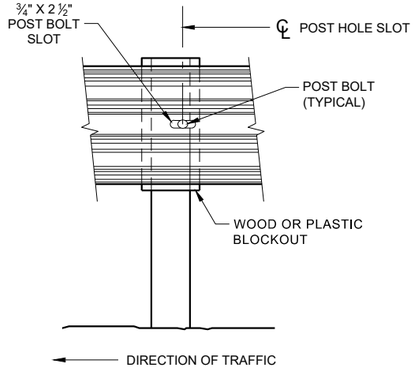
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



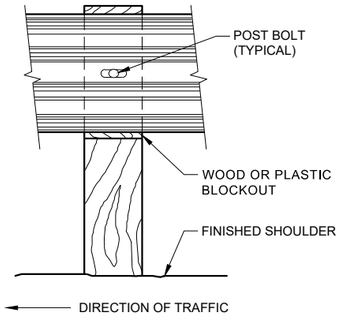
FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE



FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST

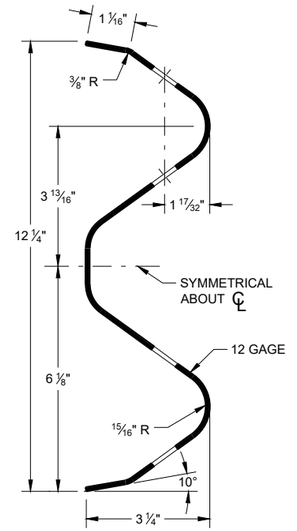
GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

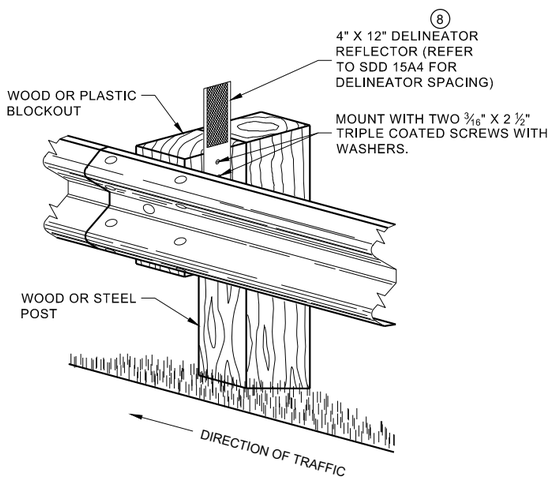
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



SECTION THRU W-BEAM RAIL



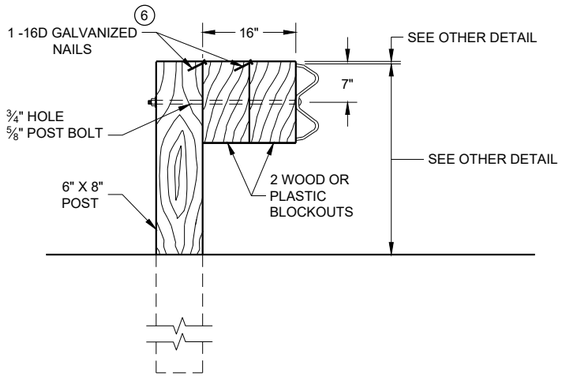
ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 07b

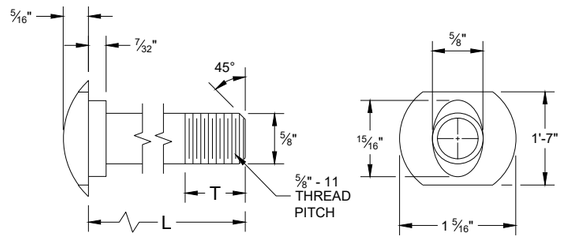


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

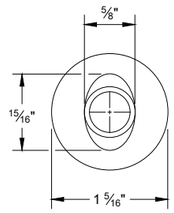
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

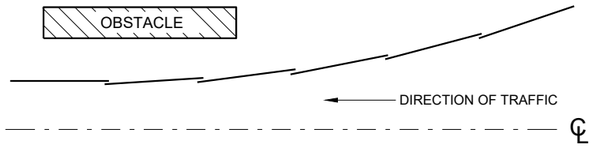


POST BOLT TABLE

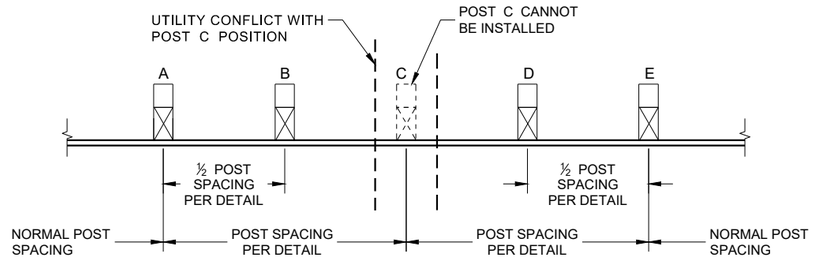
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



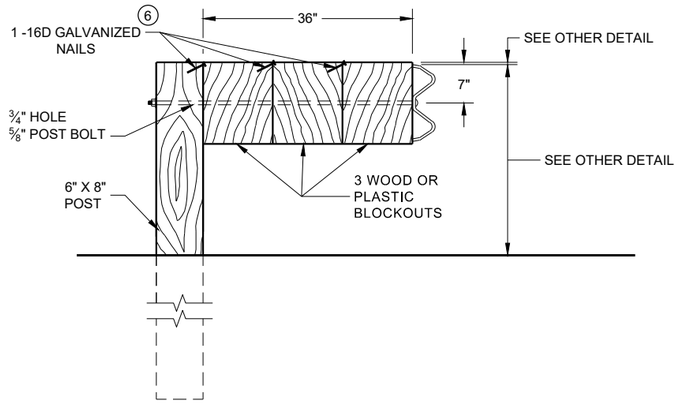
ALTERNATE BOLT HEAD



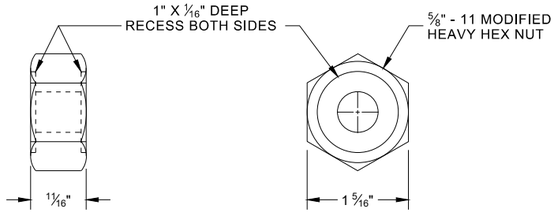
PLAN VIEW
BEAM LAPPING DETAIL



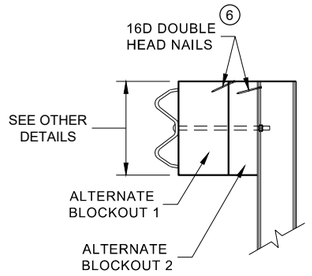
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



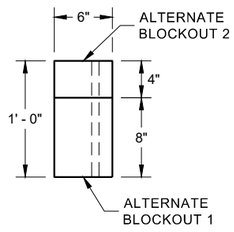
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

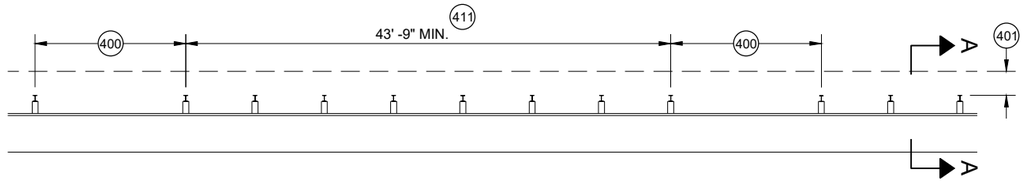
ALTERNATE WOOD BLOCKOUT DETAIL

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

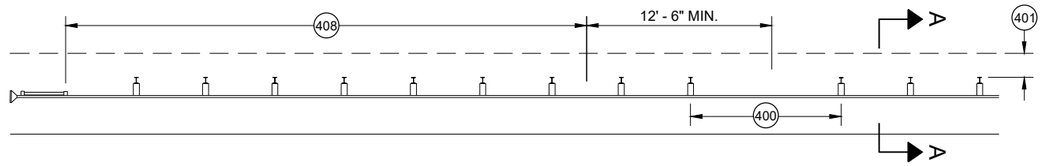
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

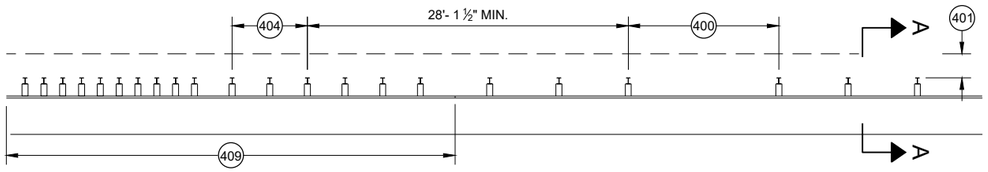
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



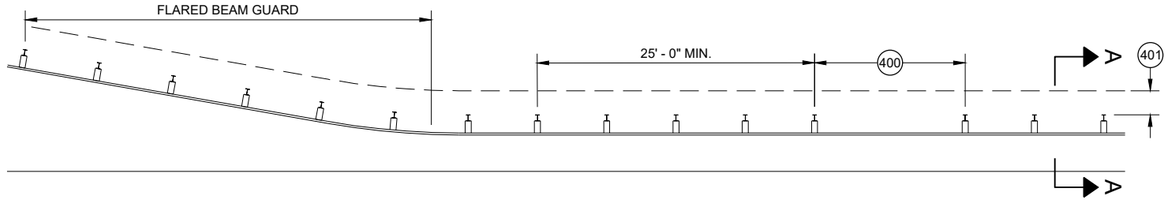
MISSING POST IN MGS GUARDRAIL



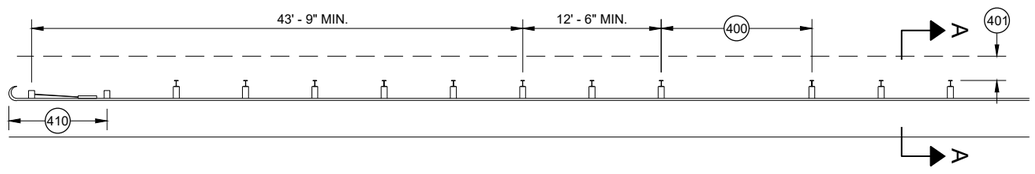
MISSING POST IN MGS GUARDRAIL NEAR EAT



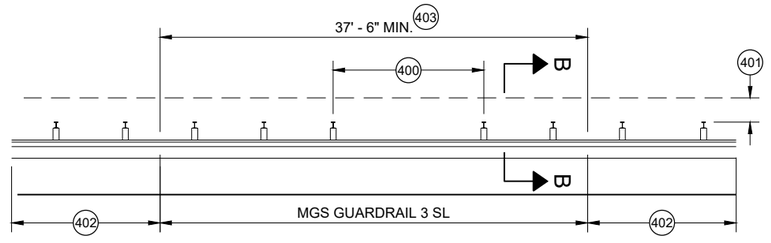
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

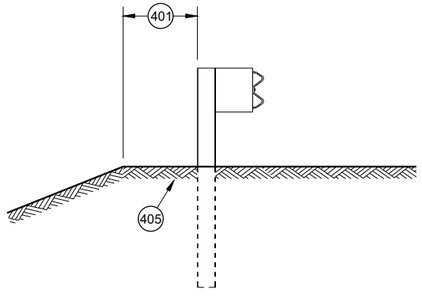


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

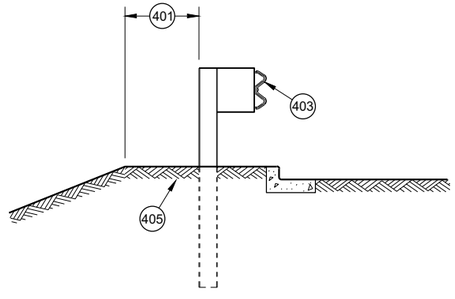


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(400) MAX SPAN 12' - 6"
(401) 2' MIN.
(402) MGS GUARDRAIL 3
(403) NESTING BEAM GUARD
(404) ASYMMETRIC TRANSITION
(405) SOIL WELL DRAINED AND COMPACTED
(406) SEE OTHER DRAWINGS IN THIS SDD
(407) SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
(408) SEE SDD 14B44
(409) SEE SDD 14B45
(410) SEE SDD 14B47
(411) MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

SDD 14B42 - 07d

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.

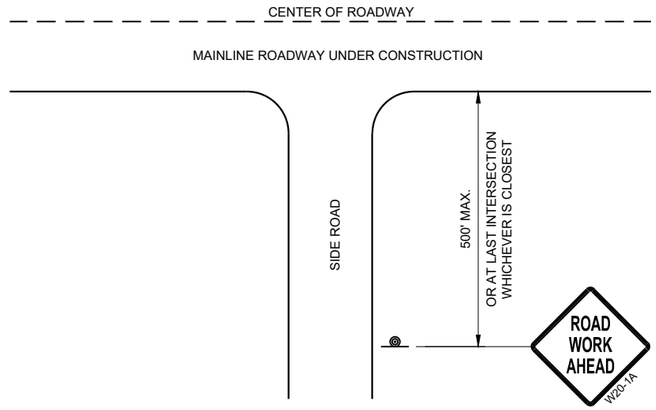
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

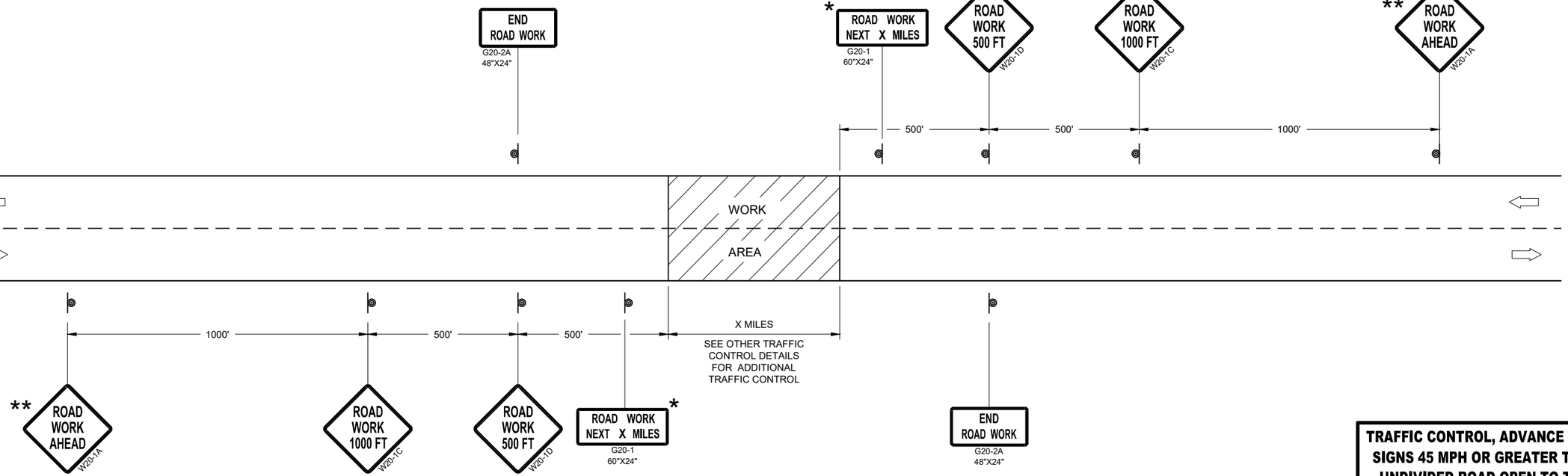
** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

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



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

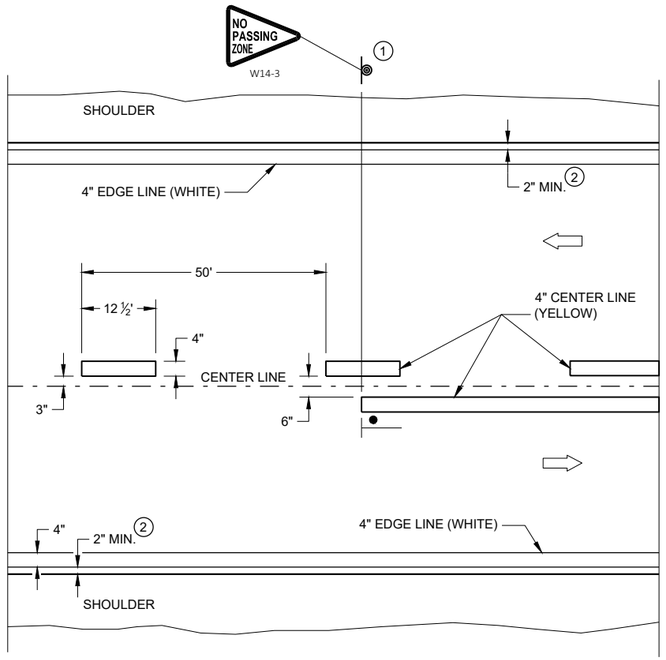
APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

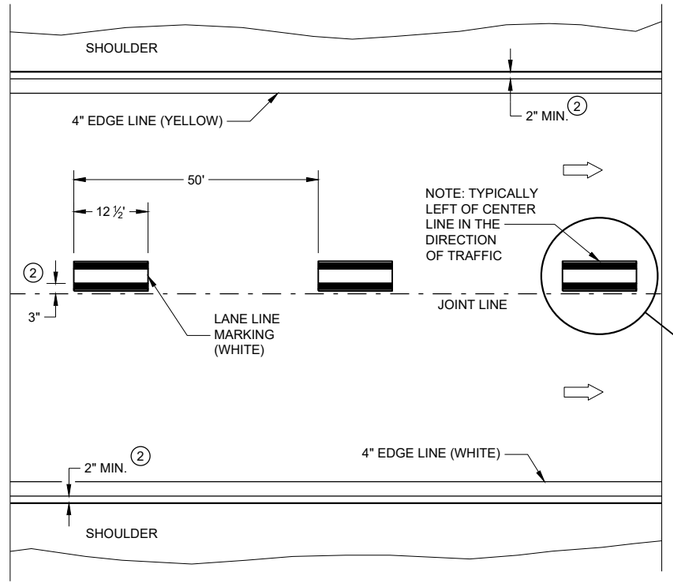
FHWA

6

SDD 15C04 - 05

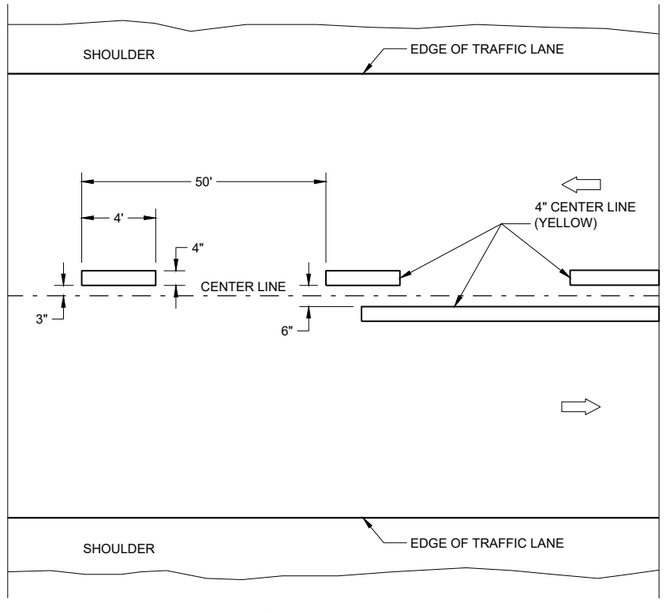


TWO WAY TRAFFIC

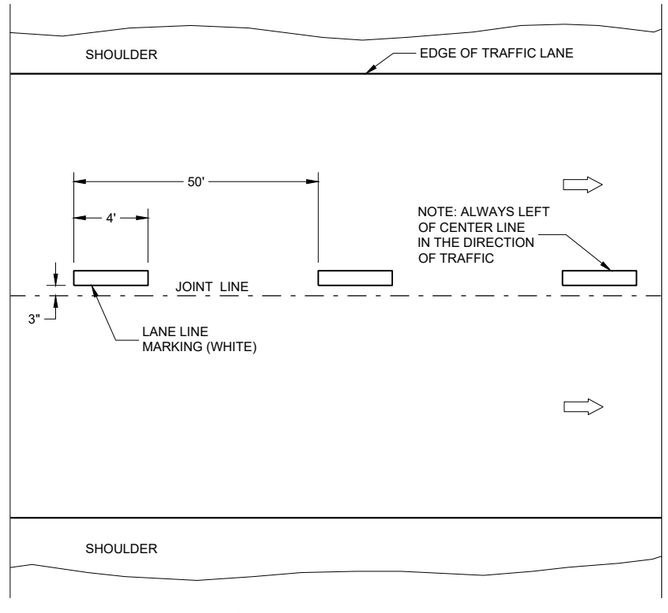


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

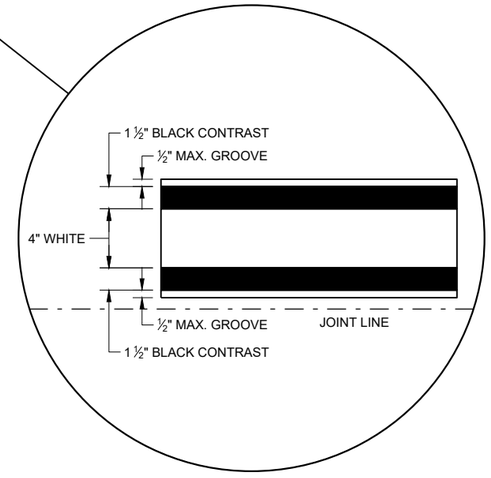
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Matthew Rauch — STATEWIDE SIGNING AND M ENGINEER

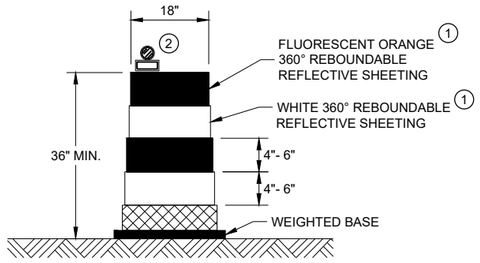
FHWA

SDD 15C08 - 20a

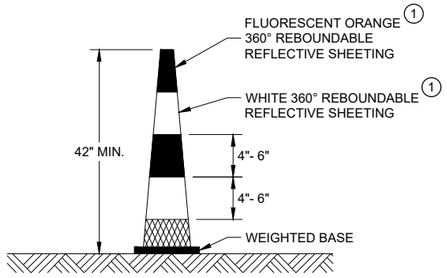
SDD 15C08 - 20a

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.

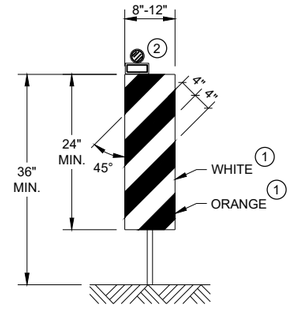


DRUM



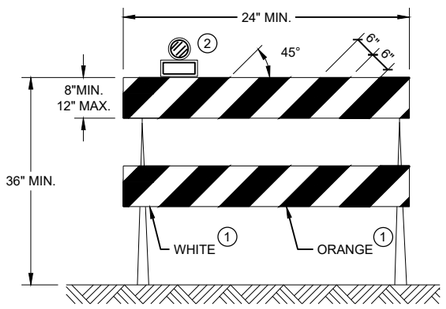
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



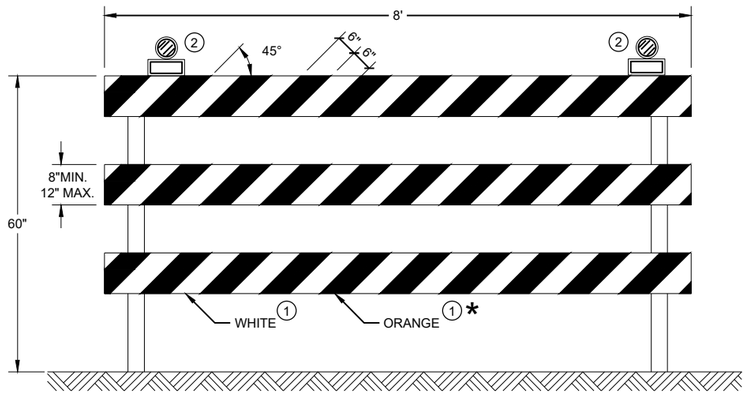
VERTICAL PANEL

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



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL 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.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE
FHWA

6

SDD15C11 - 09b

6

SDD15C11 - 09b

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.

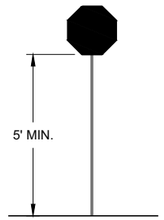
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR 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.



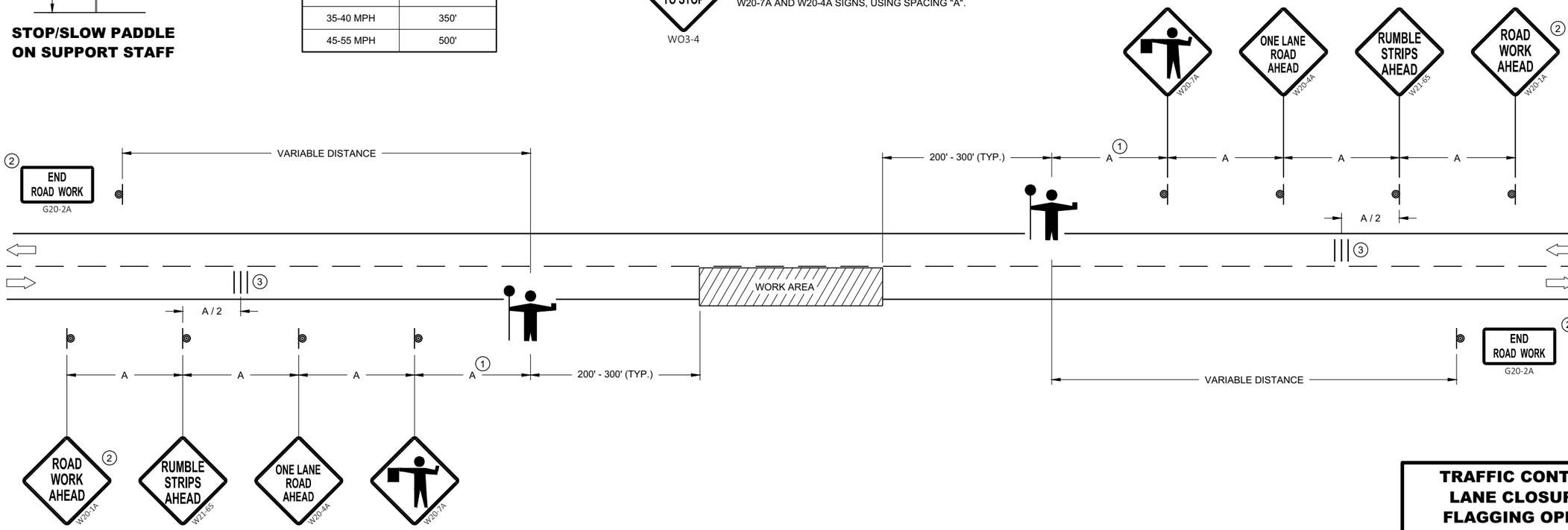
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

USE OF WO3-4 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

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C12 - 07

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (CAUTION)

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 OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

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 AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

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

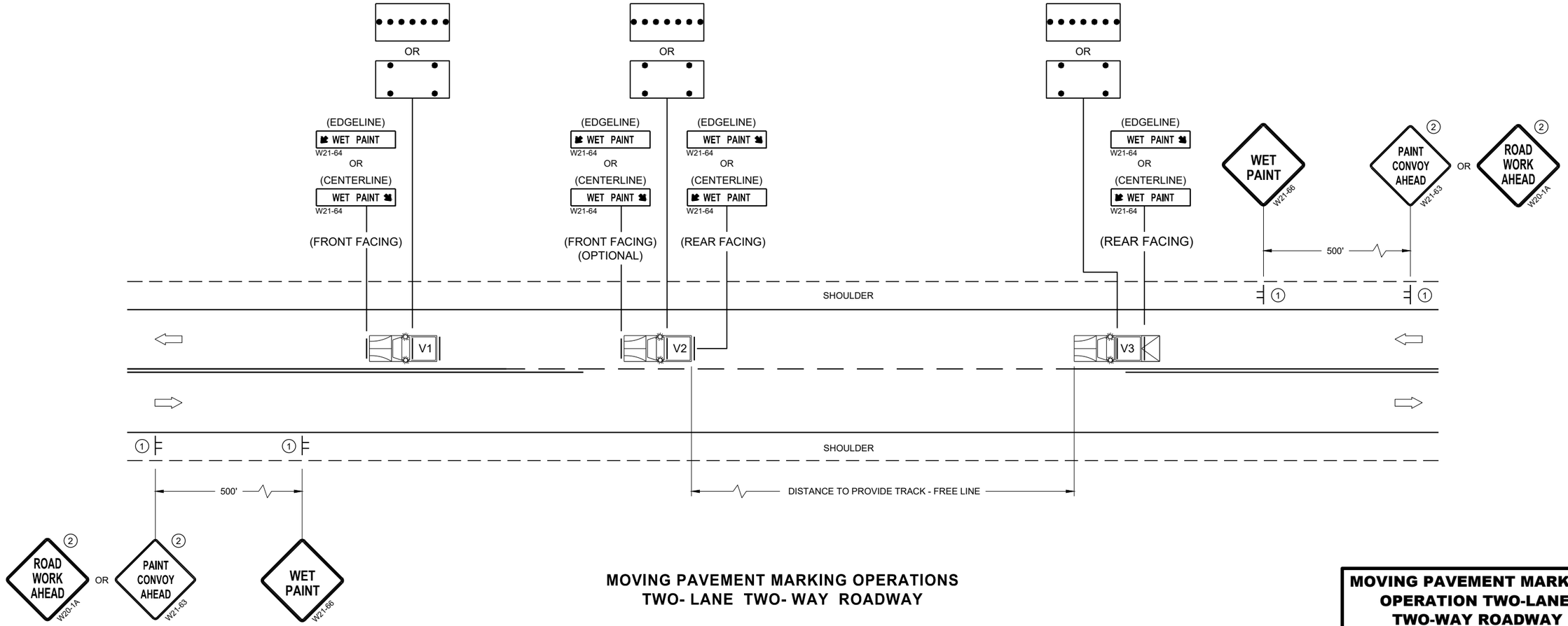
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

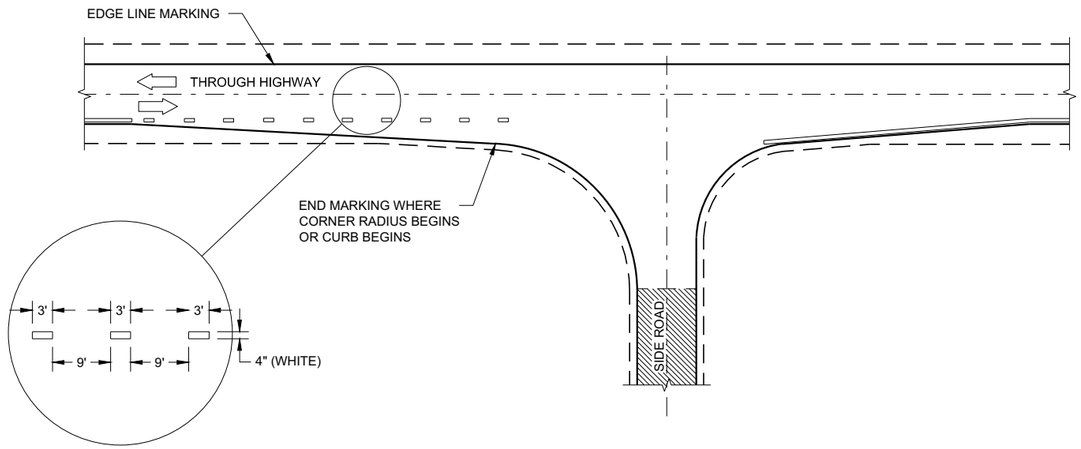
APPROVED
November 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

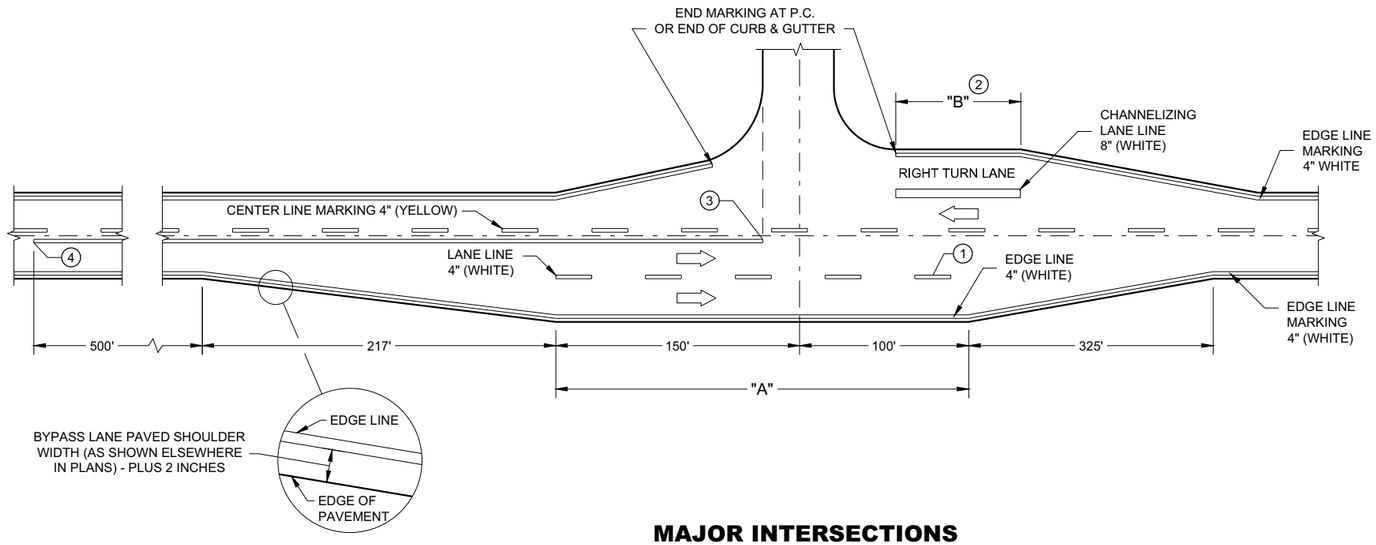
FHWA

SDD 15C19 - 06a

SDD 15C19 - 06a



MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

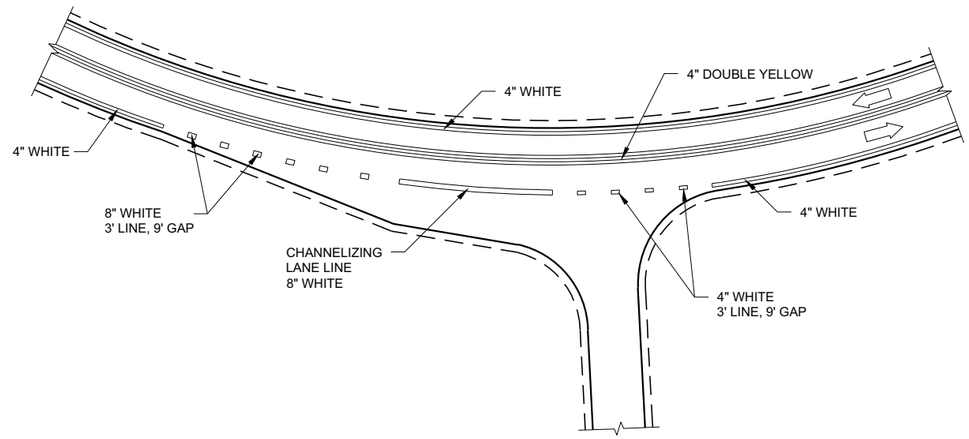
GENERAL NOTES

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.

LEGEND

DIRECTION OF TRAVEL



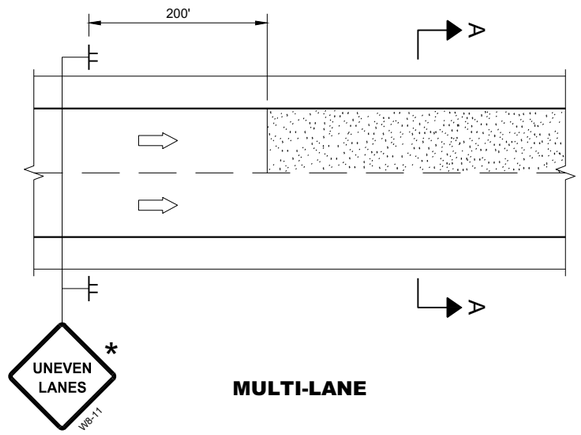
INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING (INTERSECTIONS)

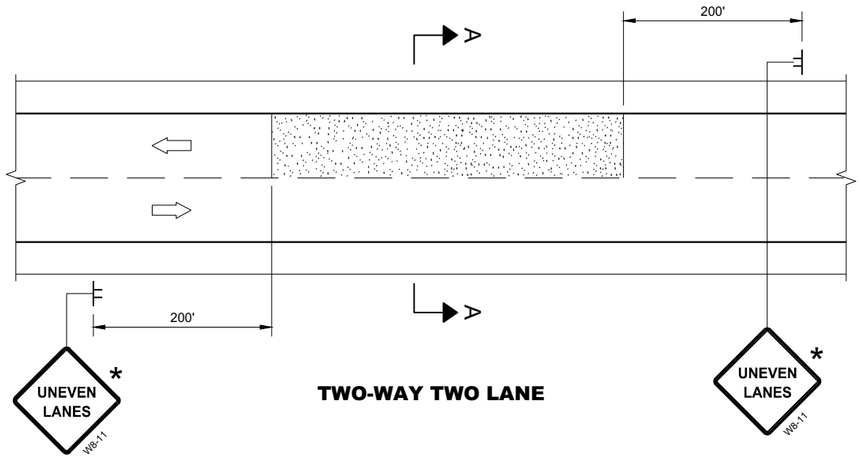
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C35 - 04a



MULTI-LANE



TWO-WAY TWO LANE

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.

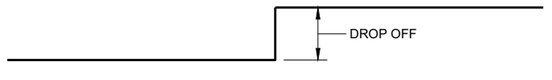
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* 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.

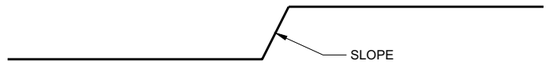
LEGEND

- 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

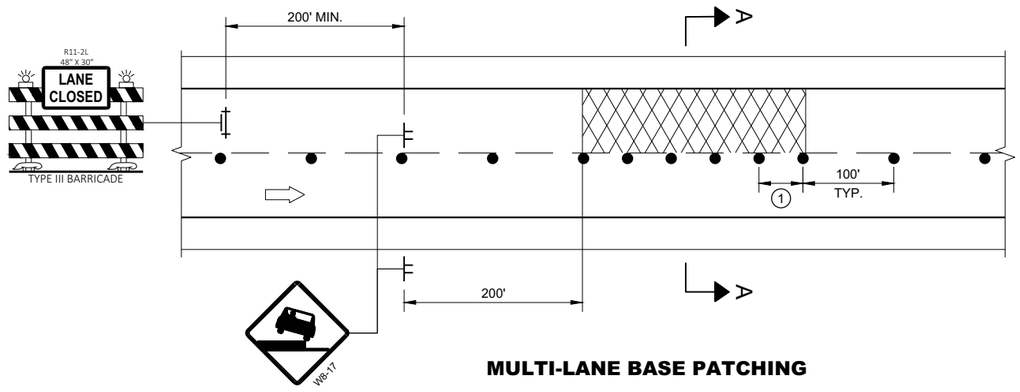


SECTION A - A

OR

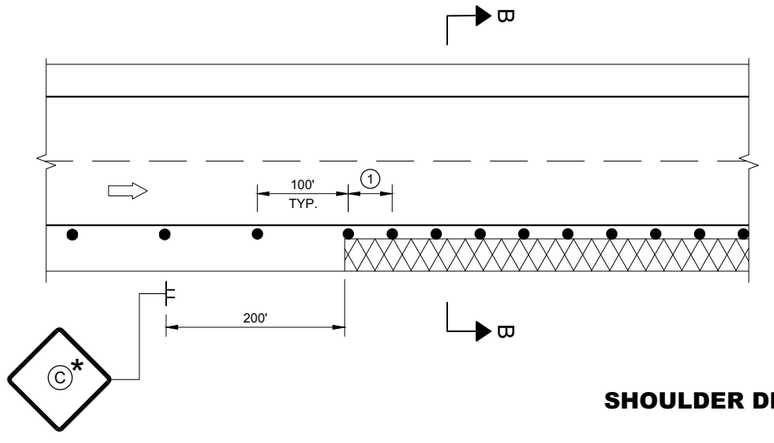


SECTION A - A

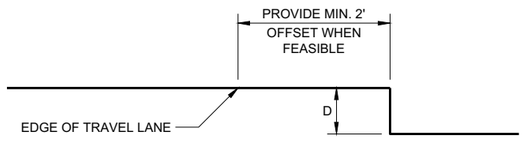


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 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
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D39 - 02

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.

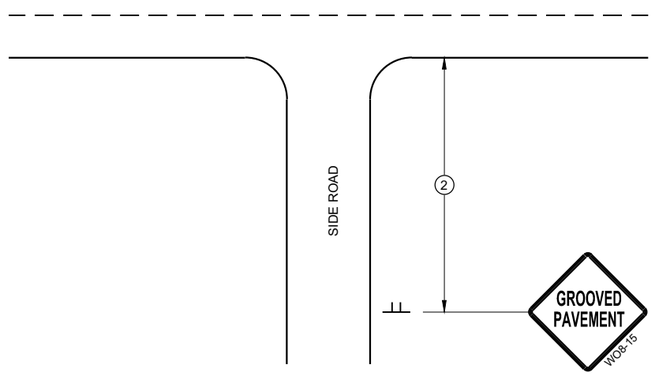
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

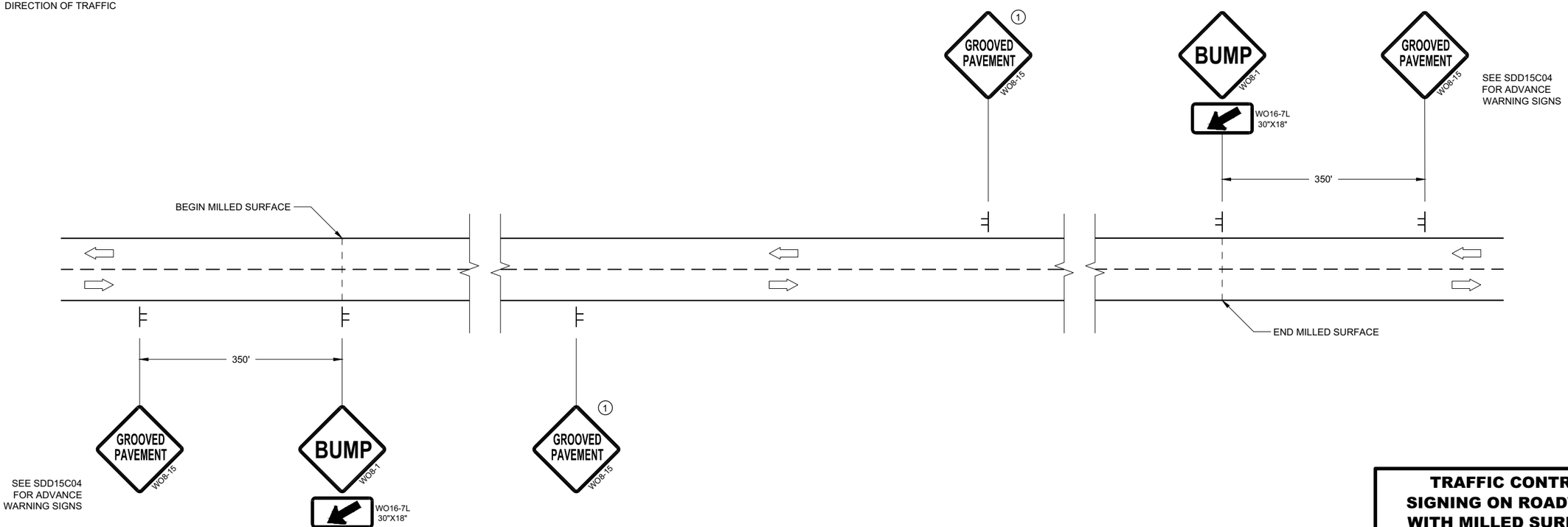
LEGEND

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

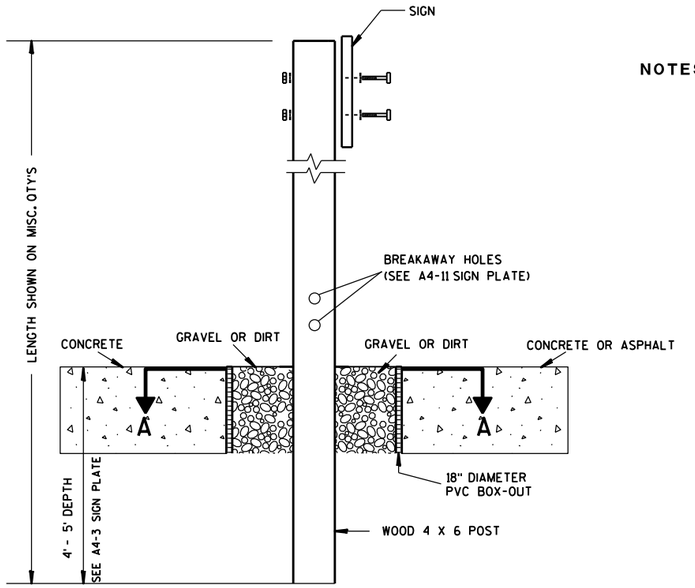
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

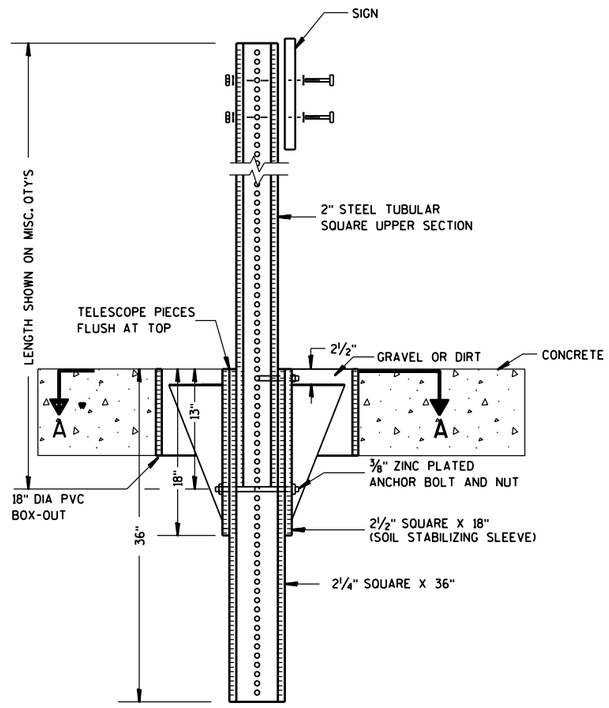
6
SDD 15D44 - 02



ELEVATION VIEW

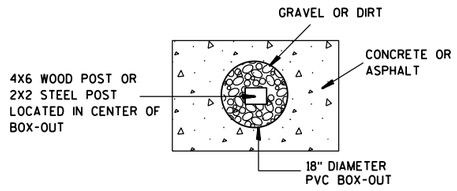
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

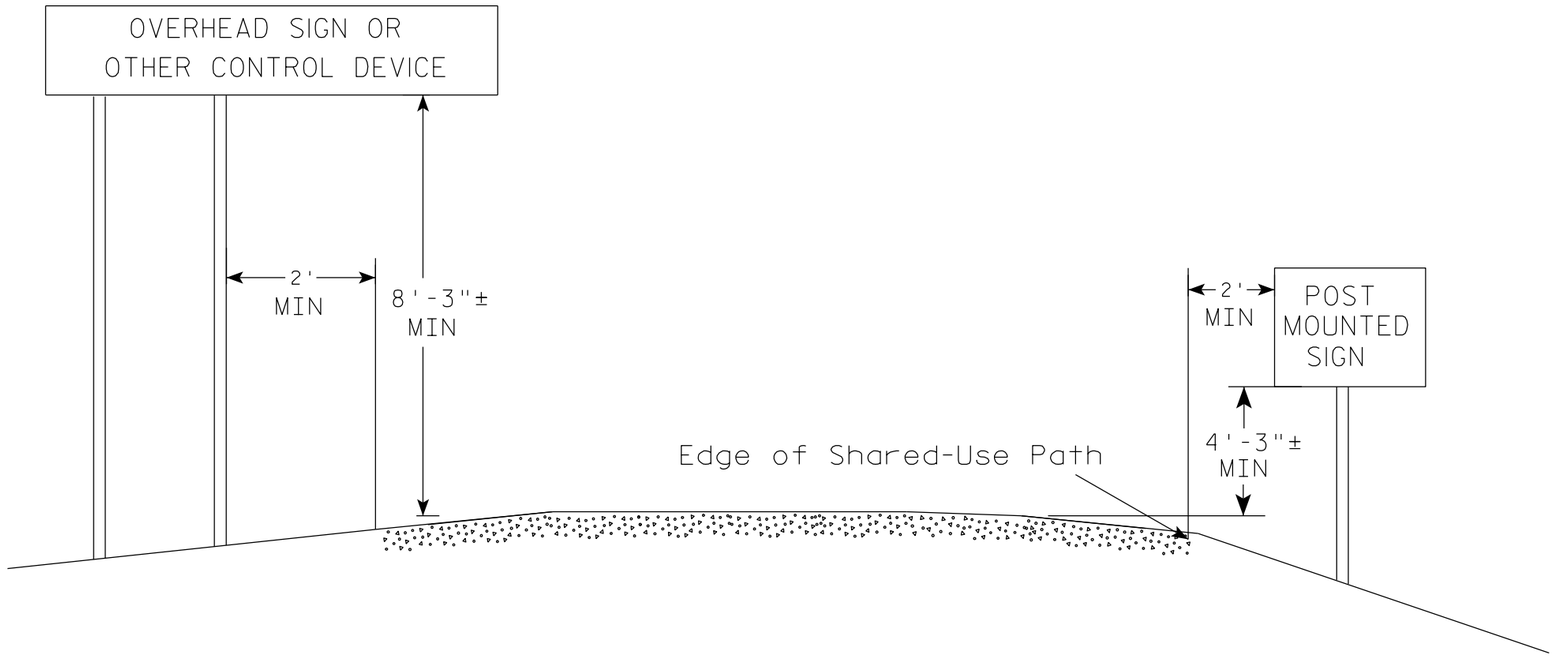
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. Offset distance shall be consistent with existing signs or consistent throughout length of project.
3. The height from ground level to the sign is 8'-3"± min. for the Overhead sign or other control device.
4. The height from ground level to the sign is 4'-3"± min. for the Post mounted sign.



POST EMBEDMENT DEPTH

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

7

7

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON MULTI USE PATHS

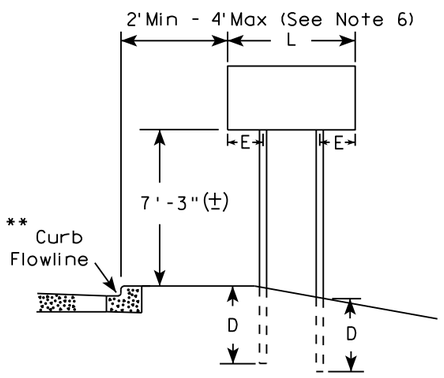
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

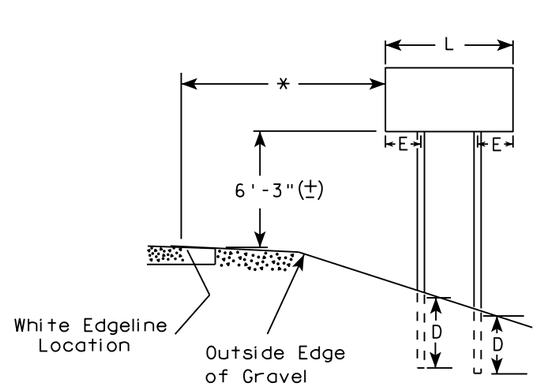
DATE 3/26/2020 PLATE NO. A4-3S.2

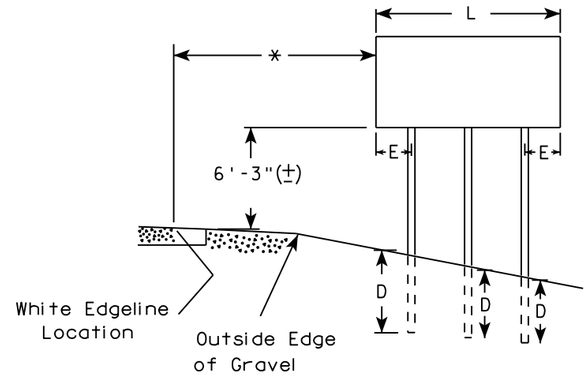
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

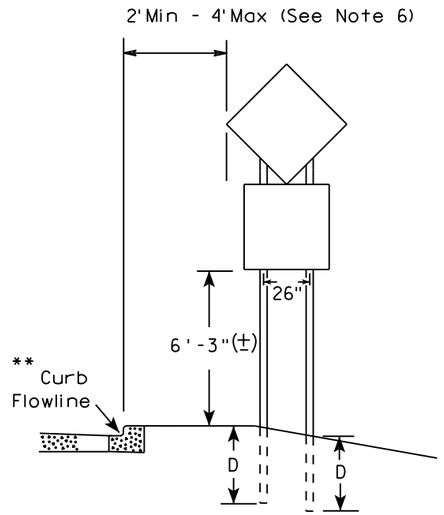
URBAN AREA



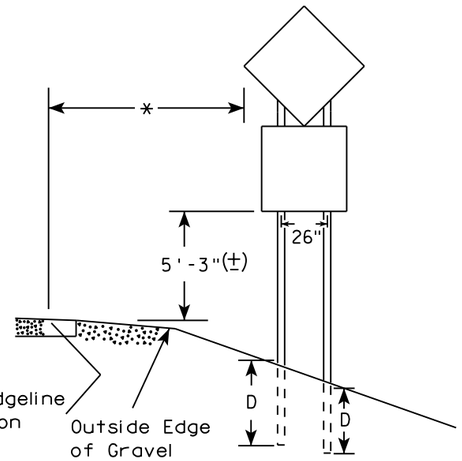
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

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

POST EMBEDMENT DEPTH

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

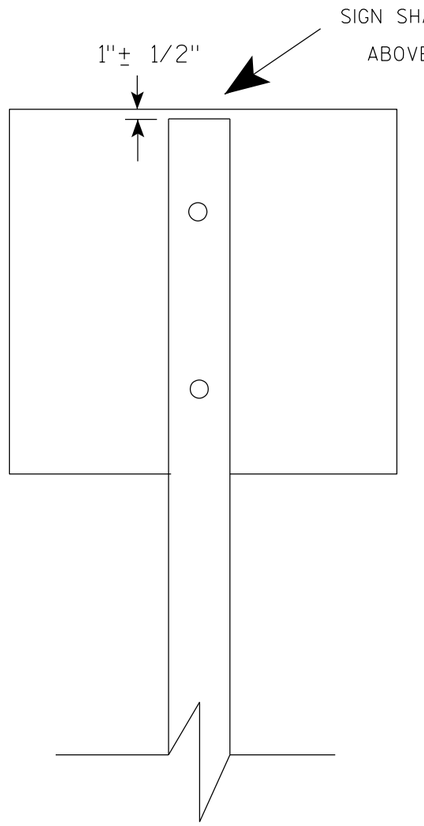
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

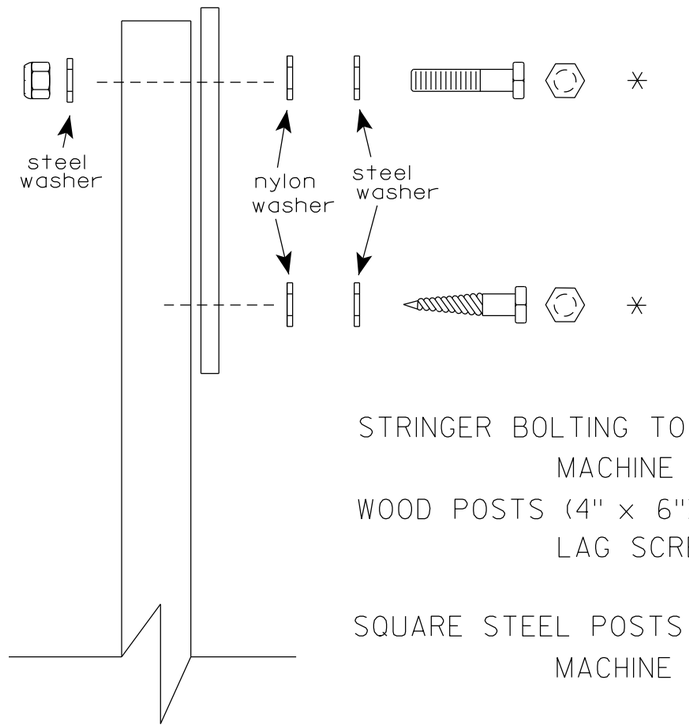
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 37	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 - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

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

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

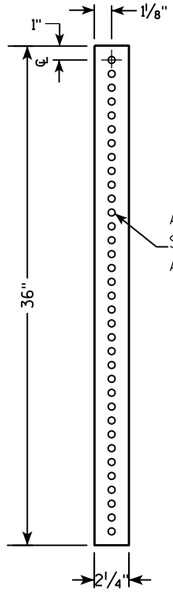
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

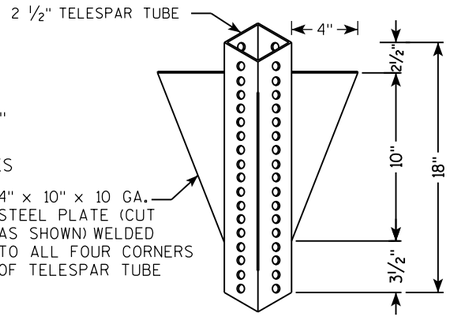
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

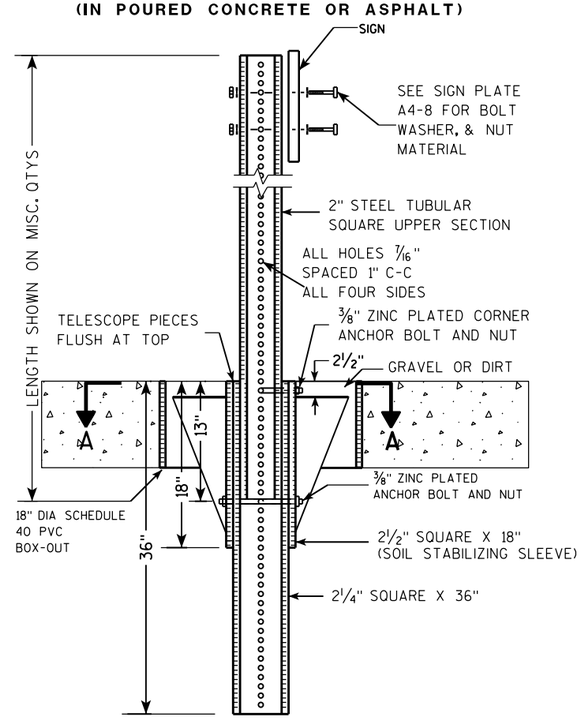
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



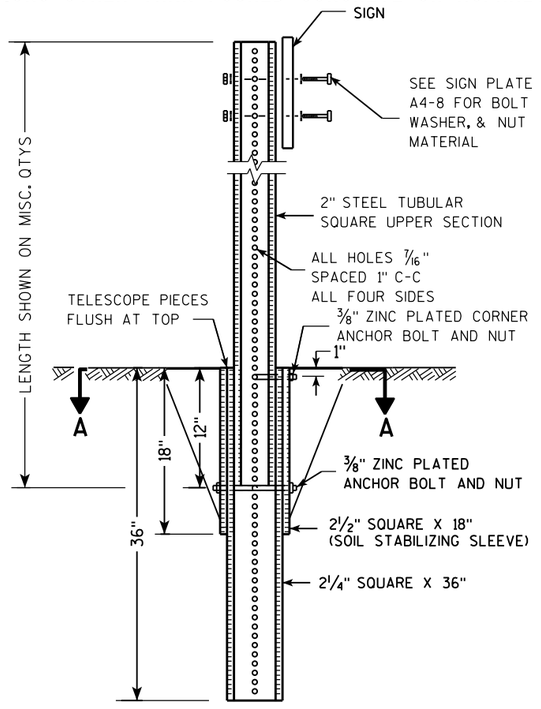
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

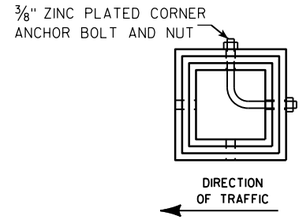


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





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).

