GRE DEC 2016

PROJECT ID: 1500-44-71
WITH: N/A

COUNTY: WINNEBAGO

ORDER OF SHEETS

TOTAL SHEETS = 222

N

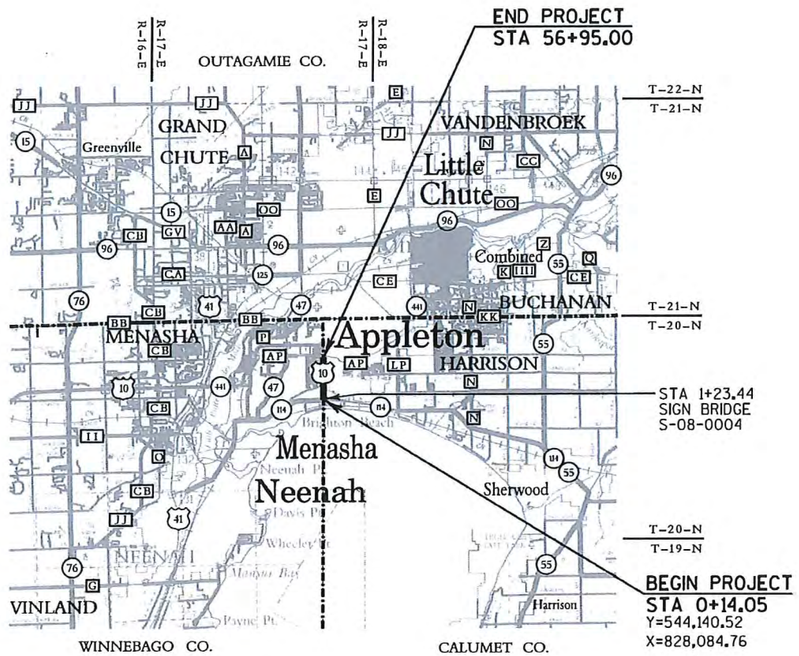
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

C MENASHA, ONEIDA STREET
CTH AP - STH 114
USH 10
WINNEBAGO COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1500-44-71	WISC 2016480	1

STATE PROJECT NUMBER
1500-44-71



DESIGN DESIGNATION

A.A.D.T.	(2017)	=	16,300
A.A.D.T.	(2037)	=	20,100
D.H.V.	(2037)	=	2,200
D.D.		=	59/41
T.		=	5.4%
DESIGN SPEED		=	35 MPH
ESALS	(2037)	=	2,489,300

CONVENTIONAL SYMBOLS

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

LAYOUT
SCALE 0 2 MI.

TOTAL NET LENGTH OF CENTERLINE = 1.076 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), 'WINNEBAGO' COUNTY. HORIZONTAL DATUM NAD 88, (2011). ALL DISTANCES ARE GROUND. ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NAVD 88, (2012).

ORIGINAL PLANS PREPARED BY
emcs.inc
500 North 17th Avenue
Wausau, WI 54401
715.845.1081 Fax 715.845.1099

WISCONSIN
STEPHANIE G. CHRISTENSEN
E35808
WAUSAU, WI
PROFESSIONAL ENGINEER

Stephanie G. Christensen
7-5-2016

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	EMCS, INC.
Designer	EMCS, INC.
Project Manager	TIMOTHY VERHAGEN
Regional Examiner	
Regional Supervisor	CHARLES KAROW

APPROVED FOR THE DEPARTMENT
DATE: 7/8/2016 Tim Verhagen (Signature)

E

GENERAL NOTES

NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

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.

ORDER OF SECTION 2 SHEETS

AS-BUILTS USED FOR PLAN DEVELOPMENT

PROJECT NO: 1500-01-71, CONSTRUCTION YEAR: 1983
PROJECT NO: 1500-04-73, CONSTRUCTION YEAR: 1993
PROJECT NO: 1500-17-71, CONSTRUCTION YEAR: 1999

UTILITIES

APPLETON AREA SCHOOL DISTRICT
(COMMUNICATIONS)
DENNIS LAFAVE
1700 INDUSTRIAL DRIVE
GREEN BAY, WI 54302
(920) 619-9774
DLAFAVE@MI-TECH.US

ATC MANAGEMENT, INC
(ELECTRIC)
DOUG VOSBERG
503 FEN OAK DRIVE
MADISON, WI 53718
(608) 877-7650
DVOSBERG@ATCLLC.COM

AT&T WISCONSIN
(COMMUNICATIONS)
MATTHEW WIRZ
1800 INDUSTRIAL DRIVE
GREEN BAY, WI 54302
OFFICE: (920) 465-3882
MOBILE: (920) 227-3535
MW2416@ATT.COM

CITY OF APPLETON
DEPARTMENT OF PUBLIC WORKS
(WATER)
MARK KILHEFFER, PE
100 N. APPLETON ST.
APPLETON, WI 54911
(920) 832-6327
MARK.KILHEFFER@APPLETON.ORG

MENASHA ELECTRIC
AND WATER UTILITIES
(ELECTRIC)
STEVE GRENELL
321 MILWAUKEE ST.
P.O. BOX 340
MENASHA, WI 54952
OFFICE: (920) 967-3415
MOBILE: (920) 740-3431
SGRENELL@WPPIENERGY.ORG

TELEPORT COMMUNICATIONS
AMERICA LLC
(COMMUNICATIONS)
DON DITSCH
KAPUR AND ASSOCIATES
7711 NORTH PORT WASHINGTON ROAD
MILWAUKEE, WI 53217
(414) 751-7209
DDIETSCH@KAPUR-ASSOC.COM

TIME WARNER CABLE
(COMMUNICATIONS)
VINCE ALBIN
3545 PLANK RD.
APPLETON,WI 54915
(920) 831-9249
VINCE.ALBIN@TWCABLE.COM

TOWN OF MENASHA
UTILITY DISTRICT
(SEWER)
JEFF ROTH
2340 AMERICAN DRIVE
NEENAH, WI 54956
OFFICE: (920) 720-7100
MOBILE: (920) 419-3866
JROTH@TOWN-MENASHA.COM

TOWN OF MENASHA
UTILITY DISTRICT
(WATER)
JEFF ROTH
2340 AMERICAN DRIVE
NEENAH, WI 54956
OFFICE: (920) 720-7100
MOBILE: (920) 419-3866
JROTH@TOWN-MENASHA.COM

US SIGNAL COMPANY LLC
(COMMUNICATIONS)
RICK ANDRICKS
201 IONIA, SW
GRAND RAPIDS, MI 49503
(614) 483-6350
RANDRICKS@TKNS.NET

WAVERLY
SANITARY DISTRICT
(SEWER)
TOM VAN ZEELAND
N 8722 COUNTY RD. LP
MENASHA, WI 54952
OFFICE: (920) 731-0002
MOBILE: (920) 850-6864
TOMVZEE@NEW.RR.COM

WAVERLY
SANITARY DISTRICT
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MENASHA, WI 54952
OFFICE: (920) 731-0002
MOBILE: (920) 850-6864
TOMVZEE@NEW.RR.COM

WE ENERGIES
(ELECTRIC)
KEN VAN OSS
800 S. LYNNDALE DR.
APPLETON, WI 54912
(920) 380-3318
KENNETH.VAN-OSS@WE-ENERGIES.COM

WE ENERGIES
(GAS)
THOMAS BORCHART
800 S. LYNNDALE DR.
APPLETON, WI 54912
OFFICE: (920) 380-3449
MOBILE: (920) 858-8473
THOMAS.BORCHART@WE-ENERGIES.COM

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

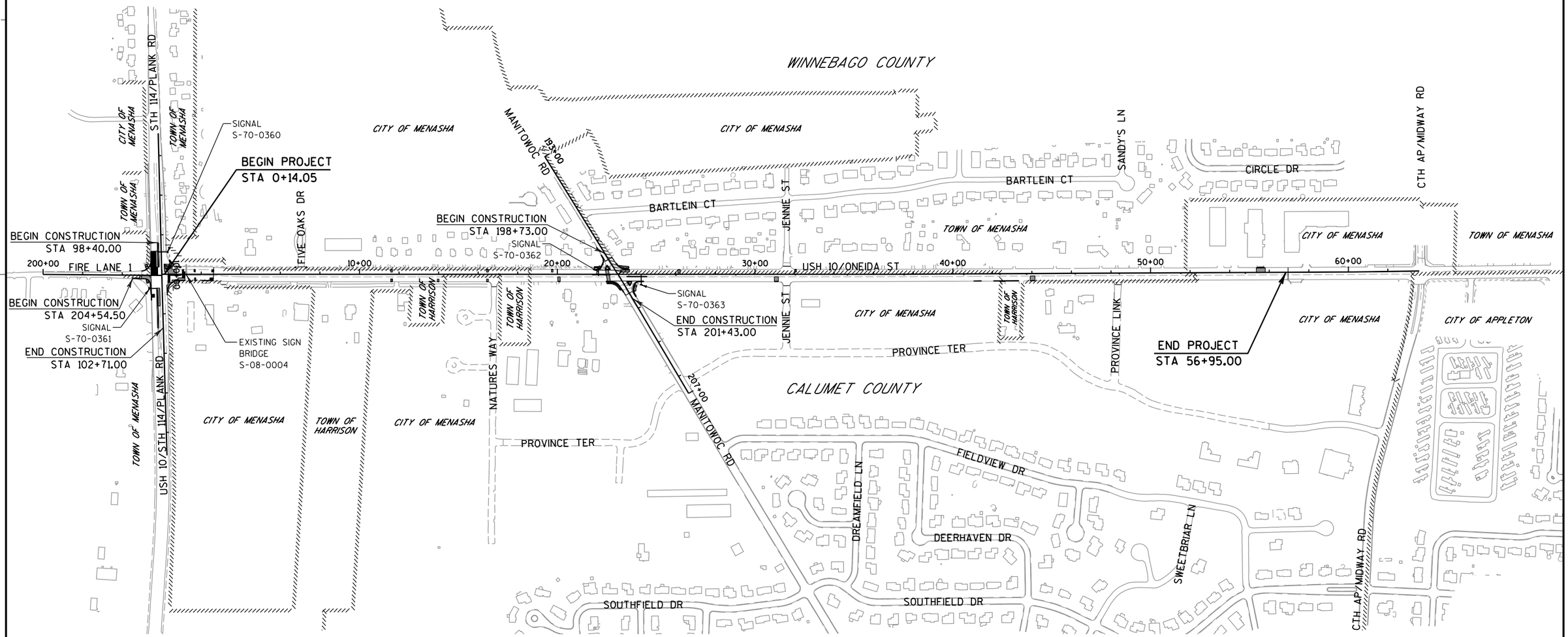
OTHER CONTACTS

DNR LIAISON
JAY SCHIEFELBEIN
DNR NORTHEAST REGIONAL HQ
2984 SHAWANO AVE
GREEN BAY, WI 54313
(920) 360-3784 (CELL)
JEREMIAH.SCHIEFELBEIN@WISCONSIN.GOV

MAJOR ITEMS OF PROPOSED WORK

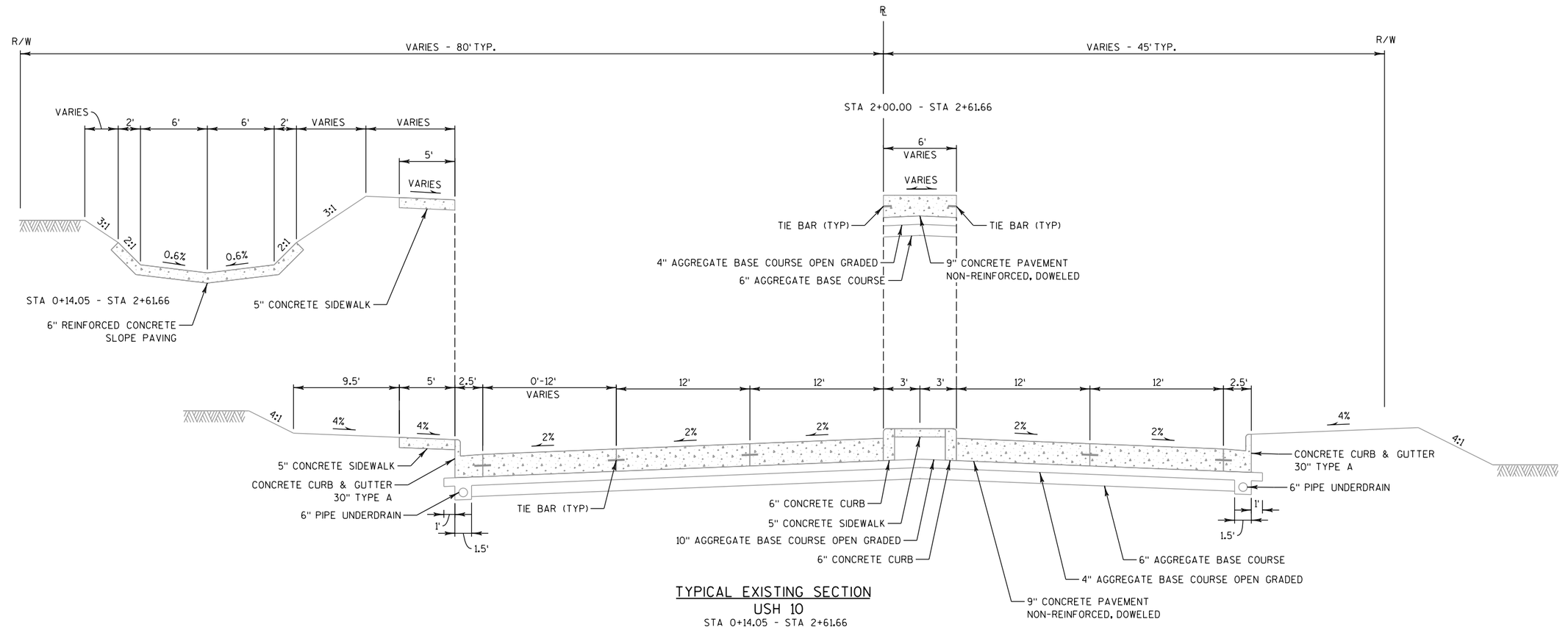
STA 0+14.05 - STA 2+61.66
CONCRETE PAVEMENT REPAIR AND REPLACEMENTS
CONCRETE CURB & GUTTER SPOT REPLACEMENTS
USH 10/STH 114 TRAFFIC SIGNAL MODIFICATIONS
MEDIAN, ISLAND, AND RADII PARTIAL RECONSTRUCTION

STA 2+61.66 - STA 56+95.00
REMOVING ASPHALTIC SURFACE MILLING
HMA PAVEMENT OVERLAY
SPOT LOCATIONS OF BASE PATCHING CONCRETE
CONCRETE CURB & GUTTER SPOT REPLACEMENTS
RECONSTRUCT USH 10/MANITOWOC RD INTERSECTION
USH 10/MANITOWOC RD TRAFFIC SIGNAL REPLACEMENTS



PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PROJECT OVERVIEW	SHEET 3	E

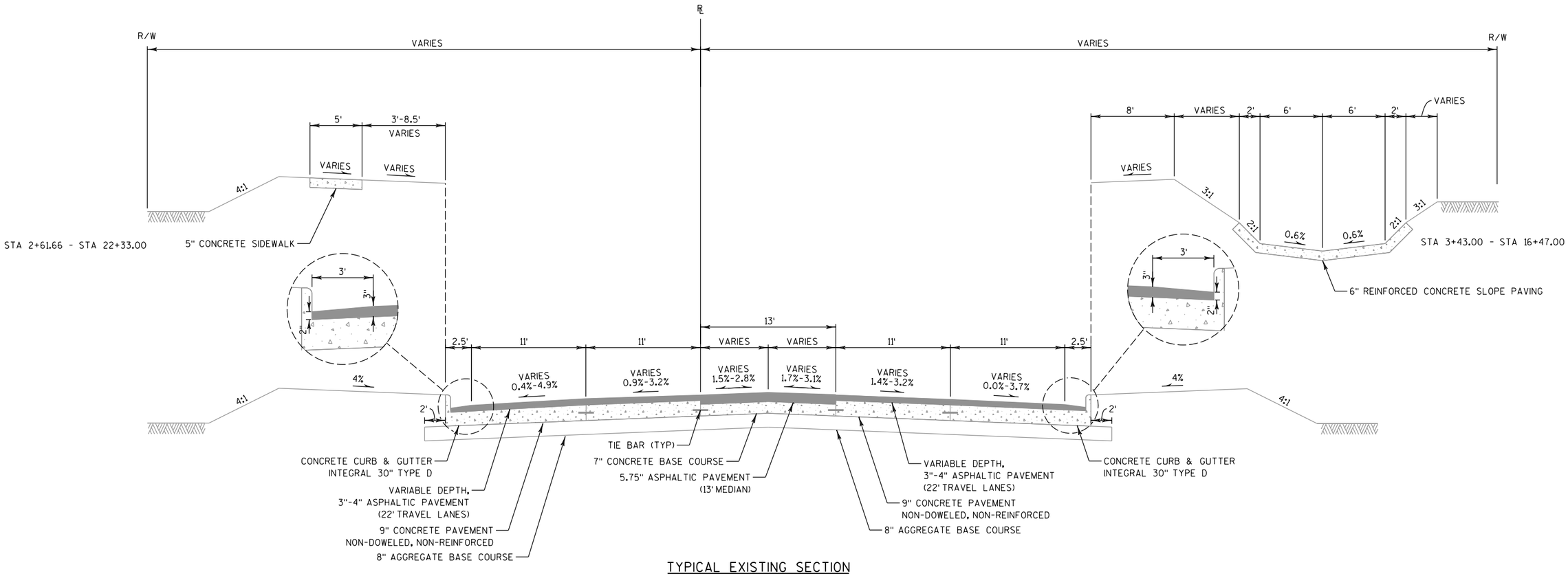
2



TYPICAL EXISTING SECTION
USH 10
STA 0+14.05 - STA 2+61.66

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET 4	E

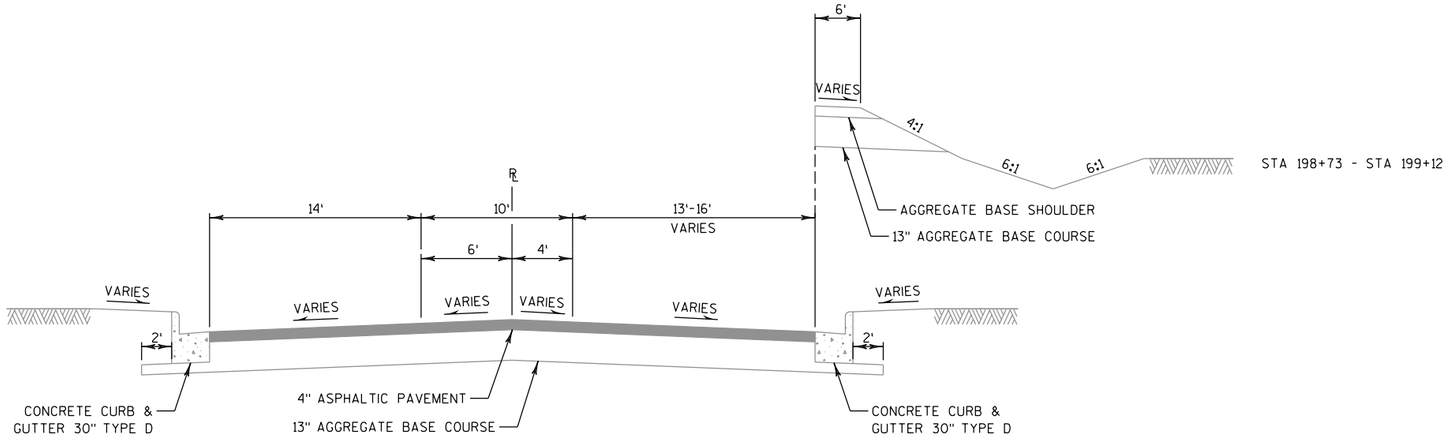
2



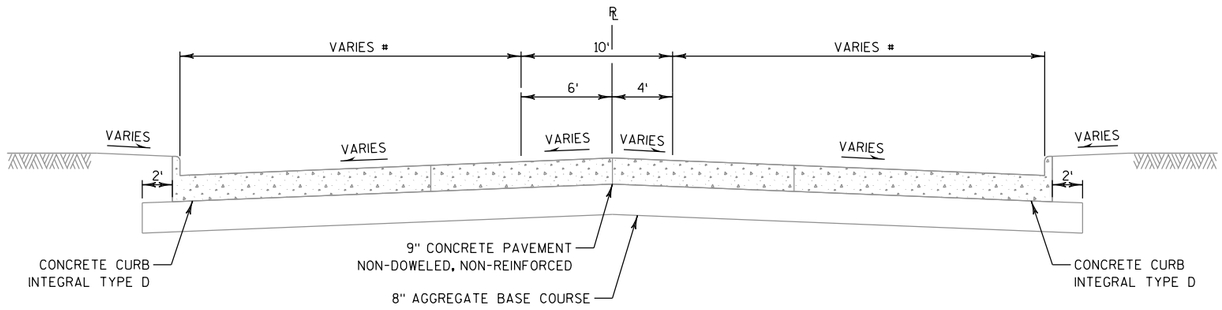
TYPICAL EXISTING SECTION
USH 10
STA 2+61.66 - STA 56+95.00

NOTE
CROSS SLOPES ARE BASED ON FIELD SURVEY

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET 5	E



TYPICAL EXISTING SECTION
MANITOWOC RD
STA 198+73 - STA 199+12
STA 200+86 - STA 201+43

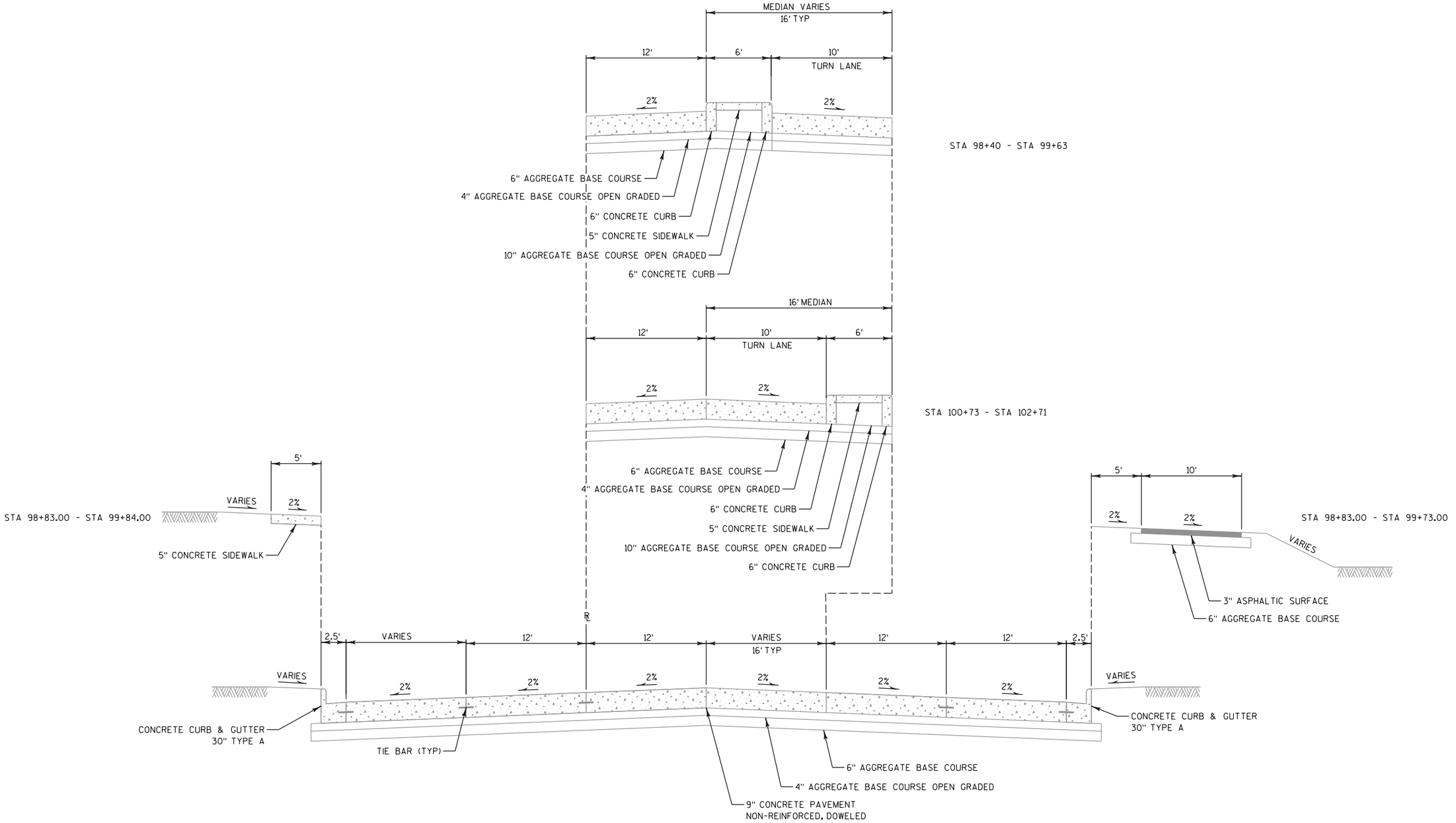


TYPICAL EXISTING SECTION
MANITOWOC RD
STA 199+12 - STA 199+75
STA 200+40 - STA 200+86

NOTE
WIDTH VARIES IN AREA OF RADIUS OF INTERSECTION

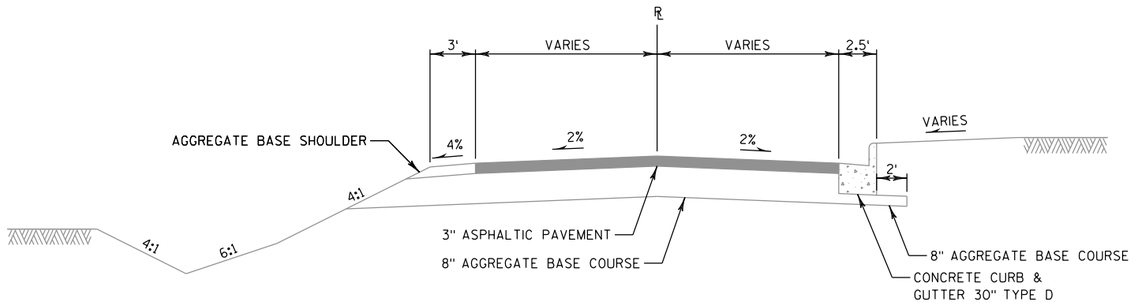
PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET 6	E

2

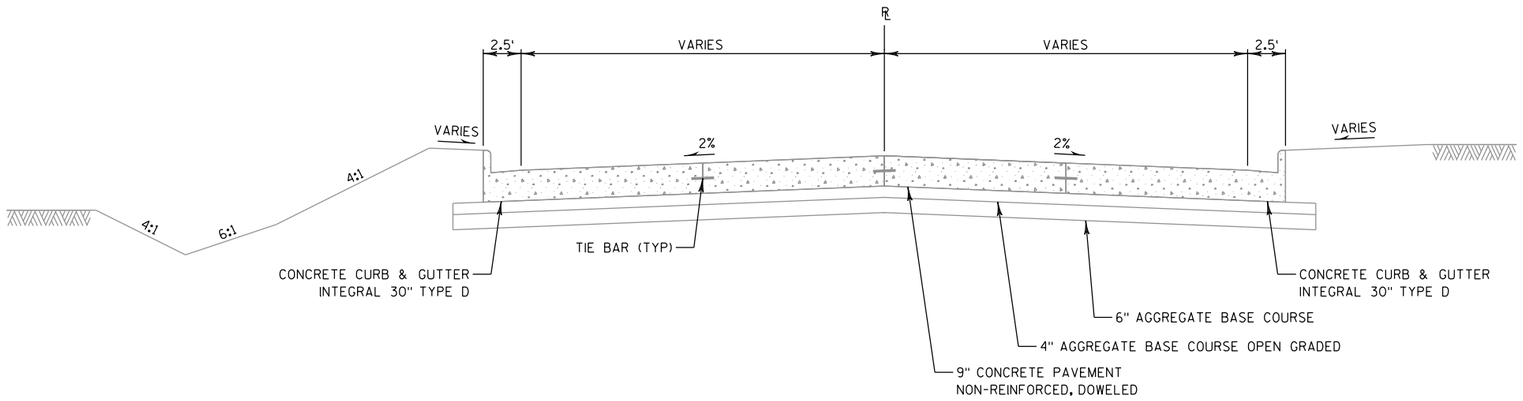


TYPICAL EXISTING SECTION
STH 114/PLANK RD
STA 98+40 - STA 102+71

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET 7	E

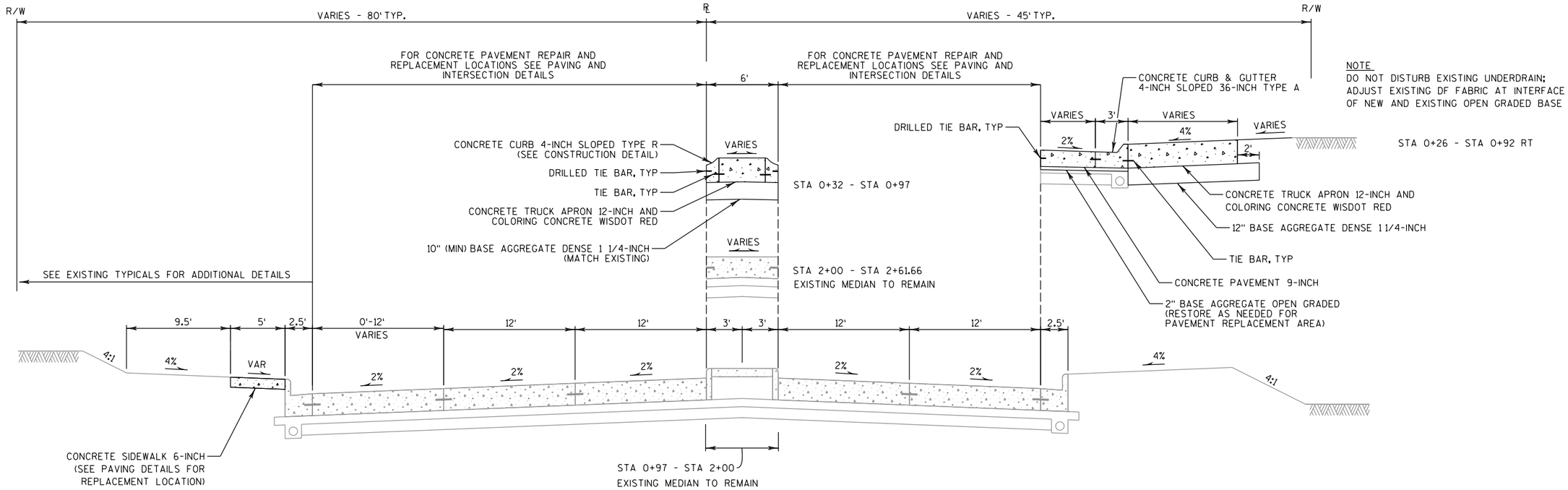


TYPICAL EXISTING SECTION
FIRE LANE 1
STA 204+54.50 - STA 204+98



TYPICAL EXISTING SECTION
FIRE LANE 1
STA 204+98 - STA 205+46

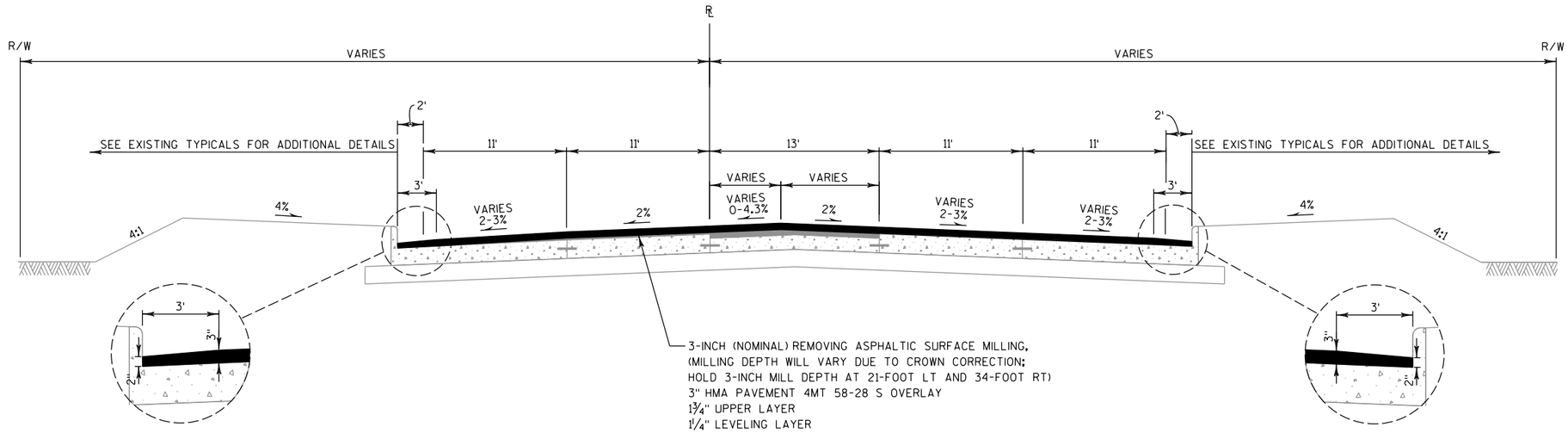
PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET 8	E



TYPICAL FINISHED SECTION
CONCRETE PAVEMENT REPAIR AND REPLACEMENT
USH 10
STA 0+14.05 - STA 2+61.66

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET 9	E

2

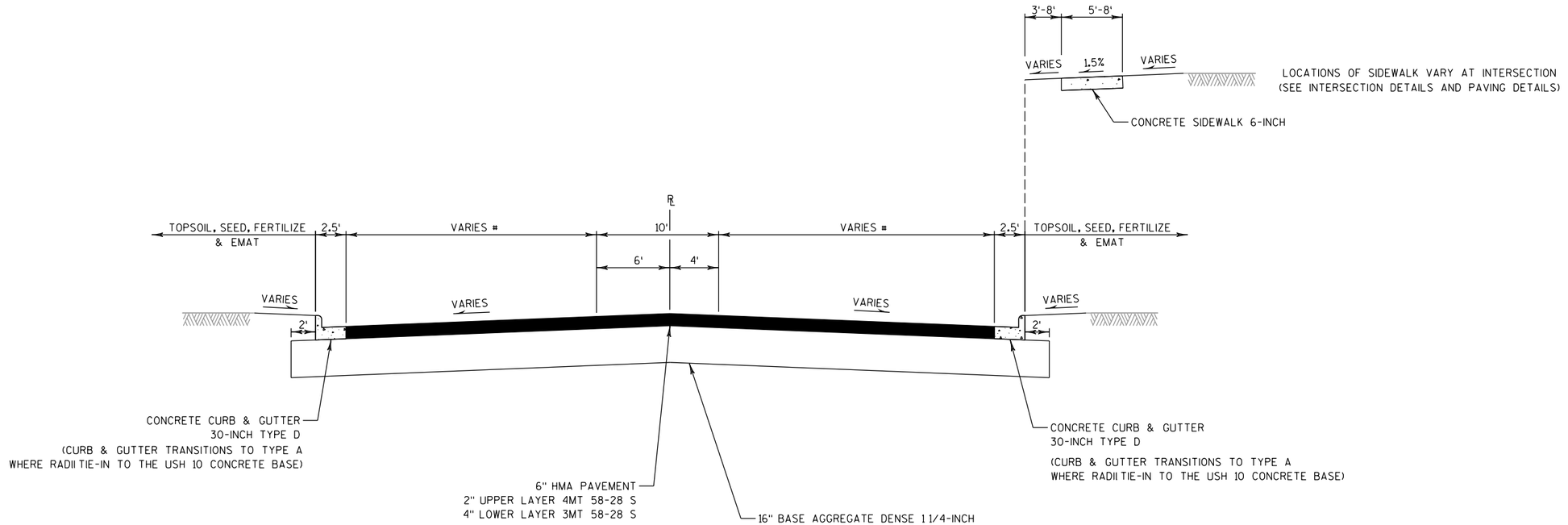


SEE CONSTRUCTION DETAILS

SEE CONSTRUCTION DETAILS

TYPICAL FINISHED SECTION
USH 10
STA 2+61.66 - STA 56+95.00

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET 10	E



TYPICAL FINISHED SECTION
MANITOWOC RD
STA 199+11 - STA 199+75
STA 200+40 - STA 201+11

NOTES

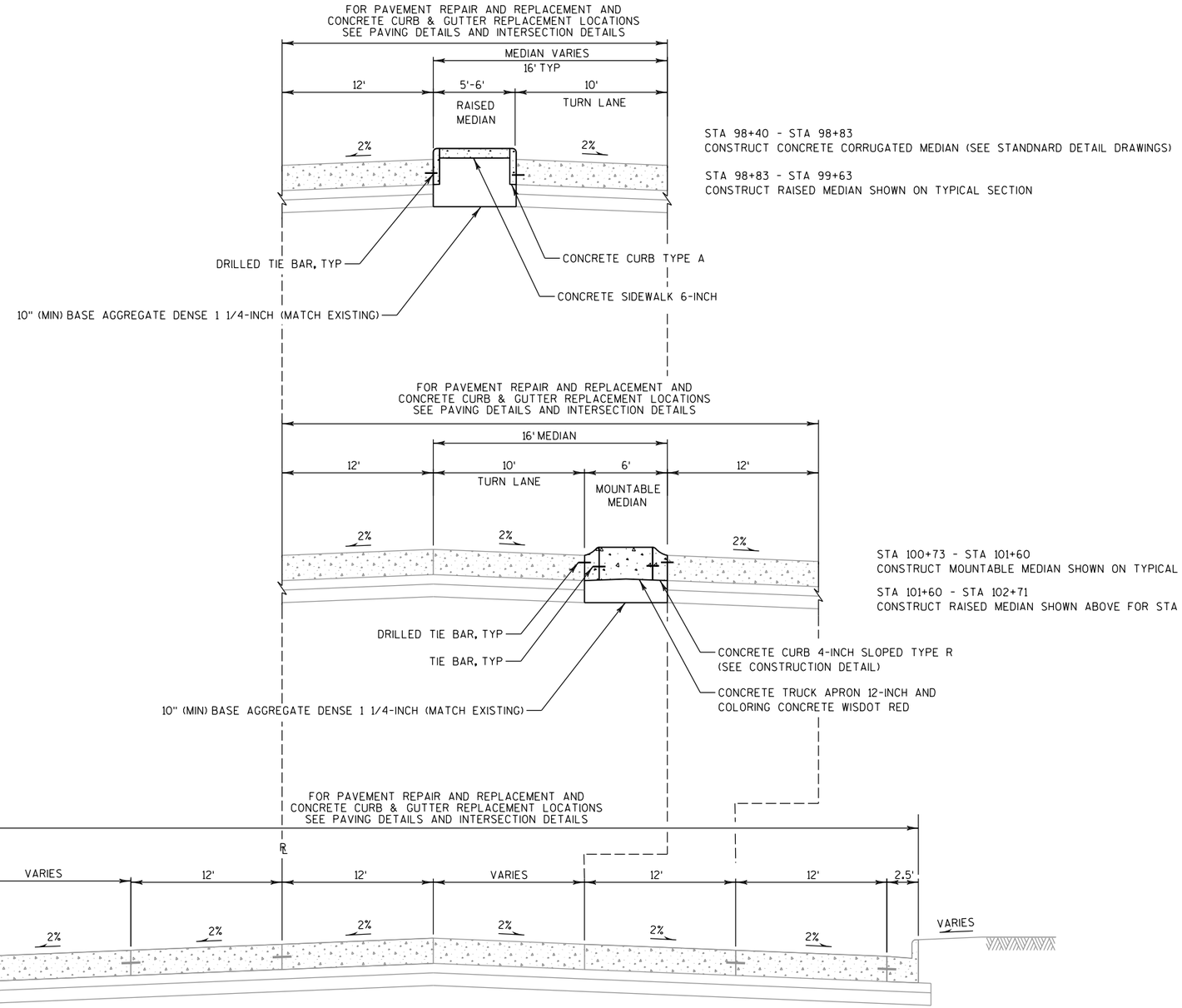
WIDTH VARIES THROUGHOUT INTERSECTION

SEE PAVING DETAILS AND INTERSECTION DETAILS FOR LIMITS OF CONCRETE SIDEWALK AT RADII

SEE PAVING DETAILS FOR LIMITS OF PROPOSED CURB & GUTTER AND PAVEMENT TIE-INS AT THE RADII ON MANITOWOC RD (STA 198+73 - STA 199+11, RT AND STA 201+11 - STA 201+43, LT)

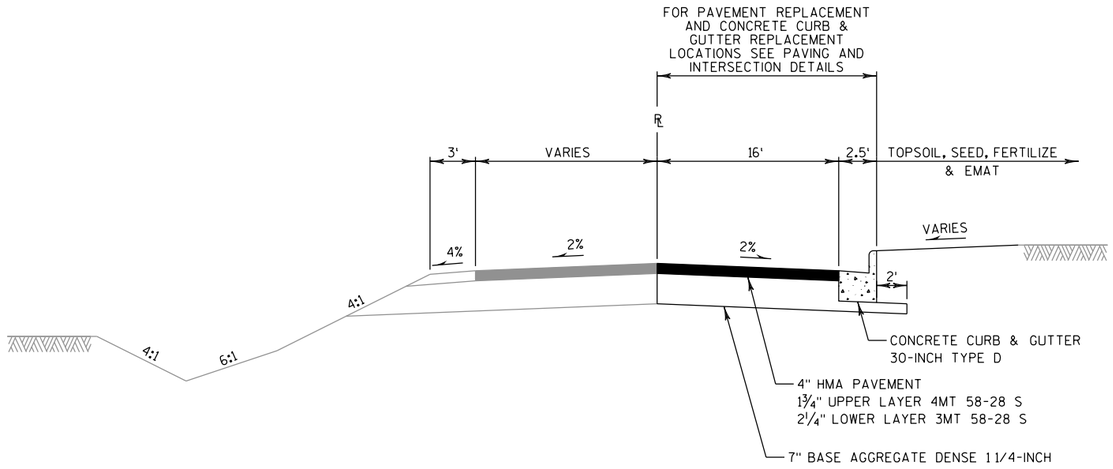
PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET 11	E

2

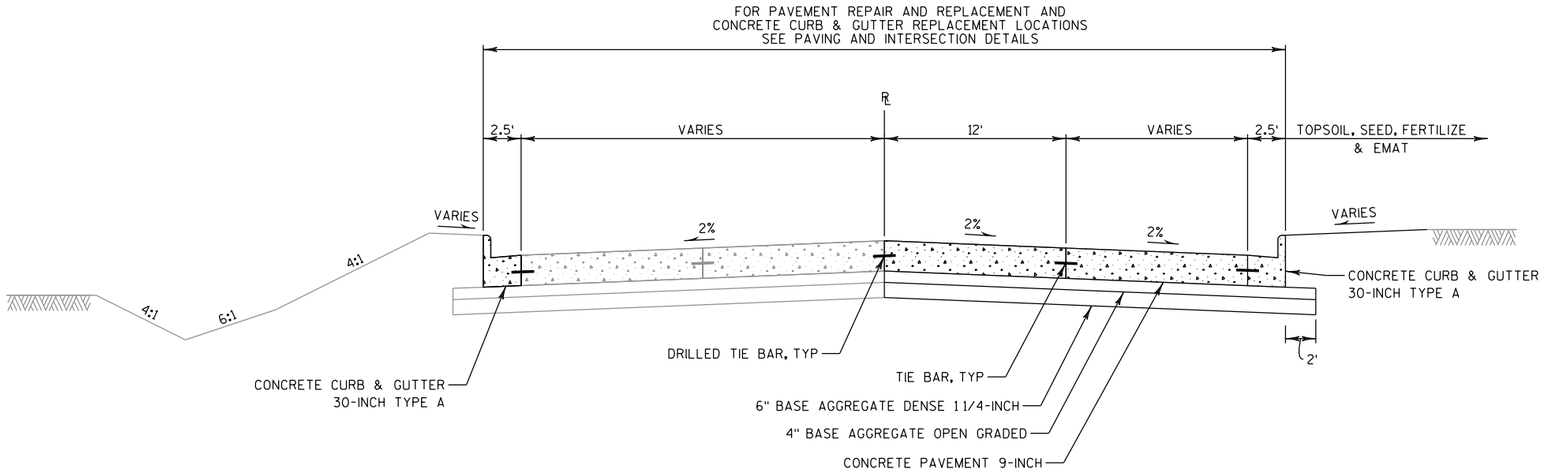


TYPICAL FINISHED SECTION
STH 114/PLANK RD
STA 98+40 - STA 102+71

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET 12	E



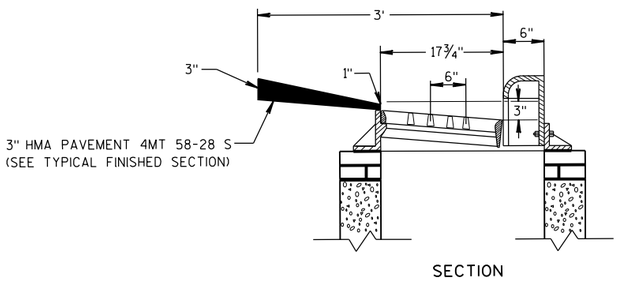
TYPICAL FINISHED SECTION
FIRE LANE 1
STA 204+54 - STA 204+98



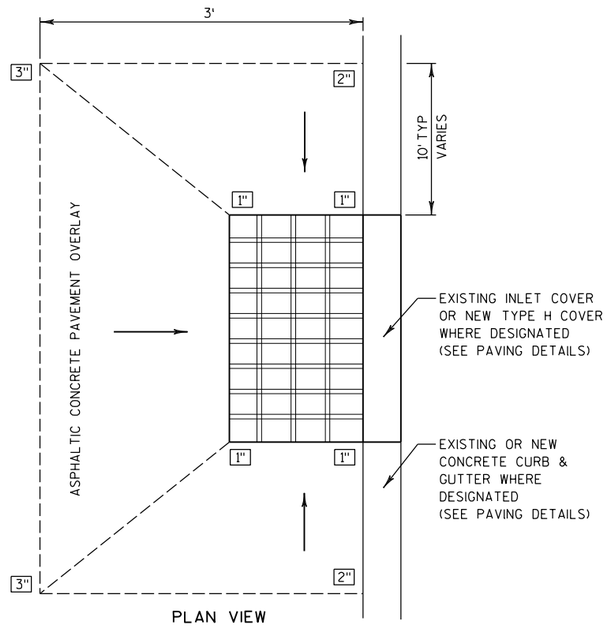
TYPICAL FINISHED SECTION
FIRE LANE 1
STA 204+98 - STA 205+46

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET 13	E

FILE NAME : P:\48xx\4819.4750W13.DP.13.USH10.WNB\CADDS\Plan\020301_ts.dgn PLOT DATE : 9/26/2016 PLOT BY : sgc PLOT NAME : PLOT SCALE : 1:20



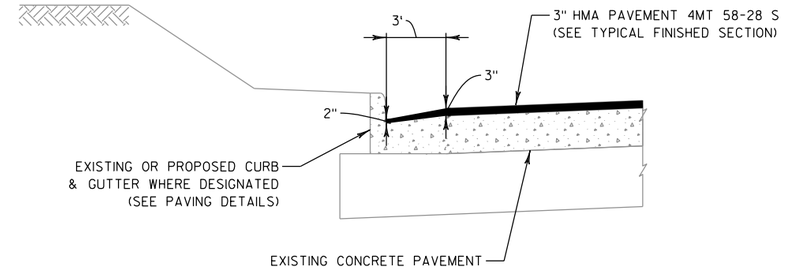
SECTION



PLAN VIEW

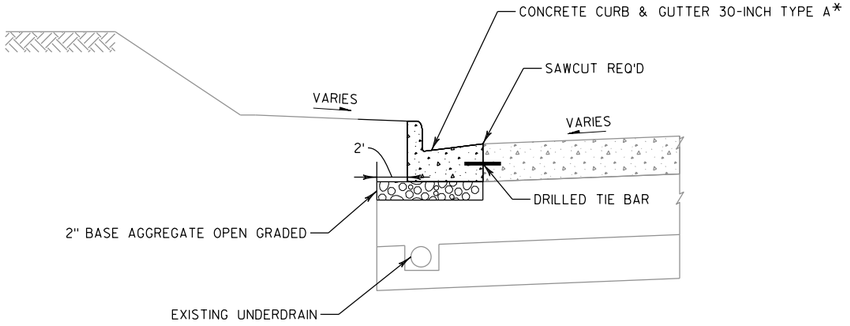
"X" = INDICATES OVERLAY DEPTH

DETAIL OF PAVEMENT FLARE AT INLETS



DETAIL OF CURB & GUTTER HMA OVERLAY

STA 2+61.66 - STA 56+84.00
(OUTSIDE INLET TRANSITION AREAS)



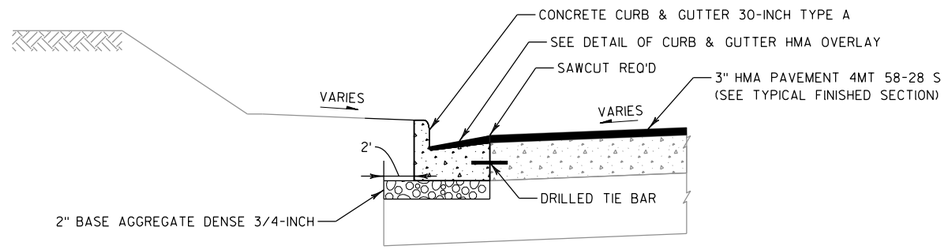
DETAIL OF CURB & GUTTER SPOT REPLACEMENT AREAS

STA 0+14.05 - STA 2+61.66

NOTES

SEE PAVING DETAILS FOR ADDITIONAL INFORMATION

* SEE PAVING DETAILS FOR CURB AND GUTTER TYPES AT NE RADIUS OF USH 10/STH 114



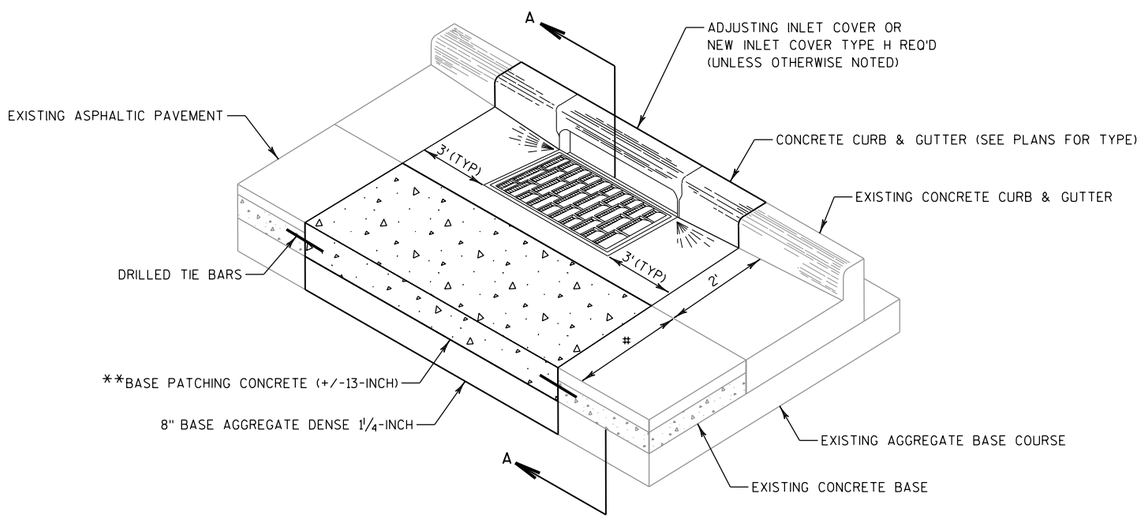
DETAIL OF CURB & GUTTER SPOT REPLACEMENT AREAS

STA 2+61.66 - STA 56+84.00

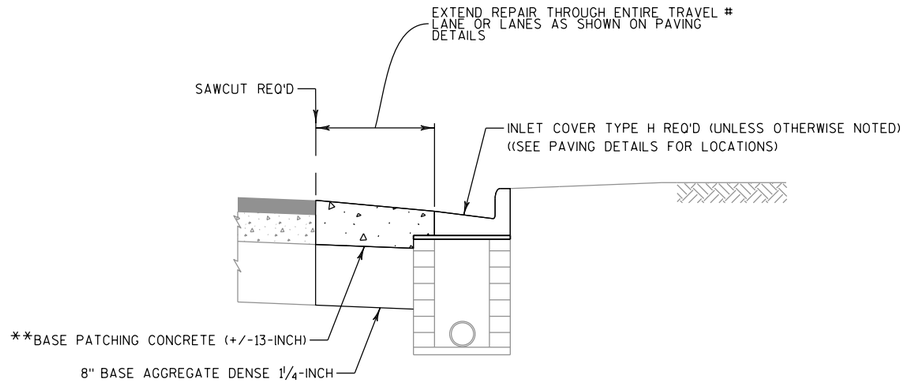
NOTES

COMPLETE CURB & GUTTER REPLACEMENTS PRIOR TO MILL AND OVERLAY OF USH 10

SEE PAVING DETAILS FOR ADDITIONAL INFORMATION



PLAN VIEW



SECTION A-A

INSTALLATION OF NEW INLET COVERS DETAIL

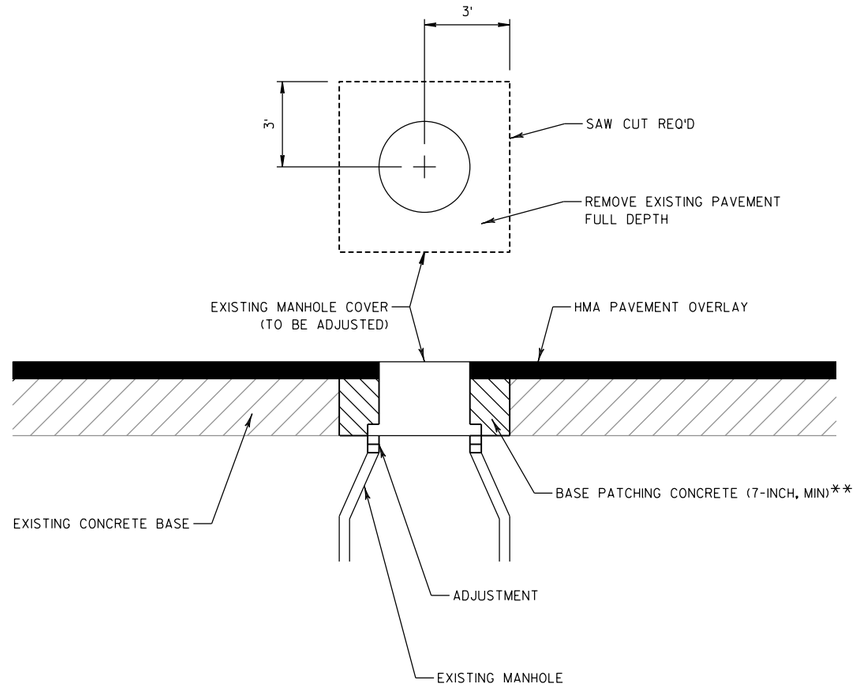
USH 10

NOTES

SEE SDD "CONCRETE CURB, CONCRETE CURB AND GUTTER, AND TIES" FOR LOCATION OF TIE BARS AND SDD "CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES" FOR DETAILS OF DRILLED TIE BAR INSTALLATION

SEE DETAIL OF PAVEMENT FLARE AT INLETS FOR ADDITIONAL INFORMATION

** COMPLETE BASE PATCHING PRIOR TO MILL AND OVERLAY, BASE PATCHING MAY BE EXTENDED TO THE SURFACE AND MILLED OFF; EXISTING CONCRETE BASE IS 7-INCHES IN MEDIAN AND 9-INCHES IN THE TRAVEL LANES; MILLING CONCRETE BASE PATCHING IS INCIDENTAL TO THE ASPHALTIC MILLING ITEM



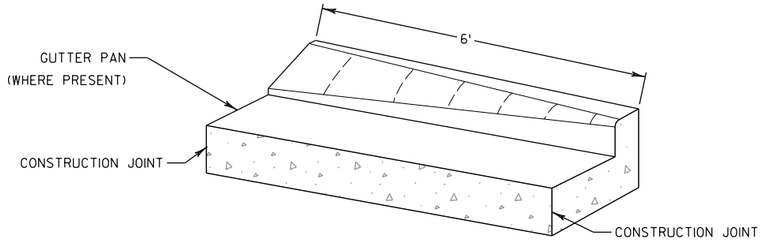
ADJUSTING MANHOLE COVERS DETAIL

SEE PAVING DETAILS FOR LOCATIONS
OF STORM SEWER MANHOLES
TO BE ADJUSTED
(USH 10 MEDIAN AREAS)

NOTE

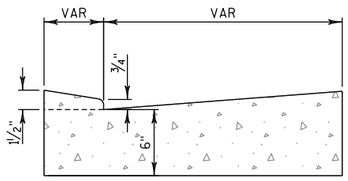
** BASE PATCHING MAY BE EXTENDED TO THE SURFACE AND MILLED OFF; EXISTING CONCRETE BASE IS 7-INCHES IN MEDIAN AND 9-INCHES IN THE TRAVEL LANES; MILLING CONCRETE BASE PATCHING IS INCIDENTAL TO THE ASPHALTIC MILLING ITEM

2



CONCRETE CURB AND CONCRETE CURB & GUTTER TRANSITION DETAIL

CONCRETE CURB AND CONCRETE CURB & GUTTER TRANSITION TO A DIFFERENT TYPE OF CURB OR CURB & GUTTER, SEE PAVING DETAILS FOR CURB AND CURB & GUTTER TYPES



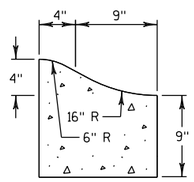
CONCRETE CURB & GUTTER WITH NO CURB HEAD / DRIVEWAY CURB HEAD

SEE PAVING DETAILS FOR LOCATIONS

CONCRETE CURB & GUTTER WITH NO CURB HEAD OR FOR DRIVEWAYS TO BE PAID FOR AS STANDARD CONCRETE CURB & GUTTER ITEM

NOTE

SEE SDD "CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES" FOR INFORMATION NOT SHOWN

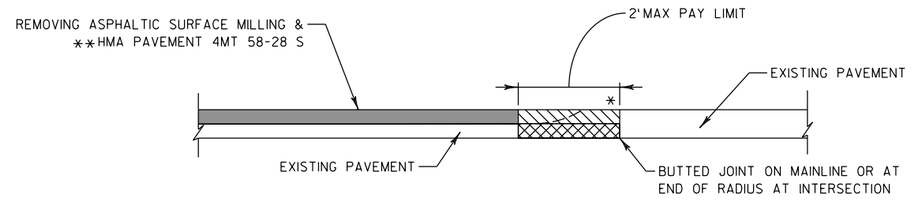


CONCRETE CURB 4-INCH SLOPED TYPE R

SEE PAVING DETAILS FOR LOCATIONS

NOTE

SEE SDD "CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES" FOR INFORMATION NOT SHOWN



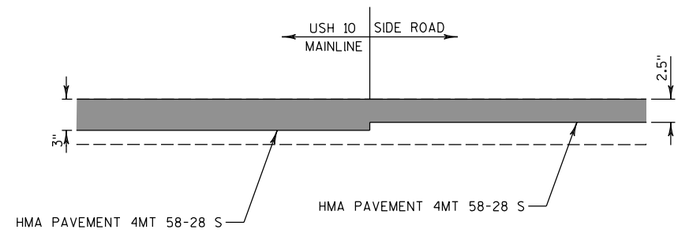
ASPHALTIC WEDGING
(FULL DEPTH REMOVAL OPTIONAL)

REMOVING ASPHALTIC MATERIAL, BUTT JOINTS (FULL DEPTH REMOVAL OPTIONAL)
DO NOT REMOVE MATERIAL UNDER THIS ITEM UNTIL 24 HOURS BEFORE PAVING

* VERTICAL SURFACE REQ'D

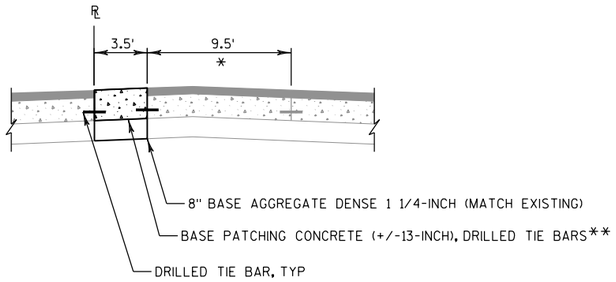
** 3" MILL & OVERLAY DEPTH ON MAINLINE USH 10
2.5" MILL & OVERLAY DEPTH ON SIDE ROADS
(SEE TYPICAL FINISHED SECTION)

SECTION VIEW OF BUTT JOINT ON MAINLINE AND INTERSECTIONS

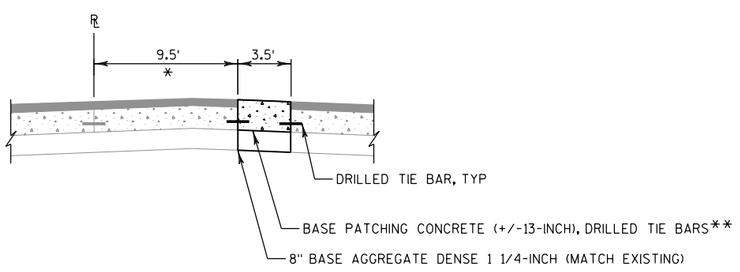


REMOVING ASPHALTIC SURFACE MILLING AND
HMA PAVEMENT 4MT 58-28 S
3" NOMINAL ON MAINLINE USH 10 AND 2.5" TYPICAL ON SIDE ROADS
(SEE TYPICAL FINISHED SECTIONS)

DETAIL OF MILL & OVERLAY AT SIDE ROADS



MEDIAN REMOVAL PAVEMENT PATCH
USH 10
STA 21+75 - STA 22+71



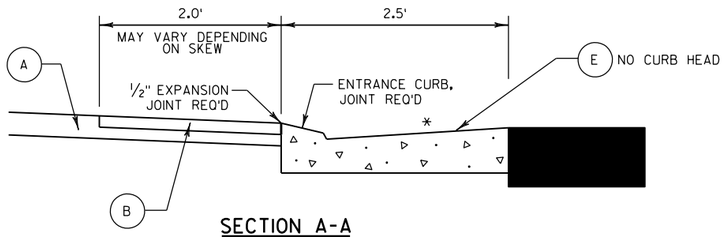
MEDIAN REMOVAL PAVEMENT PATCH
USH 10
STA 23+51 - STA 24+53

NOTES

* EXISTING LOOP DETECTORS IN THE LEFT TURN LANES ON USH 10 AT MANITOWOC ROAD ARE SAWED INTO THE EXISTING PAVEMENT AND MAY BE REMOVED DURING MILLING OPERATIONS; THIS IS INCIDENTAL TO ASPHALTIC SURFACE MILLING

** COMPLETE BASE PATCHING PRIOR TO MILL AND OVERLAY, BASE PATCHING MAY BE EXTENDED TO THE SURFACE AND MILLED OFF; EXISTING CONCRETE BASE IS 7-INCHES IN MEDIAN AND 9-INCHES IN THE TRAVEL LANES; MILLING CONCRETE BASE PATCHING IS INCIDENTAL TO THE ASPHALTIC MILLING ITEM

A SIMILAR TYPICAL SECTION FOR PATCHING ANY STORM SEWER TRENCHES AT MANITOWOC RD SHOULD BE USED



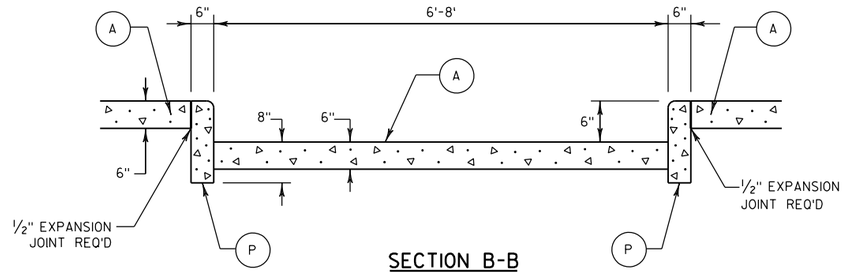
SECTION A-A

* C&G IS REJECT AT
NE CORNER OF MANITOWOC RD

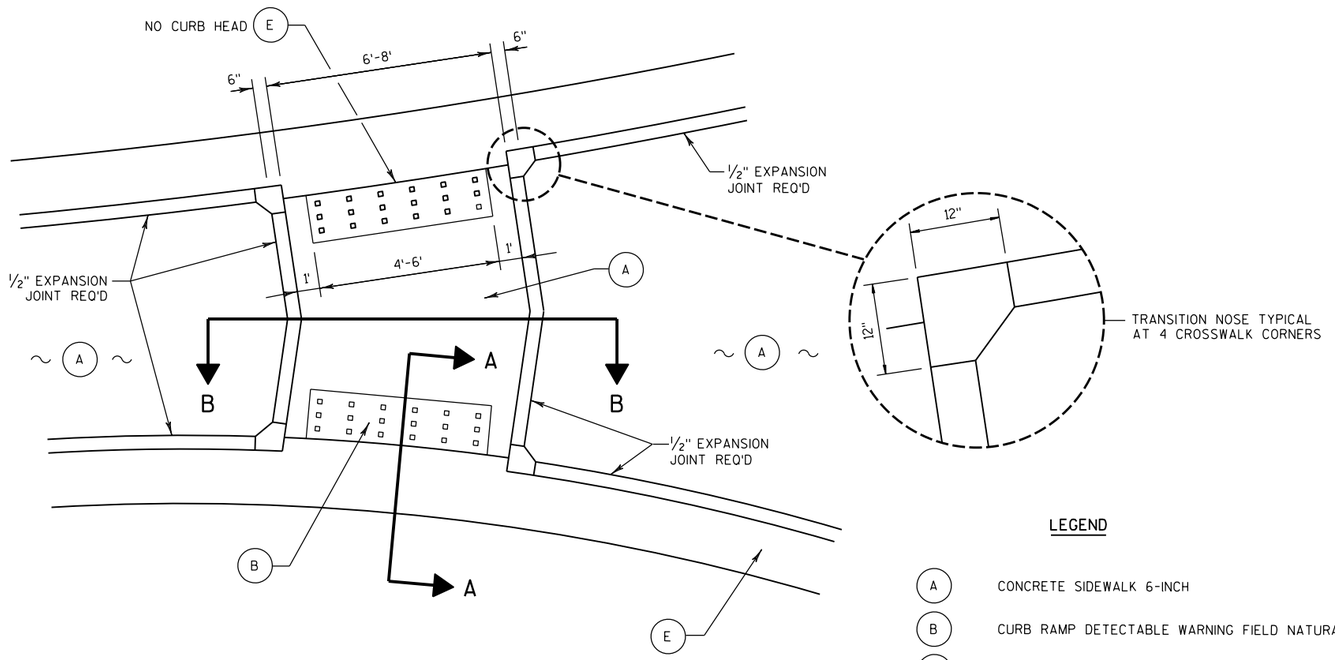
NOTES

PLACE CONCRETE MEDIAN SLOPED NOSE (TYPE 2) AT ALL CORNERS OF THE ISLANDS

SEE SDDS FOR CURB RAMPS FOR ADDITIONAL INFORMATION ON MAXIMUM SLOPES FOR RAMPS AND GUTTERS AND GRADE CHANGES



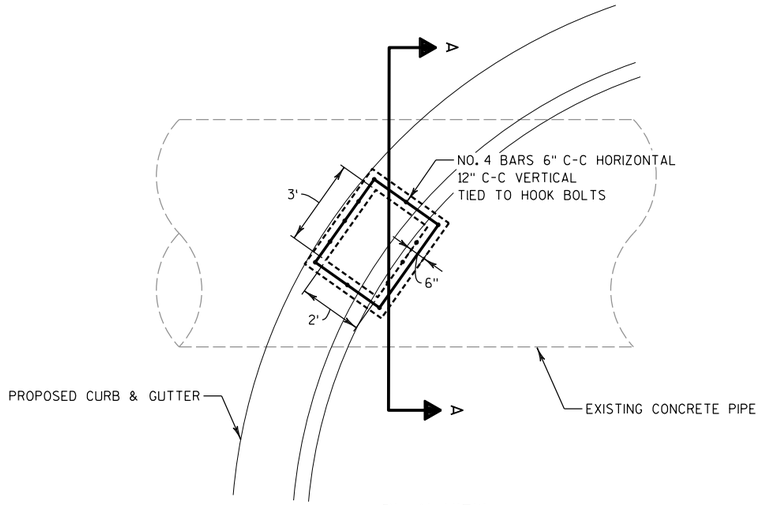
SECTION B-B



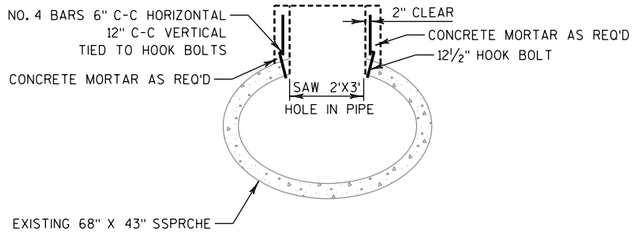
ISLAND DETAIL

LEGEND

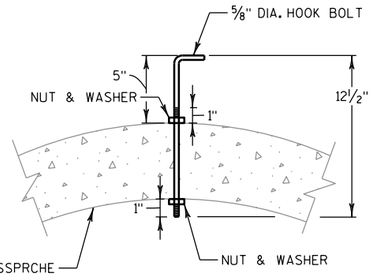
A	CONCRETE SIDEWALK 6-INCH
B	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA
E	CONCRETE CURB & GUTTER 30-INCH TYPE D
P	CONCRETE CURB PEDESTRIAN



PLAN VIEW



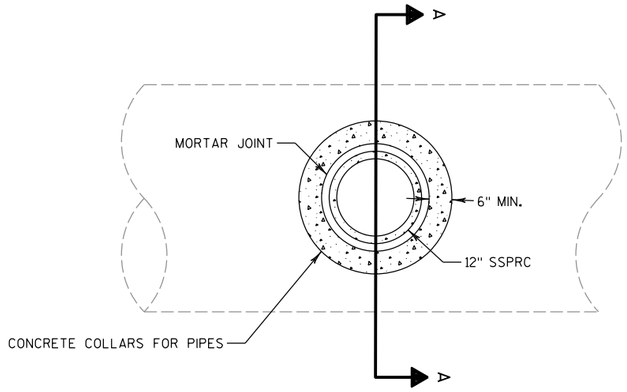
SECTION A-A

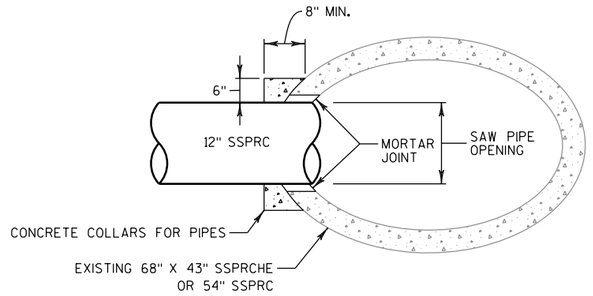


HOOK BOLT DETAIL

SPECIAL INLET DETAIL

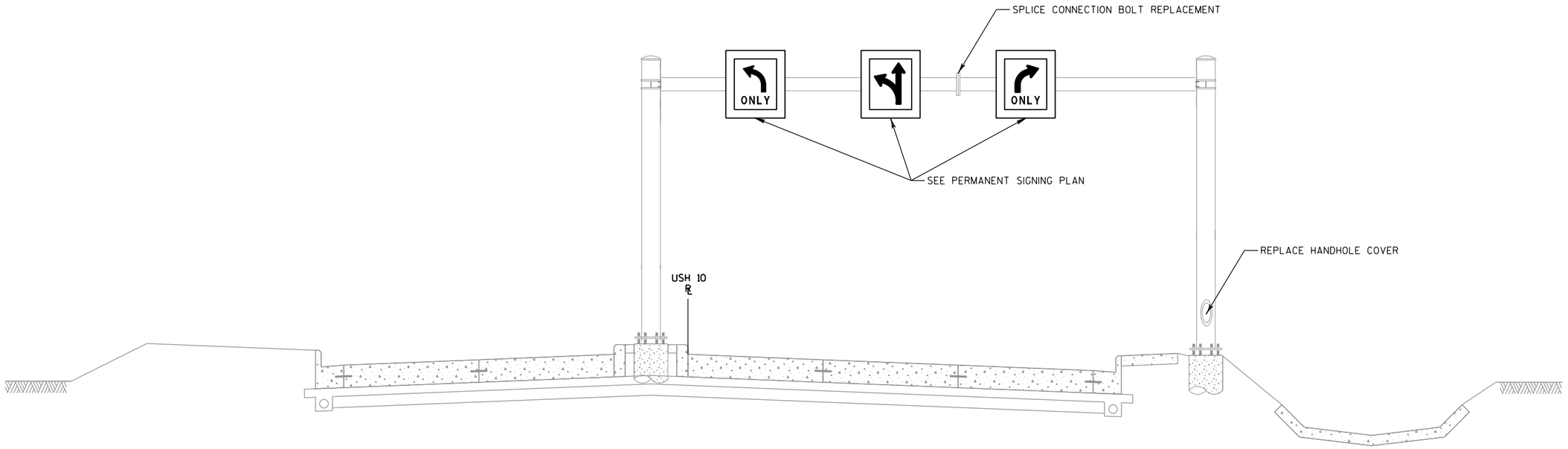
STA 23+93, 46' RT





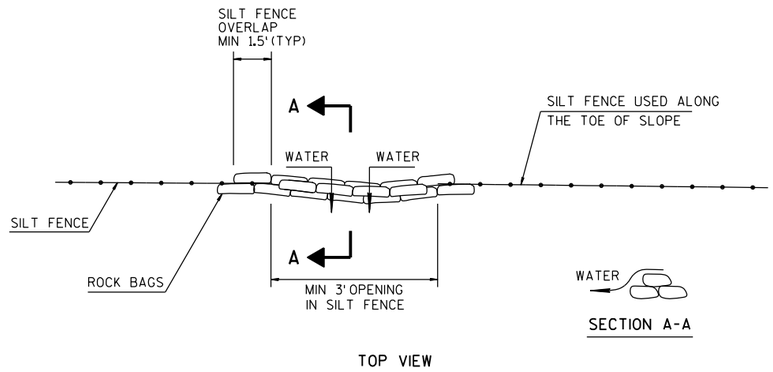
SECTION A-A

STORM SEWER TEE CONNECTION DETAIL



OVERHEAD SIGN SUPPORT REHABILITATION DETAIL

S-08-0004
STA 1+23.44
(VIEW LOOKING SOUTH)



NOTE

SEE EROSION CONTROL PLANS FOR
ADDITIONAL INFORMATION

ROCK BAGS USED FOR SILT FENCE RELIEF DETAIL

PAID AS ROCK BAGS

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	CONSTRUCTION DETAILS	SHEET 19	E

2

NOTES AT STH 114

RADIUS DIMENSIONS ARE SHOWN TO CURB ARE TO THE FACE; RADIUS DIMENSIONS FOR CURB & GUTTER ARE SHOWN TO THE FLANGELINE

PAVEMENT GRADES SHOWN ALONG THE CURB ARE SHOWN AT THE FLOWLINE OF THE ISLAND

PAVEMENT GRADES SHOWN ALONG THE CURB & GUTTER ARE SHOWN AT THE FLANGELINE

SEE PAVING DETAILS FOR ADDITIONAL INFORMATION ON PAVEMENT, CURB & GUTTER, AND MEDIAN SURFACE TYPES

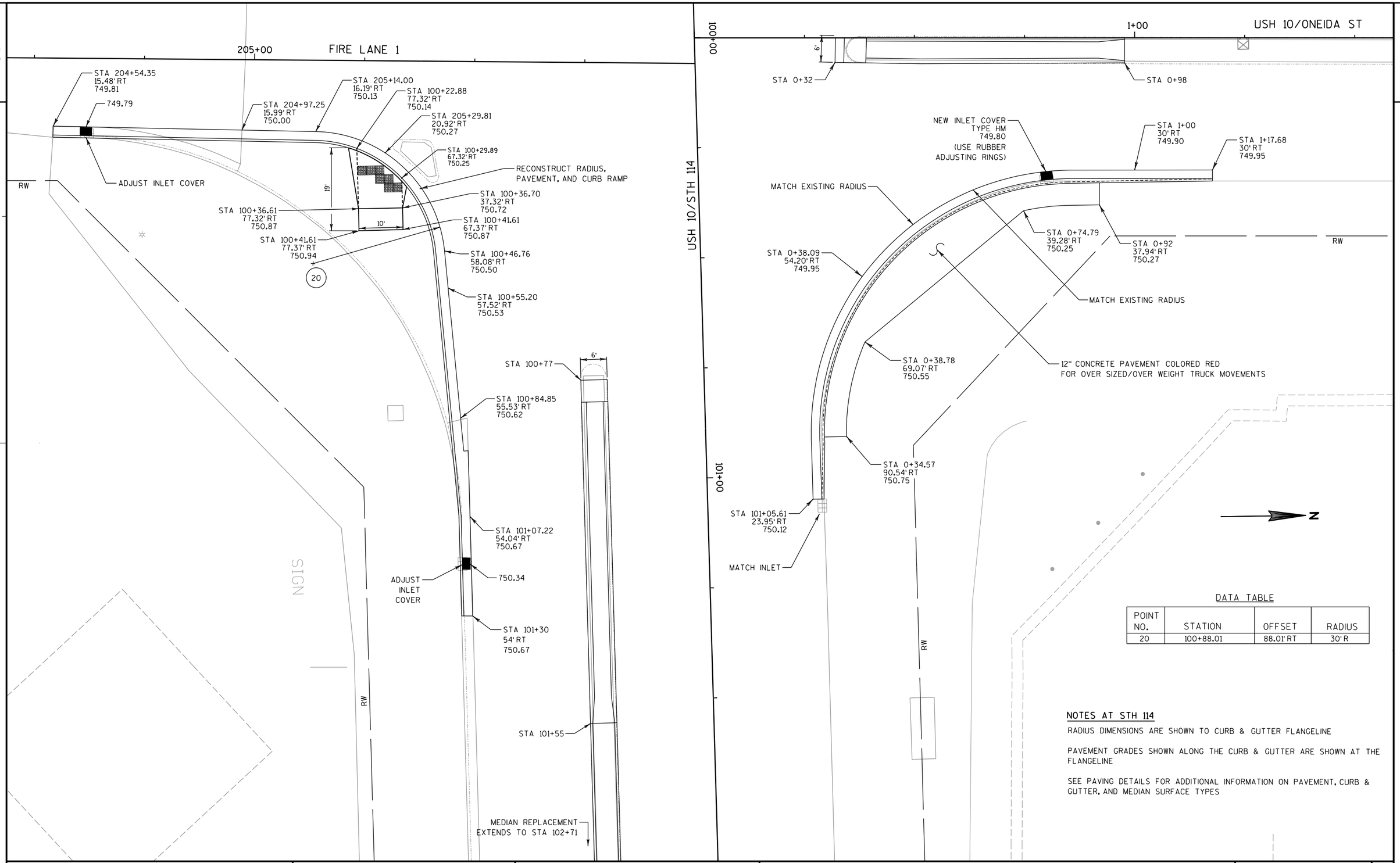
DATA TABLE

POINT NO.	STATION	OFFSET	RADIUS
1	0+16.53	46.51' LT	2' R
2	0+44.56	31.26' LT	2' R
3	0+19.92	28.35' LT	2' R
4	99+30.58	103.28' RT	52' R

N

STA 98+42
5'
STA 98+83
STA 98+82.90
50.77' RT
750.10
6'
99+00
RW
RW
RW
RW
SIGN
4
STA 99+31.12
51.28' RT
749.99
STA 99+51.17
70.22' RT
750.05
10'
STA 99+48.77
79.93' RT
749.90
STA 99+56.02
71.42' RT
749.87
STA 99+58.89
59.66' RT
749.92
STA 99+61.24
79.95' RT
749.72
STA 99+64.30
66.36' RT
749.75
STA 99+71.07
73.94' RT
749.65
6'
STA 99+60
STA 204+98.10
19.86' LT
749.53
205+00
FIRE LANE 1
USH 10/STH 114/PLANK RD
STA 0+40.37
72.97' LT
STA 0+43.30
68.79' LT
750.33
STA 0+47.35
64.11' LT
750.01
MATCH EXISTING RADIUS
STA 0+37.39
63.38' LT
749.95
STA 0+43.40
60.18' LT
749.93
REJECT CURB & GUTTER
THROUGH RAMP
STA 0+52.98
58.82' LT
749.95
STA 0+56.33
56.13' LT
750.30
STA 0+62.11
52.28' LT
STA 0+17.49
48.26' LT
750.41
STA 0+49.48
54.47' LT
749.87
1
STA 0+14.56
46.14' LT
750.46
STA 0+27.99
42.55' LT
750.27
STA 0+52.03
49.90' LT
749.90
STA 0+15.73
39.88' LT
750.43
STA 0+35.17
38.64' LT
750.18
8'
STA 0+45.51
33.02' LT
750.04
STA 0+17.22
31.93' LT
750.40
2
STA 0+17.95
27.98' LT
750.38
3
STA 0+20.16
26.36' LT
750.34
STA 0+44.79
29.27' LT
750.04
USH 10/ONEIDA ST
1+00
100+00

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	INTERSECTION DETAIL	SHEET 20	E



DATA TABLE

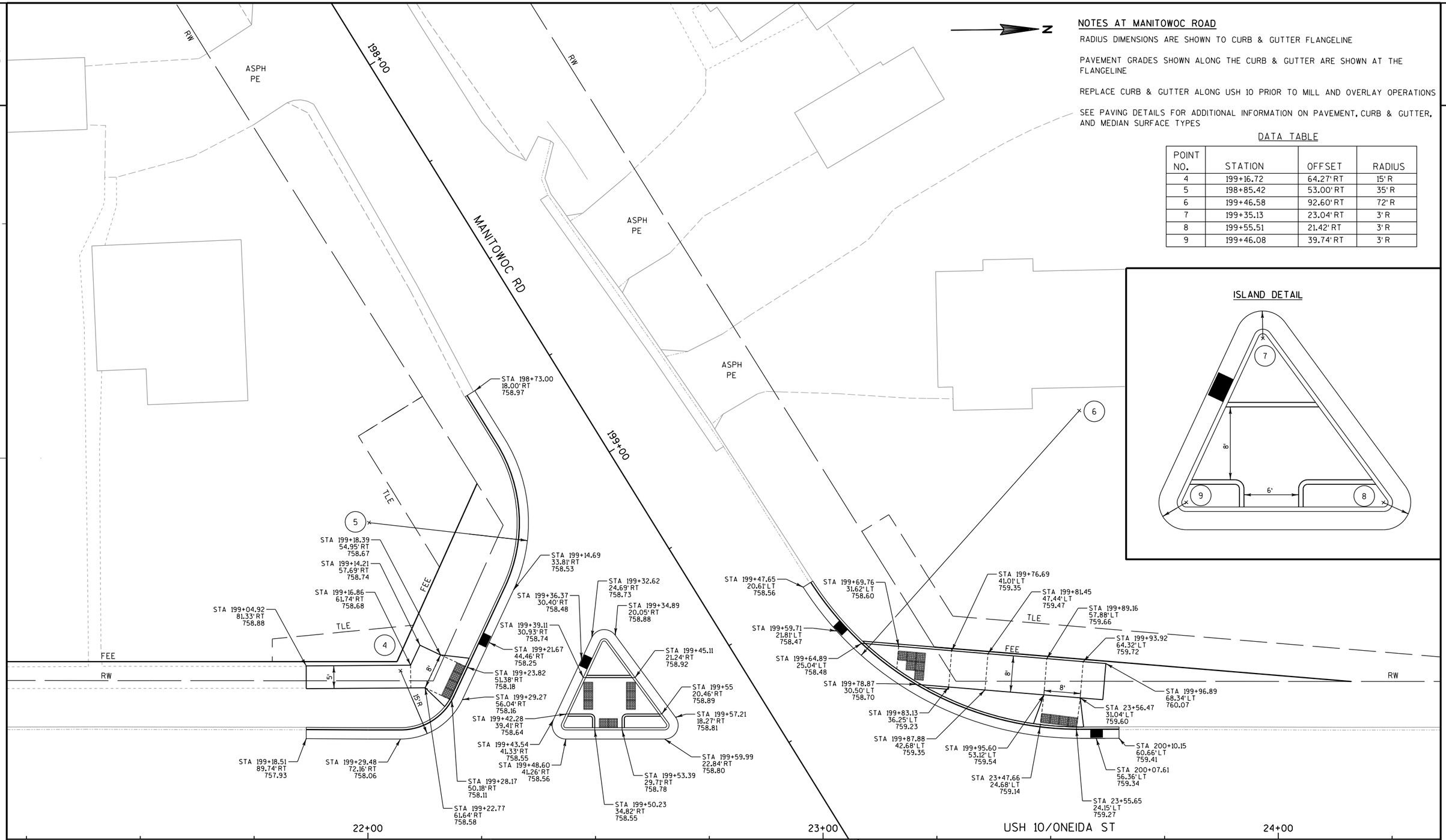
POINT NO.	STATION	OFFSET	RADIUS
20	100+88.01	88.01' RT	30' R

NOTES AT STH 114

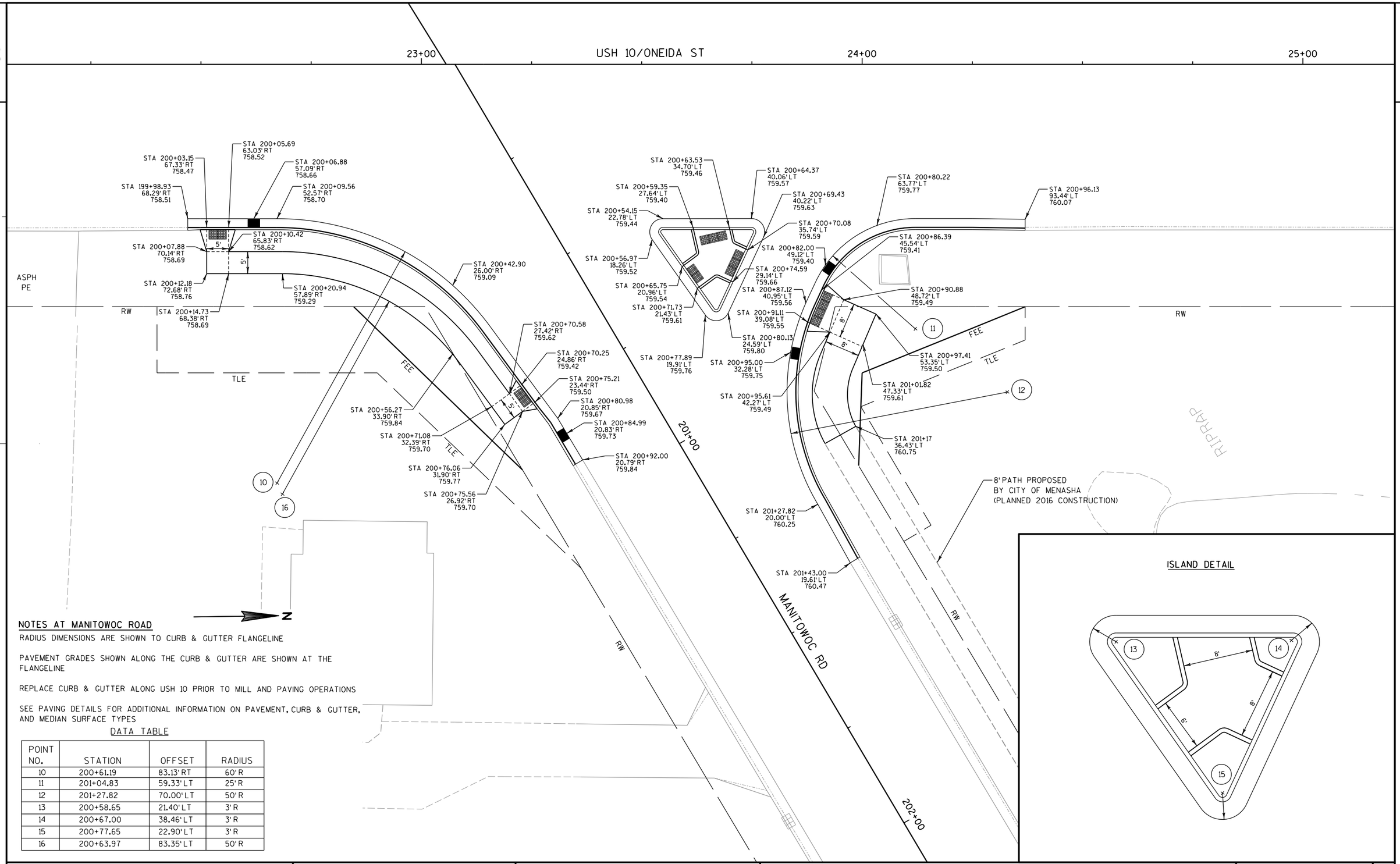
RADIUS DIMENSIONS ARE SHOWN TO CURB & GUTTER FLANGELINE

PAVEMENT GRADES SHOWN ALONG THE CURB & GUTTER ARE SHOWN AT THE FLANGELINE

SEE PAVING DETAILS FOR ADDITIONAL INFORMATION ON PAVEMENT, CURB & GUTTER, AND MEDIAN SURFACE TYPES



PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	INTERSECTION DETAIL	SHEET 22	E



N

NOTES AT MANITOWOC ROAD

RADIUS DIMENSIONS ARE SHOWN TO CURB & GUTTER FLANGELINE

PAVEMENT GRADES SHOWN ALONG THE CURB & GUTTER ARE SHOWN AT THE FLANGELINE

REPLACE CURB & GUTTER ALONG USH 10 PRIOR TO MILL AND PAVING OPERATIONS

SEE PAVING DETAILS FOR ADDITIONAL INFORMATION ON PAVEMENT, CURB & GUTTER, AND MEDIAN SURFACE TYPES

DATA TABLE

POINT NO.	STATION	OFFSET	RADIUS
10	200+61.19	83.13' RT	60' R
11	201+04.83	59.33' LT	25' R
12	201+27.82	70.00' LT	50' R
13	200+58.65	21.40' LT	3' R
14	200+67.00	38.46' LT	3' R
15	200+77.65	22.90' LT	3' R
16	200+63.97	83.35' LT	50' R

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	INTERSECTION DETAIL	SHEET 23	E

NOTES

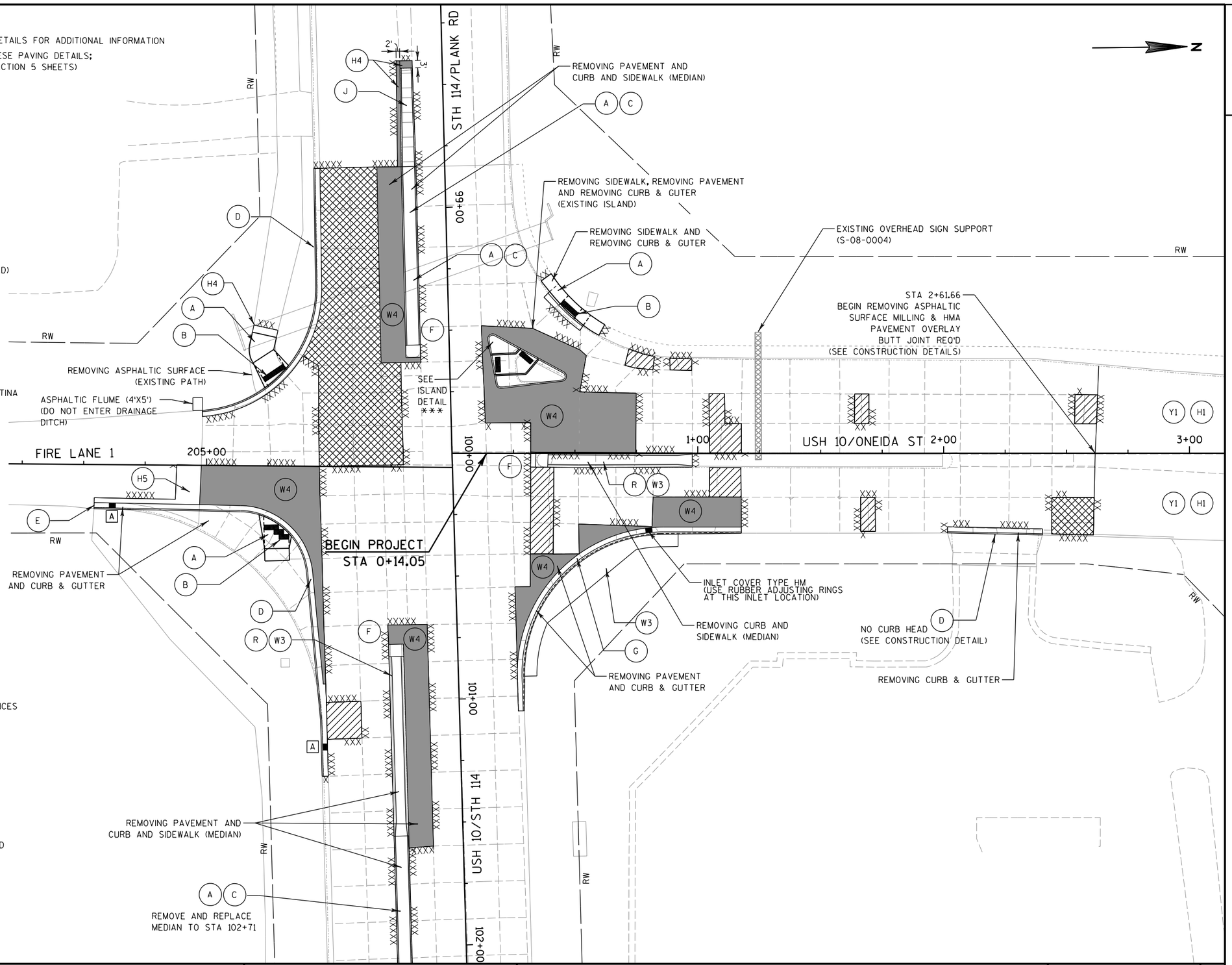
SEE TYPICAL SECTIONS, CONSTRUCTION DETAILS, AND INTERSECTION DETAILS FOR ADDITIONAL INFORMATION

MANHOLE AND VALVE ADJUSTMENTS ANTICIPATED ARE SHOWN ON THESE PAVING DETAILS; OTHER MANHOLES AND VALVES EXIST WITHIN THE PAVEMENT (SEE SECTION 5 SHEETS)

*** ISLAND DETAIL SHOWN IN CONSTRUCTION DETAILS

LEGEND

- PROPOSED FULL DEPTH PAVEMENT (SEE TYPICAL SECTION AND CONSTRUCTION DETAILS)
- XXXXX PROPOSED SAWCUT
- CONCRETE PAVEMENT REPAIR, 9-INCH
- CONCRETE PAVEMENT REPLACEMENT, 9-INCH
- NEW INLET COVERS TYPE H (UNLESS OTHERWISE NOTED)
- A ADJUSTING INLET COVERS
- ADJUSTING MANHOLE COVERS (STORM SEWER) (SEE CONSTRUCTION DETAIL)
- WV ADJUSTING WATER VALVES (BY OTHERS)
- A CONCRETE SIDEWALK 6-INCH
- B CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA
- C CONCRETE CURB TYPE A
- D CONCRETE CURB & GUTTER 30-INCH TYPE A
- E CONCRETE CURB & GUTTER 30-INCH TYPE D
- F CONCRETE MEDIAN SLOPED NOSE
- G CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE A
- H1 3" HMA PAVEMENT
- H2 2.5" HMA PAVEMENT
- H3 6" HMA PAVEMENT
- H4 ASPHALTIC SURFACE PATCHING (MATCH EXISTING)
- H5 4" HMA PAVEMENT
- H6 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- J CONCRETE CORRUGATED MEDIAN
- P CONCRETE CURB PEDESTRIAN
- R CONCRETE CURB 4-INCH SLOPED TYPE R
- W2 BASE PATCHING CONCRETE (MATCH EXISTING) (SEE CONSTRUCTION DETAILS)
- W3 CONCRETE TRUCK APRON 12-INCH COLORED WISDOT RED
- W4 CONCRETE PAVEMENT 9-INCH
- Y1 REMOVING ASPHALTIC SURFACE MILLING, 3-INCH
- Y2 REMOVING ASPHALTIC SURFACE MILLING, 2.5-INCH



PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PAVING DETAILS	SHEET 24	E

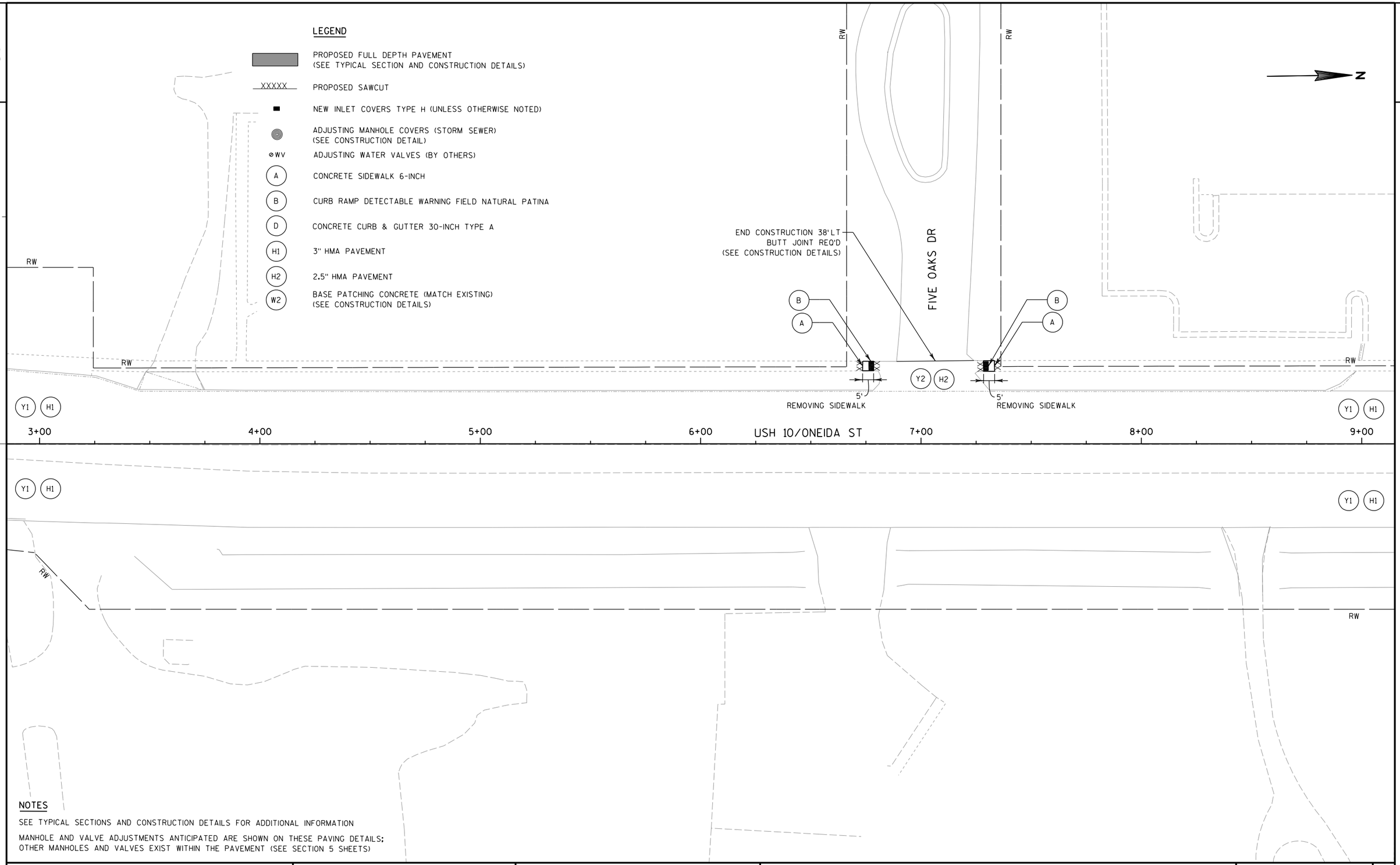
FILE NAME : P:\48xx\4819.4750W13.DP.13.USH10.WNB\CADDS\Plan\021201_pd.dgn PLOT DATE : 7/24/2016 PLOT BY : sgc PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

LEGEND

- PROPOSED FULL DEPTH PAVEMENT (SEE TYPICAL SECTION AND CONSTRUCTION DETAILS)
- XXXXX PROPOSED SAWCUT
- NEW INLET COVERS TYPE H (UNLESS OTHERWISE NOTED)
- ADJUSTING MANHOLE COVERS (STORM SEWER) (SEE CONSTRUCTION DETAIL)
- ⊘WV ADJUSTING WATER VALVES (BY OTHERS)
- (A) CONCRETE SIDEWALK 6-INCH
- (B) CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA
- (D) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (H1) 3" HMA PAVEMENT
- (H2) 2.5" HMA PAVEMENT
- (W2) BASE PATCHING CONCRETE (MATCH EXISTING) (SEE CONSTRUCTION DETAILS)



NOTES

SEE TYPICAL SECTIONS AND CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION

MANHOLE AND VALVE ADJUSTMENTS ANTICIPATED ARE SHOWN ON THESE PAVING DETAILS; OTHER MANHOLES AND VALVES EXIST WITHIN THE PAVEMENT (SEE SECTION 5 SHEETS)

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PAVING DETAILS	SHEET 25	E

FILE NAME : P:\48xx\4819.4750W13.DP.13.USH10.WNB\CADDS\Plan\021202_pd.dgn PLOT DATE : 7/24/2016 PLOT BY : sgc PLOT NAME : PLOT SCALE : 1:40

2

LEGEND

- PROPOSED FULL DEPTH PAVEMENT (SEE TYPICAL SECTION AND CONSTRUCTION DETAILS)
- XXXXX — PROPOSED SAWCUT
- NEW INLET COVERS TYPE H (UNLESS OTHERWISE NOTED)
- ADJUSTING MANHOLE COVERS (STORM SEWER) (SEE CONSTRUCTION DETAIL)
- ⊘WV — ADJUSTING WATER VALVES (BY OTHERS)
- (A) CONCRETE SIDEWALK 6-INCH
- (B) CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA
- (D) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (H1) 3" HMA PAVEMENT
- (H2) 2.5" HMA PAVEMENT
- (W2) BASE PATCHING CONCRETE (MATCH EXISTING) (SEE CONSTRUCTION DETAILS)

N

RW

Y1 H1

9+00 10+00 11+00 12+00 13+00 14+00 15+00

USH 10/ONEIDA ST

D

W2

14"

REMOVE EXISTING INLET
REPLACE WITH INLETS 2X3-FT
INLET COVERS TYPE H

NOTES

SEE TYPICAL SECTIONS AND CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION

MANHOLE AND VALVE ADJUSTMENTS ANTICIPATED ARE SHOWN ON THESE PAVING DETAILS; OTHER MANHOLES AND VALVES EXIST WITHIN THE PAVEMENT (SEE SECTION 5 SHEETS)

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PAVING DETAILS	SHEET 26	E

2

LEGEND

- PROPOSED FULL DEPTH PAVEMENT (SEE TYPICAL SECTION AND CONSTRUCTION DETAILS)
- XXXXX — PROPOSED SAWCUT
- NEW INLET COVERS TYPE H (UNLESS OTHERWISE NOTED)
- ADJUSTING MANHOLE COVERS (STORM SEWER) (SEE CONSTRUCTION DETAIL)
- ⊘WV — ADJUSTING WATER VALVES (BY OTHERS)
- (A) — CONCRETE SIDEWALK 6-INCH
- (B) — CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA
- (D) — CONCRETE CURB & GUTTER 30-INCH TYPE A
- (H1) — 3" HMA PAVEMENT
- (H2) — 2.5" HMA PAVEMENT
- (W2) — BASE PATCHING CONCRETE (MATCH EXISTING) (SEE CONSTRUCTION DETAILS)

NOTES

SEE TYPICAL SECTIONS AND CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION

MANHOLE AND VALVE ADJUSTMENTS ANTICIPATED ARE SHOWN ON THESE PAVING DETAILS; OTHER MANHOLES AND VALVES EXIST WITHIN THE PAVEMENT (SEE SECTION 5 SHEETS)

N

RW

D

W2

Y1 H1

15+00 16+00 17+00 18+00 USH 10/ONEIDA ST 19+00 20+00 21+00

CITY OF APPLETON DPW

WV

Y2 H2

NATURES WAY

END CONSTRUCTION 63'RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

MATCH EXISTING CURB
HEAD HEIGHT AT DRIVEWAY

NO CURB HEAD
(SEE CONSTRUCTION DETAIL)

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PAVING DETAILS	SHEET 27	E

FILE NAME : P:\48xx\4819.4750W13.DP.13.USH10.WNB\CADDS\Plan\021204_pd.dgn PLOT DATE : 7/24/2016 PLOT BY : sgc PLOT NAME : PLOT SCALE : 1:40

2

N

LEGEND

- PROPOSED FULL DEPTH PAVEMENT (SEE TYPICAL SECTION AND CONSTRUCTION DETAILS)
- XXXXX PROPOSED SAWCUT
- CONCRETE PAVEMENT REPAIR, 9-INCH
- CONCRETE PAVEMENT REPLACEMENT, 9-INCH
- NEW INLET COVERS TYPE H (UNLESS OTHERWISE NOTED)
- A ADJUSTING INLET COVERS
- ADJUSTING MANHOLE COVERS (STORM SEWER) (SEE CONSTRUCTION DETAIL)
- ⊘WV ADJUSTING WATER VALVES (BY OTHERS)
- (A) CONCRETE SIDEWALK 6-INCH
- (B) CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA
- (C) CONCRETE CURB TYPE A
- (D) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (E) CONCRETE CURB & GUTTER 30-INCH TYPE D
- (F) CONCRETE MEDIAN SLOPED NOSE
- (G) CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE A
- (H1) 3" HMA PAVEMENT
- (H2) 2.5" HMA PAVEMENT
- (H3) 6" HMA PAVEMENT
- (H4) ASPHALTIC SURFACE PATCHING (MATCH EXISTING)
- (J) CONCRETE CORRUGATED MEDIAN
- (P) CONCRETE CURB PEDESTRIAN
- (R) CONCRETE CURB 4-INCH SLOPED TYPE R
- (W2) BASE PATCHING CONCRETE (MATCH EXISTING) (SEE CONSTRUCTION DETAILS)
- (W3) CONCRETE TRUCK APRON 12-INCH COLORED WISDOT RED
- (W4) CONCRETE PAVEMENT 9-INCH
- (Y1) REMOVING ASPHALTIC SURFACE MILLING, 3-INCH
- (Y2) REMOVING ASPHALTIC SURFACE MILLING, 2.5-INCH

MANITOWOC RD

198+00

199+00 +W

200+00 +W

201+00 +11

202+00

RW

TLE

FEE

TYPE A

REMOVING PAVEMENT AND CURB & GUTTER (INCLUDING EXISTING ISLAND)

TOWN OF MENASHA

SEE ISLAND DETAIL

NEW MH (SEE SS PLANS)

USH 10/ONEIDA ST

21+00

22+00

23+00

24+00

25+00

26+00

27+00

SEE MEDIAN REMOVAL PAVEMENT PATCH CONSTRUCTION DETAIL

SEE ISLAND DETAIL * IN CONSTRUCTION DETAILS

8' PATH PROPOSED BY CITY OF MENASHA (PLANNED 2016 CONSTRUCTION)

NOTES

SEE TYPICAL SECTIONS, CONSTRUCTION DETAILS, AND INTERSECTION DETAILS FOR ADDITIONAL INFORMATION

***** EXISTING LOOP DETECTORS IN THE LEFT TURN LANES ON USH 10 AT MANITOWOC ROAD ARE SAWED INTO THE EXISTING PAVEMENT AND MAY BE REMOVED DURING MILLING OPERATIONS; THIS IS INCIDENTAL TO ASPHALTIC SURFACE MILLING

* REVERSE SLOPE GUTTER REQ'D (SEE SDD FOR ADDTIONAL INFORMATION)

MANHOLE AND VALVE ADJUSTMENTS ANTICIPATED ARE SHOWN ON THESE PAVING DETAILS; OTHER MANHOLES AND VALVES EXIST WITHIN THE PAVEMENT (SEE SECTION 5 SHEETS)

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PAVING DETAILS	SHEET 28	E

2

LEGEND

PROPOSED FULL DEPTH PAVEMENT
(SEE TYPICAL SECTION AND CONSTRUCTION DETAILS)

XXXXX PROPOSED SAWCUT

NEW INLET COVERS TYPE H (UNLESS OTHERWISE NOTED)

ADJUSTING MANHOLE COVERS (STORM SEWER)
(SEE CONSTRUCTION DETAIL)

⊘WV ADJUSTING WATER VALVES (BY OTHERS)

(A) CONCRETE SIDEWALK 6-INCH

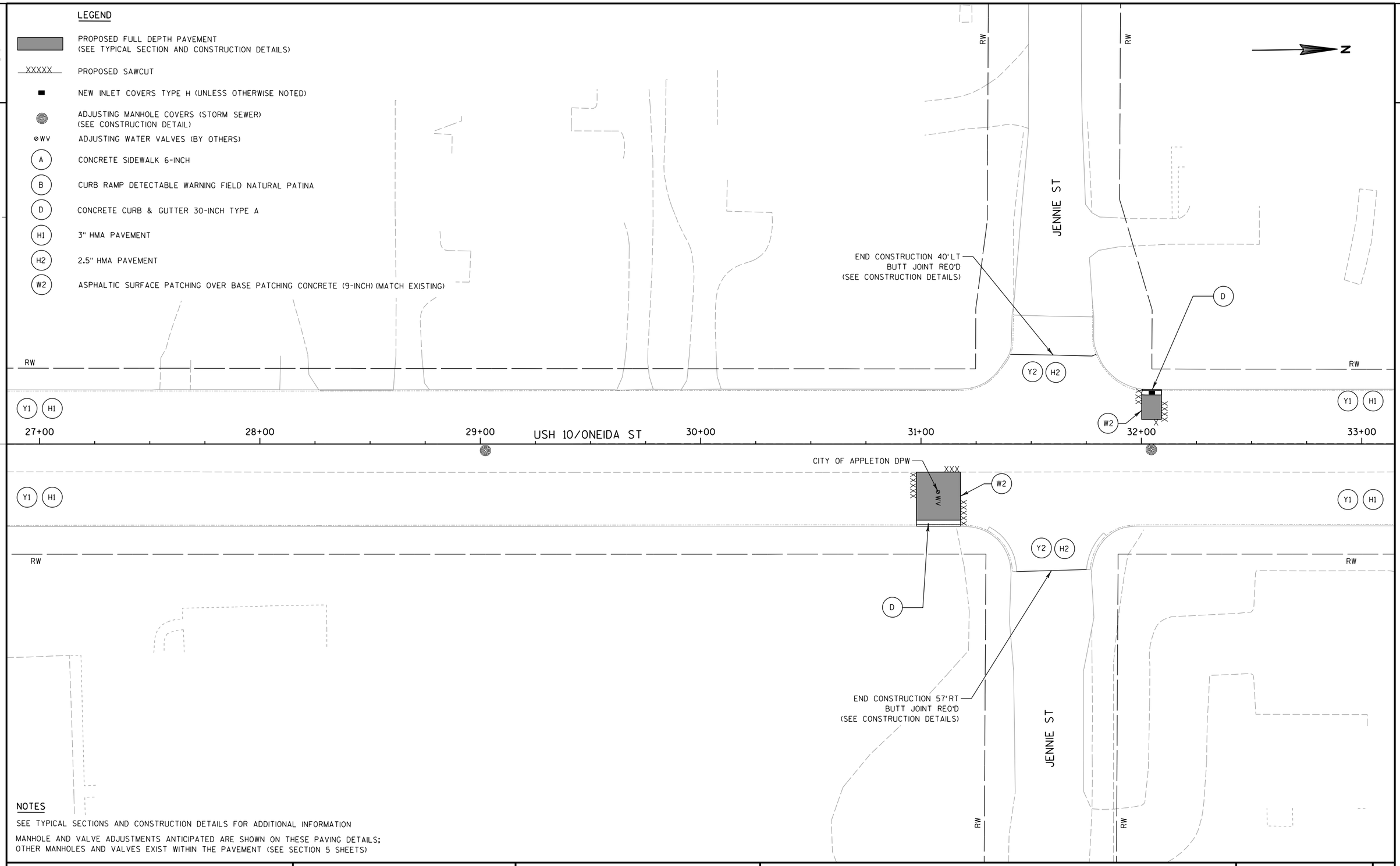
(B) CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

(D) CONCRETE CURB & GUTTER 30-INCH TYPE A

(H1) 3" HMA PAVEMENT

(H2) 2.5" HMA PAVEMENT

(W2) ASPHALTIC SURFACE PATCHING OVER BASE PATCHING CONCRETE (9-INCH) (MATCH EXISTING)



NOTES

SEE TYPICAL SECTIONS AND CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION

MANHOLE AND VALVE ADJUSTMENTS ANTICIPATED ARE SHOWN ON THESE PAVING DETAILS; OTHER MANHOLES AND VALVES EXIST WITHIN THE PAVEMENT (SEE SECTION 5 SHEETS)

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PAVING DETAILS	SHEET 29	E

FILE NAME : P:\48xx\4819.4750W13.DP.13.USH10.WNB\CADDS\Plan\021206_pd.dgn PLOT DATE : 7/24/2016 PLOT BY : sgc PLOT NAME : PLOT SCALE : 1:40

2

2

LEGEND

PROPOSED FULL DEPTH PAVEMENT
(SEE TYPICAL SECTION AND CONSTRUCTION DETAILS)

XXXXX PROPOSED SAWCUT

NEW INLET COVERS TYPE H (UNLESS OTHERWISE NOTED)

ADJUSTING MANHOLE COVERS (STORM SEWER)
(SEE CONSTRUCTION DETAIL)

⊘WV ADJUSTING WATER VALVES (BY OTHERS)

(A) CONCRETE SIDEWALK 6-INCH

(B) CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

(D) CONCRETE CURB & GUTTER 30-INCH TYPE A

(H1) 3" HMA PAVEMENT

(H2) 2.5" HMA PAVEMENT

(W2) BASE PATCHING CONCRETE (MATCH EXISTING)
(SEE CONSTRUCTION DETAILS)

N

RW

RW

Y1 H1

Y1 H1

33+00 34+00 35+00 36+00 USH 10/ONEIDA ST 37+00 38+00 39+00

Y1 H1

Y1 H1

RW

RW

NOTES

SEE TYPICAL SECTIONS AND CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION

MANHOLE AND VALVE ADJUSTMENTS ANTICIPATED ARE SHOWN ON THESE PAVING DETAILS;
OTHER MANHOLES AND VALVES EXIST WITHIN THE PAVEMENT (SEE SECTION 5 SHEETS)

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PAVING DETAILS	SHEET 30	E

FILE NAME : P:\48xx\4819.4750W13.DP.13.USH10.WNB\CADDS\Plan\021207_pd.dgn PLOT DATE : 7/24/2016 PLOT BY : sgc PLOT NAME : PLOT SCALE : 1:40

2

LEGEND

- PROPOSED FULL DEPTH PAVEMENT (SEE TYPICAL SECTION AND CONSTRUCTION DETAILS)
- XXXXX — PROPOSED SAWCUT
- NEW INLET COVERS TYPE H (UNLESS OTHERWISE NOTED)
- ADJUSTING MANHOLE COVERS (STORM SEWER) (SEE CONSTRUCTION DETAIL)
- ⊘WV — ADJUSTING WATER VALVES (BY OTHERS)
- (A) CONCRETE SIDEWALK 6-INCH
- (B) CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA
- (D) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (H1) 3" HMA PAVEMENT
- (H2) 2.5" HMA PAVEMENT
- (W2) BASE PATCHING CONCRETE (MATCH EXISTING) (SEE CONSTRUCTION DETAILS)

N

RW

(Y1) (H1)

39+00 40+00 41+00 42+00 USH 10/ONEIDA ST 43+00 44+00 45+00

CITY OF APPLETON DPW

⊘WV

XXXXX

(W2)

NO CURB HEAD AT DRIVEWAY (SEE CONSTRUCTION DETAIL)

XXX XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX

(H6)

(D)

REMOVING CURB & GUTTER

NOTES

SEE TYPICAL SECTIONS AND CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION

MANHOLE AND VALVE ADJUSTMENTS ANTICIPATED ARE SHOWN ON THESE PAVING DETAILS; OTHER MANHOLES AND VALVES EXIST WITHIN THE PAVEMENT (SEE SECTION 5 SHEETS)

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PAVING DETAILS	SHEET 31	E

FILE NAME : P:\48xx\4819.4750W13.DP.13.USH10.WNB\CADDS\Plan\021208_pd.dgn PLOT DATE : 7/24/2016 PLOT BY : sgc PLOT NAME : PLOT SCALE : 1:40

2

LEGEND

PROPOSED FULL DEPTH PAVEMENT
(SEE TYPICAL SECTION AND CONSTRUCTION DETAILS)

XXXXX PROPOSED SAWCUT

NEW INLET COVERS TYPE H (UNLESS OTHERWISE NOTED)

ADJUSTING MANHOLE COVERS (STORM SEWER)
(SEE CONSTRUCTION DETAIL)

⊘WV ADJUSTING WATER VALVES (BY OTHERS)

(A) CONCRETE SIDEWALK 6-INCH

(B) CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

(D) CONCRETE CURB & GUTTER 30-INCH TYPE A

(H1) 3" HMA PAVEMENT

(H2) 2.5" HMA PAVEMENT

(W2) BASE PATCHING CONCRETE (MATCH EXISTING)
(SEE CONSTRUCTION DETAILS)

N

RW

RW

Y1 H1

Y1 H1

45+00 46+00 47+00 48+00 USH 10/ONEIDA ST 49+00 50+00 51+00

Y1 H1

Y1 H1

Y2 H2

RW

RW

PROVINCE LINK

END CONSTRUCTION 58' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

RW

RW

2

NOTES

SEE TYPICAL SECTIONS AND CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION

MANHOLE AND VALVE ADJUSTMENTS ANTICIPATED ARE SHOWN ON THESE PAVING DETAILS; OTHER MANHOLES AND VALVES EXIST WITHIN THE PAVEMENT (SEE SECTION 5 SHEETS)

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PAVING DETAILS	SHEET 32	E

FILE NAME : P:\48xx\4819.4750W13.DP.13.USH10.WNB\CADDS\Plan\021209_pd.dgn PLOT DATE : 7/24/2016 PLOT BY : sgc PLOT NAME : PLOT SCALE : 1:40

2

LEGEND

PROPOSED FULL DEPTH PAVEMENT
(SEE TYPICAL SECTION AND CONSTRUCTION DETAILS)

XXXXX PROPOSED SAWCUT

NEW INLET COVERS TYPE H (UNLESS OTHERWISE NOTED)

ADJUSTING MANHOLE COVERS (STORM SEWER)
(SEE CONSTRUCTION DETAIL)

⊘WV ADJUSTING WATER VALVES (BY OTHERS)

(A) CONCRETE SIDEWALK 6-INCH

(B) CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

(D) CONCRETE CURB & GUTTER 30-INCH TYPE A

(H1) 3" HMA PAVEMENT

(H2) 2.5" HMA PAVEMENT

(W2) BASE PATCHING CONCRETE (MATCH EXISTING)
(SEE CONSTRUCTION DETAILS)

N

NO CURB HEAD AT DRIVEWAY
(SEE CONSTRUCTION DETAIL) (D)

(H6)

END PROJECT
STA 56+95.00
END REMOVING ASPHALTIC
SURFACE MILLING & HMA
PAVEMENT OVERLAY
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

RW

XXXXX

(W2)

(Y1) (H1)

51+00 52+00 53+00 54+00 USH 10/ONEIDA ST 55+00 56+00 57+00

XXXX XXXXX

(Y1) (H1)

RW

(Y1) (H1)

RW

NOTES

SEE TYPICAL SECTIONS AND CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION

MANHOLE AND VALVE ADJUSTMENTS ANTICIPATED ARE SHOWN ON THESE PAVING DETAILS;
OTHER MANHOLES AND VALVES EXIST WITHIN THE PAVEMENT (SEE SECTION 5 SHEETS)

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PAVING DETAILS	SHEET 33	E

2

N

LEGEND

- EROSION MAT URBAN CLASS I TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- F — SILT FENCE RELIEF (ROCK BAGS)
- SURFACE WATER FLOW
- INLET PROTECTION TYPE C (UNLESS OTHERWISE NOTED)

STH 114/PLANK RD

00+66

00+001

00+101

USH 10/STH 114

204+00 FIRE LANE 1 205+00

1+00 USH 10/ONEIDA ST 2+00 3+00 4+00

TYPE A & C

TYPE D

TYPE D

CANOPY

SS

NOTES

INCLUDE INLET PROTECTION ON ALL EXISTING INLETS ALONG USH 10 AND STH 114, TYPE C

COVER ALL DISTURBED AREA DUE TO CONDUIT OR SIGNAL WORK WITH TOPSOIL AND EROSION MAT URBAN CLASS ITYPE B

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL	SHEET 34	E

FILE NAME : P:\48xx\4819.4750W13.DP.13.USH10.WNB\CADDS\Plan\022001_ec.dgn PLOT DATE : 7/24/2016 PLOT BY : sgc PLOT NAME : PLOT SCALE : 1:40

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- SILT FENCE RELIEF (ROCK BAGS)
- SURFACE WATER FLOW
- INLET PROTECTION TYPE C (UNLESS OTHERWISE NOTED)

N

MANITOWOC RD

198+00

199+00

200+00

201+00

202+00

20+00 USH 10/ONEIDA ST 21+00 22+00 23+00 24+00 25+00 USH 10/ONEIDA ST 26+00

TYPE A & C

TYPE A & D

TYPE A & C

TYPE A & C

TYPE A & C

TYPE B

TYPE A

TYPE A & D

TYPE A & C

SS

MH

RIPRAP

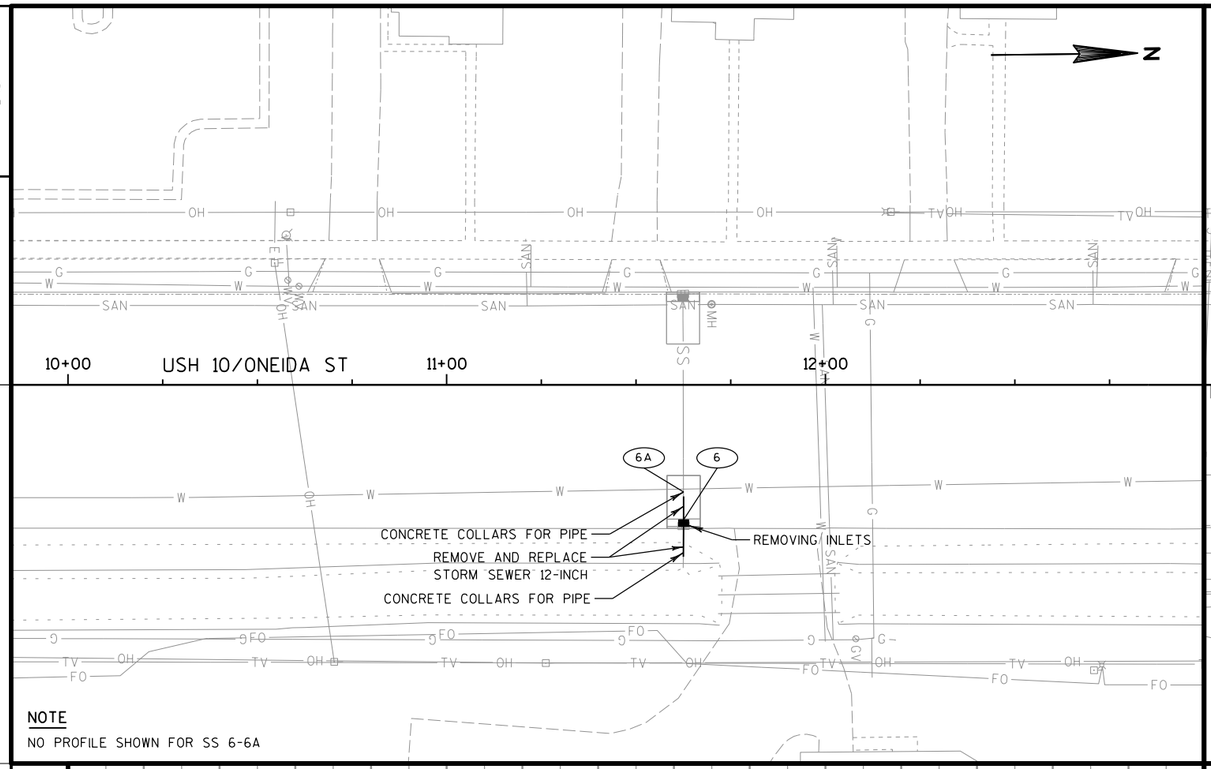
NOTE

INCLUDE INLET PROTECTION ON ALL EXISTING INLETS ALONG USH 10 AND NEAR ANY SIDE ROADS RECEIVING WATER FROM USH 10, TYPE C

COVER ALL DISTURBED AREA DUE TO CONDUIT OR SIGNAL WORK WITH TOPSOIL AND EROSION MAT URBAN CLASS I TYPE B

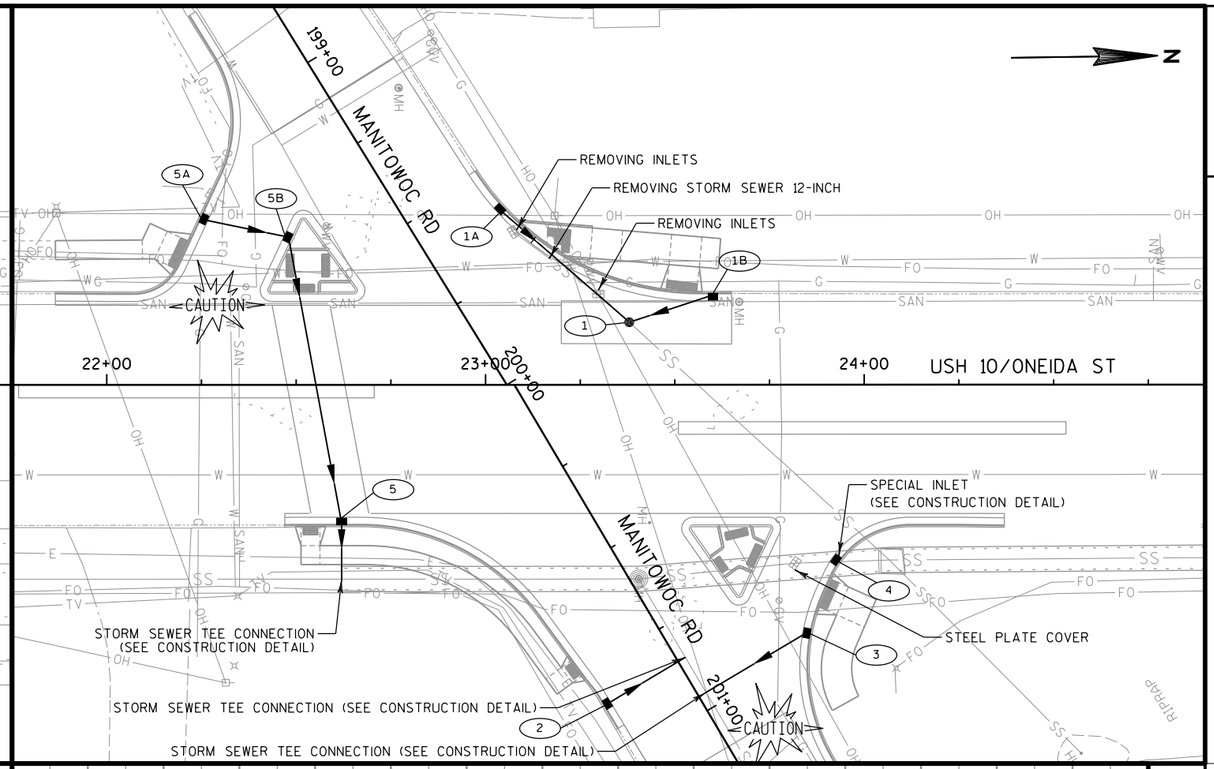
PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL	SHEET 35	E

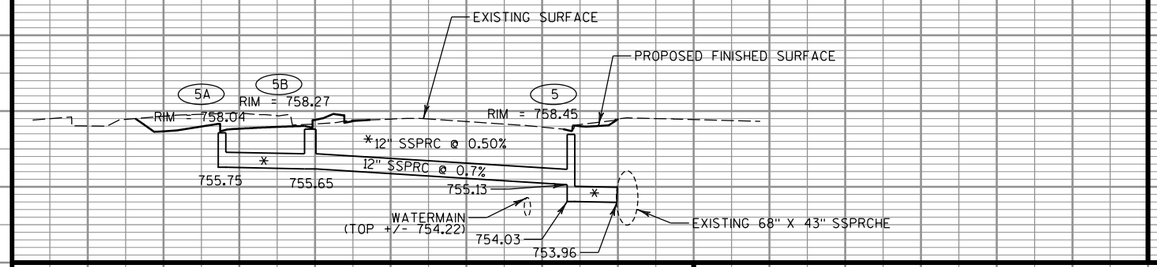
FILE NAME : P:\48xx\4819.4750W13.DP.13.USH10.WNB\CADDS\Plan\022002_ec.dgn PLOT DATE : 7/24/2016 PLOT BY : sgc PLOT NAME : PLOT SCALE : 1:40

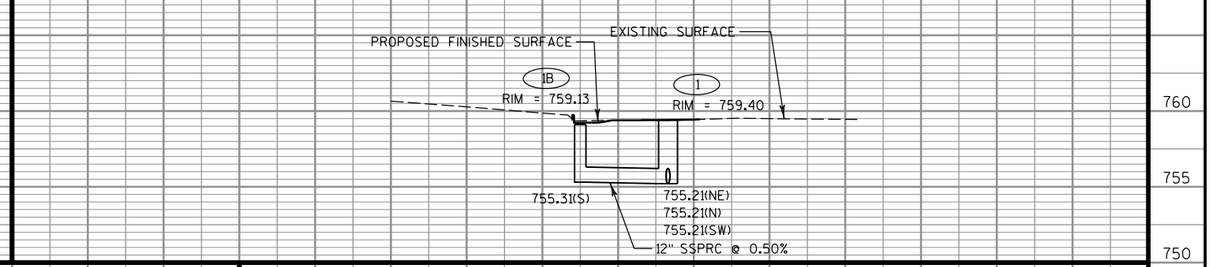


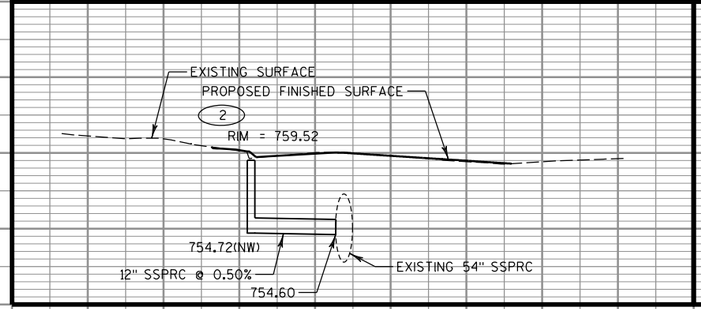
NOTE

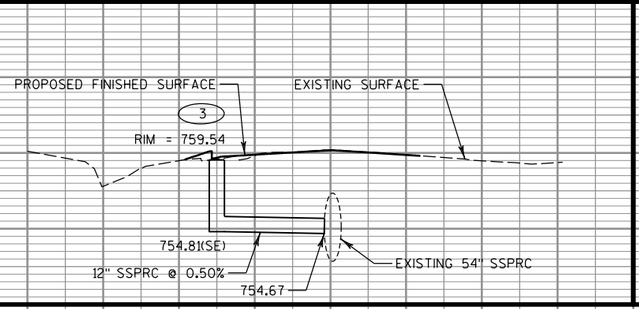
NO PROFILE SHOWN FOR SS 6-6A

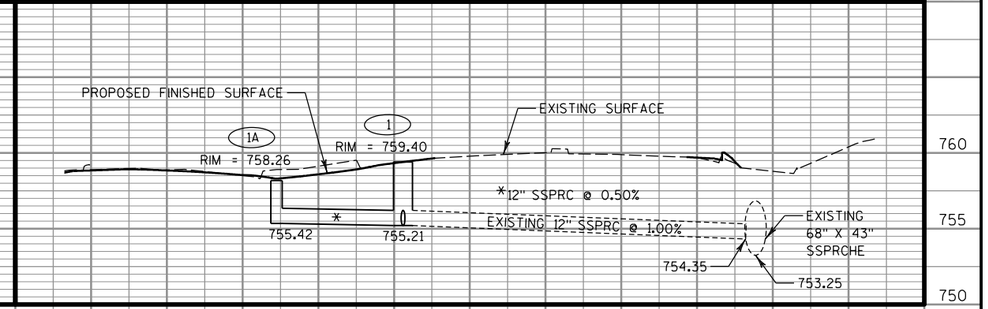












PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	STORM SEWER	SHEET 36	E

STRUCT NO.	STATION	(1) OFFSET	C-C (FT)	TO STRUCT	INLET TYPE / COVER	MH TYPE / COVER	(2) RIM/ GRATE ELEV.	(3) T.O.S. ELEV.	(4) DEPTH (FT)	DISCHARGE PIPE						REMARKS
										CLASS	SIZE (IN)	INLET ELEV.	DISCHARGE ELEV.	(5) LENGTH (FT)	(6) SLOPE (%)	
1	200+01.24	34.5'LT	--	12" EXIST PIPE	--	5-FT DIAMETER / J	759.40	758.15	2.94	--	12	755.21	754.35	EXIST	1.00	CONNECT EXISTING PIPE TO NEW MANHOLE
1A	199+60	23.3'LT	44.0	1	4-FT DIAMETER / H	--	758.26	757.43	2.01	IV	12	755.42	755.21	42	0.50	
1B	200+06.31	57.1'LT	23.2	1	4-FT DIAMETER / H	--	759.13	758.30	2.99	IV	12	755.31	755.21	19	0.50	
2	200+85	22.2'RT	24.5	54" EXIST PIPE	2x3-FT / H	--	759.52	758.69	3.97	IV	12	754.72	754.60	24	0.50	SS TEE CONNECTION REQUIRED
3	200+95.66	33.0'LT	30.6	54" EXIST PIPE	4-FT DIAMETER / H	--	759.54	758.71	3.90	IV	12	754.81	754.67	29	0.50	SS TEE CONNECTION REQUIRED
4	200+83.77	49.7'LT	--	--	SPECIAL INLET / H	--	759.19	--	--	--	--	--	--	--	--	SEE SPECIAL INLET CONSTRUCTION DETAIL
5	200+08.17	57.9'RT	14.8	68" x 43" EXIST PIPE	2x3-FT / H	--	758.45	757.62	3.59	IV	12	754.03	753.96	14	0.50	SS TEE CONNECTION REQUIRED
5A	199+20.42	45.3'RT	23.3	5B	2x3-FT / H	--	758.04	757.21	1.46	IV	12	755.75	755.65	21	0.50	
5B	199+37.58	29.5'RT	76.0	5	3-FT DIAMETER / A	--	758.27	757.44	1.79	IV	12	755.65	755.13	74	0.70	
6	11+62.54	37.0'RT	--	12" EXIST PIPE	2x3-FT / H	--	750.12	749.29	1.47	IV	12	747.82	--	8	--	MATCH SLOPE OF EXISTING PIPE
6A	11+62.54	29.0'RT	--	12" EXIST PIPE	--	--	--	--	--	IV	12	--	747.82	8	--	MATCH SLOPE OF EXISTING PIPE

NOTES

(1) STRUCTURE OFFSET IS TO CENTER OF STRUCTURE.

(2) RIM ELEVATION FOR MANHOLE AND FIELD INLET TO CENTER OF CASTING. RIM ELEVATION FOR INLET IN CURB AND GUTTER IS 1-INCH BELOW FOW LINE ELEVATION.

(3) TOP OF STRUCTURE ELEVATION (TOS) DETERMINED BY SUBTRACTING CASTING HEIGHT AND 6-INCHES FOR ADJUSTMENT FROM RIM ELEVATION. A YPE J MH CASTING HEIGHT IS 9-INCHES IN HEIGHT AND A TYPE H/H-S/HD/HD-S CATCH BASIN CASTING IS 4-INCHES IN HEIGHT.

(4) DEPTH OF STRUCTURE MEASURED BY SUBTRACTING DISCHARGE ELEVATION FROM T.O.S.

(5) PIPE LENGTH IS MEASURED FROM INSIDE WALL OF STRUCTURE TO INSIDE WALL OF STRUCTURE, PAYMENT WILL BE FOR C-C OF STRUCTURE PIPELENGTHS.

(6) PIPE SLOPE IS CALCULATED USING PIPE LENGTH BETWEEN INSIDE WALL OF STRUCTURE TO INSIDE WALL OF STRUCTURE.

SIGNING NOTES

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

NEW STOP SIGNS (R1-1) PLACED UNDER STAGE * SHALL HAVE A MINIMUM OF 6'6" OF CLEARANCE ABOVE THE ROADWAY. THIS WILL ALLOW FOR THE PLACEMENT OF FUTURE SIGNS BENEATH THE STOP SIGN.

S-08-04 OH SIGN SUPPORT SIGNS

- R3-5L, 42" X 48", (24), CENTER OVER LEFT LANE
- R3-6L, 42" X 48", (25), CENTER OVER MIDDLE LANE
- R3-5R, 42" X 48", (26), CENTER OVER RIGHT LANE

- (1) R1-1F 36" X 36" STOP
- (2) R4-7 24" X 30"
- (4) R6-2L 24" X 30" ONE WAY
- (5) R1-1F 36" X 36" STOP
- (6) J3-2 48" X 57" WEST 10 | EAST 10
- (7) W5-52R
- (8) R1-1F 30" X 30" STOP
- (9) R1-1 STOP
- (11) R4-7 24" X 30"
- (13) R1-1F 36" X 36" STOP
- (14) R1-1F 36" X 36" STOP
- (15) R4-7 24" X 30"
- (16) R1-1F 36" X 36" STOP
- (17) R5-1 36" X 36" DO NOT ENTER
- (18) R10-11B NO TURN ON RED
- (19) R1-1F 36" X 36" STOP
- (20) R1-2 36" X 31" YIELD
- (21) R3-4 24" X 24"
- (22) R5-1A 36" X 24" WRONG WAY
- (23) J3-3 72" X 57" EAST 10 | EAST 114 | WEST 114
- (27) W5-52L
- (28) R4-7 24" X 30"
- (29) J4-1 24" X 36" WEST 10
- (30) R2-1 SPEED LIMIT 35
- (32) R5-1 30" X 30" DO NOT ENTER
- (33) R3-8P 54" X 30" ONLY | ONLY
- (34) R2-1 24" X 30" SPEED LIMIT 35
- (35) J4-1 WEST 10
- (36) D1-3 72" X 36" Manitowoc / Hilbert / Menasha
- (37) R3-9B 24" X 36" CENTER LANE ONLY
- (38) W3-3 36" X 36"
- (39) J1-1 24" X 39" JCT 114

CITY OF MENASHA WAYFINDER SIGN LEAVE AS IS

PLANK ROAD

FIRE LANE

USH 10/ONEIDA STREET

USH 10/STH 114

98+00 102+00 205+00 5+00 10+00

○ SIGN-REMOVE AND REPLACE

□ SIGN-REMOVE EXISTING

⬡ SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PERMANENT SIGNING	SHEET 38	E

FILE NAME : N:\spo\traffic\SIGNING\Projects\1500-44-71 USH 10 Menasha\ERICS UPDATE\023201_ps.dgn PLOT DATE : 21-JUN-2016 11:14 PLOT BY : dotets PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

SIGNING NOTES

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

NEW STOP SIGNS (R1-1) PLACED UNDER STAGE * SHALL HAVE A MINIMUM OF 6'6" OF CLEARANCE ABOVE THE ROADWAY. THIS WILL ALLOW FOR THE PLACEMENT OF FUTURE SIGNS BENEATH THE STOP SIGN.

N

15+00 20+00 25+00

195+00 200+00 205+00

MANITOWOC RD

USH 10/ONEIDA ST

NATURE'S WAY

40	SPEED LIMIT 35	R2-1	24" X 30"
41		W3-3	36" X 36"
42	STOP	R1-1	36" X 36" STREET NAME SIGNS NEED TO BE MOUNTED TO THEIR OWN POST BY CITY OF MENASHA
43	SPEED LIMIT 35	R2-1	24" X 30"
44		R4-7	24" X 30"
45	STOP	R1-1F	36" X 36"
46		R4-7	24" X 30"
47	STOP	R1-1F	36" X 36"
48		R8-3	
49	STOP HERE ON RED	R10-6	
50	STOP	R1-1F	36" X 36"
50A		W12-1D	24" X 24"
51	YIELD	R1-2	36" X 31"
52		R4-7	24" X 30"
53	STOP	R1-1F	36" X 36"
54	STOP	R1-1F	36" X 36"
55	STOP HERE ON RED	R10-6	
56	STOP	R1-1F	36" X 36"
56A		W12-1D	24" X 24"
57	YIELD	R1-2	36" X 31"
58		R4-7	24" X 30"
59	CENTER LANE ONLY	R3-9B	24" X 36"

SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PERMANENT SIGNING	SHEET 39	E

SIGNING NOTES

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

NEW STOP SIGNS (R1-1) PLACED UNDER STAGE * SHALL HAVE A MINIMUM OF 6'6" OF CLEARANCE ABOVE THE ROADWAY. THIS WILL ALLOW FOR THE PLACEMENT OF FUTURE SIGNS BENEATH THE STOP SIGN.

N

STREET NAME SIGNS NEED TO BE MOUNTED TO THEIR OWN POST BY CITY OF MENASHA

W3-3
36" X 36"
61

R1-1
36" X 36"
62

JENNIE ST

SPEED LIMIT 35
R2-1
24" X 30"
64

30+00

35+00

40+00

USH 10/ONEIDA STREET

60
SPEED LIMIT 35
R2-1
24" X 30"

63
STOP
R1-1
36" X 36"
STREET NAME SIGNS NEED TO BE MOUNTED TO THEIR OWN POST BY CITY OF MENASHA

JENNIE ST

65
SPEED LIMIT 35
R2-1
24" X 30"

SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PERMANENT SIGNING	SHEET 40	E

FILE NAME : N:\spo\traffic\SIGNING\Projects\1500-44-71 USH 10 Menasha\ERICS UPDATE\023203_ps.dgn PLOT DATE : 21-JUN-2016 11:14 PLOT BY : dotets PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

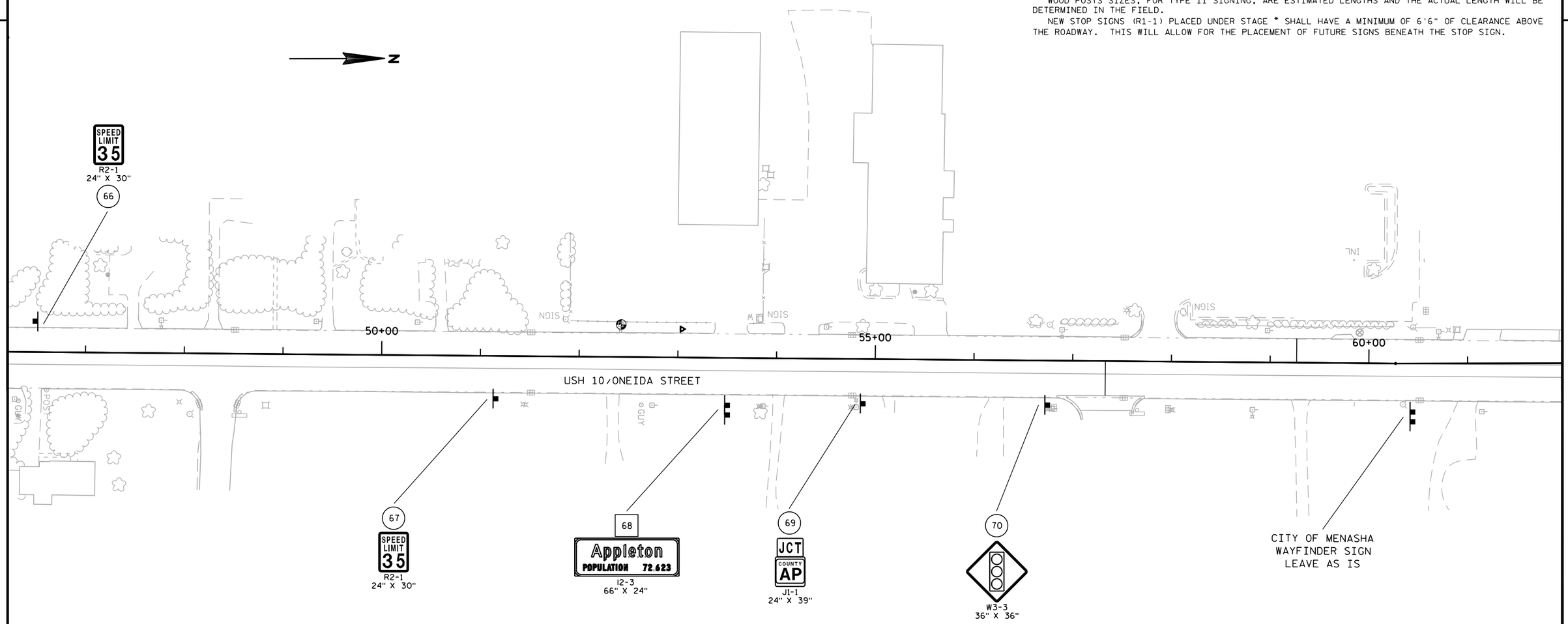
2

SIGNING NOTES

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

NEW STOP SIGNS (R1-1) PLACED UNDER STAGE * SHALL HAVE A MINIMUM OF 6'6" OF CLEARANCE ABOVE THE ROADWAY. THIS WILL ALLOW FOR THE PLACEMENT OF FUTURE SIGNS BENEATH THE STOP SIGN.



SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PERMANENT SIGNING	SHEET 41	E

FILE NAME : N:\spo\traffic\SIGNING\Projects\1500-44-71 USH 10 Menasha\ERICS UPDATE\023204_ps.dgn PLOT DATE : 21-JUN-2016 11:14 PLOT BY : dotets PLOT NAME : PLOT SCALE : 100:1

LEGEND

- PULL BOX 12" X 24"
- PULL BOX 24" X 36"
- PULL BOX 24" X 42"
- SIGNAL STANDARD, PEDESTAL BASE
- PEDESTRIAN SIGNAL W/PUSH BUTTON — B
- SIGNAL POLE, MONOTUBE ARM — 40'
- SIGNAL HEAD MAST-ARM MOUNT — 15'
- LUMINAIRE
- CONTROL CABINET BASE
- 3" CONDUIT (2" from PB to T1 concrete base)
- SIGNAL HEAD NUMBER MOUNTING CONFIGURATION — 3 R Y G
- LOOP DETECTOR — 30' 6' 3T (51)

CONFIGURATION WITH HEAD NUMBERS					
3-V (R Y G)	3, 4, 5 8, 9 14, 17	4-VLFY (R Y FY G)	1, 2 6, 7	4-VL (R Y G G)	12, 15
4-HL (R Y G G)	13, 16	5-VR (R Y G Y G)	10, 11	1-P	18, 19 20, 21

MONOTUBE STRUCTURE NUMBERS	
SB5	S-70-0360
SB9	S-70-0361

NOTE: SIGNAL HEADS # 1 & # 6 REQUIRE TUNNEL VISORS

N

USH 10 (Oneida Street)

STH 114 (Plank Road)

35 MPH Posted Speed Limit

USH 10/STH 114

35 MPH Posted Speed Limit

97+00 98+00 100+00 101+00 102+00 103+00 1+00 205+00 4+00

Fire Lane # 1

CANOPY

REMOVE PULL BOX
REMOVE CONCRETE BASE
REMOVE SIGNAL
REMOVE CONCRETE BASE
STEEL PULL BOX REQUIRED
SPLICE CONDUIT
UTILITY TO REMOVE STREET LIGHT POLE
Overlap "A"
Overlap "C"
Overlap "D"
300' TO NEAR RIGHT SIGNAL
150' TO NEAR RIGHT SIGNAL
125' TO NEAR RIGHT SIGNAL
275' TO NEAR RIGHT SIGNAL

SB1 SB2 SB3 SB4 SB5 SB6 SB7 SB8 SB9
PB1 PB2 PB3 PB4 PB5 PB6 PB7 PB8 PB9 PB10 PB11 PB12 PB13 PB14 PB15
CB1

START CROSSING Watch For Vehicles
DON'T START Finish Crossing If Started
TIME REMAINING To Finish Crossing
DON'T CROSS
TO CROSS
PUSH BUTTON

Install on SB3 Install on SB6

NOTE

WISCONSIN DOT NE REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL LOOP DETECTORS AND CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION; MAKE WIRING TERMINATIONS IN THE SIGNAL CABINET. CONTACT THEM 3 DAYS IN ADVANCE AT (920) 492-5710.

GENERAL NOTES

THE LOCATION 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. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

REVISION				
Rev. No.	NEW TS2 CABINET, ADD PED PHASES 2 AND 3, ADD FYA & ADD MONOTUBES			
	APPROVAL RECOMMENDED		APPROVED	
	REGION		CENTRAL OFFICE	
3	Date	By	Date	By
	1-15-2016	RJS		JLB
12-20-2011	NEW CABINET & CONTROLLER			
1-24-2006	ADD OVERLAP "A" & CHANGE TO ALL RED FLASH			

TRAFFIC CONTROL SIGNAL

USH 10 & STH 114
TOWN OF HARRISON
CALUMET COUNTY

SIGNAL NO. 08-0426 CONTROLLER TYPE: EPAC TS2

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 3-19-1990 Gerald R. Kurtz, REGION TRAFFIC ENGINEER

APPROVED
Date 4-20-1990 H. O. Price, STATE TRAFFIC ENGINEER

Region Contact: RJS
Designed by: RJS

PAGE 1 OF 1

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	CONSTRUCTION DETAIL - TRAFFIC SIGNAL REVISION	SHEET 42	E

LEGEND

PULL BOX 12" X 24"
PULL BOX 24" X 42"
SIGNAL STANDARD, PEDESTAL BASE
PEDESTRIAN SIGNAL W/PUSH BUTTON
SIGNAL POLE, MONOTUBE ARM
SIGNAL HEAD MAST-ARM MOUNT
LUMINAIRE
CONTROL CABINET BASE
3" CONDUIT (2" from PB to T1/T2 concrete base)
MICROWAVE UNIT (Intersector)
SIGNAL HEAD NUMBER MOUNTING CONFIGURATION
LOOP DETECTOR

CONFIGURATION WITH HEAD NUMBERS				
3-V	3-VLFY	4-VLFY	3-H	1-P
3, 4, 5 8, 9, 10 11, 13 14, 16	6, 7	1, 2	12, 15	17, 18 19, 20 21, 22 23, 24

MONOTUBE STRUCTURE NUMBERS	
SB2	S-70-0363
SB6	S-70-0362

USH 10 (Oneida St)
35 MPH Posted Speed Limit
Manitowoc Road
198+00
200+00
202+00
+00
21+00
22+00
23+00
24+00
25+00
26+00
Overlap "A"
Overlap "C"
MICROWAVE
275' TO NEAR RIGHT SIGNAL
1" TYP
SB1 SB2 SB3 SB4 SB5 SB6 SB7 SB8
PB1 PB2 PB3 PB4 PB5 PB6 PB7 PB8
CB1
NOTE: SIGNAL HEADS 1 & 6 REQUIRE TUNNEL VISORS.

NOTE

WISCONSIN DOT NE REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL LOOP DETECTORS AND CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION; MAKE WIRING TERMINATIONS IN THE SIGNAL CABINET. CONTACT THEM 3 DAYS IN ADVANCE AT (920) 492-5710.

GENERAL NOTES

THE LOCATION 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. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

Install on SB1, SB3, SB5 & SB7

TRAFFIC CONTROL SIGNAL
USH 10 & MANITOWOC RD
TOWN OF HARRISON
CALUMET COUNTY
SIGNAL NO. 08-2009 CONTROLLER TYPE: EPAC TS2
WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVAL RECOMMENDED
Date 1-21-2016 Robert J. Schuurmans, REGION TRAFFIC ENGINEER
APPROVED
Date 3-14-2016 Joanna L. Bush, STATE TRAFFIC ENGINEER
Region Contact: RJS
Designed by: RJS
PAGE 1 OF 1

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	CONSTRUCTION DETAIL - TRAFFIC SIGNAL REVISION	SHEET 43	E

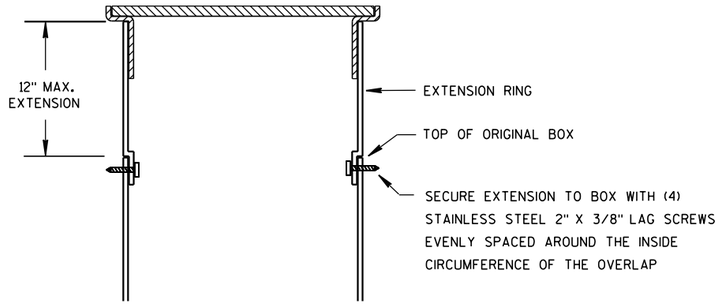
FILE NAME : F:\d3_traffi\S08-2009.const.dgn PLOT DATE : 24-MAY-2016 10:53 PLOT BY : dotc5s PLOT NAME : S08-2009.const PLOT SCALE : 40:1

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		NON-CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX DIAMETER ** (OUTSIDE)	B	25	25
BOX LENGTH	C	36	42
COVER	D	25 1/2	25 1/2
FRAME	E	27	27
FRAME	F	25 3/4	25 3/4
FRAME	G	22 1/2	22 1/2
WEIGHT IN POUNDS *			
COVER		50	50

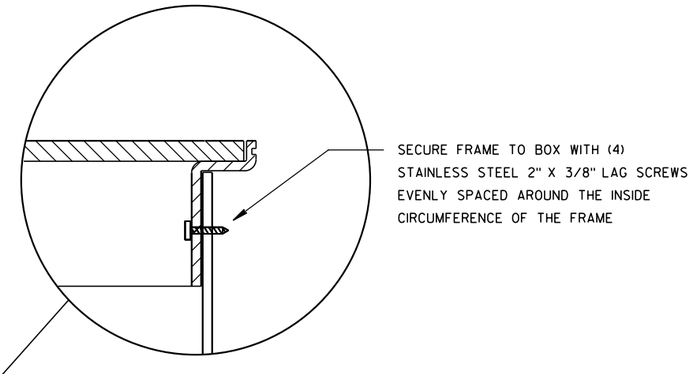
* THE ACTUAL WEIGHT OF THE COVER MAY VARY NOT TO EXCEED 100 LBS.

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

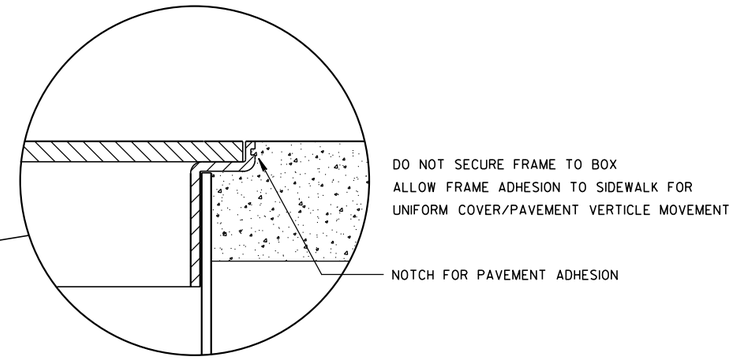


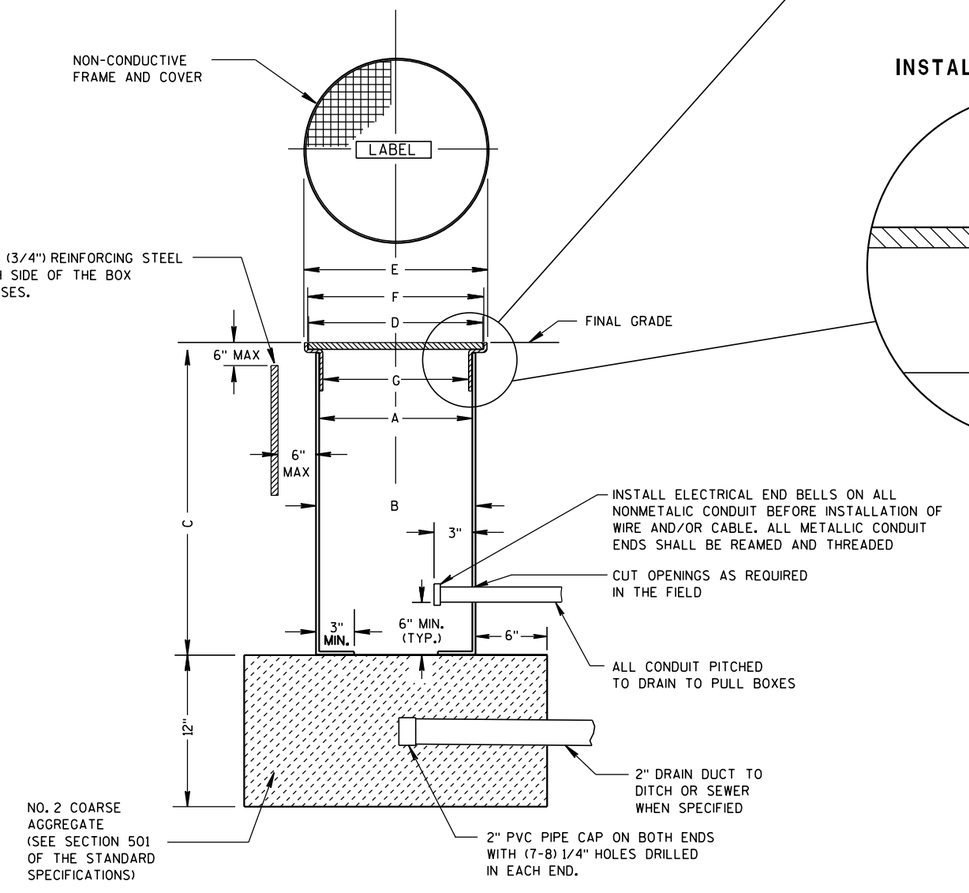
BOX EXTENSION

INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK





NON-CONDUCTIVE PULL BOX

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".

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".

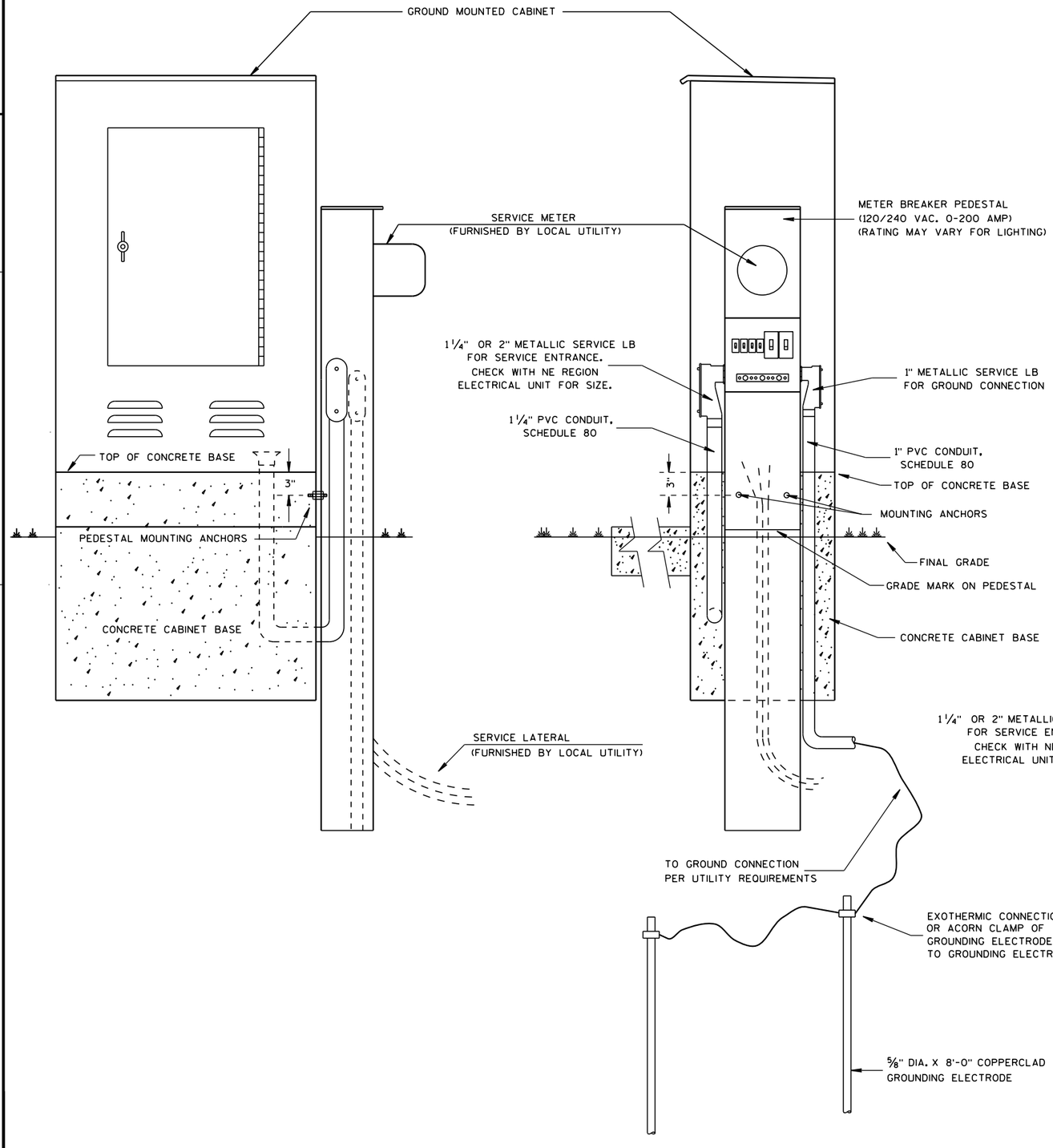
THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

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.

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 OR LIGHTING SYSTEMS. "WISDOT COMMUNICATIONS" FOR COMMUNICATIONS SYSTEMS.



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.

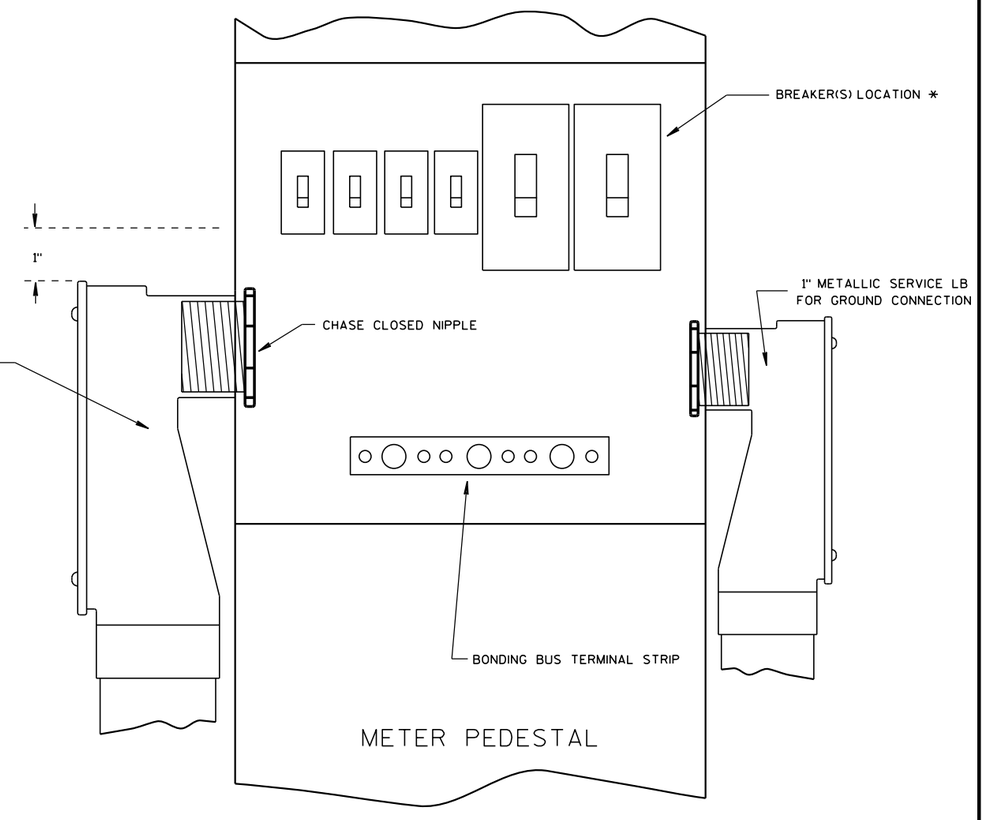
WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT OR SCHEDULE 80 PVC, NIPPLES AND/OR CONDULETS AS REQUIRED. CONDUIT LB SHALL BE OF METALLIC SERVICE ENTRANCE TYPE.

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 NEC.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.



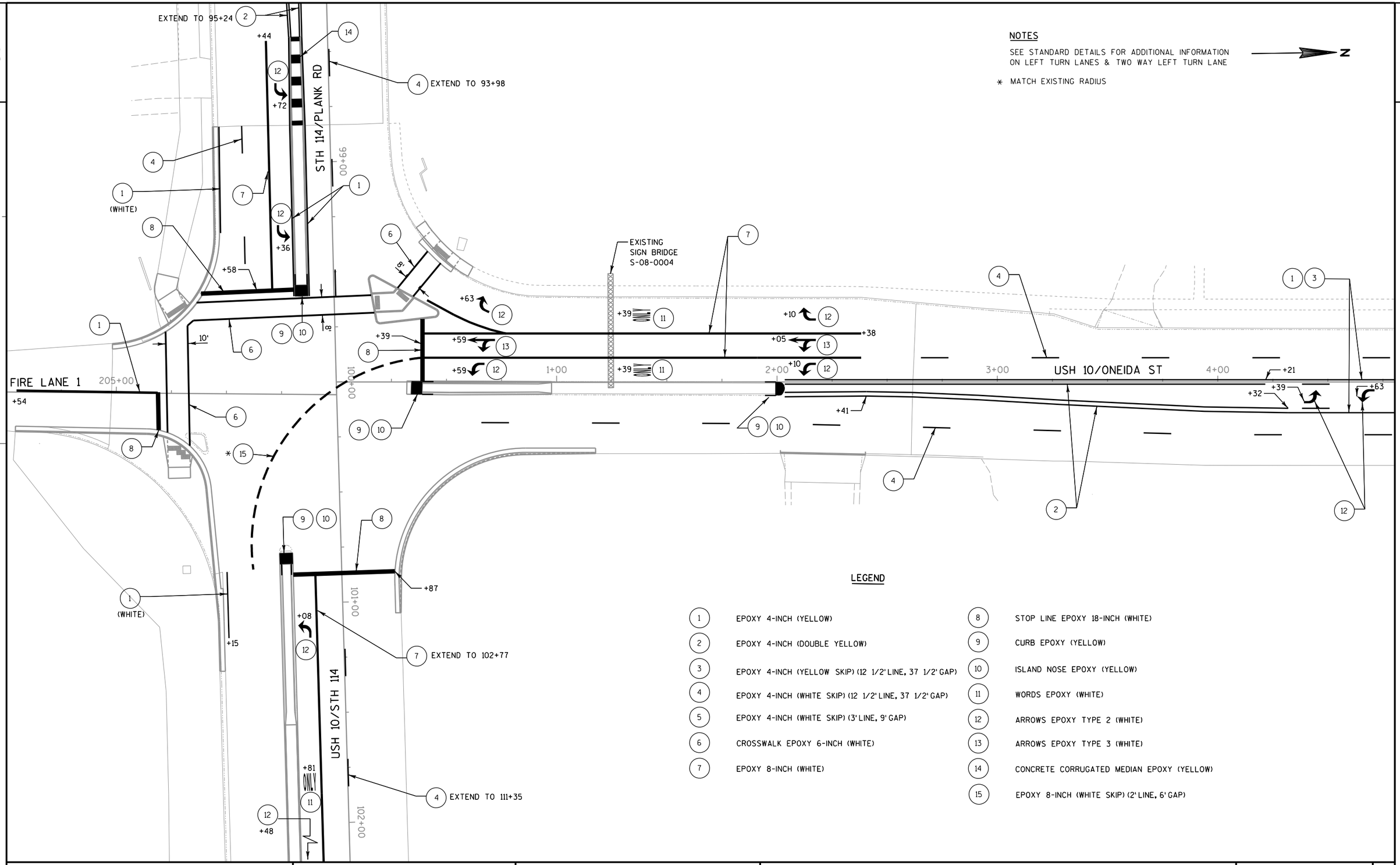
2

NOTES

SEE STANDARD DETAILS FOR ADDITIONAL INFORMATION ON LEFT TURN LANES & TWO WAY LEFT TURN LANE

* MATCH EXISTING RADIUS

N



LEGEND

1	EPOXY 4-INCH (YELLOW)	8	STOP LINE EPOXY 18-INCH (WHITE)
2	EPOXY 4-INCH (DOUBLE YELLOW)	9	CURB EPOXY (YELLOW)
3	EPOXY 4-INCH (YELLOW SKIP) (12 1/2' LINE, 37 1/2' GAP)	10	ISLAND NOSE EPOXY (YELLOW)
4	EPOXY 4-INCH (WHITE SKIP) (12 1/2' LINE, 37 1/2' GAP)	11	WORDS EPOXY (WHITE)
5	EPOXY 4-INCH (WHITE SKIP) (3' LINE, 9' GAP)	12	ARROWS EPOXY TYPE 2 (WHITE)
6	CROSSWALK EPOXY 6-INCH (WHITE)	13	ARROWS EPOXY TYPE 3 (WHITE)
7	EPOXY 8-INCH (WHITE)	14	CONCRETE CORRUGATED MEDIAN EPOXY (YELLOW)
		15	EPOXY 8-INCH (WHITE SKIP) (2' LINE, 6' GAP)

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PAVEMENT MARKING	SHEET 46	E

NOTE

SEE STANDARD DETAILS FOR ADDITIONAL INFORMATION ON LEFT TURN LANES & TWO WAY LEFT TURN LANE

N

MANITOWOC RD

198+00

+22

MATCH EXISTING 50' TAPER

+72

+02

+39

8'

6'

+46

200+00

20+00

+09

USH 10/ONEIDA ST

21+00

22+00

23+00

+39

+49

+77

30'

3'

+09

8'

+68

24+00

30'

25+00

USH 10/ONEIDA ST

26+00

+05

+37

+65

+75

+05

6'

8'

+80

MANITOWOC RD

+44

+64

202+00

+24

MATCH EXISTING 60' TAPER

LEGEND

1	EPOXY 4-INCH (YELLOW)	8	STOP LINE EPOXY 18-INCH (WHITE)
2	EPOXY 4-INCH (DOUBLE YELLOW)	9	CURB EPOXY (YELLOW)
3	EPOXY 4-INCH (YELLOW SKIP) (12 1/2' LINE, 37 1/2' GAP)	10	ISLAND NOSE EPOXY (YELLOW)
4	EPOXY 4-INCH (WHITE SKIP) (12 1/2' LINE, 37 1/2' GAP)	11	WORDS EPOXY (WHITE)
5	EPOXY 4-INCH (WHITE SKIP) (3' LINE, 9' GAP)	12	ARROWS EPOXY TYPE 2 (WHITE)
6	CROSSWALK EPOXY 6-INCH (WHITE)	13	ARROWS EPOXY TYPE 3 (WHITE)
7	EPOXY 8-INCH (WHITE)	14	CONCRETE CORRUGATED MEDIAN EPOXY (YELLOW)
		15	EPOXY 8-INCH (WHITE SKIP) (2' LINE, 6' GAP)

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PAVEMENT MARKING	SHEET 47	E

2

GENERAL NOTES FOR TRAFFIC CONTROL AND DETOUR

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

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

3) "WO" SIGNS ARE THE SAME A "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

4) ALL TYPE III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED. EQUIP WITH TYPE "A" (LOW INTENSITY FLASHING) LIGHTS PER SDDS.

5) MAINTAIN ALL EXISTING STOP SIGNS AT ALL TIMES. MAINTAIN STOP SIGNS AT FIRE LANE AND MANITOWOC ROAD DURING SIGNAL WORK.

6) FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A TYPE C WARNING LIGHT.

7) A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE WORK AREAS IF WARRANTED BY CONDITIONS OR AS DIRECTED BY THE ENGINEER.

8) MAINTAIN LOCAL AND EMERGENCY TRAFFIC ON USH 10.

PCMS NOTES

ADJUST TRAFFIC CONTROL PCMS MESSAGE AS NEEDED BASED ON WORK ZONE AREAS AND CONSTRUCTION SCHEDULE.

CONSIDER GEOMETRICS WHEN LOCATING MESSAGE BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE BOARD FOR A MINIMUM OF 1000 FEET IN FRONT OF THE MESSAGE BOARD.

PLACE MESSAGE BOARDS AS FAR AWAY FROM LIVE TRAFFIC LANES AS POSSIBLE WITHOUT HAMPERING VISIBILITY. THE LOCATION SELECTED SHOULD BE AT OR SLIGHTLY ABOVE THE ELEVATION OF THE ROADWAY. FOR INTERMITTENT WORK OR WHERE SITE CONDITIONS DO NOT ALLOW OTHERWISE, THE SIGNS MAY BE PLACED ON THE SHOULDER. THE SITE SHOULD BE VISITED TO ASSURE VISIBILITY, SAFETY AND MAINTENANCE CONSIDERATIONS. A TAPER OF REFLECTORIZED DRUMS OR BARRICADES SHOULD BE PLACED AHEAD OF PCMS PLACED ON THE SHOULDER IF IT IS NOT SHIELDED BY A BARRIER.

PLACE TRAFFIC CONTROL SIGNS PCMS THAT DISPLAY THE "PRIOR TO CONSTRUCTION" MESSAGE 7 DAYS PRIOR TO THE EXPECTED START OF THE PROPOSED WORK THAT WILL REQUIRE THE DETOUR.

\# PCMS SIGN LOCATIONS SHOWN ON DETOUR PLAN SHEETS.

TRAFFIC CONTROL SIGNS PCMS MESSAGES

	PCMS SIGN LOCATION	PRIOR TO CONSTRUCTION PHASE 1 (2 SEC)	PRIOR TO CONSTRUCTION PHASE 2 (2 SEC)
	STH 114 WEST OF USH 10 INTERSECTION	HWY 114 LANE CLOSURES	STARTING DATE
	STH 114 EAST OF USH 10 INTERSECTION	HWY 114 LANE CLOSURES	STARTING DATE
#	USH 10 NORTH OF STH 114 INTERSECTION	HWY 10 CLOSING DATE	FROM MIDWAY-HWY 114
#	USH 10 SOUTH OF MIDWAY ROAD	HWY 10 CLOSING DATE	FROM HWY 114 TO MIDWAY

2

LEGEND

- MB — TRAFFIC CONTROL SIGNS PCMS
- (A) SEE SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMODATION"
- (B) SEE DETAIL 3 OF SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"
- (C) SEE DETAIL 4 OF SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"
- (D) SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

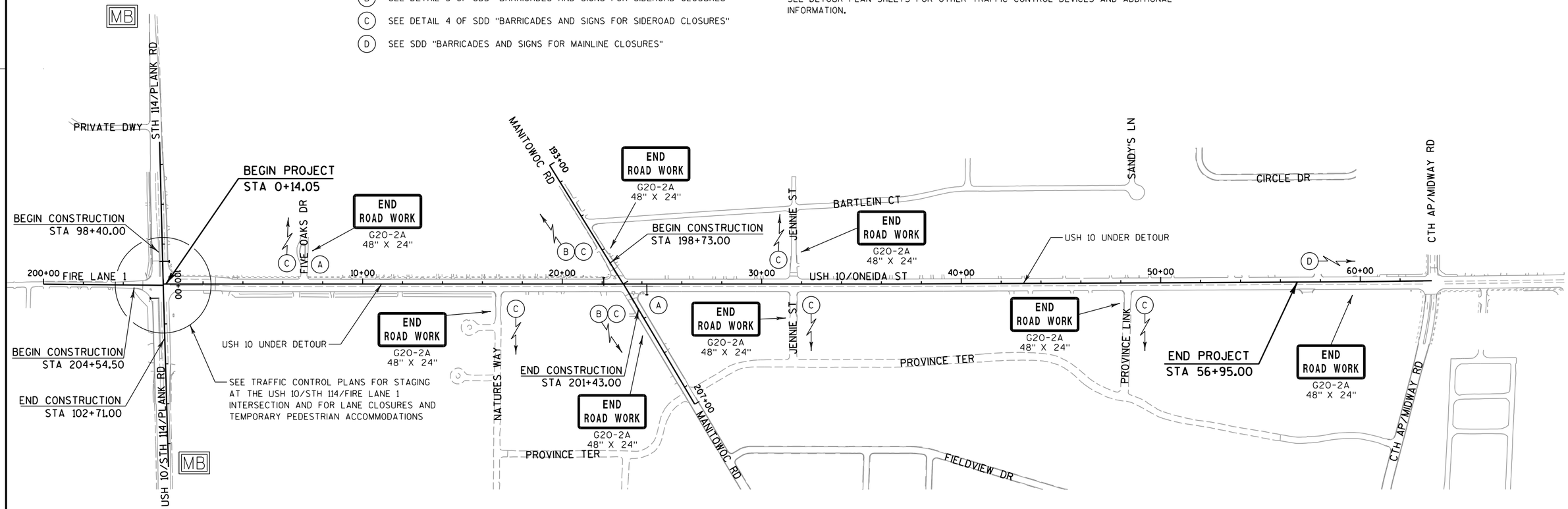
NOTES

SEE TRAFFIC CONTROL PLAN SHEETS FOR ADDITIONAL SDD REFERENCES NEAR THE USH 10/STH 114 INTERSECTION.

IMPLEMENT DETOUR DURING WORK ON USH 10.

SEE DETOUR PLAN SHEETS FOR OTHER TRAFFIC CONTROL DEVICES AND ADDITIONAL INFORMATION.

N



PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL - OVERVIEW	SHEET 48	E

FILE NAME : P:\48xx\4819.4750W13.DP.13.USH10.WNB\CADDS\Plan\025001_tc.dgn PLOT DATE : 7/24/2016 PLOT BY : sgc PLOT NAME : PLOT SCALE : 1:500

STAGE 1 PROPOSED WORK

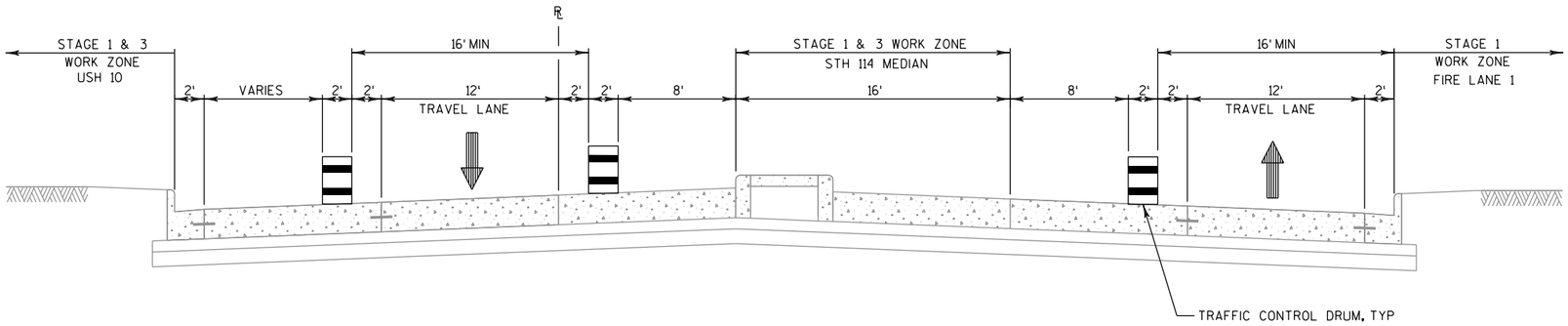
REMOVE OR PARTIALLY REMOVE EXISTING STH 114 MEDIAN ISLAND AND PAVE FLUSH WITH ASPHALTIC SURFACE TEMPORARY.

WORK MAY BE COMPLETED ON THE NORTH LEG OF USH 10 AND FIRE LANE 1.

STAGE 3 PROPOSED WORK

COMPLETE ALL REMAINING WORK IN THE STH 114 MEDIAN AND LEFT TURN LANES.

WORK MAY BE COMPLETED ON THE NORTH LEG OF USH 10.

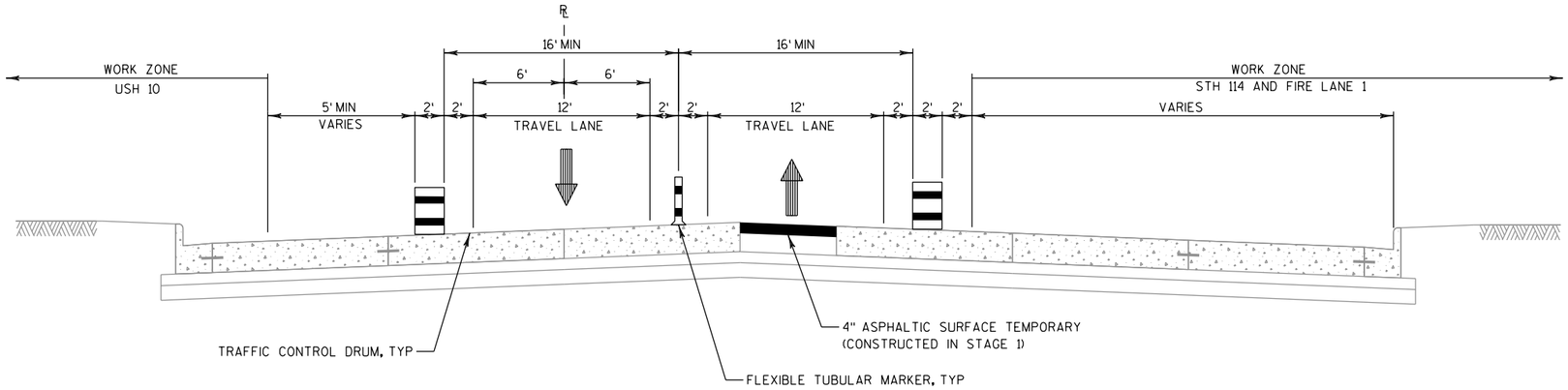


TRAFFIC CONTROL TYPICAL SECTION - STAGE 1 & 3
STH 114/PLANK RD

STAGE 2 PROPOSED WORK

COMPLETE WORK WITHIN THE EXISTING THROUGH LANES OF STH 114 EB AND ALL WORK ON FIRE LANE 1.

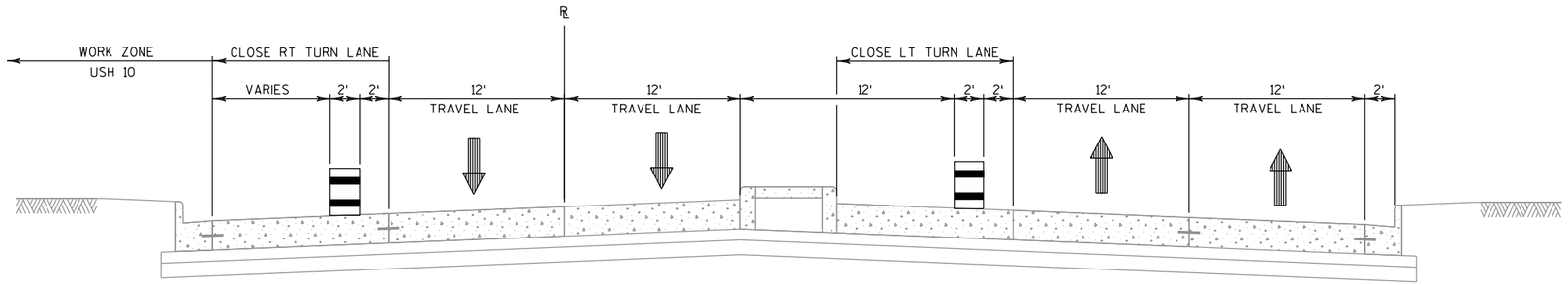
CONSTRUCT THE RIGHT TURN ISLAND AND ADJ ACENT CONCRETE PAVEMENT FOR USH 10 SB. ADDITIONAL WORK MAY BE COMPLETED ON USH 10.



TRAFFIC CONTROL TYPICAL SECTION - STAGE 2
STH 114/PLANK RD

STAGE 4 PROPOSED WORK

COMPLETE ALL REMAINING WORK ON USH 10.



TRAFFIC CONTROL TYPICAL SECTION - STAGE 4
STH 114/PLANK RD

NOTES

RAISED MEDIAN AND LEFT TURN LANE LOCATION VARIES, SEE TRAFFIC CONTROL PLAN SHEETS FOR ADDITIONAL INFORMATION

SEE TRAFFIC CONTROL PLAN SHEETS FOR PROPOSED WORK LOCATIONS

2

LEGEND

- TRAFFIC FLOW ARROW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER
- TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL ARROW BOARD
- WORK ZONE/LANE CLOSURE
- 4" ASPHALTIC SURFACE TEMPORARY
- WORK COMPLETED IN PREVIOUS STAGE
- EXISTING STH 114 PAVEMENT MARKING
- REMOVING PAVEMENT MARKING
- TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW/WHITE)

NOTES

FOR ADDITIONAL SIGNING AND COVERING OF J-ASSEMBLY SIGNS AND GUIDE SIGNS SEE DETOUR PLANS.

* PAID FOR AS TRAFFIC CONTROL SIGNS (EACH LOCATION)

** PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II

MAINTAIN ACCESS TO RESIDENTIAL AND COMMERCIAL DRIVEWAYS.

CONSTRUCTION

REMOVE OR PARTIALLY REMOVE EXISTING STH 114 MEDIAN ISLAND AND PAVE FLUSH WITH ASPHALTIC SURFACE TEMPORARY.

WORK MAY BE COMPLETED ON THE NORTH LEG OF USH 10 AND FIRE LANE 1.

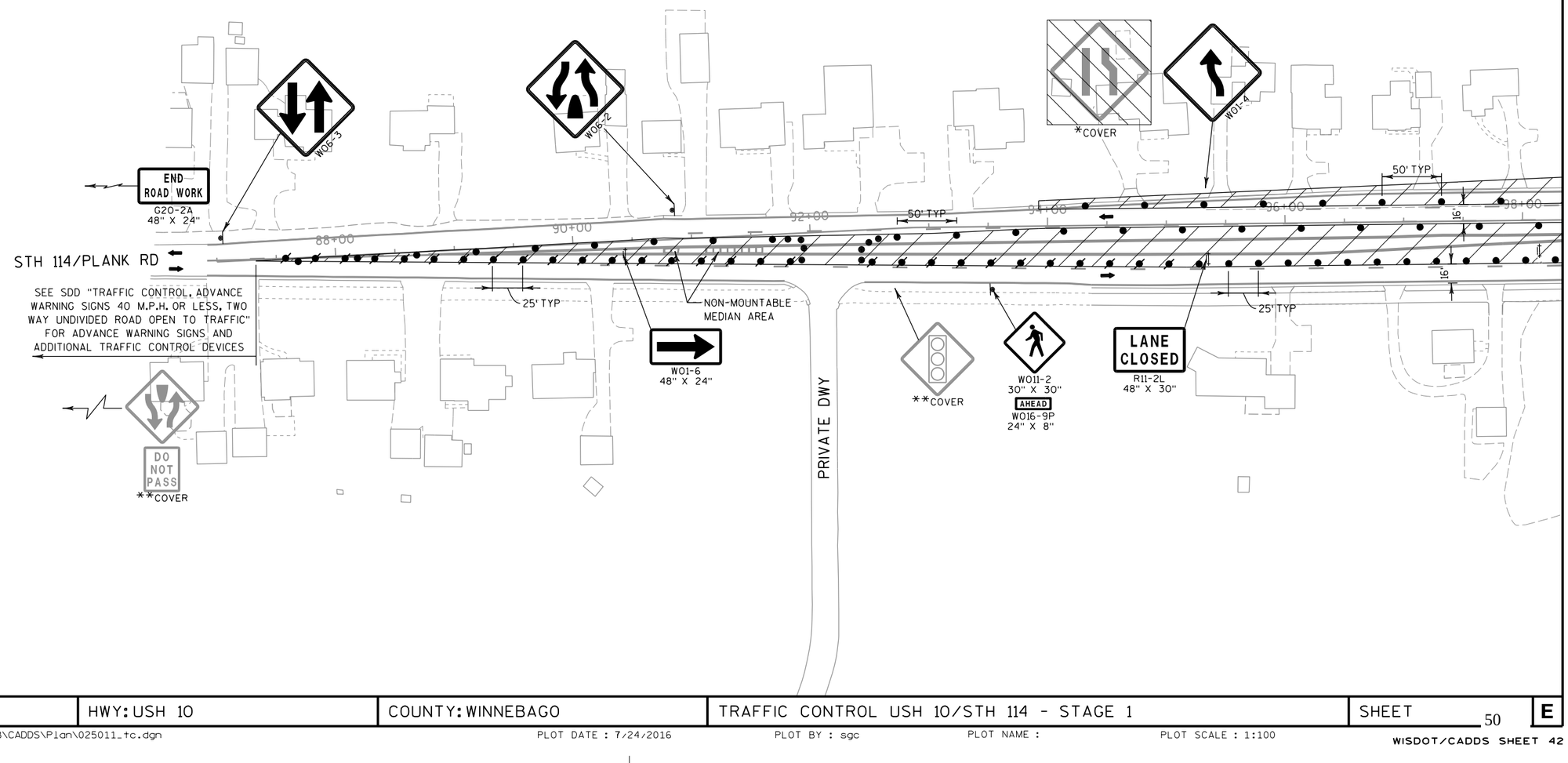
TRAFFIC

DETOUR USH 10 TRAFFIC AND CLOSE FIRE LANE 1 AT USH 10/STH 114.

MAINTAIN ONE LANE OF TRAFFIC IN THE OUTSIDE THROUGH LANE IN EACH DIRECTION ON STH 114 AND THE USH 10 DETOUR ROUTE AT ALL TIMES. REMOVE OR COVER EXISTING TRAFFIC SIGNALS.

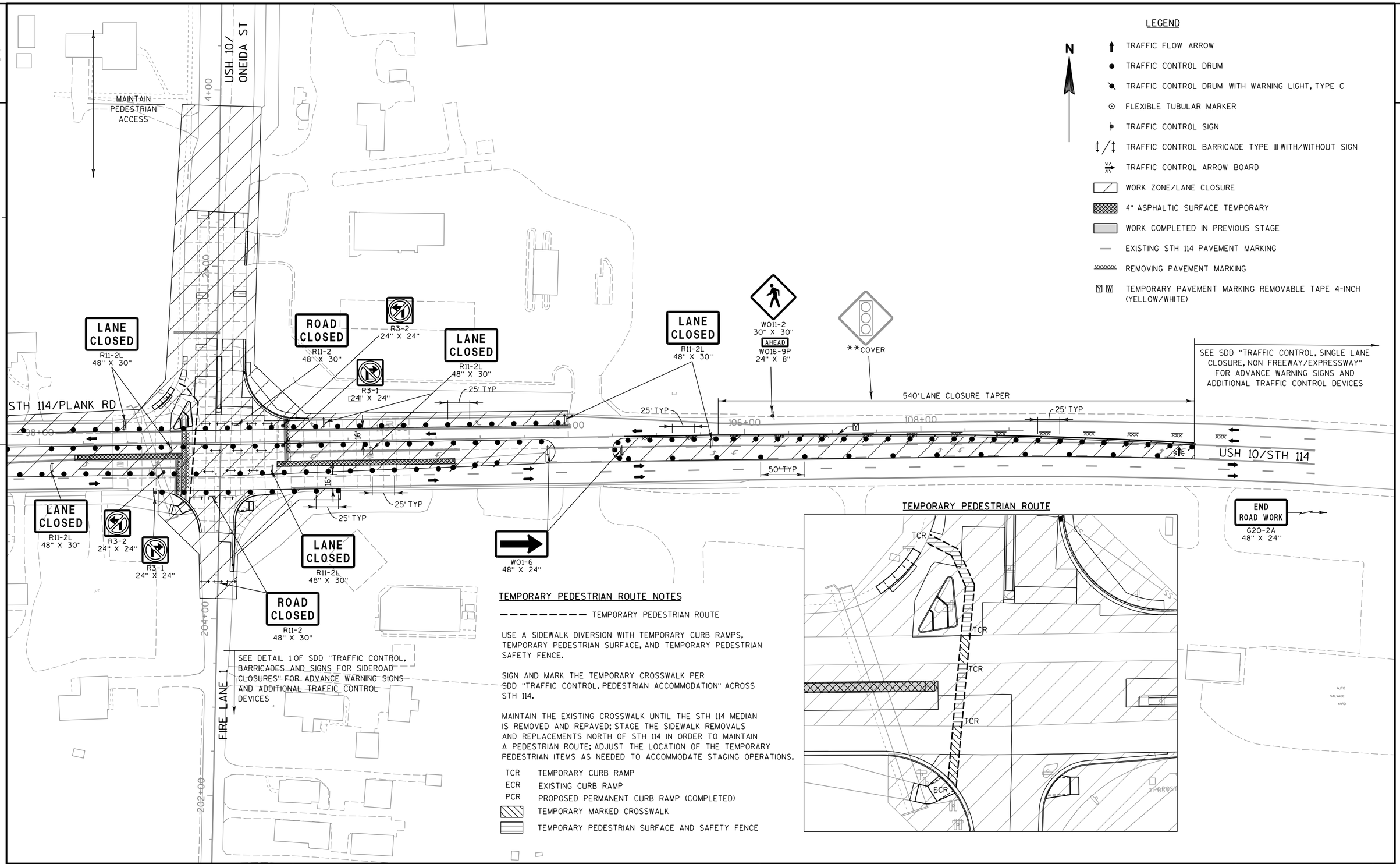
MAINTAIN A MINIMUM OF 16'CLEAR WIDTH FOR EACH DIRECTION OF TRAFFIC AT ALL TIMES.

N



PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL USH 10/STH 114 - STAGE 1	SHEET 50	E

2



LEGEND

- TRAFFIC FLOW ARROW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER
- TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL ARROW BOARD
- WORK ZONE/LANE CLOSURE
- 4" ASPHALTIC SURFACE TEMPORARY
- WORK COMPLETED IN PREVIOUS STAGE
- EXISTING STH 114 PAVEMENT MARKING
- REMOVING PAVEMENT MARKING
- TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW/WHITE)

TEMPORARY PEDESTRIAN ROUTE NOTES

---------- TEMPORARY PEDESTRIAN ROUTE

USE A SIDEWALK DIVERSION WITH TEMPORARY CURB RAMPS, TEMPORARY PEDESTRIAN SURFACE, AND TEMPORARY PEDESTRIAN SAFETY FENCE.

SIGN AND MARK THE TEMPORARY CROSSWALK PER SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" ACROSS STH 114.

MAINTAIN THE EXISTING CROSSWALK UNTIL THE STH 114 MEDIAN IS REMOVED AND REPAVED; STAGE THE SIDEWALK REMOVALS AND REPLACEMENTS NORTH OF STH 114 IN ORDER TO MAINTAIN A PEDESTRIAN ROUTE; ADJUST THE LOCATION OF THE TEMPORARY PEDESTRIAN ITEMS AS NEEDED TO ACCOMMODATE STAGING OPERATIONS.

TCR	TEMPORARY CURB RAMP
ECR	EXISTING CURB RAMP
PCR	PROPOSED PERMANENT CURB RAMP (COMPLETED)
	TEMPORARY MARKED CROSSWALK
	TEMPORARY PEDESTRIAN SURFACE AND SAFETY FENCE

TEMPORARY PEDESTRIAN ROUTE

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL USH 10/STH 114 - STAGE 1	SHEET 51	E

2

LEGEND

- TRAFFIC FLOW ARROW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER
- TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL ARROW BOARD
- WORK ZONE/LANE CLOSURE
- 4" ASPHALTIC SURFACE TEMPORARY
- WORK COMPLETED IN PREVIOUS STAGE
- EXISTING STH 114 PAVEMENT MARKING
- REMOVING PAVEMENT MARKING
- TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW/WHITE)

NOTES

FOR ADDITIONAL SIGNING AND COVERING OF J-ASSEMBLY SIGNS AND GUIDE SIGNS SEE DETOUR PLANS.

* PAID FOR AS TRAFFIC CONTROL SIGNS (EACH LOCATION)

** PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II

MAINTAIN ACCESS TO RESIDENTIAL AND COMMERCIAL DRIVEWAYS.

CONSTRUCTION

COMPLETE WORK WITHIN THE EXISTING THROUGH LANES OF STH 114 EB AND ALL WORK ON FIRE LANE 1.

CONSTRUCT THE RIGHT TURN ISLAND AND ADJACENT CONCRETE PAYMENT FOR USH 10 SB.

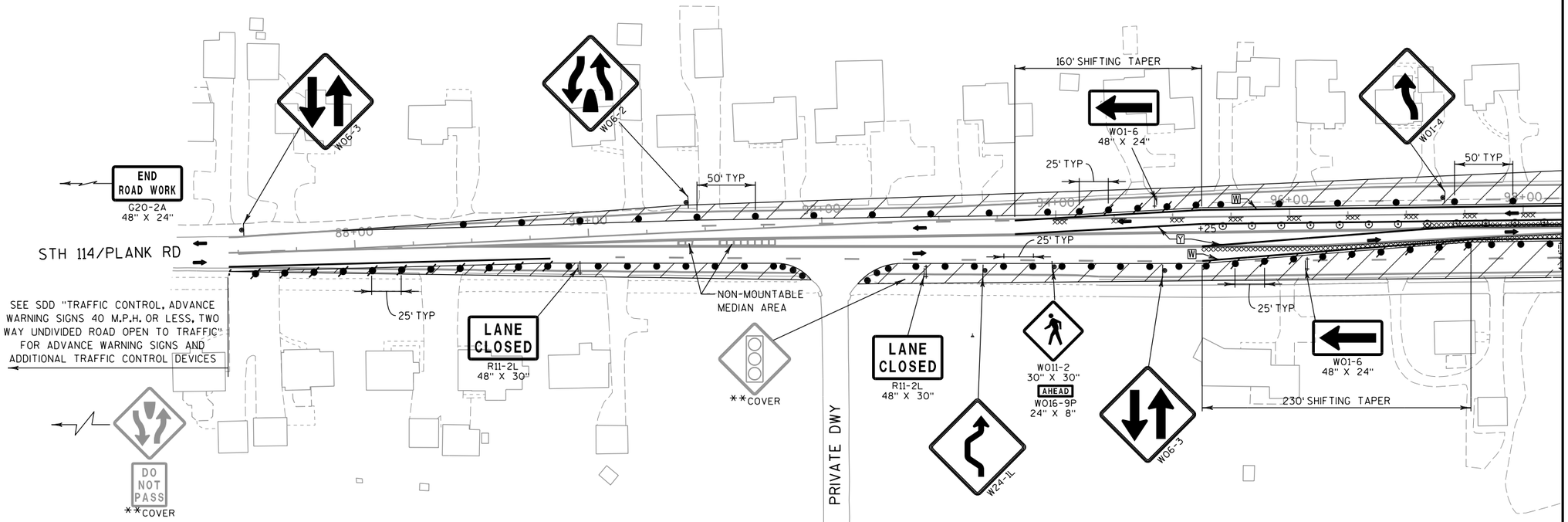
TRAFFIC

DETOUR USH 10 TRAFFIC AND CLOSE FIRE LANE 1 AT USH 10/STH 114.

MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION ON STH 114 AND THE USH 10 DETOUR ROUTE AT ALL TIMES. REMOVE OR COVER EXISTING TRAFFIC SIGNALS.

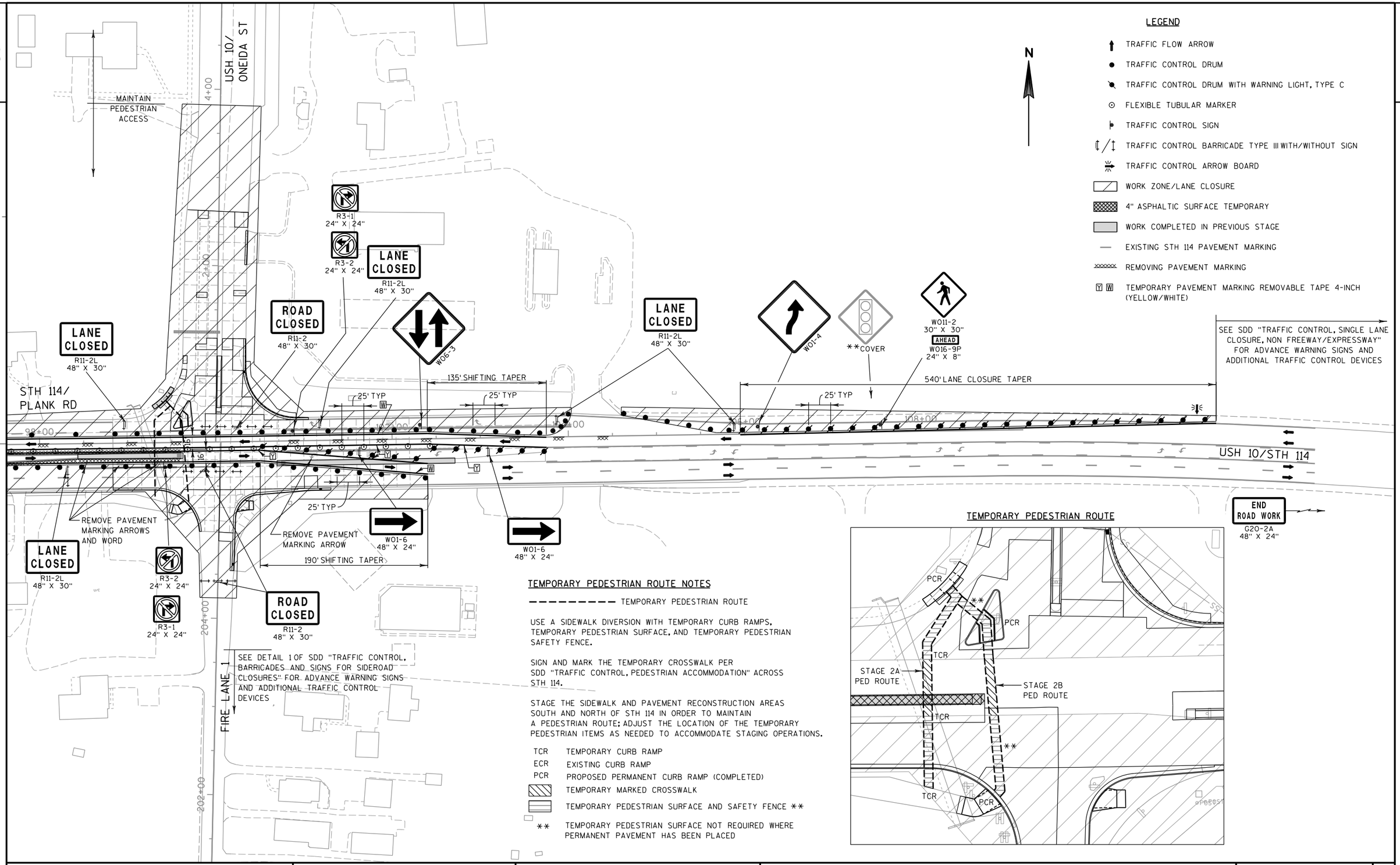
MAINTAIN A MINIMUM OF 16' CLEAR WIDTH FOR EACH DIRECTION OF TRAFFIC AT ALL TIMES.

N



PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL USH 10/STH 114 - STAGE 2	SHEET 52	E

2



N

LEGEND

- TRAFFIC FLOW ARROW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER
- TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL ARROW BOARD
- WORK ZONE/LANE CLOSURE
- 4" ASPHALTIC SURFACE TEMPORARY
- WORK COMPLETED IN PREVIOUS STAGE
- EXISTING STH 114 PAVEMENT MARKING
- REMOVING PAVEMENT MARKING
- Y W TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW/WHITE)

TEMPORARY PEDESTRIAN ROUTE NOTES

---------- TEMPORARY PEDESTRIAN ROUTE

USE A SIDEWALK DIVERSION WITH TEMPORARY CURB RAMPS, TEMPORARY PEDESTRIAN SURFACE, AND TEMPORARY PEDESTRIAN SAFETY FENCE.

SIGN AND MARK THE TEMPORARY CROSSWALK PER SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" ACROSS STH 114.

STAGE THE SIDEWALK AND PAVEMENT RECONSTRUCTION AREAS SOUTH AND NORTH OF STH 114 IN ORDER TO MAINTAIN A PEDESTRIAN ROUTE; ADJUST THE LOCATION OF THE TEMPORARY PEDESTRIAN ITEMS AS NEEDED TO ACCOMMODATE STAGING OPERATIONS.

TCR	TEMPORARY CURB RAMP
ECR	EXISTING CURB RAMP
PCR	PROPOSED PERMANENT CURB RAMP (COMPLETED)
	TEMPORARY MARKED CROSSWALK
	TEMPORARY PEDESTRIAN SURFACE AND SAFETY FENCE **
**	TEMPORARY PEDESTRIAN SURFACE NOT REQUIRED WHERE PERMANENT PAVEMENT HAS BEEN PLACED

TEMPORARY PEDESTRIAN ROUTE

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL USH 10/STH 114 - STAGE 2	SHEET 53	E

FILE NAME : P:\48xx\4819.4750W13.DP.13.USH10.WNB\CADDS\Plan\025022_tc.dgn PLOT DATE : 7/24/2016 PLOT BY : sgc PLOT NAME : PLOT SCALE : 1:100

LEGEND

- TRAFFIC FLOW ARROW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER
- TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL ARROW BOARD
- WORK ZONE/LANE CLOSURE
- 4" ASPHALTIC SURFACE TEMPORARY
- WORK COMPLETED IN PREVIOUS STAGE
- EXISTING STH 114 PAVEMENT MARKING
- REMOVING PAVEMENT MARKING
- TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW/WHITE)

NOTES

FOR ADDITIONAL SIGNING AND COVERING OF J-ASSEMBLY SIGNS AND GUIDE SIGNS SEE DETOUR PLANS.

* PAID FOR AS TRAFFIC CONTROL SIGNS (EACH LOCATION)

** PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II

MAINTAIN ACCESS TO RESIDENTIAL AND COMMERCIAL DRIVEWAYS.

STAGE 3 CONSTRUCTION

COMPLETE ALL REMAINING WORK IN THE STH 114 MEDIAN AND LEFT TURN LANES.

WORK MAY BE COMPLETED ON THE NORTH LEG OF USH 10.

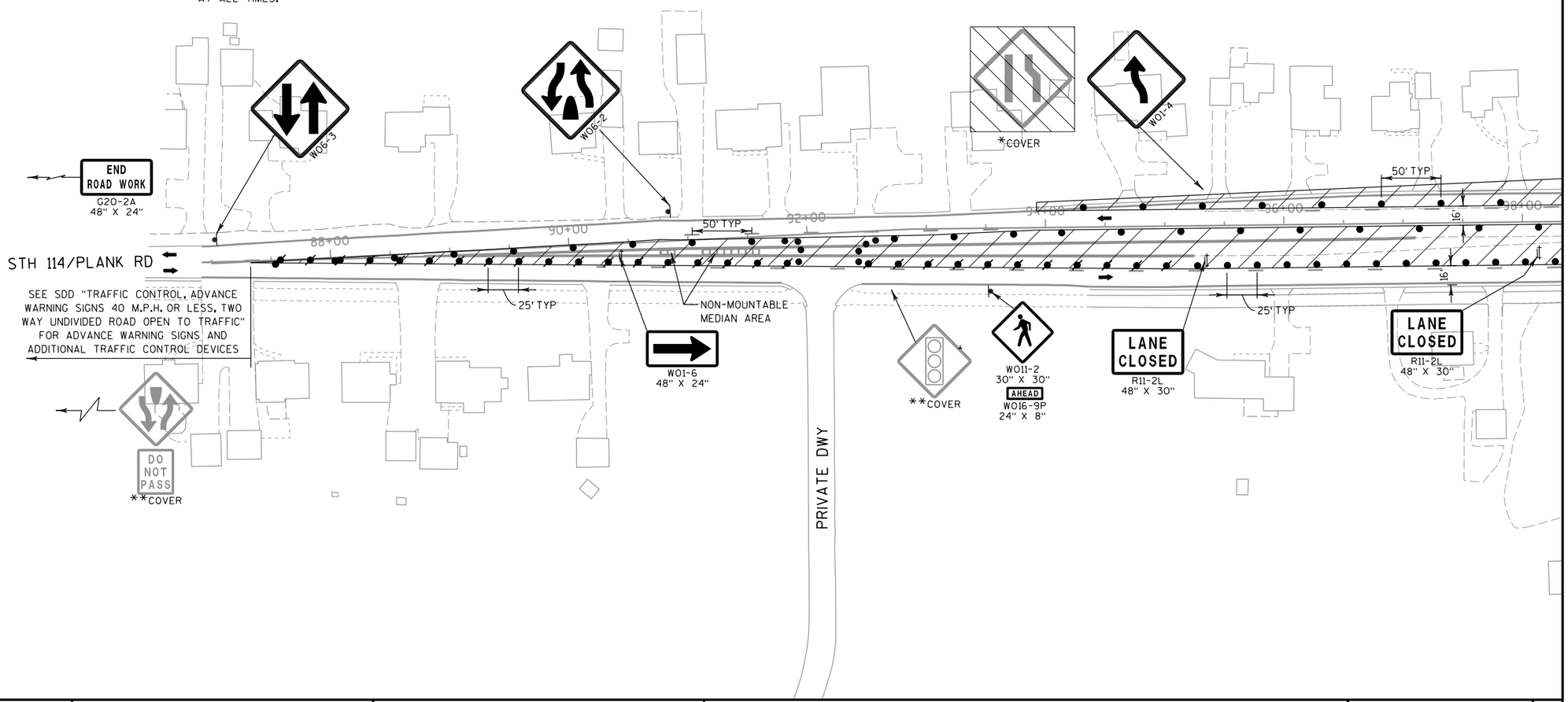
STAGE 3 TRAFFIC

DETOUR USH 10 TRAFFIC.

ALLOW RIGHT-IN/RIGHT-OUT ACCESS AT STH 114 AND FIRE LANE 1. PLACE A TEMPORARY R1-1 STOP SIGN FOR FIRE LANE 1 TRAFFIC.

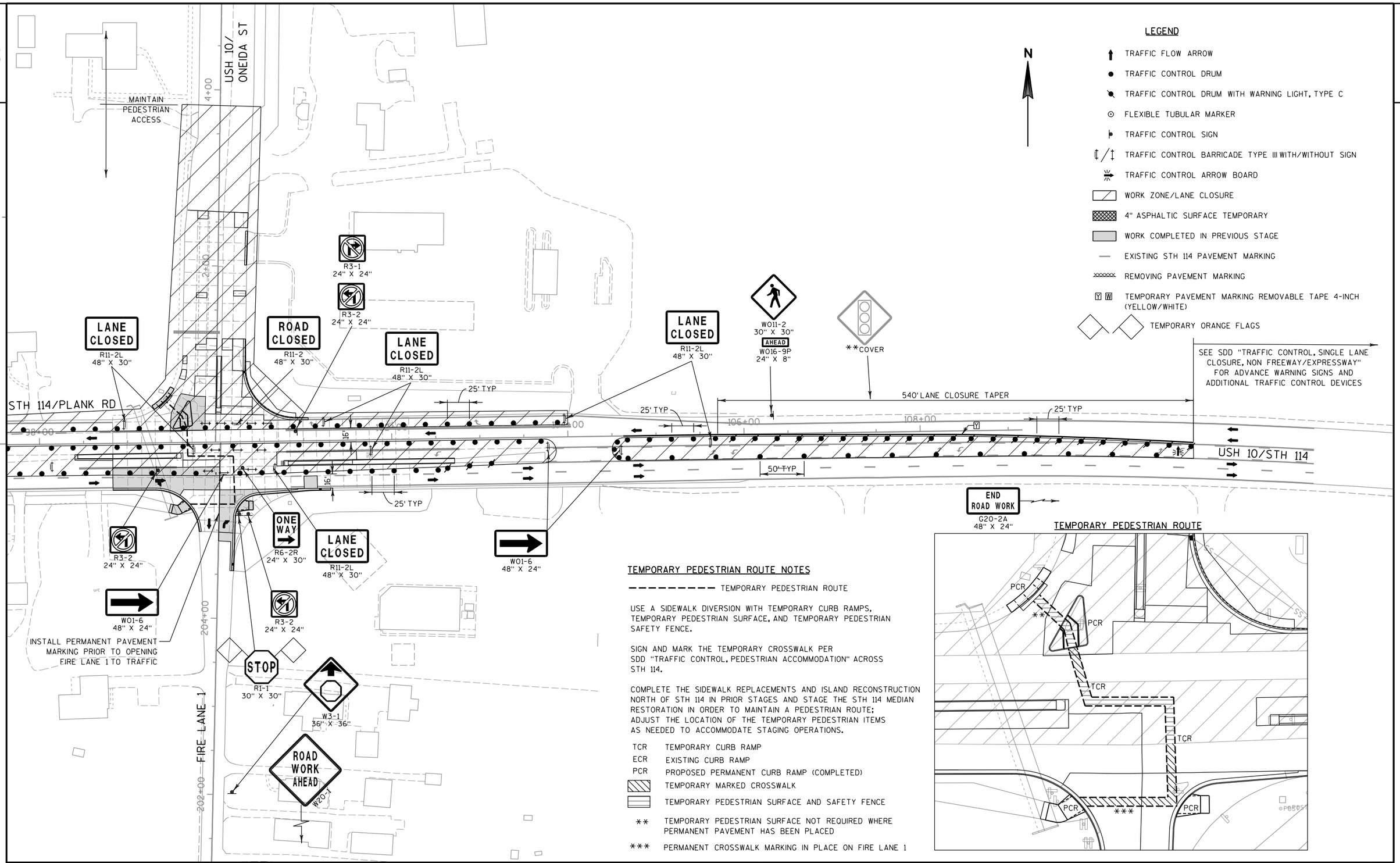
MAINTAIN ONE LANE OF TRAFFIC IN THE OUTSIDE THROUGH LANE IN EACH DIRECTION ON STH 114 AND THE USH 10 DETOUR ROUTE AT ALL TIMES. REMOVE OR COVER EXISTING TRAFFIC SIGNALS.

MAINTAIN A MINIMUM OF 16'CLEAR WIDTH FOR EACH DIRECTION OF TRAFFIC AT ALL TIMES.



PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL USH 10/STH 114 - STAGE 3	SHEET 54	E

2



N

LEGEND

- TRAFFIC FLOW ARROW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER
- TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL ARROW BOARD
- WORK ZONE/LANE CLOSURE
- 4" ASPHALTIC SURFACE TEMPORARY
- WORK COMPLETED IN PREVIOUS STAGE
- EXISTING STH 114 PAVEMENT MARKING
- REMOVING PAVEMENT MARKING
- Y W TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW/WHITE)
- TEMPORARY ORANGE FLAGS

TEMPORARY PEDESTRIAN ROUTE NOTES

---------- TEMPORARY PEDESTRIAN ROUTE

USE A SIDEWALK DIVERSION WITH TEMPORARY CURB RAMPS, TEMPORARY PEDESTRIAN SURFACE, AND TEMPORARY PEDESTRIAN SAFETY FENCE.

SIGN AND MARK THE TEMPORARY CROSSWALK PER SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" ACROSS STH 114.

COMPLETE THE SIDEWALK REPLACEMENTS AND ISLAND RECONSTRUCTION NORTH OF STH 114 IN PRIOR STAGES AND STAGE THE STH 114 MEDIAN RESTORATION IN ORDER TO MAINTAIN A PEDESTRIAN ROUTE; ADJUST THE LOCATION OF THE TEMPORARY PEDESTRIAN ITEMS AS NEEDED TO ACCOMMODATE STAGING OPERATIONS.

TCR	TEMPORARY CURB RAMP
ECR	EXISTING CURB RAMP
PCR	PROPOSED PERMANENT CURB RAMP (COMPLETED)
	TEMPORARY MARKED CROSSWALK
	TEMPORARY PEDESTRIAN SURFACE AND SAFETY FENCE
**	TEMPORARY PEDESTRIAN SURFACE NOT REQUIRED WHERE PERMANENT PAVEMENT HAS BEEN PLACED
***	PERMANENT CROSSWALK MARKING IN PLACE ON FIRE LANE 1

TEMPORARY PEDESTRIAN ROUTE

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL USH 10/STH 114 - STAGE 3	SHEET 55	E

2

LEGEND

- TRAFFIC FLOW ARROW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER
- TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL ARROW BOARD
- WORK ZONE/LANE CLOSURE
- 4" ASPHALTIC SURFACE TEMPORARY
- WORK COMPLETED IN PREVIOUS STAGE
- EXISTING STH 114 PAVEMENT MARKING
- REMOVING PAVEMENT MARKING
- Y W TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW/WHITE)

NOTES

FOR ADDITIONAL SIGNING AND COVERING OF J-ASSEMBLY SIGNS AND GUIDE SIGNS SEE DETOUR PLANS.

** PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II

MAINTAIN ACCESS TO RESIDENTIAL AND COMMERCIAL DRIVEWAYS.

STAGE 4 CONSTRUCTION

COMPLETE ALL REMAINING WORK ON USH 10 NORTH OF STH 114 AND INSTALL TRAFFIC SIGNALS AT USH 10/STH 114 INTERSECTION.

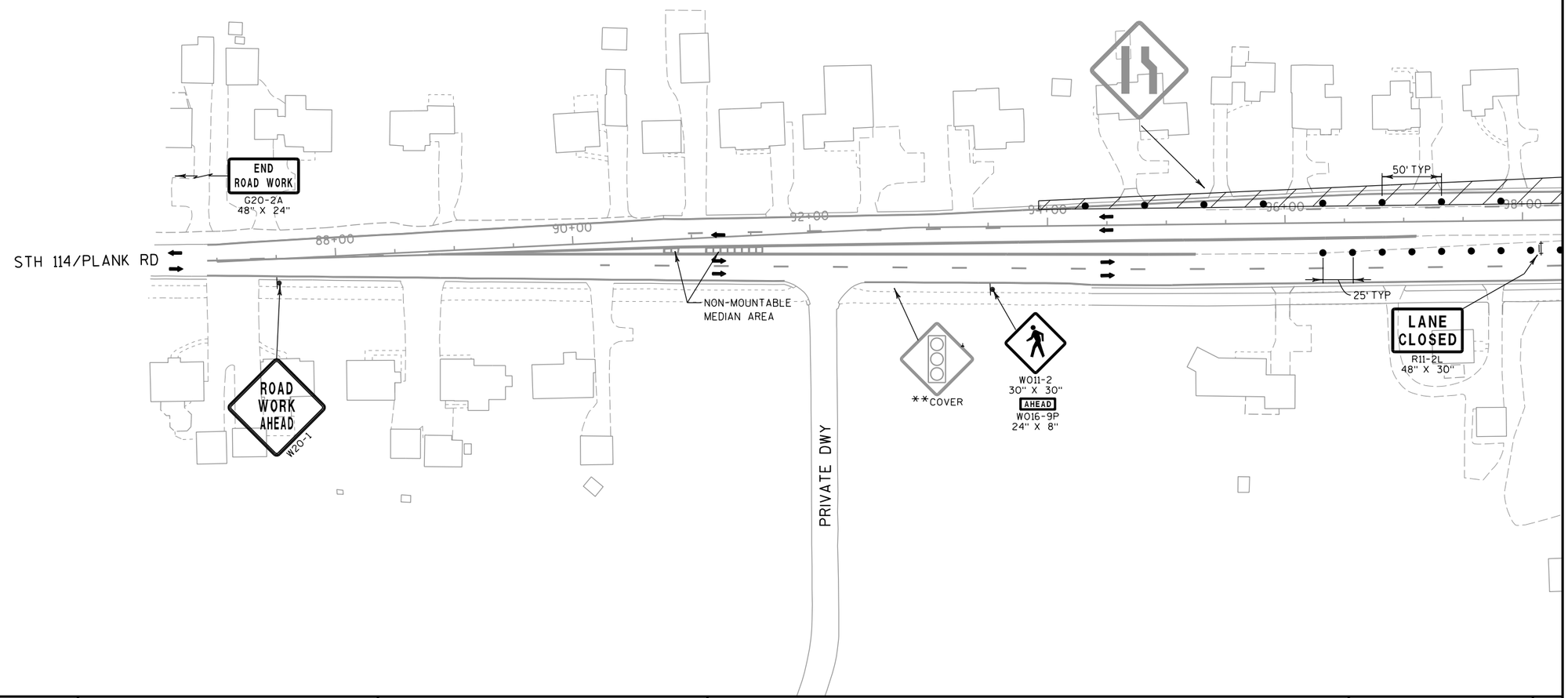
STAGE 4 TRAFFIC

DETOUR USH 10 TRAFFIC.

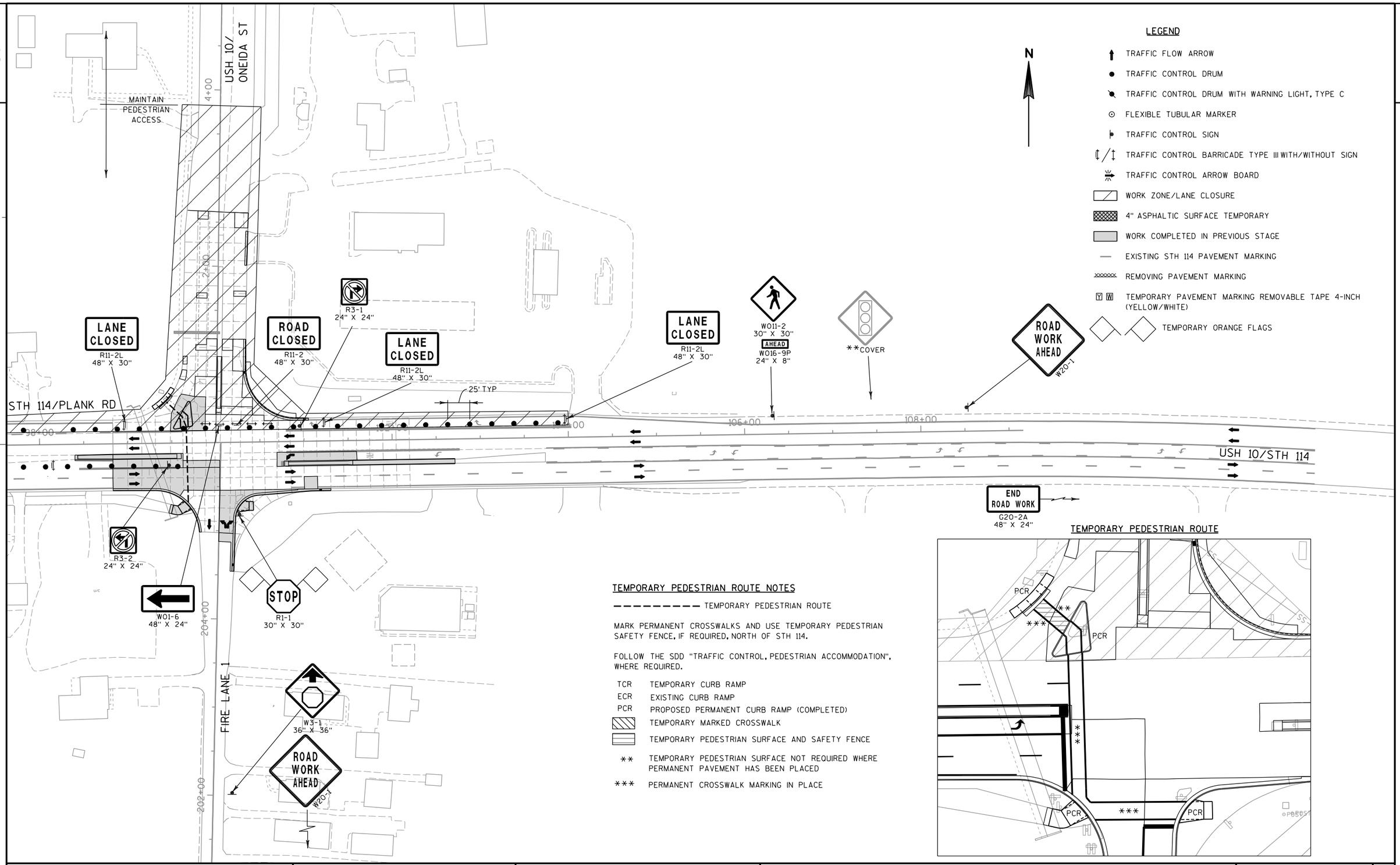
ALLOW ACCESS AT STH 114 AND FIRE LANE 1. PLACE A TEMPORARY R1-1 STOP SIGN FOR FIRE LANE 1 TRAFFIC.

MAINTAIN TRAFFIC ON STH 114 AND CLOSE WB RIGHT TURN LANE AND EB LEFT TURN LANE. COVER TRAFFIC SIGNALS UNTIL THE INTERSECTION IS FULLY OPERATIONAL.

N



PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL USH 10/STH 114 - STAGE 4	SHEET 56	E



LEGEND

- TRAFFIC FLOW ARROW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER
- TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL ARROW BOARD
- WORK ZONE/LANE CLOSURE
- 4" ASPHALTIC SURFACE TEMPORARY
- WORK COMPLETED IN PREVIOUS STAGE
- EXISTING STH 114 PAVEMENT MARKING
- REMOVING PAVEMENT MARKING
- TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW/WHITE)
- TEMPORARY ORANGE FLAGS

TEMPORARY PEDESTRIAN ROUTE NOTES

---------- TEMPORARY PEDESTRIAN ROUTE

MARK PERMANENT CROSSWALKS AND USE TEMPORARY PEDESTRIAN SAFETY FENCE, IF REQUIRED, NORTH OF STH 114.

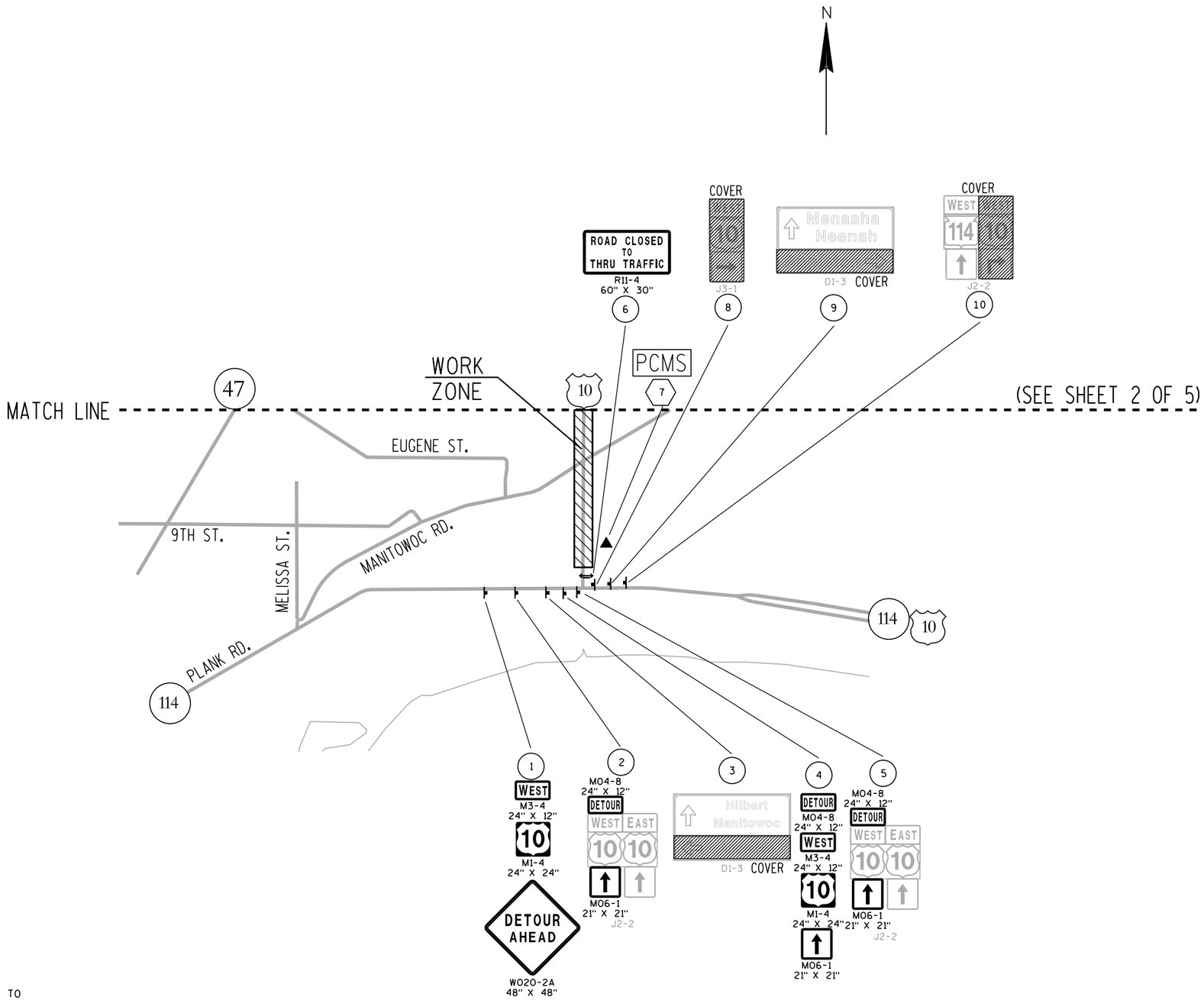
FOLLOW THE SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION", WHERE REQUIRED.

TCR	TEMPORARY CURB RAMP
ECR	EXISTING CURB RAMP
PCR	PROPOSED PERMANENT CURB RAMP (COMPLETED)
	TEMPORARY MARKED CROSSWALK
	TEMPORARY PEDESTRIAN SURFACE AND SAFETY FENCE
**	TEMPORARY PEDESTRIAN SURFACE NOT REQUIRED WHERE PERMANENT PAVEMENT HAS BEEN PLACED
***	PERMANENT CROSSWALK MARKING IN PLACE

TEMPORARY PEDESTRIAN ROUTE

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL USH 10/STH 114 - STAGE 4	SHEET 57	E

2



LEGEND

- (X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET
- ▲ PCMS (X) PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN

SHEET 1 OF 5

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	DETOUR SIGNING DETAIL	SHEET 58	E

2

N

EAST
M3-2
36" X 18"
10
M1-4
36" X 36"
DETOUR AHEAD
W020-2A
48" X 48"
15A 15B

DETOUR
M04-8
36" X 18"
EAST
M3-2
36" X 18"
10
M1-4
36" X 36"
M06-1
30" X 30"
17A 17B

COVER
EXIT 291
Oneida St
17

COVER
Oneida St NORTH
Appleton
D1-3
18

COVER
10
J2-1
19

COVER
H
10
J3-2
20

ROAD CLOSED
0.4 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3
60" X 30"
21A

S. ONEIDA ST.

(SEE SHEET 3 OF 5)

COVER
NORTH
441
10
J2-2
12

COVER
NORTH
441
10
J3-2
13

COVER
NORTH
441
10
J2-2
21

COVER
Green Bay
D1-3
22

47

W. VALLEY RD.

ROAD CLOSED
TO
THRU TRAFFIC
R11-4
60" X 30"
23

10 441

WORK ZONE

RACINE RD.

MIDWAY RD.

24
PCMS

MATCH LINE

W. AIRPORT RD.

MATCH LINE

10 441

47

10

(SEE SHEET 1 OF 5)

11
COVER
AP Midway Rd 1/4
47 Appleton Rd 1
Oneida St 2

14
COVER
EXIT 291
10
Oneida St
EXIT 1/2 MILE

15
COVER

16
Oneida St 1/4
FMS
114" X 24"
Hwy CE 4

16A 16B
HWY 10 EAST
CLOSED
AT HWY AP
FOLLOW DETOUR
FMS
132" X 72"

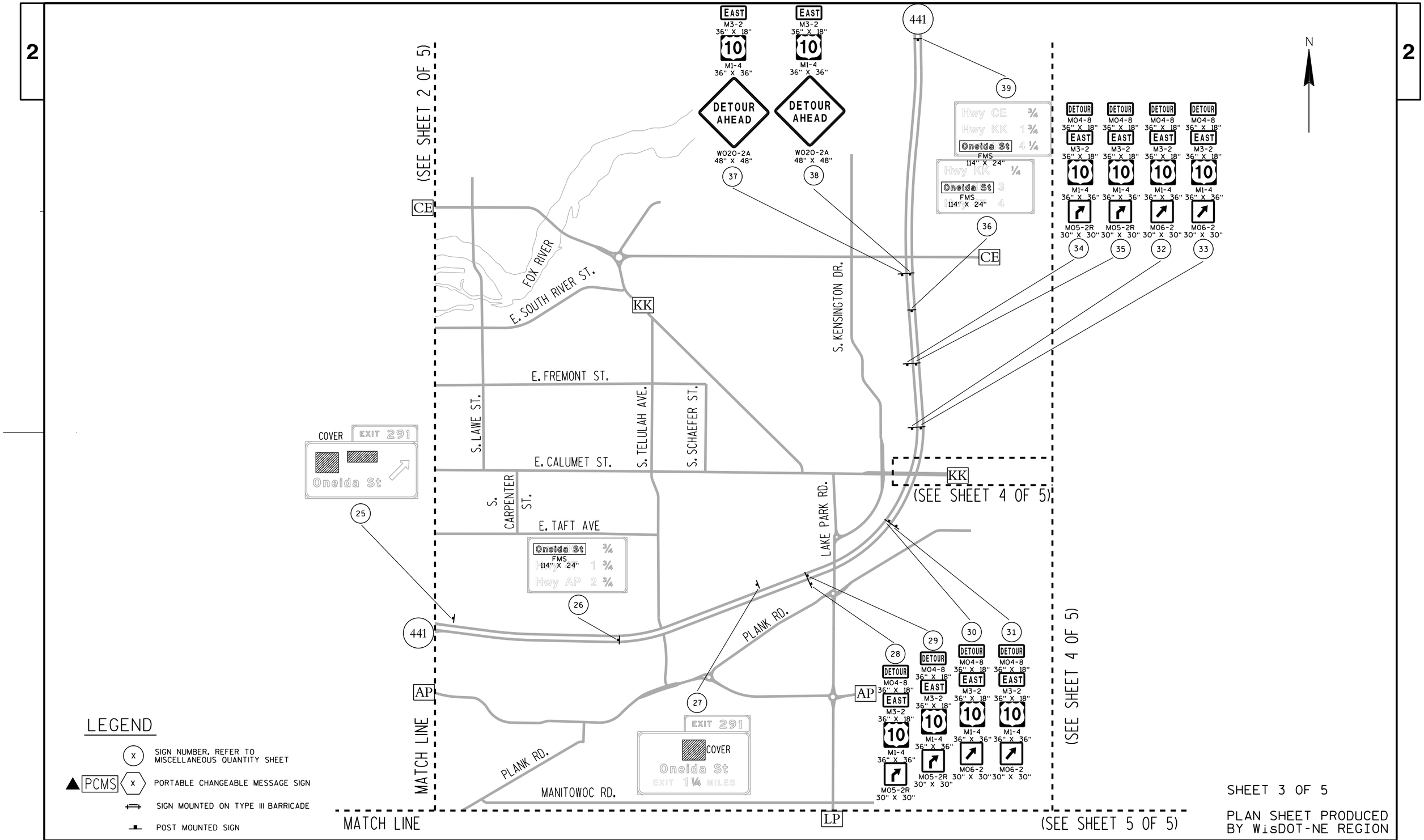
LEGEND

- (X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET
- ▲ PCMS (X) PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN

SHEET 2 OF 5

PLAN SHEET PRODUCED BY WisDOT-NE REGION

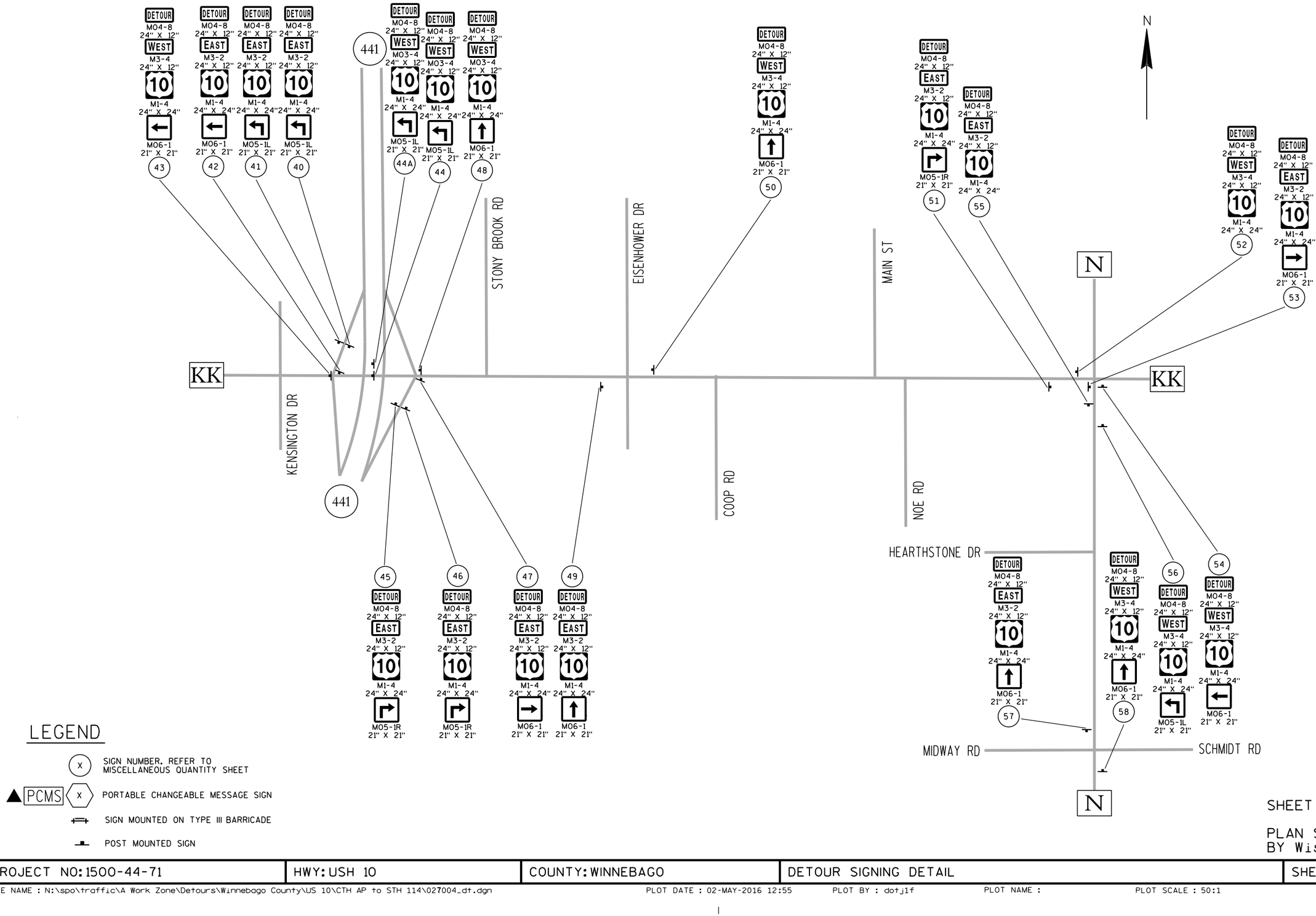
PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	DETOUR SIGNING DETAIL	SHEET 59	E



SHEET 3 OF 5

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	DETOUR SIGNING DETAIL	SHEET 60	E



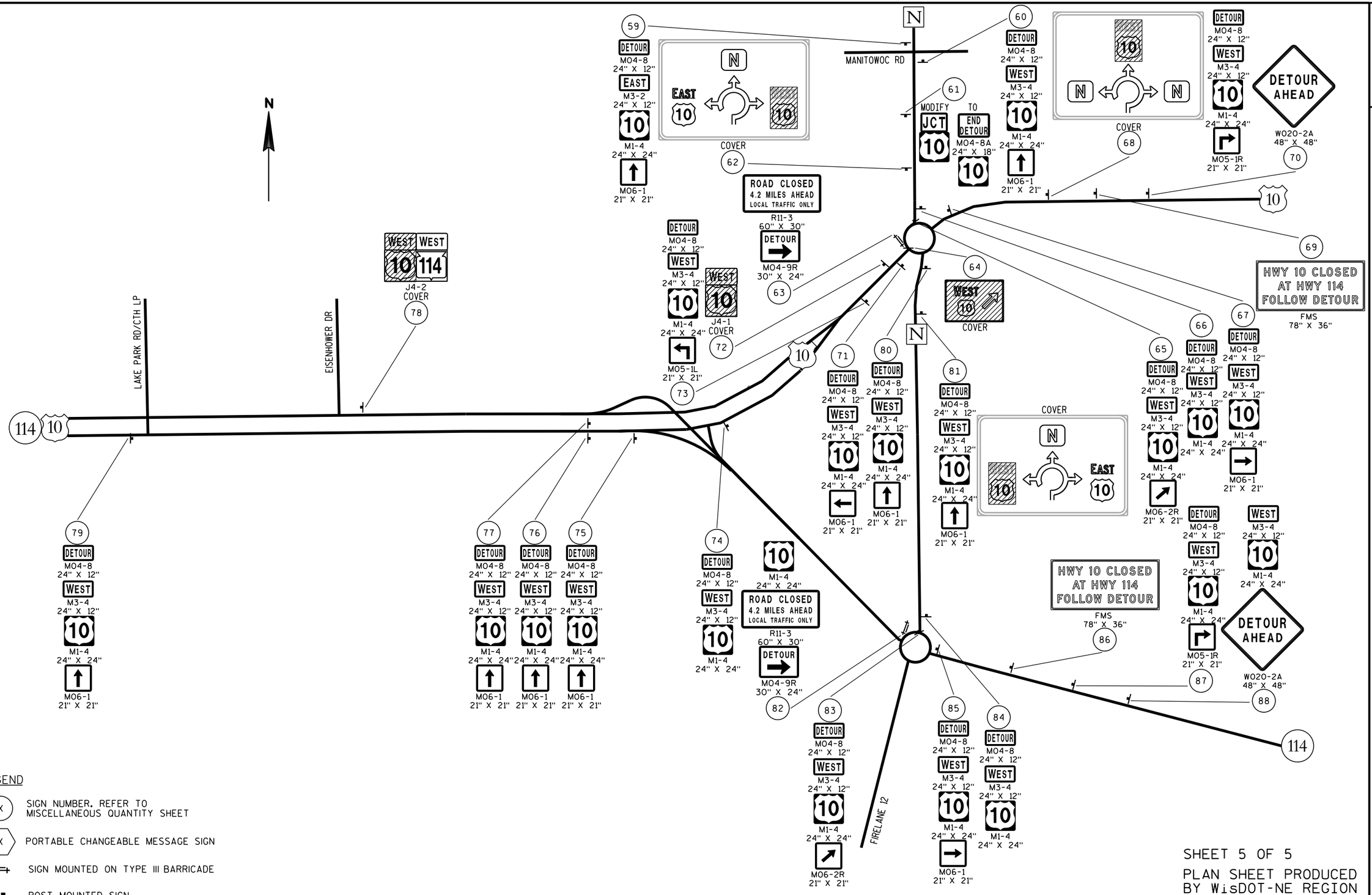
SHEET 4 OF 5

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	DETOUR SIGNING DETAIL	SHEET 61	E

FILE NAME : N:\spo\traffic\A Work Zone\Detours\Winnebago County\US 10\CTH AP to STH 114\027004_dt.dgn PLOT DATE : 02-MAY-2016 12:55 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 50:1

WISDOT/CADDS SHEET 42



PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	DETOUR SIGNING DETAIL	SHEET 62	E

FILE NAME : N:\spo\traffic\A Work Zone\Detours\Winnebago County\US 10\CTH AP to STH 114\027004A_dt.dgn PLOT DATE : 02-MAY-2016 13:06 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 1600:1

1500-44-71

Line	Item	Item Description	Unit	Total	Qty
0010	204.0100	Removing Pavement	SY	1,680.000	1,680.000
0020	204.0110	Removing Asphaltic Surface	SY	245.000	245.000
0030	204.0115	Removing Asphaltic Surface Butt Joints	SY	65.000	65.000
0040	204.0125	Removing Asphaltic Surface Milling	TON	6,150.000	6,150.000
0050	204.0130	Removing Curb	LF	560.000	560.000
0060	204.0150	Removing Curb & Gutter	LF	330.000	330.000
0070	204.0155	Removing Concrete Sidewalk	SY	260.000	260.000
0080	204.0195	Removing Concrete Bases	EACH	23.000	23.000
0090	204.0220	Removing Inlets	EACH	3.000	3.000
0100	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	55.000	55.000
0110	205.0100	Excavation Common	CY	1,092.000	1,092.000
0120	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 1500-44-71	LS	1.000	1.000
0130	213.0100	Finishing Roadway (project) 01. 1500-44-71	EACH	1.000	1.000
0140	305.0110	Base Aggregate Dense 3/4-Inch	TON	20.000	20.000
0150	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,850.000	1,850.000
0160	310.0110	Base Aggregate Open-Graded	TON	60.000	60.000
0170	390.0303	Base Patching Concrete	SY	575.000	575.000
0180	405.0100	Coloring Concrete WisDOT Red	CY	43.000	43.000
0190	415.0090	Concrete Pavement 9-Inch	SY	640.000	640.000
0200	416.0512	Concrete Truck Apron 12-Inch	SY	130.000	130.000
0210	416.0610	Drilled Tie Bars	EACH	885.000	885.000
0220	416.0620	Drilled Dowel Bars	EACH	570.000	570.000
0230	416.0750.S	Concrete Pavement Partial Depth Repair Joint Repair	LF	300.000	300.000
0240	416.0752.S	Concrete Pavement Partial Depth Repair Crack Repair	LF	50.000	50.000
0250	416.0758.S	Concrete Pavement Partial Depth Repair Full Depth Adjustment	SF	30.000	30.000
0260	416.1710	Concrete Pavement Repair	SY	160.000	160.000
0270	416.1720	Concrete Pavement Replacement	SY	480.000	480.000
0280	440.4410	Incentive IRI Ride	DOL	8,220.000	8,220.000
0290	455.0605	Tack Coat	GAL	4,990.000	4,990.000
0300	460.2000	Incentive Density HMA Pavement	DOL	4,100.000	4,100.000
0310	460.6223	HMA Pavement 3 MT 58-28 S	TON	215.000	215.000
0320	460.6224	HMA Pavement 4 MT 58-28 S	TON	6,150.000	6,150.000
0330	465.0110	Asphaltic Surface Patching	TON	20.000	20.000
0340	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	5.000	5.000
0350	465.0125	Asphaltic Surface Temporary	TON	55.000	55.000
0360	465.0315	Asphaltic Flumes	SY	2.000	2.000
0370	520.8000	Concrete Collars for Pipe	EACH	5.000	5.000
0380	601.0105	Concrete Curb Type A	LF	467.000	467.000

1500-44-71

Line	Item	Item Description	Unit	Total	Qty
0390	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	676.000	676.000
0400	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	585.000	585.000
0410	601.0551	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type A	LF	138.000	138.000
0420	601.0600	Concrete Curb Pedestrian	LF	110.000	110.000
0430	602.0415	Concrete Sidewalk 6-Inch	SF	3,740.000	3,740.000
0440	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	248.000	248.000
0450	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	253.000	253.000
0460	611.0530	Manhole Covers Type J	EACH	1.000	1.000
0470	611.0600	Inlet Covers Type A	EACH	1.000	1.000
0480	611.0624	Inlet Covers Type H	EACH	14.000	14.000
0490	611.0627	Inlet Covers Type HM	EACH	1.000	1.000
0500	611.2005	Manholes 5-FT Diameter	EACH	1.000	1.000
0510	611.3003	Inlets 3-FT Diameter	EACH	1.000	1.000
0520	611.3004	Inlets 4-FT Diameter	EACH	3.000	3.000
0530	611.3230	Inlets 2x3-FT	EACH	4.000	4.000
0540	611.8110	Adjusting Manhole Covers	EACH	14.000	14.000
0550	611.8115	Adjusting Inlet Covers	EACH	2.000	2.000
0560	611.8120.S	Cover Plates Temporary	EACH	14.000	14.000
0570	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1500-44-71	EACH	1.000	1.000
0580	619.1000	Mobilization	EACH	1.000	1.000
0590	620.0100	Concrete Corrugated Median	SF	220.000	220.000
0600	620.0300	Concrete Median Sloped Nose	SF	195.000	195.000
0610	624.0100	Water	MGAL	400.000	400.000
0620	625.0100	Topsoil	SY	925.000	925.000
0630	628.1504	Silt Fence	LF	125.000	125.000
0640	628.1520	Silt Fence Maintenance	LF	125.000	125.000
0650	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0660	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0670	628.2008	Erosion Mat Urban Class I Type B	SY	925.000	925.000
0680	628.7005	Inlet Protection Type A	EACH	11.000	11.000
0690	628.7015	Inlet Protection Type C	EACH	70.000	70.000
0700	628.7020	Inlet Protection Type D	EACH	5.000	5.000
0710	628.7570	Rock Bags	EACH	60.000	60.000
0720	629.0210	Fertilizer Type B	CWT	1.000	1.000
0730	630.0140	Seeding Mixture No. 40	LB	20.000	20.000
0740	631.0300	Sod Water	MGAL	200.000	200.000
0750	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	23.000	23.000
0760	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
0770	634.0812	Posts Tubular Steel 2x2-Inch X 12-FT	EACH	2.000	2.000
0780	637.2210	Signs Type II Reflective H	SF	278.020	278.020
0790	637.2215	Signs Type II Reflective H Folding	SF	79.780	79.780
0800	637.2230	Signs Type II Reflective F	SF	9.000	9.000
0810	638.2602	Removing Signs Type II	EACH	47.000	47.000
0820	638.3000	Removing Small Sign Supports	EACH	32.000	32.000
0830	642.5001	Field Office Type B	EACH	1.000	1.000
0840	643.0100	Traffic Control (project) 01. 1500-44-71	EACH	1.000	1.000
0850	643.0300	Traffic Control Drums	DAY	9,220.000	9,220.000
0860	643.0410	Traffic Control Barricades Type II	DAY	1,100.000	1,100.000
0870	643.0420	Traffic Control Barricades Type III	DAY	3,280.000	3,280.000
0880	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	30.000	30.000
0890	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	30.000	30.000
0900	643.0705	Traffic Control Warning Lights Type A	DAY	6,480.000	6,480.000
0910	643.0715	Traffic Control Warning Lights Type C	DAY	1,740.000	1,740.000
0920	643.0800	Traffic Control Arrow Boards	DAY	30.000	30.000
0930	643.0900	Traffic Control Signs	DAY	4,800.000	4,800.000
0940	643.0910	Traffic Control Covering Signs Type I	EACH	7.000	7.000
0950	643.0920	Traffic Control Covering Signs Type II	EACH	18.000	18.000
0960	643.1000	Traffic Control Signs Fixed Message	SF	247.000	247.000
0970	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000
0980	643.2000	Traffic Control Detour (project) 01. 1500-44-71	EACH	1.000	1.000
0990	643.3000	Traffic Control Detour Signs	DAY	15,890.000	15,890.000
1000	644.1420.S	Temporary Pedestrian Surface Plywood	SF	1,790.000	1,790.000
1010	644.1601.S	Temporary Curb Ramp	EACH	12.000	12.000
1020	644.1616.S	Temporary Pedestrian Safety Fence	LF	1,140.000	1,140.000
1030	646.0106	Pavement Marking Epoxy 4-Inch	LF	19,645.000	19,645.000
1040	646.0126	Pavement Marking Epoxy 8-Inch	LF	1,590.000	1,590.000
1050	646.0600	Removing Pavement Markings	LF	1,685.000	1,685.000
1060	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	36.000	36.000
1070	647.0176	Pavement Marking Arrows Epoxy Type 3	EACH	2.000	2.000
1080	647.0356	Pavement Marking Words Epoxy	EACH	3.000	3.000
1090	647.0456	Pavement Marking Curb Epoxy	LF	40.000	40.000
1100	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	265.000	265.000
1110	647.0606	Pavement Marking Island Nose Epoxy	EACH	4.000	4.000
1120	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	790.000	790.000
1130	647.0856	Pavement Marking Concrete Corrugated Median Epoxy	SF	75.000	75.000
1140	647.0955	Removing Pavement Markings Arrows	EACH	6.000	6.000
1150	647.0965	Removing Pavement Markings Words	EACH	1.000	1.000
1160	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	5,862.000	5,862.000

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Line	Item	Item Description	Unit	Total	Qty
1170	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	200.000	200.000
1180	650.4000	Construction Staking Storm Sewer	EACH	10.000	10.000
1190	650.4500	Construction Staking Subgrade	LF	135.000	135.000
1200	650.5000	Construction Staking Base	LF	135.000	135.000
1210	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	842.000	842.000
1220	650.7000	Construction Staking Concrete Pavement	LF	469.000	469.000
1230	650.8000	Construction Staking Resurfacing Reference	LF	11,112.000	11,112.000
1240	650.8500	Construction Staking Electrical Installations (project) 01. 1500-44-71	LS	1.000	1.000
1250	650.9910	Construction Staking Supplemental Control (project) 01. 1500-44-71	LS	1.000	1.000
1260	652.0210	Conduit Rigid Nonmetallic Schedule 40 1-Inch	LF	640.000	640.000
1270	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	170.000	170.000
1280	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	1,090.000	1,090.000
1290	652.0615	Conduit Special 3-Inch	LF	1,050.000	1,050.000
1300	652.0800	Conduit Loop Detector	LF	990.000	990.000
1310	653.0105	Pull Boxes Steel 12x24-Inch	EACH	6.000	6.000
1320	653.0140	Pull Boxes Steel 24x42-Inch	EACH	2.000	2.000
1330	653.0905	Removing Pull Boxes	EACH	9.000	9.000
1340	654.0101	Concrete Bases Type 1	EACH	8.000	8.000
1350	654.0102	Concrete Bases Type 2	EACH	2.000	2.000
1360	654.0113	Concrete Bases Type 13	EACH	4.000	4.000
1370	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	2.000	2.000
1380	655.0230	Cable Traffic Signal 5-14 AWG	LF	3,095.000	3,095.000
1390	655.0240	Cable Traffic Signal 7-14 AWG	LF	1,745.000	1,745.000
1400	655.0260	Cable Traffic Signal 12-14 AWG	LF	2,040.000	2,040.000
1410	655.0305	Cable Type UF 2-12 AWG Grounded	LF	1,110.000	1,110.000
1420	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	2,580.000	2,580.000
1430	655.0610	Electrical Wire Lighting 12 AWG	LF	900.000	900.000
1440	655.0700	Loop Detector Lead In Cable	LF	4,070.000	4,070.000
1450	655.0800	Loop Detector Wire	LF	2,600.000	2,600.000
1460	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. USH 10 & STH 114	LS	1.000	1.000
1470	656.0200	Electrical Service Meter Breaker Pedestal (location) 02. USH 10 & Manitowoc	LS	1.000	1.000
1480	657.0100	Pedestal Bases	EACH	9.000	9.000
1490	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	2.000	2.000
1500	657.0310	Poles Type 3	EACH	2.000	2.000
1510	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	3.000	3.000
1520	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	5.000	5.000
1530	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
1540	657.0585	Trombone Arms 15-FT	EACH	1.000	1.000
1550	657.0590	Trombone Arms 20-FT	EACH	1.000	1.000
1560	657.0709	Luminaire Arms Truss Type 4-Inch Clamp 12-FT	EACH	2.000	2.000
1570	657.1360	Install Poles Type 13	EACH	4.000	4.000
1580	657.1540	Install Monotube Arms 40-FT	EACH	1.000	1.000
1590	657.1545	Install Monotube Arms 45-FT	EACH	1.000	1.000
1600	657.1550	Install Monotube Arms 50-FT	EACH	2.000	2.000
1610	657.1812	Install Luminaire Arms Steel 12-FT	EACH	4.000	4.000
1620	658.0110	Traffic Signal Face 3-12 Inch Vertical	EACH	19.000	19.000
1630	658.0115	Traffic Signal Face 4-12 Inch Vertical	EACH	8.000	8.000
1640	658.0120	Traffic Signal Face 5-12 Inch Vertical	EACH	2.000	2.000
1650	658.0155	Traffic Signal Face 3-12 Inch Horizontal	EACH	2.000	2.000
1660	658.0215	Backplates Signal Face 3 Section 12-Inch	EACH	21.000	21.000
1670	658.0220	Backplates Signal Face 4 Section 12-Inch	EACH	8.000	8.000
1680	658.0225	Backplates Signal Face 5 Section 12-Inch	EACH	2.000	2.000
1690	658.0416	Pedestrian Signal Face 16-Inch	EACH	12.000	12.000
1700	658.0500	Pedestrian Push Buttons	EACH	6.000	6.000
1710	658.0600	Led Modules 12-Inch Red Ball	EACH	23.000	23.000
1720	658.0605	Led Modules 12-Inch Yellow Ball	EACH	23.000	23.000
1730	658.0610	Led Modules 12-Inch Green Ball	EACH	23.000	23.000
1740	658.0615	Led Modules 12-Inch Red Arrow	EACH	8.000	8.000
1750	658.0620	Led Modules 12-Inch Yellow Arrow	EACH	18.000	18.000
1760	658.0625	Led Modules 12-Inch Green Arrow	EACH	10.000	10.000
1770	658.0635	Led Modules Pedestrian Countdown Timer 16-Inch	EACH	12.000	12.000
1780	658.5069	Signal Mounting Hardware (location) 01. USH 10 & STH 114	LS	1.000	1.000
1790	658.5069	Signal Mounting Hardware (location) 02. USH 10 & Manitowoc	LS	1.000	1.000
1800	659.1120	Luminaires Utility LED B	EACH	6.000	6.000
1810	690.0150	Sawing Asphalt	LF	700.000	700.000
1820	690.0250	Sawing Concrete	LF	3,845.000	3,845.000
1830	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
1840	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
1850	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
1860	SPV.0060	Special 01. Splice Connection Bolt Replacement	EACH	1.000	1.000
1870	SPV.0060	Special 02. Replace Handhole Cover	EACH	1.000	1.000
1880	SPV.0060	Special 03. Steel Plate Cover	EACH	1.000	1.000
1890	SPV.0060	Special 04. Special Inlet	EACH	1.000	1.000
1900	SPV.0060	Special 05. Storm Sewer Tee Connection	EACH	3.000	3.000
1910	SPV.0060	Special 06. Pull Boxes Non-Conductive 24x42-Inch	EACH	19.000	19.000

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Line	Item	Item Description	Unit	Total	Qty
1920	SPV.0090	Special 01. Concrete Curb 4-Inch Sloped Type R	LF	265.000	265.000
1930	SPV.0105	Special 01. Concrete Pavement Joint Layout	LS	1.000	1.000
1940	SPV.0105	Special 02. Remove Traffic Signal (USH 10 & STH 114)	LS	1.000	1.000
1950	SPV.0105	Special 03. Remove Traffic Signal (USH 10 & Manitowoc)	LS	1.000	1.000

REMOVING ASPHALTIC SURFACE ITEMS

STATION - STATION	LOCATION	204.0110 SURFACE SY	204.0115 BUTT JOINTS SY	204.0125 MILLING TON	690.0150 SAWING ASPHALT LF	COMMENTS
CAT 0010						
USH 10						
2+61.66 - 20+00	LT&RT	--	28	1,985	60	
20+00 - 26+00	LT&RT	--	--	656	--	
26+00 - 41+00	LT&RT	--	16	1,707	71	
41+00 - 56+95	LT&RT	--	21	1,802	150	
STH 114						
98+40 - 99+61	RT	75	--	--	--	REMOVAL OF ASPHALTIC SURFACE TEMPORARY
98+40 - 98+83	RT	10	--	--	180	CORRUGATED MEDIAN
100+77 - 102+71	RT	130	--	--	--	REMOVAL OF ASPHALTIC SURFACE TEMPORARY
MANITOWOC RD						
198+73 - 199+11	LT&RT	--	--	--	77	
200+81 - 201+43	LT&RT	--	--	--	92	
FIRE LANE 1						
204+54 - 204+98	RT	--	--	--	60	
204+54 - 205+46	LT	30	--	--	10	
TOTALS		245	65	6,150	700	

REMOVING CONCRETE ITEMS

STATION - STATION	LOCATION	204.0100 REMOVING PAVEMENT SY	204.0130 REMOVING CURB LF	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY
CAT 0010					
USH 10					
0+14.05 - 2+61.66	LT&RT	380	85	55	63
2+61.66 - 20+00	LT&RT	--	--	--	5
20+00 - 26+00	LT&RT	--	--	--	30
26+00 - 41+00	LT&RT	--	--	--	--
41+00 - 56+95	LT&RT	--	--	168	--
STH 114					
98+83 - 100+05	RT	100	155	--	58
100+05 - 101+60	RT	110	320	15	104
MANITOWOC RD					
199+11 - 199+75	LT&RT	410	--	--	--
200+40 - 201+11	LT&RT	400	--	--	--
FIRE LANE 1					
204+98 - 205+46	LT&RT	280	--	92	--
TOTALS		1,680	560	330	260

REMOVING INLETS

STATION	LOCATION	204.0220 EACH
CAT 0010		
USH 10		
11+63	37.0' RT	1
MANITOWOC RD		
199+67	22.7' LT	1
199+92	33.1' LT	1
TOTAL		3

REMOVING STORM SEWER

STATION - STATION	LOCATION	204.0245.01 12-INCH LF
CAT 0010		
USH 10		
11+63	RT	16
MANITOWOC RD		
199+67 - 199+92	LT	28
199+92 - 200+01	LT	11
TOTAL		55

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EARTHWORK SUMMARY

DIVISION	FROM/TO STATION	LOCATION	EXCAVATION COMMON (NOTE 1) (ITEM #205.0100)	SALVAGED / UNUSEABLE PAVEMENT MATERIAL (NOTE 3)	AVAILABLE MATERIAL (NOTE 4)	UNEXPANDED FILL (NOTE 5)	EXPANDED FILL (NOTE 6)	MASS ORDINATE +/- (NOTE 7)	WASTE
			CUT (NOTE 2)				FACTOR 1.25		
ID 9190-13-71									
1	198+73 - 201+73	MANITOWOC ROAD	880	200	680	15	19	661	661
1	204+54 - 205+46	FIRE LANE, RT (NOTE 8)	212	87	125	0	0	125	125
TOTALS			1,092	287	805	15	19	786	786

NOTES
1) NO EBS IS ANTICIPATED. IF EBS IS REQUIRED IT WILL BE PAID AS COMMON EXCAVATION. ITEM NUMBER 205.0100
2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT
3) SALVAGED/UNUSABLE PAVEMENT MATERIAL EQUALS AREA OF PROJECT PAVEMENT REMOVAL * TYPICAL EXISTING PAVEMENT DEPTH
4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
5) UNEXPANDED FILL IS A SUM OF CROSS SECTION AREAS FROM EACH DIVISIONAL SHEET
6) EXPANDED FILL FACTOR = 1.25, EXPANDED FILL = (UNEXPANDED FILL) * FILL FACTOR
7) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. INUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
8) CUT EQUALS THE PROJECT PAVEMENT REMOVAL * TYPICAL EXISTING PAVEMENT AND BASE DEPTH

CONCRETE PAVEMENT ITEMS

STATION - STATION	LOCATION	390.0303 BASE PATCHING CONCRETE SY	405.0100 COLORING CONCRETE WISDOT RED CY	415.0090 CONCRETE PAVEMENT 9-INCH SY	416.0512 CONCRETE TRUCK APRON 12-INCH SY	416.0610 * DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	416.0750.S JOINT REPAIR LF	416.0752.S PARTIAL DEPTH REPAIR CRACK REPAIR LF	416.0758.S PARTIAL DEPTH REPAIR FULL DEPTH ADJUSTMENT SF	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	690.0250 * SAWING CONCRETE LF
CAT 0010													
USH 10													
0+14.05 - 2+61.66	LT&RT	--	32	310	95	218	266	300	50	30	130	100	1145
2+61.66 - 20+00	LT&RT	65	--	--	--	63	16	--	--	--	--	--	160
20+00 - 26+00	LT&RT	250	--	--	--	173	128	--	--	--	--	--	960
26+00 - 41+00	LT&RT	90	--	--	--	28	32	--	--	--	--	--	90
41+00 - 56+95	LT&RT	170	--	--	--	28	64	--	--	--	--	--	170
STH 114													
98+83 - 100+05	RT	--	--	90	--	40	48	--	--	--	--	380	255
100+05 - 101+60	RT	--	11	105	35	45	16	--	--	--	30	--	215
FIRE LANE 1													
204+98 - 205+46	RT	--	--	135	--	55	--	--	--	--	--	--	265
TOTALS		575	43	640	130	650	570	300	50	30	160	480	3,260

*ADDITIONAL QUANTITIES LOCATED ELSEWHERE

BASE AGGREGATE ITEMS

	STATION - STATION	LOCATION	305.0110 DENSE 3/4-INCH TON	305.0120 DENSE 1 1/4-INCH TON	310.0110 OPEN GRADED TON
CAT 0010					
USH 10					
	0+14.05 - 2+61.66	LT&RT	--	290	10
	2+61.66 - 20+00	LT&RT	4	25	--
	20+00 - 26+00	LT&RT	2	100	--
	26+00 - 41+00	LT	2	10	--
	41+00 - 56+95	RT	12	20	--
STH 114					
	98+83 - 100+05	RT	--	110	--
	100+05 - 101+60	RT	--	130	--
MANITOWOC RD					
	199+11 - 199+75	LT&RT	--	515	--
	200+40 - 201+11	LT&RT	--	555	--
FIRE LANE 1					
	204+54 - 205+46	LT&RT	--	95	50
TOTALS			20	1,850	60

ASPHALTIC SURFACE TEMPORARY

	STATION - STATION	LOCATION	465.0125 TON	COMMENTS
CAT 0010				
STH 114				
	98+40 - 99+61	RT	16	MEDIAN PATCHING
	100+77 - 102+71	RT	29	MEDIAN PATCHING
	PROJECT	LT&RT	10	ADJUSTING MHS
TOTAL			55	

ASPHALTIC ITEMS

	STATION - STATION	LOCATION	211.0100 PREPARE FOUNDATION FOR ASPHALTIC PAVING 1500-44-71 LS	455.0605 TACK COAT GAL	460.6223 HMA PAVEMENT 3MT 58-28 S TON	460.6224 HMA PAVEMENT 4MT 58-28 S TON	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0315 ASPHALTIC FLUMES SY	COMMENTS
CAT 0010										
USH 10										
	2+61.66 - 20+00	LT&RT	--	1,435	--	1,947	--	--	--	
	20+00 - 26+00	LT&RT	--	957	15	654	--	--	--	
	26+00 - 41+00	LT&RT	--	1,235	--	1,675	--	--	--	
	41+00 - 56+95	LT&RT	--	1,318	--	1,772	--	2	--	
	PROJECT	LT&RT	--	--	--	--	--	--	--	
STH 114										
	98+40 - 98+83	RT	--	--	--	--	3		--	CORRGUATED MEDIAN
MANITOWOC RD										
	199+11 - 199+75	LT&RT	--	21	96	50	--	--	--	
	200+40 - 201+11	LT&RT	--	23	101	50	--	--	--	
FIRE LANE 1										
	204+54 - 204+98	LT&RT	--	1	3	2	--	--	2	
	204+98 - 205+46	LT	--	--	--	--	1	--	--	MULTI-USE PATH
	PROJECT	--	1	--	--	--	--	--	--	
	UNDISTRIBUTED	--	--	--	--	--	16	3	--	
TOTALS			1	4,990	215	6,150	20	5	2	

CONCRETE CURB AND CONCRETE CURB & GUTTER ITEMS

STATION - STATION	LOCATION	601.0105 CONCRETE CURB TYPE A LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0551 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE A LF	601.0600 CONCRETE CURB PEDESTRIAN LF	416.0610 * DRILLED TIE BARS EACH	620.0100 CONCRETE CORRUGATED MEDIAN SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	690.0250 * SAWING CONCRETE LF	SPV.0090.01 CONCRETE CURB 4-INCH SLOPED TYPE R LF
CAT 0010											
USH 10											
0+14.05 - 2+61.66	LT&RT	89	58	--	138	31	50	--	45	152	118
2+61.66 - 20+00	LT&RT	--	52	--	--	--	24	--	--	--	--
20+00 - 26+00	LT&RT	--	12	--	--	--	4	--	--	--	--
26+00 - 41+00	LT&RT	--	42	--	--	--	8	--	--	--	--
41+00 - 56+95	LT&RT	--	237	--	--	--	60	--	--	178	--
STH 114											
98+83 - 100+05	RT	146	77	--	--	--	27	220	30	80	--
100+05 - 101+60	RT	232	--	--	--	--	26	--	30	80	147
MANITOWOC RD											
199+11 - 199+75	LT&RT	--	9	248	--	54	4	--	45	--	--
200+40 - 201+11	LT&RT	--	--	294	--	25	8	--	45	--	--
FIRE LANE 1											
204+98 - 205+46	RT	--	--	43	--	--	2	--	--	--	--
204+98 - 205+46	LT&RT	--	189	--	--	--	22	--	--	50	--
TOTALS		467	676	585	138	110	235	220	195	540	265

*ADDITIONAL QUANTITIES LOCATED ELSEWHERE

CONCRETE SIDEWALK ITEMS

STATION - STATION	LOCATION	602.0415 CONCRETE SIDEWALK 6-INCH SF	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF	690.0250* SAWING CONCRETE LF
CAT 0010				
USH 10				
0+14.05 - 2+61.66	LT	510	40	10
2+61.66 - 20+00	LT	50	16	20
STH 114				
98+83 - 100+05	RT	370	--	5
101+55 - 102+71	RT	580	--	5
MANITOWOC RD				
199+11 - 199+75	LT&RT	880	80	5
200+40 - 201+11	LT&RT	970	64	--
FIRE LANE 1				
204+98 - 205+46	LT&RT	380	48	--
TOTALS		3,740	248	45

*ADDITIONAL QUANTITIES LOCATED ELSEWHERE

STORM SEWER PIPE REINFORCED CONCRETE ITEMS

FROM STRUCT	TO STRUCT	520.8000 CONCRETE COLLARS FOR PIPE EACH	608.0412 CLASS IV 12-INCH LF	SPV.0060.05 STORM SEWER TEE CONNECTION EACH	COMMENTS
CAT 0010					
1A	1	--	44	--	
1B	1	--	23	--	
2	SSPRC	1	25	1	CONNECT TO EXISTING 54" SSPRC
3	SSPRC	1	31	1	CONNECT TO EXISTING 54" SSPRC
5	SSPRCHE	1	15	1	CONNECT TO EXISTING 68"X43" SSPRCHE
5A	5B	--	23	--	
5B	5	--	76	--	
6	SSPRC	1	8	--	CONNECT TO EXISTING 12" SSPRC
6A	6	1	8	--	CONNECT TO EXISTING 12" SSPRC
TOTALS		5	253	3	

STORM SEWER MANHOLE AND INLET ITEMS

	STRUCT NO.	STATION	OFFSET	611.0530 MANHOLE COVERS TYPE J EACH	611.0600 INLET COVERS TYPE A EACH	611.0624 INLET COVERS TYPE H EACH	611.0627 INLET COVERS TYPE HM EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.3003 INLETS 3-FT DIA EACH	611.3004 INLETS 4-FT DIA EACH	611.3230 INLETS 2X3-FT EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8120.S COVER PLATES TEMPORARY EACH	611.8115 ADJUSTING INLET COVERS EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.03 STEEL PLATE COVER EACH	SPV.0060.04 SPECIAL INLET EACH
CAT 0010																	
USH 10																	
	--	0+80	32.0' RT	--	--	--	1	--	--	--	--	--	--	--	--	--	--
	--	11+63	24.0' LT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
	6	11+63	37.0' RT	--	--	1	--	--	--	--	1	--	--	--	1	--	--
	--	13+98	37.0' RT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
	--	16+47	24.0' LT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
	--	16+47	37.0' LT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
	--	19+74	24.0' RT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
	--	26+00	4.0' RT	--	--	--	--	--	--	--	--	1	1	--	--	--	--
	--	29+02	3.0' RT	--	--	--	--	--	--	--	--	1	1	--	--	--	--
	--	32+05	24.0' LT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
	--	32+05	2.5' RT	--	--	--	--	--	--	--	--	1	1	--	--	--	--
	--	34+67	2.5' RT	--	--	--	--	--	--	--	--	1	1	--	--	--	--
	--	37+53	2.5' RT	--	--	--	--	--	--	--	--	1	1	--	--	--	--
	--	40+56	3.0' RT	--	--	--	--	--	--	--	--	1	1	--	--	--	--
	--	42+38	2.5' RT	--	--	--	--	--	--	--	--	1	1	--	--	--	--
	--	43+73	2.5' RT	--	--	--	--	--	--	--	--	1	1	--	--	--	--
	--	46+19	2.5' RT	--	--	--	--	--	--	--	--	1	1	--	--	--	--
	--	48+27	49.5' RT	--	--	--	--	--	--	--	--	1	1	--	--	--	--
	--	48+42	2.5' RT	--	--	--	--	--	--	--	--	1	1	--	--	--	--
	--	51+53	2.5' RT	--	--	--	--	--	--	--	--	1	1	--	--	--	--
	--	54+79	2.5' RT	--	--	--	--	--	--	--	--	1	1	--	--	--	--
STH 114																	
	--	101+18	56.0' RT	--	--	--	--	--	--	--	--	--	--	1	--	--	--
MANITOWOC RD																	
	1	200+01	34.5' LT	1	--	--	--	1	--	--	--	--	--	--	1	--	--
	1A	199+60	23.3' LT	--	--	1	--	--	--	1	--	--	--	--	1	--	--
	1B	200+06	57.1' LT	--	--	1	--	--	--	1	--	--	--	--	1	--	--
	2	200+85	22.2' RT	--	--	1	--	--	--	--	1	--	--	--	1	--	--
	3	200+96	33.0' LT	--	--	1	--	--	--	1	--	--	--	--	1	--	--
	4	200+84	49.7' LT	--	--	1	--	--	--	--	--	--	--	--	1	--	1
	5	200+08	57.9' RT	--	--	1	--	--	--	--	1	--	--	--	1	--	--
	5A	199+20	45.3' RT	--	--	1	--	--	--	--	1	--	--	--	1	--	--
	5B	199+38	29.5' RT	--	1	--	--	--	1	--	--	--	--	--	1	--	--
	--	200+61	2.0' LT	--	--	--	--	--	--	--	--	1	1	--	--	--	--
	--	200+78	40.0' LT	--	--	--	--	--	--	--	--	--	--	--	--	1	--
FIRE LANE 1																	
	--	204+62	17.0' RT	--	--	--	--	--	--	--	--	--	--	1	--	--	--
TOTALS				1	1	14	1	1	1	3	4	14	14	2	10	1	1

EROSION CONTROL AND FINISHING ITEMS

STATION - STATION	LOCATION	624.0100 WATER MGAL	625.0100 TOPSOIL SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH	628.7570 ROCK BAGS EACH	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	631.0300 SOD WATER MGAL
CAT 0010													
USH 10													
0+14.05 - 2+61.66	LT&RT	--	107	45	45	107	1	3	--	15	0.1	2	--
2+61.66 - 20+00	LT&RT	--	--	--	--	--	--	10	2	--	--	--	--
20+00 - 26+00	LT&RT	--	--	--	--	--	--	2	--	--	--	--	--
26+00 - 41+00	LT&RT	--	--	--	--	--	--	14	--	--	--	--	--
41+00 - 56+95	LT&RT	--	--	--	--	--	--	13	--	--	--	--	--
STH 114													
98+83 - 100+05	RT	--	68	--	--	68	--	--	--	--	0.1	2	--
MANITOWOC RD													
199+11 - 199+75	LT&RT	--	154	15	15	154	4	5	1	15	0.1	3	--
200+40 - 201+11	LT&RT	--	183	--	--	183	5	6	1	--	0.1	4	--
FIRE LANE 1													
204+54 - 205+46	LT&RT	--	228	40	40	228	--	2	--	15	0.1	4	--
UNDISTRIBUTED	--	400	185	25	25	185	1	15	1	15	0.5	5	200
TOTALS		400	925	125	125	925	11	70	5	60	1.0	20	200

NOTE: ROCK BAGS ARE FOR SILT FENCE RELIEF

MOBILIZATIONS EROSION CONTROL

LOCATION	628.1905 EACH	628.1910 EMERGENCY EACH
CAT 0010		
PROJECT	3	2
TOTALS	3	2

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0812 POSTS TUBULAR STEEL 2X2X12 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENTS
CAT 0010												
1	STH 114, AT USH 10 INTERSECTION	R1-1F	36" X 36"	--	7.46	--	1	--	--	1	--	CURRENTLY MOUNTED TO SIGNAL
2	"	R4-7	24" X 30"	5.00	--	--	--	--	--	--	--	PART OF REMOVAL FOR SIGN *1, MOUNT TO BACKSIDE OF SIGN *1
3	VACANT	--	--	--	--	--	--	--	--	--	--	
4	"	R6-2L	24" X 30"	5.00	--	--	--	--	--	1	--	MOUNT TO SIGNAL
5	"	R1-1F	36" X 36"	--	7.46	--	--	--	--	--	--	PART OF REMOVAL FOR SIGN *4, MOUNT TO SIGNAL
6	"	J3-2	48" X 57"	19.00	--	--	--	1	--	1	--	CURRENTLY MOUNTED TO POWER POLE
7	FIRE LANE 1, AT USH 10 INTERSECTION	W5-52R	--	--	--	--	--	--	--	1	--	CURRENTLY MOUNTED TO SIGNAL
8	"	R1-1F	30" X 30"	--	5.18	--	--	--	--	1	--	MOUNT TO SIGNAL
9	"	R1-1	--	--	--	--	--	--	--	1	1	
10	VACANT	--	--	--	--	--	--	--	--	--	--	
11	USH 10/STH 114, E. OF INTERSECTION	R4-7	24" X 30"	5.00	--	--	--	--	1	1	--	CURRENTLY MOUNTED TO SIGNAL
12	VACANT	--	--	--	--	--	--	--	--	--	--	
13	"	R1-1F	36" X 36"	--	7.46	--	--	--	--	--	--	PART OF REMOVAL FOR SIGN *11, MOUNT TO BACKSIDE OF SIGN *11
14	"	R1-1F	36" X 36"	--	7.46	--	--	--	--	1	--	MOUNT TO NEAR RIGHT SIGNAL
15	USH 10, AT STH 114 INTERSECTION	R4-7	24" X 30"	5.00	--	--	--	--	1	1	--	CURRENTLY MOUNTED TO SIGNAL
16	"	R1-1F	36" X 36"	--	7.46	--	--	--	--	--	--	PART OF REMOVAL FOR SIGN *15, MOUNT TO BACKSIDE OF SIGN *15
17	"	R5-1	36" X 36"	9.00	--	--	--	--	--	1	--	MOUNT TO SIGNAL
18	"	R10-11B	--	--	--	--	--	--	--	--	--	PART OF REMOVAL FOR SIGN *17
19	"	R1-1F	36" X 36"	--	7.46	--	--	--	--	--	--	PART OF REMOVAL FOR SIGN *17
20	"	R1-2	36" X 31"	3.88	--	--	1	--	--	--	--	
21	USH 10, N. OF STH 114	R3-4	24" X 24"	4.00	--	--	--	--	--	1	--	MOUNT TO LEFT COLUMN OF S-08-04
22	"	R5-1A	36" X 24"	6.00	--	--	--	--	--	1	--	MOUNT ON BACKSIDE OF SIGN *23
23	"	J3-3	72" X 57"	28.50	--	--	--	--	--	--	2	EAST USH 10, EAST STH 114, WEST STH 114, SEE PLAN SHEET
24	"	R3-5L	42" X 48"	14.00	--	--	--	--	--	1	--	MOUNT ON S-08-04 SIGN SUPPORT AS DIRECTED
25	"	R3-6L	42" X 48"	14.00	--	--	--	--	--	1	--	MOUNT ON S-08-04 SIGN SUPPORT AS DIRECTED
26	"	R3-5R	42" X 48"	14.00	--	--	--	--	--	1	--	MOUNT ON S-08-04 SIGN SUPPORT AS DIRECTED
27	"	W5-52L	--	--	--	--	--	--	--	1	1	
28	"	R4-7	24" X 30"	5.00	--	--	1	--	--	--	--	PART OF REMOVAL FOR SIGN *28
29	"	J4-1	24" X 36"	6.00	--	--	1	--	--	--	--	WEST USH 10
30	"	R2-1	--	--	--	--	--	--	--	1	1	
31	VACANT	--	--	--	--	--	--	--	--	--	--	
32	USH 10, N. OF STH 114	R5-1	30" X 30"	6.25	--	--	--	--	--	--	--	MOUNT ON BACKSIDE OF SIGN *29
33	"	R3-8P	54" X 30"	11.25	--	--	1	--	--	1	1	
34	"	R2-1	24" X 30"	5.00	--	--	1	--	--	--	--	35 MPH
35	"	J4-1	--	--	--	--	--	--	--	1	1	
36	"	D1-3	72" X 36"	18.00	--	--	2	--	--	1	2	SEE SIGN DETAIL SHEET
37	"	R3-9B	24" X 36"	6.00	--	--	1	--	--	1	1	
38	"	W3-3	--	--	--	--	--	--	--	1	1	
SUBTOTALS				189.88	49.94	0.00	9	1	2	22	11	

QUANTITIES PREPARED BY WISDOT NER

3

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0812 POSTS TUBULAR STEEL 2X2X12 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENTS
CAT 0010												
39	USH 10, N. OF STH 114	J1-1	24" X 39"	6.50	--	--	1	--	--	1	1	JCT STH 114
40	USH 10, S. OF MANITOWOC RD	R2-1	24" X 30"	5.00	--	--	1	--	--	1	1	35 MPH
41	"	W3-3	--	--	--	--	--	--	--	1	1	
42	"	R1-1	36" X 36"	7.46	--	--	1	--	--	1	1	STREET NAME SIGNS NEED TO BE REMOVED BY CITY OF MENASHA
43	"	R2-1	24" X 30"	5.00	--	--	1	--	--	1	1	35 MPH
44	"	R4-7	--	--	--	--	--	--	--	1	1	
45	USH 10, AT MANITOWOC RD	R1-1F	--	--	--	--	--	--	--	1	--	CURRENTLY MOUNTED TO SIGNAL
46	"	R4-7	--	--	--	--	--	--	--	--	--	PART OF REMOVAL FOR SIGN *45
47	"	R1-1F	36" X 36"	--	7.46	--	--	--	--	--	--	MOUNT TO SIGNAL
48	MANITOWOC RD, AT USH 10	R8-3	--	--	--	--	--	--	--	1	--	CURRENTLY MOUNTED TO SIGNAL
49	"	R10-6	--	--	--	--	--	--	--	1	--	CURRENTLY MOUNTED TO SIGNAL
50	"	R1-1F	36" X 36"	--	7.46	--	--	--	--	--	--	PART OF REMOVAL FOR SIGN *49
50A	"	W12-1D	24" X 24"	4.00	--	--	--	--	--	--	--	MOUNT BELOW SIGN 50
51	"	R1-2	36" X 31"	3.88	--	--	--	--	--	1	1	
52	USH 10, AT MANITOWOC RD	R4-7	--	--	--	--	--	--	--	1	--	CURRENTLY MOUNTED TO SIGNAL
53	"	R1-1F	36" X 36"	--	7.46	--	--	--	--	--	--	MOUNT TO SIGNAL
54	"	R1-1F	--	--	--	--	--	--	--	--	--	PART OF REMOVAL FOR SIGN *52
55	MANITOWOC RD, AT USH 10	R10-6	--	--	--	--	--	--	--	1	--	CURRENTLY MOUNTED TO SIGNAL
56	"	R1-1F	36" X 36"	--	7.46	--	--	--	--	--	--	PART OF REMOVAL FOR SIGN *55, MOUNT TO SIGNAL
56A												
57	"	R1-2	36" X 31"	3.88	--	--	1	--	--	1	1	
58	USH 10, N. OF MANITOWOC RD	R4-7	--	--	--	--	--	--	--	1	1	
59	"	R3-9B	24" X 36"	6.00	--	--	1	--	--	1	1	
60	"	R2-1	24" X 30"	5.00	--	--	--	--	--	--	--	
61	"	W3-3	--	--	--	--	--	--	--	1	1	
62	JENNIE ST	R1-1	36" X 36"	7.46	--	--	1	--	--	1	1	STREET NAME SIGNS NEED TO BE REMOVED BY CITY OF MENASHA
63	"	R1-1	36" X 36"	7.46	--	--	1	--	--	1	1	STREET NAME SIGNS NEED TO BE REMOVED BY CITY OF MENASHA
64	USH 10, N. OF JENNIE ST	R2-1	24" X 30"	5.00	--	--	1	--	--	1	1	35 MPH
65	"	R2-1	24" X 30"	5.00	--	--	1	--	--	1	1	35 MPH
66	"	R2-1	24" X 30"	5.00	--	--	1	--	--	1	1	35 MPH
67	"	R2-1	24" X 30"	5.00	--	--	1	--	--	1	1	35 MPH
68	USH 10, S. OF CTH AP	I2-3	--	--	--	--	--	--	--	1	2	
69	"	J1-1	24" X 39"	6.50	--	--	1	--	--	1	1	JCT CTH AP
70	"	W3-3	36" X 36"	--	--	9.00	1	--	--	1	1	
SUBTOTALS				88.14	29.84	9.00	14	0	0	25	21	
TOTALS	PROJECT TOTALS			278.02	79.78	9.00	23	1	2	47	32	

QUANTITIES PREPARED BY WISDOT NER

3

TRAFFIC CONTROL COVERING SIGNS

LOCATION	SIGN	NUMBER OF SIGNS	643.0920* TYPE II CYCLES	643.0920* TYPE II EACH
CAT 0010				
STH 114 EB	DIVIDED ROADWAY WARNING SIGN	1	1	1
STH 114 EB	TRAFFIC SIGNAL AHEAD SIGN	1	1	1
STH 114 WB	TRAFFIC SIGNAL AHEAD SIGN	1	1	1
TOTAL				3

*ADDITIONAL QUANTITIES LOCATED ELSEWHERE

TEMPORARY PEDESTRIAN ITEMS

LOCATION	644.1420.S TEMPORARY PEDESTRIAN SURFACE PLYWOOD SF	644.1601.S TEMPORARY CURB RAMP EACH	644.1616.S TEMPORARY PEDESTRIAN SAFETY FENCE LF	649.0400* TEMPORARY PAVEMENT MARKING REMOVEABLE TAPE 4-INCH (WHITE) LF	649.0402 PAINT 4-INCH (WHITE) LF
CAT 0010					
STH 114 STAGE 1	420	4	210	110	--
STH 114 STAGE 2A	360	2	180	64	--
STH 114 STAGE 2B	--	--	180	64	--
STH 114 STAGE 3	260	2	230	34	--
STH 114 STAGE 4	--	--	40	--	--
5 OAKS DR	--	2	--	--	--
MANITOWOC RD	750	2	300	300	200
TOTALS	1,790	12	1,140	572	200

*ADDITIONAL QUANTITIES LOCATED ELSEWHERE

3

TRAFFIC CONTROL ITEMS

LOCATION	DAYS	643.0300 DRUMS NO.	643.0300 DRUMS DAYS	643.0410 BARRICADES TYPE II NO.	643.0410 BARRICADES TYPE II DAYS	643.0420* BARRICADES TYPE III NO.	643.0420* BARRICADES TYPE III DAYS	643.0500 FLEXIBLE TUBULAR MARKER POSTS NO.	643.0500 FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 FLEXIBLE TUBULAR MARKER BASES NO.	643.0600 FLEXIBLE TUBULAR MARKER BASES EACH	643.0705* WARNING LIGHTS TYPE A NO.	643.0705* WARNING LIGHTS TYPE A DAYS	643.0715 WARNING LIGHTS TYPE C NO.	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS NO.	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS NO.	643.0900 SIGNS DAYS	643.1050* SIGNS PCMS NO.	643.1050* SIGNS PCMS DAYS
CAT 0010																					
STAGE 1	10	186	1,860	4	40	26	260	--	--	--	--	52	520	56	560	1	10	40	400	--	--
STAGE 2	10	155	1,550	4	40	24	240	30	30	30	30	48	480	62	620	1	10	42	420	--	--
STAGE 3	10	186	1,860	4	40	24	240	--	--	--	--	48	480	56	560	1	10	42	420	--	--
STAGE 4	40	55	2,200	--	--	9	360	--	--	--	--	16	640	--	--	--	--	19	760	--	--
USH 10	70	--	--	14	980	26	1,820	--	--	--	--	52	3,640	--	--	--	--	40	2,800	--	--
PROJECT	--	--	--			--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	14
UNDISTRIBUTED	70	25	1,750	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOTALS			9,220		1,100		2,920		30		30		5,760		1,740		30		4,800		14

*ADDITIONAL QUANTITIES LOCATED ELSEWHERE

3

PAVEMENT MARKING ITEMS

			646.0106 EPOXY 4-INCH (WHITE)	646.0106 EPOXY 4-INCH (YELLOW)	646.0126 EPOXY 8-INCH (WHITE)	647.0166 ARROWS EPOXY TYPE 2 (WHITE)	647.0176 ARROWS EPOXY TYPE 3 (WHITE)	647.0356 WORDS EPOXY (ONLY) (WHITE)	647.0456 CURB EPOXY (YELLOW)	647.0566 STOP LINE EPOXY 18-INCH (WHITE)	647.0606 ISLAND NOSE EPOXY (YELLOW)	647.0766 CROSSWALK EPOXY 6-INCH (WHITE)	647.0856 CONCRETE CORRUGATED MEDIAN EPOXY (YELLOW)
	STATION - STATION	LOCATION	LF	LF	LF	EACH	EACH	EACH	LF	LF	EACH	LF	SF
CAT 0010													
USH 10													
	0+14.05 - 2+61.66	LT&RT	50	232	437	4	2	2	20	28	2	41	--
	2+61.66 - 20+00	LT&RT	875	4,595	--	8	--	--	--	--	--	--	--
	20+00 - 26+00	LT&RT	250	1,396	509	2	--	--	--	70	--	231	--
	26+00 - 41+00	LT&RT	750	3,744	--	8	--	--	--	--	--	--	--
	41+00 - 56+95	LT&RT	800	3,982	--	8	--	--	--	--	--	--	--
STH 114													
	93+98 - 99+70	LT&RT	225	1513	195	2	--	--	10	47	1	166	75
	100+77 - 111+35	LT&RT	555	--	296	2	--	1	10	49	1	--	--
MANITOWOC RD													
	198+22 - 199+75	LT&RT	12	235	68	1	--	--	--	27	--	140	--
	200+65 - 202+25	LT&RT	15	288	85	1	--	--	--	27	--	112	--
FIRE LANE 1													
	204+54 - 205+23	LT&RT	--	128	--	--	--	--	--	17	--	100	--
TOTALS			3,532	16,113	1,590	36	2	3	40	265	4	790	75
			19,645										

TRAFFIC CONTROL DETOUR SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 70 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420* BARRICADES TYPE III DAYS	643.0705* WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050* SIGNS PCMS DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920* COVERING SIGNS TYPE II EACH	COMMENTS
CAT 0010														
1	STH 114, 1000' W. OF US 10 INTERSECTION	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	
	"	WO 20-2A	48"X48"	1	70	70	--	--	--	--	--	--	--	
2	STH 114, W. OF US 10 INTERSECTION, MODIFY EXISTING J2-2 AS SHOWN	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	
3	STH 114, W. OF US 10 INTERSECTION, COVER D1-3 AS SHOWN	--	--	--	--	--	--	--	--	--	1	--	1	COVER "APPLETON"
4	STH 114, 200' W. OF US 10 INTERSECTION	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	
5	STH 114, AT US 10 INTERSECTION, MODIFY EXISTING J2-2 SIGN AS SHOWN	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	
6	US 10, AT STH 114 INTERSECTION, PLACE IN ROADWAY	R 11-4	60"X30"	1	70	70	70	140	--	--	--	--	--	
7	US 10, N. OF STH 114 INTERSECTION, FIELD DETERMINED LOCATION	PCMS	--	--	--	--	--	--	--	7	--	--	--	
8	US 10/STH 114, E. OF US 10/STH 114 INTERSECTION, COVER EXISTING J3-1 SIGN AS SHOWN	--	--	--	--	--	--	--	--	--	1	--	1	
9	US 10/STH 114, E. OF US 10/STH 114 INTERSECTION, COVER EXISTING D1-3 SIGN AS SHOWN	--	--	--	--	--	--	--	--	--	1	--	1	
10	US 10/STH 114, E. OF US 10/STH 114 INTERSECTION, COVER EXISTING J2-2 SIGN AS SHOWN	--	--	--	--	--	--	--	--	--	1	--	1	
11	US 10/STH 441, S. OF RACINE RD OVERPASS, COVER EXISTING E8-1 SIGN AS SHOWN	--	--	--	--	--	--	--	--	--	1	1		COVER "US 10"
12	CTH AP, W. OF US 10 WB RAMP INTERSECTION, COVER EXISTING J2-2 SIGN AS SHOWN	--	--	--	--	--	--	--	--	--	1	--	1	COVER "EAST 10 ADV LT"
13	CTH AP, W. OF US 10 EB RAMP INTERSECTION, COVER EXISTING J3-2 SIGN AS SHOWN	--	--	--	--	--	--	--	--	--	1	--	1	COVER "EAST 10 LT"
14	US 10/STH 441, E. OF STH 47, COVER EXISTING TYPE I SIGN AS SHOWN	--	--	--	--	--	--	--	--	--	1	1	--	COVER "US 10"
15	US 10/STH 441, E. OF STH 47, COVER EXISTING TYPE I SIGN AS SHOWN	--	--	--	--	--	--	--	--	--	1	1	--	COVER ENTIRE SIGN
15A	US 10/STH 441, E. OF STH 47, PLACE 1500' W. OF RAMP ON RIGHT SHOULDER	M 3-2	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	36"X36"	1	70	70	--	--	--	--	--	--	--	10
	"	WO 20-2A	48"X48"	1	70	70	--	--	--	--	--	--	--	
15B	US 10/STH 441, E. OF STH 47, PLACE 1500' W. OF RAMP IN MEDIAN	M 3-2	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	36"X36"	1	70	70	--	--	--	--	--	--	--	10
	"	WO 20-2A	48"X48"	1	70	70	--	--	--	--	--	--	--	
16	US 10/STH 441, E. OF STH 47, PLACE OVERLAY AS SHOWN ON TYPE I SIGN	FMS	114"X24"	--	--	--	--	--	19.0	--	--	--	--	PLACE OVER "HWY 10"
16A	US 10/STH 441, W. OF US 10 OFF-RAMP, PLACE 750' W. OF RAMP ON RIGHT SHOULDER	FMS	132"X72"	--	--	--	--	--	66.0	--	--	--	--	
16B	US 10/STH 441, W. OF US 10 OFF-RAMP, PLACE 750' W. OF RAMP IN MEDIAN	FMS	132"X72"	--	--	--	--	--	66.0	--	--	--	--	
17	US 10/STH 441, W. OF US 10 OFF-RAMP, COVER EXISTING TYPE I SIGN AS SHOWN	--	--	--	--	--	--	--	--	--	1	1	--	COVER "US 10 EAST"
17A	US 10/STH 441, W. OF US 10 OFF-RAMP, PLACE 100' W. OF RAMP ON RIGHT SHOULDER	MO 4-8	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	36"X36"	1	70	70	--	--	--	--	--	--	--	
	"	MO 6-1	30"X30"	1	70	70	--	--	--	--	--	--	--	
17B	US 10/STH 441, W. OF US 10 OFF-RAMP, PLACE 100' W. OF RAMP IN MEDIAN	MO 4-8	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	36"X36"	1	70	70	--	--	--	--	--	--	--	
	"	MO 6-1	30"X30"	1	70	70	--	--	--	--	--	--	--	
18	US 10 OFF-RAMP FROM STH 441, COVER EXISTING D1-3 SIGN AS SHOWN	--	--	--	--	--	--	--	--	--	1	--	1	COVER "SOUTH" "MANITOWOC"
19	US 10 OFF-RAMP FROM STH 441, COVER EXISTING J2-1 SIGN AS SHOWN	--	--	--	--	--	--	--	--	--	1	--	1	COVER "EAST 10 ADV RT"
20	US 10 OFF-RAMP FROM STH 441, COVER EXISTING J3-2 SIGN AS SHOWN	--	--	--	--	--	--	--	--	--	1	--	1	COVER "EAST 10 RT"
21	ONEIDA ST, N. OF STH 441, COVER EXISTING J2-2 SIGN AS SHOWN	--	--	--	--	--	--	--	--	--	1	--	1	
21A	ONEIDA ST, N. OF STH 441, PLACE 200' N. OF STH 441 SB RAMP INTERSECTION	R 11-3	60"X30"	1	70	70	80	160	--	--	--	--	--	0.4 MILES AHEAD
22	ONEIDA ST, UNDERNEATH STH 441, COVER EXISTING D1-3 SIGN AS SHOWN	--	--	--	--	--	--	--	--	--	1	--	1	
23	US 10, AT CTH AP INTERSECTION, PLACE ON SOUTH LEG OF US 10 IN ROADWAY	R 11-4	60"X30"	1	70	70	70	140	--	--	--	--	--	
24	US 10, S. OF CTH AP, FIELD DETERMINED LOCATION	PCMS	--	--	--	--	--	--	--	7	--	--	--	
25	STH 441, E. OF US 10, COVER EXISTING TYPE I SIGN AS SHOWN	--	--	--	--	--	--	--	--	--	1	1	--	COVER "US 10 EAST"
26	STH 441, W. OF TELULAH AVE, PLACE OVERLAY AS SHOWN ON TYPE I SIGN	FMS	114"X24"	--	--	--	--	--	19.0	--	--	--	--	
27	STH 441, W. OF LAKE PARK RD, COVER EXISTING TYPE I SIGN AS SHOWN	--	--	--	--	--	--	--	--	--	1	1	--	COVER "US 10"
SUBTOTALS				28		1,960	220	440	170.0	14		6	11	

*ADDITIONAL QUANTITIES LOCATED ELSEWHERE

QUANTITIES PREPARED BY WISDOT NER

TRAFFIC CONTROL DETOUR SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 70 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420* BARRICADES TYPE III DAYS	643.0705* WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050* SIGNS PCMS DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920* COVERING SIGNS TYPE II EACH	COMMENTS
CAT 0010														
28	STH 441, W. OF LAKE PARK RD, PLACE 400' W. OF LAKE PARK RD ON RIGHT SHOULDER	MO 4-8	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	36"X36"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 5-2R	30"X30"	1	70	70	--	--	--	--	--	--	--	
29	STH 441, W. OF LAKE PARK RD, PLACE 400' W. OF LAKE PARK RD IN MEDIAN	MO 4-8	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	36"X36"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 5-2R	30"X30"	1	70	70	--	--	--	--	--	--	--	
30	STH 441, E. OF LAKE PARK RD, PLACE AT AUX LANE TAPER POINT ON RIGHT SHOULDER	MO 4-8	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	36"X36"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-2	30"X30"	1	70	70	--	--	--	--	--	--	--	TILT RIGHT
31	STH 441, E. OF LAKE PARK RD, PLACE AT AUX LANE TAPER POINT IN MEDIAN	MO 4-8	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	36"X36"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-2	30"X30"	1	70	70	--	--	--	--	--	--	--	TILT RIGHT
32	STH 441, N. OF CTH KK, PLACE AT AUX LANE TAPER POINT ON RIGHT SHOULDER	MO 4-8	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	36"X36"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-2	30"X30"	1	70	70	--	--	--	--	--	--	--	TILT RIGHT
33	STH 441, N. OF CTH KK, PLACE AT AUX LANE TAPER POINT IN MEDIAN	MO 4-8	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	36"X36"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-2	30"X30"	1	70	70	--	--	--	--	--	--	--	TILT RIGHT
34	STH 441, N. OF CTH KK, PLACE 750' N. OF SIGN #32 ON RIGHT SHOULDER	MO 4-8	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	36"X36"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 5-2R	30"X30"	1	70	70	--	--	--	--	--	--	--	
35	STH 441, N. OF CTH KK, PLACE 750' N. OF SIGN #33 IN MEDIAN	MO 4-8	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	36"X36"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 5-2R	30"X30"	1	70	70	--	--	--	--	--	--	--	
36	STH 441, S. OF CTH CE, PLACE OVERLAY AS SHOWN ON TYPE I SIGN	FMS	114"X24"	--	--	--	--	--	19.0	--	--	--	--	
37	STH 441, S. OF CTH CE, PLACE 500' N. OF SIGN #34 ON RIGHT SHOULDER	M 3-2	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	36"X36"	1	70	70	--	--	--	--	--	--	--	10
	"	W0 20-2A	48"X48"	1	70	70	--	--	--	--	--	--	--	
38	STH 441, S. OF CTH CE, PLACE 500' N. OF SIGN #35 IN MEDIAN	M 3-2	36"X18"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	36"X36"	1	70	70	--	--	--	--	--	--	--	10
	"	W0 20-2A	48"X48"	1	70	70	--	--	--	--	--	--	--	
39	STH 441, N. OF NEWBERRY ST OVERPASS, PLACE OVERLAY AS SHOWN ON TYPE I SIGN	FMS	114"X24"	--	--	--	--	--	19.0	--	--	--	--	
40	STH 441 SB OFF-RAMP TO CTH KK, PLACE IN FRONT OF SIGN BRIDGE LEFT COLUMN	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 5-1L	21"X21"	1	70	70	--	--	--	--	--	--	--	
41	STH 441 SB OFF-RAMP TO CTH KK, PLACE IN FRONT OF SIGN BRIDGE RIGHT COLUMN	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 5-1L	21"X21"	1	70	70	--	--	--	--	--	--	--	
42	STH 441 SB OFF-RAMP TO CTH KK, AT CTH KK INTERSECTION, PLACE 50' PRIOR TO INTERSECTION	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	LEFT
SUBTOTALS				50		3,500	0	0	38.0	0		0	0	

*ADDITIONAL QUANTITIES LOCATED ELSEWHERE

QUANTITIES PREPARED BY WISDOT NER

TRAFFIC CONTROL DETOUR SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 70 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420* BARRICADES TYPE III DAYS	643.0705* WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050* SIGNS PCMS DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920* COVERING SIGNS TYPE II EACH	COMMENTS
CAT 0010														
43	CTH KK, AT STH 441 SB OFF-RAMP INTERSECTION, PLACE IN MEDIAN RIGHT OF EXISTING J3-1 SIGN	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	LEFT
44	CTH KK, UNDERNEATH STH 441, PLACE IN FRONT ON 1ST BRIDGE PIER COLUMN IN MEDIAN	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 5-1L	21"X21"	1	70	70	--	--	--	--	--	--	--	
44A	CTH KK, UNDERNEATH STH 441, PLACE ON RIGHT SIDE ACROSS FROM SIGN #44	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 5-1L	21"X21"	1	70	70	--	--	--	--	--	--	--	
45	STH 441 NB OFF-RAMP TO CTH KK, PLACE IN FRONT OF SIGN BRIDGE LEFT COLUMN	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 5-1R	21"X21"	1	70	70	--	--	--	--	--	--	--	
46	STH 441 NB OFF-RAMP TO CTH KK, PLACE IN FRONT OF SIGN BRIDGE RIGHT COLUMN	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 5-1R	21"X21"	1	70	70	--	--	--	--	--	--	--	
47	STH 441 NB OFF-RAMP TO CTH KK, AT CTH KK INTERSECTION, PLACE 50' PRIOR TO INTERSECTION	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	RIGHT
48	CTH KK, AT STH 441 NB OFF-RAMP INTERSECTION, PLACE 250' PRIOR TO INTERSECTION	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	AHEAD
49	CTH KK, AT EISENHOWER DR INTERSECTION, PLACE 200' PRIOR TO INTERSECTION	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	AHEAD
50	CTH KK, AT EISENHOWER DR INTERSECTION, PLACE 200' PRIOR TO INTERSECTION	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	AHEAD
51	CTH KK, W. OF CTH N INTERSECTION, PLACE 600' W. OF CTH N	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 5-1R	21"X21"	1	70	70	--	--	--	--	--	--	--	
52	CTH KK, W. OF CTH N INTERSECTION, PLACE 100' W. OF CTH N	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
53	CTH KK, AT CTH N INTERSECTION, MOUNT TO POWER POLE ON RIGHT SIDE CLOSEST TO CTH N	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	RIGHT
54	CTH N, AT CTH KK INTERSECTION, PLACE TO RIGHT OF EXISTING J13-1 SIGN	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	LEFT
55	CTH N, S. OF CTH KK INTERSECTION, PLACE 100' S. OF CTH KK	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
56	CTH N, S. OF CTH KK INTERSECTION, PLACE 50' S. OF CTH KK	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 5-1L	21"X21"	1	70	70	--	--	--	--	--	--	--	
SUBTOTALS				58		4,060	0	0	0	0		0	0	

*ADDITIONAL QUANTITIES LOCATED ELSEWHERE

QUANTITIES PREPARED BY WISDOT NER

TRAFFIC CONTROL DETOUR SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 70 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420* BARRICADES TYPE III DAYS	643.0705* WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050* SIGNS PCMS DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920* COVERING SIGNS TYPE II EACH	COMMENTS
CAT 0010														
57	CTH N, N. OF MIDWAY RD, PLACE 150' N. OF MIDWAY RD	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	AHEAD
58	CTH N, S. OF MIDWAY RD, PLACE 150' S. OF MIDWAY RD	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	AHEAD
59	CTH N, N. OF MANITOWOC RD, PLACE 150' N. OF MANITOWOC RD	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-2	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	AHEAD
60	CTH N, S. OF MANITOWOC RD, PLACE 150' S. OF MANITOWOC RD	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	AHEAD
61	CTH N, S. OF MANITOWOC RD, MODIFY EXISTING J1-1 SIGN AS SHOWN	MO 4-8A	24"X18"	1	70	70	--	--	--	--	--	--	--	
62	CTH N, N. OF US 10, COVER EXISTING D1-62 AS SHOWN	--	--	--	--	--	--	--	--	--	1	1	--	COVER "WEST US 10"
63	US 10, AT CTH N ROUNDABOUT, PLACE ON RIGHT SHOULDER WEST LEG	R 11-3	60"X30"	1	70	70	70	140	--	--	--	--	--	4.2 MILES AHEAD
	"	MO 4-9R	30"X24"	1	70	70	--	--	--	--	--	--	--	
64	US 10, AT CTH N ROUNDABOUT, COVER EXISTING D1-1 SPLITTER ISLAND SIGN	--	--	--	--	--	--	--	--	--	1		1	COVER "WEST US 10"
65	CTH N, AT US 10 ROUNDABOUT, PLACE NEXT TO EXISTING D1-1 SPLITTER ISLAND SIGN	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-2R	21"X21"	1	70	70	--	--	--	--	--	--	--	
66	CTH N, N. OF US 10, PLACE 100' N. OF US 10 ROUNDABOUT	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
67	US 10, E. OF CTH N, PLACE 100' E. OF CTH N ROUNDABOUT	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	RIGHT
68	US 10, E. OF CTH N, COVER EXISTING TYPE II SIGN AND PLACE ASSEMBLY RIGHT OF EXISTING D1-62	--	--	--	--	--	--	--	--	--	--	--	--	
	"	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 5-1R	21"X21"	1	70	70	--	--	--	--	--	--	--	
69	US 10, E. OF CTH N, PLACE 250' E. OF EXISTING D1-62 SIGN	FMS	78"X36"	--	--	--	--	--	19.5	--	--	--	--	
70	US 10, E. OF CTH N, PLACE 250' E. OF SIGN #69	WO 20-2A	48"X48"	1	70	70	--	--	--	--	--	--	--	
71	US 10, W. OF CTH N, PLACE 100' W. OF CTH N ROUNDABOUT	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	LEFT
72	US 10, W. OF CTH N, COVER EXISTING J4-1 SIGN AS SHOWN	--	--	--	--	--	--	--	--	--	1	--	1	
73	US 10, W. OF CTH N, PLACE 600' W. OF CTH N ROUNDABOUT	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 5-1L	21"X21"	1	70	70	--	--	--	--	--	--	--	
74	US 10, E. OF STH 114 INTERCHANGE, PLACE 100' E. OF STH 114 RAMP CONNECTOR	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
SUBTOTALS				46		3,220	70	140	19.5	0		1	2	

*ADDITIONAL QUANTITIES LOCATED ELSEWHERE

QUANTITIES PREPARED BY WISDOT NER

TRAFFIC CONTROL DETOUR SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 70 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420* BARRICADES TYPE III DAYS	643.0705* WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050* SIGNS PCMS DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920* COVERING SIGNS TYPE II EACH	COMMENTS
CAT 0010														
75	US 10/STH 114, PLACE RIGHT OF EXISTING J3-1 SIGN AT RAMP	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	AHEAD
76	US 10/STH 114, PLACE 500' W. OF SIGN #75	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	AHEAD
77	US 10/STH 114, PLACE ACROSS ROADWAY FROM SIGN #76	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	AHEAD
78	US 10/STH 114, E. OF EISENHOWER DR, COVER EXISTING J4-2 SIGN AS SHOWN	--	--	--	--	--	--	--	--	--	1	--	1	COVER "WEST US 10"
79	US 10/STH 114, W. OF LAKE PARK RD/CTH LP, PLACE 400' W. OF CTH LP INTERSECTION	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	AHEAD
80	CTH N, S. OF US 10 INTERSECTION, PLACE 100' S. OF US 10 ROUNDABOUT	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	AHEAD
81	CTH N, S. OF US 10 INTERSECTION, COVER EXISTING D1-62 SIGN AND PLACE ASSEMBLY RIGHT OF D1-62	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	AHEAD
	"	--	--	--	--	--	--	--	--	--	1	--	1	COVER "WEST US 10"
82	STH 114, AT CTH N INTERSECTION, PLACE ON SHOULDER ON WEST LEG OF ROUNDABOUT	M 1-4	24"X24"	1	70	70	70	140	--	--	--	--	--	
	"	R 11-3	60"X30"	1	70	70	--	--	--	--	--	--	--	4.2 MILES AHEAD
	"	MO 4-9R	30"X24"	1	70	70	--	--	--	--	--	--	--	
83	CTH N, AT STH 114 INTERSECTION, PLACE NEXT TO EXISTING D1-1 SPLITTER ISLAND SIGN IN NORTH LEG	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-2R	21"X21"	1	70	70	--	--	--	--	--	--	--	
84	CTH N, N. OF STH 114 INTERSECTION, PLACE 100' N. OF STH 114 ROUNDABOUT	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
85	STH 114, AT CTH N INTERSECTION, PLACE 100' E. OF CTH N ROUNDABOUT	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 6-1	21"X21"	1	70	70	--	--	--	--	--	--	--	RIGHT
86	STH 114, E. OF CTH N, PLACE 500' E. OF CTH N ROUNDABOUT	FMS	78"X36"	--	--	--	--	--	19.5	--	--	--	--	
87	STH 114, E. OF CTH N, PLACE LEFT OF EXISTING D1-62 SIGN	MO 4-8	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	MO 5-1R	21"X21"	1	70	70	--	--	--	--	--	--	--	
88	STH 114, E. OF CTH N, PLACE 400' E. OF SIGN #87	M 3-4	24"X12"	1	70	70	--	--	--	--	--	--	--	
	"	M 1-4	24"X24"	1	70	70	--	--	--	--	--	--	--	10
	"	WO 20-2A	48"X48"	1	70	70	--	--	--	--	--	--	--	
SUBTOTALS				45		3,150	70	140	19.5	0		0	2	
TOTALS				227		15,890	360	720	247.0	14		7	15	

*ADDITIONAL QUANTITIES LOCATED ELSEWHERE

QUANTITIES PREPARED BY WISDOT NER

TEMPORARY PAVEMENT MARKING ITEMS

LOCATION	646.0600 REMOVING PAVEMENT MARKINGS LF	647.0955 REMOVING PAVEMENT MARKINGS ARROWS EACH	647.0965 REMOVING PAVEMENT MARKINGS WORDS EACH	649.0400* REMOVEABLE TAPE 4-INCH (WHITE) LF	649.0400* REMOVEABLE TAPE 4-INCH (YELLOW) LF
CAT 0010					
STAGE 1	400	--	--	--	650
STAGE 2	1,285	3	1	2,265	1,725
STAGE 3	--	--	--	--	650
USH 10 SB	--	3	--	--	--
TOTALS	1,685	6	1	2,265	3,025
				5,290	

*ADDITIONAL QUANTITIES LOCATED ELSEWHERE

CONSTRUCTION STAKING ITEMS

STATION - STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.5500 CURB GUTTER AND CURB & GUTTER LF	650.7000 CONCRETE PAVEMENT LF	650.8000 RESURFACING REFERENCE LF
CAT 0010						
USH 10						
0+14.05 - 2+61.66	LT&RT	--	--	169	208	247
2+61.66 - 20+00	LT&RT	--	--	--	--	3,475
20+00 - 26+00	LT&RT	--	--	--	--	1,200
26+00 - 41+00	LT&RT	--	--	--	--	3,000
41+00 - 56+95	LT&RT	--	--	--	--	3,190
STH 114						
98+83 - 100+05	RT	--	--	--	122	--
100+69 - 101+60	RT	--	--	--	91	--
MANITOWOC RD						
199+11 - 199+75	LT&RT	64	64	311	--	--
200+40 - 201+11	LT&RT	71	71	319	--	--
FIRE LANE 1						
204+54 - 204+98	RT	--	--	43	--	--
204+98 - 205+46	RT	--	--	--	48	--
TOTALS		135	135	842	469	11,112

OVERHEAD SIGN SUPPORT REHABILITAION ITEMS

STRUCT NO.	STATION	SPV.0060.01 SPLICE CONNECTION BOLT REPLACEMENT EACH	SPV.0060.02 REPLACE HANDHOLE COVER EACH
CAT 0010			
USH 10			
S-08-0004	1+23.44	1	1
TOTALS		1	1

CONDUIT RIGID NONMETALLIC SCHEDULE 40

LOCATION USH 10 & STH 114 (S08-0426)		652.0210* 1-Inch	652.0225* 2-Inch	652.0235* 3-Inch	652.0615* Special 3-Inch
FROM	TO	LF	LF	LF	LF
CB1	PB1			15	
CB1	PB1			15	
PB1	SB1		10		
PB1	PB2				60
PB1	PB2				60
PB2	SB2		10		
PB2	Drain		10		
PB2	SB3		10		
PB2	PB3			30	
PB2	PB3			30	
PB3	SB4		5		
PB3	PB4			50	
PB3	PB4			50	
PB4	PB15	30			
PB4	PB5				40
PB4	PB5				40
PB5	PB6				50
PB5	PB6				50
PB6	SB5			10	
PB6	PB7			60	
PB6	PB7			60	
PB7	PB8				30
PB8	SB6		5		
PB7	PB9				60
PB7	PB9				60
PB9	PB10				50
PB9	PB10				50
PB10	SB7		30		
PB10	PB11			50	
PB10	PB11			50	
PB11	SB8		10		
PB11	PB14	30			
PB11	PB12				60
PB11	PB12				60
PB12	PB13				40
PB12	PB13				40
PB13	SB9			20	
PB13	CB1			50	
PB13	CB1			50	
	TOTALS	60	90	540	750

PULL BOXES, STEEL

LOCATION		653.0105 12x24-Inch EACH	653.0140 24x42-Inch EACH
USH 10 & STH 114 (S08-0426)		6	2
	TOTALS	6	2

PULL BOXES, NON-CONDUCTIVE

LOCATION		SPV.0060.06* 24x42-Inch EACH
USH 10 & STH 114 (S08-0426)		11
	TOTALS	11

REMOVING PULL BOXES

LOCATION		653.0905 EACH
USH 10 & STH 114 (S08-0426)		9
	TOTALS	9

CONCRETE BASES

LOCATION		654.0101* Type 1 EACH	654.0113* Type 13 EACH	654.0217* Control Cabinet Type 9 Special EACH
USH 10 & STH 114 (S08-0426)		4	2	1
	TOTALS	4	2	1

REMOVING CONCRETE BASES

LOCATION		204.0195* EACH
USH 10 & STH 114 (S08-0426)		8
	TOTAL	8

LOOP DETECTORS

LOCATION	LOOP NO.	# OF TURNS	652.0800* Conduit LF	655.0700* Lead In Cable LF	655.0800* Wire LF
USH 10 & STH 114 (S08-0426)	11	2	80	110	180
	21			430	
	22			280	
	31			460	
	32	3	85	270	270
	33	3	80	270	250
	41	2	90	30	190
	42	2	75	30	210
	51	2	80	230	180
	61			440	
	62			290	
		TOTALS	490	2,840	1,280

* ADDITIONAL QUANITIES SHOWN ELSEWHERE
QUANTITIES PREPARED BY WISDOT NER

TRAFFIC SIGNALS

LOCATION		656.0200 Electrical Service Meter Breaker Pedestal (USH 10 & STH 114) LS	657.0100* Pedestal Bases EACH	657.0425* Traffic Signal Standard Aluminum 15-FT EACH	657.0430 Traffic Signal Standard Aluminum 10-FT EACH	657.1360* Install Poles Type 13 EACH	657.1545 Install Monotube Arms 45-FT EACH
USH 10 & STH 114 (S08-0426)		1	5	4	1	2	1
	TOTALS	1	5	4	1	2	1

TRAFFIC SIGNALS

LOCATION		657.1550* Install Monotube Arms 50-FT EACH	658.0110* Traffic Signal Face 3-12 Inch Vertical EACH	658.0115* Traffic Signal Face 4-12 Inch Vertical EACH	658.0120 Traffic Signal Face 5-12 Inch Vertical EACH	658.0416* Pedestrian Signal Face 16-Inch EACH	658.0500* Pedestrian Push Buttons EACH
USH 10 & STH 114 (S08-0426)		1	7	6	2	4	2
	TOTALS	1	7	6	2	4	2

TRAFFIC SIGNALS

LOCATION		658.0600* LED Modules 12-Inch Red Ball EACH	658.0605* LED Modules 12-Inch Yellow Ball EACH	658.0610* LED Modules 12-Inch Green Ball EACH	658.0615* LED Modules 12-Inch Red Arrow EACH	658.0620* LED Modules 12-Inch Yellow Arrow EACH	658.0625* LED Modules 12-Inch Green Arrow EACH
USH 10 & STH 114 (S08-0426)		11	11	11	4	10	8
	TOTALS	11	11	11	4	10	8

TRAFFIC SIGNALS

LOCATION		658.0635* LED Modules Pedestrian Countdown Timer 16-Inch EACH	658.5069 Signal Mounting Hardware (USH 10 & STH 114) LS	SPV.0105.02 Remove Traffic Signal (USH 10 & STH 114) LS
USH 10 & STH 114 (S08-0426)		4	1	1
	TOTALS	4	1	1

* ADDITIONAL QUANITIES SHOWN ELSEWHERE
QUANTITIES PREPARED BY WISDOT NER

ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG

LOCATION
USH 10 & STH 114 (S08-0426)

FROM	TO	655.0515* (Equipment Grounding Conductor) (Green) LF
CB1	SB1	50
SB1	SB2	120
SB2	SB3	50
SB3	SB4	90
SB4	SB5	220
SB5	SB6	160
SB6	SB7	240
SB7	PB9	120
SB7	SB8	130
SB8	SB9	180
SB9	PB12	110
SB9	CB1	100
	TOTAL	1,570

LIGHTING SUMMARY

LOCATION		657.1812* Install Luminaire Arms Steel 12-FT EACH	659.1120* Luminaires Utility LED-B EACH
USH 10 & STH 114 (S08-0426)		2	2
	TOTALS	2	2

SIGNAL LIGHTING CABLE

LOCATION
USH 10 & STH 114 (S08-0426)

FROM	TO	655.0305* Type UF 2-12 AWG Grounded LF
CB1	SB5	340
CB1	SB9	100
	TOTAL	440

ELECTRICA WIRE LIGHTING 12 AWG

LOCATION
USH 10 & STH 114 (S08-0426)
120 Volt System

FROM	TO	655.0610* LF
SB5	Luminaire	150
SB9	Luminaire	150
	TOTAL	300

TRAFFIC SIGNAL CABLE

LOCATION
USH 10 & STH 114 (S08-0426)

From CB1 to	655.0230* 5-14 AWG LF	655.0240* 7-14 AWG LF	655.0260* 12-14 AWG LF	HEAD NO.	655.0230* Base to Head 5-14 AWG LF	655.0240* Base to Head 7-14 AWG LF	658.0215* Backplates Signal Face 3 Section 12-Inch EACH	658.0220* Backplates Signal Face 4 Section 12-Inch EACH	658.0225 Backplates Signal Face 5 Section 12-Inch EACH
SB1			50	12		20		1	
				17	20		1		
SB1	50			19	10				
SB2		130		13					
SB3	130			18	10				
SB3	130			21	15				
SB4			170	5	20		1		
				6		20		1	
SB5			340	7		80		1	
				8	70		1		
				9	60		1		
SB6			450	14	20		1		
				15		20		1	
SB6		450		10		20			1
SB6	450			20	15				
SB7		290		16					
SB8		210		1		20		1	
		210		11		20			1
SB9			100	2		70		1	
				3	60		1		
				4	50		1		
SUBTOTALS	760	1,290	1,110		350	270	7	6	2
TOTALS	1,110	1,560	1,110				7	6	2

Signal Indication		Conductor Color
Red	=	Red
Yellow	=	Orange
Green	=	Green
Red Arrow	=	Red w/Black Tracer
Yellow Arrow	=	Black w/White
Yellow Flashing Arrow	=	White w/Black
Green Arrow	=	Blue w/Black

PEDS

Walk	=	Green
Don't Walk	=	Red
Button	=	Black & Orange

NOTE: If there is a back to back 3 section with ball indications, then use solid colored conductors for NB & EB, and tracer conductors for SB & WB.

NOTE: Lead-in Cable shall be pulled in separately from other cables/wires and enter the Control Cabinet in a separate conduit if provided.

* ADDITIONAL QUANITIES SHOWN ELSEWHERE
QUANTITIES PREPARED BY WISDOT NER

CONDUIT RIGID NON-METALLIC SCHEDULE 40

LOCATION
USH 10 & Manitowoc Rd (S08-2009)

FROM	TO	652.0210* 1-Inch LF	652.0225* 2-Inch LF	652.0235* 3-Inch LF	652.0615* Special 3-Inch LF
CB1	PB1			40	
CB1	PB1			40	
PB1	PB7	290			
PB1	SB1		10		
PB1	PB2				80
PB1	PB2				80
PB2	SB2			60	
PB2	SB3		10		
PB2	PB3			60	
PB2	PB3			60	
PB3	SB4		10		
PB3	PB4			60	
PB3	PB4			60	
PB4	PB8	290			
PB4	SB5		20		
PB4	PB5				70
PB4	PB5				70
PB5	SB6			50	
PB5	SB7		10		
PB5	PB6			50	
PB5	PB6			50	
PB6	SB8		20		
PB6	CB1			10	
PB6	CB1			10	
	TOTALS	580	80	550	300

CONCRETE BASES

LOCATION	654.0101* Type 1 EACH	654.0102 Type 2 EACH	654.0113* Type 13 EACH	654.0217* Control Cabinet Type 9 Special EACH
USH 10 & Manitowoc Rd (S08-2009)	4	2	2	1
TOTALS	4	2	2	1

REMOVING CONCRETE BASES

LOCATION	204.0195* EACH
USH 10 & Manitowoc Rd (S08-2009)	15
TOTAL	15

ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG

LOCATION
USH 10 & Manitowoc Rd (S08-2009)

FROM	TO	655.0515* (Equipment Grounding Conductor) (Green) LF
CB1	SB1	80
SB1	SB3	140
SB3	SB2	100
SB3	SB4	120
SB4	SB5	130
SB5	SB7	150
SB7	SB6	100
SB7	SB8	130
SB8	CB1	60
	TOTAL	1,010

LIGHTING SUMMARY

LOCATION	657.0709 Luminaire Arms Truss Type 4-Inch Clamp 12-FT EACH	657.1812* Install Luminaire Arms Steel 12-FT EACH	659.1120* Luminaires Utility LED-B EACH
USH 10 & Manitowoc Rd (S08-2009)	2	2	4
TOTALS	2	2	4

PULL BOXES, NON-CONDUCTIVE

LOCATION	SPV.0060.06* 24x42-Inch EACH
USH 10 & Manitowoc Rd (S08-2009)	8
TOTAL	8

LOOP DETECTORS

LOCATION	LOOP NO.	# OF TURNS	652.0800* Conduit LF	655.0700* Lead In Cable LF	655.0800* Wire LF
USH 10 & Manitowoc Rd (S08-2009)	21	4	60	350	260
	41	2	90	80	190
	42	2	100	80	210
	61	4	60	440	260
	81	2	90	140	190
	82	2	100	140	210
		TOTALS	500	1,230	1,320

SIGNAL LIGHTING CABLE

LOCATION
USH 10 & Manitowoc Rd (S08-2009)

FROM	TO	655.0305* Type UF 2-12 AWG Grounded LF
CB1	SB2	220
CB1	SB4	240
CB1	SB6	150
CB1	SB8	60
	TOTAL	670

ELECTRIC WIRE LIGHTING 12 AWG

LOCATION
USH 10 & Manitowoc Rd (S08-2009)
120 Volt System

FROM	TO	655.0610* LF
SB2	Luminaire	150
SB4	Luminaire	150
SB6	Luminaire	150
SB8	Luminaire	150
	TOTAL	600

* ADDITIONAL QUANITIES SHOWN ELSEWHERE
QUANTITIES PREPARED BY WISDOT NER

TRAFFIC SIGNALS

LOCATION		656.0200 Electrical Service Meter Breaker Pedestal (USH 10 & Manitowoc) LS	657.0100* Pedestal Bases EACH	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle EACH	657.0310 Poles Type 3 EACH	657.0420 Traffic Signal Standard Aluminum 13-FT EACH	657.0425* Traffic Signal Standard Aluminum 15-FT EACH	657.0585 Trombone Arms 15-FT EACH
USH 10 & Manitowoc Rd (S08-2009)		1	4	2	2	3	1	1
	TOTALS	1	4	2	2	3	1	1

TRAFFIC SIGNALS

LOCATION		657.0590 Trombone Arms 20-FT EACH	657.1360* Install Poles Type 13 EACH	657.1540 Install Monotube Arms 40-FT EACH	657.1550* Install Monotube Arms 50-FT EACH	658.0110* Traffic Signal Face 3-12 Inch Vertical EACH	658.0115* Traffic Signal Face 4-12 Inch Vertical EACH	658.0155 Traffic Signal Face 3-12 Inch Horizontal EACH
USH 10 & Manitowoc Rd (S08-2009)		1	2	1	1	12	2	2
	TOTALS	1	2	1	1	12	2	2

TRAFFIC SIGNALS

LOCATION		658.0416* Pedestrian Signal Face 16-Inch EACH	658.0500* Pedestrian Push Buttons EACH	658.0600* LED Modules 12-Inch Red Ball EACH	658.0605* LED Modules 12-Inch Yellow Ball EACH	658.0610* LED Modules 12-Inch Green Ball EACH	658.0615* LED Modules 12-Inch Red Arrow EACH
USH 10 & Manitowoc Rd (S08-2009)		8	4	12	12	12	4
	TOTALS	8	4	12	12	12	4

TRAFFIC SIGNALS

LOCATION		658.0620* LED Modules 12-Inch Yellow Arrow EACH	658.0625* LED Modules 12-Inch Green Arrow EACH	658.0635* LED Modules Pedestrian Countdown Timer 16-Inch EACH	658.5069 Signal Mounting Hardware (USH 10 & Manitowoc) LS	SPV.0105.03 Remove Traffic Signal (USH 10 & Manitowoc) LS
USH 10 & Manitowoc Rd (S08-2009)		8	2	8	1	1
	TOTALS	8	2	8	1	1

* ADDITIONAL QUANITIES SHOWN ELSEWHERE
QUANTITIES PREPARED BY WISDOT NER

TRAFFIC SIGNAL CABLE

LOCATION
USH 10 & Manitowoc Rd (S08-2009)

From CB1 to	655.0230* 5-14 AWG LF	655.0240* 7-14 AWG LF	655.0260* 12-14 AWG LF	HEAD NO.	655.0230* Base to Head 5-14 AWG LF	655.0240* Base to Head 7-14 AWG LF	658.0215* Backplates Signal Face 3 Section 12-Inch EACH	658.0220* Backplates Signal Face 4 Section 12-Inch EACH
SB1			80	5	15		1	
				6		15	1	
SB1	80			17	10			
SB1	80			24	15			
SB2			220	7		80	1	
				8	70		1	
				9	60		1	
SB3			160	11	15		1	
				16	15		1	
SB3	160			22	10			
SB3	160			23	15			
SB4	240			12	50		1	
SB4	240			21	10			
SB5			200	1		20		1
				10	20		1	
SB5	200			20	15			
SB6			150	2		70		1
				3	60		1	
				4	50		1	
SB7			120	13	15		1	
				14	15		1	
SB7	120			18	10			
SB7	120			19	15			
SB8	60			15	40		1	
SUBTOTALS	1,460	0	930		525	185	14	2
TOTALS	1,985	185	930				14	2

Signal Indication		Conductor Color
Red	=	Red
Yellow	=	Orange
Green	=	Green
Red Arrow	=	Red w/Black Tracer
Yellow Arrow	=	Black w/White
Yellow Flashing Arrow	=	White w/Black
Green Arrow	=	Blue w/Black

PEDS

Walk	=	Green
Don't Walk	=	Red
Button	=	Black & Orange

NOTE: If there is a back to back 3 section with ball indications, then use solid colored conductors for NB & EB, and tracer conductors for SB & WB.

NOTE: Lead-in Cable shall be pulled in separately from other cables/wires and enter the Control Cabinet in a separate conduit if provided.

* ADDITIONAL QUANITIES SHOWN ELSEWHERE
QUANTITIES PREPARED BY WISDOT NER

4

TRANSPORTATION PROJECT PLAT NO: 1500-44-21 - 4.01

THAT PART OF LOT 1 OF TOWN OF MENASHA ASSESSORS PLATS NO. 9 AND 10, RECORDED IN V. 19, P. 32, LOCATED IN AND PART OF THE NE1/4 OF THE SE1/4 AND SE1/4 OF THE SE1/4, SECTION 12, TOWNSHIP 20 NORTH, RANGE 17 EAST, TOWN OF MENASHA, ALSO PART OF LOT 1, CSM 1077, BEING RECORDED AS V. 1, P. 1077 AS DOC. 583640, LOCATED IN AND PART OF THE SE1/4 OF THE SE1/4, SECTION 12, TOWNSHIP 20 NORTH, RANGE 17 EAST, CITY OF MENASHA, ALL BEING LOCATED IN WINNEBAGO COUNTY, WISCONSIN

RELOCATION ORDER USH 10 WINNEBAGO COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

TIME WARNER CABLE
(201) A DELEWARE LIMITED PARTNERSHIP
NO EASEMENT OF RECORD - PAR 2

AT&T WISCONSIN
(202) NO EASEMENT OF RECORD - PAR 2

WE ENERGIES
(203) DOC. 259577 - PAR 1

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY

1695887
REGISTER'S OFFICE
WINNEBAGO COUNTY, WI
RECORDED ON
08/28/2015 10:07 AM

JULIE PAGEL
REGISTER OF DEEDS

RECORDING FEE 25.00
PAGES: 1

91

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1500-44-21-4.01
AMENDMENT NO:

1500-44-21-4.01

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W SQ. FT. REQUIRED NEW	EXISTING	TOTAL	TLE SQ. FT.
1	JOE ASHBECK AND BOBBI L. ASHBECK	FEE/TLE	326	---	326	1061
2	DAVID P. SCHAOFF	FEE/TLE	792	---	792	657

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
201	TIME WARNER CABLE, A DELEWARE LIMITED PARTNERSHIP	RELEASE OF RIGHTS
202	AT&T WISCONSIN	RELEASE OF RIGHTS
203	WE ENERGIES	RELEASE OF RIGHTS

EXISTING MONUMENTS

POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP150	546254.873	827876.973	1.25" OD IRON PIPE
IP151	546513.785	828192.607	1.25" OD IRON PIPE
IP152	546426.370	828170.830	3/4" REBAR
IP153	546233.679	828075.016	3/4" REBAR

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN (1" UNLESS NOTED)
R/W MONUMENT
R/W STANDARD
SIGN
SECTION CORNER MONUMENT
SECTION CORNER SYMBOL
FEE (HATCH VARIES)
TEMPORARY LIMITED EASEMENT
PERMANENT LIMITED EASEMENT
R/W BOUNDARY POINT (PRW20)
PARCEL NUMBER (102)
UTILITY NUMBER (40)
SIGN NUMBER (OFF PREMISE) (21-1)
BUILDING

PROPOSED R/W LINE
EXISTING H.E. LINE
PROPERTY LINE
LOT & TIE LINES
SLOPE INTERCEPTS
CORPORATE LIMITS
RESTRICTED ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
RESTRICTED ACCESS (BY ACQUISTION)
NO ACCESS (BY STATUTORY AUTHORITY)
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
EXISTING CENTERLINE
PROPOSED REFERENCE LINE
PARALLEL OFFSET

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.	**CURVE DATA**	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	P.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN

CONVENTIONAL UTILITY SYMBOLS

WATER (W)
GAS (G)
TELEPHONE (T)
OVERHEAD TRANSMISSION LINES ELECTRIC (OH)
CABLE TELEVISION (TV)
FIBER OPTIC (FO)
SANITARY SEWER (SAN)
STORM SEWER (SS)

NON COMPENSABLE COMPENSABLE
POWER POLE
TELEPHONE POLE
TELEPHONE PEDESTAL
ELECTRIC TOWER

FOUND BERNTSEN MONUMENT
Y=547836.946
X=828134.263

T 20 N, R 17 E, 12, R 18 E, 7

LOCATION SKETCH NOT TO SCALE
Appleton
PROJECT LOCATION
SHEET LOCATION
Lake Winnebago

TOWN OF MENASHA ASSESSOR'S PLATS NOS. 9 AND 10 V. 19 P. 32

TOWN NE/SE OF MENASHA
CITY SE/SE OF MENASHA
COUNTY NW/SW OF CITY OF MENASHA
COUNTY SW/SW OF MENASHA

S00°49'14"W 1250.81'
SECTION LINE
24+00
R=N 0°46'34" E
1/16 LINE
IP 151
VARIES
TLE FOR GRADING
LOT 1
MANITOWOC RD 201+00
R=N 60°09'39" E
STA 23+07.63=
STA 200+00
Y=546433.884
X=828115.8944
PI STA 23+06.56
Y=546432.820
X=828115.879
IP 152
STA 23+05.64=
STA 200+00
Y=546431.893
X=828115.867
USH 10/ONEIDA ST
23+00
22+00
R=N 0°46'40" E
MANITOWOC RD 199+00
R=N 59°01'49" E
198+00
197+00
TLE - GRADING
LOT 1
CSM 1077
V. 1 P. 1077
DOC. 583640
IP 150
IP 153
21+00
N00°49'14"E 1043.02'
P.L.
TV
FO
66'
55'
57'

FOUND SURVEY NAIL
Y=545190.428
X=828096.364

SCALE, FEET 0 20 40

STATION & OFFSET TABLE

POINT NO.	STATION	OFFSET
100	21+07.04	-1.87'
101	21+07.04	-34.87'
102	21+07.04	-39.00'
103	22+06.40	-39.00'
104	22+23.98	-78.16'
105	22+11.99	-97.28'
106	22+36.18	-112.25'
107	22+68.11	-132.01'
108	23+24.44	-42.21'
109	24+16.11	-34.64'
110	24+60.00	-34.61'
111	24+60.00	-1.61'
112	24+60.00	0.00'
113	23+07.63	0.00'
114	23+06.56	0.00'
115	23+05.64	0.00'
116	21+07.04	0.00'

COURSE TABLE

COURSE	BEARING	DISTANCE
100-101	N 89°13'20" W	33.00'
101-102	N 89°11'32" W	4.13'
102-103	N 0°46'40" E	99.36'
103-104	N 65°03'10" W	42.93'
104-105	S 58°40'39" W	22.57'
105-106	N 30°58'11" W	28.29'
106-107	N 30°58'11" W	37.71'
107-108	N 58°40'39" E	106.00'
108-109	N 5°29'55" E	91.98'
109-110	N 0°49'14" E	43.89'
110-111	S 89°13'26" E	33.00'
111-112	S 89°13'26" E	1.61'
112-113	S 0°46'34" W	152.37'
113-114	S 0°46'34" W	1.06'
114-115	S 0°46'40" W	0.93'
115-116	S 0°46'40" W	198.60'
116-100	N 89°13'20" W	1.87'

TLE STATION & OFFSET TABLE

POINT NO.	STATION	OFFSET
117	21+79.00	-39.00'
118	21+79.00	-44.00'
119	22+10.00	-47.02'
120	22+15.73	-59.78'
121	21+97.91	-88.57'
122	23+08.50	-67.63'
123	23+14.44	-71.30'
124	23+28.50	-49.00'
125	24+60.00	-38.00'

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, WINNEBAGO COUNTY, NAD 88 (2011) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" x 24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR USH 10 ESTABLISHED FROM PREVIOUS PROJECTS DIVISION JOB NO. 3923 AND RW PROJECT 1501-01-21, CSM 1077 AND THE TOWN OF MENASHA ASSESSOR'S PLAT NO. 9 AND 10.
EXISTING HIGHWAY RIGHT-OF-WAY FOR SIDE ROADS ESTABLISHED FROM CENTERLINE OF EXISTING PAVEMENTS, CSM 1077 AND THE TOWN OF MENASHA ASSESSOR'S PLAT NO. 9 AND 10.
NO EXISTING ACCESS CONTROL EXISTS ALONG USH 10 OR MANITOWOC ROAD.

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

emcs, LLC

I, KEVIN C. BOYER, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 1500-44-21-4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

DATE: 8/27/2015

KEVIN C. BOYER
PROFESSIONAL LAND SURVEYOR NUMBER 2675

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

DATE: 8/28/2015
(SIGNATURE)
(PRINTED NAME) CURT VAN EREM

PLOT SCALE : 1:120
PLOT NAME :
PLOT BY : kcb
PLOT DATE : 8/27/2015
FILE NAME : P:\48xx\4819_475OW13.DP.13.USH10.WNB\CADDS\Plan\TPP\040101_rp.dgn
APPRAISAL PLAT DATE :

4

4

TRANSPORTATION PROJECT PLAT NO: 1500-44-21 - 4.02

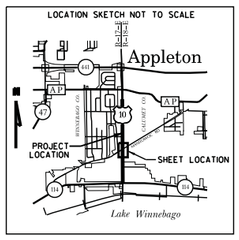
THAT PART OF LOT 2, CSM 2797, RECORDED IN V. 22, P. 305 AS DOC. 390782, BEING LOCATED IN AND PART OF THE NW1/4 OF THE SW1/4, ALSO PART OF THE SW1/4 OF THE SW1/4, ALL BEING LOCATED IN SECTION 7, TOWNSHIP 20 NORTH, RANGE 18 EAST, CITY OF MENASHA, CALUMET COUNTY, WISCONSIN

RELOCATION ORDER USH 10 WINNEBAGO COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

LOCATION SKETCH NOT TO SCALE



DOCUMENT # 507418
TAMARA ALTEN
REGISTER OF DEEDS
CALUMET COUNTY, WI
RECEIVED FOR RECORD
09/02/2015 3:16 PM
VOL: D PAGE: 87
Tamara Alten

92

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1500-44-21-4.02
AMENDMENT NO:

1500-44-21-4.02

FOUND BERNTSEN MONUMENT
Y=547836.946
X=828134.263

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	⌀ (1" UNLESS NOTED)	PROPOSED R/W LINE	
R/W MONUMENT	● •(SET)	EXISTING H.E. LINE	
R/W STANDARD	▲ •(SET)	PROPERTY LINE	
SIGN	ISIGN	LOT & TIE LINES	
SECTION CORNER MONUMENT		SLOPE INTERCEPTS	
SECTION CORNER SYMBOL		CORPORATE LIMITS	
FEE (HATCH VARIES)		RESTRICTED ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	
TEMPORARY LIMITED EASEMENT		RESTRICTED ACCESS (BY ACQUISITION)	
PERMANENT LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)	
R/W BOUNDARY POINT	PRW20	SECTION LINE	
PARCEL NUMBER	102	QUARTER LINE	
UTILITY NUMBER	40	SIXTEENTH LINE	
SIGN NUMBER (OFF PREMISE)	21-V	EXISTING CENTERLINE	
BUILDING		PROPOSED REFERENCE LINE	
		PARALLEL OFFSET	

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.	**CURVE DATA**	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	P.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN

CONVENTIONAL UTILITY SYMBOLS

	NON COMPENSABLE	COMPENSABLE
WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD TRANSMISSION LINES	OH	
ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W SQ. FT. REQUIRED NEW	EXISTING	TOTAL	TLE SQ. FT.
3	WEINANDT PROPERTIES, LLC	FEE/TLE	531	---	531	466
4	DONALD R. VANGRINSVEN	FEE/TLE	300	---	300	1119

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
202	AT&T WISCONSIN	RELEASE OF RIGHTS

202 AT&T WISCONSIN
DOC. 103519 - PAR 3
DOC. 31067 - PAR 3
DOC. 6385 - PAR 4
DOC. 168859 - PAR 4

CITY OF MENASHA
LOT 2
CSM 2797
V. 22 P. 305
DOC. 390782
NW/SW

TOWN OF MENASHA
SW/SW

CITY OF MENASHA
SE/SE

TOWN OF CALUMET
NE/SE

TOWN OF WINNEBAGO
NW/SE

S00°49'14"W 1273.61'
SECTION LINE 25+00
205-206 S89°13'26"E 1.62'
VARIES
24+00
R=N 0°46'34" E
1/16 LINE
MANITOWOC RD
R=N 60°09'39" E
201+00
202+00
66'
TLE FOR GRADING
IP 151
STA 23+07.63= STA 200+00 Y=546433.884 X=828115.8944
PI STA 23+06.56 Y=546432.820 X=828115.879
IP 152
STA 23+05.64= STA 200+00 Y=546431.893 X=828115.867
USH 10/ONEIDA ST 23+00
199+00
MANITOWOC RD R=N 59°01'49" E
N00°49'14"E 1175.98'
SECTION LINE 22+00
R=N 0°46'40" E
FOUND SURVEY NAIL Y=545190.428 X=828096.364
P.L.
55'
FO

TLE STATION & OFFSET TABLE

POINT NO.	STATION	OFFSET
225	24+37.00	62.55
226	23+99.71	77.67
227	24+15.63	104.57
228	23+36.26	114.35
229	22+90.00	70.00
230	22+40.00	70.00

STATION & OFFSET TABLE

POINT NO.	STATION	OFFSET
200	22+40.00	-1.77
201	22+40.00	0.00
202	23+05.64	0.00
203	23+06.56	0.00
204	23+07.63	0.00
205	24+37.00	-1.62
206	24+37.00	0.00
207	24+37.00	55.00
208	24+00.00	70.00
209	23+99.22	91.05
210	24+09.48	108.25
211	23+81.49	124.81
212	23+52.68	141.86
213	23+22.94	92.03
214	22+84.64	55.00
215	22+40.00	55.00

COURSE TABLE

COURSE	BEARING	DISTANCE
200-201	S 89°13'20" E	1.77'
201-202	N 0°46'40" E	65.64'
202-203	N 0°46'40" E	0.93'
203-204	N 0°46'34" E	1.06'
204-206	N 0°46'34" E	129.37'
206-207	S 89°13'26" E	55.00'
207-208	S 21°17'30" E	39.92'
208-209	S 87°05'32" E	21.06'
209-210	N 59°56'39" E	20.03'
210-211	S 29°50'21" E	32.53'
211-212	S 29°50'21" E	33.47'
212-213	S 59°56'39" W	58.03'
213-214	S 44°48'37" W	53.27'
214-215	S 0°46'40" W	44.64'
215-201	N 89°13'20" W	55.00'
201-200	N 89°13'20" W	1.77'

EXISTING MONUMENTS

POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP151	546513.785	828192.607	1.25" OD IRON PIPE
IP152	546426.370	828170.830	3/4" REBAR

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, CALUMET COUNTY, NAD 88 (2011) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES. GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" x 24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR USH 10 ESTABLISHED FROM PREVIOUS PROJECTS DIVISION JOB NO. 3923 AND RW PROJECT 1501-01-21.
EXISTING HIGHWAY RIGHT-OF-WAY FOR SIDE ROADS ESTABLISHED FROM CENTERLINE OF EXISTING PAVEMENTS
EXISTING ACCESS CONTROL ALONG USH 10 IS BASED ON AN ACCESS COVENANT RECORDED AS DOCUMENT NUMBER 163199.

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

GN

SCALE, FEET 0 20 40

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY

emcs.inc

I, KEVIN C. BOYER, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 1500-44-21-4.02 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C Boyer DATE: 8/27/2015

KEVIN C. BOYER
PROFESSIONAL LAND SURVEYOR NUMBER 2675

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

(SIGNATURE) DATE: 8/28/2015

(PRINTED NAME) CURT VAN EREM

WISCONSIN KEVIN C BOYER S-2675 NEWITT WI LAND SURVEYOR

PLOT SCALE : 1:20
PLOT NAME :
PLOT BY : kcb
PLOT DATE : 8/27/2015
FILE NAME : P:\48xx\4819_475OW13.DP.13.USH10.WNB\CADDS\Plan\TPP\040102_rp.dgn
APPRAISAL PLAT DATE :

4

PROPOSED WORK

STA 0+14.05 - STA 2+61.66
CONCRETE PAVEMENT REPAIR AND REPLACEMENT
CONCRETE CURB & GUTTER REPLACEMENTS
MEDIAN, ISLAND, AND RADII RECONSTRUCTION AT USH 10/STH 114/FIRE LANE 1
USH 10/STH 114/FIRE LANE 1 TRAFFIC SIGNAL MODIFICATIONS

STA 2+61.66 - STA 10+00
REMOVING ASPHALTIC SURFACE MILLING
HMA PAVEMENT OVERLAY
CURB RAMP UPGRADES

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1846	00+98, 38' RT	TOP OF GROUND WIRE BOLT IN ATC POWER POLE	750.61

N

STA 96+00
Y=544121.77
X=827684.59

TOWN OF MENASHA UTILITY DISTRICT (SEWER)

WAVERLY SANITARY DISTRICT (SEWER)

TOWN OF MENASHA UTILITY DISTRICT (WATER)

WE ENERGIES (GAS)

BEGIN CONSTRUCTION
STA 98+40.00
MATCH EXISTING

TOWN OF MENASHA UTILITY DISTRICT (WATER)

STA 0+00 = 100+00
Y=544126.47
X=828084.57

STA 206+00 = 100+05.81
Y=544126.56
X=828090.38

STA 202+00
Y=543726.66
X=828081.60

CITY OF APPLETON (WATER)

BEGIN CONSTRUCTION
STA 204+54.50
MATCH EXISTING

AT&T WISCONSIN (COMMUNICATIONS)

ATC MANAGEMENT, INC (ELECTRIC)

BEGIN PROJECT
STA 0+14.05

(COMMUNICATIONS)

WAVERLY SANITARY DISTRICT (WATER)

END CONSTRUCTION
STA 102+71.00
MATCH EXISTING

STA 104+00
Y=544132.59
X=828484.52

STH 114/PLANK RD — N 89°19'39" E — 00+96 — 00+86

USH 10/STH 114 — N 89°07'25" E — 102+00 — 104+00

FIRE LANE 1 — N 1°15'29" E — 202+00 — 204+00

USH 10/ONEIDA ST — N 0°46'40" E — 2+00 — 4+00 — 6+00 — 8+00 — 10+00

FIVE OAKS DR

NEW CURB RAMPS AT FIVE OAKS DR (SEE PAVING DETAILS)

STA 2+61.66
BEGIN REMOVING ASPHALTIC SURFACE MILLING & HMA PAVEMENT OVERLAY
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

US SIGNAL COMPANY (COMMUNICATIONS) & WE ENERGIES (ELECTRIC)

END CONSTRUCTION 38'LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

TOWN OF MENASHA UTILITY DISTRICT (SEWER)

BASE AGG PE

ASP CE

ASP PE

BM 1846

CONTROL POINT 100
Y=544180.293
X=828138.426
0.75"x24" IRON REBAR WITH BLUE EMCS CONTROL CAP

TIME WARNER CABLE (COMMUNICATIONS)

MENASHA ELECTRIC & WATER UTILITIES (ELECTRIC)

WE ENERGIES (GAS)

CITY OF APPLETON (WATER)

AT&T WISCONSIN (COMMUNICATIONS)

ATC MANAGEMENT, INC (ELECTRIC) & MENASHA ELECTRIC & WATER UTILITIES (ELECTRIC)

WE ENERGIES (ELECTRIC)

NOTE

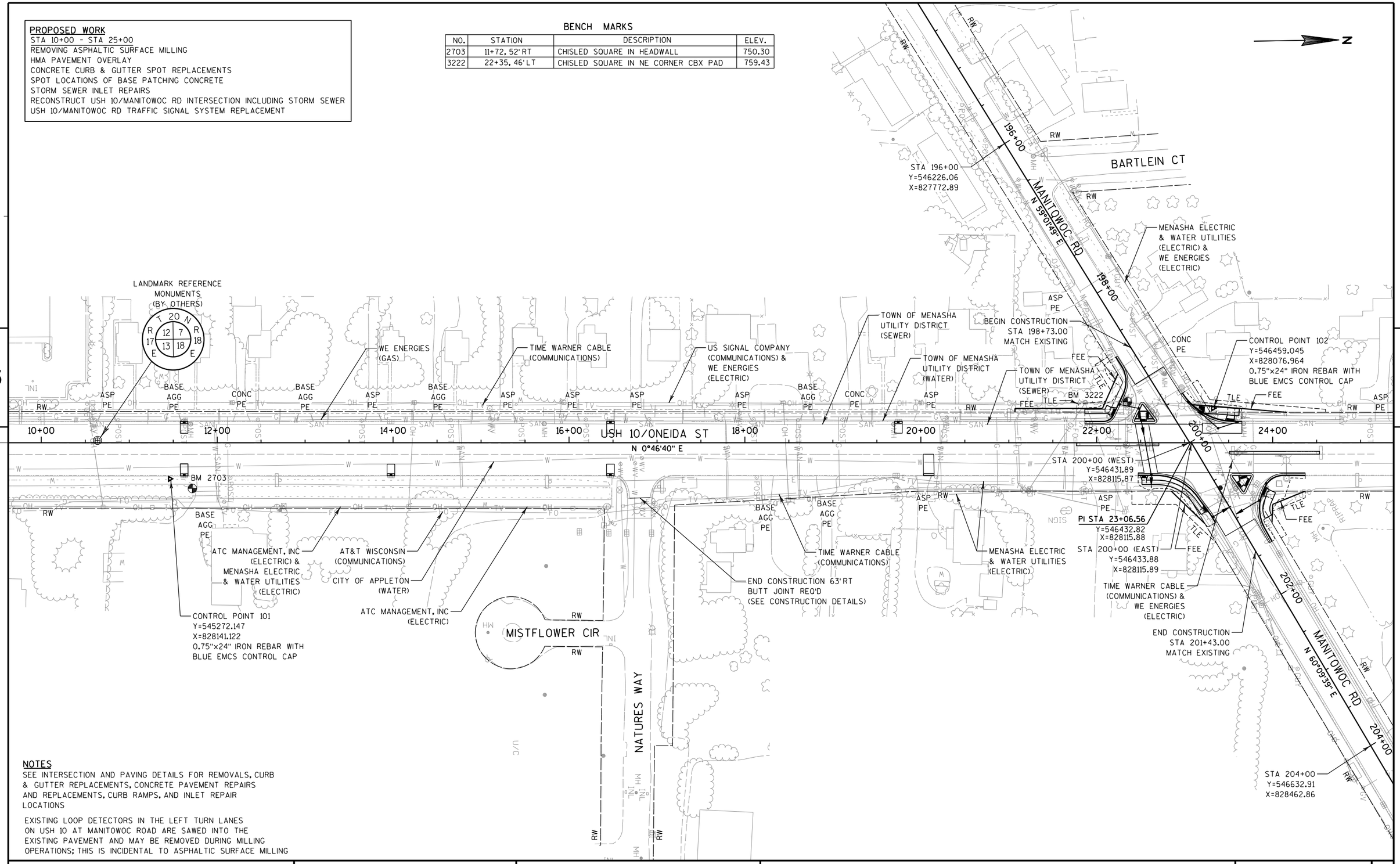
SEE INTERSECTION AND PAVING DETAILS FOR REMOVALS, CURB & GUTTER REPLACEMENTS, CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS, CURB RAMPS, AND INLET REPAIR LOCATIONS

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PLAN	SHEET 93	E

PROPOSED WORK
STA 10+00 - STA 25+00
REMOVING ASPHALTIC SURFACE MILLING
HMA PAVEMENT OVERLAY
CONCRETE CURB & GUTTER SPOT REPLACEMENTS
SPOT LOCATIONS OF BASE PATCHING CONCRETE
STORM SEWER INLET REPAIRS
RECONSTRUCT USH 10/MANITOWOC RD INTERSECTION INCLUDING STORM SEWER
USH 10/MANITOWOC RD TRAFFIC SIGNAL SYSTEM REPLACEMENT

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
2703	11+72, 52' RT	CHISLED SQUARE IN HEADWALL	750.30
3222	22+35, 46' LT	CHISLED SQUARE IN NE CORNER CBX PAD	759.43



NOTES
SEE INTERSECTION AND PAVING DETAILS FOR REMOVALS, CURB & GUTTER REPLACEMENTS, CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS, CURB RAMPS, AND INLET REPAIR LOCATIONS

EXISTING LOOP DETECTORS IN THE LEFT TURN LANES ON USH 10 AT MANITOWOC ROAD ARE SAWED INTO THE EXISTING PAVEMENT AND MAY BE REMOVED DURING MILLING OPERATIONS; THIS IS INCIDENTAL TO ASPHALTIC SURFACE MILLING

PROPOSED WORK
STA 25+00 - STA 40+00
REMOVING ASPHALTIC SURFACE MILLING
HMA PAVEMENT OVERLAY
SPOT LOCATIONS OF BASE PATCHING CONCRETE
CONCRETE CURB & GUTTER SPOT REPLACEMENTS
STORM SEWER INLET REPAIRS

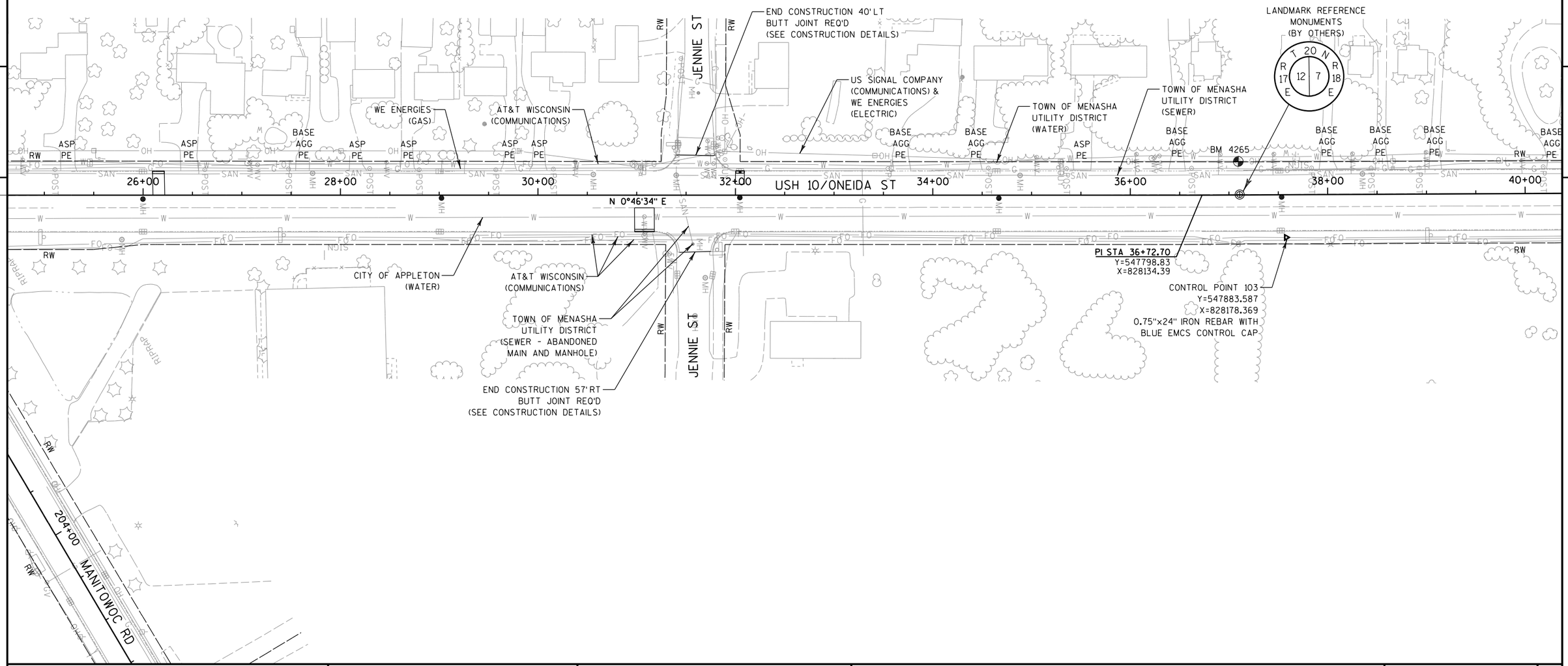
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
4265	37+10, 34'LT	16D NAIL IN POWER POLE	777.20

NOTE

SEE INTERSECTION AND PAVING DETAILS FOR REMOVALS, CURB & GUTTER REPLACEMENTS, CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS, CURB RAMPS, AND INLET REPAIR LOCATIONS

N



5 5

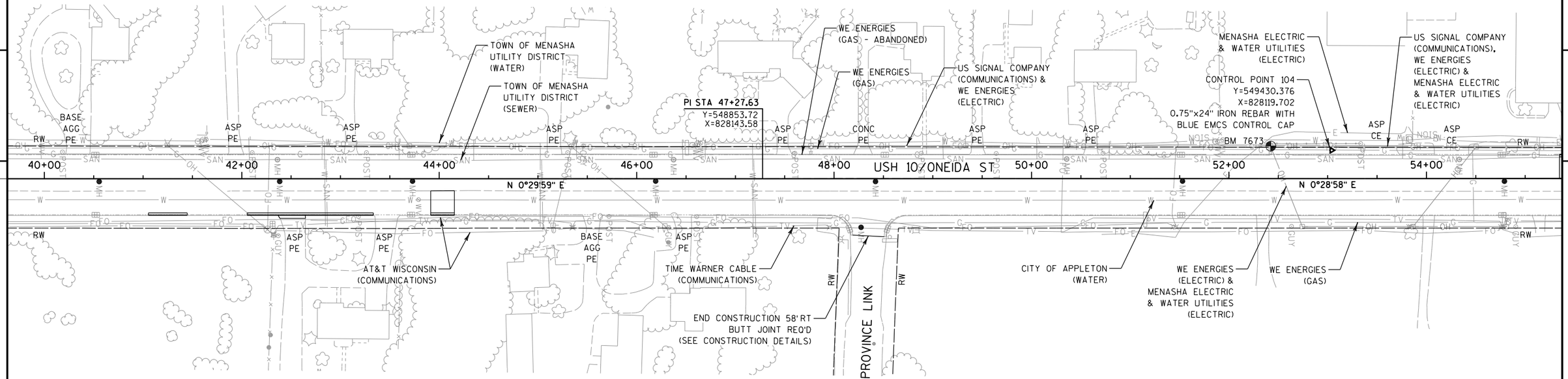
PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PLAN	SHEET 95	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
7673	52+42, 33' LT	16D NAIL IN POWER POLE	792.47

PROPOSED WORK

STA 40+00 - STA 55+00
REMOVING ASPHALTIC SURFACE MILLING
HMA PAVEMENT OVERLAY
SPOT LOCATIONS OF BASE PATCHING CONCRETE
CONCRETE CURB & GUTTER SPOT REPLACEMENTS
CONCRETE CURB & GUTTER SPOT REPLACEMENTS



NOTE

SEE INTERSECTION AND PAVING DETAILS FOR REMOVALS, CURB & GUTTER REPLACEMENTS, CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS, CURB RAMPS, AND INLET REPAIR LOCATIONS

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PLAN	SHEET 96	E

PROPOSED WORK

STA 55+00 - STA 56+95.00
REMOVING ASPHALTIC SURFACE MILLING
HMA PAVEMENT OVERLAY
SPOT LOCATIONS OF BASE PATCHING CONCRETE
CONCRETE CURB & GUTTER SPOT REPLACEMENTS

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
7001	63+98, 69' RT	CHISLED SQUARE IN SE CORNER OF CBX PAD	797.25

N

LEGEND

- - - - - - USH 10/STH 441 IMPROVEMENTS BY OTHERS (2017/2018)

5

END PROJECT
STA 56+95.00
END REMOVING ASPHALTIC SURFACE MILLING & HMA PAVEMENT OVERLAY
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

TOWN OF MENASHA UTILITY DISTRICT (WATER)

DO NOT DISTURB WITH THIS PROJECT

T 21 N, R 17 E, T 20 N, R 18 E — 1, 6, 12, 7

CTH AP/MIDWAY RD

US SIGNAL COMPANY (COMMUNICATIONS), WE ENERGIES (ELECTRIC), MENASHA ELECTRIC & WATER UTILITIES (ELECTRIC) & TIME WARNER CABLE (COMMUNICATIONS)

WE ENERGIES (GAS - ABANDONED)

WE ENERGIES (GAS)

US SIGNAL COMPANY (COMMUNICATIONS), WE ENERGIES (ELECTRIC), MENASHA ELECTRIC & WATER UTILITIES (ELECTRIC)

TOWN OF MENASHA UTILITY DISTRICT (SEWER)

ASP
CE

RW

56+00

58+00

60+00

PI STA 60+27.01
Y=550153.06
X=828154.53

62+00

N 0°28'58" E

N 0°05'09" W

USH 10/ONEIDA ST

AT&T WISCONSIN (COMMUNICATIONS)

CITY OF APPLETON (WATER)

TIME WARNER CABLE (COMMUNICATIONS)

WE ENERGIES (ELECTRIC), MENASHA ELECTRIC & WATER UTILITIES (ELECTRIC)

WE ENERGIES (ELECTRIC), MENASHA ELECTRIC & WATER UTILITIES (ELECTRIC) & TIME WARNER CABLE (COMMUNICATIONS)

STA 63+00
Y=550426.05
X=828154.12

BM 7001

CONTROL POINT 105
Y=550533.580
X=828220.985
0.75"x24" IRON REBAR WITH BLUE EMCS CONTROL CAP

E PRIM ROSE LN

WE ENERGIES (GAS)

NOTE

SEE INTERSECTION AND PAVING DETAILS FOR REMOVALS, CURB & GUTTER REPLACEMENTS, CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS, CURB RAMPS, AND INLET REPAIR LOCATIONS

PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	PLAN	SHEET 97	E

FILE NAME : P:\48xx\4819.4750W13.DP.13.USH10.WNB\CADDS\Plan\050205_pn.dgn PLOT DATE : 7/24/2016 PLOT BY : sgc PLOT NAME : PLOT SCALE : 1:100

Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-01	INLETS 3-FT AND 4-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-16A	CURB RAMPS TYPES 1 AND 1-A
08D05-16B	CURB RAMPS TYPES 2 AND 3
08D05-16C	CURB RAMPS TYPES 4A AND 4A1
08D05-16D	CURB RAMPS TYPE 4B AND 4B1
08D05-16E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-09	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C12-08A	CONCRETE BASE TYPE 13
09C12-08B	CONCRETE BASE TYPE 13
09E01-14B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-05	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
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
09F08-04	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)
09F09-04	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)
11B01-05	CONCRETE CORRUGATED MEDIAN
11B02-02	CONCRETE MEDIAN NOSE
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C04-16	URBAN NON-DOWELED CONCRETE PAVEMENT
13C09-13A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-13B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-13C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
13C14-06A	BASE PATCHING CONCRETE
13C14-06B	BASE PATCHING CONCRETE
13C14-06C	BASE PATCHING CONCRETE
13C18-03A	CONCRETE PAVEMENT JOINTING
13C18-03B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-03C	CONCRETE PAVEMENT JOINT TIES
13C18-03D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-13B	PAVEMENT MARKING WORDS
15C07-13C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C11-06	FLEXIBLE TUBULAR MARKER POST
15C33-02	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-03	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D29-04	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD
15D30-03A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-03B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-03C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-01A	TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

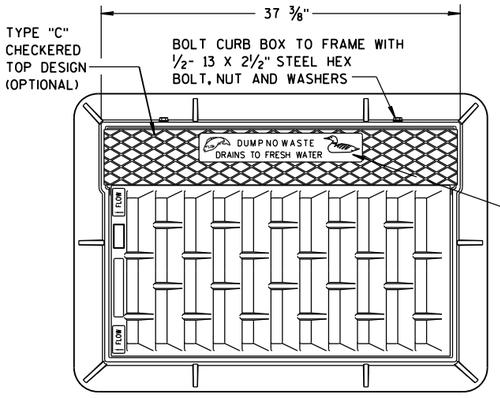
6

Standard Detail Drawing List

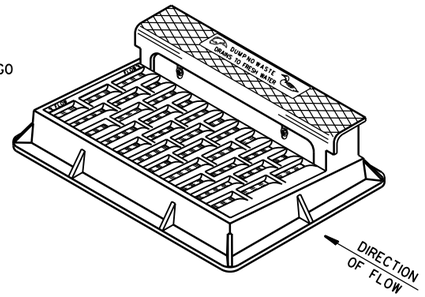
15D38-01B ATTACHMENT OF SIGNS TO POSTS

6

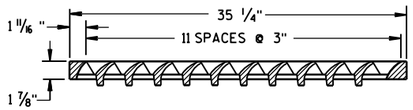
6

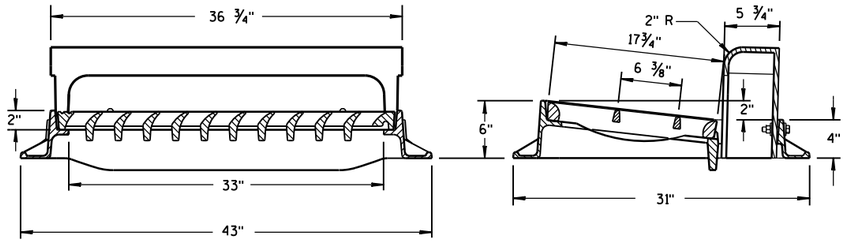


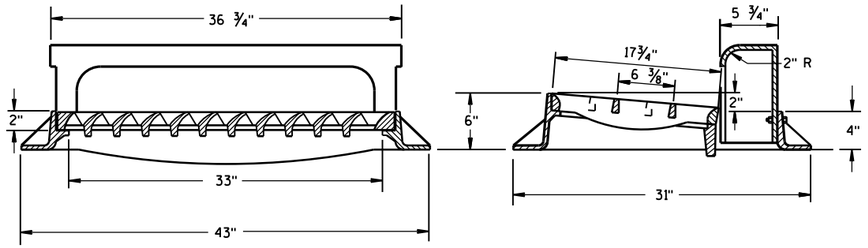
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

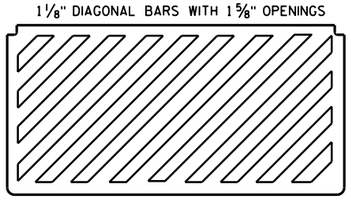






TYPE "H"

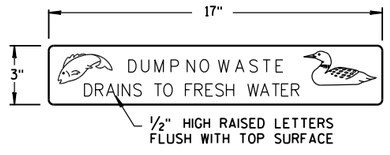
NOTE: EITHER CASTING IS ACCEPTABLE



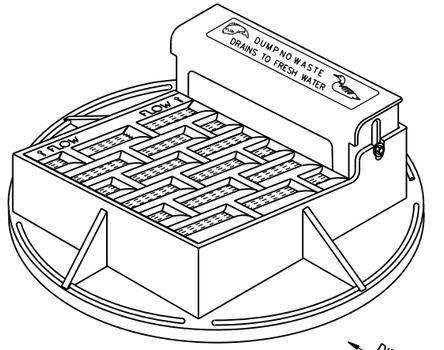
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

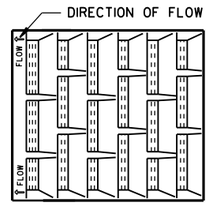
NOTE:
GRATE IS REVERSIBLE.

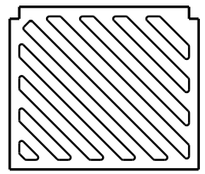
GENERAL NOTES

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.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

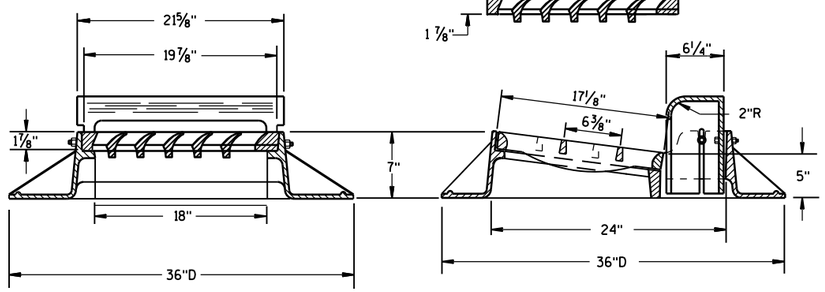




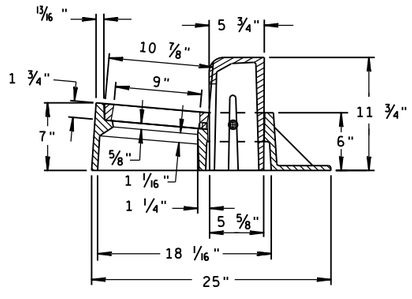
SPECIAL GRATE FOR TYPE "A" COVER

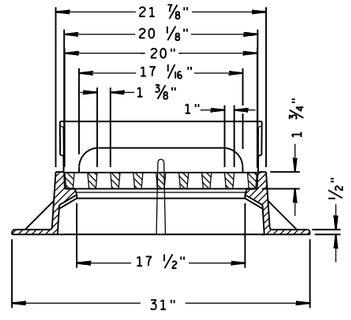
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)

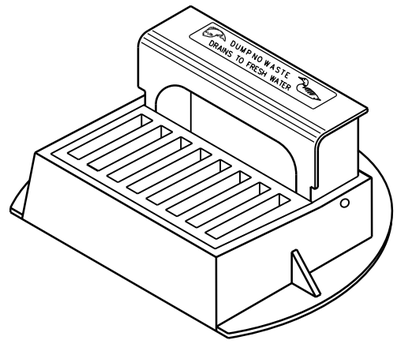


TYPE "A"





TYPE "Z"



INLET COVERS
TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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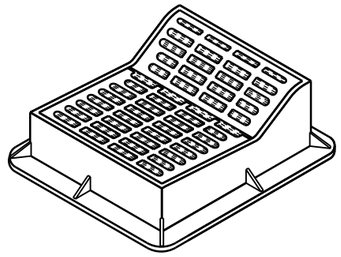
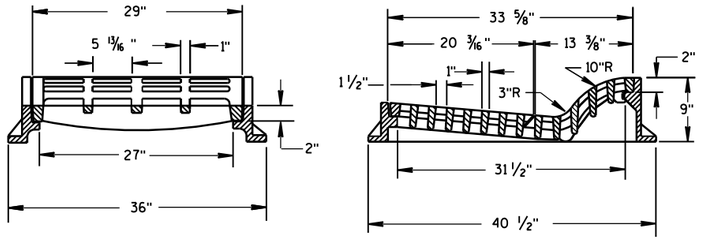
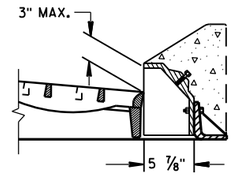
S.D.D. 8 A 5-19a





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

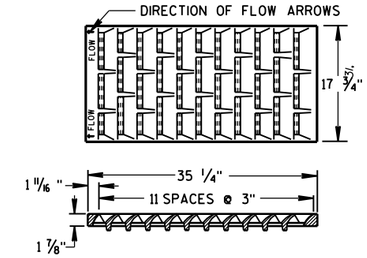
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

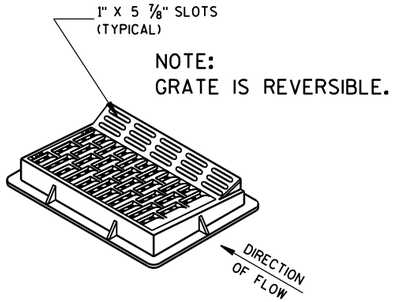
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

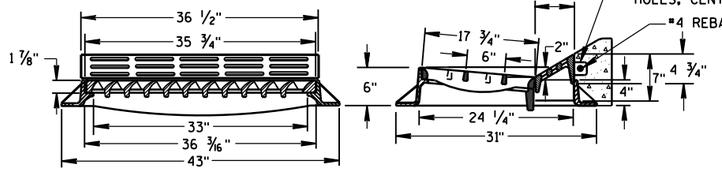
GENERAL NOTES

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.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



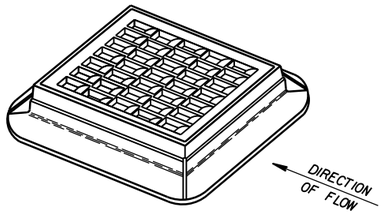


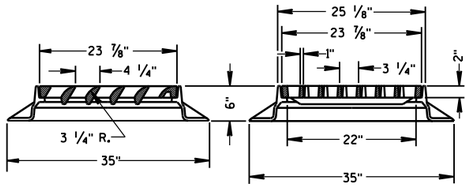


TYPE "HM"

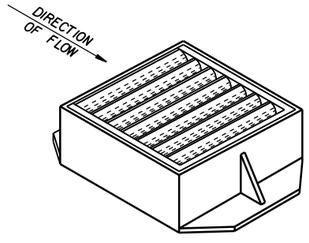
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

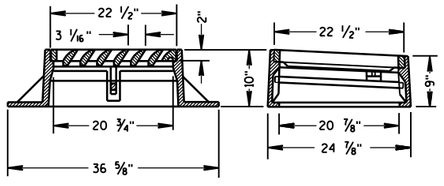
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



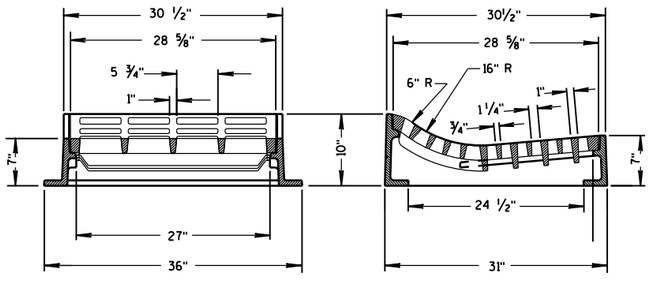


TYPE "S"



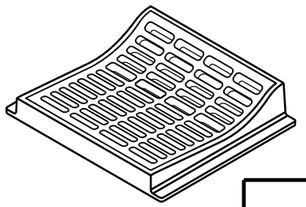


TYPE "V"



TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

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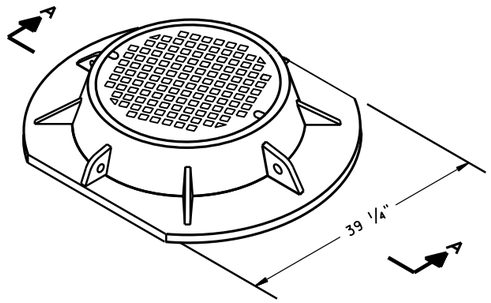
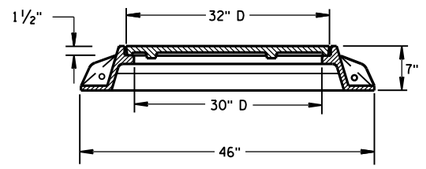
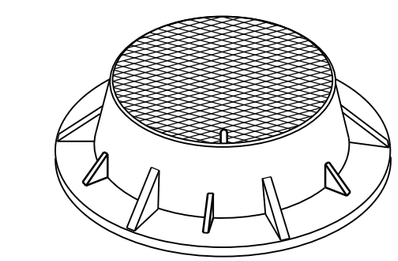
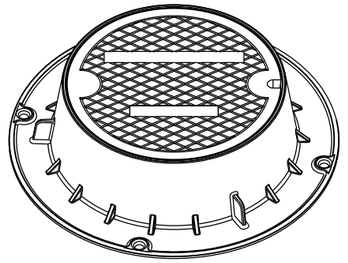
S.D.D. 8 A 5-19c

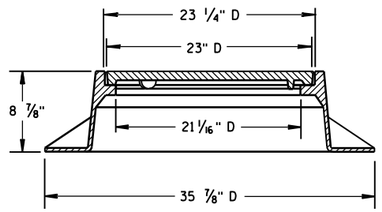


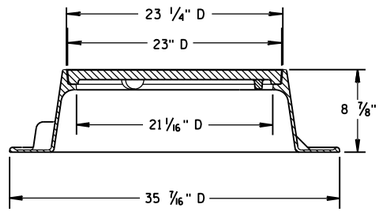


SECTION A-A
TYPE "K"









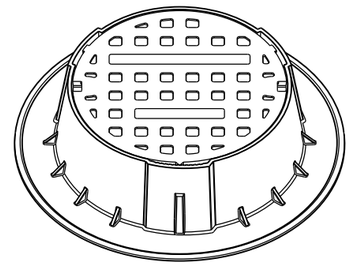
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

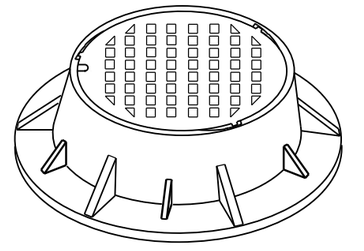
GENERAL NOTES

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.

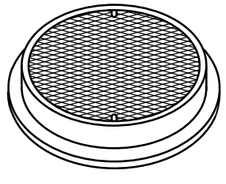
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

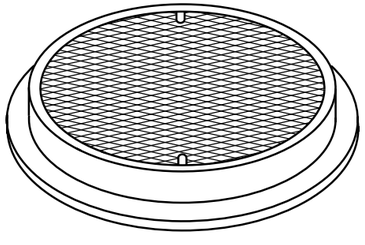
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

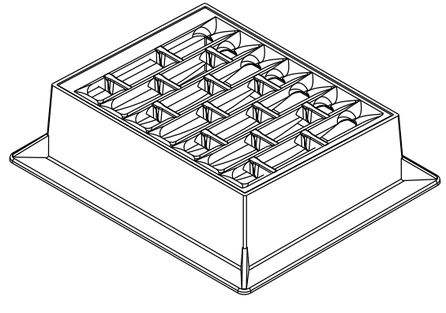


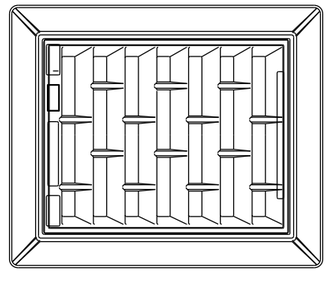


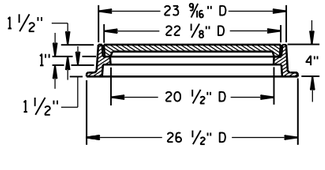
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



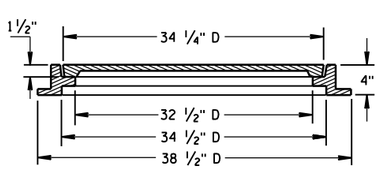




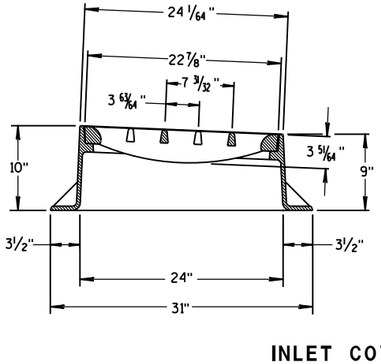


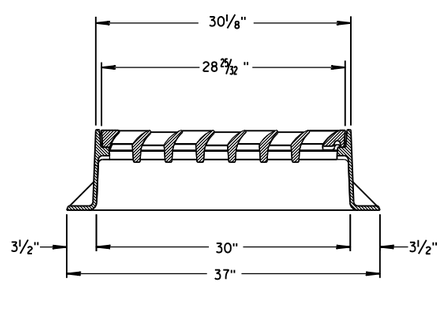


TYPE "L"



TYPE "M"





INLET COVER TYPE "BW"

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

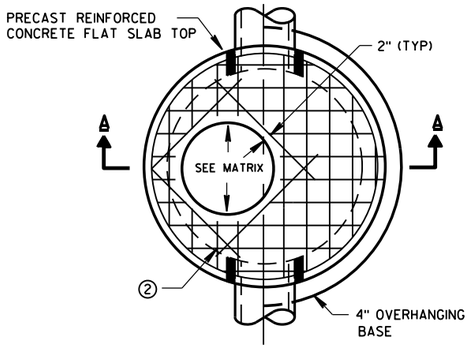
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

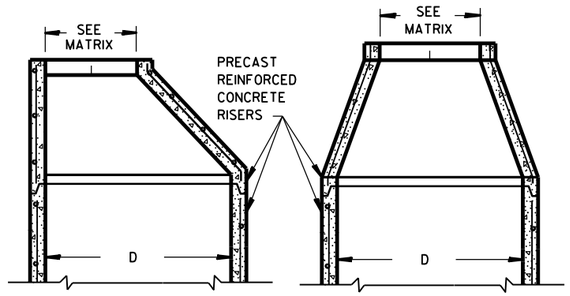
S.D.D. 8 A 5-19d

6

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

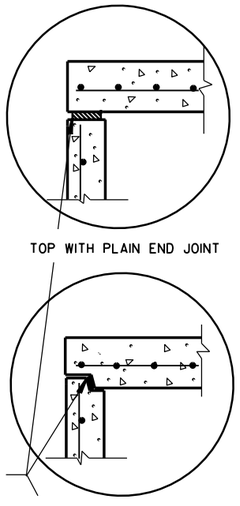


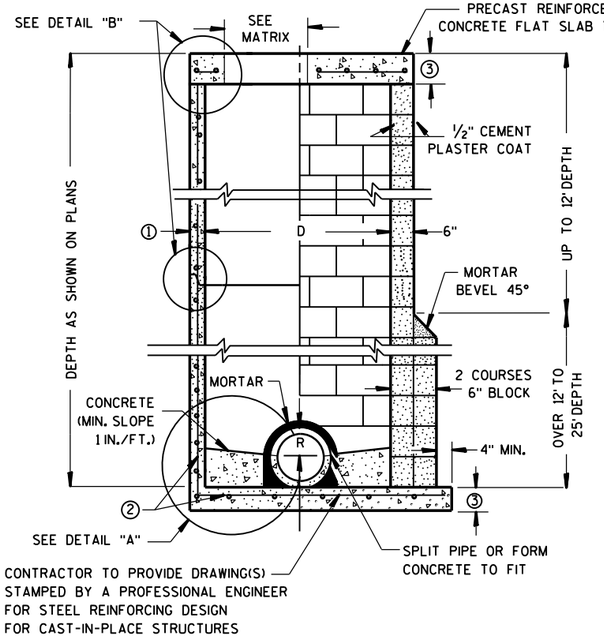
PLAN VIEW CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

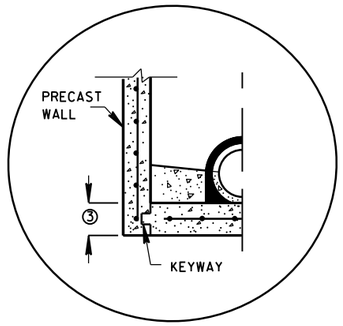
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



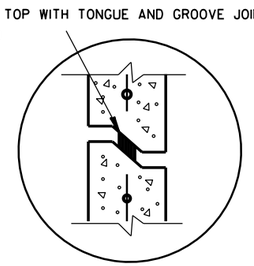


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

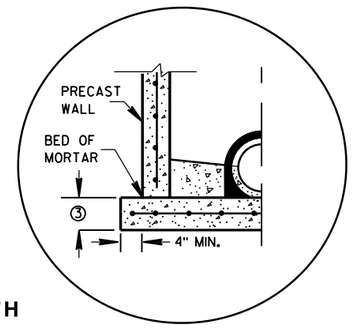


PRECAST REINFORCED
CONCRETE WITH INTEGRAL BASE OPTION



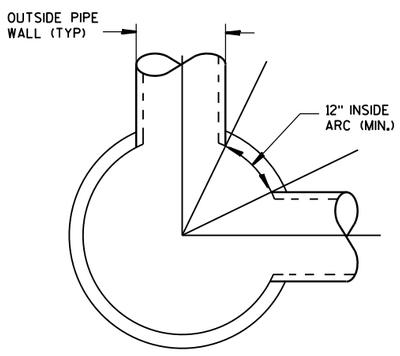
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

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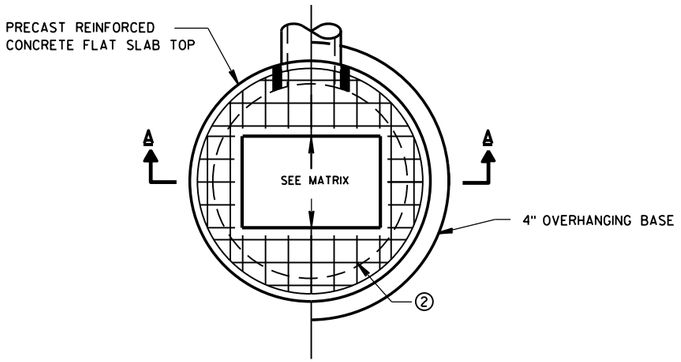
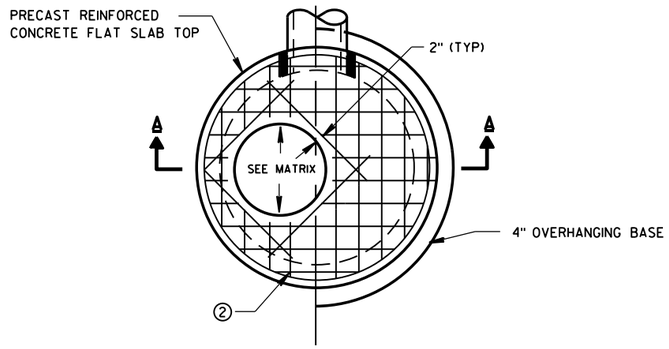
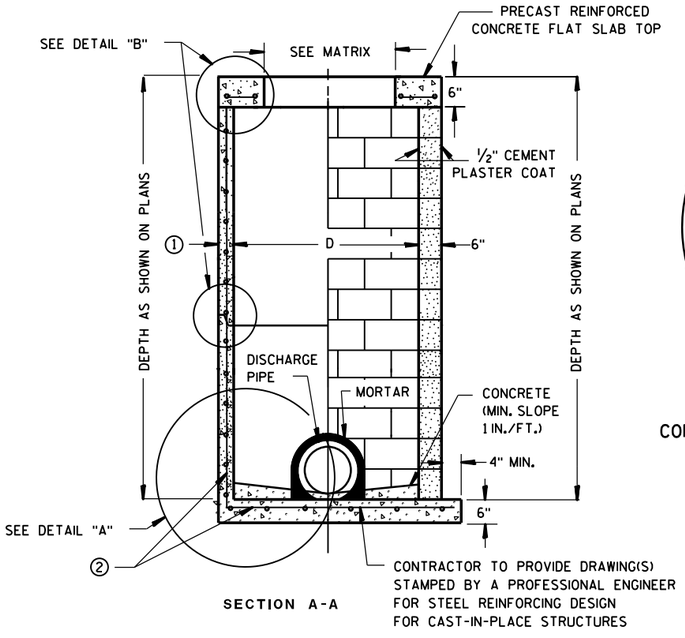


PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

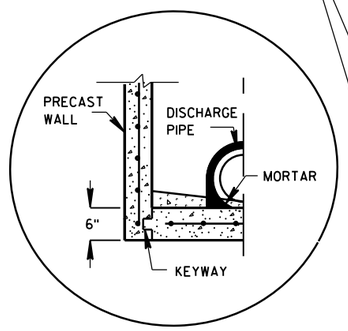


SECTION A-A

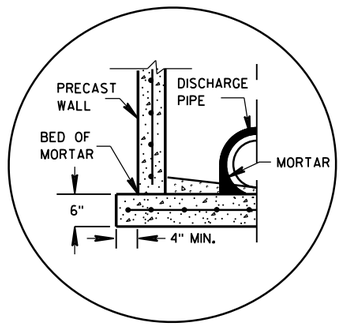
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

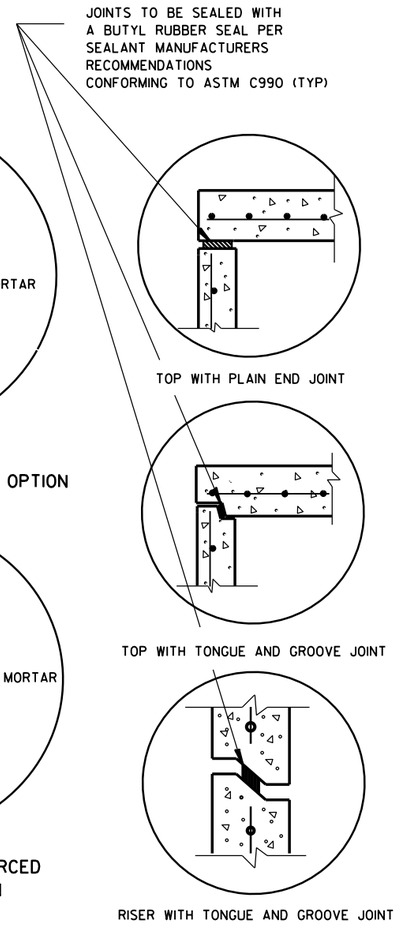


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "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.

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DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

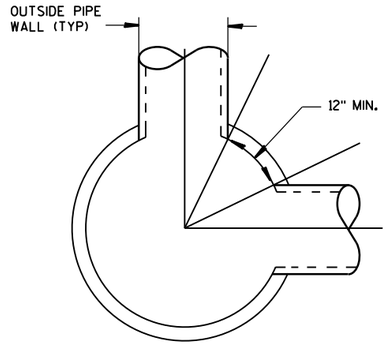
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

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INLETS 3-FT AND 4-FT DIAMETER

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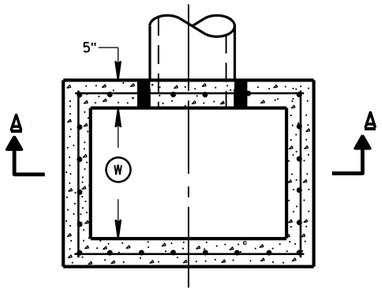
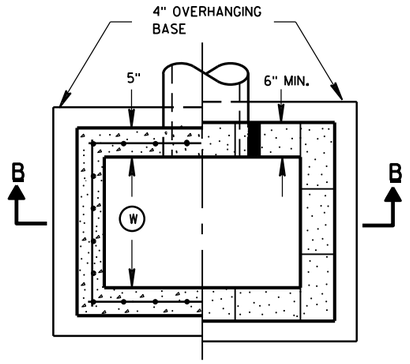
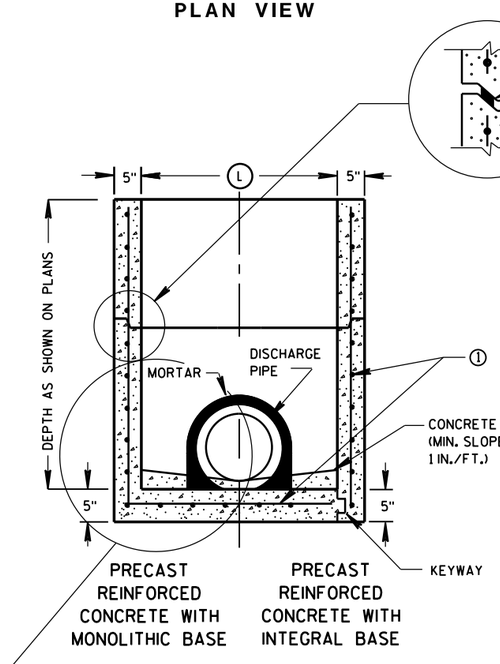


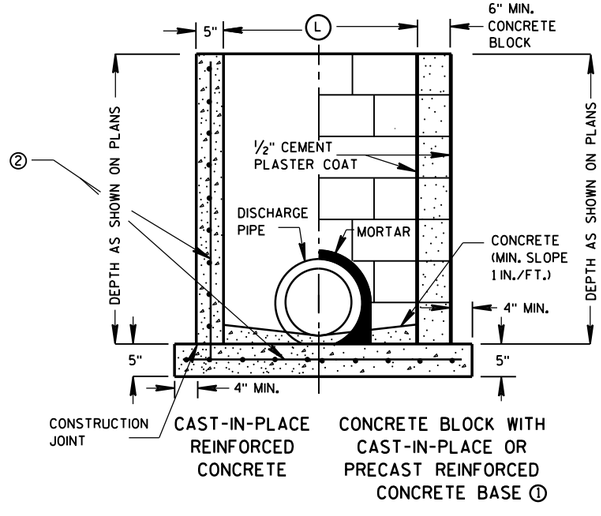
PLAN VIEW



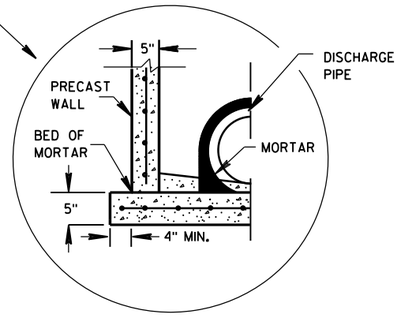
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

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.

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ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

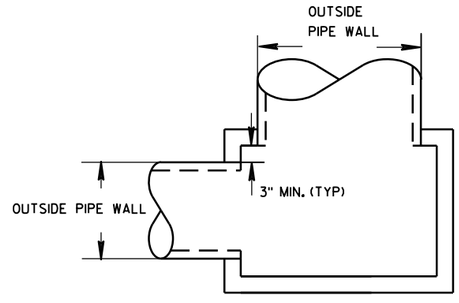
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

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ROADWAY STANDARDS DE
ENGINEER

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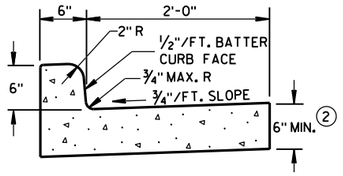
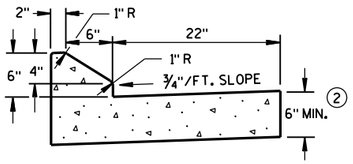
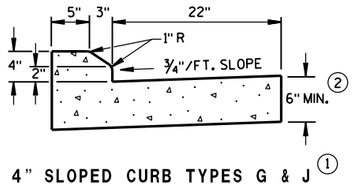
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT



TYPES A & D ①

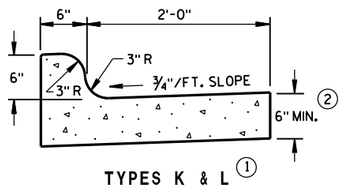


6" SLOPED CURB TYPES G & J ①

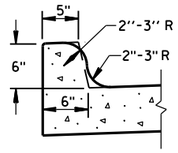


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

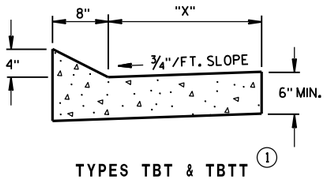


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

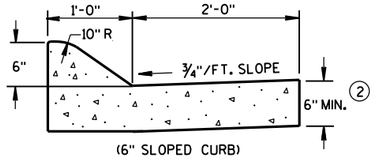
CONCRETE CURB & GUTTER 30"



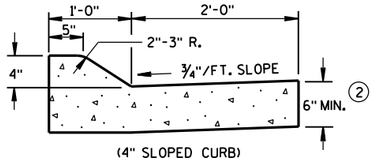
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

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

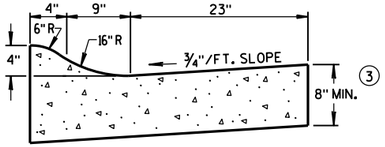


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

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. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

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.

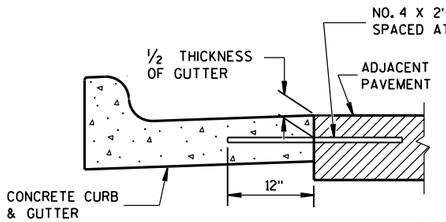
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

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.

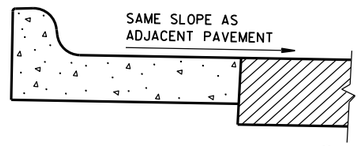
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

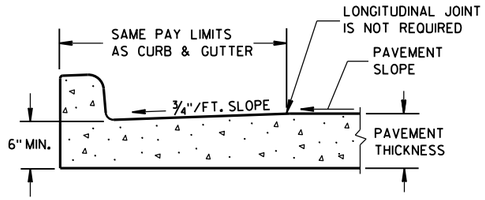
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



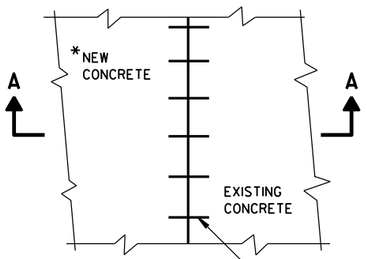
TYPICAL TIE BAR LOCATION ①



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)

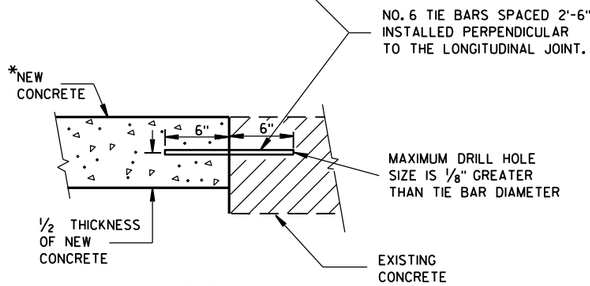


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



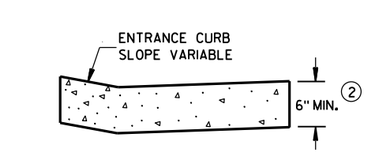
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

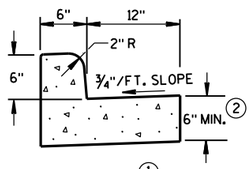


SECTION A-A

TIE BARS DRILLED
INTO EXISTING PAVEMENT

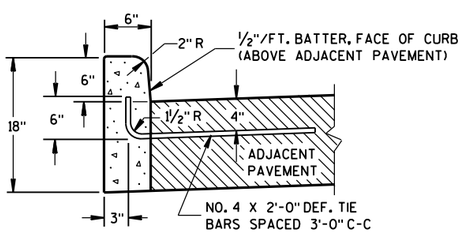


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

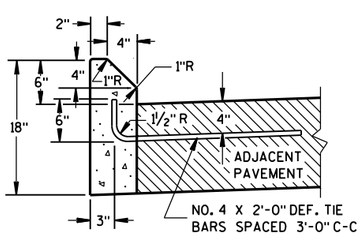


① TYPES A & D

CONCRETE CURB & GUTTER 18"

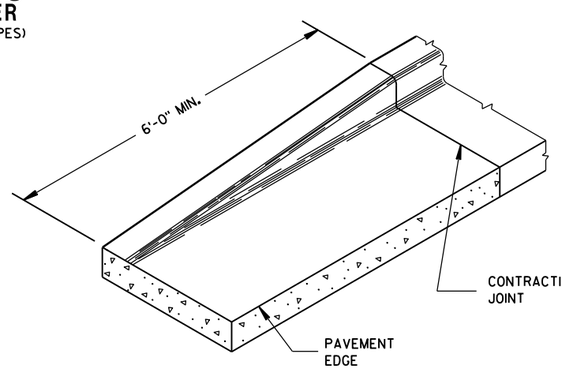


① TYPES A & D



① TYPES G & J

CONCRETE CURB



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

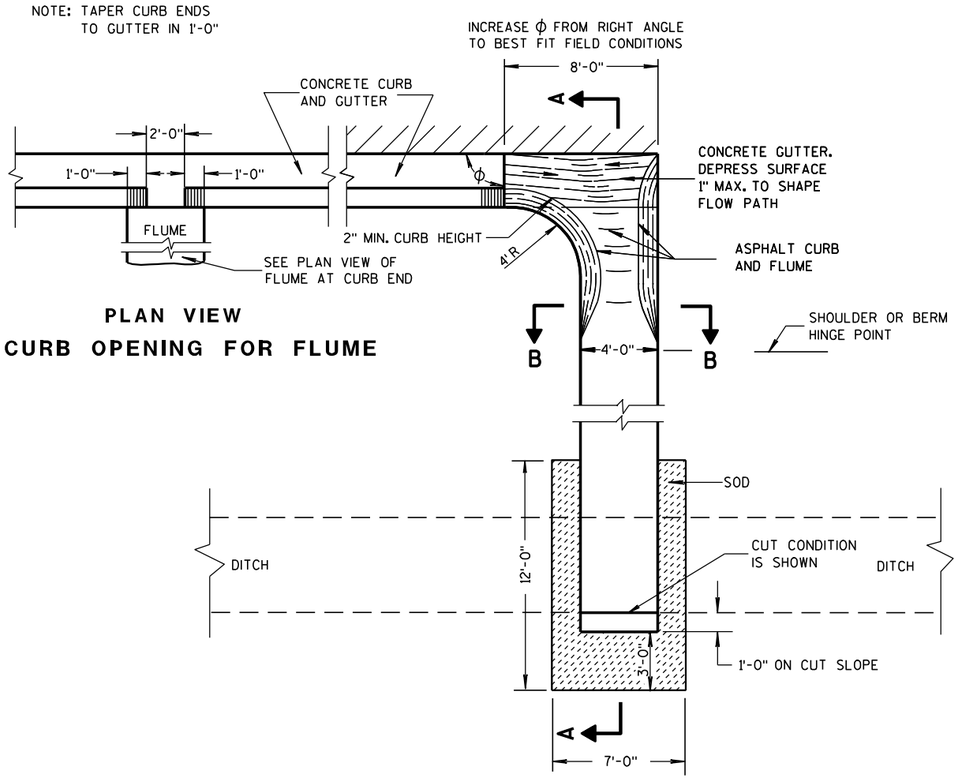
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

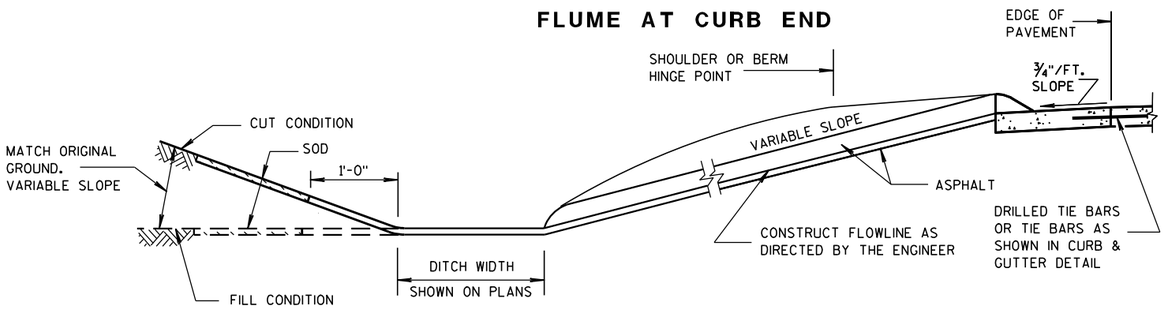
S.D.D. 8 D 1-18

ASPHALTIC FLUME

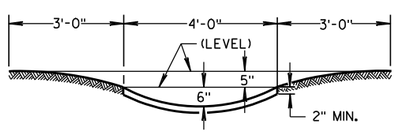


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

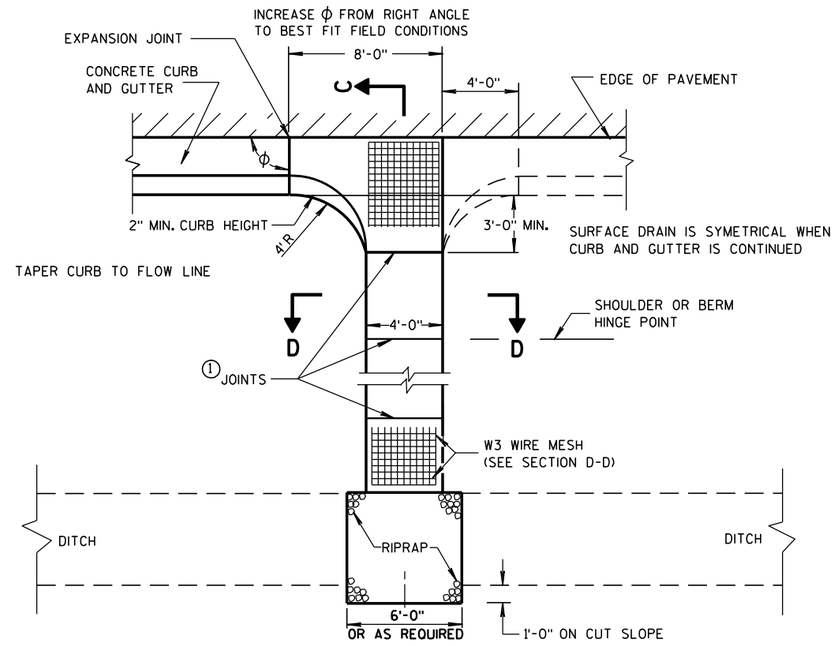
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

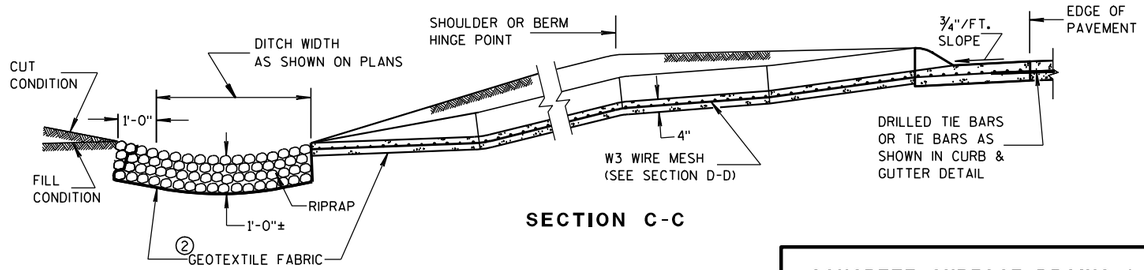
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

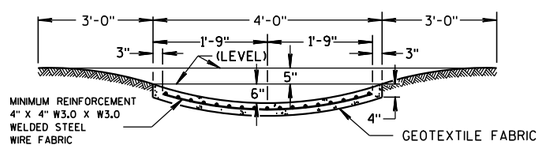
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

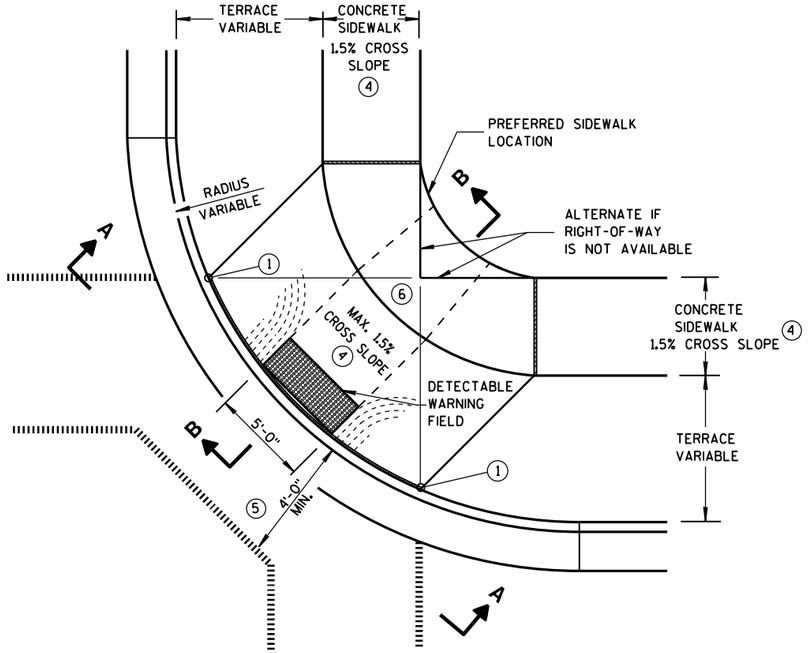
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
MENT
FHWA

6

S.D.D. 8 D 4-5

6

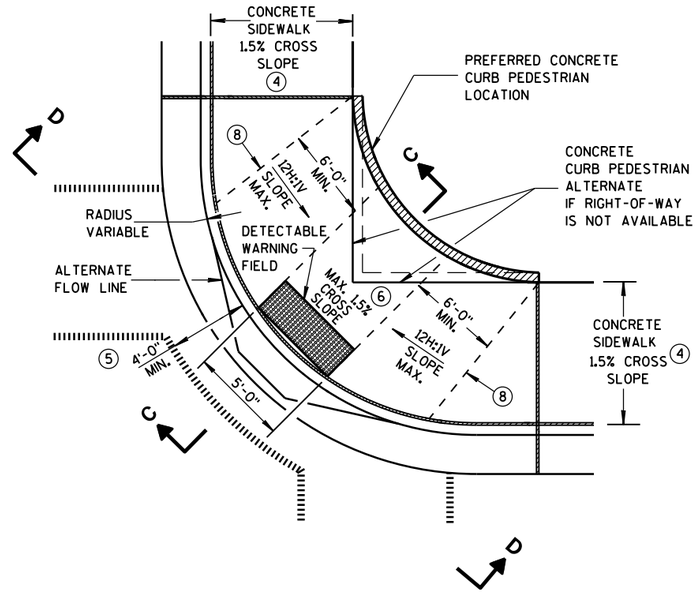
S.D.D. 8 D 4-5



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

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.

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.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN $\frac{1}{4}$-INCH ARE ALLOWED.

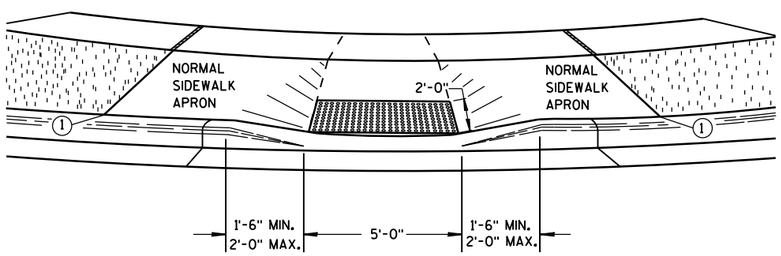
(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(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.

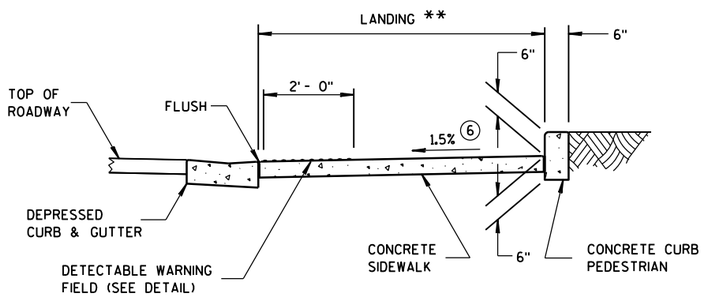
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

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



VIEW A-A

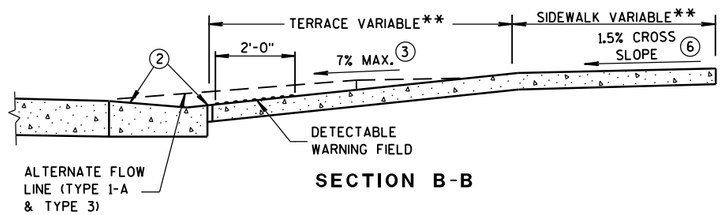
** WIDTH SHOWN ELSEWHERE IN THE PLANS



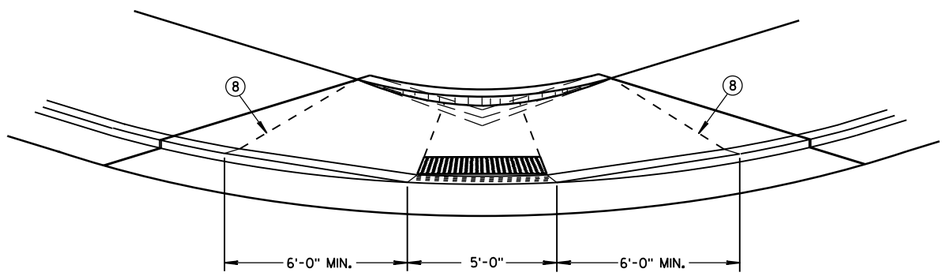
SECTION C-C

LEGEND

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



SECTION B-B



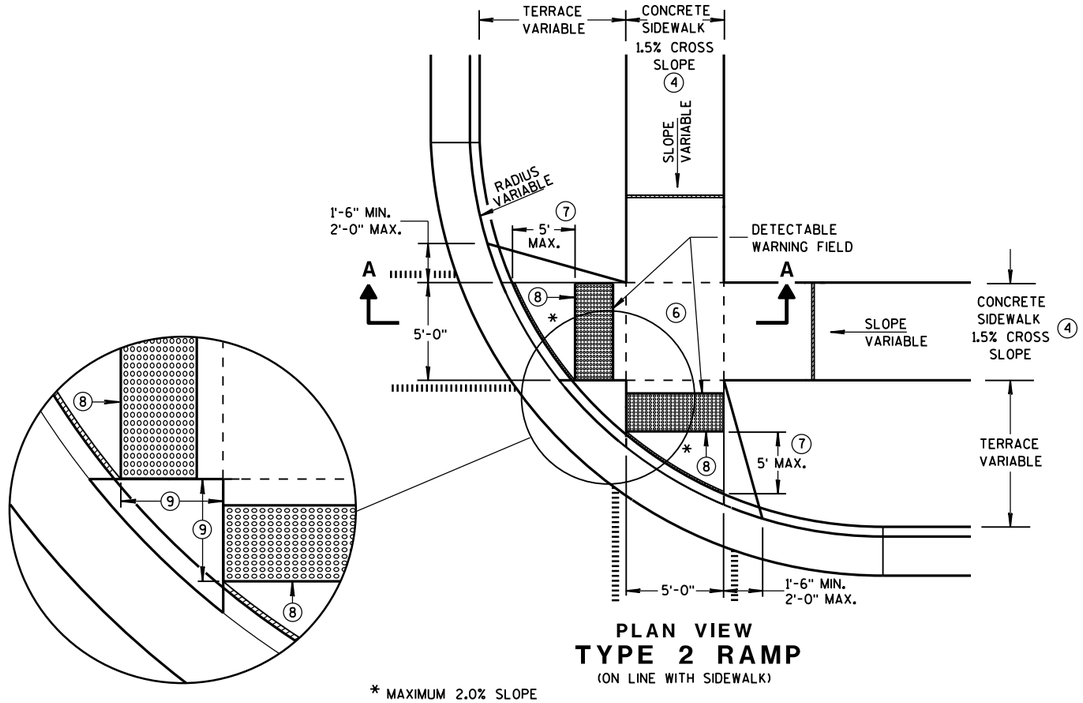
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 8 D 5-16a

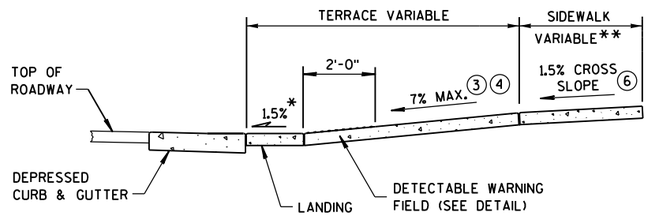


PLAN VIEW

TYPE 2 RAMP

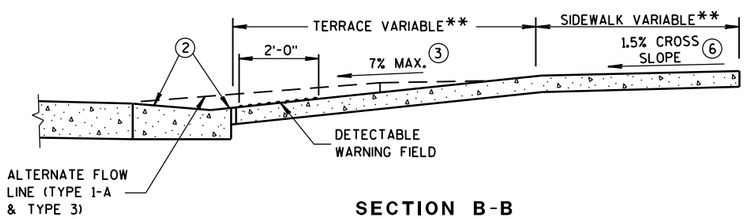
(ON LINE WITH SIDEWALK)

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



SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

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 DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(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 (MINIMUM 4 FEET X 4 FEET).

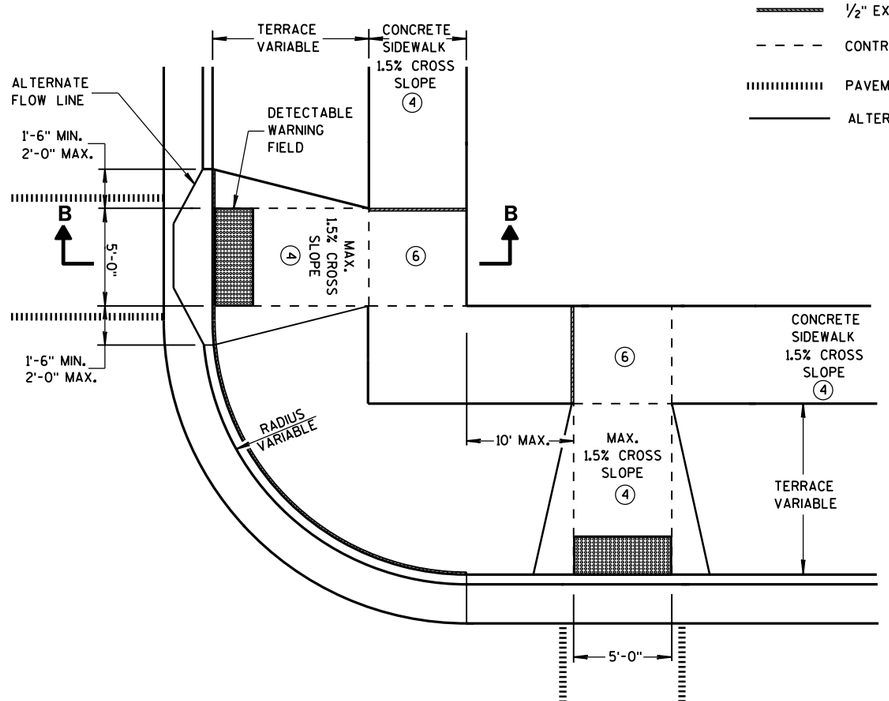
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(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. 2" MINIMUM CURB HEIGHT.

LEGEND

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



PLAN VIEW

TYPE 3 RAMP

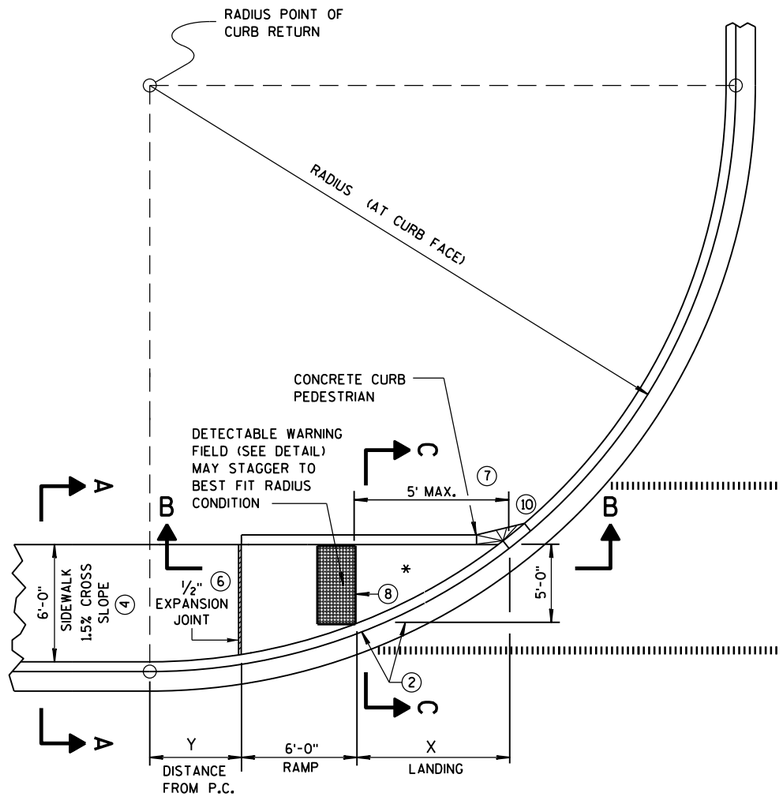
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

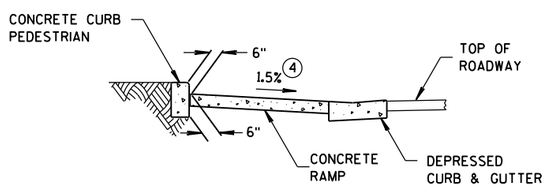
S.D.D. 8 D 5-16b



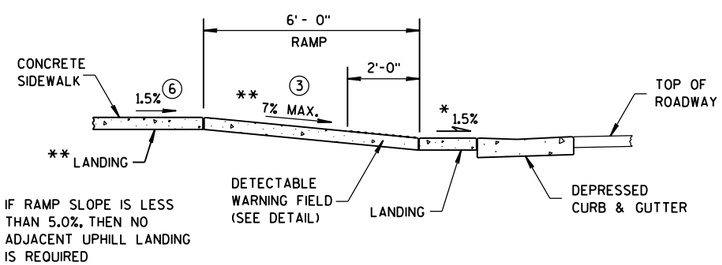
CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

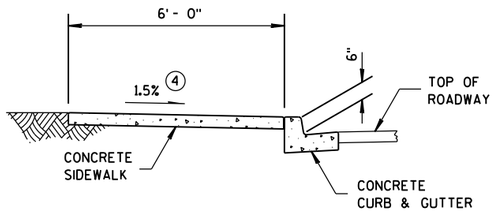
INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION C-C FOR TYPE 4A

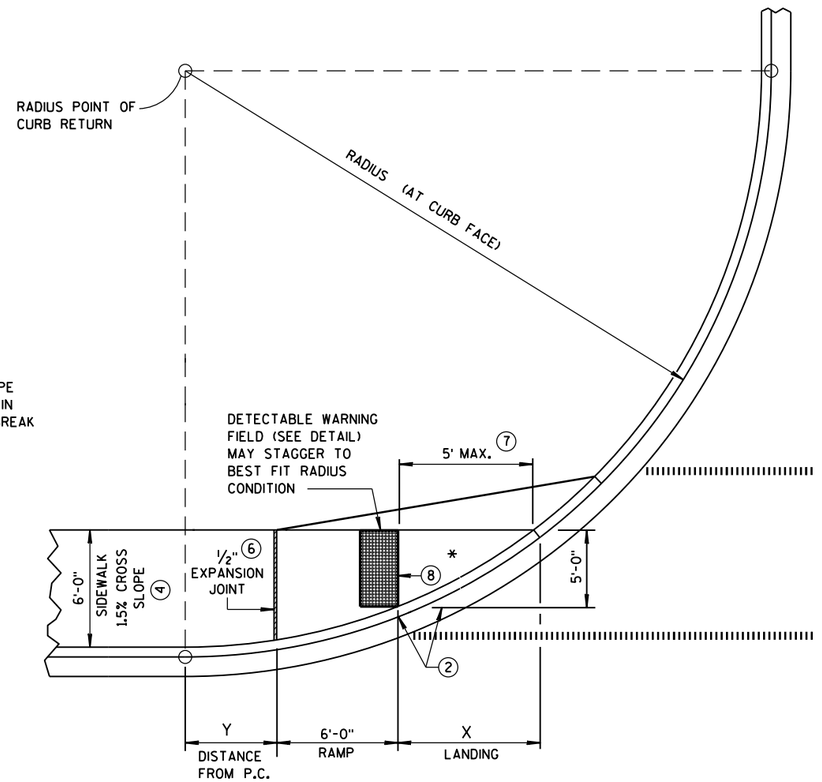


SECTION B-B FOR TYPE 4A



SECTION A-A FOR TYPE 4A

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



CURB RAMP TYPE 4A1
PLAN VIEW

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 DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

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

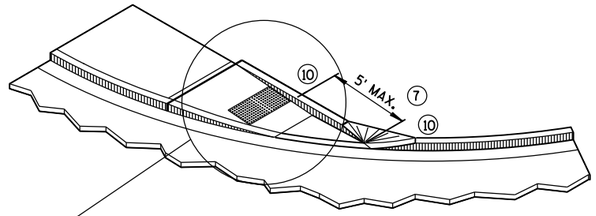
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

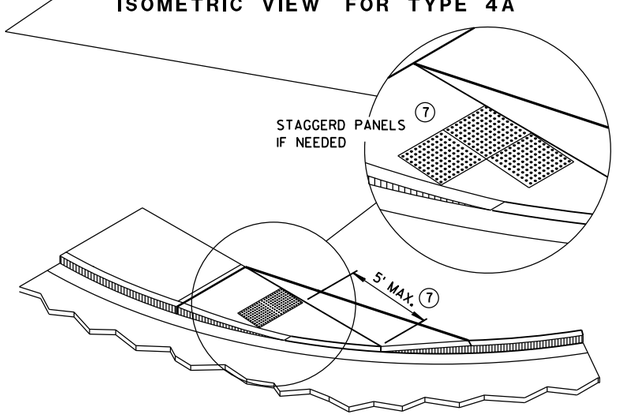
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(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



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

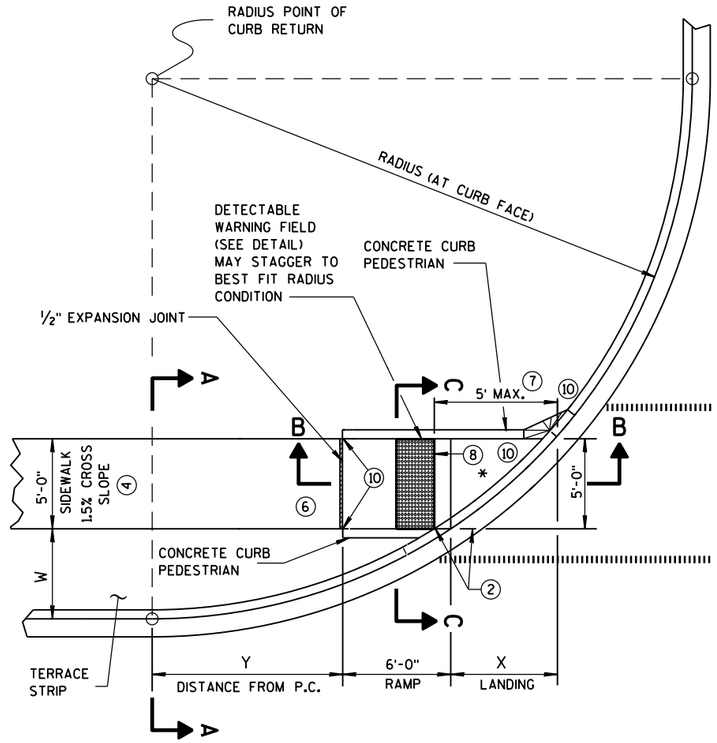
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPES 4A AND 4A1

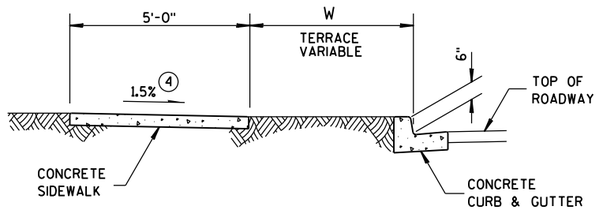
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

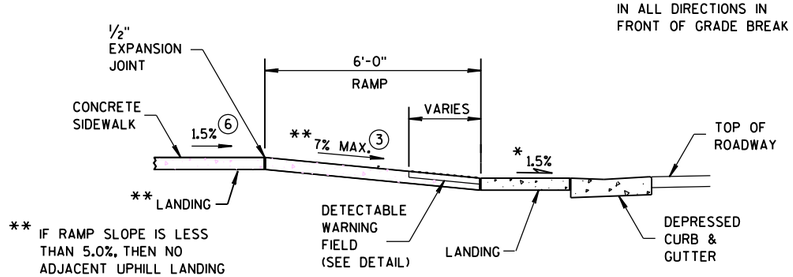
S.D.D. 8 D 5-16c



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

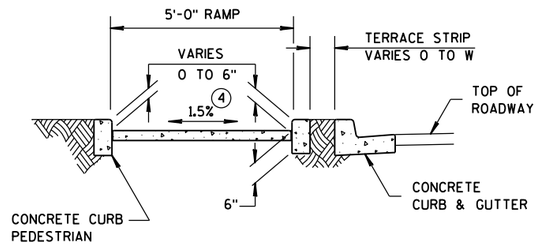
SECTION B-B FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C-C FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED

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 DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED.

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

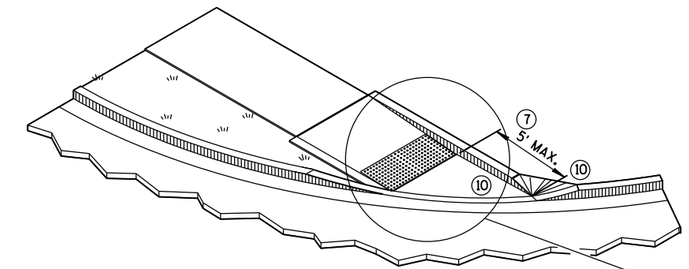
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

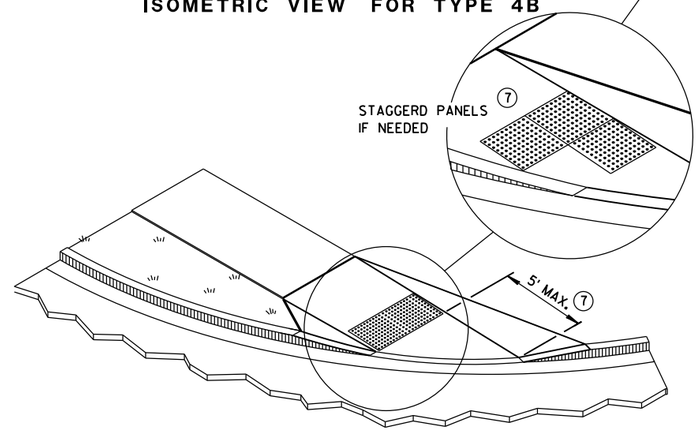
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

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

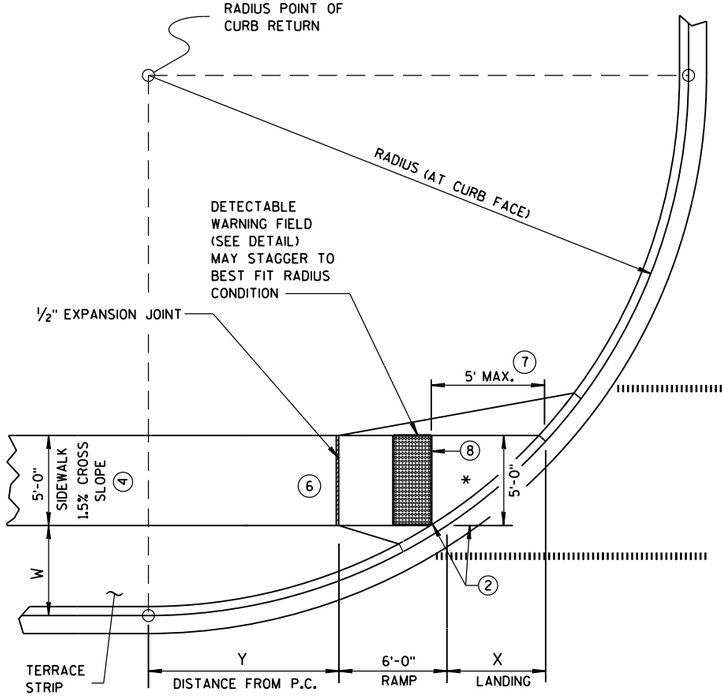
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1



CURB RAMP TYPE 4B1
PLAN VIEW

CURB RAMPS
TYPE 4B AND 4B1

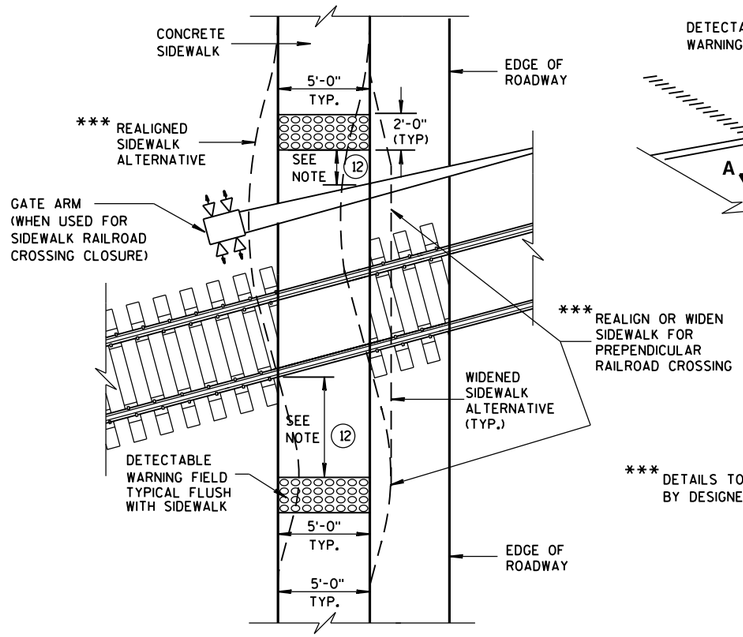
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 8 D 5-16d

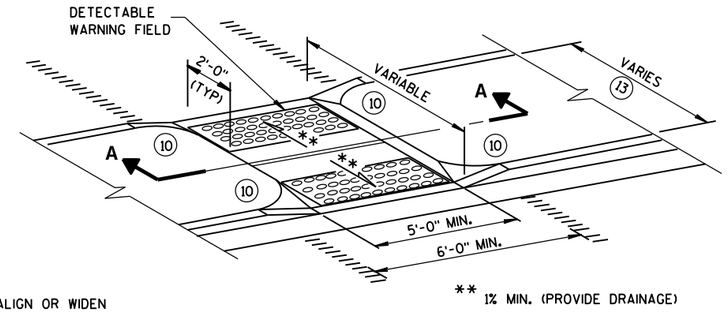
6

S.D.D. 8 D 5-16d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

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 DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(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.

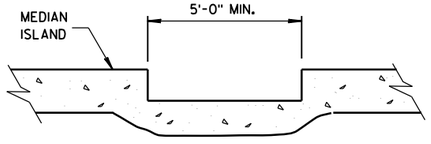
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(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.

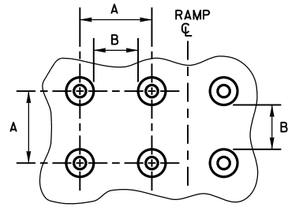
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



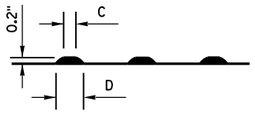
SECTION A-A

	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.

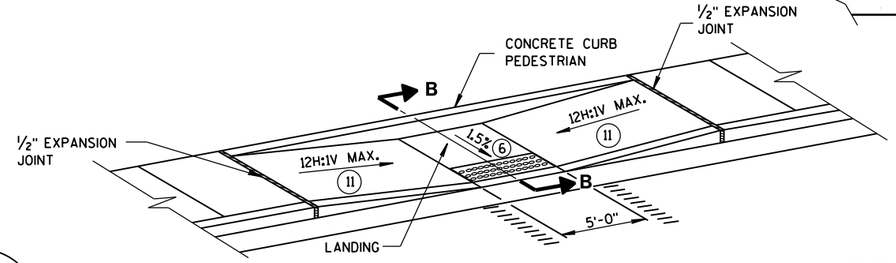


PLAN VIEW

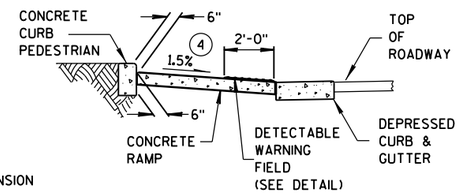


ELEVATION VIEW

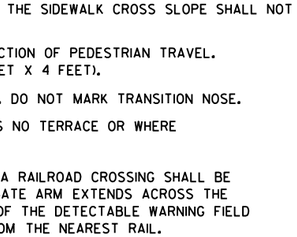
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



MID-BLOCK CROSSING
TYPE 7A



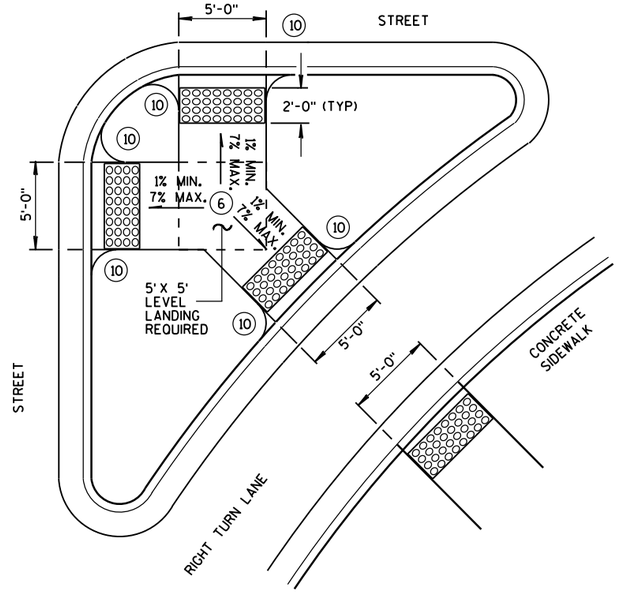
SECTION B-B



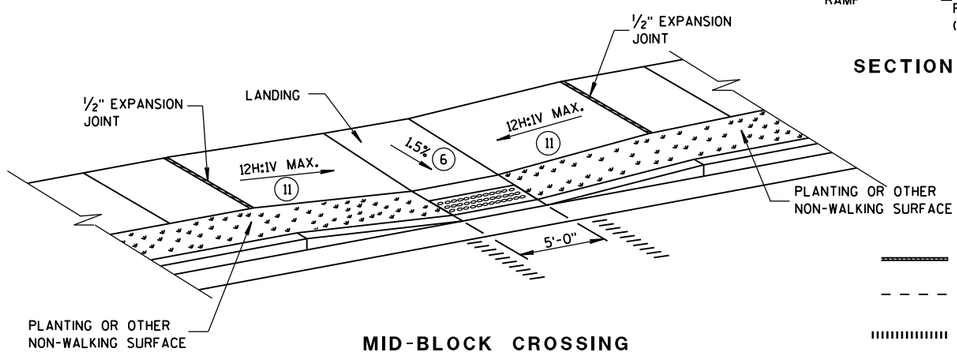
PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)

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

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

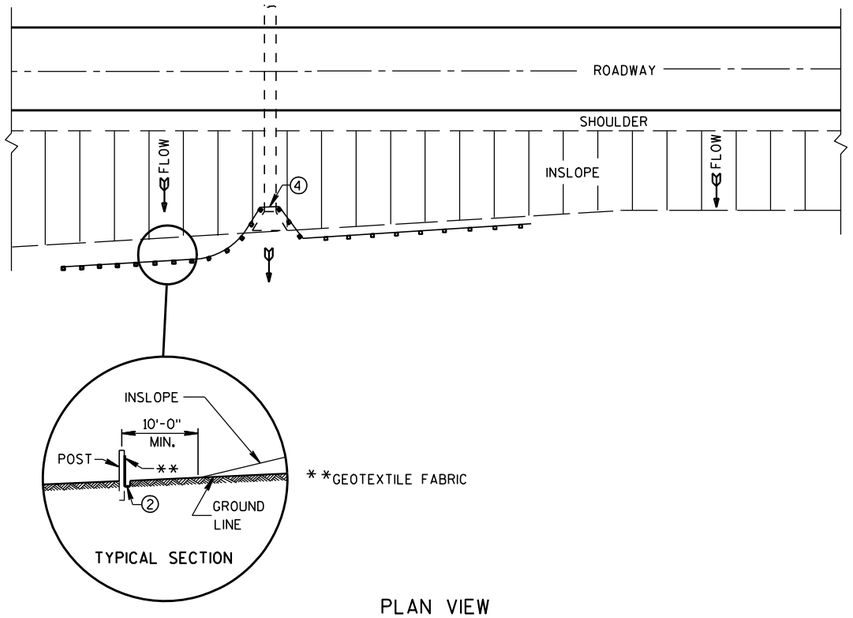
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS [illegible] ENGINEER
FHWA

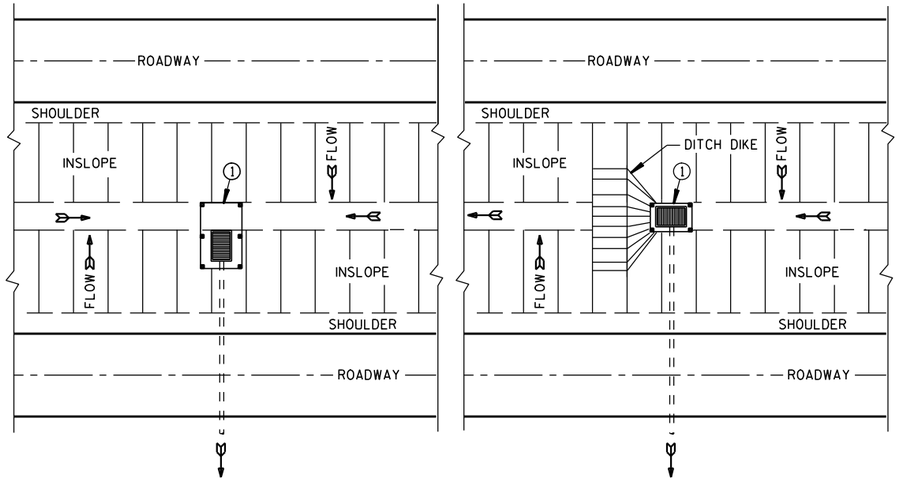
6

S.D.D. 8 D 5-16e



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.

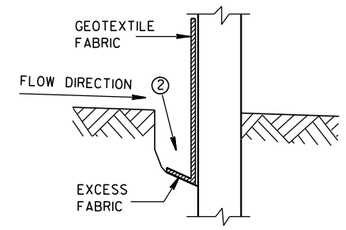
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

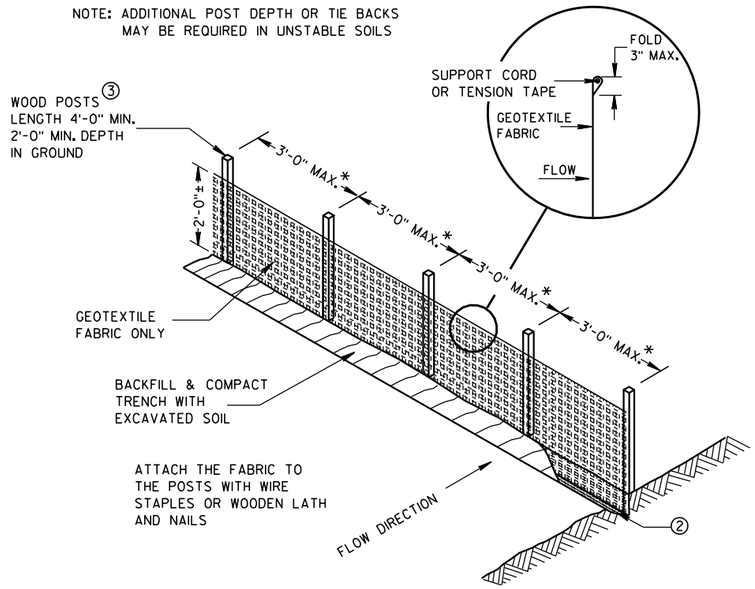
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

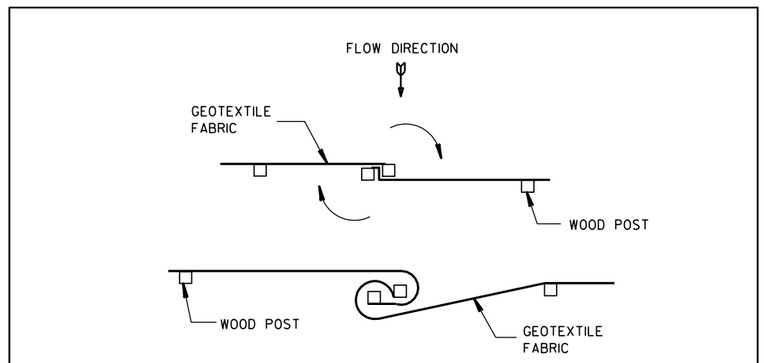
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



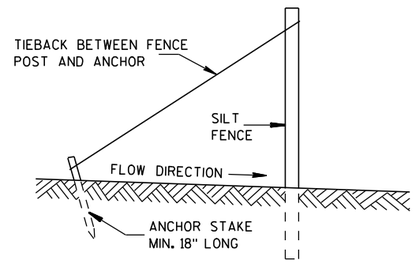
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

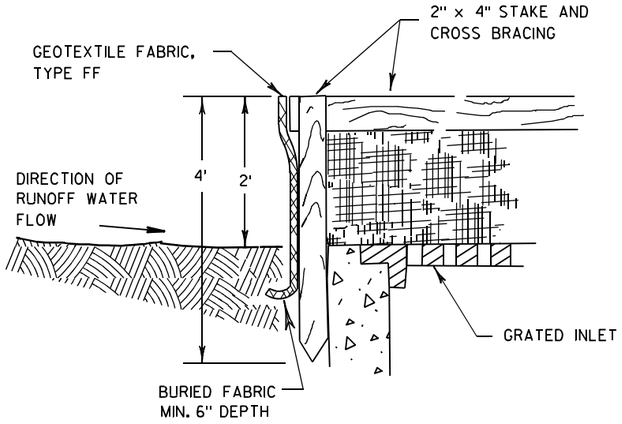
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

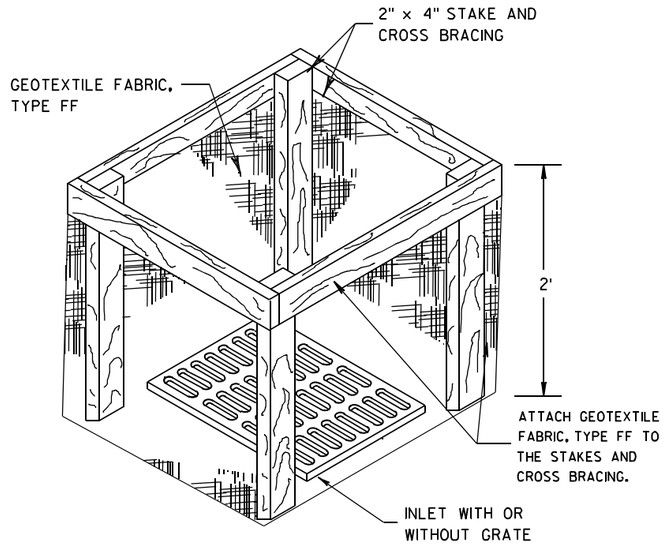
6

S.D.D. 8 E 9-6

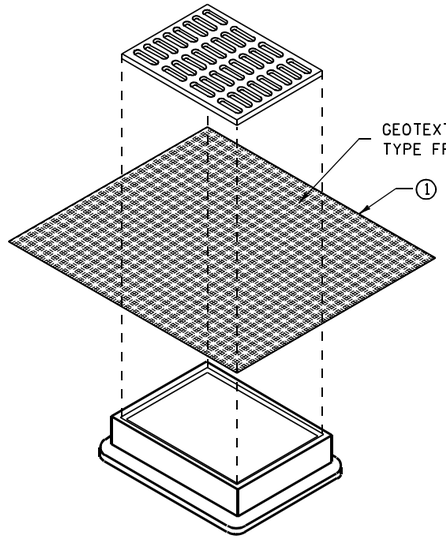
6

S.D.D. 8 E 9-6



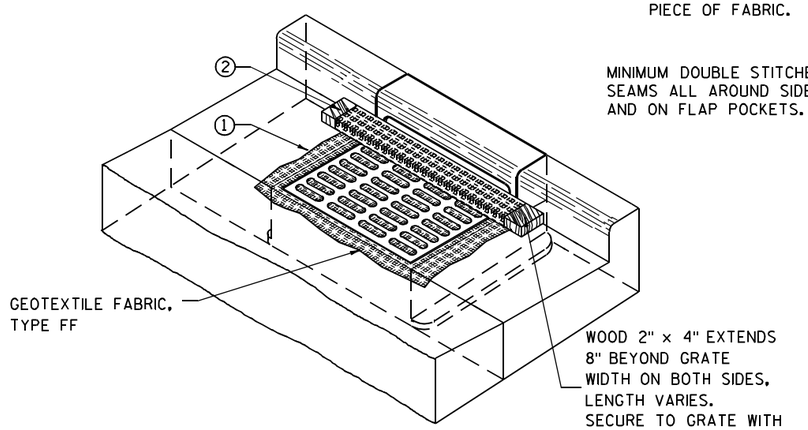


INLET PROTECTION, TYPE A

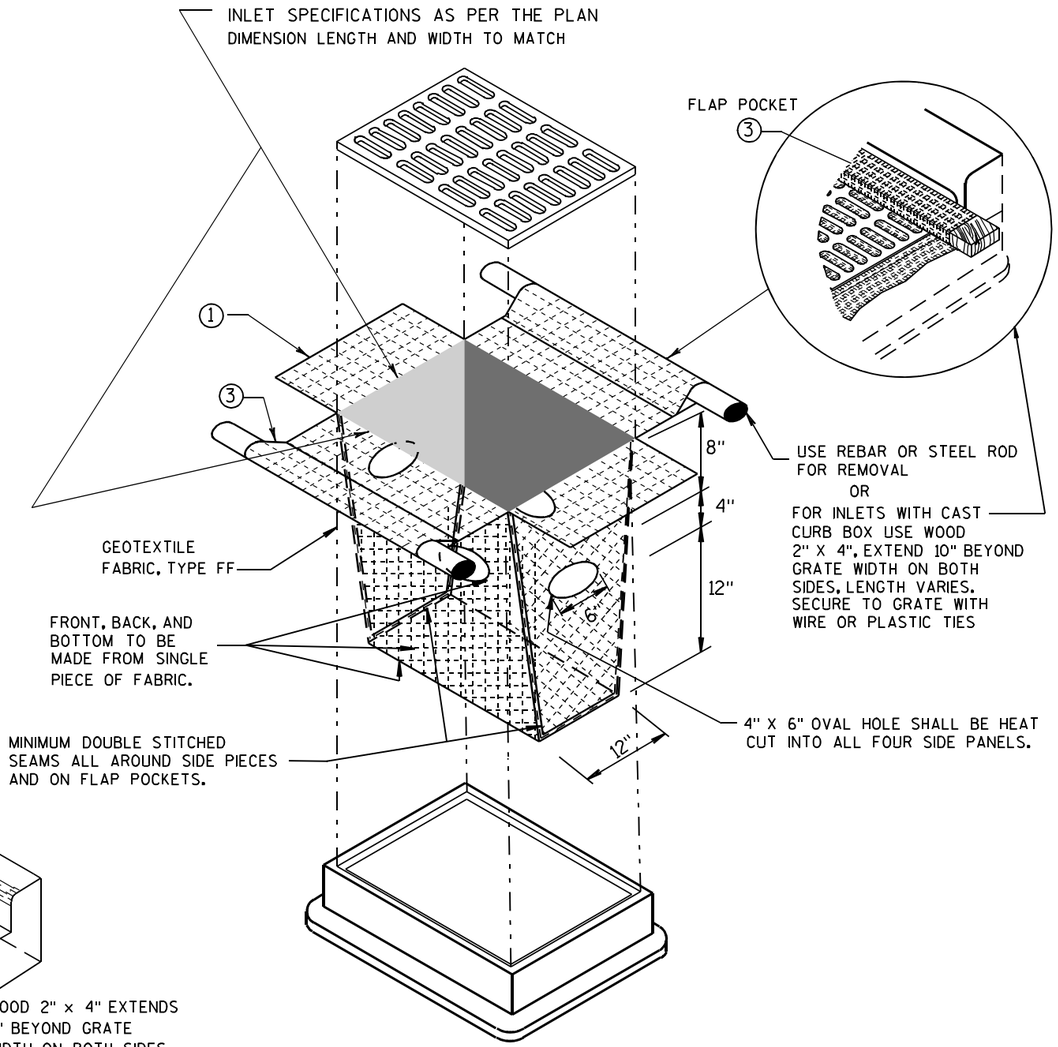


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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.

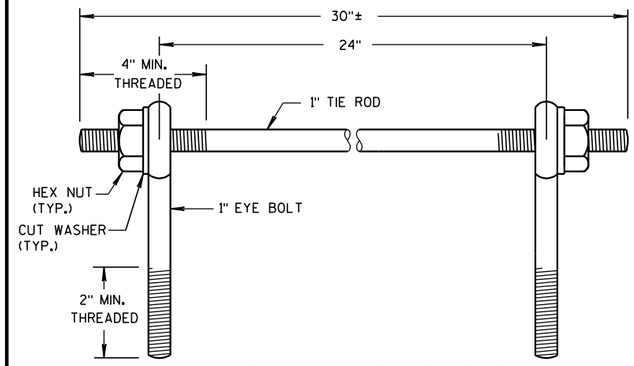
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

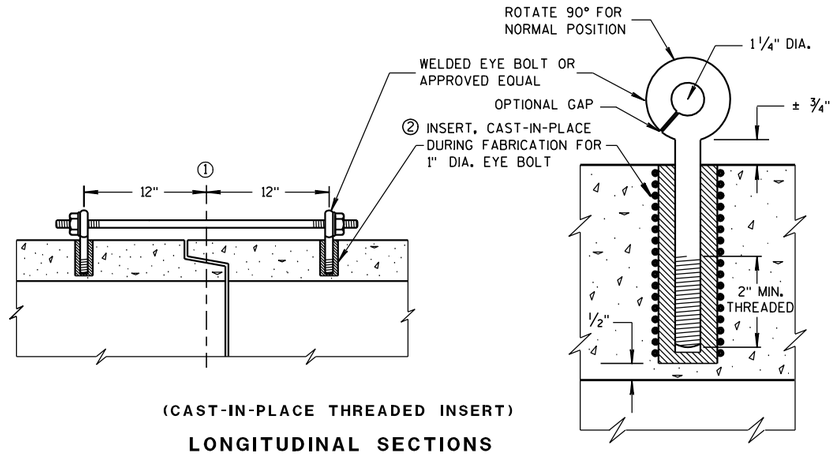
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 E 10-2



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

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.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

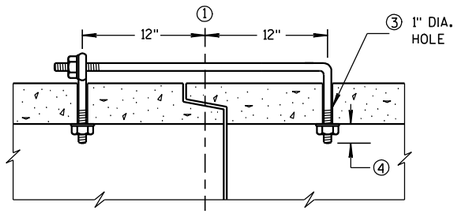
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

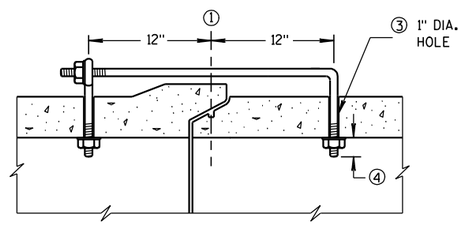
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

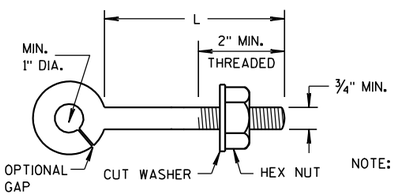


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

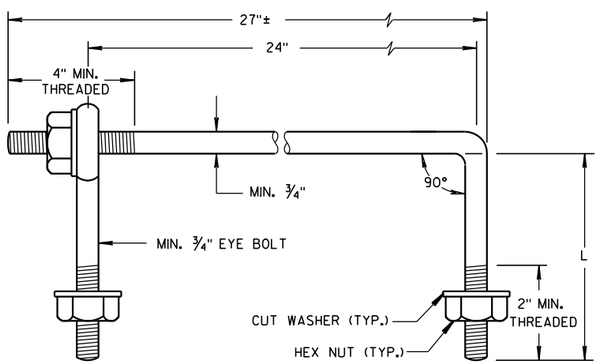
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

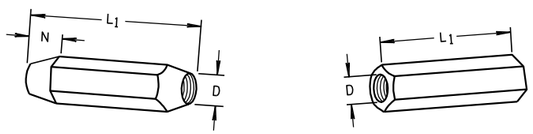
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

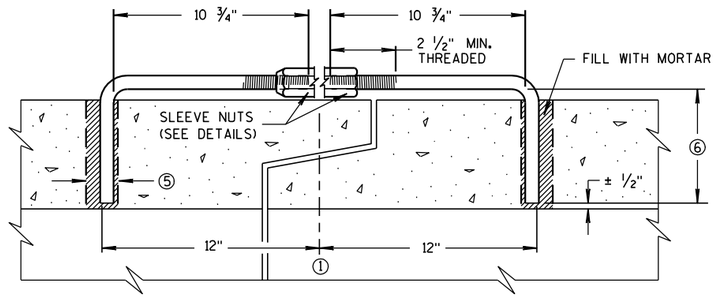
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

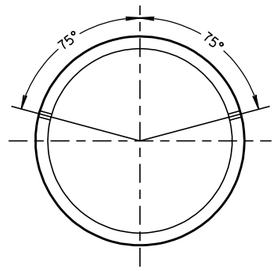
SLEEVE NUTS



LONGITUDINAL SECTION

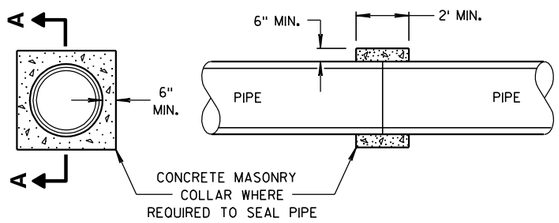
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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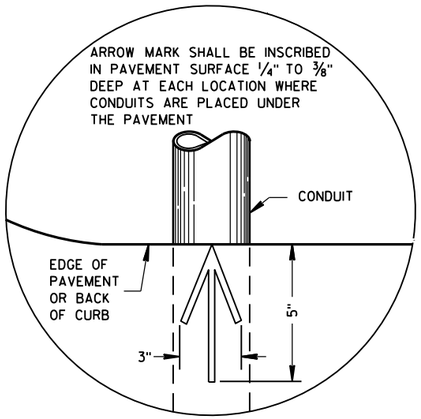
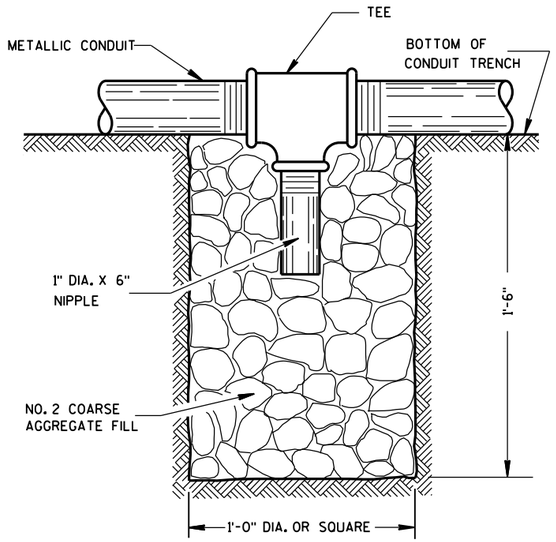


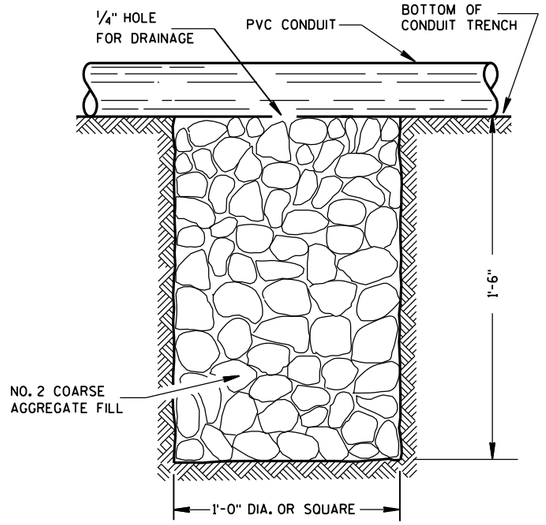
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

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.

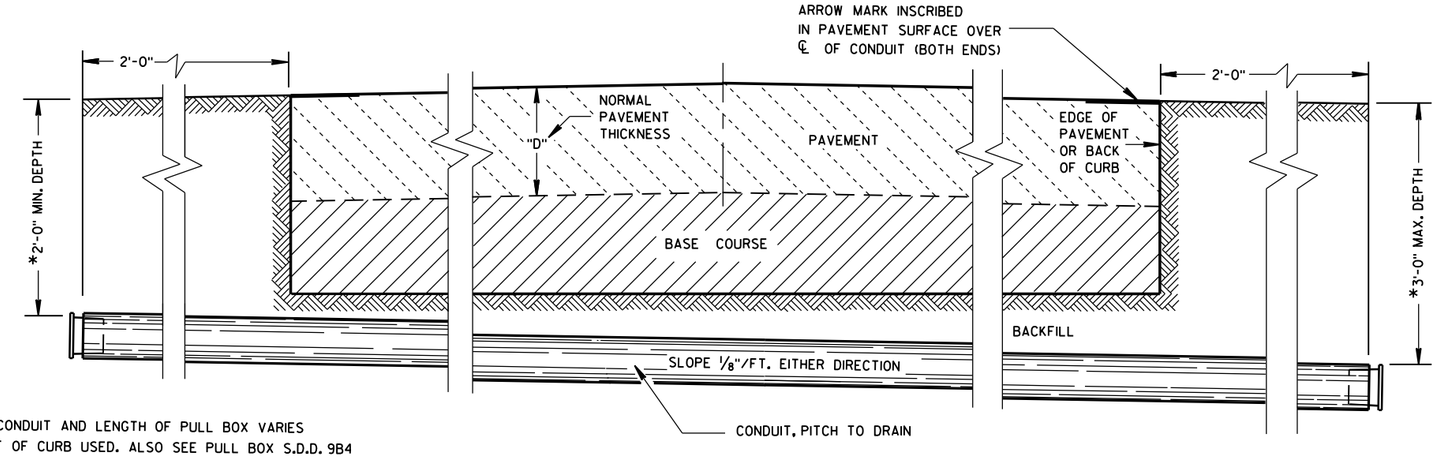
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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.



*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

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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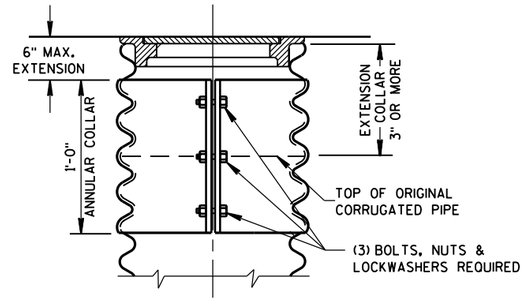
TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

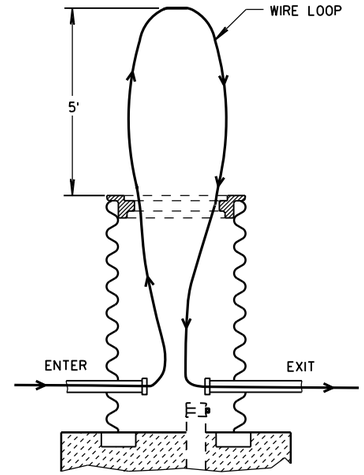
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

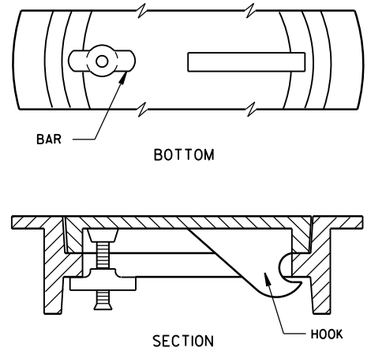
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

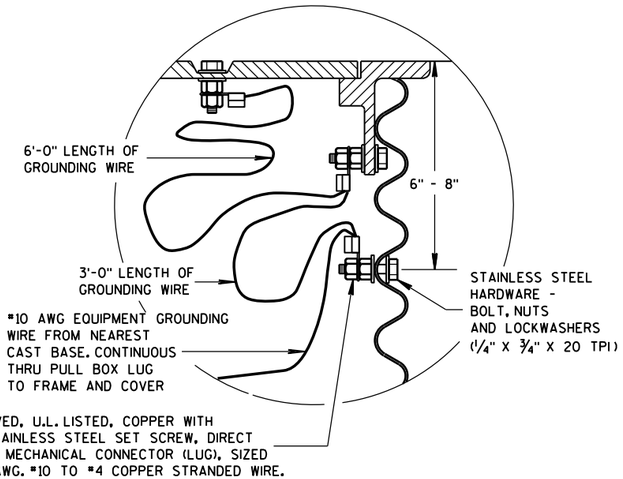


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

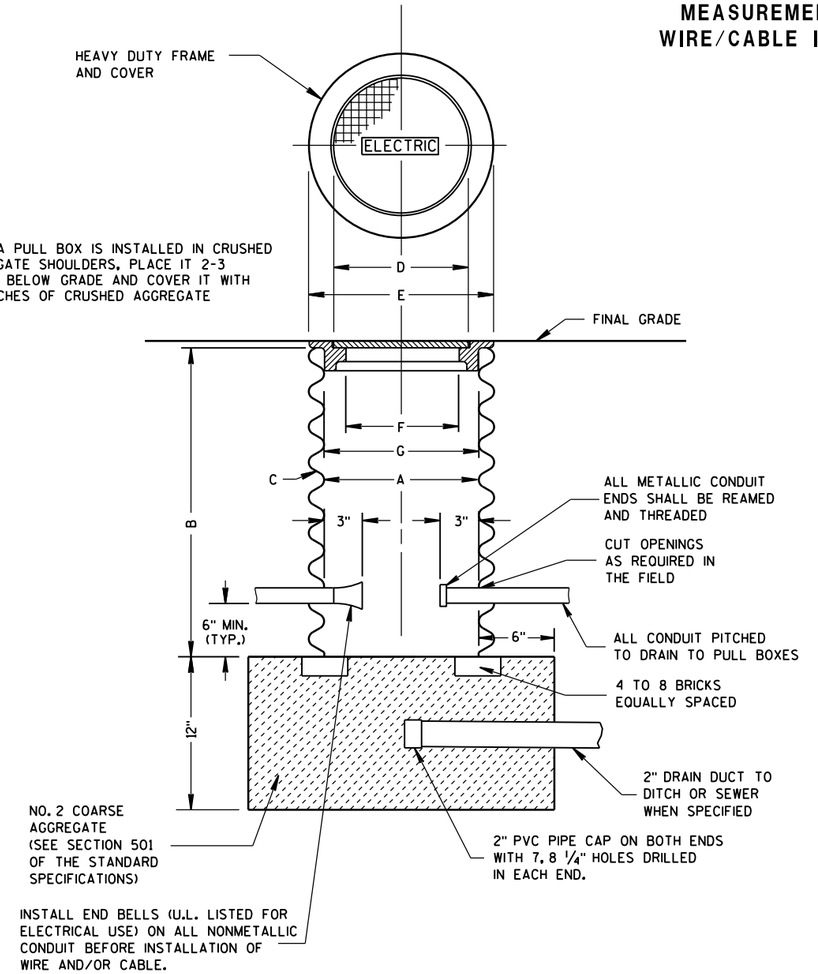
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

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

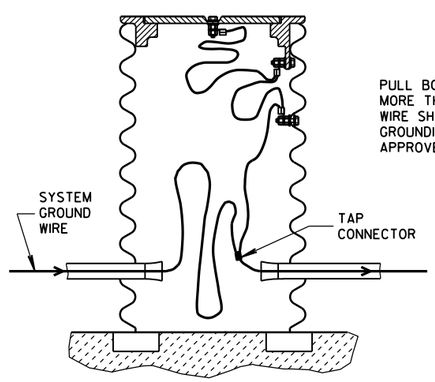
GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

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

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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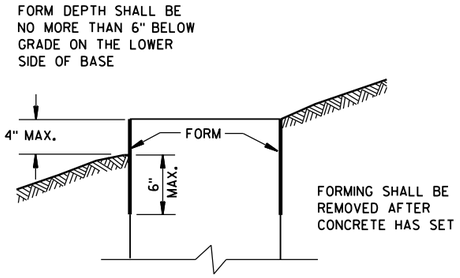


FORMING DETAIL

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 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 SMOOTH 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 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 NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

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) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES 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" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END 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).

(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 BY THE ENGINEER.

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

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

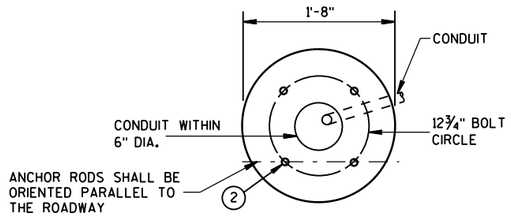
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

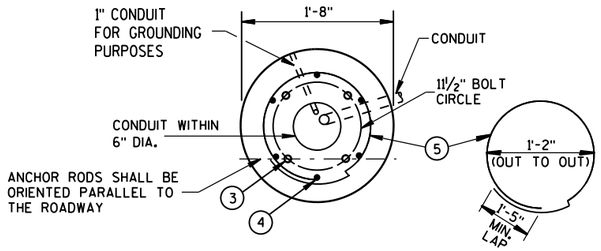
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

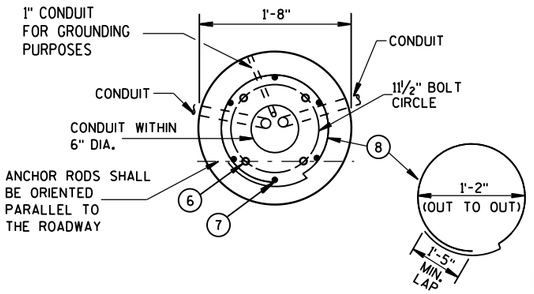
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

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

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

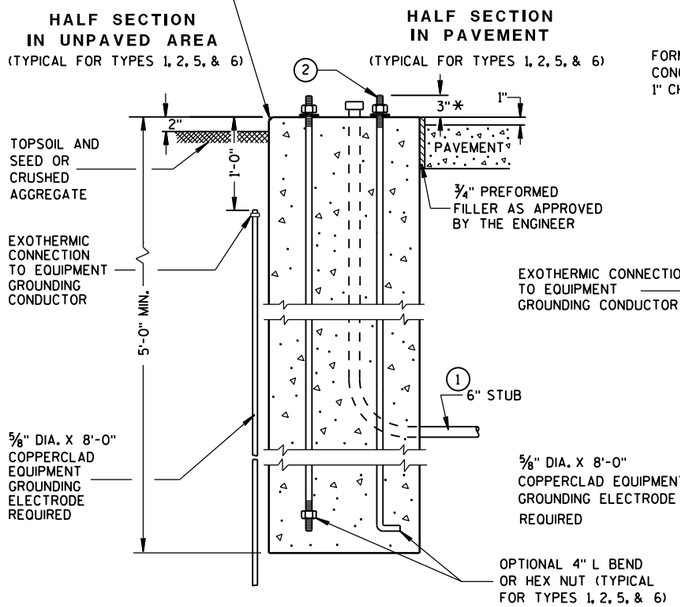






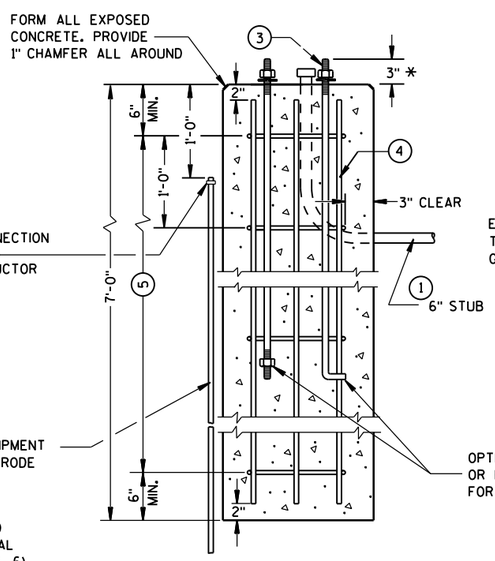
HALF SECTION IN UNPAVED AREA

(TYPICAL FOR TYPES 1, 2, 5, & 6)

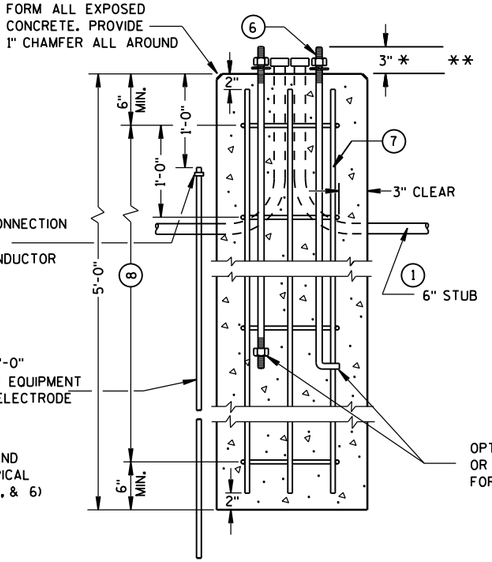


HALF SECTION IN PAVEMENT

(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± 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
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL

FHWA

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S.D.D. 9 C 2-7

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.

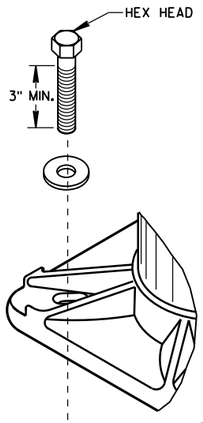
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

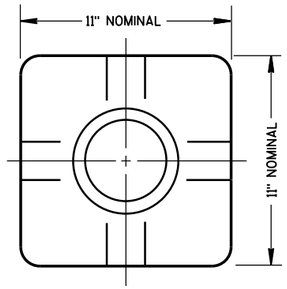
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

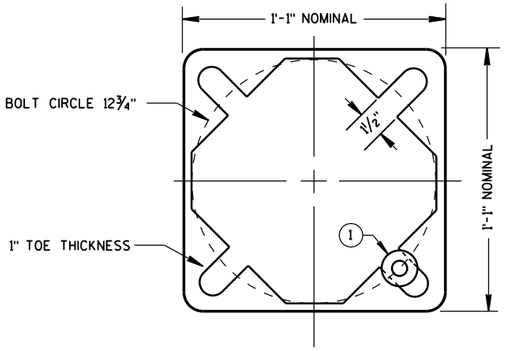
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

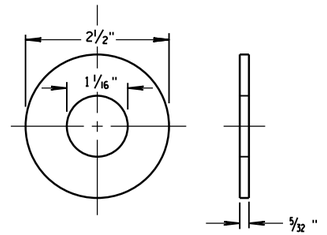




TOP VIEW
(PEDESTAL BASE)

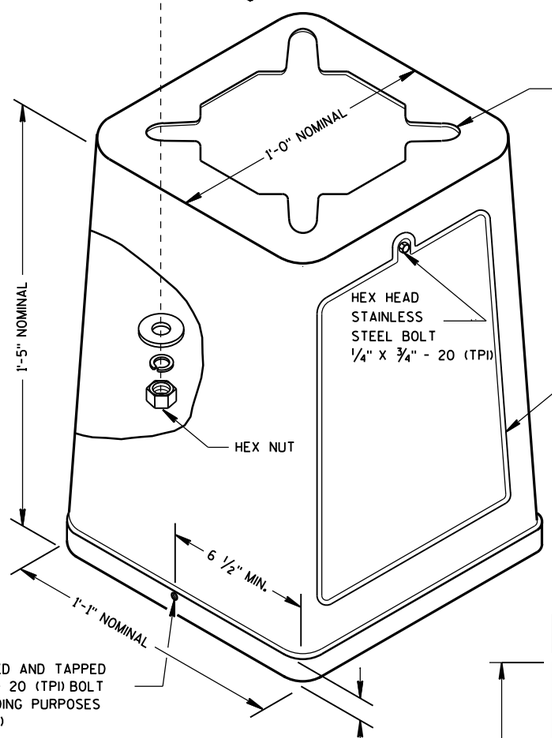


BOTTOM VIEW
(PEDESTAL BASE)

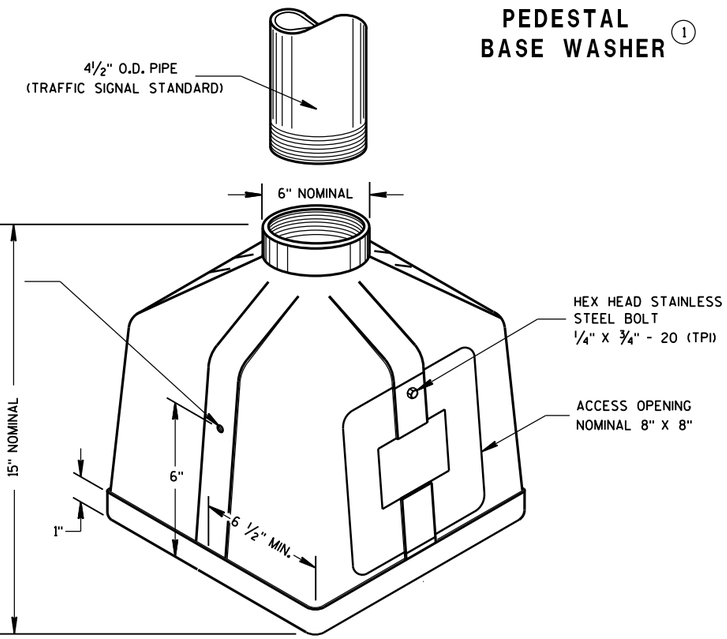


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

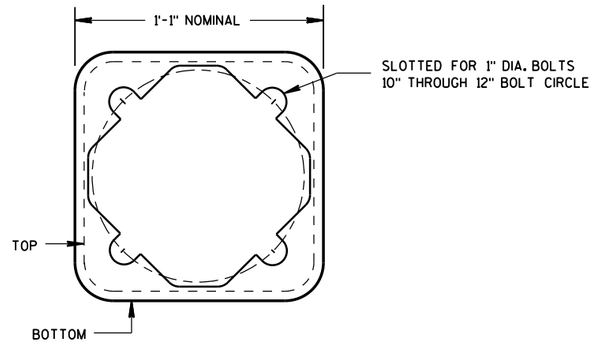


ISOMETRIC VIEW

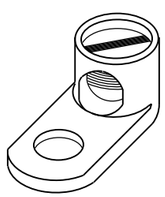


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

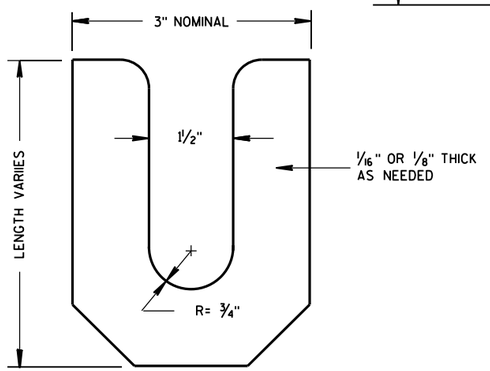


TYPICAL MECHANICAL CONNECTOR LUG

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

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S.D.D. 9 C 3-4

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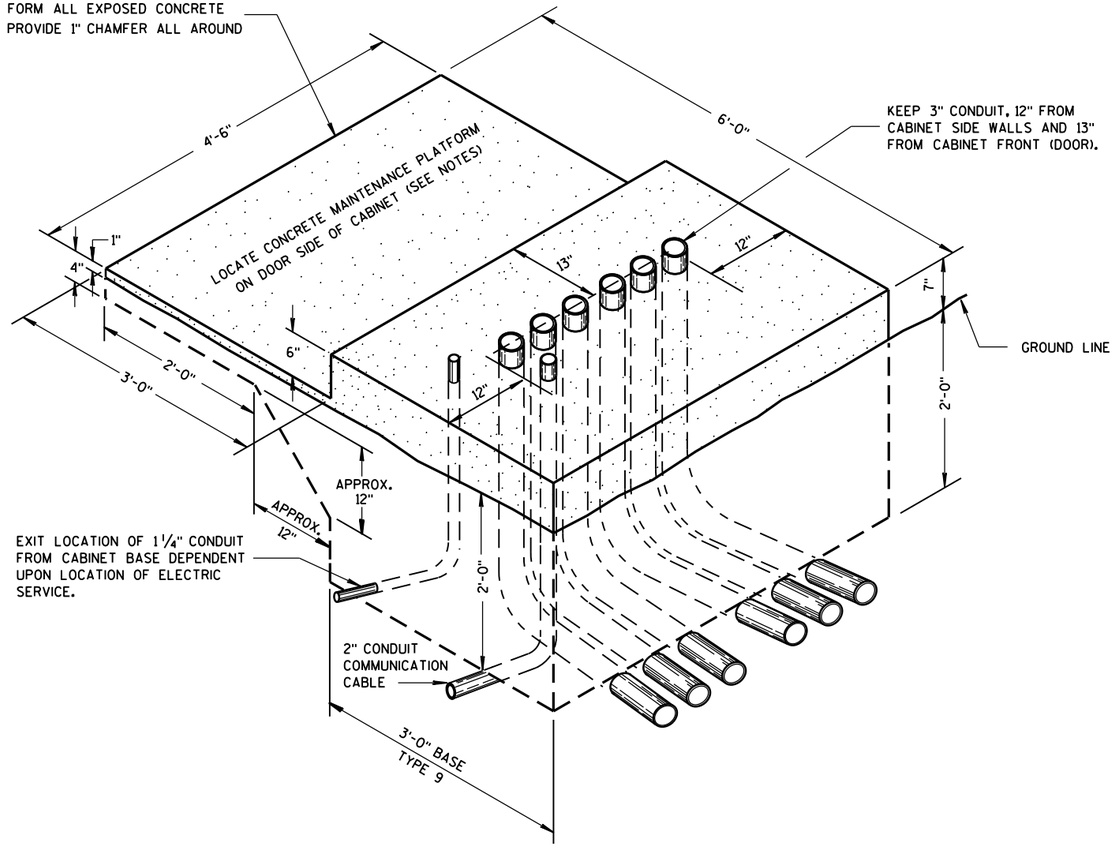
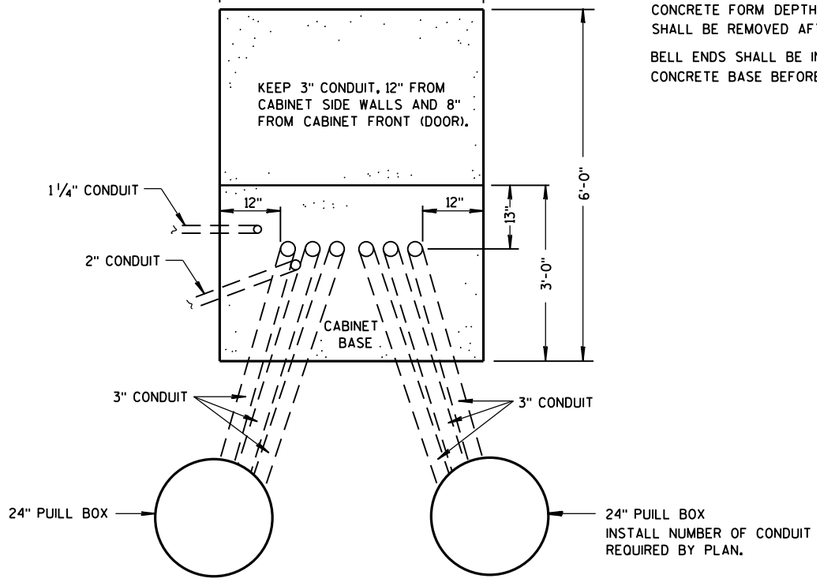
S.D.D. 9 C 3-4



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

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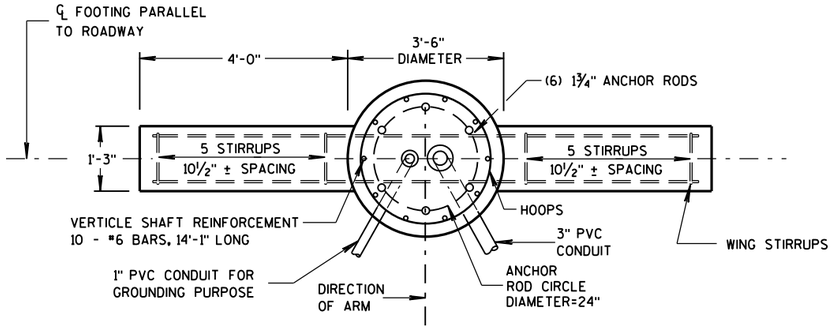
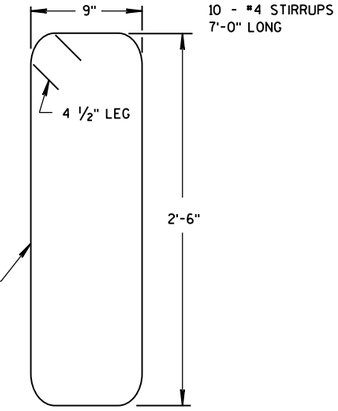
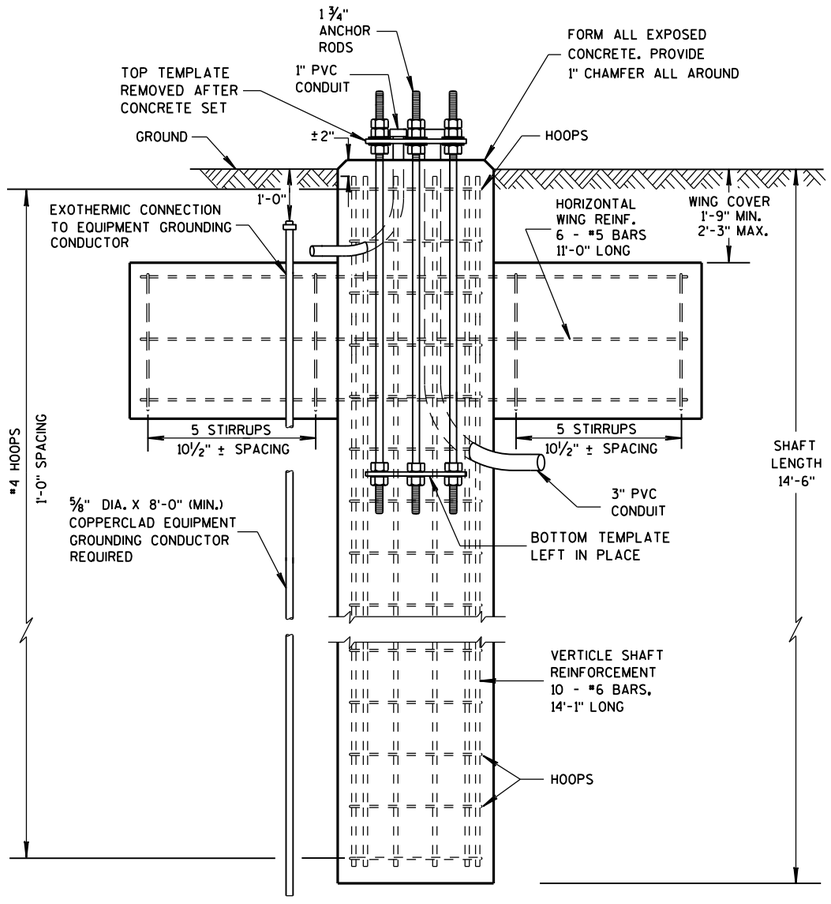


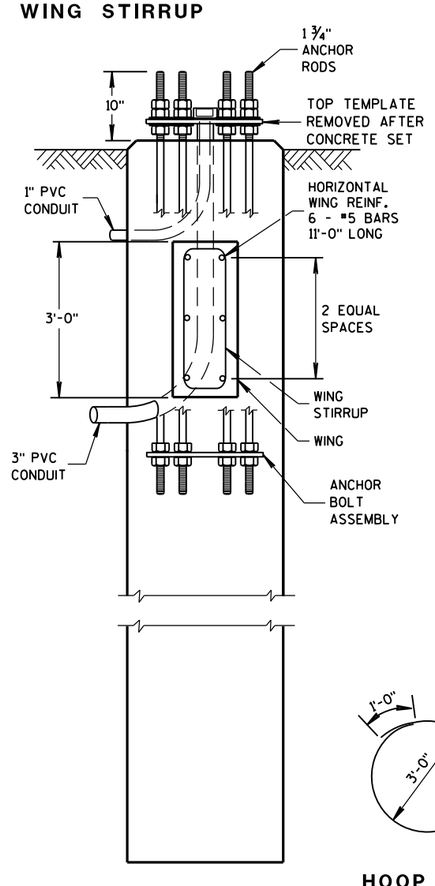
PLAN VIEW



WING STIRRUP

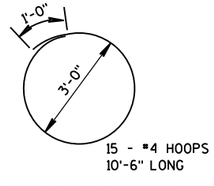


ELEVATION VIEW



SIDE VIEW

DOES NOT SHOW HOOPS OR VERTICAL SHAFT REINFORCEMENT



15 - #4 HOOPS 10'-6" LONG

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 POLES)

CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 433 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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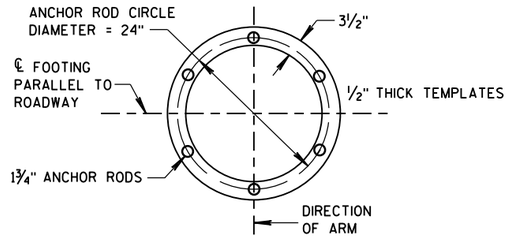
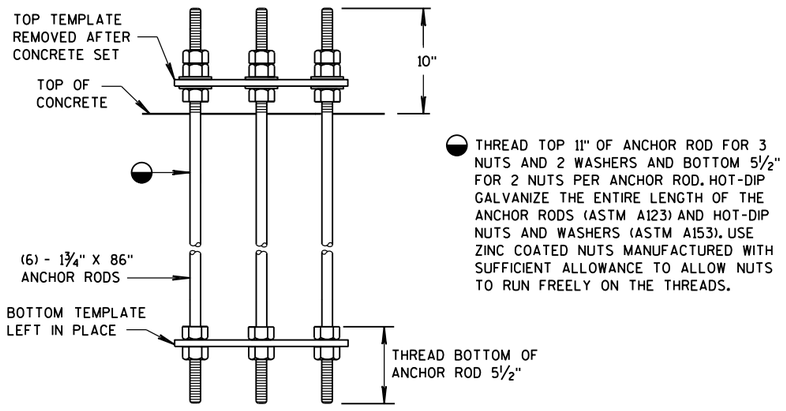
S.D.D. 9 C 12-8a

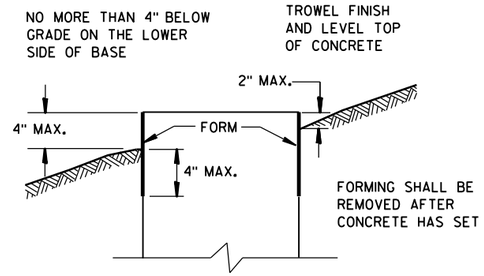


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

CONCRETE BASE TYPE 13	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2016 DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL

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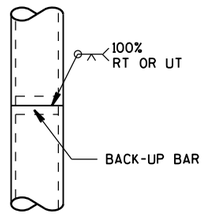
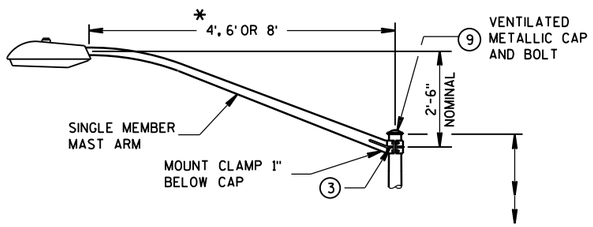
S.D.D. 9 C 12-8b

FOR MANUFACTURERS USE ONLY

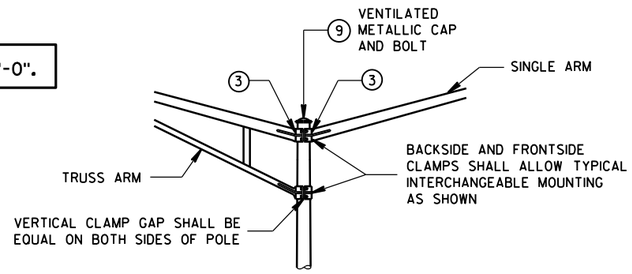
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.





POLE SPLICE DETAIL

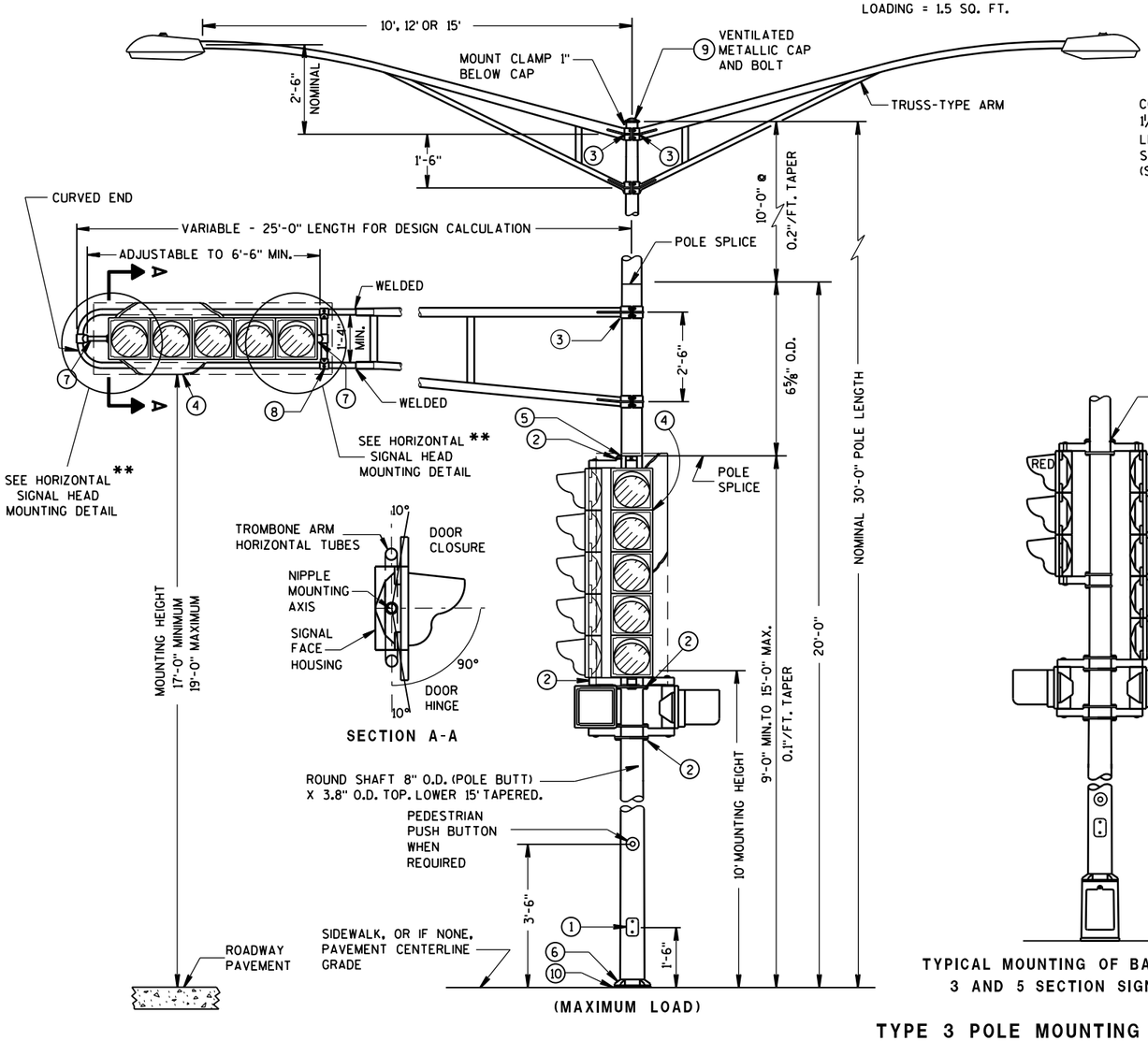
***RISE FOR 4' ARM SHALL BE 2'-0".**

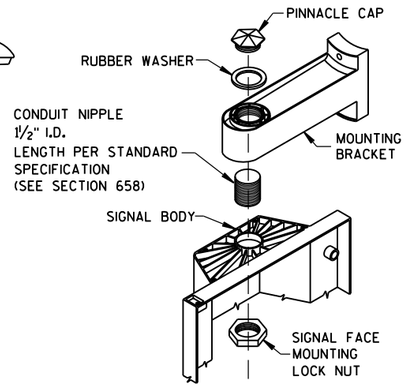


INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE

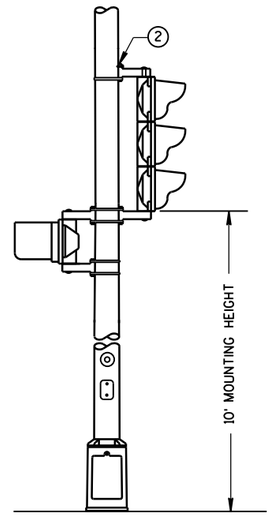
WT. - 50 LBS.
EFFECTIVE PROJECTED
AREA FOR WIND
LOADING = 1.5 SQ. FT.





SIGNAL FACE MOUNTING DETAIL
(BANDED)

TYPICAL MOUNTING OF BACK TO BACK
3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION
SIGNAL FACE

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 IN ACCORDANCE WITH STANDARD SPECIFICATION 652, SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ 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 & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658)

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" 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 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) TYPE 3 POLE CONFIGURATIONS SHALL BE MOUNTED DIRECTLY TO THEIR CONCRETE BASES.

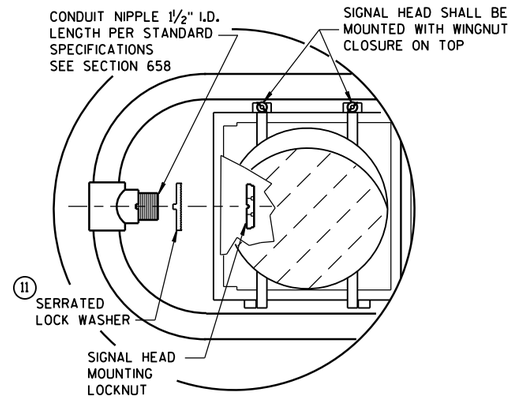
(7) MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 2 INCHES IN LENGTH AND 1½ INCHES IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658)

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (1/4 " 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.



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL**

** SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR

TYPE 3 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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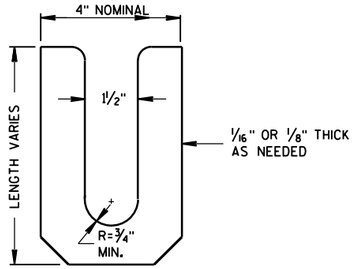
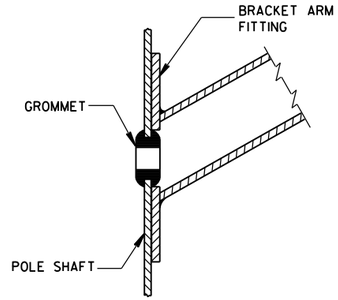
S.D.D. 9 E 1-14b

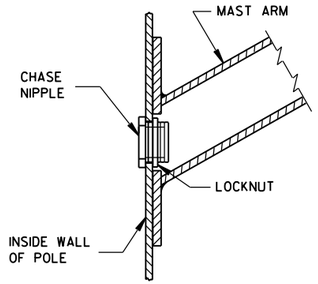


LEVELING SHIM (13)

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.

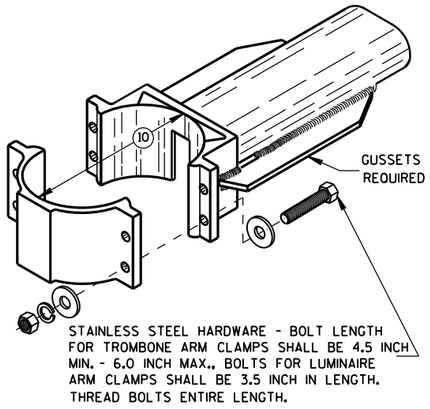
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

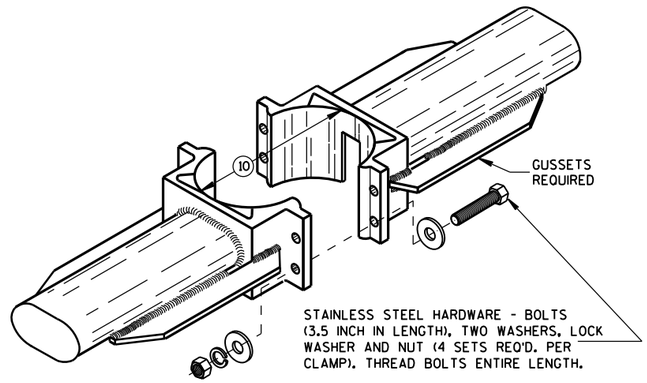
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) 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.

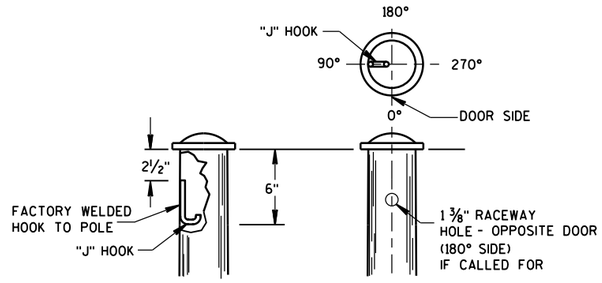
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



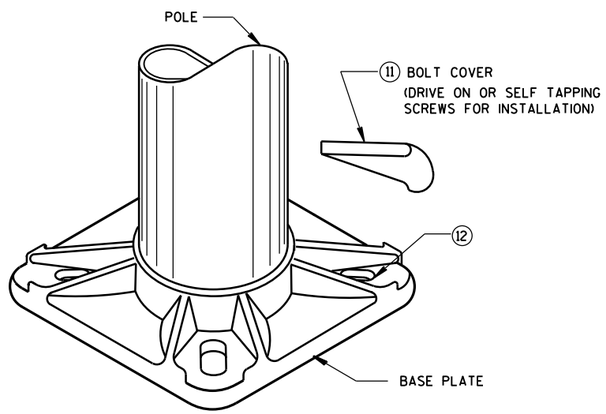
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



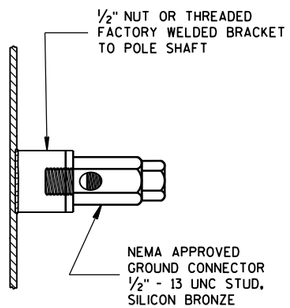
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

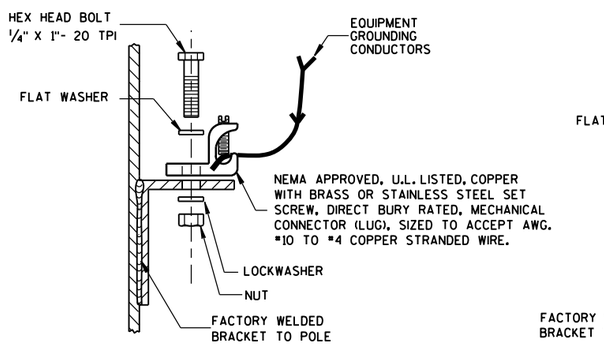


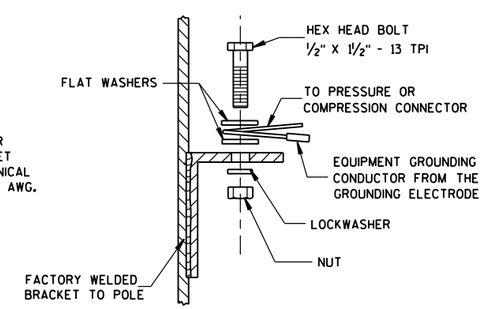
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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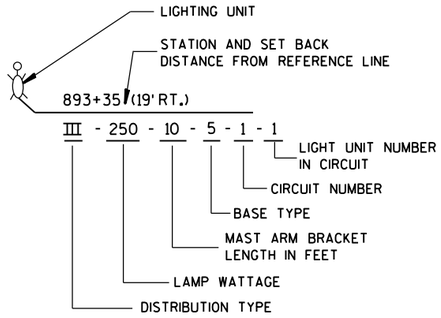
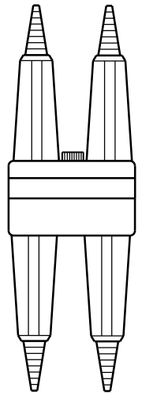
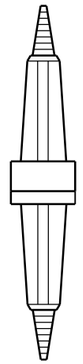
S.D.D. 9 E 1-14g



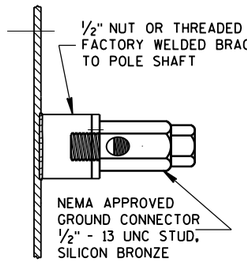
LIGHTING UNIT CODE
(TYPICAL)

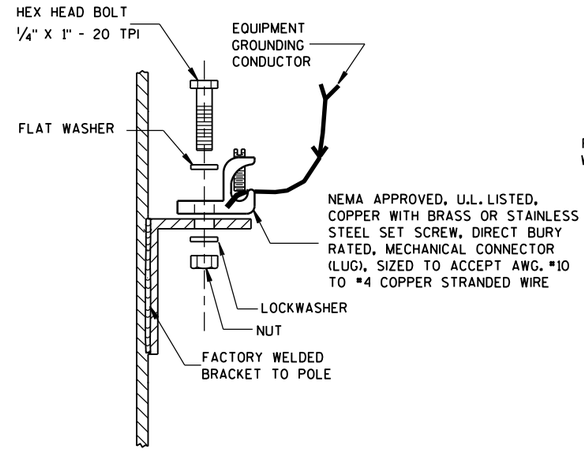


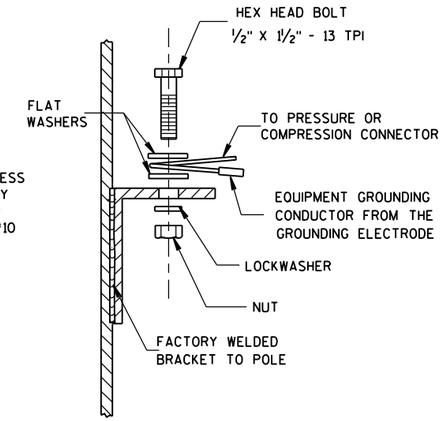
DETAIL "A"
BREAKAWY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



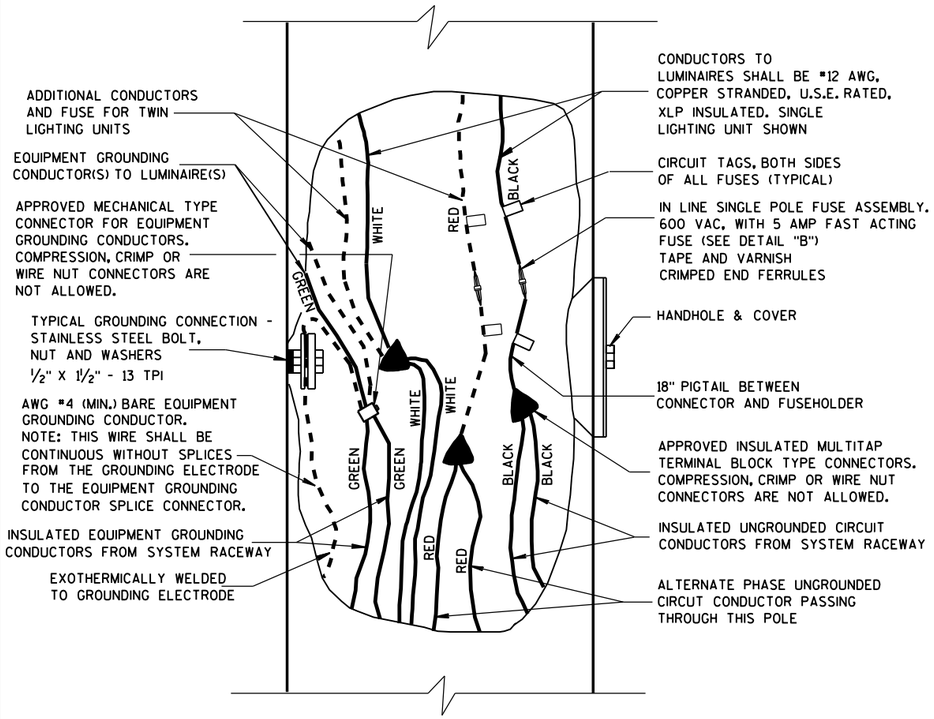
DETAIL "B"
BREAKAWY SINGLE POLE WITH WATERPROOF INSULATING BOOT



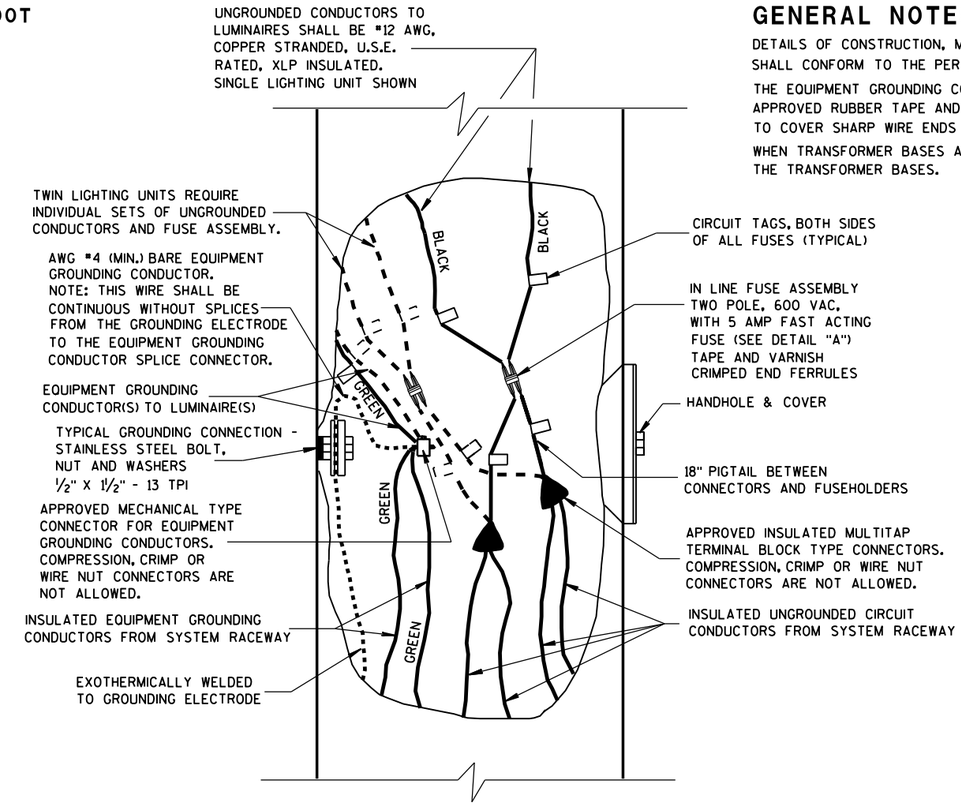




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

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

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 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.

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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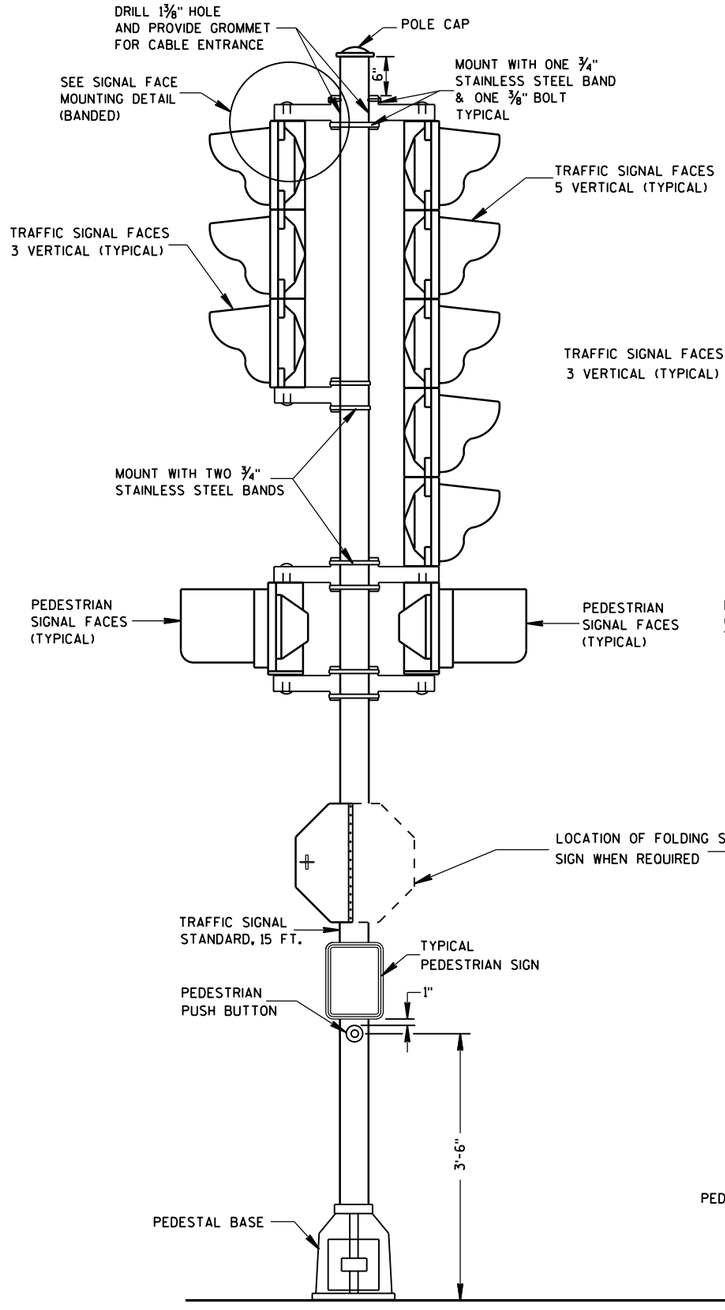
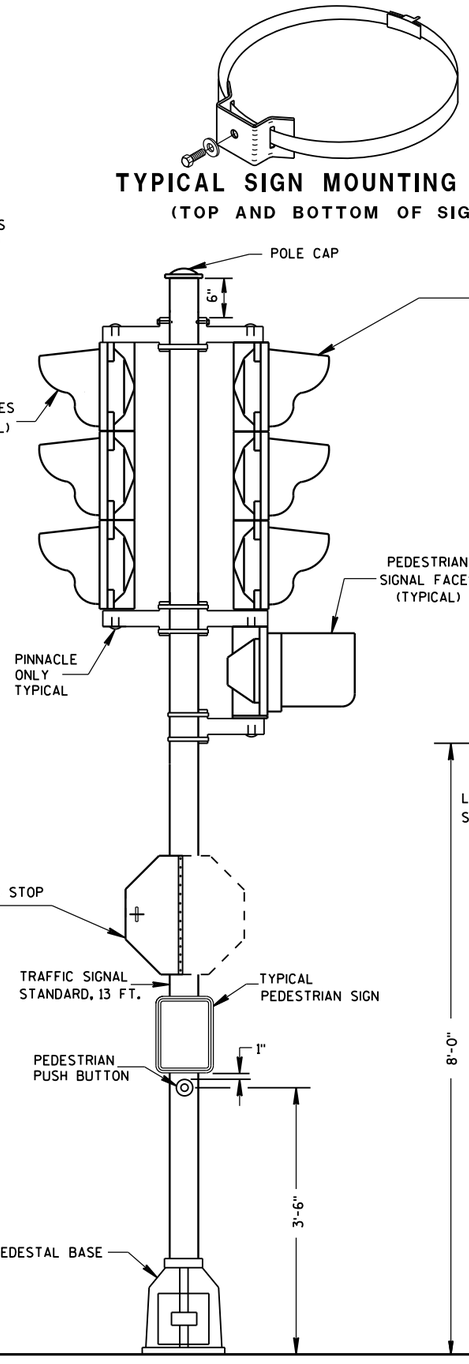
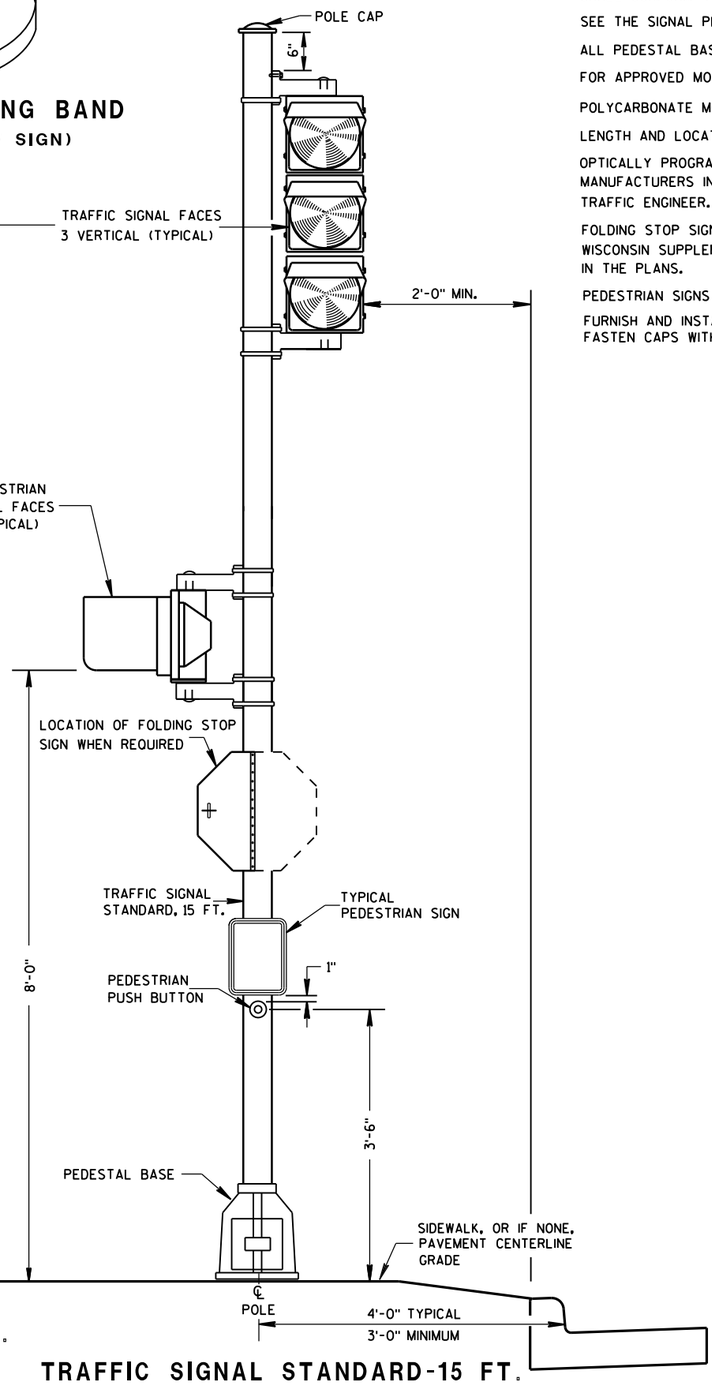


TRAFFIC SIGNAL STANDARD-15 FT.



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.

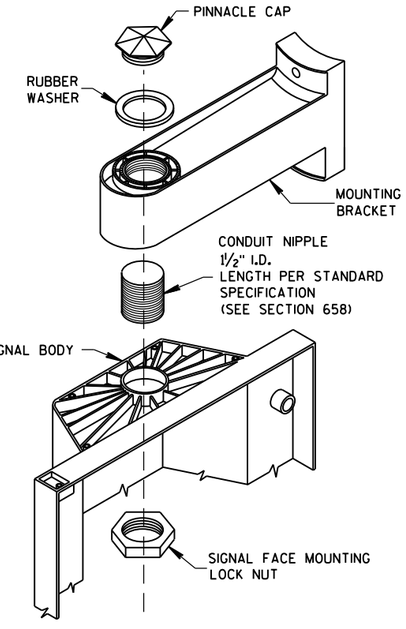
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

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
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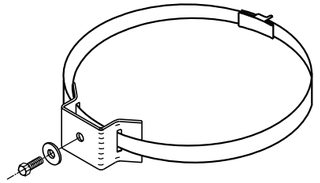
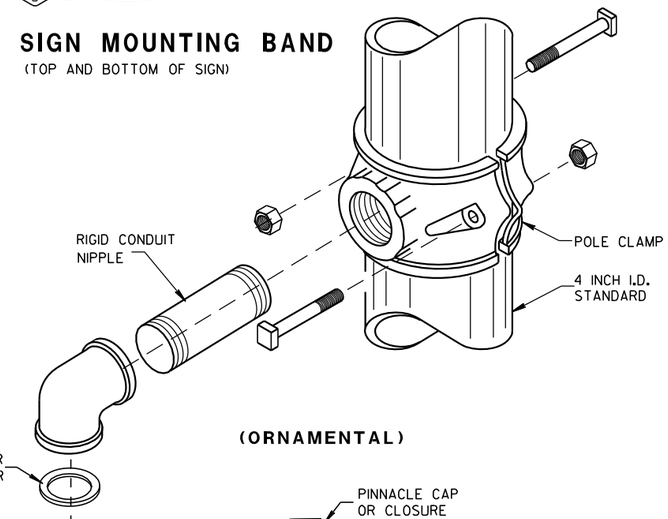


TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



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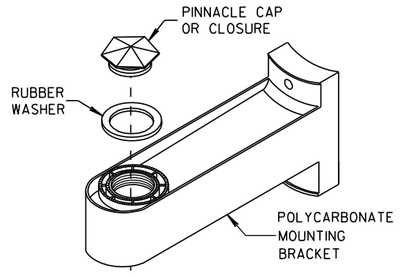
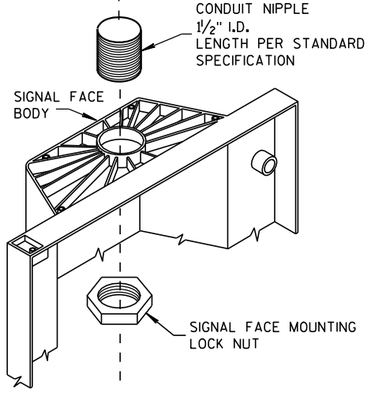
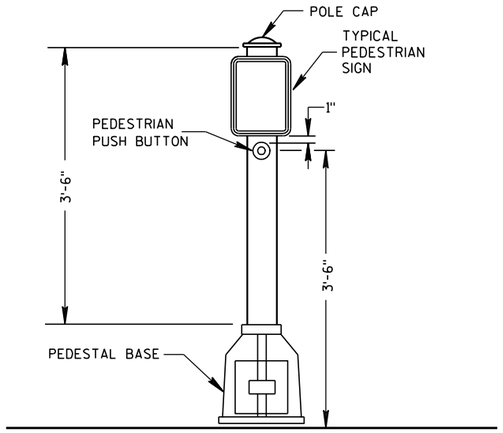


(BANDED)



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.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

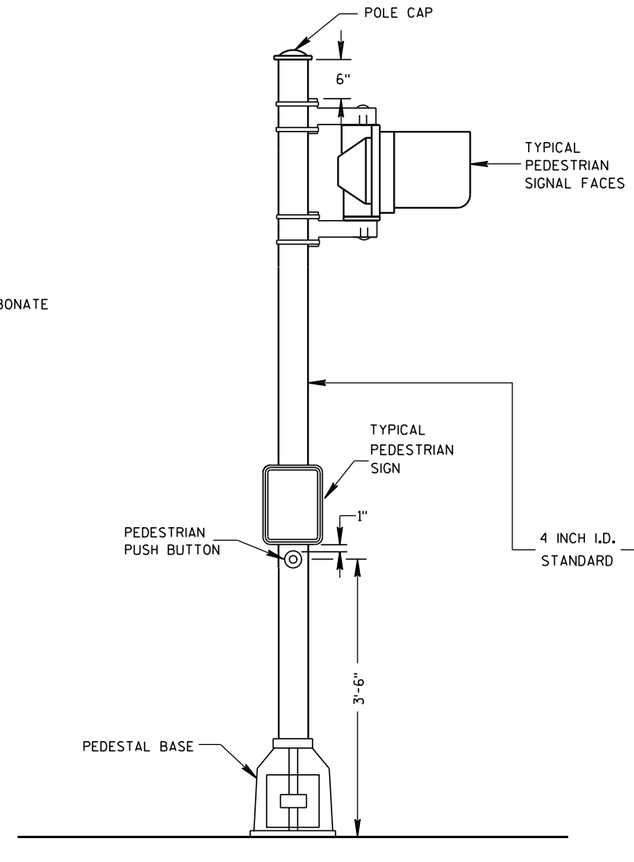
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

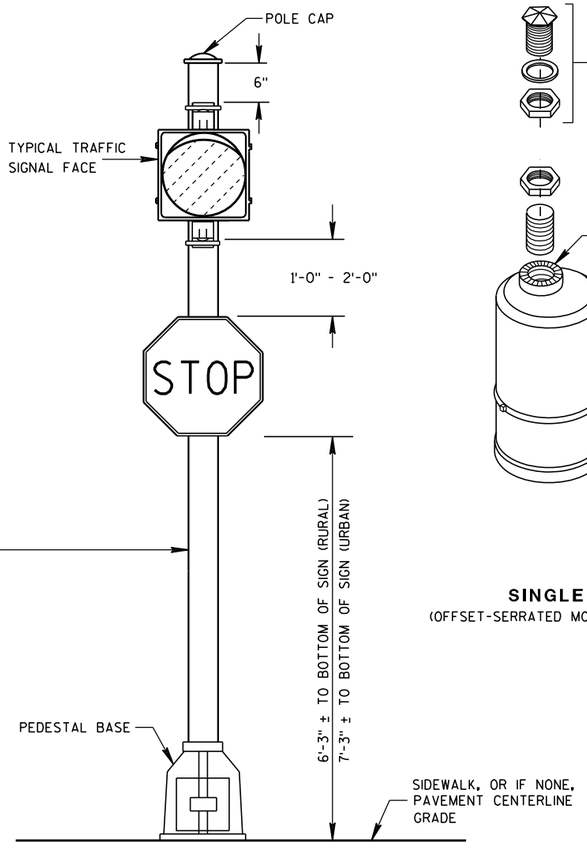
MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

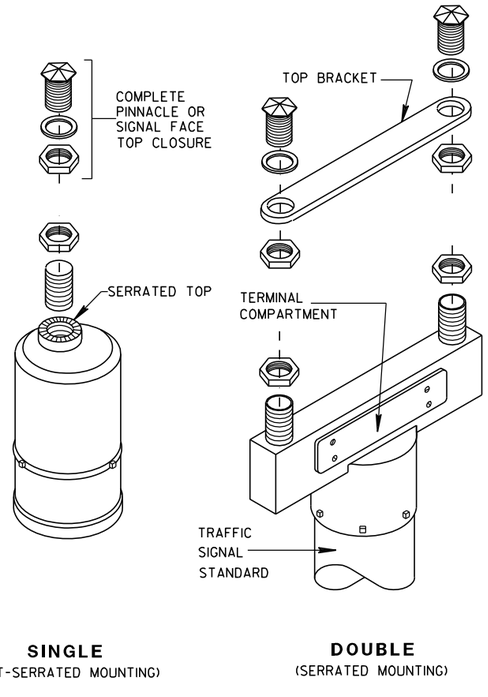
FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



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

5/11/10
DATE

/S/ John Corbin
STATE ELECTRICAL ENGI

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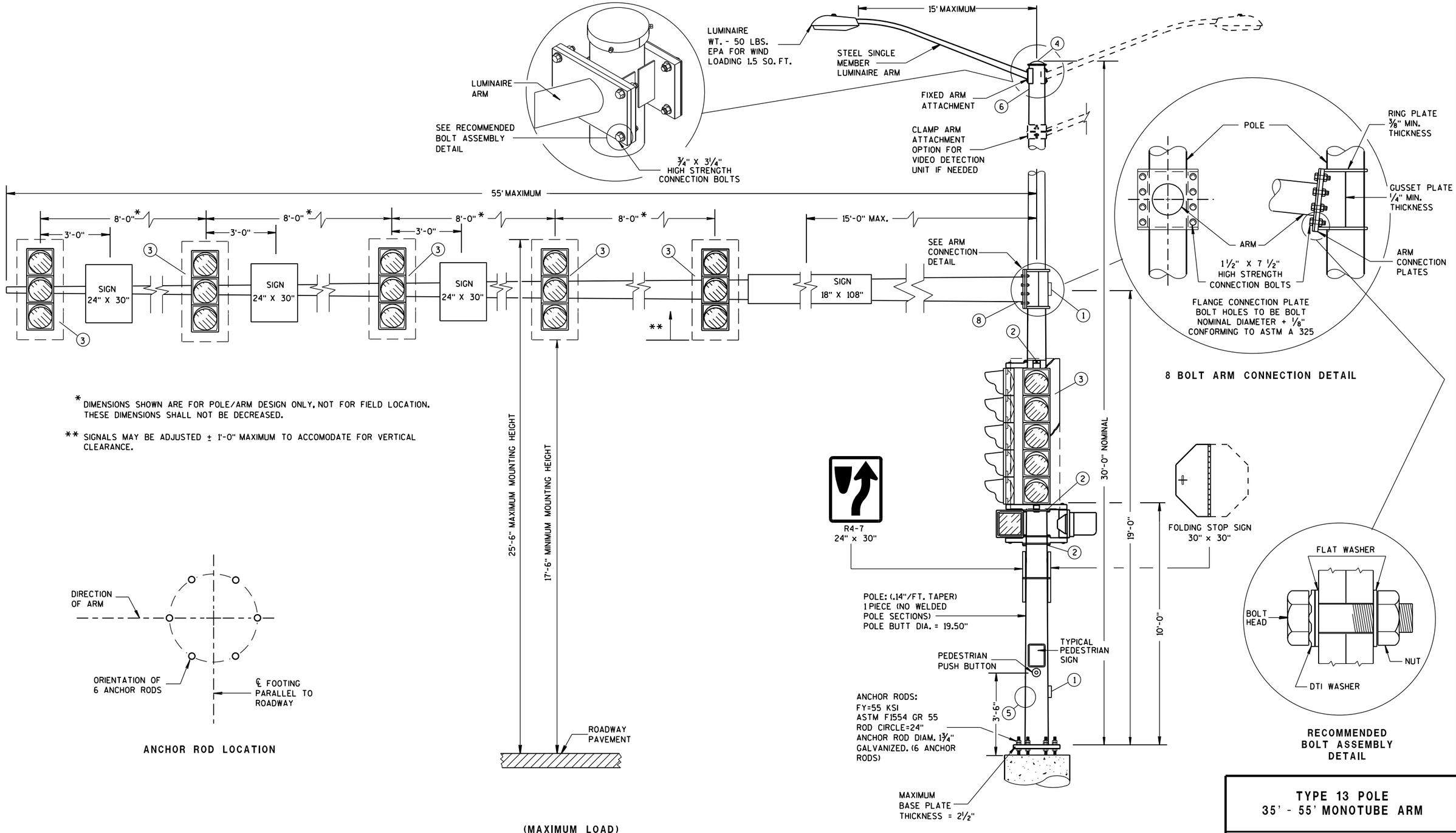

* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

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
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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.

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.

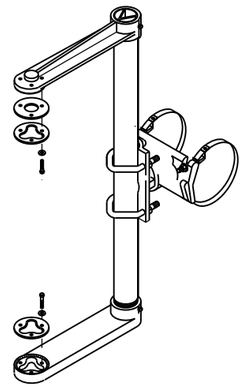
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

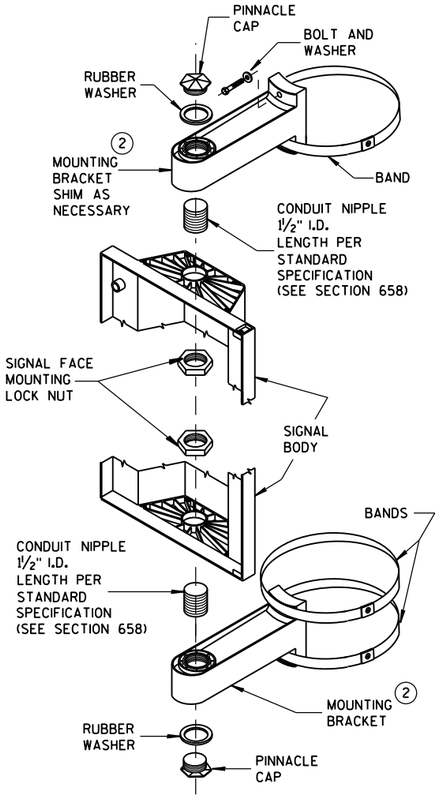
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

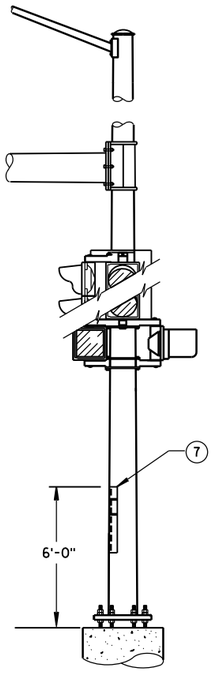


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

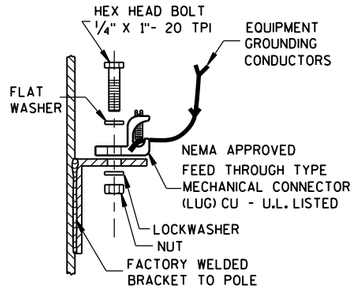
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE
VERTICAL MOUNTING DETAIL

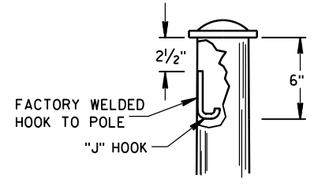


STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



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
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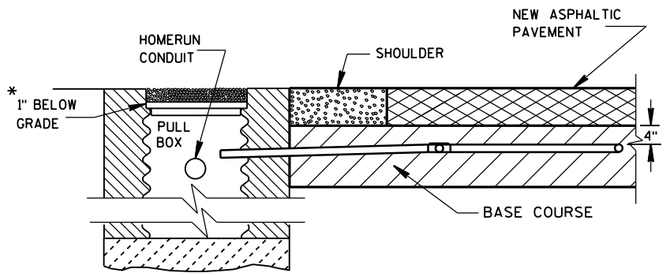
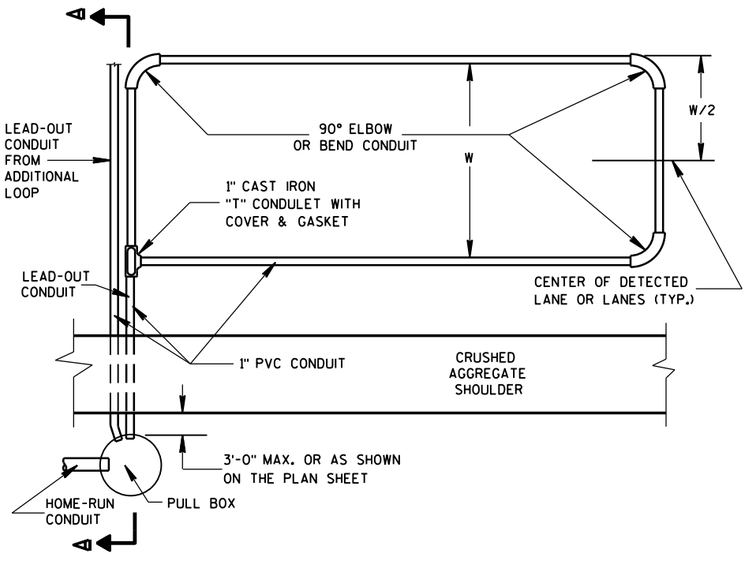


SECTION A-A
NO CURB & GUTTER

DETECTOR LOOP INSTALLATION DETAIL

*RECESS PULL 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.



TYPICAL PLAN OF LOOP DETECTOR

GENERAL NOTES

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

LOOP SIZE, 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 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 FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

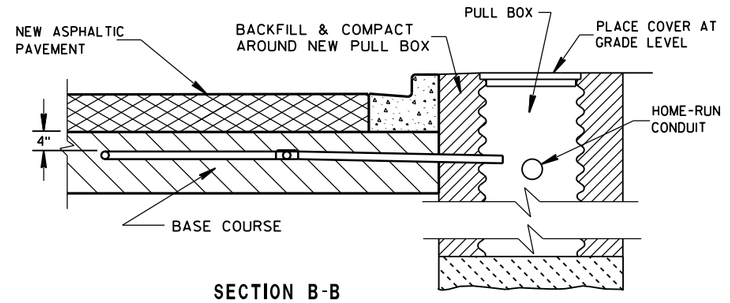
SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP DUCT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT AND CONDULET SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE ASPHALTIC PAVEMENT IS PLACED.

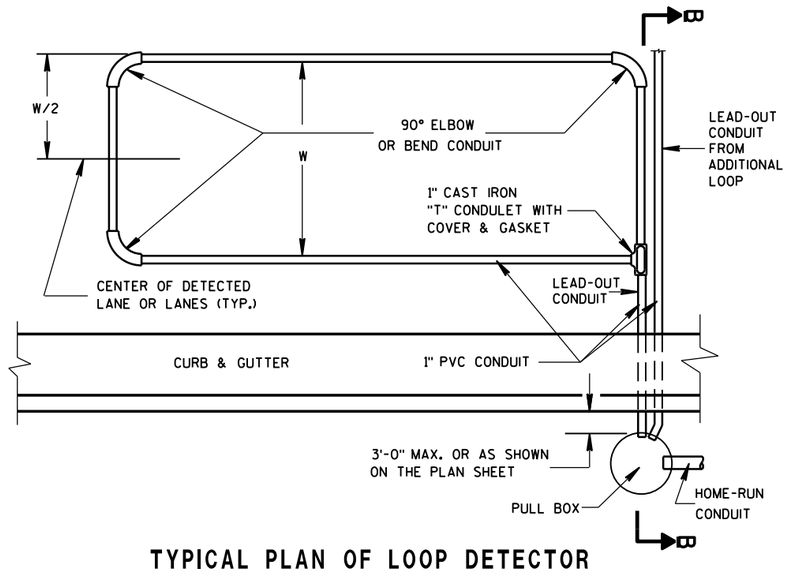
WHEN MULTIPLE LAYERS OF ASPHALTIC PAVEMENT ARE TO BE PLACED, LOOPS MAY BE INSTALLED BY SAWING A TWO INCH WIDE SLOT IN THE FIRST LAYER, DIG OUT THE ASPHALTIC MATERIAL AND BASE COURSE, PLACE THE LOOP, FILL THE SLOT WITH BASE COURSE MATERIAL AND NEW ASPHALTIC MATERIAL AND TAMP THE ASPHALTIC MATERIAL IN PLACE.

SHOULD TRAFFIC BE ALLOWED TO USE THE AREA OF ROADWAY WITH THE NEWLY INSTALLED LOOP BEFORE THE PLACEMENT OF THE NEXT LAYER OF ASPHALTIC PAVEMENT, THE SLOT/PAVEMENT OPENING SHALL BE SEALED WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".



SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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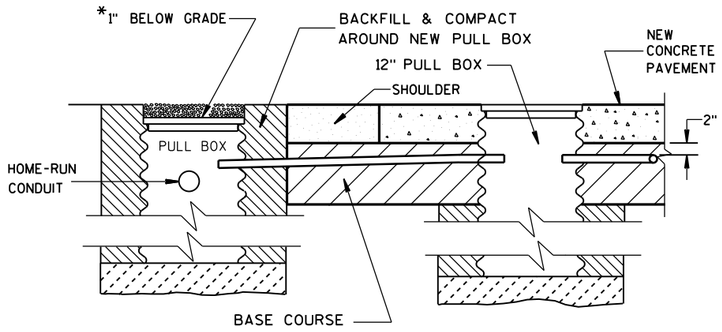


SECTION A-A

NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAILS

*RECESS PULL 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.

GENERAL NOTES

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

LOOP SIZE, 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 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.

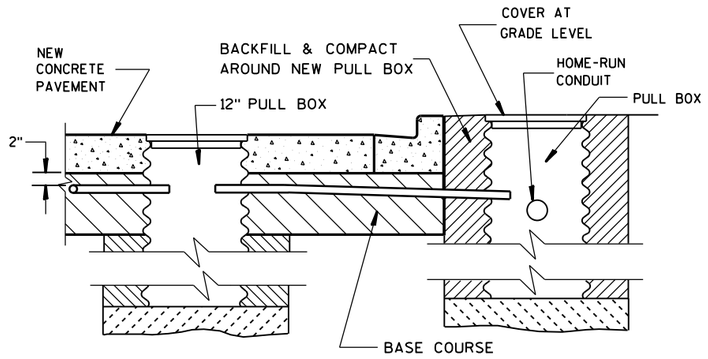
THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP DUCT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT, CONDULET AND PULL BOX SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE NEW CONCRETE PAVEMENT IS PLACED.

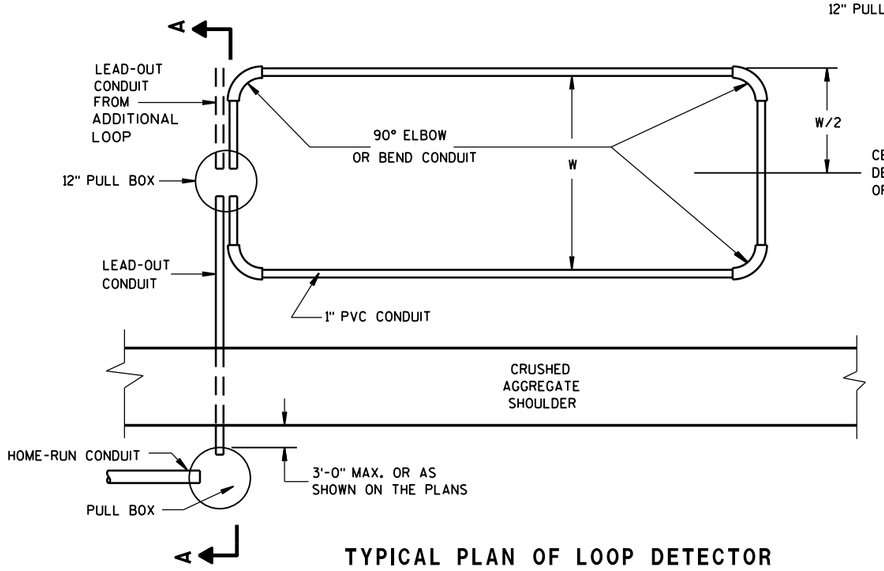
12" PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.



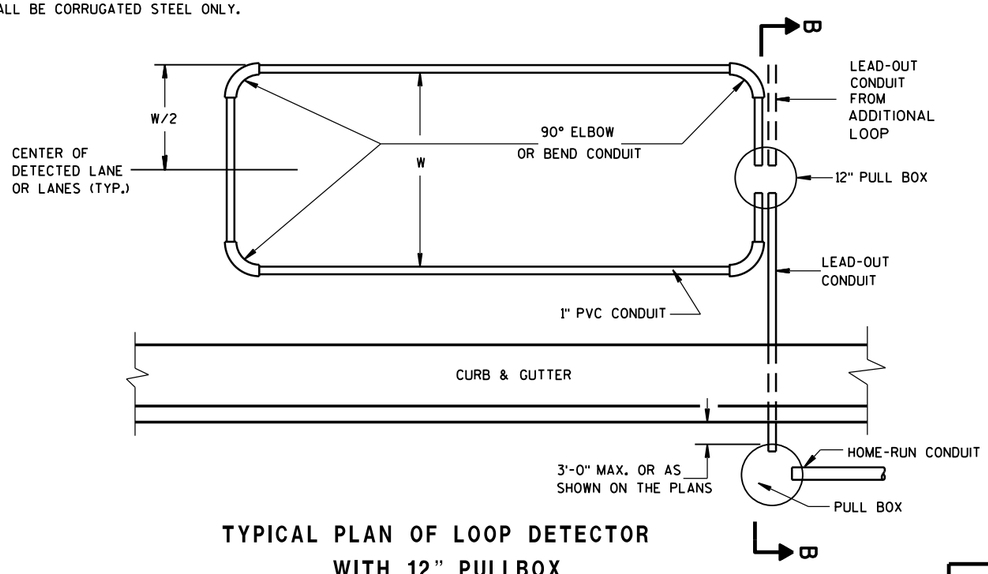
SECTION B-B

CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAILS



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2014 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

FHWA

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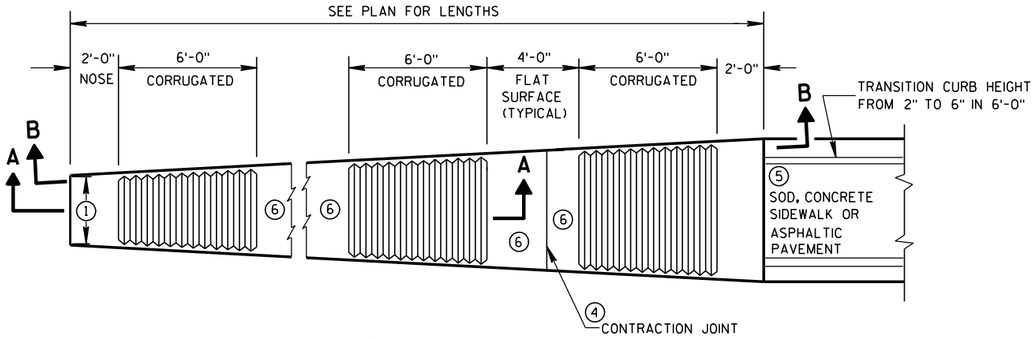
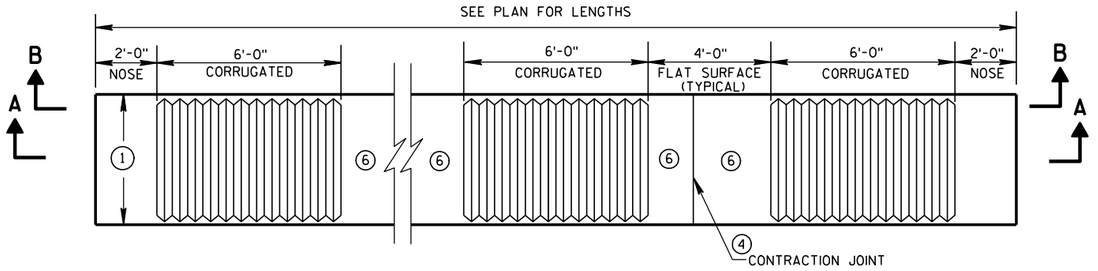


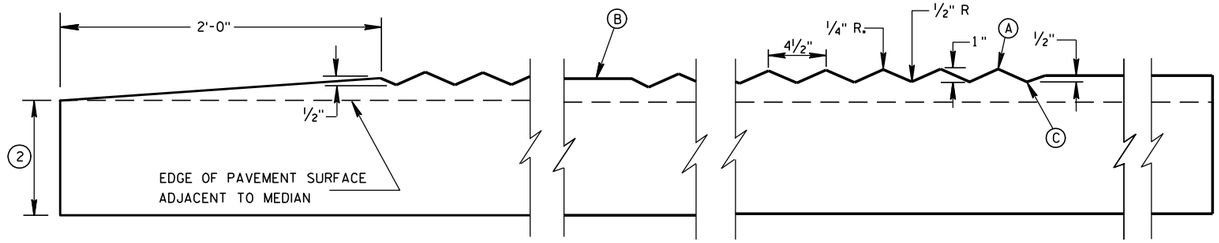
PLAN VIEW

VARIABLE WIDTH CONCRETE CORRUGATED MEDIAN



PLAN VIEW

UNIFORM WIDTH CONCRETE CORRUGATED MEDIAN



SECTION A-A

LONGITUDINAL SECTION

GENERAL NOTES

(1) SEE PLANS FOR CONSTANT OR VARIABLE WIDTH.

(2) THE DEPTH OF THE CONCRETE CORRUGATED MEDIAN SHALL BE 9-INCHES UNLESS SHOWN OTHERWISE IN THE PLAN.

ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN IN THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

(2) ASPHALTIC CONCRETE OVER NEW OR EXISTING CONCRETE BASE COURSE, OR PAVEMENT.

(3) ASPHALTIC PAVEMENT OVER BASE AGGREGATE DENSE.

(3) 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.

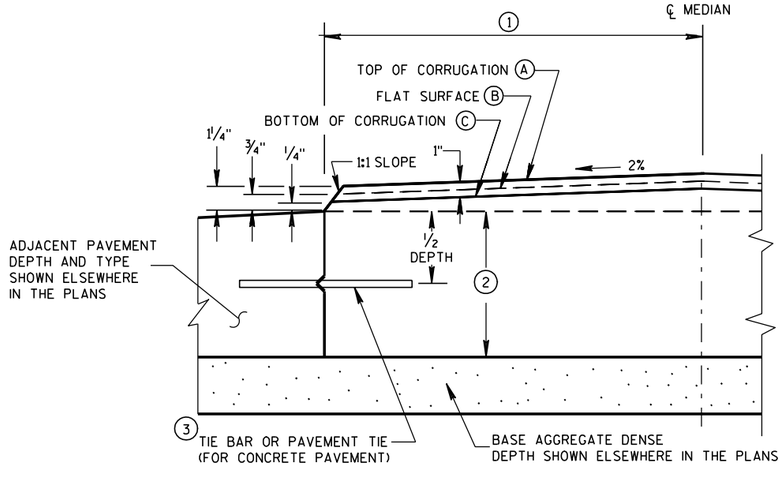
INSTALL TIE BARS TO MAINTAIN A MINIMUM OF 3-INCHES OF COVER BETWEEN THE TIE BAR AND THE CONCRETE SURFACE (BOTTOM AND TOP).

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE PAVEMENT OR 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.

(4) CONCRETE CORRUGATED MEDIAN CONTRACTION JOINTS SHALL BE CONSTRUCTED TO MATCH THE JOINTS IN ADJACENT CONCRETE PAVEMENT. WHERE ADJACENT PAVEMENT IS ASPHALT WITH BASE AGGREGATE DENSE. TRANSVERSE CONTRACTION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS.

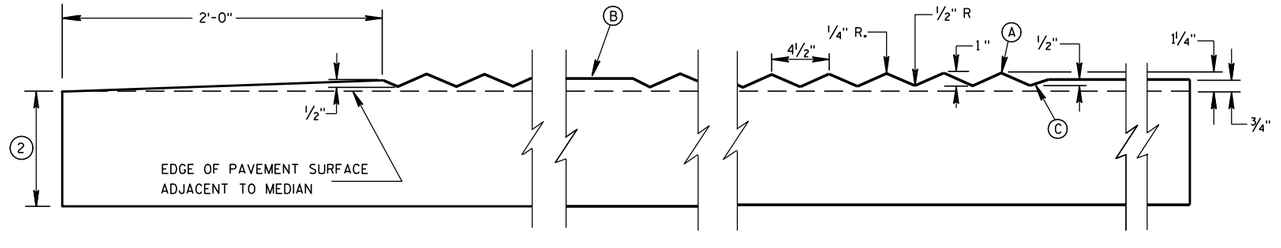
(5) SURFACE TYPE AND DETAILS ARE DEFINED ELSEWHERE IN THE PLAN.

(6) YELLOW MARKING ON FLAT SURFACE WHEN MEDIAN SEPARATES OPPOSING TRAFFIC.



HALF CROSS SECTION

(2) CONCRETE CORRUGATED MEDIAN AND ADJACENT PAVEMENT



SECTION B-B

LONGITUDINAL SECTION

CONCRETE CORRUGATED MEDIAN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/07
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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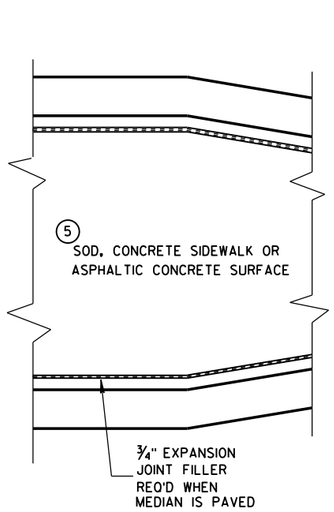
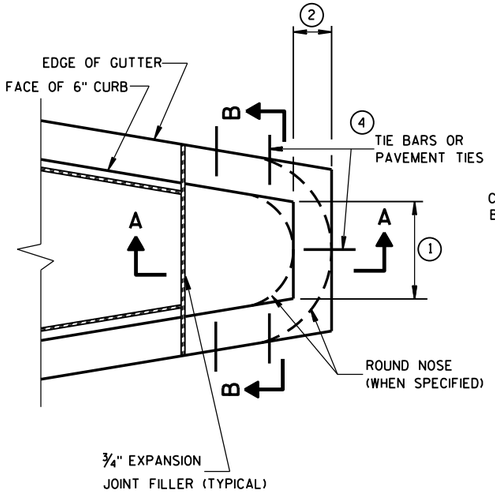
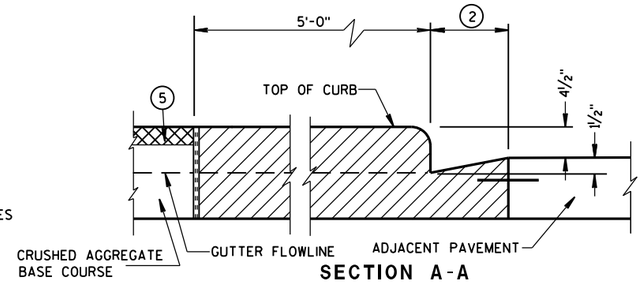
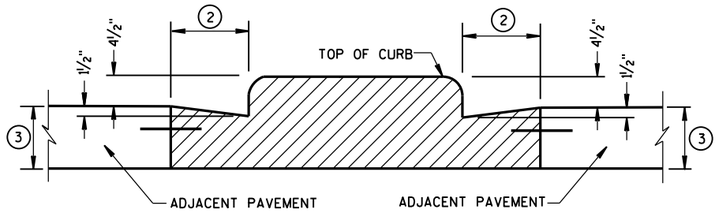






SECTION A-A



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.

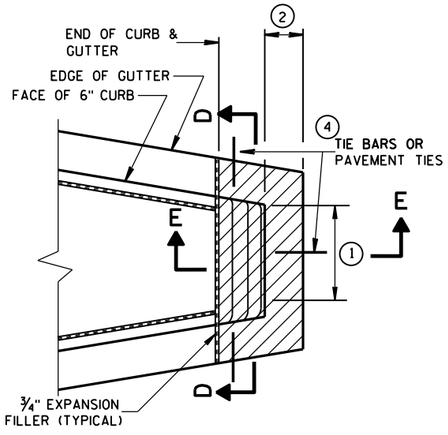
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

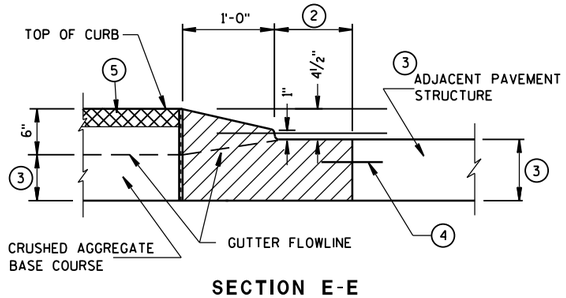
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(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.

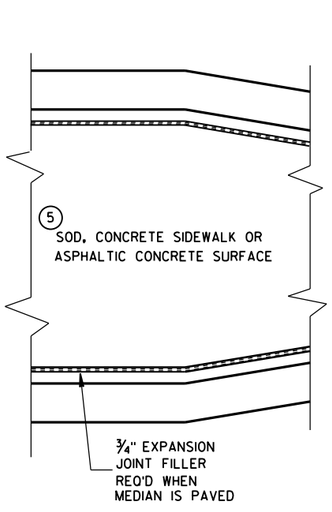
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

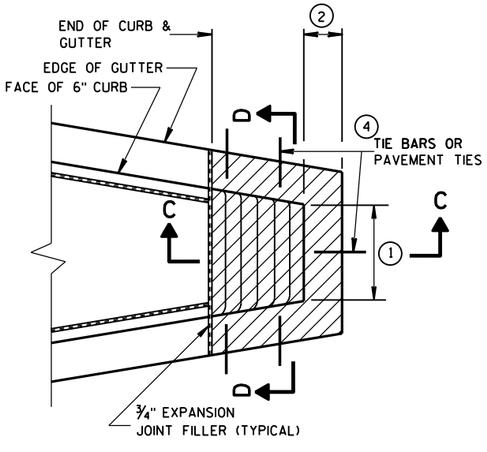


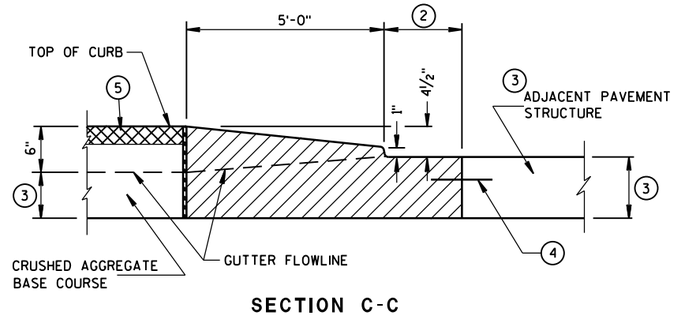


SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2

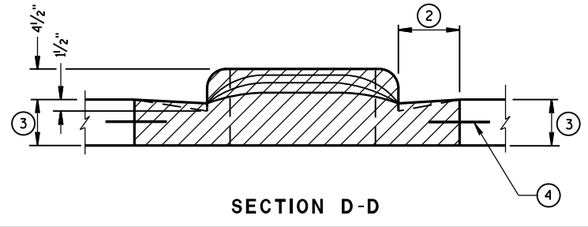






SECTION C-C

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 D ENGINEER
FHWA

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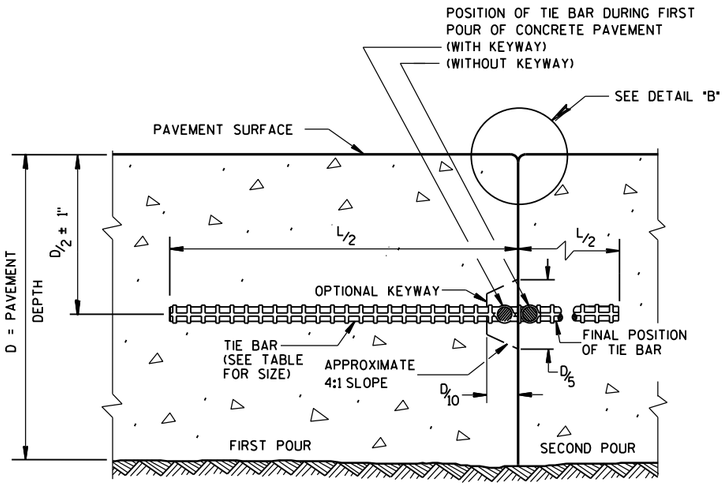
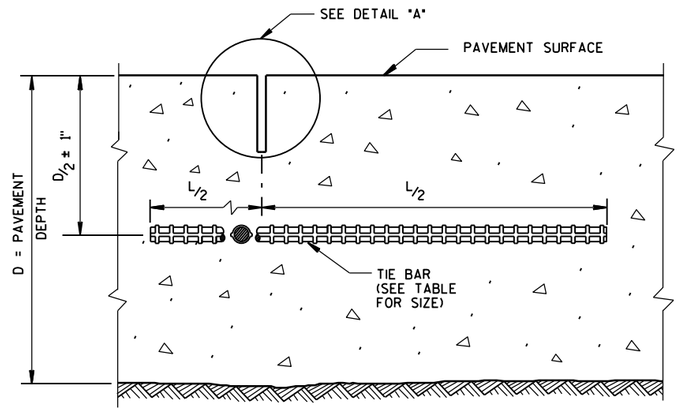


CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

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"

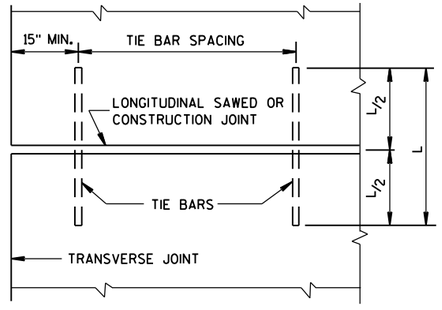
DETAIL "C"

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
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

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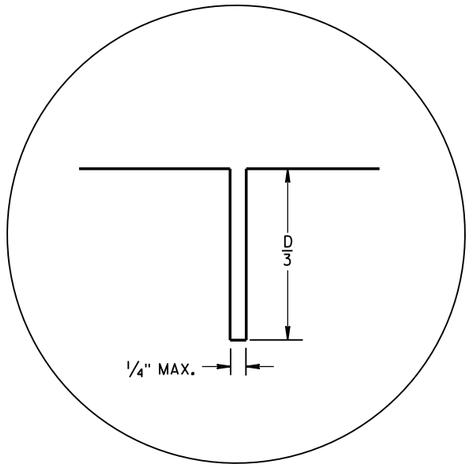
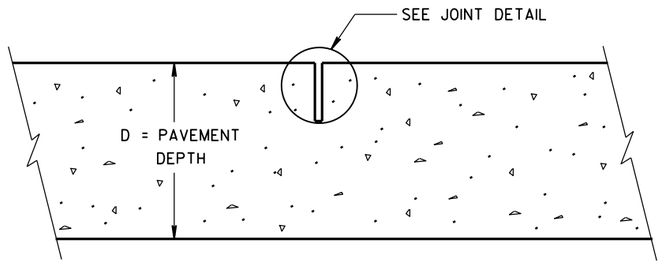


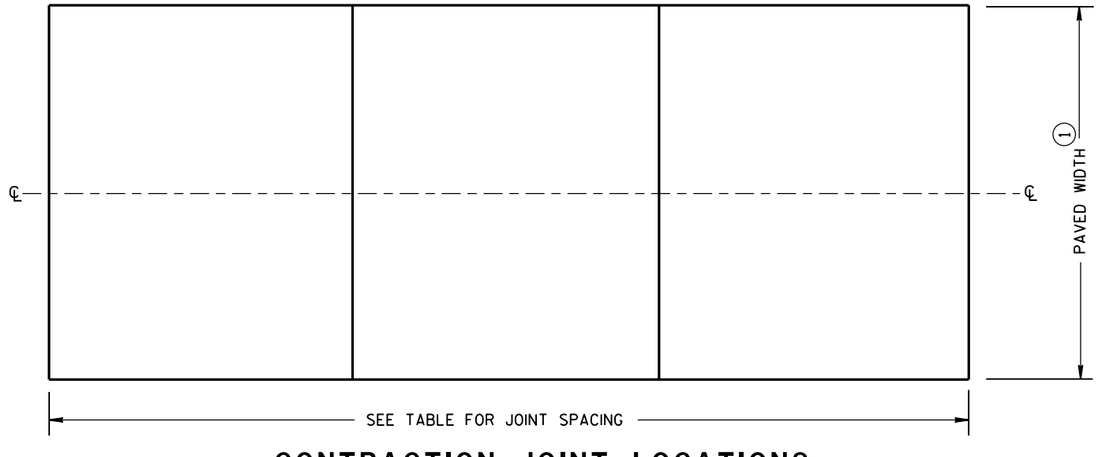
JOINT DETAIL



CONTRACTION JOINT

PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE.

LOCATE AND ORIENT CONTRACTION JOINTS THROUGH INTERSECTIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

CONSTRUCTION JOINTS

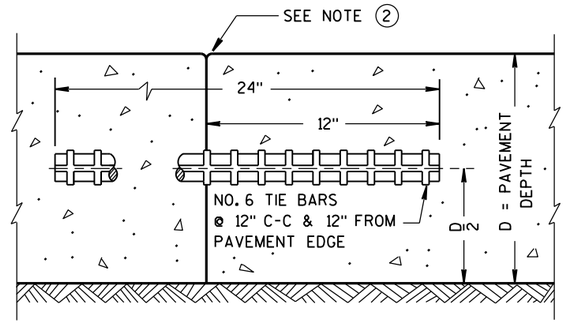
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

FORM OR SAW CONSTRUCTION JOINTS.

THE CONTRACTOR MAY INSERT TIE BARS THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.

(1) REFER TO TYPICAL CROSS SECTIONS FOR PAVED WIDTH AND LOCATION OF LONGITUDINAL JOINTS.

(2) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.



TIED TRANSVERSE CONSTRUCTION JOINT

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S.D.D. 13 C 4-16

URBAN NON-DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-3-2013 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & DE
FHWA

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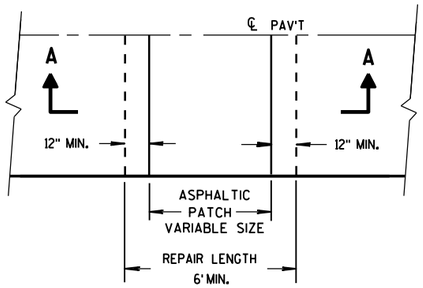
GENERAL NOTES

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.

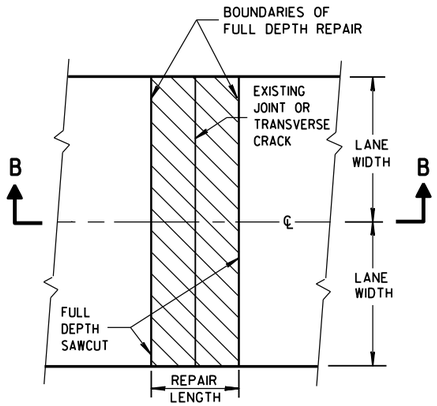
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

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.

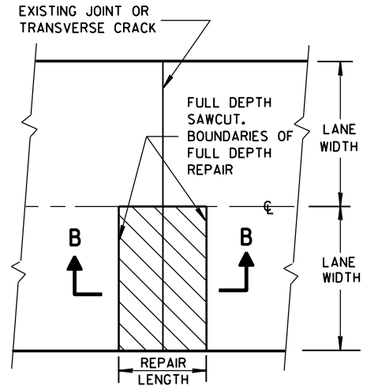
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

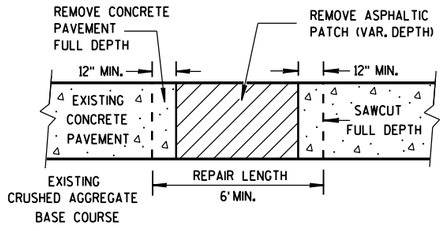


PLAN VIEW
(DOUBLE LANE REPAIR)



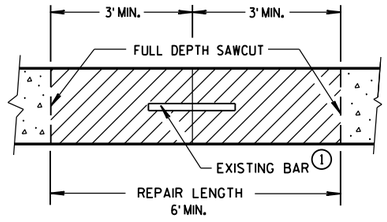
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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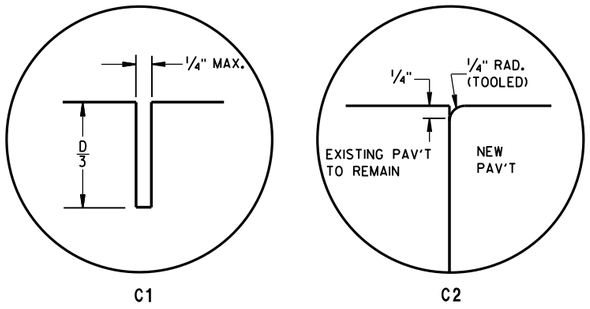


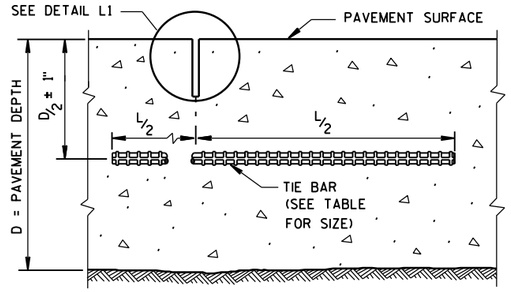
TRANSVERSE JOINTS

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" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

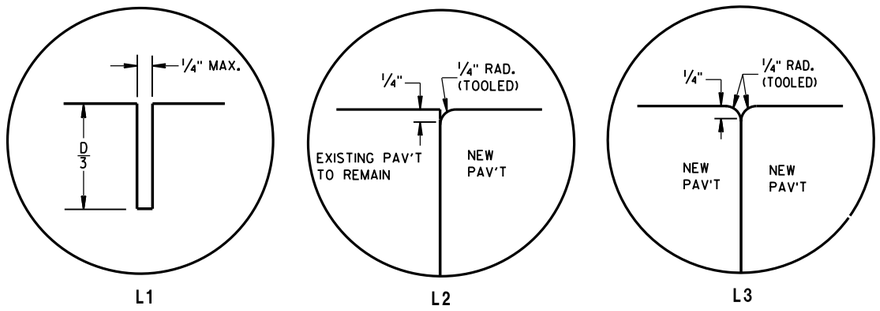
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

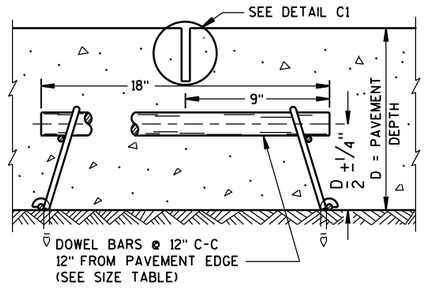
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

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.

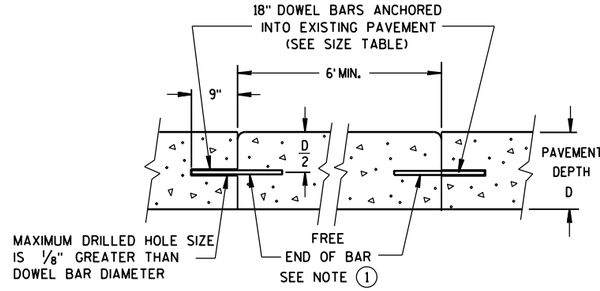


LONGITUDINAL JOINTS

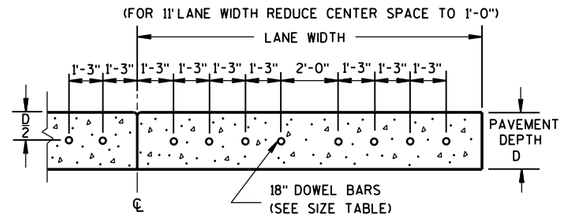


SECTION F-F

CONTRACTION JOINT



SECTION D-D

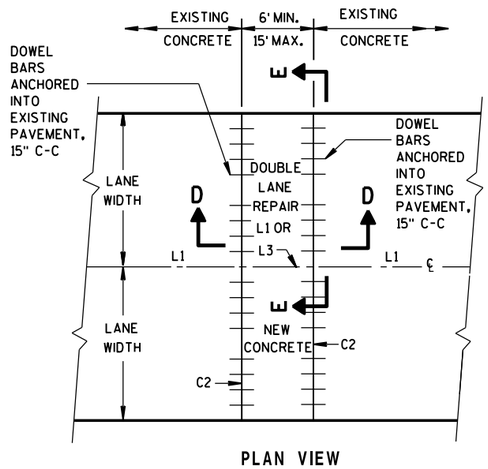


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

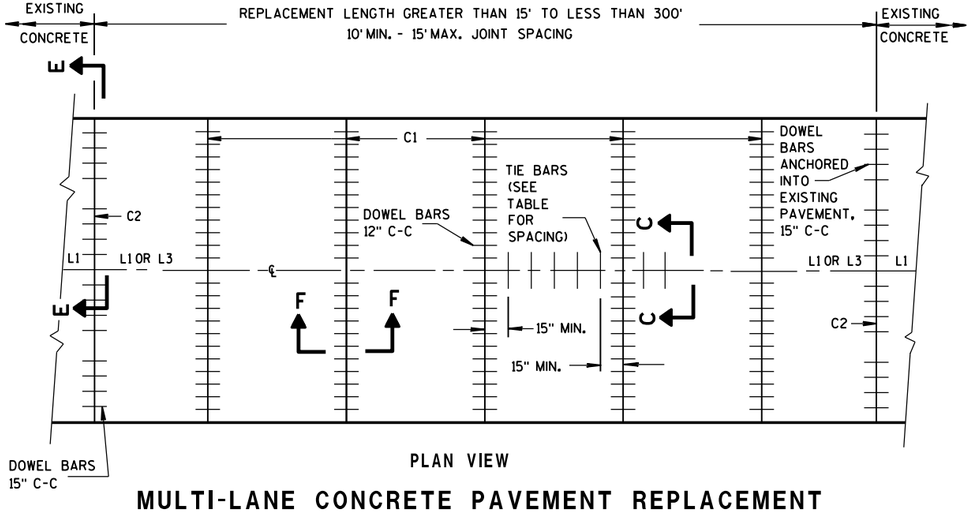
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	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'



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

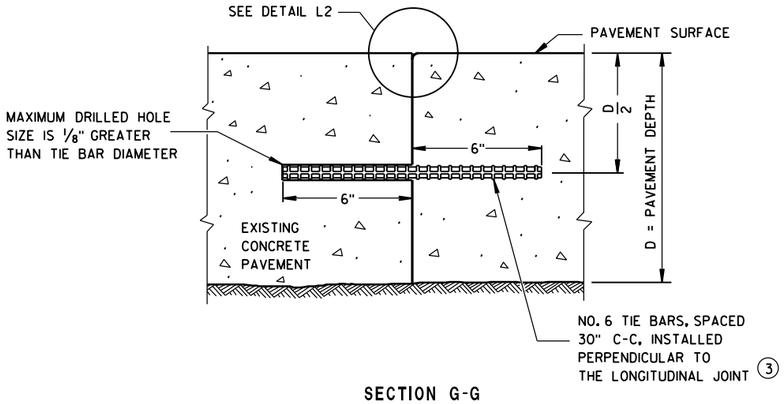
MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 13 C 9-13b



SECTION G-G

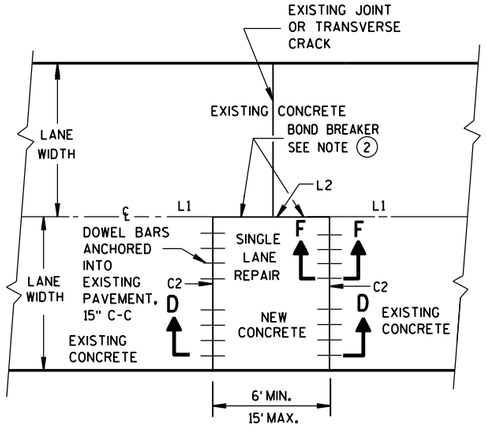
TIE BARS ANCHORED INTO EXISTING PAVEMENT

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.

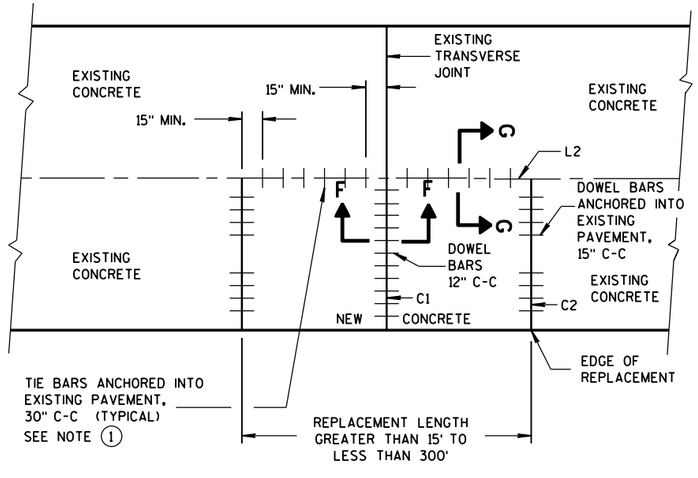
(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

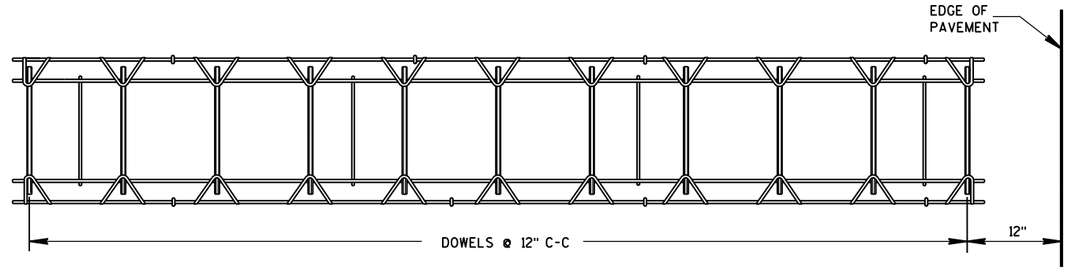
CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

6

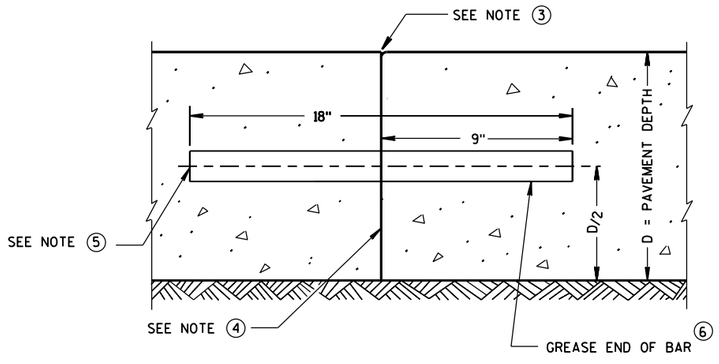
S.D.D. 13 C 9-13c



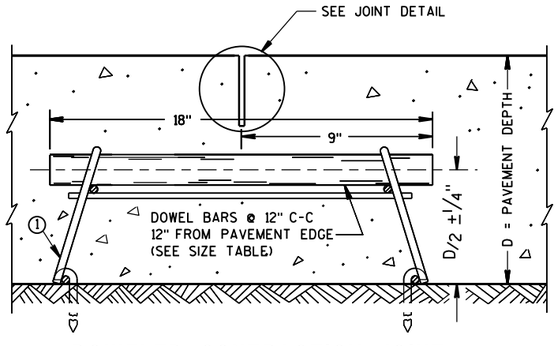
PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



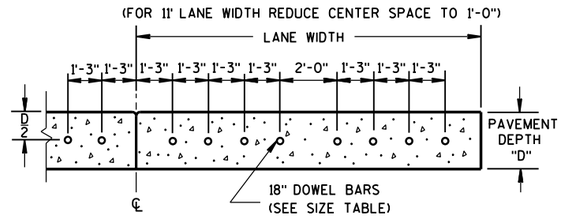
TRANSVERSE CONSTRUCTION JOINT



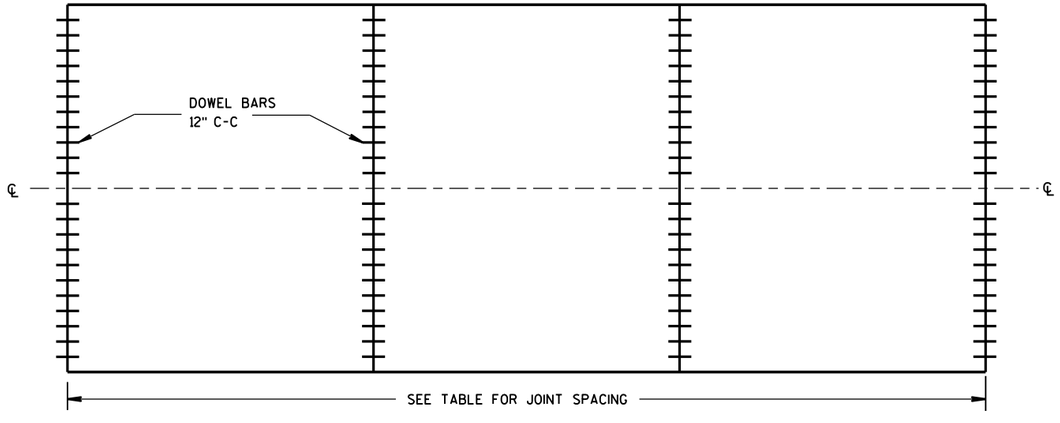
DOWELED CONTRACTION JOINT

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.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

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.

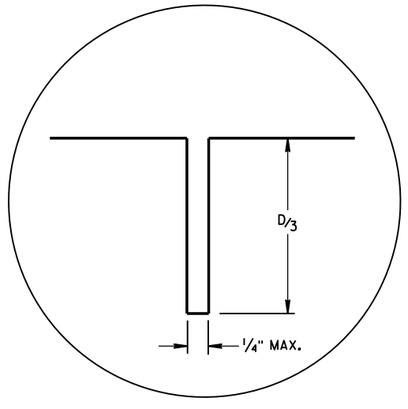
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

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
5/3/2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE ENGINEER
FHWA

6

S.D.D. 13 C 13-8

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S.D.D. 13 C 13-8

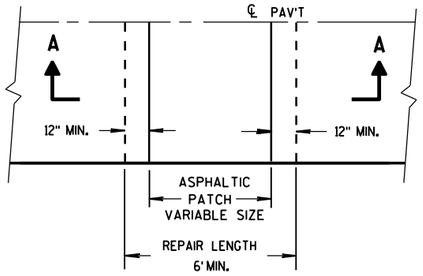
GENERAL NOTES

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.

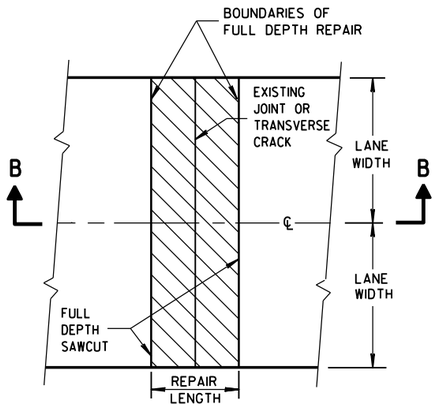
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

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.

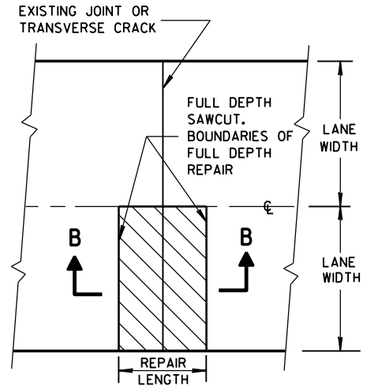
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

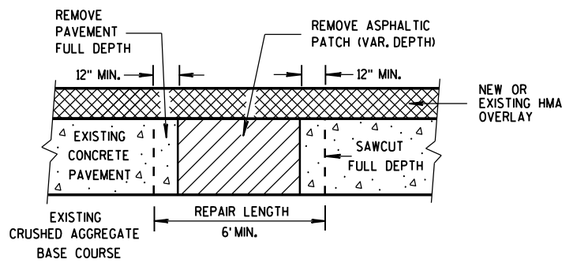


PLAN VIEW
(DOUBLE LANE REPAIR)



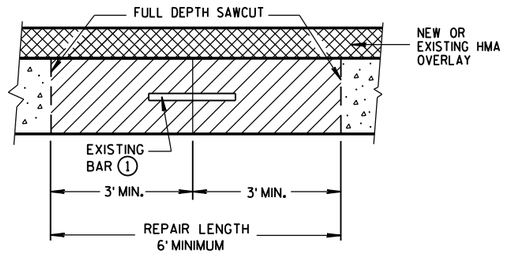
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 13 C 14-6a

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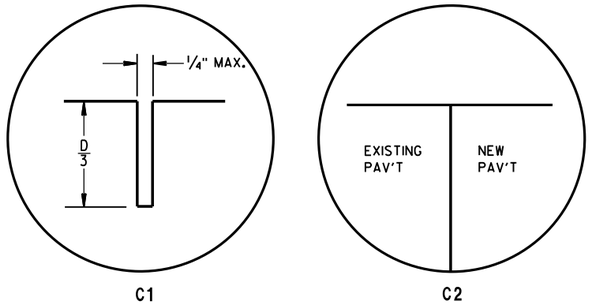
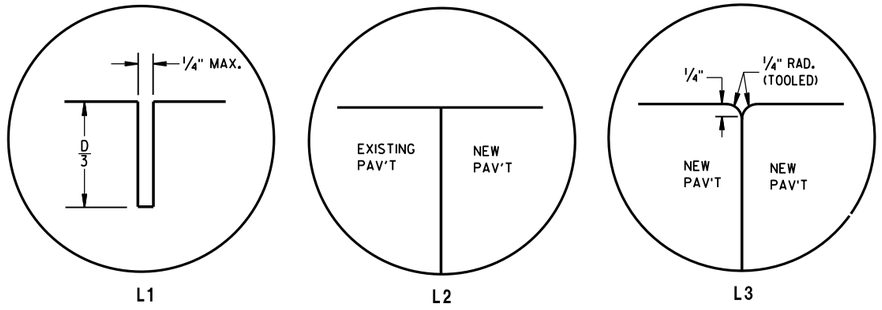
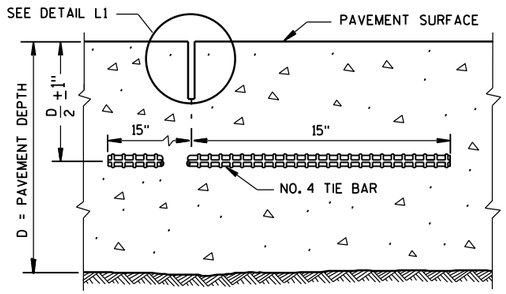
S.D.D. 13 C 14-6a



TRANSVERSE JOINTS

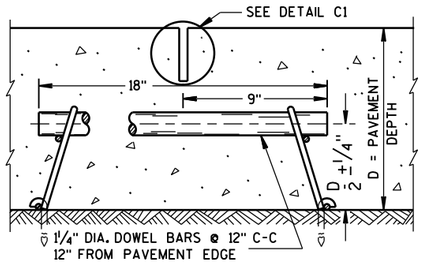


LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

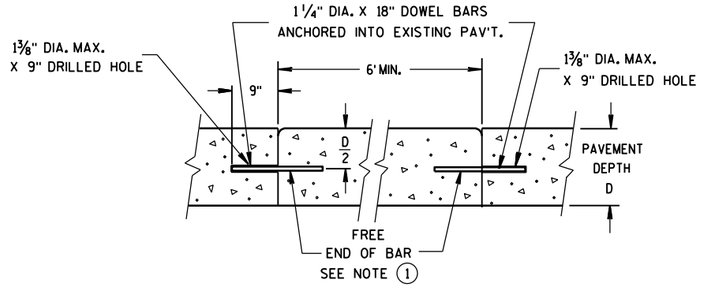
CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

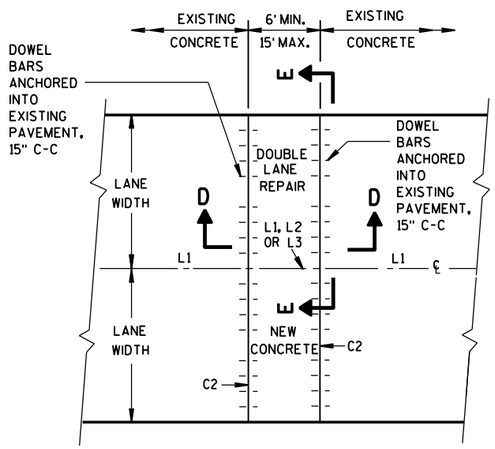
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE 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.

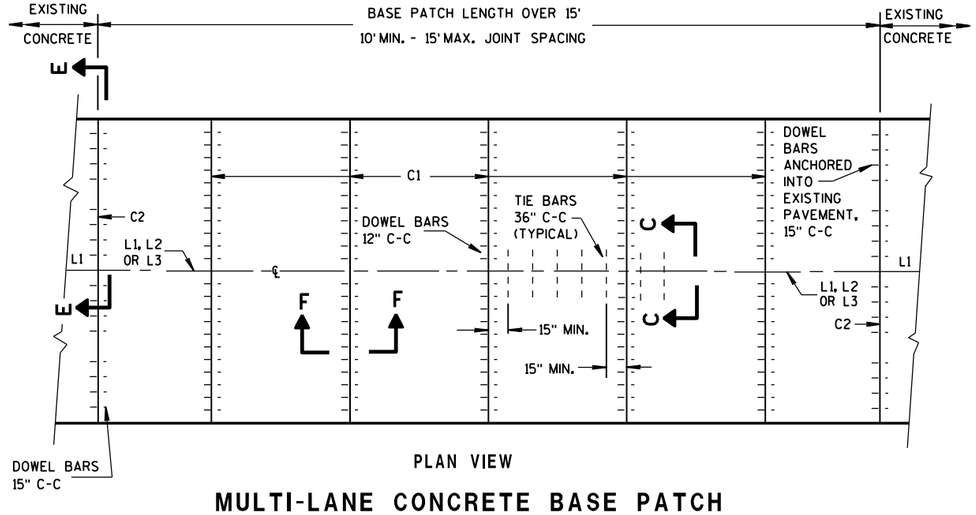


SECTION D-D



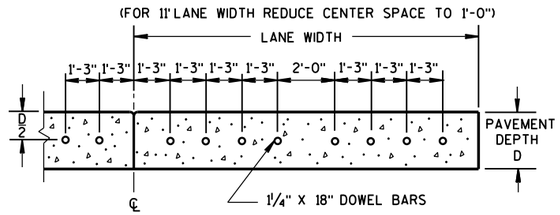
PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH



SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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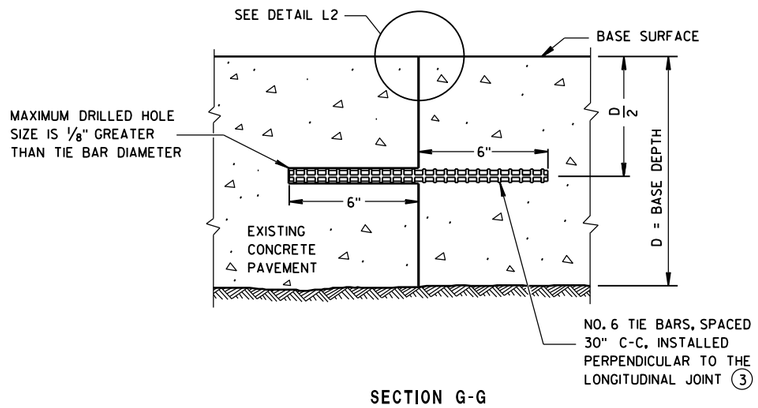
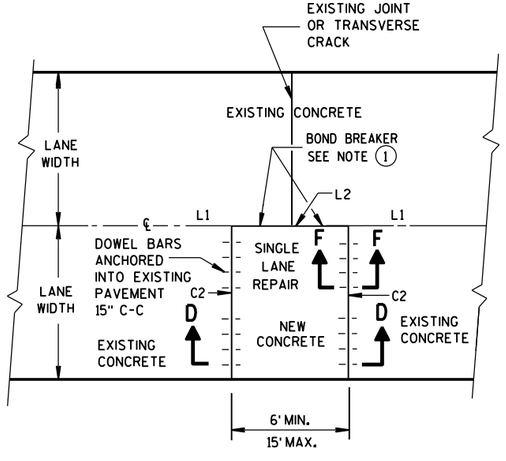
S.D.D. 13 C 14-6b



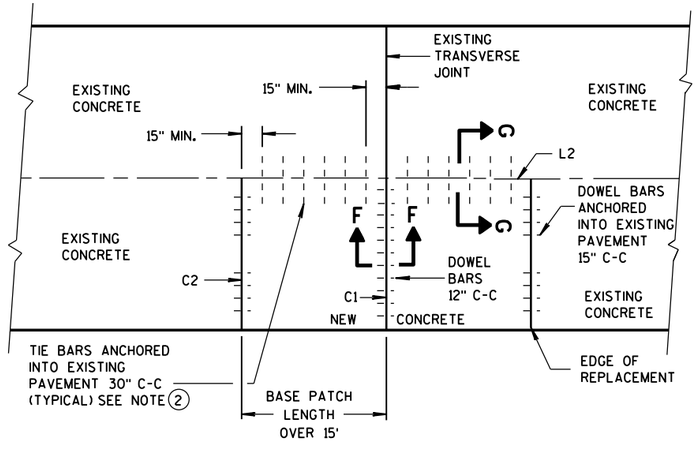
SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.

(2) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED 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.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

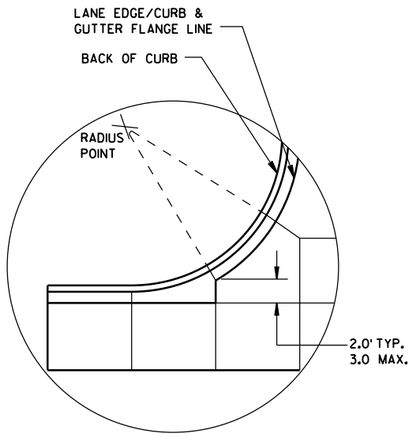
BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

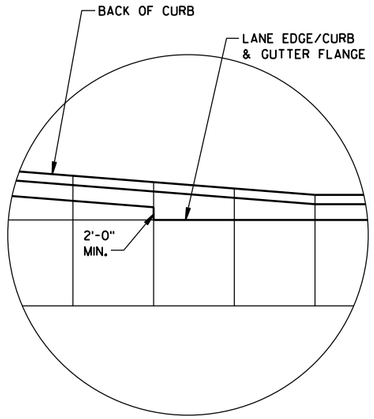
APPROVED
Sept., 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

6

S.D.D. 13 C 14-6c



DETAIL "A"



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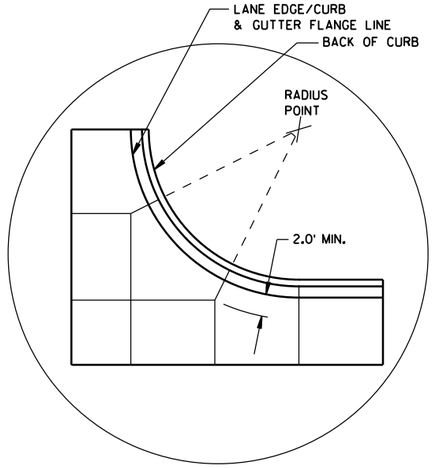

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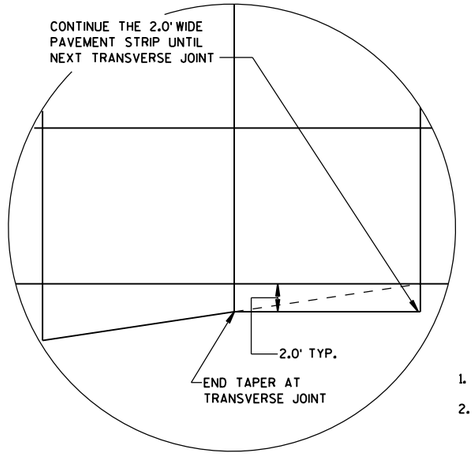


DETAIL "D"

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.

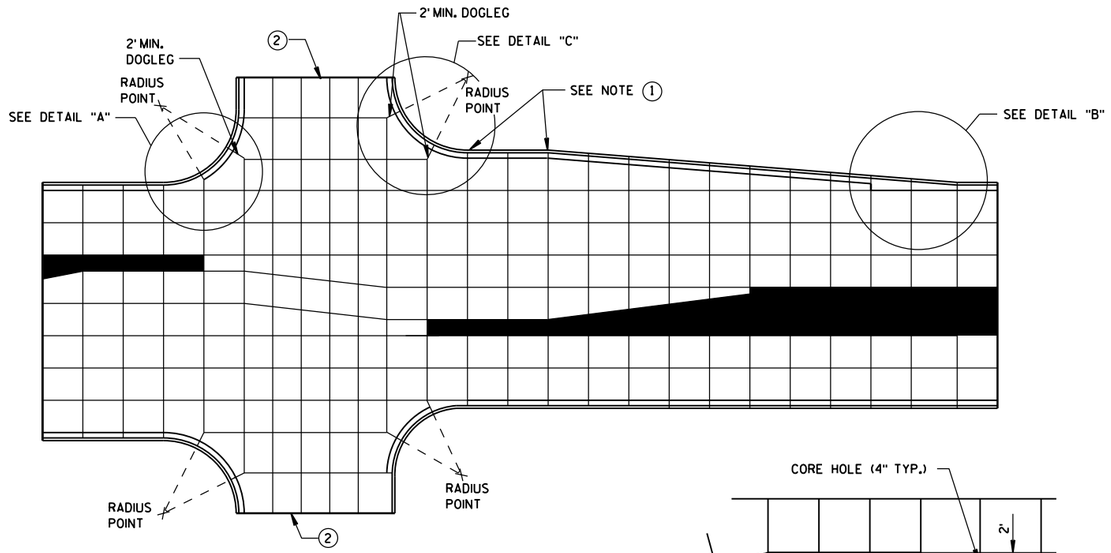
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

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.

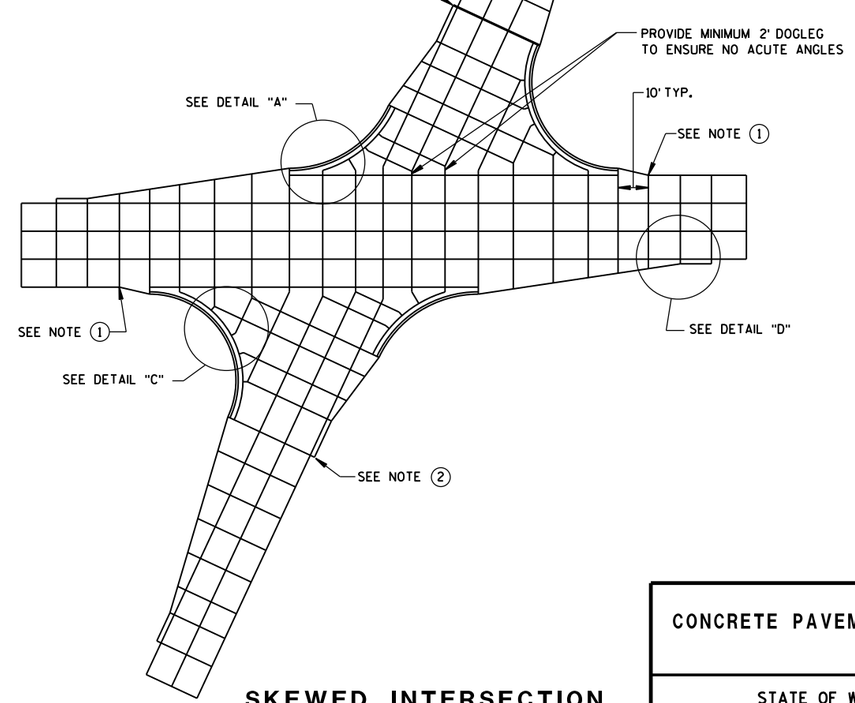
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



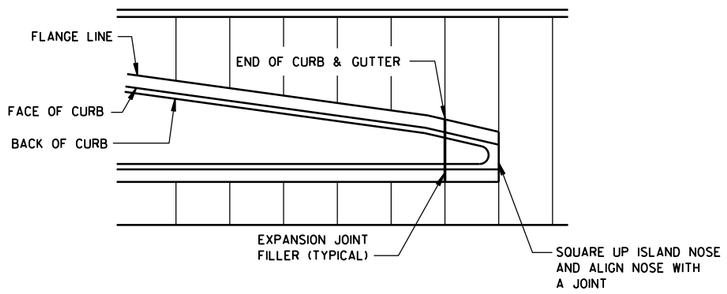
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

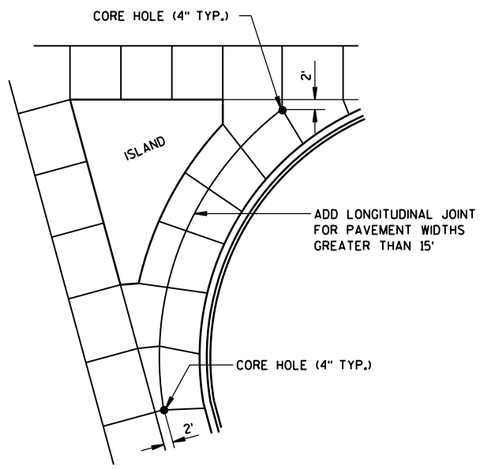
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

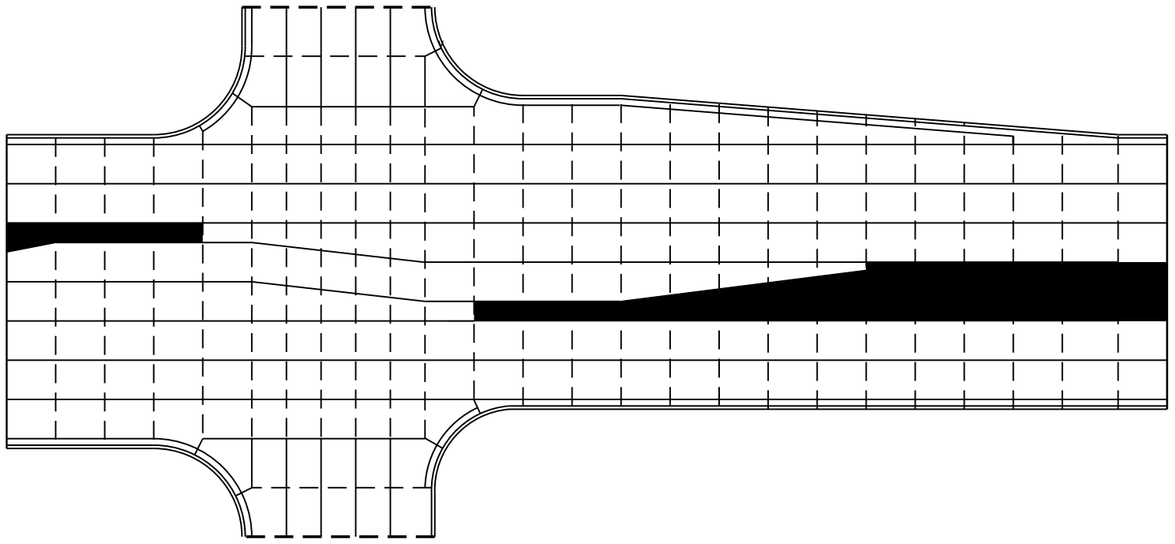
6
S.D.D. 13 C 18-3a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

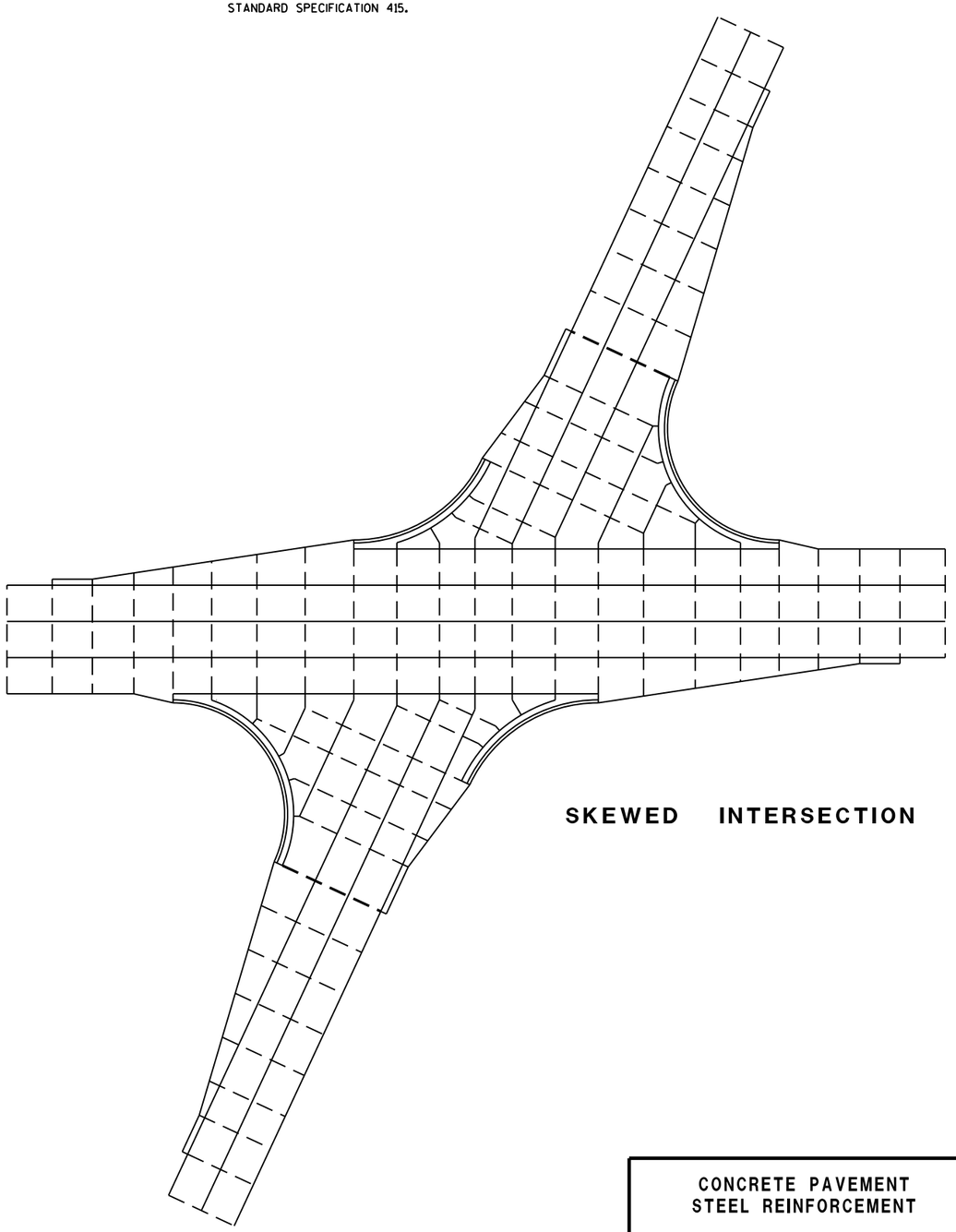
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

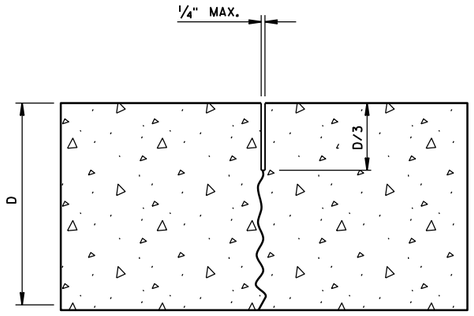
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

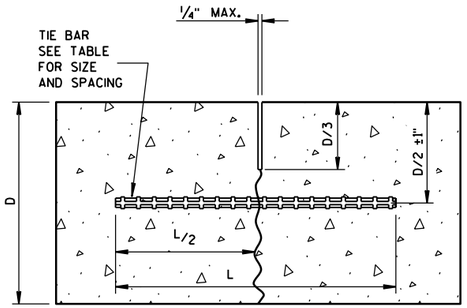
S.D.D. 13 C 18-3b

6

S.D.D. 13 C 18-3b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

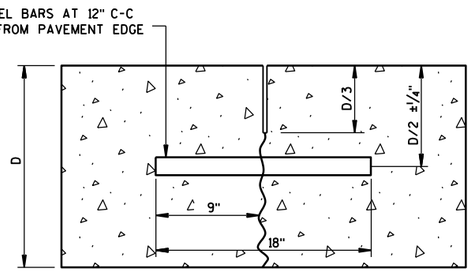
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* 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.

GENERAL NOTES

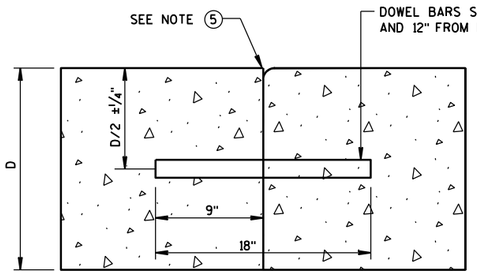
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 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 1/4-INCH RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



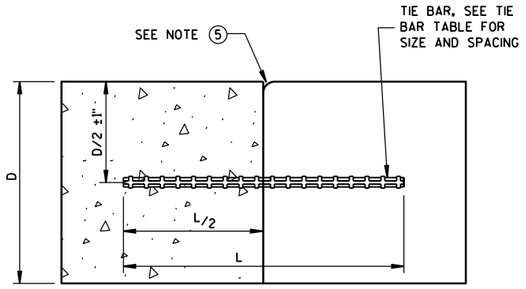
DOWELED-TRANSVERSE

CONTRACTION JOINTS

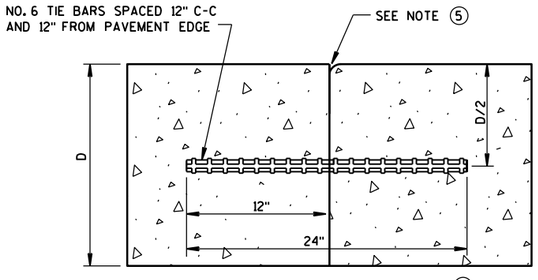
SEE NOTE (2)



DOWELED TRANSVERSE (3)

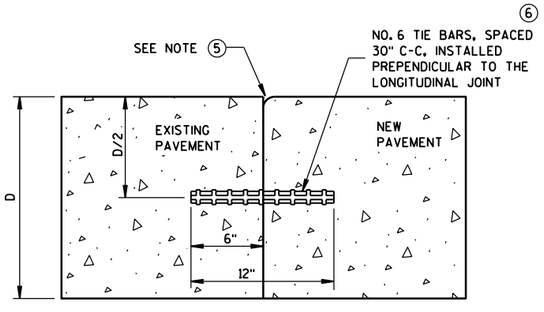


TIED LONGITUDINAL



TIED TRANSVERSE (3)

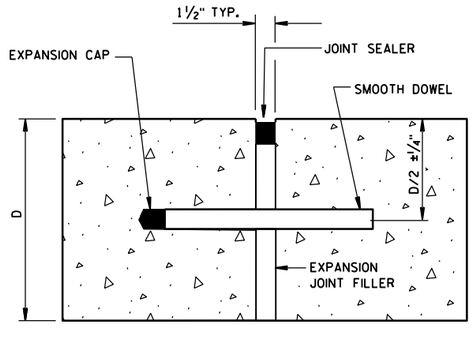
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

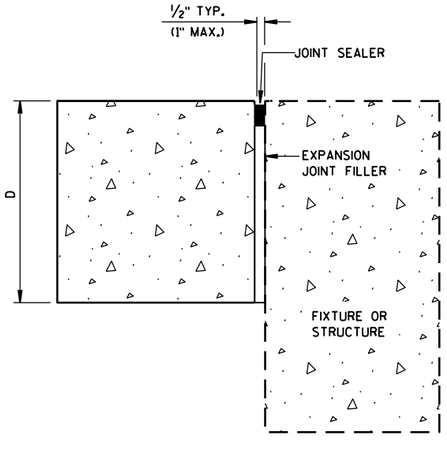
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

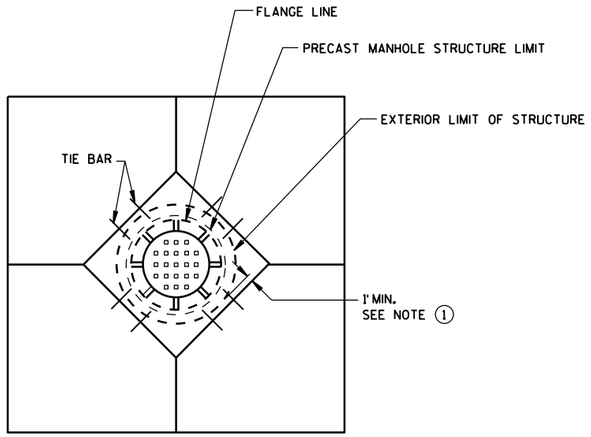
EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

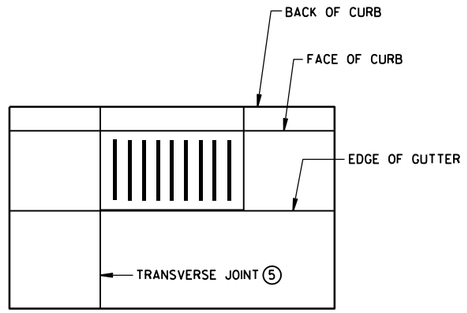
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

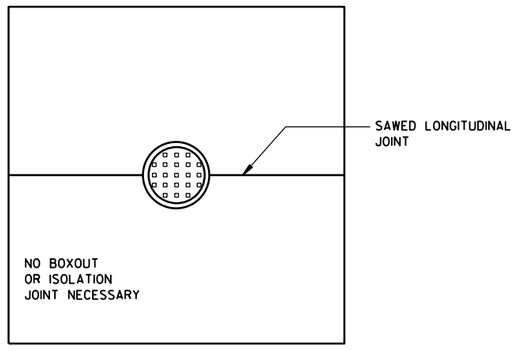
S.D.D. 13 C 18-3c



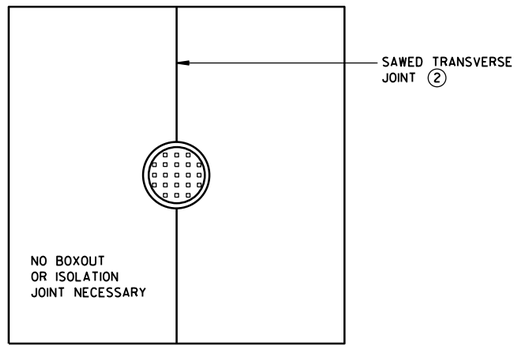
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



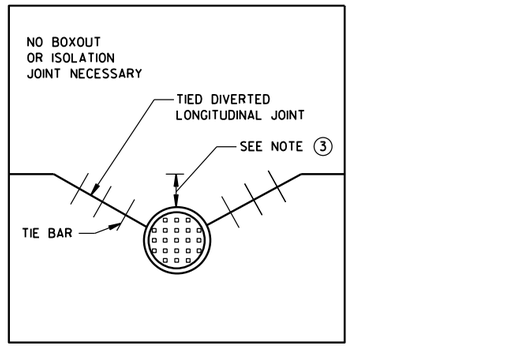
INLET WITH TRANSVERSE JOINT



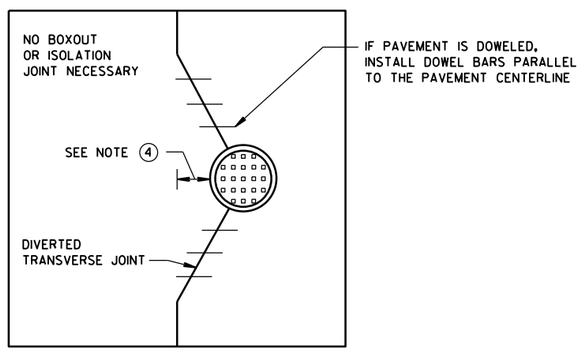
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION 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 LONGITUDIAL 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 REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 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 REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

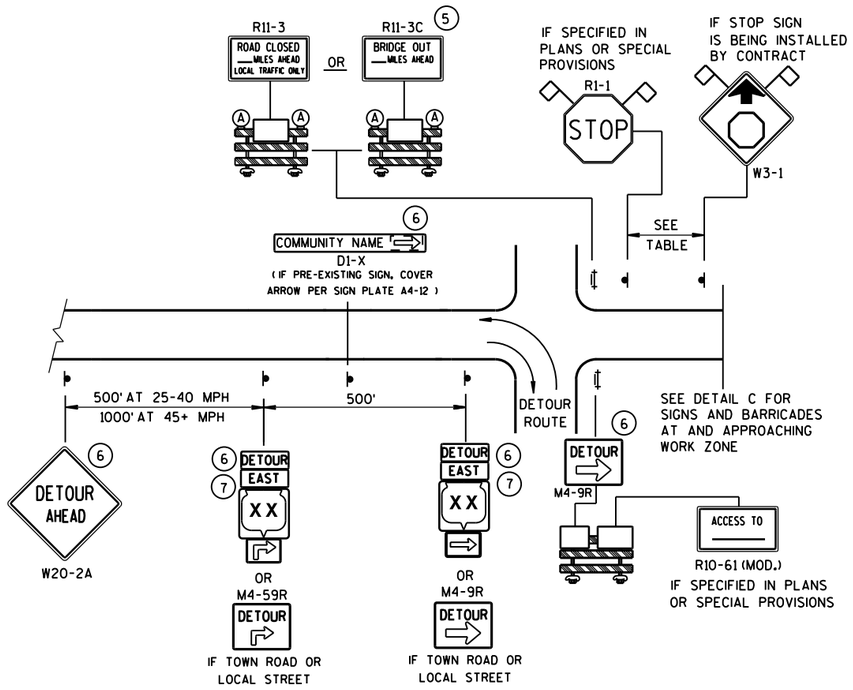
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

6

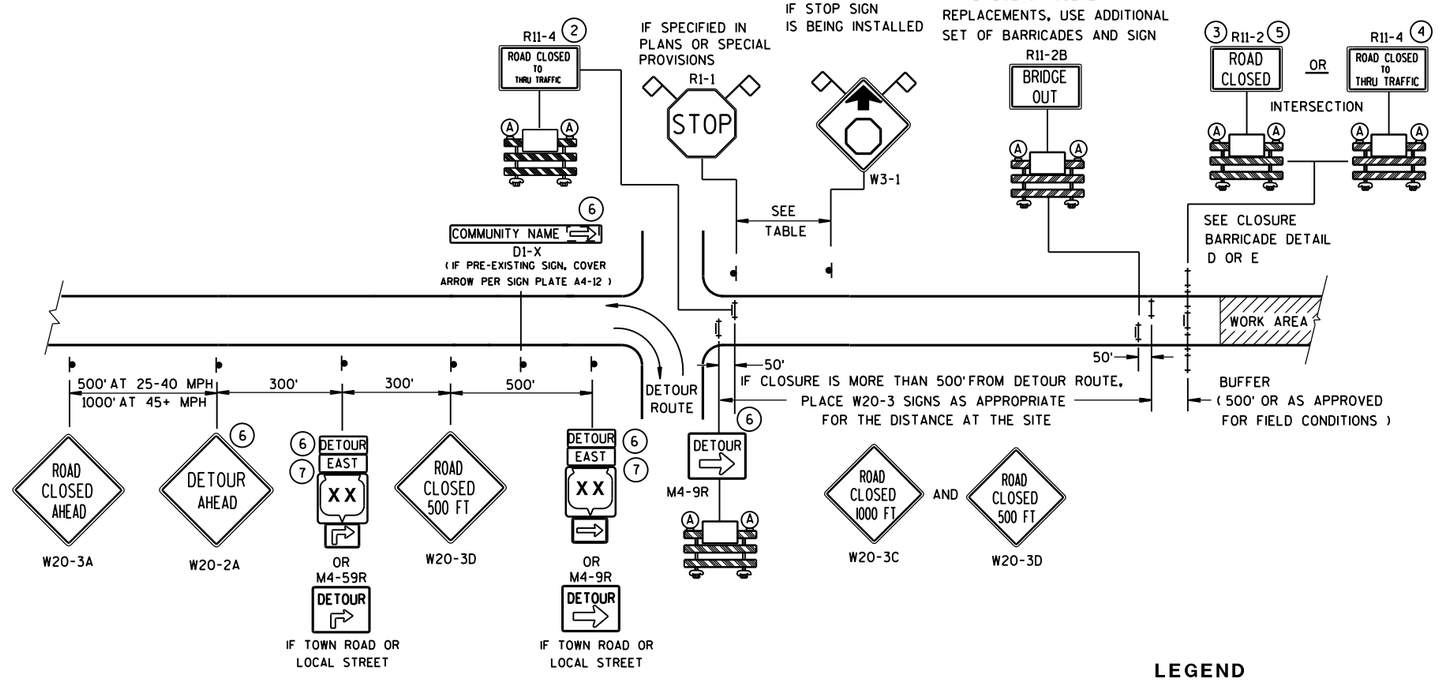
S.D.D. 13 C 18-3d



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

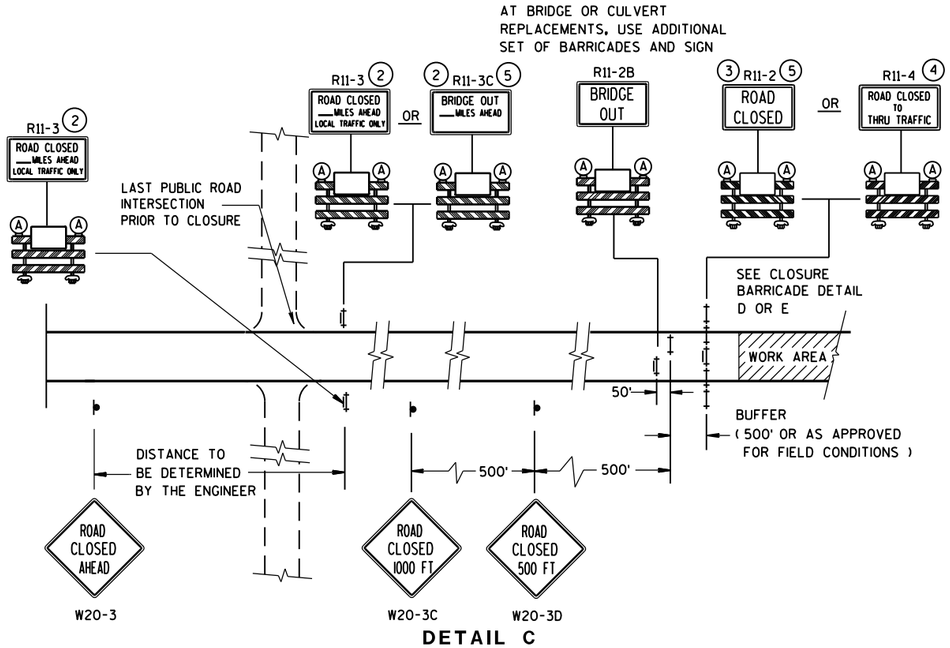
WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

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
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

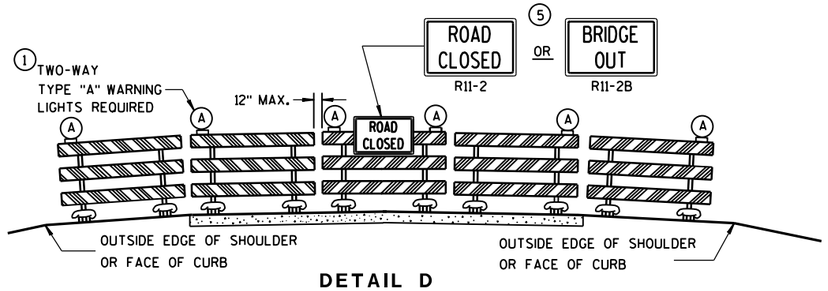
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

S.D.D. 15 C 2-6a

6

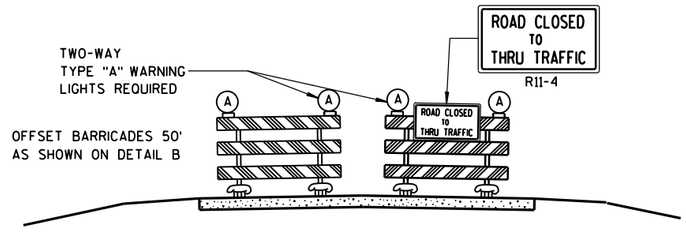
S.D.D. 15 C 2-6a



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 BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE 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, 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". (30" X 15" 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.)
- M05-1 AND M06-1 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 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 LANE 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 MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI — FIC

FHWA

6

S.D.D. 15 C 2-6b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

GENERAL NOTES

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

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. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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.

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

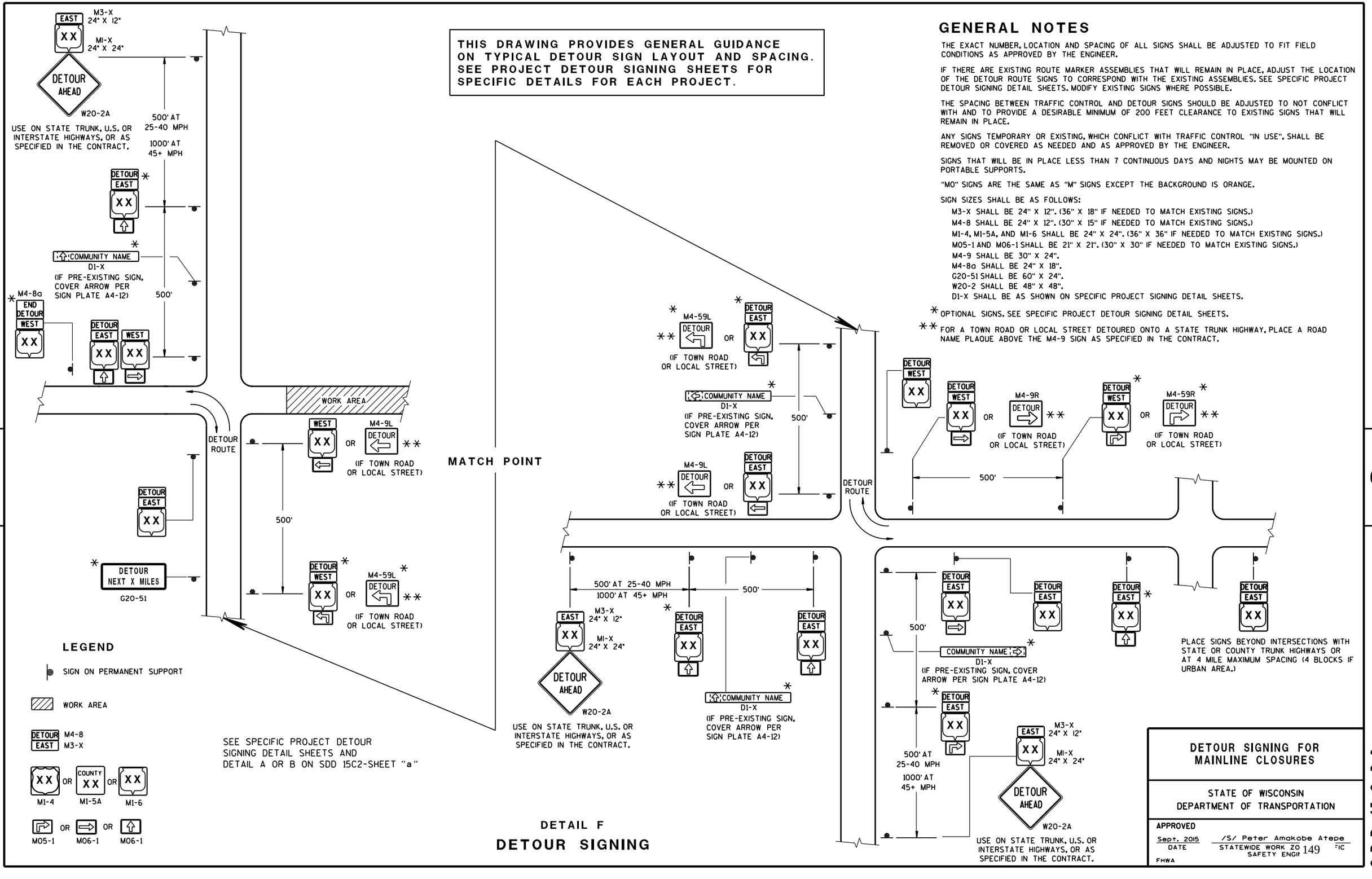
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" 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.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR EAST — M4-8 / M3-X
- XX OR COUNTY XX OR XX — M1-4 / M1-5A / M1-6
- M05-1 OR M06-1 OR M06-1

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD 15C2-SHEET "a"

DETAIL F

DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

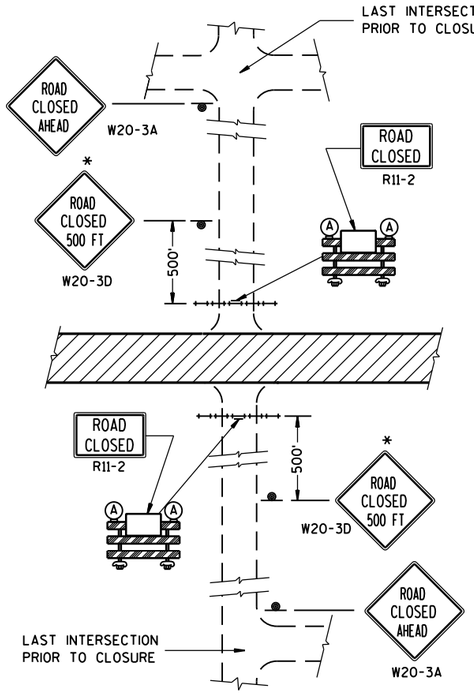
Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] FIC
SAFETY ENGI[illegible]

FHWA

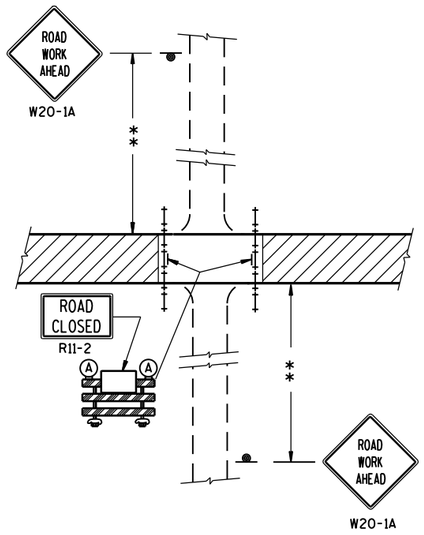
S.D.D. 15 C 2-6c

S.D.D. 15 C 2-6c



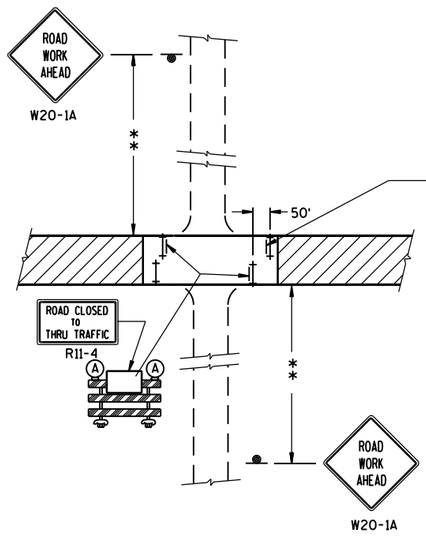
DETAIL 1

(NO ACCESS TO PROJECT)



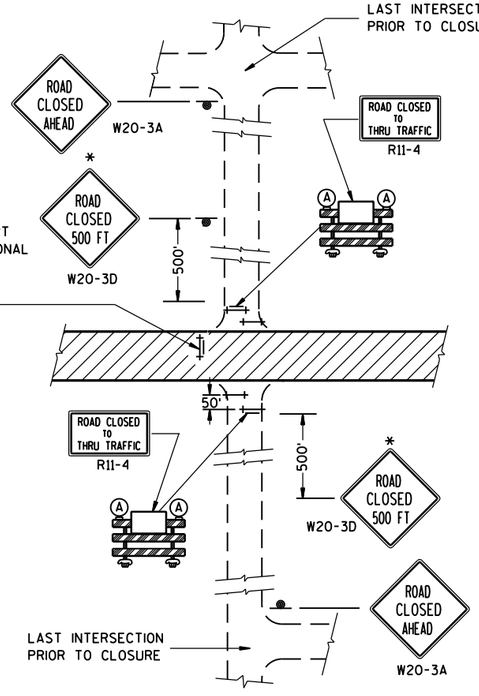
DETAIL 2

(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT).



DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

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.

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.

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 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible]FIC SAFETY ENGI[illegible]
FHWA

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S.D.D. 15 C 3-3

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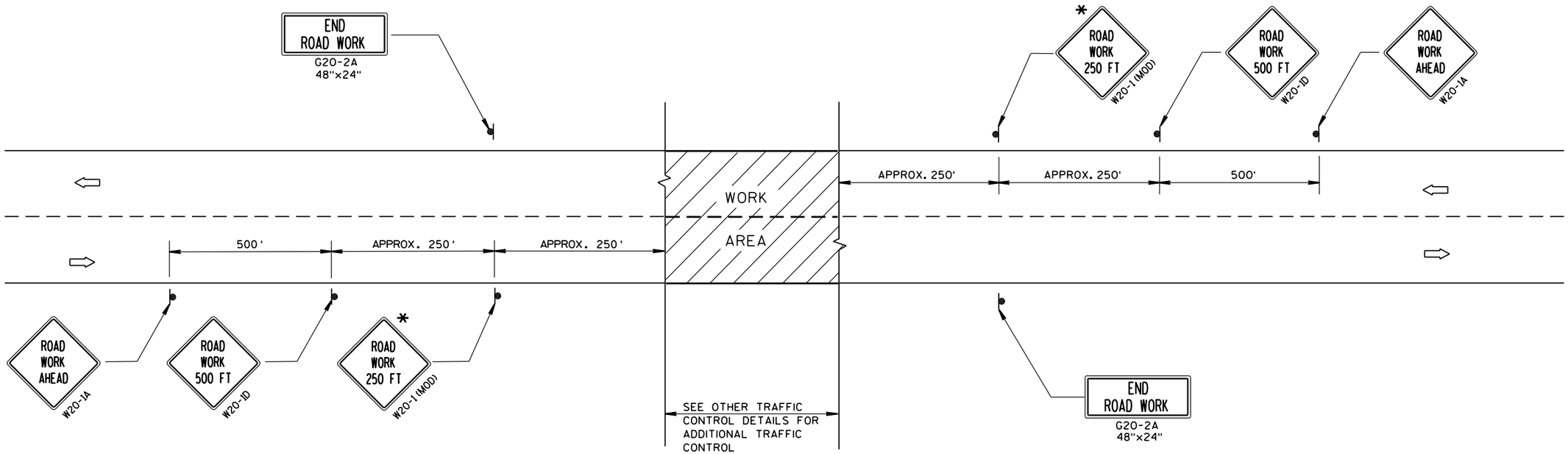
S.D.D. 15 C 3-3

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

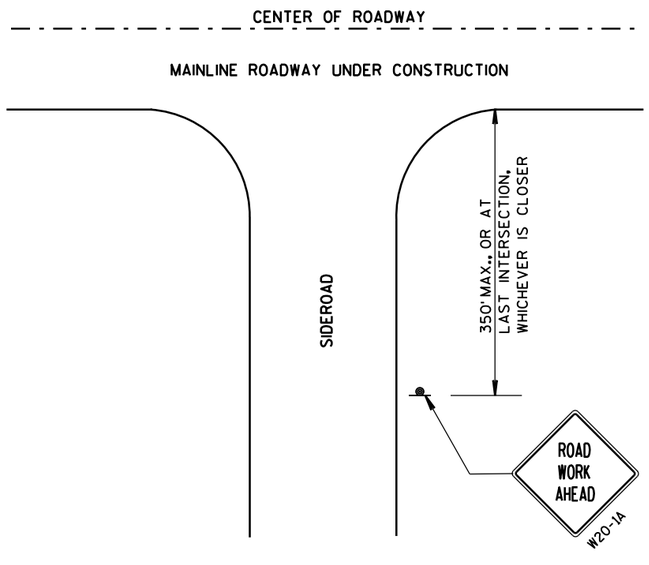
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

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



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZOI SAFETY ENGIN — IC
FHWA

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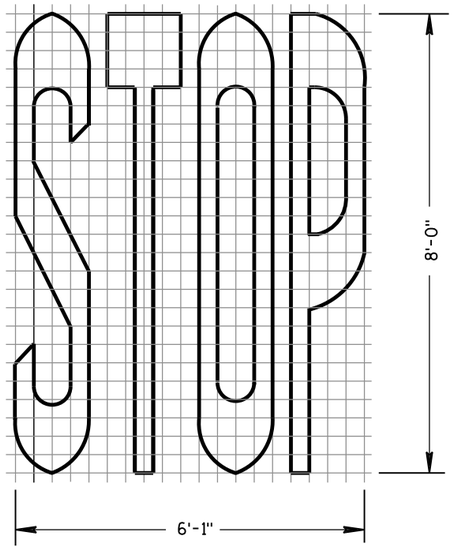
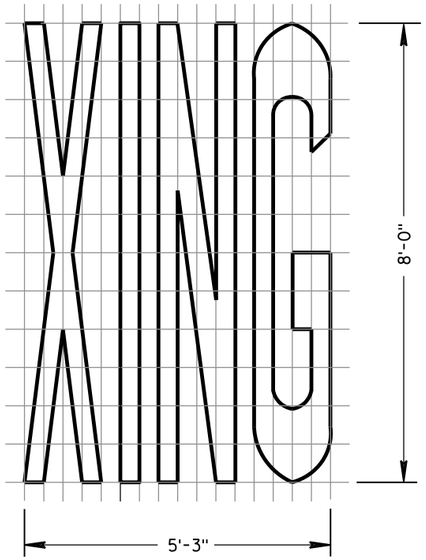
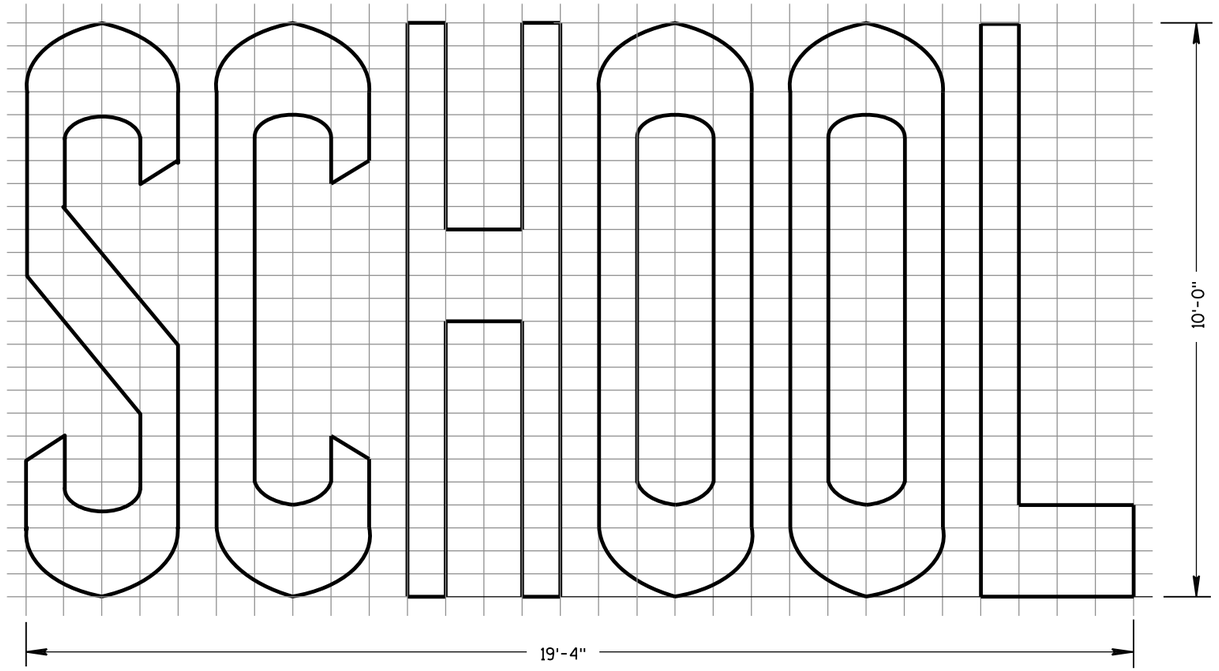
S.D.D. 15 C 5-3

GENERAL NOTES

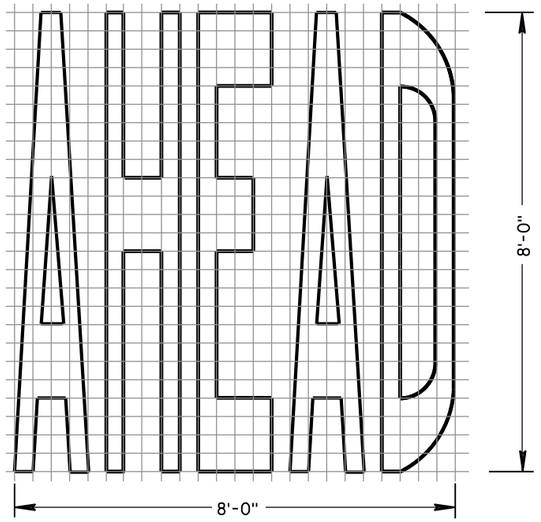
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

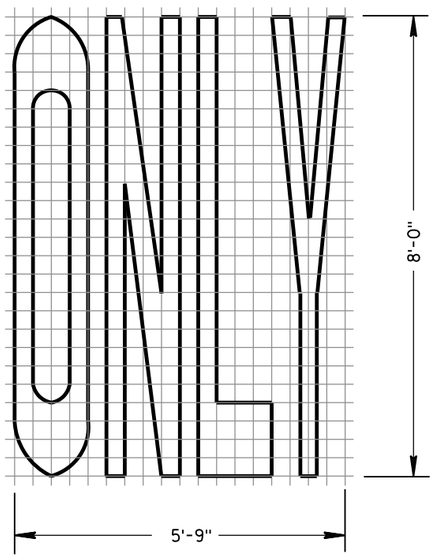


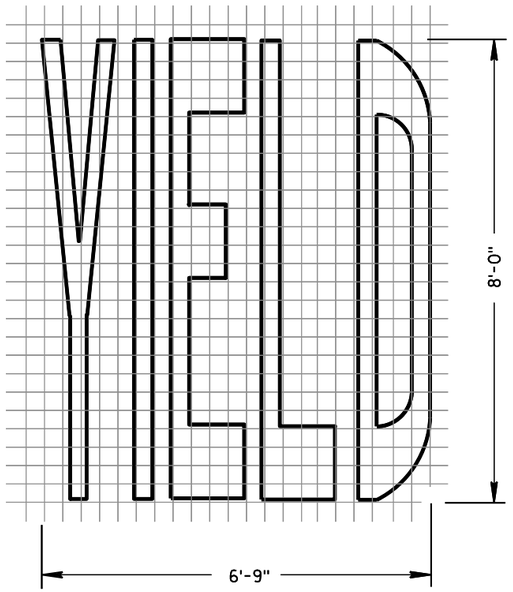


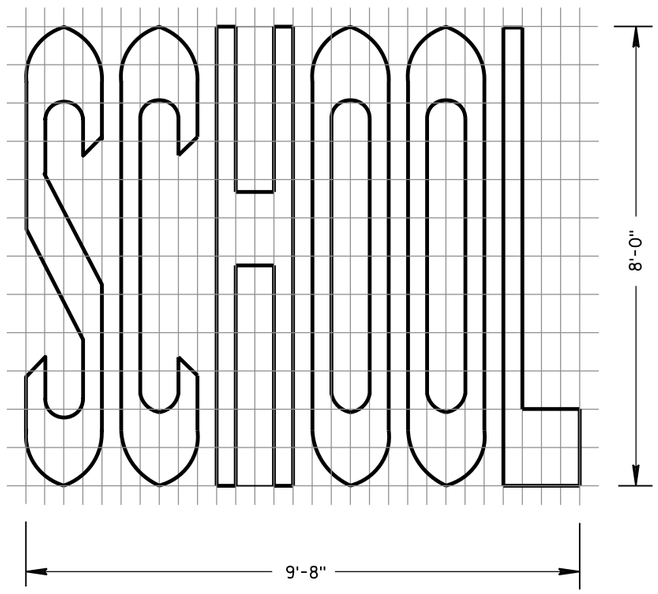


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-16	/S/ Matthew R. Rauch	
DATE	STATE SIGNING AND MARK	EER

FHWA

6

S.D.D. 15 C 7-13b

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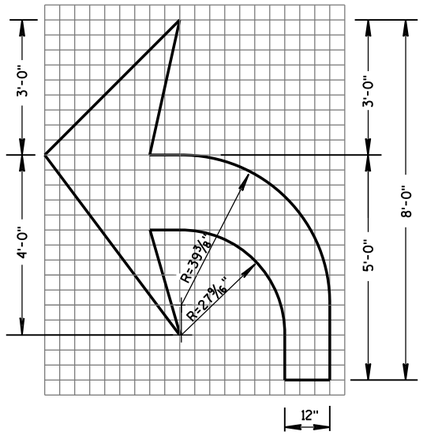
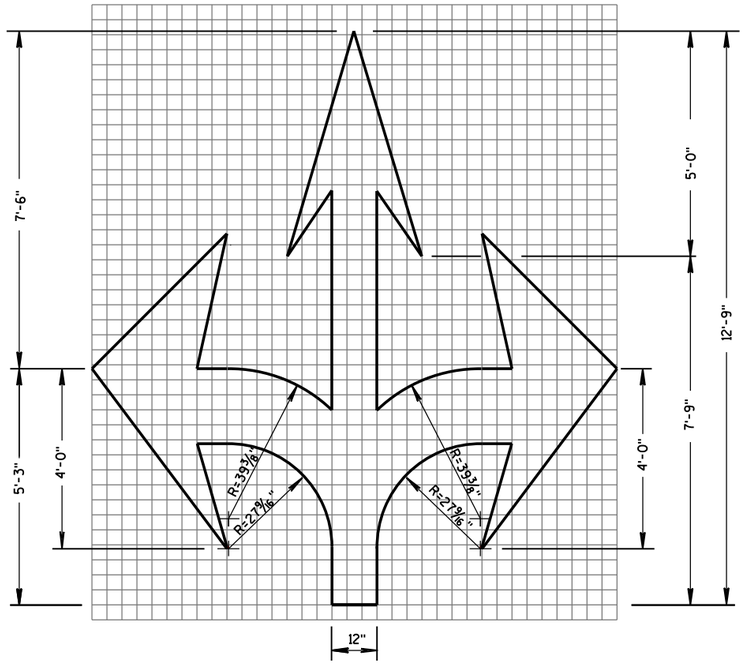
S.D.D. 15 C 7-13b

GENERAL NOTES

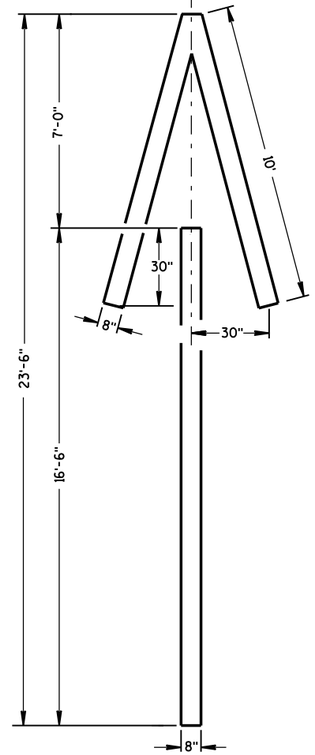
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



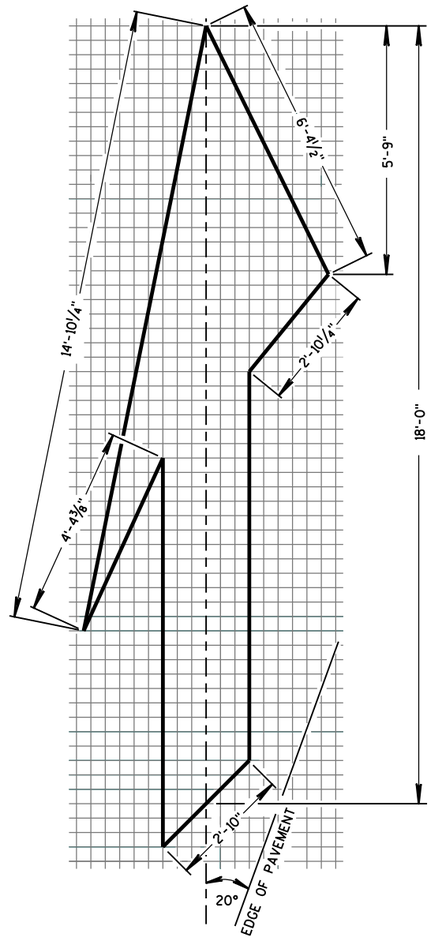
TYPE 2



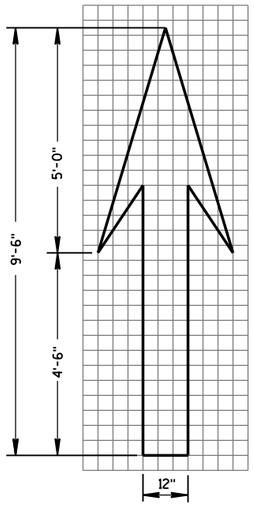
TYPE 6



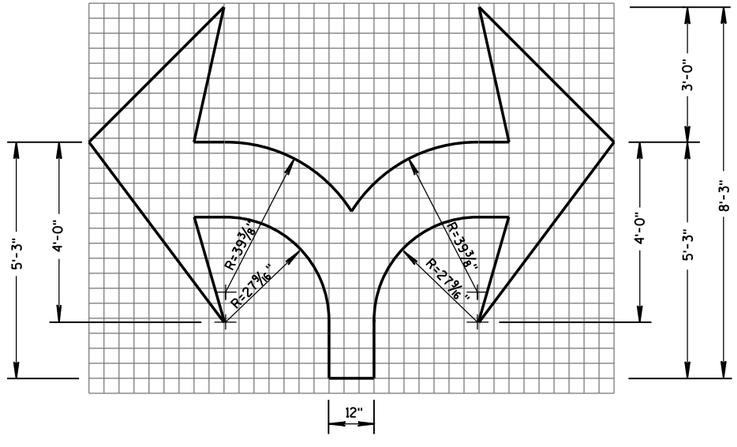
TYPE 4



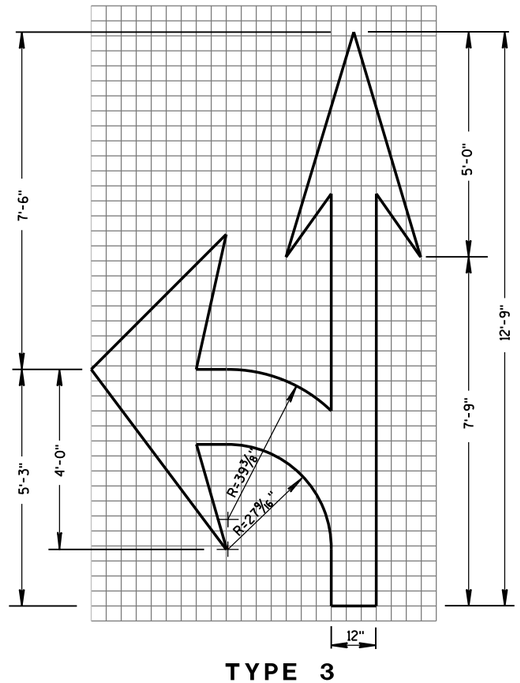
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-18-16 DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAR ENGINEER
FHWA

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S.D.D. 15 C 7-13c

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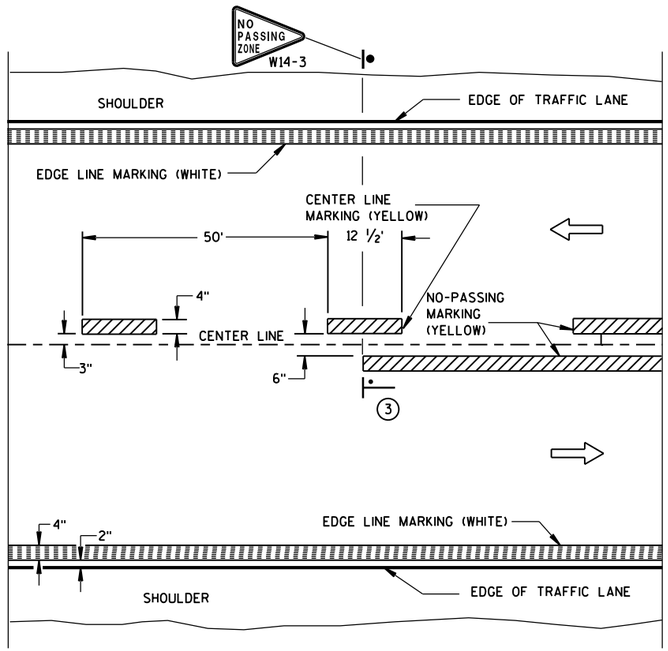
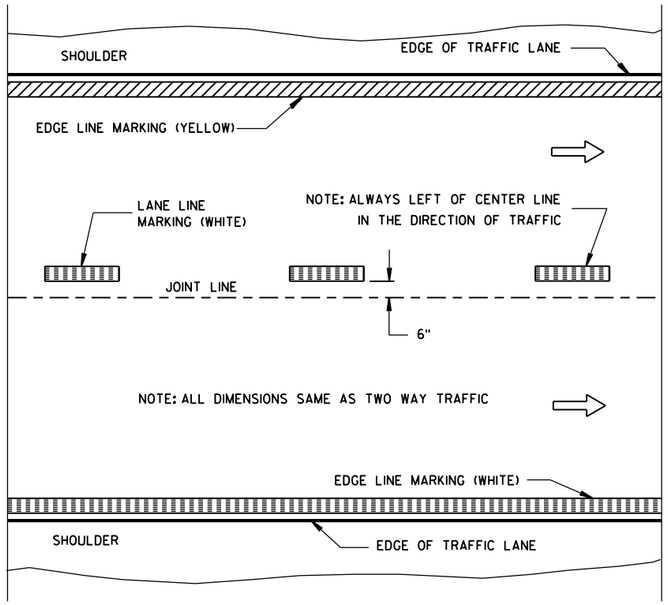
S.D.D. 15 C 7-13c

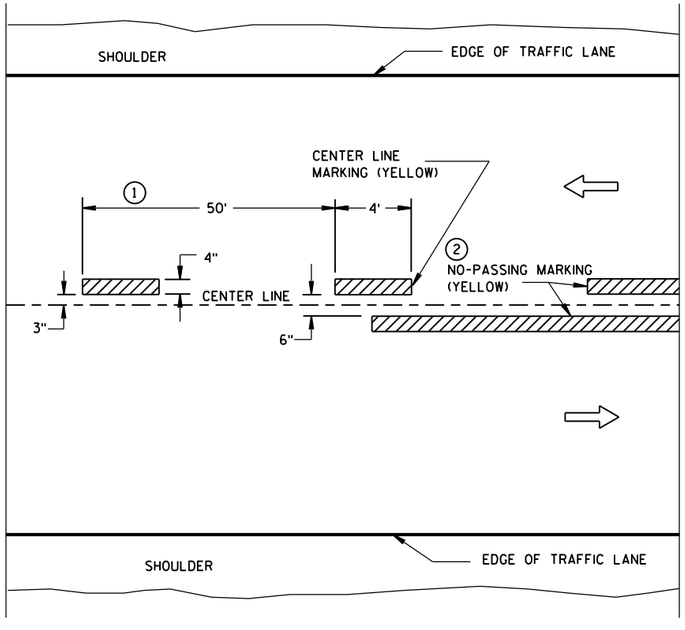


TWO WAY TRAFFIC

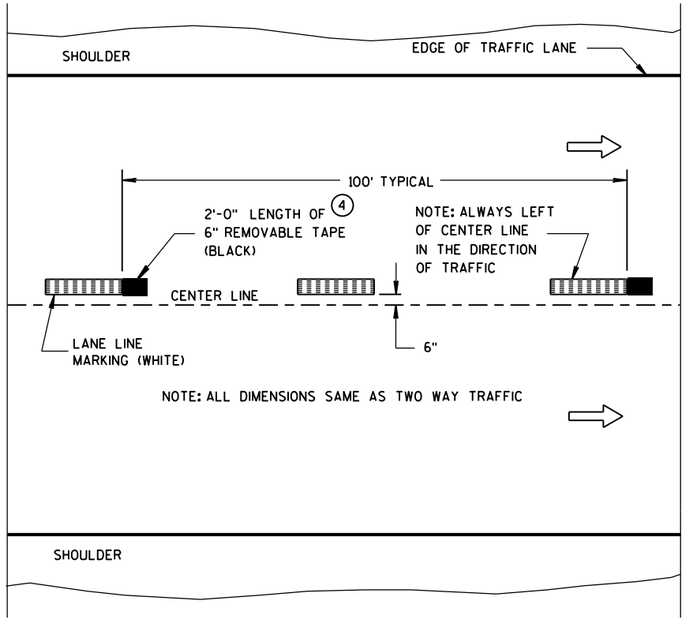


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

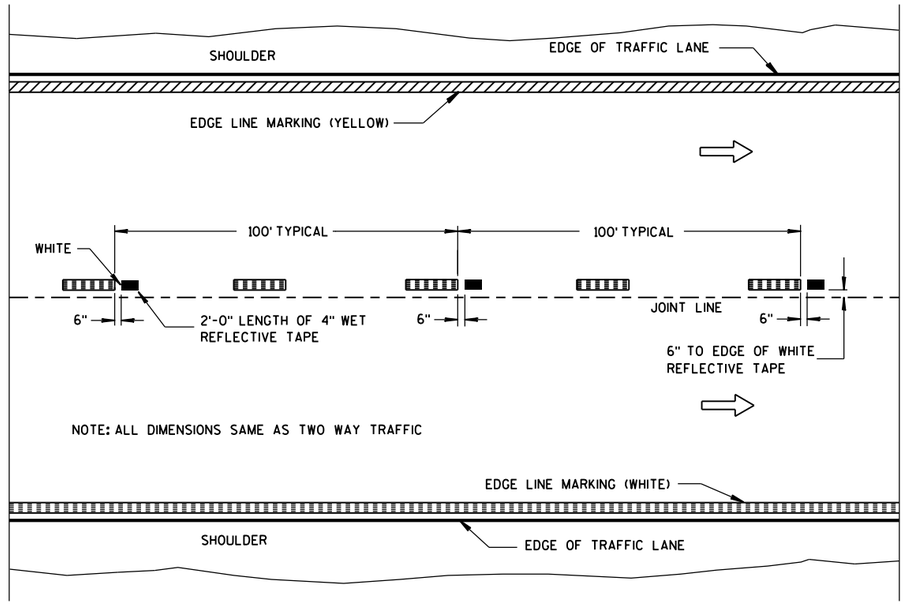
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

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S.D.D. 15 C 8-16a

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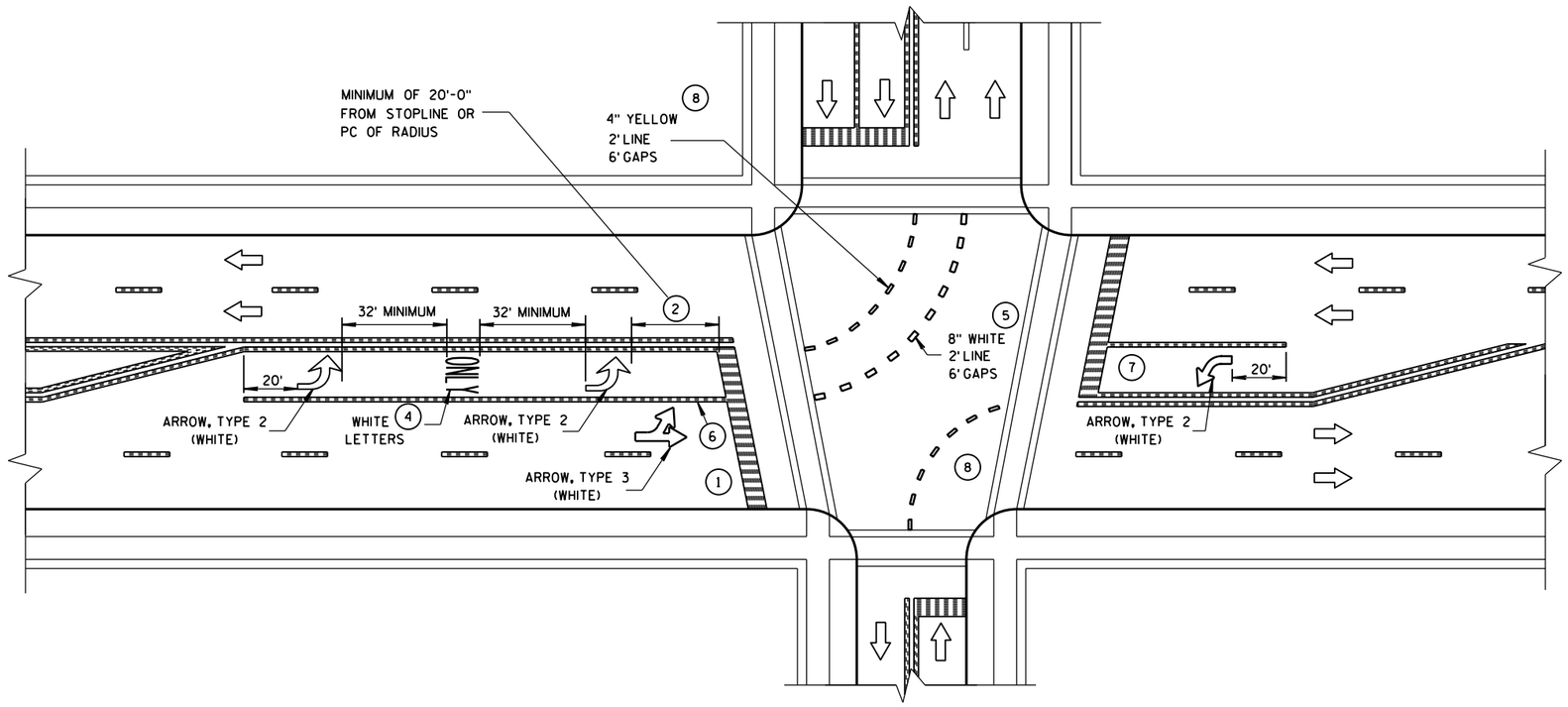
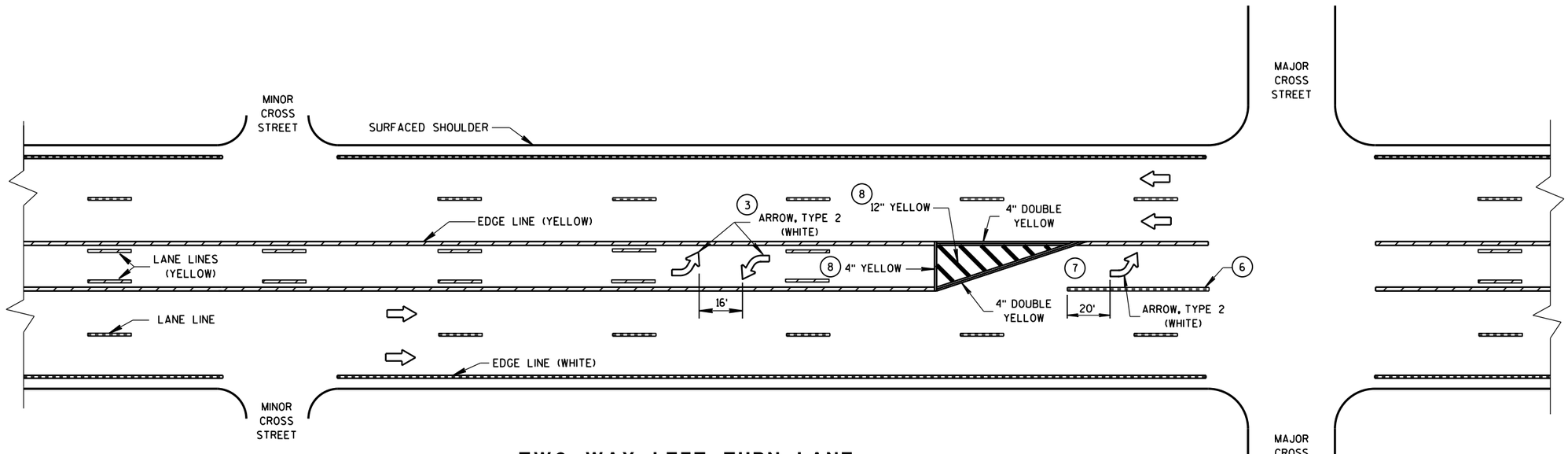
S.D.D. 15 C 8-16a



GENERAL NOTES

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

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



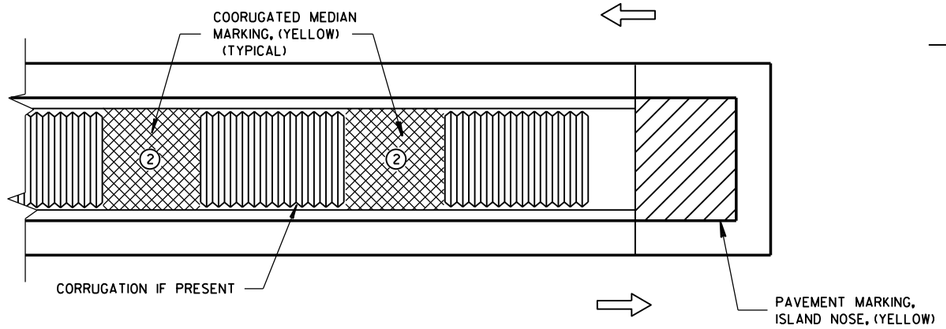
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

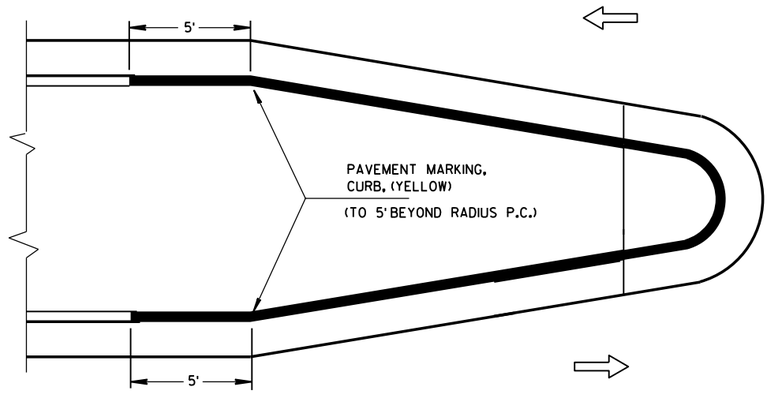
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

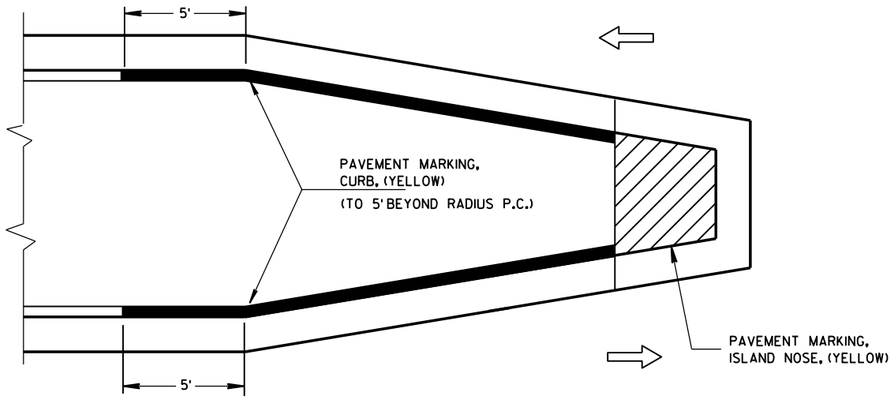
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

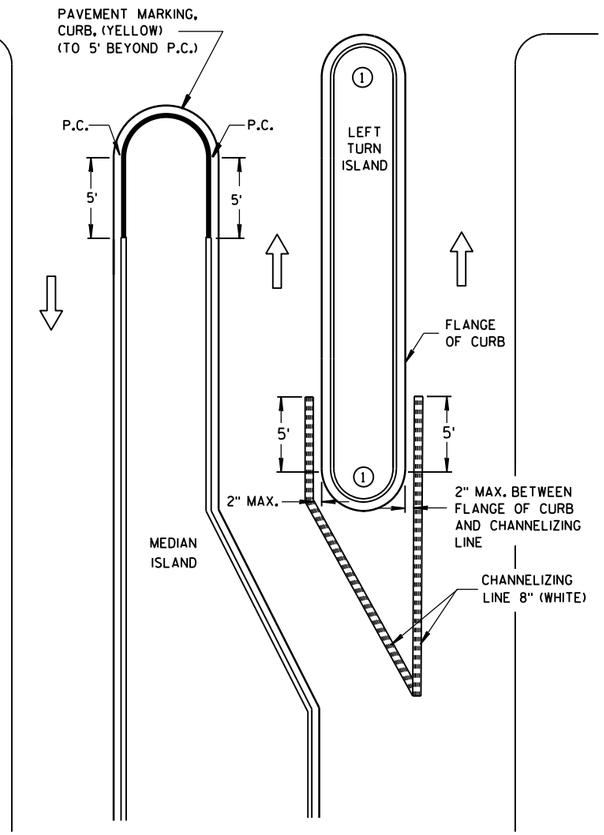


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

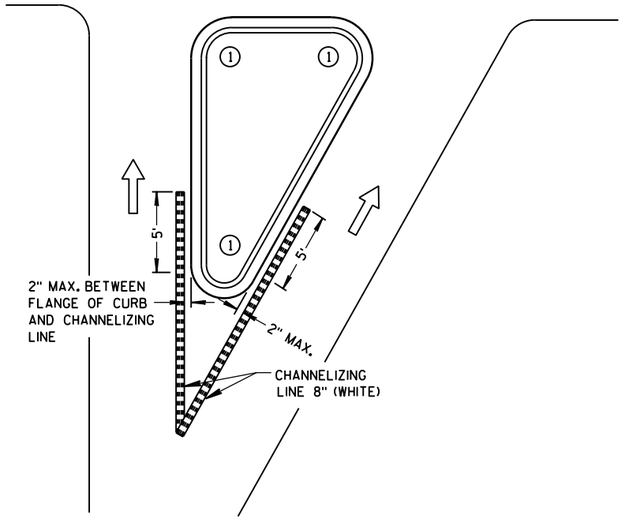


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

2. 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 AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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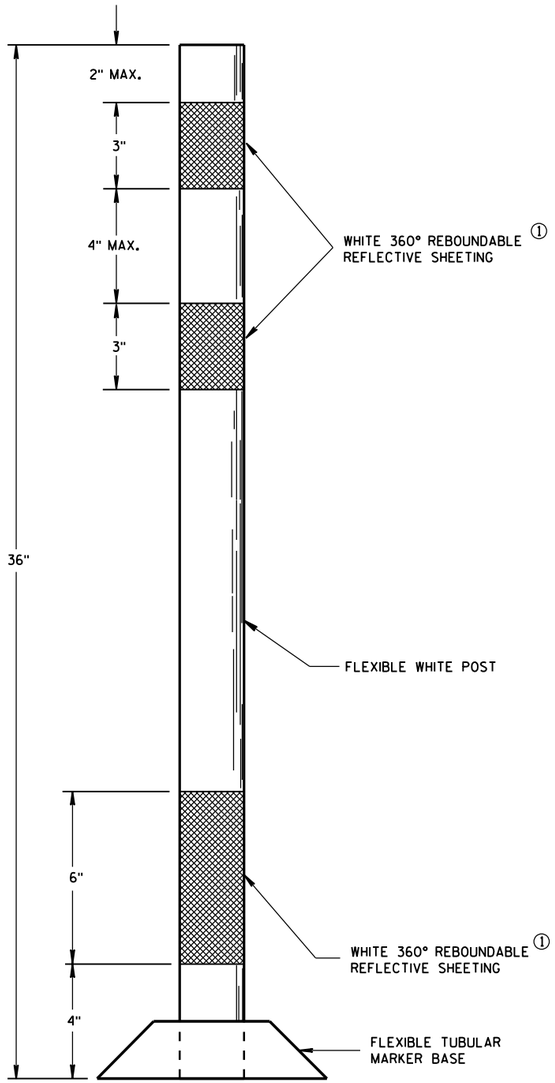
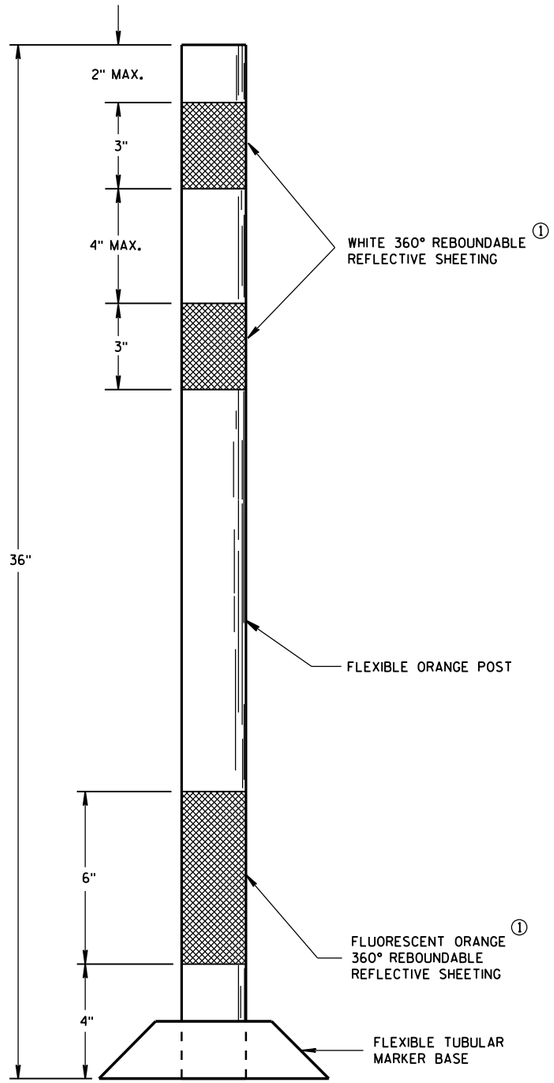


FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER



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.

① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-16-2015
DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON
SAFETY ENGINE

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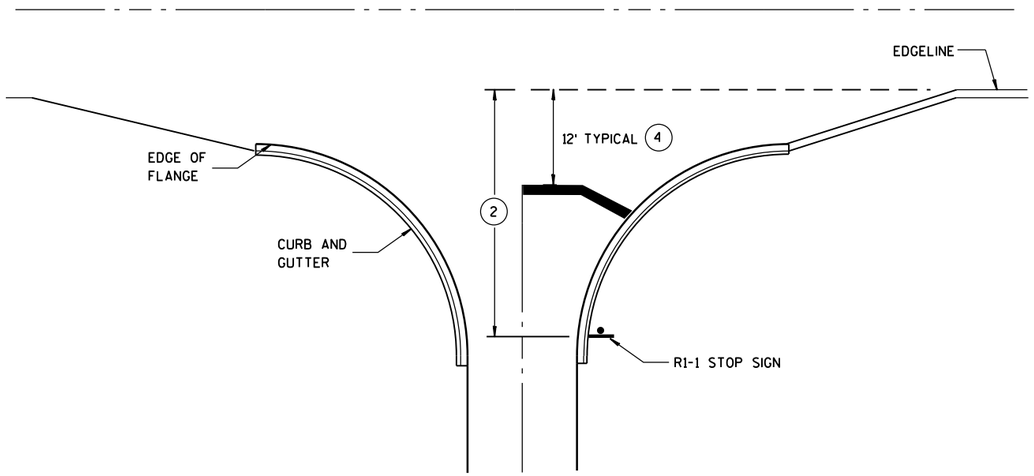
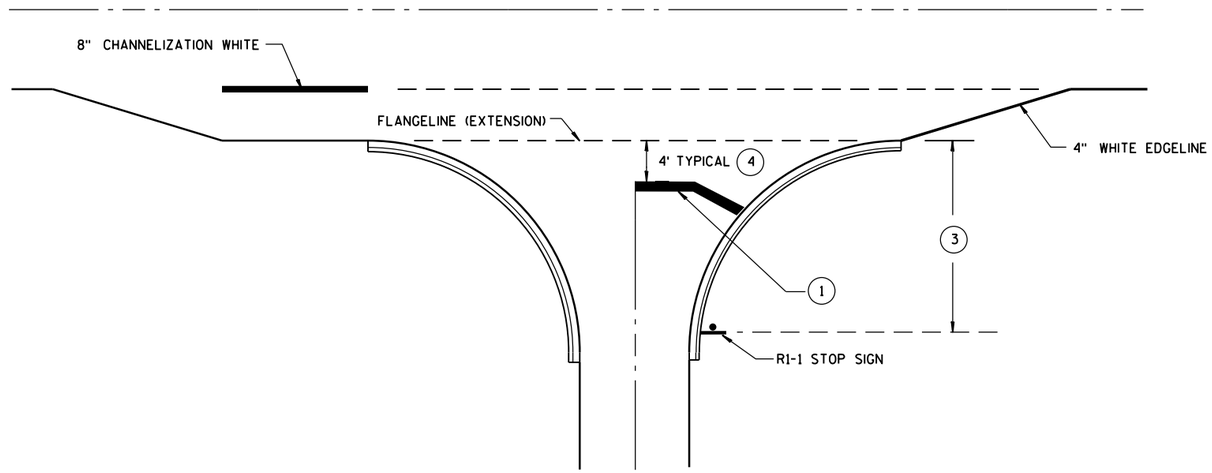
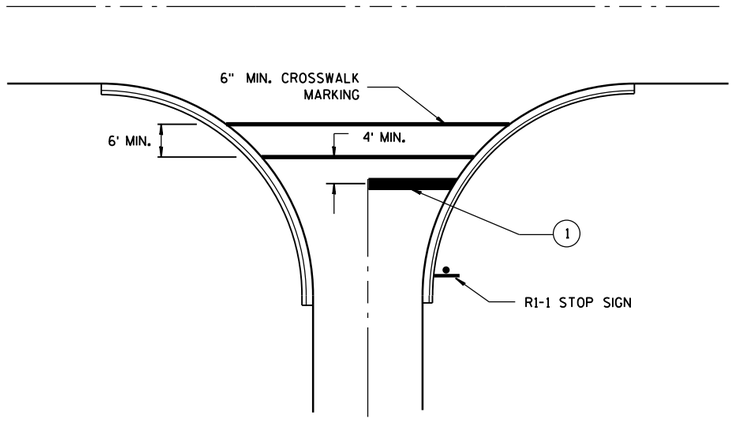
S.D.D. 15 C 11-6



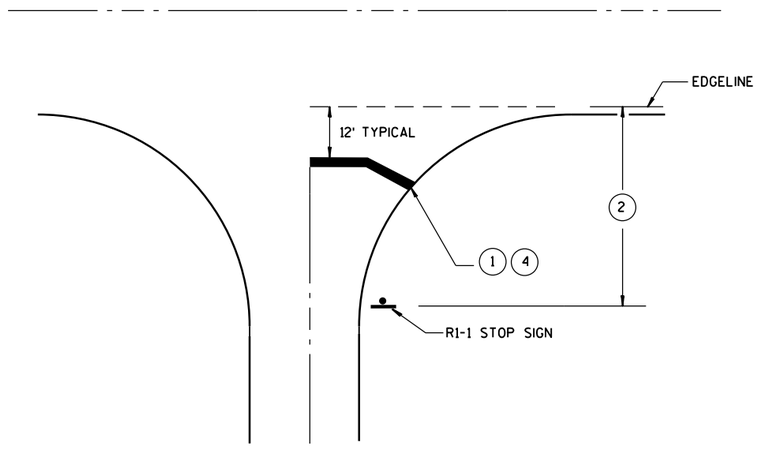
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE 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

4-18-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR 158 NEER

FHWA

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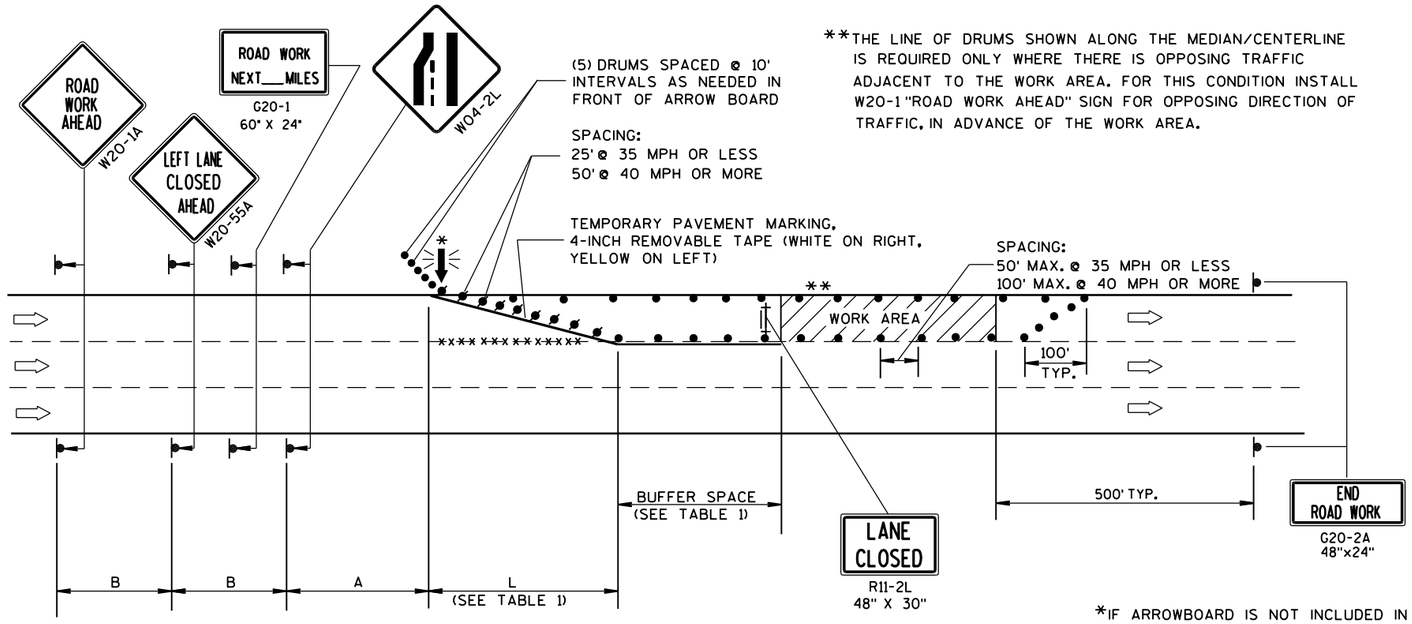
S.D.D. 15 C 33-2



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

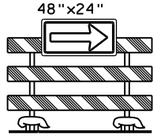


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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 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 IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, 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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

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.

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

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER — IC

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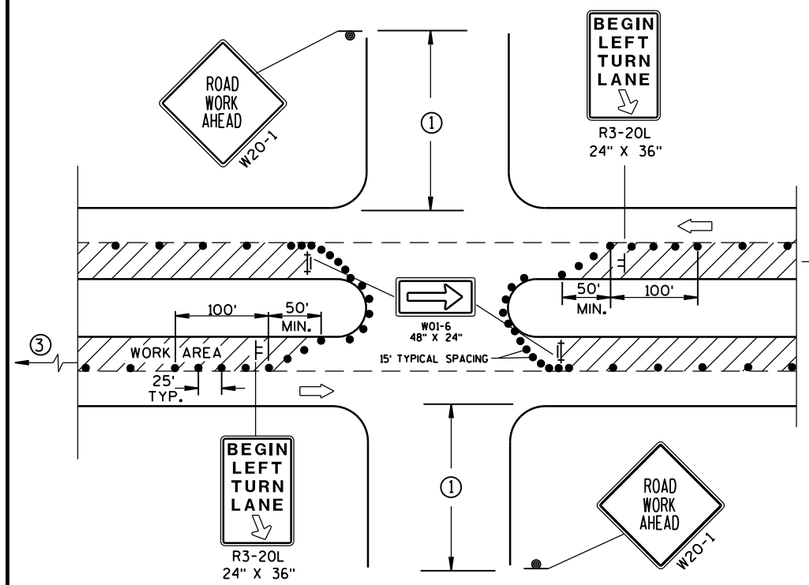
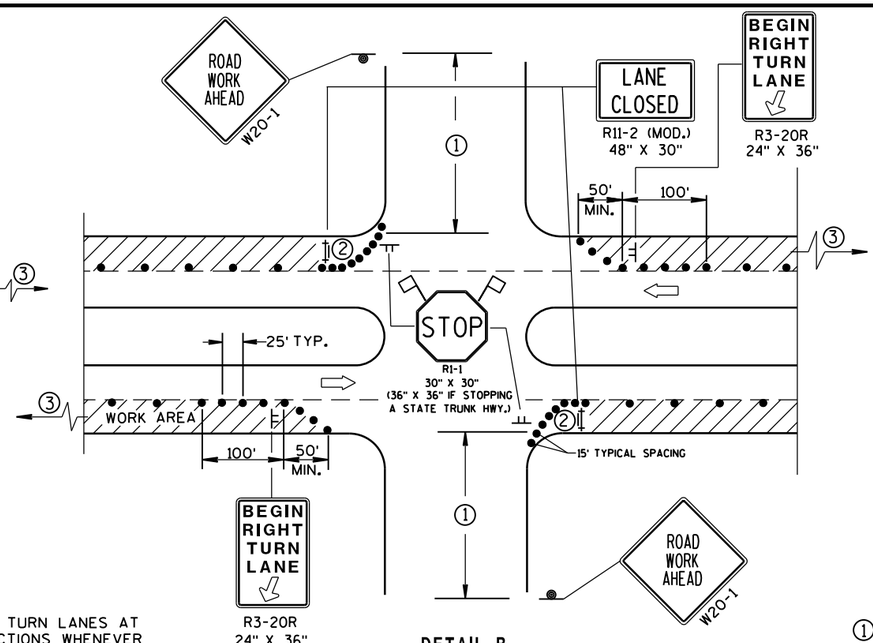


DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

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 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 IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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, OR THAT WILL BE PLACED IN A CLOSED LANE, 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.

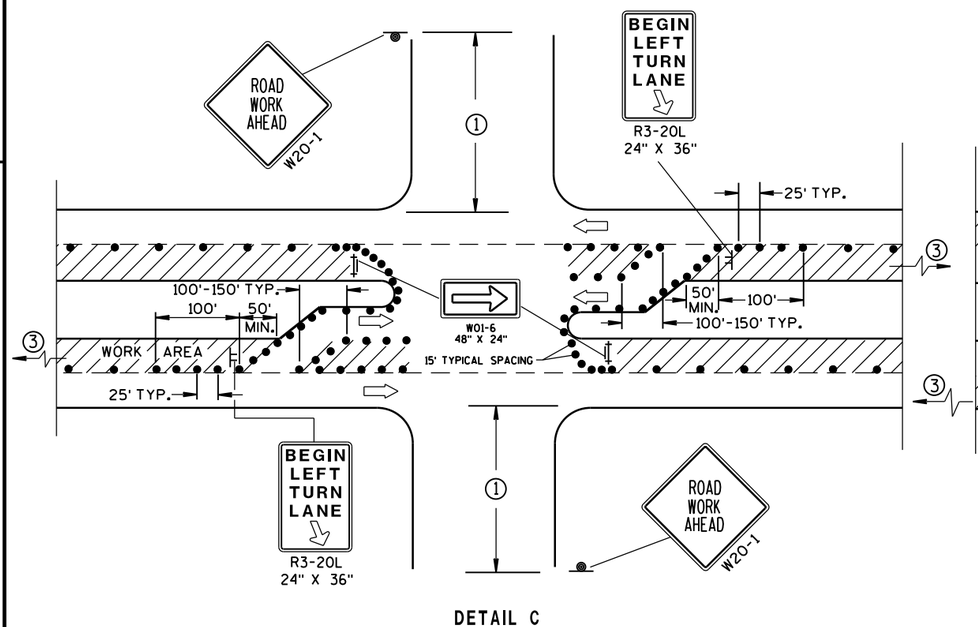
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

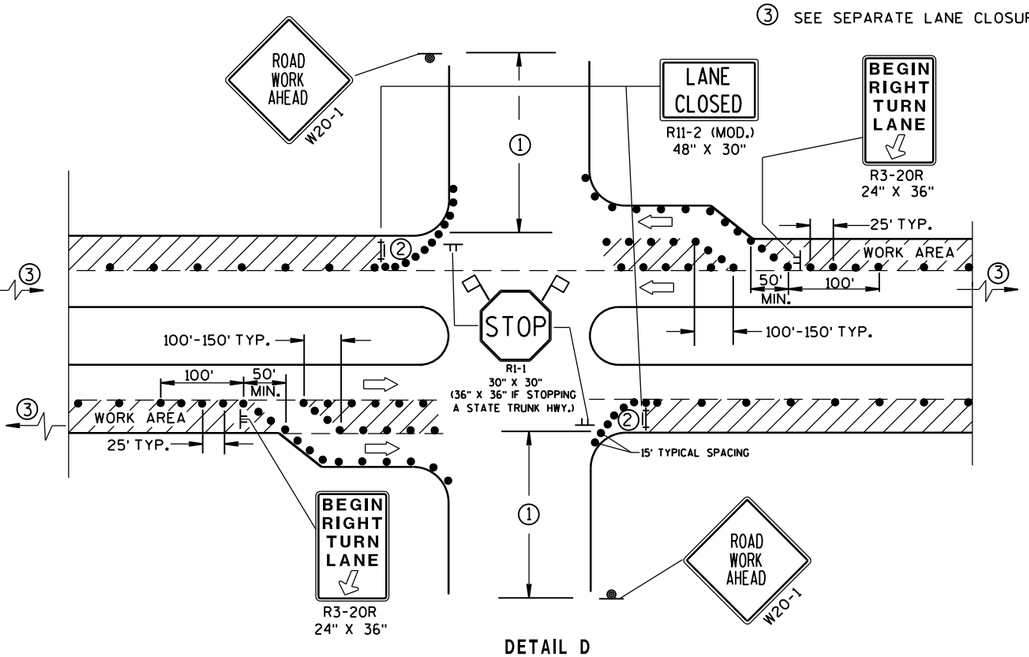
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Nov. 2014 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINE[illegible]ESIGN
FHWA

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S.D.D. 15 D 21-3

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S.D.D. 15 D 21-3

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.

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

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

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.

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

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

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

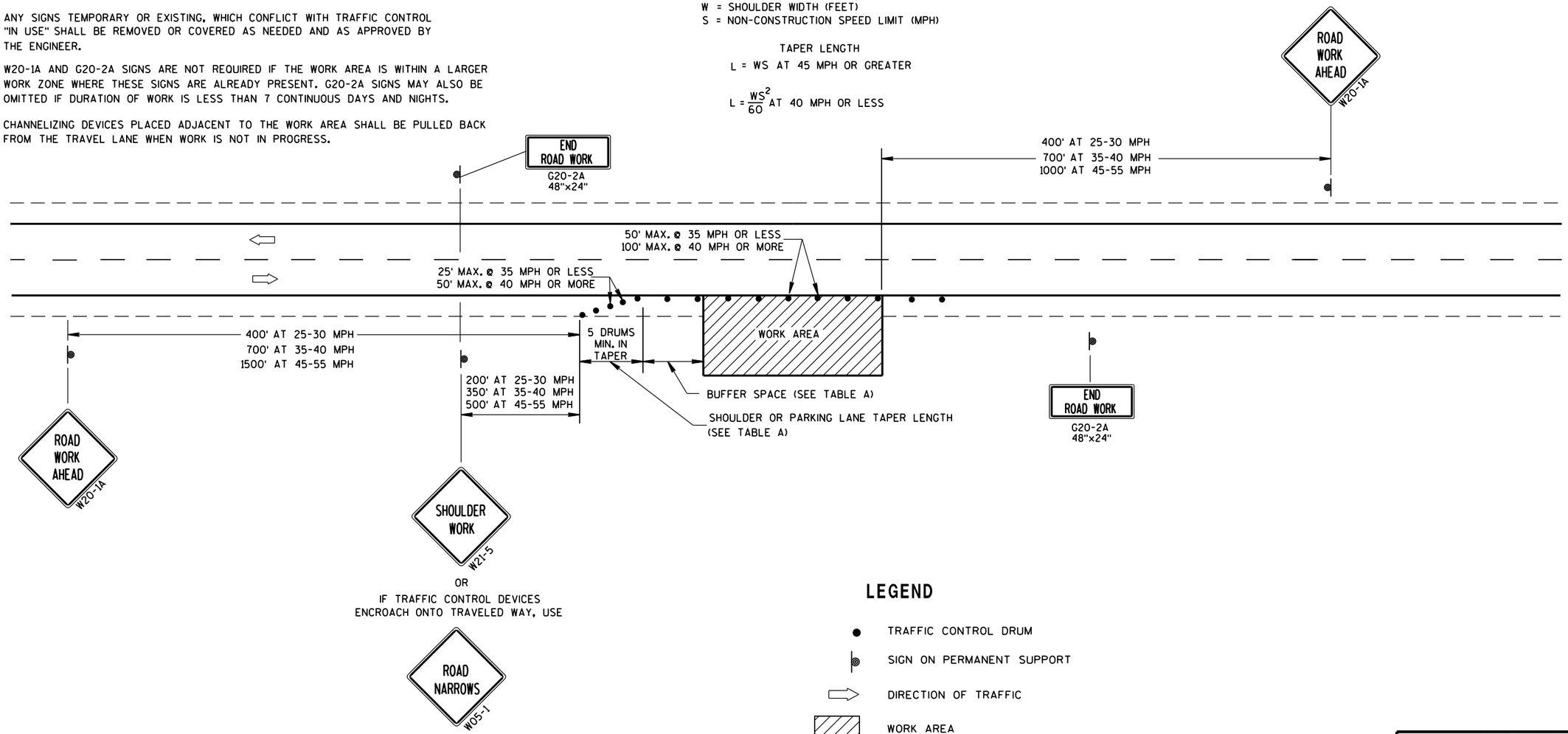
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

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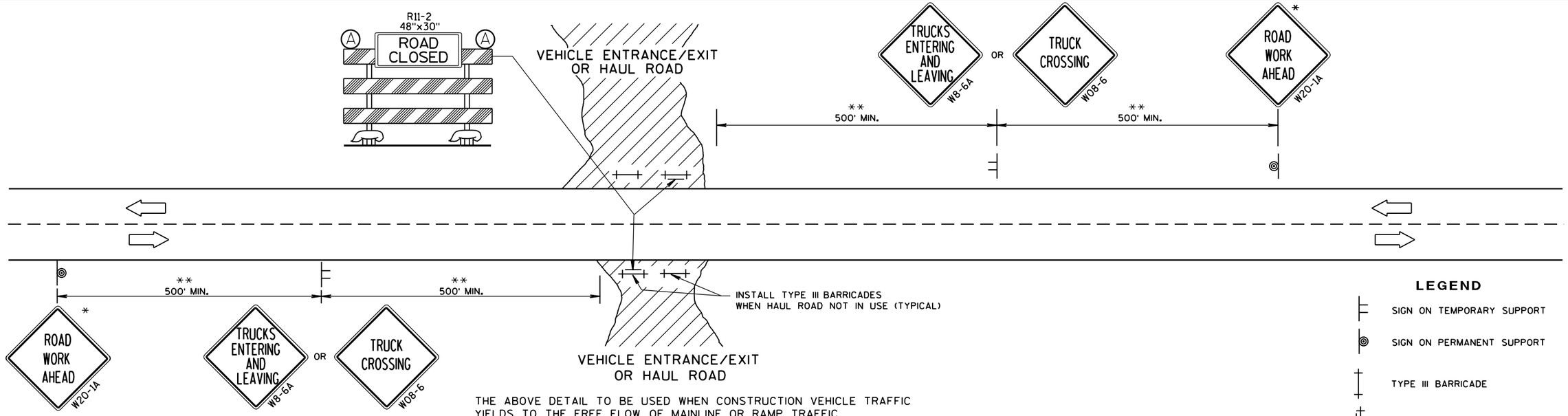


THE ABOVE DETAIL TO BE USED WHEN CONSTRUCTION VEHICLE TRAFFIC YIELDS TO THE FREE FLOW OF MAINLINE OR RAMP TRAFFIC

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

GENERAL NOTES

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

WHEN ACTIVITY REFLECTED BY THE SIGN IS NOT CURRENTLY TAKING PLACE, THE HIGHWAY SHALL BE RESTORED TO NORMAL CONDITION AND THE SIGNS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC.

WHEN A SIDE ROAD OR RAMP INTERSECTS WITHIN THE ADVANCE SIGNING AREA, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

* THESE SIGNS ARE TO BE USED ONLY WHEN VEHICLE **ENTRANCE/EXIT CONDITIONS ARE SEPARATED BY MORE THAN 2 MILES** FROM PREVIOUS WORK AREA OR SIGNING OR AS DIRECTED BY THE ENGINEER.

** 500 FEET SHOWN IS FOR ROADWAYS WITH A NON-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FEET. FOR 25-30 MPH, USE 200 FEET. USE 1000 FEET/1500 FEET FOR EXPRESSWAY/FREEWAY.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

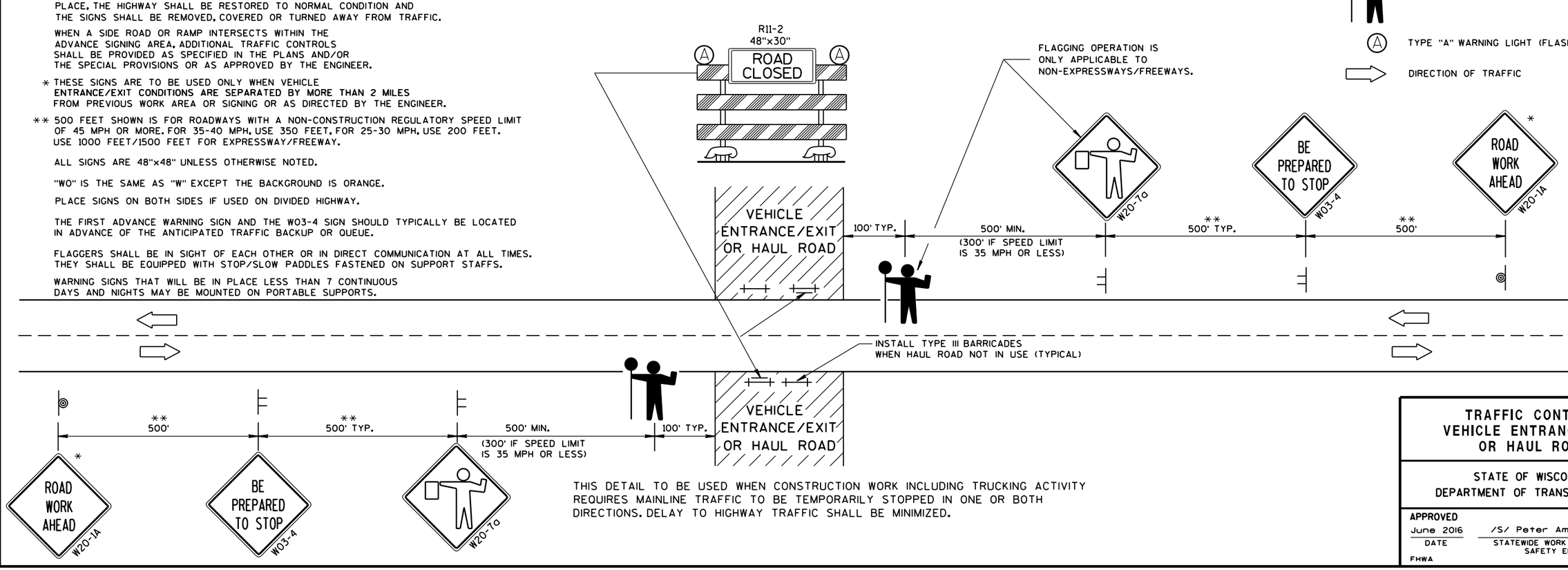
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

PLACE SIGNS ON BOTH SIDES IF USED ON DIVIDED HIGHWAY.

THE FIRST ADVANCE WARNING SIGN AND THE W03-4 SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS.

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



THIS DETAIL TO BE USED WHEN CONSTRUCTION WORK INCLUDING TRUCKING ACTIVITY REQUIRES MAINLINE TRAFFIC TO BE TEMPORARILY STOPPED IN ONE OR BOTH DIRECTIONS. DELAY TO HIGHWAY TRAFFIC SHALL BE MINIMIZED.

TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

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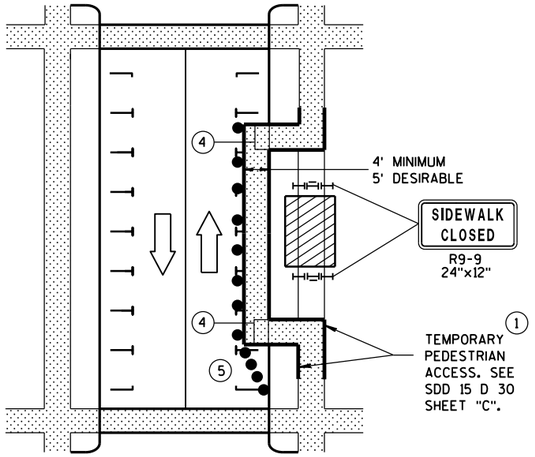
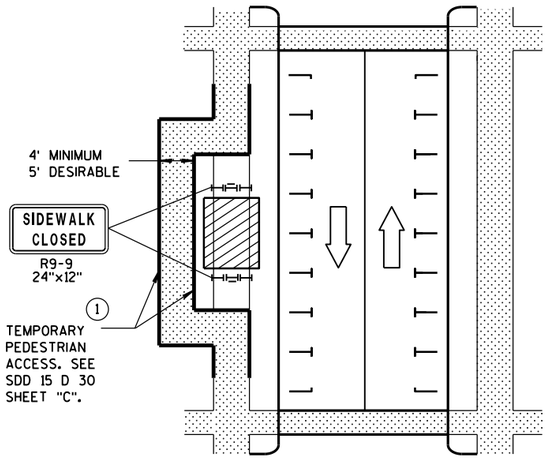
S.D.D. 15 D 29-4

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

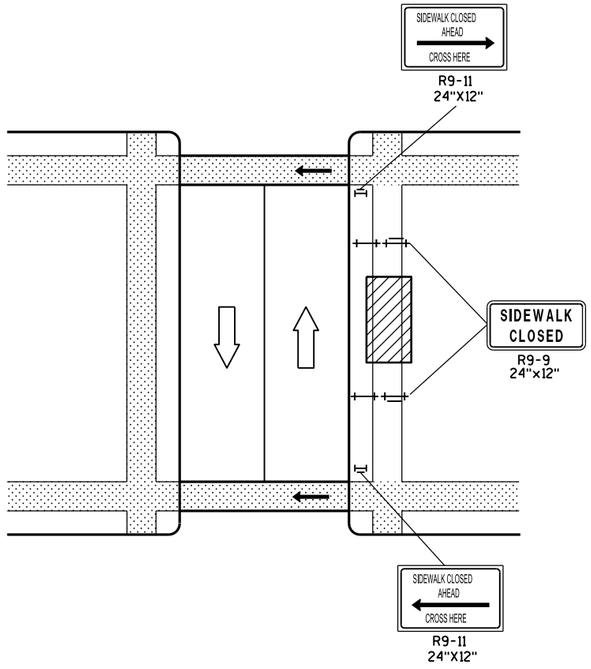


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

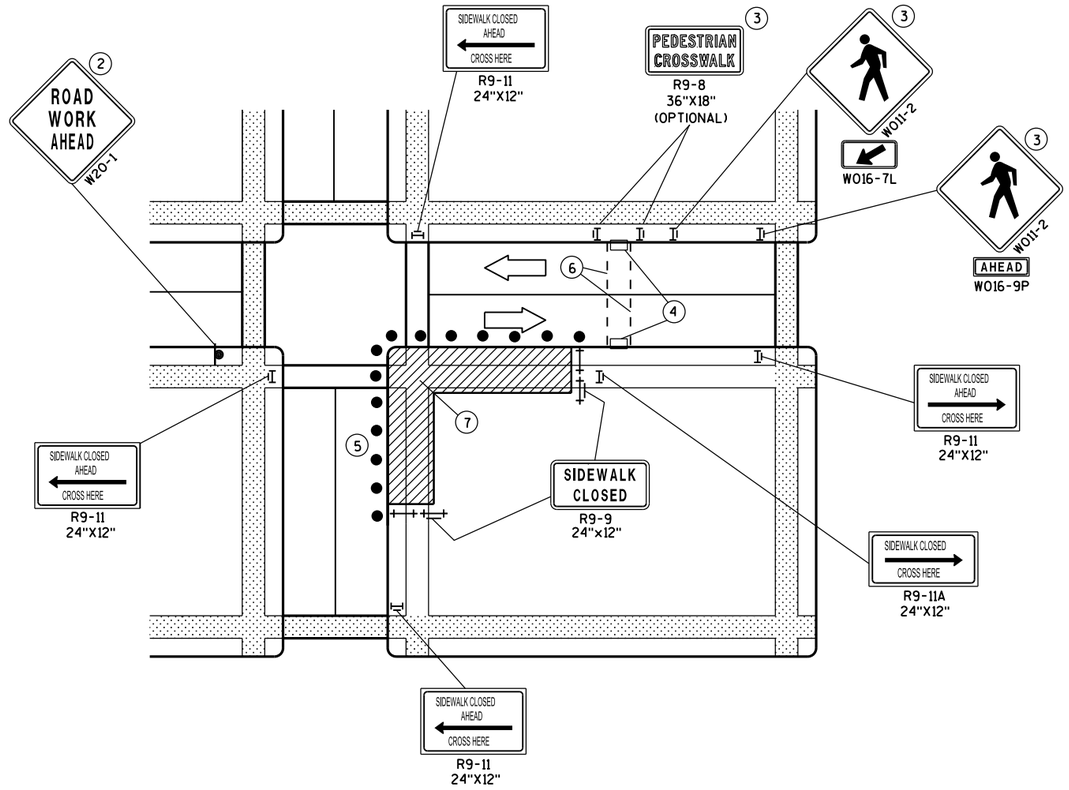
NOTE: LAYOUT SAME AS ABOVE.



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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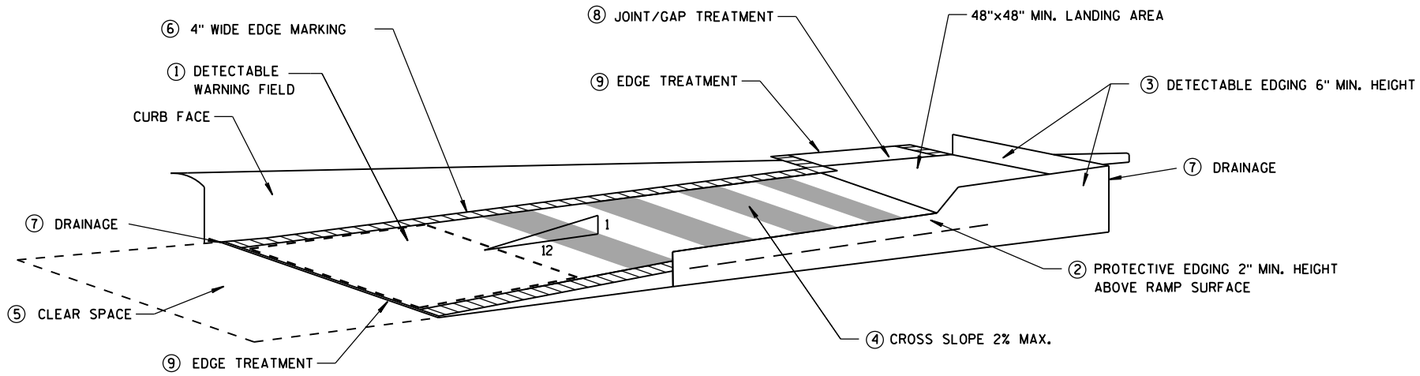
S.D.D. 15 D 30-3a



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.

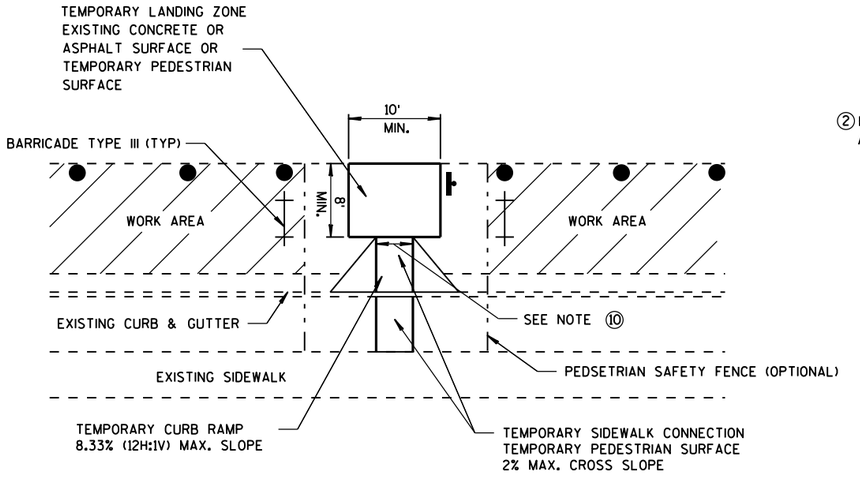
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

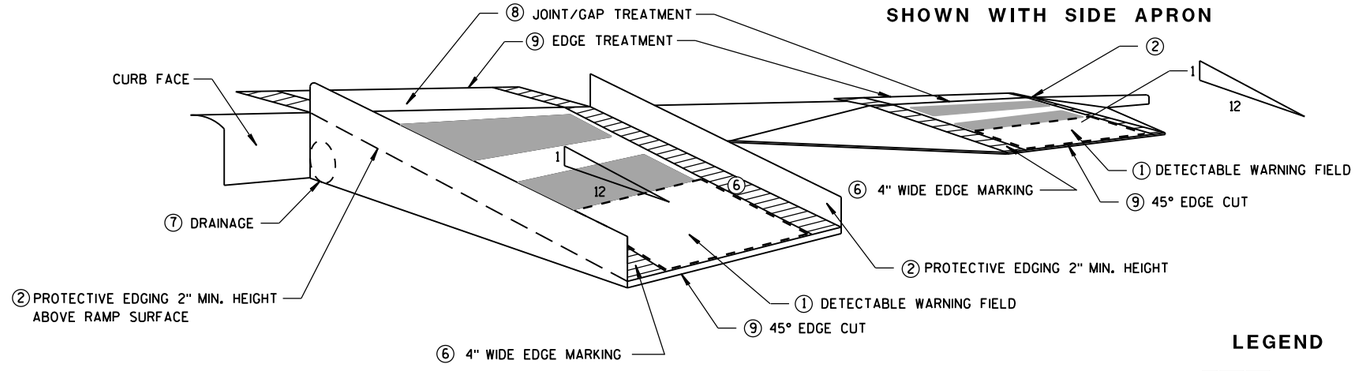
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

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

June 2016 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO SAFETY ENGI IC

FHWA

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S.D.D. 15 D 30-3b

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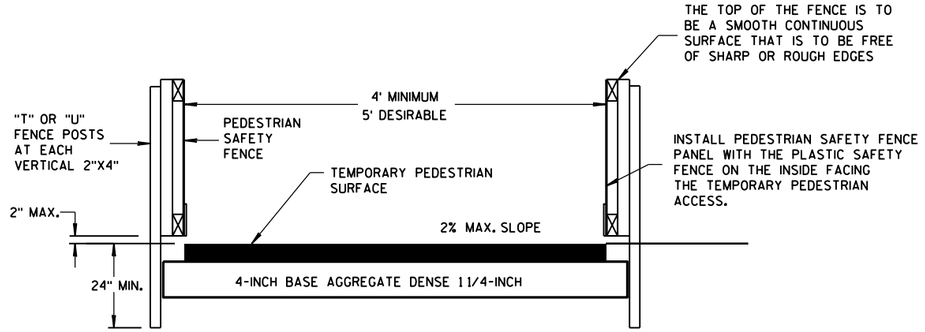
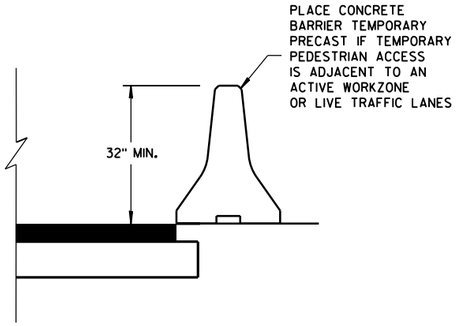
S.D.D. 15 D 30-3b

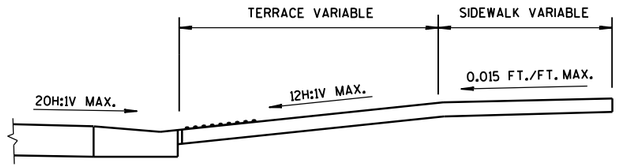




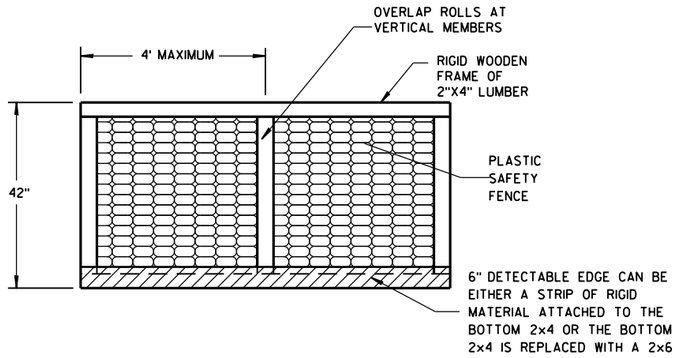
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

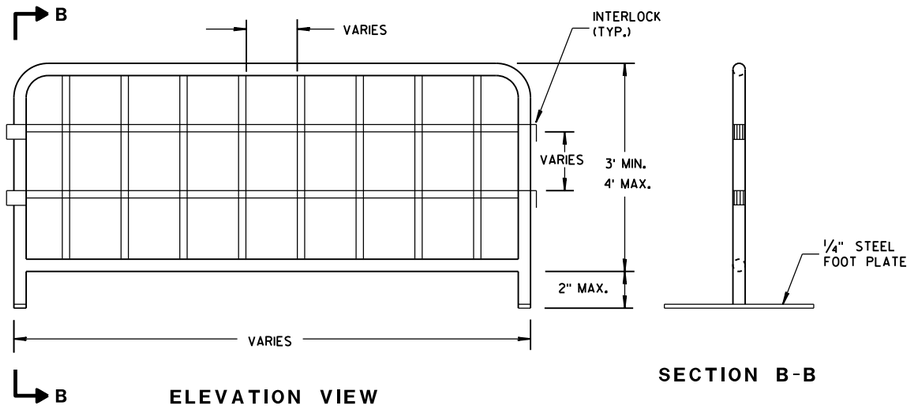
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



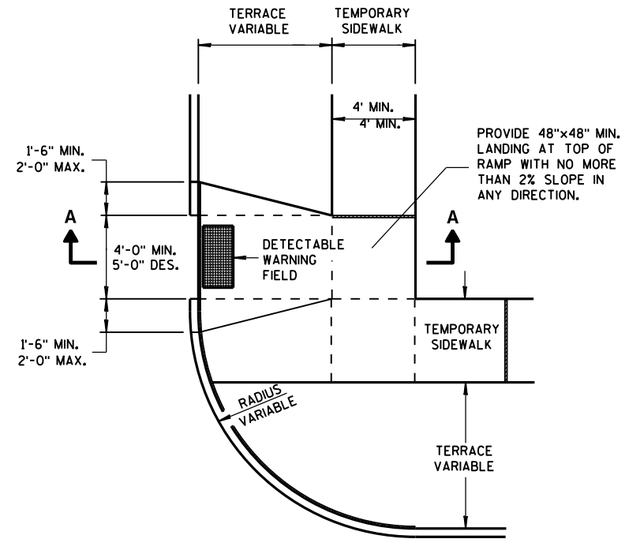
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

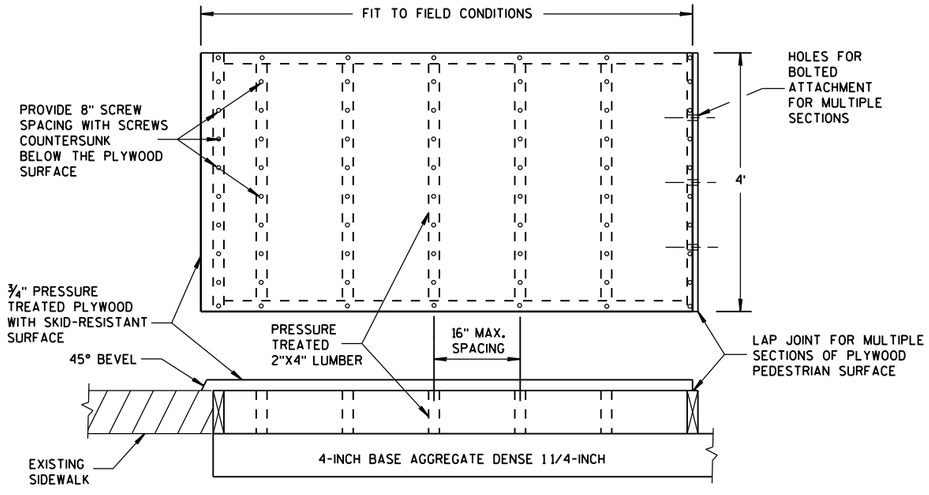
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



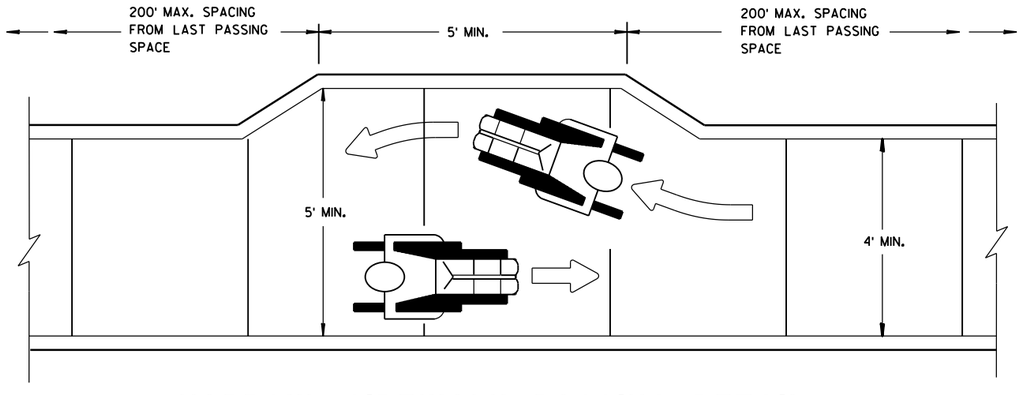
PLAN VIEW

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

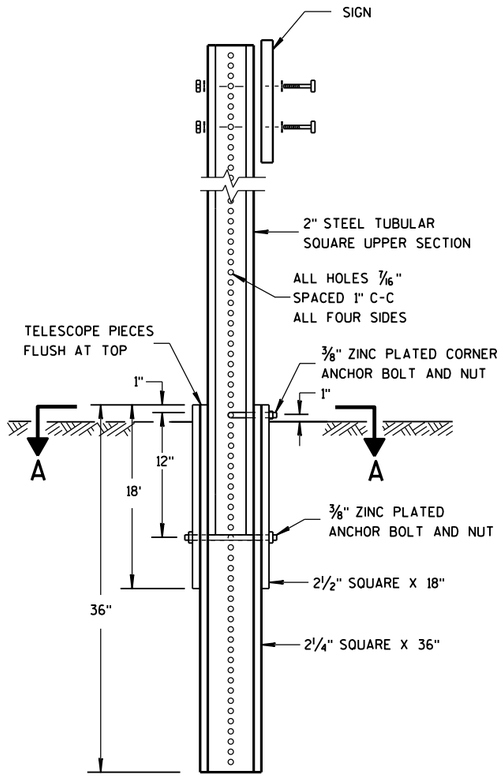
APPROVED
June 2016
DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON IC
SAFETY ENGIN
FHWA

6

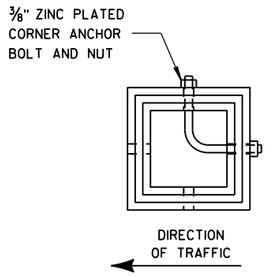
S.D.D. 15 D 30-3c

6

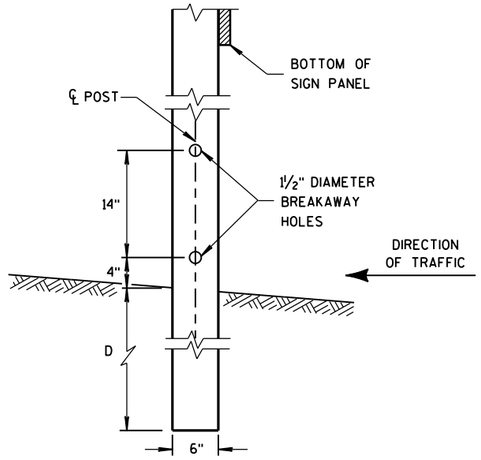
S.D.D. 15 D 30-3c



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



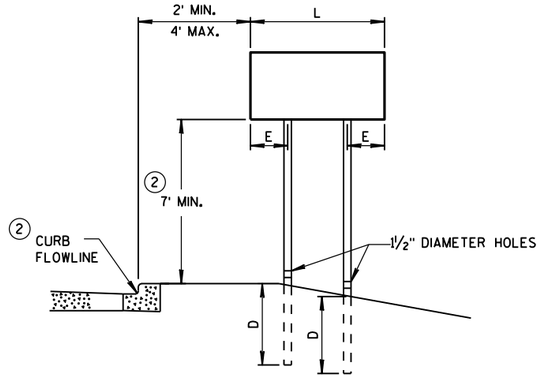
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

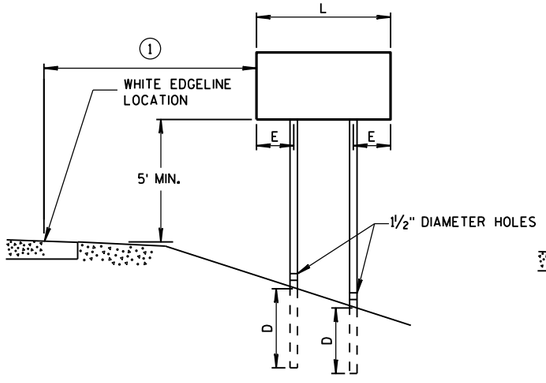
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

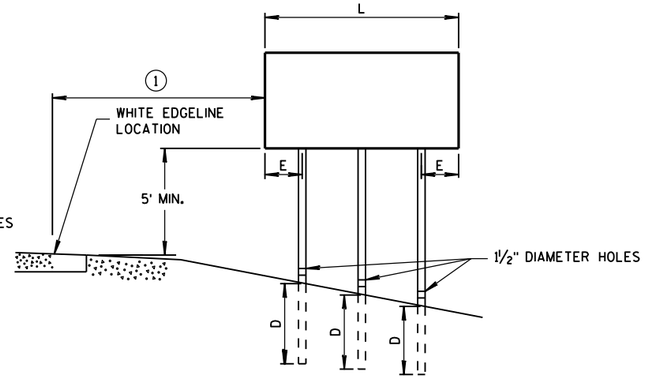
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK 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

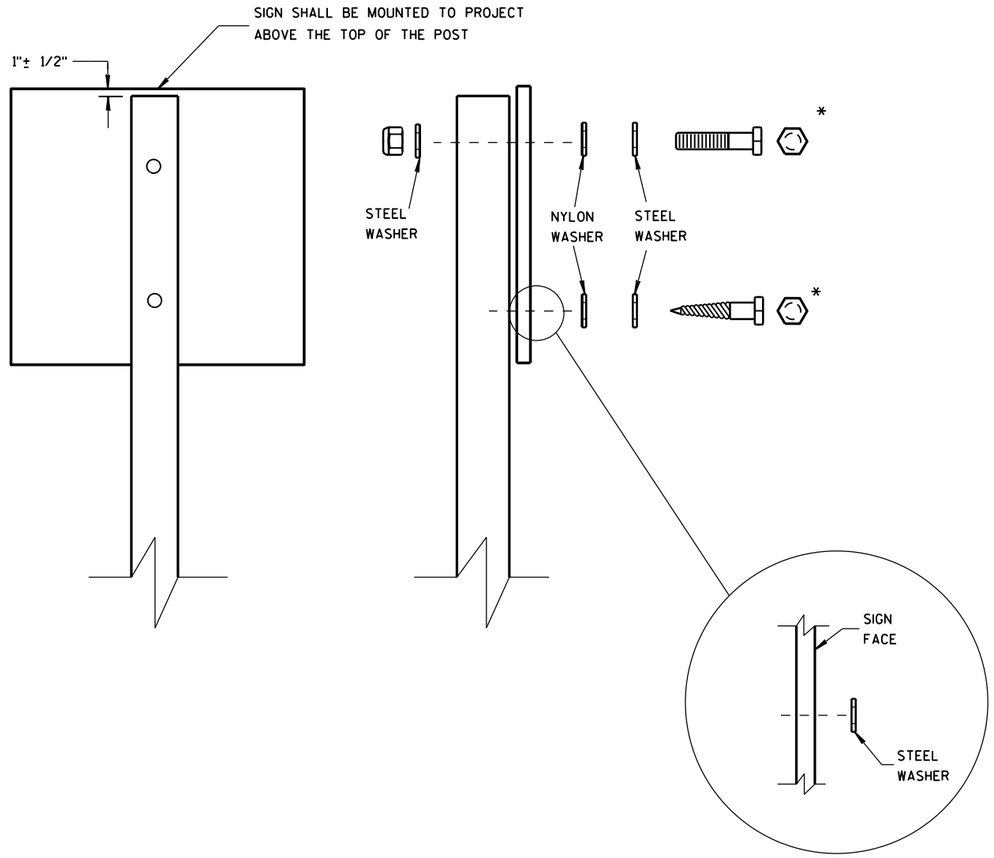
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

STATE OF WISCONSIN DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-1a



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.

6

6

S.D.D. 15 D 38-1b

S.D.D. 15 D 38-1b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Feb. 2015 — DATE

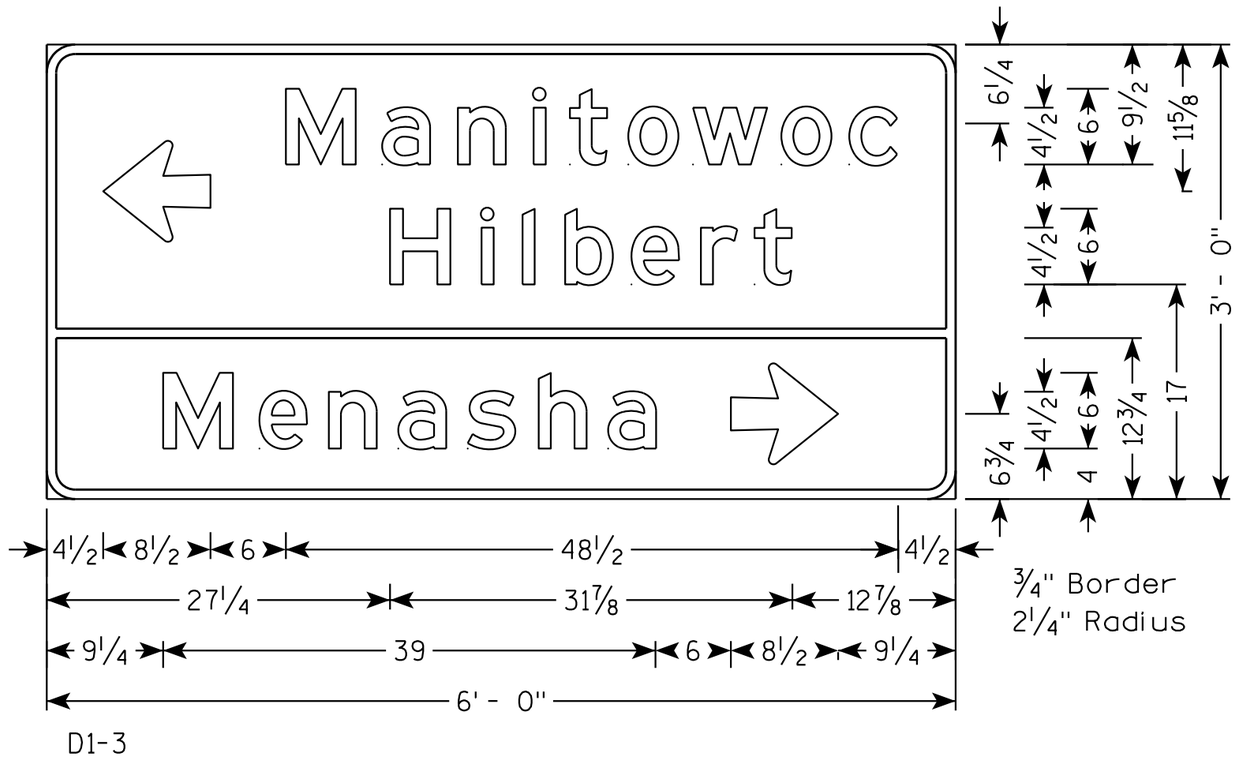
/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

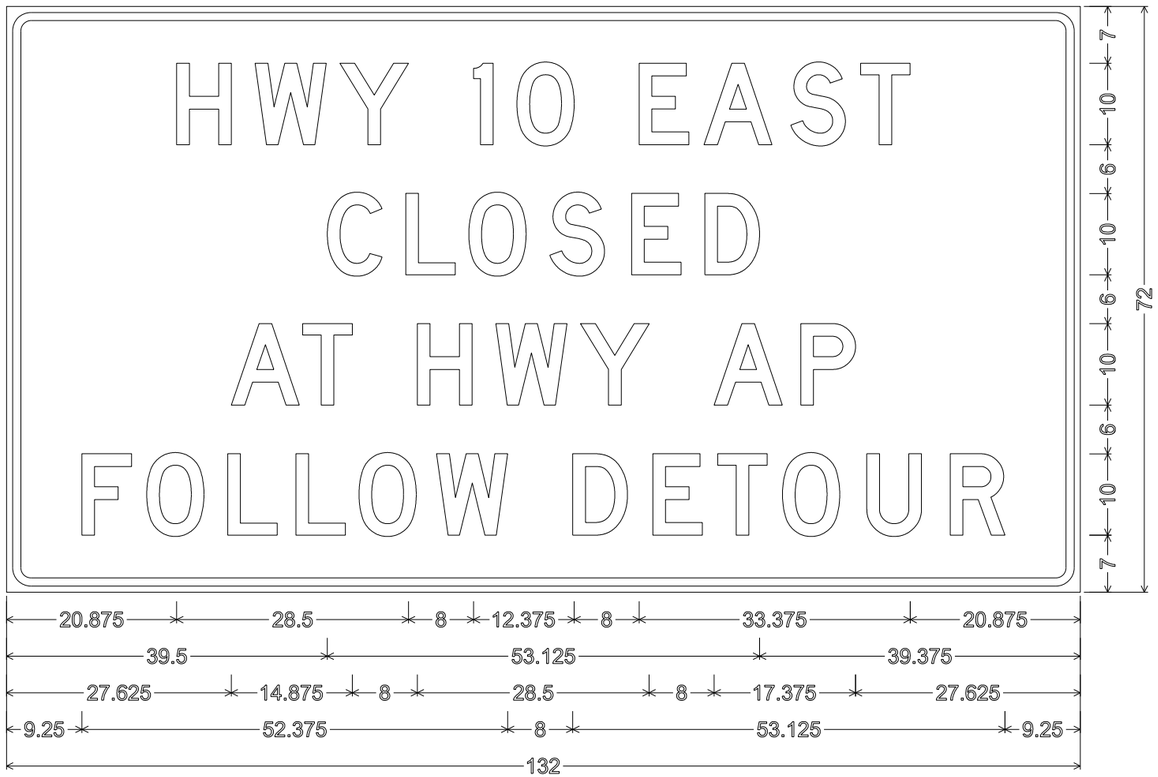
SIGN

NOTES

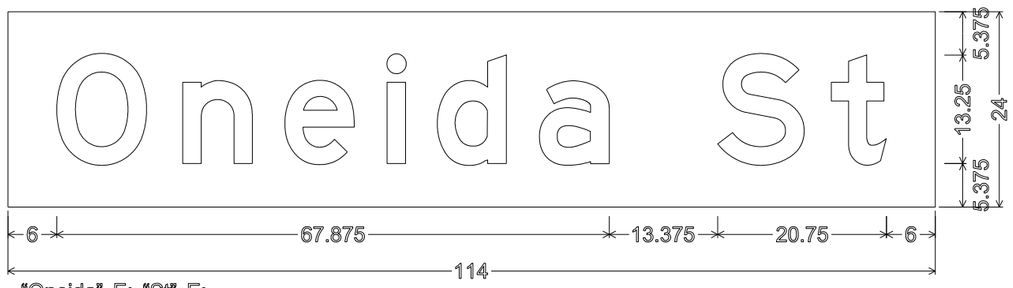
1. All Sign Type II - Type H Reflective
2. Color:
   Background - GREEN
   Message - WHITE
3. Message Series - E except as Shown



D1-3



3.000" Radius, 1.000" Border, 0.750" Indent,

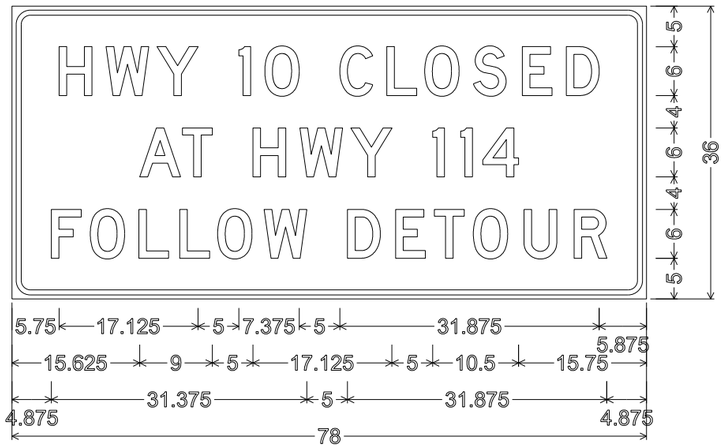


"Oneida" E; "St" E;

Sign base material is .040" aluminum blank

NOTES

1. Sign is Type II Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D except as noted



2.250" Radius, 0.625" Border, 0.500" Indent

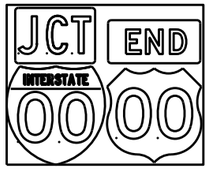
PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	FIXED MESSAGE SIGN DETAIL	SHEET NO: 169	E

FILE NAME : P:\48xx\4819.4750W13.DP.13.USH10.WNB\10 PSE\90-Draft2_DOT plans and TPP\Revised Detour\USH10Closed.dgn PLOT DATE : 5/22/2016 PLOT BY : sgc PLOT NAME : PLOT SCALE : 1:18.6224

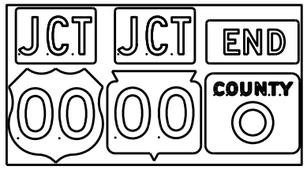
WISDOT/CADDS SHEET 42

TYPICAL ASSEMBLIES

J1-1

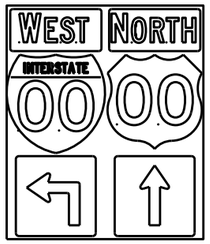


J1-2

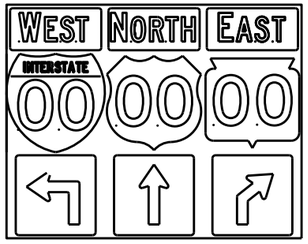


J1-3

J2-1



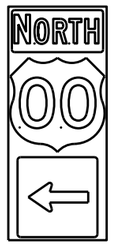
J2-2



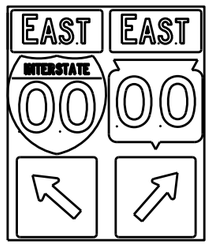
J2-3

JV

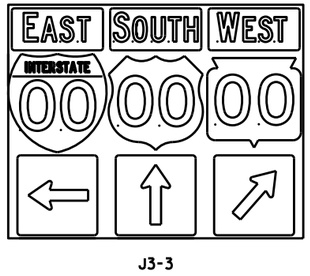
(Typical Vertical J-Assembly
See Note 10 and 11)



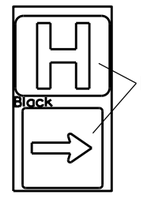
J3-1



J3-2

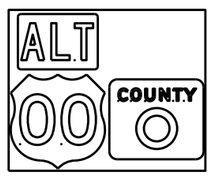


J3-3

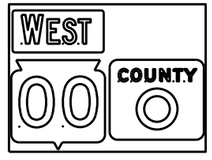


JH-1

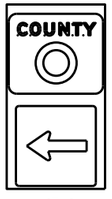
J4-1



J4-2



J4-2



J13-1

J12-1

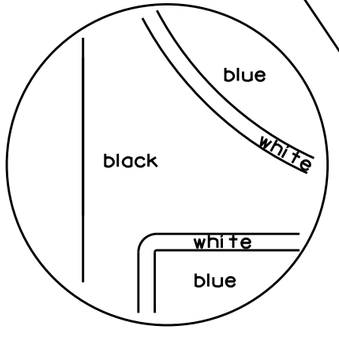
J32-1

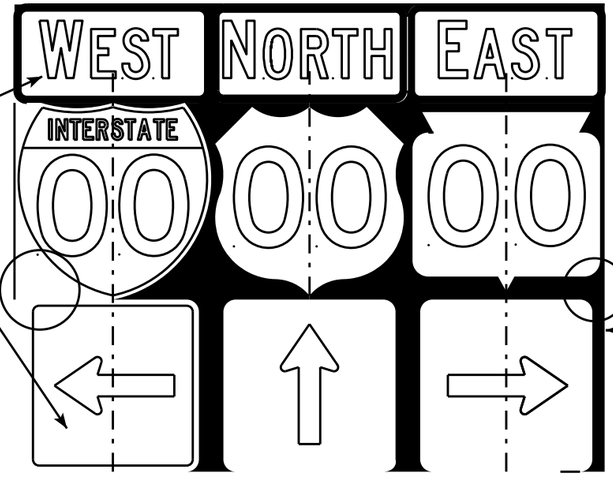
J33-1

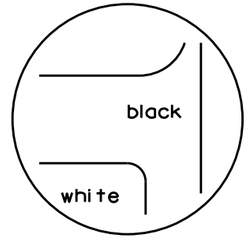
J23-1

J22-1

[blue background with interstate]







[black background]

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

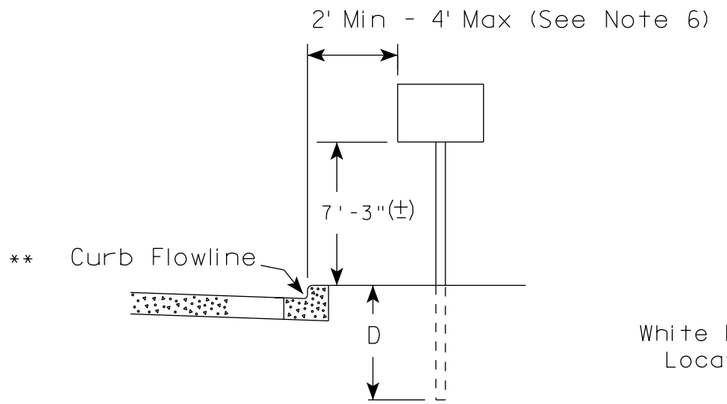
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/06/14 PL... A2-1S.8

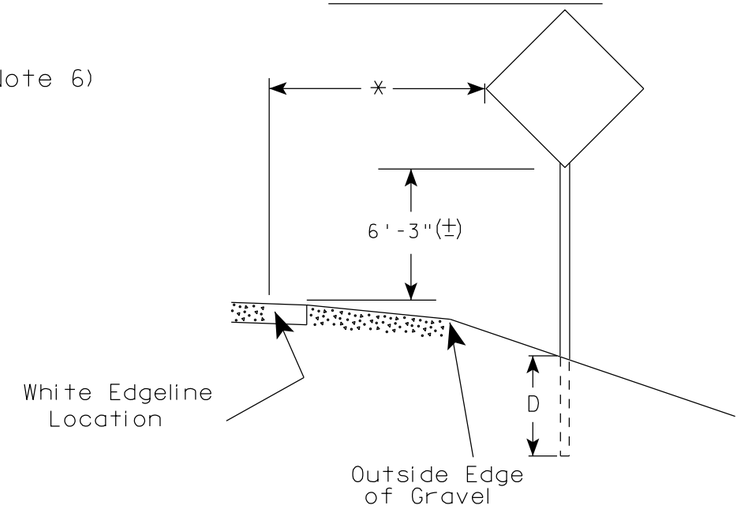
PROJECT NO: SHEET NO: E

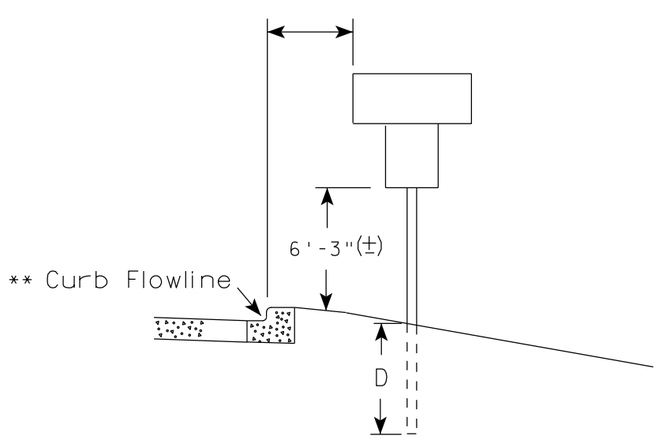
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :
WISDOT/CADDS SHEET 42

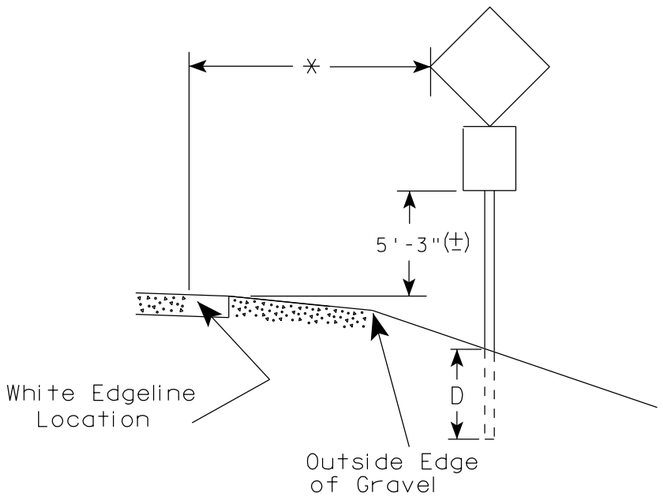
URBAN AREA



RURAL AREA (See Note 2)







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. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding 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" (±).

POST EMBEDMENT DEPTH

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

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

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

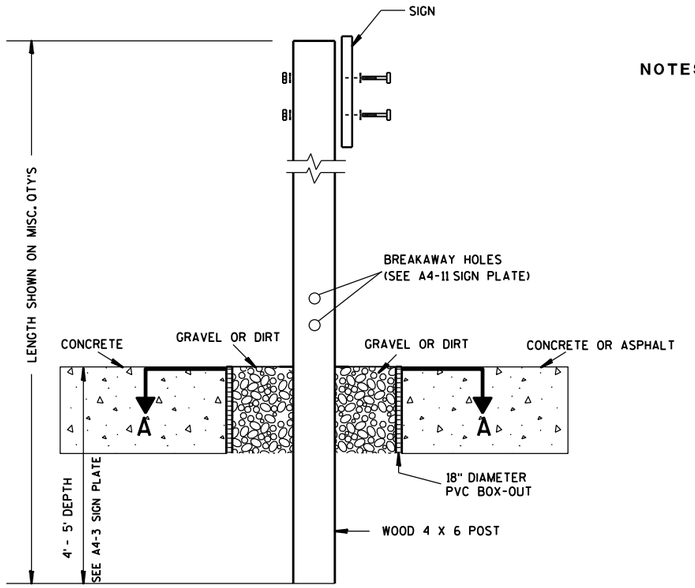
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

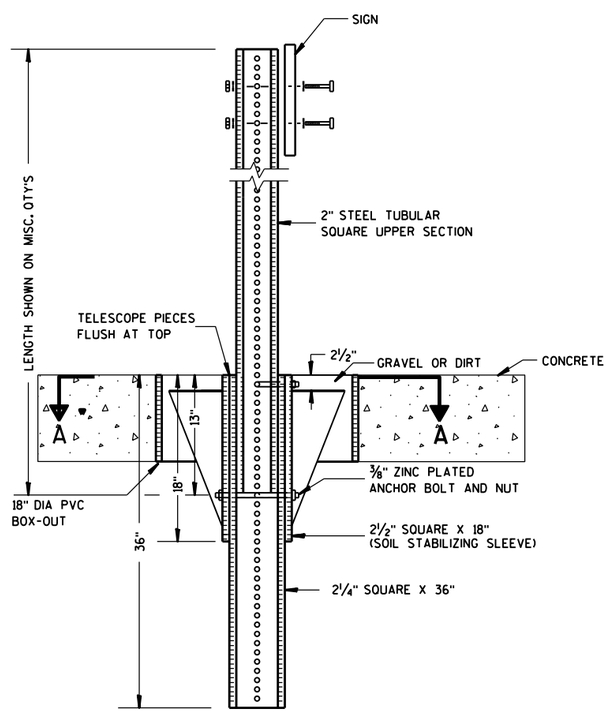
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

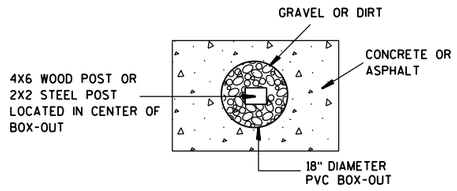
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

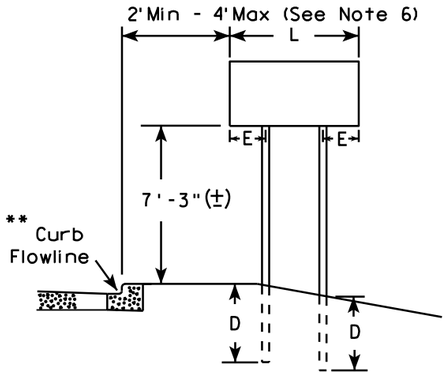
APPROVED Matthew R Rauch
for State Traffic Engineer

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

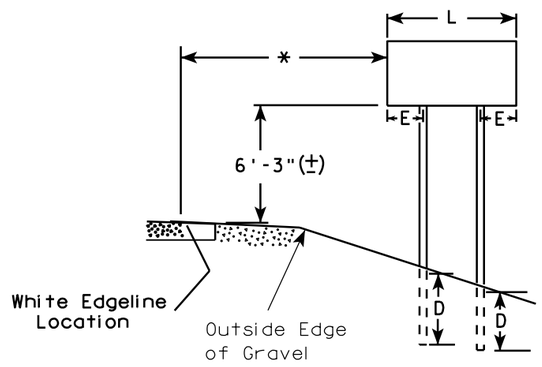
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

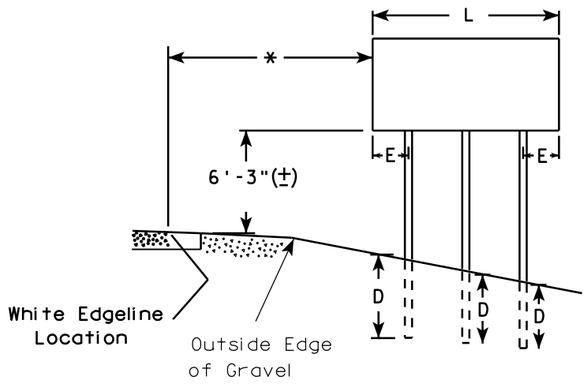
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

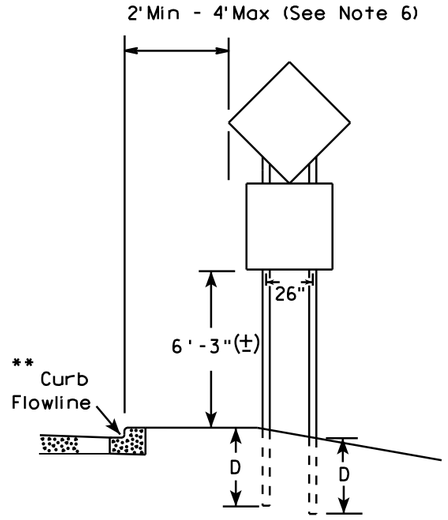
URBAN AREA



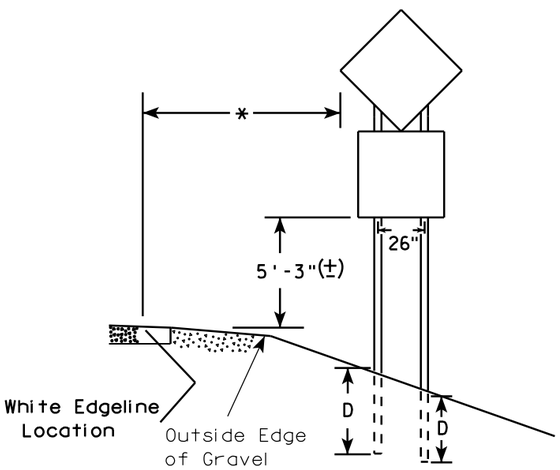
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
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.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

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

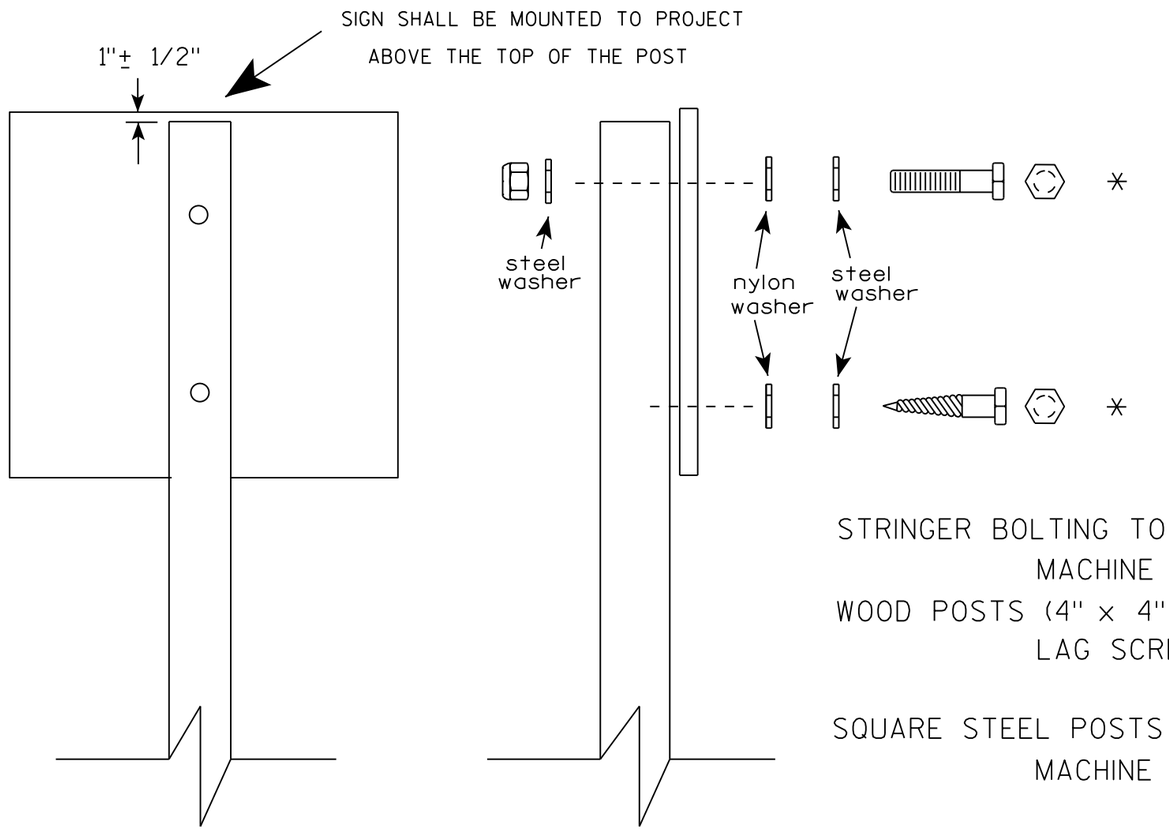
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14
173

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	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

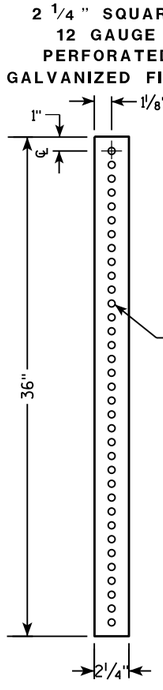
DATE 8/11/16 PLATE NO. A4-8.8

7

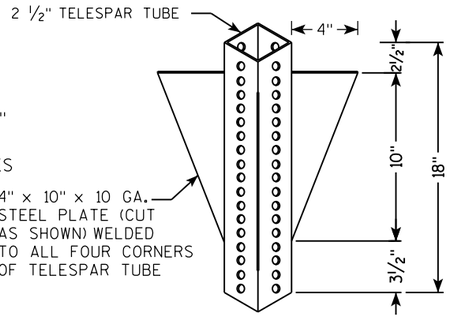
PROJECT NO: SHEET NO: E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

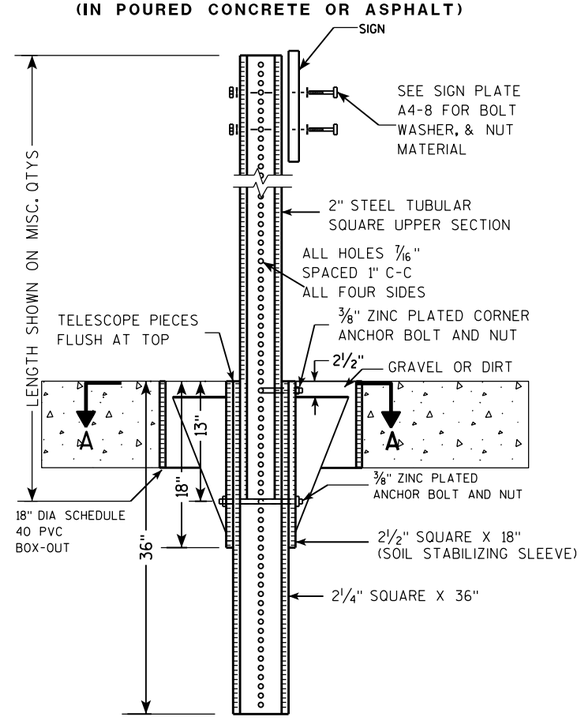
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



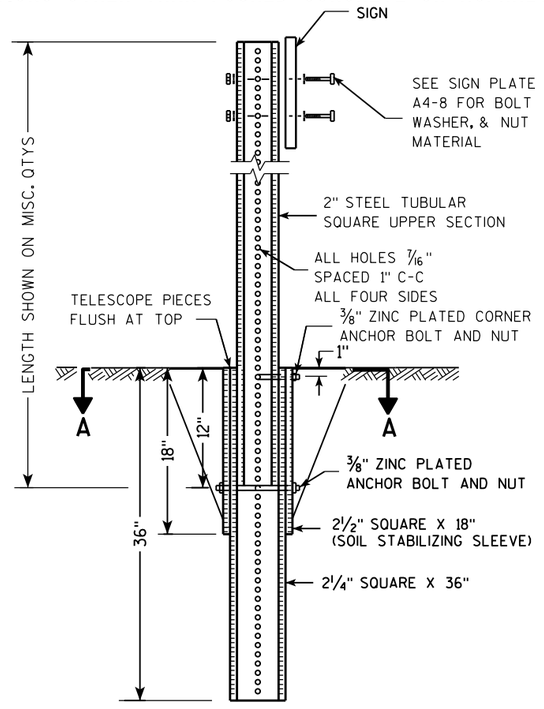
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

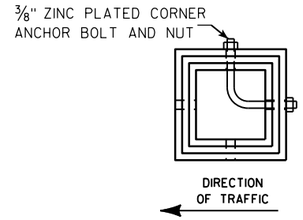


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

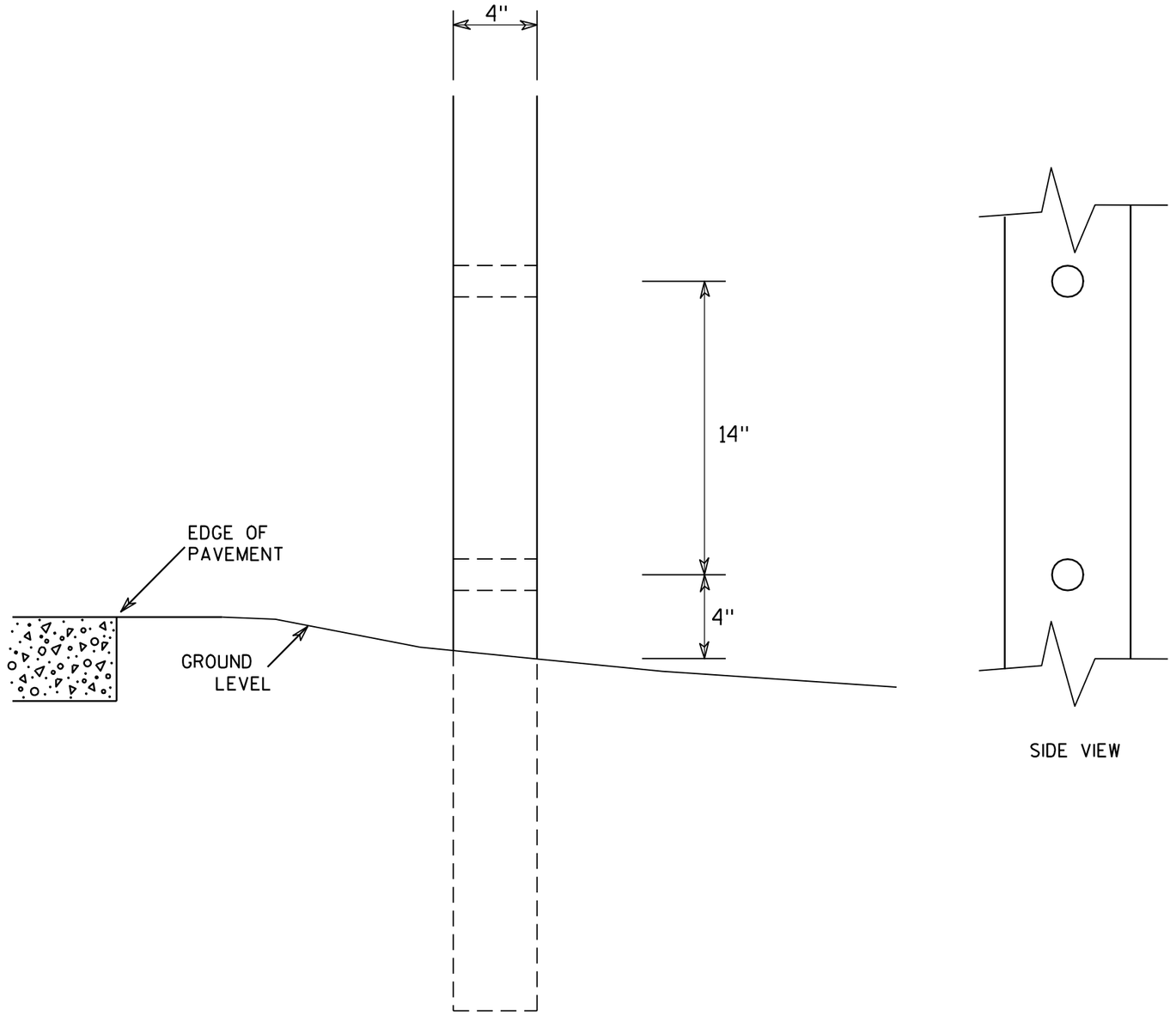
WISCONSIN DEPT OF TRANSPORTATION

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

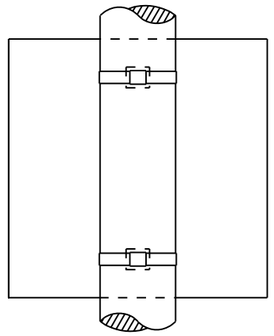
APPROVED Chester J Spang for State Traffic Engineer

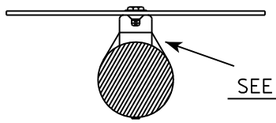
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 176	E

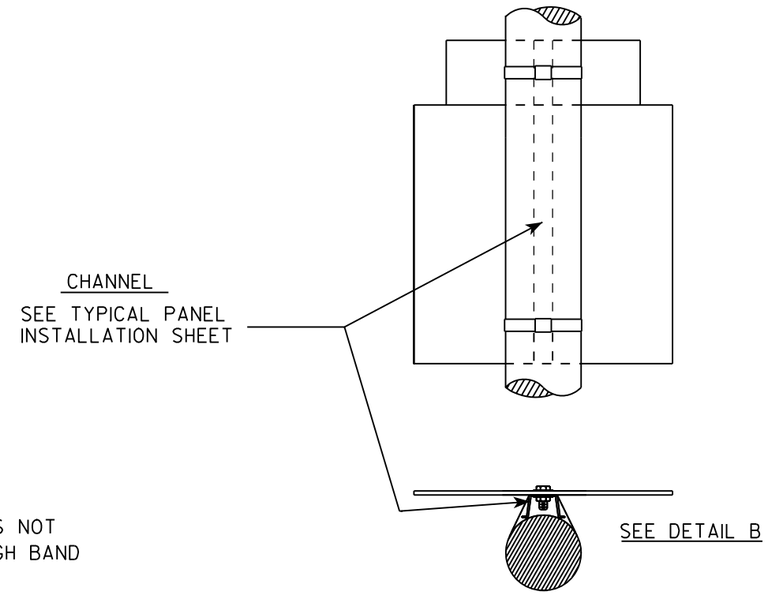
BANDING

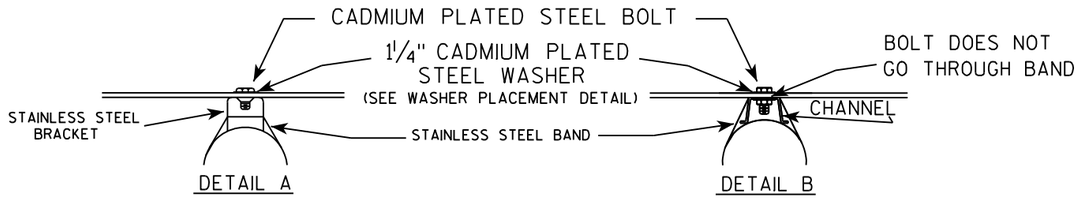
SINGLE SIGN



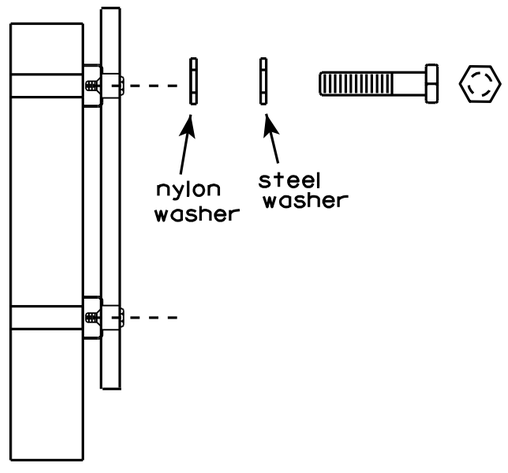


"J" ASSEMBLY





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 3/4" in width and 0.025" thickness.

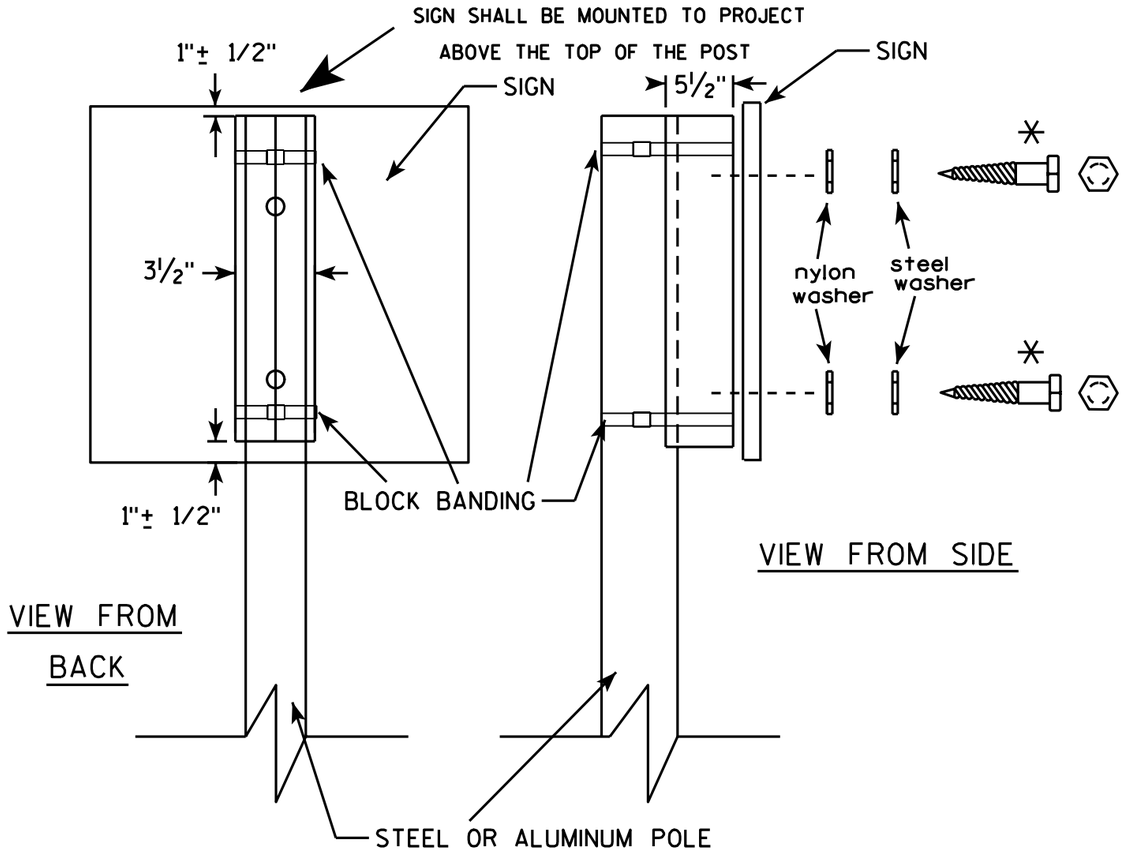
STANDARD SIGN
SIGN BANDING DETAILS

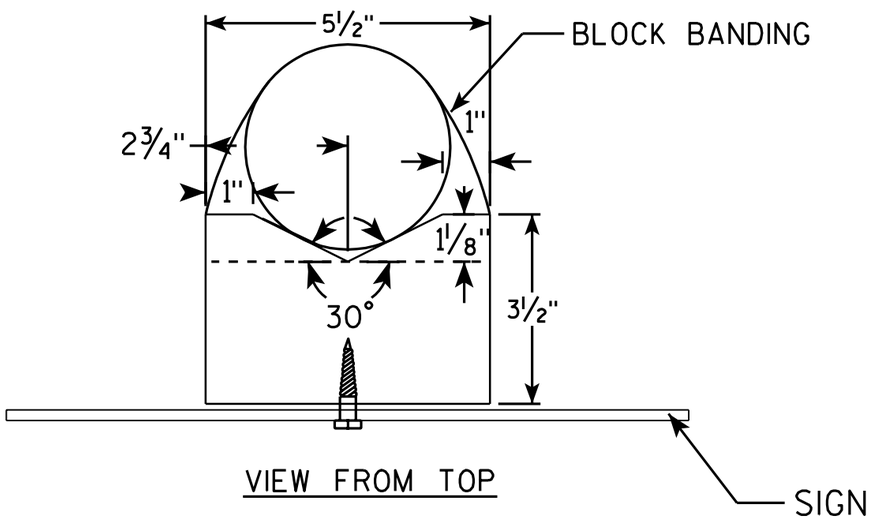
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 177	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

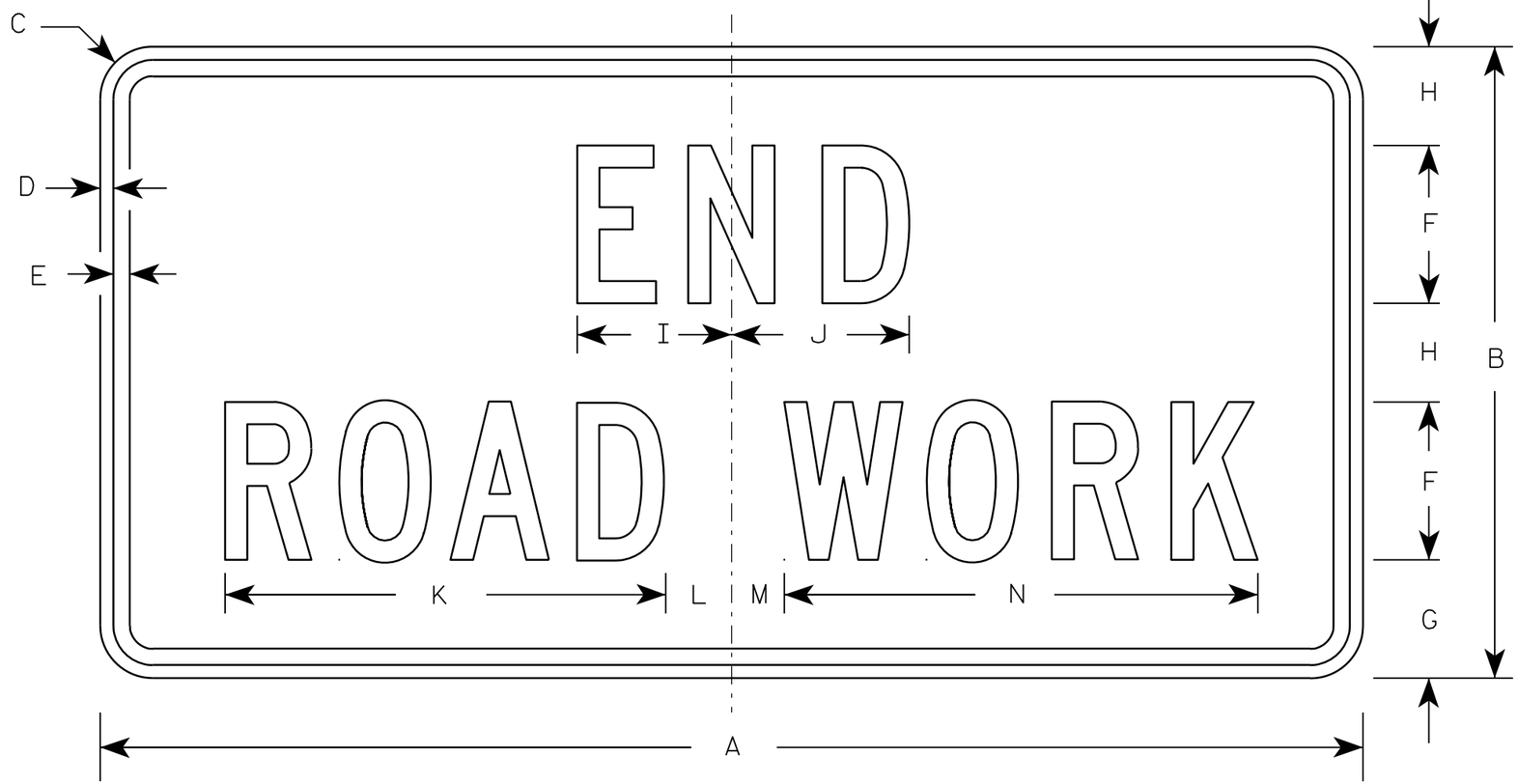
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 178 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

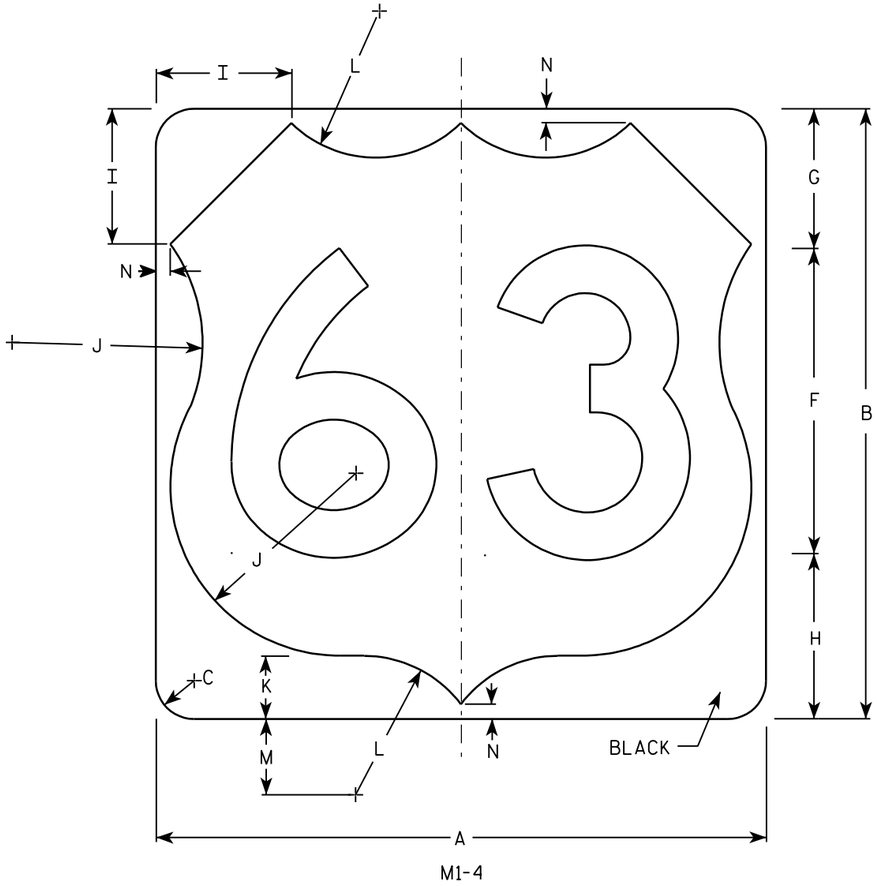
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 179	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\G202A.DGN PLOT DATE : 30-SEP-2009 09:31 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 5.561773:1.000000

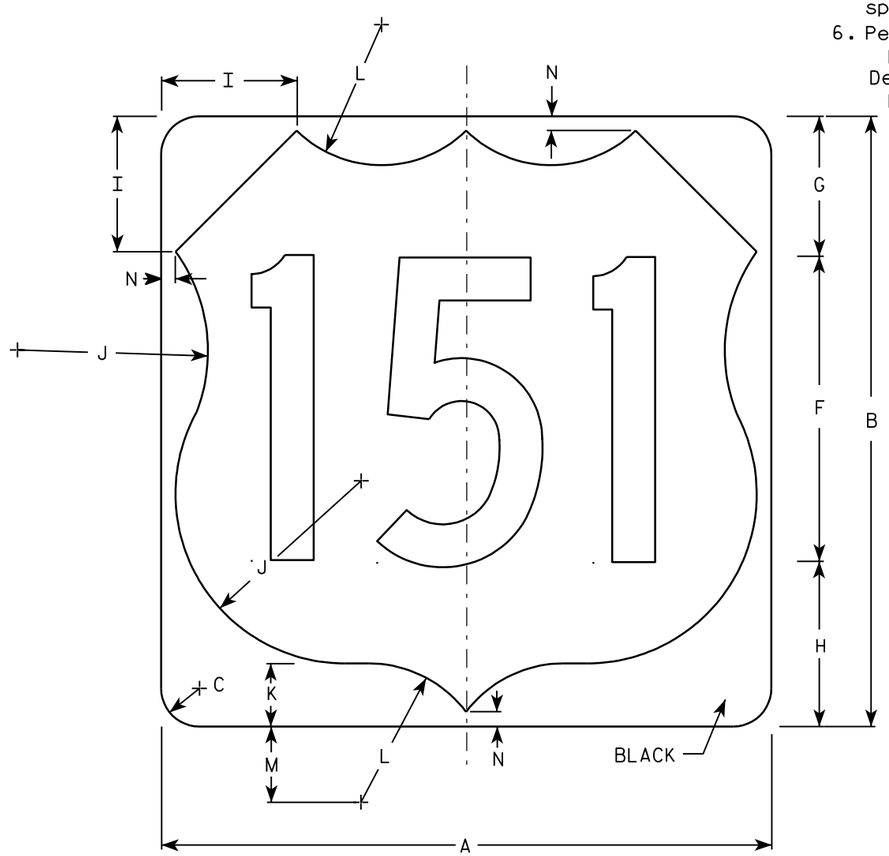
7

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   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. Substitute appropriate numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective



M1-4



M1-4

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 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																												
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	.36
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	.81
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	.81
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	.81

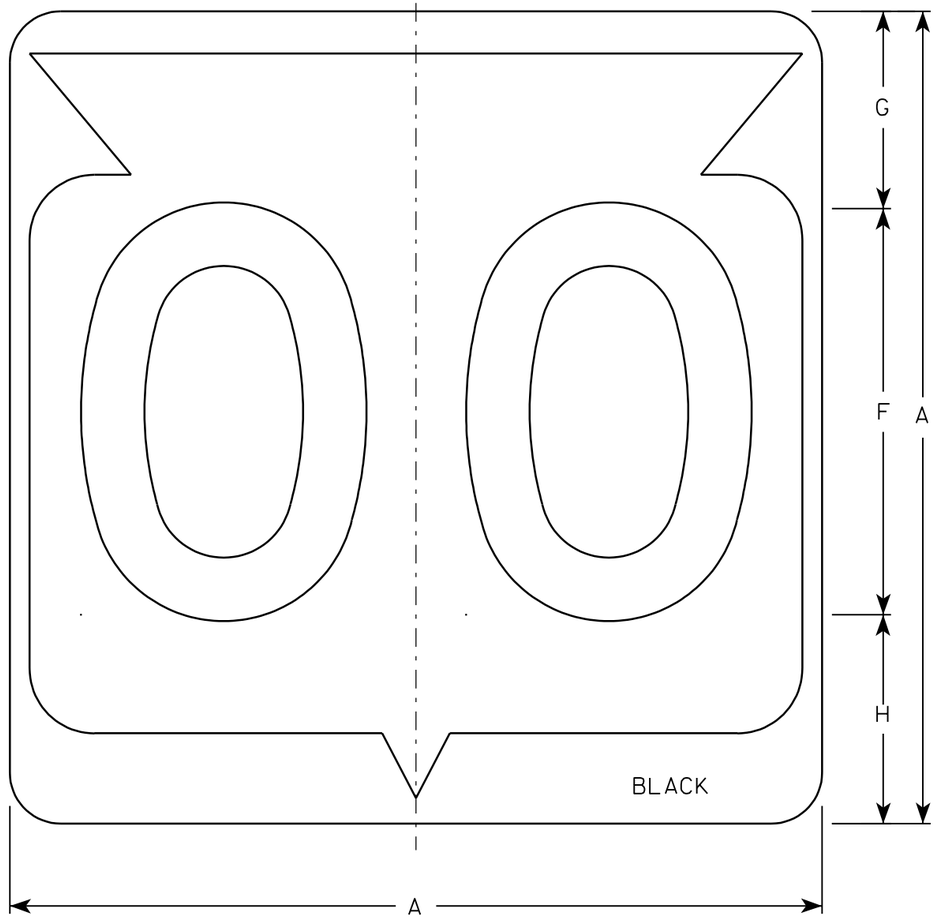
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/25/05 PLATE NO. M1-4.9

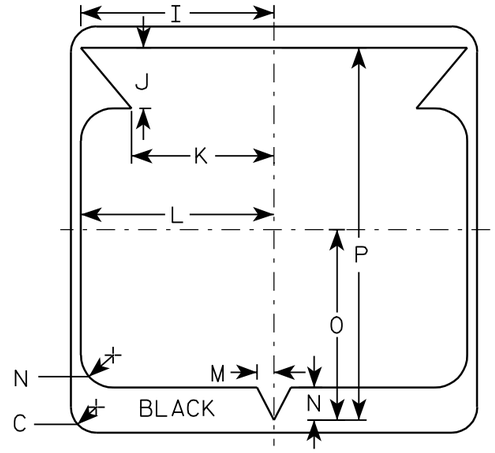
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 180 | E



M1-6

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   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. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 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																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

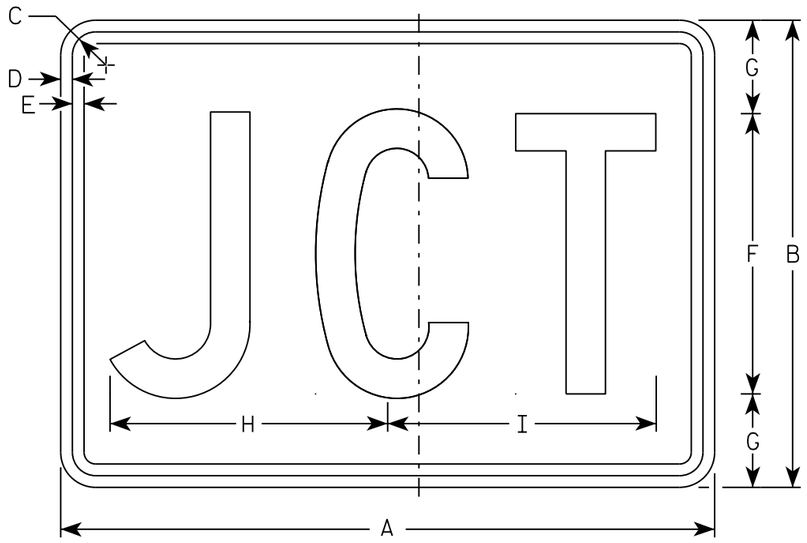
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

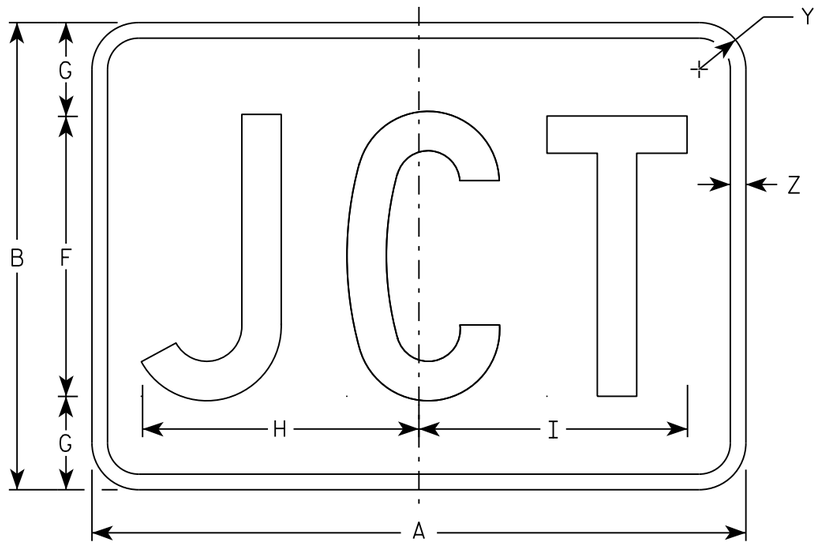
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 181	E



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

1. Sign is 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. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MP2-1 Background - White
   Message - Blue
   MR2-1 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	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

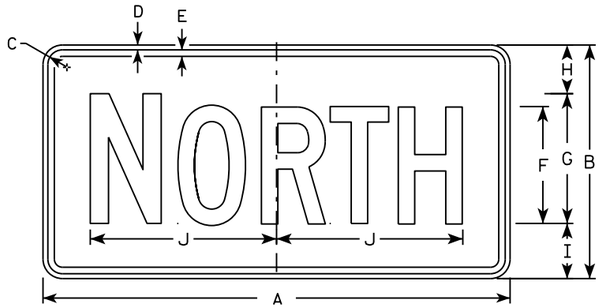
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

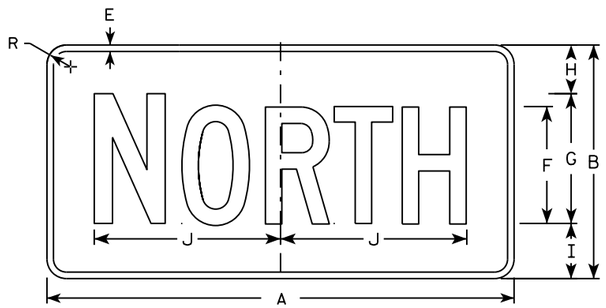
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 182 12-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



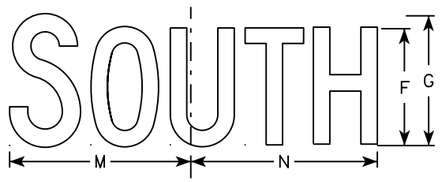
M3-1
MM3-1
MP3-1



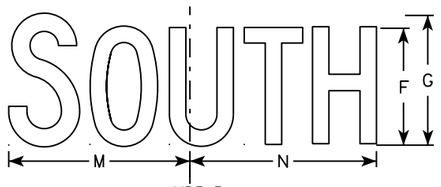
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

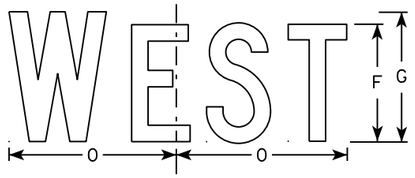
MB3-2
MK3-2
MN3-2



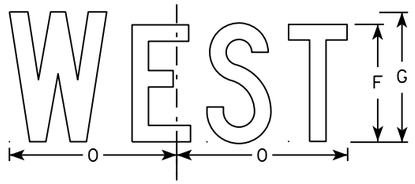
M3-3
MM3-3
MP3-3



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

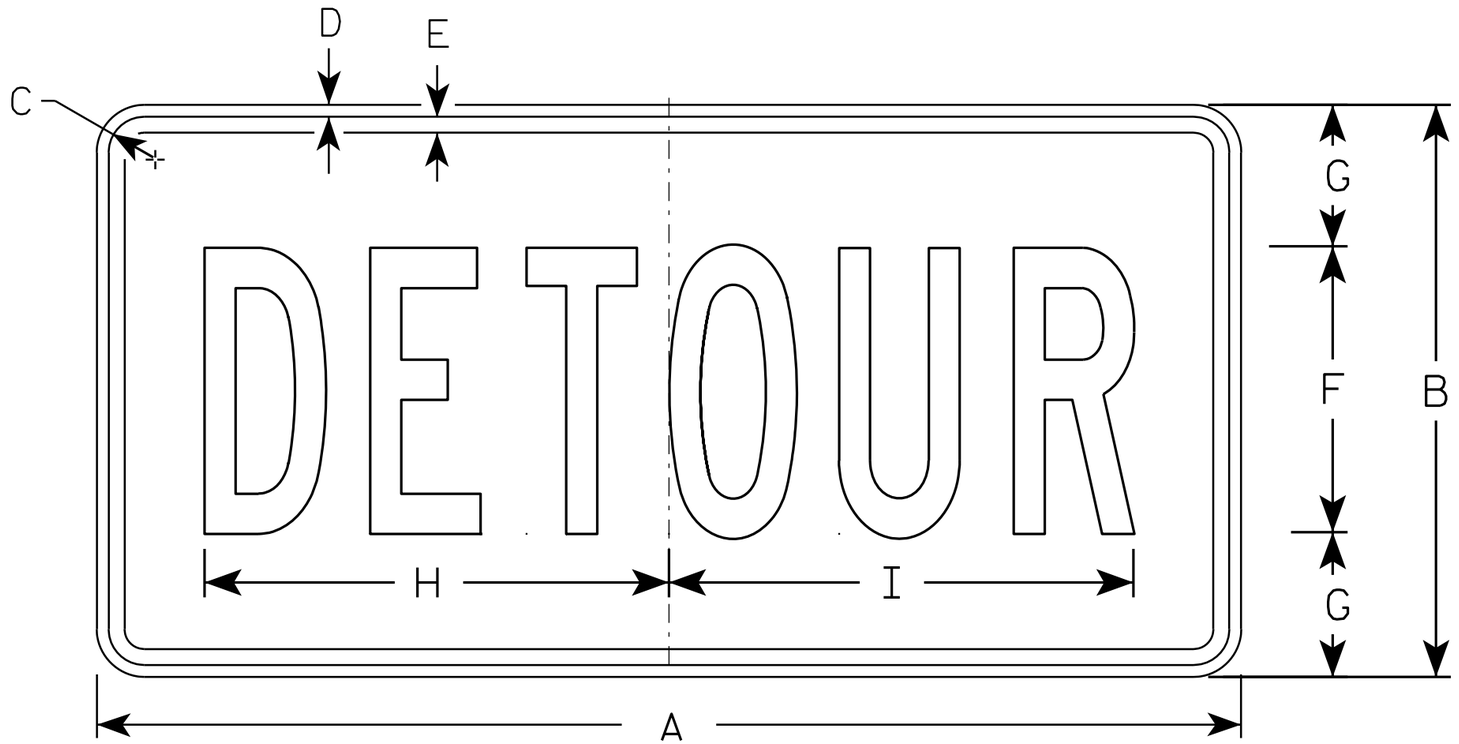
WISCONSIN DEPT OF TRANSPORTATION

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



M4-8

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

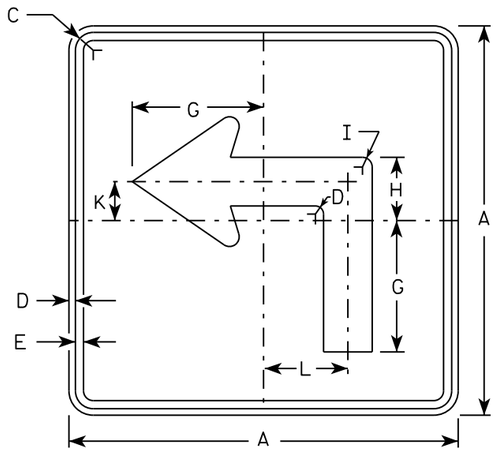
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

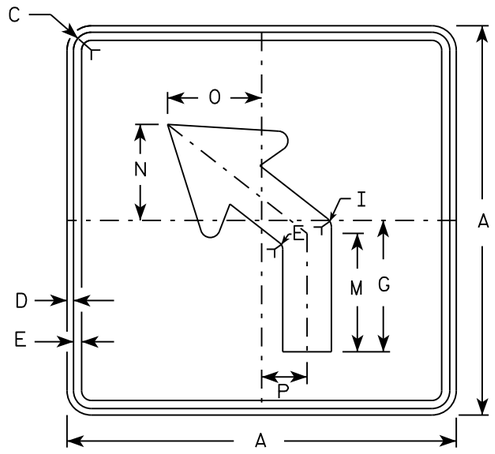
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

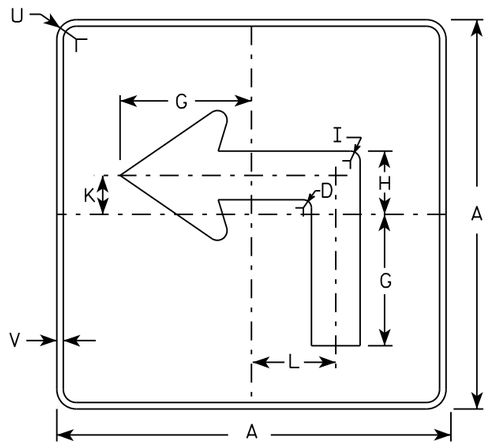
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 184	E



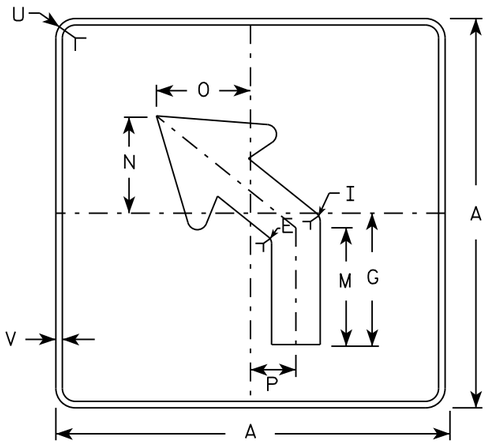
M5-1L
MM5-1L
MO5-1L
MP5-1L



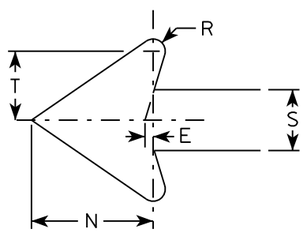
M5-2L
MM5-2L
MO5-2L
MP5-2L



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

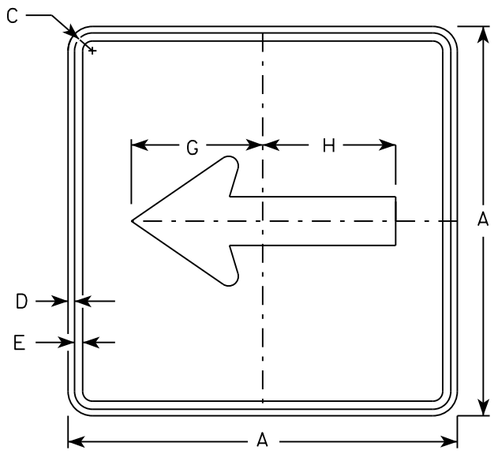
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

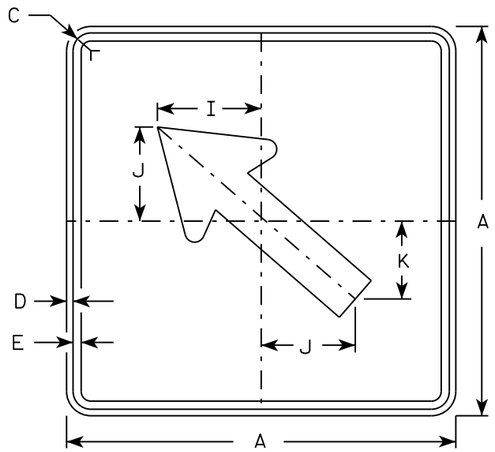
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M5-1.13

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



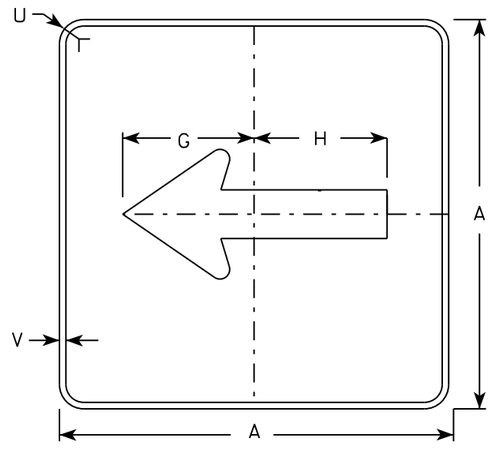
M6-1
MM6-1
MO6-1
MP6-1



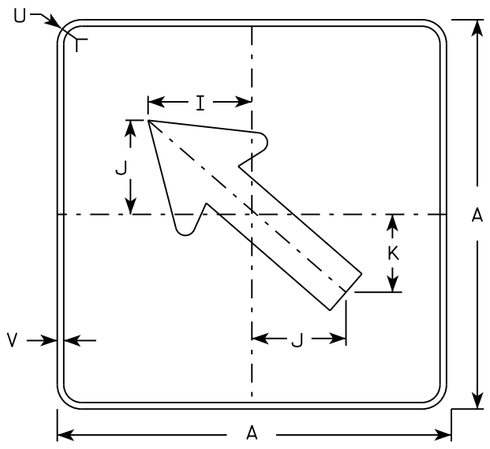
M6-2
MM6-2
MO6-2
MP6-2

NOTES

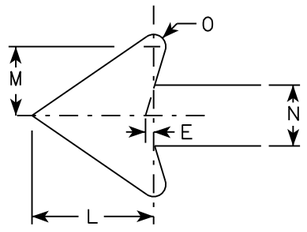
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - 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

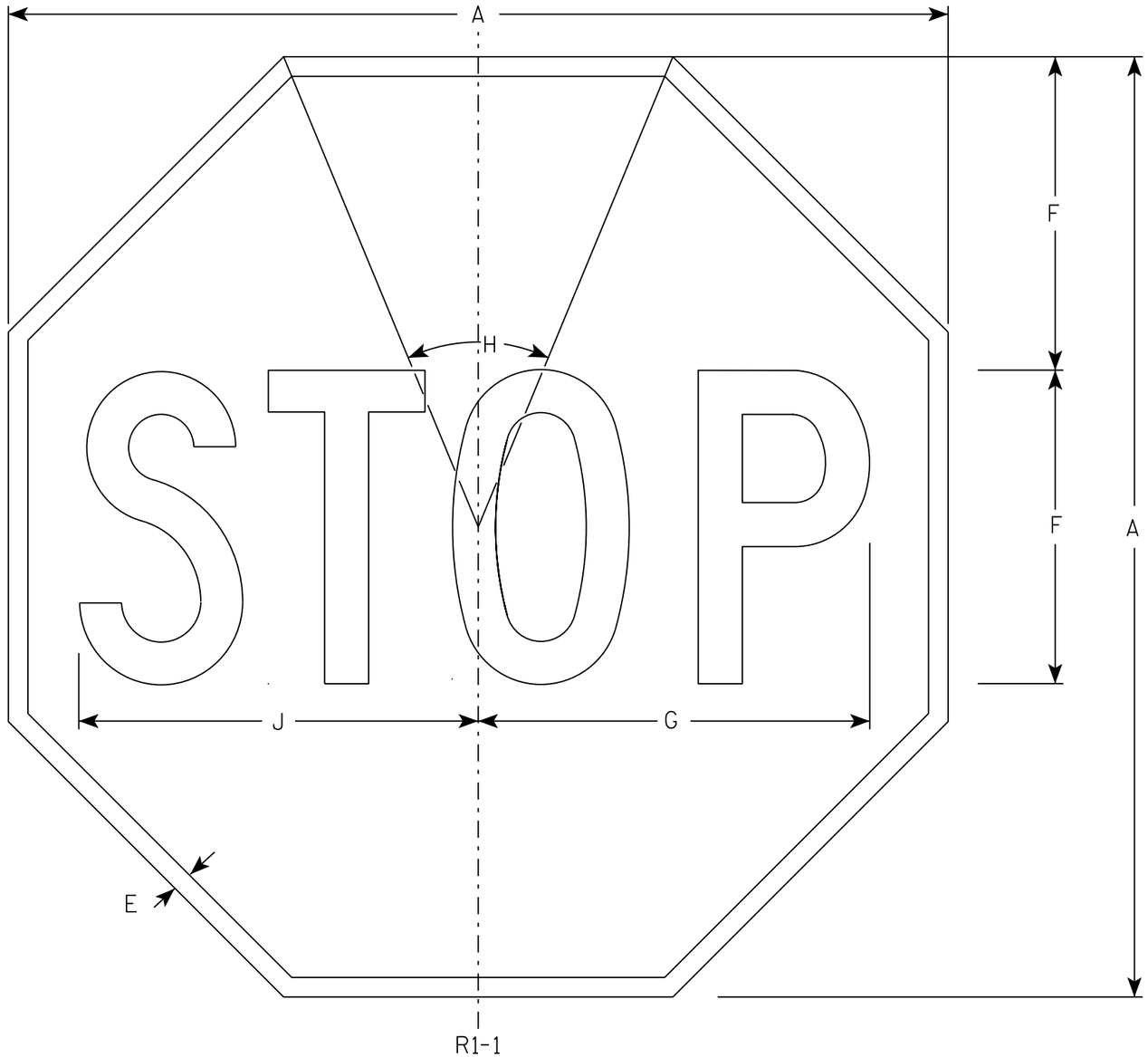
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 186 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



R1-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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

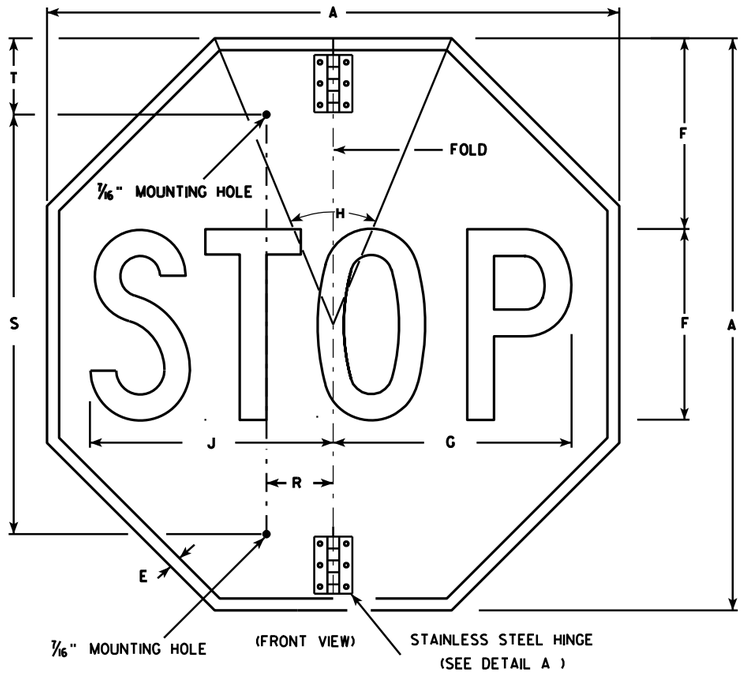
WISCONSIN DEPT OF TRANSPORTATION

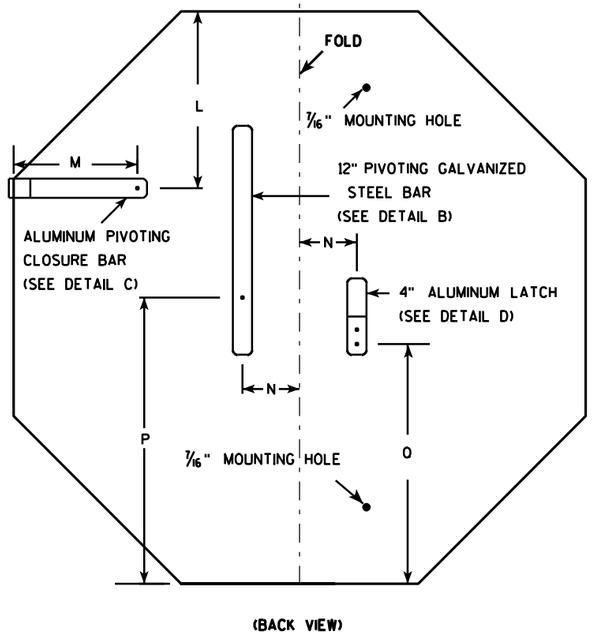
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE 187 R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

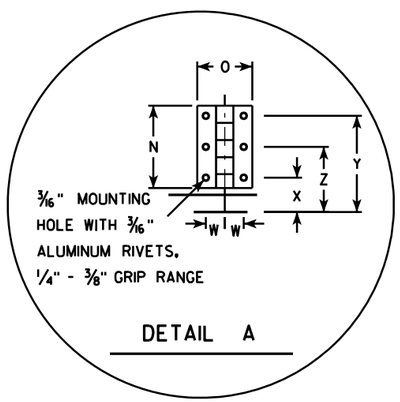
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R11.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.378143:1.000000



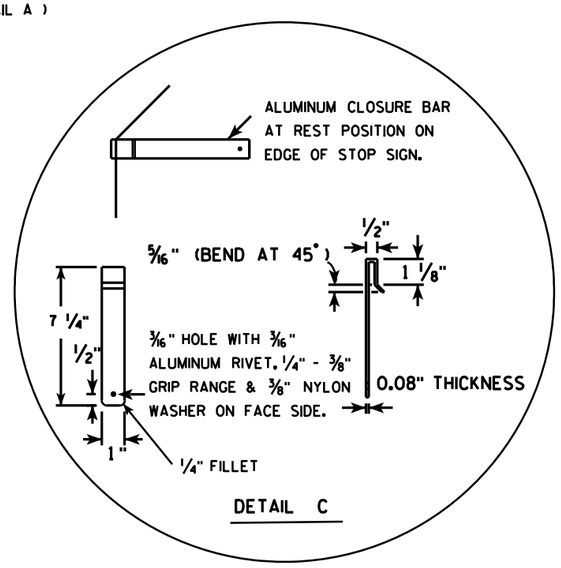


NOTES

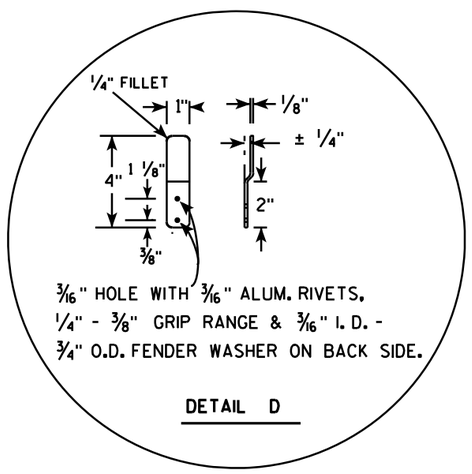
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



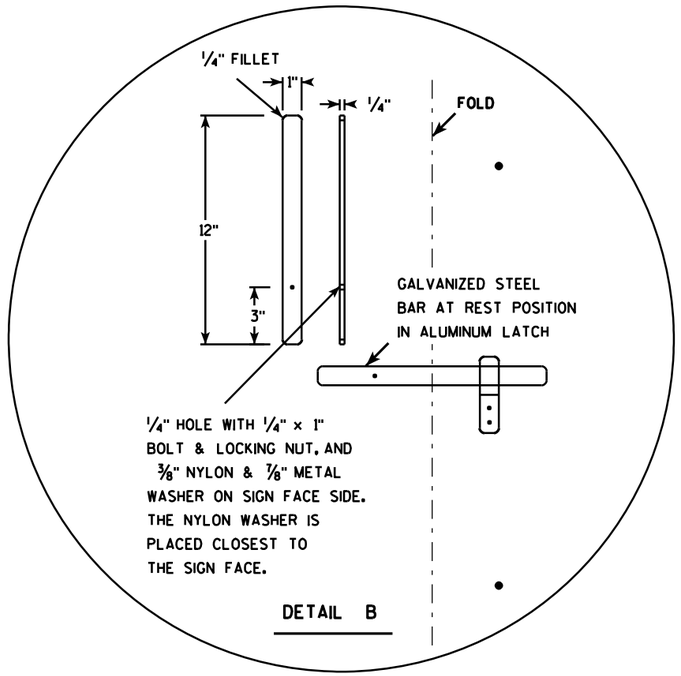
DETAIL A



DETAIL C



DETAIL D



DETAIL B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

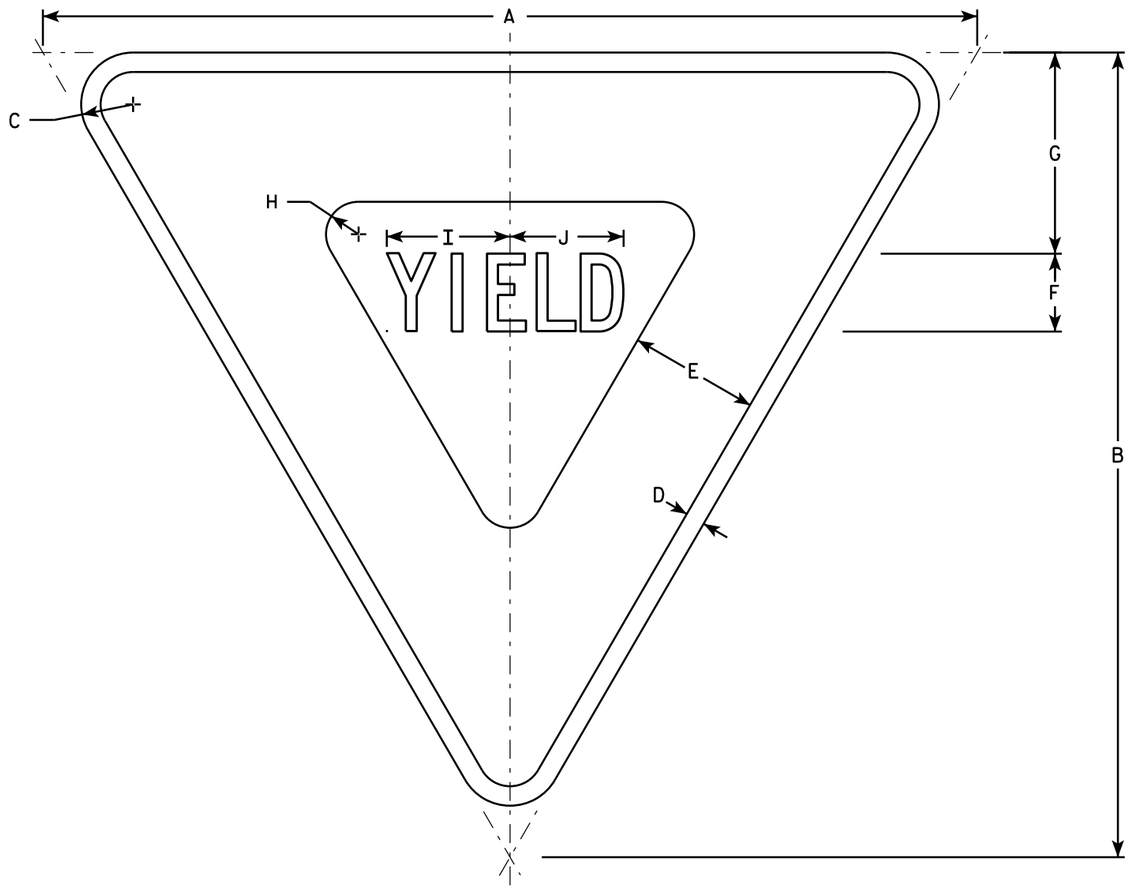
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 188 | E



R1-2

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 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. The border strip and word message are reflectorized red.

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	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

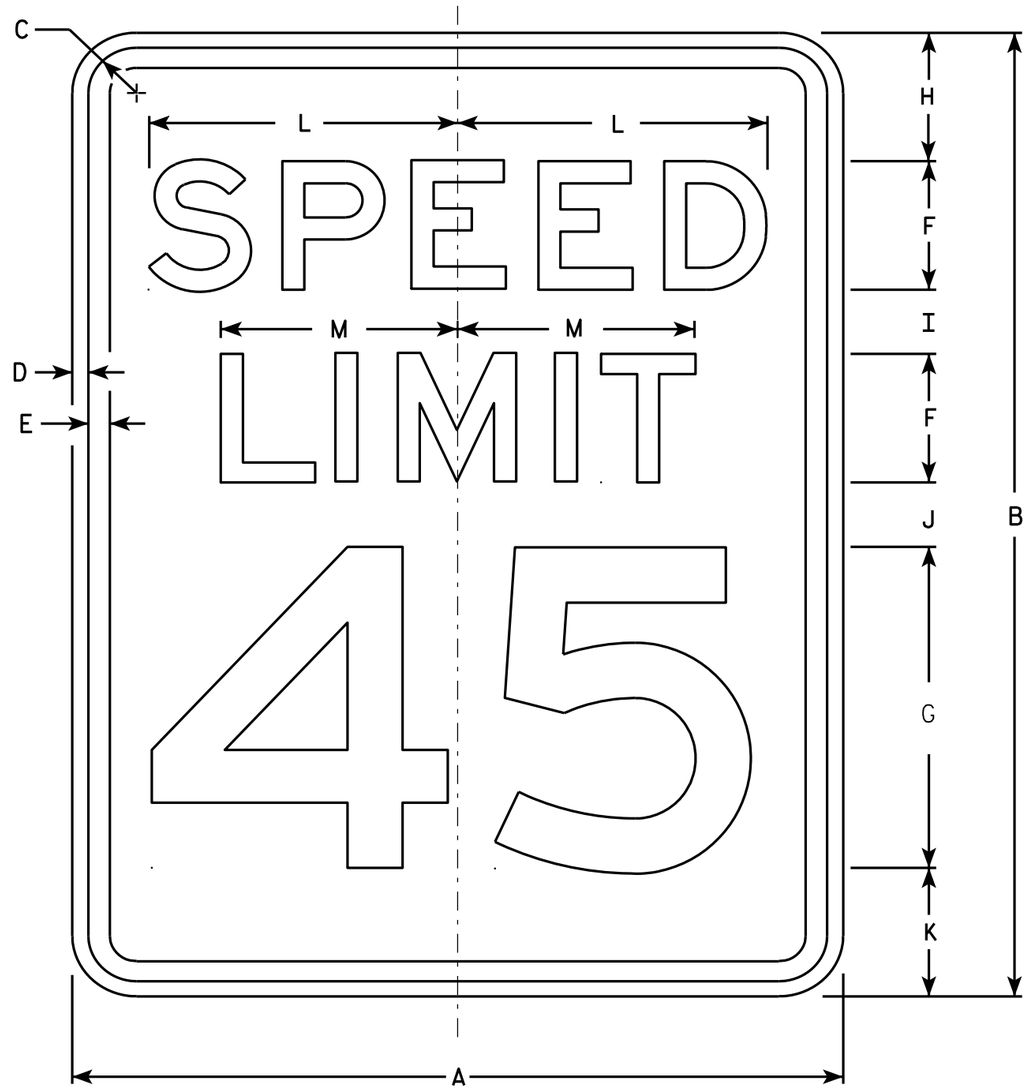
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE P1-2.12

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000

WISDOT/CADDS SHEET 42



R2-1

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 - Black
3. Message Series - E
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. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

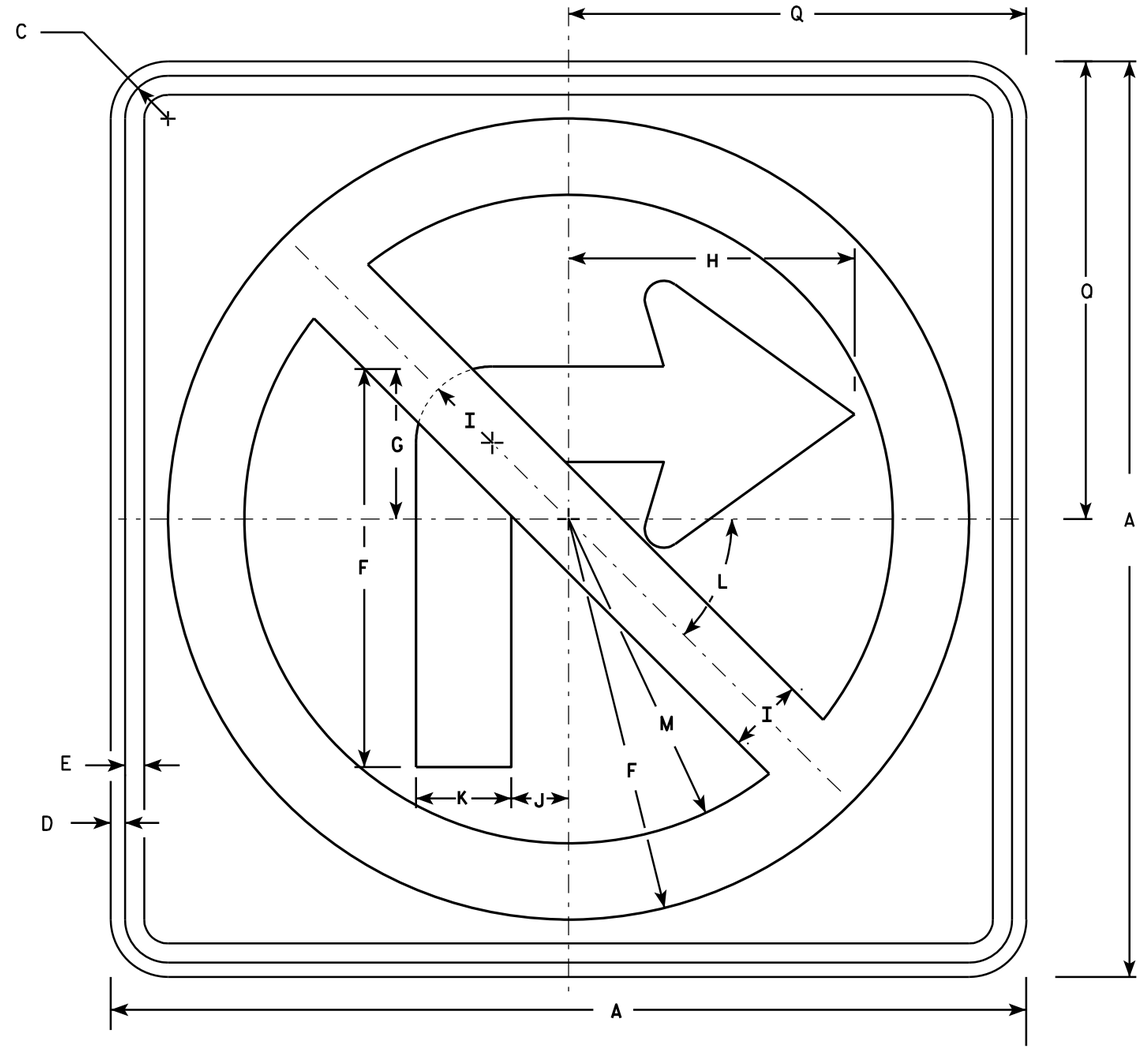
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

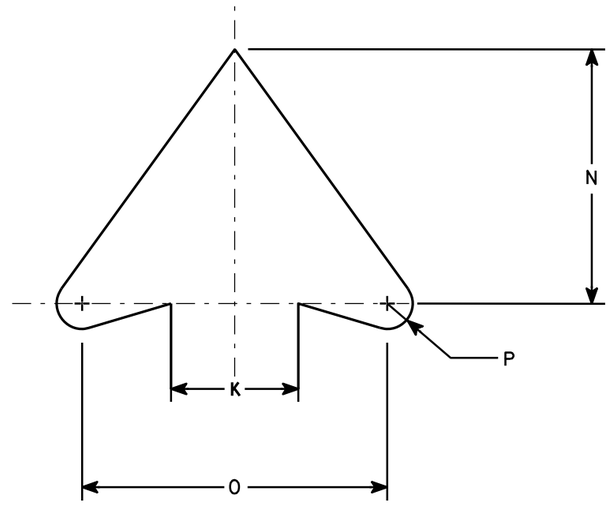
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 190	E



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

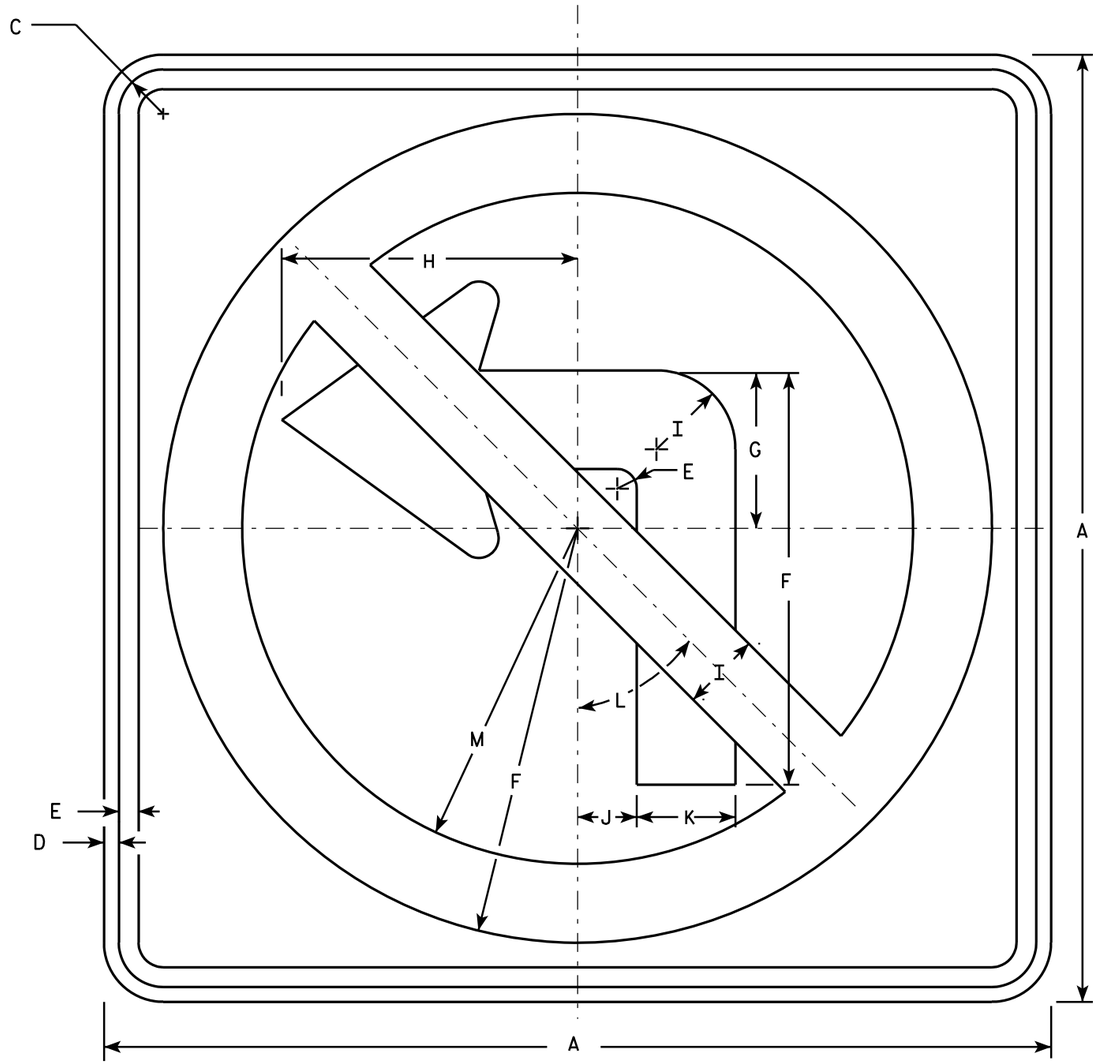
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

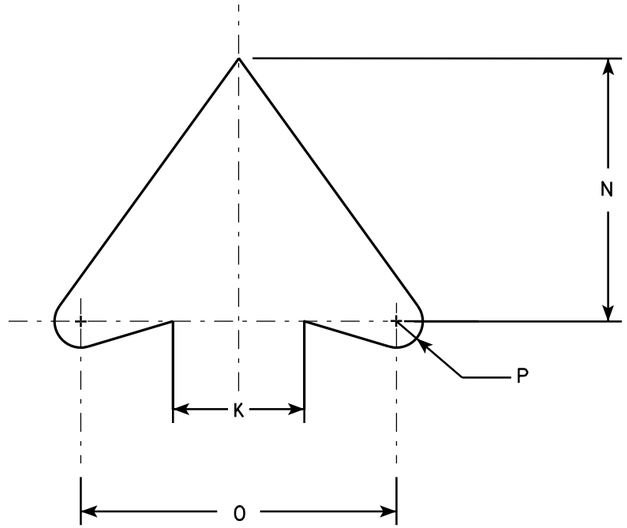
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 191	E



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

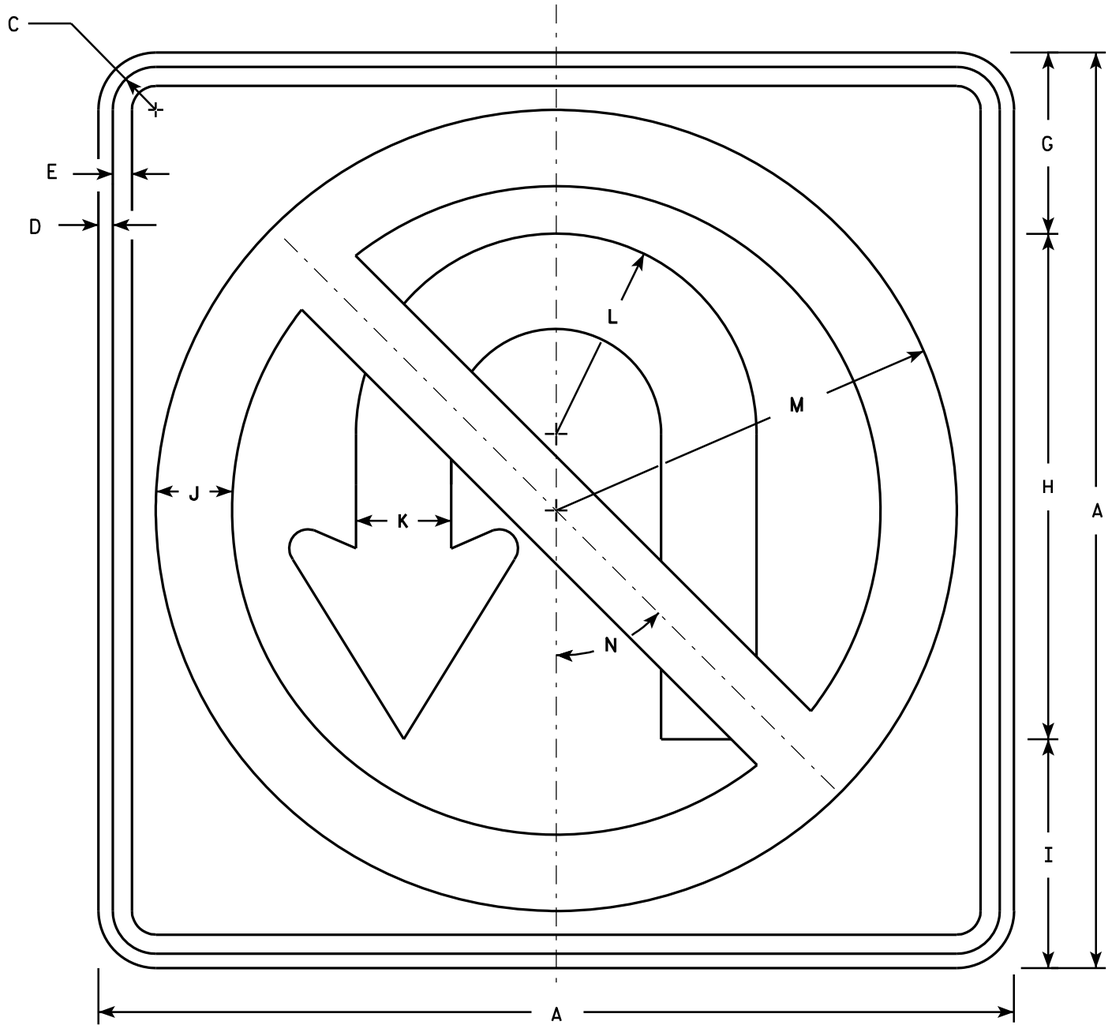
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

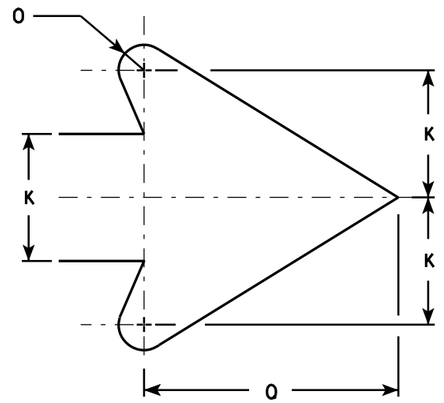
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 192 | E



R3-4

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	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

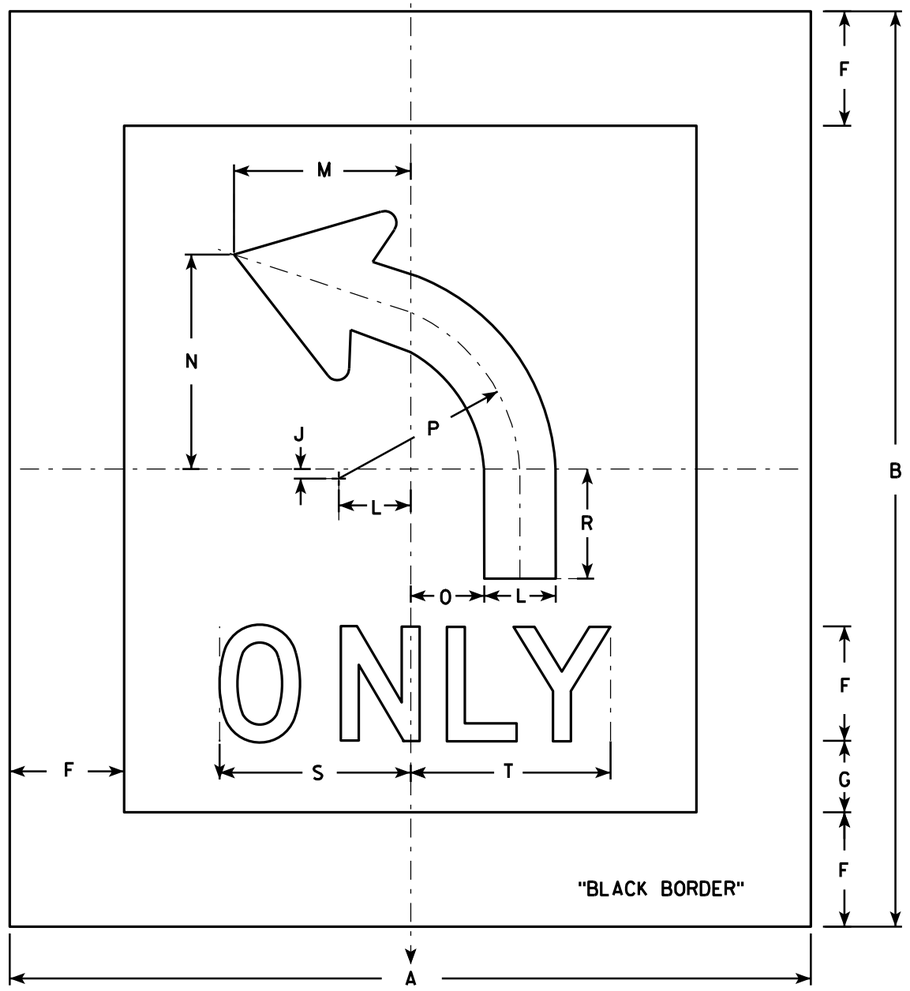
STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

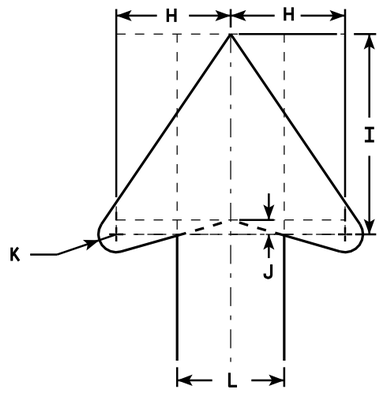
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 193	E



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																											

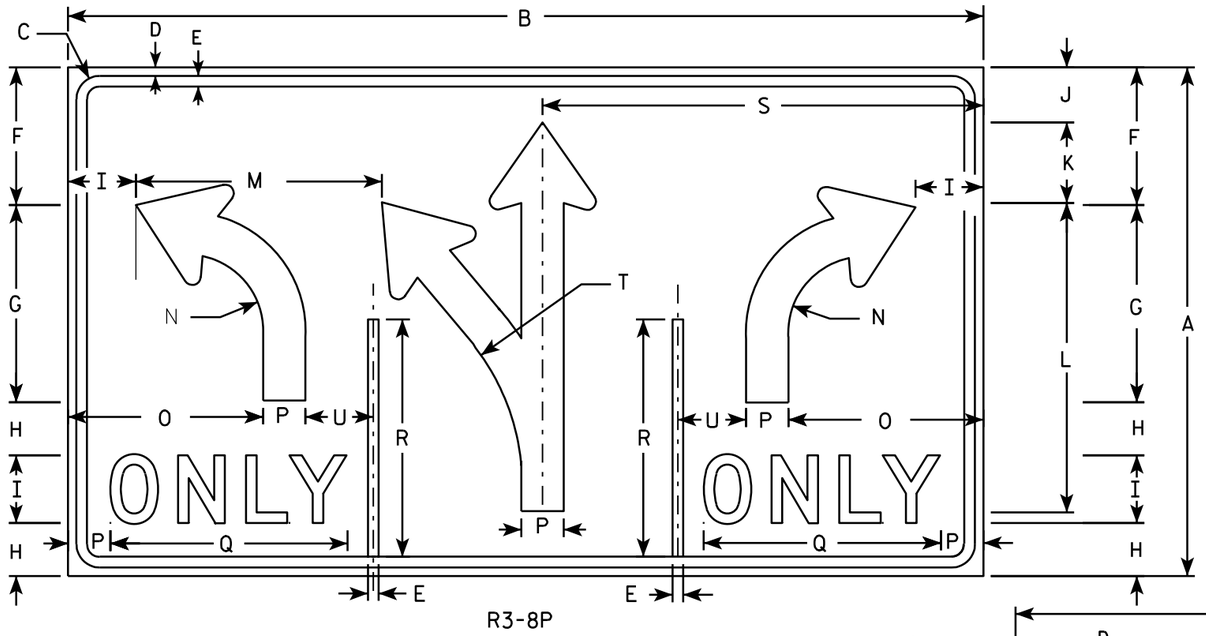
STANDARD SIGN
R3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5.6

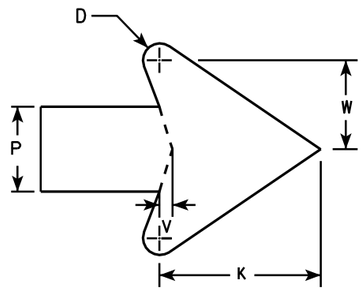
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 194 | E



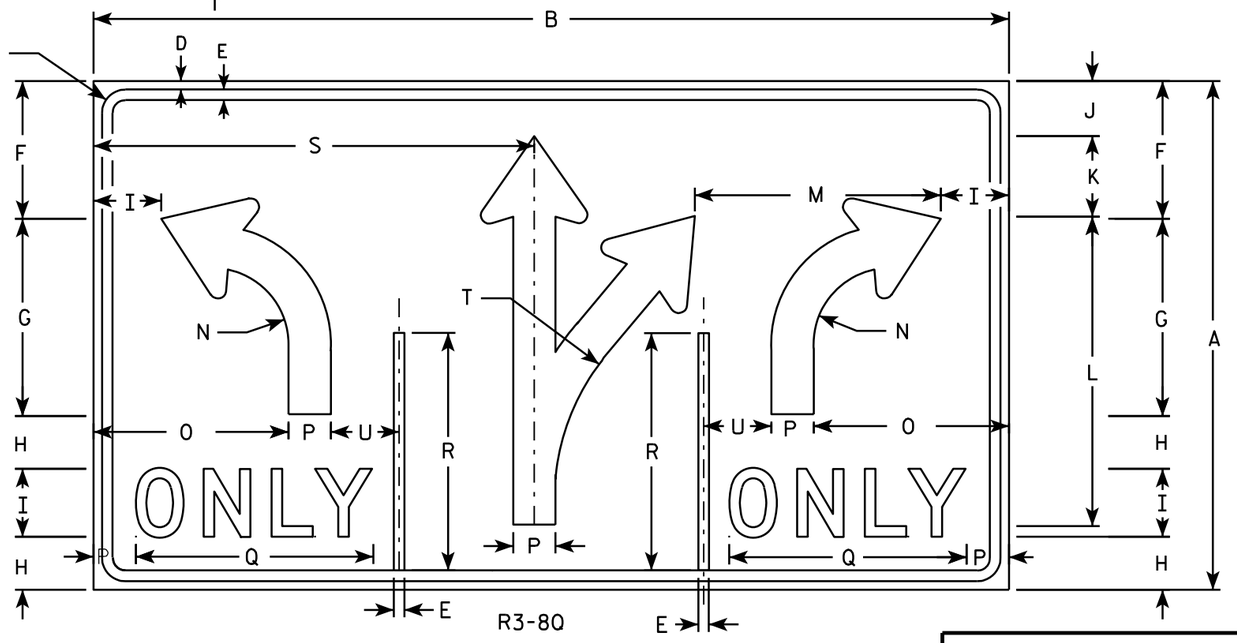
R3-8P

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



R3-8Q

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	54	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	14 1/2	4 1/2	11 1/2	2 1/2	14	14	26	13 1/4	4	3/8	2 5/8				11.25
2M	30	54	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	14 1/2	4 1/2	11 1/2	2 1/2	14	14	26	13 1/4	4	3/8	2 5/8				11.25
3																											
4	48	84	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 1/8	22 5/8	7 1/4	17 1/4	3 3/4	20 5/8	22 3/8	40 3/4	21 7/8	7	5/8	4				28.0
5	48	84	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 1/8	22 5/8	7 1/4	17 1/4	3 3/4	20 5/8	22 3/8	40 3/4	21 7/8	7	5/8	4				28.0

STANDARD SIGN
R3-8P & R3-8Q

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-8P.2

PROJECT NO:

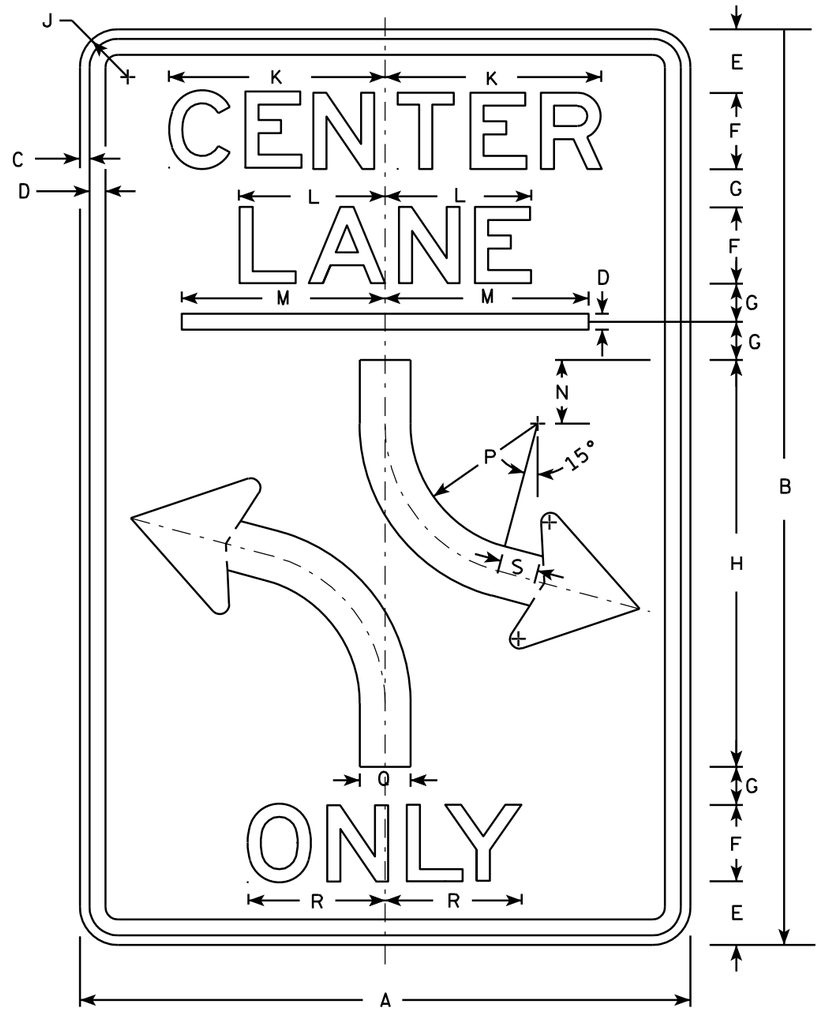
SHEET NO: 195 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R38P.DGN PLOT DATE : 24-MAR-2011 08:55 PLOT BY : mscsja PLOT NAME :

WISDOT/CADDS SHEET 42

7

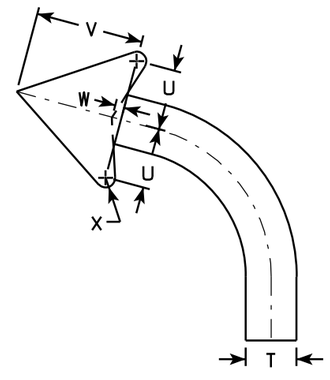
7



R3-9B

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 - E
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	24	36	3/8	1/2	2 1/2	3	1 1/2	16		1 1/2	8 1/2	5 3/4	8	2 1/2		6	2	5 1/8	1 1/2		2 3/8	4 3/8	3/8				6.0
2M	24	36	3/8	1/2	2 1/2	3	1 1/2	16		1 1/2	8 1/2	5 3/4	8	2 1/2		6	2	5 1/8	1 1/2		2 3/8	4 3/8	3/8				6.0
3	36	48	5/8	7/8	3 1/2	5	1 1/2	20		2 1/4	14 1/8	9 1/2	12	3		4	3	9 7/8	2		3 1/2	6 1/8	1/2				12.0
4																											
5																											

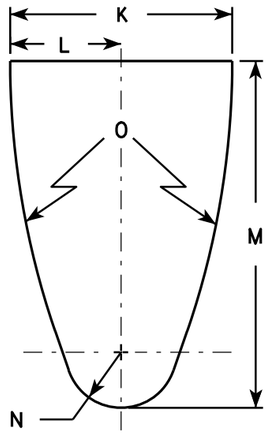
STANDARD SIGN
R3-9B

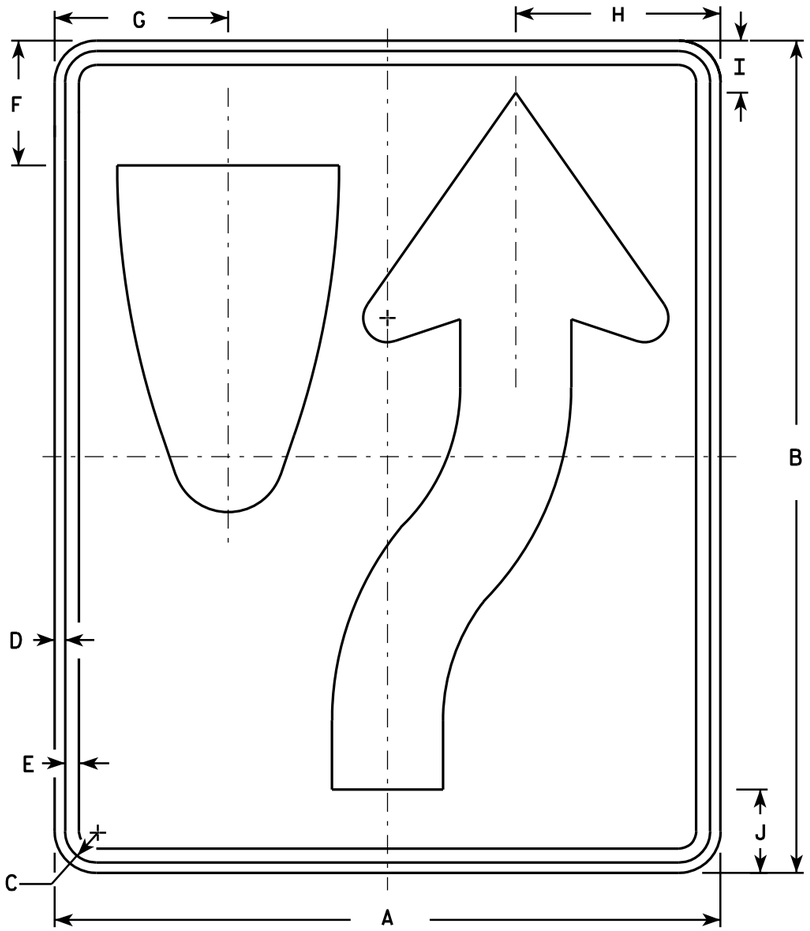
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-9B.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 196	E

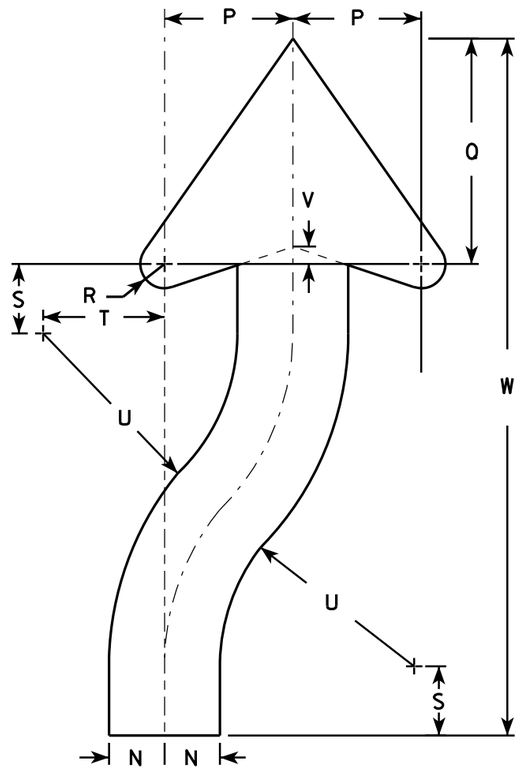




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



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	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

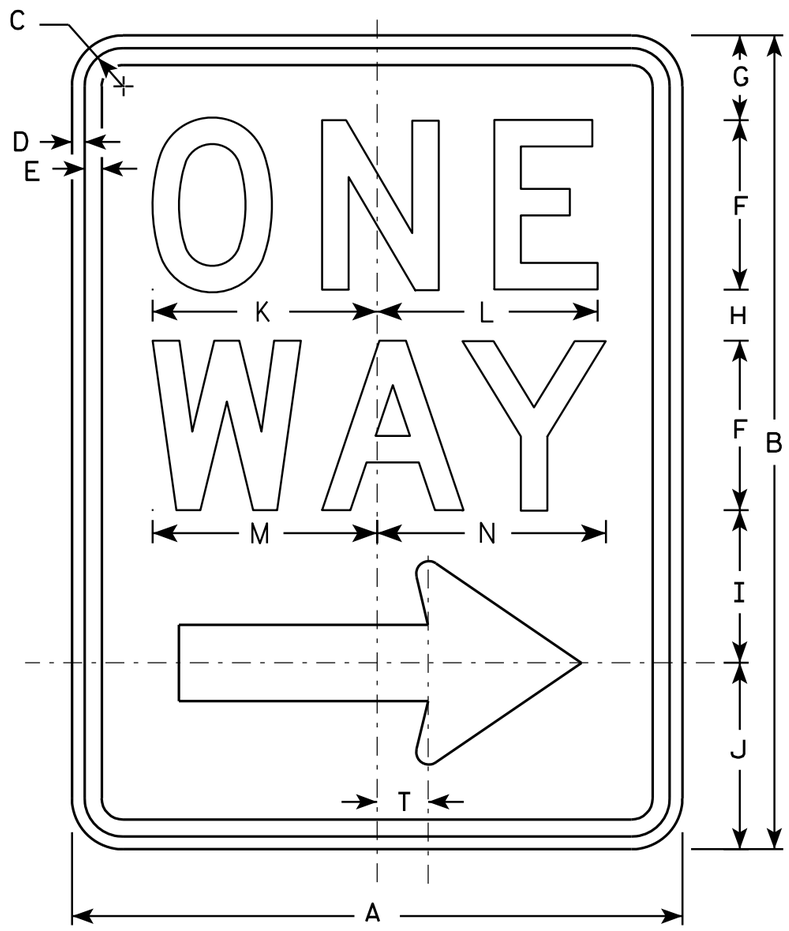
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

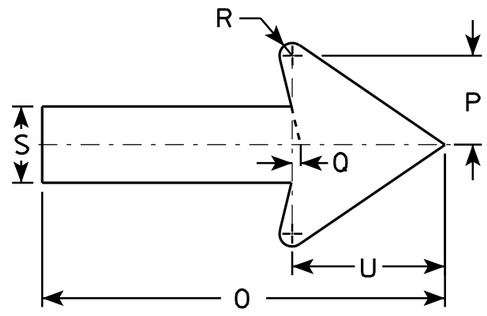
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 197	E



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																										

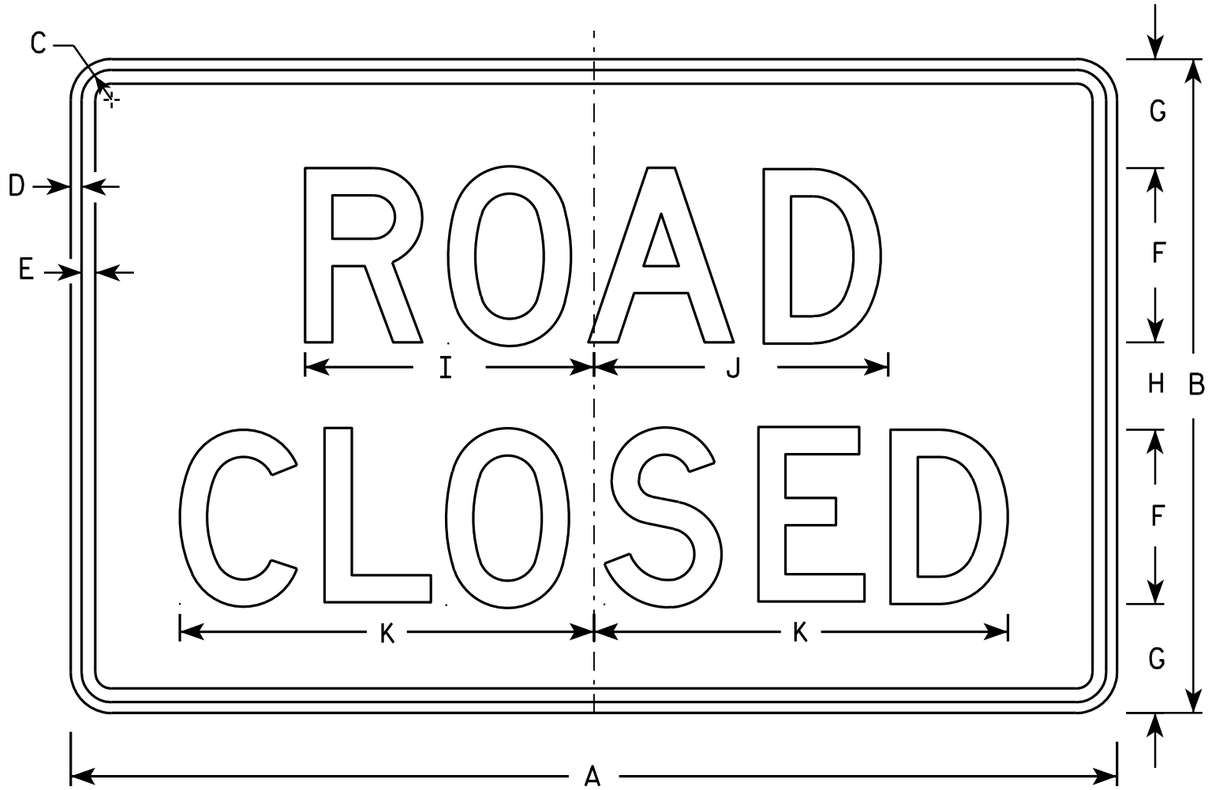
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

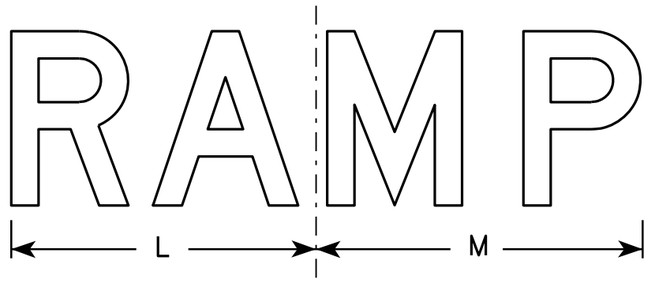
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 198	E



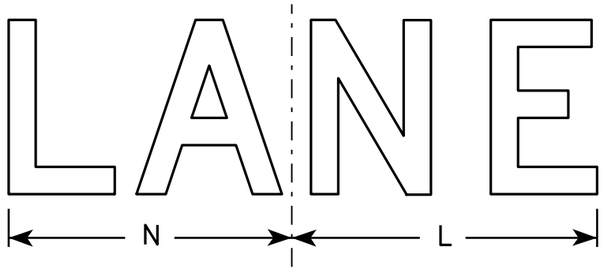
R11-2

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

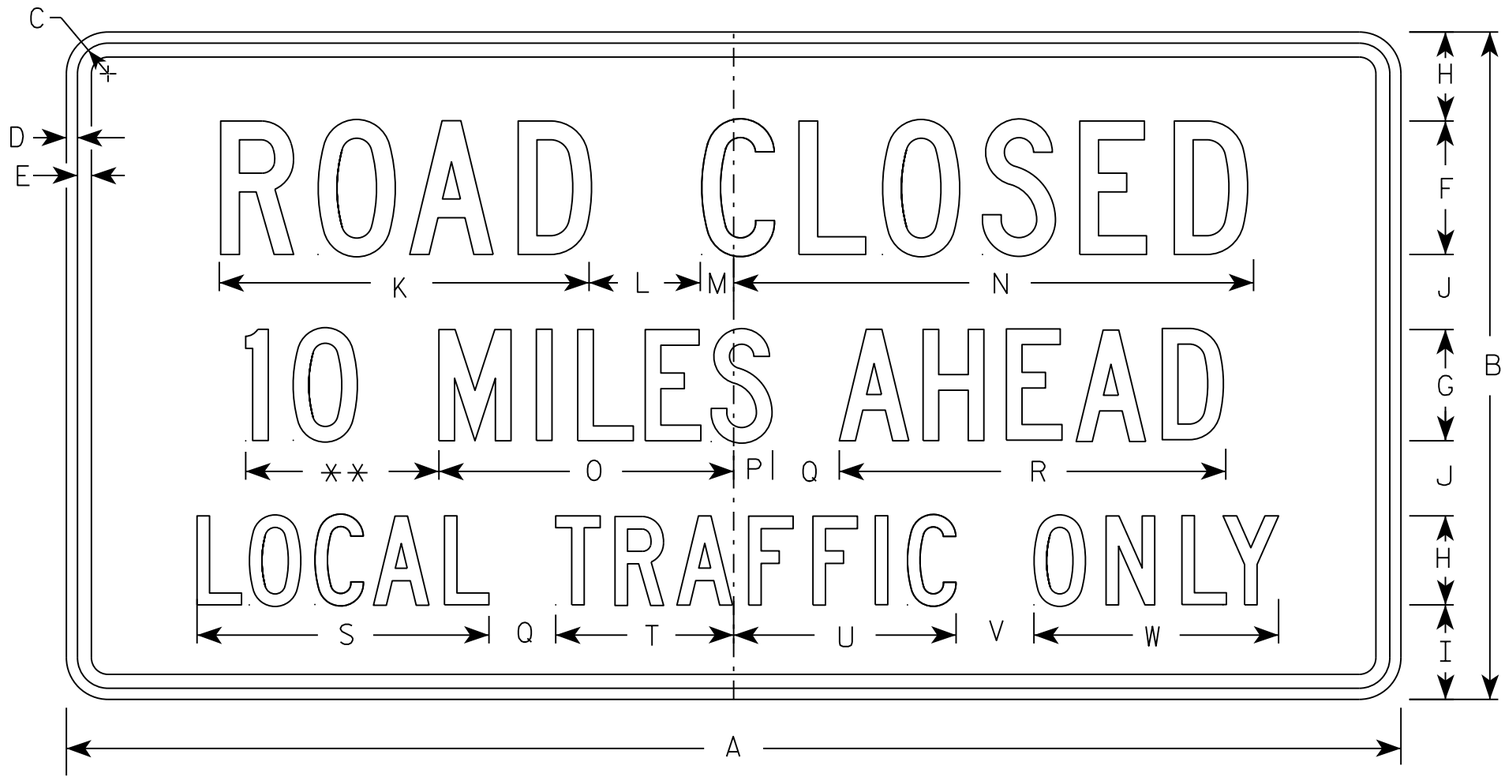
STANDARD SIGN
R11-2

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: 199	E



R11-3

NOTES

1. Sign is Type II - Type H Reflective
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. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.

** See Note 5

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	18	1 3/8	1/2	5/8	4	3	2 1/2	2	2	11 1/8	3	1 1/8	15 1/4	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4				4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11				12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11				12.5
3																											
4																											
5																											

STANDARD SIGN
R11-3

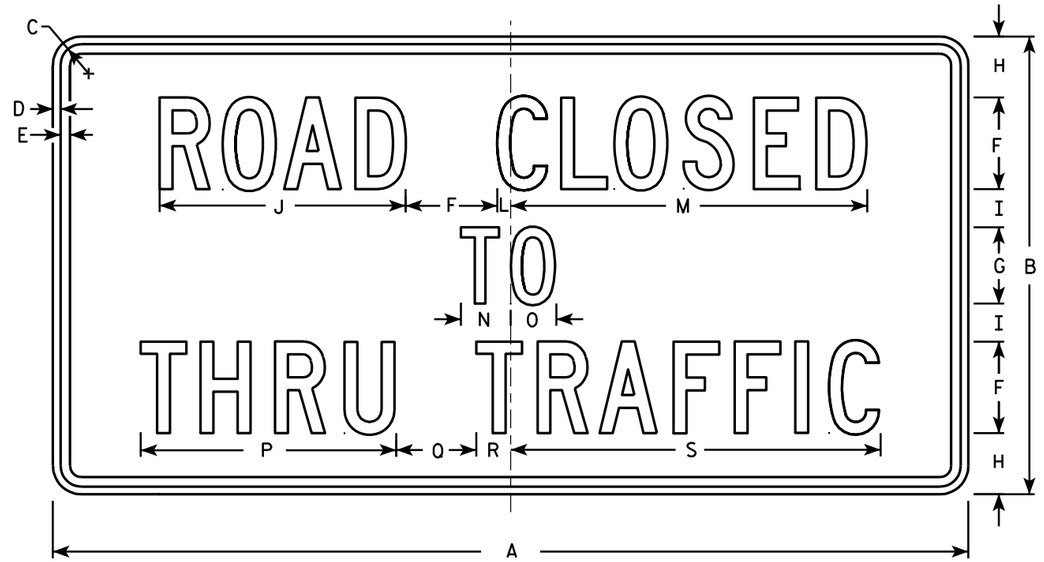
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/28/16 PLATE NO. R11-3.7

200

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



R11-4

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.

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	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

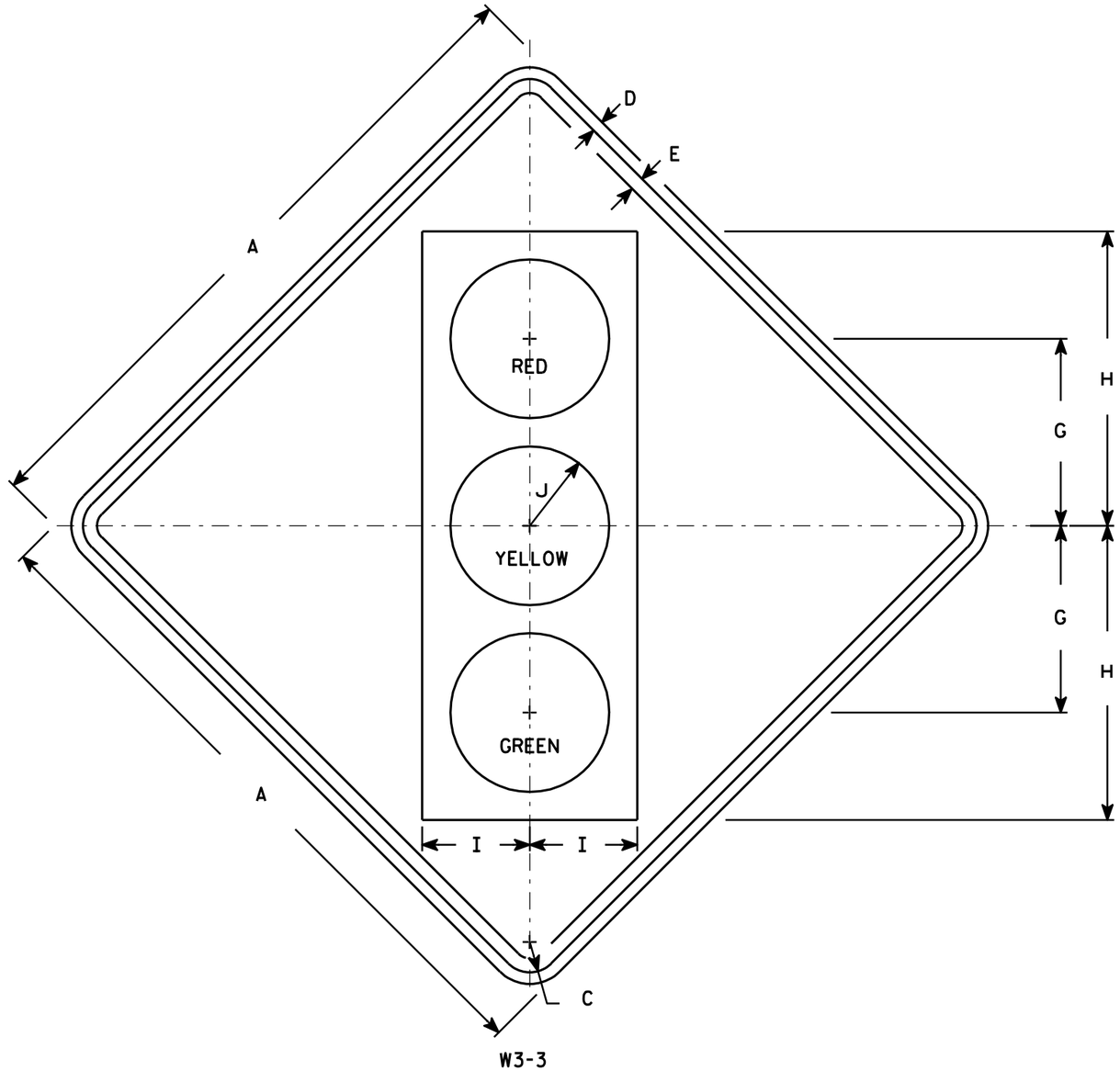
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 201 | E



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 - 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. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

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		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

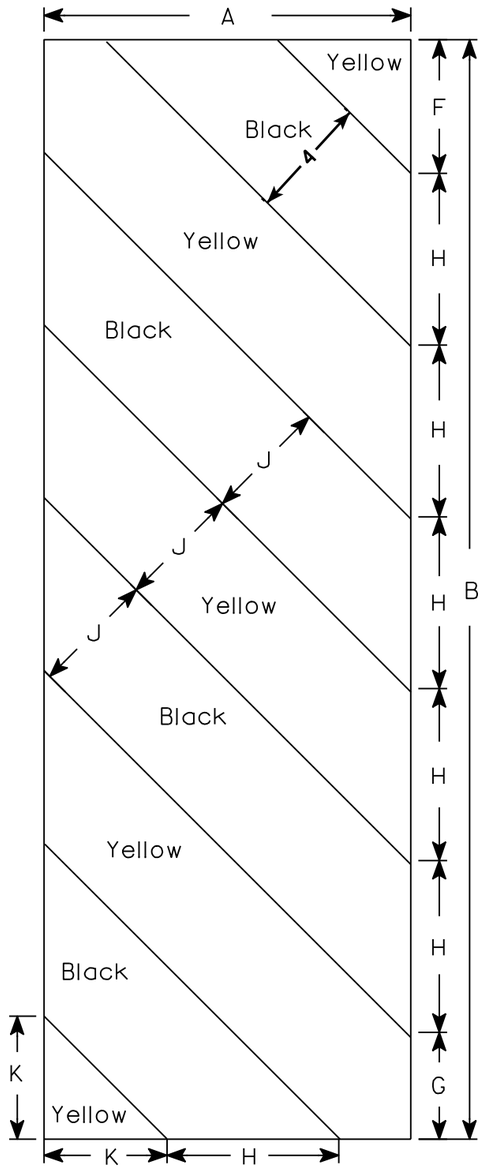
STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

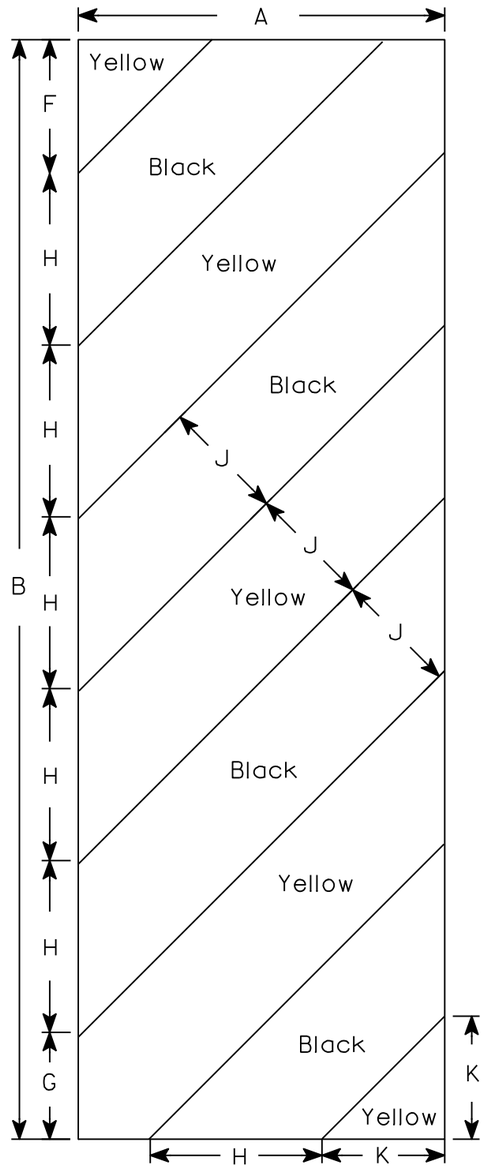
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 202 | E



W5-52L



W5-52R

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. Alternate colors of stripes as shown.

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	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

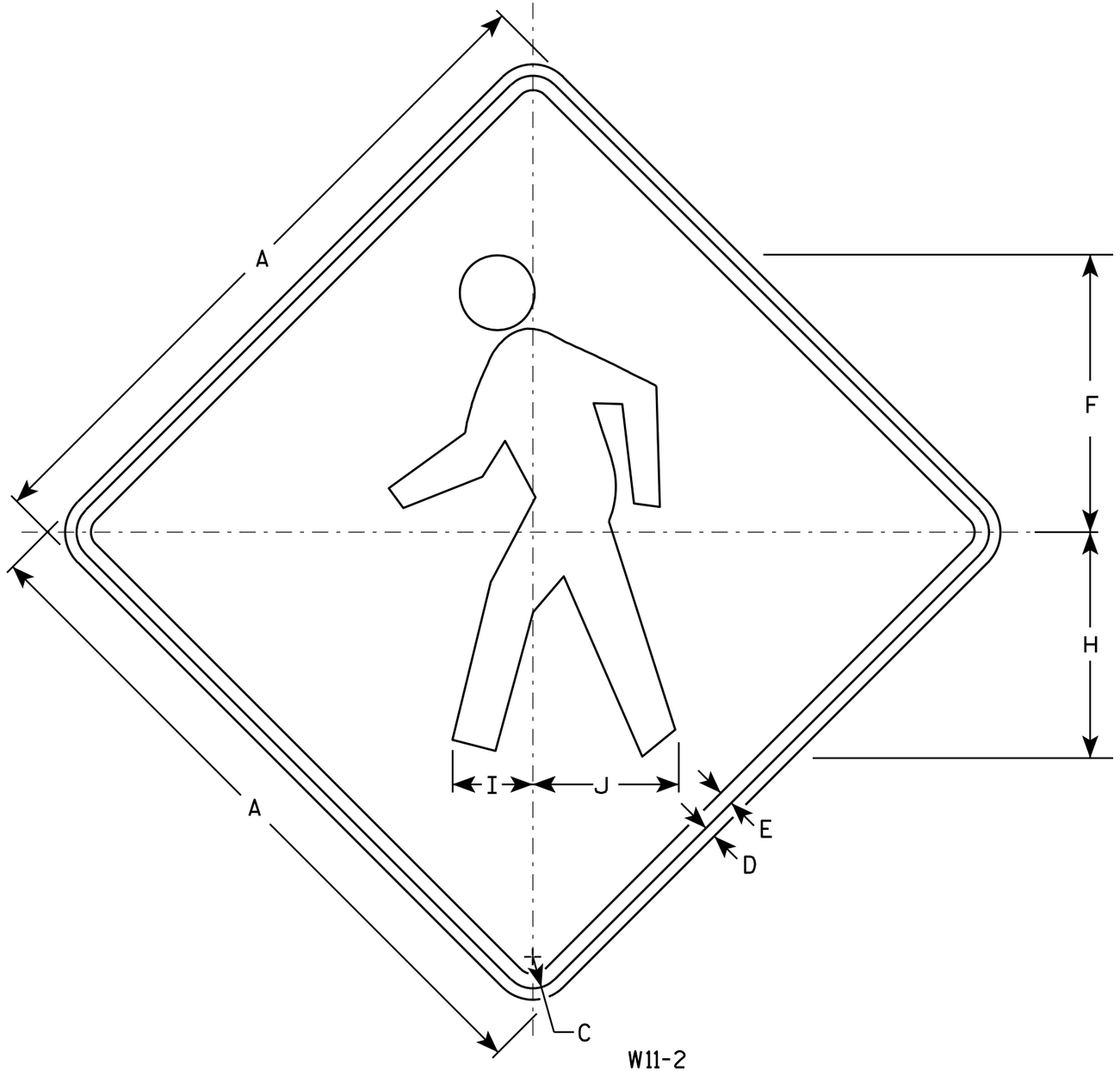
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 203	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																											

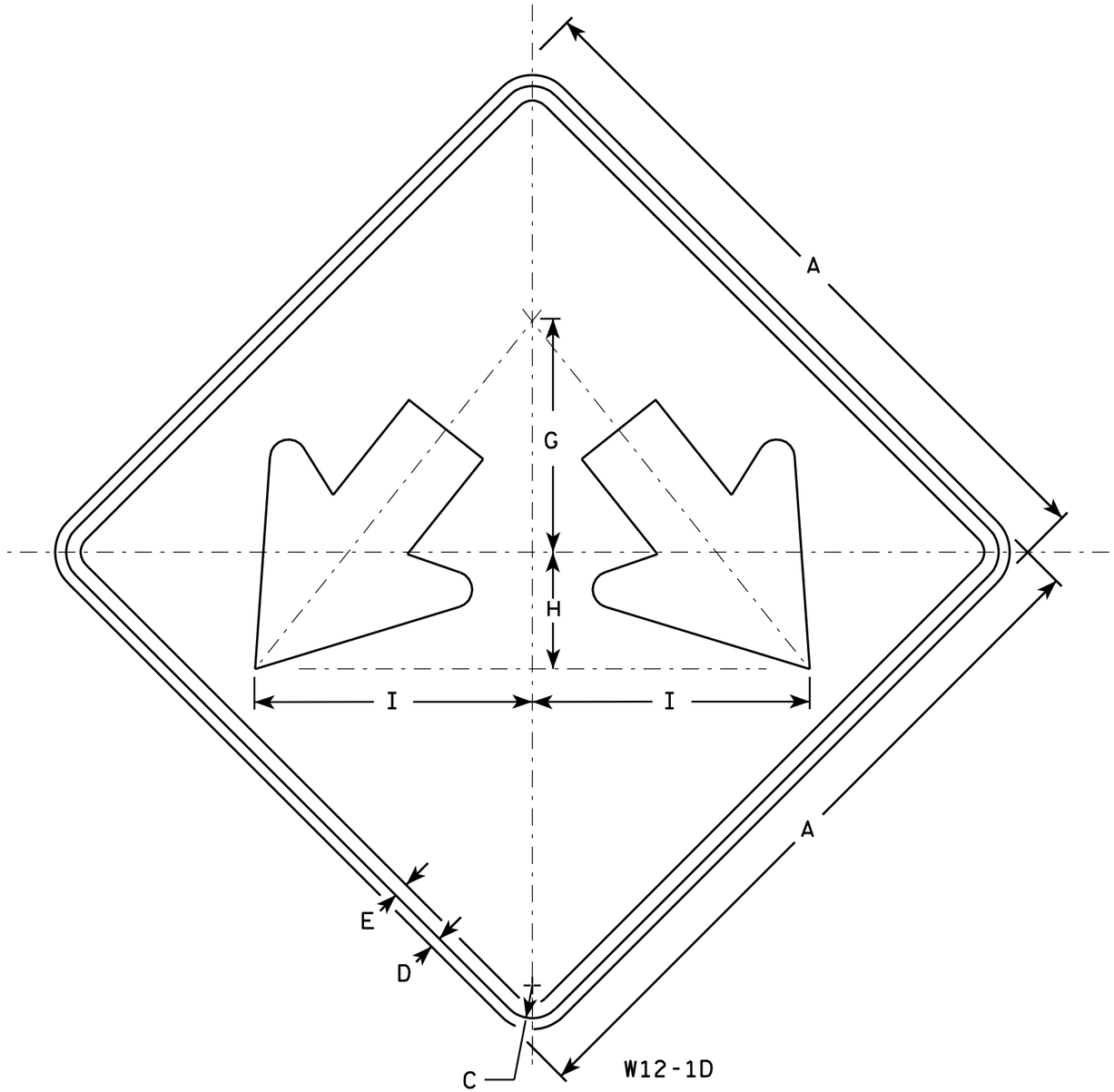
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

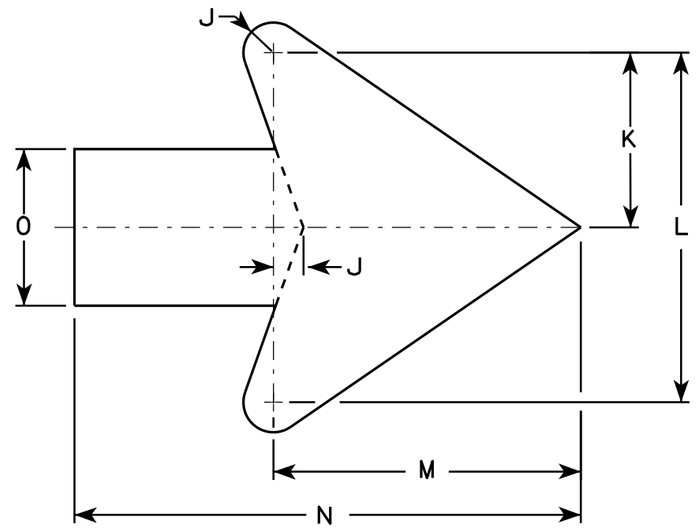
DATE 6/7/10 PLATE NO. W11-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 204	E



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.



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	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	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

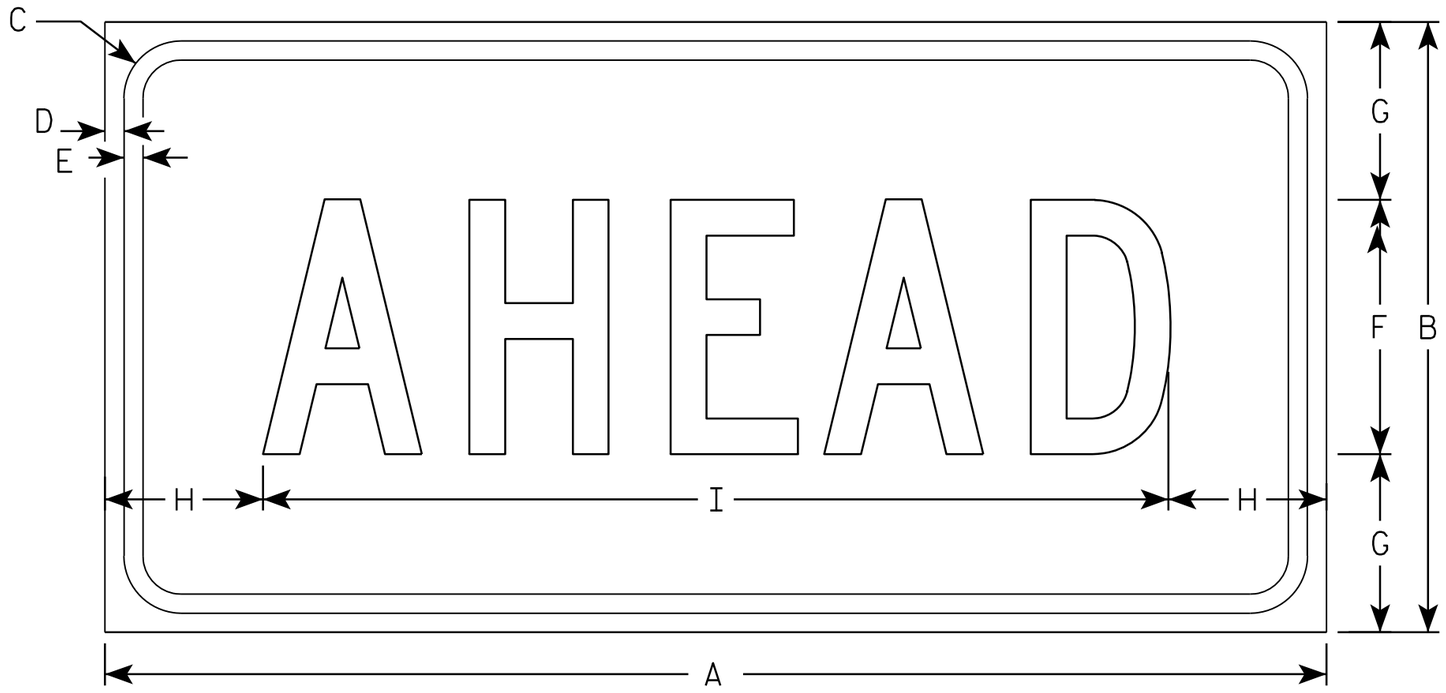
STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 205	E



W16-9P

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   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	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN
W16-9P

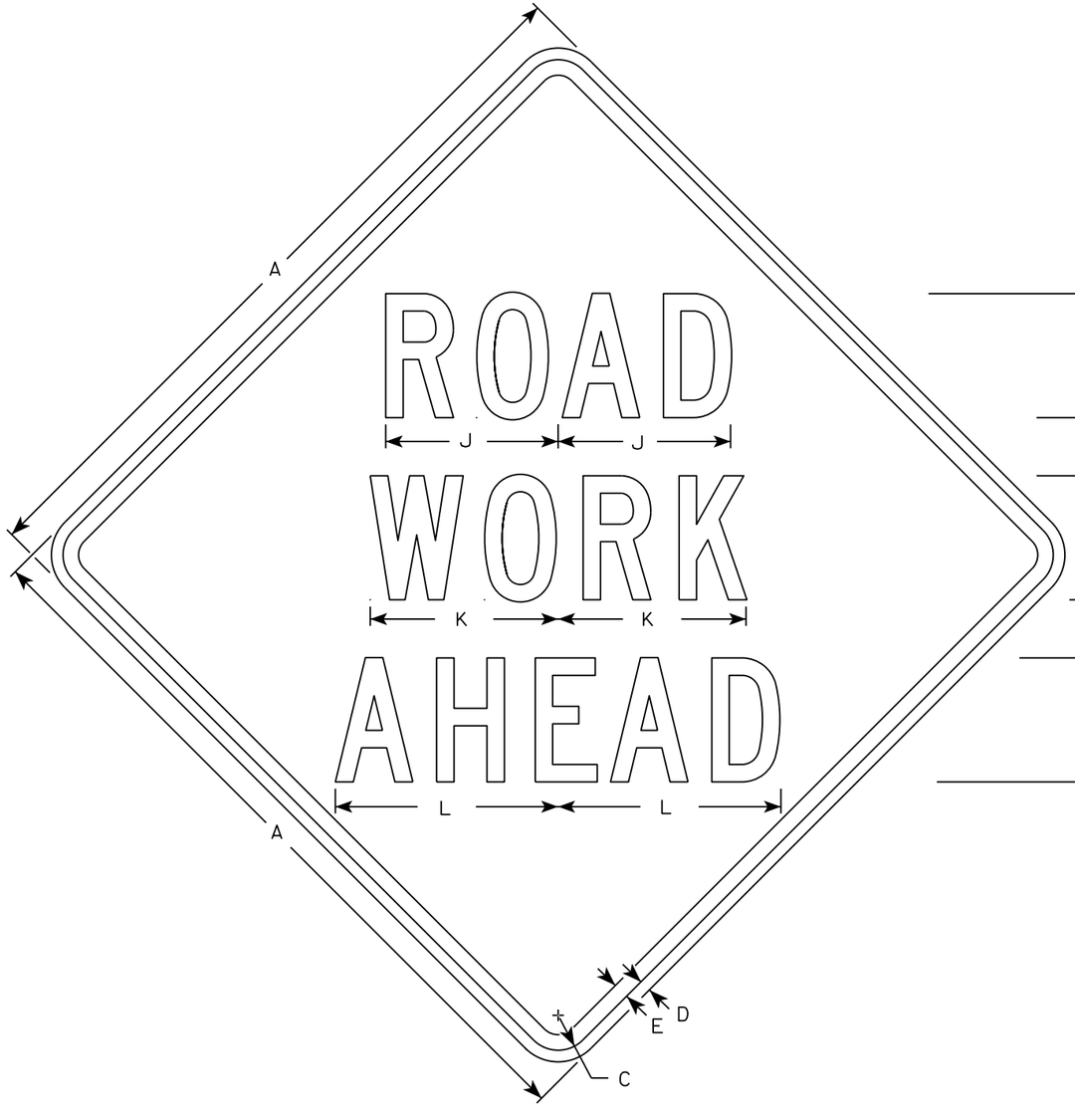
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

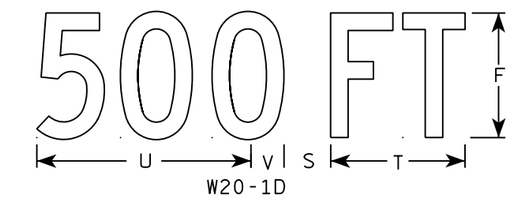
DATE 12/28/10 PLATE NO. W16-9P.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 206 | E

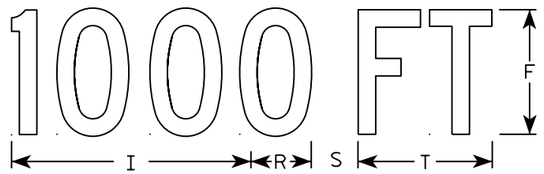
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W169P.DGN PLOT DATE : 28-DEC-2010 13:39 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 2.979524:1.000000
WISDOT/CADDS SHEET 42



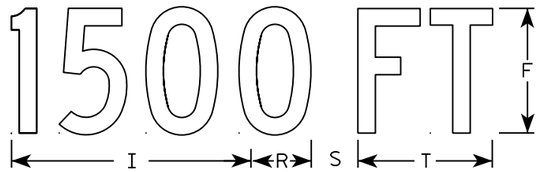
W20-1A



W20-1D

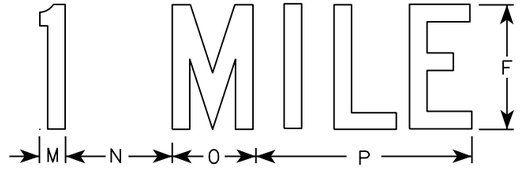


W20-1C

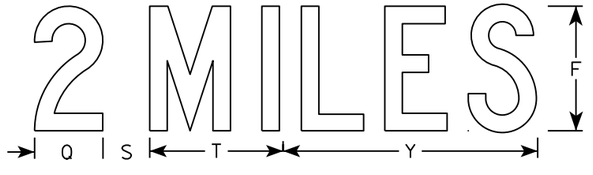


W20-1B

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

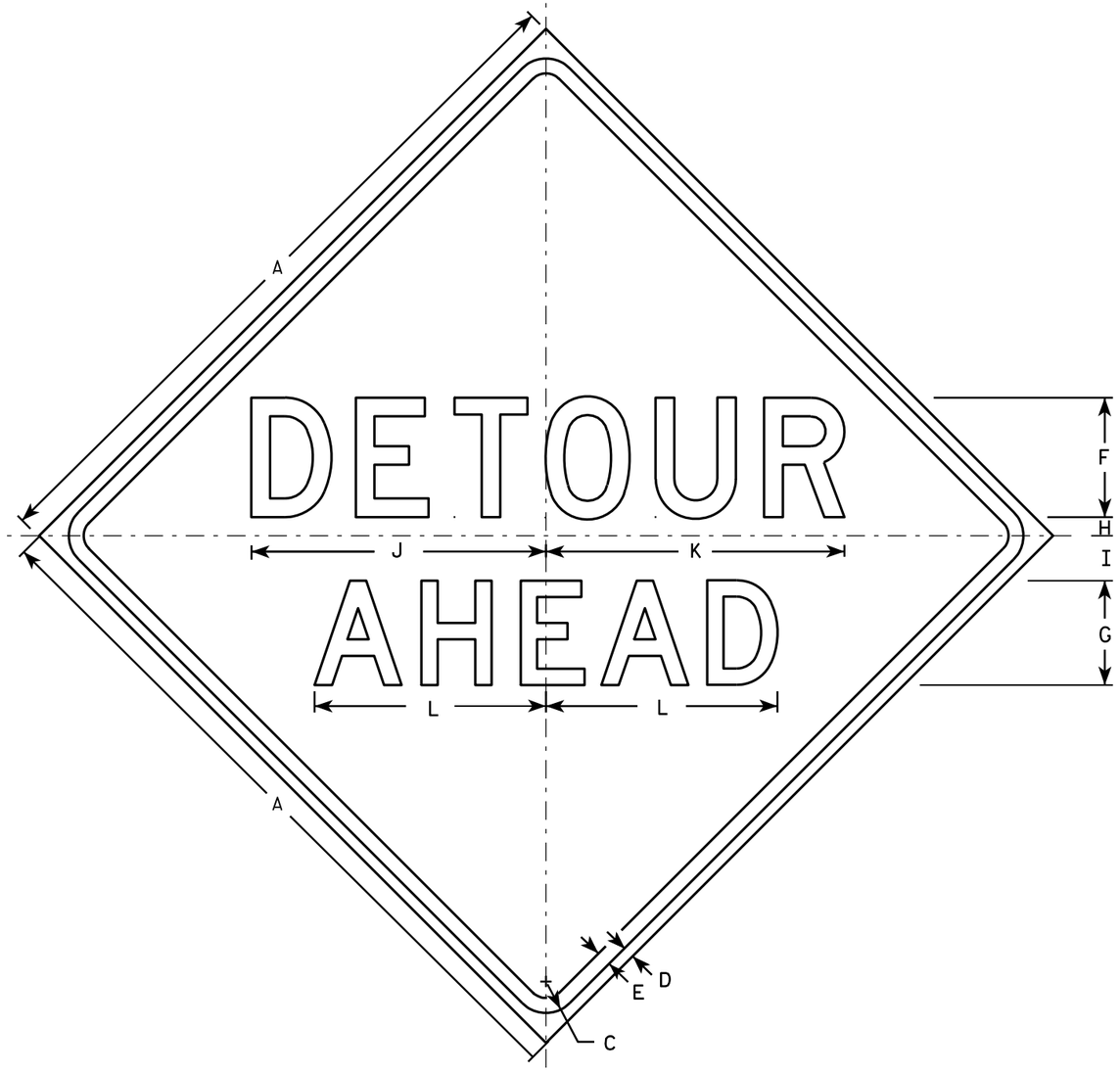
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

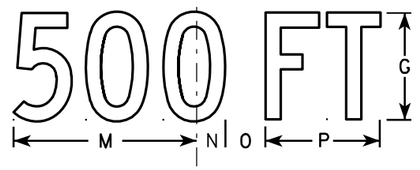
PROJECT NO:

SHEET NO: E

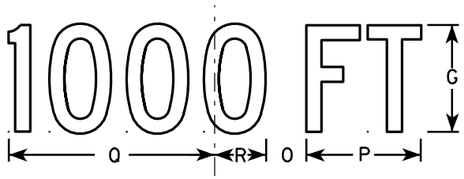
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



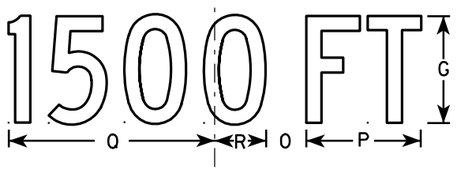
W20-2A



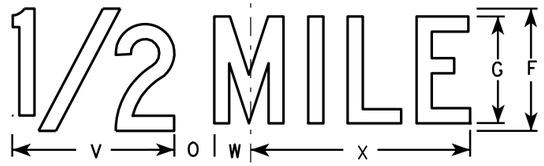
W20-2D



W20-2C



W20-2B



W20-2G

W20-2F

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. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

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	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

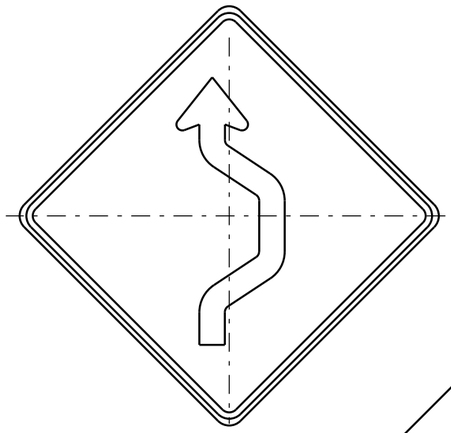
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

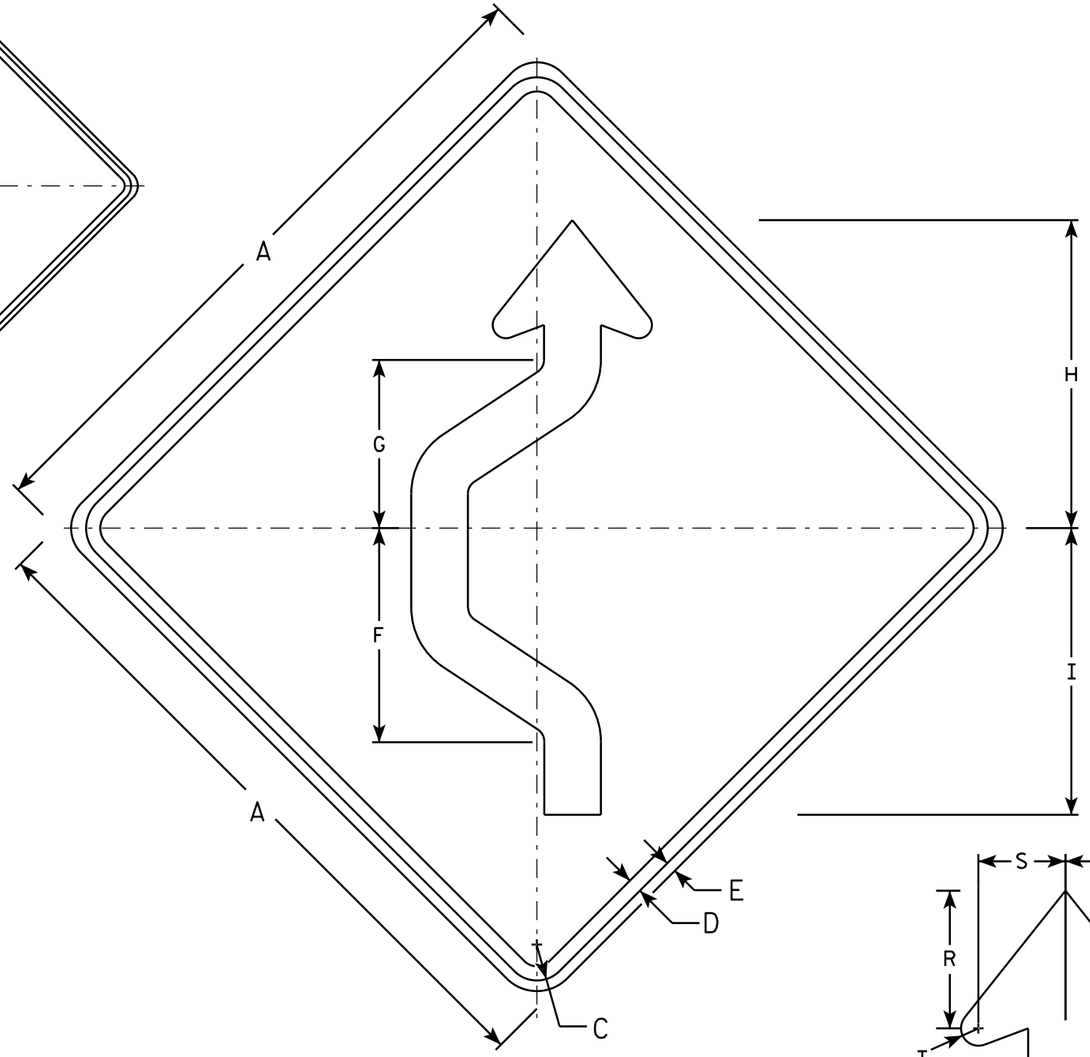
DATE 3/18/11 PLATE NO. W20-2.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 208 | E

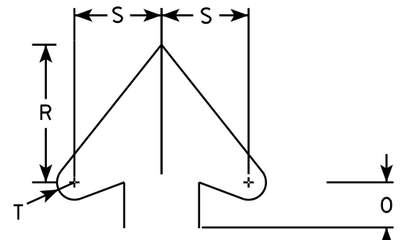
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W202.DGN PLOT DATE : 18-MAR-2011 10:00 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42



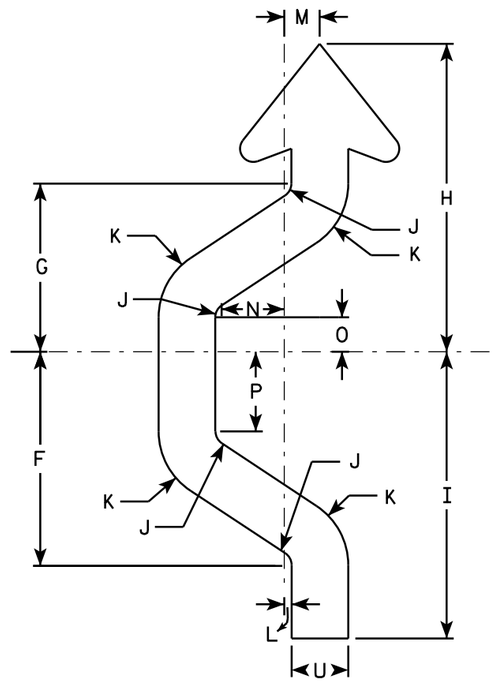
W24-1R



W24-1L



Arrowhead Detail



Arrow Detail

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. W24-1R is the same as W24-1L except 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 3/8	5/8	1/2	11 3/8	8 7/8	16 3/8	15 1/4	3/4	3 3/4	3/8	2	3 3/8	1 7/8	4 1/4		5 1/2	3 1/2	5/8	3						9
2M	36		1 3/8	5/8	1/2	11 3/8	8 7/8	16 3/8	15 1/4	3/4	3 3/4	3/8	2	3 3/8	1 7/8	4 1/4		5 1/2	3 1/2	5/8	3						9
3																											
4																											
5																											

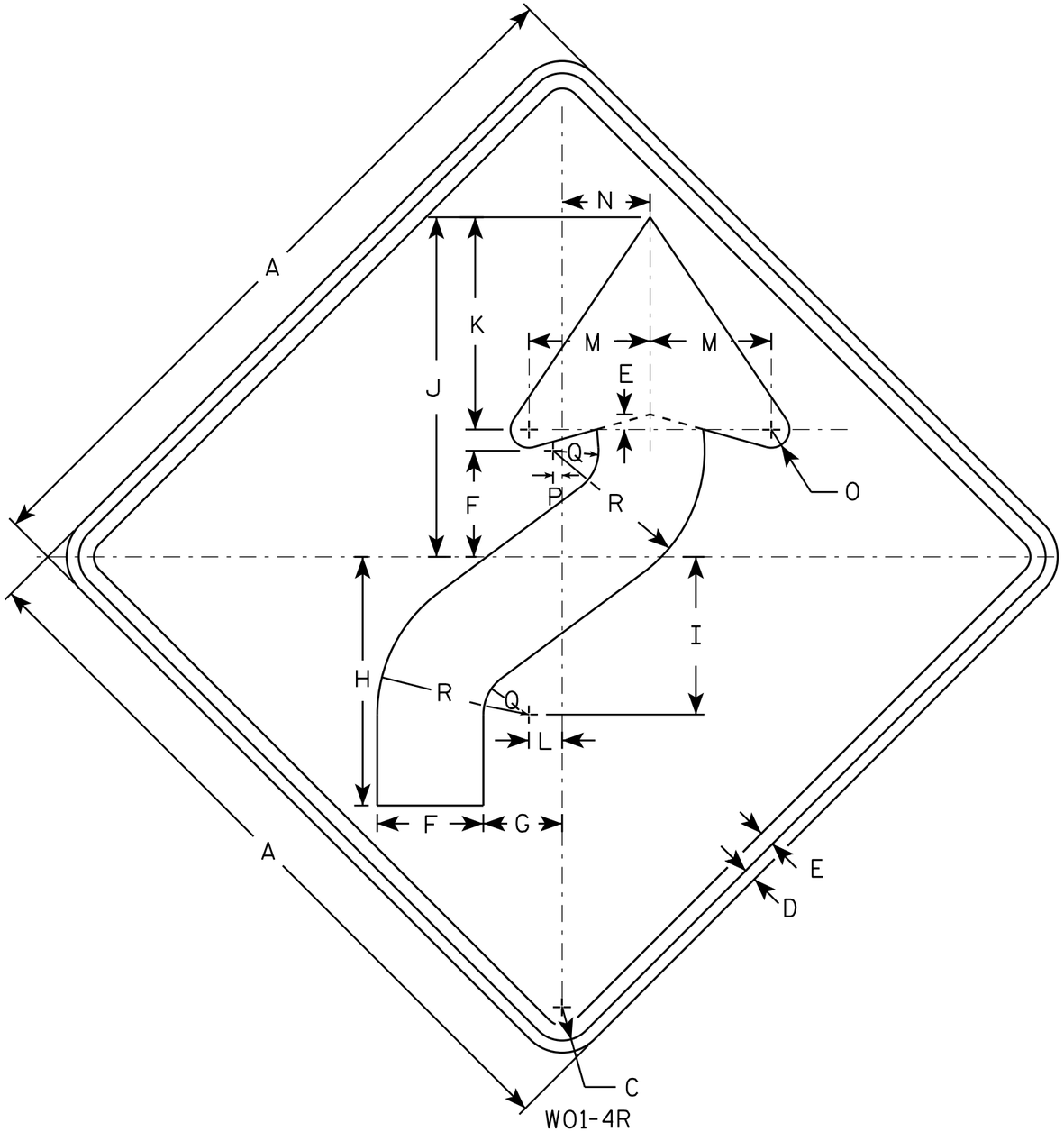
STANDARD SIGN
W24-1 L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/25/2013 PLATE NO. W24-1.3

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

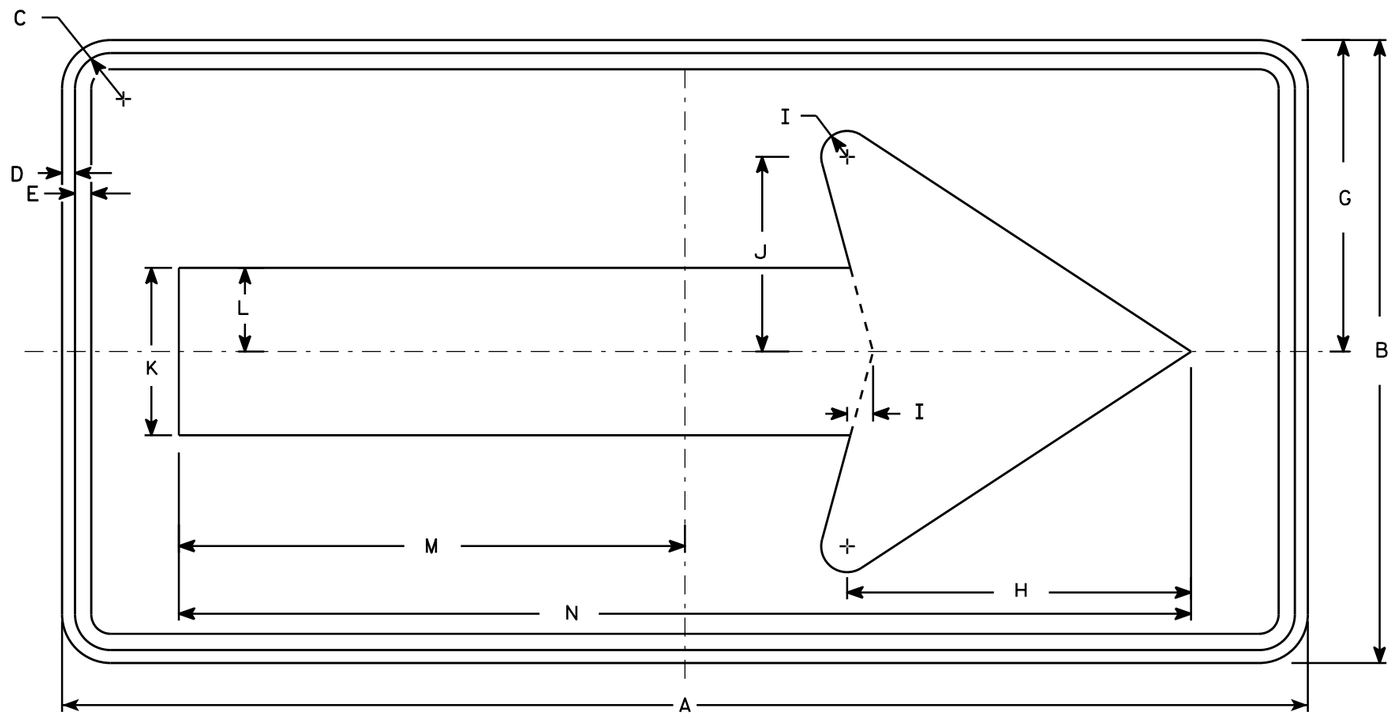
WISCONSIN DEPT OF TRANSPORTATION

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



W01-6

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

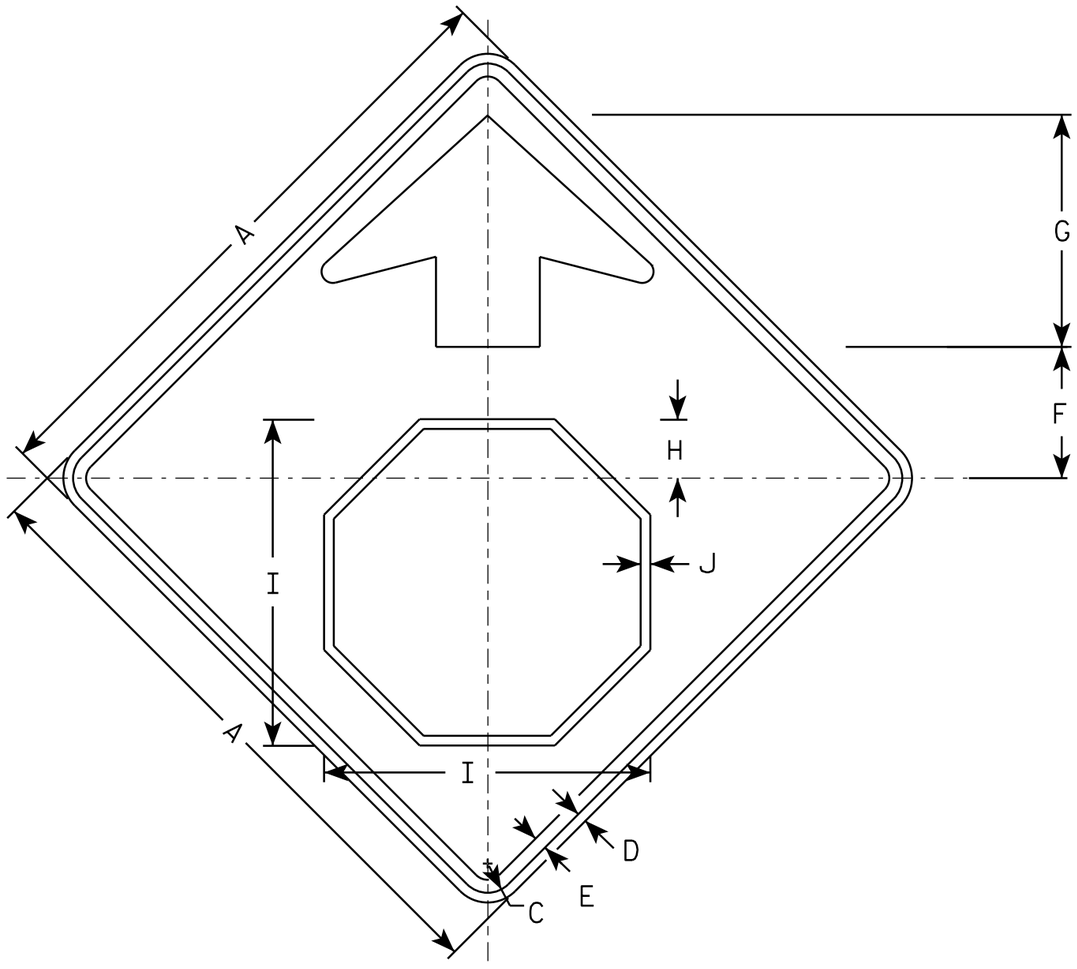
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE W01-6.1

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

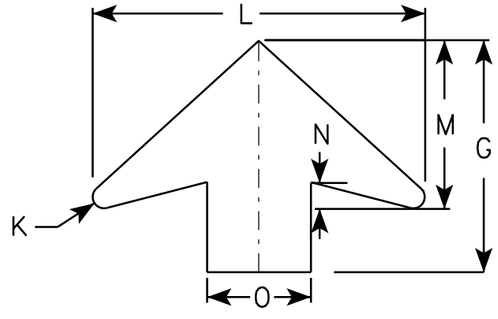
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



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

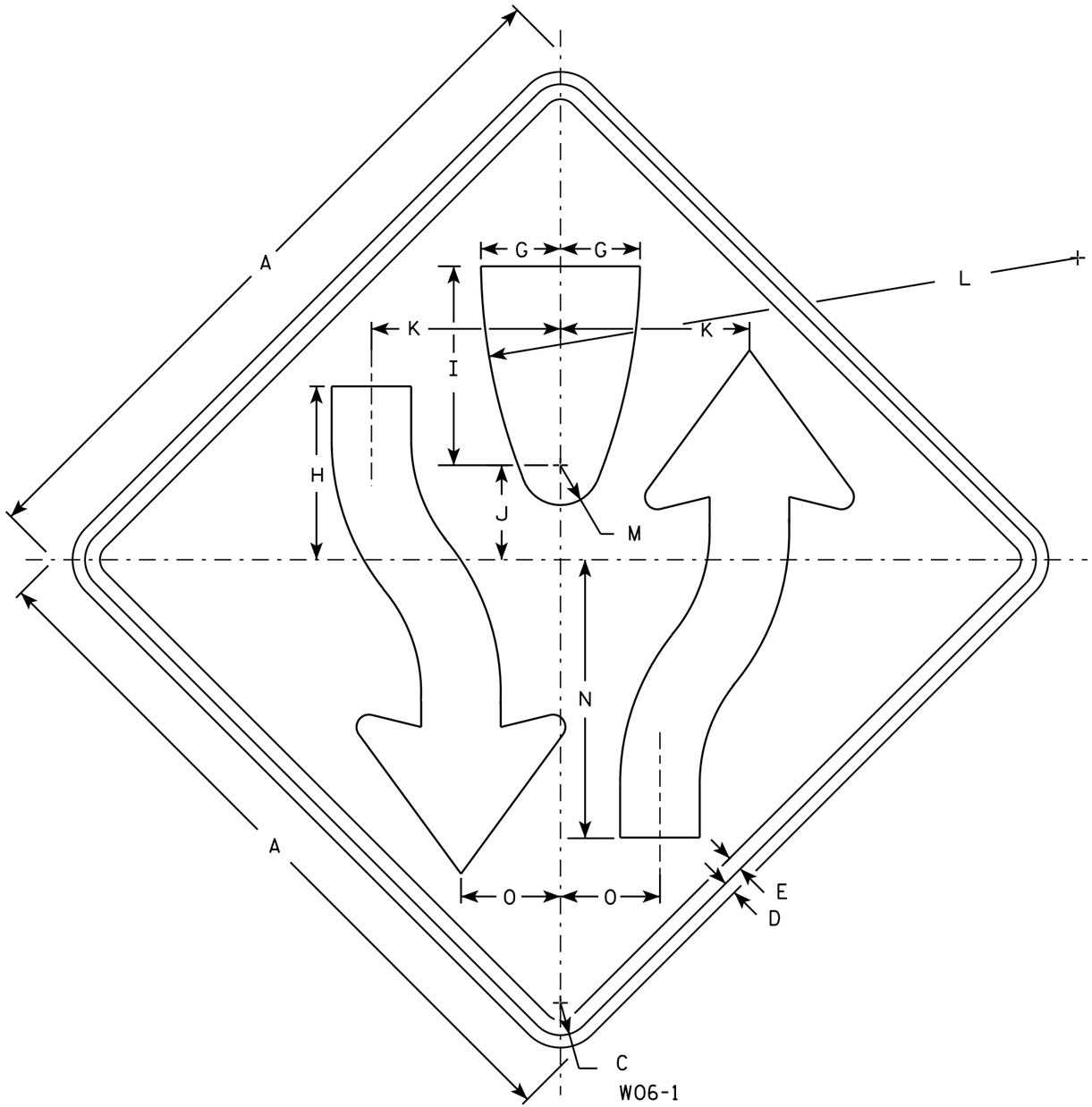
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 212 03-1.1

PROJECT NO: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W031.DGN PLOT DATE : 20-NOV-2013 10:54 PLOT BY : mscsja

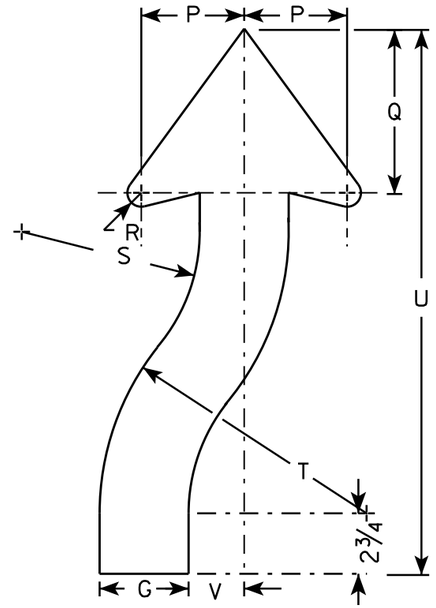
WISDOT/CADDS SHEET 42



WO6-1

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. WO6-2 same as WO6-1 but is rotated 180° when mounted.



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		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2S	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
2M	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
3	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

STANDARD SIGN
WO6-1 & WO6-2

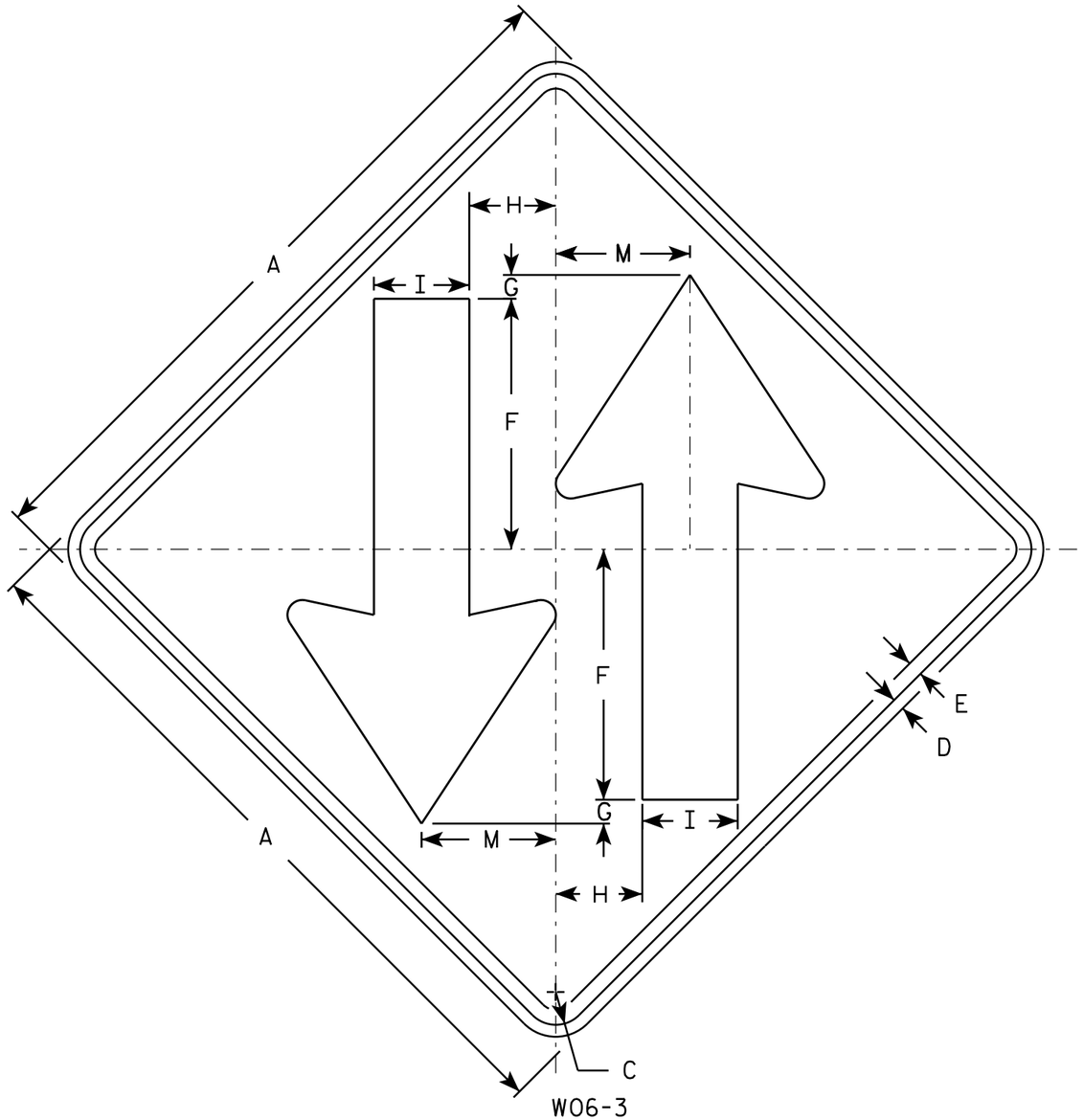
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO WO6-1.1

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

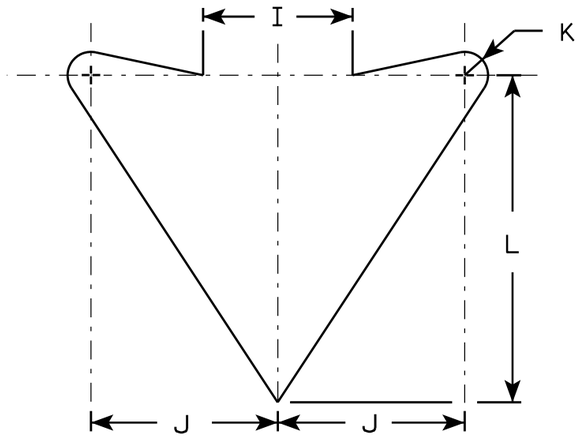
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\WO61.DGN PLOT DATE : 20-NOV-2013 12:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.810449:1.000000
WISDOT/CADDS SHEET 42



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 214 W06-3.1

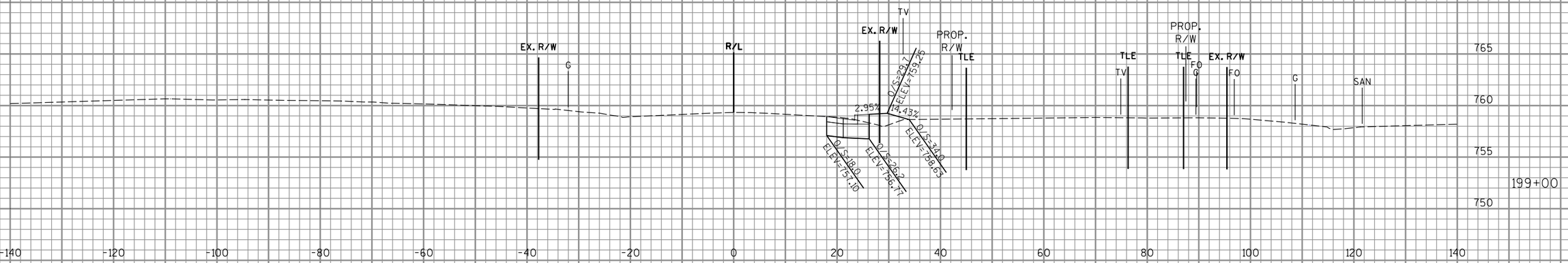
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

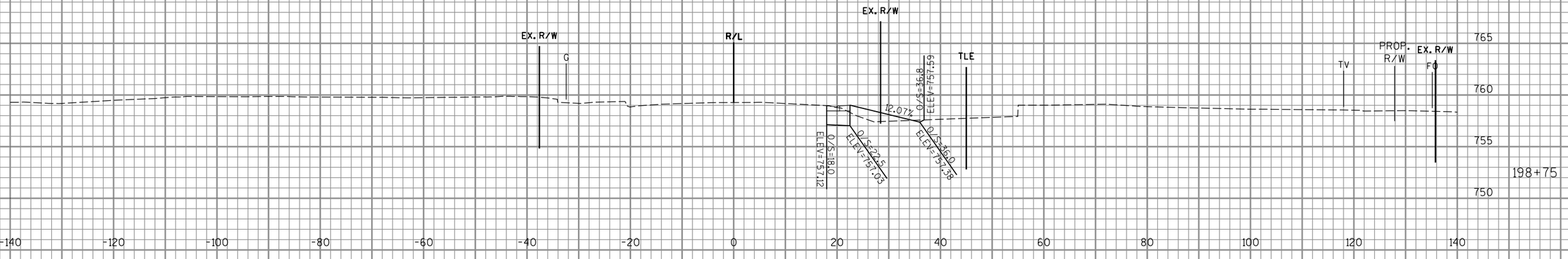
MANITOWOC ROAD

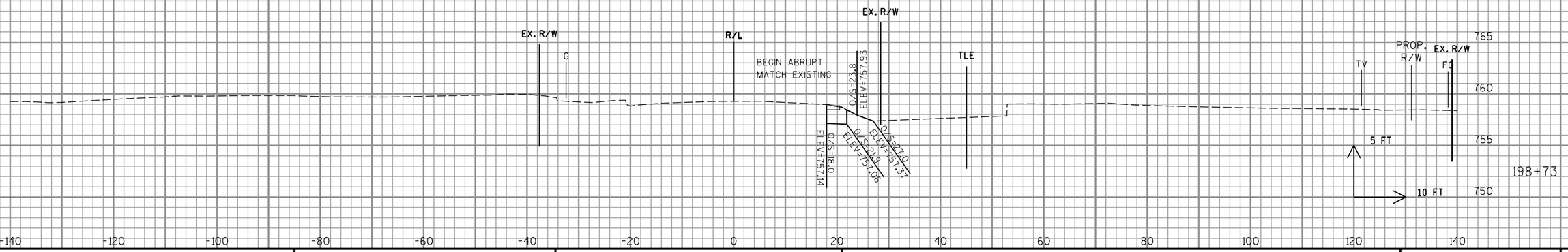
STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		MASS ORDINATE
		CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	NOTE 3
198+73		6	0	0	0	0	0	0
198+75	2	8	8	1	0	1	0	0
199+00	25	15	6	10	7	11	9	2
199+11	11	119	0	27	1	38	10	28
199+25	14	200	0	83	0	121	10	111
199+50	25	140	0	157	0	278	10	268
199+75	25	79	0	101	0	379	10	369
199+99	24	113	0	85	0	465	10	454
200+00	1	111	0	4	0	469	10	459
200+18	18	37	0	50	0	519	10	509
200+25	7	41	0	9	0	529	10	519
200+50	25	87	0	59	0	588	10	578
200+75	25	146	7	108	3	696	14	681
201+00	25	102	1	115	4	811	19	792
201+25	25	13	0	53	0	864	19	845
201+43	18	34	0	16	0	880	19	861
			COLUMN TOTALS	880	15			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE MO SUMMARY SHEET.
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE MO SUMMARY SHEET.
3 - MASS ORDINATE	((CUT) - ((FILL) * FILL FACTOR))

CROSS SECTIONS CUT AT
A SKEW ACROSS SIDEWLAK.
CROSS SLOPES OF SIDEWALK
ARE 1.5% TYPICAL, 2% MAX.







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PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: MANITOWOC ROAD	SHEET 216	E

CROSS SECTIONS CUT AT
A SKEW ACROSS SIDEWLAK.
CROSS SLOPES OF SIDEWALK
ARE 1.5% TYPICAL, 2% MAX.

9

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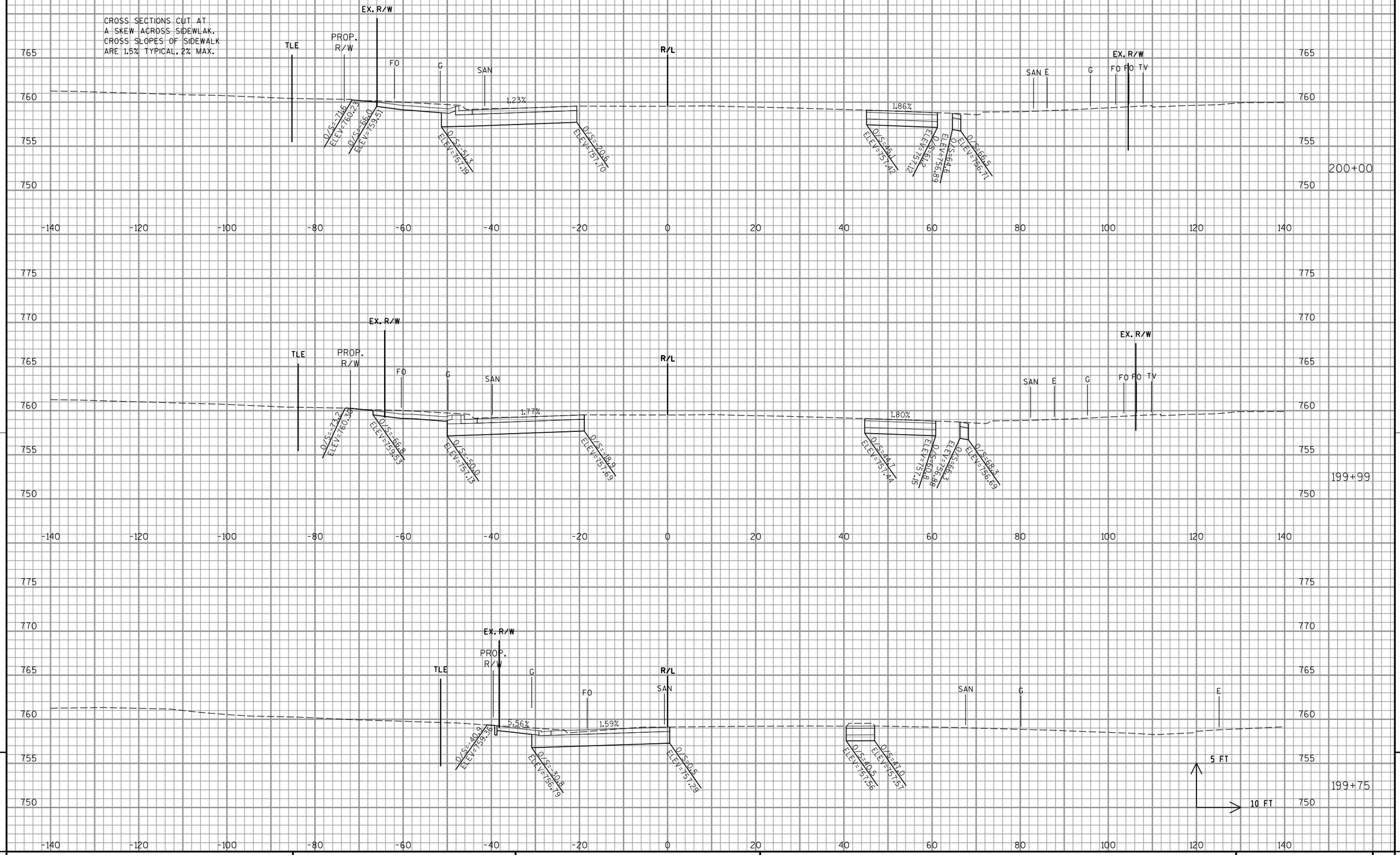
PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: MANITOWOC ROAD	SHEET 217	E

CROSS SECTIONS CUT AT
A SKEW ACROSS SIDEWLAK.
CROSS SLOPES OF SIDEWALK
ARE 1.5% TYPICAL, 2% MAX.



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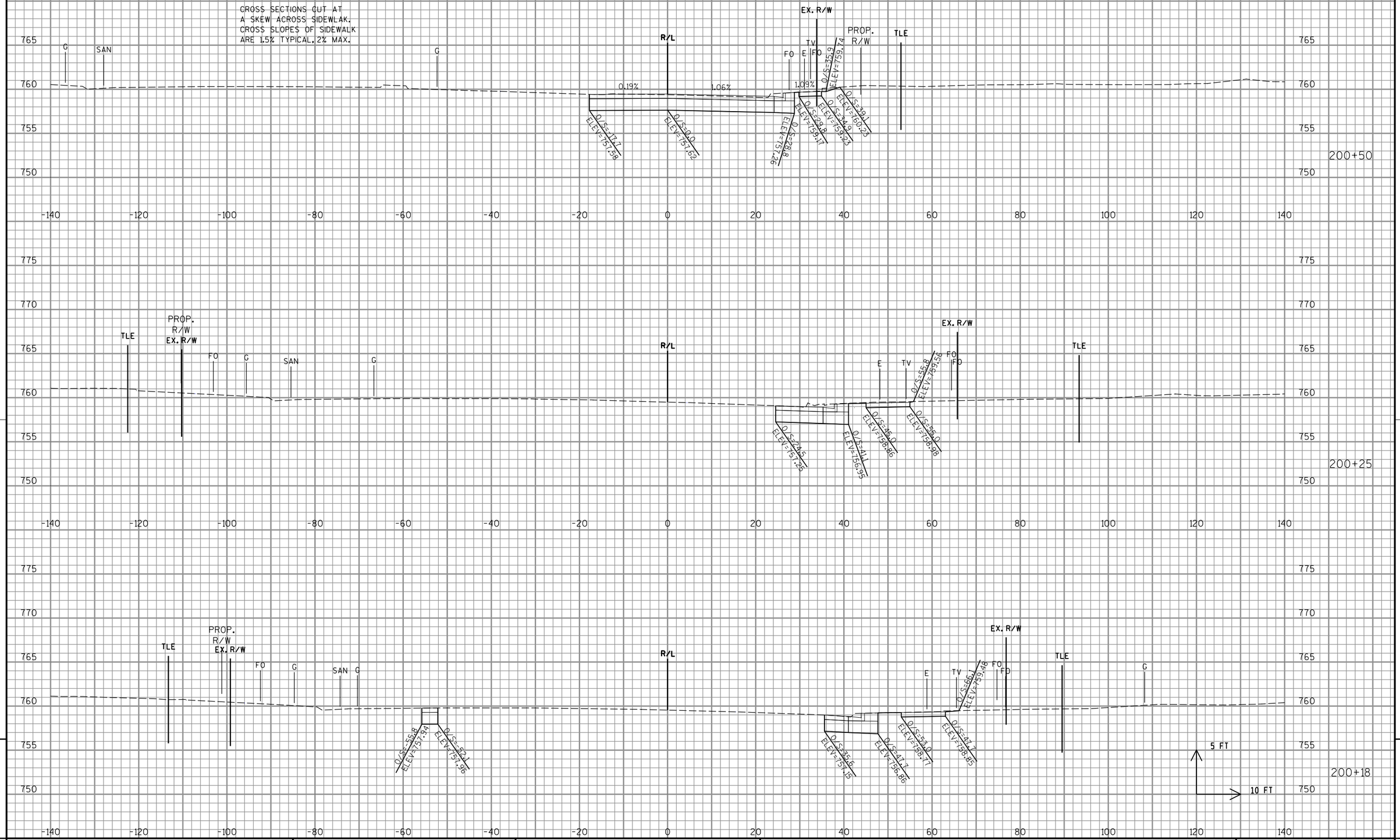
PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: MANITOWOC ROAD	SHEET 218	E

FILE NAME : P:\48xx\4819.4750W13.DP.13.USH10.WNB\CADDS\Plan\090201_xs.dgn PLOT DATE : 7/24/2016 PLOT BY : sgc PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

CROSS SECTIONS CUT AT
A SKEW ACROSS SIDEWLAK.
CROSS SLOPES OF SIDEWALK
ARE 1.5% TYPICAL, 2% MAX.

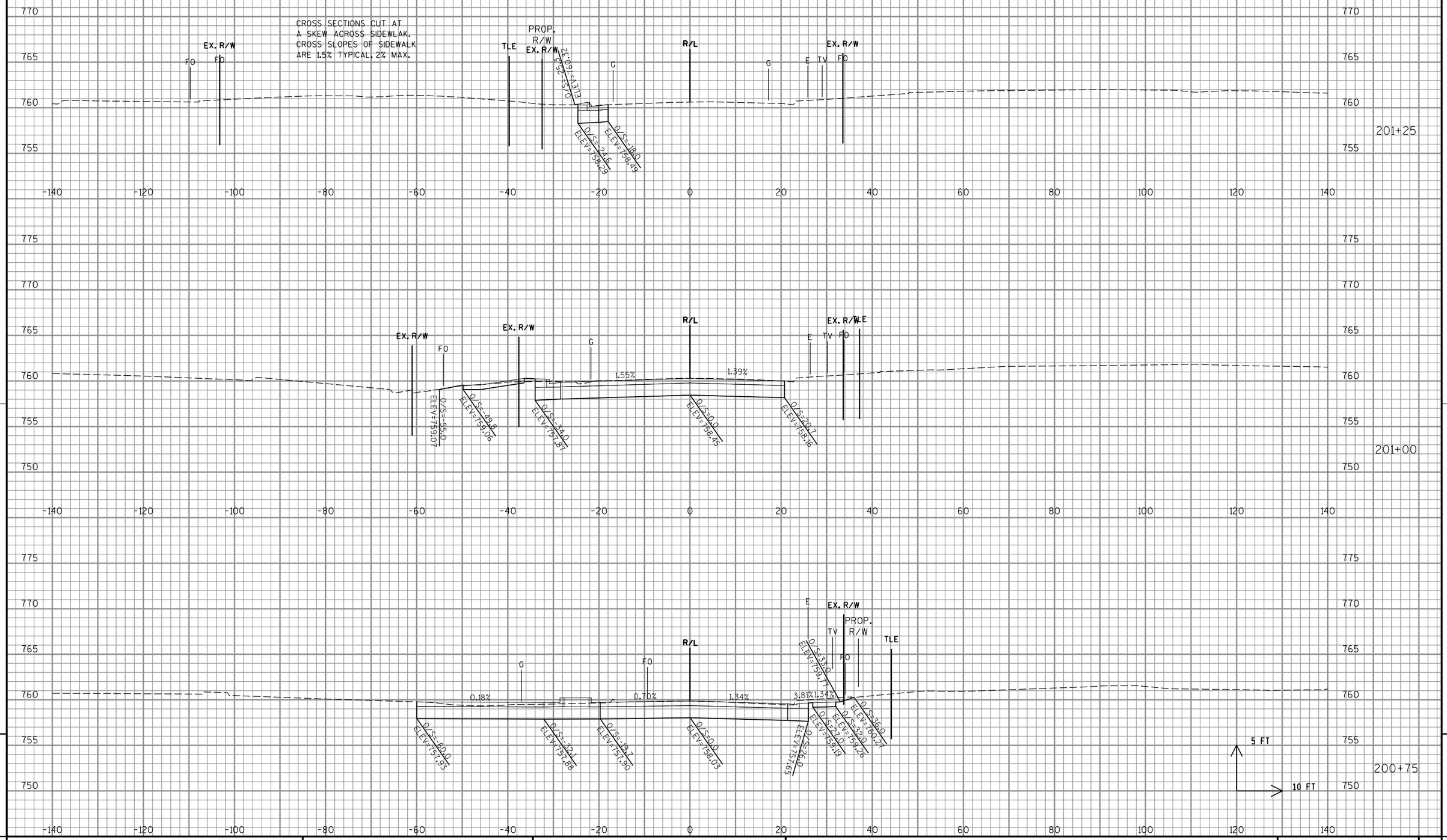


PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: MANITOWOC ROAD	SHEET 219 E

FILE NAME : P:\48xx\4819.4750W13.DP.13.USH10.WNB\CADDS\Plan\090201_xs.dgn PLOT DATE : 7/24/2016 PLOT BY : sgc PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

CROSS SECTIONS CUT AT
A SKEW ACROSS SIDEWLAK.
CROSS SLOPES OF SIDEWALK
ARE 1.5% TYPICAL, 2% MAX.



PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: MANITOWOC ROAD	SHEET 220	E

FILE NAME : P:\48xx\4819.4750W13.DP.13.USH10.WNB\CADDS\Plan\090201_xs.dgn PLOT DATE : 7/24/2016 PLOT BY : sgc PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

CROSS SECTIONS CUT AT
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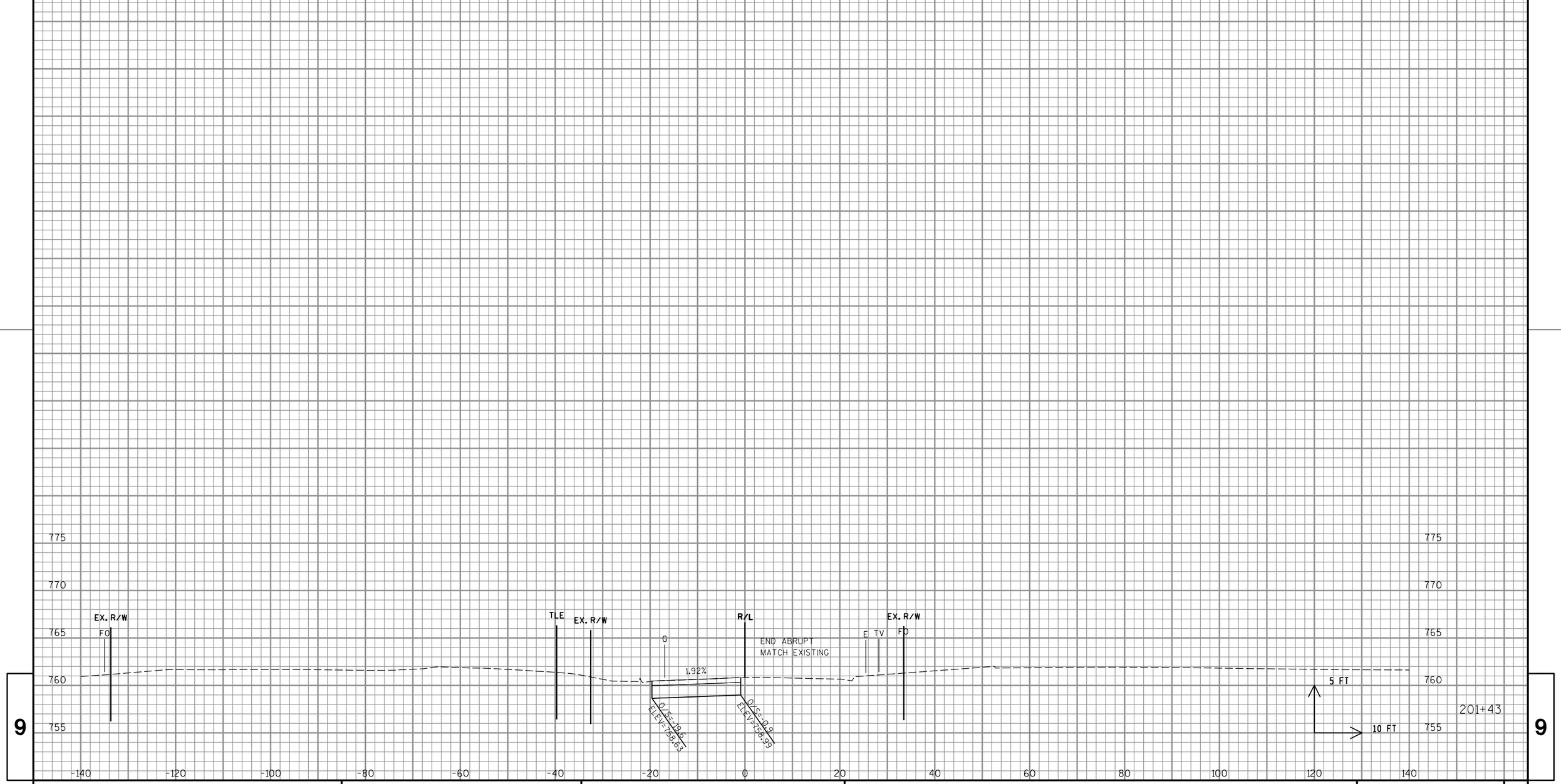

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PROJECT NO: 1500-44-71	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: MANITOWOC ROAD	SHEET 221	E

Wisconsin Department of Transportation

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through innovation and exceptional service.

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