MAD

Jan 11, 2022

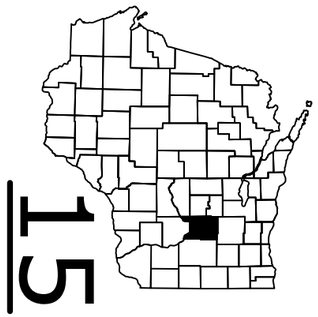
PROJECT ID: 6060-01-70

WITH: N/A

COUNTY: COLUMBIA

ORDER OF SHEETS

TOTAL SHEETS = 62



DESIGN DESIGNATION

A.A.D.T.	2022	=	2,740
A.A.D.T.	2042	=	3,160
D.H.V.	2042	=	134
D.D.		=	57/33
T.		=	13.9%
DESIGN SPEED		=	55 MPH
ESALS		=	700,000

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

COLUMBUS - PRINCETON

STH 33 TO N COUNTY LINE ROAD

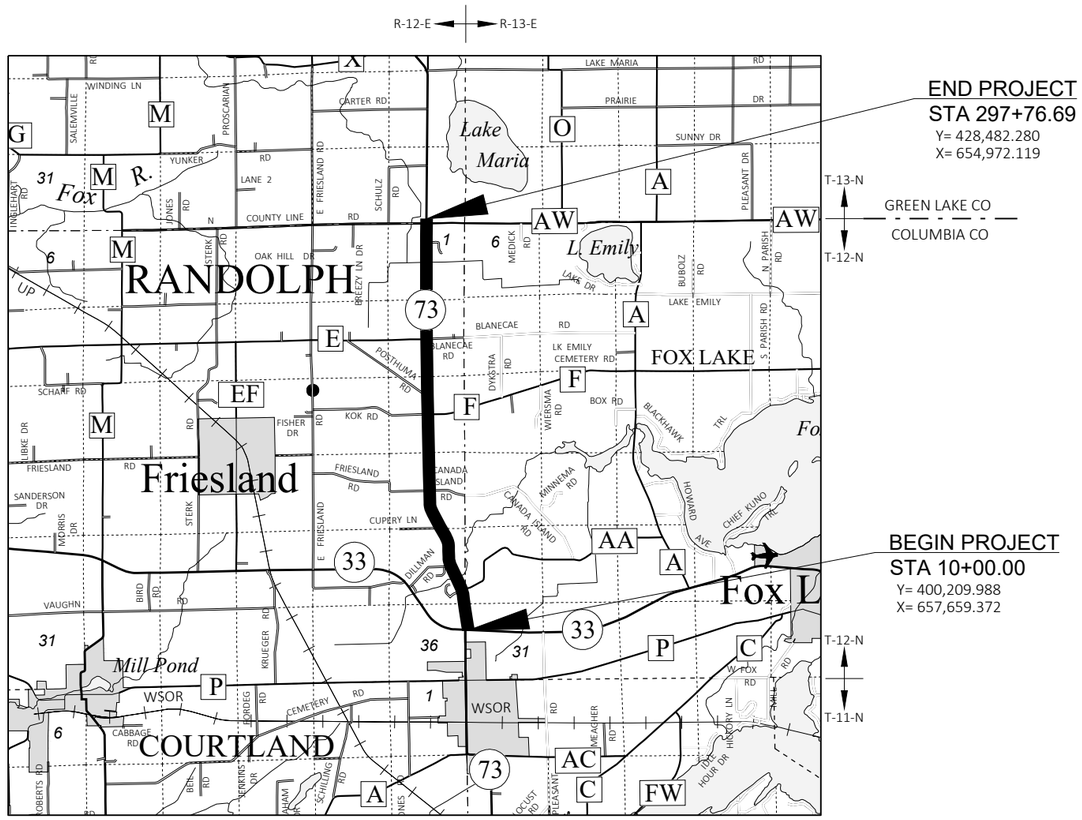
STH 73

COLUMBIA COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6060-01-70	WISC 2022118	1

STATE PROJECT NUMBER

6060-01-70



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 5.480 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), COLUMBIA COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NE REGION
Designer	K. BERG
Project Manager	K. TREML
Regional Examiner	SW REGION
Regional Supervisor	R. WAGNER

APPROVED FOR THE DEPARTMENT

DATE: 7/23/2021 (Signature)

E

FILE NAME : C:\USERS\DITJ3R\DESKTOP\C3D\60600100\SHEETSPLAN\010101-TI.DWG PLOT DATE : 5/7/2021 2:02 PM PLOT BY : ROHE, JUSTIN LAURENC PLOT NAME :

2

GENERAL NOTES

THE LOCATIONS OF EXISTING UTILITY FACILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES

PROJECT OVERVIEW

TYPICAL SECTIONS

CONSTRUCTION DETAILS

PLAN DETAILS

DNR LIAISON

ERIC HEGGELUND
SOUTH CENTRAL REGION
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
(608)228-7927
eric.heggelund@wisconsin.gov

COLUMBIA COUNTY HIGHWAY COMMISSIONER

CHRIS HARDY, PE
338 OLD HIGHWAY 16 WEST
WYOCENA, WI 53969-0875
(608)429-2136

NE REGION SURVEY COORDINATOR

CORMAC MCINNIS, RLS
944 VANDERPERREN WAY
GREEN BAY, WI 54304
(920)492-5638
cormac.mcinnis@dot.wi.gov

NE REGION DESIGN PROJECT MANAGER

KYLE TREML, PE
944 VANDERPERREN WAY
GREEN BAY, WI 54304
(920)360-7029
kyle.treml@dot.wi.gov

UTILITIES CONTACTS

DOUG VOSBERG
ATC MANAGEMENT, INC. - ELECTRICITY-TRANSMISSION
2489 RINDEN RD
COTTAGE GROVE, WI 53527
(608) 877-7650
dvosberg@atcllc.com

PERRY BOECK
ALLIANT ENERGY - ELECTRICITY
120 EAST MAPLE AVE
BEAVER DAM WI 53916
(920) 887-6061
perryboeck@alliantenergy.com

NICK FRASE
CHARTER COMMUNICATIONS - COMMUNICATION LINE
1515 WEST WASHINGTON ST
WEST BEND, WI 53095
(920) 304-6797
nick.frase@charter.com

SHAWN PIETRZAK
ADAMS-COLUMBIA ELECTRIC COOPERATIVE - ELECTRICITY
P. O. BOX 70
FRIENDSHIP, WI 53934
(800) 831-8629, EXT 323
spietrzak@acecwi.com

STEVE BISHOP
CENTURYLINK - COMMUNICATION LINE
130 4TH ST
BARABOO WI 53913
(608) 355-7501
steven.bishop@lumen.com

2

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 0.017 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.017 ACRES

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

2

N

STH 33

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300

STH 73

R/L STH 73

DILLMAN ROAD

CUPERY DRIVE

FRIESLAND ROAD

KOK ROAD

POSTHUMA ROAD

CTH E

SUNNY ACRES DRIVE

NORTH COUNTY LINE ROAD

CTH F

BLANECAE ROAD

HOFFMAN DRIVE

ZACHERIAS ROAD

CTH AW

CTH AA

PCMS

BEGIN PROJECT
STA 10+00.00
Y=400,209.988
X=657,659.372

ROAD WORK BEGINS
[DAY] [DATE]

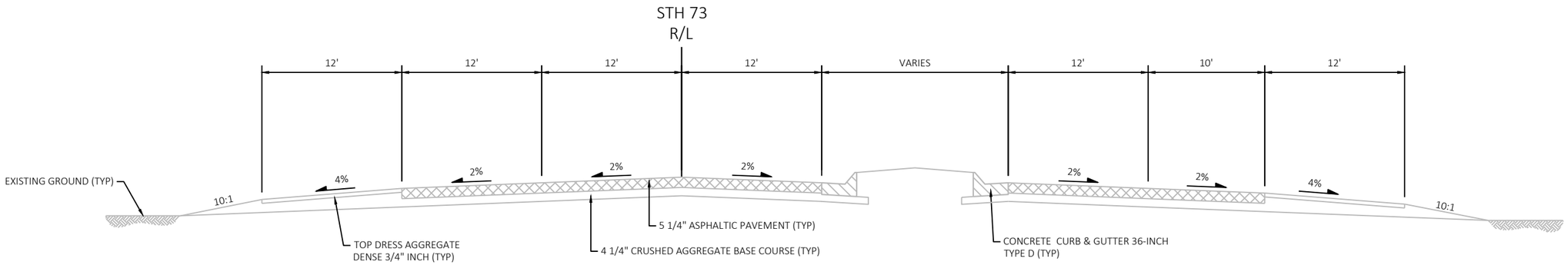
ROAD WORK BEGINS
[DAY] [DATE]

END PROJECT
STA 297+76.69
Y=428,482.280
X=654,972.119

PCMS

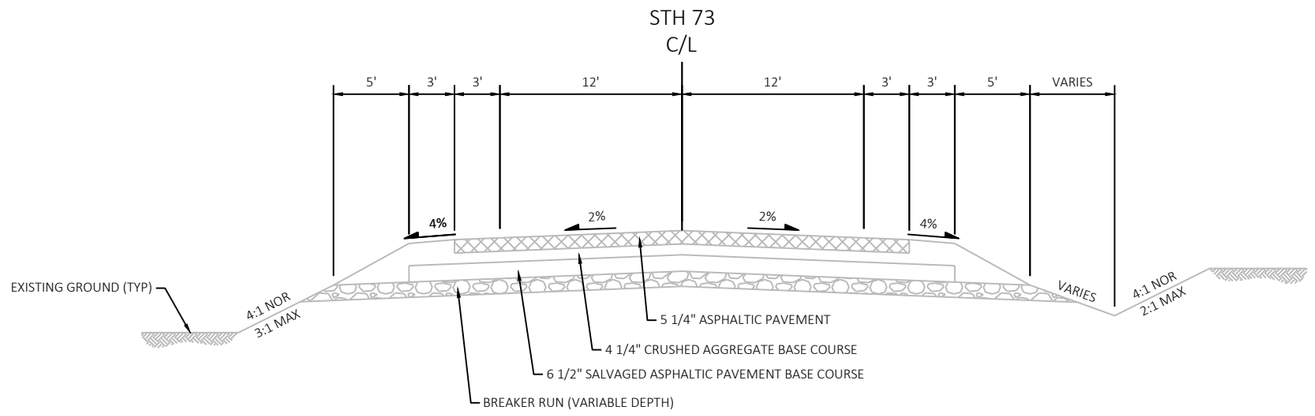
PROJECT NO: 6060-01-70	HWY: STH 73	COUNTY: COLUMBIA	PROJECT OVERVIEW	SHEET 3	E

2



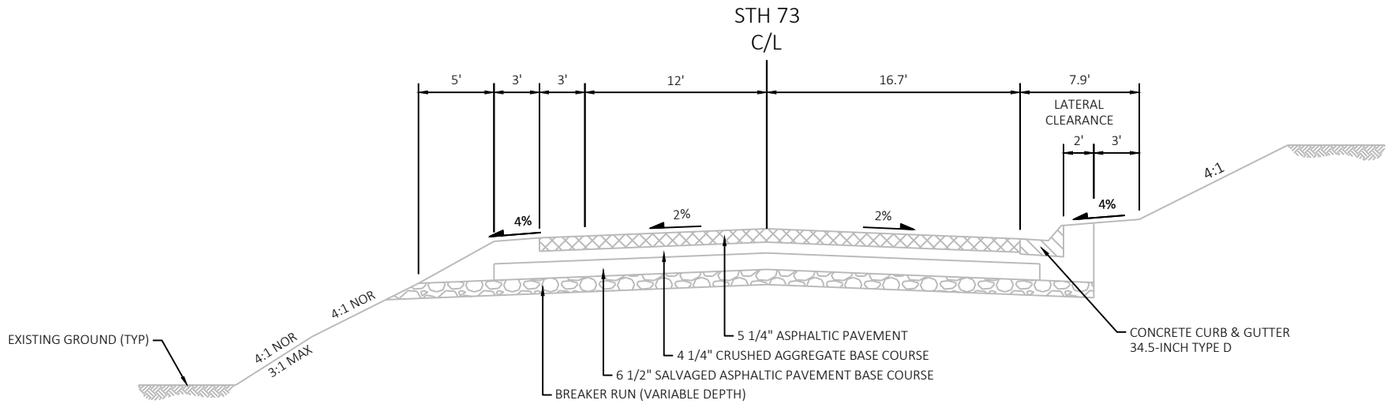
EXISTING TYPICAL SECTION STH 73

STA 10+00 TO STA 15+65



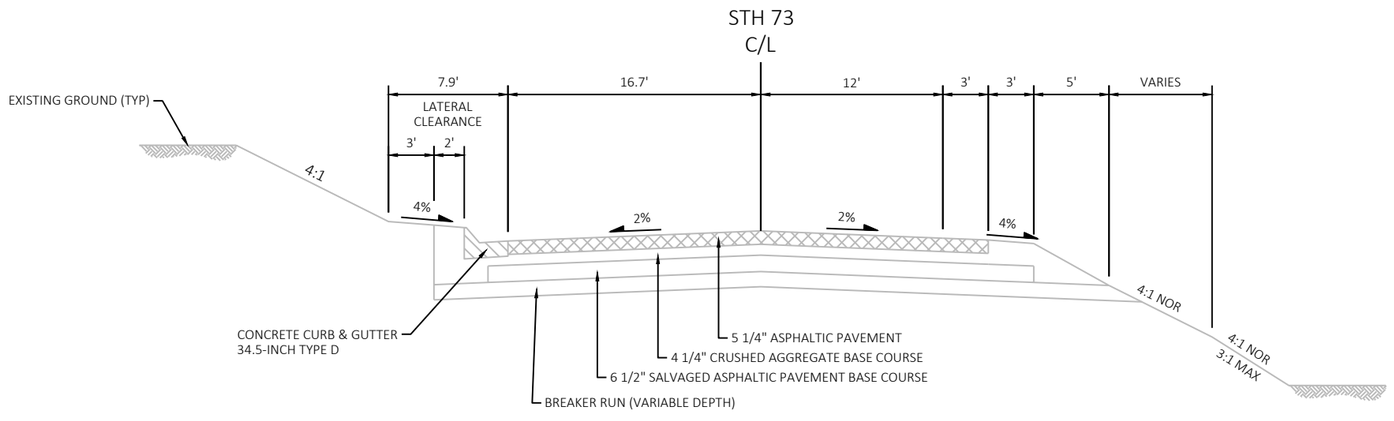
EXISTING TYPICAL SECTION STH 73

STA 15+65 TO STA 45+50
STA 48+15 TO STA 62+55
STA 65+30 TO STA 100+95
STA 103+25 TO STA 130+80
STA 133+40 TO STA 208+15
STA 210+80 TO STA 298+70



EXISTING TYPICAL SECTION STH 73

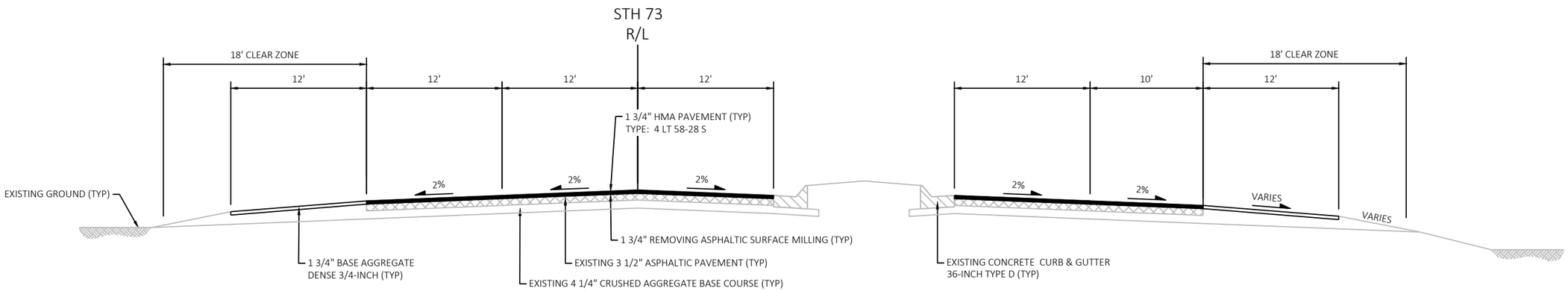
STA 45+50 TO STA 48+15
STA 208+15 TO STA 210+80



EXISTING TYPICAL SECTION STH 73

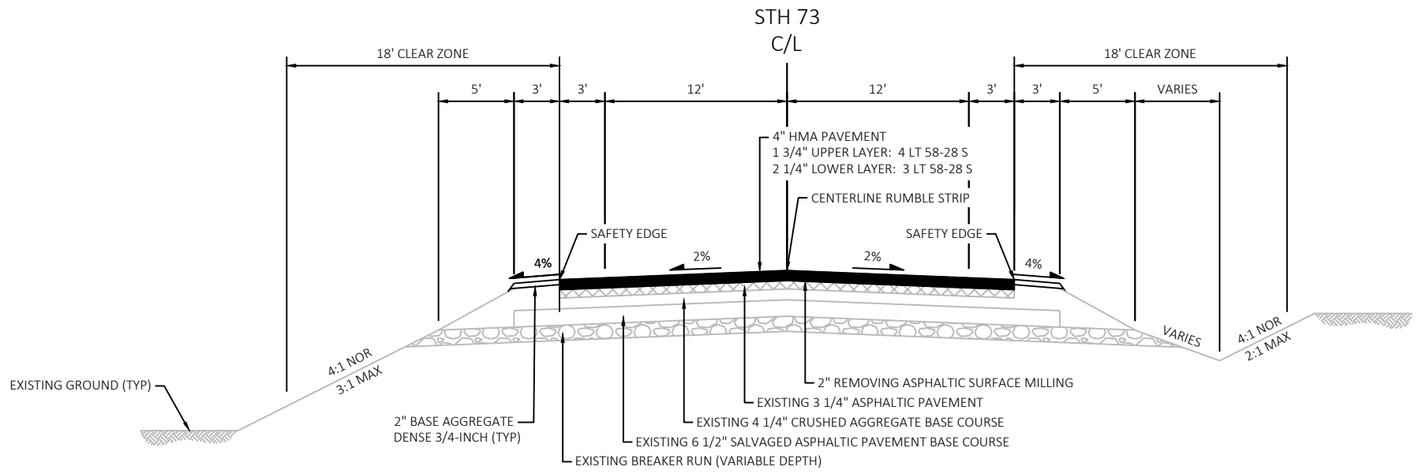
STA 62+55 TO STA 65+30
STA 100+95 TO STA 103+25
STA 130+80 TO STA 133+40

PROJECT NO: 6060-01-70	HWY: STH 73	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 5	E



FINISHED TYPICAL SECTION STH 73

STA 10+00 TO STA 15+65



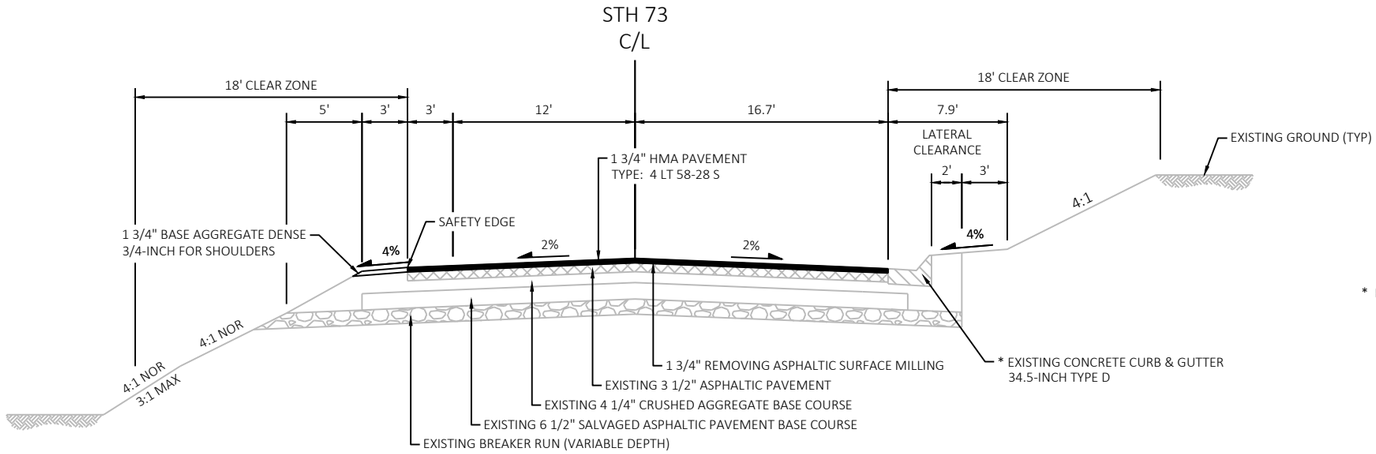
FINISHED TYPICAL SECTION STH 73

STA 15+65 TO STA 45+50
STA 48+15 TO STA 62+55
STA 65+30 TO STA 100+95
STA 103+25 TO STA 130+80
STA 133+40 TO STA 208+15
STA 210+80 TO STA 298+70

PROJECT NO: 6060-01-70	HWY: STH 73	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 6	E

FILE NAME : \\GRE31FP1\N3PUBLIC\PDS\C3D\60600100\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 020303-ts

PLOT DATE : 5/6/2021 12:40 PM PLOT BY : CAMPSHURE, MICHAEL R PLOT NAME : PLOT SCALE : 1IN:10 FT

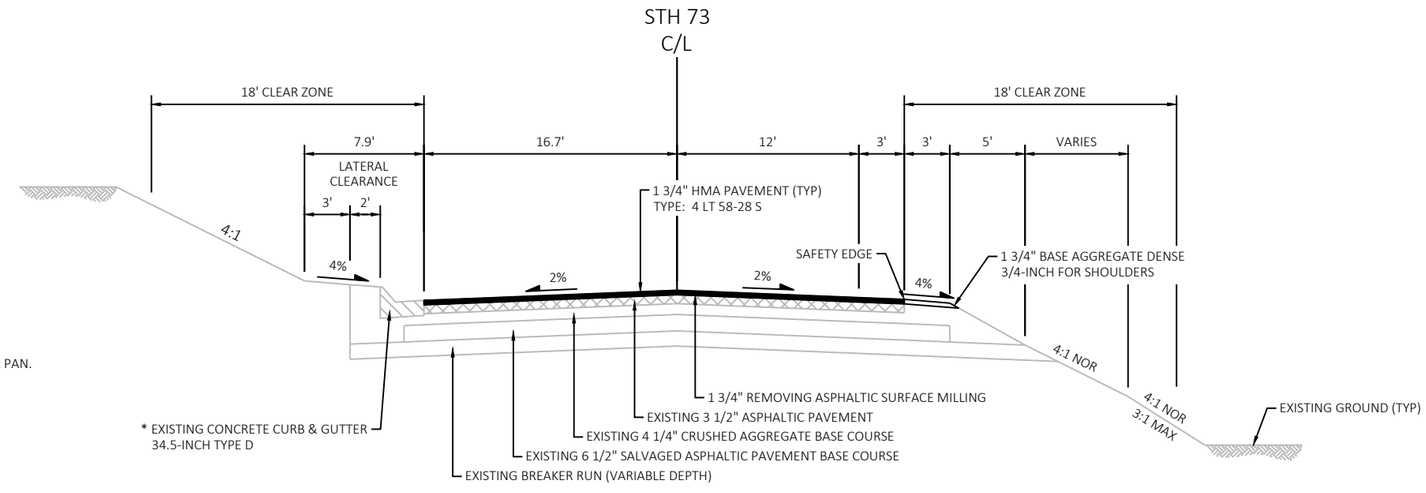


NOTE

* PAVING OPERATION SHOULD NOT FILL GUTTER PAN.

FINISHED TYPICAL SECTION STH 73

STA 45+20 TO STA 48+73
STA 62+82 TO STA 64+69
STA 156+65 TO STA 158+83
STA 207+47 TO STA 210+63



NOTE

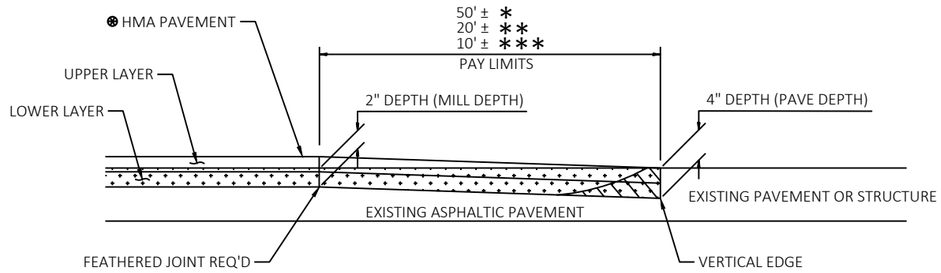
* PAVING OPERATION SHOULD NOT FILL GUTTER PAN.

FINISHED TYPICAL SECTION STH 73

STA 62+51 TO STA 65+23
STA 100+41 TO STA 103+14
STA 129+61 TO STA 133+21

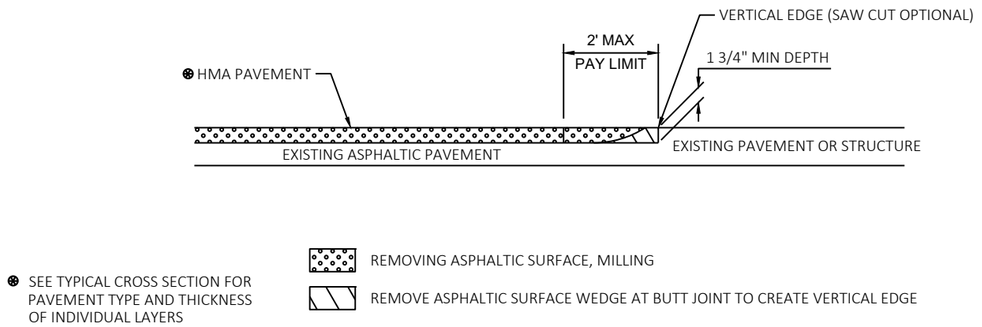
PROJECT NO: 6060-01-70	HWY: STH 73	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 7	E

2



BUTT JOINT DETAIL FOR MILLED ASPHALTIC PAVEMENTS (PROFILE CHANGE)

* MAINLINE
** SIDEROADS
*** PRIVATE ENTRANCES

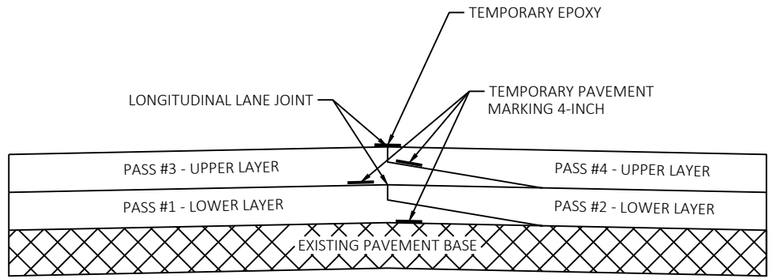


BUTT JOINT DETAIL FOR ASPHALTIC PAVEMENTS (NO PROFILE CHANGE)

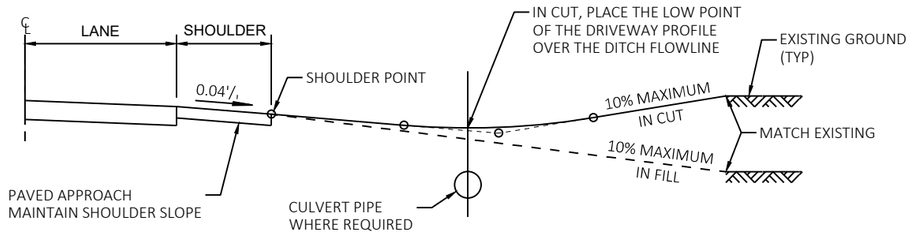
PROJECT NO: 6060-01-70	HWY: STH 73	COUNTY: COLUMBIA	CONSTRUCTION DETAILS	SHEET 8	E

FILE NAME : C:\CIVIL 3D PROJECTS\60600100\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 021001-cd
PLOT DATE : 10/13/2021 12:58 PM PLOT BY : SMITH, JENNIFER B PLOT NAME : PLOT SCALE : 1IN:10 FT
WISDOT/CADDS SHEET 42

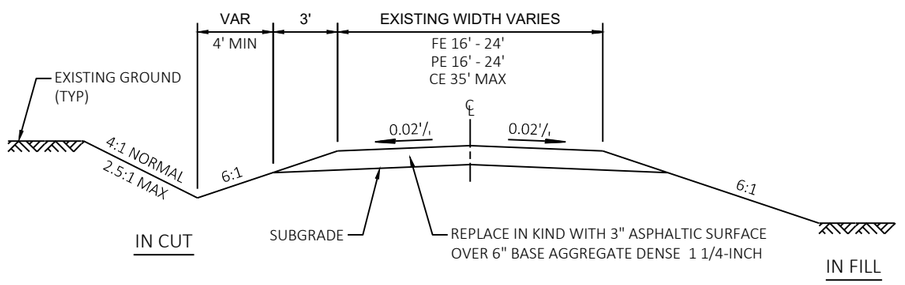
2



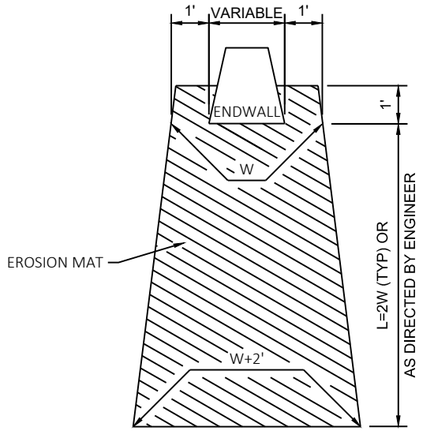
PAVEMENT MARKING DETAIL FOR TAPERED OVERLAPPING JOINTS IN HMA PAVEMENTS



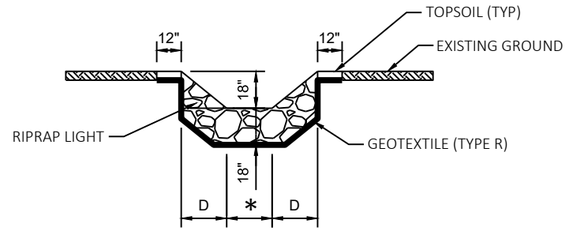
TYPICAL DRIVEWAY PROFILES



TYPICAL CROSS SECTION FOR DRIVEWAYS

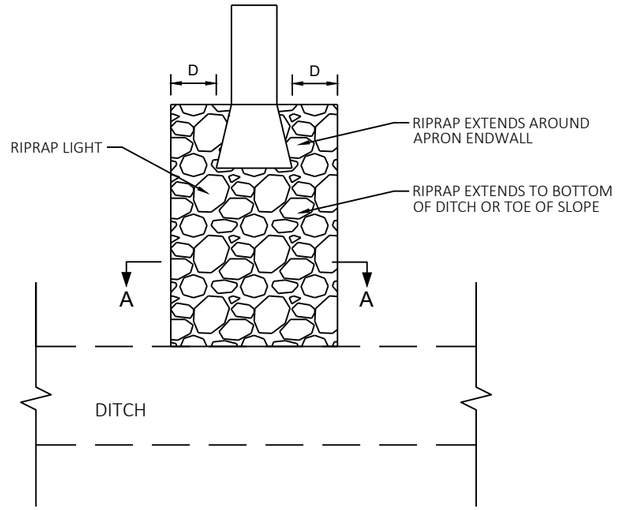


EROSION MAT TREATMENT AT CULVERTS



SECTION A-A

* APRON ENDWALL WIDTH
D = PIPE DIAMETER



PLAN VIEW

RIPRAP TREATMENT AT STORM SEWER OUTFALLS

6060-01-70

Line	Item	Item Description	Unit	Total	Qty
0002	204.0110	Removing Asphaltic Surface	SY	510.000	510.000
0004	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,963.000	1,963.000
0006	204.0120	Removing Asphaltic Surface Milling	SY	104,841.000	104,841.000
0008	204.9060.S	Removing (item description) 01. Apron Endwalls	EACH	6.000	6.000
0010	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 6060-01-70	LS	1.000	1.000
0012	213.0100	Finishing Roadway (project) 01. 6060-01-70	EACH	1.000	1.000
0014	305.0110	Base Aggregate Dense 3/4-Inch	TON	3,473.000	3,473.000
0016	455.0605	Tack Coat	GAL	12,599.000	12,599.000
0018	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	2.000	2.000
0020	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0022	460.2005	Incentive Density PWL HMA Pavement	DOL	16,812.000	16,812.000
0024	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	46,042.000	46,042.000
0026	460.2010	Incentive Air Voids HMA Pavement	DOL	22,655.000	22,655.000
0028	460.5223	HMA Pavement 3 LT 58-28 S	TON	12,363.000	12,363.000
0030	460.5224	HMA Pavement 4 LT 58-28 S	TON	10,292.000	10,292.000
0032	465.0110	Asphaltic Surface Patching	TON	200.000	200.000
0034	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	88.000	88.000
0036	465.0315	Asphaltic Flumes	SY	19.000	19.000
0038	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	24,613.000	24,613.000
0040	520.8700	Cleaning Culvert Pipes	EACH	6.000	6.000
0042	521.1030	Apron Endwalls for Culvert Pipe Steel 30-Inch	EACH	4.000	4.000
0044	521.1042	Apron Endwalls for Culvert Pipe Steel 42-Inch	EACH	2.000	2.000
0046	606.0100	Riprap Light	CY	18.000	18.000
0048	618.0100	Maintenance And Repair of Haul Roads (project) 01. 6060-01-70	EACH	1.000	1.000
0050	619.1000	Mobilization	EACH	1.000	1.000
0052	624.0100	Water	MGAL	49.300	49.300
0054	628.7555	Culvert Pipe Checks	EACH	18.000	18.000
0056	630.0500	Seed Water	MGAL	1.800	1.800
0058	633.5200	Markers Culvert End	EACH	17.000	17.000
0060	642.5001	Field Office Type B	EACH	1.000	1.000
0062	643.0300	Traffic Control Drums	DAY	30.000	30.000
0064	643.0900	Traffic Control Signs	DAY	2,128.000	2,128.000
0066	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0068	643.5000	Traffic Control	EACH	1.000	1.000
0070	645.0130	Geotextile Type R	SY	150.000	150.000
0072	646.1020	Marking Line Epoxy 4-Inch	LF	47,442.000	47,442.000
0074	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	72,002.000	72,002.000
0076	646.3020	Marking Line Epoxy 8-Inch	LF	425.000	425.000
0078	646.5020	Marking Arrow Epoxy	EACH	3.000	3.000
0080	646.5120	Marking Word Epoxy	EACH	3.000	3.000
0082	646.6105	Marking Stop Line Paint 18-Inch	LF	40.000	40.000
0084	646.6120	Marking Stop Line Epoxy 18-Inch	LF	40.000	40.000
0086	649.0105	Temporary Marking Line Paint 4-Inch	LF	129,357.000	129,357.000
0088	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	43,119.000	43,119.000
0090	650.8000	Construction Staking Resurfacing Reference	LF	28,776.000	28,776.000
0092	650.9910	Construction Staking Supplemental Control (project) 01. 6060-01-70	LS	1.000	1.000
0094	690.0150	Sawing Asphalt	LF	903.000	903.000
0096	740.0440	Incentive IRI Ride	DOL	43,600.000	43,600.000
0098	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000

6060-01-70

Line	Item	Item Description	Unit	Total	Qty
0100	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
0102	SPV.0060	Special 01. Grading, Shaping and Finishing Culvert Pipes and Apron Endwalls	EACH	6.000	6.000
0104	SPV.0060	Special 02. Verify Landmark Reference Monuments	EACH	5.000	5.000
0106	SPV.0060	Special 03. Landmark Reference Monuments Special	EACH	5.000	5.000
0108	SPV.0060	Special 04. Cast Iron Monument Covers	EACH	5.000	5.000

REMOVING ASPHALT

CATEGORY	STATION	TO	STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	690.0150 SAWING ASPHALT LF	REMARKS
0010	10+00	-	20+95			328	5638	59	PROJECT BEGIN THROUGH MEDIAN SECTION; GAP AT RUMBLES
0010	20+95	-	35+96				5004		END OF MEDIAN TAPER TO CTH AA
0010	35+96	-	54+69				6,308		CTH AA TO DILLMAN RD; INCLUDES C&G SECTION
0010	54+69	-	84+01				9,877		DILLMAN RD TO CUPERY LN; INCLUDES C&G SECTION
0010	84+01	-	110+78				9,015		CUPERY LN TO FRIESLAND RD; INCLUDES C&G SECTION
0010	110+78	-	163+88				17,804		FRIESLAND RD TO KOK RD; INCLUDES C&G SECTION
0010	163+88	-	178+29				4,804		KOK RD TO POSTHUMA RD
0010	178+29	-	216+35				12,748		POSTHUMA RD TO BLANECEA RD; INCLUDES C&G SECTION
0010	216+35	-	297+08				26,910		BLANECAE RD TO CTH AW
0010	297+08	-	297+76			264	227	48	CTH AW TO END
0010	CTH AA	-		RT		78	666	35	
0010	CTH AA	-		LT		80	732	36	
0010	DILLMAN RD	-		LT		72	330	32	
0010	CUPERY LN	-		LT		65	337	29	
0010	FRIESLAND RD	-		RT		69	340	31	
0010	FRIESLAND RD	-		LT		72	341	32	
0010	KOK RD	-		RT		72	595	32	
0010	KOK RD	-		LT		74	327	33	
0010	POSTHUMA RD	-		LT		72	338	32	
0010	BLANECEA RD	-		RT		67	652	30	
0010	BLANECEA RD	-		LT		74	745	33	
0010	CTH AW	-		RT		100	799	45	
0010	CTH AW	-		LT		72	304	32	
				DRIVEWAYS	510	404		364	
				TOTAL 0010	510	1,963	104,841	903	

Station	To	Station	Location	455.0605 Tack Coat GAL	HMA Pavement 3 LT 58-28 S: 460.5223 HMA PAVEMENT 3 LT 58-28 S TON	FYI ONLY: 460.2005 PWL DENSITY INCENTIVE TON	FYI ONLY: 460.2010 PWL AIR VOID INCENTIVE TON	HMA Pavement 4 LT 58-28 S: 460.5224 HMA PAVEMENT 4 LT 58-28 S TON	FYI ONLY: 460.2005 PWL DENSITY INCENTIVE TON	FYI ONLY: 460.2010 PWL AIR VOID INCENTIVE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS TON	465.0315 ASPHALTIC FLUMES SY	465.0110 ASPHALTIC SURFACE PATCHING TON	Remarks
10+00	-	20+95	LT/RT	692	21	17	21	612	490	612				PROJECT BEGIN THROUGH MEDIAN SECTION
20+95	-	35+96	LT/RT	601	670	536	670	482	386	482			10	END OF MEDIAN TO CTH AA
35+96	-	45+20	LT/RT	370	392	314	392	297	238	297			10	CTH AA to C&G
45+20	-	48+73	LT/RT	64	0	0	0	126	101	126			10	C&G RT
48+73	-	54+69	LT/RT	239	246	197	246	192	154	192			10	C&G to DILLMAN RD
54+69	-	62+51	LT/RT	313	329	264	329	251	201	251			10	DILLMAN RD TO C&G
62+51	-	65+23	LT/RT	98	0	0	0	97	78	97			10	C&G LT & RT
65+23	-	84+01	LT/RT	752	817	654	817	603	483	603			10	C&G TO CUPERY LN
84+01	-	100+41	LT/RT	656	711	569	711	527	422	527			10	CUPERY LN TO C&G
100+41	-	103+14	LT/RT	99	0	0	0	97	78	97			10	C&G LT
103+14	-	110+78	LT/RT	306	320	256	320	246	197	246			10	C&G TO FRIESLAND RD
110+78	-	129+61	LT/RT	754	819	656	819	605	484	605			10	FRIESLAND RD TO C&G
129+61	-	133+21	LT/RT	130	0	0	0	128	103	128			10	C&G LT
133+21	-	156+65	LT/RT	938	1004	804	1004	753	603	753			10	C&G TO C&G (mill 2 pave 4 stretch)
156+65	-	158+83	LT/RT	79	0	0	0	78	63	78			10	C&G RT
158+83	-	163+88	LT/RT	202	205	164	205	163	131	163			10	C&G TO KOK RD
163+88	-	178+29	LT/RT	577	643	515	643	463	371	463			10	KOK RD TO POSTHUMA RD
178+29	-	207+47	LT/RT	1168	1281	1025	1281	937	750	937			10	POSTHUMA RD TO C&G
207+47	-	210+63	LT/RT	114	0	0	0	112	90	112			10	C&G RT
210+63	-	216+35	LT/RT	229	235	188	235	184	148	184			10	C&G TO BLANECAE RD
216+35	-	297+08	LT/RT	3230	3600	2880	3600	2591	2073	2591			10	BLANECAE RD TO CTH AW
297+08	-	297+76	LT/RT	28	31	25	31	22	18	22		3		CTH AW TO END
			CTH AA (RT)	90	93		93	72		72				
			CTH AA (LT)	98	101		101	79		79		2		
			DILLMAN RD	49	50		50	39		39		8		
			CUPERY LN	49	50		50	39		39		6		
			FRIESLAND RD (RT)	50	51		51	40		40				
			FRIESLAND RD (LT)	50	52		52	40		40				
			KOK RD (RT)	80	83		83	65		65				
			KOK RD (LT)	49	50		50	39		39				
			POSTHUMA RD	50	51		51	40		40				
			BLANECEA RD (RT)	87	89		89	70		70				
			BLANECEA RD (LT)	99	102		102	79		79				
			CTH AW (RT)	108	112		112	87		87				
			CTH AW (LT)	46	47		47	37		37				
			DRIVEWAYS	55	0		0	0		0	88			
				12599	12255	9064	12255	10292	7662	10292	88	19	200	

CULVERT SUMMARY

CATEGORY	STATION	LOCATION	204.9060.S.01 REMOVING (ITEM DESCRIPTION) (01. APRON ENDWALLS) EACH	520.8700 CLEANING CULVERT PIPES EACH	521.1030 APRON ENDWALLS FOR CULVERT PIPE STEEL 30-INCH EACH	521.1042 APRON ENDWALLS FOR CULVERT PIPE STEEL 42-INCH EACH	606.0100 RIPRAP LIGHT CY	630.0500 SEED WATER MGAL	633.5200 MARKERS CULVERT END EACH	SPV.0060.01 SPECIAL (01. GRADING, SHAPING AND FINISHING CULVERT PIPES AND APRON ENDWALLS) EACH	REMARKS
0010	14+05	LT/RT		1							ASSUMED 24"; APPROX. 30 LF. TIED TO INLET
0010	15+65	LT/RT		1							ASSUMED 24"; APPROX. 30 LF; TIED TO INLET
0010	36+64	LT	1		1			0.6	1	1	MATCH EXISTING INVERTS OR AS DIRECTED BY ENGINEER
0010	36+68	RT	1		1				1	1	MATCH EXISTING INVERTS OR AS DIRECTED BY ENGINEER
0010	45+02	LT/RT							2		
0010	62+70	LT/RT							2		
0010	65+19	LT/RT		1					2		24"; APPROX. 55 LF. MATCH EXISTING INVERTS OR AS DIRECTED BY ENGINEER
0010	82+60	RT							1		
0010	82+90	LT							1		
0010	128+10	LT/RT					9				
0010	203+88	LT/RT		1					2	2	28" x 45" ; APPROX. 70 LF
0010	217+26	LT	2	1	2			0.6	2		30"; APPROX. 80 LF. MATCH EXISTING INVERTS OR AS DIRECTED BY ENGINEER
0010	251+38	RT							1		
0010	285+39	LT/RT		1							34" x 54"; APPROX. 50 LF
0010	290+34	LT/RT	2			2		0.6	2	2	MATCH EXISTING INVERTS OR AS DIRECTED BY ENGINEER
		TOTAL 0010	6	6	4	2	9	1.8	17	6	

FOR INFORMATION TABLE - ENDWALL GRADING, SHAPING, FINISHING

CATEGORY	STATION	* 625.0100 TOPSOIL SY	* 627.0200 MULCHING SY	* 628.2004 EROSION MAT CLASS I TYPE B SY	* 629.0210 FERTILIZER TYPE B CWT	* 630.0140 SEEDING MIXTURE NO. 40 LB	REMAKRS
0010	36+65	25	25	25	0.02	0.45	ENDWALL REPLACEME
0010	217+26	25	25	25	0.02	0.45	ENDWALL REPLACEME
0010	290+34	26	26	26	0.02	0.47	ENDWALL REPLACEME
	TOTAL 0100	76	76	76	0.05	1.37	

*ITEMS AND QUANTITIES FOR BID INFORMATION ONLY

BASE AGGREGATE ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	* 305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	624.0100 WATER MGAL	REMARKS
0010	10+00	-	20+95	STH 73	122	1.8	PROJECT BEGIN THROUGH MEDIAN SECTION
0010	20+95	-	35+96	STH 73	167	2.4	END OF MEDIAN TO CTH AA
0010	35+96	-	54+69	STH 73	209	3.0	CTH AA TO DILLMAN RD
0010	54+69	-	84+01	STH 73	326	4.6	DILLMAN RD TO CUPERY LN
0010	84+01	-	110+78	STH 73	298	4.2	CUPERY LN TO FRIESLAND RD
0010	110+78	-	163+88	STH 73	590	8.3	FRIESLAND RD TO KOK RD
0010	163+88	-	178+29	STH 73	161	2.3	KOK RD TO POSTHUMA RD
0010	178+29	-	216+35	STH 73	423	6.0	POSTHUMA RD TO BLANECAE RD
0010	216+35	-	297+08	STH 73	897	12.6	BLANECAE RD TO CTH AW
0010	297+08	-	297+76	STH 73	8	0.2	CTH AW TO END
				FIELD ENTRANCES	38	0.6	
				DRIVEWAYS	234	3.3	
				TOTAL 0010	3,473	49.3	

EROSION CONTROL

CATEGORY	STATION	LOCATION	* 606.0100 RIPRAP LIGHT CY	628.7555 CULVERT PIPE CHECKS EACH	645.0130 GEOTEXTILE TYPE R SY	REMARKS
0010	36+65	STH 73		5		
0010	128+10	STH 73, LT/RT	9		150	
0010	217+26	STH 73		5		
0010	290+34	STH 73		8		
		TOTAL 0010	9	18	150	

*ADDITIONAL QUANTITY SHOWN ELSEWHERE IN THE PLAN

3

STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. TBD) LS	SPV.0060.02 SPECIAL (02. VERIFY LANDMARK REFERENCE MONUMENTS) EACH	SPV.0060.03 SPECIAL (03. LANDMARK REFERENCE MONUMENTS SPECIAL) EACH	SPV.0060.04 SPECIAL (04. CAST IRON MONUMENT COVERS) EACH	REMARKS
0010	10+00	-	297+76	STH 73	28,776	1				
0010	137+39						1	1	1	T 13 N R 12 E Sec. 24
0010	190+18						1	1	1	T 13 N R 12 E Sec. 12/13
0010	243+31						1	1	1	T 13 N R 12 E Sec. 1/12
0010	297+08						1	1	1	T 14 N R 12 E Sec. 36
0010	297+08						1	1	1	T 13 N R 12 E Sec. 1
				TOTAL 0010	28,776	1	5	5	5	

PAVEMENT MARKING

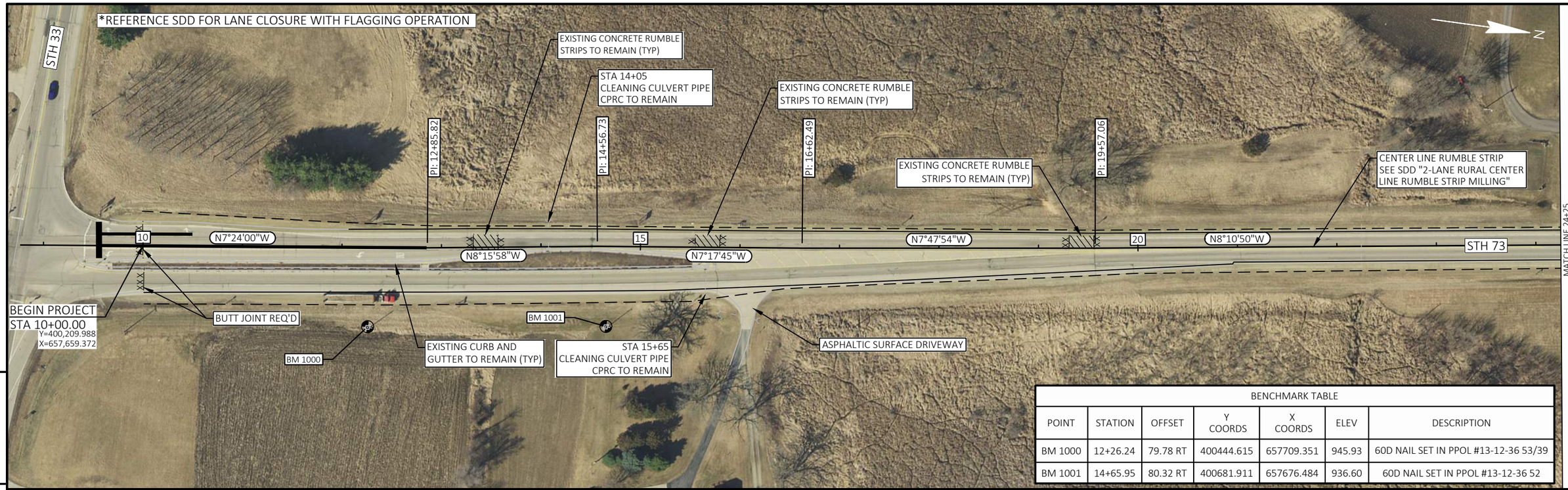
CATEGORY	STATION	TO	STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH (YELLOW) LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE) LF	646.3020 MARKING LINE EPOXY 8-INCH (WHITE) LF	646.5020 MARKING ARROW EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.6105 MARKING STOP LINE PAINT 18-INCH LF	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW) LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH (YELLOW) LF	REMARKS
0010	10+00	-	35+96	STH 73	3,736	5,386	425	3	3	40	40	10,374	3,458	PROJECT BEGIN (STH 33) TO CTH AA
0010	35+96	-	54+69	STH 73	2,205	3,697						5,781	1,927	CTH AA tTO DILLMAN RD
0010	54+69	-	84+01	STH 73	2,205	3,697						5,781	1,927	DILLMAN RD TO CUPERY LN
0010	84+01	-	110+78	STH 73	5,003	5,914						14,391	4,797	CUPERY LN TO FRIESLAND RD
0010	110+78	-	163+88	STH 73	4,251	5,280						12,054	4,018	FRIESLAND RD TO CTH F (KOK RD)
0010	163+88	-	178+29	STH 73	6,693	10,666						17,952	5,984	CTH F (KOK RD) TO POSTHUMA RD
0010	178+29	-	216+35	STH 73	8,211	13,517						21,777	7,259	POSTHUMA RD TO CTH E (BLANECEA RD)
0010	216+35	-	297+08	STH 73	5,703	7,604						15,816	5,272	CTH E (BLANECAE RD) TO CTH AW
0010	297+08	-	297+76	STH 73	9,435	16,241						25,431	8,477	CTH AW TO END
				TOTAL 0010	47,442	72,002	425	3	3	40	40	129,357	43,119	

CENTERLINE RUMBLE STRIPS

CATEGORY	STATION	TO	STATION	LOCATION	465.0475 ASPHALT CENTERLINE RUMBLE STRIPS 2-LANE RURAL LF	REMARKS
0010	10+00	-	20+95	STH 73	0	PROJECT BEGIN THROUGH MEDIAN SECTION
0010	20+95	-	35+96	STH 73	1,301	END OF MEDIAN TAPER TO CTH AA
0010	35+96	-	54+69	STH 73	1,473	CTH AA TO DILLMAN RD; INCLUDES C&G SECTION
0010	54+69	-	84+01	STH 73	2,532	DILLMAN RD TO CUPERY LN; INCLUDES C&G SECTION
0010	84+01	-	110+78	STH 73	2,277	CUPERY LN TO FRIESLAND RD; INCLUDES C&G SECTION
0010	110+78	-	163+88	STH 73	4,910	FRIESLAND RD TO KOK RD; INCLUDES C&G SECTION
0010	163+88	-	178+29	STH 73	1,041	KOK RD TO POSTHUMA RD
0010	178+29	-	216+35	STH 73	3,406	POSTHUMA RD TO BLANECEA RD; INCLUDES C&G SECTIOI
0010	216+35	-	297+08	STH 73	7,673	BLANECAE RD TO CTH AW
				TOTAL 0010	24,613	

TRAFFIC CONTROL

CATEGORY	ROADWAY	DURATION DAYS	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0900 TRAFFIC CONTROL SIGNS DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	643.5000 TRAFFIC CONTROL EACH	REMARKS
0010	STH 73 NB APPROACH	38		190	7	1	ADVANCED WARNING, 7 DAYS PRIOR TO START
0010	STH 33	38		380			SEE SDD 15C04 (N) (73) TO BE ADDED ON THE "ROAD WORK" SIGNS
0010	CTH AA	38		152			SEE SDD 15C04
0010	DILLMAN RD	38		76			SEE SDD 15C05
0010	CUPERY LN	38		76			SEE SDD 15C06
0010	FRIESLAND RD	38		76			SEE SDD 15C07
0011	CANADA ISLAND RD	38		76			SEE SDD 15C08
0010	CTH F (KOK RD)	38		152			SEE SDD 15C09
0010	POSTHUMA RD	38		76			SEE SDD 15C10
0010	CTH E (BLANECEA RD)	38		152			SEE SDD 15C11
0010	HOFFMAN DR (RT)	38		76			SEE SDD 15C12
0010	SUNNY ACRES DR (LT)	38		76			SEE SDD 15C13
0010	ZACHERIAS RD (LT)	38		76			SEE SDD 15C14
0010	CTH AW	38		304			SEE SDD 15C04 (S) (73) TO BE ADDED ON THE "ROAD WORK" SIGNS
0010	STH 73 SB APPROACH	38		190	7		ADVANCED WARNING, 7 DAYS PRIOR TO START
0010	PROJECT 6060-01-70 (UNDISTRIBUTED)	38	30				SEE SDD 15D48
		TOTAL 0010	30	2,128	14	1	



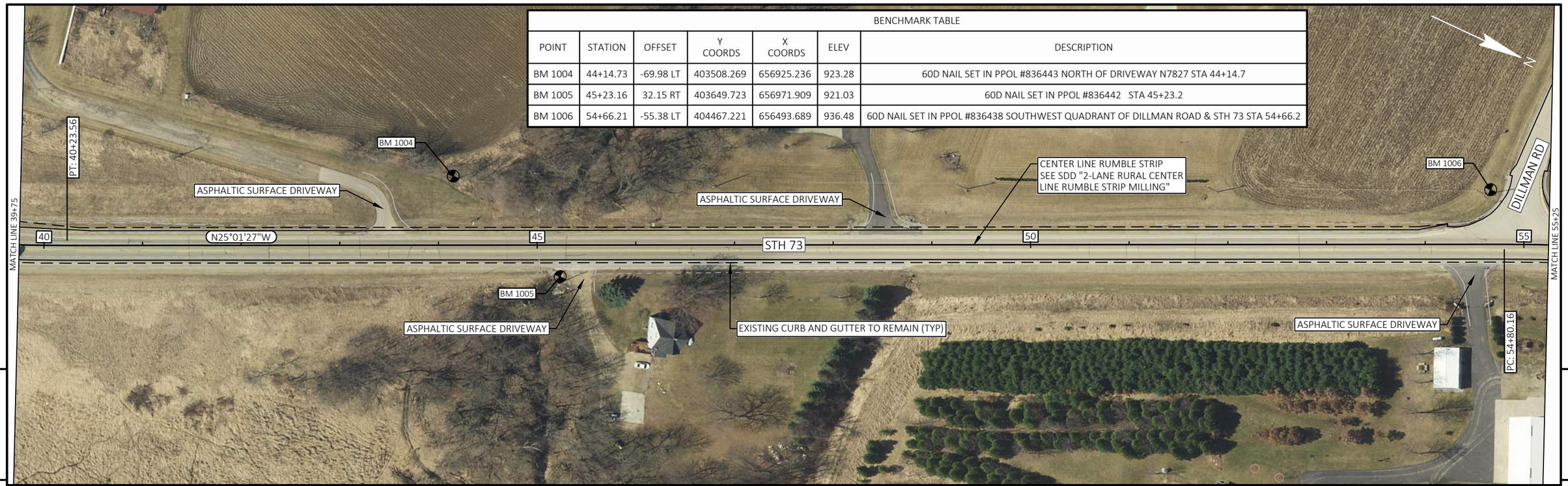
BENCHMARK TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEV	DESCRIPTION
BM 1000	12+26.24	79.78 RT	400444.615	657709.351	945.93	60D NAIL SET IN PPOL #13-12-36 53/39
BM 1001	14+65.95	80.32 RT	400681.911	657676.484	936.60	60D NAIL SET IN PPOL #13-12-36 52

BENCHMARK TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEV	DESCRIPTION
BM 1002	35+69.79	152.92 RT	402785.944	657447.536	912.84	60D NAIL SET IN PPOL #836448 SOUTHEAST QUADRANT OF CTH AA & STH 73 STA 35+69.8
BM 1003	35+25.06	-82.87 LT	402694.785	657225.375	913.88	60D NAIL SET IN PPOL #836447 SOUTHWEST QUADRANT OF CTH AA STA 35+25.1

PROJECT NO: 6060-01-70	HWY: STH 73	COUNTY: COLUMBIA	PLAN SHEETS	SHEET 19	E

FILE NAME : N:\PDS\C3D\60600100\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050201-pn
PLOT DATE : 5/13/2021 3:19 PM
PLOT BY : CAMPSHURE, MICHAEL R
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

BENCHMARK TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEV	DESCRIPTION
BM 1004	44+14.73	-69.98 LT	403508.269	656925.236	923.28	60D NAIL SET IN PPOL #836443 NORTH OF DRIVEWAY N7827 STA 44+14.7
BM 1005	45+23.16	32.15 RT	403649.723	656971.909	921.03	60D NAIL SET IN PPOL #836442 STA 45+23.2
BM 1006	54+66.21	-55.38 LT	404467.221	656493.689	936.48	60D NAIL SET IN PPOL #836438 SOUTHWEST QUADRANT OF DILLMAN ROAD & STH 73 STA 54+66.2



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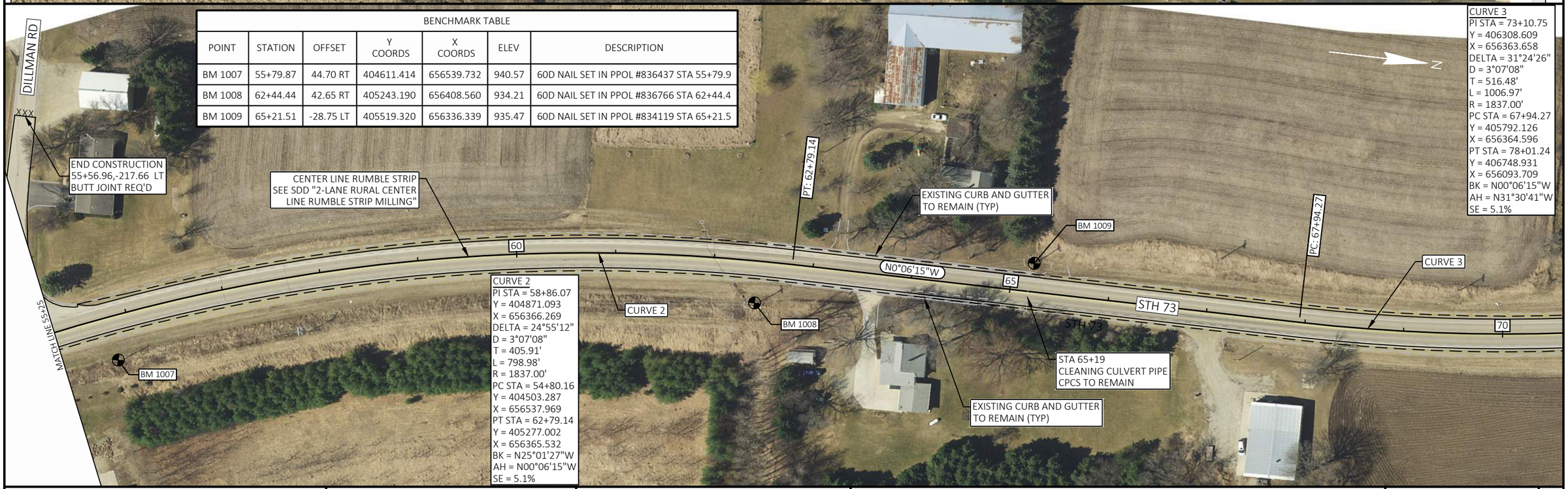
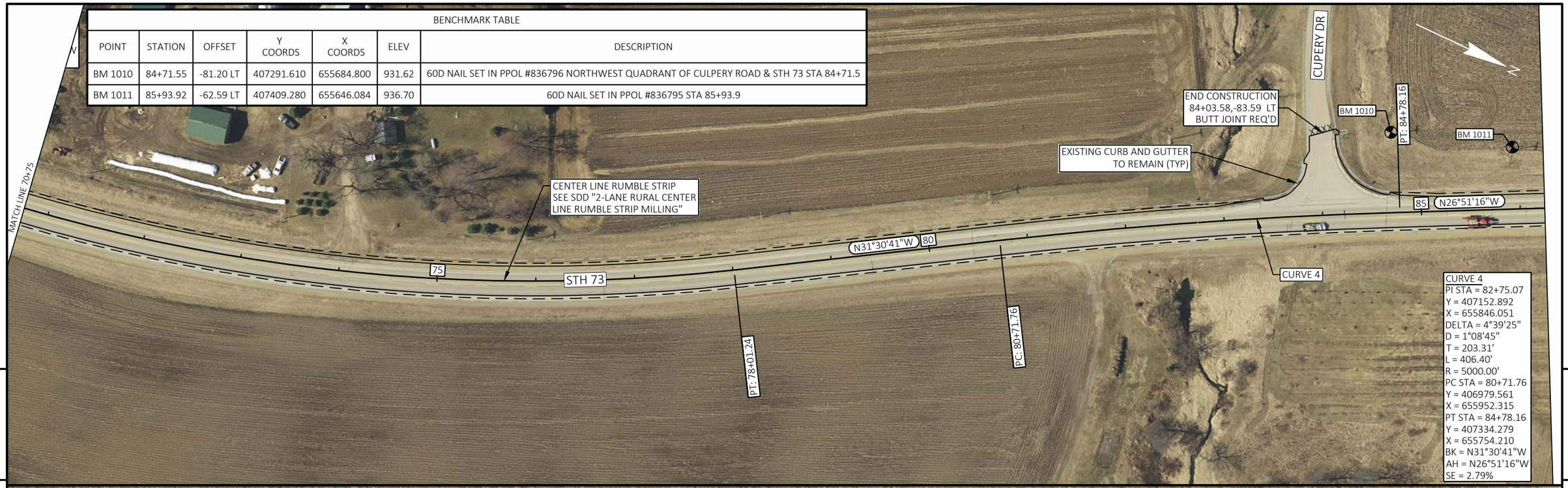
BENCHMARK TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEV	DESCRIPTION
BM 1007	55+79.87	44.70 RT	404611.414	656539.732	940.57	60D NAIL SET IN PPOL #836437 STA 55+79.9
BM 1008	62+44.44	42.65 RT	405243.190	656408.560	934.21	60D NAIL SET IN PPOL #836766 STA 62+44.4
BM 1009	65+21.51	-28.75 LT	405519.320	656336.339	935.47	60D NAIL SET IN PPOL #834119 STA 65+21.5

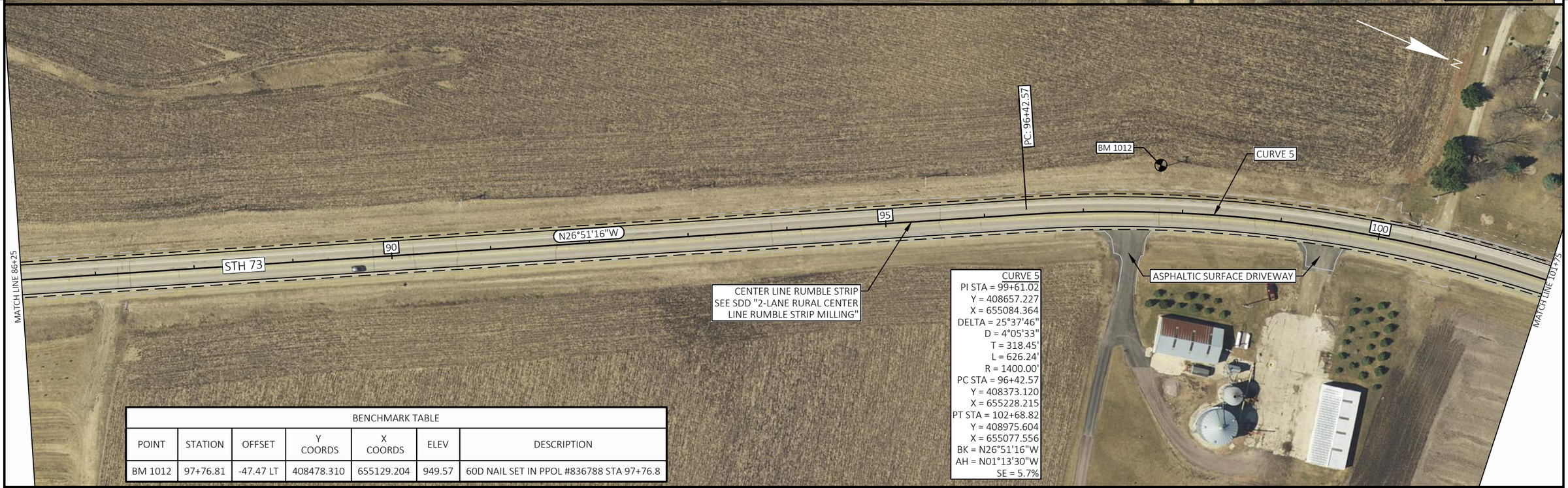


PROJECT NO: 6060-01-70	HWY: STH 73	COUNTY: COLUMBIA	PLAN SHEETS	SHEET 20	E

BENCHMARK TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEV	DESCRIPTION
BM 1010	84+71.55	-81.20 LT	407291.610	655684.800	931.62	60D NAIL SET IN PPOL #836796 NORTHWEST QUADRANT OF CULPERY ROAD & STH 73 STA 84+71.5
BM 1011	85+93.92	-62.59 LT	407409.280	655646.084	936.70	60D NAIL SET IN PPOL #836795 STA 85+93.9



BENCHMARK TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEV	DESCRIPTION
BM 1012	97+76.81	-47.47 LT	408478.310	655129.204	949.57	60D NAIL SET IN PPOL #836788 STA 97+76.8



PROJECT NO: 6060-01-70	HWY: STH 73	COUNTY: COLUMBIA	PLAN SHEETS	SHEET 21	E

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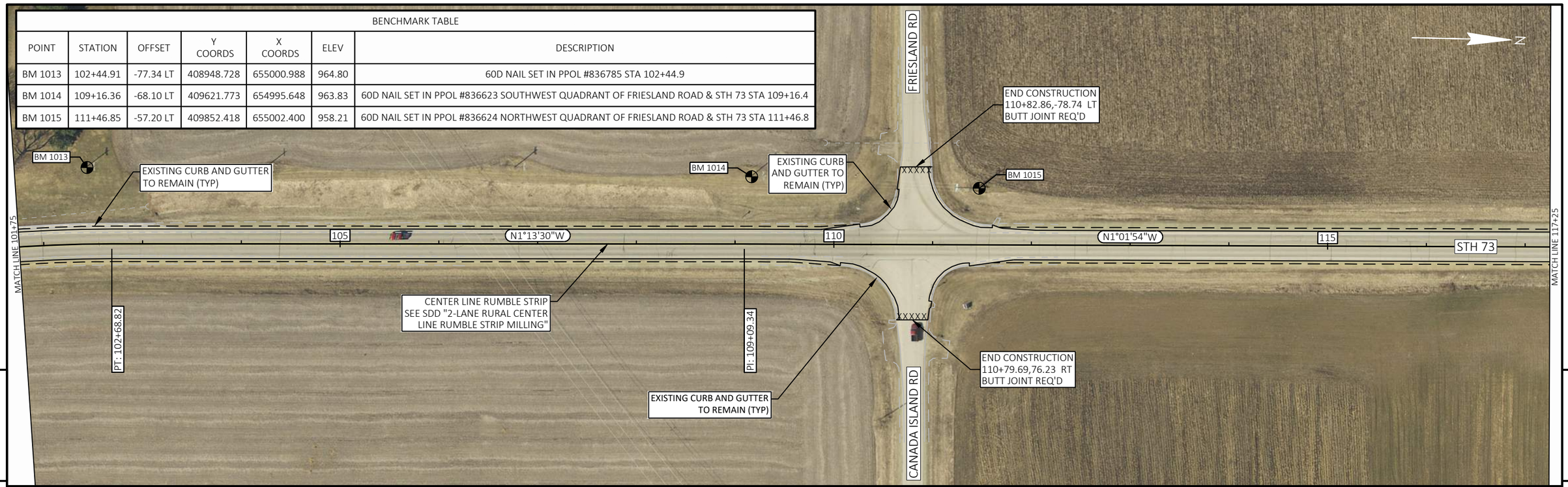
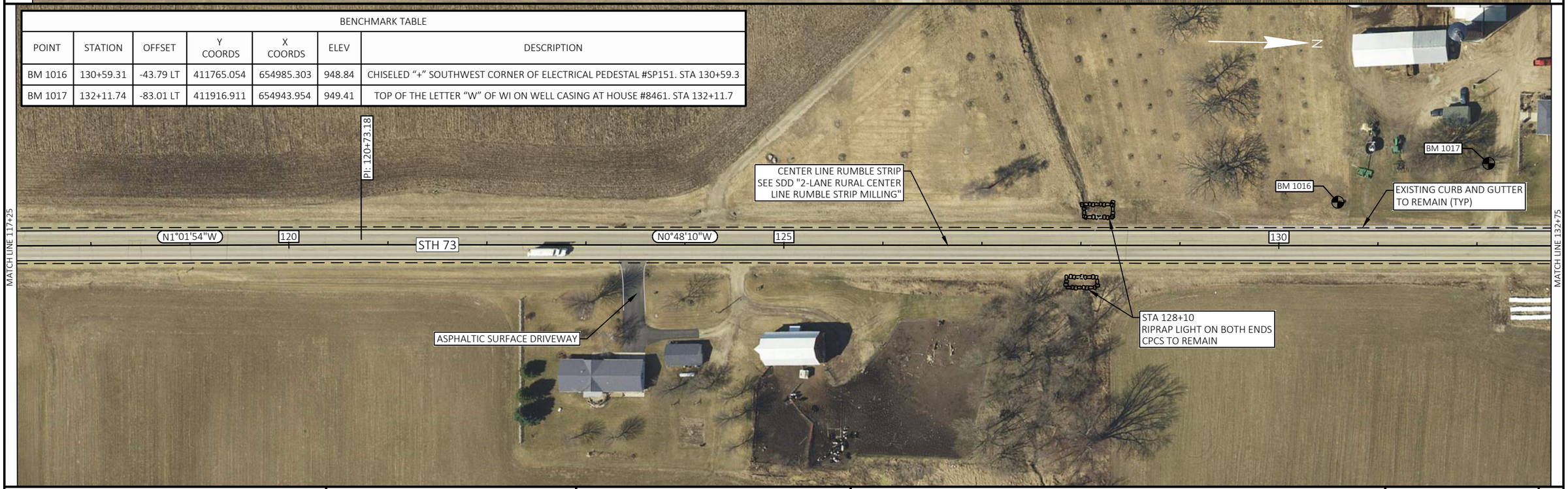
LAYOUT NAME - 050203-pn
PLOT DATE : 5/13/2021 3:19 PM
PLOT BY : CAMPSHURE, MICHAEL R
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

BENCHMARK TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEV	DESCRIPTION
BM 1013	102+44.91	-77.34 LT	408948.728	655000.988	964.80	60D NAIL SET IN PPOL #836785 STA 102+44.9
BM 1014	109+16.36	-68.10 LT	409621.773	654995.648	963.83	60D NAIL SET IN PPOL #836623 SOUTHWEST QUADRANT OF FRIESLAND ROAD & STH 73 STA 109+16.4
BM 1015	111+46.85	-57.20 LT	409852.418	655002.400	958.21	60D NAIL SET IN PPOL #836624 NORTHWEST QUADRANT OF FRIESLAND ROAD & STH 73 STA 111+46.8



BENCHMARK TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEV	DESCRIPTION
BM 1016	130+59.31	-43.79 LT	411765.054	654985.303	948.84	CHISELED “+” SOUTHWEST CORNER OF ELECTRICAL PEDESTAL #SP151. STA 130+59.3
BM 1017	132+11.74	-83.01 LT	411916.911	654943.954	949.41	TOP OF THE LETTER “W” OF WI ON WELL CASING AT HOUSE #8461. STA 132+11.7



PROJECT NO: 6060-01-70	HWY: STH 73	COUNTY: COLUMBIA	PLAN SHEETS	SHEET 22 E

FILE NAME : N:\PDS\C3D\60600100\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050204-pn

PLOT DATE : 5/13/2021 3:19 PM PLOT BY : CAMPSHURE, MICHAEL R PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

BENCHMARK TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEV	DESCRIPTION
BM 1018	156+49.34	40.75 RT	414355.921	655033.689	936.33	60D NAIL IN 10" BOX ELDER SOUTH OF DRIVE TO HOUSE #N8652 STA 156+49.3
BM 1019	156+96.51	-43.57 LT	414402.084	654948.811	935.66	60D NAIL IN 20" COTTONWOOD SOUTHWEST OF DRIVE TO HOUSE N8657 STA 156+96.5

BENCHMARK TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEV	DESCRIPTION
BM 1021	165+37.37	-55.79 LT	415242.743	654926.594	949.53	60D NAIL SET IN PPOL #836708 NORTHWEST QUADRANT OF CTH F & STH 73 STA 165+37.4
BM 1023	178+18.54	-204.18 LT	416522.062	654762.964	966.17	MAG NAIL SET IN TOP OF CMCP SOUTH SIDE OF POSTHUMA ROAD STA 178+18.5

KOK RD

END CONSTRUCTION
163+93.52,-248.81 LT
BUTT JOINT REQ'D

EXISTING CURB AND GUTTER
TO REMAIN (TYP)

BM 1021

END CONSTRUCTION
179+17.37,-313.57 LT
BUTT JOINT REQ'D

BM 1023

POSTHUMA RD

EXISTING CURB AND GUTTER
TO REMAIN (TYP)

MATCH LINE 163+75

165 N0°40'55"W 170 STH 73 175

MATCH LINE 179+25

CENTER LINE RUMBLE STRIP
SEE SDD "2-LANE RURAL CENTER
LINE RUMBLE STRIP MILLING"

CTH F

END CONSTRUCTION
163+88.87,316.19 RT
BUTT JOINT REQ'D

5

5

CENTER LINE RUMBLE STRIP
SEE SDD "2-LANE RURAL CENTER
LINE RUMBLE STRIP MILLING"

RMK
1" IP
Y=417642.379
X=654915.676

RMK
1.25 REB SET
Y=417752.567
X=654920.303

MATCH LINE 179+25

180 N0°40'55"W 185 STH 73 190

MATCH LINE 194+75

STH 73

RMK
1" IP
Y=417643.023
X=654990.259

SEC
MAGNAIL
Y=417724.287
X=654957.346

RMK
1" IP
Y=417812.015
X=654986.760

T 13 N
R 12 E
13 12

PROJECT NO: 6060-01-70	HWY: STH 73	COUNTY: COLUMBIA	PLAN SHEETS	SHEET 24	E

FILE NAME : N:\PDS\C3D\60600100\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050206-pn

PLOT DATE : 5/13/2021 3:20 PM PLOT BY : CAMPSHURE, MICHAEL R PLOT NAME : PLOT SCALE : 1 IN:100 FT

BENCHMARK TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEV	DESCRIPTION
BM 1024	207+43.78	-67.15 LT	419448.934	654868.366	995.78	CHISELED "+" NORTHEAST CORNER OF ELECTRICAL PEDESTAL STA 207+43.8

N

PI: 195+21.96

CENTER LINE RUMBLE STRIP
SEE SDD "2-LANE RURAL CENTER LINE RUMBLE STRIP MILLING"

BM 1024

MATCH LINE 194+75

195 | N0°31'54"W | 200 | 205 | STH 73 | 210

MATCH LINE 210+25

STA 203+88
CLEANING CULVERT PIPE
CPRC TO REMAIN

ASPHALTIC SURFACE DRIVEWAY

EXISTING CURB AND GUTTER
TO REMAIN (TYP)

5

5

BENCHMARK TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEV	DESCRIPTION
BM 1025	214+76.25	71.06 RT	420182.017	654999.830	1003.91	60D NAIL SET IN THE NORTH SIDE OF A 24" MAPLE SOUTHEAST QUADRANT OF BLANECAE ROAD & STH 73 STA 214+76.3

CTH E

END CONSTRUCTION
216+35.67,-83.37 LT
BUTT JOINT REQ'D

N

PI: 214+71.12

CENTER LINE RUMBLE STRIP
SEE SDD "2-LANE RURAL CENTER LINE RUMBLE STRIP MILLING"

MATCH LINE 210+25

N0°31'54"W | 215 | 220 | STH 73 | N0°01'05"W | 225

MATCH LINE 225+75

BM 1025

EXISTING CURB AND GUTTER
TO REMAIN (TYP)

STA 217+26
2-30" APRON ENDWALLS
CLEANING CULVERT PIPE
CPCS TO REMAIN
(GRADING, SHAPING, AND
FINISHING CULVERT PIPES
AND APRON ENDWALLS)

BLANECAE RD

END CONSTRUCTION
216+43.86,229.74 RT
BUTT JOINT REQ'D

PROJECT NO: 6060-01-70	HWY: STH 73	COUNTY: COLUMBIA	PLAN SHEETS	SHEET 25	E

5

5

PROJECT NO: 6060-01-70	HWY: STH 73	COUNTY: COLUMBIA	PLAN SHEETS	SHEET 26	E

FILE NAME : N:\PDS\C3D\60600100\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050208-pn

PLOT DATE : 5/13/2021 3:20 PM PLOT BY : CAMPSHURE, MICHAEL R PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

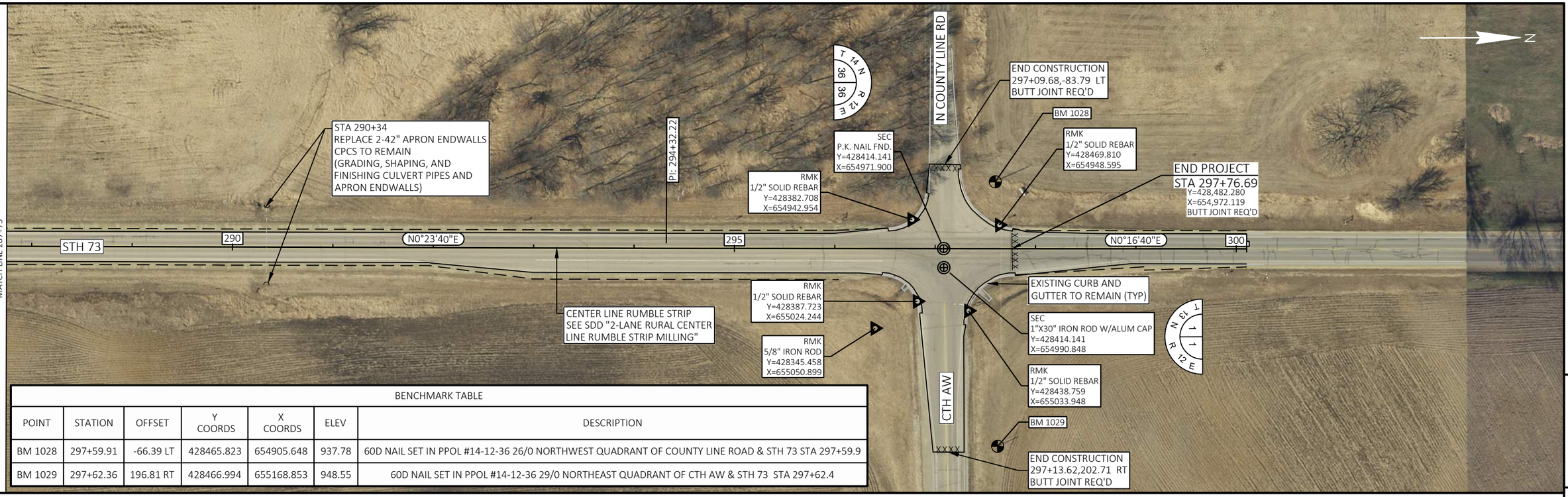
5

5

BENCHMARK TABLE

POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEV	DESCRIPTION
BM 1026	284+20.83	81.95 RT	427125.883	655045.436	930.62	MAG NAIL SET IN TOP OF CMCP NORTH SIDE OF ZACHERIAS ROAD STA 284+20.8
BM 1027	283+53.69	44.37 RT	427059.002	655007.392	930.84	MAG NAIL SET IN TOP OF CMCP SOUTH SIDE OF ZACHERIAS ROAD STA 283+53.7

PROJECT NO: 6060-01-70	HWY: STH 73	COUNTY: COLUMBIA	PLAN SHEETS	SHEET 27	E



BENCHMARK TABLE

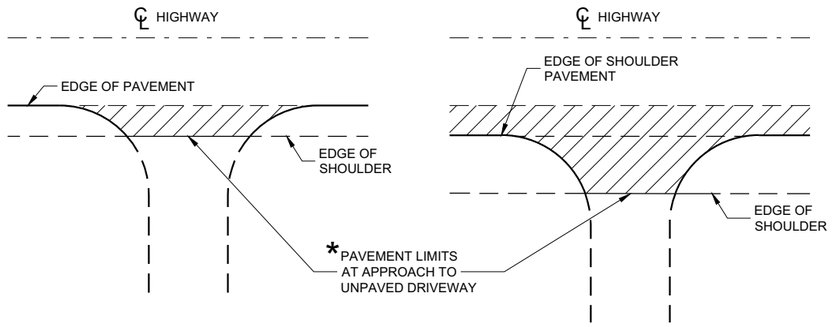
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEV	DESCRIPTION
BM 1028	297+59.91	-66.39 LT	428465.823	654905.648	937.78	60D NAIL SET IN PPOL #14-12-36 26/0 NORTHWEST QUADRANT OF COUNTY LINE ROAD & STH 73 STA 297+59.9
BM 1029	297+62.36	196.81 RT	428466.994	655168.853	948.55	60D NAIL SET IN PPOL #14-12-36 29/0 NORTHEAST QUADRANT OF CTH AW & STH 73 STA 297+62.4

5 5

PROJECT NO: 6060-01-70	HWY: STH 73	COUNTY: COLUMBIA	PLAN SHEETS	SHEET 28	E

Standard Detail Drawing List

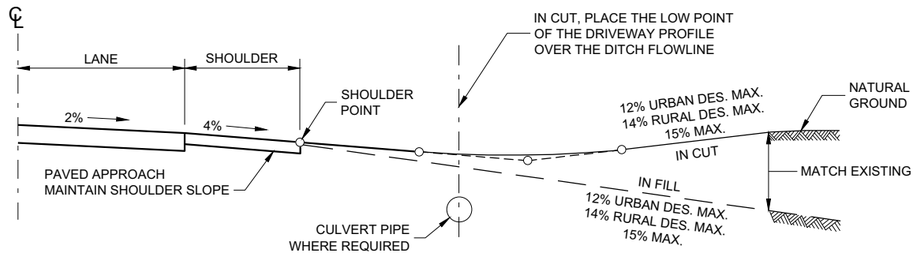
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
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
14B29-01	SAFETY EDGE
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20B	PAVEMENT MARKING (TURN LANES)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-08B	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
15C19-06C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D48-01	TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS



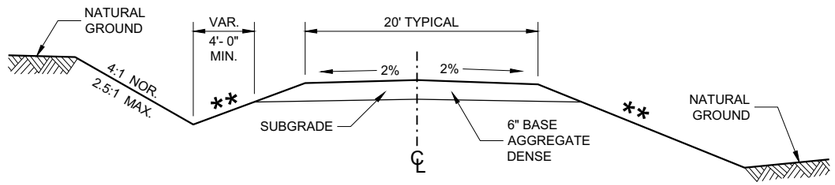
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

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



TYPICAL DRIVEWAY PROFILES

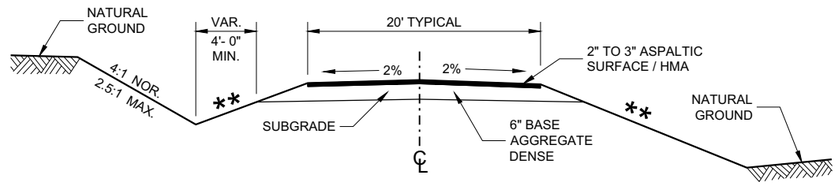


IN CUT **IN FILL**

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

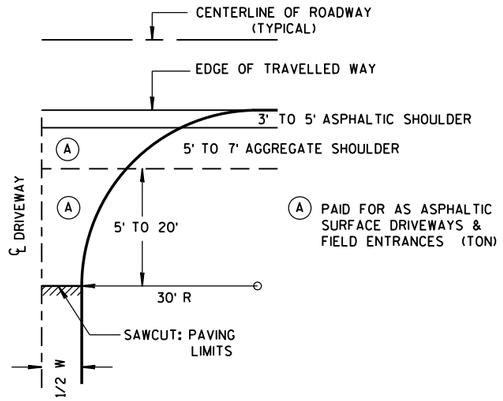
DRIVEWAYS WITHOUT CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017
DATE

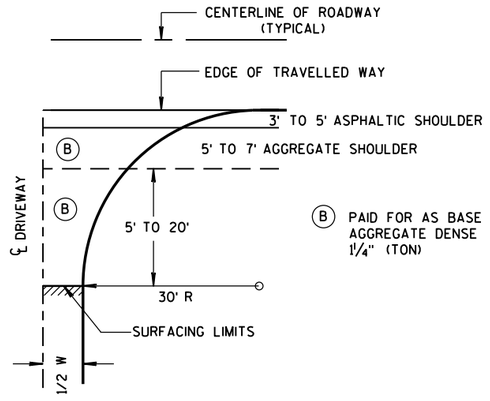
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA



PLAN VIEW
HALF SECTION

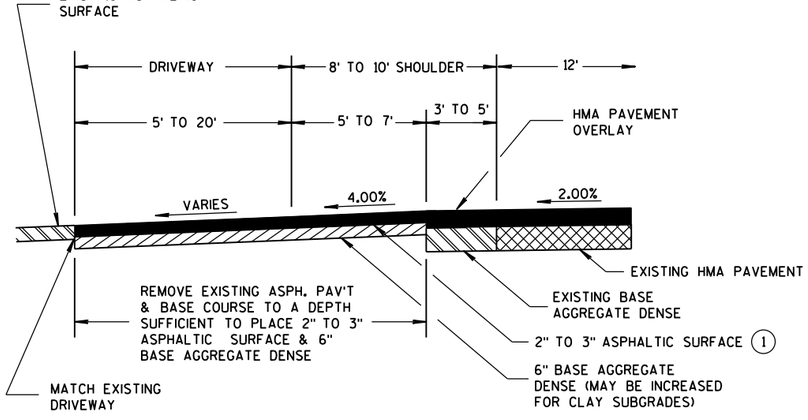
W MIN. = 16'
W MAX. = 24'



PLAN VIEW
HALF SECTION

GENERAL NOTES

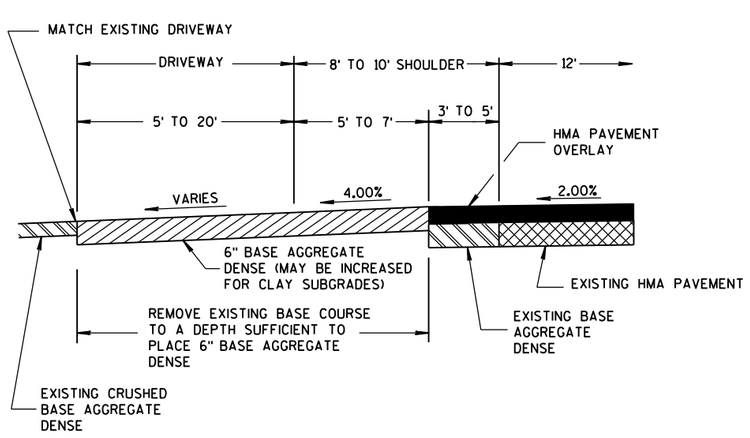
(1) DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.



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

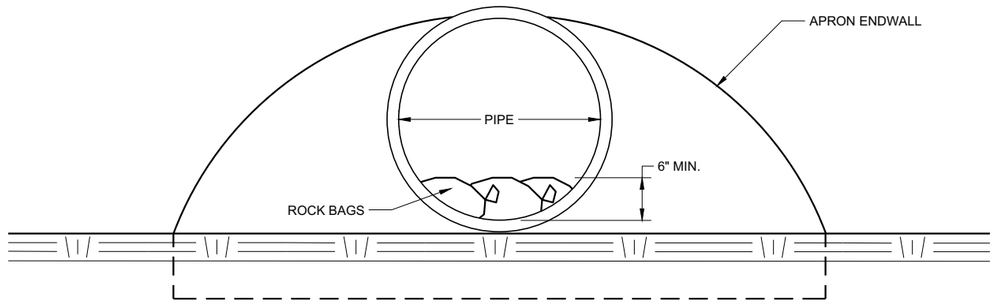
APPROVED
December, 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
ENT
FHWA

6

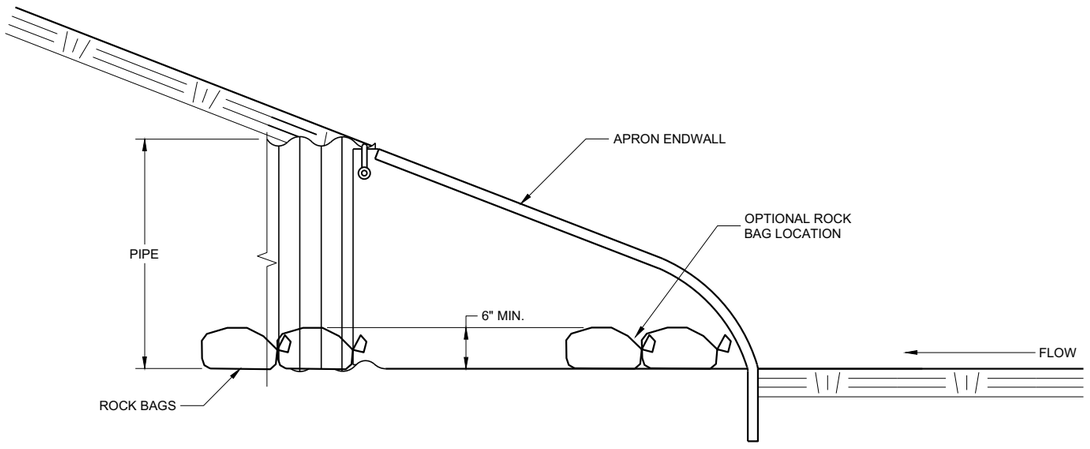
S.D.D. 8 D 22-1

6

S.D.D. 8 D 22-1



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

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

6
SDD 08E15 - 01

METAL APRON ENDWALLS

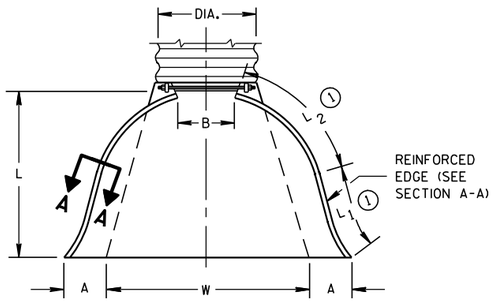
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

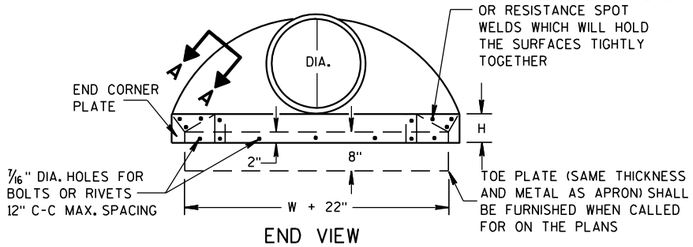
REINFORCED CONCRETE APRON ENDWALLS

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

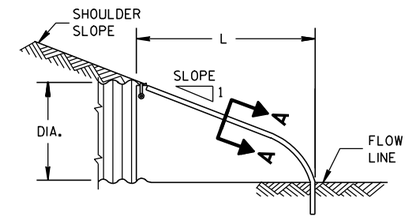
*MINIMUM
**MAXIMUM



PLAN VIEW

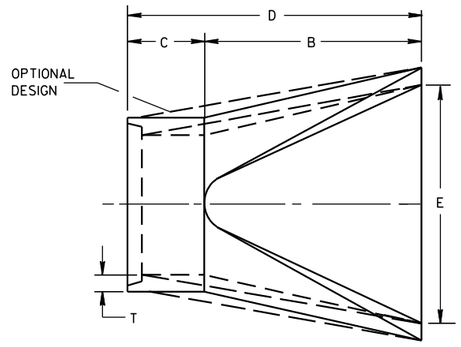


END VIEW

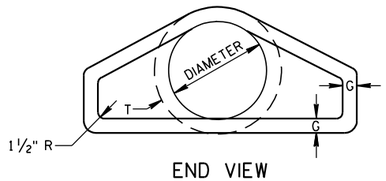


SIDE ELEVATION

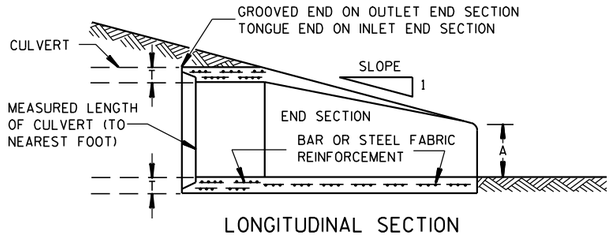
METAL ENDWALLS



PLAN

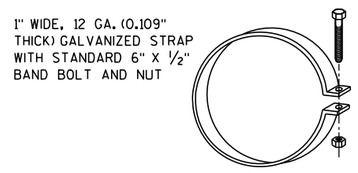


END VIEW



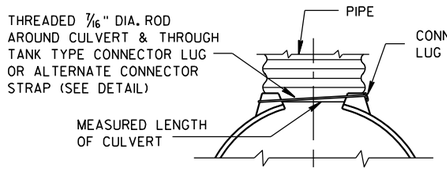
LONGITUDINAL SECTION

CONCRETE ENDWALLS

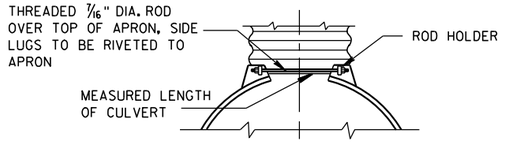


ALTERNATE FOR TYPE 1 CONNECTION

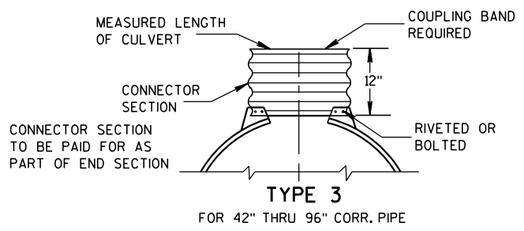
END SECTION CONNECTOR STRAP



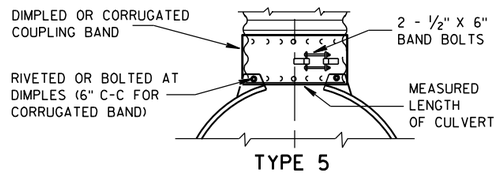
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

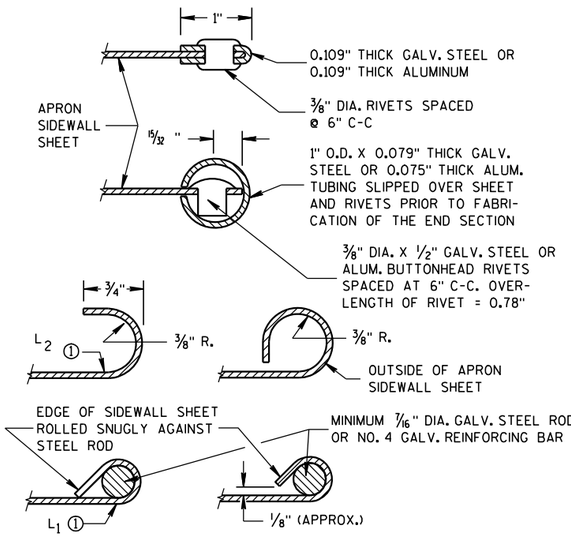
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

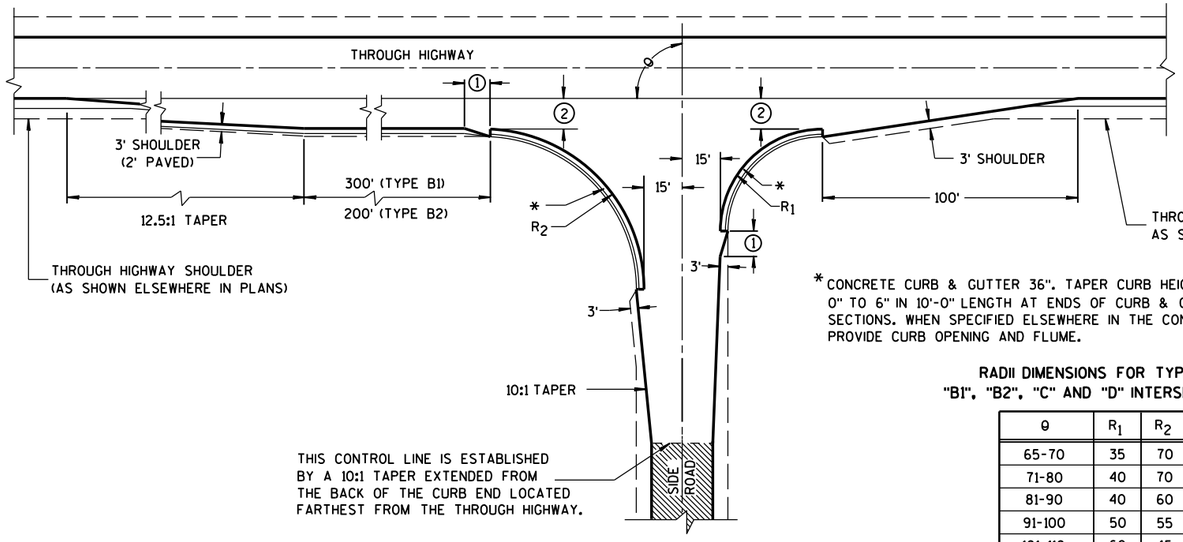
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 F 1-11

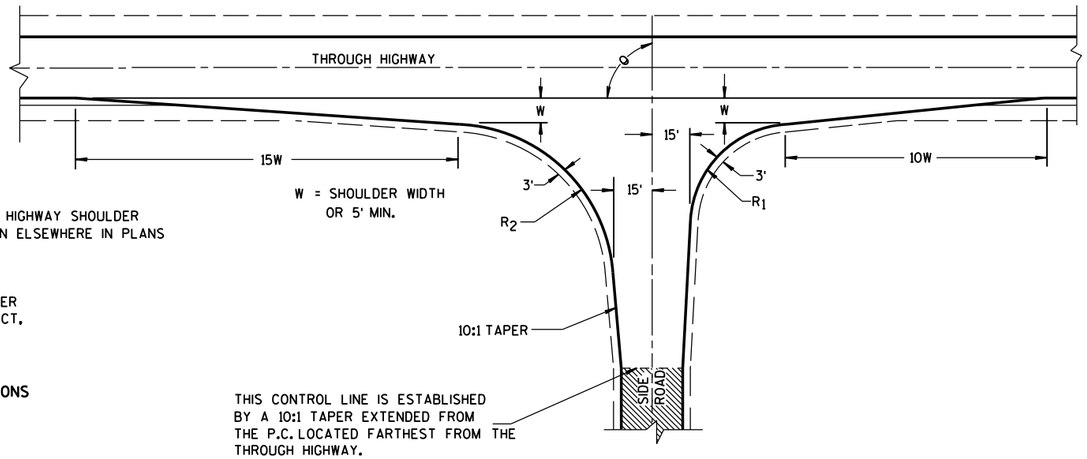


TYPE "B1" AND "B2"

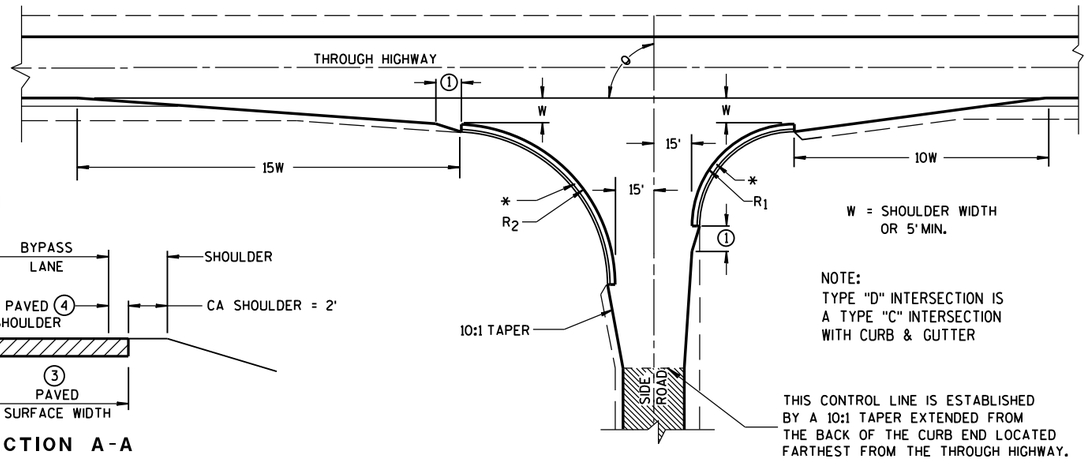
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45



TYPE "C"



TYPE "D"

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

BYPASS LANE

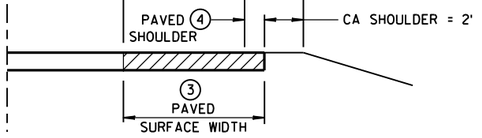
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

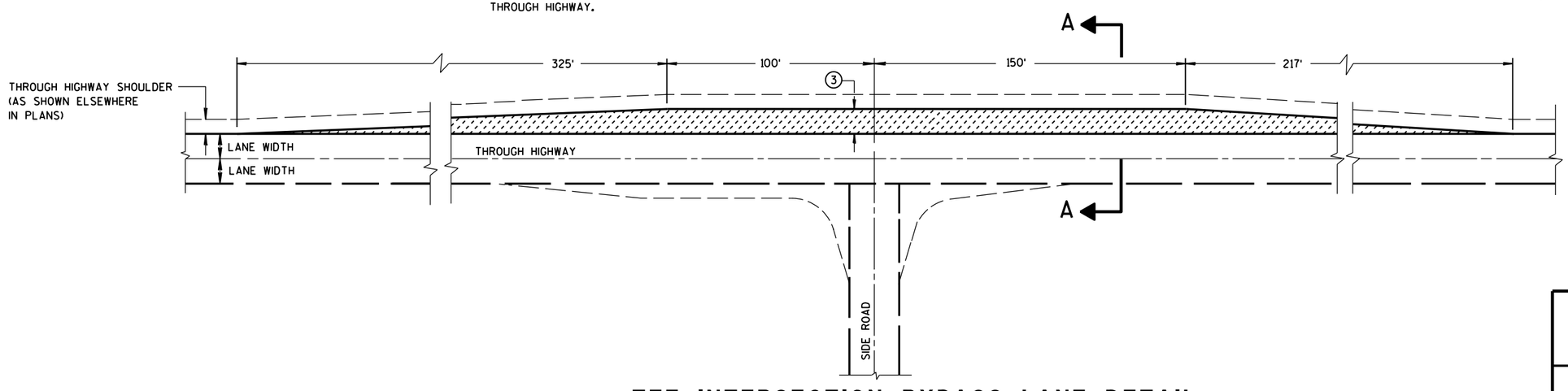
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.

(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



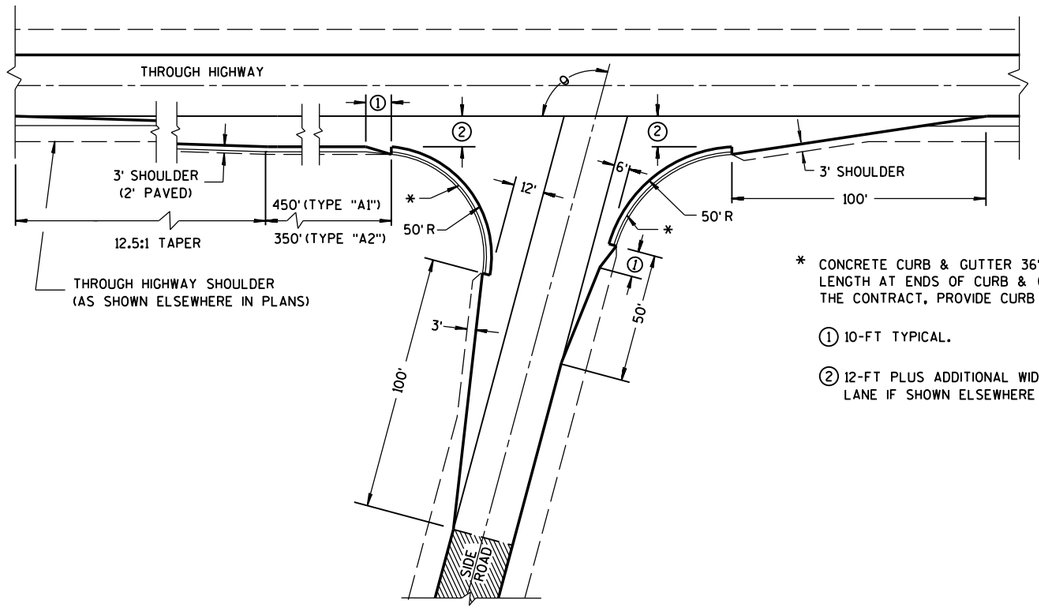
TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

S.D.D. 9 A 1-13a



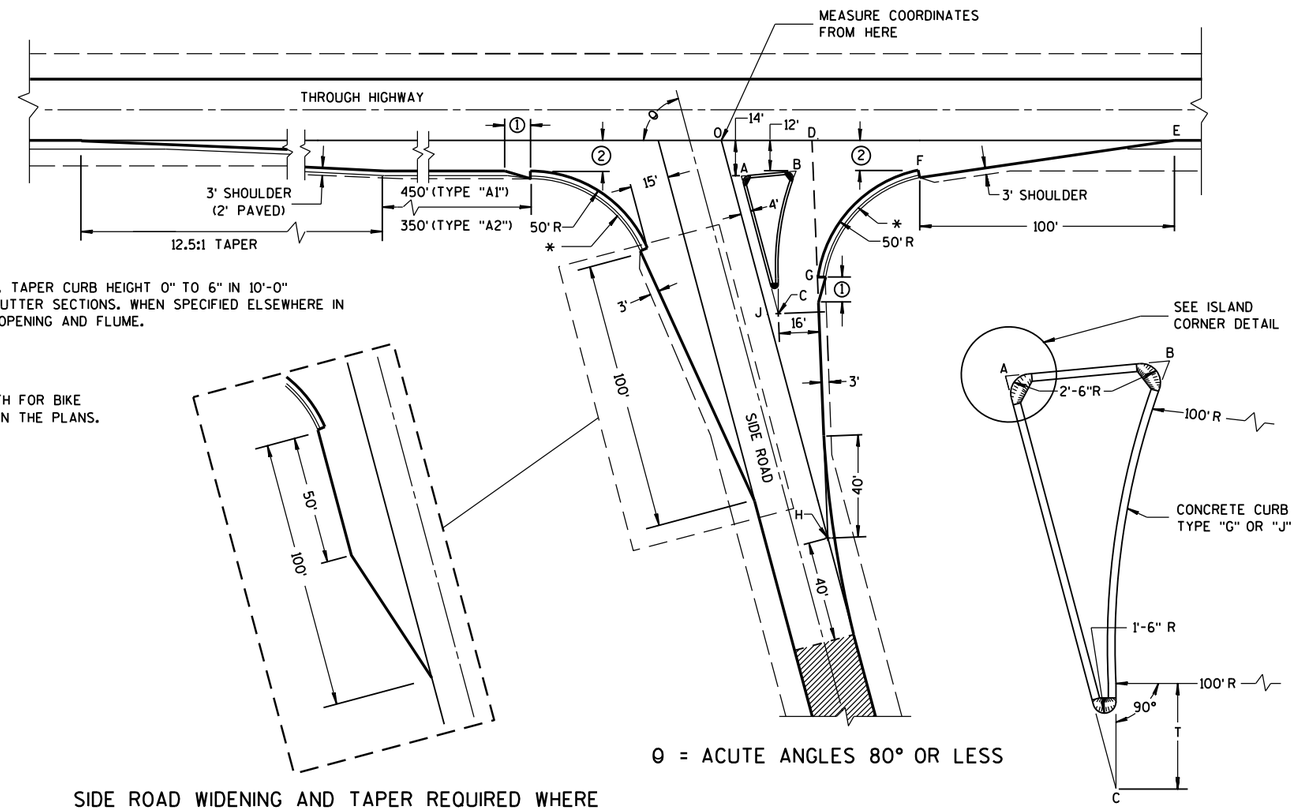
θ = MORE THAN 80°

* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

① 10-FT TYPICAL.

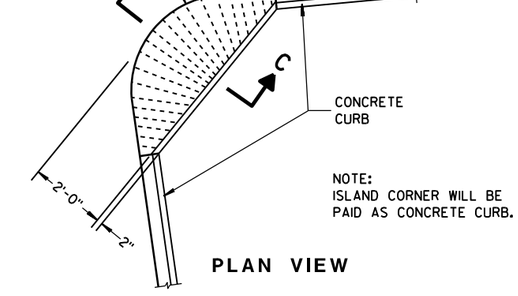
② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.

EXISTING PAVED SURFACE

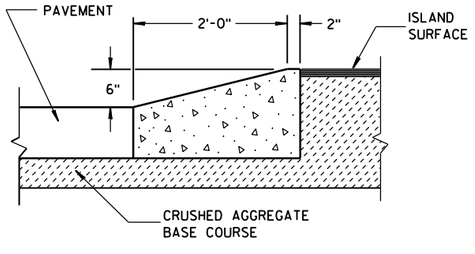


θ = ACUTE ANGLES 80° OR LESS

SIDE ROAD WIDENING AND TAPER REQUIRED WHERE
THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
θ = ACUTE ANGLES 70° OR LESS



PLAN VIEW



SECTION C-C

ISLAND CORNER DETAIL

(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

TABLE OF DIMENSIONS FOR
VARIABLE SIDE ROAD INTERSECTION ANGLES
(INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

ANGLE θ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT "O") X / Y								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7 / -14.0	44.9 / -12.0	46.4 / -72.4	41.9 / 0.0	205.0 / 0.0	104.6 / -12.0	64.0 / -75.5	85.0 / -147.1	32.3	67.4	4.9	85.9	169.9
65	10.9 / -14.0	39.0 / -12.0	37.8 / -71.6	39.4 / 0.0	196.1 / 0.0	95.7 / -12.0	54.1 / -71.5	70.5 / -151.3	28.2	63.6	8.5	80.9	166.9
70	9.4 / -14.0	33.9 / -12.0	29.8 / -70.1	37.4 / 0.0	188.3 / 0.0	87.8 / -12.0	45.6 / -67.5	56.1 / -154.2	24.6	59.7	11.5	76.1	164.1
75	7.9 / -14.0	29.3 / -12.0	22.3 / -67.9	35.7 / 0.0	181.2 / 0.0	80.7 / -12.0	38.2 / -63.4	41.8 / -155.9	21.5	55.8	13.8	71.4	161.4
80	6.5 / -14.0	25.4 / -12.0	15.6 / -65.2	34.4 / 0.0	174.8 / 0.0	74.4 / -12.0	31.8 / -59.3	27.6 / -156.5	18.9	52.0	15.6	66.9	158.9

TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS

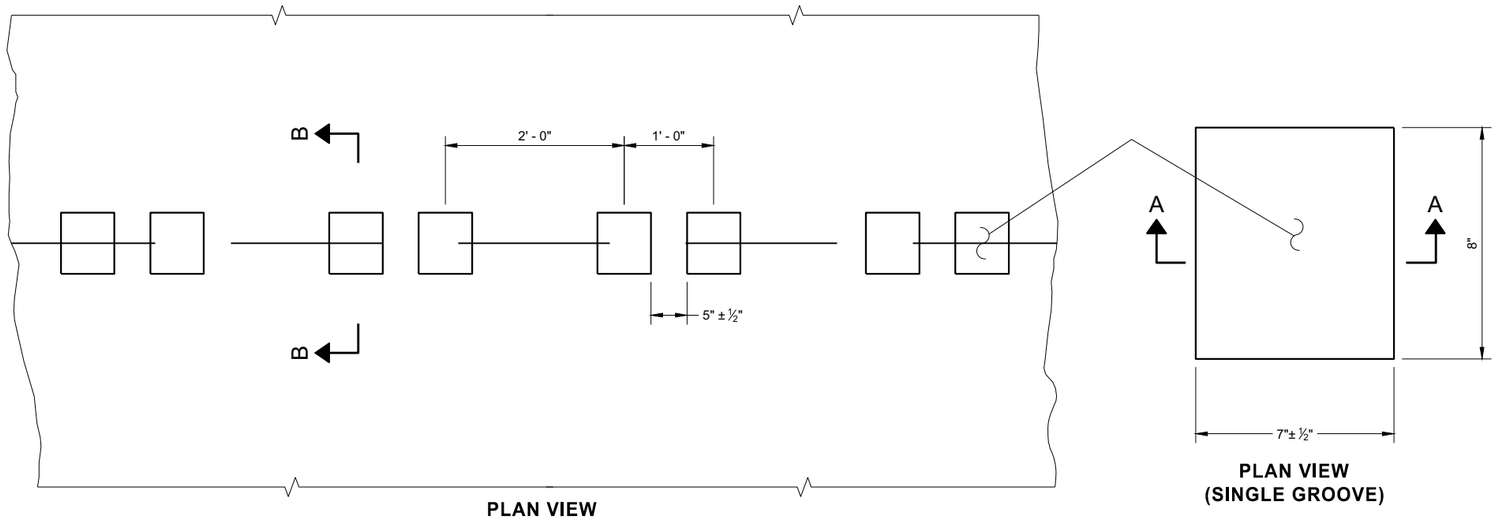
AT-GRADE SIDE ROAD
INTERSECTION, TYPE "A1" & "A2"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/18/12 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

S.D.D. 9 A 1-13b

6



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

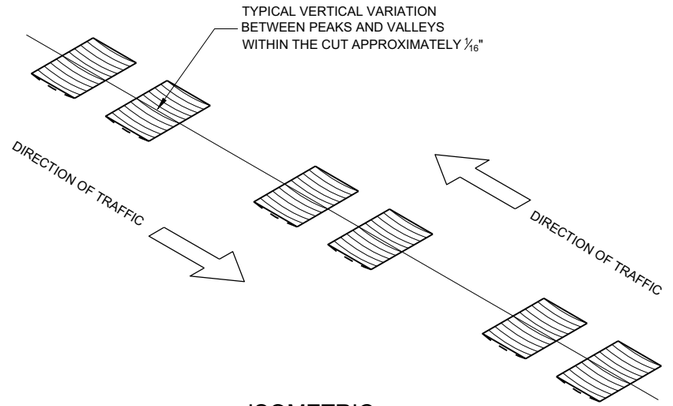
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

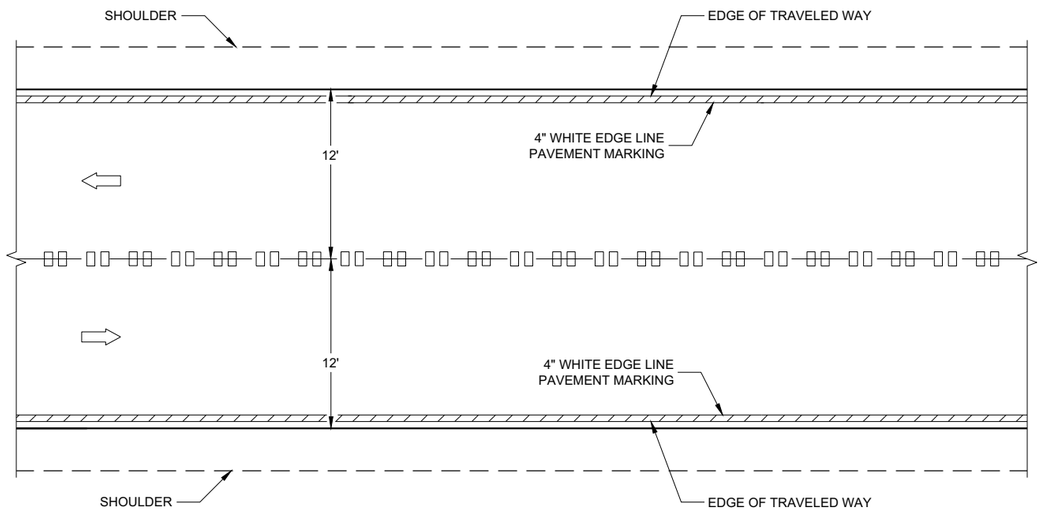
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

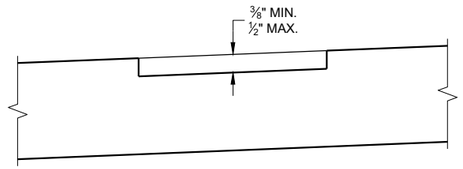
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



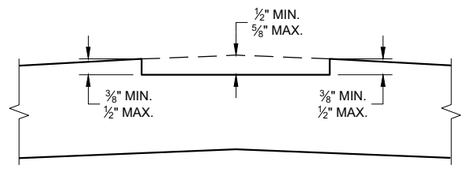
ISOMETRIC



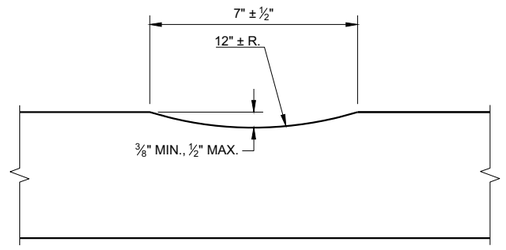
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



SECTION A - A

6

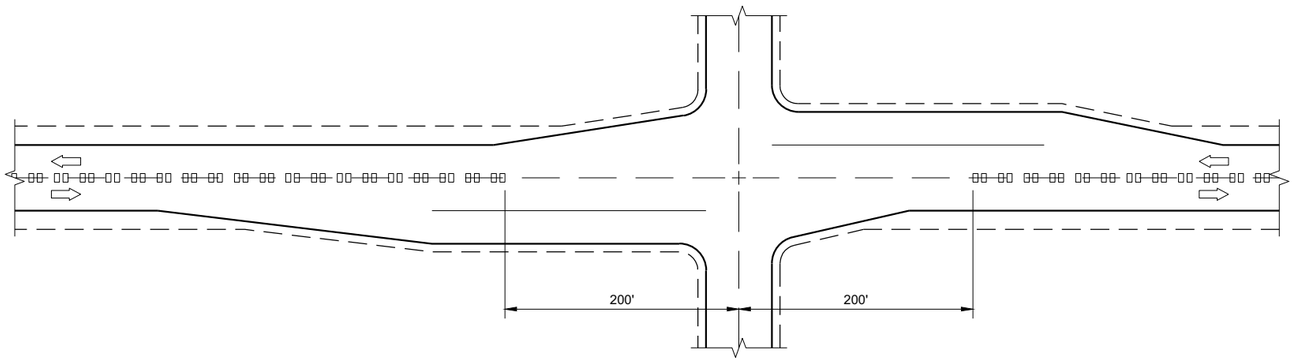
SDD 13A11 - 03a

6

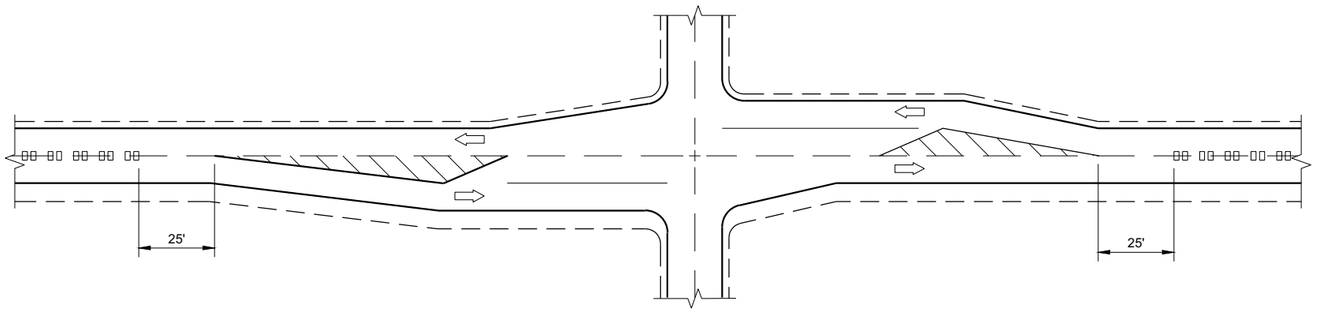
SDD 13A11 - 03a

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

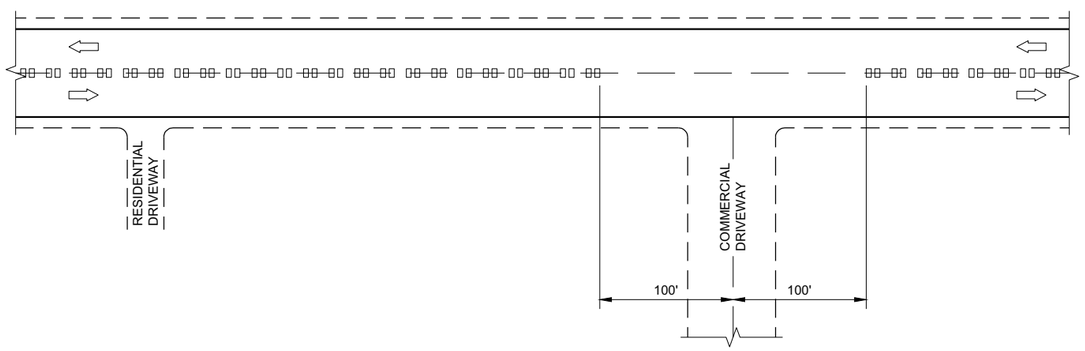
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



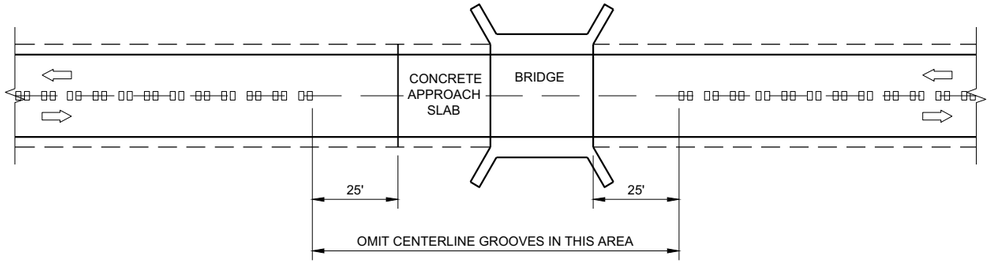
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



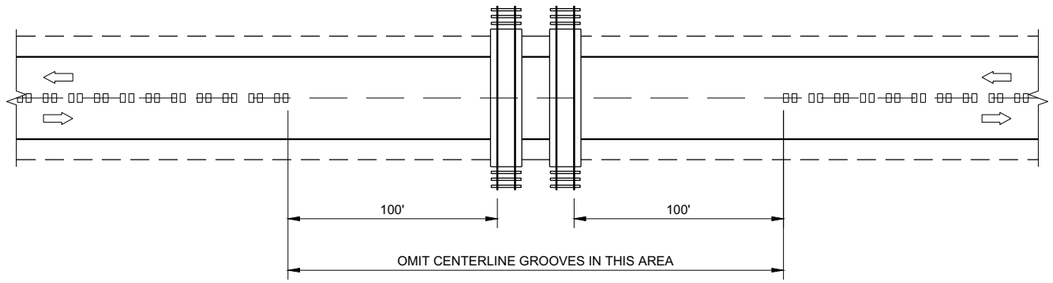
CENTERLINE GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

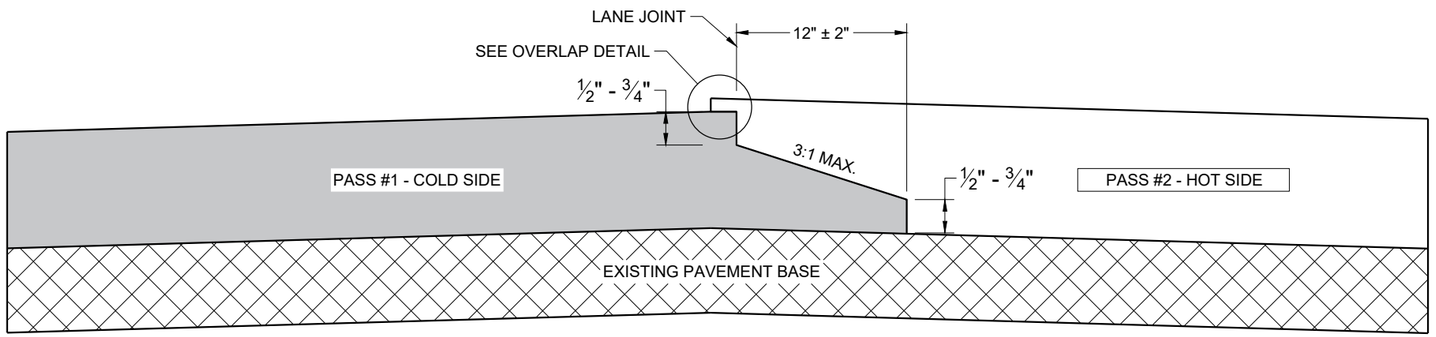
FHWA

6

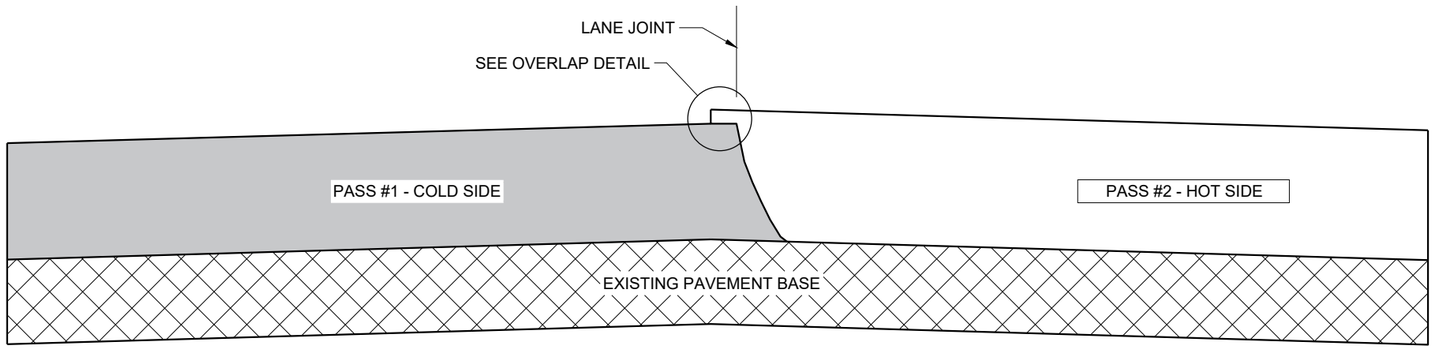
SDD 13A11 - 03b

6

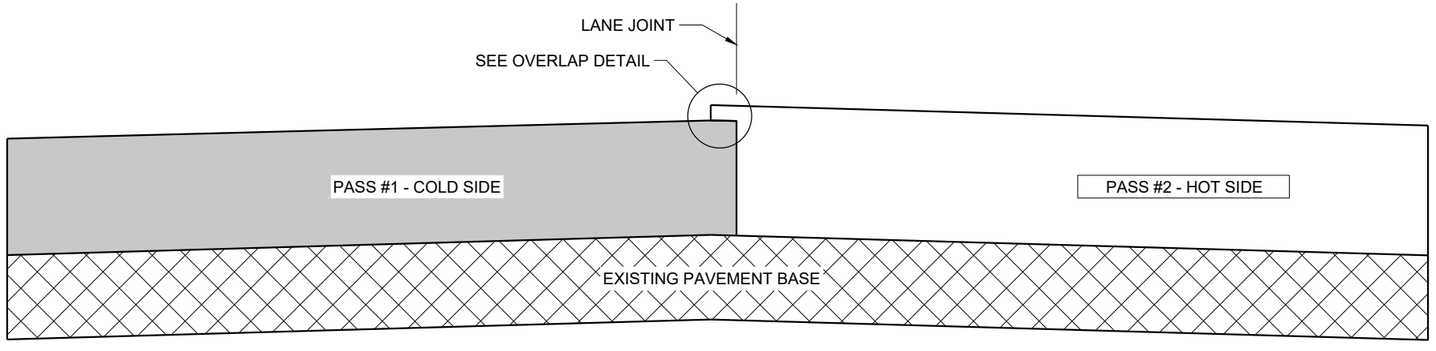
SDD 13A11 - 03b



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

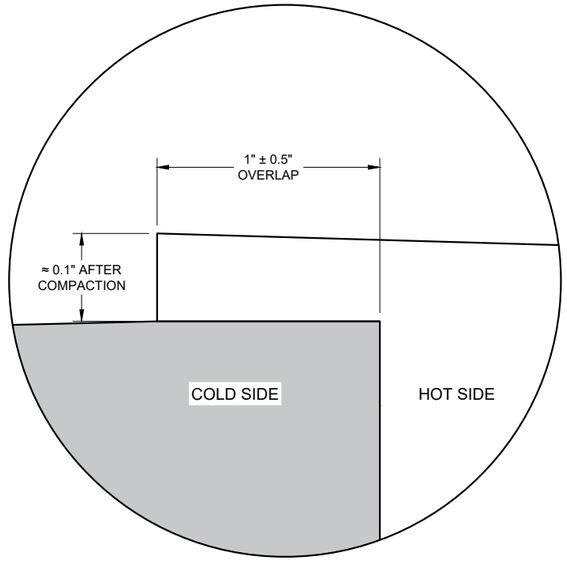
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

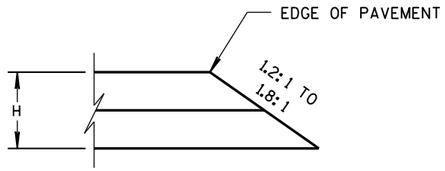
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

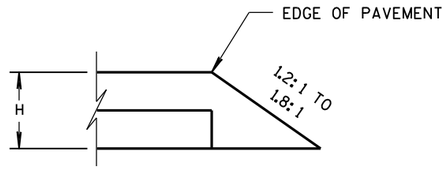
/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



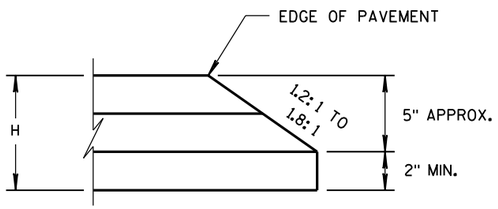
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



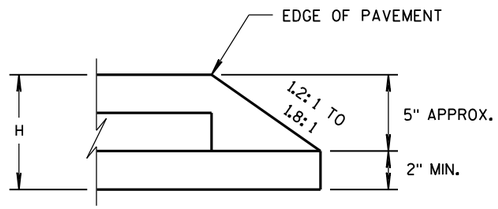
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

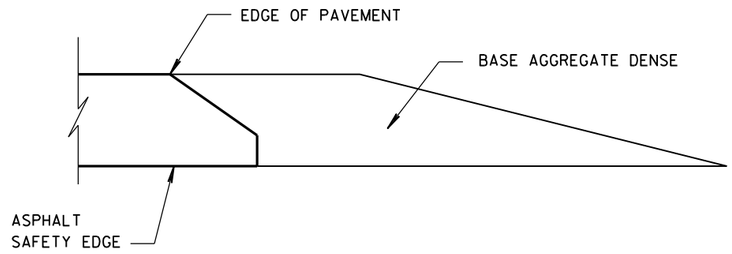
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

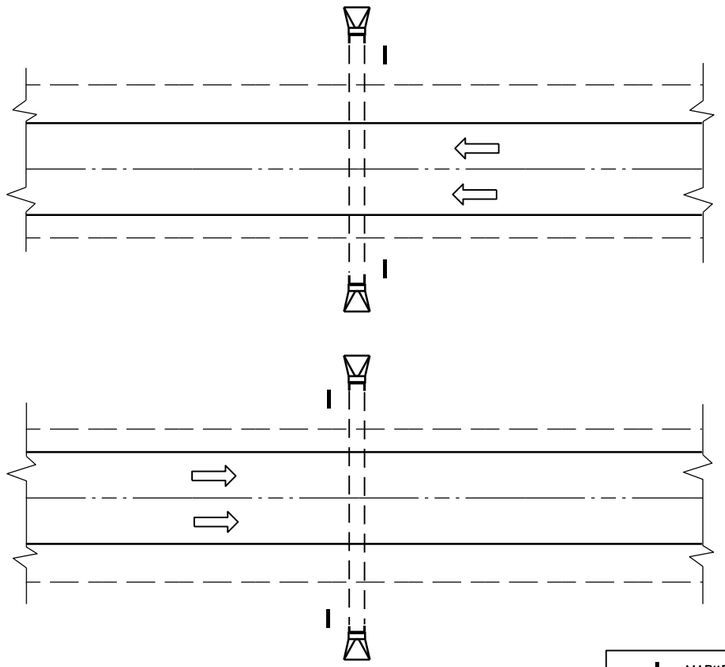
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

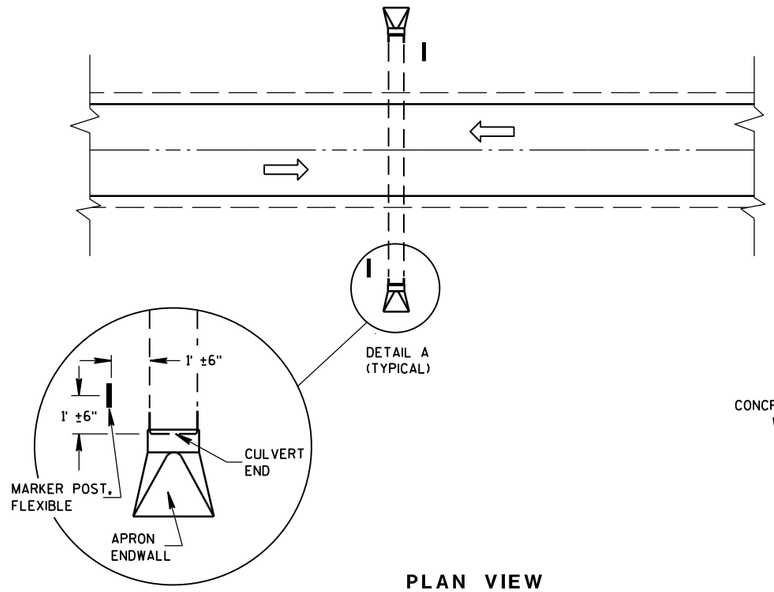
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

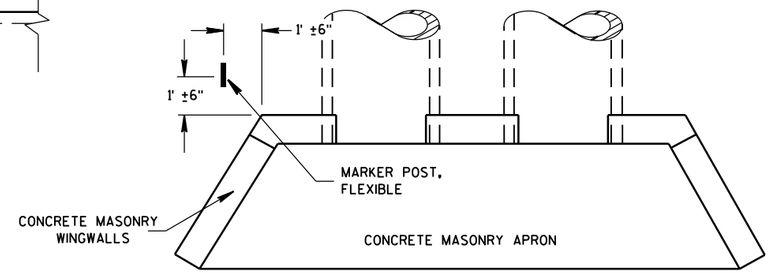
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

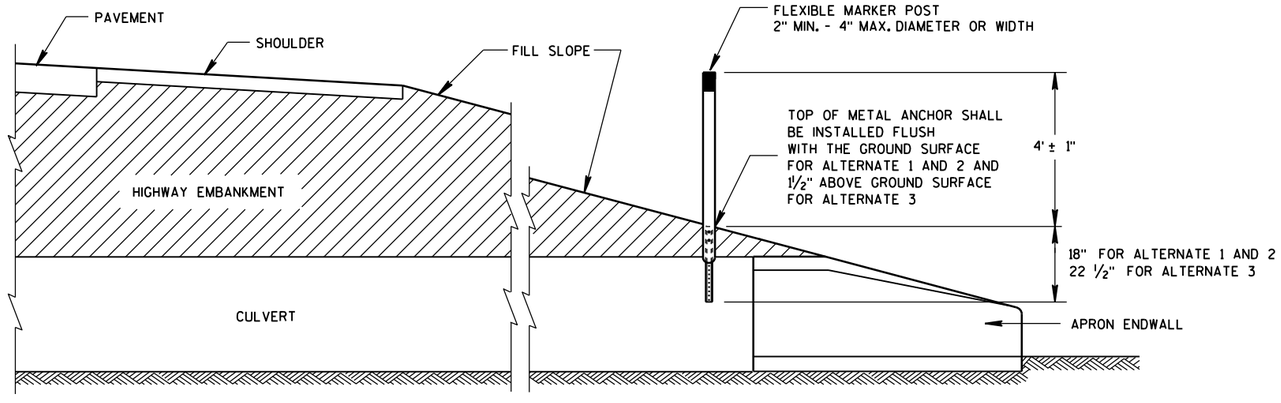
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

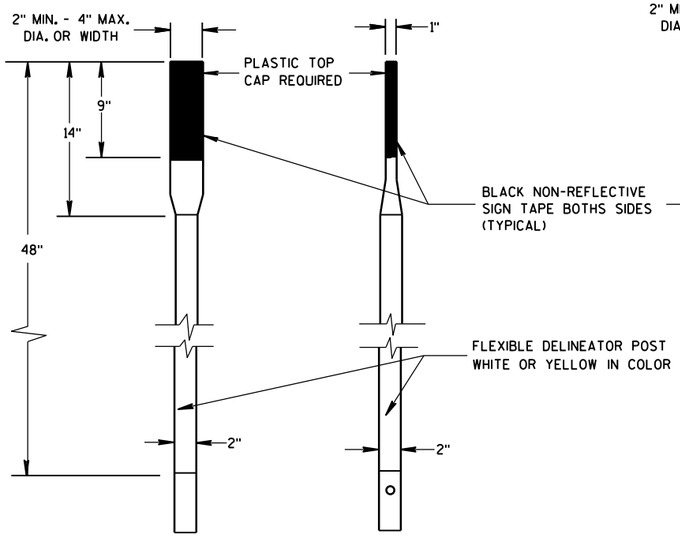
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

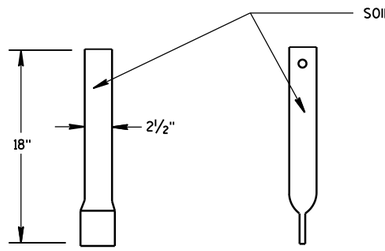
6

S.D.D. 15 A 3-2a

6

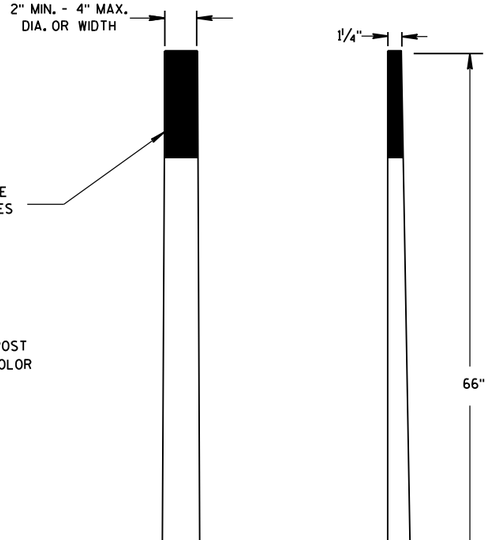
S.D.D. 15 A 3-2a





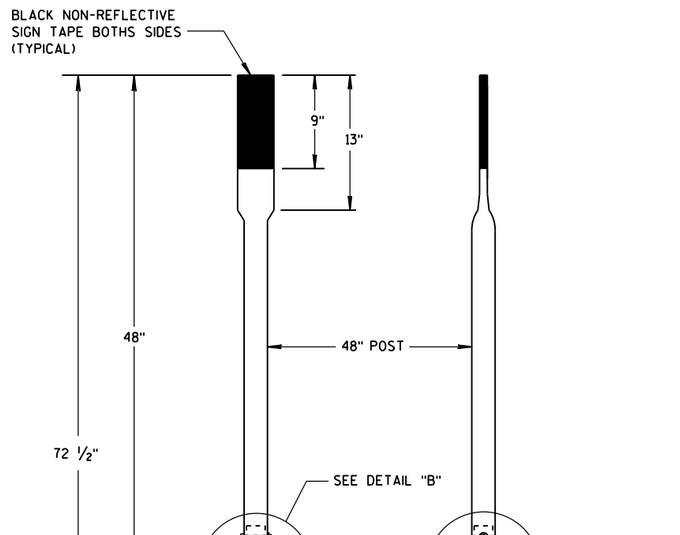
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

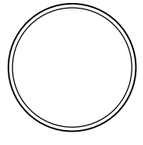
ALTERNATE 2



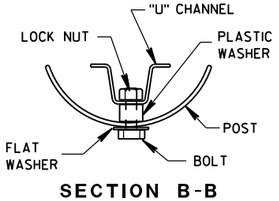
FRONT VIEW SIDE VIEW

ALTERNATE 3

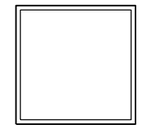
FLEXIBLE MARKER POSTS



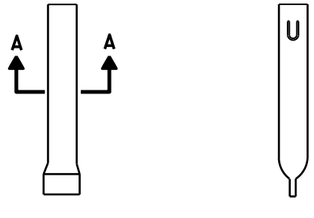
SECTION A-A



SECTION B-B

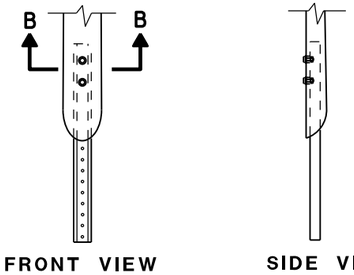


SECTION C-C



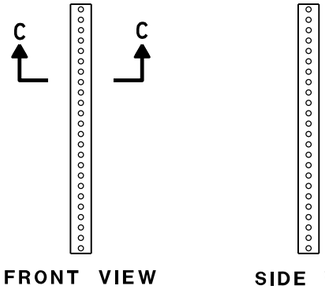
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

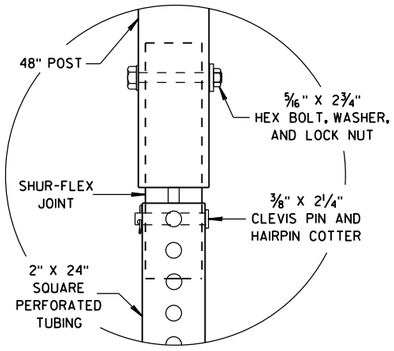
ALTERNATE 2



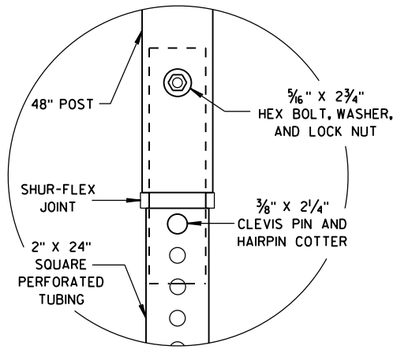
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 15 A 3-2b

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.

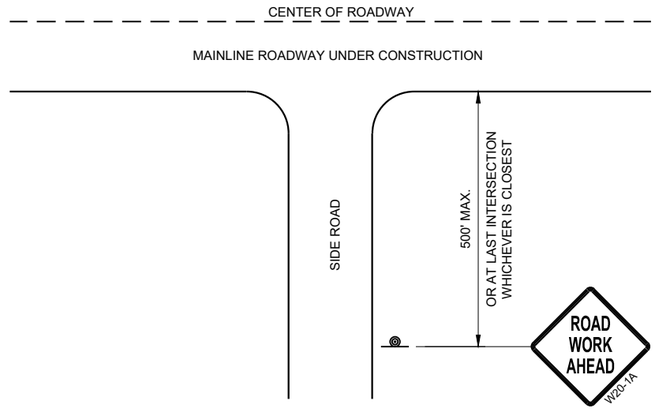
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

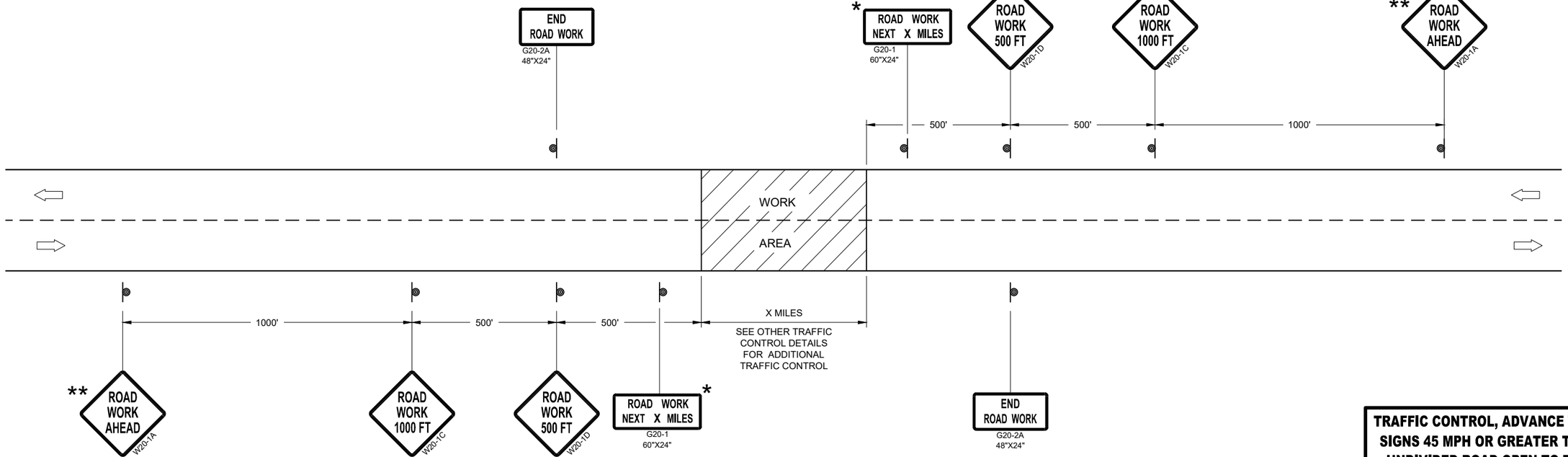
** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



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

GENERAL NOTES

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

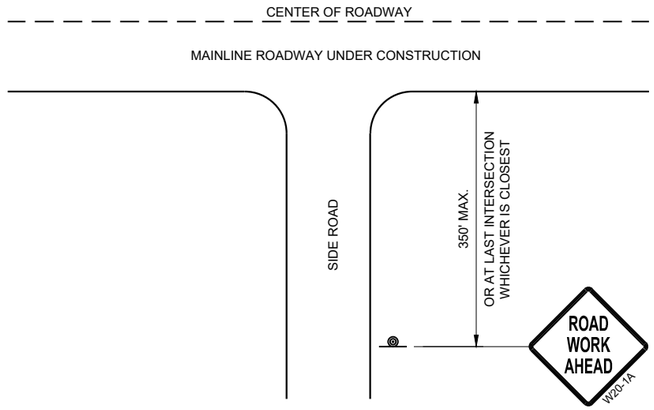
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

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.

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



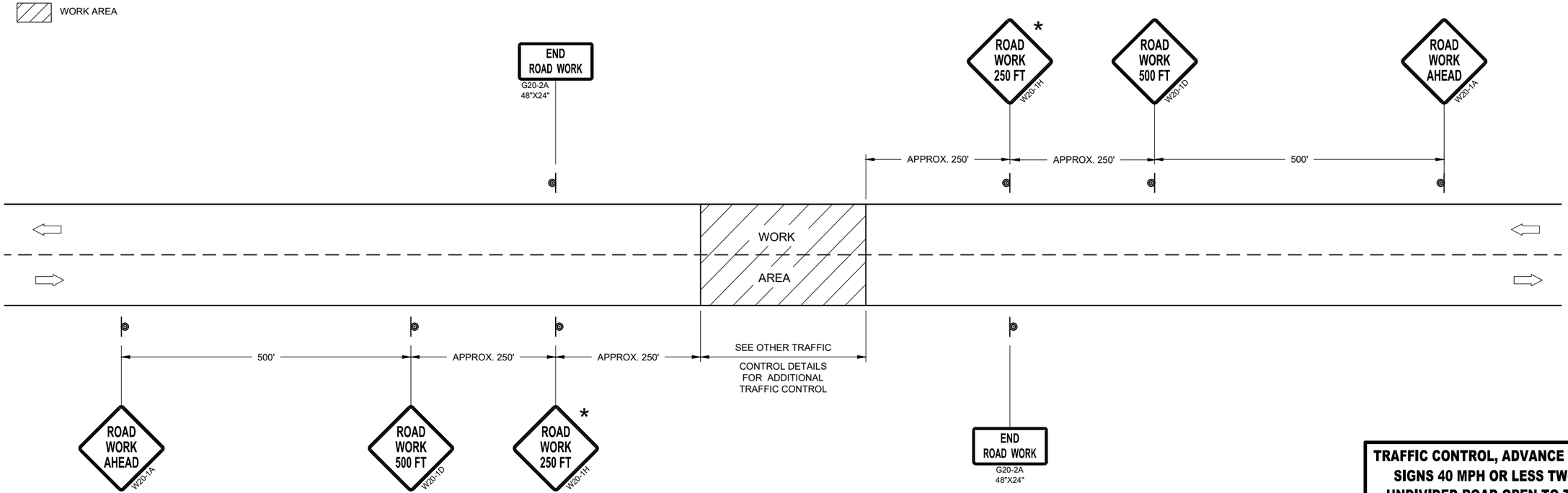
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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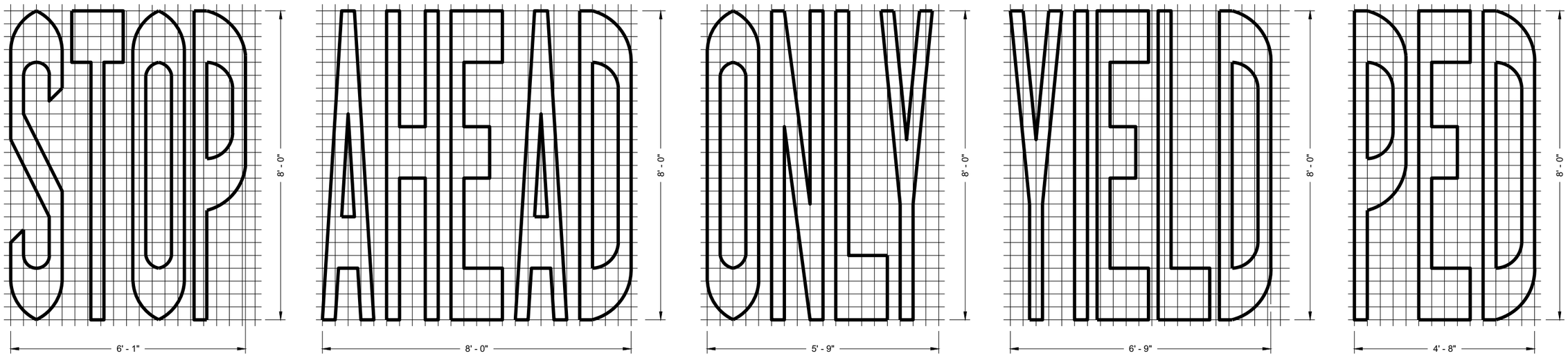
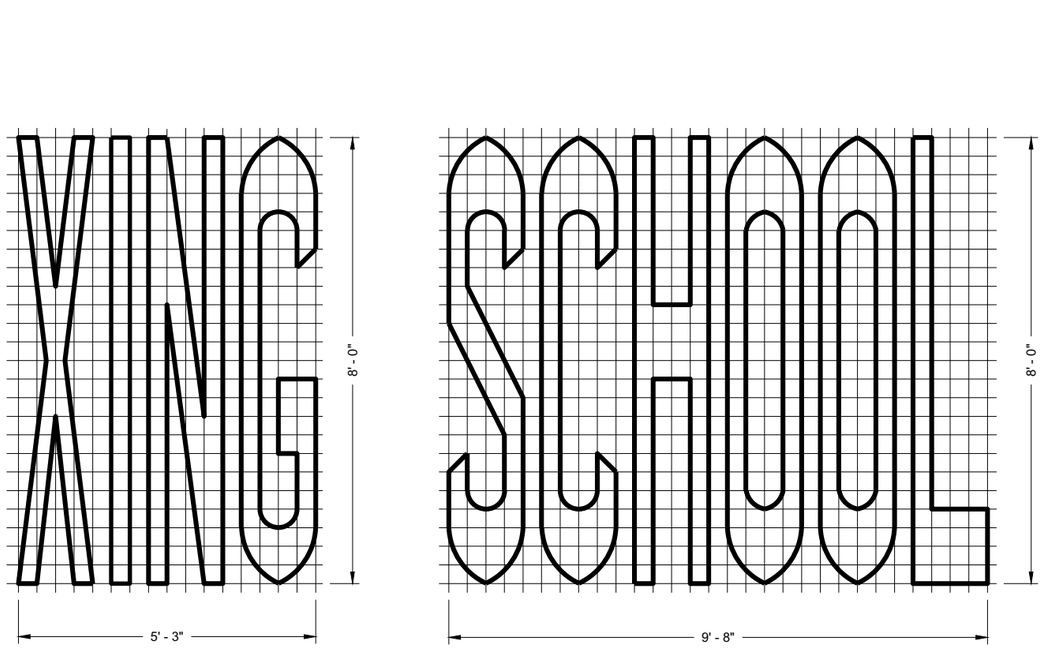
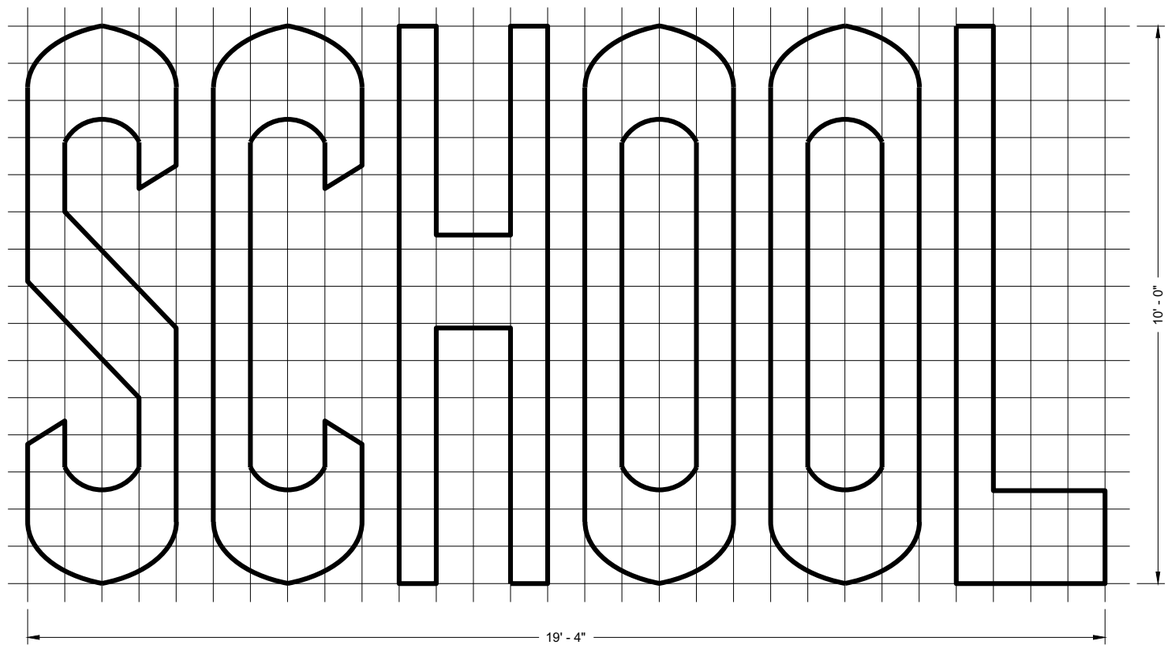
SDD 15C05 - 05





SINGLE LANE



TWO - LANE

GENERAL NOTES

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

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

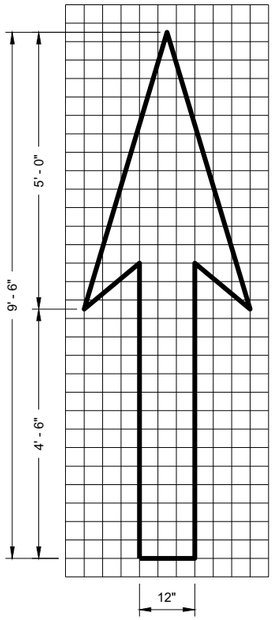
6

SDD 15C07 - 15b

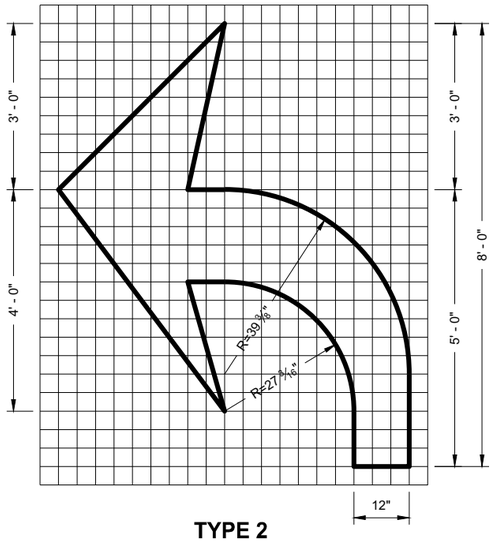
SDD 15C07 - 15b

GENERAL NOTES

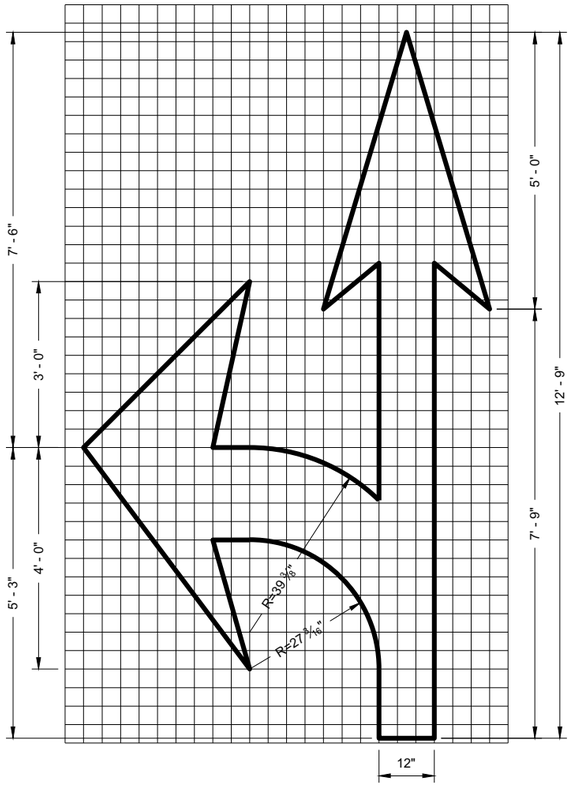
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



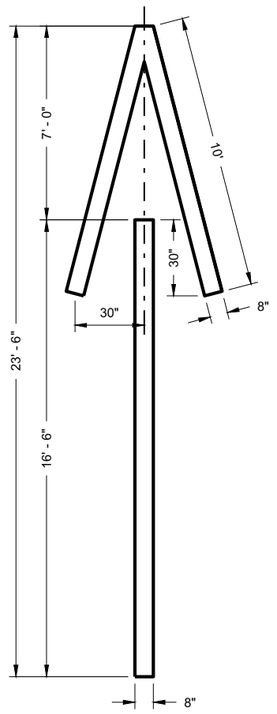
TYPE 1



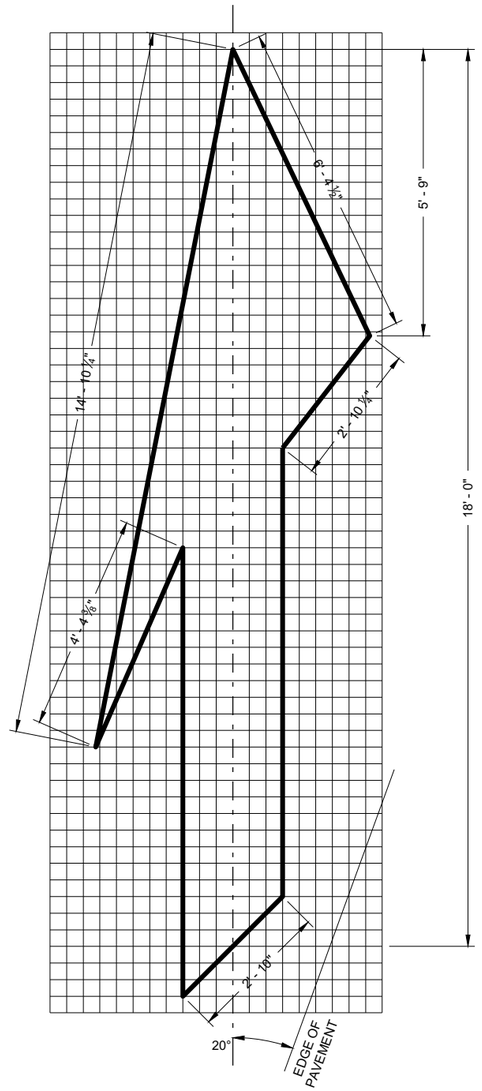
TYPE 2



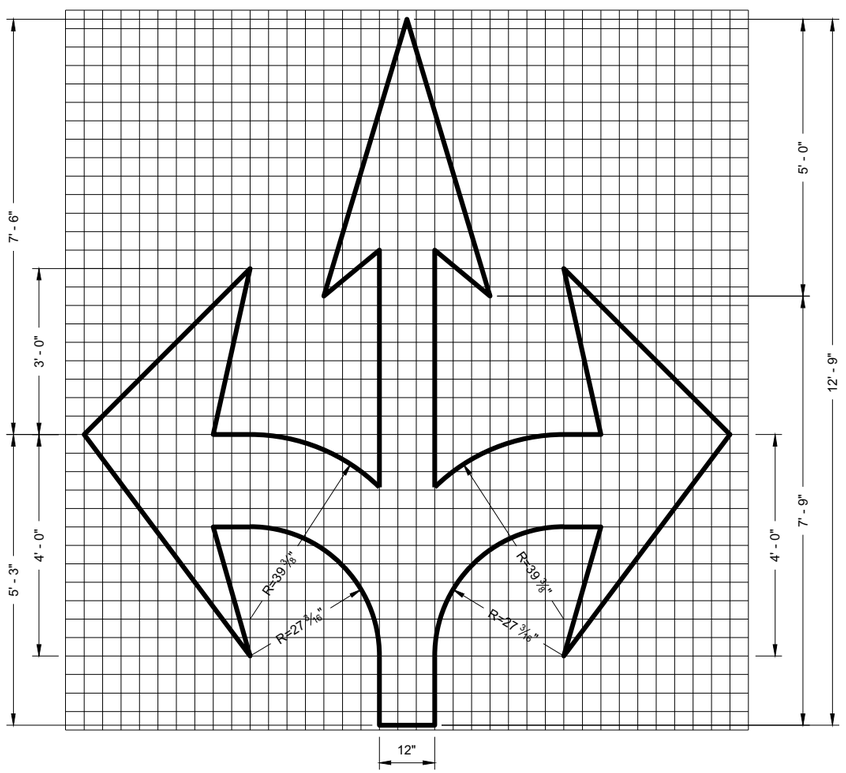
TYPE 3



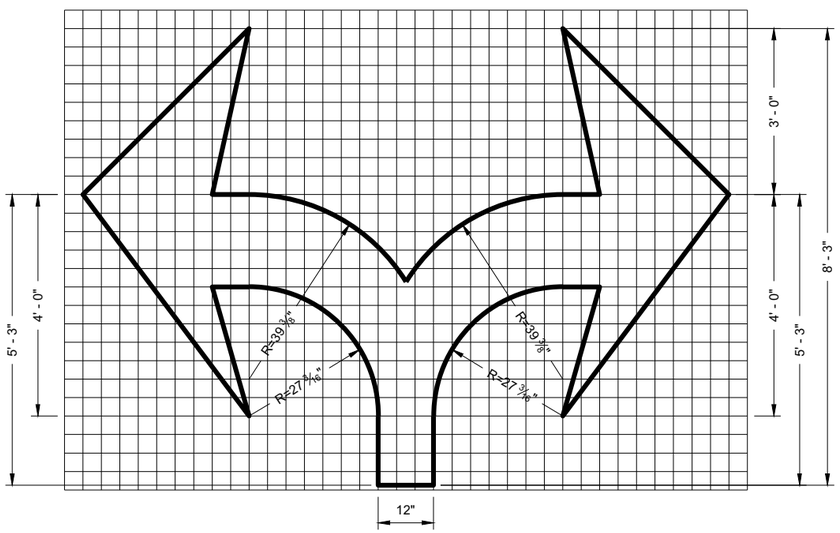
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

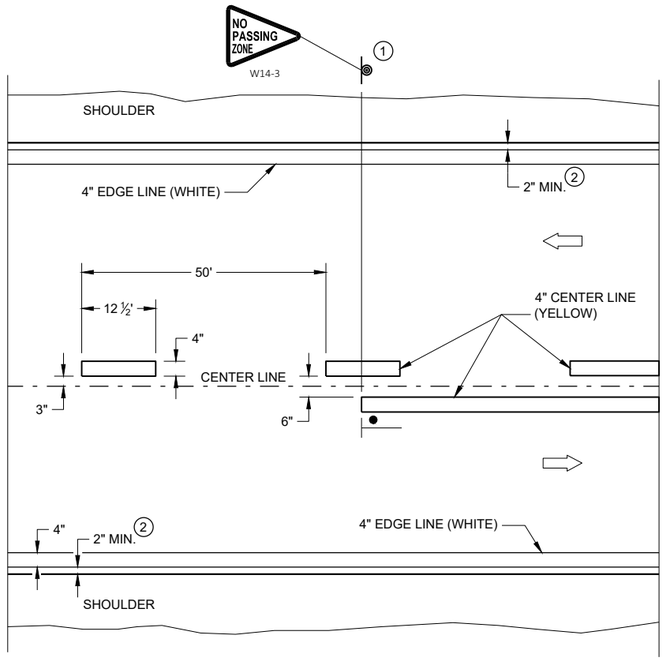
FHWA

6

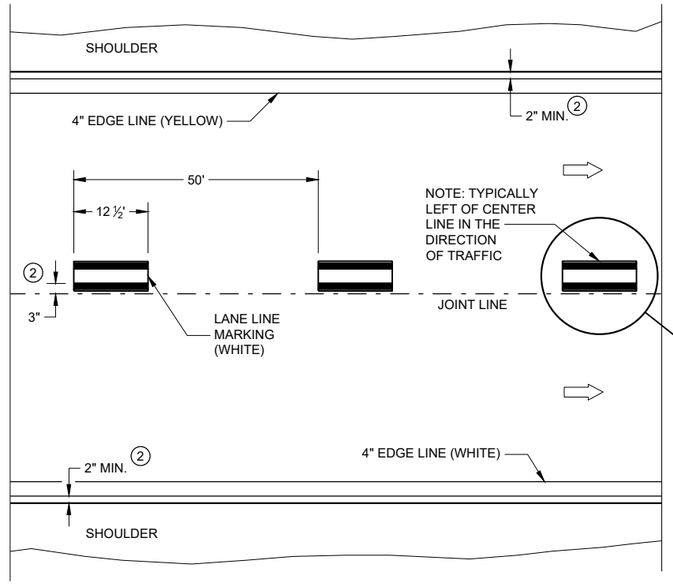
SDD 15C07 - 15c

6

SDD 15C07 - 15c

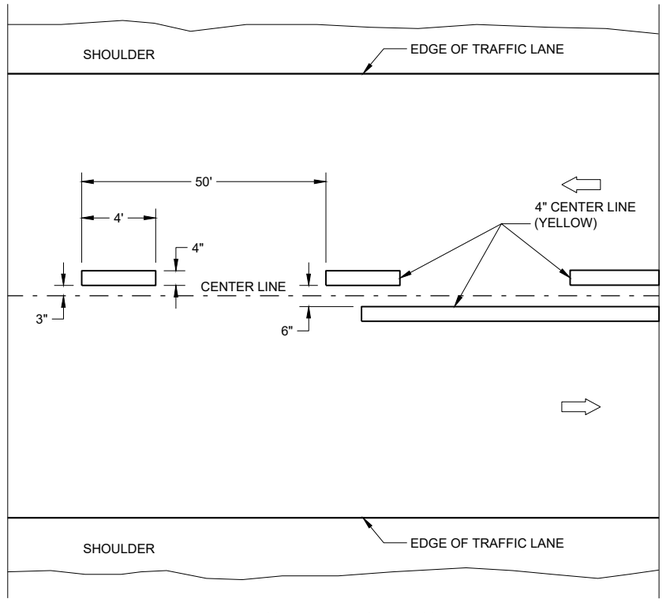


TWO WAY TRAFFIC

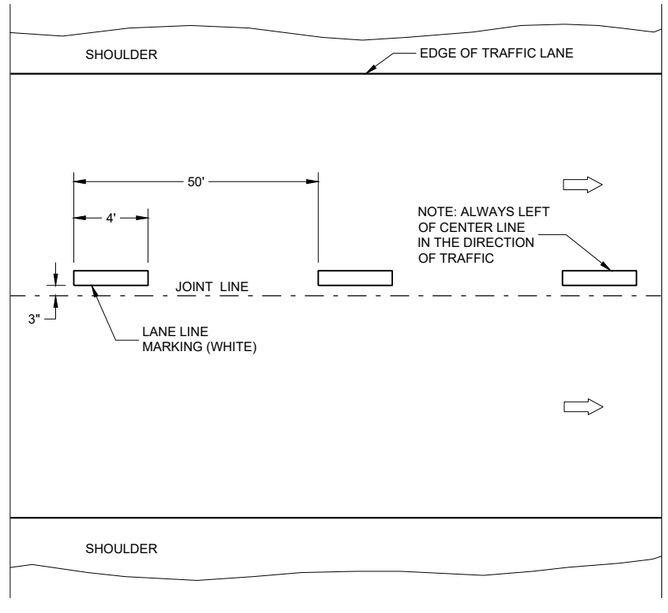


ONE WAY TRAFFIC

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.

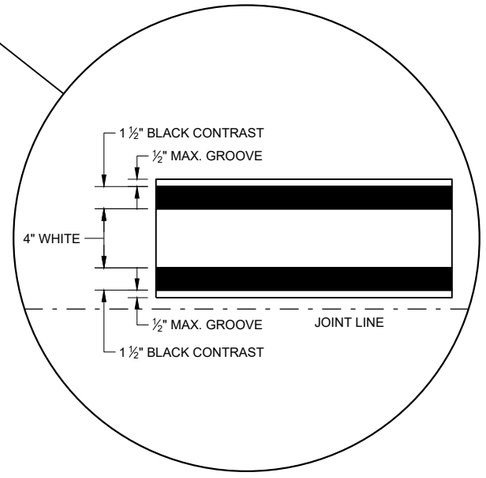
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

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

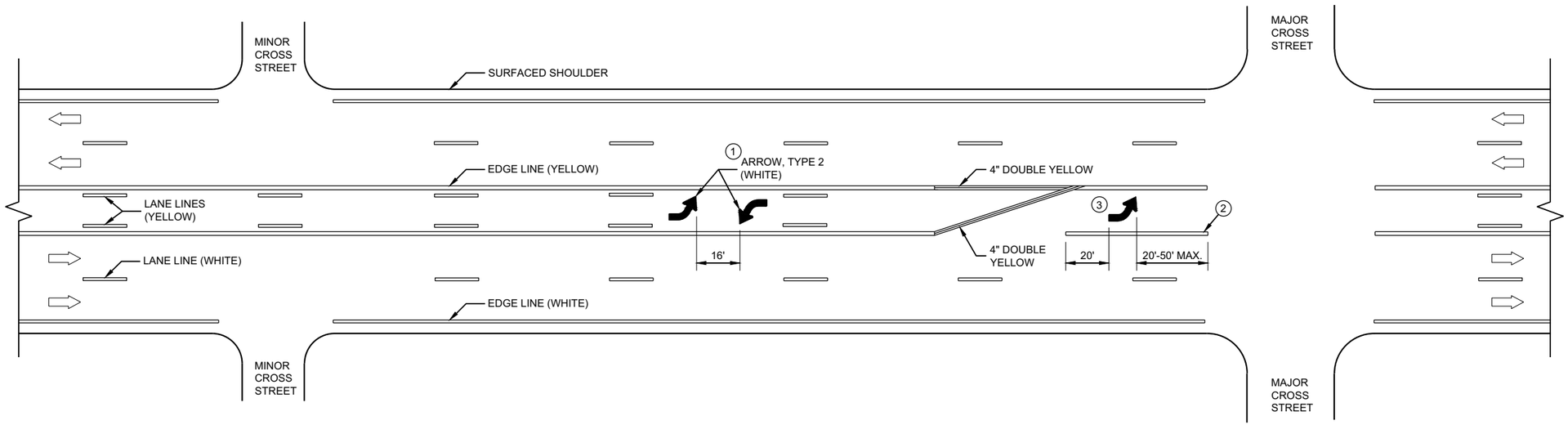
SDD 15C08 - 20a

SDD 15C08 - 20a

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 8" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

6

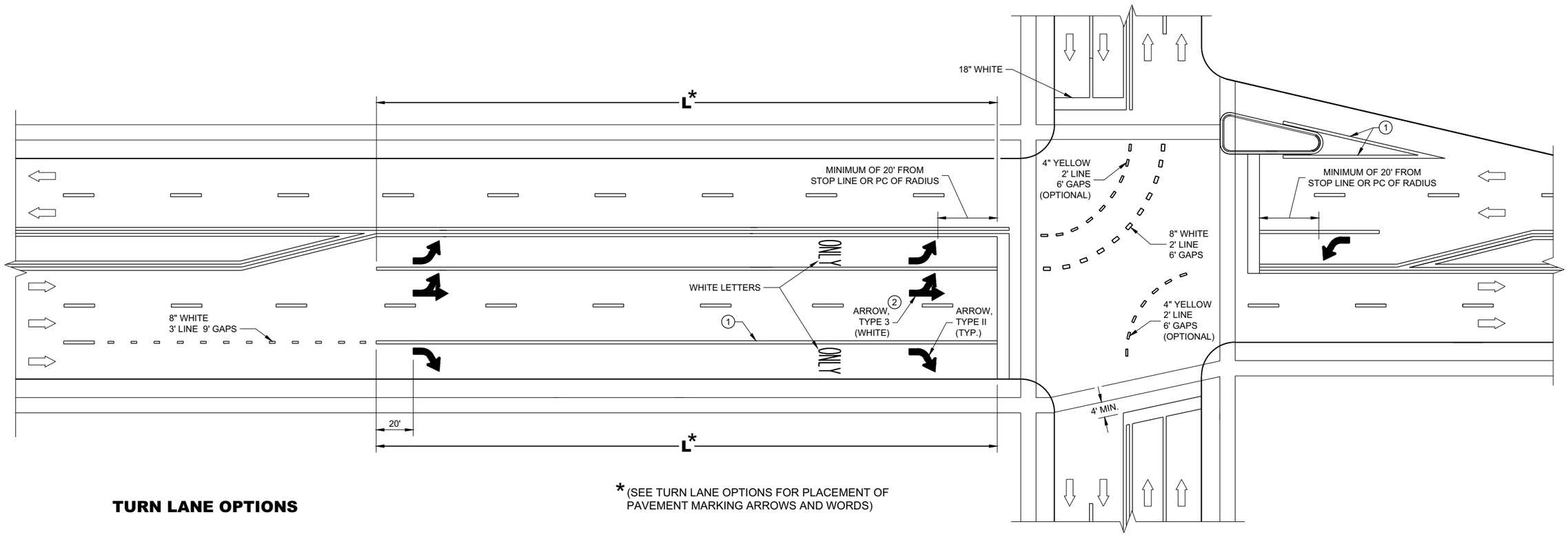
SDD 15C08 - 20b

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

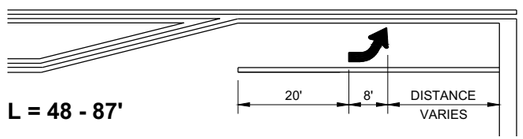
SDD 15C08 - 20b



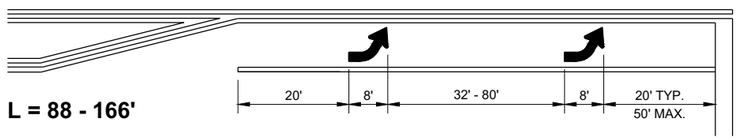
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

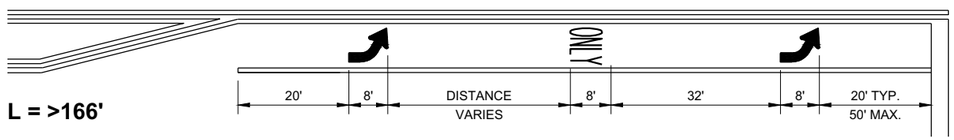
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

1. 8" WHITE
2. QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

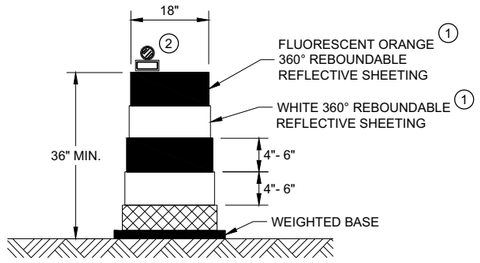
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

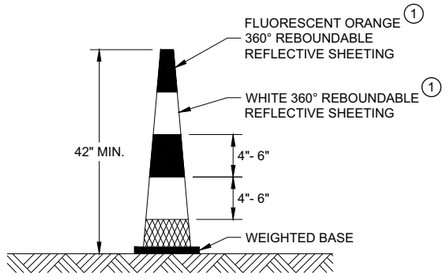
SDD 15C08 - 20c

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.

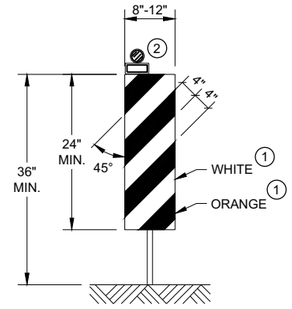


DRUM



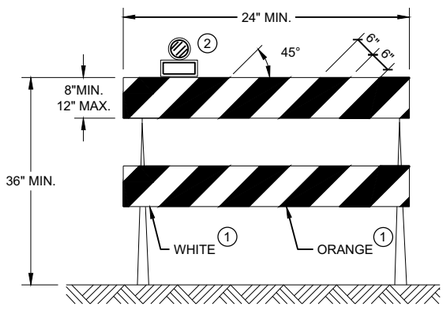
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



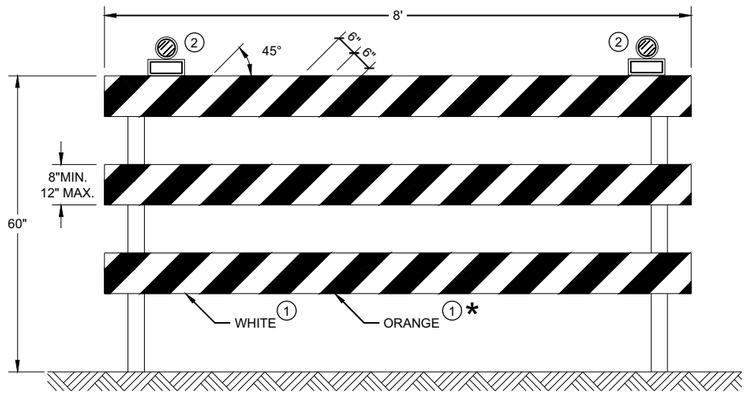
VERTICAL PANEL

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
November 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD15C11 - 08b

6

SDD15C11 - 08b

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.

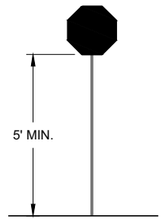
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

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.



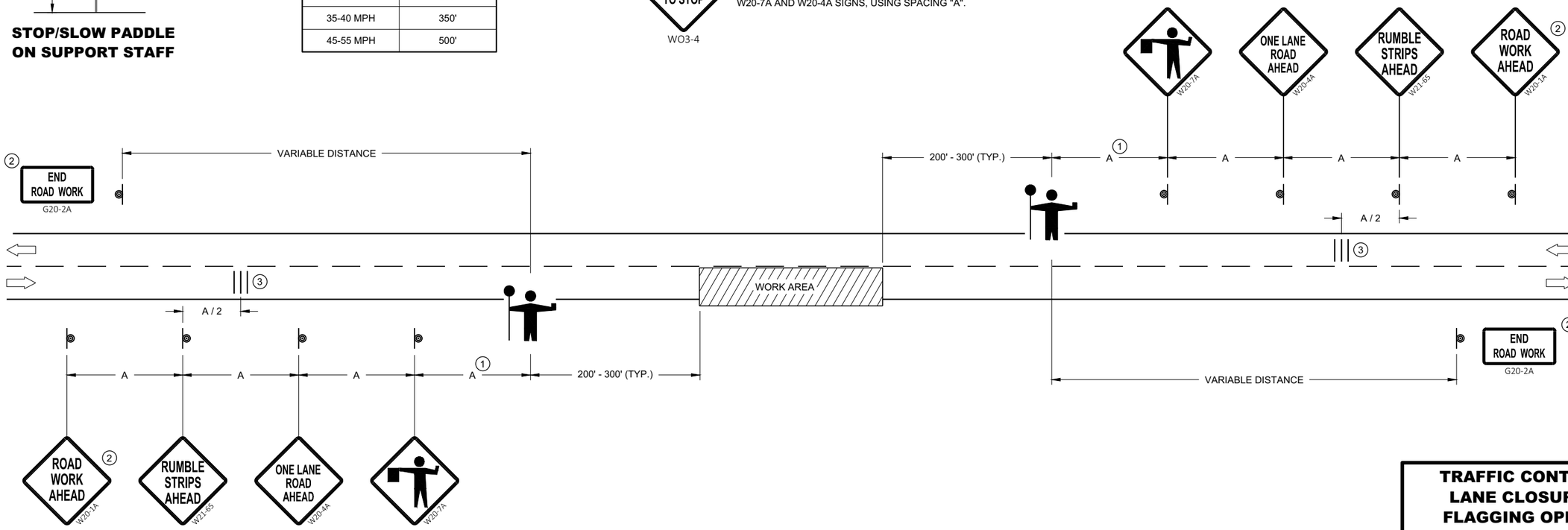
STOP/SLOW PADDLE ON SUPPORT STAFF

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.

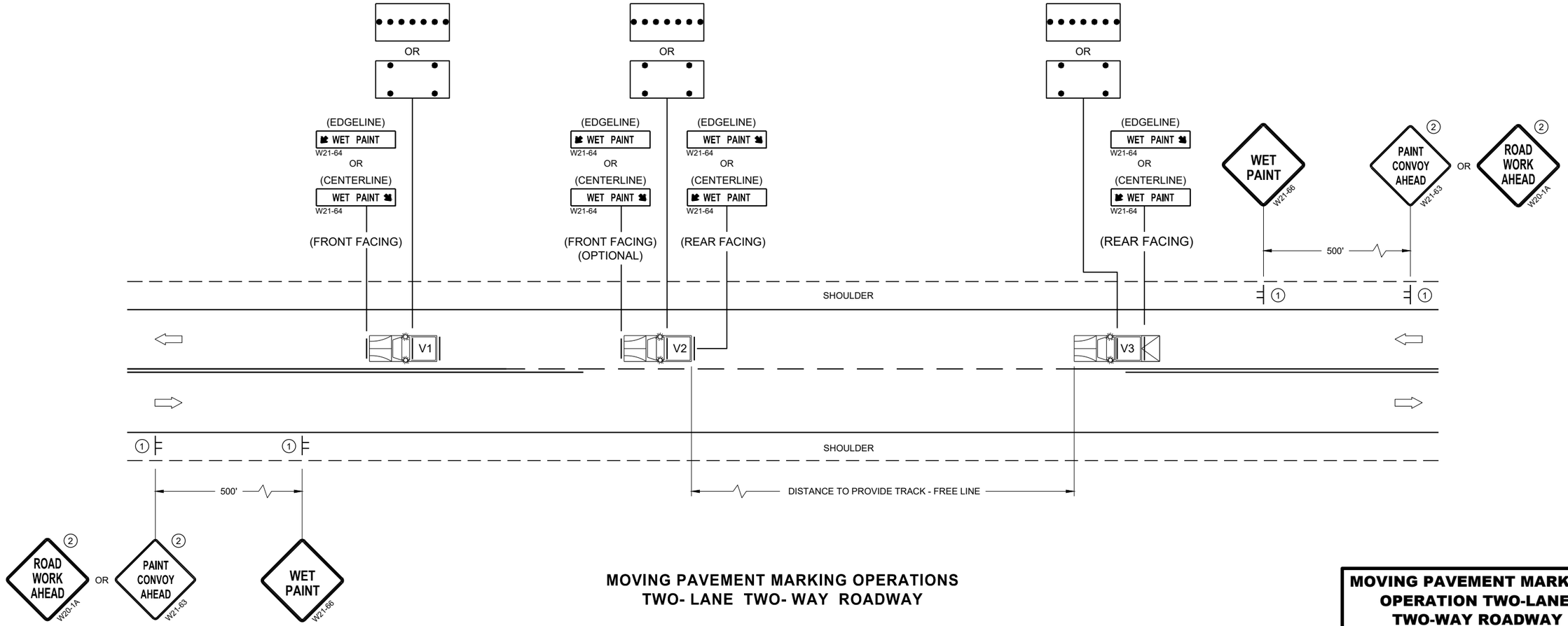
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

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

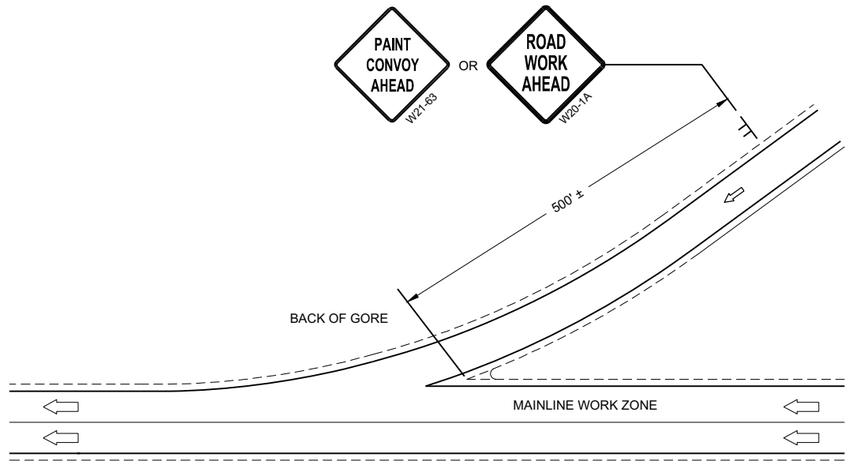
FHWA

SDD 15C19 - 06a

SDD 15C19 - 06a

LEGEND

- V1 MARKING VEHICLE
- V2 SHADOW VEHICLE
- V3 TRAIL VEHICLE
- TRUCK MOUNTED ATTENUATOR (TMA)
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW PANEL (MERGE)
- 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. 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.

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

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

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

IF THE SHOULDER IS TOO NARROW TO ACCOMMODATE THE LAST TRAILING VEHICLE, THE VEHICLE SHOULD STRADDLE THE EDGE LINE.

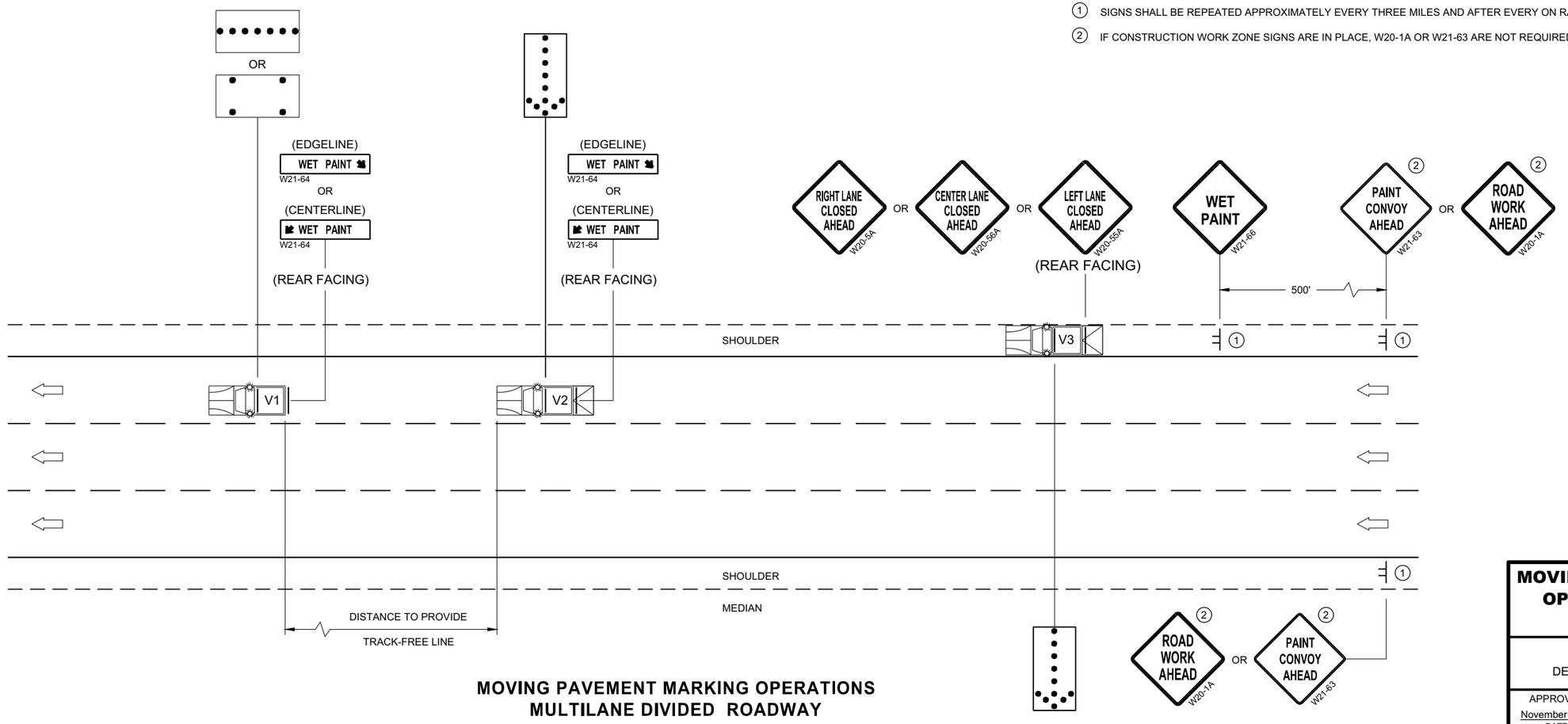
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

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 HEIGHT OF 18" FOR WET PAVEMENT MARKINGS

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY ON RAMP.

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



MOVING PAVEMENT MARKING OPERATIONS
MULTILANE DIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C19 - 06c

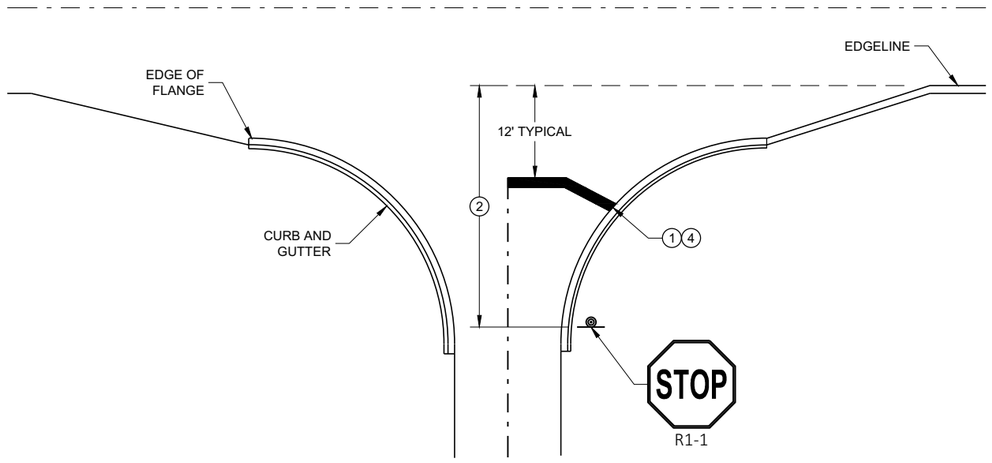
6

SDD 15C19 - 06c

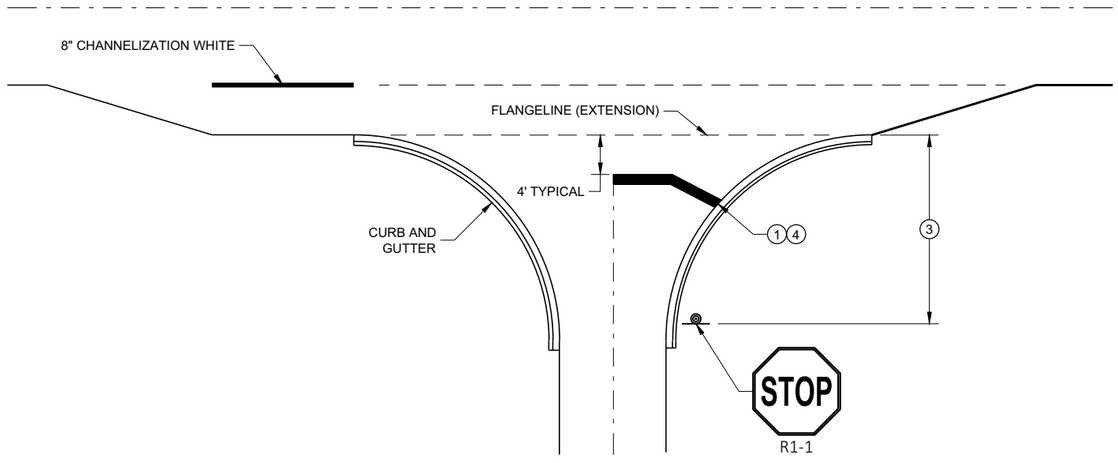
GENERAL NOTES

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

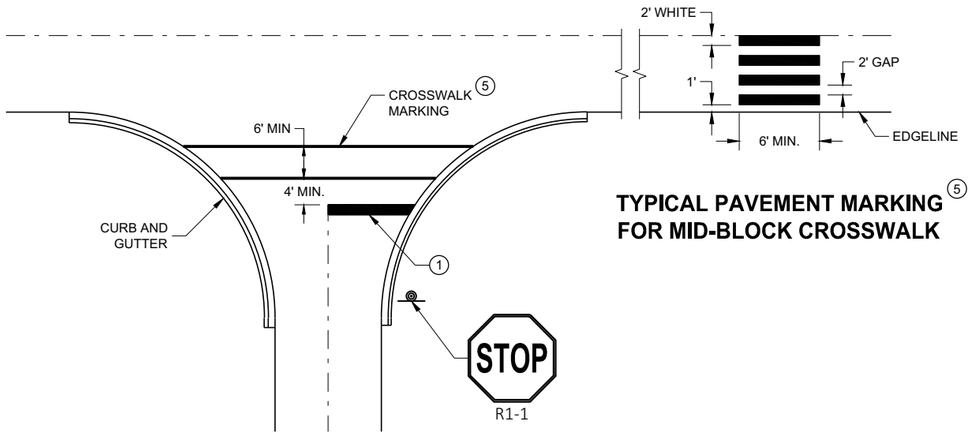
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE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



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

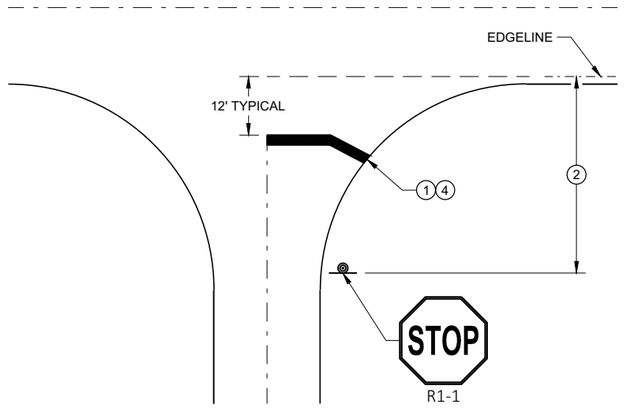


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

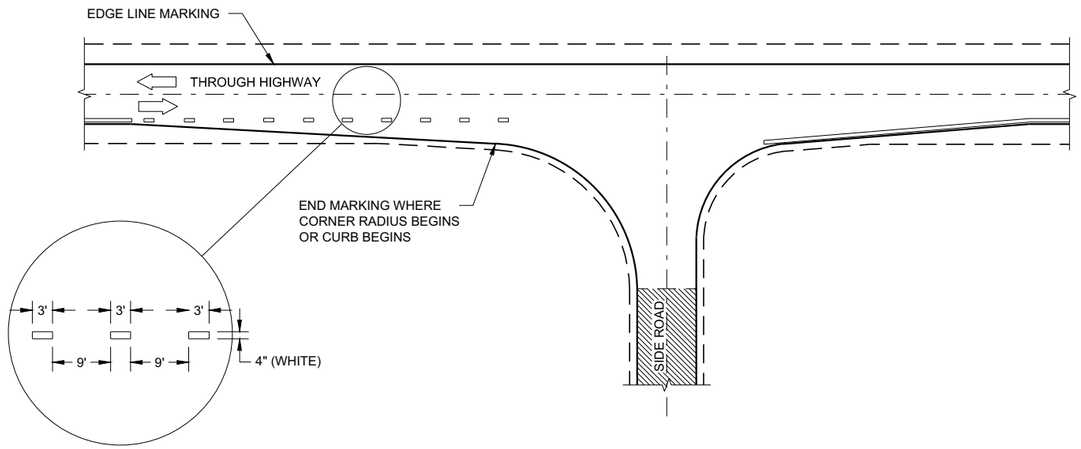
STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

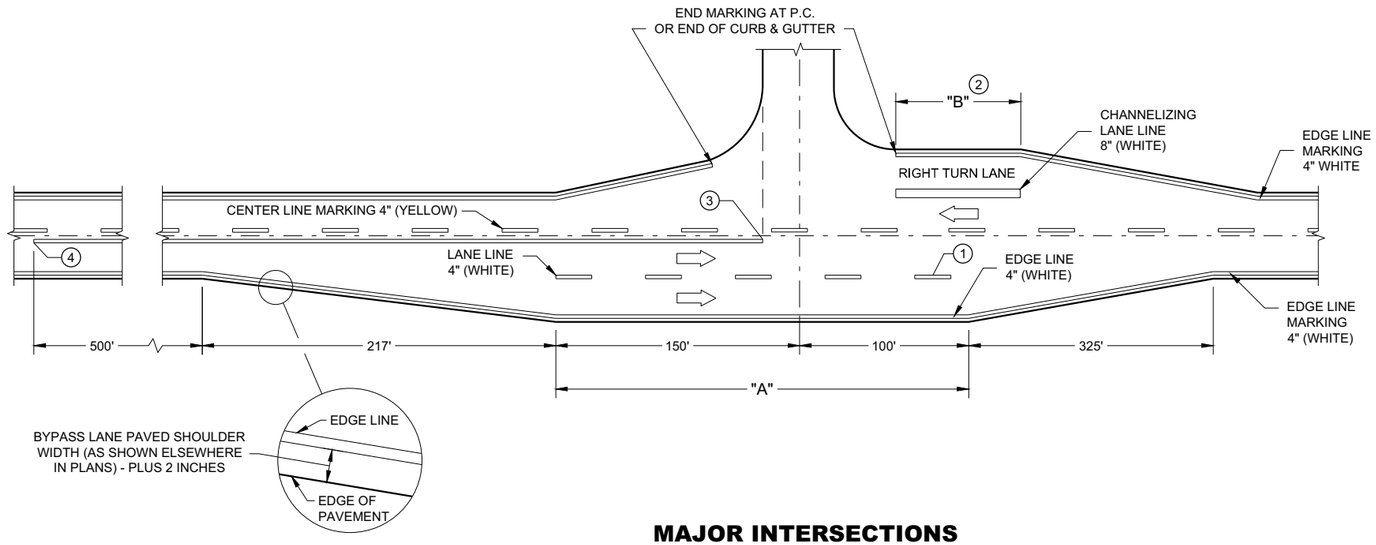
APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

6
SDD 15C33 - 04



MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

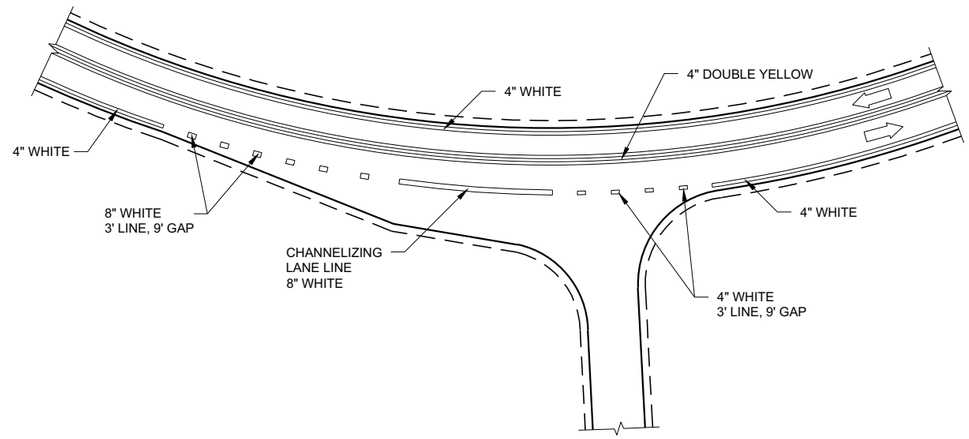
GENERAL NOTES

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

LEGEND

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

GENERAL NOTES

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

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

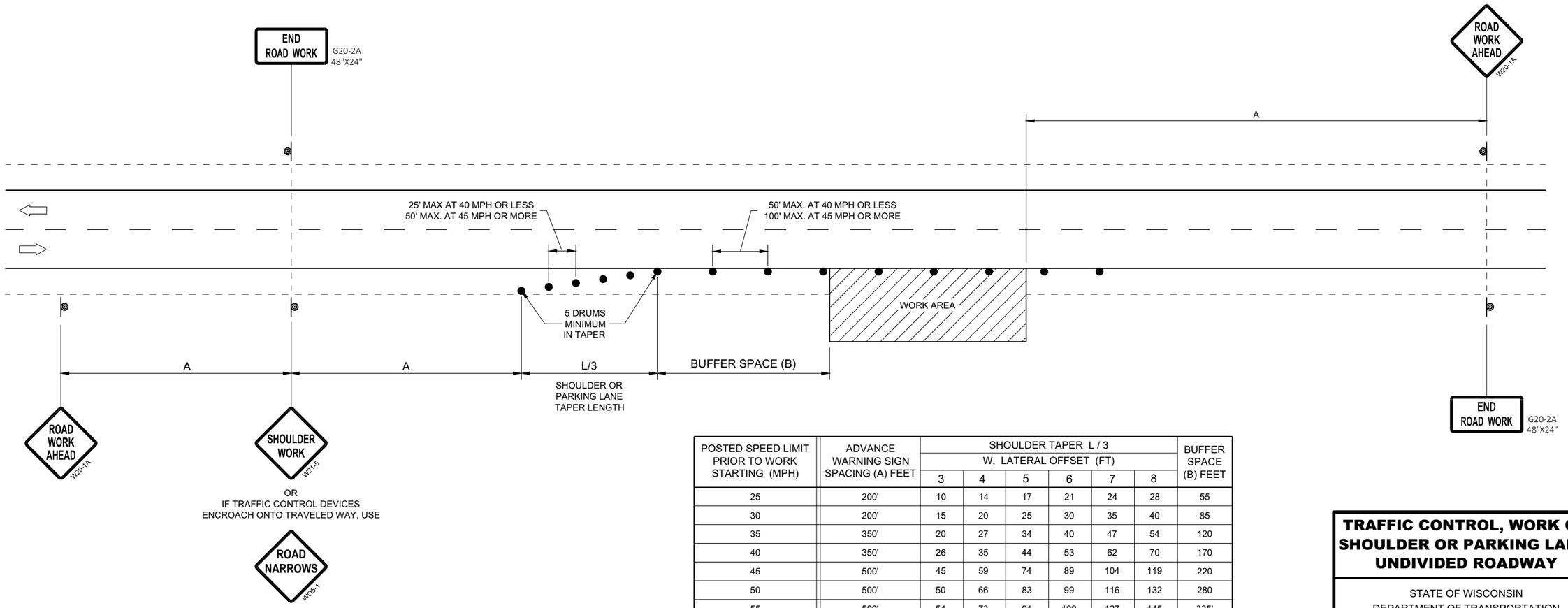
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

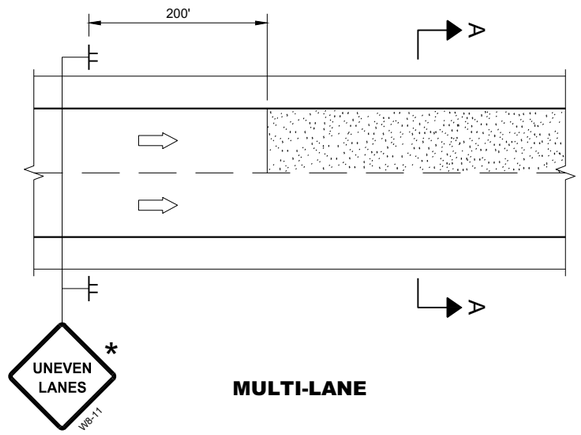
APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

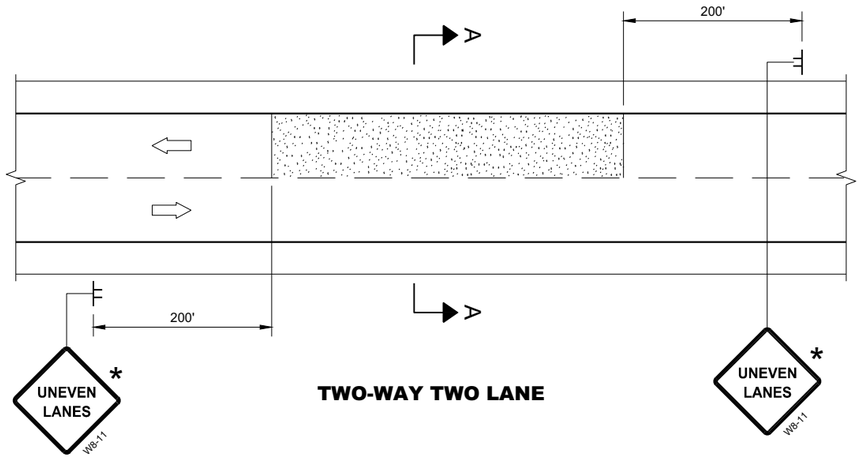
FHWA

SDD 15D28 - 04

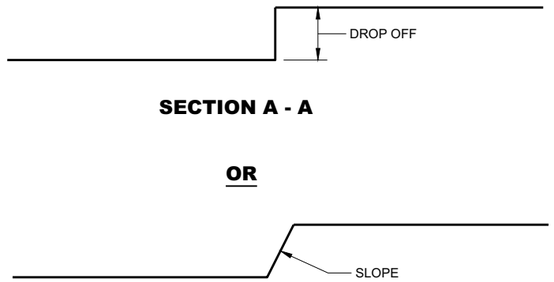
SDD 15D28 - 04



MULTI-LANE

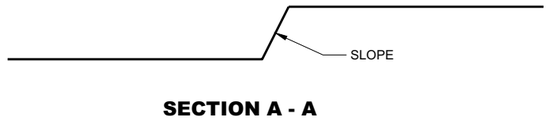


TWO-WAY TWO LANE

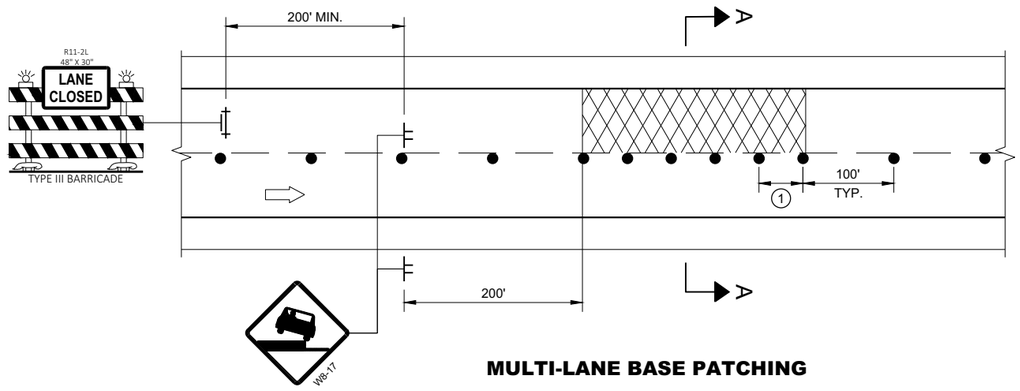


SECTION A - A

OR



SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

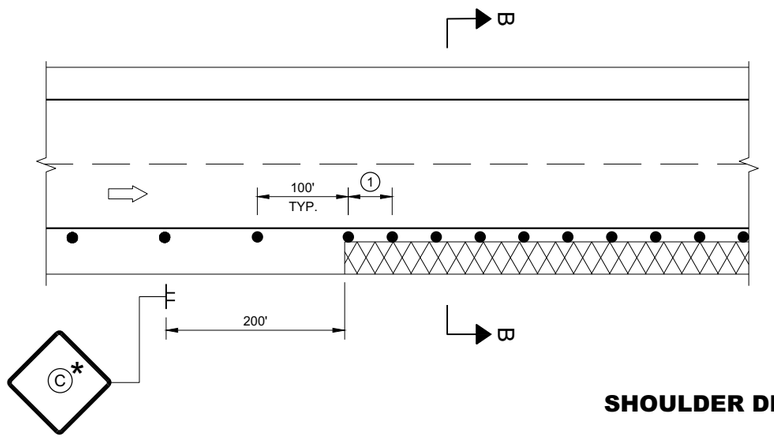
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

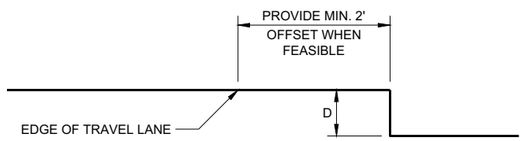
(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

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



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (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.

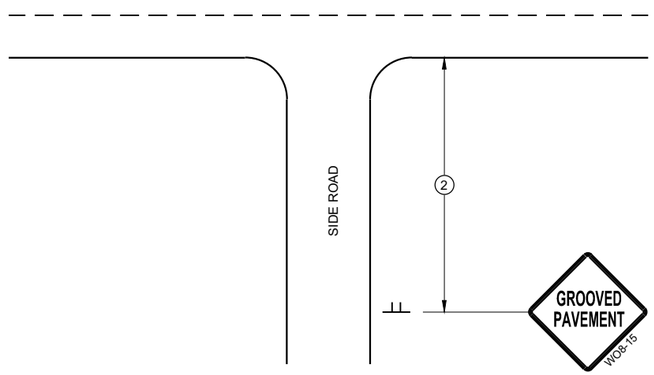
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

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

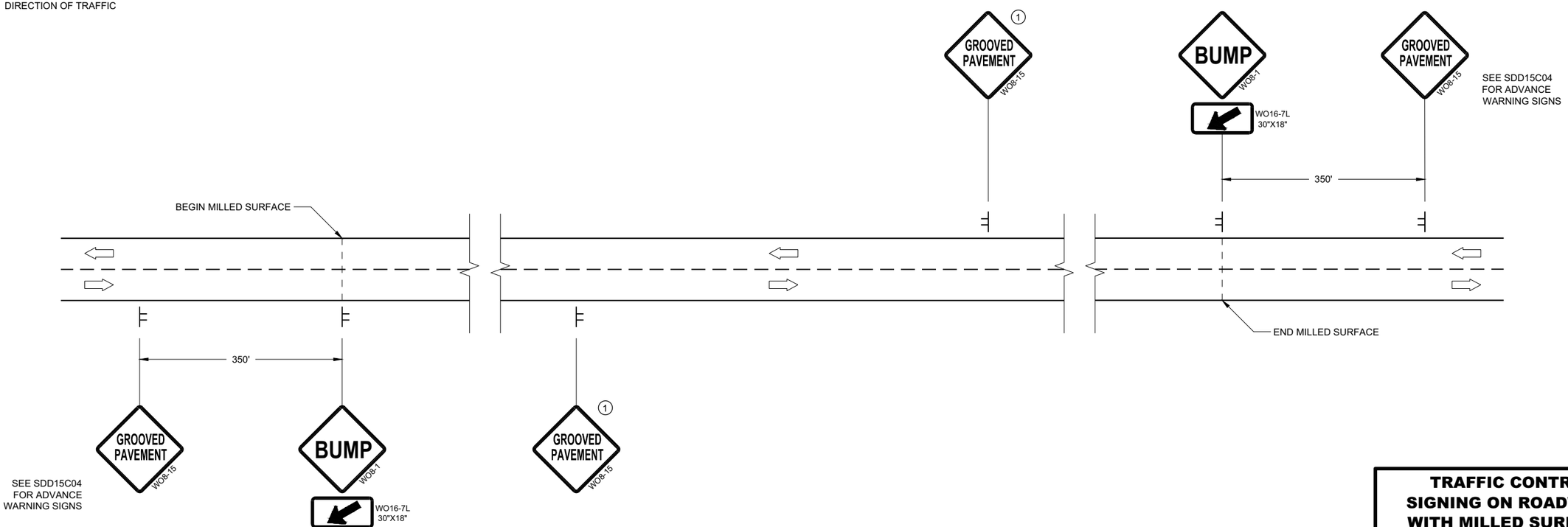
LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

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

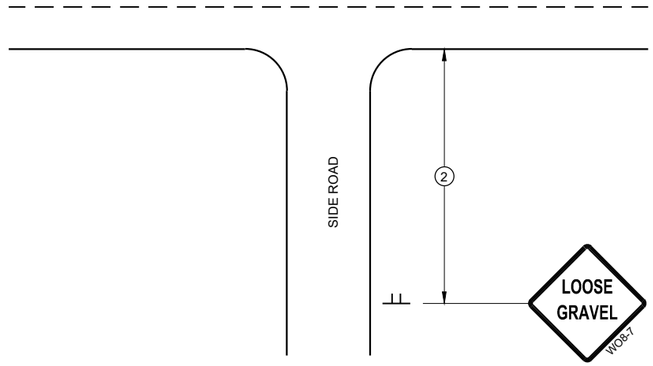
(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

(3) ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

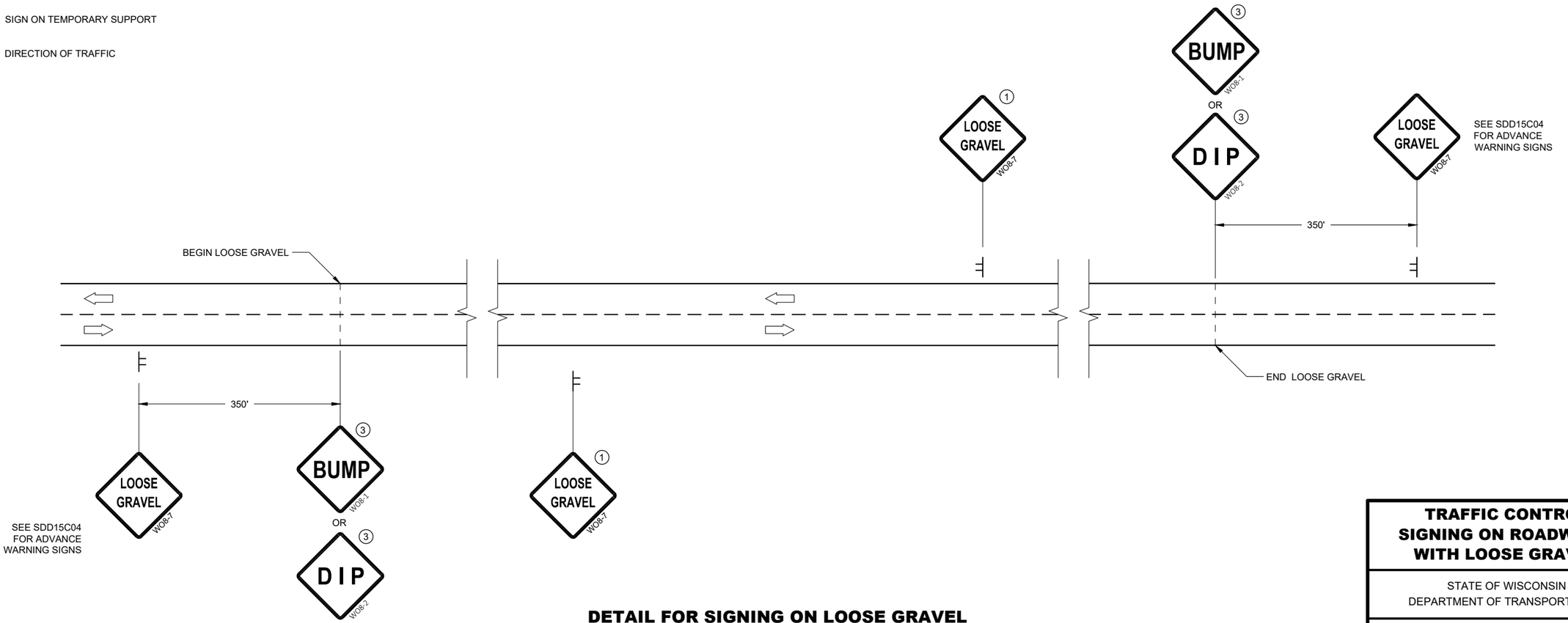
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

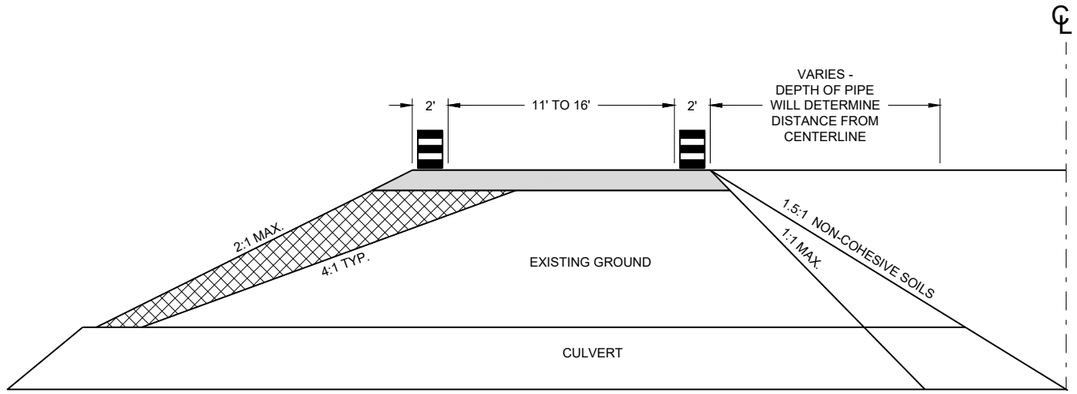
APPROVED
February 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D45 - 03



CROSS SECTION

GENERAL NOTES

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

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

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

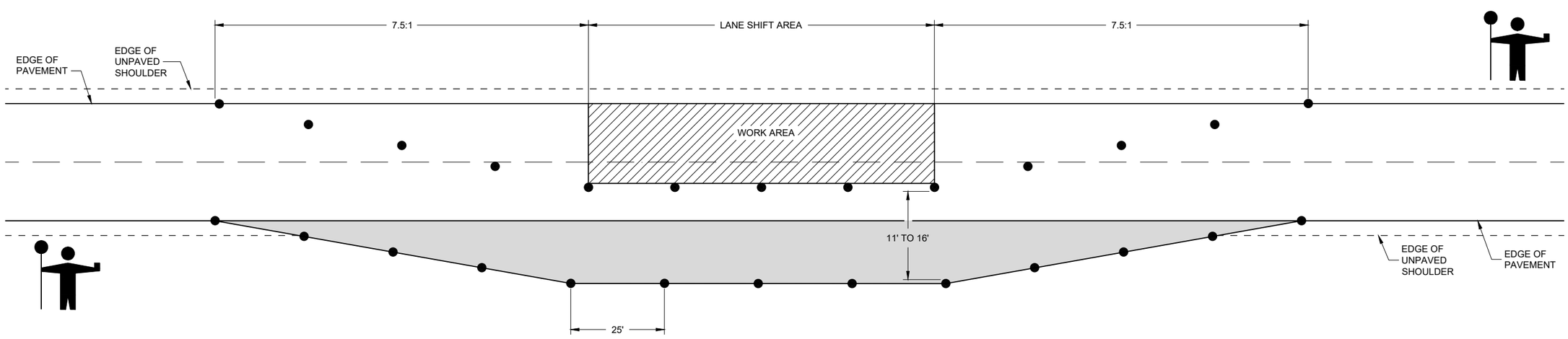
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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

LEGEND

- DRUM WITHOUT WARNING LIGHT
- 6" BASE AGGREGATE DENSE 1 ¼" -INCIDENTAL TO LANE SHIFT ITEM
- FILL - INCIDENTAL TO LANE SHIFT ITEM
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



LANE SHIFT IN FLAGGING OPERATION

TRAFFIC CONTROL, TEMPORARY LANE SHIFT DURING CULVERT WORK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 15D48 - 01

6

SDD 15D48 - 01

LEGEND

V1 WORK VEHICLE

V2 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

FLASHING ARROW PANEL (CAUTION)

WORK AREA

DIRECTION OF TRAFFIC

POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.

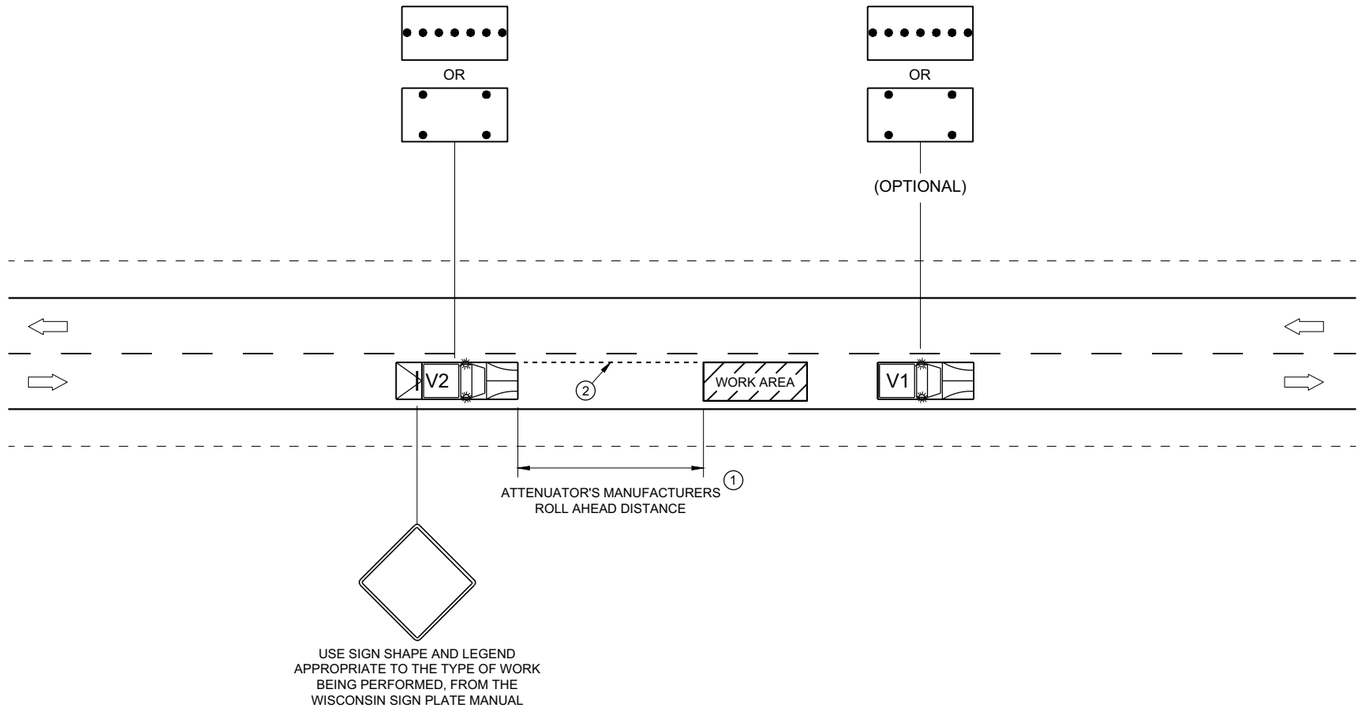
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

(1) DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

(2) ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Andrew Heidtke — STATEWIDE WORK ZONE T SAFETY ENGINEER
FHWA

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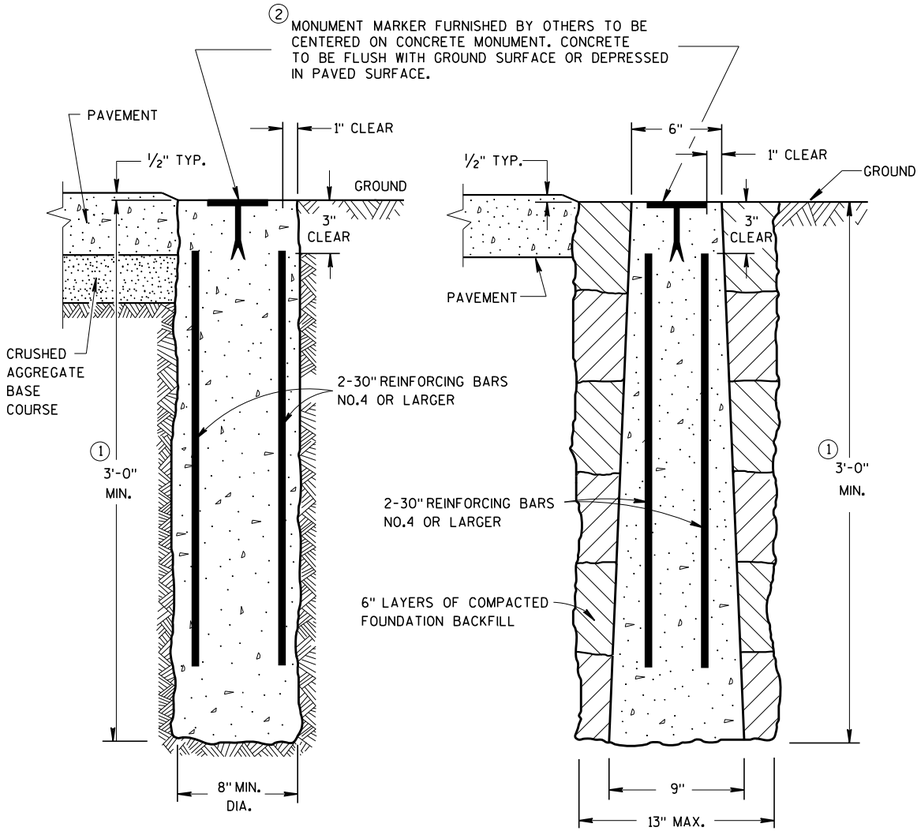
SDD 15D51 - 01

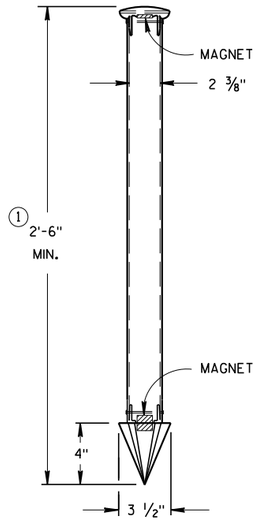


CAST-IN-PLACE

PRECAST

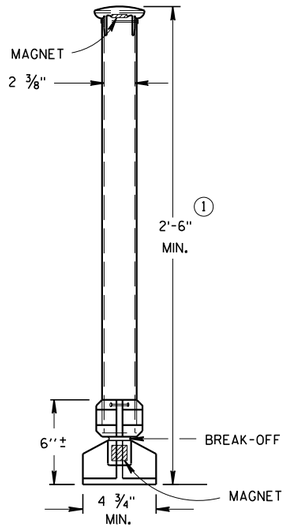
CONCRETE MONUMENTS

TYPE A



TYPE C

DRIVE-IN MONUMENT



TYPE D
NON-DRIVEN
BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

GENERAL NOTES

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

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

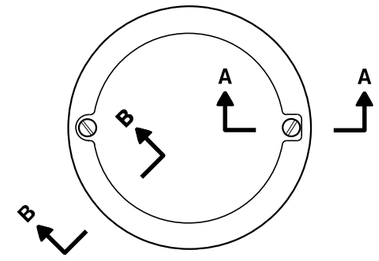
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

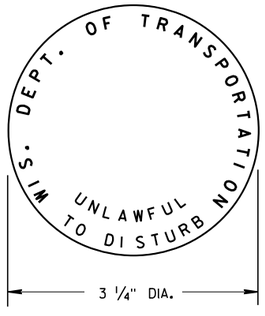
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.

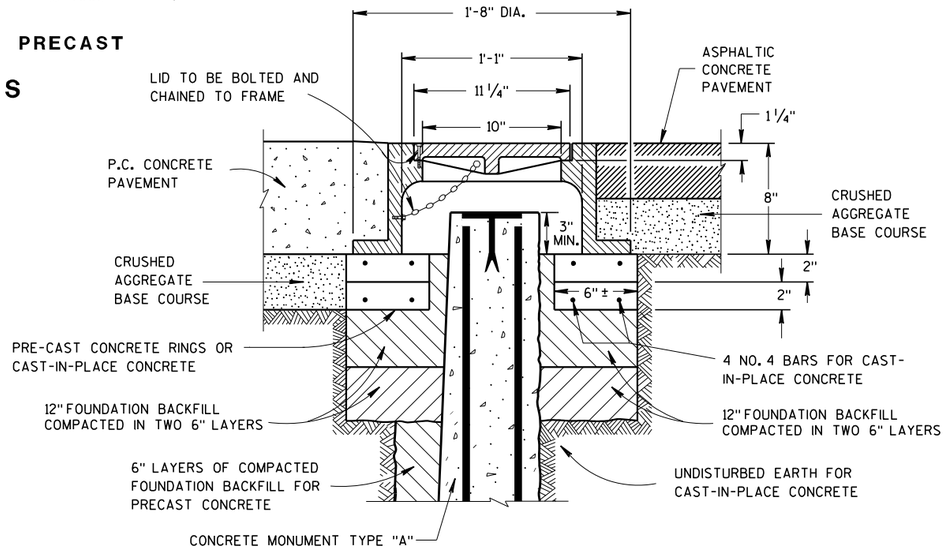


TOP VIEW



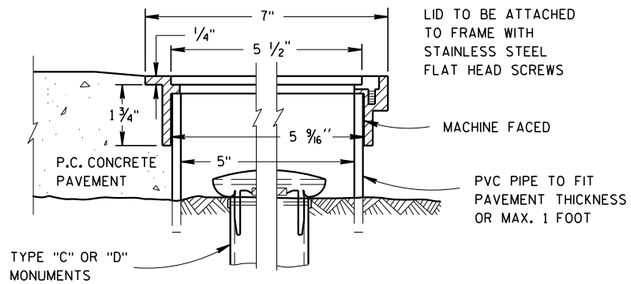
② WIS DOT MONUMENT MARKER LOGO

FOR TYPES "A", "C", & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT 95 LBS)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MONUMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Raymond A. Kumagai — CHIEF SURVEYING AND MAPPING ENGINEER
FHWA

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S.D.D. 16 A 1-7

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
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