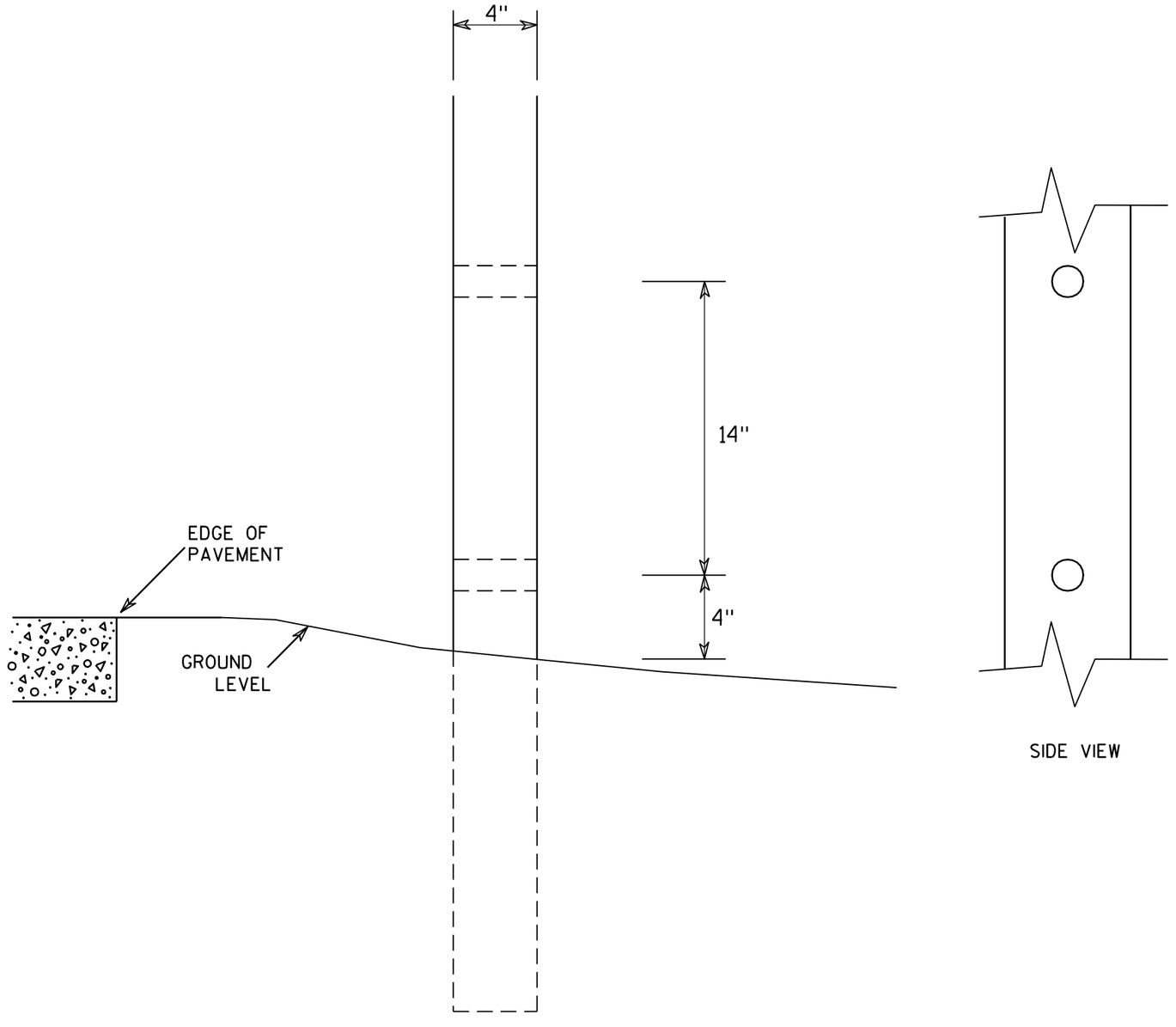
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 39 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

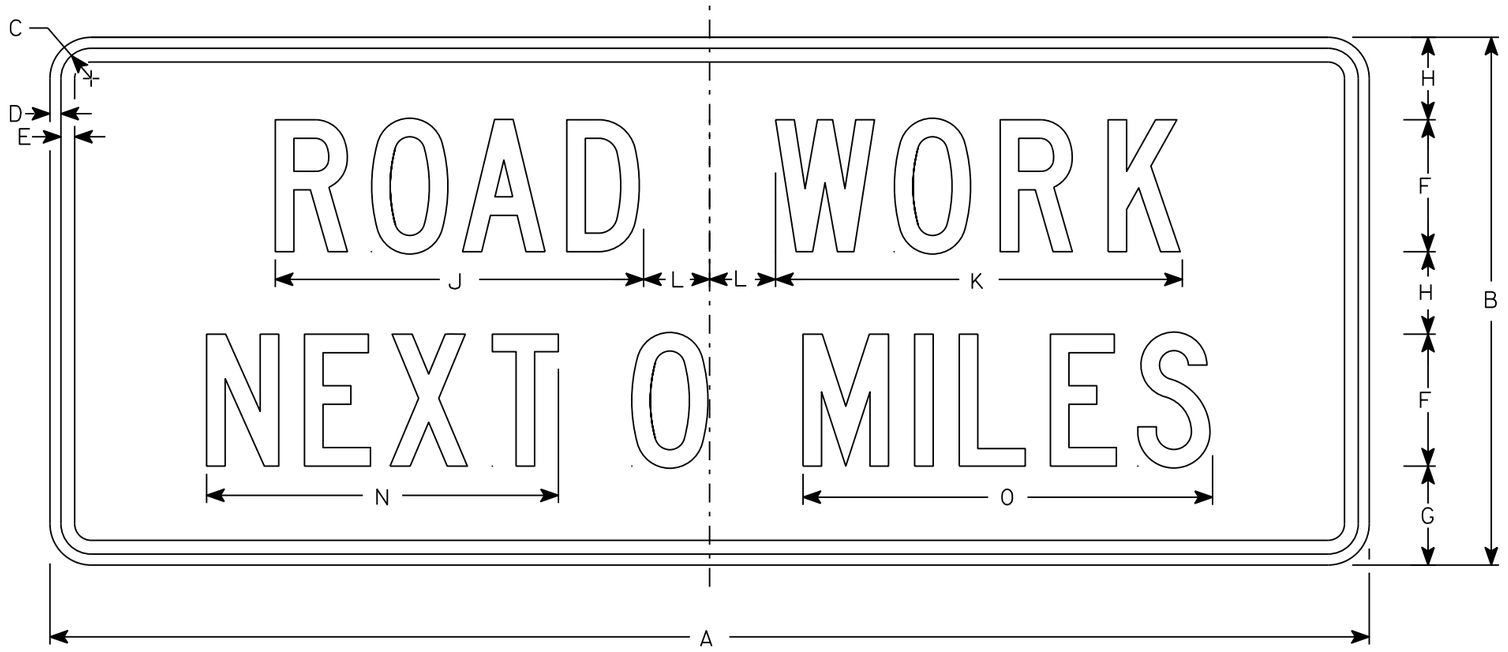
4 X 6 WOOD POST MODIFICATIONS

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: 40	E



G20-1

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Round distance to nearest whole Mile and substitute appropriate numerals and optically adjust spacing to achieve proper balance

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10
3																											
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10
5																											

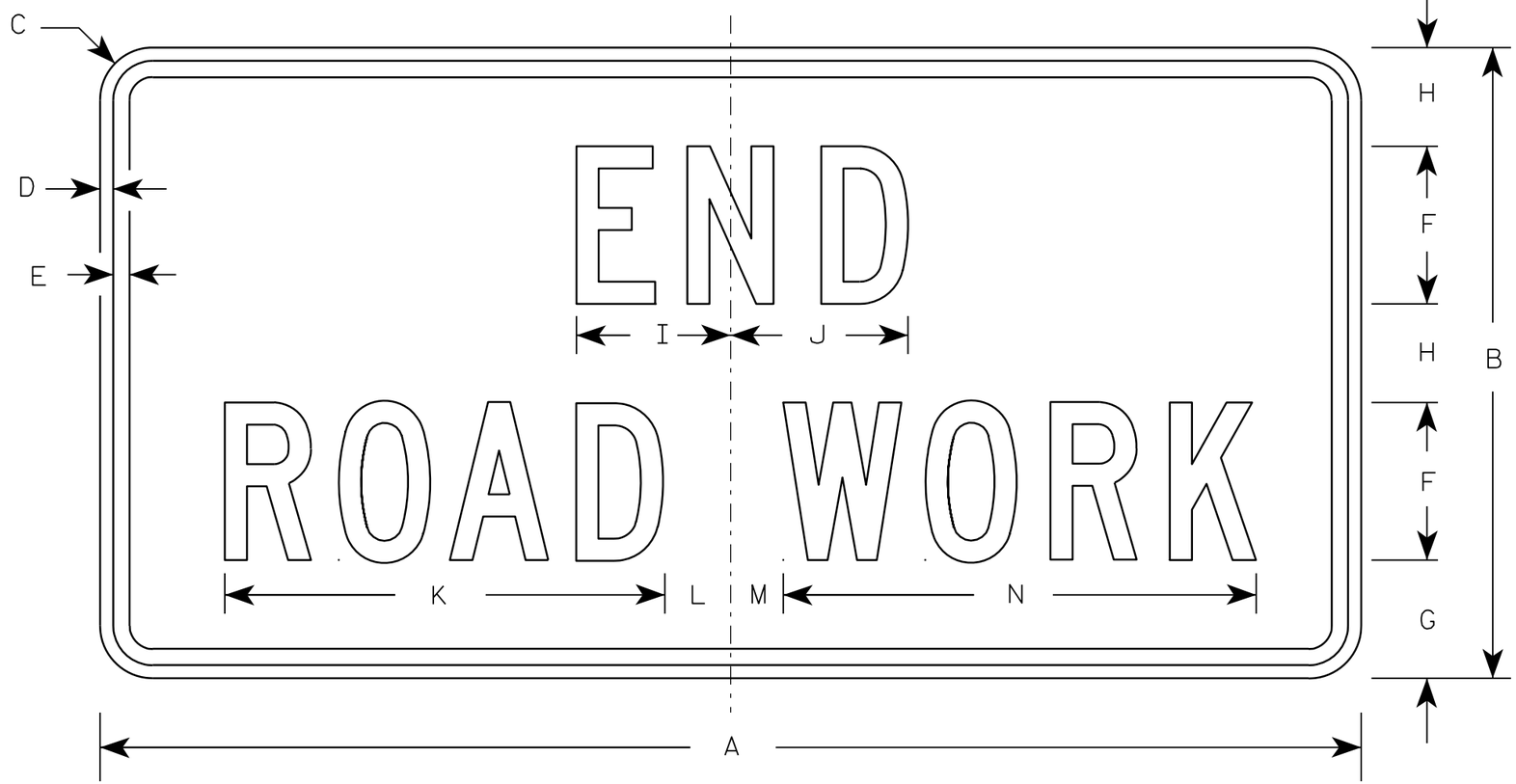
STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/14/17 PLATE NO. G20-1.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 41 | E



G20-2A

NOTES

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

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

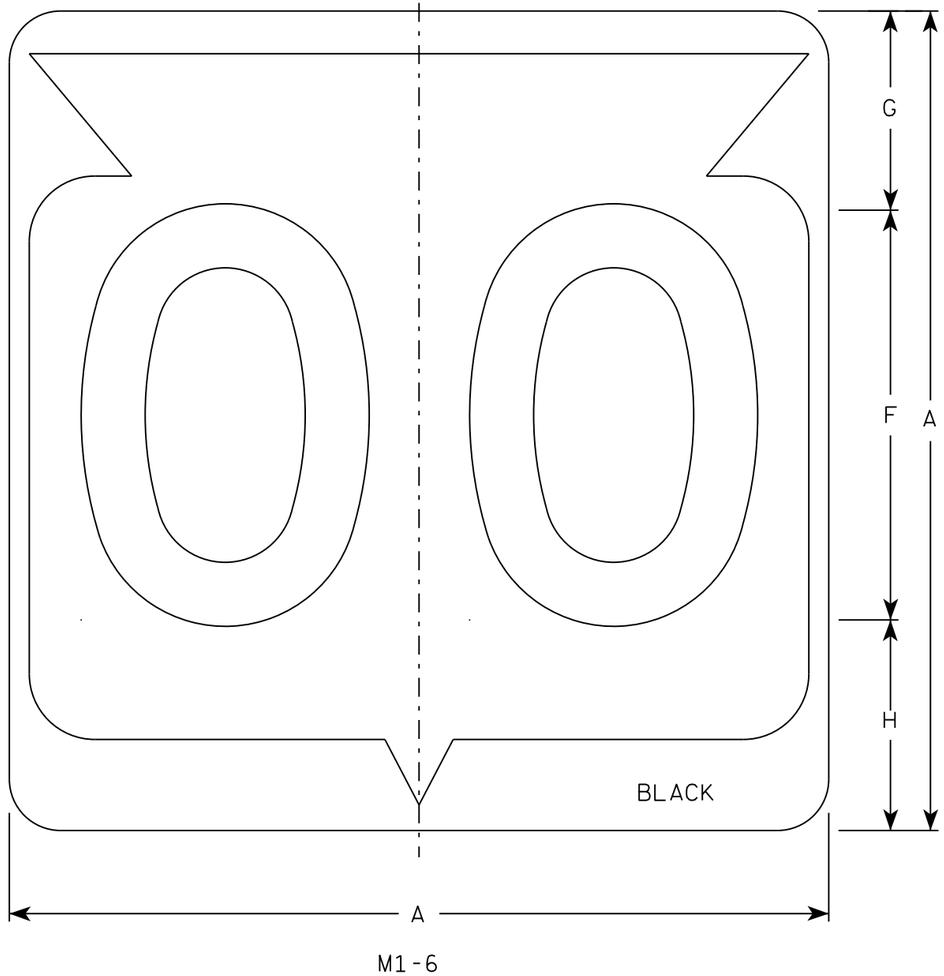
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

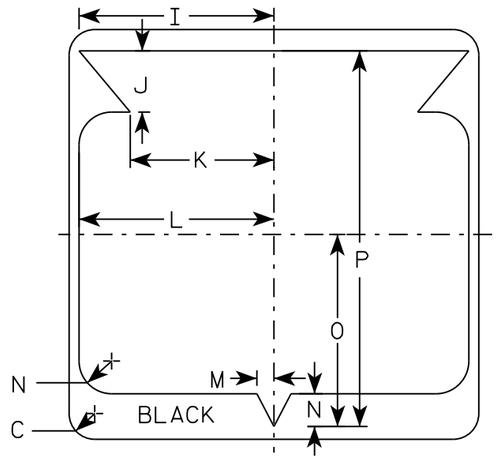
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 42	E



M1-6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



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

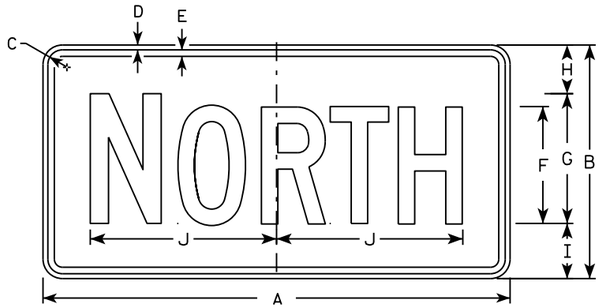
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

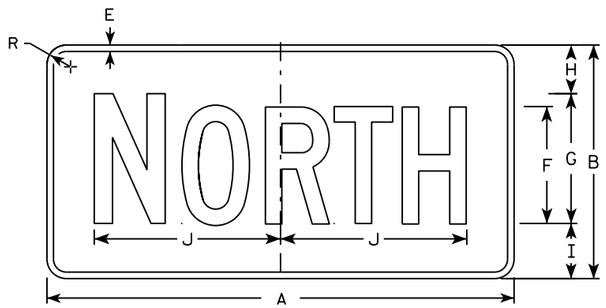
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 43	E



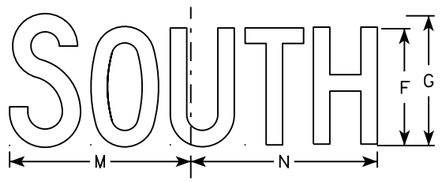
M3-1
MM3-1
MP3-1



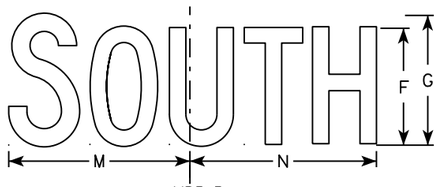
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

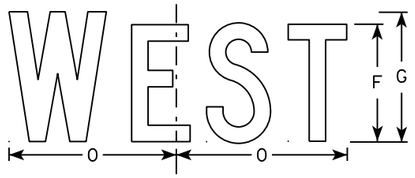
MB3-2
MK3-2
MN3-2



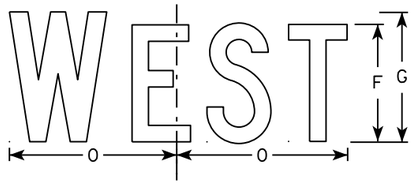
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

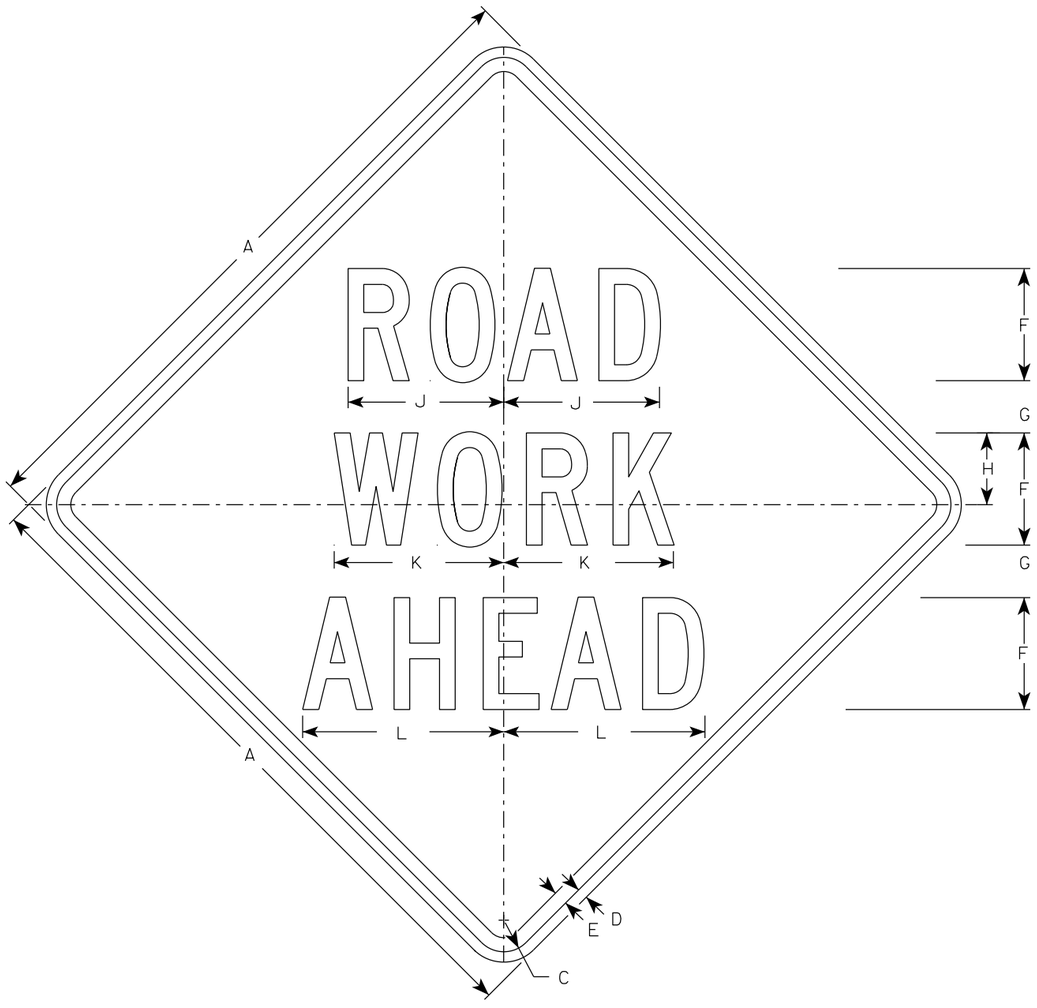
APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

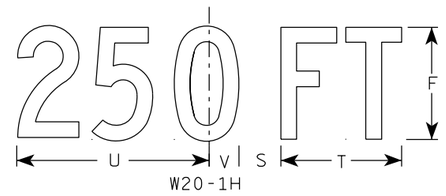
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

NOTES

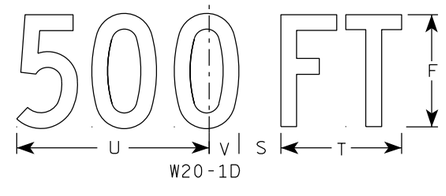
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



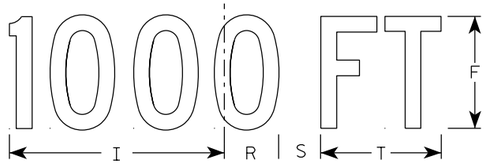
W20-1A



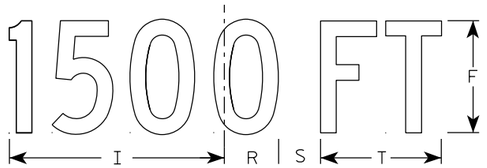
W20-1H



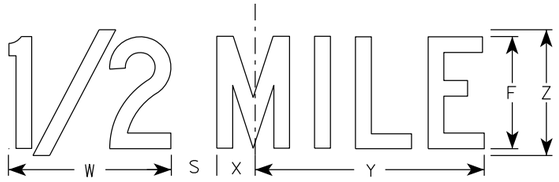
W20-1D



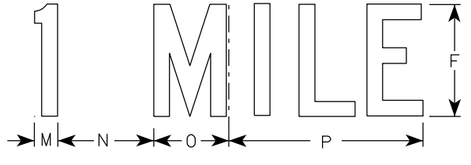
W20-1C



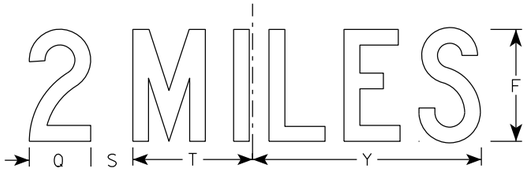
W20-1B



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11

PROJECT NO:

SHEET NO: 45 E

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov