MAD

AUGUST 2019

PROJECT ID: 1206-04-67

WITH: N/A

COUNTY: DANE

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right of Way Plat~~
~~Section No.~~	~~5~~	~~Plan and Profile~~
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
~~Section No.~~	~~9~~	~~Computer Earthwork Data~~
Section No.	9	Cross Sections

TOTAL SHEETS = 248



02

N

DESIGN DESIGNATION USH 12/18

A.A.D.T.	(2015)	=	127,000
A.A.D.T.	(2035)	=	142,210 - 150,680
D.H.V.		=	---
D.D.		=	---
T.		=	8.8% - 10.8%
DESIGN SPEED		=	60 MPH
ESALS		=	---

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (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

C MADISON, SOUTH MADISON BELTLINE

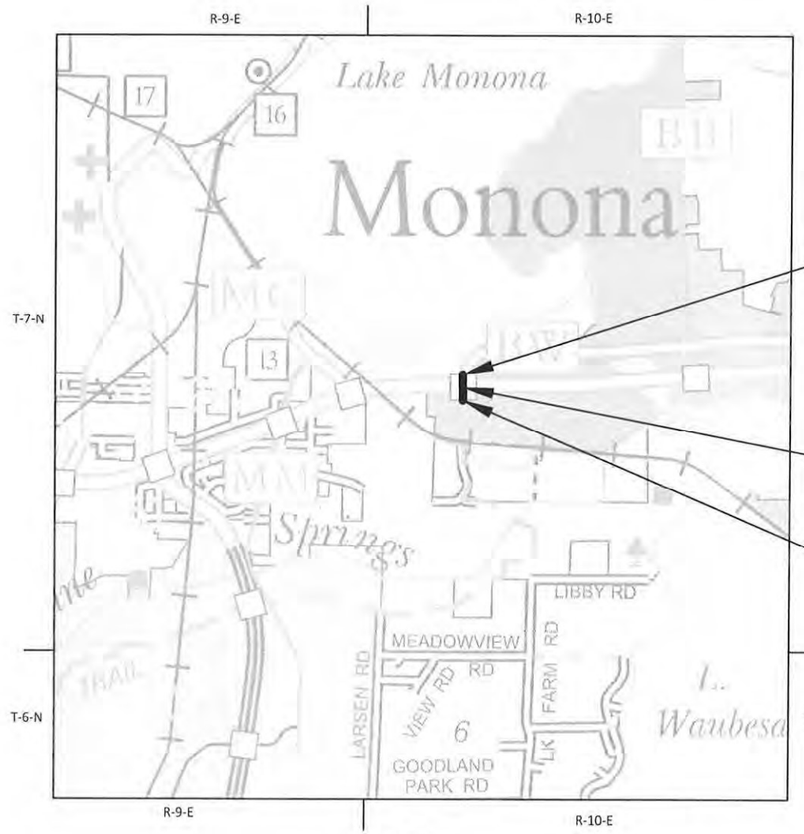
SOUTH TOWNE DRIVE BRIDGE B-13-0311

USH 12

DANE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1206-04-67	WISC 2019575	1

STATE PROJECT NUMBER
1206-04-67



END PROJECT
STA. 144+39.93

B-13-0311
STA. 141+13.88 TO
STA. 143+00.99

BEGIN PROJECT
STA. 139+46.97
Y = 471,348.15
X = 829,114.07

LAYOUT
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI

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

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD (2012).

ORIGINAL PLANS PREPARED BY:

STRAND ASSOCIATES®
910 WEST WINGRA DRIVE
MADISON, WISCONSIN 53715
(608) 251-4843

WISCONSIN
ROBERT A JACK
E-42985
MADISON
WI
PROFESSIONAL ENGINEER
4-17-19

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	JOHN MORAN
Designer	STRAND ASSOCIATES, INC.
Project Manager	GREG BRECKA
Regional Examiner	SW REGION
Regional Supervisor	BRENDA SCHOENFELD

APPROVED FOR THE DEPARTMENT
DATE: 4/29/19 (Signature)

E

GENERAL NOTES

1. NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
3. EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER IN CONSULTATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.
4. THE LOCATION OF PROPOSED SIGNS AS SHOWN ON THE PLANS ARE APPROXIMATE. THE EXACT NUMBER OF SIGNS AND SIGN LOCATIONS ARE TO BE REVIEWED BY THE ENGINEER IN THE FIELD.
5. ANY SIGNS THAT CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED OR REMOVED AS NEEDED AND AS APPROVED BY THE ENGINEER. COVERING SIGNS SHALL BE PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II. REMOVING SIGNS SHALL BE PAID FOR AS REMOVING SIGNS TYPE II.
6. DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE RESTORED AS DIRECTED BY THE ENGINEER. DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FINISHED WITH FERTILIZER, SEED AND EROSION MAT.
7. REMOVAL ITEMS SHALL BE REMOVED TO AN EXISTING JOINT, SAWCUT WHERE SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
8. A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.
9. CURB AND GUTTER GRADES ARE ON GUTTER FLANGE LINE.
10. ALL RADII DIMENSIONS FOR CURB AND GUTTER ARE TO FLAG OF CURB UNLESS OTHERWISE NOTED ON THE PLANS.
11. SHOULDER CLOSURES ALONG USH 12/18 SHALL BE CLOSED IN ACCORDANCE WITH STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH"

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.		
EASEMENT	EASE.		
HIGHWAY EASEMENT	H.E.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(100')		
REFERENCE LINE	R/L		

UTILITY CONTACTS

ATC MANAGEMENT, INC. - ELECTRICITY - TRANSMISSION
DOUG VOSBERG
5303 FEN OAK DRIVE
MADISON, WI 53718
OFFICE: (608) 877-7650
DVOSBERG@ATCLLC.COM

MADISON GAS AND ELECTRIC COMPANY - ELECTRICITY
RICH PARKER
133 S. BLAIR ST.
MADISON, WI 53788
OFFICE: (608) 252-7379
MOBILE: (608) 444-9619
RPARKER@MGE.COM

MADISON GAS AND ELECTRIC COMPANY - GAS/PETROLEUM
SHAUN ENDRES
133 S. BLAIR ST.
MADISON, WI 53788
OFFICE: (608) 252-7224
MOBILE: (608) 213-6708
SENDRES@MGE.COM

CITY OF MONONA WATER UTILITY - WATER
BOB JACOBS
851 FEMRITE DR.
MONONA, WI 53716
OFFICE: (608) 222-2525
MOBILE: (608) 692-8589
BJACOBS@CI.MONONA.WI.US

WISCONSIN INDEPENDENT NETWORK, LLC - COMMUNICAITON LINE
KEN WHITING
P.O. BOX 57
WINNECONNE, WI 54896
OFFICE: (920) 376-2996
MOBILE: (715) 858-3172
KWHITING@WINS.NET

DIVISION OF ENTERPRISE TECHNOLOGY - COMMUNICATION LINE
TODD PALMER
5830 FEMRITE DR.
MADISON WI 53718
OFFICE: (608) 224-4010
MOBILE: (608) 228-4795
TODDA.PALMER@WISCONSIN.GOV

TDS METROCOM - COMMUNICATION LINE
SHERA PURDY
4001 FELLAND RD.
SUITE 108
MADISON, WI 53718
OFFICE: (608) 438-4139
SPURDY@MI-TECH.US

US SIGNAL COMPANY LLC - COMMUNICATION LINE
ROB FISHER
7020 SOUTHBELT DR. SE
CALEDONIA, MI 49316
OFFICE: (616) 455-9840
MOBILE: (616) 862-7102
RFISHER@TKNS.NET

WISDOT - COMMUNICATION LINE
KYLE HEMP
2101 WRIGHT ST.
MADISON, WI 53704
OFFICE: (608) 246-5367
KYLE.HEMP@DOT.WI.GOV

WISDOT CONTACT

DESIGN PROJECT MANAGER
GREG BRECKA, P.E.
WISDOT SOUTHWEST REGION
2101 WRIGHT STREET
MADISON, WI 53704
OFFICE: (608) 245-2671
MOBILE: (608) 516-6524
GREGORY.BRECKA@DOT.WI.GOV

DESIGN CONTACT

ROBERT JACK, P.E.
STRAND ASSOCIATES, INC.
910 WEST WINGRA DRIVE
MADISON, WI 53715
OFFICE: (608) 251-4843
robert.jack@strand.com

WISDNR REGION CONTACTS

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
ERIC HEGGELUND
SOUTH CENTRAL REGION
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711-5397
OFFICE: (608) 228-7927
ERIC.HEGGELUND@WISCONSIN.GOV

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
LAYOUT DETAILS
EROSION CONTROL
LIGHTING
TEMPORARY TRAFFIC SIGNALS
TRAFFIC SIGNALS
PAVEMENT MARKING
TRAFFIC CONTROL ADVANCED WARNING
TRAFFIC CONTROL STAGING
ALIGNMENT DETAIL

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

2

2

N

CITY OF MADISON

BEGIN PROJECT
STA 139+46.97

BEGIN CONSTRUCTION
STA 137+47.25

B-13-0311
STA 141+13.88 TO
143+00.99

END PROJECT
STA 144+39.93

END CONSTRUCTION
STA 148+88.89

CITY OF MONONA

ROYAL AVE
EB EXIT RAMP
USH 12/18
USH 12/18
WB ENTRANCE RAMP
NANA LN
SOUTH TOWNE DR
SOUTH TOWNE DR
RAYWOOD RD
EB ENTRANCE RAMP
WB EXIT RAMP
USH 12/18
USH 12/18
ROYAL AVE
CTH BW / WEST BROADWAY
FRAZIER AVE

145
150
155

SCALE, FEET 0 100 200

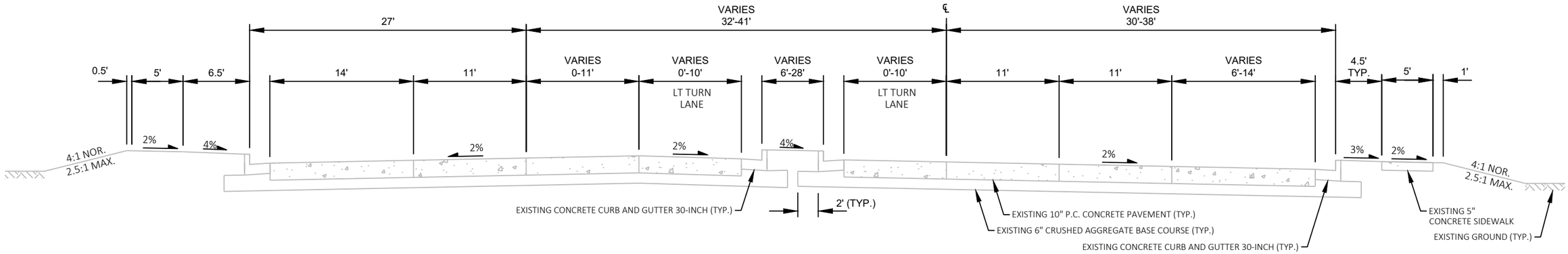
PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	PROJECT OVERVIEW	SHEET 3 E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 020201-po

PLOT DATE : 2/25/2019 3:18 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ########

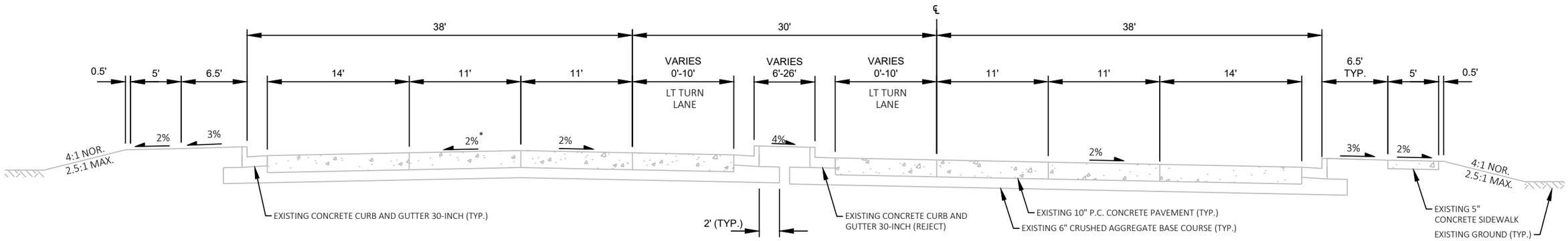
WISDOT/CADDS SHEET 42

2



EXISTING TYPICAL SECTION SOUTH TOWNE DRIVE

STA. 137+47 TO STA. 141+15
(STA. 141+15 TO STA. 143+00 B-13-0311)

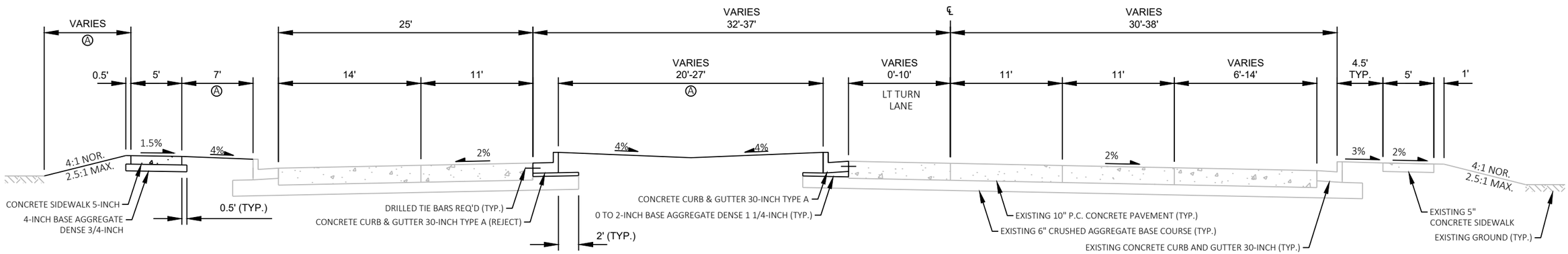


* VARIES -2% TO +2% WITHIN PROJECT LIMITS

EXISTING TYPICAL SECTION SOUTH TOWNE DRIVE

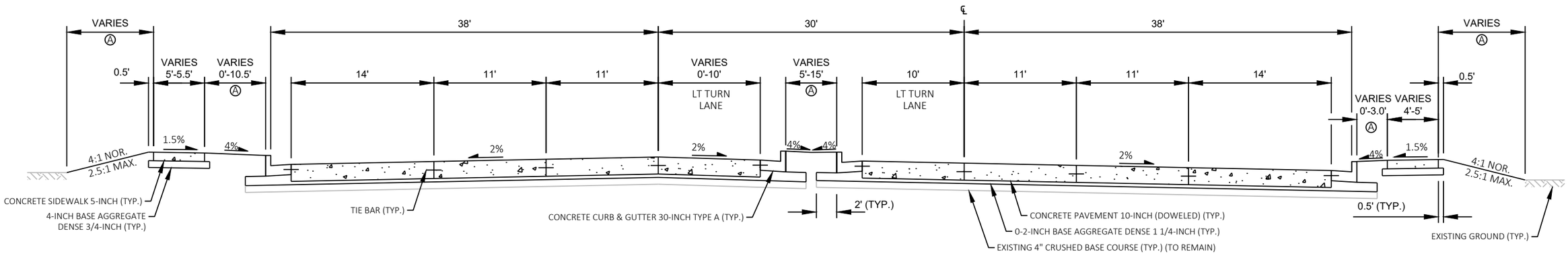
STA. 143+00 TO STA. 148+89

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TYPICAL SECTIONS	SHEET 4	E



PROPOSED TYPICAL SECTION SOUTH TOWNE DRIVE

STA. 137+53.26 TO STA. 139+47.83



PROPOSED TYPICAL SECTION SOUTH TOWNE DRIVE

STA. 139+47.83 TO STA. 140+91.64

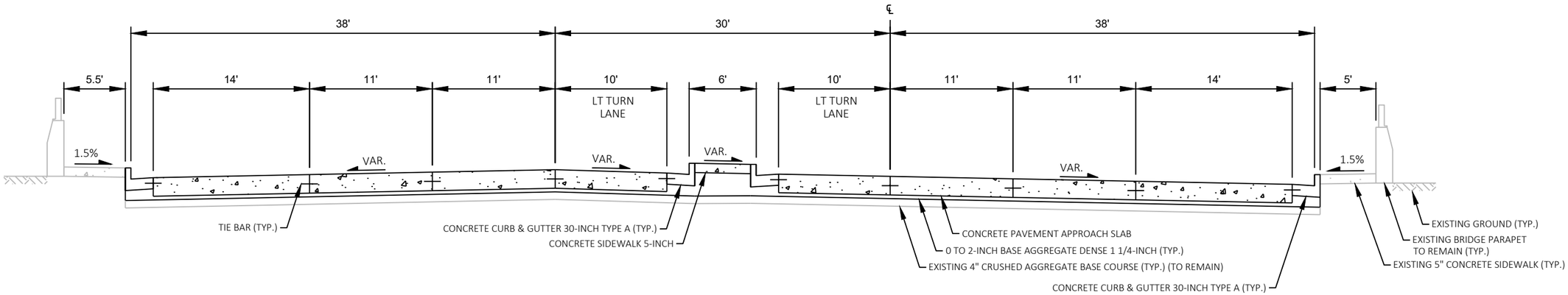
Ⓐ TOPSOIL, SEEDING TEMPORARY, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, AND EROSION MAT URBAN CLASS I TYPE A; SEE EROSION CONTROL PLAN FOR ADDITIONAL INFORMATION.

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TYPICAL SECTIONS	SHEET 5	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 020302-ts

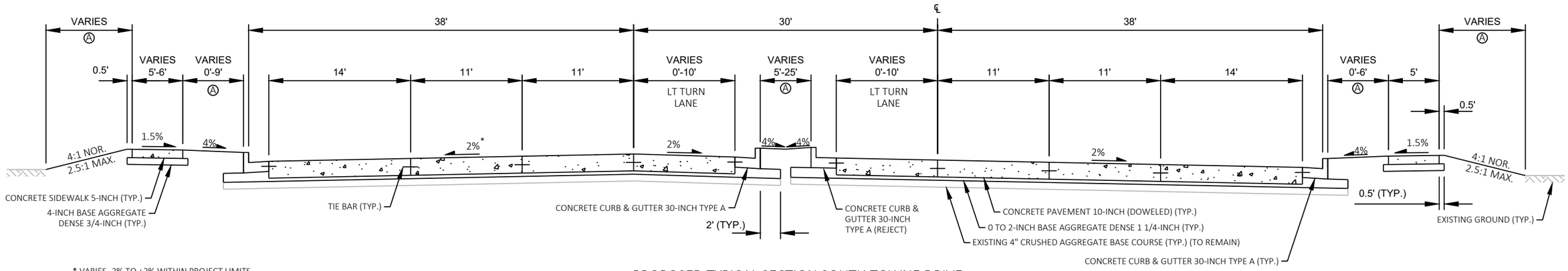
PLOT DATE : 2/25/2019 3:19 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42



PROPOSED TYPICAL SECTION SOUTH TOWNE DRIVE

STA. 140+91.64 TO STA. 141+13.88
(STA. 141+13.88 TO STA. 143+00.99 B-13-0311)
STA. 143+00.99 TO STA. 143+23.22



* VARIES -2% TO +2% WITHIN PROJECT LIMITS

PROPOSED TYPICAL SECTION SOUTH TOWNE DRIVE

STA. 143+23.22 TO STA. 144+39.93

Ⓐ TOPSOIL, SEEDING TEMPORARY, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, AND EROSION MAT URBAN CLASS I TYPE A; SEE EROSION CONTROL PLAN FOR ADDITIONAL INFORMATION.

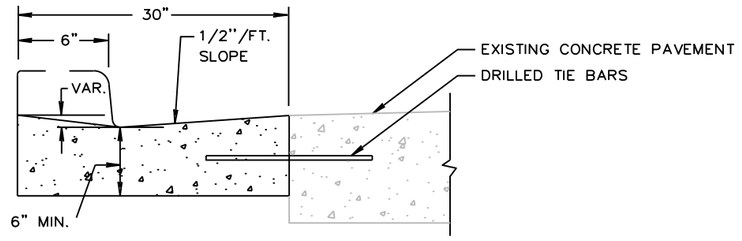
PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TYPICAL SECTIONS	SHEET 6	E

2

RUNOFF COEFFICIENT TABLE

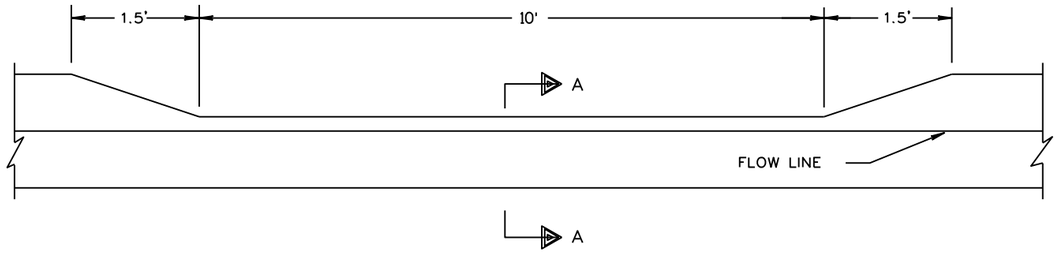
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .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 AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.17 ACRES

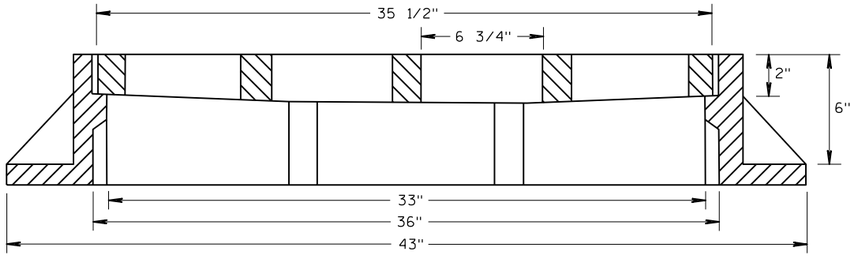


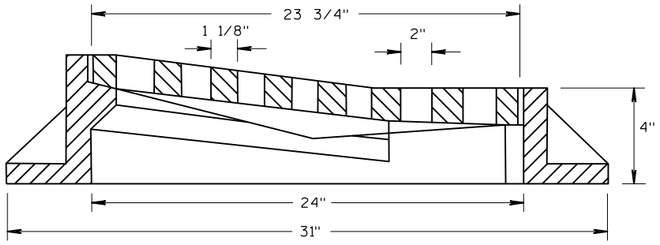
SECTION A–A

NOTE: SEE S.D.D. "CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES" FOR ADDITIONAL INFORMATION AND TYPICAL TIE BAR LOCATION.



DETAIL OF CURB HEAD TRANSITION AT MAINTENANCE OPENING

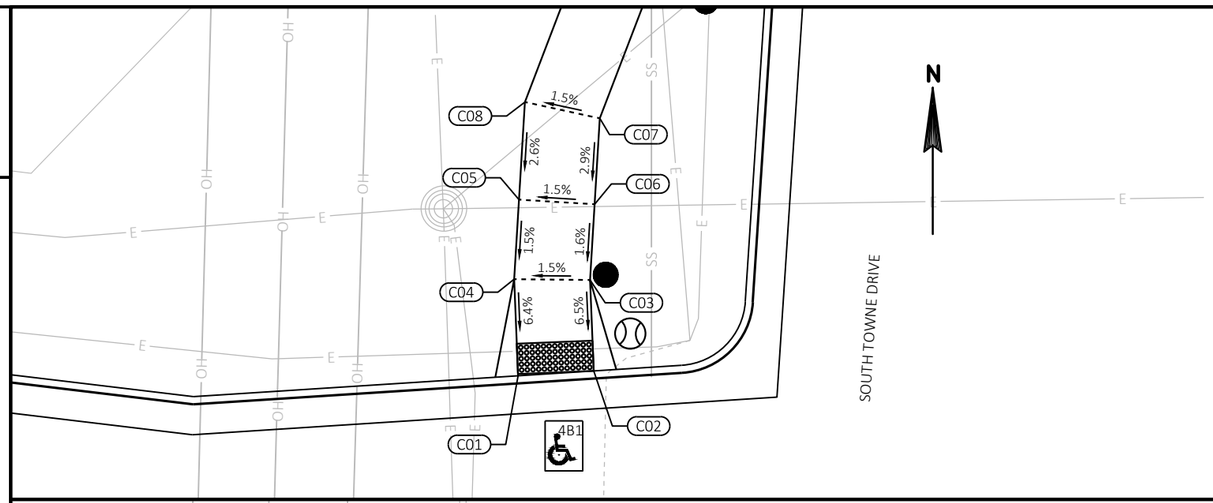




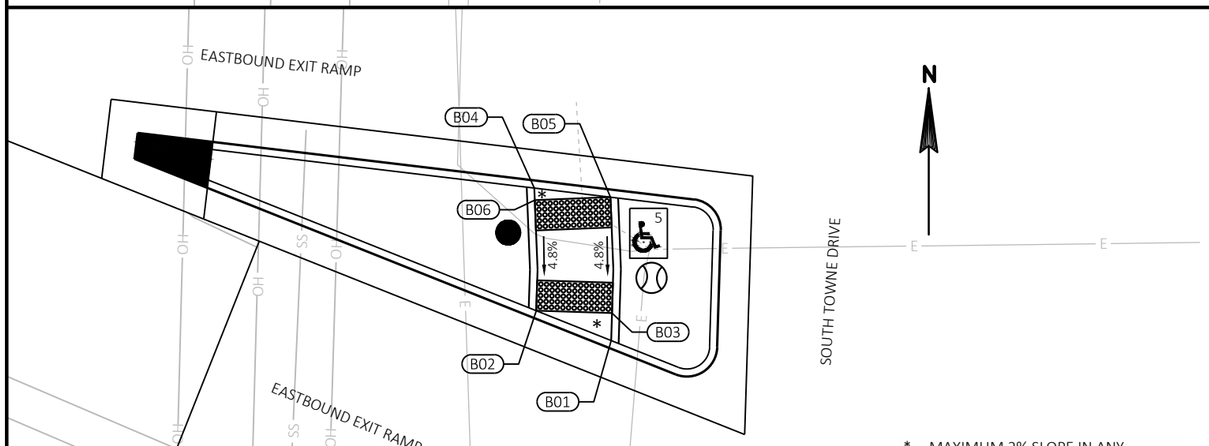
TOTAL WEIGHT APPROXIMATELY 420 POUNDS

INLET COVERS TYPE DW

2

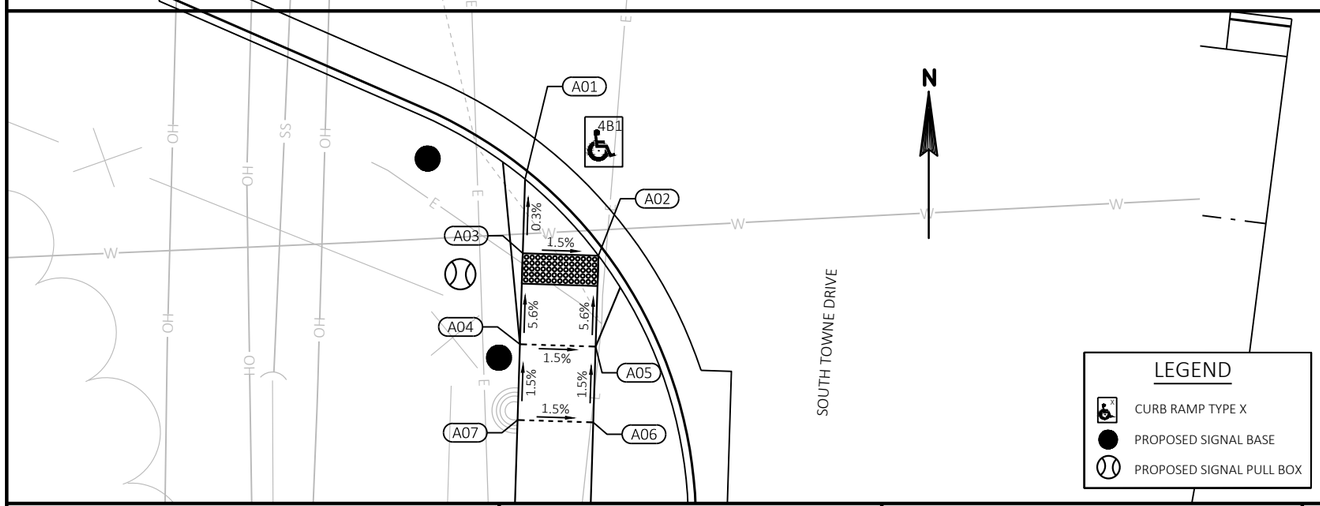


STATION & OFFSET TABLE					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
C01	140+34.63	83.14 LT	471,436.93	829,100.06	885.56
C02	140+35.27	78.18 LT	471,437.25	829,105.05	885.65
C03	140+41.24	78.81 LT	471,443.25	829,104.81	886.04
C04	140+40.97	83.81 LT	471,443.30	829,099.81	885.96
C05	140+46.23	83.84 LT	471,448.55	829,100.13	886.04
C06	140+46.25	78.84 LT	471,448.25	829,105.12	886.12
C07	140+51.93	78.86 LT	471,453.92	829,105.46	886.28
C08	140+52.67	83.87 LT	471,454.99	829,100.52	886.21



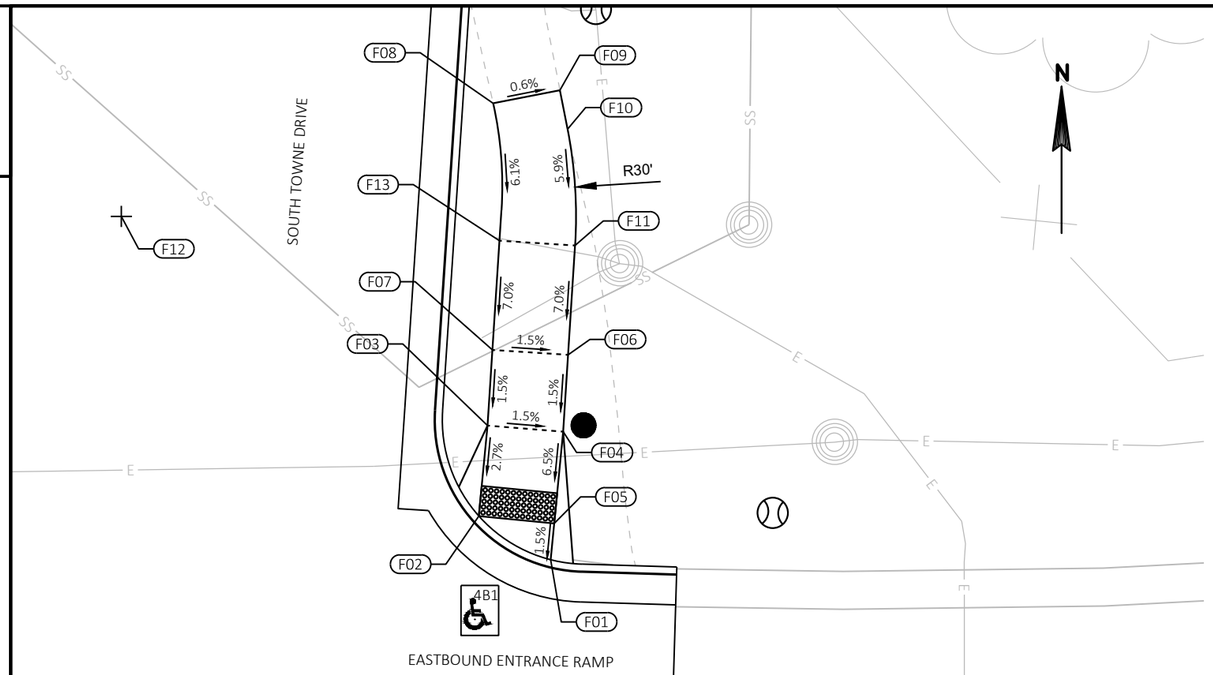
* MAXIMUM 2% SLOPE IN ANY DIRECTION OF PEDESTRIAN TRAVEL

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
B01	139+91.77	73.89 LT	471,393.56	829,106.47	884.73
B02	139+93.41	78.95 LT	471,395.53	829,101.53	884.75
B03	139+93.58	73.96 LT	471,395.38	829,106.53	884.76
B04	140+01.48	79.62 LT	471,403.63	829,101.40	885.09
B05	140+01.21	74.56 LT	471,403.02	829,106.43	885.12
B06	140+00.68	79.53 LT	471,402.82	829,101.43	885.10

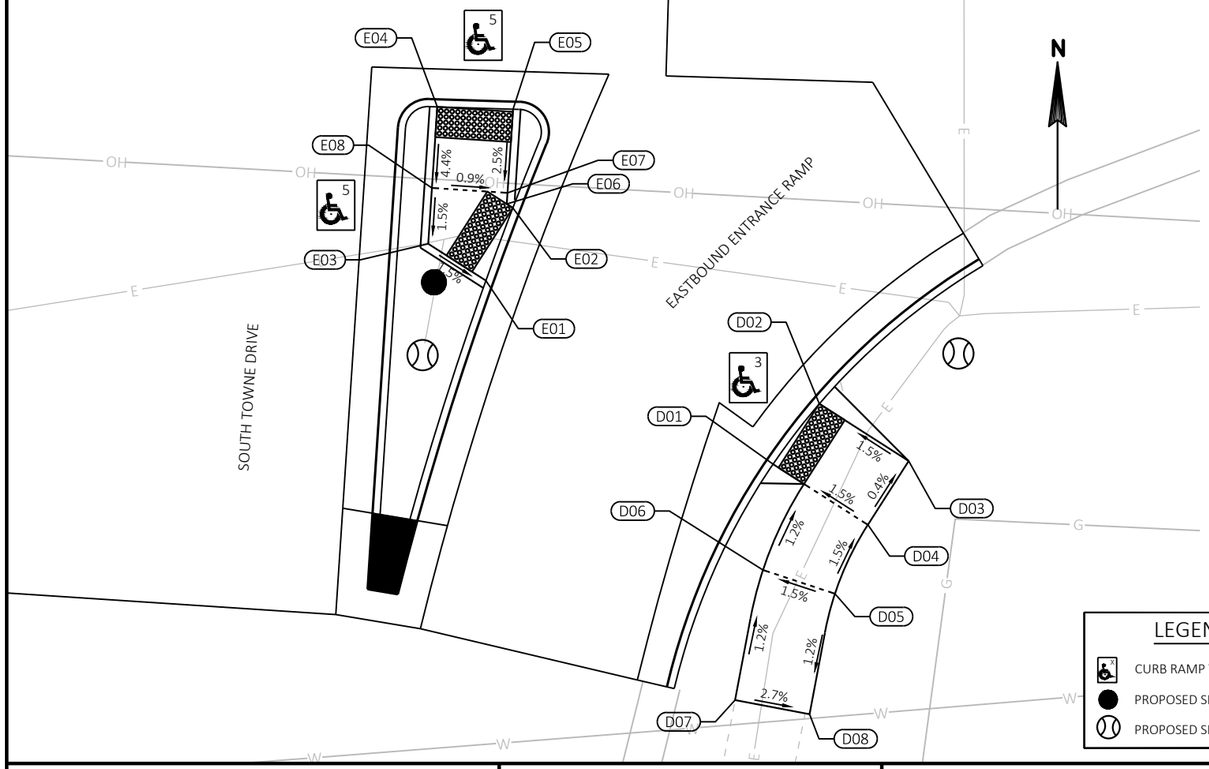


STATION & OFFSET TABLE					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
A01	139+69.83	78.14 LT	471,371.95	829,100.80	884.23
A02	139+65.11	72.97 LT	471,366.89	829,105.64	884.17
A03	139+64.93	77.97 LT	471,367.05	829,100.65	884.25
A04	139+58.94	77.76 LT	471,361.05	829,100.46	884.58
A05	139+59.11	72.77 LT	471,360.90	829,105.46	884.51
A06	139+54.11	72.59 LT	471,355.90	829,105.30	884.58
A07	139+53.94	77.59 LT	471,356.06	829,100.30	884.66

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	CONSTRUCTION DETAILS: CURB RAMPS	SHEET 9	E



STATION & OFFSET TABLE					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
F01	140+49.84	46.27 RT	471,443.63	829,230.19	885.09
F02	140+52.41	41.34 RT	471,446.51	829,225.44	885.44
F03	140+58.40	41.53 RT	471,452.48	829,226.02	885.60
F04	140+58.33	46.53 RT	471,452.08	829,231.00	885.52
F05	140+52.25	46.34 RT	471,446.02	829,230.42	885.13
F06	140+63.41	46.52 RT	471,457.15	829,231.33	885.60
F07	140+63.40	41.52 RT	471,457.47	829,226.34	885.68
F08	140+79.64	40.49 RT	471,473.74	829,226.38	MATCH EX.
F09	140+80.79	44.84 RT	471,474.60	829,230.79	MATCH EX.
F10	140+78.27	45.51 RT	471,472.04	829,231.30	---
F11	140+70.64	46.51 RT	471,464.36	829,231.79	886.11
F12	140+70.59	16.51 RT	471,466.28	829,201.85	---
F13	140+70.63	41.51 RT	471,464.68	829,226.80	886.18

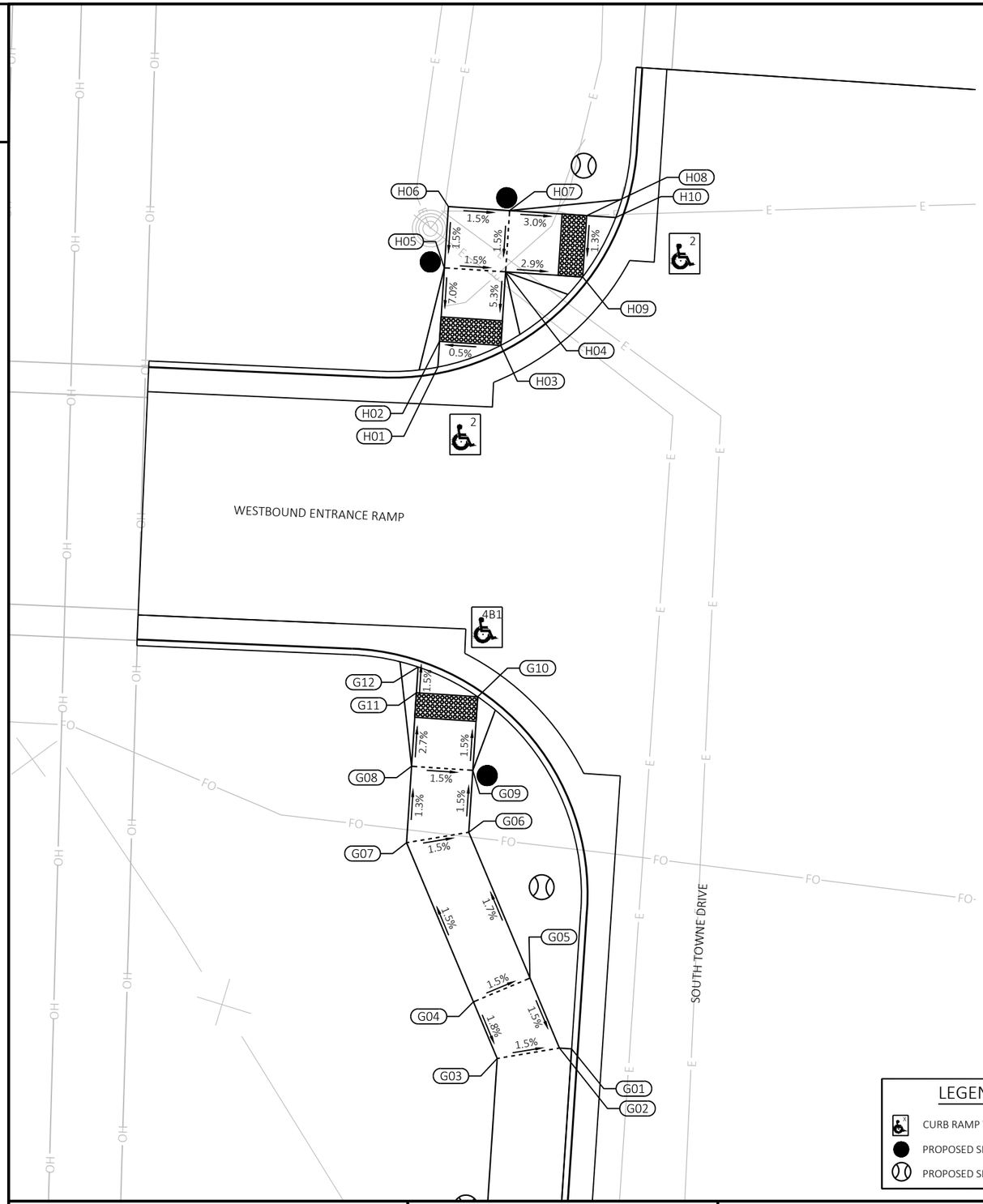


STATION & OFFSET TABLE					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
E01	140+12.98	44.43 RT	471,406.96	829,225.94	884.58
E02	140+17.88	45.90 RT	471,411.76	829,227.72	884.64
E03	140+15.16	40.48 RT	471,409.39	829,222.14	884.65
E04	140+24.21	40.48 RT	471,418.43	829,222.73	884.94
E05	140+24.38	45.48 RT	471,418.27	829,227.73	884.80
E06	140+18.11	45.48 RT	471,412.01	829,227.32	884.65
E07	140+18.85	45.48 RT	471,412.75	829,227.37	884.66
E08	140+18.85	40.48 RT	471,413.08	829,222.38	884.70

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
D01	140+02.14	64.14 RT	471,394.85	829,244.89	884.07
D02	140+06.31	66.92 RT	471,398.83	829,247.94	884.06
D03	140+02.94	73.05 RT	471,395.06	829,253.84	884.16
D04	139+98.56	70.64 RT	471,390.85	829,251.15	884.18
D05	139+93.88	68.78 RT	471,386.30	829,248.98	884.26
D06	139+95.13	63.94 RT	471,387.87	829,244.23	884.18
D07	139+86.44	62.66 RT	471,379.29	829,242.39	MATCH EX.
D08	139+85.84	67.63 RT	471,378.36	829,247.30	MATCH EX.

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	CONSTRUCTION DETAILS: CURB RAMPS	SHEET 10	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\021002-CD.DWG
LAYOUT NAME - 021012-cd
PLOT DATE : 2/25/2019 3:21 PM
PLOT BY : NOTSON, ERIC
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

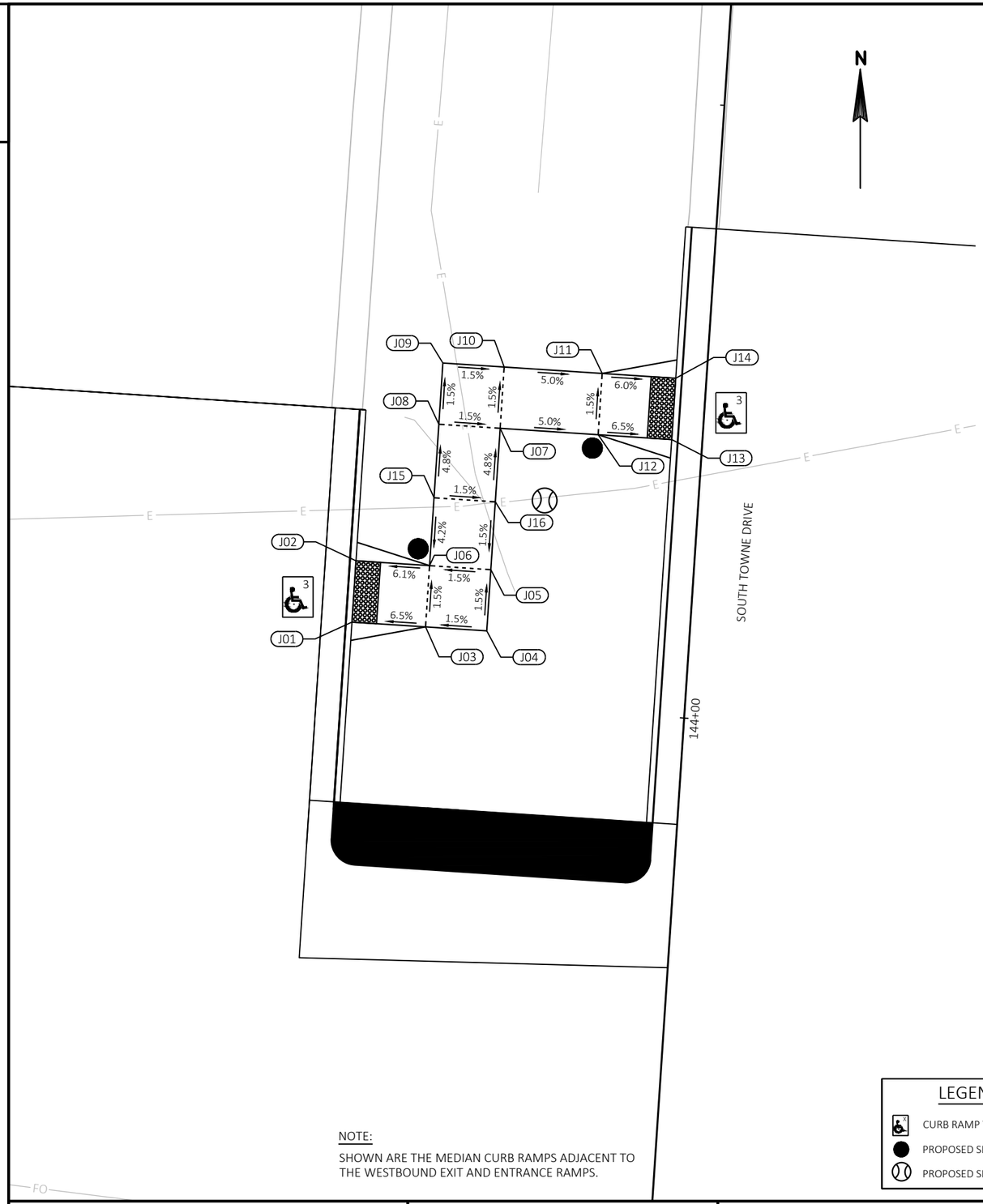


STATION & OFFSET TABLE					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
H01	143+97.92	83.02 LT	471,799.44	829,124.02	889.72
H02	144+00.03	83.02 LT	471,801.54	829,124.16	889.75
H03	144+00.03	78.02 LT	471,801.21	829,129.15	889.77
H04	144+06.03	78.02 LT	471,807.20	829,129.54	890.09
H05	144+06.03	83.02 LT	471,807.52	829,124.55	890.17
H06	144+11.03	83.02 LT	471,812.51	829,124.88	890.24
H07	144+11.03	78.02 LT	471,812.19	829,129.87	890.17
H08	144+11.03	71.73 LT	471,811.77	829,136.14	889.98
H09	144+06.03	71.73 LT	471,806.78	829,135.81	889.91
H10	144+11.03	69.37 LT	471,811.62	829,138.50	889.94

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
G01	143+43.24	68.50 LT	471,743.92	829,134.92	889.84
G02	143+43.24	69.50 LT	471,743.98	829,133.92	889.86
G03	143+42.06	74.50 LT	471,743.14	829,128.85	889.94
G04	143+46.53	76.73 LT	471,747.75	829,126.92	890.03
G05	143+48.77	72.26 LT	471,749.68	829,131.53	889.95
G06	143+60.29	78.02 LT	471,761.56	829,126.54	889.74
G07	143+59.11	83.02 LT	471,760.71	829,121.47	889.81
G08	143+65.34	83.02 LT	471,766.93	829,121.88	889.74
G09	143+65.34	78.02 LT	471,766.60	829,126.87	889.66
G10	143+71.34	78.02 LT	471,772.59	829,127.27	889.57
G11	143+71.34	83.02 LT	471,772.92	829,122.28	889.57
G12	143+73.45	83.02 LT	471,775.02	829,122.41	889.54

LEGEND

- CURB RAMP TYPE X
- PROPOSED SIGNAL BASE
- PROPOSED SIGNAL PULL BOX



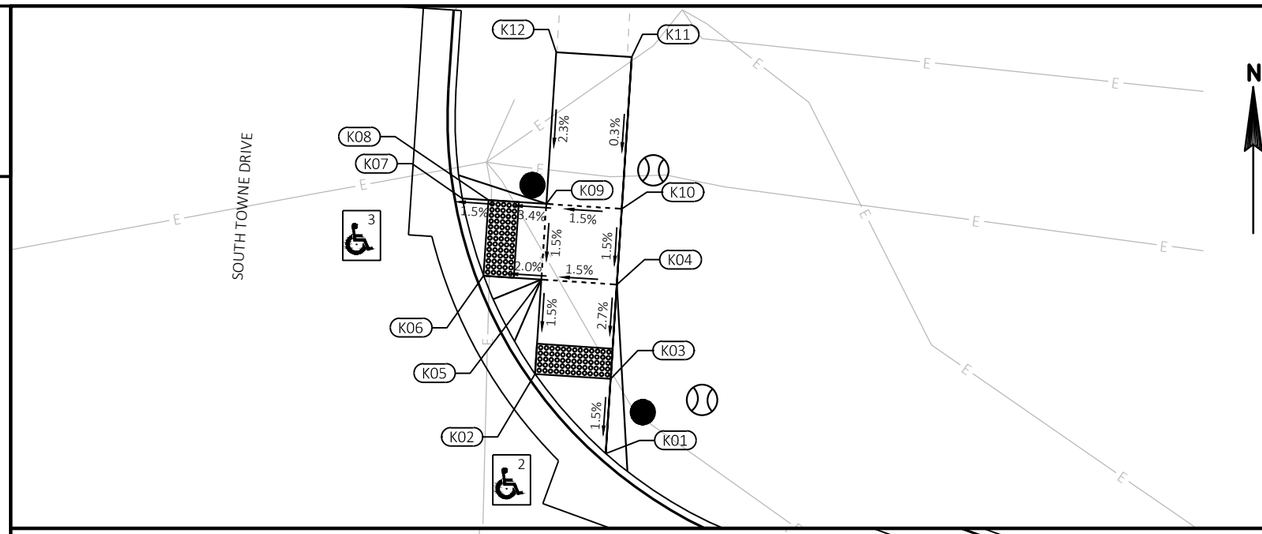
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
J01	144+06.03	27.50 LT	471,803.88	829,179.95	889.38
J02	144+11.03	27.50 LT	471,808.87	829,180.28	889.33
J03	144+06.03	21.50 LT	471,803.49	829,185.94	889.77
J04	144+06.03	16.50 LT	471,803.16	829,190.93	889.84
J05	144+11.03	16.50 LT	471,808.15	829,191.25	889.77
J06	144+11.03	21.50 LT	471,808.48	829,186.26	889.69
J07	144+22.57	16.50 LT	471,819.66	829,192.01	889.56
J08	144+22.57	21.50 LT	471,819.99	829,187.02	889.63
J09	144+27.57	21.50 LT	471,824.98	829,187.35	889.56
J10	144+27.57	16.50 LT	471,824.65	829,192.34	889.48
J11	144+27.57	8.50 LT	471,824.13	829,200.32	889.08
J12	144+22.57	8.50 LT	471,819.14	829,199.99	889.16
J13	144+22.57	2.50 LT	471,818.74	829,205.98	888.77
J14	144+27.57	2.50 LT	471,823.73	829,206.31	888.72
J15	144+16.57	21.50 LT	471,814.00	829,186.63	889.92
J16	144+16.57	16.50 LT	471,813.68	829,191.62	889.85

LEGEND

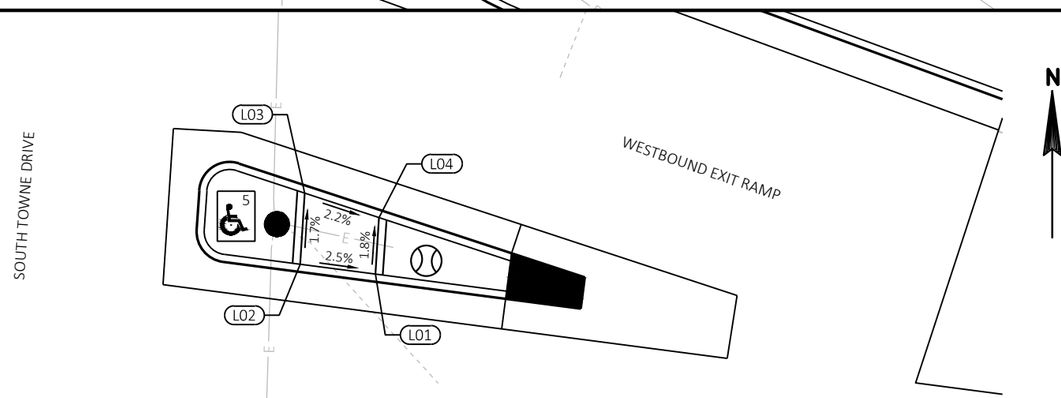
- CURB RAMP TYPE X
- PROPOSED SIGNAL BASE
- PROPOSED SIGNAL PULL BOX

NOTE:

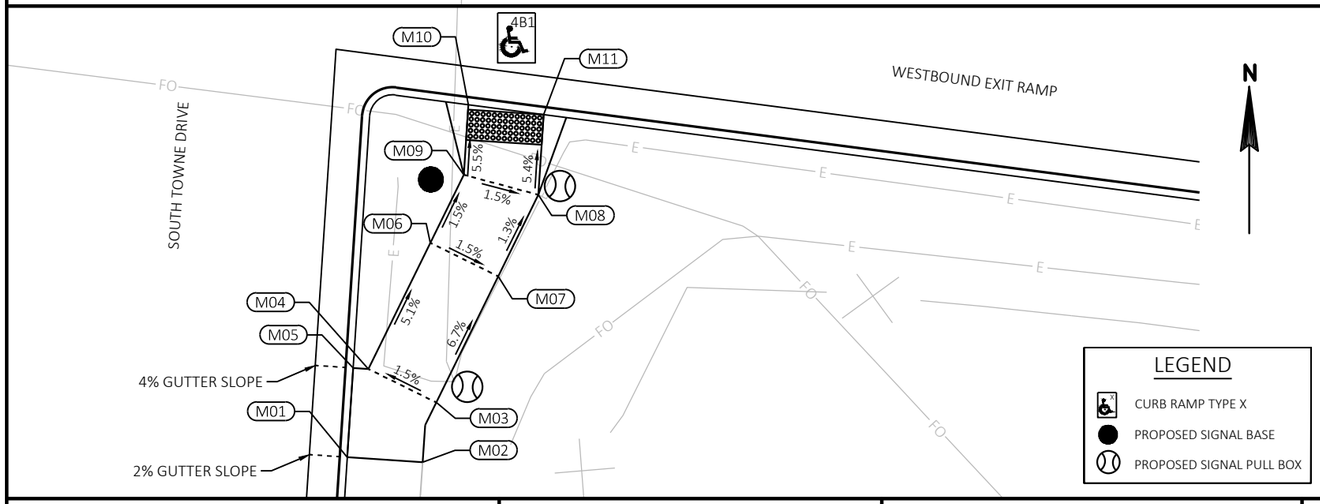
SHOWN ARE THE MEDIAN CURB RAMPS ADJACENT TO THE WESTBOUND EXIT AND ENTRANCE RAMPS.



STATION & OFFSET TABLE					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
K01	144+11.40	49.94 RT	471,804.16	829,257.57	887.79
K02	144+16.33	44.94 RT	471,809.41	829,252.90	887.86
K03	144+16.33	49.94 RT	471,809.08	829,257.89	887.86
K04	144+22.57	49.94 RT	471,815.30	829,258.30	888.03
K05	144+22.57	44.94 RT	471,815.63	829,253.31	887.96
K06	144+22.57	41.12 RT	471,815.88	829,249.51	887.88
K07	144+27.57	39.38 RT	471,820.99	829,248.10	887.88
K08	144+27.57	41.12 RT	471,820.87	829,249.84	887.90
K09	144+27.57	44.94 RT	471,820.62	829,253.64	888.03
K10	144+27.57	49.94 RT	471,820.29	829,258.63	888.11
K11	144+37.59	49.94 RT	471,830.30	829,259.29	MATCH EX.
K12	144+37.59	44.94 RT	471,830.63	829,254.30	MATCH EX.



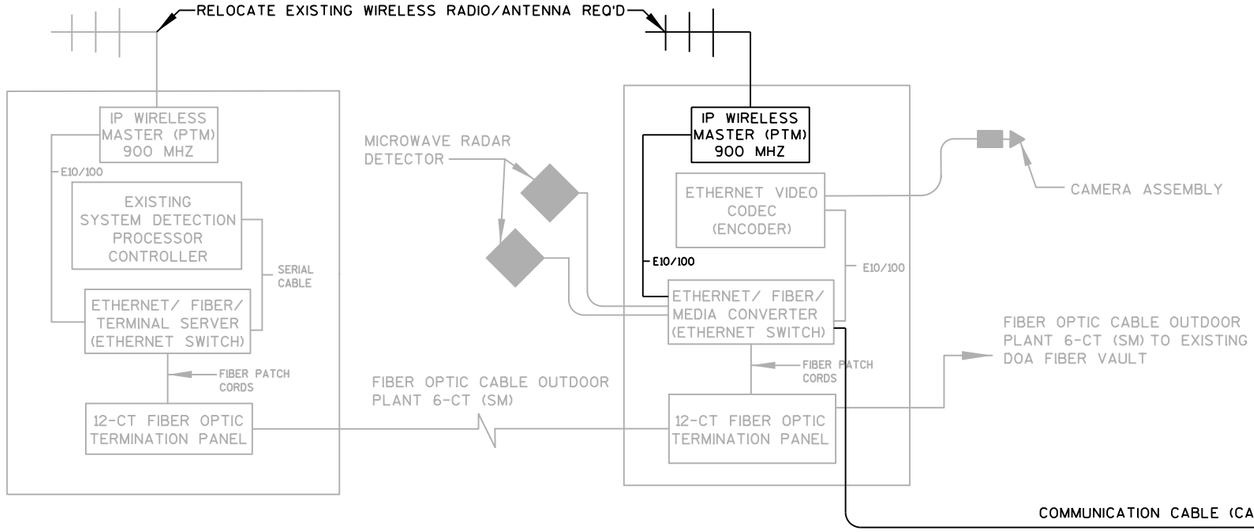
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
L01	143+82.62	49.94 RT	471,775.44	829,255.68	887.97
L02	143+82.94	44.94 RT	471,776.09	829,250.71	888.10
L03	143+87.64	44.94 RT	471,780.78	829,251.02	888.02
L04	143+86.35	49.94 RT	471,779.17	829,255.93	887.91

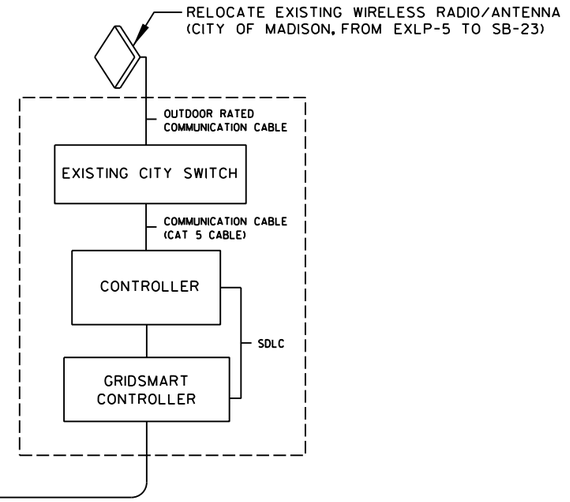


STATION & OFFSET TABLE					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
M01	143+30.16	38.48 RT	471,723.85	829,240.81	MATCH EX.
M02	143+30.16	43.47 RT	471,723.52	829,245.79	MATCH EX.
M03	143+34.15	44.10 RT	471,727.46	829,246.68	889.09
M04	143+36.06	39.48 RT	471,729.67	829,242.20	889.01
M05	143+36.06	38.48 RT	471,729.74	829,241.20	889.00
M06	143+44.63	43.03 RT	471,737.99	829,246.29	888.54
M07	143+42.72	47.65 RT	471,735.78	829,250.78	888.46
M08	143+48.25	49.94 RT	471,741.15	829,253.43	888.39
M09	143+49.25	44.94 RT	471,742.47	829,248.50	888.46
M10	143+53.88	44.94 RT	471,747.09	829,248.81	888.21
M11	143+53.55	49.94 RT	471,746.44	829,253.78	888.10

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	CONSTRUCTION DETAILS: CURB RAMPS	SHEET 13	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\021002-CD.DWG
LAYOUT NAME - 021015-cd
PLOT DATE : 4/17/2019 9:11 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42





EXISTING CABINET DETAIL (EX-ITS-1)
SDS-13-0012 (SOUTH TOWNE DRIVE/WEST BROADWAY)

EXISTING POLE MOUNTED CABINET DETAIL (EX-CB-1)
CCTV-13-0062 (SOUTH TOWNE DRIVE/WEST BROADWAY)

SIGNAL CABINET (CB-1)
S-13-0396 (SOUTH TOWNE DRIVE/WEST BROADWAY)

SOUTH TOWNE DRIVE/WEST BROADWAY INTERCHANGE

NOTES

PTM = POINT-TO-MULTIPOINT

ALL RS 232/485, FIBER PATCH CORDS AND E10/100 (ETHERNET) CABLES ARE INCIDENTAL TO BID ITEMS.

ALL FIBER OPTIC ON THIS PROJECT IS SINGLE-MODE FIBER (SM) UNLESS OTHERWISE NOTED.

CABINETS ARE DEPARTMENT FURNISHED

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	CONSTRUCTION DETAILS - COMMUNICATIONS OVERVIEW	SHEET 14	E

2

N

MATCHLINE STA 142+00

EB USH 12/18

SOUTH TOWNE DRIVE/WEST BROADWAY

EXSB-14
EXPB-20

141+00

+50

EXPB-19

EXSB-13

EXPB-18

EXPB-17

SIGN

EB EXIT RAMP

25+00 A

+50 A

26+00 A

+50 A

27+00 A

+50 A

EXSB-12

EXPB-15

EXSB-11

EXPB-16

EXSB-10

20'

EXPB-12

140+00

EXSB-8

EXSB-9

EXPB-13

+50

+00

SOUTH TOWNE DRIVE/
WEST BROADWAY

MATCHLINE STA 139+00

EXPB-7

20'

EXSB-5

EXPB-8

EXSB-6

EXPB-9

EB ENTRANCE RAMP

12+00 B

+50 B

11+00 B

+50 B

10+00 B

EXPB-11

EXSB-7

EXLP-1

EXPB-10

W

SIGN

EXLP-2

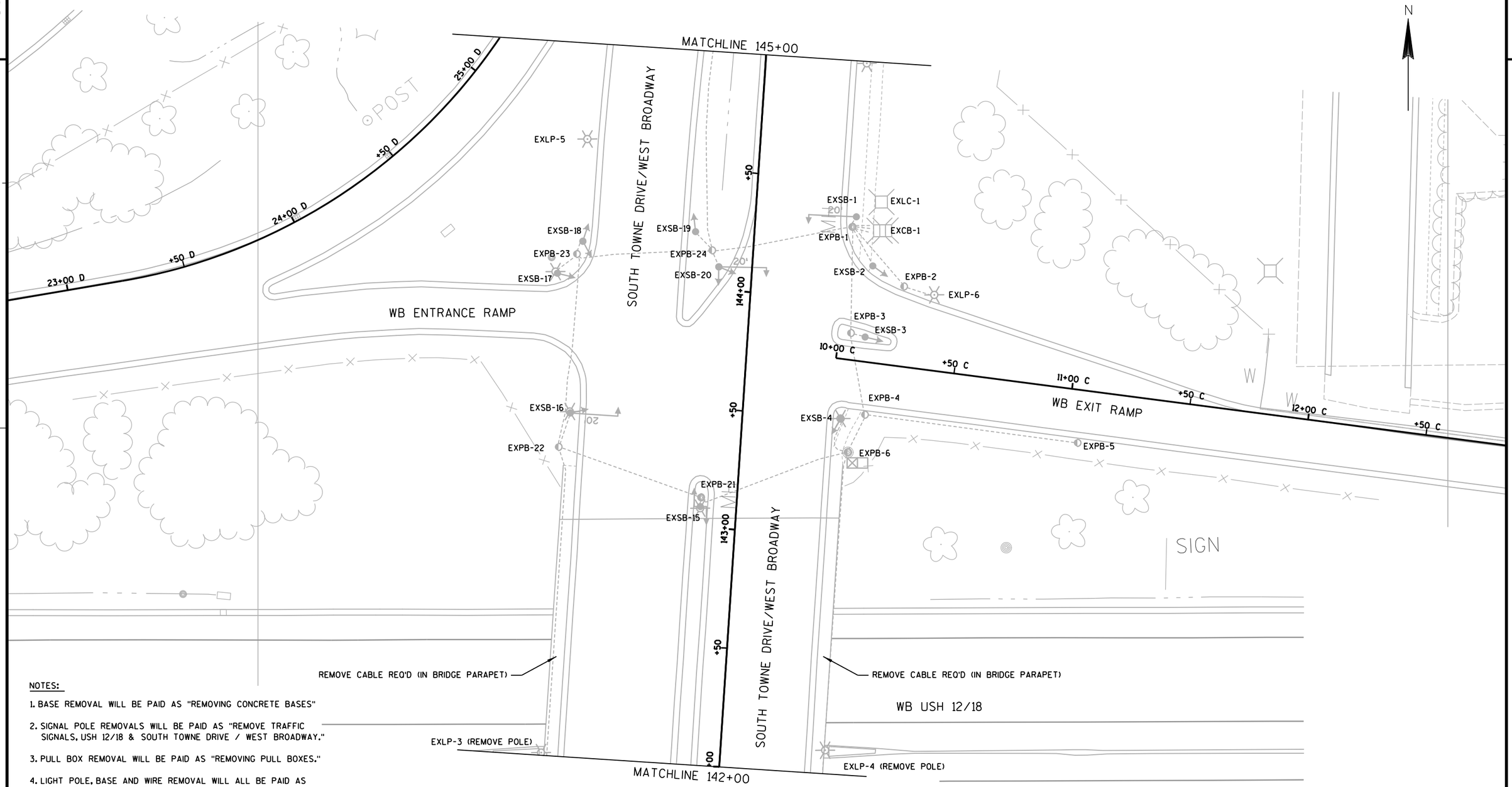
NOTES:

1. BASE REMOVAL WILL BE PAID AS "REMOVING CONCRETE BASES"
2. SIGNAL POLE REMOVALS WILL BE PAID AS "REMOVE TRAFFIC SIGNALS, USH 12/18 & SOUTH TOWNE DRIVE / WEST BROADWAY."
3. PULL BOX REMOVAL WILL BE PAID AS "REMOVING PULL BOXES."
4. LIGHT POLE, BASE AND WIRE REMOVAL WILL ALL BE PAID AS "REMOVE EXISTING LIGHTING ASSEMBLY."
5. LIGHTING CABINET WILL BE PAID AS "REMOVE EXISTING LIGHTING CABINET."
6. REMOVE EXISTING SIGNS AND REPLACE ON PROPOSED TRAFFIC SIGNAL EQUIPMENT, PAID AS "MOVING SIGNS TYPE II."

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	CONSTRUCTION DETAIL - TRAFFIC SIGNAL REMOVAL	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\697\Micros\PLAN\2018.11.01 South Towne (with Bridge) Signal Plan Sheets\021101_cd.dgn PLOT DATE : 5/28/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2



NOTES:

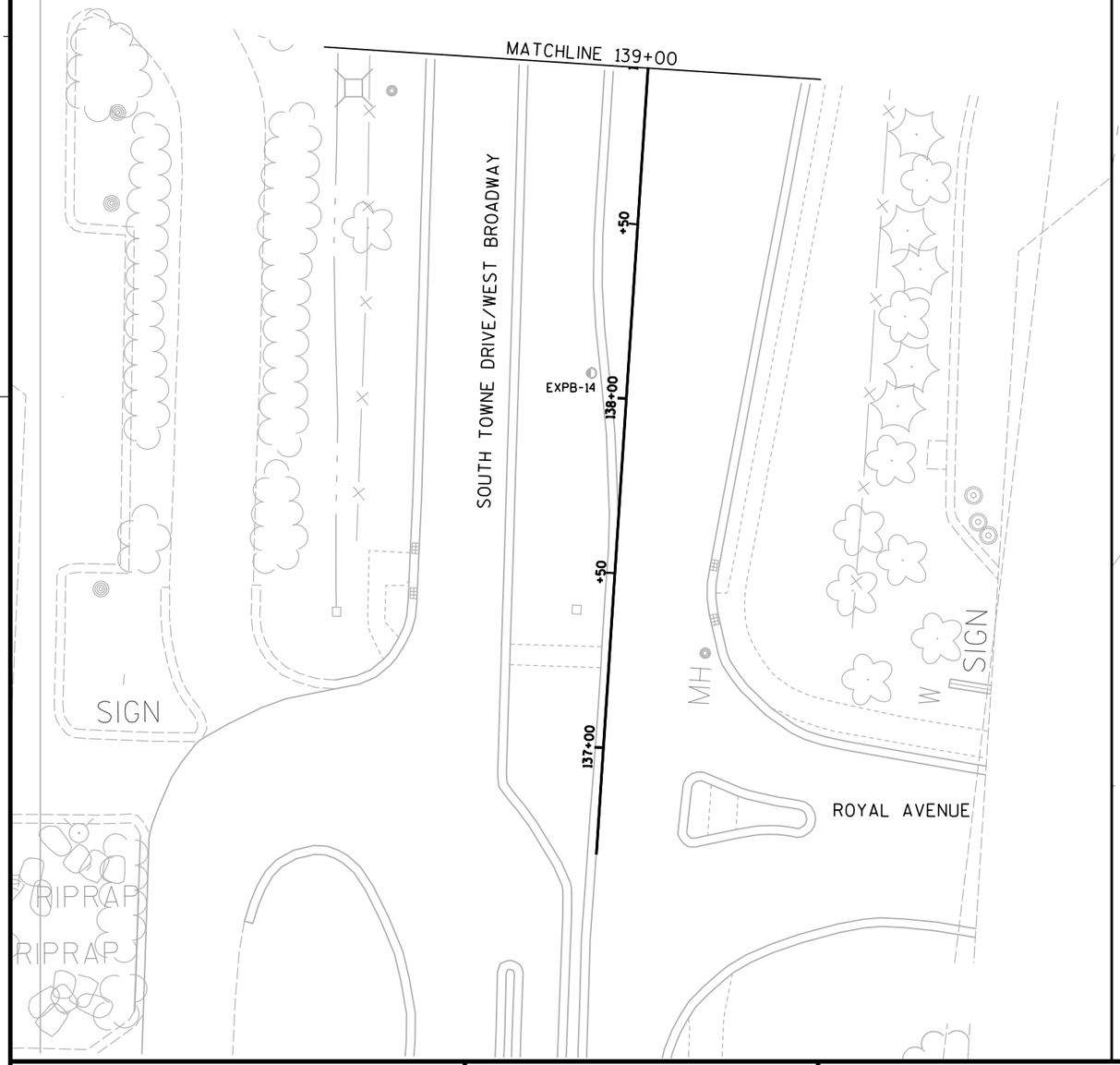
1. BASE REMOVAL WILL BE PAID AS "REMOVING CONCRETE BASES"
2. SIGNAL POLE REMOVALS WILL BE PAID AS "REMOVE TRAFFIC SIGNALS, USH 12/18 & SOUTH TOWNE DRIVE / WEST BROADWAY."
3. PULL BOX REMOVAL WILL BE PAID AS "REMOVING PULL BOXES."
4. LIGHT POLE, BASE AND WIRE REMOVAL WILL ALL BE PAID AS "REMOVE EXISTING LIGHTING ASSEMBLY."
5. LIGHTING CABINET WILL BE PAID AS "REMOVE EXISTING LIGHTING CABINET."
6. REMOVE EXISTING SIGNS AND REPLACE ON PROPOSED TRAFFIC SIGNAL EQUIPMENT, PAID AS "MOVING SIGNS TYPE II."

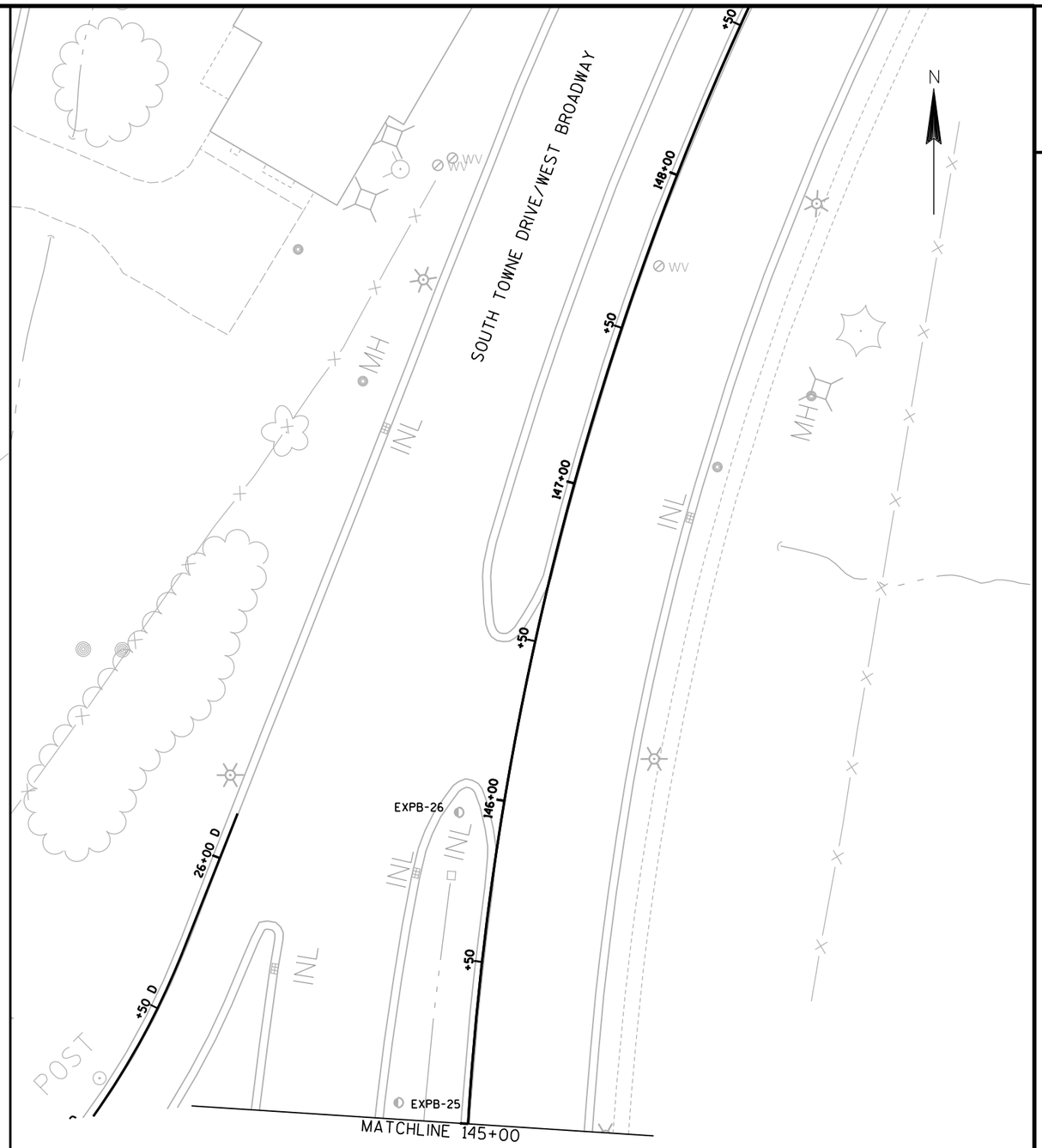
PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	CONSTRUCTION DETAIL - TRAFFIC SIGNAL REMOVAL	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\697\Micros\PLAN\2018.11.01 South Towne (with Bridge) Signal Plan Sheets\021102_cd.dgn PLOT DATE : 5/28/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

NOTES:

1. BASE REMOVAL WILL BE PAID AS "REMOVING CONCRETE BASES"
2. SIGNAL POLE REMOVALS WILL BE PAID AS "REMOVE TRAFFIC SIGNALS, USH 12/18 & SOUTH TOWNE DRIVE / WEST BROADWAY."
3. PULL BOX REMOVAL WILL BE PAID AS "REMOVING PULL BOXES."
4. LIGHT POLE, BASE AND WIRE REMOVAL WILL ALL BE PAID AS "REMOVE EXISTING LIGHTING ASSEMBLY."
5. LIGHTING CABINET WILL BE PAID AS "REMOVE EXISTING LIGHTING CABINET."
6. REMOVE EXISTING SIGNS AND REPLACE ON PROPOSED TRAFFIC SIGNAL EQUIPMENT, PAID AS "MOVING SIGNS TYPE II."



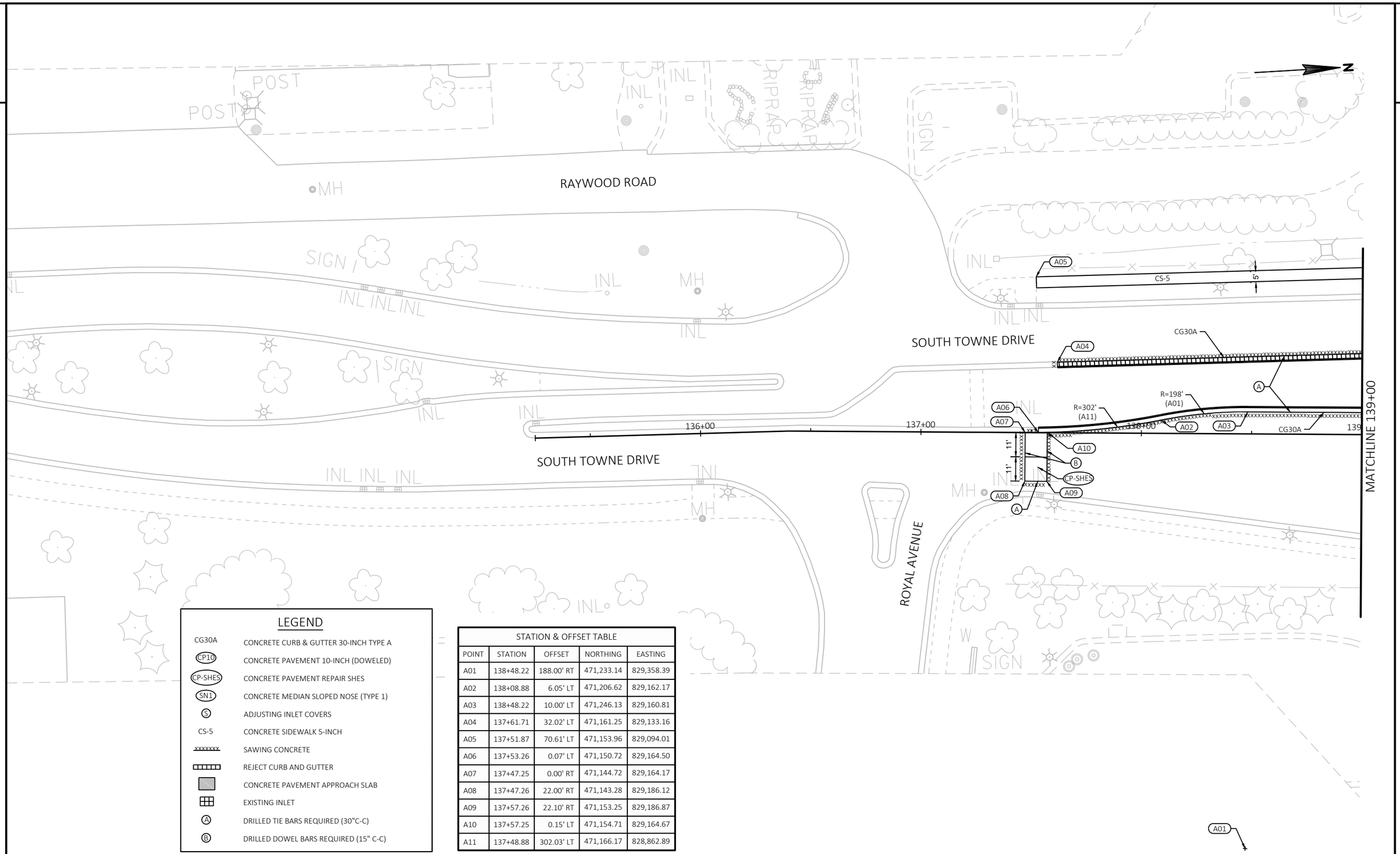


PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	CONSTRUCTION DETAIL - TRAFFIC SIGNAL REMOVAL	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\697\Micros\PLAN\2018.11.01 South Towne (with Bridge) Signal Plan Sheets\021103_cd.dgn PLOT DATE : 5/28/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2



LEGEND

CG30A	CONCRETE CURB & GUTTER 30-INCH TYPE A
CP10	CONCRETE PAVEMENT 10-INCH (DOWELED)
CP-SHES	CONCRETE PAVEMENT REPAIR SHES
SN1	CONCRETE MEDIAN SLOPED NOSE (TYPE 1)
S	ADJUSTING INLET COVERS
CS-5	CONCRETE SIDEWALK 5-INCH
xxxxxxx	SAWING CONCRETE
	REJECT CURB AND GUTTER
	CONCRETE PAVEMENT APPROACH SLAB
	EXISTING INLET
A	DRILLED TIE BARS REQUIRED (30"C-C)
B	DRILLED DOWEL BARS REQUIRED (15" C-C)

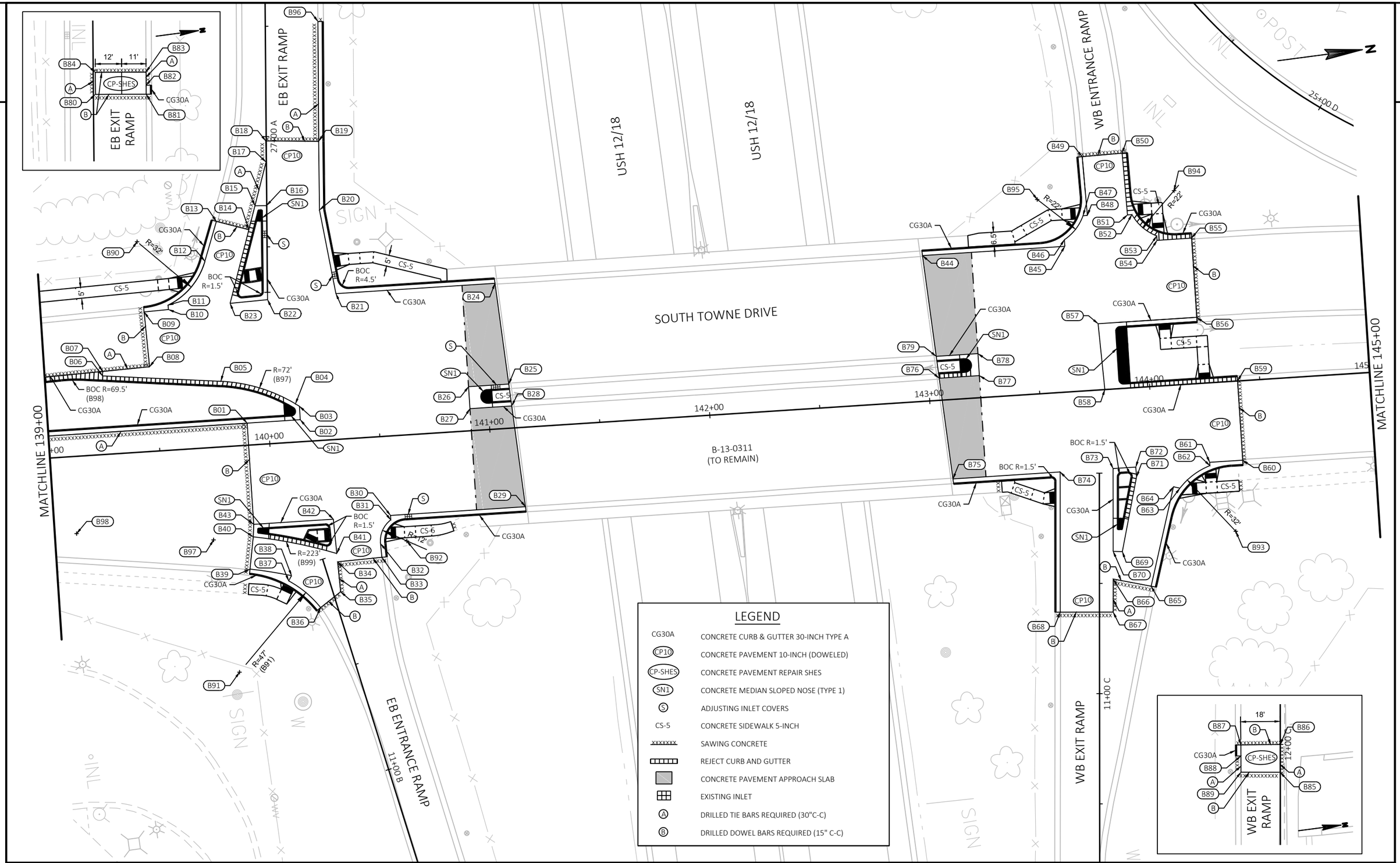
STATION & OFFSET TABLE

POINT	STATION	OFFSET	NORTHING	EASTING
A01	138+48.22	188.00' RT	471,233.14	829,358.39
A02	138+08.88	6.05' LT	471,206.62	829,162.17
A03	138+48.22	10.00' LT	471,246.13	829,160.81
A04	137+61.71	32.02' LT	471,161.25	829,133.16
A05	137+51.87	70.61' LT	471,153.96	829,094.01
A06	137+53.26	0.07' LT	471,150.72	829,164.50
A07	137+47.25	0.00' RT	471,144.72	829,164.17
A08	137+47.26	22.00' RT	471,143.28	829,186.12
A09	137+57.26	22.10' RT	471,153.25	829,186.87
A10	137+57.25	0.15' LT	471,154.71	829,164.67
A11	137+48.88	302.03' LT	471,166.17	828,862.89

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	PLAN DETAILS	SHEET 18	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 021201_pd

PLOT DATE : 5/28/2019 1:38 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########



PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	PLAN DETAILS	SHEET 19	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 021202_pd

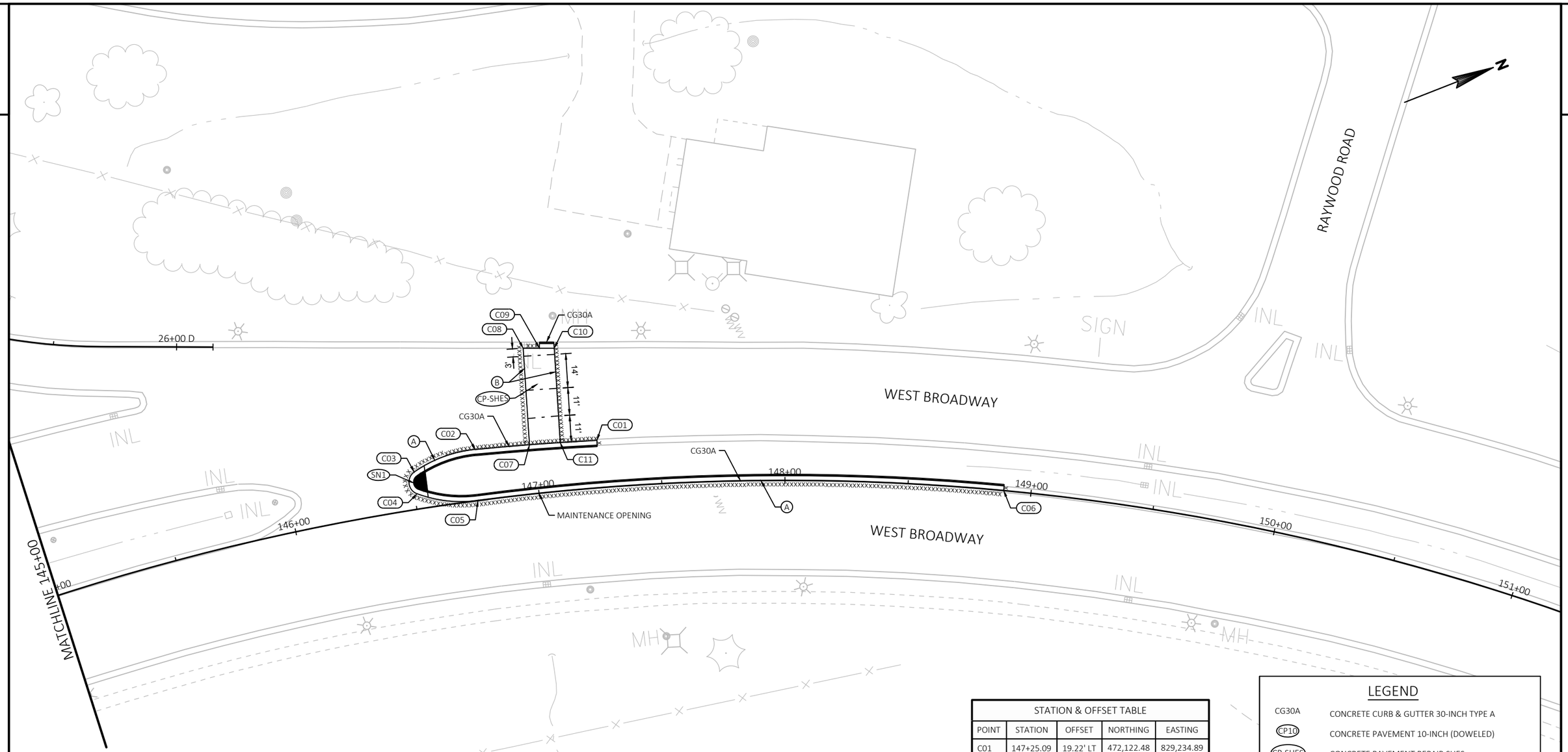
PLOT DATE : 5/28/2019 1:38 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########

STATION & OFFSET TABLE				
POINT	STATION	OFFSET	NORTHING	EASTING
B01	139+90.34	10.00' LT	471,387.94	829,170.14
B02	140+14.48	10.00' LT	471,412.04	829,171.72
B03	140+14.48	16.09' LT	471,412.44	829,165.64
B04	140+12.76	17.29' LT	471,410.80	829,164.34
B05	139+79.67	29.69' LT	471,378.59	829,149.79
B06	139+26.24	35.63' LT	471,325.66	829,140.36
B07	139+26.46	37.62' LT	471,326.01	829,138.39
B08	139+47.83	38.36' LT	471,347.38	829,139.05
B09	139+46.96	63.33' LT	471,348.15	829,114.07
B10	139+58.07	63.72' LT	471,359.26	829,114.42
B11	139+58.00	65.72' LT	471,359.33	829,112.42
B12	139+75.96	84.48' LT	471,378.48	829,094.88
B13	139+82.33	102.18' LT	471,386.00	829,077.63
B14	139+96.79	97.49' LT	471,400.12	829,083.26
B15	140+00.24	108.14' LT	471,404.26	829,072.86
B16	140+05.49	107.86' LT	471,409.48	829,073.48
B17	140+06.55	127.60' LT	471,411.83	829,053.85
B18	140+07.06	137.15' LT	471,412.97	829,044.36
B19	140+31.00	135.42' LT	471,436.74	829,047.66
B20	140+29.34	104.32' LT	471,433.05	829,078.57
B21	140+34.34	66.00' LT	471,435.53	829,117.15
B22	140+03.22	65.28' LT	471,404.42	829,115.82
B23	139+86.16	64.70' LT	471,387.36	829,115.29
B24	141+06.64	66.00' LT	471,507.67	829,121.89
B25	141+09.91	20.00' LT	471,507.91	829,168.00
B26	140+91.64	20.00' LT	471,489.68	829,166.81
B27	140+91.64	10.00' LT	471,489.03	829,176.78
B28	141+10.62	10.00' LT	471,507.96	829,178.03
B29	141+13.88	36.00' RT	471,508.20	829,224.14
B30	140+52.55	36.00' RT	471,447.00	829,220.12
B31	140+52.55	38.00' RT	471,446.87	829,222.12
B32	140+47.19	48.43' RT	471,440.84	829,232.17
B33	140+47.42	54.69' RT	471,440.65	829,238.43
B34	140+27.23	55.41' RT	471,420.46	829,237.83
B35	140+27.71	69.05' RT	471,420.04	829,251.47
B36	140+18.17	75.68' RT	471,410.09	829,257.45
B37	140+04.51	62.65' RT	471,397.31	829,243.56
B38	140+05.96	60.34' RT	471,398.91	829,241.35
B39	139+87.35	56.14' RT	471,380.62	829,235.94
B40	139+89.78	41.63' RT	471,384.00	829,221.62
B41	140+27.10	51.64' RT	471,420.58	829,234.06
B42	140+26.55	36.00' RT	471,421.06	829,218.41
B43	139+90.34	36.00' RT	471,384.93	829,216.04
B44	143+00.99	66.00' LT	471,701.59	829,134.64
B45	143+65.68	66.00' LT	471,766.15	829,138.89

STATION & OFFSET TABLE				
POINT	STATION	OFFSET	NORTHING	EASTING
B46	143+65.68	69.00' LT	471,766.35	829,135.89
B47	143+74.80	79.30' LT	471,776.12	829,126.21
B48	143+76.80	79.34' LT	471,778.12	829,126.30
B49	143+76.18	106.04' LT	471,779.26	829,099.62
B50	143+94.38	106.46' LT	471,797.44	829,100.39
B51	143+94.98	78.37' LT	471,796.19	829,128.47
B52	143+96.98	78.41' LT	471,798.19	829,128.55
B53	144+07.61	68.00' LT	471,808.12	829,139.64
B54	144+07.61	66.00' LT	471,807.99	829,141.64
B55	144+23.35	66.00' LT	471,823.69	829,142.67
B56	144+23.35	30.00' LT	471,821.33	829,178.59
B57	143+78.47	30.00' LT	471,776.55	829,175.65
B58	143+79.62	0.00'	471,775.73	829,205.66
B59	144+39.93	0.00'	471,835.90	829,209.61
B60	144+39.93	36.00' RT	471,833.54	829,245.54
B61	144+24.93	36.00' RT	471,818.57	829,244.55
B62	144+24.93	37.54' RT	471,818.47	829,246.08
B63	144+10.71	46.85' RT	471,803.68	829,254.44
B64	144+07.83	46.00' RT	471,800.86	829,253.41
B65	143+94.80	90.36' RT	471,784.95	829,296.82
B66	143+77.80	85.98' RT	471,768.27	829,291.34
B67	143+76.84	100.95' RT	471,766.33	829,306.21
B68	143+52.89	99.42' RT	471,742.53	829,303.10
B69	143+82.78	73.84' RT	471,774.03	829,279.55
B70	143+78.60	73.47' RT	471,769.89	829,278.90
B71	143+91.36	40.49' RT	471,784.79	829,246.83
B72	143+91.33	36.00' RT	471,785.05	829,242.35
B73	143+81.01	36.00' RT	471,774.75	829,241.67
B74	143+56.96	35.98' RT	471,750.75	829,240.08
B75	143+08.22	35.98' RT	471,702.12	829,236.88
B76	143+04.96	10.00' LT	471,701.88	829,190.78
B77	143+23.22	10.00' LT	471,720.11	829,191.98
B78	143+23.22	20.00' LT	471,720.76	829,182.00
B79	143+04.25	20.00' LT	471,701.83	829,180.76
B80	25+60.99 A	0.83' LT	471,431.21	828,904.54
B81	25+61.08 A	23.95' LT	471,454.15	828,907.46
B82	25+57.05 A	23.96' LT	471,454.65	828,903.45
B83	25+51.08 A	23.96' LT	471,455.38	828,897.53
B84	25+50.99 A	0.96' LT	471,432.56	828,894.64
B85	12+12.63 C	0.07' RT	471,740.76	829,453.78
B86	12+00.03 C	0.01' LT	471,742.46	829,441.30
B87	12+00.19 C	17.86' RT	471,724.73	829,439.14
B88	12+05.19 C	17.86' RT	471,724.08	829,444.10
B89	12+12.56 C	17.86' RT	471,723.13	829,451.41
B90	139+45.85	95.32' LT	471,349.15	829,082.08

STATION & OFFSET TABLE				
POINT	STATION	OFFSET	NORTHING	EASTING
B91	139+79.57	102.49' RT	471,369.82	829,281.68
B92	140+59.18	48.00' RT	471,452.83	829,232.53
B93	144+34.72	68.00' RT	471,826.25	829,277.13
B94	144+16.78	88.00' LT	471,818.58	829,120.28
B95	143+54.59	88.00' LT	471,756.53	829,116.20
B96	140+34.18	189.67' LT	471,443.47	828,993.73
B97	139+71.72	41.87' RT	471,365.96	829,220.67
B98	139+09.90	35.00' RT	471,304.72	829,209.76
B99	139+50.88	261.21' RT	471,330.78	829,438.18

2



STATION & OFFSET TABLE				
POINT	STATION	OFFSET	NORTHING	EASTING
C01	147+25.09	19.22' LT	472,122.48	829,234.89
C02	146+76.66	20.66' LT	472,075.22	829,220.30
C03	146+51.26	15.10' LT	472,048.76	829,219.77
C04	146+51.03	6.25' LT	472,046.62	829,228.37
C05	146+75.01	0.00'	472,068.61	829,239.95
C06	148+88.90	0.00'	472,268.73	829,314.17
C07	146+98.23	19.98' LT	472,096.36	829,226.54
C08	146+99.77	59.25' LT	472,108.31	829,189.10
C09	147+05.93	58.59' LT	472,114.43	829,191.50
C10	147+11.58	58.01' LT	472,120.04	829,193.71
C11	147+10.48	19.62' LT	472,108.30	829,230.27

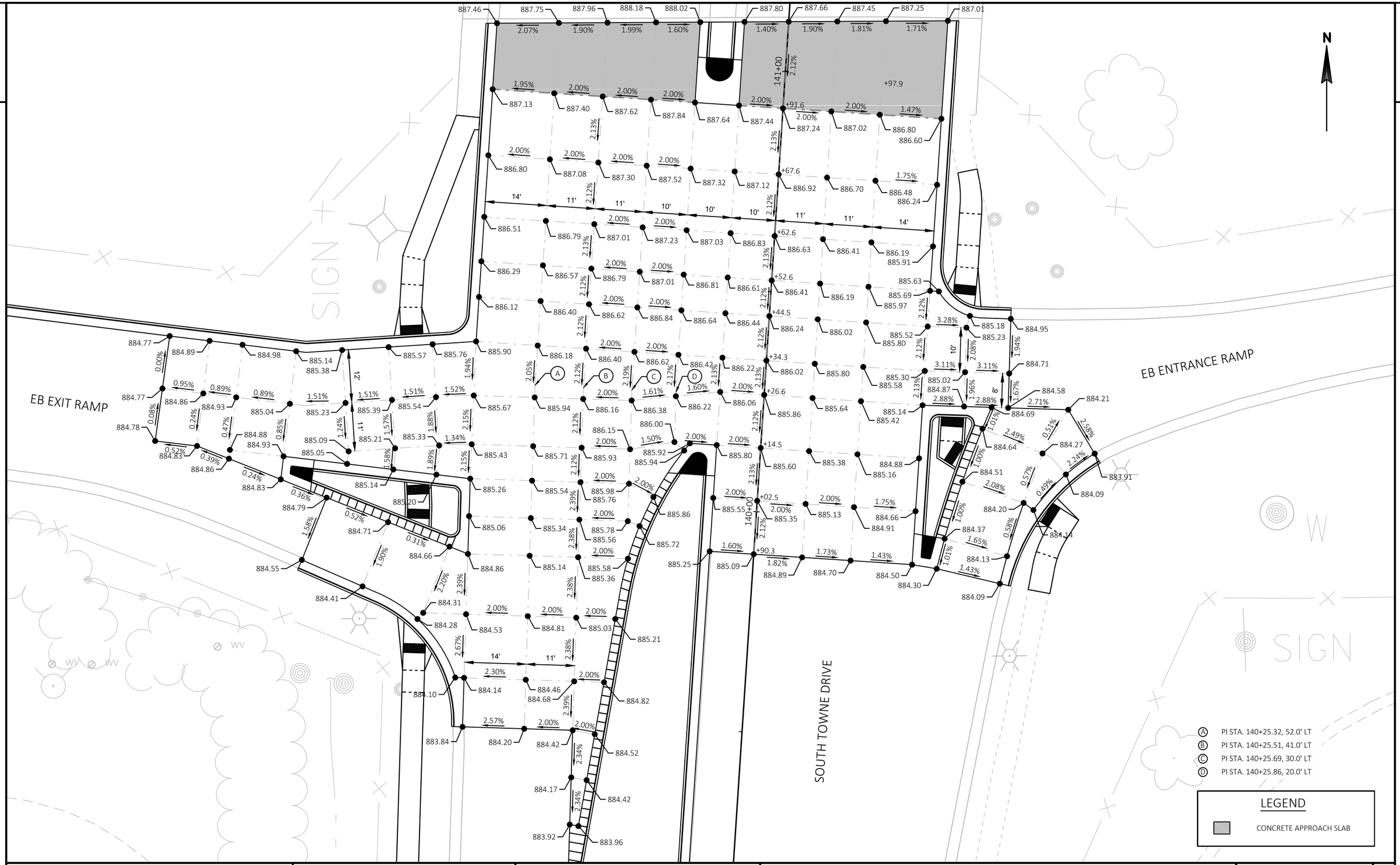
LEGEND

CG30A	CONCRETE CURB & GUTTER 30-INCH TYPE A
CP10	CONCRETE PAVEMENT 10-INCH (DOWELED)
CP-SHES	CONCRETE PAVEMENT REPAIR SHES
SN1	CONCRETE MEDIAN SLOPED NOSE (TYPE 1)
S	ADJUSTING INLET COVERS
CS-5	CONCRETE SIDEWALK 5-INCH
xxxxxxx	SAWING CONCRETE
	REJECT CURB AND GUTTER
	CONCRETE PAVEMENT APPROACH SLAB
	EXISTING INLET
A	DRILLED TIE BARS REQUIRED (30"C-C)
B	DRILLED DOWEL BARS REQUIRED (15" C-C)

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	PLAN DETAILS	SHEET 21	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 021204_pd

PLOT DATE : 5/28/2019 1:38 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########



PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	LAYOUT DETAILS	SHEET 22	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\021301-JD.DWG
LAYOUT NAME - 021301-jd
PLOT DATE : 2/25/2019 3:46 PM
PLOT BY : NOTSON, ERIC
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

2

N

WEST BROADWAY

WB ENTRANCE RAMP

WB EXIT RAMP

6" CURB HEAD HEIGHT REQ'D

5" CURB HEAD HEIGHT REQ'D

6" CURB HEAD HEIGHT REQ'D

143+00

LEGEND

CONCRETE APPROACH SLAB

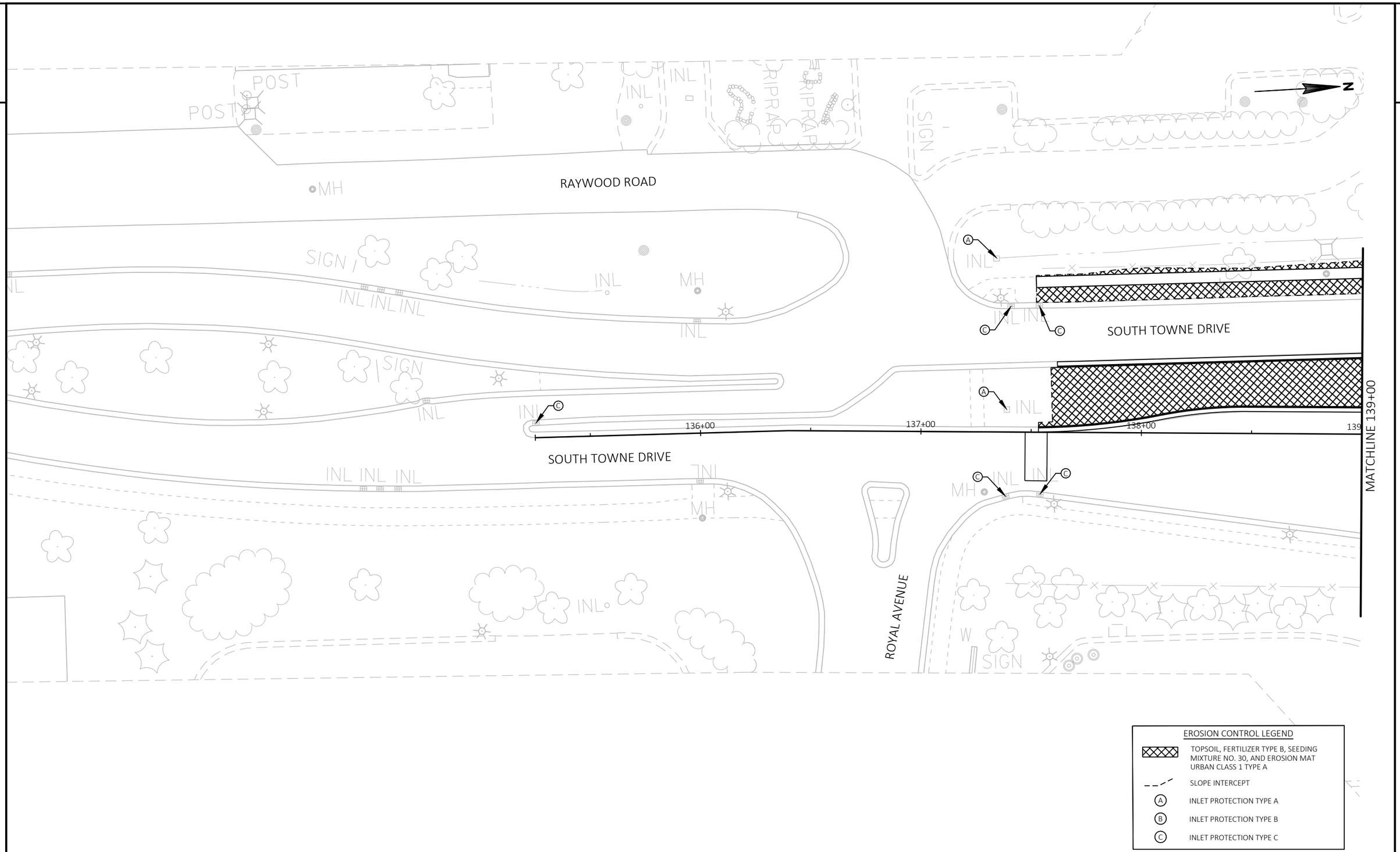
PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	LAYOUT DETAILS	SHEET 23	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\021301-JD.DWG
LAYOUT NAME - 021302-jd

PLOT DATE : 2/25/2019 3:46 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2



EROSION CONTROL LEGEND

- TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT URBAN CLASS 1 TYPE A
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	EROSION CONTROL	SHEET 24	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022001-ec

PLOT DATE : 3/27/2019 11:55 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########

2

EROSION CONTROL LEGEND

- TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT URBAN CLASS 1 TYPE A
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C

PLACE INLET PROTECTION TYPE C AT THE NEAREST INLET ON THE SOUTH SIDE OF THE EB EXIT RAMP

PLACE INLET PROTECTION TYPE C AT THE NEAREST INLET ON THE NORTH SIDE OF THE EB EXIT RAMP

EB EXIT RAMP

USE INLET PROTECTION TYPE B WHEN INLET COVERS TYPE DW IS IN USE

SOUTH TOWNE DRIVE

PLACE INLET PROTECTION TYPE C AT THE NEAREST INLET ON THE SOUTH SIDE OF THE WB ENTRANCE RAMP

WB ENTRANCE RAMP

PLACE INLET PROTECTION TYPE C AT THE NEAREST INLET ON THE NORTH SIDE OF THE WB ENTRANCE RAMP

MATCHLINE 139+00

140+00

141+00

142+00

143+00

MATCHLINE 145+00

EB ENTRANCE RAMP

USH 12/18

USH 12/18

WB EXIT RAMP

PLACE INLET PROTECTION TYPE C AT THE NEAREST INLET ON THE SOUTH SIDE OF THE EB ENTRANCE RAMP

PLACE INLET PROTECTION TYPE C AT THE NEAREST INLET ON THE NORTH SIDE OF THE EB ENTRANCE RAMP

PLACE INLET PROTECTION TYPE C AT THE NEAREST INLET ON THE SOUTH SIDE OF THE WB EXIT RAMP

PLACE INLET PROTECTION TYPE C AT THE NEAREST INLET ON THE NORTH SIDE OF THE WB EXIT RAMP

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	EROSION CONTROL	SHEET 25	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022002-ec
PLOT DATE : 3/27/2019 11:55 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

2

N

RAYWOOD ROAD

WEST BROADWAY

WEST BROADWAY

MATCHLINE 145+00

146+00

149+00

150+00

151+00

MH

SIGN

INL

EROSION CONTROL LEGEND

- TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT URBAN CLASS 1 TYPE A
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	EROSION CONTROL	SHEET 26	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022003-ec

PLOT DATE : 3/27/2019 11:55 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

KEY NOTES:

① REMOVE EXISTING LIGHTING ASSEMBLY. REMOVING CONCRETE BASES.

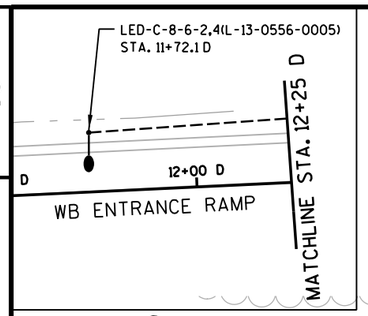
GENERAL NOTES:

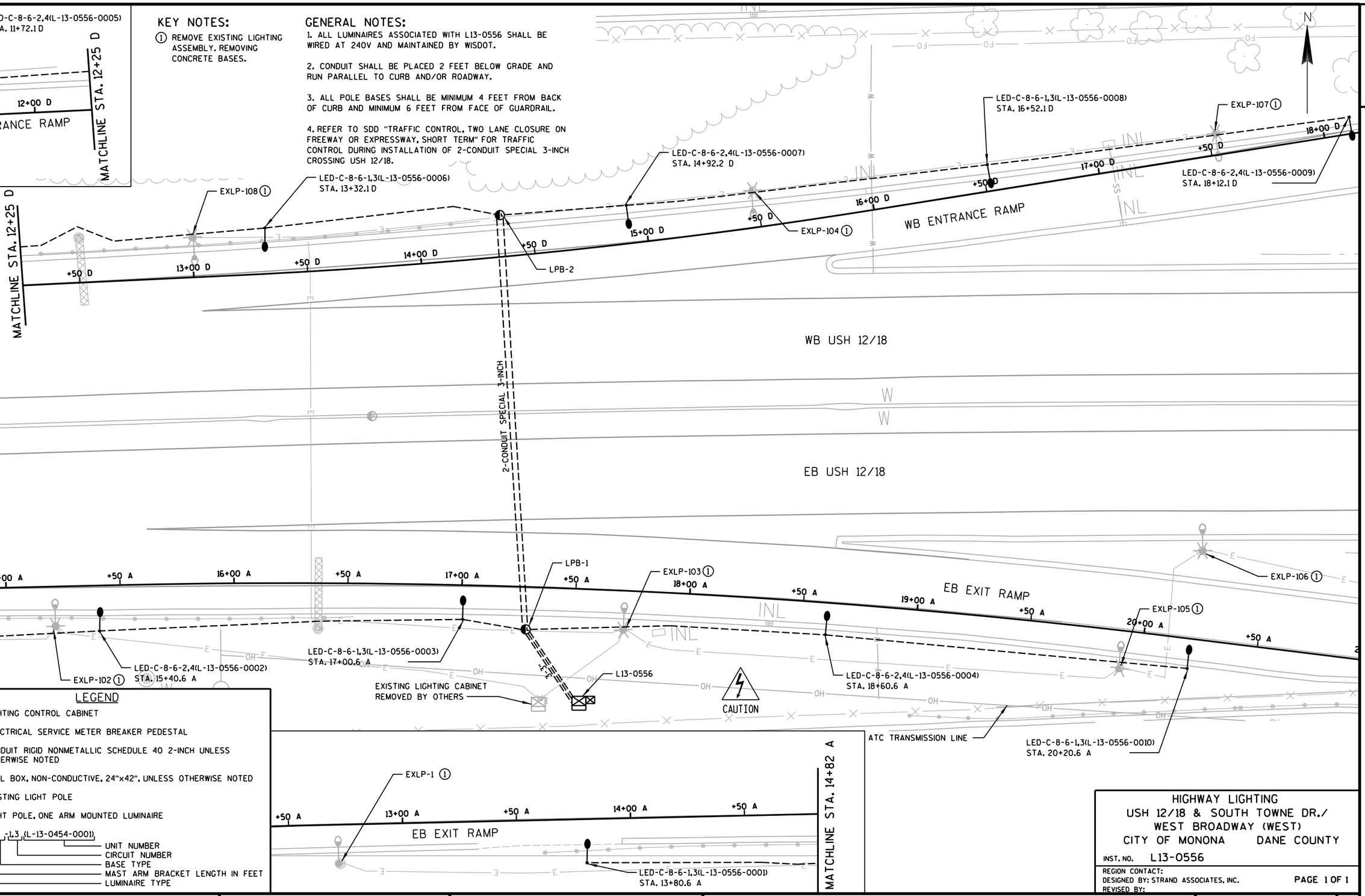
1. ALL LUMINAIRES ASSOCIATED WITH L13-0556 SHALL BE WIRED AT 240V AND MAINTAINED BY WISDOT.

2. CONDUIT SHALL BE PLACED 2 FEET BELOW GRADE AND RUN PARALLEL TO CURB AND/OR ROADWAY.

3. ALL POLE BASES SHALL BE MINIMUM 4 FEET FROM BACK OF CURB AND MINIMUM 6 FEET FROM FACE OF GUARDRAIL.

4. REFER TO SDD "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM" FOR TRAFFIC CONTROL DURING INSTALLATION OF 2-CONDUIT SPECIAL 3-INCH CROSSING USH 12/18.





LEGEND

- LIGHTING CONTROL CABINET
- ELECTRICAL SERVICE METER BREAKER PEDESTAL
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH UNLESS OTHERWISE NOTED
- PULL BOX, NON-CONDUCTIVE, 24"x42", UNLESS OTHERWISE NOTED
- EXISTING LIGHT POLE
- LIGHT POLE, ONE ARM MOUNTED LUMINAIRE

LED-C-12-6-1.3-(L-13-0454-0001)

- UNIT NUMBER
- CIRCUIT NUMBER
- BASE TYPE
- MAST ARM BRACKET LENGTH IN FEET
- LUMINAIRE TYPE

HIGHWAY LIGHTING
USH 12/18 & SOUTH TOWNE DR./
WEST BROADWAY (WEST)
CITY OF MONONA DANE COUNTY

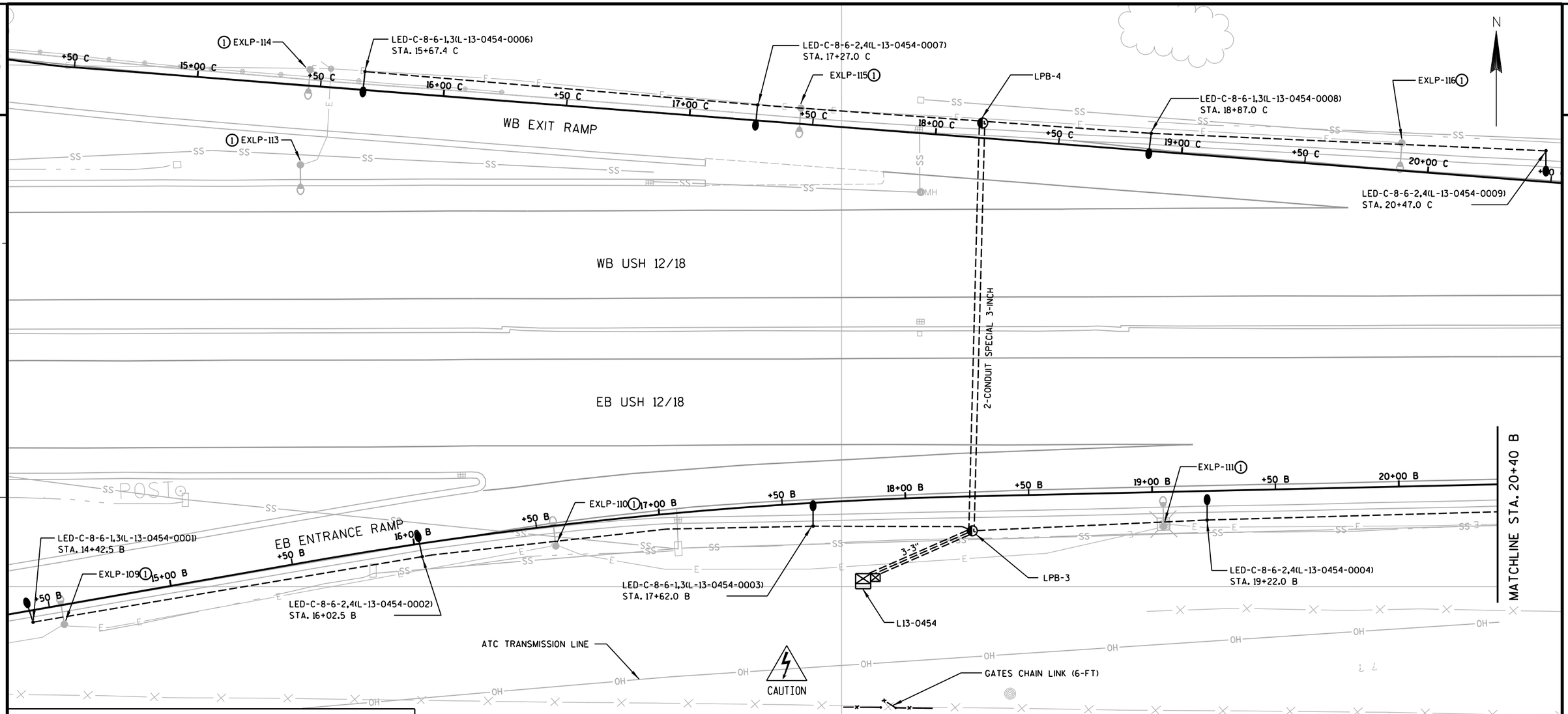
INST. NO. L13-0556

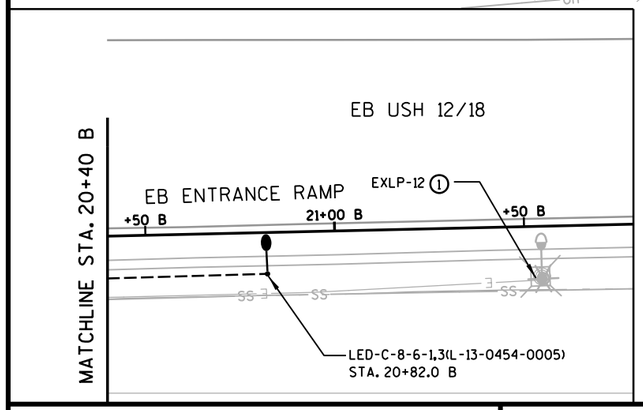
REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES, INC.
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	LIGHTING PLAN	SHEET E

FILE NAME : S:\MAD\1000--1099\1089\697\Micros\PLAN\2018.11.01 South Towne (with Bridge) Signal Plan Sheets\023501_lp.dgn PLOT DATE : 4/9/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42





KEY NOTES:

1 REMOVE EXISTING LIGHTING ASSEMBLY. REMOVING CONCRETE BASES.

GENERAL NOTES:

1. ALL LUMINAIRES ASSOCIATED WITH L13-0454 SHALL BE WIRED AT 240V AND MAINTAINED BY WISDOT.

2. CONDUIT SHALL BE PLACED 2 FEET BELOW GRADE AND RUN PARALLEL TO CURB AND/OR ROADWAY.

3. ALL POLE BASES SHALL BE MINIMUM 4 FEET FROM BACK OF CURB AND MINIMUM 6 FEET FROM FACE OF GUARDRAIL.

4. REFER TO SDD "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM" FOR TRAFFIC CONTROL DURING INSTALLATION OF 2-CONDUIT SPECIAL 3-INCH CROSSING USH 12/18.

LEGEND

- LIGHTING CONTROL CABINET
- ELECTRICAL SERVICE METER BREAKER PEDESTAL
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH UNLESS OTHERWISE NOTED
- PULL BOX, NON-CONDUCTIVE, 24"x42", UNLESS OTHERWISE NOTED
- EXISTING LIGHT POLE
- LIGHT POLE, ONE ARM MOUNTED LUMINAIRE

LED-C-12 -6 -1,3 (L-13-0454-0001)

- UNIT NUMBER
- CIRCUIT NUMBER
- BASE TYPE
- MAST ARM BRACKET LENGTH IN FEET
- LUMINAIRE TYPE

HIGHWAY LIGHTING
USH 12/18 & SOUTH TOWNE DR./
WEST BROADWAY (EAST)
CITY OF MONONA DANE COUNTY

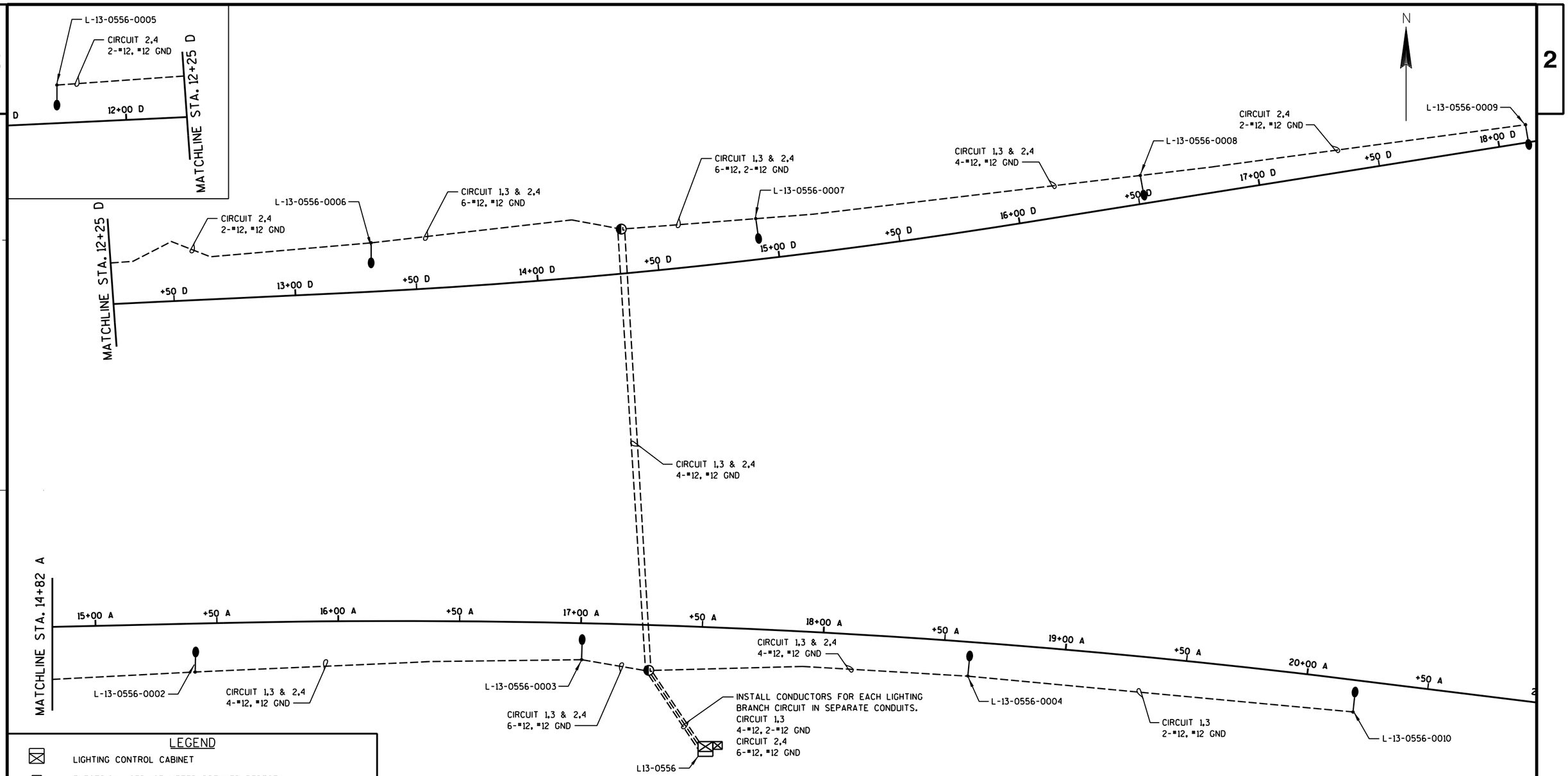
INST. NO. L13-0454

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES, INC.
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	LIGHTING PLAN	SHEET E

FILE NAME : S:\MAD\1000--1099\1089\697\Micros\PLAN\2018.11.01 South Towne (with Bridge) Signal Plan Sheets\023502_lp.dgn PLOT DATE : 4/9/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



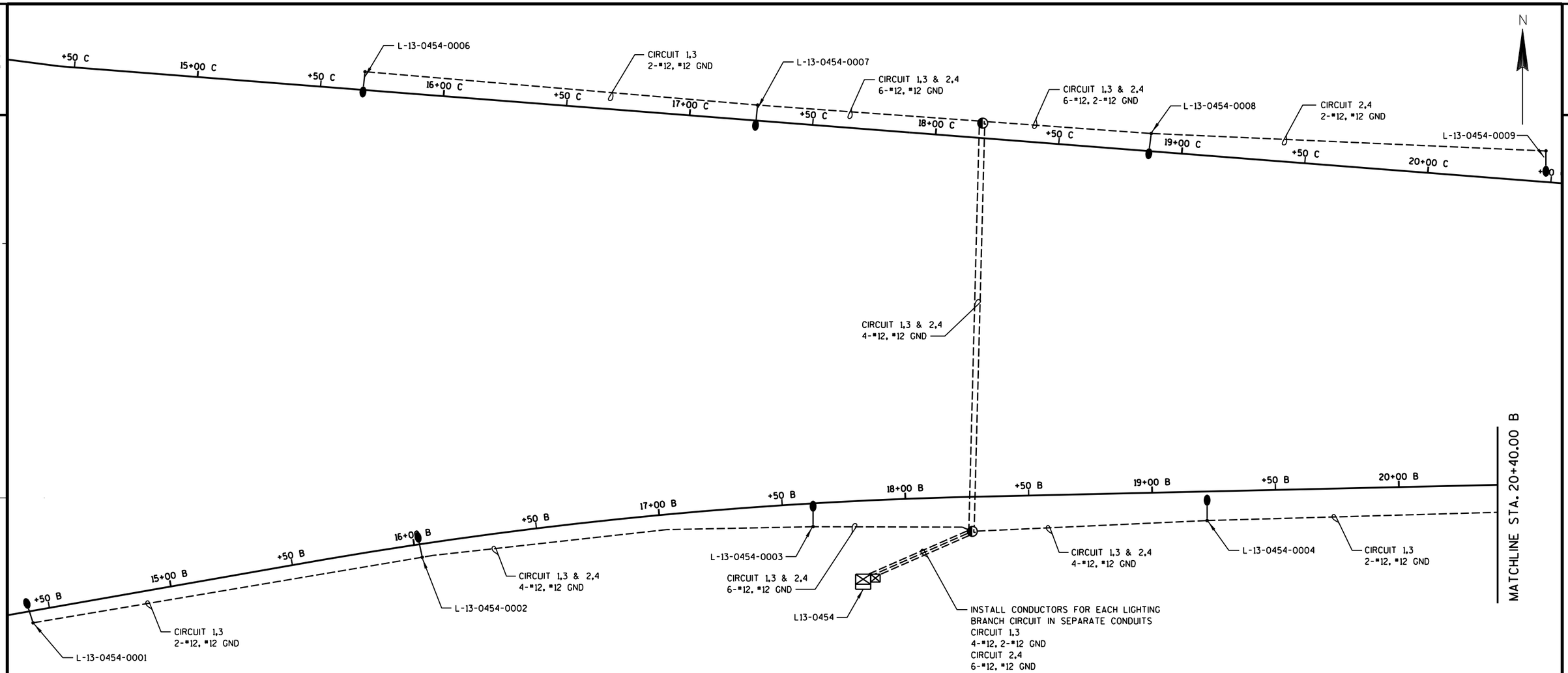
HIGHWAY LIGHTING
USH 12/18 & SOUTH TOWNE DR./
WEST BROADWAY (WEST)
CITY OF MONONA DANE COUNTY

INST. NO. L13-0556

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES, INC. PAGE 1 OF 1
REVISED BY:

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	LIGHTING PLAN DIAGRAM L13-0556	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\697\Micros\PLAN\2018.11.01 South Towne (with Bridge) Signal Plan Sheets\023503_lp.dgn PLOT DATE : 4/9/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



LEGEND

- LIGHTING CONTROL CABINET
- ELECTRICAL SERVICE METER BREAKER PEDESTAL
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH UNLESS OTHERWISE NOTED
- PULL BOX, NON-CONDUCTIVE, 24"x42", UNLESS OTHERWISE NOTED
- EXISTING LIGHT POLE
- LIGHT POLE, ONE ARM MOUNTED LUMINAIRE

LED-C-12 -6 -1,3 (L-13-0454-0001)

- LED-C: LUMINAIRE TYPE
- 12: MAST ARM BRACKET LENGTH IN FEET
- 6: BASE TYPE
- 1,3: CIRCUIT NUMBER
- (L-13-0454-0001): UNIT NUMBER

HIGHWAY LIGHTING
USH 12/18 & SOUTH TOWNE DR./
WEST BROADWAY (EAST)
CITY OF MONONA DANE COUNTY

INST. NO. L13-0454

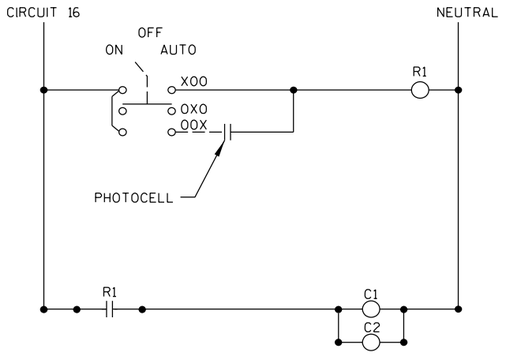
REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES, INC.
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	LIGHTING PLAN DIAGRAM L13-0454	SHEET	E

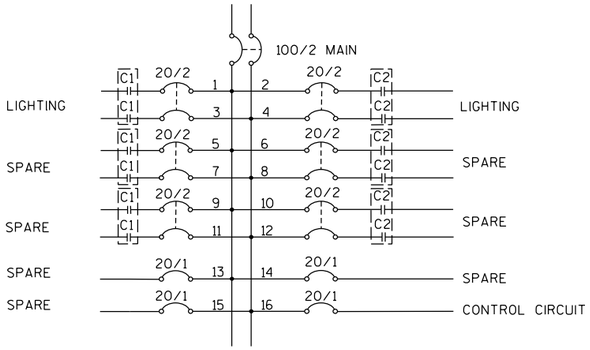
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WISDOT/CADDS SHEET 42



L13-0556 CONTROL SCHEMATIC

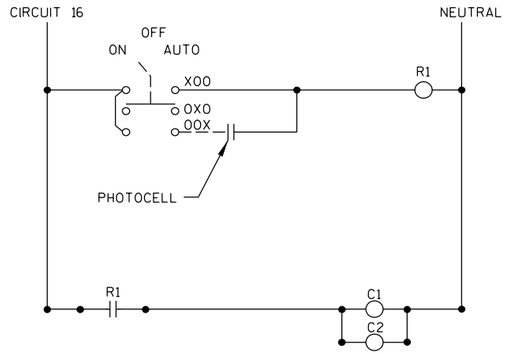
NO SCALE



L13-0556

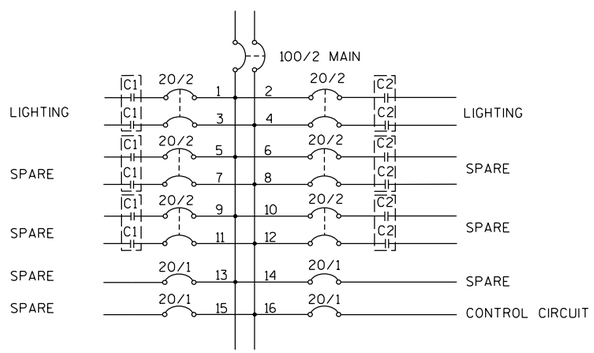
NO SCALE

2



L13-0454 CONTROL SCHEMATIC

NO SCALE



L13-0454

NO SCALE

EQUIPMENT SUMMARY (FOR INFORMATION ONLY)	
WOOD POLES, CLASS IV	4 EA.
GUY WIRES	8 EA.
OVERHEAD SPAN WIRE	485 LF
CONTROLLER/CABINET	1 EA.
LUMINAIRES	4 EA.

ATC TRANSMISSION LINE (INDUCED VOLTAGE)

US SIGNAL

WISDOT STORM SEWER

US SIGNAL AND TDS

EB USH 12/18

WB USH 12/18

SOUTH TOWNE DRIVE

R3-2
24" X 24"

200' TO NEAR RIGHT

257' TO NEAR RIGHT

ROYAL AVENUE

ATC TRANSMISSION LINE (INDUCED VOLTAGE)

MADISON GAS AND ELECTRIC

MONONA WATER UTILITY

LEGEND

- WORK ZONE
- OVERHEAD SPAN WIRE
- SIGNAL HEAD, OVERHEAD MOUNT
- CLASS 4 WOOD POLE
- 8 SIGNAL HEAD NUMBER
- LUMINAIRE
- APPROXIMATE VEHICLE DETECTION ZONE
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- DON'T WALK INDICATOR 12" / WALK INDICATOR 12"

NOTE: MOVE LOCATION OF NEAR TEMPORARY SIGNAL HEADS TO COINCIDE WITH TRAFFIC PATTERN.

TRAFFIC CONTROL SIGNAL
USH 12/18 AND SOUTH TOWNE DR/
WEST BROADWAY
CITY OF MADISON
DANE COUNTY

SIGNAL NO. TEMP CONTROLLER TYPE:

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES, INC.
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TEMPORARY SIGNAL PLAN - STAGE 1	SHEET E

FILE NAME : S:\MAD\1000--1099\1089\697\Micros\PLAN\2018.11.01 South Towne (with Bridge) Signal Plan Sheets\024100_sp.dgn PLOT DATE : 4/17/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

EQUIPMENT SUMMARY (FOR INFORMATION ONLY)	
WOOD POLES, CLASS IV	4 EA.
GUY WIRES	8 EA.
OVERHEAD SPAN WIRE	485 LF
CONTROLLER/CABINET	1 EA.
LUMINAIRES	4 EA.

SIGN

SIGN

ATC TRANSMISSION LINE (INDUCED VOLTAGE)

US SIGNAL

200' TO NEAR RIGHT

WISDOT STORM SEWER

EB USH 12/18

WB USH 12/18

SIGN

US SIGNAL AND TDS

R3-2
24" X 24"

257' TO NEAR RIGHT

SOUTH TOWNE DRIVE

SOUTH TOWNE DRIVE

257' TO NEAR RIGHT

ROYAL AVENUE

ATC TRANSMISSION LINE (INDUCED VOLTAGE)

MADISON GAS AND ELECTRIC

MONONA WATER UTILITY

SIGN

EB USH 12/18

WB USH 12/18

137+00 +50 138+00 +50 1 +50 140+00 50 141+00 +50 142+00 +50

+50 B

11+00 B

N

LEGEND

- WORK ZONE
- OVERHEAD SPAN WIRE
- SIGNAL HEAD, OVERHEAD MOUNT
- CLASS 4 WOOD POLE
- 8 SIGNAL HEAD NUMBER
- LUMINAIRE
- APPROXIMATE VEHICLE DETECTION ZONE
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- DON'T WALK INDICATOR 12" WALK INDICATOR 12"

NOTE: MOVE LOCATION OF NEAR TEMPORARY SIGNAL HEADS TO COINCIDE WITH TRAFFIC PATTERN.

TRAFFIC CONTROL SIGNAL
USH 12/18 AND SOUTH TOWNE DR/
WEST BROADWAY
CITY OF MADISON
DANE COUNTY

SIGNAL NO. TEMP CONTROLLER TYPE:

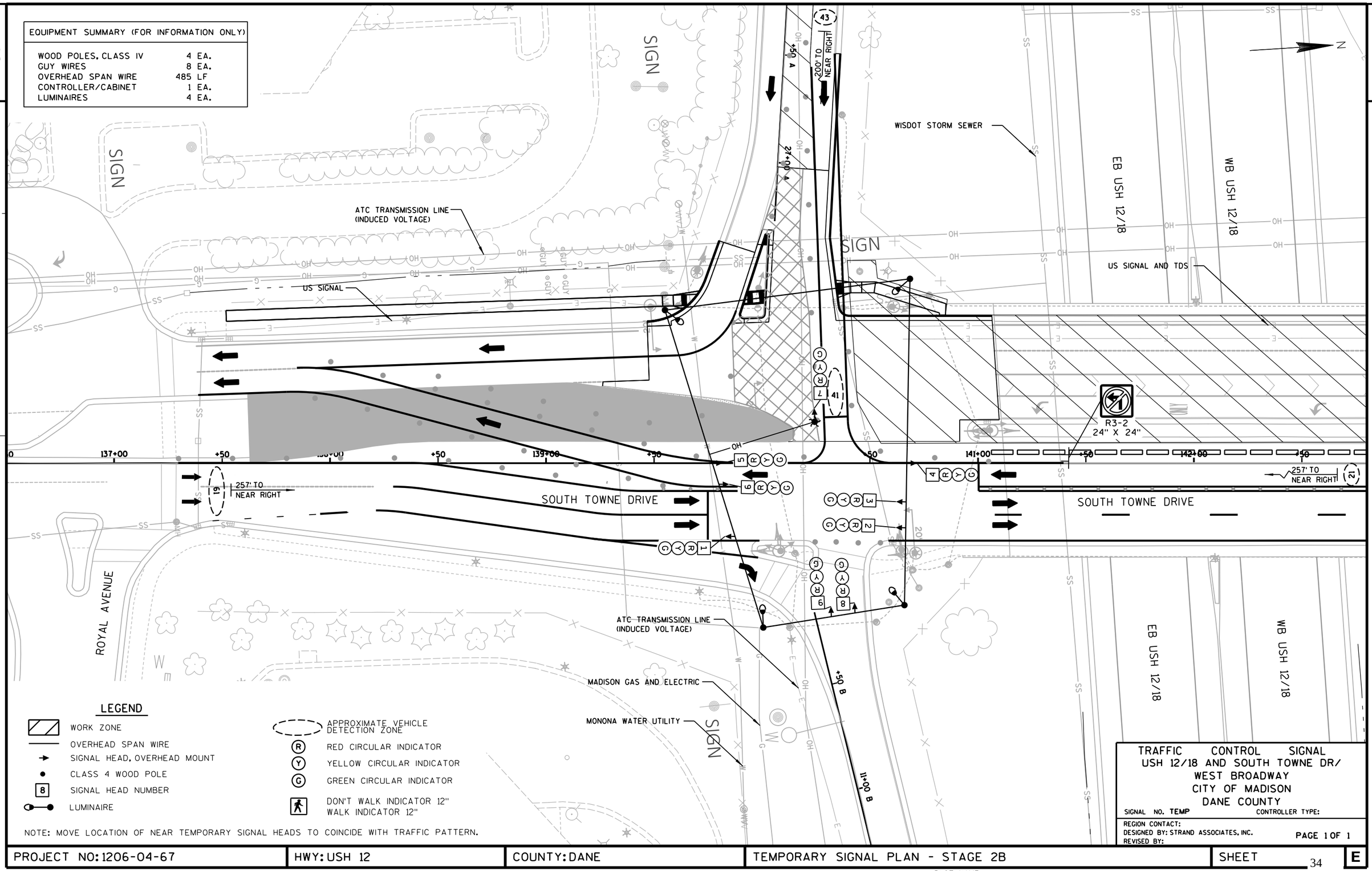
REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES, INC.
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TEMPORARY SIGNAL PLAN - STAGE 2A	SHEET E

FILE NAME : S:\MAD\1000--1099\1089\697\Micros\PLAN\2018.11.01 South Towne (with Bridge) Signal Plan Sheets\024200_sp.dgn PLOT DATE : 4/9/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

EQUIPMENT SUMMARY (FOR INFORMATION ONLY)	
WOOD POLES, CLASS IV	4 EA.
GUY WIRES	8 EA.
OVERHEAD SPAN WIRE	485 LF
CONTROLLER/CABINET	1 EA.
LUMINAIRES	4 EA.



LEGEND

- WORK ZONE
- OVERHEAD SPAN WIRE
- SIGNAL HEAD, OVERHEAD MOUNT
- CLASS 4 WOOD POLE
- 8 SIGNAL HEAD NUMBER
- LUMINAIRE
- APPROXIMATE VEHICLE DETECTION ZONE
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- DON'T WALK INDICATOR 12" / WALK INDICATOR 12"

NOTE: MOVE LOCATION OF NEAR TEMPORARY SIGNAL HEADS TO COINCIDE WITH TRAFFIC PATTERN.

TRAFFIC CONTROL SIGNAL
USH 12/18 AND SOUTH TOWNE DR/
WEST BROADWAY
CITY OF MADISON
DANE COUNTY

SIGNAL NO. TEMP CONTROLLER TYPE:

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES, INC.
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TEMPORARY SIGNAL PLAN - STAGE 2B	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\697\Micros\PLAN\2018.11.01 South Towne (with Bridge) Signal Plan Sheets\024201_sp.dgn PLOT DATE : 4/9/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

EQUIPMENT SUMMARY (FOR INFORMATION ONLY)	
WOOD POLES, CLASS IV	4 EA.
GUY WIRES	8 EA.
OVERHEAD SPAN WIRE	485 LF
CONTROLLER/CABINET	1 EA.
LUMINAIRES	4 EA.

SIGN
SIGN
SIGN
SIGN
ATC TRANSMISSION LINE (INDUCED VOLTAGE)
US SIGNAL
WISDOT STORM SEWER
US SIGNAL AND TDS
EB USH 12/18
WB USH 12/18
200' TO NEAR RIGHT
27+00 A
41
43
R3-2 24" X 24"
137+00
138+00
139+00
141+00
142+00
+50
19
257' TO NEAR RIGHT
21
257' TO NEAR RIGHT
SOUTH TOWNE DRIVE
SOUTH TOWNE DRIVE
ROYAL AVENUE
ATC TRANSMISSION LINE (INDUCED VOLTAGE)
MADISON GAS AND ELECTRIC
MONONA WATER UTILITY
+50 B
11+00 B
EB USH 12/18
WB USH 12/18

LEGEND

- WORK ZONE
- OVERHEAD SPAN WIRE
- SIGNAL HEAD, OVERHEAD MOUNT
- CLASS 4 WOOD POLE
- 8 SIGNAL HEAD NUMBER
- LUMINAIRE
- APPROXIMATE VEHICLE DETECTION ZONE
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- DON'T WALK INDICATOR 12" WALK INDICATOR 12"

NOTE: MOVE LOCATION OF NEAR TEMPORARY SIGNAL HEADS TO COINCIDE WITH TRAFFIC PATTERN.

TRAFFIC CONTROL SIGNAL
USH 12/18 AND SOUTH TOWNE DR/
WEST BROADWAY
CITY OF MADISON
DANE COUNTY

SIGNAL NO. TEMP CONTROLLER TYPE:

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES, INC.
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TEMPORARY SIGNAL PLAN - STAGE 2C	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\697\Micros\PLAN\2018.11.01 South Towne (with Bridge) Signal Plan Sheets\024202_sp.dgn PLOT DATE : 4/9/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

EQUIPMENT SUMMARY (FOR INFORMATION ONLY)	
WOOD POLES, CLASS IV	4 EA.
GUY WIRES	8 EA.
OVERHEAD SPAN WIRE	485 LF
CONTROLLER/CABINET	1 EA.
LUMINAIRES	4 EA.

SIGN
SIGN
SIGN
SIGN
SIGN
WISDOT STORM SEWER
ATC TRANSMISSION LINE (INDUCED VOLTAGE)
US SIGNAL
US SIGNAL AND TDS
R3-2
24" X 24"
EB USH 12/18
WB USH 12/18
SOUTH TOWNE DRIVE
SOUTH TOWNE DRIVE
ROYAL AVENUE
ATC TRANSMISSION LINE (INDUCED VOLTAGE)
MADISON GAS AND ELECTRIC
MONONA WATER UTILITY
200' TO NEAR RIGHT
220' TO NEAR RIGHT
257' TO NEAR RIGHT
137+00
138+00
139+00
140+00
141+00
142+00
+50
+00 A
+50 B
11+00 B
N

LEGEND

- WORK ZONE
- OVERHEAD SPAN WIRE
- SIGNAL HEAD, OVERHEAD MOUNT
- CLASS 4 WOOD POLE
- 8 SIGNAL HEAD NUMBER
- LUMINAIRE
- APPROXIMATE VEHICLE DETECTION ZONE
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- DON'T WALK INDICATOR 12"
  WALK INDICATOR 12"

NOTE: MOVE LOCATION OF NEAR TEMPORARY SIGNAL HEADS TO COINCIDE WITH TRAFFIC PATTERN.

TRAFFIC CONTROL SIGNAL
USH 12/18 AND SOUTH TOWNE DR/
WEST BROADWAY
CITY OF MADISON
DANE COUNTY

SIGNAL NO. TEMP CONTROLLER TYPE:

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES, INC.
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TEMPORARY SIGNAL PLAN - STAGE 3A	SHEET E

FILE NAME : S:\MAD\1000--1099\1089\697\Micros\PLAN\2018.11.01 South Towne (with Bridge) Signal Plan Sheets\024300_sp.dgn PLOT DATE : 4/9/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

EQUIPMENT SUMMARY (FOR INFORMATION ONLY)	
WOOD POLES, CLASS IV	4 EA.
GUY WIRES	8 EA.
OVERHEAD SPAN WIRE	485 LF
CONTROLLER/CABINET	1 EA.
LUMINAIRES	4 EA.

SIGN
SIGN
SIGN
SIGN
SIGN
WISDOT STORM SEWER
ATC TRANSMISSION LINE (INDUCED VOLTAGE)
US SIGNAL
US SIGNAL AND TDS
R3-2
24" X 24"
EB USH 12/18
WB USH 12/18
SOUTH TOWNE DRIVE
SOUTH TOWNE DRIVE
257' TO NEAR RIGHT
257' TO NEAR RIGHT
200' TO NEAR RIGHT
ROYAL AVENUE
ATC TRANSMISSION LINE (INDUCED VOLTAGE)
MADISON GAS AND ELECTRIC
MONONA WATER UTILITY
137+00
138+00
139+00
140+00
141+00
142+00
+50
+00 A
+50 B
11+00 B
OH
W
S
N

LEGEND

- WORK ZONE
- OVERHEAD SPAN WIRE
- SIGNAL HEAD, OVERHEAD MOUNT
- CLASS 4 WOOD POLE
- 8 SIGNAL HEAD NUMBER
- LUMINAIRE
- APPROXIMATE VEHICLE DETECTION ZONE
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- DON'T WALK INDICATOR 12"
  WALK INDICATOR 12"

NOTE: MOVE LOCATION OF NEAR TEMPORARY SIGNAL HEADS TO COINCIDE WITH TRAFFIC PATTERN.

TRAFFIC CONTROL SIGNAL
USH 12/18 AND SOUTH TOWNE DR/
WEST BROADWAY
CITY OF MADISON
DANE COUNTY

SIGNAL NO. TEMP CONTROLLER TYPE:

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES, INC.
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TEMPORARY SIGNAL PLAN - STAGE 3B	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\697\Micros\PLAN\2018.11.01 South Towne (with Bridge) Signal Plan Sheets\024301_sp.dgn PLOT DATE : 4/9/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

EQUIPMENT SUMMARY (FOR INFORMATION ONLY)	
WOOD POLES, CLASS IV	4 EA.
GUY WIRES	8 EA.
OVERHEAD SPAN WIRE	485 LF
CONTROLLER/CABINET	1 EA.
LUMINAIRES	4 EA.

SIGN
SIGN
SIGN
SIGN
SIGN
SIGN
WISDOT STORM SEWER
ATC TRANSMISSION LINE (INDUCED VOLTAGE)
US SIGNAL
US SIGNAL AND TDS
EB USH 12/18
WB USH 12/18
43
200' TO NEAR RIGHT
+50 A
27+00 A
42
41
257' TO NEAR RIGHT
21
19
257' TO NEAR RIGHT
137+00
+50
138+00
+50
139+00
+50
140+00
+50
141+00
+50
142+00
+50
SOUTH TOWNE DRIVE
SOUTH TOWNE DRIVE
ROYAL AVENUE
ATC TRANSMISSION LINE (INDUCED VOLTAGE)
MADISON GAS AND ELECTRIC
MONONA WATER UTILITY
+50 B
11+00 B
EB USH 12/18
WB USH 12/18

LEGEND

- WORK ZONE
- OVERHEAD SPAN WIRE
- SIGNAL HEAD, OVERHEAD MOUNT
- CLASS 4 WOOD POLE
- 8 SIGNAL HEAD NUMBER
- LUMINAIRE
- APPROXIMATE VEHICLE DETECTION ZONE
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- DON'T WALK INDICATOR 12" / WALK INDICATOR 12"

NOTE: MOVE LOCATION OF NEAR TEMPORARY SIGNAL HEADS TO COINCIDE WITH TRAFFIC PATTERN.

TRAFFIC CONTROL SIGNAL
USH 12/18 AND SOUTH TOWNE DR/
WEST BROADWAY
CITY OF MADISON
DANE COUNTY

SIGNAL NO. TEMP CONTROLLER TYPE:

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES, INC.
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TEMPORARY SIGNAL PLAN - STAGE 4	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\697\Micros\PLAN\2018.11.01 South Towne (with Bridge) Signal Plan Sheets\024400_sp.dgn PLOT DATE : 4/9/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	01 R/W	01 **	01 CLEAR TO	02 R/W	02 **	02 CLEAR TO	03 R/W	03 **	03 CLEAR TO	04 R/W	04 **	04 CLEAR TO	FLASH
		NOT USED			ϕ2 PED			NOT USED						
01														
02	4-6				G	Y R					R	R R		R
03														
04	7-11				R	R R					G	Y R		R
05														
06	1-3				R	R R					R	R R		R
07														
08														
02P	93-96				*	DW DW					DW	DW DW		
04P														
06P	91-92				DW	DW DW					DW	DW DW		
08P														

RING 2

	HEAD NUMBERS	05 R/W	05 **	05 CLEAR TO	06 R/W	06 **	06 CLEAR TO	07 R/W	07 **	07 CLEAR TO	08 R/W	08 **	08 CLEAR TO
		NOT USED			ϕ6 PED			NOT USED			NOT USED		
01													
02	4-6				R	R R							
03													
04	7-11				R	R R							
05													
06	1-3				G	Y R							
07													
08													
02P	93-96				DW	DW DW							
04P													
06P	91-92				*	DW DW							
08P													

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
01		
02	6	4
03		
04		2,6
05		
06	2	4
07		
08		

DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
21	1			X	2	2					
41	2	X			4	4					
42	3	X			4	4		12.0			
43	4	X			4	4					
61	5			X	6	6					

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2		6	MIN.	X
3				
4				X
5				
6		2	MIN.	X
7				
8				

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =
NONE

N

TYPE OF INTERCONNECT COMMUNICATION	
NONE	x
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
RADIO	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM *: SS- -	

TYPE OF PRE-EMPT	
NONE	x
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	x
IN SEPARATE DOT LIGHTING CABINET	

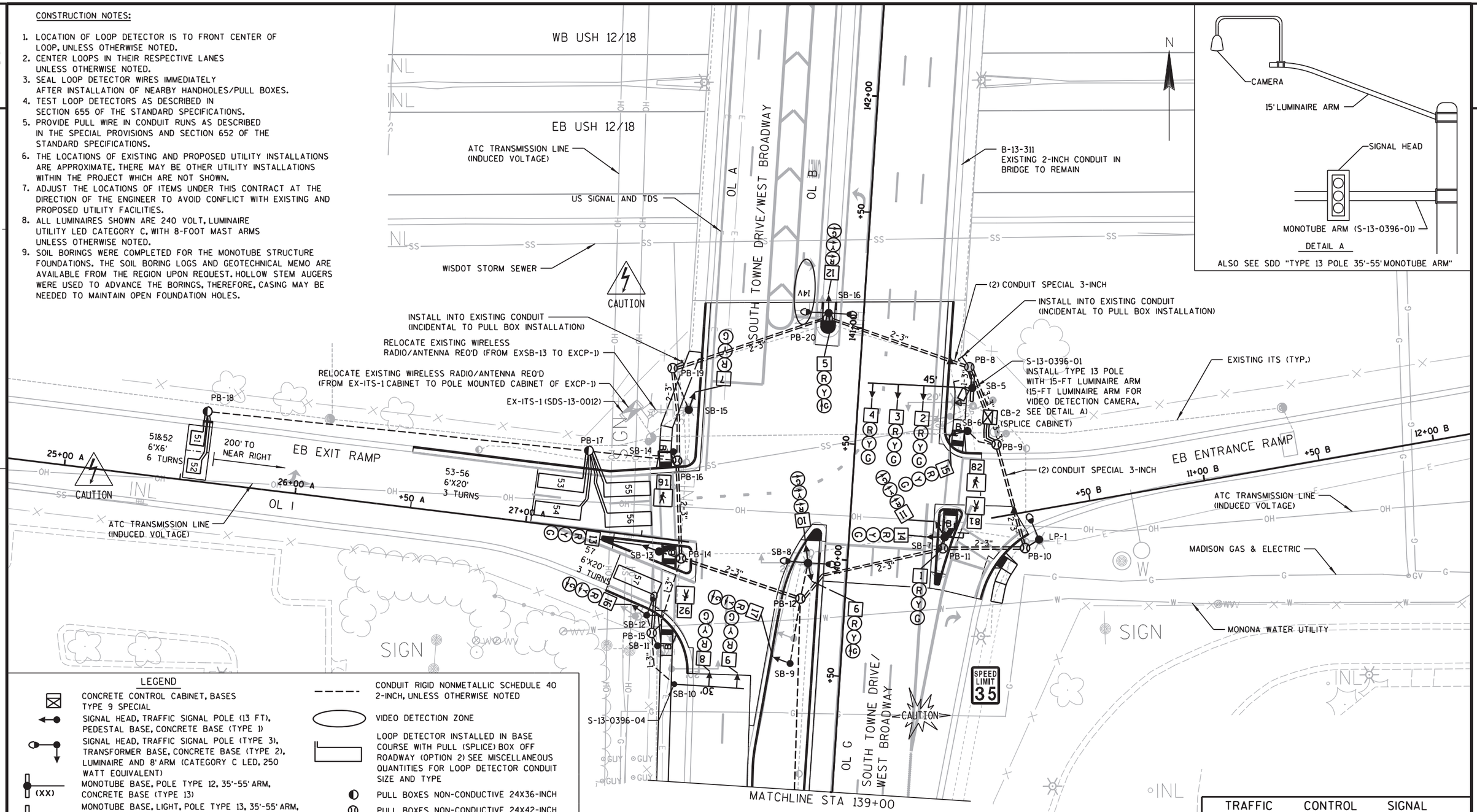
GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)
3. PEDESTRAIN HEADS WILL BE USED DURING PHASES 2 AND 6. PHASE 2 WILL HAVE ACTIVE PEDESTRIAN HEAD DURING STAGE 3. PHASE 6 WILL HAVE ACTIVE PEDESTRIAN HEAD DURING STAGE 4.

TRAFFIC CONTROL SIGNAL
USH 12/18 AND SOUTH TOWNE DR/
WEST BROADWAY
CITY OF MADISON
DANE COUNTY
SIGNAL NO. TEMP CONTROLLER TYPE:
REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES, INC.
REVISED BY:
PAGE 1 OF 1

CONSTRUCTION NOTES:

1. LOCATION OF LOOP DETECTOR IS TO FRONT CENTER OF LOOP, UNLESS OTHERWISE NOTED.
2. CENTER LOOPS IN THEIR RESPECTIVE LANES UNLESS OTHERWISE NOTED.
3. SEAL LOOP DETECTOR WIRES IMMEDIATELY AFTER INSTALLATION OF NEARBY HANDHOLES/PULL BOXES.
4. TEST LOOP DETECTORS AS DESCRIBED IN SECTION 655 OF THE STANDARD SPECIFICATIONS.
5. PROVIDE PULL WIRE IN CONDUIT RUNS AS DESCRIBED IN THE SPECIAL PROVISIONS AND SECTION 652 OF THE STANDARD SPECIFICATIONS.
6. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
7. ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT AT THE DIRECTION OF THE ENGINEER TO AVOID CONFLICT WITH EXISTING AND PROPOSED UTILITY FACILITIES.
8. ALL LUMINAIRES SHOWN ARE 240 VOLT, LUMINAIRE UTILITY LED CATEGORY C, WITH 8-FOOT MAST ARMS UNLESS OTHERWISE NOTED.
9. SOIL BORINGS WERE COMPLETED FOR THE MONOTUBE STRUCTURE FOUNDATIONS. THE SOIL BORING LOGS AND GEOTECHNICAL MEMO ARE AVAILABLE FROM THE REGION UPON REQUEST. HOLLOW STEM AUGERS WERE USED TO ADVANCE THE BORINGS, THEREFORE, CASING MAY BE NEEDED TO MAINTAIN OPEN FOUNDATION HOLES.



LEGEND

- CONCRETE CONTROL CABINET, BASES TYPE 9 SPECIAL
- SIGNAL HEAD, TRAFFIC SIGNAL POLE (13 FT), PEDESTAL BASE, CONCRETE BASE (TYPE 1)
- SIGNAL HEAD, TRAFFIC SIGNAL POLE (TYPE 3), TRANSFORMER BASE, CONCRETE BASE (TYPE 2), LUMINAIRE AND 8' ARM (CATEGORY C LED, 250 WATT EQUIVALENT)
- (XX) MONOTUBE BASE, POLE TYPE 12, 35'-55' ARM, CONCRETE BASE (TYPE 13)
- (XX) MONOTUBE BASE, LIGHT, POLE TYPE 13, 35'-55' ARM, CONCRETE BASE (TYPE 13), LUMINAIRE AND 8' ARM (CATEGORY C LED, 250 WATT EQUIVALENT)
- (XX) MONOTUBE BASE, POLE TYPE 9, 15'-30' ARM, CONCRETE BASE TYPE 10)
- PEDESTRIAN HEAD WITH PUSH BUTTON
- VIDEO DETECTION CAMERA (MOUNTED ON LUMINAIRE ARM)
- WIRELESS ANTENNA
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH, UNLESS OTHERWISE NOTED
- VIDEO DETECTION ZONE
- LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SEE MISCELLANEOUS QUANTITIES FOR LOOP DETECTOR CONDUIT SIZE AND TYPE
- PULL BOXES NON-CONDUCTIVE 24X36-INCH
- PULL BOXES NON-CONDUCTIVE 24X42-INCH
- [1] SIGNAL HEAD NUMBER
- ▲ BID ITEM CHANGE POINT (NON-PHYSICAL ITEM)
- LIGHT POLE TYPE 5, TRANSFORMER BASE, CONCRETE BASE (TYPE 5), LUMINAIRE AND 8' ARM (CATEGORY C LED, 250 WATT EQUIVALENT)

NOTE: ALL LENSES ARE 12-INCH & GRAYSHADE REPRESENTS EXISTING

MONOTUBE TABLE

SB-5	S-13-0396-01
SB-10	S-13-0396-04

TRAFFIC CONTROL SIGNAL
USH 12/18 AND SOUTH TOWN DR/ WEST BROADWAY
CITY OF MADISON
DANE COUNTY

SIGNAL NO. S13-0396 CONTROLLER TYPE: ASC/3

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES, INC.
REVISED BY:

PAGE 2 OF 5

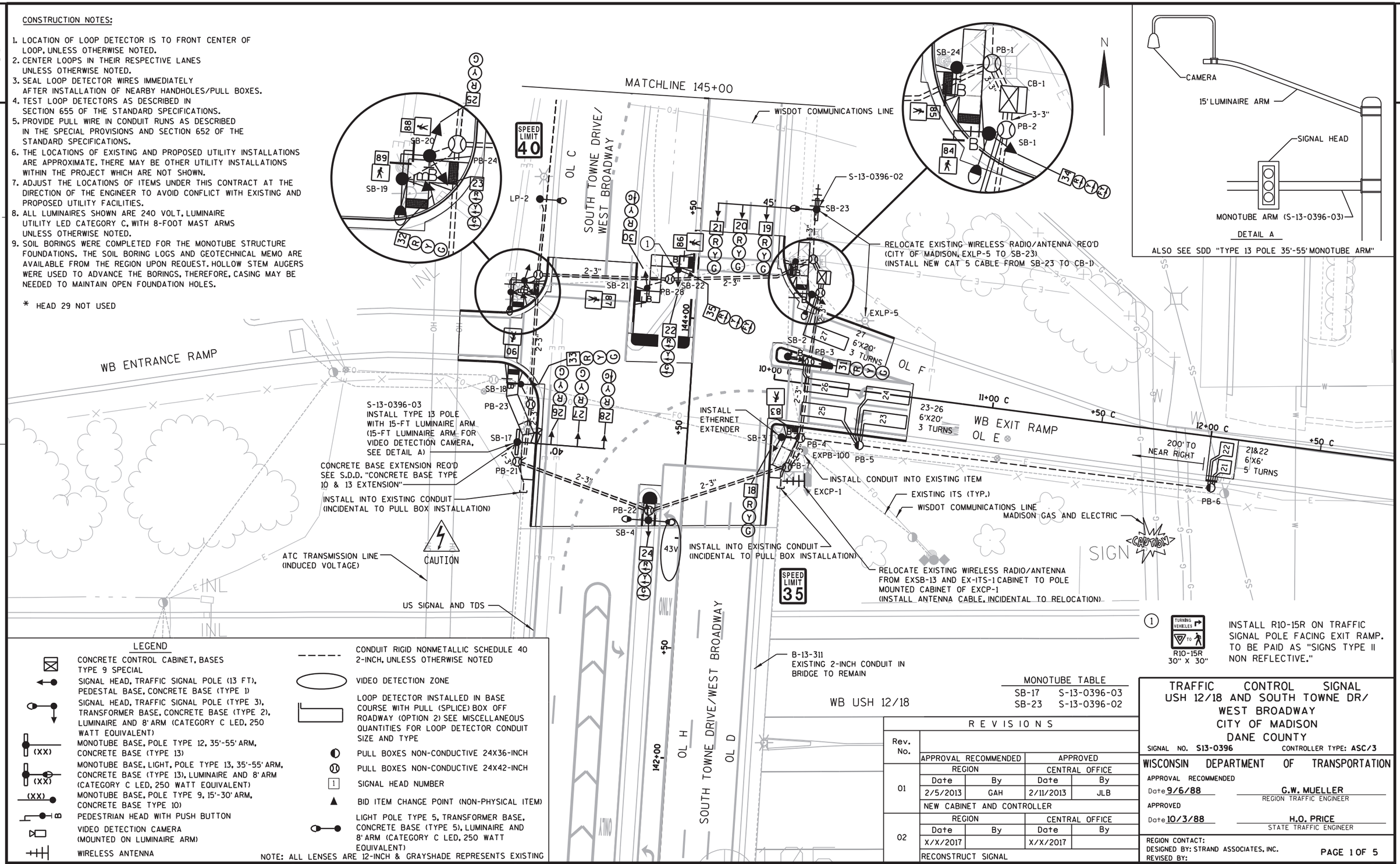
PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC SIGNAL PLAN	SHEET 40	E

2

CONSTRUCTION NOTES:

1. LOCATION OF LOOP DETECTOR IS TO FRONT CENTER OF LOOP, UNLESS OTHERWISE NOTED.
2. CENTER LOOPS IN THEIR RESPECTIVE LANES UNLESS OTHERWISE NOTED.
3. SEAL LOOP DETECTOR WIRES IMMEDIATELY AFTER INSTALLATION OF NEARBY HANDHOLES/PULL BOXES.
4. TEST LOOP DETECTORS AS DESCRIBED IN SECTION 655 OF THE STANDARD SPECIFICATIONS.
5. PROVIDE PULL WIRE IN CONDUIT RUNS AS DESCRIBED IN THE SPECIAL PROVISIONS AND SECTION 652 OF THE STANDARD SPECIFICATIONS.
6. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
7. ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT AT THE DIRECTION OF THE ENGINEER TO AVOID CONFLICT WITH EXISTING AND PROPOSED UTILITY FACILITIES.
8. ALL LUMINAIRES SHOWN ARE 240 VOLT, LUMINAIRE UTILITY LED CATEGORY C, WITH 8-FOOT MAST ARMS UNLESS OTHERWISE NOTED.
9. SOIL BORINGS WERE COMPLETED FOR THE MONOTUBE STRUCTURE FOUNDATIONS. THE SOIL BORING LOGS AND GEOTECHNICAL MEMO ARE AVAILABLE FROM THE REGION UPON REQUEST. HOLLOW STEM AUGERS WERE USED TO ADVANCE THE BORINGS, THEREFORE, CASING MAY BE NEEDED TO MAINTAIN OPEN FOUNDATION HOLES.

* HEAD 29 NOT USED



LEGEND

- CONCRETE CONTROL CABINET, BASES TYPE 9 SPECIAL
- SIGNAL HEAD, TRAFFIC SIGNAL POLE (13 FT), PEDESTAL BASE, CONCRETE BASE (TYPE 1)
- SIGNAL HEAD, TRAFFIC SIGNAL POLE (TYPE 3), TRANSFORMER BASE, CONCRETE BASE (TYPE 2), LUMINAIRE AND 8' ARM (CATEGORY C LED, 250 WATT EQUIVALENT)
- (XX) MONOTUBE BASE, POLE TYPE 12, 35'-55' ARM, CONCRETE BASE (TYPE 13)
- (XX) MONOTUBE BASE, LIGHT, POLE TYPE 13, 35'-55' ARM, CONCRETE BASE (TYPE 13), LUMINAIRE AND 8' ARM (CATEGORY C LED, 250 WATT EQUIVALENT)
- (XX) MONOTUBE BASE, POLE TYPE 9, 15'-30' ARM, CONCRETE BASE TYPE 10)
- B PEDESTRIAN HEAD WITH PUSH BUTTON
- VIDEO DETECTION CAMERA (MOUNTED ON LUMINAIRE ARM)
- WIRELESS ANTENNA
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH, UNLESS OTHERWISE NOTED
- VIDEO DETECTION ZONE
- LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SEE MISCELLANEOUS QUANTITIES FOR LOOP DETECTOR CONDUIT SIZE AND TYPE
- PULL BOXES NON-CONDUCTIVE 24X36-INCH
- PULL BOXES NON-CONDUCTIVE 24X42-INCH
- [1] SIGNAL HEAD NUMBER
- ▲ BID ITEM CHANGE POINT (NON-PHYSICAL ITEM)
- LIGHT POLE TYPE 5, TRANSFORMER BASE, CONCRETE BASE (TYPE 5), LUMINAIRE AND 8' ARM (CATEGORY C LED, 250 WATT EQUIVALENT)

NOTE: ALL LENSES ARE 12-INCH & GRAYSHADE REPRESENTS EXISTING

MONOTUBE TABLE

SB-17	S-13-0396-03
SB-23	S-13-0396-02

(1) TURNING VEHICLES TO R10-15R 30" X 30"

INSTALL R10-15R ON TRAFFIC SIGNAL POLE FACING EXIT RAMP. TO BE PAID AS "SIGNS TYPE II NON REFLECTIVE."

REVISIONS

Rev. No.	APPROVAL RECOMMENDED		APPROVED	
	REGION		CENTRAL OFFICE	
	Date	By	Date	By
01	2/5/2013	GAH	2/11/2013	JLB
	NEW CABINET AND CONTROLLER			
	REGION		CENTRAL OFFICE	
	Date	By	Date	By
02	X/X/2017		X/X/2017	
	RECONSTRUCT SIGNAL			

TRAFFIC CONTROL SIGNAL
USH 12/18 AND SOUTH TOWNE DR/ WEST BROADWAY
CITY OF MADISON
DANE COUNTY

SIGNAL NO. S13-0396 CONTROLLER TYPE: ASC/3

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 9/6/88 G.W. MUELLER, REGION TRAFFIC ENGINEER

APPROVED
Date 10/3/88 H.O. PRICE, STATE TRAFFIC ENGINEER

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES, INC.
REVISED BY:

PAGE 1 OF 5

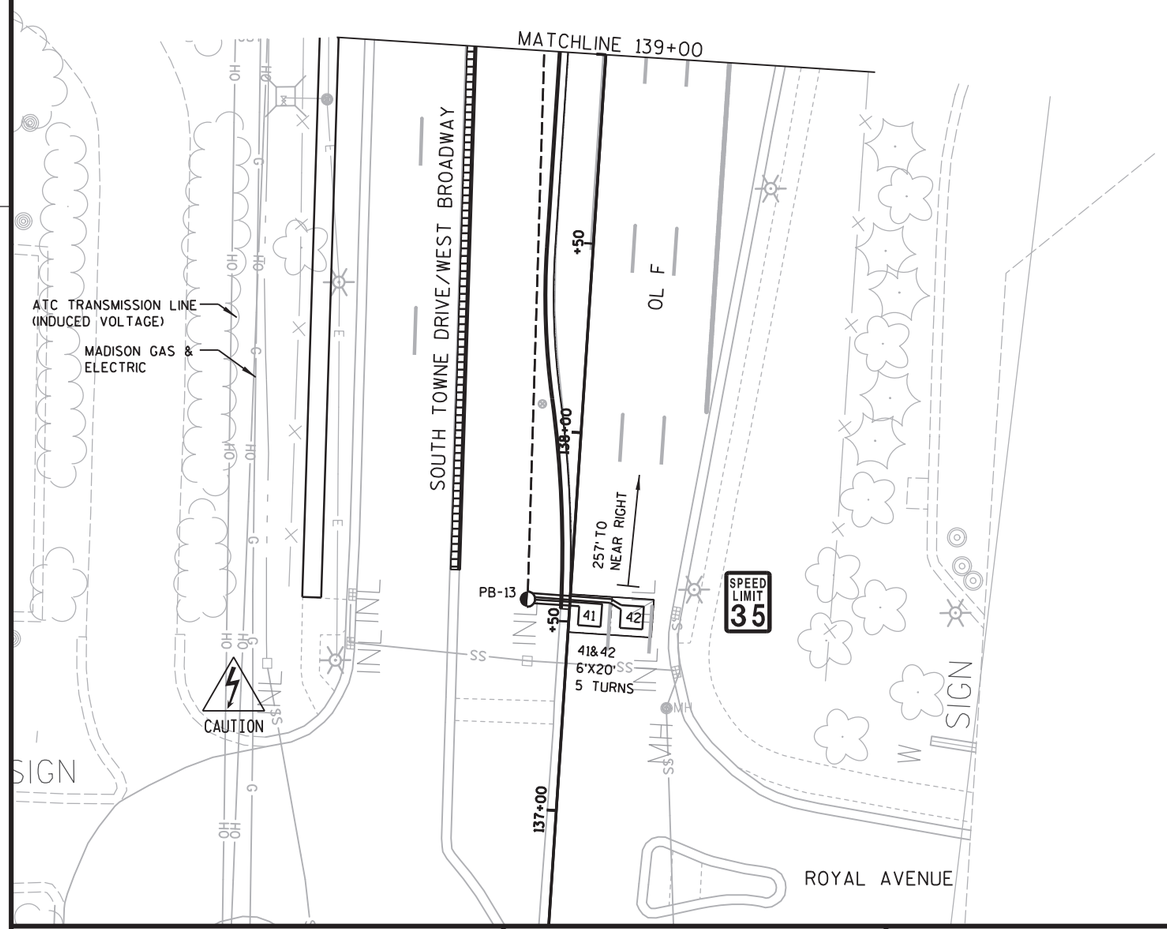
PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC SIGNAL PLAN	SHEET E

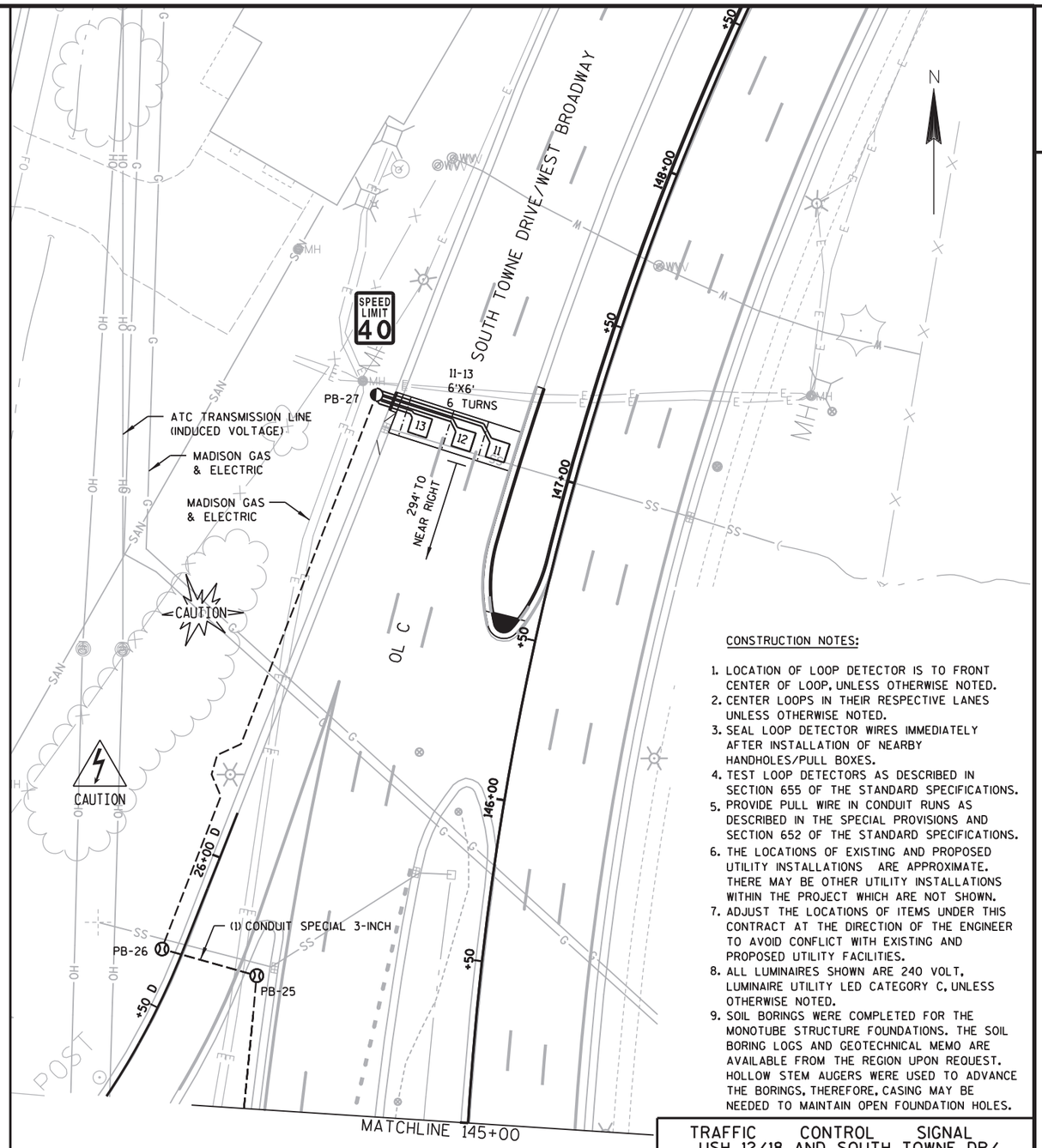
FILE NAME : S:\MAD\1000--1099\1089\697\Micros\PLAN\2018.11.01 South Towne (with Bridge) Signal Plan Sheets\024002_sp.dgn PLOT DATE : 4/9/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

LEGEND

- CONCRETE CONTROL CABINET, BASES TYPE 9 SPECIAL
- SIGNAL HEAD, TRAFFIC SIGNAL POLE (13 FT), PEDESTAL BASE, CONCRETE BASE (TYPE 1)
- SIGNAL HEAD, TRAFFIC SIGNAL POLE (TYPE 3), TRANSFORMER BASE, CONCRETE BASE (TYPE 2), LUMINAIRE AND 8' ARM (CATEGORY C LED, 250 WATT EQUIVALENT)
- (XX) MONOTUBE BASE, POLE TYPE 12, 35'-55' ARM, CONCRETE BASE (TYPE 13)
- (XX) MONOTUBE BASE, LIGHT, POLE TYPE 13, 35'-55' ARM, CONCRETE BASE (TYPE 13), LUMINAIRE AND 8' ARM (CATEGORY C LED, 250 WATT EQUIVALENT)
- (XX) MONOTUBE BASE, POLE TYPE 9, 15'-30' ARM, CONCRETE BASE TYPE 10)
- PEDESTRIAN HEAD WITH PUSH BUTTON
- VIDEO DETECTION CAMERA (MOUNTED ON LUMINAIRE ARM)
- WIRELESS ANTENNA
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH, UNLESS OTHERWISE NOTED
- VIDEO DETECTION ZONE
- LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) SEE MISCELLANEOUS QUANTITIES FOR LOOP DETECTOR CONDUIT SIZE AND TYPE
- PULL BOXES NON-CONDUCTIVE 24X36-INCH
- PULL BOXES NON-CONDUCTIVE 24X42-INCH
- [1] SIGNAL HEAD NUMBER
- BID ITEM CHANGE POINT (NON-PHYSICAL ITEM)
- LIGHT POLE TYPE 5, TRANSFORMER BASE, CONCRETE BASE (TYPE 5), LUMINAIRE AND 8' ARM (CATEGORY C LED, 250 WATT EQUIVALENT)

NOTE: ALL LENSES ARE 12-INCH & GRAYSHADE REPRESENTS EXISTING





CONSTRUCTION NOTES:

1. LOCATION OF LOOP DETECTOR IS TO FRONT CENTER OF LOOP, UNLESS OTHERWISE NOTED.
2. CENTER LOOPS IN THEIR RESPECTIVE LANES UNLESS OTHERWISE NOTED.
3. SEAL LOOP DETECTOR WIRES IMMEDIATELY AFTER INSTALLATION OF NEARBY HANDHOLES/PULL BOXES.
4. TEST LOOP DETECTORS AS DESCRIBED IN SECTION 655 OF THE STANDARD SPECIFICATIONS.
5. PROVIDE PULL WIRE IN CONDUIT RUNS AS DESCRIBED IN THE SPECIAL PROVISIONS AND SECTION 652 OF THE STANDARD SPECIFICATIONS.
6. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
7. ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT AT THE DIRECTION OF THE ENGINEER TO AVOID CONFLICT WITH EXISTING AND PROPOSED UTILITY FACILITIES.
8. ALL LUMINAIRES SHOWN ARE 240 VOLT, LUMINAIRE UTILITY LED CATEGORY C, UNLESS OTHERWISE NOTED.
9. SOIL BORINGS WERE COMPLETED FOR THE MONOTUBE STRUCTURE FOUNDATIONS. THE SOIL BORING LOGS AND GEOTECHNICAL MEMO ARE AVAILABLE FROM THE REGION UPON REQUEST. HOLLOW STEM AUGERS WERE USED TO ADVANCE THE BORINGS, THEREFORE, CASING MAY BE NEEDED TO MAINTAIN OPEN FOUNDATION HOLES.

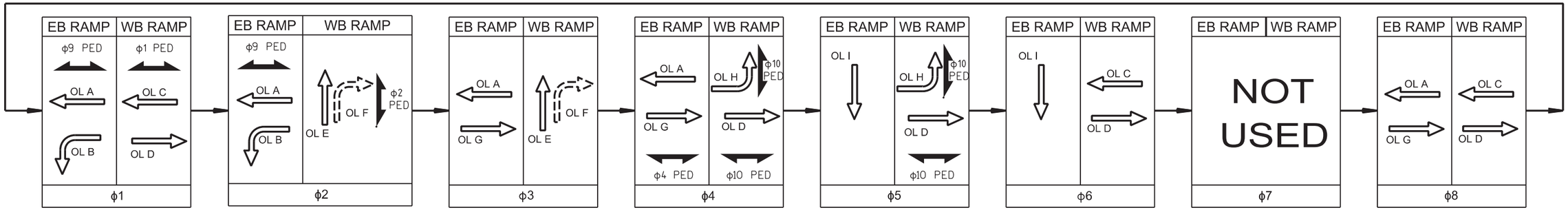
TRAFFIC CONTROL SIGNAL
USH 12/18 AND SOUTH TOWNE DR/ WEST BROADWAY
CITY OF MADISON
DANE COUNTY

SIGNAL NO. S13-0396 CONTROLLER TYPE: ASC/3

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES, INC.
REVISED BY:

PAGE 3 OF 5

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC SIGNAL PLAN	SHEET 42	E



DAY - RECALL
NIGHT - LT/PED ACTUATED

DAY - ACTUATED
NIGHT - PED ACTUATED

DAY - FIXED
NIGHT - RAMP ACTUATED

DAY - RECALL
NIGHT - LT/PED ACTUATED

DAY - ACTUATED
NIGHT - OMIT

DAY - FIXED
NIGHT - RAMP ACTUATED

DAY - OMIT
NIGHT - RECALL

DETECTOR LOGIC - DAY PLAN

	SB ADV		WESTBOUND OFF RAMP ADV		STOP BAR		RT		NB ADV		EASTBOUND OFF RAMP ADV		STOP BAR		RT					SBLT	NBLT
DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29	DETECTOR INPUT	35	33	36	34
DETECTOR #(S)	11	12	21	23	24	-	-	-	41	51	53	54	-	-	-	-	DETECTOR #(S)	-	-	14V	43V
PHASE CALLED	1	1		2/3	2/3				4		5/6	5/6					PHASE CALLED				
PHASE EXTENDED	1	1	2	2	2				4	5	5	5					PHASE EXTENDED				
DISCONNECT TIME																	DISCONNECT TIME				
CALLING DELAY																	CALLING DELAY				
EXTENSION STRETCH																	EXTENSION STRETCH				
LOOP FUNCTION	SYS	SYS	SYS						SYS	SYS							LOOP FUNCTION			OFF	OFF
DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30	DETECTOR INPUT				
DETECTOR #(S)	-	13	22	25	26	27	-	-	42	52	55	56	57	-	-	-	DETECTOR #(S)				
PHASE CALLED		1		2/3	2/3	2/3			4		5/6	5/6	5/6				PHASE CALLED				
PHASE EXTENDED		1	2	2	2				4	5	5	5					PHASE EXTENDED				
DISCONNECT TIME																	DISCONNECT TIME				
CALLING DELAY						15							15				CALLING DELAY				
EXTENSION STRETCH																	EXTENSION STRETCH				
LOOP FUNCTION		SYS	SYS						SYS	SYS							LOOP FUNCTION				

DETECTOR LOGIC - NIGHT PLAN

	SB ADV		WESTBOUND OFF RAMP ADV		STOP BAR		RT		NB ADV		EASTBOUND OFF RAMP ADV		STOP BAR		RT					SBLT	NBLT
DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29	DETECTOR INPUT	35	33	36	34
DETECTOR #(S)	11	12	21	23	24	-	-	-	41	51	53	54	-	-	-	-	DETECTOR #(S)	-	-	14V	43V
PHASE CALLED	8	8		3	3				8		6	6					PHASE CALLED				
PHASE EXTENDED	8	8	3	3	3				8	6	6	6					PHASE EXTENDED				
DISCONNECT TIME																	DISCONNECT TIME				
CALLING DELAY																	CALLING DELAY				
EXTENSION STRETCH																	EXTENSION STRETCH				
LOOP FUNCTION	SYS	SYS							SYS								LOOP FUNCTION				
DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30	DETECTOR INPUT				
DETECTOR #(S)	-	13	22	25	26	27	-	-	42	52	55	56	57	-	-	-	DETECTOR #(S)				
PHASE CALLED		8		3	3	3			8		6	6	6				PHASE CALLED			1	4
PHASE EXTENDED		8	3	3	3				8	6	6	6					PHASE EXTENDED			1	4
DISCONNECT TIME																	DISCONNECT TIME				
CALLING DELAY						15							15				CALLING DELAY				
EXTENSION STRETCH																	EXTENSION STRETCH				
LOOP FUNCTION		SYS							SYS								LOOP FUNCTION				

	INTERSECTION	MOVEMENT	HEAD NUMBERS	FLASH	O.L. PARENT PHASES / PED PHASE COMPATIBILITY
O.L. A	SOUTH	SB THRU	7-9	R	1,2,3,4,8
O.L. B	SOUTH	SB LT	10-12	R	1,2
O.L. C	NORTH	SB THRU	25-30	R	1,6,8
O.L. D	NORTH	NB THRU	18-21	R	1,4,5,6,8
O.L. E	NORTH	WB RAMP	31-33	R	2,3
O.L. F	NORTH	WB RAMP RT	34-35	R	2,3
O.L. G	SOUTH	NB THRU	1-6	R	3,4,8
O.L. H	NORTH	NB LT	22-24	R	4,5
O.L. I	SOUTH	EB RAMP	13-17	R	5,6
Ø1P	NORTH	WEST SIDE PEDS	89-90	-	1
Ø2P	NORTH	NORTH SIDE PEDS	85-86	-	2
Ø4P	SOUTH	EAST SIDE PEDS	81-82	-	4
Ø9P	SOUTH	WEST SIDE PEDS	91-92	-	1,2
Ø10P	NORTH	N&E SIDE PEDS	83,84,87,88	-	4,5

N

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1			BY T.O.D.	X
2			BY T.O.D.	X
3			BY T.O.D.	X
4			BY T.O.D.	X
5			BY T.O.D.	X
6			BY T.O.D.	X
7				
8			BY T.O.D.	X

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
RADIO	X
*LOCATION OF MASTER CONTROLLER NO:	S -
SIGNAL SYSTEM #:	SS- -

GENERAL NOTES:

1. SEQUENCE OF OPERATIONS PROVIDED FOR INFORMATION ONLY.
2. Ø3 SHALL ONLY BE CALLED FOLLOWING AND ACTUATION ON Ø2.
3. Ø6 SHALL ONLY BE CALLED FOLLOWING AN ACTUATION ON Ø5.
4. Ø9 PED IN RING 2 (NOT SHOWN) SHALL HAVE THE ABILITY TO BEING TIMING WITH Ø1 & FINISH TIMING WITH Ø2.
4. Ø10 PED IN RING 2 (NOT SHOWN) SHALL HAVE THE ABILITY TO BEING TIMING WITH Ø4 & FINISH TIMING WITH Ø5.

USH 12/18 AND SOUTH TOWNE DR/
WEST BROADWAY
CITY OF MADISON
DANE COUNTY

SIGNAL NO. S13-0396

CONTROLLER TYPE: ASC/3

DATE ----

PAGE NO. 4 OF 5

PROJECT NO: 1206-04-67 | HWY: USH 12 | COUNTY: DANE | SEQUENCE OF OPERATIONS | SHEET 43 | E

USH 12/18 AND SOUTH TOWNE DRIVE TRAFFIC SIGNAL CABLING CHART NO. 14 CABLE						
CABLE RUN	CABLE	HEAD NO.	MOVEMENT	LENS	CONDUCTOR COLOR	REMARKS
CONTROL CABINET TO SB-1	7/C	34	WB	R→	R	OL F
				Y→	O	
				FY→	G	
		84	Ø10 PED	DW	BLK	
				W	BLU	
				BUTTON	W/BLK	
CONTROL CABINET TO SB-2	5/C	31	WB	R	R	OL E
				Y	O	
				G	G	
			Ø10 PED	BUTTON	BLK	
CONTROL CABINET TO SB-3	7/C	18	NB	R	R	OL D
				Y	O	
				G	G	
		83	Ø10 PED	DW	BLK	
				W	BLU	
				BUTTON	W/BLK	
CONTROL CABINET TO SB-4	7/C	24	NB LT	←R	R	OL H
				←Y	O	
				←G	G	
SPLICE CABINET TO SB-5	7/C	2	NB	R	R	OL G
				Y	O	
				G	G	
		3	NB	R	BLK	OL G
				Y	BLU	
				G	W/BLK	
		4	NB	R	R	OL G
				Y	O	
				G	G	
SPLICE CABINET TO SB-6	7/C	15	EB	R	R	OL I
				Y	O	
				G	G	
		82	Ø 4 PED	DW	BLK	
				W	BLU	
				BUTTON	W/BLK	
SPLICE CABINET TO SB-7	15/C	1	NB	R	R	OL G
				Y	O	
				G	G	
		11	SB LT	←R	R/BLK	OL B
				←Y	O/BLK	
				←G	G/BLK	
		14	EB	R	R/W	OL I
				Y	B/W	
				G	G/W	
		81	Ø 4 PED	DW	BLK	
				W	BLU	
				BUTTON	W/BLK	
SPLICE CABINET TO SB-8	7/C	6	NB	R	R	OL G
				Y	O	
				↑G	G	
		10	SB LT	←R	BLK	OL B
				←Y	BLU	
				←G	W/BLK	
SPLICE CABINET TO SB-9	5/C	17	EB RT	R	R	OL I
				→Y	O	
				→G	G	
SPLICE CABINET TO SB-10	7/C	8	SB	R	R	OL A
				Y	O	
				G	G	
		9	SB	R	BLK	OL A
				Y	BLU	
				G	W/BLK	
SPLICE CABINET TO SB-11	5/C	92	Ø 9 PED	DW	R	
				W	O	
				BUTTON	G	
SPLICE CABINET TO SB-12	5/C	16	EB RT	R	R	OL I
				→Y	O	
				→G	G	
SPLICE CABINET TO SB-13	5/C	13	EB	R	R	OL I
				Y	O	
				G	G	
			Ø 9 PED	BUTTON	BLK	

USH 12/18 AND SOUTH TOWNE DRIVE TRAFFIC SIGNAL CABLING CHART NO. 14 CABLE						
CABLE RUN	CABLE	HEAD NO.	MOVEMENT	LENS	CONDUCTOR COLOR	REMARKS
SPLICE CABINET TO SB-14	5/C	91	Ø 9 PED	DW	R	
				W	O	
				BUTTON	G	
SPLICE CABINET TO SB-15	5/C	7	SB	R	R	OL A
				Y	O	
				G	G	
SPLICE CABINET TO SB-16	7/C	5	NB	R	R	OL G
				Y	O	
				↑G	G	
		12	SB LT	←R	BLK	OL B
				←Y	BLU	
				←G	W/BLK	
CONTROL CABINET TO SB-17	7/C	26	SB	R	R	OL C
				Y	O	
				G	G	
		27	SB	R	BLK	OL C
				Y	BLU	
				G	W/BLK	
		28	SB	R	R	OL C
				Y	O	
				↑G	G	
CONTROL CABINET TO SB-18	7/C	33	WB	R	R	OL E
				Y	O	
				G	G	
		90	Ø 1 PED	DW	BLK	
				W	BLU	
				BUTTON	W/BLK	
CONTROL CABINET TO SB-19	7/C	32	WB	R	R	OL E
				Y	O	
				G	G	
		88	Ø10 PED	DW	BLK	
				W	BLU	
				BUTTON	W/BLK	
CONTROL CABINET TO SB-20	12/C	23	NB LT	←R	R	OL H
				←Y	O	
				←G	G	
		25	SB	R	R/BLK	OL C
				Y	O/BLK	
				G	G/BLK	
		89	Ø 1 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	
CONTROL CABINET TO SB-21	7/C	30	SB	R	R	OL C
				Y	O	
				↑G	G	
		87	Ø10 PED	DW	BLK	
				W	BLU	
				BUTTON	W/BLK	
CONTROL CABINET TO SB-22	12/C	22	NB LT	←R	R	OL H
				←Y	O	
				←G	G	
		35	WB RT	R→	R/BLK	OL F
				Y→	O/BLK	
				FY→	G/BLK	
		86	Ø 2 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	
CONTROL CABINET TO SB-23	7/C	19	NB	R	R	OL D
				Y	O	
				G	G	
		20	NB	R	BLK	OL D
				Y	BLU	
				G	W/BLK	
		21	NB	R	R	OL D
				Y	O	
				G	G	
CONTROL CABINET TO SB-24	5/C	85	Ø 2 PED	DW	R	
				W	O	
				BUTTON	G	

USH 12/18 AND SOUTH TOWNE DRIVE TRAFFIC SIGNAL CABLING CHART NO. 14 CABLE						
CABLE RUN	CABLE	HEAD NO.	MOVEMENT	LENS	CONDUCTOR COLOR	REMARKS
CONTROL CABINET TO SPLICE CABINET	21/C	1-6	NB	R	R	OL G
				Y	O	
				G/↑G	G	
		7-9	SB	R	R/BLK	OL A
				Y	O/BLK	
				G	G/BLK	
		10-12	SB LT	←R	R/W	OL B
				←Y	B/W	
				←G	G/W	
		13-15	EB	R	BLK	OL I
				Y	BLU	
				G	W/BLK	
		16,17	EB RT	R	BLK	OL I
				Y →	BLU	
				G →	W/BLK	
		81,82	Ø 4 PED	DW	BLU/BLK	
				W	BLK/R	
				BUTTON	BLU/W	
		91,92	Ø 9 PED	DW	BLU/R	
				W	O/R	
				BUTTON	W/R	

EQUIPMENT GROUNDING CONDUCTOR 10 AWG	
FROM	TO
CB-1	SB-1
SB-1	SB-2
SB-2	SB-3
SB-3	SB-4
SB-4	SB-17
SB-17	SB-18
SB-18	SB-19
SB-19	SB-20
SB-20	SB-21
SB-21	SB-22
SB-22	SB-23
SB-23	SB-24
SB-24	CB-1
CB-2	SB-6
SB-6	SB-7
SB-7	SB-8
SB-8	SB-9
SB-9	SB-13
SB-13	SB-12
SB-12	SB-11
SB-11	SB-10
SB-13	SB-14
SB-14	SB-15
SB-15	SB-16
SB-16	SB-5
SB-5	CB-2

LIGHTING UF 12 AWG W/ GROUND	
FROM	TO
CB-1	SB-1
SB-1	SB-4
CB-1	SB-23
SB-23	LP-2
LP-2	SB-19
CB-1	LP-1
LP-1	SB-8
CB-1	SB-16
SB-16	SB-12

VIDEO DETECTION	
FROM	TO
CB-1	SB-17
CB-1	SB-5
CB-1	EXCP-1

BLK = BLACK
W = WHITE
R = RED
G = GREEN
O = ORANGE
BLU = BLUE

1. ENSURE THE GROUNDED CONDUCTORS AND THE POLE CABLES ARE BOTH 12" LONGER THAN THE UNGROUNDED CONDUCTORS.
2. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.
3. USE SEPARATE WHITE CONDUCTOR AS THE GROUNDED CONDUCTOR (NEUTRAL) FOR ALL TRAFFIC SIGNAL INDICATIONS.

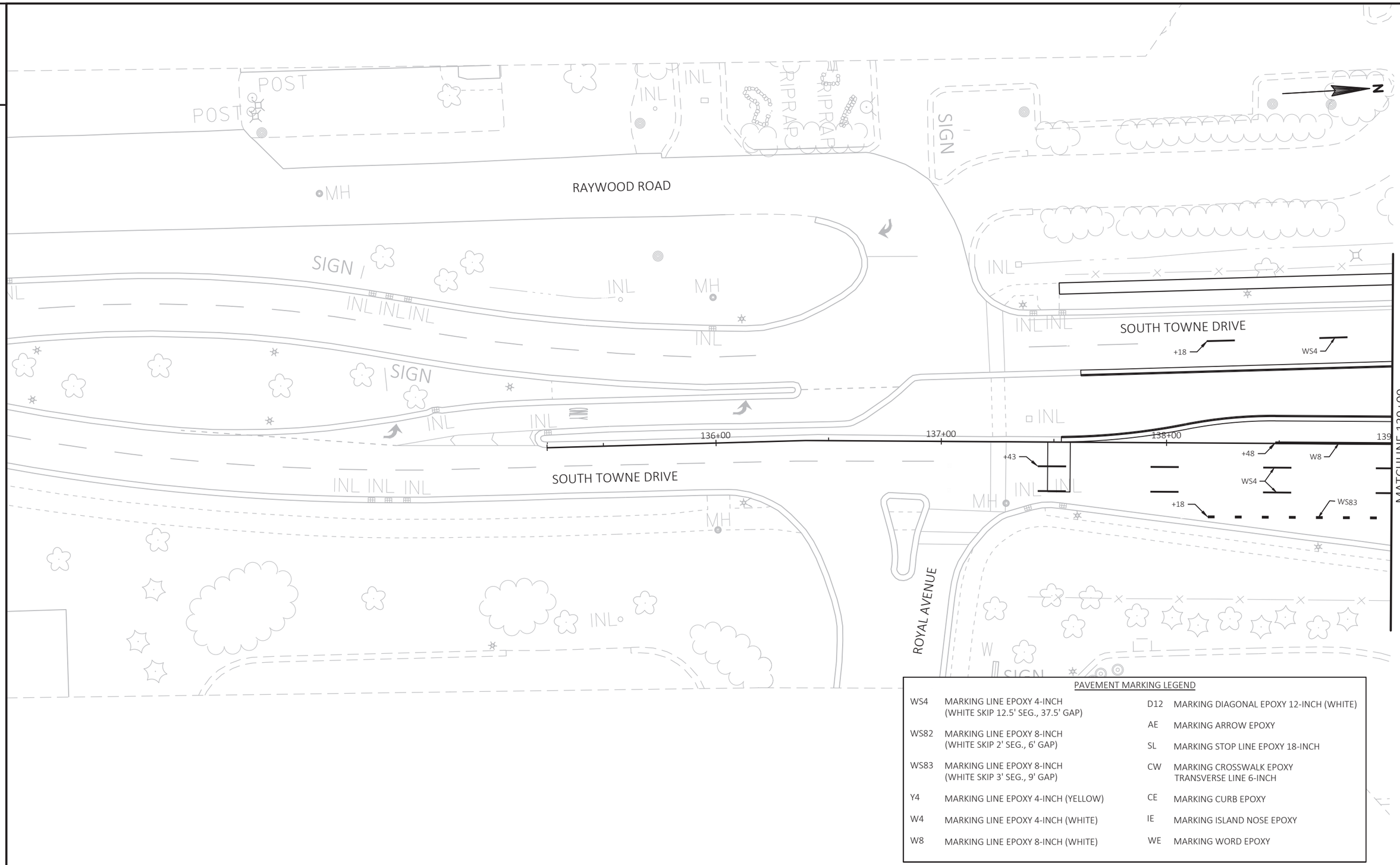
TRAFFIC CONTROL SIGNAL
USH 12/18 AND SOUTH TOWNE DR/
WEST BROADWAY
CITY OF MADISON
DANE COUNTY
SIGNAL NO. S13-0396

DESIGNED BY: STRAND ASSOCIATES, INC.
REVISED BY:

PAGE 5 OF 5

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	CABLE ROUTING	SHEET 44	E

2



PAVEMENT MARKING LEGEND

WS4	MARKING LINE EPOXY 4-INCH (WHITE SKIP 12.5' SEG., 37.5' GAP)	D12	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
WS82	MARKING LINE EPOXY 8-INCH (WHITE SKIP 2' SEG., 6' GAP)	AE	MARKING ARROW EPOXY
WS83	MARKING LINE EPOXY 8-INCH (WHITE SKIP 3' SEG., 9' GAP)	SL	MARKING STOP LINE EPOXY 18-INCH
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)	CW	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
W4	MARKING LINE EPOXY 4-INCH (WHITE)	CE	MARKING CURB EPOXY
W8	MARKING LINE EPOXY 8-INCH (WHITE)	IE	MARKING ISLAND NOSE EPOXY
		WE	MARKING WORD EPOXY

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKING	SHEET 45	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024501-pm
PLOT DATE : 3/27/2019 3:30 PM
PLOT BY : NOTSON, ERIC
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

PAVEMENT MARKING LEGEND

WS4	MARKING LINE EPOXY 4-INCH (WHITE SKIP 12.5' SEG., 37.5' GAP)	D12	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
WS82	MARKING LINE EPOXY 8-INCH (WHITE SKIP 2' SEG., 6' GAP)	AE	MARKING ARROW EPOXY
WS83	MARKING LINE EPOXY 8-INCH (WHITE SKIP 3' SEG., 9' GAP)	SL	MARKING STOP LINE EPOXY 18-INCH
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)	CW	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
W4	MARKING LINE EPOXY 4-INCH (WHITE)	CE	MARKING CURB EPOXY
W8	MARKING LINE EPOXY 8-INCH (WHITE)	IE	MARKING ISLAND NOSE EPOXY
		WE	MARKING WORD EPOXY

MATCHLINE 26+50 A

EB EXIT RAMP

27+00 A

SOUTH TOWNE DRIVE

25' (TYP.)

WB ENTRANCE RAMP

MATCHLINE 145+00

MATCHLINE 139+00

EB ENTRANCE RAMP

USH 12/18

USH 12/18

WB EXIT RAMP

11+00 C

SIGN

SIGN

SIGN

SIGN

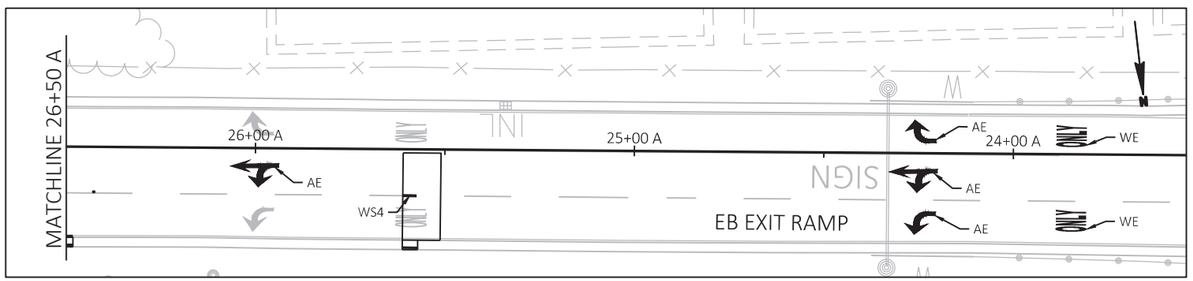
POST

INL

INL

25+00 D

N



PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKING	SHEET 46 E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024502-pm

PLOT DATE : 4/9/2019 1:20 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

N

RAYWOOD ROAD

WEST BROADWAY

WEST BROADWAY

MATCHLINE 145+00

MATCHLINE 150+50

26+00 D

146+00

147+00

148+00

149+00

150+00

MH

SIGN

INL

WS4

WS83

W4

Y4

CE

IE

+93

+70

+98

+42

+19

PAVEMENT MARKING LEGEND

WS4	MARKING LINE EPOXY 4-INCH (WHITE SKIP 12.5' SEG., 37.5' GAP)	D12	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
WS82	MARKING LINE EPOXY 8-INCH (WHITE SKIP 2' SEG., 6' GAP)	AE	MARKING ARROW EPOXY
WS83	MARKING LINE EPOXY 8-INCH (WHITE SKIP 3' SEG., 9' GAP)	SL	MARKING STOP LINE EPOXY 18-INCH
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)	CW	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
W4	MARKING LINE EPOXY 4-INCH (WHITE)	CE	MARKING CURB EPOXY
W8	MARKING LINE EPOXY 8-INCH (WHITE)	IE	MARKING ISLAND NOSE EPOXY
		WE	MARKING WORD EPOXY

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKING	SHEET 47	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024503-pm

PLOT DATE : 3/27/2019 3:30 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

FRAZIER AVE

WEST BROADWAY

WEST BROADWAY

MATCHLINE 150+50

151+00

152+00

153+00

154+00

155+00

WS4

+98

+99

SIGN

INL

MH

POST

PAVEMENT MARKING LEGEND			
WS4	MARKING LINE EPOXY 4-INCH (WHITE SKIP 12.5' SEG., 37.5' GAP)	D12	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
WS82	MARKING LINE EPOXY 8-INCH (WHITE SKIP 2' SEG., 6' GAP)	AE	MARKING ARROW EPOXY
WS83	MARKING LINE EPOXY 8-INCH (WHITE SKIP 3' SEG., 9' GAP)	SL	MARKING STOP LINE EPOXY 18-INCH
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)	CW	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
W4	MARKING LINE EPOXY 4-INCH (WHITE)	CE	MARKING CURB EPOXY
W8	MARKING LINE EPOXY 8-INCH (WHITE)	IE	MARKING ISLAND NOSE EPOXY
		WE	MARKING WORD EPOXY

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKING	SHEET 48	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024504-pm

PLOT DATE : 3/27/2019 3:30 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########

2

N

W. BROADWAY

MONONA DRIVE

USH 12/18

SOUTH TOWNE DRIVE

PCMS

Ⓐ PANEL 1 ROAD WORK | PANEL 2 BEGINS [START DATE]

WORK ZONE (DETAIL A)

W3-1 36"X36" COVER EXISTING W3-3 SIGN

EXIT 264 West Broadway South Towne Dr

EXIT 264 West Broadway South Towne Dr 1 ¼ MILES

Ⓓ PANEL 1 S TOWNE DR USE EXIT 265

Ⓑ PANEL 1 RAMP TO CLOSE | PANEL 2 [START DATE/TIME]

Ⓒ PANEL 1 S TOWNE DRIVE TO CLOSE | PANEL 2 [DATE/TIME]

Ⓔ PANEL 1 RAMP CLOSED | PANEL 2 USE ALT ROUTE

Ⓔ PANEL 1 S TOWNE DRIVE CLOSED | PANEL 2 USE ALT ROUTE

DETAIL A

EAST 12 18 USE LEFT LANE

WEST 12 18

W. BROADWAY

SOUTH TOWNE DRIVE

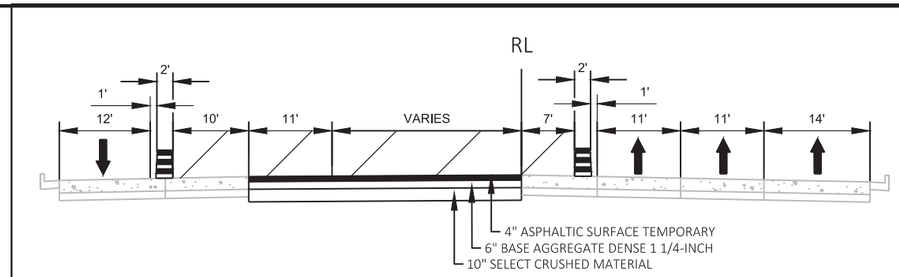
USH 12/18

LEGEND

- TRAFFIC CONTROL COVERING SIGNS TYPE I
- TRAFFIC CONTROL COVERING SIGNS TYPE II
- ** MOVING SIGNS TYPE II
- PCMS TRAFFIC CONTROL SIGNS PCMS
- ANTICIPATED ROUTE FOR CURRENT WB OFF-RAMP LEFT-TURN TRAFFIC DURING CONSTRUCTION
- Ⓐ PCMS MESSAGE PRIOR TO CONSTRUCTION OPERATIONS
- Ⓑ PCMS MESSAGE PRIOR TO SINGLE NIGHT RAMP CLOSURES FOR LOOP DETECTOR INSTALLATION
- Ⓒ PCMS MESSAGE PRIOR TO SINGLE NIGHT MAINLINE CLOSURE FOR LOOP DETECTOR INSTALLATION
- Ⓓ PCMS MESSAGE FOR ADVANCED WARNING ONCE PROJECT BEGINS
- Ⓔ PCMS MESSAGE DURING SINGLE NIGHT MAINLINE OR RAMP CLOSURES FOR LOOP DETECTOR INSTALLATION

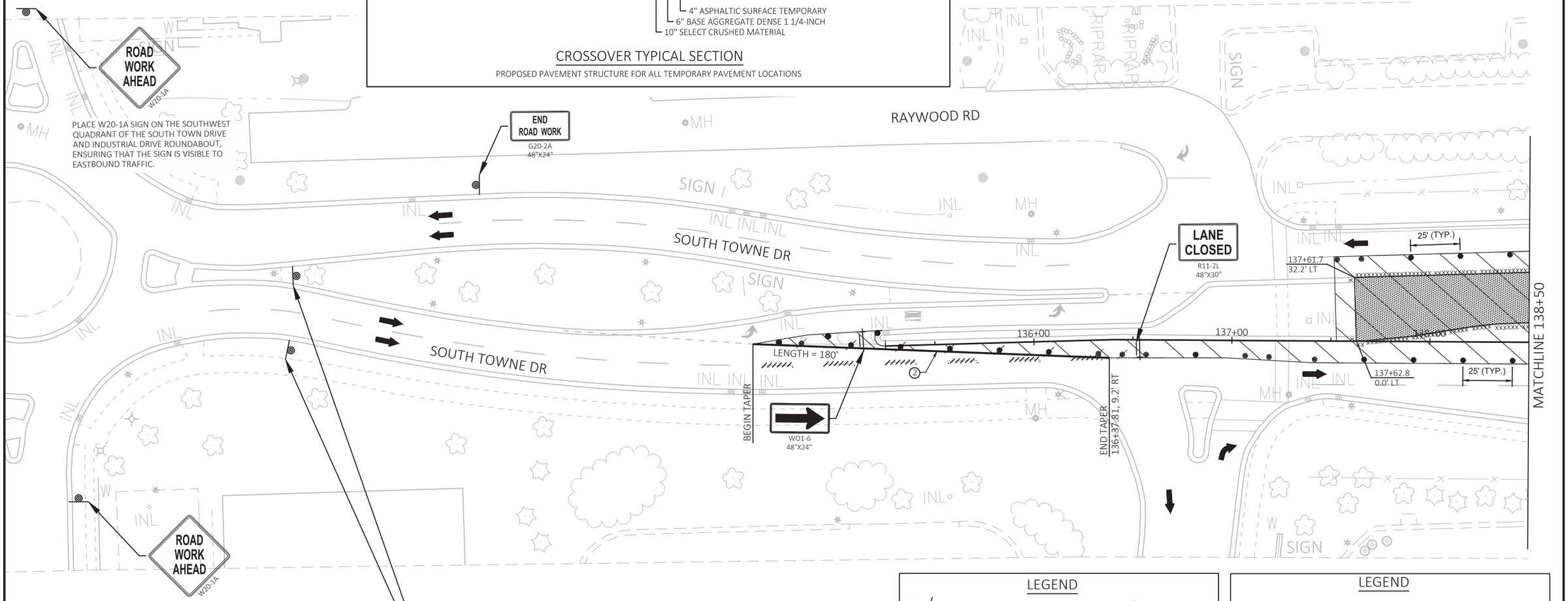
PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL ADVANCED WARNING	SHEET 49	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\023301-AW.DWG
LAYOUT NAME - 023301-aw
PLOT DATE : 4/17/2019 8:35 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



CROSSOVER TYPICAL SECTION

PROPOSED PAVEMENT STRUCTURE FOR ALL TEMPORARY PAVEMENT LOCATIONS



LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT LIGHT
- TRAFFIC CONTROL SIGN MOUNTED ON POST
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- ① TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- ② TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- ③ TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
- ④ TEMPORARY MARKING ARROW/WORD REMOVABLE TAPE
- ⑤ TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)

LEGEND

- MARKING REMOVAL LINE
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- MARKING REMOVAL SPECIAL MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- CONSTRUCTION ANTICIPATED TO BE COMPLETED IN THIS STAGE
- TRAFFIC FLOW ARROW
- SIGN FLAGS PLACED ON TRAFFIC CONTROL SIGNS
- TEMPORARY PAVEMENT PLACED IN THIS STAGE
- TEMPORARY PAVEMENT PLACED IN PREVIOUS STAGE
- TRAFFIC CONTROL COVERING SIGNS

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL - STAGE 1	SHEET 50	E

2

MATCHLINE EB EXIT RAMP

EB EXIT RAMP

26+00 A

27+00 A

140+36.7
189.5' LT

140+35.2
162.4' LT

140+38.7
65.5' LT

INLET COVERS
TYPE DW

DO NOT ENTER
R5-1
30"X30"

R3-1
24"X24"

R3-2
24"X24"

LANE CLOSED
R11-2L
48"X30"

RAMP CLOSED
R11-2R
48"X30"

WB ENTRANCE RAMP

ONLY
R3-50A
30"X36"

LANE CLOSED
R11-2L
48"X30"

25' (TYP.)

12'

139+23.6
30.2' LT

139+88.4
21.3' LT

139+00

140+00

141+00

142+00

143+00

144+00

145+00

15' (TYP.)

11'

12'

12.5'
(TYP.)

SOUTH TOWNE DR

MATCHLINE 138+50

MATCHLINE 145+50

USH 12/18

USH 12/18

DO NOT ENTER
R5-1
36"X36"

R3-2
24"X24"

STOP
R1-1
36"X36"

ONE WAY
R6-2R
24"X30"

WB EXIT RAMP

WO1-6
48"X24"

MATCHLINE EB EXIT RAMP

25+14.74 A

25+00 A

24+00 A

23+00 A

22+00 A

EB EXIT RAMP

ONLY ONLY
R3-8F
36"X30"

LANE CLOSED
R11-2L
48"X30"

22+33.38 A

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT LIGHT
- TRAFFIC CONTROL SIGN MOUNTED ON POST
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- ① TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- ② TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- ③ TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
- ④ TEMPORARY MARKING ARROW/WORD REMOVABLE TAPE
- ⑤ TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)

LEGEND

- MARKING REMOVAL LINE
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- MARKING REMOVAL SPECIAL MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- CONSTRUCTION ANTICIPATED TO BE COMPLETED IN THIS STAGE
- TRAFFIC FLOW ARROW
- SIGN FLAGS PLACED ON TRAFFIC CONTROL SIGNS
- TEMPORARY PAVEMENT PLACED IN THIS STAGE
- TEMPORARY PAVEMENT PLACED IN PREVIOUS STAGE
- TRAFFIC CONTROL COVERING SIGNS

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL - STAGE 1	SHEET 51	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\026001-S1.DWG
LAYOUT NAME - 026002-S1
PLOT DATE : 4/9/2019 2:21 PM
PLOT BY : NOTSON, ERIC
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT LIGHT
- TRAFFIC CONTROL SIGN MOUNTED ON POST
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- ① TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- ② TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- ③ TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
- ④ TEMPORARY MARKING ARROW/WORD REMOVABLE TAPE
- ⑤ TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)

LEGEND

- MARKING REMOVAL LINE
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- MARKING REMOVAL SPECIAL MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- CONSTRUCTION ANTICIPATED TO BE COMPLETED IN THIS STAGE
- TRAFFIC FLOW ARROW
- SIGN FLAGS PLACED ON TRAFFIC CONTROL SIGNS
- TEMPORARY PAVEMENT PLACED IN THIS STAGE
- TEMPORARY PAVEMENT PLACED IN PREVIOUS STAGE
- TRAFFIC CONTROL COVERING SIGNS

TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE, 3-FT SEG, 9-FT GAP)

RIGHT LANE MUST TURN RIGHT
R3-7R
30"X30"

LANE CLOSED
R11-2L
48"X30"

THRU TRAFFIC MERGE LEFT
W4-7L
36"X36"

WO1-6
48"X24"

END ROAD WORK
G20-2A
48"X24"

RAYWOOD RD

WEST BROADWAY

MATCHLINE 145+50

MATCHLINE STAGES 1, 2, 3, AND 4

146+26.15

148+08.26

147+25.1
17.8' LT

148+88.9
2.4' LT

146+00

147+00

148+00

149+00

150+00

151+00

152+00

150+81.72

25' (TYP.)

INL

MH

SIGN

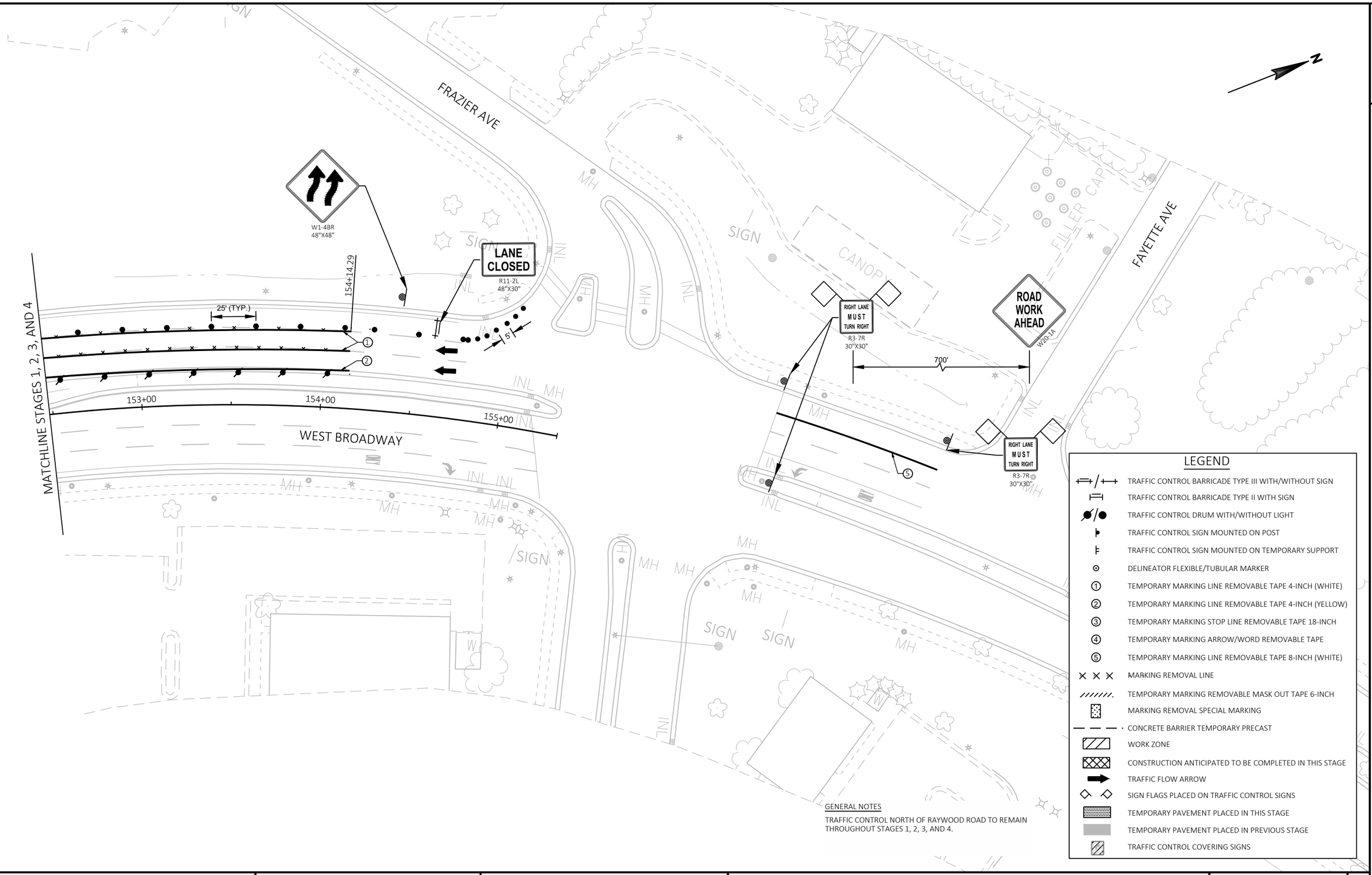
POST

GENERAL NOTES

TRAFFIC CONTROL NORTH OF RAYWOOD ROAD TO REMAIN THROUGHOUT STAGES 1, 2, 3, AND 4.

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL - STAGE 1	SHEET 52	E

2



LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT LIGHT
- TRAFFIC CONTROL SIGN MOUNTED ON POST
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- ① TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- ② TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- ③ TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
- ④ TEMPORARY MARKING ARROW/WORD REMOVABLE TAPE
- ⑤ TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- MARKING REMOVAL LINE
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- MARKING REMOVAL SPECIAL MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- CONSTRUCTION ANTICIPATED TO BE COMPLETED IN THIS STAGE
- TRAFFIC FLOW ARROW
- SIGN FLAGS PLACED ON TRAFFIC CONTROL SIGNS
- TEMPORARY PAVEMENT PLACED IN THIS STAGE
- TEMPORARY PAVEMENT PLACED IN PREVIOUS STAGE
- TRAFFIC CONTROL COVERING SIGNS

GENERAL NOTES

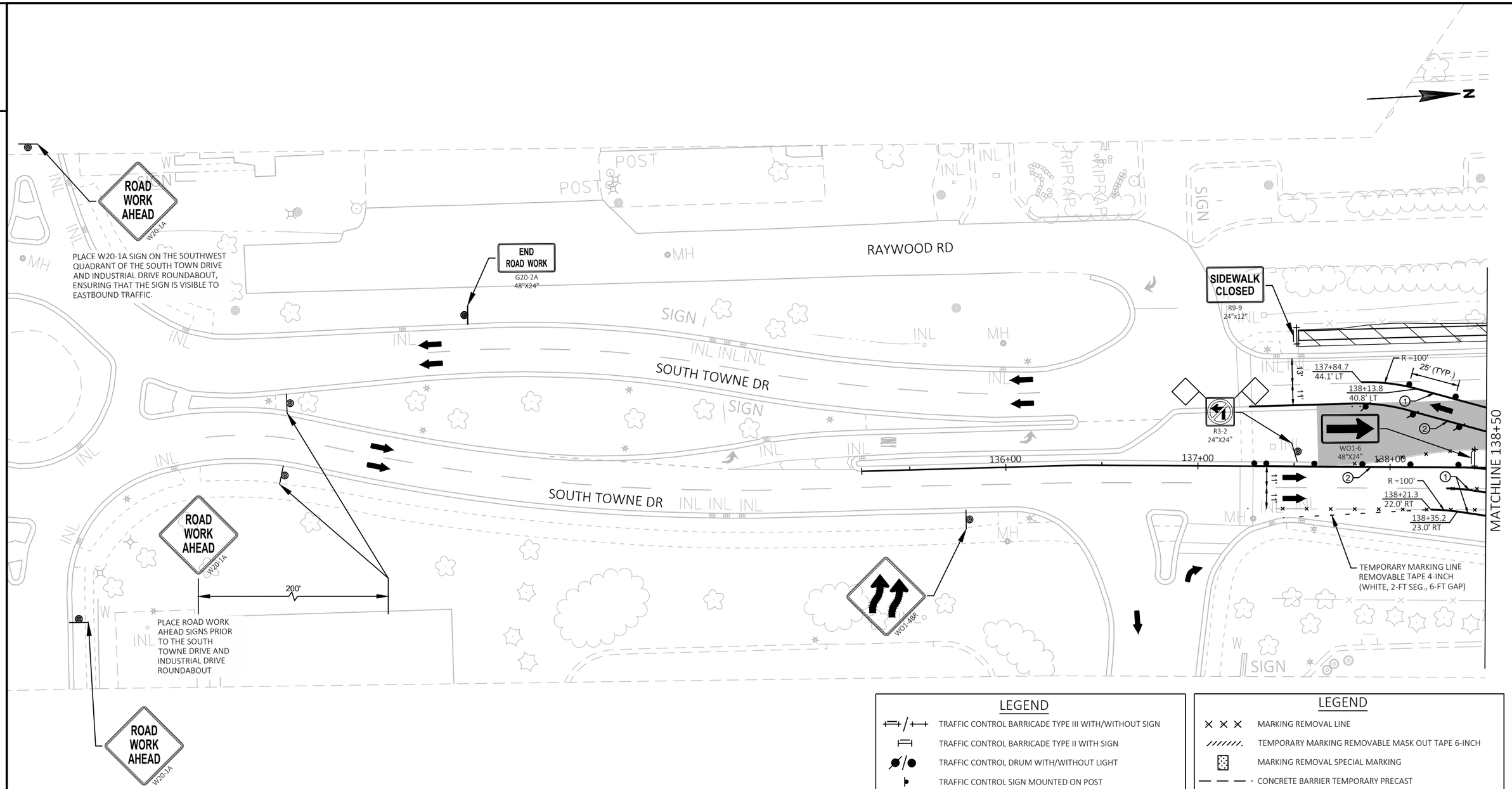
TRAFFIC CONTROL NORTH OF RAYWOOD ROAD TO REMAIN THROUGHOUT STAGES 1, 2, 3, AND 4.

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL - STAGE 1, 2, 3, AND 4	SHEET 53	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\026001-S1.DWG
LAYOUT NAME - 026004-S1

PLOT DATE : 4/9/2019 2:21 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########

2



LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT LIGHT
- TRAFFIC CONTROL SIGN MOUNTED ON POST
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- ① TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- ② TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- ③ TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
- ④ TEMPORARY MARKING ARROW/WORD REMOVABLE TAPE
- ⑤ TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)

LEGEND

- MARKING REMOVAL LINE
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- MARKING REMOVAL SPECIAL MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- CONSTRUCTION ANTICIPATED TO BE COMPLETED IN THIS STAGE
- TRAFFIC FLOW ARROW
- SIGN FLAGS PLACED ON TRAFFIC CONTROL SIGNS
- TEMPORARY PAVEMENT PLACED IN THIS STAGE
- TEMPORARY PAVEMENT PLACED IN PREVIOUS STAGE
- TRAFFIC CONTROL COVERING SIGNS

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL - STAGE 2	SHEET 54	E

2

GENERAL NOTES

FLEXIBLE TUBULAR MARKER BASES SHALL ONLY BE INSTALLED USING AN ASPHALT ADHESIVE OR BUTYL PAD. SEE SDD "CHANNELIZING DEVICES - FLEXIBLE TUBULAR MARKER POST" FOR ADDITIONAL INFORMATION.

COORDINATE TEMPORARY BARRIER WALL INSTALLATION WITH BRIDGE CONSTRUCTION WORK. SEE STRUCTURE PLANS FOR ADDITIONAL INFORMATION.

EITHER CONCRETE BARRIER TEMPORARY PRECAST OR TRAFFIC CONTROL DRUMS SHALL BE INSTALLED ALONG BRIDGE MEDIAN AT ALL TIMES AS DIRECTED BY THE ENGINEER. INSTALL TRAFFIC CONTROL DRUMS AT 25-FOOT SPACING AFTER CONCRETE BARRIER TEMPORARY PRECAST ALONG BRIDGE MEDIAN IS REMOVED.

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT LIGHT
- TRAFFIC CONTROL SIGN MOUNTED ON POST
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- ① TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- ② TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- ③ TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
- ④ TEMPORARY MARKING ARROW/WORD REMOVABLE TAPE
- ⑤ TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)

MATCHLINE EB EXIT RAMP

MATCHLINE 138+50 STAGE 2

MATCHLINE 145+50 STAGE 2

EB EXIT RAMP

WB ENTRANCE RAMP

EB ENTRANCE RAMP

WB EXIT RAMP

SOUTH TOWNE DR

USH 12/18

LANE CLOSED
R11-2L
48"X30"

RAMP CLOSED
R11-2R
48"X30"

DO NOT ENTER
R5-1
30"X30"

R3-1
24"X24"

R3-2
24"X24"

WO6-3

WO1-6
48"X24"

STOP
R1-1
36"X36"

ONE WAY
R6-2R
24"X30"

R3-5R
42"X48"
ONLY
COVER EXISTING SIGN

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE, 12.5FT SEG., 37.5-FT GAP)

26+00 A
26+48.04 A
27+00 A
25+00 A
24+00 A
23+00 A
22+00 A
140+59.12
140+05.1
100.9' LT
139+91.9
64.9' LT
139+86.2
64.7' LT
140+38.5
56.0' LT
141+06.3
5.0' LT
139+42.6
6.7' LT
139+87.4
28.4' LT
139+93.8
0.0' LT
R=200'
139+75.0
36.0' RT
139+21.3
35.0' RT
R=100'
143+75.9
14.0' LT
143+23.2
10.0' LT
143+91.4
10.0' LT
143+21.9
5.0' LT
25' (TYP.)
5' (TYP.)
18' (TYP.)
12'
11'

LEGEND

- MARKING REMOVAL LINE
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- MARKING REMOVAL SPECIAL MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- CONSTRUCTION ANTICIPATED TO BE COMPLETED IN THIS STAGE
- TRAFFIC FLOW ARROW
- SIGN FLAGS PLACED ON TRAFFIC CONTROL SIGNS
- TEMPORARY PAVEMENT PLACED IN THIS STAGE
- TEMPORARY PAVEMENT PLACED IN PREVIOUS STAGE
- TRAFFIC CONTROL COVERING SIGNS

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL - STAGE 2A	SHEET 55	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\026101-S2A.DWG
LAYOUT NAME - 026101-S2A
PLOT DATE : 4/9/2019 2:22 PM
PLOT BY : NOTSON, ERIC
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

MATCHLINE EB EXIT RAMP

GENERAL NOTES

FLEXIBLE TUBULAR MARKER BASES SHALL ONLY BE INSTALLED USING AN ASPHALT ADHESIVE OR BUTYL PAD. SEE SDD "CHANNELIZING DEVICES - FLEXIBLE TUBULAR MARKER POST" FOR ADDITIONAL INFORMATION.

COORDINATE TEMPORARY BARRIER WALL INSTALLATION WITH BRIDGE CONSTRUCTION WORK. SEE STRUCTURE PLANS FOR ADDITIONAL INFORMATION.

EITHER CONCRETE BARRIER TEMPORARY PRECAST OR TRAFFIC CONTROL DRUMS SHALL BE INSTALLED ALONG BRIDGE MEDIAN AT ALL TIMES AS DIRECTED BY THE ENGINEER. INSTALL TRAFFIC CONTROL DRUMS AT 25-FOOT SPACING AFTER CONCRETE BARRIER TEMPORARY PRECAST ALONG BRIDGE MEDIAN IS REMOVED.

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT LIGHT
- TRAFFIC CONTROL SIGN MOUNTED ON POST
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- ① TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- ② TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- ③ TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
- ④ TEMPORARY MARKING ARROW/WORD REMOVABLE TAPE
- ⑤ TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)

EB EXIT RAMP 26+00 A

27+00 A

140+19.0
136.3' LT

140+17.3
103.9' LT

140+22.0
67.7' LT

140+39.8
21.5' LT

140+23.3
29.9' LT

140+12.2
9.9' LT

140+26.6
10.0' LT

EXISTING SIGNS TO BE REMOVED AND REINSTALLED PRIOR TO COMPLETION OF STAGE 4. PAID AS "MOVING SIGNS TYPE II."

WO4-3R
48"X48"

WO1-6
48"X24"

LEFT LANE MUST TURN LEFT
R3-7L
30"X30"

DO NOT ENTER
R5-1
30"X30"

WO5-4R

R3-2
24"X24"

RAMP CLOSED
R11-2R
48"X30"

WB ENTRANCE RAMP

SOUTH TOWNE DR

139+00
140+00
141+00
142+00
143+00
144+00
145+00

11'
12'
2'
6'
5' (TYP.)
25' (TYP.)

MATCHLINE 138+50 STAGE 2

MATCHLINE 145+50 STAGE 2

EB ENTRANCE RAMP

R3-1
24"X24"

RAMP CLOSED
R11-2R
48"X30"

WO6-3

USH 12/18

USH 12/18

STOP
R1-1
36"X36"

ONE WAY
R6-2R
24"X30"

WB EXIT RAMP

LEGEND

- MARKING REMOVAL LINE
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- MARKING REMOVAL SPECIAL MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- CONSTRUCTION ANTICIPATED TO BE COMPLETED IN THIS STAGE
- TRAFFIC FLOW ARROW
- SIGN FLAGS PLACED ON TRAFFIC CONTROL SIGNS
- TEMPORARY PAVEMENT PLACED IN THIS STAGE
- TEMPORARY PAVEMENT PLACED IN PREVIOUS STAGE
- TRAFFIC CONTROL COVERING SIGNS

MATCHLINE EB EXIT RAMP

25+00 A

24+00 A

23+00 A

22+00 A

EB EXIT RAMP

ONLY ONLY
R3-8F
36"X30"

LANE CLOSED
R11-2L
48"X30"

WO12-1D
48"X48"

RIGHT LANE MUST TURN RIGHT
R3-7R
30"X30"

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL - STAGE 2B	SHEET 56 E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\026101-S2B.DWG
LAYOUT NAME - 026102-S2B

PLOT DATE : 4/9/2019 2:22 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########

2

2

MATCHLINE EB EXIT RAMP

GENERAL NOTES

FLEXIBLE TUBULAR MARKER BASES SHALL ONLY BE INSTALLED USING AN ASPHALT ADHESIVE OR BUTYL PAD. SEE SDD "CHANNELIZING DEVICES - FLEXIBLE TUBULAR MARKER POST" FOR ADDITIONAL INFORMATION.

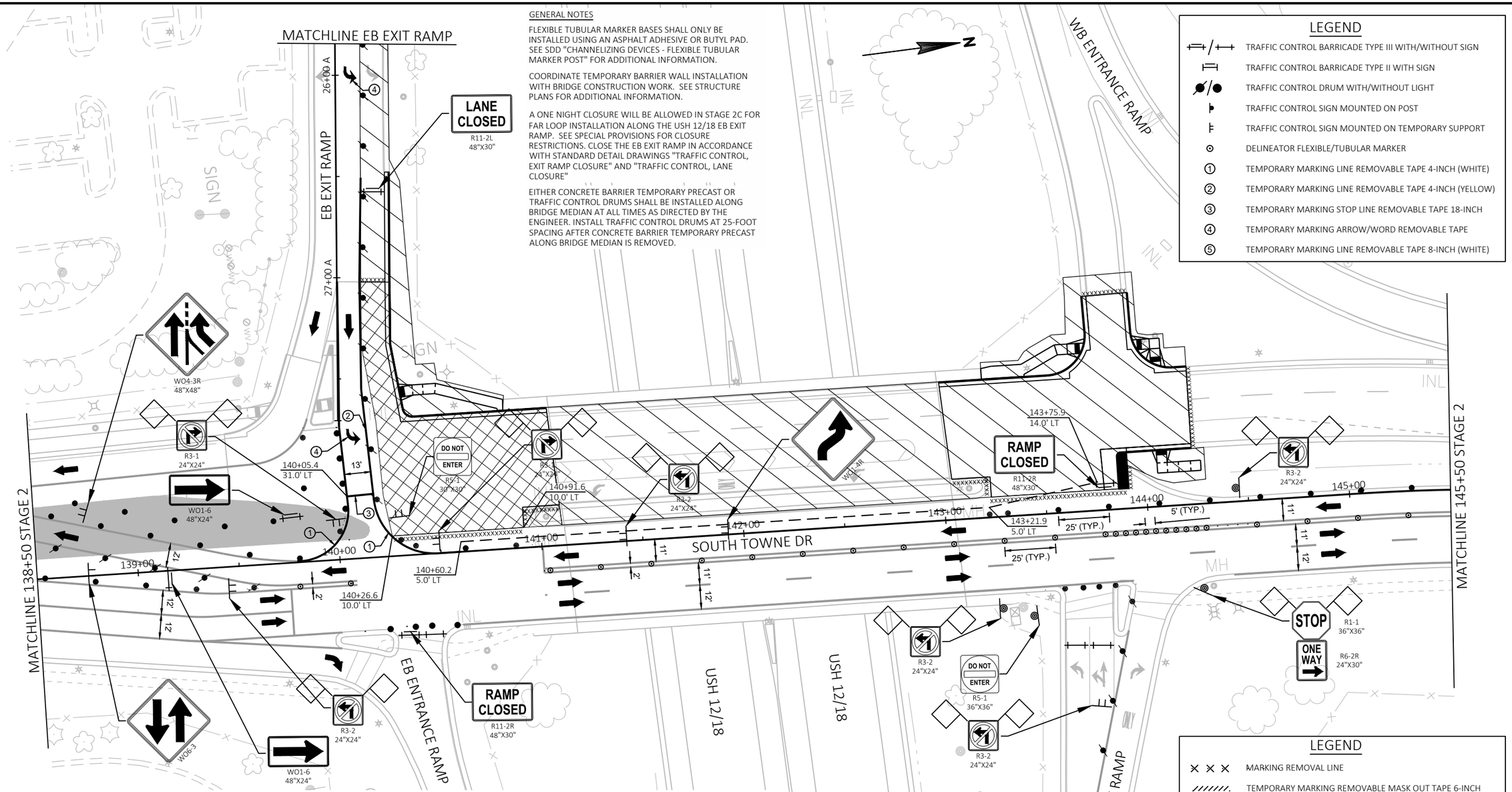
COORDINATE TEMPORARY BARRIER WALL INSTALLATION WITH BRIDGE CONSTRUCTION WORK. SEE STRUCTURE PLANS FOR ADDITIONAL INFORMATION.

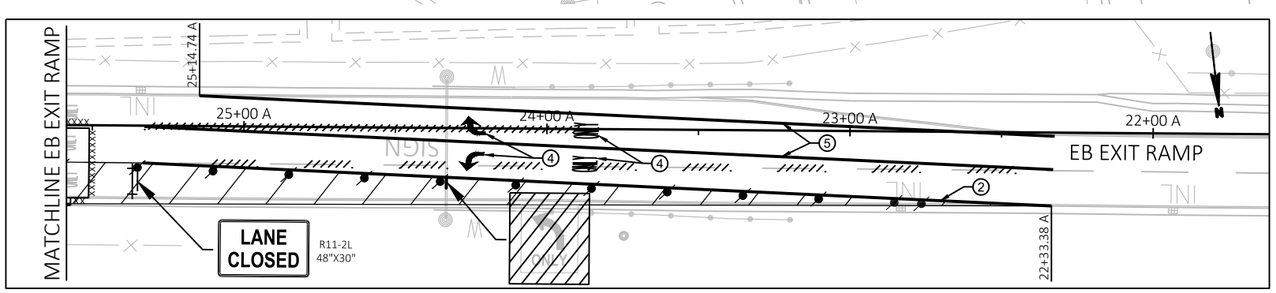
A ONE NIGHT CLOSURE WILL BE ALLOWED IN STAGE 2C FOR FAR LOOP INSTALLATION ALONG THE USH 12/18 EB EXIT RAMP. SEE SPECIAL PROVISIONS FOR CLOSURE RESTRICTIONS. CLOSE THE EB EXIT RAMP IN ACCORDANCE WITH STANDARD DETAIL DRAWINGS "TRAFFIC CONTROL, EXIT RAMP CLOSURE" AND "TRAFFIC CONTROL, LANE CLOSURE"

EITHER CONCRETE BARRIER TEMPORARY PRECAST OR TRAFFIC CONTROL DRUMS SHALL BE INSTALLED ALONG BRIDGE MEDIAN AT ALL TIMES AS DIRECTED BY THE ENGINEER. INSTALL TRAFFIC CONTROL DRUMS AT 25-FOOT SPACING AFTER CONCRETE BARRIER TEMPORARY PRECAST ALONG BRIDGE MEDIAN IS REMOVED.

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT LIGHT
- TRAFFIC CONTROL SIGN MOUNTED ON POST
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- ① TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- ② TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- ③ TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
- ④ TEMPORARY MARKING ARROW/WORD REMOVABLE TAPE
- ⑤ TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)





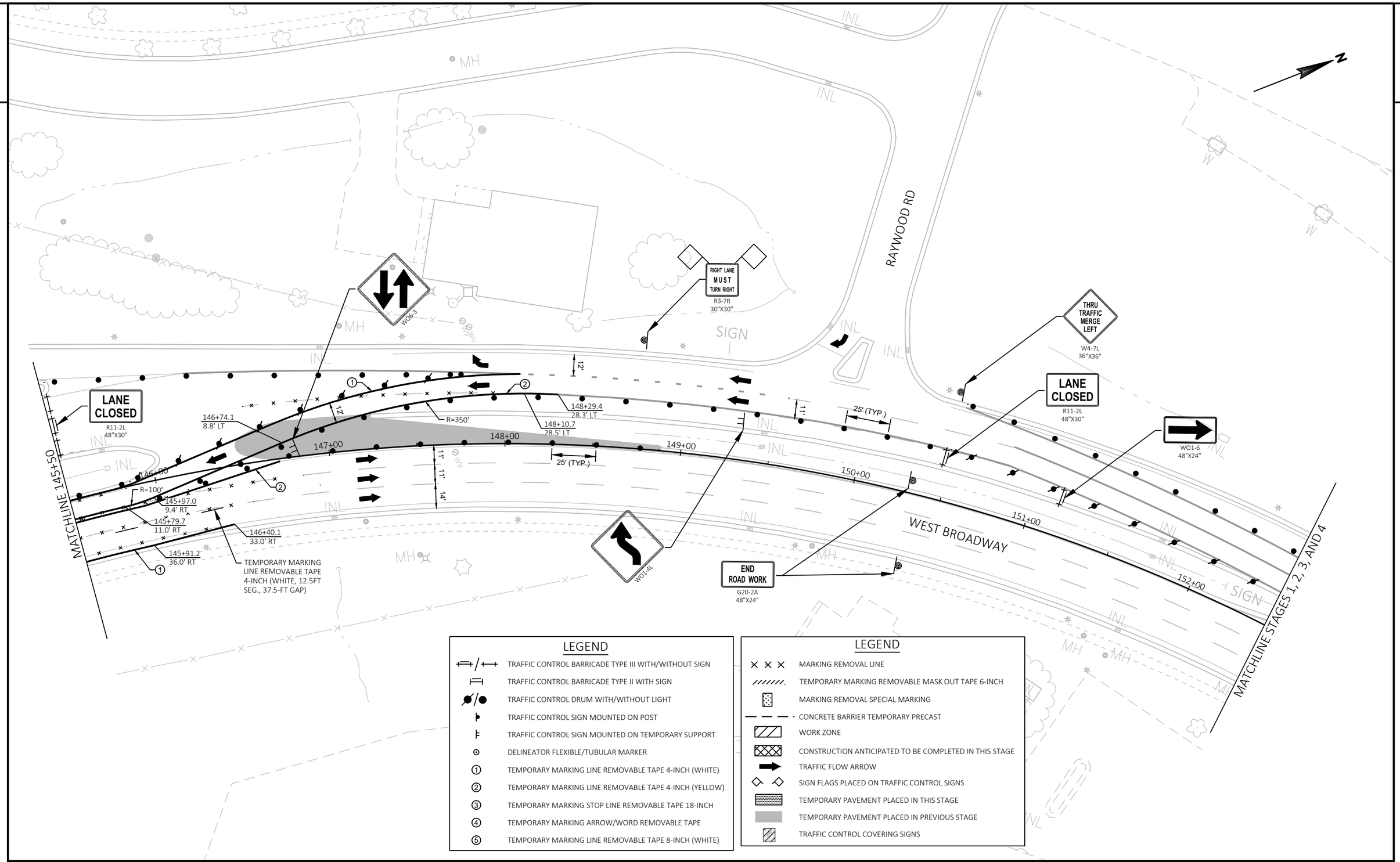
LEGEND

- MARKING REMOVAL LINE
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- MARKING REMOVAL SPECIAL MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- CONSTRUCTION ANTICIPATED TO BE COMPLETED IN THIS STAGE
- TRAFFIC FLOW ARROW
- SIGN FLAGS PLACED ON TRAFFIC CONTROL SIGNS
- TEMPORARY PAVEMENT PLACED IN THIS STAGE
- TEMPORARY PAVEMENT PLACED IN PREVIOUS STAGE
- TRAFFIC CONTROL COVERING SIGNS

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL - STAGE 2C	SHEET 57	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\026101-S2C.DWG
LAYOUT NAME - 026102-S2C
PLOT DATE : 4/9/2019 2:22 PM
PLOT BY : NOTSON, ERIC
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2



LEGEND

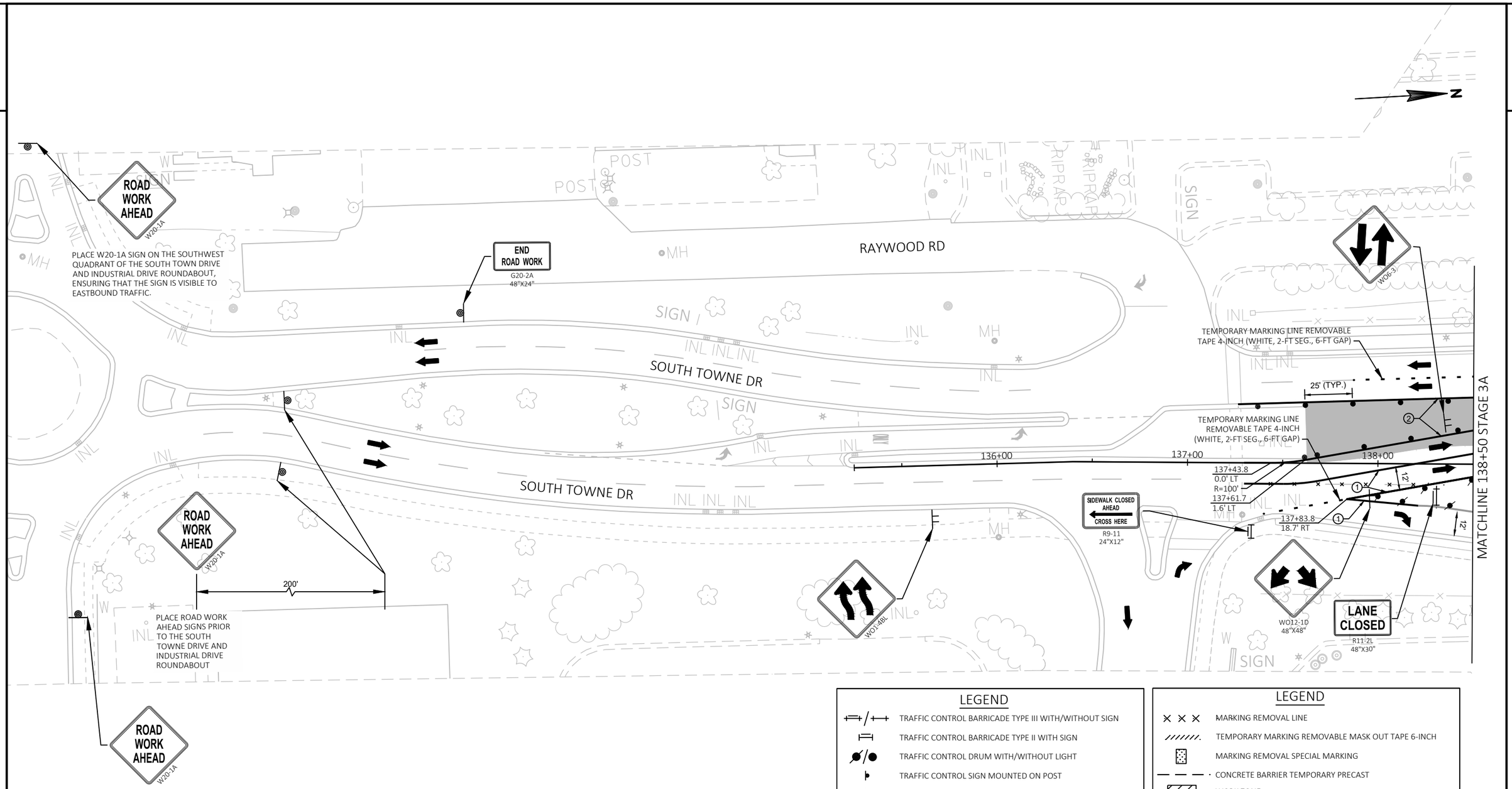
- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT LIGHT
- TRAFFIC CONTROL SIGN MOUNTED ON POST
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- ① TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- ② TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- ③ TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
- ④ TEMPORARY MARKING ARROW/WORD REMOVABLE TAPE
- ⑤ TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)

LEGEND

- MARKING REMOVAL LINE
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- MARKING REMOVAL SPECIAL MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- CONSTRUCTION ANTICIPATED TO BE COMPLETED IN THIS STAGE
- TRAFFIC FLOW ARROW
- SIGN FLAGS PLACED ON TRAFFIC CONTROL SIGNS
- TEMPORARY PAVEMENT PLACED IN THIS STAGE
- TEMPORARY PAVEMENT PLACED IN PREVIOUS STAGE
- TRAFFIC CONTROL COVERING SIGNS

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL - STAGE 2	SHEET 58	E

2



LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT LIGHT
- TRAFFIC CONTROL SIGN MOUNTED ON POST
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- ① TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- ② TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- ③ TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
- ④ TEMPORARY MARKING ARROW/WORD REMOVABLE TAPE
- ⑤ TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)

LEGEND

- MARKING REMOVAL LINE
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- MARKING REMOVAL SPECIAL MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- CONSTRUCTION ANTICIPATED TO BE COMPLETED IN THIS STAGE
- TRAFFIC FLOW ARROW
- SIGN FLAGS PLACED ON TRAFFIC CONTROL SIGNS
- TEMPORARY PAVEMENT PLACED IN THIS STAGE
- TEMPORARY PAVEMENT PLACED IN PREVIOUS STAGE
- TRAFFIC CONTROL COVERING SIGNS

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL - STAGE 3A	SHEET 59	E

2

MATCHLINE EB EXIT RAMP

MATCHLINE 138+50 STAGE 3A

MATCHLINE 145+50 STAGE 3

EB EXIT RAMP

EB ENTRANCE RAMP

WB ENTRANCE RAMP

WB EXIT RAMP

SOUTH TOWNE DR

USH 12/18

USH 12/18

LANE CLOSED
R11-2L
48"X30"

DO NOT ENTER
R5-1
30"X30"

R3-1
24"X24"

R3-2
24"X24"

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE, 2-FT SEG., 6-FT GAP)

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE, 12.5-FT SEG., 37.5-FT GAP)

RAMP CLOSED
R11-2R
48"X30"

BRIDGE OUT
R11-2B
48"X30"

SIDEWALK CLOSED
R9-9
24"x12"

SIDEWALK CLOSED CROSS HERE
R9-11A
24"x12"

WO11-2
48"X48"

AHEAD
WO16-9P
30"X18"

WO16-7L
30"X18"

WO1-6
48"X24"

WO1-4BR

STOP
R1-1
36"X36"

ONE WAY
R6-2R
24"X30"

R=100'

139+57.8
37.3' LT

139+62.1
38.0' LT

140+03.8
43.4' LT

139+61.5
13.5' LT

139+90.7
3.4' LT

139+97.1
38.5' RT

140+24.1
45.8' RT

141+20.4
25.0' LT

143+56.7
25.0' LT

143+79.2
10.0' LT

143+81.0
36.0' RT

25' (TYP.)

5' (TYP.)

12'

11'

22'

14'

139+00

140+00

141+00

142+00

143+00

144+00

145+00

MH

GENERAL NOTES

FLEXIBLE TUBULAR MARKER BASES SHALL ONLY BE INSTALLED USING AN ASPHALT ADHESIVE OR BUTYL PAD. SEE SDD "CHANNELIZING DEVICES - FLEXIBLE TUBULAR MARKER POST" FOR ADDITIONAL INFORMATION.

COORDINATE TEMPORARY BARRIER WALL INSTALLATION WITH BRIDGE CONSTRUCTION WORK. SEE STRUCTURE PLANS FOR ADDITIONAL INFORMATION.

A ONE NIGHT CLOSURE WILL BE ALLOWED IN STAGE 3A FOR FAR LOOP INSTALLATION ALONG THE USH 12/18 WB EXIT RAMP. SEE SPECIAL PROVISIONS FOR CLOSURE RESTRICTIONS. CLOSE THE WB EXIT RAMP IN ACCORDANCE WITH STANDARD DETAIL DRAWING "TRAFFIC CONTROL, EXIT RAMP CLOSURE"

\# PERMANENT PAVEMENT MARKING. SEE PAVEMENT MARKING PLAN FOR ADDITIONAL INFORMATION.

MAINTAIN AREA FOR PEDESTRIAN ACCOMMODATION WITH THE USE OF TEMPORARY PEDESTRIAN SURFACE PLYWOOD AND TEMPORARY CURB RAMP.

MATCHLINE EB EXIT RAMP

26+00 A

25+00 A

24+00 A

23+00 A

EB EXIT RAMP

LANE CLOSED
R11-2L
48"X30"

LEGEND

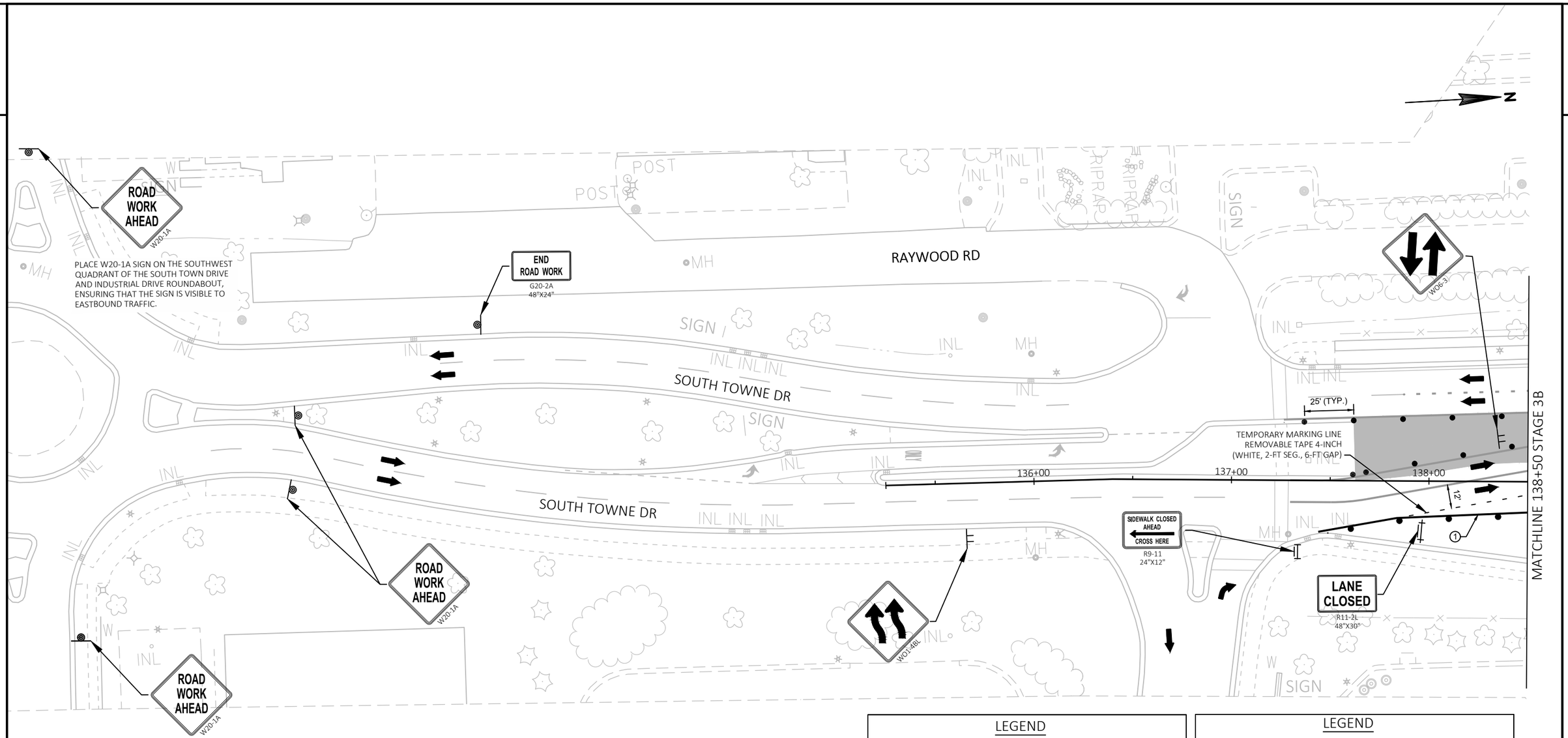
- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT LIGHT
- TRAFFIC CONTROL SIGN MOUNTED ON POST
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- ① TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- ② TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- ③ TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
- ④ TEMPORARY MARKING ARROW/WORD REMOVABLE TAPE
- ⑤ TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- MARKING REMOVAL LINE
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- MARKING REMOVAL SPECIAL MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- CONSTRUCTION ANTICIPATED TO BE COMPLETED IN THIS STAGE
- TRAFFIC FLOW ARROW
- SIGN FLAGS PLACED ON TRAFFIC CONTROL SIGNS
- TEMPORARY PAVEMENT PLACED IN THIS STAGE
- TEMPORARY PAVEMENT PLACED IN PREVIOUS STAGE
- TRAFFIC CONTROL COVERING SIGNS

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL - STAGE 3A	SHEET 60	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\026201-S3A.DWG
LAYOUT NAME - 026102-S3A

PLOT DATE : 4/11/2019 4:49 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########

2



LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT LIGHT
- TRAFFIC CONTROL SIGN MOUNTED ON POST
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- ① TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- ② TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- ③ TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
- ④ TEMPORARY MARKING ARROW/WORD REMOVABLE TAPE
- ⑤ TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)

LEGEND

- MARKING REMOVAL LINE
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- MARKING REMOVAL SPECIAL MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- CONSTRUCTION ANTICIPATED TO BE COMPLETED IN THIS STAGE
- TRAFFIC FLOW ARROW
- SIGN FLAGS PLACED ON TRAFFIC CONTROL SIGNS
- TEMPORARY PAVEMENT PLACED IN THIS STAGE
- TEMPORARY PAVEMENT PLACED IN PREVIOUS STAGE
- TRAFFIC CONTROL COVERING SIGNS

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL - STAGE 3B	SHEET 61	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\026201-S3B.DWG
LAYOUT NAME - 026101-S3B
PLOT DATE : 4/9/2019 2:23 PM
PLOT BY : NOTSON, ERIC
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

MATCHLINE EB EXIT RAMP

MATCHLINE 138+50 STAGE 3B

MATCHLINE 145+50 STAGE 3

EB EXIT RAMP

SOUTH TOWNE DR

WB ENTRANCE RAMP

EB ENTRANCE RAMP

WB EXIT RAMP

USH 12/18

USH 12/18

LANE CLOSED
R11-2L
48"X30"

DO NOT ENTER
R5-1
30"X30"

R3-1
24"X24"

R3-2
24"X24"

RAMP CLOSED
R11-2R
48"X30"

WO11-2
48"X48"

WO16-7L
30"X18"

AHEAD
WO16-9P
30"X18"

BRIDGE OUT
R11-2B
48"X30"

WO1-4BR

SIDEWALK CLOSED
R9-9
24"x12"

SIDEWALK CLOSED CROSS HERE
R9-11A
24"x12"

STOP
R1-1
36"X36"

ONE WAY
R6-2R
24"X30"

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE, 2-FT SEG., 6-FT GAP)

25' (TYP.)

5' (TYP.)

10' (TYP.)

12'

11'

2'

139+00

140+00

141+00

142+00

143+00

144+00

145+00

SIGN

GENERAL NOTES

FLEXIBLE TUBULAR MARKER BASES SHALL ONLY BE INSTALLED USING AN ASPHALT ADHESIVE OR BUTYL PAD. SEE SDD "CHANNELIZING DEVICES - FLEXIBLE TUBULAR MARKER POST" FOR ADDITIONAL INFORMATION.

COORDINATE TEMPORARY BARRIER WALL INSTALLATION WITH BRIDGE CONSTRUCTION WORK. SEE STRUCTURE PLANS FOR ADDITIONAL INFORMATION.

NB BRIDGE AND APPROACH SLAB WORK MUST BE COMPLETED IN STAGE 3A AND PRIOR TO BEGINNING WORK FOR STAGE 3B.

MAINTAIN AREA FOR PEDESTRIAN ACCOMMODATION WITH THE USE OF TEMPORARY PEDESTRIAN SURFACE PLYWOOD AND TEMPORARY CURB RAMPS.

MATCHLINE EB EXIT RAMP

26+00 A

25+00 A

24+00 A

23+00 A

EB EXIT RAMP

LANE CLOSED
R11-2L
48"X30"

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT LIGHT
- TRAFFIC CONTROL SIGN MOUNTED ON POST
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- ① TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- ② TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- ③ TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
- ④ TEMPORARY MARKING ARROW/WORD REMOVABLE TAPE
- ⑤ TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- MARKING REMOVAL LINE
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- MARKING REMOVAL SPECIAL MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- CONSTRUCTION ANTICIPATED TO BE COMPLETED IN THIS STAGE
- TRAFFIC FLOW ARROW
- SIGN FLAGS PLACED ON TRAFFIC CONTROL SIGNS
- TEMPORARY PAVEMENT PLACED IN THIS STAGE
- TEMPORARY PAVEMENT PLACED IN PREVIOUS STAGE
- TRAFFIC CONTROL COVERING SIGNS

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL - STAGE 3B	SHEET 62	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\026201-S3B.DWG
LAYOUT NAME - 026102-S3B

PLOT DATE : 4/11/2019 4:50 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

RAYWOOD RD

WEST BROADWAY

WO1-6
48"X24"

WO6-3

LANE
CLOSED
R11-2L
48"X30"

RIGHT LANE
MUST
TURN RIGHT
R3-7R
30"X30"

THRU
TRAFFIC
MERGE
LEFT
W4-7L
36"X36"

LANE
CLOSED
R11-2L
48"X30"

WO1-6
48"X24"

END
ROAD WORK
G20-2A
48"X24"

WO4-3R
48"X48"
(STAGE 3A
ONLY)

LANE APPLIES TO
STAGE 3A ONLY

MATCHLINE 145+50

MATCHLINE STAGES 1, 2, 3, AND 4

R=250'
145+86.7
48.2' LT
146+27.2
43.6' LT
148+02.9
28.3' LT
R=250'
145+50.5
26.1' LT
146+25.5
13.5' LT
148+27.7
22.0' RT
25' (TYP.)
145+00
146+00
147+00
148+00
149+00
150+00
151+00
152+00
12'
11'
17'
14'

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT LIGHT
- TRAFFIC CONTROL SIGN MOUNTED ON POST
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- ① TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- ② TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- ③ TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
- ④ TEMPORARY MARKING ARROW/WORD REMOVABLE TAPE
- ⑤ TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)

LEGEND

- MARKING REMOVAL LINE
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- MARKING REMOVAL SPECIAL MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- CONSTRUCTION ANTICIPATED TO BE COMPLETED IN THIS STAGE
- TRAFFIC FLOW ARROW
- SIGN FLAGS PLACED ON TRAFFIC CONTROL SIGNS
- TEMPORARY PAVEMENT PLACED IN THIS STAGE
- TEMPORARY PAVEMENT PLACED IN PREVIOUS STAGE
- TRAFFIC CONTROL COVERING SIGNS

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL - STAGE 3	SHEET 63	E

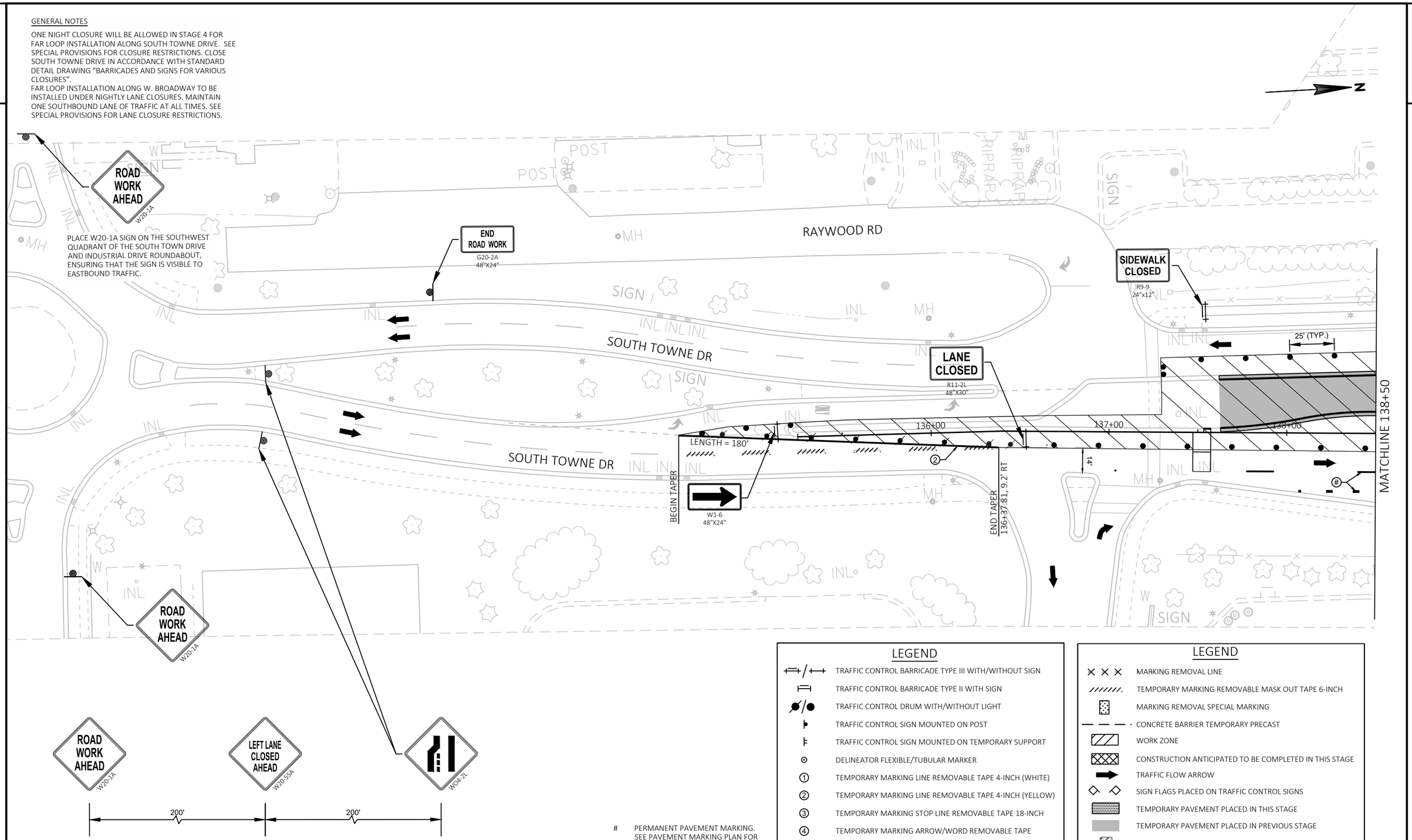
FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\026201-S3A.DWG
LAYOUT NAME - 026103-S3

PLOT DATE : 4/9/2019 2:23 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

GENERAL NOTES

ONE NIGHT CLOSURE WILL BE ALLOWED IN STAGE 4 FOR FAR LOOP INSTALLATION ALONG SOUTH TOWNE DRIVE. SEE SPECIAL PROVISIONS FOR CLOSURE RESTRICTIONS. CLOSE SOUTH TOWNE DRIVE IN ACCORDANCE WITH STANDARD DETAIL DRAWING "BARRICADES AND SIGNS FOR VARIOUS CLOSURES".
FAR LOOP INSTALLATION ALONG W. BROADWAY TO BE INSTALLED UNDER NIGHTLY LANE CLOSURES. MAINTAIN ONE SOUTHBOUND LANE OF TRAFFIC AT ALL TIMES. SEE SPECIAL PROVISIONS FOR LANE CLOSURE RESTRICTIONS.



PERMANENT PAVEMENT MARKING. SEE PAVEMENT MARKING PLAN FOR ADDITIONAL INFORMATION.

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT LIGHT
- TRAFFIC CONTROL SIGN MOUNTED ON POST
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- ① TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- ② TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- ③ TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
- ④ TEMPORARY MARKING ARROW/WORD REMOVABLE TAPE
- ⑤ TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)

LEGEND

- MARKING REMOVAL LINE
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- MARKING REMOVAL SPECIAL MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- CONSTRUCTION ANTICIPATED TO BE COMPLETED IN THIS STAGE
- TRAFFIC FLOW ARROW
- SIGN FLAGS PLACED ON TRAFFIC CONTROL SIGNS
- TEMPORARY PAVEMENT PLACED IN THIS STAGE
- TEMPORARY PAVEMENT PLACED IN PREVIOUS STAGE
- TRAFFIC CONTROL COVERING SIGNS

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL - STAGE 4	SHEET 64	E

2

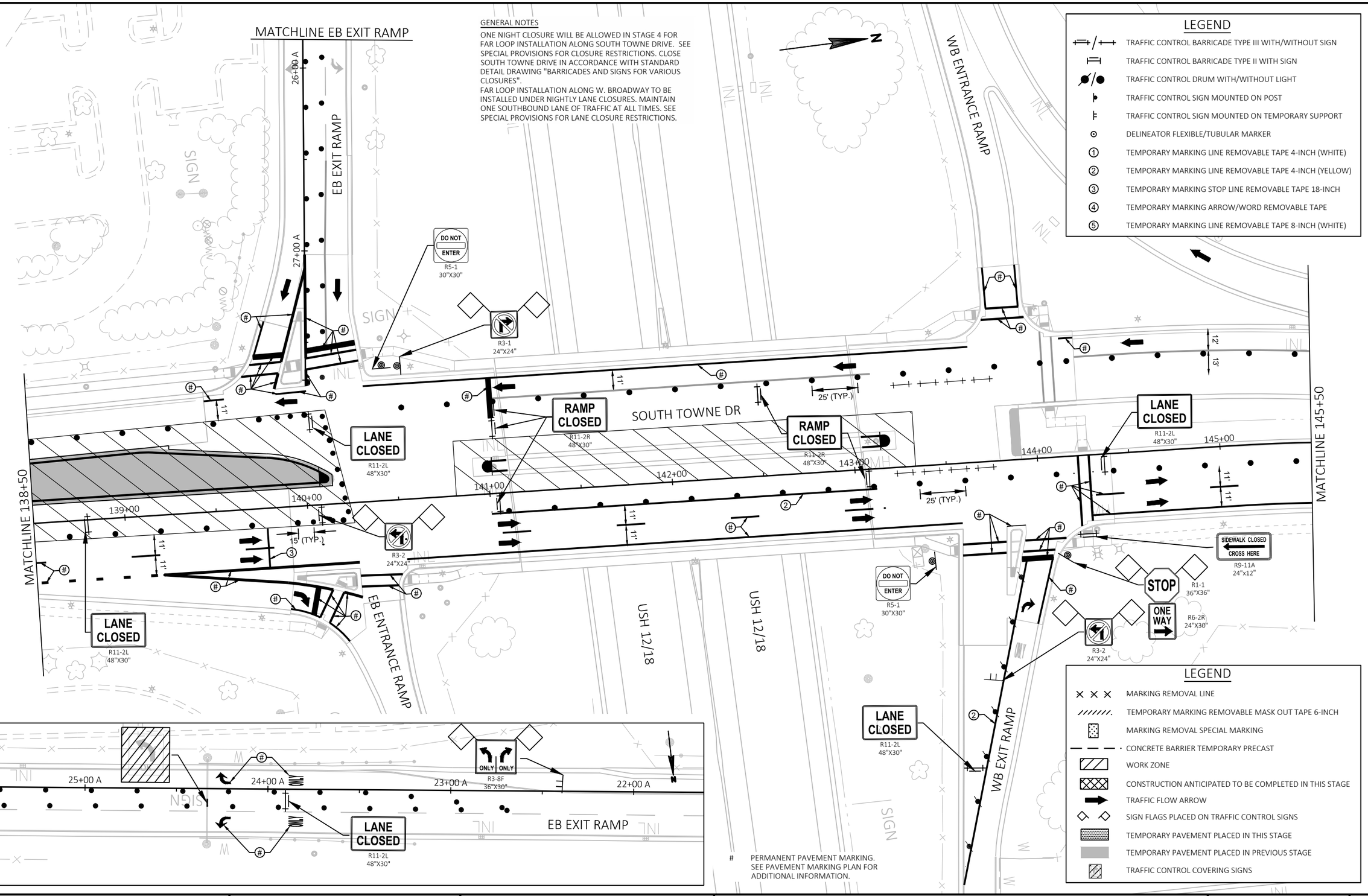
MATCHLINE EB EXIT RAMP

GENERAL NOTES

ONE NIGHT CLOSURE WILL BE ALLOWED IN STAGE 4 FOR FAR LOOP INSTALLATION ALONG SOUTH TOWNE DRIVE. SEE SPECIAL PROVISIONS FOR CLOSURE RESTRICTIONS. CLOSE SOUTH TOWNE DRIVE IN ACCORDANCE WITH STANDARD DETAIL DRAWING "BARRICADES AND SIGNS FOR VARIOUS CLOSURES".
FAR LOOP INSTALLATION ALONG W. BROADWAY TO BE INSTALLED UNDER NIGHTLY LANE CLOSURES. MAINTAIN ONE SOUTHBOUND LANE OF TRAFFIC AT ALL TIMES. SEE SPECIAL PROVISIONS FOR LANE CLOSURE RESTRICTIONS.

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT LIGHT
- TRAFFIC CONTROL SIGN MOUNTED ON POST
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- ① TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- ② TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- ③ TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
- ④ TEMPORARY MARKING ARROW/WORD REMOVABLE TAPE
- ⑤ TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)



LEGEND

- MARKING REMOVAL LINE
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- MARKING REMOVAL SPECIAL MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- CONSTRUCTION ANTICIPATED TO BE COMPLETED IN THIS STAGE
- TRAFFIC FLOW ARROW
- SIGN FLAGS PLACED ON TRAFFIC CONTROL SIGNS
- TEMPORARY PAVEMENT PLACED IN THIS STAGE
- TEMPORARY PAVEMENT PLACED IN PREVIOUS STAGE
- TRAFFIC CONTROL COVERING SIGNS

\# PERMANENT PAVEMENT MARKING. SEE PAVEMENT MARKING PLAN FOR ADDITIONAL INFORMATION.

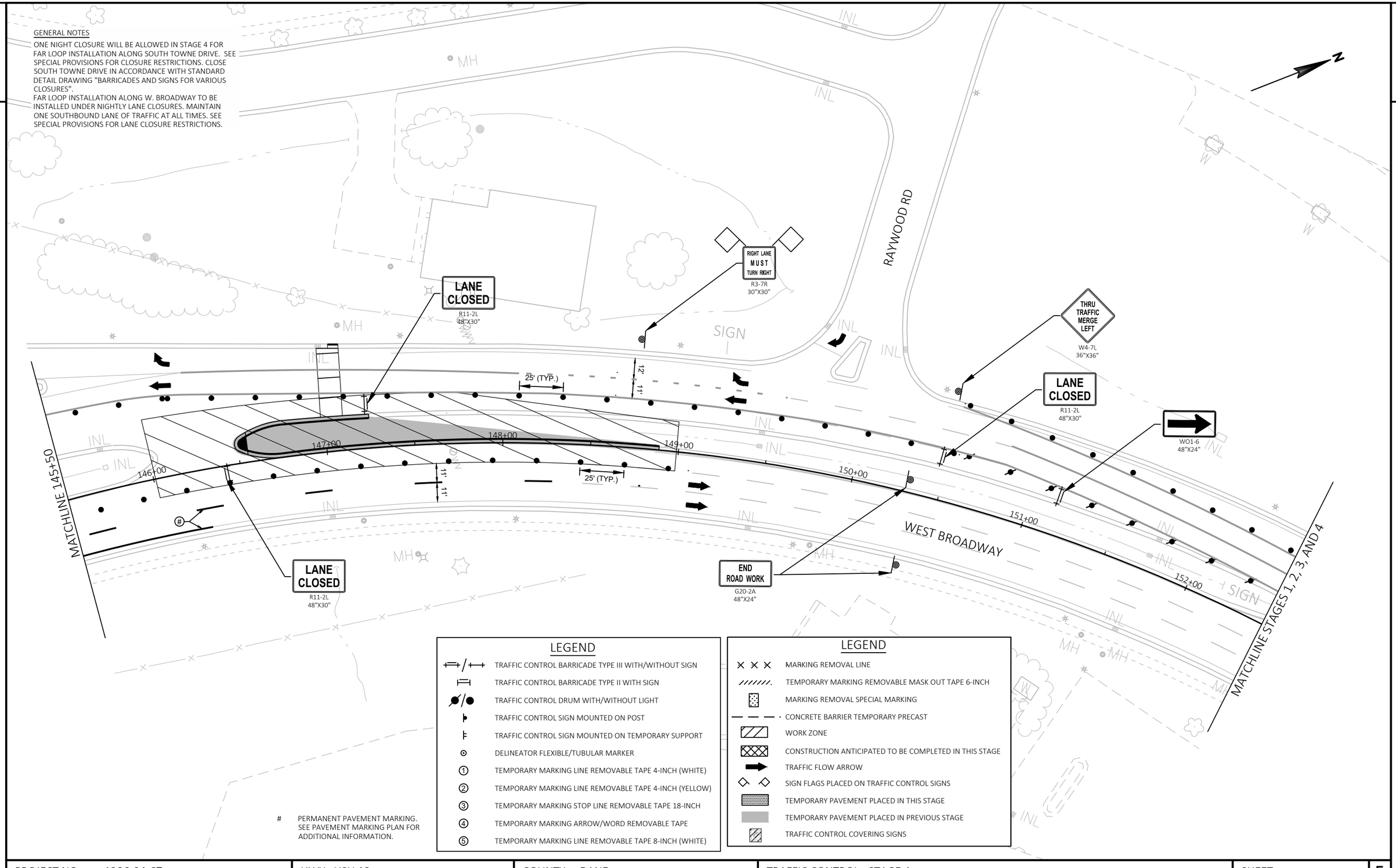
PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL - STAGE 4	SHEET 65	E

2

GENERAL NOTES

ONE NIGHT CLOSURE WILL BE ALLOWED IN STAGE 4 FOR FAR LOOP INSTALLATION ALONG SOUTH TOWNE DRIVE. SEE SPECIAL PROVISIONS FOR CLOSURE RESTRICTIONS. CLOSE SOUTH TOWNE DRIVE IN ACCORDANCE WITH STANDARD DETAIL DRAWING "BARRICADES AND SIGNS FOR VARIOUS CLOSURES".

FAR LOOP INSTALLATION ALONG W. BROADWAY TO BE INSTALLED UNDER NIGHTLY LANE CLOSURES. MAINTAIN ONE SOUTHBOUND LANE OF TRAFFIC AT ALL TIMES. SEE SPECIAL PROVISIONS FOR LANE CLOSURE RESTRICTIONS.



LEGEND	
	TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
	TRAFFIC CONTROL BARRICADE TYPE II WITH SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT LIGHT
	TRAFFIC CONTROL SIGN MOUNTED ON POST
	TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
①	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
②	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
③	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
④	TEMPORARY MARKING ARROW/WORD REMOVABLE TAPE
⑤	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)

LEGEND	
	MARKING REMOVAL LINE
	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
	MARKING REMOVAL SPECIAL MARKING
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK ZONE
	CONSTRUCTION ANTICIPATED TO BE COMPLETED IN THIS STAGE
	TRAFFIC FLOW ARROW
	SIGN FLAGS PLACED ON TRAFFIC CONTROL SIGNS
	TEMPORARY PAVEMENT PLACED IN THIS STAGE
	TEMPORARY PAVEMENT PLACED IN PREVIOUS STAGE
	TRAFFIC CONTROL COVERING SIGNS

\# PERMANENT PAVEMENT MARKING. SEE PAVEMENT MARKING PLAN FOR ADDITIONAL INFORMATION.

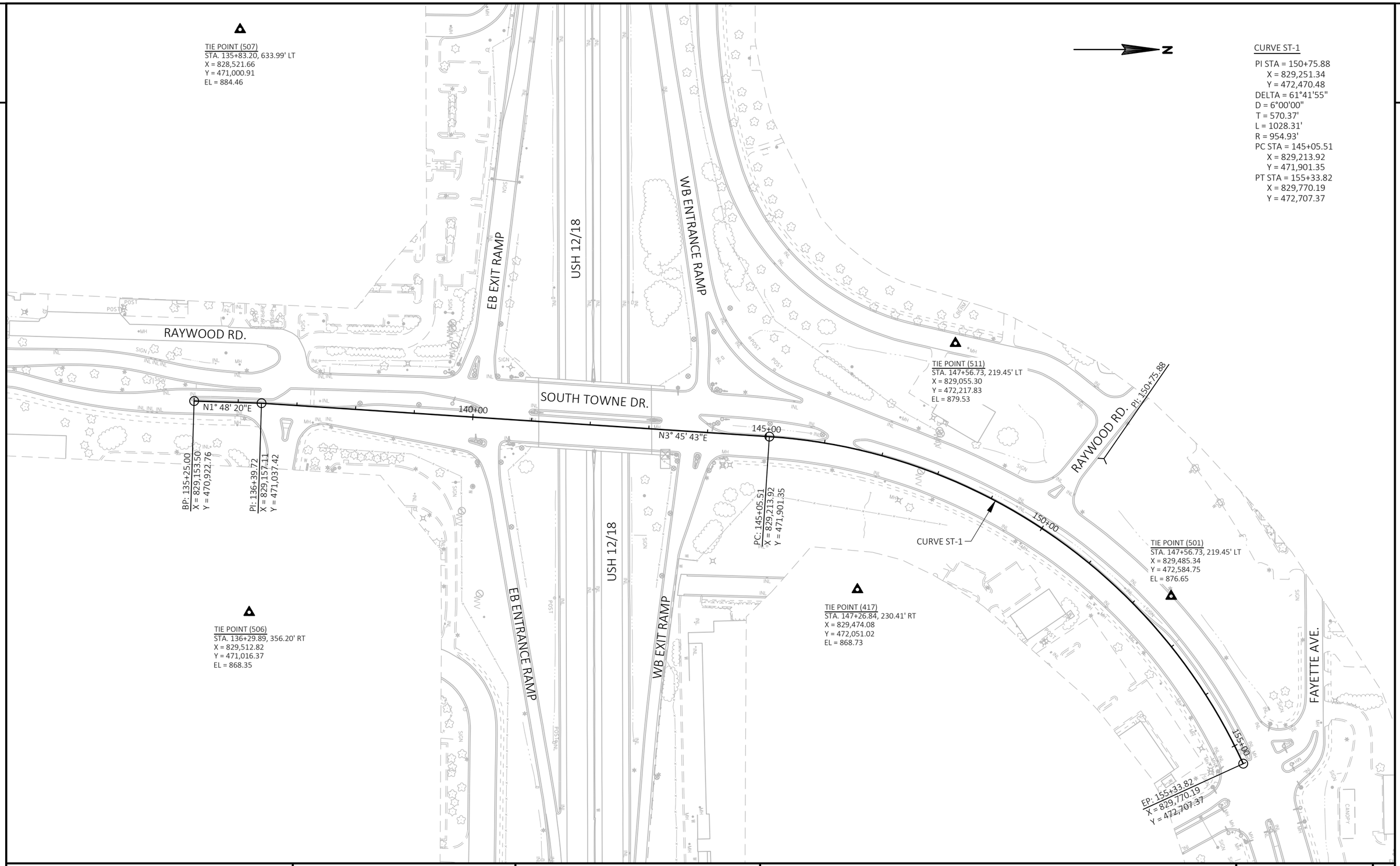
PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL - STAGE 4	SHEET 66	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\026301-S4.DWG
LAYOUT NAME - 026103-S4

PLOT DATE : 4/9/2019 2:24 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	ALIGNMENT DETAILS	SHEET 67	E

FILE NAME : S:\MAD\1000--1099\1089\911\DRAWINGS\CAD\CIVIL 3D\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - 027201-ad

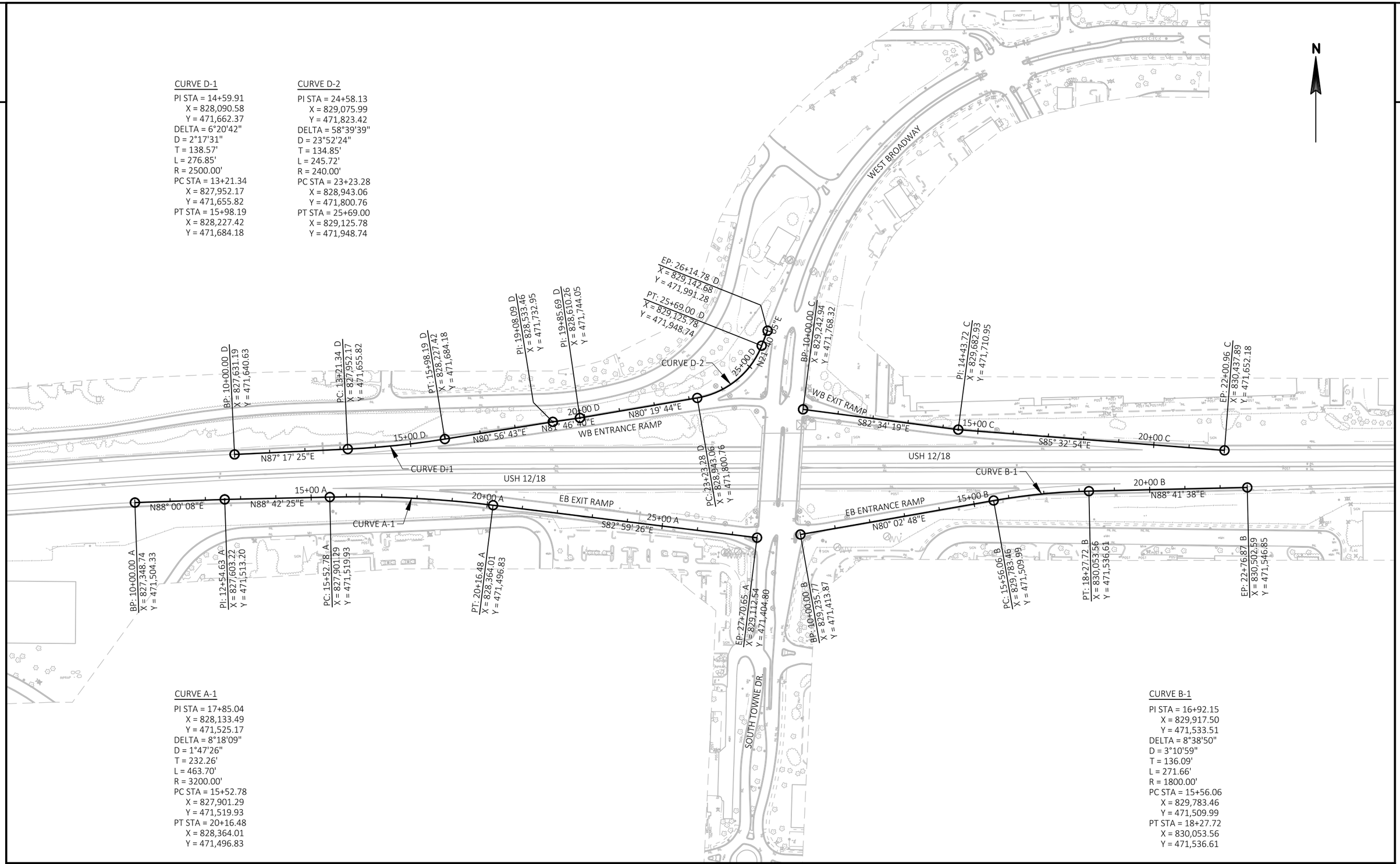
PLOT DATE : 2/27/2019 2:07 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1:150

WISDOT/CADDS SHEET 42

2

CURVE D-1
PI STA = 14+59.91
X = 828,090.58
Y = 471,662.37
DELTA = 6°20'42"
D = 2°17'31"
T = 138.57'
L = 276.85'
R = 2500.00'
PC STA = 13+21.34
X = 827,952.17
Y = 471,655.82
PT STA = 15+98.19
X = 828,227.42
Y = 471,684.18

CURVE D-2
PI STA = 24+58.13
X = 829,075.99
Y = 471,823.42
DELTA = 58°39'39"
D = 23°52'24"
T = 134.85'
L = 245.72'
R = 240.00'
PC STA = 23+23.28
X = 828,943.06
Y = 471,800.76
PT STA = 25+69.00
X = 829,125.78
Y = 471,948.74



CURVE A-1
PI STA = 17+85.04
X = 828,133.49
Y = 471,525.17
DELTA = 8°18'09"
D = 1°47'26"
T = 232.26'
L = 463.70'
R = 3200.00'
PC STA = 15+52.78
X = 827,901.29
Y = 471,519.93
PT STA = 20+16.48
X = 828,364.01
Y = 471,496.83

CURVE B-1
PI STA = 16+92.15
X = 829,917.50
Y = 471,533.51
DELTA = 8°38'50"
D = 3°10'59"
T = 136.09'
L = 271.66'
R = 1800.00'
PC STA = 15+56.06
X = 829,783.46
Y = 471,509.99
PT STA = 18+27.72
X = 830,053.56
Y = 471,536.61

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	ALIGNMENT DETAILS	SHEET 68	E

Estimate Of Quantities

1206-04-67

Line	Item	Item Description	Unit	Total	Qty
0002	203.0200	Removing Old Structure (station) 01. 141+12	LS	1.000	1.000
0004	204.0100	Removing Pavement	SY	3,860.000	3,860.000
0006	204.0150	Removing Curb & Gutter	LF	895.000	895.000
0008	204.0155	Removing Concrete Sidewalk	SY	121.000	121.000
0010	204.0170	Removing Fence	LF	20.000	20.000
0012	204.0195	Removing Concrete Bases	EACH	45.000	45.000
0014	205.0100	Excavation Common	CY	1,184.000	1,184.000
0016	206.1000	Excavation for Structures Bridges (structure) 01. B-13-311	LS	1.000	1.000
0018	210.1500	Backfill Structure Type A	TON	666.000	666.000
0020	213.0100	Finishing Roadway (project) 01. 1206-04-67	EACH	1.000	1.000
0022	305.0110	Base Aggregate Dense 3/4-Inch	TON	78.000	78.000
0024	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	903.000	903.000
0026	312.0110	Select Crushed Material	TON	550.000	550.000
0028	415.0100	Concrete Pavement 10-Inch	SY	3,127.000	3,127.000
0030	415.0410	Concrete Pavement Approach Slab	SY	380.000	380.000
0032	415.4100	Concrete Pavement Joint Filling	SY	3,546.000	3,546.000
0034	415.5110.S	Concrete Pavement Joint Layout	LS	1.000	1.000
0036	416.0610	Drilled Tie Bars	EACH	404.000	404.000
0038	416.0620	Drilled Dowel Bars	EACH	402.000	402.000
0040	416.1715	Concrete Pavement Repair SHES	SY	130.000	130.000
0042	465.0125	Asphaltic Surface Temporary	TON	230.000	230.000
0044	502.0100	Concrete Masonry Bridges	CY	177.000	177.000
0046	502.3200	Protective Surface Treatment	SY	2,637.000	2,637.000
0048	502.3210	Pigmented Surface Sealer	SY	149.000	149.000
0050	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	17,750.000	17,750.000
0052	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	28.000	28.000
0054	506.7050.S	Removing Bearings (structure) 01. B-13-311	EACH	28.000	28.000
0056	509.0301	Preparation Decks Type 1	SY	3.000	3.000
0058	509.0302	Preparation Decks Type 2	SY	1.000	1.000
0060	509.0400.S	Cleaning Concrete Surfaces	SY	414.000	414.000
0062	509.0500	Cleaning Decks	SY	2,167.000	2,167.000
0064	509.1500	Concrete Surface Repair	SF	81.000	81.000
0066	509.2000	Full-Depth Deck Repair	SY	1.000	1.000
0068	509.2500	Concrete Masonry Overlay Decks	CY	121.000	121.000
0070	509.9020.S	Epoxy Crack Sealing	LF	16.000	16.000
0072	509.9050.S	Cleaning Parapets	LF	456.000	456.000
0074	511.1200	Temporary Shoring (structure) 01. B-13-311	SF	100.000	100.000
0076	516.0500	Rubberized Membrane Waterproofing	SY	44.000	44.000
0078	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	1,850.000	1,850.000

1206-04-67

Line	Item	Item Description	Unit	Total	Qty
0080	602.0410	Concrete Sidewalk 5-Inch	SF	3,103.000	3,103.000
0082	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	240.000	240.000
0084	603.8000	Concrete Barrier Temporary Precast Delivered	LF	375.000	375.000
0086	603.8125	Concrete Barrier Temporary Precast Installed	LF	700.000	700.000
0088	604.9010.S	Slope Paving Repair Crushed Aggregate	CY	32.000	32.000
0090	604.9015.S	Reseal Crushed Aggregate Slope Paving	SY	999.000	999.000
0092	611.8115	Adjusting Inlet Covers	EACH	4.000	4.000
0094	616.0206	Fence Chain Link 6-FT	LF	14.000	14.000
0096	616.0329	Gates Chain Link (width) 01. 6-FT	EACH	1.000	1.000
0098	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1206-04-67	EACH	1.000	1.000
0100	619.1000	Mobilization	EACH	1.000	1.000
0102	620.0300	Concrete Median Sloped Nose	SF	850.000	850.000
0104	624.0100	Water	MGAL	9.800	9.800
0106	625.0100	Topsoil	SY	1,395.000	1,395.000
0108	628.1504	Silt Fence	LF	100.000	100.000
0110	628.1520	Silt Fence Maintenance	LF	100.000	100.000
0112	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0114	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0116	628.2006	Erosion Mat Urban Class I Type A	SY	1,395.000	1,395.000
0118	628.7005	Inlet Protection Type A	EACH	8.000	8.000
0120	628.7010	Inlet Protection Type B	EACH	1.000	1.000
0122	628.7015	Inlet Protection Type C	EACH	23.000	23.000
0124	628.7560	Tracking Pads	EACH	2.000	2.000
0126	629.0210	Fertilizer Type B	CWT	0.900	0.900
0128	630.0130	Seeding Mixture No. 30	LB	25.000	25.000
0130	630.0200	Seeding Temporary	LB	38.000	38.000
0132	637.2210	Signs Type II Reflective H	SF	6.250	6.250
0134	638.2102	Moving Signs Type II	EACH	48.000	48.000
0136	642.5001	Field Office Type B	EACH	1.000	1.000
0138	643.0300	Traffic Control Drums	DAY	40,516.000	40,516.000
0140	643.0410	Traffic Control Barricades Type II	DAY	300.000	300.000
0142	643.0420	Traffic Control Barricades Type III	DAY	4,705.000	4,705.000
0144	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	118.000	118.000
0146	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	118.000	118.000
0148	643.0705	Traffic Control Warning Lights Type A	DAY	9,410.000	9,410.000
0150	643.0715	Traffic Control Warning Lights Type C	DAY	11,224.000	11,224.000
0152	643.0800	Traffic Control Arrow Boards	DAY	158.000	158.000
0154	643.0900	Traffic Control Signs	DAY	11,403.000	11,403.000
0156	643.0910	Traffic Control Covering Signs Type I	EACH	2.000	2.000

1206-04-67

Line	Item	Item Description	Unit	Total	Qty
0158	643.0920	Traffic Control Covering Signs Type II	EACH	7.000	7.000
0160	643.1050	Traffic Control Signs PCMS	DAY	446.000	446.000
0162	643.5000	Traffic Control	EACH	1.000	1.000
0164	644.1420.S	Temporary Pedestrian Surface Plywood	SF	200.000	200.000
0166	644.1601.S	Temporary Curb Ramp	EACH	3.000	3.000
0168	646.1020	Marking Line Epoxy 4-Inch	LF	3,197.000	3,197.000
0170	646.3020	Marking Line Epoxy 8-Inch	LF	1,371.000	1,371.000
0172	646.5020	Marking Arrow Epoxy	EACH	12.000	12.000
0174	646.5120	Marking Word Epoxy	EACH	5.000	5.000
0176	646.6120	Marking Stop Line Epoxy 18-Inch	LF	260.000	260.000
0178	646.7120	Marking Diagonal Epoxy 12-Inch	LF	109.000	109.000
0180	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	453.000	453.000
0182	646.8120	Marking Curb Epoxy	LF	80.000	80.000
0184	646.8220	Marking Island Nose Epoxy	EACH	5.000	5.000
0186	646.9000	Marking Removal Line 4-Inch	LF	2,020.000	2,020.000
0188	646.9100	Marking Removal Line 8-Inch	LF	380.000	380.000
0190	646.9200	Marking Removal Line Wide	LF	165.000	165.000
0192	646.9300	Marking Removal Special Marking	EACH	9.000	9.000
0194	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	13,538.000	13,538.000
0196	649.0250	Temporary Marking Line Removable Tape 8-Inch	LF	1,922.000	1,922.000
0198	649.0550	Temporary Marking Arrow Removable Tape	EACH	14.000	14.000
0200	649.0650	Temporary Marking Word Removable Tape	EACH	8.000	8.000
0202	649.0850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	320.000	320.000
0204	649.0960	Temporary Marking Removable Mask Out Tape 6-Inch	LF	1,121.000	1,121.000
0206	650.4500	Construction Staking Subgrade	LF	777.000	777.000
0208	650.7000	Construction Staking Concrete Pavement	LF	777.000	777.000
0210	650.8500	Construction Staking Electrical Installations (project) 01. 1206-04-67	LS	1.000	1.000
0212	650.9000	Construction Staking Curb Ramps	EACH	24.000	24.000
0214	650.9910	Construction Staking Supplemental Control (project) 01. 1206-04-67	LS	1.000	1.000
0216	650.9920	Construction Staking Slope Stakes	LF	1,471.000	1,471.000
0218	652.0215	Conduit Rigid Nonmetallic Schedule 40 1 1/4-Inch	LF	464.000	464.000
0220	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	3,542.000	3,542.000
0222	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	2,097.000	2,097.000
0224	652.0615	Conduit Special 3-Inch	LF	770.000	770.000
0226	652.0700.S	Install Conduit into Existing Item	EACH	1.000	1.000
0228	652.0800	Conduit Loop Detector	LF	949.000	949.000
0230	653.0154	Pull Boxes Non-Conductive 24x36-Inch	EACH	6.000	6.000
0232	653.0164	Pull Boxes Non-Conductive 24x42-Inch	EACH	26.000	26.000

Line	Item	Item Description	Unit	Total	Qty
0234	653.0905	Removing Pull Boxes	EACH	26.000	26.000
0236	654.0101	Concrete Bases Type 1	EACH	14.000	14.000
0238	654.0102	Concrete Bases Type 2	EACH	6.000	6.000
0240	654.0105	Concrete Bases Type 5	EACH	2.000	2.000
0242	654.0106	Concrete Bases Type 6	EACH	19.000	19.000
0244	654.0110	Concrete Bases Type 10	EACH	1.000	1.000
0246	654.0113	Concrete Bases Type 13	EACH	3.000	3.000
0248	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	2.000	2.000
0250	654.0230	Concrete Control Cabinet Bases Type L30	EACH	2.000	2.000
0252	655.0230	Cable Traffic Signal 5-14 AWG	LF	3,205.000	3,205.000
0254	655.0240	Cable Traffic Signal 7-14 AWG	LF	2,300.000	2,300.000
0256	655.0260	Cable Traffic Signal 12-14 AWG	LF	325.000	325.000
0258	655.0270	Cable Traffic Signal 15-14 AWG	LF	160.000	160.000
0260	655.0290	Cable Traffic Signal 21-14 AWG	LF	500.000	500.000
0262	655.0305	Cable Type UF 2-12 AWG Grounded	LF	2,223.000	2,223.000
0264	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	4,578.000	4,578.000
0266	655.0610	Electrical Wire Lighting 12 AWG	LF	18,643.000	18,643.000
0268	655.0700	Loop Detector Lead In Cable	LF	6,846.000	6,846.000
0270	655.0800	Loop Detector Wire	LF	5,680.000	5,680.000
0272	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. USH 12/18 at South Towne Dr./West Broadway - West Ramp Lighting (L13-0556)	LS	1.000	1.000
0274	656.0200	Electrical Service Meter Breaker Pedestal (location) 02. USH 12/18 at South Towne Dr./West Broadway - East Ramp Lighting (L13-0454)	LS	1.000	1.000
0276	657.0100	Pedestal Bases	EACH	14.000	14.000
0278	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	27.000	27.000
0280	657.0310	Poles Type 3	EACH	6.000	6.000
0282	657.0322	Poles Type 5-Aluminum	EACH	2.000	2.000
0284	657.0327	Poles Type 6-Aluminum	EACH	19.000	19.000
0286	657.0345	Poles Type 9	EACH	1.000	1.000
0288	657.0360	Poles Type 13	EACH	3.000	3.000
0290	657.0410	Traffic Signal Standards Aluminum 9-FT	EACH	3.000	3.000
0292	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	11.000	11.000
0294	657.0530	Monotube Arms 30-FT	EACH	1.000	1.000
0296	657.0540	Monotube Arms 40-FT	EACH	1.000	1.000
0298	657.0545	Monotube Arms 45-FT	EACH	2.000	2.000
0300	657.0614	Luminaire Arms Single Member 4-Inch Clamp 8-FT	EACH	9.000	9.000
0302	657.0615	Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	EACH	21.000	21.000
0304	657.0808	Luminaire Arms Steel 8-FT	EACH	1.000	1.000
0306	657.0815	Luminaire Arms Steel 15-FT	EACH	2.000	2.000

Line	Item	Item Description	Unit	Total	Qty
0308	658.0173	Traffic Signal Face 3S 12-Inch	EACH	34.000	34.000
0310	658.0416	Pedestrian Signal Face 16-Inch	EACH	12.000	12.000
0312	658.0500	Pedestrian Push Buttons	EACH	8.000	8.000
0314	658.5069	Signal Mounting Hardware (location) 01. USH 12/18 & South Towne Drive/West Broadway	LS	1.000	1.000
0316	659.1125	Luminaires Utility LED C	EACH	31.000	31.000
0318	659.2130	Lighting Control Cabinets 120/240 30-Inch	EACH	2.000	2.000
0320	661.0200	Temporary Traffic Signals for Intersections (location) 01. USH 12/18 & South Towne Drive/West Broadway	LS	1.000	1.000
0322	674.0300	Remove Cable	LF	500.000	500.000
0324	690.0250	Sawing Concrete	LF	2,230.000	2,230.000
0326	715.0415	Incentive Strength Concrete Pavement	DOL	1,052.000	1,052.000
0328	715.0502	Incentive Strength Concrete Structures	DOL	1,056.000	1,056.000
0330	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0332	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	400.000	400.000
0334	SPV.0060	Special 01. Remove Existing Lighting Cabinet	EACH	1.000	1.000
0336	SPV.0060	Special 02. Remove Existing Lighting Assembly	EACH	16.000	16.000
0338	SPV.0060	Special 03. Utility Line Opening (ULO)	EACH	4.000	4.000
0340	SPV.0060	Special 04. Relocate Existing Wireless Radio/Antenna	EACH	3.000	3.000
0342	SPV.0060	Special 05. Inlet Covers Type DW	EACH	1.000	1.000
0344	SPV.0090	Special 01. Fence Chain Link Polymer-Coated 8-FT. B-13-311	LF	471.000	471.000
0346	SPV.0105	Special 01. Remove Traffic Signals, USH 12/18 & South Towne Drive/West Broadway	LS	1.000	1.000
0348	SPV.0105	Special 02. Install Department Furnished Video Detection, USH 12/18 & South Towne Dr.	LS	1.000	1.000
0350	SPV.0120	Special 01. Water for Seeded Areas	MGAL	31.000	31.000
0352	SPV.0165	Special 01. Fiber Wrap Reinforcing Non-Structural	SF	873.000	873.000

REMOVING PAVEMENT

CATEGORY	STATION - STATION			204.0100 STAGE 2 SY	204.0100 STAGE 3 SY
0010	137+47	-	142+00	1,200	810
	142+00	-	148+89	820	1,030
	SUBTOTAL			2,020	1,840
	TOTAL			3,860	

REMOVING CURB & GUTTER

CATEGORY	STATION - STATION			204.0150 STAGE 1 LF
0010	137+47	-	142+00	575
	142+00	-	148+89	320
	TOTAL			895

REMOVING CONCRETE SIDEWALK

CATEGORY	STATION - STATION			204.0155 STAGE 2 SY	204.0155 STAGE 3 SY
0010	137+47	-	142+00	33	44
	142+00	-	148+89	7	37
	SUBTOTAL			40	81
	TOTAL			121	

REMOVING CONCRETE BASES

CATEGORY	LOCATION	CONCRETE BASE NUMBER	STATION	LOCATION	* 204.0195 EACH
0030	USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY	EXCB-1	144+29	52' RT	1
		EXSB-1	144+35	43' RT	1
		EXSB-2	144+14	51' RT	1
		EXSB-3	10+11 C	10' LT	1
		EXSB-4	143+49	42' RT	1
		EXSB-5	140+71	42' RT	1
		EXSB-6	140+65	40' RT	1
		EXSB-7	140+09	41' RT	1
		EXSB-8	139+98	17' LT	1
		EXSB-9	139+65	21' LT	1
		EXSB-10	139+48	72' LT	1
		EXSB-11	27+52 A	34' RT	1
		EXSB-12	27+58 A	6' RT	1
		EXSB-13	140+59	72' LT	1
		EXSB-14	141+06	15' LT	1
		EXSB-15	143+09	15' LT	1
		EXSB-16	143+44	72' LT	1
		EXSB-17	144+02	81' LT	1
		EXSB-18	144+16	72' LT	1
		EXSB-19	144+24	24' LT	1
		EXSB-20	144+10	14' LT	1
		EXLP-1	10+25 B	14' RT	1
		EXLP-2	139+71	60' RT	1
		EXLP-3	142+01	75' LT	1
		EXLP-4	142+10	46' RT	1
		EXLP-5	144+60	73' LT	1
		EXLP-6	10+37 C	32' LT	1
		TOTAL			27

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

REMOVING FENCE

CATEGORY	LOCATION	204.0170 LF
0010	18+00 B	20
	TOTAL	20

FINISHING ROADWAY

CATEGORY	PROJECT	213.0100 1206-04-67 EACH
0010	1206-04-67	1
	TOTAL	1

EXCAVATION COMMON

CATEGORY	STAGE	STATION - STATION			LOCATION	205.0100 EXCAVATION COMMON CY	FILL CY	WASTE CY
0010	1	137+47	-	142+00	LT/RT	400	--	400
		142+00	-	148+89	LT/RT	180	--	180
		STAGE 1 SUBTOTALS				580	---	580
	2	137+47	-	142+00	LT	57	--	57
		142+00	-	148+89	LT	33	--	33
		STAGE 2 SUBTOTALS				90	---	90
	3	137+47	-	142+00	LT/RT	17	--	17
		142+00	-	148+89	LT/RT	29	--	29
		STAGE 3 SUBTOTALS				46	---	46
	4	137+47	-	142+00	LT/RT	250	--	250
		142+00	-	148+89	LT/RT	110	--	110
		STAGE 4 SUBTOTALS				360	---	360
		10% UNDISTRIBUTED				108	--	108
		TOTALS				1,184	0	1,184

CONCRETE PAVEMENT

CATEGORY	STATION - STATION		LOCATION	415.0100 10-INCH STAGE 2 SY	415.0100 10-INCH STAGE 3 SY	415.0100 10-INCH STAGE 4 SY	415.0410 APPROACH SLAB STAGE 2 SY	415.0410 APPROACH SLAB STAGE 3 SY	415.0410 APPROACH SLAB STAGE 4 SY	415.4100 JOINT FILLING STAGE 2 SY	415.4100 JOINT FILLING STAGE 3 SY	415.4100 JOINT FILLING STAGE 4 SY	416.1715 REPAIR SHES STAGE 2 SY	416.1715 REPAIR SHES STAGE 3 SY	416.1715 REPAIR SHES STAGE 4 SY
0010	137+47	- 142+00	LT/RT	1,040	646	0	85	105	0	1,140	689	52	26	0	24
	142+00	- 148+89	LT/RT	625	816	0	105	85	0	685	922	58	0	25	55
	SUBTOTALS			1,665	1,462	0	190	190	0	1,825	1,611	110	26	25	79
	TOTALS				3,127			380			3,546			130	

PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	MISCELLANEOUS QUANTITIES	SHEET NO: E

FILE NAME : PLOT DATE: 5/28/2019 1:55:54 PM PLOT BY : PLOT NAME : ORG DATE : ORIGINATOR : PLOT SCALE : N/A

3

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BASE AGGREGATE DENSE

CATEGORY	STAGE	STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	624.0100 WATER MGAL
0010	1	137+47 - 142+00	LT/RT	--	240	380	2.4
		142+00 - 148+89	LT/RT	--	110	170	1.1
		STAGE 1 SUBTOTALS		---	350	550	3.5
	2	137+47 - 142+00	LT	42	160	--	2.0
		142+00 - 148+89	LT	17	96	--	1.1
		STAGE 2 SUBTOTALS		59	256	---	3.1
	3	137+47 - 142+00	LT/RT	8	100	--	1.1
		142+00 - 148+89	LT/RT	11	130	--	1.4
		STAGE 3 SUBTOTALS		19	230	---	2.5
	4	137+47 - 142+00	LT/RT	--	37	--	0.4
		142+00 - 148+89	LT/RT	--	30	--	0.3
		STAGE 4 SUBTOTALS		---	67	---	0.7
		TOTALS		78	903	550	9.8

CONCRETE CURB & GUTTER ITEMS

CATEGORY	STAGE	STATION - STATION	LOCATION	601.0409 30-INCH TYPE A LF
0010	2	137+47 - 142+00	LT & RT	329
		142+00 - 148+89	LT & RT	192
		STAGE 2 SUBTOTALS		521
	3	137+47 - 142+00	LT & RT	177
		142+00 - 148+89	LT & RT	284
		STAGE 3 SUBTOTALS		461
	4	137+47 - 142+00	LT & RT	520
		142+00 - 148+89	LT & RT	347
		STAGE 4 SUBTOTALS		867
		TOTALS		1,850

ASPHALTIC SURFACE TEMPORARY

CATEGORY	STAGE	STATION - STATION	LOCATION	465.0125 TON
0010	1	137+47 - 142+00	LT	159
		142+00 - 148+89	LT	71
		TOTAL		230

CONCRETE PAVEMENT JOINT LAYOUT

CATEGORY	PROJECT	415.5110.S LS
0010	1206-04-67	1
	TOTAL	1

PAVEMENT BARS

CATEGORY	STATION - STATION	LOCATION	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH
0010	137+47 - 142+00	LT/RT	229	167
	142+00 - 148+89	LT/RT	143	168
	EB Exit Ramp	LT/RT	15	38
	WB Exit Ramp	LT/RT	17	30
	TOTALS		404	402

SIDEWALK ITEMS

CATEGORY	STAGE	STATION - STATION	LOCATION	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH
0010	2	137+47 - 142+00	LT & RT	1,580	40	4
		142+00 - 148+89	LT & RT	560	40	4
		STAGE 2 SUBTOTALS		2,140	80	8
	3	137+47 - 142+00	LT & RT	420	40	4
		142+00 - 148+89	LT & RT	450	40	4
		STAGE 3 SUBTOTALS		870	80	8
	4	137+47 - 142+00	LT & RT	42	40	4
		142+00 - 148+89	LT & RT	51	40	4
		STAGE 4 SUBTOTALS		93	80	8
		TOTALS		3,103	240	24

CHAIN LINK ITEMS

CATEGORY	STATION	LOCATION	616.0329 GATES CHAIN LINK (6-FT) EACH	616.0206 FENCE CHAIN LINK 6-FT LF
0010	17+90 B	85' RT	1	14
	TOTAL		1	14

ADJUSTING INLET COVERS

CATEGORY	STATION	LOCATION	611.8115 EACH
0010	140+04	95' LT	1
	140+34	74' LT	1
	140+60	37' RT	1
	141+04	19' LT	1
	TOTAL		4

MAINTENANCE AND REPAIR OF HAUL ROADS

CATEGORY	PROJECT	618.0100.01 EACH
0010	1206-04-67	1

MOBILIZATION

CATEGORY	PROJECT	619.1000 EACH
0010	1206-04-67	1
	TOTAL	1

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CONCRETE MEDIAN SLOPED NOSE

CATEGORY	STAGE	STATION	LOCATION	620.0300 SF
0010	2	140+03	108' LT	43
		143+79	20' LT	250
		STAGE 2 SUBTOTAL		293
	3	139+90	39' RT	44
		143+79	5' LT	119
		143+81	74' RT	84
		STAGE 3 SUBTOTAL		247
	4	140+15	13' LT	59
		140+92	15' LT	103
		143+23	15' LT	84
		146+49	11' LT	64
		STAGE 4 SUBTOTAL		310
		TOTAL		850

SILT FENCE ITEMS

CATEGORY	STATION - STATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
0010	UNDISTRIBUTED	100	100
	TOTAL	100	100

MOBILIZATIONS EROSION CONTROL

CATEGORY	STATION - STATION	628.1905 EACH
0010	137+47 - 148+89	8
	TOTAL	8

MOBILIZATIONS EMERGENCY EROSION CONTROL

CATEGORY	STATION - STATION	628.1910 EACH
0010	137+47 - 148+89	4
	TOTAL	4

EROSION MAT ITEMS

CATEGORY	STATION - STATION	LOCATION	628.2006 URBAN CLASS I TYPE A SY
0010	137+47 - 142+00	LT/RT	930
	142+00 - 148+89	LT/RT	465
		TOTAL	1,395

CONCRETE BARRIER TEMPORARY PRECAST

CATEGORY		STATION - STATION	LOCATION	603.8000 DELIVERED LF	603.8125 INSTALLED LF
0010	STAGE 2A	141+06 - 143+76	LT	275	275
	STAGE 2C	140+60 - 143+76	LT	50	50
	STAGE 3A	139+91 - 143+57	LT	50	375
		TOTALS		375	700

INLET PROTECTION SUMMARY

CATEGORY	STRUCTURE ID	STATION	LOCATION	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH
0010	EXISTING STRUCT.	137+47 - 142+00	LT/RT	5	1	13
	EXISTING STRUCT.	142+00 - 148+89	LT/RT	3	--	10
		TOTALS		8	1	23

FINISHING ITEMS

CATEGORY	STATION - STATION	LOCATION	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0200 SEEDING TEMPORARY LB	SPV.0120.01 WATER FOR SEEDED AREAS MGAL
0010	137+47 - 142+00	LT/RT	0.6	17	25	21
	142+00 - 148+89	LT/RT	0.3	8	13	10
	TOTALS		0.9	25	38	31

TOPSOIL

CATEGORY	STATION - STATION	LOCATION	625.0100 TOPSOIL SY
0010	137+47 - 142+00	LT/RT	930
	142+00 - 148+89	LT/RT	465
	TOTAL		1,395

TRACKING PADS

CATEGORY	STAGES	LOCATION	628.7560 EACH
0010	2 & 3	UNDISTRIBUTED	2
		TOTAL	2

SIGNS TYPE II NON REFLECTIVE

CATEGORY	STAGE	LOCATION	637.2210 SF
0010	ALL	SB-22	6.25
		TOTAL	6.25

MOVING SIGNS TYPE II

CATEGORY	STAGE	LOCATION	638.2102 EACH
0010	ALL	ADVANCED WARNING	3
		UNDISTRIBUTED	45
		TOTAL	48

FIELD OFFICE TYPE B

CATEGORY	PROJECT	642.5001 EACH
0010	1206-04-67	1
	TOTAL	1

TRAFFIC CONTROL AND ADVANCED WARNING ITEMS

CATEGORY	STAGE	DURATION (DAYS)	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0410 TRAFFIC CONTROL BARRICADES TYPE II DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS DAY	643.0900 TRAFFIC CONTROL SIGNS DAY	* 643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I EACH	* 643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS DAYS
0010	STAGE 1	18	3,906	---	324	---	---	648	774	---	792	---	1	18
	STAGE 2	75	15,000	150	1,275	58	58	2,550	4,575	---	3,600	---	1	75
	STAGE 3	75	13,425	150	2,400	60	60	4,800	5,025	---	4,350	---	1	75
	STAGE 4	26	5,512	---	676	---	---	1,352	780	---	1,196	---	1	---
	ADVANCED WARNING	194	582	---	---	---	---	---	---	---	194	2	3	250
	SHOULDER CLOSURE	150	1,800	---	---	---	---	---	---	150	1,200	---	---	---
	EB RAMP NIGHT CLOSURE	1	62	---	6	---	---	12	14	2	16	---	---	7
	WB RAMP NIGHT CLOSURE	1	29	---	4	---	---	8	---	---	10	---	---	7
	SB MAINLINE NIGHT CLOSURE	1	3	---	6	---	---	12	---	---	7	---	---	7
	NB MAINLINE NIGHT CLOSURE	1	3	---	6	---	---	12	---	---	6	---	---	7
	BELTLINE NIGHT LANE CLOSURE	1	194	---	8	---	---	16	56	6	32	---	---	---
	TOTALS		40,516	300	4,705	118	118	9,410	11,224	158	11,403	2	7	446

* ONE CYCLE REQUIRED

TEMPORARY PEDESTRIAN FACILITIES

CATEGORY	LOCATION	644.1420.S TEMPORARY PEDESTRIAN SURFACE PLYWOOD SF	644.1601.S TEMPORARY CURB RAMP EA
0010	STAGE 3	200	3
	TOTALS	200	3

TRAFFIC CONTROL

CATEGORY	PROJECT	643.5000 01. 1206-04-67 EACH
0010	1206-04-67	1
	TOTAL	1

PAVEMENT MARKING ITEMS

CATEGORY	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH DASHED WHITE 12.5-FOOT SEG., 37.5-FOOT GAP LF	646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF	646.3020 MARKING LINE EPOXY 8-INCH WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH DASHED WHITE 2-FOOT SEG., 6-FOOT GAP LF	646.3020 MARKING LINE EPOXY 8-INCH DASHED WHITE 3-FOOT SEG., 9-FOOT GAP LF	646.5020 MARKING ARROW EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH WHITE LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	646.8120 MARKING CURB EPOXY LF	646.8220 MARKING ISLAND NOSE EPOXY EACH
0010	SOUTH TOWNE DRIVE	863	949	1,021	907	60	59	5	2	160	109	149	80	5
	EB EXIT RAMP	20	28	103	128	---	---	4	2	44	---	94	---	---
	EB ENTRANCE RAMP	32	---	8	104	---	---	---	---	15	---	78	---	---
	WB EXIT RAMP	82	---	45	113	---	---	3	1	41	---	90	---	---
	WB ENTRANCE RAMP	23	---	23	---	---	---	---	---	---	---	42	---	---
	SUBTOTALS	1,020	977	1,200	1,252	60	59	12	5	260	109	453	80	5
	TOTALS		3,197			1,371		12	5	260	109	453	80	5

REMOVING PAVEMENT MARKING ITEMS

CATEGORY	STAGE	STATION	-	STATION	646.9000 MARKING REMOVAL LINE 4-INCH LF	646.9100 MARKING REMOVAL LINE 8-INCH LF	646.9200 MARKING REMOVAL LINE WIDE LF	646.9300 MARKING REMOVAL SPECIAL MARKING EACH
0010	1	BEGINNING	-	138+50	---	---	---	---
		138+50	-	145+50	192	55	122	9
		145+50	-	152+50	220	---	---	---
		152+50	-	END	94	---	---	---
		STAGE 1 SUBTOTALS			506	55	122	9
	2	BEGINNING	-	138+50	70	87	---	---
		138+50	-	145+50	772	132	28	---
		145+50	-	152+50	141	---	---	---
		152+50	-	END	---	---	---	---
		STAGE 2 SUBTOTALS			983	219	28	0
	3	BEGINNING	-	138+50	38	---	---	---
		138+50	-	145+50	---	56	---	---
		145+50	-	152+50	293	---	---	---
		152+50	-	END	---	---	---	---
		STAGE 3 SUBTOTALS			331	56	0	0
		UNDISTRIBUTED			200	50	15	---
		TOTALS			2,020	380	165	9

CONSTRUCTION STAKING SUMMARY

CATEGORY	STATION - STATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	137+47 - 142+00	307	307	715
	142+00 - 148+89	258	258	570
	EB EXIT RAMP	68	68	123
	EB ENTRANCE RAMP	41	41	---
	WB EXIT RAMP	63	63	63
	WB ENTRANCE RAMP	40	40	---
	TOTALS	777	777	1,471

CONSTRUCTION STAKING

CATEGORY	PROJECT	650.8500 ELECTRICAL INSTALLATIONS LS	650.9910 SUPPLEMENTAL CONTROL LS
0010	1206-04-67	1	1
	TOTALS	1	1

TEMPORARY PAVEMENT MARKING ITEMS

CATEGORY	STAGE	STATION	-	STATION	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH LF	649.0250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH LF	649.0550 TEMPORARY MARKING ARROW REMOVABLE TAPE LF	649.0650 TEMPORARY MARKING WORD REMOVABLE TAPE EACH	649.0850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH LF	649.0960 TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH LF
0010	1	BEGINNING	-	138+50	173	---	---	---	---	75
		138+50	-	145+50	580	558	3	3	18	232
		145+50	-	152+50	1,318	260	---	---	---	---
		152+50	-	END	590	96	---	---	---	---
		STAGE 1 SUBTOTALS			2,661	914	3	3	18	307
	2A	BEGINNING	-	138+50	323	---	---	---	---	---
		138+50	-	145+50	2,783	253	5	2	41	---
		145+50	-	152+50	762	---	---	---	---	---
		152+50	-	END	---	---	---	---	---	---
		STAGE 2A SUBTOTALS			3,868	253	5	2	41	---
	2B	BEGINNING	-	138+50	---	---	---	---	---	---
		138+50	-	145+50	200	---	---	---	116	---
		145+50	-	152+50	---	---	---	---	---	---
		152+50	-	END	---	---	---	---	---	---
		STAGE 2B SUBTOTALS			200	---	---	---	116	---
	2C	BEGINNING	-	138+50	---	---	---	---	---	---
		138+50	-	145+50	645	580	4	2	13	204
		145+50	-	152+50	---	---	---	---	---	---
		152+50	-	END	---	---	---	---	---	---
		STAGE 2C SUBTOTALS			645	580	4	2	13	204
	3A	BEGINNING	-	138+50	474	---	---	---	---	---
		138+50	-	145+50	2,560	---	1	---	48	253
		145+50	-	152+50	1,157	---	---	---	---	---
		152+50	-	END	---	---	---	---	---	---
		STAGE 3A SUBTOTALS			4,191	---	1	---	48	253
	3B	BEGINNING	-	138+50	121	---	---	---	---	---
		138+50	-	145+50	638	---	---	---	33	211
		145+50	-	152+50	---	---	---	---	---	---
		152+50	-	END	---	---	---	---	---	---
		STAGE 3B SUBTOTALS			759	---	---	---	33	211
	4	BEGINNING	-	138+50	180	---	---	---	---	44
		138+50	-	145+50	390	---	---	---	22	---
		145+50	-	152+50	---	---	---	---	---	---
		152+50	-	END	---	---	---	---	---	---
		STAGE 4 SUBTOTALS			570	---	---	---	22	44
		UNDISTRIBUTED			645	175	1	1	29	102
		TOTALS			13,538	1,922	14	8	320	1,121

TRAFFIC SIGNAL CONDUIT SUMMARY

CATEGORY	INTERSECTION	LOCATION FROM	LOCATION TO	* 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	* 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	* 652.0615 CONDUIT SPECIAL 3-INCH LF
0030	USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY	CB-1	PB-1	---	27	---
		PB-1	SB-23	---	23	---
		PB-1	SB-24	16	---	---
		CB-1	PB-2	---	21	---
		PB-2	SB-1	6	---	---
		PB-2	PB-3	---	64	---
		PB-3	SB-2	4	---	---
		PB-3	PB-4	---	70	---
		PB-4	SB-3	10	---	---
		PB-4	PB-5	27	---	---
		PB-5	PB-6	160	---	---
		PB-4	PB-7	---	30	---
		PB-8	SB-5	---	9	---
		PB-8	CB-2	---	69	---
		CB-2	PB-9	---	42	---
		PB-9	SB-6	8	---	---
		PB-9	PB-10	---	54	38
		PB-10	LP-1	7	---	---
		PB-10	PB-11	---	70	---
		PB-11	SB-7	5	---	---
		PB-11	PB-12	---	130	---
		PB-12	SB-8	16	---	---
		PB-12	SB-9	28	---	---
		PB-12	PB-13	225	---	---
		PB-12	PB-14	---	110	---
		PB-14	PB-15	---	35	---
		PB-14	SB-13	10	---	---
		PB-14	PB-16	---	84	---
		PB-15	SB-10	---	---	---
		PB-15	SB-11	6	---	---
		PB-15	SB-12	4	---	---
		PB-16	PB-17	38	---	---
		PB-16	SB-14	---	---	---
		PB-17	PB-18	165	---	---
		PB-16	PB-19	---	80	---
		PB-19	SB-15	18	---	---
		PB-19	PB-20	---	140	---
		PB-20	SB-16	5	---	---
		PB-20	PB-8	---	110	18
		PB-21	PB-22	---	130	---
		PB-22	PB-7	---	130	---
		PB-22	SB-4	4	---	---
		PB-21	PB-23	---	48	---
		PB-21	SB-17	---	9	---
		PB-23	SB-18	8	---	---
		PB-23	PB-24	---	120	---
		PB-24	SB-19	16	---	---
		PB-24	SB-20	6	---	---
		PB-24	LP-2	35	---	---
		PB-24	PB-25	135	---	---
		PB-25	PB-26	---	---	30
		PB-26	PB-27	185	---	---
		PB-24	PB-28	---	120	---
		PB-28	SB-21	12	---	---
		PB-28	SB-22	5	---	---
		PB-28	PB-1	---	135	---
		Totals		1,164	1,860	86

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

ELECTRICAL WIRE, LIGHTING (LUMINAIRES)

CATEGORY	LOCATION	LOCATION FROM	LOCATION TO	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED LF	* 655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF
0030	USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY	CB-1	SB-1	46	---
			POLE	---	123
		SB-1	SB-4	235	---
			POLE	---	312
		CB-1	SB-23	100	---
			POLE	---	123
		SB-23	LP-2	235	---
			POLE	---	123
		LP-2	SB-19	67	---
			POLE	---	123
		CB-1	LP-1	565	---
			POLE	---	123
		LP-1	SB-8	175	---
			POLE	---	312
		CB-1	SB-16	515	---
			POLE	---	312
		SB-16	SB-12	285	---
			POLE	---	123
			TOTALS	2,223	1,674

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

TRAFFIC SIGNAL EQUIPMENT GROUNDING AND GROUNDED CONDUCTORS

CATEGORY	INTERSECTION	LOCATION FROM	LOCATION TO	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG (GREEN) LF	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG (WHITE) LF
0030	USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY	CB-1	SB-1	46	46
		SB-1	SB-2	77	77
		SB-2	SB-3	84	84
		SB-3	SB-4	145	145
		SB-4	SB-17	115	115
		SB-17	SB-18	71	71
		SB-18	SB-19	105	105
		SB-19	SB-20	38	38
		SB-20	SB-21	115	115
		SB-21	SB-22	39	39
		SB-22	SB-23	130	130
		SB-23	SB-24	61	61
		SB-24	CB-1	68	68
		CB-2	SB-6	53	53
		SB-6	SB-7	140	140
		SB-7	SB-8	120	120
		SB-8	SB-9	69	69
		SB-9	SB-13	115	115
		SB-13	SB-12	96	96
		SB-12	SB-11	32	32
		SB-11	SB-10	72	72
		SB-13	SB-14	92	92
		SB-14	SB-15	100	100
		SB-15	SB-16	125	125
		SB-16	SB-5	115	115
		SB-5	CB-2	66	66
			SUBTOTALS	2,289	2,289
			TOTAL	4,578	

INSTALL CONDUIT INTO EXISTING ITEM

CATEGORY	LOCATION	STATION	LOCATION	652.0700.S EACH	REMARKS
0030	USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY	143+43.2	53.2' RT	1	EXPB-100
		TOTAL		1	

CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL

CATEGORY	INTERSECTION	BASE NO.	STATION	LOCATION	654.0217 EACH
0030	USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY	CB-1	144+22.3	56' RT	1
		CB-2	140+65.4	56' RT	1
			TOTAL		2

3

3

LOOP DETECTORS

CATEGORY	INTERSECTION	LOOP NO.	STATION	LOCATION	SIZE FT x FT	NO. OF TURNS	652.0800 CONDUIT LOOP DETECTOR LF	652.0215 CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4-INCH LF	655.0700 LOOP DETECTOR LEAD IN CABLE LF	655.0800 LOOP DETECTOR WIRE LF	REMARKS/SDD INSTALLATION REFERENCE
0030	USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY	11	147+00.40	25.56' LT	6X6	6	---	100	615	600	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		12	147+00.82	36.55' LT	6X6	6	---	74	615	445	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		13	147+01.34	50.62' LT	6X6	6	---	50	615	300	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		21	12+04.67 C	12.87' LT	6X6	6	40	---	365	240	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		22	12+04.67 C	4.87' LT	6X6	6	56	---	365	335	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		23	10+42.04 C	11.56' LT	6X20	3	72	---	175	215	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		24	10+42.04 C	0.56' LT	6X20	3	96	---	175	290	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		25	10+14.04 C	11.50' LT	6X20	3	78	---	175	235	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		26	10+14.04 C	0.5' LT	6X20	3	68	---	84	205	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		27	10+11.10 C	24.69' RT	6X20	3	82	---	37	245	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		41	137+55.22	5.55' RT	6X6	5	---	54	475	270	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		42	137+55.22	16.55' RT	6X6	5	---	78	475	390	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		51	25+58.44 A	18.50' LT	6X6	5	---	42	510	210	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		52	25+58.44 A	6.5' LT	6X6	5	---	66	510	330	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		53	27+23.04 A	18.50' LT	6X20	3	76	---	325	230	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		54	27+23.04 A	6.5' LT	6X20	3	100	---	325	305	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		55	27+51.31 A	20.90' LT	6X20	3	82	---	325	245	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		56	27+53.45 A	8.07' LT	6X20	3	105	---	325	310	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		57	27+60.36 A	21.81' RT	6X20	3	94	---	355	280	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
				TOTALS			949	464	6,846	5,680	

*LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
**FINAL LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD

REMOVING PULL BOXES

CATEGORY	LOCATION	PULL BOX NUMBER	STATION	LOCATION	653.0905 EACH
0030	USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY	EXPB-1	144+30	41 ' RT	1
		EXPB-2	10+24 C	34 ' LT	1
		EXPB-3	10+05 C	11 ' LT	1
		EXPB-4	10+15 C	22 ' RT	1
		EXPB-5	11+05 C	22 ' RT	1
		EXPB-6	143+36	45 ' RT	1
		EXPB-7	140+86	47 ' RT	1
		EXPB-8	140+70	49 ' RT	1
		EXPB-9	10+27 B	27 ' LT	1
		EXPB-10	10+20 B	13 ' RT	1
		EXPB-11	140+15	42 ' RT	1
		EXPB-12	140+02	16 ' LT	1
		EXPB-13	139+07	15 ' LT	1
		EXPB-14	138+07	11 ' LT	1
		EXPB-15	27+68 A	5 ' RT	1
		EXPB-16	27+69 A	42 ' RT	1
		EXPB-17	27+65 A	34 ' LT	1
		EXPB-18	26+76 A	28 ' LT	1
		EXPB-19	140+76	78 ' LT	1
		EXPB-20	141+03	15 ' LT	1
		EXPB-21	143+13	15 ' LT	1
		EXPB-22	143+29	76 ' LT	1
		EXPB-23	144+11	74 ' LT	1
		EXPB-24	144+16	17 ' LT	1
		EXPB-25	145+05	22 ' LT	1
		EXPB-26	145+94	13 ' LT	1
		TOTAL			26

TRAFFIC SIGNAL BASES

CATEGORY	INTERSECTION	BASE NO.	STATION	LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	654.0105 CONCRETE BASES TYPE 5 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	654.0113 CONCRETE BASES TYPE 13 EACH	657.0100 PEDESTAL BASES EACH	* 657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	REMARKS
0030	USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY	SB-1	10+11.9 C	40.5' LT	---	1	---	---	---	---	1	---
		SB-2	10+11.2 C	10.6' LT	1	---	---	---	---	1	---	---
		SB-3	143+48.8	42.8' RT	1	---	---	---	---	1	---	---
		SB-4	143+07.2	15.0' LT	---	1	---	---	---	---	1	---
		SB-5	140+77.4	48.7' RT	---	---	---	---	1	---	---	---
		SB-6	140+58.8	47.9' RT	1	---	---	---	---	1	---	---
		SB-7	140+12.6	41.0' RT	1	---	---	---	---	1	---	---
		SB-8	139+97.7	16.9' LT	---	1	---	---	---	---	1	---
		SB-9	139+54.0	21.8' LT	1	---	---	---	---	1	---	---
		SB-10	139+41.8	70.8' LT	---	---	---	1	---	---	---	---
		SB-11	139+58.0	79.1' RT	1	---	---	---	---	1	---	
		SB-12	27+56.5 A	33.5' RT	---	1	---	---	---	---	1	---
		SB-13	27+58.4 A	5.6' RT	1	---	---	---	---	1	---	---
		SB-14	140+41.7	77.8' LT	1	---	---	---	---	1	---	---
		SB-15	140+60.1	72.4' LT	1	---	---	---	---	1	---	---
		SB-16	141+05.6	15.0' LT	---	1	---	---	---	---	1	---
		SB-17	143+38.7	76.7' LT	---	---	---	---	1	---	---	CONCRETE BASE EXTENSION REQ'D
		SB-18	143+65.0	76.8' LT	1	---	---	---	---	1	---	---
		SB-19	144+06.5	84.2' LT	---	1	---	---	---	---	1	---
		SB-20	144+12.5	78.3' LT	1	---	---	---	---	1	---	---
		SB-21	144+12.3	22.5' LT	1	---	---	---	---	1	---	---
		SB-22	144+21.4	8.8' LT	1	---	---	---	---	1	---	---
		SB-23	144+52.7	51.9' RT	---	---	---	---	1	---	---	---
		SB-24	144+28.8	43.9' RT	1	---	---	---	---	1	---	---
		LP-1	10+25.6 B	12.7' RT	---	---	1	---	---	---	1	---
		LP-2	144+49.4	73.8' LT	---	---	1	---	---	---	1	---
				TOTALS	14	6	2	1	3	14	8	

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

3

TRAFFIC SIGNAL CABLE SUMMARY

CATEGORY	INTERSECTION	LOCATION FROM	LOCATION TO	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG LF	655.0290 CABLE TRAFFIC SIGNAL 21-14 AWG LF
0030	USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY	CB-1	SB-1	---	41	---	---	---
		SB-1	HEAD 34	19	---	---	---	---
		SB-1	HEAD 84	12	---	---	---	---
		SB-1	BUTTON	6	---	---	---	---
		CB-1	SB-2	87	---	---	---	---
		SB-2	HEAD 31	19	---	---	---	---
		SB-2	BUTTON	6	---	---	---	---
		CB-1	SB-3	---	145	---	---	---
		SB-3	HEAD 18	19	---	---	---	---
		SB-3	HEAD 83	12	---	---	---	---
		SB-3	BUTTON	6	---	---	---	---
		CB-1	SB-4	---	250	---	---	---
		SB-4	HEAD 24	19	---	---	---	---
		CB-2	SB-5	---	62	---	---	---
		SB-5	HEAD 2	46	---	---	---	---
		SB-5	HEAD 3	57	---	---	---	---
		SB-5	HEAD 4	68	---	---	---	---
		CB-2	SB-6	---	50	---	---	---
		SB-6	HEAD 15	19	---	---	---	---
		SB-6	HEAD 82	12	---	---	---	---
		SB-6	BUTTON	6	---	---	---	---
		CB-2	SB-7	---	---	---	160	---
		SB-7	HEAD 1	19	---	---	---	---
		SB-7	HEAD 11	19	---	---	---	---
		SB-7	HEAD 14	19	---	---	---	---
		SB-7	HEAD 81	12	---	---	---	---
		SB-7	BUTTON	6	---	---	---	---
		CB-2	SB-8	---	250	---	---	---
		SB-8	HEAD 6	19	---	---	---	---
		SB-8	HEAD 10	19	---	---	---	---
		CB-2	SB-9	265	---	---	---	---
		SB-9	HEAD 17	19	---	---	---	---
		CB-2	SB-10	---	380	---	---	---
		SB-10	HEAD 8	39	---	---	---	---
		SB-10	HEAD 9	50	---	---	---	---
		CB-2	SB-11	360	---	---	---	---
		SB-11	HEAD 92	12				
		SB-11	BUTTON	6	---	---	---	---
		CB-2	SB-12	360	---	---	---	---
		SB-12	HEAD 16	19	---	---	---	---
		SB-12	BUTTON	6	---	---	---	---
		CB-2	SB-13	315	---	---	---	---
		SB-13	HEAD 13	19	---	---	---	---
		SB-13	BUTTON	6	---	---	---	---
		CB-2	SB-14	275	---	---	---	---
		SB-14	HEAD 91	12	---	---	---	---
		SB-14	BUTTON	6	---	---	---	---
		CB-2	SB-15	230	---	---	---	---
		SB-15	HEAD 7	19	---	---	---	---
		CB-2	SB-16	---	135	---	---	---
		SB-16	HEAD 5	19	---	---	---	---
		SB-16	HEAD 12	19	---	---	---	---
		CB-1	SB-17	---	305	---	---	---
		SB-17	HEAD 26	40	---	---	---	---
		SB-17	HEAD 27	52	---	---	---	---
		SB-17	HEAD 28	64	---	---	---	---
		CB-1	SB-18	---	275	---	---	---
		SB-18	HEAD 33	19	---	---	---	---
		SB-18	HEAD 90	12	---	---	---	---
		SB-18	BUTTON	6	---	---	---	---

CONT'D ON RIGHT

TRAFFIC SIGNAL CABLE SUMMARY

CATEGORY	INTERSECTION	LOCATION FROM	LOCATION TO	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG LF	655.0290 CABLE TRAFFIC SIGNAL 21-14 AWG LF
0030	USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY	CB-1	SB-19	---	210	---	---	---
		SB-19	HEAD 32	19	---	---	---	---
		SB-19	HEAD 88	12	---	---	---	---
		SB-19	BUTTON	6	---	---	---	---
		CB-1	SB-20	---	---	200	---	---
		SB-20	HEAD 23	19	---	---	---	---
		SB-20	HEAD 25	19	---	---	---	---
		SB-20	HEAD 89	12	---	---	---	---
		SB-20	BUTTON	6	---	---	---	---
		CB-1	SB-21	---	135	---	---	---
		SB-21	HEAD 30	19	---	---	---	---
		SB-21	HEAD 87	12	---	---	---	---
		SB-21	BUTTON	6	---	---	---	---
		CB-1	SB-22	---	---	125	---	---
		SB-22	HEAD 22	19	---	---	---	---
		SB-22	HEAD 35	19	---	---	---	---
		SB-22	HEAD 86	12	---	---	---	---
		SB-22	BUTTON	6	---	---	---	---
		CB-1	SB-23	---	62	---	---	---
		SB-23	HEAD 19	43	---	---	---	---
		SB-23	HEAD 20	54	---	---	---	---
		SB-23	HEAD 21	65	---	---	---	---
		CB-1	SB-24	64	---	---	---	---
		SB-24	HEAD 85	12	---	---	---	---
		SB-24	BUTTON	6	---	---	---	---
		CB-1	CB-2	---	---	---	---	500
	CONT'D FROM LEFT		TOTALS	3,205	2,300	325	160	500

TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS

CATEGORY	LOCATION	661.0200.01 LS
0030	USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY	1

REMOVE CABLE

CATEGORY	INTERSECTION	LOCATION FROM	LOCATION TO	674.0300 LF
0030	USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY	EXPB-6	EXPB-7	250
		EXPB-19	EXPB-22	250
			TOTAL	500

TRAFFIC SIGNAL MOUNTING HARDWARE

CATEGORY	LOCATION	658.5069.01 SIGNAL MOUNTING HARDWARE LS
0030	USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY	1

TRAFFIC SIGNAL POLES

CATEGORY	INTERSECTION	BASE NO.	STATION	LOCATION	657.0310 POLES TYPE 3 EACH	657.0322 POLES TYPE 5 ALUMINUM EACH	657.0410 TRAFFIC SIGNAL STANDARDS ALUMINUM 9-FT EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0614 LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 8-FT EACH	* 657.0615 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 8-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	* 659.1125 LUMINAIRES UTILITY LED C EACH	657.0345 POLES TYPE 9 EACH	657.0360 POLES TYPE 13 EACH	657.0530 MONOTUBE ARMS 30-FT	657.0540 MONOTUBE ARMS 40-FT	657.0545 MONOTUBE ARMS 45-FT	657.0808 LUMINAIRE ARMS STEEL 8-FT	657.0815 LUMINAIRE ARMS STEEL 15-FT
0030	USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY	SB-1	10+11.9 C	40.5' LT	1	---	---	---	1	---	1	1	---	---	---	---	---	---	---
		SB-2	10+04.9 C	11.1' LT	---	---	---	1	---	---	1	---	---	---	---	---	---	---	---
		SB-3	143+48.8	42.8' RT	---	---	---	1	---	---	1	---	---	---	---	---	---	---	---
		SB-4	143+07.2	15.0' LT	1	---	---	---	2	---	---	2	---	---	---	---	---	---	---
		SB-5	140+77.4	48.7' RT	---	---	---	---	---	---	---	---	---	1	---	---	---	1	1
		SB-6	140+48.8	47.9' RT	---	---	---	1	---	---	1	---	---	---	---	---	---	---	---
		SB-7	140+12.6	41.0' RT	---	---	---	1	---	---	1	---	---	---	---	---	---	---	---
		SB-8	139+97.7	16.9' LT	1	---	---	---	2	---	---	2	---	---	---	---	---	---	---
		SB-9	139+54.0	21.8' LT	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
		SB-10	139+41.8	70.8' LT	---	---	---	---	---	---	---	---	1	---	1	---	---	---	---
		SB-11	139+58.0	79.1' RT	---	---	1	---	---	---	1	---	---	---	---	---	---	---	---
		SB-12	27+59.8 A	36.5' RT	1	---	---	---	1	---	---	1	---	---	---	---	---	---	---
		SB-13	27+58.4 A	5.6' RT	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
		SB-14	140+41.7	77.8' LT	---	---	1	---	---	---	1	---	---	---	---	---	---	---	---
		SB-15	140+60.0	72.4' LT	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
		SB-16	141+05.6	15.2' LT	1	---	---	---	2	---	---	2	---	---	---	---	---	---	---
		SB-17	143+38.7	76.7' LT	---	---	---	---	---	---	---	---	---	1	---	1	---	---	1
		SB-18	143+65.0	76.8' LT	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
		SB-19	144+06.5	84.2' LT	1	---	---	---	1	---	---	1	---	---	---	---	---	---	---
		SB-20	144+12.1	78.3' LT	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
		SB-21	144+12.3	22.5' LT	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
		SB-22	144+21.4	8.9' LT	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
		SB-23	144+52.7	51.9' RT	---	---	---	---	---	---	---	1	---	1	---	---	1	1	---
		SB-24	144+28.8	43.9' RT	---	---	1	---	---	---	1	---	---	---	---	---	---	---	---
		LP-1	10+25.6 B	12.7' RT	---	1	---	---	---	1	---	1	---	---	---	---	---	---	---
		LP-2	144+49.4	73.8' LT	---	1	---	---	---	1	---	1	---	---	---	---	---	---	---
			TOTALS		6	2	3	11	9	2	8	12	1	3	1	1	2	1	2

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

LIGHTING REMOVALS

CATEGORY	BASE NO.	STATION	EQUIP. LOCATION	SPV.0060.01 REMOVE EXISTING LIGHTING CABINET EACH	SPV.0060.02 REMOVE EXISTING LIGHTING ASSEMBLY EACH	* 204.0195 REMOVE CONCRETE BASES EACH
0010	EXLP-101	12+71.68 A	17.08' RT	---	1	1
	EXLP-102	15+21.23 A	17.56' RT	---	1	1
	EXLP-103	17+71.61 A	17.27' RT	---	1	1
	EXLP-104	15+47.83 D	15.98' LT	---	1	1
	EXLP-105	19+90.64 A	16.87' RT	---	1	1
	EXLP-106	20+21.13 A	38.64' LT	---	1	1
	EXLP-107	17+53.05 D	9.12' LT	---	1	1
	EXLP-108	13+00.57 D	17.26' LT	---	1	1
	EXLP-109	14+54.78 B	7.89' RT	---	1	1
	EXLP-110	16+56.93 B	8.22' RT	---	1	1
	EXLP-111	19+04.33 B	13.86' RT	---	1	1
	EXLP-112	21+54.42 B	13.86' RT	---	1	1
	EXLP-113	15+44.30 C	32.29' RT	---	1	1
	EXLP-114	15+45.23 C	6.48' LT	---	1	1
	EXLP-115	17+44.71 C	6.40' LT	---	1	1
	EXLP-116	19+88.58 C	11.19' LT	---	1	1
	-	17+31.9 A	50.2' RT	---	---	1
	EXLC-1	144+41.00	51.9' RT	1	---	1
			TOTALS	1	16	18

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

LIGHTING CONDUIT SUMMARY

CATEGORY	EQUIP. LOCATION FROM	EQUIP. LOCATION TO	* 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	* 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	* 652.0615 CONDUIT SPECIAL 3-INCH LF
0010	L13-0454	LPB-3	129	---	---
	LPB-3	L-13-0454-0003	---	62	---
	L-13-0454-0003	L-13-0454-0002	---	158	---
	L-13-0454-0002	L-13-0454-0001	---	160	---
	LPB-3	L-13-0454-0004	---	93	---
	L-13-0454-0004	L-13-0454-0005	---	159	---
	LPB-3	LPB-4	---	---	324
	LPB-4	L-13-0454-0007	---	90	---
	L-13-0454-0007	L-13-0454-0006	---	160	---
	LPB-4	L-13-0454-0008	---	66	---
	L-13-0454-0008	L-13-0454-0009	---	160	---
	L13-0556	LPB-1	108	---	---
	LPB-1	L-13-0556-0003	---	26	---
	L-13-0556-0003	L-13-0556-0002	---	159	---
	L-13-0556-0002	L-13-0556-0001	---	162	---
	LPB-1	L-13-0556-0004	---	129	---
	L-13-0556-0004	L-13-0556-0010	---	158	---
	LPB-1	LPB-2	---	---	360
	LPB-2	L-13-0556-0006	---	102	---
	L-13-0556-0006	L-13-0556-0005	---	161	---
	LPB-2	L-13-0556-0007	---	54	---
	L-13-0556-0007	L-13-0556-0008	---	159	---
	L-13-0556-0008	L-13-0556-0009	---	160	---
		TOTALS	237	2,378	684

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

3

TRAFFIC SIGNAL FACES SUMMARY

CATEGORY	INTERSECTION	BASE NO.	HEAD NO.	658.0173 TRAFFIC SIGNAL FACE 3s 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH
0030	USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY	SB-1	34	1	---
			84	---	1
		SB-2	31	1	---
		SB-3	18	1	---
			83	---	1
		SB-4	24	1	---
		SB-5	2	1	---
			3	1	---
			4	1	---
		SB-6	15	1	---
			82	---	1
		SB-7	1	1	---
			11	1	---
			14	1	---
			81	---	1
		SB-8	6	1	---
			10	1	---
		SB-9	17	1	---
		SB-10	8	1	---
			9	1	---
		SB-11	92	---	1
		SB-12	16	1	---
		SB-13	13	1	---
		SB-14	91	---	1
		SB-15	7	1	---
		SB-16	5	1	---
			12	1	---
		SB-17	26	1	---
			27	1	---
			28	1	---
		SB-18	33	1	---
			90	---	1
		SB-19	32	1	---
			89	---	1
		SB-20	23	1	---
			25	1	---
			88	---	1
		SB-21	30	1	---
			87	---	1
		SB-22	22	1	---
			35	1	---
			86	---	1
		SB-23	19	1	---
			20	1	---
			21	1	---
		SB-24	85	---	1
		TOTALS		34	12

LIGHTING PULL BOXES

CATEGORY	NO.	STATION	EQUIP. LOCATION	* 653.0164 PULL BOXES NON-CONDUCTIVE 24x42-INCH EACH
0010	LPB-1	17+28.53 A	18.64' RT	1
	LPB-2	14+36.26 D	18.27' LT	1
	LPB-3	18+26.81 B	13.97' RT	1
	LPB-4	18+18.63 C	6.07' LT	1
			TOTAL	4

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

ELECTRICAL WIRE LIGHTING

CATEGORY	EQUIP. LOCATION FROM	TO	* 655.0610 12 AWG LF
0010	L13-0454	L-13-0454-0003	276
	L-13-0454-0003	L-13-0454-0001	648
	L-13-0454-0003	L-13-0454-0005	660
	L13-0454	L-13-0454-0008	628
	L-13-0454-0008	L-13-0454-0006	664
	L13-0454	L-13-0454-0002	592
	L13-0454	L-13-0454-0004	338
	L13-0454	L-13-0454-0007	676
	L-13-0454-0007	L-13-0454-0009	664
	L13-0556	L-13-0556-0003	192
	L-13-0556-0003	L-13-0556-0001	654
	L-13-0556-0003	L-13-0556-0010	658
	L13-0556	L-13-0556-0006	724
	L-13-0556-0006	L-13-0556-0008	662
	L13-0556	L-13-0556-0002	510
	L13-0556	L-13-0556-0004	398
	L13-0556	L-13-0556-0007	628
	L-13-0556-0007	L-13-0556-0009	650
	L-13-0556-0007	L-13-0556-0005	672
		TOTAL	10,894

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

ELECTRICAL WIRE LIGHTING-EQUIPMENT GROUNDING CONDUCTORS

CATEGORY	EQUIP. LOCATION FROM	TO	* 655.0610 12 AWG LF
0010	L13-0454	L-13-0454-0003	138
	L-13-0454-0003	L-13-0454-0002	164
	L-13-0454-0002	L-13-0454-0001	166
	L13-0454	L-13-0454-0004	169
	L-13-0454-0004	L-13-0454-0005	165
	L13-0454	L-13-0454-0008	314
	L-13-0454-0008	L-13-0454-0009	166
	L-13-0454-0008	L-13-0454-0007	172
	L-13-0454-0007	L-13-0454-0006	166
	L13-0556	L-13-0556-0003	96
	L-13-0556-0003	L-13-0556-0002	165
	L-13-0556-0002	L-13-0556-0001	168
	L13-0556	L-13-0556-0004	199
	L-13-0556-0004	L-13-0556-0010	164
	L13-0556	L-13-0556-0007	314
	L-13-0556-0007	L-13-0556-0008	165
	L-13-0556-0008	L-13-0556-0009	166
	L-13-0556-0007	L-13-0556-0006	172
	L-13-0556-0006	L-13-0556-0005	167
		TOTAL	3,396

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

ELECTRICAL SERVICE METER BREAKER PEDESTAL

CATEGORY	LOCATION	STATION	LOCATION	BID ITEM NUMBER	LS
0010	USH 12/18 AT SOUTH TOWNE DR./WEST BROADWAY - WEST RAMP LIGHTING (L13-0556)	17+52.8 A	49.1' RT	656.0200.01	1
	USH 12/18 AT SOUTH TOWNE DR./WEST BROADWAY - EAST RAMP LIGHTING (L13-0454)	17+82.5 B	31.8' RT	656.0200.02	1

STREET LIGHTING SUMMARY (POLE LUMINAIRE)

CATEGORY	BASE NO.	STATION	EQUIP. LOCATION	654.0106 CONCRETE BASES TYPE 6 EACH	* 655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	12 AWG (GROUND) LF	* 657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	* 657.0327 POLES TYPE 6-ALUMINUM EACH	* 657.0615 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 8-FT EACH	* 659.1125 LUMINAIRES UTILITY LED C EACH
0010	L-13-0556-0001	13+80.6 A	14.2' RT	1	94	47	1	1	1	1
	L-13-0556-0002	15+40.6 A	16.2' RT	1	94	47	1	1	1	1
	L-13-0556-0003	17+00.6 A	15.0' RT	1	94	47	1	1	1	1
	L-13-0556-0004	18+60.6 A	14.0' RT	1	94	47	1	1	1	1
	L-13-0556-0005	11+72.1 D	15.7' LT	1	94	47	1	1	1	1
	L-13-0556-0006	13+32.1 D	17.9' LT	1	94	47	1	1	1	1
	L-13-0556-0007	14+92.2 D	16.8' LT	1	94	47	1	1	1	1
	L-13-0556-0008	16+52.1 D	11.7' LT	1	94	47	1	1	1	1
	L-13-0556-0009	18+12.1 D	7.3' LT	1	94	47	1	1	1	1
	L-13-0556-0010	20+20.6 A	12.4' RT	1	94	47	1	1	1	1
	L-13-0454-0001	14+42.5 B	4.8' RT	1	94	47	1	1	1	1
	L-13-0454-0002	16+02.5 B	5.3' RT	1	94	47	1	1	1	1
	L-13-0454-0003	17+62.0 B	9.4' RT	1	94	47	1	1	1	1
	L-13-0454-0004	19+22.0 B	11.8' RT	1	94	47	1	1	1	1
	L-13-0454-0005	20+82.0 B	10.9' RT	1	94	47	1	1	1	1
	L-13-0454-0006	15+67.4 C	4.8' LT	1	94	47	1	1	1	1
	L-13-0454-0007	17+27.0 C	4.6' LT	1	94	47	1	1	1	1
	L-13-0454-0008	18+87.0 C	7.2' LT	1	94	47	1	1	1	1
	L-13-0454-0009	20+47.0 C	9.5' LT	1	94	47	1	1	1	1
			TOTALS	19	1,786	893	19	19	19	19

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

3

LIGHTING CONTROL SUMMARY

CATEGORY	CABINET NO.	STATION	LOCATION	659.2130 LIGHTING CONTROL CABINETS 120/240 30-INCH EACH	654.0230 CONCRETE CONTROL CABINET BASES TYPE L30 EACH
0010	L13-0454	17+82.5 B	31.8' RT	1	1
	L13-0556	17+52.8 A	49.1' RT	1	1
			TOTALS	2	2

INSTALL DEPARTMENT FURNISHED VIDEO DETECTION

CATEGORY	SPV.0105.02 USH 12/18 & SOUTH TOWNE DR. LS
0030	1

ITS SUMMARY

CATEGORY	INTERSECTION	LOCATION	SPV.0060.04 RELOCATE EXISTING WIRELESS RADIO/ANTENNA EACH
0030	USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY	FROM EXSB-13 TO EXCP-1	1
		FROM EX-ITS-1 TO EXCP-1	1
		FROM EXLP-5 TO SB-23	1
	TOTALS		3

INCENTIVE STRENGTH CONCRETE PAVEMENT

CATEGORY	PROJECT	715.0415 1206-04-67 DOL
0010	1206-04-67	1,052
	TOTAL	1,052

UTILITY LINE OPENING (ULO)

CATEGORY	LOCATION	SPV.0060.03 EACH
0030	SB-5	1
	SB-10	1
	SB-17	1
	SB-23	1
	TOTAL	4

REMOVE TRAFFIC SIGNALS

CATEGORY	SPV.0105.01 USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY LS
0030	1

STATE FURNISHED ITEMS

ITEM	FOR INFORMATION ONLY EACH
TRAFFIC SIGNAL CABINET	2
VIDEO DETECTION CAMERA SYSTEM	2

INCENTIVE STRENGTH CONCRETE STRUCUTRES

CATEGORY	PROJECT	715.0502 1206-04-67 DOL
0020	1206-04-67	1,056
	TOTAL	1,056

INLET COVERS TYPE DW

CATEGORY	STATION	LOCATION	SPV.0060.05 EACH
0010	140+34	74' LT	1
	TOTAL		1

TRAFFIC SIGNAL PULL BOX SUMMARY

CATEGORY	INTERSECTION	PULL BOX NO.	STATION	LOCATION	653.0154 PULL BOXES NON-CONDUCTIVE 24X36-INCH EACH	* 653.0164 PULL BOXES NON-CONDUCTIVE 24X42-INCH EACH
0030	USH 12/18 & SOUTH TOWNE DRIVE/WEST BROADWAY	PB-1	144+30.2	51.8' RT	---	1
		PB-2	10+15.72 C	41.7' LT	---	1
		PB-3	10+14.93 C	10.0' LT	---	1
		PB-4	10+15.24 C	24.8' RT	---	1
		PB-5	10+42.01 C	24.6' RT	1	---
		PB-6	12+02.74 C	23.1' RT	1	---
		PB-7	143+35.3	46.1' RT	---	1
		PB-8	140+86.3	46.8' RT	---	1
		PB-9	10+14.60 B	30.8' LT	---	1
		PB-10	10+19.00 B	15.2' RT	---	1
		PB-11	140+07.8	40.6' RT	---	1
		PB-12	139+82.2	19.2' LT	---	1
		PB-13	137+55.2	11.2' LT	1	---
		PB-14	27+68.14 A	7.5' RT	---	1
		PB-15	27+59.54 A	40.8' RT	---	1
		PB-16	27+65.25 A	33.8' LT	---	1
		PB-17	27+23.04 A	33.7' LT	1	---
		PB-18	25+58.25 A	30.5' LT	1	---
		PB-19	140+77.5	80.5' LT	---	1
		PB-20	141+03.3	15.2' LT	---	1
		PB-21	143+29.8	76.2' LT	---	1
		PB-22	143+11.6	15.0' LT	---	1
		PB-23	143+56.2	71.8' LT	---	1
		PB-24	144+15.0	72.2' LT	---	1
		PB-25	25+70.40 D	24.0' RT	---	1
		PB-26	25+67.22 D	6.1' LT	---	1
		PB-27	147+09.3	66.0' LT	1	---
		PB-28	144+16.9	12.5' LT	---	1
				TOTALS	6	22

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

SAWING EXISTING PAVEMENT

CATEGORY	STAGE	STATION	-	STATION	690.0250 SAWING CONCRETE LF
0010	1	137+47	-	142+00	590
		142+00	-	148+89	330
		STAGE 1 SUBTOTALS			920
	2	137+47	-	142+00	490
		142+00	-	148+89	170
		STAGE 2 SUBTOTALS			660
	3	137+47	-	142+00	200
		142+00	-	148+89	290
		STAGE 3 SUBTOTALS			490
	4	137+47	-	142+00	65
		142+00	-	148+89	95
		STAGE 4 SUBTOTALS			160
		TOTALS			2,230

Standard Detail Drawing List

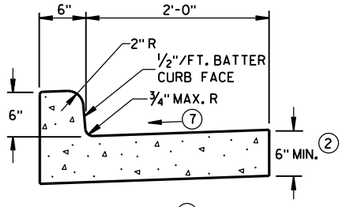
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-19A	CURB RAMPS TYPES 1 AND 1-A
08D05-19B	CURB RAMPS TYPES 2 AND 3
08D05-19C	CURB RAMPS TYPES 4A AND 4A1
08D05-19D	CURB RAMPS TYPE 4B AND 4B1
08D05-19E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-19F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-19G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
09B02-10	CONDUIT
09B16-01	PULL BOX NON-CONDUCTIVE
09C02-08	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C11-10	CONCRETE BASE TYPE 10
09C12-09A	CONCRETE BASE TYPE 13
09C12-09B	CONCRETE BASE TYPE 13
09C13-02	CONCRETE BASE TYPE 10 & TYPE 13 EXTENSION
09C14-03	CONCRETE CONTROL CABINET BASE, TYPE L
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D04-03	LIGHTING CONTROL CABINET 120/240 VOLT
09E01-15B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-15D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E02-05	FREEWAY LIGHTING UNIT POLE WIRING
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-08A	TYPE 9 POLE 15'-30' MONOTBE ARM
09E08-08D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-08E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09H16-01	INSTALL WIRELESS ANTENNA
10A01-03	ELECTRICAL HANDHOLE WIRING
10A02-03	IDENTIFICATION PLAQUES LIGHT POLES
10A05-03	ELECTRICAL DETAILS GROUND MOUNT LIGHT POLES ISOLATED NEUTRAL SYSTEMS
10A06-03	ELECTRICAL DETAILS GROUND MOUNT LIGHT POLES GROUNDED NEUTRAL SYSTEMS
11B02-02	CONCRETE MEDIAN NOSE
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-15A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C13-09	URBAN DOWELED CONCRETE PAVEMENT
13C18-07A	CONCRETE PAVEMENT JOINTING
13C18-07C	CONCRETE PAVEMENT JOINT TYPES
13C18-07D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

6

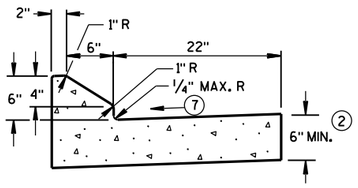
Standard Detail Drawing List

15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-07A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-07B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C08-19B	PAVEMENT MARKING (TURN LANES)
15C08-19C	PAVEMENT MARKING (TURN LANES)
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C27-03B	PAVEMENT MARKING (ISLANDS)
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-03A	PAVEMENT MARKING (INTERSECTIONS)
15D12-07A	TRAFFIC CONTROL, LANE CLOSURE
15D14-03	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D16-04	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D30-04A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-04B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-04C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

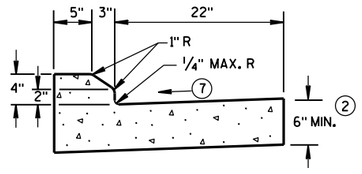
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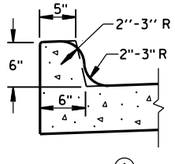
TYPES A (1) & D



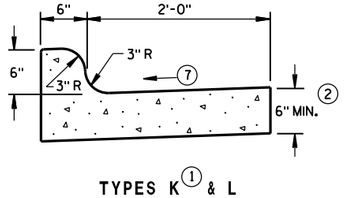
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

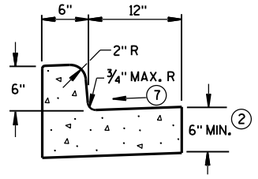


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



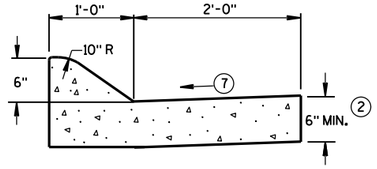
TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

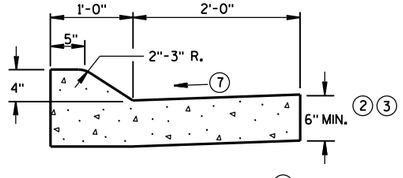


TYPES A (1) & D

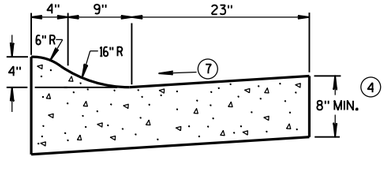
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

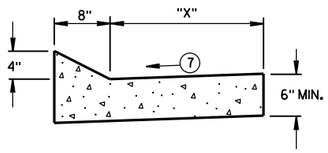


4" SLOPED CURB TYPES A (1) & D



4" SLOPED CURB TYPES R (1) & T (5)

CONCRETE CURB & GUTTER 36"



TYPES TBT & TBTT (1)

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

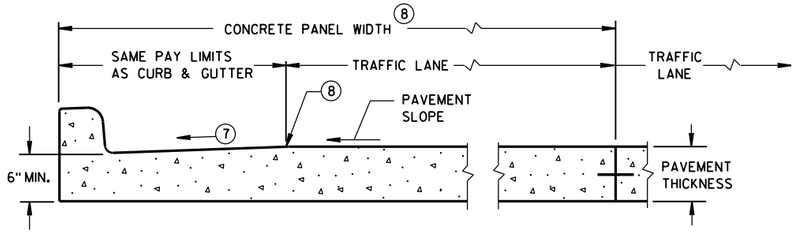
(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

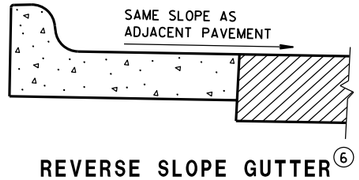


PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB & GUTTER

PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'

* BIKE LANE IS NOT SHOWN.



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

CONCRETE CURB & GUTTER

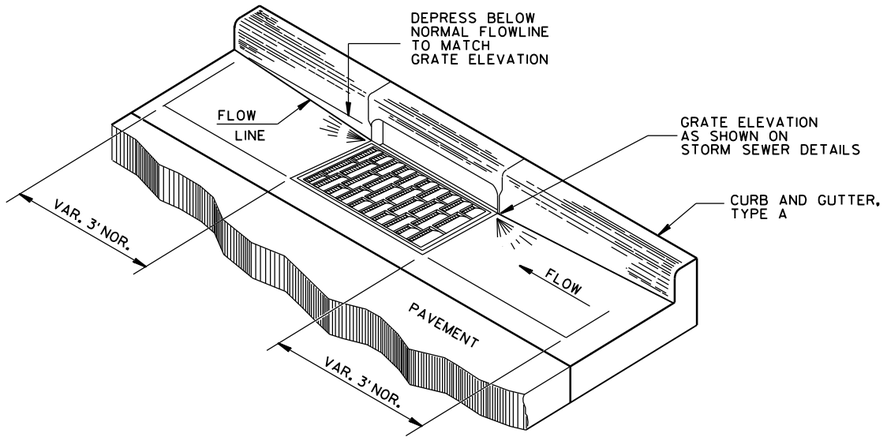
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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S.D.D. 8 D 1-20a

6

S.D.D. 8 D 1-20a



DETAIL OF CURB AND GUTTER AT INLETS

(TYPE H INLET COVER SHOWN)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

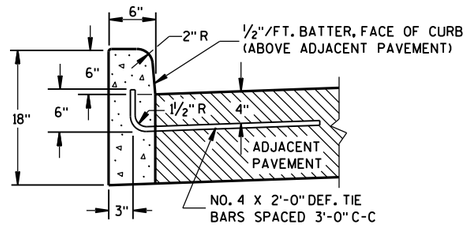
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

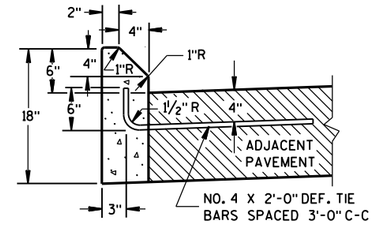
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(9) REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

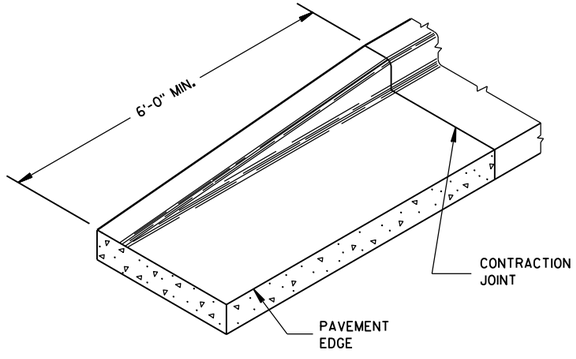


TYPES A(1) & D

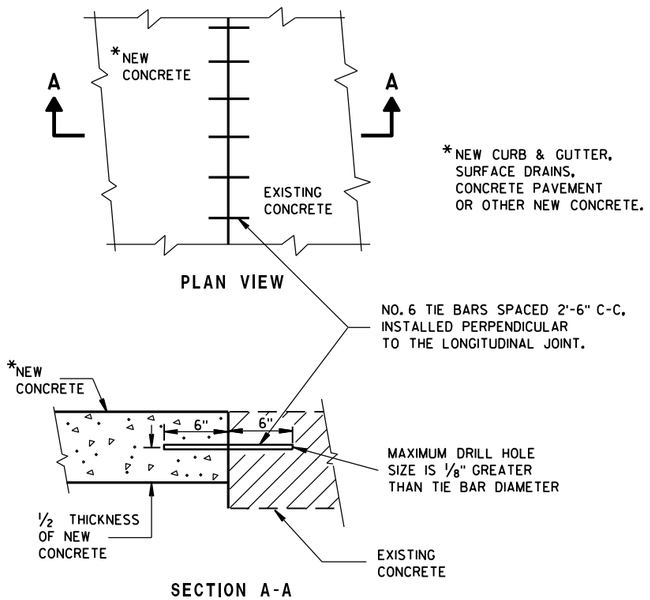


TYPES G(1) & J

CONCRETE CURB



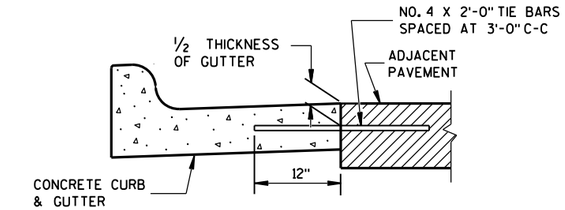
END SECTION CURB & GUTTER



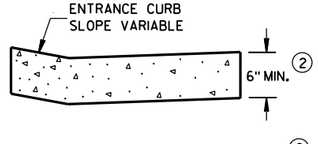
PLAN VIEW

SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

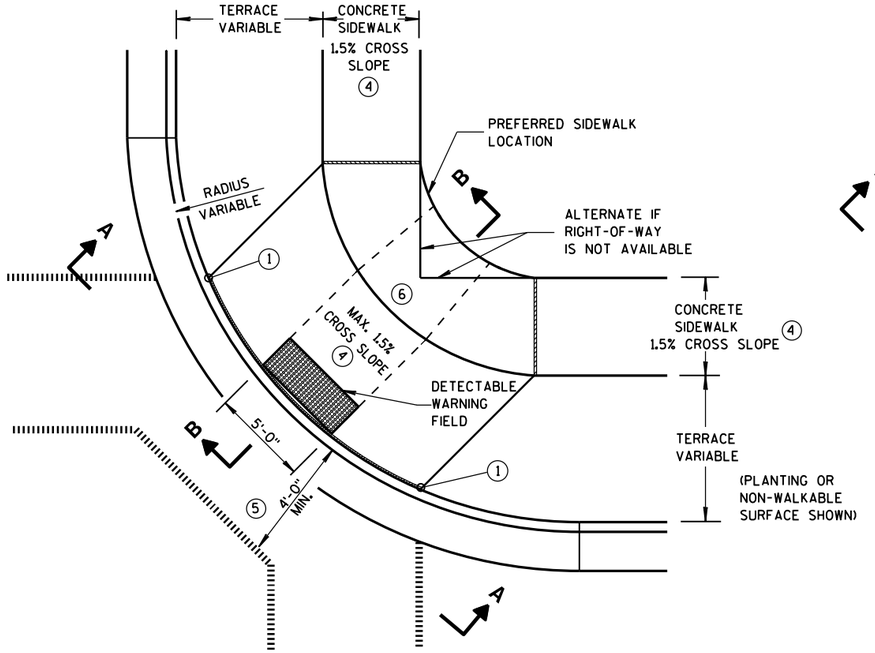
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2017 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS 88 ENT
UNIT SUPERVISOR
FHWA

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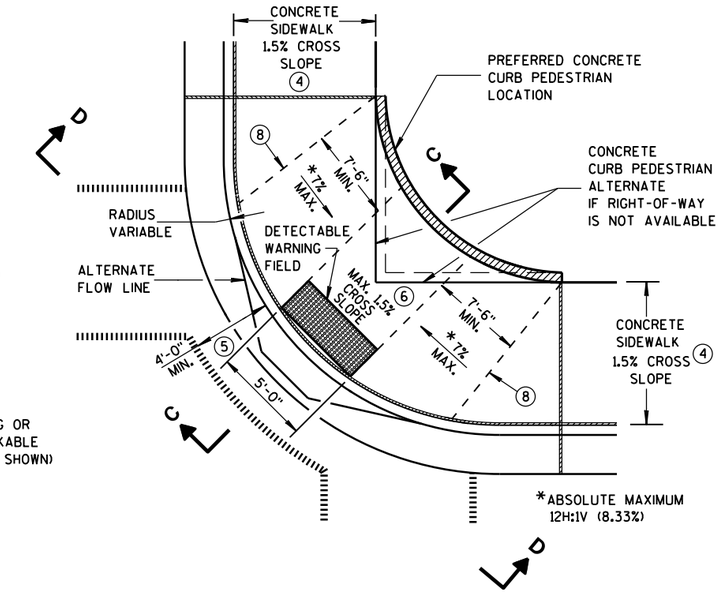
S.D.D. 8 D 1-20b



PLAN VIEW

TYPE 1 RAMP

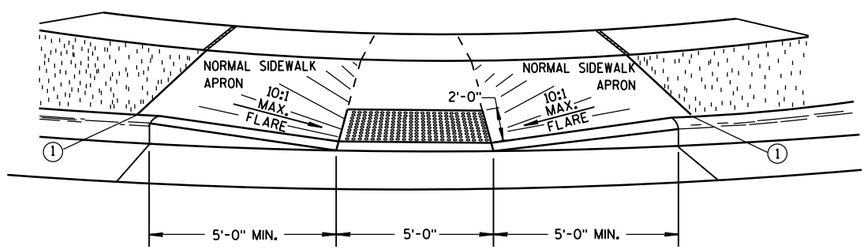
(CENTER OF CORNER RADIUS)



PLAN VIEW

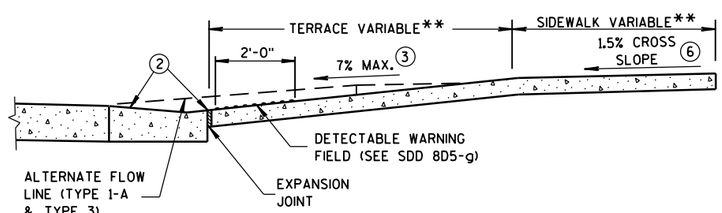
TYPE 1-A RAMP

(NO TERRACE)

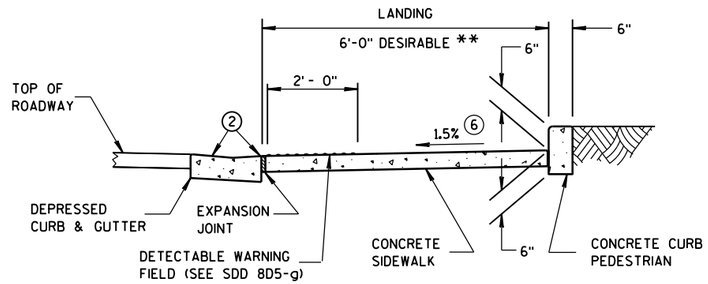


VIEW A-A

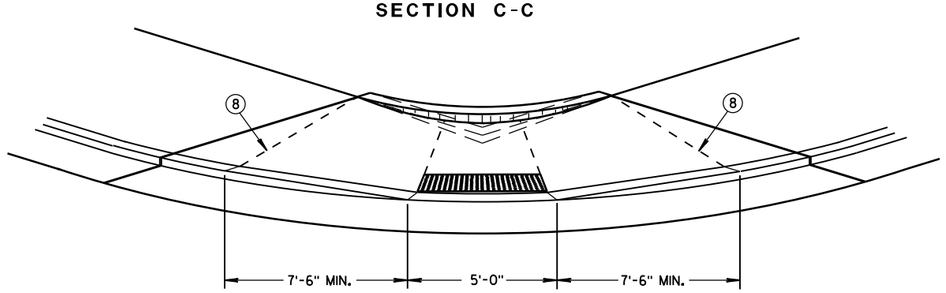
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



SECTION C-C



VIEW D-D

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

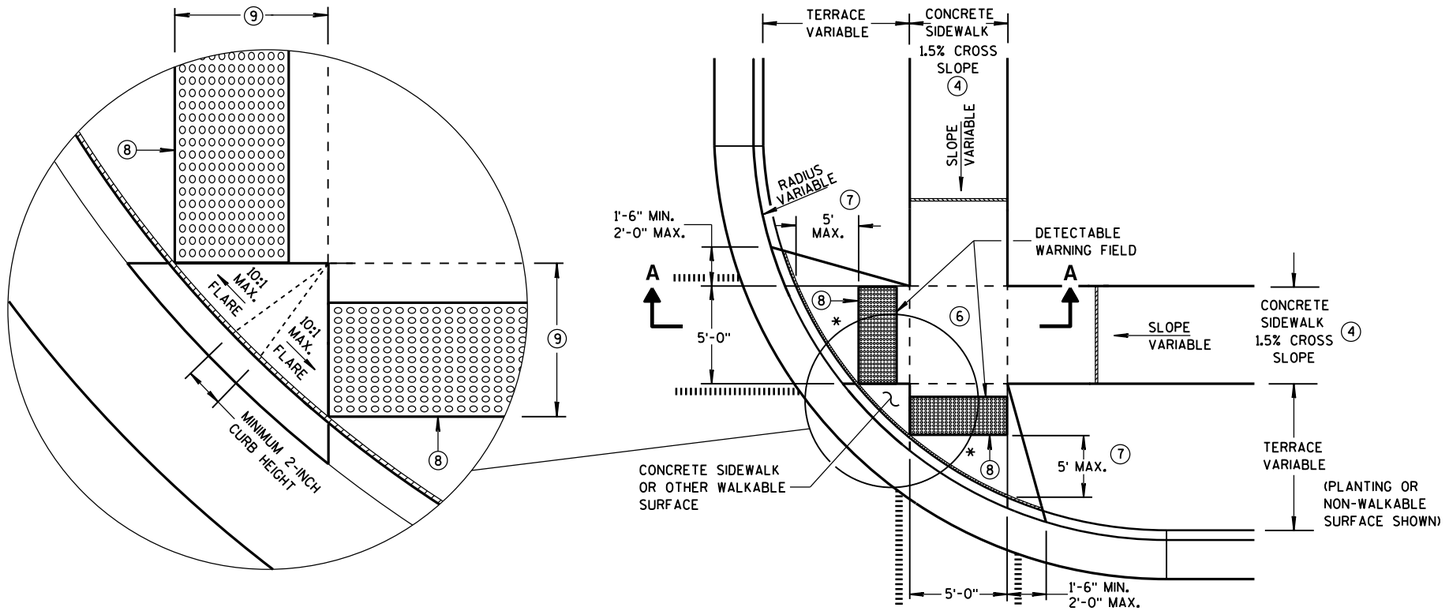
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

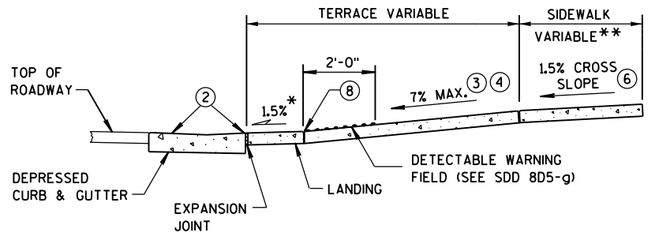
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S.D.D. 8 D 5-19a



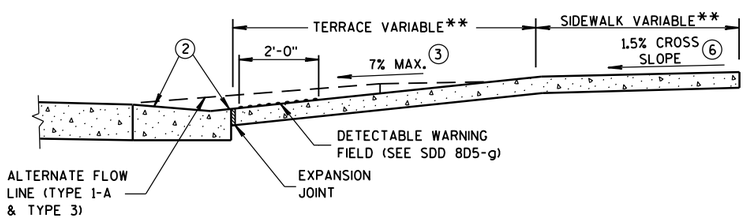
PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

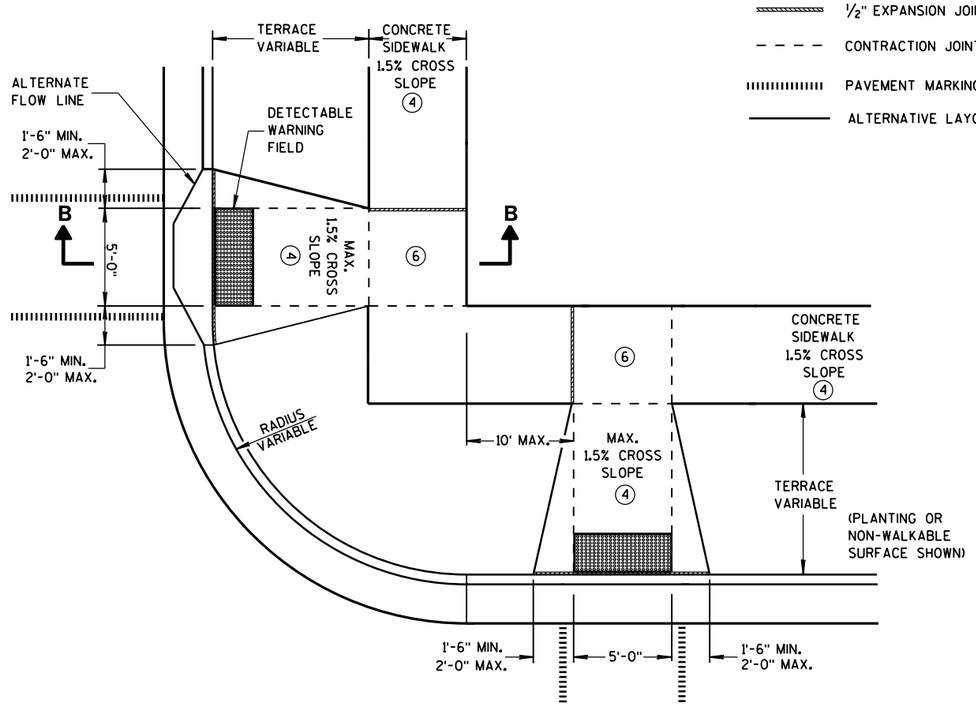


SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

LEGEND

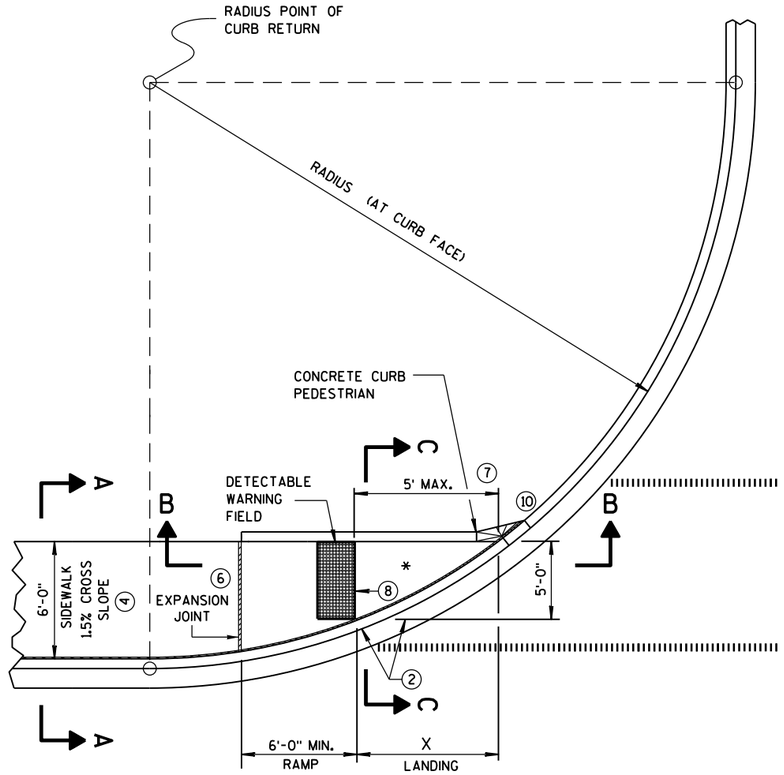
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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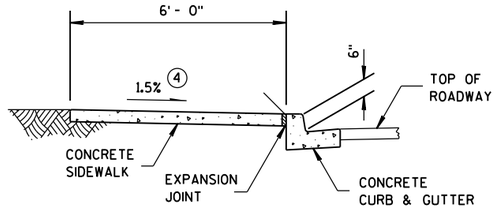
S.D.D. 8 D 5-19b



CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X
10 FEET	4'-7"
15 FEET	6'-5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

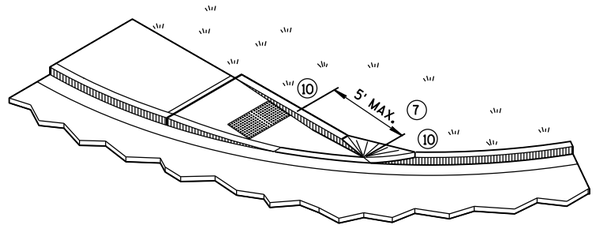
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

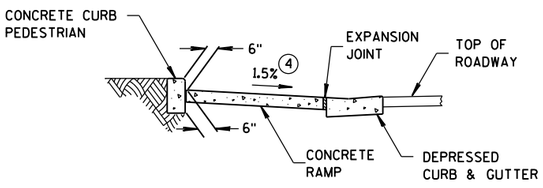
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

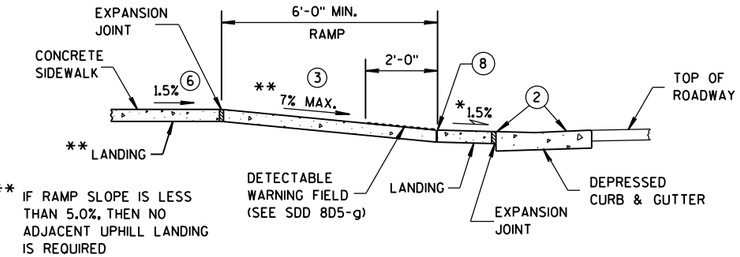


ISOMETRIC VIEW FOR TYPE 4A



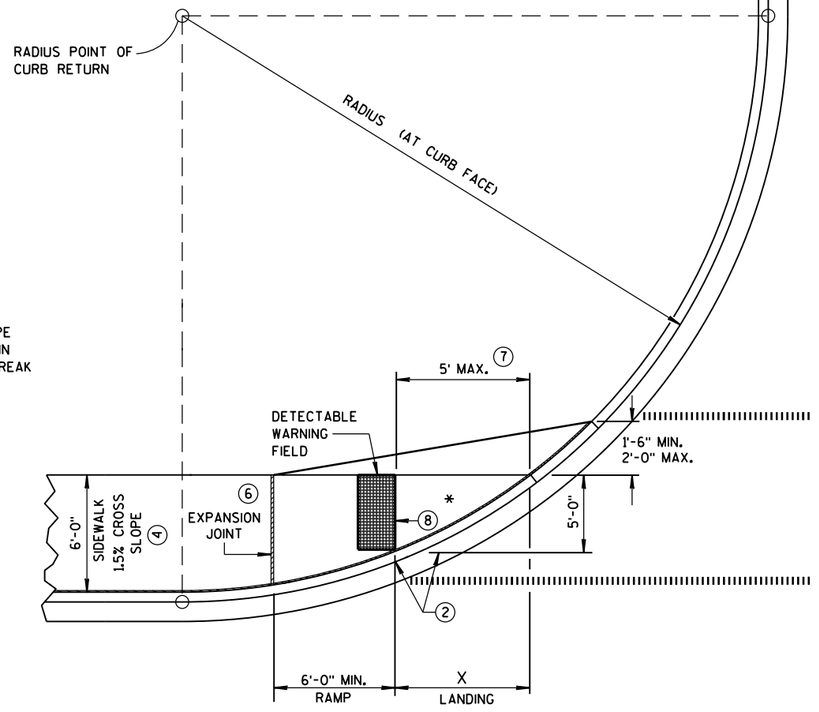
SECTION C-C FOR TYPE 4A

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

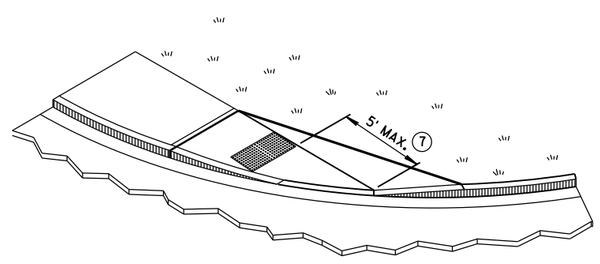


** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

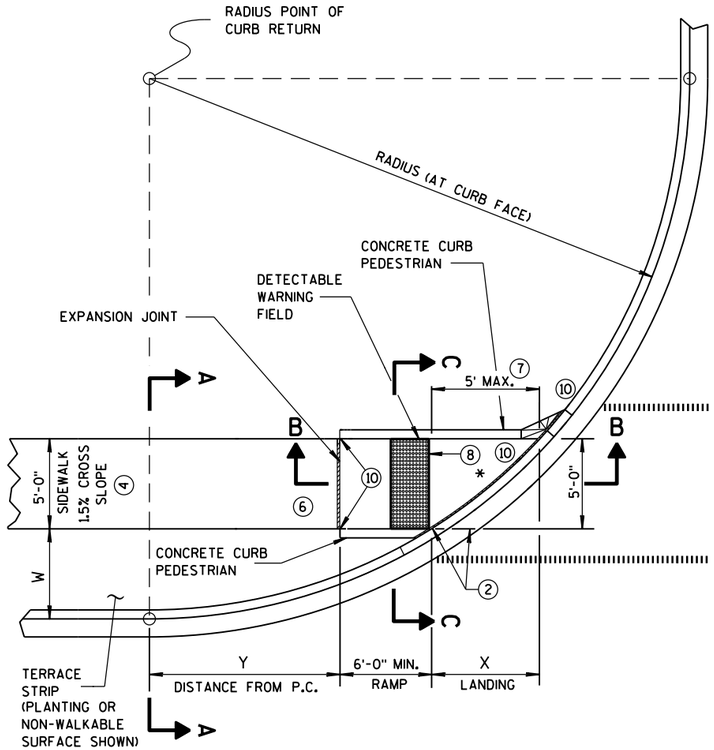
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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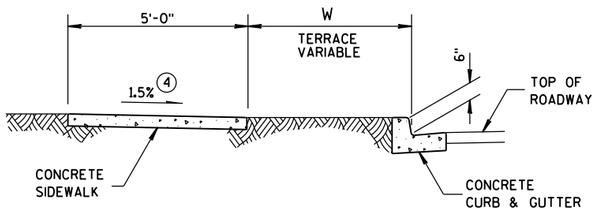
S.D.D. 8 D 5-19c

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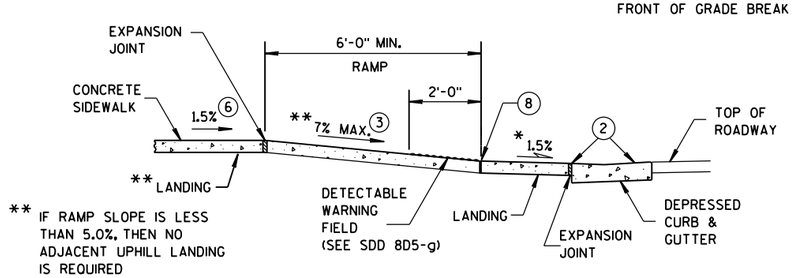
S.D.D. 8 D 5-19c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



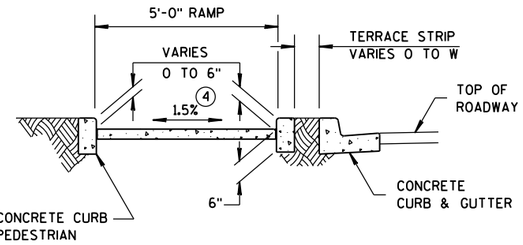
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"		W = 8'-0"		W = 9'-0"		W = 10'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2'-10¼"	0'-5"	2'-1"	1'-4½"	1'-5"	2'-1"	0'-10"	2'-7½"	0'-3¼"	3'-0¼"						
15 FEET	4'-6¾"	2'-1¾"	3'-9"	3'-5¼"	3'-1¼"	4'-6"	2'-6¾"	5'-4½"	2'-1"	6'-1"	1'-8"	6'-8½"	1'-3¼"	7'-2½"	0'-10¾"	7'-7¼"
20 FEET	5'-9¾"	3'-6½"	4'-11½"	5'-1¾"	4'-3¼"	6'-5½"	3'-8¾"	7'-7"	3'-3"	8'-6½"	2'-10"	9'-4½"	2'-5½"	10'-1¼"	2'-1¼"	10'-9"
30 FEET			6'-9¼"	7'-11¼"	6'-0¼"	9'-8"	5'-5"	11'-1¾"	4'-10¾"	12'-5¾"	4'-5½"	13'-7¾"	4'-0¾"	14'-8½"	3'-8½"	15'-8¼"
40 FEET									6'-1¾"	15'-8½"	5'-8"	17'-2"	5'-3"	18'-5¾"	4'-10¾"	19'-8¼"
50 FEET															5'-10¼"	23'-2"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



SECTION C-C FOR TYPE 4B

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

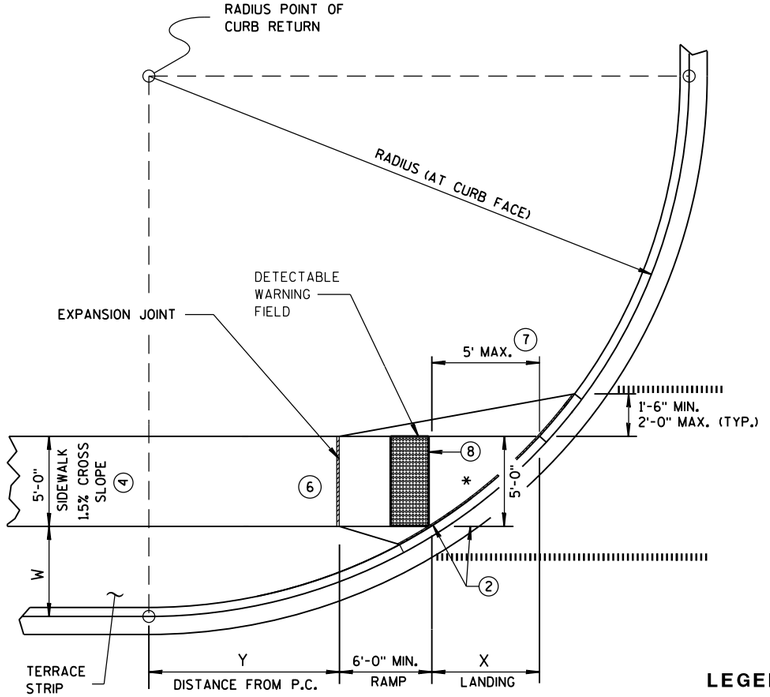
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

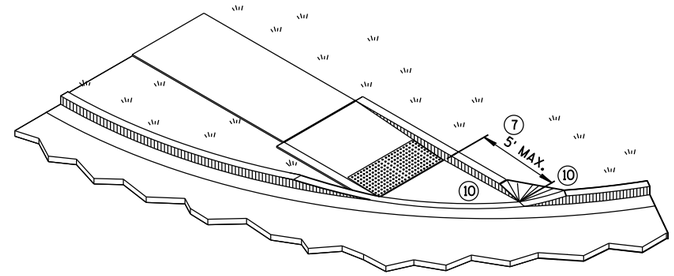
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

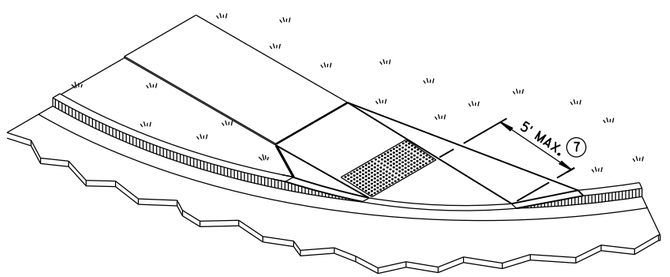
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

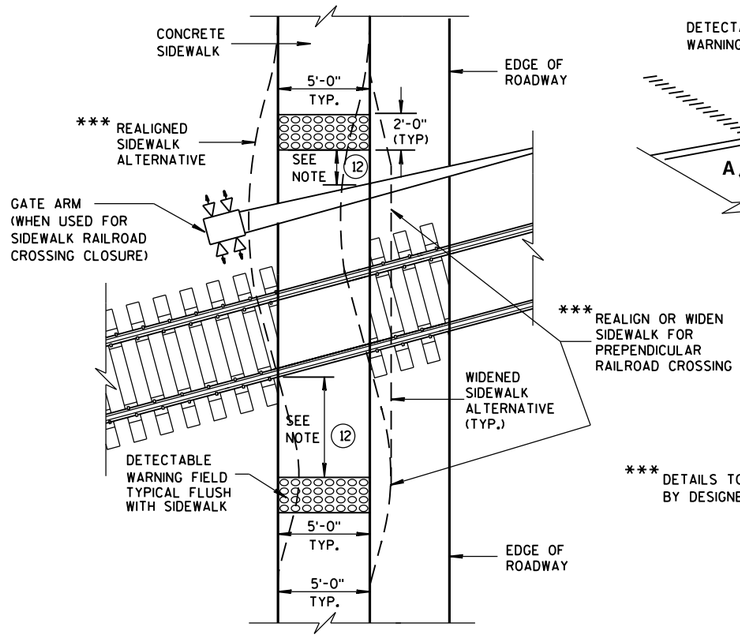
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4B AND 4B1

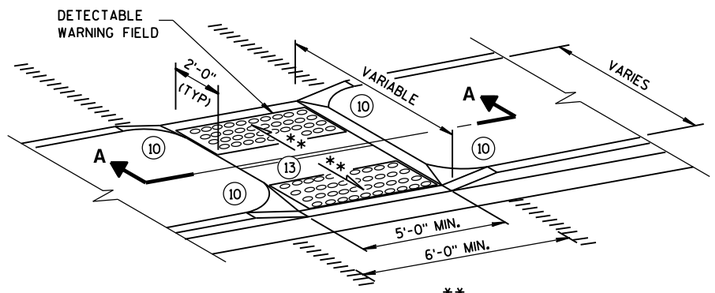
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 8 D 5-19d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



** 1% MIN. (PROVIDE DRAINAGE)

*** DETAILS TO BE DETERMINED BY DESIGNER

MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING
TYPE 5

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

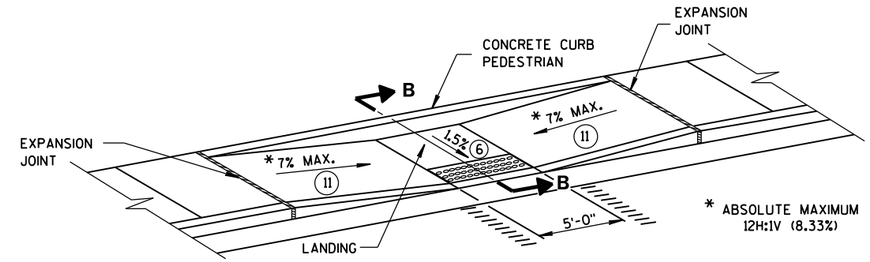
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

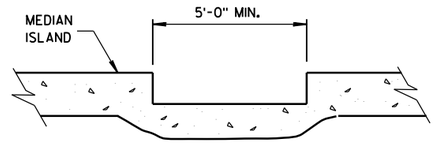
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

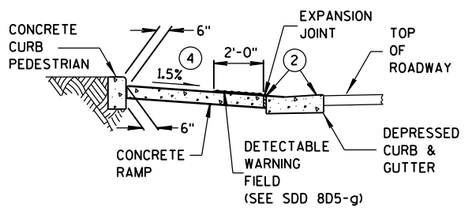
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2-FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.



MID-BLOCK CROSSING
TYPE 7A

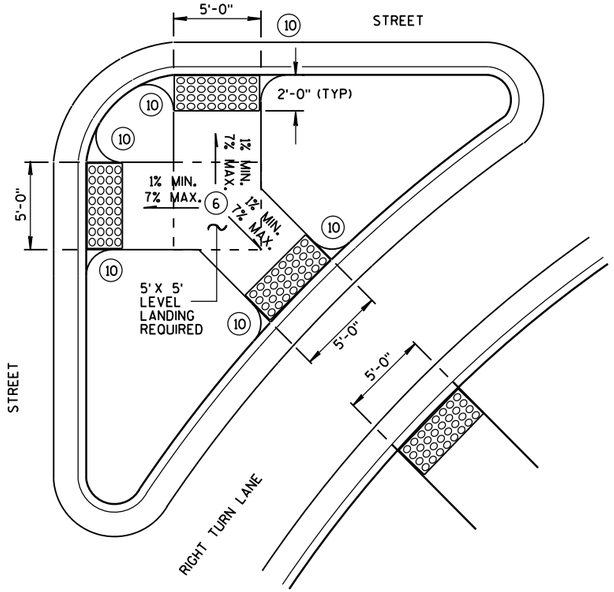


SECTION A-A

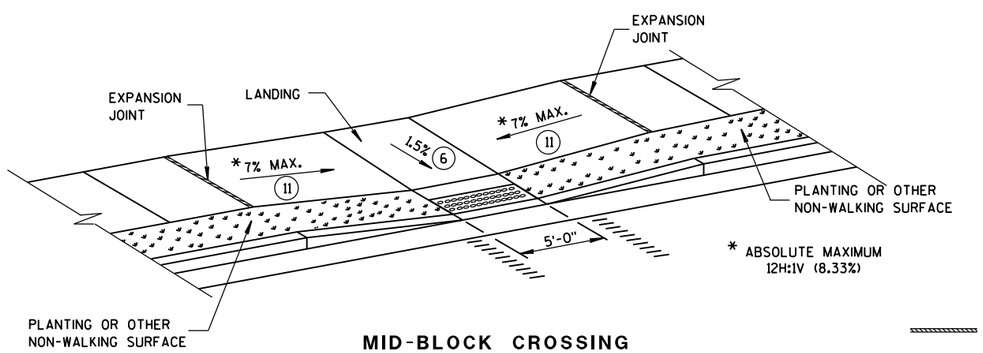


SECTION B-B

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

LEGEND

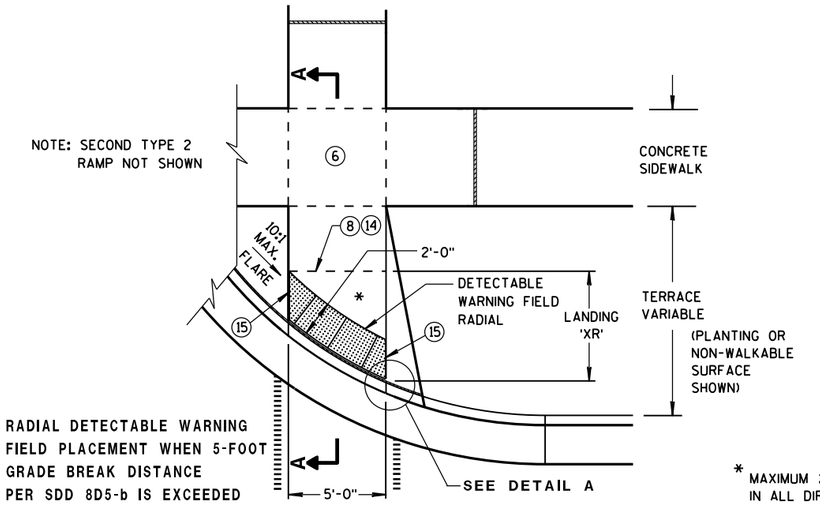
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

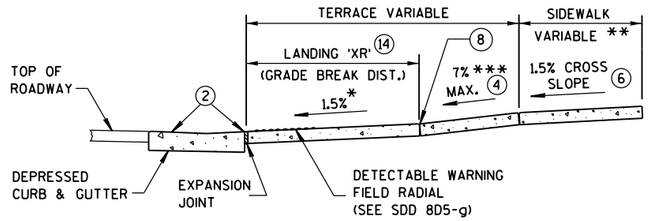
S.D.D. 8 D 5-19e



TYPE 2 RAMP
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION A-A

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS (DWFs) THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

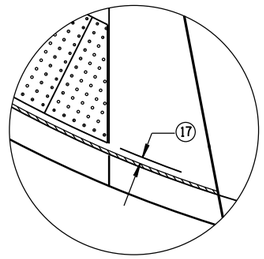
(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION 'XR') REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

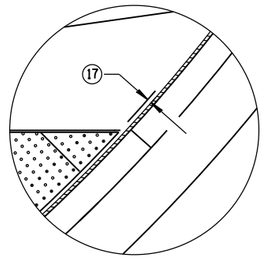
(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1'X 2' RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2'-0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

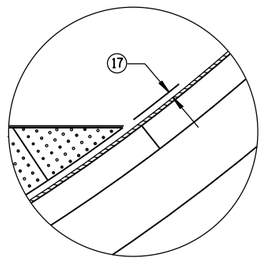
(17) A MAXIMUM 3-INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.



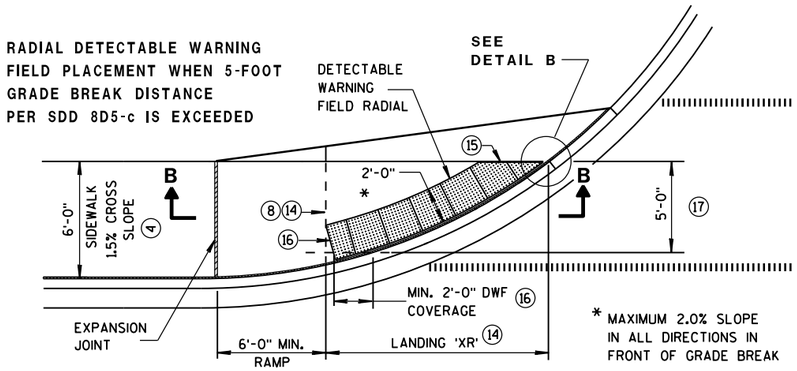
DETAIL A



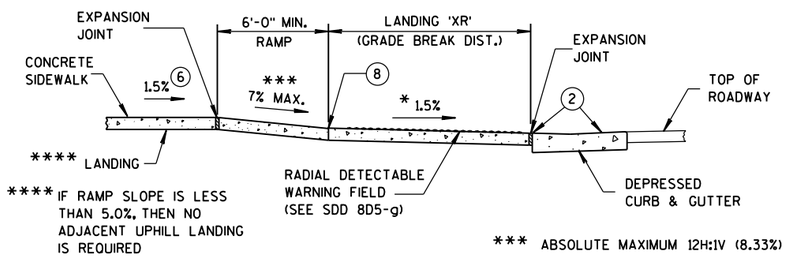
DETAIL C



DETAIL B



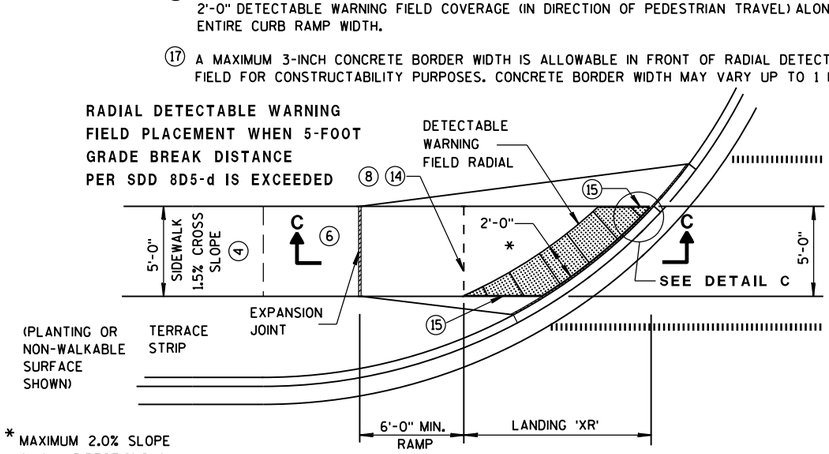
CURB RAMP TYPE 4A1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

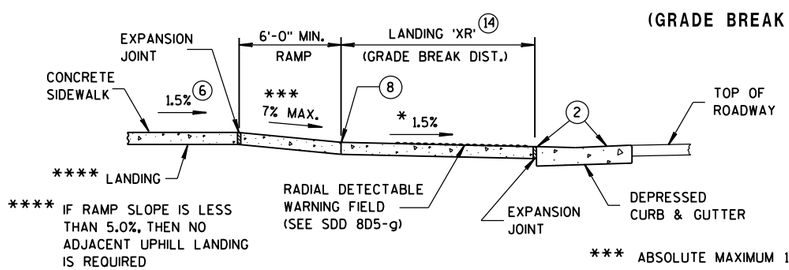
*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION B-B FOR TYPE 4A1



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

CURB RAMP TYPE 4B1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION C-C FOR TYPE 4B1

CURB RAMPS
RADIAL DETECTABLE WARNING FIELD APPLICATIONS

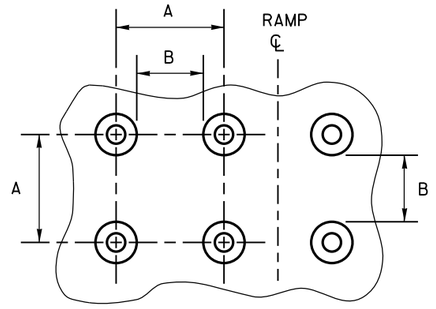
STATE OF WISCONSIN
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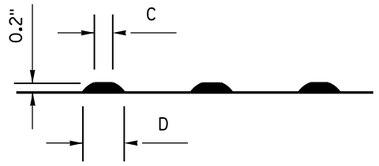
S.D.D. 8 D 5-19f

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES

DETECTABLE WARNING PATTERN DETAIL

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

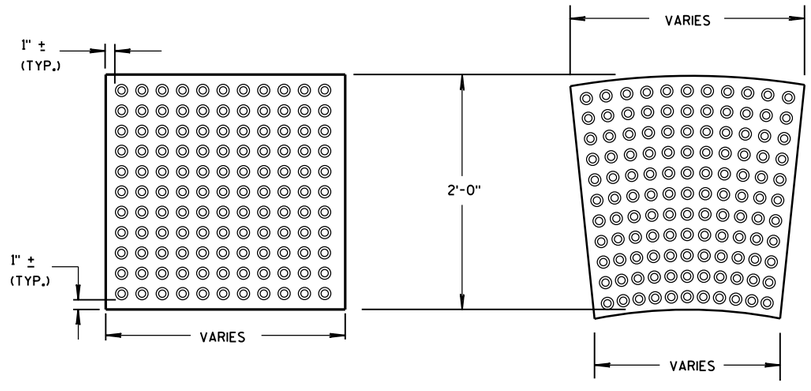
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGES IN COMBINATION WITH SQUARE PANELS ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

⑮ FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

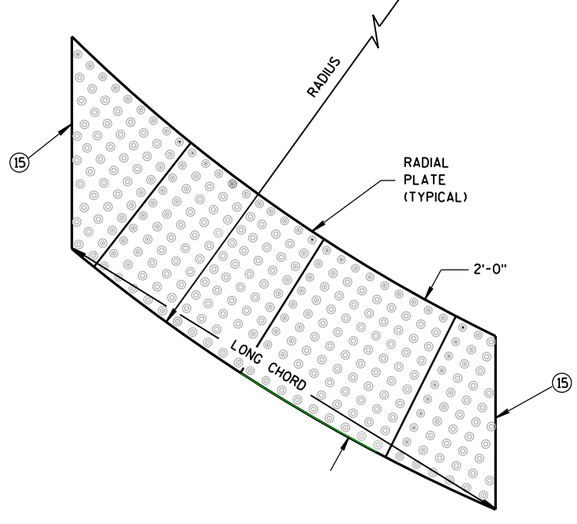


RECTANGULAR PLATES

RADIAL PLATES

DETECTABLE WARNING FIELDS (TYPICAL)

PLAN VIEW



RADIAL DETECTABLE WARNING FIELD ATTRIBUTES

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
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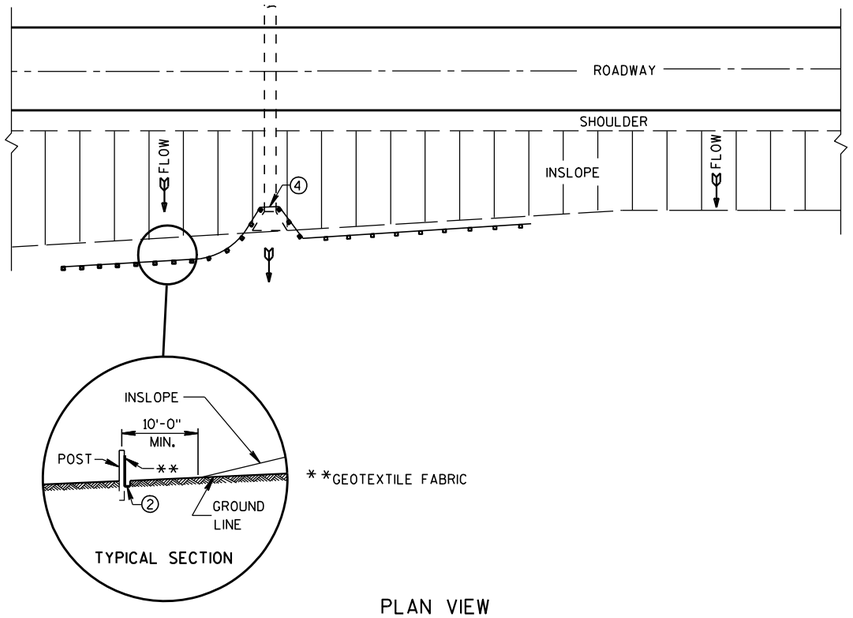
APPROVED
June, 2017
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS
UNIT SUPERV
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ENT
FHWA

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S.D.D. 8 D 5-19g

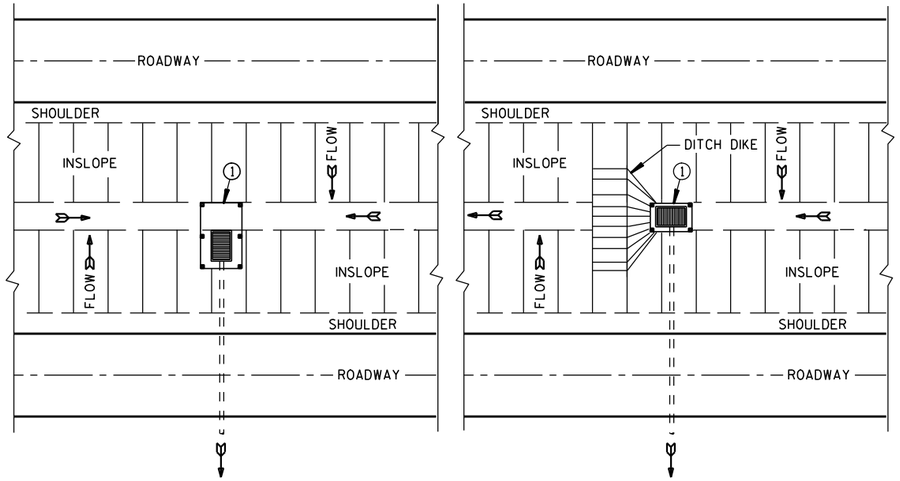
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S.D.D. 8 D 5-19g



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

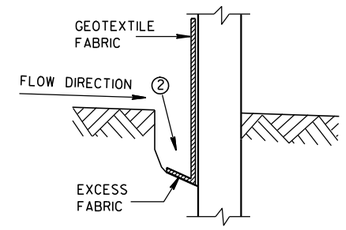
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

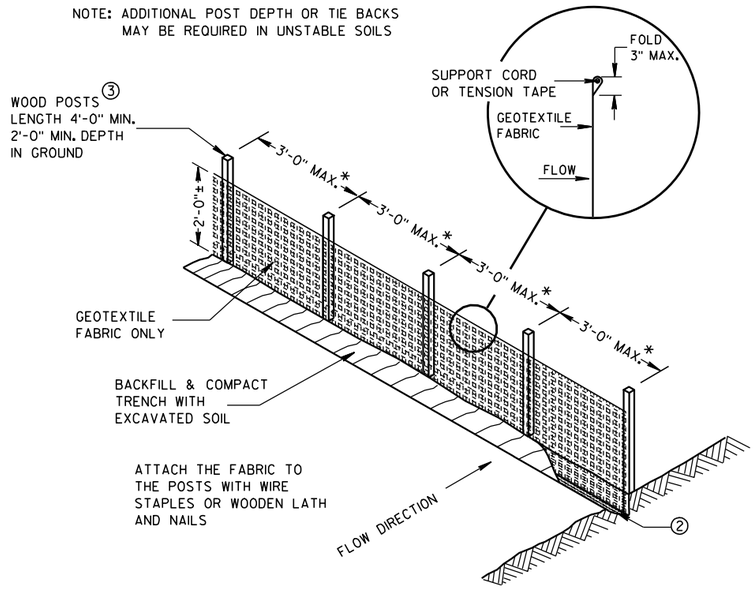
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

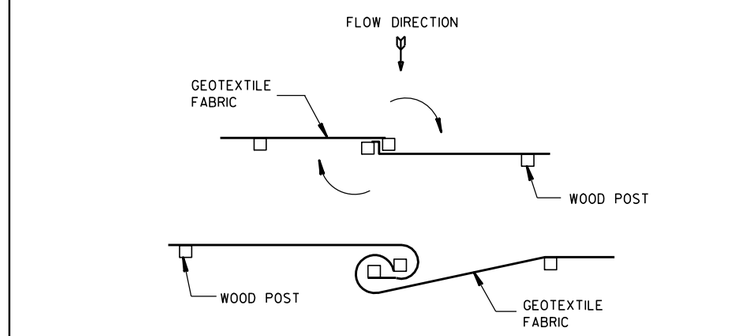
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



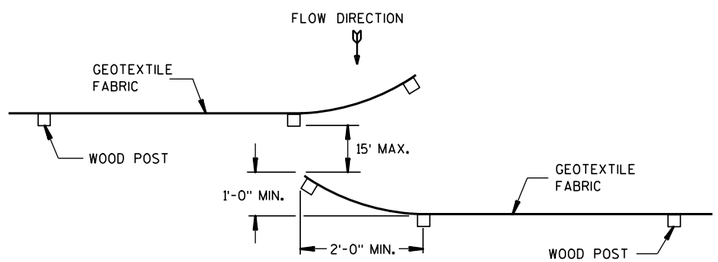
TRENCH DETAIL



SILT FENCE

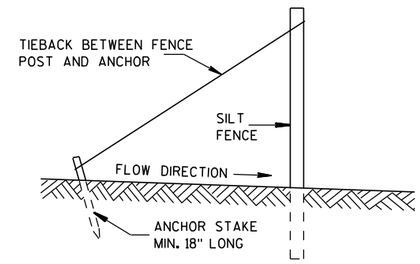


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

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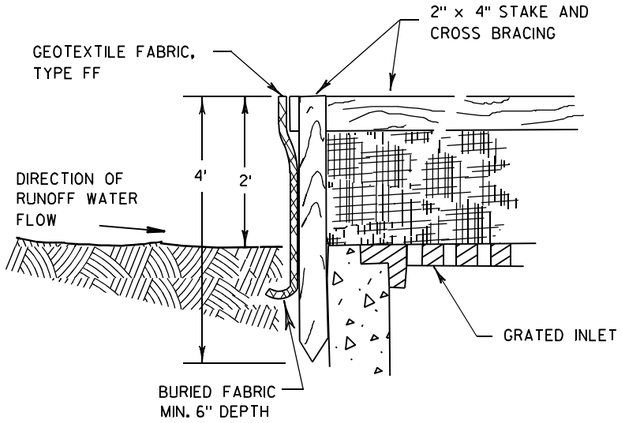
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

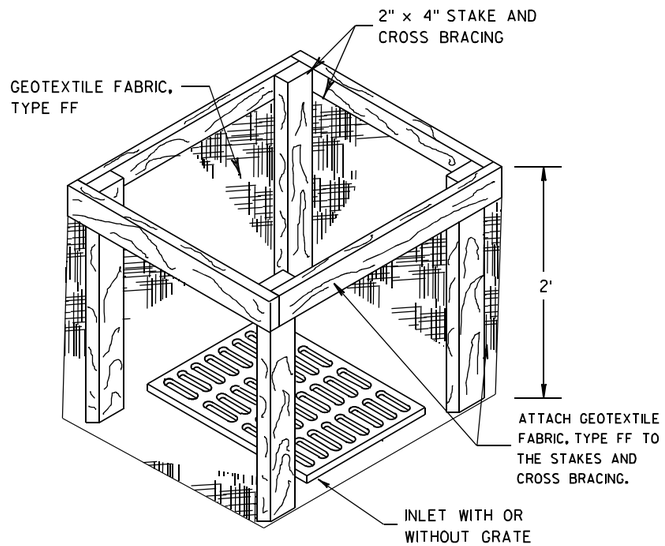
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S.D.D. 8 E 9-6

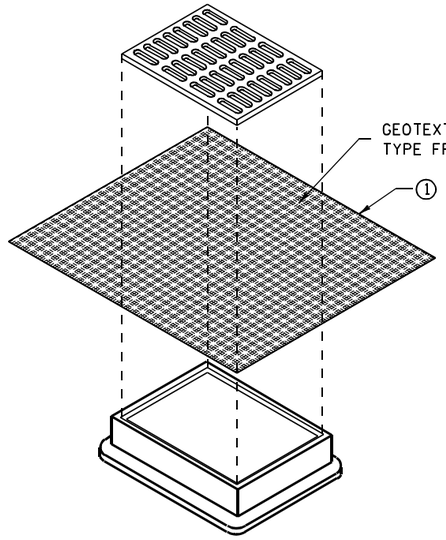
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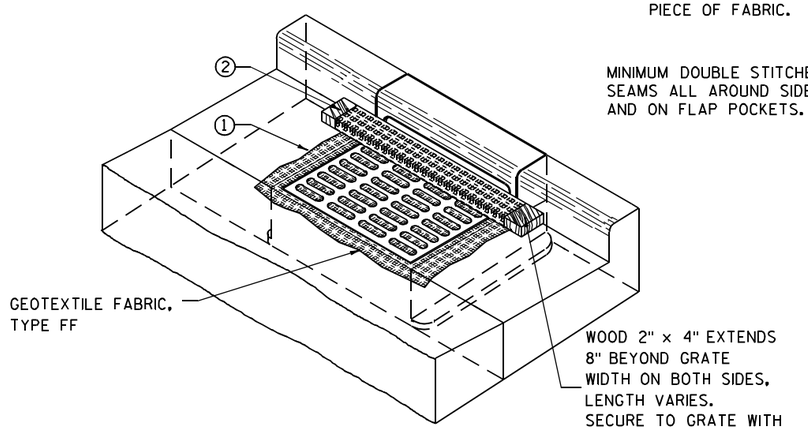


INLET PROTECTION, TYPE A

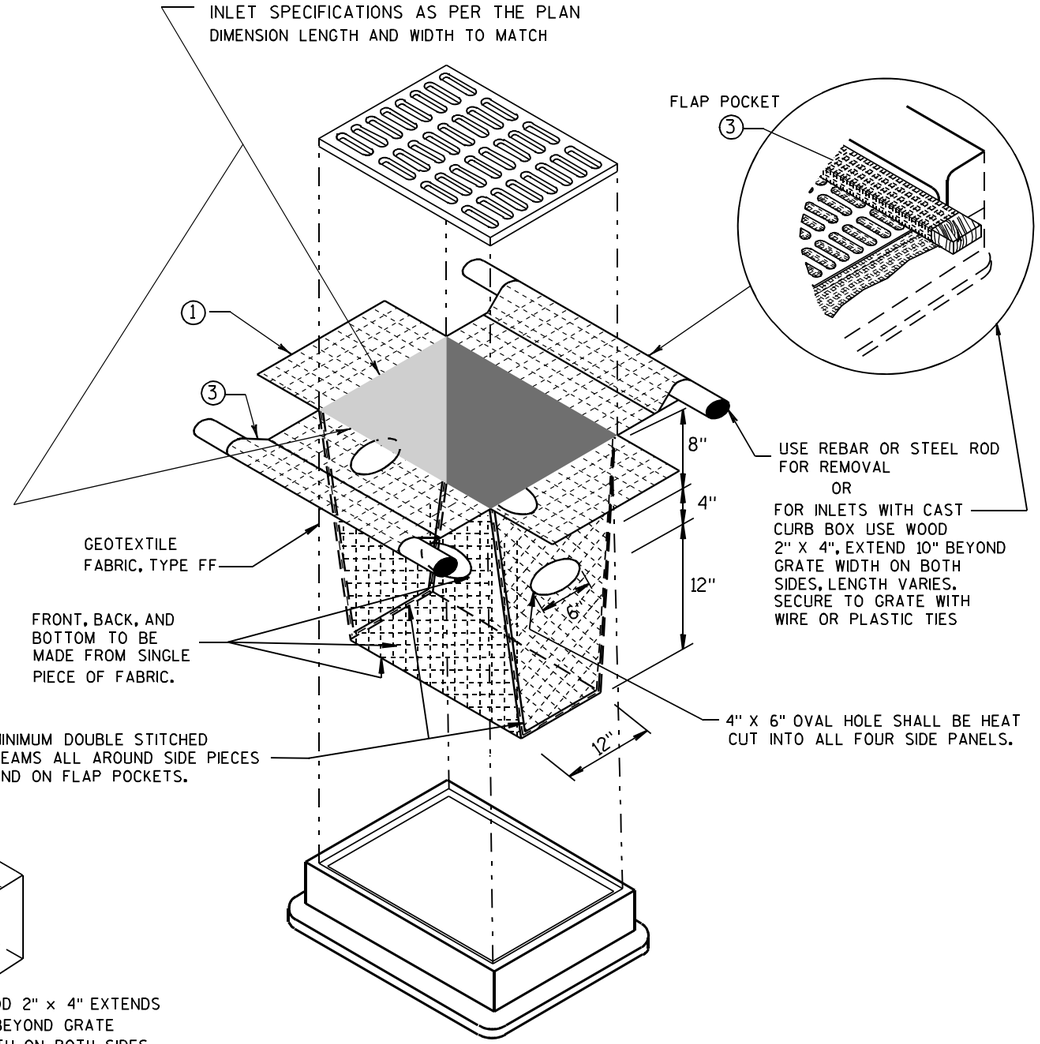


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

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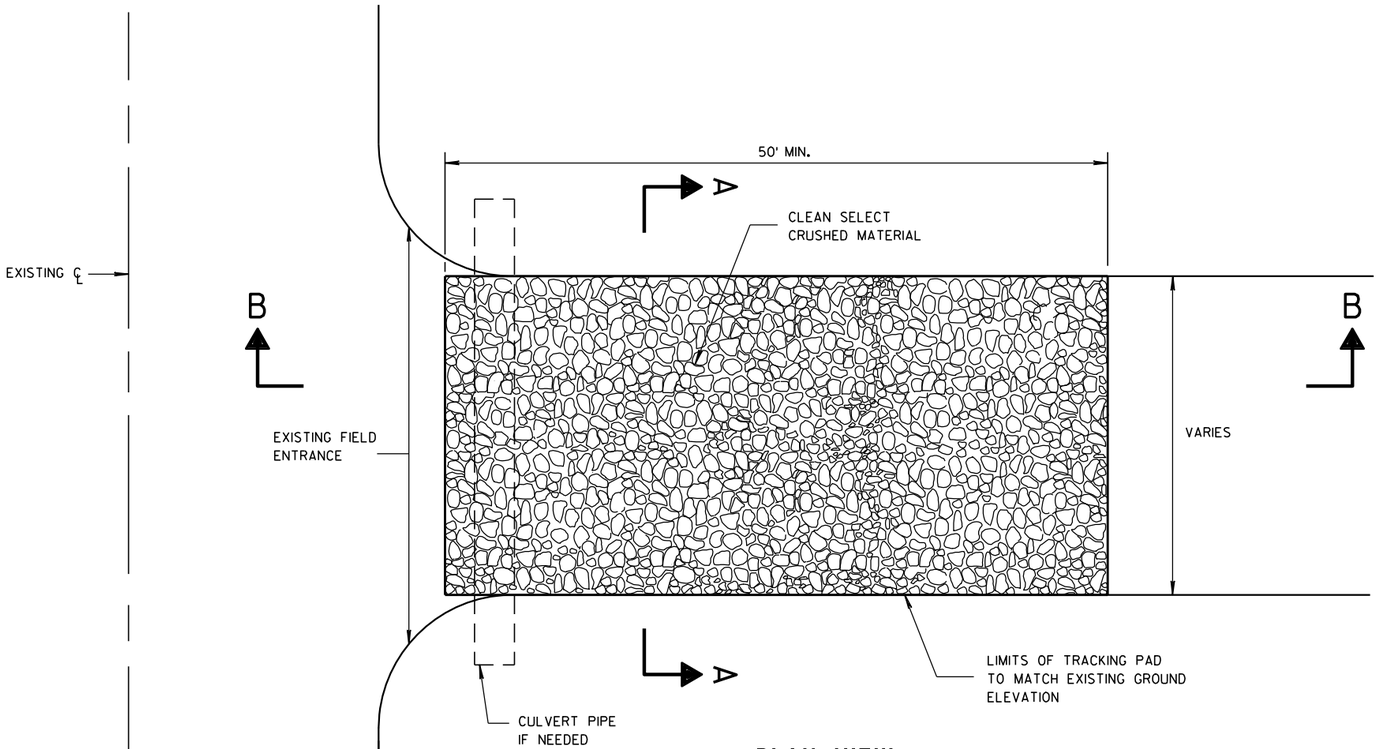
APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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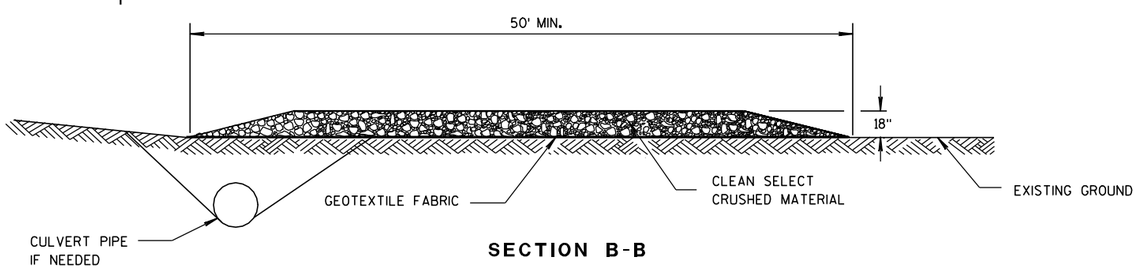
S.D.D. 8 E 10-2

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S.D.D. 8 E 10-2



PLAN VIEW



SECTION B-B

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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

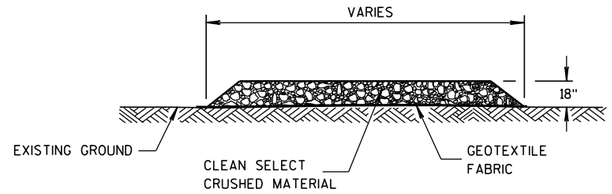
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

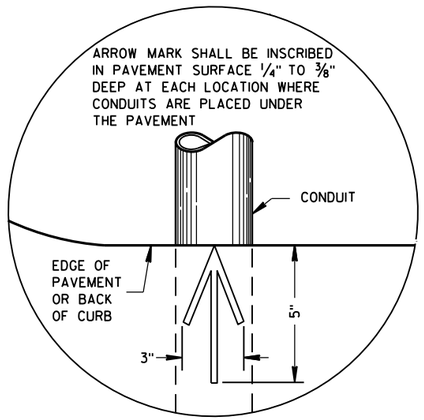
APPROVED

3/24/2011	/S/ Jerry H. Zoda	
DATE	ROADWAY STANDARDS ENGINEER	ENT

FHWA

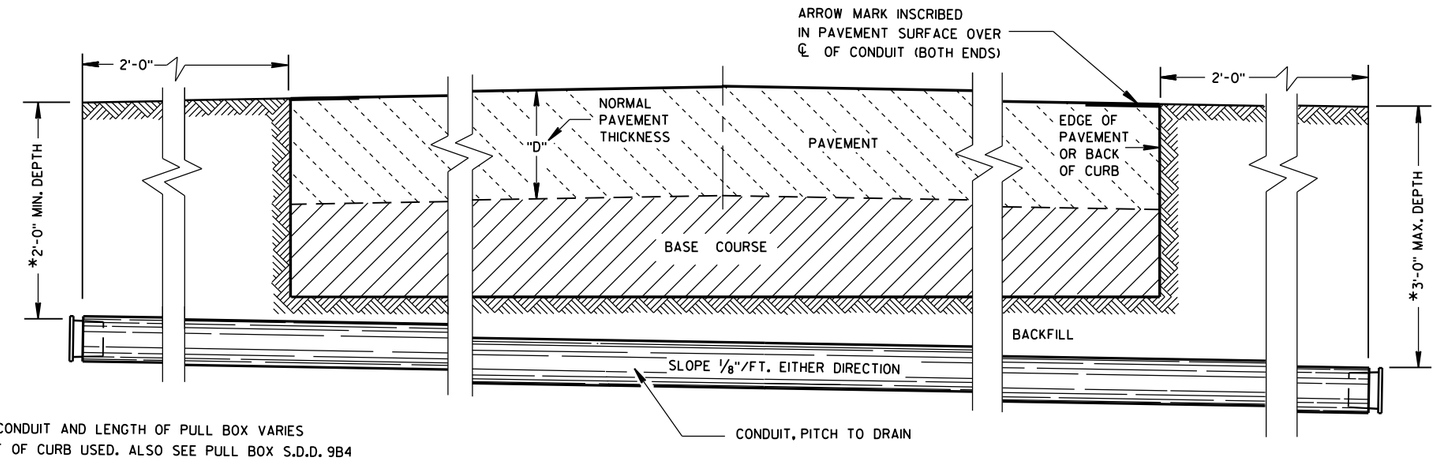
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S.D.D. 8 E 14-1



PLAN VIEW

ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		NON-CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 1/2	22 1/2
WEIGHT IN POUNDS *			
COVER		50	50
BOX ONLY		75	85

* THE ACTUAL WEIGHT OF THE COVER OR BOX ONLY MAY VARY NOT TO EXCEED 100 LBS INDIVIDUALLY.

** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DICONTINUITIES LESS THAN 1/4".

COVER SHALL BE MAGNETICALLY LOCATABLE.

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

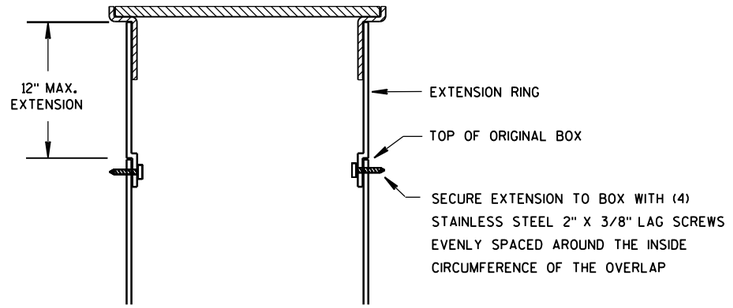
THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

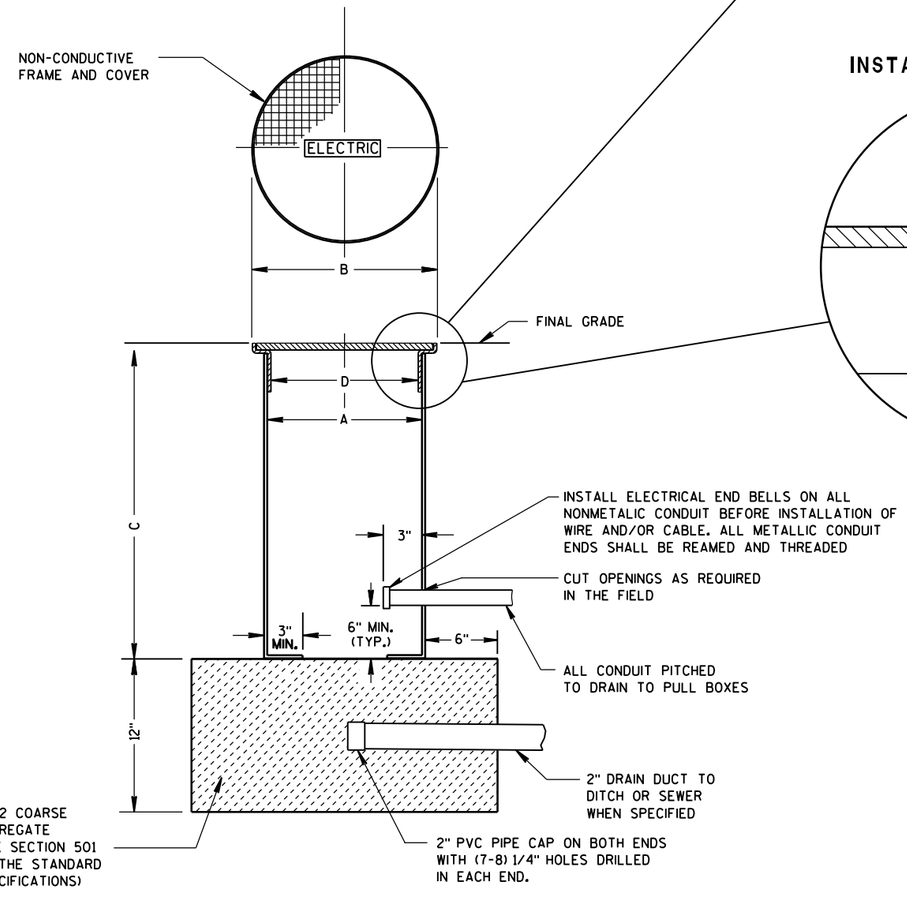
ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS AND MAGNETIC LOCATABLE DEVICE.

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL AND LIGHTING SYSTEMS, "WISDOT ITS" FOR COMMUNICATIONS AND ITS EQUIPMENT SYSTEMS.

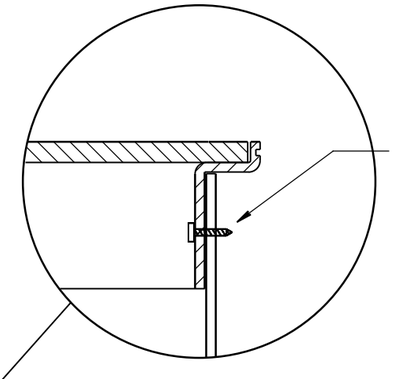


BOX EXTENSION

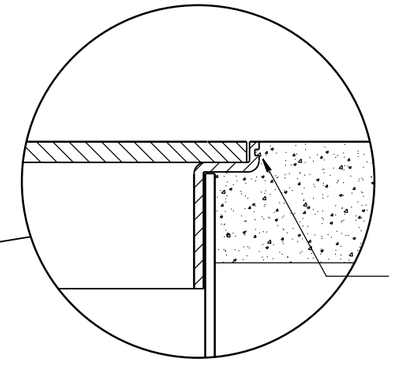


NON-CONDUCTIVE PULL BOX

INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK



PULL BOX NON-CONDUCTIVE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

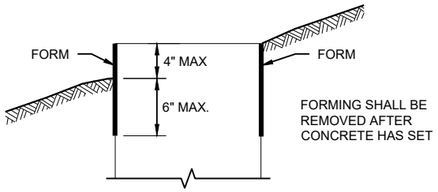
6

S.D.D. 9 B 16-1

6

S.D.D. 9 B 16-1

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWINGSHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL BENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

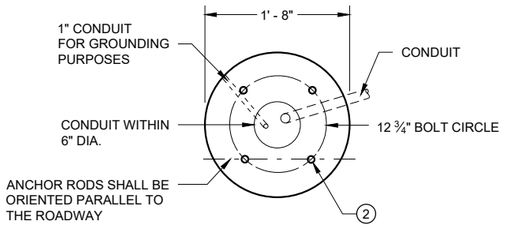
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

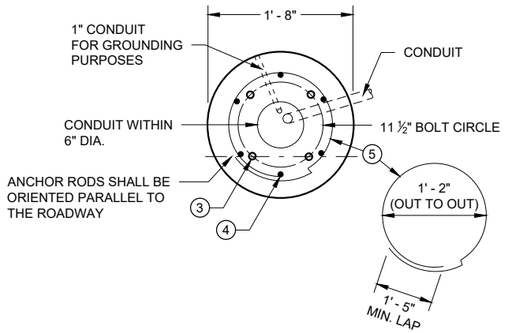
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

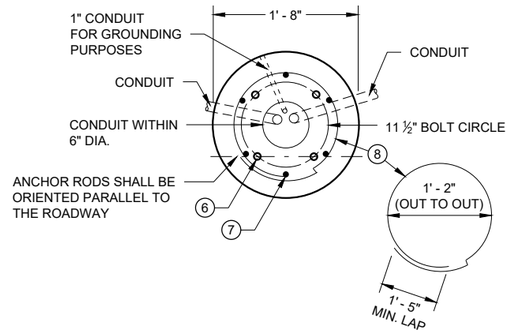
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

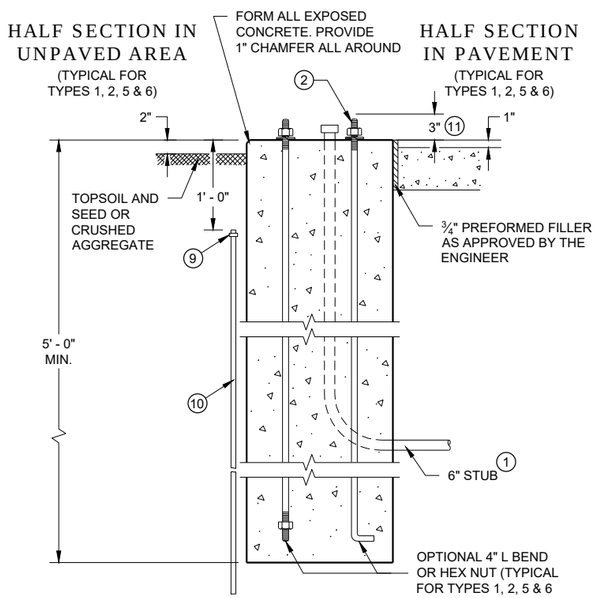
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

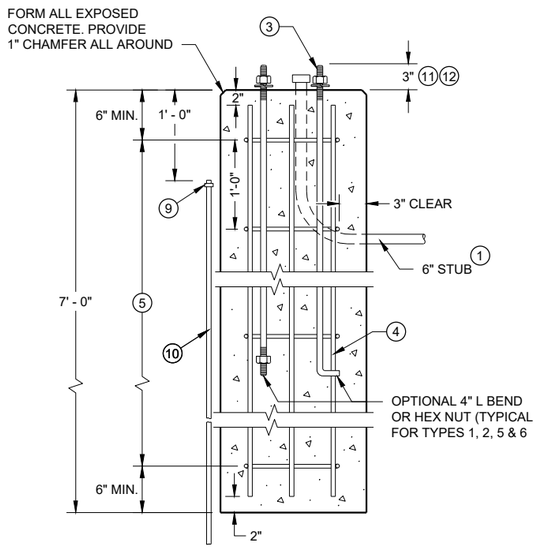




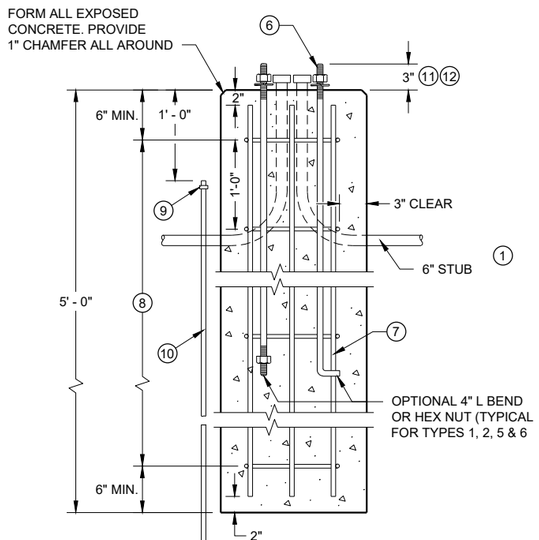




TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

6
SDD 09C02 - 08

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

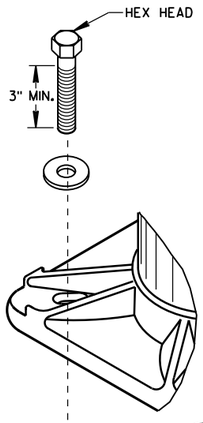
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

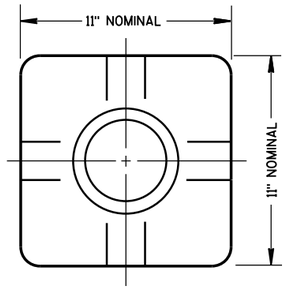
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

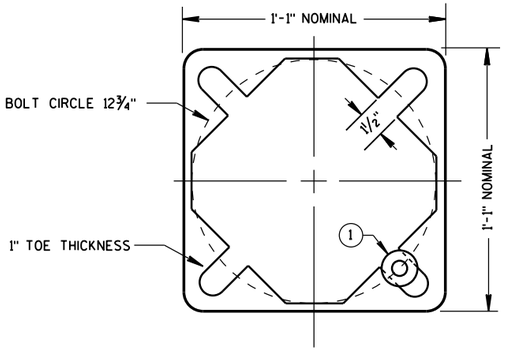
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

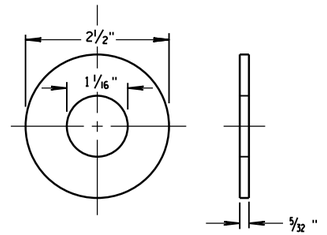




TOP VIEW
(PEDESTAL BASE)

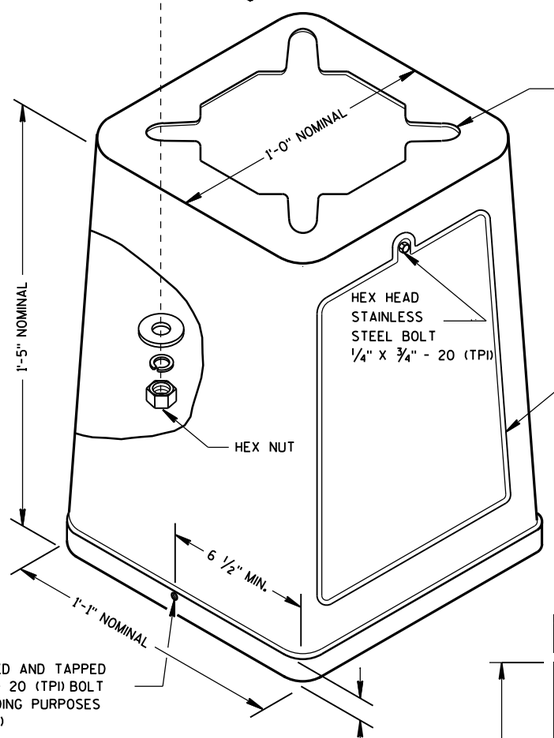


BOTTOM VIEW
(PEDESTAL BASE)

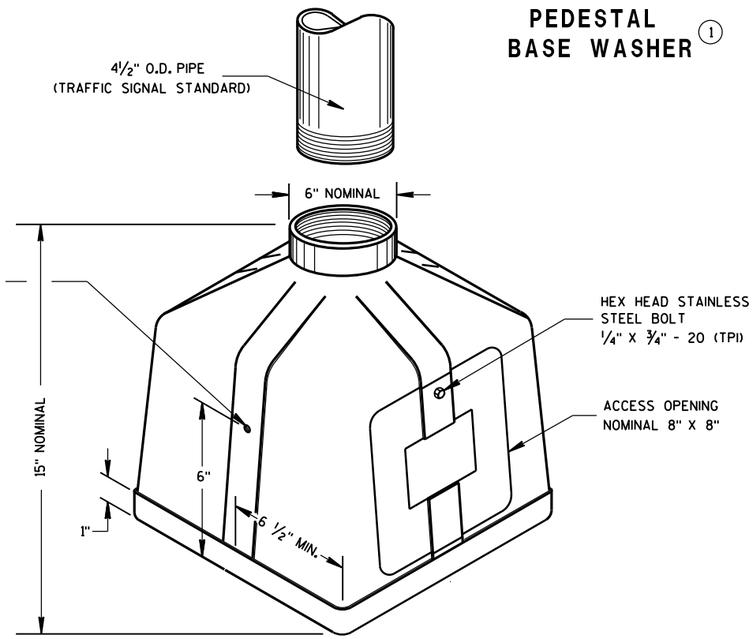


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

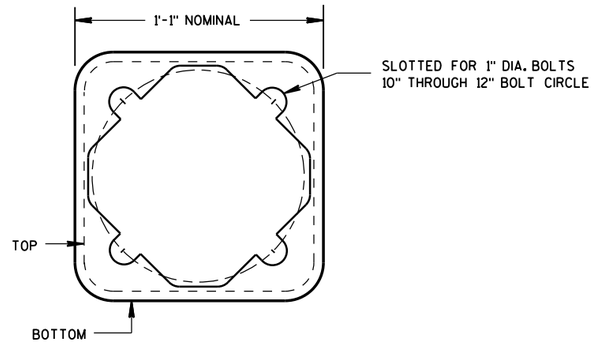


ISOMETRIC VIEW

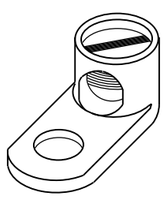


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

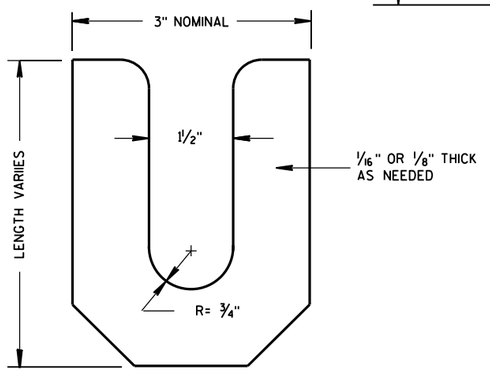


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

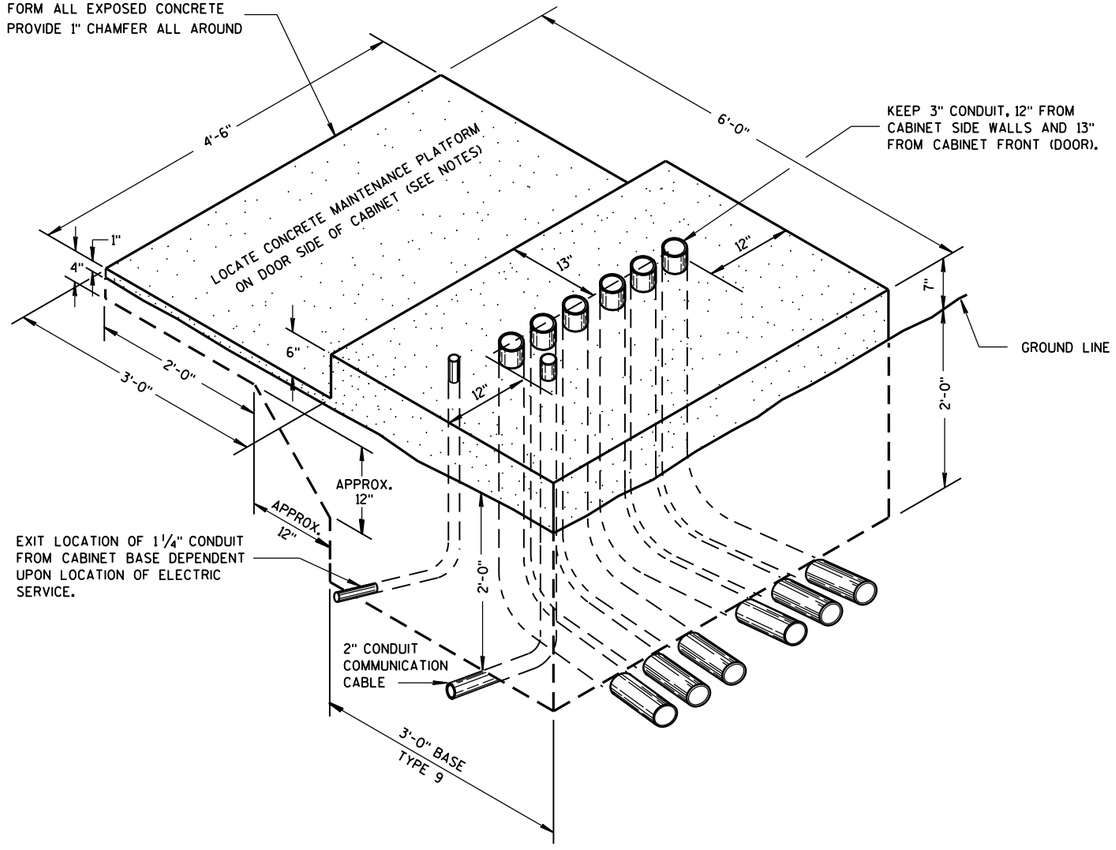
TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

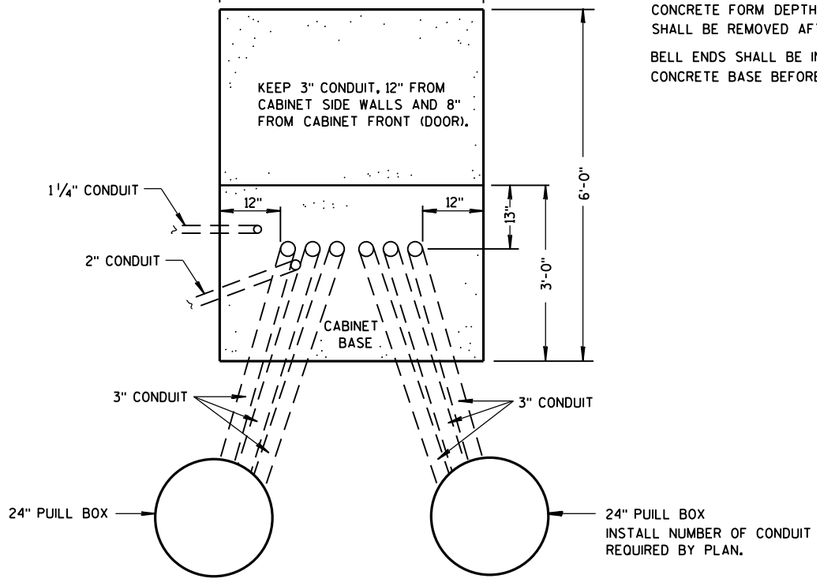
S.D.D. 9 C 3-4



ISOMETRIC VIEW

TYPE 9, SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE (SIX THREE INCH) SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUIT IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

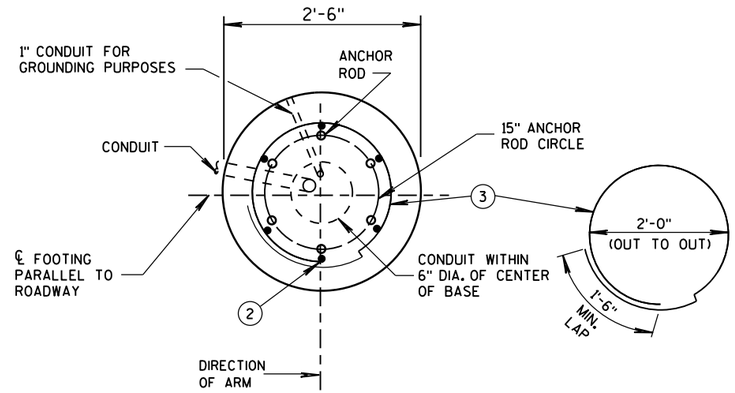
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

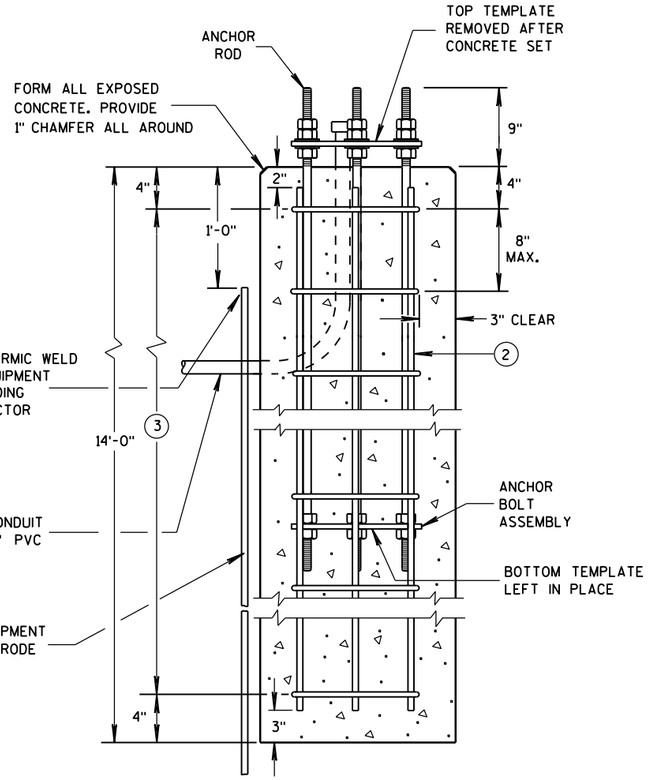
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES. (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

(3) (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.

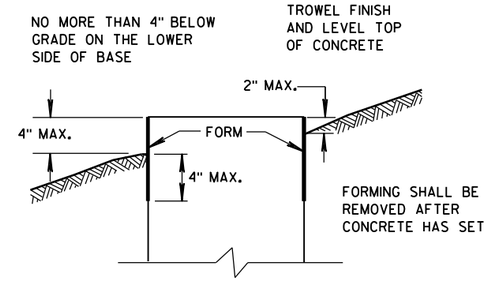




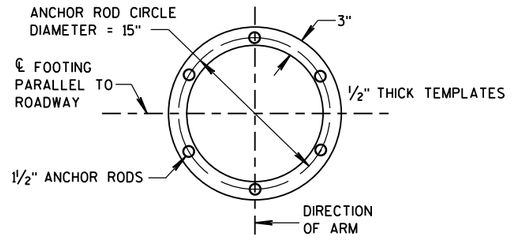
CONCRETE BASE TYPE 10

(FOR TYPE 9 & 10 & OVER HEIGHT (OH) POLES)

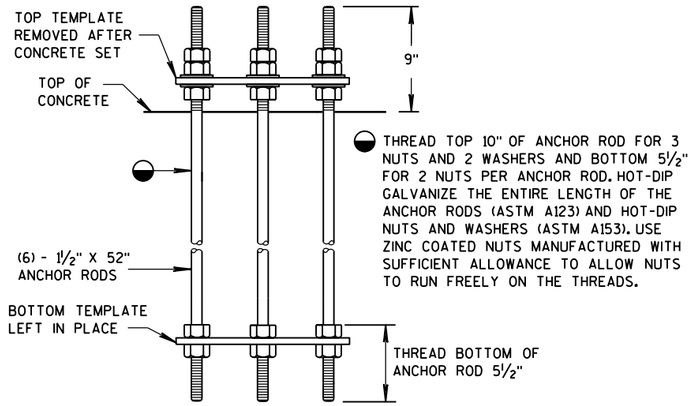
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	172
LBS. OF VERTICAL BAR STEEL	122

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2017 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

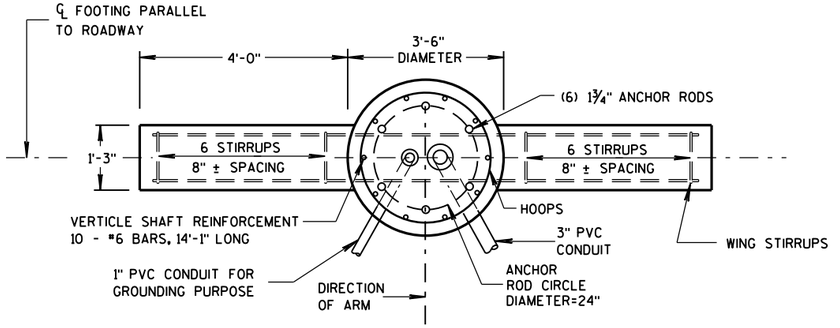
FHWA

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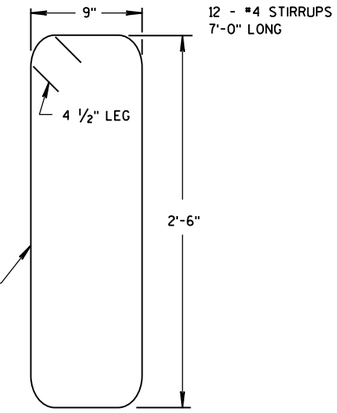
S.D.D. 9 C 11-10

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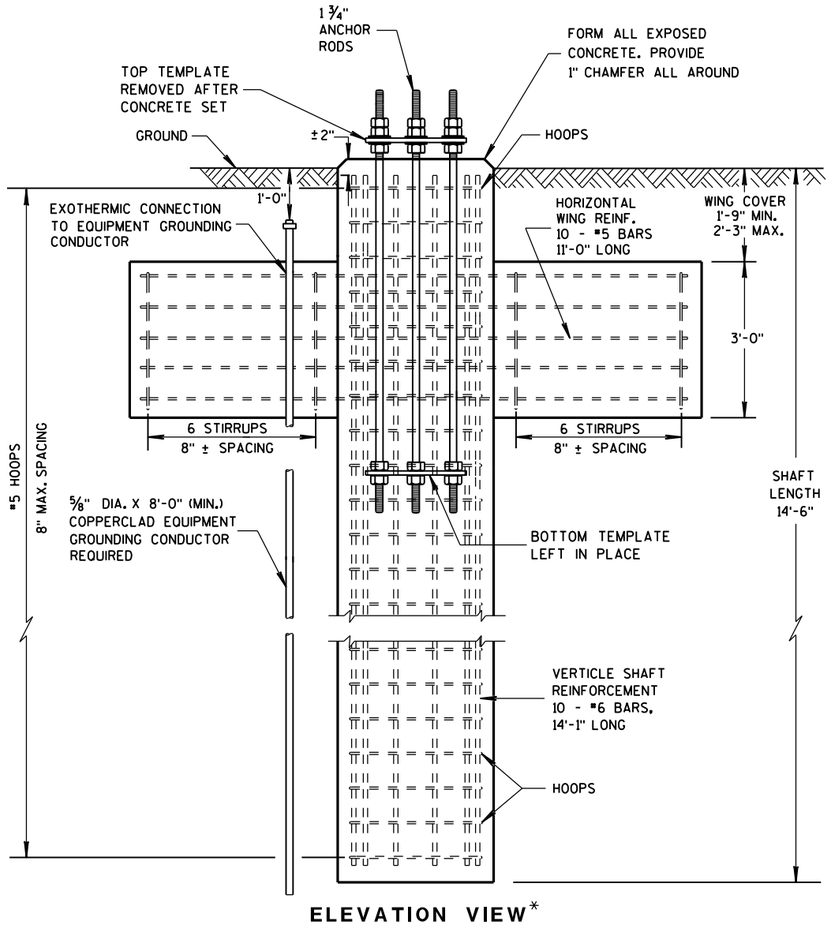
S.D.D. 9 C 11-10



PLAN VIEW

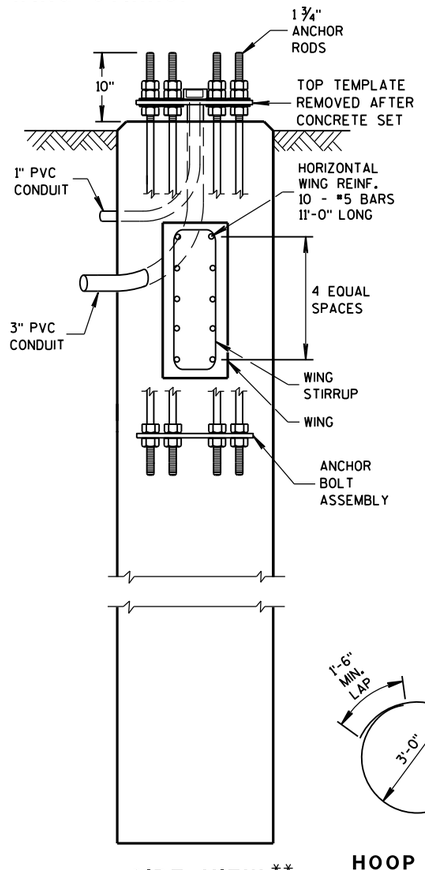


WING STIRRUP



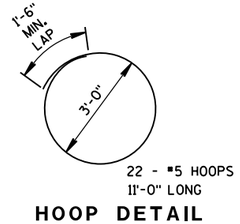
ELEVATION VIEW*

* CONDUITS ARE NOT SHOWN ON THIS VIEW FOR CLARITY



SIDE VIEW**

** HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY



HOOP DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF THE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1-INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4-FOOT COIL OF WIRE ABOVE THE CONCRETE BASE, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS.

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATIONS	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 & OVER HEIGHT (OH) POLES)

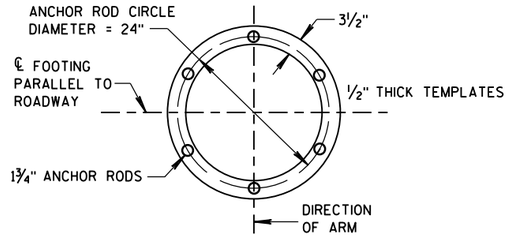
CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 635 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

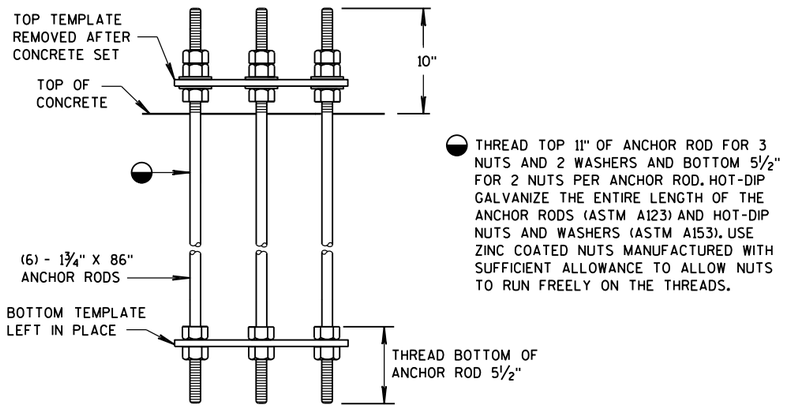
CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 9 C 12-9a

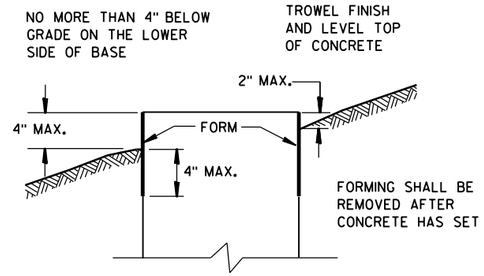


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

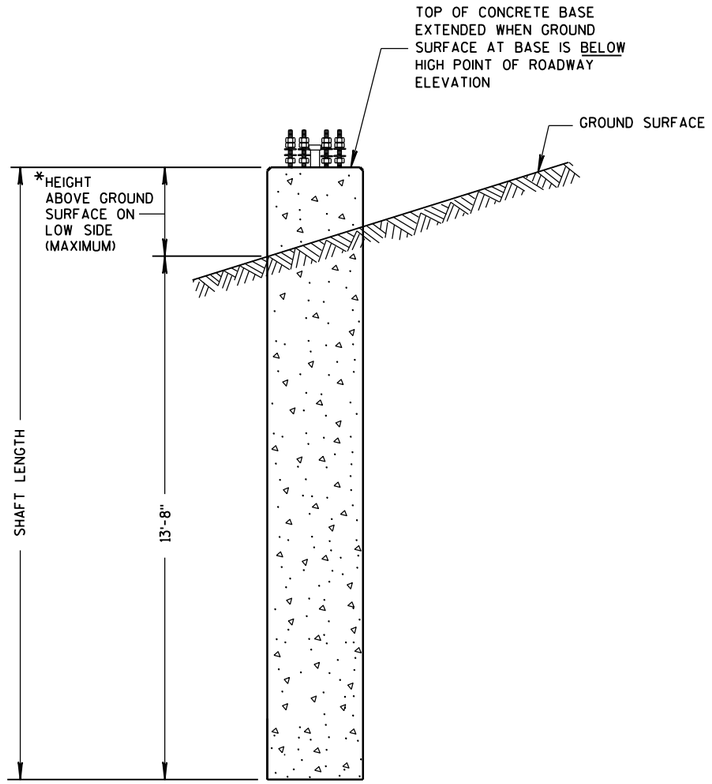
CONCRETE BASE TYPE 13	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2017 DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL

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S.D.D. 9 C 12-9b

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 10 CONCRETE BASE

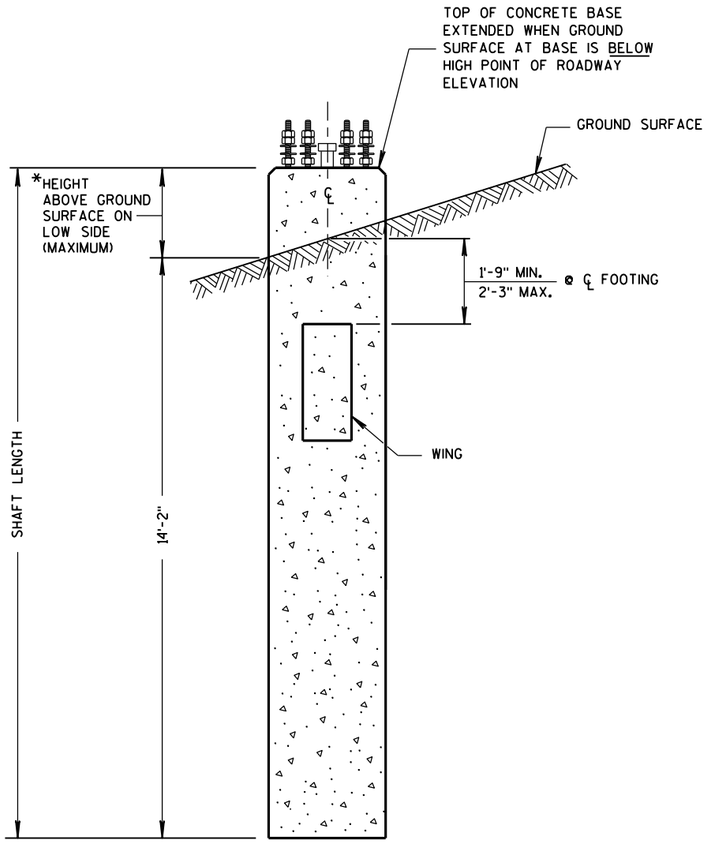
HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF HOOP BAR STEEL	LBS. OF VERTICAL BAR STEEL
>0" TO 6"	10"	14'-6"	14'-1"	16	2.6	78	127
>6" TO 1'-0"	1'-4"	15'-0"	14'-7"	16	2.7	78	131
>1'-0" TO 1'-6"	1'-10"	15'-6"	15'-1"	17	2.8	83	136
>1'-6" TO 2'-0"	2'-4"	16'-0"	15'-7"	17	2.9	83	141



CONCRETE BASE TYPE 10 (EXTENDED)

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 13 CONCRETE BASE

HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF H.S. BAR STEEL
>0" TO 6"	10"	15'-0"	14'-7"	16	6.5	447
>6" TO 1'-0"	1'-4"	15'-6"	15'-1"	16	6.6	454
>1'-0" TO 1'-6"	1'-10"	16'-0"	15'-7"	17	6.8	469
>1'-6" TO 2'-0"	2'-4"	16'-6"	16'-1"	17	7.0	476



CONCRETE BASE TYPE 13 (EXTENDED)

CONCRETE BASE
TYPE 10 & TYPE 13 EXTENSION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

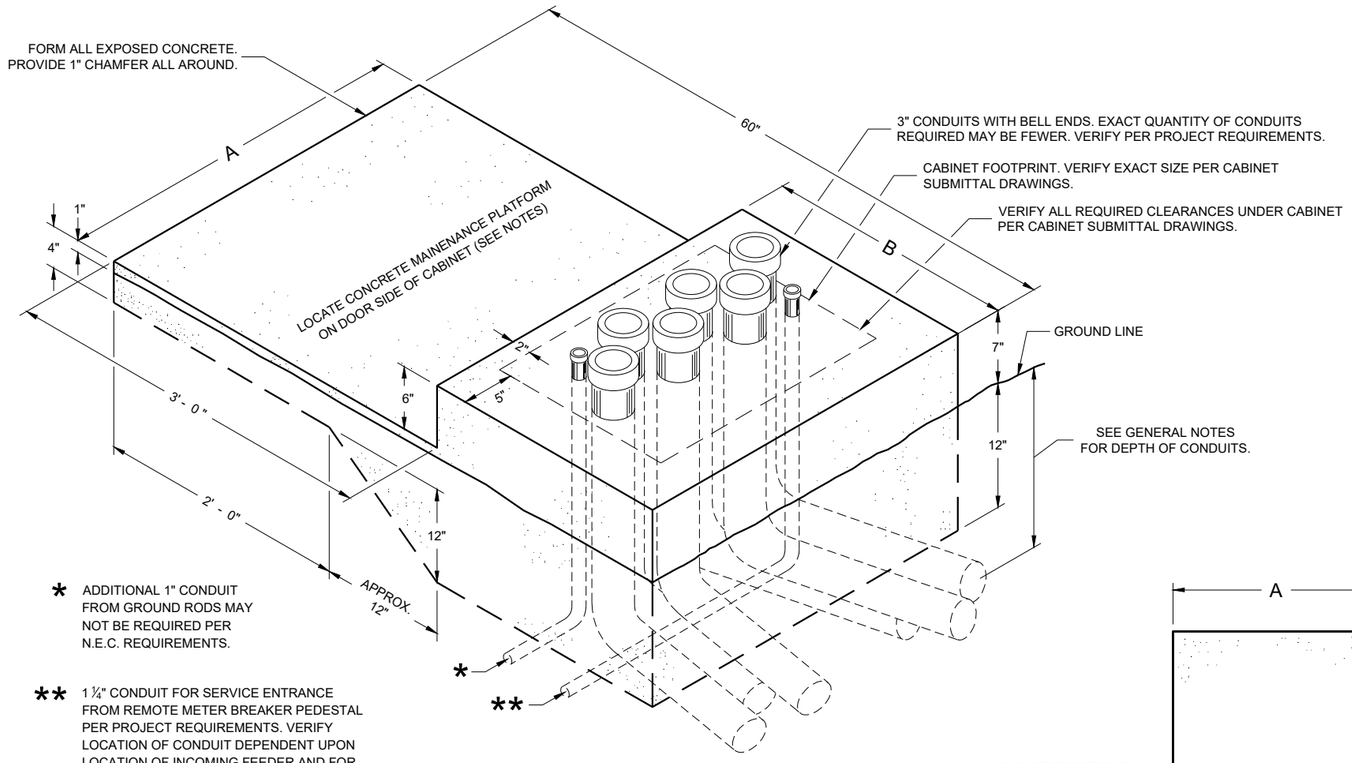
APPROVED
11-26-2013 DATE
/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA

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S.D.D. 9 C 13-2

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S.D.D. 9 C 13-2



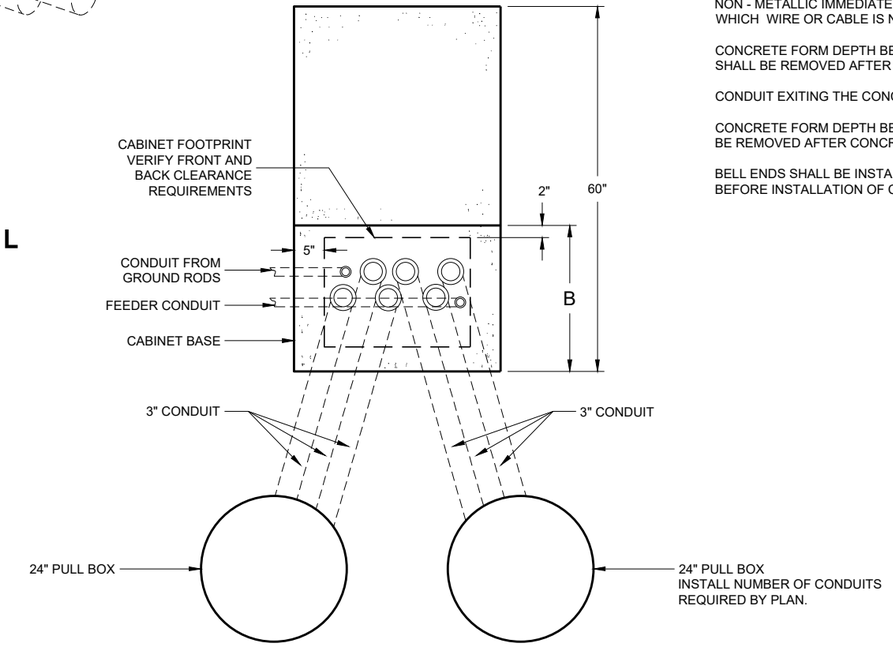
* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

** 1 ¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

ISOMETRIC VIEW
CONCRETE CONTROL CABINET BASE, TYPE L

(C.Y. CONCRETE = APPROX. 0.4)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSIONS		MAXIMUM 3" CONDUITS
		A	B	
L24	24"	34"	24"	4
L30	30"	40"	24"	6



PLAN VIEW
CONCRETE CONTROL CABINET BASE, TYPE L

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NON - METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U. L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS UNLESS DETERMINED BY THE ENGINEER IN THE FIELD.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NON - METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCH MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL
CABINET BASE, TYPE L

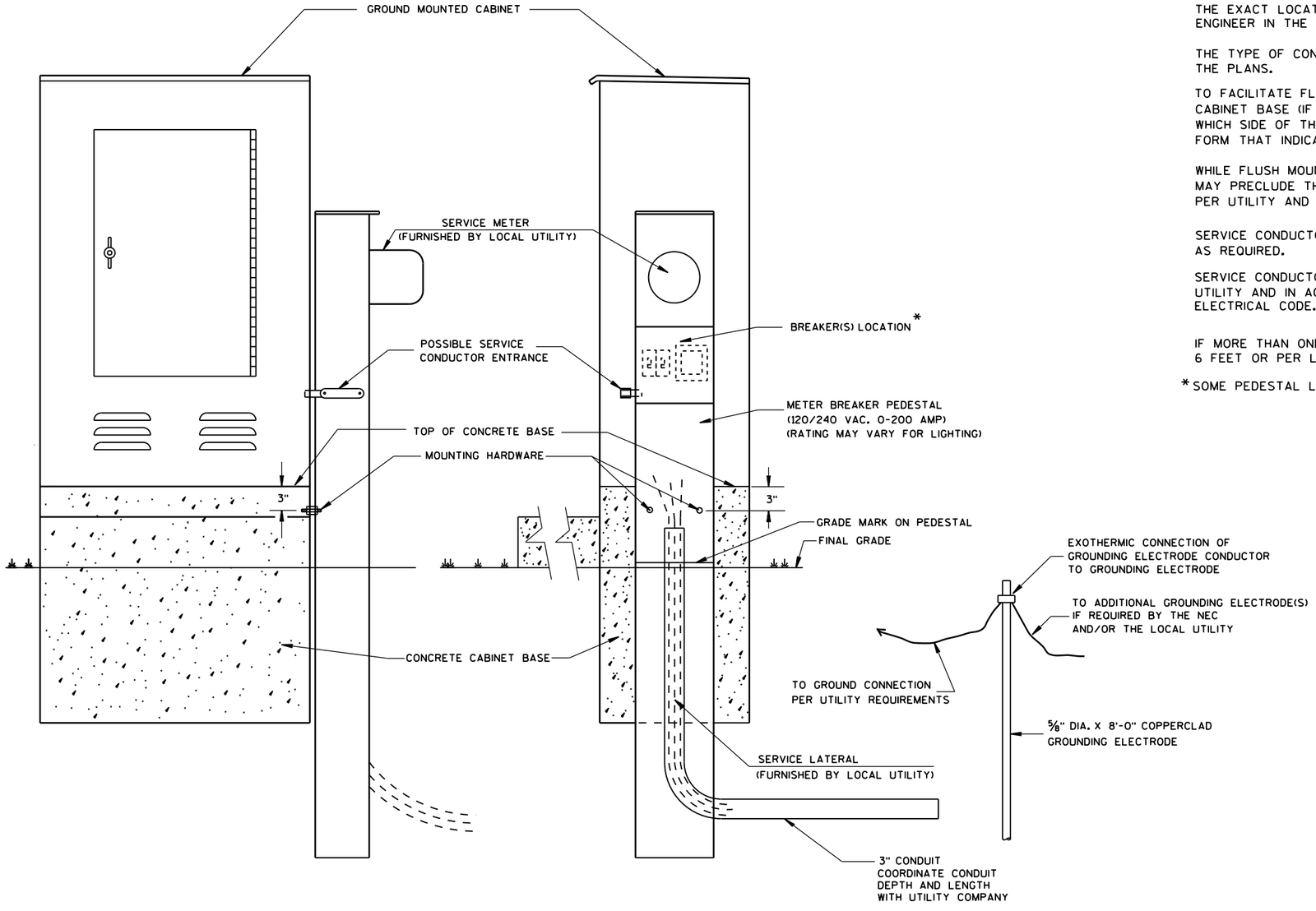
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 108

FHWA

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SDD 09C14 - 03



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

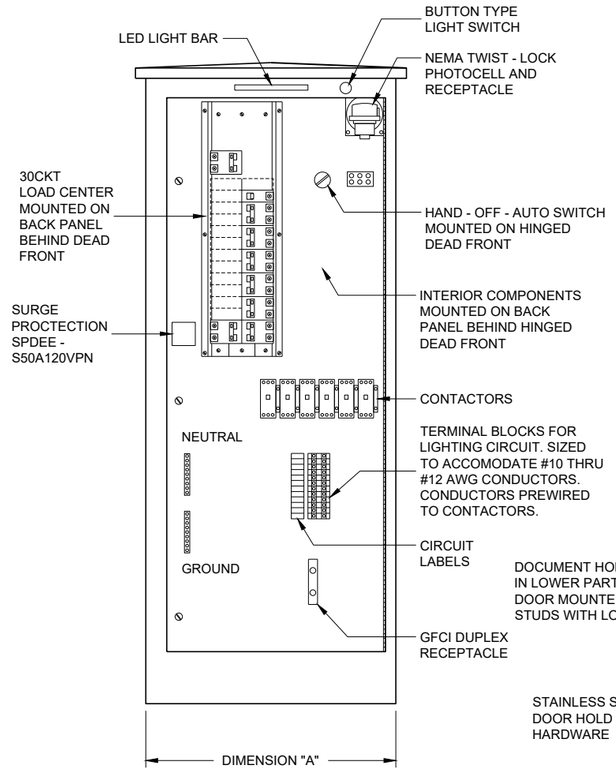
CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

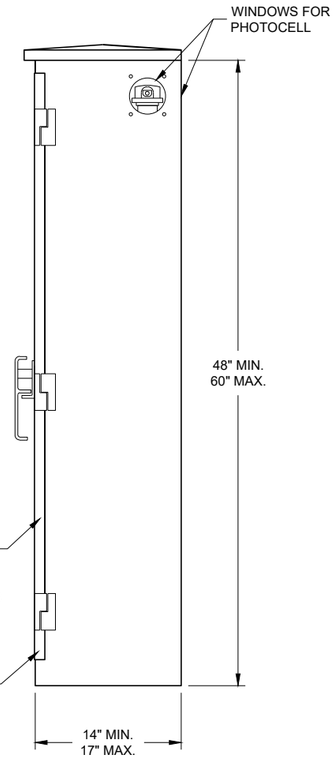
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 D 1-5

FRONT INTERIOR ELEVATION



SIDE VIEW



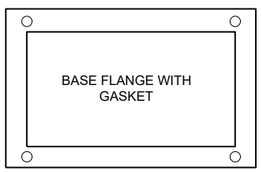
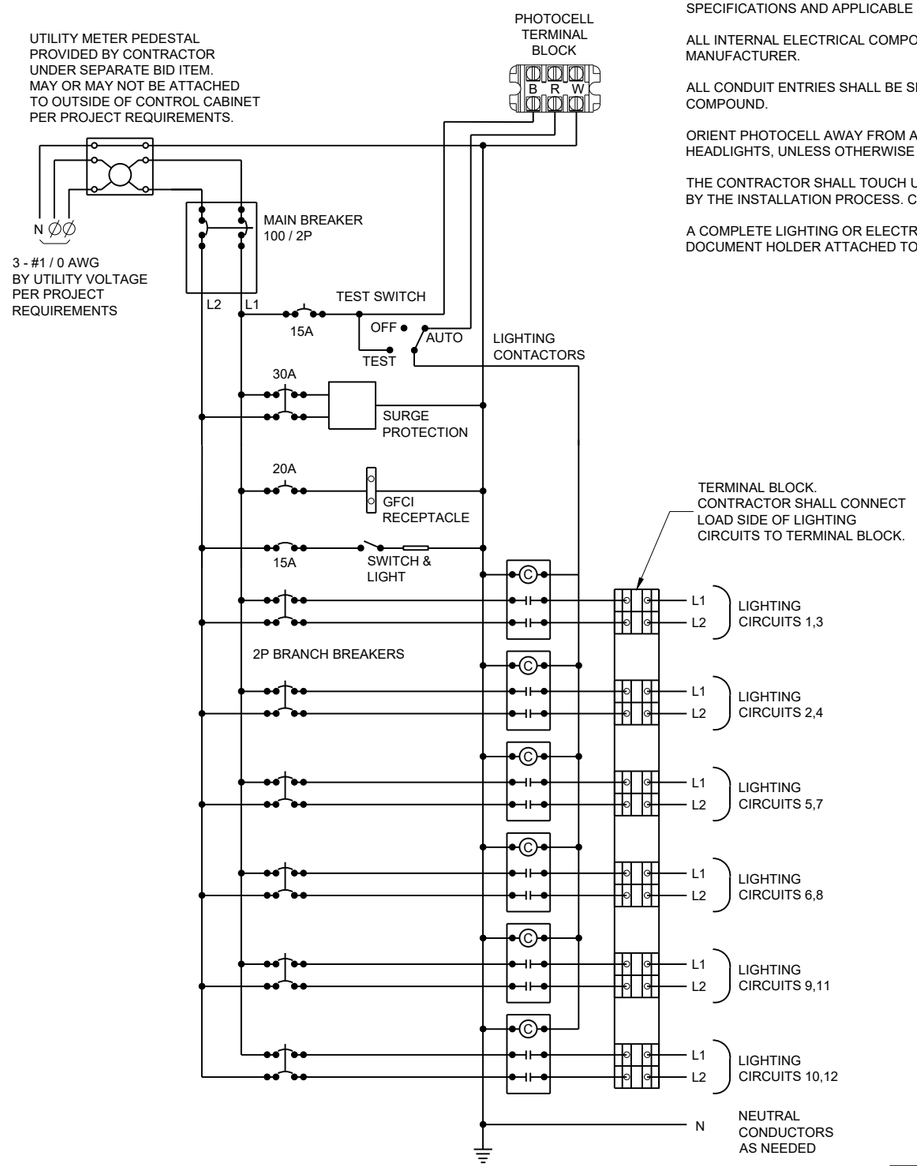


TABLE OF DIMENSIONS (INCHES)		
CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"

LIGHTING CONTROL CABINET



CONTROL CABINET SCHEMATIC

GENERAL NOTES

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

ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE - WIRED BY THE CABINENT MANUFACTURER.

ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS, UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISION.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

LIGHTING CONTROL CABINET 120 / 240 VOLT

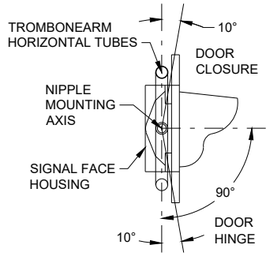
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

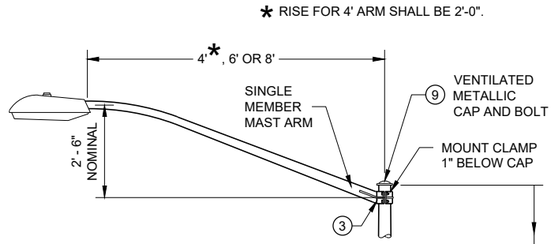
/S/ Ahmet Demirbilek
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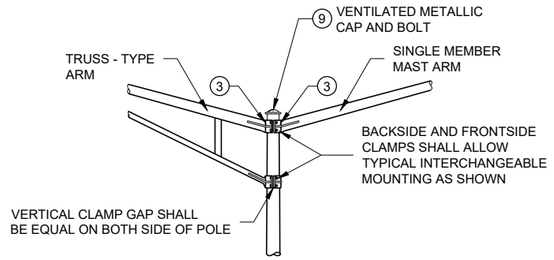
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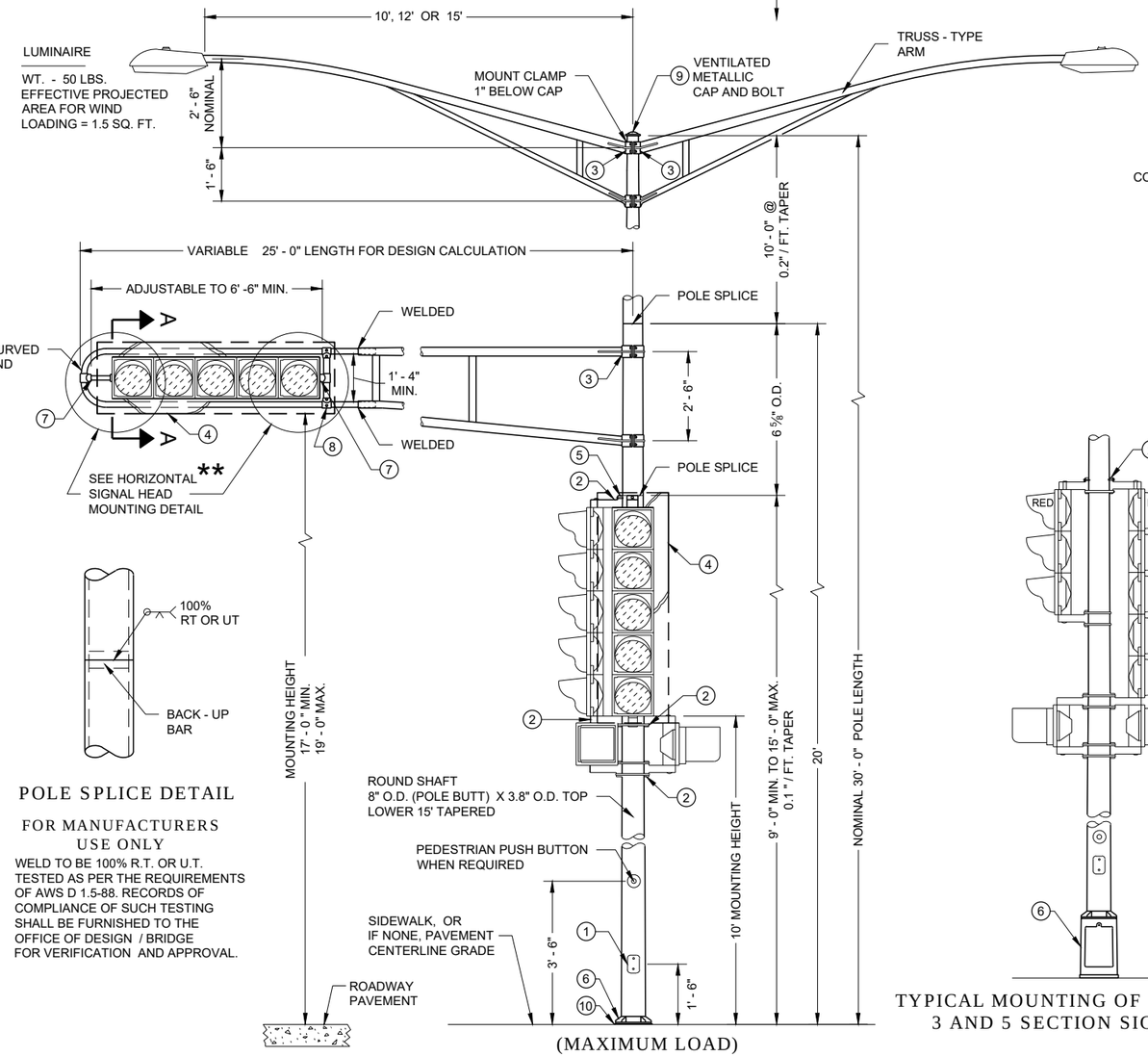


SECTION A-A

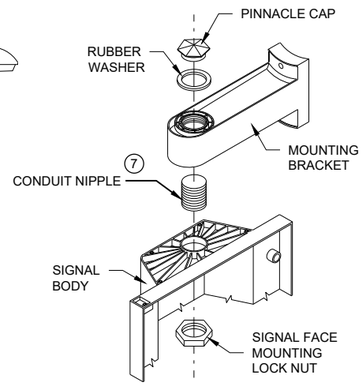




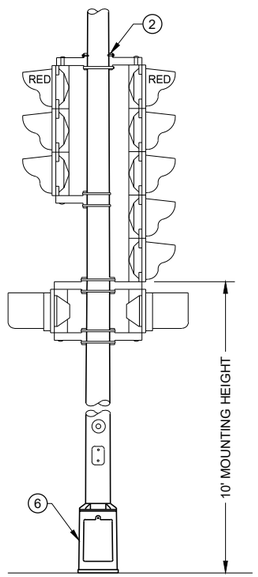
INTERCHANGEABLE MOUNTING DETAIL



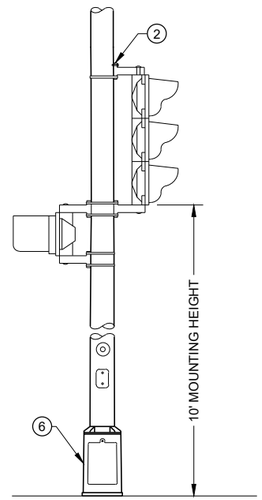
(MAXIMUM LOAD)



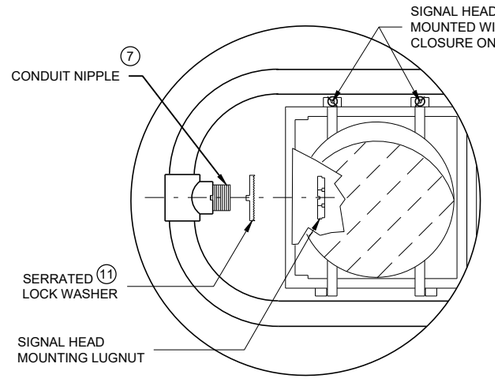
SIGNAL FACE MOUNTING DETAIL
(BANDED)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD **
MOUNTING DETAIL

** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

POLE SPLICE DETAIL

FOR MANUFACTURERS USE ONLY

WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.

TYPE 3 POLE MOUNTING CONFIGURATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL TYPE 3 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 3/8 INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED. UNDER MAX LOADING, TYPE 3 POLE SHALL BE MOUNTED DIRECTLY TO ITS CONCRETE BASE.

(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

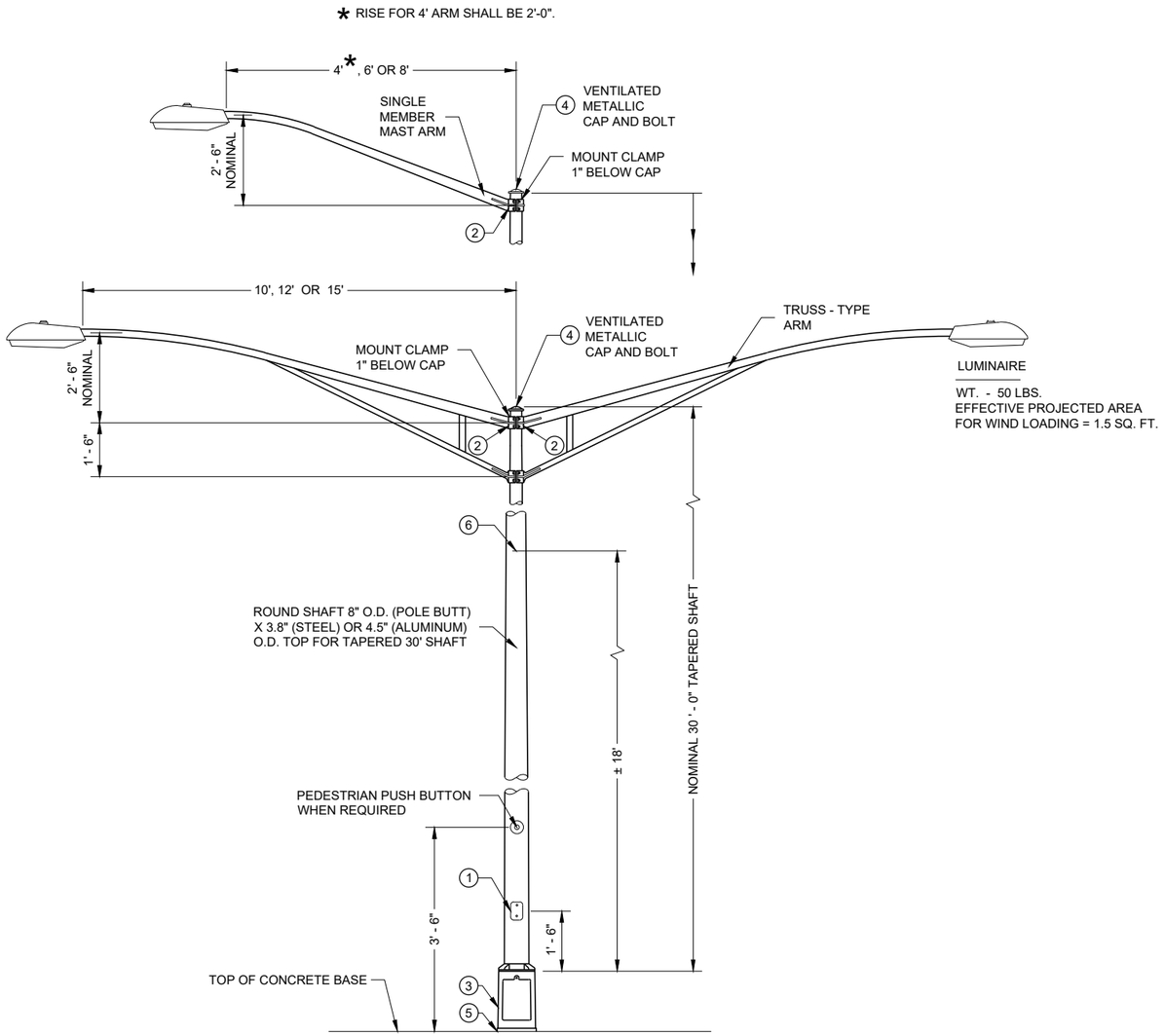
(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS
TYPE 3 (HEAVY DUTY)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 09E01 - 15b



TYPE 5 POLE MOUNTING CONFIGURATION

(MAXIMUM LOAD)

LIGHTING ONLY

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.1888".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

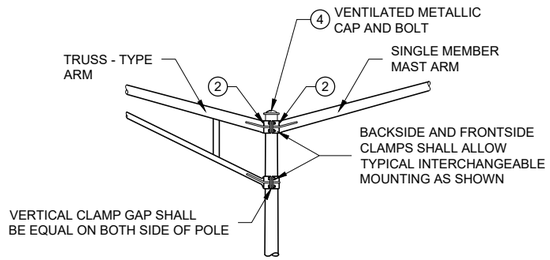
(2) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(6) INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.



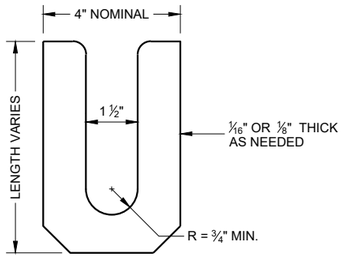
INTERCHANGEABLE MOUNTING DETAIL

POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5

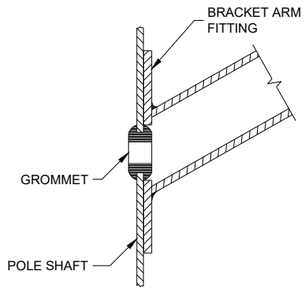
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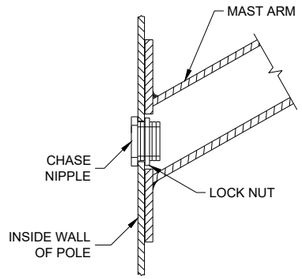
SDD 09E01 - 15d



LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

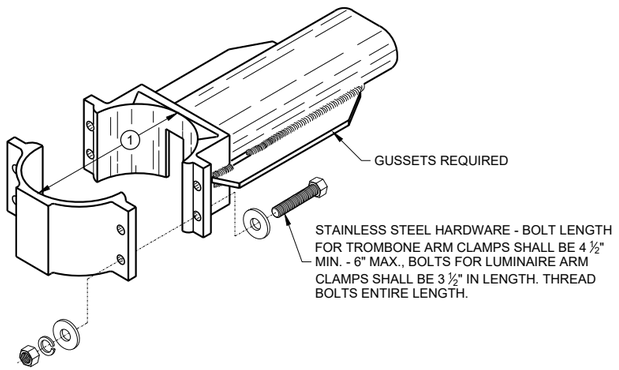
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

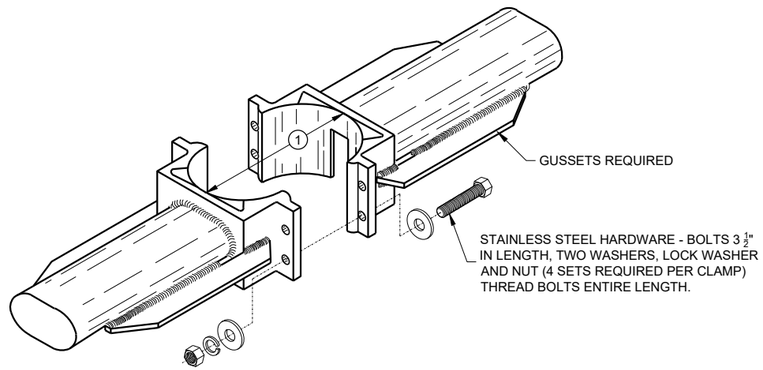
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

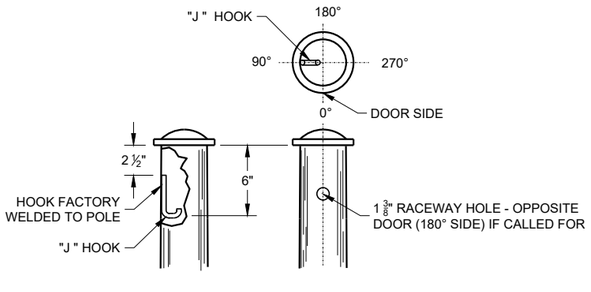
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



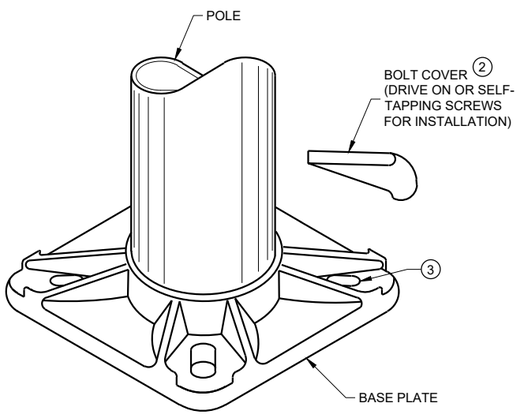
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



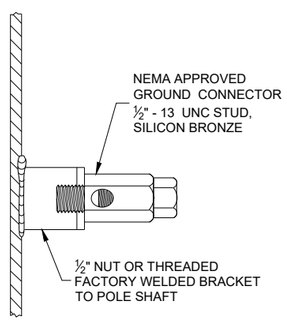
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

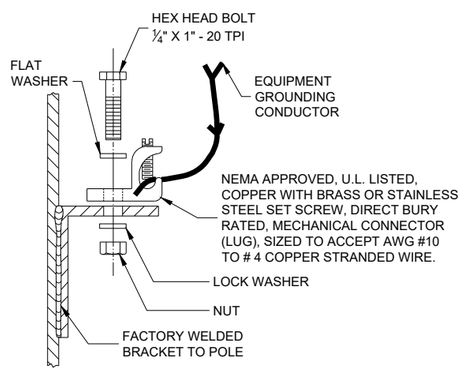


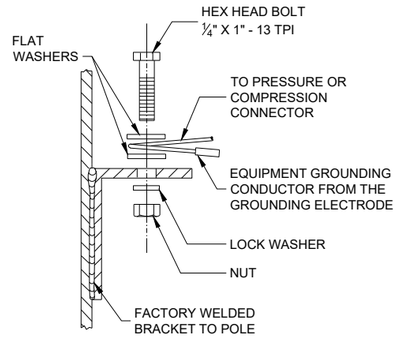
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
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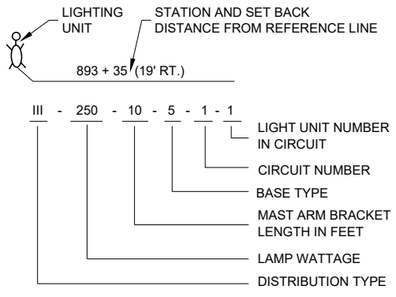
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GENERAL NOTES

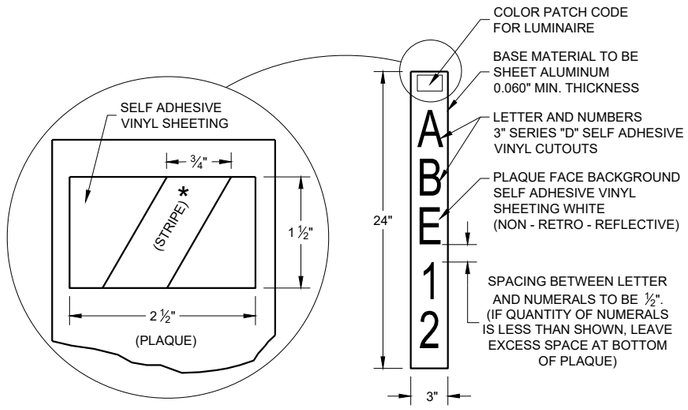
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



LIGHTING UNIT CODE
(TYPICAL)

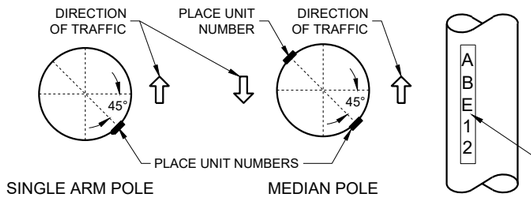


COLOR PATCH CODE FOR LUMINAIRES

(HIGH PRESSURE SODIUM)
- 1000 WATT - NO PATCH
- 400 WATT - ORANGE
- 310 WATT - BLUE
- 250 WATT - ORANGE W / WHITE STRIPE *
- 200 WATT - RED
- 150 WATT - GREEN
- 100 WATT - BROWN

(MERCURY VAPOR)
- 400 WATT - NO PATCH
- 250 WATT - YELLOW

IDENTIFICATION PLAQUE

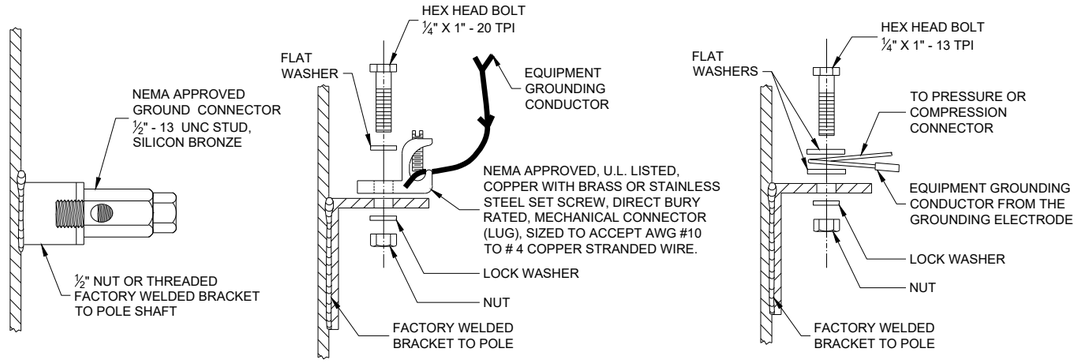


NOTES
1) PLACE BOTTOM OF UNIT NUMBER PLAQUE 5'-0" ABOVE ELEVATION OF ADJACENT CURB OR SHOULDER.
2) UNIT NUMBER: ONE REQUIRED FOR SINGLE ARM POLES. TWO REQUIRED FOR MEDIAN MOUNT POLES.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE WITH 3 ALUMINUM POP RIVETS (ALUMINUM POLES) OR STAINLESS STEEL POP RIVETS (STEEL POLES).

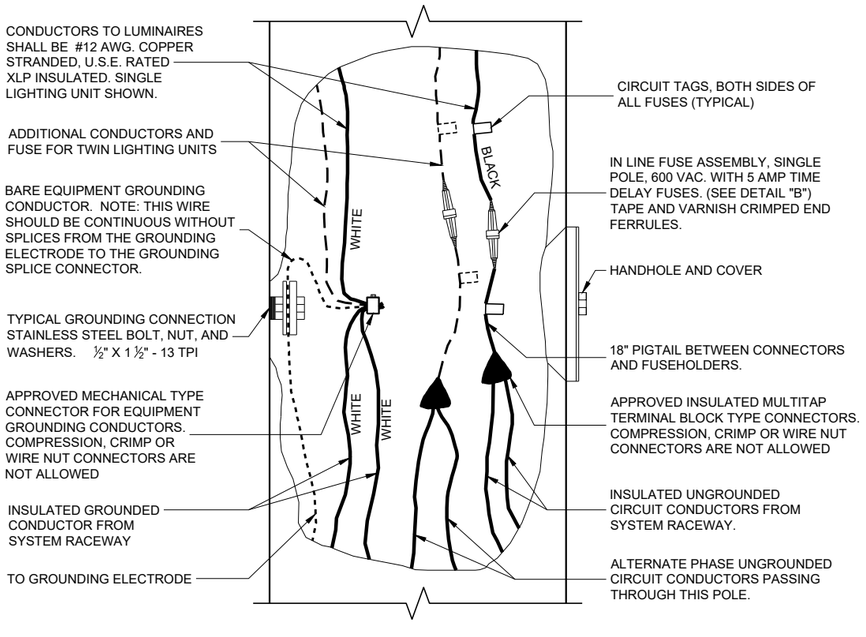
LIGHTING UNIT IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENT
(TYPICAL, ALL LIGHTING UNITS)

FURNISH PLAQUE WHEN CALLED FOR BY SPECIAL PROVISIONS

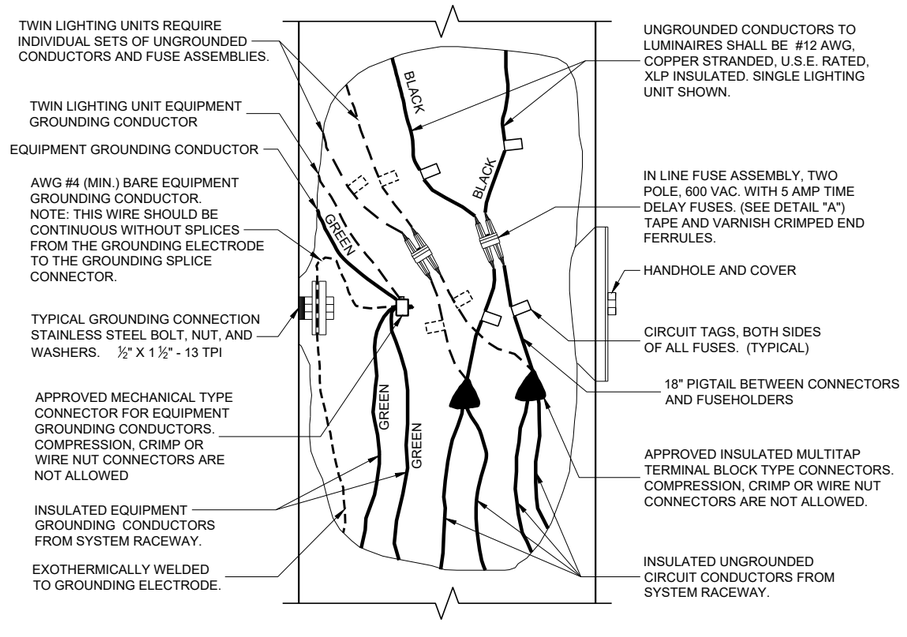


TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

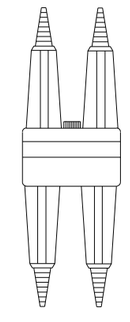
OLD EXISTING FREEWAY WIRING (SOME AREAS)



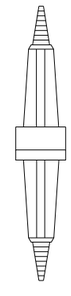
2 WIRE - 120, 240, OR 480 VAC TO GROUND



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR



DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT

FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
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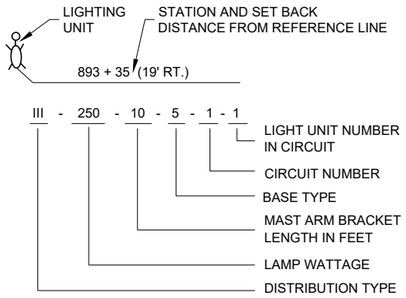
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GENERAL NOTES

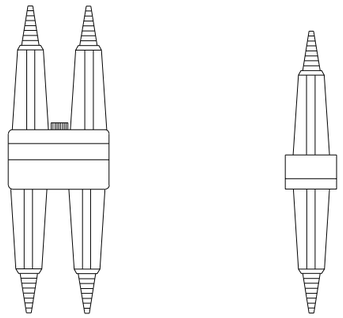
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THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

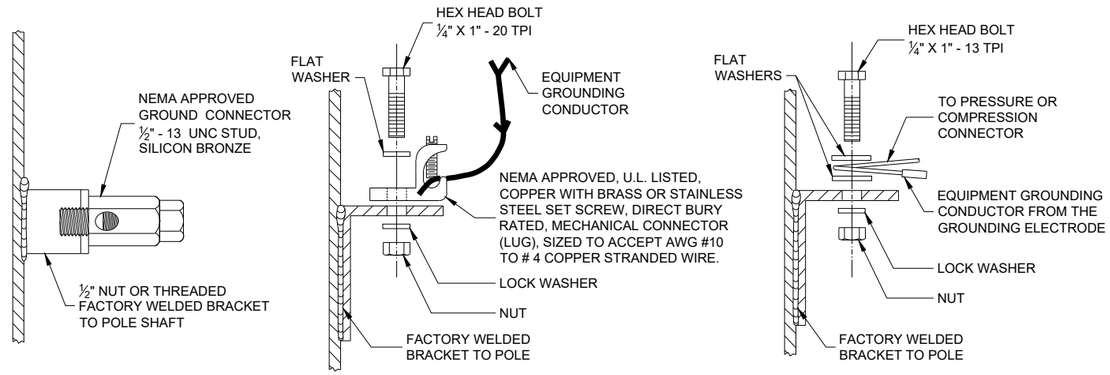


LIGHTING UNIT CODE
(TYPICAL)

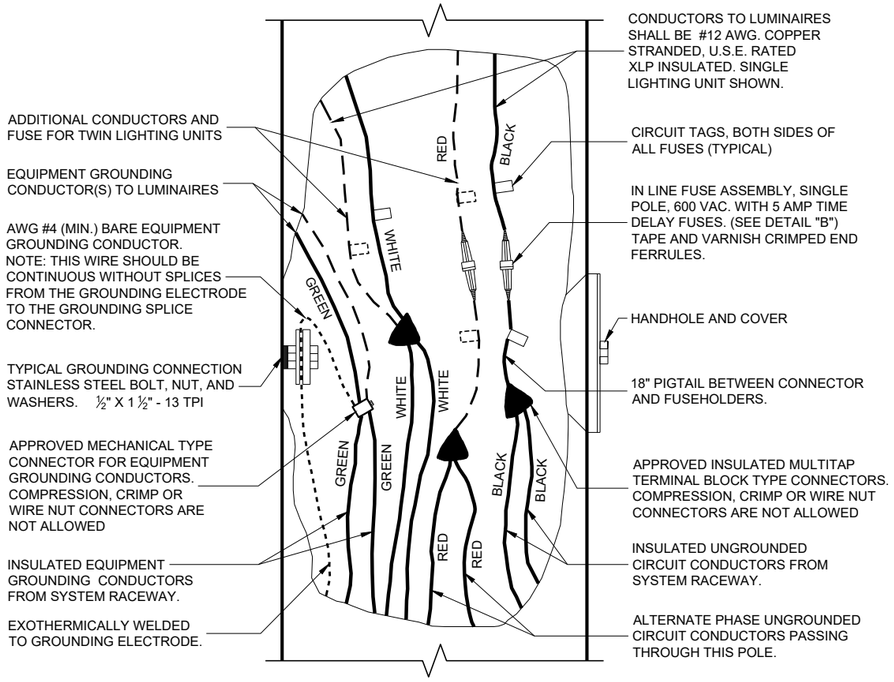


DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT

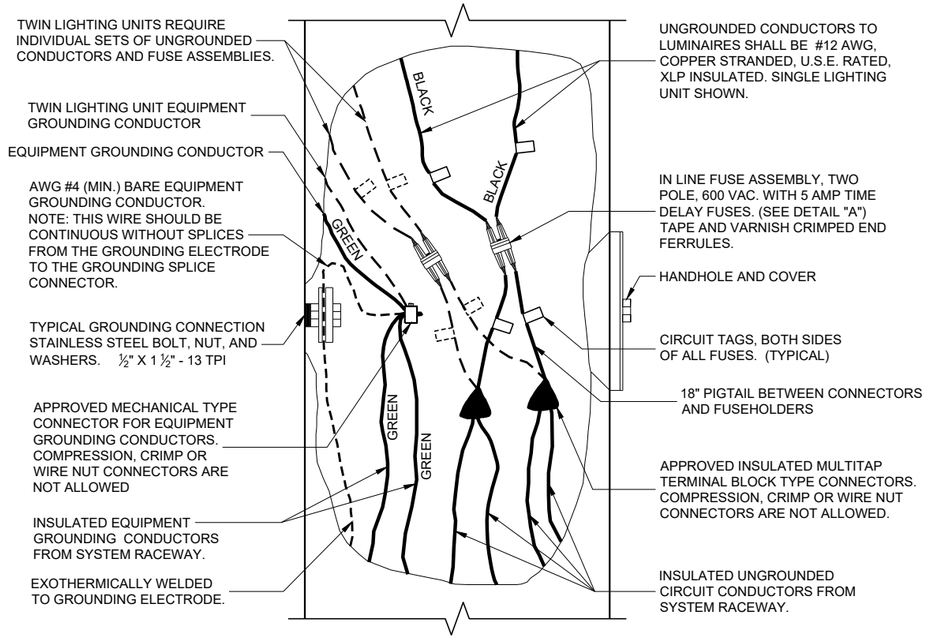
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH GROUNDING CONDUCTOR AND EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

NON - FREEWAY LIGHTING UNIT
POLE WIRING

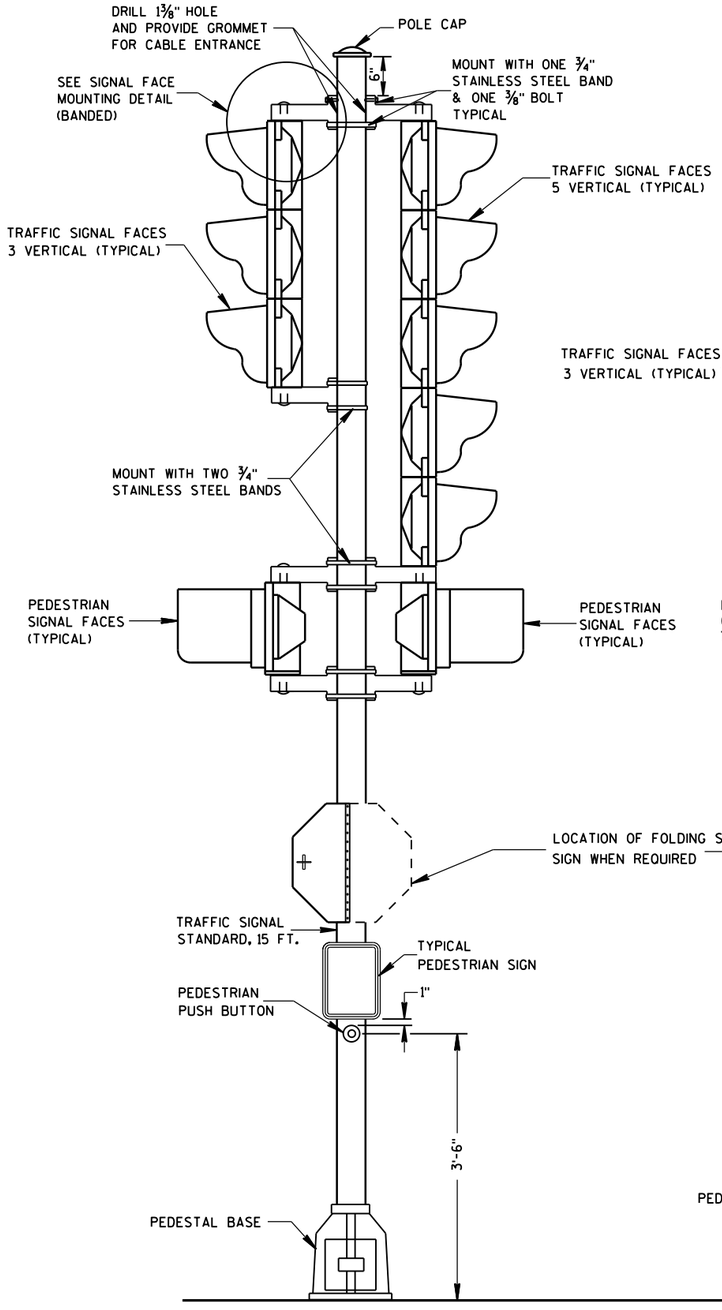
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

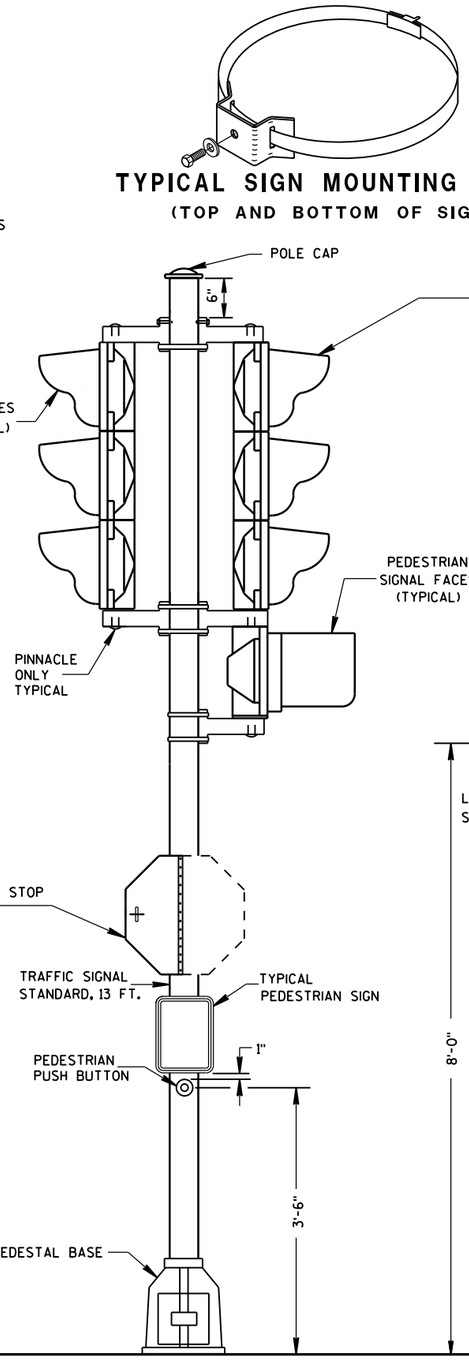
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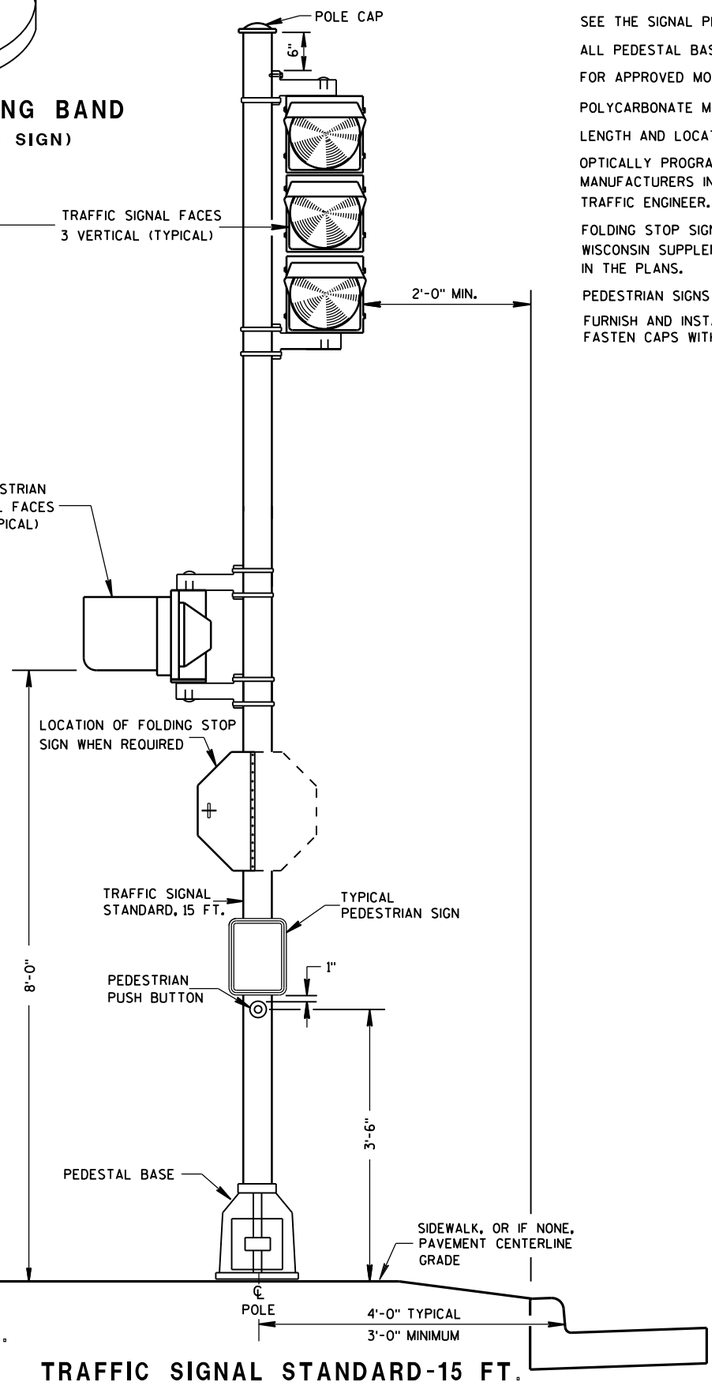


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

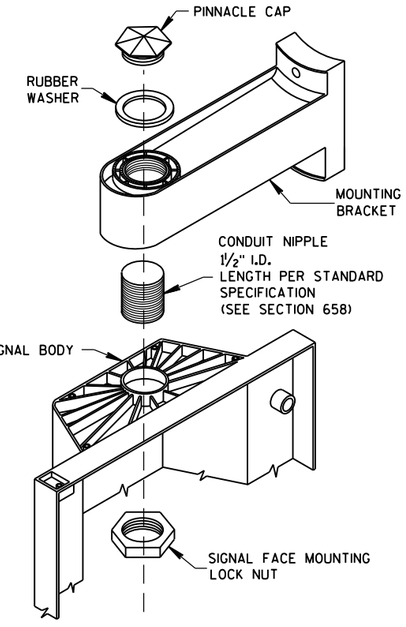
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL
(BANDED)

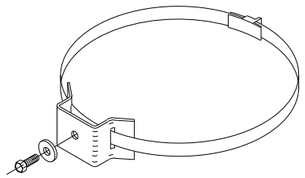
TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

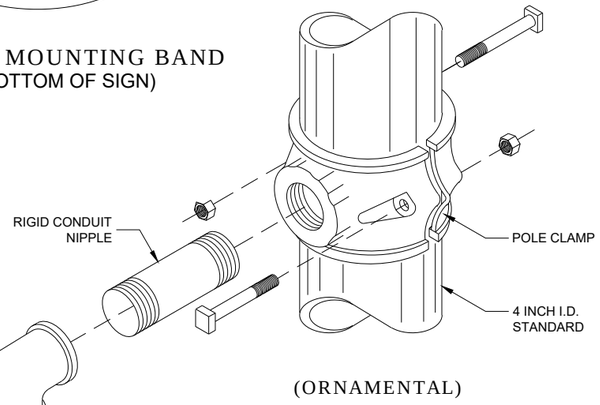
APPROVED
2/28/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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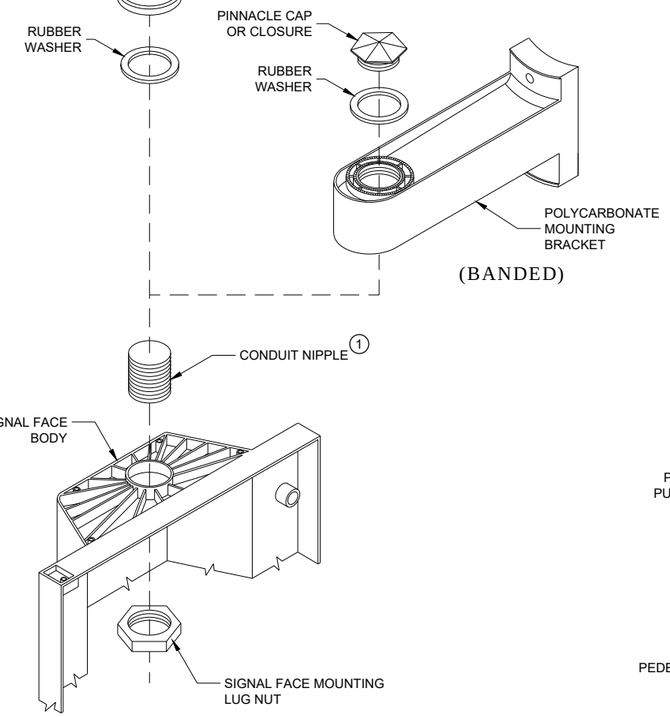
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TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)

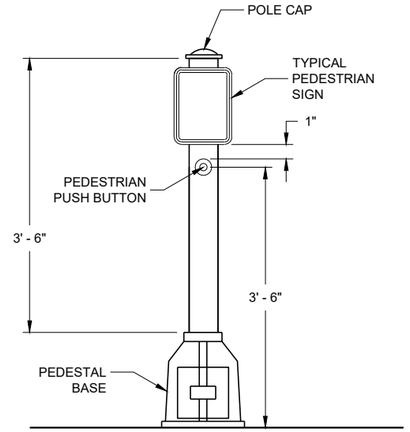


(ORNAMENTAL)



(BANDED)

SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON
TYPICAL MOUNTING

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS, UNLESS APPROVED BY THE ENGINEER IN THE FIELD.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

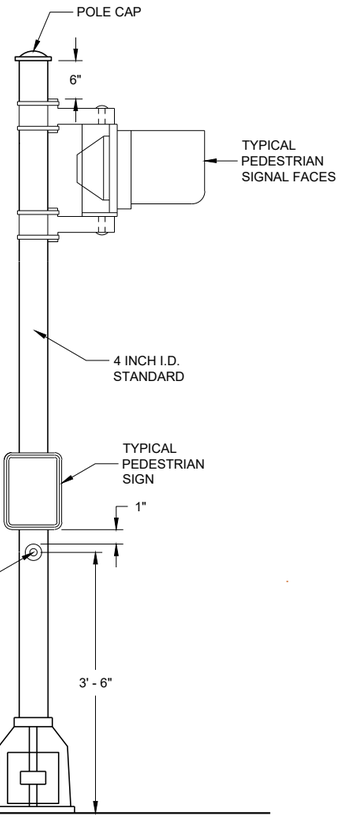
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

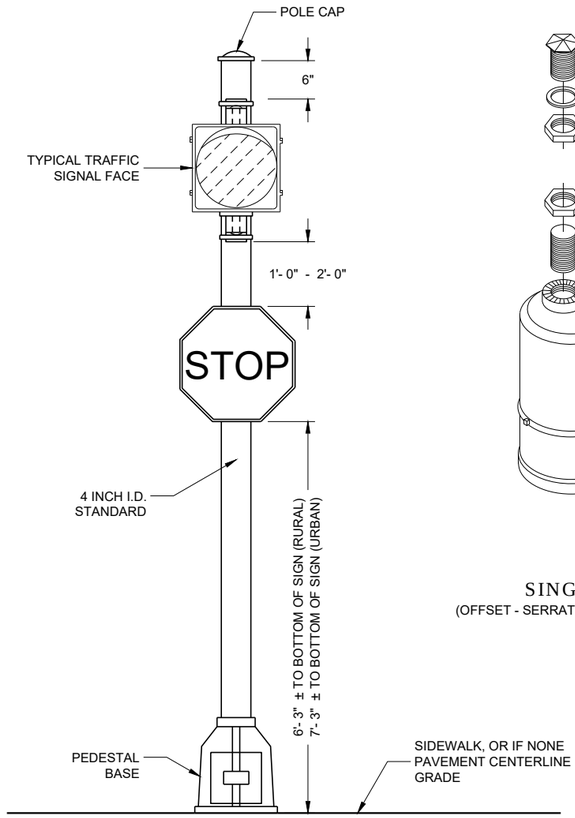
PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

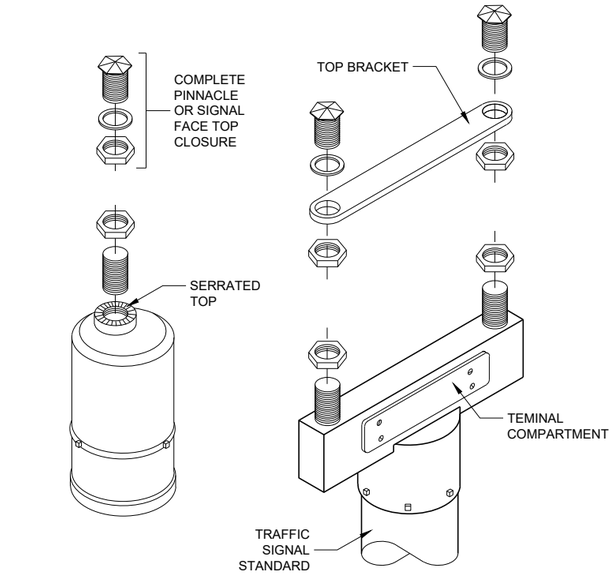
(1) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACESAND BRACKET ENDS.



PEDESTRIAN FACE STANDARD - 10 FT.
(WALK - DON'T WALK)



STANDARD FLASHER
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET - SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD
PEDESTRIAN AND FLASHER
TYPICAL MOUNTING DETAILS

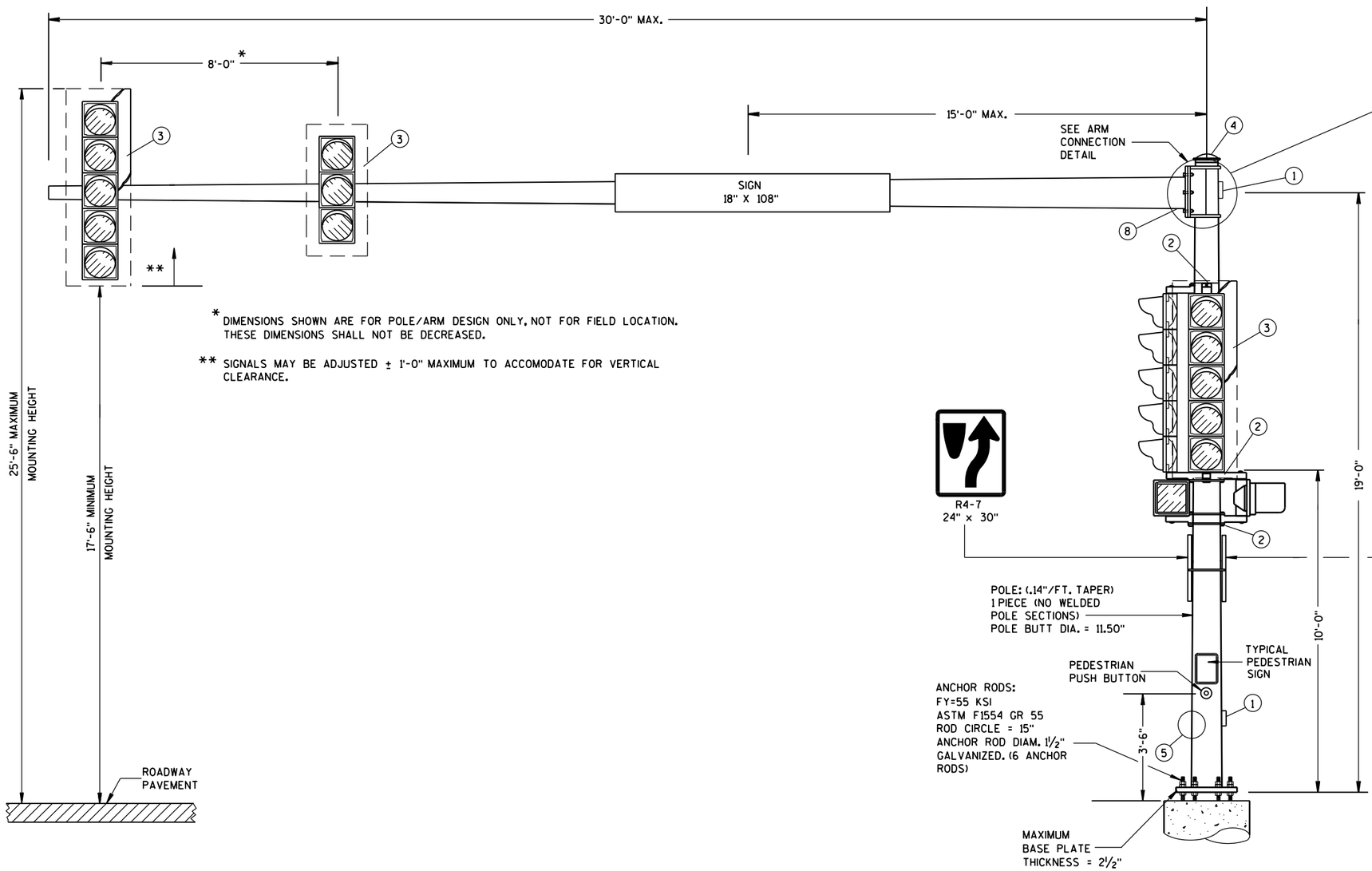
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

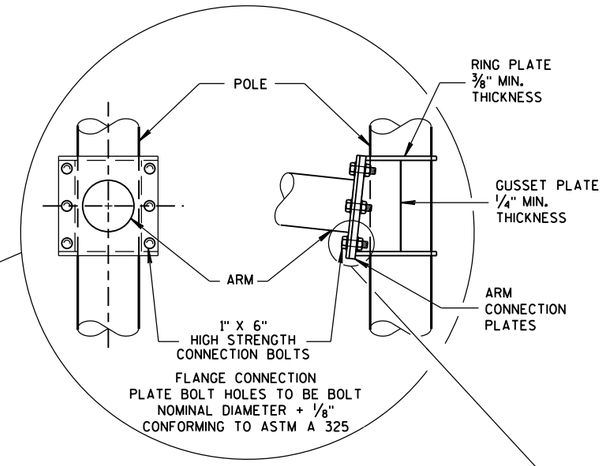
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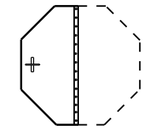


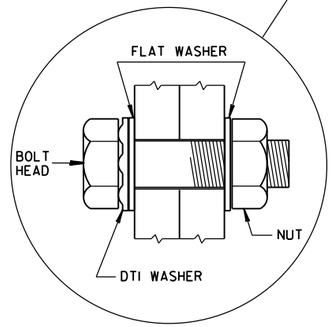
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

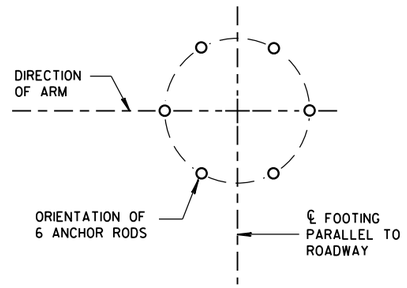


6 BOLT ARM CONNECTION DETAIL





RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

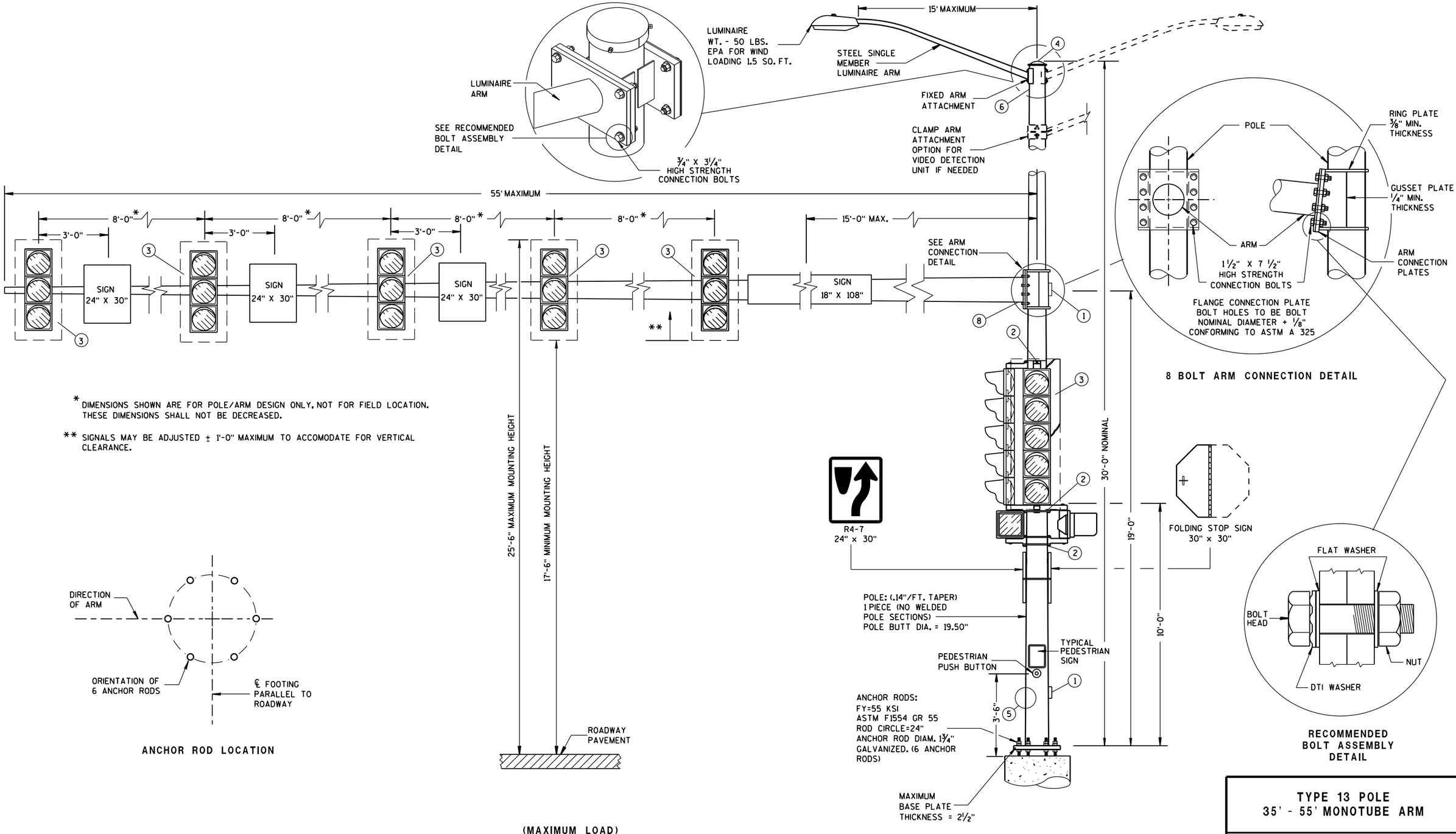
(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

TYPE 9 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
May, 2016 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA	

6

S.D.D. 9 E 8-8a



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

8 BOLT ARM CONNECTION DETAIL

RECOMMENDED BOLT ASSEMBLY DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

S.D.D. 9 E 8-8d

6

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO 2013 6TH EDITION AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

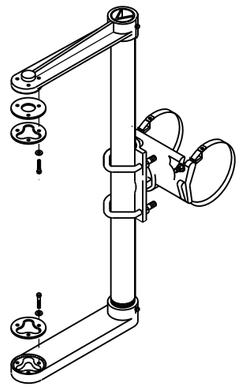
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

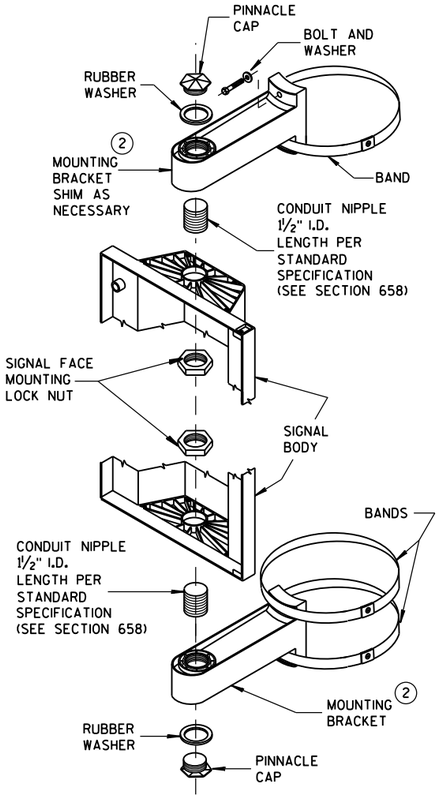
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

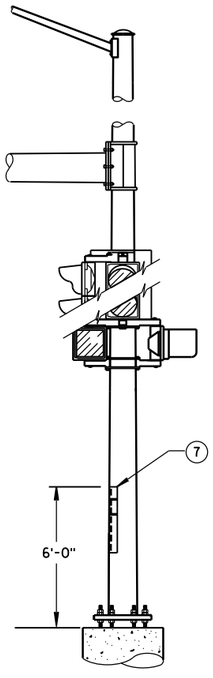


SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

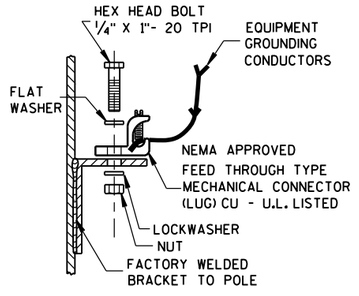
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE VERTICAL MOUNTING DETAIL

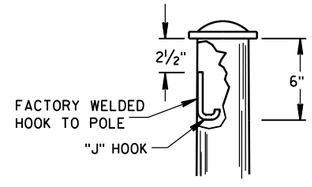


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



"J" HOOK WIRE SUPPORT (6)

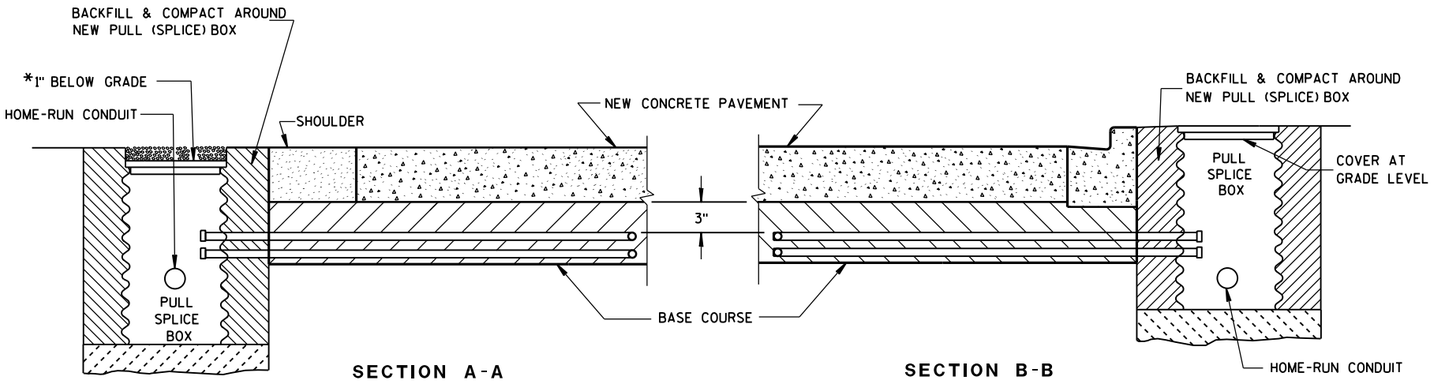
GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 E 8-8e



SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

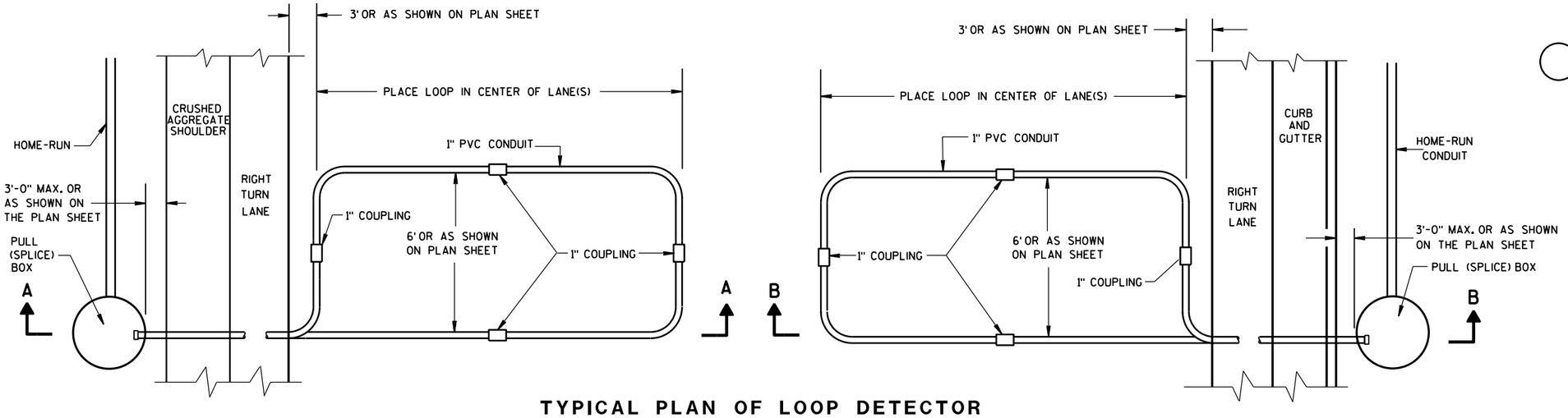
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

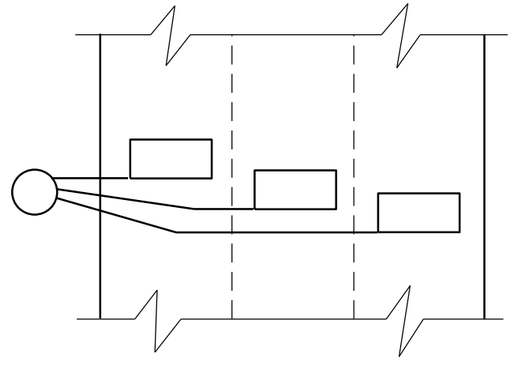
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED Sept. 2014 — DATE /S/ Ahmet Demirbilek — STATE ELECTRICAL FHWA

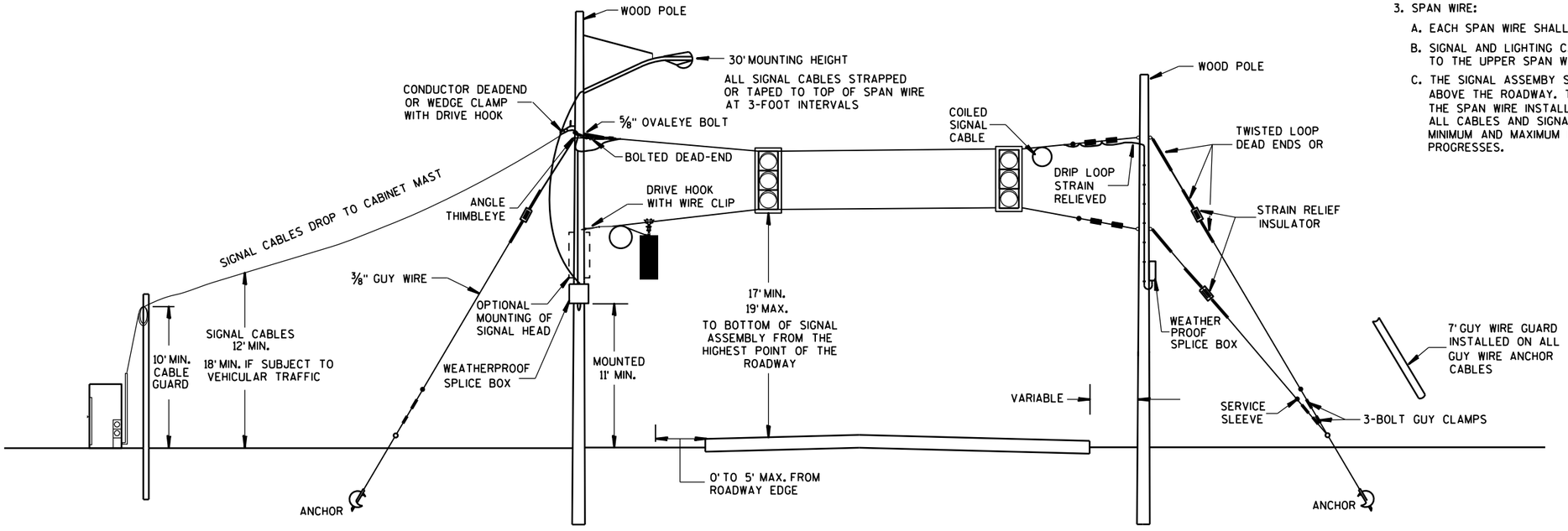
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

MINIMUM POLE LENGTHS	POLE BURIEL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

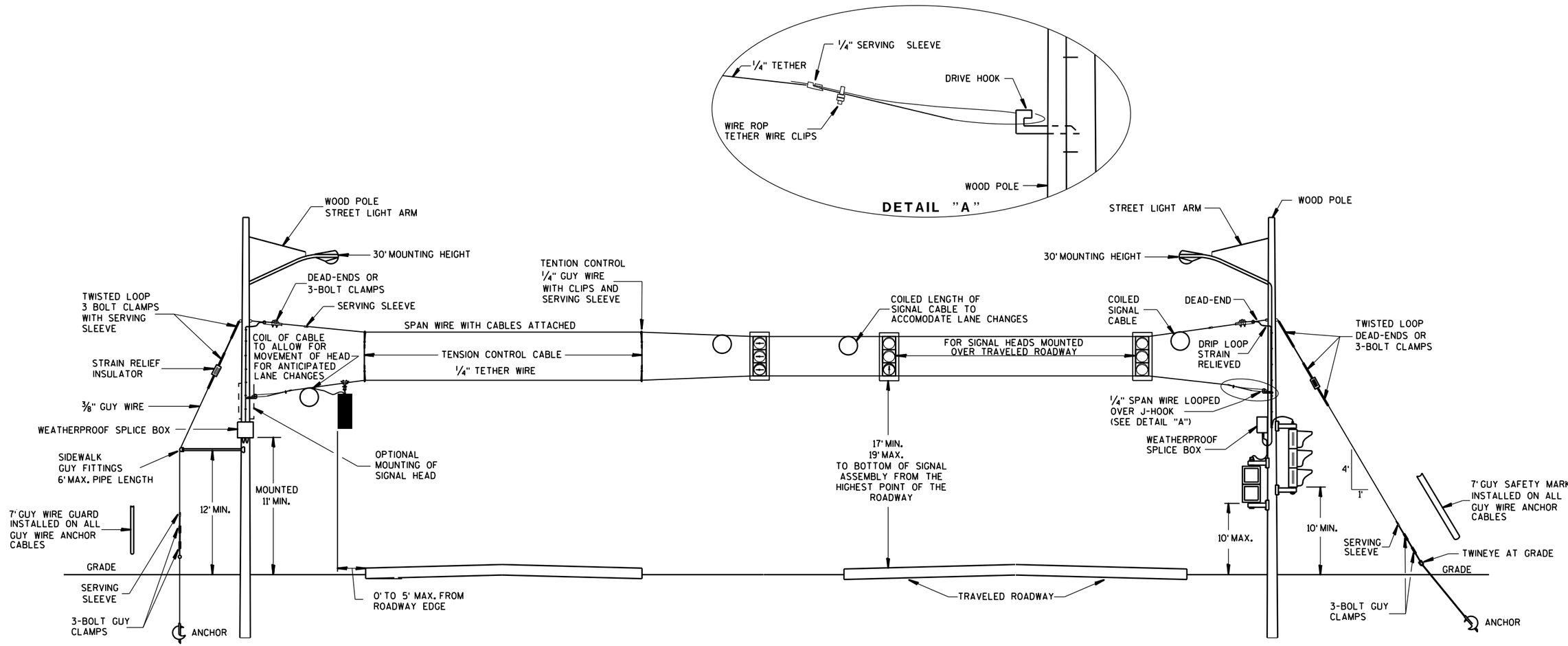
SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 G 1-4a



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

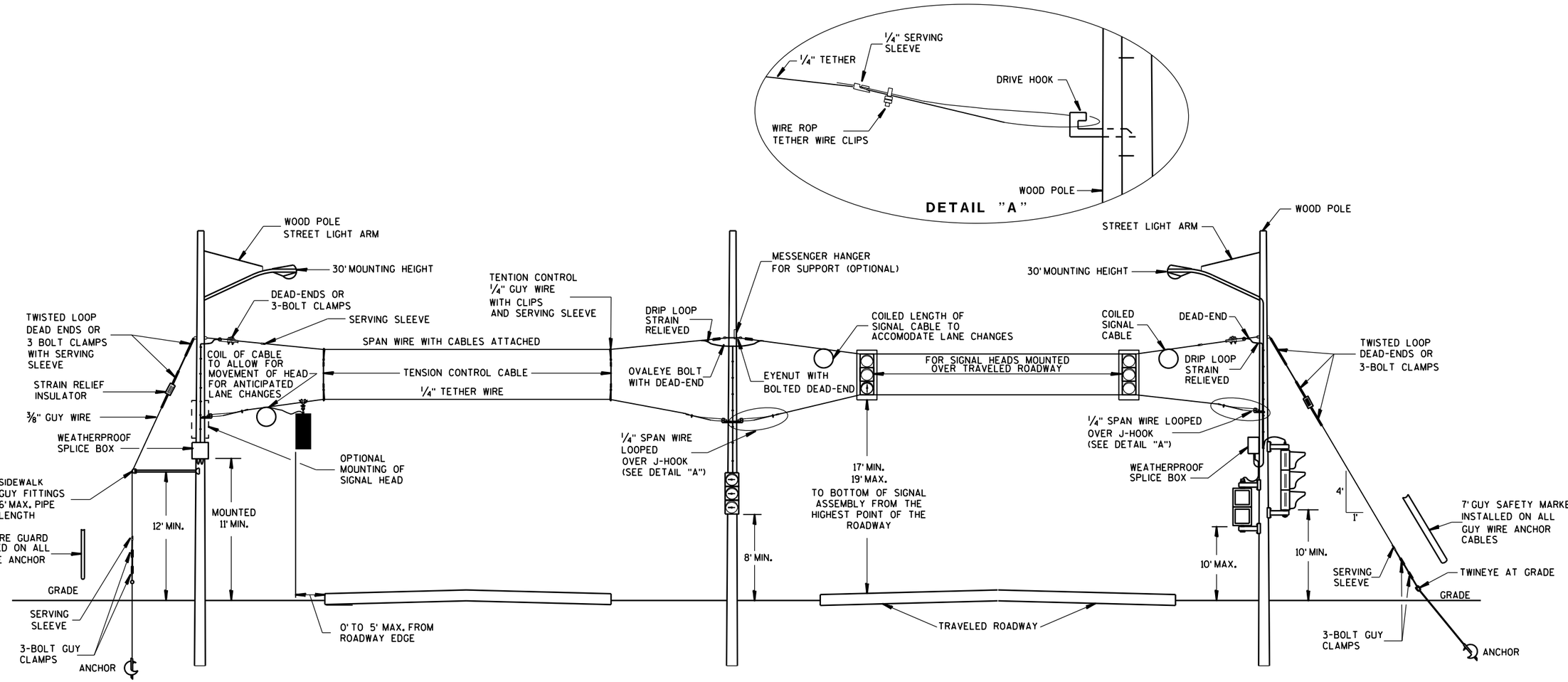
SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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S.D.D. 9 G 1-4b



SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

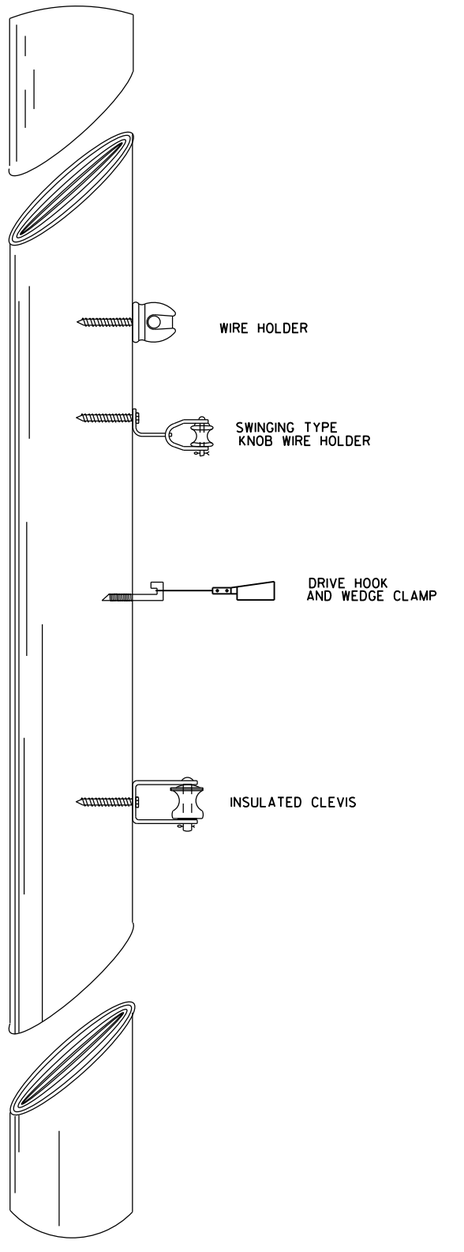
SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

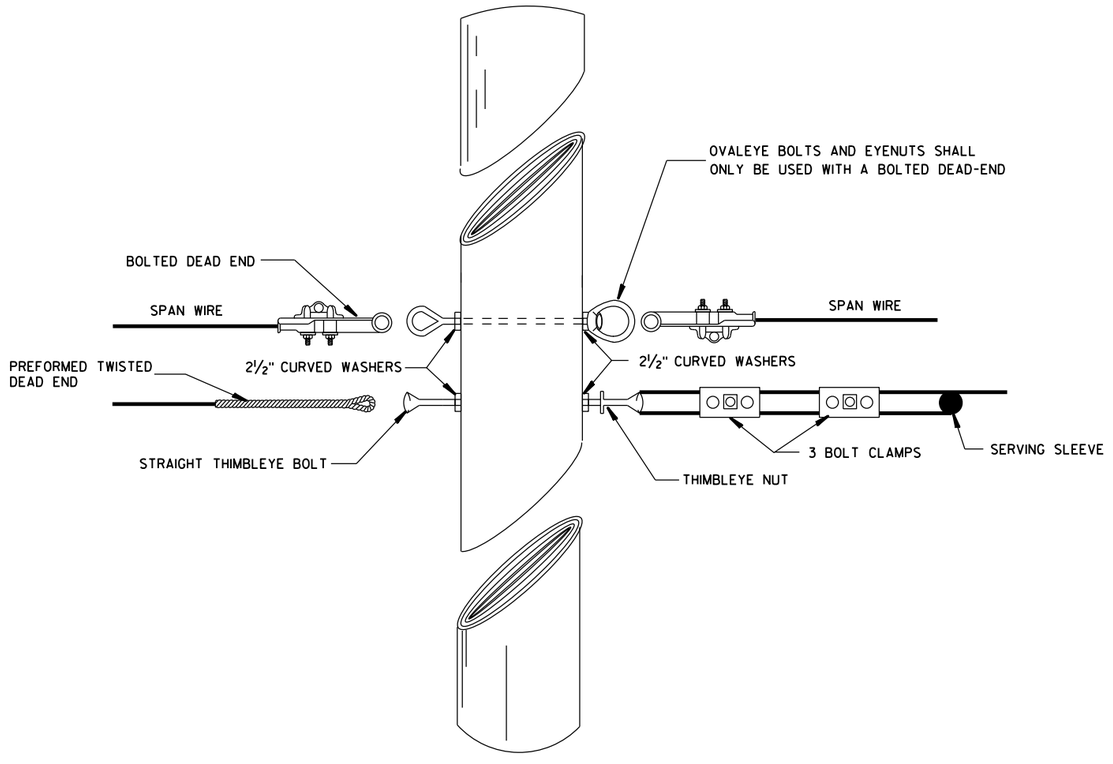
APPROVED
June. 2015 — DATE
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S.D.D. 9 G 1-4c



TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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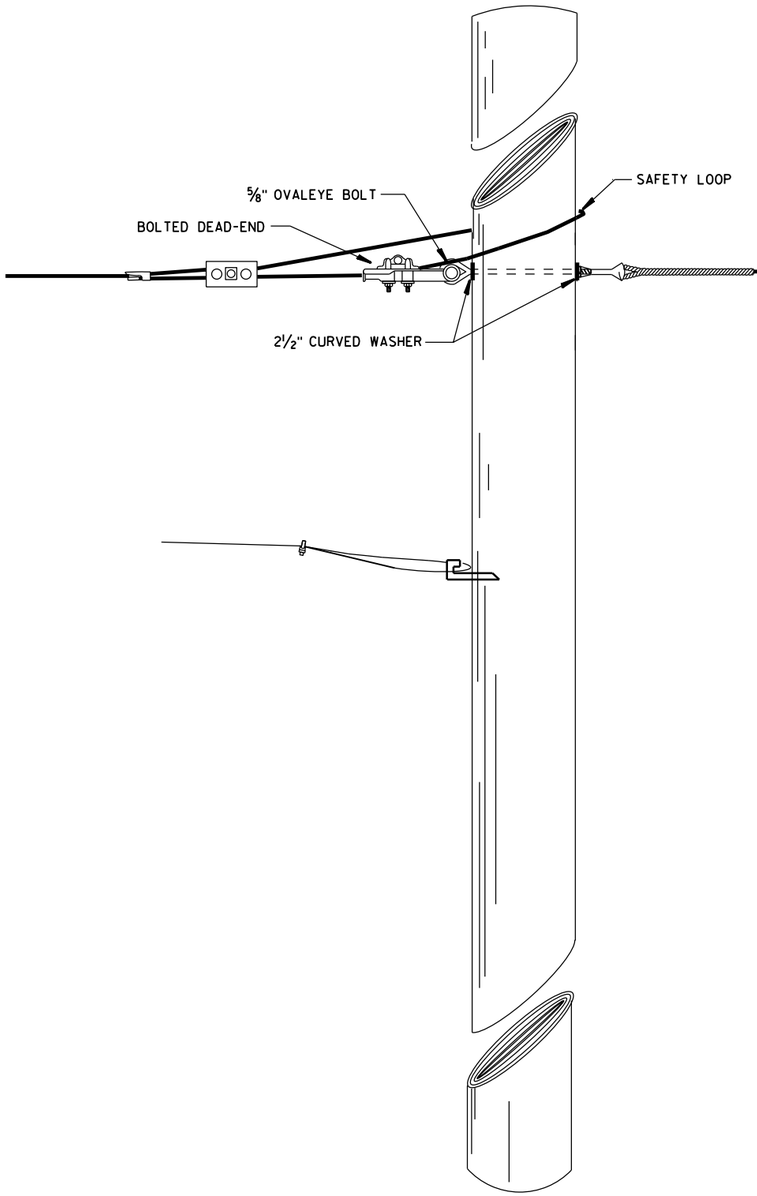
S.D.D. 9 G 1-4d

6

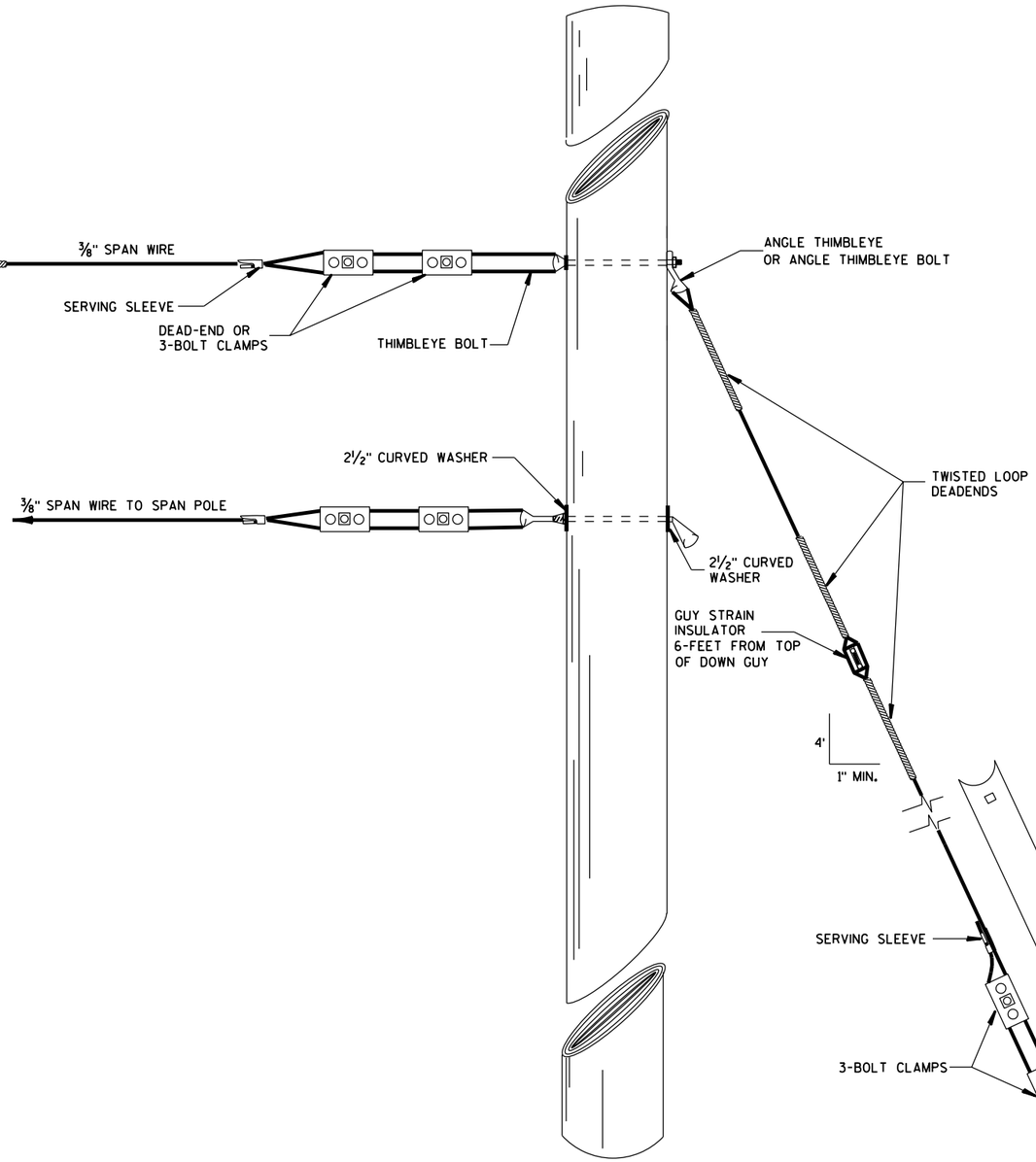
S.D.D. 9 G 1-4d

GENERAL NOTES

1. USE ¾" DRILL IN WOOD POLE TO PROVIDE HOLE FOR ⅝" BOLTS.
2. SAFTY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE



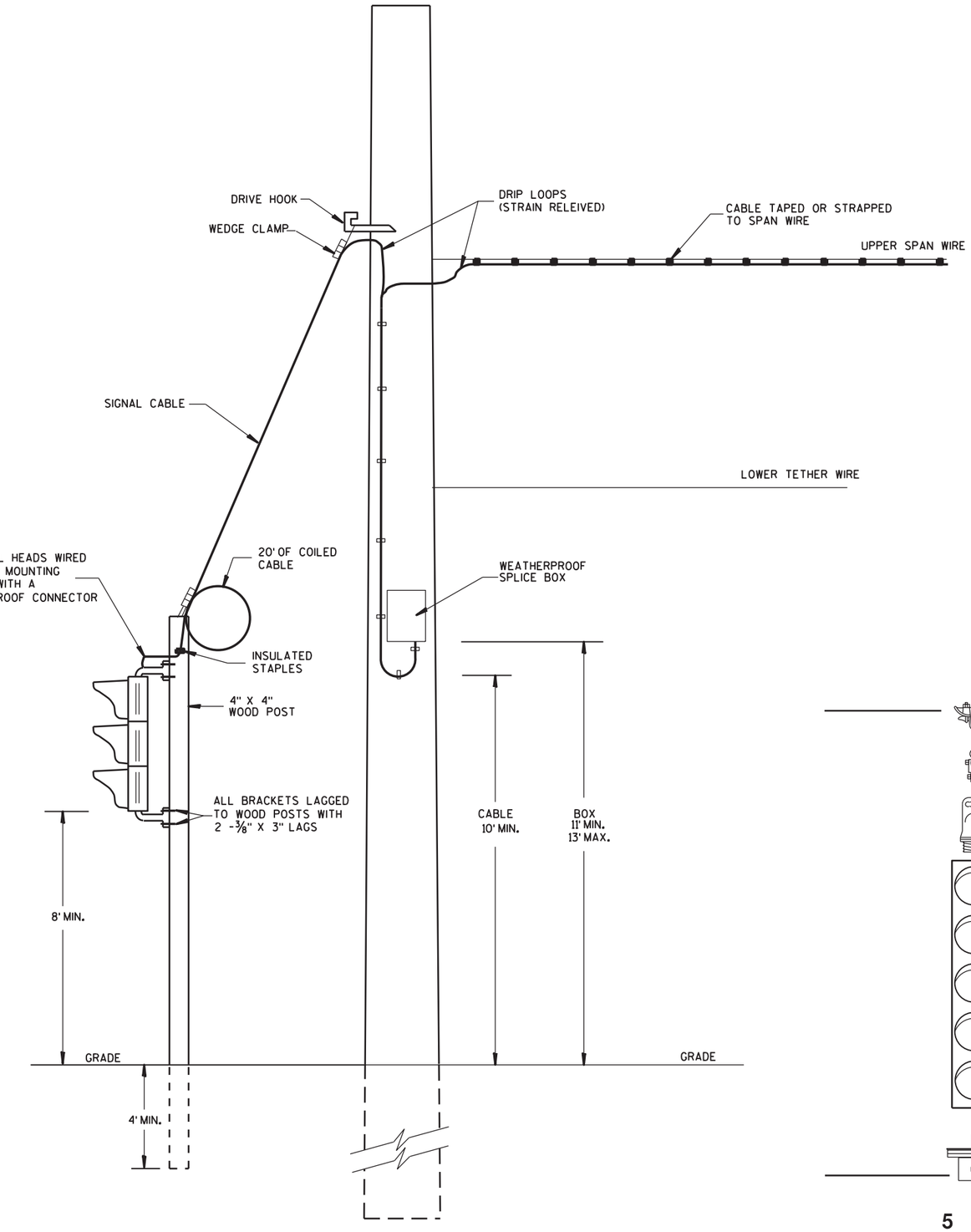
GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

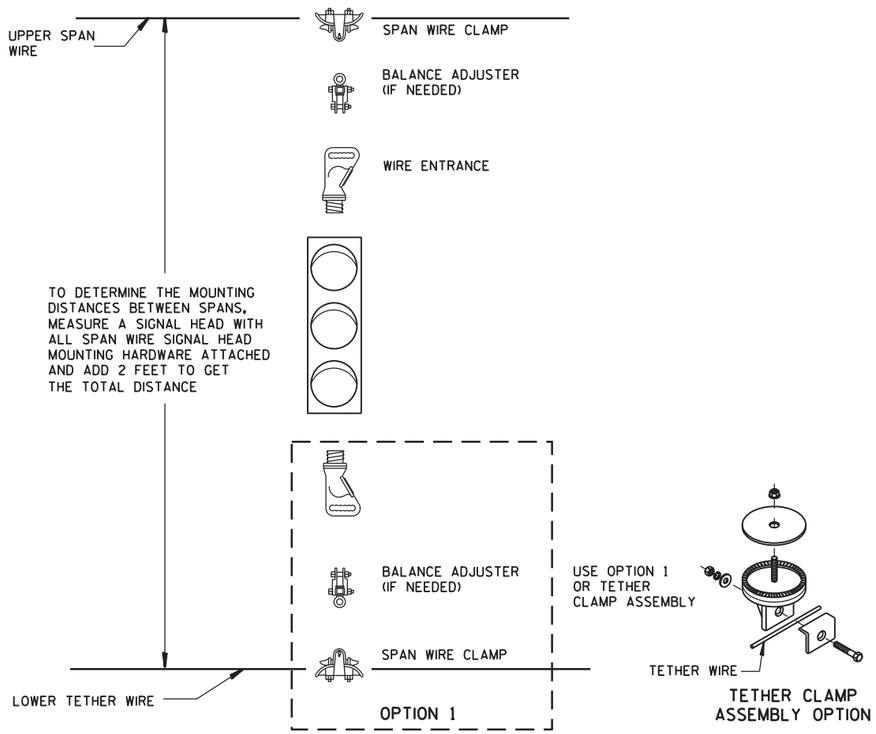
SPAN WIRE TEMPORARY TRAFFIC SIGNAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
June. 2015 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA	

6

S.D.D. 9 G 1-4e

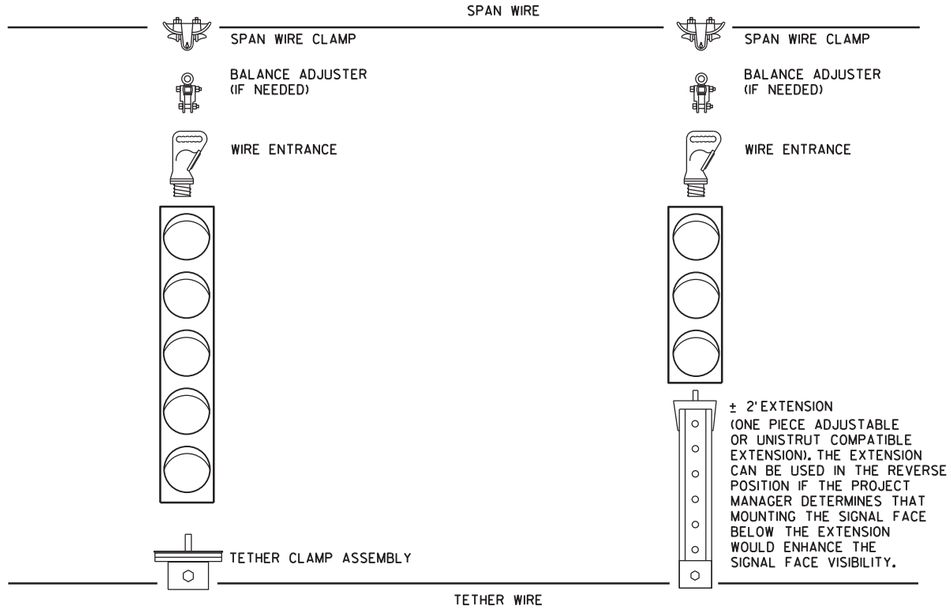


TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TETHER CLAMP ASSEMBLY OPTION

TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

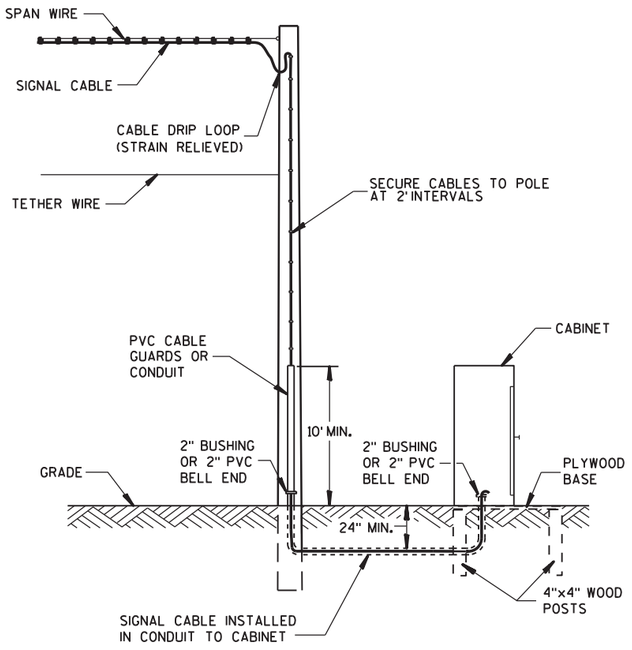
APPROVED
June. 2015 DATE
/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA

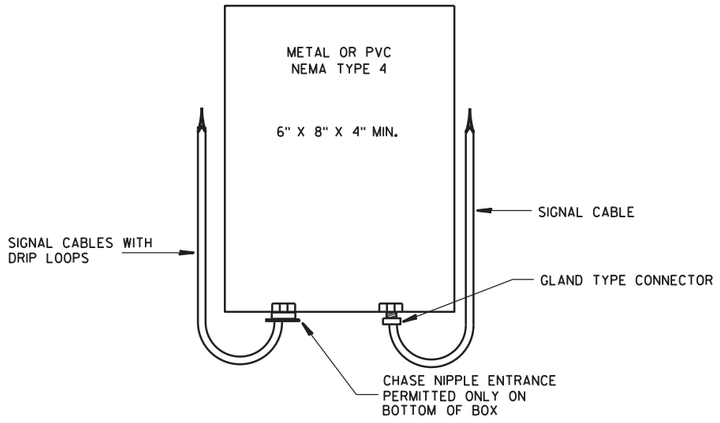
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S.D.D. 9 G 1-4f

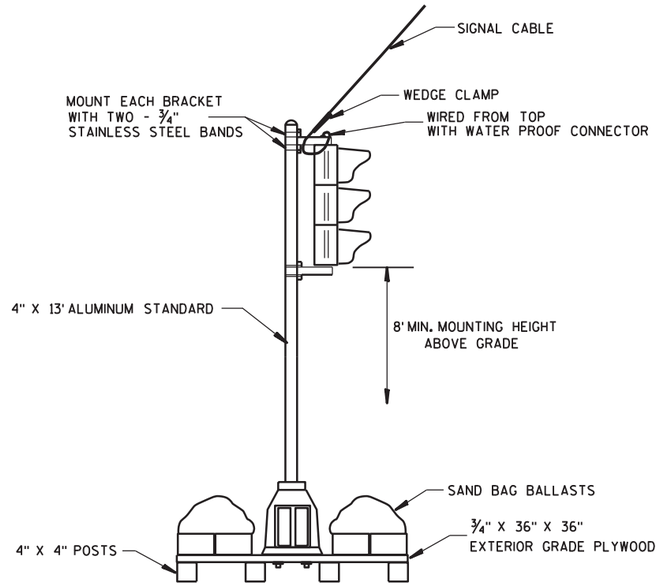
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S.D.D. 9 G 1-4f

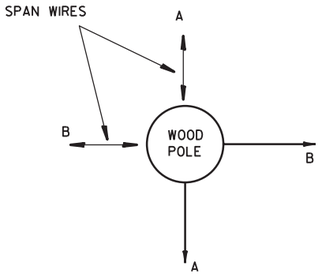




SPLICE BOX

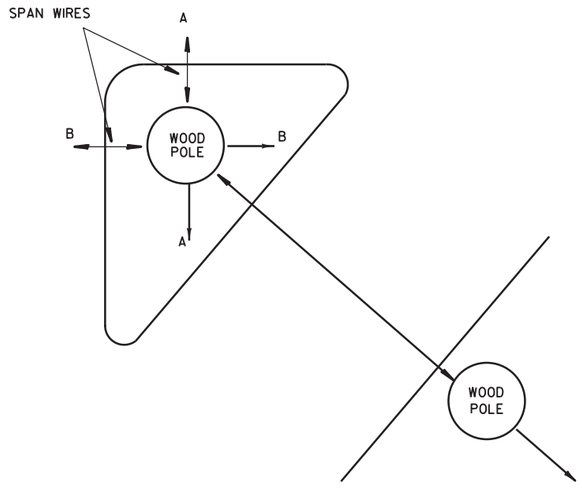


TYPICAL SKID TYPE TEMPORARY

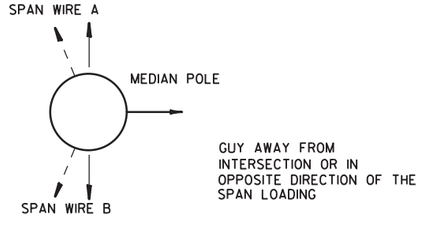


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



MEDIAN POLES

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
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FHWA

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S.D.D. 9 G 1-4g

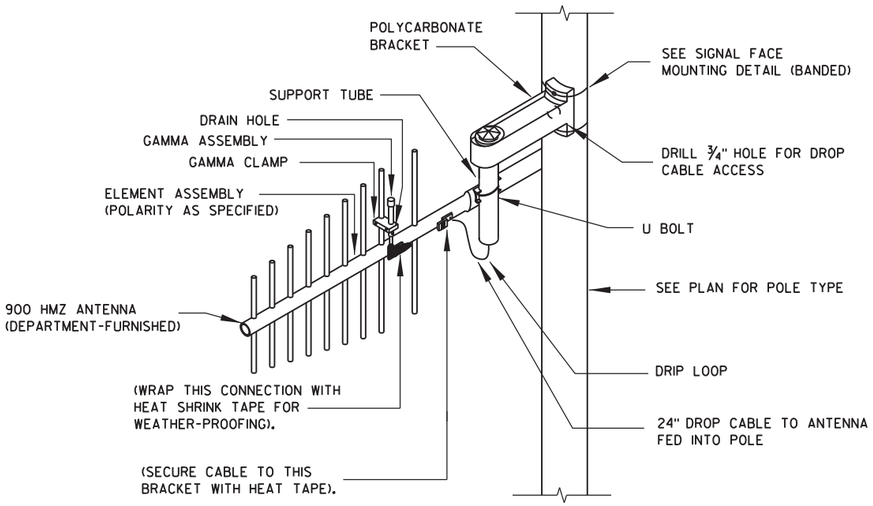
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S.D.D. 9 G 1-4g

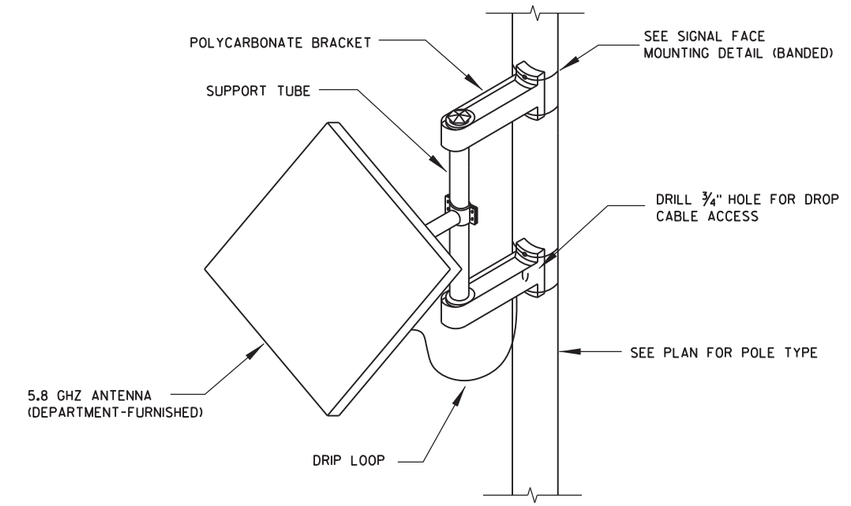
GENERAL NOTES

INSTALL DRIP LOOPS ON LOOSE CABLES TO PREVENT
WATER FROM FLOWING ON CABLE AND ENTERING POLES/ENCLOSURES.

ALL MOUNTING EQUIPMENT REQUIRED IS INCIDENTIAL TO BID ITEM
"INSTALL WIRELESS ANTENNA".



900 MHZ ANTENNA



5.8 GHZ ANTENNA

INSTALL WIRELESS ANTENNA

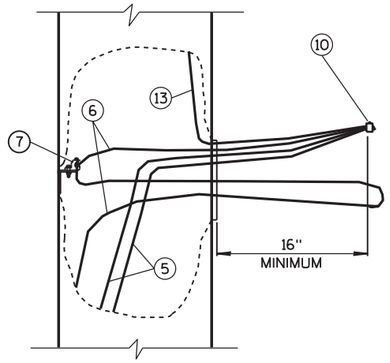
INSTALL WIRELESS ANTENNA	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2017 DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL

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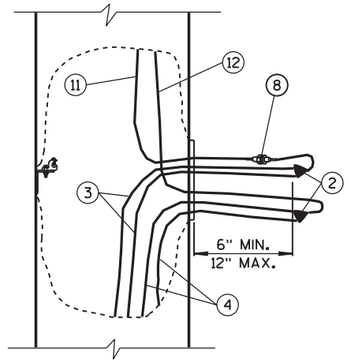
S.D.D. 9 H 16-1

6

S.D.D. 9 H 16-1

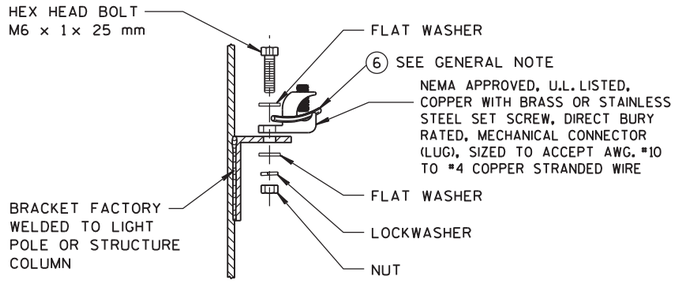


EQUIPMENT GROUNDING CONDUCTOR SLACK



UNGROUNDED CONDUCTOR SLACK (AND GROUNDED NEUTRAL SLACK IN GROUNDED NEUTRAL SYSTEM)

TYPICAL CONDUCTOR SLACK AT HANDHOLES



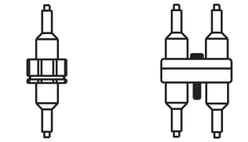
HANDHOLE GROUNDING LUG

(NUT, BOLT, WASHERS, AND LOCK WASHERS SHALL BE STAINLESS STEEL)

CONDUCTOR COLOR CODES

KEY	CONDUCTOR	COLOR
3	UNGROUNDED LINE WIRE	*
4	GROUNDED LINE WIRE	WHITE
5	SYSTEM GROUNDING LINE WIRE	GREEN
6	GROUNDING ELECTRODE CONDUCTOR	BARE
11	UNGROUNDED POLE WIRE	*
12	GROUNDED POLE WIRE	WHITE
13	EQUIPMENT GROUNDING POLE WIRE	GREEN

* FOLLOW COLOR CODING SHOWN IN THE PLANS. WHERE THE PLANS DO NOT SHOW COLOR CODING, USE BLACK FOR SINGLE LUMINAIRE POLES; BLACK AND RED FOR TWIN LUMINAIRE POLES.



1 POLE (1P) 2 POLE (2P)

FUSE ASSEMBLIES

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

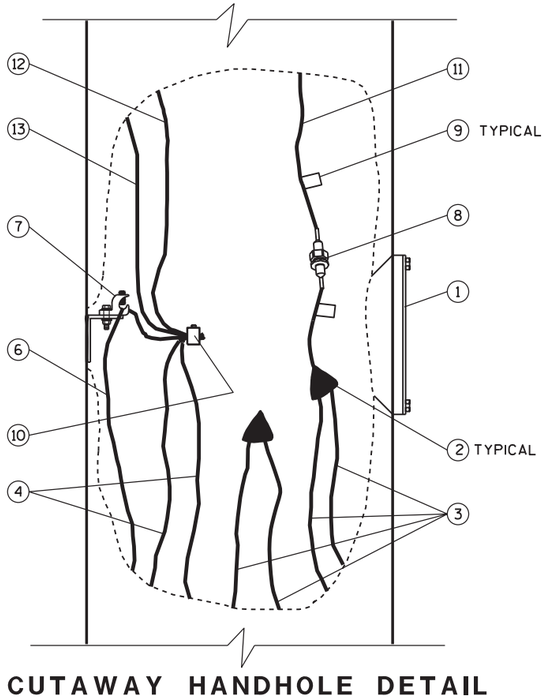
USE THIS DETAIL IN CONJUNCTION WITH THE ELECTRICAL DETAILS FOR THE APPLICATION, WHICH MAY BE A LIGHT POLE, SIGN BRIDGE, ETC.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

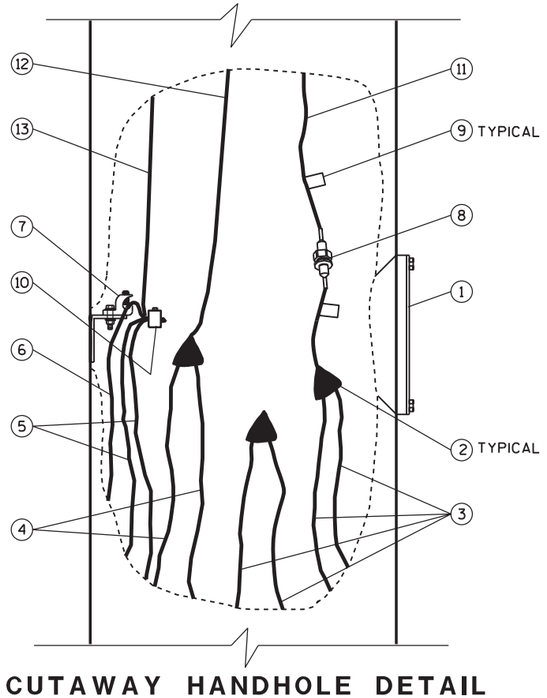
THREE POLE WIRES ARE SHOWN FOR A SINGLE LUMINAIRE LIGHT POLE. THREE ADDITIONAL POLE WIRES REQUIRED FOR TWIN LUMINAIRE LIGHT POLES ARE OMITTED FROM THE DRAWING FOR CLARITY. IN THE TWIN POLE CASE, BUNDLE EACH SET OF THREE WIRES WITH A NYLON CABLE TIE.

IN 3-PHASE SYSTEMS, THERE WILL BE ONE MORE UNGROUNDED LINE WIRE, WHICH IS OMITTED FROM THE DRAWING FOR CLARITY.

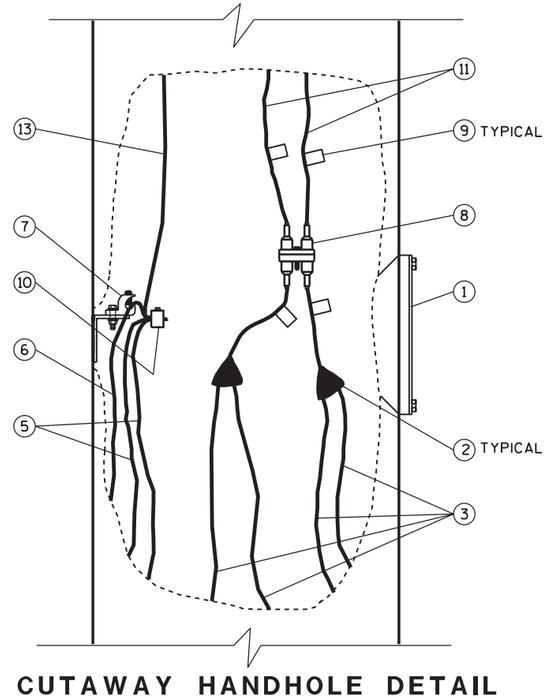
CIRCUIT TAGS SHALL BE INSTALLED ONLY WHERE REQUIRED IN THE SPECIAL PROVISIONS.



CUTAWAY HANDHOLE DETAIL
GROUNDED NEUTRAL SYSTEMS
1-Φ



CUTAWAY HANDHOLE DETAIL
ISOLATED NEUTRAL SYSTEMS
1-Φ SHOWN; 3-Φ WYE SIMILAR
(SEE GENERAL NOTE)



CUTAWAY HANDHOLE DETAIL
PHASE-TO-PHASE SYSTEMS
1-Φ SHOWN; 3-Φ DELTA SIMILAR
(SEE GENERAL NOTE)

NOTE: REQUIRED CONDUCTOR SLACK NOT SHOWN ON "CUTAWAY HAND HOLE" DETAILS FOR DRAWING CLARITY, SEE "TYPICAL CONDUCTOR SLACK AT HANDHOLES" ON THIS SHEET.

(1) HANDHOLE AND COVER
(2) INSULATED SPLICE
(3) UNGROUNDED LINE WIRE
(4) GROUNDED LINE WIRE
(5) SYSTEM GROUNDING LINE WIRE
(6) GROUNDING ELECTRODE CONDUCTOR
(7) HANDHOLE GROUNDING LUG
(8) FUSE ASSEMBLY, 1P OR 2P AS REQUIRED
(9) CIRCUIT TAG (SEE GENERAL NOTE)
(10) REVERSIBLE PRESSURE OR COMPRESSION GROUNDING CONNECTOR (NOT INSULATED)
(11) UNGROUNDED POLE WIRE
(12) GROUNDED POLE WIRE
(13) EQUIPMENT GROUNDING POLE WIRE

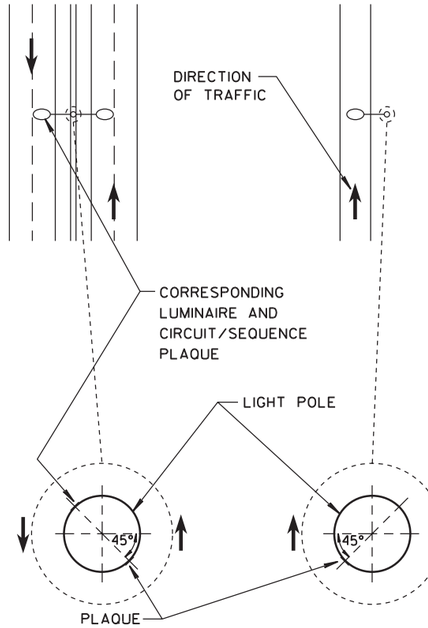
ELECTRICAL HANDHOLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 10 A 1-3



MEDIAN POLE SINGLE ARM POLE

LOCATION OF LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

WHERE SHOWN IN THE PLANS, REPLACEMENT PLAQUES WILL BE MEASURED AND PAID SEPARATELY.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETRORFLECTIVE

LINES - BLACK, 1/2" WIDE, SELF-ADHESIVE

CHARACTERS - BLACK, SELF-ADHESIVE, SERIES "D", SIZE AS SHOWN

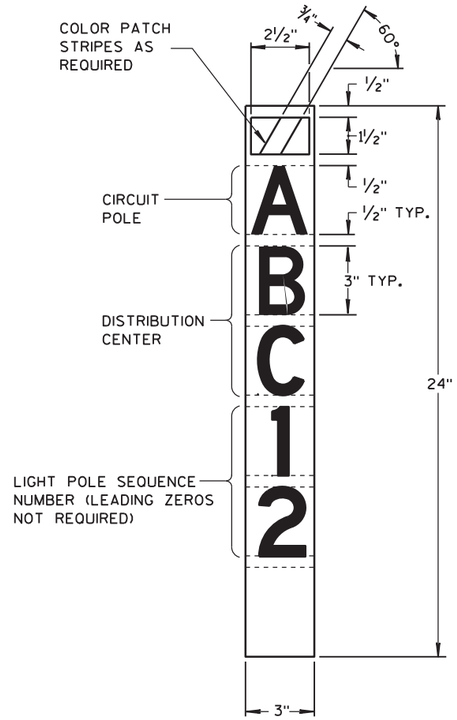
COLOR PATCHES - VARIOUS COLORS, SELF-ADHESIVE VINYL SHEETING

WITH THE APPROVAL OF THE ENGINEER, THE BASE MATERIAL MAY BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE SURFACE, IN CASES SUCH AS SMOOTH, CLEAN ALUMINUM POLES.

ALTERNATIVE COMPUTER-GENERATED SIGN LETTERING MAY BE ACCEPTED IF THE ENGINEER FINDS IT TO BE EQUIVALENT.

COLOR PATCH CODE FOR HPS AND LED LUMINAIRES

HPS	LED	COLOR PATCH CODE
1000 WATT		NO PATCH
400 WATT	CATEGORY D	ORANGE
310 WATT		BLUE
250 WATT	CATEGORY C	ORANGE WITH WHITE STRIPE
200 WATT		RED
150 WATT	CATEGORY B	GREEN
100 WATT	CATEGORY A	BROWN
70 WATT	CATEGORY UDL	BROWN WITH WHITE STRIPE



LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

6

S.D.D. 10 A 2-3

IDENTIFICATION PLAQUES
LIGHT POLES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 DATE
/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA

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S.D.D. 10 A 2-3

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING, SDD10A01.

USE TIME DELAY FUSE PER LUMINAIRE MANUFACTURER RECOMMENDATION.

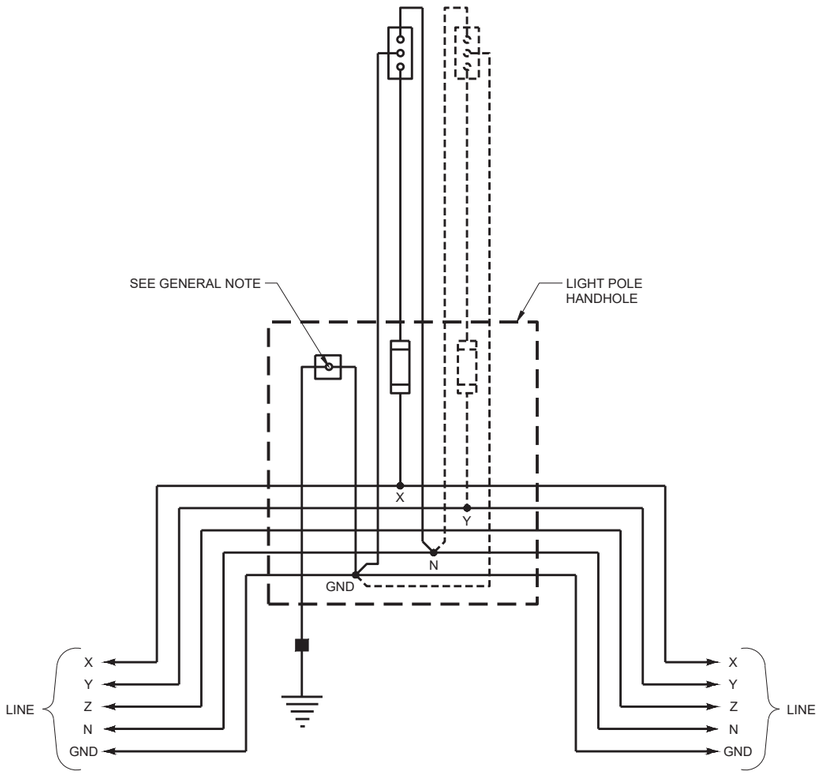
THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLD GROUNDING LUG TO THE CONNECTOR.

WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

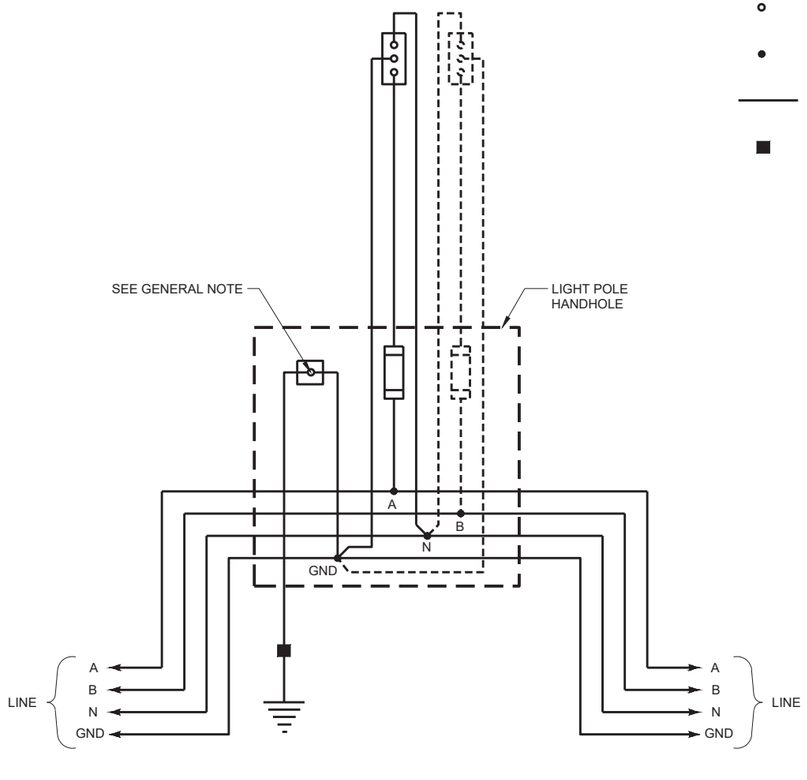
LEGEND

A,B,X,Y,Z	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
ϕ	PHASE (ELECTRICAL CURRENT)
	HANDHOLE GROUND LUG
	SINGLE-POLE (1P) FUSE ASSEMBLY
	UNFUSED LUMINAIRE
	EQUIPMENT GROUNDING ELECTRODE
	TERMINAL
	SPLICE
	CONDUCTOR
	EXOTHERMIC WELD



TYPICAL WIRING DIAGRAM

ISOLATED NEUTRAL SYSTEM
3 - ϕ 208Y / 120VAC OR 480Y / 277VAC 4 WIRE



TYPICAL WIRING DIAGRAM

ISOLATED NEUTRAL SYSTEM
1 - ϕ 120 / 240VAC OR 240 / 480VAC 3 WIRE

ELECTRICAL DETAILS GROUND MOUNT LIGHT POLES ISOLATED NEUTRAL SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 132

FHWA

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

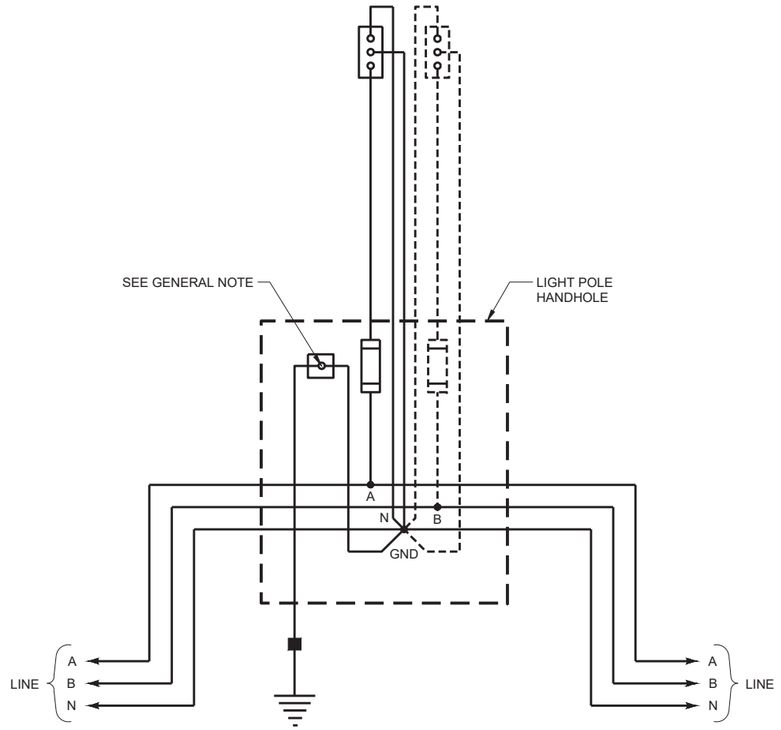
USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING, SDD10A01.

USE TIME DELAY FUSE PER LUMINAIRE MANUFACTURER RECOMMENDATION.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLD GROUNDING LUG TO THE CONNECTOR.

WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.



TYPICAL WIRING DIAGRAM

GROUNDED NEUTRAL SYSTEM
1 - ϕ 240 / 480VAC 3 WIRE OR 480VAC 2 WIRE

LEGEND

A,B,X,Y,Z	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
ϕ	PHASE (ELECTRICAL CURRENT)
	HANDHOLE GROUND LUG
	SINGLE-POLE (1P) FUSE ASSEMBLY
	UNFUSED LUMINAIRE
	EQUIPMENT GROUNDING ELECTRODE
	TERMINAL
	SPLICE
	CONDUCTOR
	EXOTHERMIC WELD

ELECTRICAL DETAILS
GROUND MOUNT LIGHT POLES
GROUNDED NEUTRAL SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

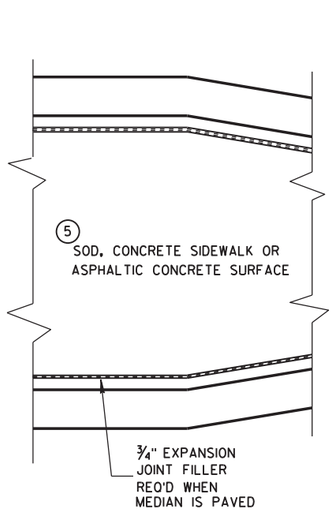
FHWA

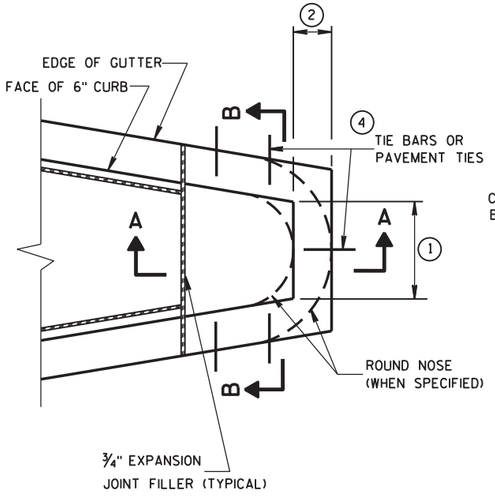
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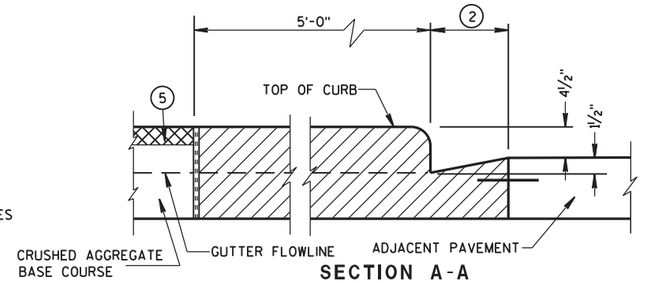
SDD 10A06 - 03

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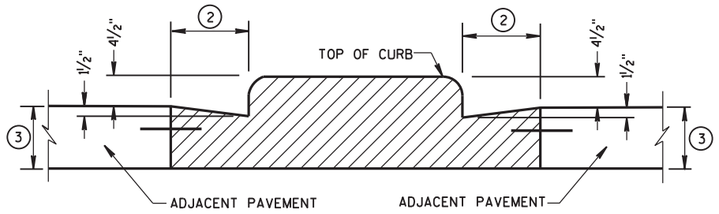
SDD 10A06 - 03







SECTION A-A



SECTION B-B

CONCRETE MEDIAN BLUNT NOSE DETAIL

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.

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

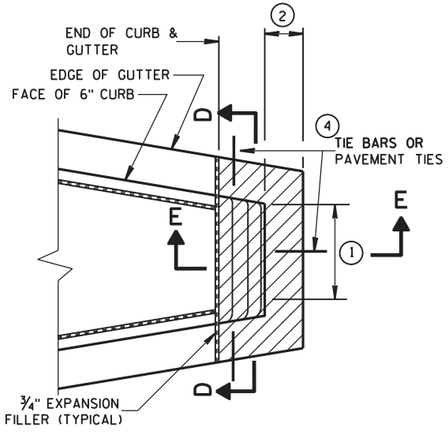
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

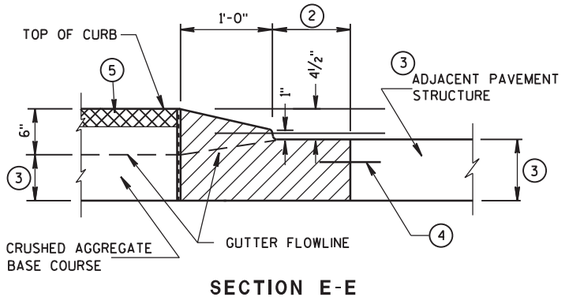
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

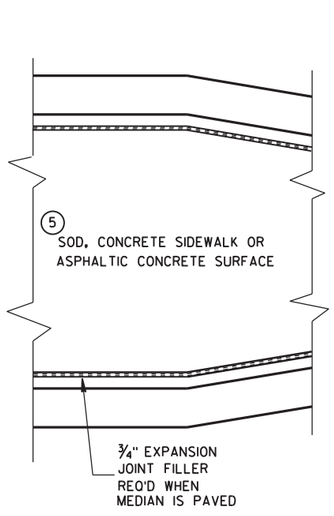
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

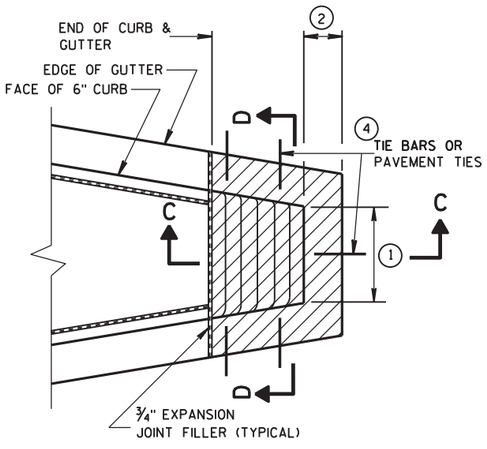


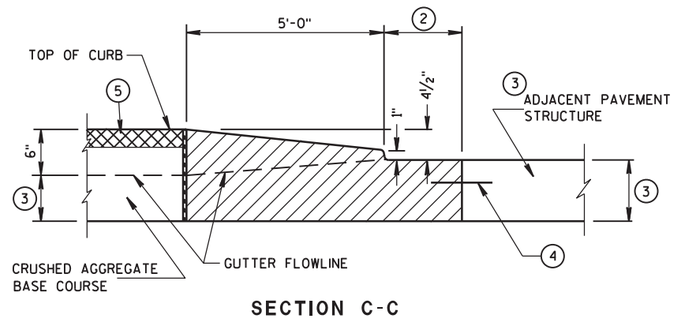


SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2

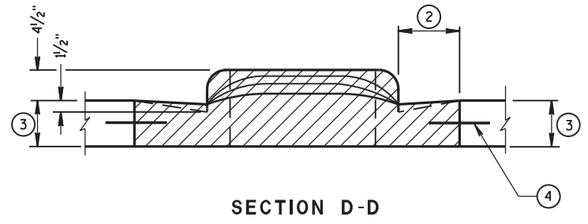






SECTION C-C

CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER

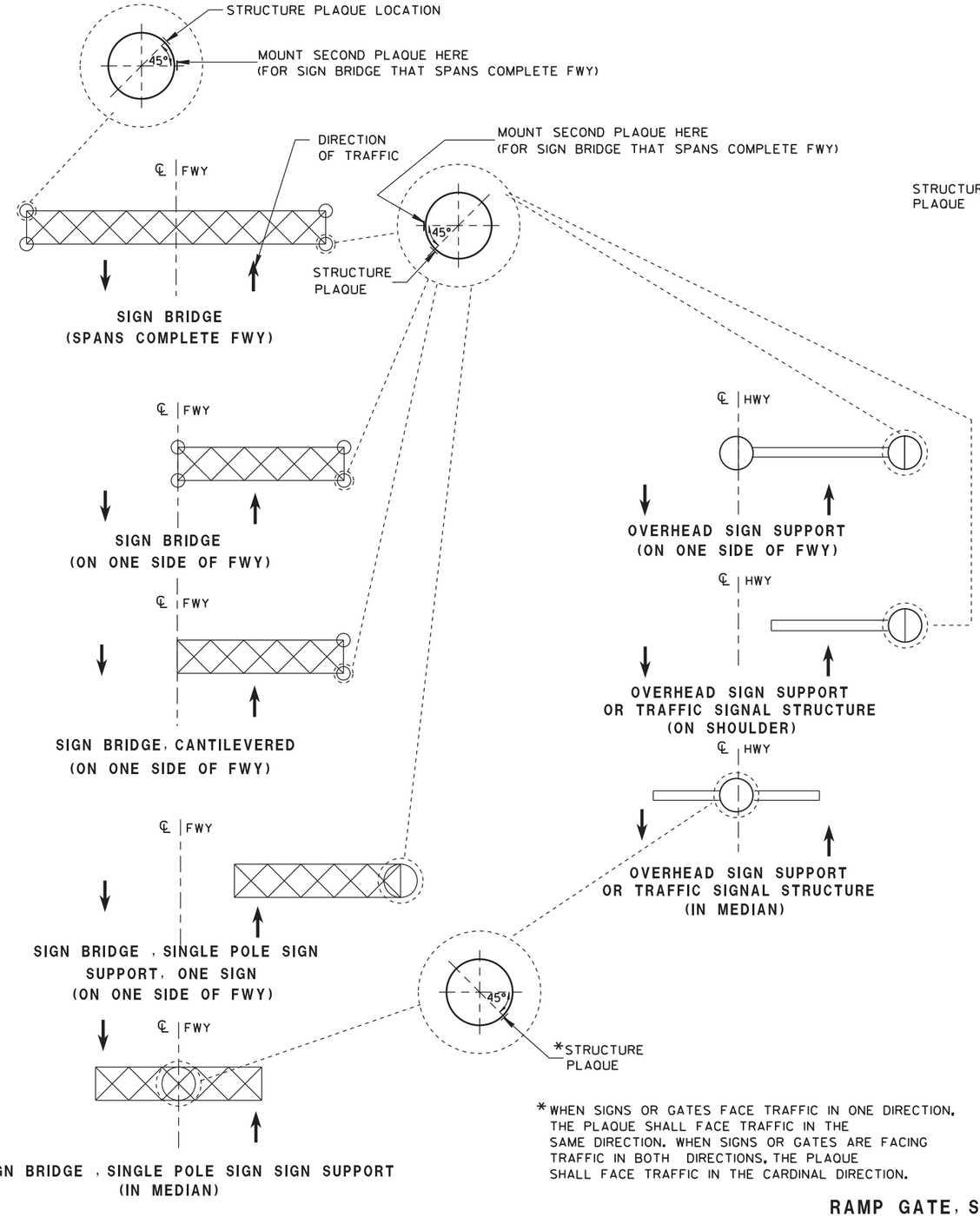
FHWA

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S.D.D. 11 B 2-2

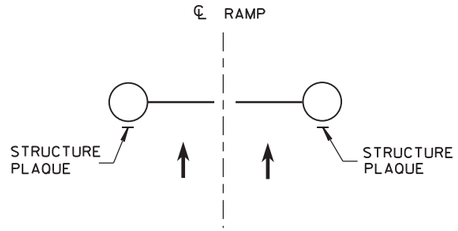
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S.D.D. 11 B 2-2

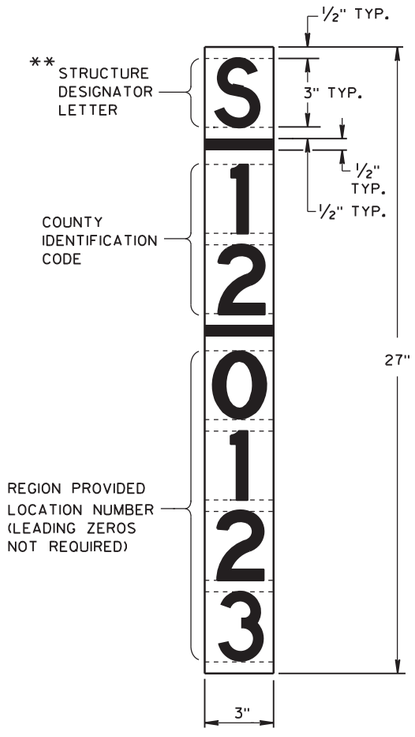


* WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



RAMP GATE
(ACROSS FWY ON-RAMP)



** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

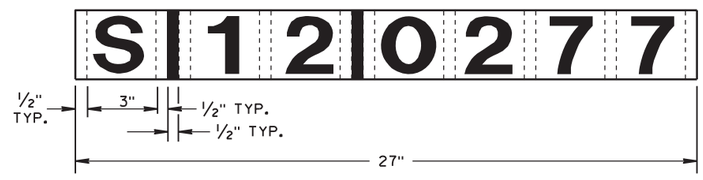
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

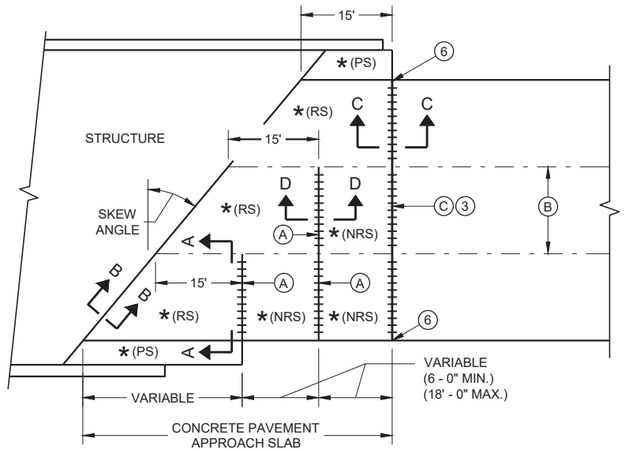
APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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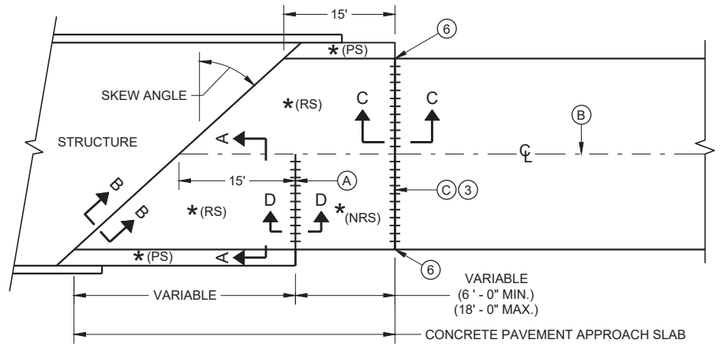
S.D.D. 12 A 4-3

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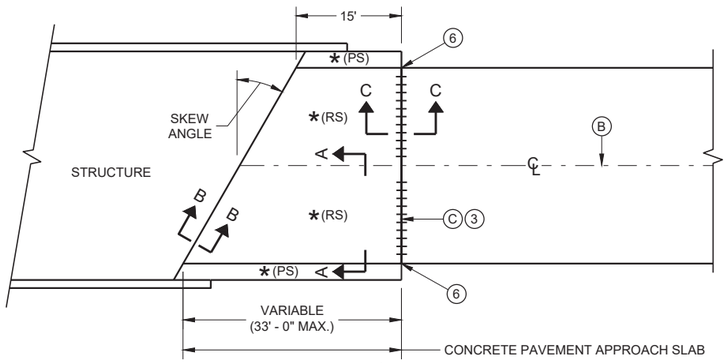
S.D.D. 12 A 4-3



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

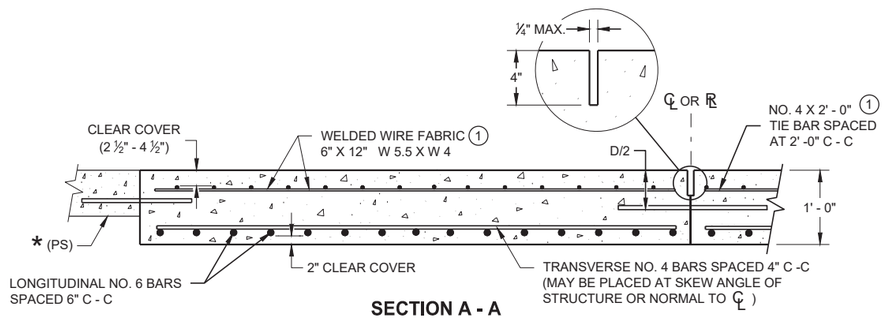
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

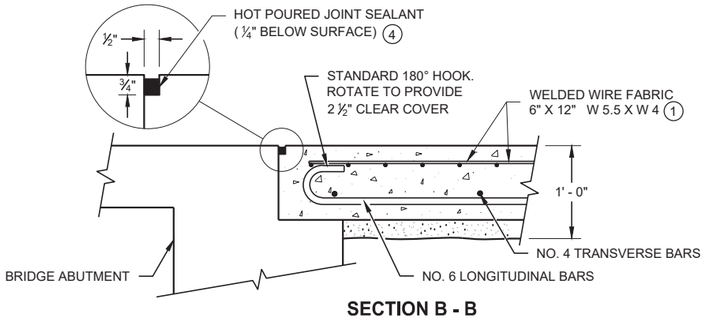
* (PS) = PAVECD CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

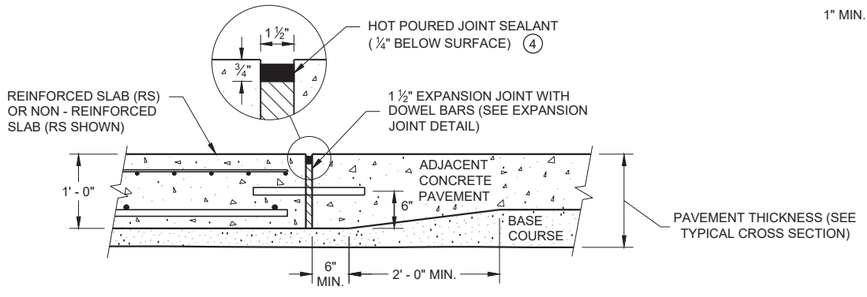
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

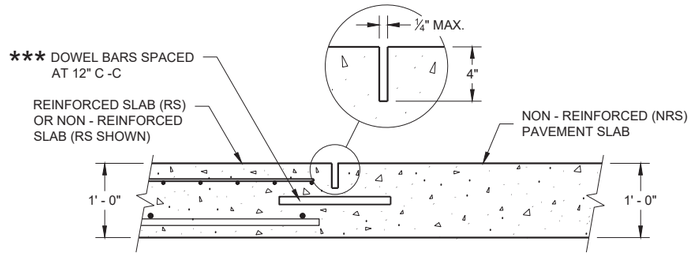
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

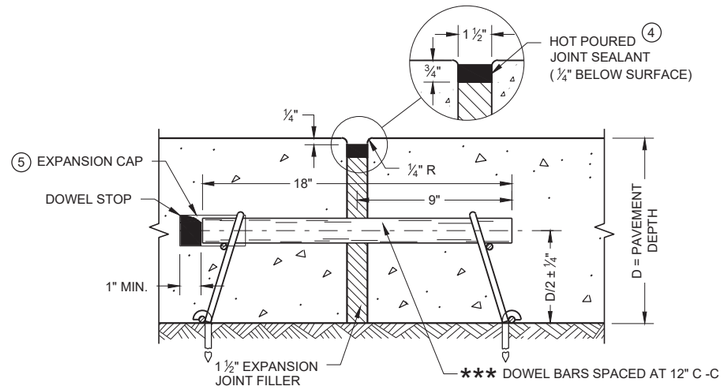
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

(C) 1 ½" EXPANSIONT JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞.



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

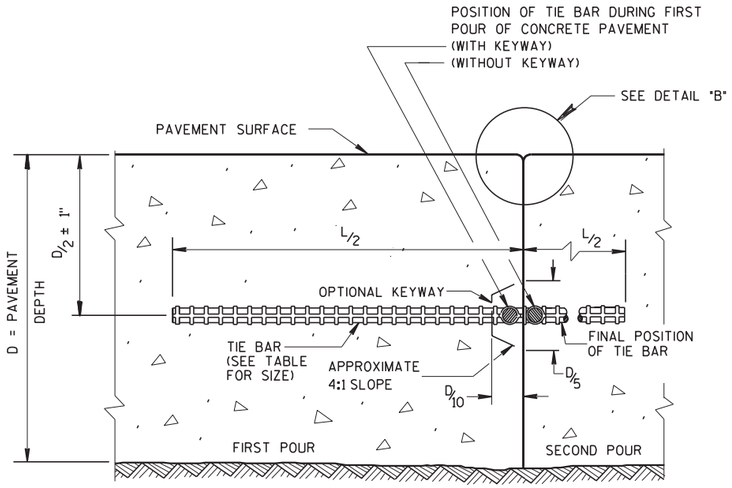
APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVISOR

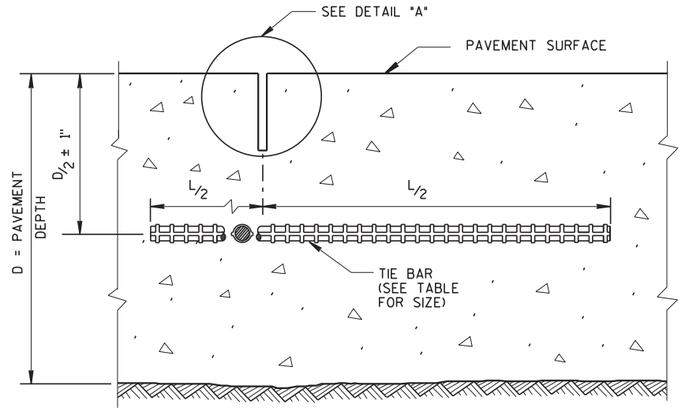
FHWA

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SDD 13B02 - 09a



CONSTRUCTION JOINT



SAWED JOINT

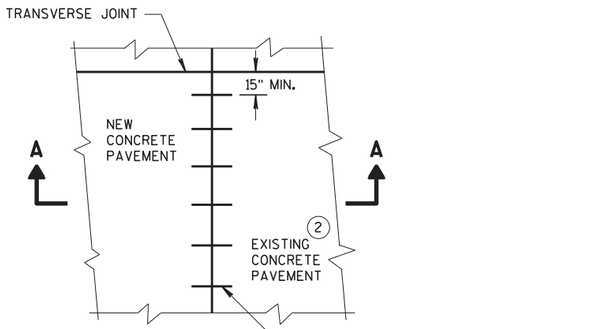
GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

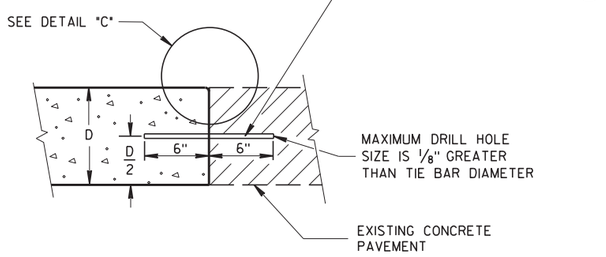
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

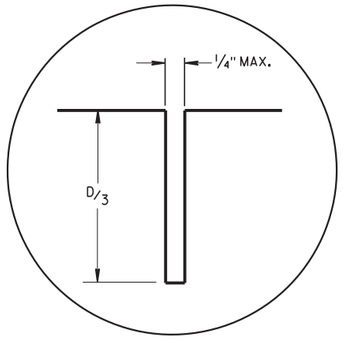


PLAN VIEW

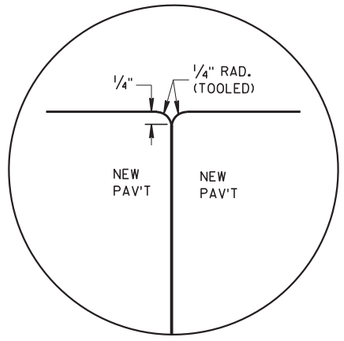


SECTION A-A

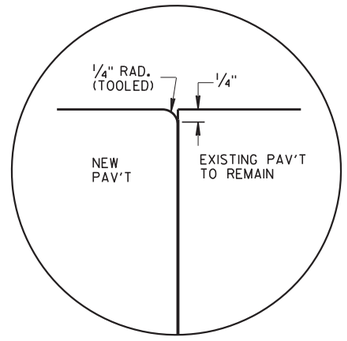
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



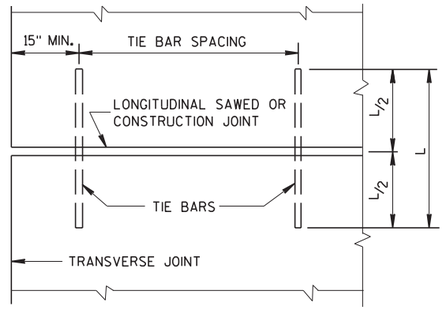
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp — PAVEMENT SUPE
FHWA

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S.D.D. 13 C 1-19

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S.D.D. 13 C 1-19

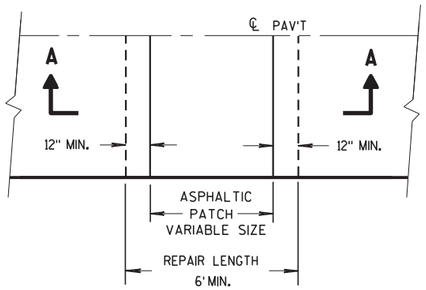
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

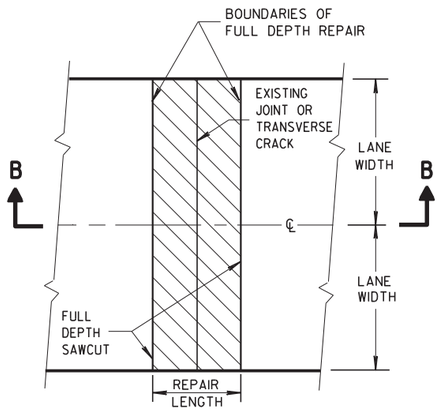
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

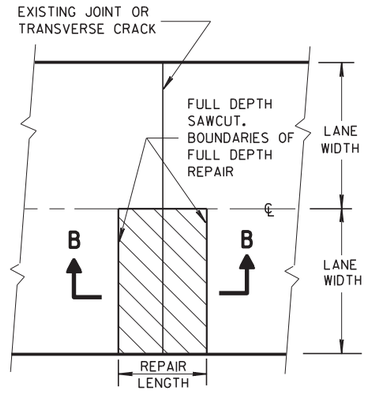
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

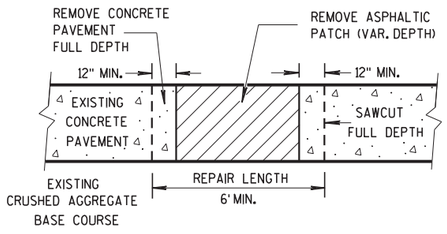


PLAN VIEW
(DOUBLE LANE REPAIR)



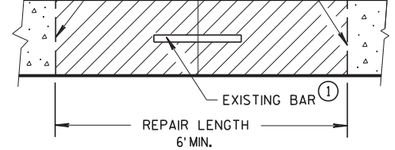
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



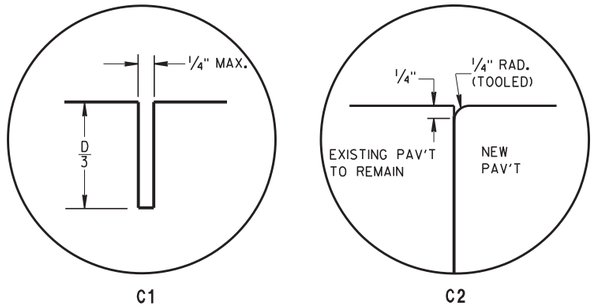
SECTION B-B

CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

6

S.D.D. 13 C 9-15a



C1 C2

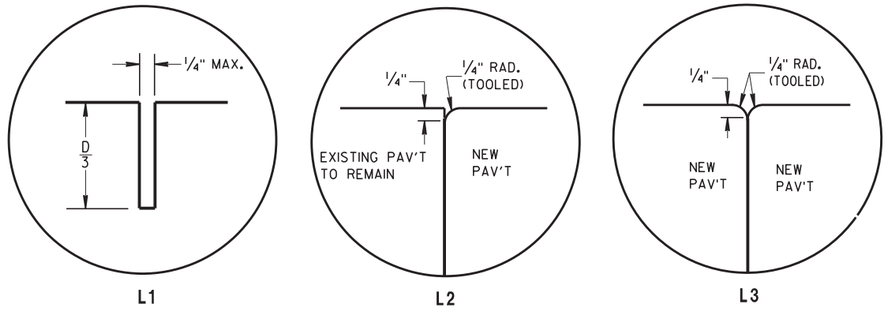
TRANSVERSE JOINTS

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

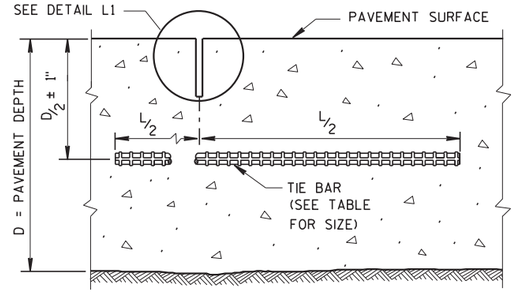
* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



L1 L2 L3

LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

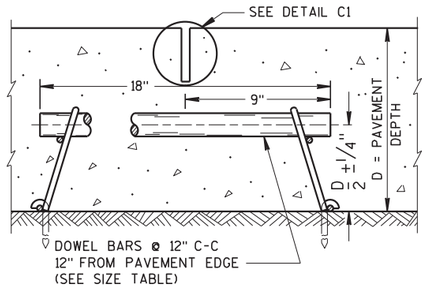
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

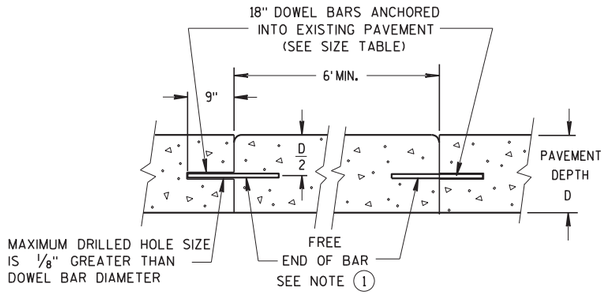
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

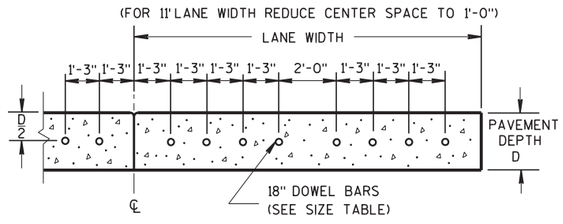


SECTION F-F

CONTRACTION JOINT



SECTION D-D

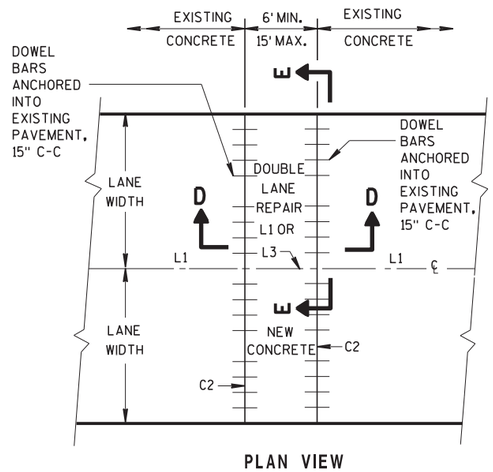


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

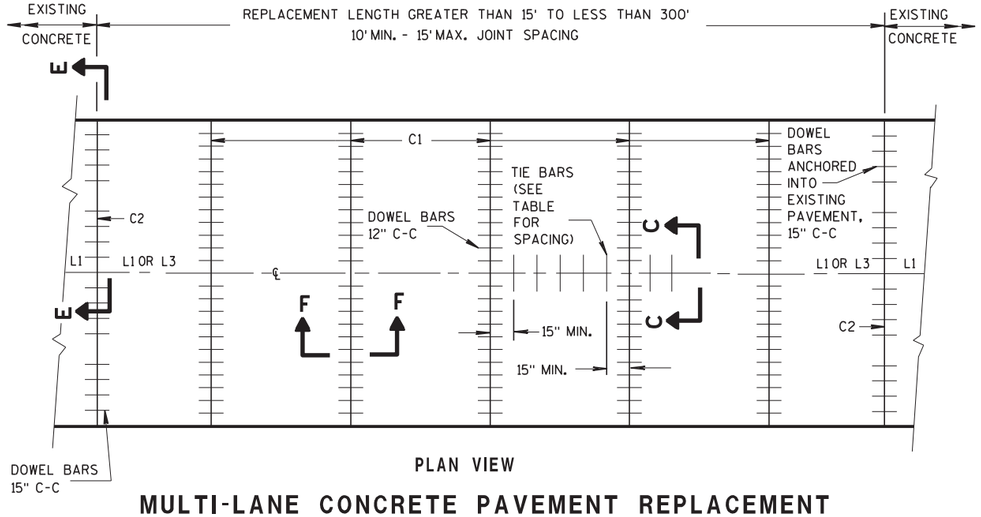
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	DRILLED DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	NONE	12'
7", 7 1/2"	1"	1"	14'
8", 8 1/2"	1 1/4"	1 1/4"	15'
9", 9 1/2"	1 1/4"	1 1/4"	15'
10" & ABOVE	1 1/2"	1 1/4"	15'



PLAN VIEW

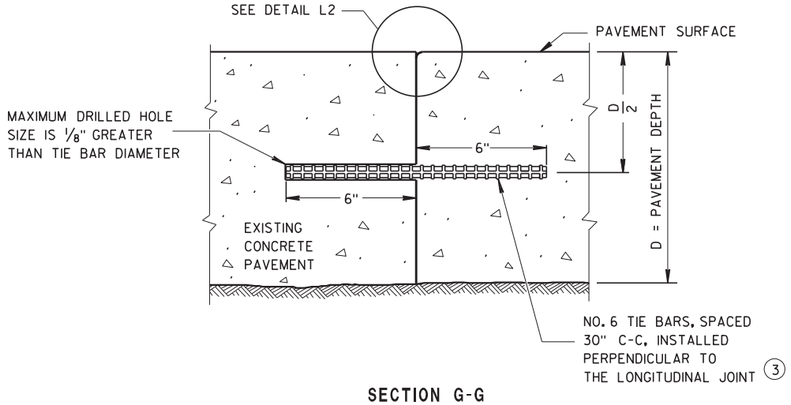
MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT



SECTION G-G

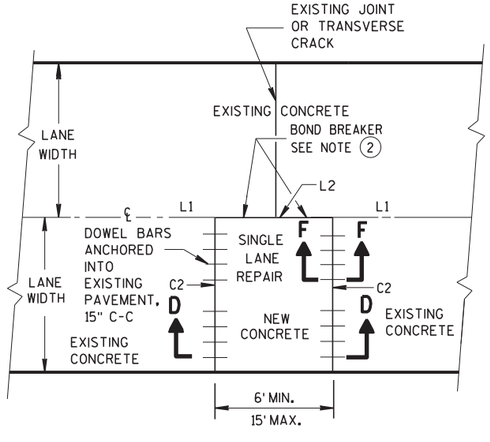
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

(1) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

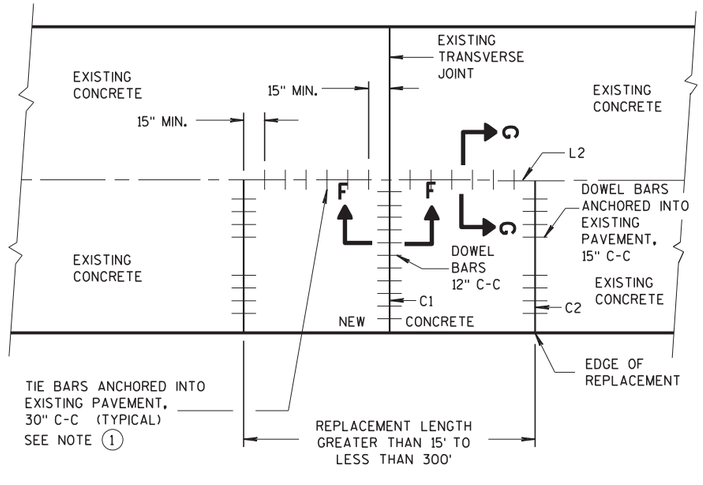
(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

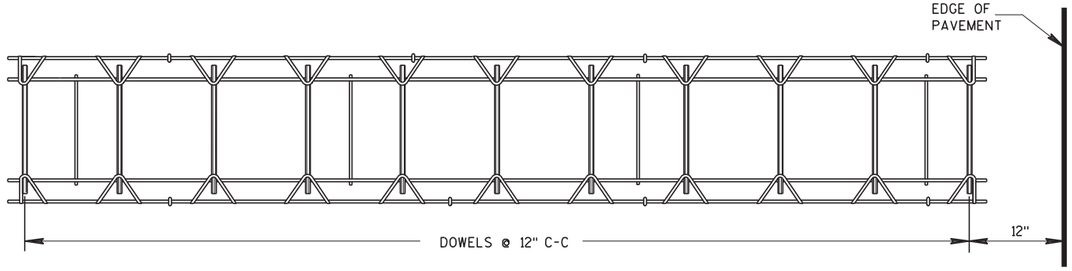
SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Ken... — PAVEMENT SUPE...
FHWA

S.D.D. 13 C 9-15c

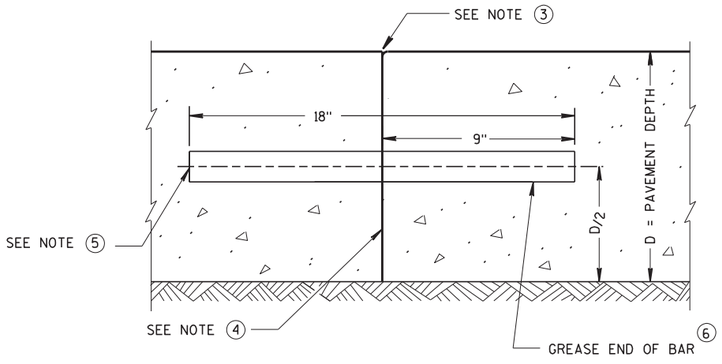


PLAN VIEW

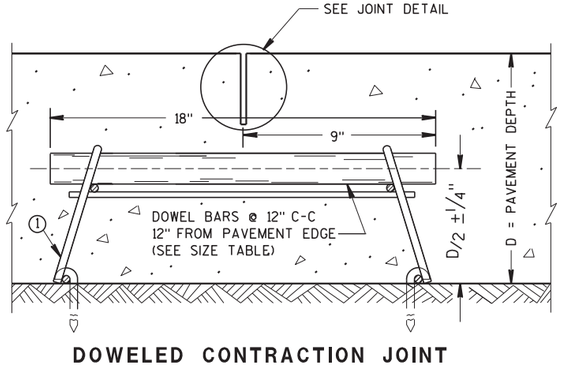


SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



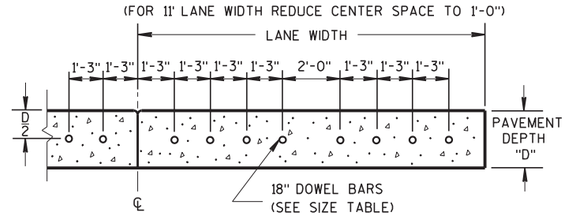
TRANSVERSE CONSTRUCTION JOINT



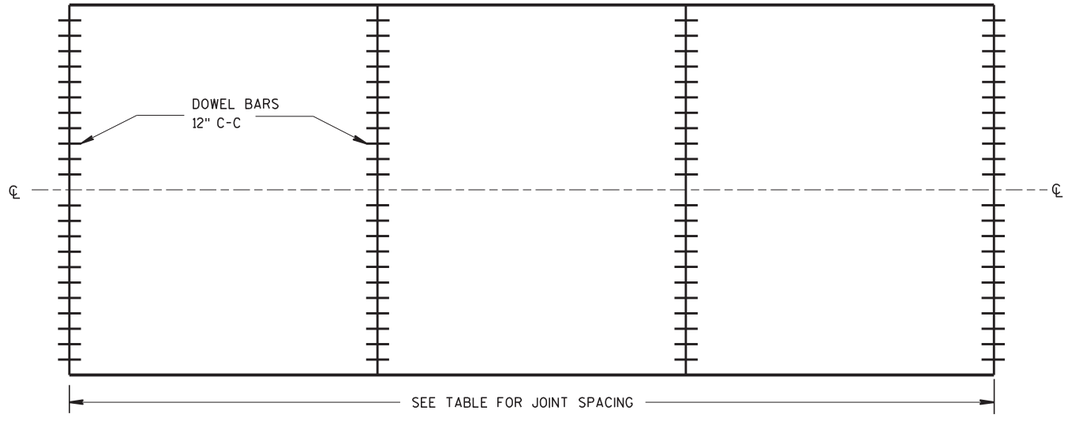
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

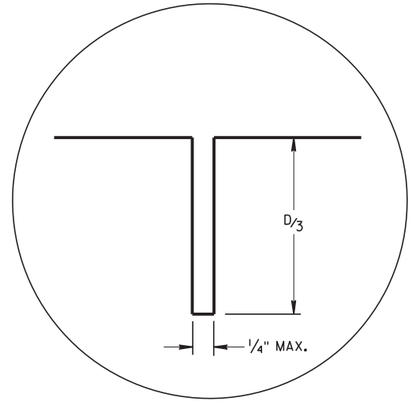
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



JOINT DETAIL

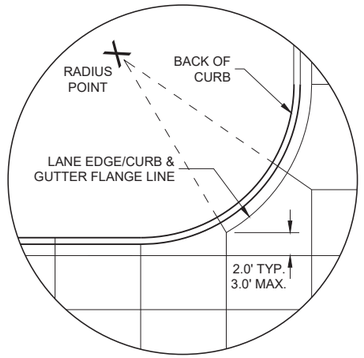
URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

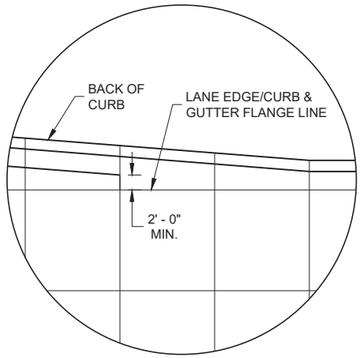
APPROVED
March 2018 — DATE
/S/ Peter Kemp P.E. — PAVEMENT SUP
FHWA

6

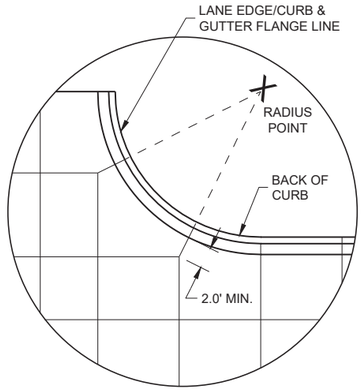
S.D.D. 13 C 13-9



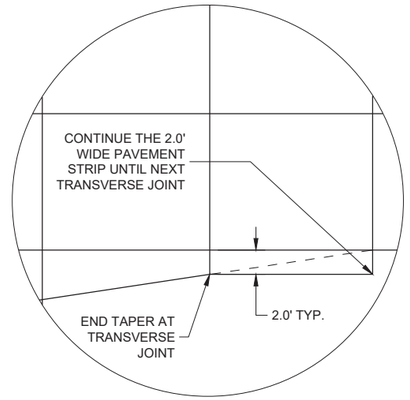
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

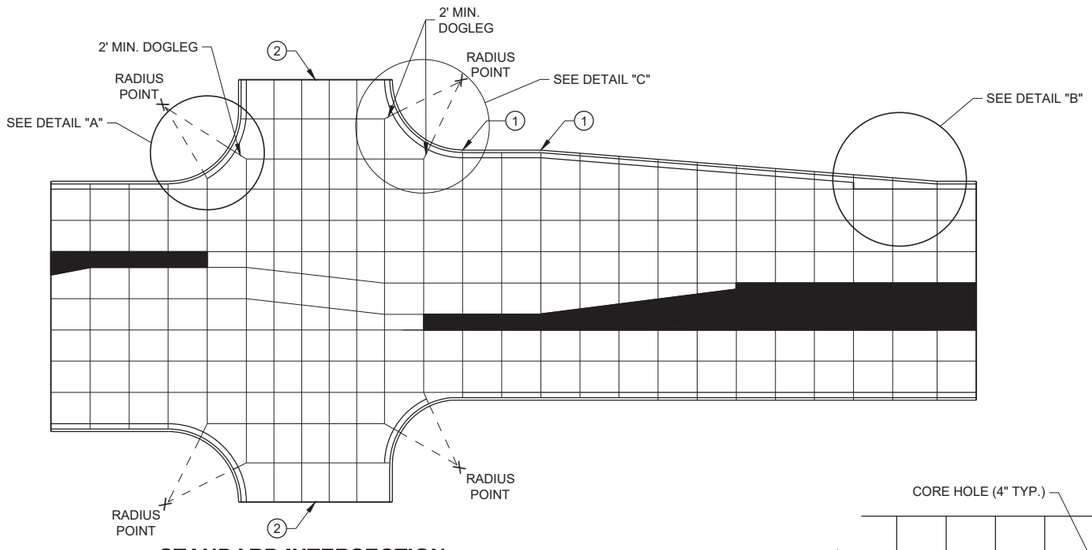
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.

(2) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITHEDGE OF RADIUS.

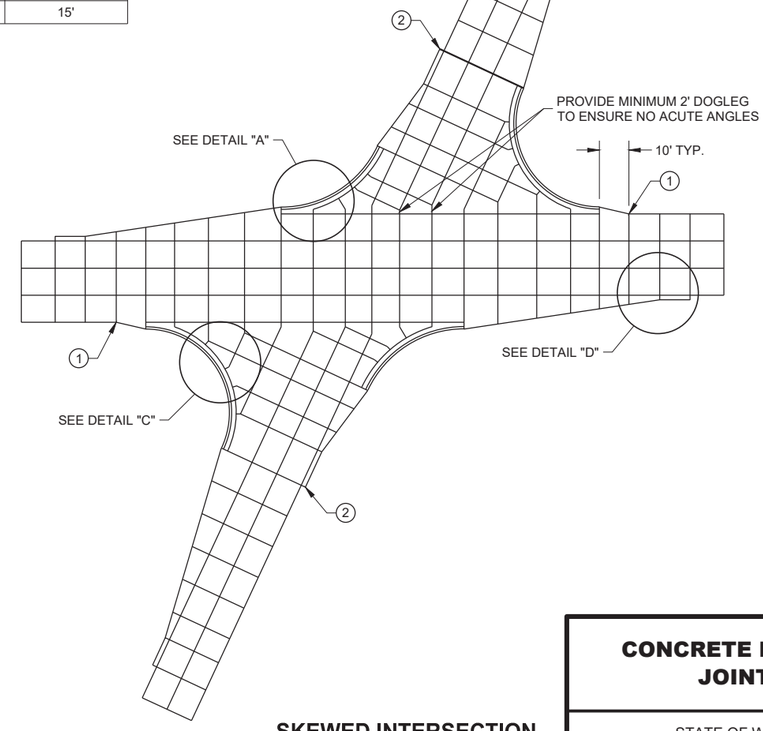
(3) THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



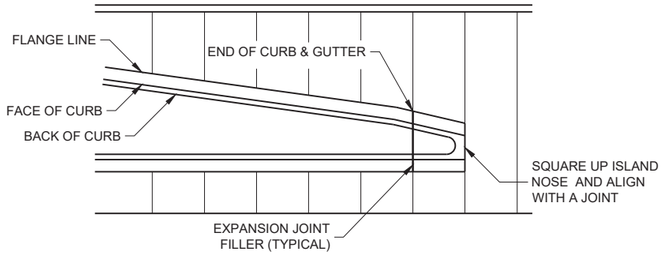
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

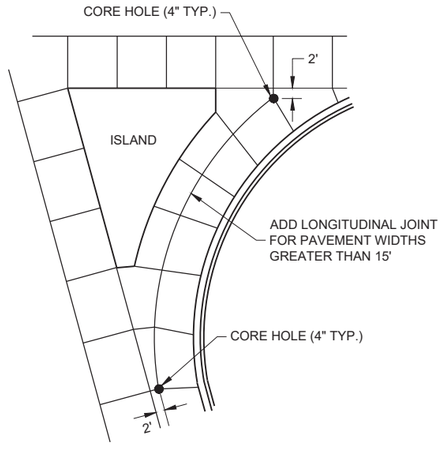
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

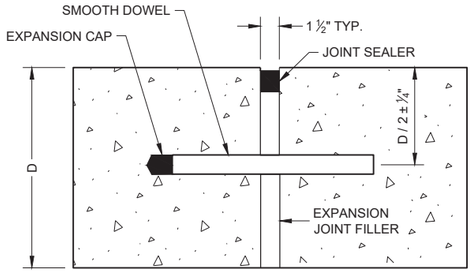
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

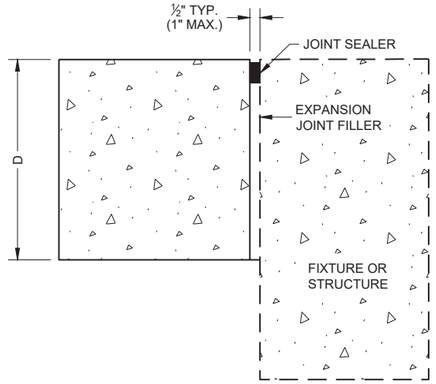
SDD 13C18 - 07a

6

SDD 13C18 - 07a



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

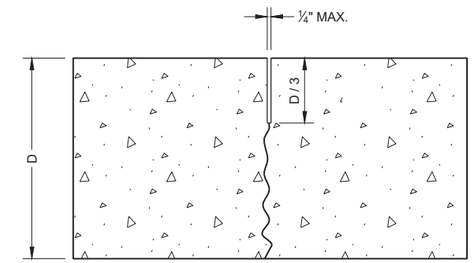
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

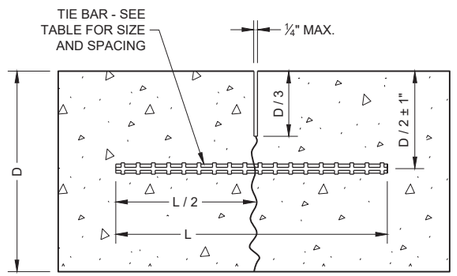
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

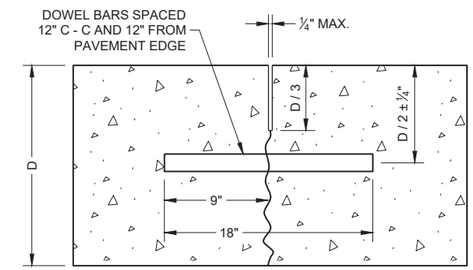
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



UNDOWELED TRANSVERSE

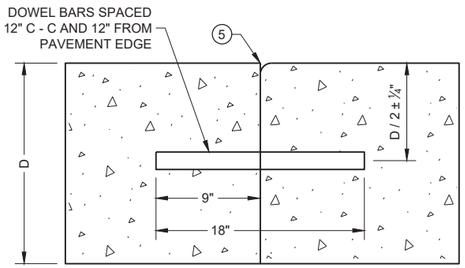


TIED LONGITUDINAL

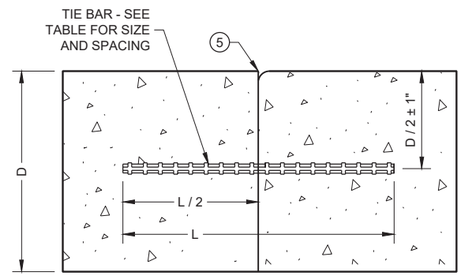


DOWELED TRANSVERSE

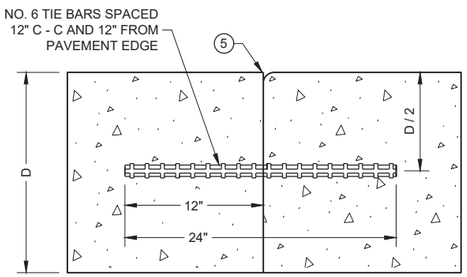
CONTRACTION JOINTS (2)



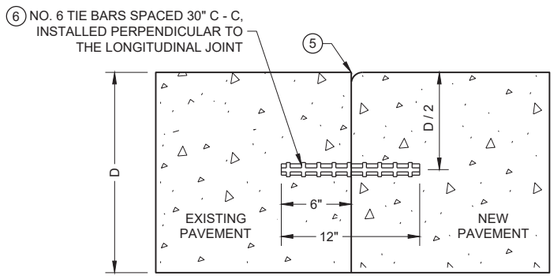
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS (4)

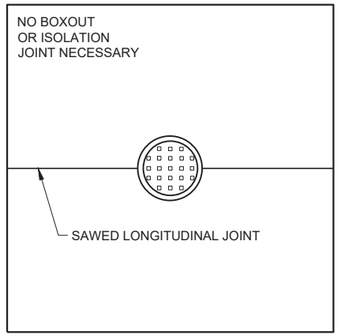
CONCRETE PAVEMENT JOINT TYPES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

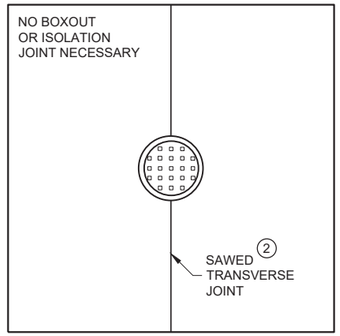
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SDD 13C18 - 07c

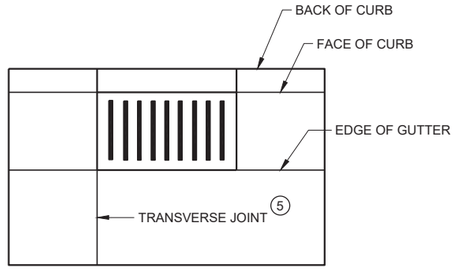
SDD 13C18 - 07c



MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



INLET WITH TRANSVERSE JOINT

GENERAL NOTES

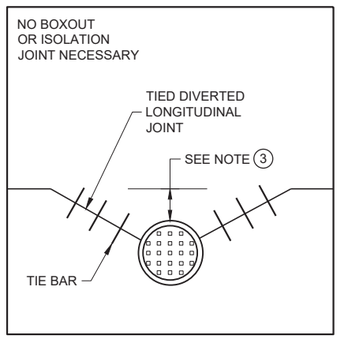
(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

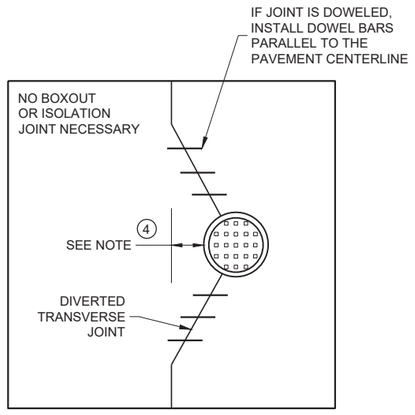
(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.

(4) IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.

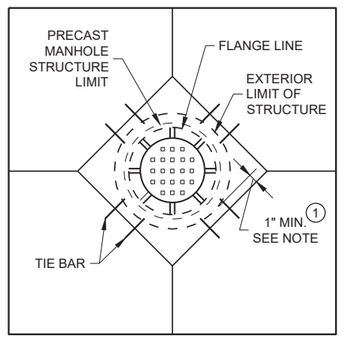
(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

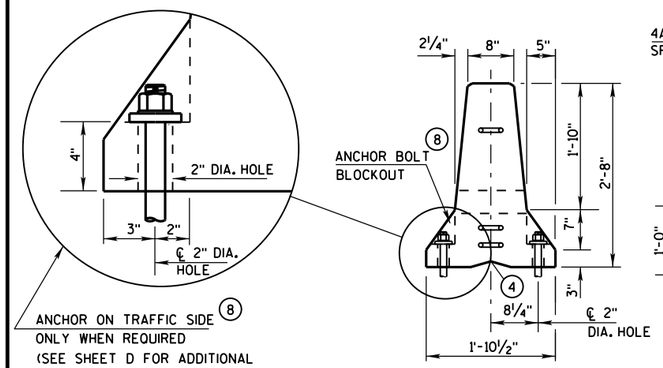
/S/ Peter Kemp P.E.
PAVEMENT SUPERVISO

FHWA

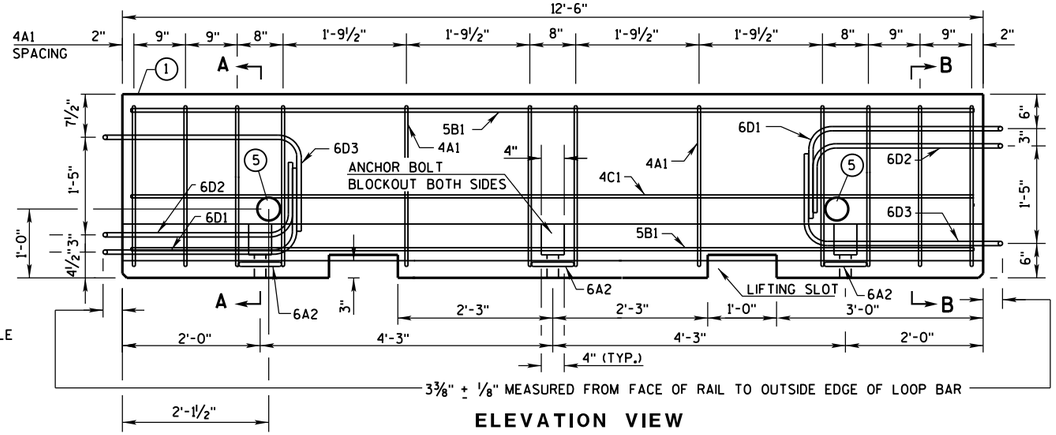
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SDD13C18 - 07d

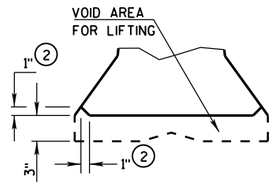
SDD13C18 - 07d



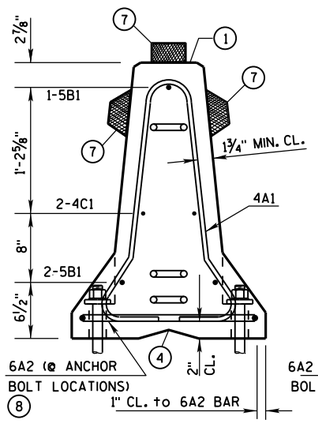
END VIEW



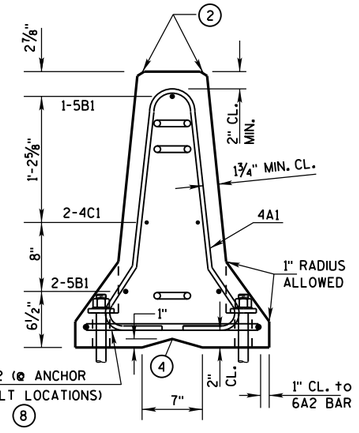
ELEVATION VIEW



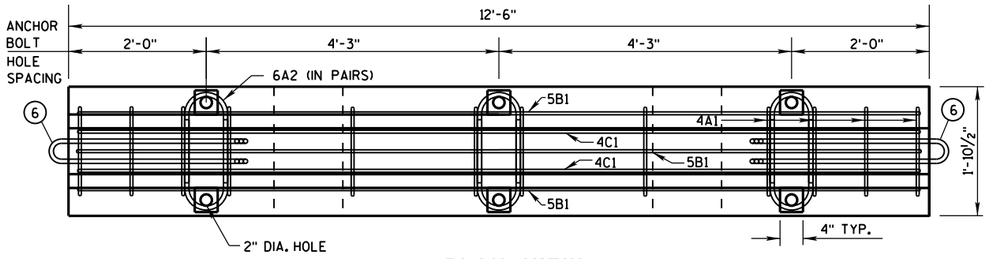
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

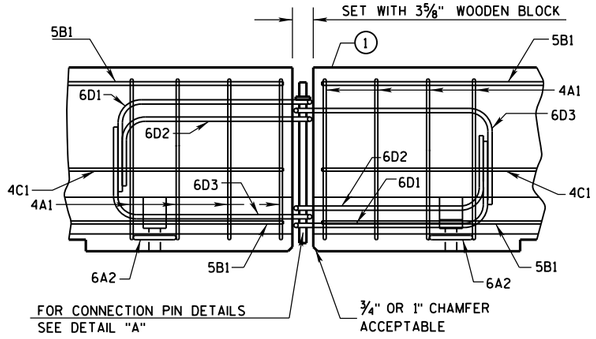


SECTION B-B
(STIRRUP PLACEMENT)

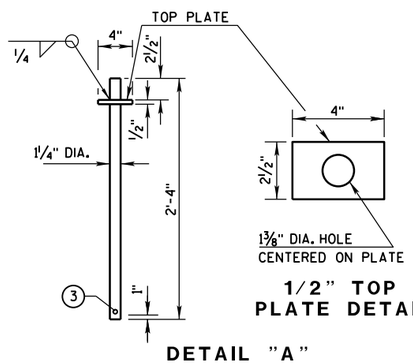


PLAN VIEW

DETAILS OF BARRIER SECTION

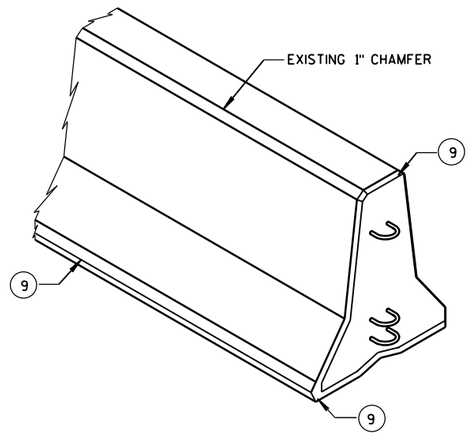


DETAILS OF BARRIER CONNECTION



1/2" TOP
PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(a) THRU 14B7-15(i).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.

(9) 1" CHAMFER OPTIONAL.

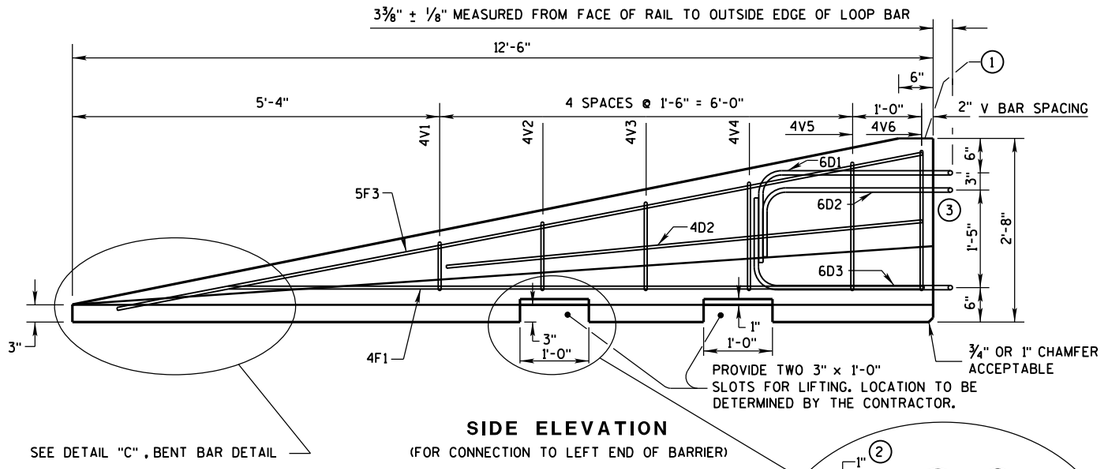
f'c = 4,000 psi

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

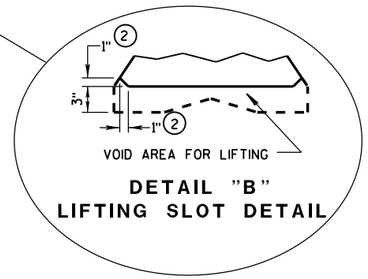
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

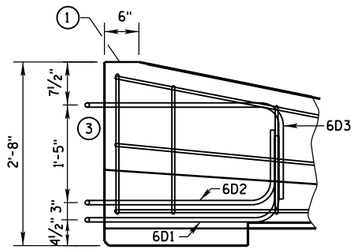
S.D.D. 14 B 7-15a



SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



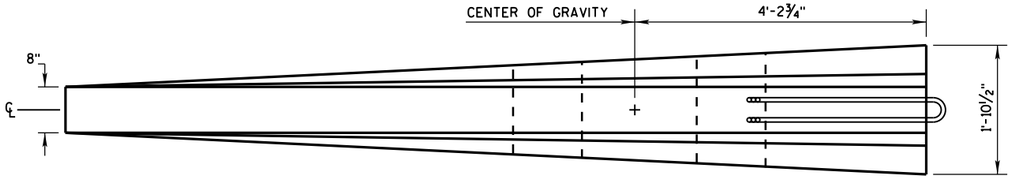
DETAIL "B"
LIFTING SLOT DETAIL



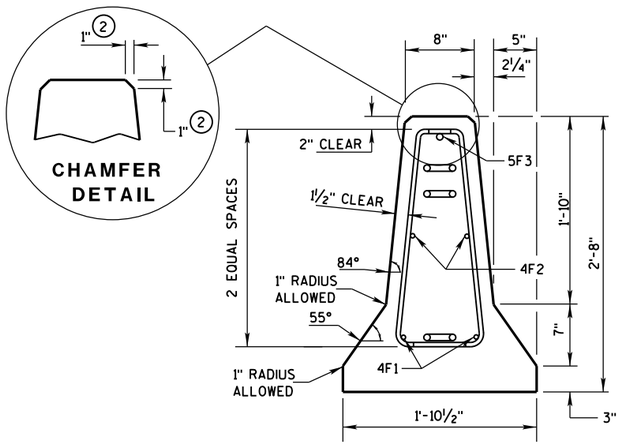
SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

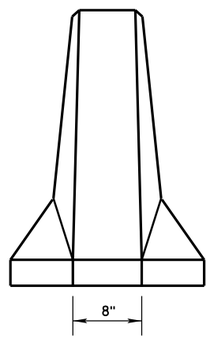
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



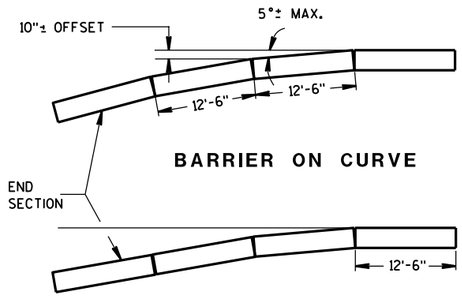
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

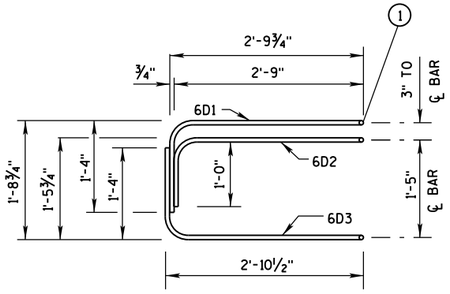
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S.D.D. 14 B 7-15b

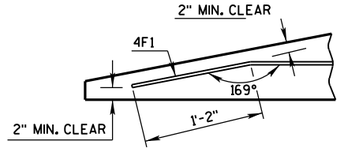
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

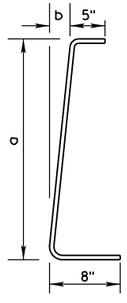
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

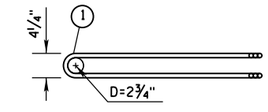
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

BARRIER SECTION BILL OF MATERIALS

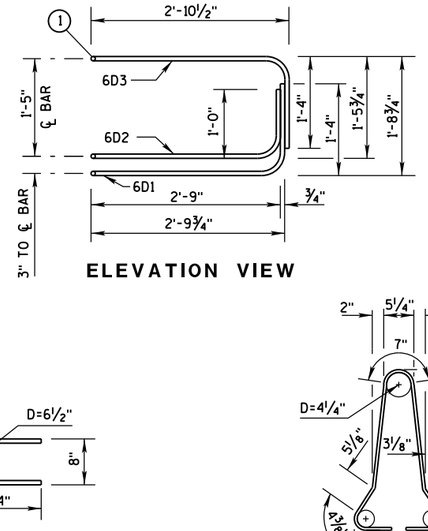
(PER 12'-6" BARRIER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"

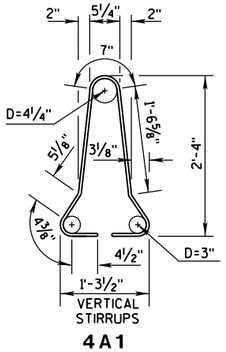


PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)

6A2



ELEVATION VIEW



4A1

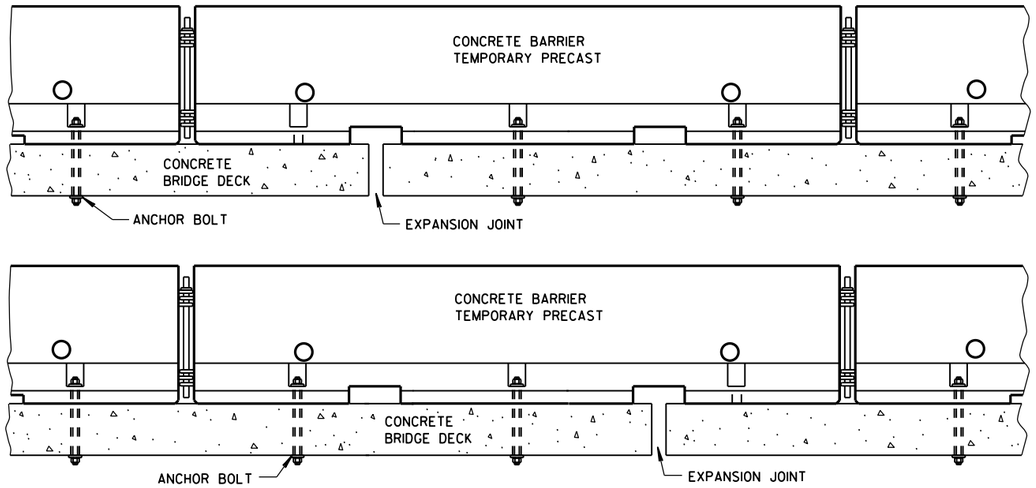
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 7-15c



TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)

GENERAL NOTES

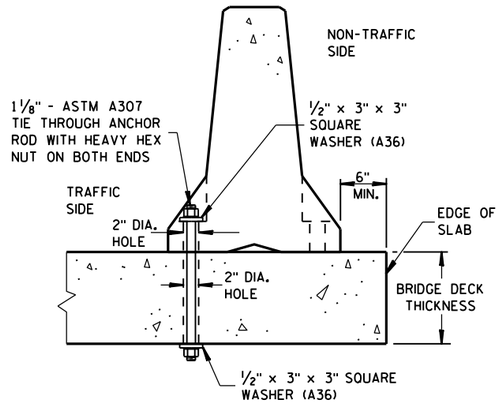
SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERICAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(1) 1⅛" DIAMENTER A307 THREADED ROD. ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL. ASTM A563A HEAVY HEX NUT.

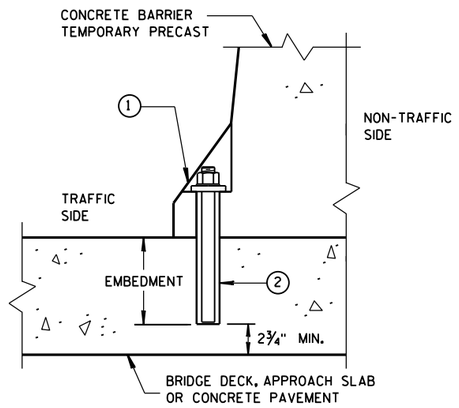
(2) ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

(3) ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THAN DRIVE ASPHALT ANCHOR PIN.



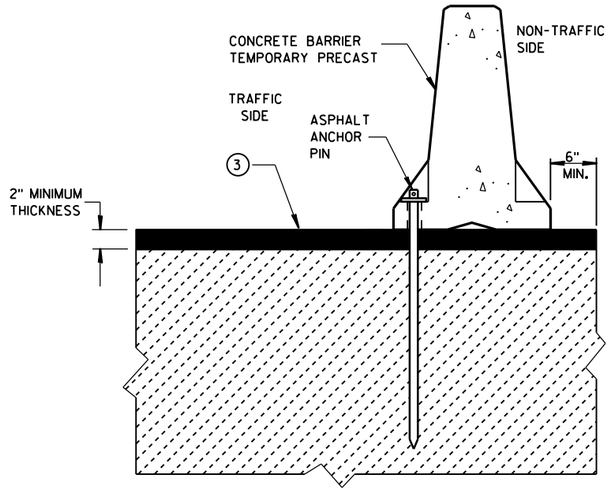
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)

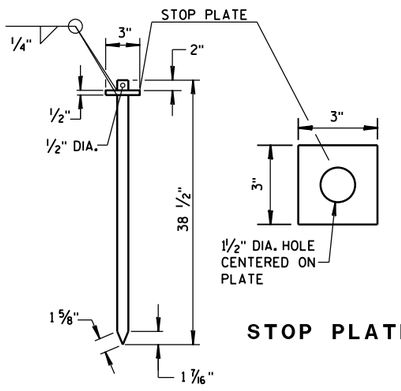


REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



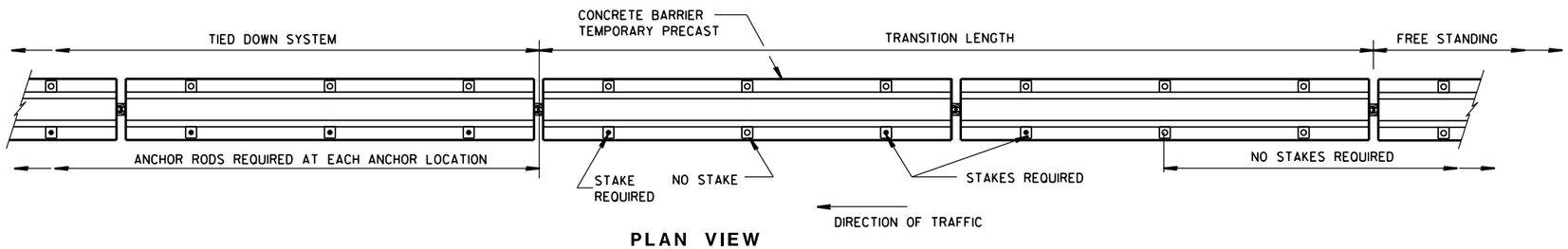
STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE



STOP PLATE

ASPHALT ANCHOR PIN

(ASTM A36 STEEL)



PLAN VIEW

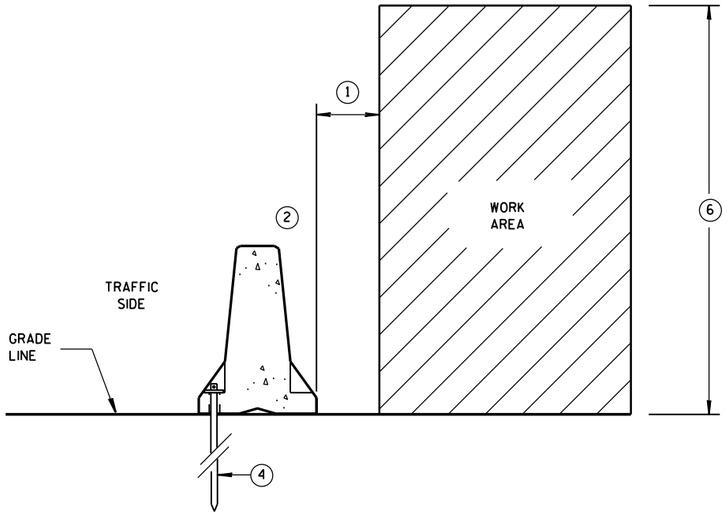
FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

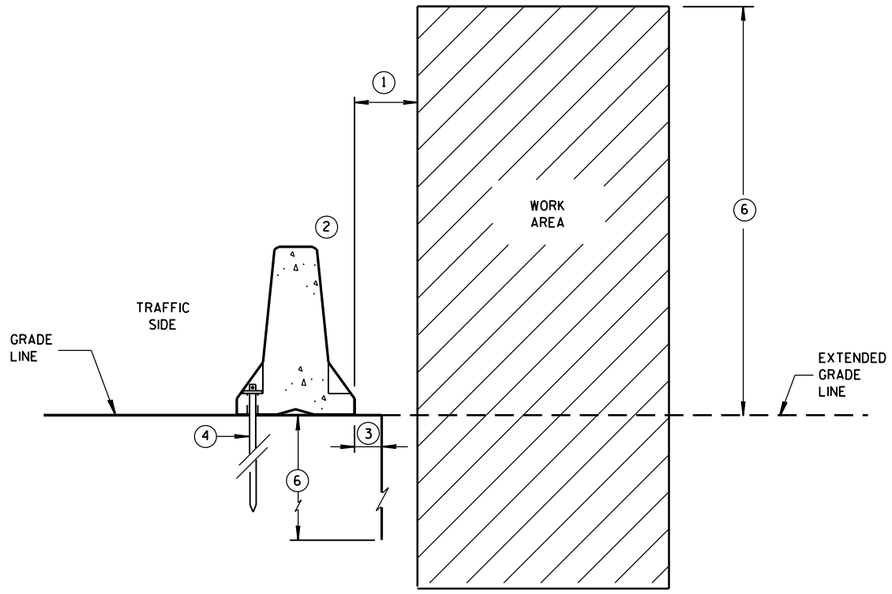
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

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ANCHORED BARRIER SPACE REQUIREMENTS FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

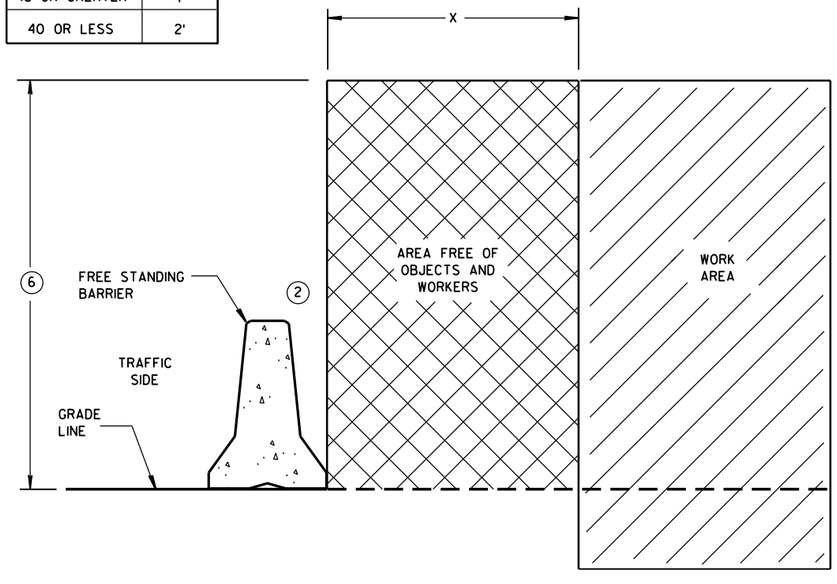


ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS

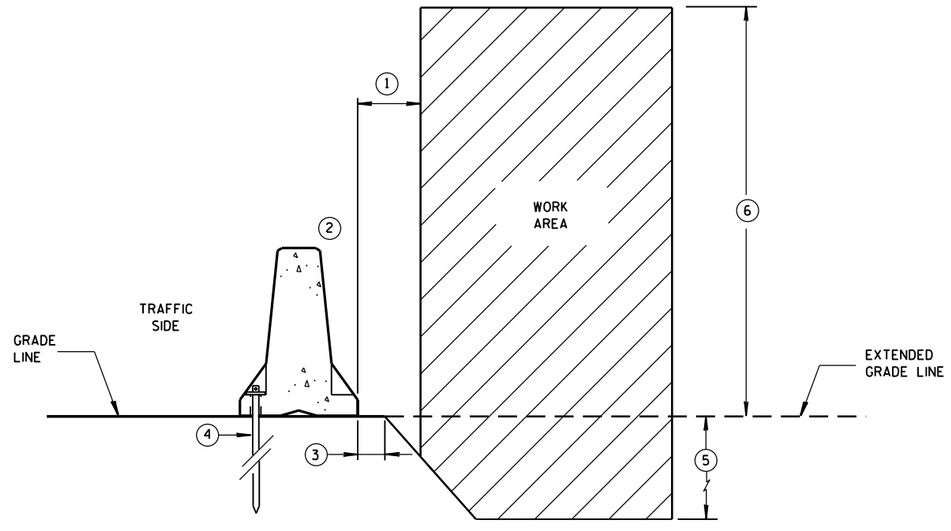
GENERAL NOTES

1. WHEN OBJECTS EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT. SEE OTHER DETAILS FOR FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR VERTICAL DROPS.
2. OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR LEANED AGAINST THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.
3. SEE OTHER DETAIL ON SHEET "D" FOR SPACE REQUIREMENTS.
4. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR A STAKE DOWN FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.
5. DEPTH OF 3 FEET OR MORE.
6. Y = 6'-6".

POSTED SPEED MPH	X
45 OR GREATER	4'
40 OR LESS	2'



FREE STANDING BARRIER SPACE REQUIREMENTS



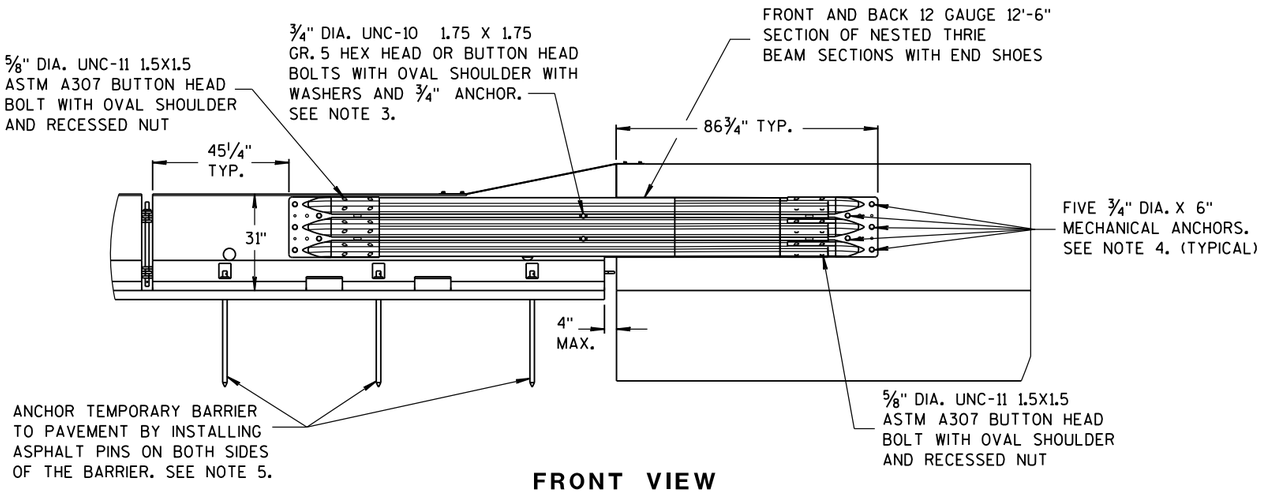
ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

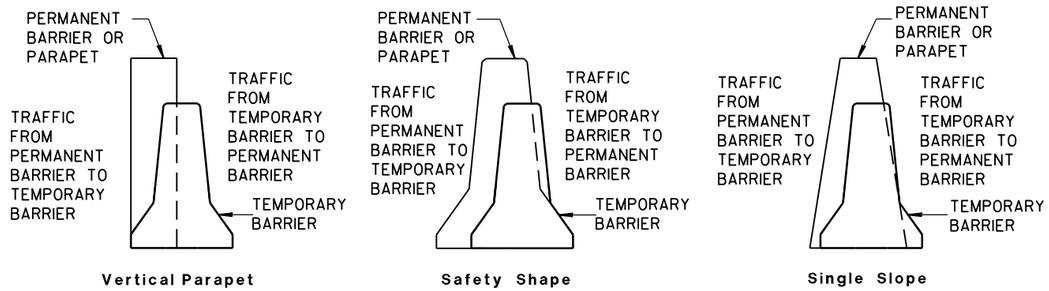
STATE OF WISCONSIN
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FRONT VIEW

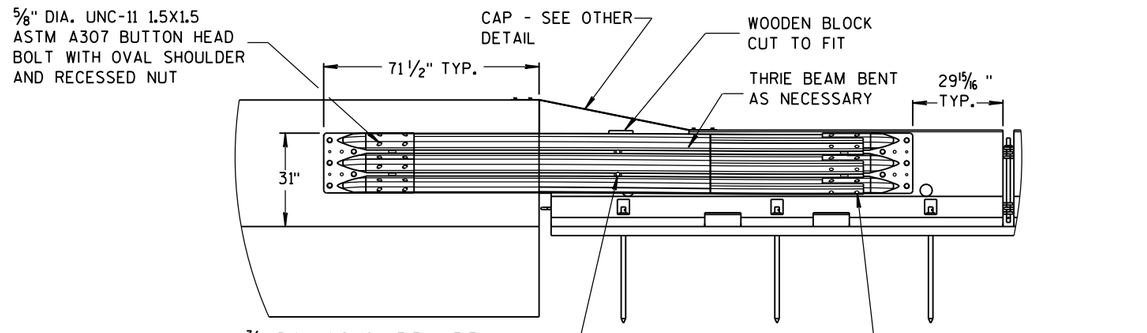


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

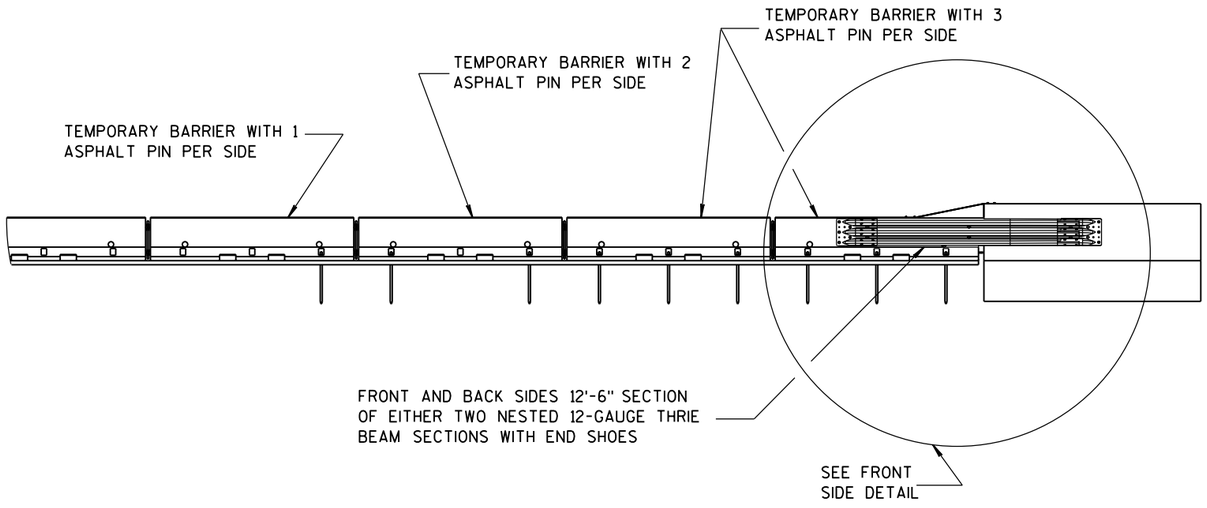
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS REGARDLESS OF TRAFFIC.

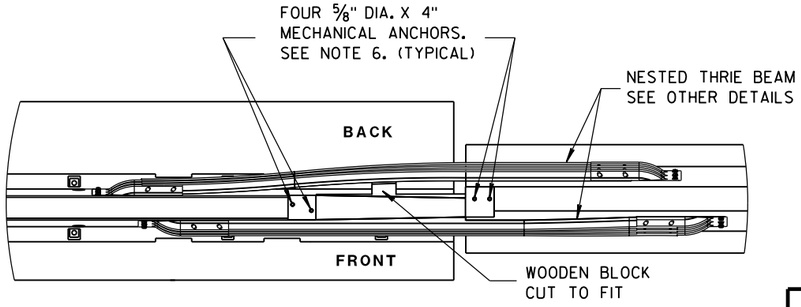
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



PLAN VIEW

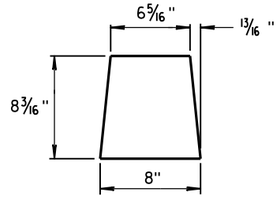
BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

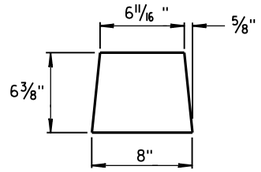
STATE OF WISCONSIN
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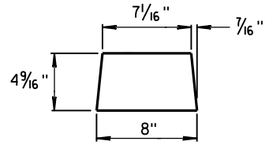
S.D.D. 14 B 7-15f



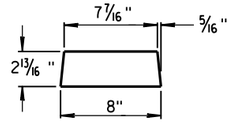
GUSSET 1



GUSSET 2

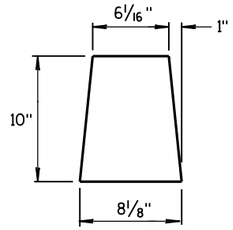


GUSSET 3

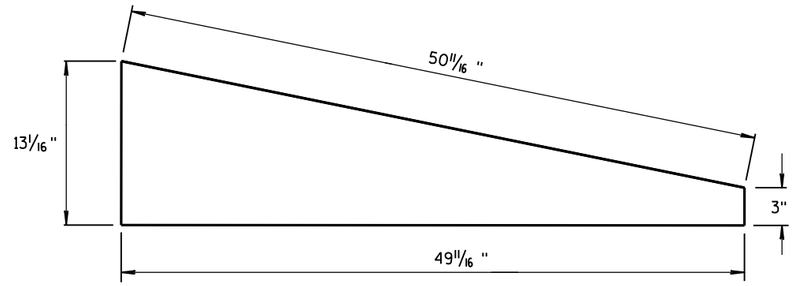


GUSSET 4

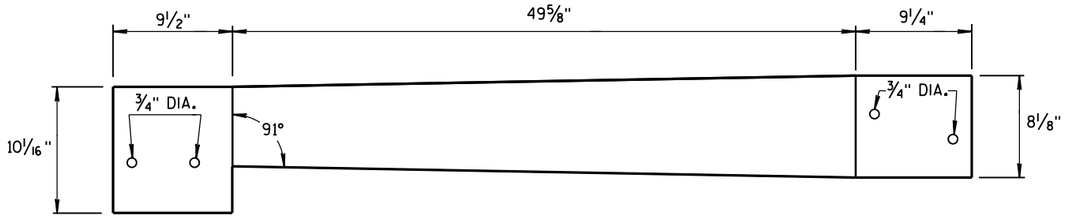
GUSSETS

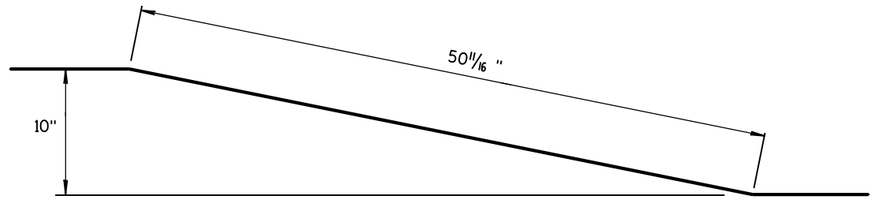


END PLATE



SIDE PLATE

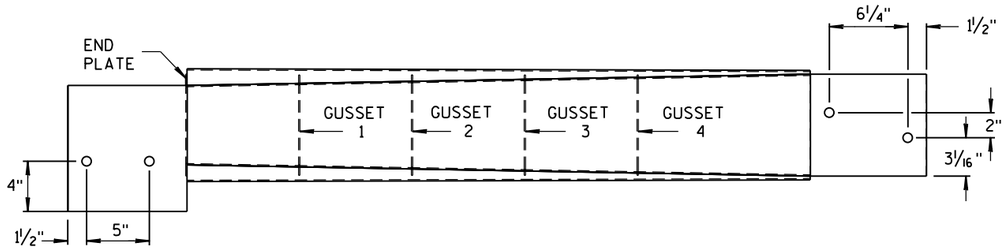


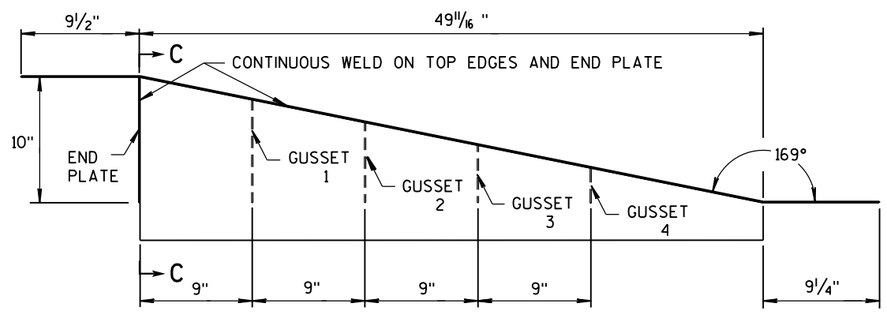


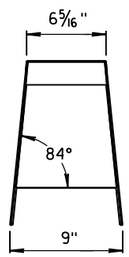
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.







SECTION C-C

NOTES

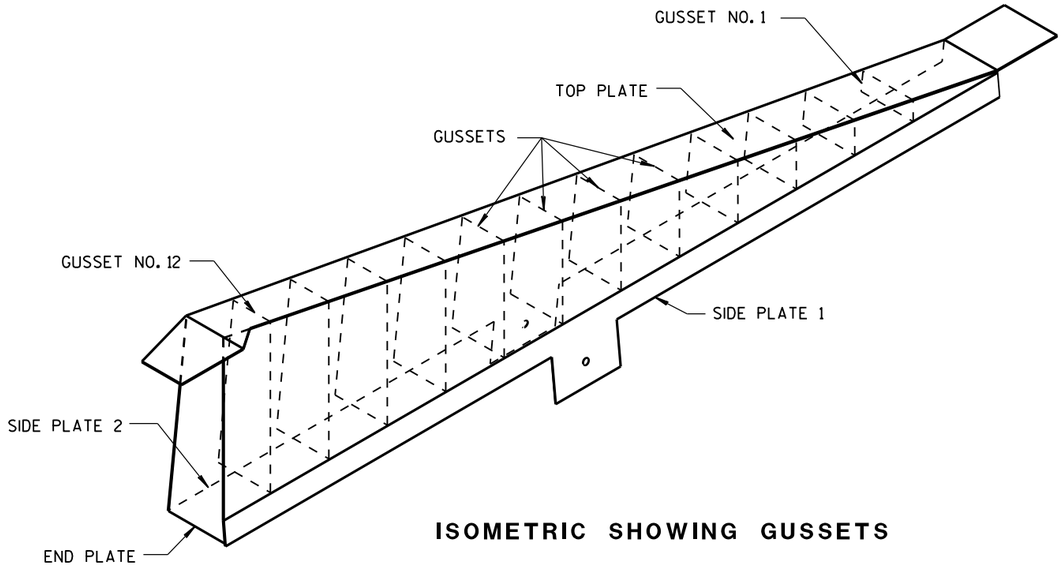
1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

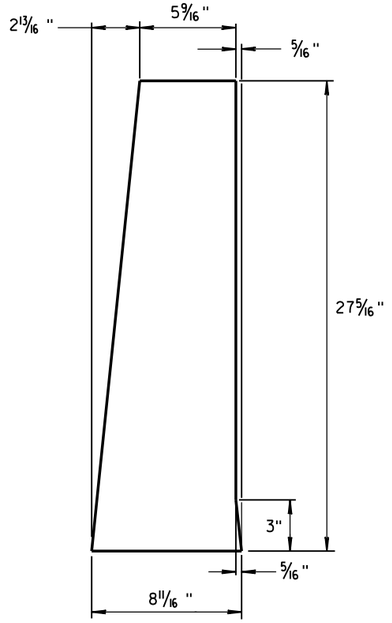
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 7-15g

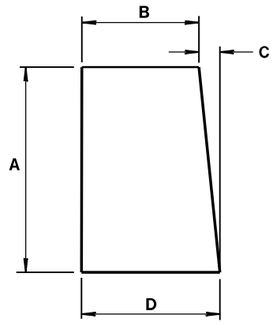


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



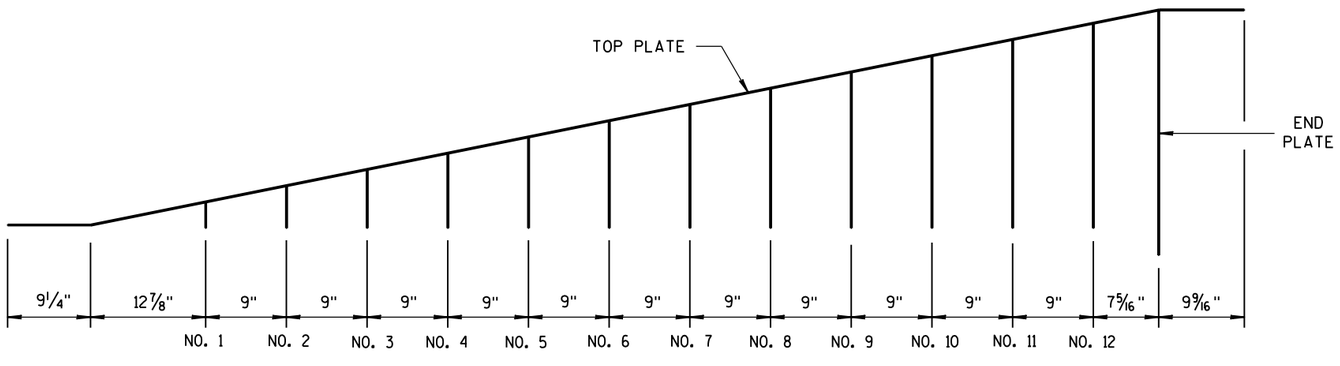
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



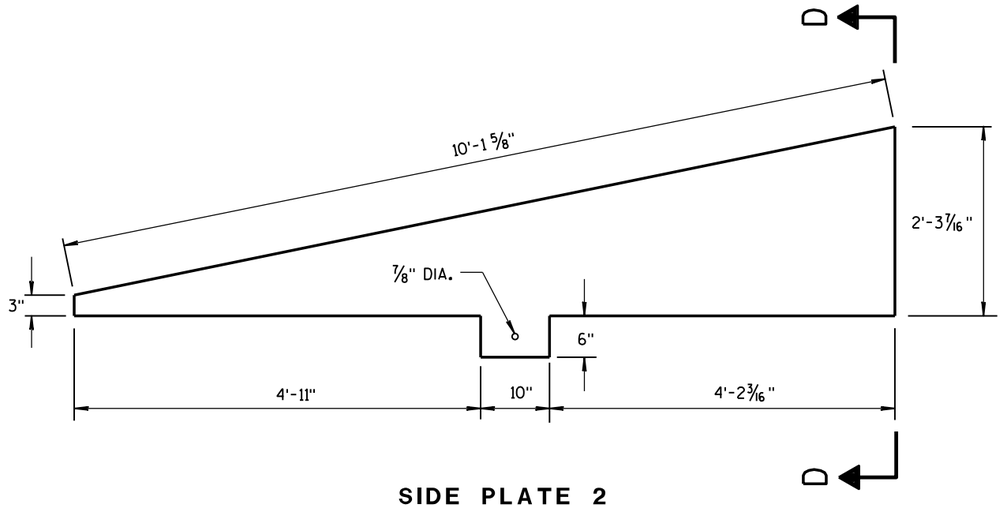
GUSSET LOCATION

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

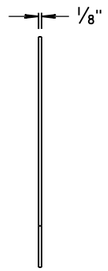
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

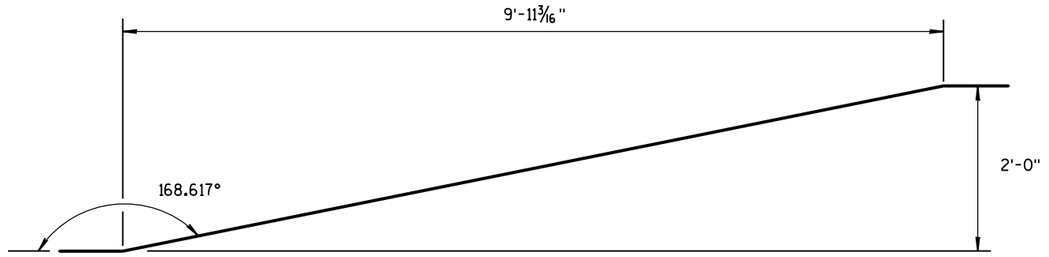
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S.D.D. 14 B 7-15h



SIDE PLATE 2

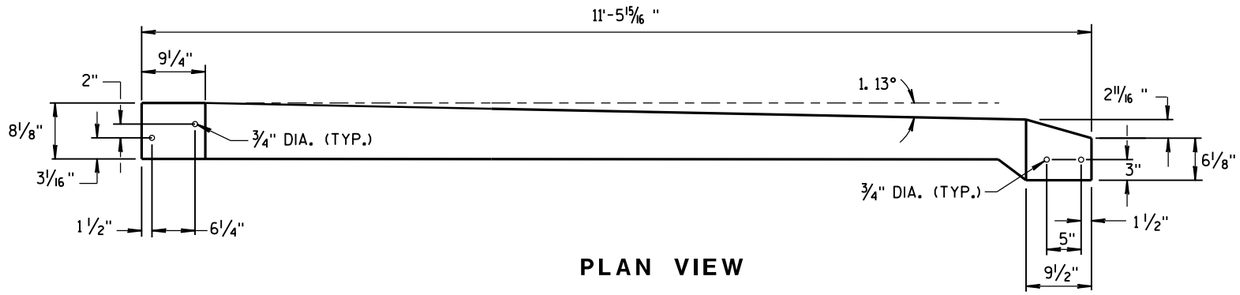


END VIEW



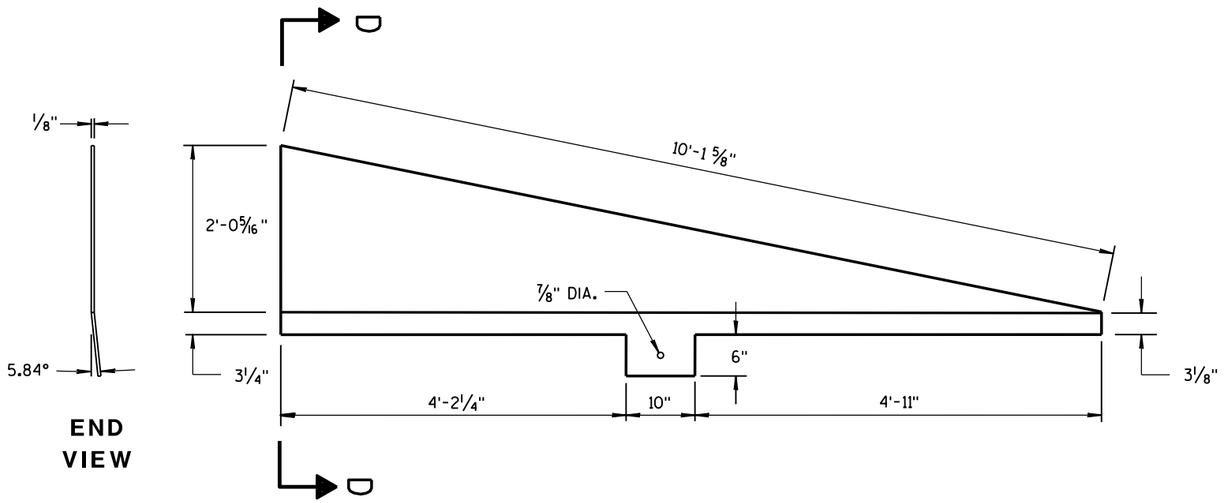
SIDE VIEW

TOP PLATE



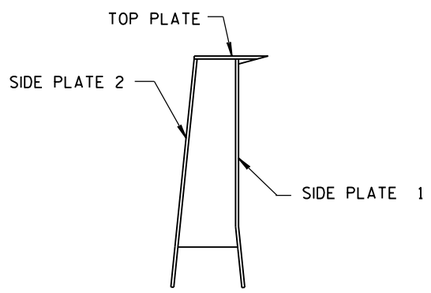
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV

153

FHWA

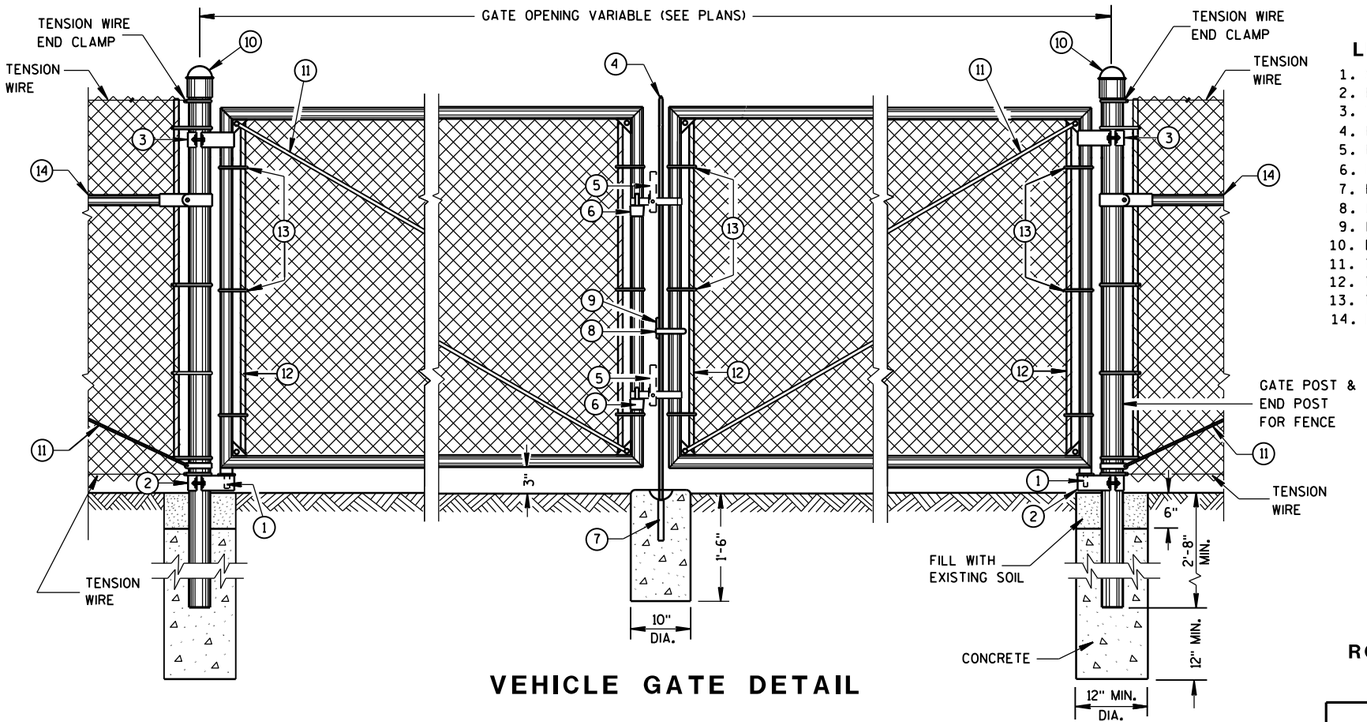
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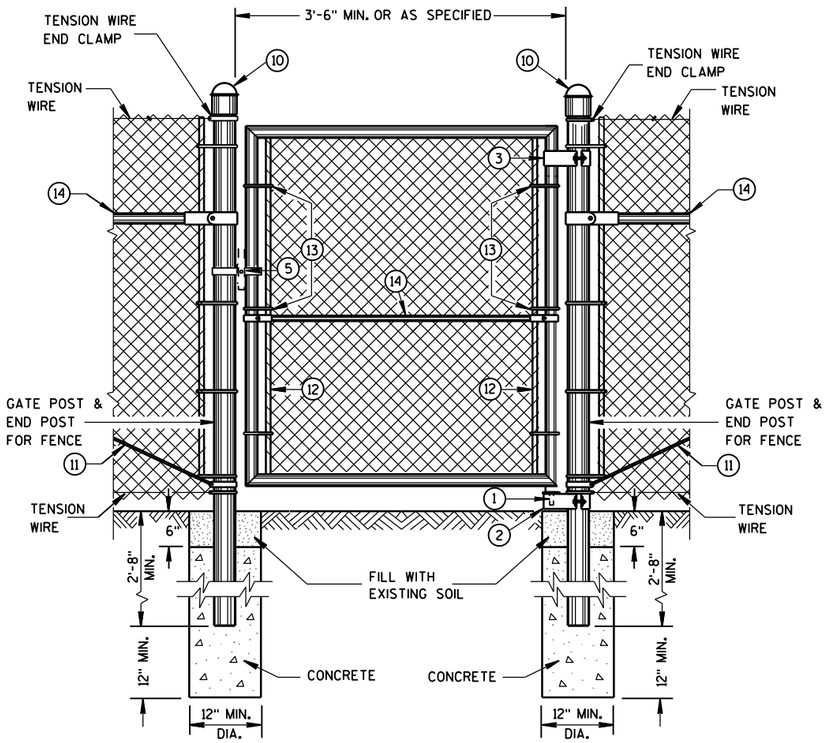
S.D.D. 14 B 7-15i

6

S.D.D. 14 B 7-15i



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

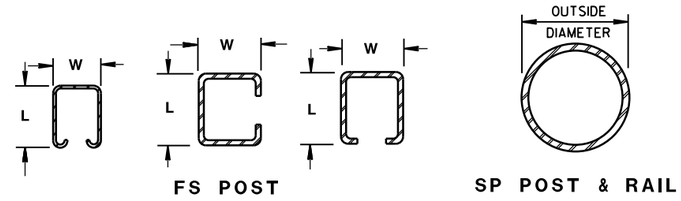
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



FS POST — SP POST & RAIL

CROSS SECTIONS OF POSTS AND RAILS

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

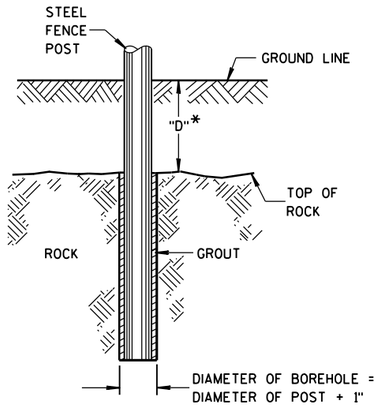
POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

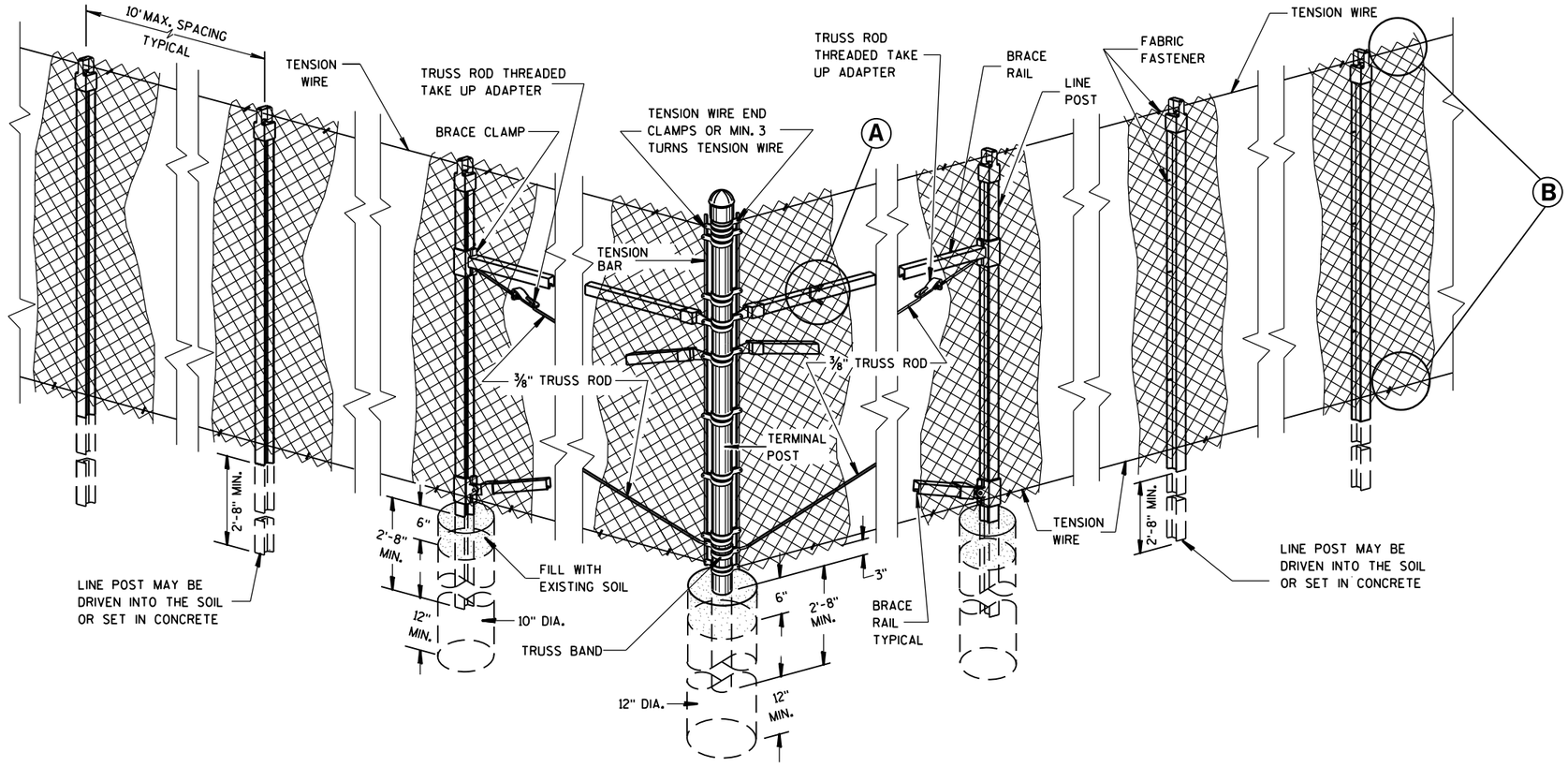
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S.D.D. 15 B 3-15a

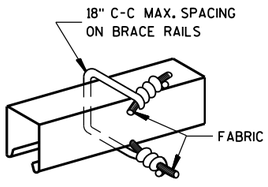


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



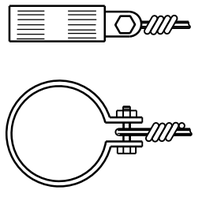
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



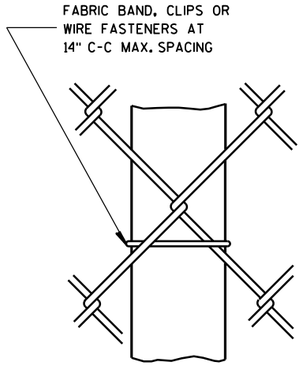
BRACE RAIL

FABRIC FASTENER

Ⓐ



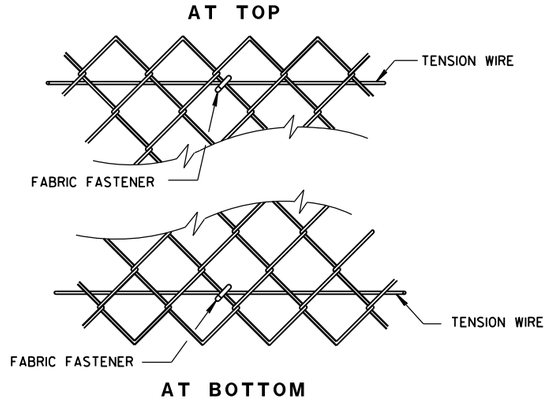
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

Ⓑ

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

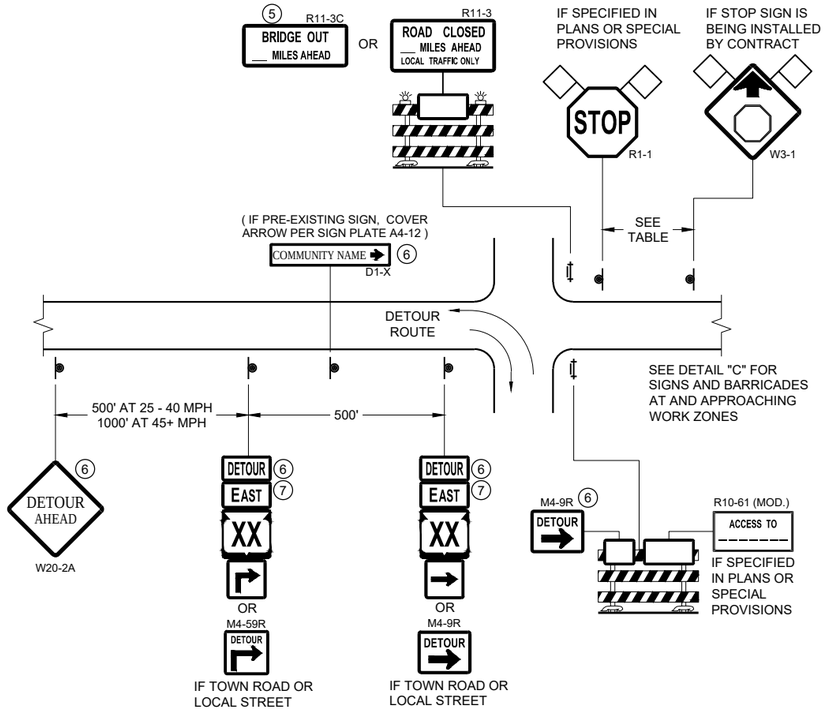
APPROVED
FEB. 2015 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 15 B 3-15b

6

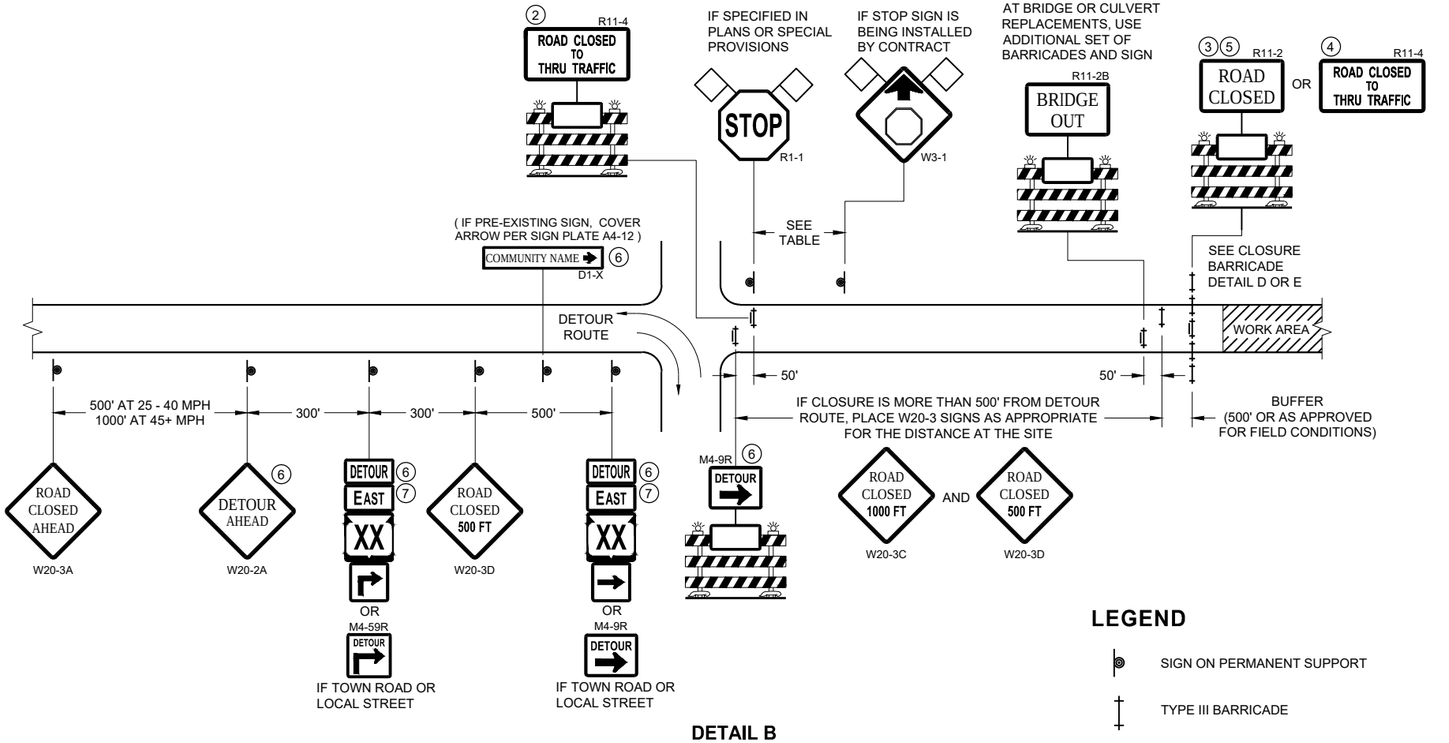
S.D.D. 15 B 3-15b



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b" FOR GENERAL NOTES AND FOOTNOTES ① THROUGH ⑦

LEGEND

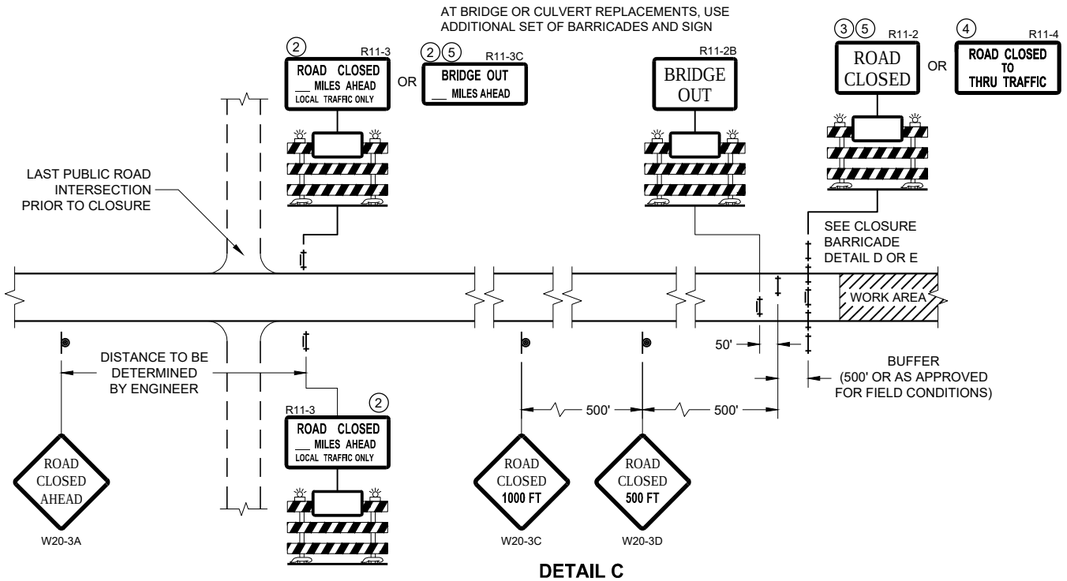
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8

EAST M3 - X

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M06 - 1



DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

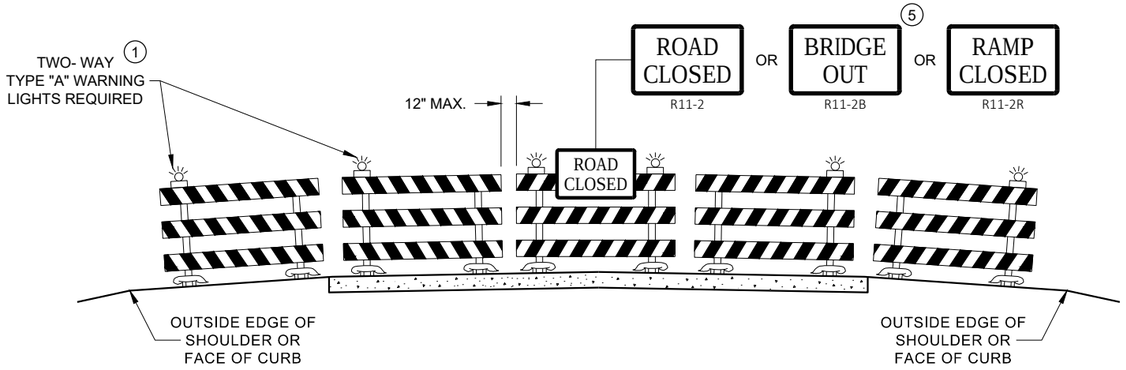
APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

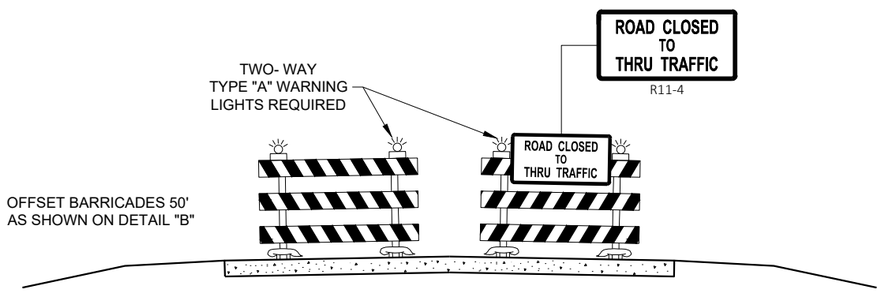
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SDD 15C02 - 07a

SDD 15C02 - 07a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES

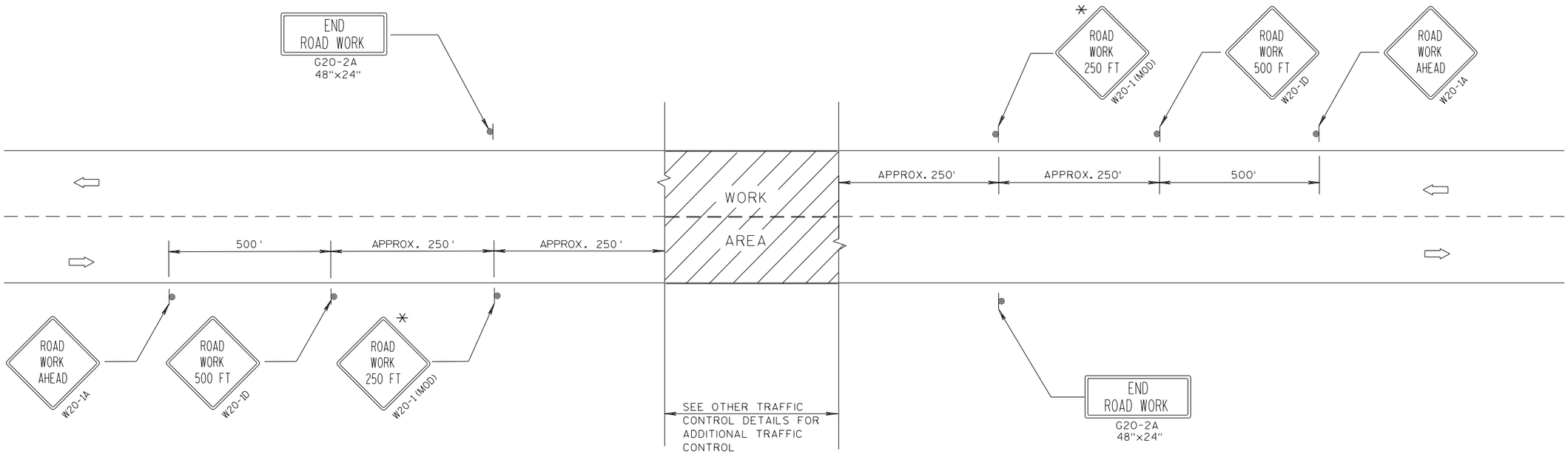
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

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SDD 15C02 - 07b

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

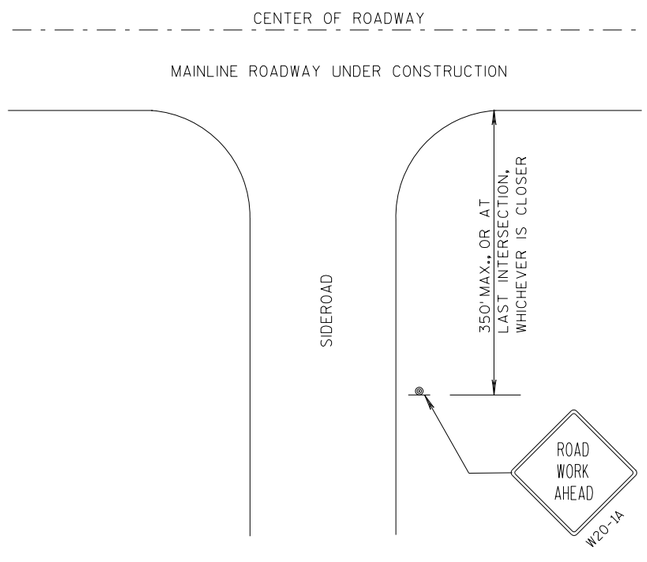
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

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



LEGEND

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

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

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DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Andrew Heldtke
WORK ZONE ENGI

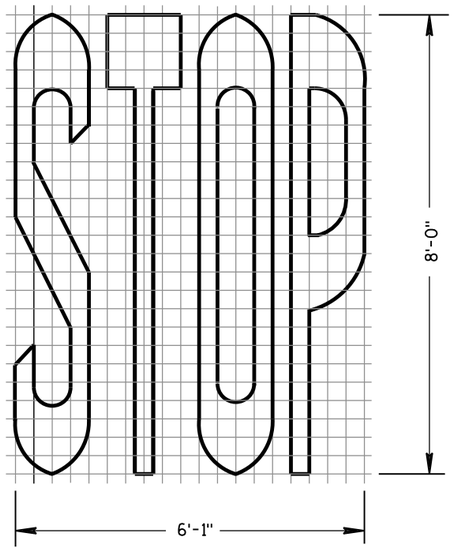
FHWA

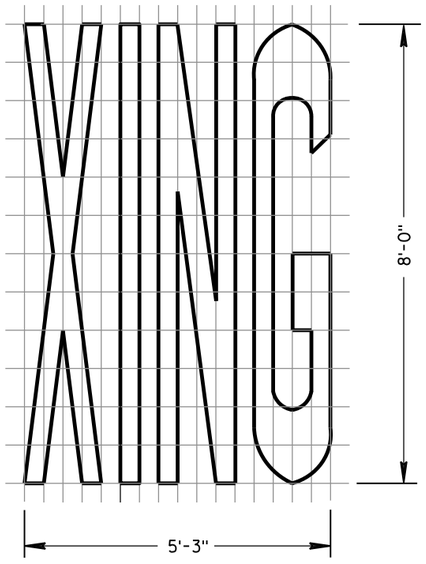
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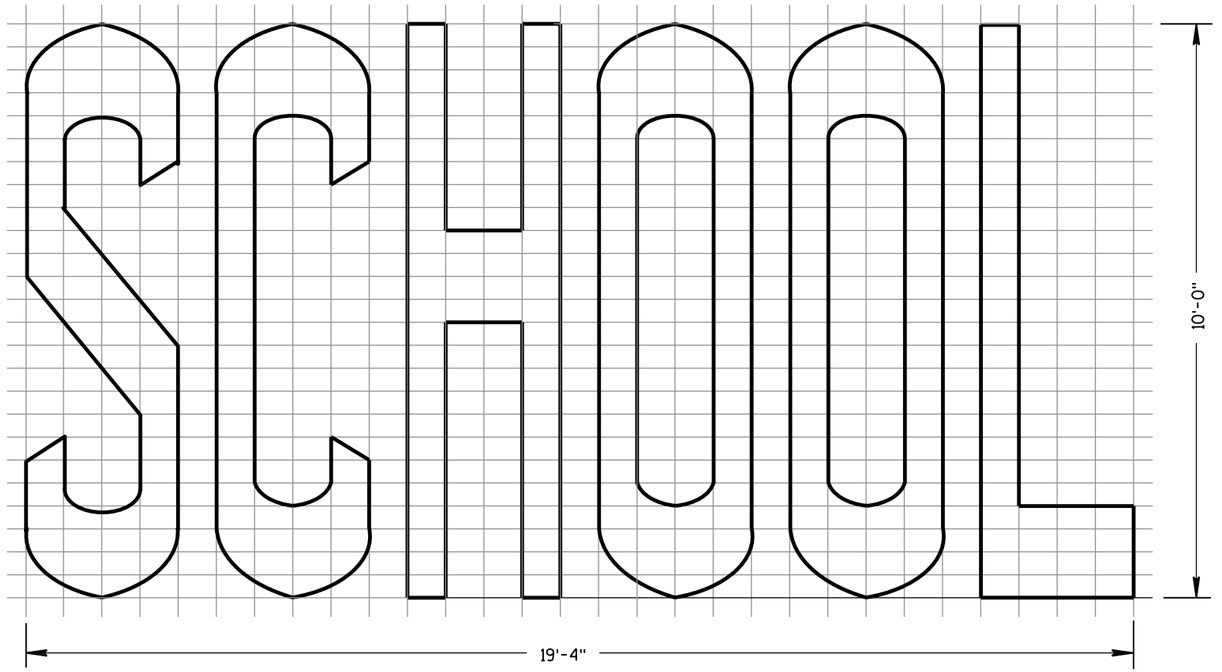
S.D.D. 15 C 5-5

GENERAL NOTES

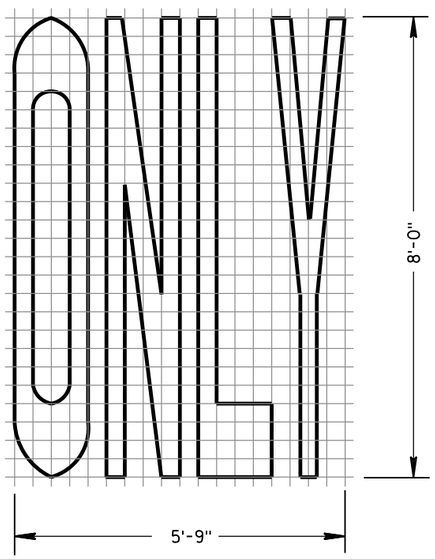
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

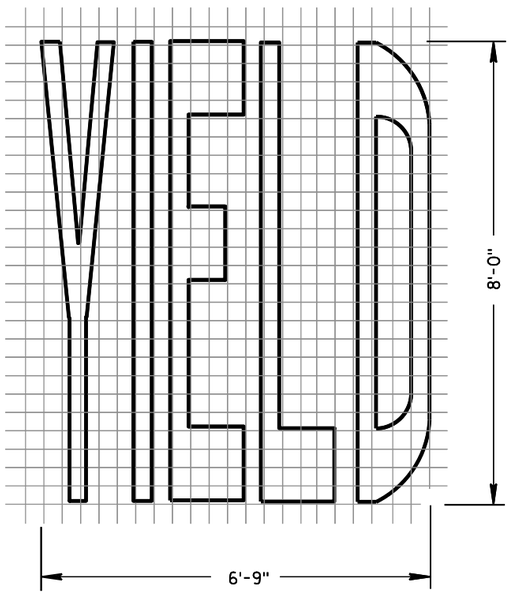


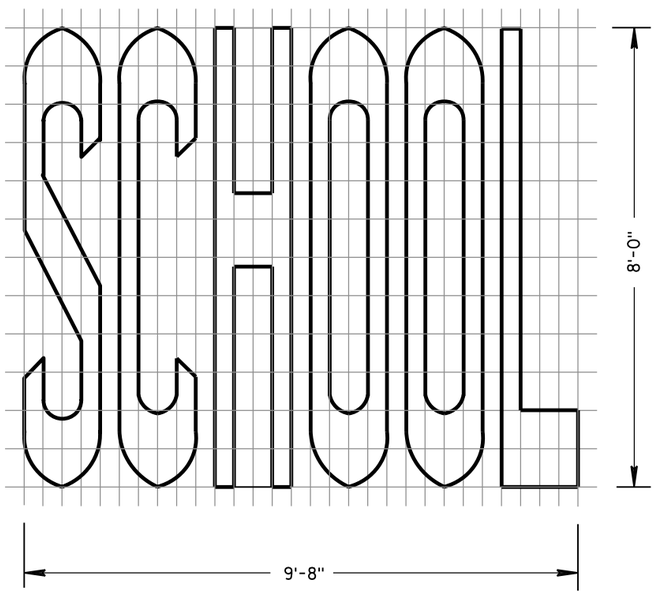




TWO-LANE







SINGLE-LANE

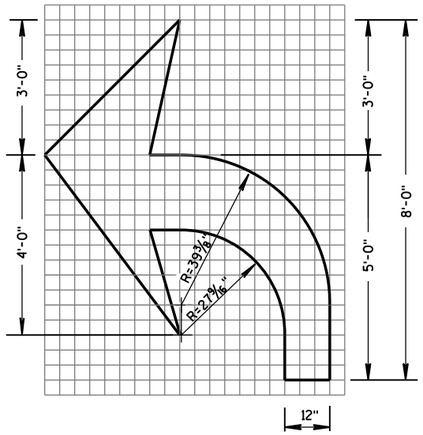
PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

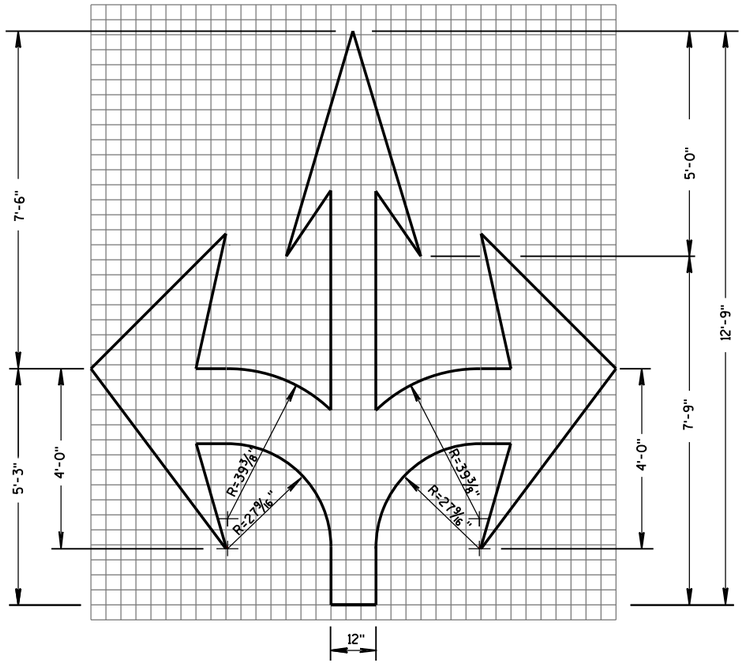
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARK
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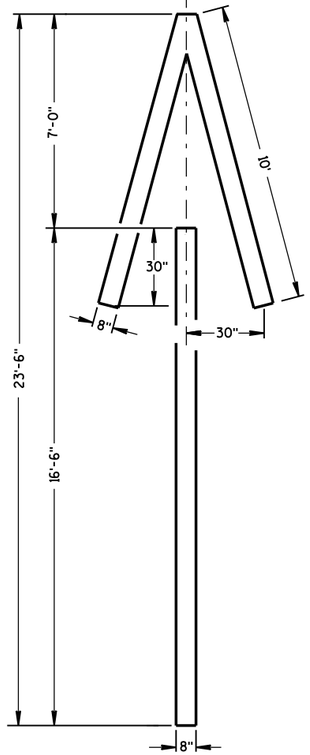
S.D.D. 15 C 7-14b



TYPE 2



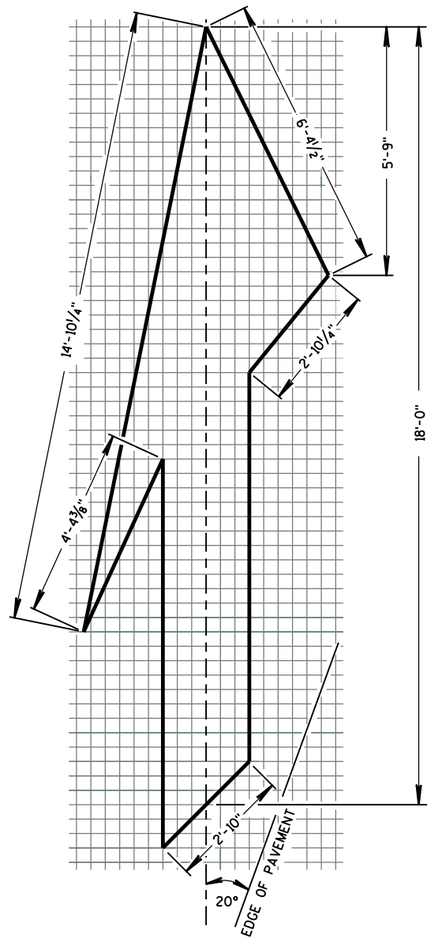
TYPE 6



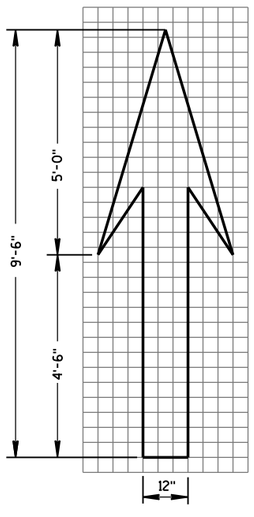
TYPE 4

GENERAL NOTES

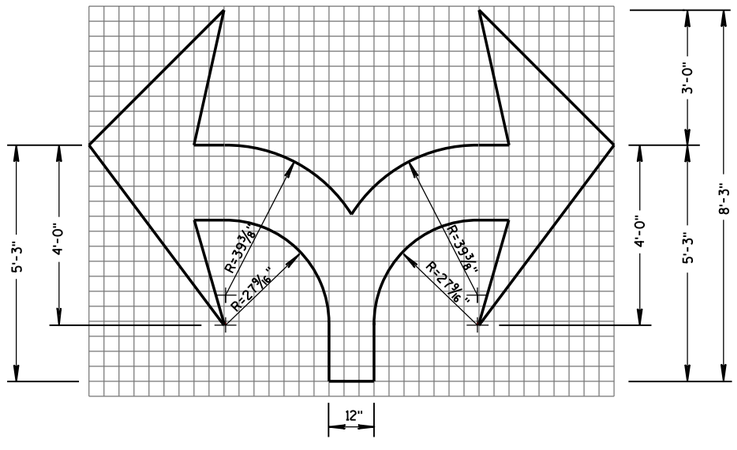
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



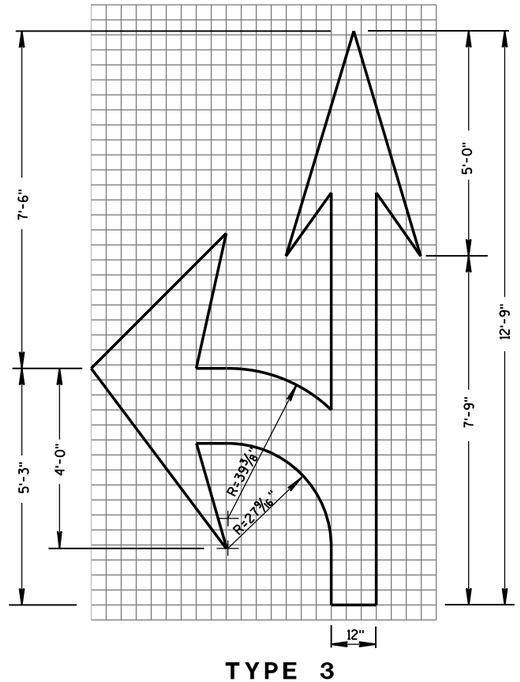
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

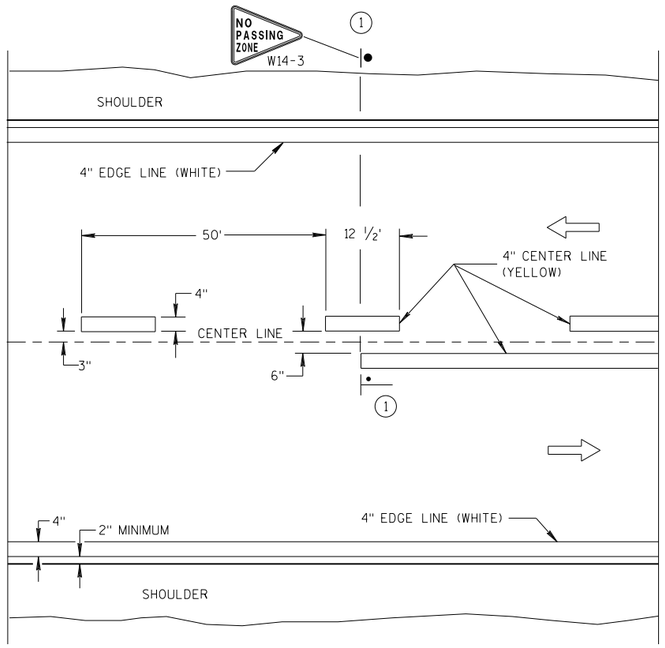
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

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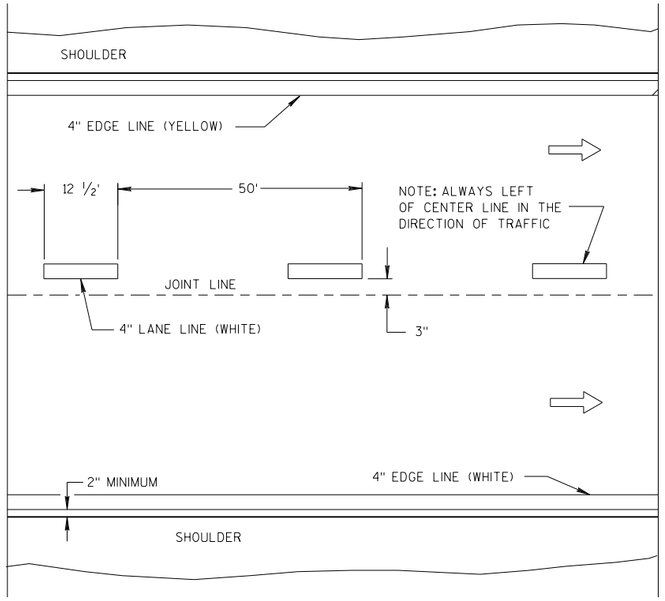
S.D.D. 15 C 7-14c

6

S.D.D. 15 C 7-14c



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT 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.

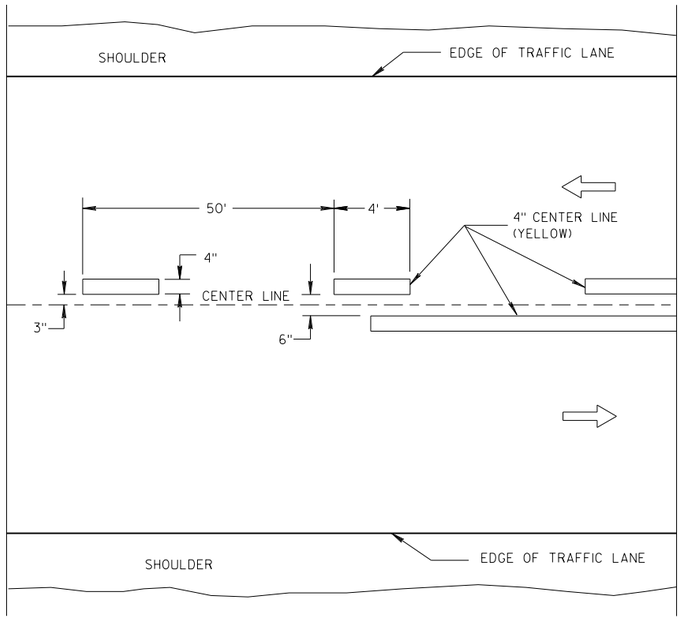
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

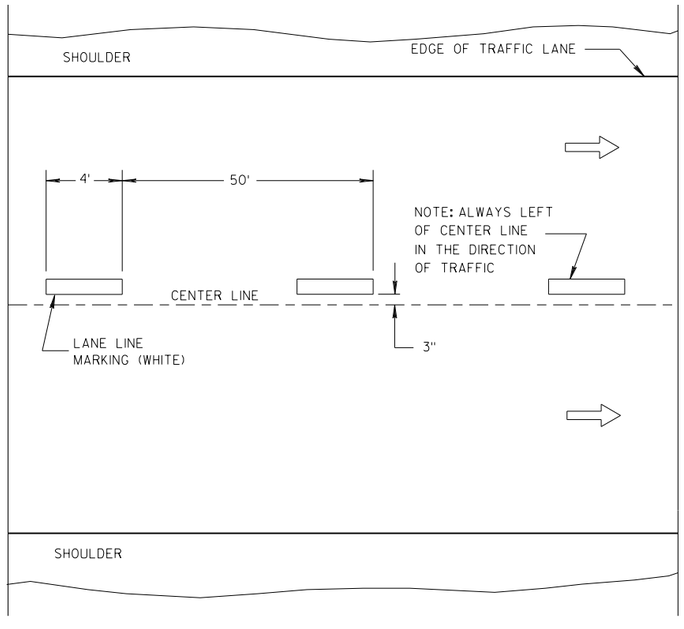
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER

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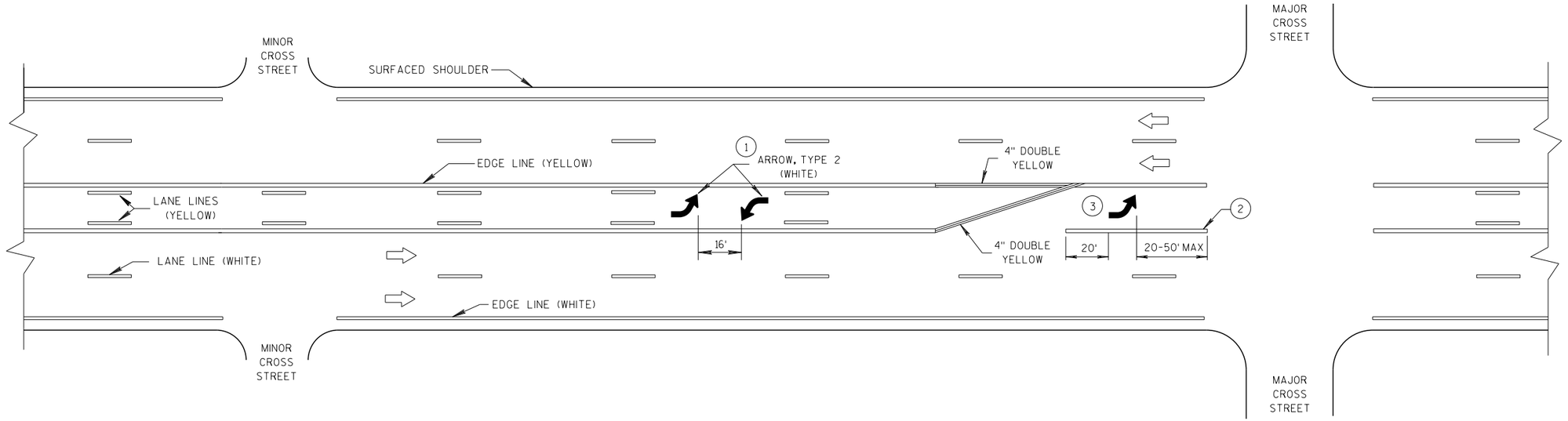
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S.D.D. 15 C 8-19a

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



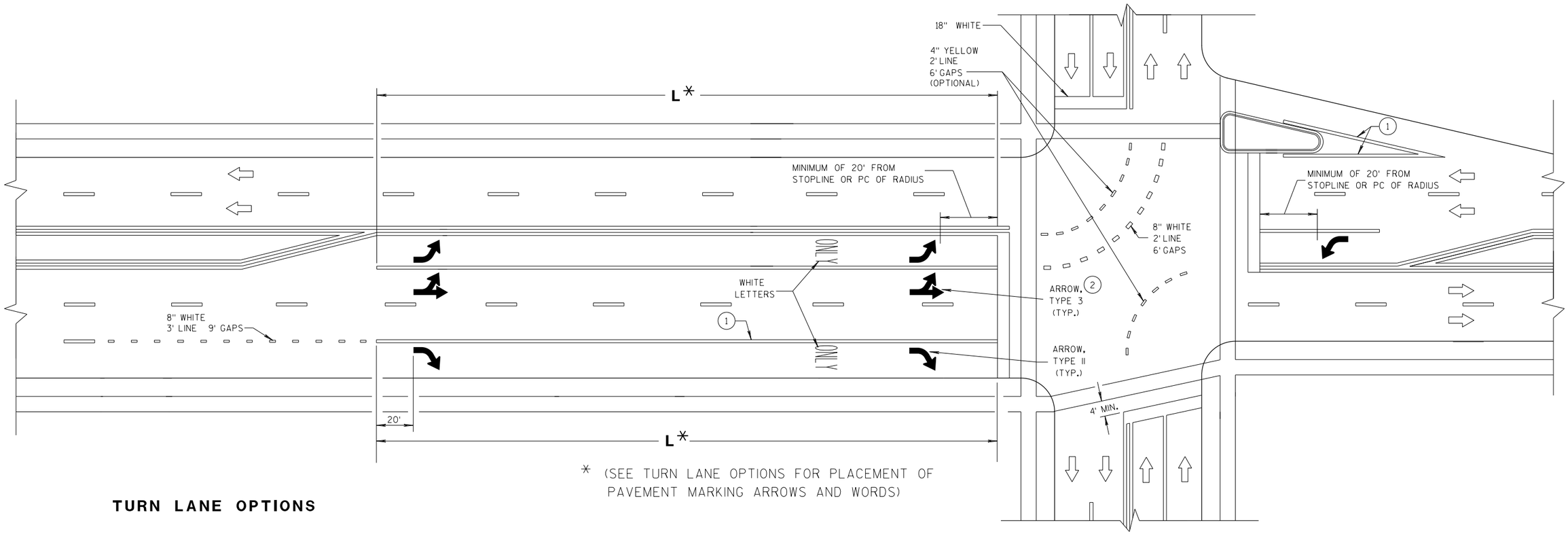
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

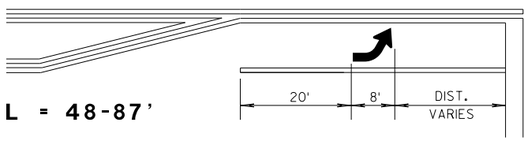
S.D.D. 15 C 8-19b



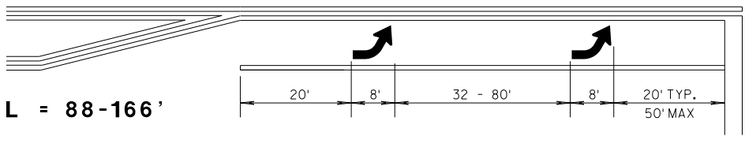
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

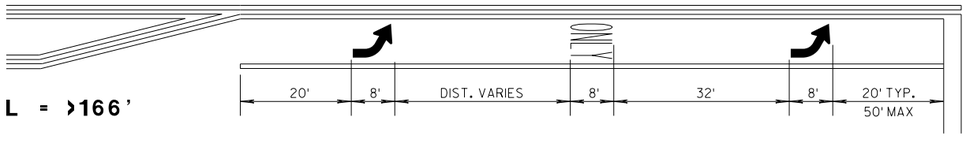
LENGTH OF TURN BAY (**L**) OF 0-47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48-87'



L = 88-166'



L = >166'

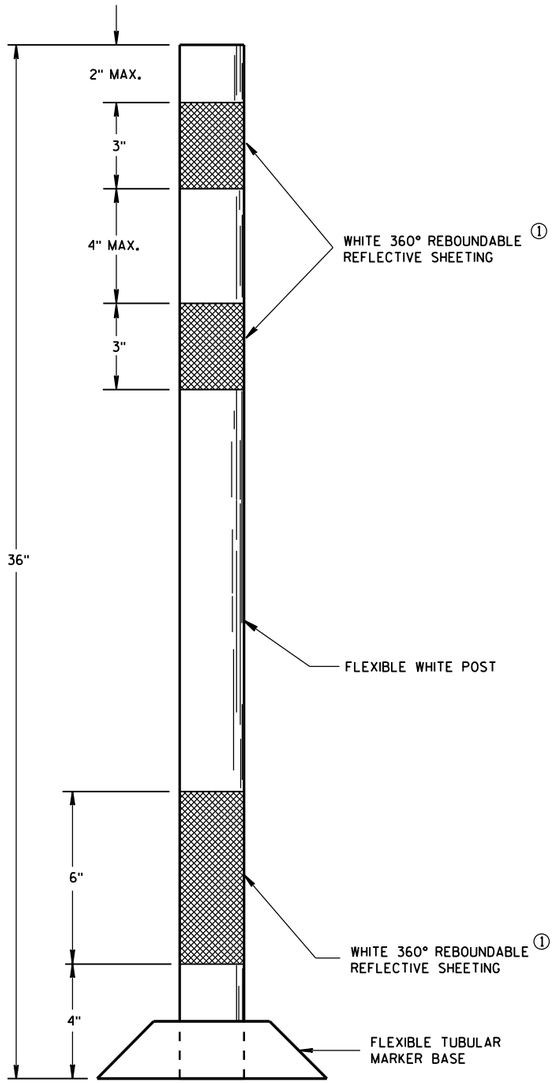
GENERAL NOTES

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

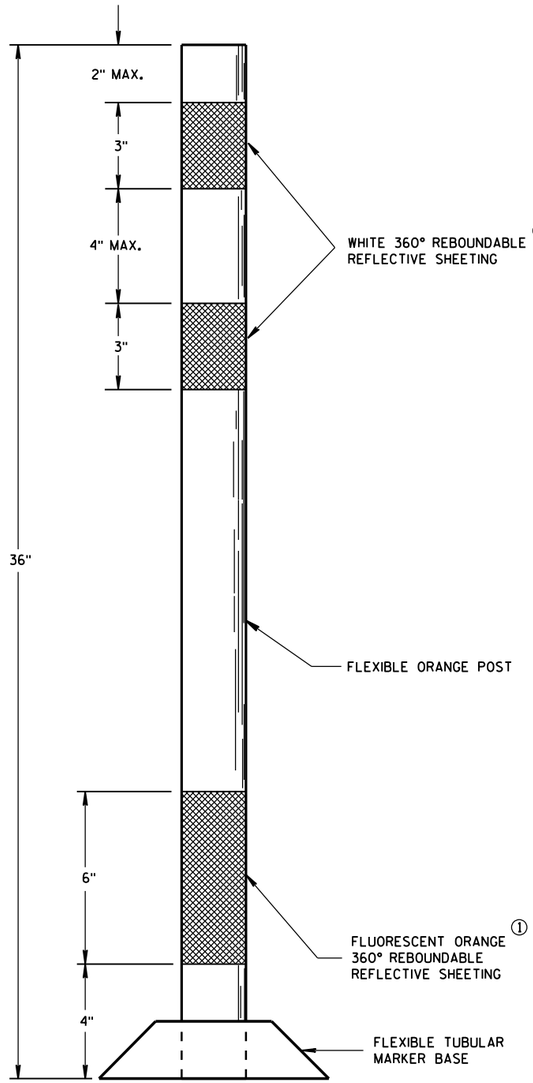
⇨ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)



FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER



FLEXIBLE
TUBULAR MARKER POST
WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

6

S.D.D. 15 C 11-7a

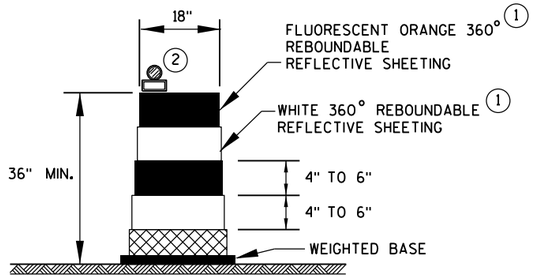
CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

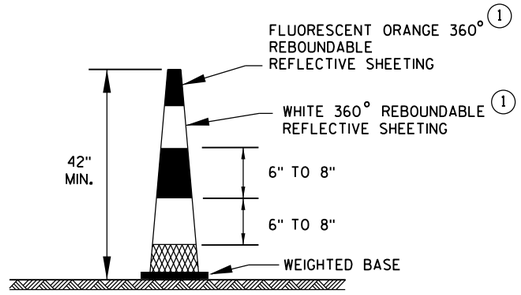
APPROVED
June 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGI
FHWA

6

S.D.D. 15 C 11-7a



DRUM

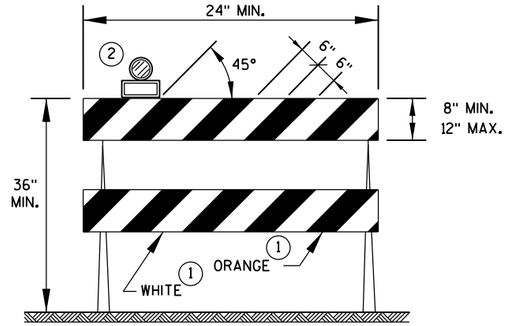


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

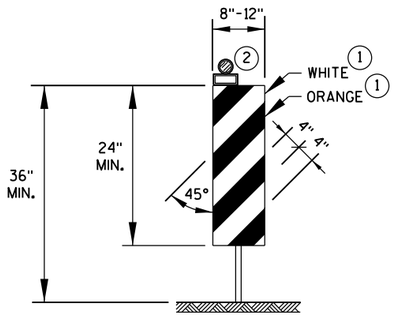
GENERAL NOTES

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.



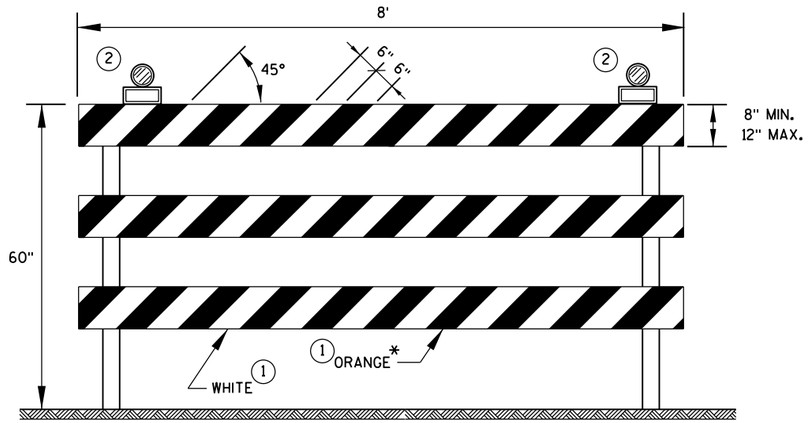
TYPE 2 BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



VERTICAL PANEL

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



TYPE 3 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.

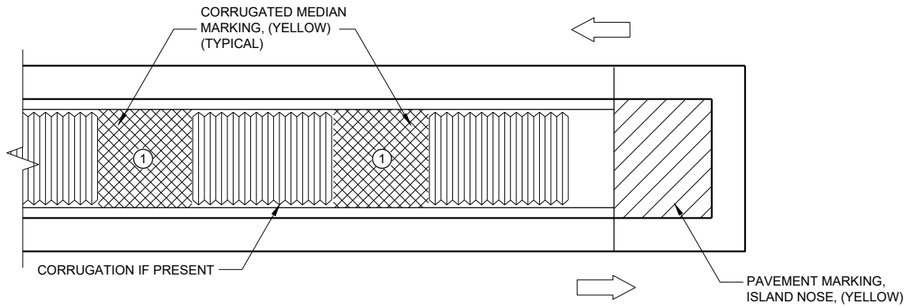
CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

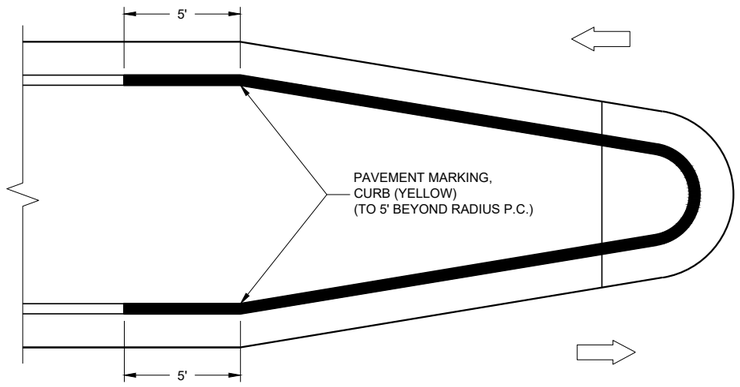
APPROVED
June 2017 — DATE
/S/ Andrew Heidtke — WORK ZONE ENG
FHWA

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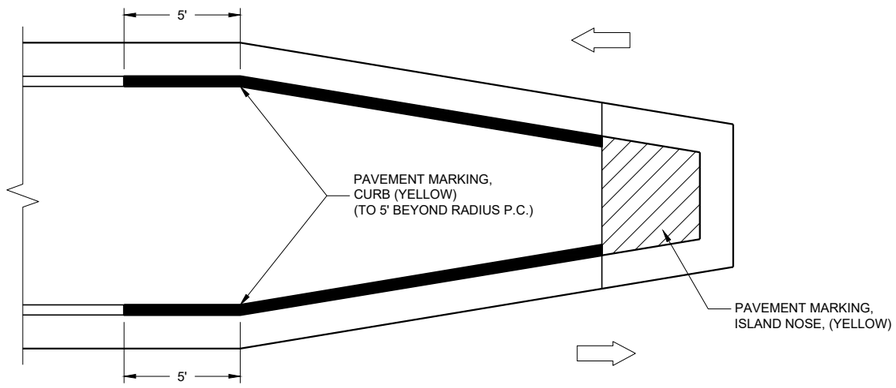
S.D.D. 15 C 11-7b



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE

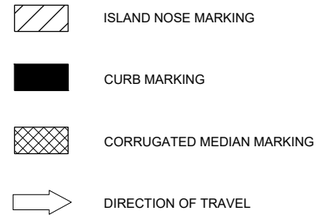


MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF
PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



PAVEMENT MARKINGS
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAF
ENGINEER

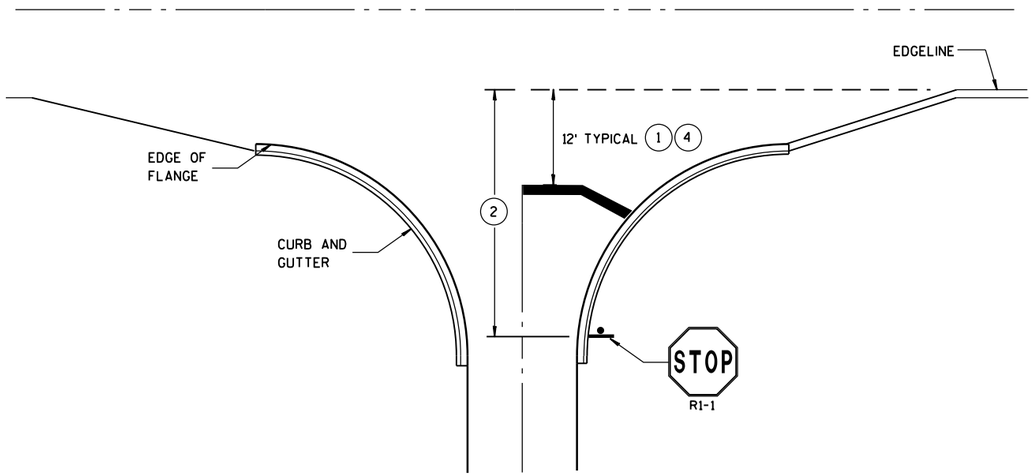
FHWA

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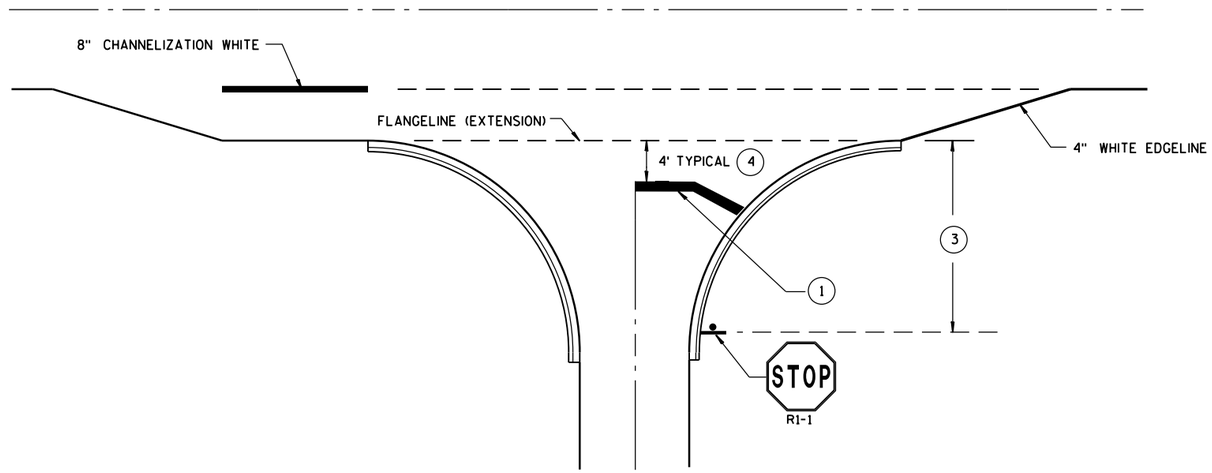
SDD 15C27 - 03b

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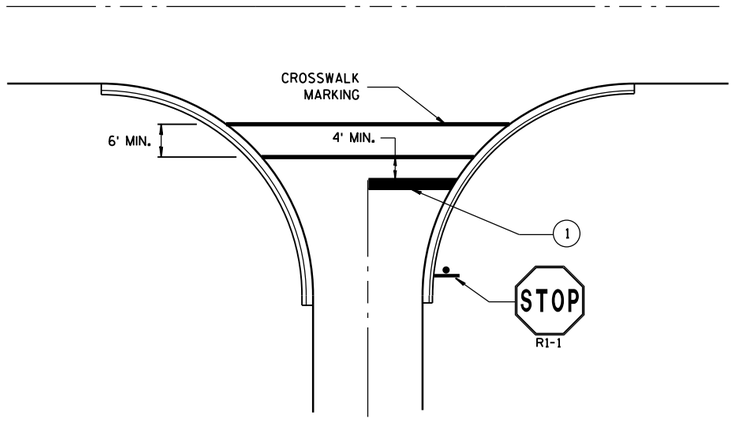
SDD 15C27 - 03b



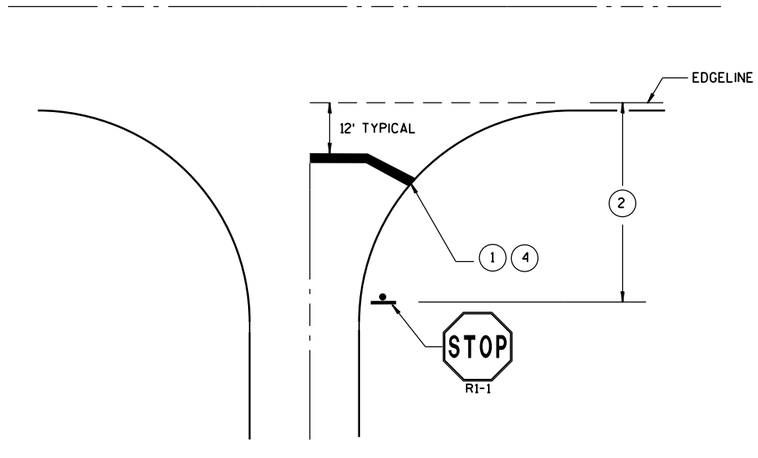
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

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 PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.

(2) IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.

(3) IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.

(4) MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

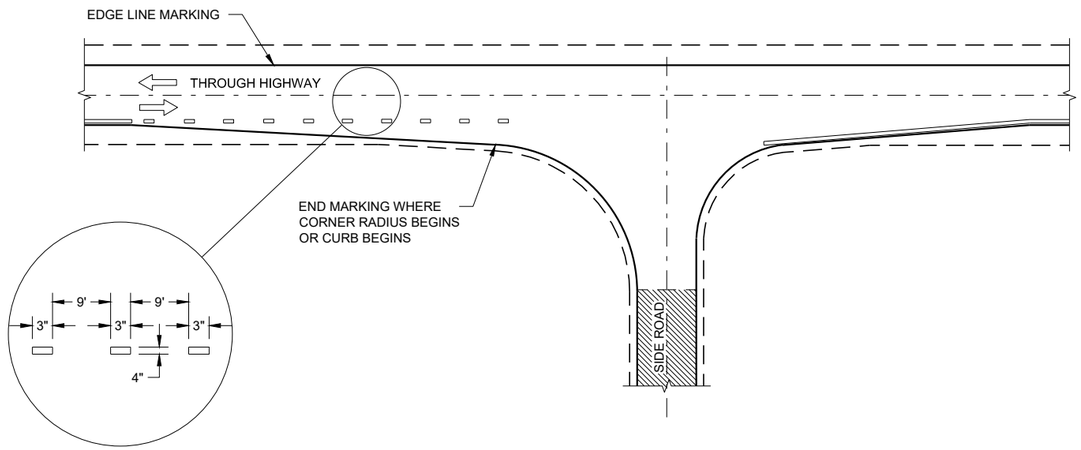
Sept., 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]NEER

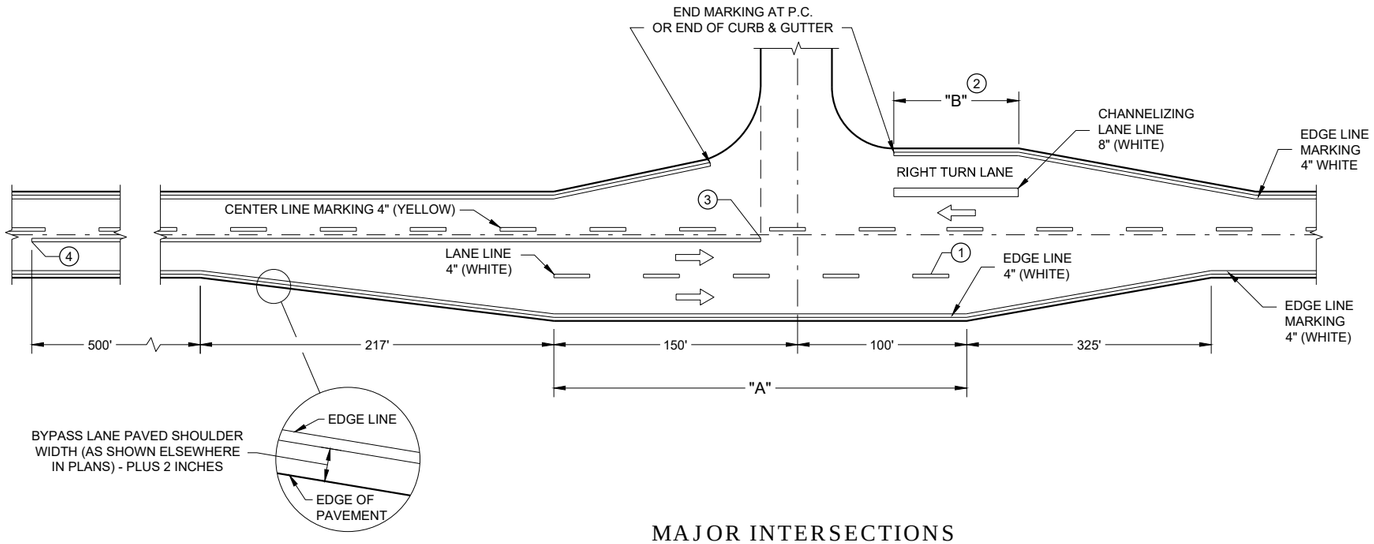
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S.D.D. 15 C 33-3



MINOR INTERSECTION



MAJOR INTERSECTIONS

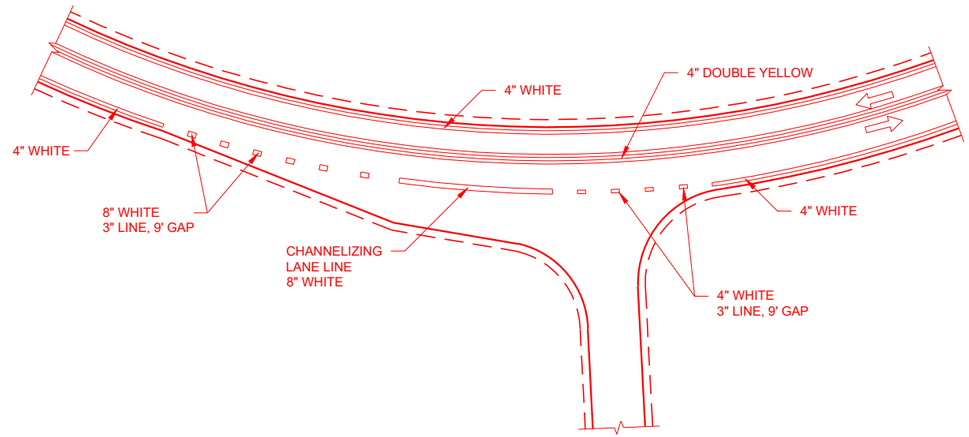
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

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

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

6

6

SDD 15C35 - 03a

SDD 15C35 - 03a

PAVEMENT MARKING
(INTERSECTIONS)

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

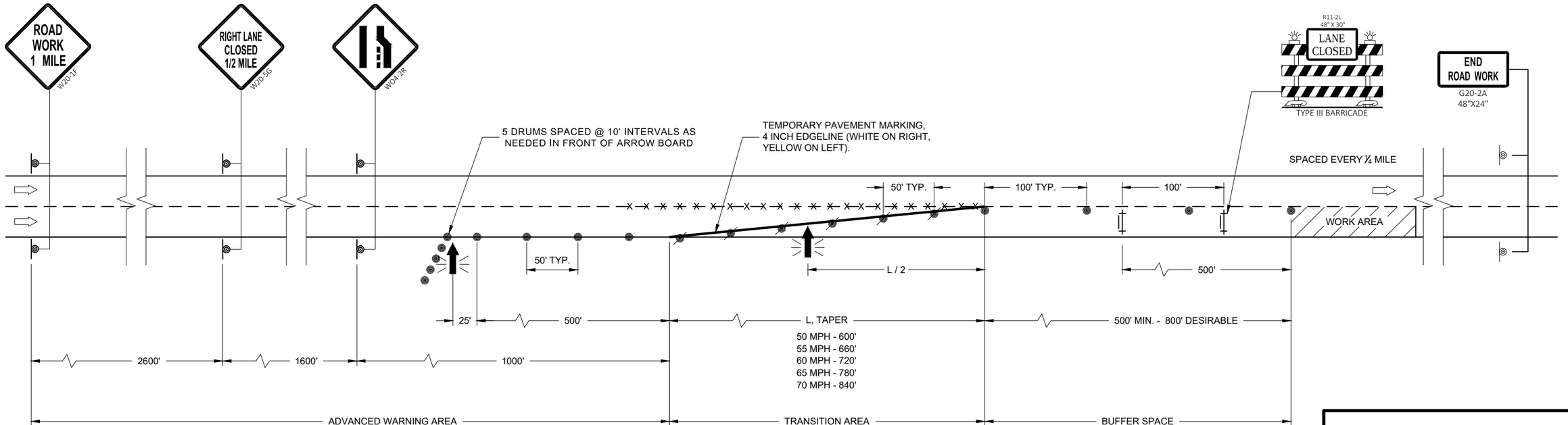
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

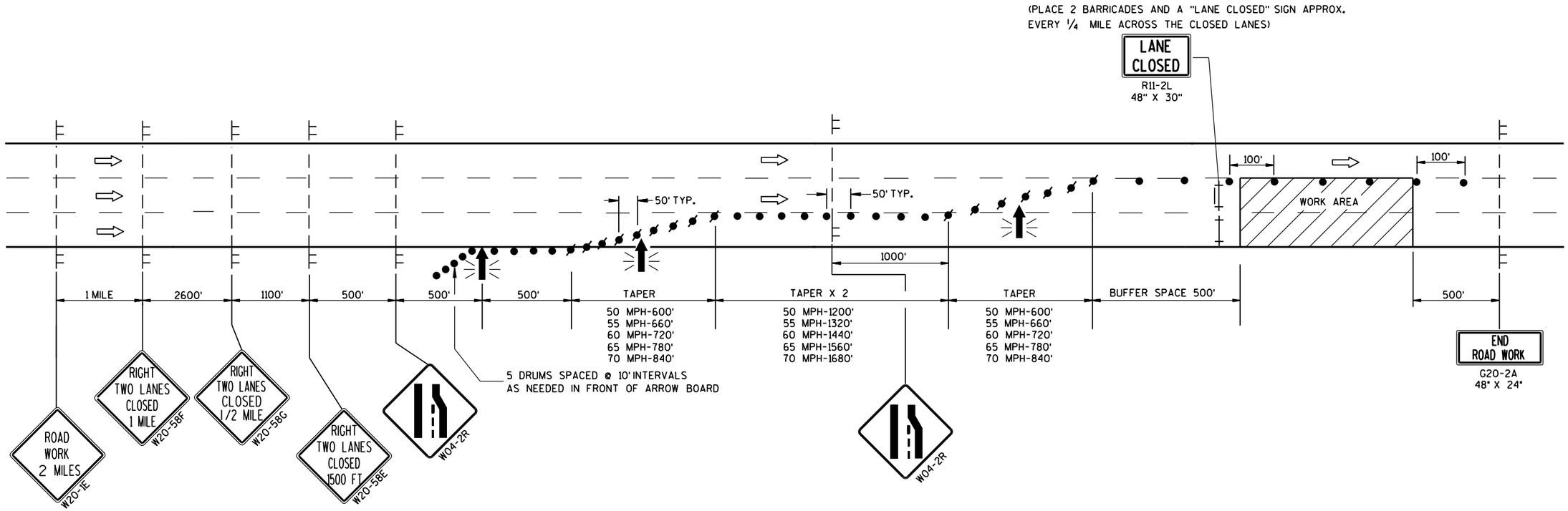
FHWA

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SDD 15D12 - 07a

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SDD 15D12 - 07a



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING THE LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

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

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.

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

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

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

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

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM (LESS THAN 24 HOURS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 14, 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE TRAFFIC SAFETY ENGR
FHWA

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S.D.D. 15 D 14-3

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

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

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 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

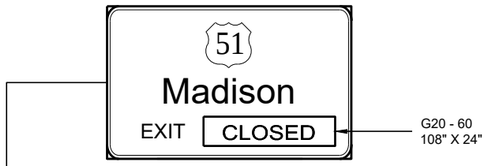
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROP OFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN WORK IS NOT IN PROGRESS.

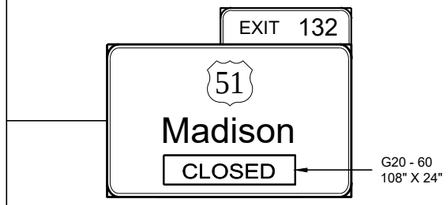
WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12 - HOUR DURATION.

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

** PLACE "RAMP CLOSED BEGINNING" SIGN OR PCMS 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



OR



PLACE SIGN G20 - 60 OVER MILEAGE ON EXISTING E1 - 1A SIGN



COVER ARROW ON EXISTING E4 - 1 SIGN (COVERING SIGNS TYPE I)

G20 - 61
120 ' X 30"

OR

PCMS MESSAGING

FRAME 1	FRAME 2
RAMP TO CLOSE	XXXDAY XX XX XX

TRAFFIC CONTROL EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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SDD 15D16 - 04

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

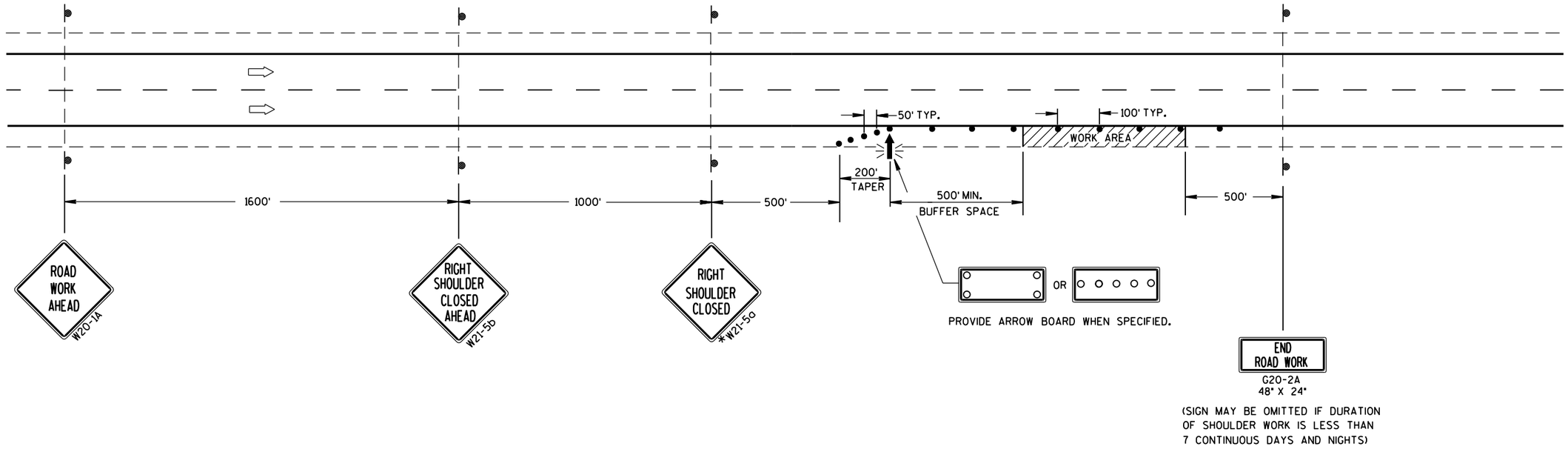
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

WHEN A 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.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

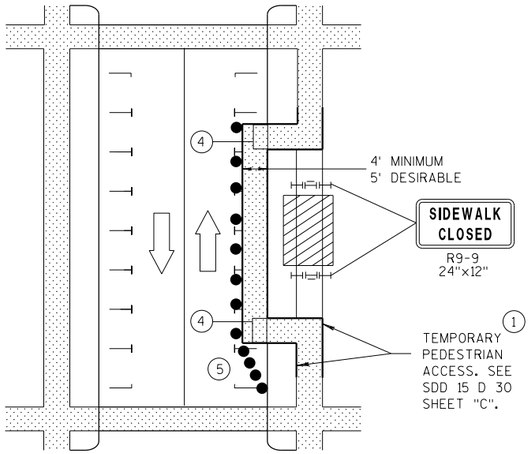
June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible]FIC SAFETY ENGI[illegible]
FHWA

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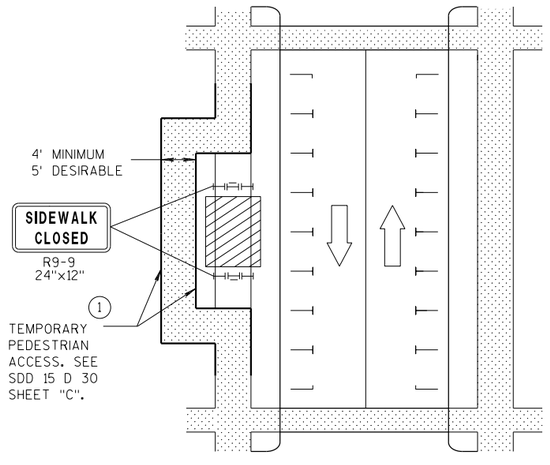
S.D.D. 15 D 27-3

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

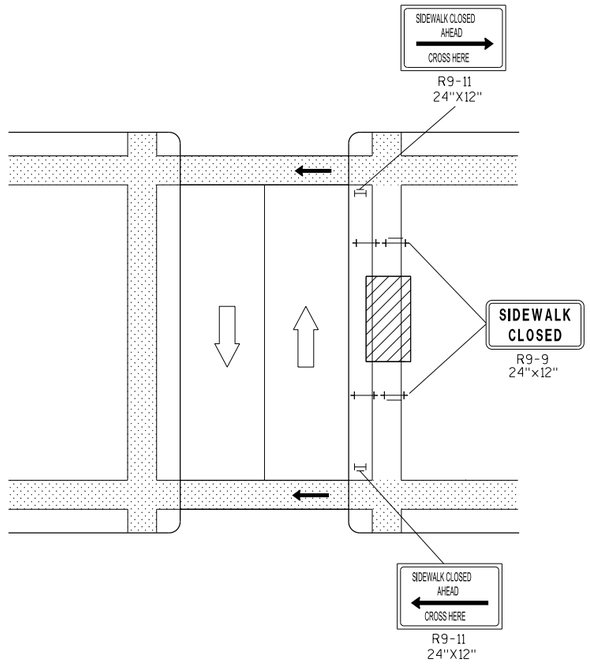


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

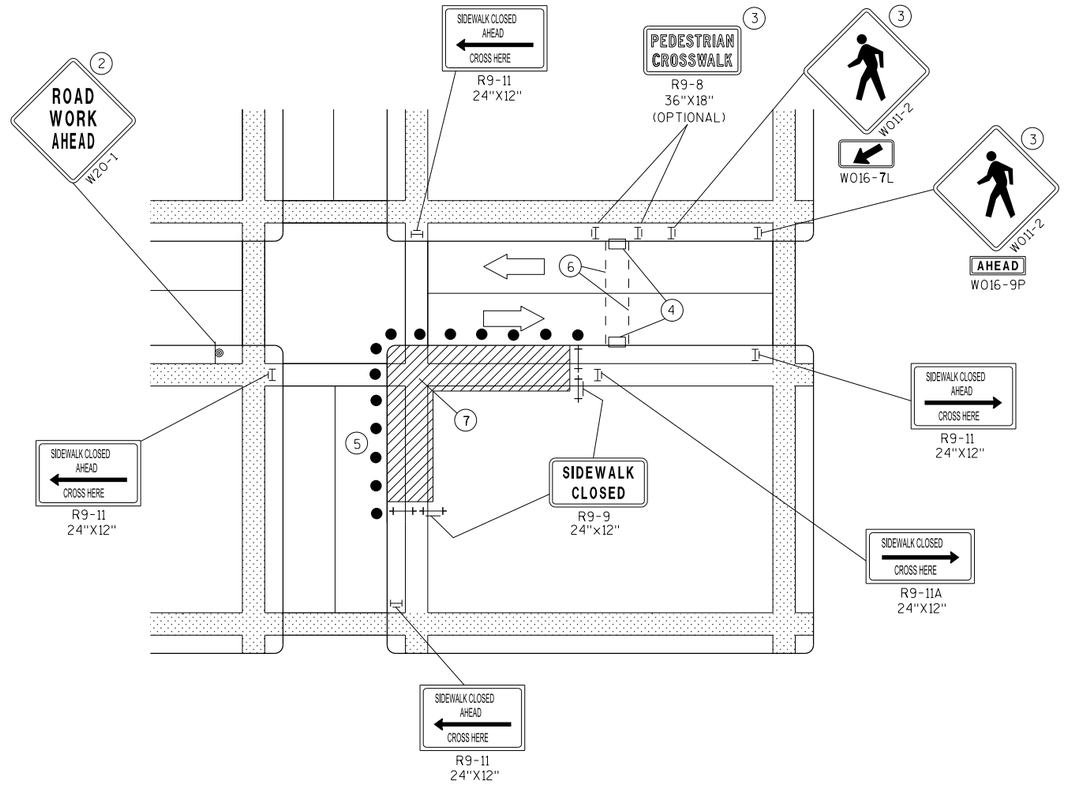
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.

(2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

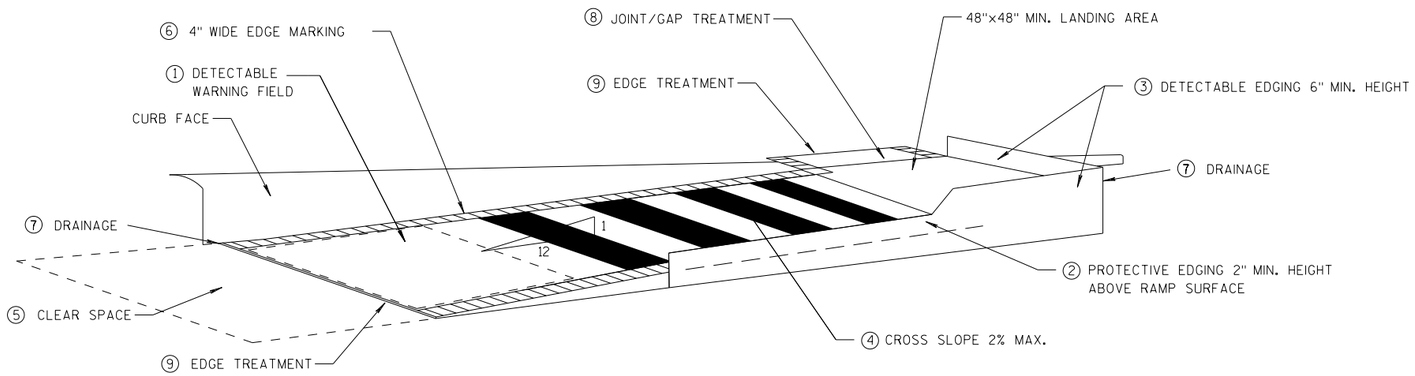
LEGEND

- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

6

S.D.D. 15 D 30-4a



TEMPORARY CURB RAMP PARALLEL TO CURB

GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".

② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

④ CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

⑤ CLEAR SPACE OF 48"X48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

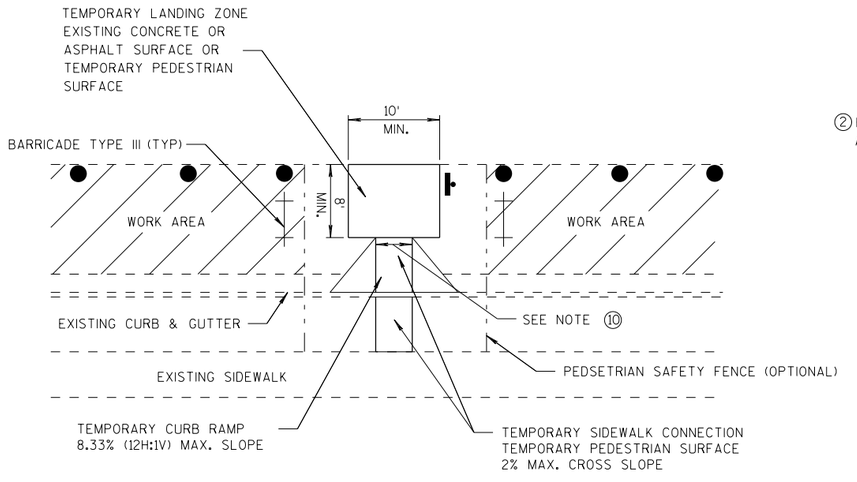
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

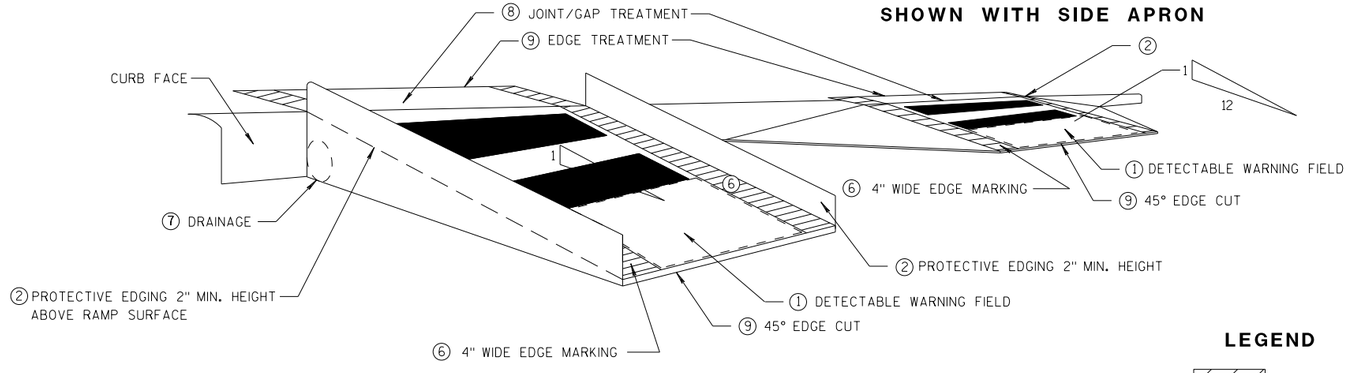
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

⑨ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

⑩ 5' WIDE MIN. WITH PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



TEMPORARY BUS STOP PAD



SHOWN WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

WORK AREA

TYPE III BARRICADE

TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

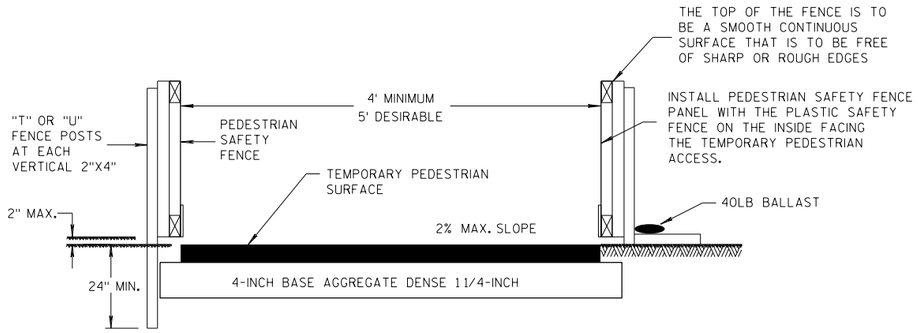
7/2018 DATE

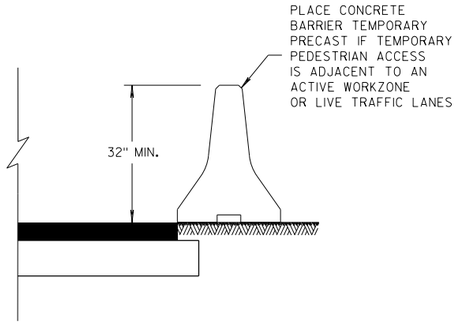
/S/ Andrew Heidtke
WORK ZONE ENG

FHWA

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S.D.D. 15 D 30-4b

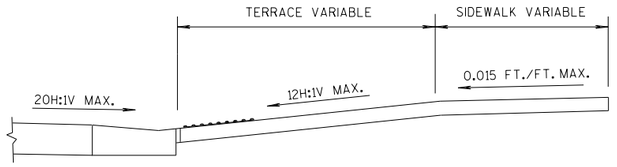




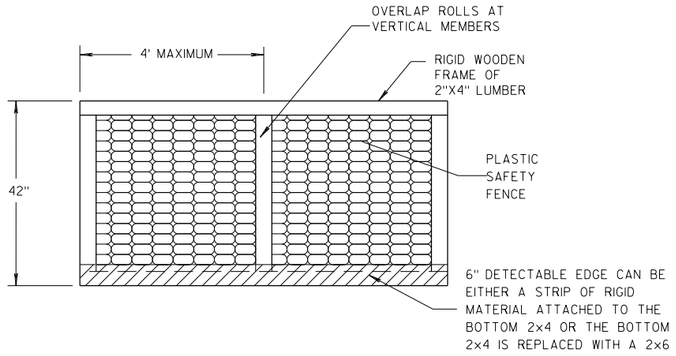
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

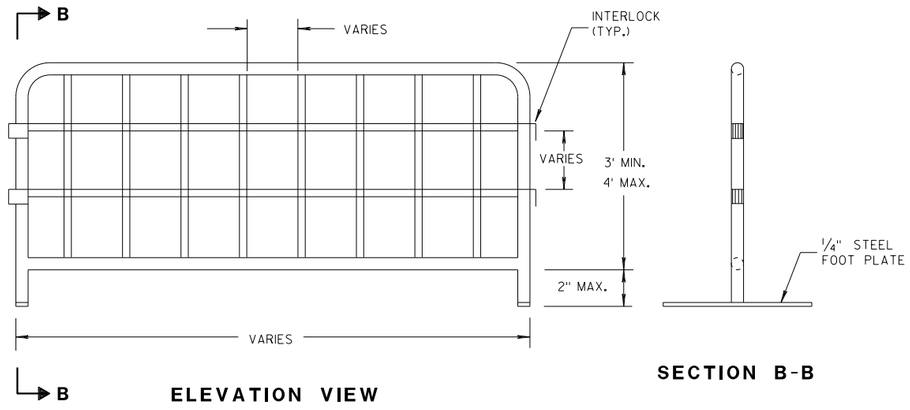
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



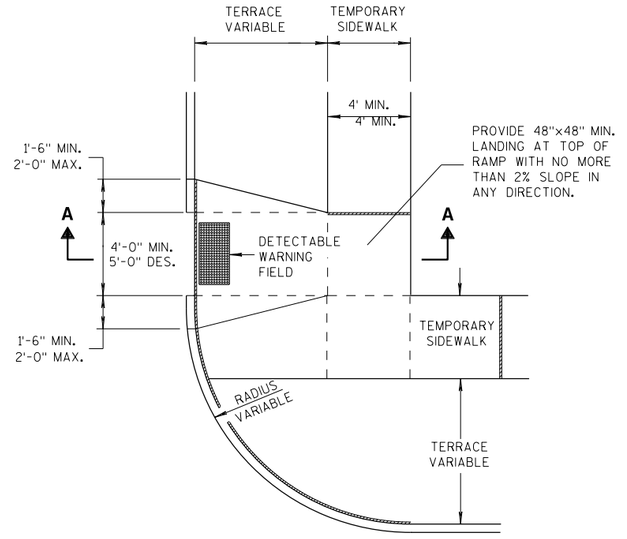
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

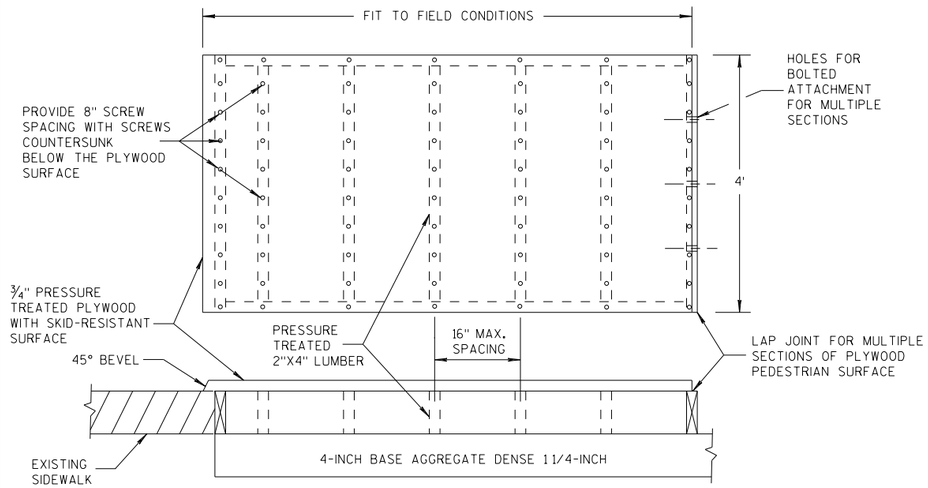
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



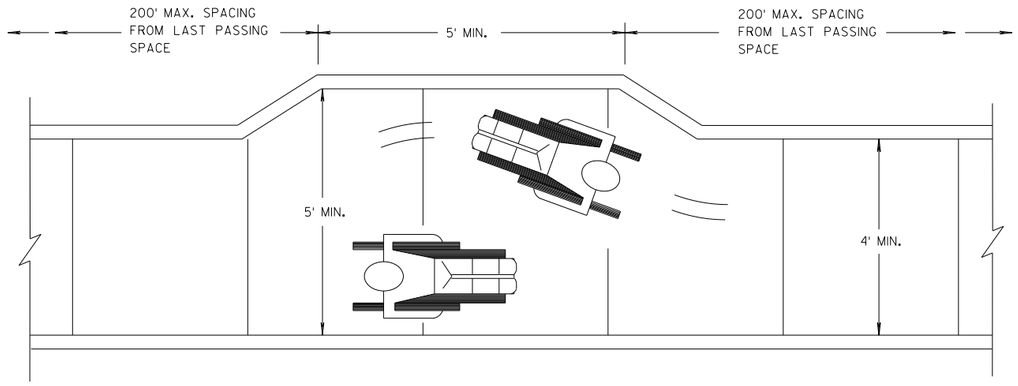
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



NARROW SIDEWALK PASSING DETAIL

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

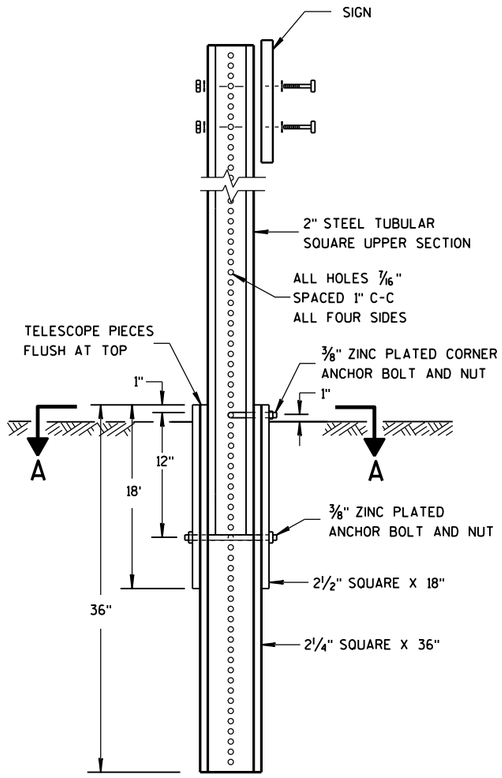
APPROVED

7/2018
DATE

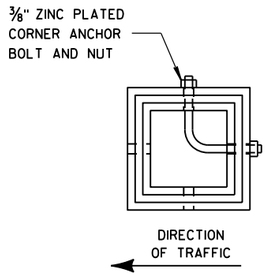
/S/ Andrew Heidtke
WORK ZONE ENG

FHWA

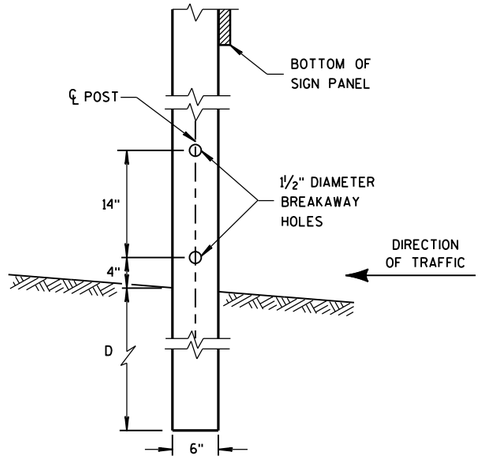
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S.D.D. 15 D 30-4c



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



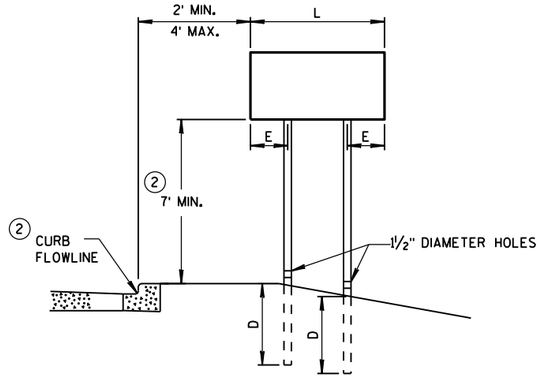
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

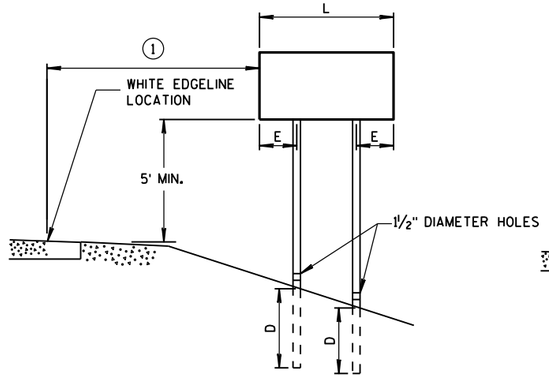
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

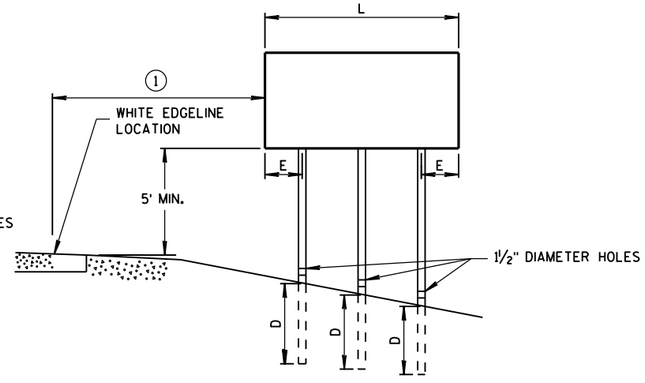
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

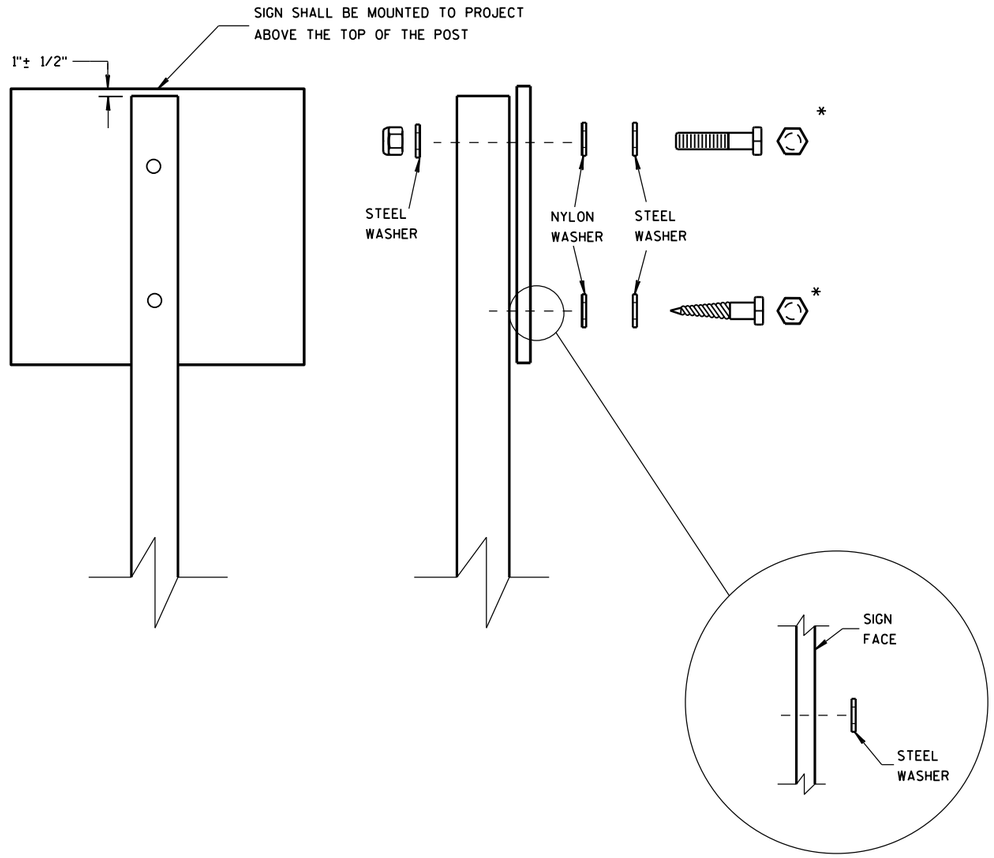
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

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

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

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

WASHERS (ALL POSTS) -

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

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

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S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

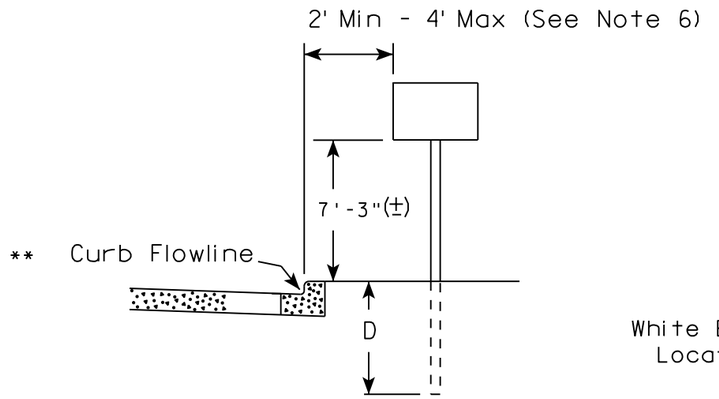
APPROVED

June 2017
DATE

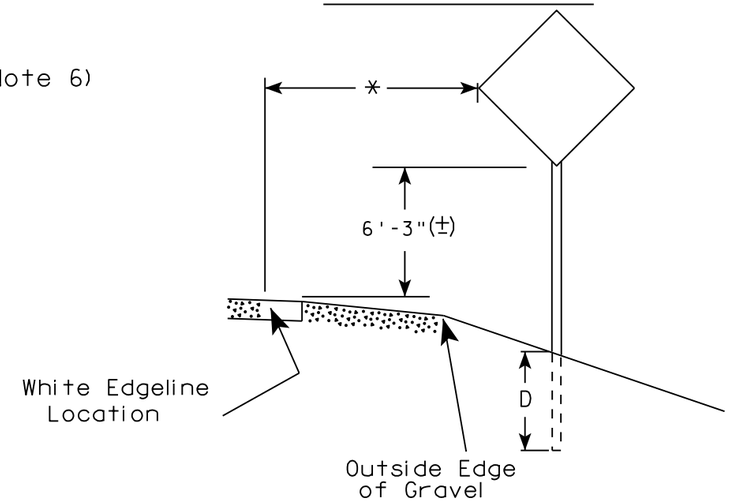
/S/ Andrew Heldtke
WORK ZONE ENG

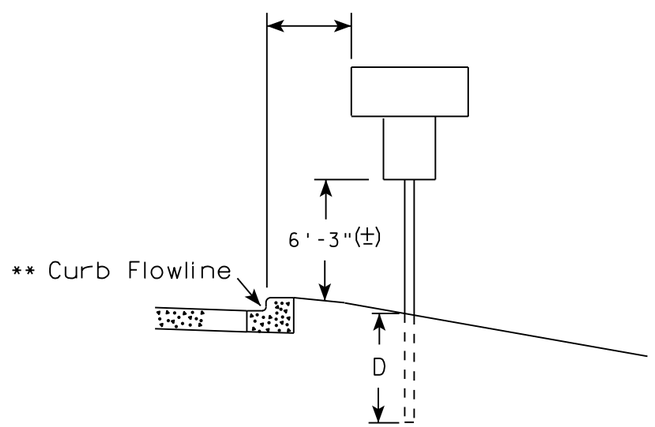
FHWA

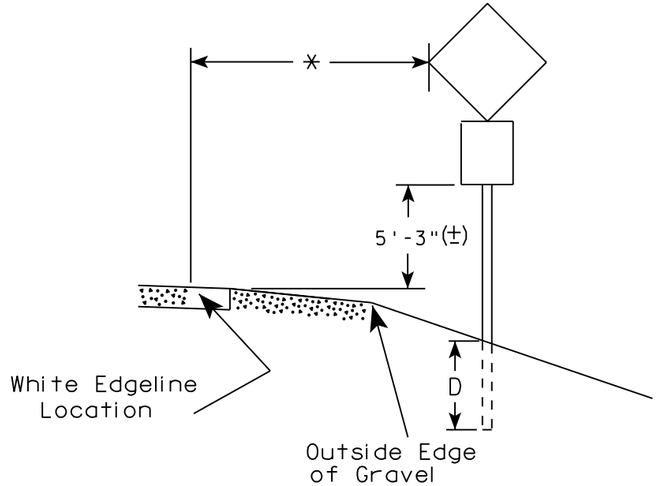
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

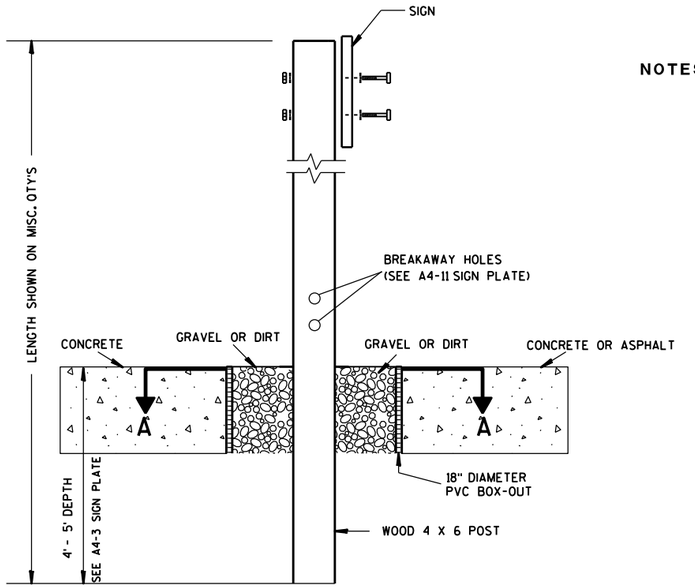
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

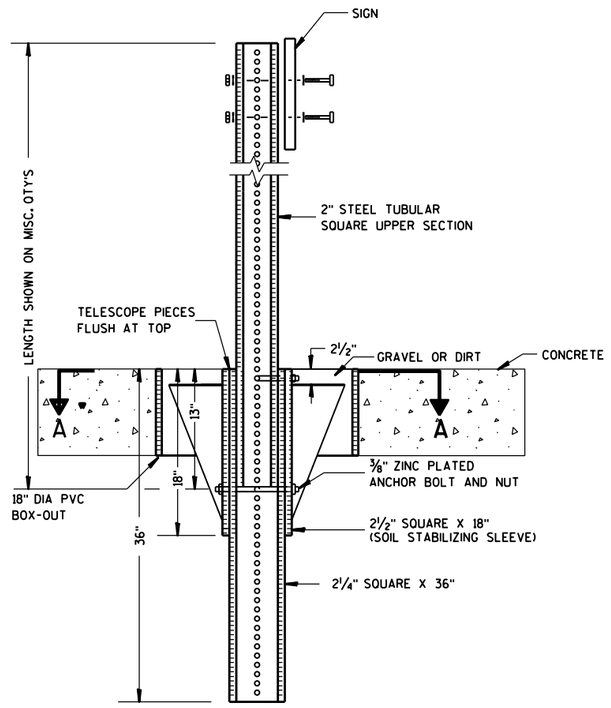
DATE 8/21/17 PLATE NO. A4-3.21



ELEVATION VIEW

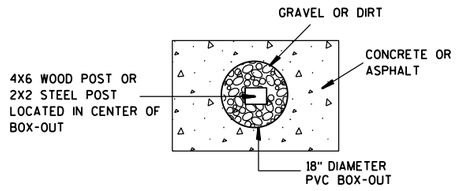
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

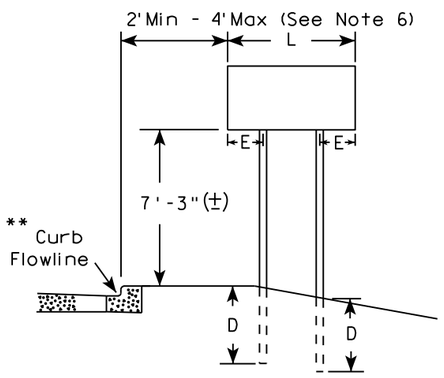
APPROVED Matthew R Rauch
for State Traffic Engineer

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

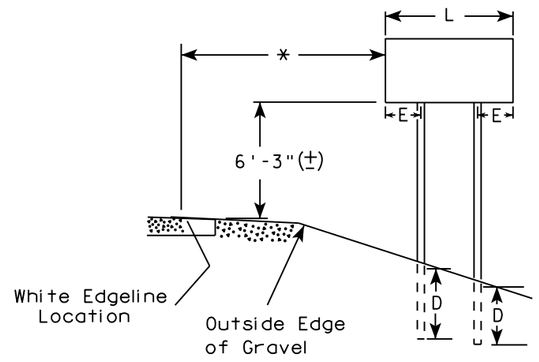
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

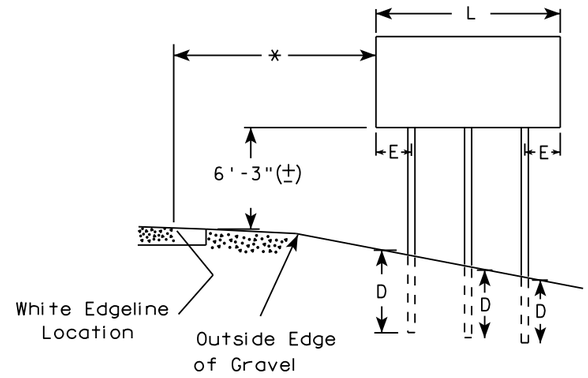
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

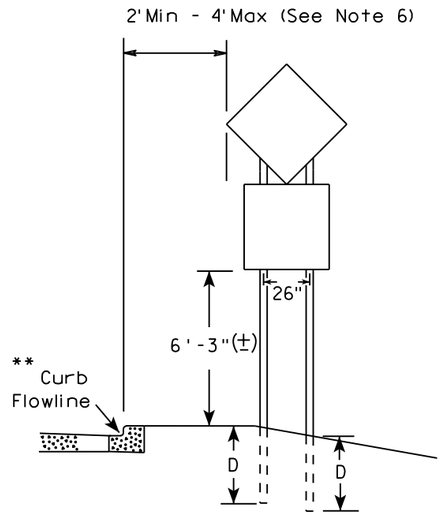
URBAN AREA



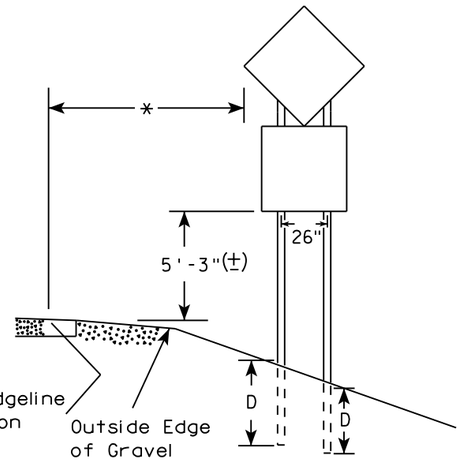
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

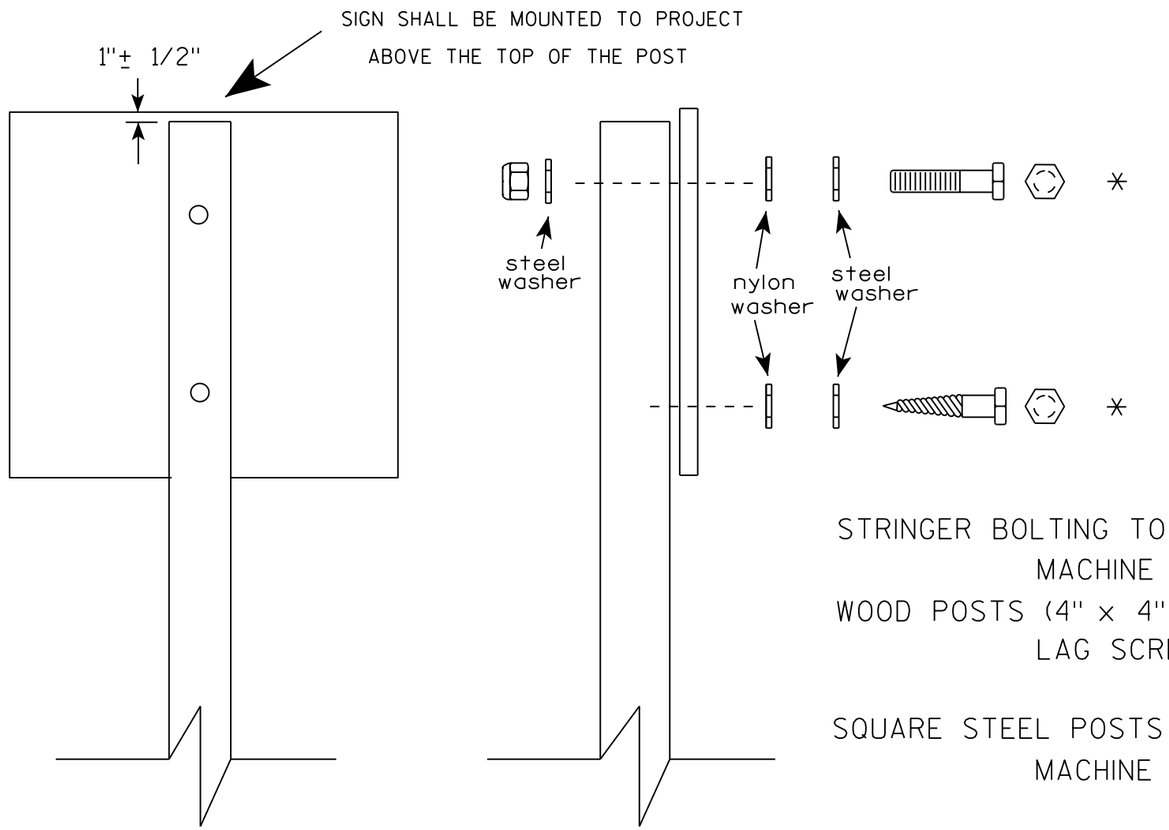
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 180	E



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

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

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

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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

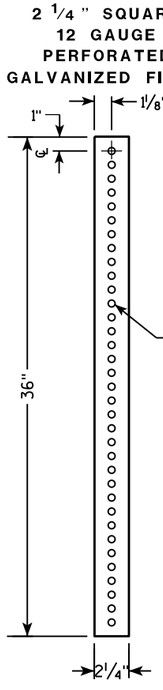
DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

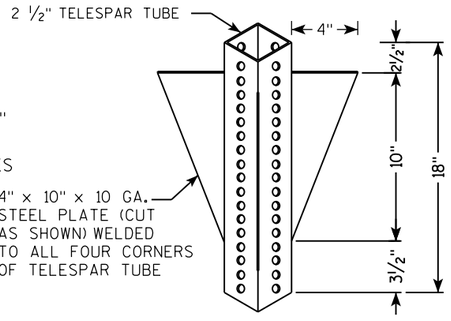
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

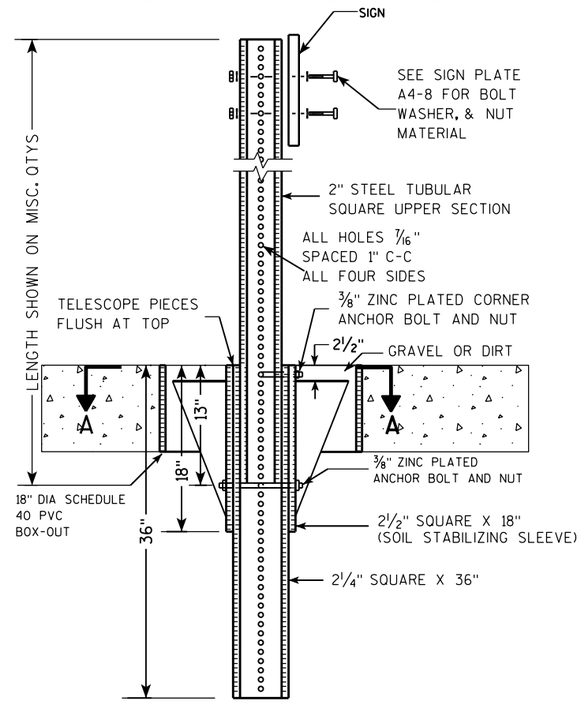
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



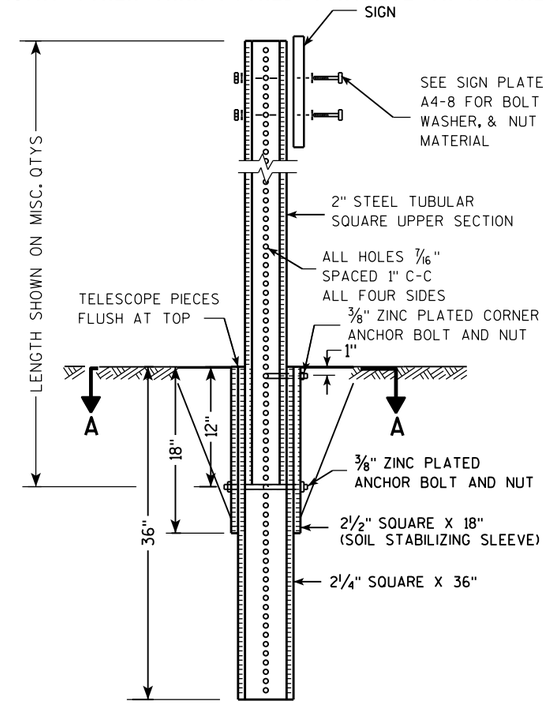
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

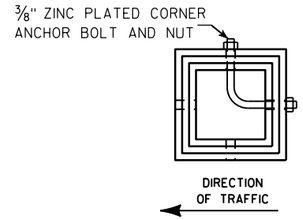


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

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

TUBULAR STEEL
SIGN POST
A4-9

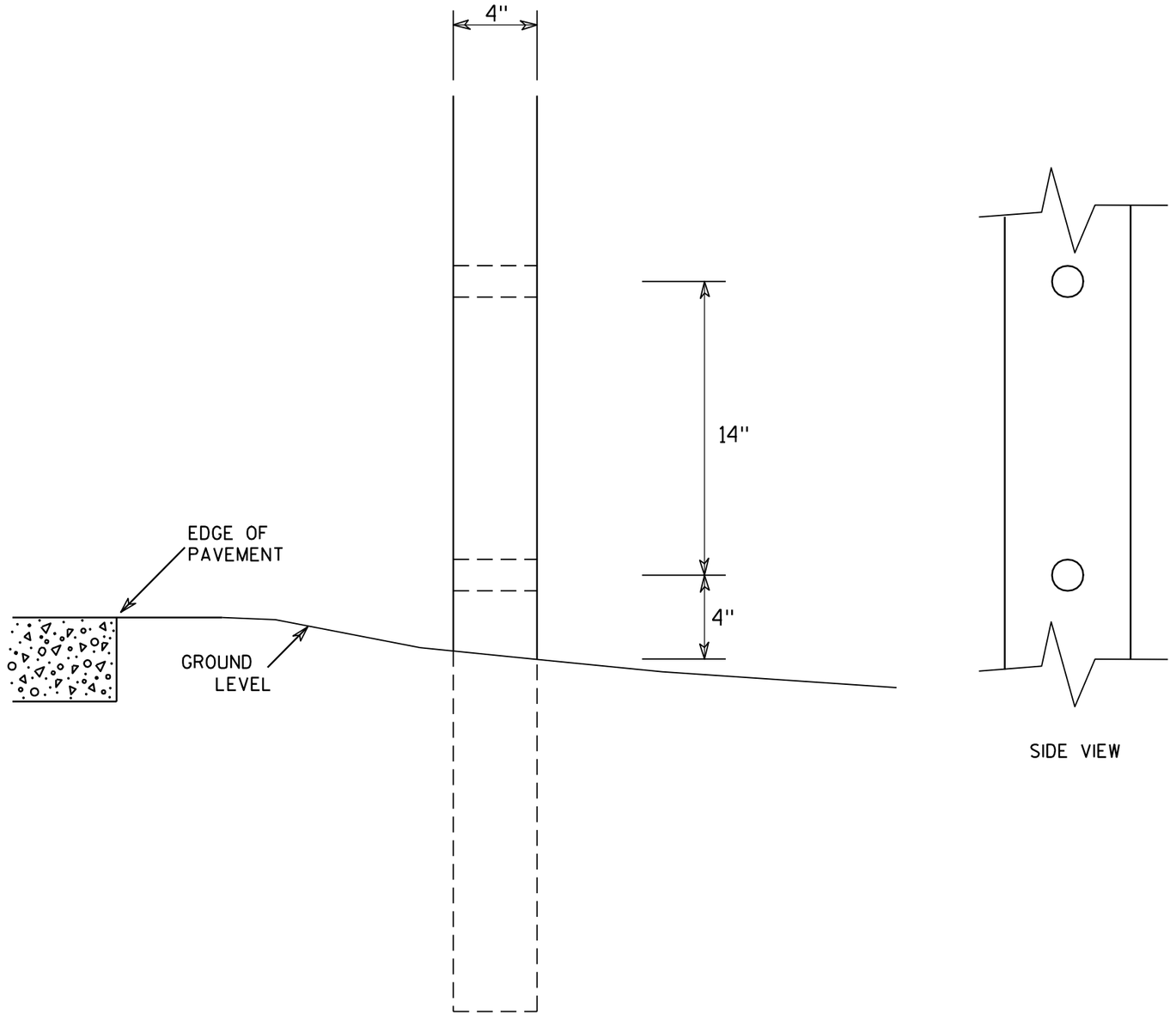
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

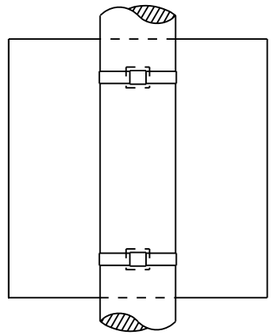
APPROVED Chester J Spang for State Traffic Engineer

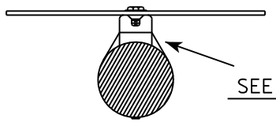
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 183	E

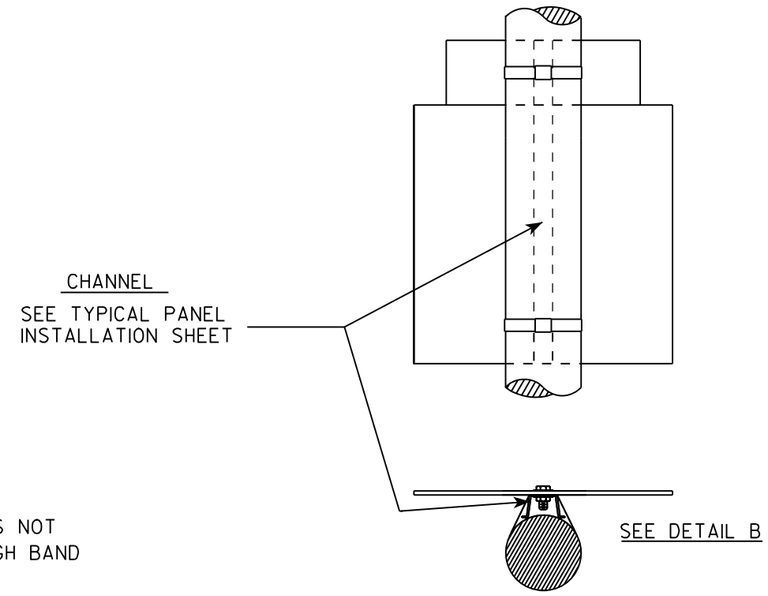
BANDING

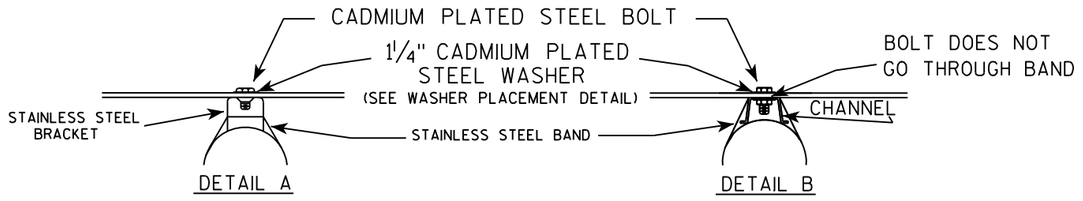
SINGLE SIGN



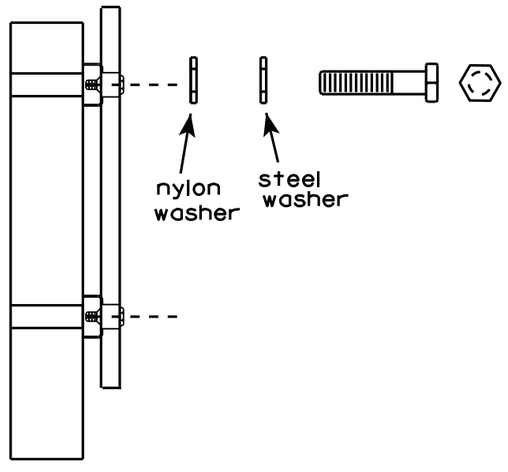


"J" ASSEMBLY





WASHER PLACEMENT



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

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

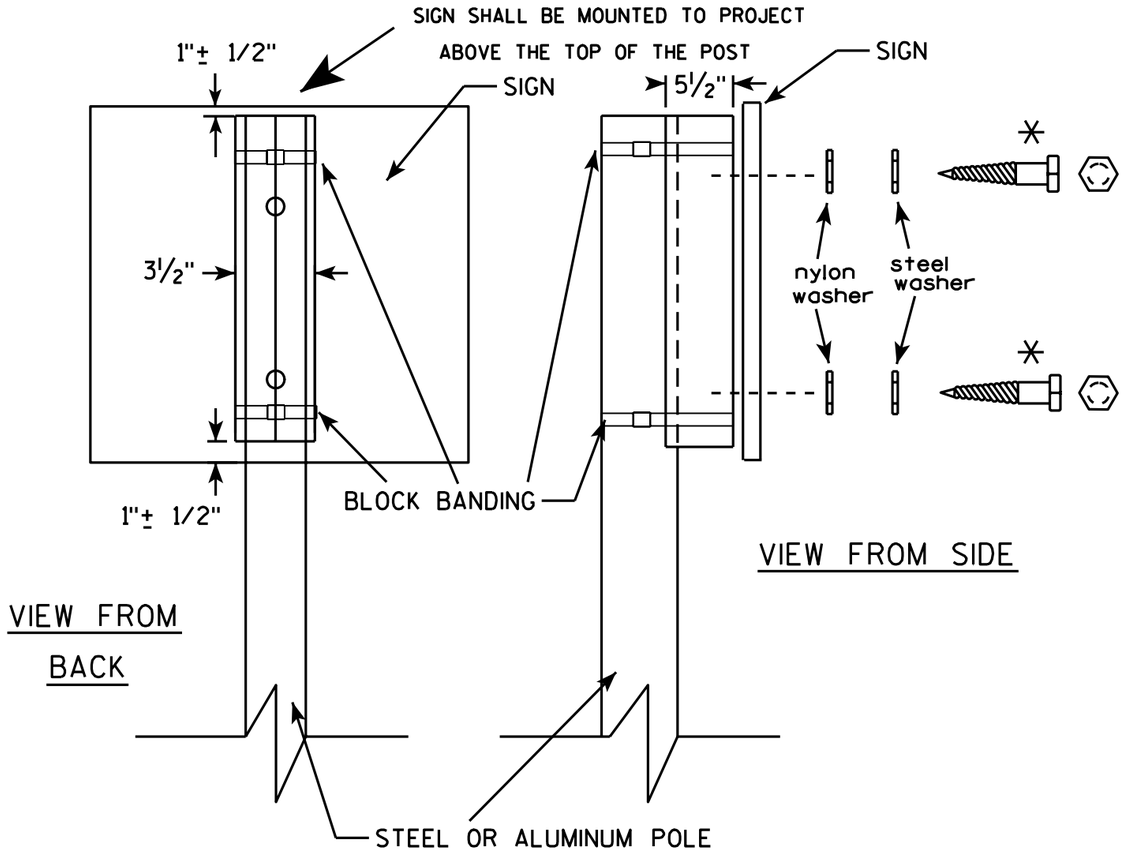
STANDARD SIGN
SIGN BANDING DETAILS

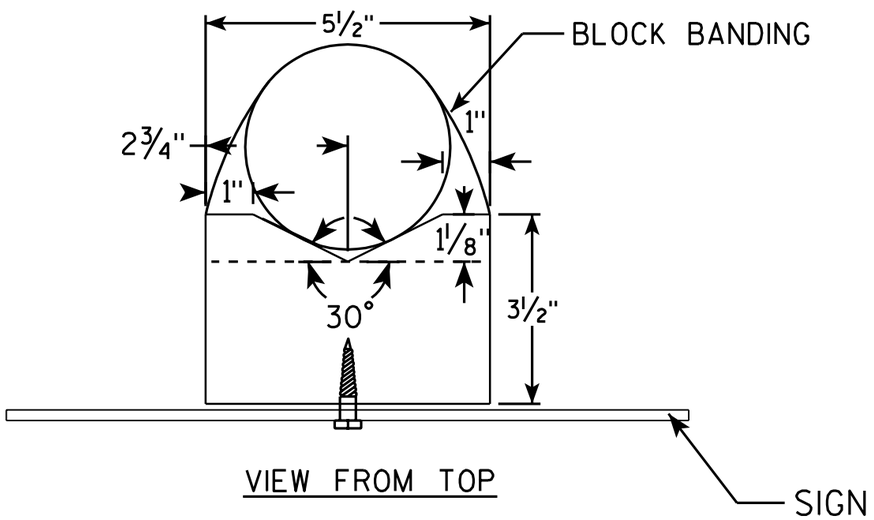
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 184	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

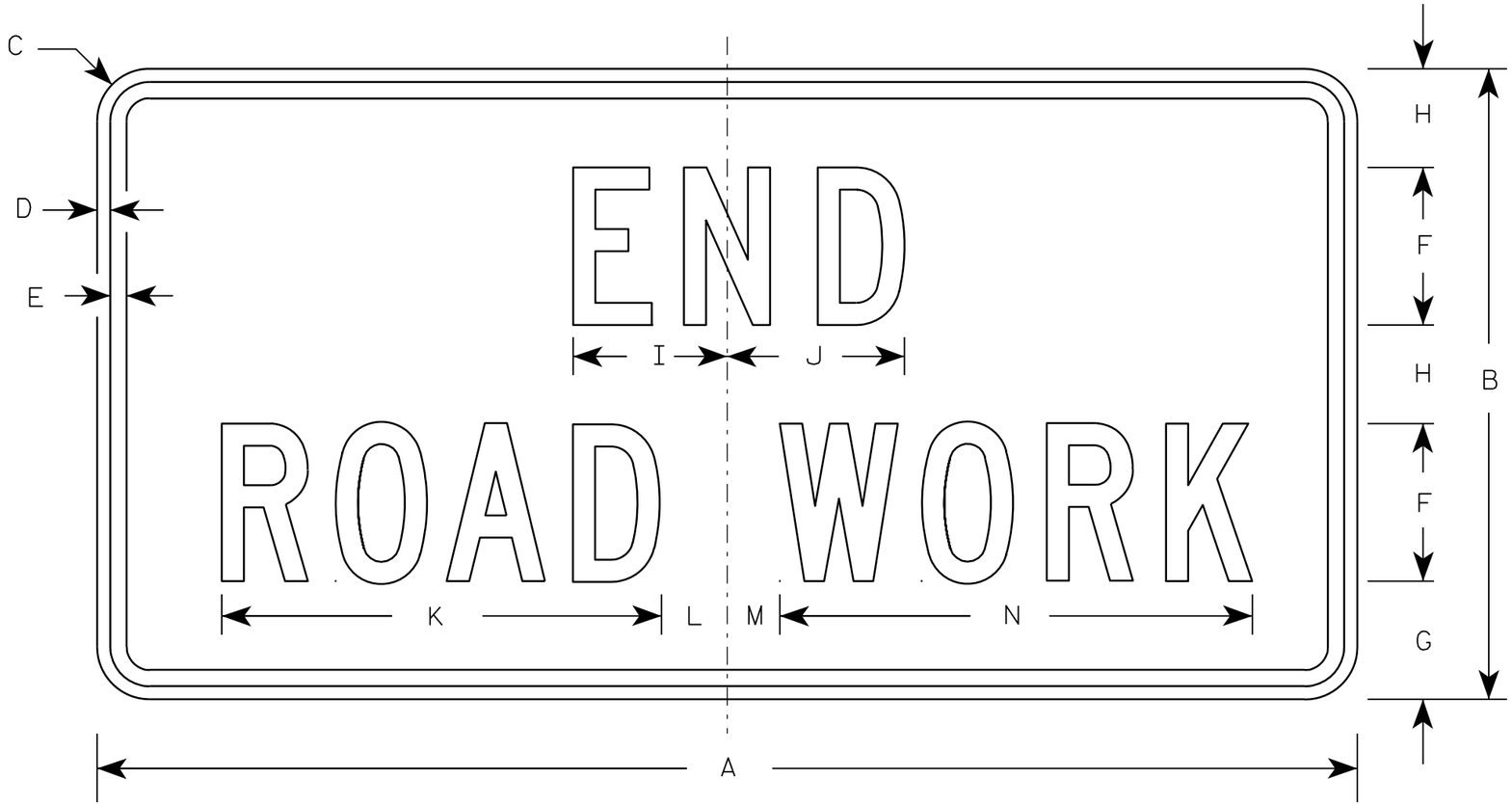
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 185 E

FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

WISDOT/CADDS SHEET 42



G20-2A

NOTES

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

Metric equivalent for this sign is:

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

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

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

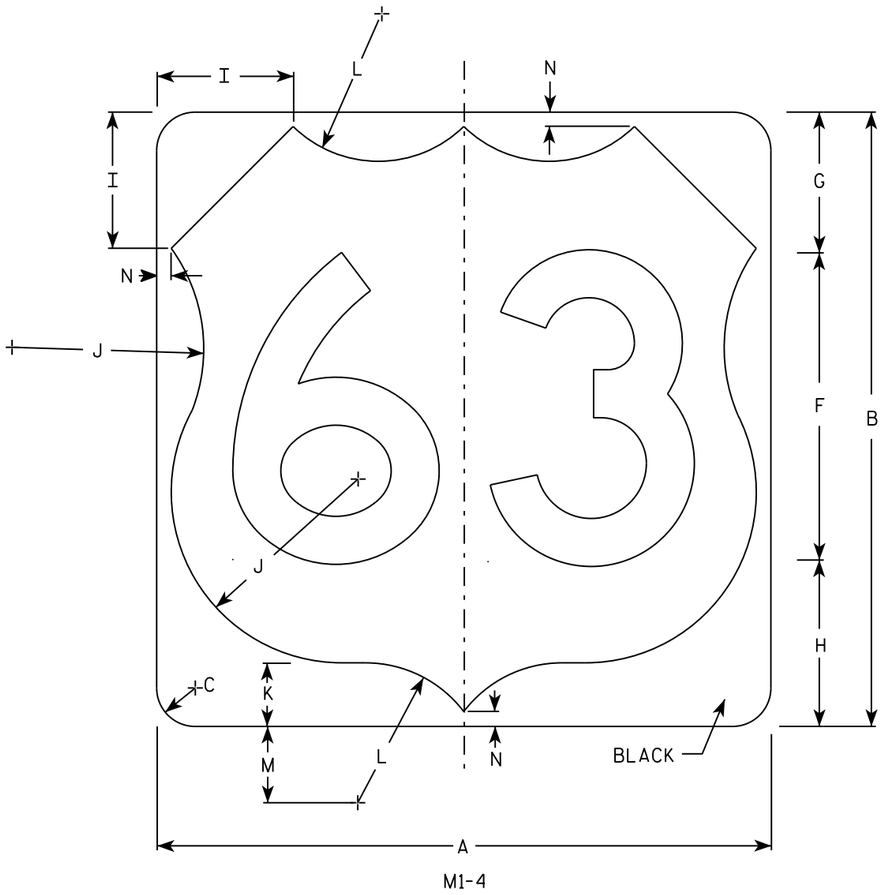
APPROVED Matthew R Rauch
for State Traffic Engineer

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

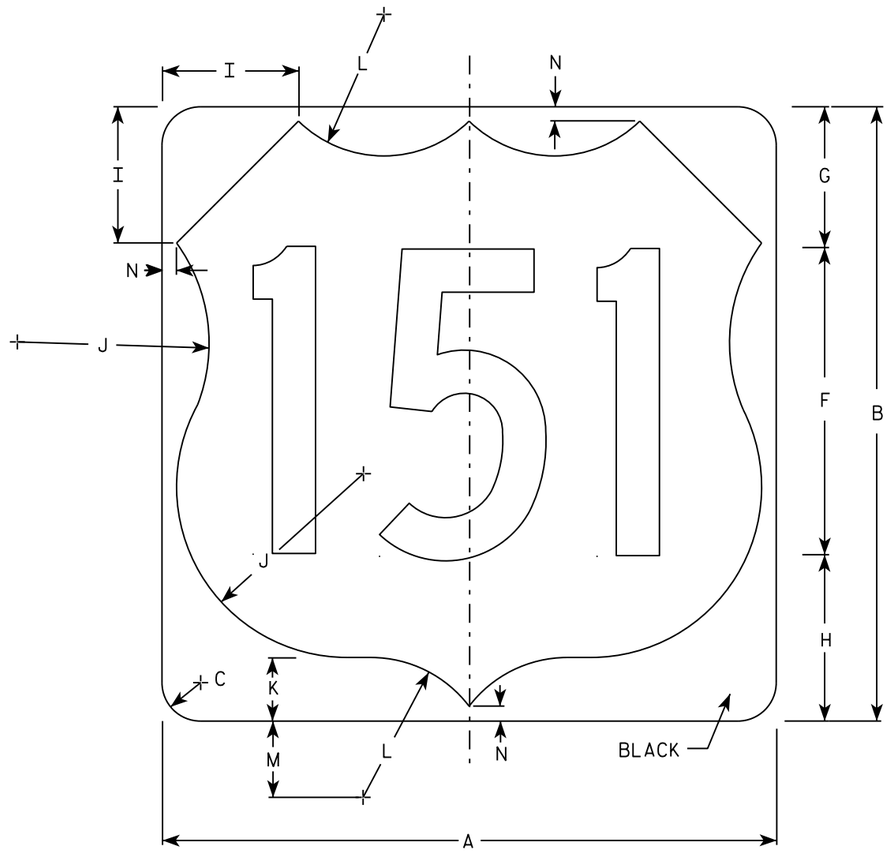
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 186	E

NOTES

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



M1-4



M1-4

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

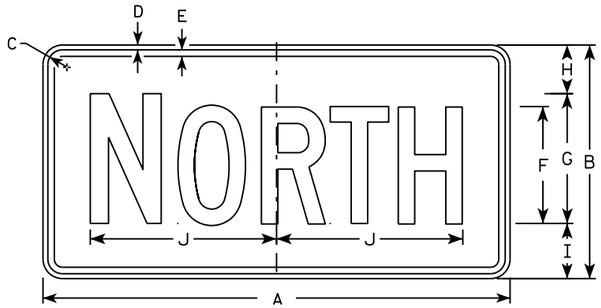
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

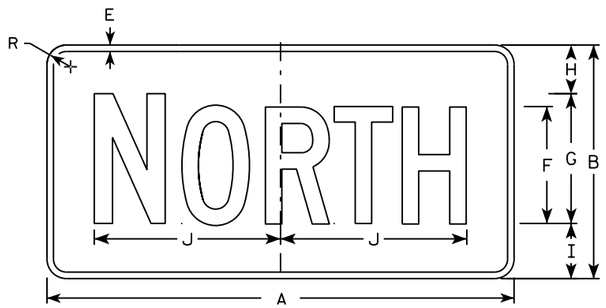
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-4.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 187	E



M3-1
MM3-1
MP3-1



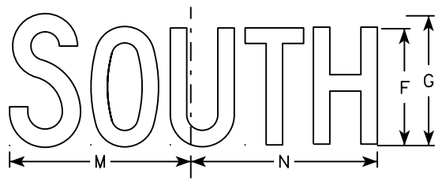
MB3-1
MK3-1
MN3-1



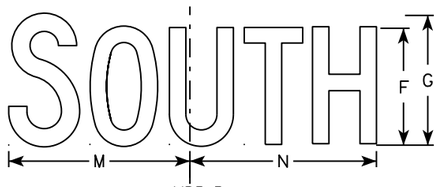
M3-2
MM3-2
MP3-2



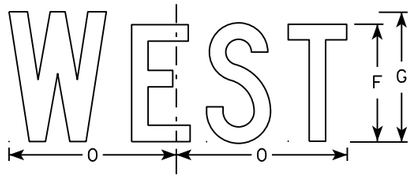
MB3-2
MK3-2
MN3-2



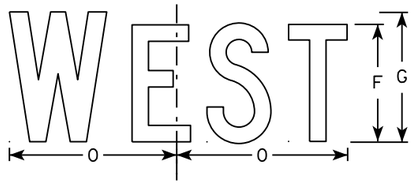
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

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

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

STANDARD SIGNS
M3-1 thur M3-4
SERIES

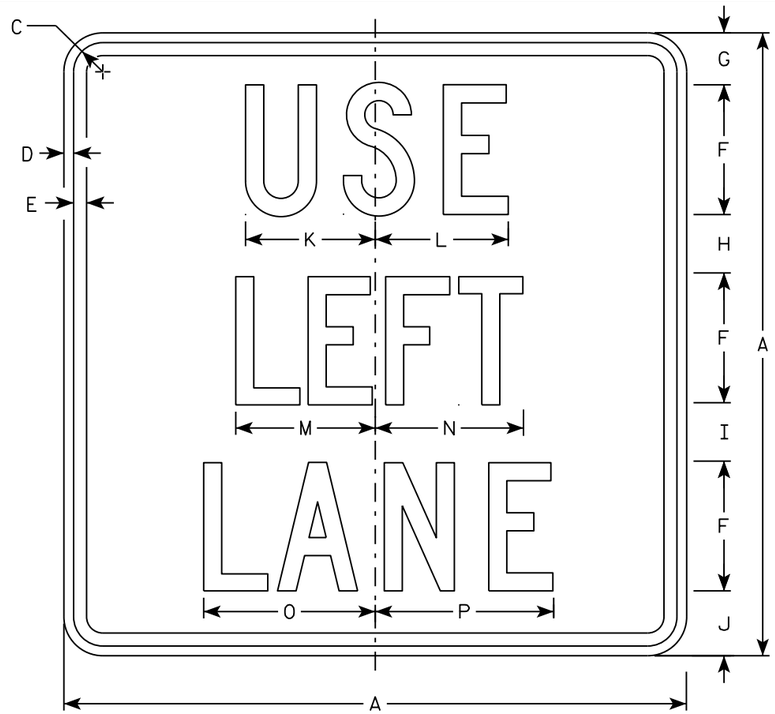
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

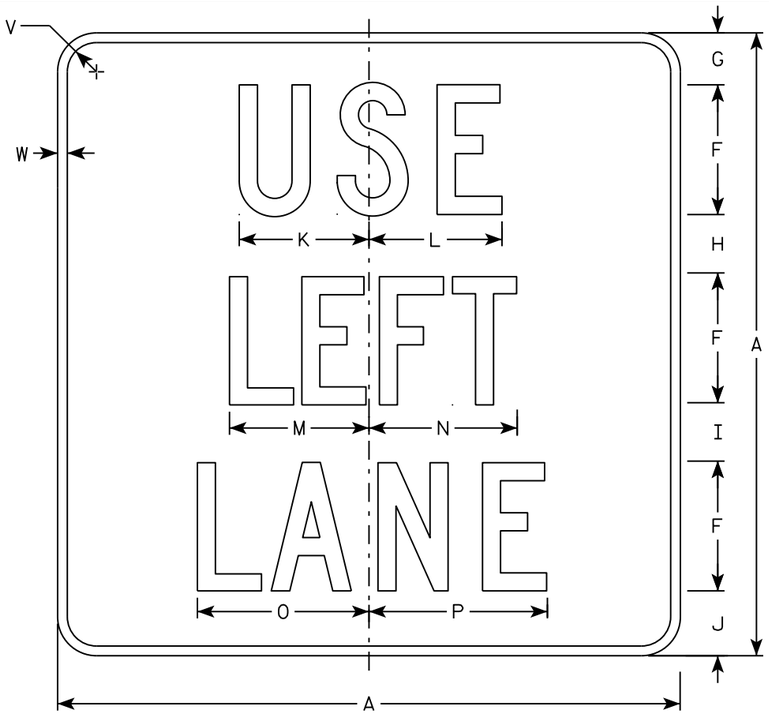
DATE 10/15/15 PLATE NO M3-1.14

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



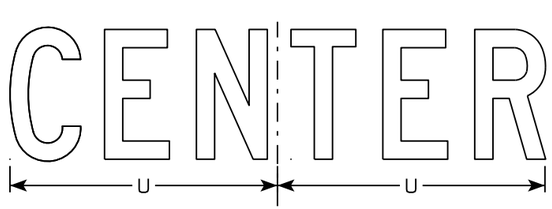
M4-20L



MB4-20L

M4-20L
MM4-20L
M04-20L
MP4-20L

MB4-20L
MK4-20L
MN4-20L
MR4-20L



M4-20C
MB4-20C
MK4-20C
MM4-20C
MN4-20C
M04-20C
MP4-20C
MR4-20C



M4-20R
MB4-20R
MK4-20R
MM4-20R
MN4-20R
M04-20R
MP4-20R
MR4-20R

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-20 Background - White
   Message - Black
   MB4-20 Background - Blue
   Message - White
   MK4-20 Background - Green
   Message - White
   MM4-20 Background - White
   Message - Green
   MN4-20 Background - Brown
   Message - White
   M04-20 Background - Orange - Type F Reflective
   Message - Black
   MP4-20 Background - White
   Message - Blue
   MR4-20 Background - Brown
   Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/8	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	5 3/8	5 3/4	6 5/8	6 7/8			7	7 5/8	10 1/4	1 1/2	1/2				4.0
3	36		1 5/8	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4	8	8 5/8	9 7/8	10 1/4			10 3/8	11 3/8	14 3/8	1 7/8	1/2				9.0
4																											
5																											

STANDARD SIGN
M4-20

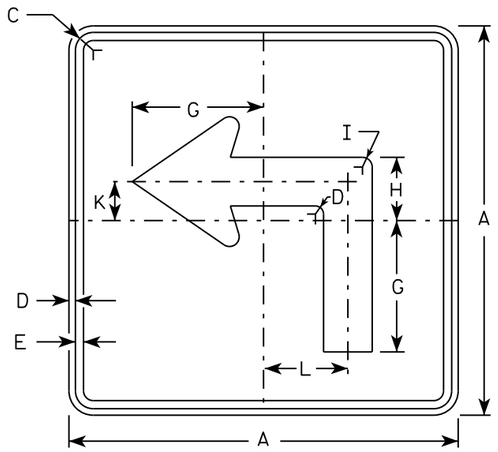
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

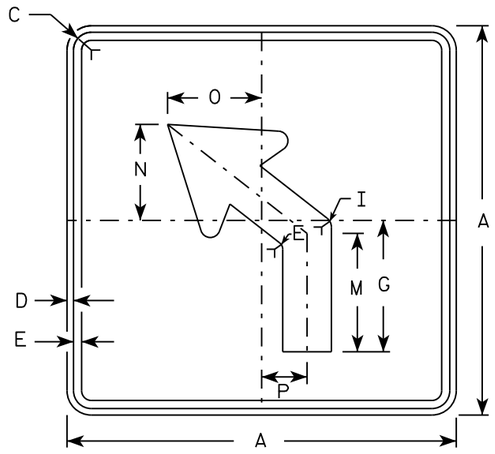
DATE 10/15/15 PLATE NO M4-20.5

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

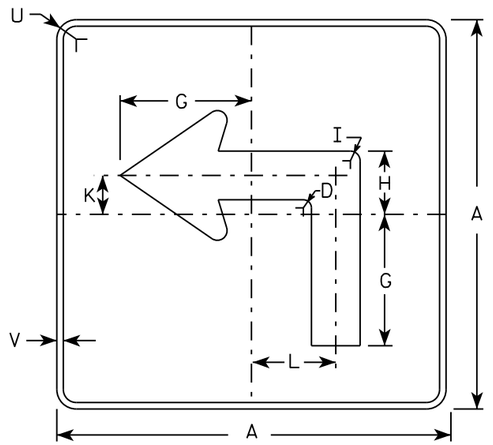
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M420.DGN PLOT DATE : 01-DEC-2015 18:03 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.837526:1.000000



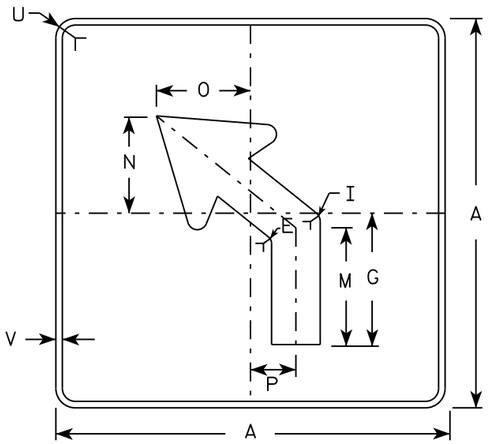
M5-1L
MM5-1L
MO5-1L
MP5-1L



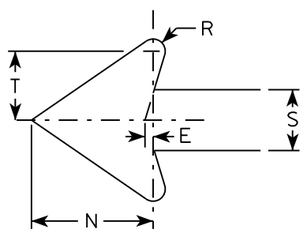
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

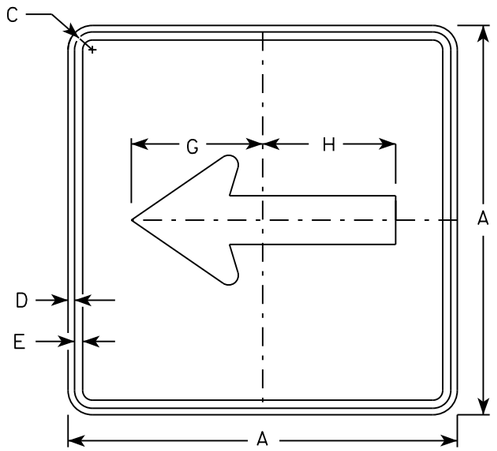
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

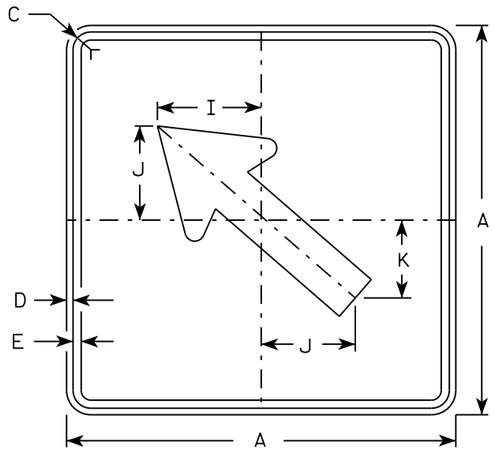
DATE 10/15/15 PLATE NO. M5-1.13

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



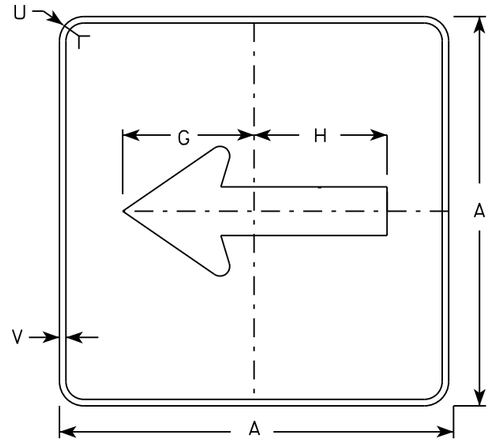
M6-1
MM6-1
MO6-1
MP6-1



M6-2
MM6-2
MO6-2
MP6-2

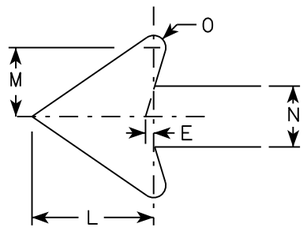
NOTES

1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1

MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN M6-1 & M6-2 SERIES

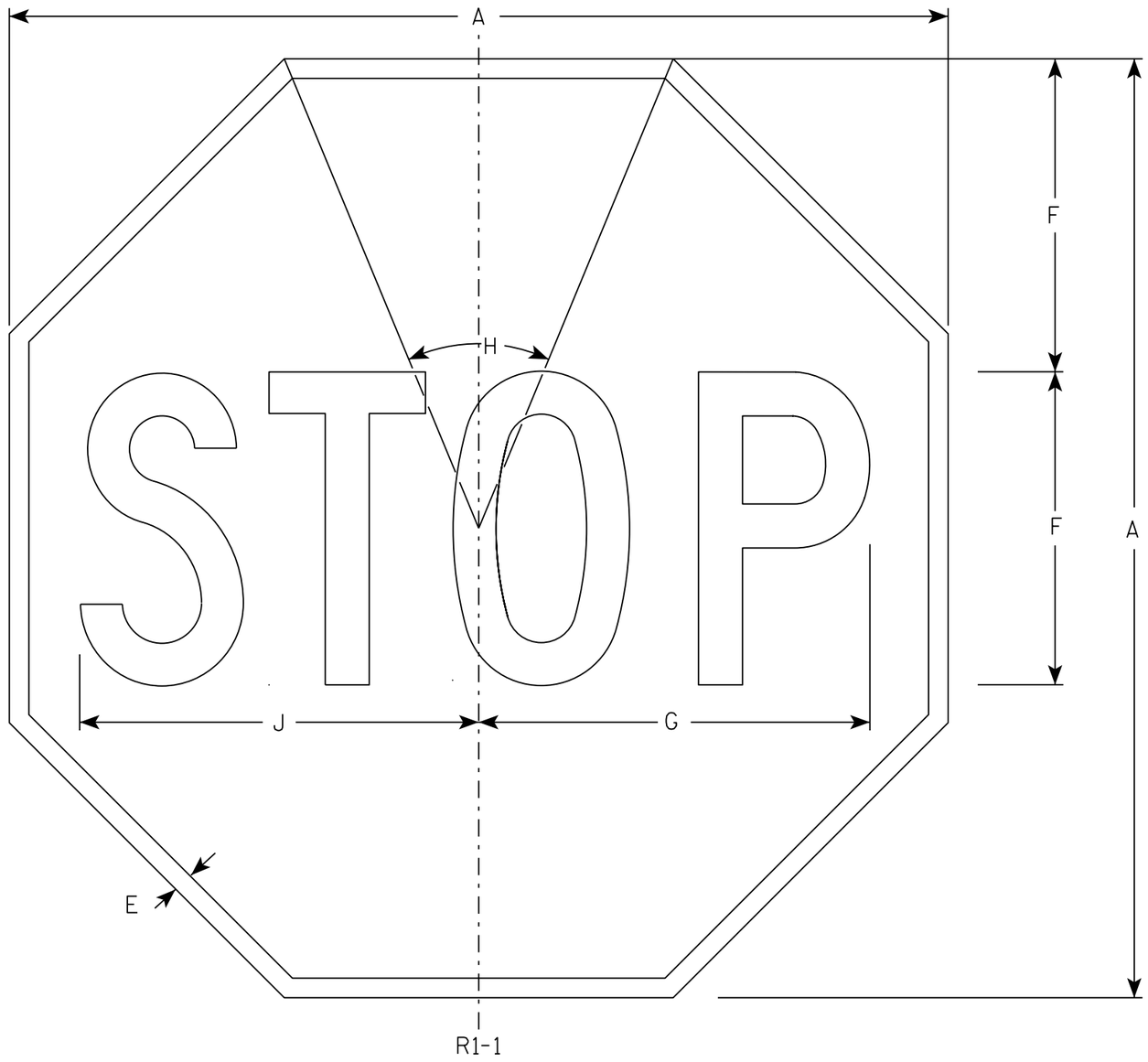
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 191 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN

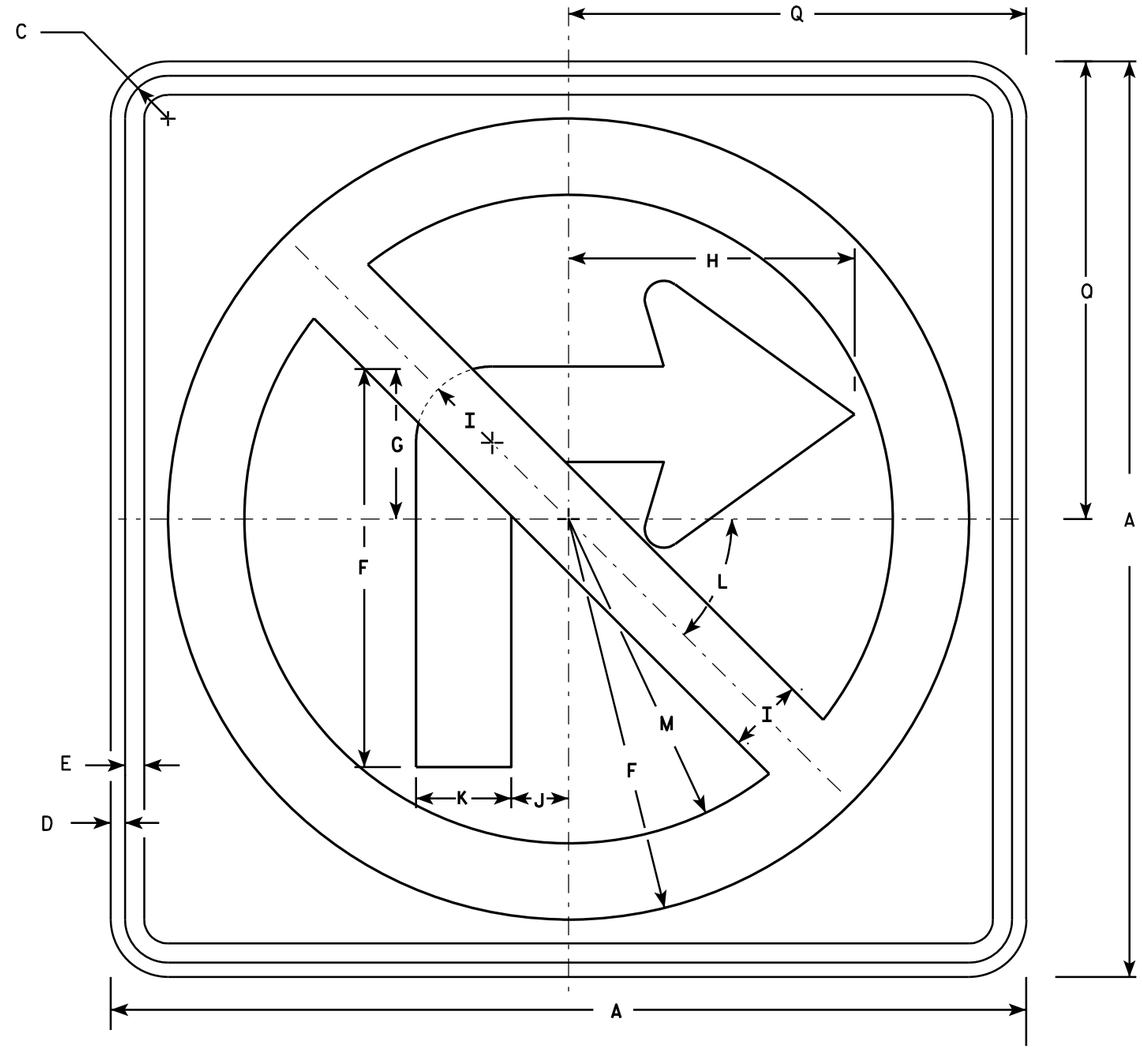
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

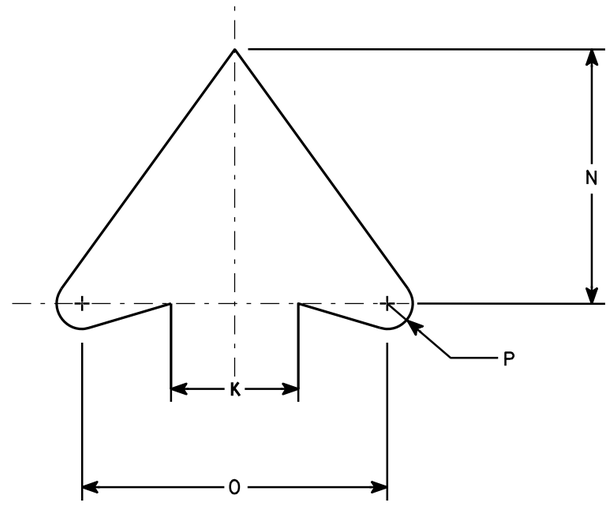
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 192	E



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

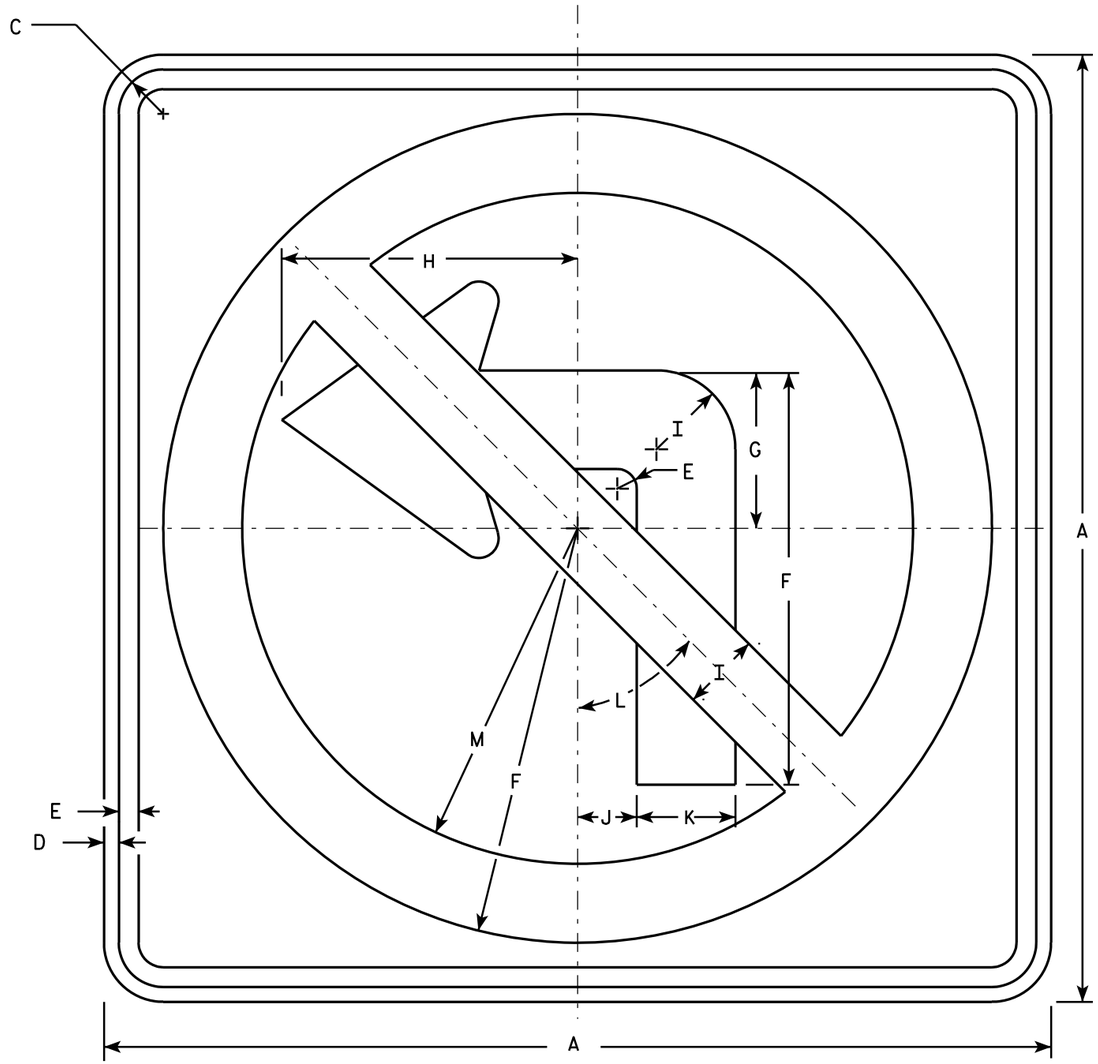
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

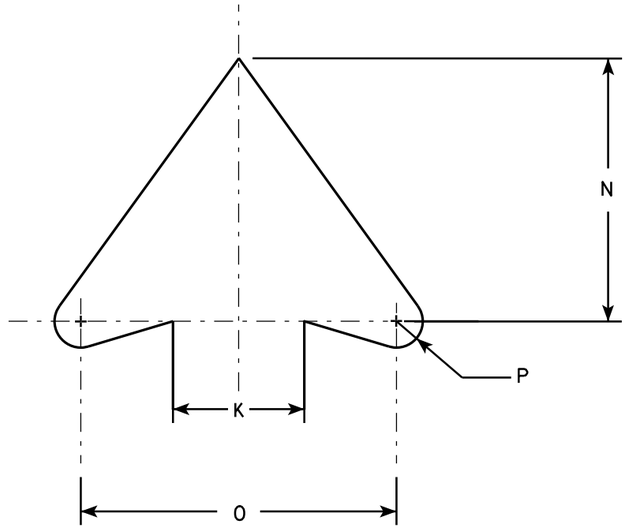
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 193	E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

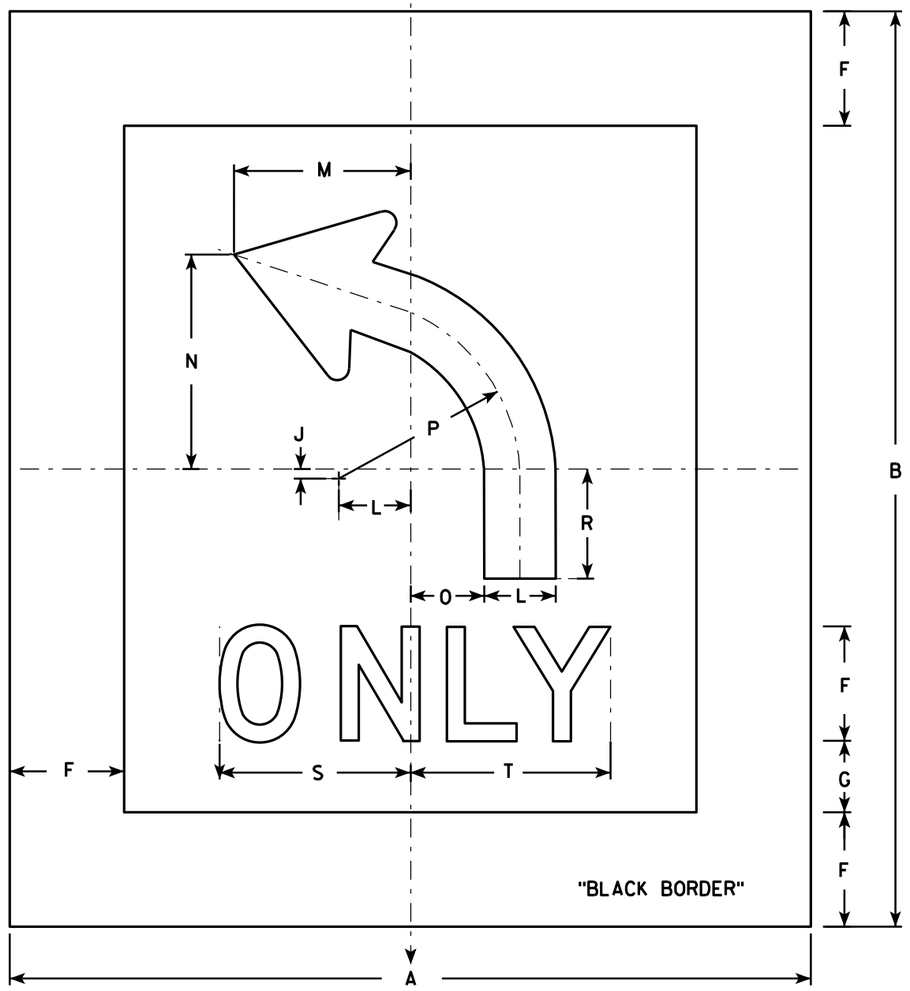
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

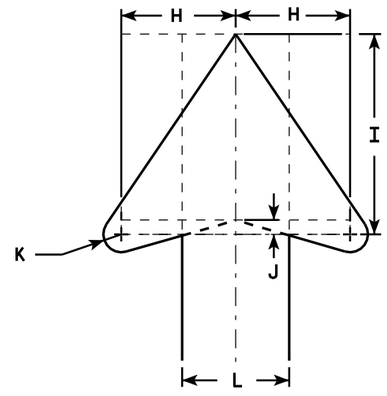
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 194	E



R3-5L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
5. R3-5R is the same as R3-5L except curved portion of arrow points right.
6. The 6" border is non-reflective black.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
2M	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
3																											
4																											
5																											

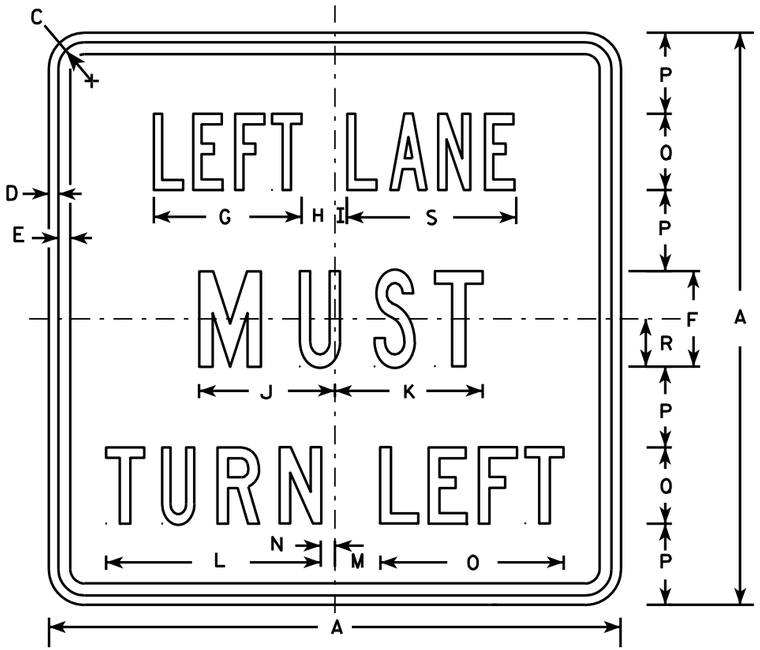
STANDARD SIGN
R3-5

WISCONSIN DEPT OF TRANSPORTATION

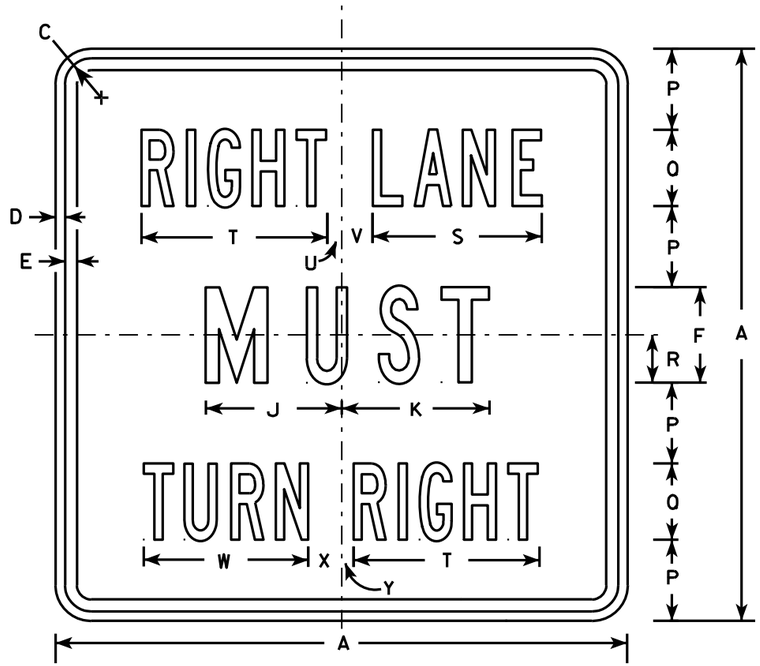
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 195 | E



R3-7L



R3-7R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

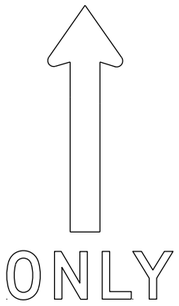
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

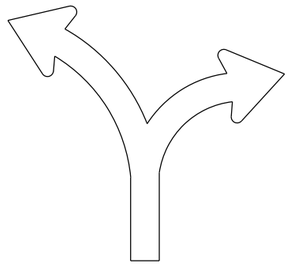
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 196 | E



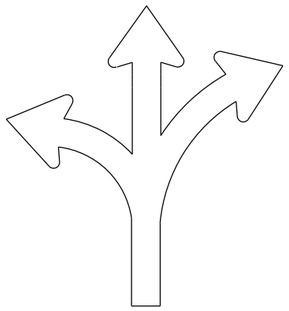
(A)



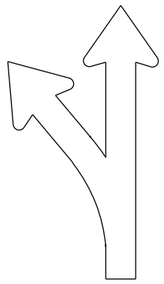
(B)



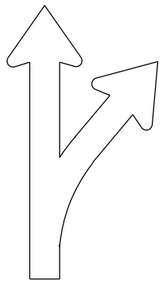
(C)



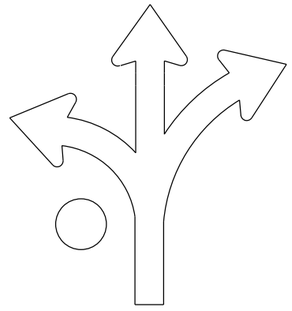
(D)



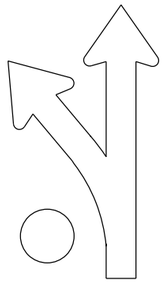
(E)



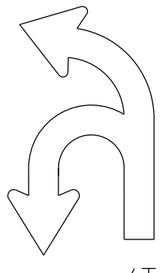
(F)



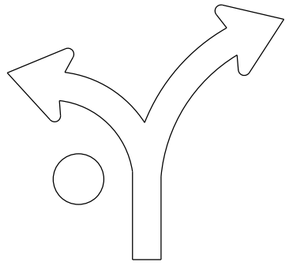
(G)



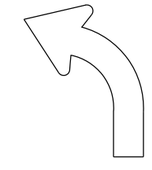
(H)



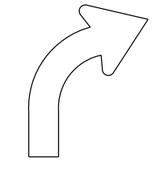
(I)



(J)



(L)



(R)

NOTES

1. Sigs are Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
   Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

1	Letter =	3.75 sq ft for Size 2
		6.0 sq ft for Size 3
		10.0 sq ft for Size 4 or 5
2	Letters =	7.5 sq ft for Size 2
		12.0 sq ft for Size 3
		20.0 sq ft for Size 4 or 5
3	Letters =	11.25 sq ft for Size 2
		18.0 sq ft for Size 3
		30.0 sq ft for Size 4 or 5
4	Letters =	15.0 sq ft for Size 2
		24.0 sq ft for Size 3
		40.0 sq ft for Size 4 or 5
5	Letters =	18.75 sq ft for Size 2
		30.0 sq ft for Size 3
		50.0 sq ft for Size 4 or 5
6	Letters =	22.5 sq ft for Size 2
		36.0 sq ft for Size 3
		60.0 sq ft for Size 4 or 5

6. When letters C,D,G,J are used on the Left or Right end of the sign the Sq. Ft. changes.
   Add the amounts when these letters are used:
   1.25 sq ft for Size 2
   1.5 sq ft for Size 3
   2.0 sq ft for Size 4 or 5

STANDARD SIGN
R3-8 Series

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

SHEET NO: 197 E

FILE NAME : C:\CAEfiles\Projects\stdplate_R38.dgn PLOT DATE : 21-MAY 2019 4:37 PLOT BY : mscj9h PLOT NAME :

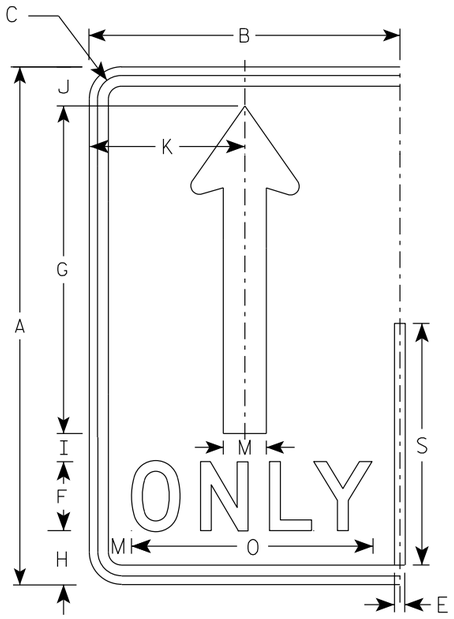
WISDOT/CADDS SHEET 42

7

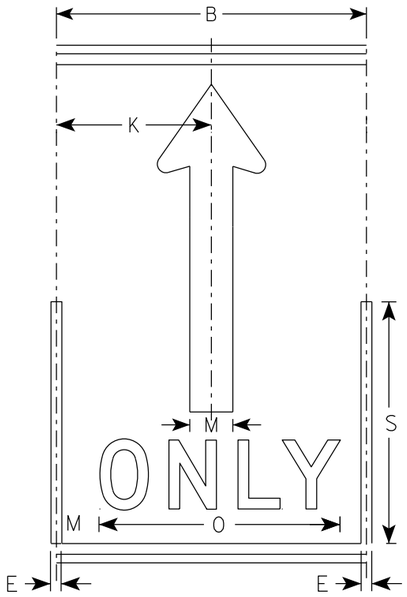
7

NOTES

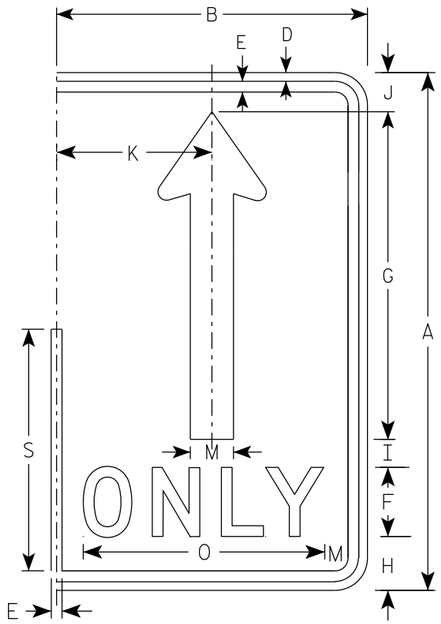
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



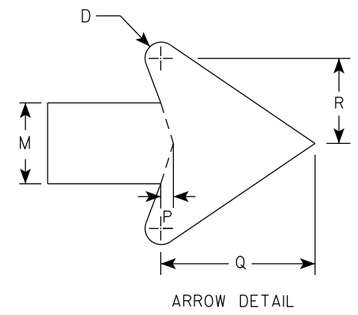
(A)



(A)



(A)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8	5	22 3/4	3 3/4	1 3/4	2 3/4	12		3		17 5/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

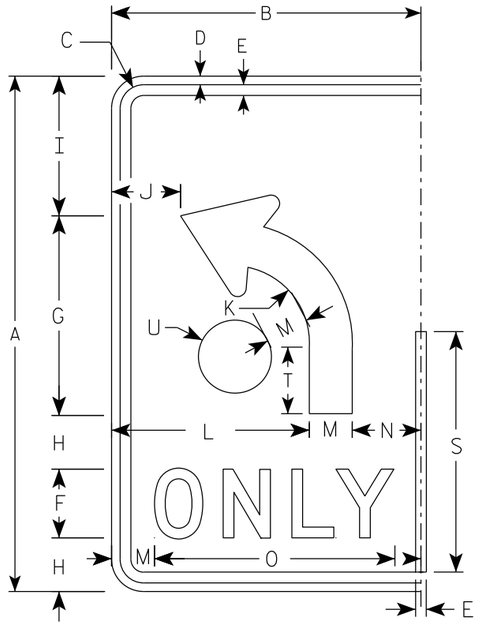
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

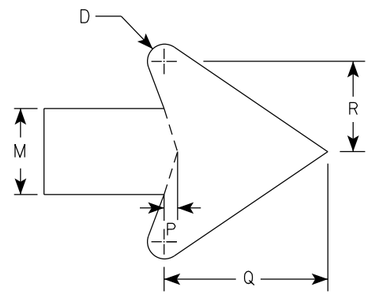
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 198 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
   Message Series - D



(B)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8	2 1/2						6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0

STANDARD SIGN

R3-8 (B) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

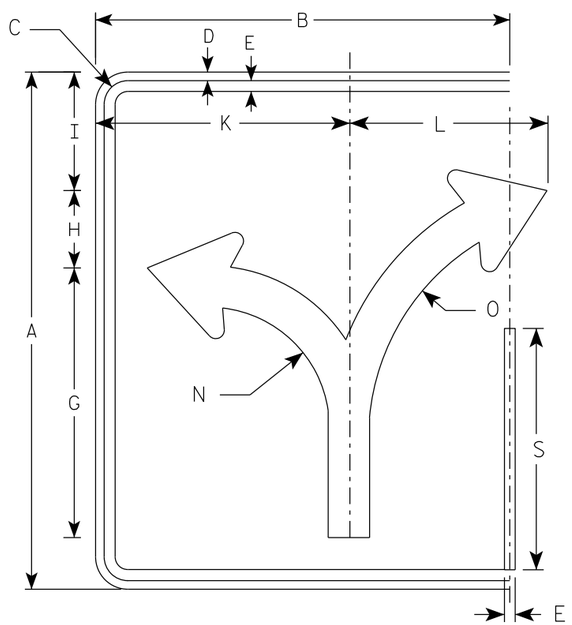
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

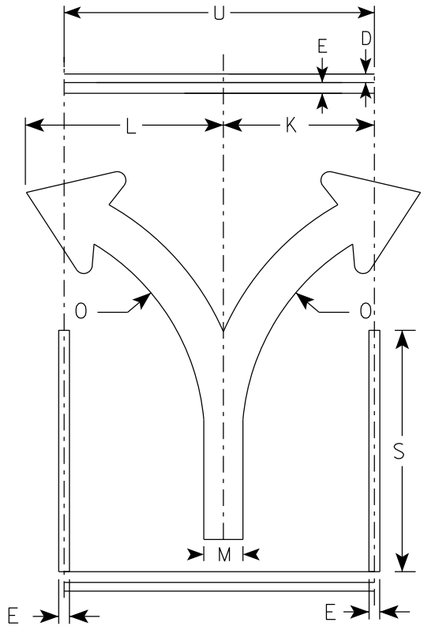
SHEET NO: 199 E

NOTES

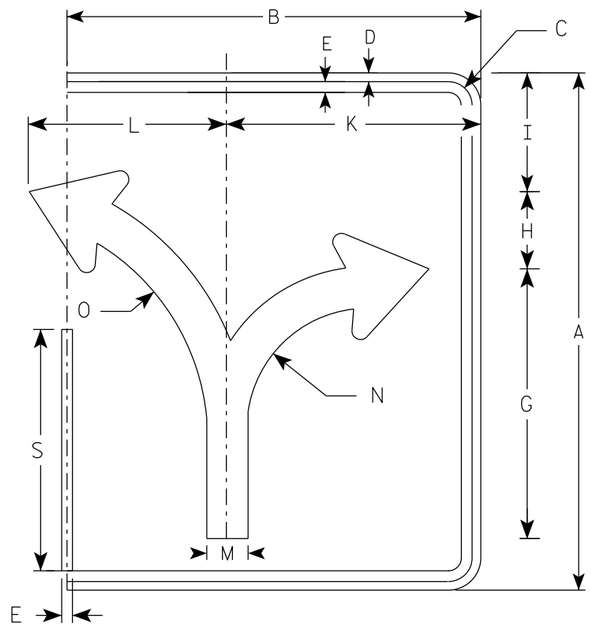
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



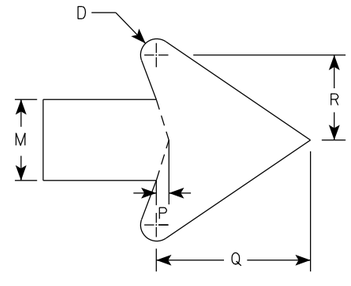
(C)



(C)



(C)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (C) Arrow

WISCONSIN DEPT OF TRANSPORTATION

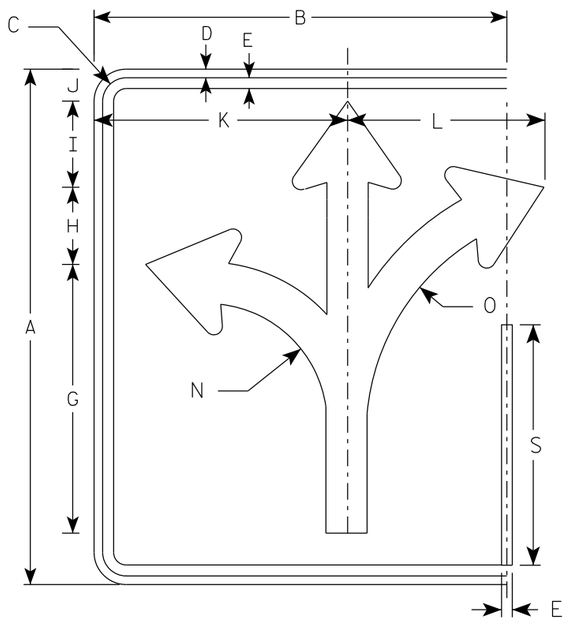
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

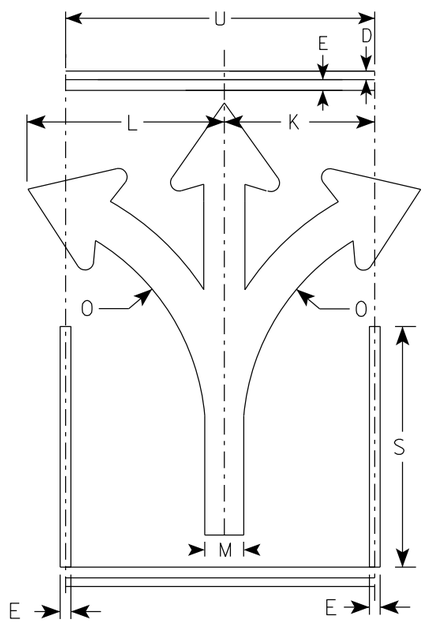
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 200 | E

NOTES

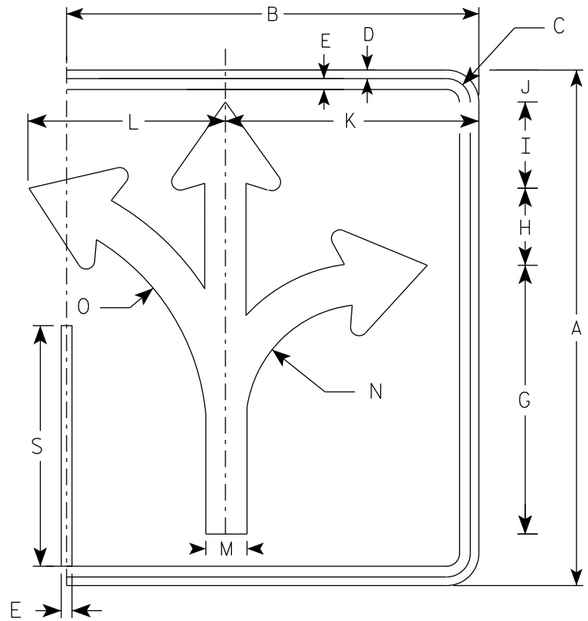
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



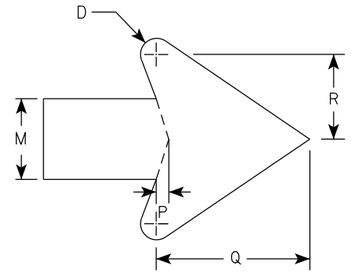
(D)



(D)



(D)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	2 1/4	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (D) Arrow

WISCONSIN DEPT OF TRANSPORTATION

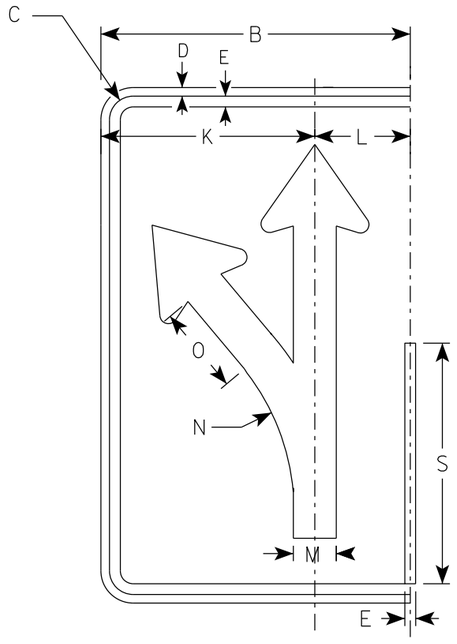
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

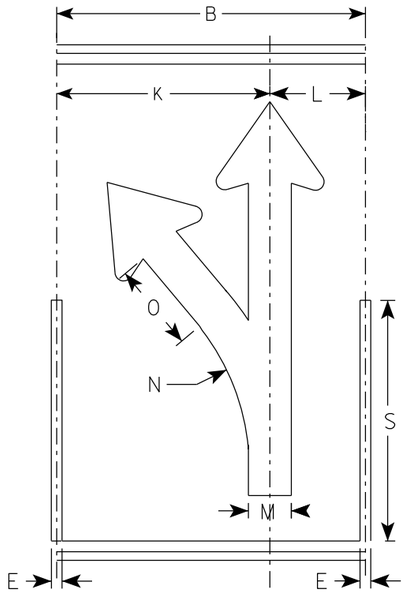
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 201 | E

NOTES

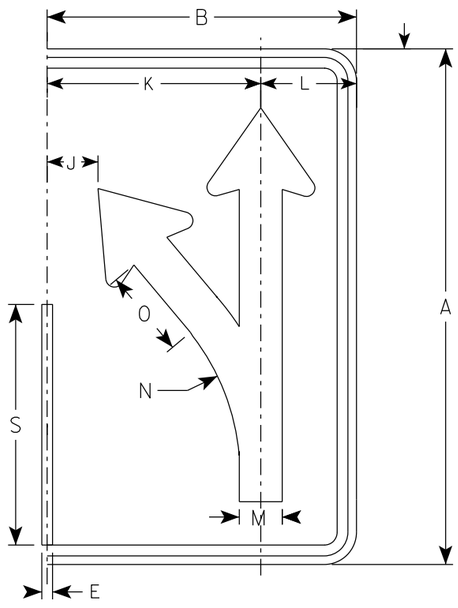
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



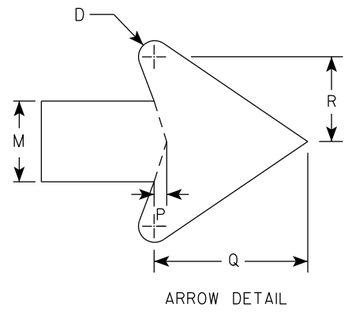
(E)



(E)



(E)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (E) Arrow

WISCONSIN DEPT OF TRANSPORTATION

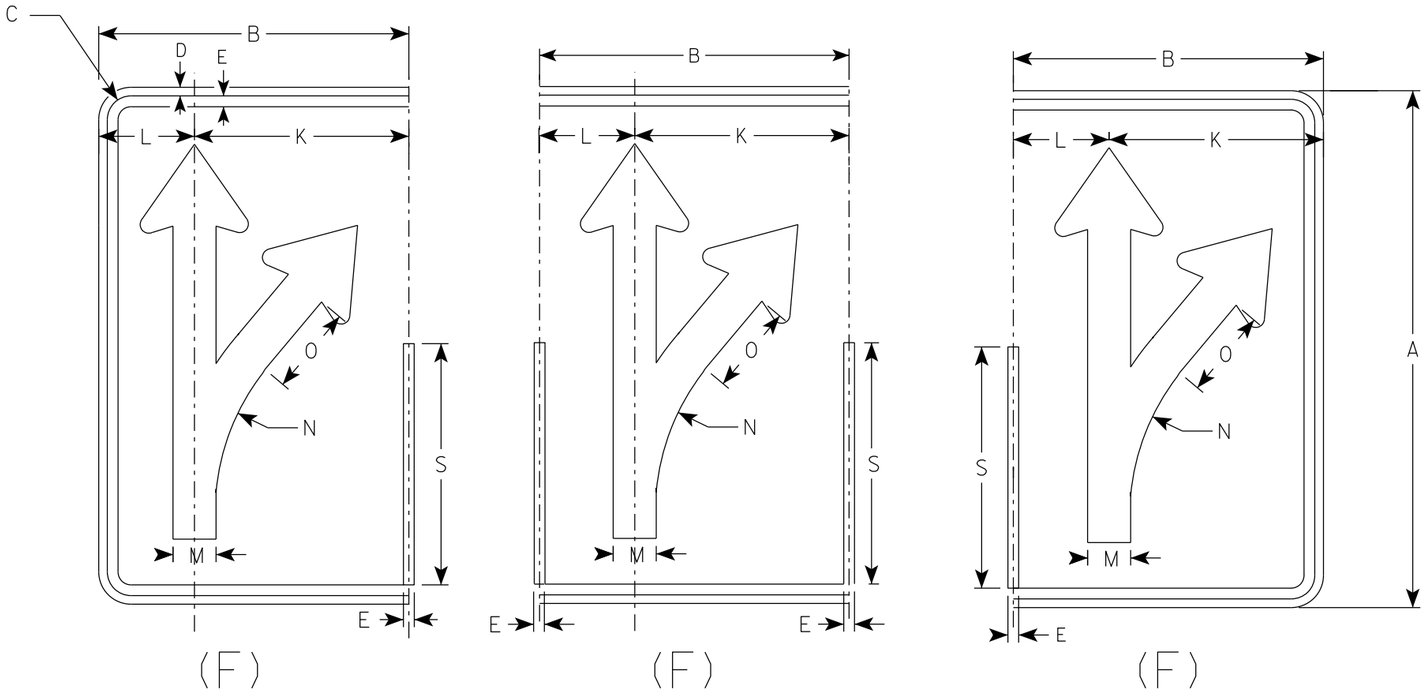
APPROVED Matthew R Rauch
For State Traffic Engineer

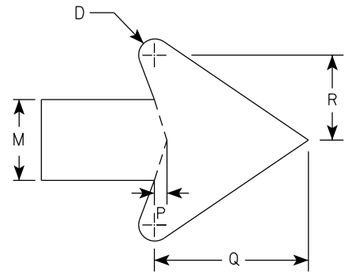
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 202 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None





ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

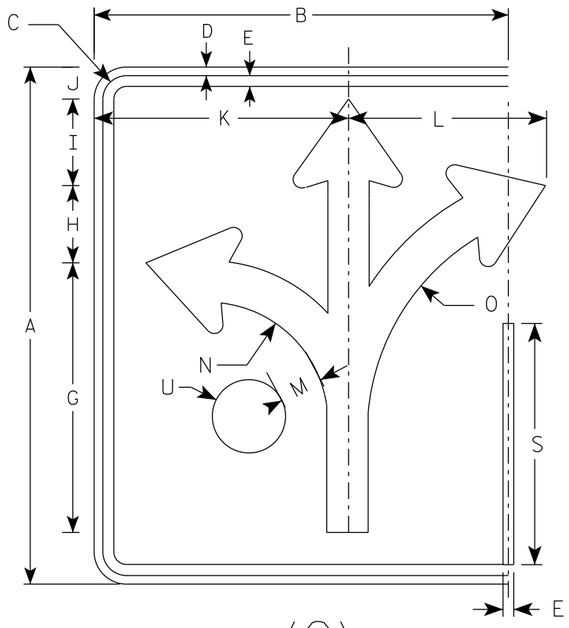
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

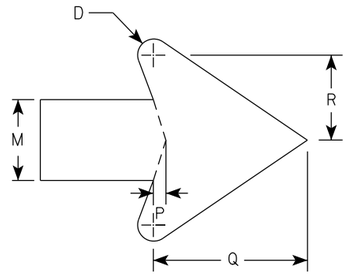
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 203 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(G)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	3 1/8	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (G) Arrow

WISCONSIN DEPT OF TRANSPORTATION

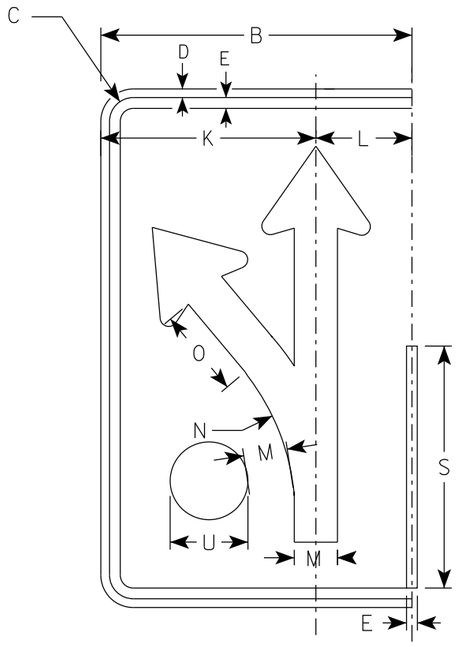
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

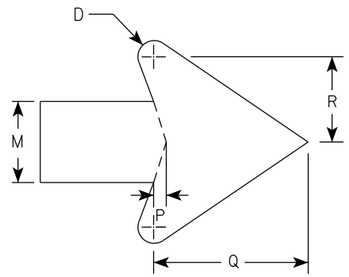
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 204	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(H)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4		2 1/2						6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0

STANDARD SIGN
R3-8 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

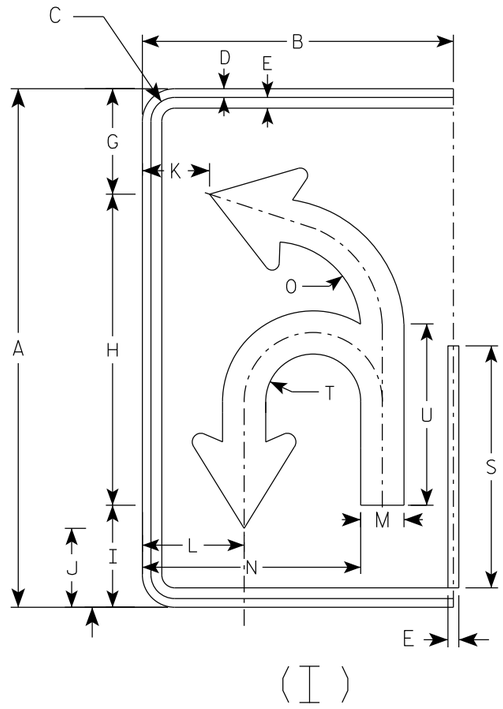
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

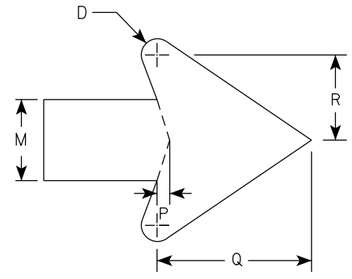
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 205 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(I)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
2M	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	21 5/8	7 1/8	5 1/2	5 7/8	8 1/4	3	16 3/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4	3 1/4	12 5/8						6.0
4	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0
5	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0

STANDARD SIGN
R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

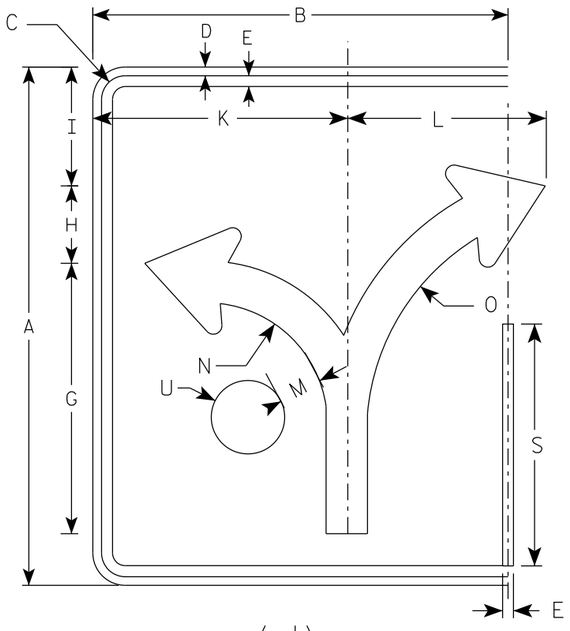
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

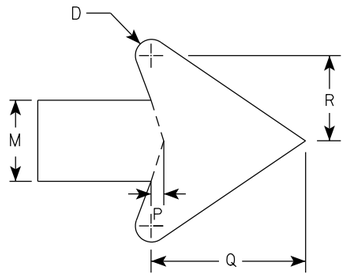
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 206 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(J)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (J) Arrow

WISCONSIN DEPT OF TRANSPORTATION

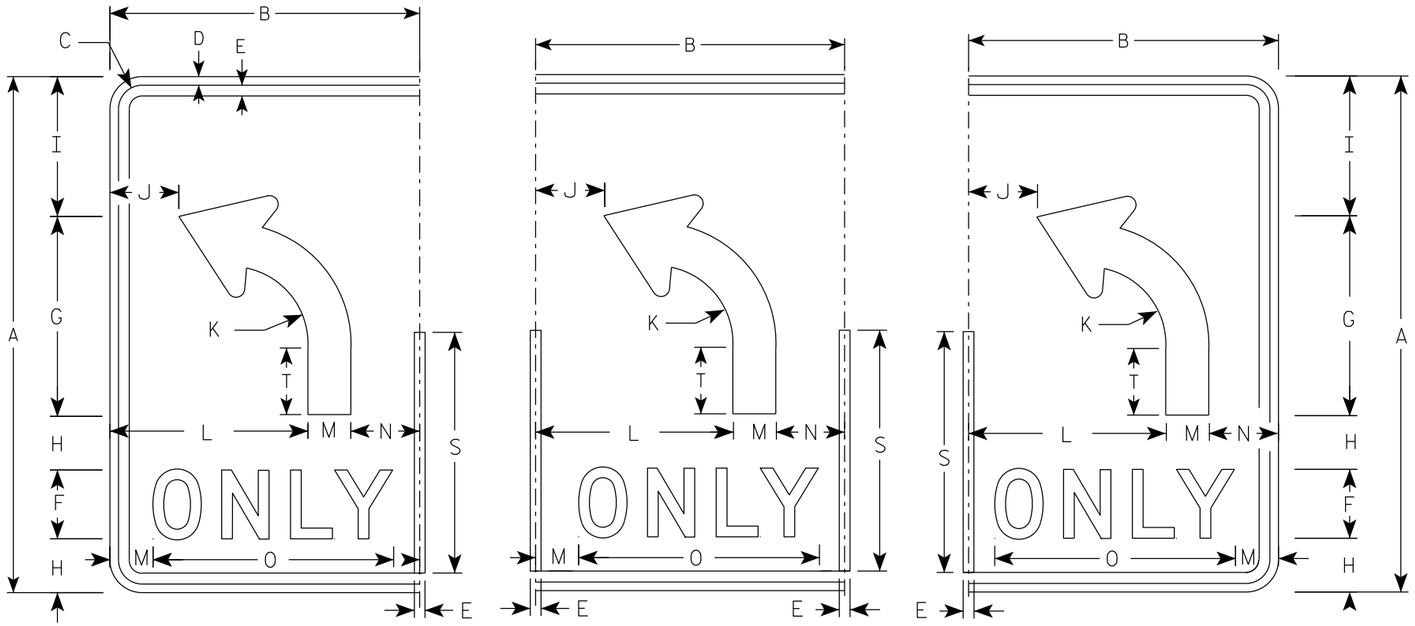
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

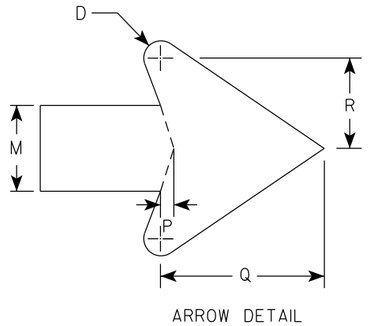
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 207 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



(L) (L) (L)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4		5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (L) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

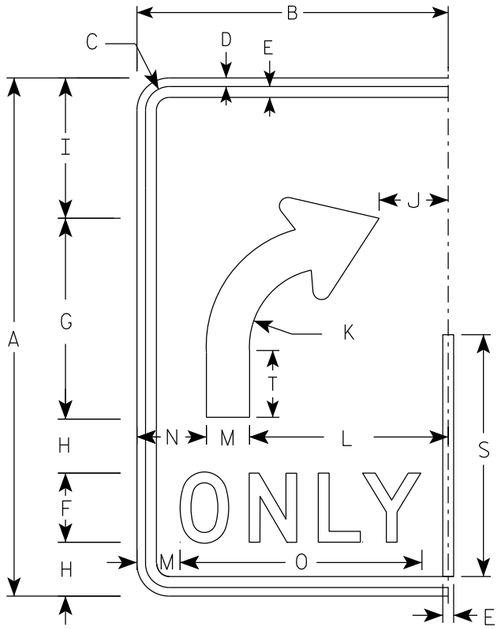
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

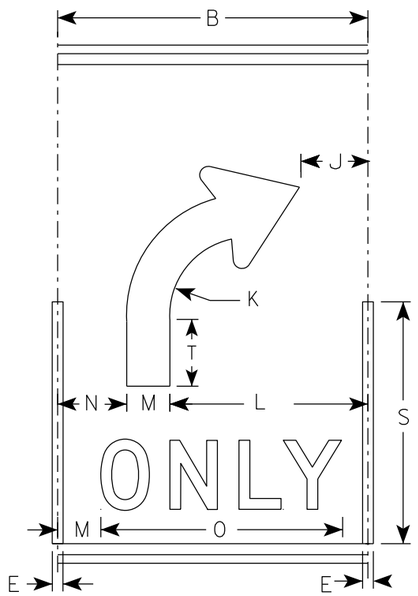
SHEET NO: 208 E

NOTES

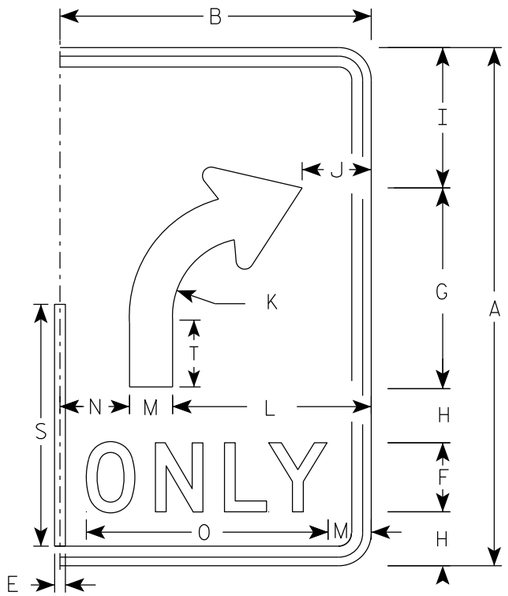
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



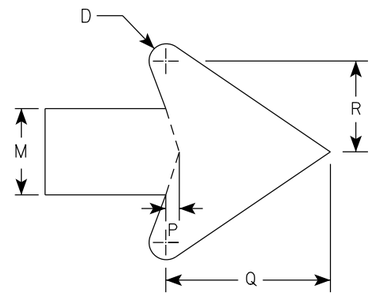
(R)



(R)



(R)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN
R3-8 (R) Arrow

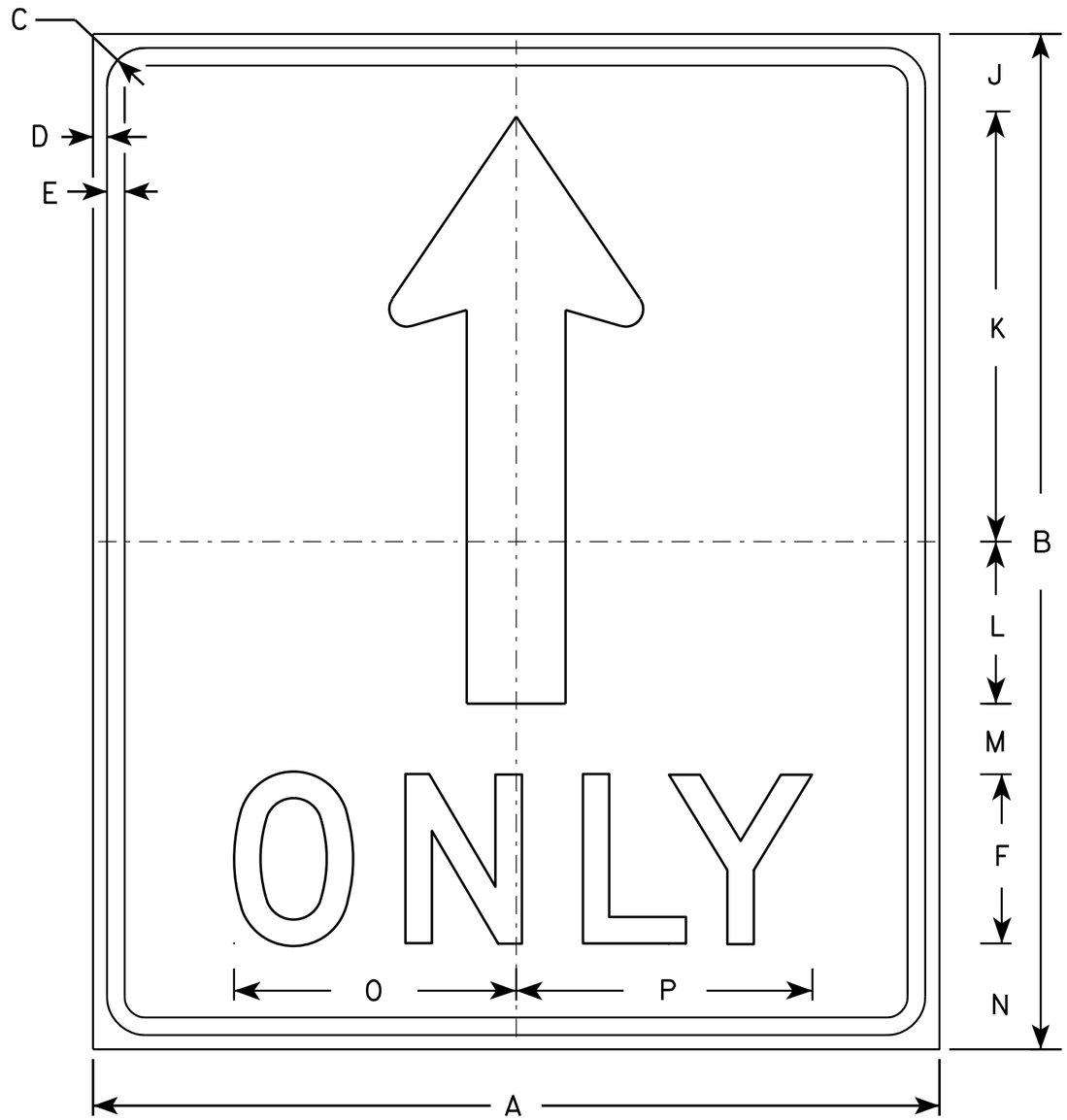
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

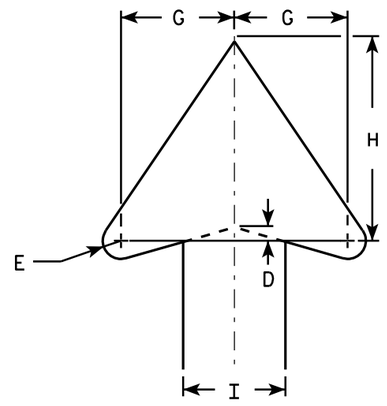
SHEET NO: 209 **E**



R3-50A

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	6	4	7	3 1/2	2 3/4	15 1/4	5 3/4	2 1/2	3 3/4	10	10 1/2											7.5
2M	30	36	1 3/8	1/2	5/8	6	4	7	3 1/2	2 3/4	15 1/4	5 3/4	2 1/2	3 3/4	10	10 1/2											7.5
3																											
4																											
5																											

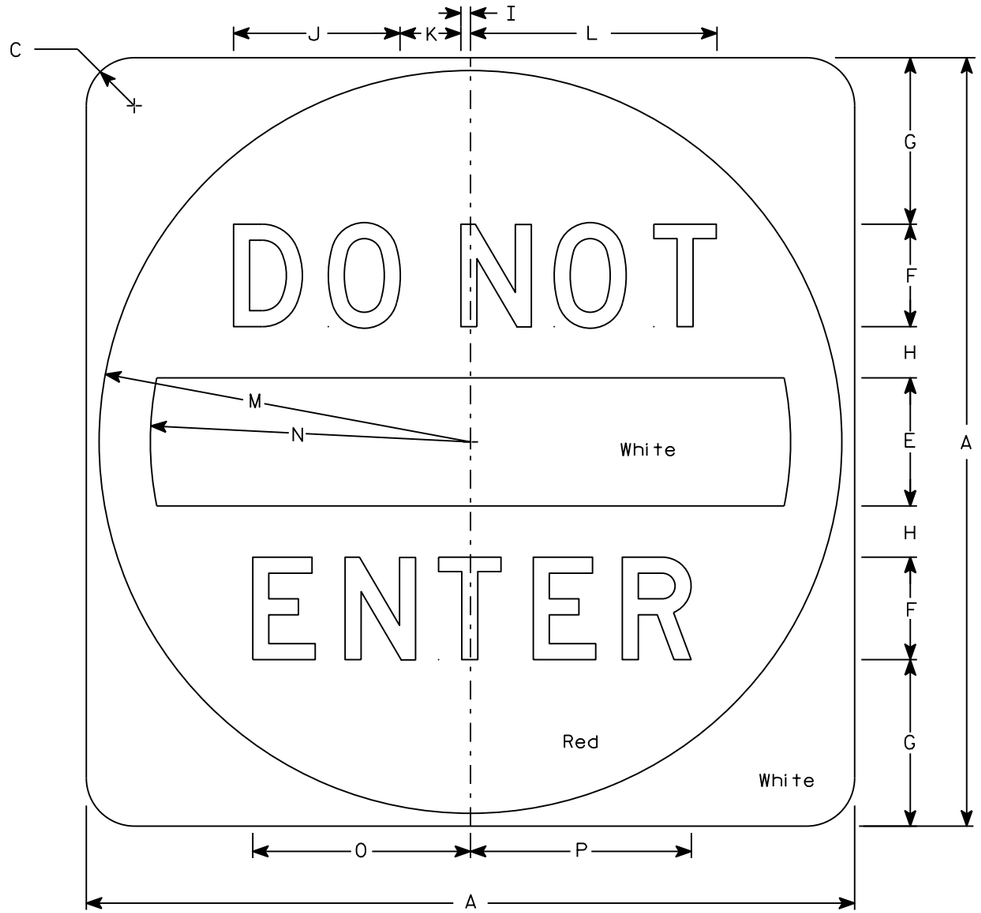
STANDARD SIGN
R3-50A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-50A.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 210	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.25
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

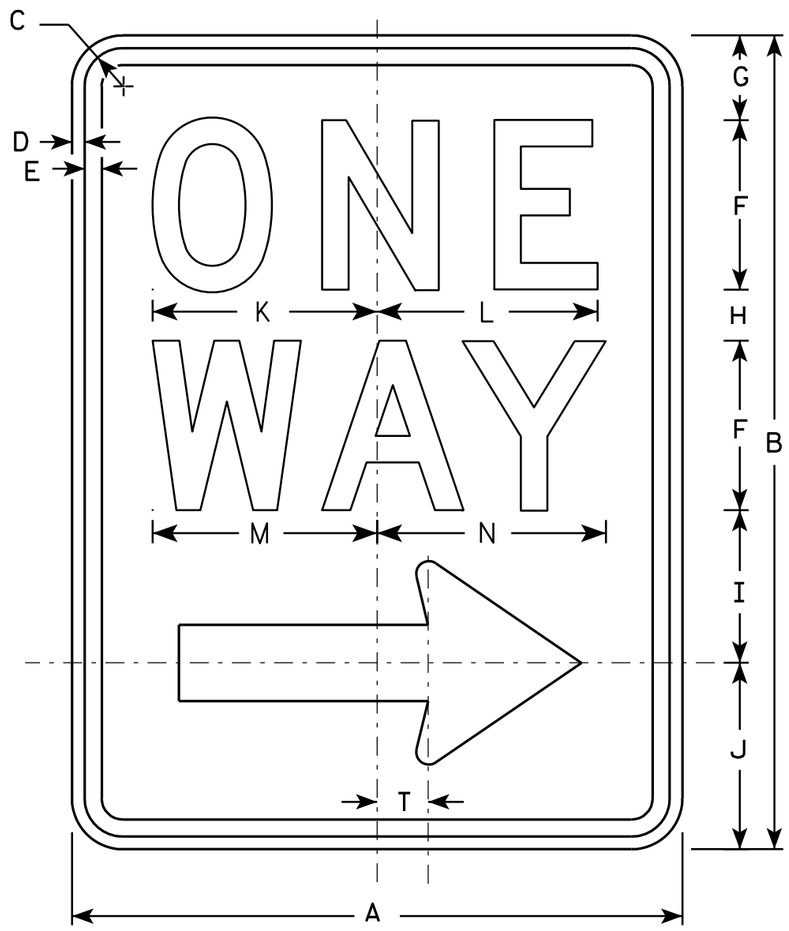
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

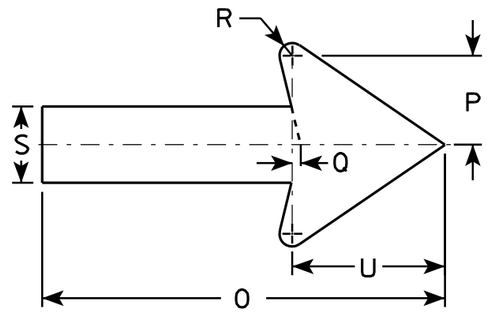
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 211 | E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

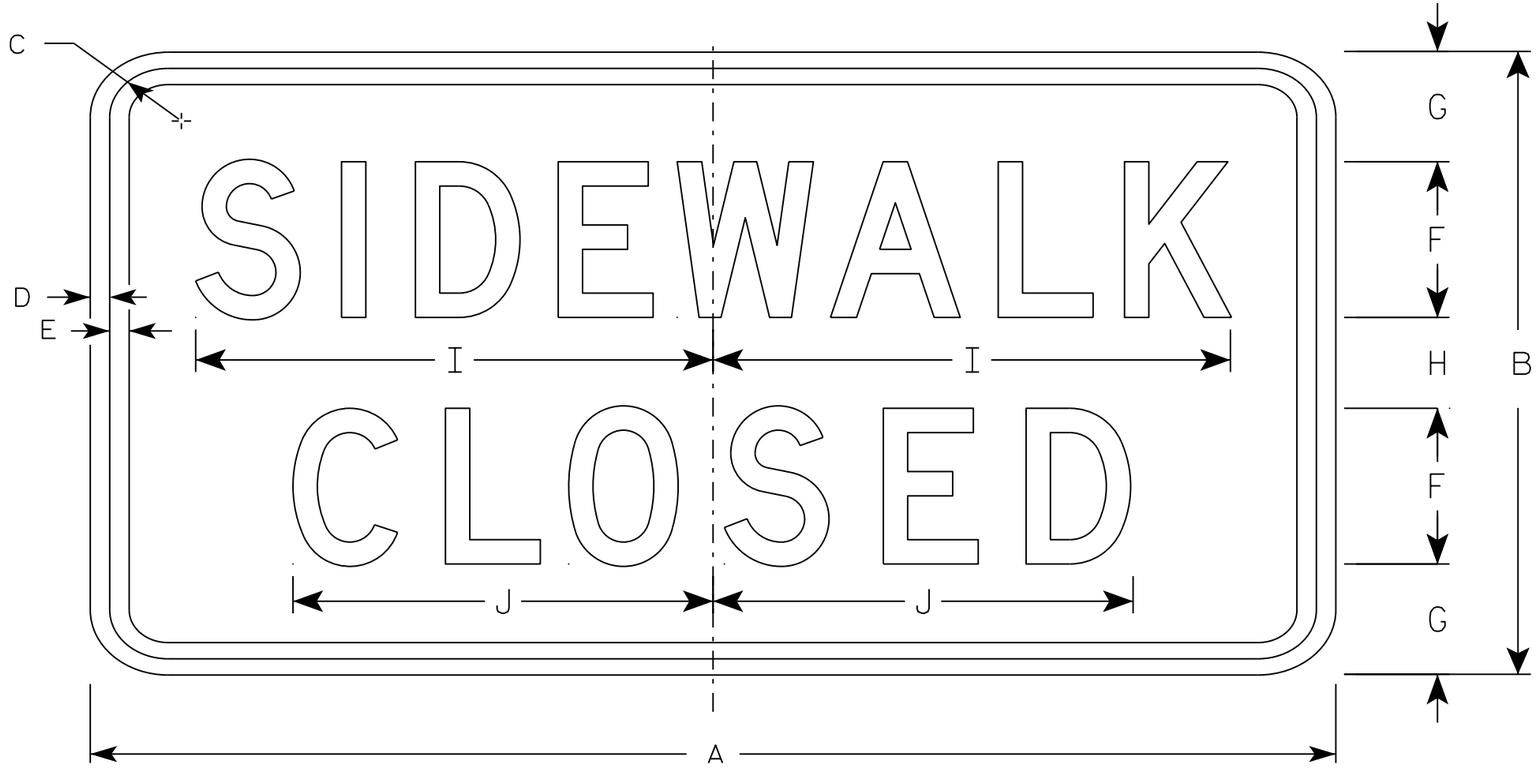
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 212	E



R9-9

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

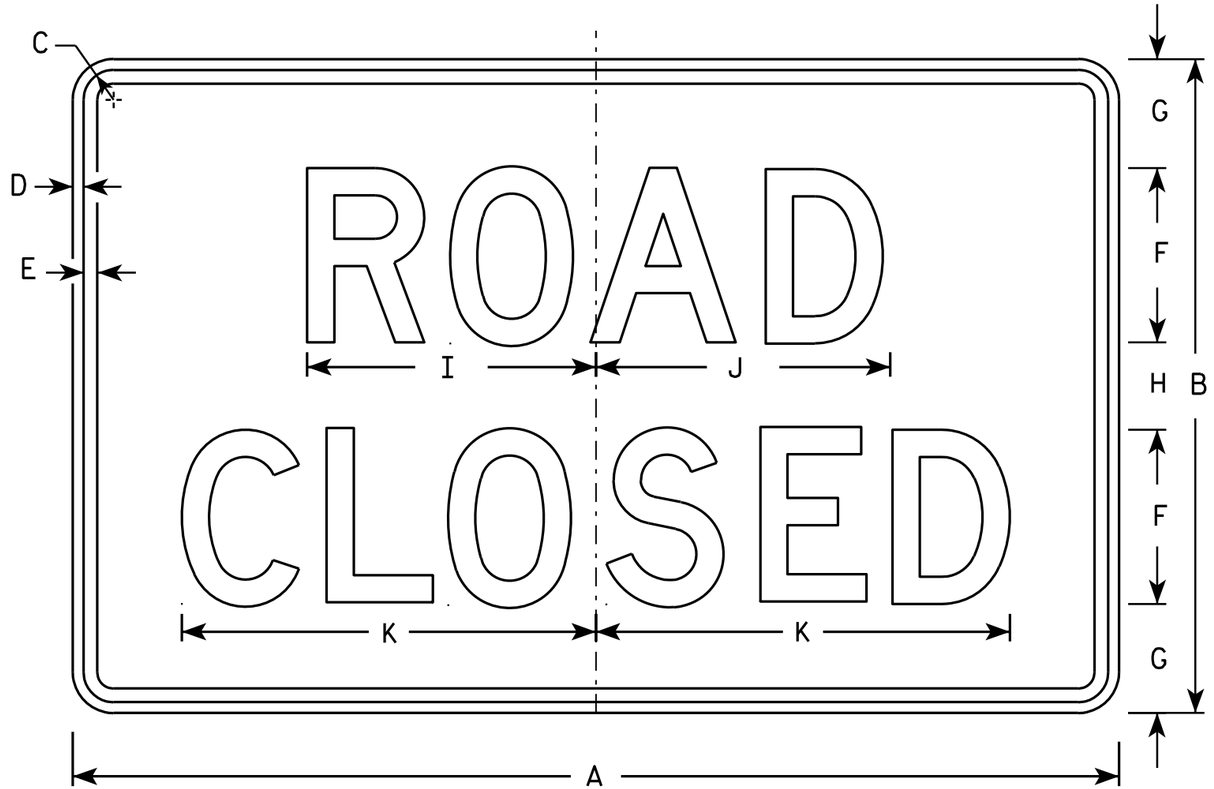
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 213 R9-9.6

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

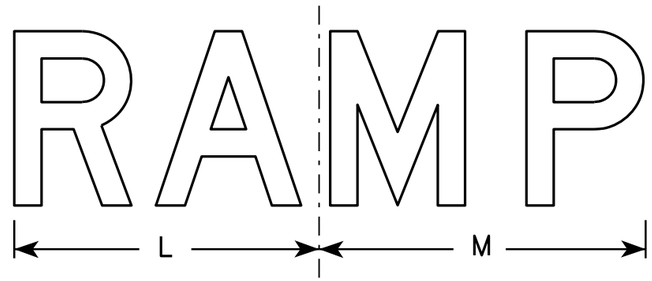
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



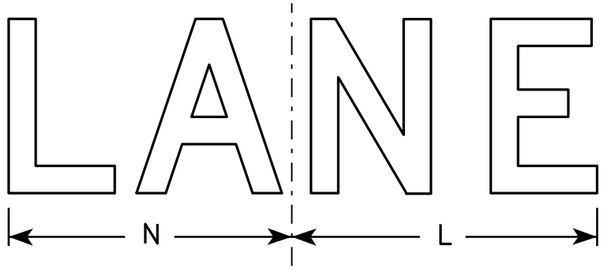
R11-2

NOTES

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



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

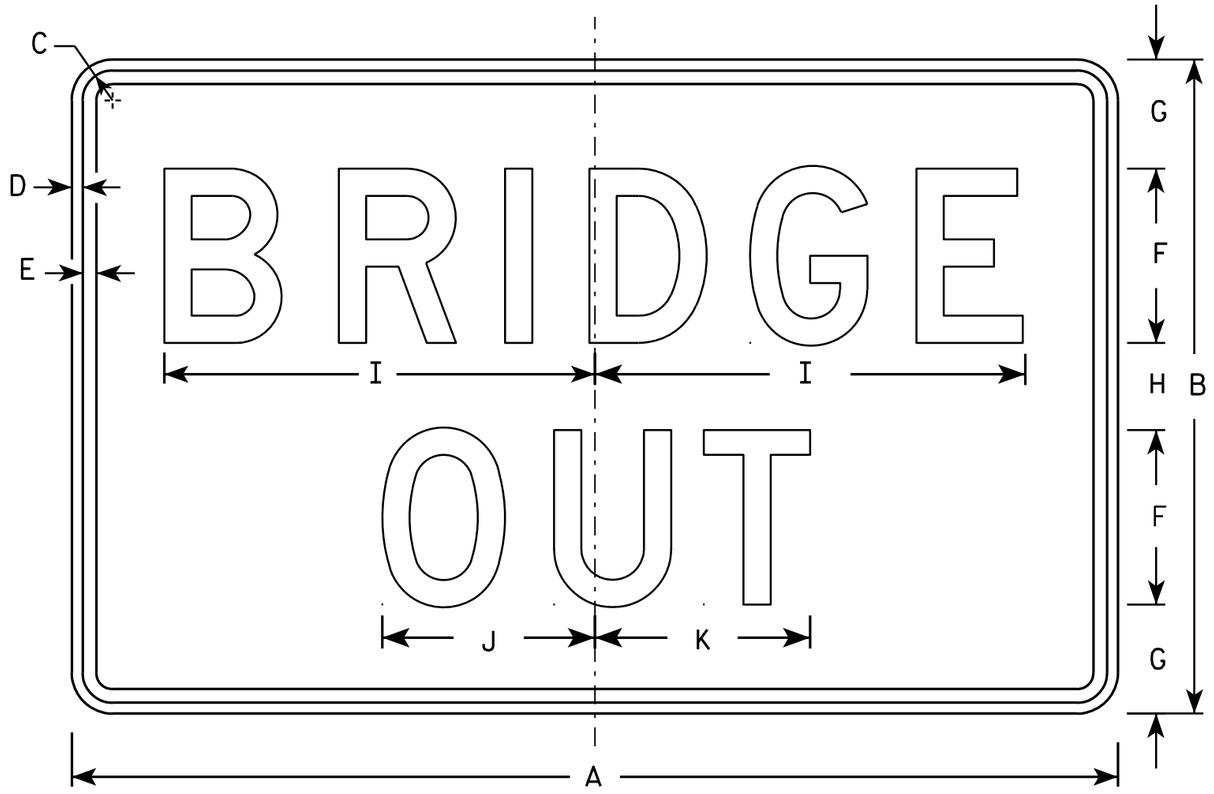
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 214 | E



R11-2B

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN
R11-2B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2B.2

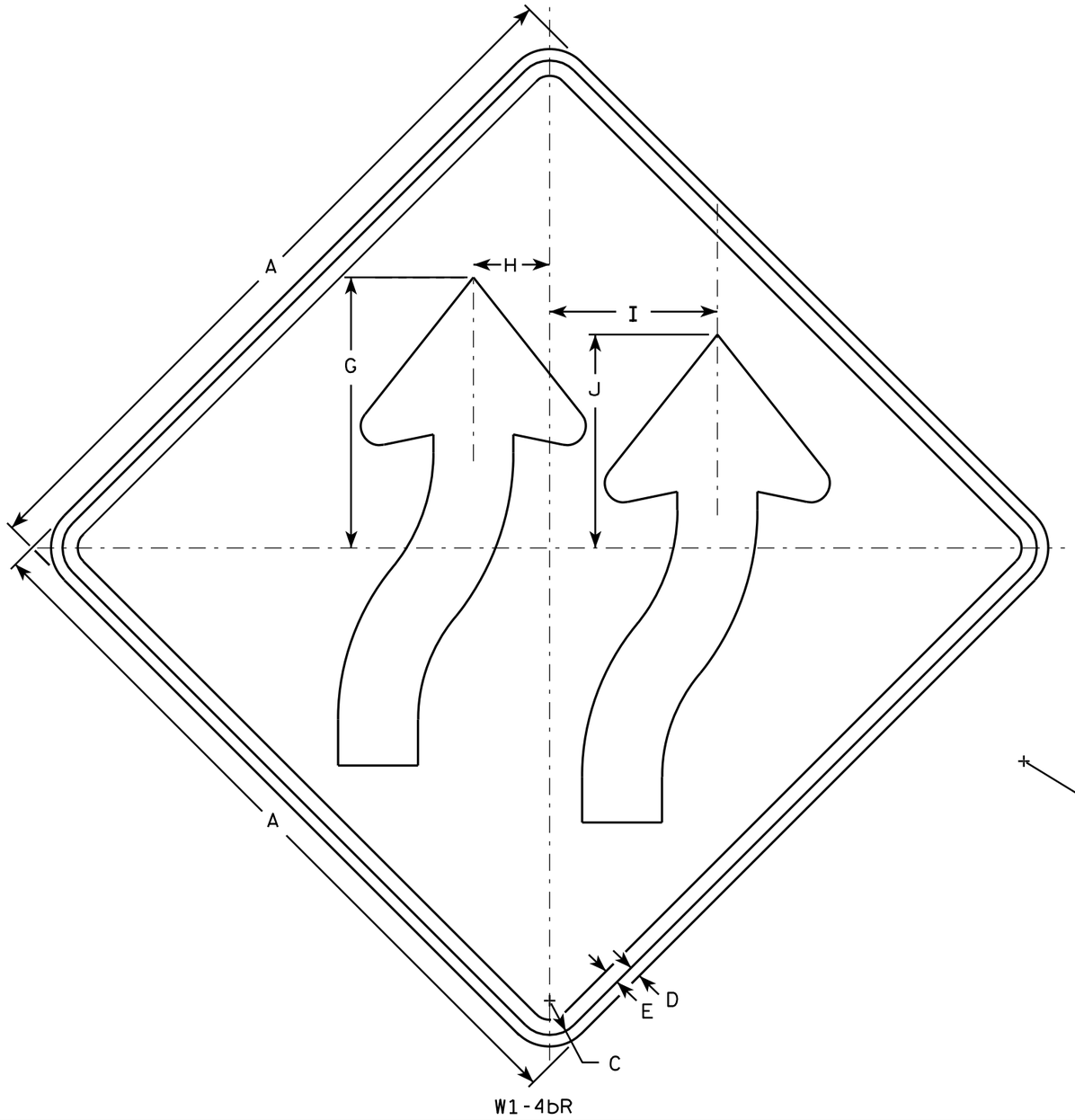
PROJECT NO:

SHEET NO: 215 E

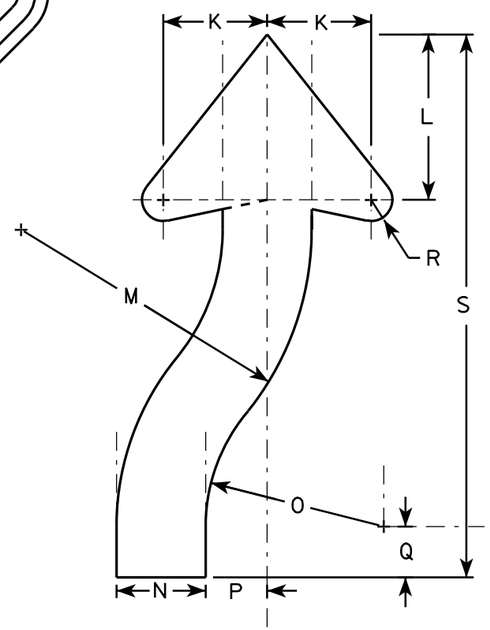
7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112B.DGN PLOT DATE : 01-APR-2011 14:23 PLOT BY : mscj9h

WISDOT/CADDS SHEET 42



W1-4bR



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-4bL is the same as W14-bR exept arrows are reversed along the vertical centerline

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5/8	5/8	3/4		13 3/8	3 3/4	8 1/4	10 1/2	4 5/8	7 3/8	12 7/8	3 7/8	7 7/8	2 3/4	2 1/4	7/8	24								9.0
2M	36		1 5/8	5/8	3/4		13 3/8	3 3/4	8 1/4	10 1/2	4 5/8	7 3/8	12 7/8	3 7/8	7 7/8	2 3/4	2 1/4	7/8	24								9.0
3	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
4	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
5	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0

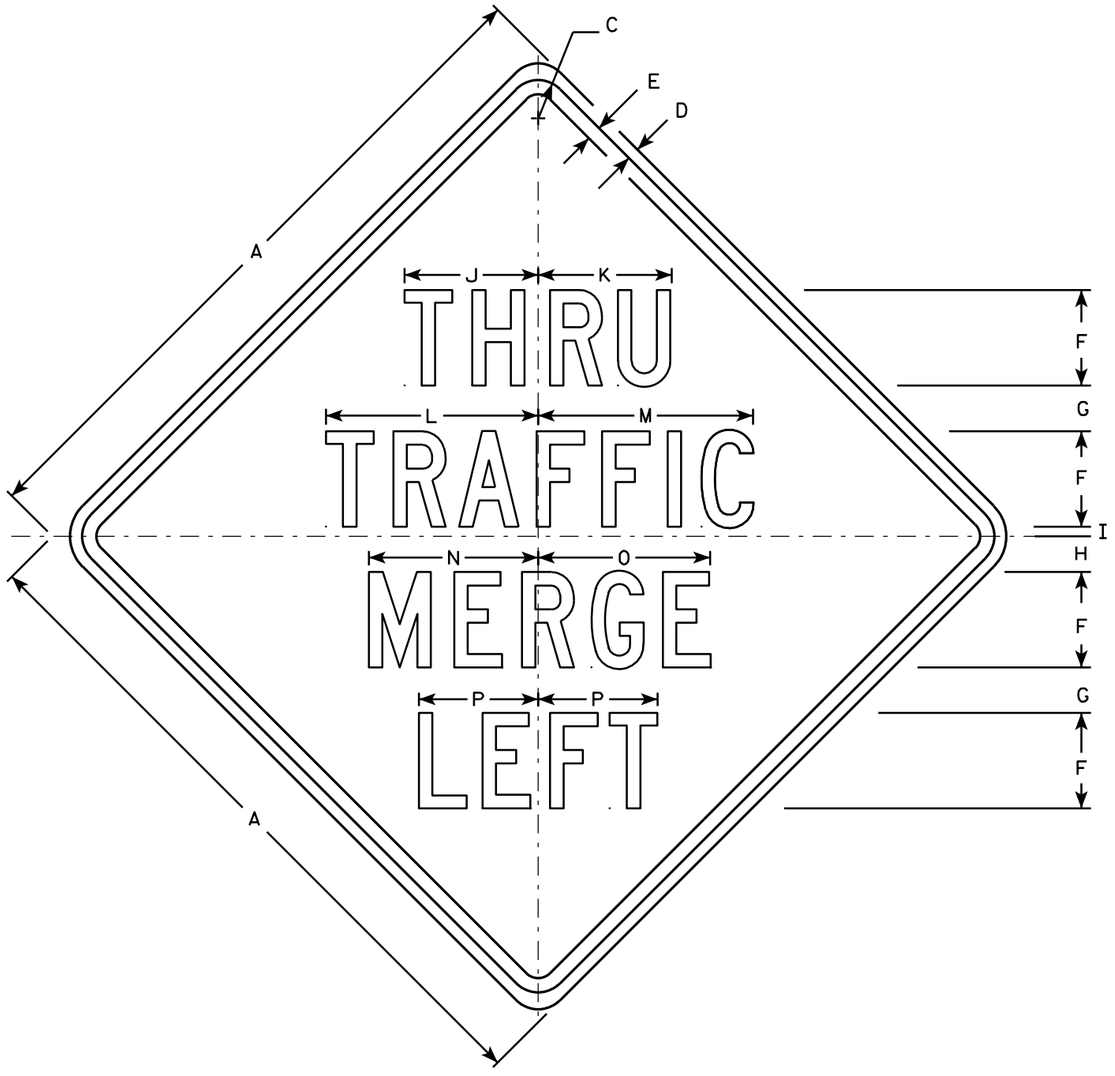
STANDARD SIGN
W1-4b

WISCONSIN DEPT OF TRANSPORTATION

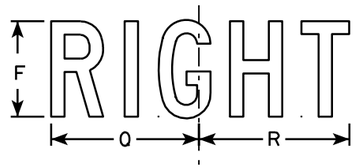
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/12 PLATE NO. W1-4B.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 216	E



W4-7L



W4-7R

NOTES

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

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

STANDARD SIGN
W4-7L&R

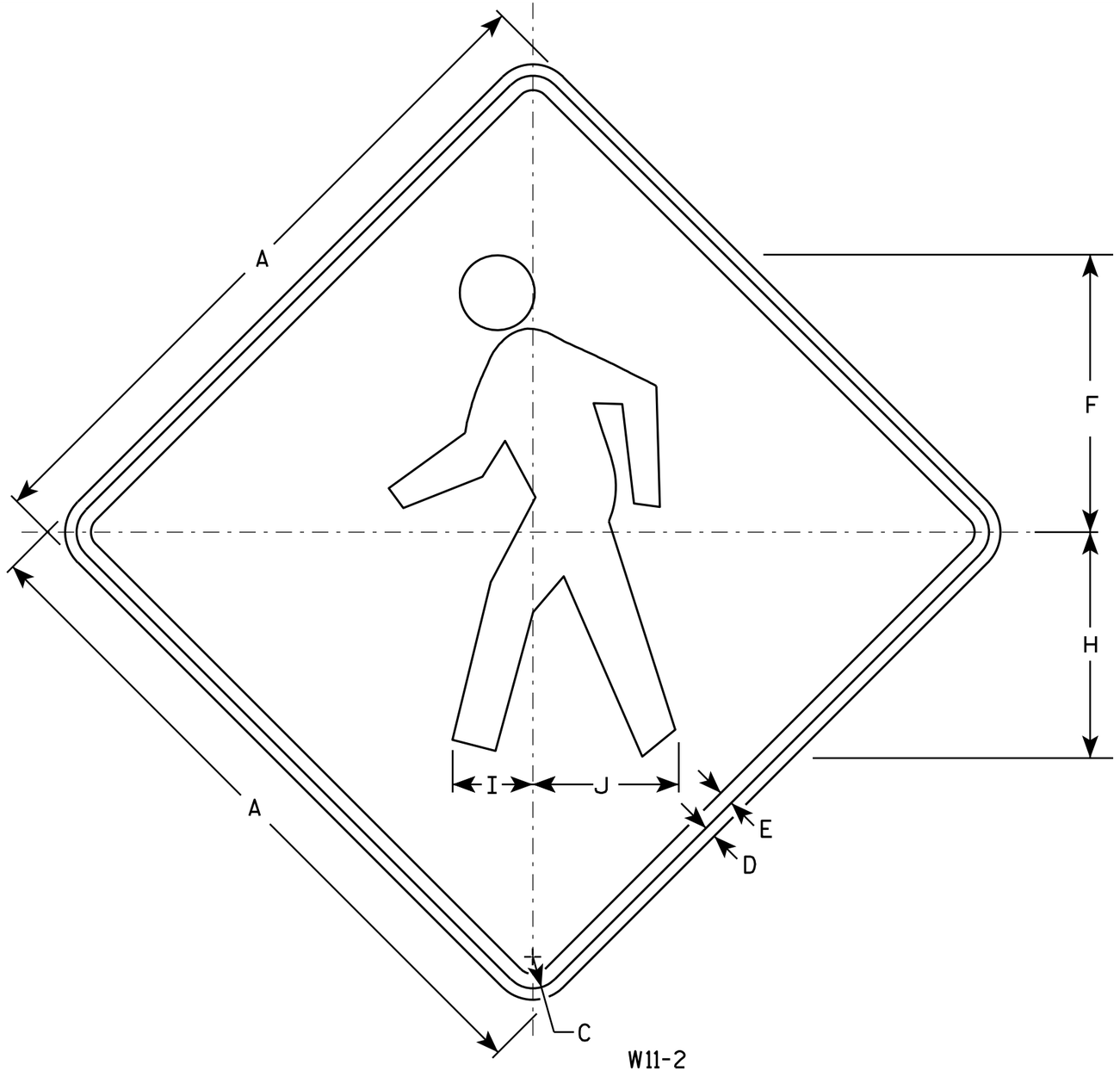
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/17/13 PLATE NO W4-7L&R.3

PROJECT NO:

SHEET NO: 217 E



W11-2

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

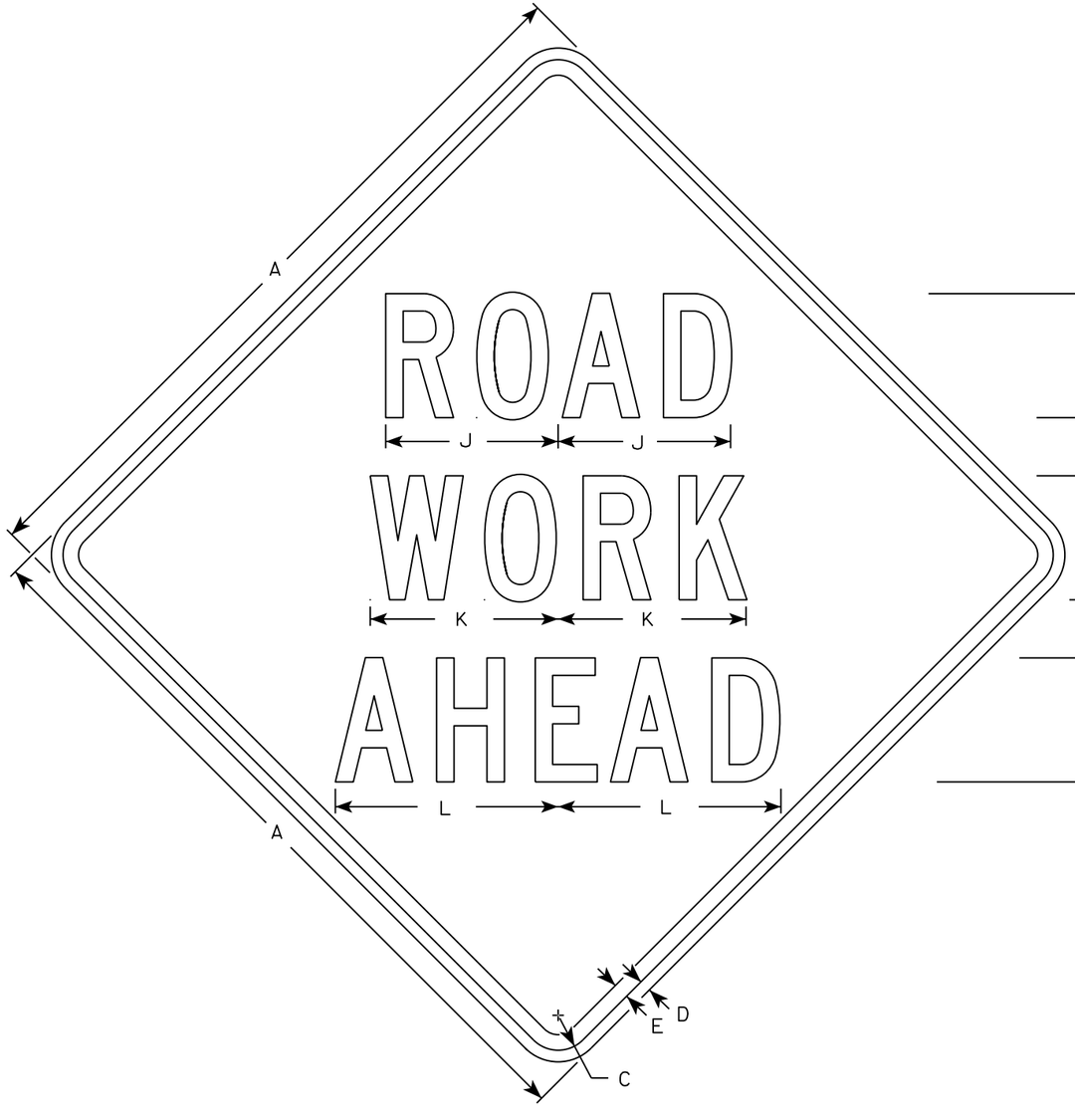
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

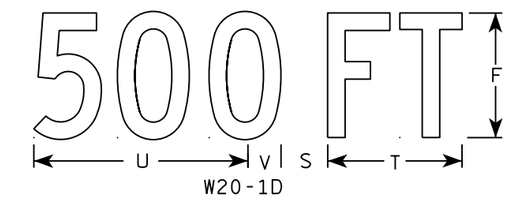
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W11-2.7

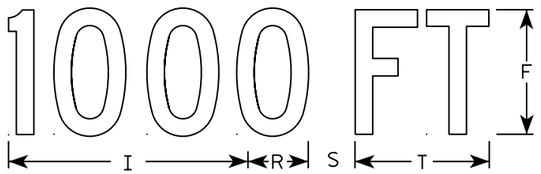
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 218	E



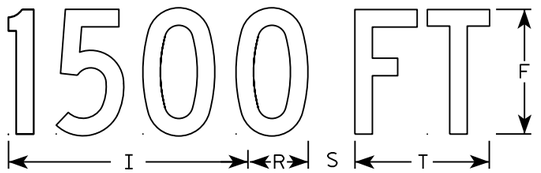
W20-1A



W20-1D



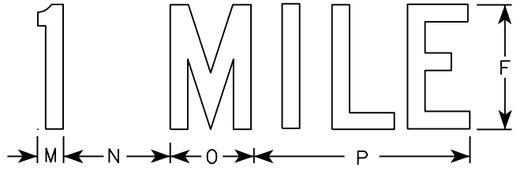
W20-1C



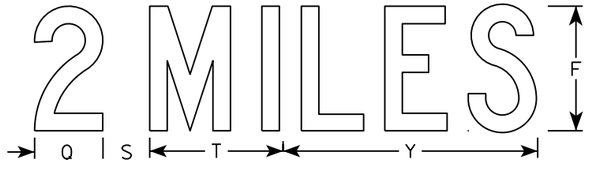
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

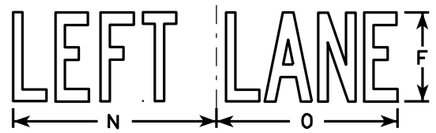
PROJECT NO:

SHEET NO: E

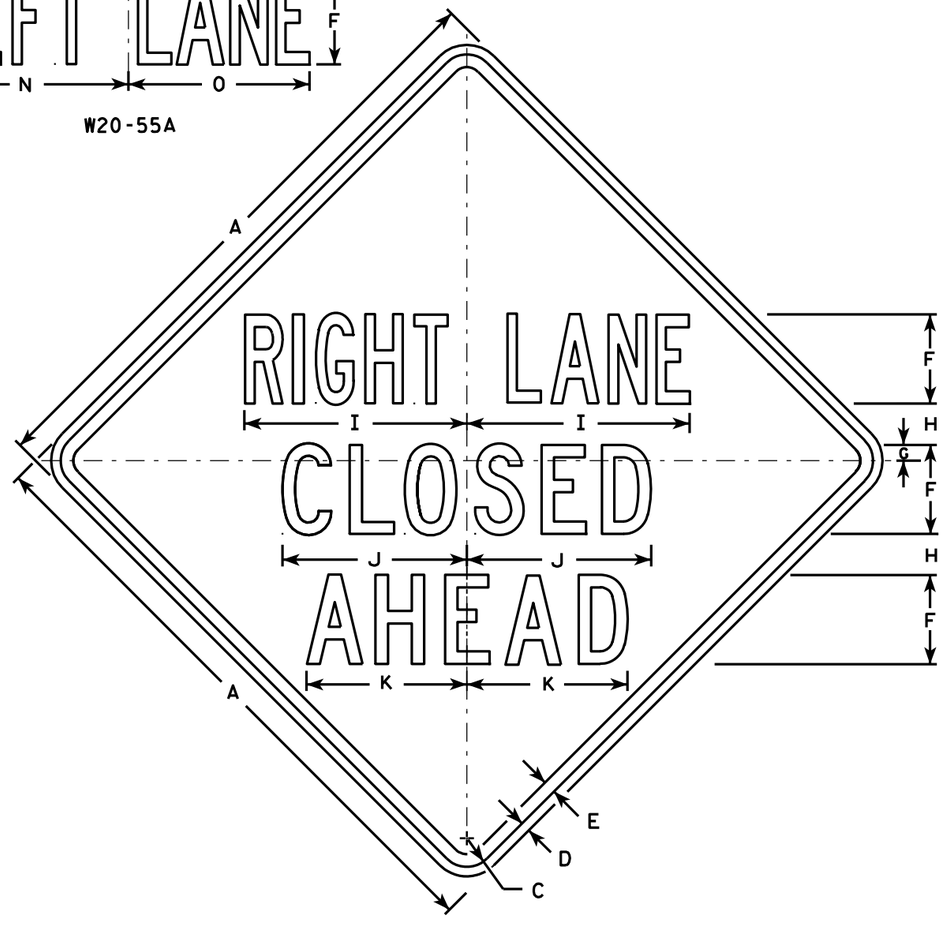
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



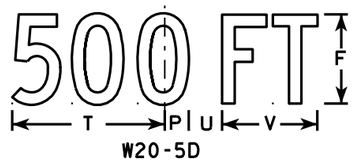
W20-56A



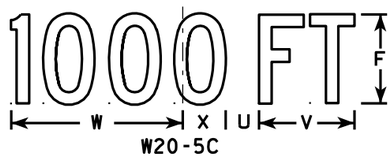
W20-55A



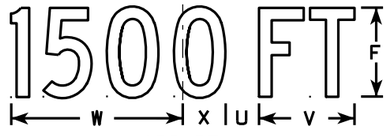
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

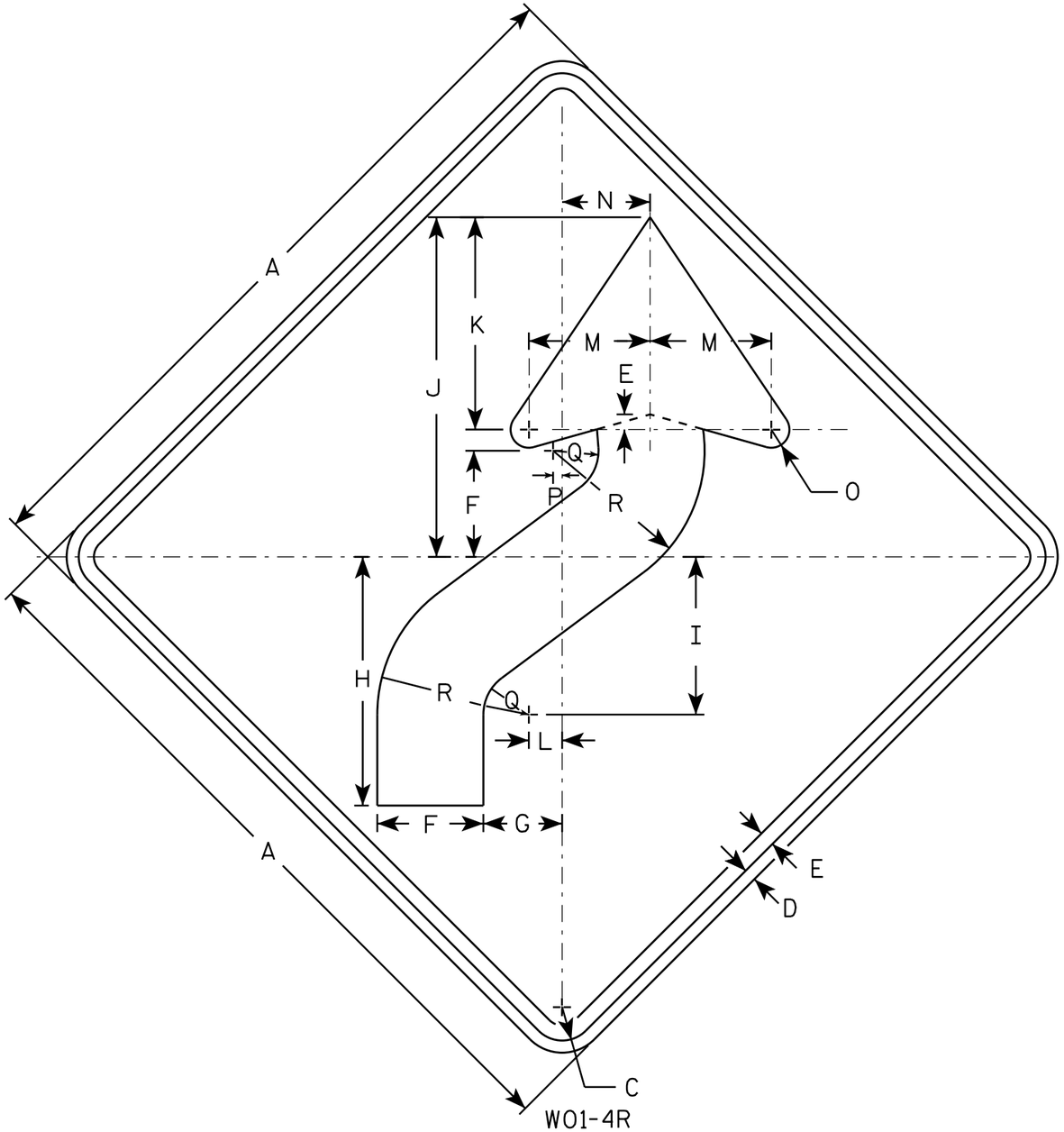
STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 220	E



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

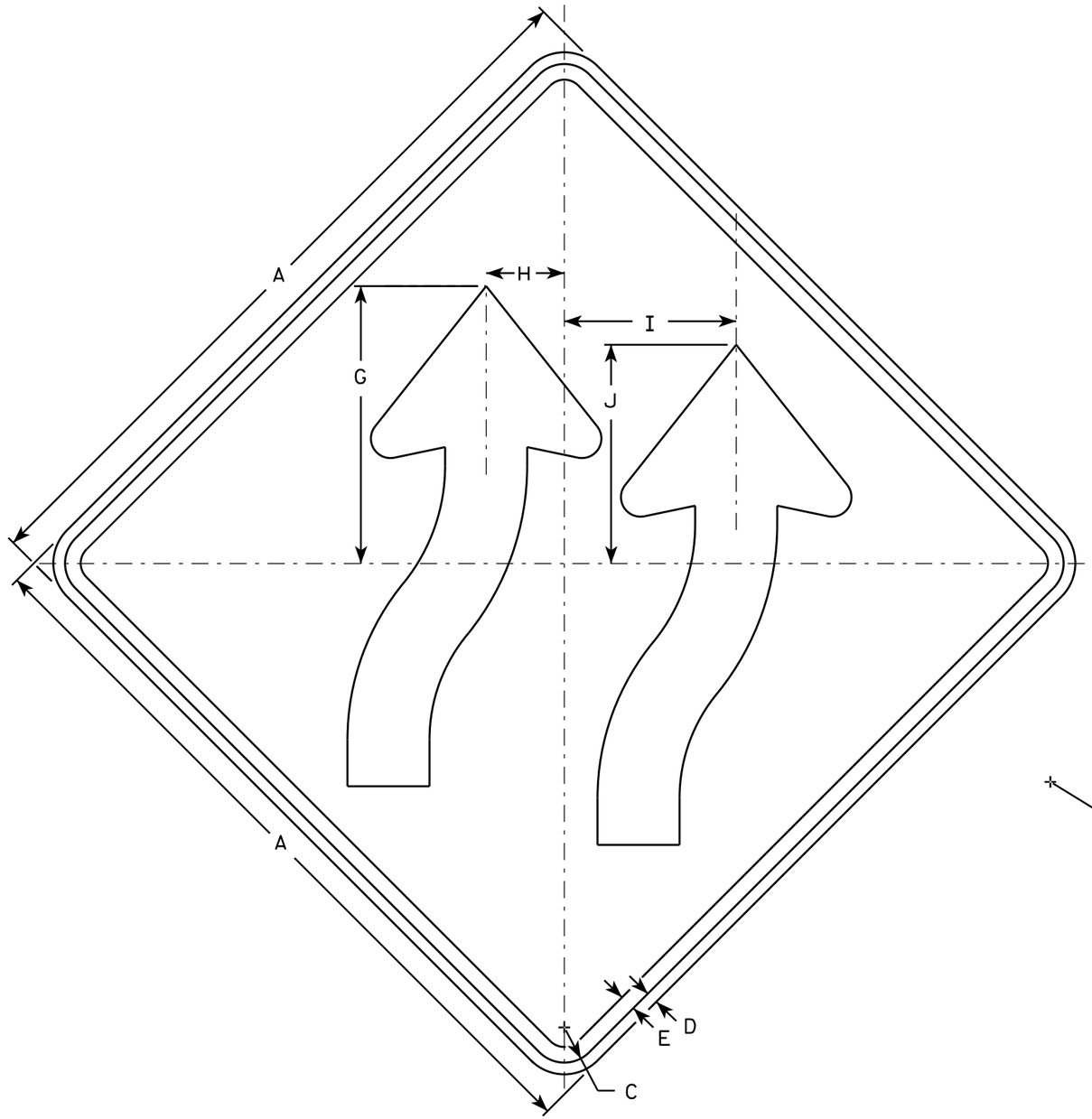
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

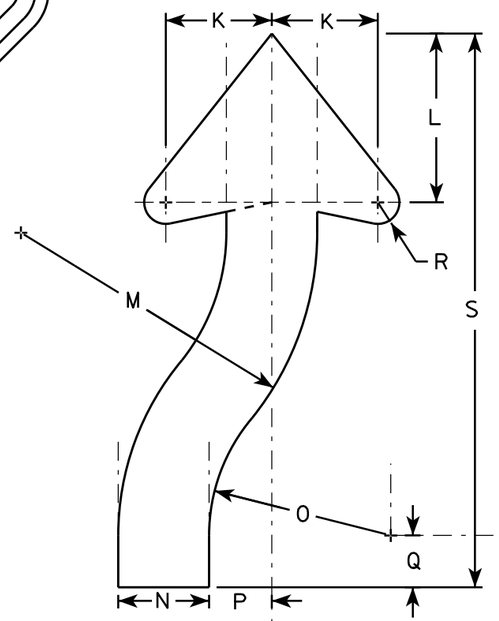
DATE 11/18/13 PLATE NO W01-4.1

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000
WISDOT/CADDS SHEET 42



W01-4bR



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4bL is the same as W014-bR exept arrows are reversed along the vertical centerline

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		13 3/8	3 3/4	8 1/4	10 1/2	4 5/8	7 3/8	12 7/8	3 7/8	7 7/8	2 3/4	2 1/4	7/8	24								9.0
2S	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
2M	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
3	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
4	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
5	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0

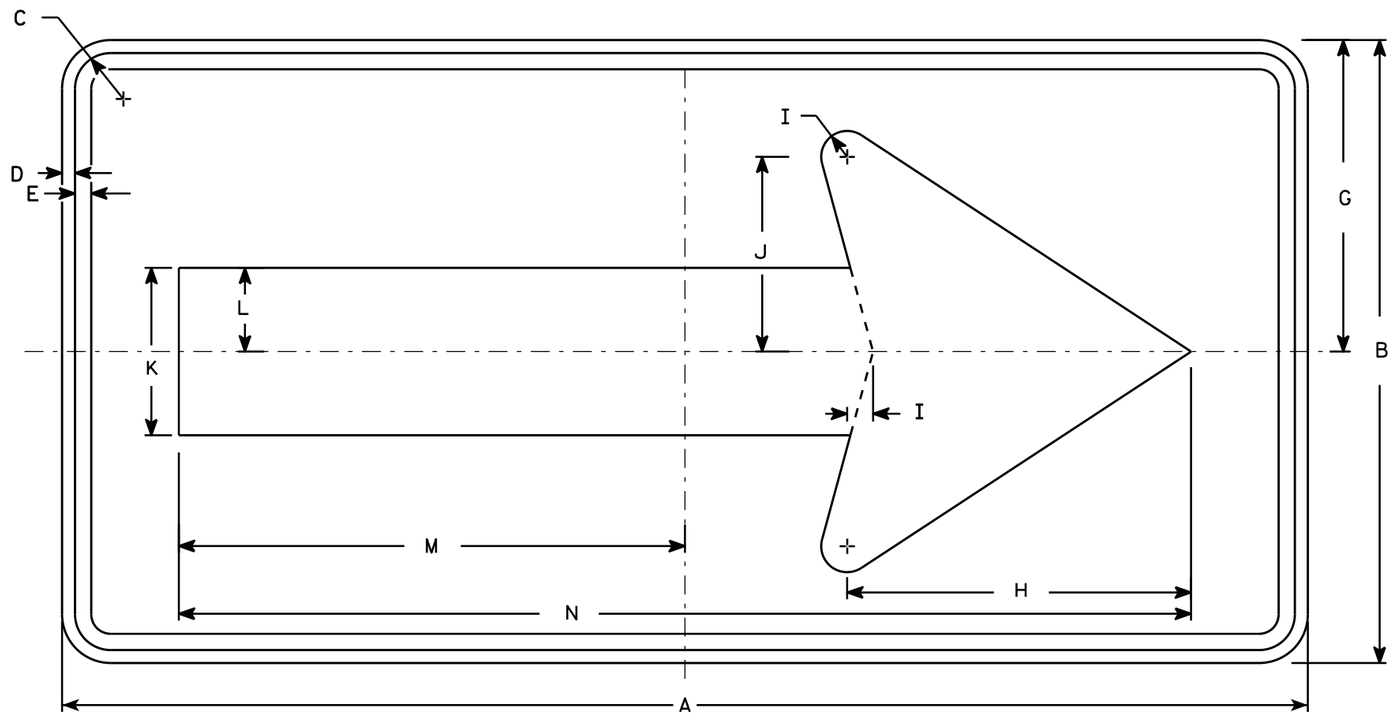
STANDARD SIGN
W01-4b

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-4b.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W01-6

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

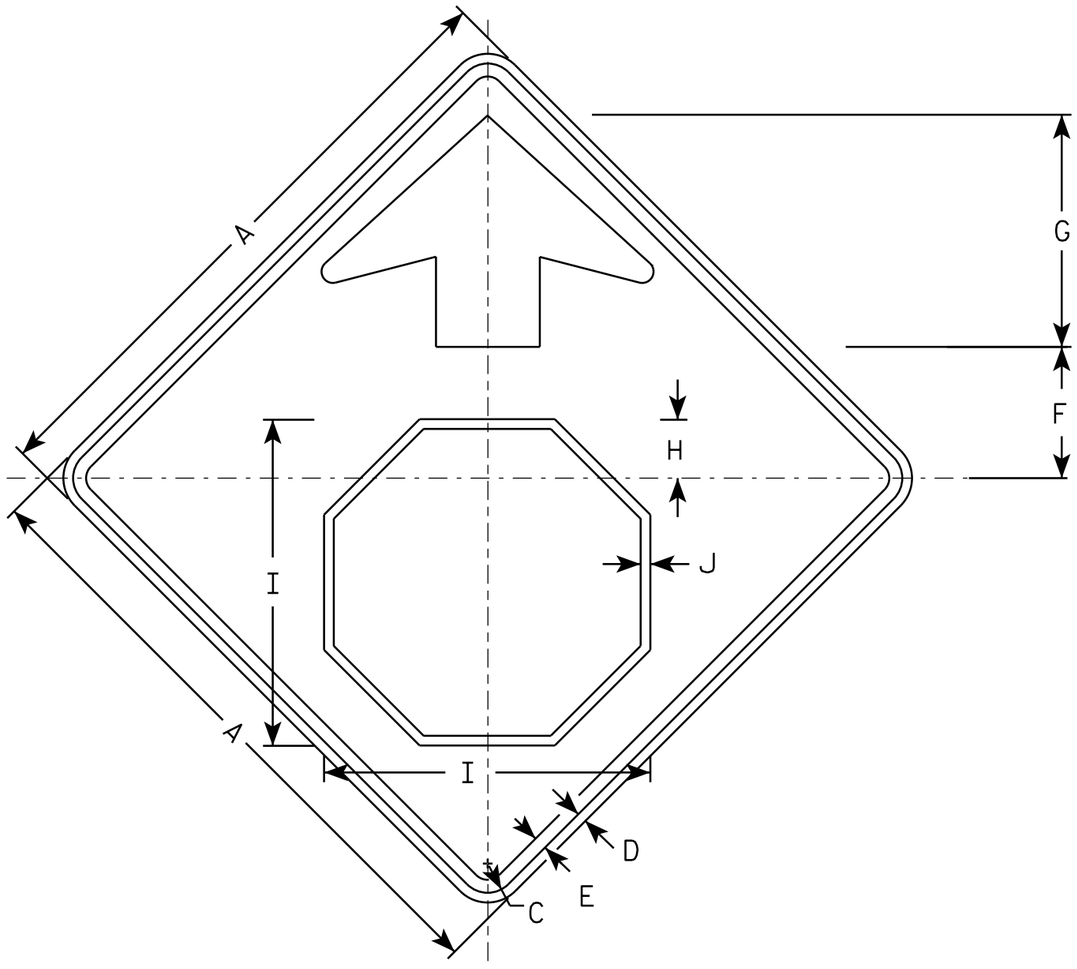
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

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

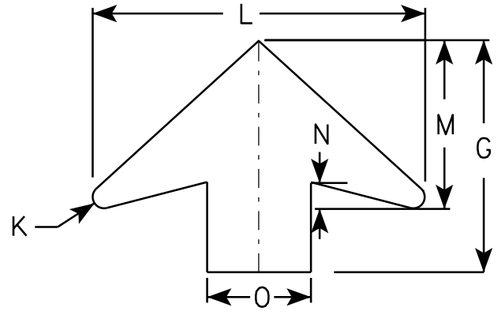
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W03-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - ORANGE
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2S	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
2M	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
3	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

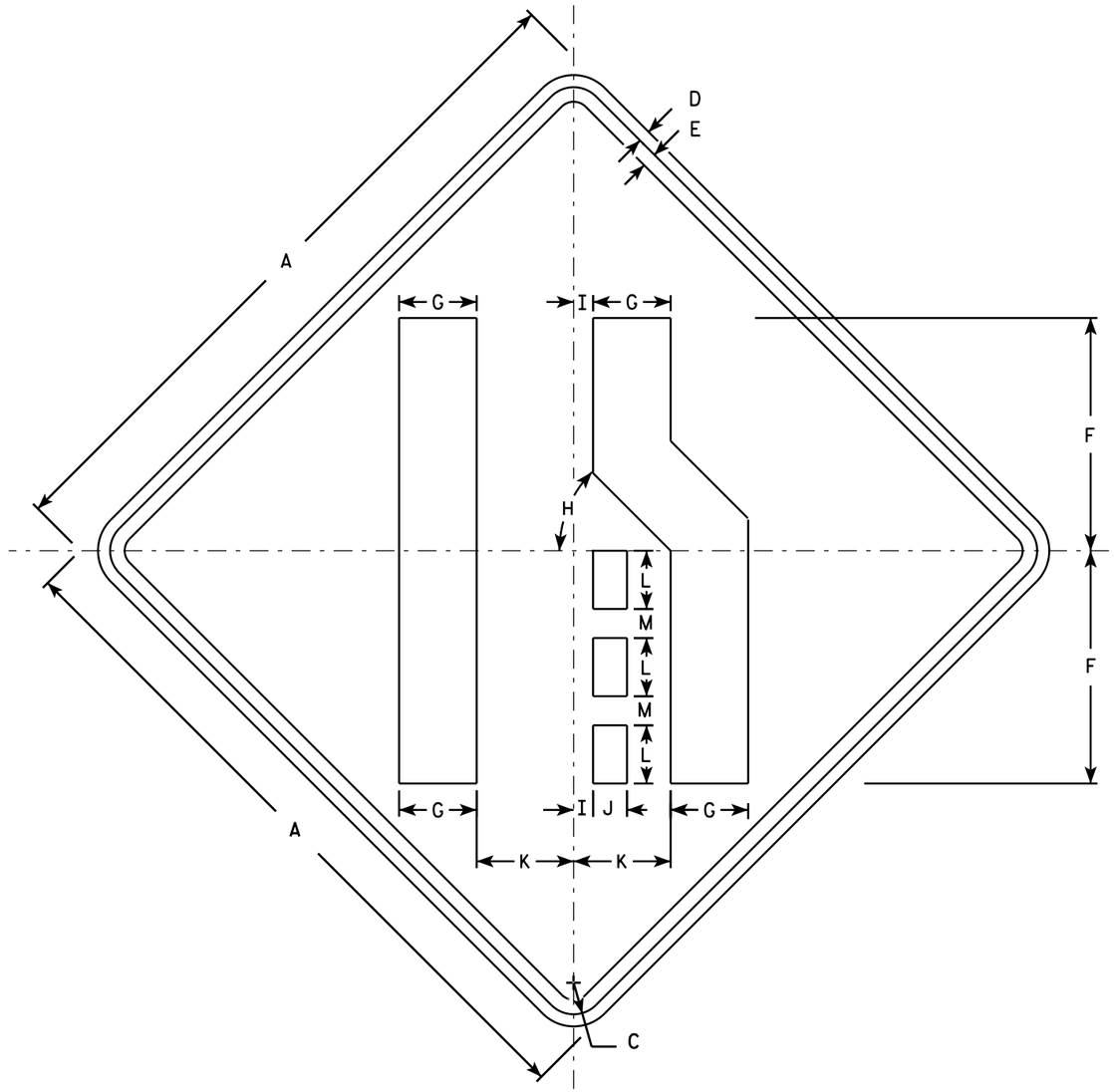
STANDARD SIGN
W03-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 03-1.1

PROJECT NO: | SHEET NO: E



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

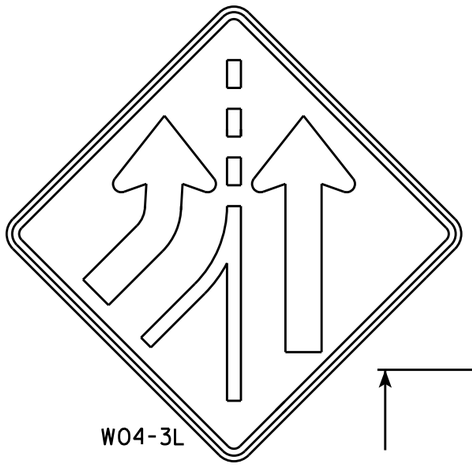
WISCONSIN DEPT OF TRANSPORTATION

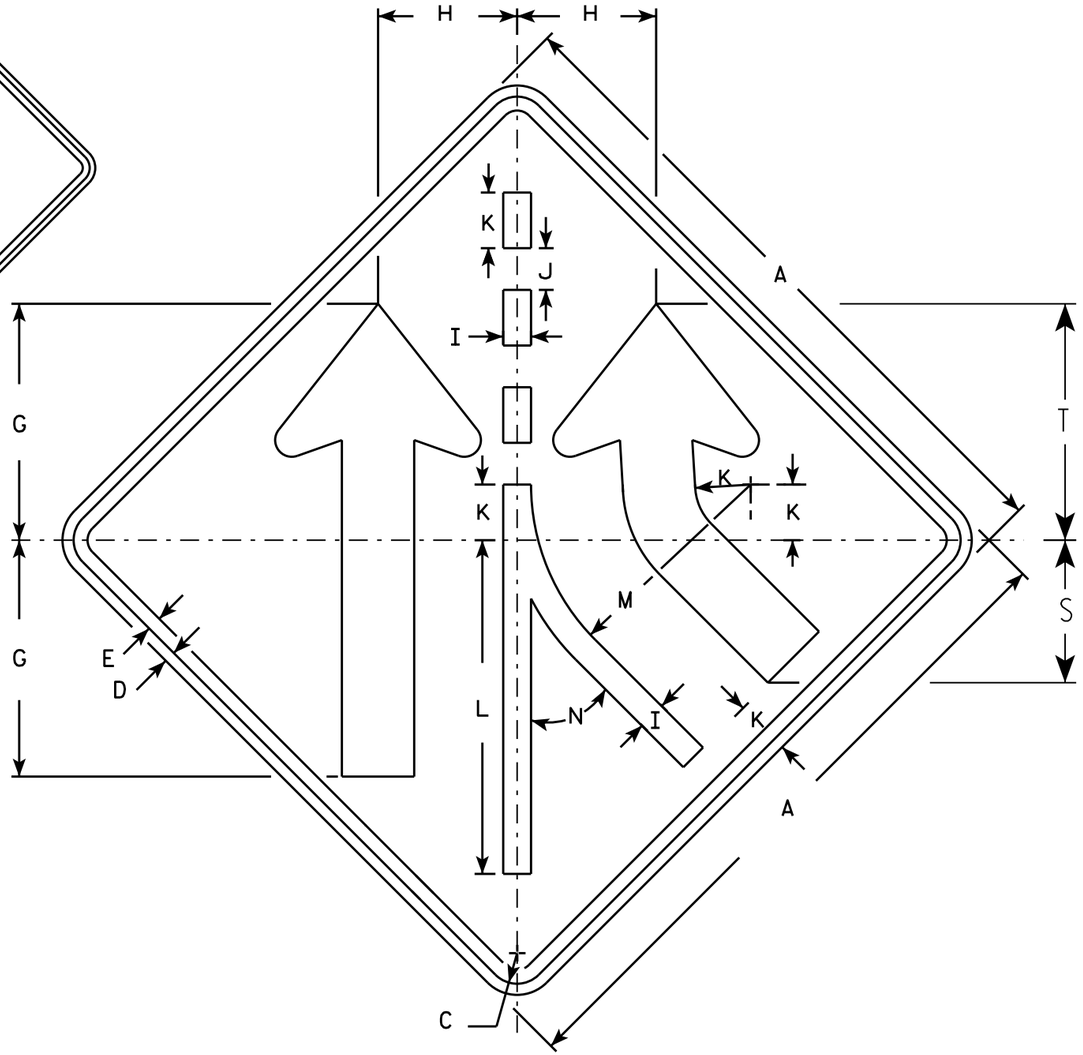
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 225 W04-2.1

PROJECT NO: | SHEET NO: E

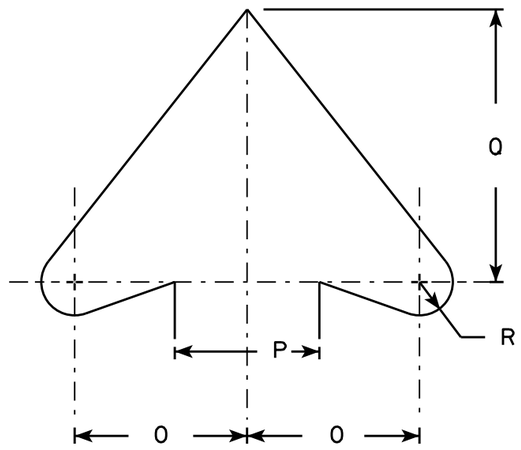
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W042.DGN PLOT DATE : 20-NOV-2013 11:43 PLOT BY : mscsja





NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-3 L is the same as W04-3 R except the arrow is reversed along the vertical centerline.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		12 3/4	7 1/2	1 1/2	2 1/4	3	18	11 7/8	45°	4 5/8	4	7 3/8	7/8	7 3/4	12 3/4							9.0
2S	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
2M	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
3	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
4	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
5	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0

STANDARD SIGN

W0433

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/20/13 PLATE W04-3.1

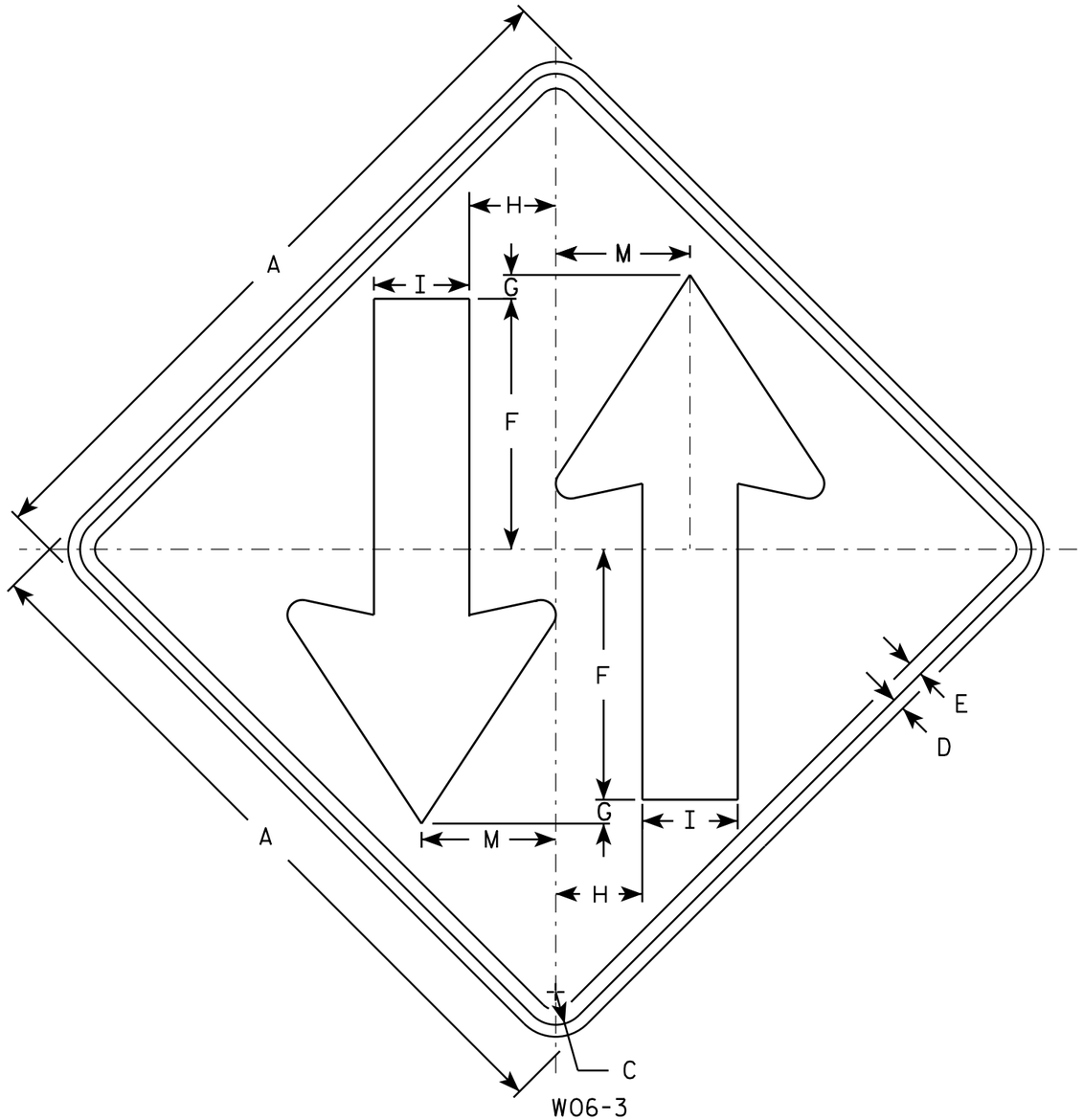
PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W043.DGN PLOT DATE : 20-NOV-2013 11:49 PLOT BY : mscsja 6.810449:1.000000

WISDOT/CADDS SHEET 42

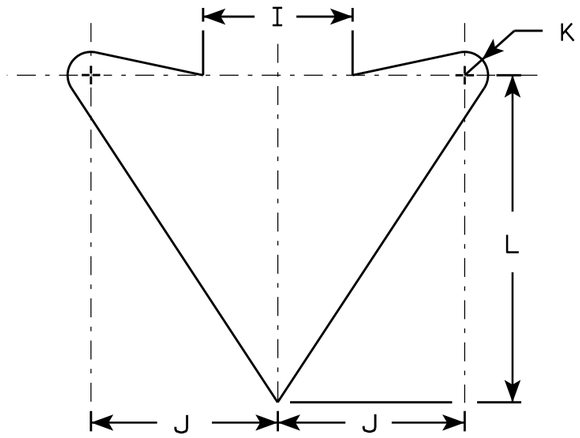
7 7



W06-3

NOTES

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



ARROW DETAIL

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

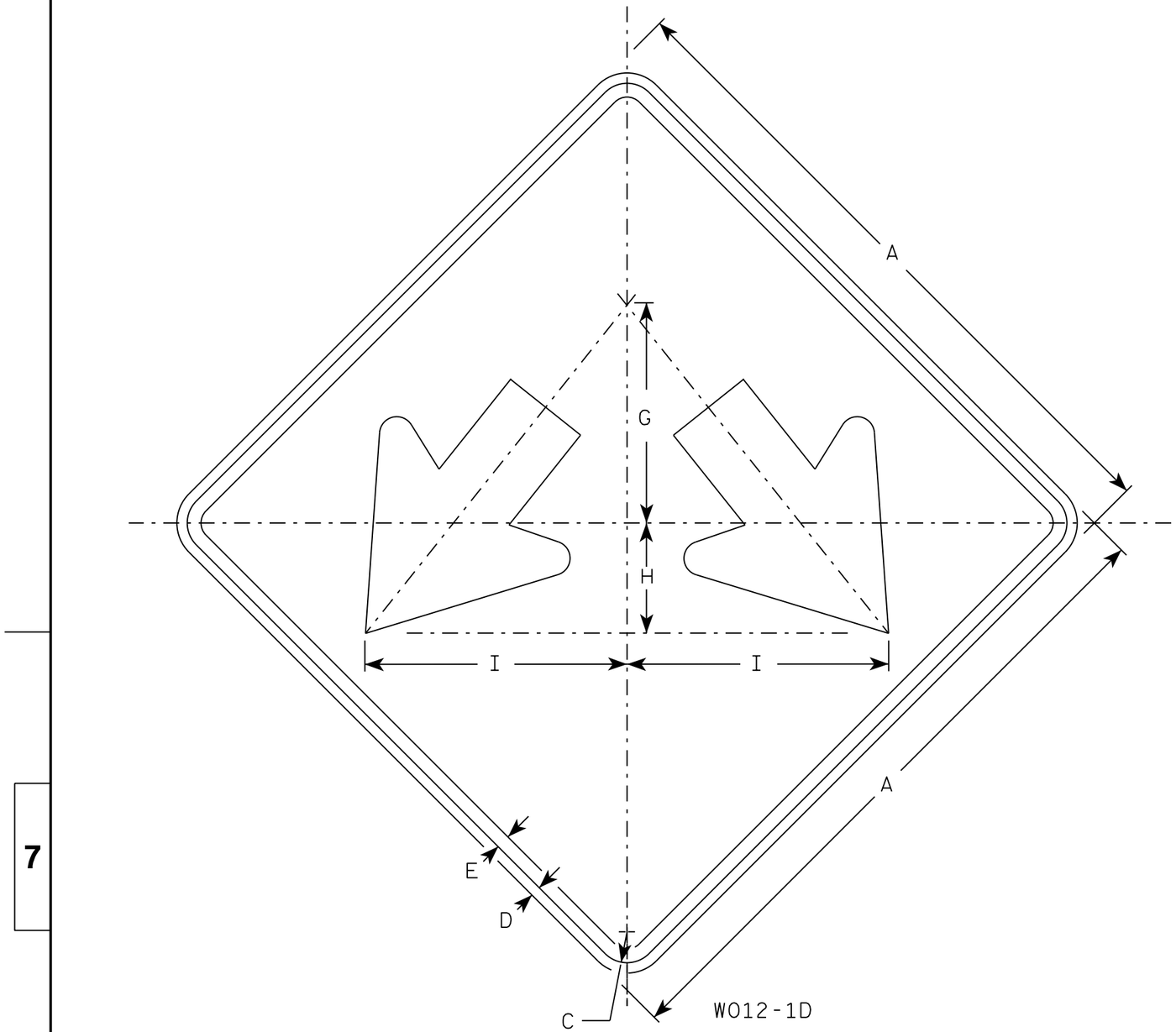
STANDARD SIGN
W06-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 227 W06-3.1

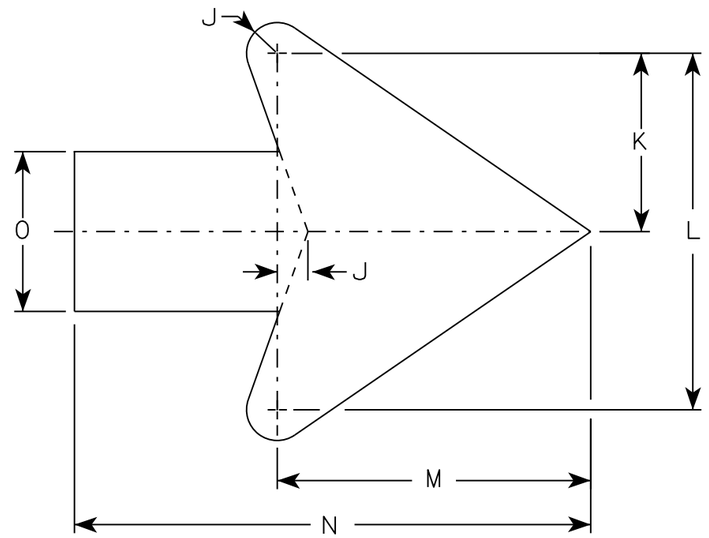
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W012-1D

NOTES

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



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0

STANDARD SIGN
W012-1D

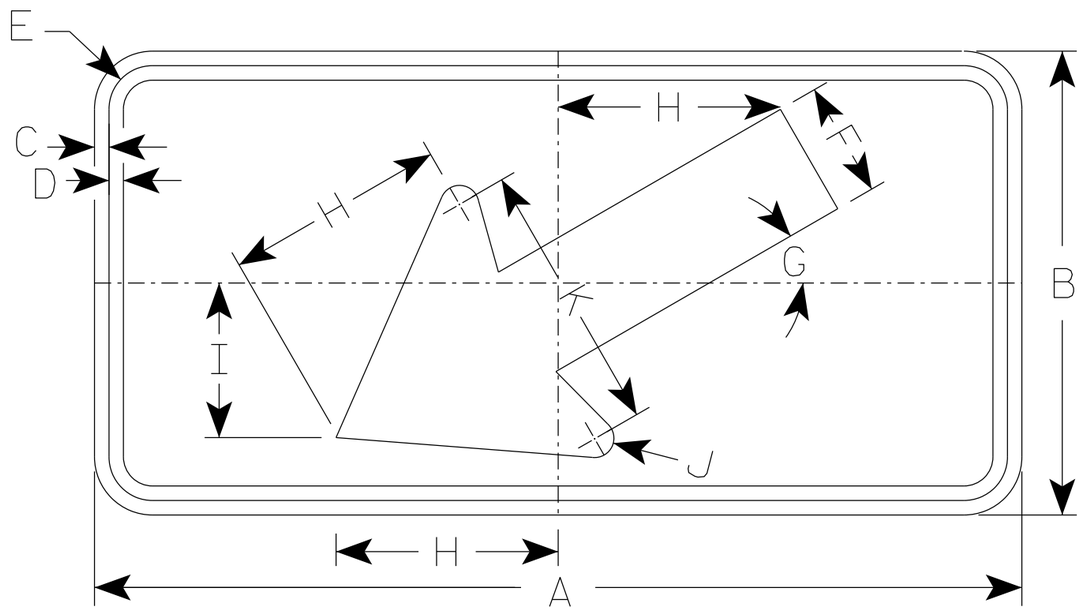
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/28/16 PLATE NO W012-1D.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CADfiles\Projects\tr_stdplate\W0121D.DGN PLOT DATE : 11-AUG-2016 11:28 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.621375:1.000000



W016-7L

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded but corners shall be rounded when base material is metal.
4. W016-7R is the same as W016-L except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
2S	48	24	1/2	5/8	1 3/8	6	30°	11 1/2	8	1	14																8.0
2M	48	24	1/2	5/8	1 3/8	6	30°	11 1/2	8	1	14																8.0
3	48	24	1/2	5/8	1 3/8	6	30°	11 1/2	8	1	14																8.0
4	48	24	1/2	5/8	1 3/8	6	30°	11 1/2	8	1	14																8.0
5	48	24	1/2	5/8	1 3/8	6	30°	11 1/2	8	1	14																8.0

STANDARD SIGN
W016-7

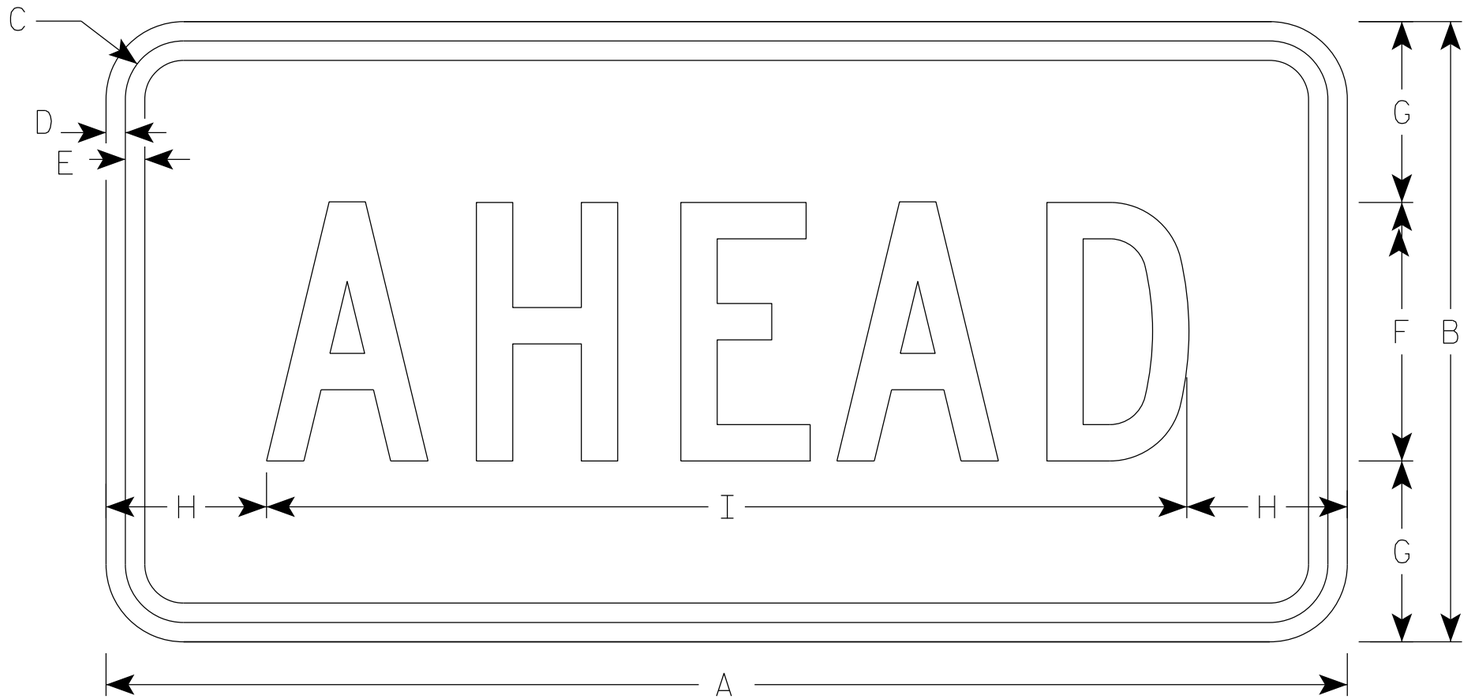
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/11/18 PLATE NO. W016-7.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 229 | E

7



W016-9P

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2S	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
2M	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
3	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0

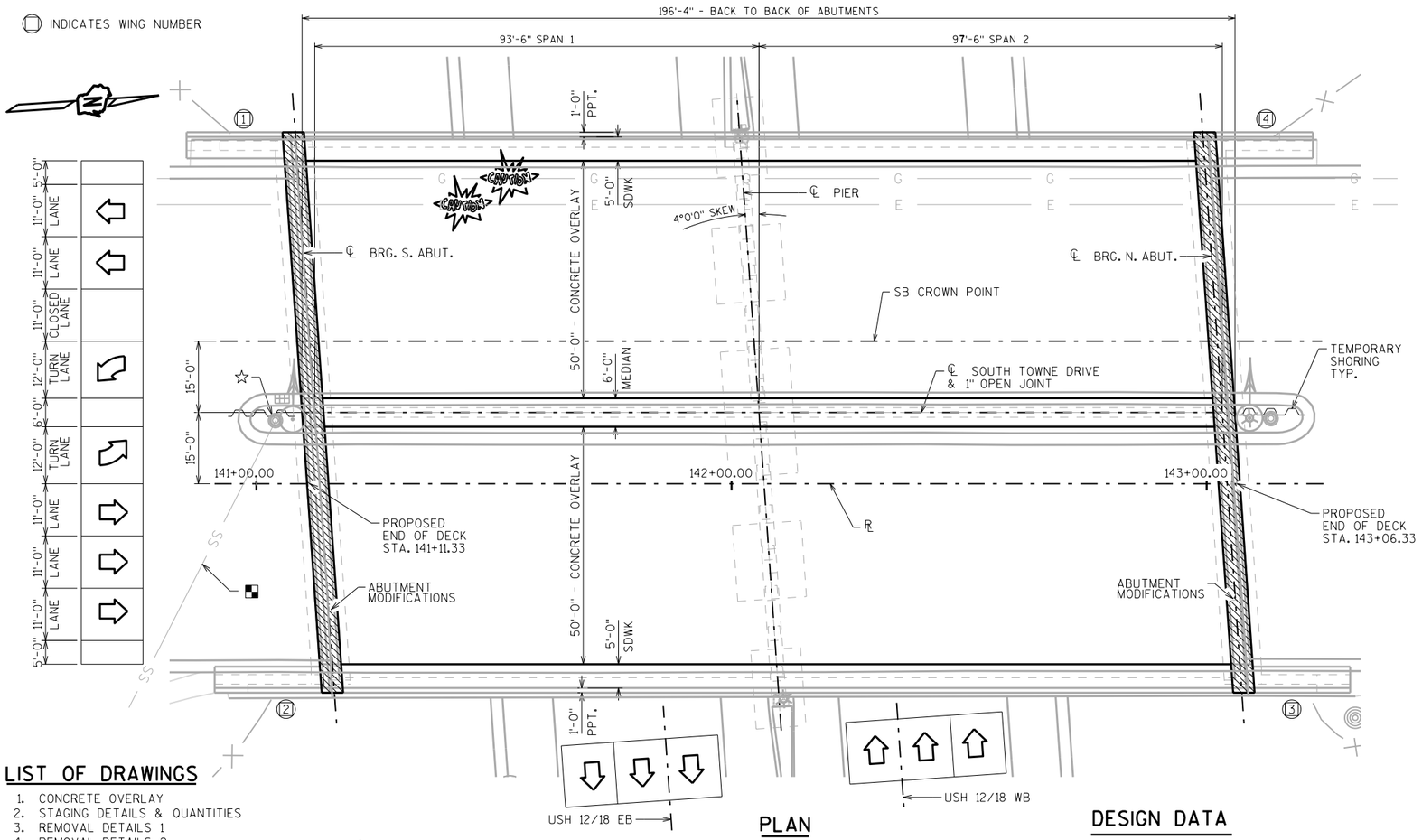
STANDARD SIGN
W016-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/1/19 PLATE NO. W016-9P.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 230 | E



PLAN

2-SPAN 54" PRESTRESSED GIRDER BRIDGE

LIST OF DRAWINGS

1. CONCRETE OVERLAY
2. STAGING DETAILS & QUANTITIES
3. REMOVAL DETAILS 1
4. REMOVAL DETAILS 2
5. CONCRETE SURFACE REPAIR
6. SOUTH ABUT. MODIFICATION DETAILS
7. NORTH ABUT. MODIFICATION DETAILS
8. ABUTMENT DIAPHRAGM DETAILS 1
9. ABUTMENT DIAPHRAGM DETAILS 2
10. PARAPET, SIDEWALK, & MEDIAN DETAILS 1
11. PARAPET, SIDEWALK, & MEDIAN DETAILS 2
12. FENCING DETAILS
13. SLOPE PAVING REPAIR
14. THERMOGRAPHIC DECK SCAN PLAN

☆ INSTALL TEMPORARY SHORING AT SOUTH ABUTMENT TO AVOID EXISTING INLET AND PIPE BELOW. EXISTING INLET & PIPE TO REMAIN. NOTE THAT INLET IS LOCATED IN MEDIAN SOUTH OF BRIDGE AND PIPE RUNS SOUTHEAST OF INLET.

■ EXISTING STORM SEWER TO REMAIN. CONTRACTOR TO FIELD VERIFY SIZE & LOCATION PRIOR TO BEGINNING CONSTRUCTION.

TRAFFIC VOLUME

SOUTH TOWNE DRIVE	USH 12/18 (BELTLINE)
A.D.T.= 20,400 (2016)	A.D.T.= 142,210 (2036)
R.D.S.= 35 M.P.H.	R.D.S.= 55 M.P.H.

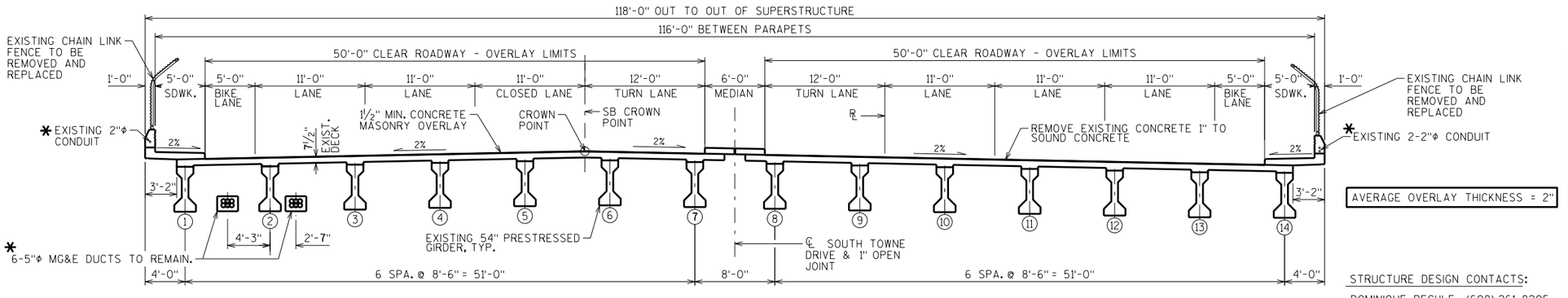
DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-17
OPERATING RATING: HS-27
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 190 KIPS

MATERIAL PROPERTIES

CONCRETE MASONRY - ALL ——— f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.



AVERAGE OVERLAY THICKNESS = 2"

✱ CONTRACTOR SHALL PROVIDE PROTECTION FOR EXISTING GIRDERS, CONDUIT/CONDUIT HANGERS DURING ABUTMENT REMOVAL/MODIFICATION WORK. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "REMOVING OLD STRUCTURE STA. 141+12.00."

CROSS SECTION THRU DECK

LOOKING NORTH

STRUCTURE DESIGN CONTACTS:

DOMINIQUE BECHLE (608) 261-8205
LAURA SHADEWALD (608) 267-9592

STATE PROJECT NUMBER

1206-04-67

GENERAL NOTES

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF NEW OVERLAY/DECK SURFACE, INCLUDING VERTICAL & HORIZONTAL SURFACES OF PAVING NOTCHES, TOP & SIDE SURFACES OF MEDIAN, AND TOP AND SIDE SURFACE OF SIDEWALKS, INCLUDING SIDEWALKS AT WINGS. SURFACE PREPARATION OF MEDIAN & SIDEWALK SURFACES PRIOR TO APPLICATION OF PROTECTIVE SURFACE TREATMENT SHALL BE INCLUDED IN THE BID ITEM "CLEANING CONCRETE SURFACES".

PIGMENTED SURFACE SEALER TO BE APPLIED TO TOP AND ROADWAY SIDE OF PARAPETS, INCLUDING PARAPETS ON WINGS. SURFACE PREPARATION OF PARAPET SURFACES PRIOR TO APPLICATION OF PIGMENTED SURFACE SEALER SHALL BE INCLUDED IN THE BID ITEM "CLEANING PARAPETS".

REMOVE THE EXISTING FENCE AND RAILINGS ALONG THE ENTIRE LENGTH OF BOTH EXISTING PARAPETS. SEE SHEET 11 FOR FENCE POST REMOVAL AND REPAIR DETAILS. INSTALL NEW CHAIN LINK FENCING ALONG THE ENTIRE LENGTH OF BOTH EXISTING PARAPETS, INCLUDING ALL WING PARAPETS. SEE SHEET 12 FOR FENCING DETAILS. REMOVAL AND DISPOSAL OF EXISTING RAILING INCLUDED IN "REMOVING OLD STRUCTURE" BID ITEM.

FOR DECK PREPARATION LOCATIONS, SEE THE THERMOGRAPHY REPORT PROVIDED IN THE ROADWAY PLANS & THE "THERMOGRAPHIC DECK SCAN PLAN" SHEET.

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 2". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE WISDOT BUREAU OF STRUCTURES DESIGN SECTION.

1 INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS."

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-13-311" SHALL BE THE EXISTING GROUNDLINE.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE.

CLEAN, STRAIGHTEN, AND EXTEND EXISTING BAR STEEL REINFORCEMENT INTO NEW CONSTRUCTION WHERE APPLICABLE.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A ½" MIN. DEEP SAW CUT.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, FULL DEPTH DECK REPAIR, AND CONCRETE SURFACE REPAIR AREAS ARE FOR INFORMATIONAL PURPOSES ONLY. FINAL AREAS TO BE DETERMINED BY THE FIELD ENGINEER. PREPARATION DECKS TYPE 2 AREAS ESTIMATED AT APPROXIMATELY 50% OF TYPE 1 AREAS FOR THIS BRIDGE. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

ALL PREVIOUS PATCHES SHALL BE REMOVED UNDER THE BID ITEM FOR "PREPARATION DECKS TYPE 1" AND "PREPARATION DECKS TYPE 2".

ENGINEER TO VERIFY CONCRETE SURFACE REPAIR AREAS. CONCRETE SURFACE REPAIRS SHALL BE MADE ONLY AS DIRECTED BY THE ENGINEER.

PRIOR TO BEGINNING REMOVAL OPERATIONS, SURVEY GUTTER LINES AND CROWN POINTS ALONG NORTH AND SOUTH ABUTMENTS. FINAL TOP OF DECK ELEVATIONS TO MATCH EXISTING + ½". FINAL SIDEWALK AND MEDIAN ELEVATIONS TO MATCH EXISTING.

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher, LLS 5/24/19
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-13-311

W. BROADWAY/SOUTH TOWNE DR. OVER USH 12/18

COUNTY: DANE | CITY: MONONA

DESIGN SPEC.: REHABILITATION - N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DMB	CAD	DMB	CAD

CONCRETE OVERLAY

SHEET 1 OF 14

231

I.D. 1206-04-37A

DATE: MAY 2019

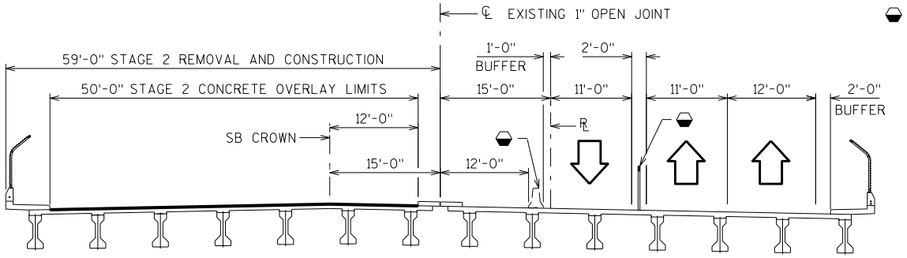
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STATE PROJECT NUMBER

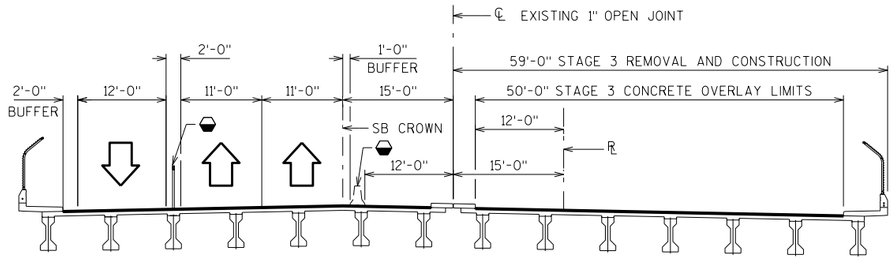
1206-04-67



DO NOT ANCHOR BY DRILLING TEMPORARY BARRIER OR FLEXIBLE DELINEATORS TO EXISTING DECK OR TO NEW CONCRETE OVERLAY

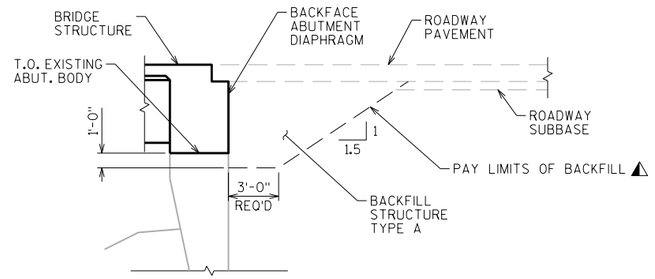
STAGE 2 CROSS SECTION THRU BRIDGE

(LOOKING NORTH)



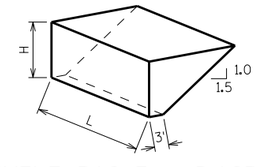
STAGE 3 CROSS SECTION THRU BRIDGE

(LOOKING NORTH)



TYPICAL SECTION THRU ABUTMENT

⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.



ABUTMENT BACKFILL DIAGRAM FOR WINGS PARALLEL TO ROADWAY

L = OUT TO OUT OF ABUTMENT, INCLUDING WINGS (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H)
V_{CY} = V_{CF} (EF)/27
V_{TON} = V_{CY} (2.0)

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	TOTALS
	203.0200	REMOVING OLD STRUCTURE STA. 141+12.00	LS	———	———	———	1
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-13-311	LS	———	———	———	1
	210.1500	BACKFILL STRUCTURE TYPE A	TON	———	333	333	666
	502.0100	CONCRETE MASONRY BRIDGES	CY	177	———	———	177
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	2,637	———	———	2,637
	502.3210	PIGMENTED SURFACE SEALER	SY	149	———	———	149
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	17,750	———	———	17,750
	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	28	———	———	28
	506.7050.S	REMOVING BEARINGS B-13-311	EACH	28	———	———	28
	509.0301	PREPARATION DECKS TYPE 1	SY	3	———	———	3
	509.0302	PREPARATION DECKS TYPE 2	SY	1	———	———	1
⬟	509.0400.S	CLEANING CONCRETE SURFACES	SY	414	———	———	414
	509.0500	CLEANING DECKS	SY	2,167	———	———	2,167
	509.1500	CONCRETE SURFACE REPAIR	SF	75	6	———	81
	509.2000	FULL-DEPTH DECK REPAIR	SY	1	———	———	1
	509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	121	———	———	121
☆	509.9020.S	EPOXY CRACK SEALING	LF	———	8	8	16
◨	509.9050.S	CLEANING PARAPETS	LF	456	———	———	456
	511.1200	TEMPORARY SHORING B-13-311	SF	———	50	50	100
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	———	22	22	44
	604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	———	16	16	32
	604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	———	470	529	999
	SPV.0090	FENCE CHAIN LINK POLYMER COATED 8-FT B-13-311	LF	471	———	———	471
	SPV.0165	FIBER WRAP REINFORCING NON-STRUCTURAL	SF	873	———	———	873
		NON-BID ITEMS					
		FILLER	SIZE	———	———	———	½"

⬟ THIS SPECIAL PROVISION INCLUDES VERTICAL AND HORIZONTAL SURFACES OF SIDEWALKS & MEDIAN.

☆ THIS SPECIAL PROVISION PERTAINS TO SEALING VERTICAL CRACKS IN THE ABUTMENT BODIES. SEE "CONCRETE SURFACE REPAIR" SHEET FOR DETAILS.

◨ THIS SPECIAL PROVISIONS INCLUDES INSIDE FACES AND TOP SURFACES OF PARAPETS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-311

DRAWN BY DMB | PLANS CK'D. CAD

STAGING DETAILS & QUANTITIES

SHEET 2

232

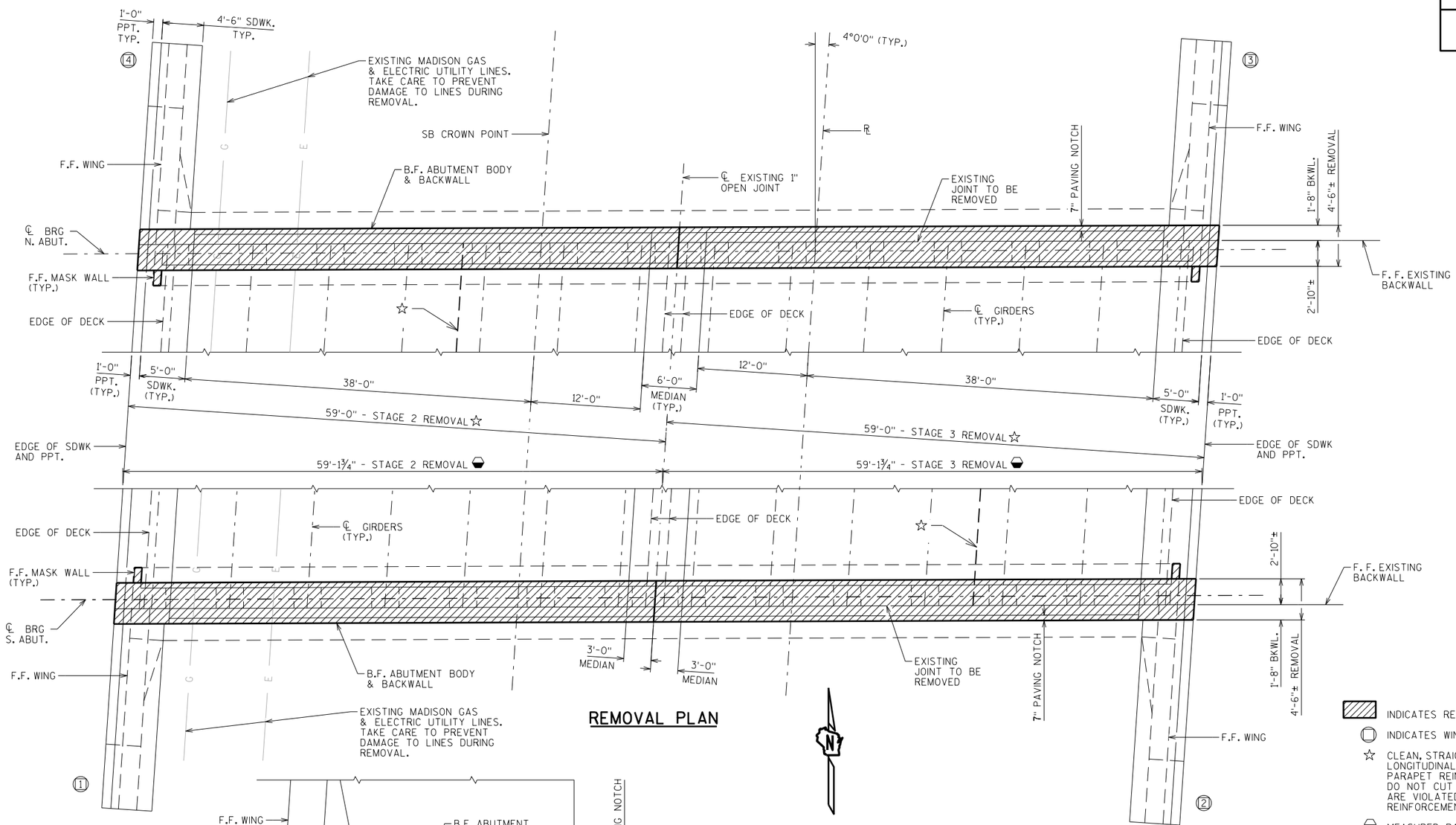
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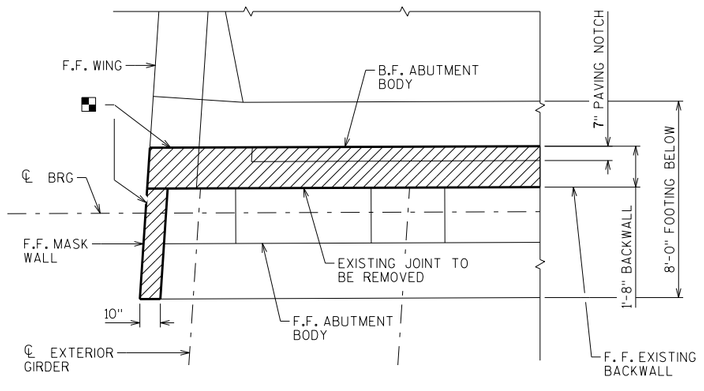
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STATE PROJECT NUMBER

1206-04-67



REMOVAL PLAN



TYPICAL ABUTMENT CORNER REMOVAL PLAN DETAIL

(WINGS 2 & 4 SHOWN - WINGS 1& 3 SIMILAR)

PRIOR TO BEGINNING REMOVAL OPERATIONS, SURVEY GUTTER LINES AND CROWN POINTS ALONG NORTH AND SOUTH ABUTMENTS. FINAL TOP OF DECK ELEVATION TO MATCH EXISTING + ½". FINAL SIDEWALK AND MEDIAN ELEVATIONS TO MATCH EXISTING.

- INDICATES REMOVAL LIMITS
- ⓘ INDICATES WING NUMBER
- ☆ CLEAN, STRAIGHTEN & INCORPORATE EXISTING LONGITUDINAL DECK, SIDEWALK, MEDIAN, AND PARAPET REINFORCEMENT INTO NEW CONSTRUCTION. DO NOT CUT UNLESS CLEARANCE REQUIREMENTS ARE VIOLATED. REPLACE DAMAGED OR CORRODED REINFORCEMENT AS DIRECTED BY THE ENGINEER.
- ⬬ MEASURED PARALLEL TO ℄ ABUTMENT BEARING
- SAWCUT THROUGH EXISTING BACKWALL, WINGWALL, & MASK WALL CONCRETE AND REINFORCEMENT. TAKE CARE TO SAWCUT THROUGH WINGWALL/SIDEWALK AT AN ANGLE PARALLEL TO SKEW/F.F. OF ABUTMENT. PLACE ½" FILLER BETWEEN EXISTING WINGWALL AND NEW CONCRETE DIAPHRAGM. EXTEND ½" FILLER TO TOP OF PARAPET. PAINT ENDS OF EXPOSED REINFORCEMENT WITH EPOXY CONFORMING TO AASHTO M-235, TYPE III, GRADE 2, CLASS B OR C.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-311

DRAWN BY DMB | PLANS CK'D. CAD

REMOVAL DETAILS 1

SHEET 3

233

SCALE = 6.00

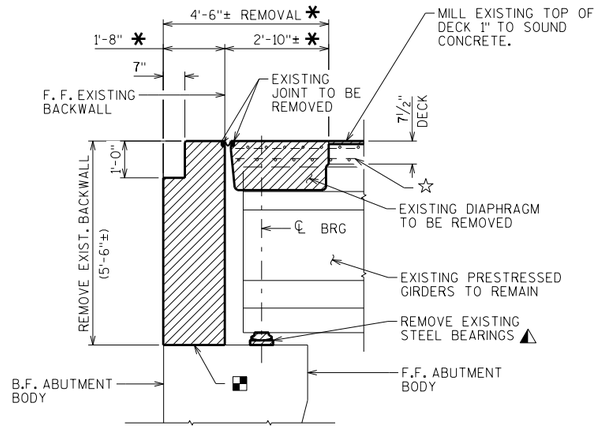
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STATE PROJECT NUMBER

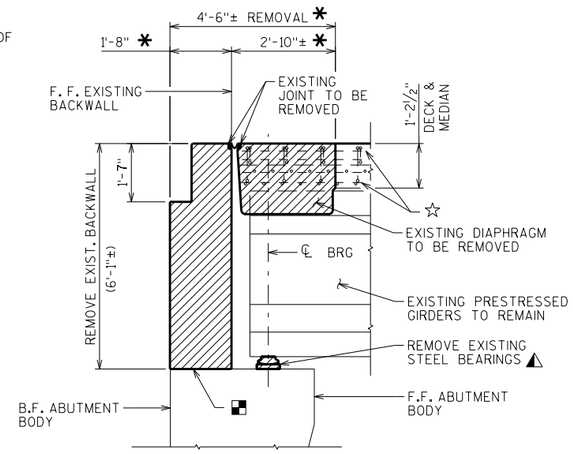
1206-04-67

PRIOR TO BEGINNING REMOVAL OPERATIONS, SURVEY GUTTER LINES AND CROWN POINTS ALONG NORTH AND SOUTH ABUTMENTS. FINAL TOP OF DECK ELEVATIONS TO MATCH EXISTING + ½". FINAL SIDEWALK AND MEDIAN ELEVATIONS TO MATCH EXISTING.



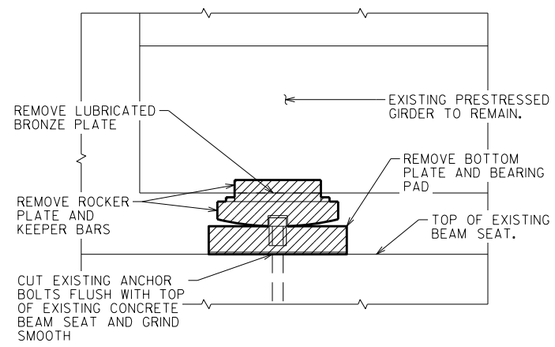
SECTION THRU ABUTMENTS

(TYP. BOTH ABUTMENTS)



SECTION THRU SIDEWALKS & MEDIANS

(TYP. BOTH ABUTMENTS)



BEARING REMOVAL DETAIL ⚠

REMOVAL AND DISPOSAL OF EXISTING BEARINGS AS SHOWN, INCLUDING JACKING OF THE BRIDGE AS REQUIRED TO REMOVE AND INSTALL THE NEW SHIMS AND BEARING PADS, SHALL BE INCLUDED IN THE BID ITEM, "REMOVING BEARINGS B-13-311". COORDINATE WITH EXISTING UTILITY OWNERS TO PREVENT DAMAGE TO THEIR FACILITIES DURING JACKING OPERATIONS. LIMIT JACKING AMOUNT TO THE MINIMUM REQUIRED TO REMOVE THE EXISTING BEARINGS (⅝" ±).

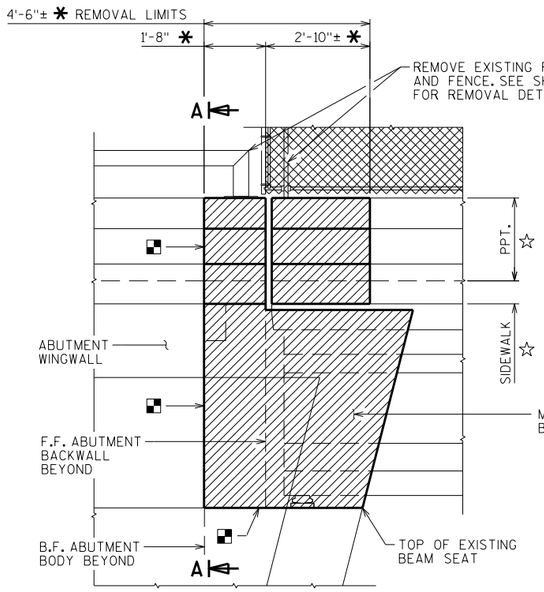
▨ INDICATES REMOVAL LIMITS.

✱ DIMENSIONS SHOWN ARE NORMAL TO ℄ OF SUBSTRUCTURE UNIT.

☆ CLEAN, STRAIGHTEN & INCORPORATE EXISTING LONGITUDINAL DECK, SIDEWALK, MEDIAN, AND PARAPET REINFORCEMENT INTO NEW CONSTRUCTION. DO NOT CUT UNLESS CLEARANCE REQUIREMENTS ARE VIOLATED. REPLACE DAMAGED OR CORRODED REINFORCEMENT AS DIRECTED BY THE ENGINEER.

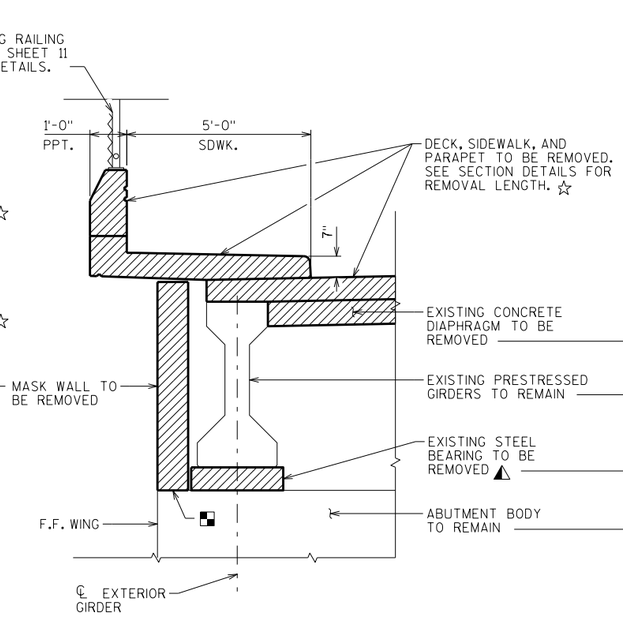
⚠ ESTABLISH EXISTING BOTTOM OF GIRDER ELEVATION PRIOR TO REMOVAL OF THE EXISTING BEARINGS. BOTTOM OF GIRDER ELEVATION SHALL REMAIN UNCHANGED FOR THE PROPOSED CONDITION.

◪ SAWCUT THROUGH EXISTING BACKWALL, WINGWALL & MASK WALL CONCRETE AND REINFORCEMENT. TAKE CARE TO SAWCUT THROUGH WINGWALL/SIDEWALK AT AN ANGLE PARALLEL TO SKEW/F.F. OF ABUTMENT. PLACE ½" FILLER BETWEEN EXISTING WINGWALL AND NEW CONCRETE DIAPHRAGM. EXTEND ½" FILLER TO TOP OF PARAPET. PAINT ENDS OF EXPOSED REINFORCEMENT WITH EPOXY CONFORMING TO AASHTO M-235, TYPE III, GRADE 2, CLASS B OR C.



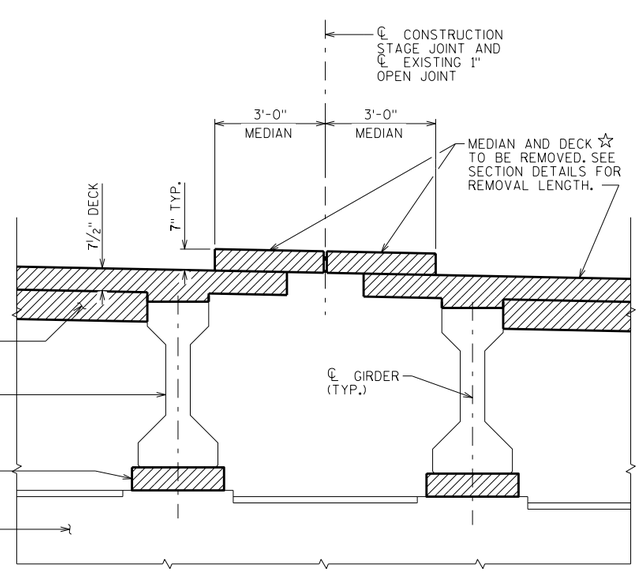
WING & PARAPET ELEVATION

(TYP. AT ALL WING LOCATIONS)



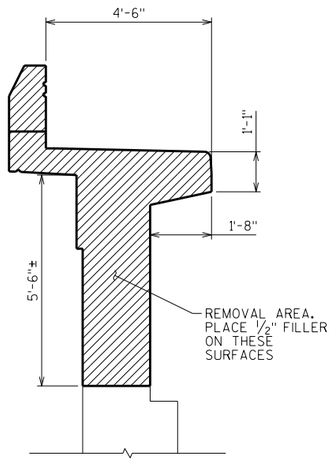
SECTION THRU MASK WALL

(TYP. AT ALL WING LOCATIONS)



SECTION THRU MEDIAN

(TYP. AT BOTH ABUTMENTS)



SECTION A-A - THRU WINGWALL

TYP. AT ALL WINGS

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STRUCTURE B-13-311

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REMOVAL DETAILS 2

SHEET 4

234

SCALE = 2.00

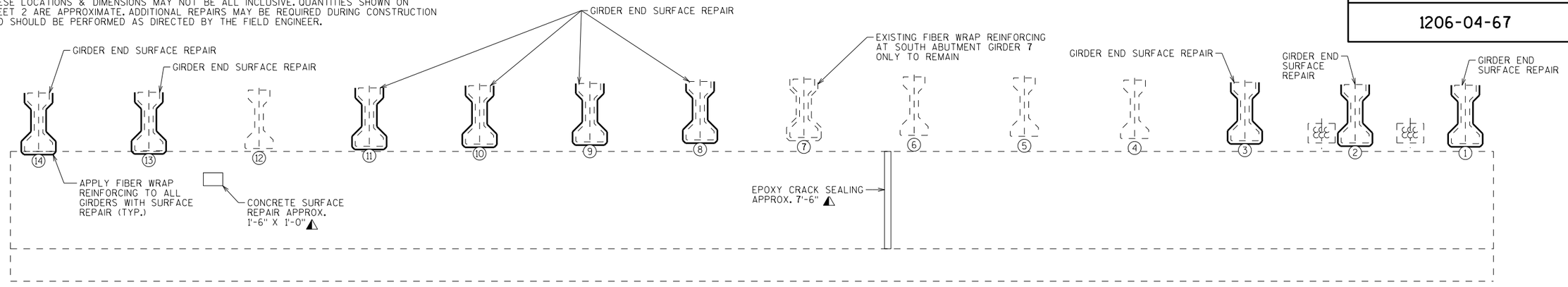
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STATE PROJECT NUMBER

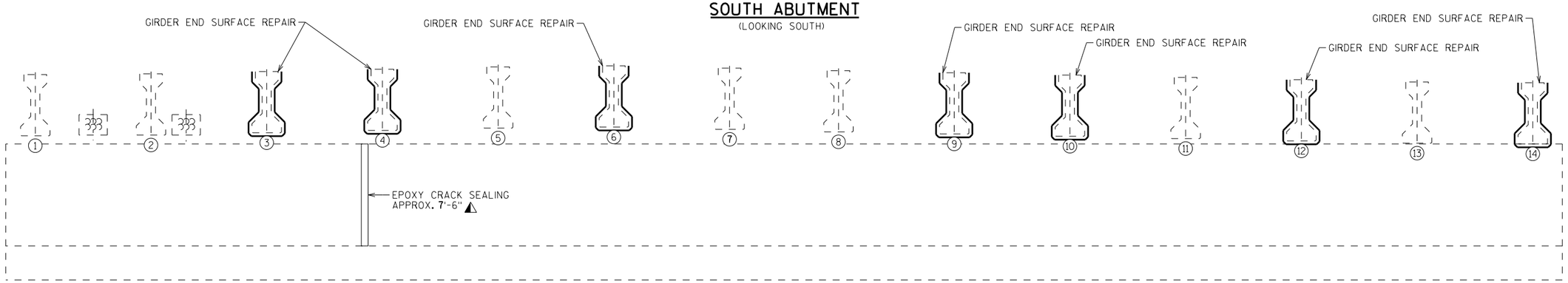
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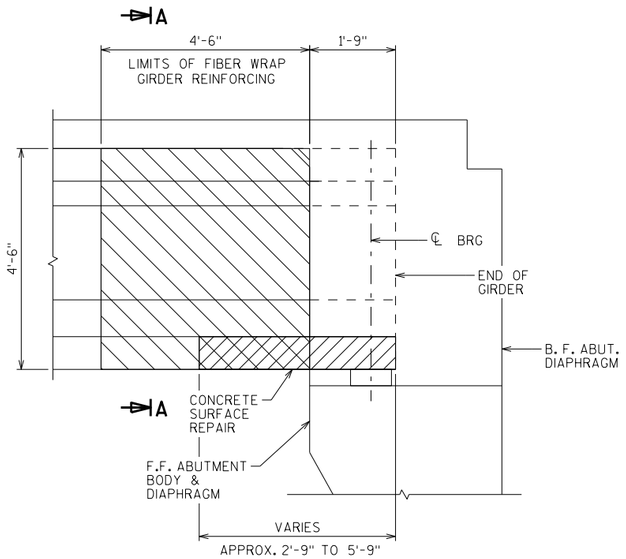
⚠ THESE LOCATIONS & DIMENSIONS MAY NOT BE ALL INCLUSIVE. QUANTITIES SHOWN ON SHEET 2 ARE APPROXIMATE. ADDITIONAL REPAIRS MAY BE REQUIRED DURING CONSTRUCTION AND SHOULD BE PERFORMED AS DIRECTED BY THE FIELD ENGINEER.



SOUTH ABUTMENT

(LOOKING SOUTH)



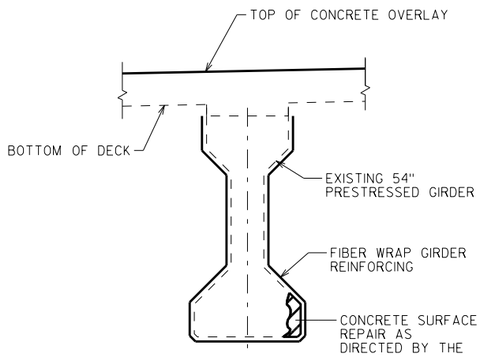


GIRDER END SURFACE REPAIR

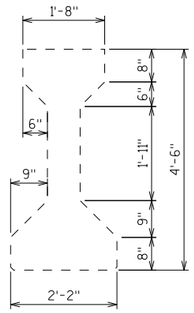
SEE ABOVE FOR LOCATIONS

NORTH ABUTMENT

(LOOKING NORTH)

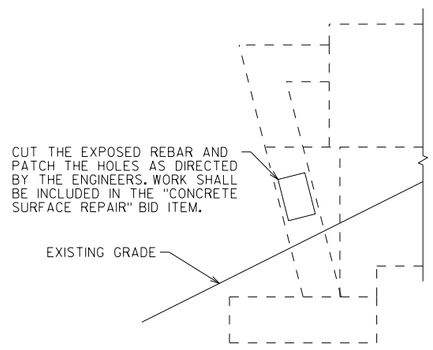


SECTION A-A



SECTION THRU GIRDER

SHOWING EXISTING DIMENSIONS



WING 1 REPAIR

(LOOKING EAST)

GIRDER END SURFACE REPAIR NOTES

WORK PERFORMED FOR GIRDER END REPAIR SHALL BE INCLUDED IN THE BID ITEMS "CONCRETE SURFACE REPAIR" AND "FIBER WRAP GIRDER REINFORCING".

PERFORM "CONCRETE SURFACE REPAIR" PRIOR TO INSTALLATION OF "FIBER WRAP GIRDER REINFORCING" AS DIRECTED BY THE FIELD ENGINEER AT THE LOCATIONS INDICATED ON THIS SHEET.

FIBER WRAP GIRDER REINFORCING SHALL BE IN ACCORDANCE WITH THE "FIBER WRAP GIRDER REINFORCING" SPECIAL PROVISION. APPLY FIBER WRAP AFTER CASTING NEW ABUTMENT DIAPHRAGMS.

EPOXY PAINT APPLIED TO FIBER WRAP AT GIRDERS 1 & 14 OF SOUTH ABUTMENT AND GIRDER 14 OF NORTH ABUTMENT TO MATCH EXISTING RED STAIN ON THE EXTERIOR FACE OF THE GIRDER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

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CONCRETE SURFACE REPAIR

SHEET 5

235

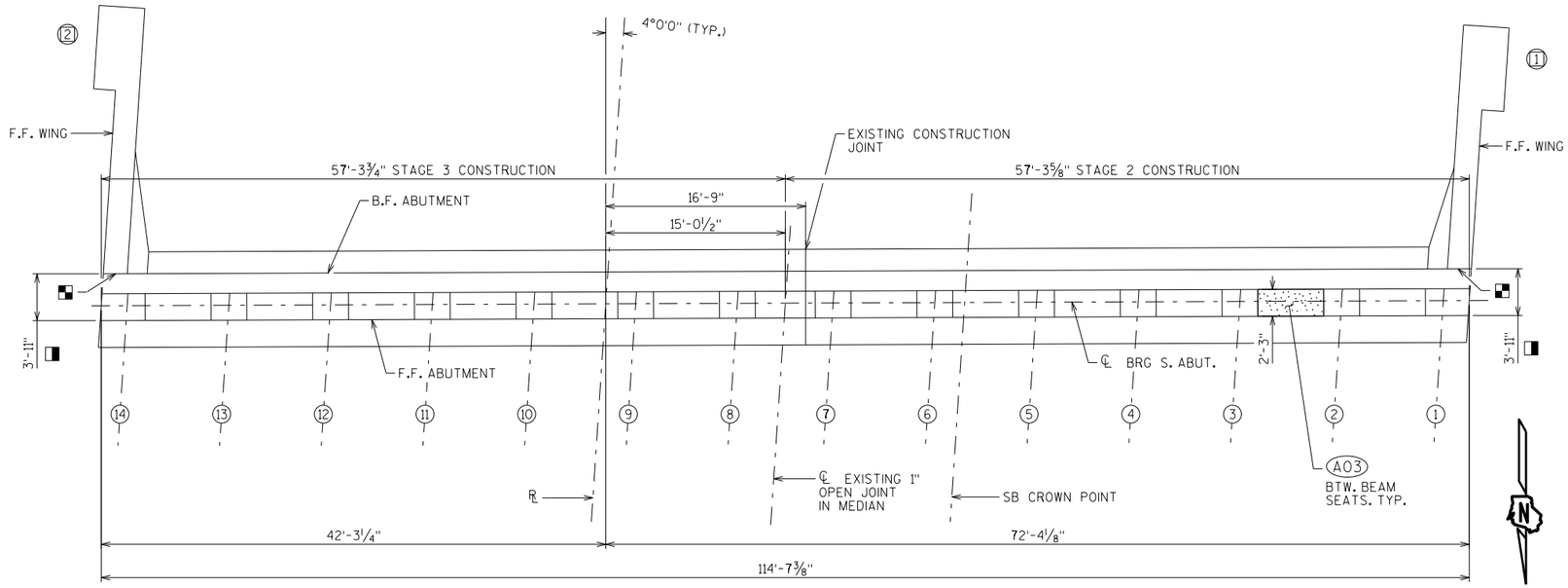
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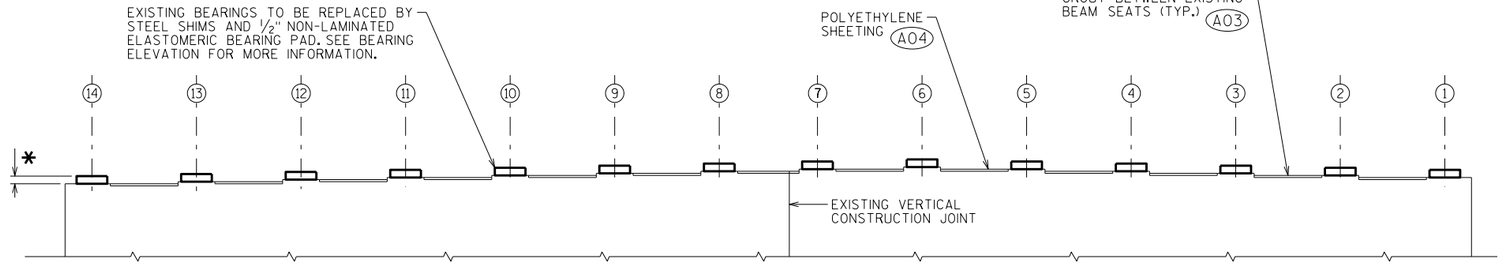
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STATE PROJECT NUMBER

1206-04-67

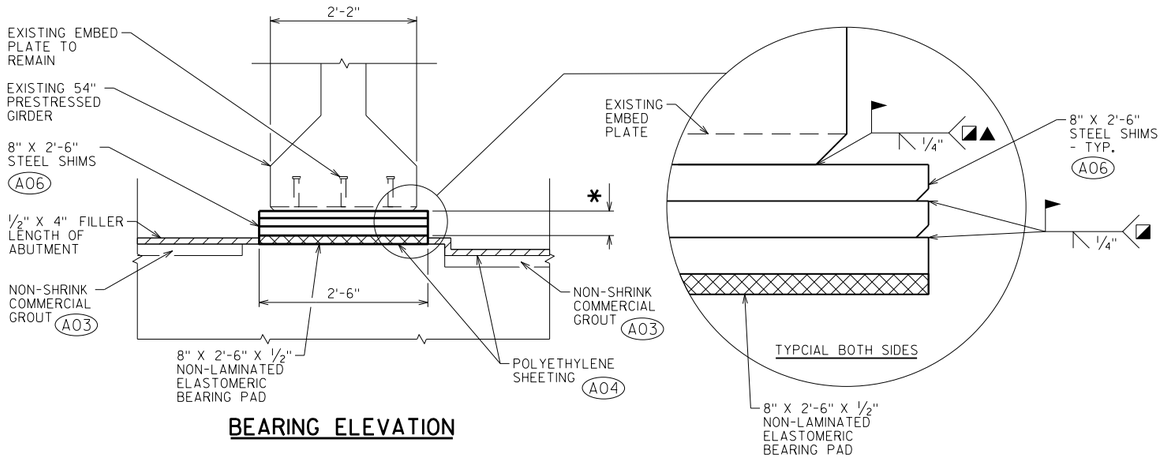


SOUTH ABUTMENT MODIFICATION PLAN

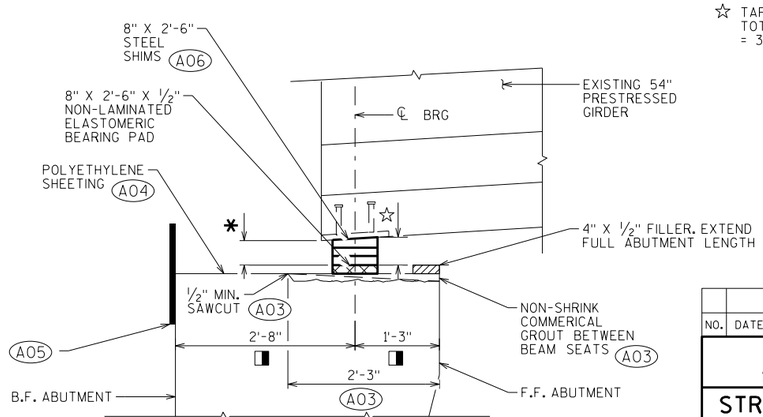


SOUTH ABUTMENT MODIFICATION ELEVATION

(LOOKING SOUTH)



BEARING ELEVATION



SECTION THRU SOUTH ABUTMENT

- (A03) PLACE A DEPARTMENT APPROVED NON-SHRINK COMMERCIAL GROUT OVER THE WIDTH OF ABUTMENT TOP BETWEEN EXISTING BEAM SEATS PRIOR TO PLACING POLYETHYLENE SHEETS. CHIP OUT CONCRETE AS REQUIRED TO PLACE GROUT TO A MINIMUM THICKNESS OF ½". PLACE GROUT AS REQUIRED TO PRODUCE A SMOOTH SLIDING SURFACE FREE OF PROTRUSIONS. REMOVE DELAMINATED OR LOOSE CONCRETE AND CLEAN THE SURFACE PRIOR TO PLACING GROUT. ADDITIONAL SURFACE PREPARATION MAY BE REQUIRED PER THE MANUFACTURER'S INSTRUCTION. MIX, PLACE AND CURE NON-SHRINK COMMERCIAL GROUT PER THE MANUFACTURER'S RECOMMENDATIONS AND AS DIRECTED BY THE ENGINEER. DO NOT APPLY LOADS TO THE NON-SHRINK COMMERCIAL GROUT UNTIL A MINIMUM COMPRESSIVE STRENGTH OF 3,500 P.S.I. IS ACHIEVED. NON-SHRINK COMMERCIAL GROUT AND SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES."
- (A04) PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING STEEL SHIMS AND BEARING PADS. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- (A05) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACKFACE.
- (A06) STEEL PLATES AND SHIMS SHALL BE ASTM A709 GRADE 50W. STEEL PLATES/SHIMS SHALL BE WELDED TO THE EXISTING EMBED PLATES IN THE GIRDERS & WELDED TOGETHER AS SHOWN. STEEL SHIMS INCLUDED IN BID ITEM "BEARING PADS ELASTOMERIC NON-LAMINATED." MINIMUM THICKNESS OF INDIVIDUAL SHIM PLATES SHALL BE ¾".

- (8) INDICATES WING NUMBER
- (○) DENOTES EXISTING GIRDER NUMBER
- ◨ DIMENSION MEASURED NORMAL TO ℄ OF SUBSTRUCTURE
- ◪ PLACE ½" FILLER BETWEEN EXISTING WINGWALL AND NEW CONCRETE DIAPHRAGM. EXTEND ½" FILLER TO TOP OF PARAPET. PAINT ENDS OF EXPOSED EXISTING REINFORCEMENT WITH EPOXY.

- ◪ WELD TYPICAL ON SHORT SIDES OF PLATES/SHIMS. PROVIDE BEVEL ON THE BOTTOM SIDE OF EACH PLATE/SHIM.
- ▲ USE E309 ELECTRODE BETWEEN TOP SHIM AND EXISTING STAINLESS STEEL GIRDER EMBED PLATE.
- * TOTAL STEEL SHIM HEIGHT AT BACK = 3⅛"
- ☆ TAPER TOP STEEL SHIM SUCH THAT TOTAL STEEL SHIM HEIGHT AT FRONT = 3¼"

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-311

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SOUTH ABUTMENT MODIFICATION DETAILS

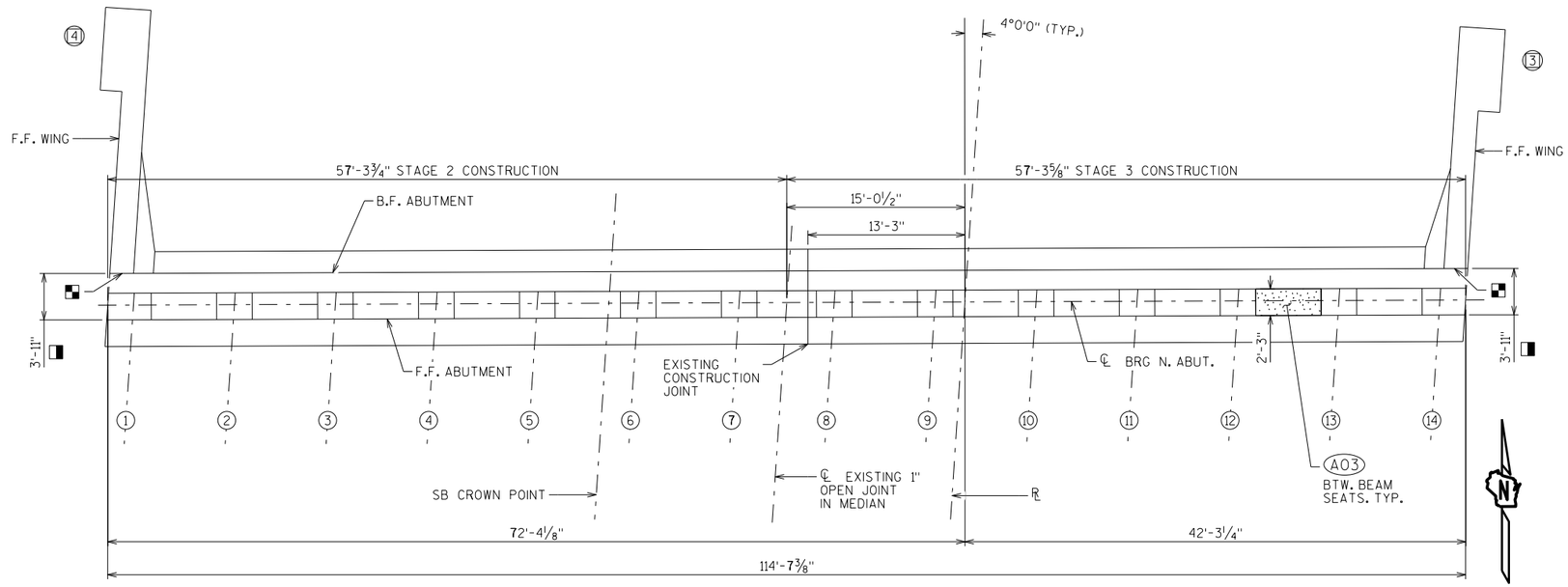
SHEET 6

236

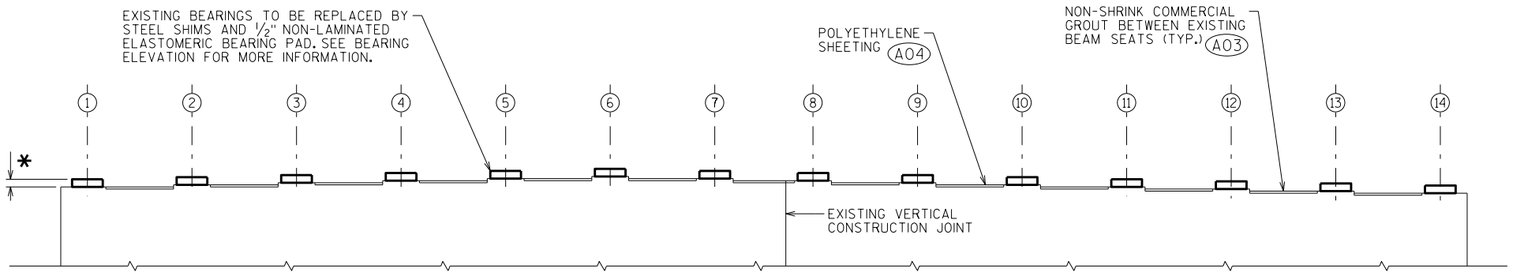
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STATE PROJECT NUMBER

1206-04-67

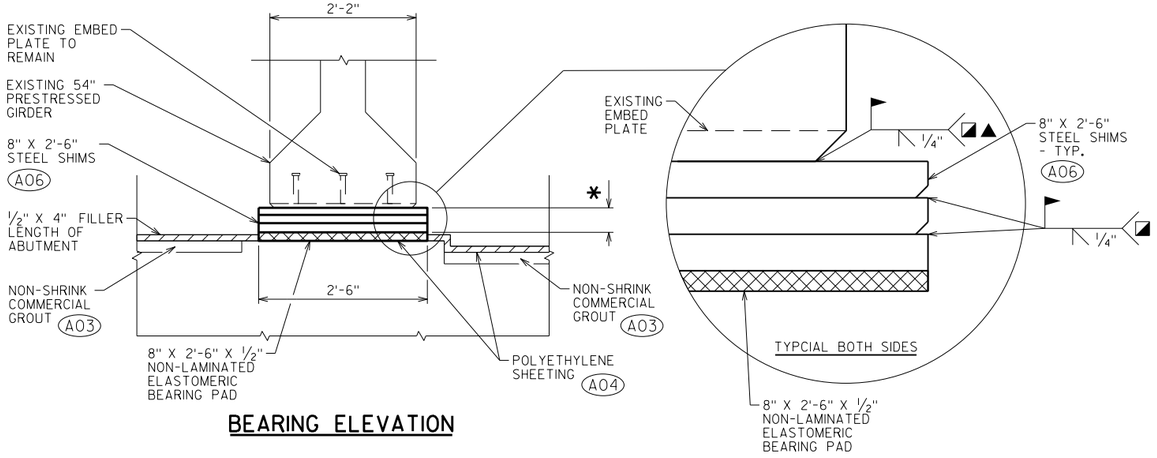


NORTH ABUTMENT MODIFICATION PLAN

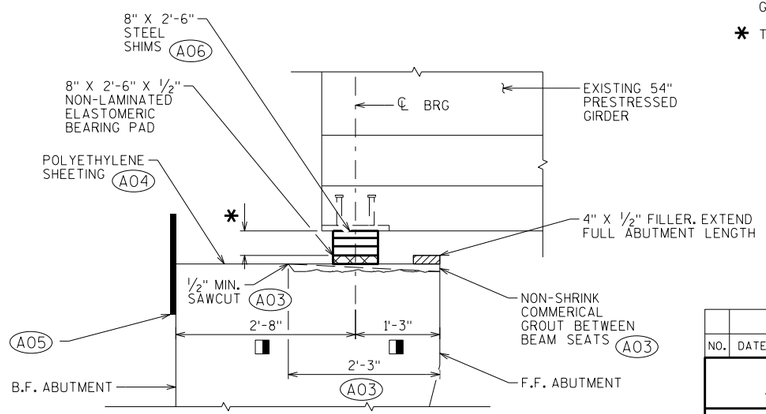


NORTH ABUTMENT MODIFICATION ELEVATION

(LOOKING NORTH)



BEARING ELEVATION



SECTION THRU NORTH ABUTMENT

- ◪ INDICATES WING NUMBER
- ○ DENOTES EXISTING GIRDER NUMBER
- ◨ DIMENSION MEASURED NORMAL TO ℄ OF SUBSTRUCTURE
- ◪ PLACE ½" FILLER BETWEEN EXISTING WINGWALL AND NEW CONCRETE DIAPHRAGM. EXTEND ½" FILLER TO TOP OF PARAPET. PAINT ENDS OF EXPOSED EXISTING REINFORCEMENT WITH EPOXY.
- (A03) PLACE A DEPARTMENT APPROVED NON-SHRINK COMMERCIAL GROUT OVER THE WIDTH OF ABUTMENT TOP BETWEEN EXISTING BEAM SEATS PRIOR TO PLACING POLYETHYLENE SHEETS. CHIP OUT CONCRETE AS REQUIRED TO PLACE GROUT TO A MINIMUM THICKNESS OF ½". PLACE GROUT AS REQUIRED TO PRODUCE A SMOOTH SLIDING SURFACE FREE OF PROTRUSIONS. REMOVE DELAMINATED OR LOOSE CONCRETE AND CLEAN THE SURFACE PRIOR TO PLACING GROUT. ADDITIONAL SURFACE PREPARATION MAY BE REQUIRED PER THE MANUFACTURER'S INSTRUCTION. MIX, PLACE AND CURE NON-SHRINK COMMERCIAL GROUT PER THE MANUFACTURER'S RECOMMENDATIONS AND AS DIRECTED BY THE ENGINEER. DO NOT APPLY LOADS TO THE NON-SHRINK COMMERCIAL GROUT UNTIL A MINIMUM COMPRESSIVE STRENGTH OF 3,500 P.S.I. IS ACHIEVED. NON-SHRINK COMMERCIAL GROUT AND SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES."
- (A04) PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING STEEL SHIMS AND BEARING PADS. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- (A05) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACKFACE.
- (A06) STEEL PLATES AND SHIMS SHALL BE ASTM A709 GRADE 50W. STEEL PLATES/SHIMS SHALL BE WELDED TO THE EXISTING EMBED PLATES IN THE GIRDERS & WELDED TOGETHER AS SHOWN. STEEL SHIMS INCLUDED IN BID ITEM "BEARING PADS ELASTOMERIC NON-LAMINATED." MINIMUM THICKNESS OF INDIVIDUAL SHIM PLATES SHALL BE ¾".

- ◪ WELD TYPICAL ON SHORT SIDES OF PLATES/SHIMS. PROVIDE BEVEL ON THE BOTTOM SIDE OF EACH PLATE/SHIM.
- ▲ USE E309 ELECTRODE BETWEEN TOP SHIM AND EXISTING STAINLESS STEEL GIRDER EMBED PLATE.
- * TOTAL STEEL SHIM HEIGHT = 3⅛"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-13-311

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NORTH ABUTMENT MODIFICATION DETAILS

SHEET 7

237

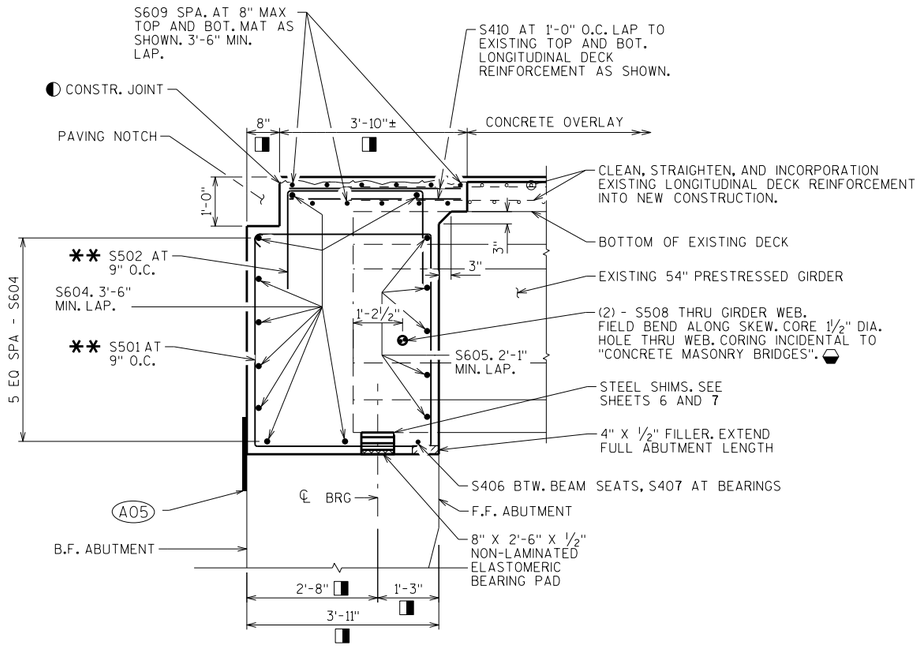
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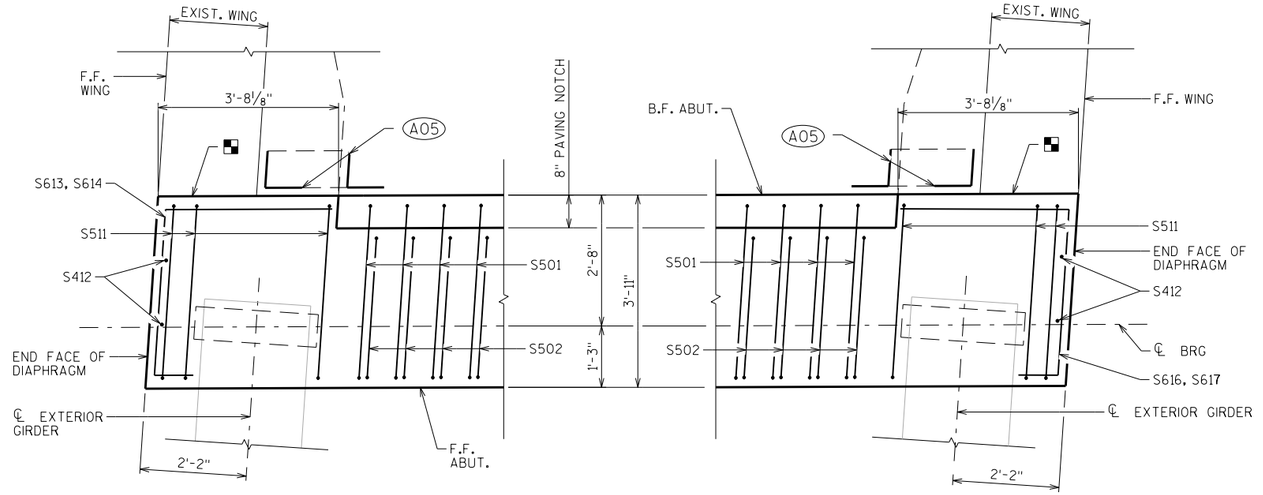
STATE PROJECT NUMBER

1206-04-67



ABUTMENT DIAPHRAGM SECTION

(TYP. AT NORTH AND SOUTH ABUTMENTS)

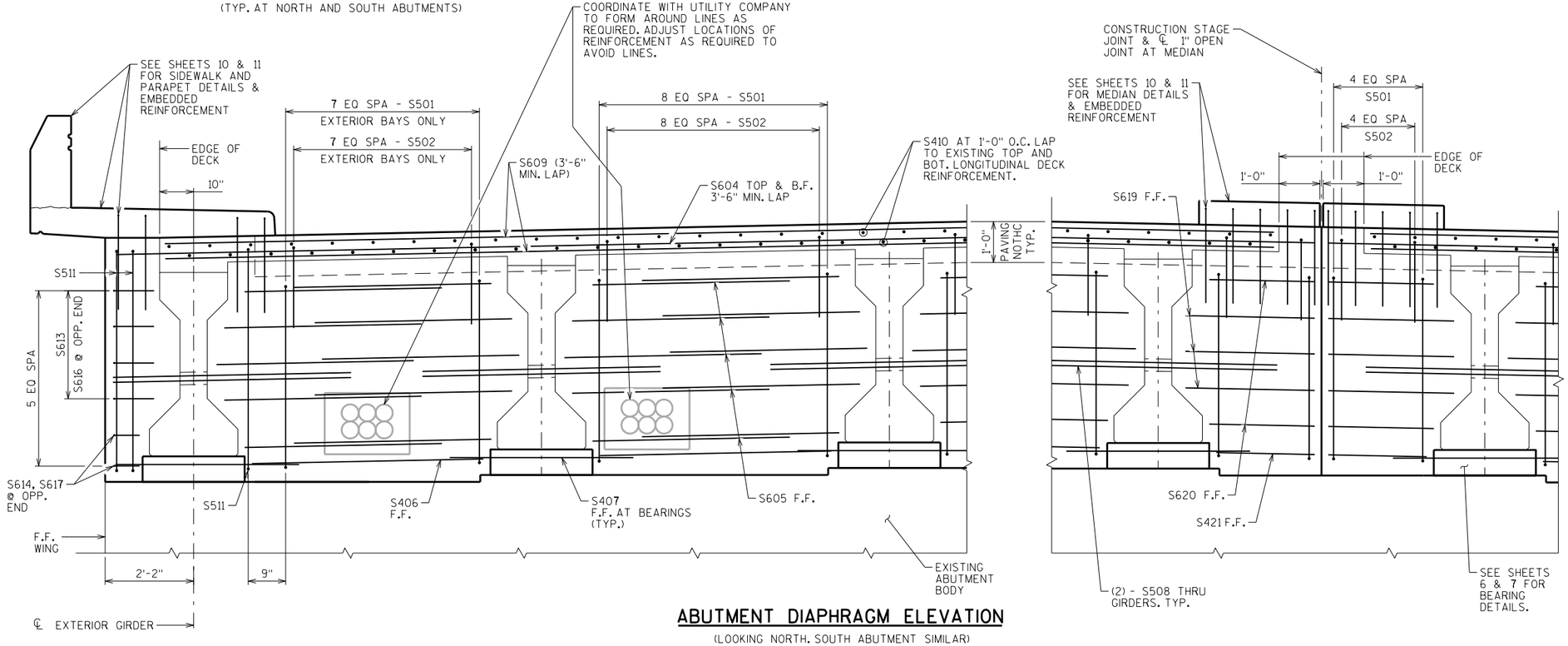


WINGS 2 & 4

WINGS 1 & 3

ABUTMENT DIAPHRAGM CORNER PLAN DETAILS

(HORIZONTAL DIAPHRAGM REINFORCING NOT SHOWN FOR CLARITY)



ABUTMENT DIAPHRAGM ELEVATION

(LOOKING NORTH. SOUTH ABUTMENT SIMILAR)

◨ DIMENSION MEASURED NORMAL TO ℄ OF SUBSTRUCTURE

** BARS PLACED PARALLEL TO ℄ OF GIRDER

◐ HOLD BACK TOP OF NEW ABUTMENT DIAPHRAGM ON DECK TO ALLOW FOR CONCRETE OVERLAY.

◒ ADJUST AS NEEDED AT EXTERIOR GIRDERS TO MAINTAIN 2" CONCRETE CLEAR COVER AT DIAPHRAGM ENDS.

◪ ½" FILLER BETWEEN WINGS & DIAPHRAGM. EXTEND TO TOP OF PARAPET. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACES OF CONCRETE).

(A05) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-13-311

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ABUTMENT DIAPHRAGM DETAILS 1

SHEET 8

238

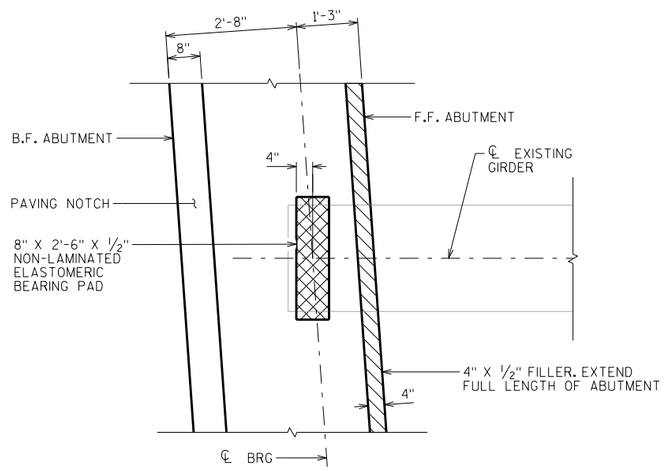
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STATE PROJECT NUMBER

1206-04-67



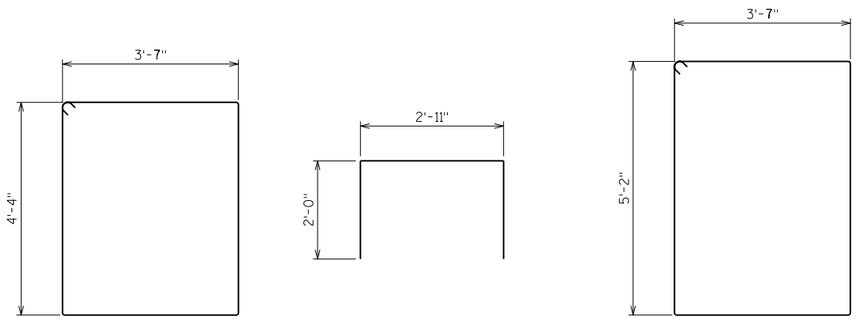
BEARING PAD DETAIL

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S501	X	232	16'-6"	X		ABUT. DIAPHRAGM - STIRRUPS
S502	X	232	6'-8"	X		ABUT. DIAPHRAGM - VERT. TOP
S403						NOT USED
S604	X	72	30'-4"			ABUT. DIAPHRAGM - HORIZ. - TOP & B.F.
S605	X	240	4'-10"			ABUT. DIAPHRAGM - HORIZ. - F.F. BTW GIRDERS
S406	X	24	5'-8"			ABUT. DIAPHRAGM - BOT. BTW BM SEATS
S407	X	28	4'-6"			ABUT. DIAPHRAGM - BOT. AT BEARINGS
S508	X	56	6'-0"			ABUT. DIAPHRAGM - THRU GIRDER WEBS
S609	X	88	30'-2"			ABUT. DIAPHRAGM - TOP TRANS. DECK
S410	X	448	3'-6"			ABUT. DIAPHRAGM - TOP LONGIT. DECK
S511	X	12	18'-2"	X		ABUT. DIAPHRAGM - STIRRUPS - ENDS
S412	X	8	5'-2"			ABUT. DIAPHRAGM - VERT. ENDS
S613	X	8	7'-5"	X		ABUT. DIAPHRAGM - HORIZ. ENDS - WINGS 2 & 4
S614	X	4	7'-2"	X		ABUT. DIAPHRAGM - HORIZ. ENDS - WINGS 2 & 4
S615						NOT USED
S616	X	8	7'-5"	X		ABUT. DIAPHRAGM - HORIZ. ENDS - WINGS 1& 3
S617	X	4	7'-2"	X		ABUT. DIAPHRAGM - HORIZ. ENDS - WINGS 1& 3
S618						NOT USED
S619	X	12	3'-4"			ABUT. DIAPHRAGM - HORIZ. F.F. - CONSTR. JT
S620	X	8	2'-7"			ABUT. DIAPHRAGM - HOIRZ. F.F. - CONSTR. JT
S421	X	4	2'-5"			ABUT. DIAPHRAGM - HOIRZ. F.F. - CONSTR. JT

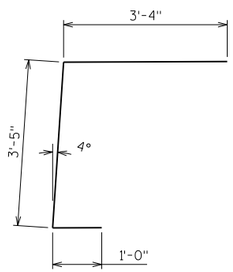
⬙ ADJUST AS NEEDED AT EXTERIOR GIRDERS TO MAINTAIN 2" CONCRETE CLEAR COVER AT DIAPHRAGM ENDS.



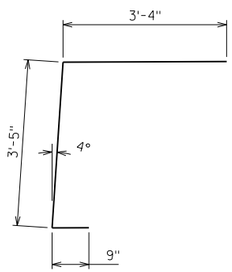
S501

S502

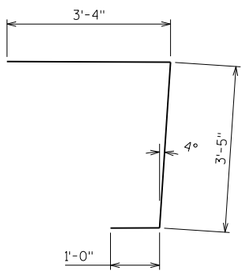
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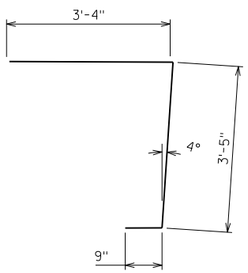
S613



S614



S616



S617

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STRUCTURE B-13-311

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ABUTMENT DIAPHRAGM DETAILS 2

SHEET 9

239

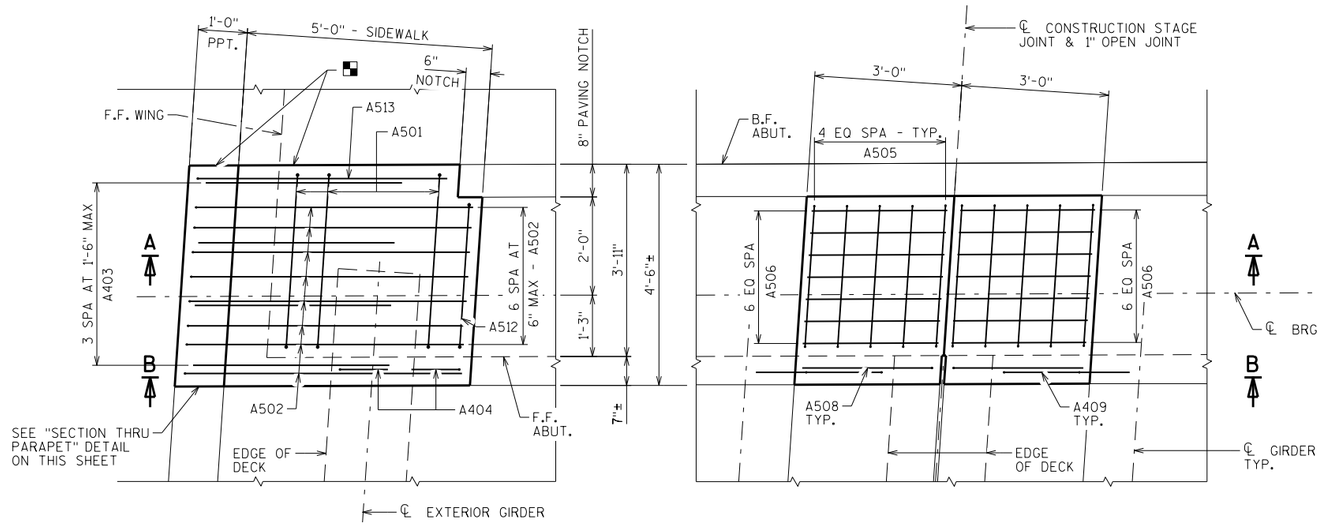
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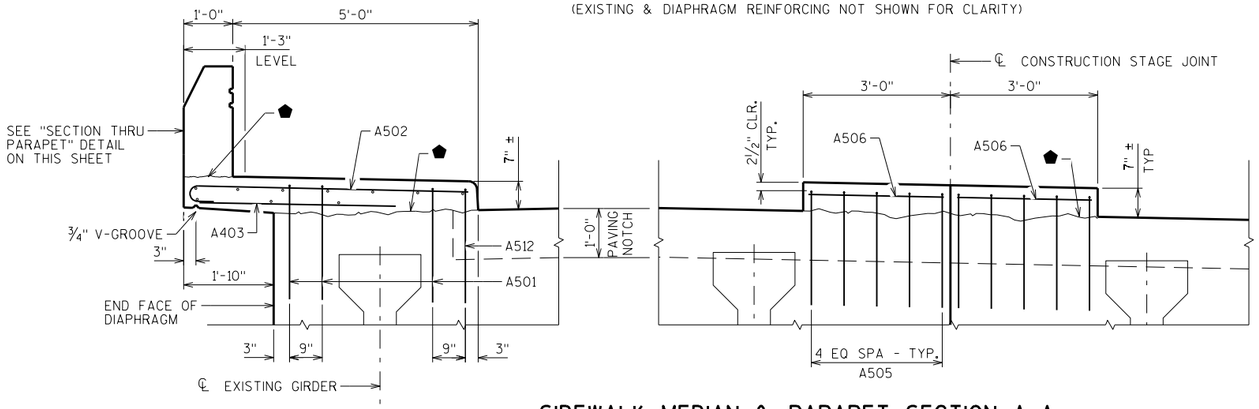
STATE PROJECT NUMBER

1206-04-67



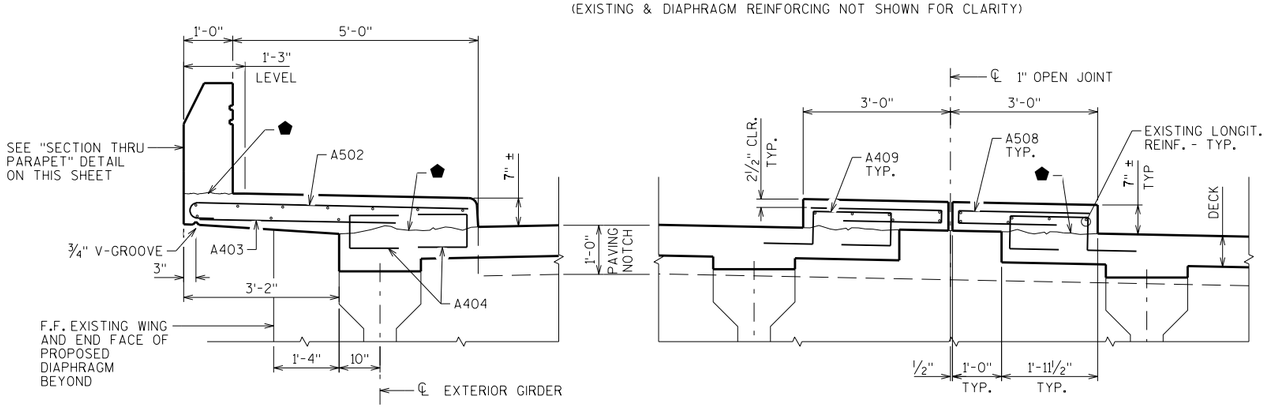
SIDEWALK, MEDIAN, & PARAPET PLAN DETAIL

(EXISTING & DIAPHRAGM REINFORCING NOT SHOWN FOR CLARITY)



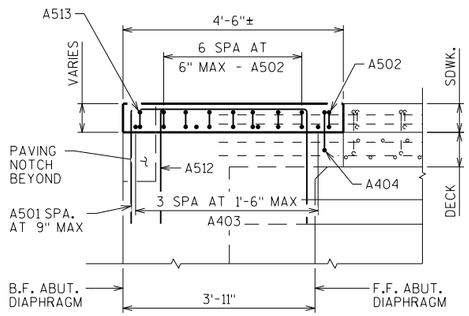
SIDEWALK, MEDIAN, & PARAPET SECTION A-A

(EXISTING & DIAPHRAGM REINFORCING NOT SHOWN FOR CLARITY)



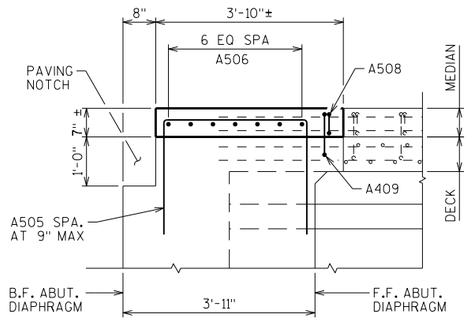
SIDEWALK, MEDIAN, & PARAPET SECTION B-B

(EXISTING DECK & DIAPHRAGM REINFORCING NOT SHOWN FOR CLARITY)



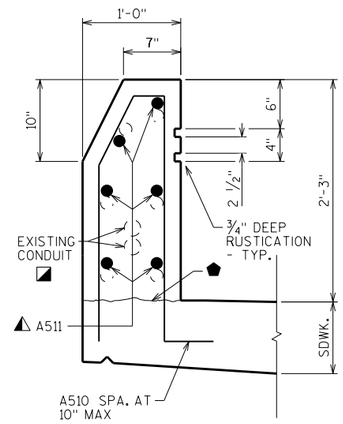
SECTION THRU SIDEWALK AT ABUTMENT

(DIAPHRAGM REINFORCING NOT SHOWN FOR CLARITY)



SECTION THRU MEDIAN AT ABUTMENT

(DIAPHRAGM REINFORCING NOT SHOWN FOR CLARITY)



SECTION THRU PARAPET ☆

NOTES

NEW PARAPET, SIDEWALK, AND MEDIAN SHAPE & ELEVATIONS TO MATCH EXISTING PARAPET, SIDEWALK, AND MEDIAN SHAPES & ELEVATIONS.

CLEAN, STRAIGHTEN & INCORPORATE EXISTING LONGITUDINAL SIDEWALK, MEDIAN, AND PARAPET REINFORCEMENT INTO NEW CONSTRUCTION. DO NOT CUT UNLESS CLEARANCE REQUIREMENTS ARE VIOLATED. REPLACE DAMAGED OR CORRODED REINFORCEMENT AS DIRECTED BY THE ENGINEER.

⬟ CONST. JOINT. STRIKE OFF AS SHOWN AND LEAVE ROUGH. FOR DECK POUR, MATCH BRIDGE X-SLOPE. DO NOT APPLY PROTECTIVE SURFACE TREATMENT TO THIS AREA.

▩ ½" FILLER BETWEEN EXISTING WINGS & PROPOSED SIDEWALK AND PARAPET. EXTEND TO TOP OF PARAPET. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACES OF CONCRETE).

☆ DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. MATCH EXISTING PARAPET SHAPE.

◪ SAVE AND INCORPORATE EXISTING CONDUIT. REPLACE CONDUIT IF DAMAGED DURING CONSTRUCTION.

⚠ LAP TO EXISTING LONGITUDINAL PARAPET REINFORCING

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STRUCTURE B-13-311

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PARAPET, SIDEWALK, & MEDIAN DETAILS 1

SHEET 10

240

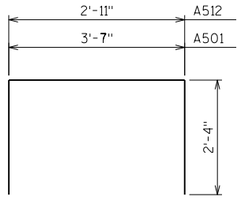
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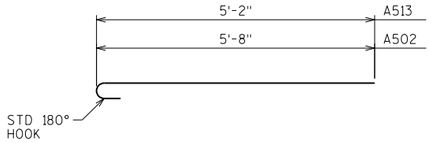
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STATE PROJECT NUMBER

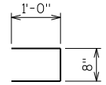
1206-04-67



A501, A512



A502, A513

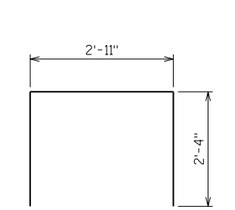


A404

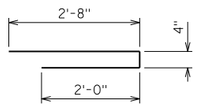
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

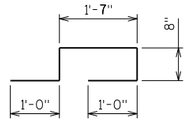
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501	X	12	8'-0"	X		SIDEWALK - VERT.
A502	X	32	6'-3"	X		SIDEWALK - HORIZ. TOP
A403	X	16	4'-0"			SIDEWALK - HORIZ. BOTTOM
A404	X	8	2'-6"	X		SIDEWALK - VERT. AT DECK
A505	X	20	7'-4"	X		MEDIAN - VERT.
A506	X	28	2'-8"			MEDIAN - HORIZ
A507						NOT USED
A508	X	4	4'-9"	X		MEDIAN - HORIZ. AT DECK
A409	X	4	4'-7"	X		MEDIAN - VERT. AT DECK
A510	X	24	5'-11"	X		PARAPET - VERT.
A511	X	24	4'-2"			PARAPET - HORIZ.
A512	X	4	7'-4"	X		SIDEWALK - VERT.
A513	X	4	5'-9"	X		SIDEWALK - HORIZ. TOP



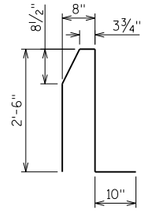
A505



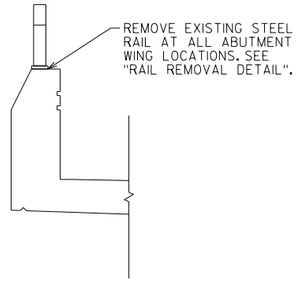
A508



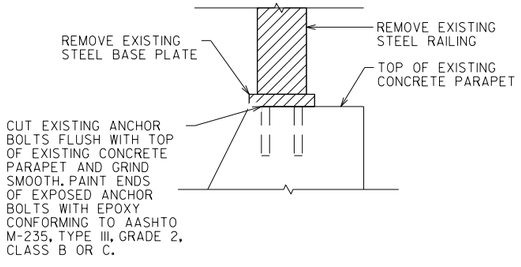
A409



A510

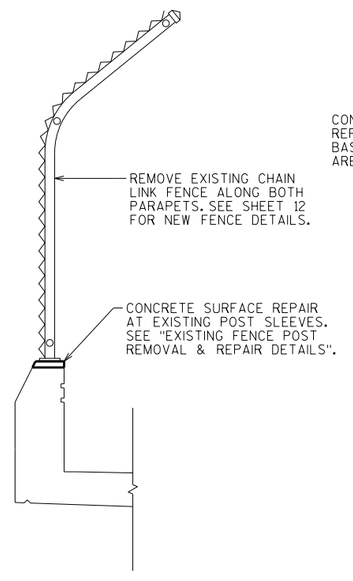


SECTION THRU EXISTING RAIL ON ABUTMENT WINGS



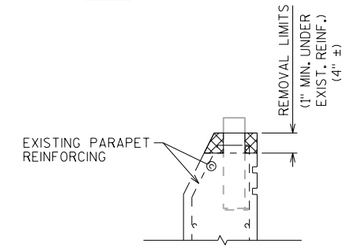
RAIL REMOVAL DETAIL AT WINGS

WORK SHALL BE PAID FOR UNDER "REMOVING OLD STRUCTURE STA 141+12.00". (4 POSTS PER WING, 16 TOTAL)

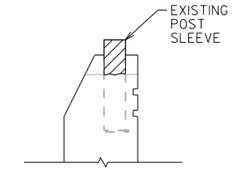


SECTION THRU EXISTING FENCE ON BRIDGE DECK

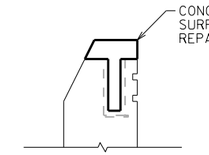
REMOVAL WORK SHALL BE PAID FOR UNDER "REMOVING OLD STRUCTURE STA 141+12.00"



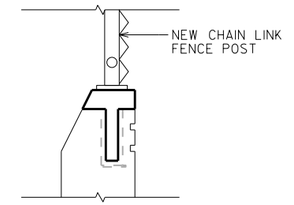
SECTION



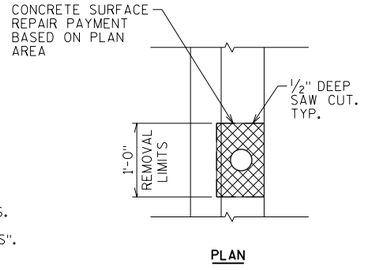
SECTION



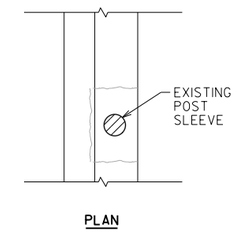
SECTION



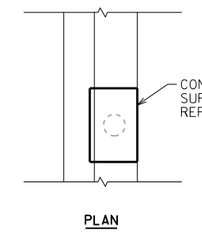
SECTION



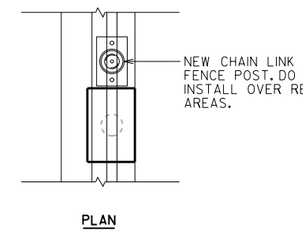
PLAN



PLAN



PLAN



PLAN

① REMOVE CONCRETE PER WISDOT STANDARD SPEC SECTION 509.3.7, "CONCRETE SURFACE REPAIR". DEFINE EDGES WITH ½" DEEP SAW CUT.

② REMOVE EXISTING STEEL POST SLEEVE FLUSH WITH CONCRETE AFTER CONCRETE REMOVAL. WORK SHALL BE PAID FOR UNDER BID ITEM, "REMOVING OLD STRUCTURE STA. 141+12.00".

③ FILL POST SLEEVE AND REMOVAL AREA WITH CONCRETE. WORK TO BE PAID FOR UNDER BID ITEM "CONCRETE SURFACE REPAIR".

④ INSTALL NEW CHAIN LINK FENCE. SEE SHEET 12 FOR DETAILS. DO NOT INSTALL NEW FENCE POSTS OVER REPAIR AREAS.

EXISTING FENCE POST REMOVAL & REPAIR DETAILS

(REQUIRED AT 25 POSTS PER PARAPET ON BRIDGE DECK, 50 POSTS TOTAL)

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PARAPET, SIDEWALK, & MEDIAN DETAILS 2

SHEET 11

241

SCALE = 1.50

8

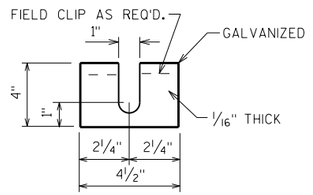
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STATE PROJECT NUMBER

1206-04-67

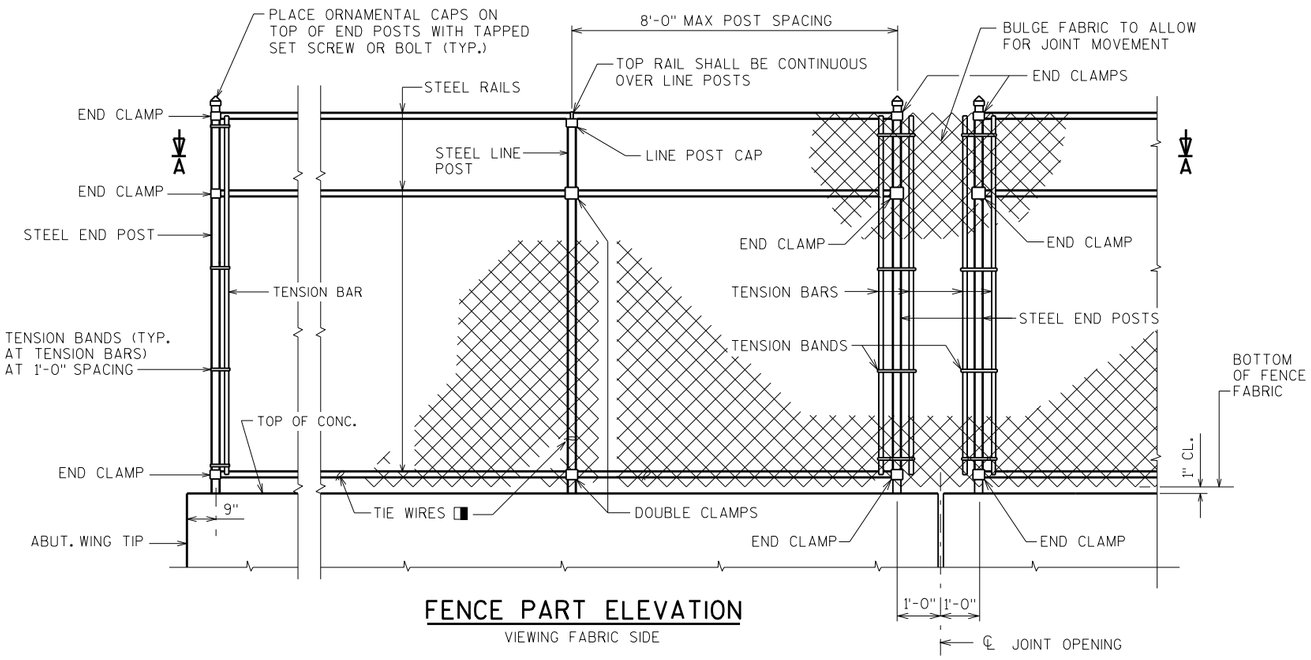
FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12



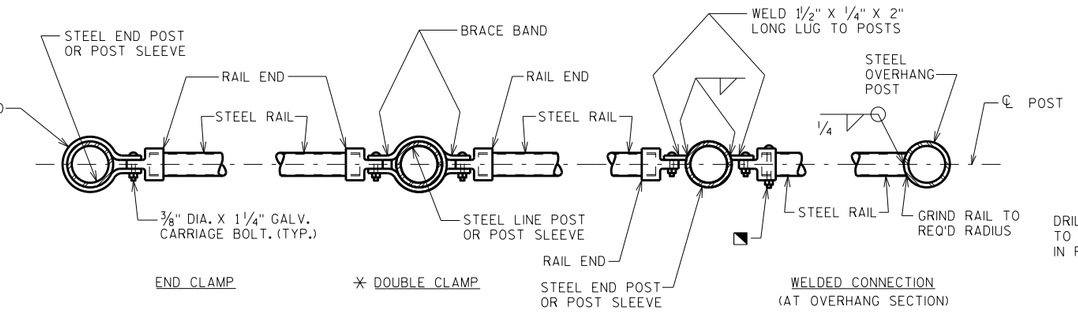
POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.



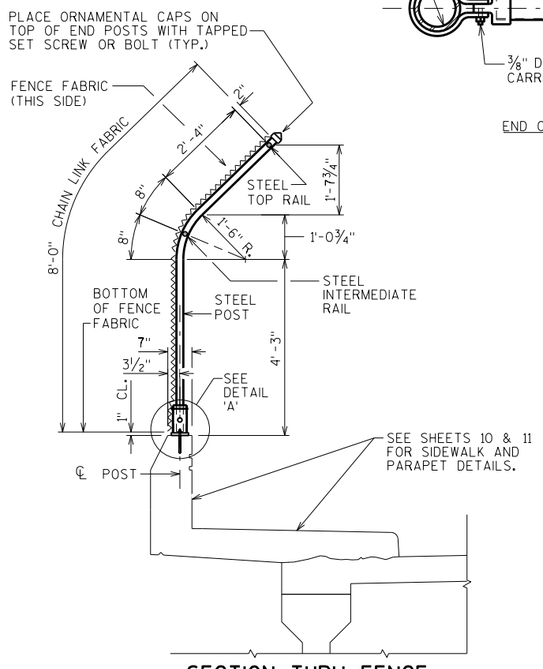
FENCE PART ELEVATION

VIEWING FABRIC SIDE

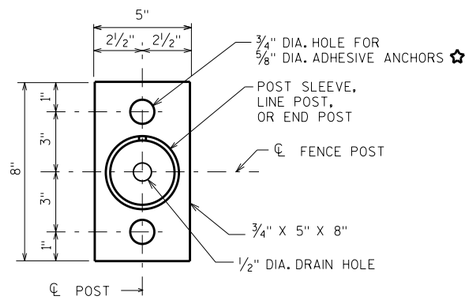


SECTION A-A

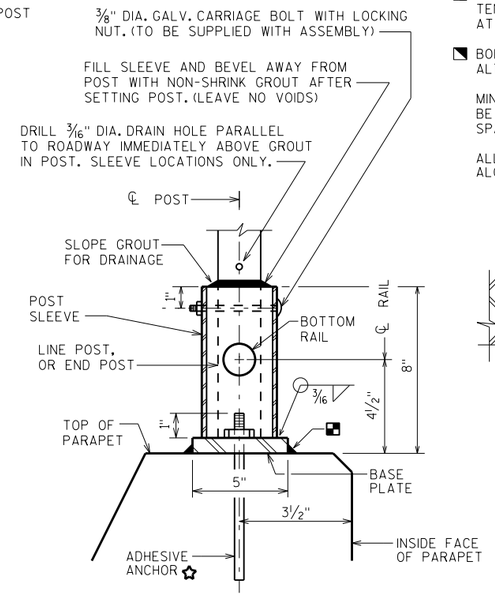
NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS



SECTION THRU FENCE



BASE PLATE



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

DO NOT INSTALL POSTS OVER REPAIR AREAS. (SEE SHEET 11)

NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL WITH A COLORED POLYMER-COATING ON THE OUTSIDE.

FABRIC SHALL CONFORM TO ASTM F668, CLASS 2B. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. SEE THE "BRIDGE SPECIAL PROVISIONS" FOR ADDITIONAL DETAILS.

THE COLOR OF POLYMER-COATING FOR THIS STRUCTURE SHALL BE BLACK IN ACCORDANCE WITH ASTM F934.

THE BID ITEM SHALL BE "FENCE CHAIN LINK POLYMER-COATED 8-FT. B-13-311"

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

◪ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

✳ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

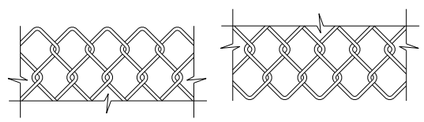
✩ CONCRETE ADHESIVE ANCHORS 5/8-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS. TO BE INCLUDED IN BID ITEM, "FENCE CHAIN LINK POLYMER-COATED 8-FT. B-13-311".

◧ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

◹ BOLT RAIL TO RAIL END TO SECURE OVERHANG SECTION. ALTERNATE IS TO WELD RAIL DIRECTLY TO END POST.

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR 1/4 POINT OF POST SPACING.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.



TOP DETAIL BOTTOM DETAIL

FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-311

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FENCING DETAILS

SHEET 12

242

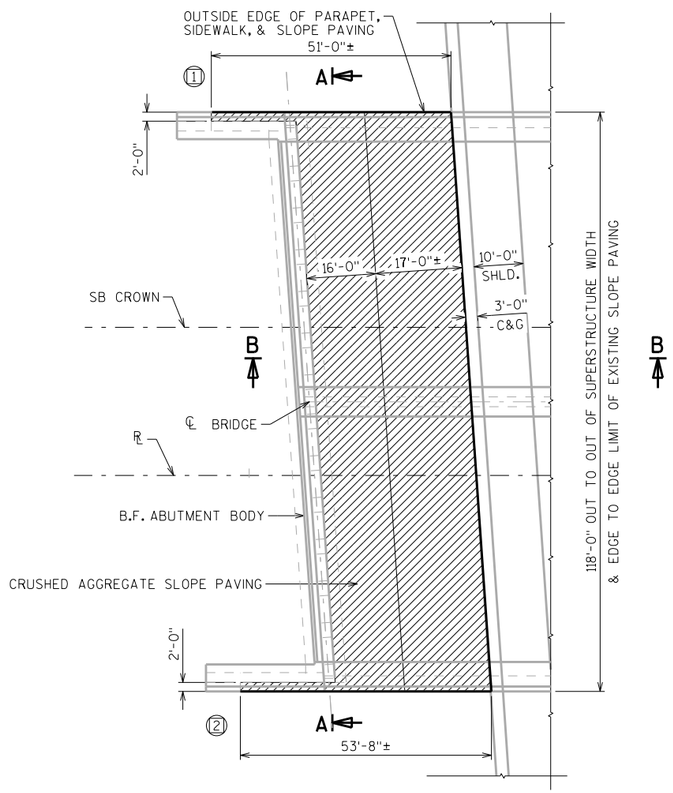
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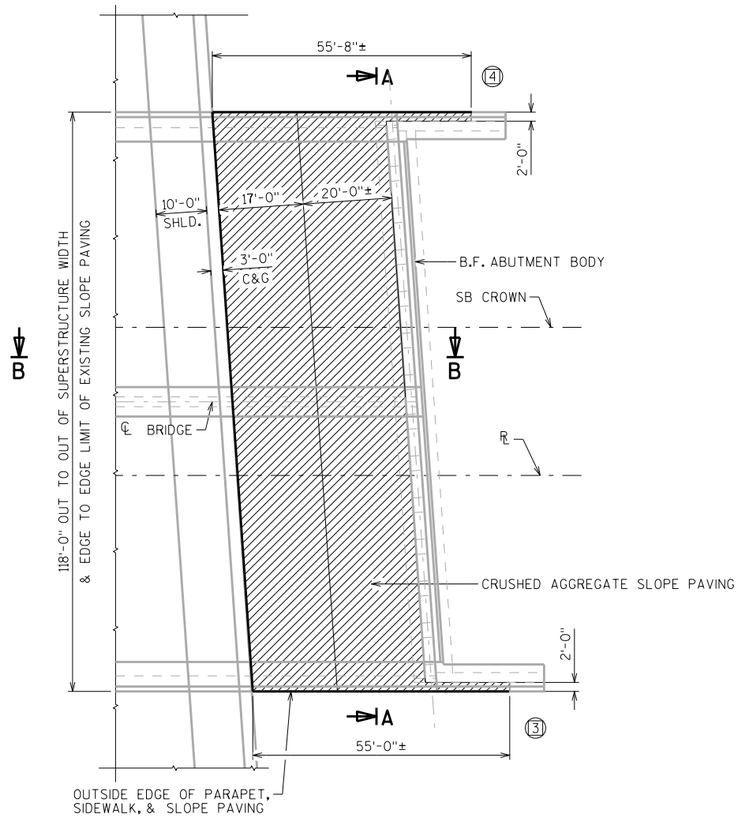
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STATE PROJECT NUMBER

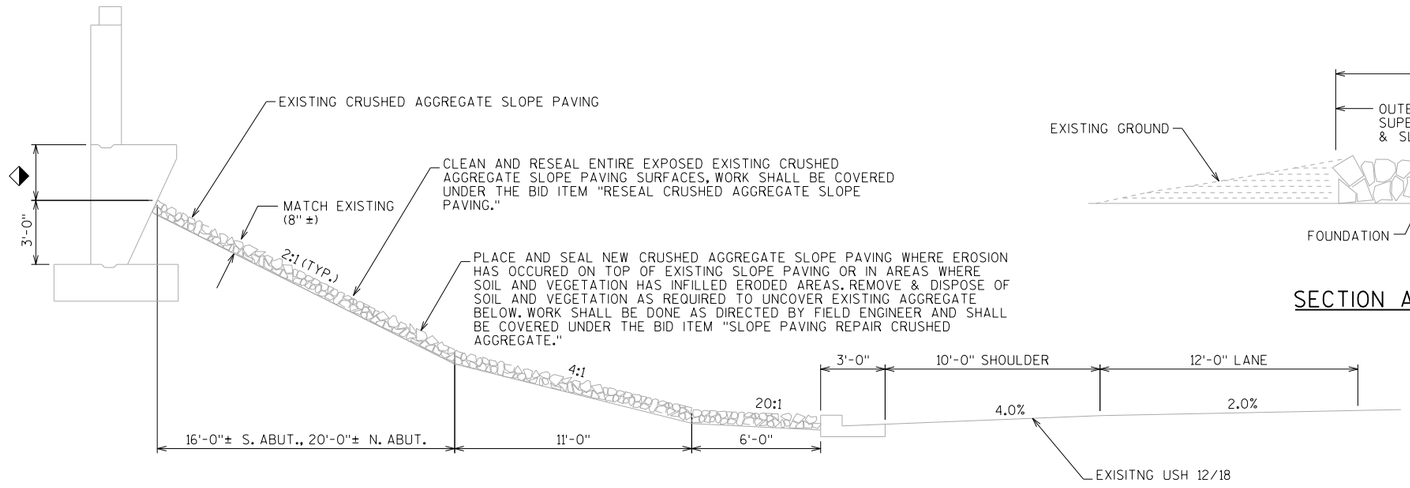
1206-04-67



PLAN OF SLOPE PAVING AT SOUTH ABUTMENT

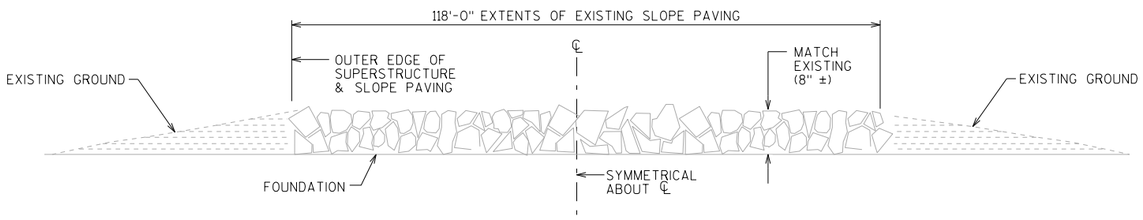


PLAN OF SLOPE PAVING AT NORTH ABUTMENT



SECTION B-B THRU EXISTING CRUSHED AGGREGATE SLOPE PAVING AT BOTH ABUTMENTS

◆ DIMENSION BEAM SEAT TO TOP OF BERM
WING 1: 5'-2"±
WING 2: 4'-8"±
WING 3: 4'-7"±
WING 4: 5'-2"±



SECTION A-A THRU CRUSHED AGGREGATE SLOPE PAVING

NOTES

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-311

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SLOPE PAVING REPAIR

SHEET 13

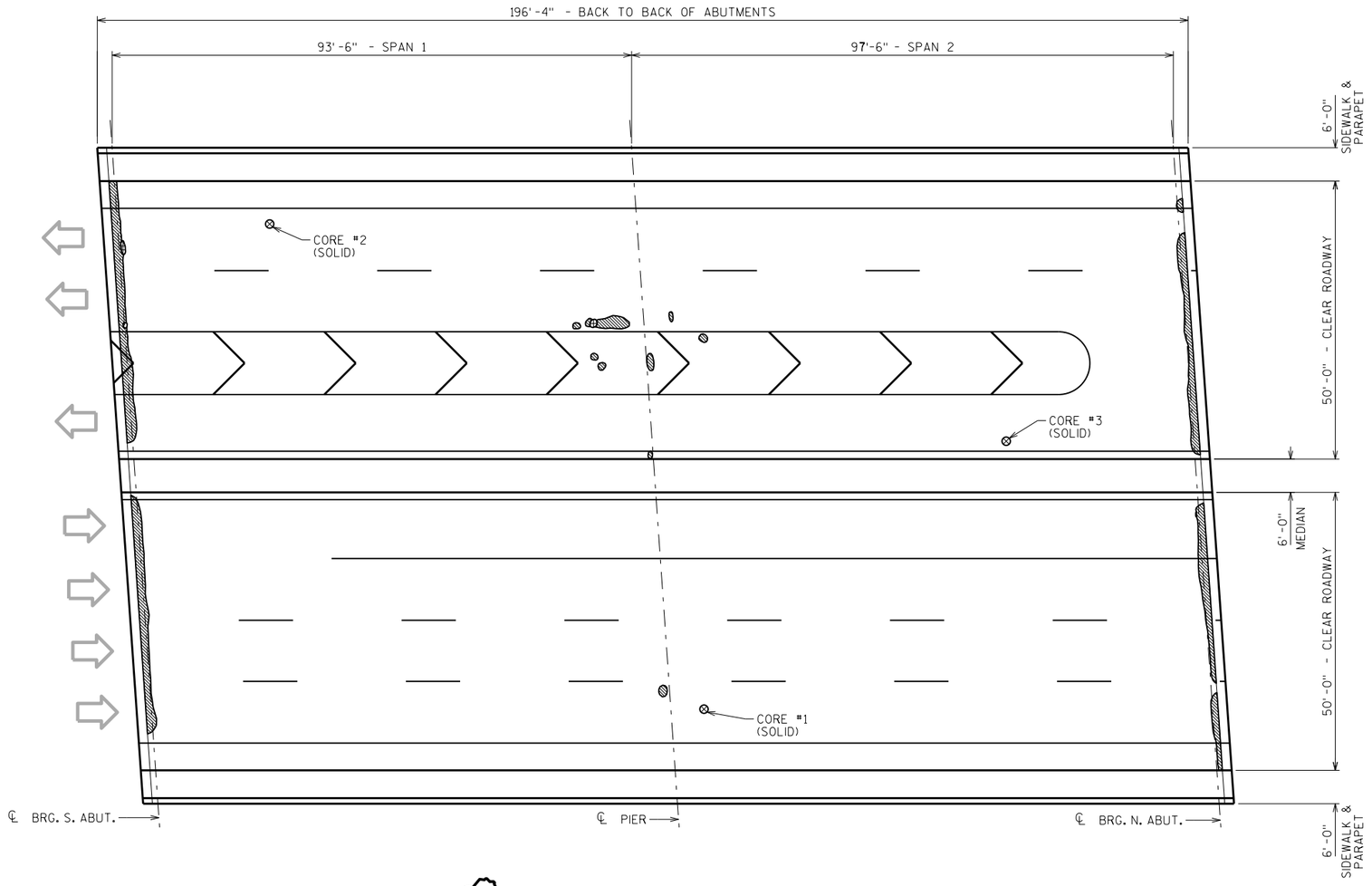
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STATE PROJECT NUMBER
1206-04-67



PLAN

DECK INSPECTION RESULTS

SURVEY TYPE: THERMOGRAPHIC
SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 7/2/2013

FIELD OBSERVATIONS SUMMARY		S.N. B-13-311	
ITEM	UNIT	QUANT.	%
TOTAL AREA	ft^2	19510	
SHADE/DEBRIS	ft^2	0	
DELAMINATION	ft^2	264	1.4
SPALL	ft^2	1	<0.1
DEBOND	ft^2	N/A	N/A
ASPHALT PATCH	ft^2	3	<0.1
CONCRETE PATCH	ft^2	0	0

LEGEND

- DELAMINATION
- SPALL
- DEBOND
- ASPHALT PATCH
- CONCRETE PATCH
- SHADE/DEBRIS

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-311

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THERMOGRAPHIC DECK SCAN PLAN

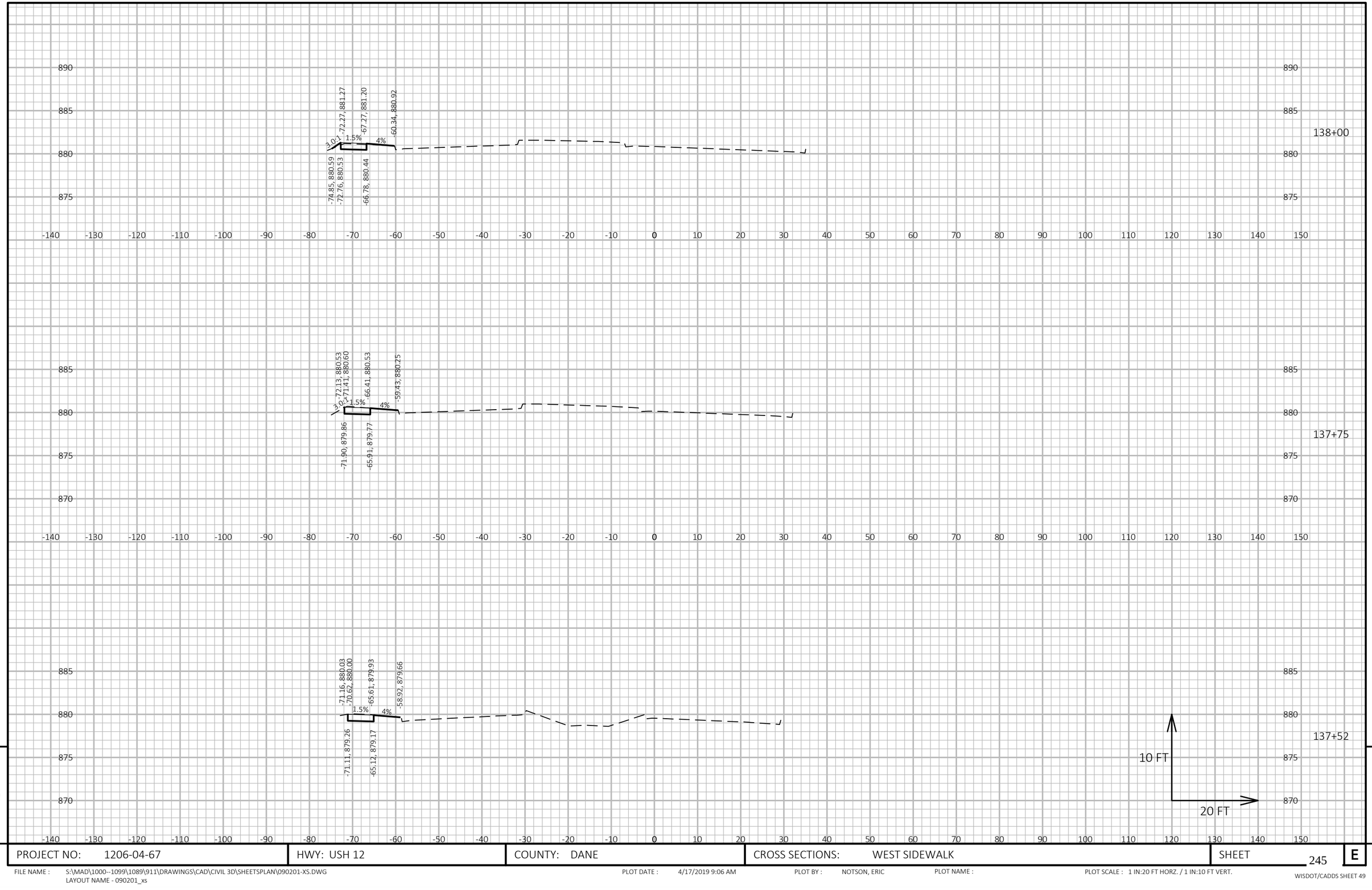
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9

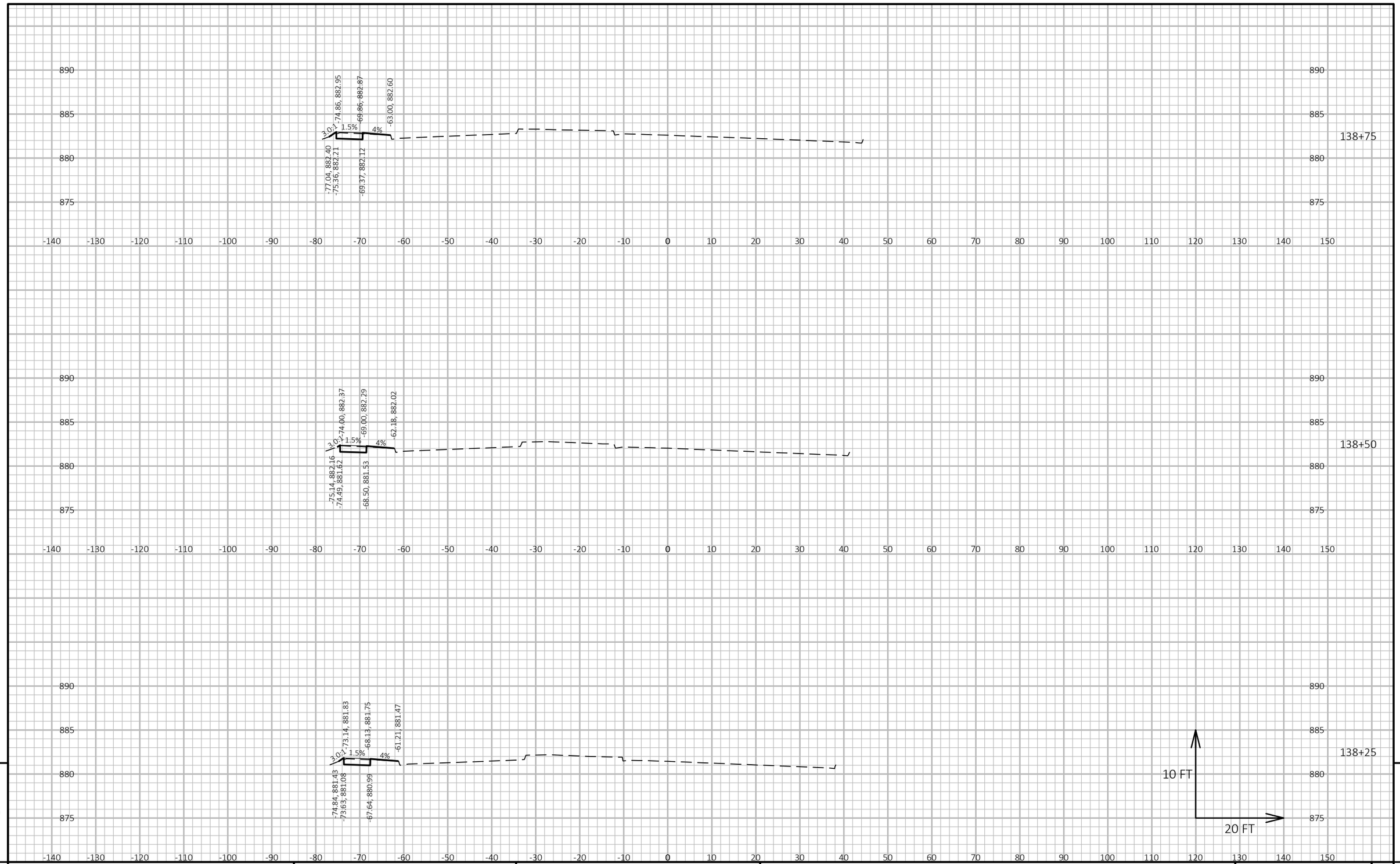
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PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	CROSS SECTIONS: WEST SIDEWALK	SHEET 245	E

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PLOT DATE : 4/17/2019 9:06 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

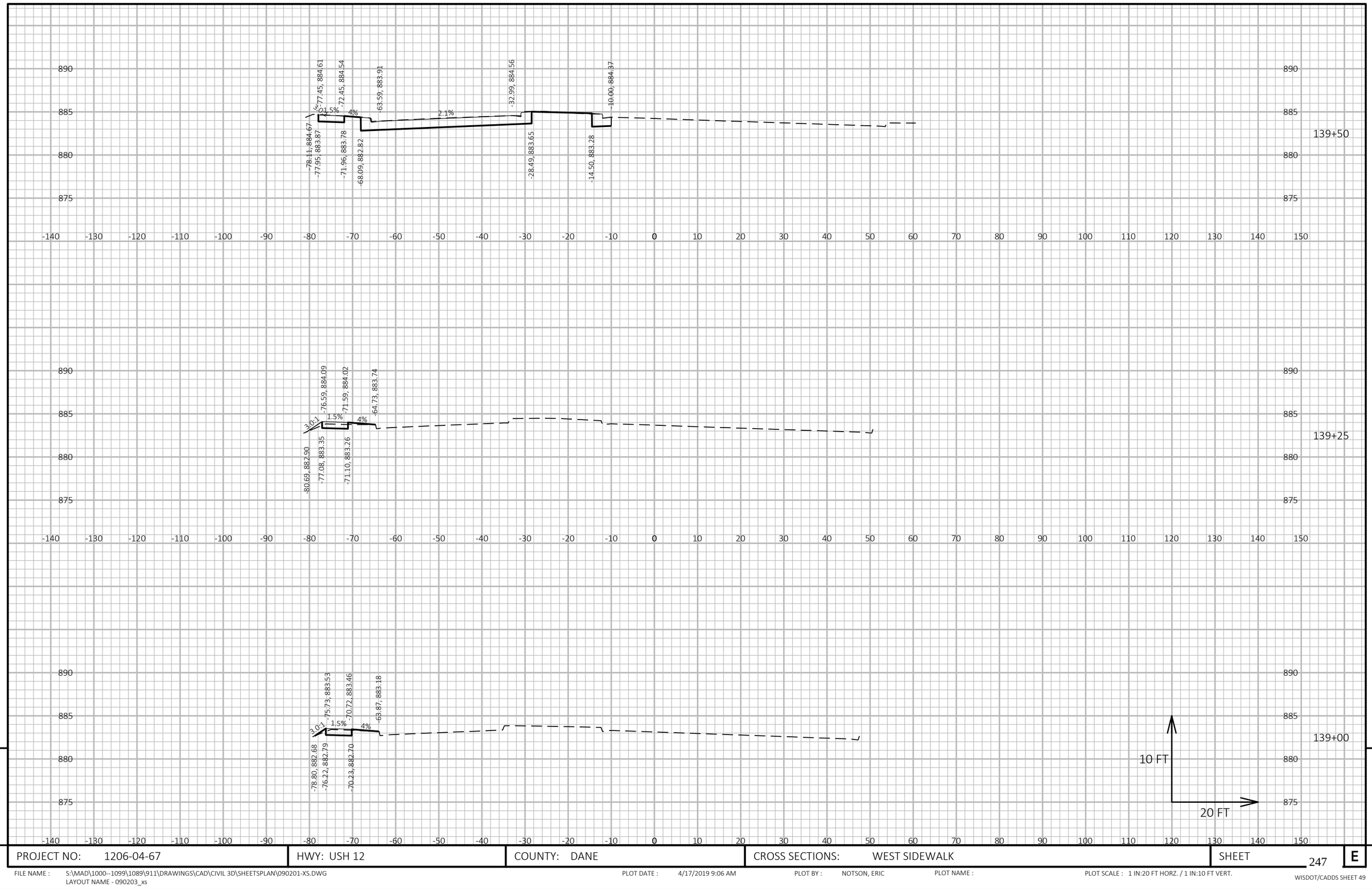
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WISDOT/CADDS SHEET 49



PROJECT NO: 1206-04-67	HWY: USH 12	COUNTY: DANE	CROSS SECTIONS: WEST SIDEWALK	SHEET 247	E

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LAYOUT NAME - 090203_xs

PLOT DATE : 4/17/2019 9:06 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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