WKE

DEC 2016

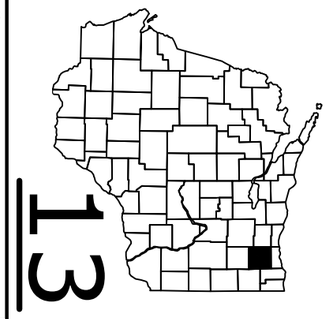
PROJECT ID: 3100-06-60

COUNTY: WAUKESHA

ORDER OF SHEETS

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

TOTAL SHEETS = 270



N

DESIGN DESIGNATION

A.A.D.T.	(2017)	= 9,100 TO 10,000
A.A.D.T.	(2037)	= 11,100 TO 11,700
D.H.V.		= 1476 - 1556
D.D.		= 59/41
T.		= 4.9%
DESIGN SPEED		= 55 MPH
ESALS		= 1,600,000

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

SUMMIT AVENUE, VILLAGE OF SUMMIT

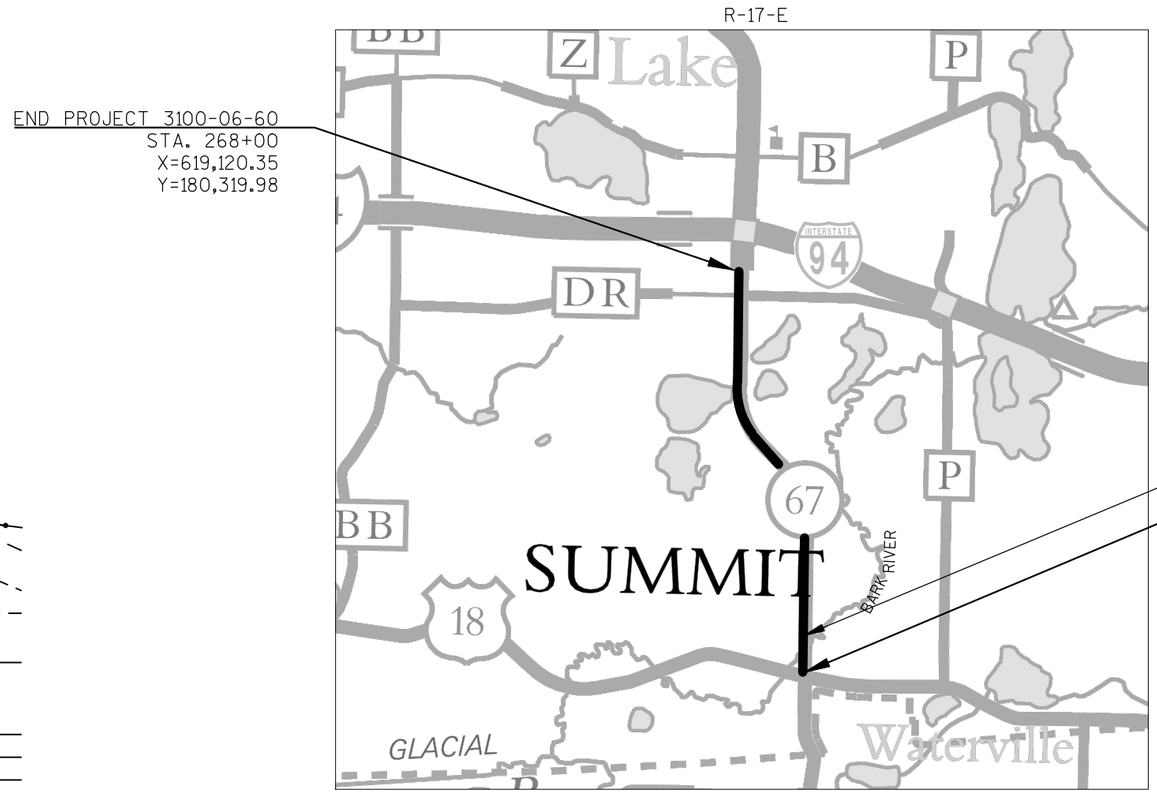
USH 18 TO CTH DR

STH 67

WAUKESHA COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3100-06-60		

STATE PROJECT NUMBER
3100-06-60



END PROJECT 3100-06-60
STA. 268+00
X=619,120.35
Y=180,319.98

B-67-0010

BEGIN PROJECT 3100-06-60
STA. 103+65
X = 621,497.47
Y = 164,627.15

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 2.683 MI.

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

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE AMERICAN GEODETIC VERTICAL DATUM OF 1988, NAVD 88 (2012)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	ANDREW LEDGER
Project Manager	GARY METZER
Regional Examiner	
Regional Supervisor	JANET CANNON
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: MAY 1, 2016 (Signature)

E

UTILITY CONTACTS

CENTURYLINK
SEND ALL CORRESPONDANCE TO:
KEVIN ZICKERT
224 INDUSTRIAL DRIVE
NORTH PRAIRIE, WI 53153
PHONE: (262) 392-5200
KEVIN.ZICKERT@CENTURYLINK.COM

CONSTRUCTION FIELD CONTACT:
MARK MURN
224 INDUSTRIAL DRIVE
NORTH PRAIRIE, WI 53153
PHONE: (262) 392-5210
MARK.MURN@CENTURYLINK.COM

KETTLE MORAINE SCHOOL DISTRICT
SEND ALL CORRESPONDANCE TO:
BOB BOYD
563 A.J. ALLEN CIRCLE
WALES, WI 53186
PHONE: (262) 968-6300

CONSTRUCTION FIELD CONTACT:
ADAM SHIREK
PO BOX 11064
GREEN BAY, WI 54307
PHONE: (920) 676-3799
ASHIREK@MCAE.BIZ

OCONOMOWOC UTILITIES - ELECTRIC
SEND ALL CORRESPONDANCE TO:
DENNIS BEDNARSKI
808 S WORTHINGTON STREET
OCONOMOWOC, WI 53066
PHONE: (262) 569-3197
DBEDNARSKI@OCONOMOWOC-WI.GOV

CONSTRUCTION FIELD CONTACT:
CASEY LEMKE
808 S. WORTHINGTON STREET
OCONOMOWOC, WI 53066
PHONE: (262) 569-2196
CLEMKE@OCONOMOWOC-WI.GOV

OCONOMOWOC UTILITIES - WASTEWATER
TOM STEINBACH
900 S WORTHINGTON STREET
OCONOMOWOC, WI 53066
PHONE: (262) 569-2192
TSTEINBACH@OCONOMOWOC-WI.GOV

OCONOMOWOC UTILITIES - WATER
SCOTT OSBORN
808 S WORTHINGTON STREET
OCONOMOWOC, WI 53066
PHONE: (262) 569-6421
SOSBORN@OCONOMOWOC-WI.GOV

WINDSTREAM COMMUNICATIONS
AARON GRODI
13935 BISHOPS DRIVE
BROOKFIELD, WI 53156
PHONE: (608) 819-5014
AARON.GRODI@WINDSTREAM.COM

TIME WARNER CABLE
STEVE CRAMER
1320 N DR. MARTIN LUTHER KING JR DRIVE
MILWAUKEE, WI 53212
PHONE: (414) 277-4045
STEVE.CRAMER@TWCABLE.COM

WE ENERGIES - ELECTRIC
SEND ALL CORRESPONDANCE TO:
LATROY BRUMFIELD
333 W. EVERETT ST - A299
MILWAUKEE, WI 53203
PHONE: (414) 221-5617
LATROY.BRUMFIELD@WE-ENERGIES.COM

CONSTRUCTION FIELD CONTACT:
BRYAN STOEHR
500 S. 116TH STREET
WEST ALLIS, WI 53214
PHONE: (414) 944-5516
BRYAN.STOEHR@WE-ENERGIES.COM

WE ENERGIES - GAS
SEND ALL CORRESPONDANCE TO:
LATROY BRUMFIELD
333 W. EVERETT ST - A299
MILWAUKEE, WI 53203
PHONE: (414) 221-5617
LATROY.BRUMFIELD@WE-ENERGIES.COM

CONSTRUCTION FIELD CONTACT:
DANIELLE FINK
500 S. 116TH STREET
WEST ALLIS, WI 53214
PHONE: (414) 944-5627
DANIELLE.FINK@WE-ENERGIES.COM

WISDOT SIGNALS
141 NW BARSTOW STREET
PO BOX 798
WAUKESHA, WI 53187-0798
PHONE: (414) 750-2605
PHONE: (414) 266-1170

GENERAL NOTES

NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY UTILITY WHICH IS NOT A MEMBER OF DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT LOCATION THAT ARE NOT SHOWN.

OBTAIN APPROVAL FOR THE LOCATIONS OF JOINTS IN THE HMA PAVEMENT FROM THE ENGINEER.

MAINTAIN ACCESS TO ALL DRIVEWAYS AND BUSINESSES AT ALL TIMES.

A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

TRAFFIC CONTROL LOCATIONS AS SHOWN IN THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE ENGINEER WILL REVIEW ALL SIGN LOCATIONS PRIOR TO INSTALLATION.

DO NOT REMOVE TREES OR SHRUBS UNLESS DESIGNATED FOR REMOVAL BY THE ENGINEER.

DO NOT USE FERTILIZER WITHIN 20' OF WATERWAYS OR WETLAND AREAS.

USE SEED MIXTURE NO. 60 FOR WETLAND AREAS AND WITHIN 20' OF WETLAND AREAS.

FOR GRADING AREAS ADJACENT TO OR CONTAINING WETLANDS, FLOODPLAINS, OR WATERWAYS, COMPLETE ROUGH GRADING THROUGH FINISHED LANDSCAPING WITHIN FOURTEEN (14) CALENDAR DAYS.

FOR ALL OTHER GRADING AREAS, IF THE DURATION FROM BEGINNING ROUGH GRADING TO COMPLETING FINAL LANDSCAPING WILL BE LONGER THAN 14 DAYS, WITHIN 3 DAYS OF BEGINNING ROUGH GRADING SEED THE AREA WITH TEMPORARY SEED AND MULCH.

STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLAND, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS TO BE LEFT FOR MORE THAN FOURTEEN (14) CALENDARD DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED AND MULCH WITHIN 3 DAYS OF CREATION.

EROSION CONTROL BMP'S ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS ECIP AND BY THE ENGINEER. EROSION CONTROL BMP'S SHALL BE MAINTANINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.

CONTACT THE PROJECT ENGINEER AND SEWRPC (JOHN WASHBURN); AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

OTHER CONTACTS

WISDOT PROJECT MANAGER
GARY METZER
141 NW BARSTOW STREET
P.O. BOX 798
WAUKESHA, WI 53187-0798
PHONE: (262) 548-5685

WI DNR LIAISON
CRAIG WEBSTER
DNR SERVICE CENTER
141 NW BARSTOW STREET, ROOM 180
WAUKESHA, WI 53188
PHONE: (262) 574-2141
EMAIL: CRAIG.WEBSTER@WISCONSIN.GOV

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
ATTN: JOHN WASHBURN
W239 N1812 ROCKWOOD DRIVE
P.O. BOX 1607
WAUKESHA, WI 53187-1607
PHONE: (262) 953-4295
JWASHBURN@SEWRPC.ORG

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

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES

PROJECT OVERVIEW

TYPICAL SECTIONS

CONSTRUCTION DETAILS

INTERSECTION DETAILS

PLAN DETAILS

EROSION CONTROL

PERMANENT SIGNING

TRAFFIC SIGNALS

PAVEMENT MARKING

TRAFFIC CONTROL

ALIGNMENT

ALIGNMENT LAYOUT-SURVEY CONTROL

CONSTRUCT HMA PAVEMENT WITH THE FOLLOWING

LOCATION	UPPER LAYER HMA	DEPTH
2-INCH RESURFACING	4 LT 58-28 S	2-INCH
3-1/2-INCH SHOULDERS	4 LT 58-28 S	3-1/2-INCH

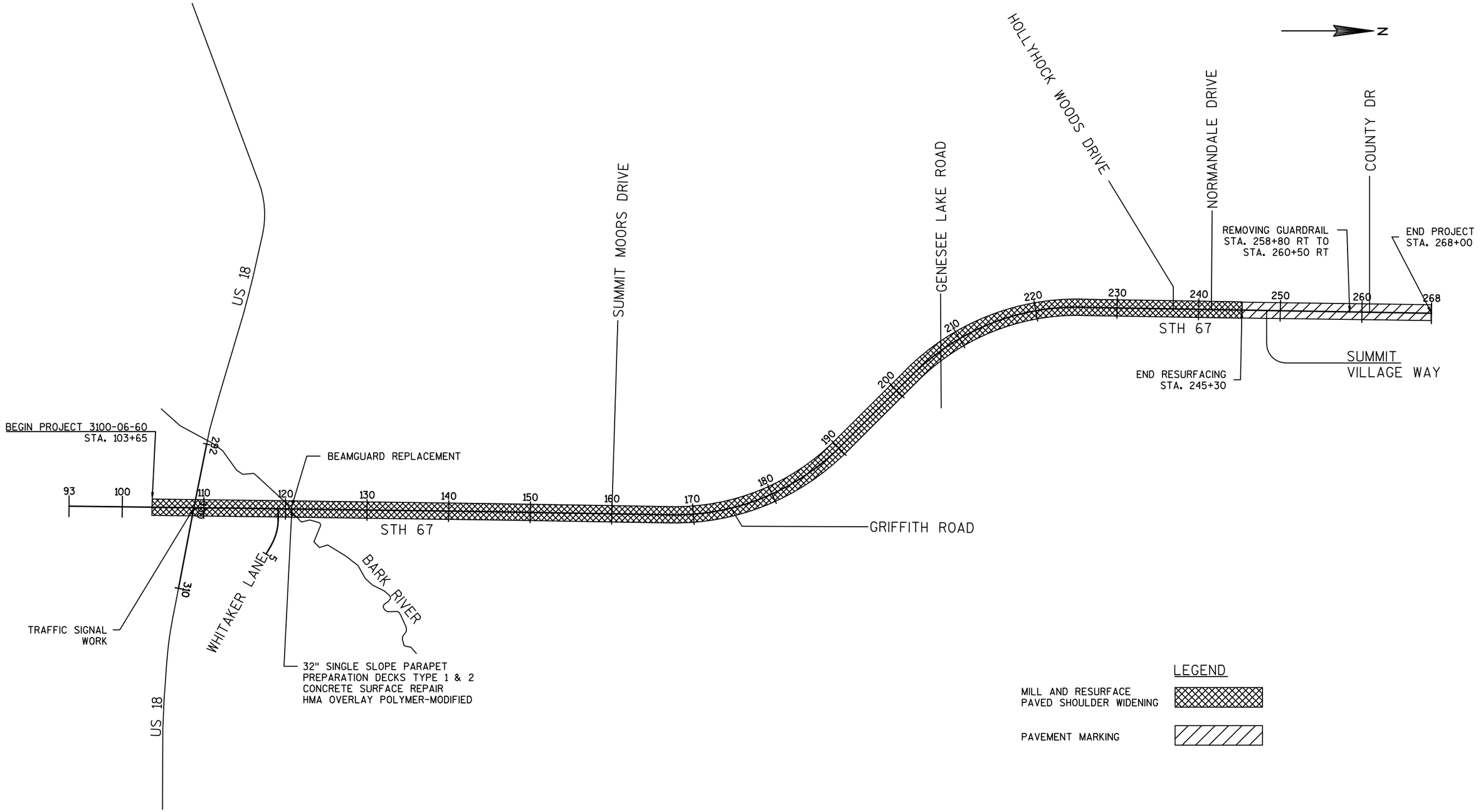
2

SUPERELEVATION DATA	STATION	SUPER RATE LEFT	SUPER RATE RIGHT
End Normal Crown	166+05	-2.00%	-2.00%
Level Crown	166+55	-2.00%	0.00%
Reverse Crown	167+05	-2.00%	2.00%
Begin Full Super	167+65	-4.50%	4.50%
End Full Super	189+85	-4.50%	4.50%
Reverse Crown	190+45	-2.00%	2.00%
Level Crown	190+95	-2.00%	0.00%
Begin Normal Crown	191+45	-2.00%	-2.00%
End Normal Crown	201+40	-2.00%	-2.00%
Level Crown	201+90	0.00%	-2.00%
Reverse Crown	202+40	2.00%	-2.00%
Begin Full Super	203+00	4.30%	-4.30%
End Full Super	225+15	4.30%	-4.30%
Reverse Crown	225+75	2.00%	-2.00%
Level Crown	226+25	0.00%	-2.00%
Begin Normal Crown	226+75	-2.00%	-2.00%

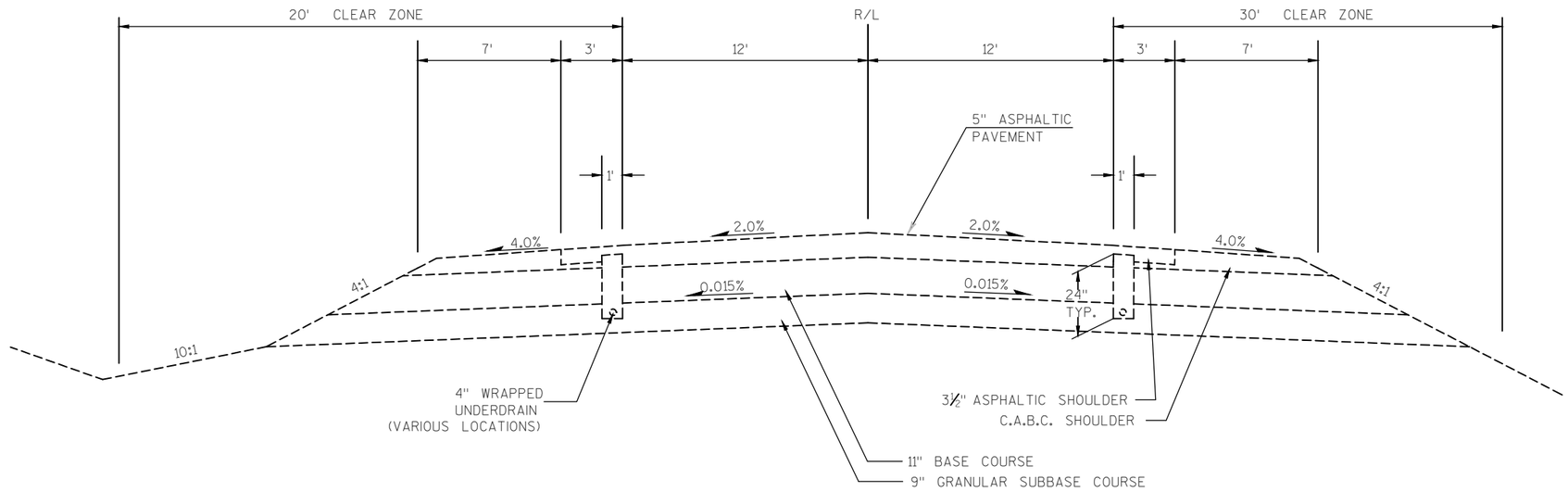
NOTE:
POSITIVE VALUES SLOPE TOWARDS THE REFERENCE LINE

NEGATIVE VALUES SLOPE AWAY FROM THE REFERENCE LINE

2

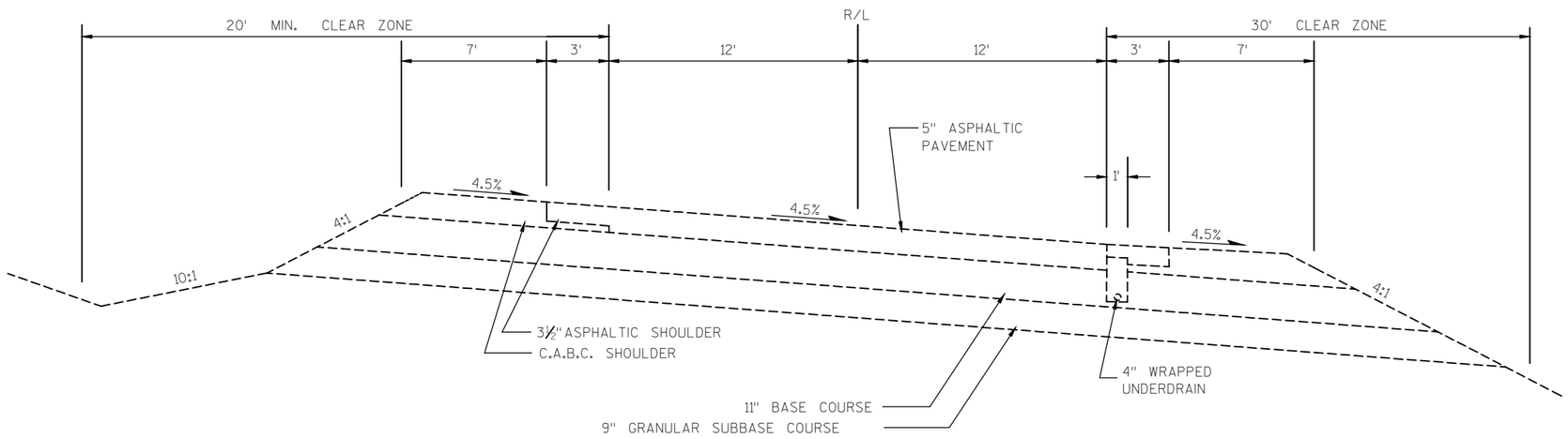


PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PROJECT OVERVIEW	SHEET 4	E



EXISTING TYPICAL SECTION

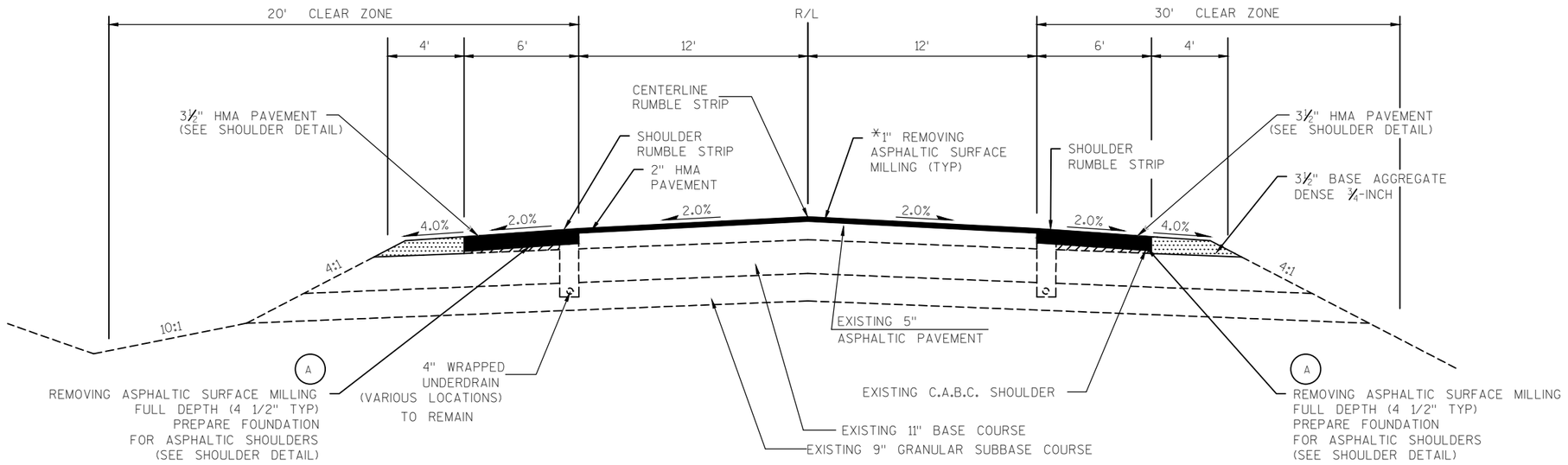
S.T.H. 67
STA. 103+65 TO STA. 165+40
STA. 192+10 TO STA. 200+70
STA. 227+45 TO STA. 245+30



EXISTING TYPICAL SUPERELEVATED SECTION

S.T.H. 67
STA. 165+40 TO STA. 192+10 (OPPOSITE HAND)
STA. 200+70 TO STA. 227+45 (SHOWN)

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	TYPICAL SECTION	SHEET 5	E

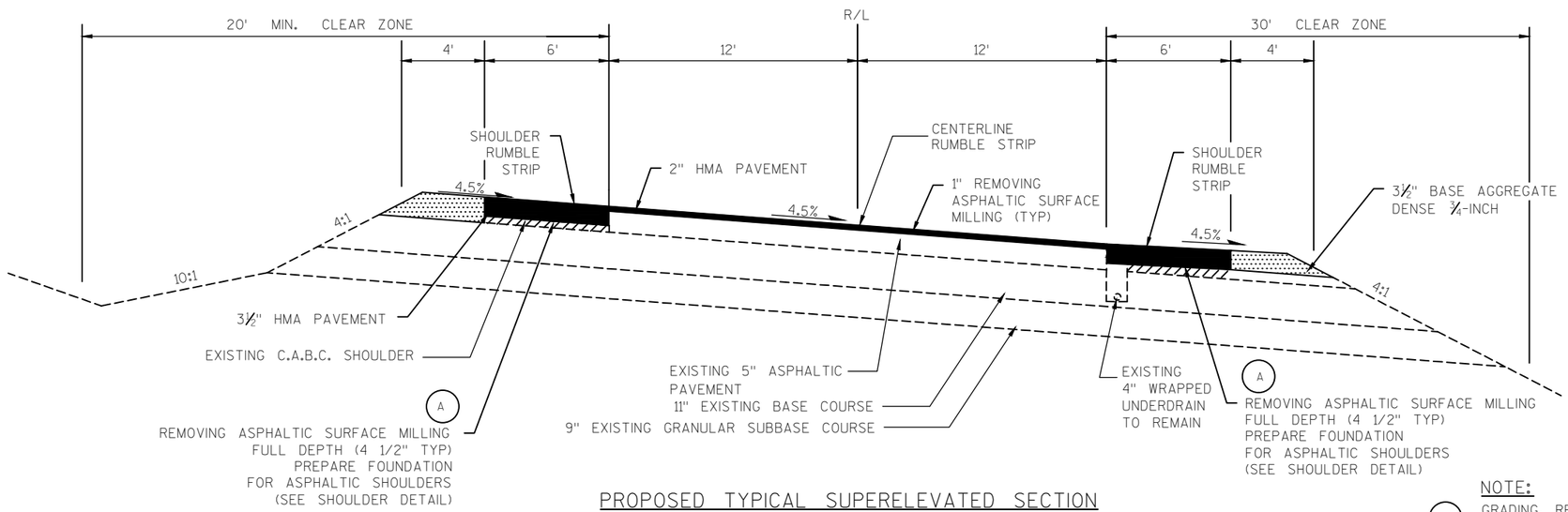


PROPOSED TYPICAL SECTION

S.T.H. 67
STA. 103+65 TO STA. 166+05
STA. 191+45 TO STA. 201.40
STA. 226+75 TO STA. 245+30

*2" REMOVING ASPHALTIC SURFACE MILLING

STA 103+65 TO STA 123+50 (STH 67)
STA 233+75 TO STA 245+30 (STH 67)
USH 18
WHITAKER LANE



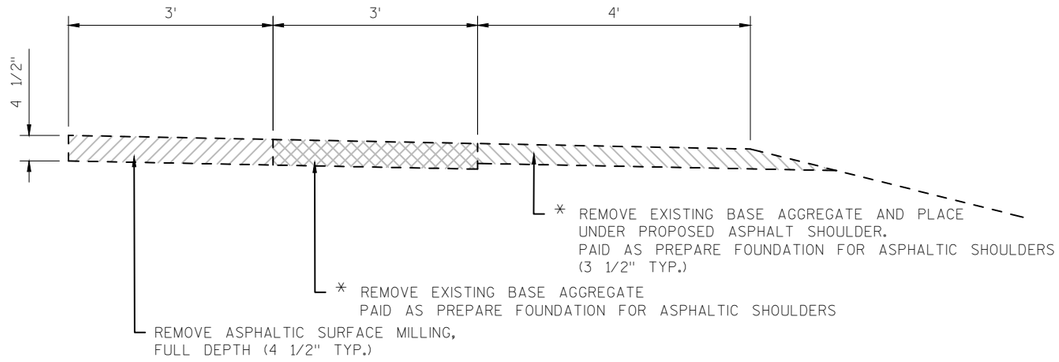
PROPOSED TYPICAL SUPERELEVATED SECTION

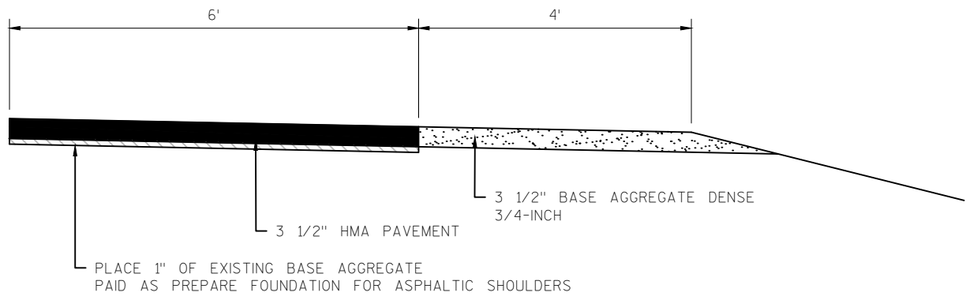
S.T.H. 67
STA. 166+05 TO STA. 191+45 (MIRROR)
STA. 201+40 TO STA. 226+75 (SHOWN)

NOTE:

(A) GRADING, REMOVAL, AND DISPOSAL OF EXISTING SHOULDER GRAVEL TO CONSTRUCT THE PROPOSED 3½" ASPHALTIC AND AGGREGATE SHOULDERS SHALL BE INCIDENTAL TO THE ITEM PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS.

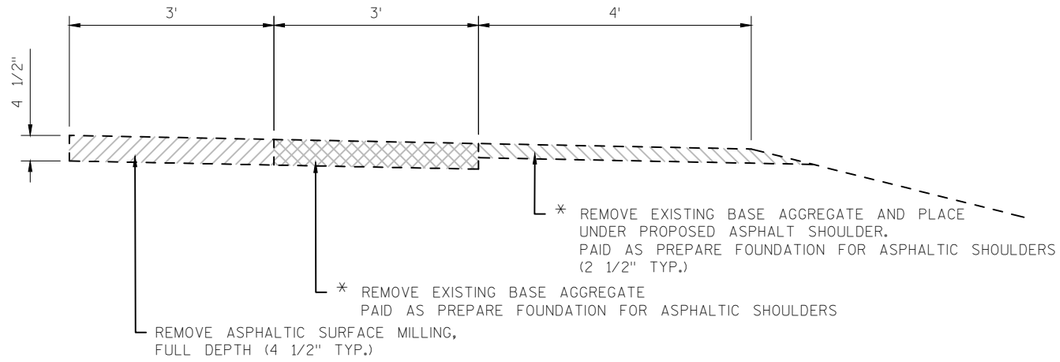
PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	TYPICAL SECTION	SHEET 6	E

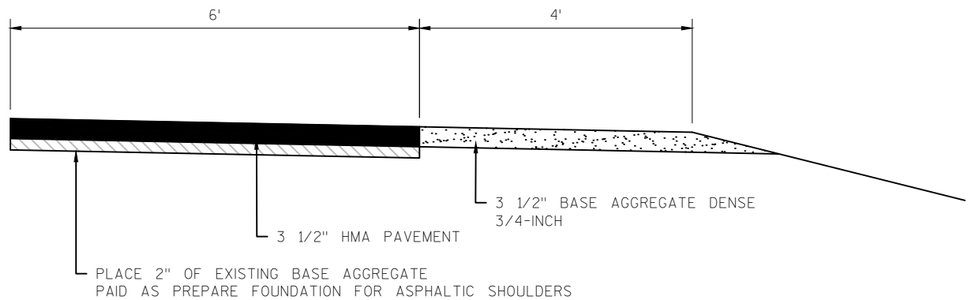




SHOULDER DETAIL ADJACENT TO 2" MILLING

S.T.H. 67
STA. 103+65 TO STA. 123+50
STA. 233+75 TO STA. 245+30



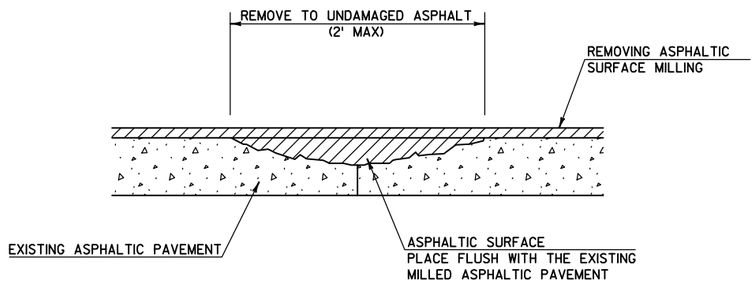


SHOULDER DETAIL ADJACENT TO 1" MILLING

S.T.H. 67
STA. 123+50 TO STA. 233+75

* DISPOSAL OF EXISTING SHOULDER GRAVEL
SHALL BE INCIDENTAL TO THE ITEM
PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

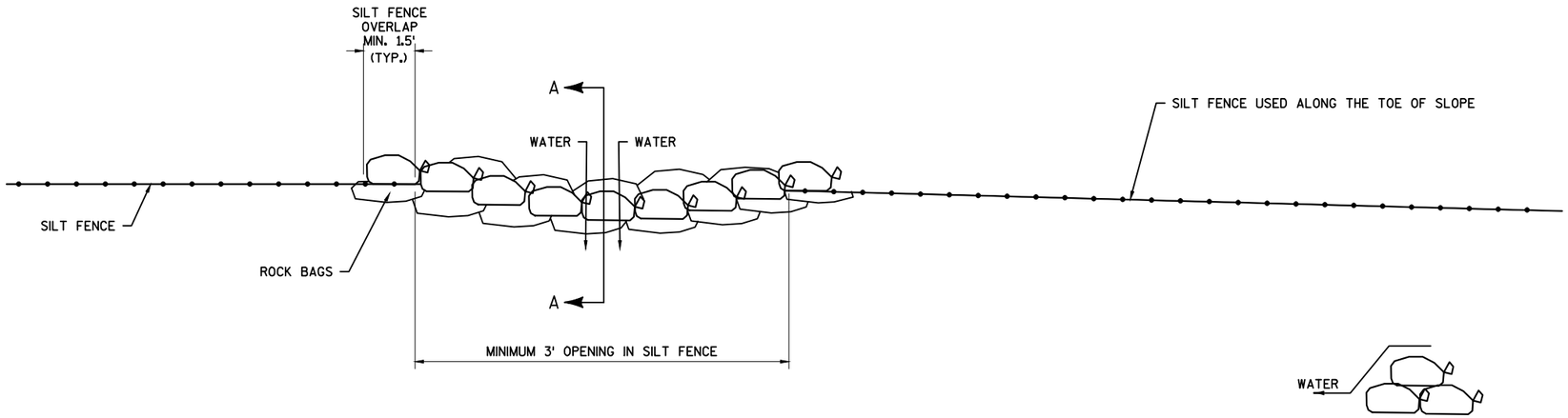
2



JOINT AND CRACK REPAIR DETAIL

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	CONSTRUCTION DETAILS	SHEET 8	E

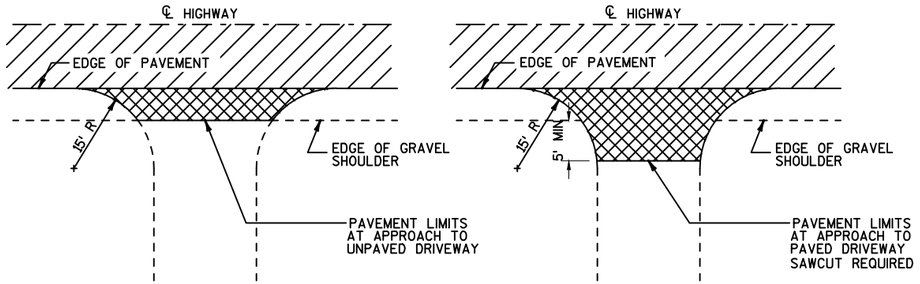
2



ROCK BAGS USED FOR SILT FENCE RELIEF DETAIL

INSTALL AS NECESSARY IN LOW AREAS AS DIRECTED BY THE ENGINEER

SECTION A-A



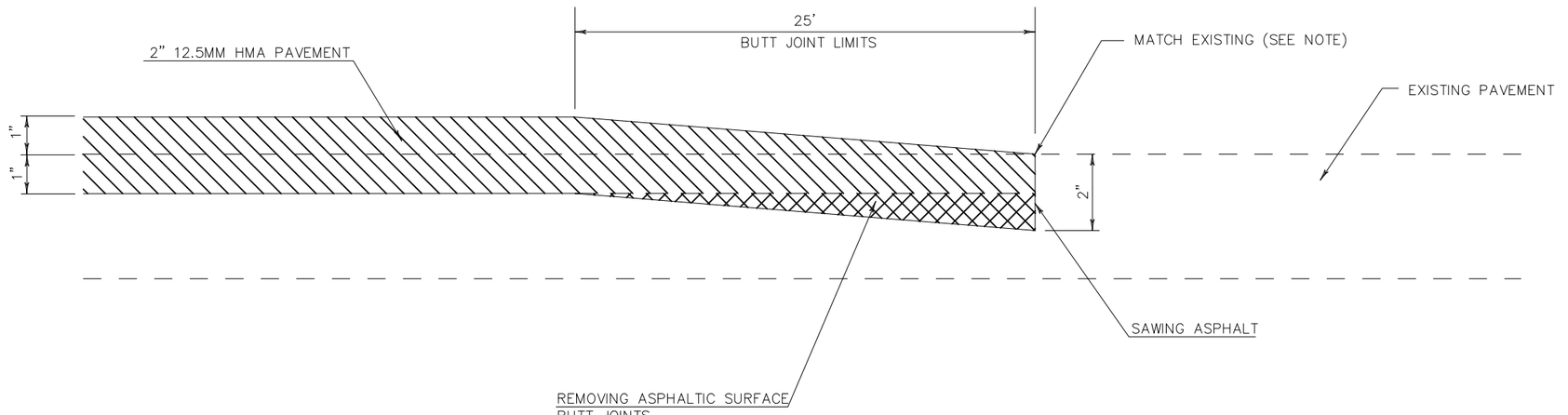
RURAL DRIVEWAY DETAIL

NOTE:
DRIVEWAY SURFACE TO BE SAME AS EXISTING WITH MINIMUM SECTION OF 3" ASPHALTIC SURFACE. DRIVEWAYS AND FIELD ENTRANCES.
PLACE BASE AGGREGATE DENSE 3/4-INCH UNDER ASPHALT DRIVEWAYS AS NEEDED TO MATCH ROADWAY ELEVATION.

HMA PAVEMENT

3" MINIMUM ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

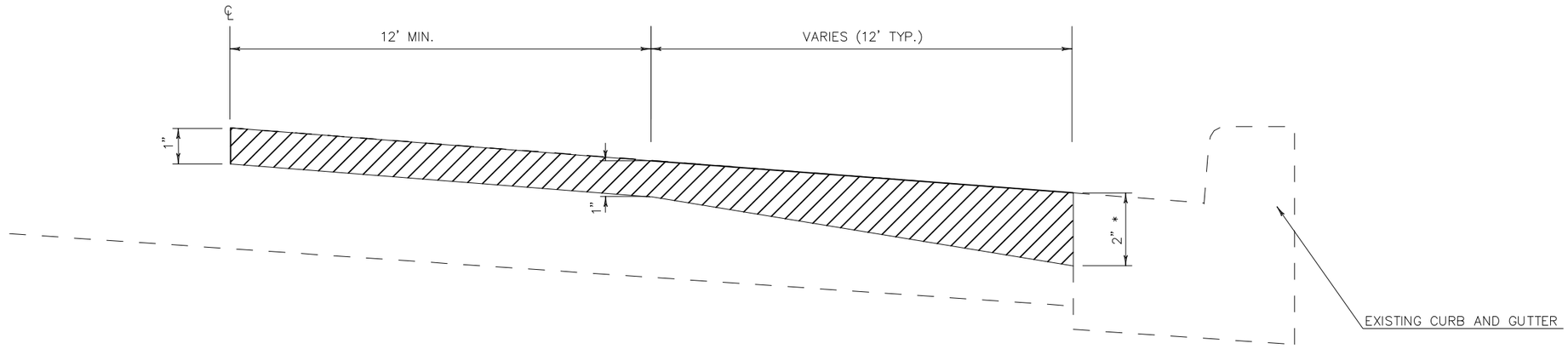
2



BUTT JOINT DETAIL

GRIFFITH ROAD
GENESEE LAKE ROAD

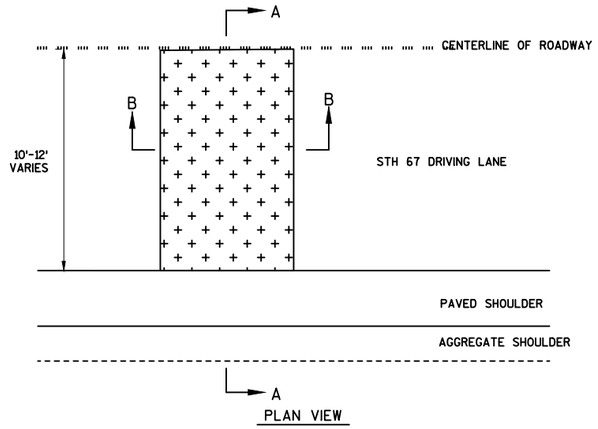
NOTE: LOCATION FOR MATCH POINT TO BE DETERMINED IN FIELD BY PROJECT ENGINEER.



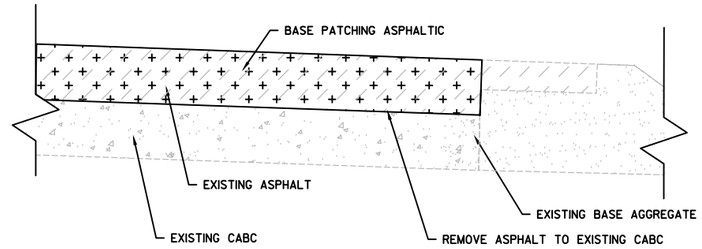
REMOVING ASPHALTIC SURFACE AT INTERSECTIONS WITH CURB AND GUTTER

GRIFFITH ROAD
GENESEE LAKE ROAD

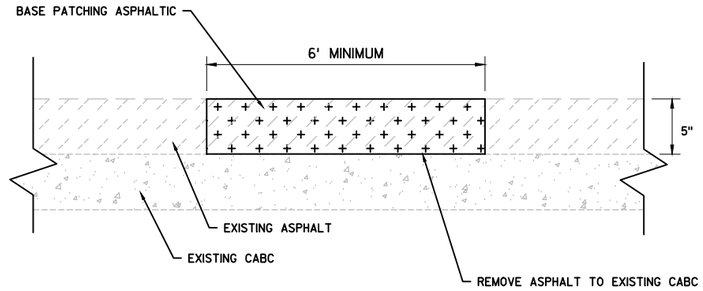
* TRANSITION FROM 1" TO 2" OVER 25' INTO AND OUT OF CURB AND GUTTER
DO NOT OVERLAY PAN



PLAN VIEW



LANE BASE PATCH
SECTION A-A



LANE BASE PATCH
SECTION B-B

BASE PATCHING ASPHALTIC AT FULL DEPTH ASPHALT LOCATIONS

NOTES:

- BASE PATCH EXISTING ASPHALT BEFORE MILLING ASPHALTIC SURFACE
- REMOVE AND PAVE BASE PATCHES IN THE SAME DAY
- SAWCUT NOT REQUIRED AT BASE PATCH LOCATIONS

BASE PATCHING ASPHALTIC-MAINLINE

SEE MISC. QUANTITY SHEETS FOR LOCATIONS

2

N

STH 67

BARK RIVER

BARK RIVER

WHITAKER LANE

118+00

119+00

120+00

121+00

122+00

123+00

BP: 0+00.00

PC: 1+40.00

0+00

1+00

2+00

120+00.00

+11
25' LT

+61
23' LT

MGS
GUARDRAIL

SI

+43
23' LT

+74
17' LT

+29
17' LT

B-67-0010

+56
17' LT

+08
17' LT

MGS
GUARDRAIL

+49
22' LT

SI

+29.5
18' LT

GUARDRAIL MOW
STRIP ASPHALT

+42.5
23.8' RT
864.14

+49.5
18' RT

SI

SI

SI

+59
19' RT

ASPHALTIC FLUMES

+22
17' RT

+22
17' RT

+00
20' RT

864.48

40' R

+59
13' LT

STH 67, STA. 119+63.80, 57.65' RT
WHITAKER LN., STA. 0+51.65, 53.00' LT
REMOVING CURB AND GUTTER
CONCRETE CURB & GUTTER 6-INCH SLOPED
36-INCH TYPE D

+42
17' RT

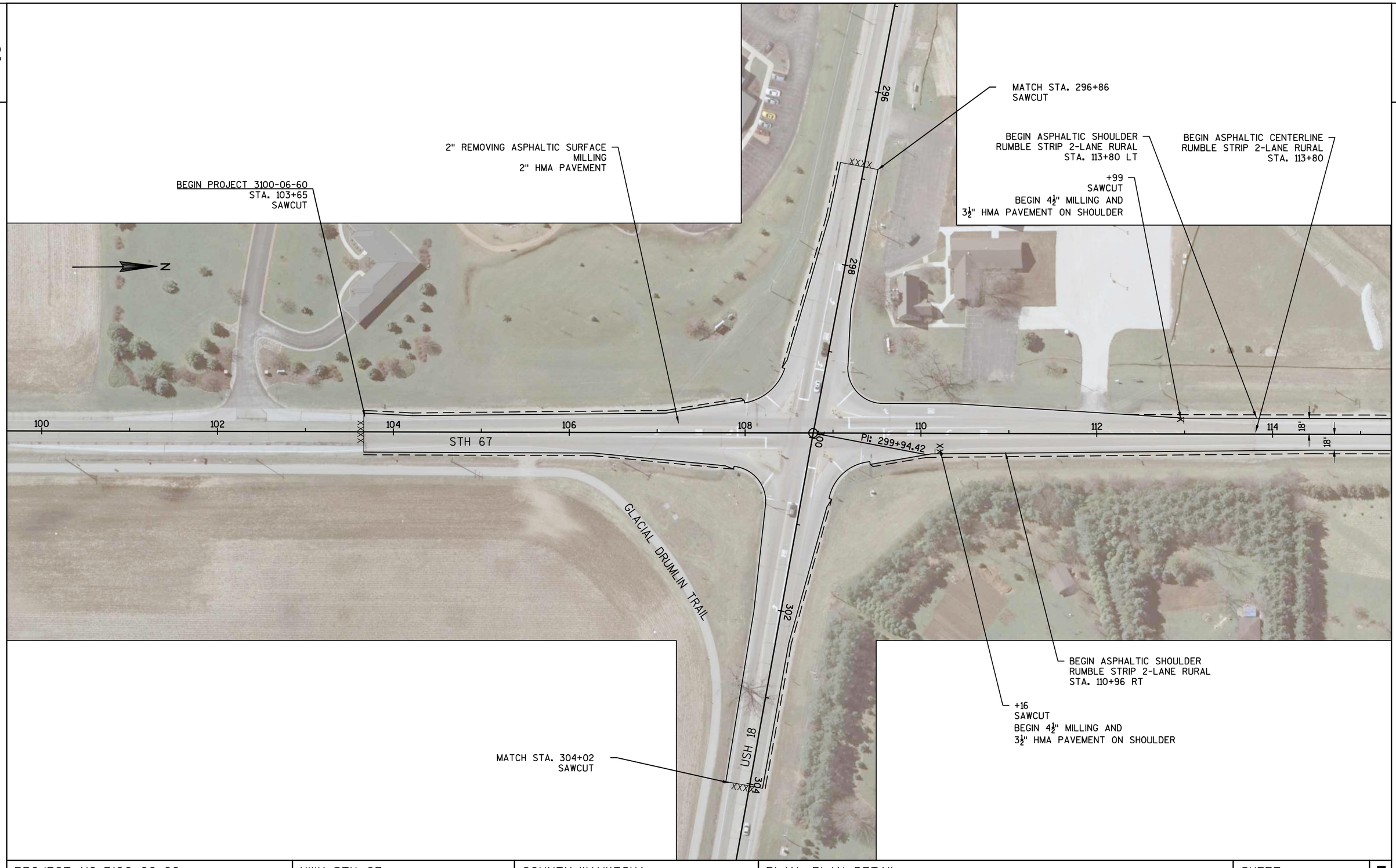
+70
17' RT

STEEL PLATE
BEAMGUARD

MGS
GUARDRAIL

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	INTERSECTION DETAIL	SHEET 12	E

2



PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PLAN DETAIL	SHEET	E

FILE NAME : N:\PDS\C3D\CAD\31000630\021200_PD.DWG
LAYOUT NAME - (01)_PD

PLOT DATE : 4/11/2016 2:26 PM PLOT BY : SCHMIDT, JUDENE M PLOT NAME : ---------- PLOT SCALE : **********

2

2

LEGEND

- (A) STEEL PLATE BEAM GUARD CLASS A
- (B) STEEL THRIE BEAM STRUCTURE APPROACH
- (C) STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
- (D) MGS GUARDRAIL 3
- (E) MGS THRIE BEAM TRANSITION
- (F) MGS GUARDRAIL TERMINAL EAT
- (G) BARRIER SYSTEM GRADING SHAPING FINISHING
- (H) GUARDRAIL MOW STRIP ASPHALT
- 2" REMOVING ASPHALTIC SURFACE TO 1" REMOVING ASPHALTIC SURFACE TRANSITION

STA. 115+78 LT
END ASPHALTIC SHOULDER
RUMBLE STRIP 2-LANE RURAL

+12
SAWCUT
END 4½" MILLING AND
3½" HMA PAVEMENT ON SHOULDER

SECTION CORNER DO NOT DISTURB

(D) (E) (F) (G) (H)
STA. 118+11 TO STA. 120+29
SAWCUT

B-67-0010
32" SINGLE SLOPE PARAPET,
PMA OVERLAY, AND
CONCRETE SURFACE REPAIR

STA. 120+90 LT & RT
BEGIN ASPHALTIC SHOULDER
RUMBLE STRIP 2-LANE RURAL
BEGIN 4½" MILLING AND
3½" HMA PAVEMENT ON SHOULDER

(D) (E) (F) (G) (H)
STA. 120+56 TO
STA. 122+49

STA 123+50 TO STA 123+75
TRANSITION FROM
2" REMOVING ASPHALTIC SURFACE MILLING TO
1" REMOVING ASPHALTIC SURFACE MILLING

N

PI: 120+00.00

116 118 BP: 120+00.00 122 124 126 128 130

18' 18'

STH 67

XXX

XXXX XXXX

XXX

PC: 1+40.00

BARK RIVER

WHITAKER LN.

+27
SAWCUT
END 4½" MILLING AND
3½" HMA PAVEMENT ON SHOULDER

MATCH STA. 1+23'
SAWCUT

STA. 117+29 RT
END ASPHALTIC SHOULDER
RUMBLE STRIP 2-LANE RURAL

OLD SURVEY CONTROL MARKER
(NO LONGER IN USE)

STA. 120+07
END ASPHALTIC CENTERLINE
RUMBLE STRIP 2-LANE RURAL

(A) (B) (C) (G) (H)
STA. 119+59 TO
STA. 120+42
SAWCUT

STA. 120+90
BEGIN ASPHALTIC
CENTERLINE RUMBLE
STRIP 2-LANE RURAL

(D) (E) (F) (G) (H)
STA. 120+70 TO
STA. 122+00

2" REMOVING ASPHALTIC SURFACE MILLING
2" HMA PAVEMENT

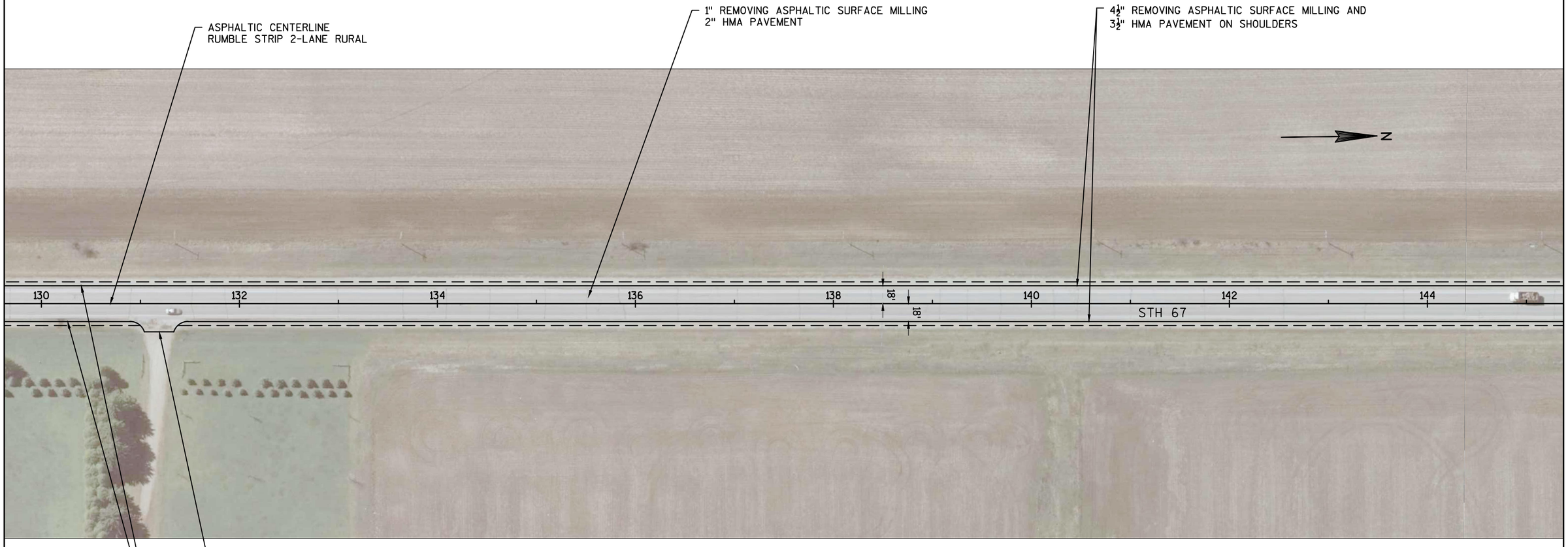
1" REMOVING ASPHALTIC SURFACE
MILLING
2" HMA PAVEMENT

SAWCUT 29' RT
REMOVING ASPHALTIC SURFACE,
ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PLAN DETAIL	SHEET	E

FILE NAME : N:\PDS\C3D\CAD\31000630\021200_PD.DWG
LAYOUT NAME - (02)_PD
PLOT DATE : 4/11/2016 2:26 PM PLOT BY : SCHMIDT, JUDENE M PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2



PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PLAN DETAIL	SHEET 15	E

2

MATCH 22' LT
REMOVING ASPHALTIC SURFACE,
ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES

1" REMOVING ASPHALTIC SURFACE MILLING
2" HMA PAVEMENT

SAWCUT 24' LT
REMOVING ASPHALTIC SURFACE,
ASPHALTIC SURFACE DRIVEWAYS AND
FIELD ENTRANCES

+69
SAWCUT
END 4½" MILLING AND
3½" HMA PAVEMENT ON SHOULDER

SUMMIT MOORS DR



ASPHALTIC CENTERLINE
RUMBLE STRIP 2-LANE RURAL

SECTION CORNER MONUMENT
DO NOT DISTURB

ASPHALTIC SHOULDER
RUMBLE STRIP 2-LANE RURAL

MATCH 24' RT
REMOVING ASPHALTIC SURFACE,
ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

MATCH 24' RT
REMOVING ASPHALTIC SURFACE,
ASPHALTIC SURFACE DRIVEWAYS AND
FIELD ENTRANCES

STA. 158+05
END ASPHALTIC CENTERLINE
RUMBLE STRIP 2-LANE RURAL

STA. 158+18 LT AND STA. 158+68 RT
END ASPHALTIC SHOULDER
RUMBLE STRIP 2-LANE RURAL

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PLAN DETAIL	SHEET 16	E

2

2

SUMMIT MOORS DR

SAWCUT 44" LT
REMOVING ASPHALTIC SURFACE,
ASPHALTIC SURFACE DRIVEWAYS AND
FIELD ENTRANCES

+81
SAWCUT
END 4½" MILLING AND
3½" HMA PAVEMENT ON SHOULDER

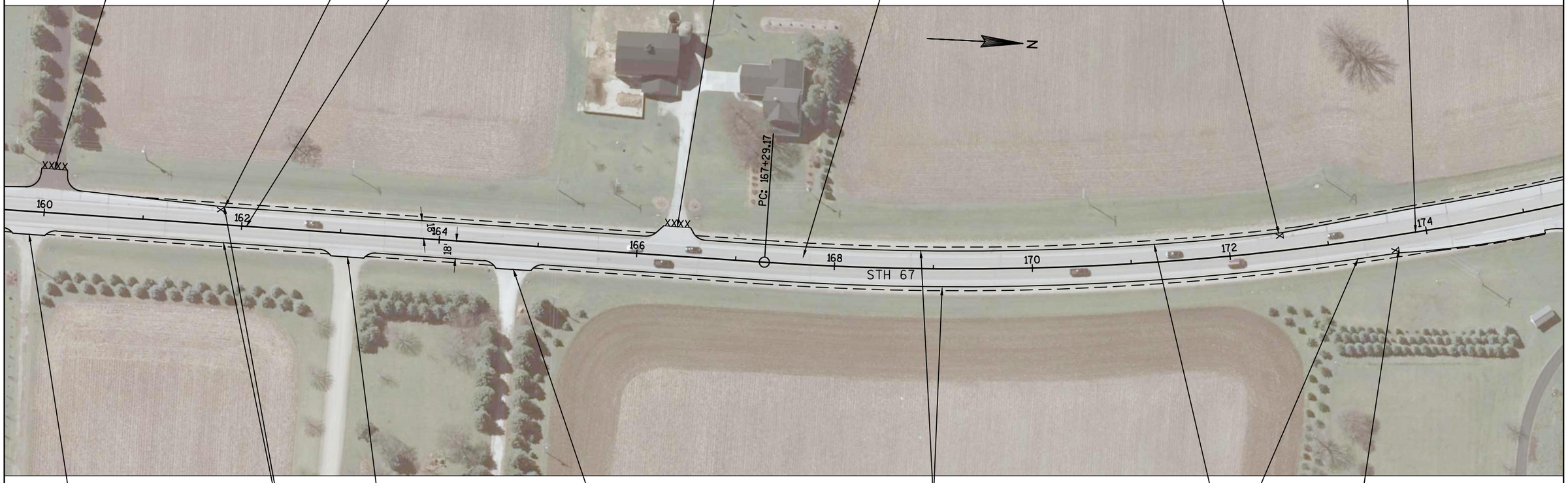
STA. 162+05
BEGIN ASPHALTIC CENTERLINE
RUMBLE STRIP 2-LANE RURAL

SAWCUT 30' LT
REMOVING ASPHALTIC SURFACE,
ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES

1" REMOVING ASPHALTIC SURFACE MILLING
2" HMA PAVEMENT

+56
SAWCUT
END 4½" MILLING AND
3½" HMA PAVEMENT ON SHOULDER

STA. 173+89
END ASPHALTIC CENTERLINE
RUMBLE STRIP 2-LANE RURAL



MATCH 23' RT
REMOVING ASPHALTIC SURFACE,
ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES

STA. 161+81 LT & RT
BEGIN ASPHALTIC SHOULDER
RUMBLE STRIP 2-LANE RURAL

MATCH 24' RT
REMOVING ASPHALTIC SURFACE
ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES

MATCH 25' RT
REMOVING ASPHALTIC SURFACE
ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES

4½" MILLING AND
3½" HMA PAVEMENT ON SHOULDERS

STA. 171+39 LT AND STA. 173+26 RT
END ASPHALTIC SHOULDER
RUMBLE STRIP 2-LANE RURAL

+70
SAWCUT
END 4½" MILLING AND
3½" HMA PAVEMENT ON SHOULDER

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PLAN DETAIL	SHEET 17	E

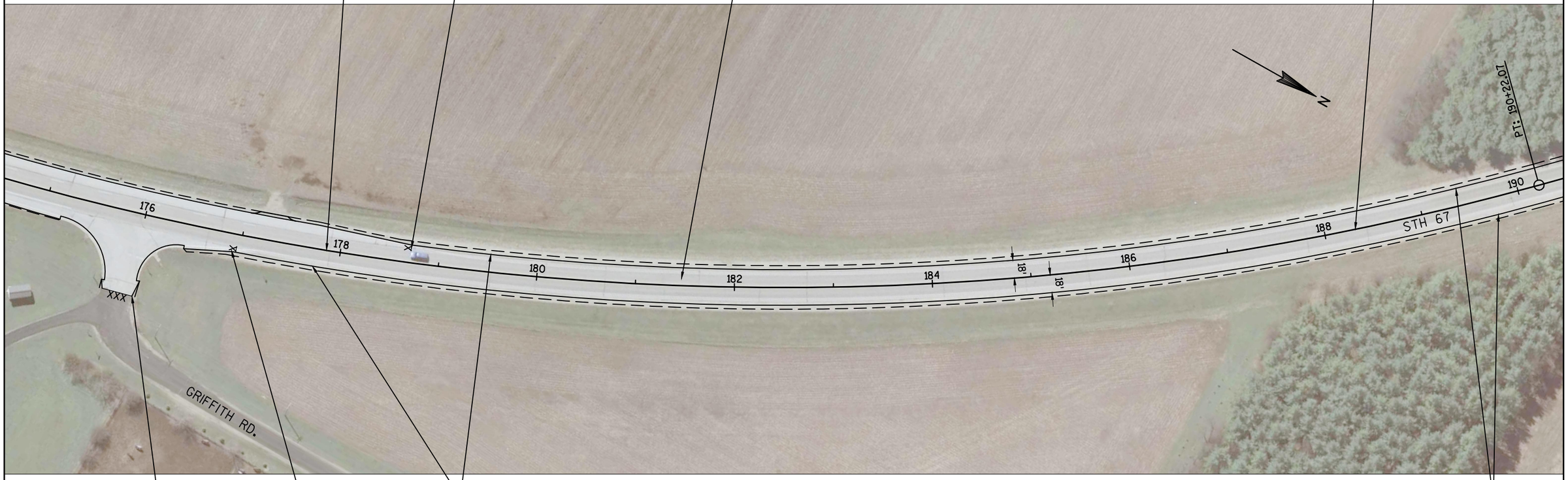
2

STA. 177+89
BEGIN ASPHALTIC CENTERLINE
RUMBLE STRIP 2-LANE RURAL

+71
SAWCUT
BEGIN 4½" MILLING AND
3½" HMA PAVEMENT ON SHOULDER

1" REMOVING ASPHALTIC SURFACE MILLING
2" HMA PAVEMENT

ASPHALTIC CENTERLINE
RUMBLE STRIP 2-LANE RURAL



MATCH 84' RT
SAWCUT
BUTT JOINT REQUIRED

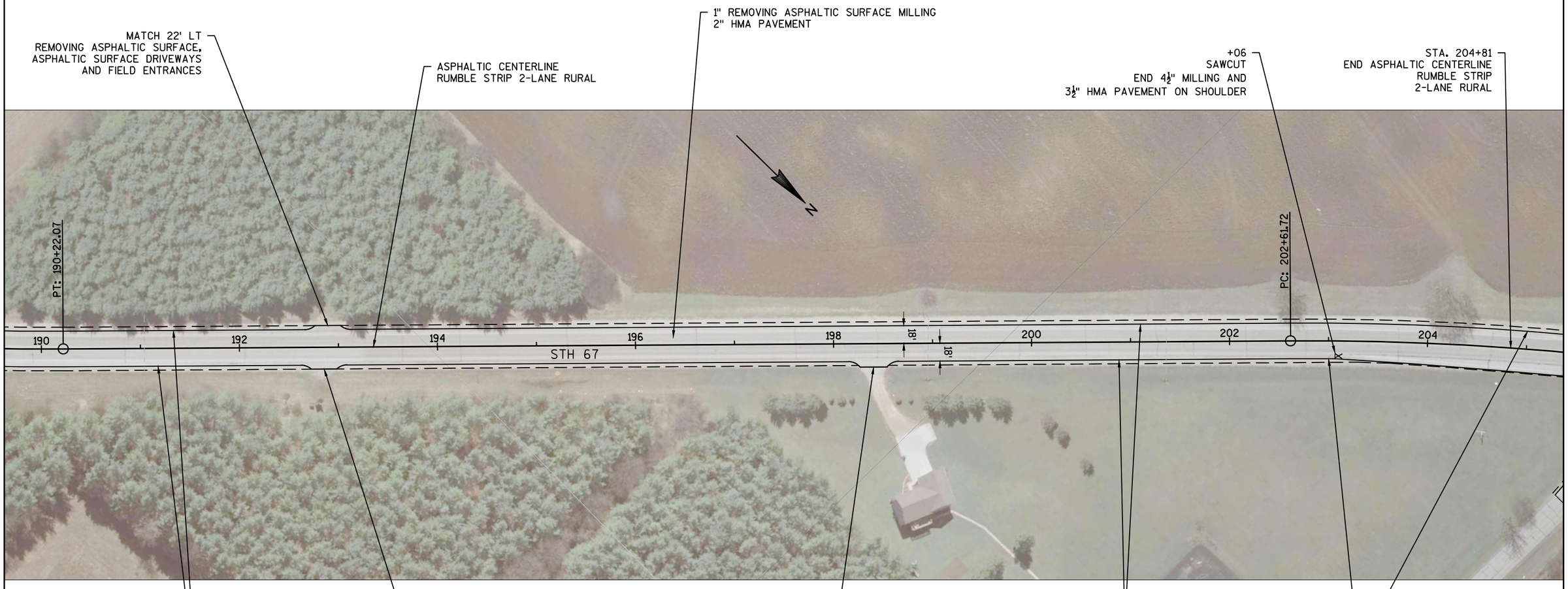
+96
SAWCUT
BEGIN 4½" MILLING AND
3½" HMA PAVEMENT ON SHOULDER

STA. 177+70 RT AND STA. 179+49 LT
BEGIN ASPHALTIC SHOULDER
RUMBLE STRIP 2-LANE RURAL

ASPHALTIC SHOULDER
RUMBLE STRIP 2-LANE RURAL

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PLAN DETAIL	SHEET 18	E

2



PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PLAN DETAIL	SHEET	E

FILE NAME : N:\PDS\C3D\CAD\31000630\021200_PD.DWG
LAYOUT NAME - (07)_PD
PLOT DATE : 4/11/2016 2:26 PM PLOT BY : SCHMIDT, JUDENE M PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

+50
SAWCUT
END 3½" MILLING AND
3½" HMA PAVEMENT ON SHOULDER

MATCH 138' LT
SAWCUT
BUTT JOINT
REQUIRED

STA. 208+80
BEGIN ASPHALTIC CENTERLINE
RUMBLE STRIP 2-LANE RURAL

+77
SAWCUT
BEGIN 4½" MILLING AND
3½" HMA PAVEMENT ON SHOULDER

1" REMOVING ASPHALTIC SURFACE MILLING
2" HMA PAVEMENT

ASPHALTIC CENTERLINE
RUMBLE STRIP 2-LANE RURAL



GENESEE LAKE RD

MATCH 152' RT
SAWCUT
BUTT JOINT REQUIRED

+03
SAWCUT
BEGIN 3½" MILLING AND
3½" HMA PAVEMENT ON SHOULDER

STA. 208+80 RT AND STA. 210+27 LT
BEGIN ASPHALTIC SHOULDER
RUMBLE STRIP 2-LANE RURAL

ASPHALTIC SHOULDER
RUMBLE STRIP 2-LANE RURAL

4½" MILLING AND
3½" HMA PAVEMENT ON SHOULDER

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PLAN DETAIL	SHEET 20	E

2

SAWCUT 27' LT
REMOVING ASPHALTIC SURFACE,
ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES

SAWCUT 27' LT
REMOVING ASPHALTIC SURFACE,
ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES

SAWCUT 27' LT
REMOVING ASPHALTIC SURFACE,
ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES

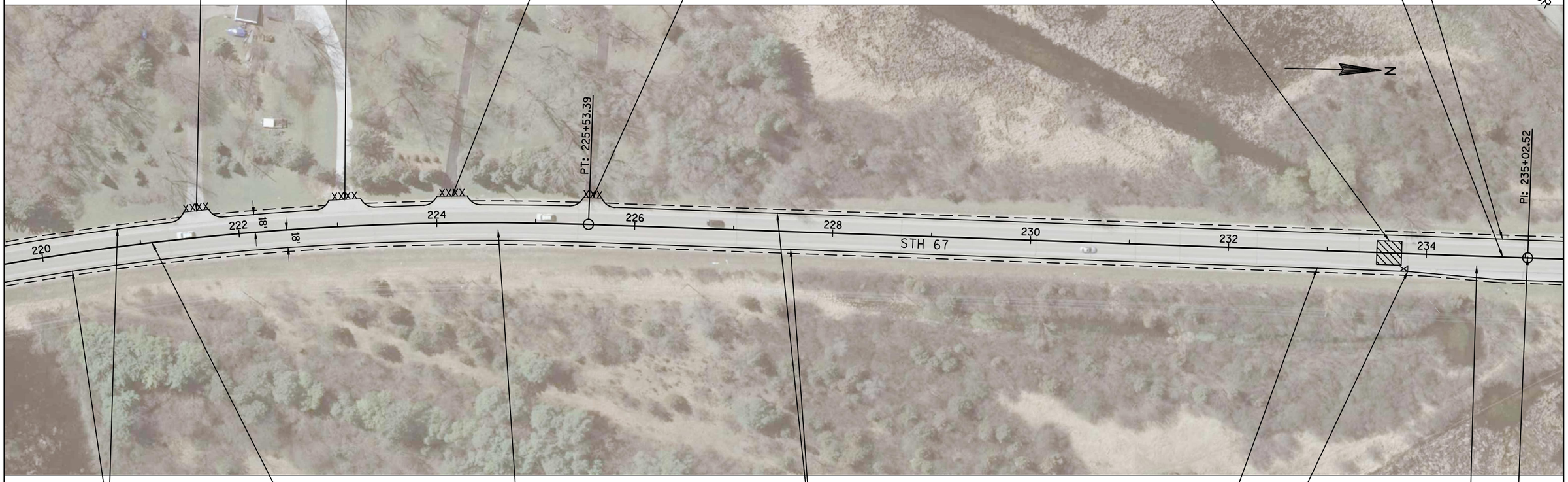
SAWCUT 27' LT
REMOVING ASPHALTIC SURFACE,
ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES

STA 233+50 TO STA 233+75
TRANSITION FROM
1" REMOVING ASPHALTIC SURFACE MILLING TO
2" REMOVING ASPHALTIC SURFACE MILLING

STA. 234+76 LT
END ASPHALTIC SHOULDER
RUMBLE STRIP 2-LANE RURAL

STA. 234+76
END ASPHALTIC CENTERLINE
RUMBLE STRIP 2-LANE RURAL

HOLLYHOCK WOODS DR



ASPHALTIC SHOULDER
RUMBLE STRIP 2-LANE RURAL

ASPHALTIC CENTERLINE
RUMBLE STRIP 2-LANE RURAL

1" REMOVING ASPHALTIC SURFACE MILLING
2" HMA PAVEMENT

4½" MILLING AND
3½" HMA PAVEMENT ON SHOULDER

STA. 232+90 RT
END ASPHALTIC SHOULDER
RUMBLE STRIP 2-LANE RURAL

+82
SAWCUT
END 4½" MILLING AND
3½" HMA PAVEMENT ON SHOULDER

2" REMOVING ASPHALTIC SURFACE MILLING
2" HMA PAVEMENT

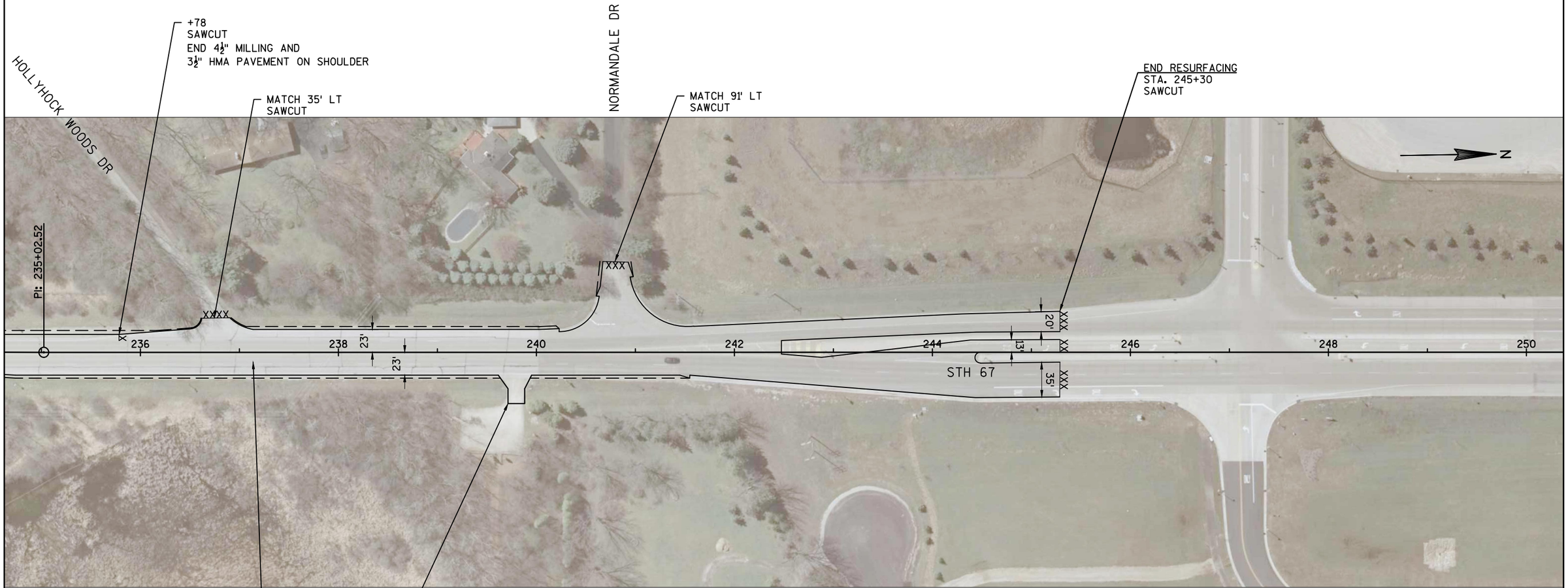
SECTION CORNER MONUMENT
DO NOT DISTURB

LEGEND

2" REMOVING ASPHALTIC SURFACE TO
1" REMOVING ASPHALTIC SURFACE TRANSITION

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PLAN DETAIL	SHEET 21	E

2



PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PLAN DETAIL	SHEET 22	E

FILE NAME : N:\PDS\C3D\CAD\31000630\021200_PD.DWG
LAYOUT NAME - (10)_PD
PLOT DATE : 4/11/2016 2:26 PM PLOT BY : SCHMIDT, JUDENE M PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2



PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PLAN DETAIL	SHEET 23	E

2

BLUE RIBBON DR.



END PROJECT 3100-06-60
STA. 268+00

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PLAN DETAIL	SHEET	E

FILE NAME : N:\PDS\C3D\CAD\31000630\021200_PD.DWG
LAYOUT NAME - (12)_PD

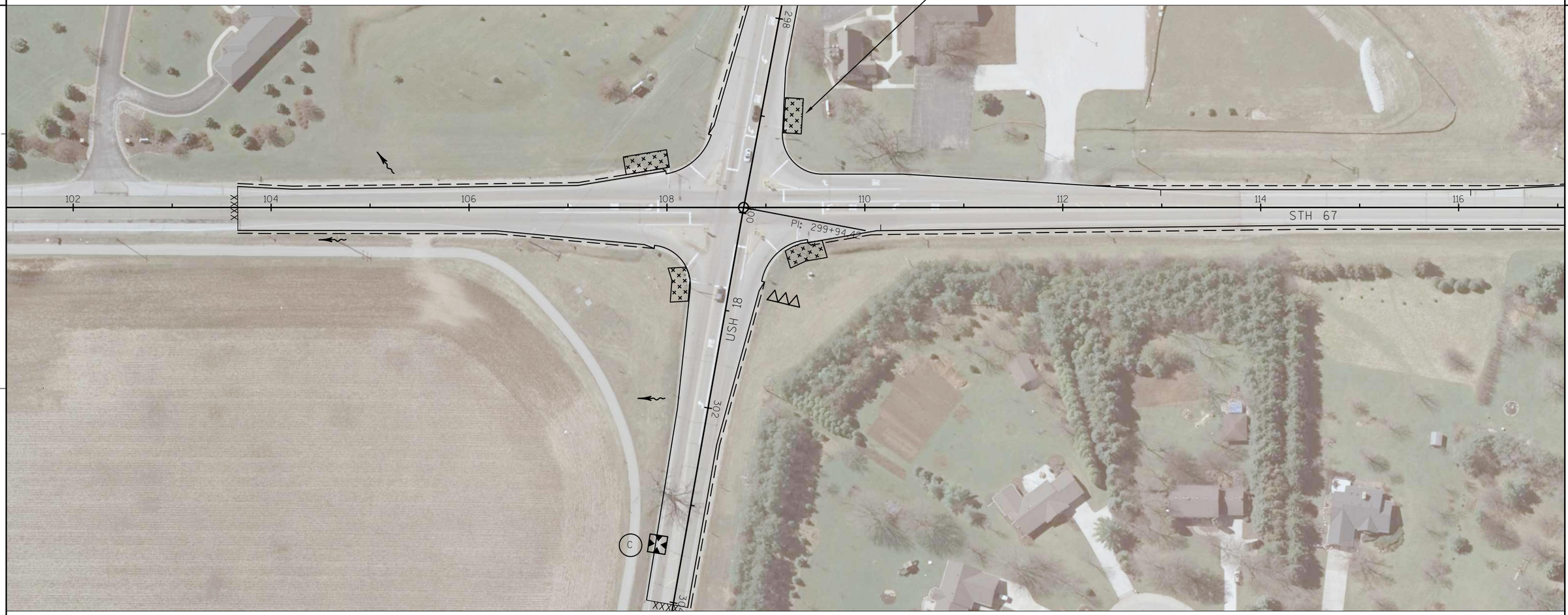
PLOT DATE : 4/11/2016 2:26 PM PLOT BY : SCHMIDT, JUDENE M PLOT NAME : ---------- PLOT SCALE : **********

2

2

TOPSOIL, SEED MIXTURE #30, FERTILIZER, TEMP SEED (TYP)

N



EROSION CONTROL LEGEND

- B — INLET PROTECTION TYPE B
- C — INLET PROTECTION TYPE C
- SILT FENCE
- EROSION MAT CLASS I TYPE B
- SLOPE INTERCEPT
- FLOW ARROW
- DITCH CHECK
- ROCK BAGS

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: EROSION CONTROL	SHEET 25	E

FILE NAME : N:\PDS\C3D\CAD\31000630\022001_EC.DWG
LAYOUT NAME - 022001_EC

PLOT DATE : 4/8/2016 5:48 PM PLOT BY : SCHMIDT, JUDENE M PLOT NAME : ---------- PLOT SCALE : **********

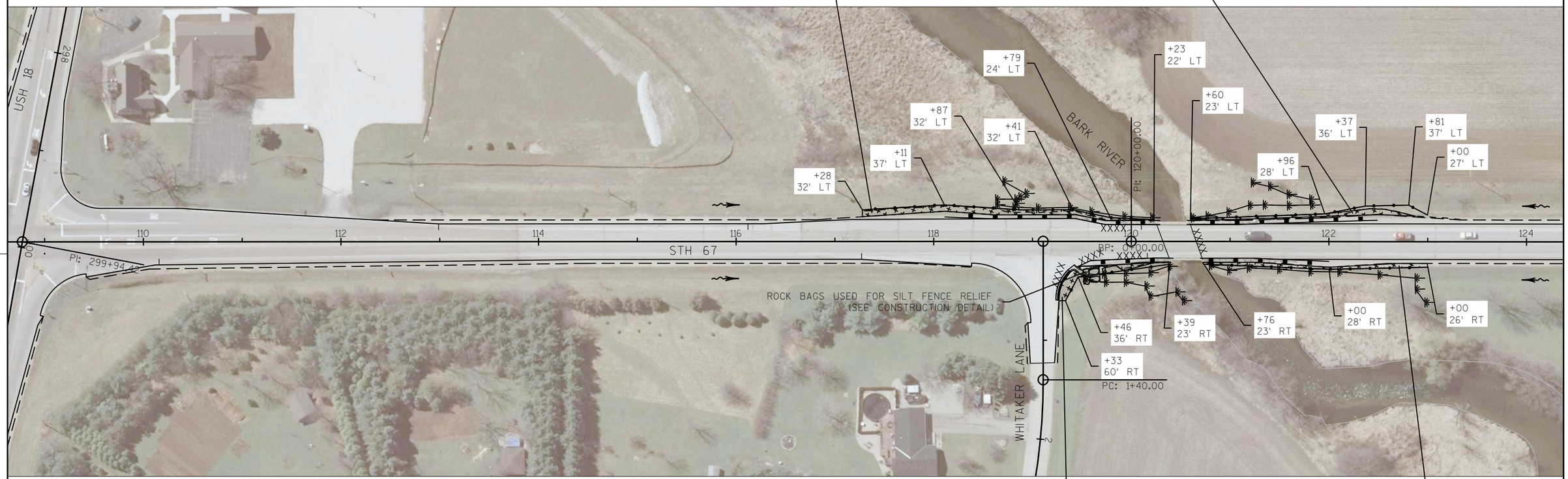
WISDOT/CADDS SHEET 42

2

2

N

EROSION MAT CLASS I TYPE B AND SEEDING MIXTURE NO. 60,
PAID FOR AS BARRIER SYSTEM GRADING SHAPING FINISHING



EROSION MAT CLASS I TYPE B AND SEEDING MIXTURE NO. 60,
PAID FOR AS BARRIER SYSTEM GRADING SHAPING FINISHING

EROSION CONTROL LEGEND

- B — INLET PROTECTION TYPE B
- C — INLET PROTECTION TYPE C
- SILT FENCE
- EROSION MAT CLASS I TYPE B
- SLOPE INTERCEPT
- FLOW ARROW
- DITCH CHECK
- ROCK BAGS

NOTE:
ALL EROSION CONTROL DEVICES ARE TO BE PLACED OUTSIDE THE WETLAND BOUNDARIES.

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: EROSION CONTROL	SHEET 26	E

FILE NAME : N:\PDS\C3D\CAD\31000630\022001_EC.DWG
LAYOUT NAME - 022002_EC
PLOT DATE : 4/8/2016 5:48 PM PLOT BY : SCHMIDT, JUDENE M PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

2



EROSION CONTROL LEGEND

- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- SILT FENCE
- EROSION MAT CLASS I TYPE B
- SLOPE INTERCEPT
- FLOW ARROW
- DITCH CHECK
- ROCK BAGS

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: EROSION CONTROL	SHEET 27	E

FILE NAME : N:\PDS\C3D\CAD\31000630\022001_EC.DWG
LAYOUT NAME - 022009_EC

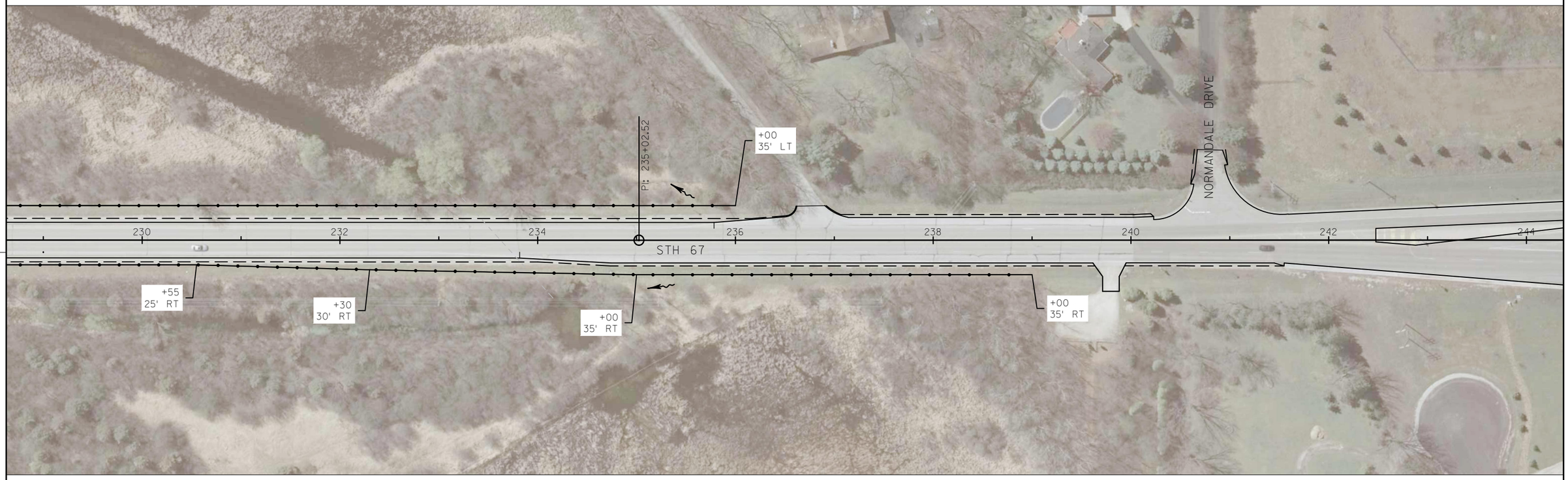
PLOT DATE : 4/8/2016 5:48 PM PLOT BY : SCHMIDT, JUDENE M PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

N

2



EROSION CONTROL LEGEND

- B — INLET PROTECTION TYPE B
- C — INLET PROTECTION TYPE C
- SILT FENCE
- EROSION MAT CLASS I TYPE B
- SLOPE INTERCEPT
- FLOW ARROW
- DITCH CHECK
- ROCK BAGS

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: EROSION CONTROL	SHEET 28	E

FILE NAME : N:\PDS\C3D\CAD\31000630\022001_EC.DWG
LAYOUT NAME - 022010_EC

PLOT DATE : 4/8/2016 5:48 PM PLOT BY : SCHMIDT, JUDENE M PLOT NAME : ---------- PLOT SCALE : **********

2

2

N



PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: EROSION CONTROL	SHEET 29	E

FILE NAME : N:\PDS\C3D\CAD\31000630\022001_EC.DWG
LAYOUT NAME - 022011_EC

PLOT DATE : 4/8/2016 5:48 PM PLOT BY : SCHMIDT, JUDENE M PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

2

N



EROSION CONTROL LEGEND

- B — INLET PROTECTION TYPE B
- C — INLET PROTECTION TYPE C
- SILT FENCE
- EROSION MAT CLASS I TYPE B
- SLOPE INTERCEPT
- FLOW ARROW
- DITCH CHECK
- ROCK BAGS

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: EROSION CONTROL	SHEET 30	E

FILE NAME : N:\PDS\C3D\CAD\31000630\022001_EC.DWG
LAYOUT NAME - 022012_EC

PLOT DATE : 4/8/2016 5:49 PM PLOT BY : SCHMIDT, JUDENE M PLOT NAME : ---------- PLOT SCALE : **********

2

SIGNING NOTES

TYPE II ALUMINUM SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC SIGN SHOP ON 60TH STREET IN WEST ALLIS. SIGNS SHALL BE CAREFULLY REMOVED FROM SIGN SUPPORTS. THE SIGNS SHALL BE PALLETIZED FOR HANDLING WITH A FORKLIFT (SEE SPECIAL PROVISION 638.3.4). THE REGIONAL SIGN SHOP (414-266-1165) SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF THE SIGNS.

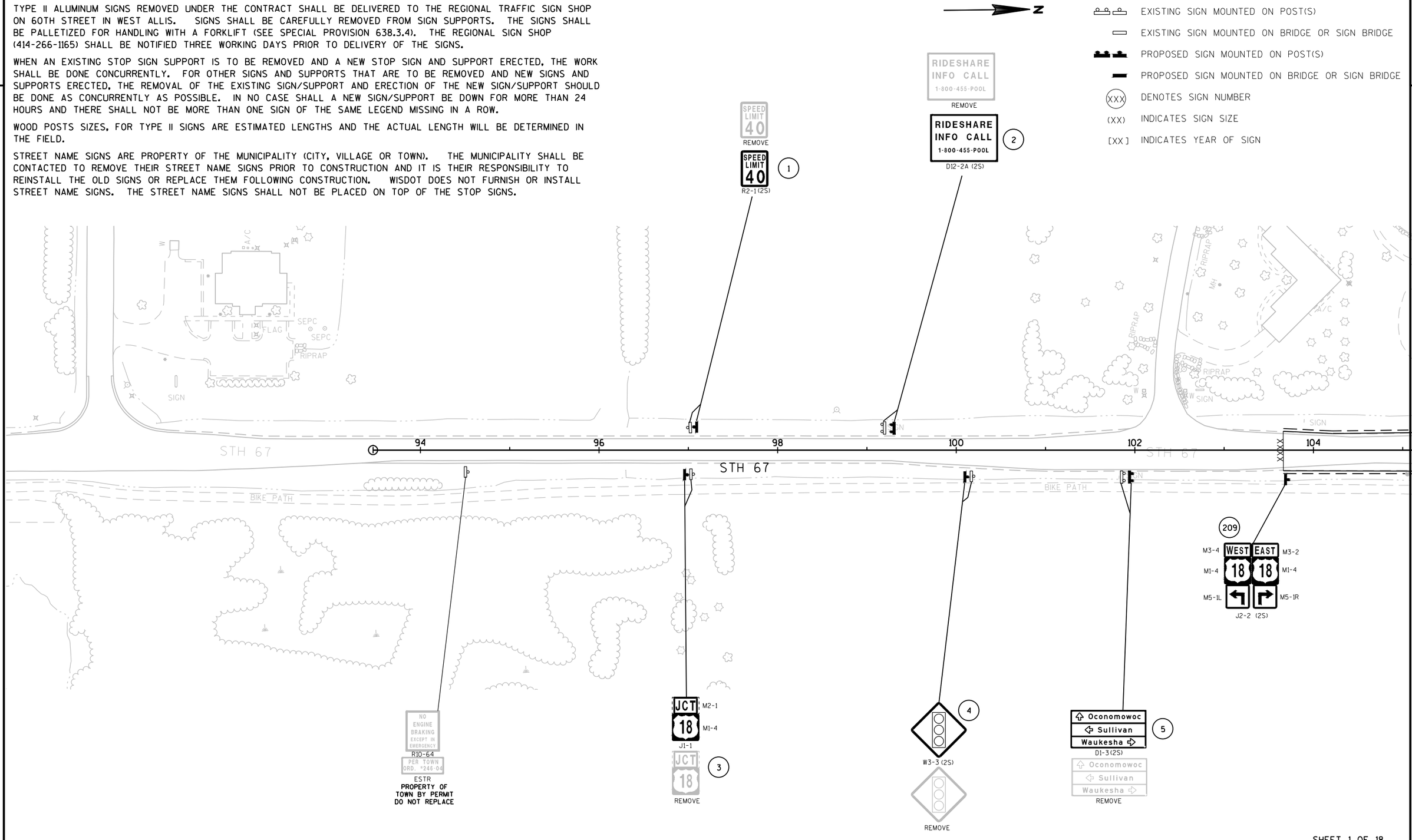
WHEN AN EXISTING STOP SIGN SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED, THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD 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 SIGNS ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

STREET NAME SIGNS ARE PROPERTY OF THE MUNICIPALITY (CITY, VILLAGE OR TOWN). THE MUNICIPALITY SHALL BE CONTACTED TO REMOVE THEIR STREET NAME SIGNS PRIOR TO CONSTRUCTION AND IT IS THEIR RESPONSIBILITY TO REINSTALL THE OLD SIGNS OR REPLACE THEM FOLLOWING CONSTRUCTION. WISDOT DOES NOT FURNISH OR INSTALL STREET NAME SIGNS. THE STREET NAME SIGNS SHALL NOT BE PLACED ON TOP OF THE STOP SIGNS.

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (XX) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN



SHEET 1 OF 18

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 31	E

FILE NAME : N:\PDS\C3D\CAD\31000630\SIGN\023201_PS.DWG
LAYOUT NAME - 023201_PS

PLOT DATE : 5/5/2016 7:47 AM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

BERM

6 Eagle 9 / Elkhorn 26 — REMOVE

Eagle 9 / Elkhorn 26 — D2-2

7 SOUTH 67 — M3-3, M1-6, J4-1(2S)

SOUTH 67 — REMOVE

SPEED LIMIT 40 — REMOVE

8 SPEED LIMIT 40 — R2-1 (3)

SIZE 3 BECAUSE FIRST SIGN IN REDUCED ZONE. ADDED SAFETY.

203 LEFT TURN YIELD ON FLASHING YELLOW ARROW — R10-50 (2S) ON MAST ARM

9 STOP — R1-1 (3)

STOP — REMOVE

SIGN

USH 18

204 LEFT TURN YIELD ON FLASHING YELLOW ARROW — R10-50 (2S) ON MAST ARM

40'

MH

45'

104 106 108

STH 67

STOP — REMOVE

300'

STOP — R1-1(S) ON SIGNAL POLE

10 11 12 13

205 LEFT TURN YIELD ON FLASHING YELLOW ARROW — R10-50 (2S) ON MAST ARM

45'

18 NO MOTOR VEHICLES — R5-3(2S)

SUMMIT — ESTR PROPERTY OF VILLAGE

192 W12-1D (2S) 2' MOUNT HEIGHT

206 LEFT TURN YIELD ON FLASHING YELLOW ARROW — R10-50(2S) ON MAST ARM

SLAB

16 WEST 18 / EAST 18 — M3-4, M3-2, M1-4, M1-4, M6-1, M6-1, J3-2 (2S)

WEST 18 / EAST 18 — REMOVE

15 STOP — R1-1 (3)

STOP — REMOVE

14 ALTERNATE EAST 94 — MB4-1, MB3-2, M1-1, MB6-1, J3-1

ALTERNATE EAST 94 — REMOVE

19 ONLY — R3-8-A (2S)

ONLY — REMOVE

17 ONLY — REMOVE R3-8A

NOTE: SEE SHEET 16 OF 18 FOR ADDITIONAL INTERSECTION SIGNING.

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (XX) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN

SHEET 2 OF 18

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 32	E

2

N

USH 18

STH 67

110

112

114

20 21 22
W12-1D(2S)
2' MOUNT HEIGHT

23
STOP
R1-1 (3)
REMOVE

24
MB4-1 ALTERNATE ALTERNATE MB4-1
MB3-2 EAST WEST MB3-4
M1-1 ALTERNATE 94 ALTERNATE 94 M1-1
MB6-1 MB6-1
J3-2 (2S)
REMOVE

25
M3-2 EAST WEST M3-4
M1-4 18 18 M1-4
M6-1 M6-1
J3-2(2S)
REMOVE

26
ONLY ONLY ONLY
REMOVE ONLY

27
ONLY ONLY ONLY
R3-8-W (2S)
REMOVE

33
MB4-1 ALTERNATE ALTERNATE MB4-1
MB3-2 EAST WEST MB3-4
M1-1 ALTERNATE 94 ALTERNATE 94 M1-1
MB5-1L MB5-1R
J2-2 (2S)

20
M3-2 EAST WEST M3-4
M1-4 18 18 M1-4
J2-2 (2S)

300

32
STOP
R1-1 (3)
STOP
REMOVE

31
Hwy 94 3
Oconomowoc 6
D2-2
Hwy 94 3
Oconomowoc 6
REMOVE

30
SPEED LIMIT 55
R2-1(2S)
SPEED LIMIT 55
REMOVE

29
M3-1 NORTH ALTERNATE MB4-1
M1-6 67 94 M1-1
J4-2 (2S)
NORTH 67
REMOVE

28
ALTERNATE 94
REMOVE

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (XX) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN

SHEET 3 OF 18

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 33	E

FILE NAME : N:\PDS\C3D\CAD\31000630\SIGN\023201_PS.DWG
LAYOUT NAME - 023203_PS

PLOT DATE : 5/5/2016 7:48 AM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (XX) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN

N

33 REMOVE

34 W3-5 (2S)

REMOVE 35 W3-3 (2S)

REMOVE 36 JCT 18 M2-1 M1-4 J1-1 (2S)

REMOVE 37 W5-52L (2S) 4' MOUNT HEIGHT

REMOVE 38 W5-52R (2S) 4' MOUNT HEIGHT

114 116 118 120 122 124 126 128

STH 67

XXXX XXXX XXXX XXXX

STOP 41 R1-1 (2S)

STOP REMOVE

REMOVE 40 W5-52R (2S) 4' MOUNT HEIGHT

REMOVE 39 W5-52L (2S) 4' MOUNT HEIGHT

42 Dousman / Waukesha / Sullivan D1-3

Dousman / Waukesha / Sullivan REMOVE

SPEED LIMIT 25 R2-1 ESTR

WHITAKER LANE

SHEET 4 OF 18

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 34	E

FILE NAME : N:\PDS\C3D\CAD\31000630\SIGN\023201_PS.DWG
LAYOUT NAME - 023204_PS

PLOT DATE : 5/5/2016 7:48 AM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

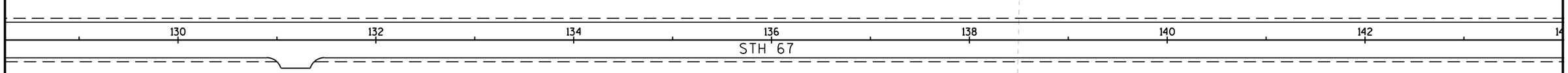
(XXX) DENOTES SIGN NUMBER

(XX) INDICATES SIGN SIZE

[XX] INDICATES YEAR OF SIGN

NO SIGNS ON THIS SHEET

N



2

SHEET 5 OF 18

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 35	E

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

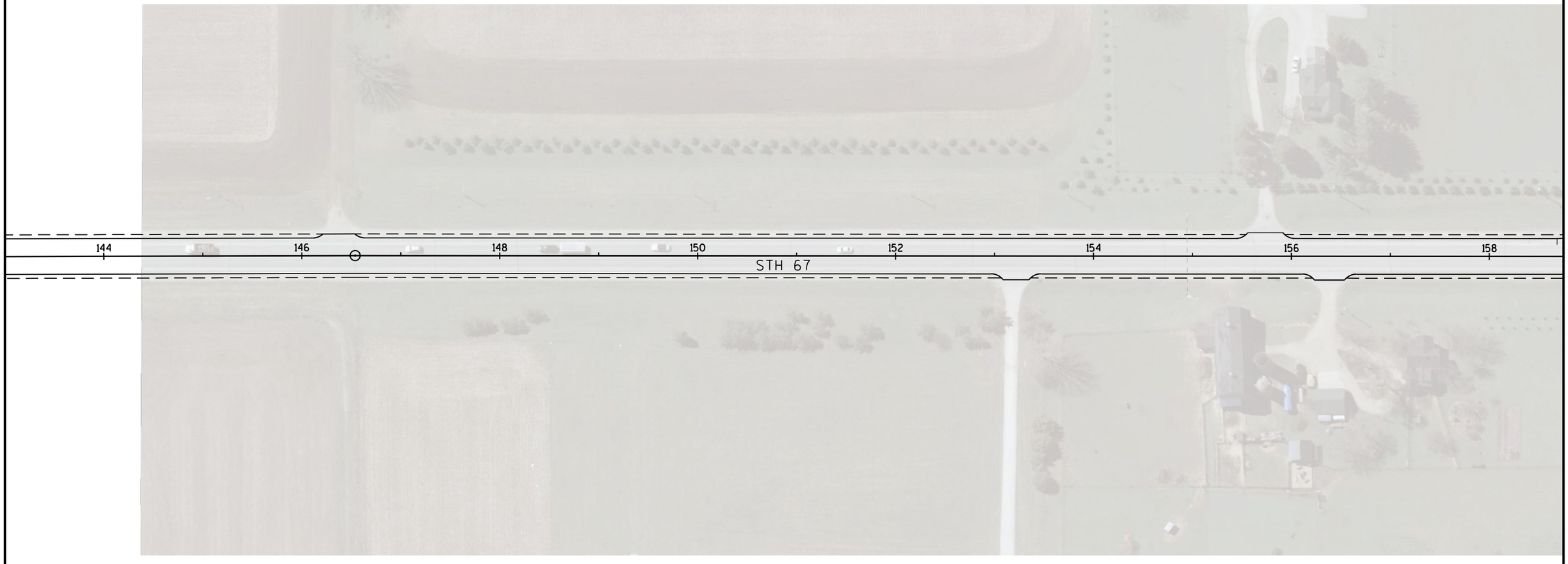
(XXX) DENOTES SIGN NUMBER

(XX) INDICATES SIGN SIZE

[XX] INDICATES YEAR OF SIGN

N

NO SIGNS ON THIS SHEET



2

SHEET 6 OF 18

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 36	E

FILE NAME : N:\PDS\C3D\CAD\31000630\SIGN\023201_PS.DWG
LAYOUT NAME - 023206_PS

PLOT DATE : 5/5/2016 7:48 AM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

(XXX) DENOTES SIGN NUMBER

(XX) INDICATES SIGN SIZE

[XX] INDICATES YEAR OF SIGN

NOTE:
"NO PASSING ZONE" PERMANENT SIGNS SHALL BE
LOCATED AFTER PASSING ZONES HAVE BEEN ESTABLISHED.

N



2

SHEET 7 OF 18

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 37	E

FILE NAME : N:\PDS\C3D\CAD\31000630\SIGN\023201_PS.DWG
LAYOUT NAME - 023207_PS

PLOT DATE : 5/5/2016 7:48 AM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

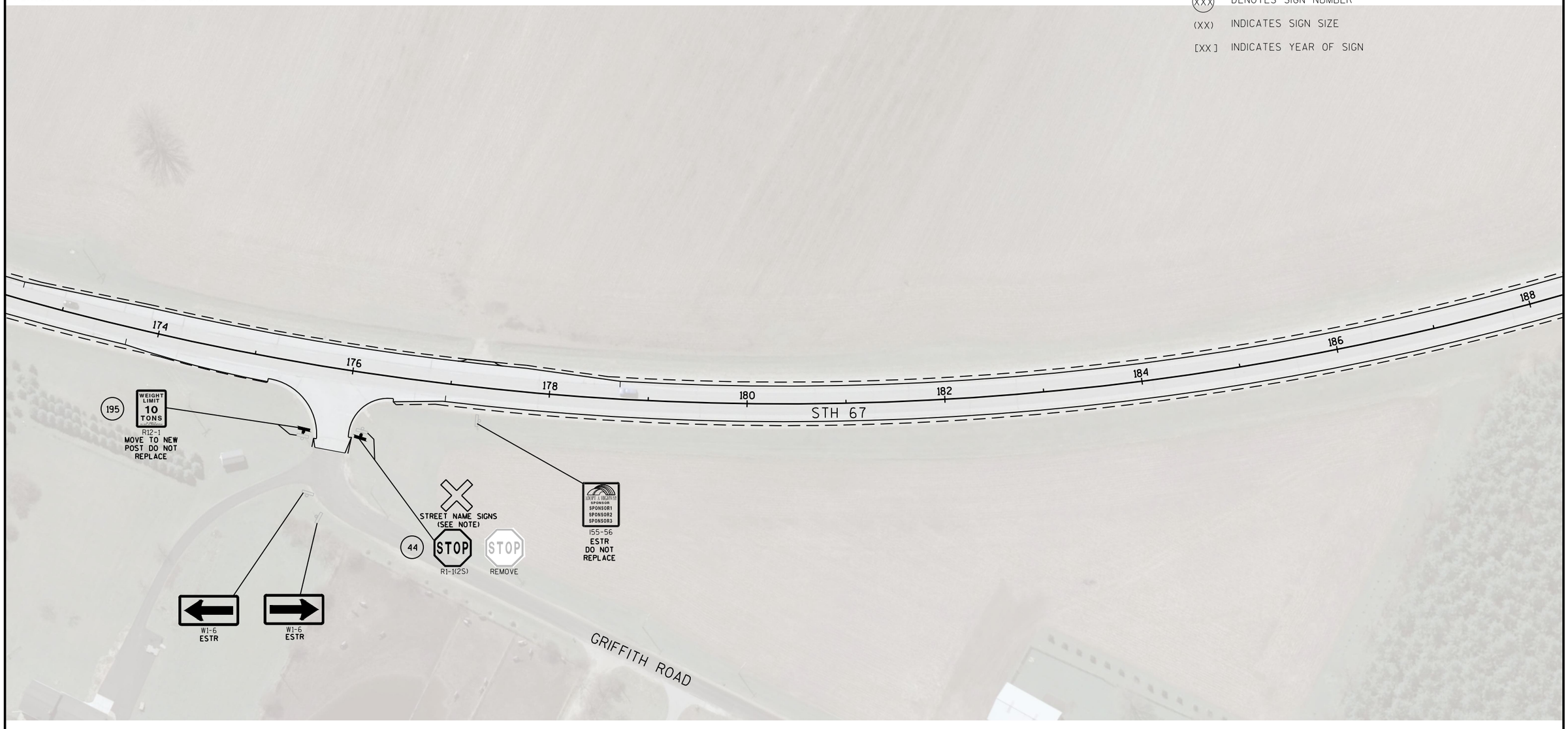
2

NOTE:

STREET NAME SIGNS ARE PROPERTY OF THE MUNICIPALITY (CITY, VILLAGE, OR TOWN). THE MUNICIPALITY SHALL BE CONTACTED TO REMOVE THEIR STREET NAME SIGNS PRIOR TO CONSTRUCTION AND IT IS THEIR RESPONSIBILITY TO REINSTALL THE OLD SIGNS OR REPLACE THEM FOLLOWING CONSTRUCTION. WISDOT DOES NOT FURNISH OR INSTALL STREET NAME SIGNS. THE STREET NAME SIGNS SHALL NOT BE PLACED ON TOP OF THE STOP SIGNS.

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (XX) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN



SHEET 8 OF 18

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 38	E

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

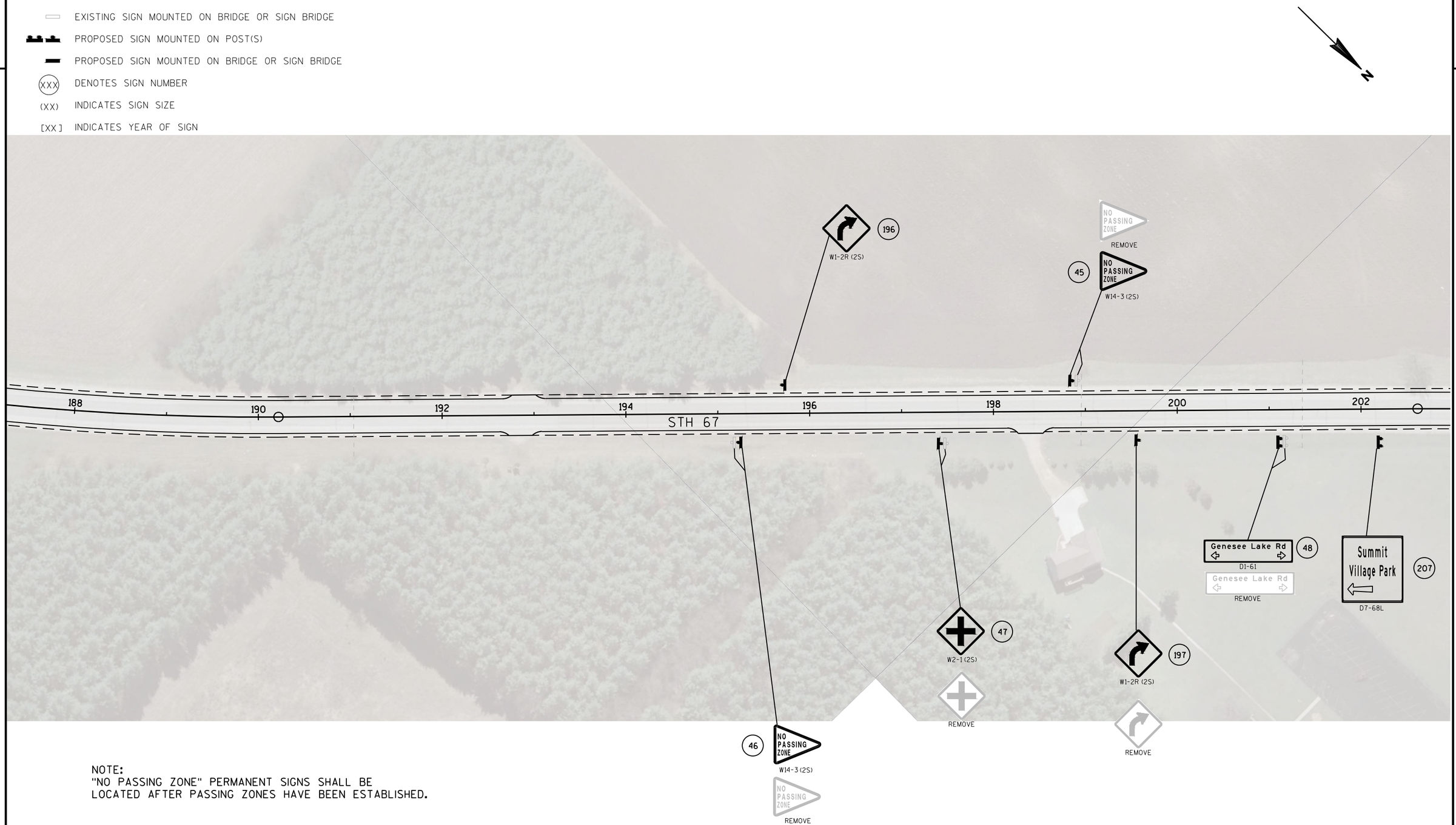
PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

(XXX) DENOTES SIGN NUMBER

(XX) INDICATES SIGN SIZE

[XX] INDICATES YEAR OF SIGN



NOTE:
"NO PASSING ZONE" PERMANENT SIGNS SHALL BE LOCATED AFTER PASSING ZONES HAVE BEEN ESTABLISHED.

SHEET 9 OF 18

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 39	E

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

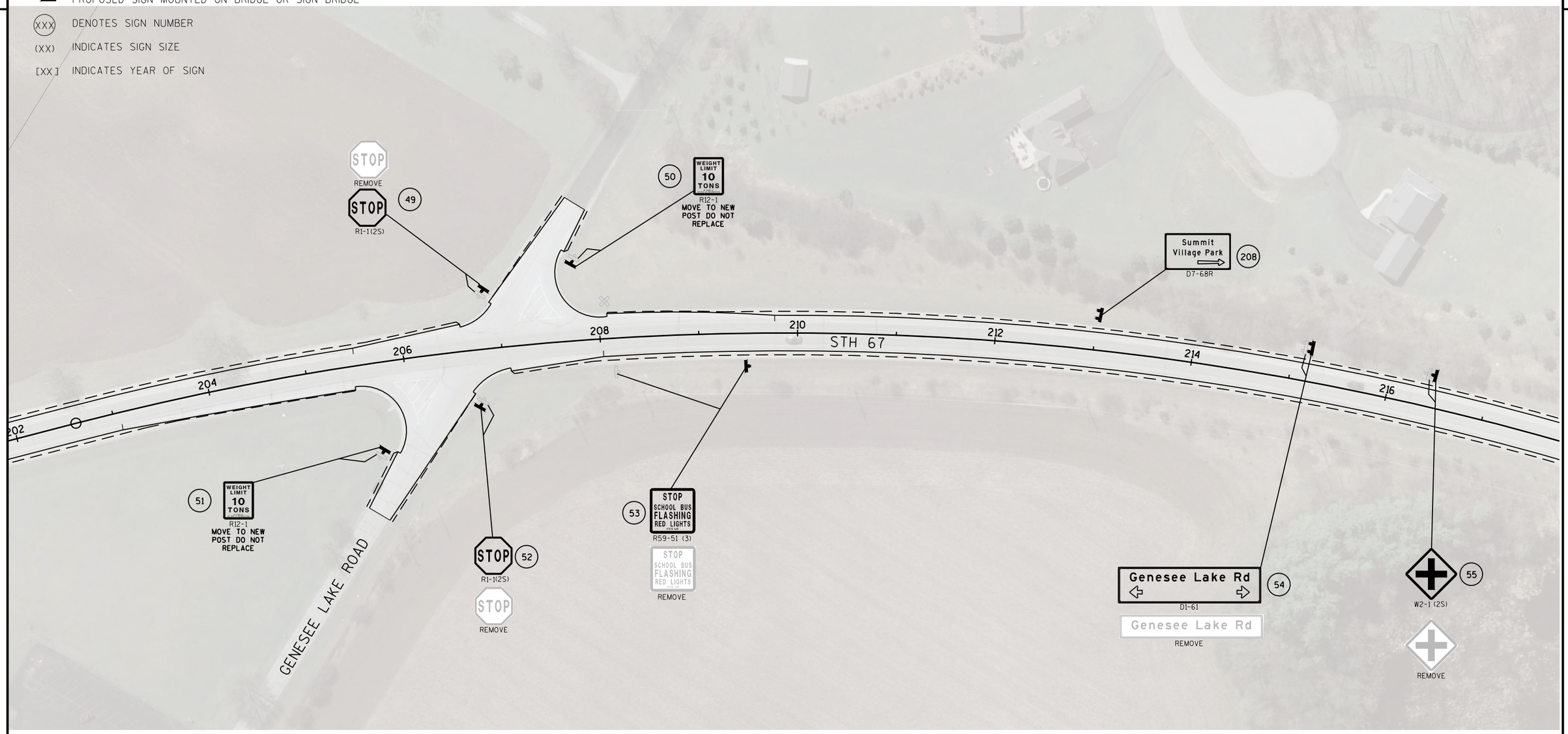
PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

(XXX) DENOTES SIGN NUMBER

(XX) INDICATES SIGN SIZE

[XX] INDICATES YEAR OF SIGN



SHEET 10 OF 18

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 40	E

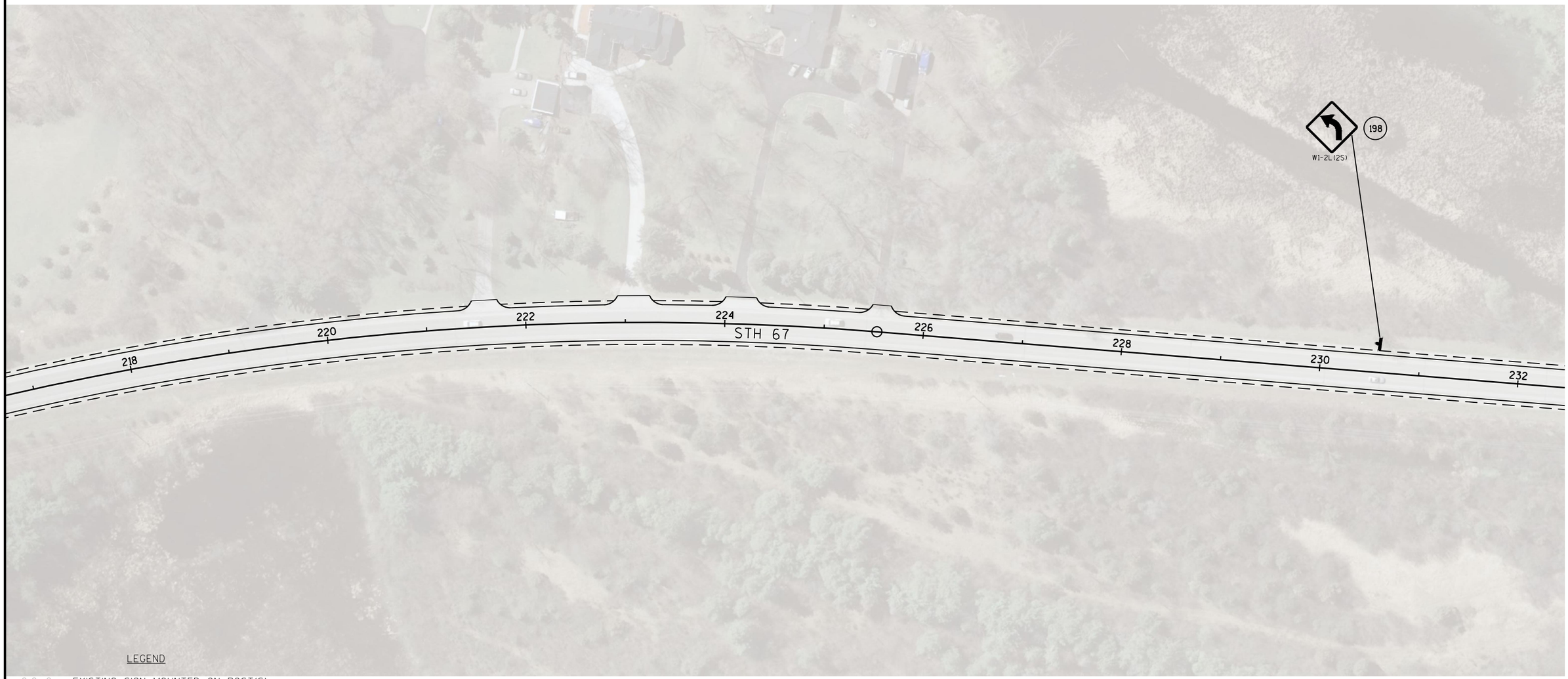
FILE NAME : N:\PDS\C3D\CAD\31000630\SIGN\023201_PS.DWG
LAYOUT NAME - 023210_PS

PLOT DATE : 5/5/2016 7:49 AM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (XX) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN

SHEET 11 OF 18

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 41	E

FILE NAME : N:\PDS\C3D\CAD\31000630\SIGN\023201_PS.DWG
LAYOUT NAME - 023211_PS

PLOT DATE : 5/5/2016 7:49 AM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (XX) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN

N

HOLLYHOCK WOODS DRIVE (PRIVATE ROAD)

NORMANDALE DR.

SUMMIT VILLAGE WAY

56 NO ENGINE BRAKING EXCEPT IN EMERGENCY R10-64 — MOVE TO NEW POST PROPERTY OF TOWN BY PERMIT DO NOT REPLACE

57 NO PARKING ANY TIME R7-1-R (2S) — REMOVE

STOP — ESTR NOT WISDOT SIGN DO NOT REPLACE

58 W6-3 (2S) — REMOVE

59 STOP R1-1(2S) — REMOVE

DEAD END W14-1 ESTR

61 DO NOT ENTER R5-1(3) — REMOVE

60 SPEED LIMIT 55 R2-1 (3) — REMOVE

62 NO PARKING ANY TIME R7-1-D(2M) — REMOVE

63 WRONG WAY R5-1A (3) — REMOVE

64 W6-2 (2S) — REMOVE

232 234 236 238 240 242 244 246

STH 67

76 NO PARKING ANY TIME R7-1-L (2S) — REMOVE

75 SPEED LIMIT 45 W3-5 (2S) — REMOVE

74 NO PARKING ANY TIME R7-1-D(2S) — REMOVE

73 W6-1 (2S) — REMOVE

72 MOUNT ON BEACON POLE. EXISTING BEACON POLE TO REMAIN

TRUCK CROSSING W8-6(2S) — REMOVE

71 NO PARKING ANY TIME R7-1-D (2S) — REMOVE

199 Summit Village Way D1-61 (MOD)

69 R4-7 (3)

70 W5-54S(2S) — REMOVE

68 SPEED LIMIT 45 R2-1 (3) — REMOVE

67 BEGIN LEFT TURN LANE R3-20-LL(3) — LEFT TURN LANE — REMOVE

66 NO PARKING ANY TIME R7-1-D (2M) — REMOVE

65 WRONG WAY R5-1A (3) — REMOVE

SHEET 12 OF 18

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 42	E

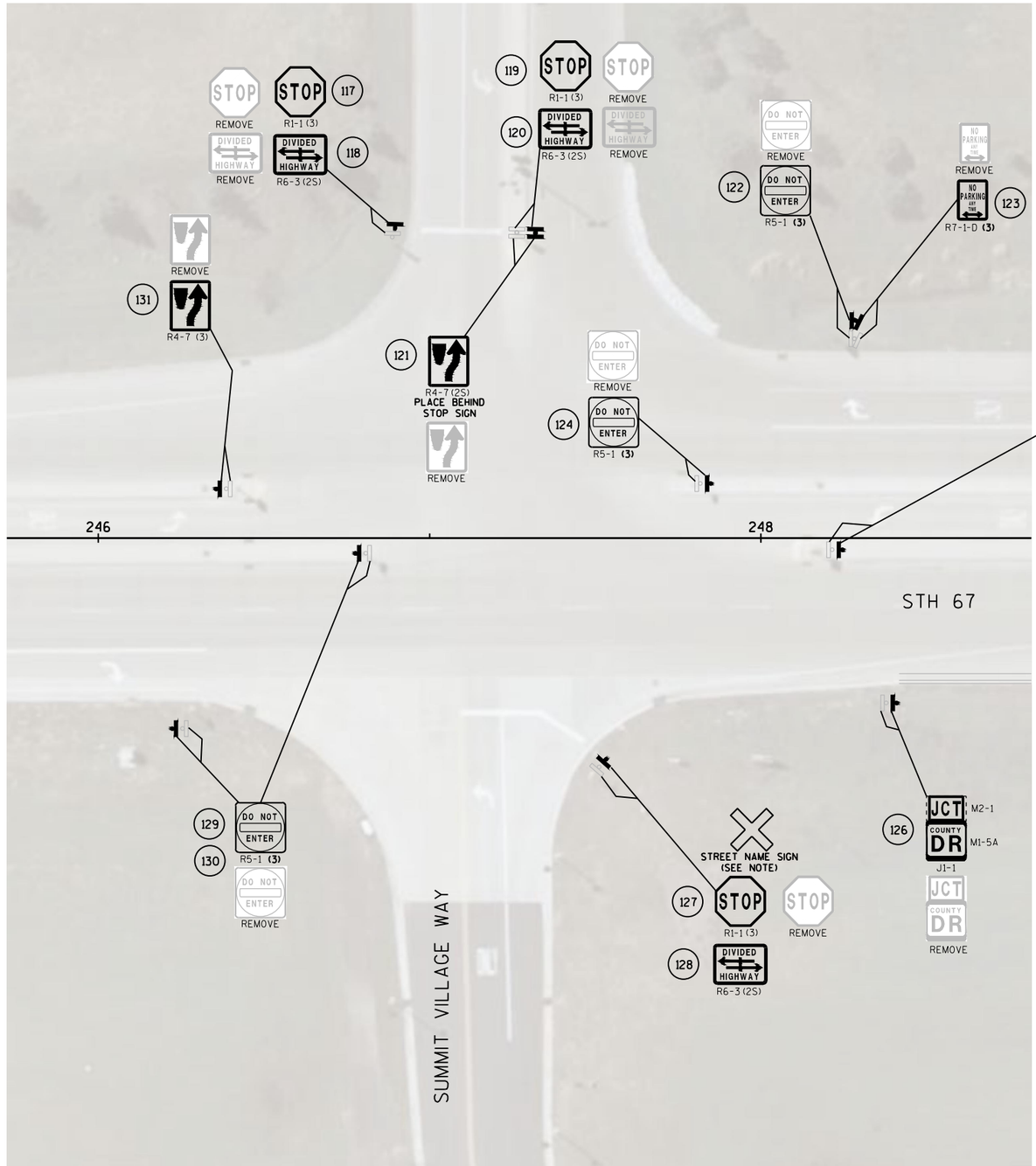
FILE NAME : N:\PDS\C3D\CAD\31000630\SIGN\023201_PS.DWG
LAYOUT NAME - 023212_PS

PLOT DATE : 5/5/2016 7:49 AM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (XX) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN



NOTE:

STREET NAME SIGNS ARE PROPERTY OF THE MUNICIPALITY (CITY, VILLAGE, OR TOWN). THE MUNICIPALITY SHALL BE CONTACTED TO REMOVE THEIR STREET NAME SIGNS PRIOR TO CONSTRUCTION AND IT IS THEIR RESPONSIBILITY TO REINSTALL THE OLD SIGNS OR REPLACE THEM FOLLOWING CONSTRUCTION. WISDOT DOES NOT FURNISH OR INSTALL STREET NAME SIGNS. THE STREET NAME SIGNS SHALL NOT BE PLACED ON TOP OF THE STOP SIGNS.

2

N

Dousman 4
State Forest 8
Old World 13
REMOVE

85 Dousman 4 / Eagle 13 D2-2

77 WRONG WAY R5-1A (3) — REMOVE
78 RIGHT LANE MUST TURN RIGHT R3-7-R (3) — REMOVE
79 BEGIN LEFT TURN LANE R3-20-LL (3) — REMOVE
80 NO PARKING ANY TIME R7-1-D (3) — REMOVE
81 BEGIN LEFT TURN LANE R3-20-L (3) — REMOVE
82 RIGHT LANE MUST TURN RIGHT R3-7-R (3) — REMOVE
83 SPEED LIMIT 45 R2-1 (3) — REMOVE
84 ONLY R3-5-R (2M) ON OVERHEAD S-67-265 — REMOVE
86 NO PARKING ANY TIME R7-1-D (3) — REMOVE
87 SOUTH 67 M3-3 / M1-6 J4-1 (3) — REMOVE
88 ALTERNATE 94 MB4-1 / M1-1 / USE LEFT LANE MB4-20L J3-1 (3) — REMOVE
89 W4-2R (3) — REMOVE

EXISTING TO REMAIN S-67-265

SEE SHEET 12A OF 18

CTH DR

248 250 252 254 256 258 260

STH 67

90 BEGIN LEFT TURN LANE R3-20-LL (3) — REMOVE
91 WRONG WAY R5-1A (3)
92 EAST COUNTY DR J3-1 — REMOVE
93 BEGIN LEFT TURN LANE R3-20-L (3) — REMOVE
94 WEST COUNTY DR J3-1 (3) — REMOVE
95 NO PARKING ANY TIME R7-1-D (3) — REMOVE
100 / 101 WEST TO EAST COUNTY DR / ALTERNATE 94 J2-3 (3) — REMOVE
102 NO PARKING ANY TIME R7-1-D (3) — REMOVE
103 W3-3 (3) — REMOVE
104 W3-3 (3) — REMOVE
105 NO PARKING ANY TIME R7-1-D (3) — REMOVE
200 Summit Village Way D1-61 (MOD)

SUMMIT VILLAGE WAY

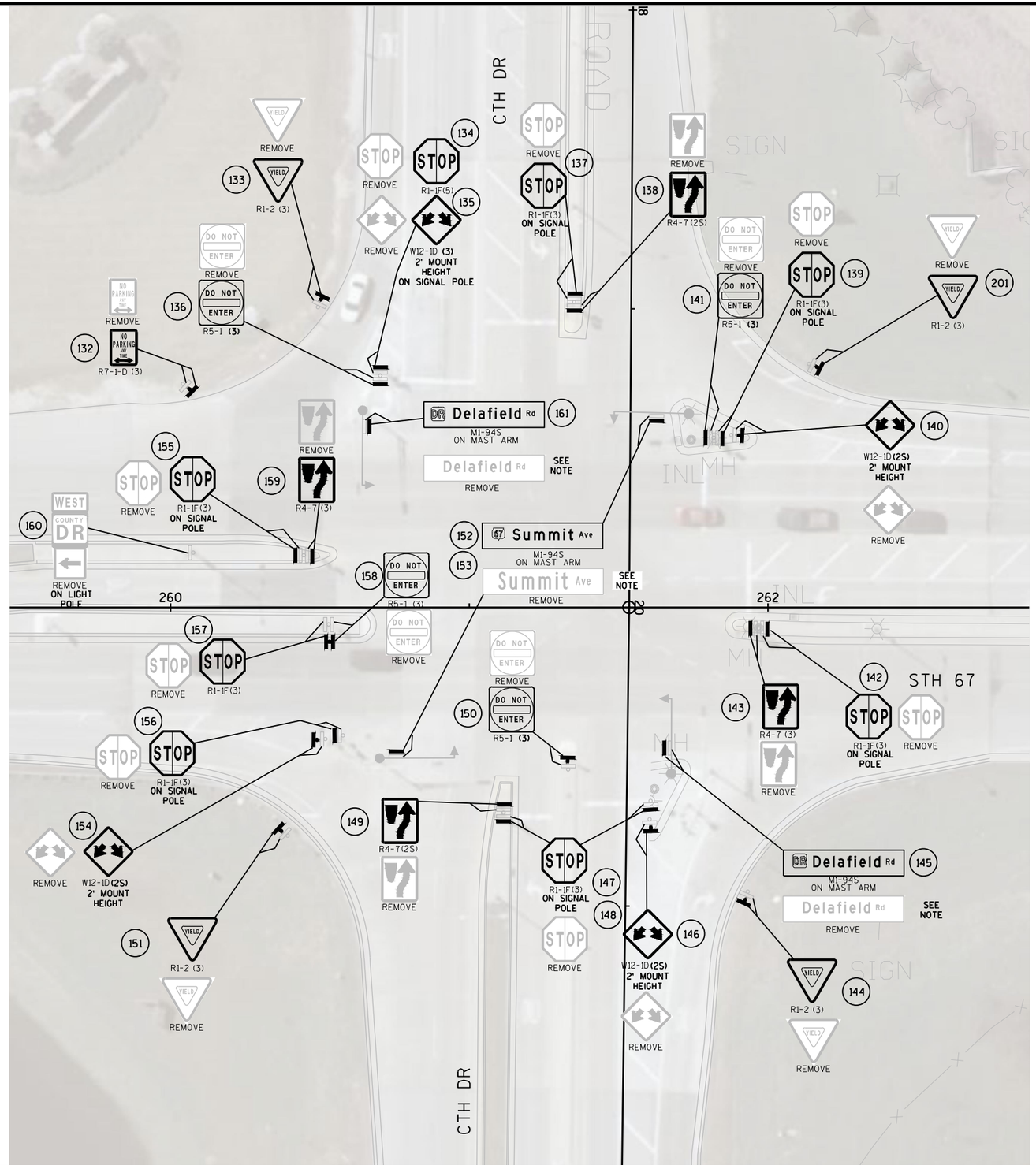
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (XX) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN
- CANTILEVER SIGN BRIDGE

SHEET 13 OF 18

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 44	E

FILE NAME : N:\PDS\C3D\CAD\31000630\SIGN\023201_PS.DWG
LAYOUT NAME - 023213_PS
PLOT DATE : 5/5/2016 7:50 AM
PLOT BY : DODGE, BRIAN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (XX) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN
- CANTILEVER SIGN BRIDGE

NOTE:
TURN OVER EXISTING STREET NAME SIGNS ON SIGNAL MAST ARMS TO THE VILLAGE OF SUMMIT.

SHEET 13A OF 18

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 45 E

2

N

SEE SHEET 13A OF 18

CTH DR

18

22

BLUE RIBBON DR

AURORA DR

STH 67

260 262 264 266 268

106 WEST COUNTY DR
J3-1 (3)

107 EAST COUNTY DR
J3-1 (3)

108 WRONG WAY
R5-1A (3)

109 ONLY
REMOVE
R3-5-L(2M)
ON OVERHEAD
S-67-253

ROUNDY'S DISTRIBUTION CENTER TRUCKS CARS
ESTR
OFF R/W
SIGN

110 ALTERNATE EAST 94 / ALTERNATE WEST 94
REMOVE
J3-2 (3)

111 EAST COUNTY DR / WEST COUNTY DR
REMOVE
J2-2 (3)

112 PARK & RIDE
D4-2-L (3)
PARK & RIDE
REMOVE

113 NO PARKING ANY TIME
R7-1-D (3)
REMOVE

WRONG WAY
ESTR
(PROJECT ID
3030-08-70)

ESTR
(PROJECT ID
3030-08-70)

ESTR
(PROJECT ID
3030-08-70)

114 NORTH 67
J4-1 (2S)
NORTH 67
REMOVE

SPEED LIMIT 45
ESTR
(PROJECT ID
3030-08-70)

115 Blue Ribbon Dr
Aurora Dr
D1-2
Blue Ribbon Dr
Aurora Dr
REMOVE

116 NO PARKING ANY TIME
R7-1-D (3)
REMOVE

202 BEGIN LEFT TURN LANE
R3-20-L (3)
BEGIN LEFT TURN LANE
REMOVE

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (XX) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN
- CANTILEVER SIGN BRIDGE

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 46	E

FILE NAME : N:\PDS\C3D\CAD\31000630\SIGN\023201_PS.DWG
LAYOUT NAME - 023214_PS
PLOT DATE : 5/5/2016 7:50 AM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

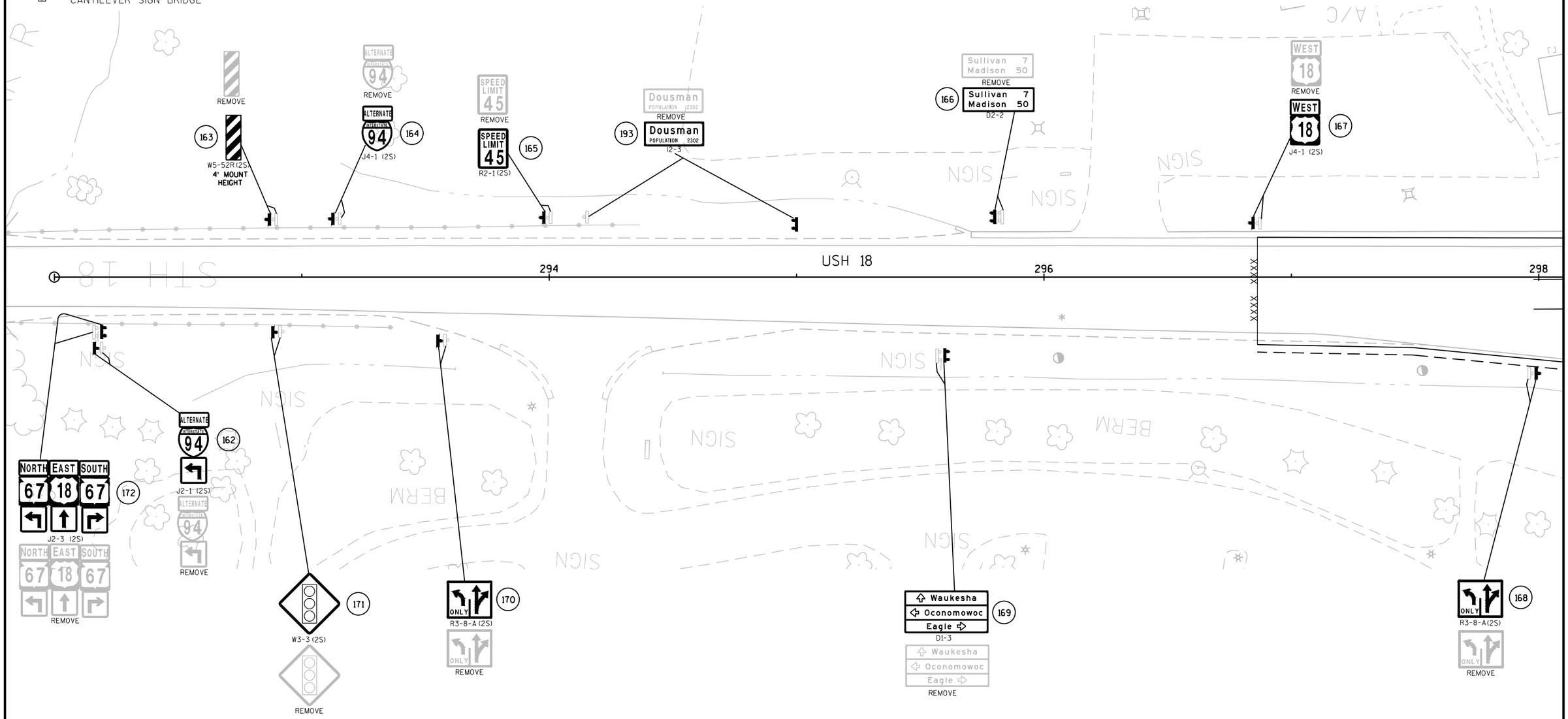
2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (XX) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN
- CANTILEVER SIGN BRIDGE

N

2



SHEET 15 OF 18

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 47	E

FILE NAME : N:\PDS\C3D\CAD\31000630\SIGN\023201_PS.DWG
LAYOUT NAME - 023215_PS

PLOT DATE : 5/5/2016 7:51 AM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

298

300

302

110'

45'

40'

108'

USH 18

STH 67

173 Sunset Dr
MI-94 S
ON MAST ARM

174
SOUTH 67 NORTH 67
REMOVE
SOUTH 67 NORTH 67
J3-2 (2S)

175 176 Summit Ave
MI-94 S
ON MAST ARM

177
ALTERNATE WEST 94
REMOVE
ALTERNATE WEST 94
J3-1 (2S)

178
ONLY
REMOVE
ONLY
R3-8-A (2S)

183 Sunset Dr
MI-94 S
ON MAST ARM

182
NO PARKING ANY TIME
R7-1-D(2S)
NO PARKING ANY TIME
REMOVE

EAST 18
J4-1 (2S)
EAST 18
REMOVE

180
Waukesha 12
Milwaukee 30
D2-2
Waukesha 12
Milwaukee 30
REMOVE

179
NO PARKING ANY TIME
R7-1-D(2S)
NO PARKING ANY TIME
REMOVE

185
NORTH 67 SOUTH 67
J3-2 (2S)
NORTH 67 SOUTH 67
REMOVE

184
ALTERNATE 94
J13-1 (2S)
ALTERNATE 94
REMOVE

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (XX) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN
- CANTILEVER SIGN BRIDGE

SHEET 16 OF 18

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 48	E

FILE NAME : N:\PDS\C3D\CAD\31000630\SIGN\023201_PS.DWG
LAYOUT NAME - 023216_PS

PLOT DATE : 5/5/2016 7:51 AM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

Sullivan
Dousman
Oconomowoc
REMOVE

Sullivan
Dousman
Oconomowoc
D1-3
186

ONLY
REMOVE

ONLY
R3-8-A (2S)
187

REMOVE

188
W3-3 (2S)

SIGN

HM

USH 18

304

306

308

STH 18

INL

INL

INL

BIKE PATH

SPEED LIMIT 55
R2-1 (2S)
190

SPEED LIMIT 55
REMOVE

ALTERNATE
ALTERNATE
94
189
J13-1 (2S)

ALTERNATE
ALTERNATE
94
REMOVE

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (XX) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN
- CANTILEVER SIGN BRIDGE

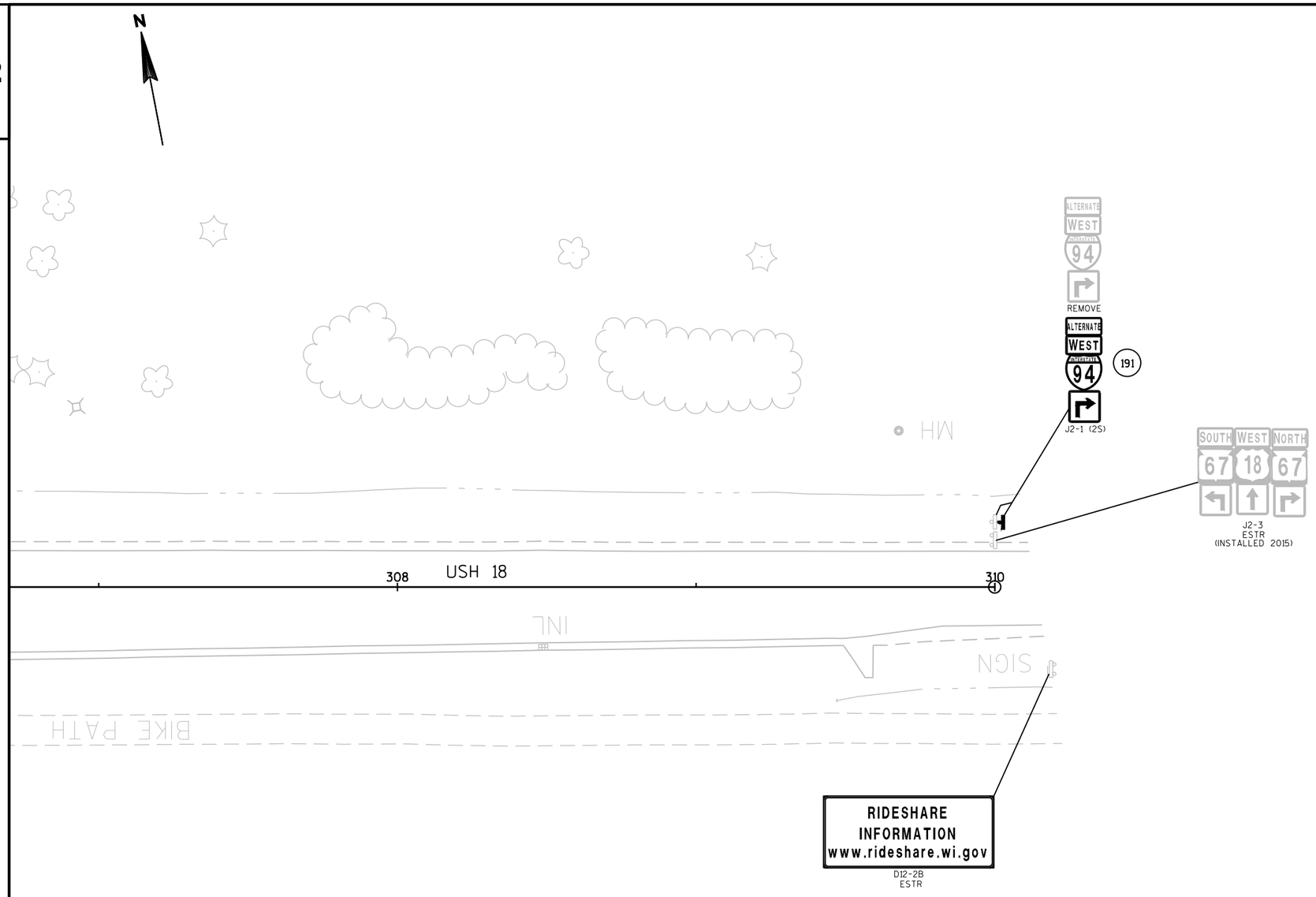
SHEET 17 OF 18

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 49	E

FILE NAME : N:\PDS\C3D\CAD\31000630\SIGN\023201_PS.DWG
LAYOUT NAME - 023217_PS

PLOT DATE : 5/5/2016 7:52 AM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (XX) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN
- CANTILEVER SIGN BRIDGE

SHEET 18 OF 18

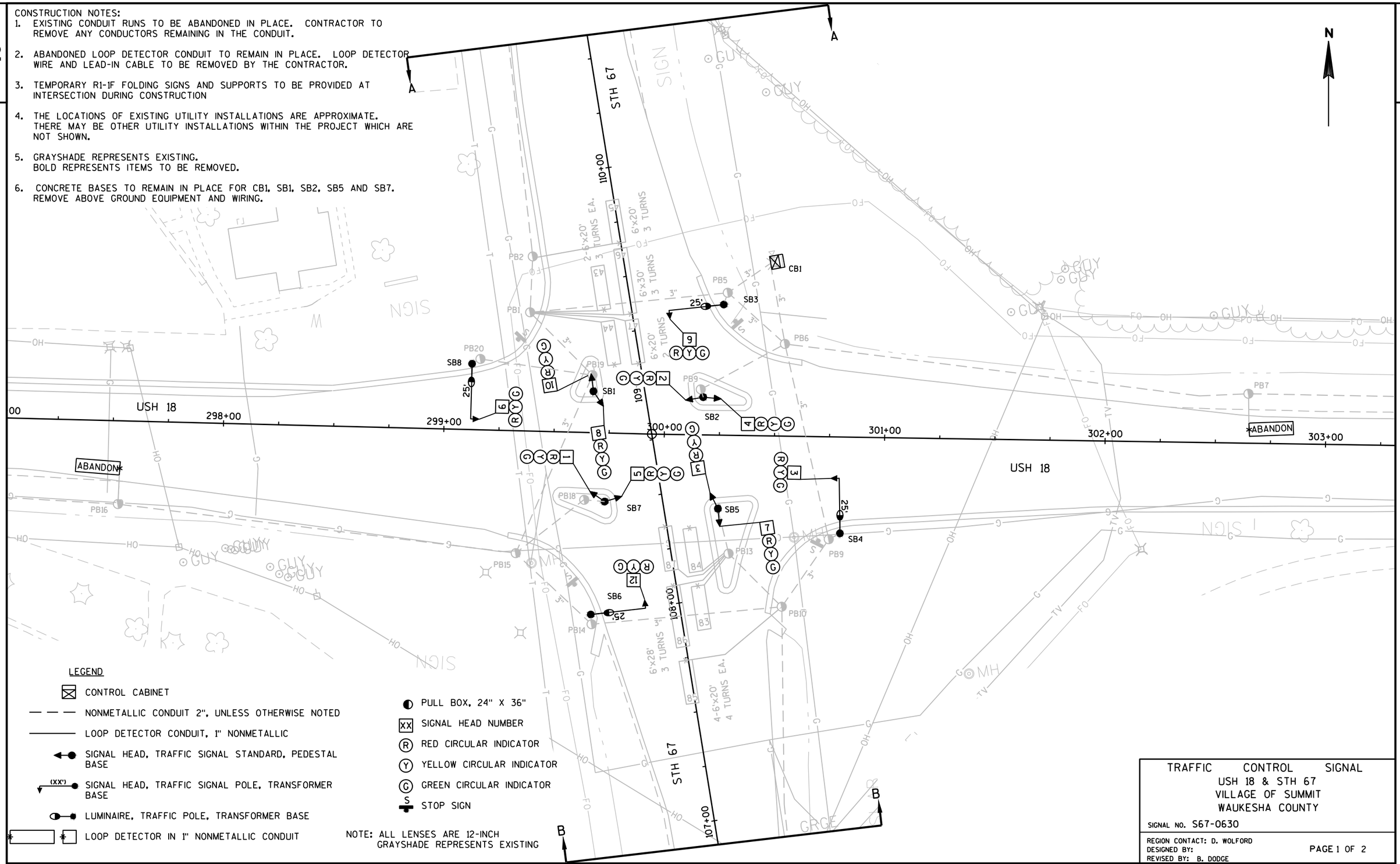
PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PERMANENT SIGNING	SHEET 50	E

FILE NAME : N:\PDS\C3D\CAD\31000630\SIGN\023201_PS.DWG
LAYOUT NAME - 023218_PS

PLOT DATE : 5/5/2016 7:52 AM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. TEMPORARY R1-1F FOLDING SIGNS AND SUPPORTS TO BE PROVIDED AT INTERSECTION DURING CONSTRUCTION
4. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
5. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.
6. CONCRETE BASES TO REMAIN IN PLACE FOR CB1, SB1, SB2, SB5 AND SB7. REMOVE ABOVE GROUND EQUIPMENT AND WIRING.



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT, 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX') SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- S STOP SIGN

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

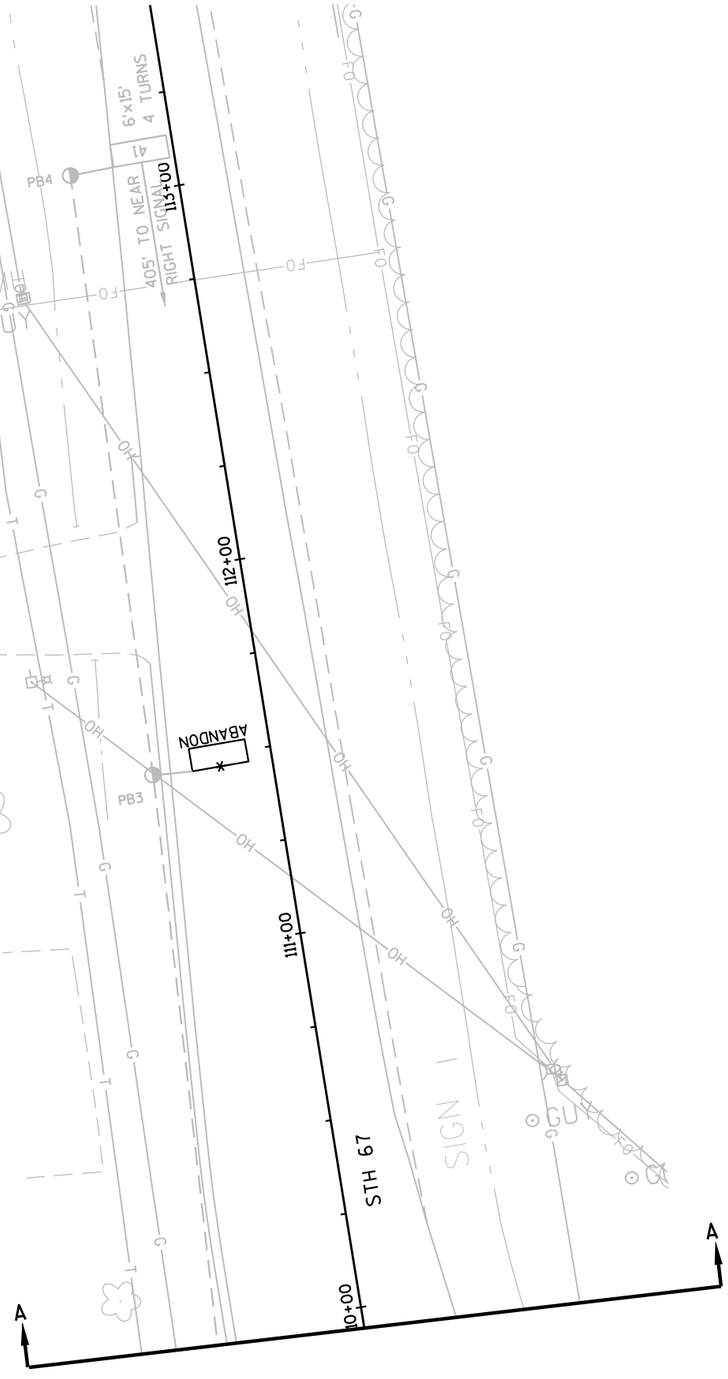
TRAFFIC CONTROL SIGNAL
USH 18 & STH 67
VILLAGE OF SUMMIT
WAUKESHA COUNTY

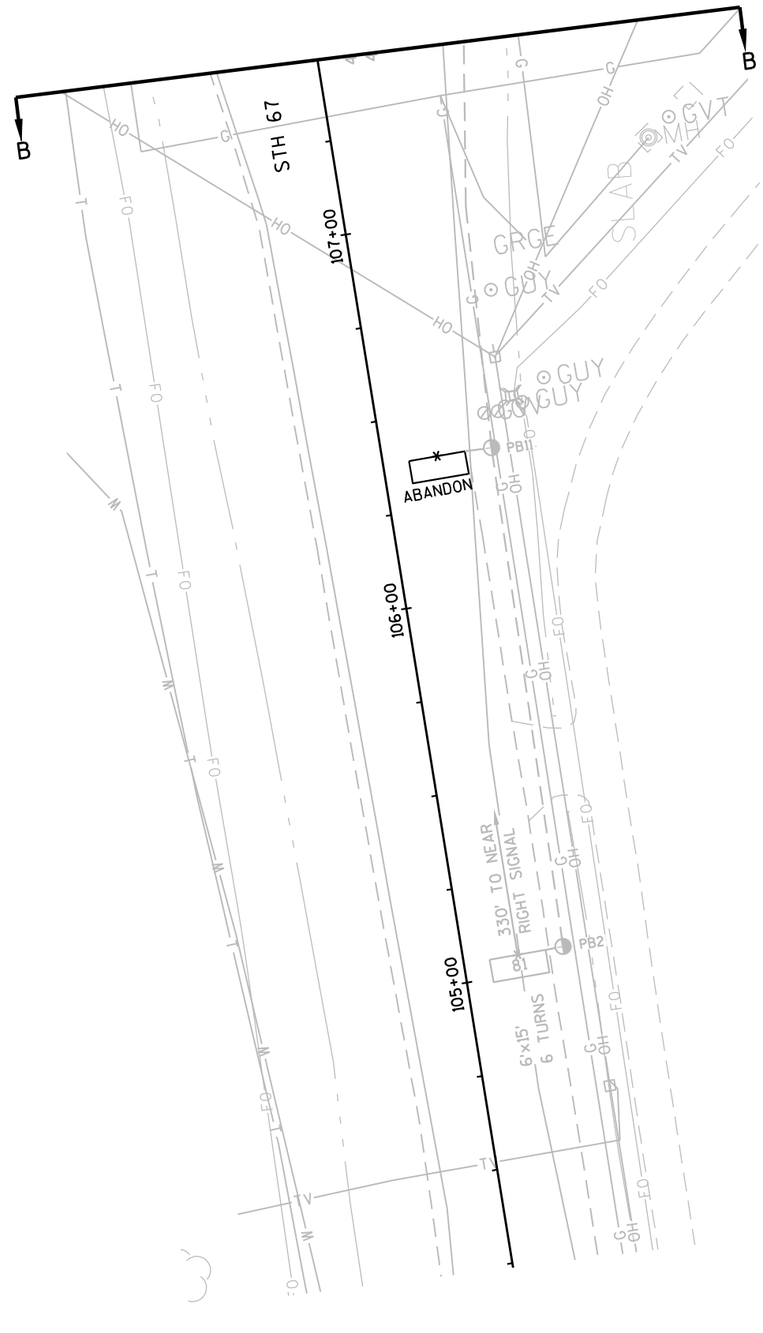
SIGNAL NO. S67-0630

REGION CONTACT: D. WOLFORD
DESIGNED BY:
REVISED BY: B. DODGE

PAGE 1 OF 2

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 51	E







2

TRAFFIC CONTROL SIGNAL
USH 18 & STH 67
VILLAGE OF SUMMIT
WAUKESHA COUNTY

SIGNAL NO. S67-0630

REGION CONTACT: D. WOLFORD
DESIGNED BY:
REVISED BY: B. DODGE

PAGE 2 OF 2

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 52	E

FILE NAME : N:\PDS\C3D\CAD\31000630\SIG\S67-0630\S67-0630_REM.DWG
LAYOUT NAME - 024002_SP_REMOVAL

PLOT DATE : 4/8/2016 7:40 AM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. ALL LUMINAIRES ARE LED-C UNLESS OTHERWISE NOTED.
5. ACTIVATION OF ALL FYA SIGNAL HEADS SHALL COINCIDE WITH THE INSTALLATION OF THE NEW CABINET.
6. REMOVE EXISTING CABINET AND INSTALL NEW CABINET DURING SAME OFF PEAK PERIOD.
7. SIGNAL SHALL FLASH RED-RED WITH STOP SIGNS AND ADVANCE WARNING DURING THE CABINET CHANGE.
8. ANY INACTIVE SIGNAL HEADS (SIGNAL HEADS 2, 3, 4, 5, 7, 8, 9, 10, 12, 13, 14, 15, 17, 18, 19 AND 20) SHALL BE BAGGED UNTIL NEW CABINET IS OPERATIONAL.

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT, 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- RADAR DETECTION AREA
- RX X RADAR DETECTOR
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- PULL BOX, 24" X 36"
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (FY) (Y) YELLOW ARROW
- (G) GREEN ARROW
- S STOP SIGN
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE DEPARTMENT WILL DETERMINE THE EXACT LOCATION OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH SIGNAL BASES, PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.
4. CABINET WIRING WILL BE DONE BY THE CONTRACTOR. THE CONTRACTOR SHALL INSTALL AND TERMINATE THE EVP CABLE AS DESCRIBED AND SHALL LABEL EACH CABLE AS NOTED ON THE PLAN SHEETS (I.E. EVP A-B-C-D).

MONOTUBE STRUCTURE NUMBERS
SB3 = S-67-1364
SB4 = S-67-1365
SB6 = S-67-1366
SB8 = S-67-1367

REVISION				
REV. NO.	INSTALL FYA IN ALL DIRECTIONS; INSTALL MONUTUBES; REPLACE CABINET & CONTROLLER; ADD RADAR DETECTION; ACTIVATE PHASES 1 & 5; INSTALL CELL MODEM			
	APPROVAL RECOMMENDED		APPROVED	
5	REGION		CENTRAL OFFICE	
	DATE	BY	DATE	BY
	4-26-16		4-26-16	

TRAFFIC CONTROL SIGNAL
USH 18 & STH 67
VILLAGE OF SUMMIT
WAUKESHA COUNTY
CABINET TYPE: TS2
SIGNAL NO. S67-0630 CONTROLLER TYPE: ECONOLITE

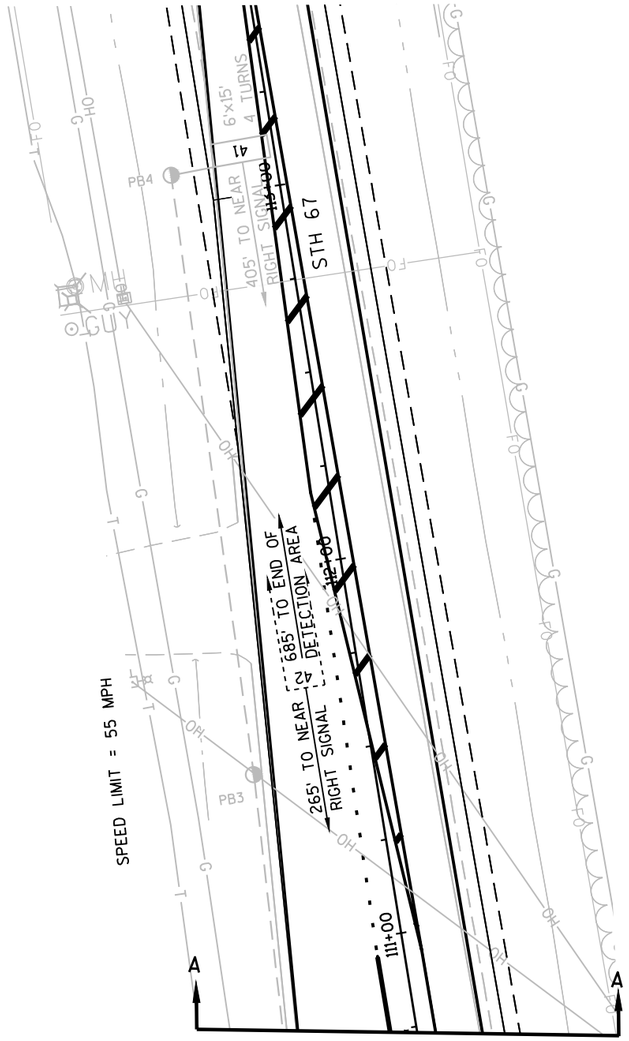
REPLACE CONTROLLER 3/6/14
REPLACE LOOP 86
ADD LEFT TURN LOOPS *47 & 87 7/22/02
ADD DILEMA ZONE DETECTION

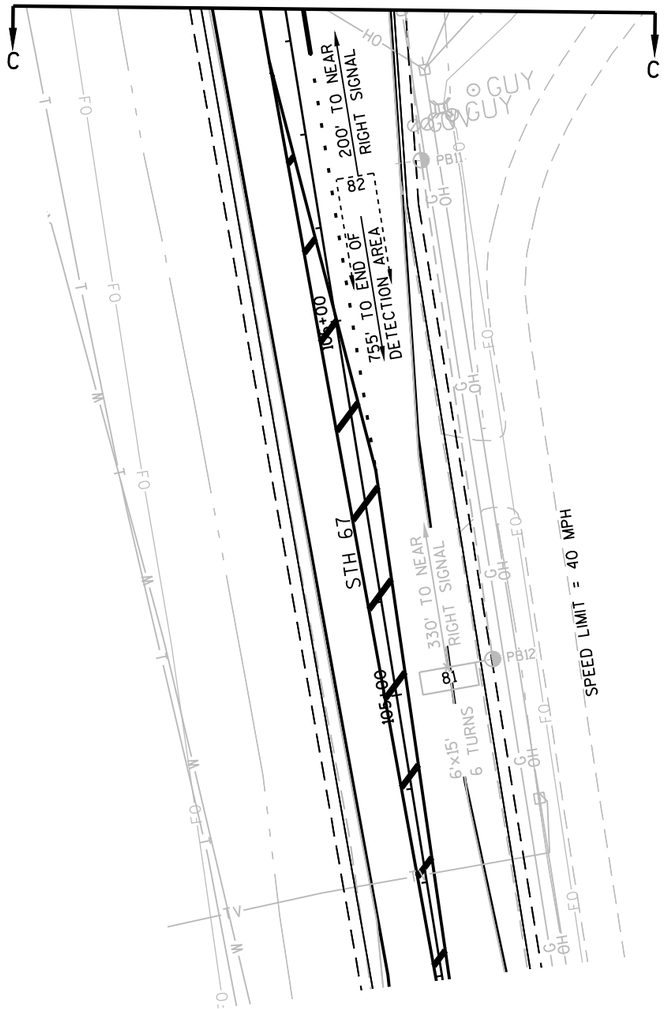
WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVAL RECOMMENDED
DATE 1/16/96 GARY P KNERR, REGION TRAFFIC ENGINEER
APPROVED
DATE 2/2/96 WILLIAM C. GILDING, STATE TRAFFIC ENGINEER
REGION CONTACT: D. WOLFORD
DESIGNED BY:
REVISED BY: B. DODGE
PAGE 1 OF 4

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	TRAFFIC SIGNAL PLAN	SHEET 53	E

FILE NAME : N:\PDS\C3D\CAD\31000630\SIG\S67-0630\S67-0630_E.DWG
LAYOUT NAME - 024001_SP
PLOT DATE : 4/26/2016 9:18 AM PLOT BY : VANDE LEEST, CYNTHIAPLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2





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TRAFFIC CONTROL SIGNAL
USH 18 & STH 67
VILLAGE OF SUMMIT
WAUKESHA COUNTY

SIGNAL NO. S67-0630

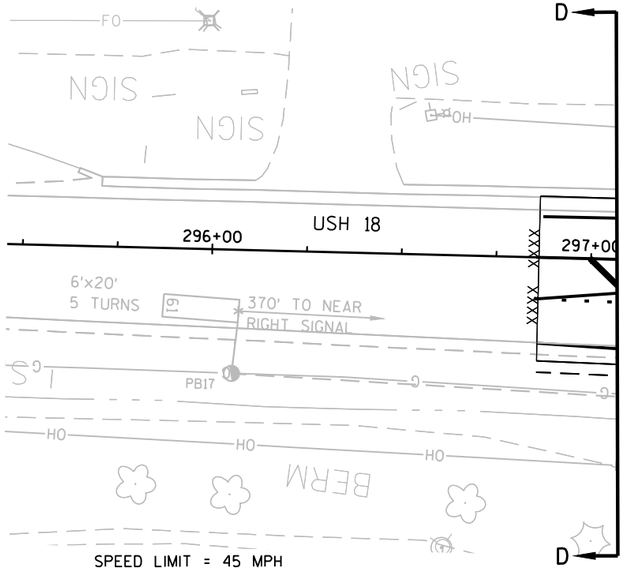
REGION CONTACT: D. WOLFORD
DESIGNED BY:
REVISED BY: B. DODGE

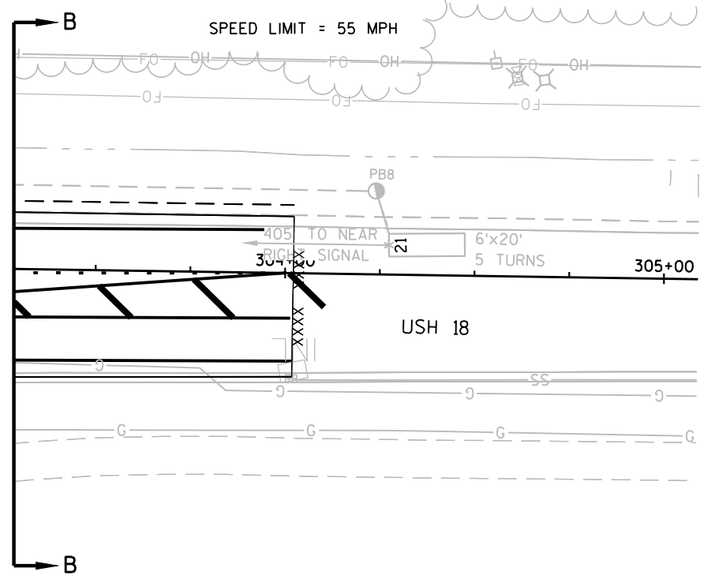
PAGE 2 OF 4

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	TRAFFIC SIGNAL PLAN	SHEET 54	E

2

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TRAFFIC CONTROL SIGNAL
USH 18 & STH 67
VILLAGE OF SUMMIT
WAUKESHA COUNTY

SIGNAL NO. S67-0630

REGION CONTACT: D. WOLFORD
DESIGNED BY:
REVISED BY: B. DODGE

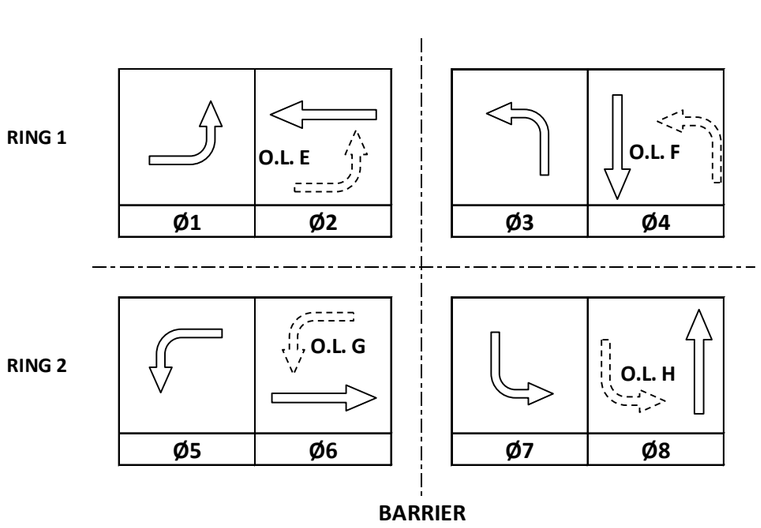
PAGE 3 OF 4

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	TRAFFIC SIGNAL PLAN	SHEET 55	E

FILE NAME : N:\PDS\C3D\CAD\31000630\SIG\S67-0630\S67-0630_E.DWG
LAYOUT NAME - 024003_SP

PLOT DATE : 4/26/2016 9:20 AM PLOT BY : VANDE LEEST, CYNTHIAPLOT NAME : PLOT SCALE : 1 IN:40 FT

	HEAD NUMBERS	FLASH
Ø1	4,5	R ←
Ø2	6,7,8	R
Ø3	14,15	R ←
Ø4	16,17,18	R
Ø5	9,10	R ←
Ø6	1,2,3	R
Ø7	19,20	R ←
Ø8	11,12,13	R
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLE	4,5	-
OLF	14,15	-
OLG	9,10	-
OLH	19,20	-



CONTROLLER LOGIC

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT	←	→	↓	↑
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 6+1, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	X

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

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

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

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	17	19	21			49	51	53	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	21	32	41	44	71	73	83		11					22	42	63	PLAN LOOP DETECTOR*(S)
CALLED PHASE	2	3	4	4	7	7	8		1					2	4	5	CALLED PHASE
CALL OPTION	X	X		X	X	X	X		X							X	CALL OPTION
DELAY TIME						X											DELAY TIME
EXTENTION OPTION	X	X	X	X	X	X	X		X					X	X	X	EXTENTION OPTION
EXTEND TIME			X											X	X		EXTEND TIME
USE ADDED INITIAL	X																USE ADDED INITIAL
CROSS SWITCH PHASE		4			8	8			2								CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14	18	20	22			50	52	54	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	31	33	43	61	72	81	84		51					23	62	82	PLAN LOOP DETECTOR*(S)
CALLED PHASE	3	3	4	6	7	8	8		5					2	6	8	CALLED PHASE
CALL OPTION	X	X	X	X	X		X		X					X			CALL OPTION
DELAY TIME		X															DELAY TIME
EXTENTION OPTION	X	X	X	X	X	X	X		X					X	X	X	EXTENTION OPTION
EXTEND TIME						X									X	X	EXTEND TIME
USE ADDED INITIAL				X													USE ADDED INITIAL
CROSS SWITCH PHASE	4	4			8				6								CROSS SWITCH PHASE

USH 18 & STH 67
VILLAGE OF SUMMIT
WAUKESHA COUNTY

SIGNAL NO: S67-0630	CABINET TYPE: TS2
	CONTROLLER TYPE: ECONOLITE
DATE: 4/16	PAGE NO. 4 OF 4

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	SEQUENCE OF OPERATIONS	SHEET NO: 56	E

PROJECT ID:	3100-06-60
INTERSECTION:	USH 18 & STH 67

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

CB1 TO	AWG14 # OF CONDUCTORS	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>	D/WALK	WALK		
SB1	12 [1]	14				RED	ORG	GRN	BLK/WHT				
		16	RED/BLK	ORG/BLK	GRN/BLK								
SB2	12 [1]	4				RED	ORG	GRN	BLK/WHT				
		6	RED/BLK	ORG/BLK	GRN/BLK								
SB3	12	12	RED	ORG	GRN								
		13	RED	ORG	GRN								
		15				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
SB4	12	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		5				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
SB5	12 [1]	11	RED	ORG	GRN								
		19				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
SB6	12	17	RED	ORG	GRN								
		18	RED	ORG	GRN								
		20				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
SB7	12 [1]	1	RED	ORG	GRN								
		9				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
SB8	12	7	RED	ORG	GRN								
		8	RED	ORG	GRN								
		10				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
From	TO
CB1	SB2
SB2	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB1
SB1	SB3
SB3	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
From	To
PB1	SB1
PB5	SB3
PB6	CB1
PB9	SB4
PB10	SB4
PB13	SB5
PB14	SB6
PB15	SB6
PB18	SB7
PB19	SB1
PB20	SB8
PB21	SB2

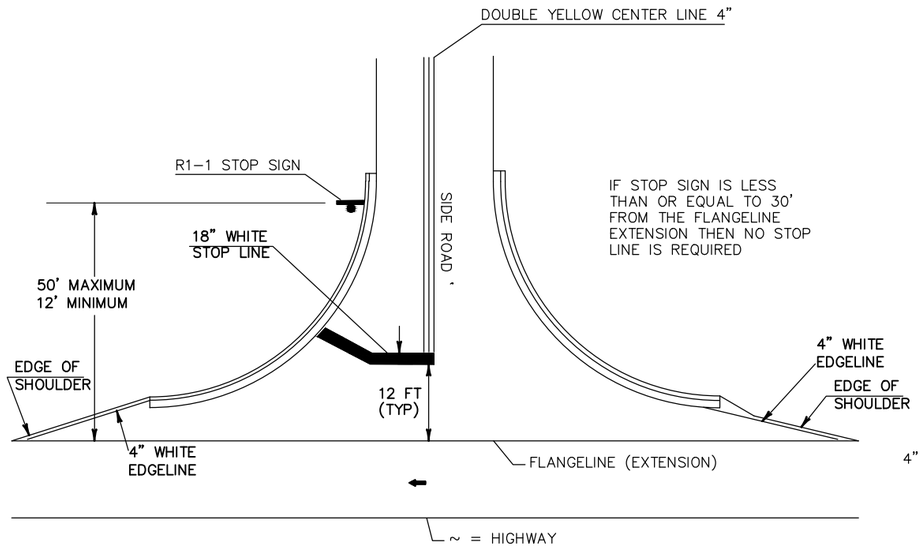
LIGHTING UF #12 W/ GROUND	
From	To
CB1	SB3
SB3	SB8
CB1	SB4
SB4	SB6

EMERGENCY VEHICLE PREEMPTION CABLE	
From	To
CB1	SB8 (HEAD A)
CB1	SB4 (HEAD B)
CB1	SB6 (HEAD C)
CB1	SB3 (HEAD D)

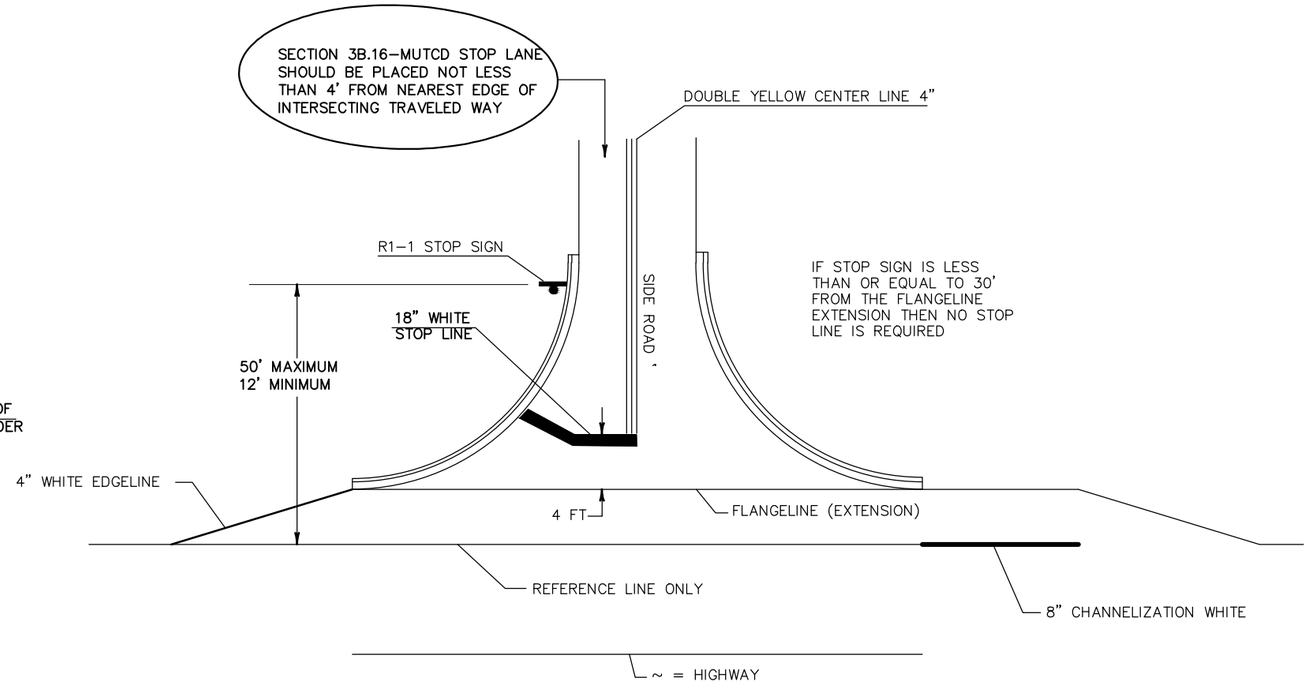
RADAR DETECTION CABLE	
From	To
CB1	RA1 (SB4)
CB1	RA2 (SB8)
CB1	RA3 (SB3)
CB1	RA4 (SB6)
CB1	RM1 (SB8)
CB1	RM2 (SB4)

*Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
*Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.
*At the signal bases, connect one terminal from the pedestrian push buttons to the color indicated in the chart. Connect the other terminal to the grounded conductor.
*Reconnect the grounding conductors wherever the circuit has been interrupted to ensure the grounding circuit is complete.

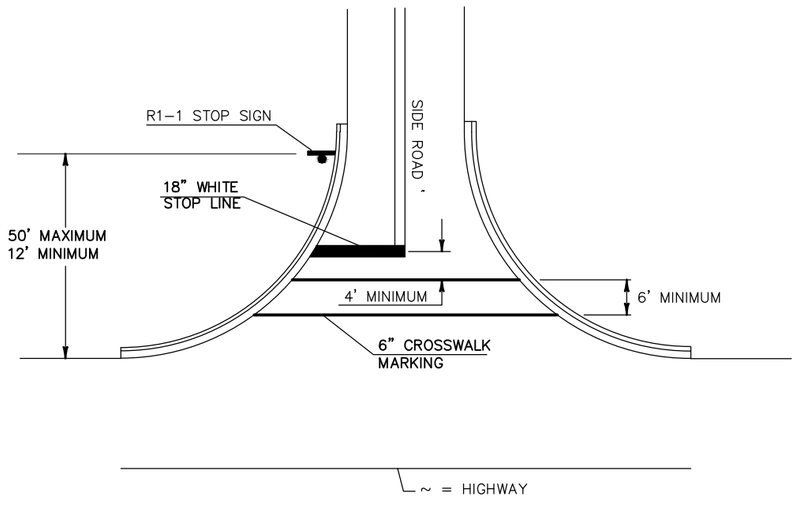
[1] Use Existing 12-CT Traffic Signal Cable



TYPICAL PAVEMENT MARKING FOR SIDEROADS



TYPICAL PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



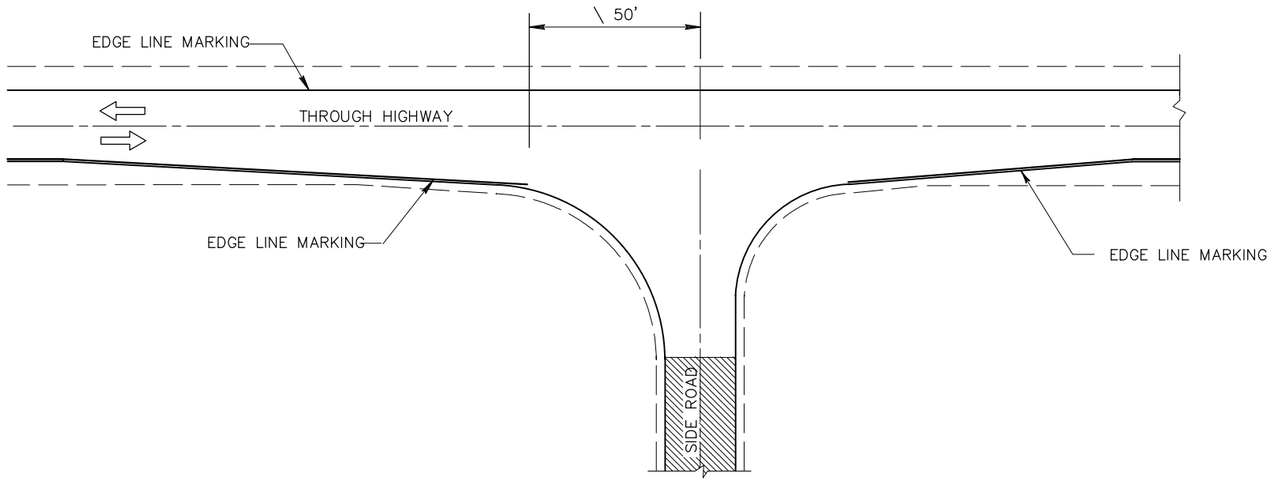
TYPICAL PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING

NOTES:
18–INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.

STOP LINES REQUIRED WHERE:

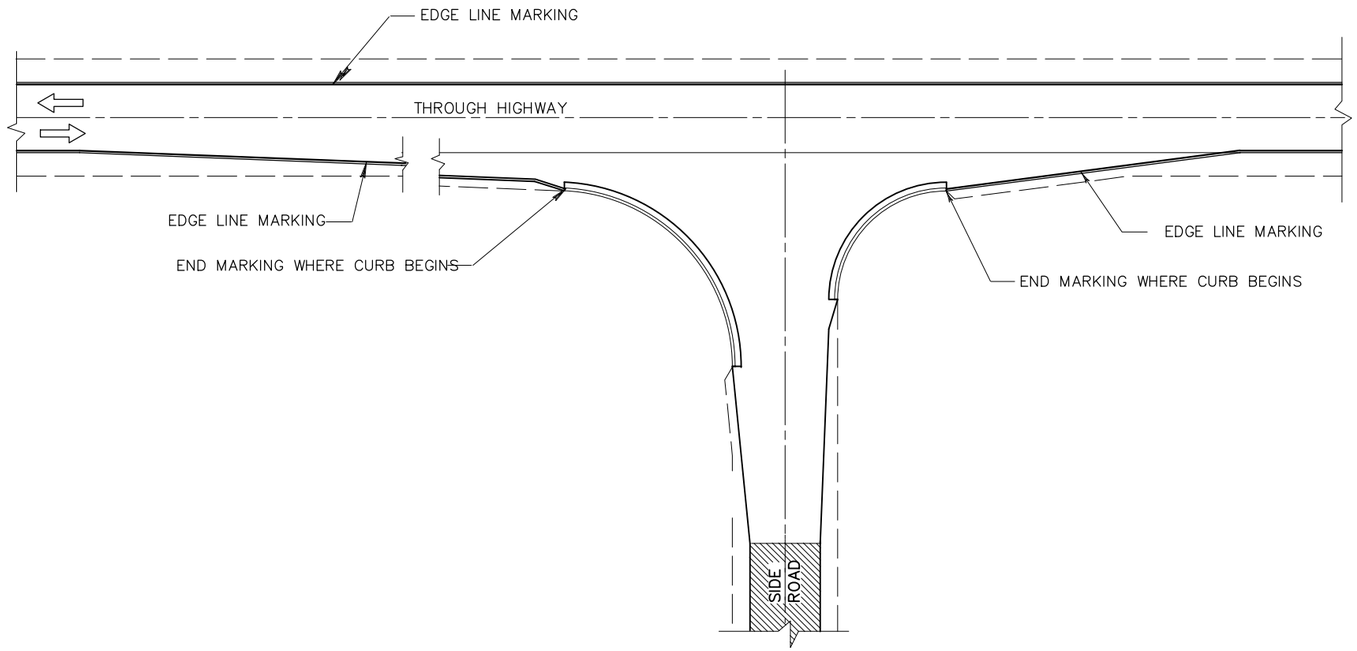
- CROSSWALK MARKINGS EXIST OR BEING PROVIDED
- LARGE RADII
- OFFSET LEFT TURNS WHERE STOP BAR FOR LEFT TURN IS SET BACK FROM THRU MOVEMENT.

2



MINOR INTERSECTION WITHOUT CURBS

(TYPICAL MARKING)

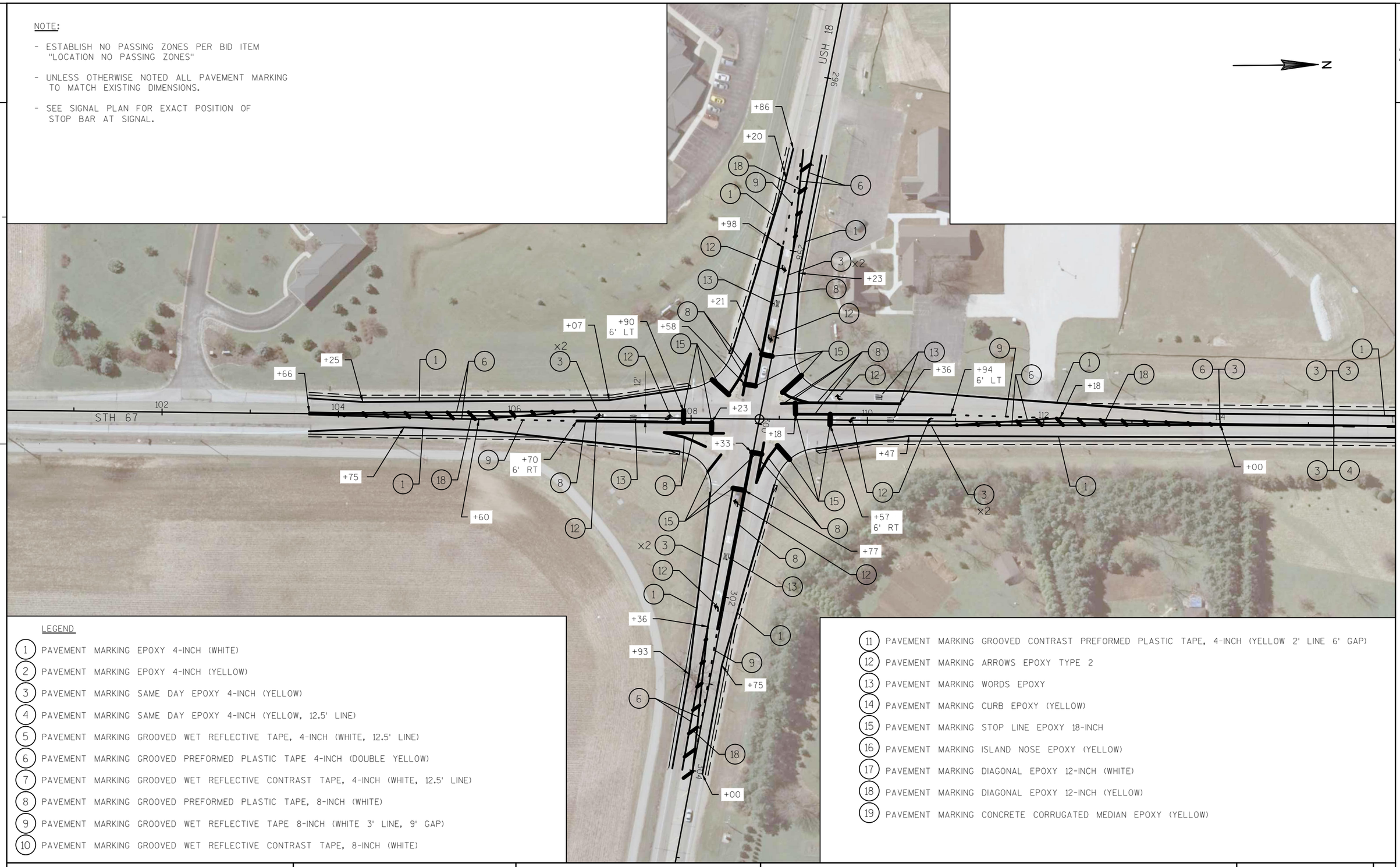


MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)

NOTE:

- ESTABLISH NO PASSING ZONES PER BID ITEM "LOCATION NO PASSING ZONES"
- UNLESS OTHERWISE NOTED ALL PAVEMENT MARKING TO MATCH EXISTING DIMENSIONS.
- SEE SIGNAL PLAN FOR EXACT POSITION OF STOP BAR AT SIGNAL.



LEGEND

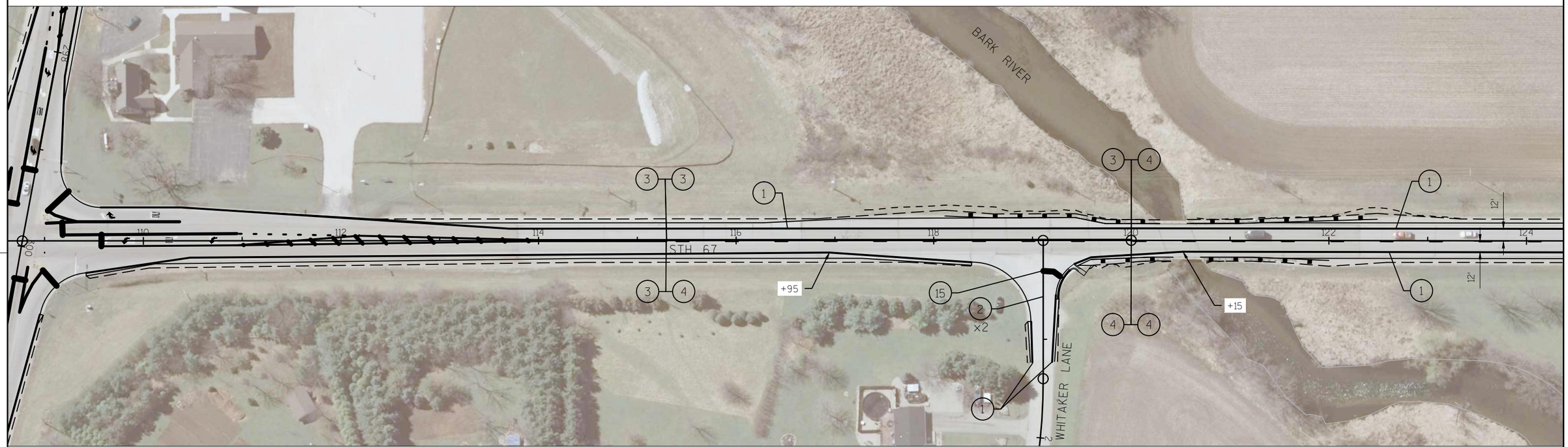
1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW)
4. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW, 12.5' LINE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE, 4-INCH (WHITE, 12.5' LINE)
6. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH (DOUBLE YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (WHITE, 12.5' LINE)
8. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE, 8-INCH (WHITE)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE 3' LINE, 9' GAP)
10. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
11. PAVEMENT MARKING GROOVED CONTRAST PREFORMED PLASTIC TAPE, 4-INCH (YELLOW 2' LINE 6' GAP)
12. PAVEMENT MARKING ARROWS EPOXY TYPE 2
13. PAVEMENT MARKING WORDS EPOXY
14. PAVEMENT MARKING CURB EPOXY (YELLOW)
15. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
16. PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW)
17. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
18. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
19. PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY (YELLOW)

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PAVEMENT MARKING	SHEET 60	E

FILE NAME : N:\PDS\C3D\CAD\31000630\024501_PM.DWG
LAYOUT NAME - 024501_PM
PLOT DATE : 7/7/2016 1:34 PM
PLOT BY : SCHMIDT, JUDENE M PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

N



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW)
4. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW, 12.5' LINE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE, 4-INCH (WHITE, 12.5' LINE)
6. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH (DOUBLE YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (WHITE, 12.5' LINE)
8. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE, 8-INCH (WHITE)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE 3' LINE, 9' GAP)
10. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
11. PAVEMENT MARKING GROOVED CONTRAST PREFORMED PLASTIC TAPE, 4-INCH (YELLOW 2' LINE 6' GAP)
12. PAVEMENT MARKING ARROWS EPOXY TYPE 2
13. PAVEMENT MARKING WORDS EPOXY
14. PAVEMENT MARKING CURB EPOXY (YELLOW)
15. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
16. PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW)
17. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
18. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
19. PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY (YELLOW)

NOTE:

- ESTABLISH NO PASSING ZONES PER BID ITEM "LOCATION NO PASSING ZONES"
- UNLESS OTHERWISE NOTED ALL PAVEMENT MARKING TO MATCH EXISTING DIMENSIONS.
- SEE SIGNAL PLAN FOR EXACT POSITION OF STOP BAR AT SIGNAL.

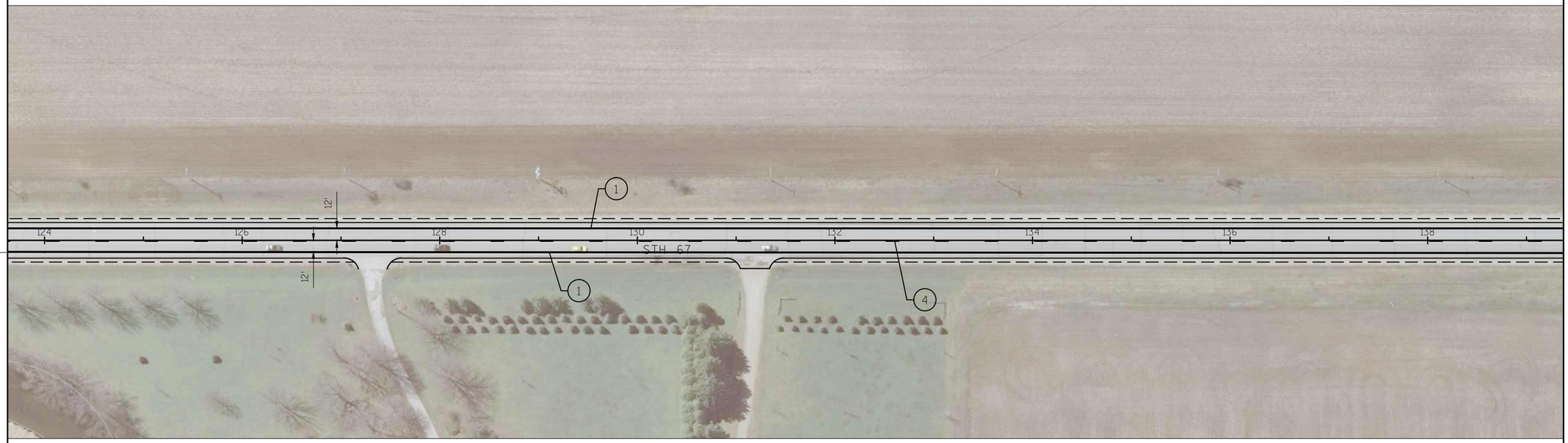
PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PAVEMENT MARKING	SHEET 61	E

FILE NAME : N:\PDS\C3D\CAD\31000630\024501_PM.DWG
LAYOUT NAME - 024502_PM
PLOT DATE : 7/7/2016 1:34 PM PLOT BY : SCHMIDT, JUDENE M PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

2

N



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW)
4. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW, 12.5' LINE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE, 4-INCH (WHITE, 12.5' LINE)
6. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH (DOUBLE YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (WHITE, 12.5' LINE)
8. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE, 8-INCH (WHITE)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE 3' LINE, 9' GAP)
10. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
11. PAVEMENT MARKING GROOVED CONTRAST PREFORMED PLASTIC TAPE, 4-INCH (YELLOW 2' LINE 6' GAP)
12. PAVEMENT MARKING ARROWS EPOXY TYPE 2
13. PAVEMENT MARKING WORDS EPOXY
14. PAVEMENT MARKING CURB EPOXY (YELLOW)
15. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
16. PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW)
17. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
18. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
19. PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY (YELLOW)

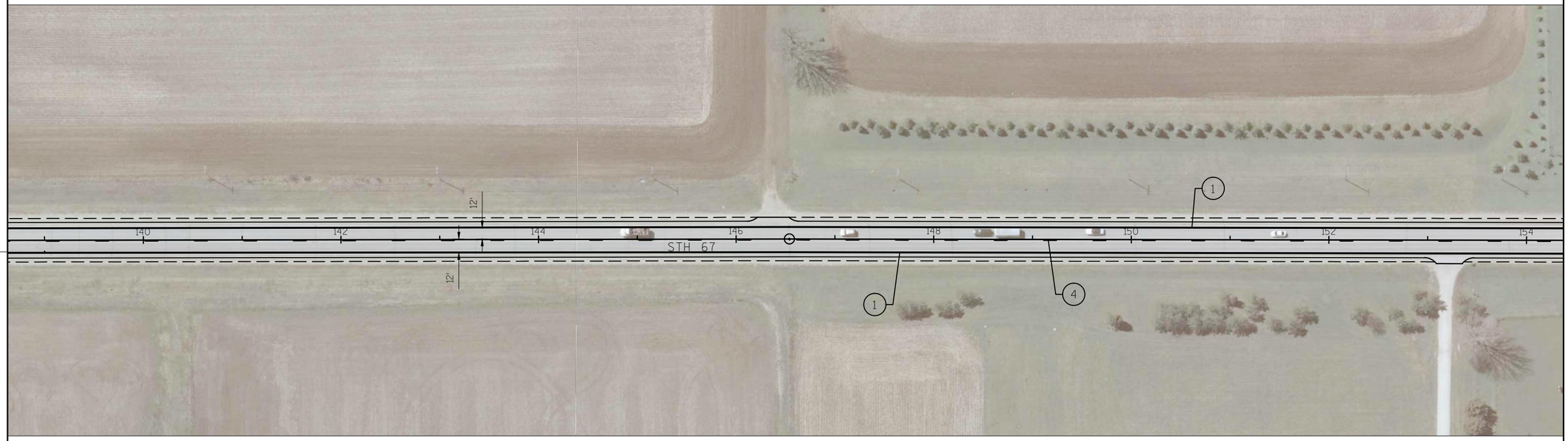
NOTE:

- ESTABLISH NO PASSING ZONES PER BID ITEM "LOCATION NO PASSING ZONES"
- UNLESS OTHERWISE NOTED ALL PAVEMENT MARKING TO MATCH EXISTING DIMENSIONS.
- SEE SIGNAL PLAN FOR EXACT POSITION OF STOP BAR AT SIGNAL.

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PAVEMENT MARKING	SHEET 62	E

2

N



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW)
4. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW, 12.5' LINE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE, 4-INCH (WHITE, 12.5' LINE)
6. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH (DOUBLE YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (WHITE, 12.5' LINE)
8. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE, 8-INCH (WHITE)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE 3' LINE, 9' GAP)
10. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
11. PAVEMENT MARKING GROOVED CONTRAST PREFORMED PLASTIC TAPE, 4-INCH (YELLOW 2' LINE 6' GAP)
12. PAVEMENT MARKING ARROWS EPOXY TYPE 2
13. PAVEMENT MARKING WORDS EPOXY
14. PAVEMENT MARKING CURB EPOXY (YELLOW)
15. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
16. PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW)
17. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
18. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
19. PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY (YELLOW)

NOTE:

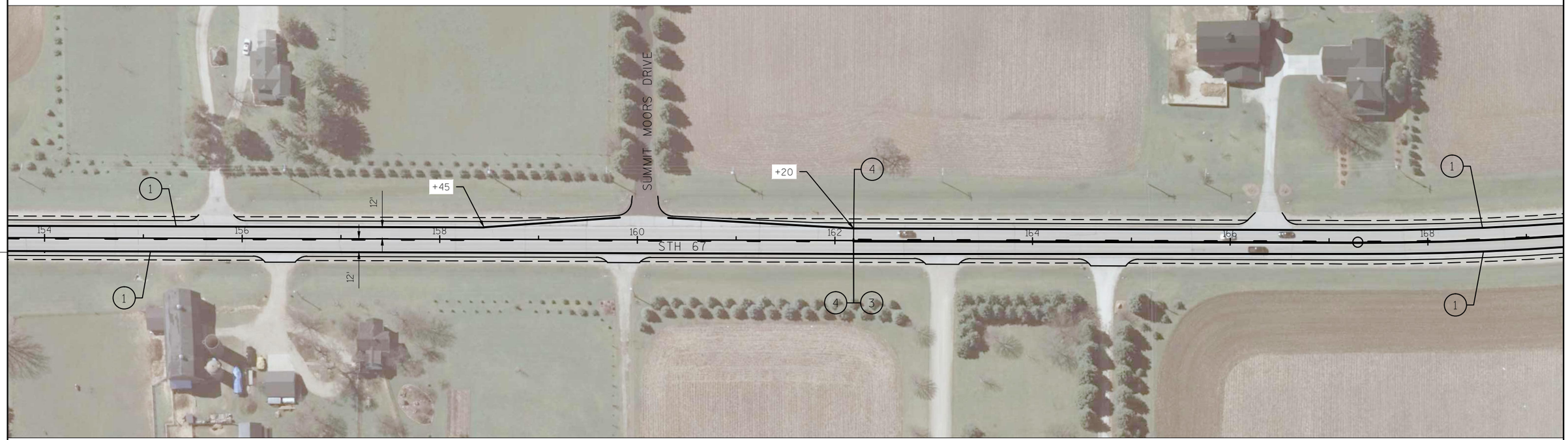
- ESTABLISH NO PASSING ZONES PER BID ITEM "LOCATION NO PASSING ZONES"
- UNLESS OTHERWISE NOTED ALL PAVEMENT MARKING TO MATCH EXISTING DIMENSIONS.
- SEE SIGNAL PLAN FOR EXACT POSITION OF STOP BAR AT SIGNAL.

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PAVEMENT MARKING	SHEET 63	E

FILE NAME : N:\PDS\C3D\CAD\31000630\024501_PM.DWG
LAYOUT NAME - 024504_PM
PLOT DATE : 7/7/2016 1:34 PM PLOT BY : SCHMIDT, JUDENE M PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

N



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW)
4. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW, 12.5' LINE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE, 4-INCH (WHITE, 12.5' LINE)
6. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH (DOUBLE YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (WHITE, 12.5' LINE)
8. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE, 8-INCH (WHITE)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE 3' LINE, 9' GAP)
10. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
11. PAVEMENT MARKING GROOVED CONTRAST PREFORMED PLASTIC TAPE, 4-INCH (YELLOW 2' LINE 6' GAP)
12. PAVEMENT MARKING ARROWS EPOXY TYPE 2
13. PAVEMENT MARKING WORDS EPOXY
14. PAVEMENT MARKING CURB EPOXY (YELLOW)
15. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
16. PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW)
17. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
18. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
19. PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY (YELLOW)

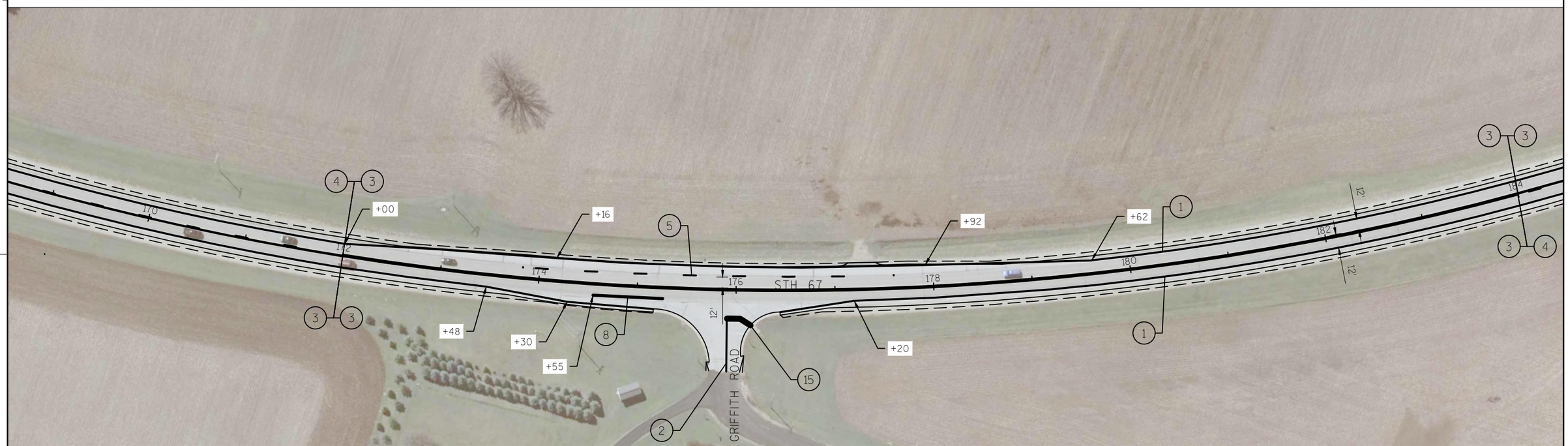
NOTE:

- ESTABLISH NO PASSING ZONES PER BID ITEM "LOCATION NO PASSING ZONES"
- UNLESS OTHERWISE NOTED ALL PAVEMENT MARKING TO MATCH EXISTING DIMENSIONS.
- SEE SIGNAL PLAN FOR EXACT POSITION OF STOP BAR AT SIGNAL.

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PAVEMENT MARKING	SHEET 64	E

FILE NAME : N:\PDS\C3D\CAD\31000630\024501_PM.DWG
LAYOUT NAME - 024505_PM
PLOT DATE : 7/7/2016 1:34 PM PLOT BY : SCHMIDT, JUDENE M PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW)
4. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW, 12.5' LINE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE, 4-INCH (WHITE, 12.5' LINE)
6. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH (DOUBLE YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (WHITE, 12.5' LINE)
8. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE, 8-INCH (WHITE)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE 3' LINE, 9' GAP)
10. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
11. PAVEMENT MARKING GROOVED CONTRAST PREFORMED PLASTIC TAPE, 4-INCH (YELLOW 2' LINE 6' GAP)
12. PAVEMENT MARKING ARROWS EPOXY TYPE 2
13. PAVEMENT MARKING WORDS EPOXY
14. PAVEMENT MARKING CURB EPOXY (YELLOW)
15. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
16. PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW)
17. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
18. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
19. PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY (YELLOW)

NOTE:

- ESTABLISH NO PASSING ZONES PER BID ITEM "LOCATION NO PASSING ZONES"
- UNLESS OTHERWISE NOTED ALL PAVEMENT MARKING TO MATCH EXISTING DIMENSIONS.
- SEE SIGNAL PLAN FOR EXACT POSITION OF STOP BAR AT SIGNAL.

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PAVEMENT MARKING	SHEET 65	E

FILE NAME : N:\PDS\C3D\CAD\31000630\024501_PM.DWG
LAYOUT NAME - 024506_PM
PLOT DATE : 7/7/2016 1:34 PM PLOT BY : SCHMIDT, JUDENE M PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW)
4. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW, 12.5' LINE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE, 4-INCH (WHITE, 12.5' LINE)
6. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH (DOUBLE YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (WHITE, 12.5' LINE)
8. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE, 8-INCH (WHITE)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE 3' LINE, 9' GAP)
10. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
11. PAVEMENT MARKING GROOVED CONTRAST PREFORMED PLASTIC TAPE, 4-INCH (YELLOW 2' LINE 6' GAP)
12. PAVEMENT MARKING ARROWS EPOXY TYPE 2
13. PAVEMENT MARKING WORDS EPOXY
14. PAVEMENT MARKING CURB EPOXY (YELLOW)
15. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
16. PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW)
17. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
18. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
19. PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY (YELLOW)

NOTE:

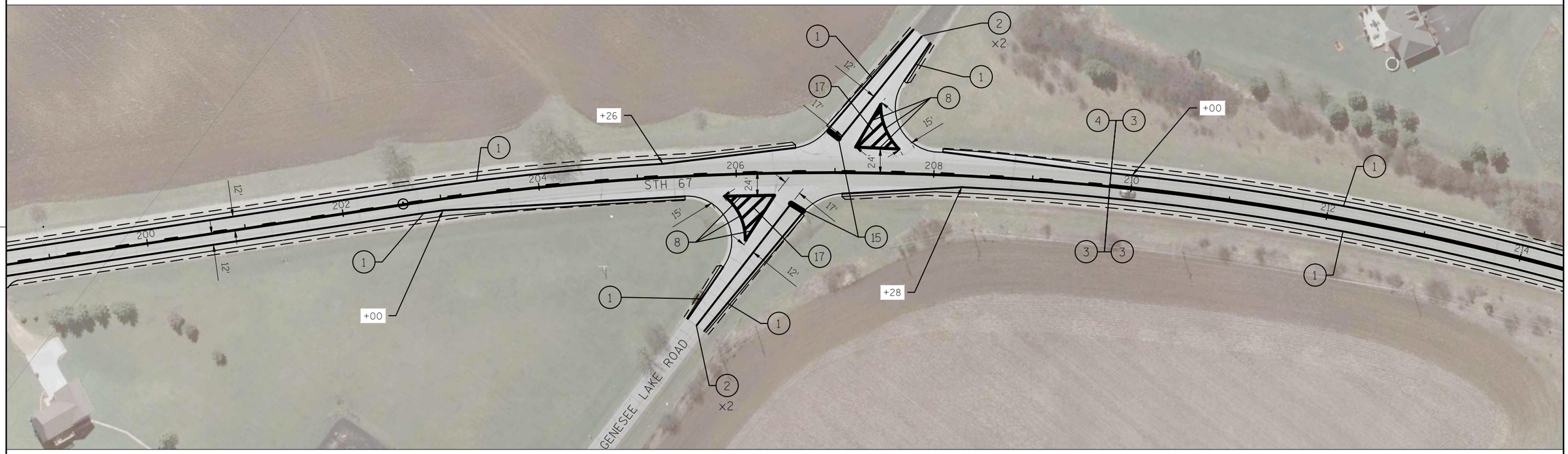
- ESTABLISH NO PASSING ZONES PER BID ITEM "LOCATION NO PASSING ZONES"
- UNLESS OTHERWISE NOTED ALL PAVEMENT MARKING TO MATCH EXISTING DIMENSIONS.
- SEE SIGNAL PLAN FOR EXACT POSITION OF STOP BAR AT SIGNAL.

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PAVEMENT MARKING	SHEET 66	E

2

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW)
4. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW, 12.5' LINE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE, 4-INCH (WHITE, 12.5' LINE)
6. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH (DOUBLE YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (WHITE, 12.5' LINE)
8. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE, 8-INCH (WHITE)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE 3' LINE, 9' GAP)
10. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
11. PAVEMENT MARKING GROOVED CONTRAST PREFORMED PLASTIC TAPE, 4-INCH (YELLOW 2' LINE 6' GAP)
12. PAVEMENT MARKING ARROWS EPOXY TYPE 2
13. PAVEMENT MARKING WORDS EPOXY
14. PAVEMENT MARKING CURB EPOXY (YELLOW)
15. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
16. PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW)
17. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
18. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
19. PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY (YELLOW)



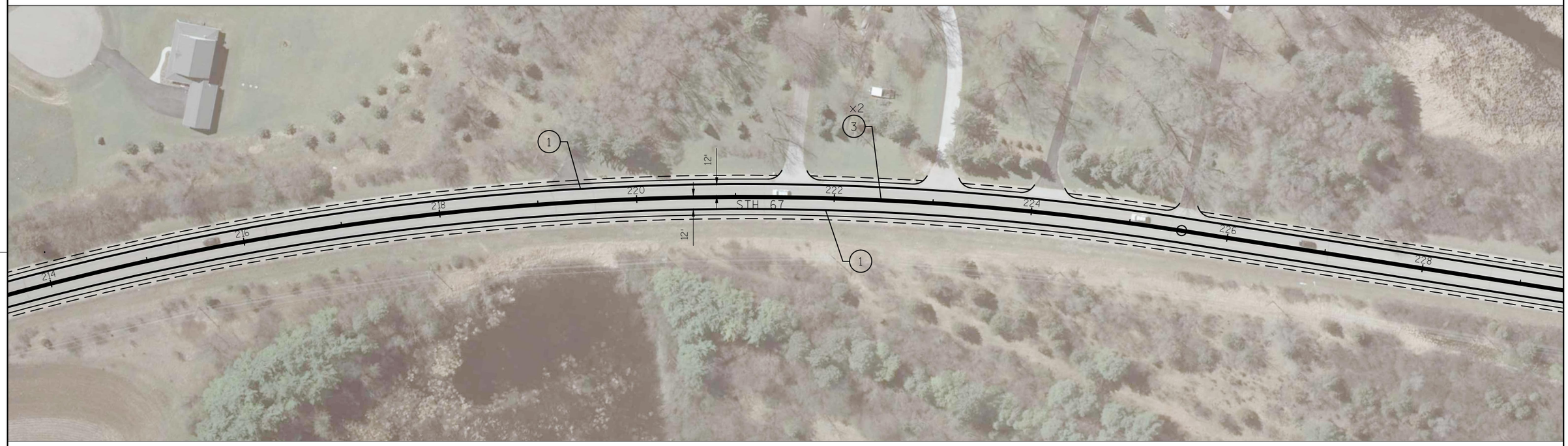
NOTE:

- ESTABLISH NO PASSING ZONES PER BID ITEM "LOCATION NO PASSING ZONES"
- UNLESS OTHERWISE NOTED ALL PAVEMENT MARKING TO MATCH EXISTING DIMENSIONS.
- SEE SIGNAL PLAN FOR EXACT POSITION OF STOP BAR AT SIGNAL.

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PAVEMENT MARKING	SHEET 67	E

2

N



LEGEND

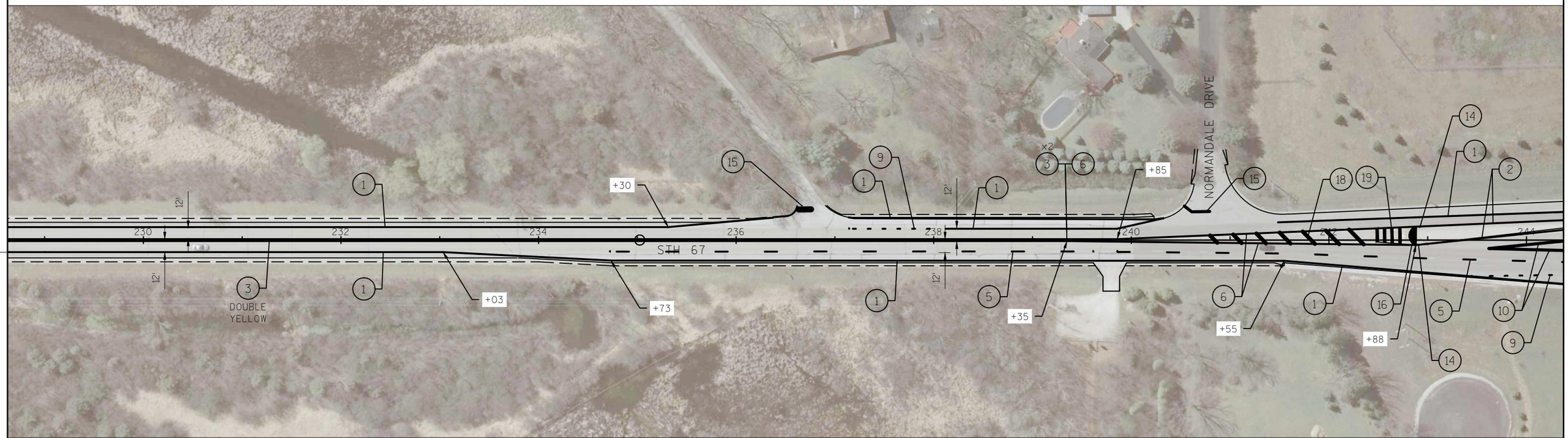
1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW)
4. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW, 12.5' LINE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE, 4-INCH (WHITE, 12.5' LINE)
6. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH (DOUBLE YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (WHITE, 12.5' LINE)
8. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE, 8-INCH (WHITE)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE 3' LINE, 9' GAP)
10. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
11. PAVEMENT MARKING GROOVED CONTRAST PREFORMED PLASTIC TAPE, 4-INCH (YELLOW 2' LINE 6' GAP)
12. PAVEMENT MARKING ARROWS EPOXY TYPE 2
13. PAVEMENT MARKING WORDS EPOXY
14. PAVEMENT MARKING CURB EPOXY (YELLOW)
15. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
16. PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW)
17. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
18. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
19. PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY (YELLOW)

NOTE:

- ESTABLISH NO PASSING ZONES PER BID ITEM "LOCATION NO PASSING ZONES"
- UNLESS OTHERWISE NOTED ALL PAVEMENT MARKING TO MATCH EXISTING DIMENSIONS.
- SEE SIGNAL PLAN FOR EXACT POSITION OF STOP BAR AT SIGNAL.

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PAVEMENT MARKING	SHEET 68	E

2



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW)
4. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW, 12.5' LINE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE, 4-INCH (WHITE, 12.5' LINE)
6. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH (DOUBLE YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (WHITE, 12.5' LINE)
8. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE, 8-INCH (WHITE)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE 3' LINE, 9' GAP)
10. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
11. PAVEMENT MARKING GROOVED CONTRAST PREFORMED PLASTIC TAPE, 4-INCH (YELLOW 2' LINE 6' GAP)
12. PAVEMENT MARKING ARROWS EPOXY TYPE 2
13. PAVEMENT MARKING WORDS EPOXY
14. PAVEMENT MARKING CURB EPOXY (YELLOW)
15. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
16. PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW)
17. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
18. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
19. PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY (YELLOW)

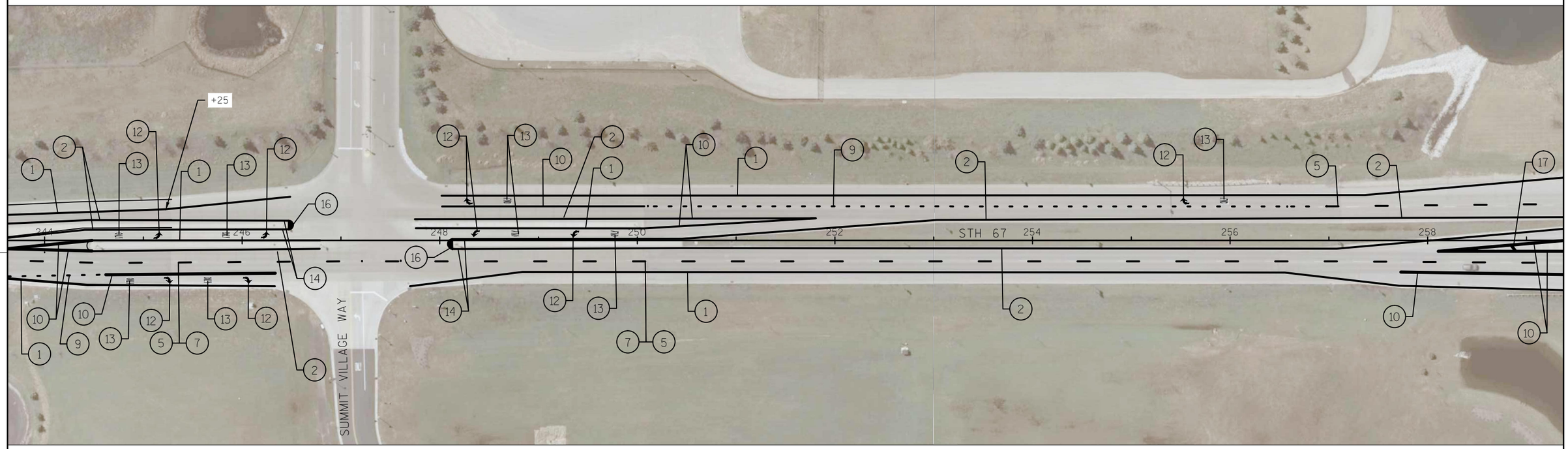
NOTE:

- ESTABLISH NO PASSING ZONES PER BID ITEM "LOCATION NO PASSING ZONES"
- UNLESS OTHERWISE NOTED ALL PAVEMENT MARKING TO MATCH EXISTING DIMENSIONS.
- SEE SIGNAL PLAN FOR EXACT POSITION OF STOP BAR AT SIGNAL.

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PAVEMENT MARKING	SHEET 69	E

2

N



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW)
4. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW, 12.5' LINE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE, 4-INCH (WHITE, 12.5' LINE)
6. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH (DOUBLE YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (WHITE, 12.5' LINE)
8. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE, 8-INCH (WHITE)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE 3' LINE, 9' GAP)
10. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
11. PAVEMENT MARKING GROOVED CONTRAST PREFORMED PLASTIC TAPE, 4-INCH (YELLOW 2' LINE 6' GAP)
12. PAVEMENT MARKING ARROWS EPOXY TYPE 2
13. PAVEMENT MARKING WORDS EPOXY
14. PAVEMENT MARKING CURB EPOXY (YELLOW)
15. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
16. PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW)
17. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
18. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
19. PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY (YELLOW)

NOTE:

- ESTABLISH NO PASSING ZONES PER BID ITEM "LOCATION NO PASSING ZONES"
- UNLESS OTHERWISE NOTED ALL PAVEMENT MARKING TO MATCH EXISTING DIMENSIONS.
- SEE SIGNAL PLAN FOR EXACT POSITION OF STOP BAR AT SIGNAL.

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PAVEMENT MARKING	SHEET 70	E

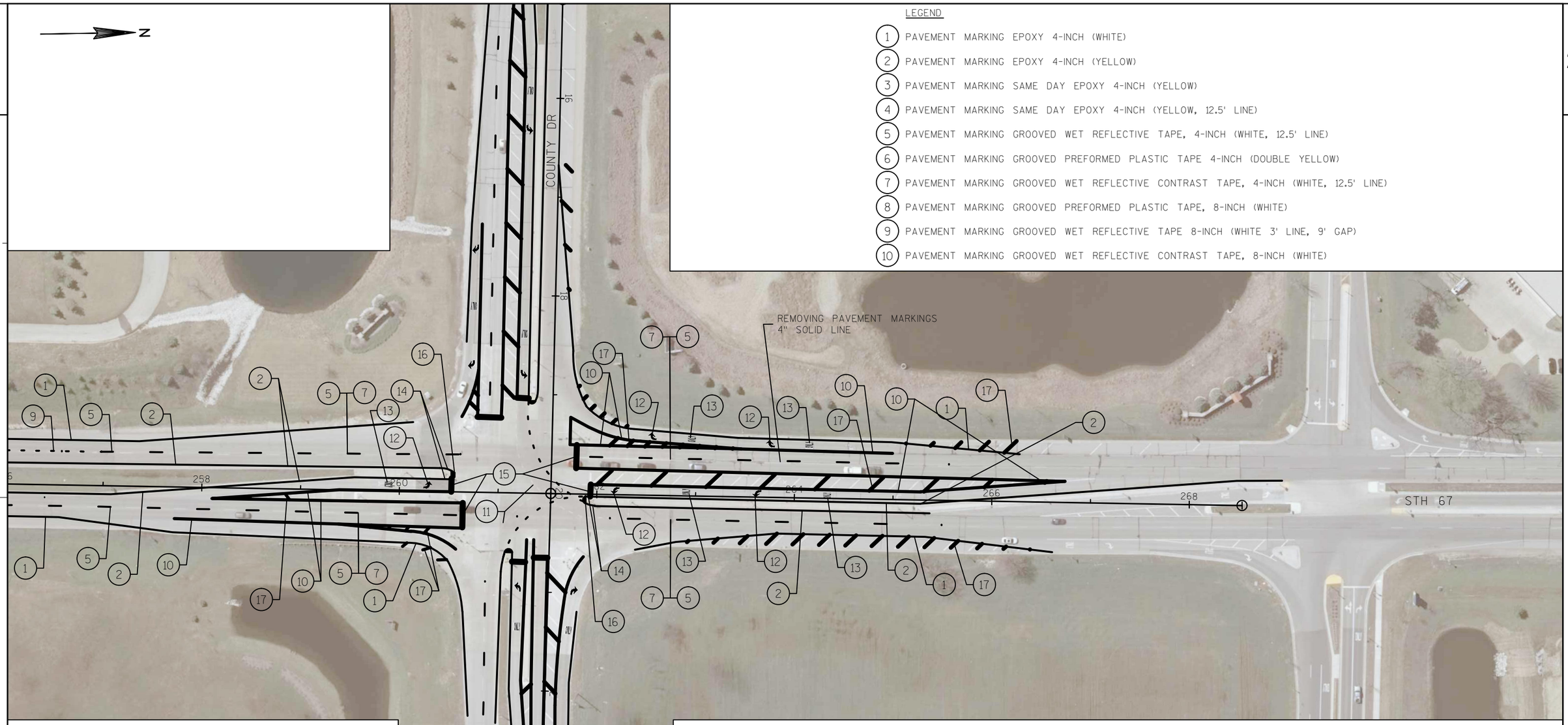
2

2

N

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW)
4. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW, 12.5' LINE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE, 4-INCH (WHITE, 12.5' LINE)
6. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH (DOUBLE YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (WHITE, 12.5' LINE)
8. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE, 8-INCH (WHITE)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE 3' LINE, 9' GAP)
10. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)



NOTE:

- ESTABLISH NO PASSING ZONES PER BID ITEM "LOCATION NO PASSING ZONES"
- UNLESS OTHERWISE NOTED ALL PAVEMENT MARKING TO MATCH EXISTING DIMENSIONS.
- SEE SIGNAL PLAN FOR EXACT POSITION OF STOP BAR AT SIGNAL.

11. PAVEMENT MARKING GROOVED CONTRAST PREFORMED PLASTIC TAPE, 4-INCH (YELLOW 2' LINE 6' GAP)
12. PAVEMENT MARKING ARROWS EPOXY TYPE 2
13. PAVEMENT MARKING WORDS EPOXY
14. PAVEMENT MARKING CURB EPOXY (YELLOW)
15. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
16. PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW)
17. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
18. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
19. PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY (YELLOW)

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PAVEMENT MARKING	SHEET 71	E

2



LEGEND

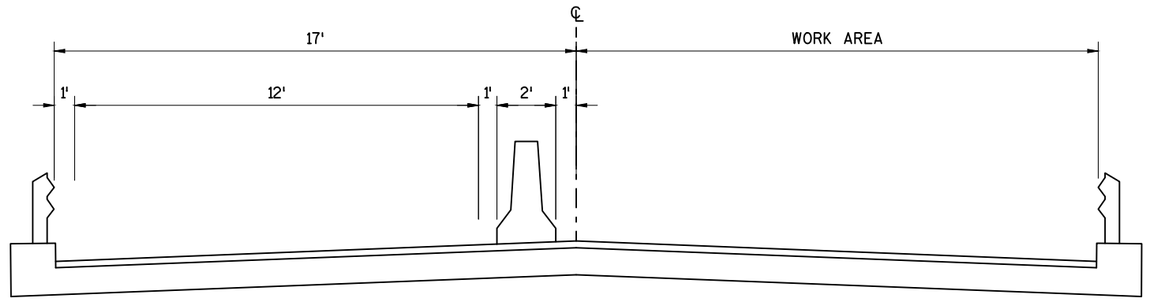
1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW)
4. PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW, 12.5' LINE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE, 4-INCH (WHITE, 12.5' LINE)
6. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH (DOUBLE YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (WHITE, 12.5' LINE)
8. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE, 8-INCH (WHITE)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE 3' LINE, 9' GAP)
10. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
11. PAVEMENT MARKING GROOVED CONTRAST PREFORMED PLASTIC TAPE, 4-INCH (YELLOW 2' LINE 6' GAP)
12. PAVEMENT MARKING ARROWS EPOXY TYPE 2
13. PAVEMENT MARKING WORDS EPOXY
14. PAVEMENT MARKING CURB EPOXY (YELLOW)
15. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
16. PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW)
17. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
18. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
19. PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY (YELLOW)

NOTE:

- ESTABLISH NO PASSING ZONES PER BID ITEM "LOCATION NO PASSING ZONES"
- UNLESS OTHERWISE NOTED ALL PAVEMENT MARKING TO MATCH EXISTING DIMENSIONS.
- SEE SIGNAL PLAN FOR EXACT POSITION OF STOP BAR AT SIGNAL.

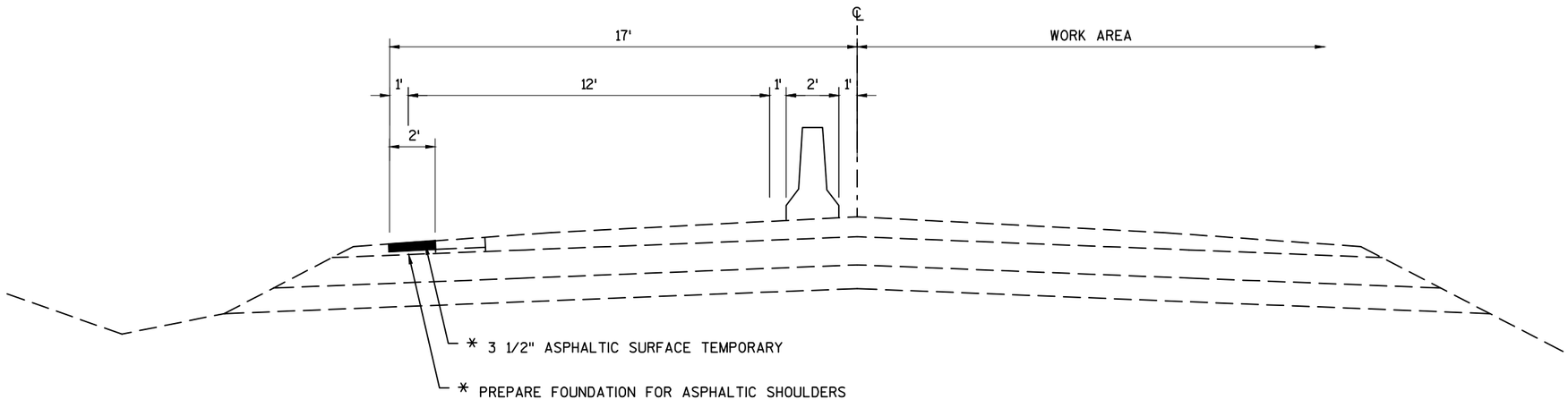
PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	PLAN: PAVEMENT MARKING COUNTY DR	SHEET 72	E

2



STAGE 1 TYPICAL SECTION

B-67-0010

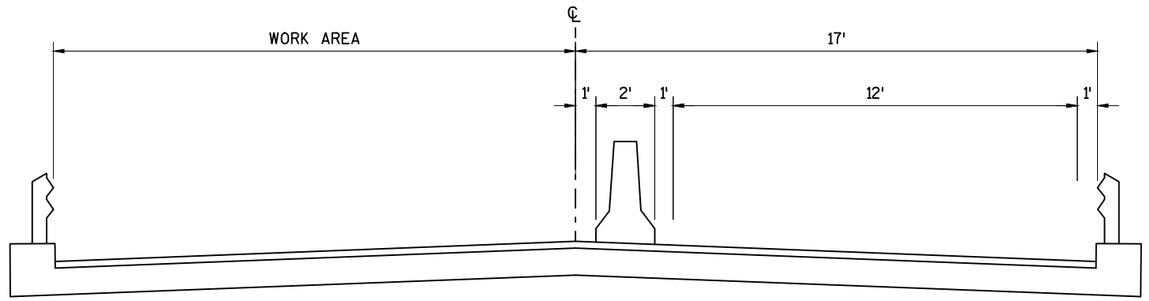


STAGE 1 TYPICAL SECTION

STA 116+10 TO STA 124+40
* STA 120+60 TO STA 124+40

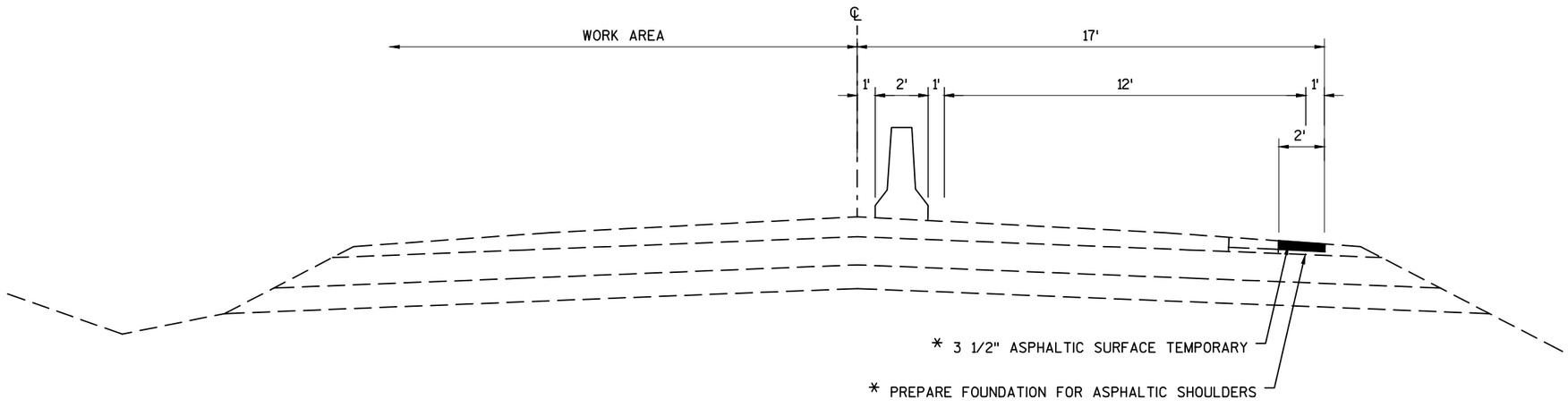
PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	STAGE 1 - TYPICAL SECTIONS	SHEET 73	E

2



STAGE 2 TYPICAL SECTION

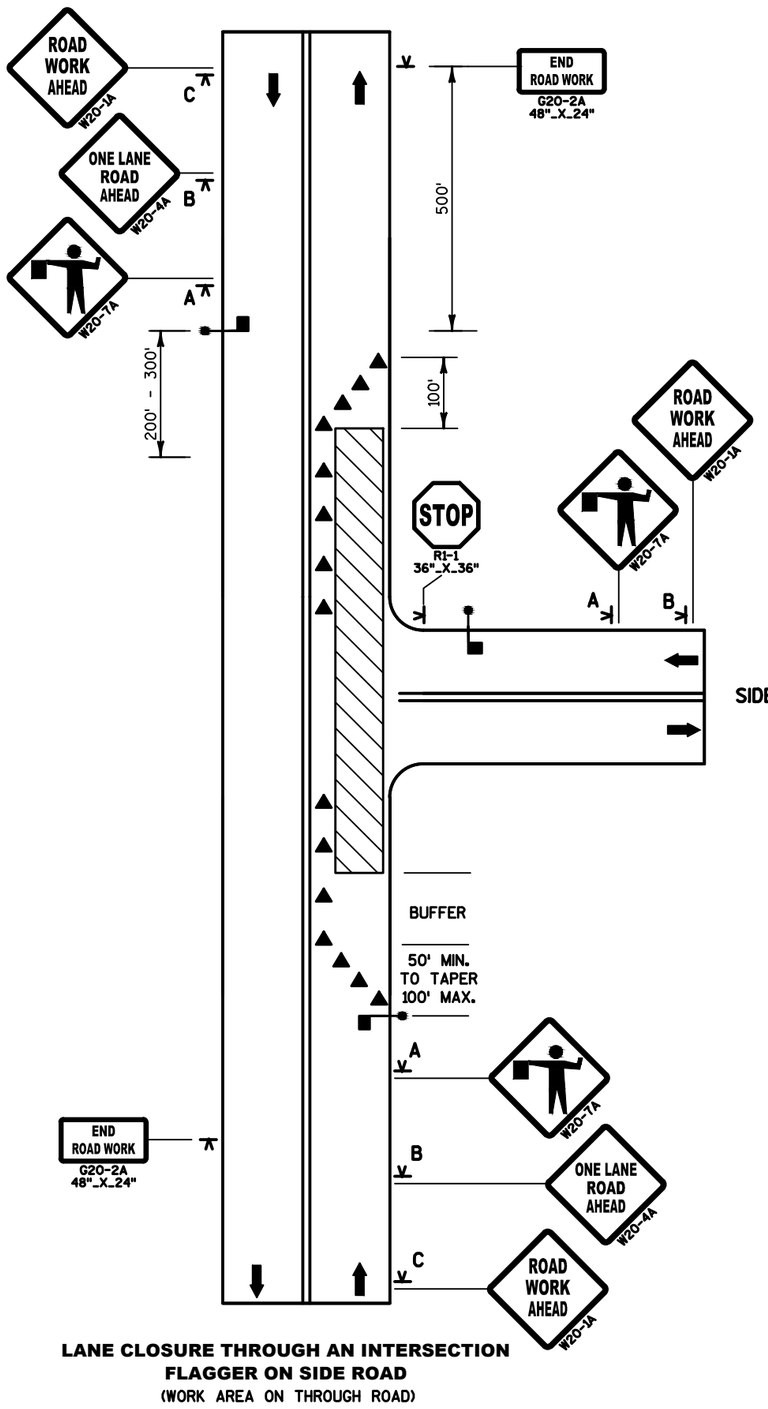
B-67-0010



STAGE 2 TYPICAL SECTION

STA 116+10 TO STA 124+40
* STA 120+60 TO STA 124+40

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	STAGE 2 - TYPICAL SECTIONS	SHEET 74	E



LANE CLOSURE THROUGH AN INTERSECTION
FLAGGER ON SIDE ROAD
(WORK AREA ON THROUGH ROAD)

LEGEND

- CHANNELIZING DEVICE
- PORTABLE SIGN SUPPORT
- WORK AREA
- TRAFFIC FLOW
- FLAGGER
- POST MOUNTED SIGN

SPEED LIMIT (MPH)	SIGN SPACING A, B, C ,(FT)	BUFFER (FT)
25	200	55
30	200	85
35	350	120
40	350	170
45	500	220
50	500	280
55	500	335

NOTES

1. DEPENDING ON TRAFFIC CONDITIONS, CONSIDER ADDITIONAL TRAFFIC CONTROL ON THE SIDE ROAD APPROACHES, SUCH AS FLAGGERS AND APPROPRIATE SIGNS.

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATION, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP 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. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD CONSTRUCTION AHEAD" AND THE ONE LANE ROAD AHEAD" SIGN SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

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

LEGEND

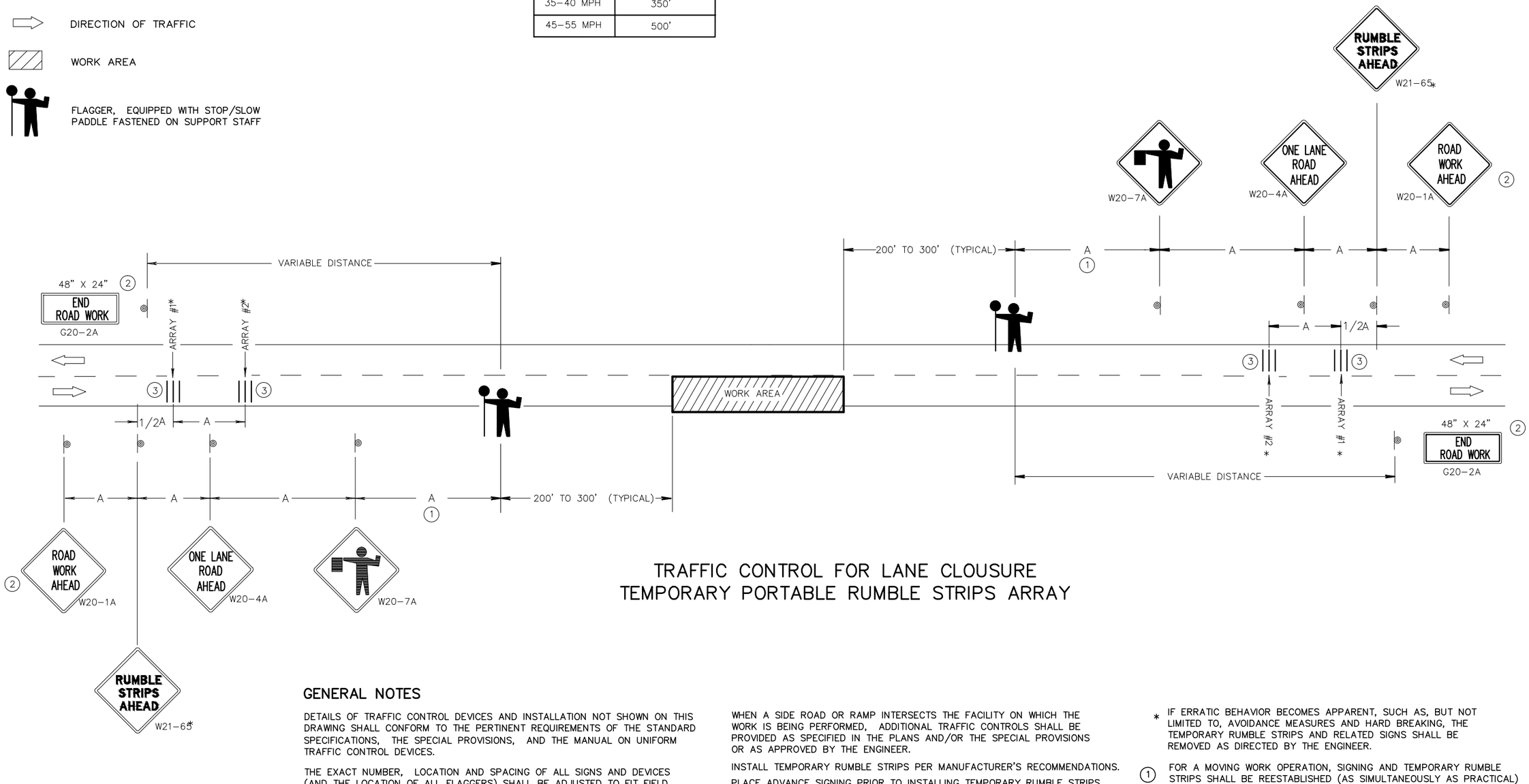
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A
25–35 MPH	200'
35–40 MPH	350'
45–55 MPH	500'



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20–7A AND W20–4A SIGNS, USING SPACING A.



TRAFFIC CONTROL FOR LANE CLOUSURE
TEMPORARY PORTABLE RUMBLE STRIPS ARRAY

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

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

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, REMOVE TEMPORARY RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

* IF ERRATIC BEHAVIOR BECOMES APPARENT, SUCH AS, BUT NOT LIMITED TO, AVOIDANCE MEASURES AND HARD BREAKING, THE TEMPORARY RUMBLE STRIPS AND RELATED SIGNS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.

(1) FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

(3) EACH RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED 8 – 10 FEET CENTER TO CENTER, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

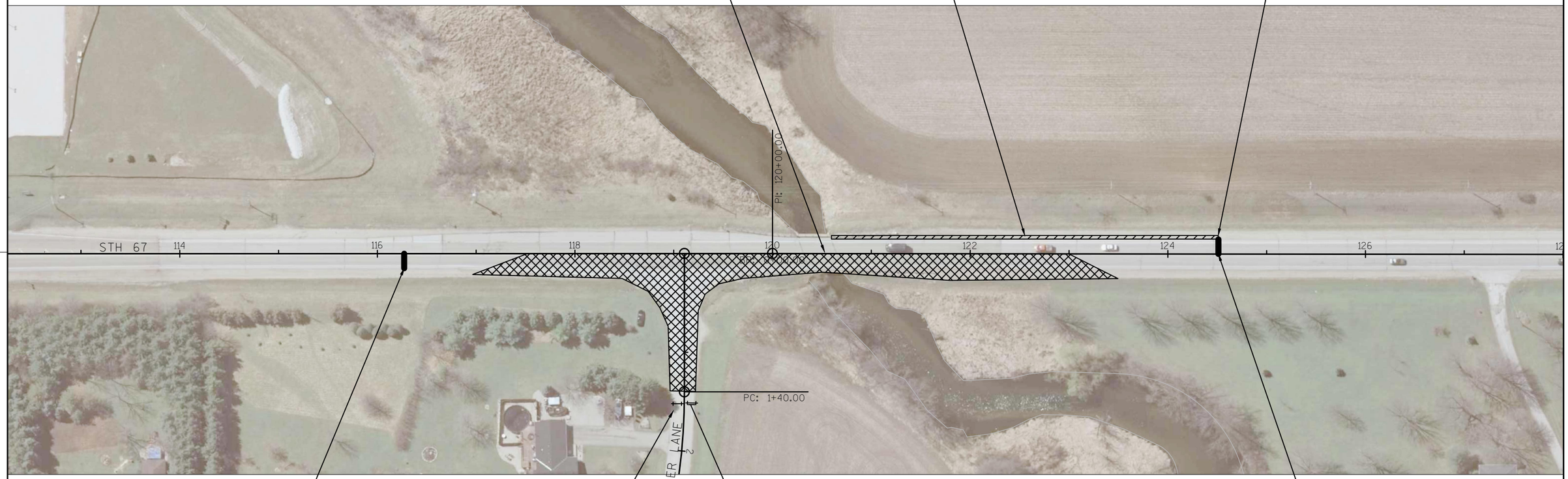
2

2

SDD 15D33: TRAFFIC CONTROL,
ONE LANE ROAD WITH TEMPORARY SIGNAL

PREPARE FOUNDATION FOR
ASPHALTIC SHOULDERS

2' WIDTH



STA 116+10
TEMPORARY PAVEMENT MARKING,
STOP LINE, 24-INCH, REMOVABLE TAPE

WHITAKER LANE TRAFFIC CONTROL
SEE SDD 15C3:
BARRICADES AND SIGNS FOR SIDEROAD CLOSURES,
DETAIL 1

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

STA 124+40
TEMPORARY PAVEMENT MARKING,
STOP LINE, 24-INCH, REMOVABLE TAPE

NOTE:
INSTALL MAX. WIDTH 13' (W12-52)
AS INDICATED ON SDD 15D33:
TRAFFIC CONTROL, ONE LANE ROAD
WITH TEMPORARY SIGNALS.

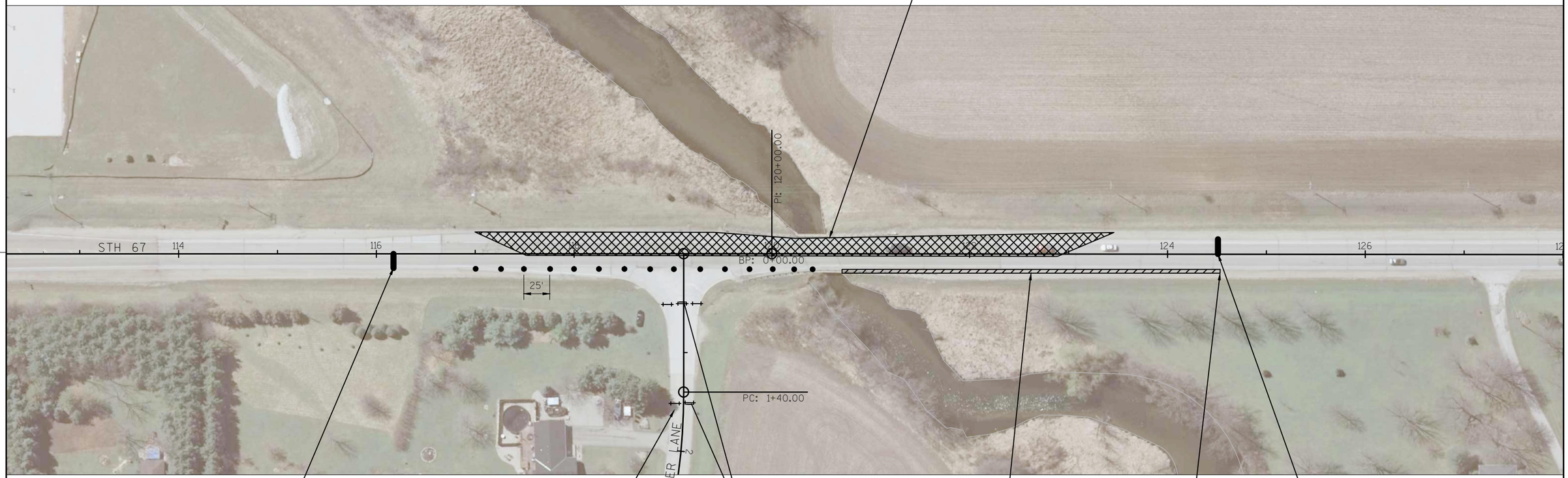
LEGEND

- WORK AREA
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- DRUM
- 3 ½" ASPHALTIC SURFACE TEMPORARY

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 1	SHEET 77	E

2

2

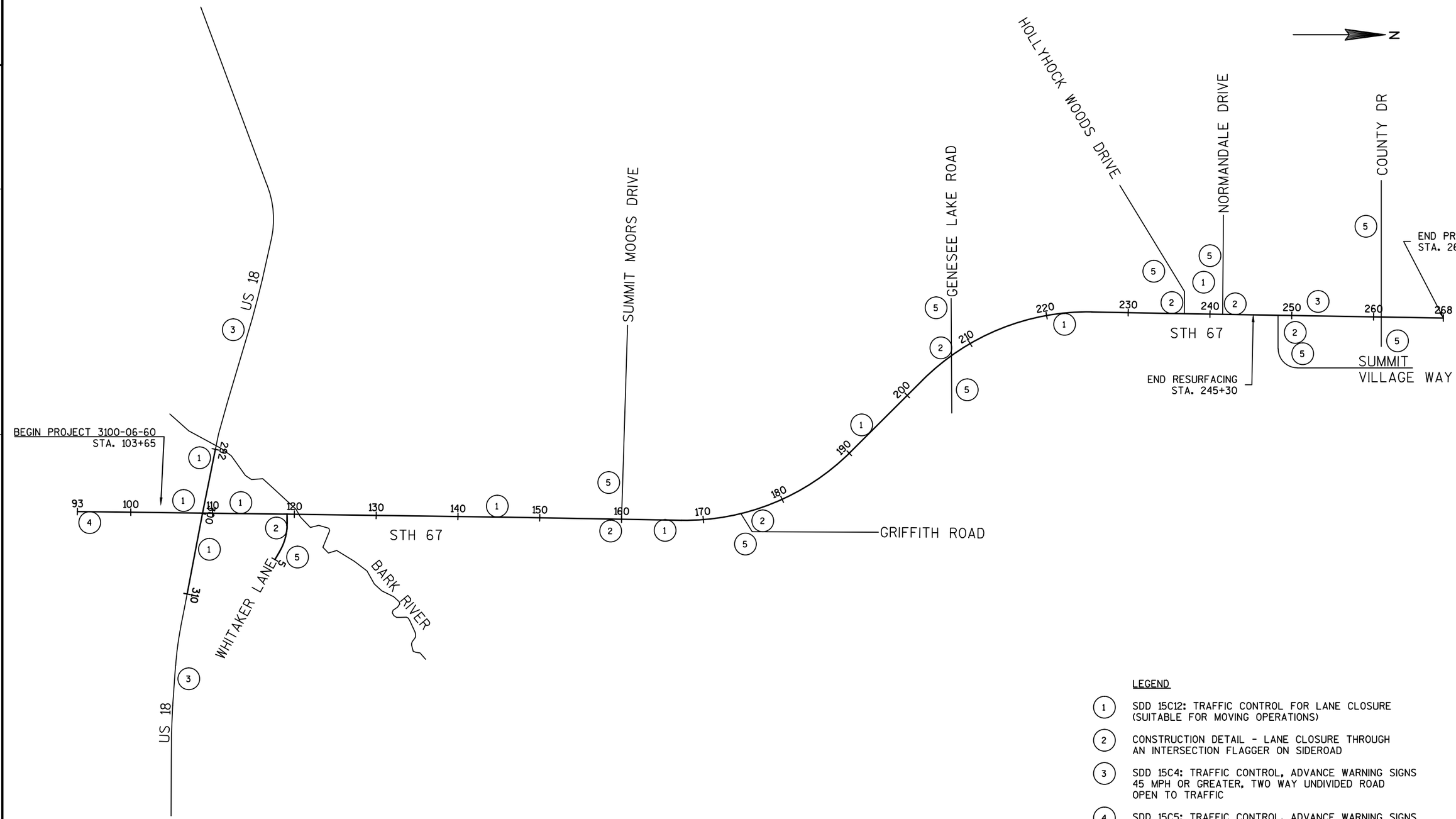


NOTE:
INSTALL MAX. WIDTH 13' (W12-52)
AS INDICATED ON SDD 15D33:
TRAFFIC CONTROL, ONE LANE ROAD
WITH TEMPORARY SIGNALS.

LEGEND

- WORK AREA
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- DRUM
- 3 ½" ASPHALTIC SURFACE TEMPORARY

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2	SHEET 78	E



LEGEND

1. SDD 15C12: TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
2. CONSTRUCTION DETAIL - LANE CLOSURE THROUGH AN INTERSECTION FLAGGER ON SIDEROAD
3. SDD 15C4: TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC
4. SDD 15C5: TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC
5. PLACE "ROAD WORK AHEAD" SIGN W20-1A 500' FROM STH 67

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 3	SHEET 79	E

2

N

BP: 292+00.00
Y=165361.1380
X=620725.9630

USH 18

794.42'
S78° 38' 17"E

STH 67 STA 108+77.55 =
USH 18 STA 299+94.31
Y= 165204.6536
X= 621504.7086

STH 67 STA 119+10.81 =
WHITAKER LN. STA 0+00.00
Y= 166237.8360
X= 621517.6572

BP: 0+00.00
Y=166237.8360
X=621517.6572

PI: 120+00.00
Y=166327.0230
X=621518.7750

Y= 166327.0230
X= 621518.7750

Y= 163675.2930
X= 621416.9390

BP: 93+46.99
Y=163674.2180
X=621485.5280

93 95 100 105 110 115 120

STH 67

N0° 43' 05"E
2653.01'

CP5000

CP5001

PI: 299+94.42
Y=165204.6320
X=621504.8160

140.00'
S89° 19' 55"E

PC: 1+40.00
Y=166236.0816
X=621657.6453

Y= 163674.2180
X= 621485.5280

1005.58'
S79° 12' 30"E

305

EP: 310+00.00
Y=165016.3490
X=622492.6150

S60° 16' 56"E
133.00'

PT: 4+53.14
Y=166154.7597
X=621956.5890

EP: 5+86.14
Y=166088.8273
X=622072.0969

WHITAKER LANE

CURVE 3
PI STA = 3+00.00
Y = 166234.076
X = 621817.633
DELTA = 29°00'00"
D = 9°15'40"
T = 160.00'
L = 313.14'
R = 618.68'
PC STA = 1+40.00
PT STA = 4+53.14

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	ALIGNMENT PLAN	SHEET 80	E

FILE NAME : N:\PDS\C3D\CAD\31000630\027201_AD.DWG
LAYOUT NAME - 027201_AD
PLOT DATE : 4/6/2016 10:37 AM PLOT BY : LEDGER, ANDREW J PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

2

2

N

Pi: 146+54.07
Y=168980.8310
X=621555.6540

125

CP5002

130

N0° 47' 46"E
2654.06'

135

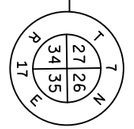
STH 67

140

145

150

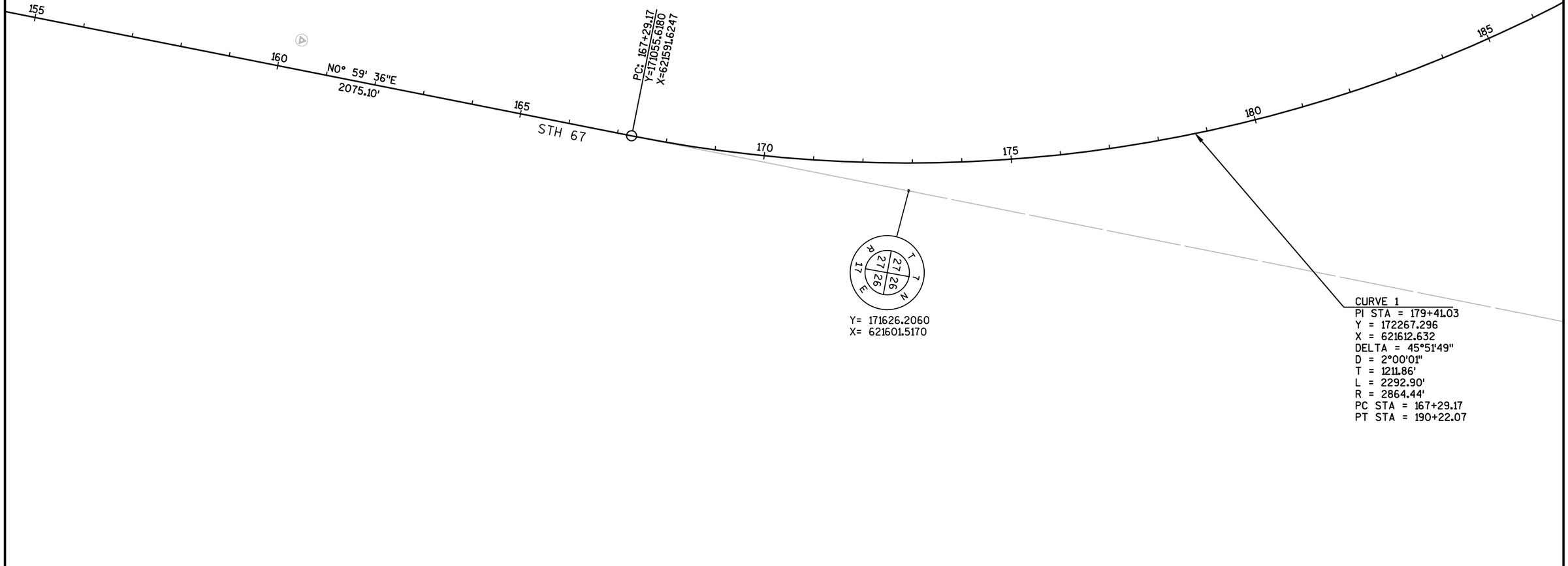
155



Y= 168980.8310
X= 621555.6540

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	ALIGNMENT PLAN	SHEET 81	E

2



PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	ALIGNMENT PLAN	SHEET 82	E

2

2

Y= 174337.1150
X= 619019.7860

PT: 190+22.07
Y=173126.1469
X=620757.6581

PC: 202+61.72
Y=174004.6956
X=619883.0757

190 195 200 205 210 215

N44° 52' 13"W
1239.65'

STH 67

CURVE 2
PI STA = 214+72.84
Y = 174863.021
X = 619028.626
DELTA = 45°50'00"
D = 2°00'00"
T = 1211.12'
L = 2291.67'
R = 2864.79'
PC STA = 202+61.72
PT STA = 225+53.39

Y= 174269.0110
X= 621650.6240

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	ALIGNMENT PLAN	SHEET 83	E

FILE NAME : N:\PDS\C3D\CAD\31000630\027201_AD.DWG
LAYOUT NAME - 027204_AD

PLOT DATE : 4/6/2016 10:37 AM PLOT BY : LEDGER, ANDREW J PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

N

PT: 225+53.39
Y=176073.9677
X=619048.9798

PI: 235+02.52
Y=177022.9690
X=619064.9310

220 225 230 235 240 245

STH 67

N0° 57' 47"E
949.14'

N0° 57
265(

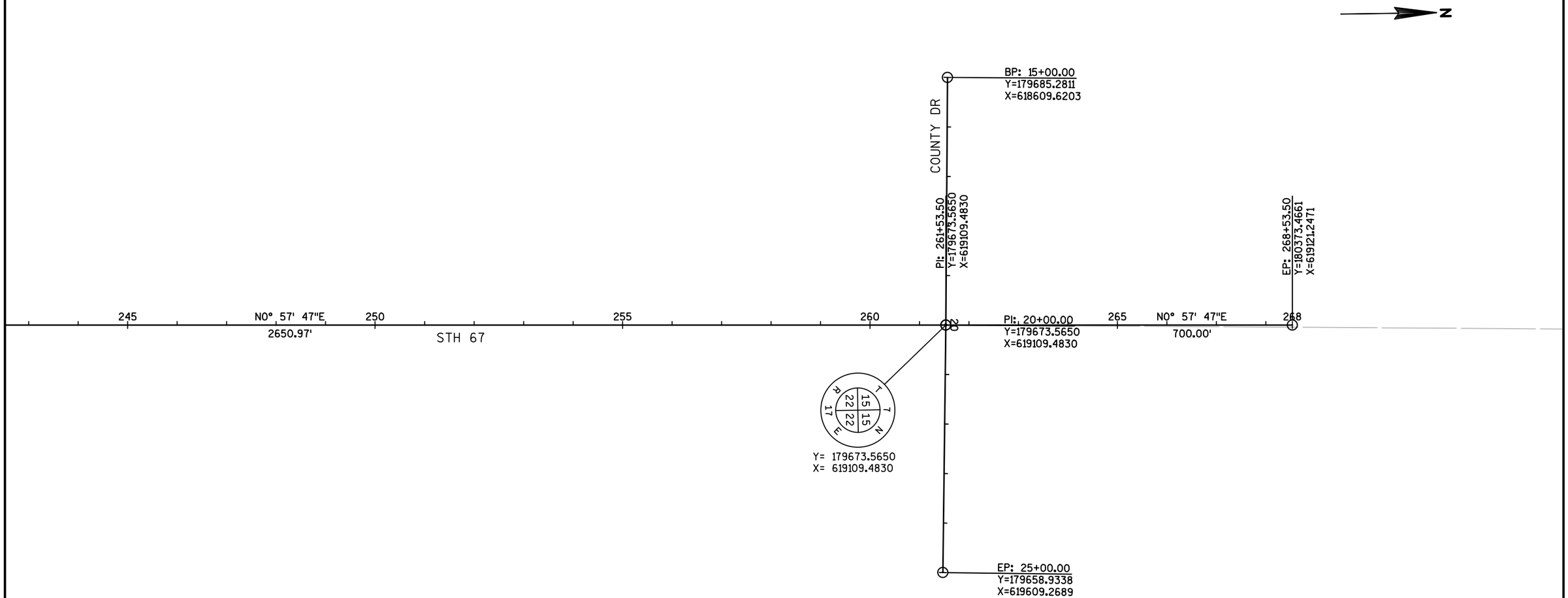
T 7 N
R 17 E
22 22
22 22

Y= 177022.9690
X= 619064.9310

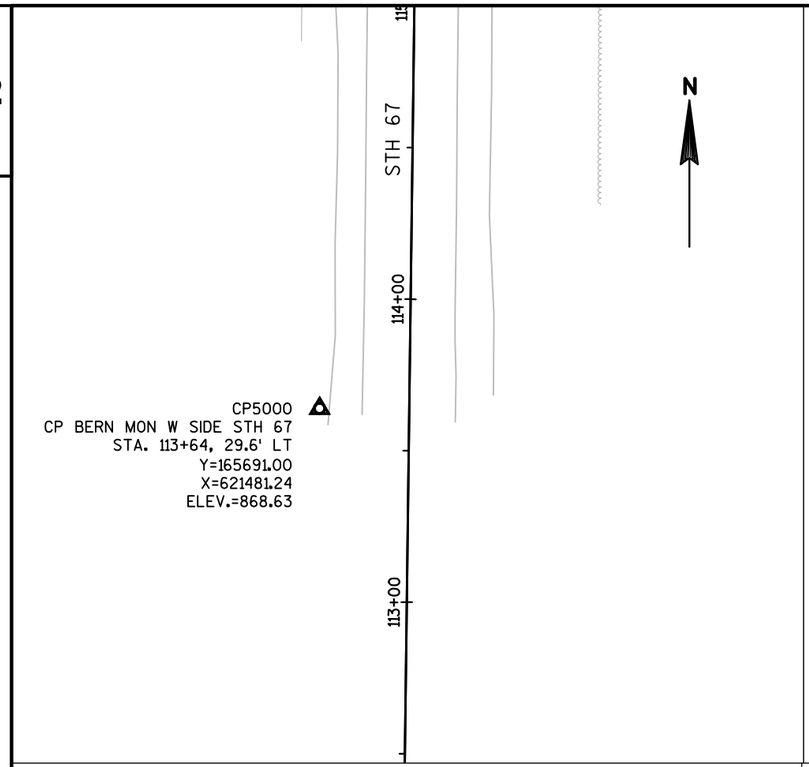
2
= 214+72.84
863.021
028.626
= 45°50'00"
00'00"
1.12'
91.67'
64.79'
= 202+61.72
= 225+53.39

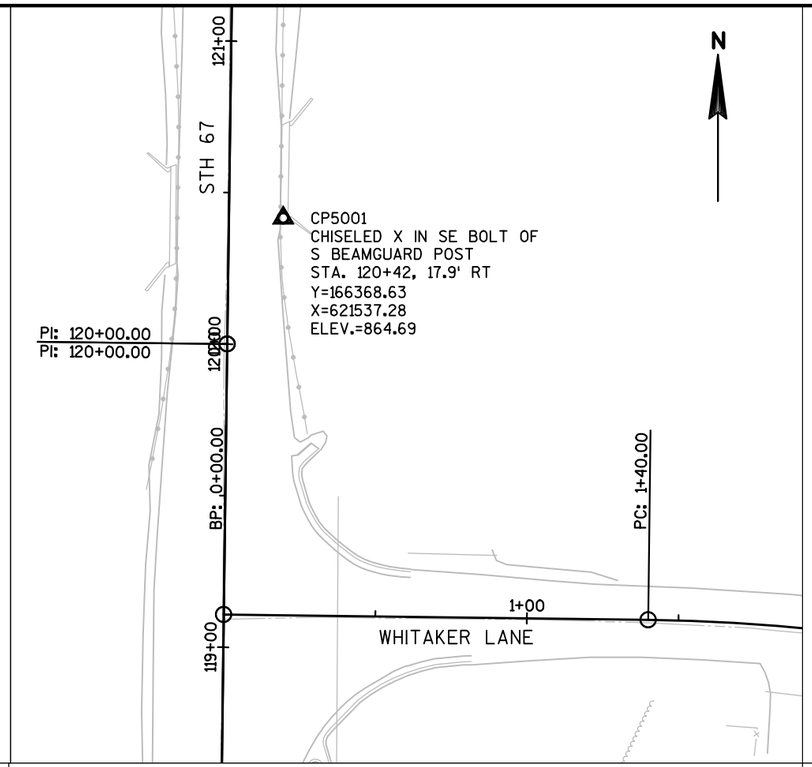
PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	ALIGNMENT PLAN	SHEET 84	E

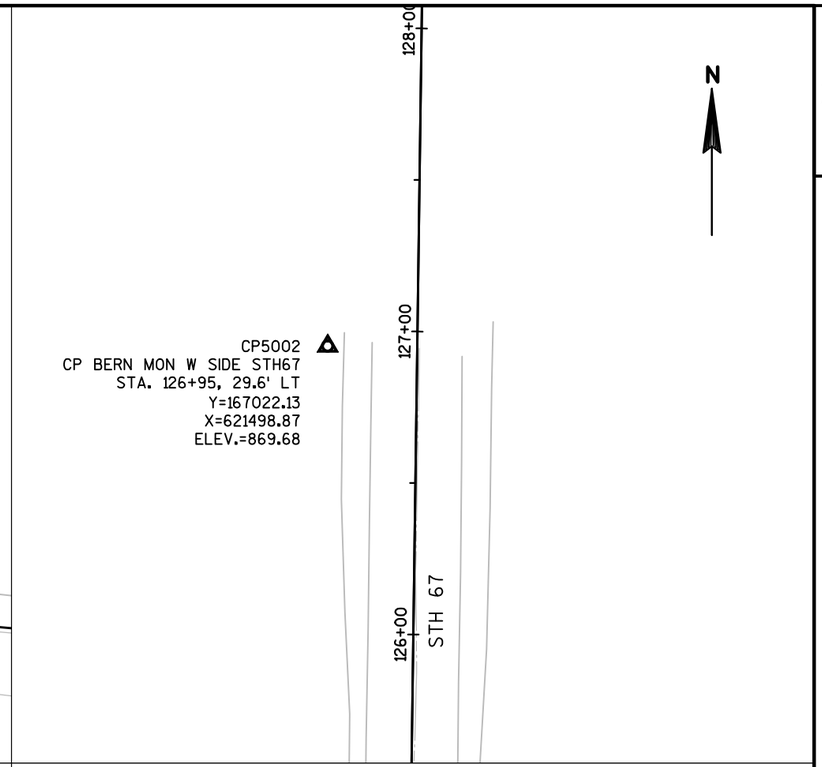
2



PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	ALIGNMENT PLAN	SHEET 85	E







2

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	ALIGNMENT LAYOUT - SURVEY CONTROL	SHEET 86	E

3100-06-60

Line	Item	Item Description	Unit	Total	Qty
0010	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 120+50	LS	1.000	1.000
0020	204.0110	Removing Asphaltic Surface	SY	469.000	469.000
0030	204.0115	Removing Asphaltic Surface Butt Joints	SY	320.000	320.000
0040	204.0120	Removing Asphaltic Surface Milling	SY	59,710.000	59,710.000
0050	204.0150	Removing Curb & Gutter	LF	55.000	55.000
0060	204.0165	Removing Guardrail	LF	560.000	560.000
0070	204.0190	Removing Surface Drains	EACH	1.000	1.000
0080	204.0195	Removing Concrete Bases	EACH	4.000	4.000
0090	211.0100	Prepare Foundation for Asphaltic Paving (project) 01 3100-06-60	LS	1.000	1.000
0100	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	236.000	236.000
0110	213.0100	Finishing Roadway (project) 01 3100-06-60	EACH	1.000	1.000
0120	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,356.000	2,356.000
0130	305.0500	Shaping Shoulders	STA	76.000	76.000
0140	390.0201	Base Patching Asphaltic	TON	71.000	71.000
0150	440.4410	Incentive IRI Ride	DOL	10,730.000	10,730.000
0160	455.0605	Tack Coat	GAL	4,765.000	4,765.000
0170	460.2000	Incentive Density HMA Pavement	DOL	6,160.000	6,160.000
0180	460.5224	HMA Pavement 4 LT 58-28 S	TON	9,620.000	9,620.000
0190	465.0110	Asphaltic Surface Patching	TON	20.000	20.000
0200	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	110.000	110.000
0210	465.0125	Asphaltic Surface Temporary	TON	35.000	35.000
0220	465.0315	Asphaltic Flumes	SY	9.000	9.000
0230	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	20,400.000	20,400.000
0240	465.0475	Asphalt Center Line Rumble Strips 2-Lane Rural	LF	11,225.000	11,225.000
0250	502.0100	Concrete Masonry Bridges	CY	10.000	10.000
0260	502.4205	Adhesive Anchors No. 5 Bar	EACH	100.000	100.000
0270	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	1,100.000	1,100.000
0280	509.0301	Preparation Decks Type 1	SY	6.000	6.000
0290	509.0302	Preparation Decks Type 2	SY	2.000	2.000
0300	509.3500.S	HMA Overlay Polymer-Modified	TON	22.000	22.000
0310	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 01. B-67-0010	SY	126.000	126.000
0320	514.2625	Downspout 6-Inch	LF	70.000	70.000
0330	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	30.000	30.000
0340	603.8000	Concrete Barrier Temporary Precast Delivered	LF	675.000	675.000
0350	603.8125	Concrete Barrier Temporary Precast Installed	LF	1,350.000	1,350.000
0360	614.0010	Barrier System Grading Shaping Finishing	EACH	4.000	4.000
0370	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000

Line	Item	Item Description	Unit	Total	Qty
0380	614.0200	Steel Thrie Beam Structure Approach	LF	21.000	21.000
0390	614.0305	Steel Plate Beam Guard Class A	LF	13.000	13.000
0400	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	1.000	1.000
0410	614.0396	Guardrail Mow Strip Asphalt	SY	275.000	275.000
0420	614.2300	MGS Guardrail 3	LF	263.000	263.000
0430	614.2500	MGS Thrie Beam Transition	LF	120.000	120.000
0440	614.2610	MGS Guardrail Terminal EAT	EACH	3.000	3.000
0450	619.1000	Mobilization	EACH	1.000	1.000
0460	625.0100	Topsoil	SY	450.000	450.000
0470	627.0200	Mulching	SY	110.000	110.000
0480	628.1504	Silt Fence	LF	3,580.000	3,580.000
0490	628.1520	Silt Fence Maintenance	LF	3,580.000	3,580.000
0500	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0510	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0520	628.2008	Erosion Mat Urban Class I Type B	SY	450.000	450.000
0530	628.7010	Inlet Protection Type B	EACH	4.000	4.000
0540	628.7015	Inlet Protection Type C	EACH	8.000	8.000
0550	628.7504	Temporary Ditch Checks	LF	36.000	36.000
0560	628.7570	Rock Bags	EACH	20.000	20.000
0570	629.0210	Fertilizer Type B	CWT	0.400	0.400
0580	630.0130	Seeding Mixture No. 30	LB	10.000	10.000
0590	630.0160	Seeding Mixture No. 60	LB	1.000	1.000
0600	630.0200	Seeding Temporary	LB	9.000	9.000
0610	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	183.000	183.000
0620	634.0620	Posts Wood 4x6-Inch X 20-FT	EACH	2.000	2.000
0630	637.2210	Signs Type II Reflective H	SF	1,740.370	1,740.370
0640	637.2215	Signs Type II Reflective H Folding	SF	96.980	96.980
0650	637.2230	Signs Type II Reflective F	SF	221.750	221.750
0660	638.2102	Moving Signs Type II	EACH	4.000	4.000
0670	638.2602	Removing Signs Type II	EACH	155.000	155.000
0680	638.3000	Removing Small Sign Supports	EACH	159.000	159.000
0690	642.5201	Field Office Type C	EACH	1.000	1.000
0700	643.0100	Traffic Control (project) 01 3100-06-60	EACH	1.000	1.000
0710	643.0300	Traffic Control Drums	DAY	881.000	881.000
0720	643.0420	Traffic Control Barricades Type III	DAY	99.000	99.000
0730	643.0705	Traffic Control Warning Lights Type A	DAY	132.000	132.000
0740	643.0715	Traffic Control Warning Lights Type C	DAY	220.000	220.000
0750	643.0900	Traffic Control Signs	DAY	1,344.000	1,344.000
0760	643.1050	Traffic Control Signs PCMS	DAY	26.000	26.000
0770	646.0106	Pavement Marking Epoxy 4-Inch	LF	56,915.000	56,915.000

3100-06-60

Line	Item	Item Description	Unit	Total	Qty
0780	646.0600	Removing Pavement Markings	LF	1,600.000	1,600.000
0790	646.0841.S	Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch	LF	430.000	430.000
0800	646.0843.S	Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	LF	5,715.000	5,715.000
0810	646.0881.S	Pavement Marking Grooved Wet Reflective Tape 4-Inch	LF	878.000	878.000
0820	646.0883.S	Pavement Marking Grooved Wet Reflective Tape 8-Inch	LF	275.000	275.000
0830	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	29.000	29.000
0840	647.0356	Pavement Marking Words Epoxy	EACH	24.000	24.000
0850	647.0456	Pavement Marking Curb Epoxy	LF	140.000	140.000
0860	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	452.000	452.000
0870	647.0606	Pavement Marking Island Nose Epoxy	EACH	7.000	7.000
0880	647.0726	Pavement Marking Diagonal Epoxy 12-Inch	LF	1,400.000	1,400.000
0890	647.0856	Pavement Marking Concrete Corrugated Median Epoxy	SF	230.000	230.000
0900	648.0100	Locating No-Passing Zones	MI	2.580	2.580
0910	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	6,742.000	6,742.000
0920	649.0403	Temporary Pavement Marking Epoxy 4-Inch	LF	14,680.000	14,680.000
0930	649.0801	Temporary Pavement Marking Removable Tape 8-Inch	LF	875.000	875.000
0940	649.1400	Temporary Pavement Marking Stop Line Removable Tape 24-Inch	LF	24.000	24.000
0950	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	30.000	30.000
0960	650.8000	Construction Staking Resurfacing Reference	LF	14,165.000	14,165.000
0970	650.8500	Construction Staking Electrical Installations (project) 01 3100-06-60	LS	1.000	1.000
0980	650.9910	Construction Staking Supplemental Control (project) 01 3100-06-60	LS	1.000	1.000
0990	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	68.000	68.000
1000	654.0113	Concrete Bases Type 13	EACH	4.000	4.000
1010	655.0230	Cable Traffic Signal 5-14 AWG	LF	373.000	373.000
1020	655.0240	Cable Traffic Signal 7-14 AWG	LF	359.000	359.000
1030	655.0260	Cable Traffic Signal 12-14 AWG	LF	895.000	895.000
1040	655.0305	Cable Type UF 2-12 AWG Grounded	LF	757.000	757.000
1050	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	2,160.000	2,160.000
1060	655.0610	Electrical Wire Lighting 12 AWG	LF	576.000	576.000
1070	655.0900	Traffic Signal EVP Detector Cable	LF	1,190.000	1,190.000
1080	657.0100	Pedestal Bases	EACH	4.000	4.000
1090	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	4.000	4.000
1100	657.1360	Install Poles Type 13	EACH	4.000	4.000
1110	657.1540	Install Monotube Arms 40-FT	EACH	1.000	1.000
1120	657.1545	Install Monotube Arms 45-FT	EACH	3.000	3.000
1130	657.1815	Install Luminaire Arms Steel 15-FT	EACH	4.000	4.000

Line	Item	Item Description	Unit	Total	Qty
1140	658.0110	Traffic Signal Face 3-12 Inch Vertical	EACH	12.000	12.000
1150	658.0115	Traffic Signal Face 4-12 Inch Vertical	EACH	8.000	8.000
1160	658.0215	Backplates Signal Face 3 Section 12-Inch	EACH	12.000	12.000
1170	658.0220	Backplates Signal Face 4 Section 12-Inch	EACH	8.000	8.000
1180	658.0600	Led Modules 12-Inch Red Ball	EACH	12.000	12.000
1190	658.0605	Led Modules 12-Inch Yellow Ball	EACH	12.000	12.000
1200	658.0610	Led Modules 12-Inch Green Ball	EACH	12.000	12.000
1210	658.0615	Led Modules 12-Inch Red Arrow	EACH	8.000	8.000
1220	658.0620	Led Modules 12-Inch Yellow Arrow	EACH	16.000	16.000
1230	658.0625	Led Modules 12-Inch Green Arrow	EACH	8.000	8.000
1240	658.5069	Signal Mounting Hardware (location) 01. USH 18 & STH 67	LS	1.000	1.000
1250	659.1125	Luminaires Utility LED C	EACH	4.000	4.000
1260	661.0100	Temporary Traffic Signals for Bridges (structure) 01. B-67-0010	LS	1.000	1.000
1270	690.0150	Sawing Asphalt	LF	965.000	965.000
1280	SPV.0035	Special 01. CONCRETE MASONRY DECK PATCHING	CY	1.000	1.000
1290	SPV.0060	Special 02. Section Corner Monuments Special	EACH	5.000	5.000
1300	SPV.0090	Special 01. Joint and Crack Repair	LF	5,925.000	5,925.000
1310	SPV.0090	Special 02. Pavement Marking Grooved Preformed Plastic Tape 8-Inch	LF	1,575.000	1,575.000
1320	SPV.0090	Special 03. SAWING PAVEMENT DECK PREPARATION AREAS	LF	30.000	30.000
1330	SPV.0090	Special 04. Pavement Marking Grooved Preformed Plastic Tape 4-Inch	LF	4,772.000	4,772.000
1340	SPV.0090	Special 05. Pavement Marking Contrast Grooved Preformed Plastic Tape 4-Inch	LF	85.000	85.000
1350	SPV.0105	Special 01. TRANSPORT TRAFFIC SIGNAL & LIGHTING MATERIALS, USH 18 & STH 67	LS	1.000	1.000
1360	SPV.0105	Special 02. REMOVE TRAFFIC SIGNALS, USH 18 & STH 67	LS	1.000	1.000
1370	SPV.0105	Special 03. EVP DETECTOR HEAD INSTALLATION, USH 18 & STH 67	LS	1.000	1.000
1380	SPV.0105	Special 04. TRANSPORT AND INSTALL STATE FURN RAD AR DETECTION SYS, USH 18 & STH 67	LS	1.000	1.000
1390	SPV.0105	Special 05. INSTALL STATE FURN SIGNAL CABINET, USH 18 & STH 67	LS	1.000	1.000
1400	SPV.0105	Special 06. Temporary Portable Rumble Strip Array	LS	1.000	1.000
1410	SPV.0165	Special 01. MORTAR SURFACE REPAIR	SF	100.000	100.000

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REMOVING ASPHALTIC SURFACE BUTT JOINTS

LOCATION	204.0115 SY
SUMMIT MOORS DRIVE	75
GRIFFITH ROAD	95
GENESEE LAKE ROAD WEST APPROACH	75
GENESEE LAKE ROAD EAST APPROACH	75
TOTAL	320

REMOVING CURB AND GUTTER

LOCATION	204.0150 LF
STA 119+26 - STA 119+60	55
TOTAL	55

REMOVING GUARDRAIL

LOCATION	204.0165 LF
STA 119+52 LT to STA 121+27 LT	180
STA 119+71 RT to STA 121+66 RT	200
STA 258+80 RT to STA 260+50 RT	180
TOTAL	560

REMOVING SURFACE DRAINS

LOCATION	204.0190 EACH
STA 119+61 RT	1
TOTAL	1

REMOVING ASPHALTIC SURFACE MILLING

LOCATION	OFFSET	204.0120 1" DEPTH SY	2" DEPTH SY	4 1/2" DEPTH SHOULDERS SY
STH 67				
STA 103+65 - STA 110+16	RT	--	2,090	--
STA 110+16 - STA 120+32	RT	--	1,890	150
STA 120+65 - STA 175+89	RT	7,220	400	1,865
STA 175+89 - STA 207+00	RT	4,690	--	880
STA 207+00 - STA 233+63	RT	3,670	--	860
STA 233+63 - STA 245+29	RT	--	3,540	20
STA 103+65 - STA 112+99	LT	--	2,740	--
STA 112+99 - STA 120+32	LT	--	1,430	130
STA 120+65 - STA 123+62	LT	--	400	180
STA 123+62 - STA 175+90	LT	8,700	--	1,550
STA 175+90 - STA 207+29	LT	4,690	--	900
STA 207+29 - STA 233+63	LT	3,590	--	1,040
STA 233+63 - STA 245+29	LT	--	270	90
SIDEROADS				
USH 18 WEST APPROACH		--	1,770	--
USH 18 EAST APPROACH		--	2,230	--
WHITAKER LANE		--	410	--
SUMMIT MOORS DRIVE		70	--	--
GRIFFITH ROAD		330	--	--
GENESEE LAKE ROAD WEST APPROACH		725	--	--
GENESEE LAKE ROAD EAST APPROACH		800	--	--
HOLLYHOCK WOODS DRIVE		--	55	--
NORMANDALE DRIVE		--	335	--
SUBTOTAL		34,485	17,560	7,665
TOTAL			59,710	

NOTE: ALL ITEMS ON THIS SHEET ARE PAID UNDER CATEGORY 0010

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SHOULDER ITEMS (CONTINUED ON NEXT PAGE)

LOCATION		OFFSET	211.0400 *PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0500 SHAPING SHOULDERS STA
STH 67					
STA 103+66	TO STA 107+87	RT	--	29	5
STA 109+42	TO STA 110+16	RT	--	6	2
STA 110+16	TO STA 117+27	RT	8	65	--
STA 117+27	TO STA 118+37	RT	--	8	2
STA 121+22	TO STA 173+70	RT	53	477	--
STA 173+70	TO STA 175+17	RT	--	4	3
STA 176+44	TO STA 176+96	RT	--	4	1
STA 176+96	TO STA 203+06	RT	28	237	--
STA 203+06	TO STA 205+47	RT	--	6	3
STA 207+07	TO STA 208+02	RT	--	7	2
STA 208+02	TO STA 233+82	RT	26	235	--
STA 103+66	TO STA 107+99	LT	--	30	5
STA 112+31	TO STA 112+99	LT	--	5	1
STA 112+99	TO STA 116+12	LT	5	29	--
STA 116+12	TO STA 118+11	LT	--	17	3
STA 122+49	TO STA 172+56	LT	51	455	--
STA 172+56	TO STA 178+70	LT	--	42	7
STA 178+70	TO STA 205+50	LT	28	244	--
STA 205+50	TO STA 206+60	LT	--	8	2
STA 208+08	TO STA 209+77	LT	--	12	2
STA 209+77	TO STA 235+78	LT	27	237	--
STA 235+78	TO STA 236+51	LT	--	5	2
STA 236+90	TO STA 240+23	LT	--	23	5
SUBTOTAL			226	2,185	45

*ADDITIONAL QUANITITIES ELSEWHERE

NOTE: ALL ITEMS ON THIS SHEET ARE PAID UNDER CATEGORY 0010

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SHOULDER ITEMS (CONTINUED)

LOCATION	OFFSET	211.0400 *PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0500 SHAPING SHOULDERS STA
STH 18				
STA 296+86 TO STA 299+28	RT	--	17	4
STA 300+65 TO STA 304+02	LT	--	23	5
SUBTOTAL		--	40	9
SIDEROADS				
USH 18		--	--	12
WHITAKER LANE		--	4	2
GRIFFITH ROAD		--	1	2
GENESEE LAKE ROAD WEST APPROACH		--	6	2
GENESEE LAKE ROAD EAST APPROACH		--	8	2
NORMANDALE DRIVE		--	2	2
SUBTOTAL		--	21	22
UNDISTRIBUTED (5%)		--	110	--
TOTAL		226	2,356	76

*ADDITIONAL QUANITITIES ELSEWHERE

ASPHALTIC SURFACE PATCHING

LOCATION	465.0110 TON
UNDISTRIBUTED	20

TEMPORARY WIDENING

STAGE	211.0400 *PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	465.0125 ASPHALTIC SURFACE TEMPORARY TON
STAGE 1	5	17
STAGE 2	5	18
TOTAL	**10**	**35**

*ADDITIONAL QUANTITIES ELSEWHERE

NOTE: ALL ITEMS ON THIS SHEET ARE PAID UNDER CATEGORY 0010

BASE PATCHING ASPHALTIC

LOCATION	390.0201 TON
STH 67	
STA 104+75 - STA 105+75	19
STA 110+50 - STA 111+50	19
STA 113+80	10
STA 117+00 - STA 117+30	13
UNDISTRIBUTED	10
TOTAL	71

ASPHALTIC FLUMES

LOCATION	465.0315 SY
STA 119+42 RT	9
TOTAL	9

ASPHALTIC PAVEMENT ITEMS

LOCATION	455.0605 TACK COAT GAL	460.5224 HMA PAVEMENT 4 LT 58-28 S TON
STH 67		
NORTHBOUND MAINLINE AND SHOULDERS	2,165	4,450
SOUTHBOUND MAINLINE AND SHOULDERS	2,125	4,370
SUBTOTAL	4,290	8,820
SIDEROADS		
USH 18 WEST APPROACH	125	210
USH 18 EAST APPROACH	160	260
WHITAKER LANE	30	50
SUMMIT MOORS DRIVE	5	10
GRIFFITH ROAD	25	40
GENESEE LAKE ROAD WEST APPROACH	50	80
GENESEE LAKE ROAD EAST APPROACH	50	90
HOLLYHOCK WOODS DRIVE	5	10
NORMANDALE DRIVE	25	50
SUBTOTAL	475	800
TOTAL	4,765	9,620

DRIVEWAYS

LOCATION	OFFSET	204.0110 REMOVING ASPHALTIC SURFACE SY	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
STA 127+32	RT	46	9
STA 131+19	RT	44	9
STA 146+38	LT	18	4
STA 153+22	RT	22	5
STA 155+74	LT	28	6
STA 156+39	RT	25	5
STA 159+86	RT	23	5
STA 163+09	RT	26	5
STA 164+77	RT	33	7
STA 166+39	LT	50	10
STA 177+27	LT	--	3
STA 192+85	RT	--	3
STA 192+89	LT	--	3
STA 198+40	RT	22	5
STA 221+59	LT	13	3
STA 223+08	LT	41	8
STA 224+16	LT	40	8
STA 225+56	LT	27	6
STA 239+81	RT	11	6
TOTAL		469	110

JOINT AND CRACK REPAIR

LOCATION	OFFSET	SPV.0090.01 LF
STH 67		
STA 104+25 - STA 104+75	2' LT	50
STA 104+25 - STA 104+75	10' LT	50
STA 105+75 - STA 107+50	10' -16' LT	175
STA 107+00 - STA 108+25	12' RT	125
STA 110+80 - STA 111+00	2' RT	20
STA 110+80 - STA 111+00	10' RT	20
STA 158+50 - STA 161+75	12' LT	325
STA 167+25 - STA 185+00	0'	1,775
STA 172+25 - STA 179+00	12' LT	675
STA 203+00 - STA 208+10	12' RT	510
STA 233+75 - STA 240+00	12' RT	625
SUBTOTAL		4,350

LOCATION	OFFSET	SPV.0090.01 LF
USH 18		
STA 295+60 - STA 298+00	15' RT	240
STA 297+75 - STA 299+00	18' RT	125
STA 301+50 - STA 301+60	18' RT	10
SUBTOTAL		375
UNDISTRIBUTED		1,200
TOTAL		5,925

NOTE: ALL ITEMS ON THIS SHEET ARE PAID UNDER CATEGORY 0010

RUMBLE STRIPS

LOCATION	465.0425 ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL LF	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL LF
STA 110+96 RT - STA 117+29 RT	635	--
STA 120+90 RT - STA 158+68 RT	3,780	--
STA 161+81 RT - STA 173+26 RT	1,145	--
STA 177+70 RT - STA 203+03 RT	2,535	--
STA 208+80 RT - STA 232+90 RT	2,410	--
STA 113+80 LT - STA 115+78 LT	200	--
STA 120+90 LT - STA 158+18 LT	3,730	--
STA 161+81 LT - STA 171+39 LT	960	--
STA 179+49 LT - STA 205+00 LT	2,555	--
STA 210+27 LT - STA 234+76 LT	2,450	--
STA 113+80 TO STA 120+07	--	630
STA 120+90 TO STA 173+89	--	5,300
STA 177+89 TO STA 204+81	--	2,695
STA 208+80 TO STA 234+76	--	2,600
TOTAL	20,400	11,225

CONCRETE CURB AND GUTTER

LOCATION	OFFSET	601.0557 6-INCH SLOPED 36-INCH TYPE D LF
STA 119+24 - STA 119+36	RT	30
TOTAL		30

CONCRETE BARRIER

STAGE	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF
STAGE 1	675	675
STAGE 2	--	675
TOTAL	675	1,350

NOTE: ALL ITEMS ON THIS SHEET ARE PAID UNDER CATEGORY 0010

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BEAM GUARD

LOCATION	OFFSET	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH LF	614.0305 STEEL PLATE BEAM GUARD CLASS A LF	614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL EA	614.0396 GUARDRAIL MOW STRIP ASPHALT SY	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EA
STA 118+11 - STA 120+29	LT	--	--	--	50	125	40	1
STA 119+59 - STA 120+42	RT	21	13	1	43	--	--	--
STA 120+56 - STA 122+49	LT	--	--	--	115	100	40	1
STA 120+70 - STA 122+00	RT	--	--	--	67	38	40	1
TOTAL		21	13	1	275	263	120	3

BARRIER SYSTEM GRADING SHAPING FINISHING

LOCATION	OFFSET	614.0010 EACH	**EXCAVATION COMMON CY	**BORROW CY	**SALVAGED TOPSOIL SY	**SEED MIXTURE NO. 60 LB	** EROSION MAT URBAN CLASS I TYPE B SY
STA 118+11 - STA 120+29	LT	1	1	27	127	1	127
STA 119+59 - STA 120+42	RT	1	2	0	19	1	19
STA 120+56 - STA 122+49	LT	1	1	11	54	1	54
STA 120+70 - STA 122+00	RT	1	1	2	9	1	9
TOTAL		4	5	40	209	4	209

**INCIDENTAL TO BARRIER SYSTEM GRADING SHAPING FINISHING.
ITEMS AND QUANTITIES LISTED FOR BID INFORMATION ONLY.

EROSION CONTROL

LOCATION	625.0100 TOPSOIL SY	627.0200 MULCH SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EA	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EA	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.7010 INLET PROTECTION TYPE B EA
STH 67	450	--	3,580	3,580	8	2	450	2
STH 18	--	--	--	--	--	--	--	--
UNDISTRIBUTED	--	110	--	--	--	--	--	2
TOTAL	450	110	3,580	3,580	8	2	450	4

LOCATION	628.7015 INLET PROTECTION TYPE C EA	628.7504 TEMPORARY DITCH CHECKS LF	628.7570 ROCK BAGS EA	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0160 SEEDING MIXTURE NO. 60 LB	630.0200 SEEDING TEMPORARY LB
STH 67	6	--	12	0.30	8	--	6
STH 18	1	18	--	--	--	--	--
UNDISTRIBUTED	1	18	8	0.10	2	1	3
TOTAL	8	36	20	0.40	10	1	9

NOTE: ALL ITEMS ON THIS SHEET ARE PAID UNDER CATEGORY 0010

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	MISCELLANEOUS QUANTITIES	SHEET:	E

FILE NAME : _____ PLOT DATE : _____ PLOT BY : _____ PLOT NAME : _____ PLOT SCALE : 1:1

PAVEMENT MARKINGS

LOCATION	646.0106 EPOXY 4-INCH WHITE LF	646.0106 EPOXY 4-INCH YELLOW LF	646.0106 EPOXY 4-INCH YELLOW 12.5' LINE LF	646.0841.S GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH WHITE 12.5' LINE LF	646.0843.S GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH WHITE	646.0881.S GROOVED WET REFLECTIVE TAPE 4-INCH WHITE 12.5' LINE LF	646.0883.S GROOVED WET REFLECTIVE TAPE 8-INCH WHITE 3' LINE 9' GAP LF	647.0166 ARROWS EPOXY TYPE 2 EACH	647.0356 WORDS EPOXY EACH
STH 67	31,392	17,353	2,062	218	3,070	878	275	8	8
USH 18	1,115	560	--	--	--	--	--	9	5
WHITAKER LANE	108	190	--	--	--	--	--	--	--
GRIFFITH ROAD	--	80	--	--	--	--	--	--	--
GENESEE LAKE ROAD	400	570	--	--	--	--	--	--	--
COUNTY DR	1,315	1,770	--	212	2,645	--	--	12	11
SUBTOTAL	34,330	20,523	2,062	--	5,715	878	--	--	--
TOTAL		56,915		430	5,715	878	275	29	24

PAVEMENT MARKINGS

LOCATION	647.0456 CURB EPOXY LF	647.0566 STOP LINE EPOXY 18-INCH LF	647.0606 ISLAND NOSE EPOXY EACH	647.0726 DIAGONAL EPOXY 12-INCH YELLOW LF	647.0726 DIAGONAL EPOXY 12-INCH WHITE LF	647.0856 CONCRETE CORRUGATED MEDIAN EPOXY SF	648.0100 LOCATING NO-PASSING ZONES MI	SPV.0090.02 GROOVED PREFORMED PLASTIC TAPE WHITE 8-INCH LF	SPV.0090.04 GROOVED PREFORMED PLASTIC TAPE DOUBLE YELLOW 4-INCH LF	SPV.0090.05 GROOVED CONTRAST PREFORMED PLASTIC TAPE YELLOW 2' LINE 6' GAP 4-INCH LF
STH 67	140	218	7	380	--	230	2.58	750	3,652	--
USH 18	--	99	--	--	--	--	--	525	1,120	--
WHITAKER LANE	--	20	--	--	--	--	--	--	--	--
GRIFFITH ROAD	--	25	--	--	--	--	--	--	--	--
GENESEE LAKE ROAD	--	30	--	--	173	--	--	300	--	--
COUNTY DR	--	60	--	--	847	--	--	--	--	85
SUBTOTAL	--	--	--	380	1,020	--	--	--	--	--
TOTAL	140	452	7	1,400		230	2.58	1,575	4,772	85

TEMPORARY PAVEMENT MARKINGS

LOCATION	646.0600 REMOVING PAVEMENT MARKINGS LF	649.0400 REMOVABLE TAPE 4-INCH YELLOW 12.5' LINE LF	649.0400 REMOVABLE TAPE 4-INCH WHITE 12.5' LINE LF	649.0400 REMOVABLE TAPE 4-INCH WHITE LF	649.0403 EPOXY 4-INCH YELLOW LF	649.0403 EPOXY 4-INCH YELLOW 12.5' LINE LF	649.0801 REMOVABLE TAPE 8-INCH WHITE LF	649.1400 STOP LINE REMOVABLE TAPE 24-INCH LF
STAGE 1	1,150	900	--	1,500	--	--	--	24
STAGE 2	450	--	--	1,500	--	--	--	--
STAGE 3					--	--		
STH 67	--	1,826	456	--	12,618	2,062	600	--
USH 18	--	560	--	--	--	--	275	--
SUBTOTAL	--	3,286	456	3,000	12,618	2,062	--	--
TOTAL	1,600		6,742		14,680		875	24

NOTE: ALL ITEMS ON THIS SHEET ARE PAID UNDER CATEGORY 0010

TRAFFIC CONTROL

LOCATION	643.0300 DRUMS EACH	643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III EACH	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A EACH	643.0705 WARNING LIGHTS TYPE A DAY	643.0715 WARNING LIGHTS TYPE C EACH	643.0715 WARNING LIGHTS TYPE C DAY	643.0900 SIGNS EACH	643.0900 SIGNS DAY	643.1050 SIGNS PCMS EACH	643.1050 SIGNS PCMS DAY	661.0100 TEMPORARY TRAFFIC SIGNALS FOR BRIDGES (B-67-0010) LS	COMMENTS
STAGE 1	20	220	3	33	4	44	10	110	24	264	2	14	0.5	11 DAYS
STAGE 2	35	385	6	66	8	88	10	110	25	275	2	6	0.5	11 DAYS
STAGE 3	12	276	--	--	--	--	--	--	35	805	2	6	--	23 DAYS, DRUMS FOR USH 18 SIGNAL WORK
TOTAL		881		99		132		220		1,344		26	1	

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

LOCATION	SPV.0105.06 LS
STAGE 3	1

CONSTRUCTION STAKING RESURFACING REFERENCE

Location	650.8000 LF
STA 103+65 - STA 245+30	14,165

CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER

LOCATION	OFFSET	650.5500 LF
STA 119+24 - STA 119+36	RT	30

SAWING ASPHALT

LOCATION	OFFSET	690.0150 LF
STH 67		
STA 103+65	RT & LT	45
STA 110+16	RT	6
STA 112+99	LT	6
STA 116+12	LT	6
STA 117+27	RT	6
STA 119+51 - STA 120+10	LT	65
STA 119+23 - STA 120+16	RT	125
STA 120+32	RT & LT	36
STA 120+65	RT & LT	38
STA 127+18 - STA 127+47	RT	29
STA 155+56 - STA 155+92	LT	35
STA 158+69	LT	6
STA 159+95 - STA 160+21	LT	30
STA 161+81	LT	6
STA 166+25 - STA 166+53	LT	30
STA 172+56	LT	6
STA 173+70	RT	6
STA 176+96	RT	6
STA 178+71	LT	6
STA 203+07	RT	6
STA 205+50	LT	6
STA 208+03	RT	6
STA 209+77	LT	6
STA 221+47 - STA 221+72	LT	25
STA 222+92 - STA 223+24	LT	35
STA 224+01 - STA 224+31	LT	35
STA 225+47 - STA 225+66	LT	20
STA 233+82	RT	6
STA 235+78	LT	6
STA 236+62 - STA 236+90	LT	30
STA 245+30		70
SUBTOTAL		744

LOCATION	OFFSET	690.0150 LF
SIDEROADS		
USH 18 STA 296+86		45
USH 18 STA 304+02		45
WHITAKER LANE		25
GRIFFITH ROAD		30
GENESEE LAKE ROAD WEST APPROACH		25
GENESEE LAKE ROAD EAST APPROACH		25
NORMANDALE DRIVE		26
SUBTOTAL		221
TOTAL		965

SECTION CORNER MONUMENTS SPECIAL

LOCATION	SPV.0060.02 EACH
STH 67	5

NOTE: ALL ITEMS ON THIS SHEET ARE PAID UNDER CATEGORY 0010

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USH 18 & STH 67
WAUKESHA COUNTY
CATEGORY 0030
S67-0630

STATE FURNISHED MATERIALS SUMMARY

EACH	DESCRIPTION
1	TRAFFIC SIGNAL CONTROLLER, FULLY ACTUATED, 8 PHASE
1	TRAFFIC SIGNAL CABINET
4	POLES, TYPE 13
4	LUMINAIRE ARMS, STEEL, 15-FT
1	40-FT MONOTUBE ARM
3	45-FT MONOTUBE ARM
4	EVP DETECTOR HEADS
1	RADAR DETECTION SYSTEM
1	CELL MODEM
1	ETHERNET SWITCH

REMOVING CONCRETE BASES

SIGNAL BASE NO.	204.0195 REMOVING CONCRETE BASES EACH
SB3	1
SB4	1
SB6	1
SB8	1
TOTAL	4

CONDUIT

FROM	TO	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.
PB5	SB3	15
PB9	SB4	19
PB14	SB6	15
PB20	SB8	19
	TOTAL	68

STATE FURNISHED FOR INFORMATION ONLY

SIGNAL BASE NO.	POLE TYPE 13 EACH	MONO 40' ARM EACH	MONO 45' ARM EACH	LUMINAIRE ARMS, STEEL, 15-FT EACH	EVP DETECTOR HEADS EACH	RADAR DETECTOR EACH
SB3	1		1	1	1	1
SB4	1		1	1	1	2
SB6	1		1	1	1	1
SB8	1	1		1	1	2
TOTAL	4	1	3	4	4	6

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.
SB1	HEAD 14		22
SB1	HEAD 16	19	
SB2	HEAD 4		22
SB2	HEAD 6	19	
SB3	HEAD 12	57	
SB3	HEAD 13	19	
SB3	HEAD 15		70
SB4	HEAD 2	57	
SB4	HEAD 3	19	
SB4	HEAD 5		68
SB5	HEAD 11	19	
SB5	HEAD 19		22
SB6	HEAD 17	56	
SB6	HEAD 18	19	
SB6	HEAD 20		69
SB7	HEAD 1	19	
SB7	HEAD 9		22
SB8	HEAD 7	51	
SB8	HEAD 8	19	
SB8	HEAD 10		64
	TOTAL	373	359

CONCRETE BASES

SIGNAL BASE NO.	LOCATION*	654.0113 CONCRETE BASES TYPE 13 EACH
SB3	109+50.3, 42.3'RT	1
SB4	108+12.6, 90.1'RT	1
SB6	107+82.1, 43.3'LT	1
SB8	109+25.4, 90.0'LT	1
	TOTAL	4

*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.**

*****QUANTITIES SHOWN ELSEWHERE ON PLAN**

USH 18 & STH 67
WAUKESHA COUNTY
CATEGORY 0030
S67-0630

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO		655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED L.F.
CB1	SB3		66	
CB1	SB4		189	
CB1	SB6		341	
CB1	SB8		299	
CB1	SB3			66
SB3	SB8			287
CB1	SB4			189
SB4	SB6			214
		TOTAL	895	757

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.
SB3	LUMIN.	144
SB4	LUMIN.	144
SB6	LUMIN.	144
SB8	LUMIN.	144
	TOTAL	576

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.
CB1	SB2	126
SB2	SB4	213
SB4	SB5	168
SB5	SB6	213
SB6	SB7	167
SB7	SB8	279
SB8	SB1	118
SB1	SB3	209
SB3	CB1	66
PB1	SB1	84
PB5	SB3	35
PB6	CB1	59
PB9	SB4	39
PB10	SB4	93
PB13	SB5	41
PB14	SB6	35
PB15	SB6	98
PB18	SB7	29
PB19	SB1	27
PB20	SB8	39
PB21	SB2	24
	TOTAL	2160

POLES

SIGNAL BASE NO.		657.0100 PEDESTAL BASES EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.1360 INSTALL POLES TYPE 13 EACH	657.1540 INSTALL MONOTUBE ARMS 40-FT EACH	657.1545 INSTALL MONOTUBE ARMS 45-FT EACH	657.1815 INSTALL LUMINAIRE ARMS STEEL 15-FT EACH	659.1125 LUMINAIRES UTILITY LED C EACH
SB1		1	1					
SB2		1	1					
SB3				1		1	1	1
SB4				1		1	1	1
SB5		1	1					
SB6				1		1	1	1
SB7		1	1					
SB8				1	1		1	1
	TOTAL	4	4	4	1	3	4	4

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO		655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.
CB1	SB8 (HEAD A)		369
CB1	SB4 (HEAD B)		264
CB1	SB6 (HEAD C)		416
CB1	SB3 (HEAD D)		141
		TOTAL	1190

*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.**

*****QUANTITIES SHOWN ELSEWHERE ON PLAN**

USH 18 & STH 67
WAUKESHA COUNTY
CATEGORY 0030
S67-0630

3

		FACES									
SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0110 TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL EACH	658.0115 TRAFFIC SIGNAL FACE 4-12 INCH VERTICAL EACH	658.0215 BACKPLATES SIGNAL FACE 3 SECTION 12-INCH EACH	658.0220 BACKPLATES SIGNAL FACE 4 SECTION 12-INCH 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	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH
1	SB7	1		1		1	1	1			
2	SB4	1		1		1	1	1			
3	SB4	1		1		1	1	1			
4	SB2		1		1				1	2	1
5	SB4		1		1				1	2	1
6	SB2	1		1		1	1	1			
7	SB8	1		1		1	1	1			
8	SB8	1		1		1	1	1			
9	SB7		1		1				1	2	1
10	SB8		1		1				1	2	1
11	SB5	1		1		1	1	1			
12	SB3	1		1		1	1	1			
13	SB3	1		1		1	1	1			
14	SB1		1		1				1	2	1
15	SB3		1		1				1	2	1
16	SB1	1		1		1	1	1			
17	SB6	1		1		1	1	1			
18	SB6	1		1		1	1	1			
19	SB5		1		1				1	2	1
20	SB6		1		1				1	2	1
	TOTAL	12	8	12	8	12	12	12	8	16	8

TRANSPORT TRAFFIC SIGNAL AND LIGHTING MATERIALS

LOCATION	SPV.0105.01 TRANSPORT TRAFFIC SIGNAL AND LIGHTING MATERIALS L.S.
USH 18 & STH 67	1
TOTAL	1

REMOVE TRAFFIC SIGNALS

LOCATION	SPV.0105.02 REMOVE TRAFFIC SIGNALS L.S.
USH 18 & STH 67	1
TOTAL	1

SIGNAL MOUNTING HARDWARE

LOCATION	658.5069.01 SIGNAL MOUNTING HARDWARE L.S.
USH 18 & STH 67	1
TOTAL	1

***QUANTITIES SHOWN ELSEWHERE ON PLAN

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	MISCELLANEOUS QUANTITIES	SHEET:	E

FILE NAME : N:\PDS\C3D\CAD\31000630\SIG\S67-0630\030504_MQ.PPTX PLOT DATE : 1/26/2016 7:23 AM PLOT BY : MSCCXV PLOT NAME : 030504_MQ.PDF PLOT SCALE : 1:1

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EVP DETECTOR HEAD INSTALLATION

LOCATION	SPV.0105.03 EVP DETECTOR HEAD INSTALLATION L.S.
USH 18 & STH 67	1
TOTAL	1

TRANSPORT AND INSTALL STATE FURNISHED RADAR DETECTION SYSTEM

LOCATION	SPV.0105.04 TRANSPORT AND INSTALL STATE FURNISHED RADAR DETECTION SYSTEM L.S.
USH 18 & STH 67	1
TOTAL	1

INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET

LOCATION	SPV.0105.05 INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET L.S.
USH 18 & STH 67	1
TOTAL	1

***QUANTITIES SHOWN ELSEWHERE ON PLAN

FILE NAME : N:\PDS\C3D\CAD\31000630\SIG\S67-0630\030504_MQ.PPTX PLOT DATE : 1/26/2016 7:23 AM PLOT BY : MSCCXV PLOT NAME : 030504_MQ.PDF PLOT SCALE : 1:1

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SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0620 WOOD POSTS 4"X6"X20' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
1	R2-1(2S)	40 MPH	24 x 30	5.000	--	--	1	1	1	--	--	--	--
2	D12-2A(2S)	--	60 x 42	17.500	--	--	1	2	2	--	--	--	--
3	J1-1(2S)	--	24 x 39	6.500	--	--	1	1	1	--	--	--	--
	M2-1	--	21 x 15										
	M1-4	USH 18	24 x 24										
4	W3-3(2S)	--	36 x 36	--	9.000	--	1	1	1	--	--	--	--
5	D1-3	[A] OCONOMOWOC	84 x 42	24.500	--	--	1	2	2	--	--	--	--
		[A] SULLIVAN											
		WAUKESHA [A]											
6	D2-2	EAGLE 9	72 x 24	12.000	--	--	1	2	2	--	--	--	--
		ELKHORN 26											
7	J4-1(2S)	--	24 x 36	6.000	--	--	1	1	1	--	--	--	--
	M3-3	--	24 x 12										
	M1-6	STH 67	24 x 24										
8	R2-1(3)	40 MPH	36 x 48	12.000	--	--	1	1	1	--	--	--	--
9	R1-1(3)	--	36 x 36	7.460	--	--	1	1	1	--	--	--	--
10	R1-1F(3)	--	36 x 36	--	--	7.460	1	--	--	--	--	--	MOUNT ON SIGNAL POLE
11	R1-1F(3)	--	36 x 36	--	--	7.460	1	--	--	--	--	--	MOUNT ON SIGNAL POLE
12	R1-1F(3)	--	36 x 36	--	--	7.460	1	--	--	--	--	--	MOUNT ON SIGNAL POLE
13	R1-1F(3)	--	36 x 36	--	--	7.460	1	--	--	--	--	--	MOUNT ON SIGNAL POLE
14	J3-1(2S)	--	24 x 69	11.500	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
	MB4-1	--	24 x 12										
	MB3-2	--	24 x 12										
	M1-1	IH 94	24 x 24										
	MB6-1	--	21 x 21										
15	R1-1(3)	--	36 x 36	7.460	--	--	1	1	1	--	--	--	--
16	J3-2(2S)	--	48 x 57	19.000	--	--	1	1	1	--	--	--	--
	M3-4	--	24 x 12										
	M1-4	USH 18	24 x 24										
	M6-1	--	21 x 21										
	M3-2	--	24 x 12										
	M1-4	USH 18	24 x 24										
	M6-1	--	21 x 21										

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0620 WOOD POSTS 4"X6"X20' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
17	R3-8A	--	--	x	--	--	--	--	1	1	--	--	--	--	--
18	R5-3(2S)	--	24	x	24	4.000	--	--	--	--	1	--	--	--	--
19	R3-8A(2S)	--	36	x	30	7.500	--	--	1	1	1	--	--	--	--
20	W12-1D(2S)	--	24	x	24	--	4.000	--	--	--	1	--	--	--	2 FT MOUNTING HEIGHT
21	W12-1D(2S)	--	24	x	24	--	4.000	--	--	--	1	--	--	--	2 FT MOUNTING HEIGHT
22	W12-1D(2S)	--	24	x	24	--	4.000	--	--	--	1	--	--	--	2 FT MOUNTING HEIGHT
23	R1-1(3)	--	36	x	36	7.460	--	--	1	1	1	--	--	--	--
24	J3-2(2S)	--	48	x	69	23.000	--	--	1	2	2	--	--	--	--
	MB4-1	--	24	x	12										
	MB3-2	--	24	x	12										
	M1-1	IH 94	24	x	24										
	MB6-1	--	21	x	21										
	MB4-1	--	24	x	12										
	MB3-4	--	24	x	12										
	M1-1	IH 94	24	x	24										
	MB6-1	--	21	x	21										
25	J3-2(2S)	--	48	x	57	19.000	--	--	1	1	1	--	--	--	--
	M3-2		24	x	12										
	M1-4	USH 18	24	x	24										
	M6-1		21	x	21										
	M3-4		24	x	12										
	M1-4	USH 18	24	x	24										
	M6-1		21	x	21										
26	R3-8W	--	--	x	--	--	--	--	1	1	--	--	--	--	--
27	R3-8W(2S)	--	54	x	30	11.250	--	--	1	1	2	--	--	--	--
28	J4-1	--	--	x	--	--	--	--	1	1	--	--	--	--	REMOVE EXISTING ASSEMBLY
29	J4-2(2S)	--	48	x	36	12.000	--	--	1	1	1	--	--	--	--
	M3-1	--	24	x	12										
	M1-6	STH 67	24	x	24										
	MB4-1	--	24	x	12										
	M1-1	IH 94	24	x	24										
30	R2-1(2S)	55 MPH	24	x	30	5.000	--	--	1	1	1	--	--	--	--
31	D2-2	HWY 94 3	84	x	24	14.000	--	--	1	2	2	--	--	--	--
		OCONOMOWOC 6													
32	R1-1(3)	--	36	x	36	7.460	--	--	1	1	1	--	--	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0620 WOOD POSTS 4"X6"X20' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
33	J2-2(2S)	--	48 x 69	23.000	--	--	1	2	2	--	--	--	RELOCATE SIGN TO STA 12+75
	MB4-1	--	24 x 12										
	MB3-2	--	24 x 12										
	M1-1	IH 94	24 x 24										
	MB5-1L	--	21 x 21										
	MB4-1	--	24 x 12										
	MB3-4	--	24 x 12										
	M1-1	IH 94	24 x 24										
	MB5-1R	--	21 x 21										
34	W3-5(2S)	40 MPH	36 x 36	--	9.000	--	--	--	1	--	--	--	--
35	W3-3(2S)	--	36 x 36	--	9.000	--	1	1	1	--	--	--	--
36	J1-1(2S)	--	24 x 39	6.500	--	--	1	1	1	--	--	--	--
	M2-1	--	21 x 15										
	M1-4	USH 18	24 x 24										
37	W5-52L(2S)	--	12 x 36	--	3.000	--	1	1	1	--	--	--	4 FT MOUNTING HEIGHT
38	W5-52R(2S)	--	12 x 36	--	3.000	--	1	1	1	--	--	--	4 FT MOUNTING HEIGHT
39	W5-52L(2S)	--	12 x 36	--	3.000	--	1	1	1	--	--	--	4 FT MOUNTING HEIGHT
40	W5-52R(2S)	--	12 x 36	--	3.000	--	1	1	1	--	--	--	4 FT MOUNTING HEIGHT
41	R1-1(2S)	--	30 x 30	5.180	--	--	1	1	1	--	--	--	--
42	D1-3	[A] DOUSMAN	72 x 42	21.000	--	--	1	2	2	--	--	--	--
		[A] WAUKESHA											
		SULLIVAN [A]											
43	W14-3(2S)	--	48 x 36	--	6.000	--	1	1	1	--	--	--	--
44	R1-1(2S)	--	30 x 30	5.180	--	--	1	1	1	--	--	--	--
45	W14-3(2S)	--	48 x 36	--	6.000	--	1	1	1	--	--	--	--
46	W14-3(2S)	--	48 x 36	--	6.000	--	1	1	1	--	--	--	--
47	W2-1(2S)	--	30 x 30	--	6.250	--	1	1	1	--	--	--	--
48	D1-61	GENESEE LAKE RD	96 x 24	16.000	--	--	1	2	2	--	--	--	--
		[A] [A]											
49	R1-1(2S)	--	30 x 30	5.180	--	--	1	1	1	--	--	--	--
50	--	WEIGHT LIMIT 10 TONS	-- x --	--	--	--	--	1	1	--	1	--	MOVE TO NEW POST
51	--	WEIGHT LIMIT 10 TONS	-- x --	--	--	--	--	1	1	--	1	--	MOVE TO NEW POST
52	R1-1(2S)	--	30 x 30	5.180	--	--	1	1	1	--	--	--	--
53	R59-51(3)	--	48 x 48	16.000	--	--	1	1	1	--	--	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0620 WOOD POSTS 4"X6"X20' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
54	D1-61	GENESEE LAKE RD [A] [A]	96	x	24	16.000	--	--	1	2	2	--	--	--	--
55	W2-1(2S)	--	30	x	30	--	6.250	--	1	1	1	--	--	--	--
56	--	NO ENGINE BRAKING...	--	x	--	--	--	--	--	1	1	--	1	--	--
57	R7-1R(2S)	--	18	x	24	3.000	--	--	1	1	1	--	--	--	--
58	W6-3(2S)	--	36	x	36	--	9.000	--	1	1	1	--	--	--	--
59	R1-1(2S)	--	30	x	30	5.180	--	--	1	1	1	--	--	--	--
60	R2-1(3)	55 MPH	36	x	48	12.000	--	--	1	1	1	--	--	--	--
61	R5-1(3)	--	36	x	36	9.000	--	--	--	--	--	--	--	60	BACK OF SIGN #60
62	R7-1D(2M)	--	24	x	30	5.000	--	--	1	1	1	--	--	--	--
63	R5-1A(3)	--	42	x	30	8.750	--	--	1	1	1	--	--	--	--
64	W6-2(2S)	--	36	x	36	--	9.000	--	--	--	--	--	--	63	BACK OF SIGN #63
65	R5-1A(3)	--	42	x	30	8.750	--	--	1	1	1	--	--	--	--
66	R7-1D(2M)	--	24	x	30	5.000	--	--	--	--	--	--	--	65	BACK OF SIGN #65 - ANGLED
67	R3-20LL(3)	--	36	x	54	13.500	--	--	1	1	1	--	--	--	--
68	R2-1(3)	45 MPH	36	x	48	12.000	--	--	--	--	--	--	--	--	--
69	R4-7(3)	--	36	x	48	12.000	--	--	1	1	1	--	--	--	--
70	W5-54(2S)	--	18	x	18	--	2.250	--	--	--	--	--	--	69	BELOW SIGN #69 - SEE DETAIL
71	R7-1D(2S)	--	18	x	24	3.000	--	--	1	1	1	--	--	--	--
72	W8-6(2S)	--	36	x	36	--	9.000	--	1	--	--	--	--	--	MOUNT ON BEACON POLE
73	W6-1(2S)	--	36	x	36	--	9.000	--	1	1	1	--	--	--	--
74	R7-1D(2S)	--	18	x	24	3.000	--	--	1	1	1	--	--	--	--
75	W3-5(2S)	45 MPH	36	x	36	--	9.000	--	1	1	1	--	--	--	--
76	R7-1L(2S)	--	18	x	24	3.000	--	--	1	1	1	--	--	--	--
77	R5-1A(3)	--	42	x	30	8.750	--	--	1	1	1	--	--	--	--
78	R3-7R(3)	--	36	x	36	9.000	--	--	--	--	--	--	--	77	BACK OF SIGN #77
79	R3-20LL(3)	--	36	x	54	13.500	--	--	1	1	1	--	--	--	--
80	R7-1D(3)	--	24	x	30	5.000	--	--	1	1	1	--	--	--	--
81	R3-20L(3)	--	36	x	54	13.500	--	--	1	1	1	--	--	--	--
82	R3-7R(3)	--	36	x	36	9.000	--	--	1	1	1	--	--	--	--
83	R2-1(3)	45 MPH	36	x	48	12.000	--	--	1	1	1	--	--	--	--
84	R3-5R(2M)	--	42	x	48	14.000	--	--	1	--	--	--	--	--	INSTALL ON S-67-265 NEW BRACKETS INCIDENTAL
85	D2-3	DOUSMAN 4 EAGLE 13	72	x	24	12.000	--	--	1	2	2	--	--	--	--
86	R7-1D(3)	--	24	x	30	5.000	--	--	1	1	1	--	--	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0620 WOOD POSTS 4"X6"X20' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
87	J4-1(3)	--	36 x 54	13.500	--	--	1	1	1	--	--	--	--
	M3-3	--	36 x 18										
	M1-6	STH 67	36 x 36										
88	J3-1(3)	--	36 x 84	21.000	--	--	1	1	2	--	--	--	--
	MB4-1	--	36 x 18										
	M1-1	IH 94	36 x 36										
	MB4-20L	--	30 x 30										
89	W4-2R(3)	--	36 x 36	--	9.000	--	1	1	1	--	--	--	--
90	R3-20LL(3)	--	36 x 54	13.500	--	--	1	1	1	--	--	--	--
91	R5-1A(3)	--	42 x 30	8.750	--	--	--	--	1	--	--	--	--
92	J3-1(3)	--	36 x 84	21.000	--	--	1	1	2	--	--	--	--
	M3-2	--	36 x 18										
	M1-5A	CTH DR	36 x 36										
	M6-1	--	30 x 30										
93	R3-20L(3)	--	36 x 54	13.500	--	--	1	1	1	--	--	--	--
94	J3-1(3)	--	36 x 84	21.000	--	--	1	1	2	--	--	--	--
	M3-4	--	36 x 18										
	M1-5A	CTH DR	36 x 36										
	M6-1	--	30 x 30										
95	R7-1D(3)	--	24 x 30	5.000	--	--	1	1	1	--	--	--	--
96	*NOT USED*	--	-- x --	--	--	--	--	--	--	--	--	--	--
97	*NOT USED*	--	-- x --	--	--	--	--	--	--	--	--	--	--
98	*NOT USED*	--	-- x --	--	--	--	--	--	--	--	--	--	--
99	*NOT USED*	--	-- x --	--	--	--	--	--	--	--	--	--	--
100	J2-3(3)	--	108 x 84	63.000	--	--	1	2	2	--	--	--	--
	M3-4	--	36 x 18										
	M1-5A	CTH DR	36 x 36										
	M5-1L	--	30 x 30										
	MB4-5	--	36 x 18										
	M1-1	IH 94	36 x 36										
	MB6-1	--	30 x 30										
	M3-2	--	36 x 18										
	M1-5A	CTH DR	36 x 36										
	M5-1R	--	30 x 30										

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0620 WOOD POSTS 4"X6"X20' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
101	J2-3(3)	--	108	x	84	63.000	--	--	1	2	2	--	--	--	--
	M3-4	--	36	x	18										
	M1-5A	CTH DR	36	x	36										
	M5-1L	--	30	x	30										
	MB4-5	--	36	x	18										
	M1-1	IH 94	36	x	36										
	MB6-1	--	30	x	30										
	M3-2	--	36	x	18										
	M1-5A	CTH DR	36	x	36										
	M5-1R	--	30	x	30										
102	R7-1D(3)	--	24	x	30	5.000	--	--	--	--	1	--	--	--	--
103	W3-3(3)	--	36	x	36	--	9.000	--	1	1	1	--	--	--	--
104	W3-3(3)	--	36	x	36	--	9.000	--	1	1	1	--	--	--	--
105	R7-1D(3)	--	24	x	30	5.000	--	--	1	1	1	--	--	--	--
106	J3-1(3)	--	36	x	84	21.000	--	--	1	1	2	--	--	--	SHEET 14 OF 18
	M3-4	--	36	x	18										
	M1-5A	CTH DR	36	x	36										
	M6-1	--	30	x	30										
107	J3-1(3)	--	36	x	84	21.000	--	--	1	1	1	--	--	--	--
	M3-2	--	36	x	18										
	M1-5A	CTH DR	36	x	36										
	M6-1	--	30	x	30										
108	R5-1A(3)	--	42	x	30	8.750	--	--	--	--	1	--	--	--	--
109	R3-5L(2M)	--	42	x	48	14.000	--	--	1	--	--	--	--	--	INSTALL ON S-67-253 NEW BRACKETS INCIDENTAL
110	J3-2(3)	--	72	x	102	51.000	--	--	1	2	--	2	--	--	--
	MB4-1	--	36	x	18										
	MB3-2	--	36	x	18										
	M1-1	IH 94	36	x	36										
	MB6-1	--	30	x	30										
	MB4-1	--	36	x	18										
	MB3-4	--	36	x	18										
	M1-1	IH 94	36	x	36										
	MB6-1	--	30	x	30										

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0620 WOOD POSTS 4"X6"X20' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
111	J2-2(3)	--	72 x 84	42.000	--	--	1	2	2	--	--	--	--
	M3-2	--	36 x 18										
	M1-5A	CTH DR	36 x 36										
	M5-1L	--	30 x 30										
	M3-4	--	36 x 18										
	M1-5A	CTH DR	36 x 36										
	M5-1R	--	30 x 30										
112	D4-2L(3)	--	36 x 48	12.000	--	--	1	1	1	--	--	--	--
113	R7-1D(3)	--	24 x 30	5.000	--	--	1	1	1	--	--	--	--
114	J4-1(3)	--	36 x 54	13.500	--	--	1	1	1	--	--	--	--
	M3-1	--	36 x 18										
	M1-6	STH 67	36 x 36										
115	D1-2	[A] BLUE RIBBON DR	102 x 30	21.250	--	--	1	2	2	--	--	--	--
		AURORA DR [A]											
116	R7-1D(3)	--	24 x 30	5.000	--	--	1	1	1	--	--	--	--
117	R1-1(3)	--	36 x 36	7.460	--	--	1	1	1	--	--	--	SHEET 12A OF 18
118	R6-3(2S)	--	30 x 24	5.000	--	--	--	--	--	--	--	117	SHEET 12A OF 18
119	R1-1(3)	--	36 x 36	7.460	--	--	1	1	1	--	--	--	SHEET 12A OF 18
120	R6-3(2S)	--	30 x 24	5.000	--	--	--	--	--	--	--	119	SHEET 12A OF 18
121	R4-7(2S)	--	24 x 30	5.000	--	--	--	--	--	--	--	119	BEHIND SIGN #119 - SHEET 12A OF 18
122	R5-1(3)	--	36 x 36	9.000	--	--	1	1	1	--	--	--	SHEET 12A OF 18
123	R7-1D(3)	--	24 x 30	5.000	--	--	--	--	--	--	--	122	SHEET 12A OF 18
124	R5-1(3)	--	36 x 36	9.000	--	--	1	1	1	--	--	--	SHEET 12A OF 18
125	R4-7(3)	--	36 x 48	12.000	--	--	1	1	1	--	--	--	SHEET 12A OF 18
126	J1-1(2S)	--	24 x 39	6.500	--	--	1	1	1	--	--	--	SHEET 12A OF 18
	M2-1	--	21 x 15										
	M1-5A	CTH DR	24 x 24										
127	R1-1(3)	--	36 x 36	7.460	--	--	1	1	1	--	--	--	SHEET 12A OF 18
128	R6-3(2S)	--	30 x 24	5.000	--	--	--	--	--	--	--	127	SHEET 12A OF 18
129	R5-1(3)	--	36 x 36	9.000	--	--	1	1	1	--	--	--	SHEET 12A OF 18
130	R5-1(3)	--	36 x 36	9.000	--	--	1	1	1	--	--	--	SHEET 12A OF 18
131	R4-7(3)	--	36 x 48	12.000	--	--	1	1	1	--	--	--	SHEET 12A OF 18

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0620 WOOD POSTS 4"X6"X20' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
132	R7-1D(3)	--	24	x	30	5.000	--	--	1	1	1	--	--	--	SHEET 13A OF 18
133	R1-2(3)	--	48	x	42	7.000	--	--	1	1	1	--	--	--	SHEET 13A OF 18
134	R1-1F(3)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	MOUNT ON SIGNAL POLE
135	W12-1D(2S)	--	24	x	24	--	4.000	--	--	--	--	--	--	--	2 FT MOUNTING HEIGHT ON SIGNAL POLE
136	R5-1(3)	--	36	x	36	9.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
137	R1-1F(3)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	MOUNT ON SIGNAL POLE
138	R4-7(2S)	--	24	x	30	5.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
139	R1-1F(3)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	MOUNT ON SIGNAL POLE
140	W12-1D(2S)	--	24	x	24	--	4.000	--	1	1	1	--	--	--	2 FT MOUNTING HEIGHT
141	R5-1(3)	--	36	x	36	9.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
142	R1-1F(3)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	MOUNT ON SIGNAL POLE
143	R4-7(3)	--	36	x	48	12.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
144	R1-2(3)	--	48	x	42	7.000	--	--	1	1	1	--	--	--	--
145	M1-94S	[DR] DELAFIELD RD	84	x	18	10.500	--	--	1	--	--	--	--	--	MOUNT ON MAST ARM
146	W12-1D(2S)	--	24	x	24	--	4.000	--	1	1	1	--	--	--	2 FT MOUNTING HEIGHT
147	R1-1F(3)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	MOUNT ON SIGNAL POLE
148	R1-1F(3)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	MOUNT ON SIGNAL POLE
149	R4-7(2S)	--	24	x	30	5.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
150	R5-1(3)	--	36	x	36	9.000	--	--	1	1	1	--	--	--	--
151	R1-2(3)	--	48	x	42	7.000	--	--	1	1	1	--	--	--	--
152	M1-94S	[67] SUMMIT AVE	84	x	18	10.500	--	--	1	--	--	--	--	--	MOUNT ON MAST ARM
153	M1-94S	[67] SUMMIT AVE	84	x	18	10.500	--	--	1	--	--	--	--	--	MOUNT ON MAST ARM
154	W12-1D(2S)	--	24	x	24	--	4.000	--	1	1	1	--	--	--	2 FT MOUNTING HEIGHT
155	R1-1F(3)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	MOUNT ON SIGNAL POLE
156	R1-1F(3)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	MOUNT ON SIGNAL POLE
157	R1-1F(3)	--	36	x	36	--	--	7.460	1	1	1	--	--	--	--
158	R5-1(3)	--	36	x	36	9.000	--	--	--	--	--	--	--	157	--
159	R4-7(3)	--	36	x	48	12.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
160	J3-1	--	--	x	--	--	--	--	1	--	--	--	--	--	REMOVE FROM LIGHT POLE - SHEET 13A
161	M1-94S	[DR] DELAFIELD RD	84	x	18	10.500	--	--	1	--	--	--	--	--	MOUNT ON MAST ARM - SHEET 13A
162	J12-1(2S)	--	24	x	57	9.500	--	--	1	1	1	--	--	--	SHEET 15 OF 18
	MB4-1	--	24	x	12										
	M1-1	IH 94	24	x	24										
	MB5-1L	--	21	x	21										
163	W5-52R(2S)	--	12	x	36	--	3.000	--	1	1	1	--	--	--	4 FT MOUNTING HEIGHT

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164	J4-1(2S)	--	24 x 36	6.000	--	--	1	1	1	--	--	--	--
	MB4-1	--	24 x 12										
	M1-1	IH 94	24 x 24										
165	R2-1(2S)	45 MPH	24 x 30	5.000	--	--	1	1	1	--	--	--	--
166	D2-2	SULLIVAN 7	72 x 24	12.000	--	--	1	2	2	--	--	--	--
		MADISON 50											
167	J4-1(2S)	--	24 x 36	6.000	--	--	1	1	1	--	--	--	--
	M3-4	--	24 x 12										
	M1-4	USH 18	24 x 24										
168	R3-8A(2S)	--	36 x 30	7.500	--	--	1	1	1	--	--	--	--
169	D1-3	[A] WAUKESHA	84 x 42	24.500	--	--	1	2	2	--	--	--	--
		[A] OCONOMOWOC											
		EAGLE [A]											
170	R3-8A(2S)	--	36 x 30	7.500	--	--	1	1	1	--	--	--	--
171	W3-3(2S)	--	36 x 36	--	9.000	--	1	1	1	--	--	--	--
172	J2-3(2S)	--	72 x 57	28.500	--	--	1	2	2	--	--	--	--
	M3-1	--	24 x 12										
	M1-6	STH 67	24 x 24										
	M5-1L	--	21 x 21										
	M3-2	--	24 x 12										
	M1-4	USH 18	24 x 24										
	M6-1	--	21 x 21										
	M3-3	--	24 x 12										
	M1-6	STH 67	24 x 24										
	M5-1R	--	21 x 21										
173	M1-94S	[18] SUNSET DR	96 x 18	12.000	--	--	--	--	--	--	--	--	MOUNT ON MAST ARM
174	J3-2(2S)	--	48 x 57	19.000	--	--	1	1	1	--	--	--	--
	M3-3	--	24 x 12										
	M1-6	STH 67	24 x 24										
	M6-1	--	21 x 21										
	M3-1	--	24 x 12										
	M1-6	STH 67	24 x 24										
	M6-1	--	21 x 21										
175	M1-94S	[67] SUMMIT AVE	102 x 18	12.750	--	--	--	--	--	--	--	--	MOUNT ON MAST ARM
176	M1-94S	[67] SUMMIT AVE	102 x 18	12.750	--	--	--	--	--	--	--	--	MOUNT ON MAST ARM

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0620 WOOD POSTS 4"X6"X20' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
177	J3-1(2S)	--	24 x 69	11.500	--	--	1	1	1	--	--	--	--
	MB4-1	--	24 x 12										
	MB3-4	--	24 x 12										
	M1-1	IH 94	24 x 24										
	MB6-1	--	21 x 21										
178	R3-8A(2S)	--	36 x 30	7.500	--	--	1	1	1	--	--	--	--
179	R7-1D(2S)	--	18 x 24	3.000	--	--	1	1	1	--	--	--	--
180	D2-2	WAUKESHA 12 MILWAUKEE 30	84 x 24	14.000	--	--	1	2	2	--	--	--	--
181	J4-1(2S)	--	24 x 36	6.000	--	--	1	1	1	--	--	--	--
	M3-2	--	24 x 12										
	M1-4	USH 18	24 x 24										
182	R7-1D(2S)	--	18 x 24	3.000	--	--	1	1	1	--	--	--	--
183	M1-94S	[18] SUNSET DR	96 x 18	12.000	--	--	--	--	--	--	--	--	MOUNT ON MAST ARM
184	J13-1(2S)	--	24 x 57	9.500	--	--	1	1	1	--	--	--	--
	MB4-1	--	24 x 12										
	M1-1	IH 94	24 x 24										
	MB6-1	--	21 x 21										
185	J3-2(2S)	--	48 x 57	19.000	--	--	1	1	1	--	--	--	--
	M3-1	--	24 x 12										
	M1-6	STH 67	24 x 24										
	M6-1	--	21 x 21										
	M3-3	--	24 x 12										
	M1-6	STH 67	24 x 24										
	M6-1	--	21 x 21										
186	D1-3	[A] SULLIVAN [A] DOUSMAN OCONOMOWOC [A]	84 x 42	24.500	--	--	1	2	2	--	--	--	--
187	R3-8A(2S)	--	36 x 30	7.500	--	--	1	1	1	--	--	--	--
188	W3-3(2S)	--	36 x 36	--	9.000	--	1	1	1	--	--	--	--
189	J13-1(2S)	--	24 x 57	9.500	--	--	1	1	1	--	--	--	--
	MB4-1	--	24 x 12										
	M1-1	IH 94	24 x 24										
	MB6-1	--	21 x 21										

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0620 WOOD POSTS 4"X6"X20' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
190	R2-1(2S)	55 MPH	24	x	30	5.000	--	--	1	1	1	--	--	--	--
191	J2-1(2S)	--	24	x	69	11.500	--	--	1	1	1	--	--	--	--
	MB4-1	--	24	x	12										
	MB3-4	--	24	x	12										
	M1-1	IH 94	24	x	24										
	MB5-1R	--	21	x	21										
192	W12-1D(2S)	--	24	x	24	--	4.000	--	--	--	1	--	--	--	2 FT MOUNTING HEIGHT; SHEET 2 OF 18
193	I2-3	DOUSMAN POPULATION 2302	60	x	24	10.000	--	--	1	1	2	--	--	--	SHEET 15 OF 18
194	W1-2L(2S)	--	30	x	30	--	6.250	--	--	--	1	--	--	--	SHEET 7 OF 18
195	--	WEIGHT LIMIT 10 TONS	--	x	--	--	--	--	--	1	1	--	1	--	SHEET 8 OF 18
196	W1-2R(2S)	--	30	x	30	--	6.250	--	--	--	1	--	--	--	SHEET 9 OF 18
197	W1-2R(2S)	--	30	x	30	--	6.250	--	--	--	1	--	--	--	SHEET 9 OF 18
198	W1-2L(2S)	--	30	x	30	--	6.250	--	--	--	1	--	--	--	SHEET 11 OF 18
199	D1-61(MOD)	SUMMIT VILLAGE WAY [A]	78	x	24	13.000	--	--	--	--	2	--	--	--	SHEET 12 OF 18
200	D1-61(MOD)	[A] SUMMIT VILLAGE WAY	78	x	24	13.000	--	--	--	--	2	--	--	--	SHEET 13 OF 18
201	R1-2(3)	--	48	x	42	7.000	--	--	1	1	1	--	--	--	SHEET 13A OF 18
202	R3-20L(3)	--	36	x	54	13.500	--	--	1	1	1	--	--	--	SHEET 14 OF 18
203	R10-50(2S)	--	30	x	36	7.500	--	--	--	--	--	--	--	--	ON MAST ARM - SHEET 2 OF 18
204	R10-50(2S)	--	30	x	36	7.500	--	--	--	--	--	--	--	--	ON MAST ARM - SHEET 2 OF 18
205	R10-50(2S)	--	30	x	36	7.500	--	--	--	--	--	--	--	--	ON MAST ARM - SHEET 2 OF 18
206	R10-50(2S)	--	30	x	36	7.500	--	--	--	--	--	--	--	--	ON MAST ARM - SHEET 2 OF 18
207	D7-68L	SUMMIT VILLAGE PARK [A]	66	x	36	16.500	--	--	--	--	2	--	--	--	SHEET 9 OF 18
208	D7-68R	SUMMIT VILLAGE PARK [A]	66	x	36	16.500	--	--	--	--	2	--	--	--	SHEET 10 OF 18
209	J2-2(2S)	--	48	x	57	19.000	--	--	--	--	1	--	--	--	SHEET 1 OF 18
	M3-4	--	24	x	12										
	M1-4	USH 18	24	x	24										
	M5-1L	--	21	x	21										
	M3-2	--	24	x	12										
	M1-4	USH 18	24	x	24										
	M5-1R	--	21	x	21										

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	SIGN SIZE H [IN.]	**637.2210** SIGNS TYPE II REFLC H [SF]	**637.2230** SIGNS TYPE II REFLC F [SF]	**637.2215** SIGNS TYPE II REFLC H FOLDING [SF]	**638.2602** REM SIGNS TYPE II [EA]	**638.3000** REM SMALL SIGN SUP [EA]	**634.0618** WOOD POSTS 4"X 6"x18' [EA]	**634.0620** WOOD POSTS 4"X6"X20' [EA]	**638.2102** MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
210	J2-2(2S)	--	48	x	57	19.000	--	--	--	--	1	--	--	--	SHEET 3 OF 18
	M3-2	--	24	x	12										
	M1-4	USH 18	24	x	24										
	M5-1L	--	21	x	21										
	M3-4	--	24	x	12										
	M1-4	USH 18	24	x	24										
	M5-1R	--	21	x	21										
TOTALS						1747.370	221.750	96.980	155	159	183	2	4		

Standard Detail Drawing List

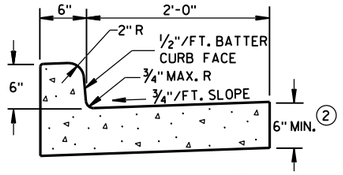
08D01-19	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09B02-09	CONDUIT
09C03-04	TRANSFORMER/PEDESTAL BASES
09C12-08A	CONCRETE BASE TYPE 13
09C12-08B	CONCRETE BASE TYPE 13
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.
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
09G02-03A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-03B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-03C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
13A10-01A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B15-08A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-08B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-08C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B18-06B	STEEL PLATE BEAM GUARD, CLASS "A" AT MEDIAN APPROACH TO BRIDGES
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-11B	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B20-11C	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS
14B20-11D	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS
14B20-11E	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"
14B20-11F	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"
14B20-11G	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL
14B20-11H	STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT
14B24-08A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-08B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-08C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B28-03	GUARDRAIL MOW STRIP
14B42-04A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

6

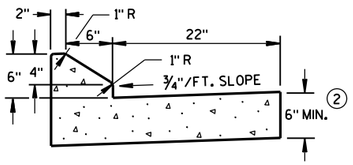
Standard Detail Drawing List

15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
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)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C18-03	MEDIAN ISLAND MARKING
15C19-04A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-04C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C21-07	SIGNING AND MARKING FOR TWO LANE TO FOUR LANE DIVIDED TRANSITIONS
15C27-01	DOUBLE ARROW WARNING SIGN PLACEMENT
15C33-02	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D33-04	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS
15D38-01B	ATTACHMENT OF SIGNS TO POSTS

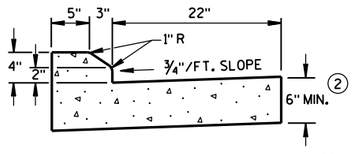
6



TYPES A & D ①

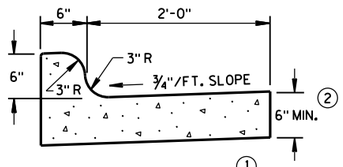


6" SLOPED CURB TYPES G & J ①

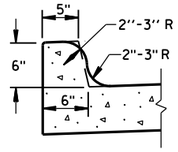


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

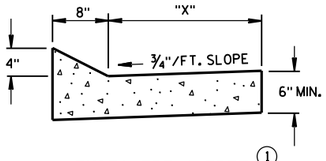


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

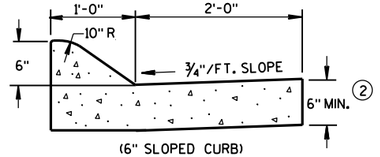
CONCRETE CURB & GUTTER 30"



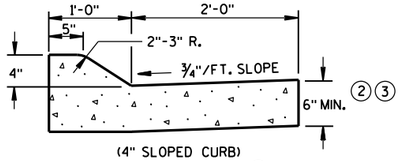
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

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

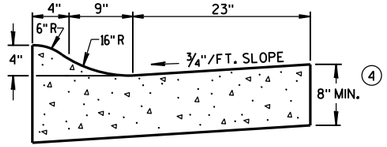


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ①⑤

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.

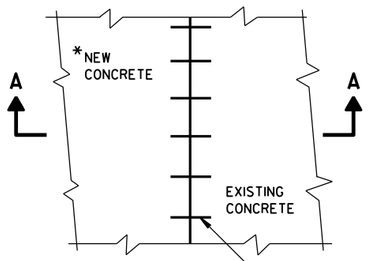
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

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

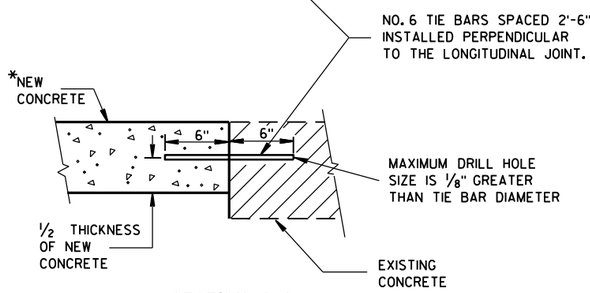
⑤ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

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



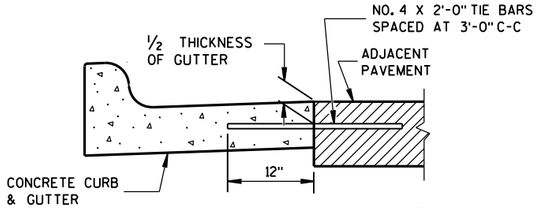
PLAN VIEW

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

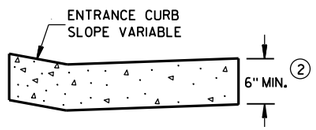


SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT

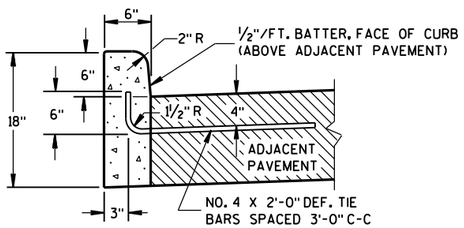


TYPICAL TIE BAR LOCATION ①

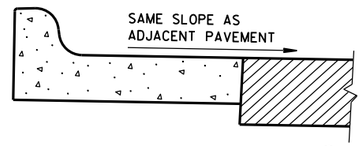


DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)

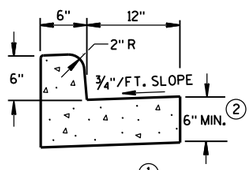


① TYPES A & D



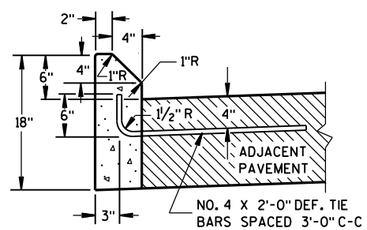
⑥ REVERSE SLOPE GUTTER

(TYPICAL FOR ALL CURB & GUTTER TYPES)



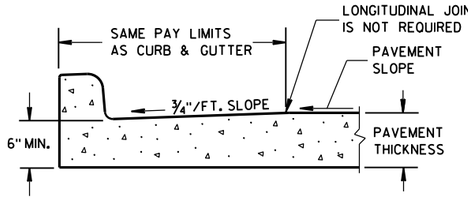
① TYPES A & D

CONCRETE CURB & GUTTER 18"

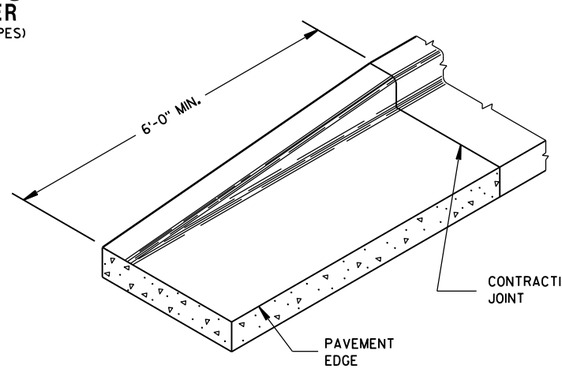


① TYPES G & J

CONCRETE CURB



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June, 2016 — DATE

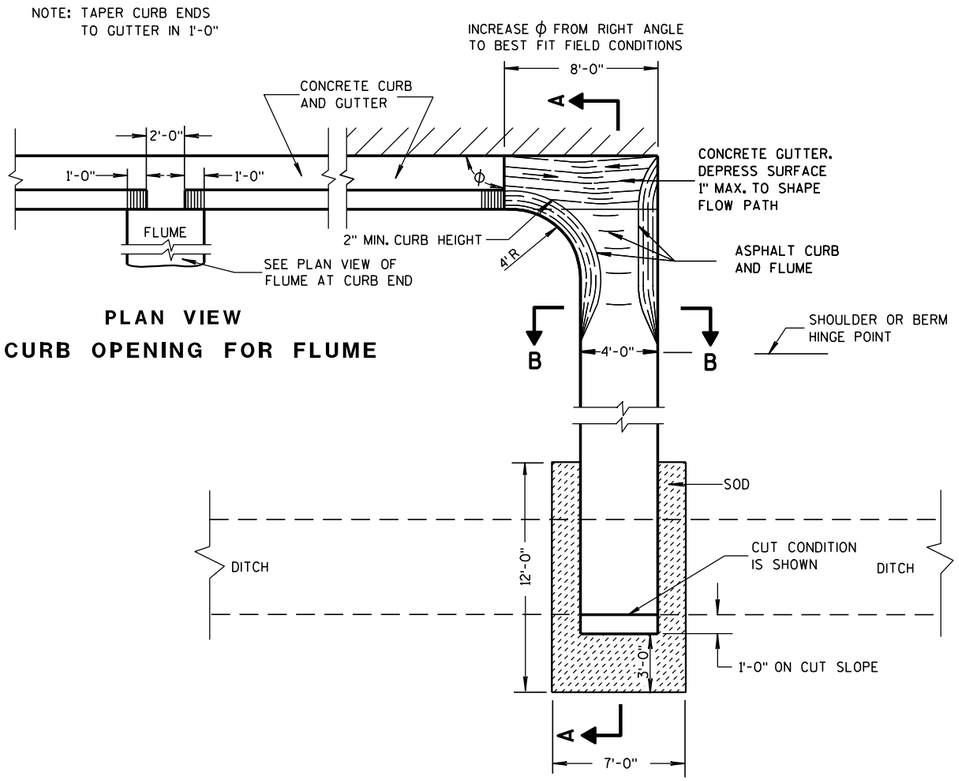
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

6

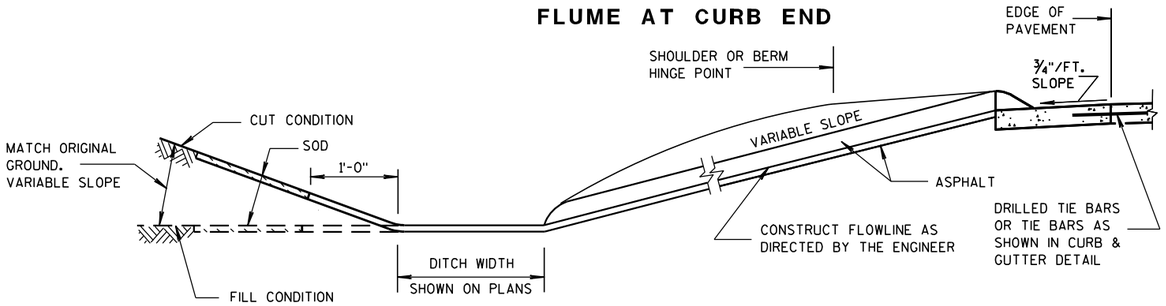
S.D.D. 8 D 1-19

ASPHALTIC FLUME

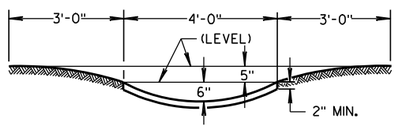


PLAN VIEW
CURB OPENING FOR FLUME

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.

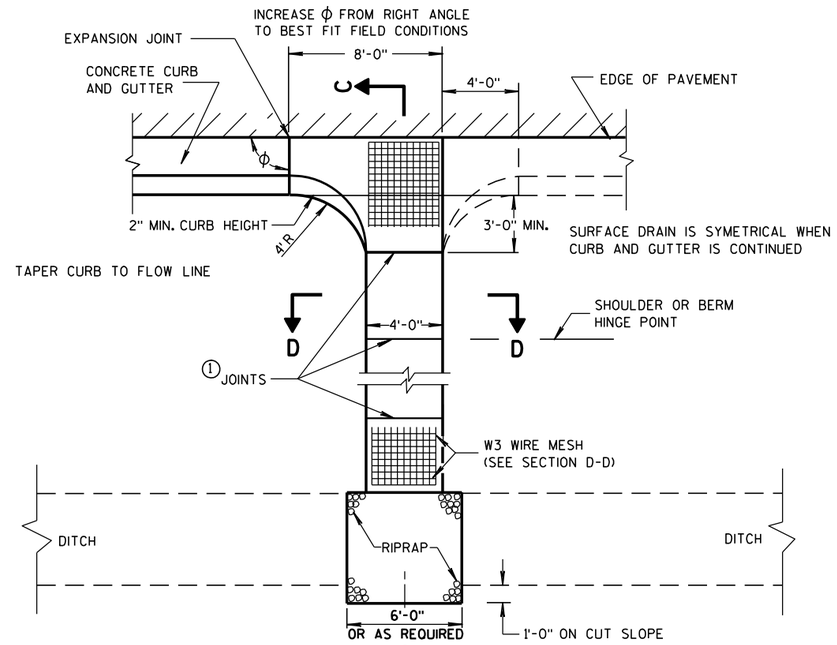
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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.

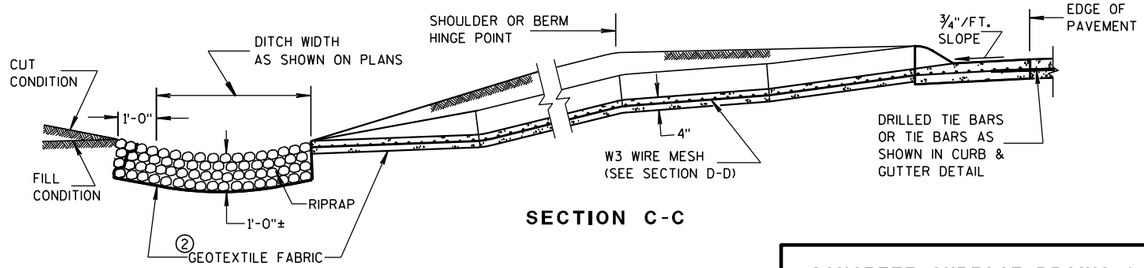
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

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

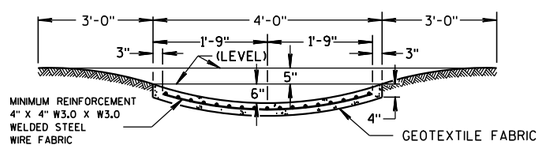
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

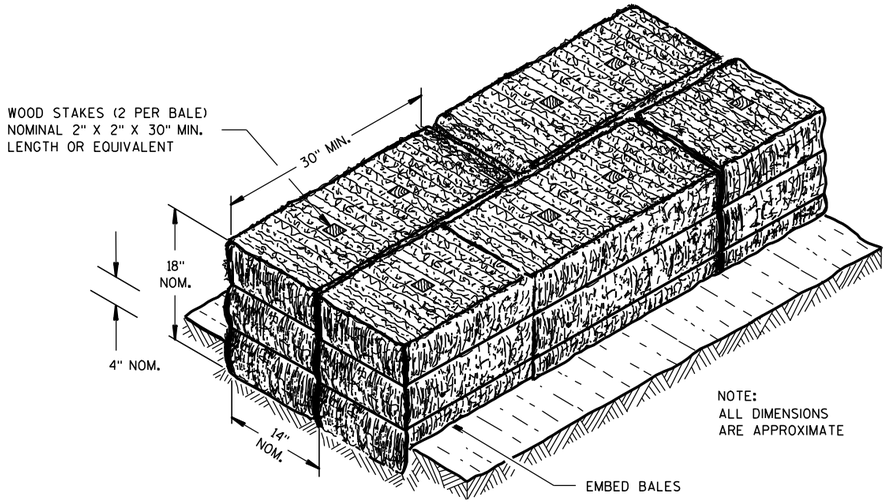
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
MENT
FHWA

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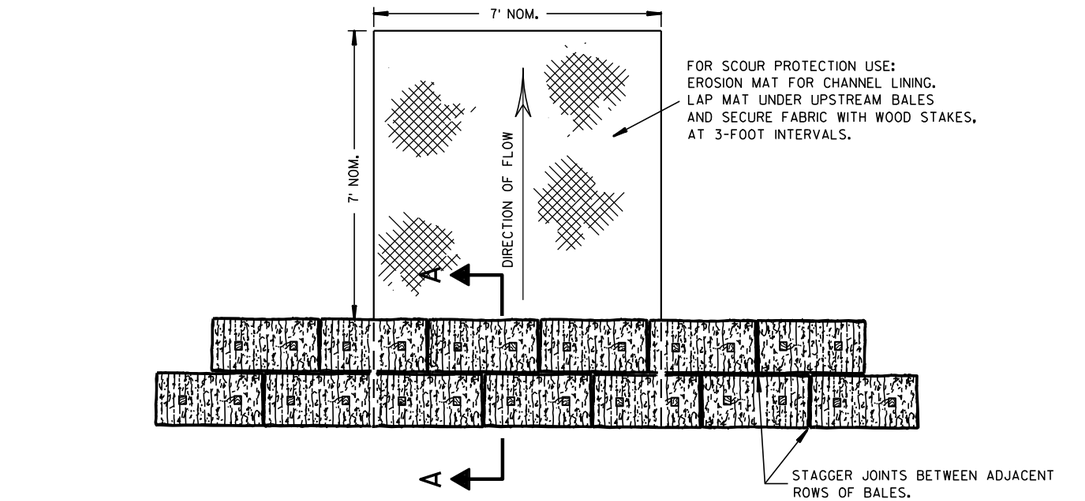
S.D.D. 8 D 4-5

6

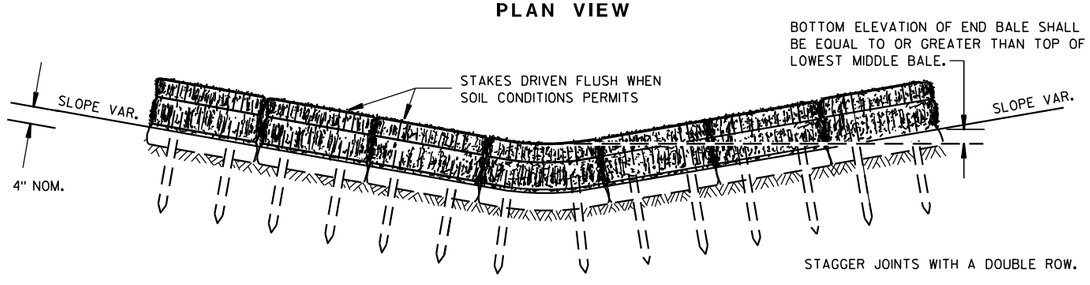
S.D.D. 8 D 4-5



SECTION A-A



PLAN VIEW



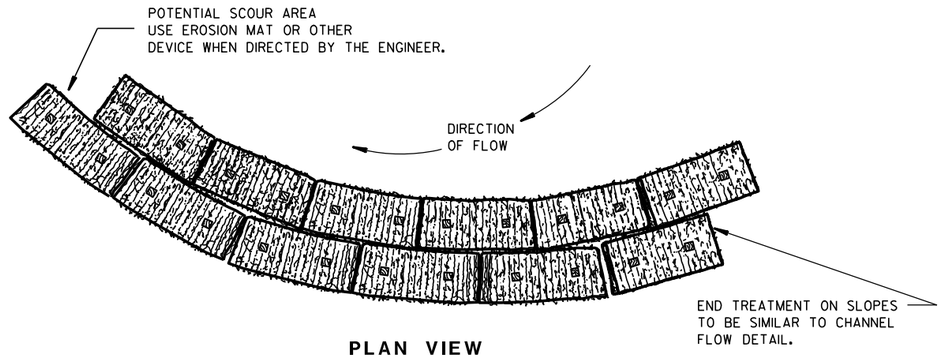
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

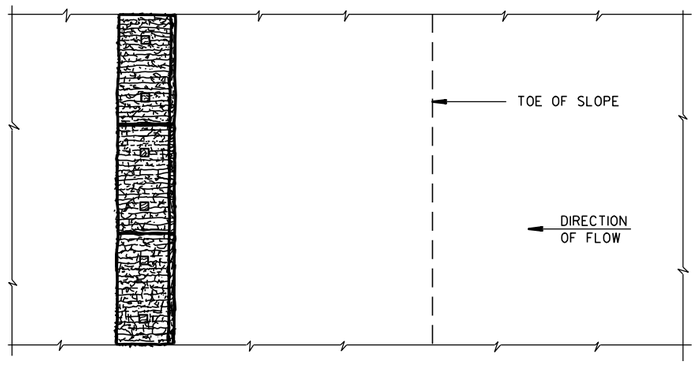
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

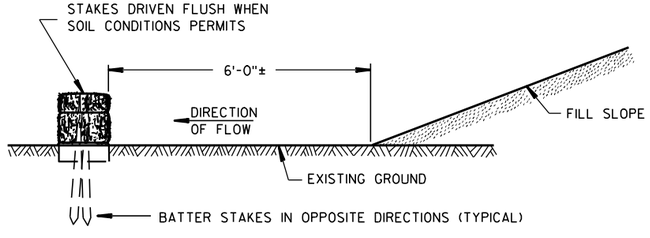


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 DATE — /S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

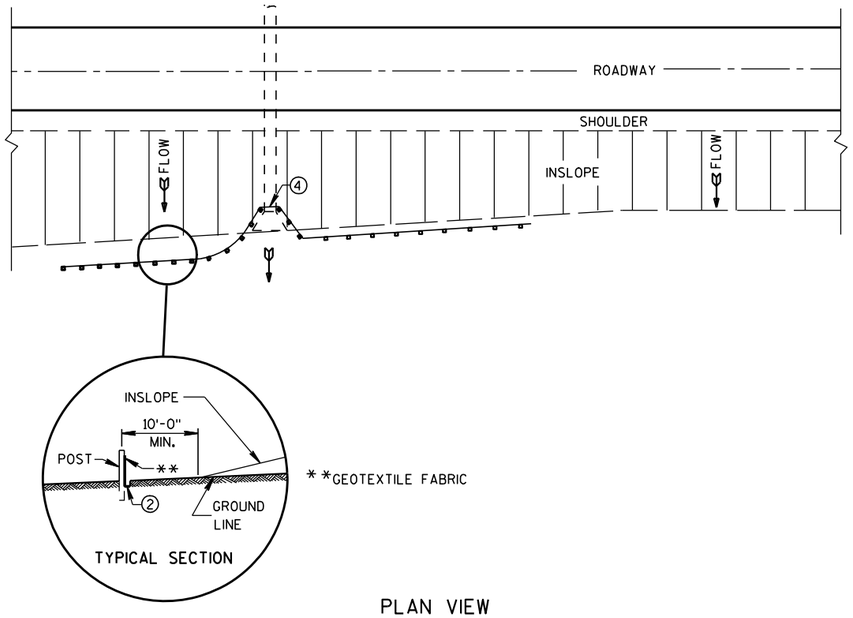
FHWA

6

S.D.D. 8 E 8-3

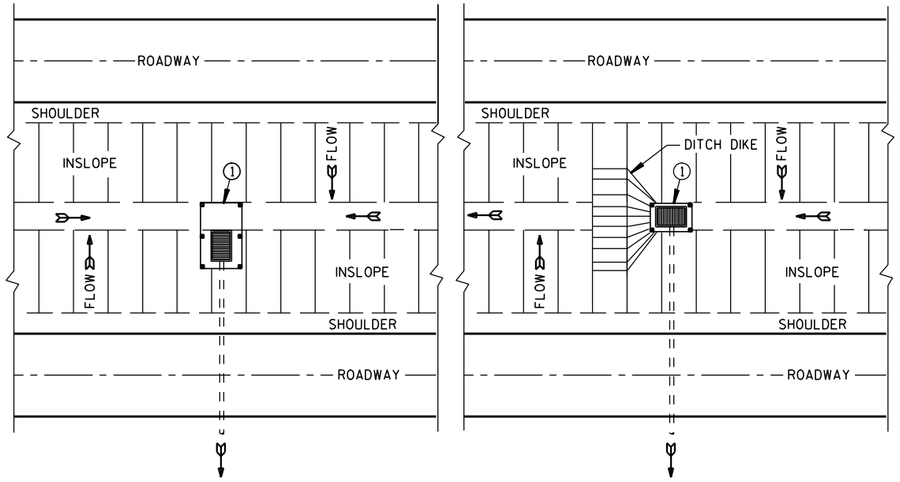
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S.D.D. 8 E 8-3



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.

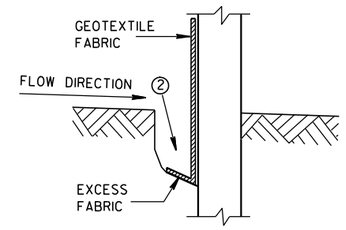
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

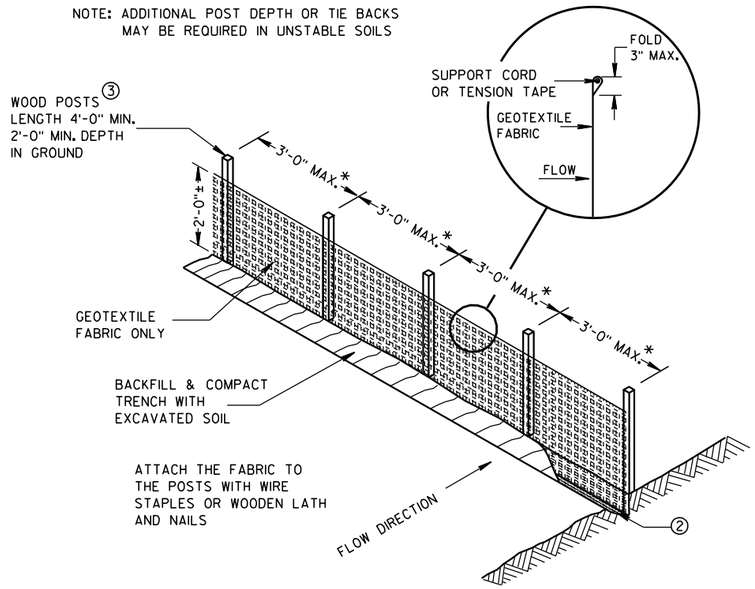
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

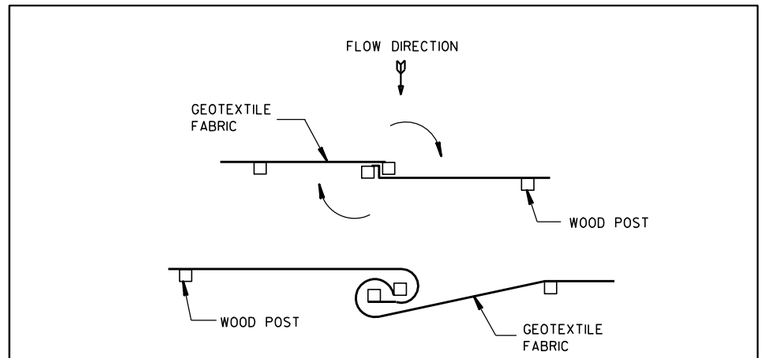
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



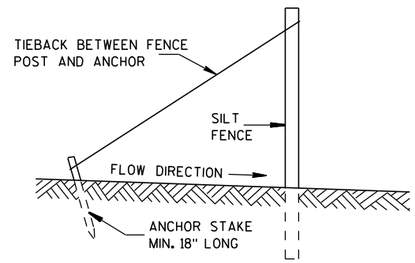
TRENCH DETAIL



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

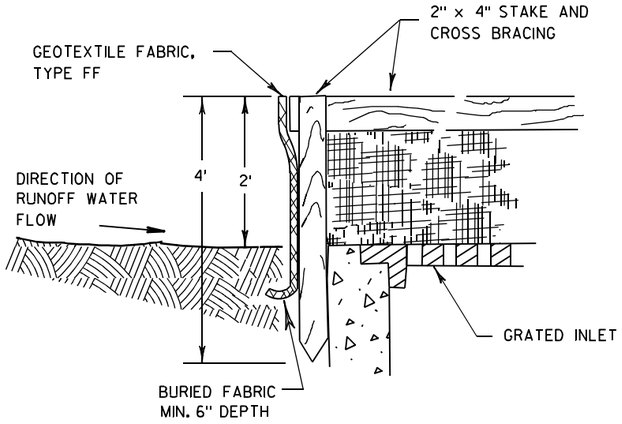
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

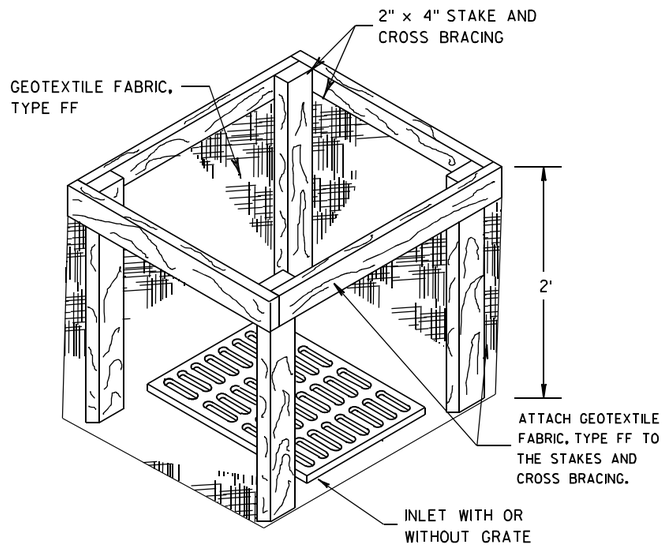
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S.D.D. 8 E 9-6

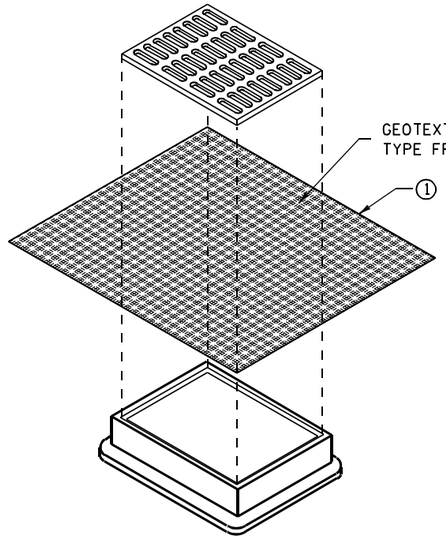
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S.D.D. 8 E 9-6



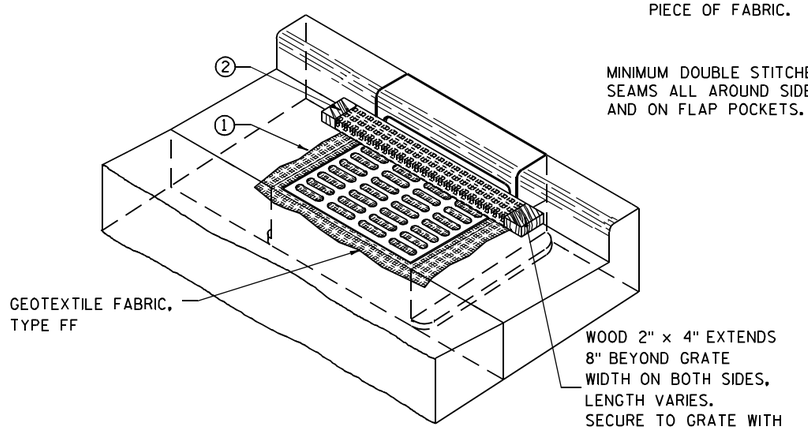


INLET PROTECTION, TYPE A

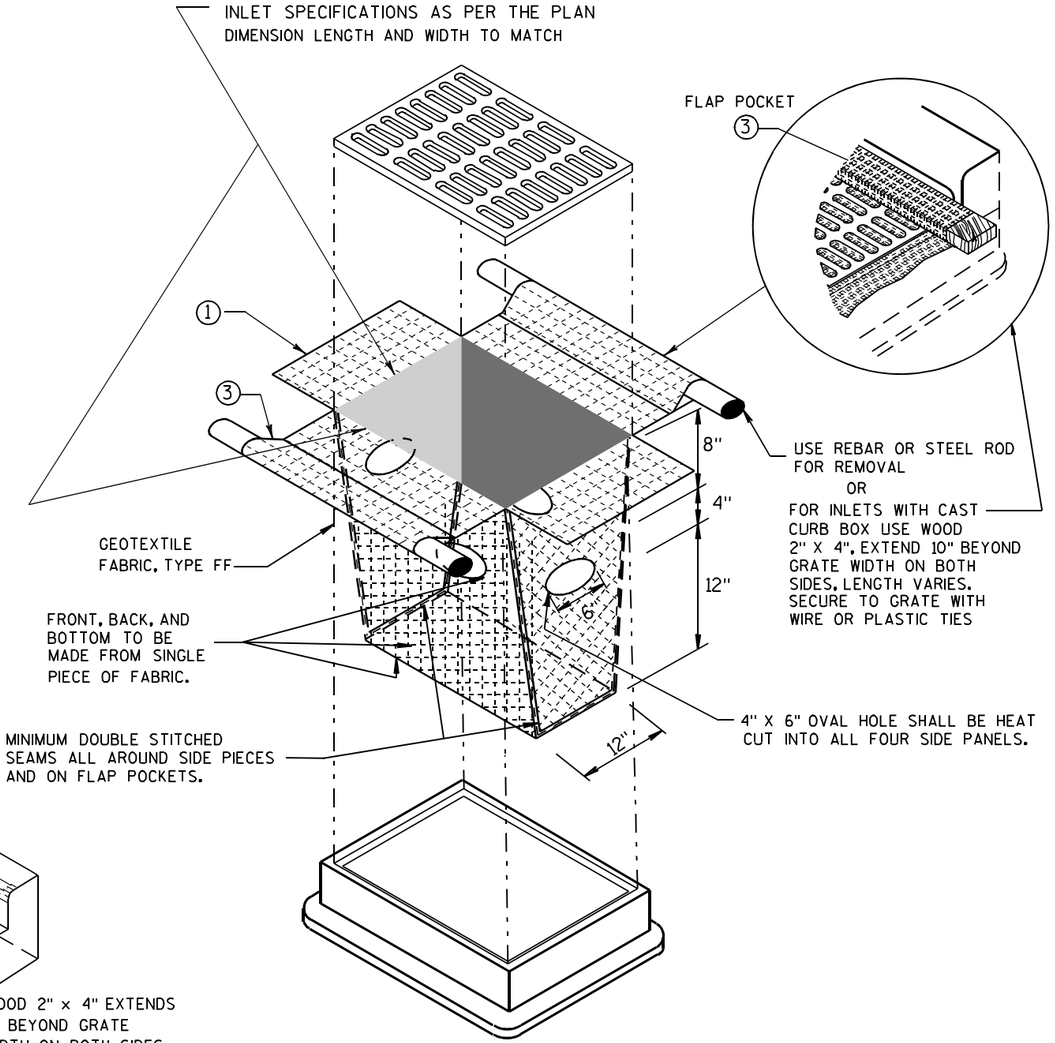


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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.

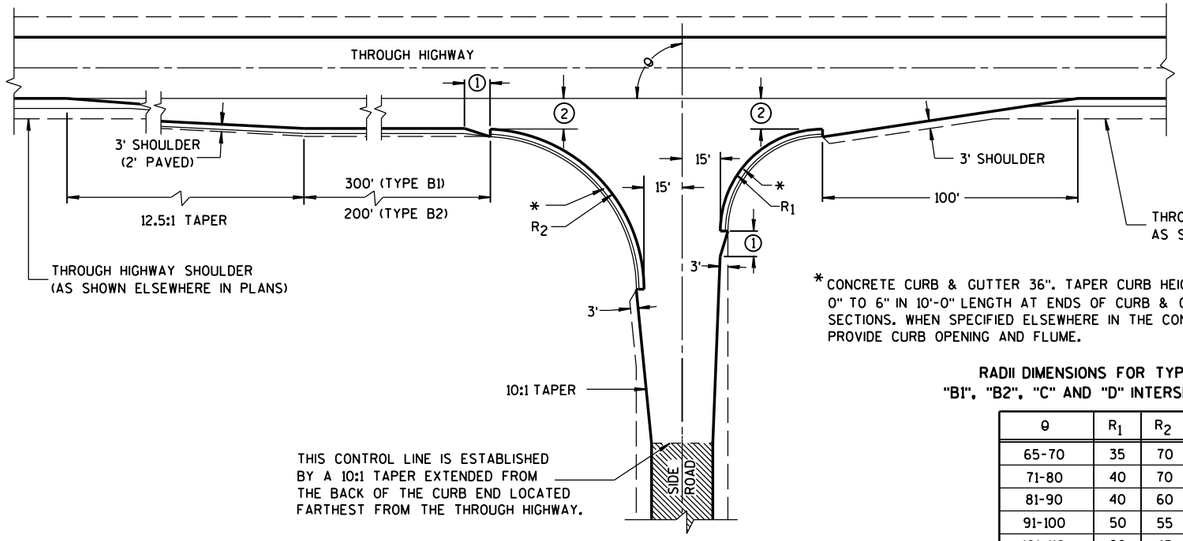
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

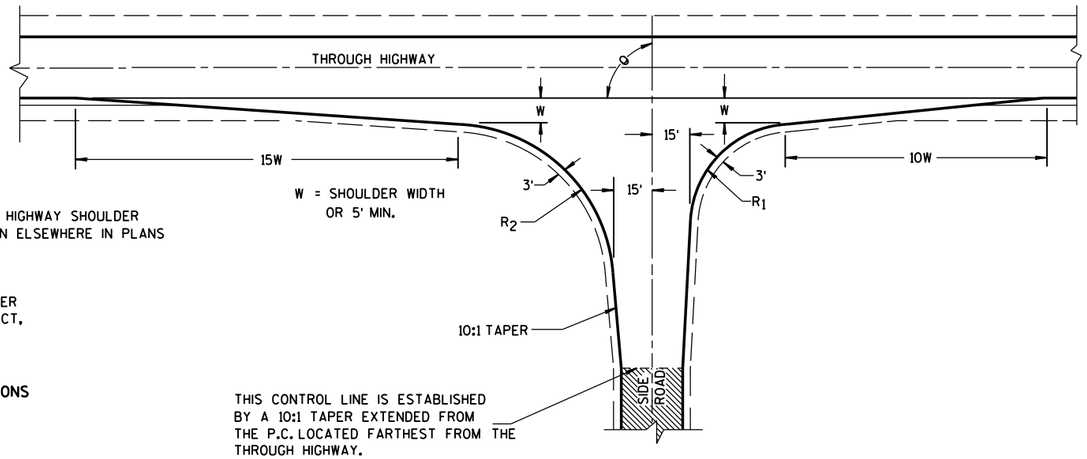


TYPE "B1" AND "B2"

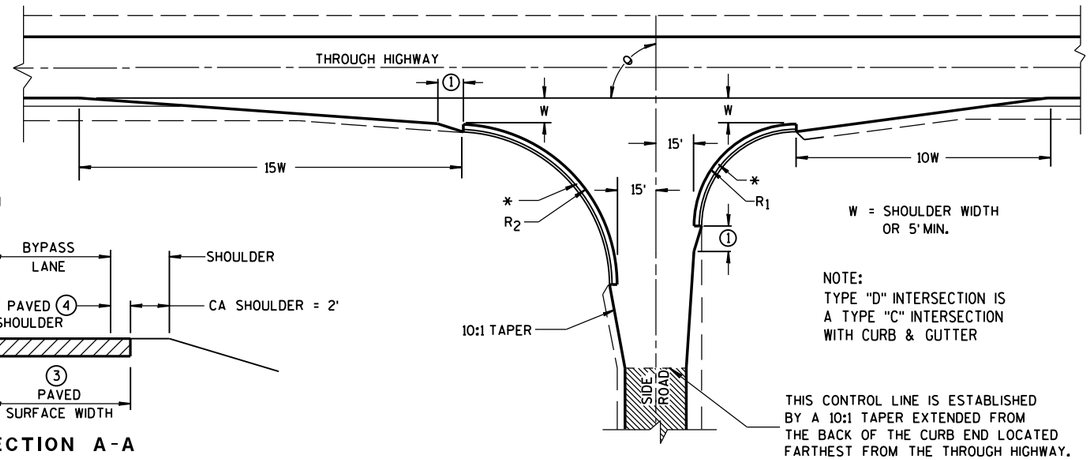
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

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

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



TYPE "C"



TYPE "D"

GENERAL NOTES

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

SIDE ROAD SURFACING NOTE

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

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

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

EXISTING PAVED SURFACE

BYPASS LANE

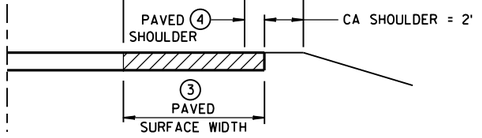
(1) 10-FT TYPICAL.

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

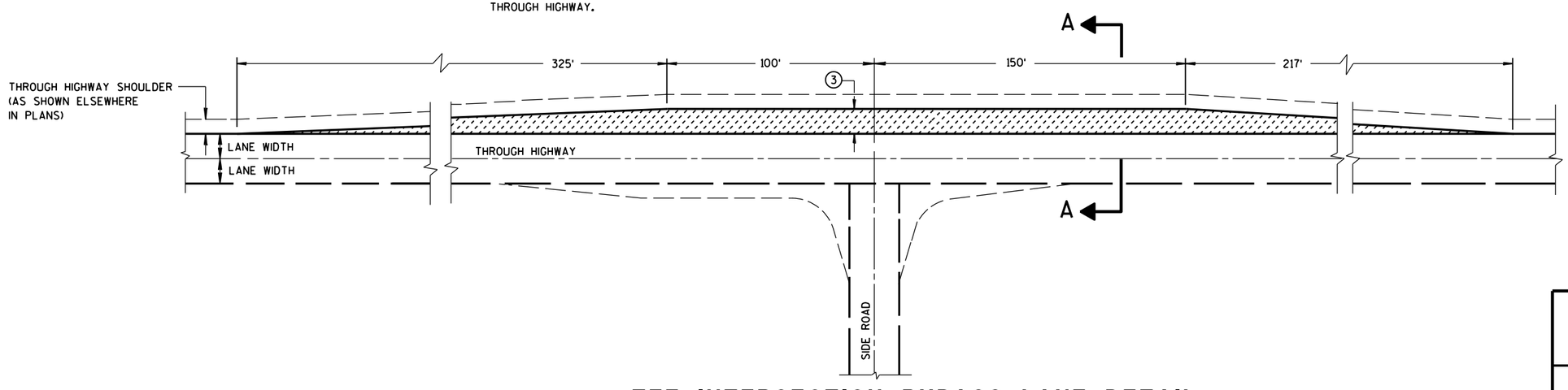
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

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

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



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



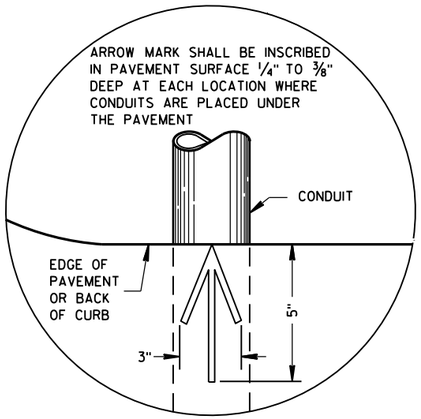
TEE INTERSECTION BYPASS LANE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

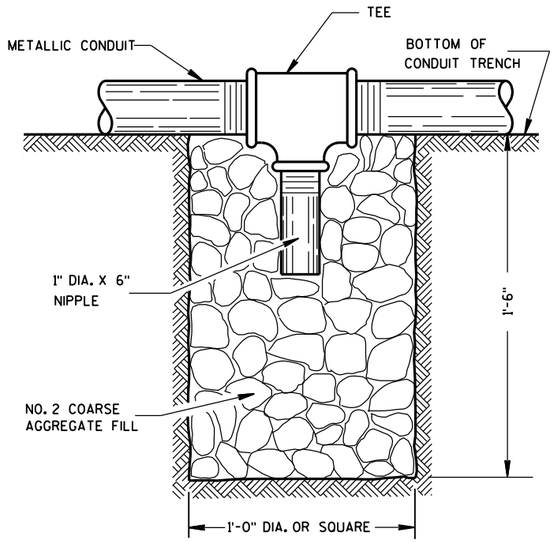
6

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



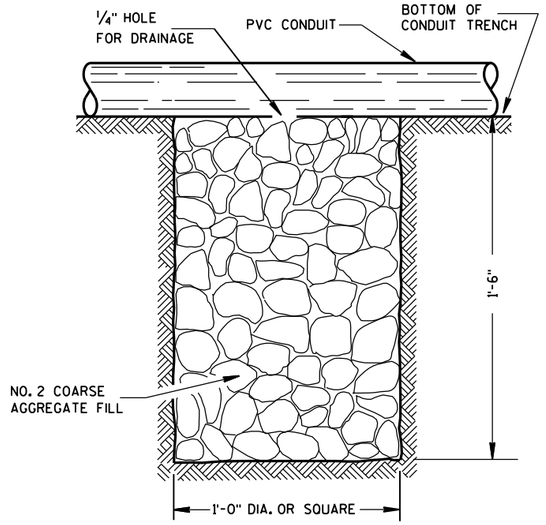
PLAN VIEW

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.

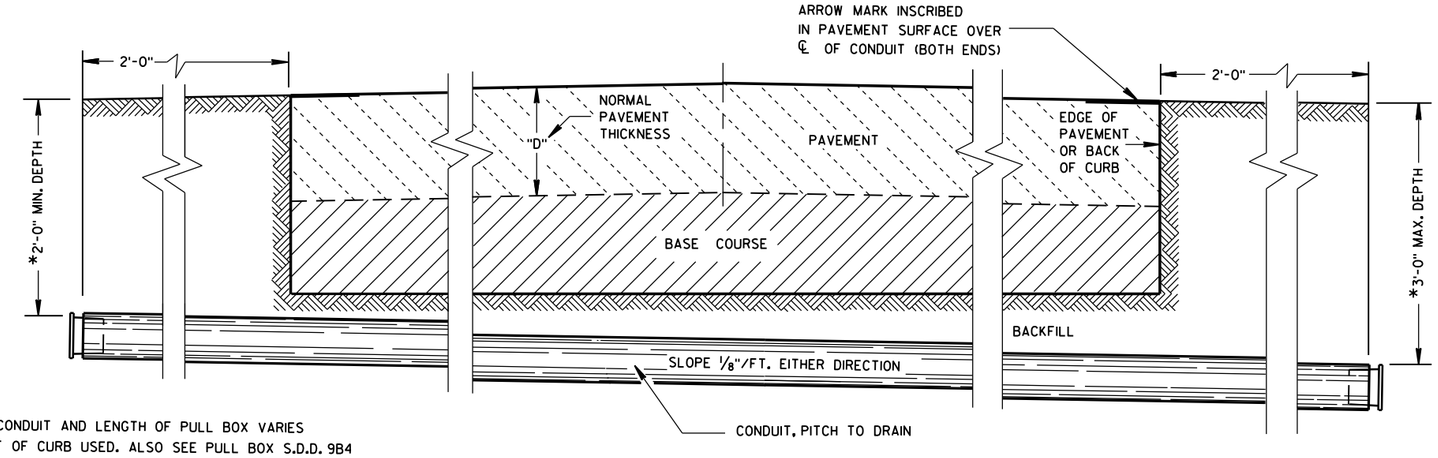
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

6

S.D.D. 9 B 2-9

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.

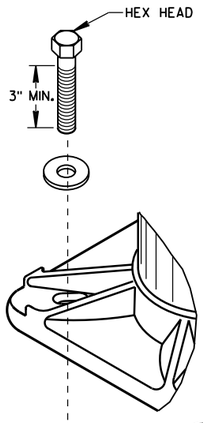
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

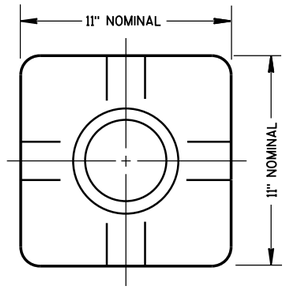
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

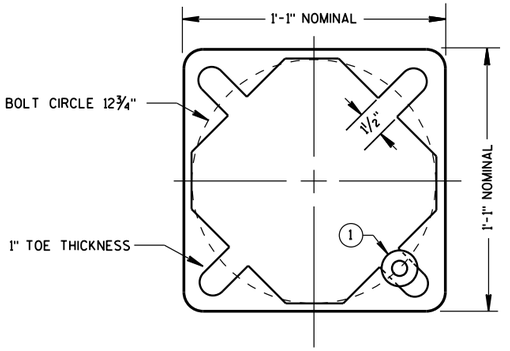
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

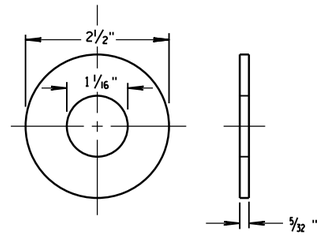




TOP VIEW
(PEDESTAL BASE)

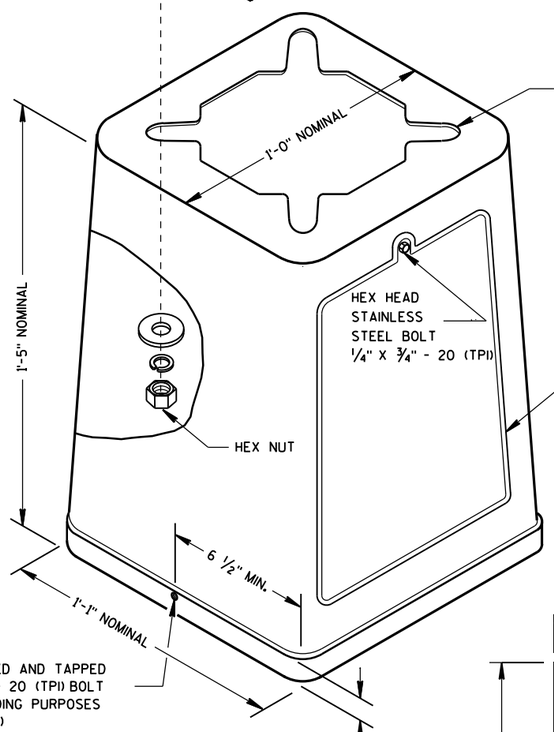


BOTTOM VIEW
(PEDESTAL BASE)

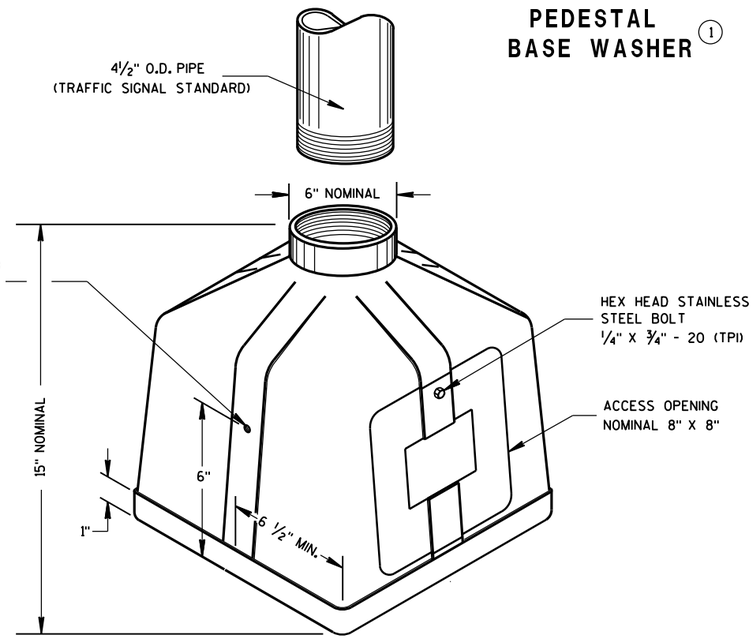


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

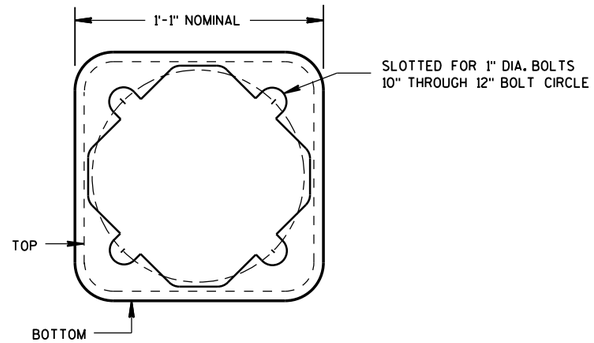


ISOMETRIC VIEW

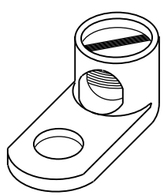


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

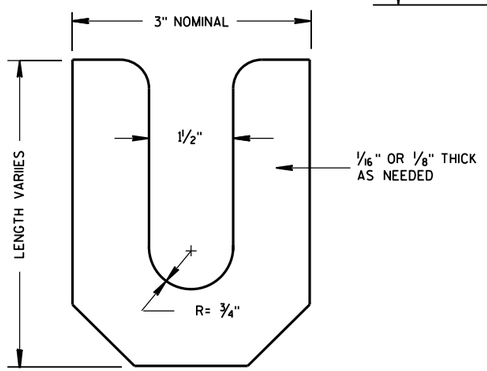


TYPICAL MECHANICAL CONNECTOR LUG

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

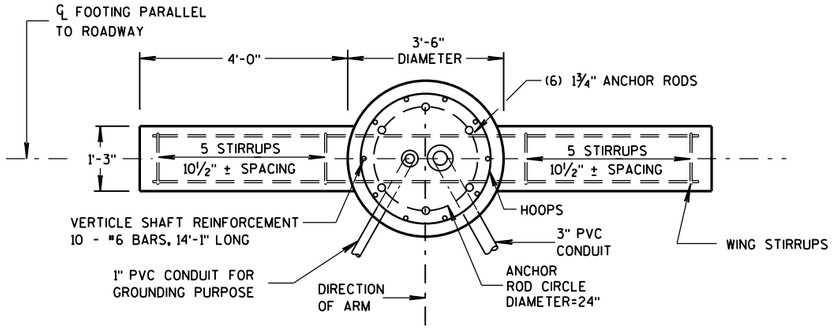
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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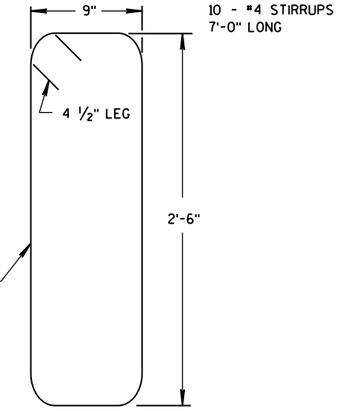
S.D.D. 9 C 3-4

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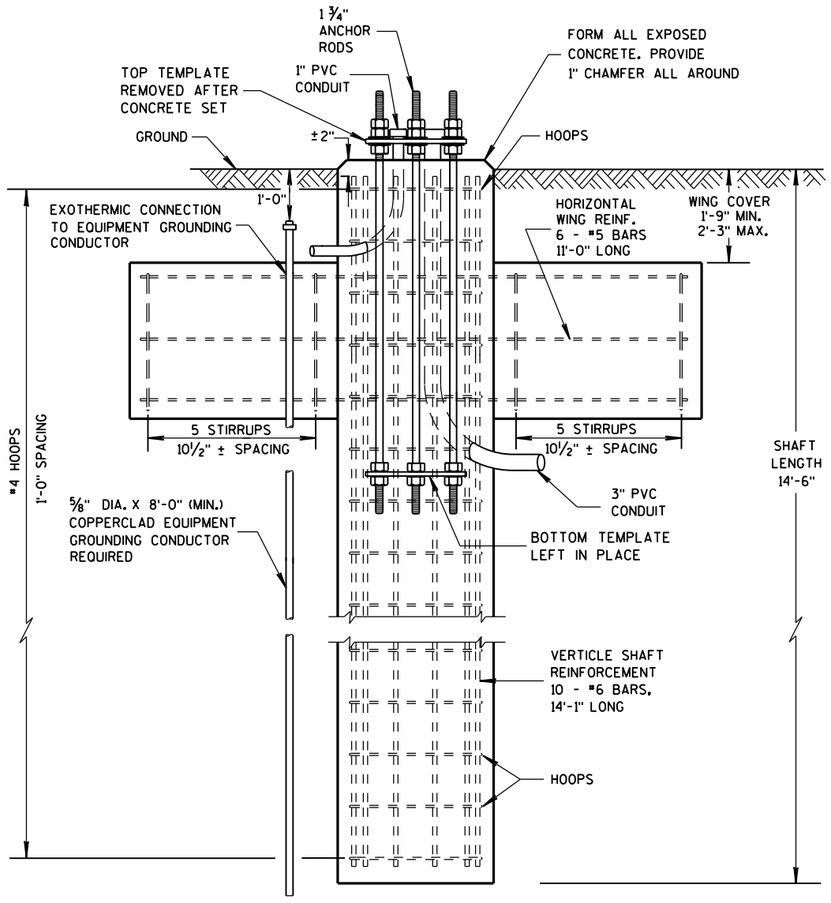
S.D.D. 9 C 3-4



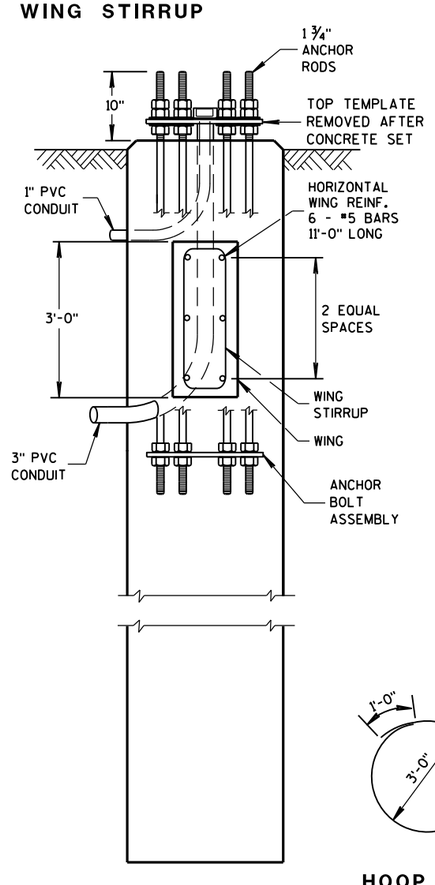
PLAN VIEW



WING STIRRUP

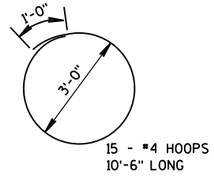


ELEVATION VIEW



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.

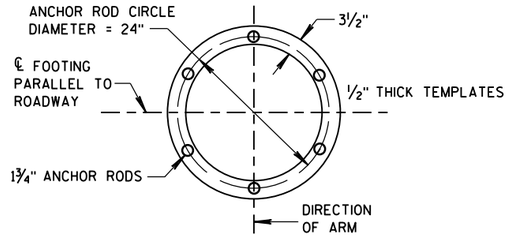
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 13

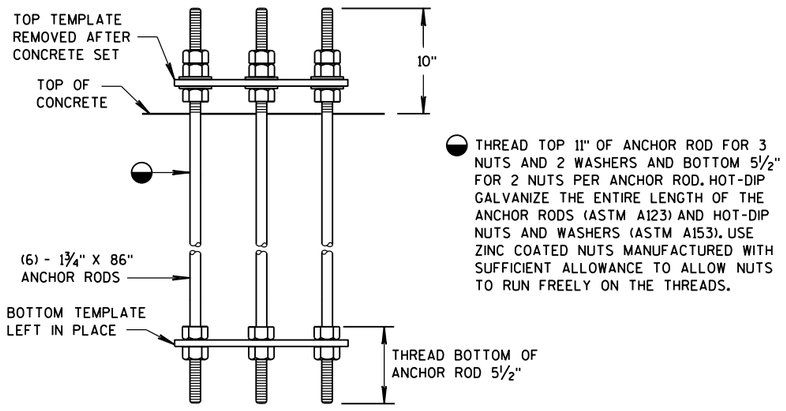
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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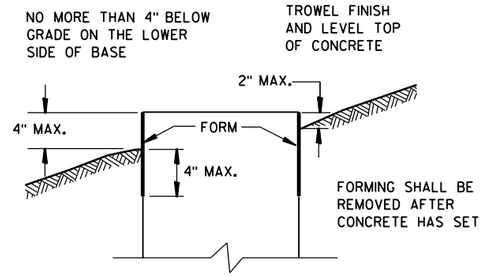


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY

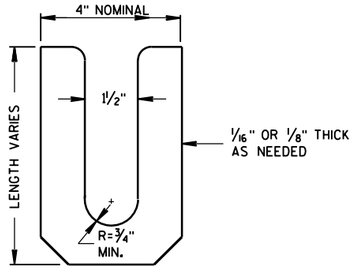


FORMING DETAIL

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

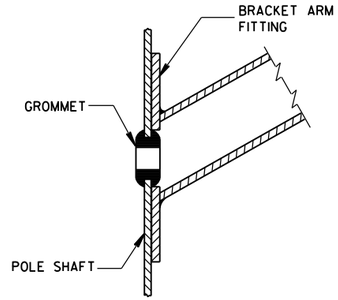
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S.D.D. 9 C 12-8b

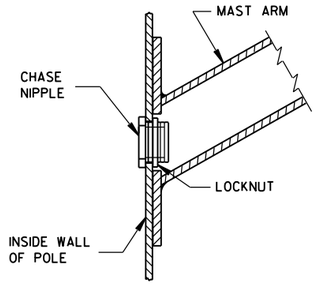


LEVELING SHIM (13)

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.

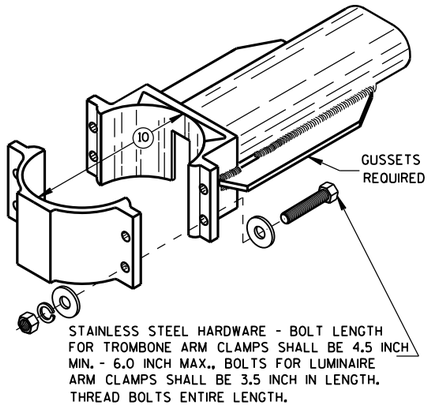
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

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

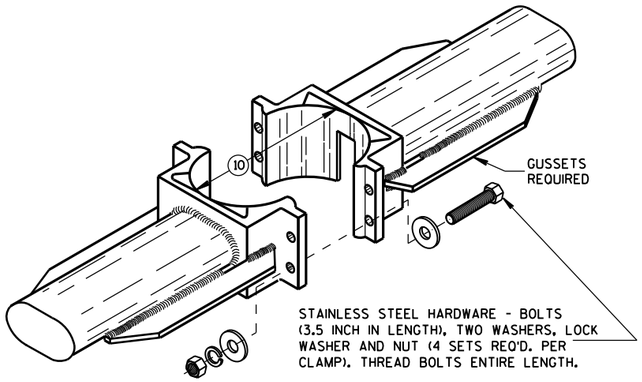
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(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.

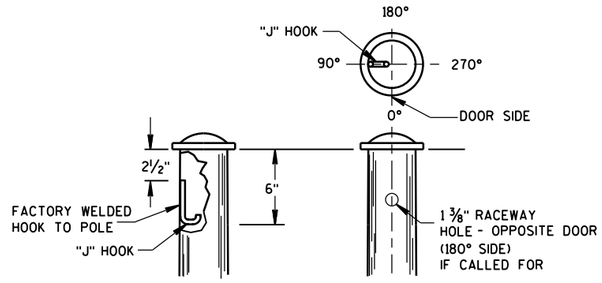
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



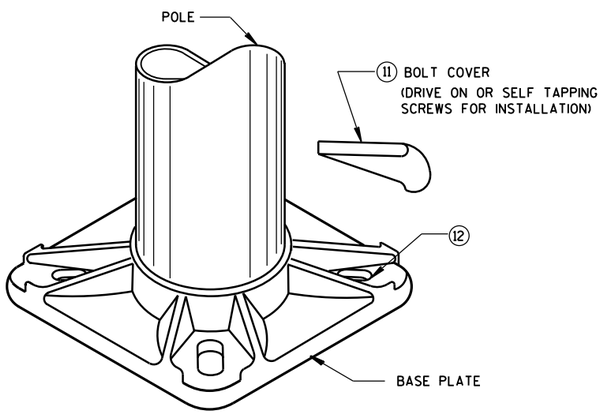
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



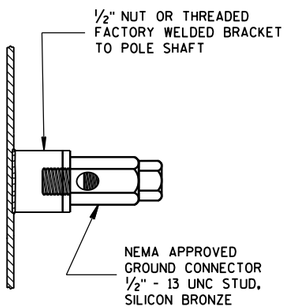
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

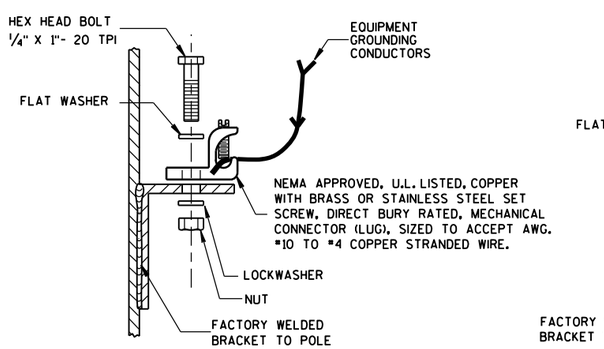


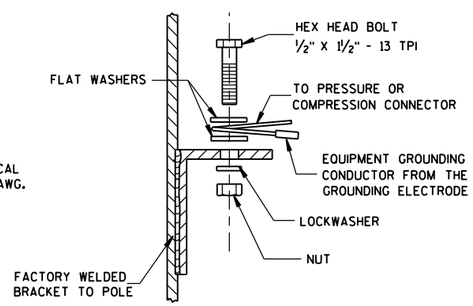
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS

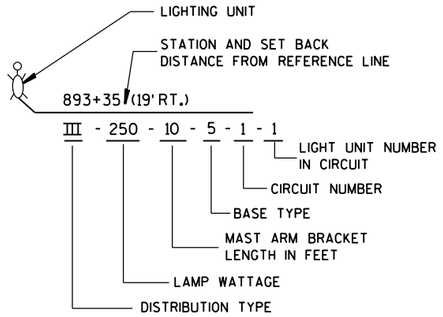
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTINGS

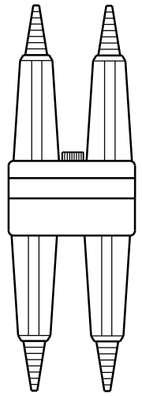
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APPROVED
Feb. 2015 — DATE
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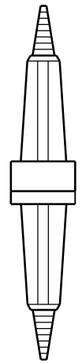
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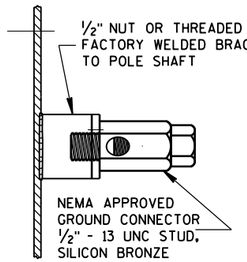
LIGHTING UNIT CODE
(TYPICAL)

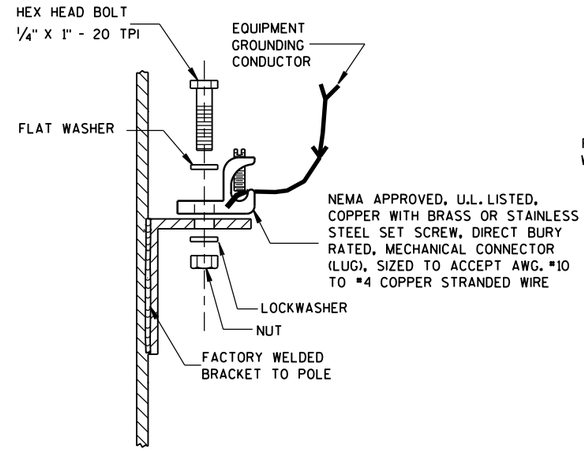


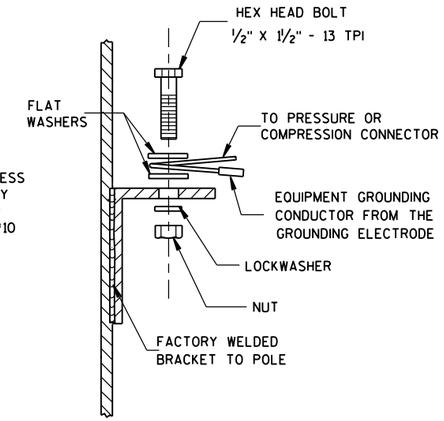
DETAIL "A"
BREAKAWY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



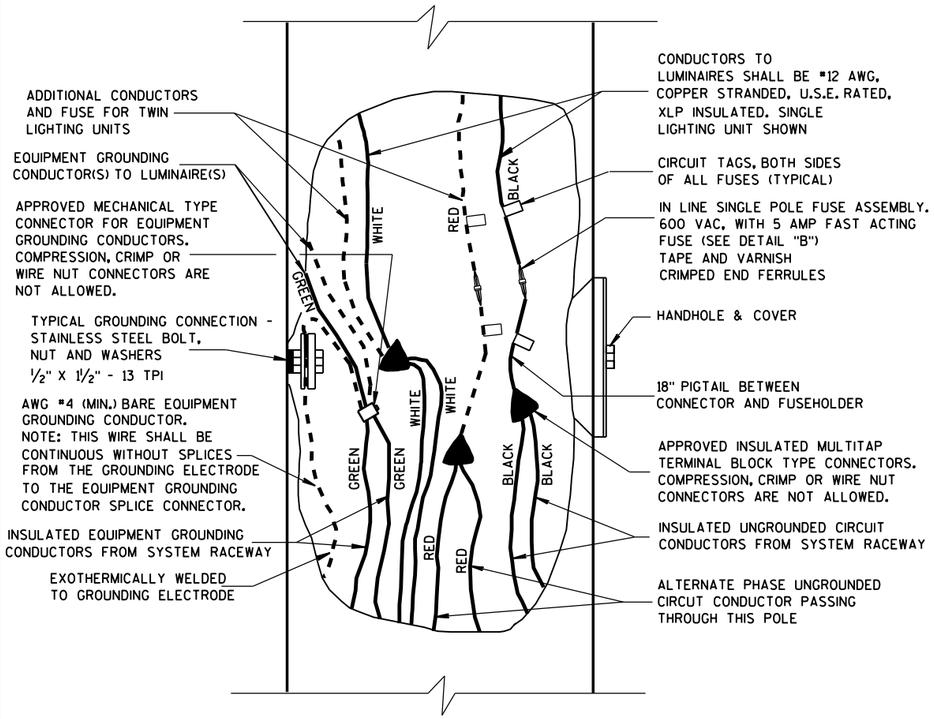
DETAIL "B"
BREAKAWY SINGLE POLE WITH WATERPROOF INSULATING BOOT



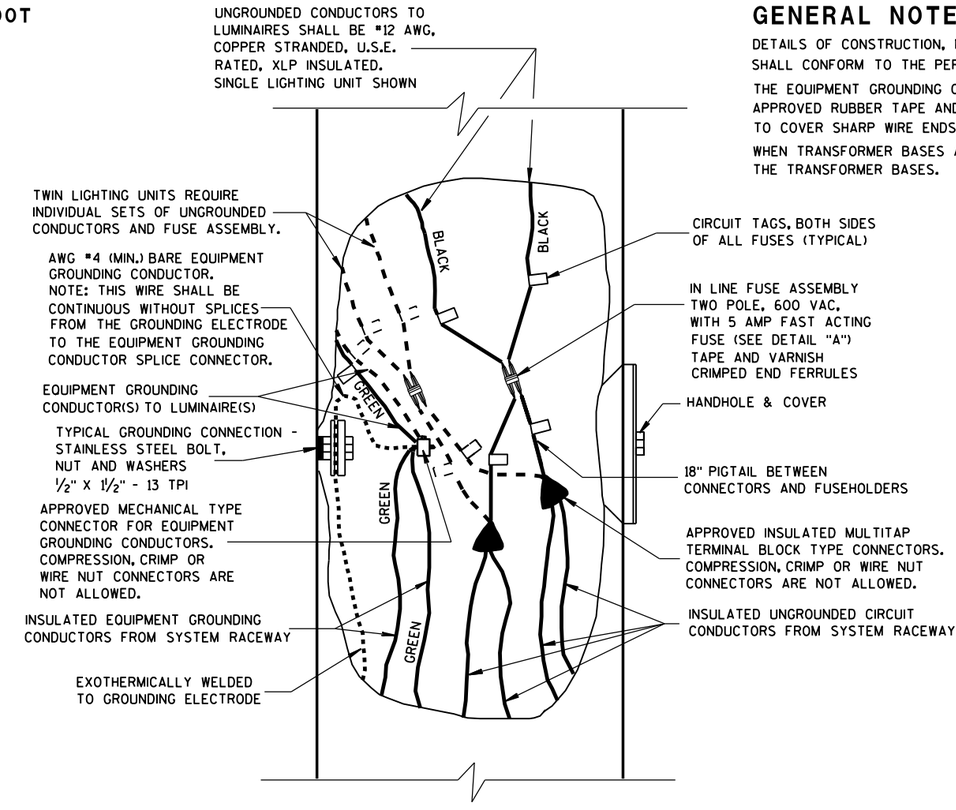




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



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.

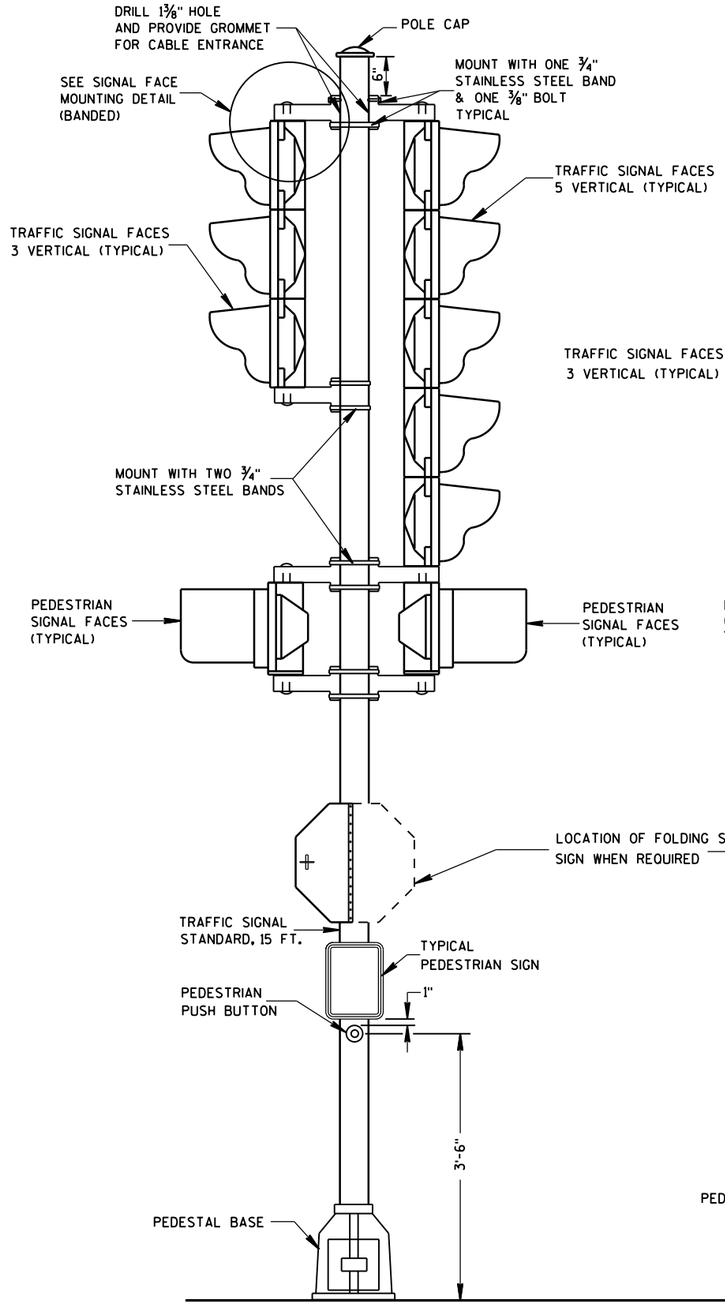
WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

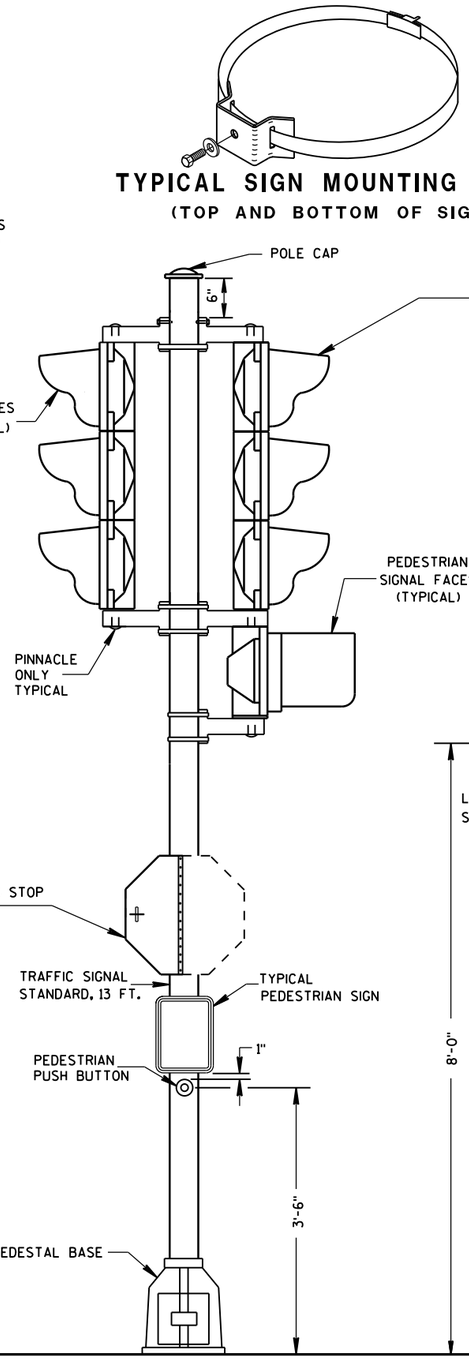
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Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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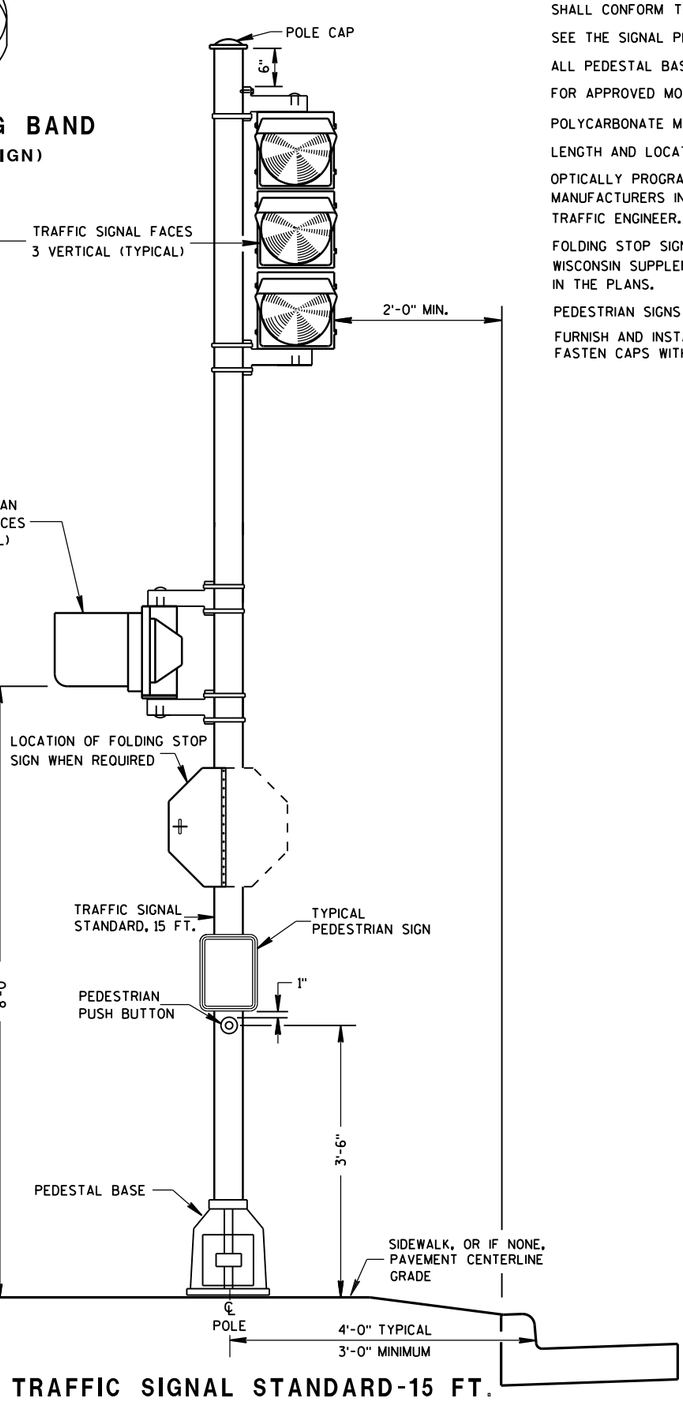


TRAFFIC SIGNAL STANDARD-15 FT.



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.

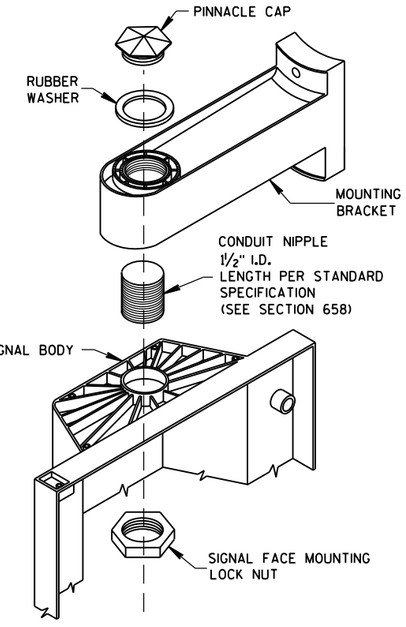
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

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)

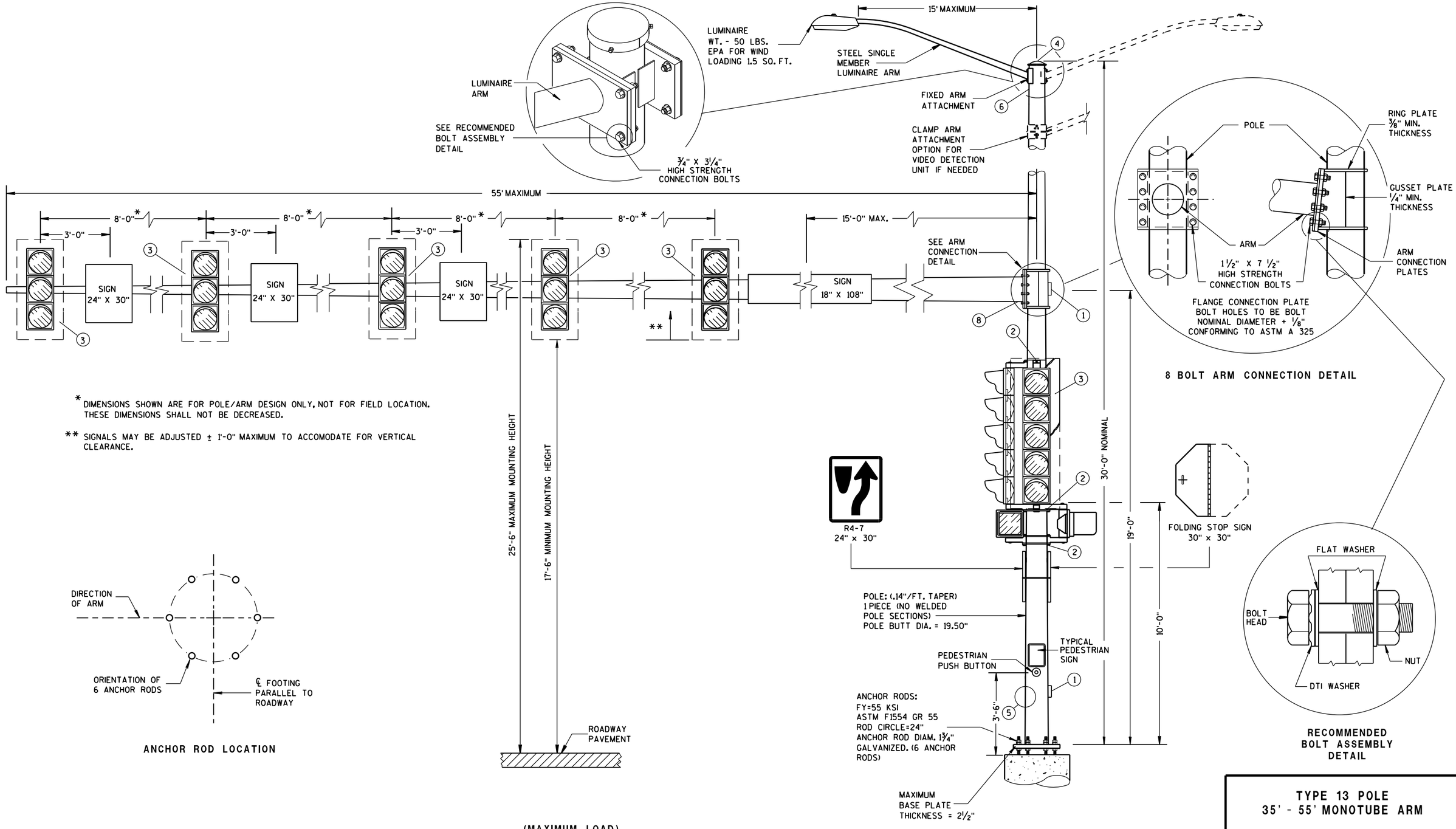
TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

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2/28/2013 — DATE
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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
FHWA

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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.

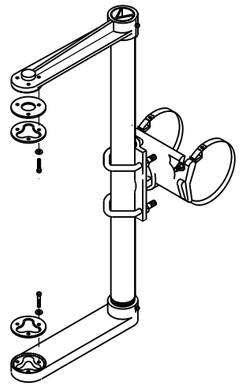
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

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

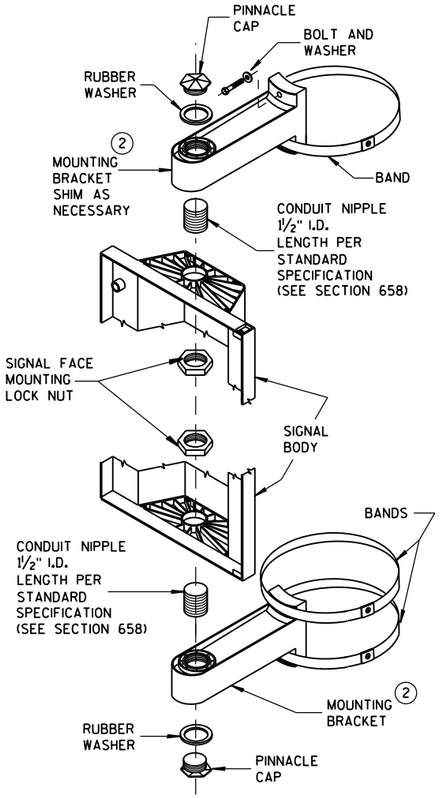
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

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

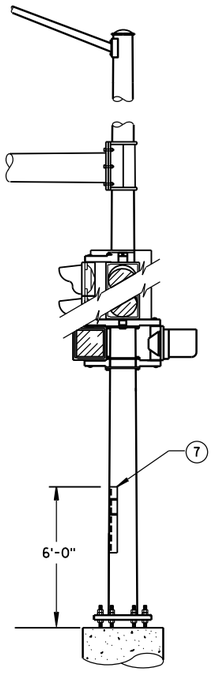


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

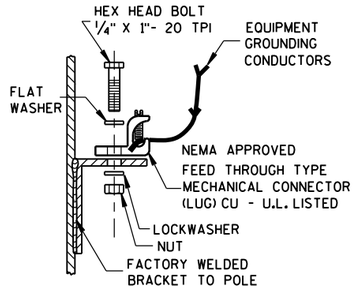
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE
VERTICAL MOUNTING DETAIL

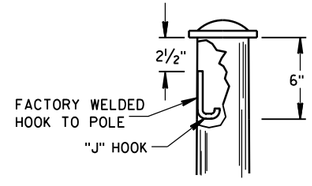


STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL
BE STAINLESS STEEL



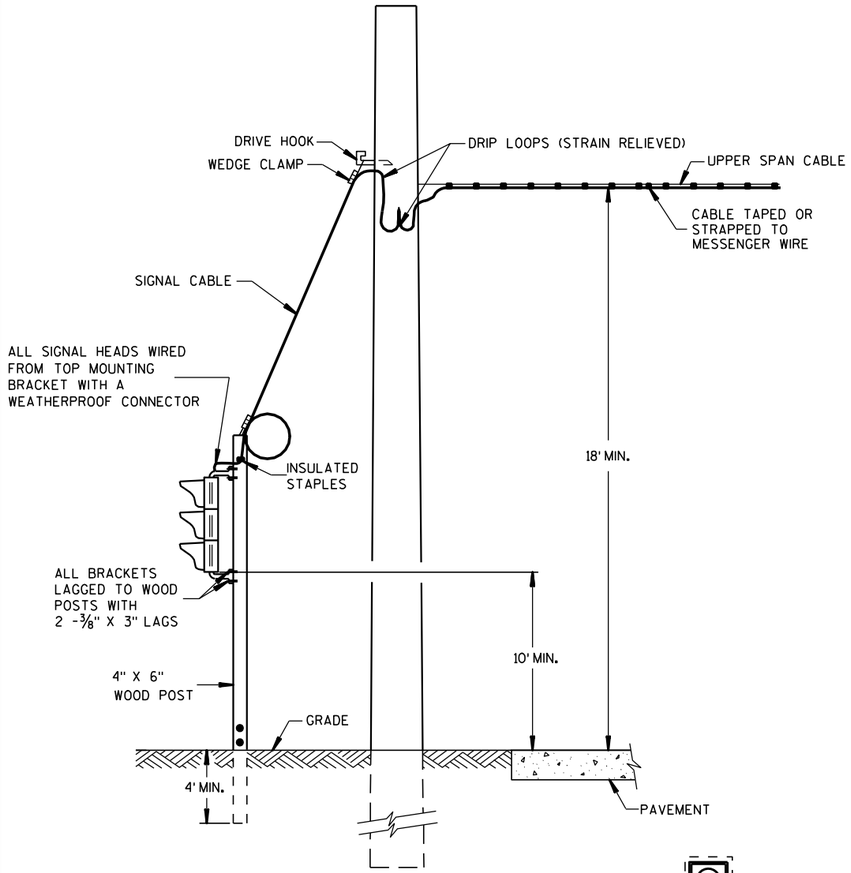
"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

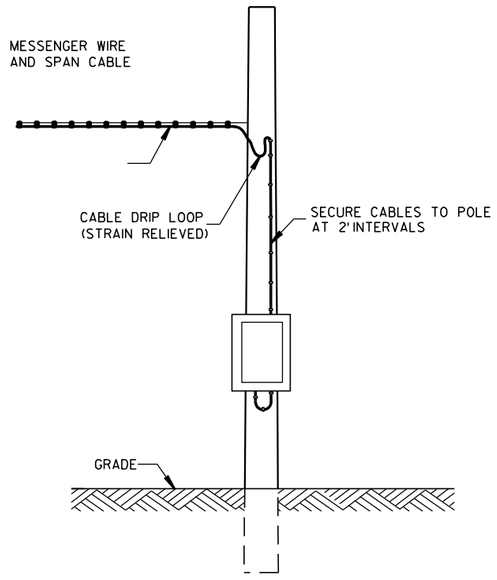
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May 2016 — DATE
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TYPICAL DROP TO TRAFFIC SIGNAL FACE



POLE MOUNT CABINET INSTALLATION

GENERAL NOTES

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

POLE MOUNTED TRAFFIC SIGNAL CONTROL CABINET MAYBE MOUNTED ON THE SERVICE POLE IF THE ELECTRICAL UTILITY ALLOWS THE INSTALLATION.

WHEN UTILITY PLOLES ARE USED TO SPAN THE TEMPORARY OVERHEAD CABLE, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER OF THE POLES AND GIVEN TO THE PROJECT MANAGER. ALL PERTINENT UTILITY AND CODE CLEARANCES SHALL BE MAINTAINED.

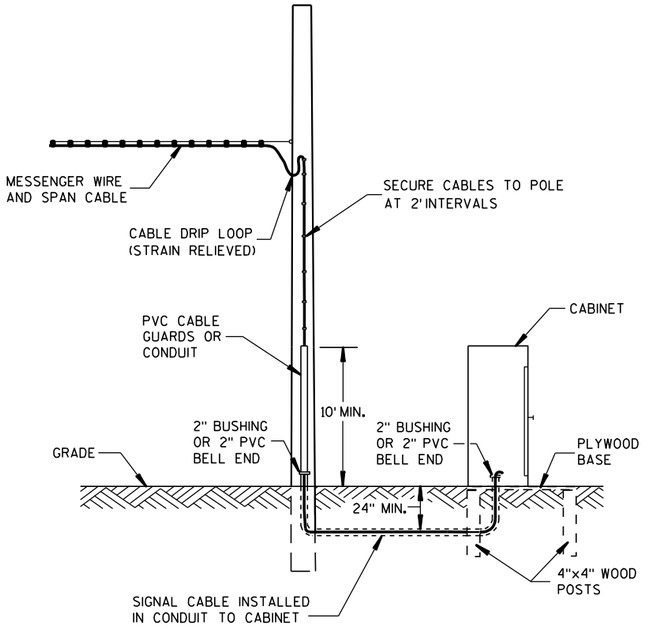
WOOD POLES (NONBREAKAWAY) SHALL BE NO CLOSER TO EDGE OF PAVEMENT THAN OFFSET DISTANCE CHART ALLOWS OR 4 FEET BEHIND PROTECTIVE BARRIER (BEAMGUARD, ETC.).

WOOD POSTS (BREAKAWAY) SHALL BE NO CLOSER THAN 2 FEET OUTSIDE OF SHOULDER.

VERTICAL CLEARANCE ETC. PER NEC.

TRAFFIC SIGNAL FACES SHALL BE TYPICALLY PLACED 12 FEET FROM EDGE OF PAVEMENT.

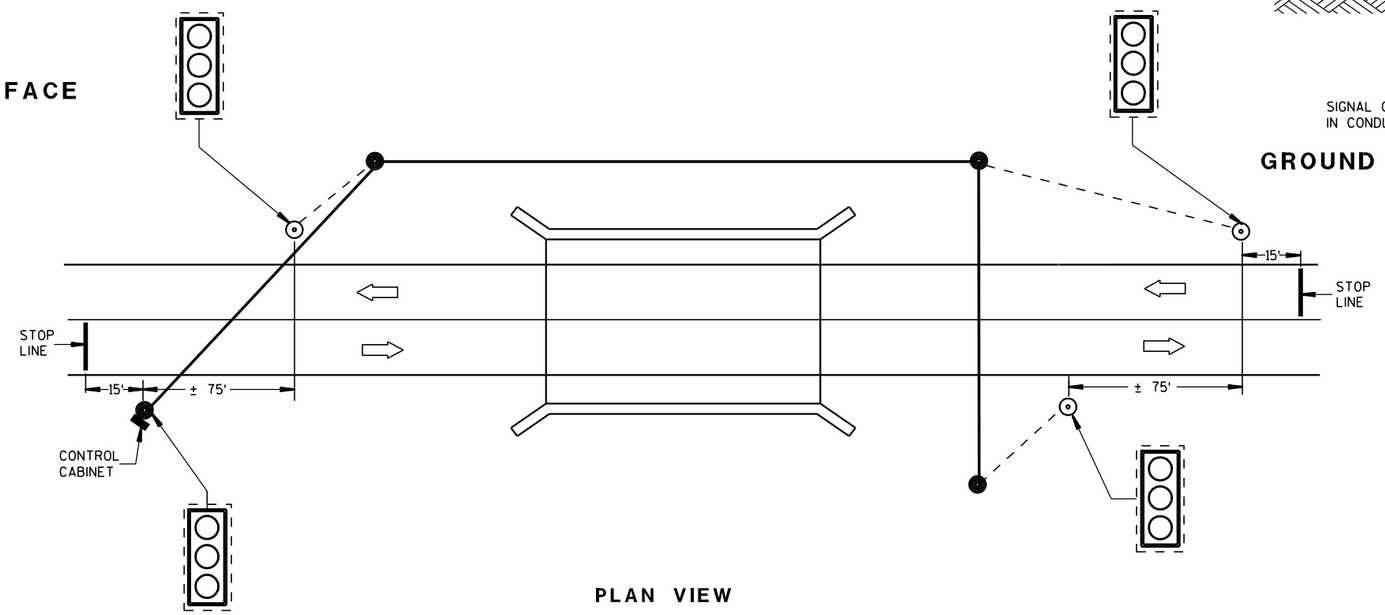
EACH TRAFFIC SIGNAL FACE SHALL HAVE A BACKPLATE.



GROUND MOUNT CABINET INSTALLATION

OFFSET DISTANCES FOR TEMPORARY NON-BREAKAWAY POLES	
SPEED LIMIT	OFFSET DISTANCE**
GREATER THAN 45 MPH	18 FT
45 MPH OR LESS	12 FT
45 MPH OR LESS W/ CURBS	2 FT

**NOTE: OFFSET MEASURED FROM OUTER EDGE OF OUTSIDE THRU LANE.



PLAN VIEW

TYPICAL BRIDGE TEMPORARY TRAFFIC SIGNAL LOCATION

LEGEND

- WOOD POLE (NONBREAKAWAY)
- WOOD POST (BREAKAWAY)
- SIGNAL CABLE
- SIGNAL CABLE W/MESSENGER
- LED TRAFFIC SIGNAL FACE WITH BACKPLATE (3-12")
- DIRECTION OF TRAFFIC

MINIMUM POLE LENGHTS	CLASS	MINIMUM BURIAL DEPTHS
25 FEET	V	5 FEET
30 FEET	V	6 FEET
35 FEET	IV	7 FEET
40 FEET	IV	8 FEET
45 FEET	IV	9 FEET

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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3/2/2011 DATE

/S/ Thomas J. Gosling STATE ELECTRICAL ENGI

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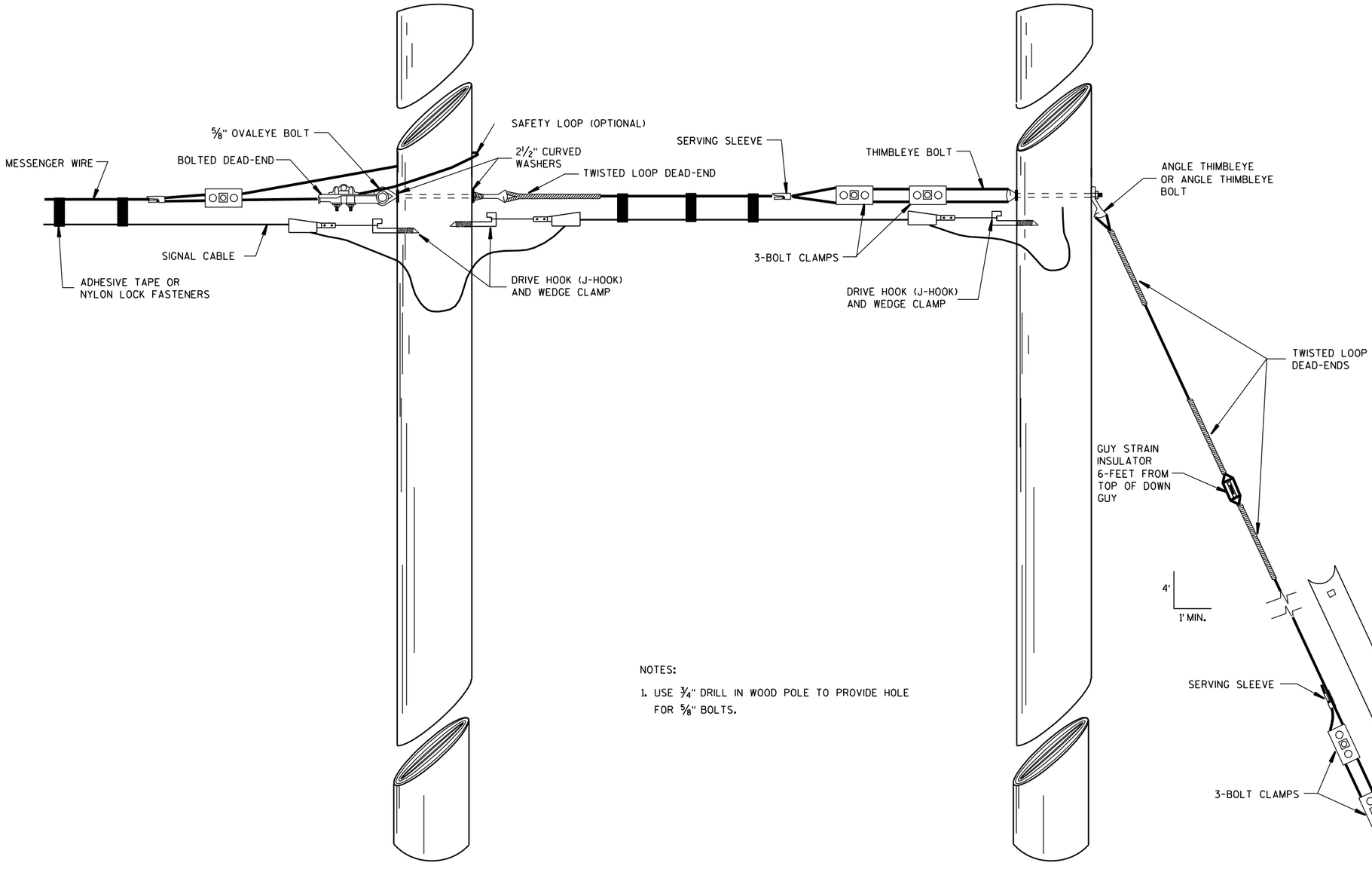
HWYS

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S.D.D. 9 G 2-3a

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S.D.D. 9 G 2-3a



SPAN WIRE POLE

GUY POLE

NOTES:

1. USE 3/4" DRILL IN WOOD POLE TO PROVIDE HOLE FOR 5/8" BOLTS.

TYPICAL DEAD-ENDINGS OR GUYING

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
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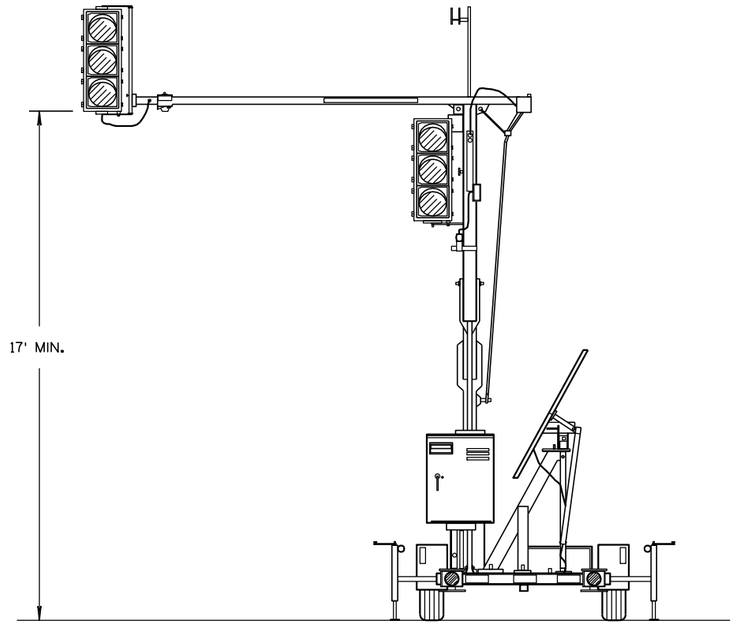
/S/ Thomas J. G... STATE ELECTRICAL ENGI

HWYS

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S.D.D. 9 G 2-3b

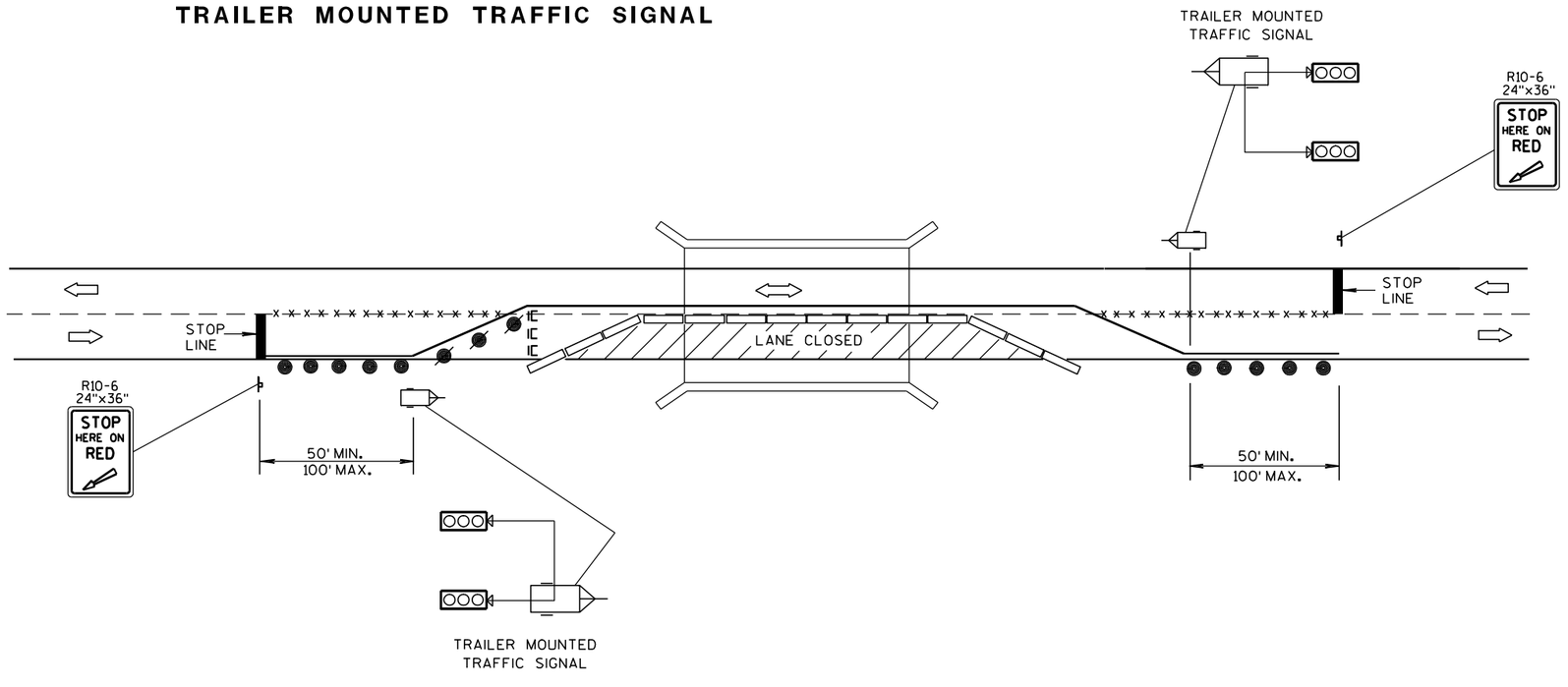


TRAILER MOUNTED TRAFFIC SIGNAL

GENERAL NOTES

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

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15 D 33.



TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

LEGEND

- POST MOUNTED SIGN
- REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH SIGN
- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- TEMPORARY PRECAST CONCRETE BARRIER
- TRAILER MOUNTED TRAFFIC SIGNAL
- DIRECTION OF TRAFFIC FLOW

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
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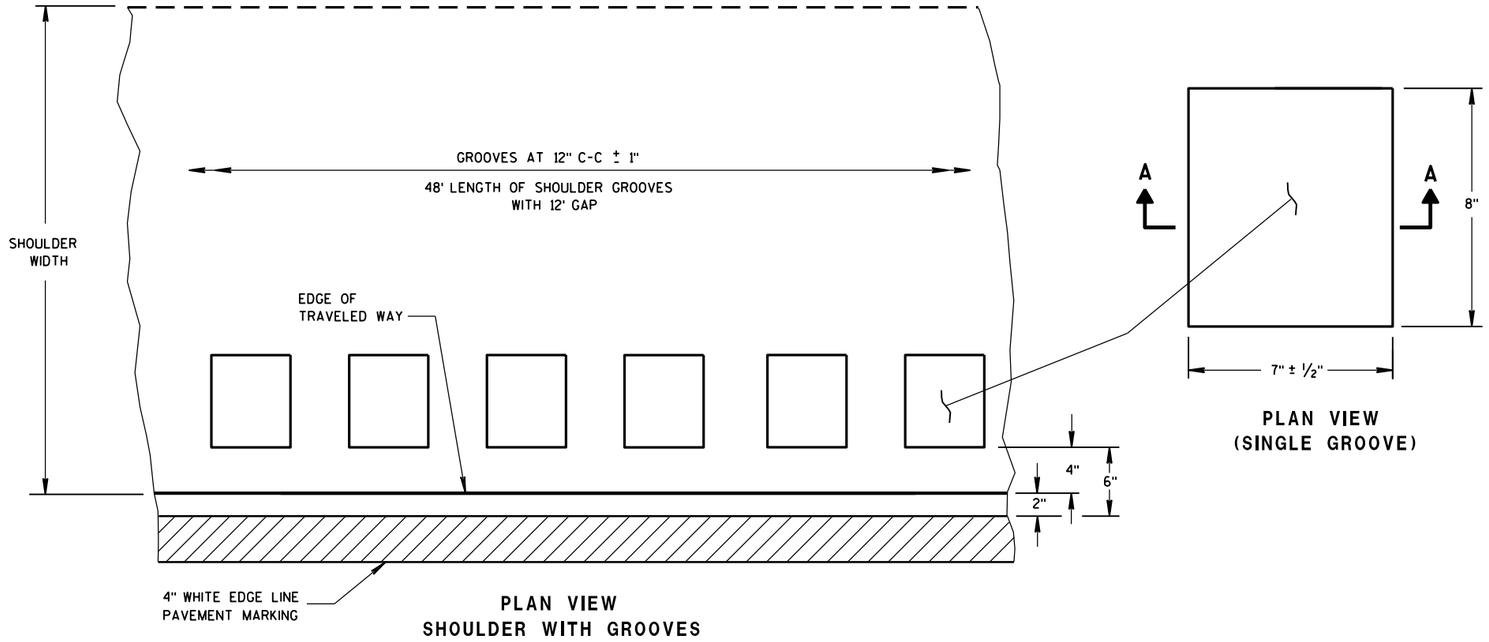
HWYS

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S.D.D. 9 G 2-3c

6

S.D.D. 9 G 2-3c



PLAN VIEW
SHOULDER WITH GROOVES

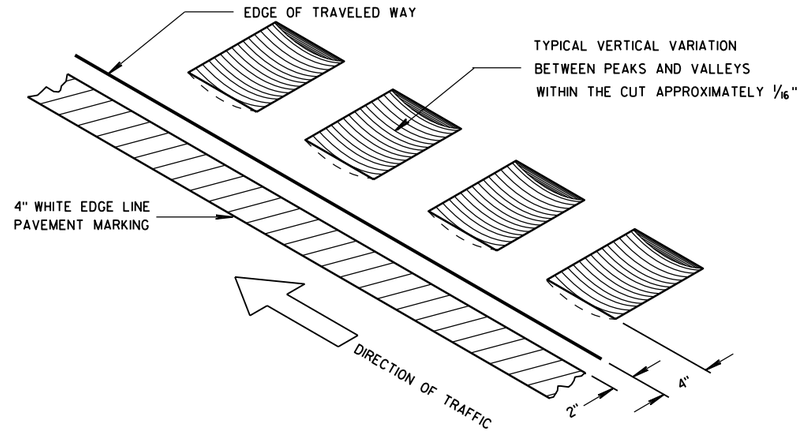
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

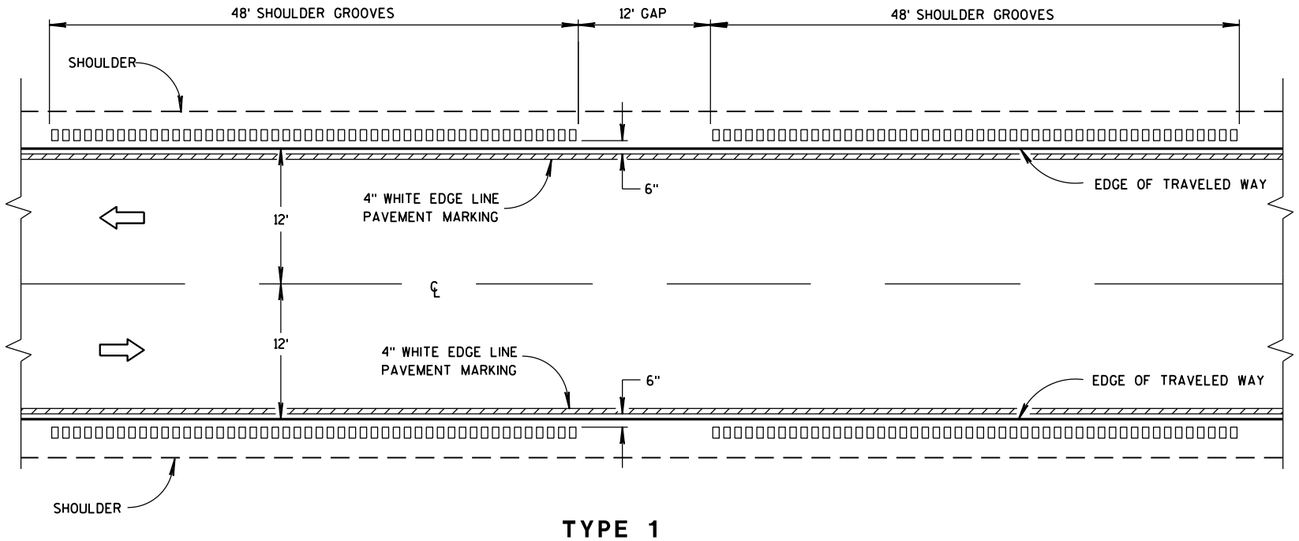
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

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

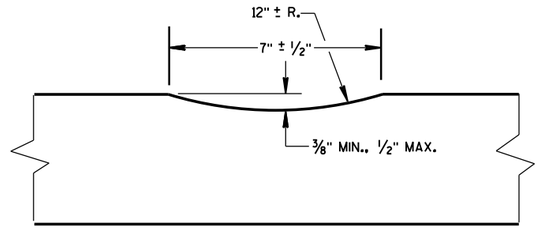


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



TYPE 1
2-LANE SHOULDER RUMBLE STRIP



SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

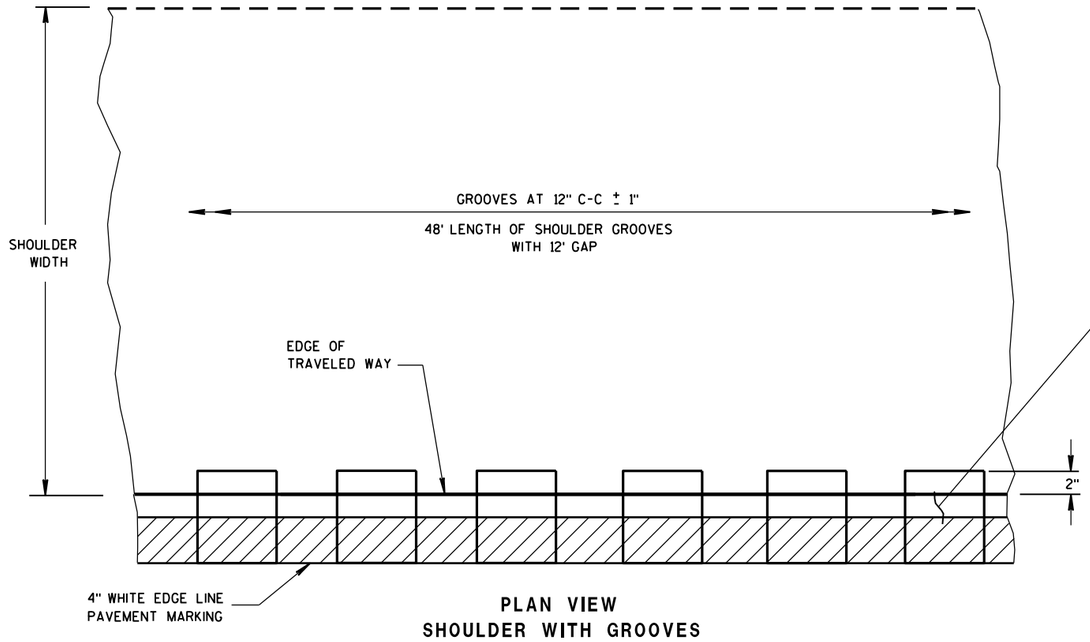
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

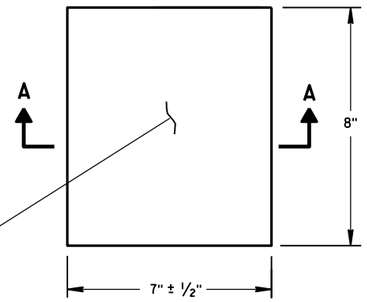
S.D.D. 13 A 10-1a

6

S.D.D. 13 A 10-1a



PLAN VIEW
SHOULDER WITH GROOVES



PLAN VIEW
(SINGLE GROOVE)

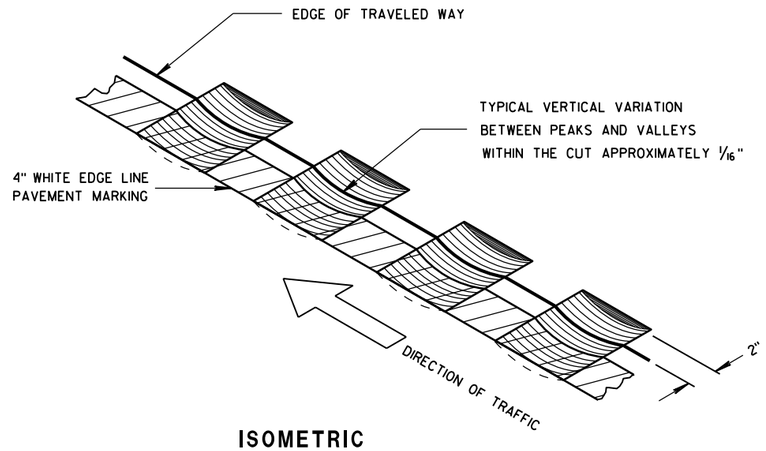
PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP

GENERAL NOTES

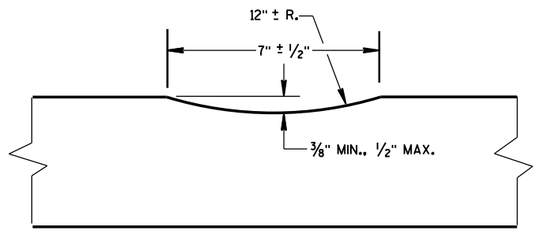
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

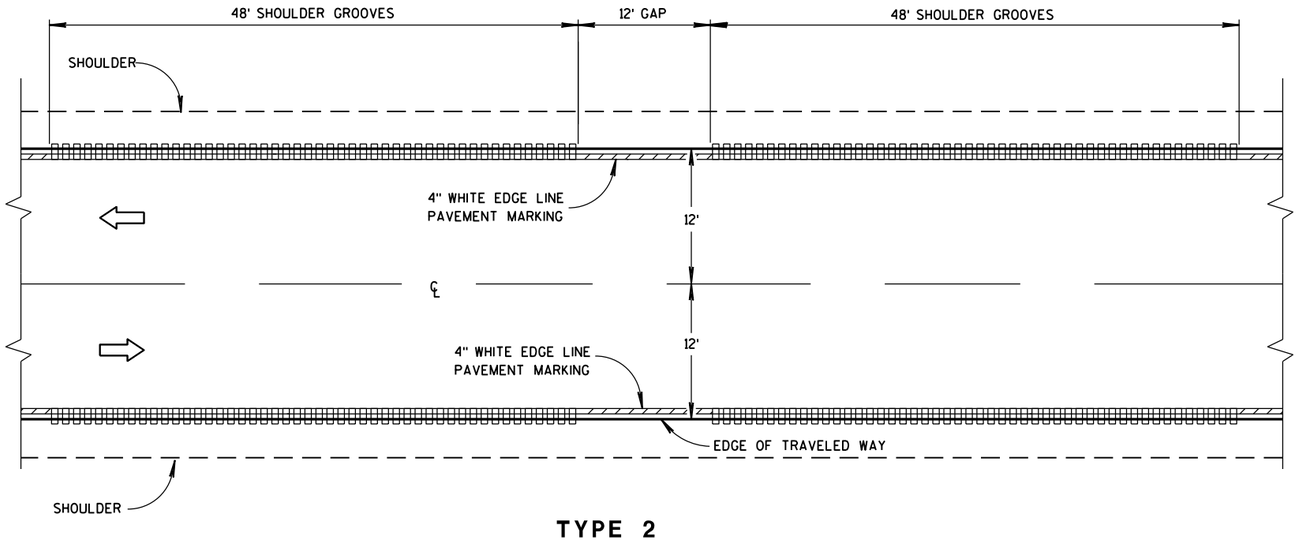
(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



ISOMETRIC



SECTION A-A



TYPE 2
2-LANE SHOULDER RUMBLE STRIP

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

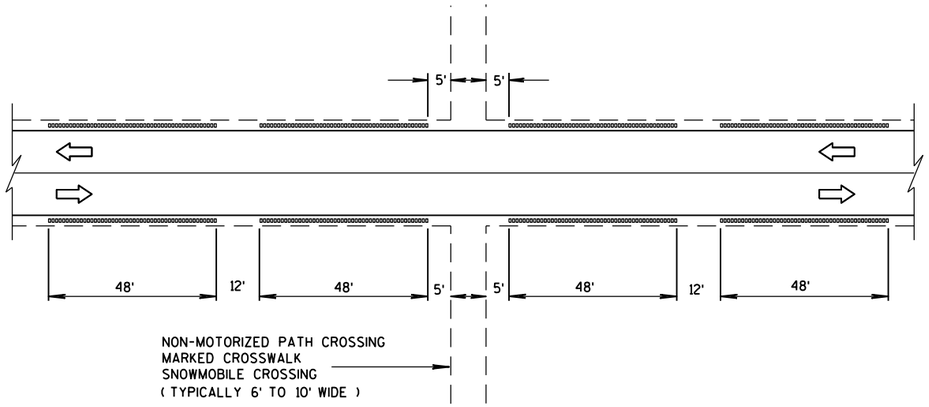
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

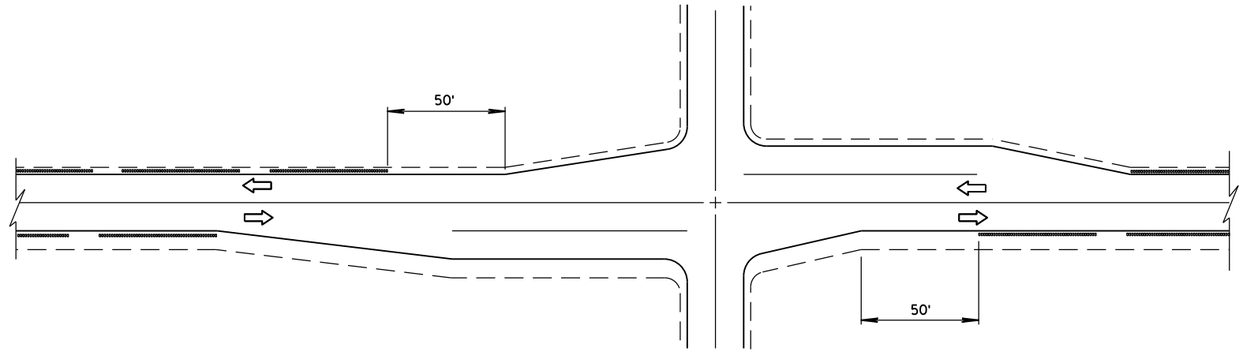
S.D.D. 13 A 10-1b

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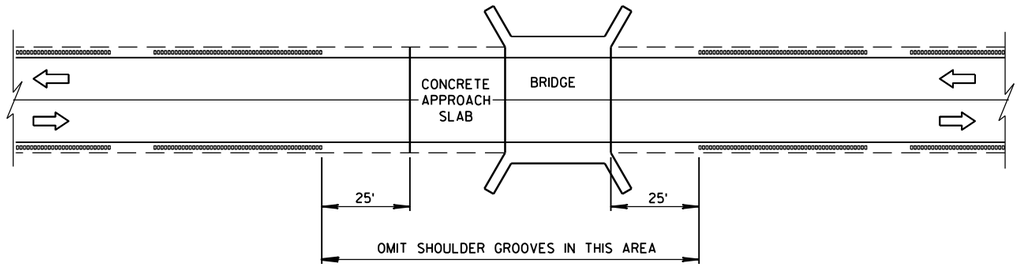
S.D.D. 13 A 10-1b



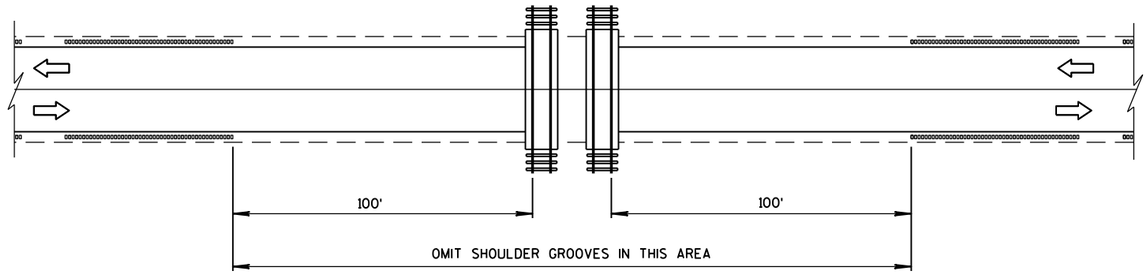
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



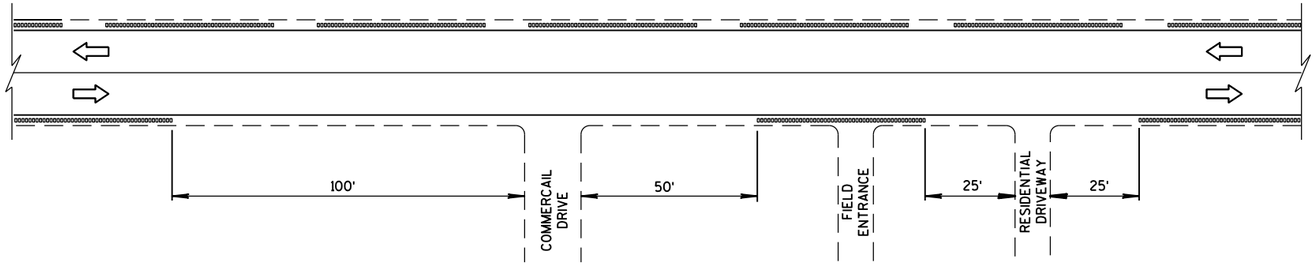
SHOULDER GROOVES AT INTERSECTIONS



SHOULDER GROOVES AT BRIDGES



SHOULDER GROOVES AT RAILROADS



SHOULDER GROOVES AT DRIVEWAYS (1)

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

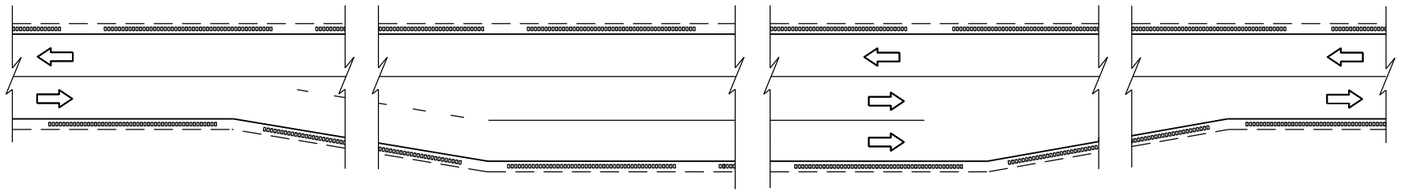
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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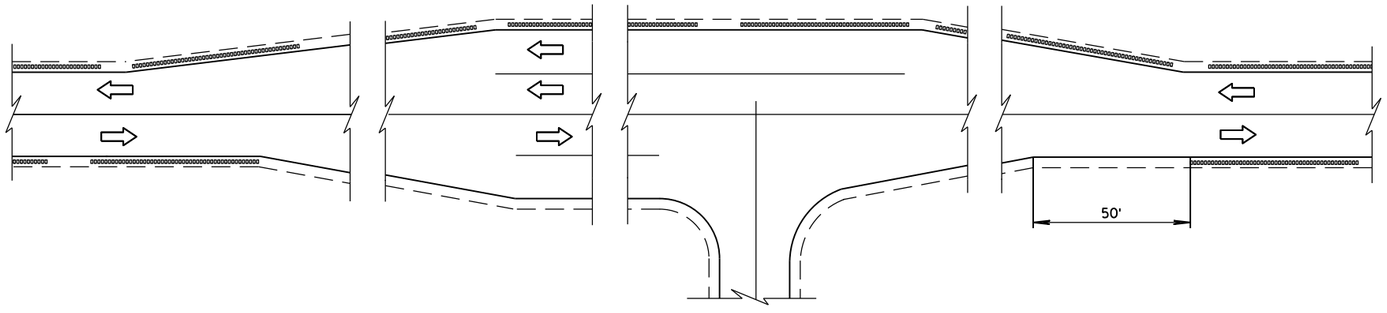
S.D.D. 13 A 10-1c

6

S.D.D. 13 A 10-1c



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

6

6

S.D.D. 13 A 10-1d

S.D.D. 13 A 10-1d

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

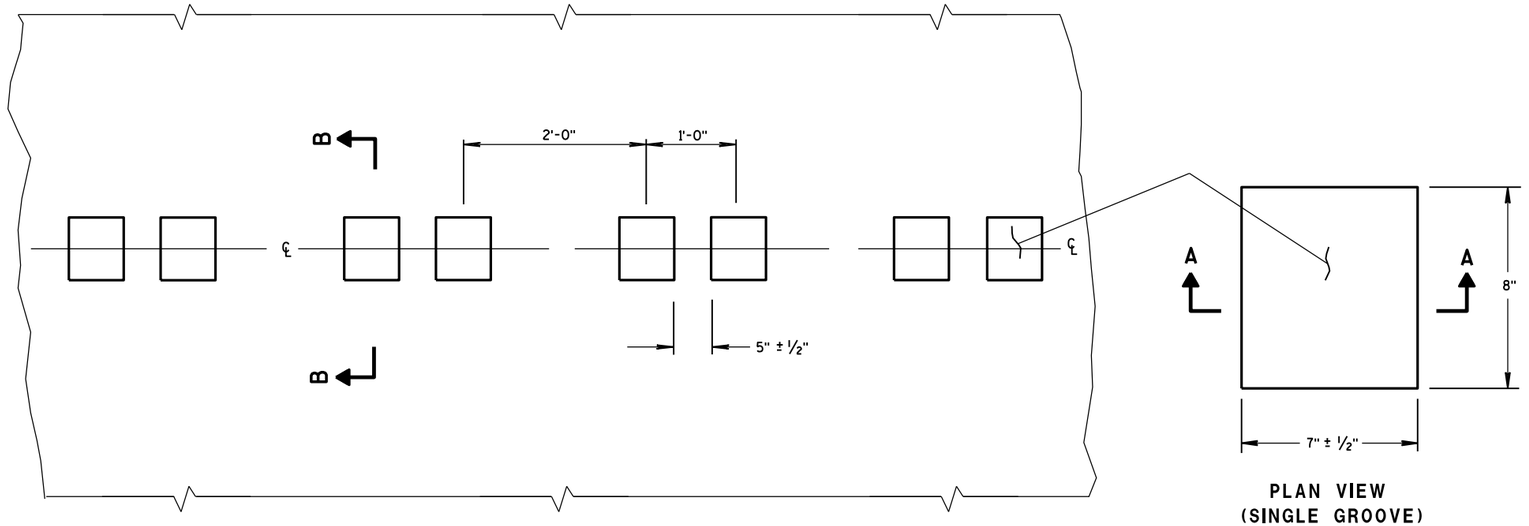
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

FHWA



PLAN VIEW
CENTER LINE WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

GENERAL NOTES

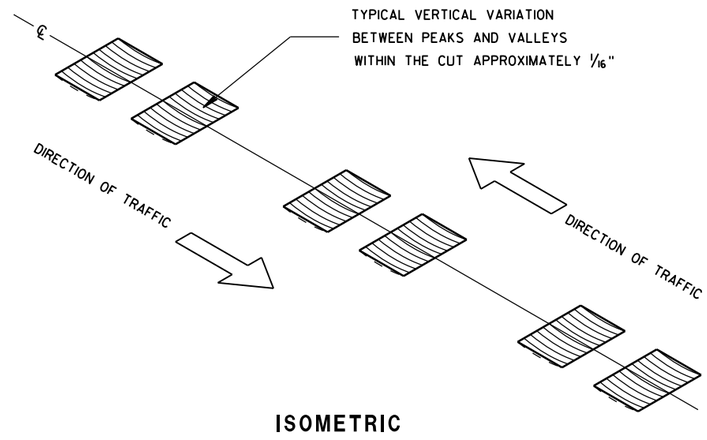
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

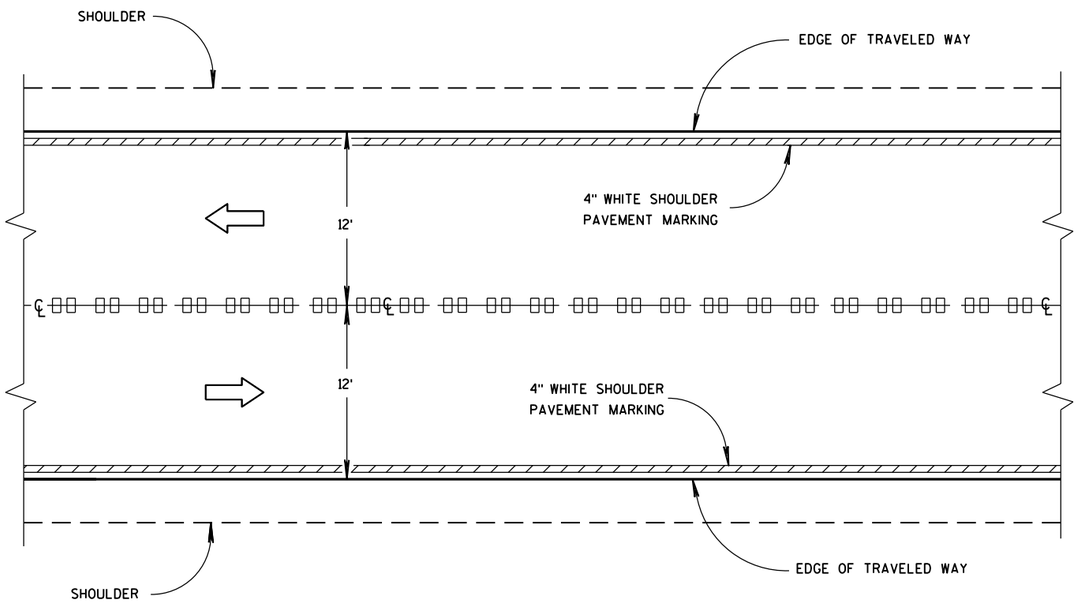
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

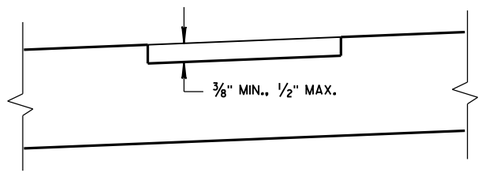
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



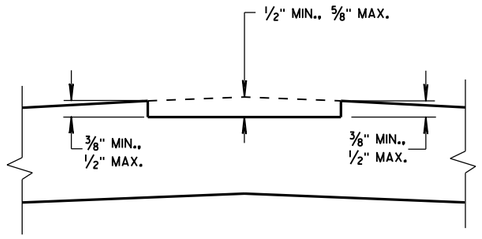
ISOMETRIC



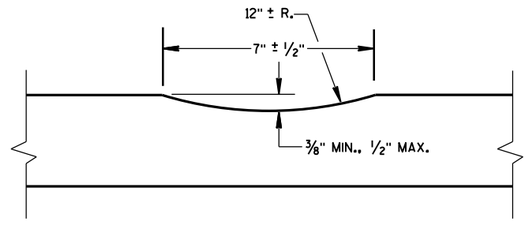
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



SECTION B-B
CROWNED ROADWAY



SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

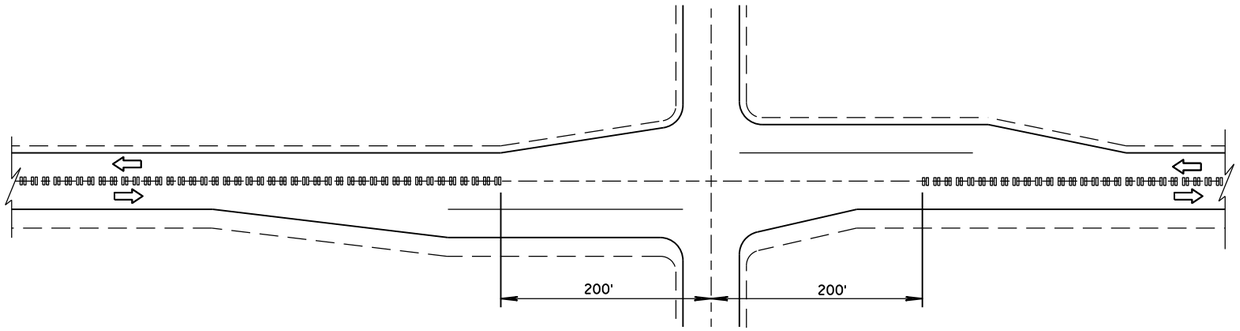
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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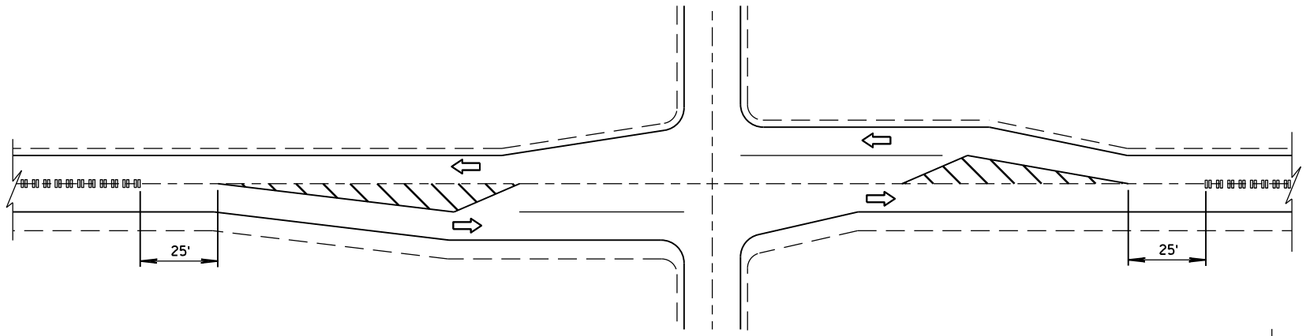
S.D.D. 13 A 11-2a

6

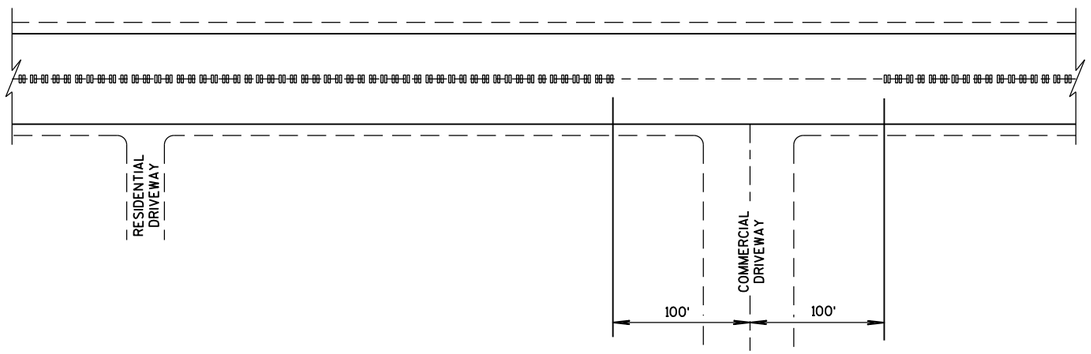
S.D.D. 13 A 11-2a



CENTER LINE GROOVES AT INTERSECTIONS

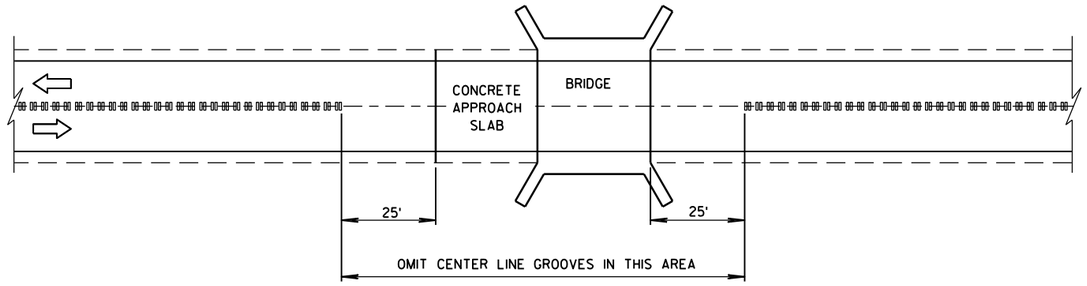


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

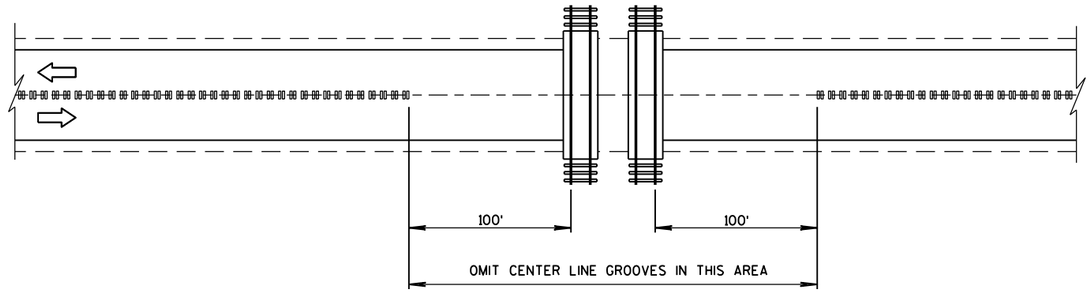


CENTER LINE GROOVES AT DRIVEWAYS (1)

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



CENTER LINE GROOVES AT BRIDGES



CENTER LINE GROOVES AT RAILROADS

6

S.D.D. 13 A 11-2b

6

S.D.D. 13 A 11-2b

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

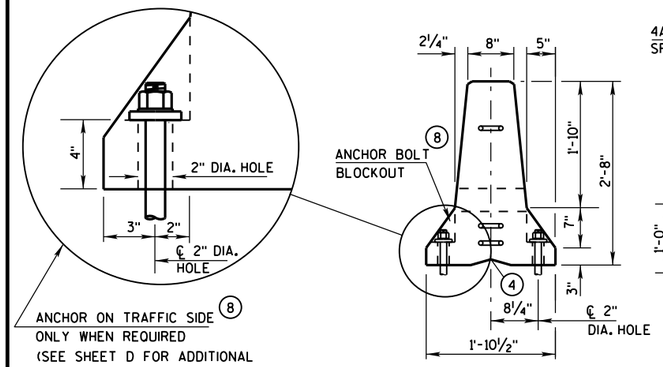
APPROVED

5/15/2013
DATE

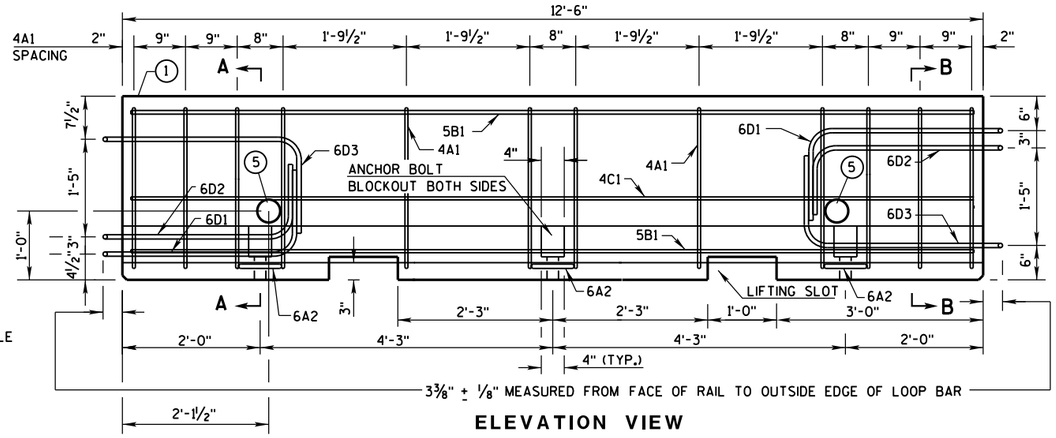
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

NT

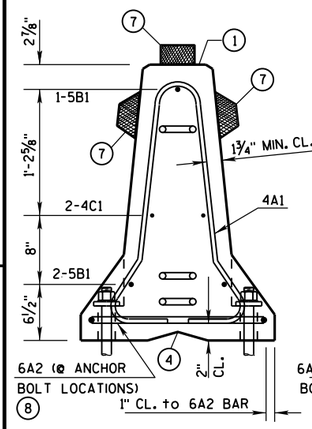
FHWA



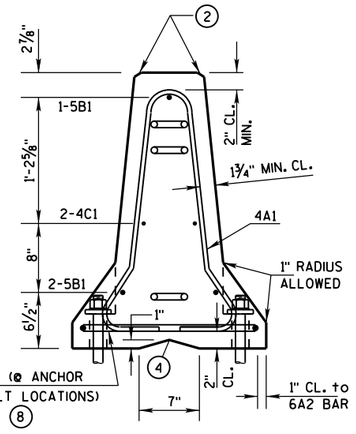
END VIEW



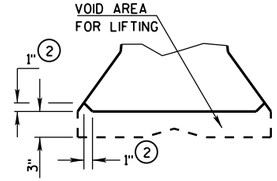
ELEVATION VIEW



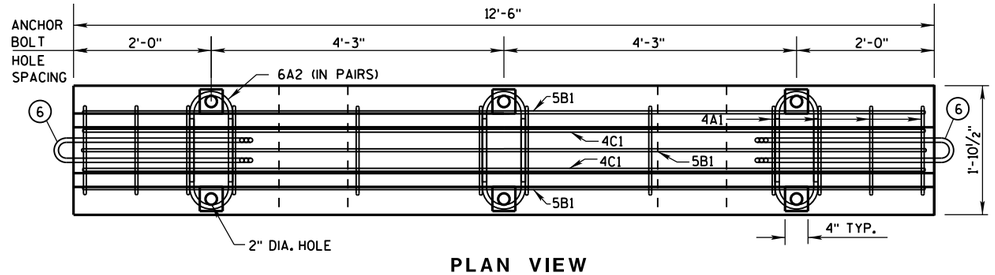
SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)

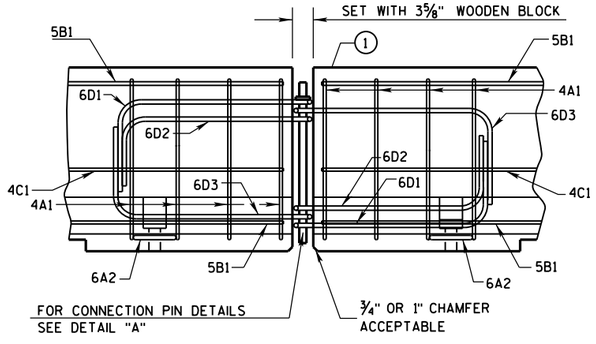


DETAIL "B"
LIFTING SLOT DETAIL

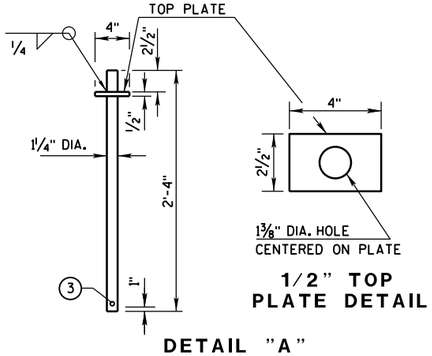


PLAN VIEW

DETAILS OF BARRIER SECTION

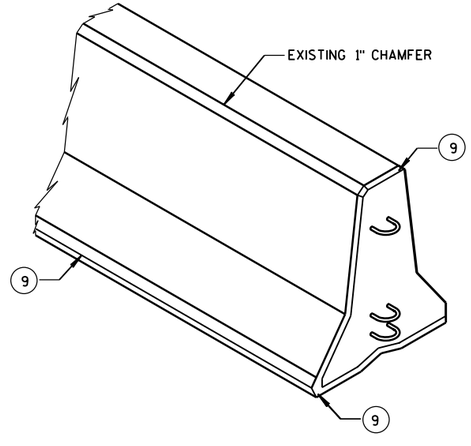


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-14(a) THRU 14B7-14(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

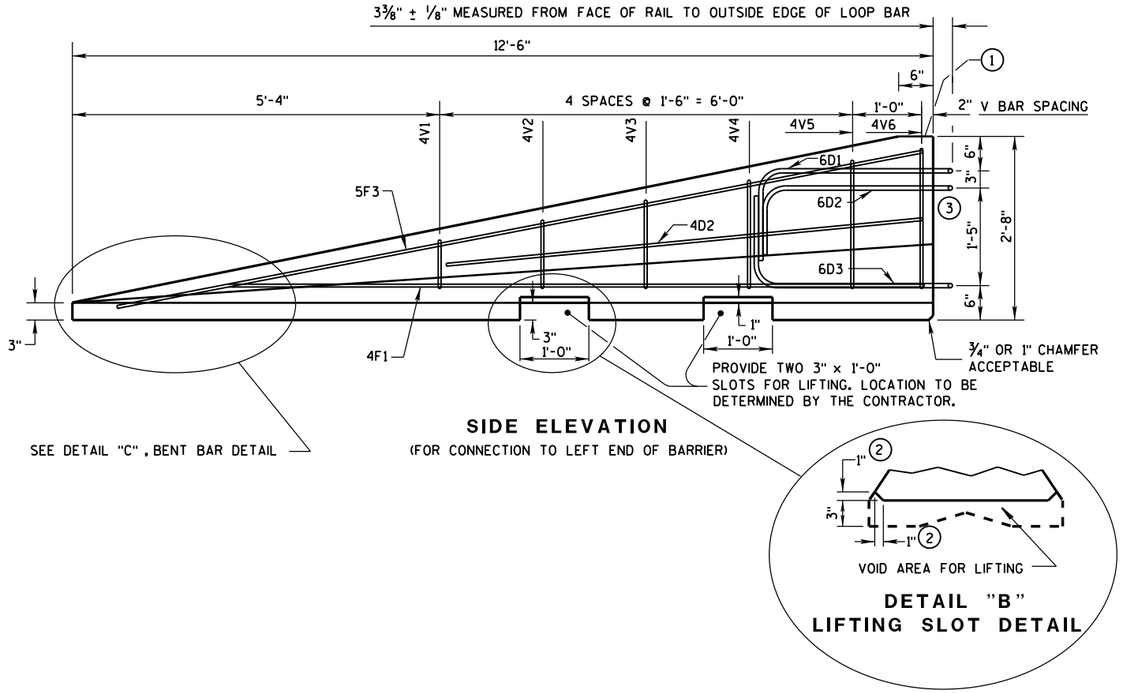
(9) 1" CHAMFER OPTIONAL.

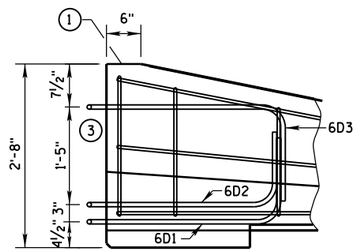
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

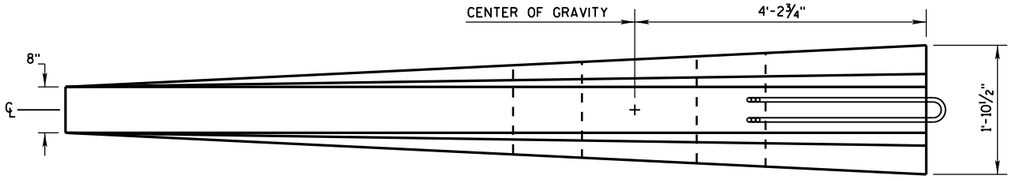
S.D.D. 14 B 7-14a

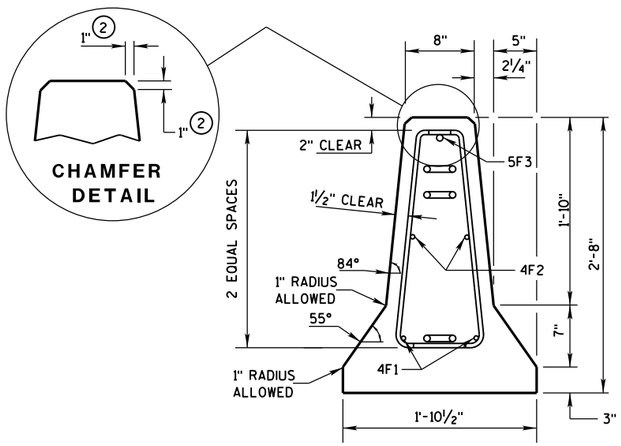


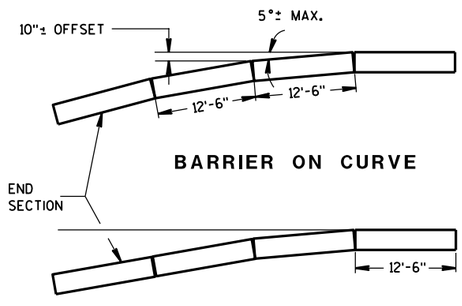


GENERAL NOTES

1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.







POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

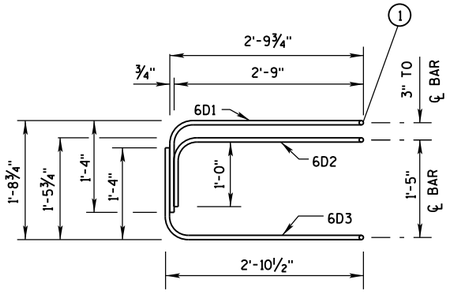
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-14b

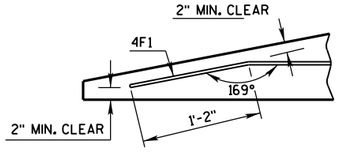
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

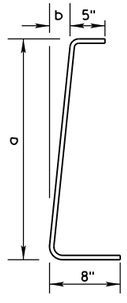
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

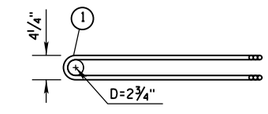
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

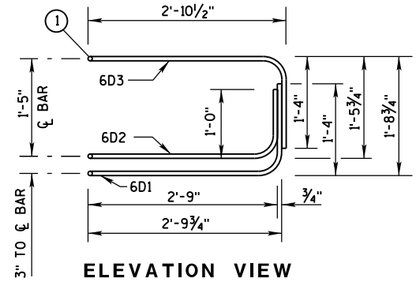
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

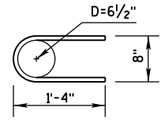
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



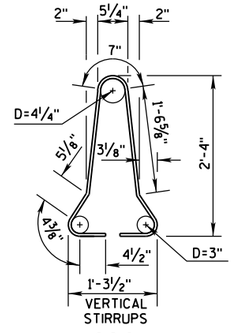
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2



4A1

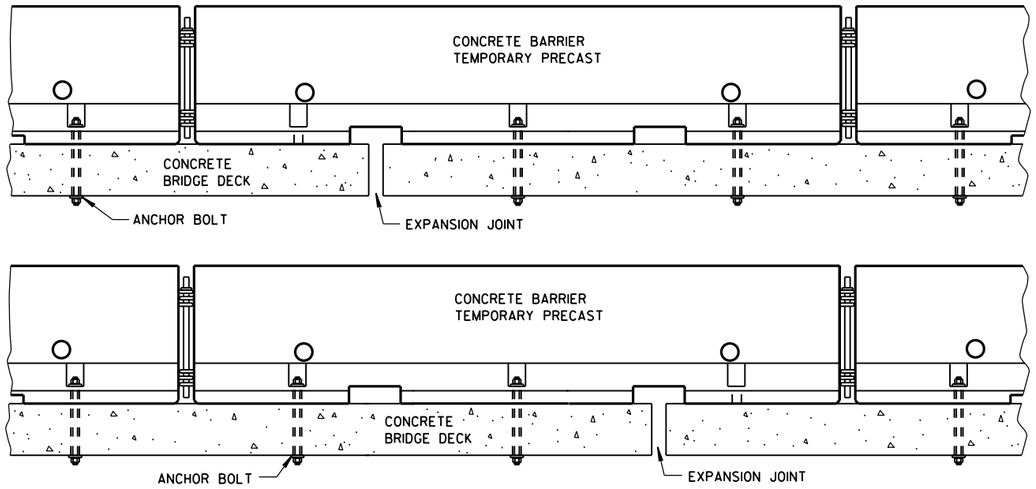
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

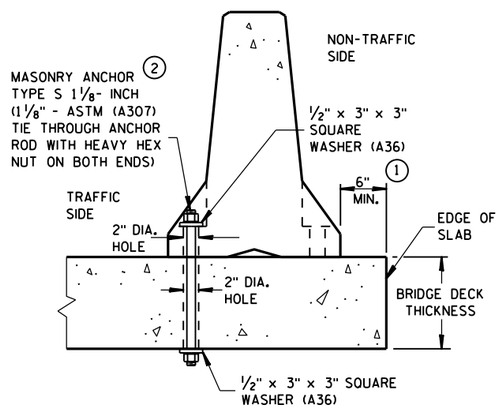
6

S.D.D. 14 B 7-14c



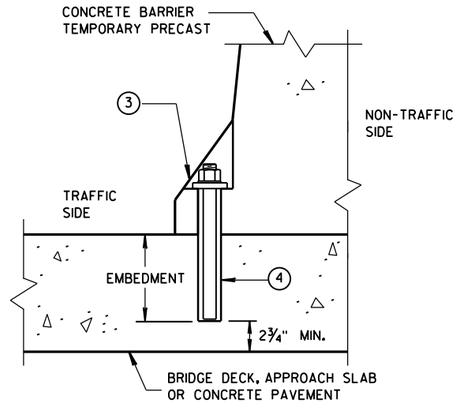
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



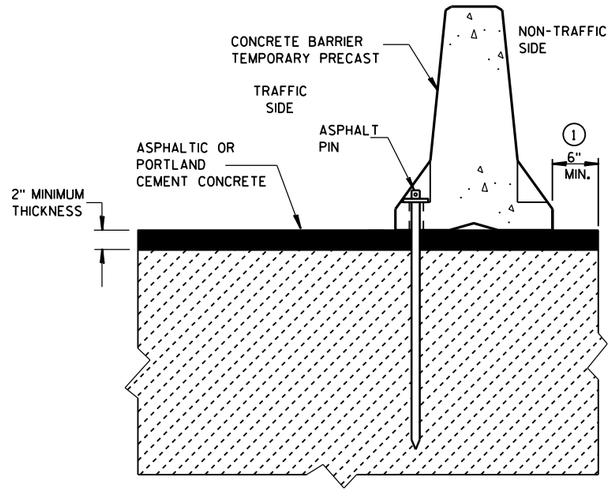
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



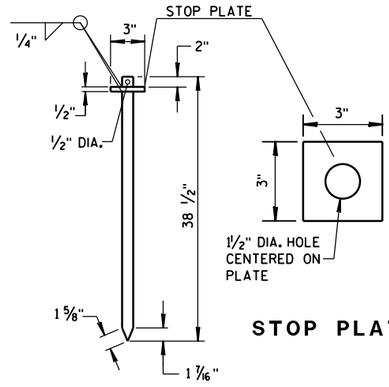
REMOVABLE ADHESIVE BONDED ANCHOR ② INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

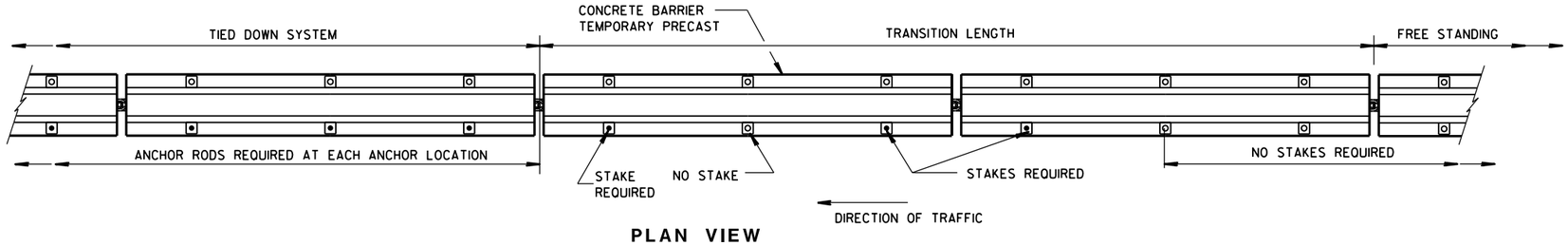
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

GENERAL NOTES

① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

③ 1⅛" DIAMENTER A307 THREADED ROD, ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.

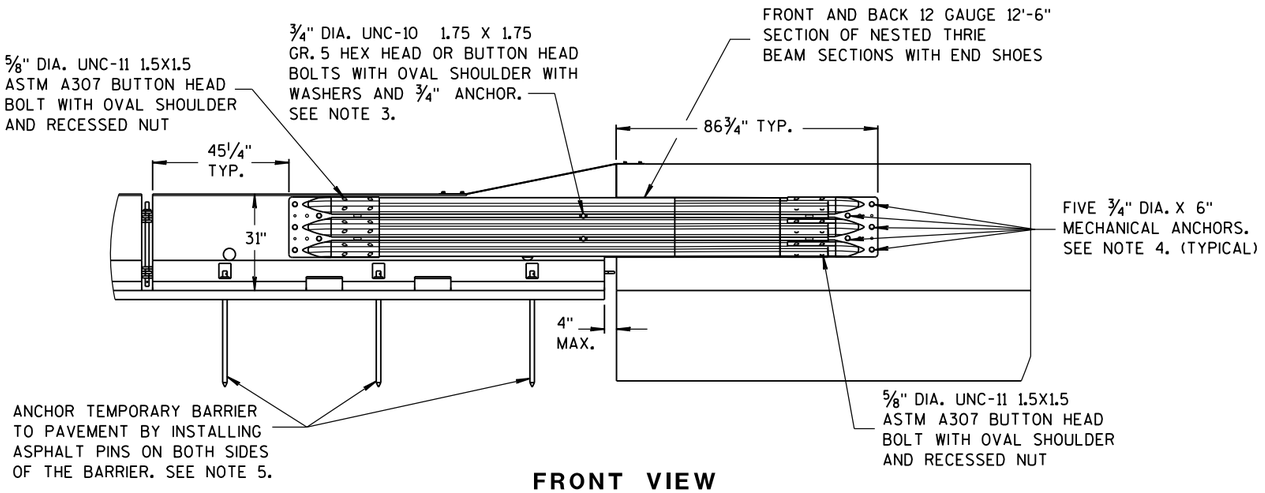
④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

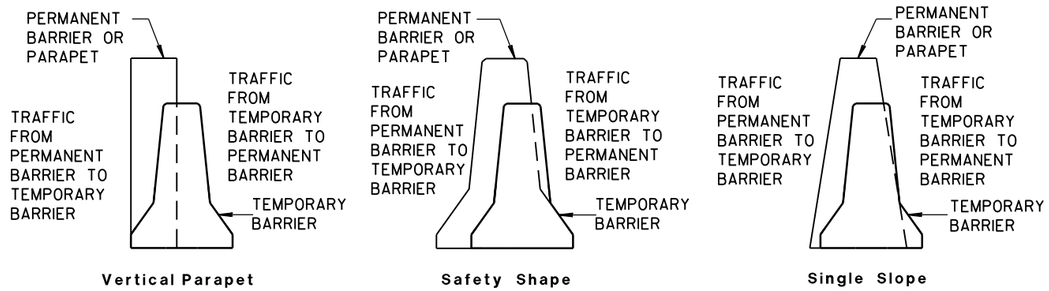
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 7-14d



FRONT VIEW

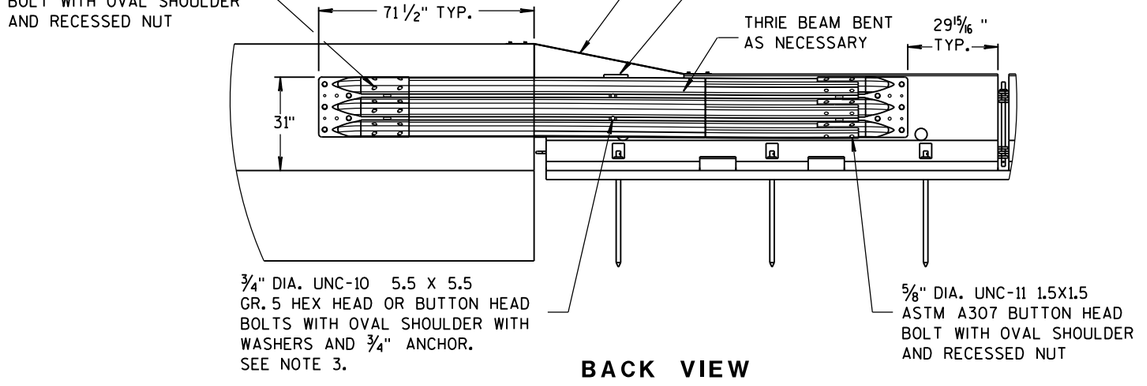


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

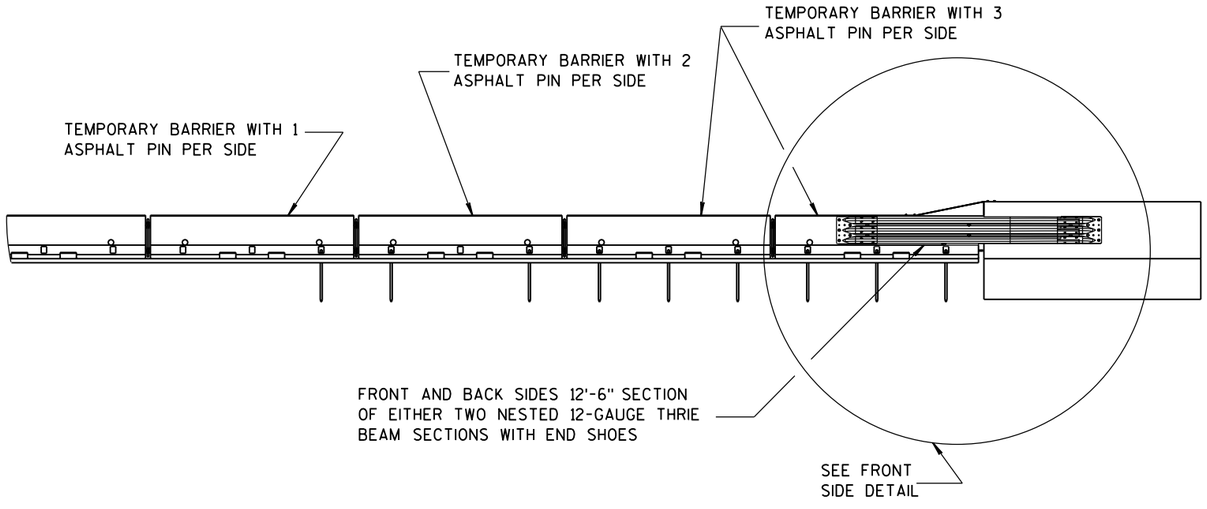
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

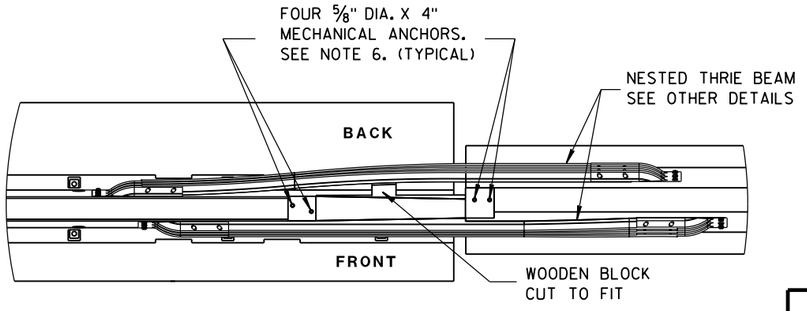
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



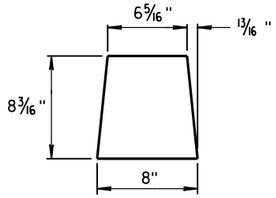
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

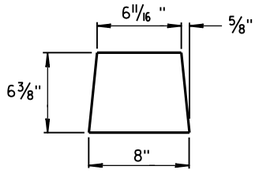
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

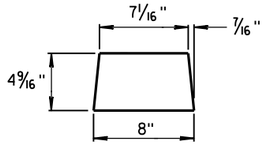
6
S.D.D. 14 B 7-14e



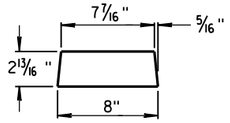
GUSSET 1



GUSSET 2

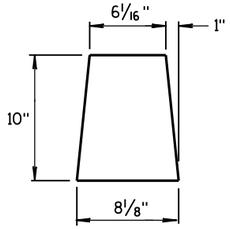


GUSSET 3

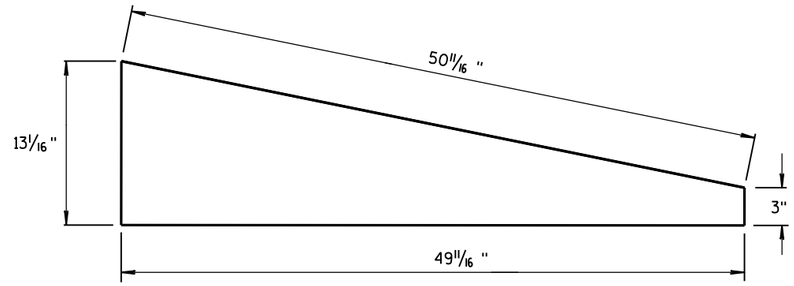


GUSSET 4

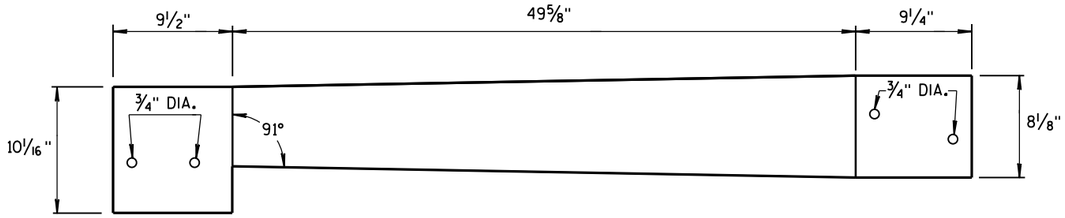
GUSSETS

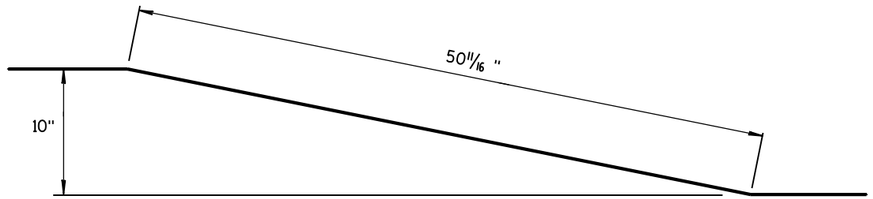


END PLATE



SIDE PLATE

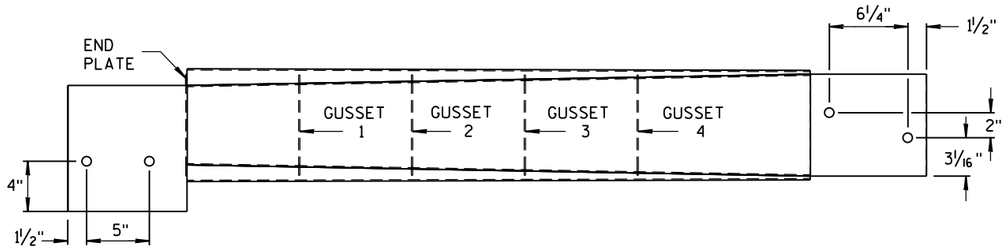


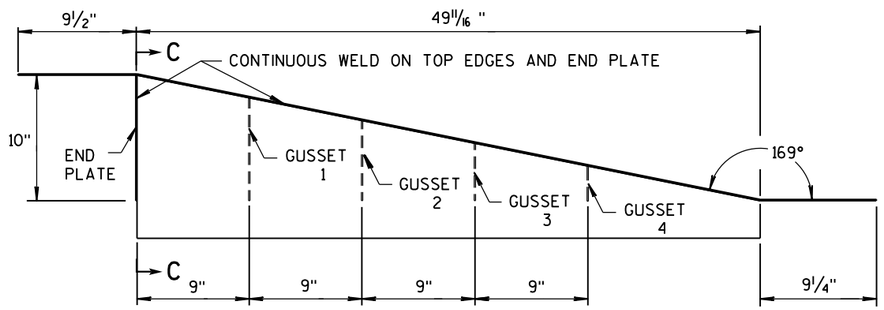


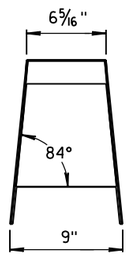
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.







SECTION C-C

NOTES

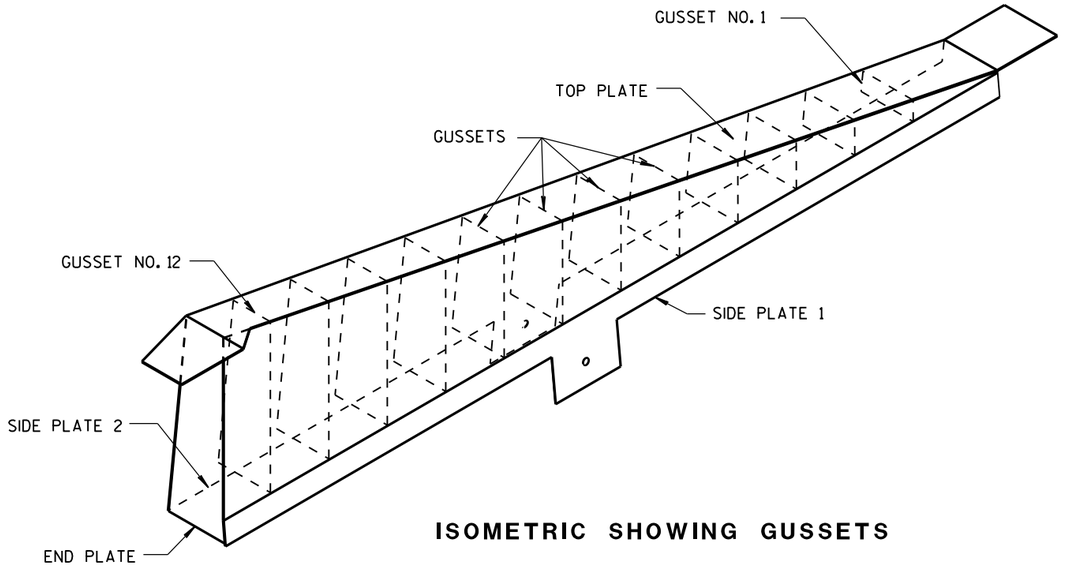
1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

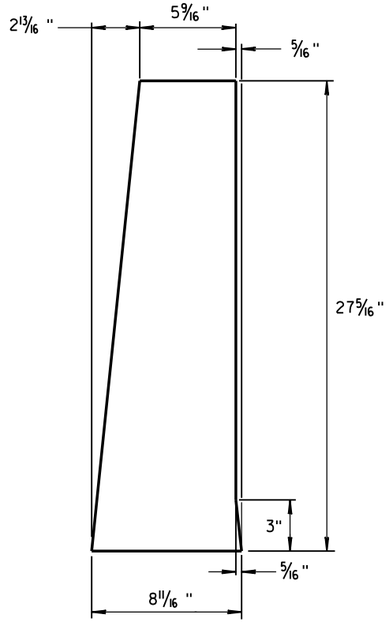
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-14f

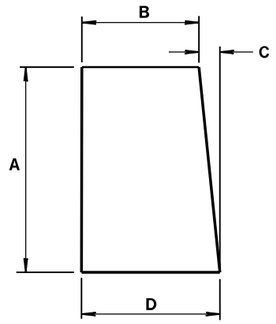


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



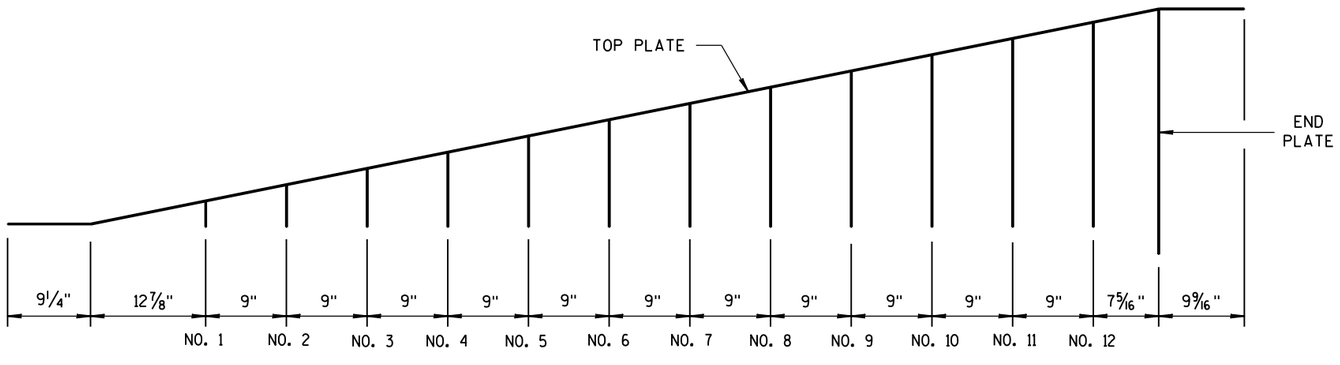
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

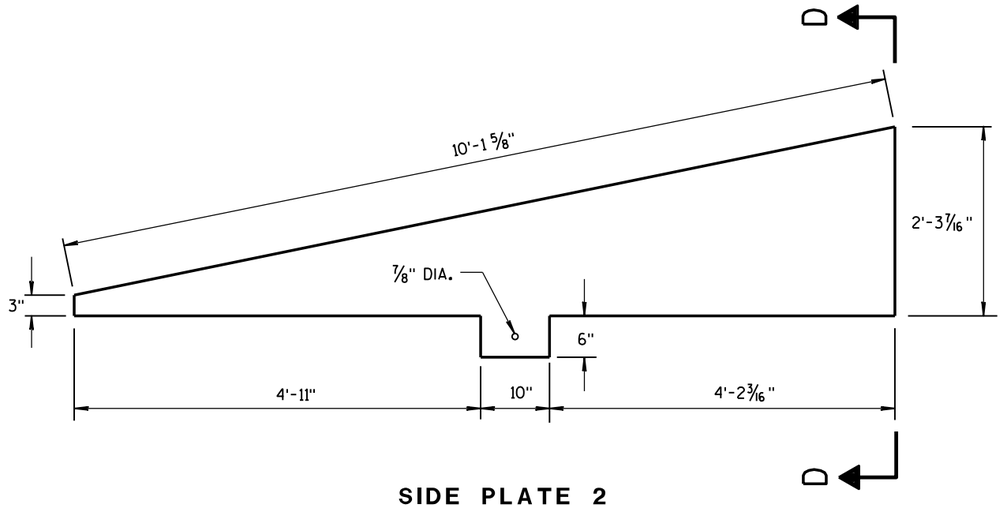
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

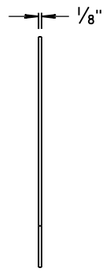
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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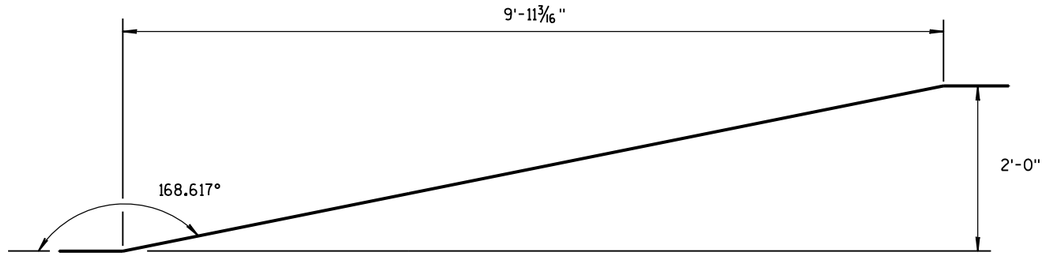
S.D.D. 14 B 7-14g



SIDE PLATE 2

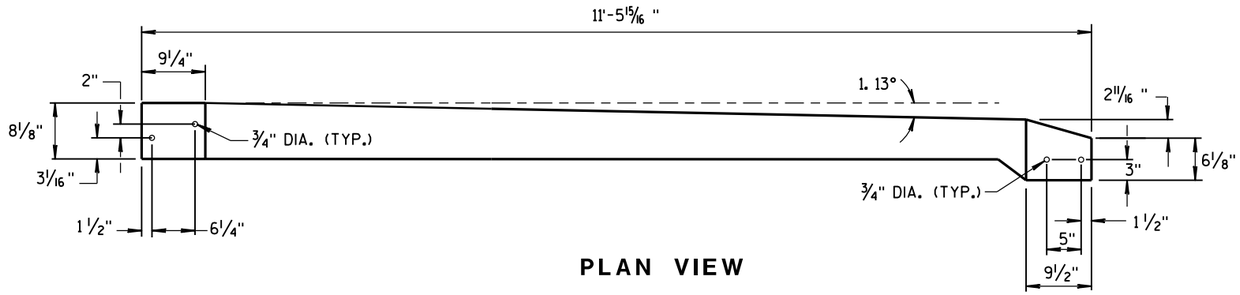


END VIEW



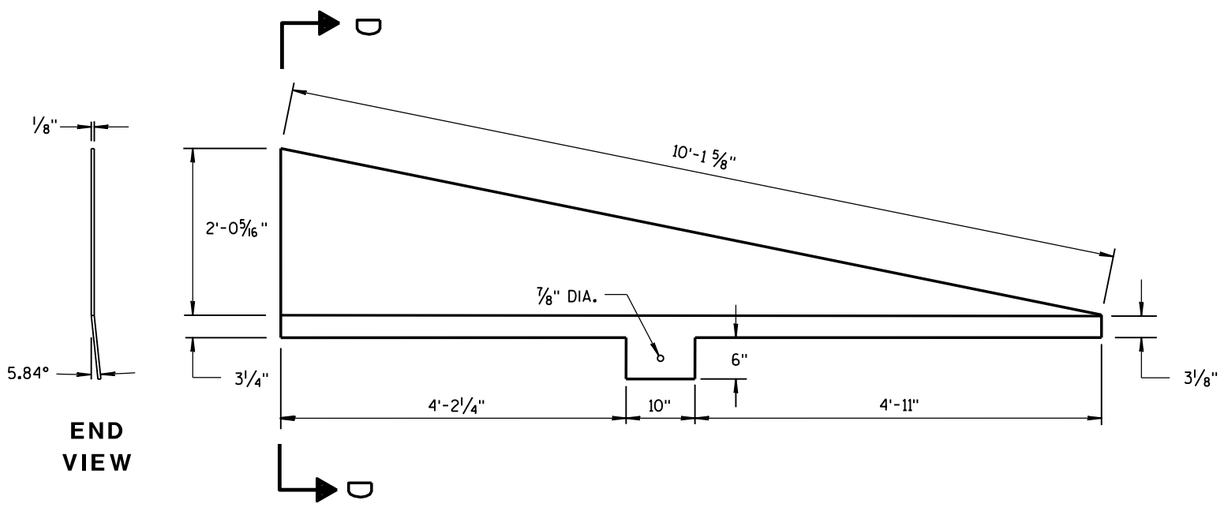
SIDE VIEW

TOP PLATE



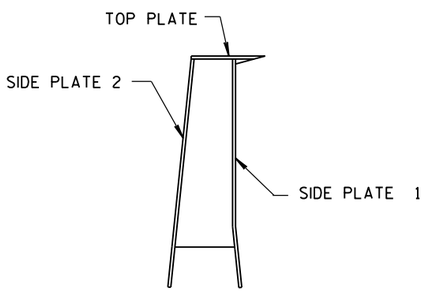
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 7-14h

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S.D.D. 14 B 7-14h

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) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

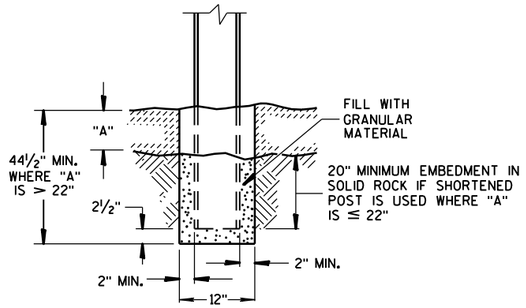
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

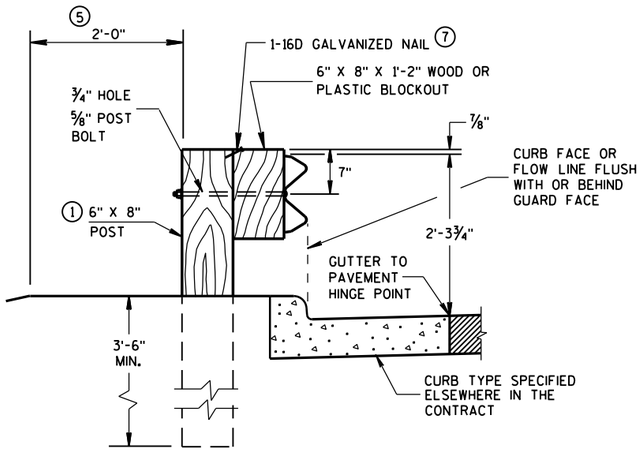
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

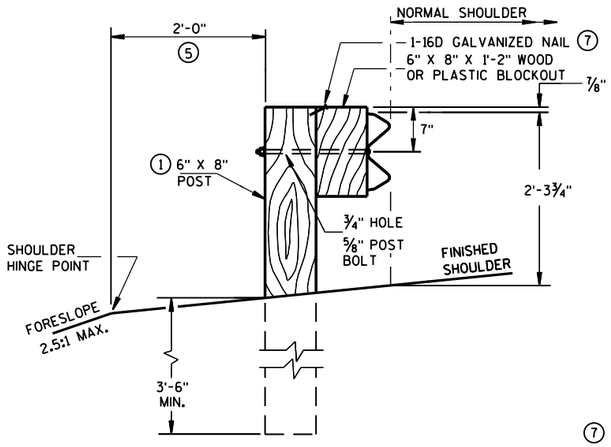
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



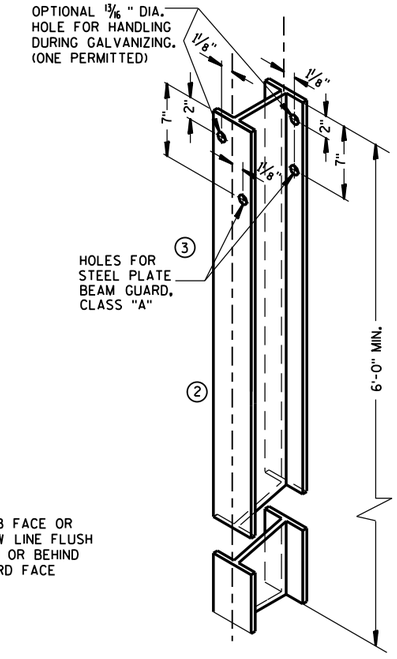
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)



END VIEW
LOCATED ALONG A CURBED ROADWAY

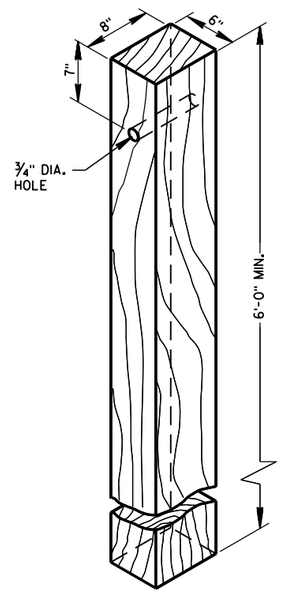


END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION

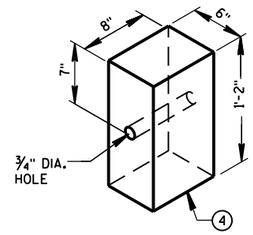


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

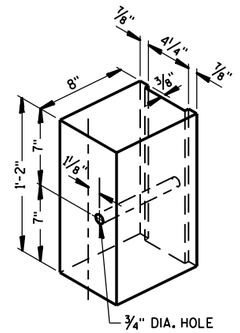
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



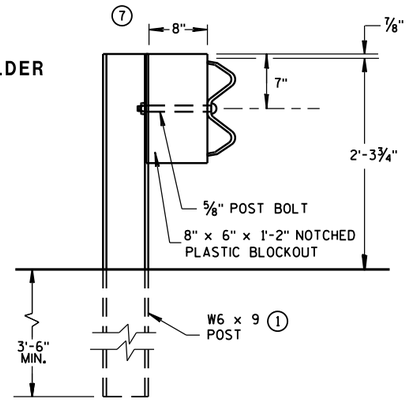
WOOD POST
(6"X8") NOMINAL



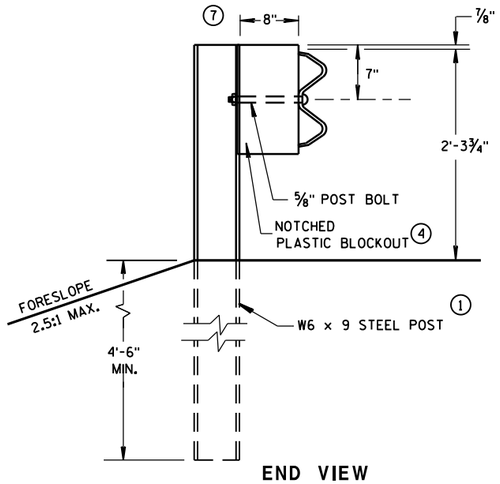
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



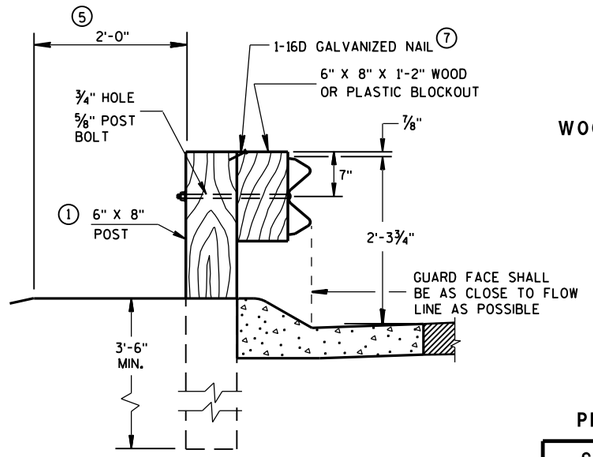
TYPICAL NOTCHED (1)
PLASTIC BLOCKOUT
FOR STEEL POSTS



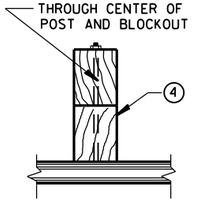
END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



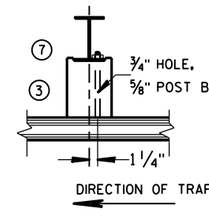
END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)



END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM

TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

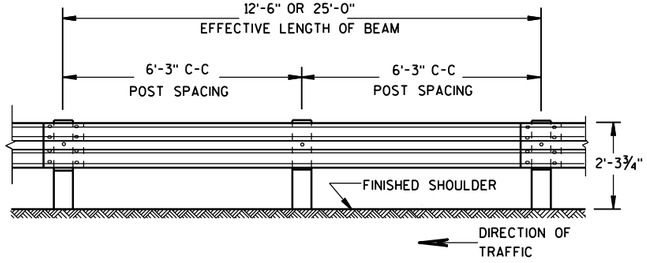
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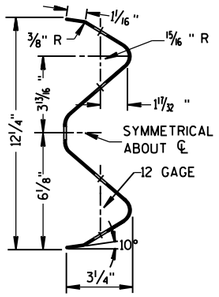
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S.D.D. 14 B 15-8a

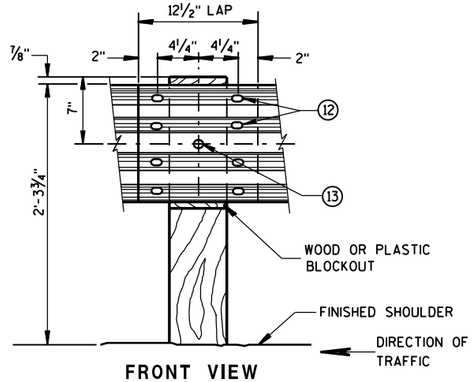


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

GENERAL NOTES

(8) PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

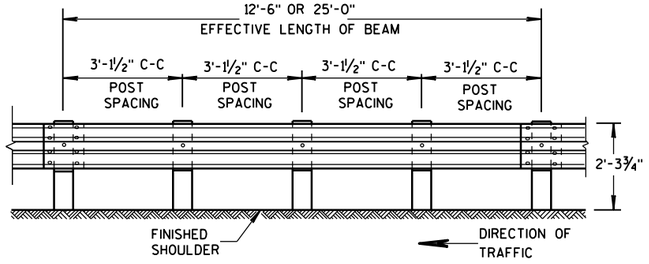
(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

(10) REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

(11) PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

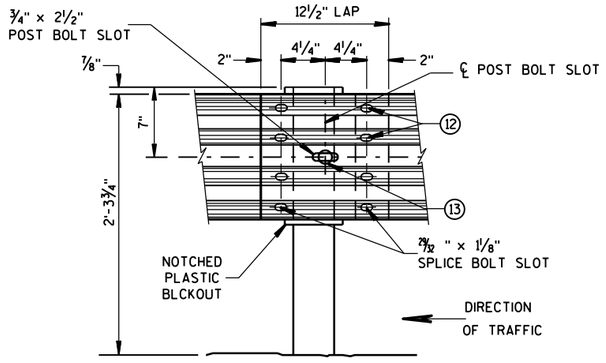
(12) 8 -⅝" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) ⅝" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH ⅝" DIA. F844 FLAT WASHER UNDER NUT.



FRONT VIEW

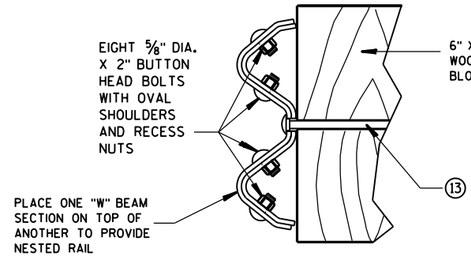
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

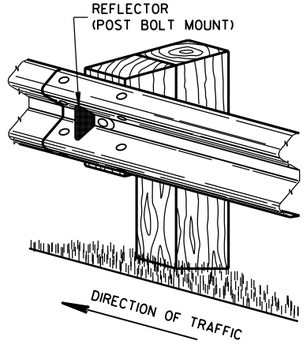


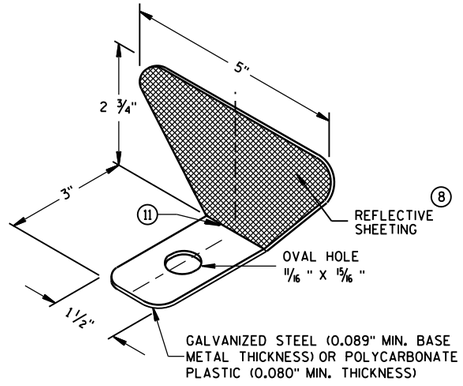
NESTED W BEAM (NW)

USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

REFLECTOR SPACING (9)

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 (10)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2 (11)	3
	> 200'	100' C-C	2	



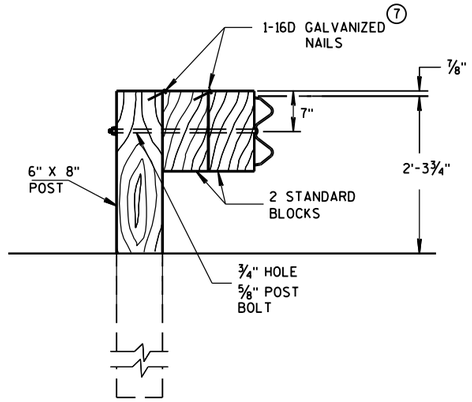


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (8)

STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

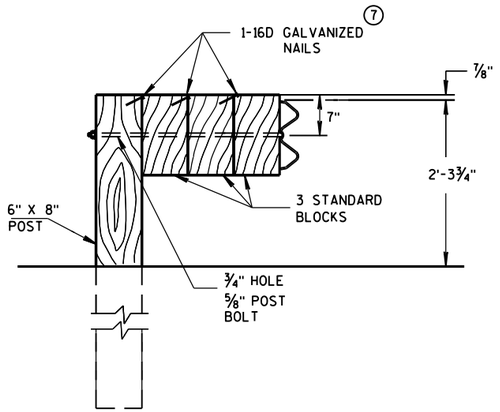
STATE OF WISCONSIN
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DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

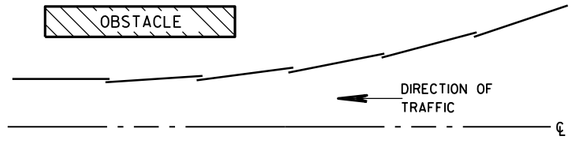


DETAIL FOR TRIPLE BLOCKS

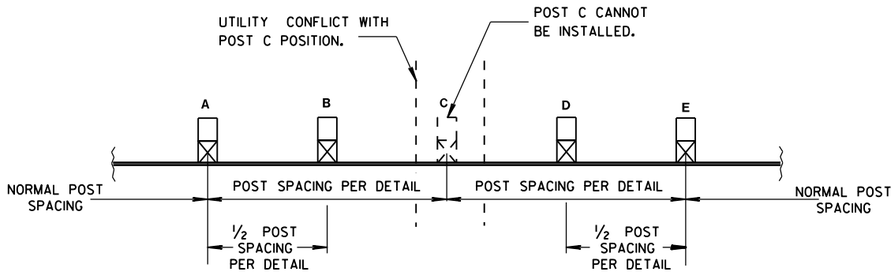
TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

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



PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

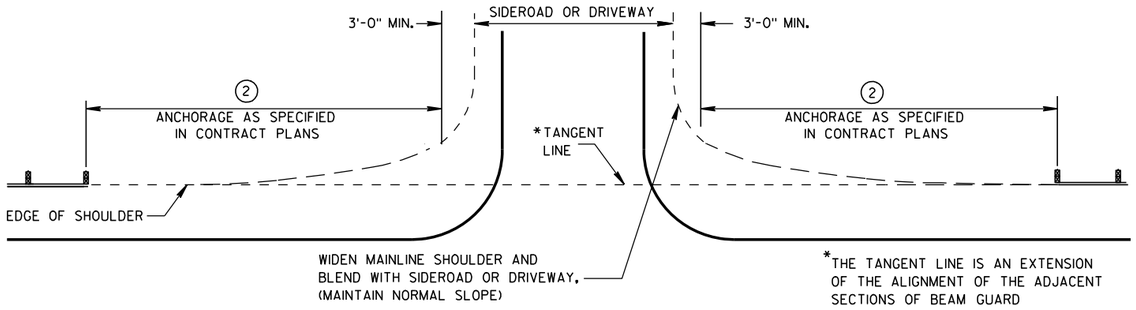
STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

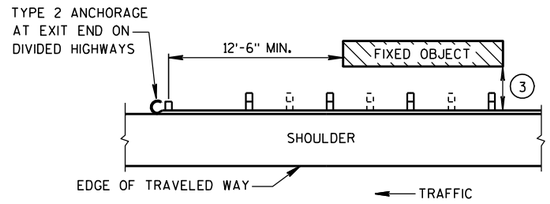
APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 15-8c



BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

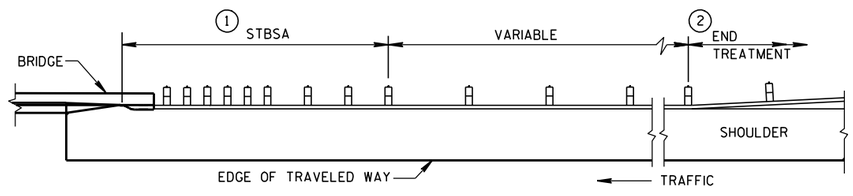
THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

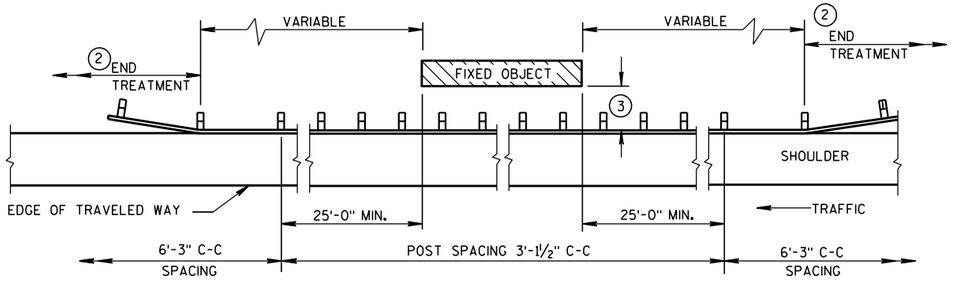
(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"

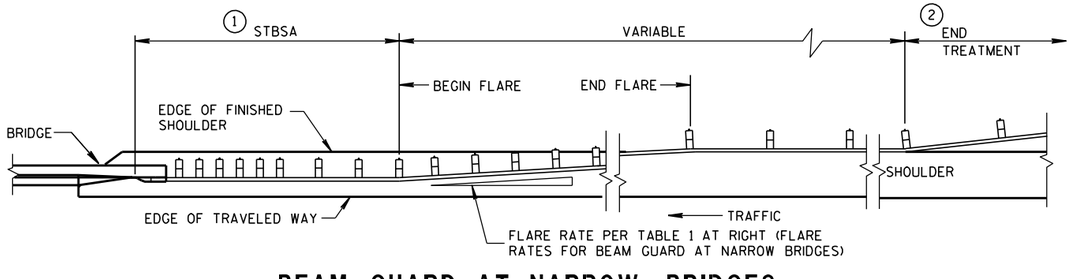


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")



BEAM GUARD AT NARROW BRIDGES
(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1

STEEL PLATE BEAM GUARD CLASS "A" AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS

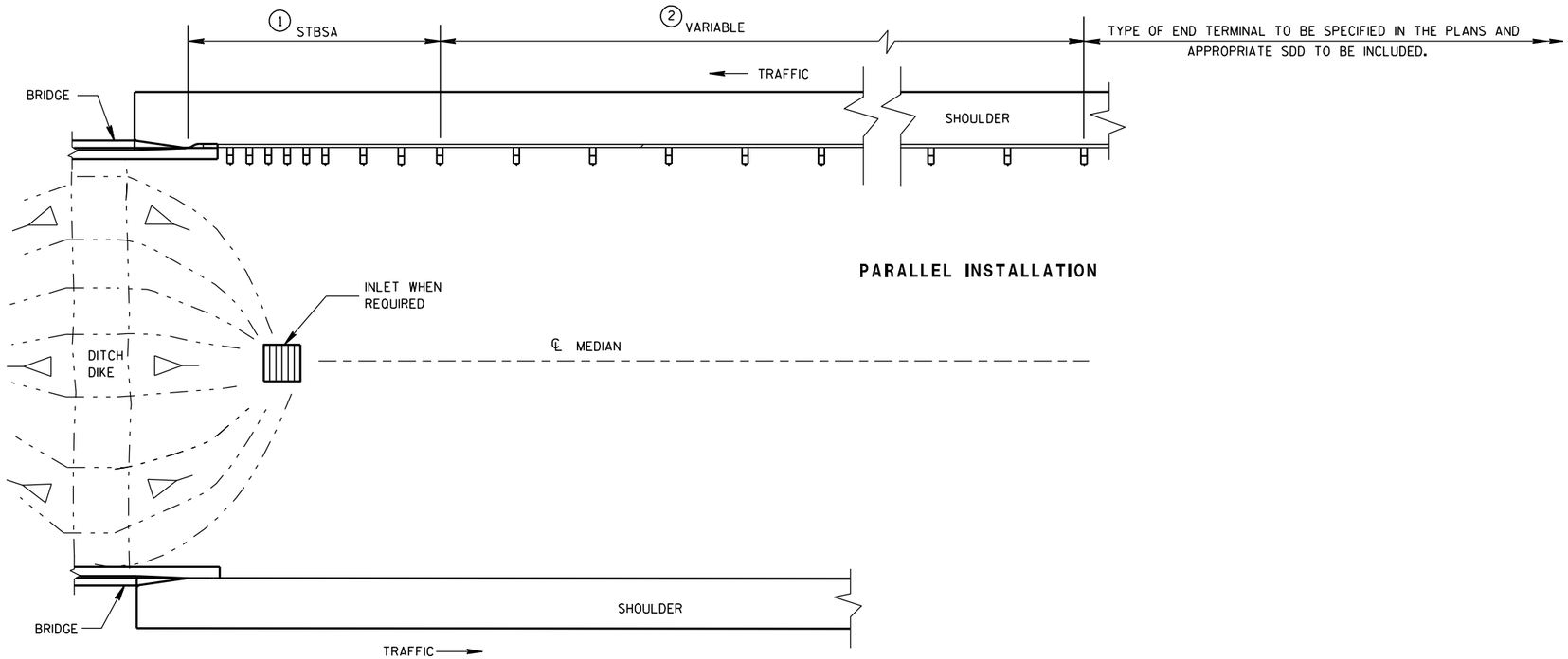
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-21-07 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 18-6a

GENERAL NOTES

1. STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.
2. LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.



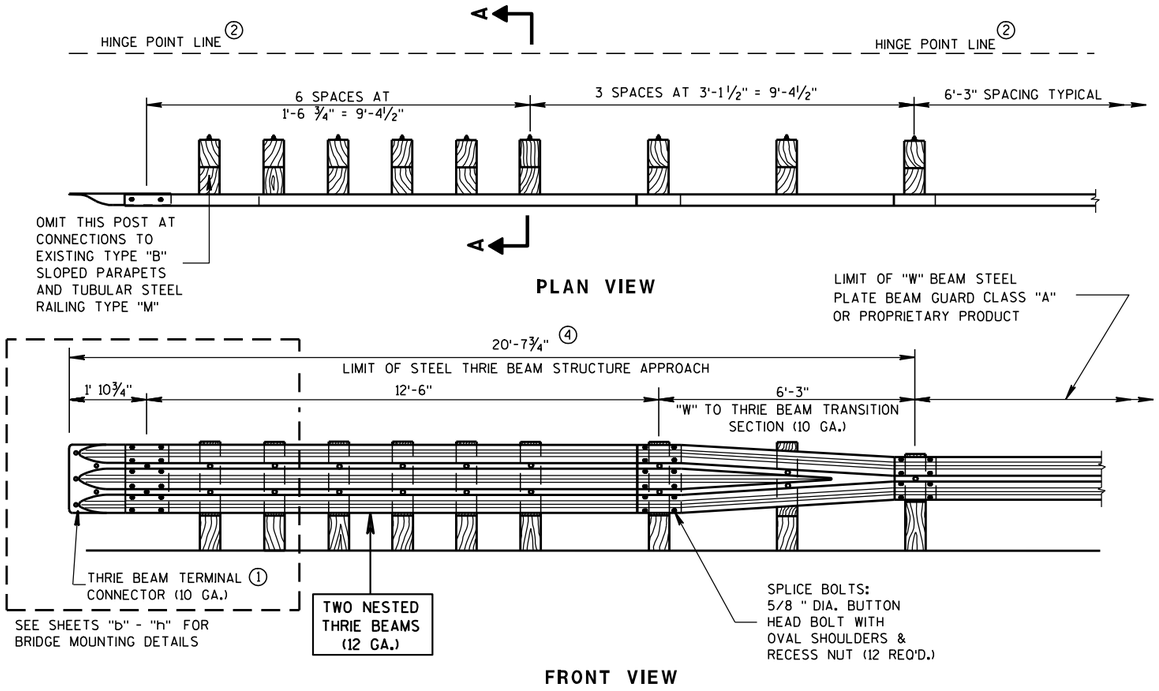
PARALLEL INSTALLATION

BEAM GUARD AT MEDIAN APPROACH TO BRIDGES

STEEL PLATE BEAM GUARD CLASS "A" AT MEDIAN APPROACH TO BRIDGES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8-21-07 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
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S.D.D. 14 B 18-6b



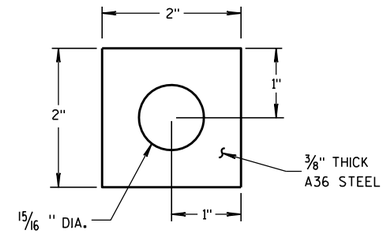


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

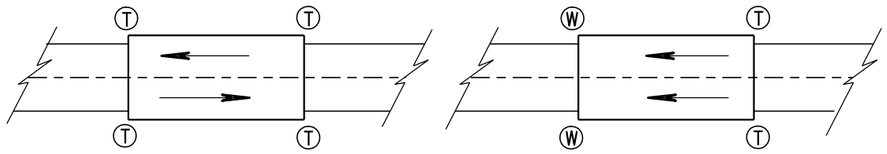
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.

③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



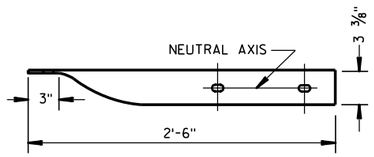
TWO WAY TRAFFIC

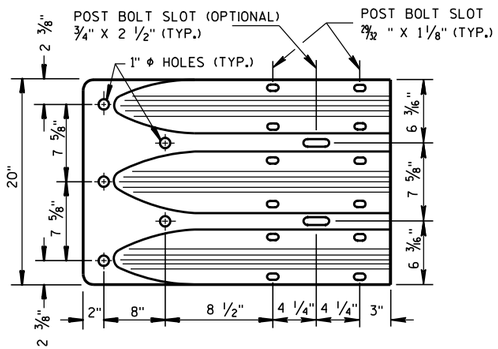
ONE WAY TRAFFIC

T THRIE BEAM CONNECTION

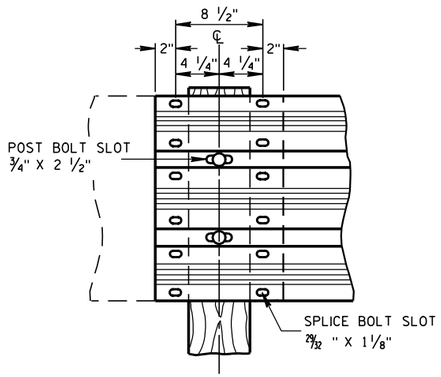
W W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

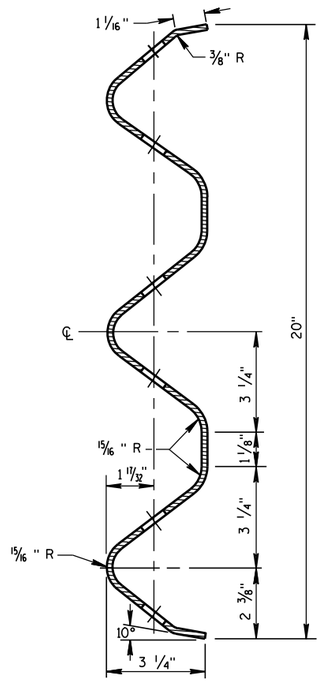




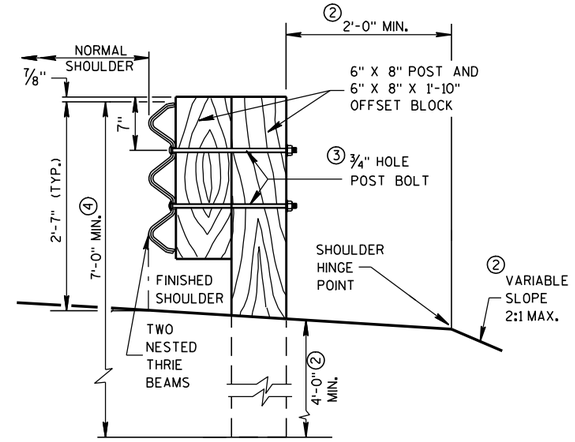
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION A-A

STEEL THRIE BEAM STRUCTURE APPROACH

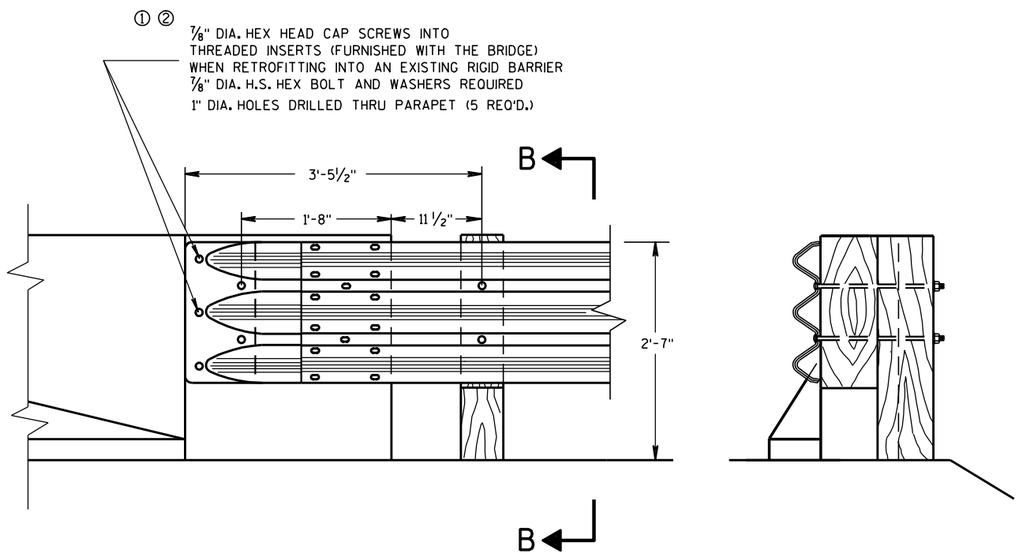
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8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

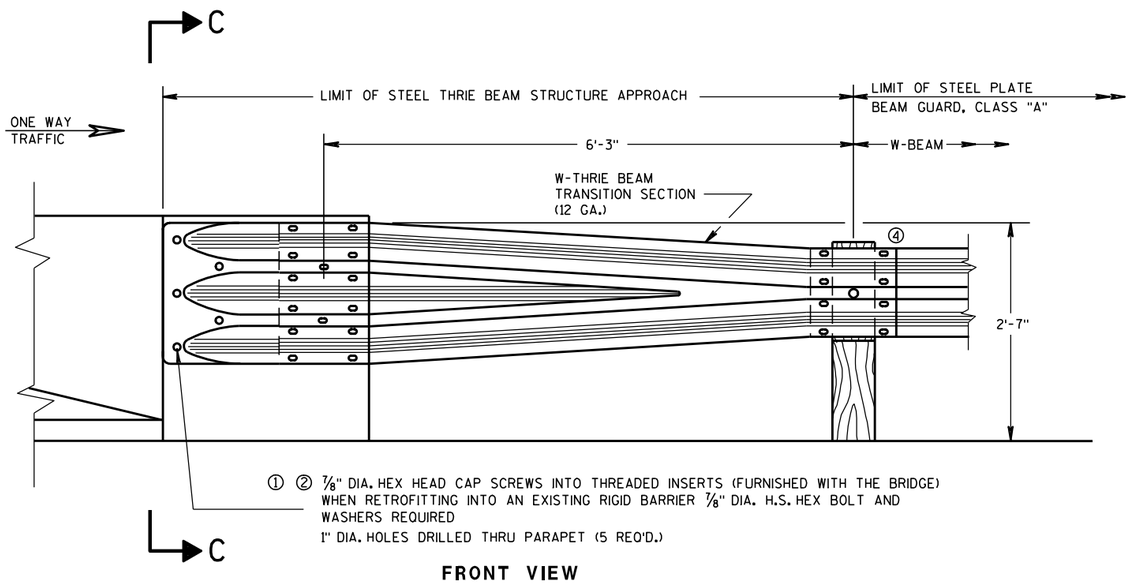
FHWA



FRONT VIEW

SECTION B-B

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED
1" DIA. HOLES DRILLED THRU PARAPET (5 REQ'D.)

FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

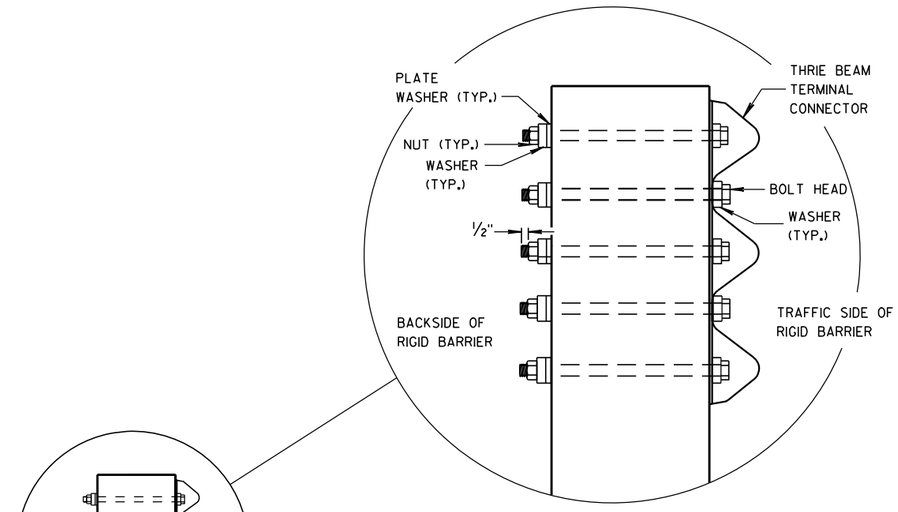
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.



SECTION C-C

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
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GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

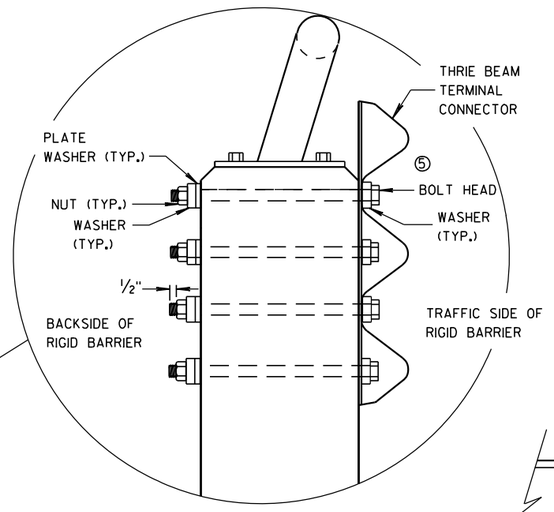
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

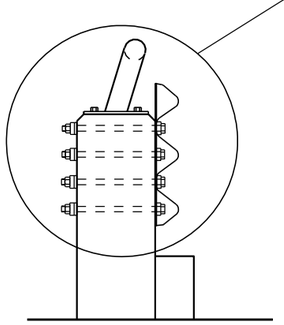
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

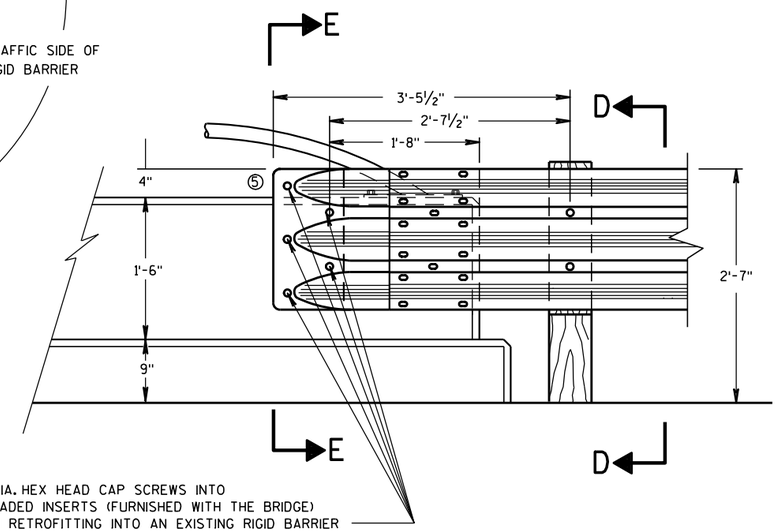
⑤ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.



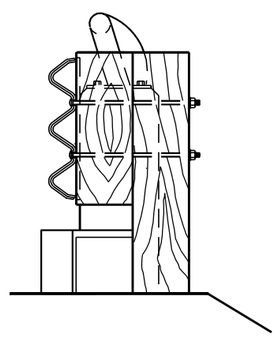


SECTION E-E



① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER
⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED
1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)

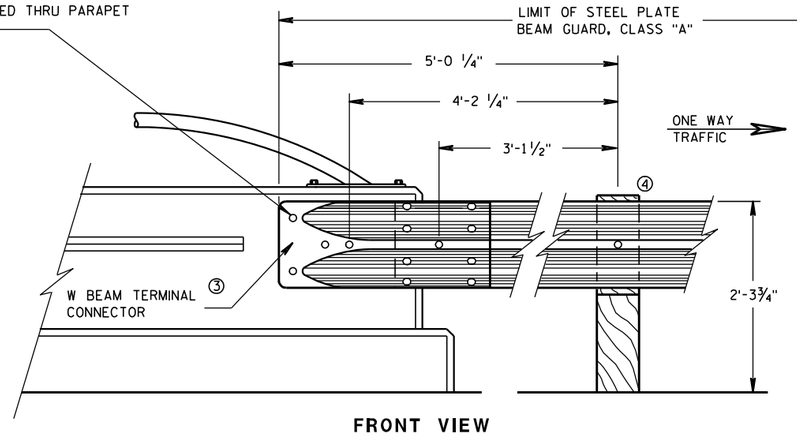
FRONT VIEW



SECTION D-D

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER
⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED
1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS

STATE OF WISCONSIN
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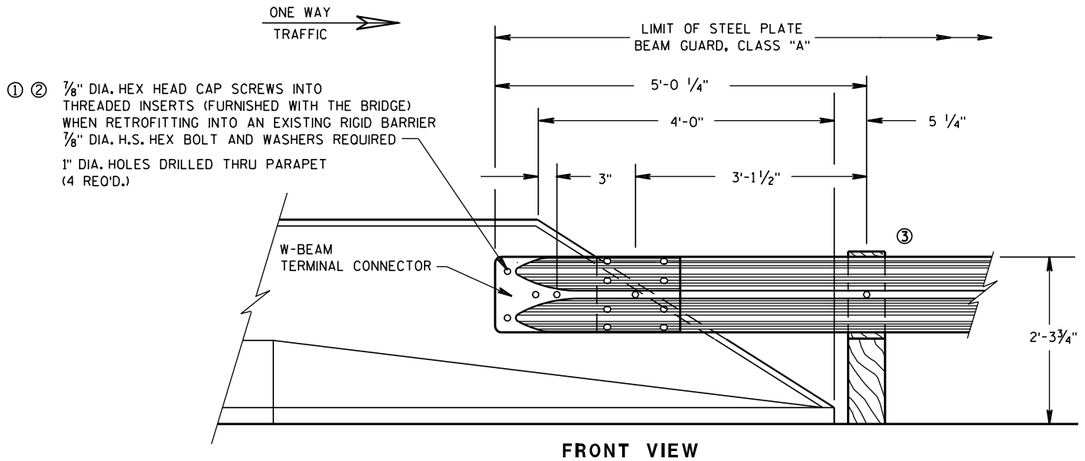
APPROVED
8/31/2012 — DATE
/S/ Jerry H. Zaa — ROADWAY STANDARDS ENGINEER
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FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

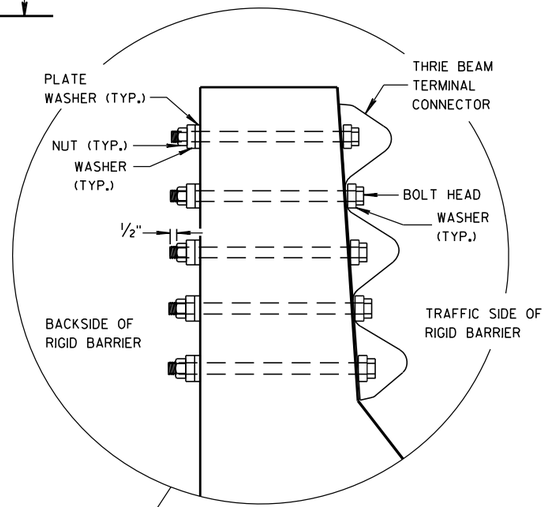
BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

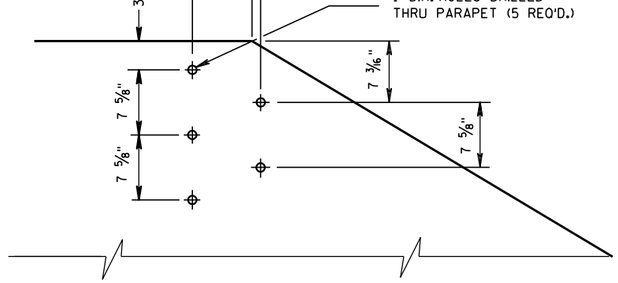
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

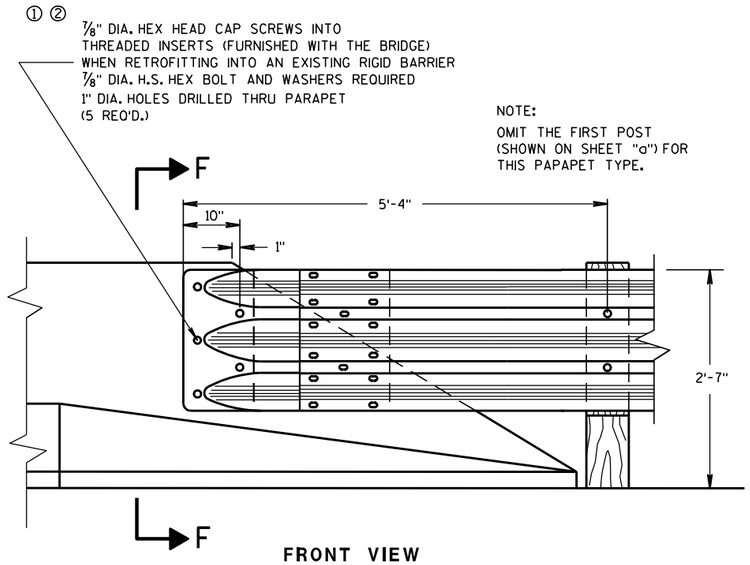
③ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

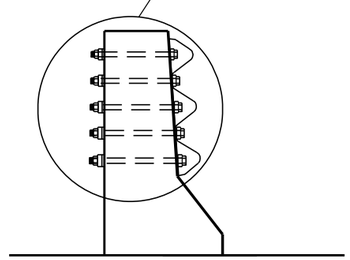




DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION F-F

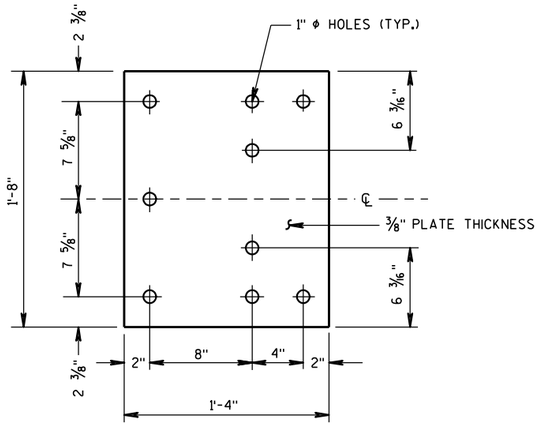
THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS

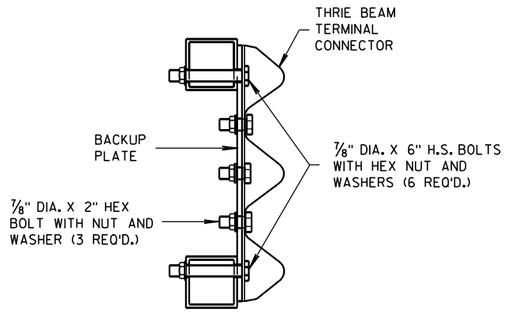
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8/31/2012 — DATE
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BACK-UP PLATE DETAIL



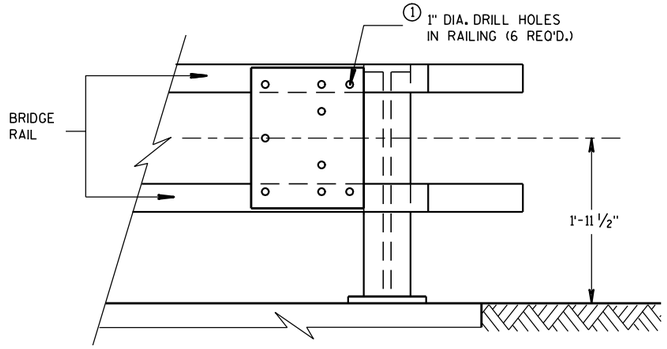
SECTION G-G

GENERAL NOTES

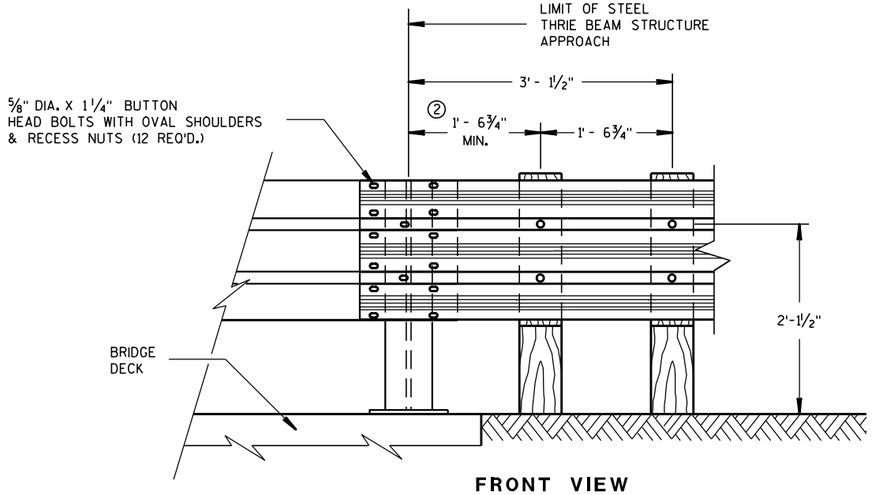
BOLTS, PLATES, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 325 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL AS CLOSE AS FEASIBLE TO THE STEEL END POST.

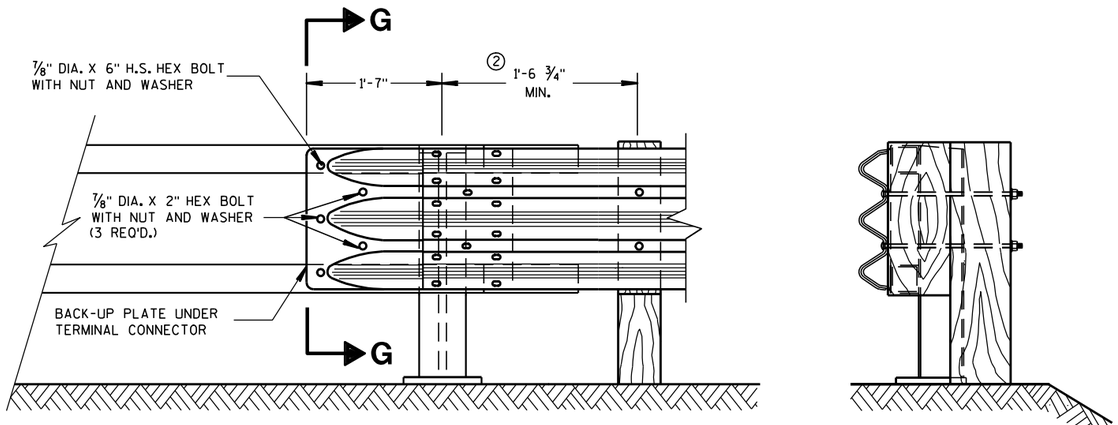


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW

END VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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8/31/2012 DATE
/S/ Jerry H ____ ROADWAY STANDARDS ENGINEER
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FHWA

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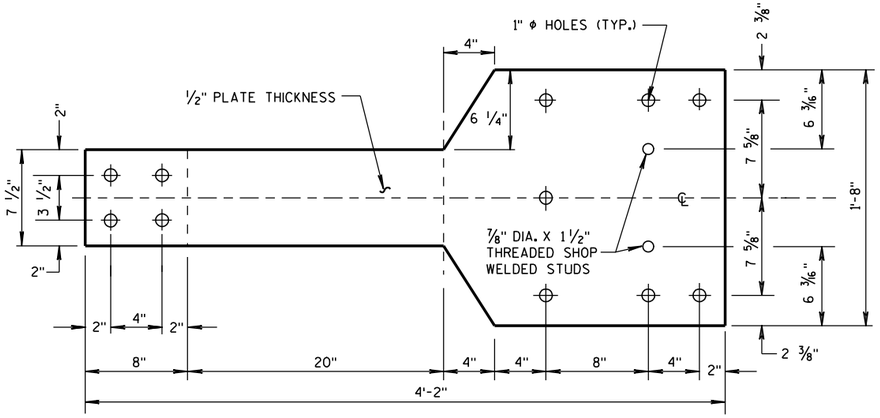
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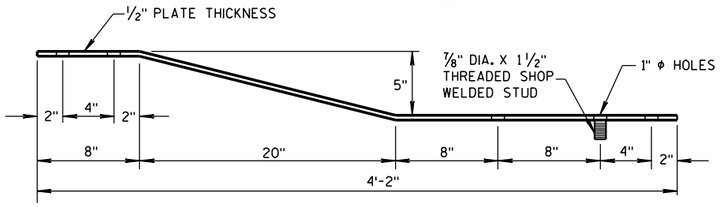
S.D.D. 14 B 20-11e

GENERAL NOTES

① VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL BE AS CLOSE AS FEASIBLE TO THE STEEL END POST.

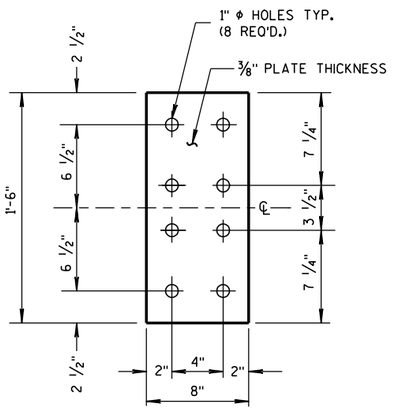


FRONT VIEW



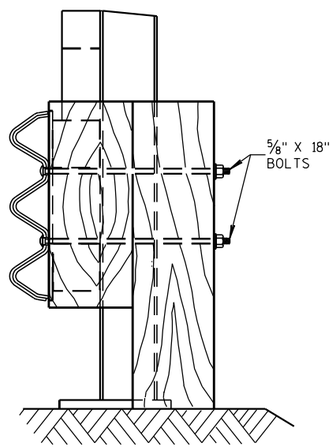
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

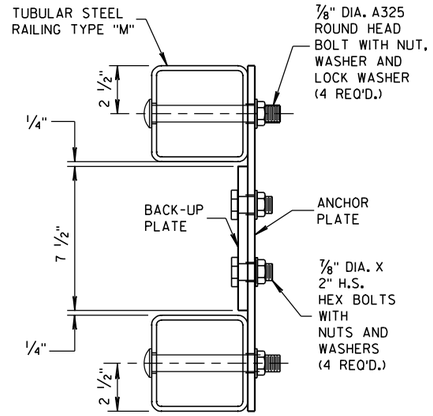


FRONT VIEW

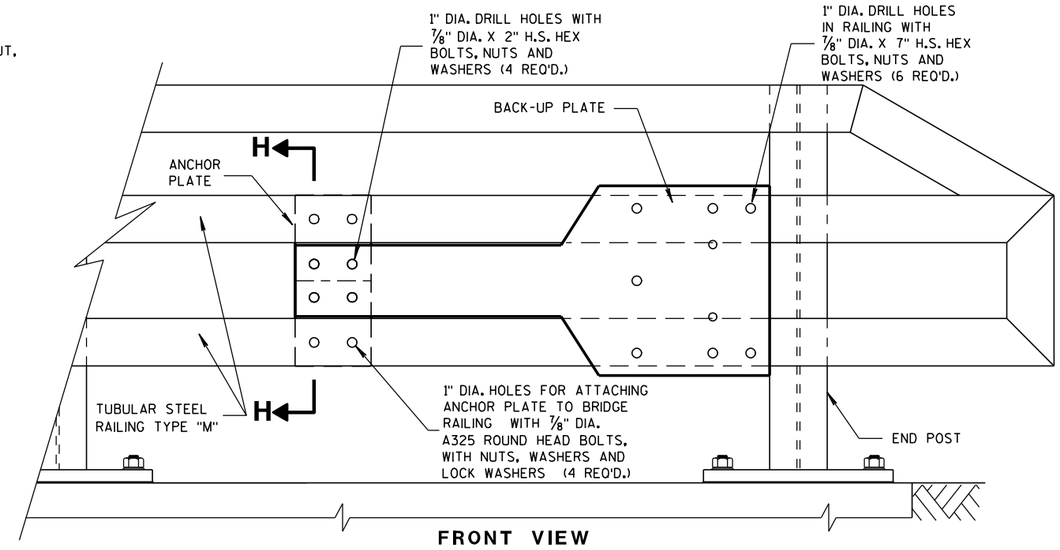
ANCHOR PLATE DETAIL, TYPE "M"



SECTION I-I

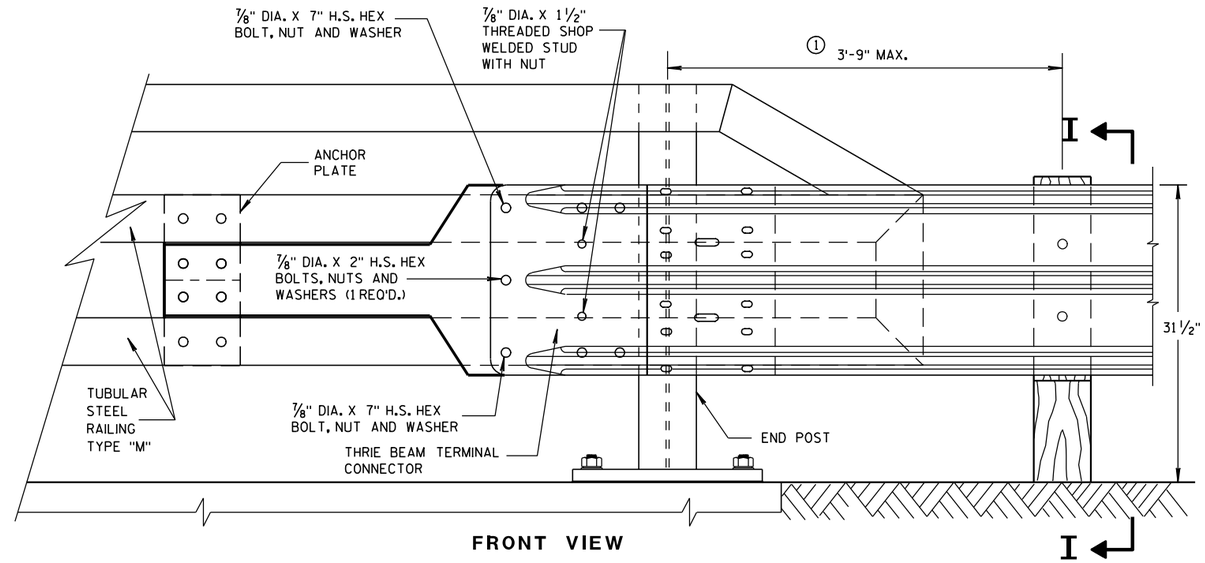


SECTION H-H

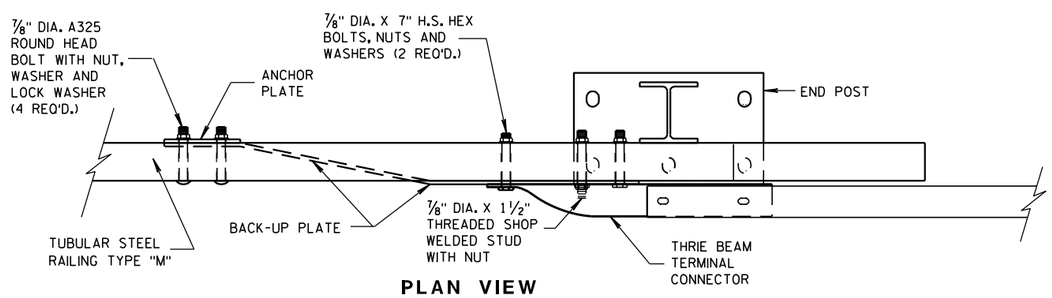


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

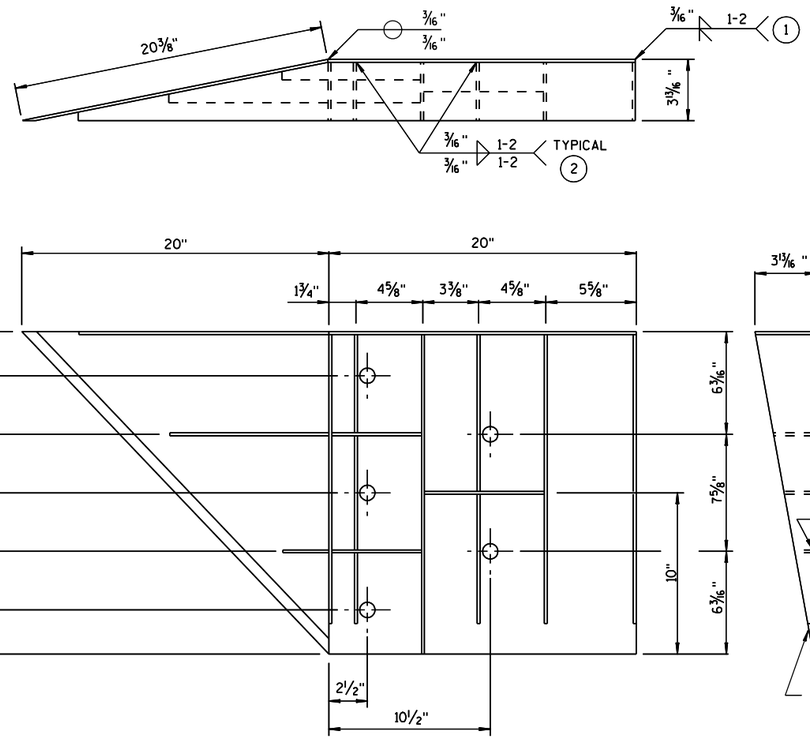
FHWA

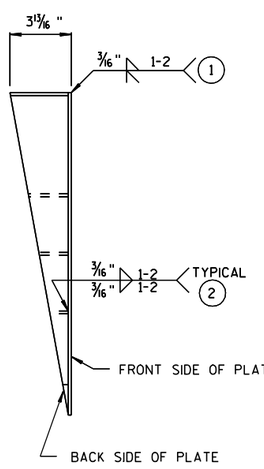
6

S.D.D. 14 B 20-11f

6

S.D.D. 14 B 20-11f





WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

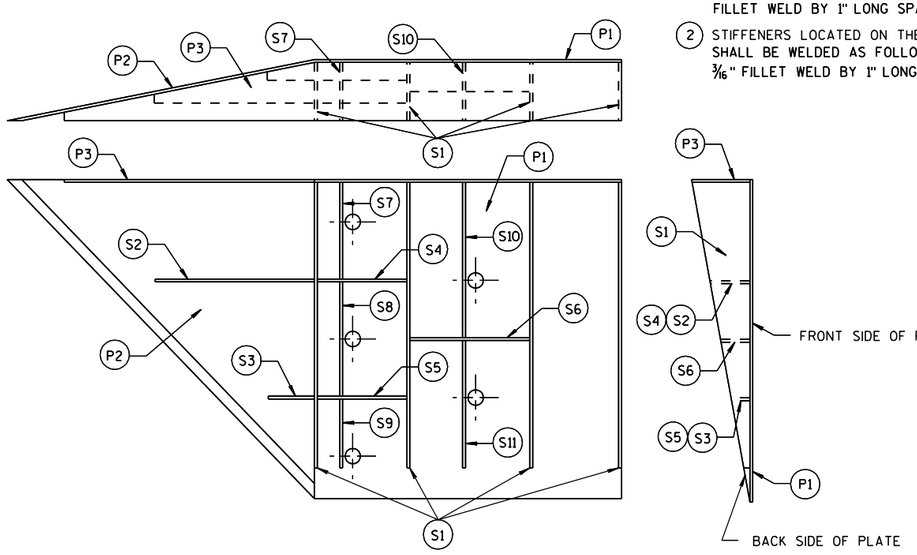


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

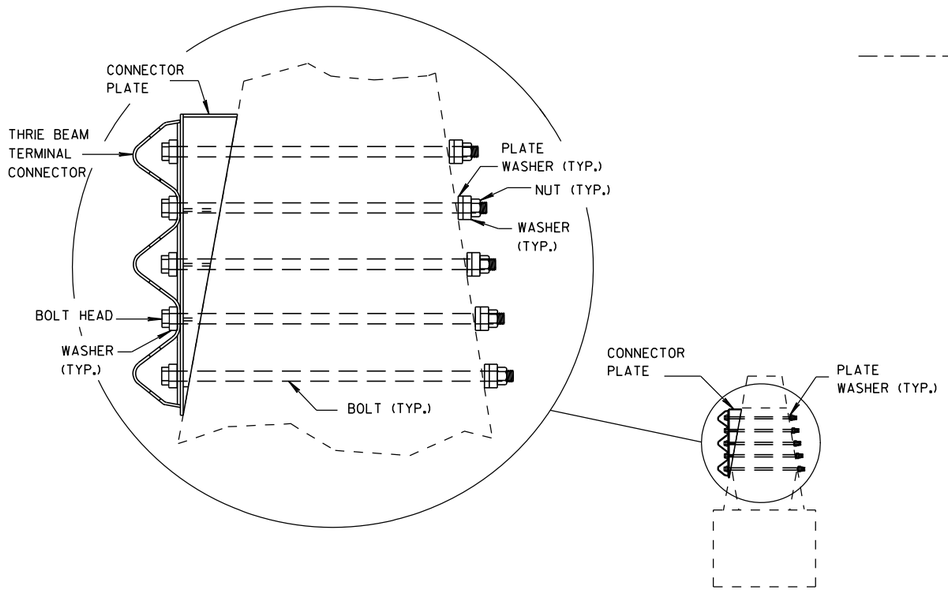
APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

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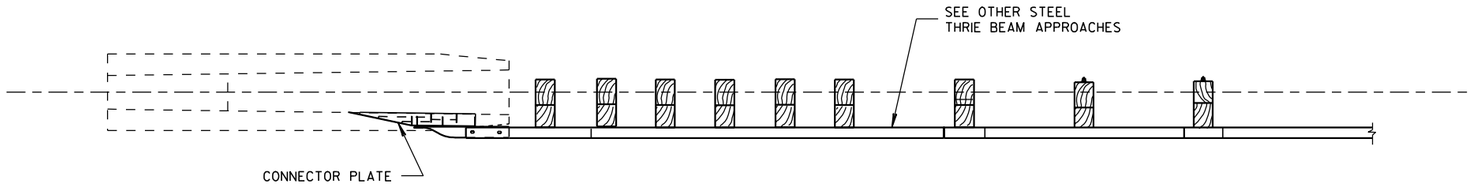
S.D.D. 14 B 20-11g

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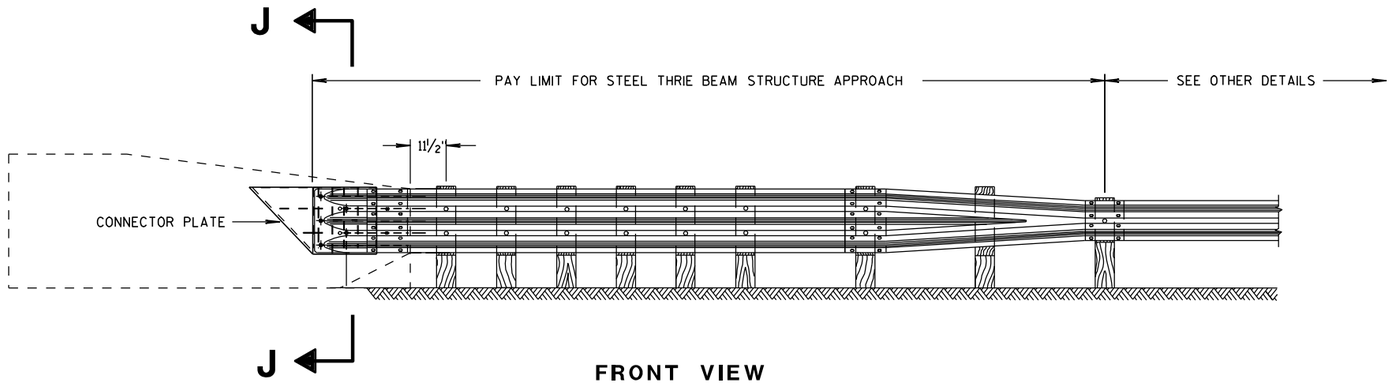
S.D.D. 14 B 20-11g



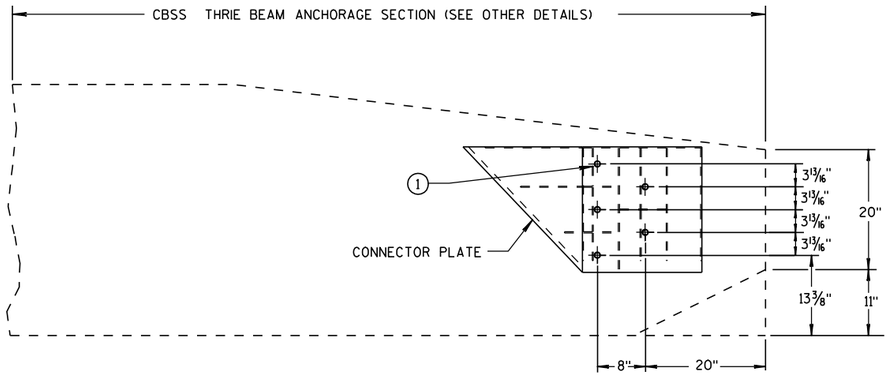
SECTION J-J



PLAN VIEW



FRONT VIEW



CONNECTOR PLATE LOCATION

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 614.

CONNECTOR PLATE, DRILLING HOLES THROUGH PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(1) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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8/31/2012 — DATE
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FHWA

6

S.D.D. 14 B 20-11h

BILL OF MATERIALS

NOTE NO.	QTY.	DESCRIPTION
(1)	4	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
(2)	**	STEEL TUBE: OPTION 1 - OUANITY OF 4 TS 8" X 6" X 0.188", 4'-6" LONG OR OPTION 2 - OUANITY OF 2 TS 8" X 6" X 0.188", 6'-0" AND 2 TS 8" X 6" X 0.188", 4'-6" LONG
(3)	2	SOIL PLATE: 2'-0" X 1'-6" X ¼" **
(4)	4	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
(5)	6	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
(6)	1	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
(7)	1	BEARING PLATE
(8)	1	BCT CABLE ASSEMBLY
(9)	1	CABLE ANCHOR BOX
(10)	1	STRUT & YOKE
(11)	1	STEEL PLATE BEAM, END PANEL 12 GA. 13'-6½" LONG FOR SKT-350, ET-2000 AND ET-2000 PLUS
(12)	3	STEEL PLATE BEAM: 12 GA. 13'-6½"
(13)	1	ET-2000/ET-2000 PLUS GUARDRAIL EXTRUDER OR SKT-350 IMPACT HEAD: AS FURNISHED BY MANUFACTURER
(14)	1	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(15)	1	E.A.T. MARKER POST

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS. IF NONE ARE AVAILABLE, INSTALL ⅝" ø X 1'-6" BUTTON HEAD BOLTS AT ALL POSTS EXCEPT FOR POST 1.

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) THE 13 SLOT FIRST RAIL PANEL MAY BE USED IN LIEU OF THE 3 SLOT RAIL PANEL ON SKT-350 ONLY.

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 THROUGH 4 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 5 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

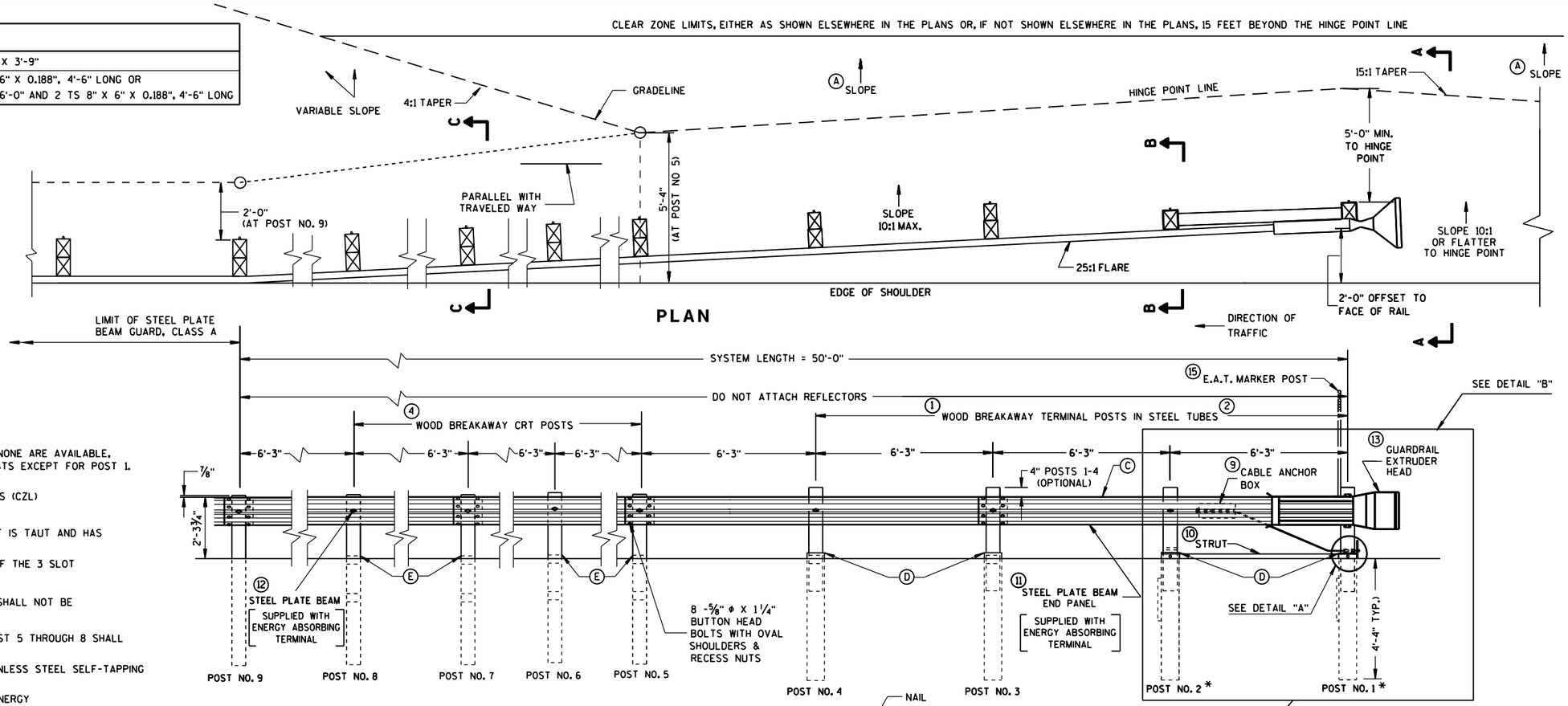
(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

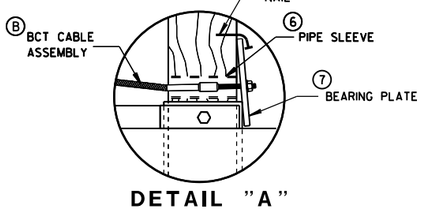
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

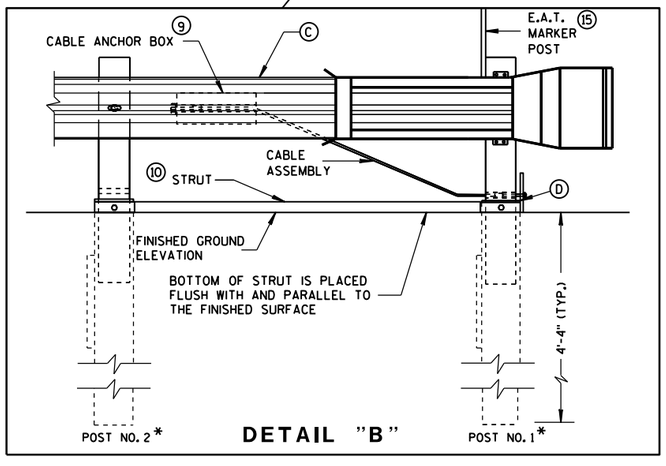
** SDD SHOWS 4 - 54 INCH STEEL TUBES WITH SOIL PLATES INSTALLED ON POST 1 AND POST 2. POST 3 AND 4 DO NOT NEED SOIL PLATES. AN ALTERNATIVE INSTALLATION WOULD CONSIST OF 2 - 72 INCH STEEL TUBES ON POST 1 AND POST 2 AND 54 INCH SOIL TUBES ON POSTS 3 AND 4. THE ALTERNATIVE INSTALLATION DOES NOT REQUIRE SOIL PLATES.



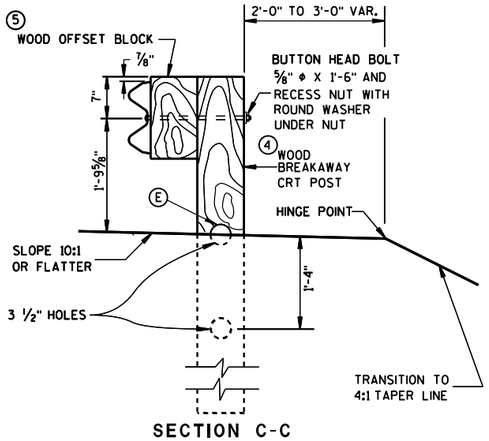
ELEVATION



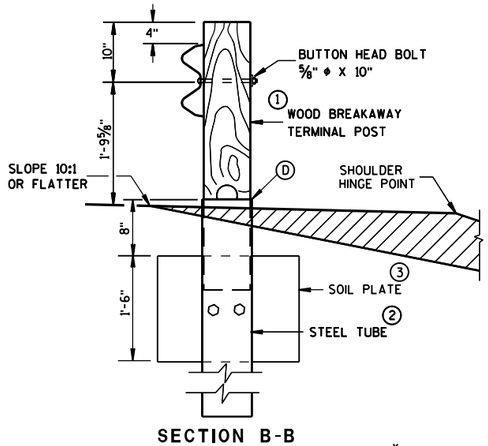
DETAIL "A"



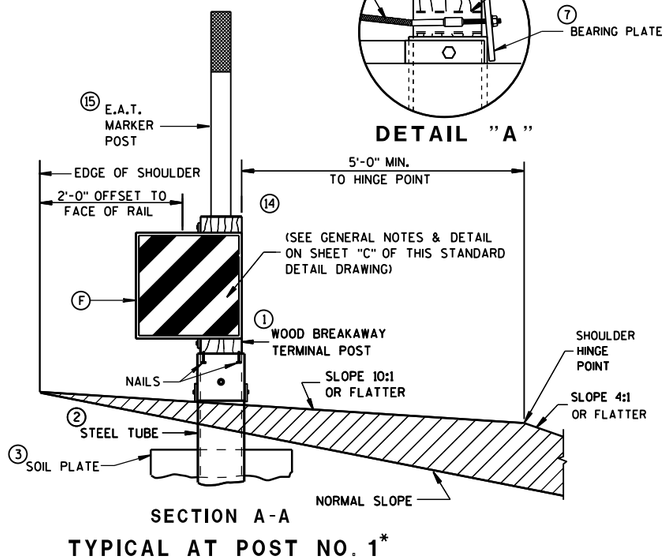
DETAIL "B"



SECTION C-C
TYPICAL AT POST NOS. 6, 8



SECTION B-B
TYPICAL AT POST NO. 2*



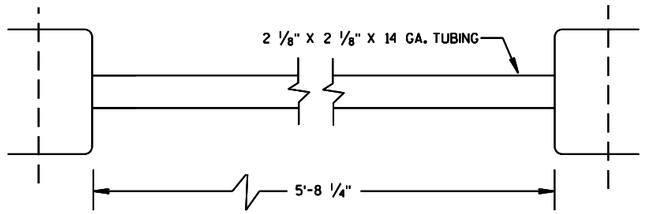
SECTION A-A
TYPICAL AT POST NO. 1*

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

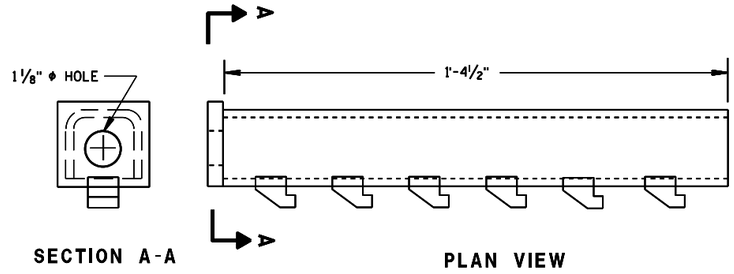
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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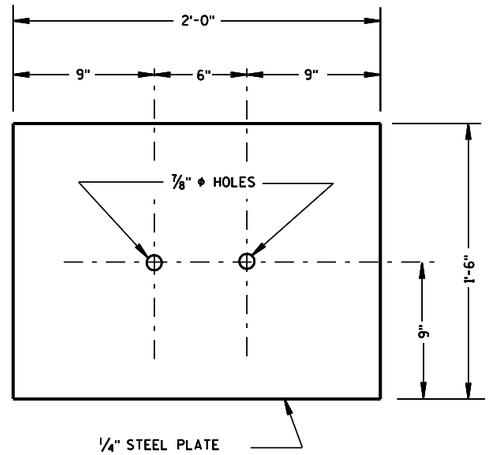
S.D.D. 14 B 24-8a



⑩ STRUT DETAIL (SKT-350)

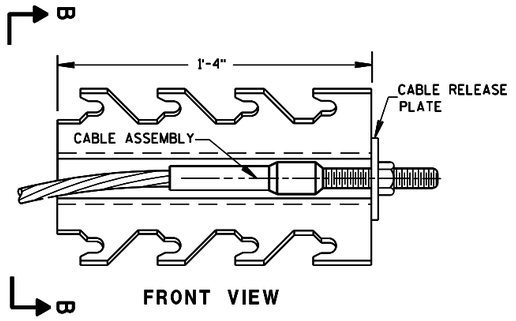


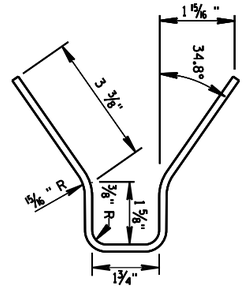
⑨ CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)



③ SOIL PLATE

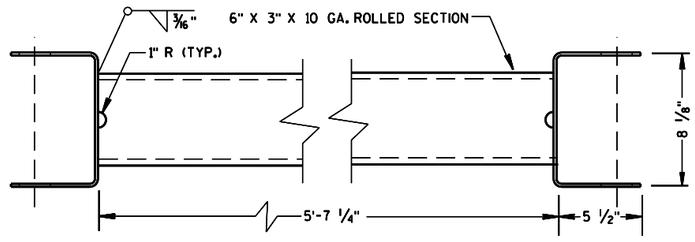
(SKT-350, ET-2000/ET-2000 PLUS)





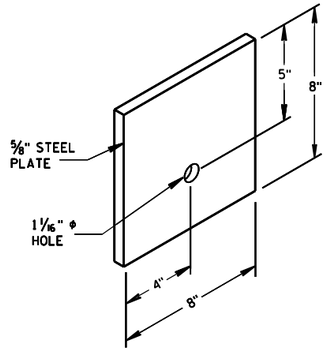
⑨ CABLE ANCHOR BOX (SKT-350)

(SKT-350)



⑩ STRUT DETAIL (ET-2000/ET-2000 PLUS)

(ET-2000/ET-2000 PLUS)



⑦ STEEL BEARING PLATE

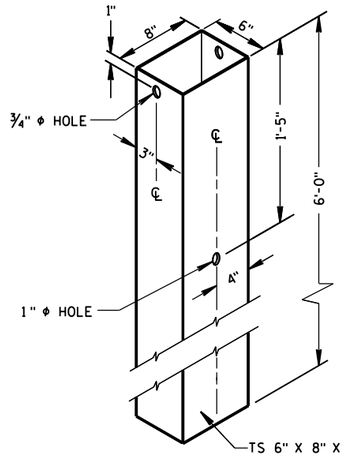
(SKT-350, ET-2000/ET-2000 PLUS)

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

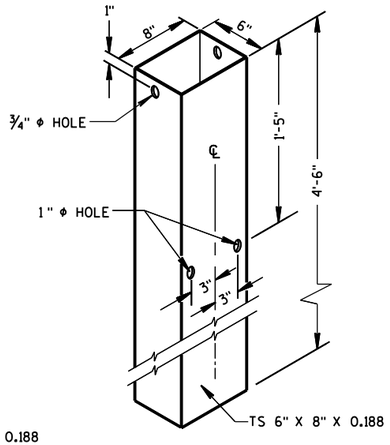
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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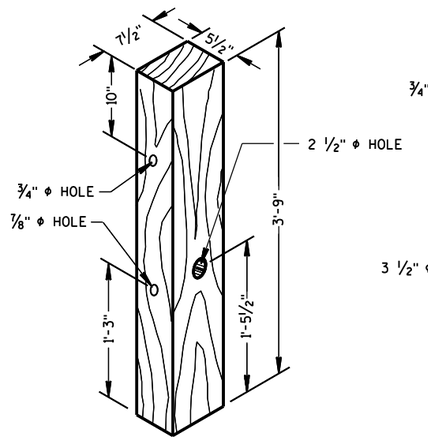
S.D.D. 14 B 24-8b



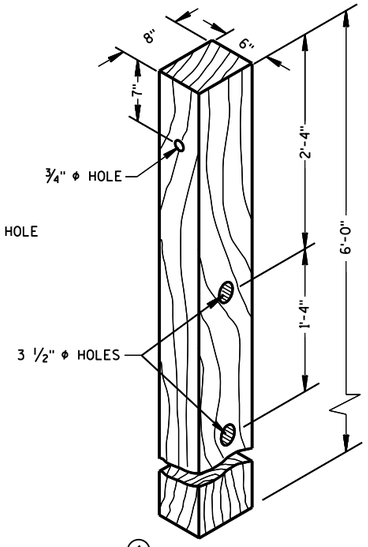
② 72" STEEL TUBE
(POSTS NO. 1-4



② 54" STEEL TUBE
(POSTS NO. 1-4



① TERMINAL POST
(POSTS NO. 1-4



④ CRT POST
(POSTS NO'S 5-8

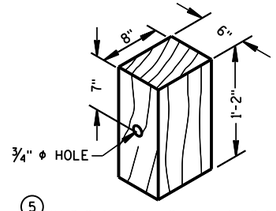
WOOD BREAKAWAY POSTS

GENERAL NOTES

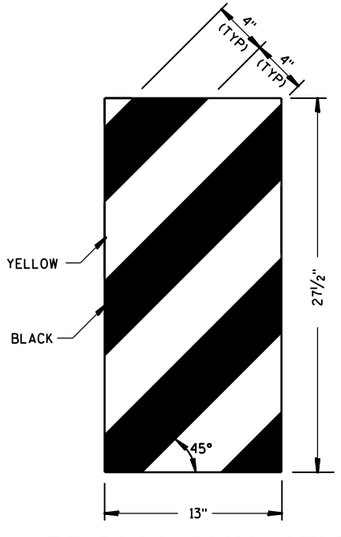
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 ½" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

SEE APPROVED PRODUCTS LIST FOR ACCEPTABLE E. A. T. MARKER POST.

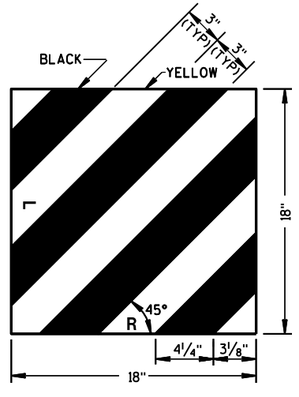
(G) ½" DIA. X 3" LAG BOLT WITH WASHER.



⑤ WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

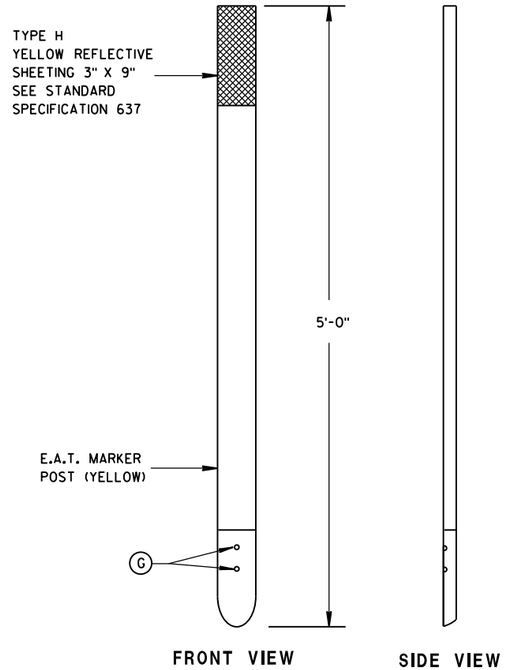


ET-2000 PLUS ONLY



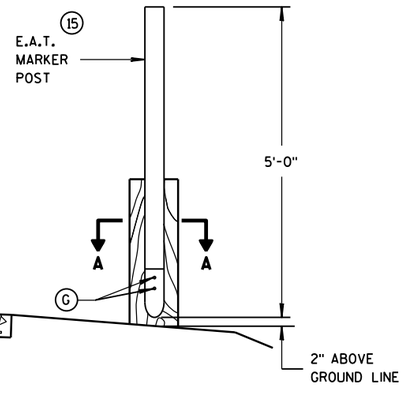
ET-2000 AND SKT-350

⑭ REFLECTIVE SHEETING DETAILS

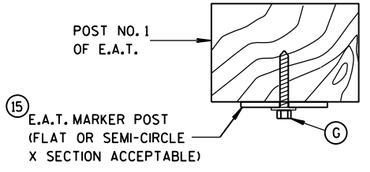


FRONT VIEW SIDE VIEW

⑮ E.A.T. MARKER POST



TYPICAL INSTALLATION OF E.A.T.
MARKER POST BACKSIDE OF POST NO. 1
(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

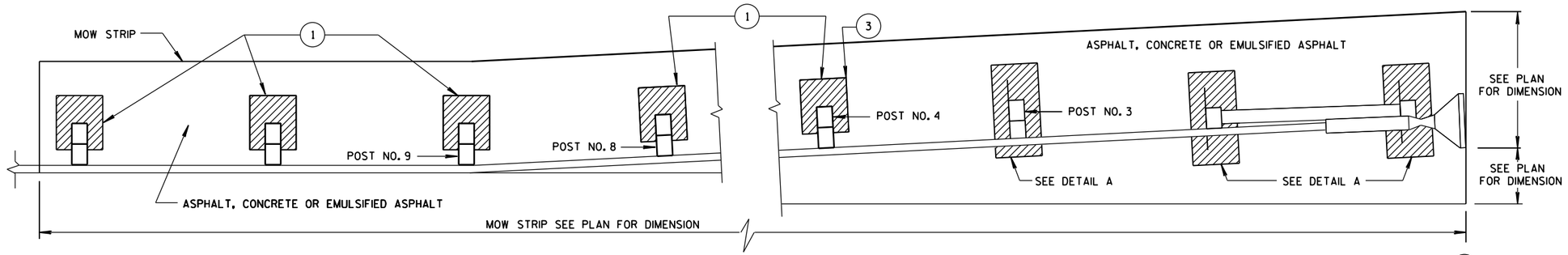
APPROVED
June 2014 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 14 B 24-8c

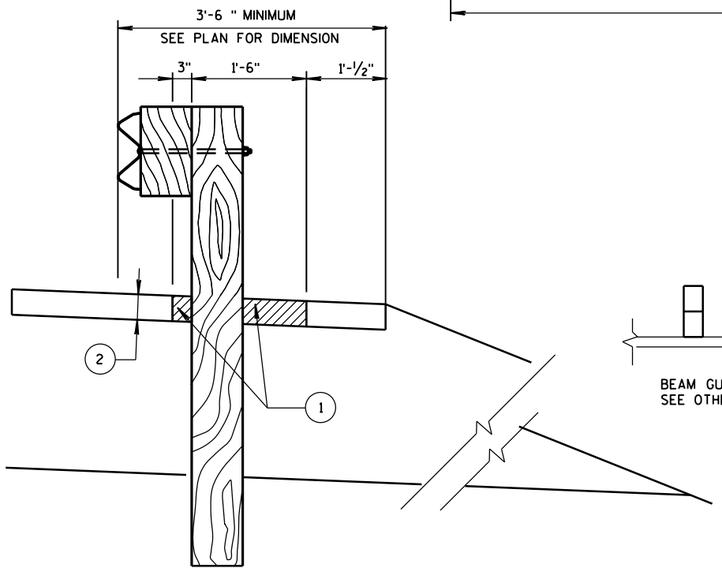
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S.D.D. 14 B 24-8c

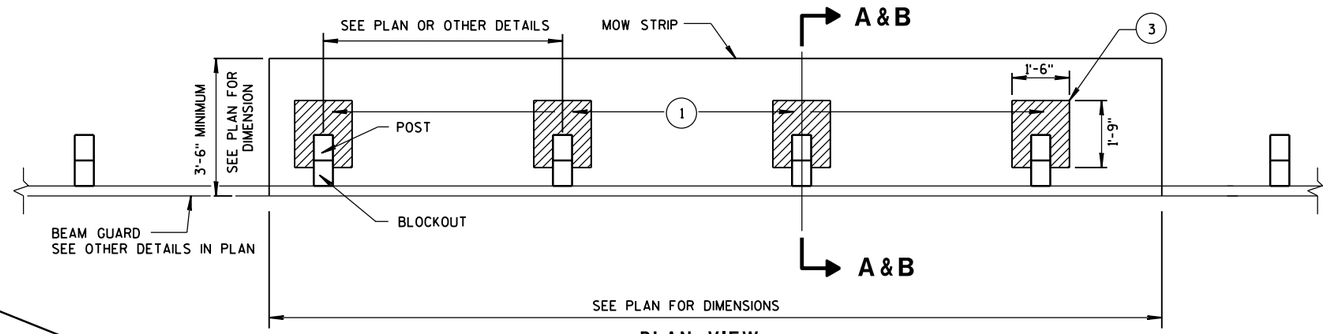


PLAN VIEW

MOW STRIP LAYOUT FOR ENERGY ABORBING TERMINAL

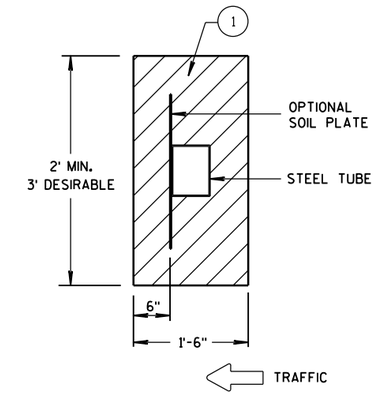


SECTION A-A

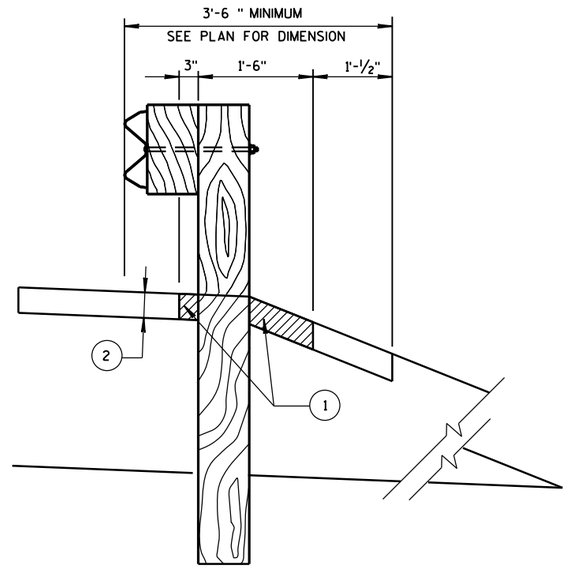


PLAN VIEW

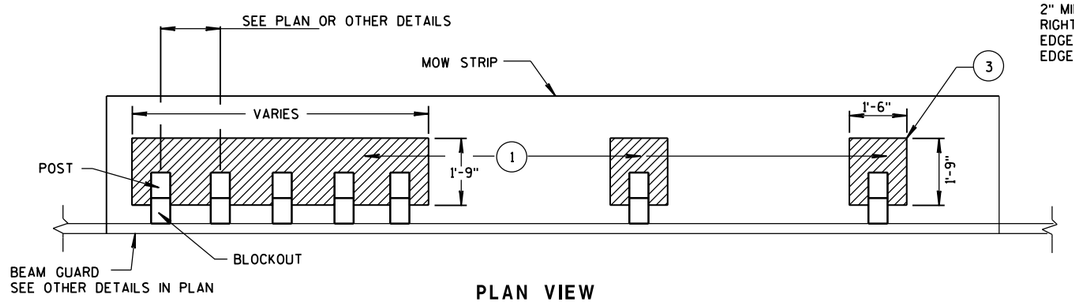
MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT



DETAIL A

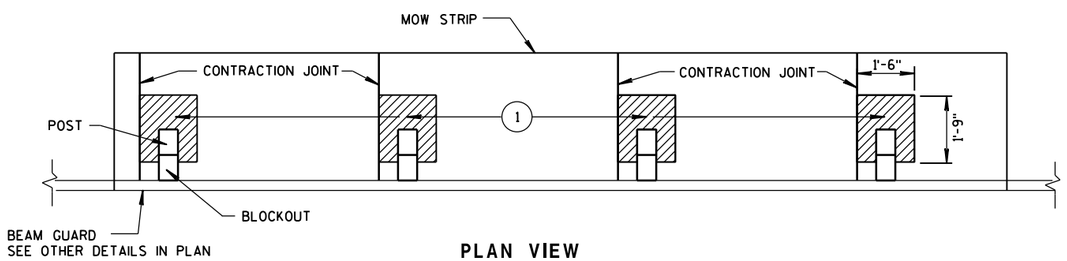


SECTION B-B



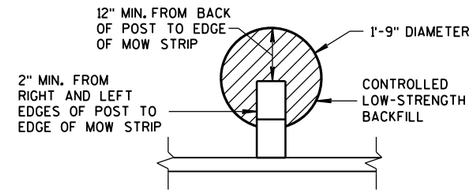
PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP



ALTERNATIVE HMA
MOW STRIP DESIGN

(1) CONTROLLED LOW-STRENGTH BACKFILL OR EMULSIFIED ASPHALT.

(2) DEPTH OF MOW STRIP:
ASPHALT - 4"
CONCRETE - 4"
EMULSIFIED ASPHALT - 1" OR LESS

(3) FOR EMULSIFIED ASPHALT MOW STRIP LEAVE OUTS NOT REQUIRED. (TYPICAL FOR ALL POSTS.)

GUARDRAIL MOW STRIP

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

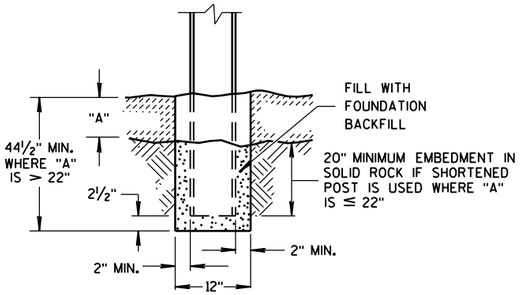
② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

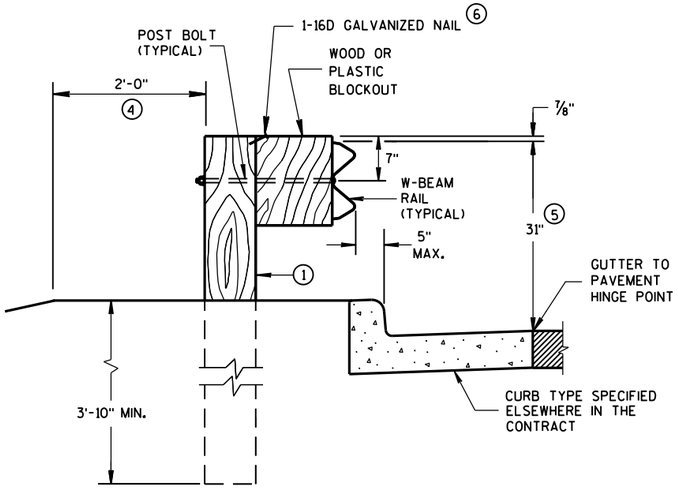
④ WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

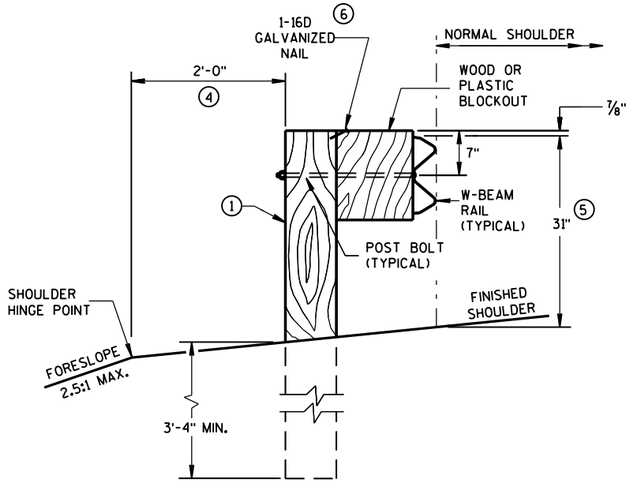
⑥ WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



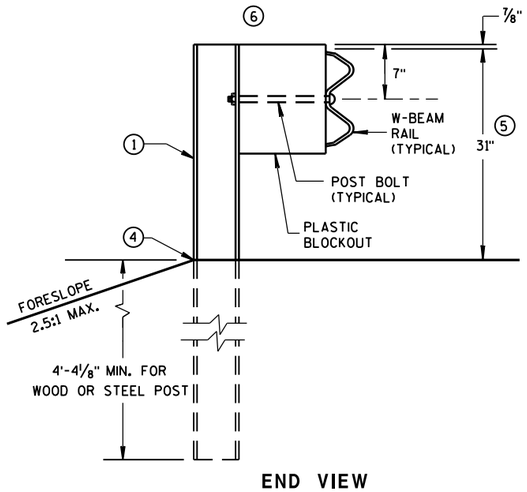
END VIEW
SETTING STEEL OR WOOD POST IN ROCK ③



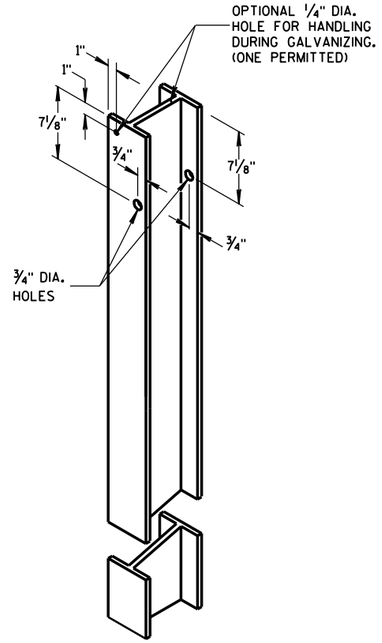
END VIEW
LOCATED ALONG A CURBED ROADWAY



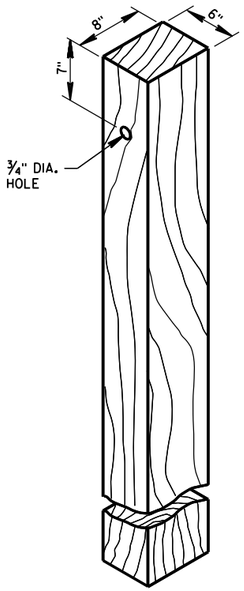
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



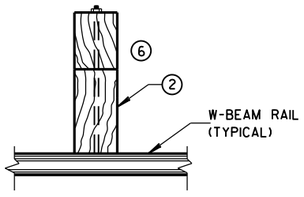
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



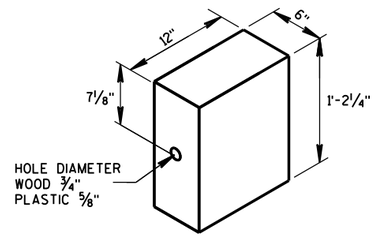
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



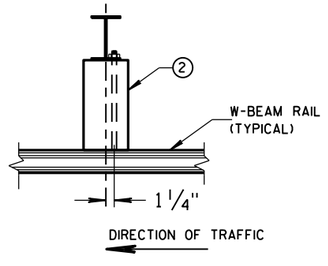
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②



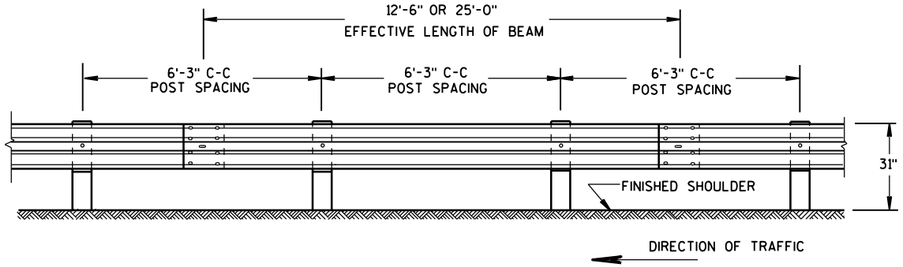
PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

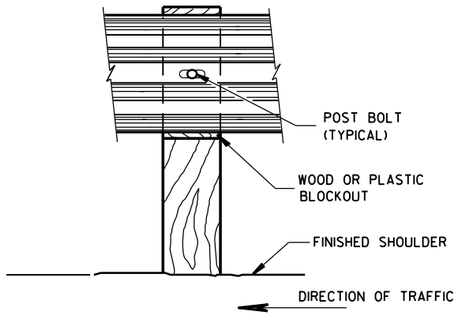
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FRONT VIEW

POST SPACING STANDARD INSTALLATION



FRONT VIEW AT WOOD POST

7. PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

8. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

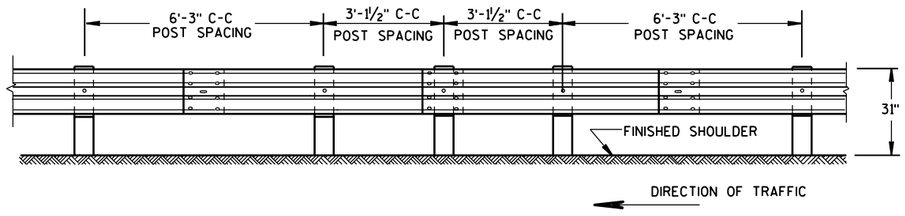
9. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

10. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

11. 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

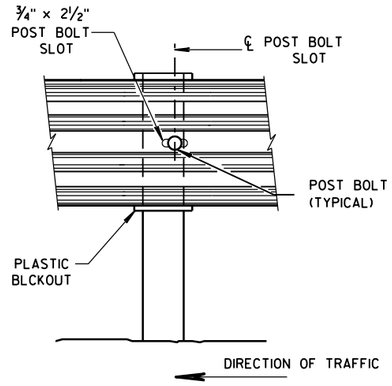
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

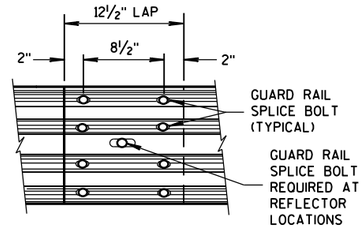


FRONT VIEW

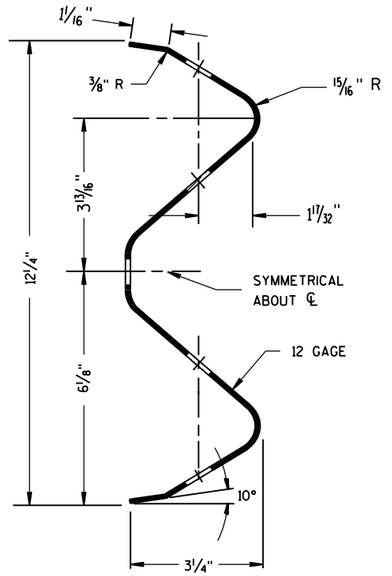
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



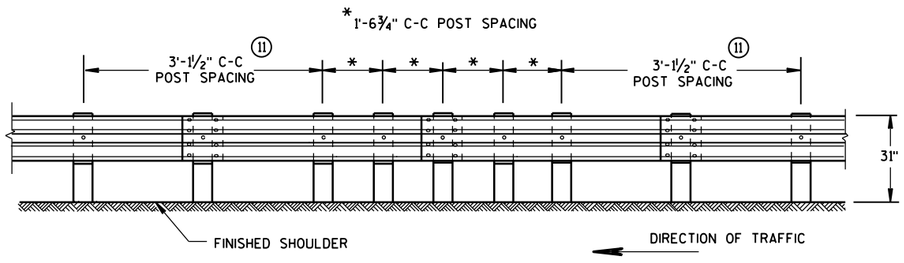
FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE

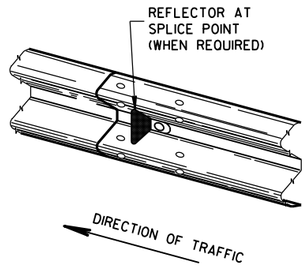


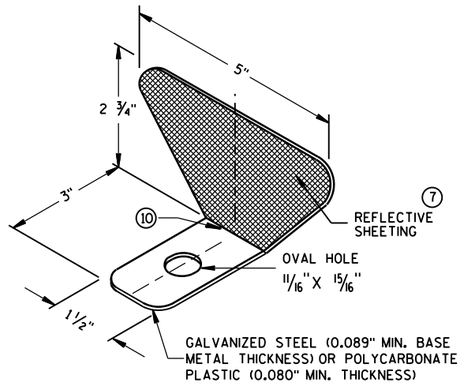
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (7)

REFLECTOR SPACING (8)

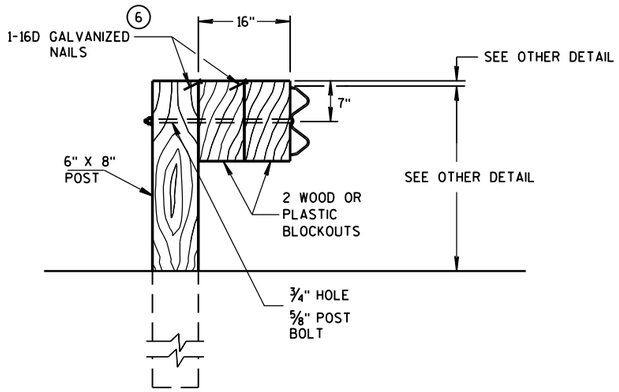
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 (9)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 (10)	

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

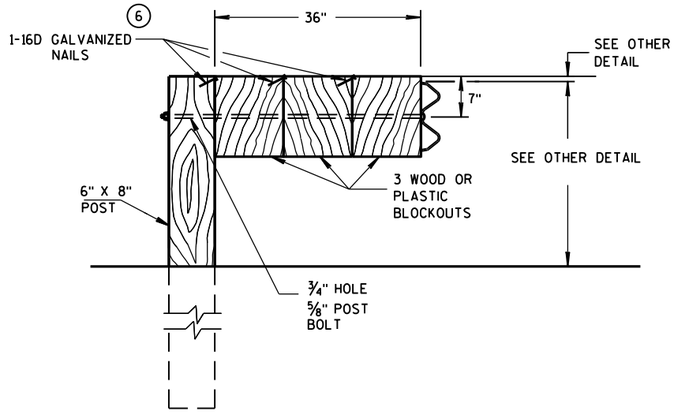
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S.D.D. 14 B 42-4b



DETAIL FOR 16" BLOCKOUT DEPTH

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

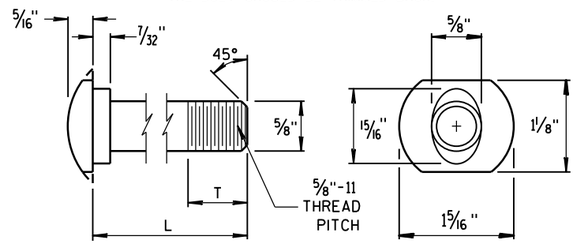


DETAIL FOR 36" BLOCKOUT DEPTH

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

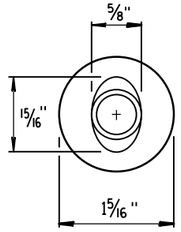
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

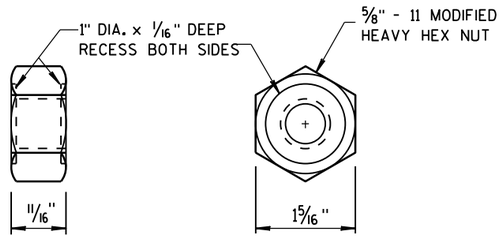


POST BOLT TABLE

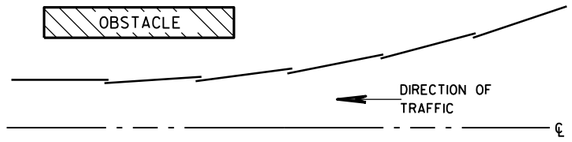
L	T (MIN.)
1¼"	1⅛"
2"	1¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

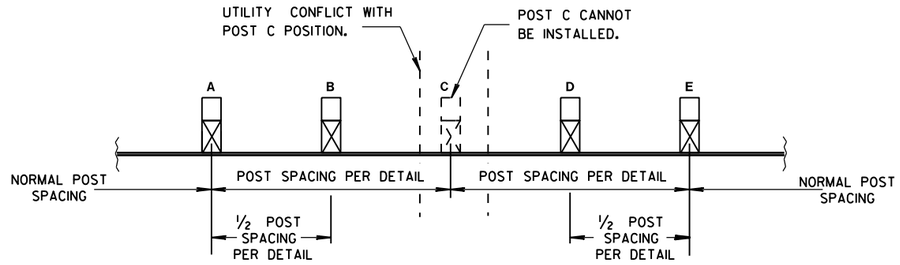


POST BOLT, SPLICE BOLT AND RECESS NUT

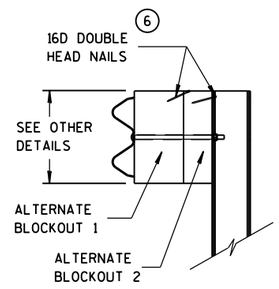


PLAN VIEW

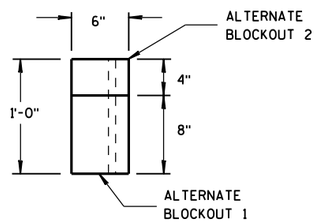
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6
S.D.D. 14 B 42-4c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

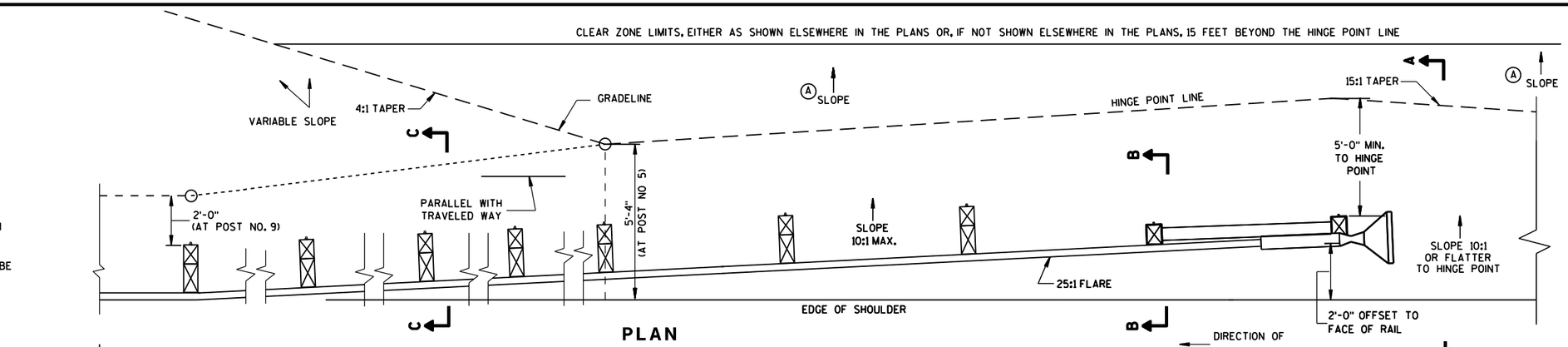
SEE SDD 14B42 FOR MORE INFORMATION.

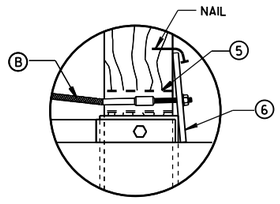
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

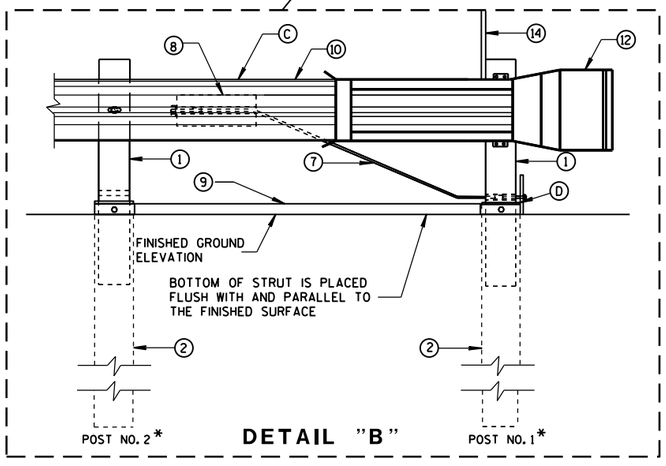
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

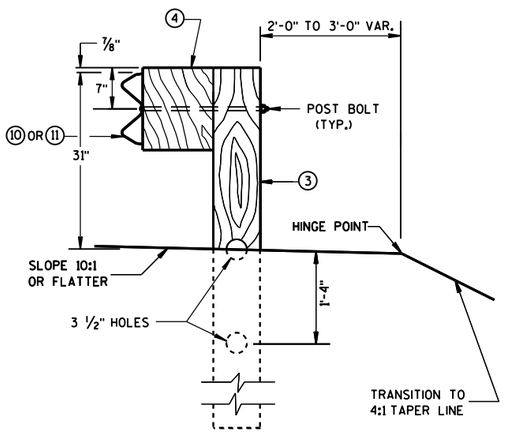
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.

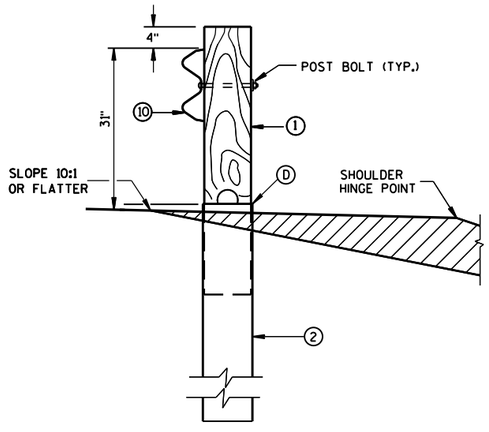




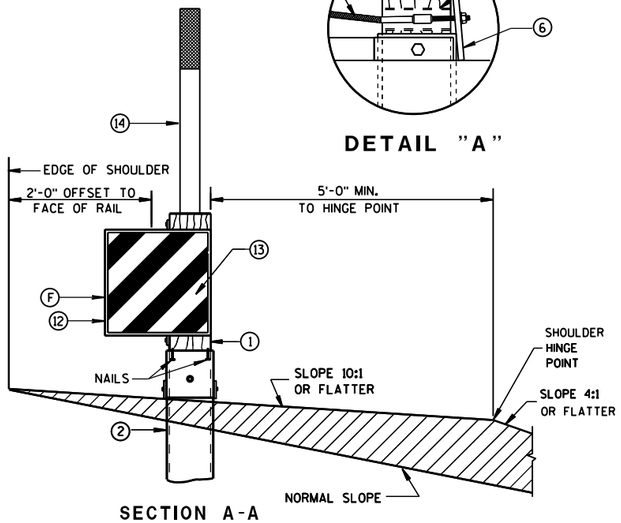




SECTION C-C
TYPICAL AT POST NOS. 3-9



SECTION B-B
TYPICAL AT POST NO. 2*



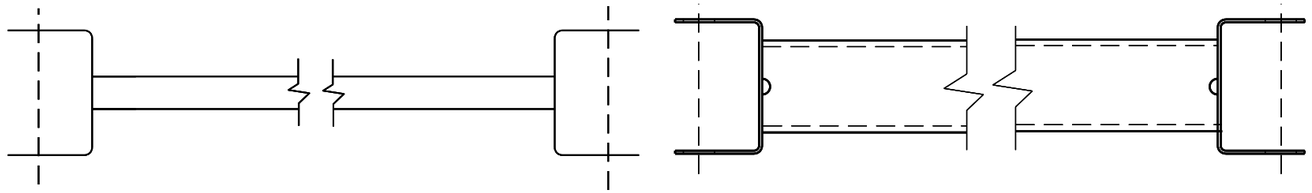
SECTION A-A
TYPICAL AT POST NO. 1*

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

S.D.D. 14 B 44-2a

S.D.D. 14 B 44-2a

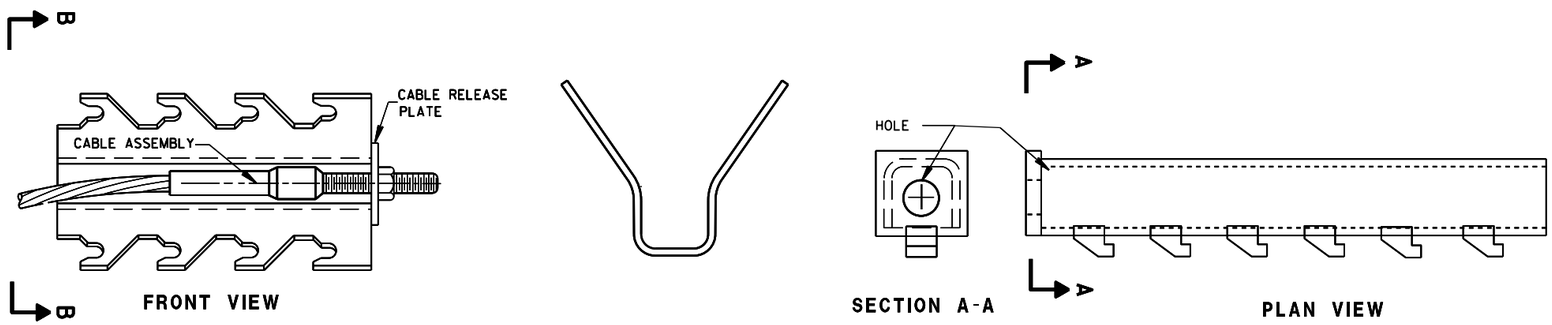


⑨ Ⓗ

GENERIC GROUND STRUT

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	END SECTION EAT
⑬	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
⑭	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



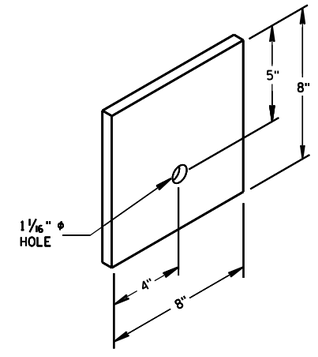
FRONT VIEW

SECTION B-B

SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX ⑧ Ⓗ



BEARING PLATE ⑥

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

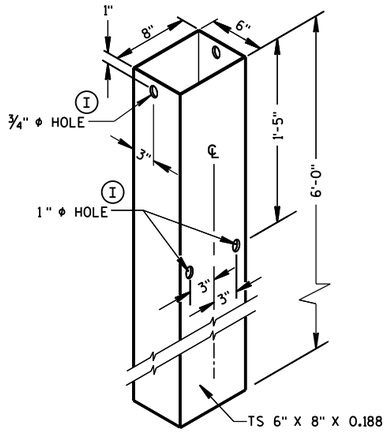
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

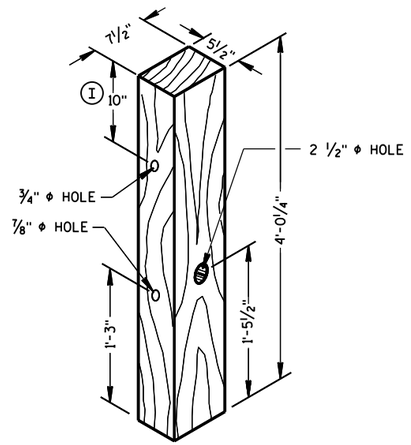
S.D.D. 14 B 44-2b

6

S.D.D. 14 B 44-2b

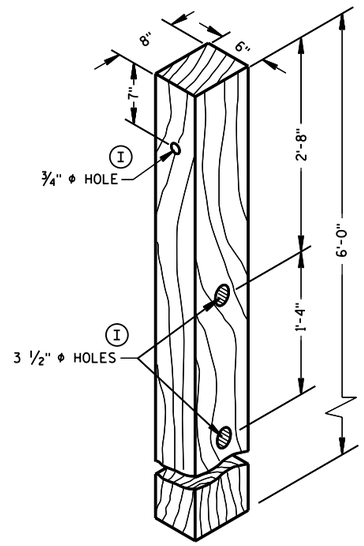


FOUNDATION TUBE (2)



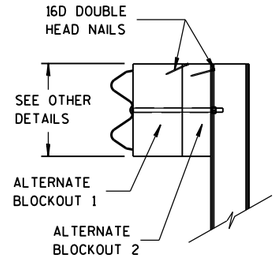
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

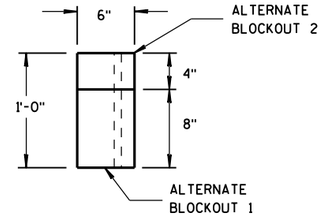


POSTS NUMBER 3-9

WOOD CRT POST (3)

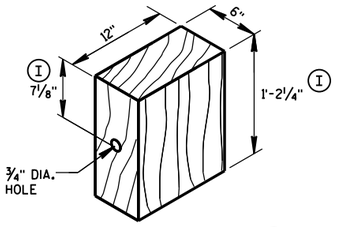


SIDE VIEW



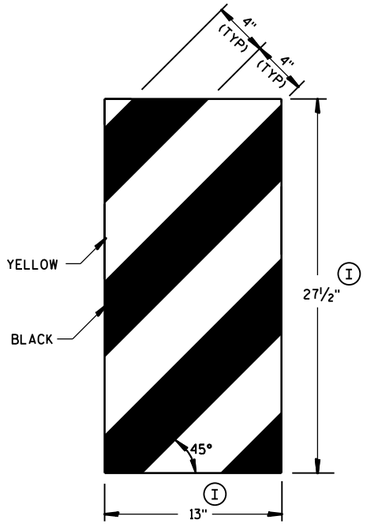
TOP VIEW

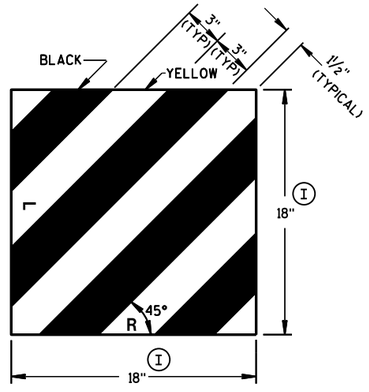
ALTERNATE WOOD BLOCKOUT DETAIL



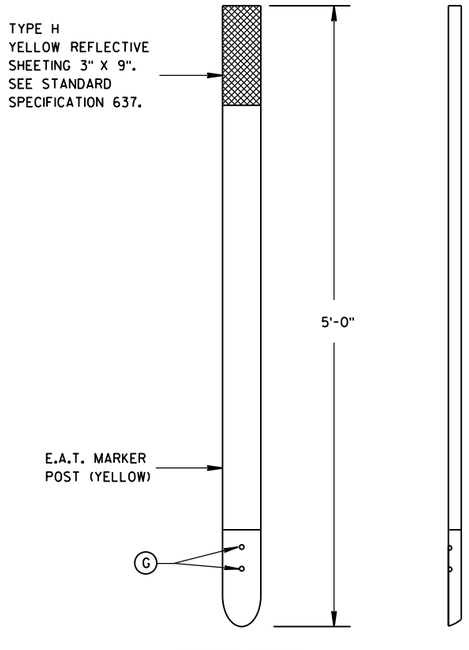
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





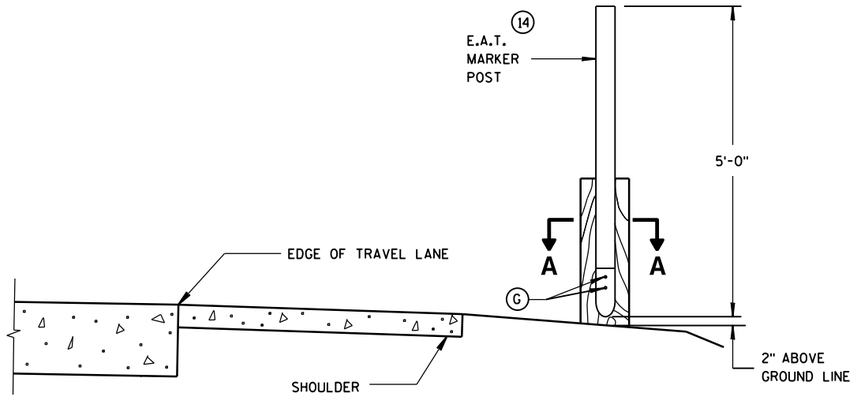
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

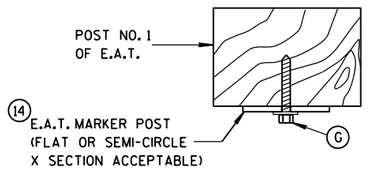
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

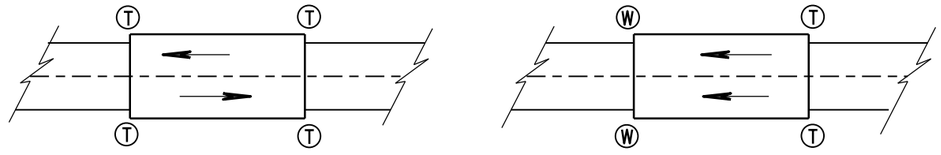
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 44-2c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

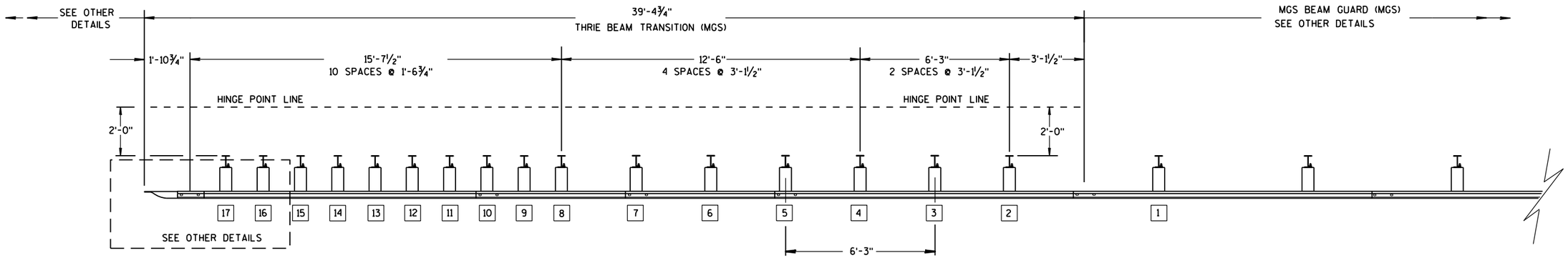
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

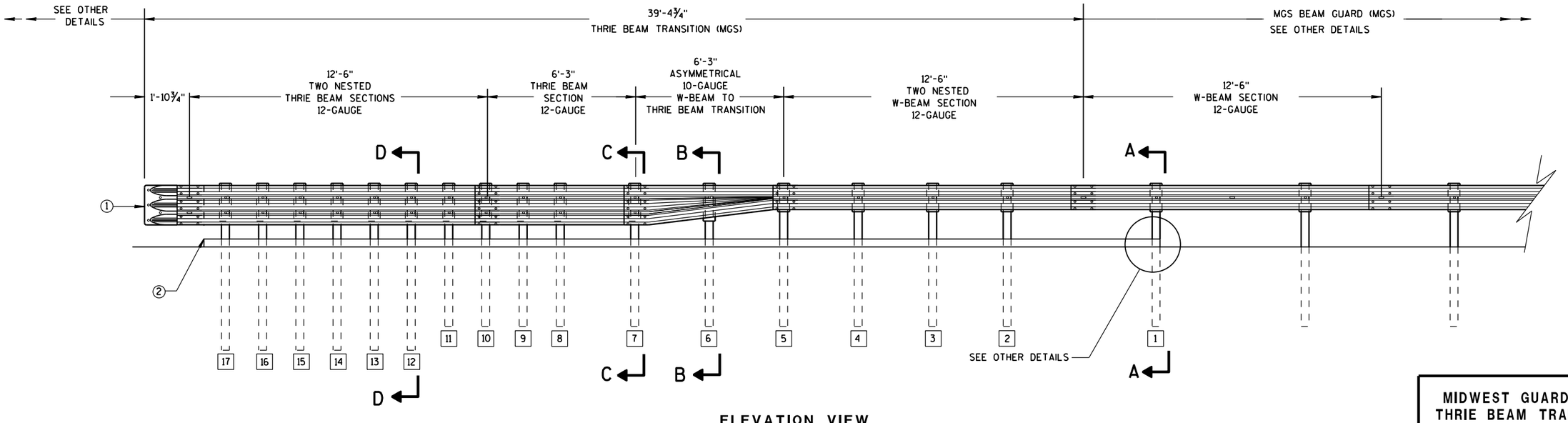
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 45-4a

6

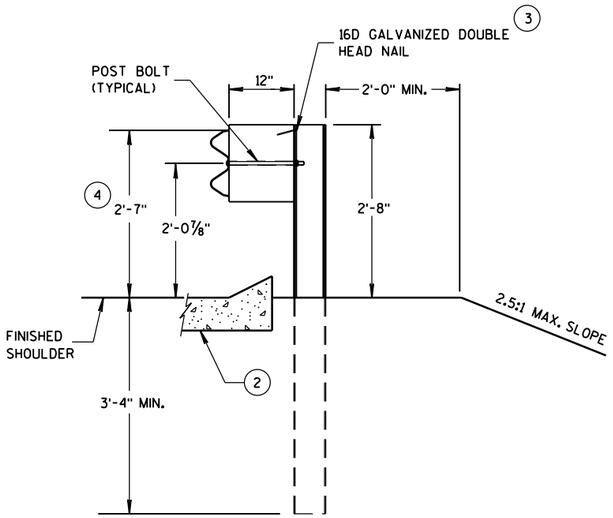
S.D.D. 14 B 45-4a

GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE_FEATURE SEE PLAN FOR INFORMATION.

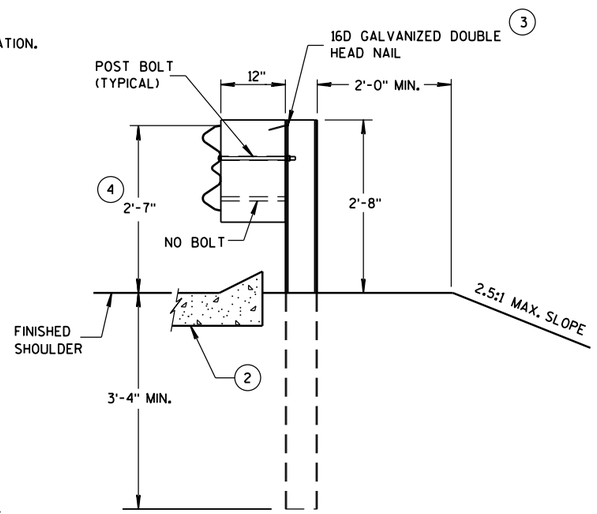
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



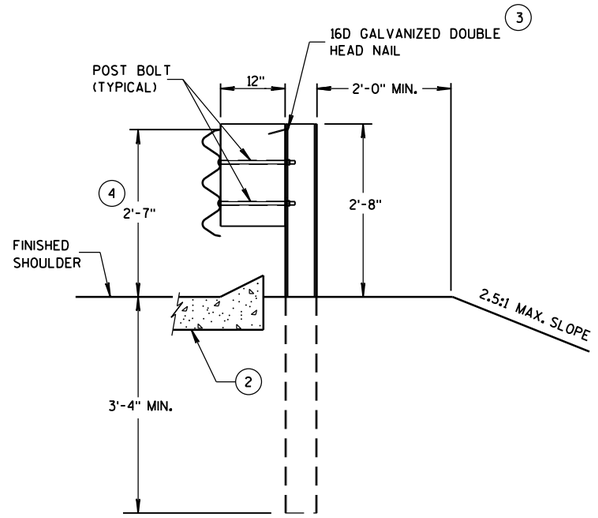
SECTION A-A

POSTS 1-5



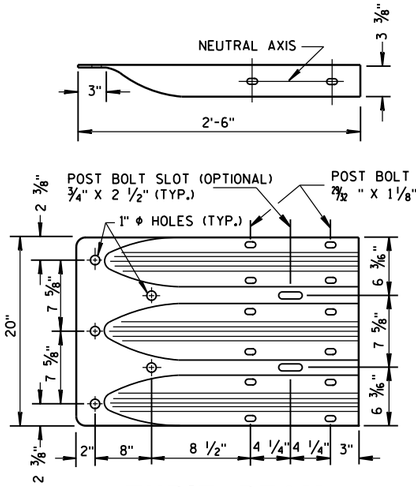
SECTION B-B

POST 6



SECTION C-C

POSTS 7-11



THRIE BEAM TERMINAL CONNECTOR

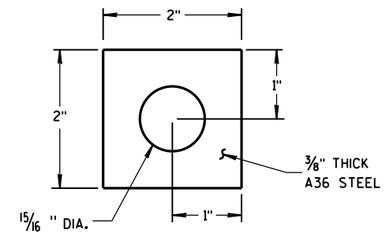
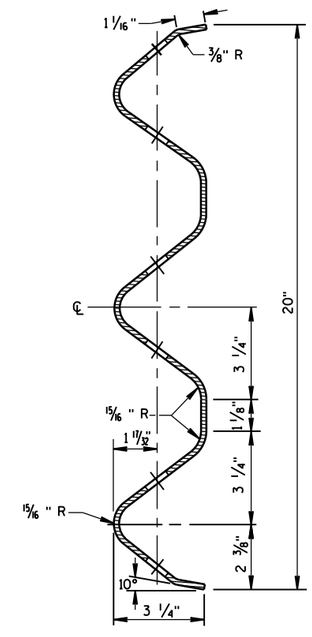
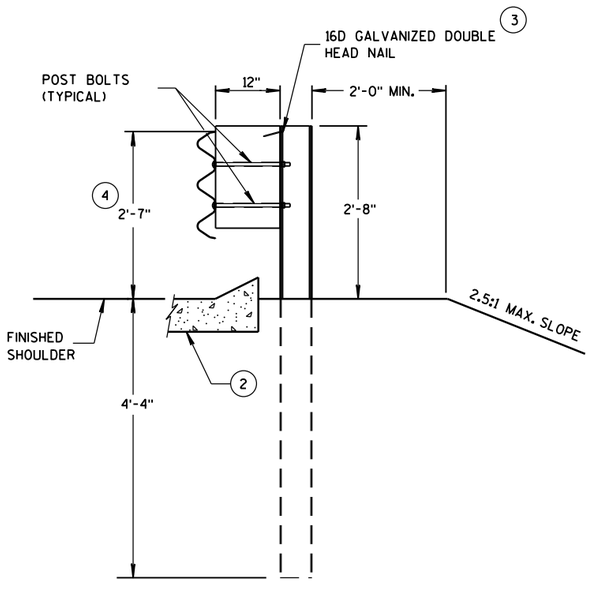


PLATE WASHER DETAIL

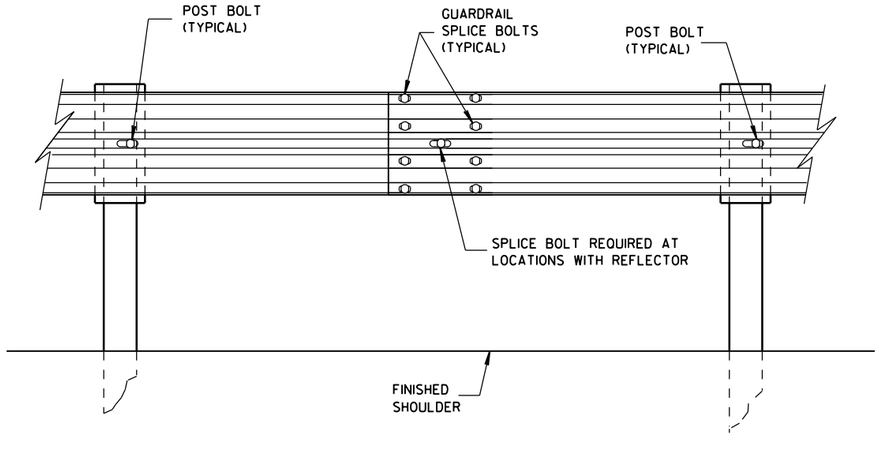


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-17



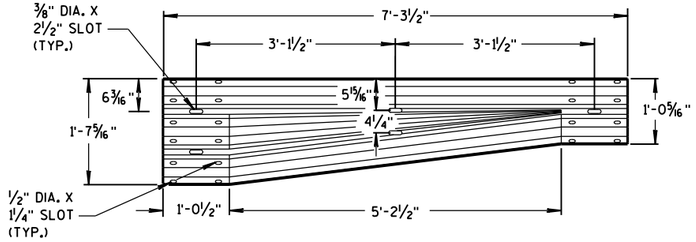
SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

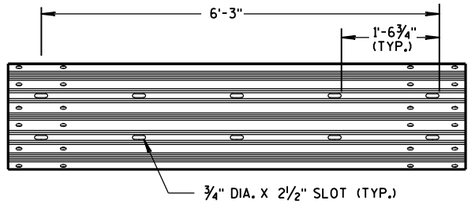
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

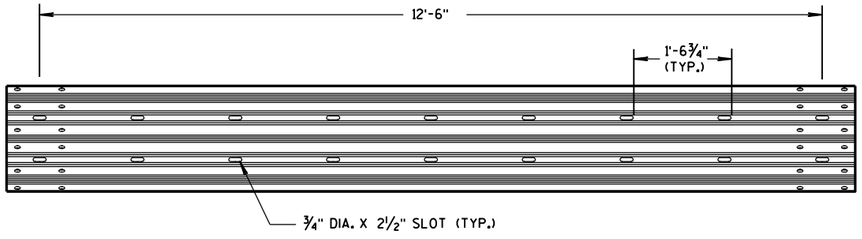
S.D.D. 14 B 45-4b



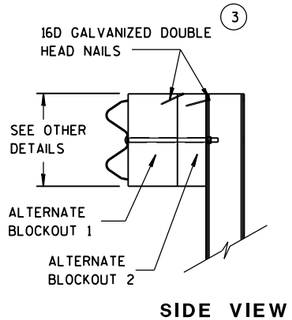
W-BEAM TO THRIE BEAM TRANSITION SECTION



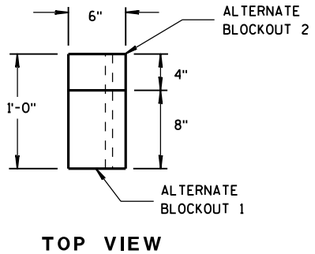
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

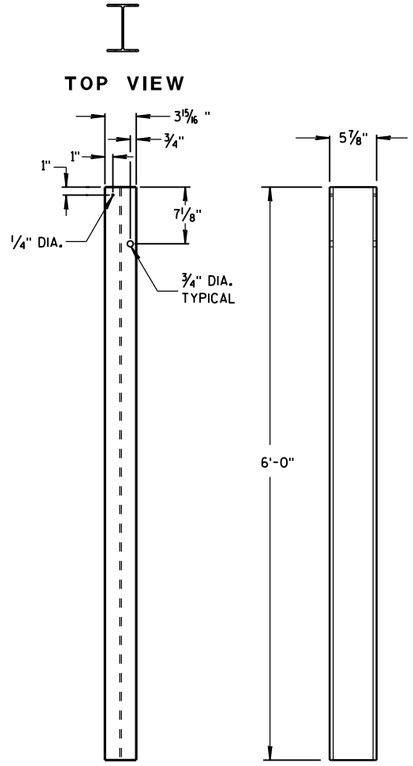


SIDE VIEW



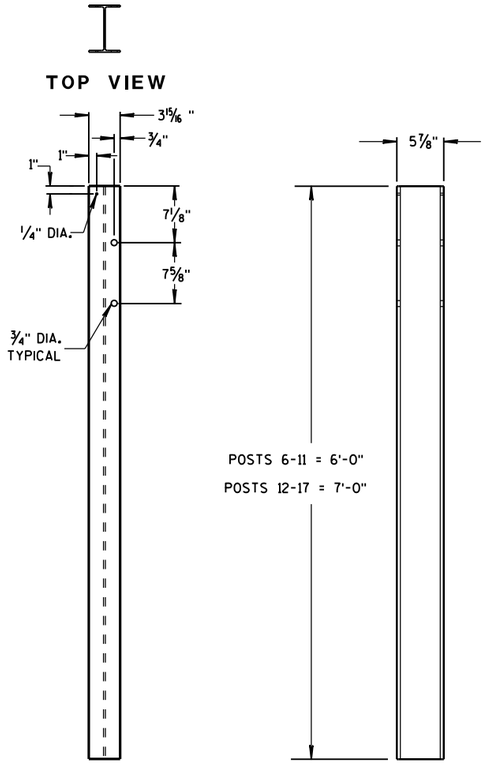
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



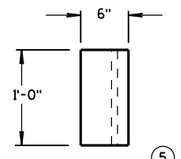
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5

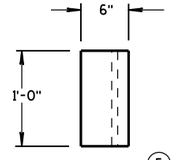


FRONT VIEW SIDE VIEW

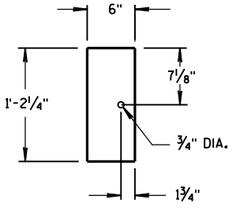
STEEL POSTS 6-17



TOP VIEW

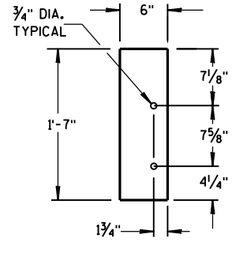


TOP VIEW



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

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

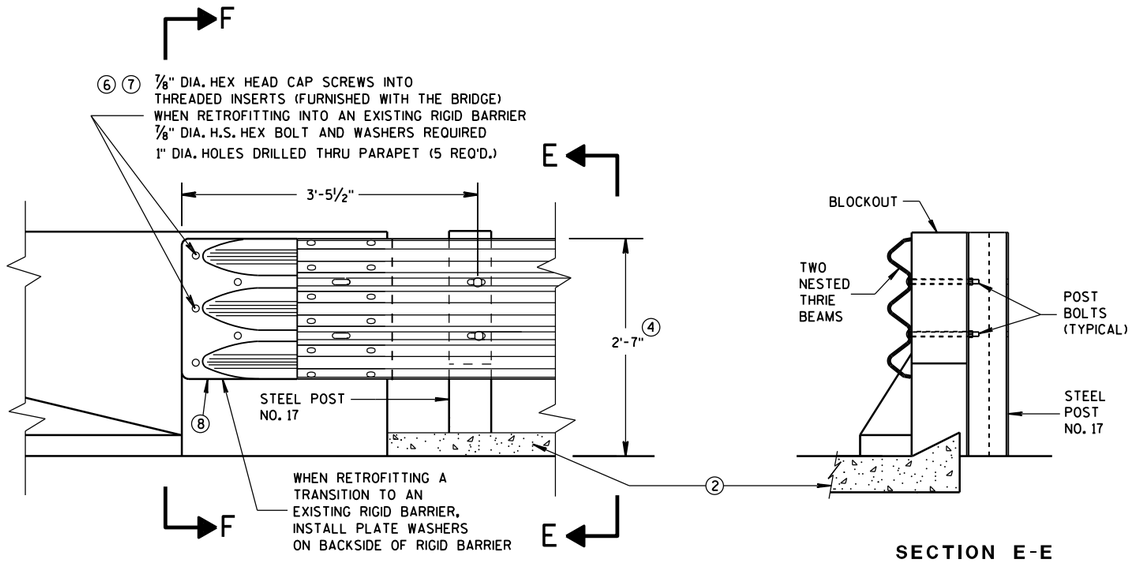
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 45-4c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

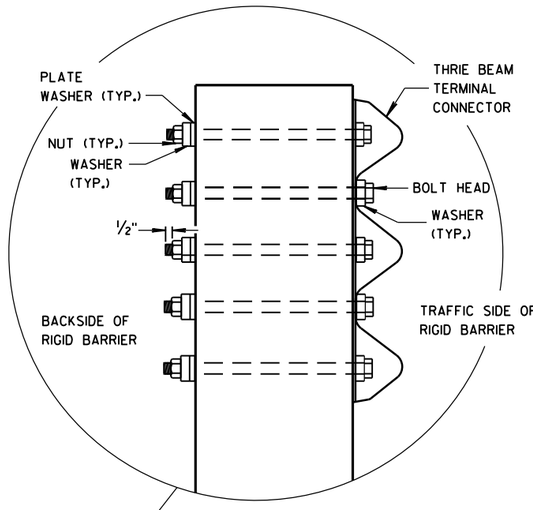
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

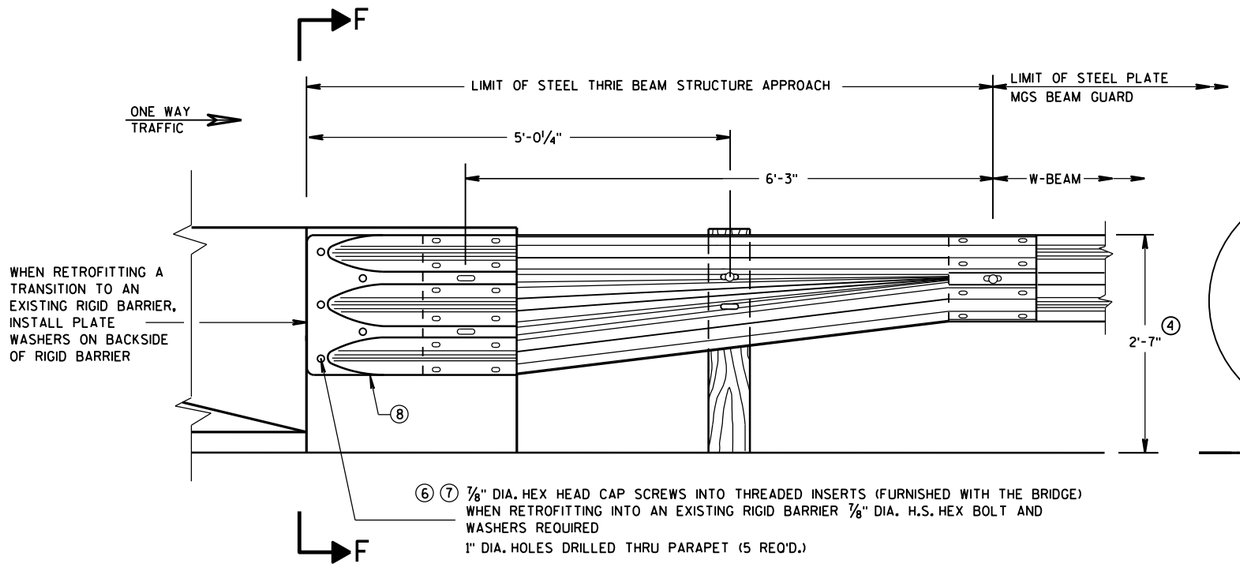
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

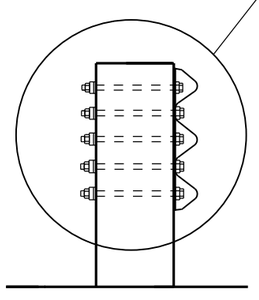
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⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

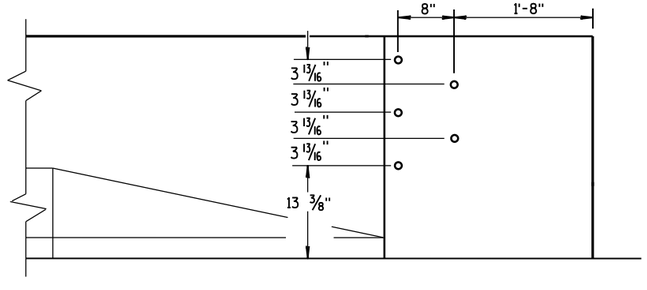




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

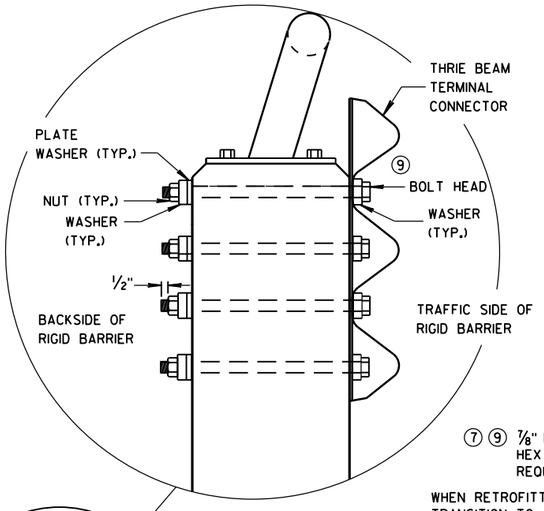
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

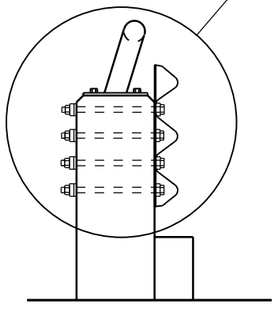
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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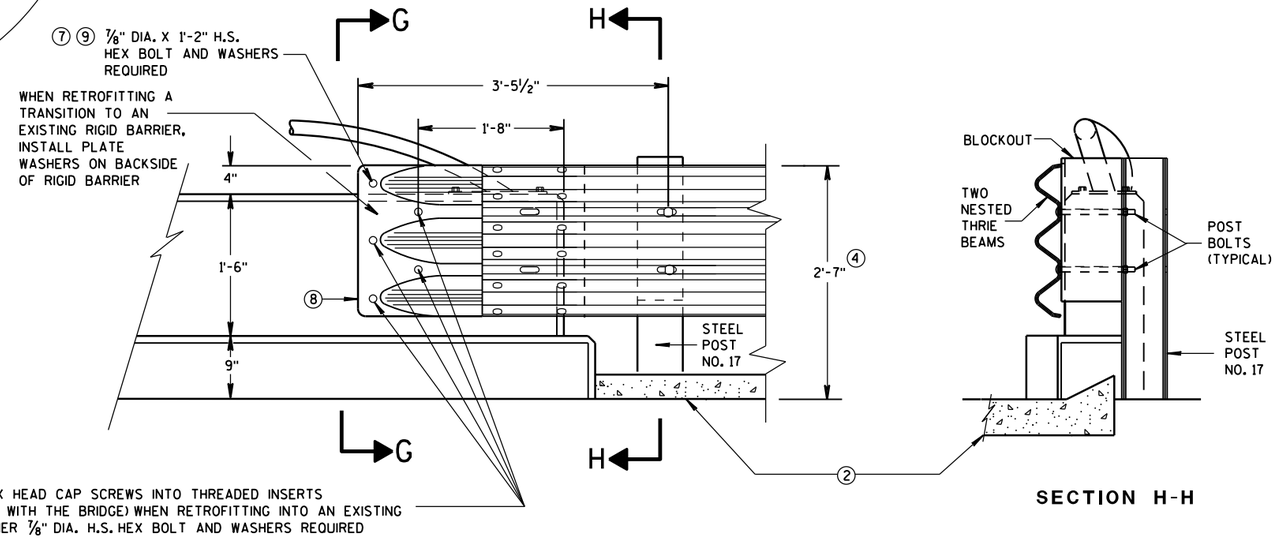
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





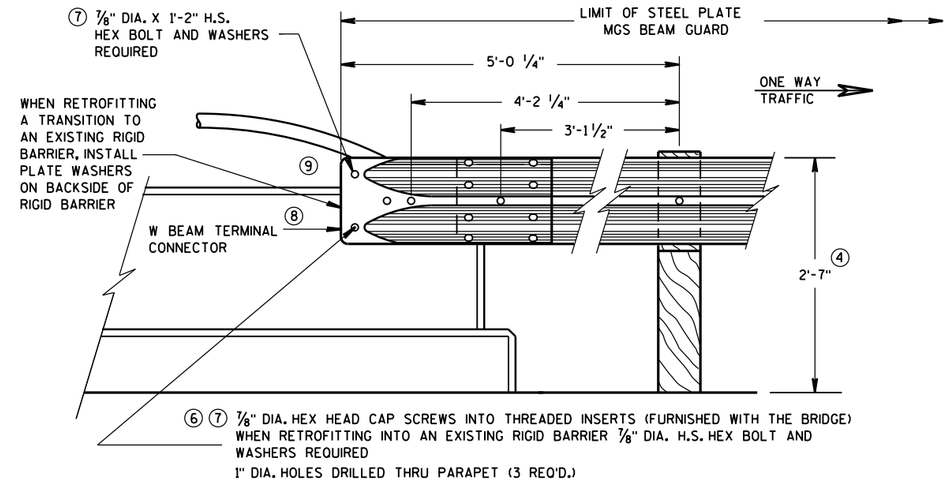
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

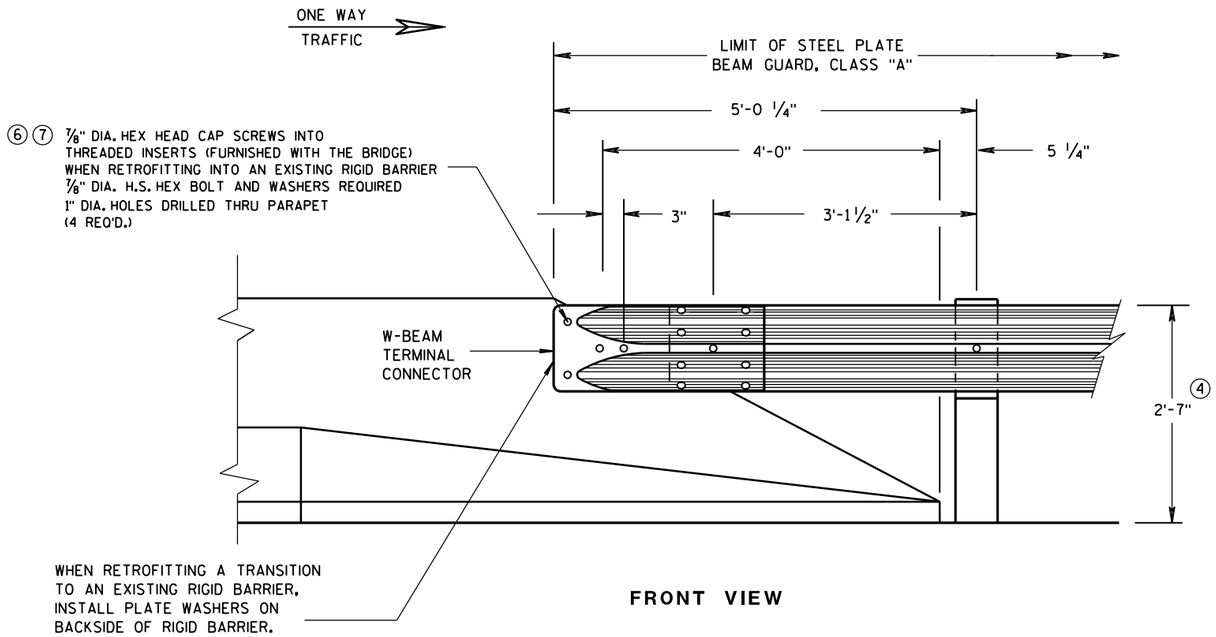
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S.D.D. 14 B 45-4e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

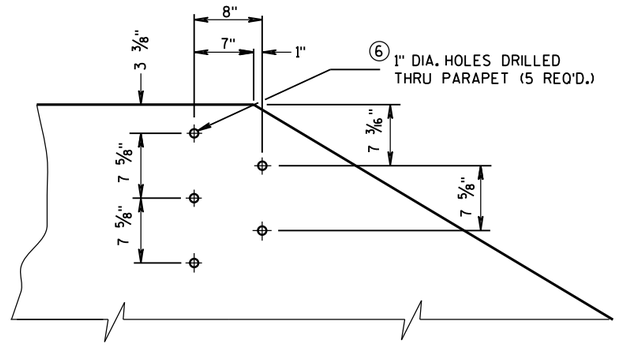
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

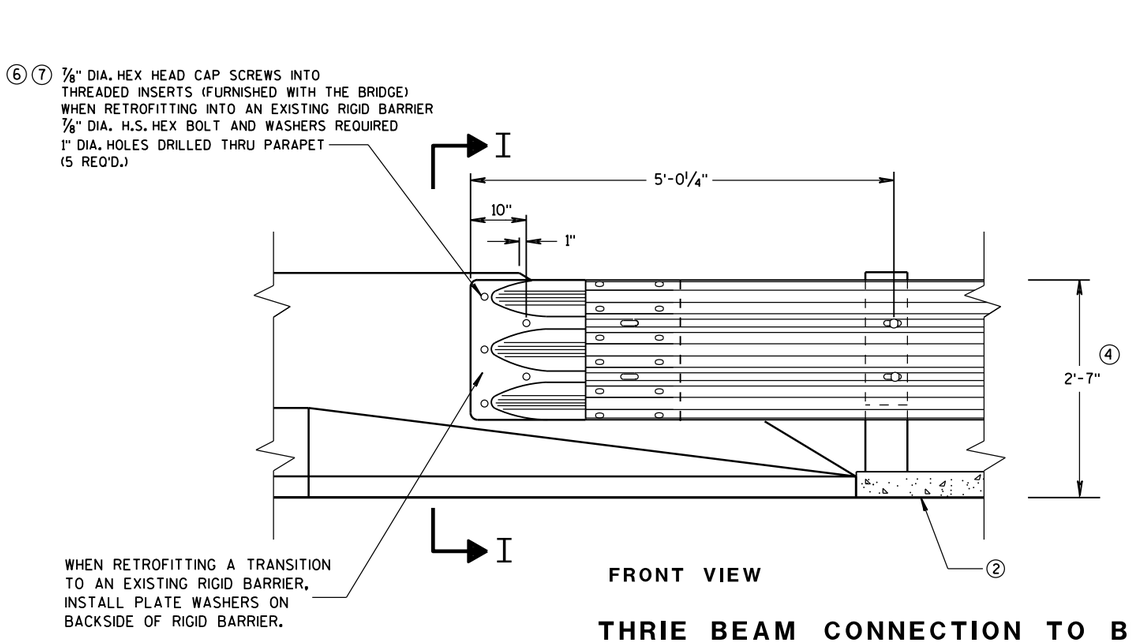
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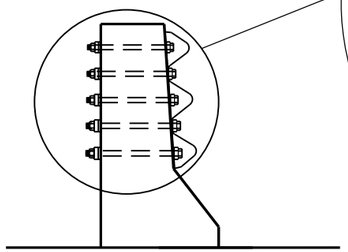
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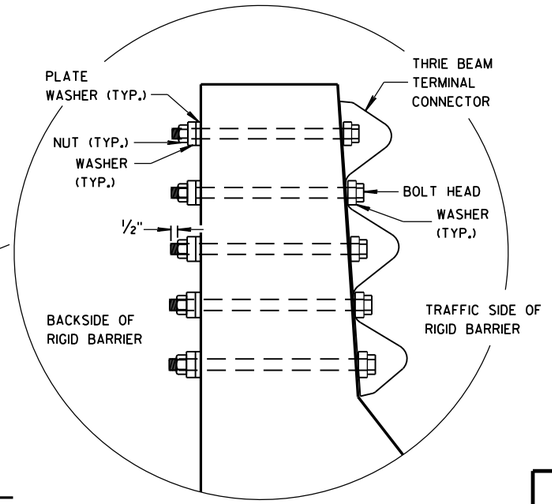
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

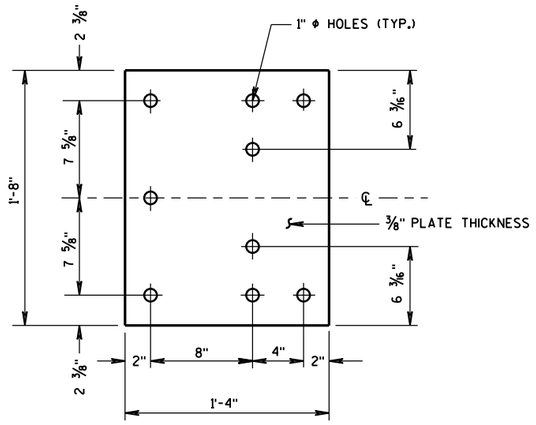
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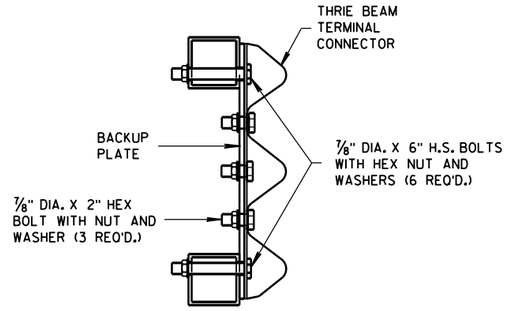
S.D.D. 14 B 45-4f

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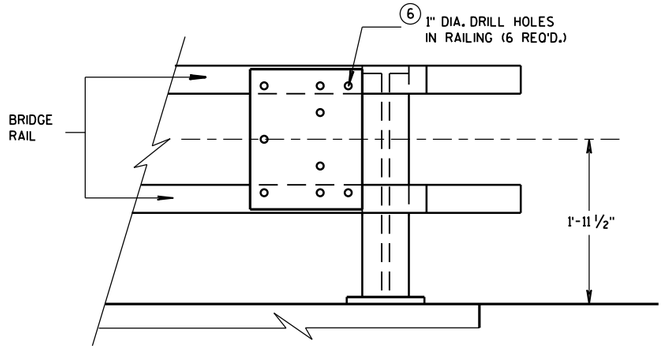
S.D.D. 14 B 45-4f



BACK-UP PLATE DETAIL



SECTION J-J

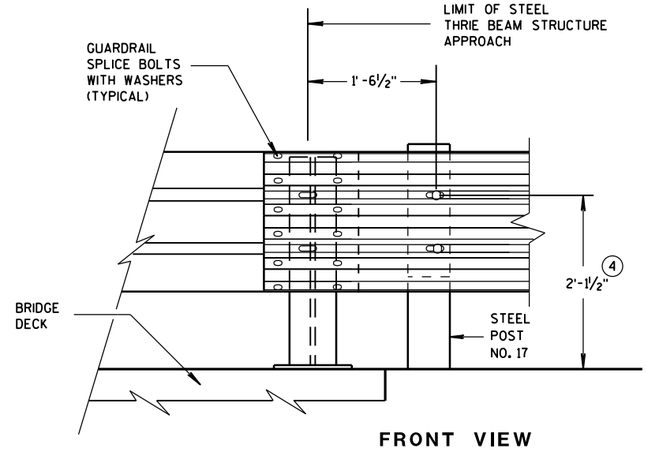


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

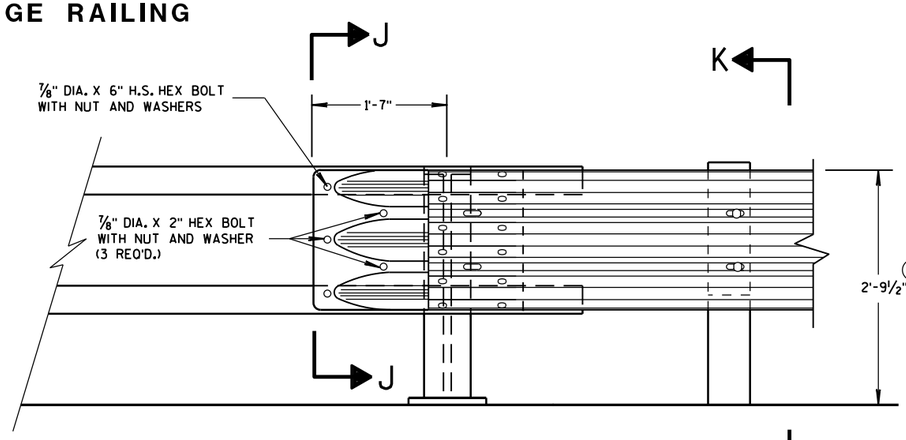
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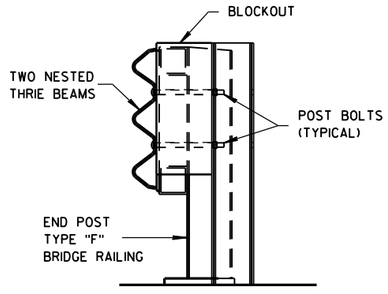


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

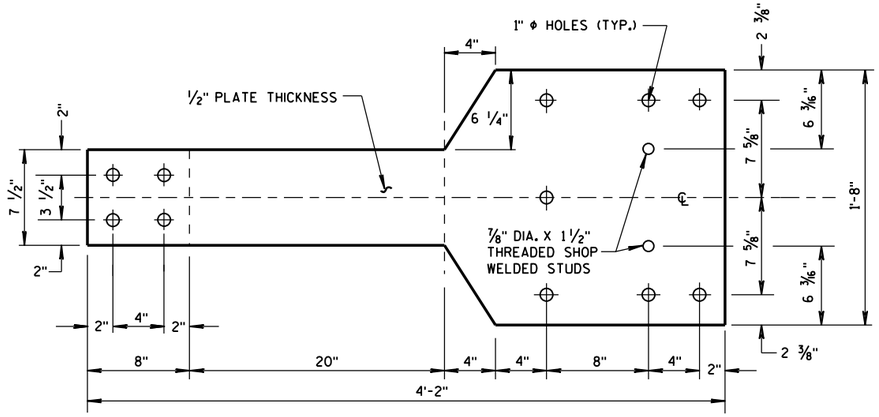
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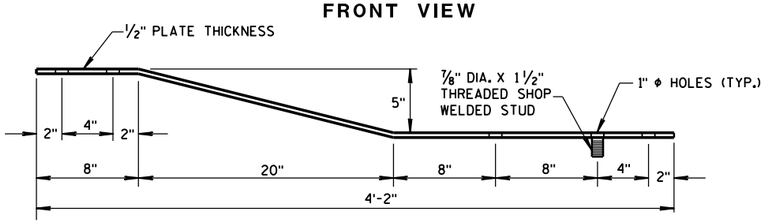
S.D.D. 14 B 45-4g

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

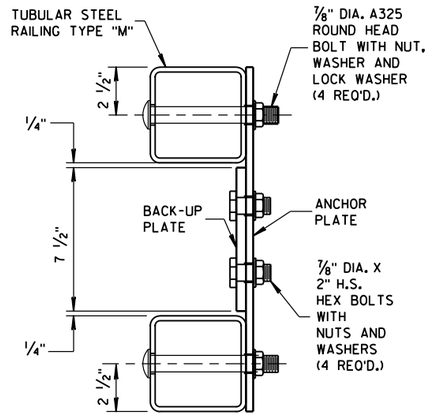


FRONT VIEW

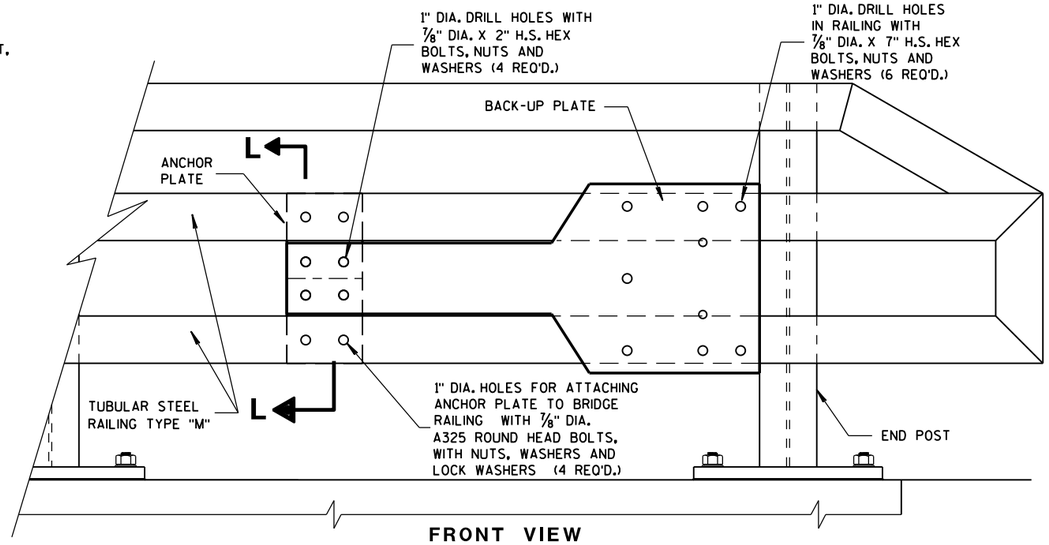


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

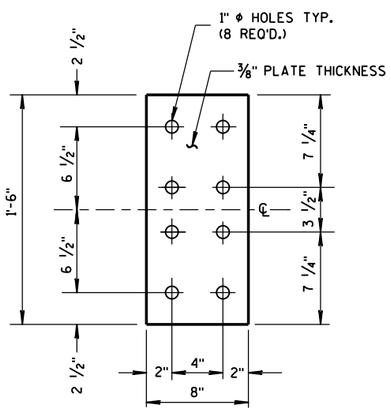


SECTION L-L



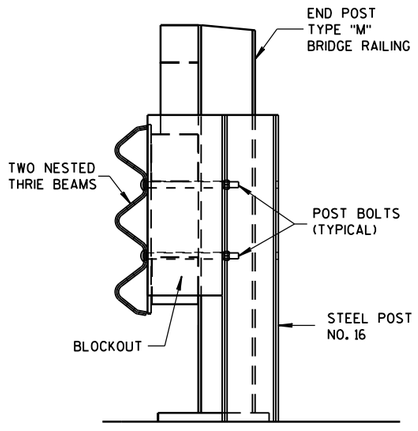
FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

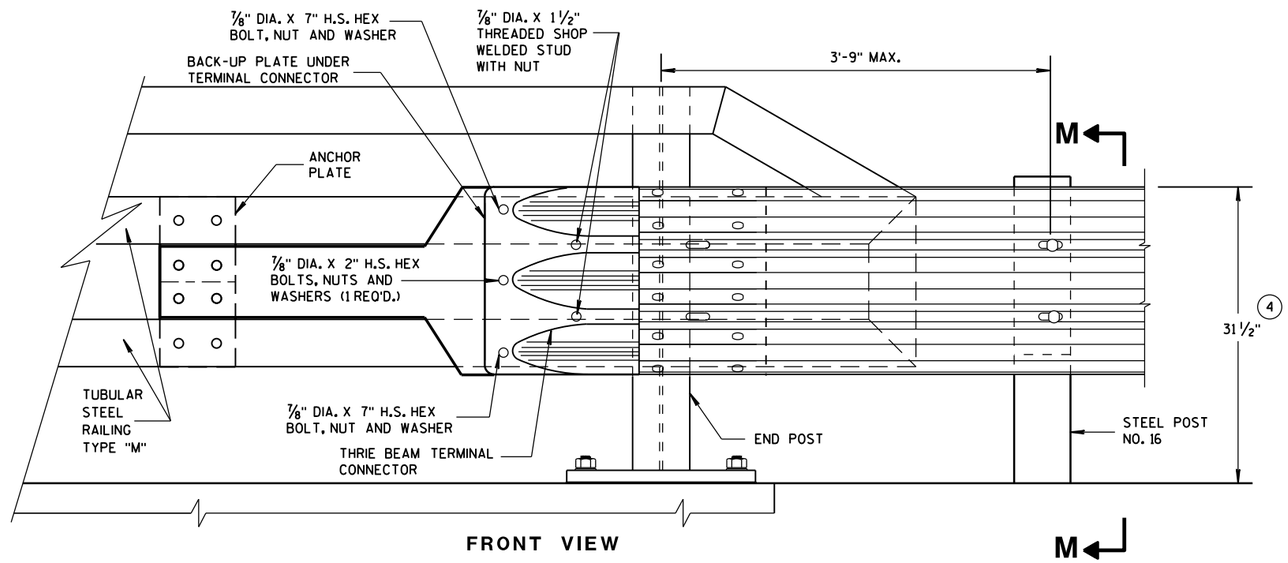


FRONT VIEW

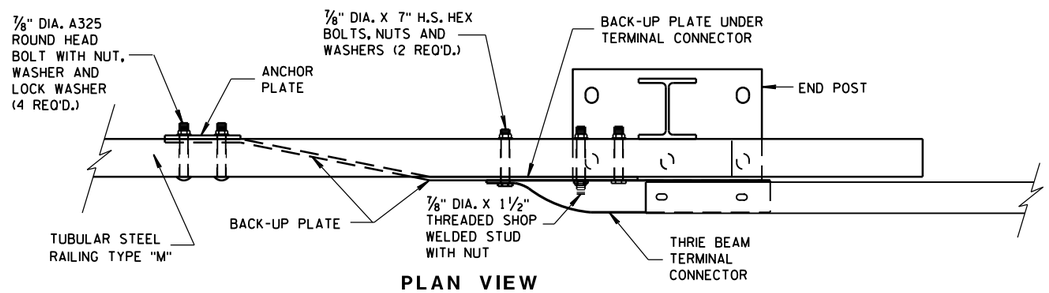
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

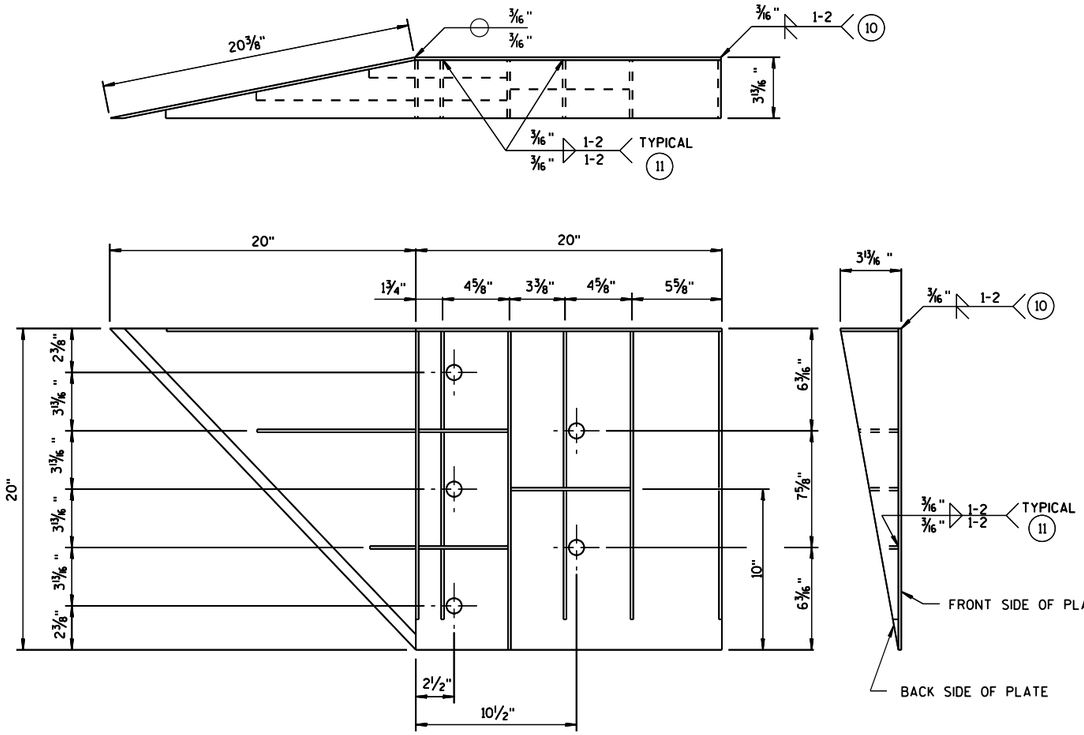
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June, 2015 — DATE
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S.D.D. 14 B 45-4h

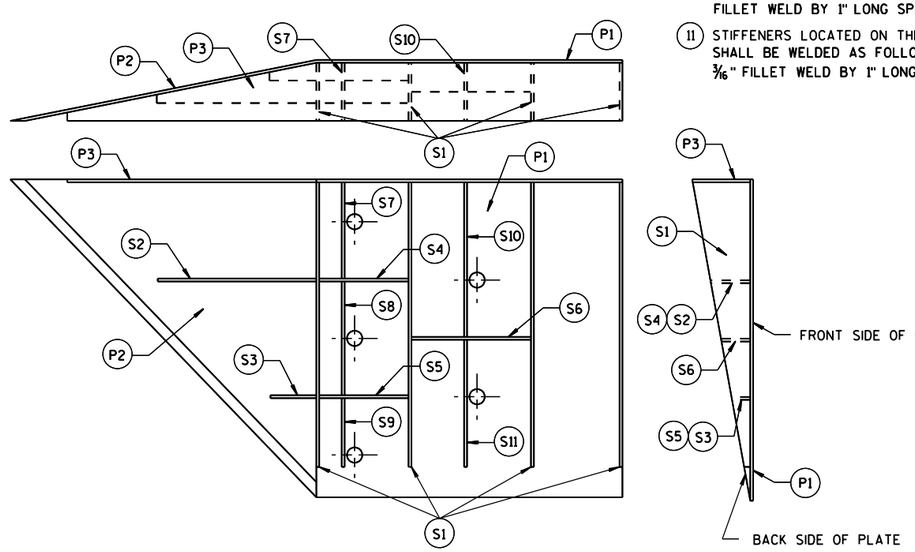
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WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)



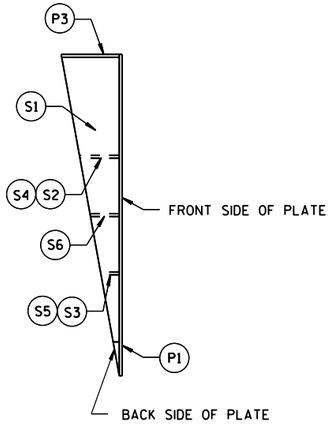


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 3/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 1/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

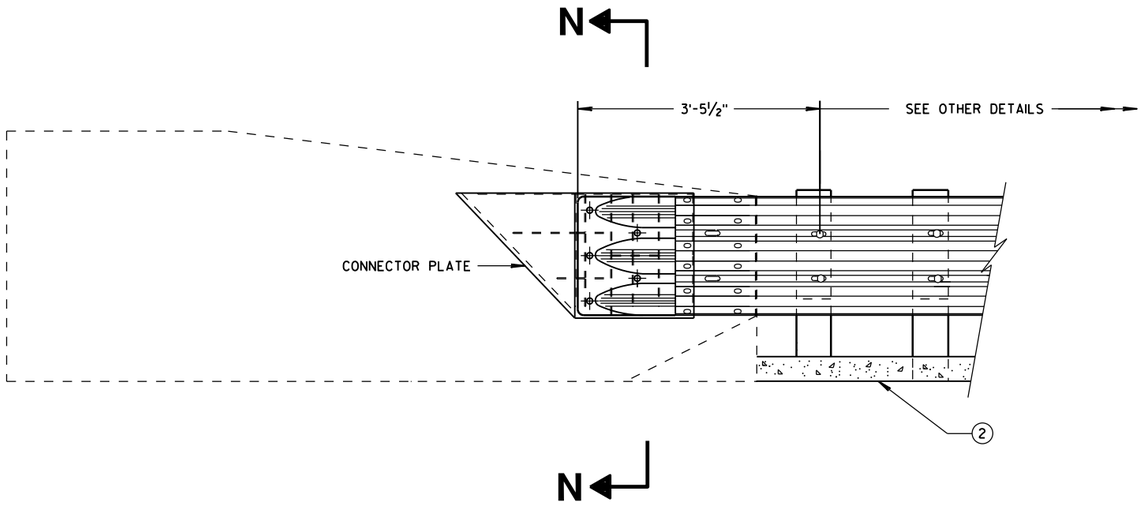
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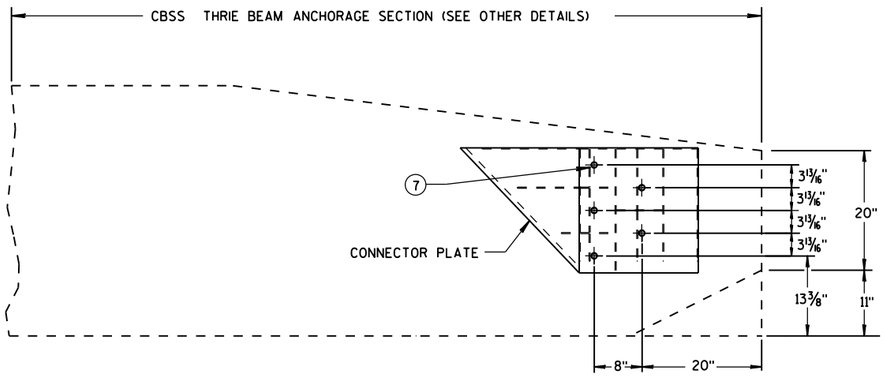
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S.D.D. 14 B 45-4i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



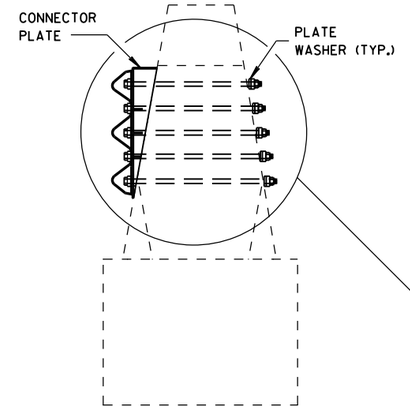
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

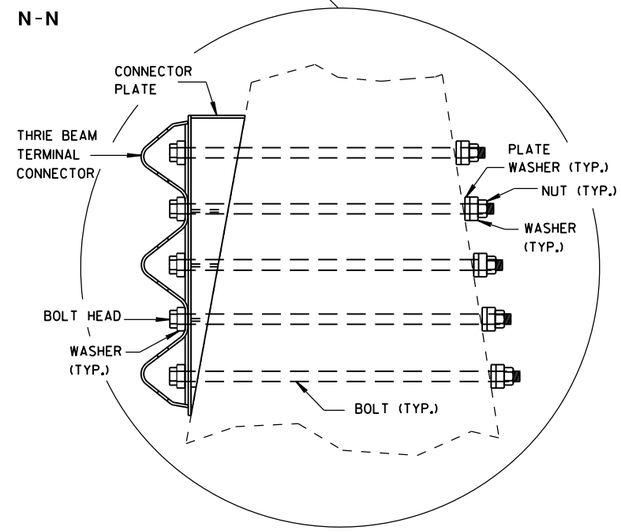
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SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

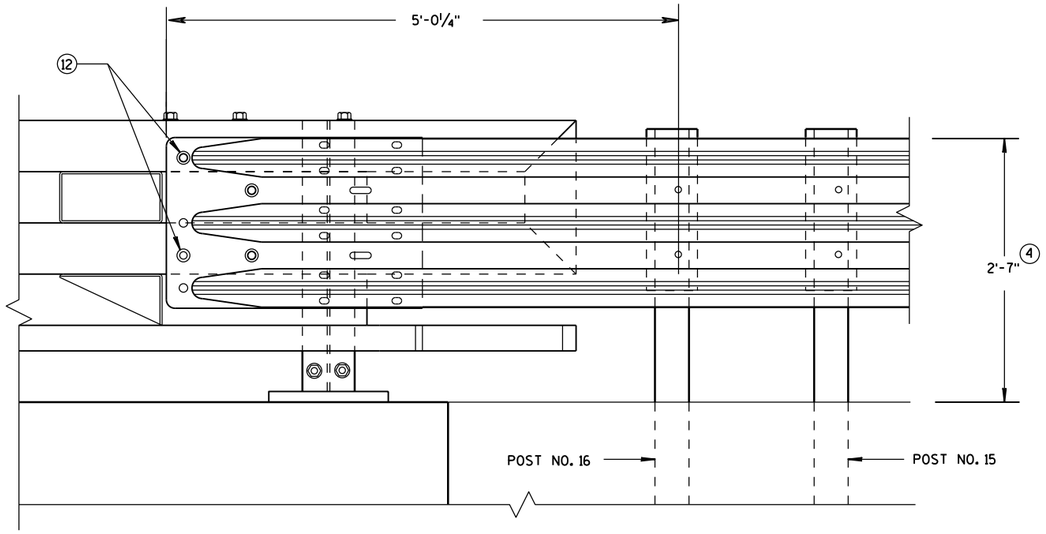
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S.D.D. 14 B 45-4j

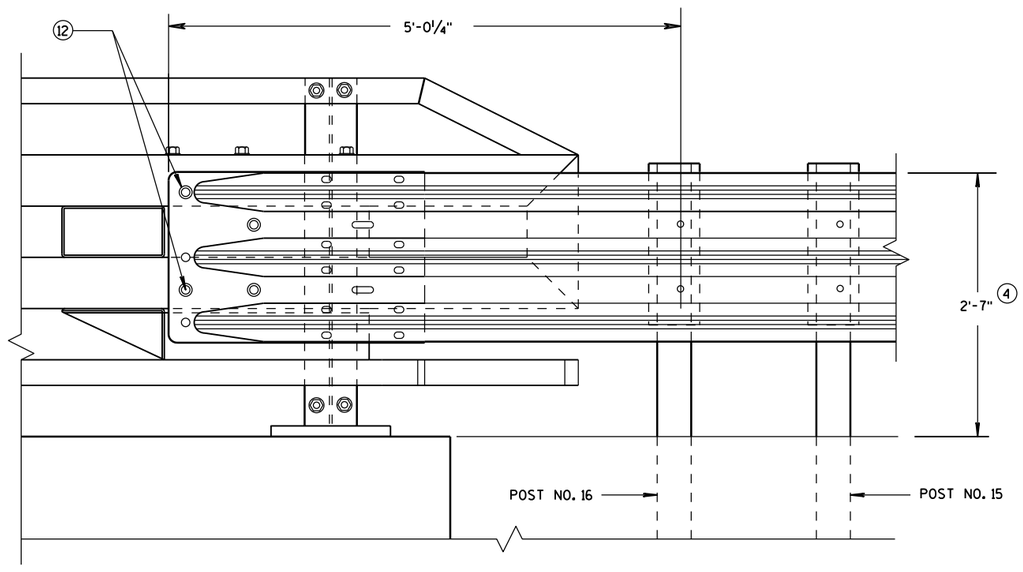
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S.D.D. 14 B 45-4j



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER

FHWA

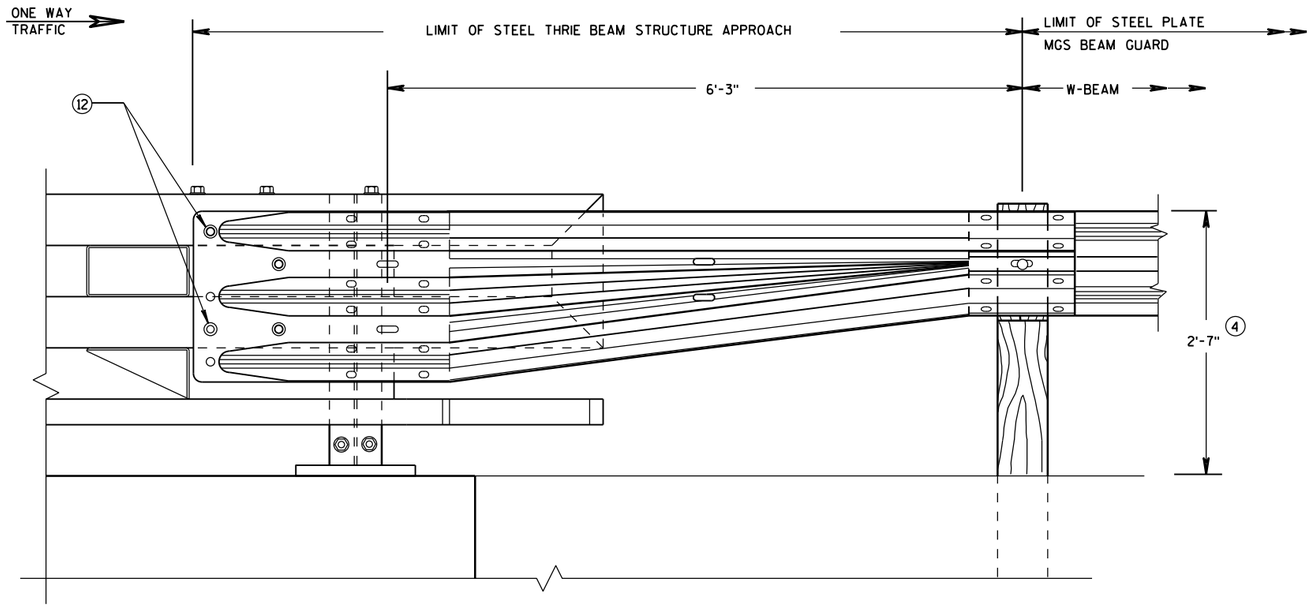
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S.D.D. 14 B 45-4k

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S.D.D. 14 B 45-4k



FRONT VIEW

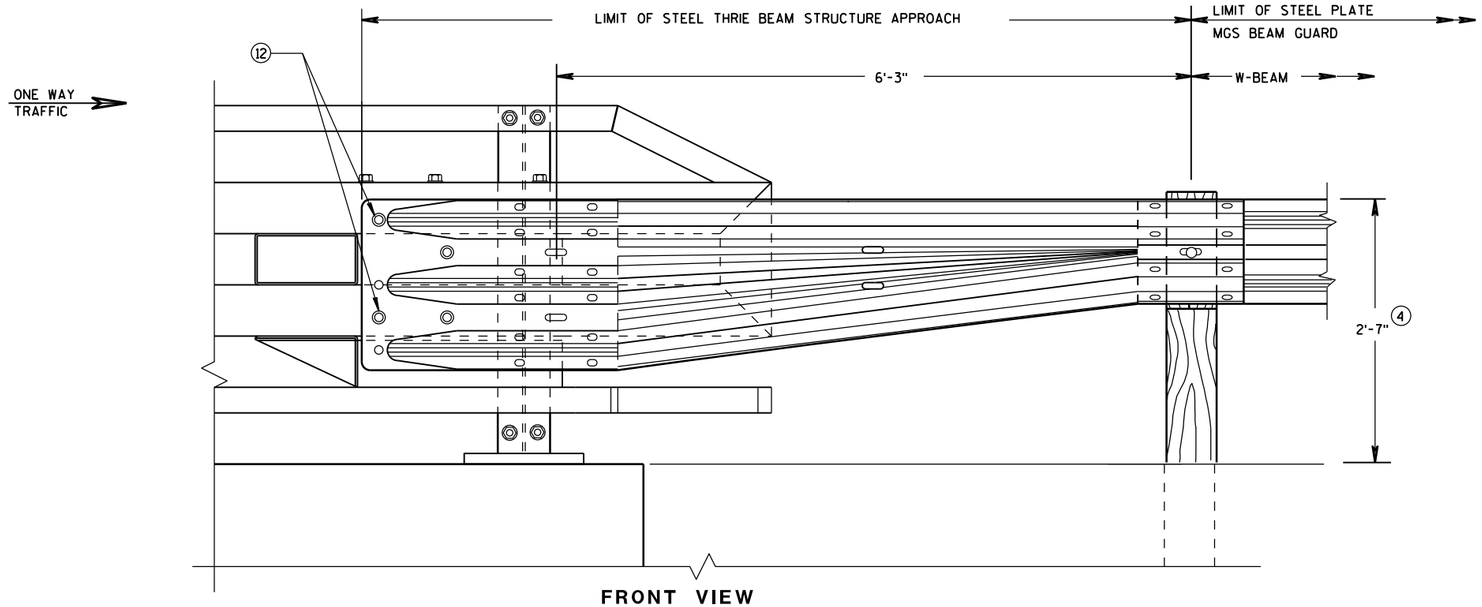
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

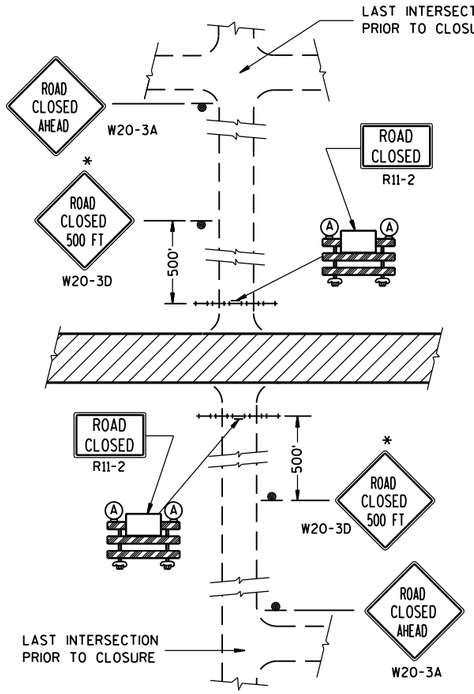
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S.D.D. 14 B 45-4L

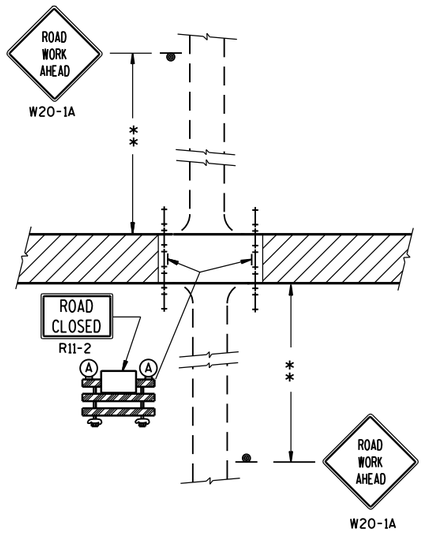
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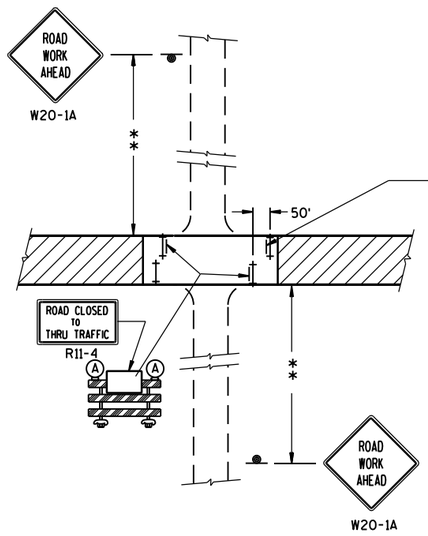
DETAIL 1

(NO ACCESS TO PROJECT)



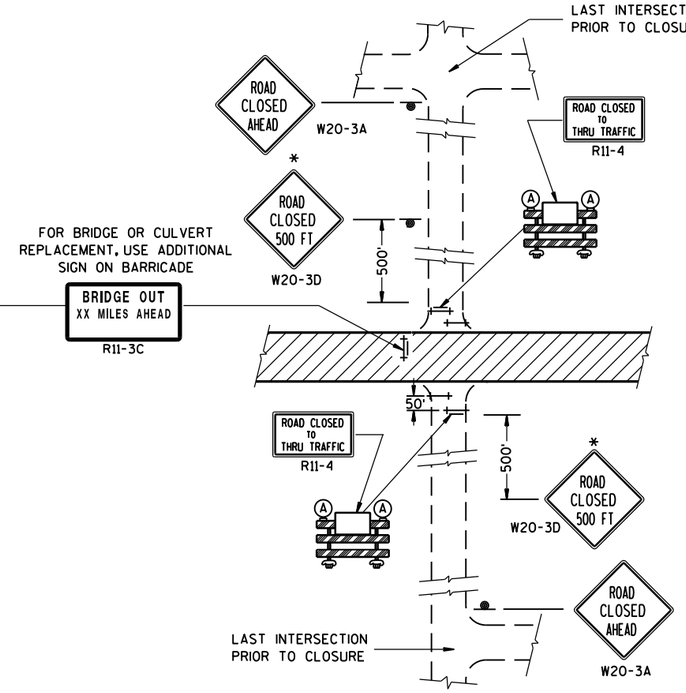
DETAIL 2

(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

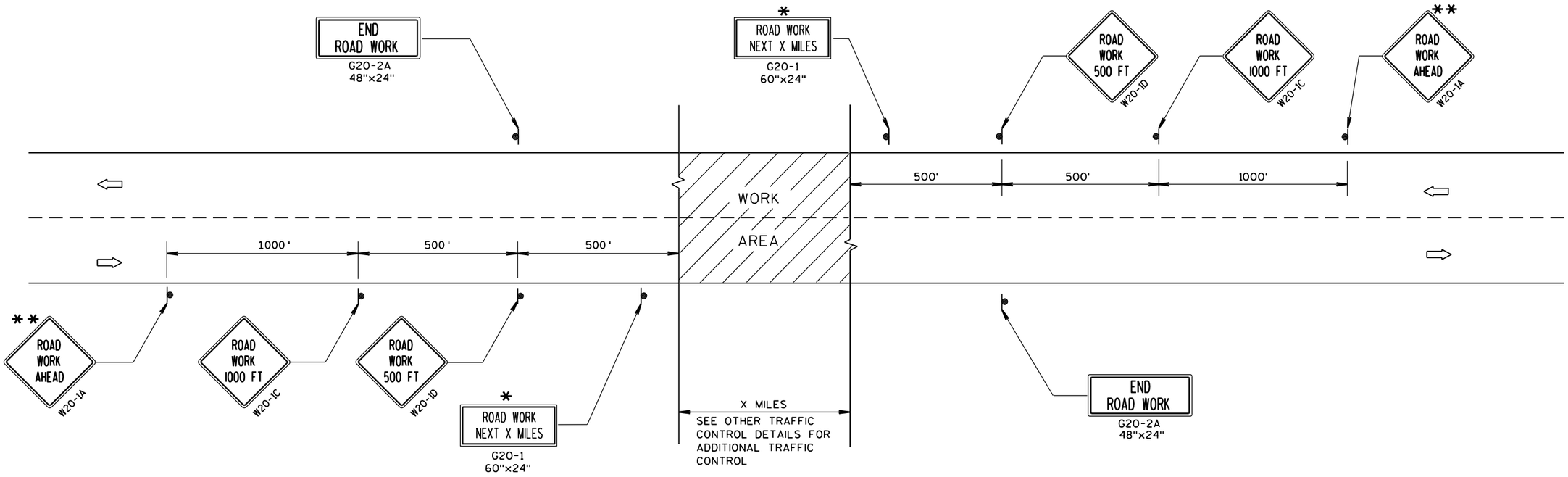
APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible]FIC SAFETY ENGI[illegible]
FHWA

6

S.D.D. 15 C 3-3

6

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 MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

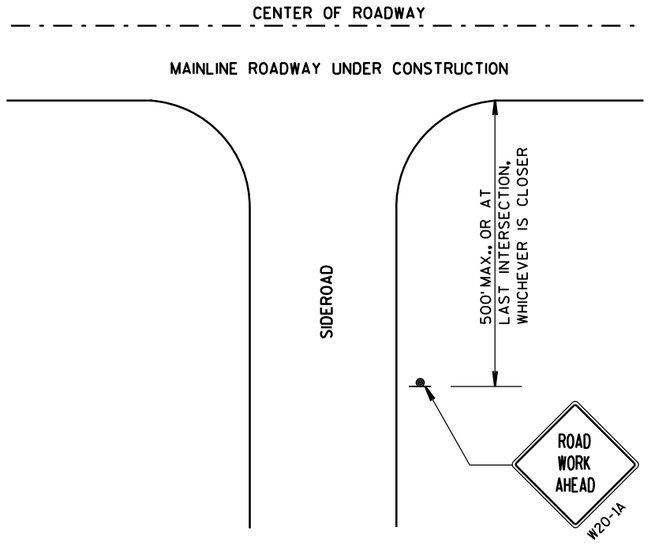
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

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



LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER 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

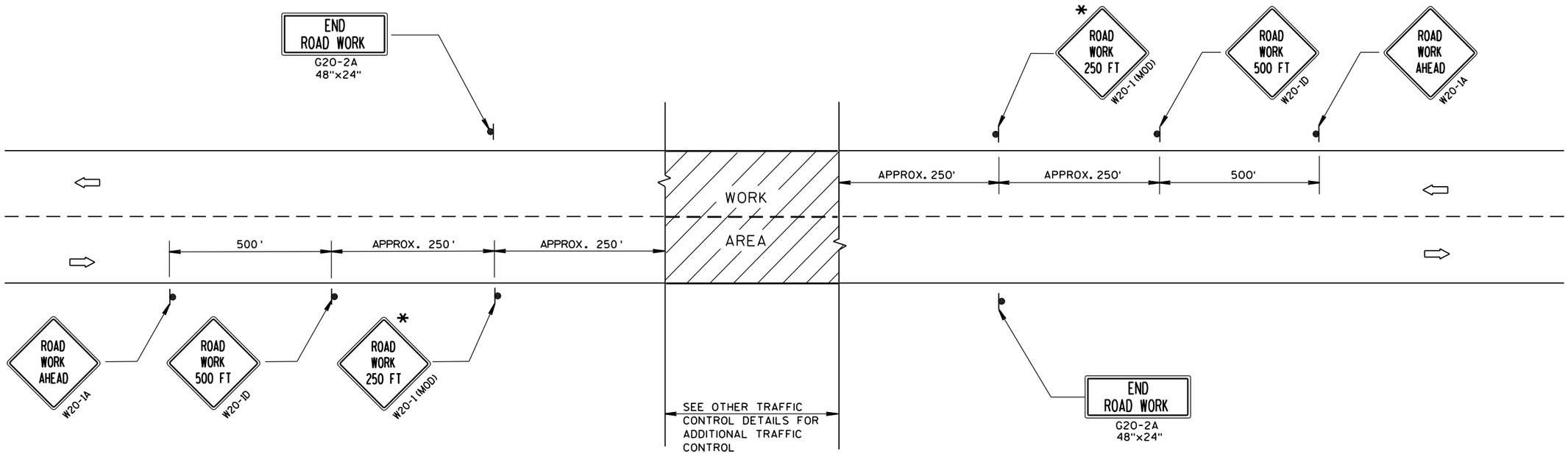
FHWA

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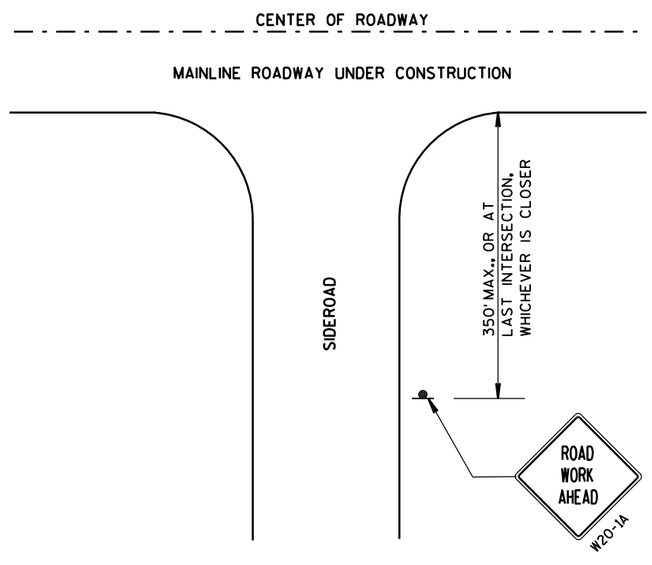
S.D.D. 15 C 4-3

6

S.D.D. 15 C 4-3



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

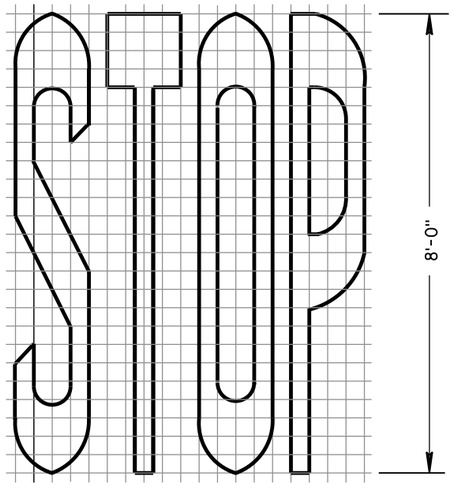
APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZOI SAFETY ENGIN IC
FHWA

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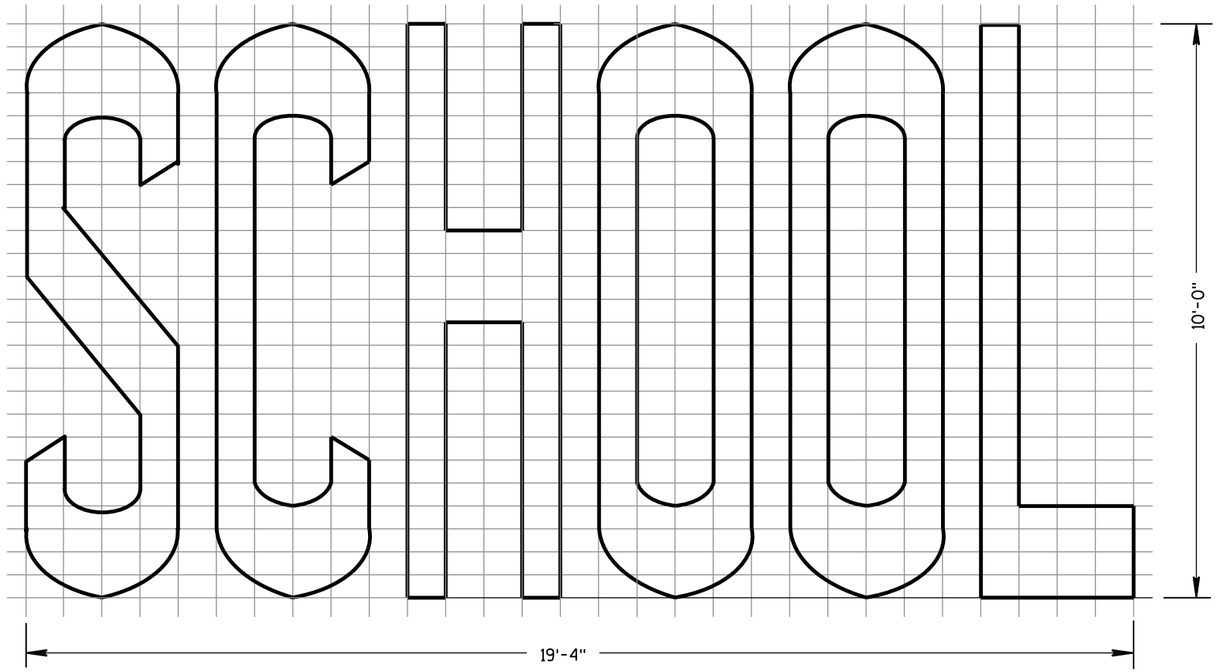
S.D.D. 15 C 5-3

GENERAL NOTES

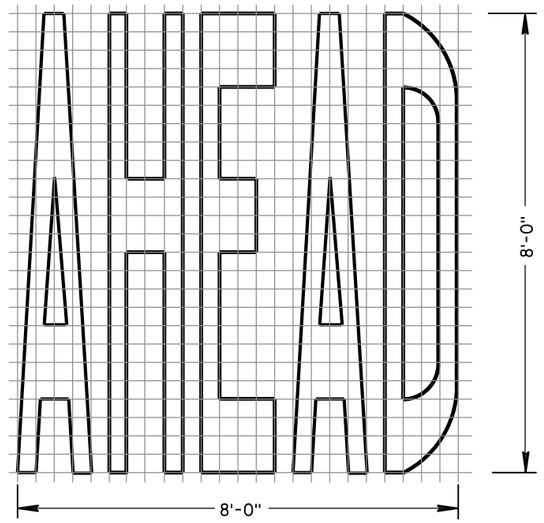
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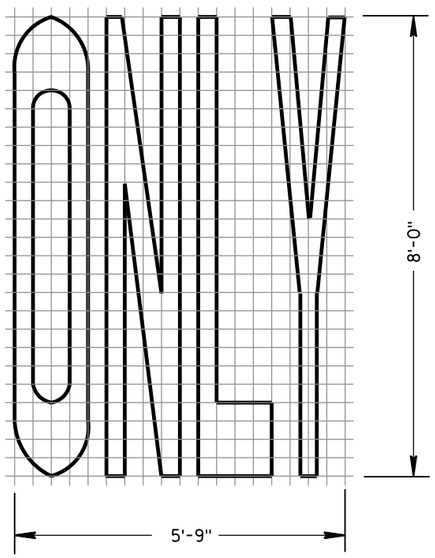


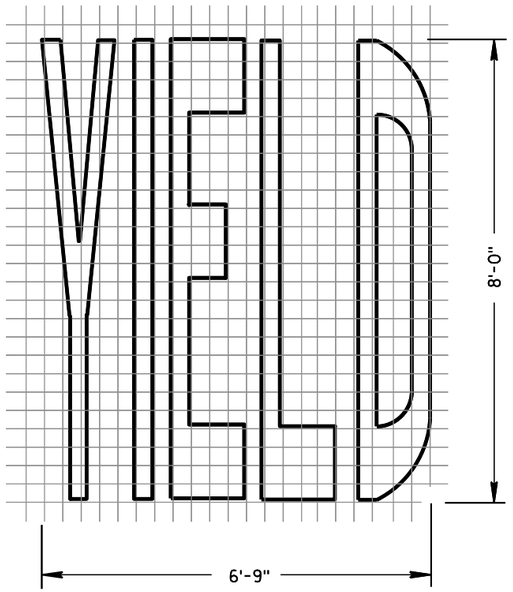


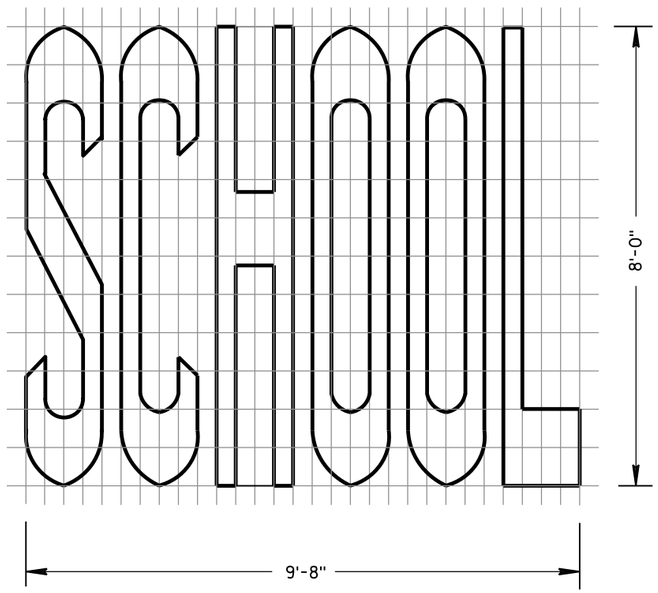


TWO-LANE









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

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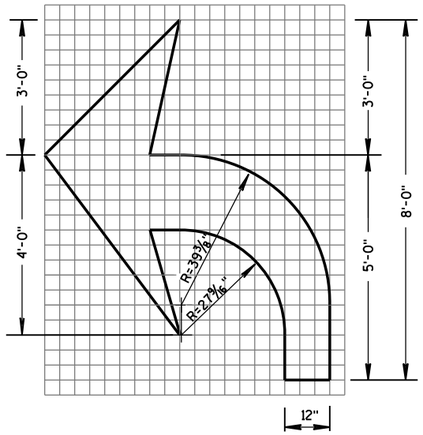
S.D.D. 15 C 7-13b

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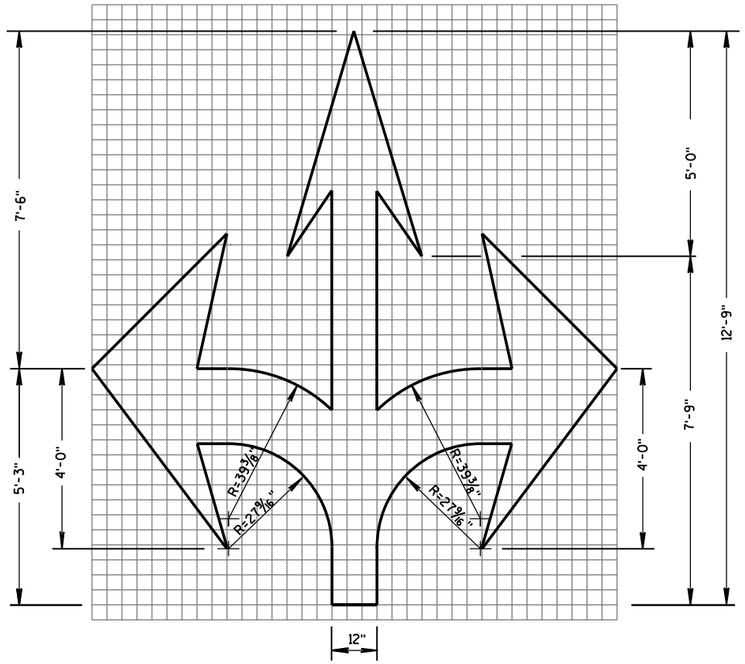
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GENERAL NOTES

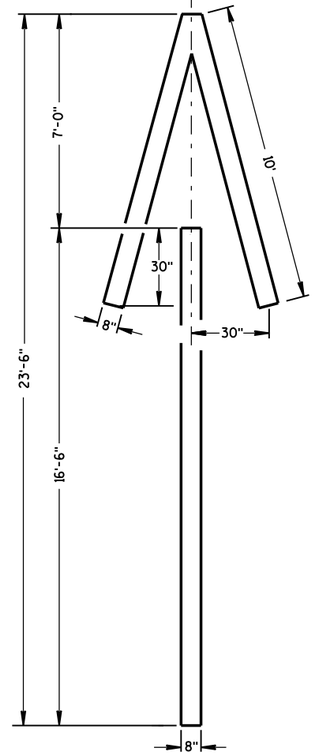
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



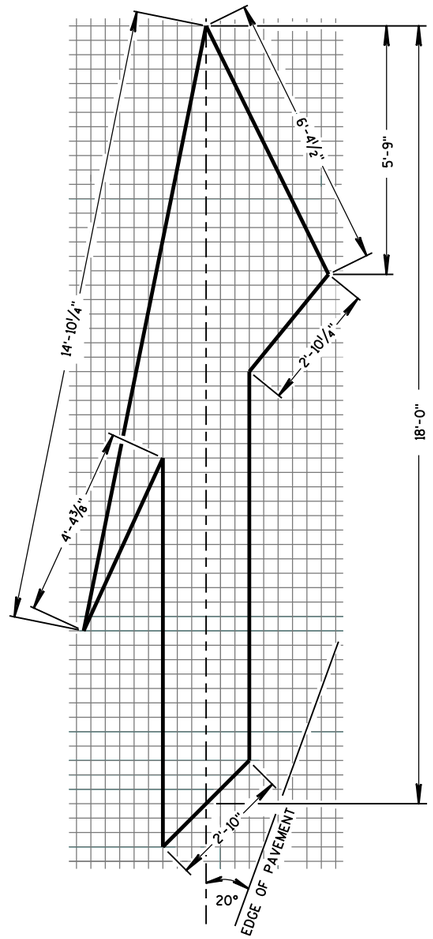
TYPE 2



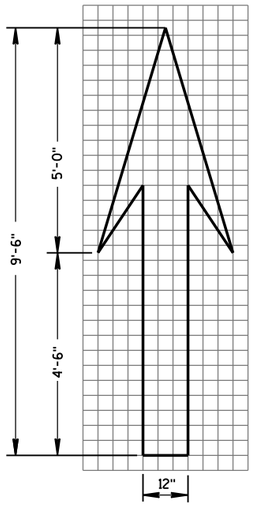
TYPE 6



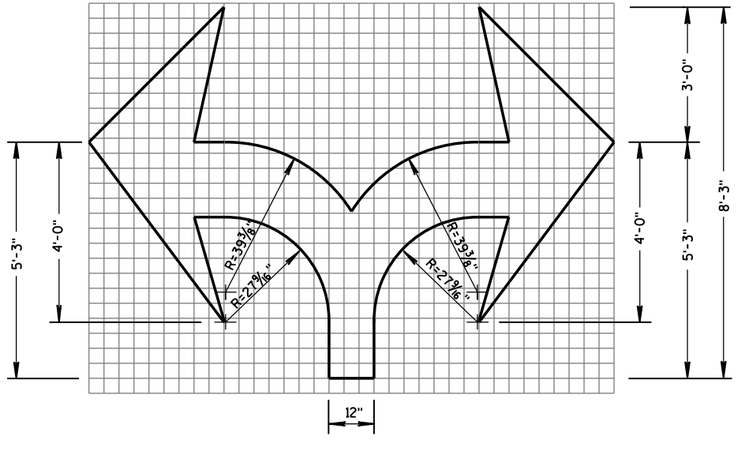
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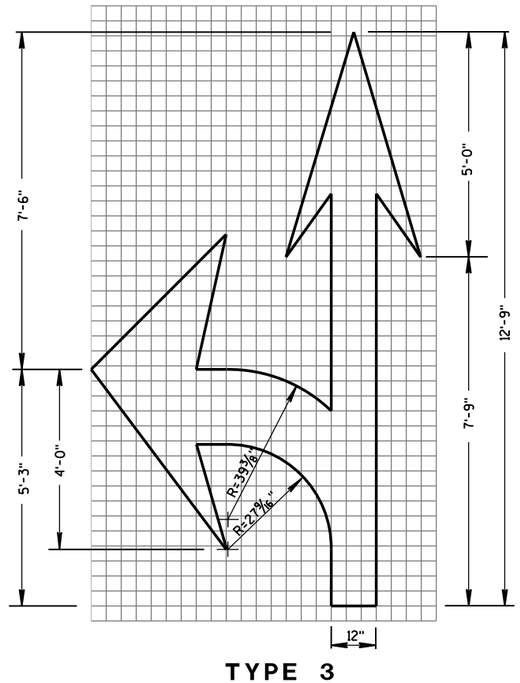
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

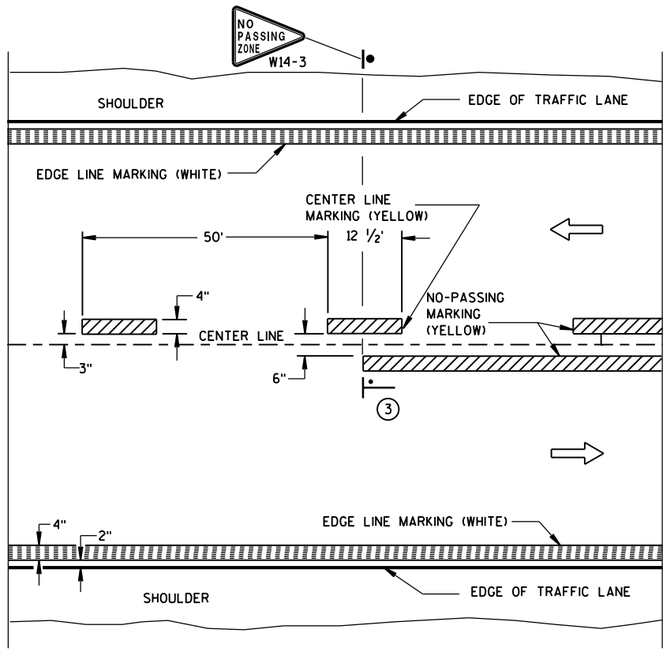
APPROVED
4-18-16 DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAR[illegible]NEER
FHWA

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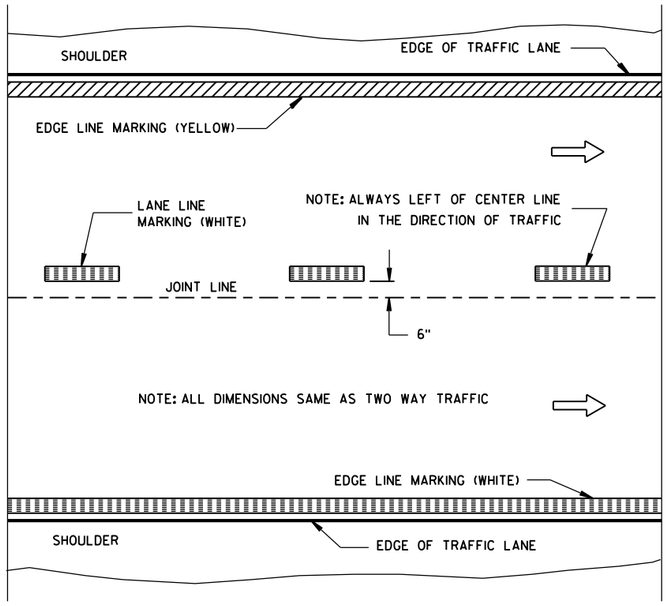
S.D.D. 15 C 7-13c

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S.D.D. 15 C 7-13c

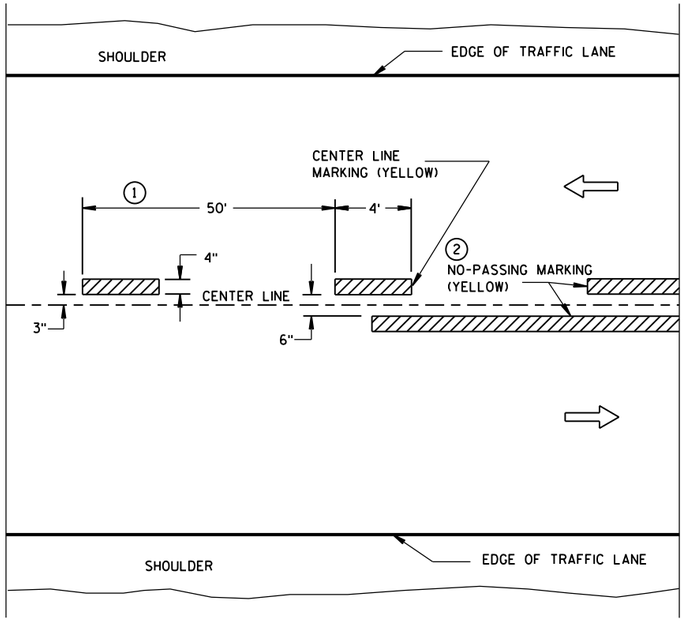


TWO WAY TRAFFIC

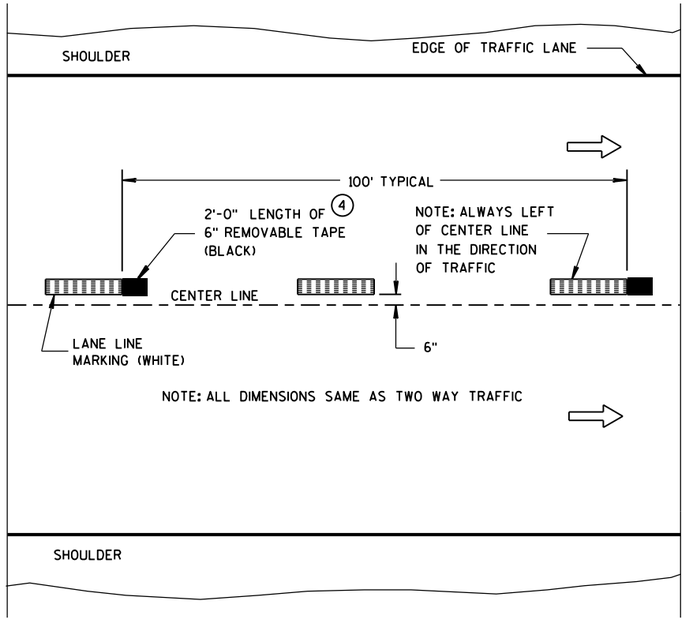


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

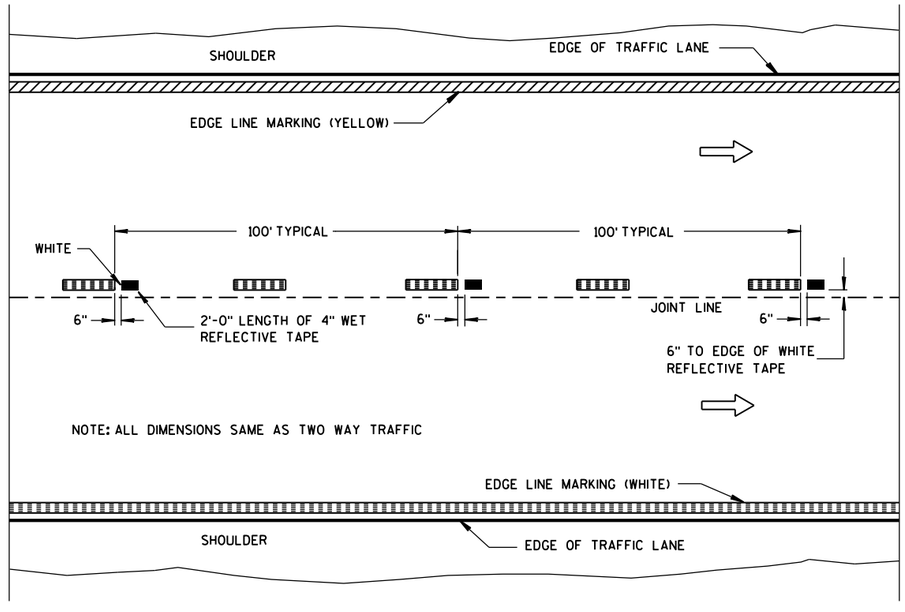
GENERAL NOTES

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

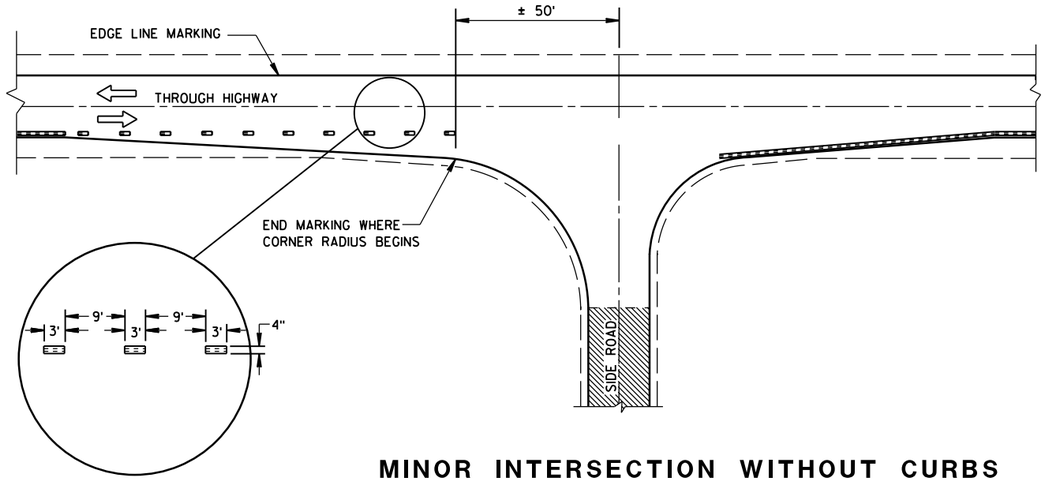
FHWA

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S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

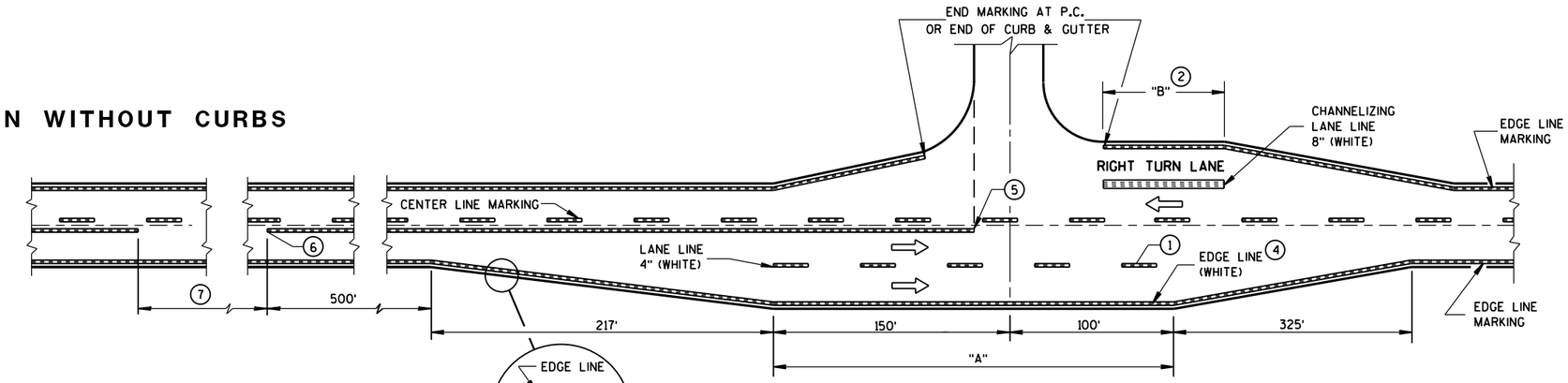
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

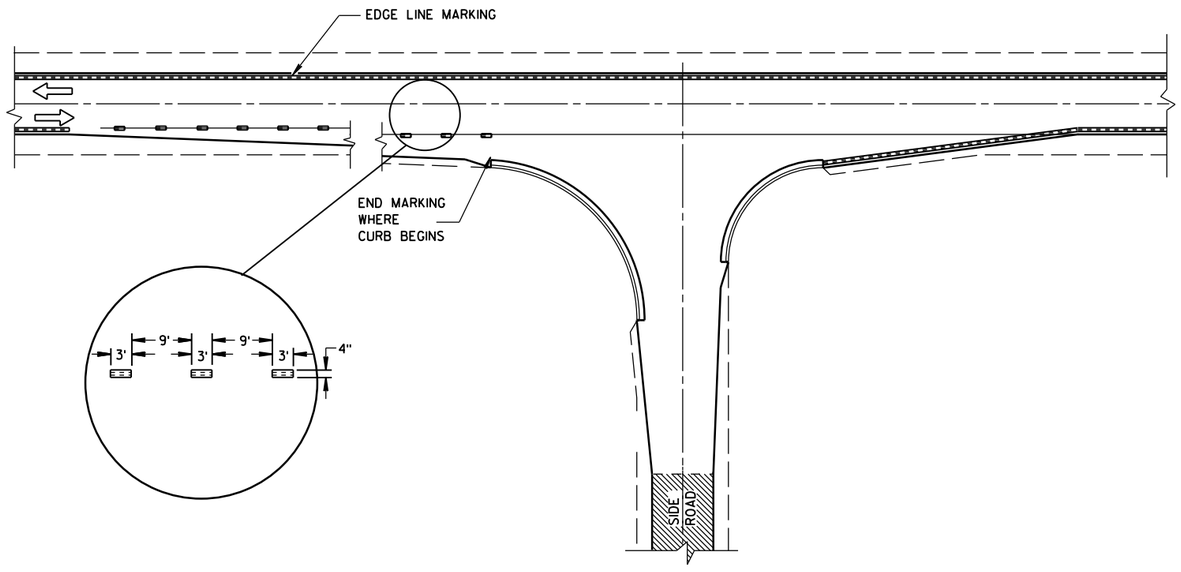
(7)

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



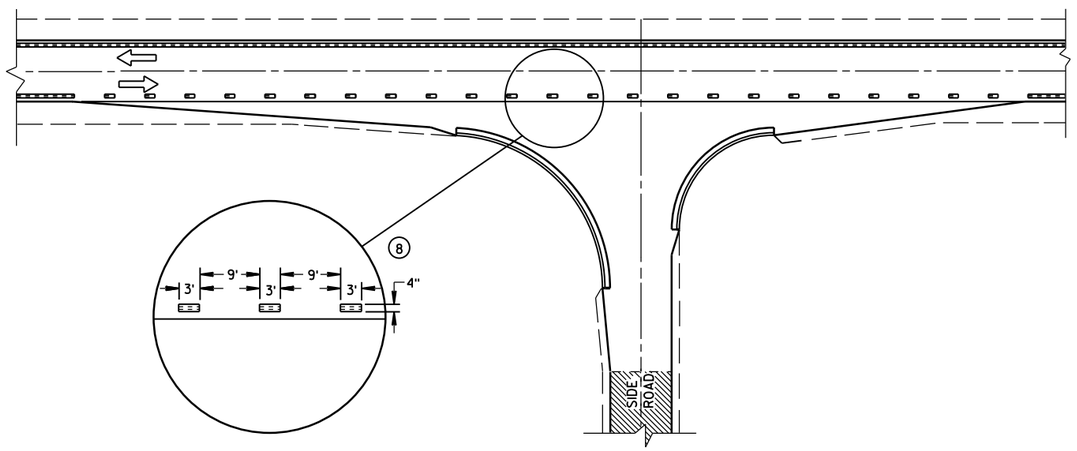
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

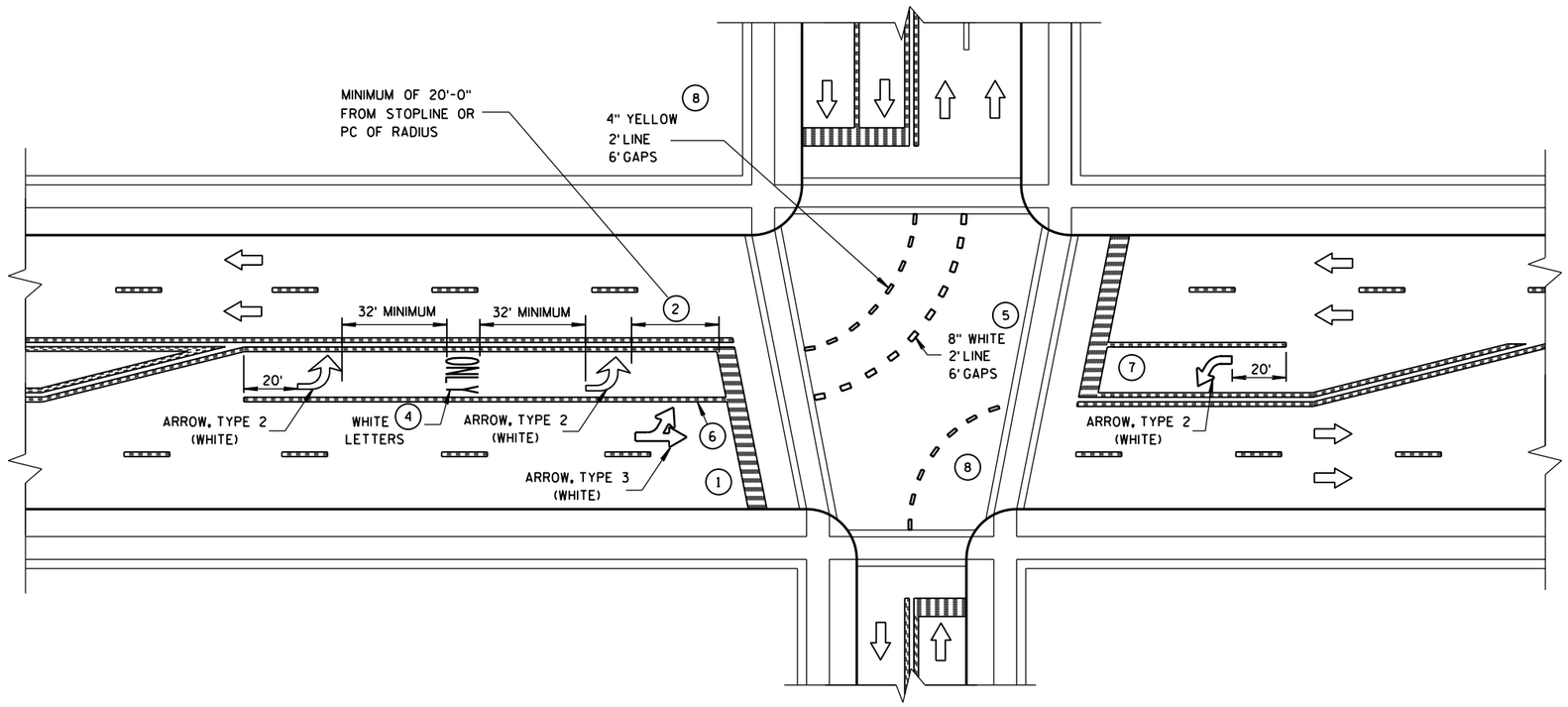
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-16b

6

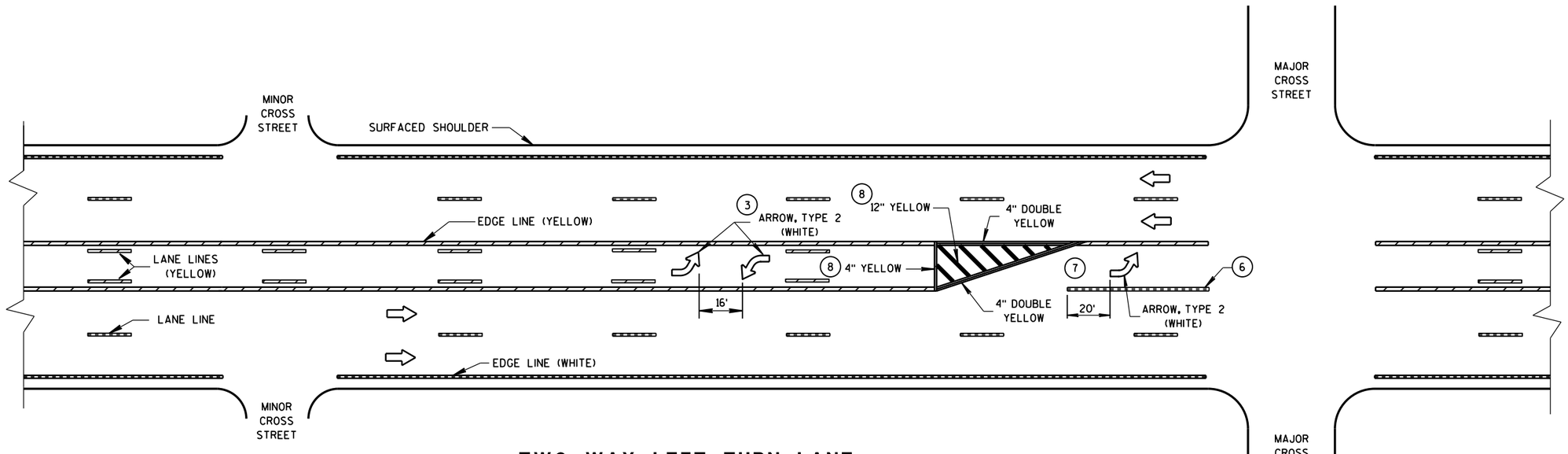
S.D.D. 15 C 8-16b



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



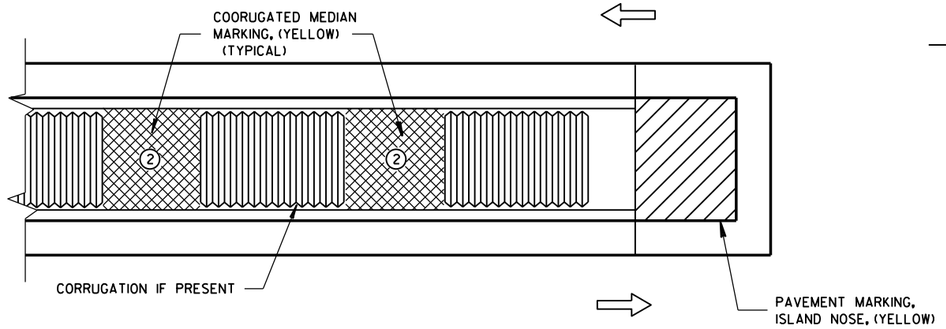
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

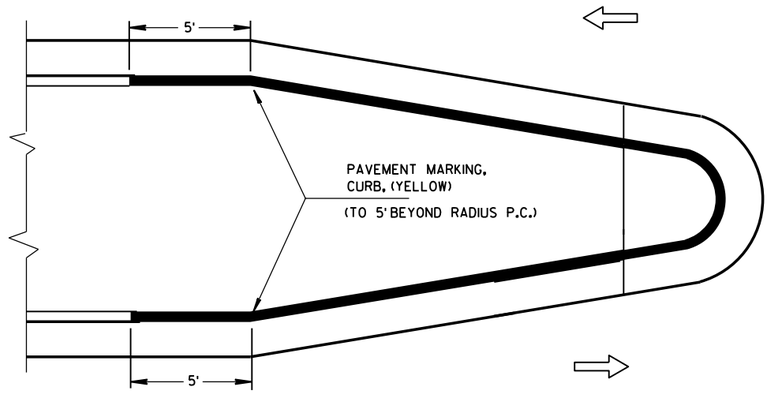
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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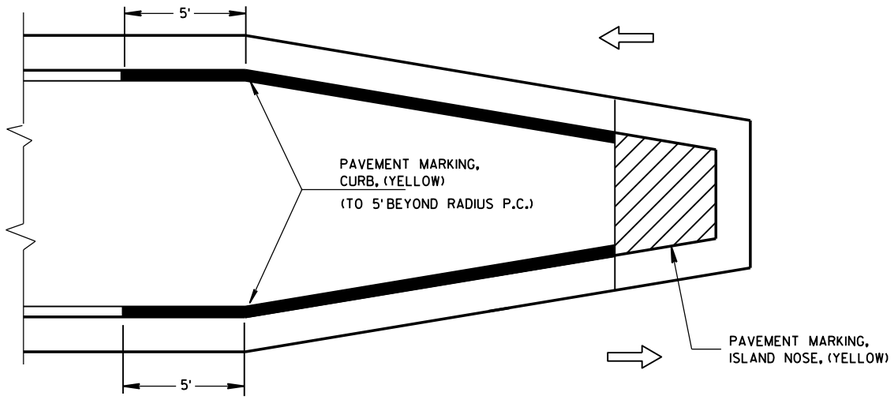
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

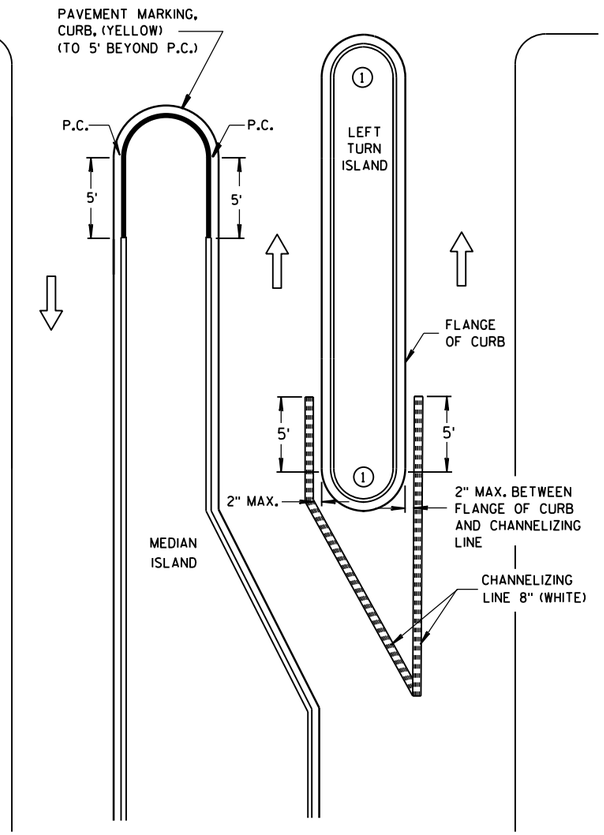


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

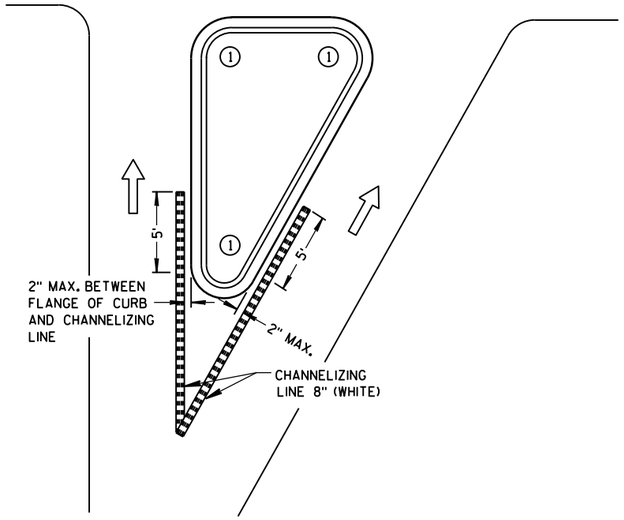


LEFT TURN & MEDIAN ISLAND

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

6

S.D.D. 15 C 8-16f

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

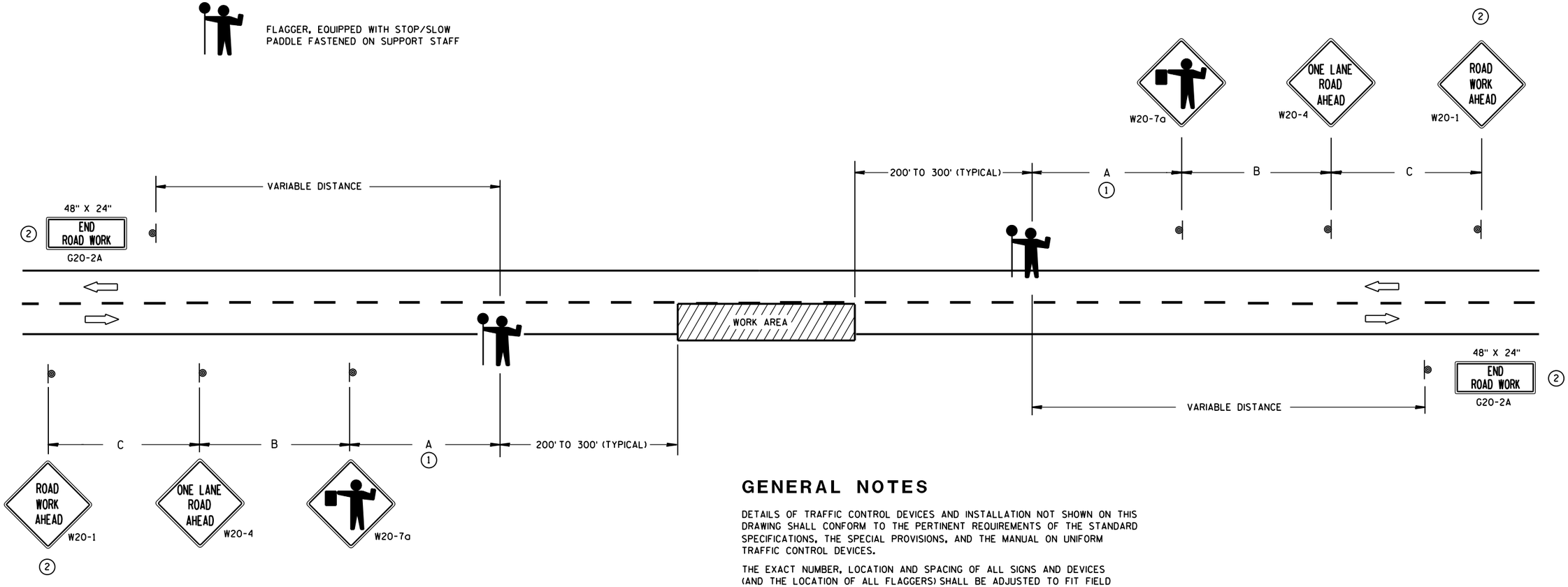
SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

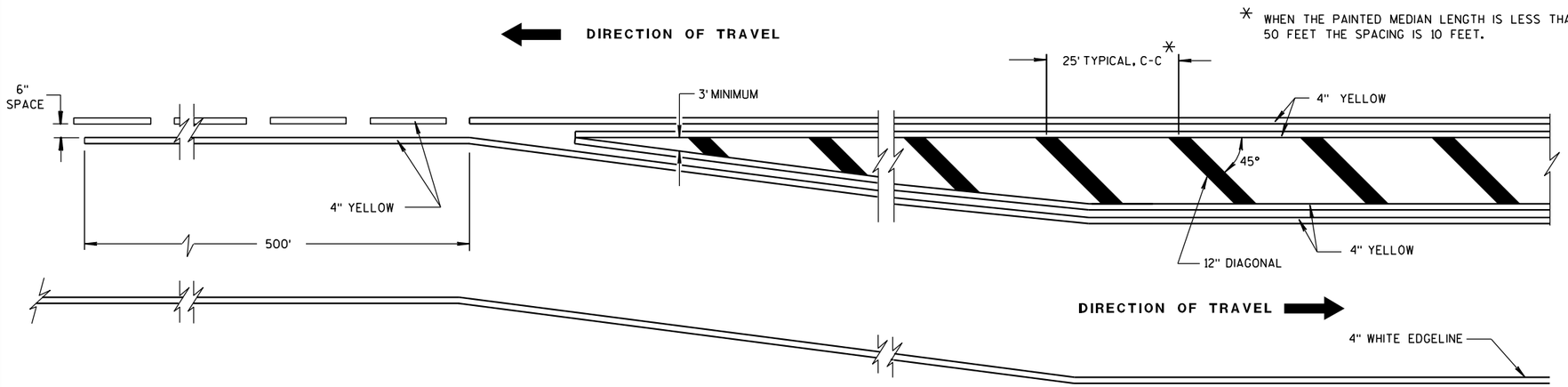
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 C 12-4

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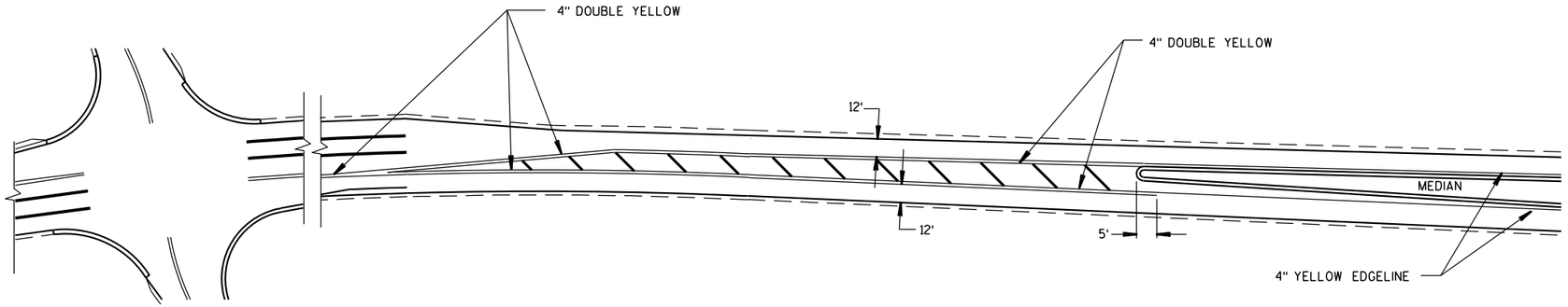
S.D.D. 15 C 12-4



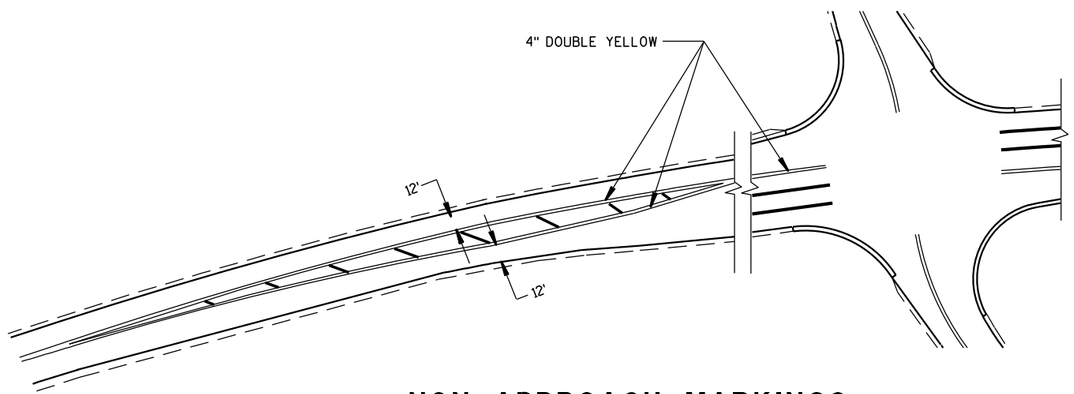
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

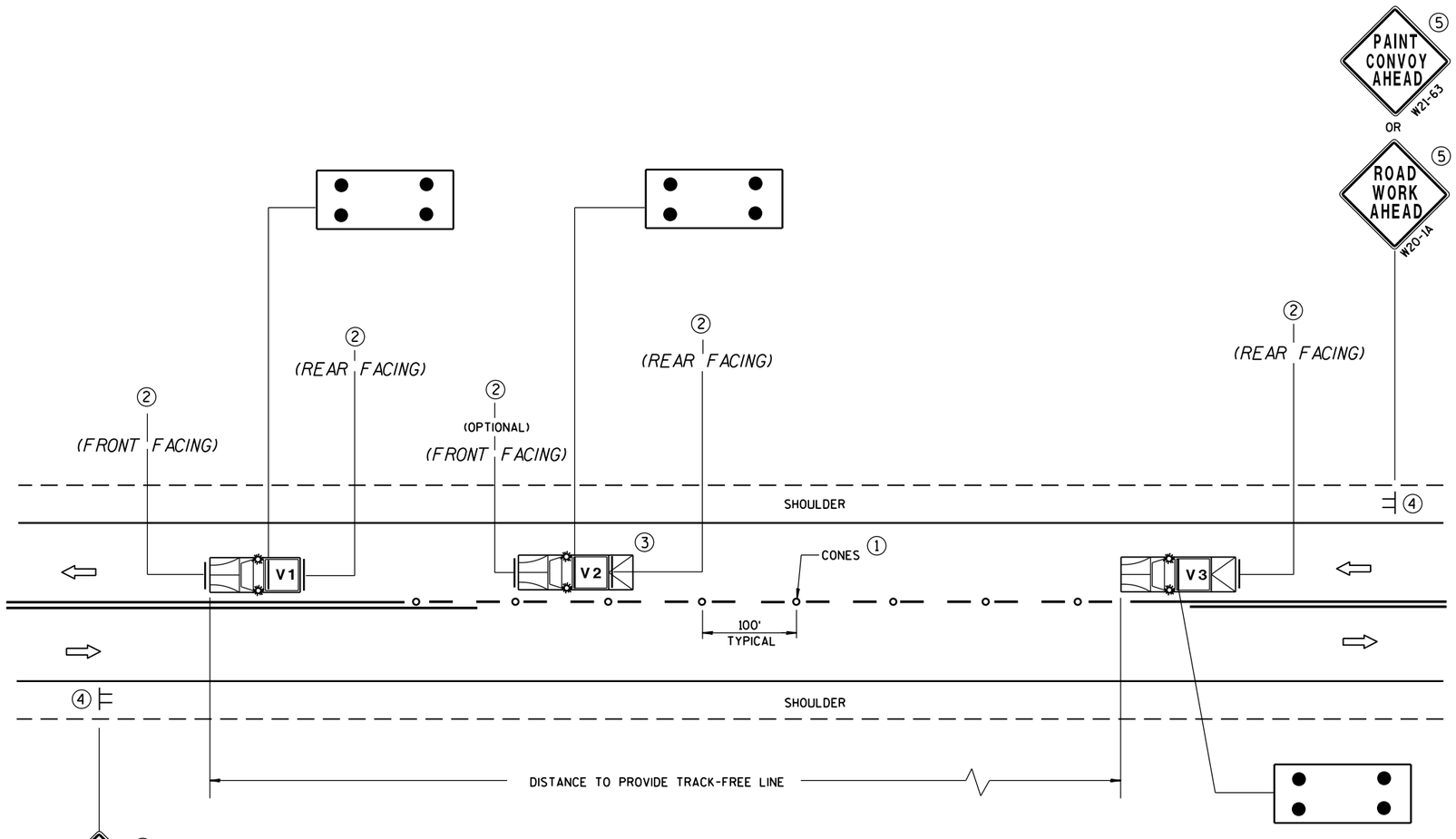
MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER 195 IGN
FHWA	

6

S.D.D. 15 C 18-3

6

S.D.D. 15 C 18-3



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

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

VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

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

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

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

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

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

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

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING OPERATION
TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

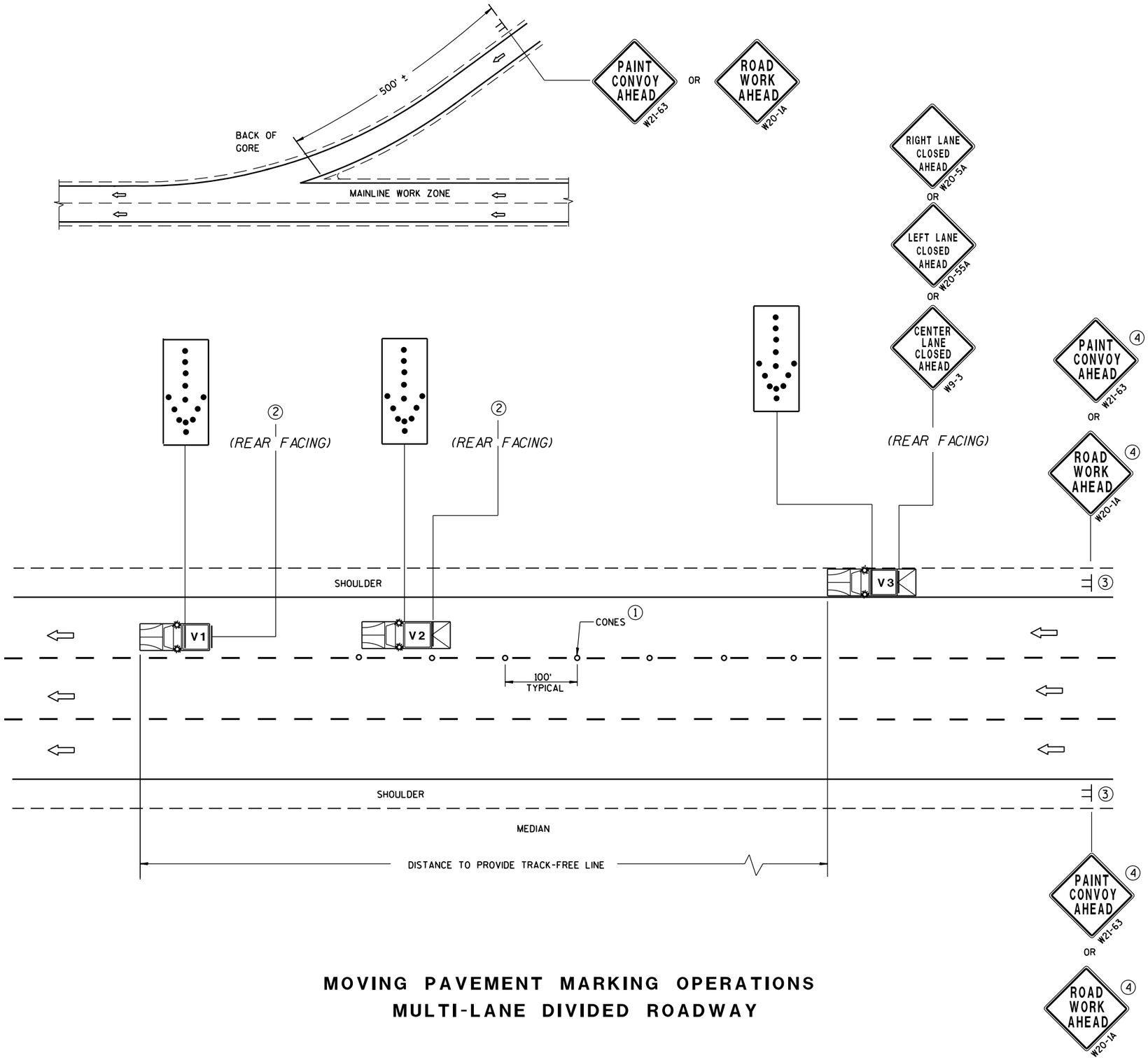
APPROVED
June 2016 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZON SAFETY ENGINE
FHWA

6

S.D.D. 15 C 19-4a

6

S.D.D. 15 C 19-4a



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED ROADWAY

GENERAL NOTES

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

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

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

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

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

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

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

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.

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

LEGEND

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

MOVING PAVEMENT MARKING OPERATION
MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON SAFETY ENGINI
FHWA

6

S.D.D. 15 C 19-4c

6

S.D.D. 15 C 19-4c

GENERAL NOTES

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

A DISTANCE DEPENDENT ON SPEED (SEE TABLE)

(1) WRONG WAY PREVENTION SIGNS ARE DISCUSSED IN T G M 2-15-12

(2) USED ONLY WHEN APPROVED BY REGION TRAFFIC ENGINEER.

SYMBOLS

* SIGNS MAY BE OMITTED IF SPACE DOES NOT PERMIT

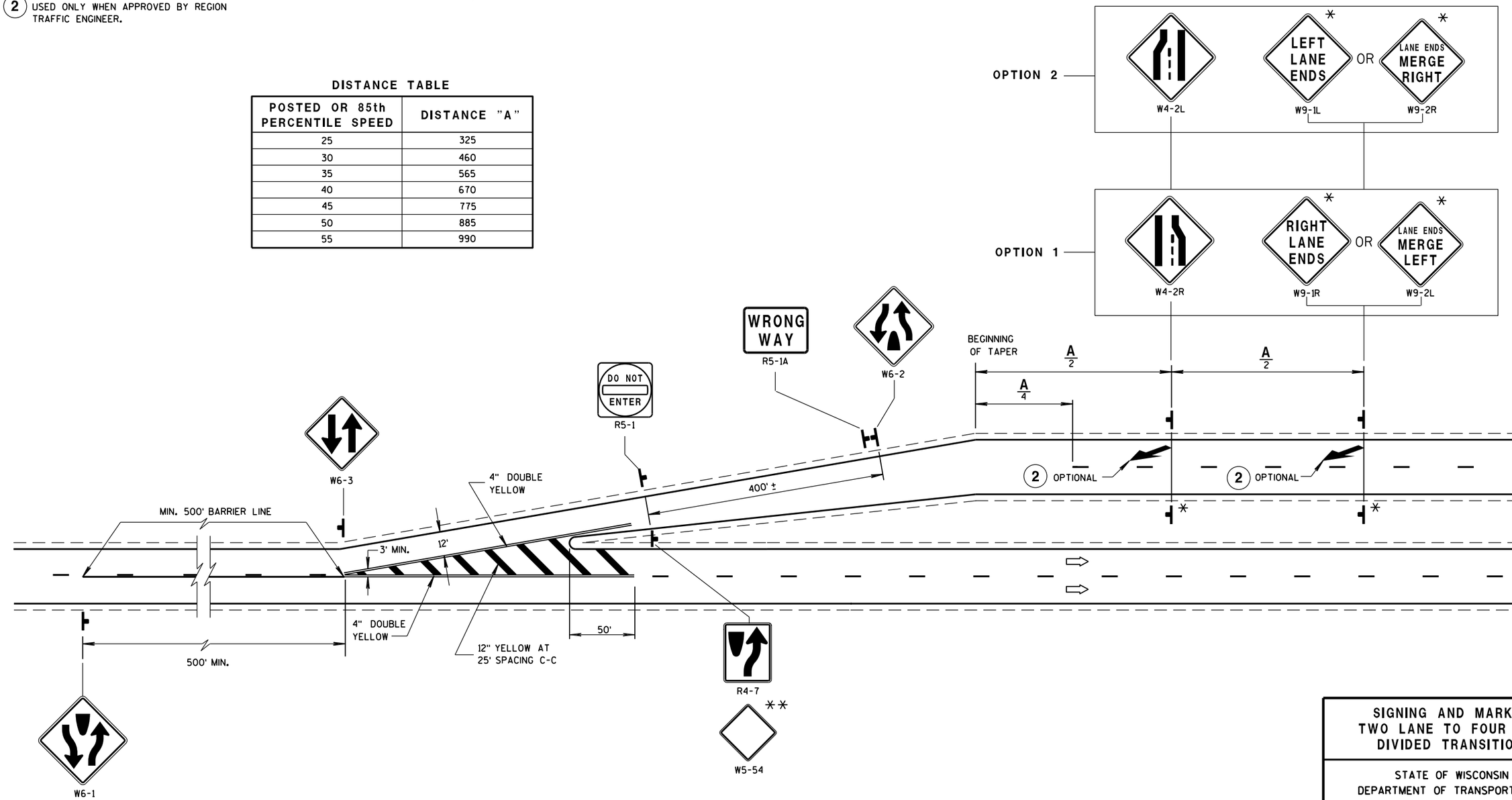
** IF POSTED SPEED 45 MPH OR GREATER, PLACE W5-54 SIGN UNDER R4-7 SIGN. MOUNT W5-54 SIGN AT 4' MOUNTING HEIGHT (TOP OF ROADWAY TO BOTTOM OF SIGN)

POST MOUNTED SIGN

DIRECTION OF TRAFFIC FLOW

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	325
30	460
35	565
40	670
45	775
50	885
55	990



SIGNING AND MARKING TWO LANE TO FOUR LANE DIVIDED TRANSITIONS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4-18-2016 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARI IEER
FHWA	

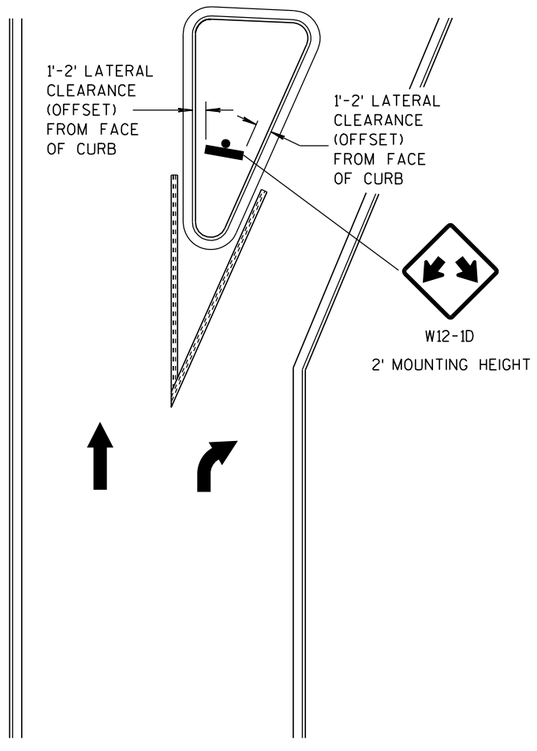
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S.D.D. 15 C 21-7

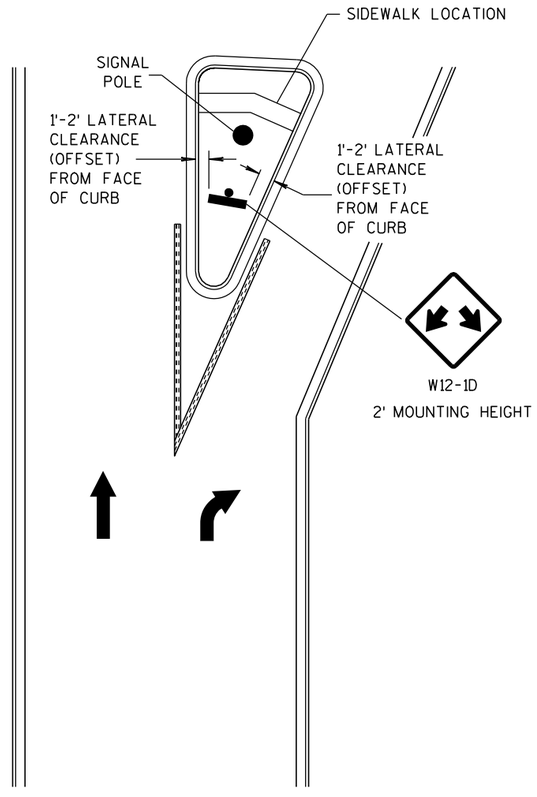
GENERAL NOTE

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

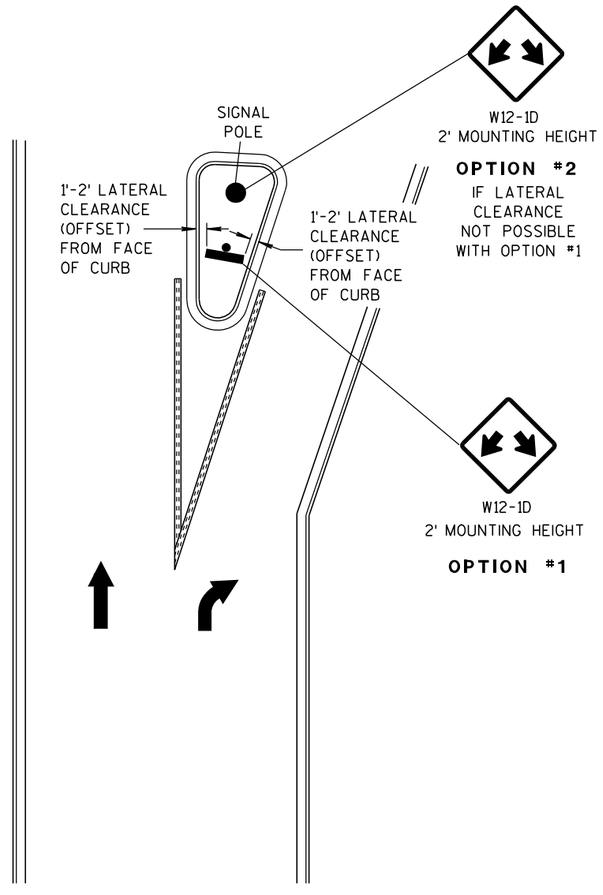
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.



LARGE RIGHT TURN ISLAND



LARGE RIGHT TURN ISLAND
WITH SIGNAL POLE



SMALL RIGHT TURN ISLAND

DOUBLE ARROW WARNING SIGN PLACEMENT

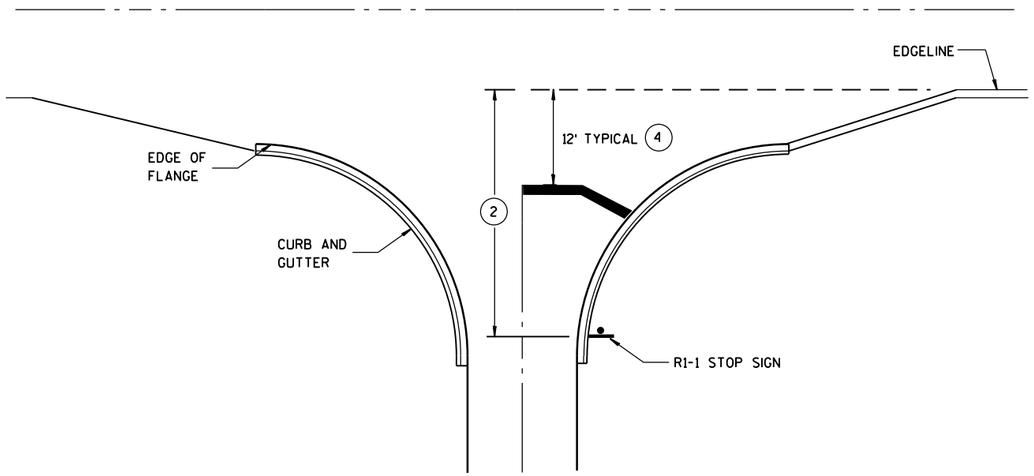
DOUBLE ARROW WARNING SIGN PLACEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
10-22-08 DATE	/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER
FHWA	

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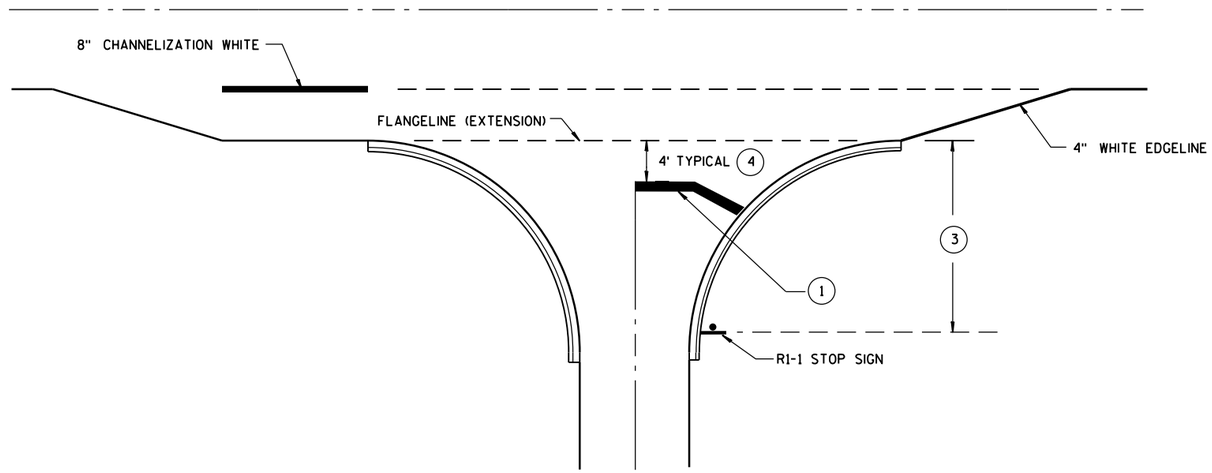
S.D.D. 15 C 27-1

6

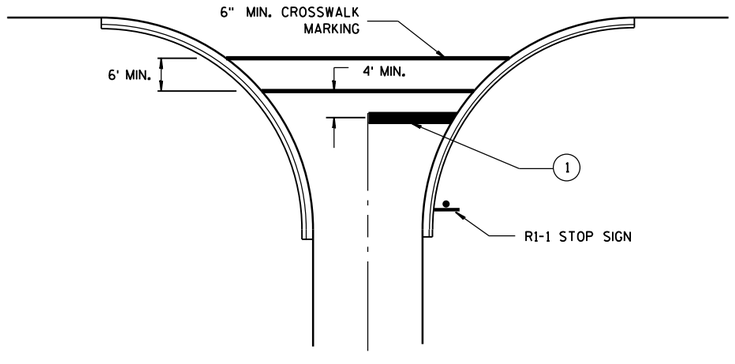
S.D.D. 15 C 27-1



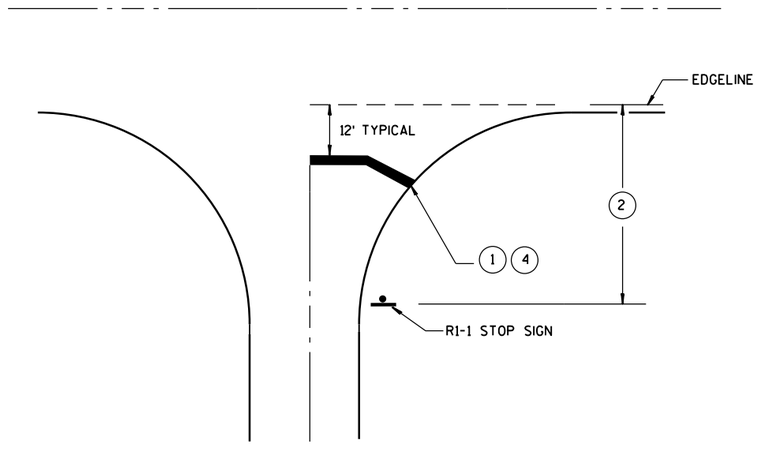
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



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 200 NEER

FHWA

6

S.D.D. 15 C 33-2

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

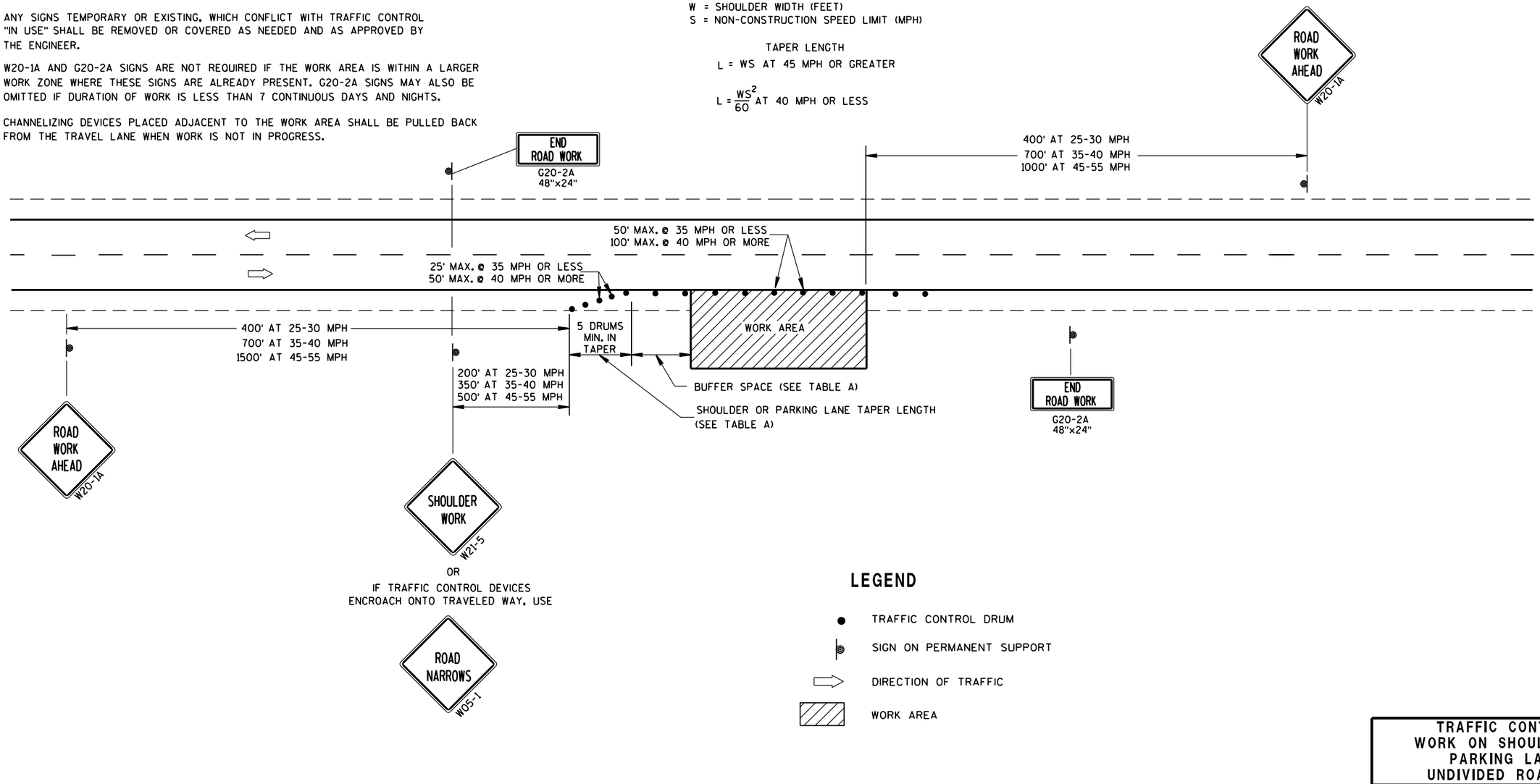
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

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

6

S.D.D. 15 D 28-3

6

S.D.D. 15 D 28-3

LEGEND

- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH ATTACHED SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- FLAGS, 16" x 16" MIN., (ORANGE)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- ASPHALTIC PAVEMENT WIDENING
- DIRECTION OF TRAFFIC
- 4" X 6" WOOD POST
- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES ON BREAKAWAY POLE



INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1-FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET.)

GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

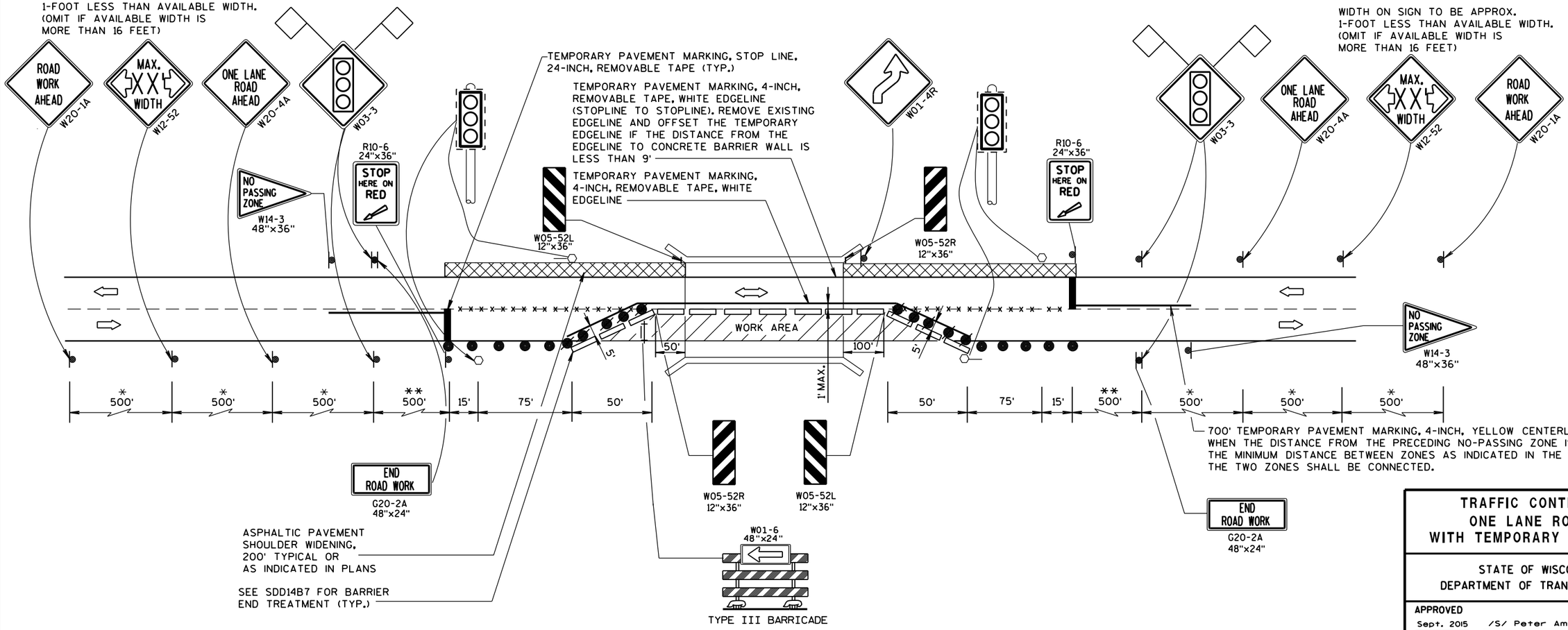
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

PLACE TEMPORARY PAVEMENT MARKING EDGELINE AND CENTERLINE, AND REMOVE EXISTING PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS OR AS NOTED ON DETAIL.

* 500-FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350-FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200-FOOT TYPICAL SPACING.

** USE 300' SPACING IF PRE-CONSTRUCTION REGULATORY SPEED LIMIT IS 35 MPH OR LESS.



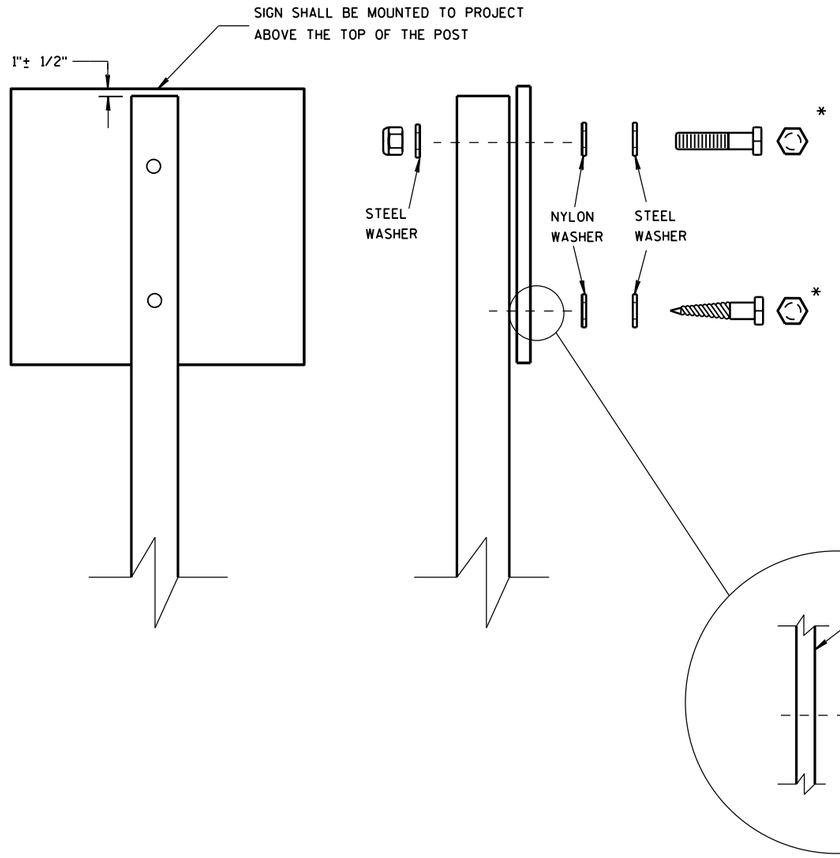
TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

S.D.D. 15 D 33-4

S.D.D. 15 D 33-4



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

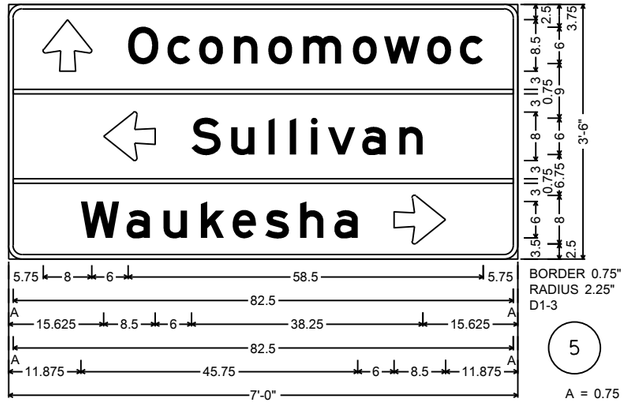
APPROVED

Feb. 2015 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

SIGN

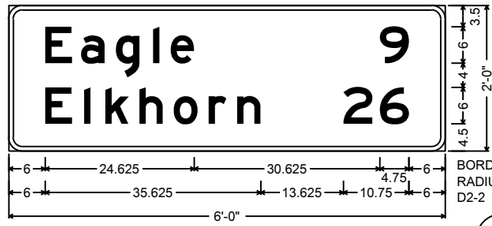


BORDER 0.75"
RADIUS 2.25"
D1-3

5

A = 0.75

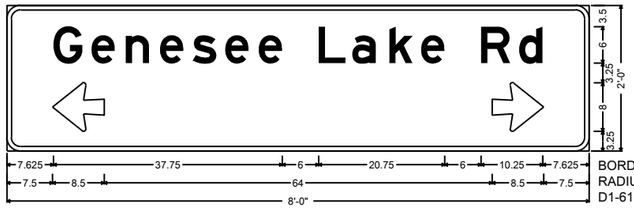
TYPE II SIGN



BORDER 0.75"
RADIUS 2.25"
D2-2

6

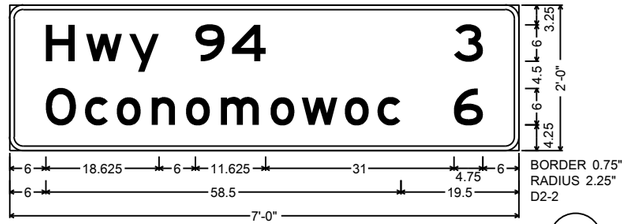
TYPE II SIGN



BORDER 0.75"
RADIUS 2.25"
D1-61

48 54

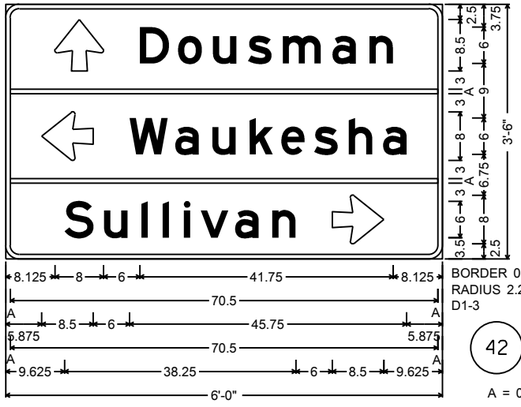
TYPE II SIGN



BORDER 0.75"
RADIUS 2.25"
D2-2

31

TYPE II SIGN



BORDER 0.75"
RADIUS 2.25"
D1-3

42

A = 0.75

TYPE II SIGN



M1-94S

145 161

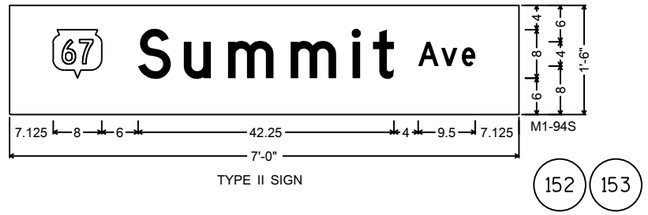
TYPE II SIGN

GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE II".
3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE "TYPE SH REFLECTIVE SHEETING".
4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.
5. TYPE II SIGNS ALL UPPERCASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E". ALL LOWERCASE MESSAGE WITH AN INITIAL UPPERCASE LETTER SHALL BE "SERIES E".
6. TYPE I SIGNS ALL UPPERCASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E MODIFIED". ALL LOWER CASE MESSAGE WITH AN INITIAL UPPERCASE LETTER SHALL BE "SERIES E MODIFIED". ALL CAP WORDS ARE "SERIES E".
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE "SERIES E" PER PLATES A11-7 AND A11-10.
11. DO NOT SCALE.

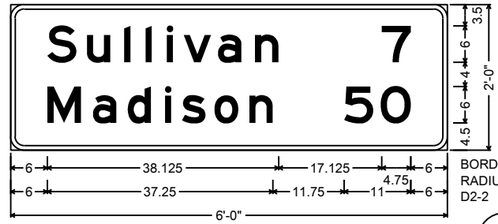
PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	SIGNING DETAIL - TYPE II SIGNS	SHEET 204	E

FILE NAME : N:\PDS\C3D\CAD\31000630\SIGN\070101_MS.DWG
LAYOUT NAME - 070101_MS
PLOT DATE : 5/5/2016 7:54 AM PLOT BY : DODGE, BRIAN M PLOT NAME :
WISDOT/CADDS SHEET



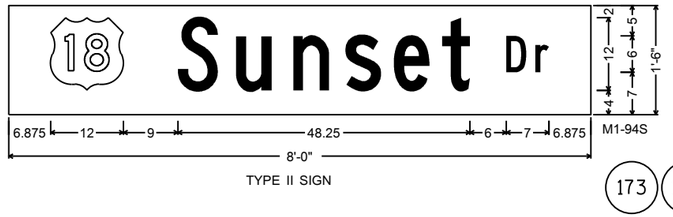
TYPE II SIGN

152 153



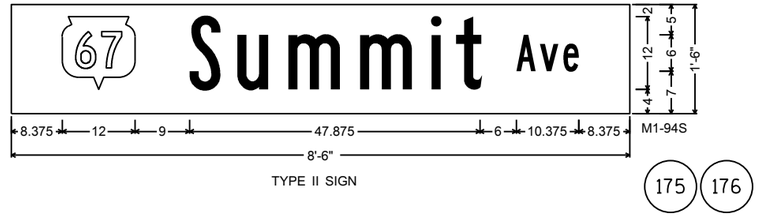
TYPE II SIGN

166



TYPE II SIGN

173 183

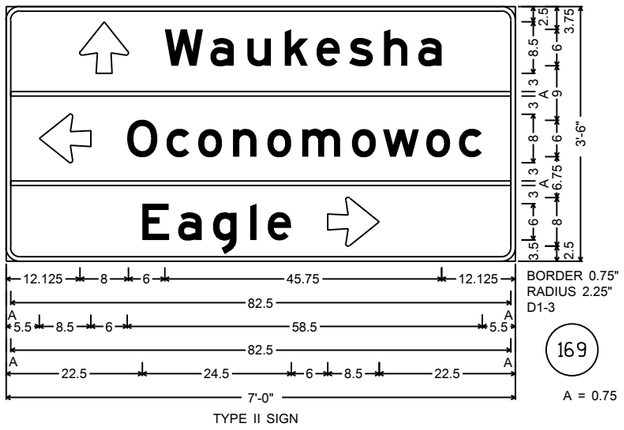


TYPE II SIGN

175 176

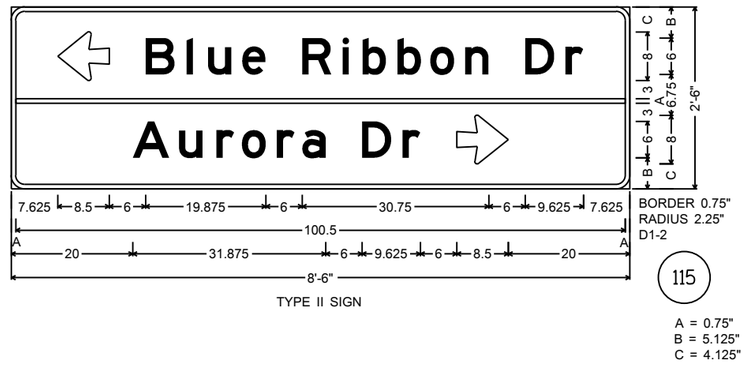
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8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE "SERIES E" PER PLATES A11-7 AND A11-10.
11. DO NOT SCALE.



TYPE II SIGN

169

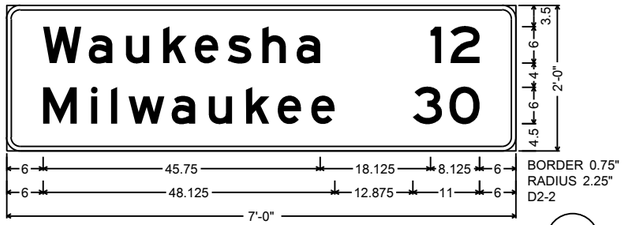


TYPE II SIGN

115

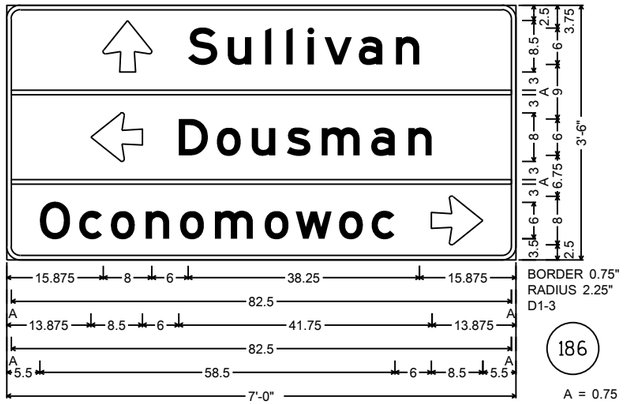
PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	SIGNING DETAIL - TYPE II SIGNS	SHEET 205	E

FILE NAME : N:\PDS\C3D\CAD\31000630\SIGN\070101_MS.DWG
LAYOUT NAME - 070101_MS (2)
PLOT DATE : 5/5/2016 7:54 AM PLOT BY : DODGE, BRIAN M PLOT NAME :
WISDOT/CADDS SHEET



TYPE II SIGN

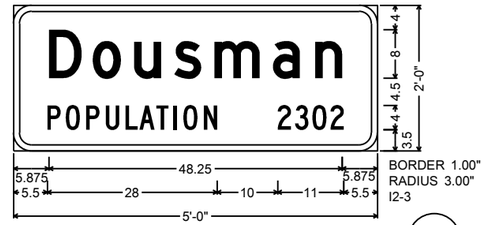
180



TYPE II SIGN

186

A = 0.75

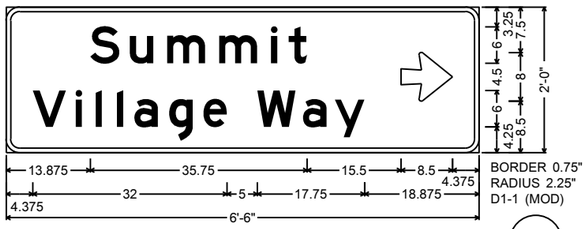


TYPE II SIGN

193

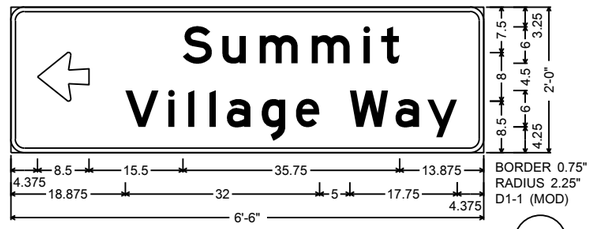
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11. DO NOT SCALE.



TYPE II SIGN

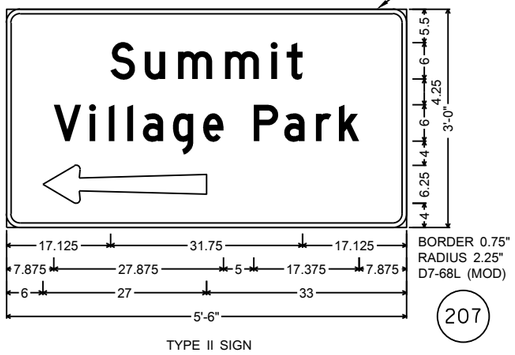
199



TYPE II SIGN

200

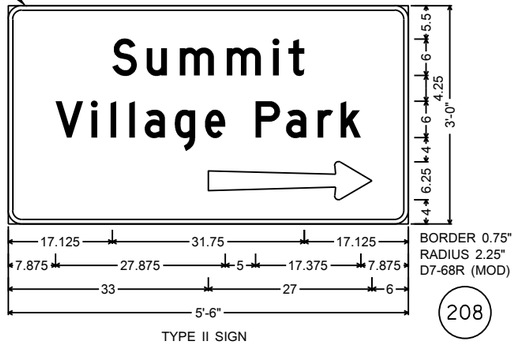
BROWN BACKGROUND
WHITE COPY



BORDER 0.75"
RADIUS 2.25"
D7-68L (MOD)

207

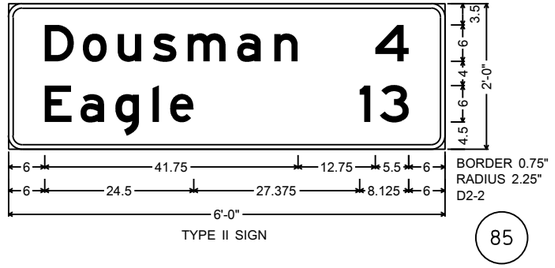
TYPE II SIGN



BORDER 0.75"
RADIUS 2.25"
D7-68R (MOD)

208

TYPE II SIGN



BORDER 0.75"
RADIUS 2.25"
D2-2

85

TYPE II SIGN

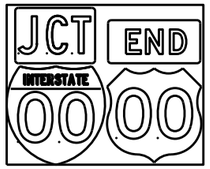
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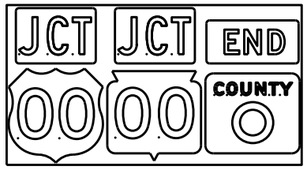
TYPICAL ASSEMBLIES



J1-1



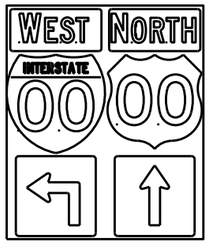
J1-2



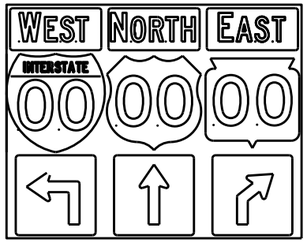
J1-3



J2-1



J2-2

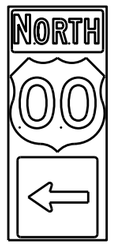


J2-3

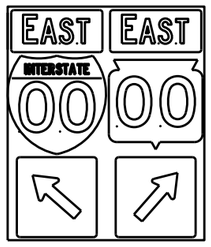


JV

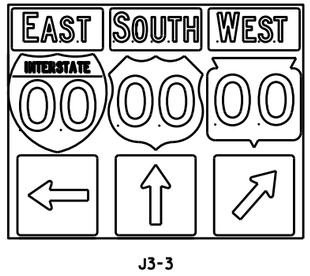
(Typical Vertical J-Assembly
See Note 10 and 11)



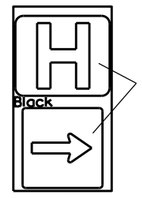
J3-1



J3-2



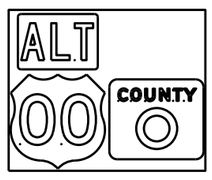
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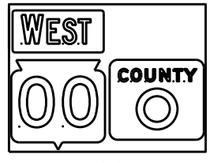
JH-1



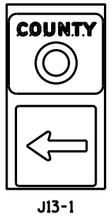
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

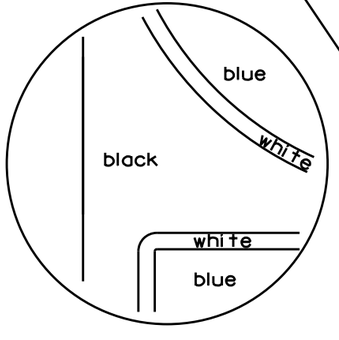


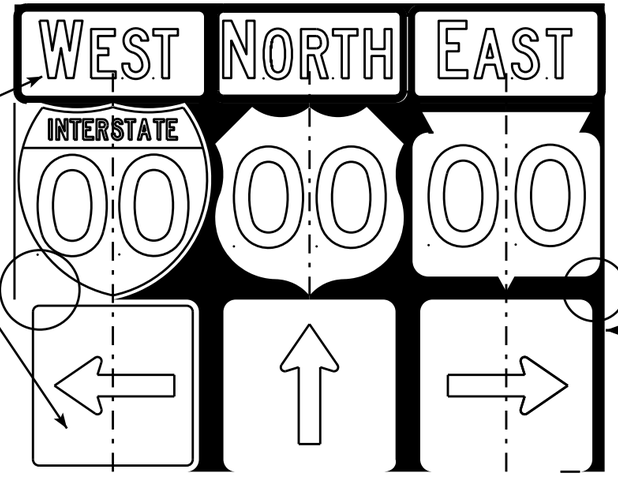
J23-1

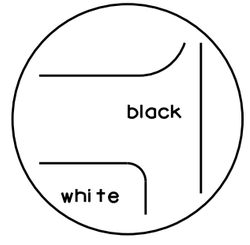


J22-1

[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

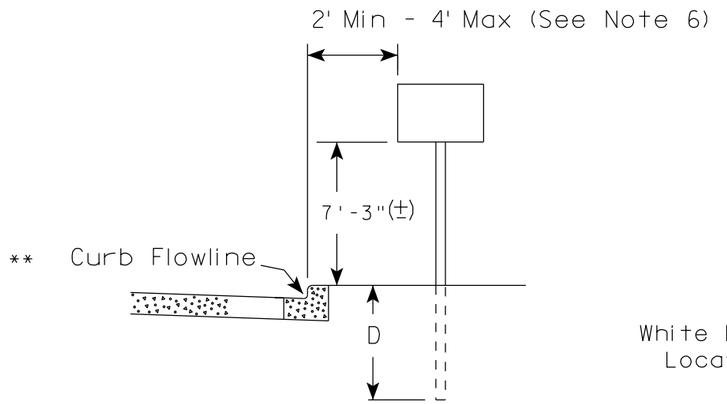
DATE 2/06/14 PL... A2-1S.8

PROJECT NO: | SHEET NO: E

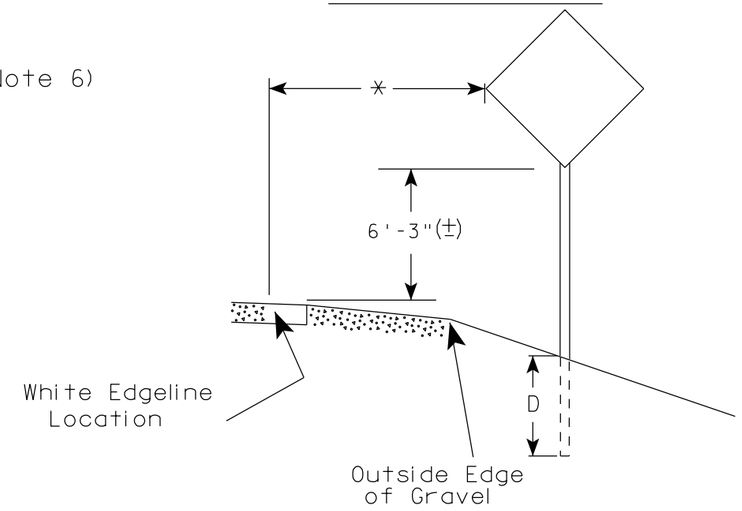
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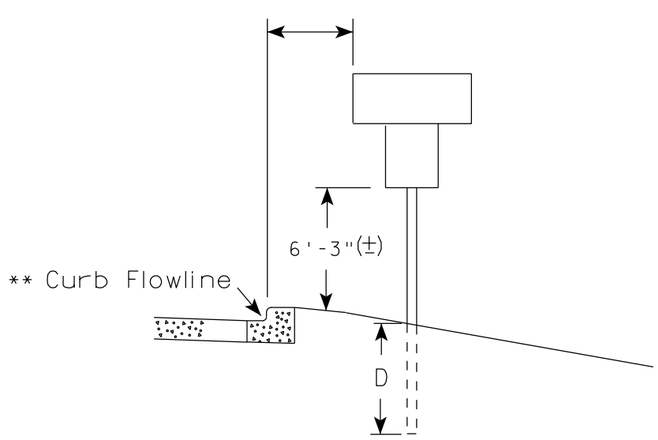
WISDOT/CADDS SHEET 42

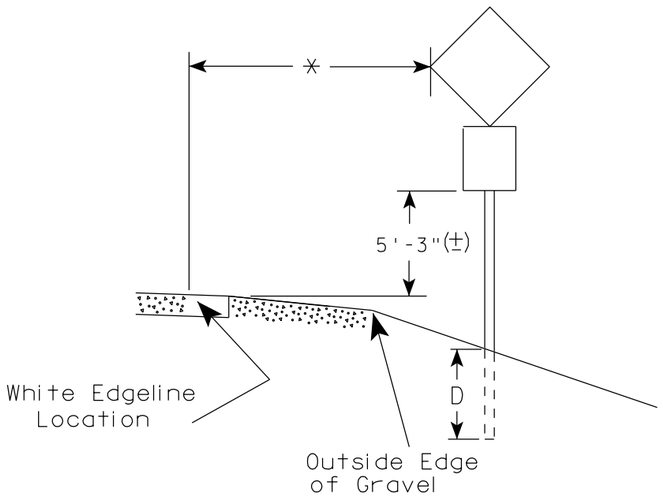
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. 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" (±).

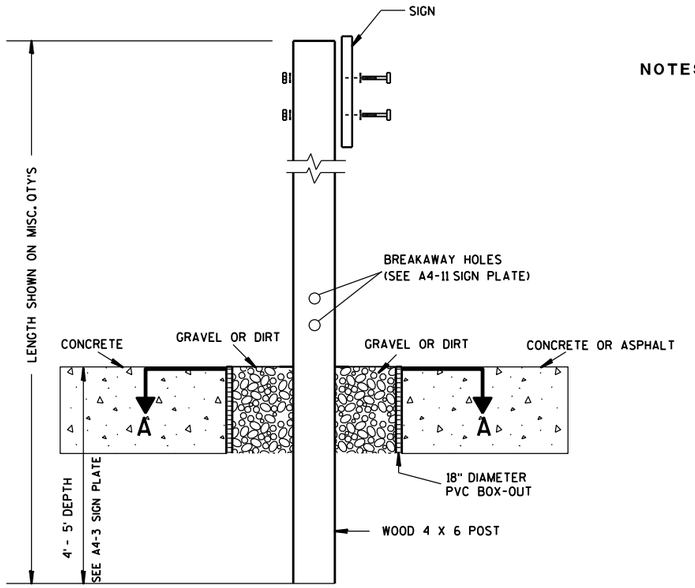
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

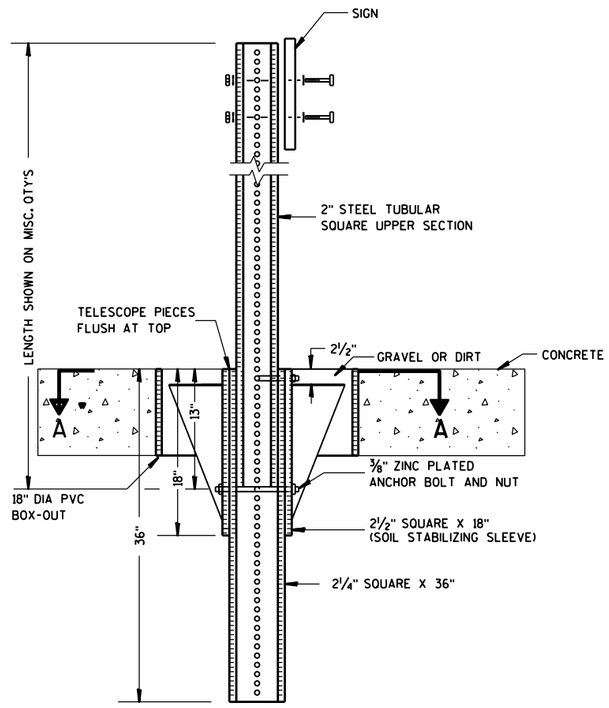
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

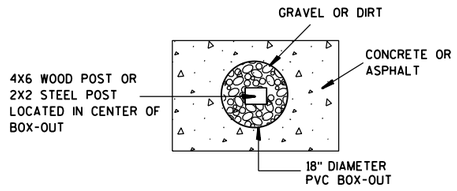
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

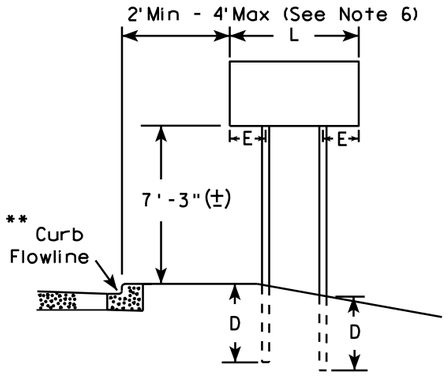
APPROVED Matthew R Rauch
for State Traffic Engineer

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

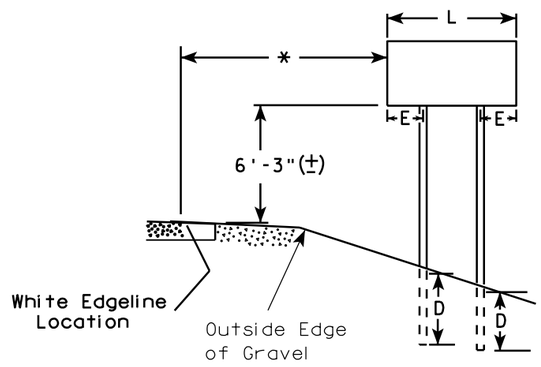
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

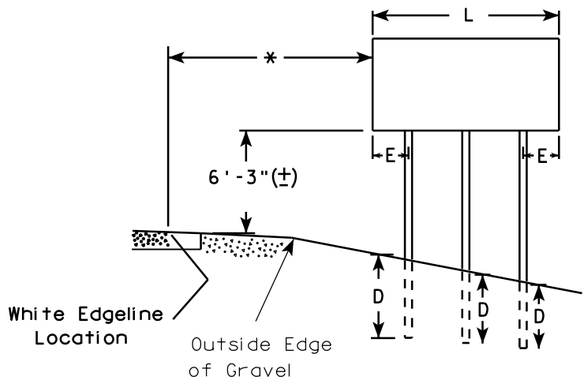
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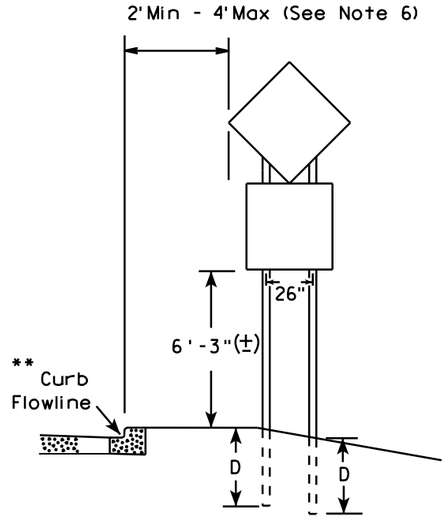
URBAN AREA



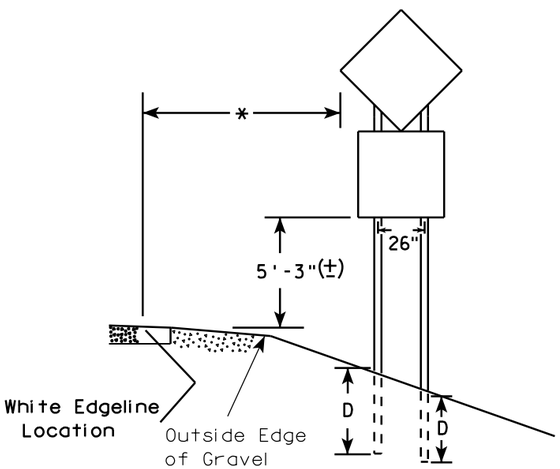
RURAL AREA (See Note 3)







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'

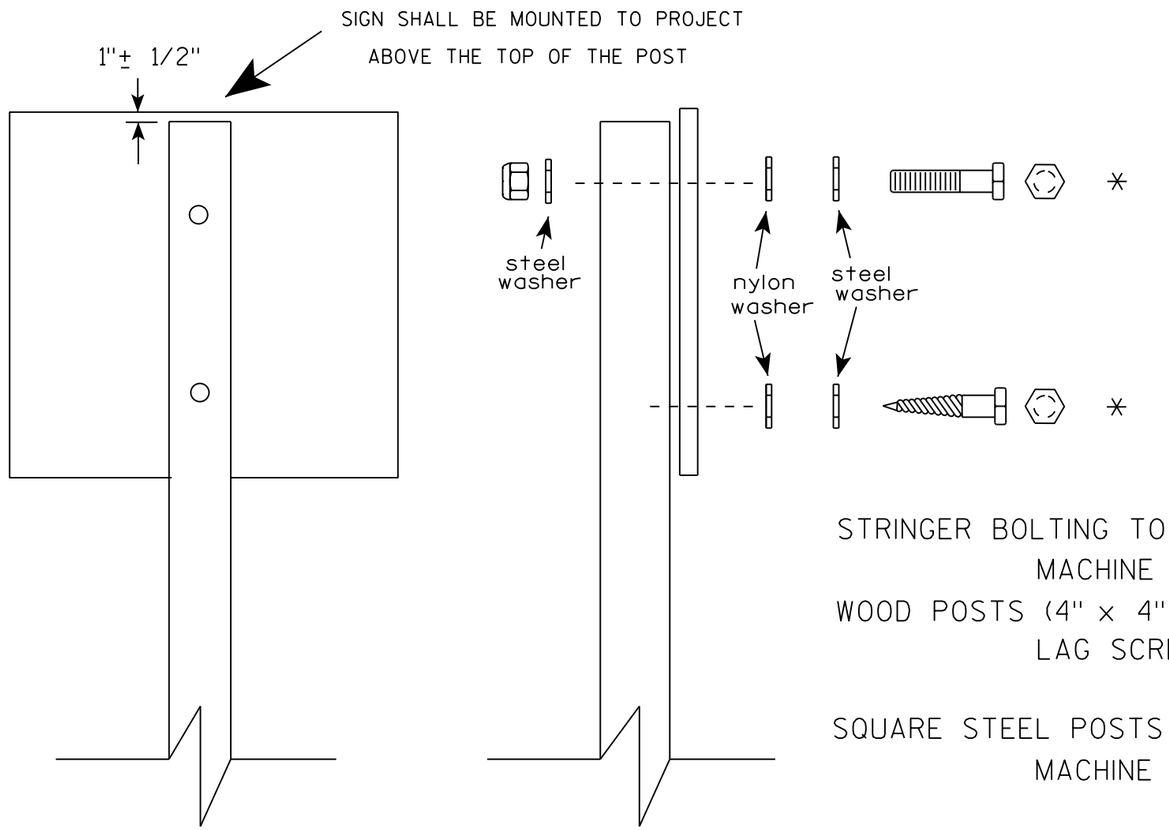
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14
211

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

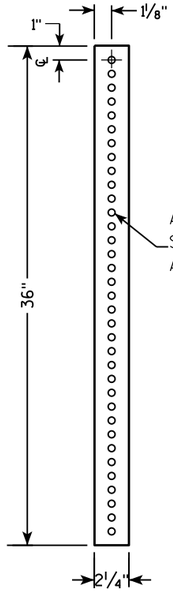
DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

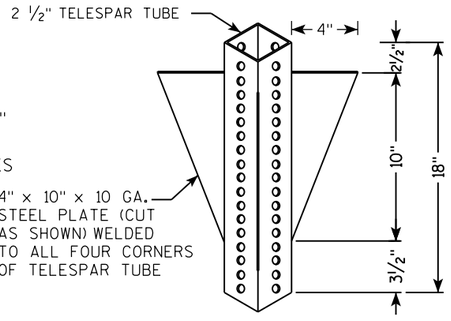
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TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

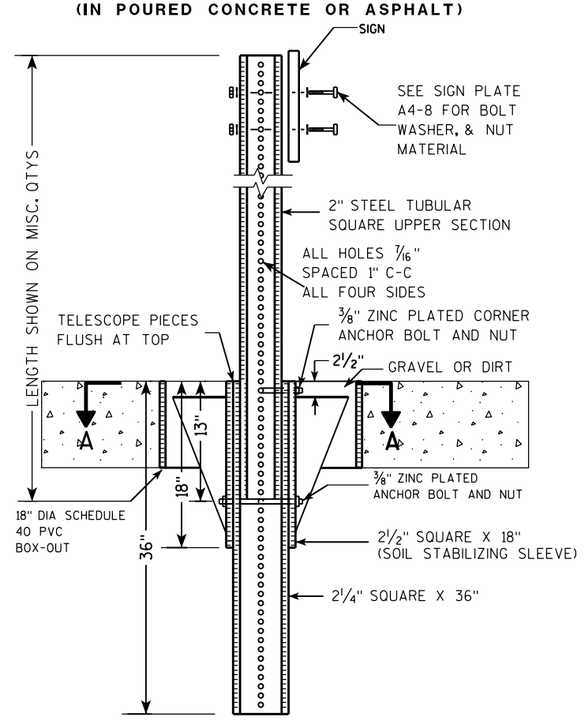
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



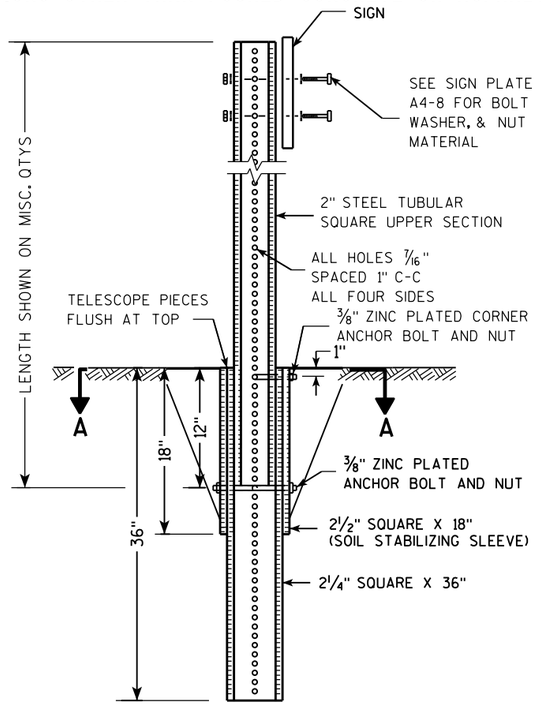
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

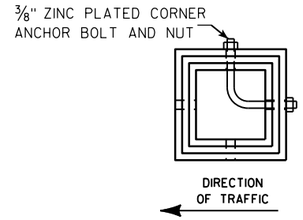


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

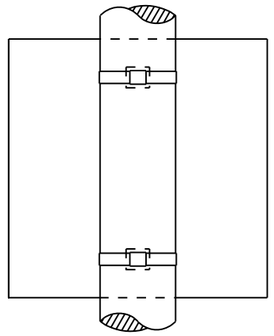
APPROVED Matthew R Rauch
for State Traffic Engineer

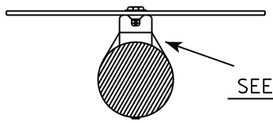
DATE 2/05/15 PLATE 213 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

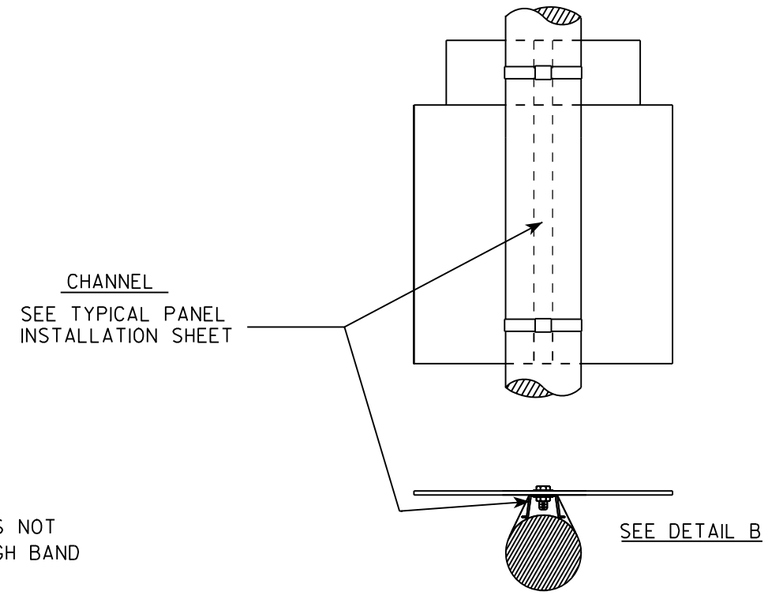
BANDING

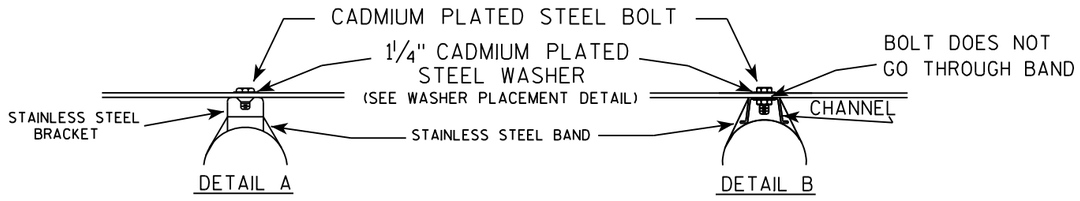
SINGLE SIGN



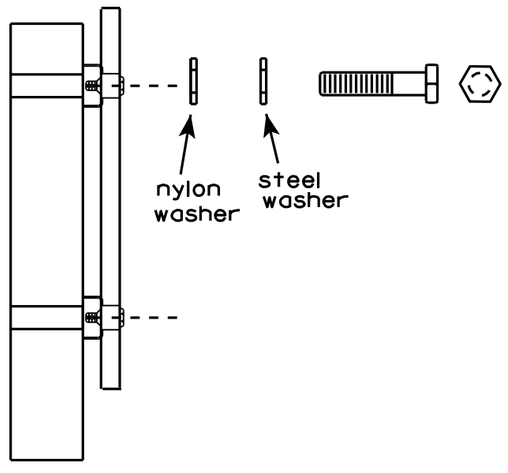


"J" ASSEMBLY





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.

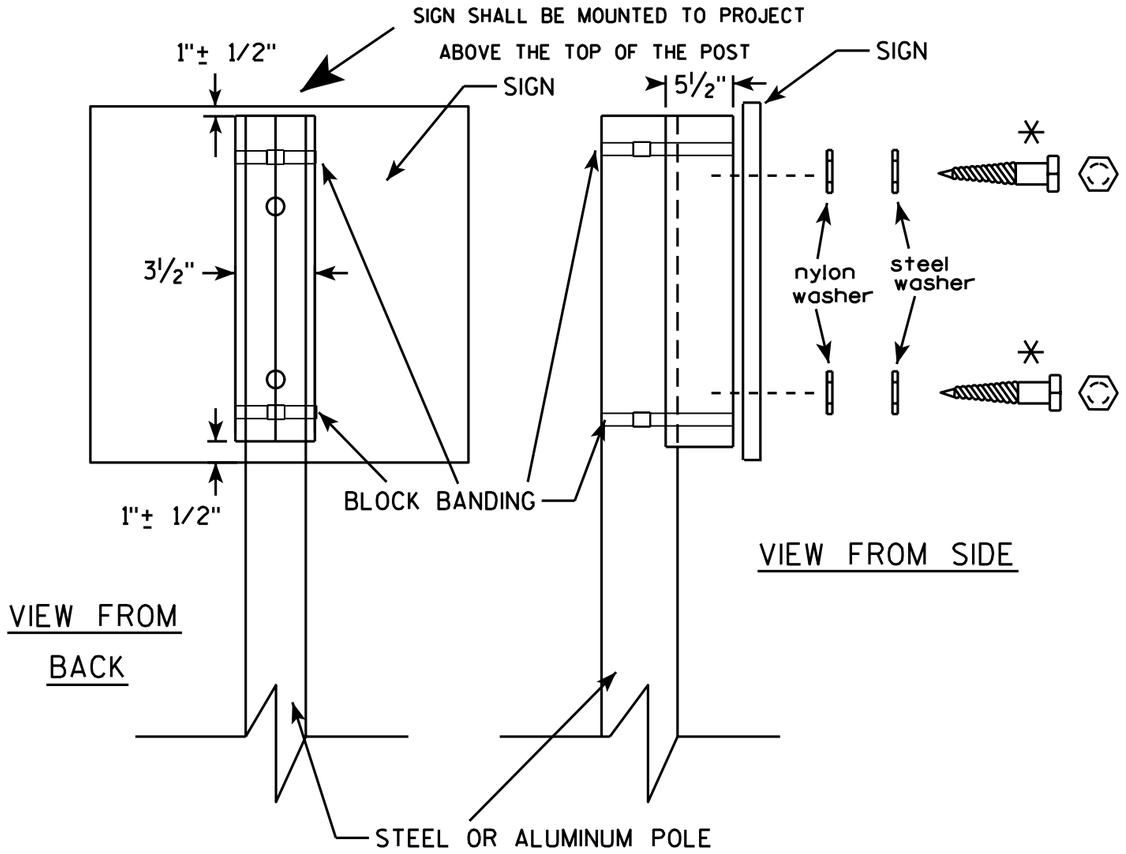
STANDARD SIGN
SIGN BANDING DETAILS

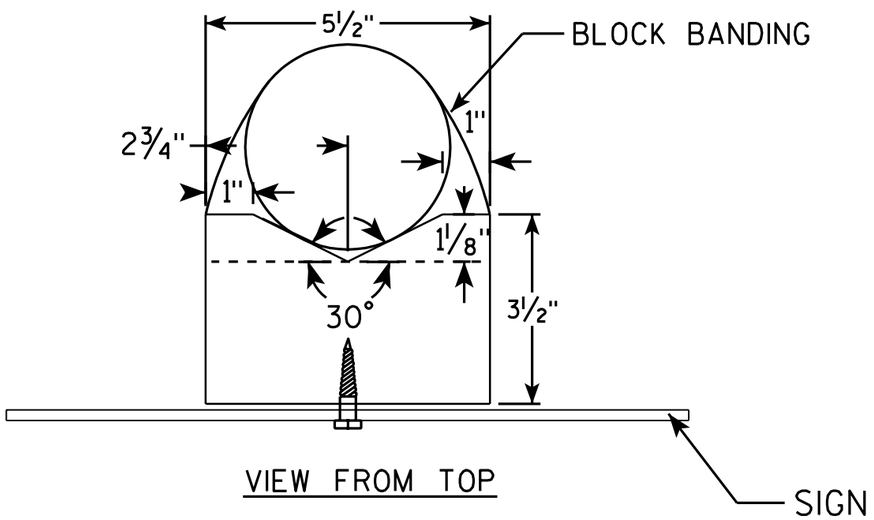
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 214	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)

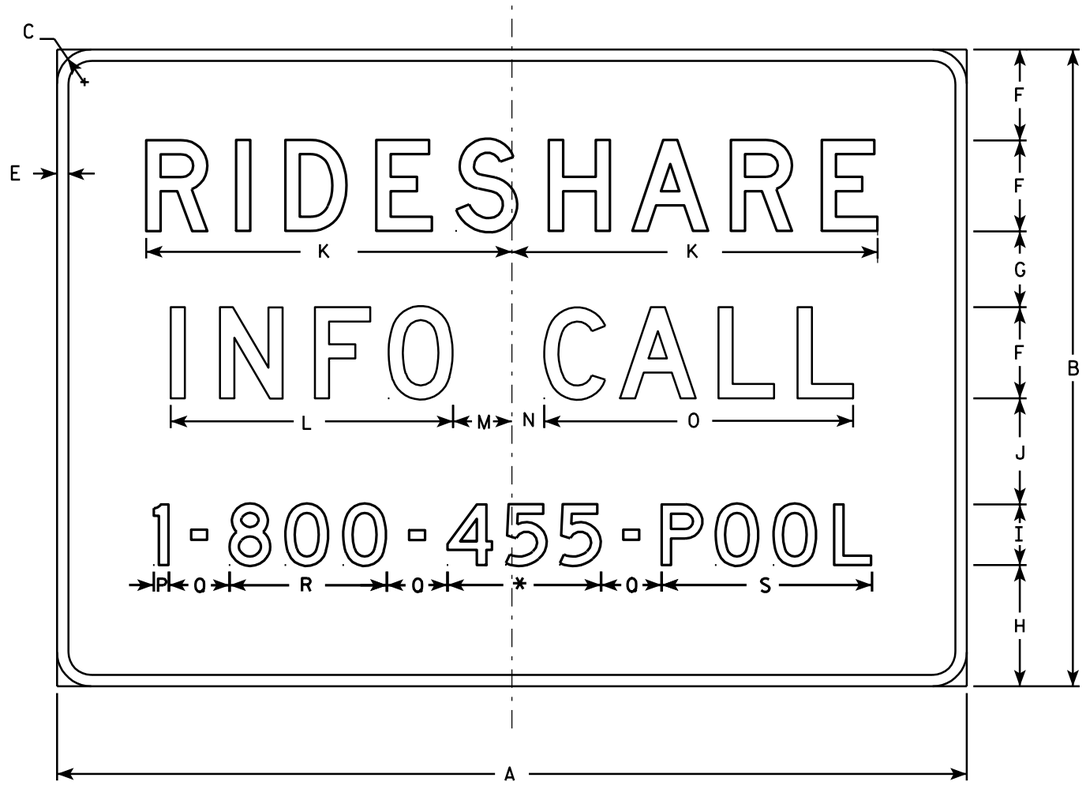
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 215 E



D12-2A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White - Type H Reflective
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. Substitute appropriate numerals and adjust spacing as required to achieve proper balance.

Metric equivalent for this sign is:

SIZE	
1	1200 mm X 525 mm
2	1500 mm X 1050 mm
3	
4	1500 mm X 1050 mm
5	1950 mm X 1350 mm

* Variable (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.	Area m2
1	48	21	1 1/2		1/2	3	2 3/4	3 1/2	3	2 3/4	12 1/8	9 3/8	2	1 1/8	10 1/4	3/4	3	7 3/4	10 5/8								7.0	0.63
2	60	42	2 1/4		3/4	6	5	8	4	7	24 1/8	18 5/8	3 1/8	2 1/8	20 1/8	1	4	10 3/8	13 7/8								17.5	1.58
3																												
4	60	42	2 1/4		3/4	6	5	8	4	7	24 1/8	18 5/8	3 1/8	2 1/8	20 1/8	1	4	10 3/8	13 7/8								17.5	1.58
5	78	54	3		1	8	6	10	6	8	30 1/8	23 5/8	4 1/8	2 1/8	26 3/8	1 1/2	5	15 1/2	21 1/4								29.25	2.63

STANDARD SIGN
D12-2A

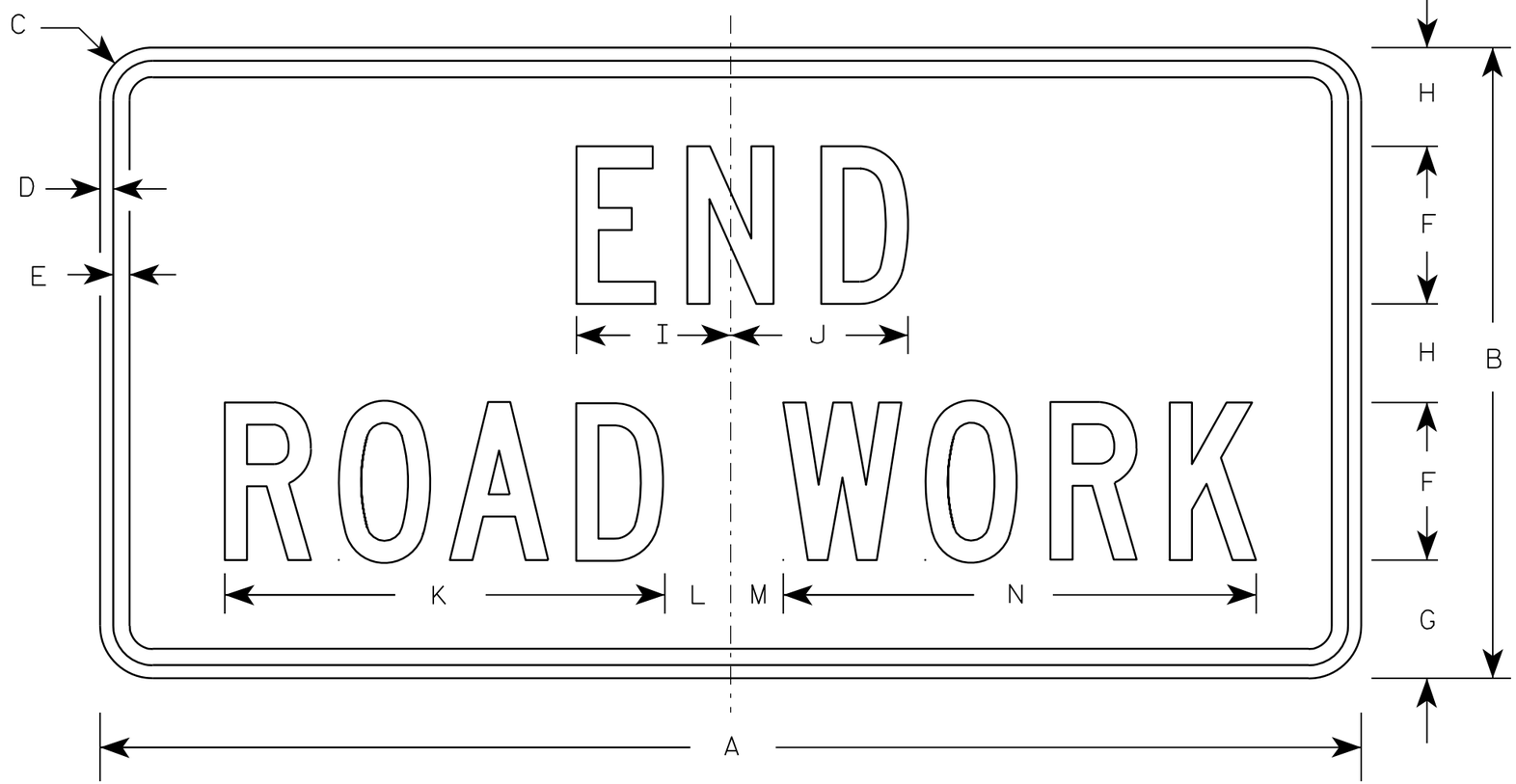
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spay for State Traffic Engineer

DATE 1/16/02 PLATE NO. D12-2A.3

PROJECT NO:

SHEET NO: 216 E



G20-2A

NOTES

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

Metric equivalent for this sign is:

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

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

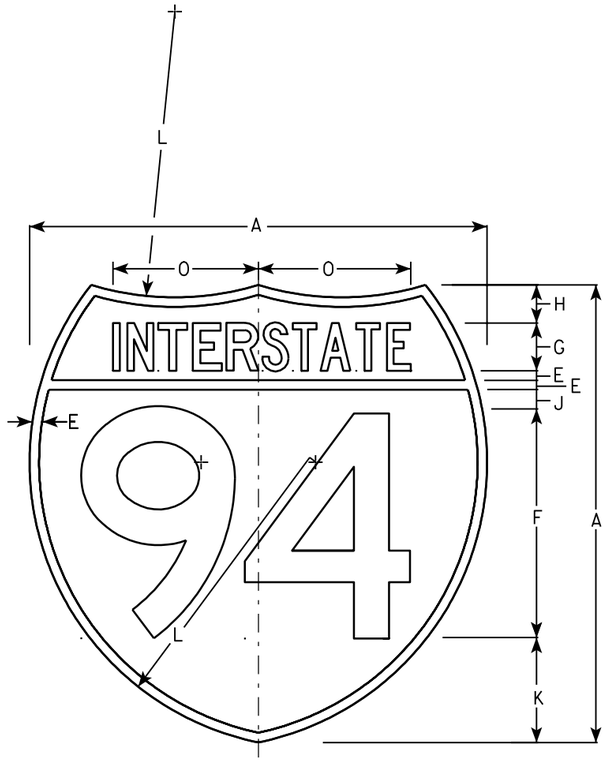
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

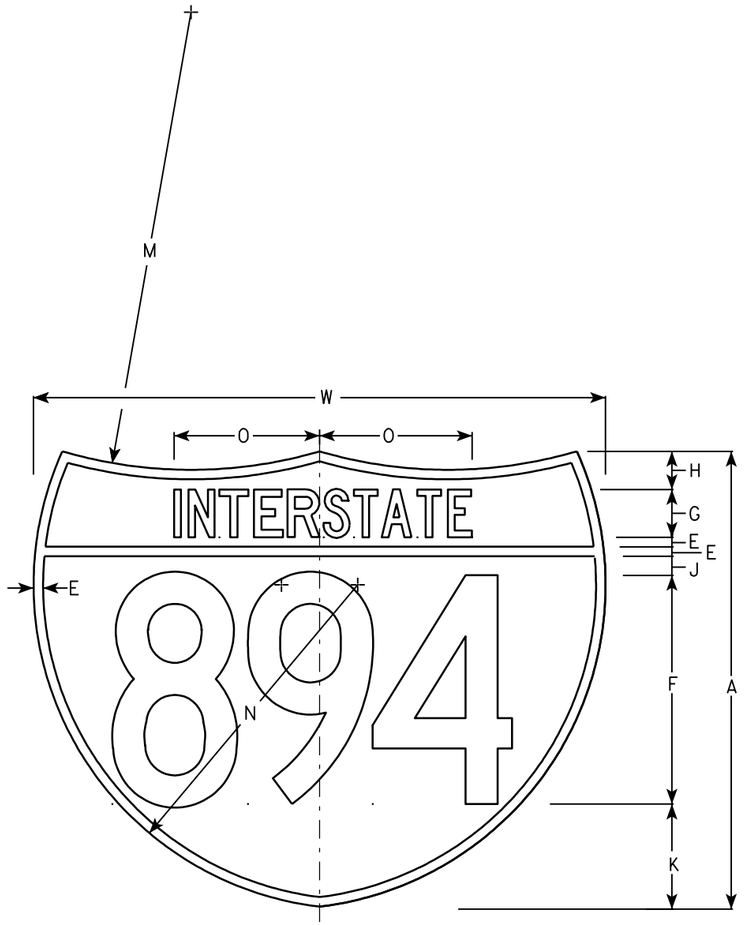
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 217	E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 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	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

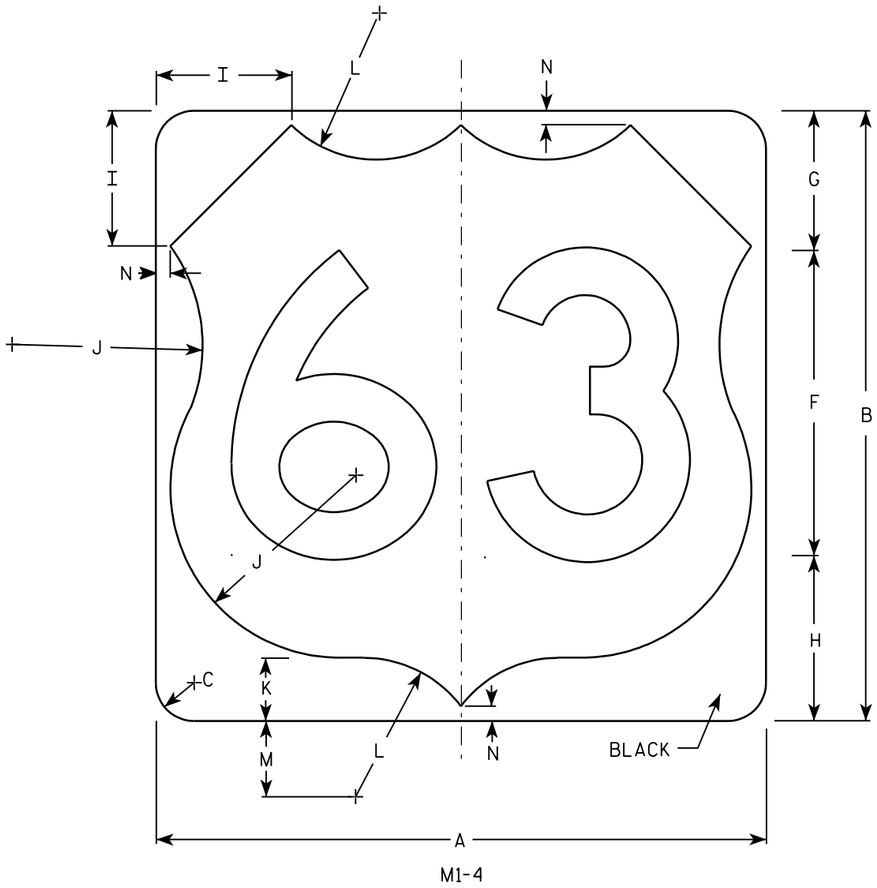
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

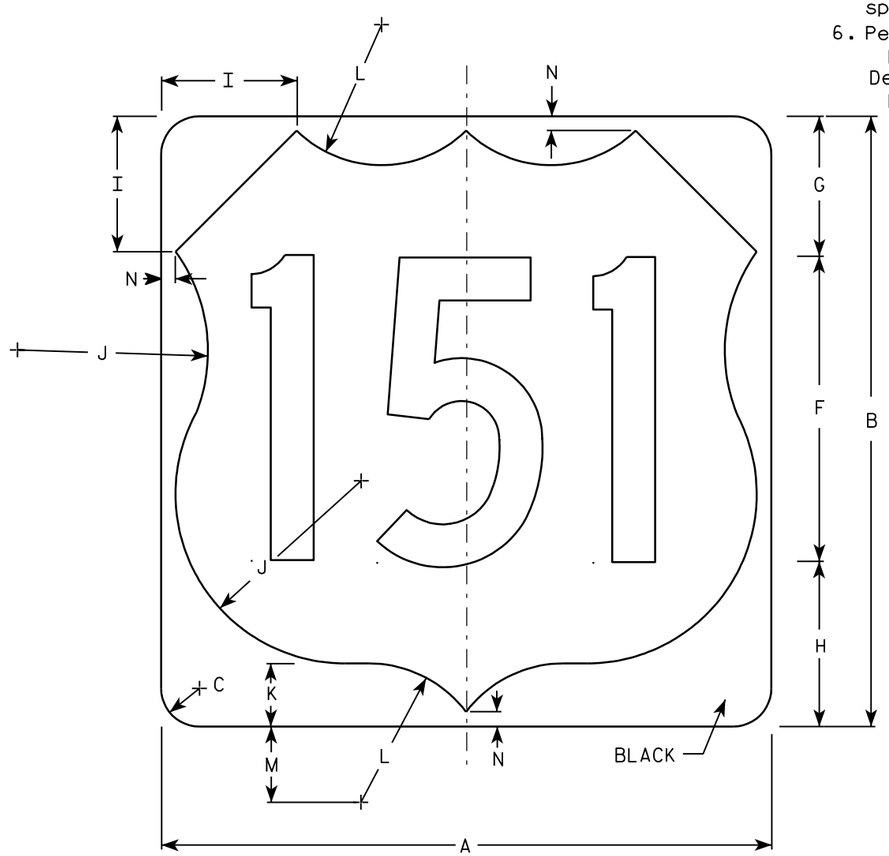
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 218	E

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

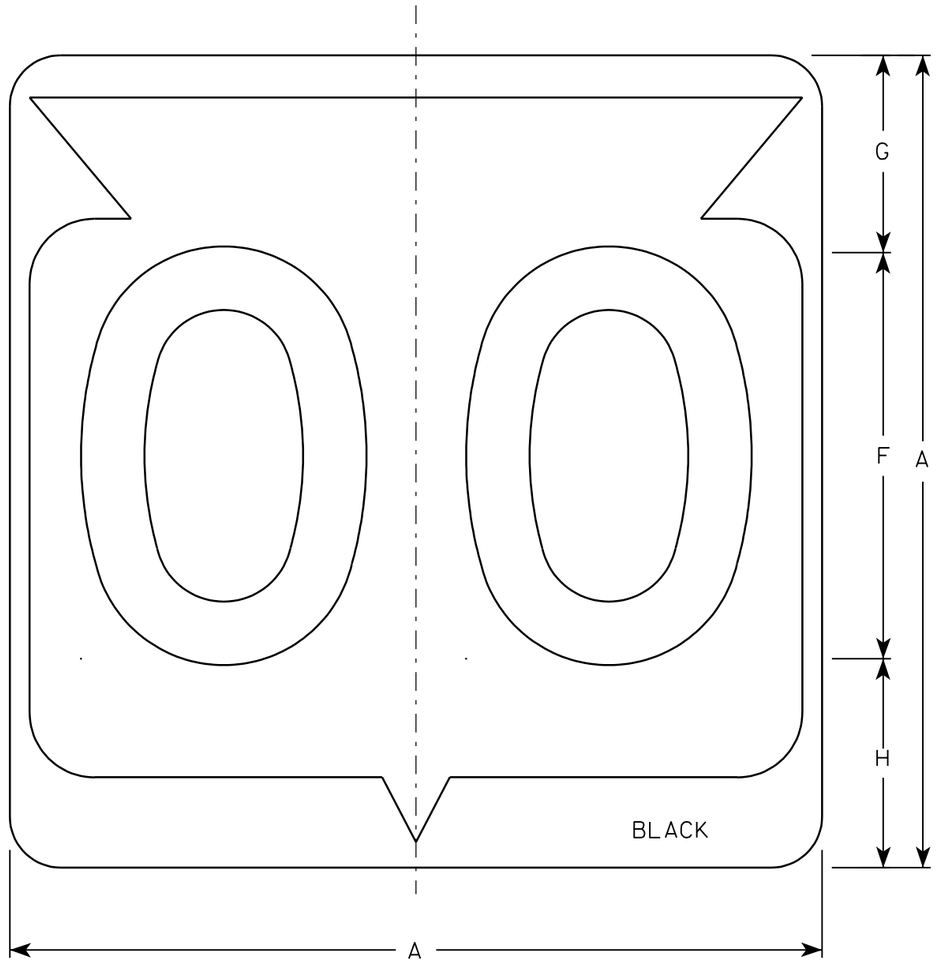
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/25/05 PLATE NO. M1-4.9

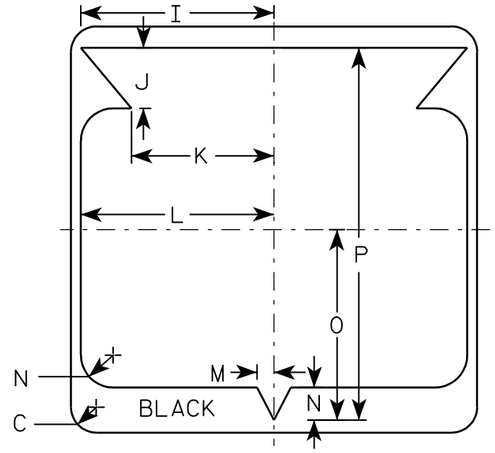
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 219 | E



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

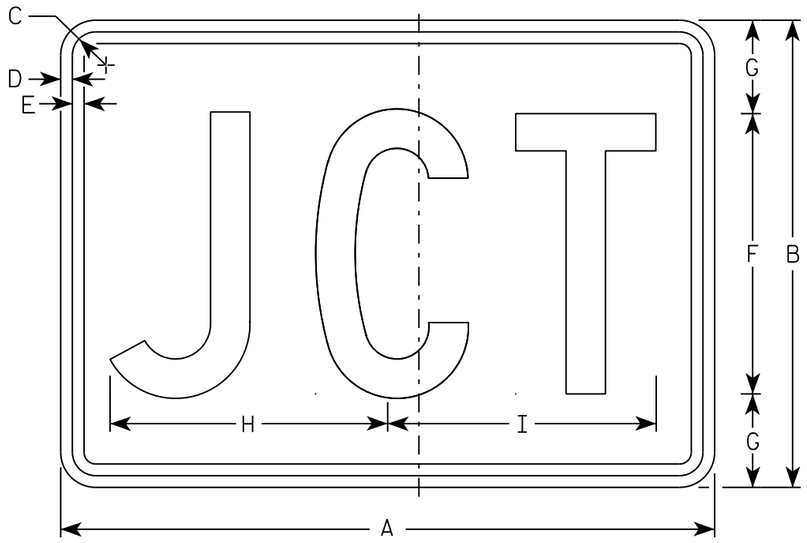
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

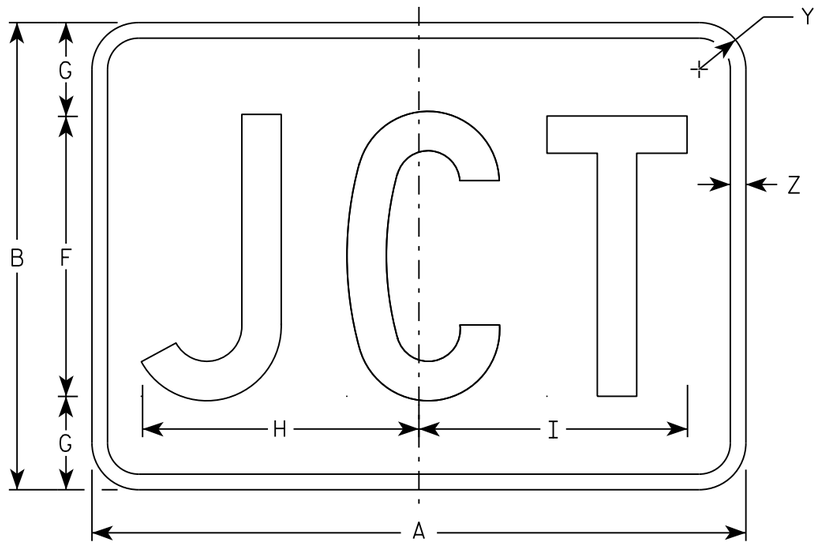
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 220	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

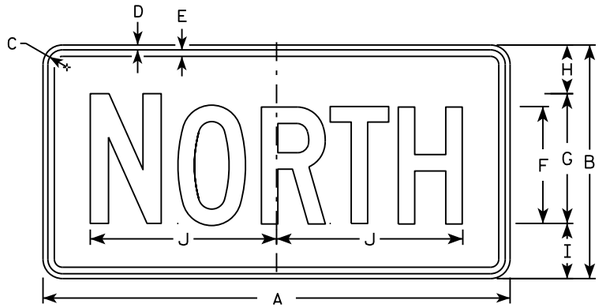
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

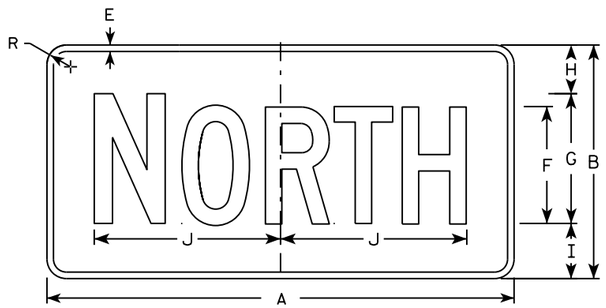
DATE 10/15/15 PLATE 221 12-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M21.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.864603:1.000000



M3-1
MM3-1
MP3-1



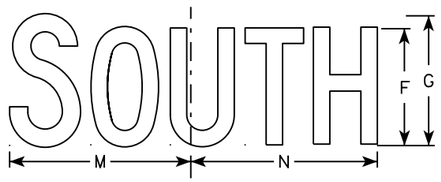
MB3-1
MK3-1
MN3-1



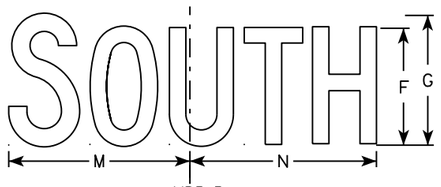
M3-2
MM3-2
MP3-2



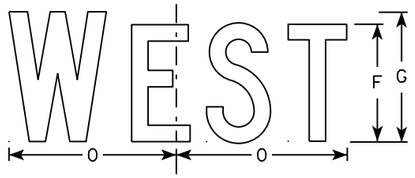
MB3-2
MK3-2
MN3-2



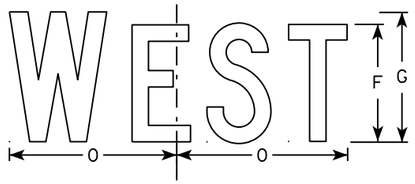
M3-3
MM3-3
MP3-3



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

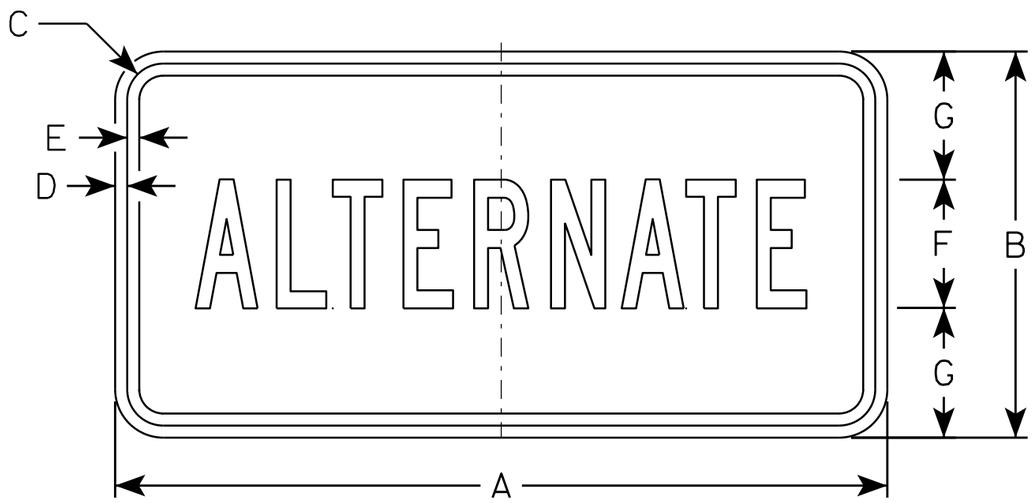
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

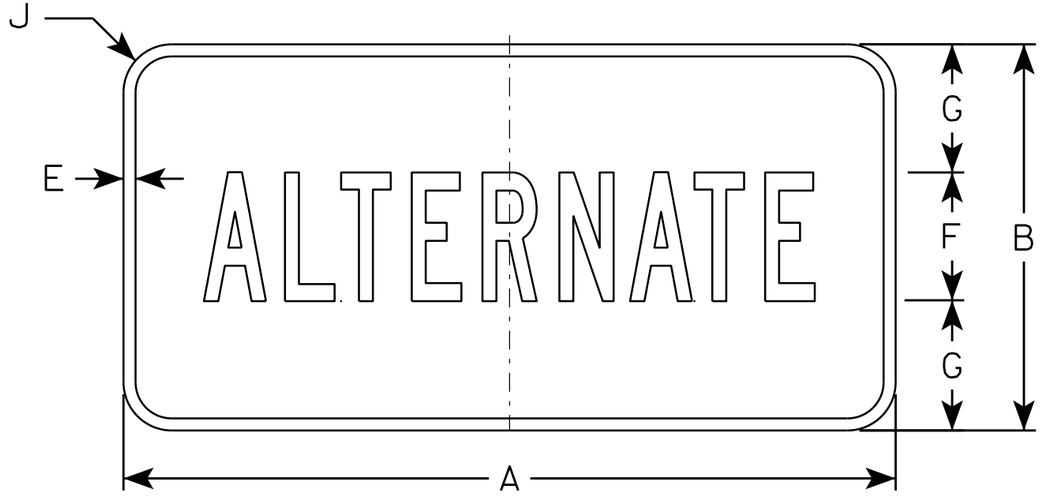
DATE 10/15/15 PLATE NO M3-1.14

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



M4-1
M04-1



MB4-1

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See Note 5
   Message - See note 5
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.
5. M4-1 Background - White
   Message - Black

   MB4-1 Background - Blue
   Message - White

   M04-1 Background - Orange - Type F
   Message - Black

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	4	4	9 3/4	9 1/2	1 1/2																	2.00
3	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
4	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
5	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5

STANDARD SIGN
M4-1

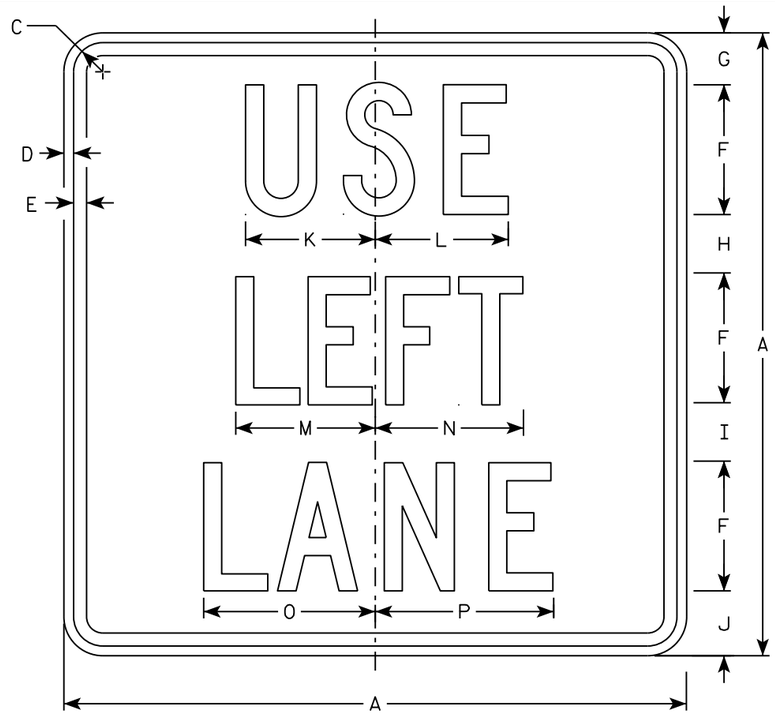
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

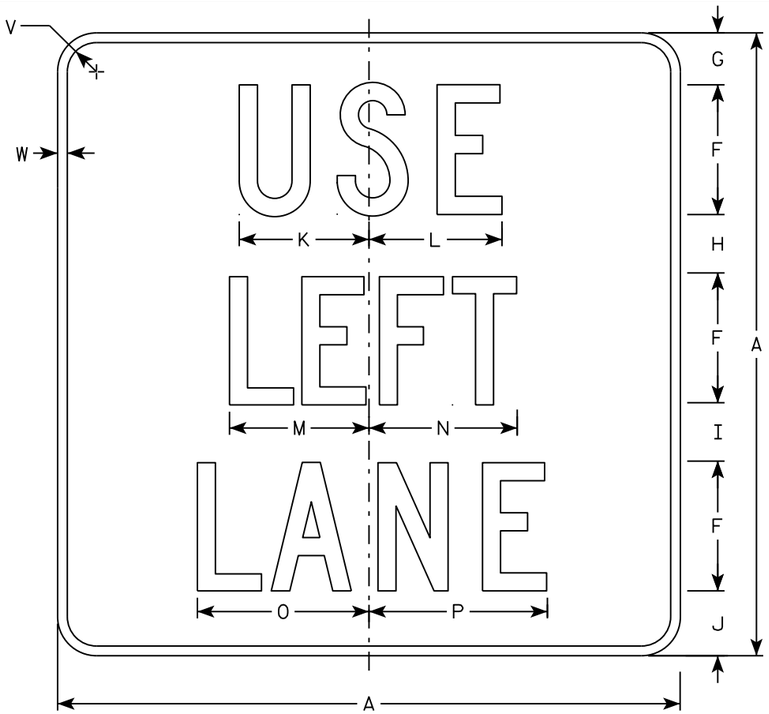
DATE 6/30/14 PLATE 14-1.8

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M41.DGN PLOT DATE : 30-JUN-2014 15:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.708937:1.000000
WISDOT/CADDS SHEET 42



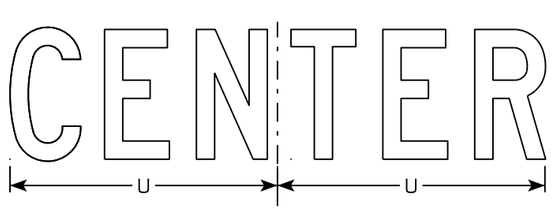
M4-20L



MB4-20L

M4-20L
MM4-20L
M04-20L
MP4-20L

MB4-20L
MK4-20L
MN4-20L
MR4-20L



M4-20C
MB4-20C
MK4-20C
MM4-20C
MN4-20C
M04-20C
MP4-20C
MR4-20C



M4-20R
MB4-20R
MK4-20R
MM4-20R
MN4-20R
M04-20R
MP4-20R
MR4-20R

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-20 Background - White
   Message - Black
   MB4-20 Background - Blue
   Message - White
   MK4-20 Background - Green
   Message - White
   MM4-20 Background - White
   Message - Green
   MN4-20 Background - Brown
   Message - White
   M04-20 Background - Orange - Type F Reflective
   Message - Black
   MP4-20 Background - White
   Message - Blue
   MR4-20 Background - Brown
   Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/8	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	5 3/8	5 3/4	6 5/8	6 7/8			7	7 5/8	10 1/4	1 1/2	1/2				4.0
3	36		1 5/8	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4	8	8 5/8	9 7/8	10 1/4			10 3/8	11 3/8	14 3/8	1 7/8	1/2				9.0
4																											
5																											

STANDARD SIGN
M4-20

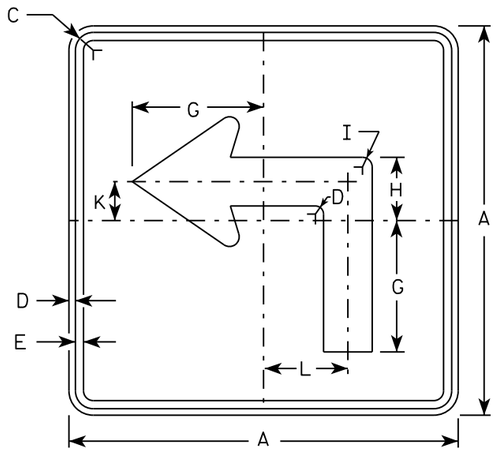
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

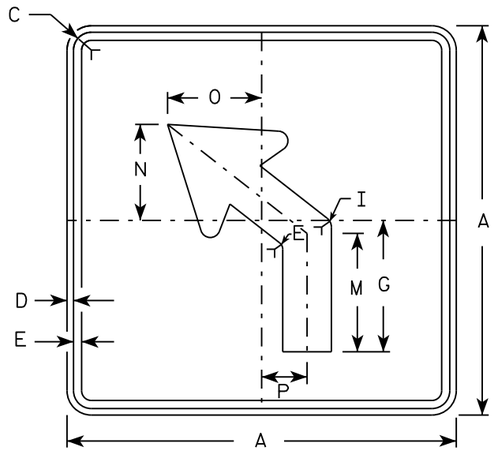
DATE 10/15/15 PLATE NO M4-20.5
224

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

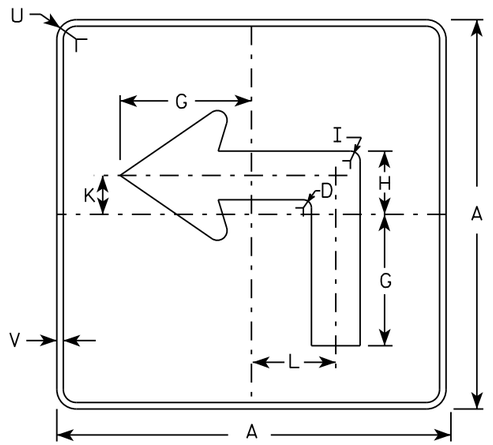
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M420.DGN PLOT DATE : 01-DEC-2015 18:03 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.837526:1.000000



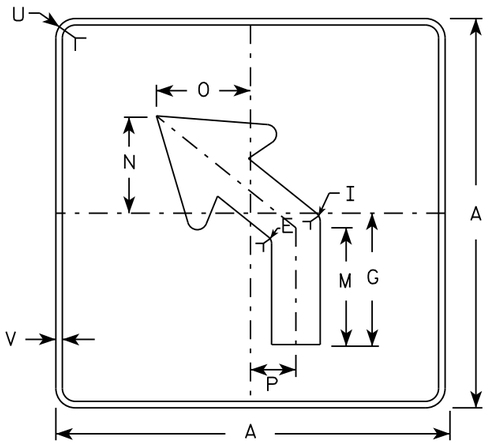
M5-1L
MM5-1L
MO5-1L
MP5-1L



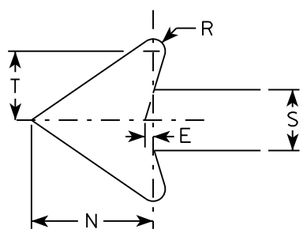
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

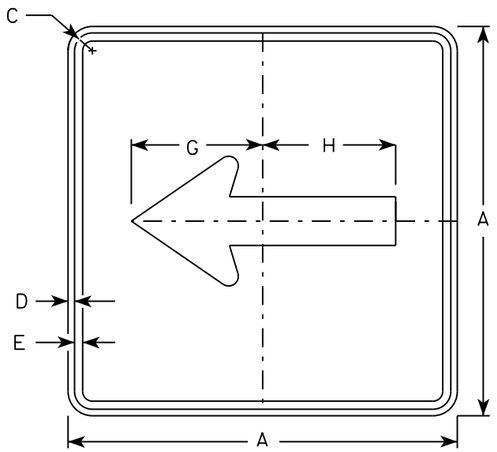
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

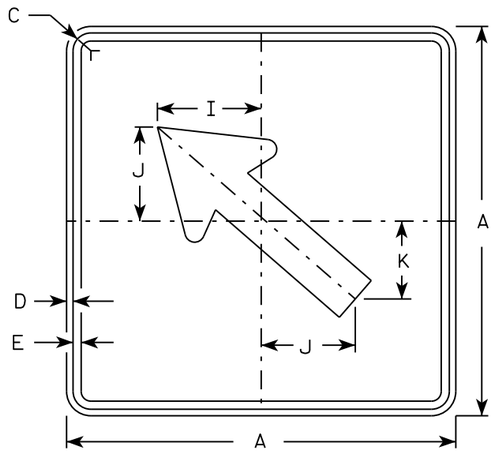
DATE 10/15/15 PLATE NO. M5-1.13

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



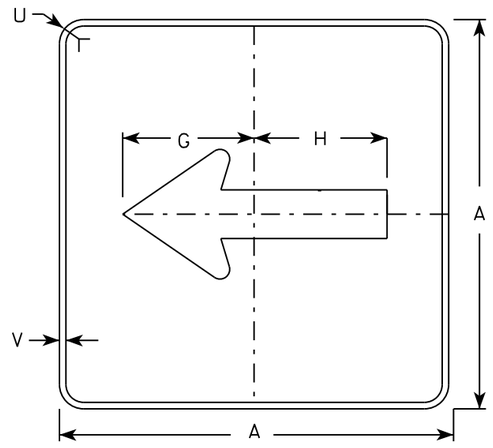
M6-1
MM6-1
MO6-1
MP6-1



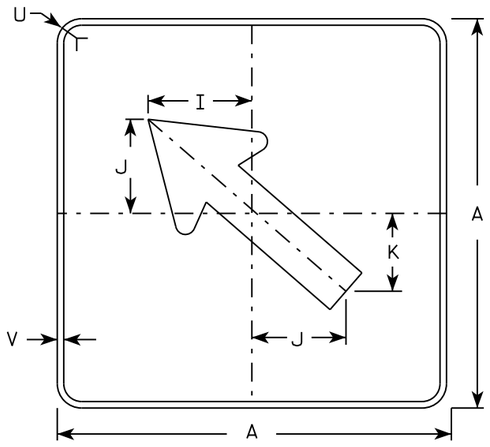
M6-2
MM6-2
MO6-2
MP6-2

NOTES

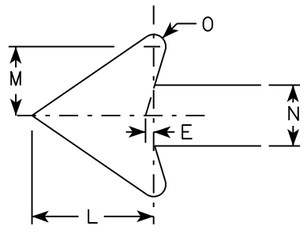
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

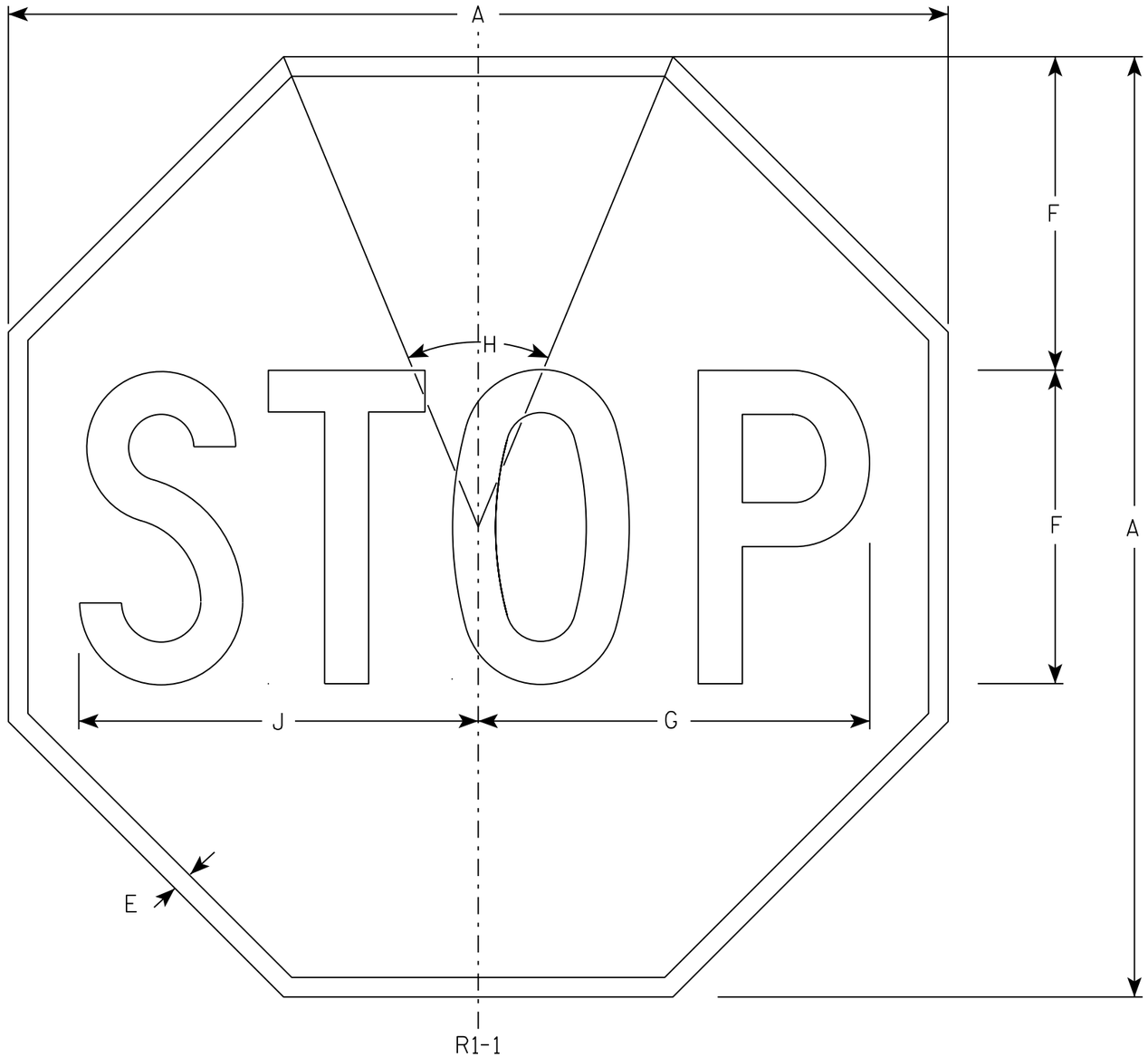
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATI 226 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



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

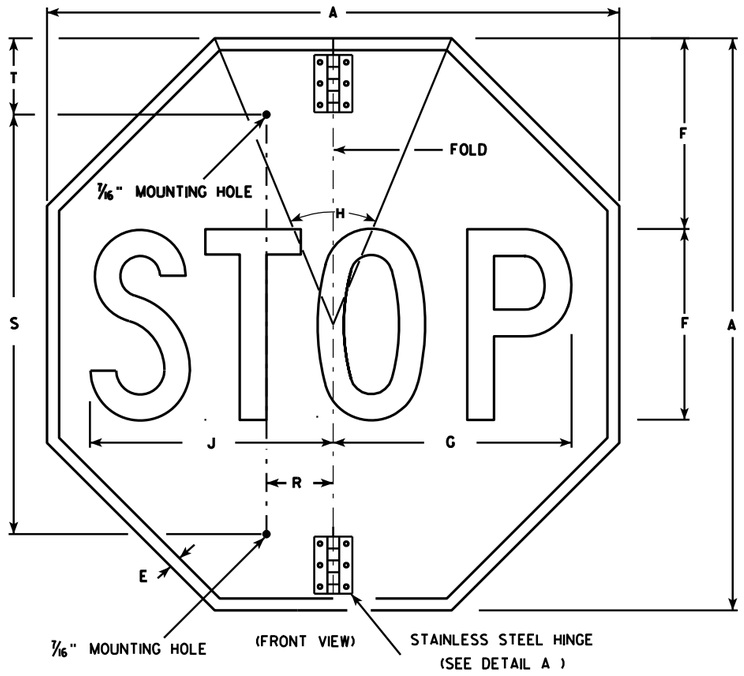
WISCONSIN DEPT OF TRANSPORTATION

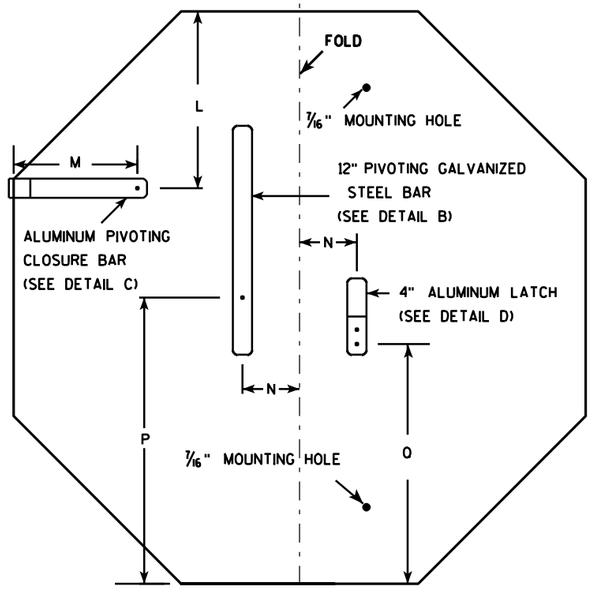
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE 227 R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

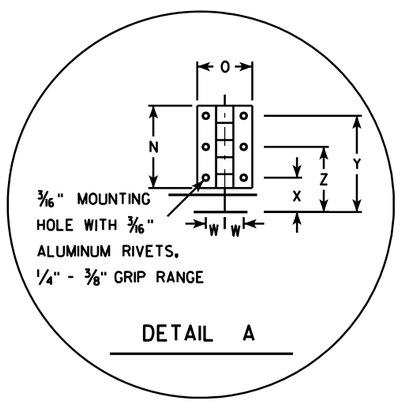
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R11.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.378143:1.000000



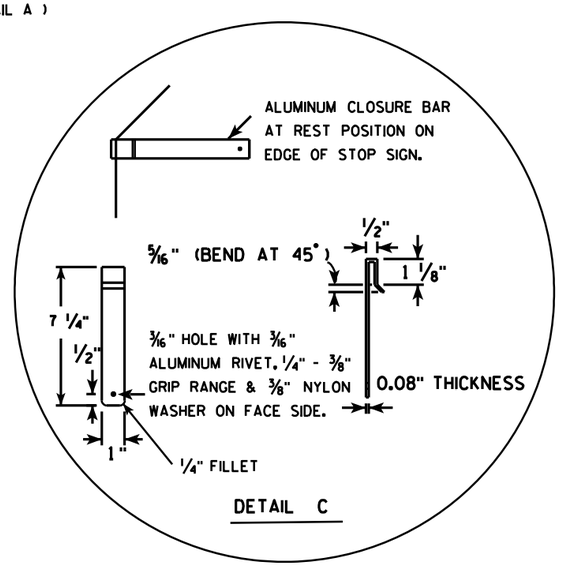


NOTES

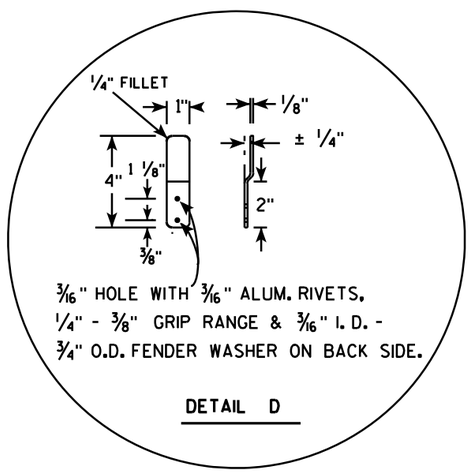
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



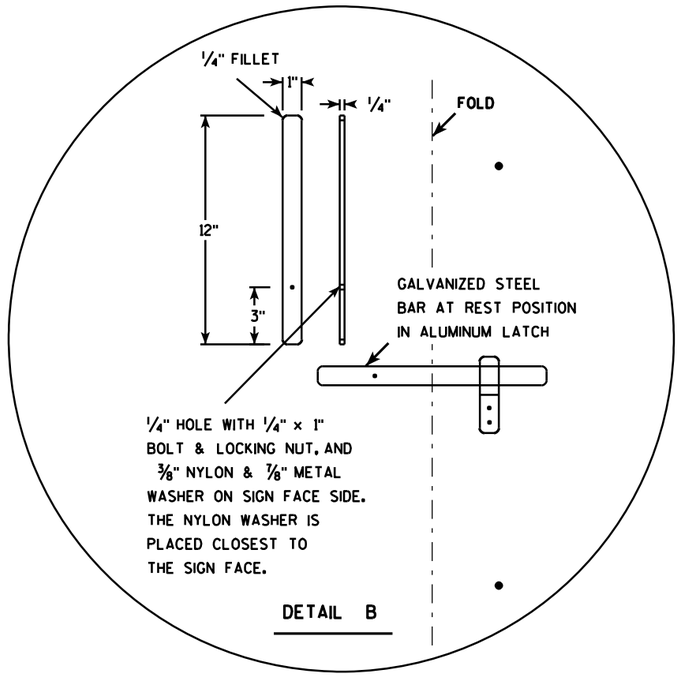
DETAIL A



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																											

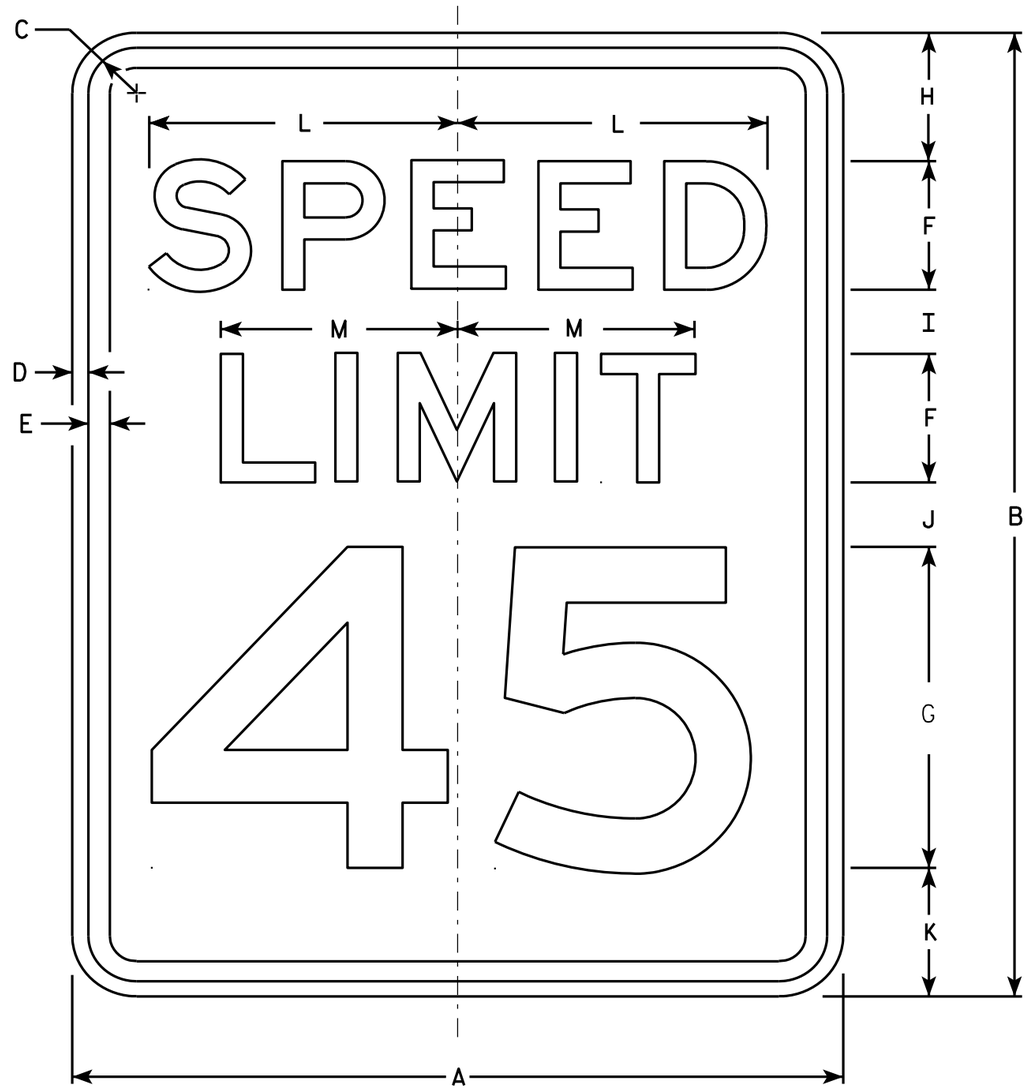
STANDARD SIGN
R1-1F

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: 228	E



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

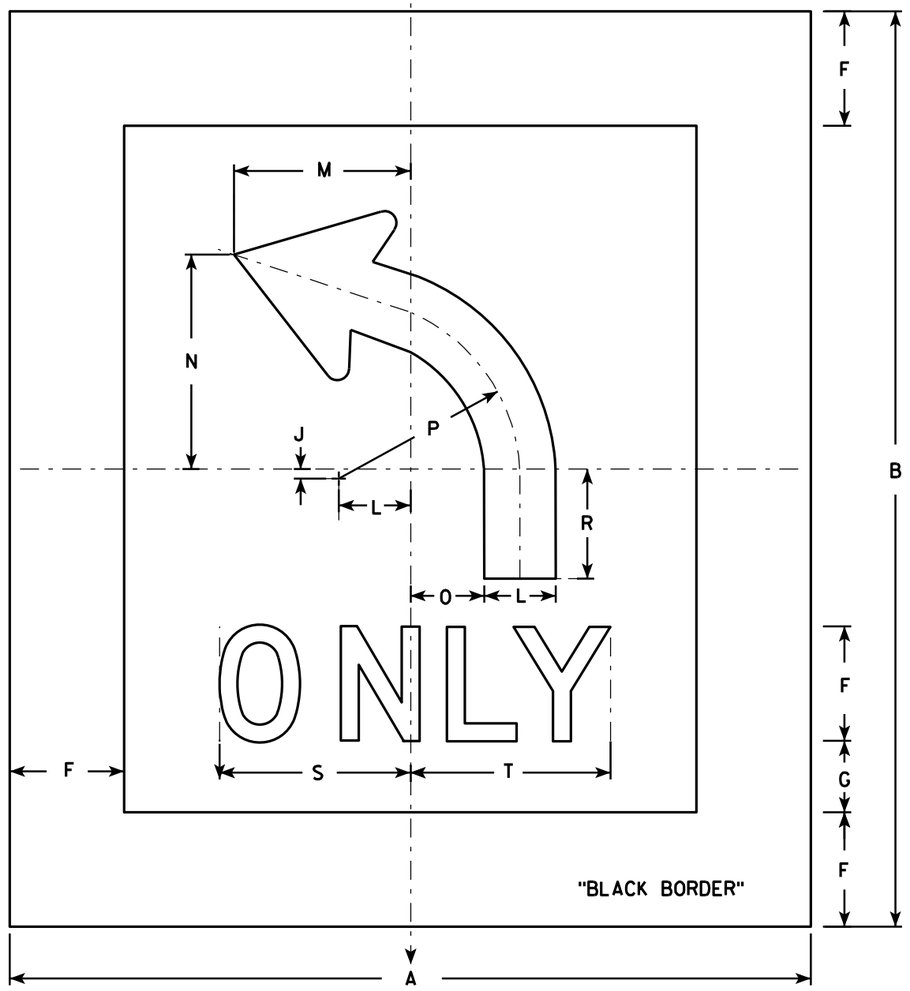
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

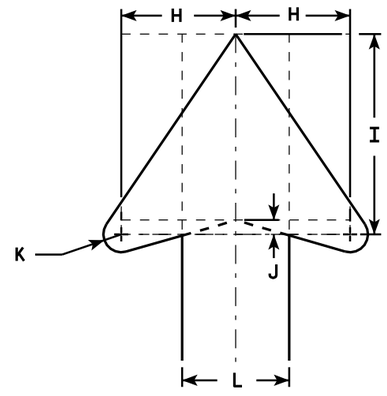
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 229 | E



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																											

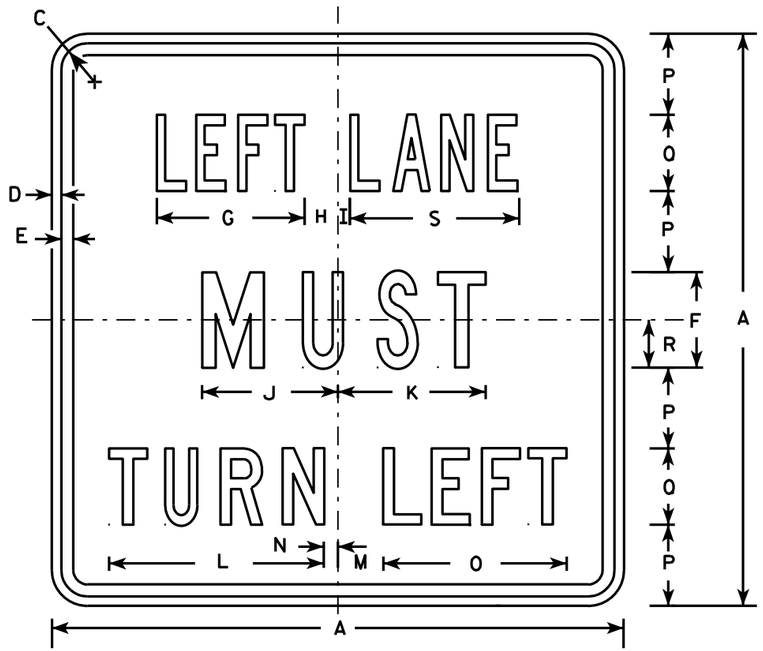
STANDARD SIGN
R3-5

WISCONSIN DEPT OF TRANSPORTATION

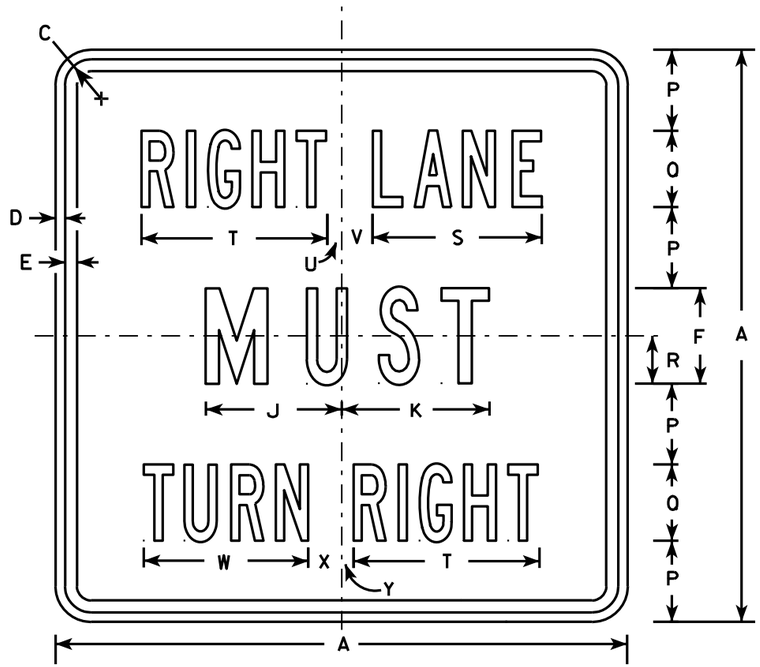
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 230 | E



R3-7L



R3-7R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

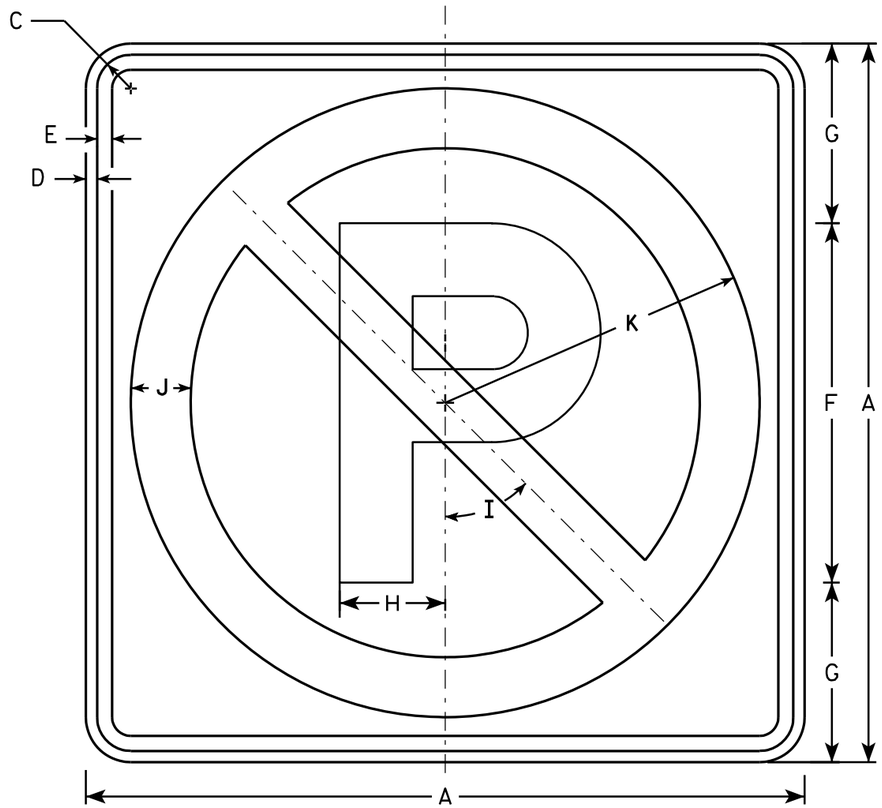
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 231 | E



R3-8A

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 & Letter P are non reflective black, the circle with diagonal bar is reflective 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																											
2S	24		1 1/8	3/8	1/2	12	6	3 1/2	45°	2	10 1/2																4.0
2M	24		1 1/8	3/8	1/2	12	6	3 1/2	45°	2	10 1/2																4.0
3																											
4																											
5																											

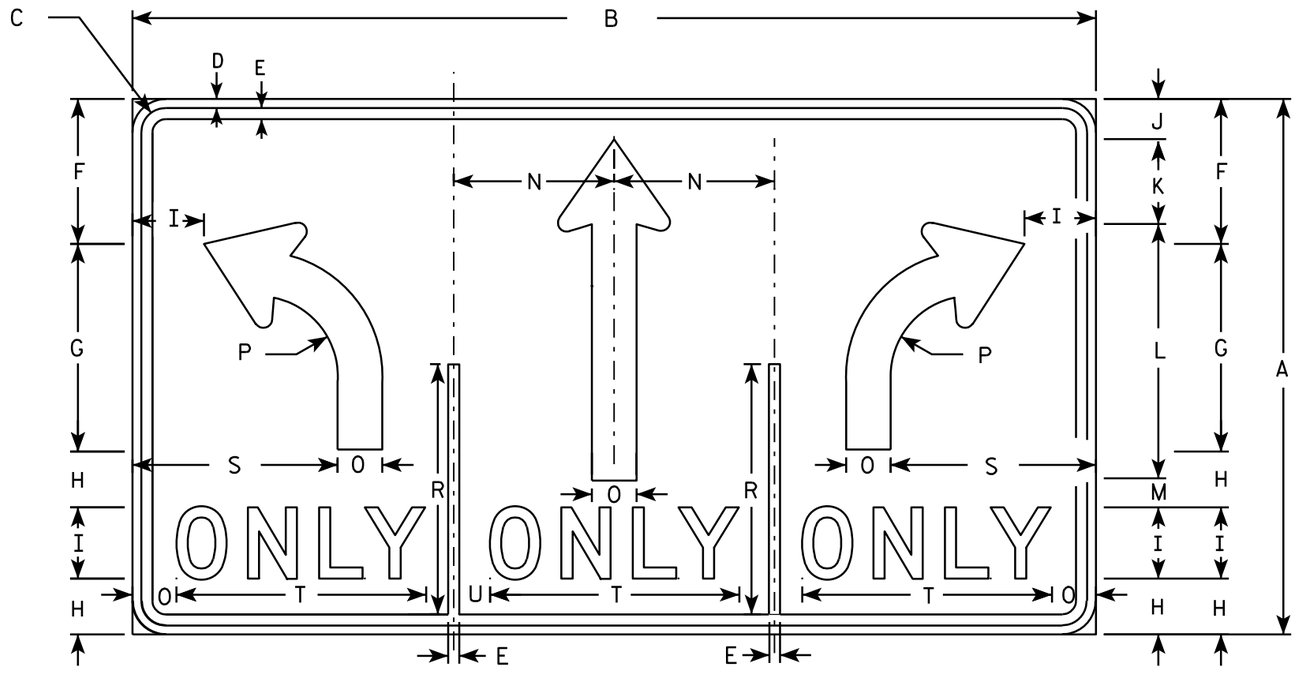
STANDARD SIGN
R3-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/01/12 PLATE NO. R3-8A.1

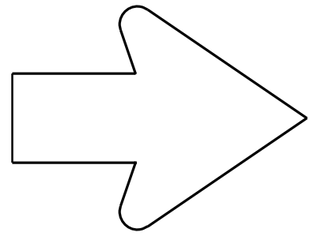
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 232 | E



R3-8W

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.



SEE R3-8 FOR 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	30	54	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	9	2 1/2	4 1/2		14	11 1/2	14	2						11.25
2M	30	54	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	9	2 1/2	4 1/2		14	11 1/2	14	2						11.25
3																											
4	48	84	2 1/4	3/4	1	13	18 1/2	5 1/4	6	3 3/4	7	29 1/8	2 3/8	14	3 3/4	7 1/4		22 3/8	17 1/4	20 1/2	3 1/4						28.0
5	48	84	2 1/4	3/4	1	13	18 1/2	5 1/4	6	3 3/4	7	29 1/8	2 7/8	14	3 3/4	7 1/4		22 3/8	17 1/4	20 1/2	3 1/4						28.0

STANDARD SIGN
R3-8W

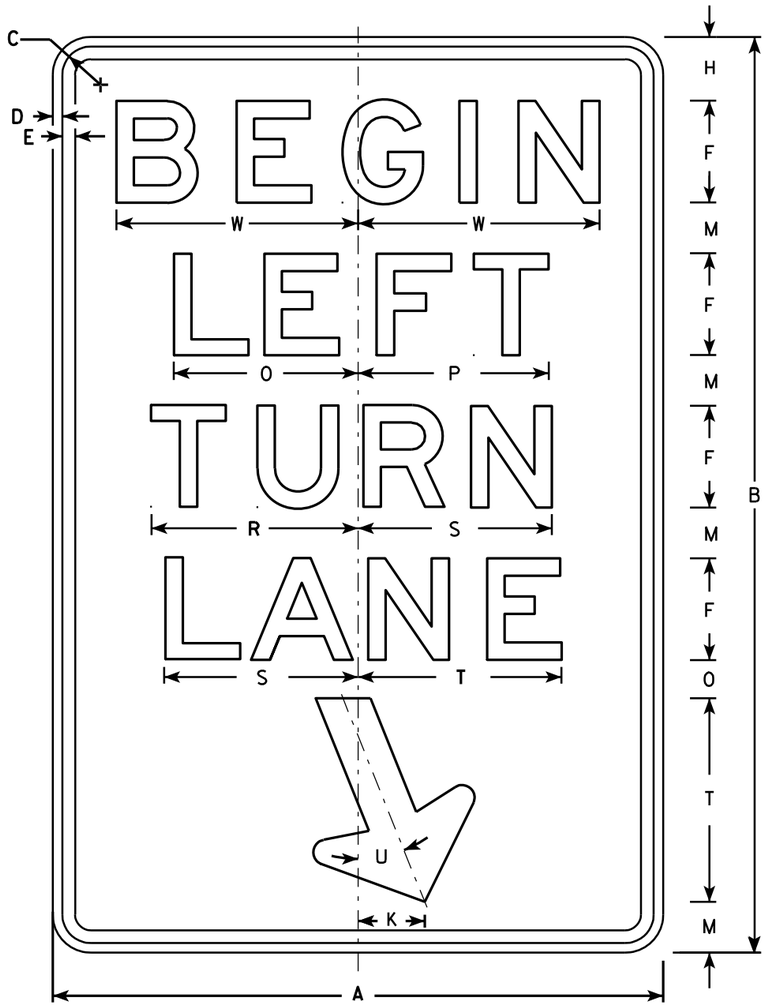
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-8W.4

PROJECT NO:

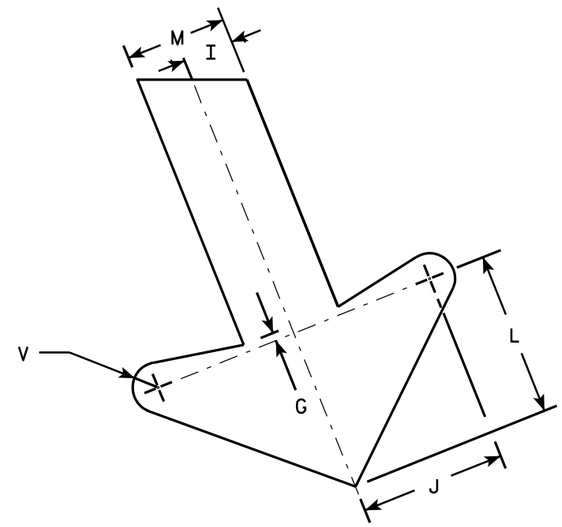
SHEET NO: 233 E



R3-20L

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	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

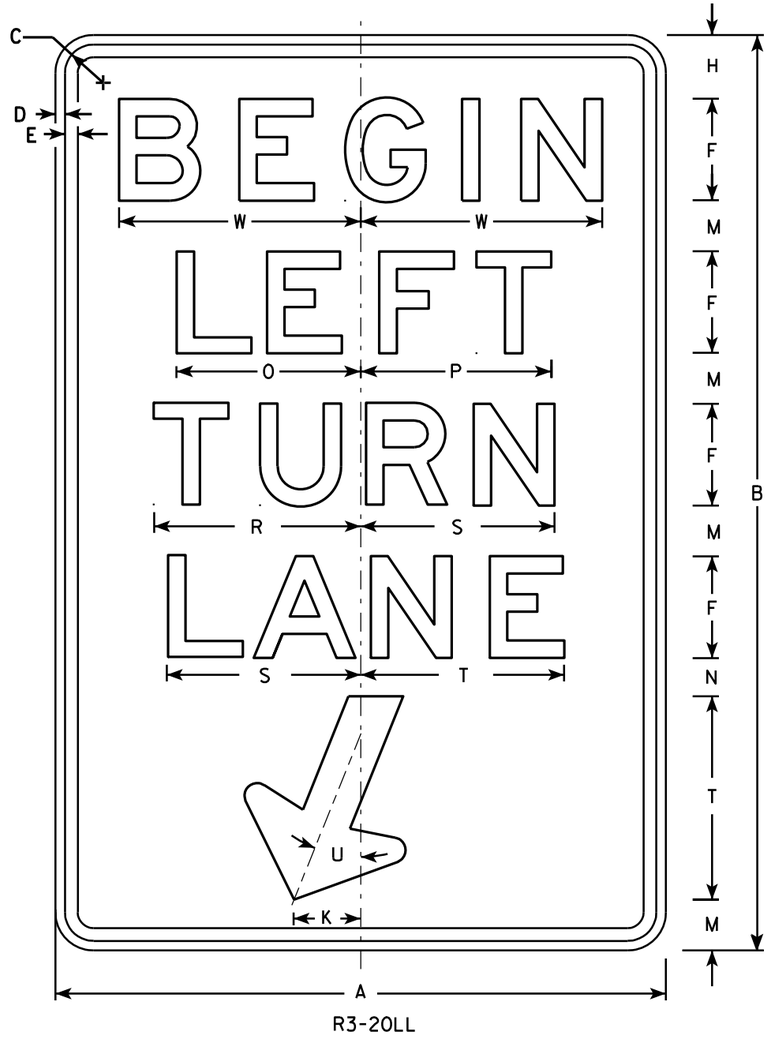
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

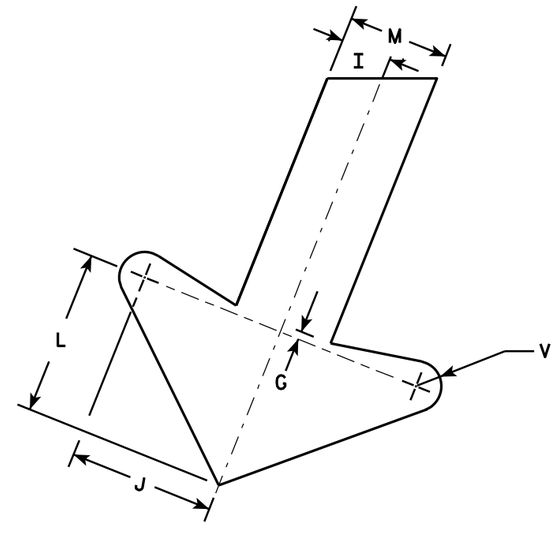
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 234 | E



R3-20LL

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	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

STANDARD SIGN
R3-20LL

WISCONSIN DEPT OF TRANSPORTATION

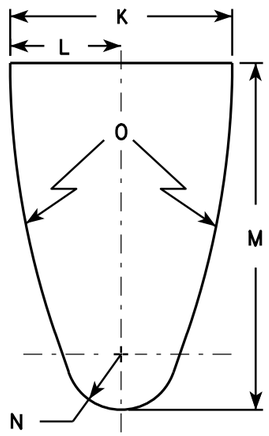
APPROVED Matthew R Rauch
for State Traffic Engineer

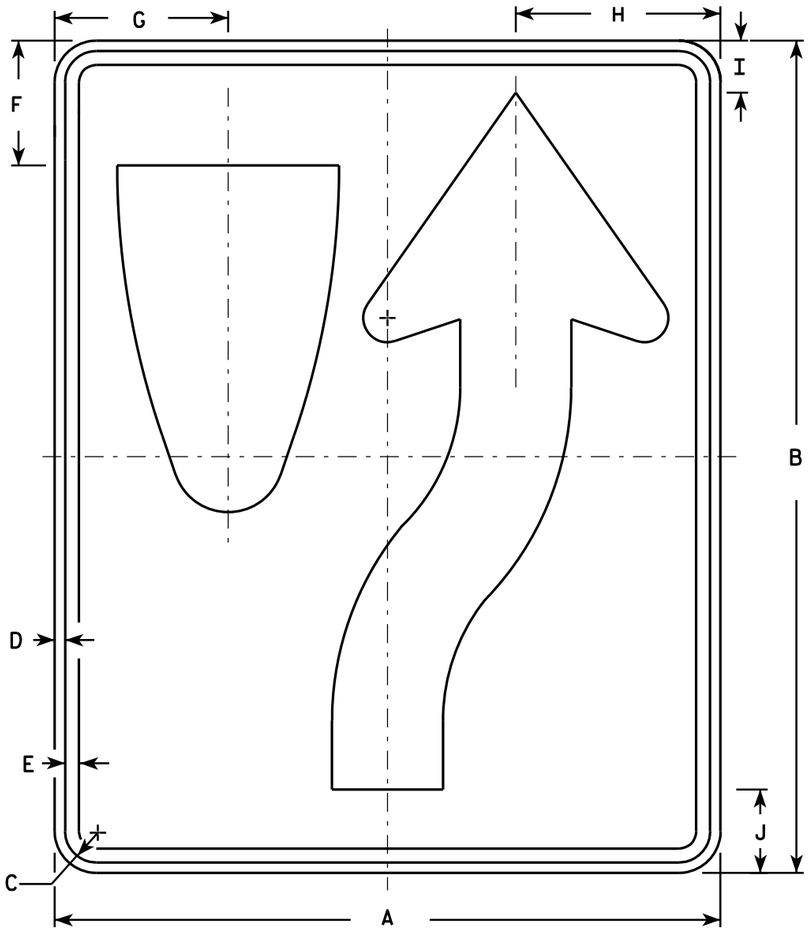
DATE 10/18/10 PLATE NO. R3-20LL.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 235	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R320LL.DGN PLOT DATE : 15-OCT-2010 14:38 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

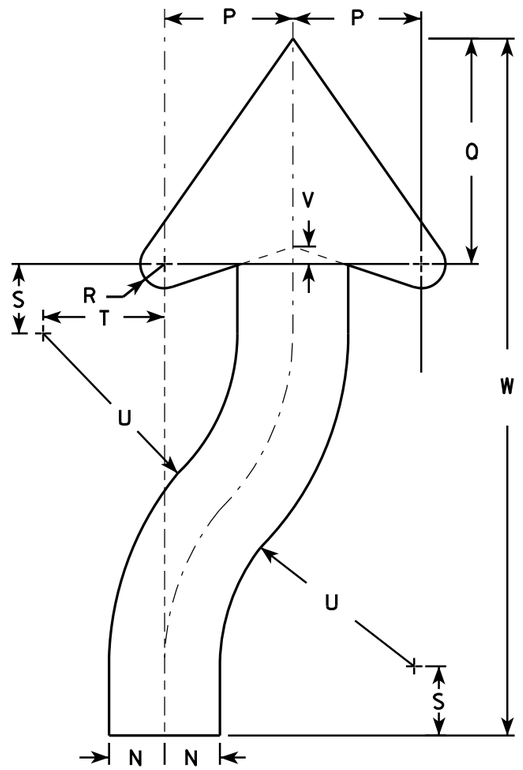




R4-7

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

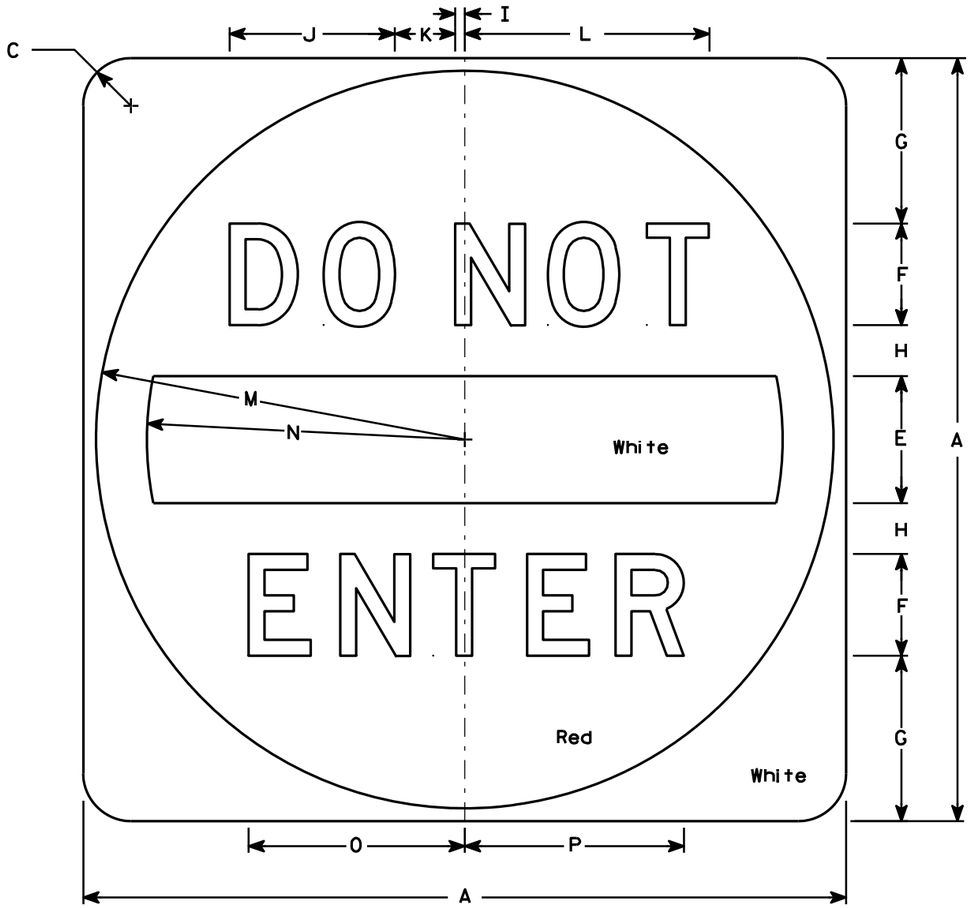
STANDARD SIGN
R4-7 & R4-8

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: 236	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See detail
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the cornors 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	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.26
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

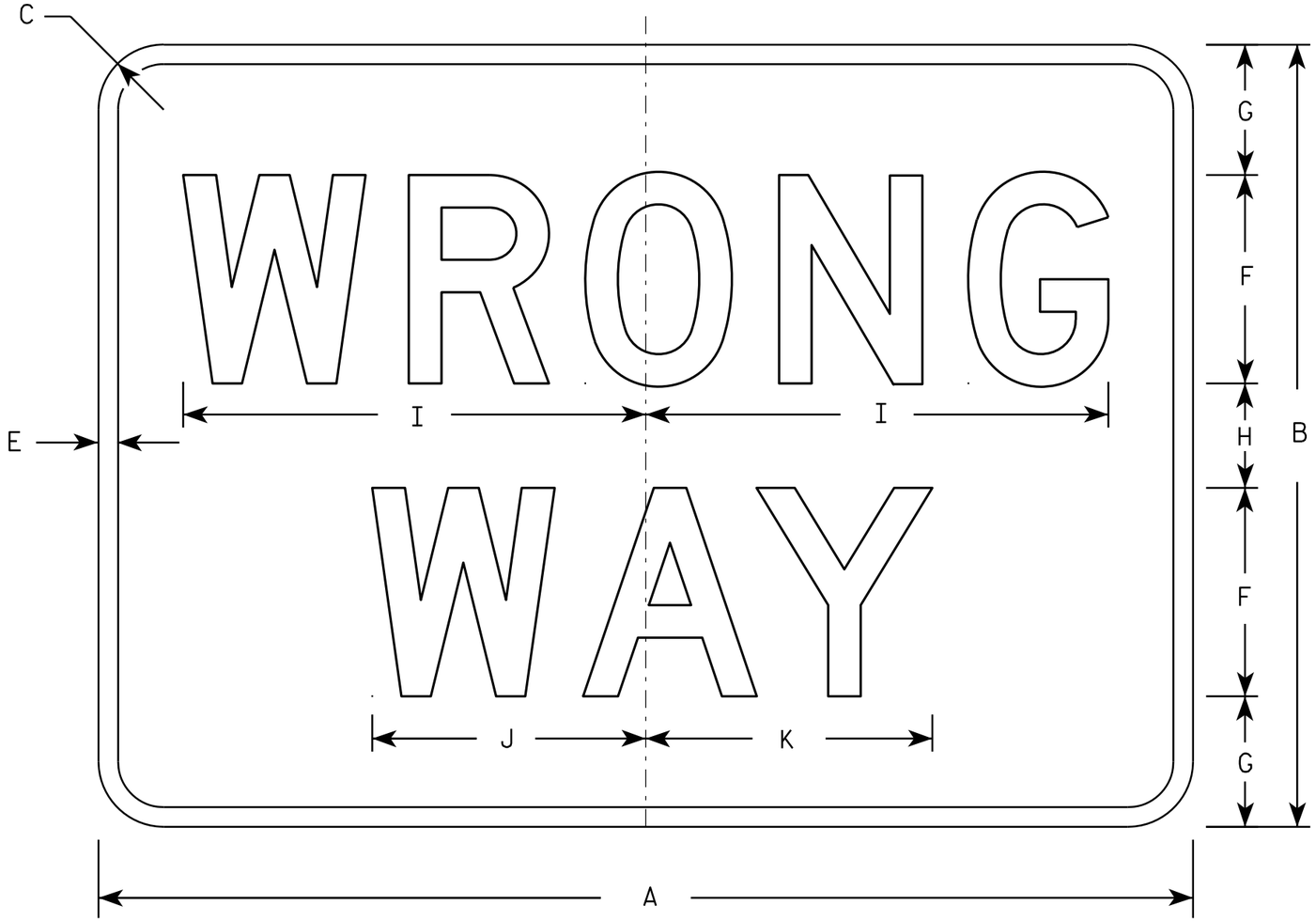
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 237 | E



R5-1A

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 - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

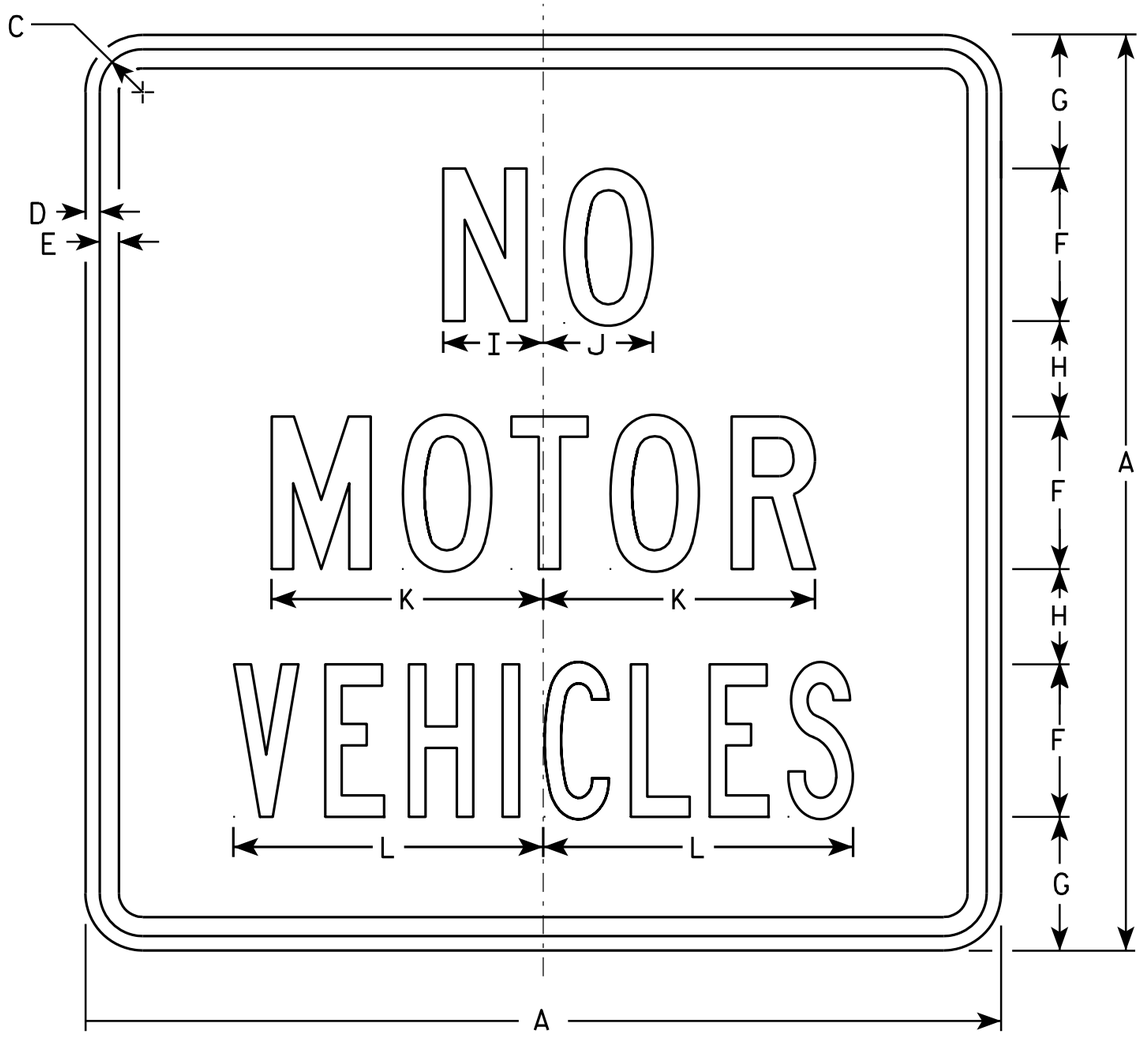
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 238	E



R5-3

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 - 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. Lines 1 & 2 are Series C.
   Line 3 is Series B.

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	3/8	1/2	4	3 1/2	2 1/2	2 5/8	2 7/8	7 1/8	8 1/8															4.0
2M	24		1 1/8	3/8	1/2	4	3 1/2	2 1/2	2 5/8	2 7/8	7 1/8	8 1/8															4.0
3																											
4																											
5																											

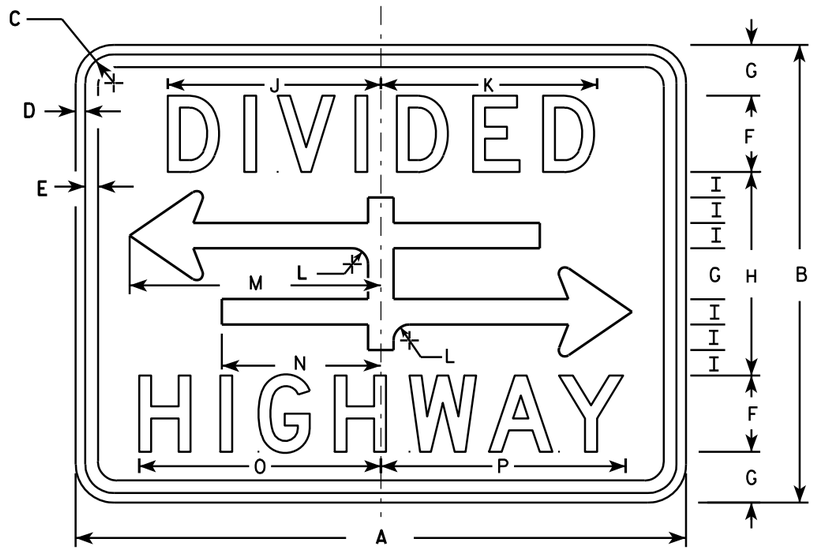
STANDARD SIGN
R5-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-3.2

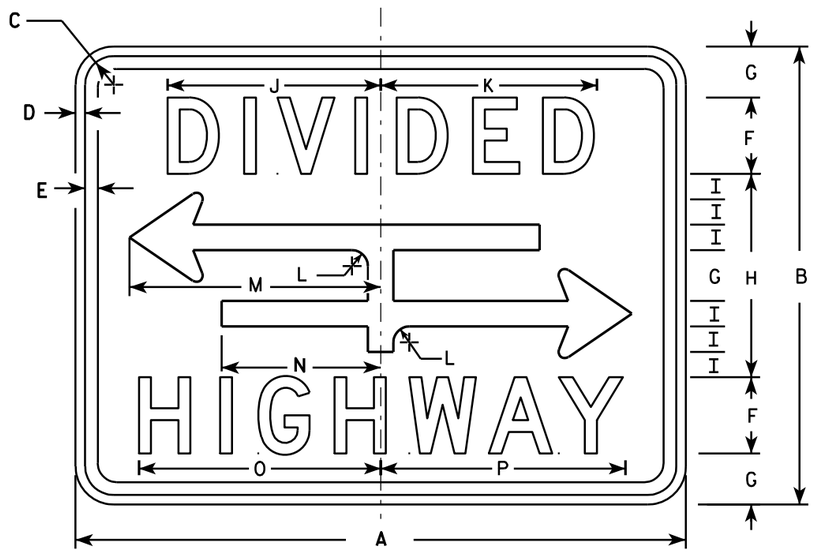
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 239 | E



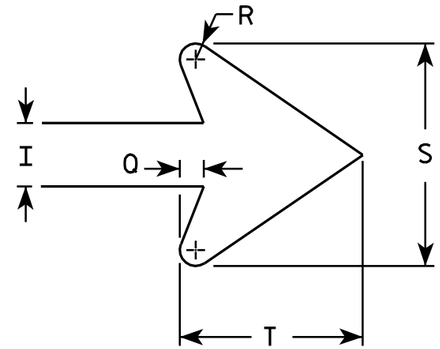
R6-3

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.



R6-3A



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	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

STANDARD SIGN
R6-3 & R6-3A

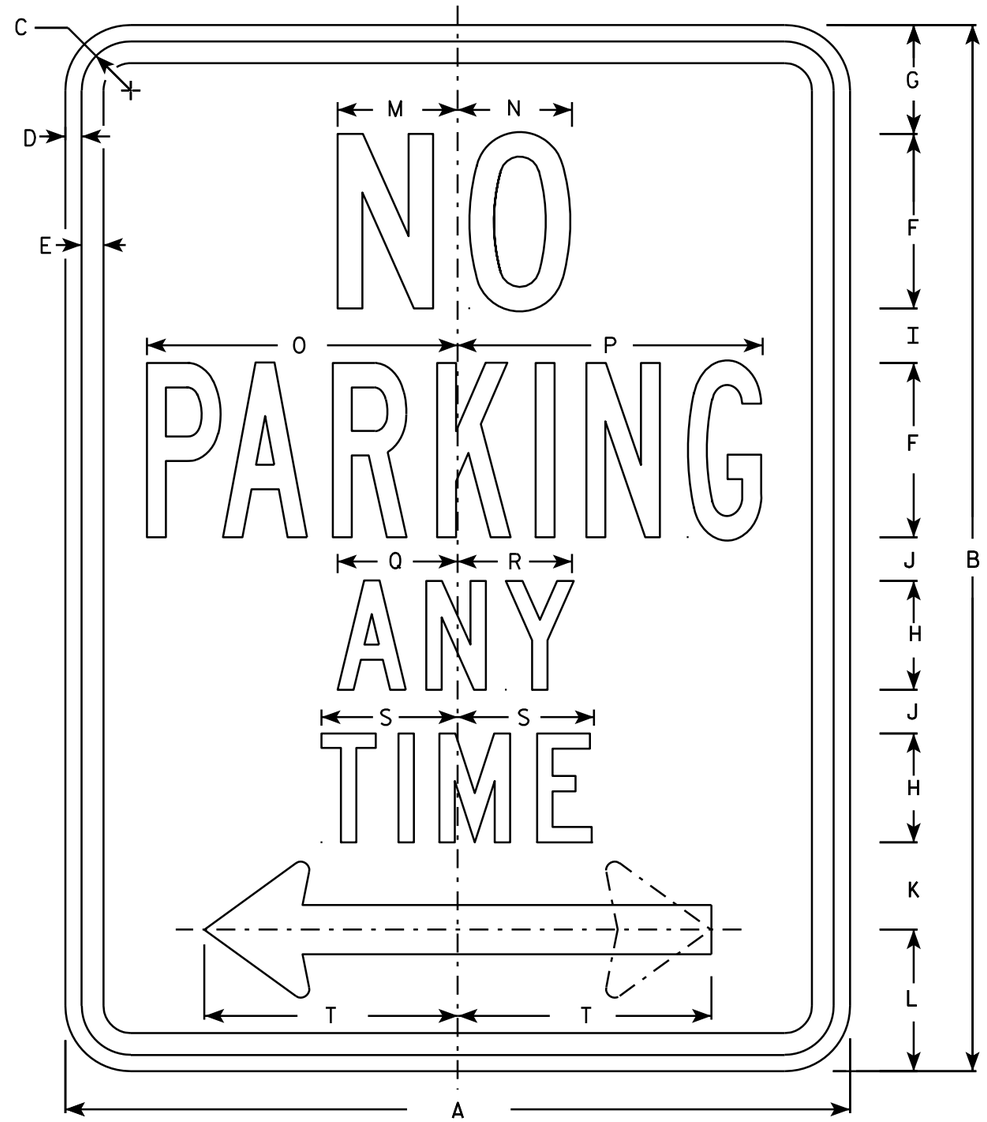
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

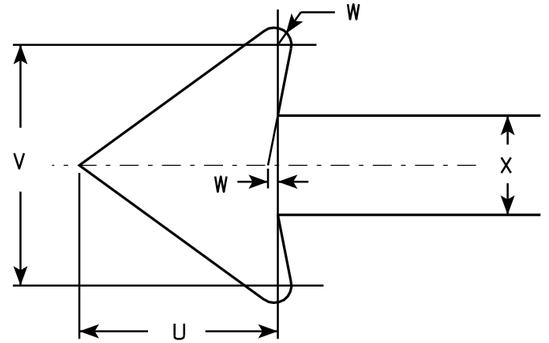
SHEET NO: 240 E



R7-1

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 - Red
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. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



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	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 241 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R71.DGN PLOT DATE : 31-MAR-2011 09:20 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.476110:1.000000

WISDOT/CADDS SHEET 42



R10-70



R10-70L

R10-70R

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	R10-70L&R Area sq. ft.	R10-70 Area sq. ft.
1																												
2S	36	72	2 1/4	3/4	1	6	5	4	18	17 1/2	14 1/8	9 1/8	8 1/2	6	16 3/4	30	23 3/4	66	2 3/8	23 7/8	23 7/8	8 3/4	23 1/4	23 1/2	26 7/8	27	18.0	16.5
2M	36	72	2 1/4	3/4	1	6	5	4	18	17 1/2	14 1/8	9 1/8	8 1/2	6	16 3/4	30	23 3/4	66	2 3/8	23 7/8	23 7/8	8 3/4	23 1/4	23 1/2	26 7/8	27	18.0	16.5
3																												
4																												
5																												

STANDARD SIGN
R10-70

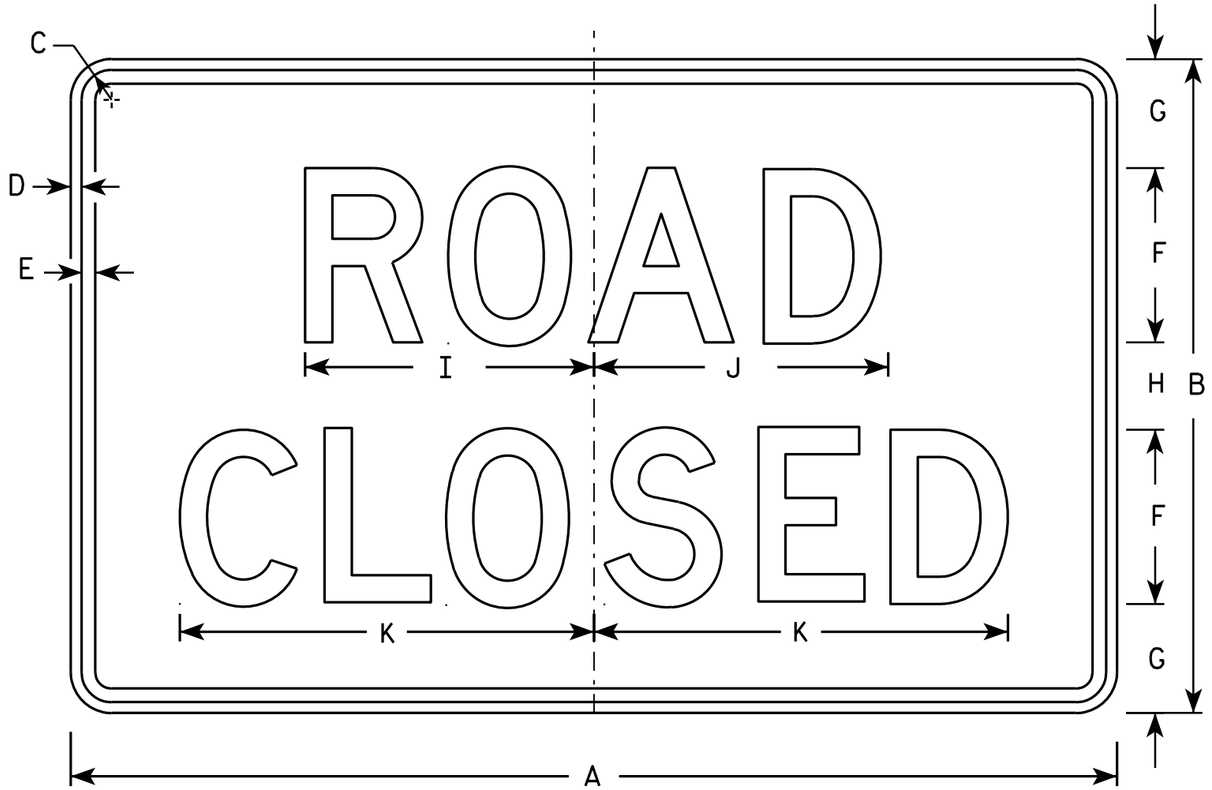
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/4/11 PLATE NO. R10-70.2

PROJECT NO:

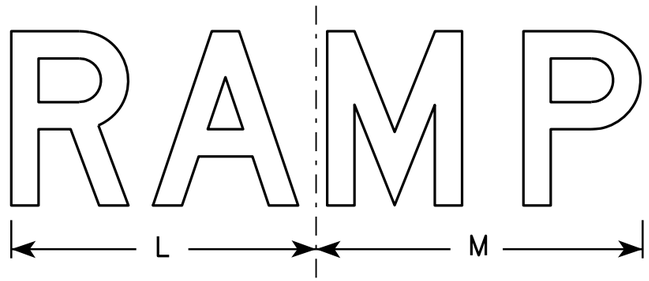
SHEET NO: 242 E



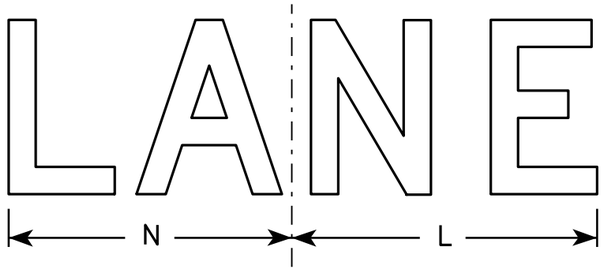
R11-2

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

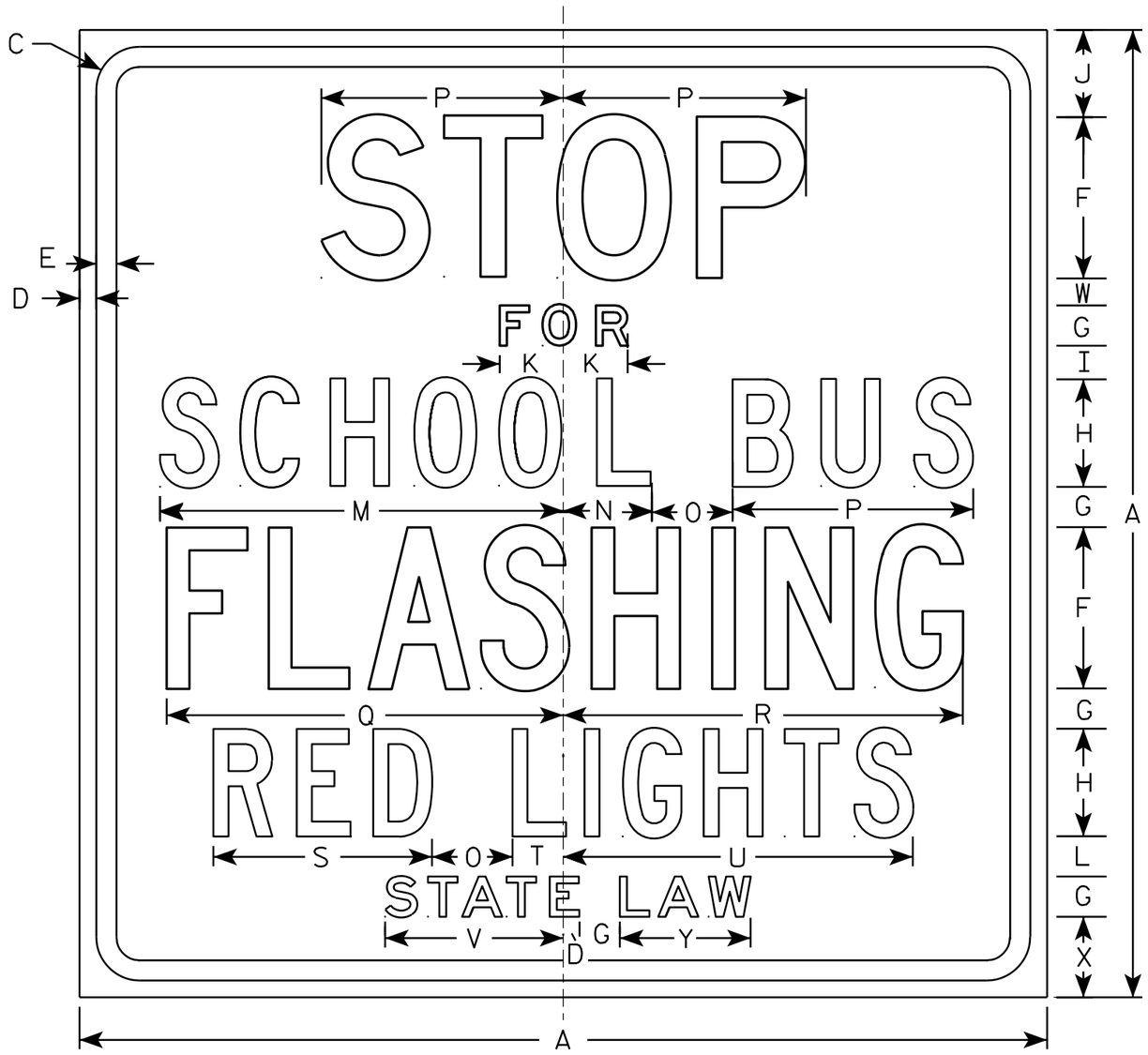
STANDARD SIGN
R11-2

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: 243	E



R59-51

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 - 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
   Lines 2 & 6 are Series E
   Line 3, 4 & 5 are Series C

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	36		1 5/8	5/8	3/4	6	1 1/2	4	1 1/4	3 1/4	2 3/8	1 1/2	15	3 1/4	3	9	14 3/4	14 7/8	8 1/8	1 7/8	13	6 5/8	1	3	4 7/8		9.0
2M	36		1 5/8	5/8	3/4	6	1 1/2	4	1 1/4	3 1/4	2 3/8	1 1/2	15	3 1/4	3	9	14 3/4	14 7/8	8 1/8	1 7/8	13	6 5/8	1	3	4 7/8		9.0
3	48		2 1/4	3/4	1	8	2	6	1 1/4	4 3/4	3 1/4	1 1/2	20 1/4	5	3 5/8	12	19 1/2	20	11 5/8	3 3/4	19	9 1/2	1	3 1/2	6 3/4		16.0
4	48		2 1/4	3/4	1	8	2	6	1 1/4	4 3/4	3 1/4	1 1/2	20 1/4	5	3 5/8	12	19 1/2	20	11 5/8	3 3/4	19	9 1/2	1	3 1/2	6 3/4		16.0
5																											

STANDARD SIGN
R59-51

WISCONSIN DEPT OF TRANSPORTATION

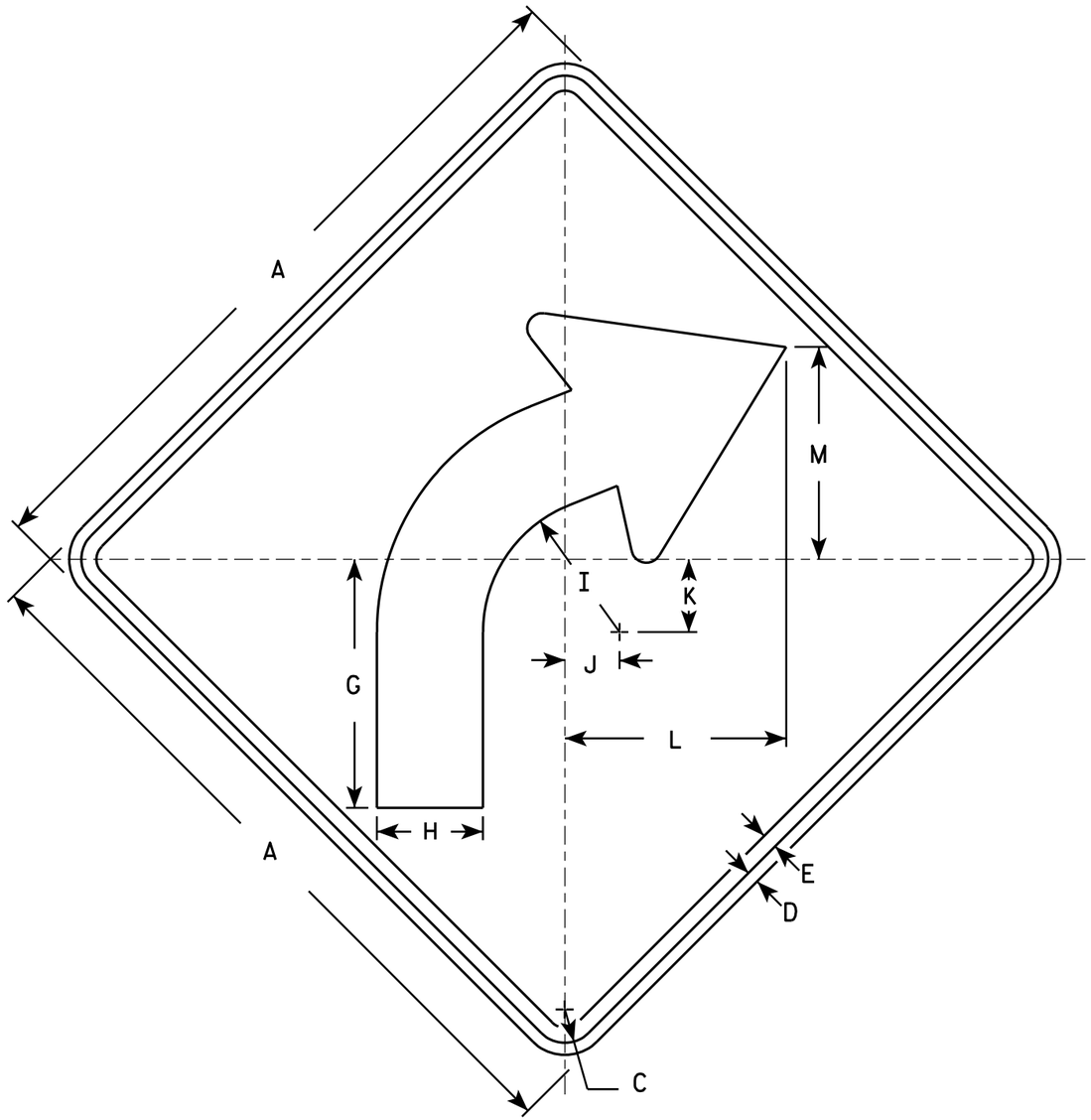
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/30/11 PLATE NO. R59-51.10

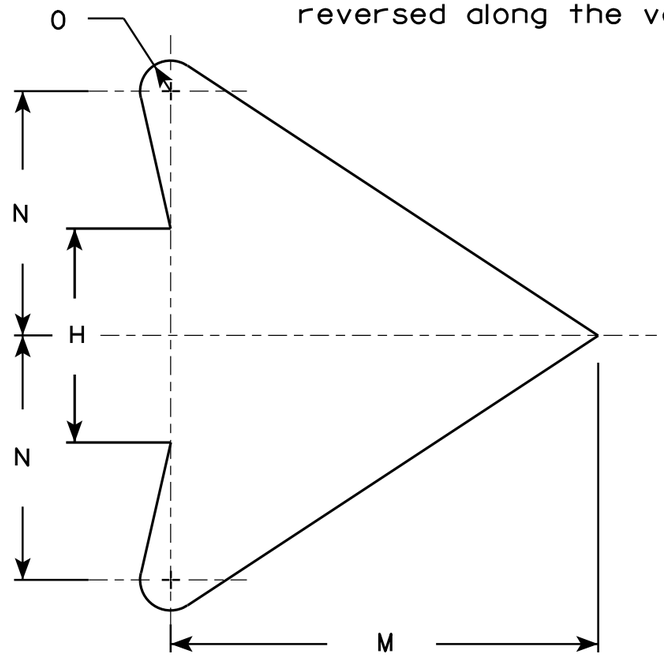
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 244 | E

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.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



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		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

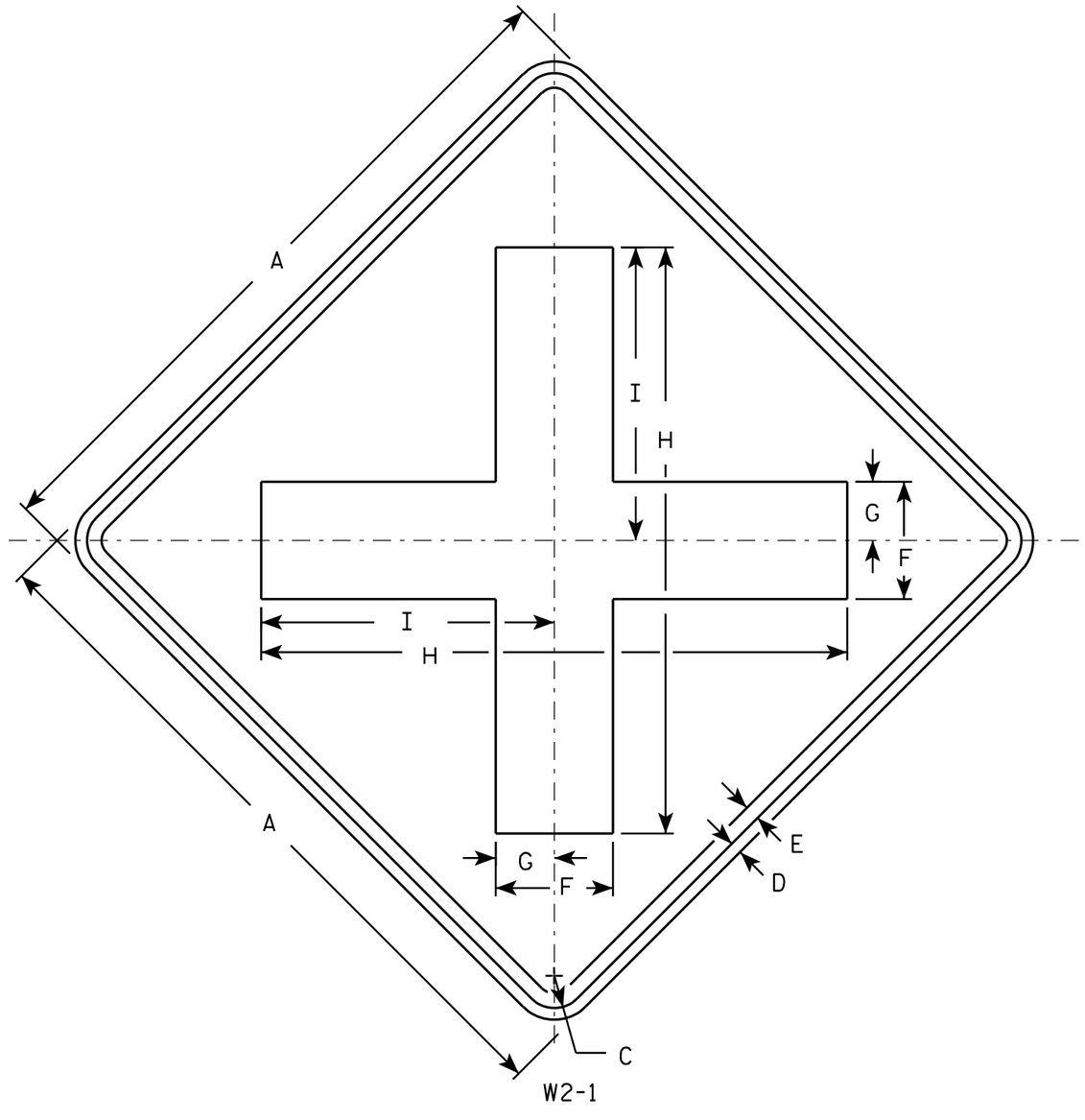
STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 245	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.

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	4	2	20	10																		4.0
2S	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3	30	15																		9.0
4	48		2 1/4	3/4	1	8	4	40	20																		16.0
5																											

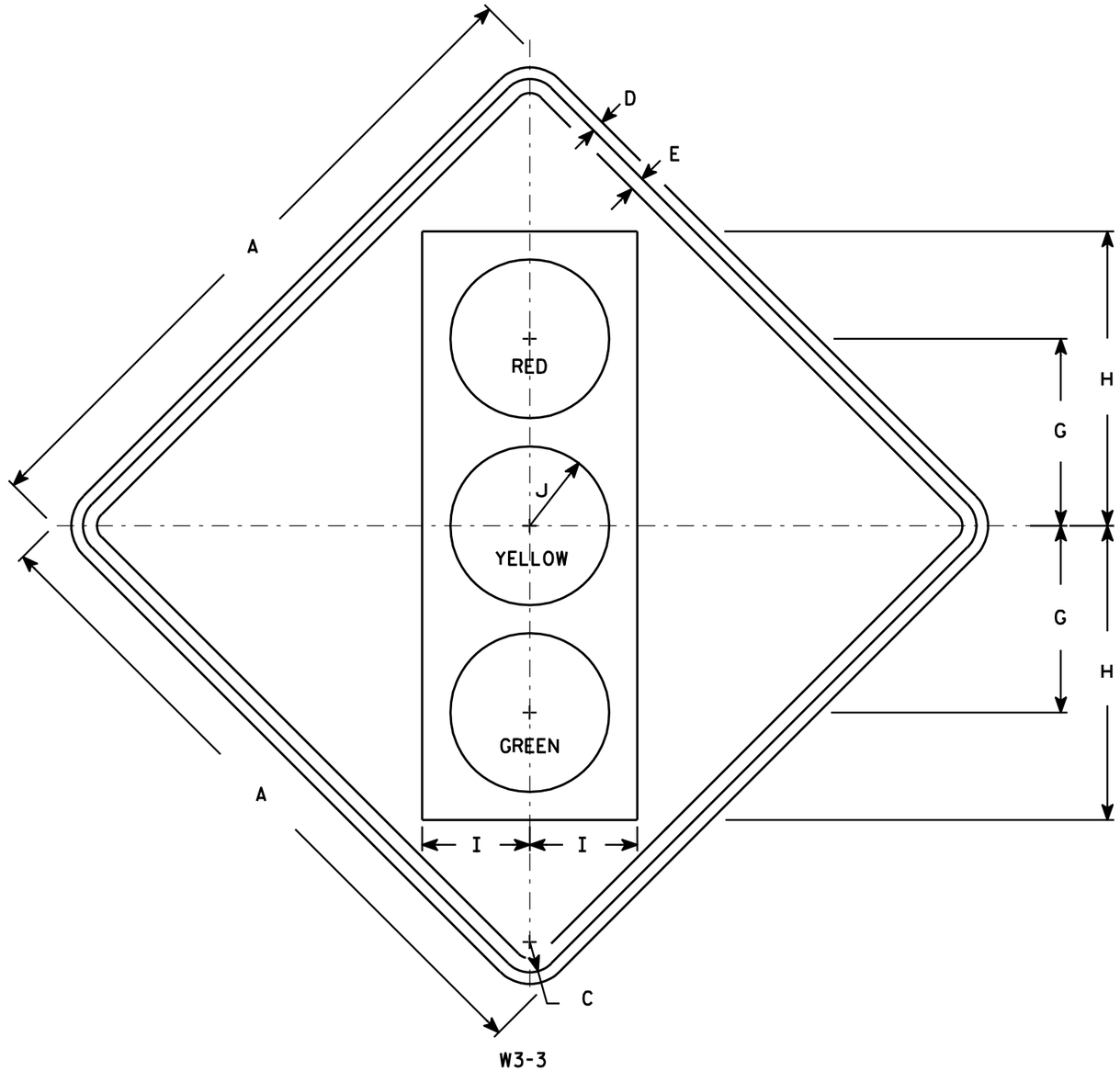
STANDARD SIGN
W2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-1.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 246	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

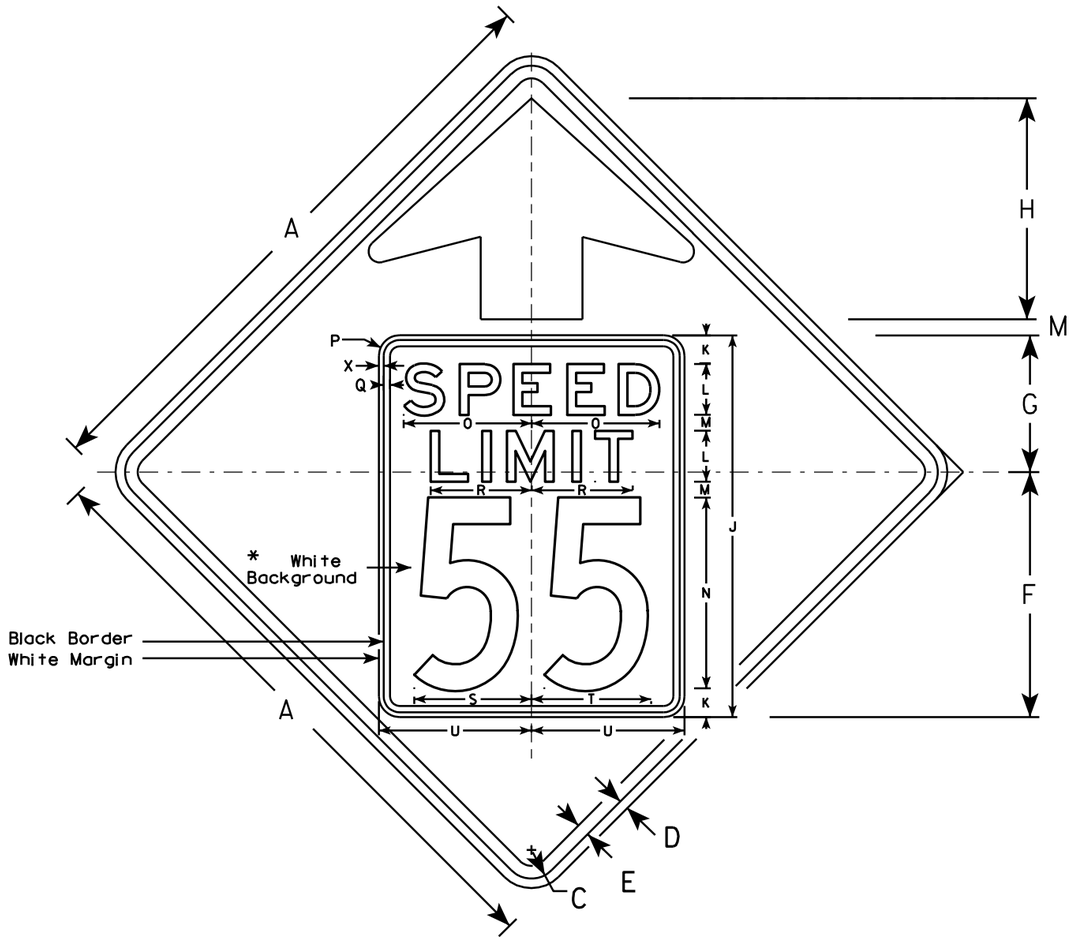
STANDARD SIGN
W3-3

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: 247 | E

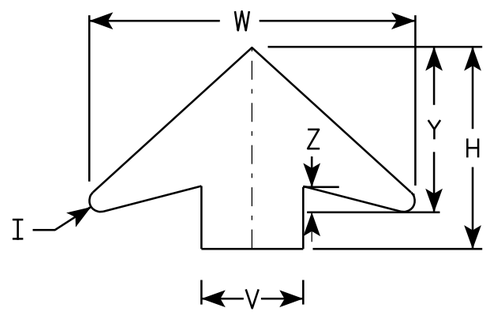


W3-5

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 for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White 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																											
2S	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2M	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
3	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W3-5

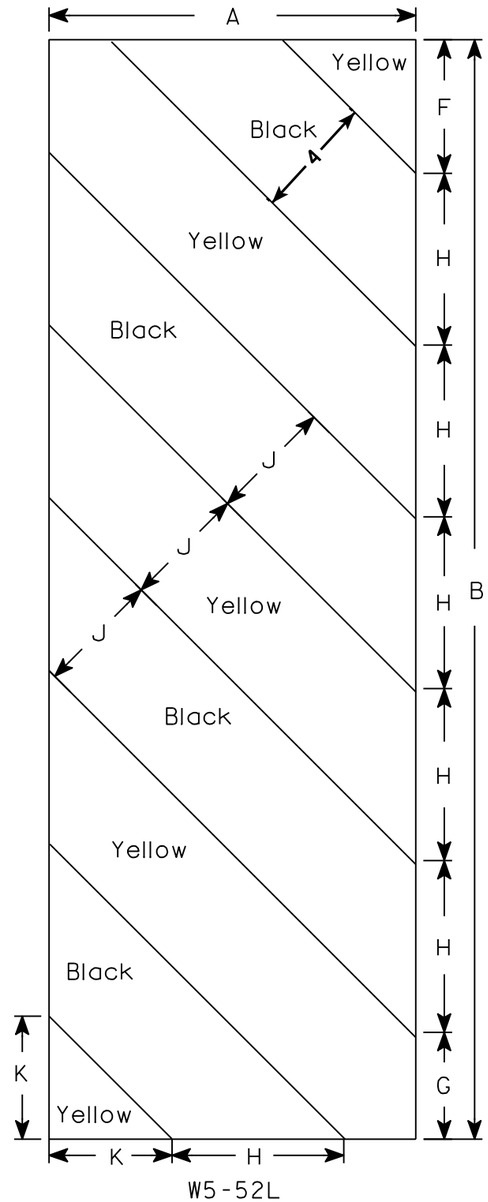
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

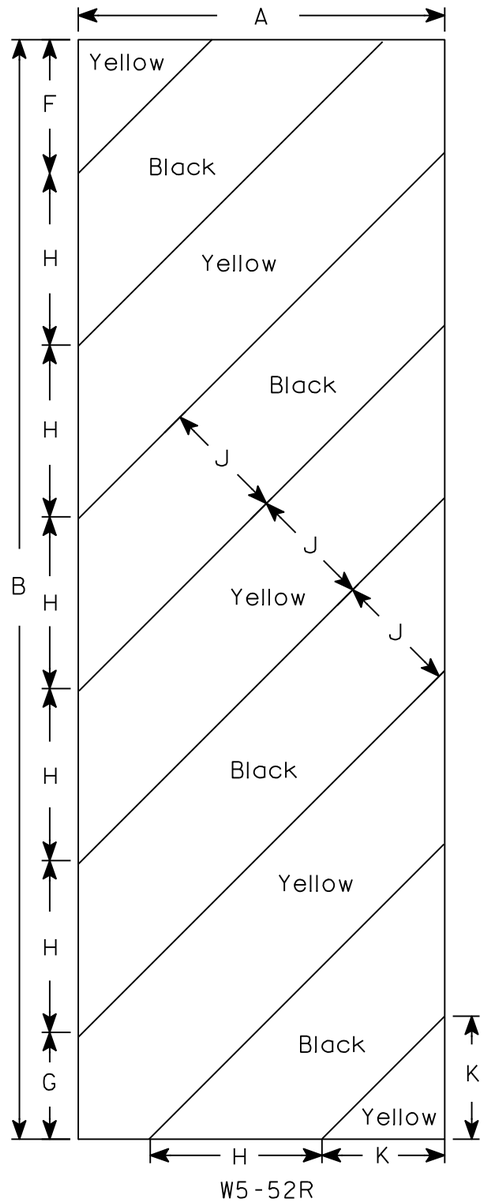
DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 248 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

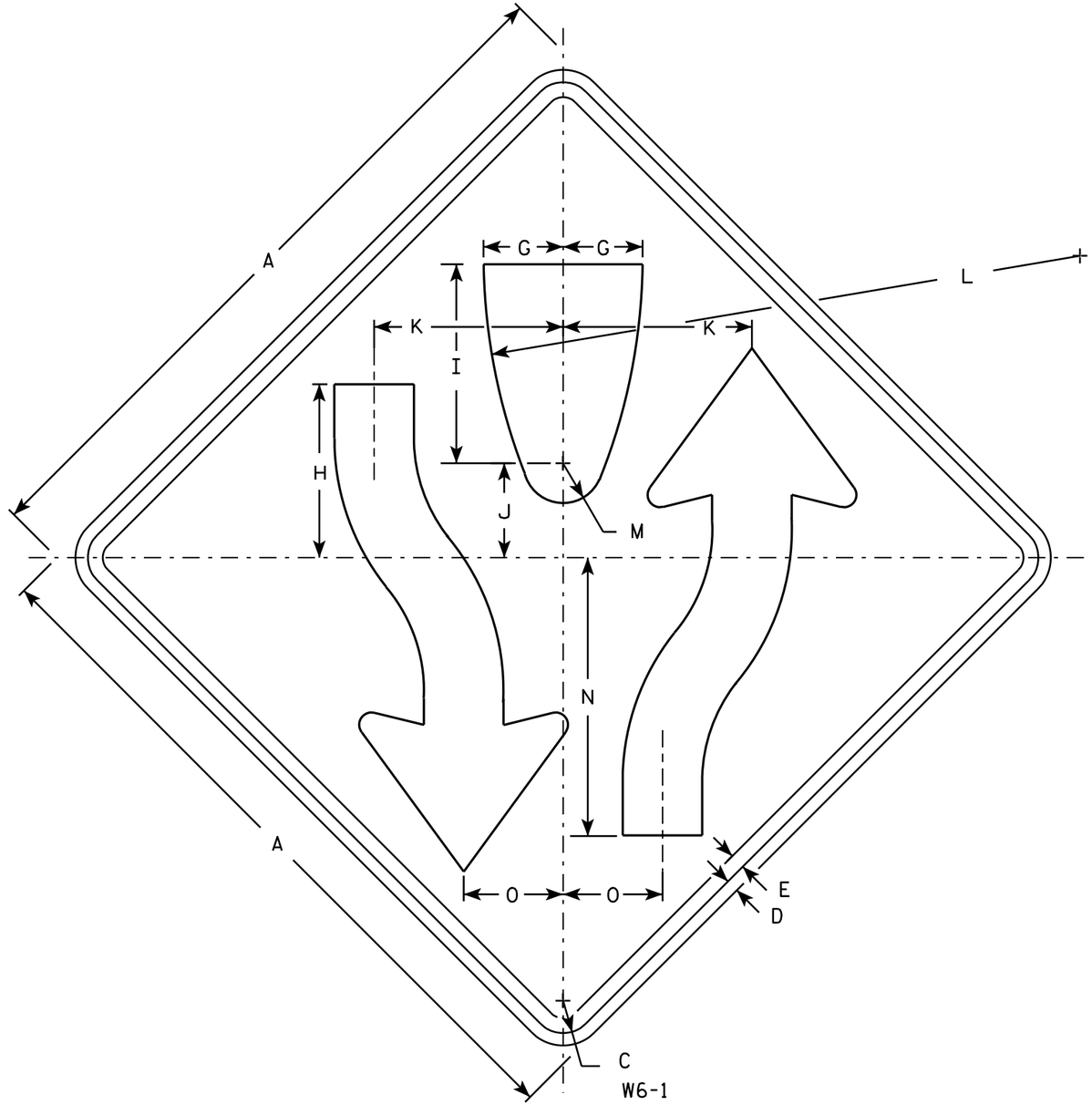
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

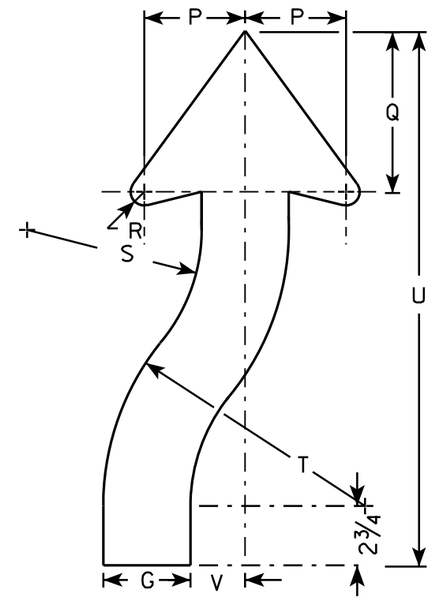
DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 249	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.
4. W6-2 same as W6-1 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	30		1 3/8	1/2	5/8		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 7/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2S	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
2M	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
3																											
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
W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

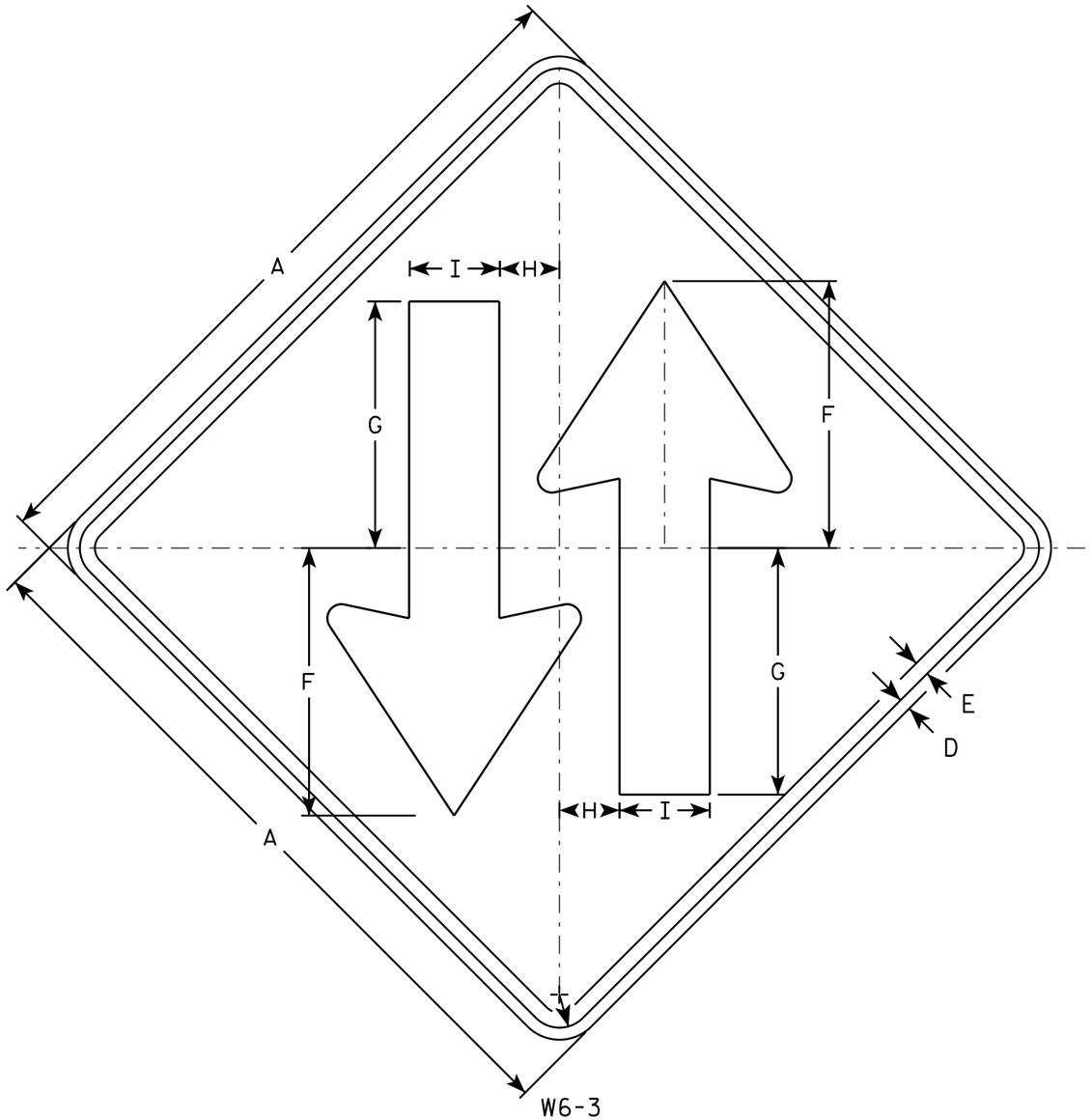
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 250	E

7

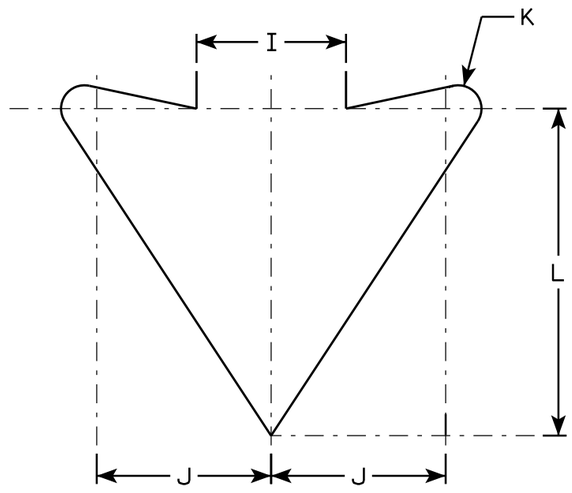
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W61.DGN PLOT DATE : 12-MAR-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.946657:1.000000
WISDOT/CADDS SHEET 42



W6-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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	30		1 3/8	1/2	5/8	11 1/8	10 1/4	2 1/2	3 3/4	4 3/8	5/8	8 1/4															6.25
2S	36		1 5/8	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
2M	36		1 5/8	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
3																											
4	48		2 1/4	3/4	1	17 3/4	16 3/8	4	6	7	1	13 1/8															16.0
5	48		2 1/4	3/4	1	17 3/4	16 3/8	4	6	7	1	13 1/8															16.0

STANDARD SIGN
W6-3

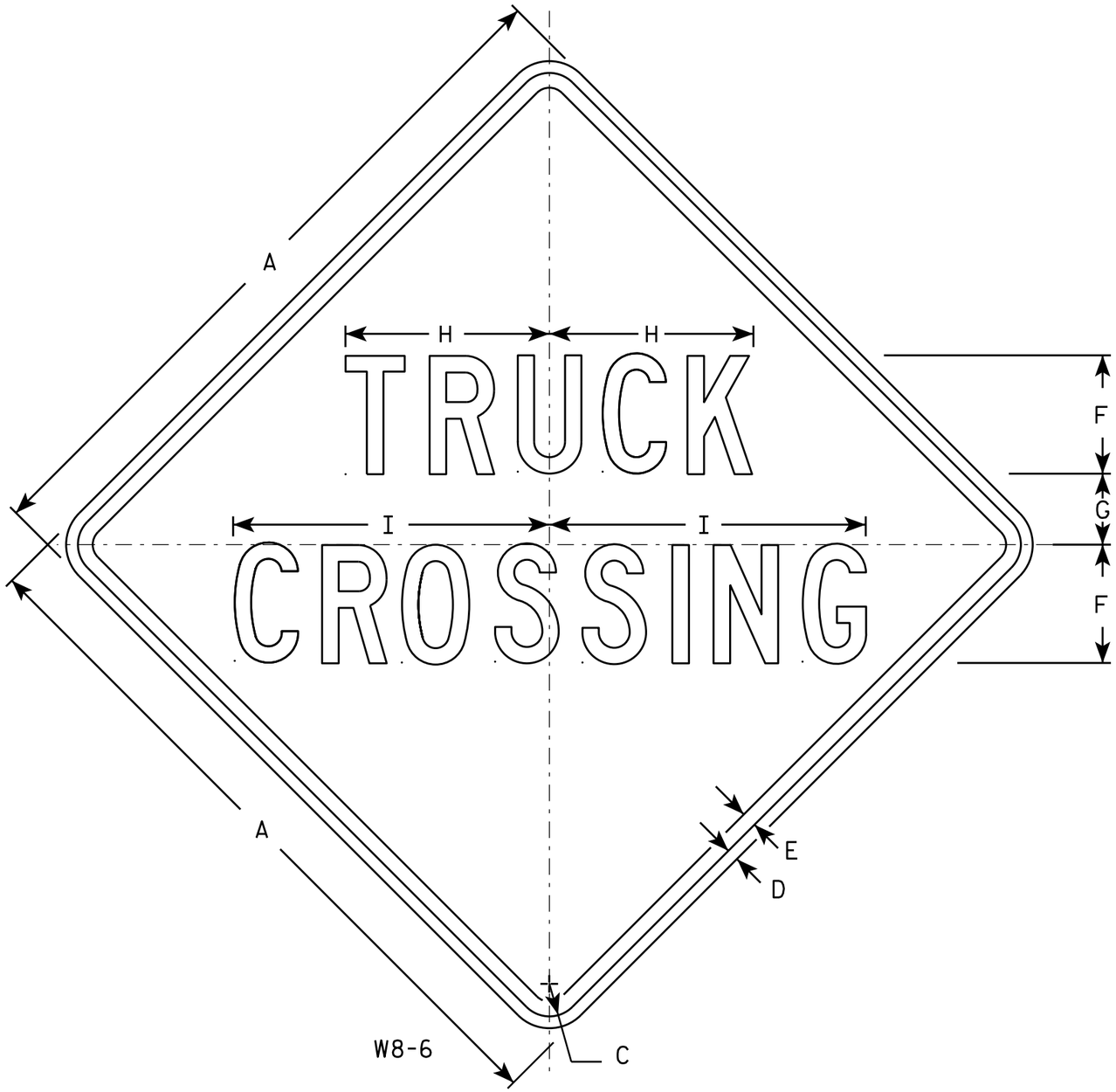
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/10/16 PLATE W6-3.11

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W63.DGN PLOT DATE : 10-MAR-2016 14:01 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.080757:1.000000
WISDOT/CADDS SHEET 42



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	24		1 1/8	3/8	1/2	4	2 1/2	6 7/8	10 5/8																		4.0
2S	36		1 5/8	5/8	3/4	6	3 1/2	10 3/8	16																		9.0
2M	36		1 5/8	5/8	3/4	6	3 1/2	10 3/8	16																		9.0
3	36		1 5/8	5/8	3/4	6	3 1/2	10 3/8	16																		9.0
4	36		1 5/8	5/8	3/4	6	3 1/2	10 3/8	16																		9.0
5	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0

STANDARD SIGN
W8-6

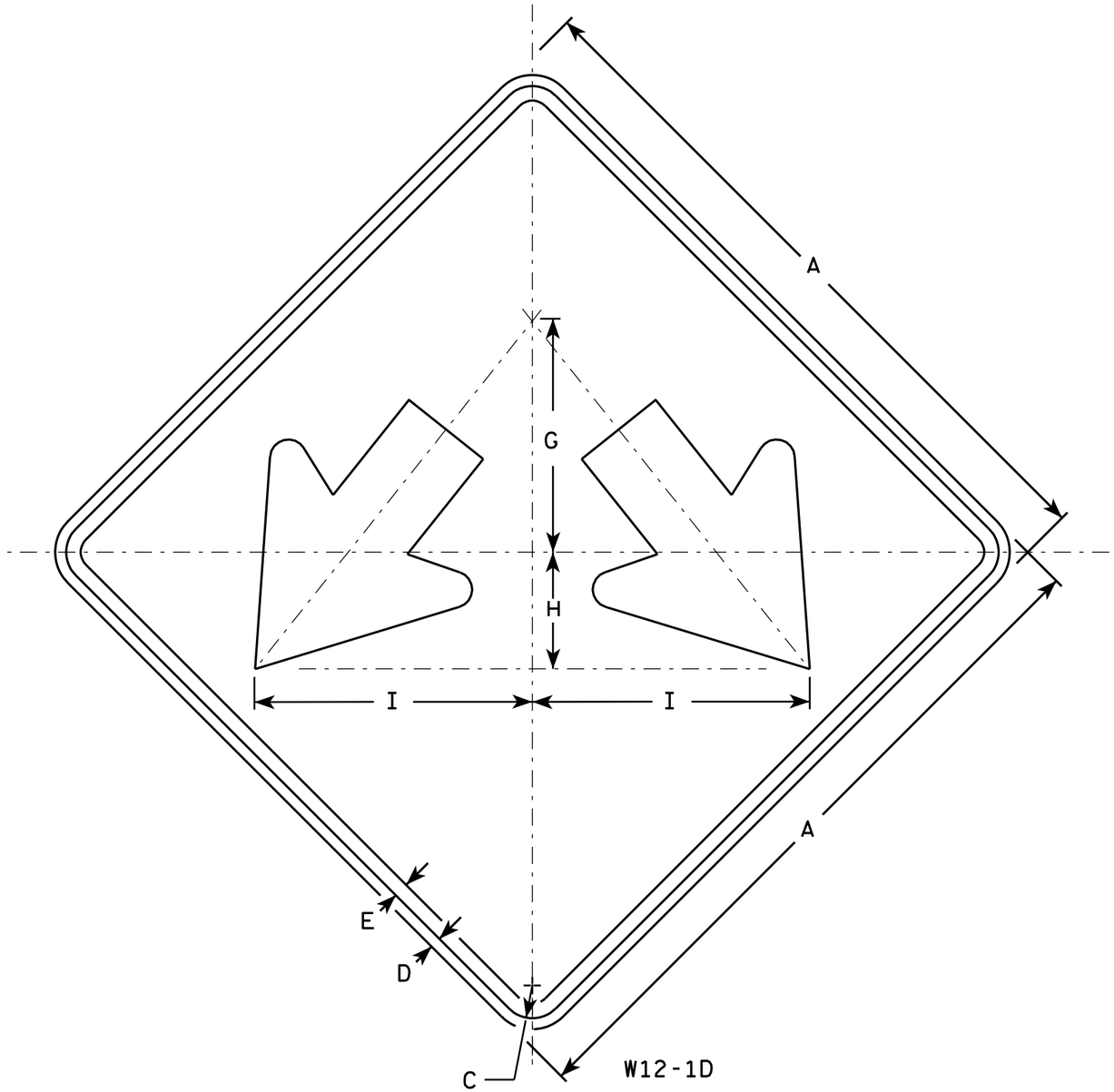
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch
for State Traffic Engineer

DATE 11/25/13 PLATE NO. W8-6.8

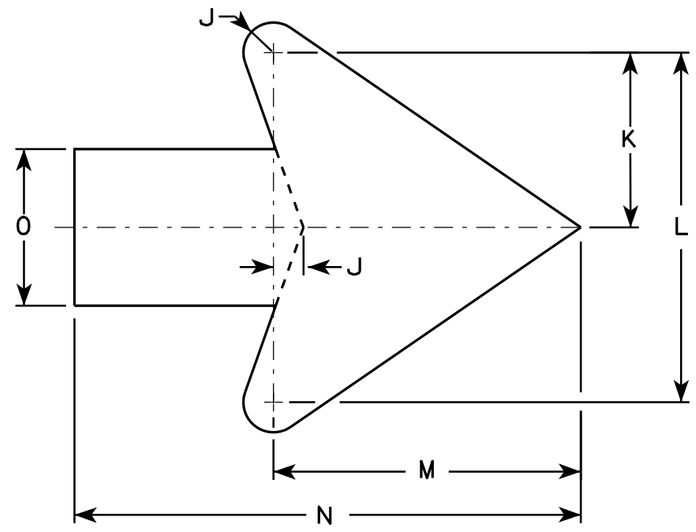
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W86.DGN PLOT DATE : 25-NOV-2013 15:14 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.594294:1.000000
WISDOT/CADDS SHEET 42



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

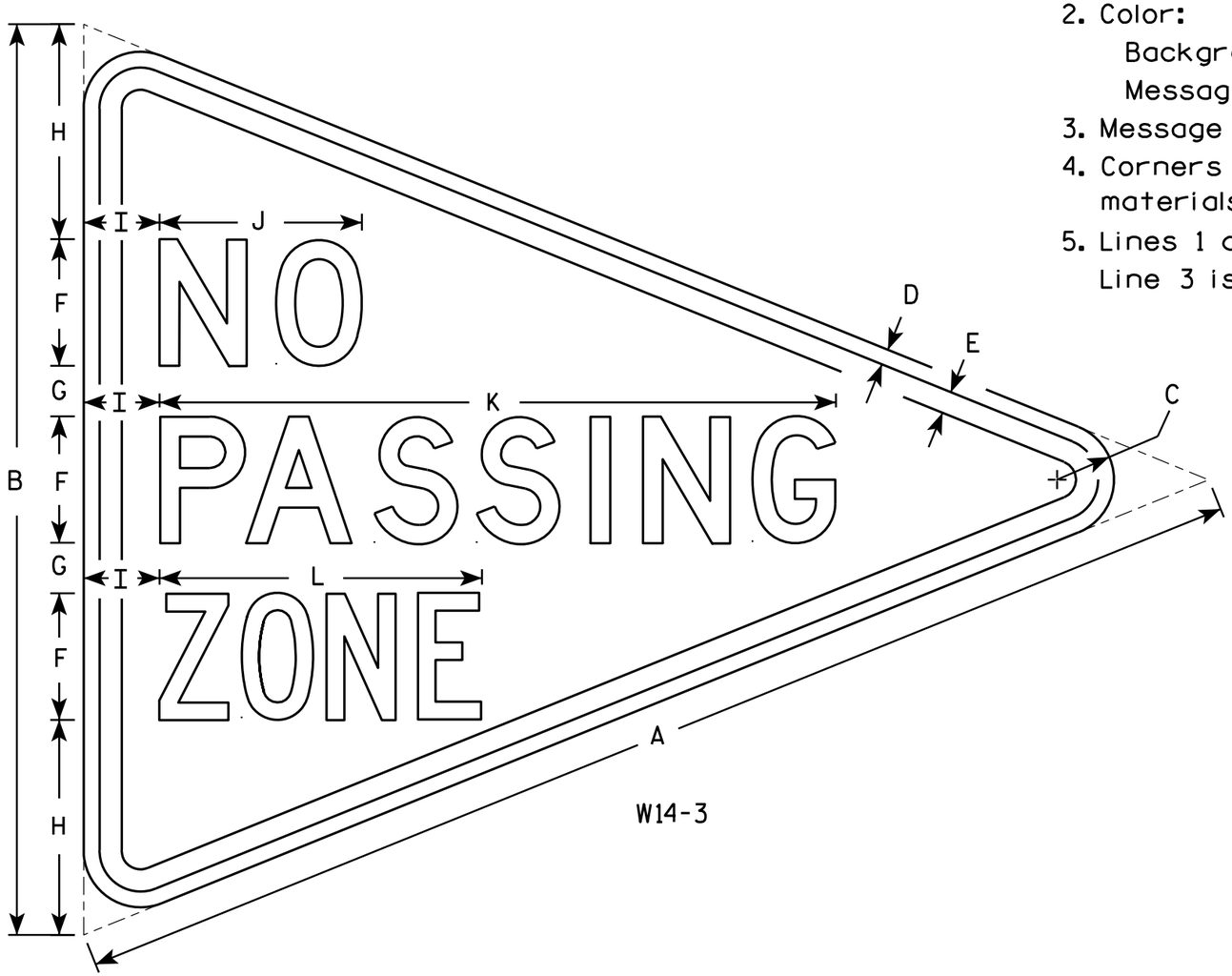
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 253	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. Message Series - See note 5
4. Corners and borders shall be rounded on all base materials for this sign.
5. Lines 1 and 2 are Series D.
   Line 3 is series C.



W14-3

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	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

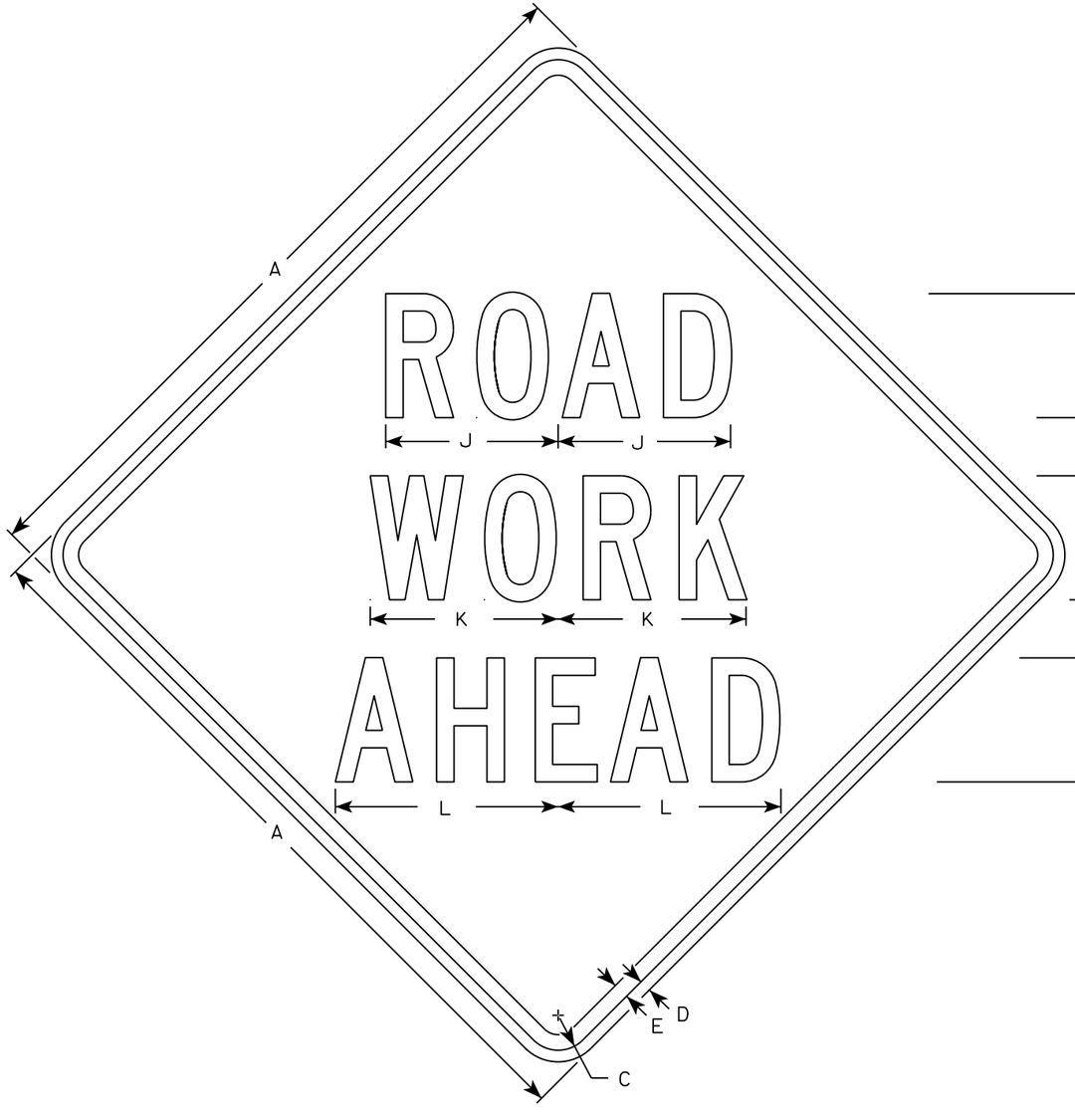
STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

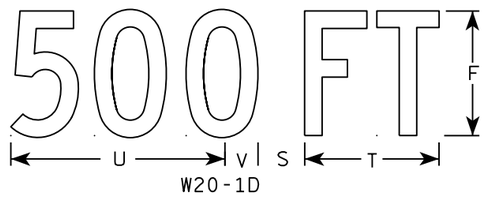
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W14-3.9

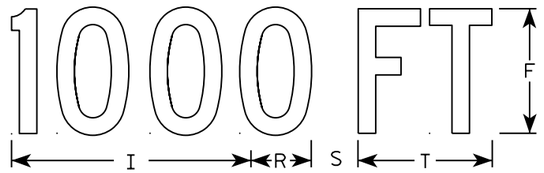
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 254	E



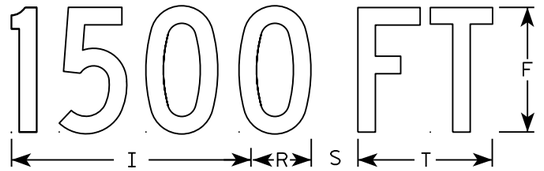
W20-1A



W20-1D



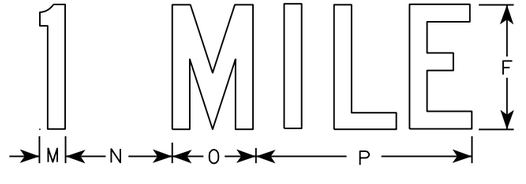
W20-1C



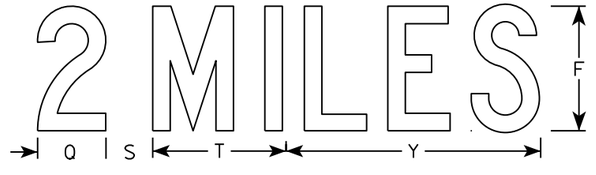
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

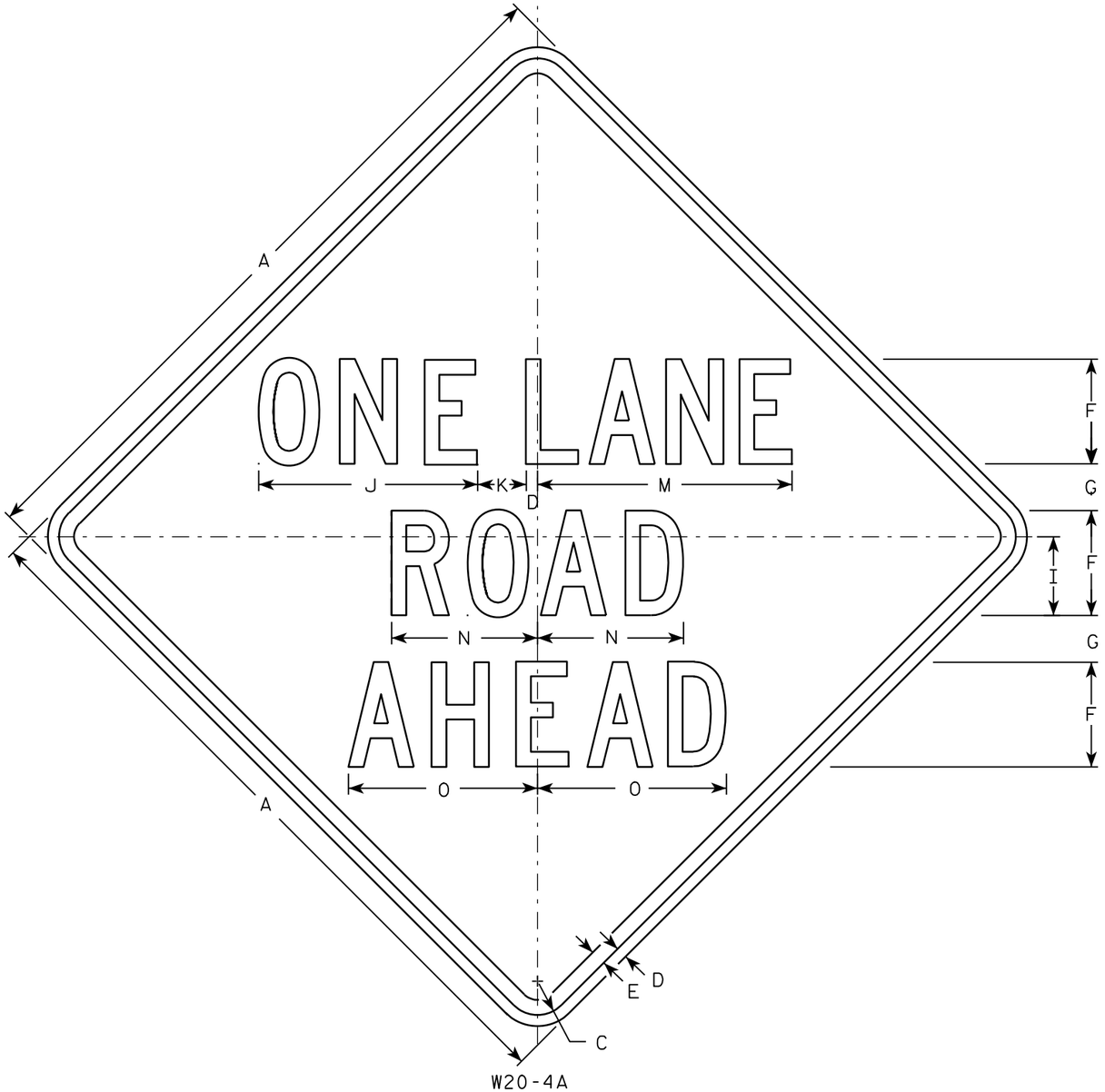
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

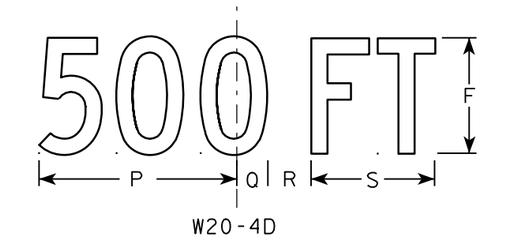
PROJECT NO:

SHEET NO: E

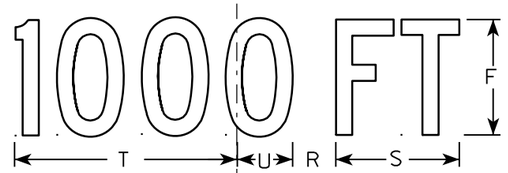
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



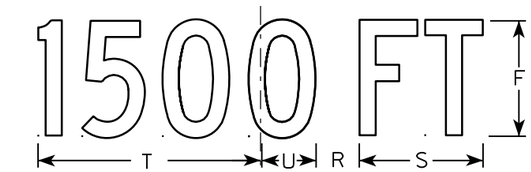
W20-4A



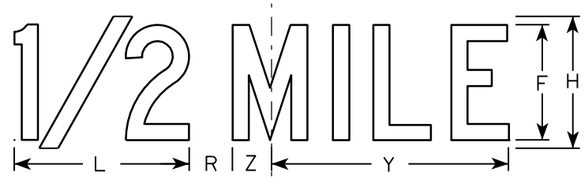
W20-4D



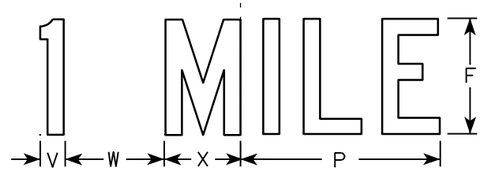
W20-4C



W20-4B



W20-4G



W20-4F

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 3/8	6	3 3/4	10 3/8	2 3/8	8	13 1/2	7	8 7/8	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	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-4A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

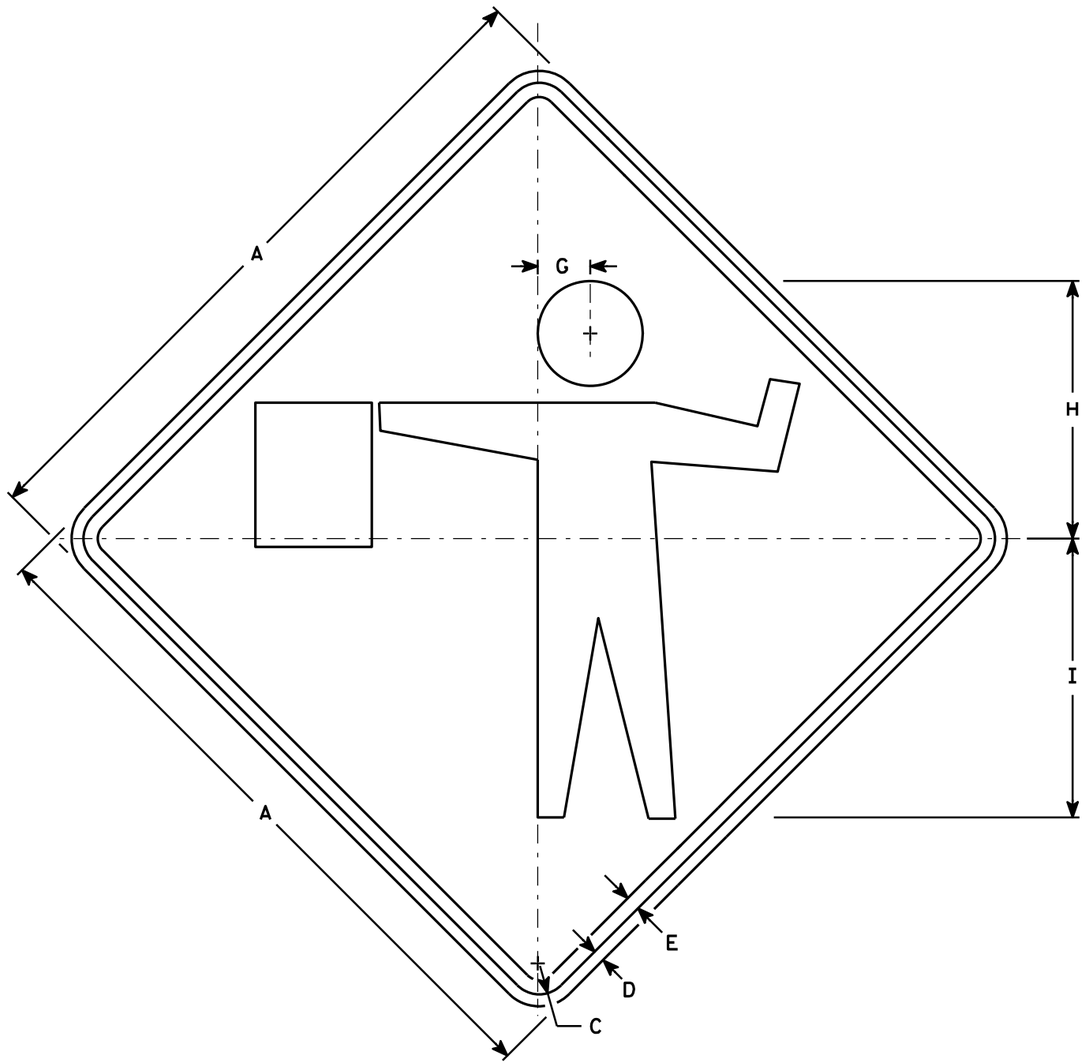
DATE 3/18/11 PLATE NO. W20-4.9

PROJECT NO:

SHEET NO: 256 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W204.DGN PLOT DATE : 18-MAR-2011 12:11 PLOT BY : mscj9h

WISDOT/CADDS SHEET 42



W20-7A

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	36		1 5/8	5/8	3/4		2 3/4	13 1/2	14 5/8																		9.00
2S	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
2M	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
3	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
4	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
5	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00

STANDARD SIGN
W20-7A

WISCONSIN DEPT OF TRANSPORTATION

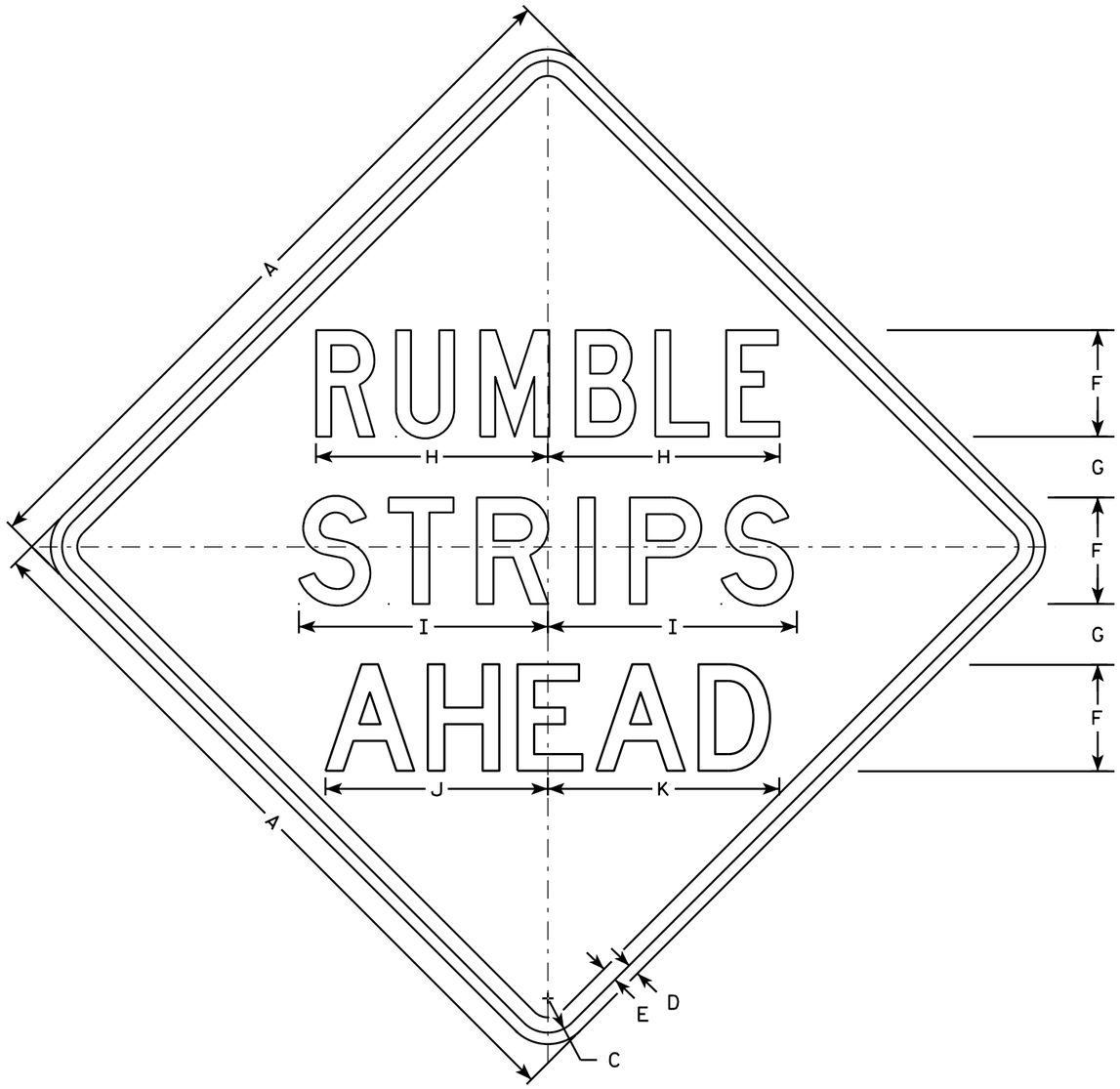
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-7A.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 257 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W207A.DGN PLOT DATE : 18-MAR-2011 13:14 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 7.945391:1.000000
WISDOT/CADDS SHEET 42



W21-65

NOTES

1. Sign is Type II - Type F Reflective
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 C
   Lines 2 and 3 are Series D

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

STANDARD SIGN

W21-65

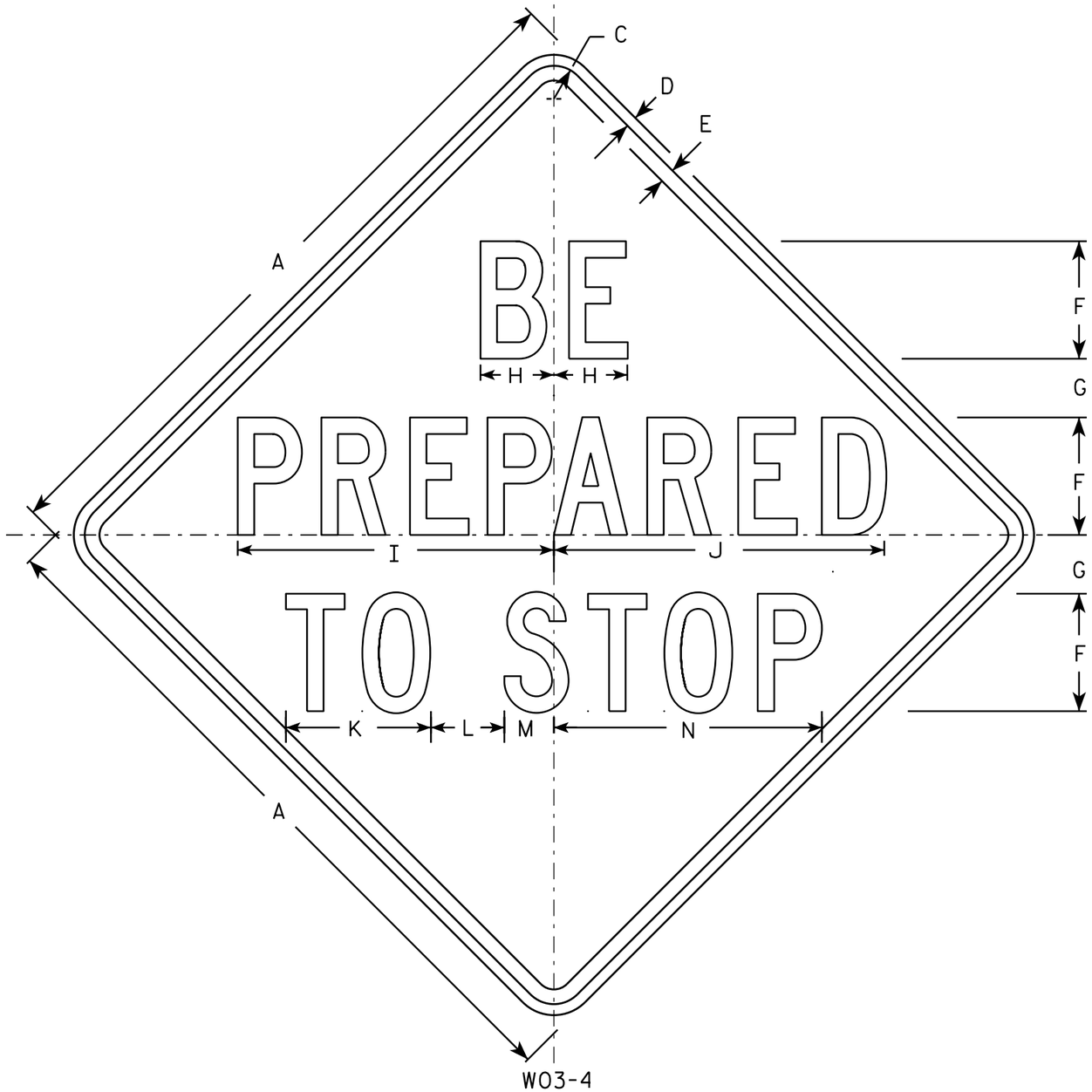
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/28/14 PLATE W21-65.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W2165.dgn PLOT DATE : 28-MAY-2014 13:24 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 9.729210:1.000000 WISDOT/CADDS SHEET 42



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	6	2 1/2	3 3/4	15 7/8	16 7/8	7 3/8	4	2 3/8	13 3/4													9.0
2S	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
2M	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
3	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
4	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
5	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0

STANDARD SIGN
W03-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

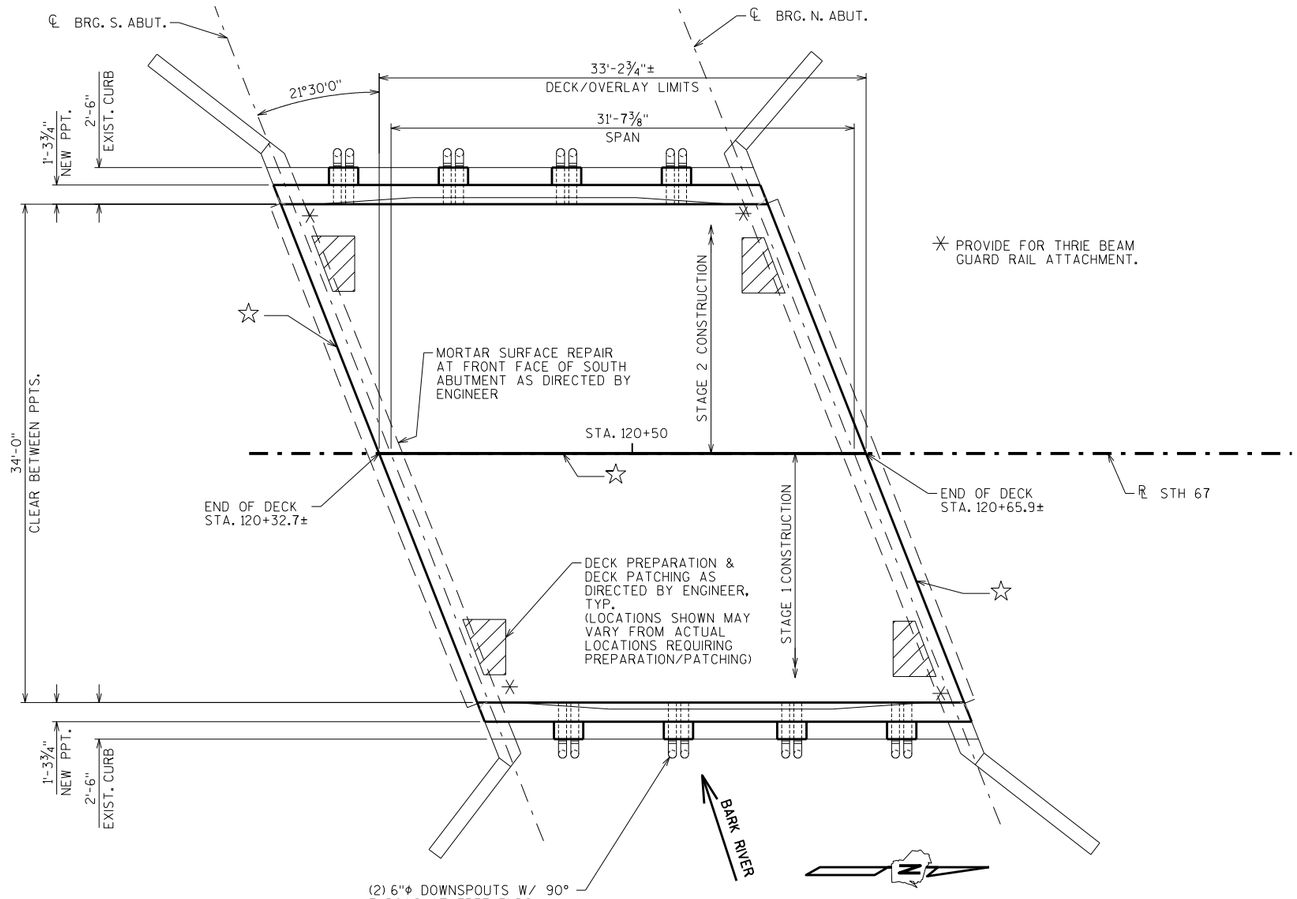
DATE 12/02/13 PLATE NO. W03-4.1

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W034.DGN PLOT DATE : 02-DEC-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 8.999518:1.000000

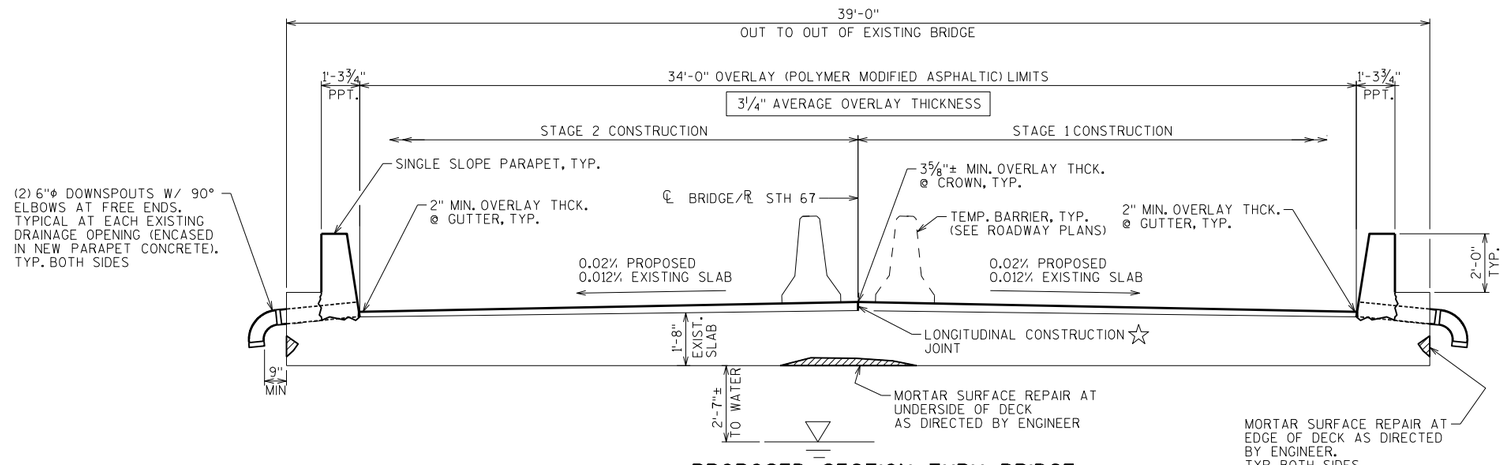
STATE PROJECT NUMBER

3100-06-60



PLAN

(SINGLE SPAN FLAT SLAB - PMA OVERLAY)



PROPOSED SECTION THRU BRIDGE

(LOOKING NORTH)

DESIGN DATA

LIVE LOAD:

DESIGN RATING; HS-20
INVENTORY RATING; HS-20
OPERATIONAL RATING; HS-33
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 180 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY (PARAPETS & DECK PATCHING) ——— f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 ——— fy = 60,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

PREPARATION DECKS TYPE 1 AND PREPARATION DECKS TYPE 2 AREAS ARE AS DETERMINED BY THE ENGINEER. DECK PREPARATION AREAS SHALL BE FILLED WITH "CONCRETE MASONRY DECK PATCHING".

ANY EXCAVATION REQUIRED AT THE ABUTMENTS TO COMPLETE THE OVERLAY OR DECK PATCHING IS CONSIDERED INCIDENTAL TO THE BID ITEM "HMA OVERLAY POLYMER-MODIFIED".

THE PLAN QUANTITY FOR THE BID ITEM "HMA OVERLAY POLYMER-MODIFIED" IS BASED ON THE AVERAGE OVERLAY THICKNESS.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2" PLACED ABOVE THE DECK SURFACE. EXPECTED AVERAGE OVERLAY THICKNESS IS 3¼". IF EXPECTED OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

☆ LONGITUDINAL CONSTRUCTION JOINT AND JOINTS BETWEEN APPROACH OVERLAY AND BRIDGE P.M.A. OVERLAY SHALL BE SEALED WITH AN APPROVED ASPHALTIC SEALER. JOINT SEALING SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "HMA OVERLAY POLYMER-MODIFIED".

STRUCTURE DESIGN CONTACT:

CHRIS DOLL (608) 266-3229
LAURA SHADEWALD (608) 267-9592

LIST OF DRAWINGS

1. PMA OVERLAY
2. REMOVAL SECTION & QUANTITIES
3. PARAPET DETAILS

NO.	DATE	REVISION	BY

Plans Prepared By WISDOT
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS — 8/2/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-67-10

STH 67 OVER BARK RIVER

COUNTY	WAUKESHA	~~TOWN/CITY~~ VILLAGE	SUMMIT
DESIGN SPEC.	REHABILITATION		N/A
DESIGNED BY	CAD	DESIGN CK'D. MWB	DRAWN BY CAD	PLANS CK'D. MWB

PMA OVERLAY

SHEET 1 OF 3

260

I.D. 3100-06-30A

DATE: JULY 2016

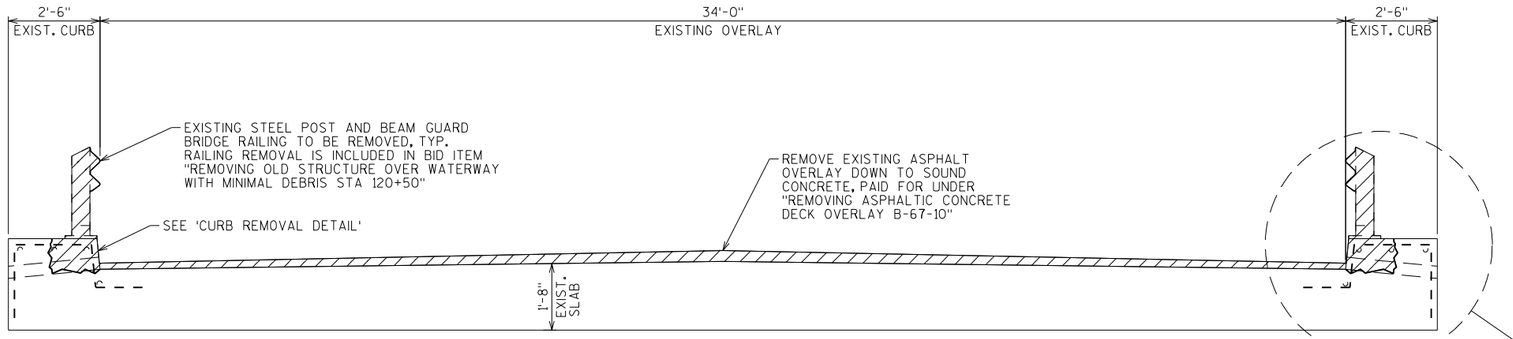
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8

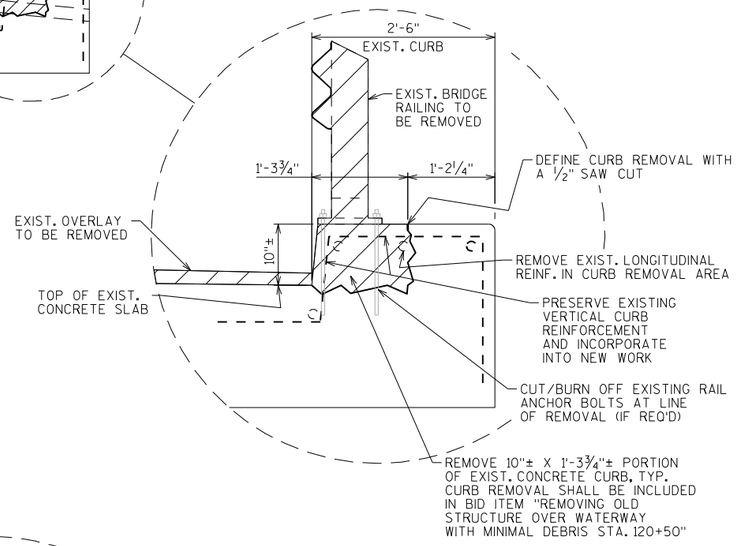
STATE PROJECT NUMBER

3100-06-60



REMOVAL SECTION

(LOOKING NORTH)

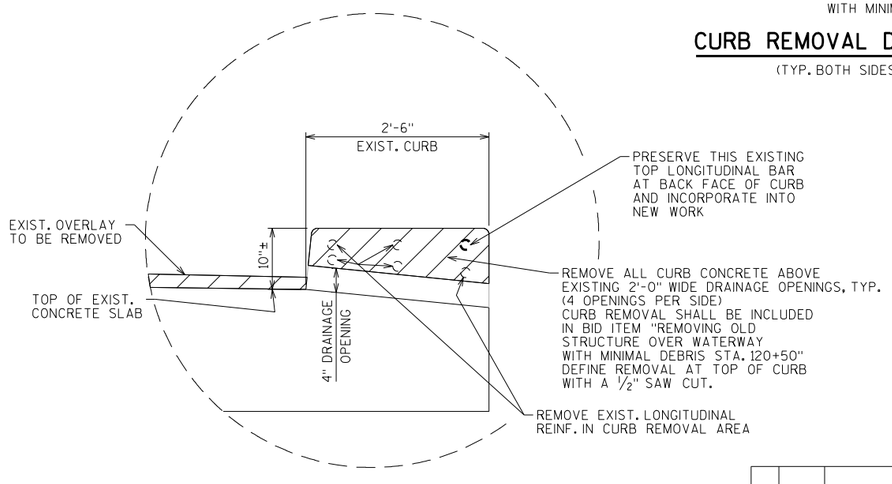


CURB REMOVAL DETAIL

(TYP. BOTH SIDES)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 120+50	LS	1
502.0100	CONCRETE MASONRY BRIDGES	CY	10
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	100
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,100
509.0301	PREPARATION DECKS TYPE 1	SY	6
509.0302	PREPARATION DECKS TYPE 2	SY	2
509.3500.S	HMA OVERLAY POLYMER-MODIFIED	TON	22
509.9010.S	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-67-10	SY	126
514.2625	DOWNSPOUT 6-INCH	LF	70
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4
SPV.0035	CONCRETE MASONRY DECK PATCHING	CY	1
SPV.0090	SAWING PAVEMENT DECK PREPARATION AREAS	LF	30
SPV.0165	MORTAR SURFACE REPAIR	SF	100



CURB REMOVAL DETAIL AT EXISTING DRAINAGE OPENINGS

(TYP. BOTH SIDES)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-10

DRAWN BY CAD | PLANS CK'D. MWB

REMOVAL SECTION & QUANTITIES

SHEET 2

261

8

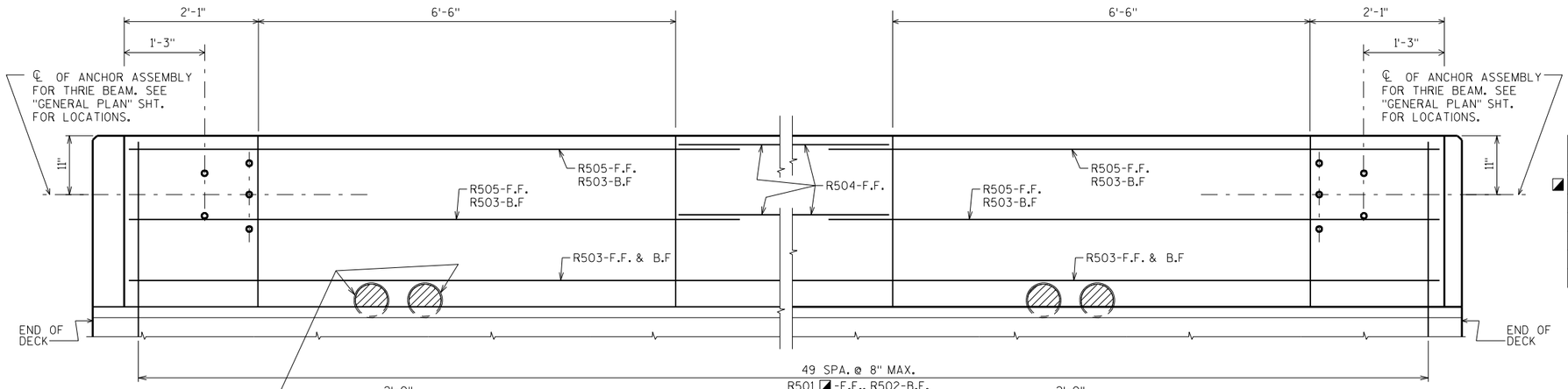
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STATE PROJECT NUMBER
3100-06-60

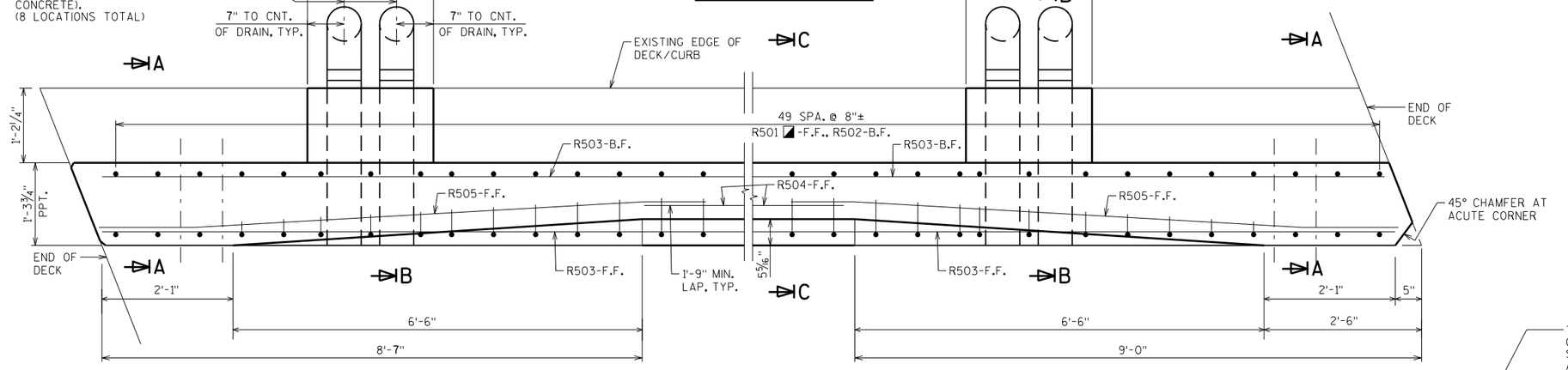
BILL OF BARS

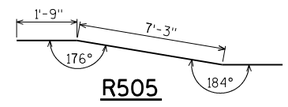
NOTE: THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D EAST PPT.	NO. REQ'D WEST PPT.	LENGTH	BENT	BAR SERIES	LOCATION
◪ R501	X	50	50	3'-10"			PARAPET VERT.-F.F.
R502	X	50	50	2'-8"			PARAPET VERT.-B.F.
R503	X	4	4	32'-4"			PARAPET HORIZ.
R504	X	2	2	14'-9"			PARAPET HORIZ.
R505	X	4	4	10'-9"	X		PARAPET HORIZ.

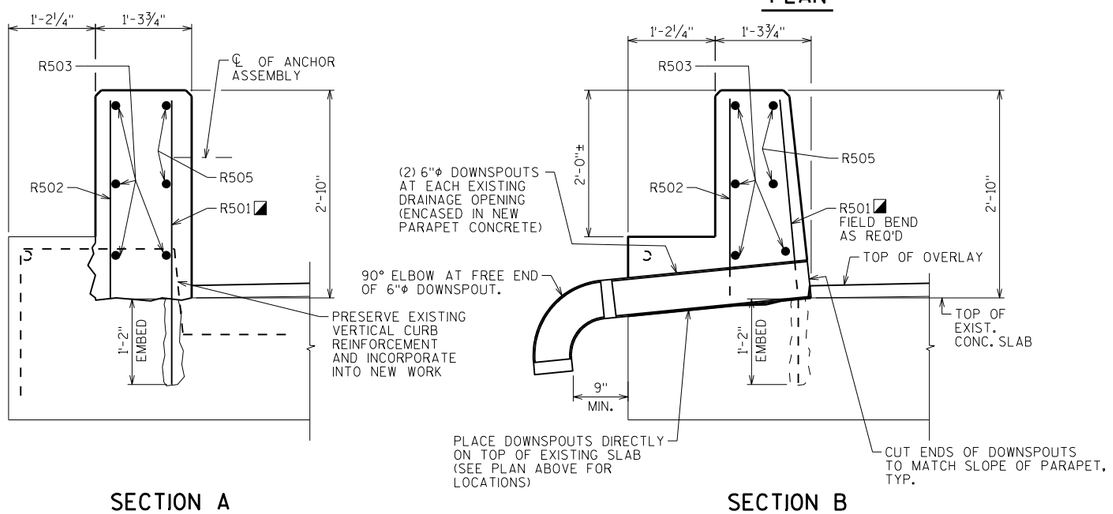


INSIDE ELEVATION

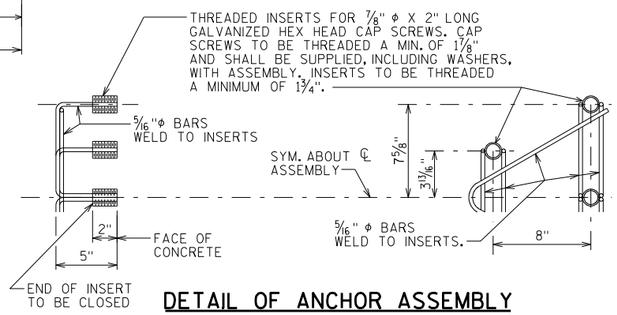




PLAN



SECTION A | SECTION B | SECTION C



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

◪ ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-2" IN CONCRETE. ADJUST SPACING AS REQ'D TO AVOID EXISTING VERT. CURB REINFORCEMENT AND DOWNSPOUTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-10

DRAWN BY CAD | PLANS CK'D. MWB

PARAPET DETAILS

SHEET 3

262

SCALE = 1

8

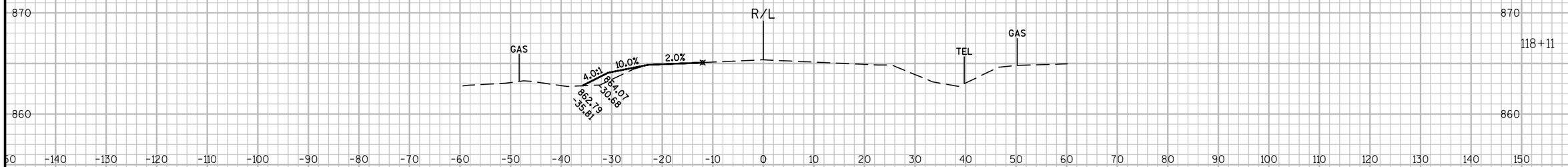
8

POST 5
LEFT



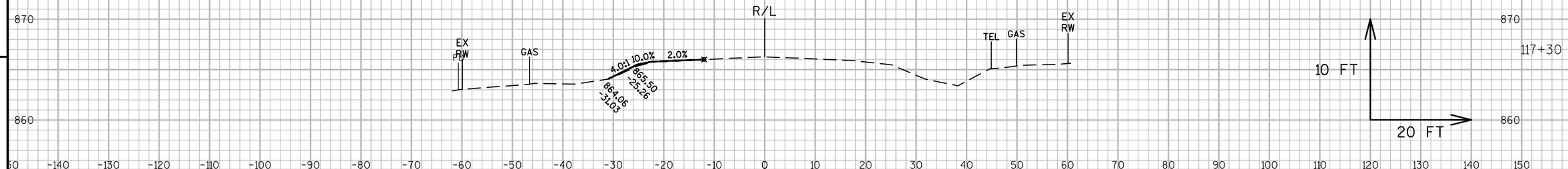
118+36

POST 1
LEFT



118+11

BEGIN APPROACH
TAPER LEFT



117+30

9

9

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	CROSS SECTIONS: BEAM GUARD (FOR INFORMATION ONLY)	SHEET 263	E

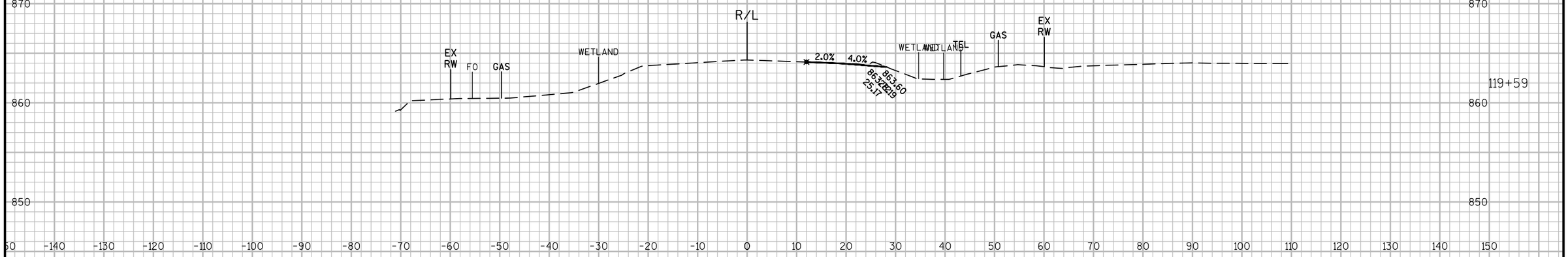
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LAYOUT NAME - 090201-XS

PLOT DATE : 2/9/2016 7:48 AM

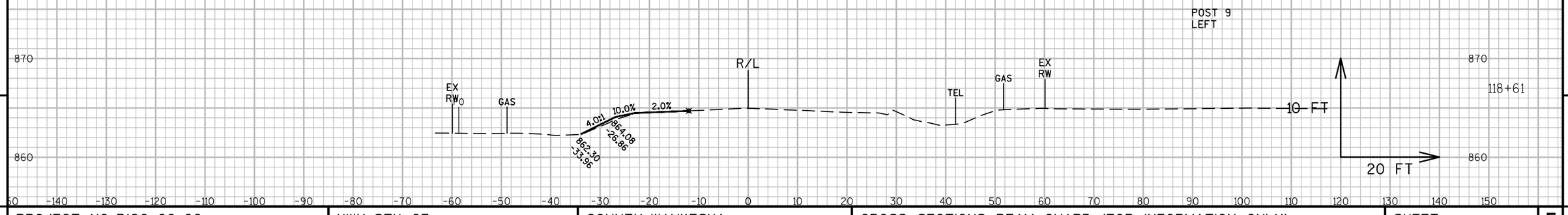
PLOT BY : GUENETTE, JEFFREY J PLOT NAME :

PLOT SCALE : 1 IN:20 FT

POST 1
RIGHT



POST 9
LEFT

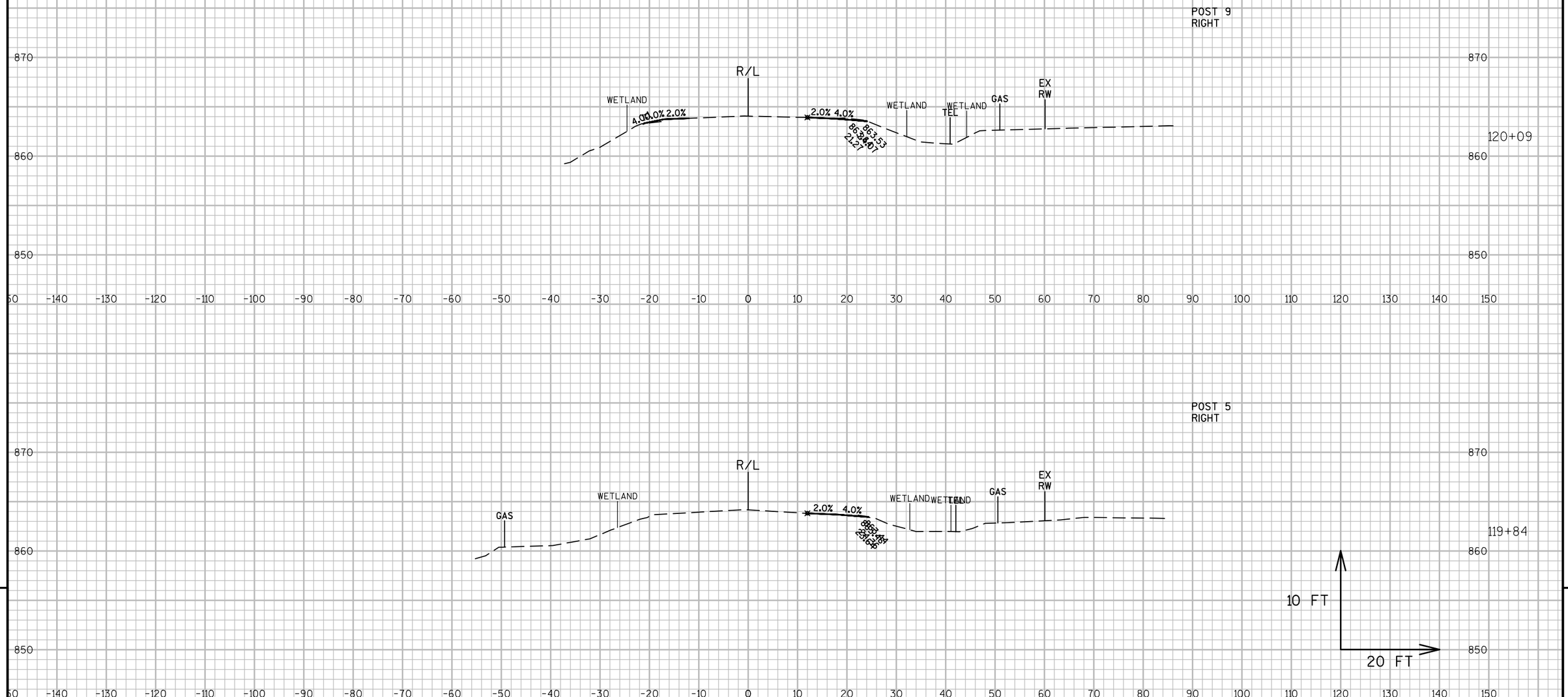


9 9

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	CROSS SECTIONS: BEAM GUARD (FOR INFORMATION ONLY)	SHEET 264	E

FILE NAME : N:\PDS\C3D\31000630\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090202-XS

PLOT DATE : 2/9/2016 7:48 AM PLOT BY : GUENETTE, JEFFREY J PLOT NAME : PLOT SCALE : 1 IN:20 FT



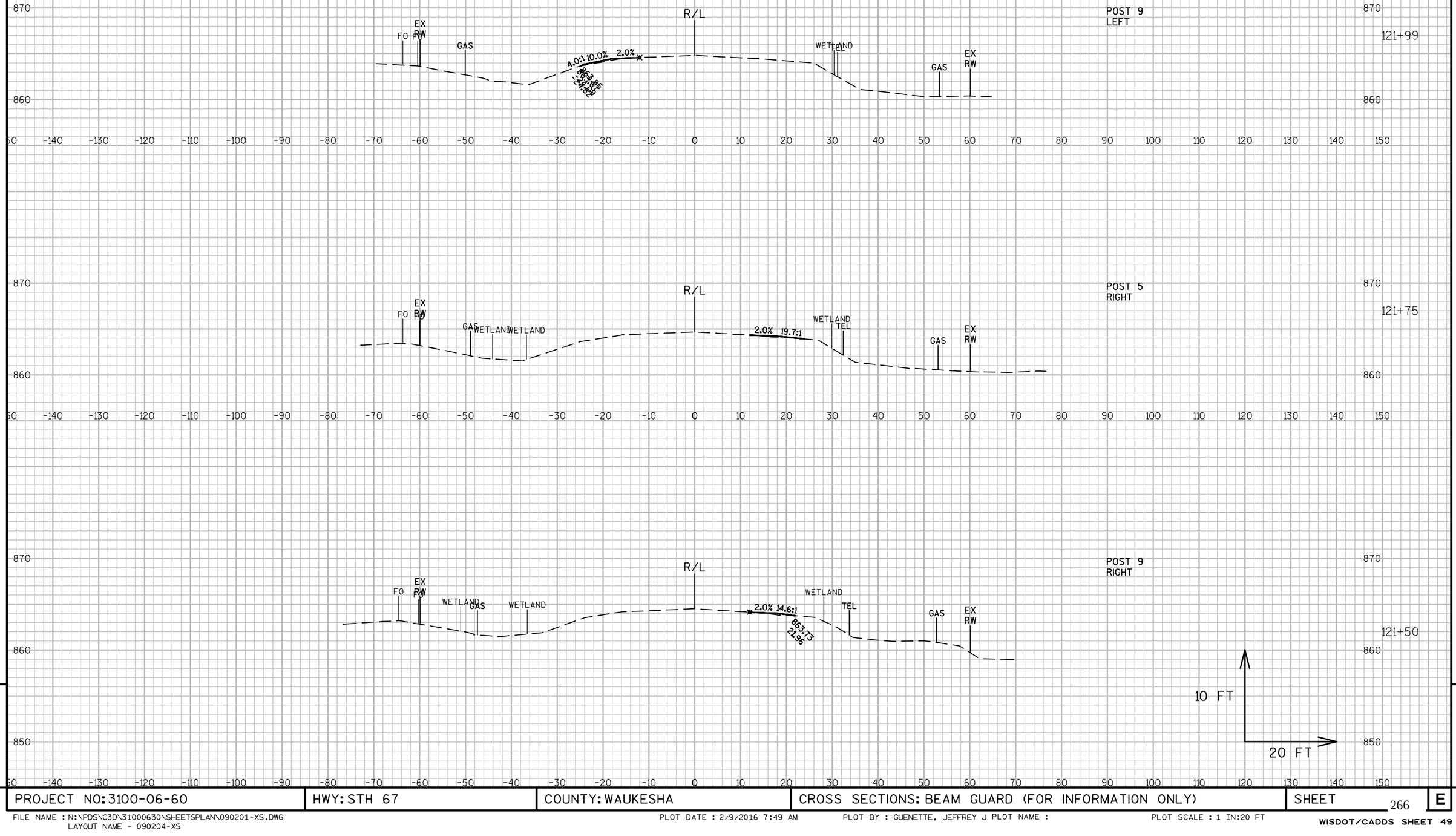
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PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	CROSS SECTIONS: BEAM GUARD (FOR INFORMATION ONLY)	SHEET 265	E

FILE NAME : N:\PDS\C3D\31000630\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090203-XS

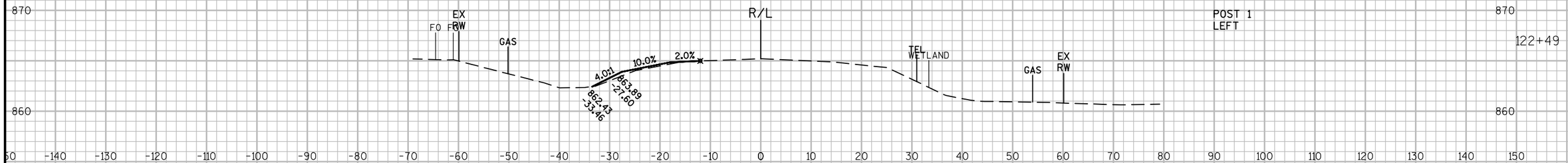
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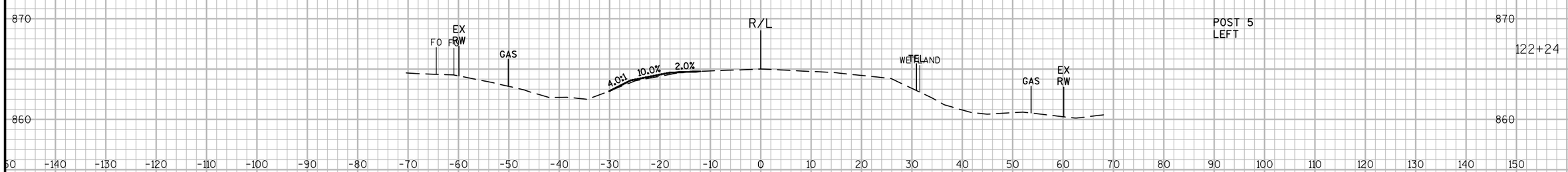


9

9

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	CROSS SECTIONS: BEAM GUARD (FOR INFORMATION ONLY)	SHEET 266	E



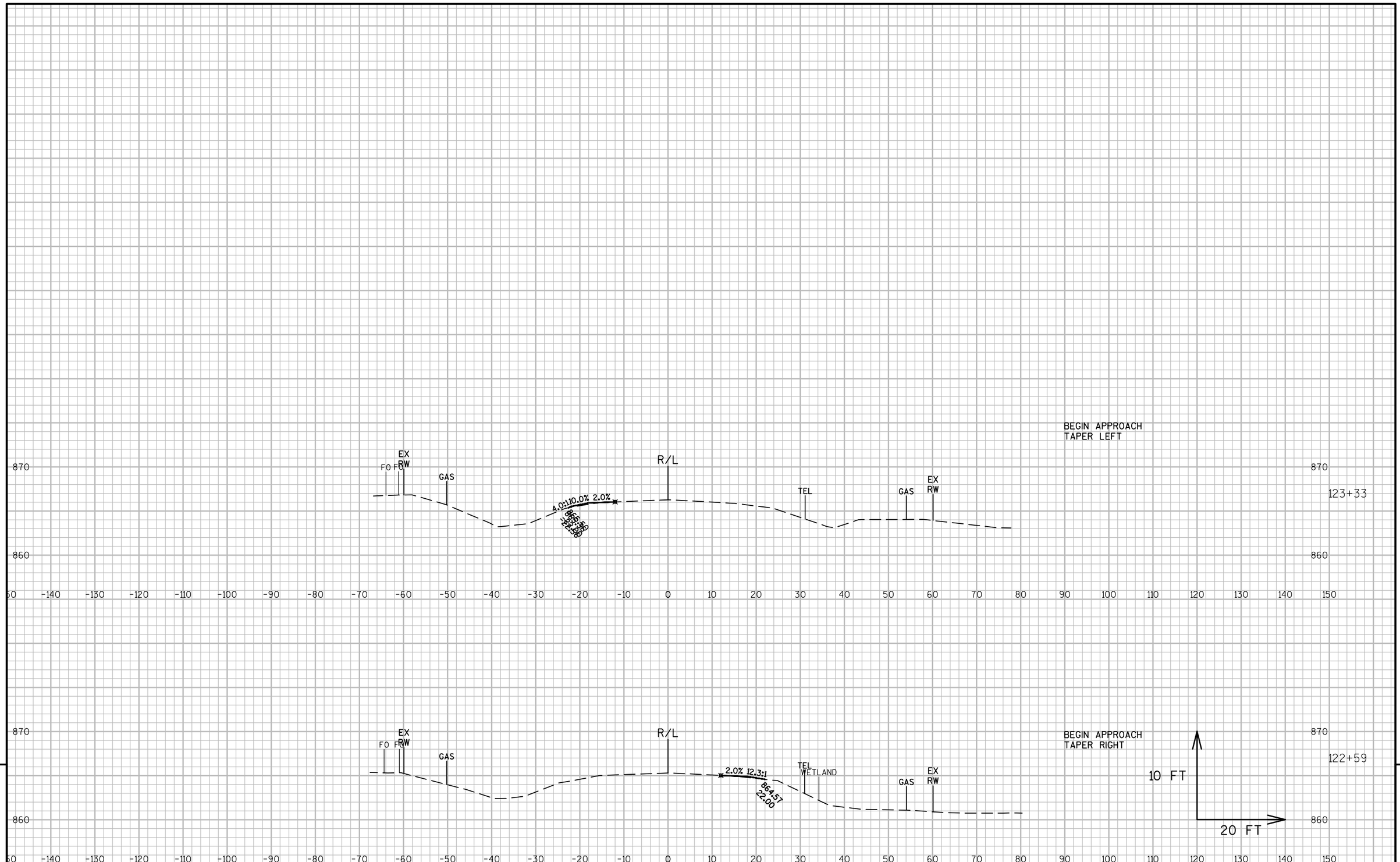




9

9

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	CROSS SECTIONS: BEAM GUARD (FOR INFORMATION ONLY)	SHEET 267	E



9

9

PROJECT NO: 3100-06-60	HWY: STH 67	COUNTY: WAUKESHA	CROSS SECTIONS: BEAM GUARD (FOR INFORMATION ONLY)	SHEET 268	E

FILE NAME : N:\PDS\C3D\31000630\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090206-XS

PLOT DATE : 2/9/2016 7:49 AM PLOT BY : GUENETTE, JEFFREY J PLOT NAME : PLOT SCALE : 1 IN:20 FT

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov