EAU

FEBRUARY 2022

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~~ (Includes Erosion Control Plans)
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~~

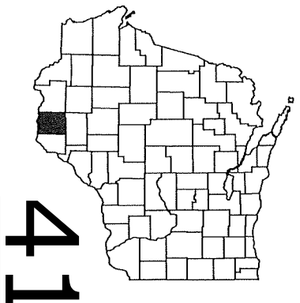
TOTAL SHEETS = 172

PROJECT ID: 1020-02-83

WITH: N/A

41

COUNTY: ST CROIX



DESIGN DESIGNATION

A.A.D.T.	2017	=	34,700 SB/12,600 NB
A.A.D.T.	2027	=	35,100 SB/12,750 NB
D.H.V.		=	-
D.D.		=	-
T.		=	-
DESIGN SPEED		=	45 MPH
ESALS		=	-

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (955.36)
- 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

STATE HIGHWAY REHABILITATION-MAINTENANCE PROJECT

HUDSON - BALDWIN

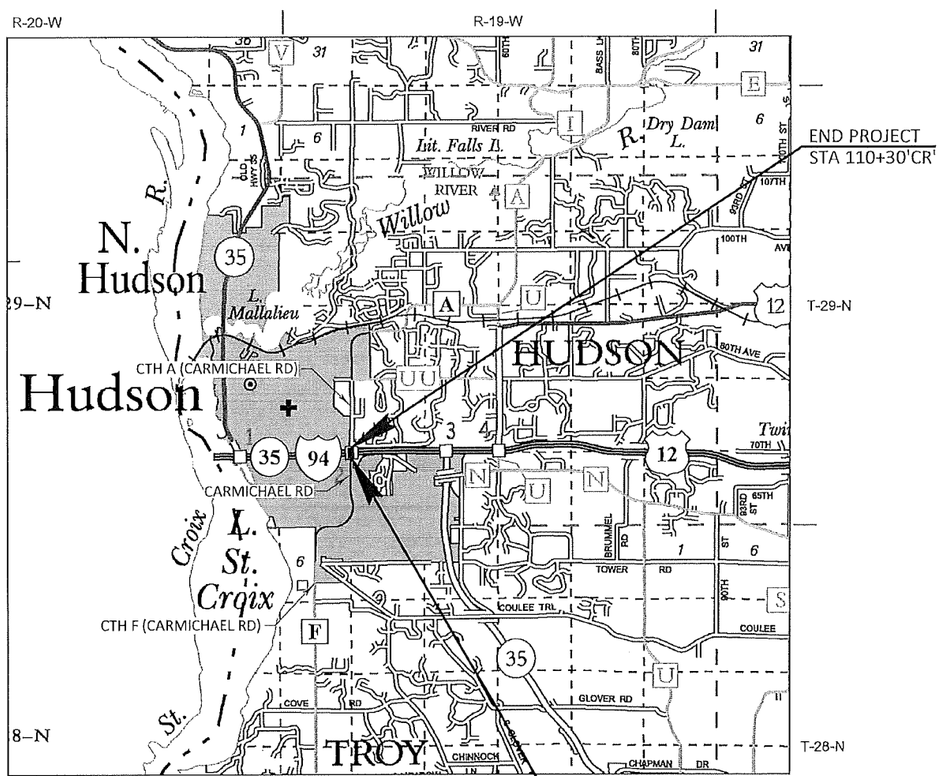
CARMICHAEL ROAD BRIDGE B-55-0118

IH 94

ST. CROIX COUNTY

STATE PROJECT NUMBER
1020-02-83

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1020-02-83	WISC 2022204	1



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), ST CROIX COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ORIGINAL PLANS PREPARED BY

SEH
Building a Better World for All of Us
Short Elliott Hendrickson Inc.
10 North Bridge Street
Chippewa Falls, WI 54729-2550
715.720.6200 main | 888.908.8166 fax
800.472.5881 toll free | www.sehinc.com

WISCONSIN
DEAN V. STODOLA
36006-006
MCFARLAND
WI
PROFESSIONAL ENGINEER

10-27-21 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	SEH
Project Manager	STACIE LAMBELE
Regional Examiner	NW REGION
Regional Supervisor	NICOLE PASSUELLO

APPROVED FOR THE DEPARTMENT

DATE: 10/27/21 (Signature)

E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 01 TITLE\010101-TI (TITLE SHEET 1020-02-86 IH 94--CARMICHAEL RD).DWG PLOT DATE : 10/26/2021 5:03 PM PLOT BY : SEH PLOT NAME :

STANDARD ABBREVIATIONS

ABUT	ABUTMENT
AC	ACRE
AGG	AGGREGATE
AECPRC	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
AECPCS	APRON ENDWALL FOR CULVERT PIPE CORRUGATED STEEL
ASPH	ASPHALTIC
AVG	AVERAGE
ADT	AVERAGE DAILY TRAFFIC
BF	BACK FACE
BM	BENCH MARK
BR	BRIDGE
CE	COMMERCIAL ENTRANCE
C/L	CENTER LINE
Δ	CENTRAL ANGLE OR DELTA
COB	CENTER OF BARRIER
CONC	CONCRETE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CR	CREEK
CY	CUBIC YARD
C&G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DISCH	DISCHARGE
DG	DITCH GRADE
DWY	DRIVEWAY
X	EAST GRID COORDINATE
EAT	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
EOR	END POINT OF RADIUS
EL	ELEVATION
ENT	ENTRANCE
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
FC	FACE OF CURB
FF	FACE TO FACE
FERT	FERTILIZE
FE	FIELD ENTRANCE
FL	FLOW LINE
FO	FIBER OPTIC
CWT	HUNDREDWEIGHT
HYD	HYDRANT
ID	INSIDE DIAMETER
INV	INVERT
IP	IRON PIPE ON PIN
LHF	LEFT-HAND FORWARD
L	LENGTH OF CURVE
LF	LINEAR FOOT
LC	LONG CHORD OF CURVE
LS	LUMP SUM
MH	MANHOLE
MOR	MID POINT OF RADIUS
NC	NORMAL CROWN
NO	NUMBER
OBLIT	OBLITERATE
PAVT	PAVEMENT
PE	PRIVATE ENTRANCE
PVRC	POINT OF VERTICAL REVERSE CURVE
QOR	QUARTER POINT OF RADIUS
R	RADIUS
REQ'D	REQUIRED
RES	RESIDENCE OR RESIDENTIAL
RHF	RIGHT-HAND FORWARD
R/W	RIGHT-OF-WAY
R	RIVER
RDWY	ROADWAY
R/L	REFERENCE LINE
SALV	SALVAGED
SAN	SANITARY SEWER
SF	SQUARE FEET
SY	SQUARE YARD
SDD	STANDARD DETAIL DRAWINGS
STA	STATION
SS	STORM SEWER
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
SE	SUPERELEVATION RATE
TC	TOP OF CURB
T OR TN	TOWN
T	TRUCKS (PERCENT OF)
TYP	TYPICAL
VAR	VARIABLE
VC	VERTICAL CURVE
Y	NORTH GRID COORDINATE
YD	YARD

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 0.28 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.28 ACRES

DNR AREA LIAISON:

WI DEPT OF NATURAL RESOURCES
WEST CENTRAL REGION HEADQUARTERS
1300 WEST CLAIREMONT AVENUE
EAU CLAIRE, WI 54701
TELEPHONE: 715.836.6571, 715.495.1903
ATTENTION: AMY LESIK
EMAIL: AMYL.LESIK@WISCONSIN.GOV

WISDOT CONTACT:

WISCONSIN DEPT OF TRANSPORTATION
NORTHWEST REGION
718 WEST CLAIREMONT AVENUE
EAU CLAIRE, WI 54701
TELEPHONE: 715.577.2967
ATTENTION: STACIE LAMBELLE
EMAIL: STACIE.LAMBELE@DOT.WI.GOV

DESIGN CONTACT:

SHORT ELLIOTT HENDRICKSON INC.
10 NORTH BRIDGE STREET
CHIPPEWA FALLS, WI 54729-2550
TELEPHONE: 715.720.6291
ATTENTION: TARA KRISTA
EMAIL: TKRISTA@SEHINC.COM

WISCONSIN DOT - COMMUNICATIONS LINE
JOHN MITTELSTADT
433 W ST PAUL AVE
STE 300
MILWAUKEE, WI 53203-3007
608-205-7859 (OFFICE)
JOHN.MITTELSTADT@DOT.WI.GOV

CITY OF HUDSON - STREET LIGHTING
MICHAEL MROZ
DIRECTOR OF PUBLIC WORKS & PARKS
505 3RD STREET
HUDSON, WI 54016
715-386-4767 (OFFICE)
715-716-5746 (DIRECT)

UTILITY CONTACT LIST:

SOMERSET TELEPHONE CO - COMMUNICATIONS LINE
GREG CARDINAL
116 HARRIMAN AVE
AMERY, WI 54001
715-268-7100 (OFFICE)
715-554-1620 (MOBILE)
GREGCARDINAL@AMERYTEL.NET

XCEL ENERGY - ELECTRICITY DISTRIBUTION
DARREN NORDSKOG
2001 OLD HIGHWAY 35 S
HUDSON, WI 54016
715-386-4798 (OFFICE)
715-410-3755 (MOBILE)
DARREN.M.NORDSKOG@XCELENERGY.COM

XCEL ENERGY - GAS
DARREN NORDSKOG
2001 OLD HIGHWAY 35 S
HUDSON, WI 54016
715-386-4798 (OFFICE)
715-410-3755 (MOBILE)
DARREN.M.NORDSKOG@XCELENERGY.COM

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

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

GENERAL NOTES:

1. NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
3. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.
4. PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLANS WITH THE ENGINEER.
5. INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.
6. WETLANDS, WATERWAYS, AND OTHER ENVIRONMENTALLY SENSITIVE AREAS SHALL BE PROTECTED AT ALL TIMES. DO NOT STORE EQUIPMENT OR MATERIALS NEAR THESE SITES UNLESS APPROVED BY THE ENGINEER.
7. TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
8. REMOVAL OF EROSION CONTROL DEVICES IS INCLUDED IN THE COST OF THEIR RESPECTIVE BID ITEMS.
9. THE EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
10. ASPHALTIC AND CONCRETE SURFACES SHALL BE SAWCUT AT THE MATCH LINE AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.
11. A CONVERSION FACTOR OF 2.0 TONS/CY IS USED TO ESTIMATE QUANTITIES FOR BASE AGGREGATE DENSE.
12. ASPHALTIC SURFACE WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.
13. THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISITENT WITH THE PLAN AND TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING OR PARKING LANE.

ORDER OF SHEETS - SECTION 2:

2

2

N

GATEWAY BLVD

BADGER DR

EB EXIT RAMP

IH 94/USH 12/STH 35 EB

IH 94/USH 12/STH 35 WB

WB ENTRANCE RAMP

COULEE RD

EXISTING R/W (TYP)

CREST VIEW DR

END PROJECT 1020-02-83
STA 110+30'CR'

95'CR'

CARMICHAEL RD SB

100'CR'

105'CR'

110'CR'

115'CR'

CARMICHAEL RD SB

120'CR'

CARMICHAEL RD NB

CARMICHAEL RD NB

COULEE RD

BEGIN PROJECT 1020-02-83
STA 102+95'CR'

EXISTING SIGN STRUCTURE
S-55-0029 TO REMAIN
SEE STRUCTURE PLAN

EXISTING STRUCTURE
B-55-118 TO REMAIN
SEE STRUCTURE PLAN

STAGELINE RD

PEARSON DR

CENTER DR

STAGELINE RD

EB ENTRANCE RAMP

IH 94/USH 12/STH 35 EB

IH 94/USH 12/STH 35 WB

WB EXIT RAMP

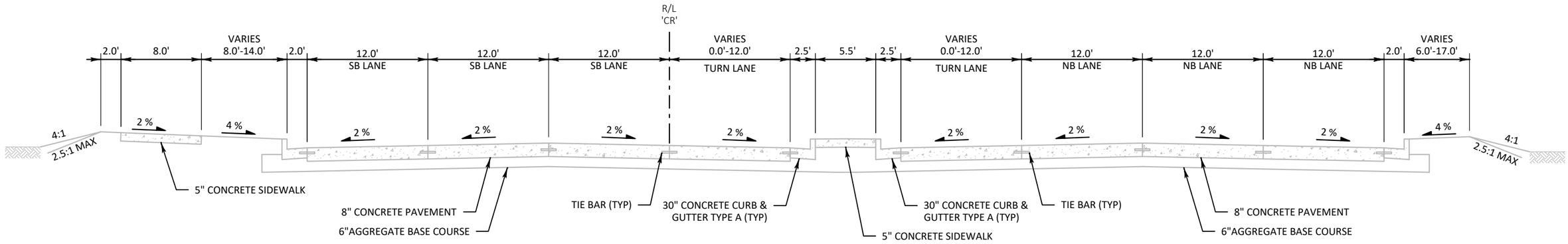
FRONTAGE RD

CEDAR LN

GREEN BRIAR RD

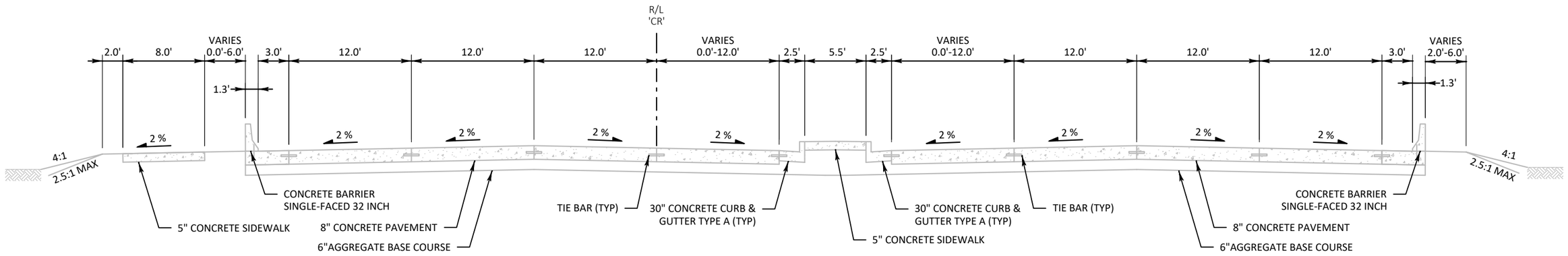
PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	PROJECT OVERVIEW	SHEET 3 E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\020200_PO (PROJECT OVERVIEW).DWG PLOT DATE : 11/1/2021 9:45 AM PLOT BY : SEH LAYOUT NAME : 01 PLOT SCALE : 1.0 IN = 200.0 FT
WISDOT/CADDS SHEET 42



TYPICAL EXISTING SECTION

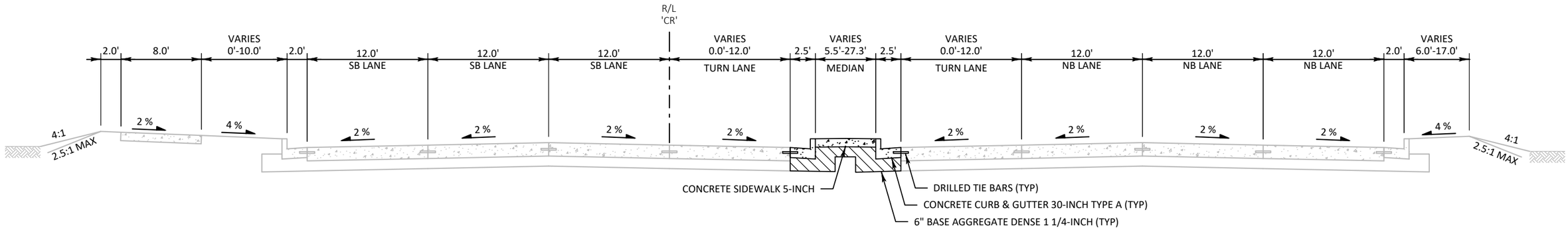
STA 102+95'CR' TO STA 104+20'CR'
STA 107+87'CR' TO STA 110+30'CR'



TYPICAL EXISTING SECTION

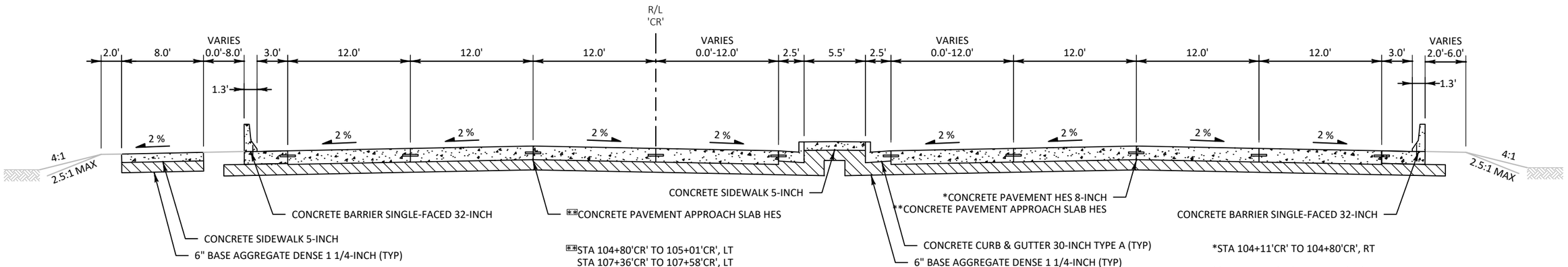
STA 104+20'CR' TO STA 105+01'CR'
STA 107+36'CR' TO STA 107+87'CR'

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TYPICAL SECTIONS	SHEET 4	E



TYPICAL FINISHED SECTION

STA 102+95'CR' TO STA 104+11'CR'
STA 108+70'CR' TO STA 110+30'CR'



TYPICAL FINISHED SECTION

STA 104+11'CR' TO STA 105+01'CR'
STA 107+36'CR' TO STA 107+87'CR'

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TYPICAL SECTIONS	SHEET 5	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\020301-TS (TYPICAL SECTIONS).DWG
PLOT DATE : 11/19/2021 2:05 PM
PLOT BY : SEH
LAYOUT NAME : 02
PLOT SCALE : 1.0 IN = 10.0 FT
WISDOT/CADDS SHEET 42

2

PERMANENT SIGNING LEGEND

- EXISTING SIGN MOUNTED ON WOOD POST(S)
- PROPOSED SIGN MOUNTED ON WOOD POST(S)
- x00-00 DENOTES SIGN NUMBER
  - SIGN COUNT SEQUENCE PER PAGE
  - PAGE NUMBER
  - WORK CODE: R=REMOVE, W=WORK BY OTHERS, M=MOVE

N

CREST VIEW DR

CARMICHAEL RD SB

CARMICHAEL RD NB

93'CR' 94'CR' 95'CR' 96'CR' 97'CR' 98'CR'

SIGN

STAGELINE RD

MATCH LINE STA 98+60'CR'

01-01
JCT
INTERSTATE 94
J1-1
36"x57"

01-02
WEST INTERSTATE 94 EAST
KEEP LEFT KEEP RIGHT
D1-72
108"x60"

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	PERMANENT SIGNING	PAGE 01 OF 04	SHEET 6	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\023200_PS (PERM SIGNING).DWG PLOT DATE : 11/19/2021 12:41 PM PLOT BY : SEH LAYOUT NAME : 01 PLOT SCALE : 1.0 IN = 40.0 FT

WISDOT/CADDS SHEET 42

2

N

NOTE, SEE PREVIOUS OR NEXT SHEET FOR PERMANENT SIGNING LEGEND.

MATCH LINE STA 98+60'CR'

MATCH LINE STA 104+60'CR'

99'CR' 100'CR' 101'CR' 102'CR' 103'CR' 104'CR'

STAGE LINE RD

CREST VIEW DR

SIGN

CARMICHAEL RD SB

CARMICHAEL RD NB

EB EXIT RAMP

EB ENTRANCE RAMP

H — MOVE EXISTING SIGN TO STANDARD DISPLAY HEIGHT ON EXISTING SIGN POST — M02-01

TO COUNTY F — EXISTING SIGNS TO REMAIN

ONE WAY — REMOVE R02-29 — ONE WAY — R6-2R 24"X30" — STAINLESS STEEL BANDING TO SIGNAL BASE REQUIRED — 02-28

LEFT TURN SIGNAL — R10-10L 24"X30" — R3-4 24"X24" — STAINLESS STEEL BANDING TO SIGNAL BASE REQUIRED — 02-26 02-27

LEFT TURN SIGNAL — REMOVE R02-27 — REMOVE R02-28

STOP — REMOVE R02-26 — STOP — R1-1F 30"X30" — STAINLESS STEEL BANDING TO SIGNAL BASE REQUIRED — 02-25

STOP — REMOVE R02-24 — DIVIDED HIGHWAY — REMOVE R02-25

STOP — R1-1F 30"X30" — DIVIDED HIGHWAY — R6-3 30"X24" — STAINLESS STEEL BANDING TO SIGNAL BASE REQUIRED — 02-23 02-24

ALTERNATE INTERSTATE 94 H — REMOVE R02-23 — ALTERNATE INTERSTATE 94 H — J2-2 48"x57" — 02-22

DO NOT ENTER — REMOVE R02-22 — DO NOT ENTER — R5-1 36"x36" — 02-21

STOP — REMOVE R02-21 — STOP — R1-1F 30"X30" — STAINLESS STEEL BANDING TO SIGNAL BASE REQUIRED — 02-20

EAST EAST SOUTH — INTERSTATE 94 12 35 — REMOVE R02-20 — EAST EAST SOUTH — INTERSTATE 94 12 35 — Eau Claire — D1-71 102"x48" — 02-19

(BACK) DO NOT ENTER — REMOVE R02-19 — DO NOT ENTER — R5-1 36"x36" — 02-18

(FRONT) — REMOVE R02-18 — R3-1 36"x36" — 02-17

WRONG WAY — REMOVE R02-17 — WRONG WAY — R5-1A 42"x30" — 02-16

WEST WEST NORTH — INTERSTATE 94 12 35 — REMOVE R02-01

02-01 02-02 — R3-2 24"X24" — STOP — R1-1F 30"X30" — REMOVE R02-02 — STOP — REMOVE R02-03

WEST WEST NORTH — INTERSTATE 94 12 35 — St Paul — EAST EAST SOUTH — INTERSTATE 94 12 35 — Eau Claire — 02-03 — D1-71 102"x96"

02-04 — W12-1D 30"x30" 2' MOUNTING HEIGHT — REMOVE R02-05

R02-04 — EAST EAST SOUTH — INTERSTATE 94 12 35 — REMOVE

R02-06 — REMOVE — STOP — 02-05 — STOP — R1-1F 30"X30" — STAINLESS STEEL BANDING TO SIGNAL BASE REQUIRED

02-06 — ONE WAY — R6-2-L 30"x36" STAINLESS STEEL BANDING TO SIGNAL BASE REQUIRED — ONE WAY — REMOVE R02-07

R02-08 — REMOVE — R02-09

02-07 02-08 — R4-7 24"X30" — R3-4 24"X24" — STAINLESS STEEL BANDING TO SIGNAL BASE REQUIRED

R02-10 — REMOVE — LEFT TURN SIGNAL — STOP — REMOVE R02-11

02-09 — LEFT TURN SIGNAL — R10-10L 24"X30"

02-10 — STOP — R1-1F 30"X30" — STAINLESS STEEL BANDING TO SIGNAL BASE REQUIRED

02-11 — WEST — INTERSTATE 94 — J2-1 24"X57" BOX-OUT REQUIRED

R02-16 — St Paul — REMOVE

02-12 — ONLY — R3-5L 42"X48" — R02-12 — ONLY — REMOVE

02-13 — ONLY — R3-5L 42"X48" — R02-13 — ONLY — REMOVE

02-14 — ONLY — R3-5A 42"X48" — R02-14 — ONLY — REMOVE

02-15 — ONLY — R3-5A 42"X48" — R02-15 — ONLY — REMOVE

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	PERMANENT SIGNING	PAGE 02 OF 04	SHEET 7	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\023200_PS (PERM SIGNING).DWG PLOT DATE : 11/19/2021 12:41 PM PLOT BY : SEH LAYOUT NAME : 02 PLOT SCALE : 1.0 IN = 40.0 FT

WISDOT/CADDS SHEET 42

PERMANENT SIGNING LEGEND

- EXISTING SIGN MOUNTED ON WOOD POST(S)
- PROPOSED SIGN MOUNTED ON WOOD POST(S)
- x00-00 — DENOTES SIGN NUMBER
  - SIGN COUNT SEQUENCE PER PAGE
  - PAGE NUMBER
  - WORK CODE: R=REMOVE, W=WORK BY OTHERS, M=MOVE

IH 94/USH 12/STH 35 WB

IH 94/USH 12/STH 35 EB

CARMICHAEL RD SB

CARMICHAEL RD NB

WB ENTRANCE RAMP

WB EXIT RAMP

IH 94/USH 12/STH 35 EB

IH 94/USH 12/STH 35 WB

105'CR' 106'CR' 107'CR' 108'CR' 109'CR' 110'CR'

MATCH LINE STA 104+60'CR'

MATCH LINE STA 110+60'CR'

N

Crestview Dr
Eau Claire
River Falls

REMOVE R03-27

REMOVE R03-28

J2-1
24"X57"
BOX-OUT
REQUIRED
03-26

D1-71
102"x48"
BOX-OUTS REQ'D
03-25

REMOVE R03-26

R3-4
24"X24"
STAINLESS STEEL
BANDING TO SIGNAL
BASE REQUIRED
03-24

REMOVE R03-24

REMOVE R03-25

R1-1F
30"X30"

R3-2
24"X24"

STAINLESS STEEL
BANDING TO SIGNAL
BASE REQUIRED
03-22
03-23

REMOVE R03-22
REMOVE R03-23

R6-2-L
30"x36"
STAINLESS STEEL
BANDING TO SIGNAL
BASE REQUIRED
03-20
03-21

REMOVE R03-21

R1-1F
30"X30"
STAINLESS STEEL
BANDING TO SIGNAL
BASE REQUIRED
03-19

REMOVE R03-20

REMOVE R03-19

EXISTING SIGNS
TO REMAIN

REMOVE R03-18

R6-2R
24"X30"
STAINLESS STEEL
BANDING TO SIGNAL
BASE REQUIRED
03-18

LEFT TURN SIGNAL
REMOVE R03-01
03-01
03-02
LEFT TURN SIGNAL
R10-10L
24"X30"

REMOVE R03-02

R1-1F
30"X30"
STAINLESS STEEL
BANDING TO SIGNAL
BASE REQUIRED

REMOVE R03-03
03-03
03-04
R3-1
24"X24"

REMOVE R03-04

R1-1F
30"X30"
STAINLESS STEEL
BANDING TO SIGNAL
BASE REQUIRED

R03-05
REMOVE
03-05
03-06
R4-7
24"X30"

REMOVE R03-06

R3-4
24"X24"
STAINLESS STEEL
BANDING TO SIGNAL
BASE REQUIRED

DO NOT ENTER
REMOVE R03-07
03-07
DO NOT ENTER
R5-1
30"x30"

R03-08
REMOVE
COUNTY F
03-08
COUNTY F

J13-1
24"X45"

R03-09
REMOVE
03-09
03-10
R1-1F
30"X30"

DIVIDED HIGHWAY
REMOVE R03-10

R6-3
30"X24"
STAINLESS STEEL
BANDING TO SIGNAL
BASE REQUIRED

03-11

W12-1D
30"x30"
2' MOUNTING
HEIGHT

REMOVE R03-11

R03-12
REMOVE
03-12
03-13

REMOVE

R1-1F
30"X30"
STAINLESS STEEL
BANDING TO SIGNAL
BASE REQUIRED

03-14
DO NOT ENTER
R5-1
30"x30"

DO NOT ENTER
REMOVE R03-14

R03-15
REMOVE
03-15
03-16
R5-1
30"x30"

REMOVE R03-16

ONE WAY
R6-2-L
24"X30"

03-17

J3-2
48"X57"

STAINLESS STEEL
BANDING TO SIGNAL
BASE REQUIRED

REMOVE R03-17

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	PERMANENT SIGNING	PAGE 03 OF 04	SHEET 8	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\023200_PS (PERM SIGNING).DWG
PLOT DATE : 11/19/2021 12:42 PM
PLOT BY : SEH
LAYOUT NAME : 03
PLOT SCALE : 1.0 IN = 40.0 FT
WISDOT/CADDS SHEET 42

2

N

EAST EAST SOUTH
94 12 35
Eau Claire
WEST WEST NORTH
94 12 35
St Paul

D1-71
102"x96"
04-02

COULEE RD

SIGN

JCT
INTERSTATE
94

J1-1
36"x57"
04-01

RIGHT TURN LANE

EXISTING SIGN TO REMAIN

CARMICHAEL RD SB

111'CR' 112'CR' 113'CR' 114'CR' 115'CR' 116'CR'

MATCH LINE STA 110+60'CR'

ONLY

CARMICHAEL RD NB

FRONTAGE RD

ONLY

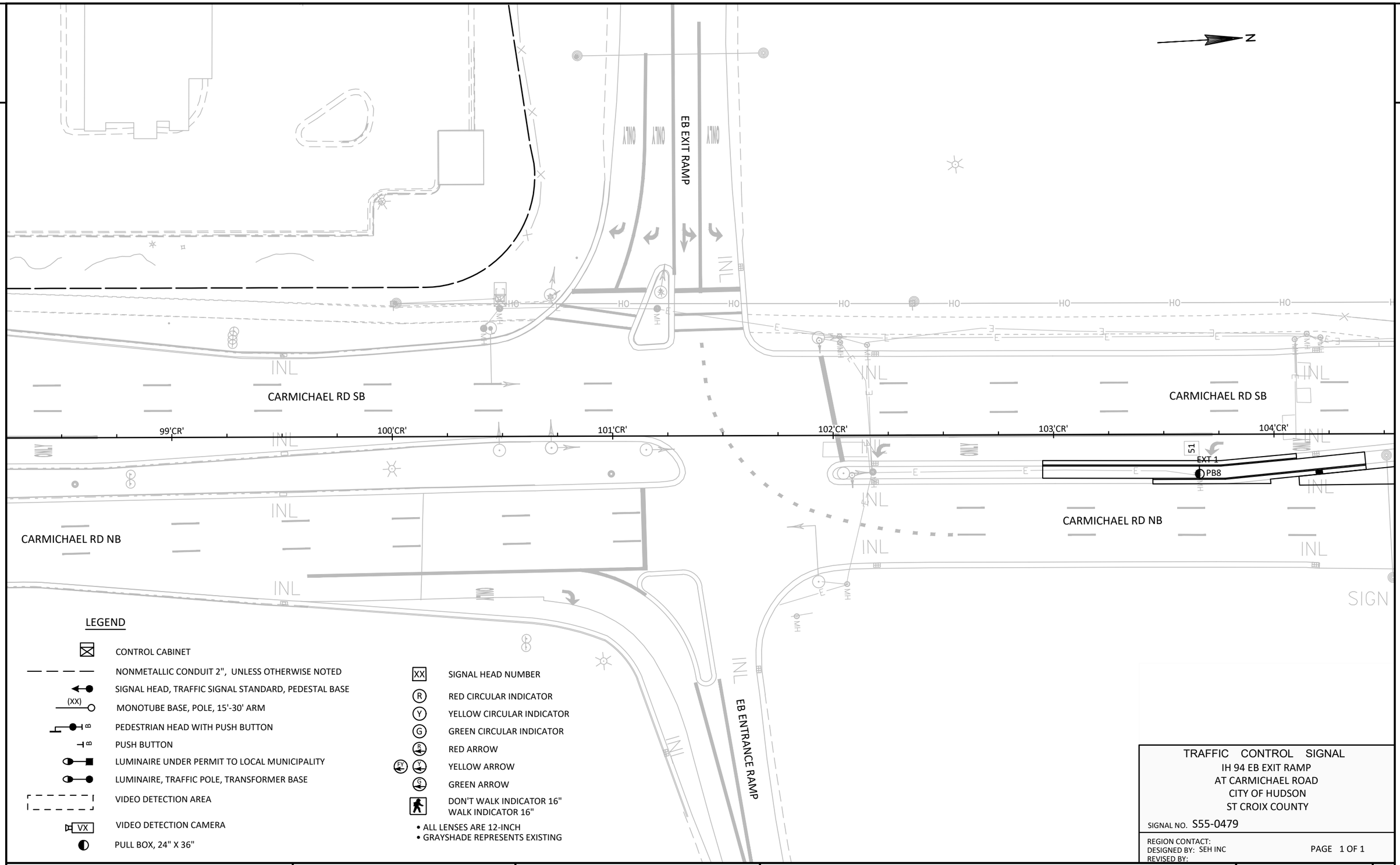
PERMANENT SIGNING LEGEND

- EXISTING SIGN MOUNTED ON WOOD POST(S)
- PROPOSED SIGN MOUNTED ON WOOD POST(S)
- x00-00 DENOTES SIGN NUMBER
  - SIGN COUNT SEQUENCE PER PAGE
  - PAGE NUMBER
  - WORK CODE: R=REMOVE, W=WORK BY OTHERS, M=MOVE

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	PERMANENT SIGNING	PAGE 04 OF 04	SHEET 9	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\023200_PS (PERM SIGNING).DWG
PLOT DATE : 11/19/2021 12:42 PM
PLOT BY : SEH
LAYOUT NAME : 04
PLOT SCALE : 1.0 IN = 40.0 FT
WISDOT/CADDS SHEET 42

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- VIDEO DETECTION AREA
- VX VIDEO DETECTION CAMERA
- 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
- DON'T WALK INDICATOR 16"
  WALK INDICATOR 16"

• ALL LENSES ARE 12-INCH
• GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
IH 94 EB EXIT RAMP
AT CARMICHAEL ROAD
CITY OF HUDSON
ST CROIX COUNTY

SIGNAL NO. S55-0479

REGION CONTACT:
DESIGNED BY: SEH INC
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC SIGNAL PLAN	SHEET 10	E

2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- VIDEO DETECTION AREA
- VX VIDEO DETECTION CAMERA
- PULL BOX, 24" X 36"

N

WB ENTRANCE RAMP

IH 94/USH 12/STH 35 EB

IH 94/USH 12/STH 35 WB

PB5 PB6 PB3 PB2 PB4

CARMICHAEL RD SB

105'CR' 106'CR' 107'CR' 108'CR' 109'CR' 110'CR'

PB7

61 62 63

CARMICHAEL RD NB

SB3 PB1 SB1 SB2

15'

CARMICHAEL RD NB

SIGN

- 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
- DON'T WALK INDICATOR 16"
  WALK INDICATOR 16"

• ALL LENSES ARE 12-INCH
• GRAYSHADE REPRESENTS EXISTING

IH 94/USH 12/STH 35 EB

IH 94/USH 12/STH 35 WB

WB EXIT RAMP

TRAFFIC CONTROL SIGNAL
IH 94 WB EXIT RAMP
AT CARMICHAEL ROAD
CITY OF HUDSON
ST CROIX COUNTY

SIGNAL NO. S55-0478

REGION CONTACT:
DESIGNED BY: SEH INC
REVISED BY:

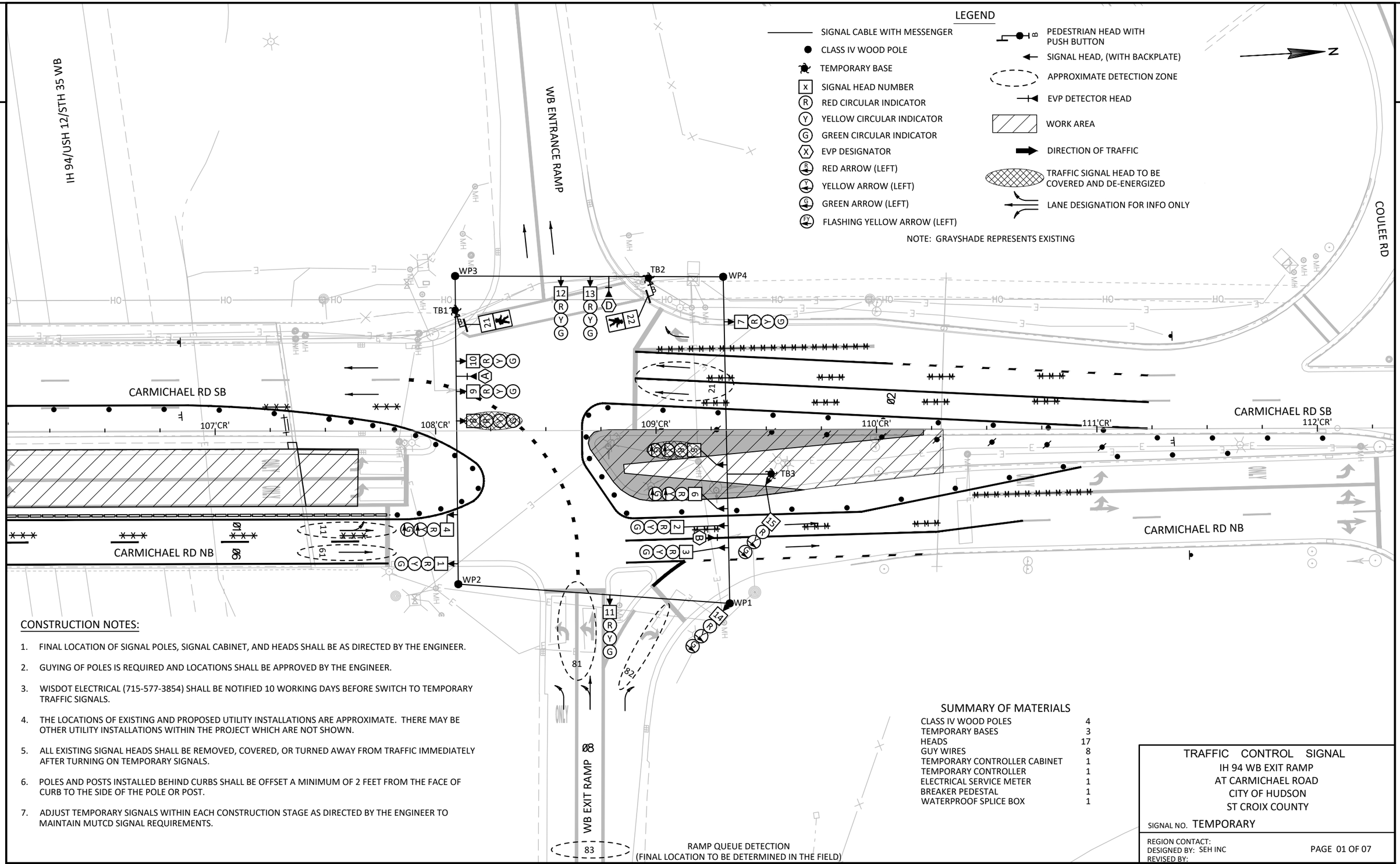
PAGE 1 OF 1

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC SIGNAL PLAN	SHEET 11	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\024000-SP (PERM TRAF SIG S478).DWG PLOT DATE : 11/29/2021 8:42 AM PLOT BY : SEH LAYOUT NAME : 02 PLOT SCALE : 1.0 IN = 40.0 FT

WISDOT/CADDS SHEET 42

2



CONSTRUCTION NOTES:

1. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINET, AND HEADS SHALL BE AS DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. WISDOT ELECTRICAL (715-577-3854) SHALL BE NOTIFIED 10 WORKING DAYS BEFORE SWITCH TO TEMPORARY TRAFFIC SIGNALS.
4. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
5. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
6. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POLE OR POST.
7. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.

SUMMARY OF MATERIALS

CLASS IV WOOD POLES	4
TEMPORARY BASES	3
HEADS	17
GUY WIRES	8
TEMPORARY CONTROLLER CABINET	1
TEMPORARY CONTROLLER	1
ELECTRICAL SERVICE METER	1
BREAKER PEDESTAL	1
WATERPROOF SPLICE BOX	1

TRAFFIC CONTROL SIGNAL
IH 94 WB EXIT RAMP
AT CARMICHAEL ROAD
CITY OF HUDSON
ST CROIX COUNTY

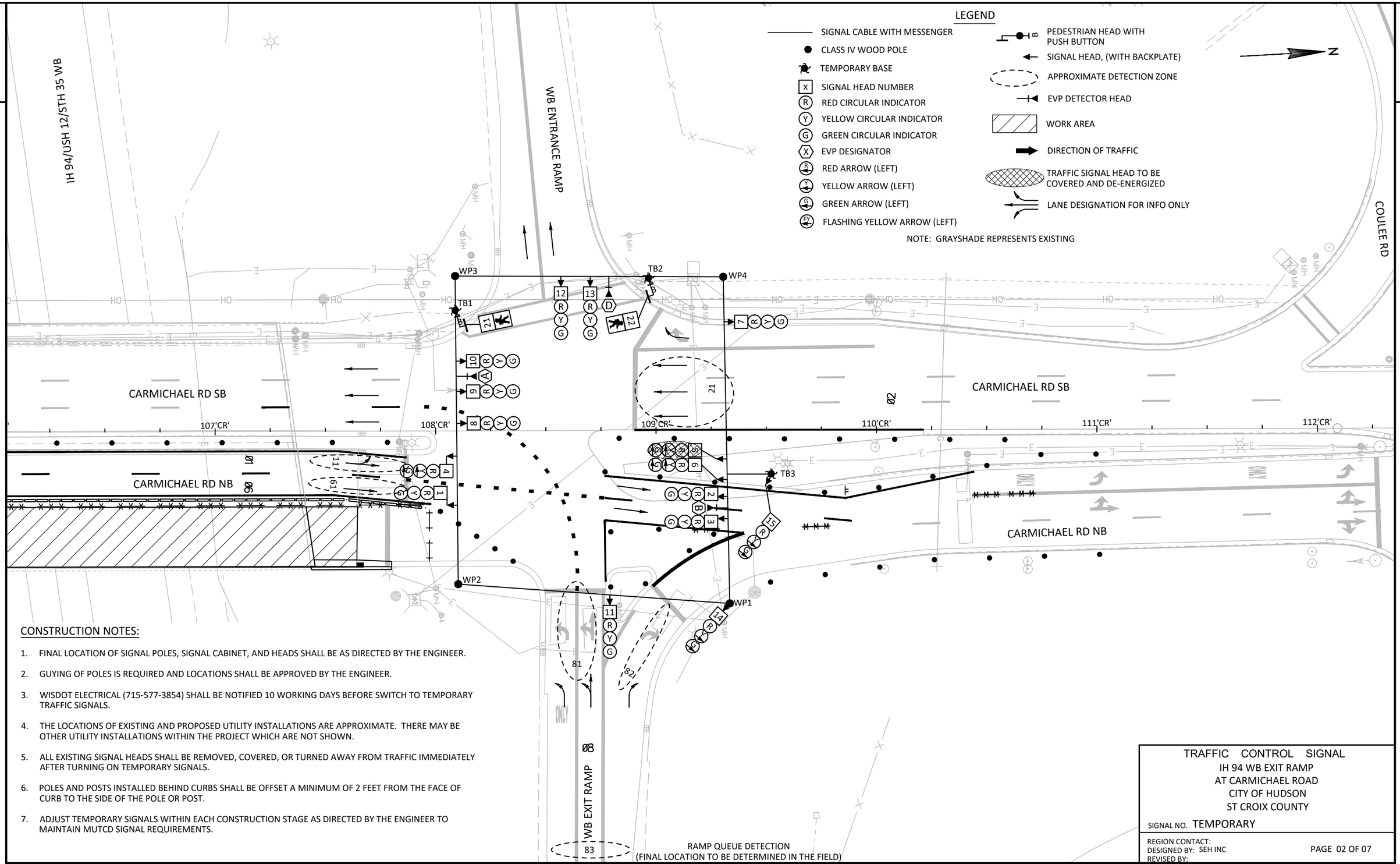
SIGNAL NO. TEMPORARY

REGION CONTACT:
DESIGNED BY: SEH INC
REVISED BY:

PAGE 01 OF 07

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1A	SHEET 12	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\024000-SP (TEMP TRAF SIG) STAGE 1A.DWG
PLOT DATE : 11/1/2021 9:47 AM
PLOT BY : SEH
LAYOUT NAME : 01
PLOT SCALE : 1.0 IN = 40.0 FT
WISDOT/CADDS SHEET 42



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TRAFFIC CONTROL SIGNAL
IH 94 WB EXIT RAMP
AT CARMICHAEL ROAD
CITY OF HUDSON
ST CROIX COUNTY

SIGNAL NO. TEMPORARY

REGION CONTACT:
DESIGNED BY: SEH INC
REVISED BY:

PAGE 02 OF 07

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1B	SHEET 13	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\024000-SP (TEMP TRAF SIG) STAGE 1B.DWG
PLOT DATE : 11/1/2021 9:48 AM
PLOT BY : SEH
LAYOUT NAME : 02
PLOT SCALE : 1.0 IN = 40.0 FT

2

IH 94/USH 12/STH 35 WB

WB ENTRANCE RAMP

COULEE RD

CARMICHAEL RD SB

CARMICHAEL RD NB

CARMICHAEL RD NB

WB EXIT RAMP

ONE WAY

LEGEND

- SIGNAL CABLE WITH MESSENGER
- CLASS IV WOOD POLE
- TEMPORARY BASE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- EVP DESIGNATOR
- RED ARROW (LEFT)
- YELLOW ARROW (LEFT)
- GREEN ARROW (LEFT)
- FLASHING YELLOW ARROW (LEFT)
- PEDESTRIAN HEAD WITH PUSH BUTTON
- SIGNAL HEAD, (WITH BACKPLATE)
- APPROXIMATE DETECTION ZONE
- EVP DETECTOR HEAD
- WORK AREA
- DIRECTION OF TRAFFIC
- TRAFFIC SIGNAL HEAD TO BE COVERED AND DE-ENERGIZED
- LANE DESIGNATION FOR INFO ONLY

NOTE: GRAYSHADE REPRESENTS EXISTING

WP1 WP2 WP3 WP4 TB1 TB2 TB3

Ø2 Ø4 Ø6 Ø8

81 82 83 91

RAMP QUEUE DETECTION
(FINAL LOCATION TO BE DETERMINED IN THE FIELD)

CONSTRUCTION NOTES:

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TRAFFIC CONTROL SIGNAL
IH 94 WB EXIT RAMP
AT CARMICHAEL ROAD
CITY OF HUDSON
ST CROIX COUNTY

SIGNAL NO. TEMPORARY

REGION CONTACT:
DESIGNED BY: SEH INC
REVISED BY:

PAGE 03 OF 07

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A	SHEET 14	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\024000-SP (TEMP TRAF SIG) STAGE 2A.DWG PLOT DATE : 11/1/2021 9:48 AM PLOT BY : SEH LAYOUT NAME : 03 PLOT SCALE : 1.0 IN = 40.0 FT

WISDOT/CADDS SHEET 42

2

IH 94/USH 12/STH 35 WB

WB ENTRANCE RAMP

COULEE RD

CARMICHAEL RD SB

CARMICHAEL RD SB

CARMICHAEL RD NB

WB EXIT RAMP

ONLY

WP1

WP2

WP3

WP4

TB1

TB2

TB3

RAMP QUEUE DETECTION
(FINAL LOCATION TO BE DETERMINED IN THE FIELD)

LEGEND

- SIGNAL CABLE WITH MESSENGER
- CLASS IV WOOD POLE
- TEMPORARY BASE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- EVP DESIGNATOR
- RED ARROW (LEFT)
- YELLOW ARROW (LEFT)
- GREEN ARROW (LEFT)
- FLASHING YELLOW ARROW (LEFT)
- PEDESTRIAN HEAD WITH PUSH BUTTON
- SIGNAL HEAD, (WITH BACKPLATE)
- APPROXIMATE DETECTION ZONE
- EVP DETECTOR HEAD
- WORK AREA
- DIRECTION OF TRAFFIC
- TRAFFIC SIGNAL HEAD TO BE COVERED AND DE-ENERGIZED
- LANE DESIGNATION FOR INFO ONLY

NOTE: GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

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TRAFFIC CONTROL SIGNAL
IH 94 WB EXIT RAMP
AT CARMICHAEL ROAD
CITY OF HUDSON
ST CROIX COUNTY

SIGNAL NO. TEMPORARY

REGION CONTACT:
DESIGNED BY: SEH INC
REVISED BY:

PAGE 04 OF 07

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2B	SHEET 15	E

2

IH 94/USH 12/STH 35 WB

WB ENTRANCE RAMP

COULEE RD

CARMICHAEL RD SB

CARMICHAEL RD NB

WB EXIT RAMP

ONLY

LEGEND

- SIGNAL CABLE WITH MESSENGER
- CLASS IV WOOD POLE
- TEMPORARY BASE
- X — SIGNAL HEAD NUMBER
- R — RED CIRCULAR INDICATOR
- Y — YELLOW CIRCULAR INDICATOR
- G — GREEN CIRCULAR INDICATOR
- X — EVP DESIGNATOR
- RA — RED ARROW (LEFT)
- YA — YELLOW ARROW (LEFT)
- GA — GREEN ARROW (LEFT)
- FY — FLASHING YELLOW ARROW (LEFT)
- PEDESTRIAN HEAD WITH PUSH BUTTON
- SIGNAL HEAD, (WITH BACKPLATE)
- APPROXIMATE DETECTION ZONE
- EVP DETECTOR HEAD
- WORK AREA
- DIRECTION OF TRAFFIC
- TRAFFIC SIGNAL HEAD TO BE COVERED AND DE-ENERGIZED
- LANE DESIGNATION FOR INFO ONLY

N

NOTE: GRAYSHADE REPRESENTS EXISTING

WP1 WP2 WP3 WP4 TB1 TB2 TB3

RAMP QUEUE DETECTION
(FINAL LOCATION TO BE DETERMINED IN THE FIELD)

CONSTRUCTION NOTES:

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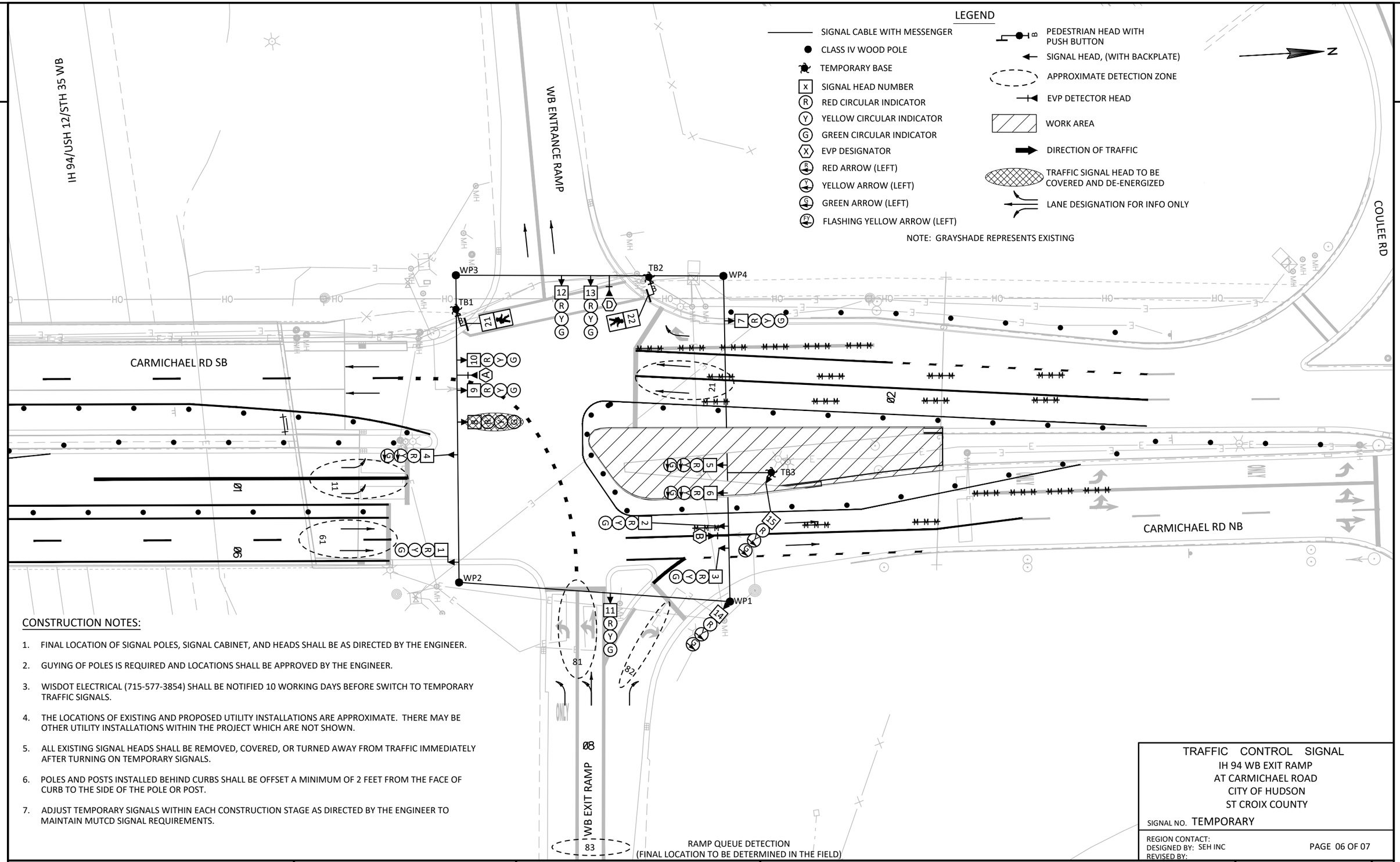
TRAFFIC CONTROL SIGNAL
IH 94 WB EXIT RAMP
AT CARMICHAEL ROAD
CITY OF HUDSON
ST CROIX COUNTY

SIGNAL NO. TEMPORARY

REGION CONTACT:
DESIGNED BY: SEH INC
REVISED BY:

PAGE 05 OF 07

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2C	SHEET 16	E



CONSTRUCTION NOTES:

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TRAFFIC CONTROL SIGNAL
IH 94 WB EXIT RAMP
AT CARMICHAEL ROAD
CITY OF HUDSON
ST CROIX COUNTY

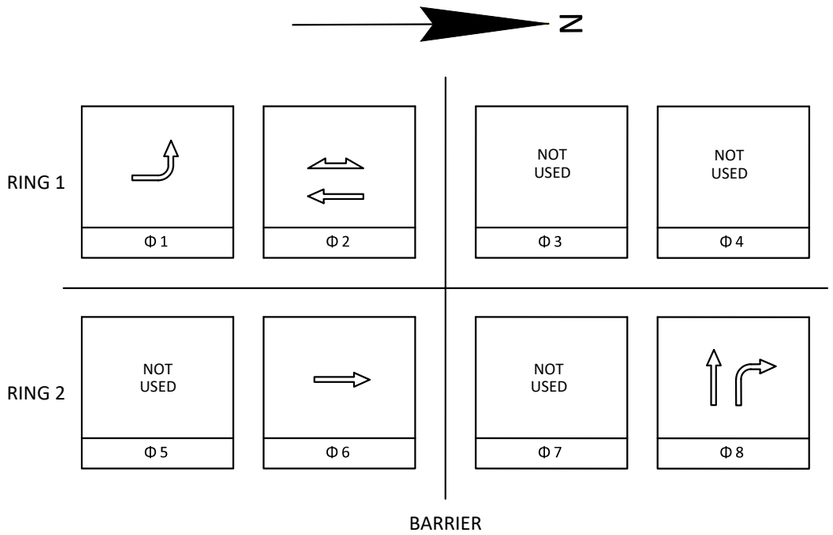
SIGNAL NO. TEMPORARY

REGION CONTACT:
DESIGNED BY: SEH INC
REVISED BY:

PAGE 06 OF 07

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 3	SHEET 17	E

	HEAD NUMBERS	FLASH
Φ 1	4,5,6	R ←
Φ 2	7,8,9,10	R
Φ 3		R ←
Φ 4		R
Φ 5		R
Φ 6	1,2,3	R
Φ 7		R ←
Φ 8	11,12,13,14,15	R
Φ 2 P	21,22	
Φ 4 P		
Φ 6 P		
Φ 8 P		
OLA		
OLC		
OLE		
OLF		
OLG		
OLH		



GENERAL NOTES: SEQUENCE OF OPERATION

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY. SEE CHART 1.

CONTROLLER LOGIC

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

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	6	2,8
2	6	1,8
3		
4		
5		
6	1 OR 2	8
7		
8	NONE	1,2,6

TYPE OF INTERCONNECT/COMMUNICATION

NONE	X
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION

NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NUMBER	S__-____
SIGNAL SYSTEM NUMBER	SS-__-____

TYPE OF LIGHTING

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

TYPE OF PRE-EMPT

NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	X

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29
PLAN LOOP DETECTOR*(S)	11	21	61	81	83											
CALLED PHASE	1	2	6	8	8											
CALL OPTION	X	X	X	X												
DELAY TIME																
EXTENTION OPTION	X	X	X	X												
EXTEND TIME																
USE ADDED INITIAL	X	X	X	X												
CROSS SWITCH PHASE																

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30
PLAN LOOP DETECTOR*(S)		22		82												
CALLED PHASE		2		8												
CALL OPTION		X		X												
DELAY TIME																
EXTENTION OPTION		X		X												
EXTEND TIME																
USE ADDED INITIAL		X		X												
CROSS SWITCH PHASE																

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
PREEMPTION CHANNEL	1	2	3	4
MOVEMENT	← →	↰		↑
DIRECTION	SB	NB		WB
PHASE	2+6	6+2		8

NOTES: FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

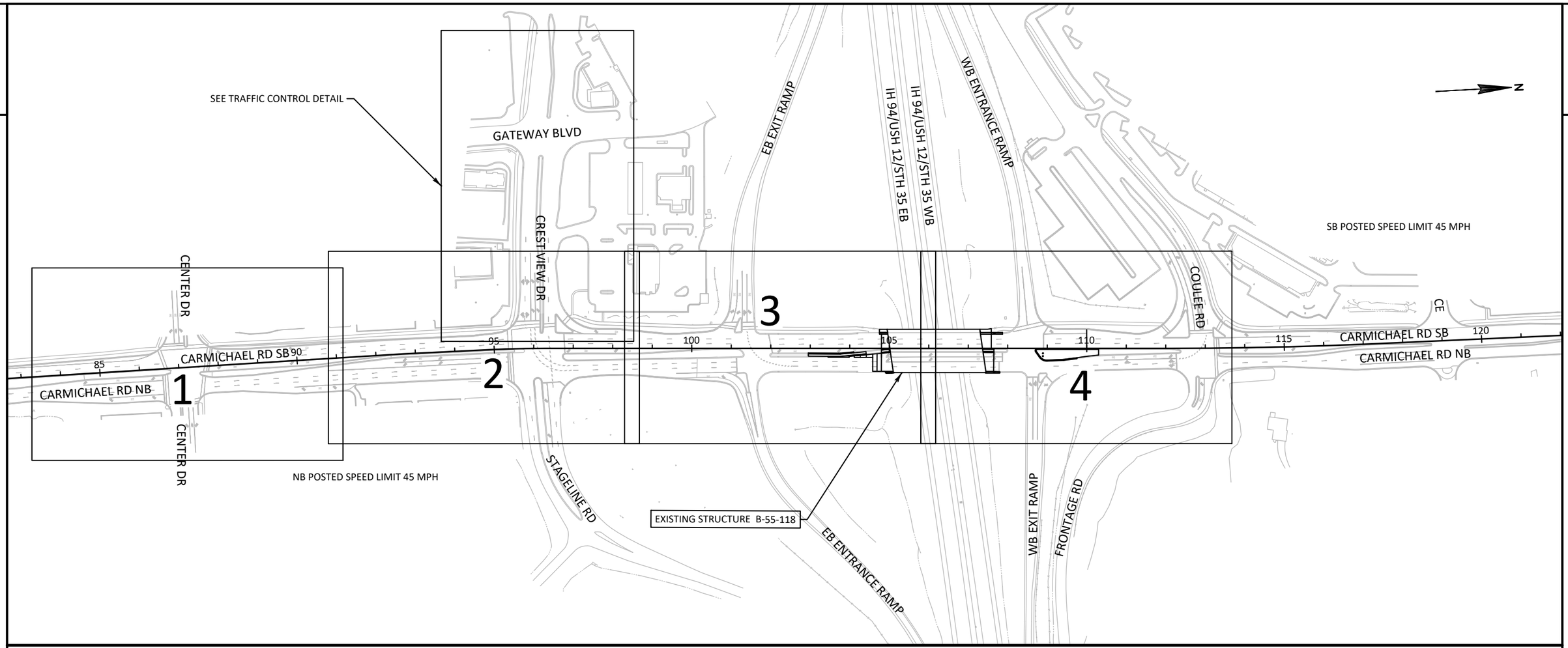
TRAFFIC CONTROL SIGNAL
IH 94 WB EXIT RAMP
AT CARMICHAEL ROAD
CITY OF HUDSON
ST CROIX COUNTY

SIGNAL NO. TEMPORARY

REGION CONTACT:
DESIGNED BY: SEH INC
REVISED BY:

PAGE 07 OF 07

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TEMPORARY TRAFFIC SIGNAL - SEQUENCE OF OPERATION	SHEET 18	E



TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC
- WORK SPACE
- TEMPORARY PAVEMENT

GENERAL NOTES: TRAFFIC CONTROL

1. THE FOLLOWING NOTES ARE APPLICABLE TO ALL STAGES. SEE THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL AND CONSTRUCTION STAGING REQUIREMENTS.
2. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS OR AS DIRECTED BY THE ENGINEER IN THE FIELD.
3. ALL "WO" OR "W" DIAMOND SHAPED WARNING SIGNS, SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.
4. ALL DRUMS IN TAPERS SHALL HAVE A TRAFFIC CONTROL WARNING LIGHTS TYPE C, (STEADY BURN).
5. MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.
6. THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.
7. ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROW BOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION. DRUMS ADJACENT TO GUARDRAIL SHOULD BE STORED BEHIND THE GUARDRAIL IN LOCATIONS WHERE PRACTICAL.
8. SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
9. DIMENSIONS TO CONCRETE BARRIER TEMPORARY PRECAST ARE TO THE FACE OF THE BARRIER ADJACENT TO TRAFFIC. STATION/OFFSET CALL-OUTS TO CONCRETE BARRIER TEMPORARY PRECAST ARE TO THE CENTER OF THE BARRIER.
10. ALWAYS PROVIDE A MINIMUM OF 1' CLEAR FROM EDGE OF TRAVEL LANE TO THE TOE OF THE CONCRETE BARRIER TEMPORARY PRECAST.
11. WITHIN 2 FEET OF TRAVEL LANE, EXISTING SHOULDER SHALL BE REPLACED WITH NEW PAVEMENTS IN THE SAME NIGHT. NO AGGREGATE SHOULDERS SHALL BE PERMITTED ADJACENT TO TRAVEL LANES.
12. CARMICHAEL ROAD WORK ZONE SPEED LIMIT OF 35 MPH, TO REMAIN IN PLACE FOR ALL CONSTRUCTION STAGES. (SEE STAGE 1A FOR SIGN PLACEMENT)

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - GENERAL NOTES & SHEET INDEX	SHEET 19	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\025000-TC GN (TRAFFIC CONTROL GEN NOTES & SHT INDEX).DWG PLOT DATE : 11/1/2021 9:53 AM PLOT BY : SEH LAYOUT NAME : 01 PLOT SCALE : 1.0 IN = 250.0 FT
WISDOT/CADDS SHEET 42

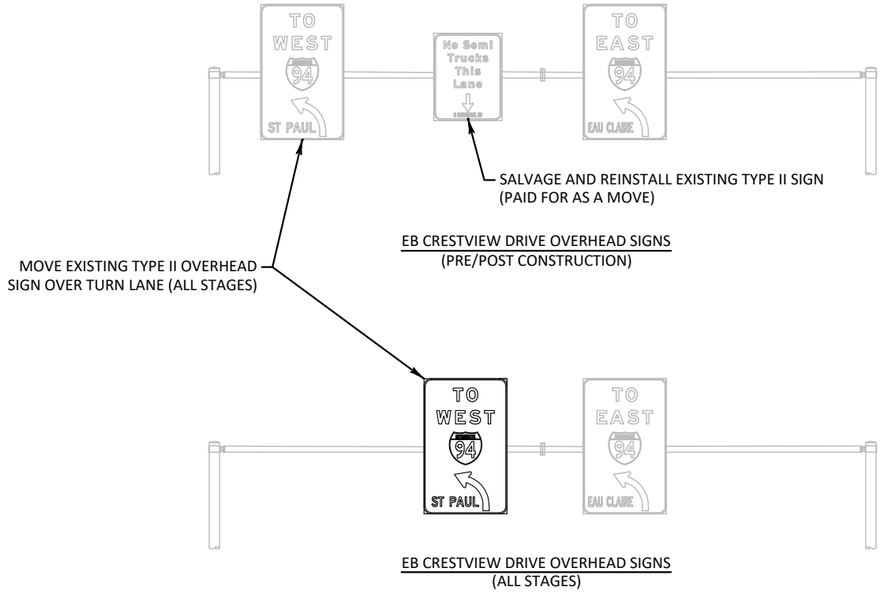
2

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC

WORK SPACE

TEMPORARY PAVEMENT

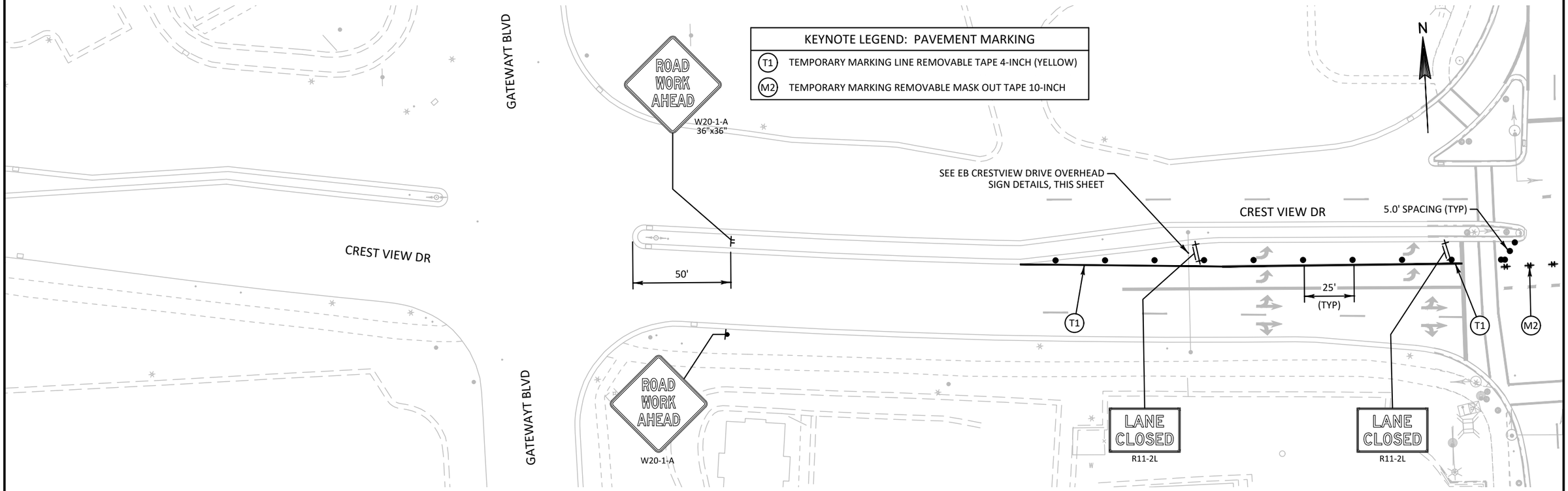


EB CRESTVIEW DRIVE OVERHEAD SIGNS
(PRE/POST CONSTRUCTION)

EB CRESTVIEW DRIVE OVERHEAD SIGNS
(ALL STAGES)

KEYNOTE LEGEND: PAVEMENT MARKING

- (T1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (M2) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH



TURN LANE CLOSURE, CRESTVIEW DRIVE
(TO REMAIN IN PLACE FOR ALL STAGES)

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL DETAIL	SHEET 20	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\025000-TC STG 1A SHTS (TRAF CNTRL STAGE 1A).DWG PLOT DATE : 11/1/2021 9:54 AM PLOT BY : SEH LAYOUT NAME : 00 PLOT SCALE : 1.0 IN = 50.0 FT
WISDOT/CADDS SHEET 42

2

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC
- WORK SPACE
- TEMPORARY PAVEMENT

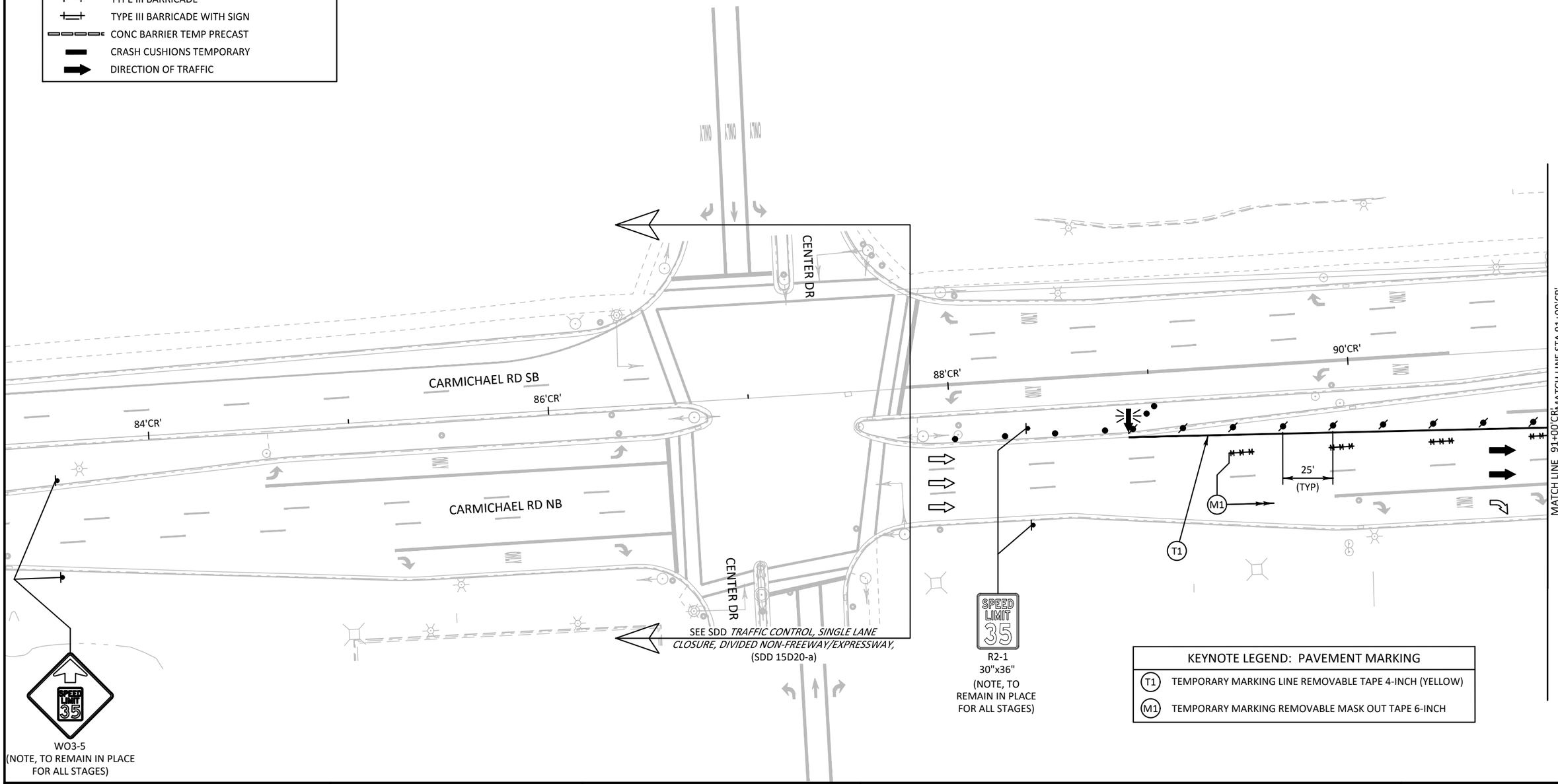
STAGE 1A CONSTRUCTION SUMMARY

NB INSIDE WORK.

MAINTENANCE OF TRAFFIC

NB TRAFFIC ON OUTSIDE LANES.
SB TRAFFIC ON NORMAL LANES.

N



KEYNOTE LEGEND: PAVEMENT MARKING

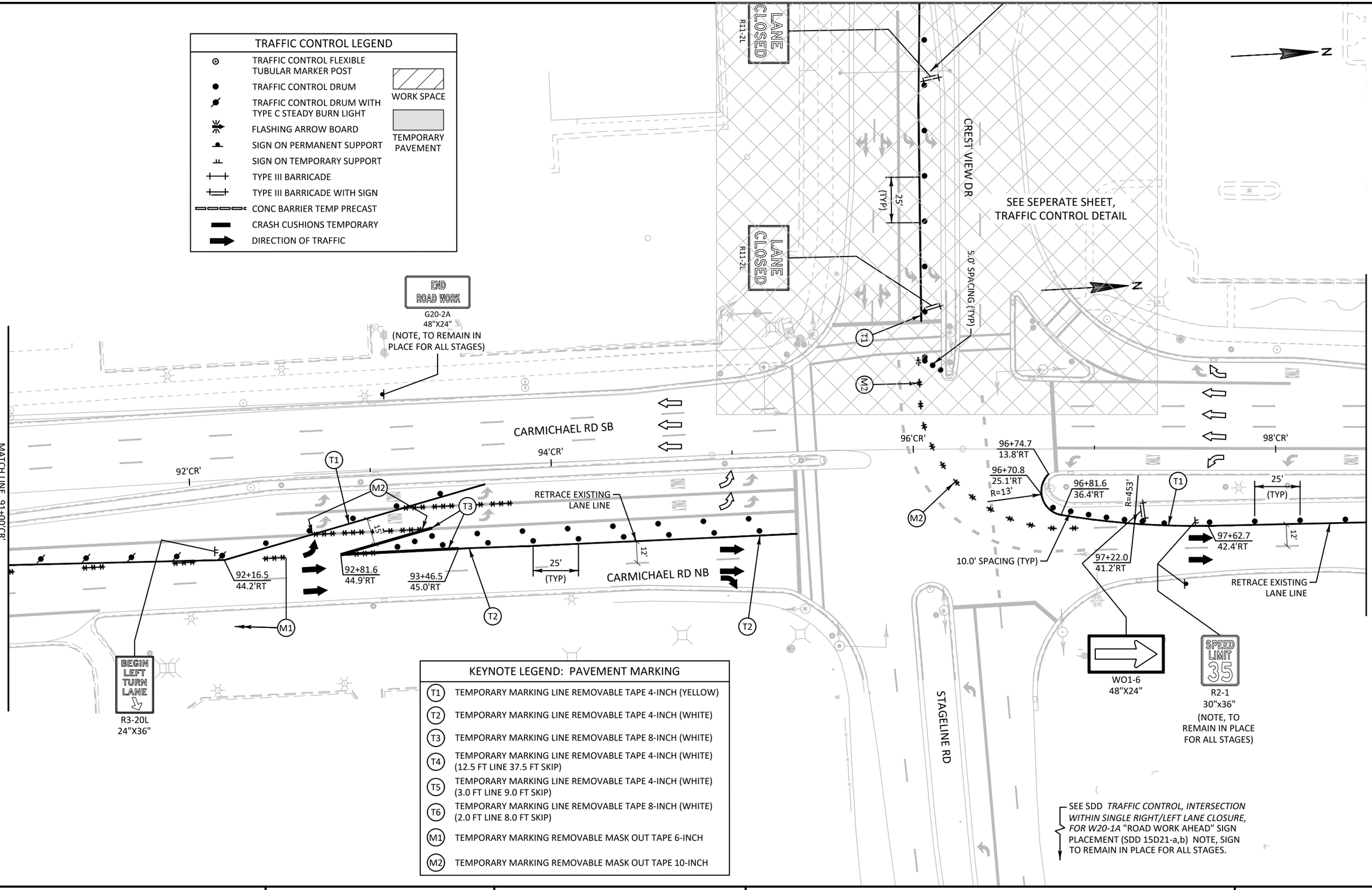
T1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
M1	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - STAGE 1A	SHEET 21	E

2

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC
- WORK SPACE
- TEMPORARY PAVEMENT



KEYNOTE LEGEND: PAVEMENT MARKING

T1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
T2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
T3	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
T4	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
T5	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (3.0 FT LINE 9.0 FT SKIP)
T6	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) (2.0 FT LINE 8.0 FT SKIP)
M1	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
M2	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH

SEE SDD *TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT/LEFT LANE CLOSURE, FOR W20-1A* "ROAD WORK AHEAD" SIGN PLACEMENT (SDD 15D21-a,b) NOTE, SIGN TO REMAIN IN PLACE FOR ALL STAGES.

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - STAGE 1A	SHEET 22	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\025000-TC STG 1A SHTS (TRAF CNTRL STAGE 1A).DWG PLOT DATE : 11/1/2021 9:55 AM PLOT BY : SEH LAYOUT NAME : 02 PLOT SCALE : 1.0 IN = 50.0 FT

2

2

INSTALL AT BEGINING OF TURN LANE GORE

NORTH
TRUCKS USE LEFT LANE

M3-1 24"x12"

R4-5L 24"X30"

SEE SDD *TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT/LEFT LANE CLOSURE, FOR W20-1A* "ROAD WORK AHEAD" SIGN PLACEMENT (SDD 15D21-a,b) NOTE, SIGN TO REMAIN IN PLACE FOR ALL STAGES.

NORTH
TRUCK

M3-1 24"x12"
M4-4 24"X12"

R5-2 24"x24"

ONLY

EB EXIT RAMP

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC

WORK SPACE

TEMPORARY PAVEMENT

N

IH 94/USH 12/STH 35 EB

LANE CLOSED
R11-2L

BEGIN LEFT TURN LANE
R3-20L 24"X36"

MATCH LINE STA 98+50'CR'

MATCH LINE STA 106+00'CR'

CARMICHAEL RD SB

CARMICHAEL RD NB

RETRACE EXISTING LANE LINE

100'CR'

10.0' SPACING (TYP)

102'CR'

104'CR'

106

101+40.4
42.1'LT

101+39.6
10.9'LT

102+02.6
22.3'RT

102+43.3
34.7'RT

101+28.2
22.8'RT

101+22.5
31.6'RT

101+12.2
34.8'RT

101+54.3
29.9'RT

101+92.9
49.9'RT

102+42.9
50.0'RT

102+85.5
39.4'RT

102+95.0
11.7'RT

102+76.5
36.0'RT

103+09.0
14.3'RT

103+45.0
22.4'RT

103+01.5
38.0'RT

104+10.0
8.9'RT

104+31.4
14.7'RT

104+41.8
16.2'RT

R=16'

R=59'

R=232'

12'

15'

10'

25' (TYP)

T1 T2 T3 T4 T5 T6 R1 R2 M1 M2

NOTE, TEMPORARY INLET COVERS TYPE S REQ'D

SIGN
WO5-52R 12"X36"
BARRIER MOUNT REQUIRED

WO1-6 48"X24"

WO5-52L 12"X36"
BARRIER MOUNT REQUIRED

SPEED LIMIT 35
R2-1 30"x36"

(NOTE, TO REMAIN IN PLACE FOR ALL STAGES)

LANE CLOSED
R11-2L

EB ENTRANCE RAMP

KEYNOTE LEGEND: PAVEMENT MARKING

T1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
T2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
T3	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
T4	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
T5	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (3.0 FT LINE 9.0 FT SKIP)
T6	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) (2.0 FT LINE 8.0 FT SKIP)
M1	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
M2	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH

KEYNOTE LEGEND: PAVEMENT MARKING

R1	MARKING REMOVAL LINE 4-INCH
R2	MARKING REMOVAL LINE 8-INCH
R3	MARKING REMOVAL SPECIAL MARKING

VARIES

VARIES

5.0" ASPHALTIC SURFACE TEMPORARY

10.0" 1-1/4 INCH BASE AGGREGATE DENSE

TYPICAL FINISHED SECTION
TEMPORARY PAVEMENT

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - STAGE 1A	SHEET 23	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\025000-TC STG 1A SHTS (TRAF CNTRL STAGE 1A).DWG PLOT DATE : 11/1/2021 9:55 AM PLOT BY : SEH LAYOUT NAME : 03 PLOT SCALE : 1.0 IN = 50.0 FT

2

KEYNOTE LEGEND: PAVEMENT MARKING

R1	MARKING REMOVAL LINE 4-INCH
R2	MARKING REMOVAL LINE 8-INCH
R3	MARKING REMOVAL SPECIAL MARKING

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC
- WORK SPACE
- TEMPORARY PAVEMENT

IH 94/USH 12/STH 35 WB

WB ENTRANCE RAMP

COULEE RD

R2-1
30"x36"
(NOTE, BARRIER MOUNT REQ'D, TO REMAIN IN PLACE FOR ALL STAGES)

R2-1
30"x36"
(NOTE, TO REMAIN IN PLACE FOR ALL STAGES)

WO1-6
48"X24"

R2-1
30"x36"
(NOTE, TO REMAIN IN PLACE FOR ALL STAGES)

WO3-5
INSTALL AT
STA 117+50'CR', LT
(FOR SB TRAFFIC, TO REMAIN IN PLACE FOR ALL STAGES)

RETRACE EXISTING LANE LINE

MATCH LINE STA 106+00'CR'

106+88.0
12.0'LT

107+29.7
9.6'LT

107+88.1
23.1'LT

108+39.9
0.2'LT

108+85.3
15.4'RT

108+18.3
14.6'RT

107+96.0
2.1'RT

107+71.3
4.5'LT

107+87.3
40.0'RT

108+02.6
37.5'RT

107+76.5
38.0'RT

108+63.9
49.5'RT

108+16.3
32.2'RT

108+63.5
64.5'RT

108+85.6
19.4'RT

109+67.2
27.2'RT

110+21.3
0.0'

110+92.7
17.3'RT

109+92.7
37.3'RT

111+22.9
0.0'

CARMICHAEL RD SB

CARMICHAEL RD NB

R=103'

R=631'

R=81'

R=11'

R=71'

R=10' (TYP)

25' (TYP)

10.0' SPACING (TYP)

NOTE, SEE TEMPORARY TRAFFIC SIGNAL PLAN .

SEE PERMANENT SIGNAL PLAN FOR TRAFFIC SIGNAL ITEM REMOVALS

END ROAD WORK
G20-2A
48"X24"
(NOTE, TO REMAIN IN PLACE FOR ALL STAGES)

NOTE, INSTALL BUT, COVER LANE CLOSURE SIGNS

SEE SDD *TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY,* (SDD 15D20-a)

FRONTAGE RD

IH 94/USH 12/STH 35 EB

IH 94/USH 12/STH 35 WB

WB EXIT RAMP

360'

ONLY

M3-3
24"x12"

R4-5L
24"X30"

SOUTH
TRUCKS USE LEFT LANE

SEE SDD *TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT/LEFT LANE CLOSURE, FOR W20-1A* "ROAD WORK AHEAD" SIGN PLACEMENT (SDD 15D21-a,b) NOTE, SIGN TO REMAIN IN PLACE FOR ALL STAGES.

KEYNOTE LEGEND: PAVEMENT MARKING

T1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
T2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
T3	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
T4	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
T5	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (3.0 FT LINE 9.0 FT SKIP)
T6	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) (2.0 FT LINE 8.0 FT SKIP)
M1	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
M2	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - STAGE 1A	SHEET 24	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\025000-TC STG 1A SHTS (TRAF CNTRL STAGE 1A).DWG PLOT DATE : 11/1/2021 9:55 AM PLOT BY : SEH LAYOUT NAME : 04 PLOT SCALE : 1.0 IN = 50.0 FT

2

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC

WORK SPACE

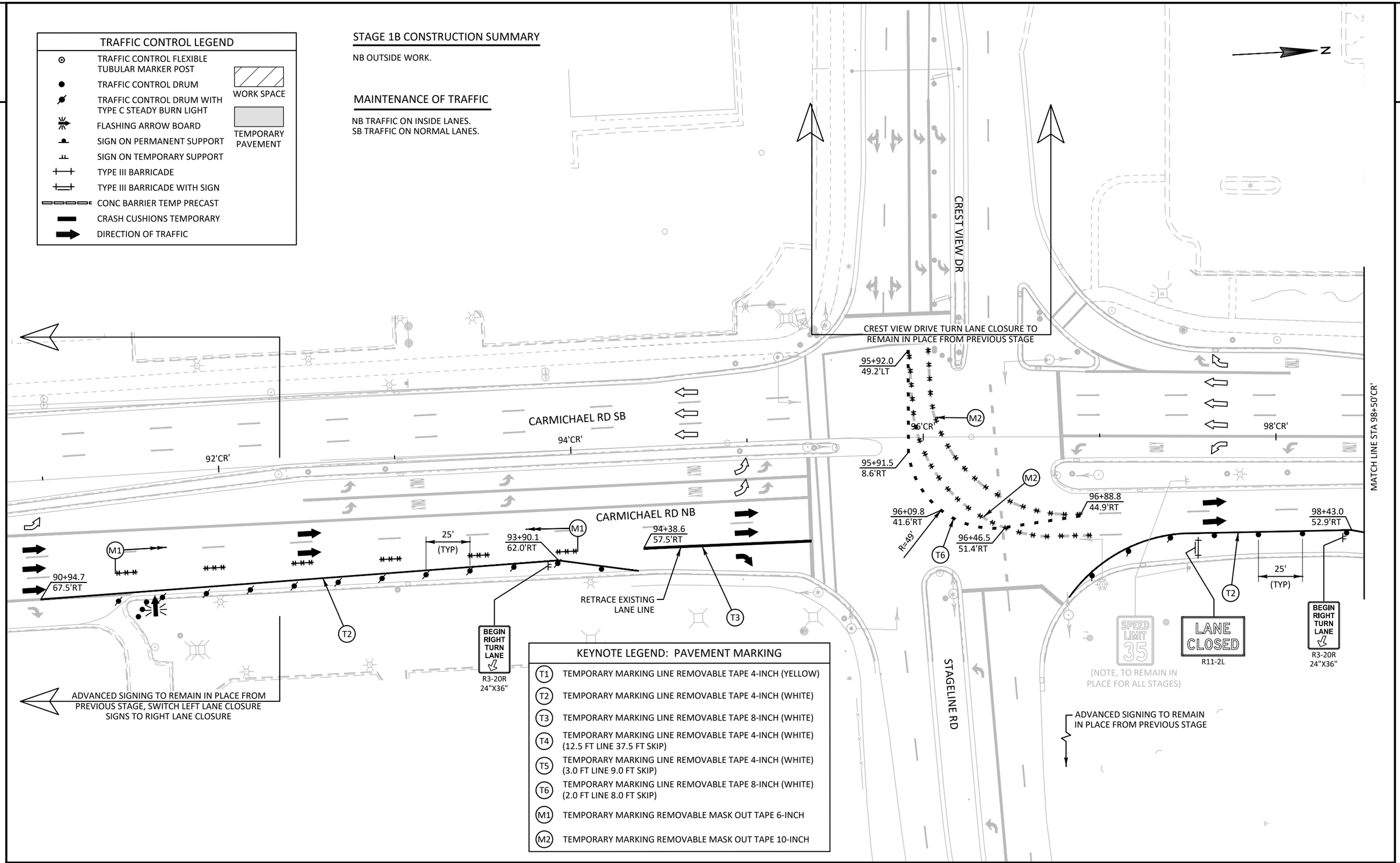
TEMPORARY PAVEMENT

STAGE 1B CONSTRUCTION SUMMARY

NB OUTSIDE WORK.

MAINTENANCE OF TRAFFIC

NB TRAFFIC ON INSIDE LANES.
SB TRAFFIC ON NORMAL LANES.



KEYNOTE LEGEND: PAVEMENT MARKING

T1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
T2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
T3	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
T4	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
T5	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (3.0 FT LINE 9.0 FT SKIP)
T6	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) (2.0 FT LINE 8.0 FT SKIP)
M1	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
M2	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - STAGE 1B	SHEET 25	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\025000-TC STG 1B SHTS (TRAF CNTRL STAGE 1B).DWG PLOT DATE : 11/1/2021 9:58 AM PLOT BY : SEH LAYOUT NAME : 01 PLOT SCALE : 1.0 IN = 50.0 FT
WISDOT/CADDS SHEET 42

2

KEYNOTE LEGEND: PAVEMENT MARKING

T1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
T2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
T3	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
T4	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
T5	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (3.0 FT LINE 9.0 FT SKIP)
T6	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) (2.0 FT LINE 8.0 FT SKIP)
M1	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
M2	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC

WORK SPACE

TEMPORARY PAVEMENT

ADVANCED SIGNING TO REMAIN IN PLACE FROM PREVIOUS STAGE

(NOTE, IN PLACE FROM PREVIOUS STAGE)

NORTH TRUCKS USE LEFT LANE

NORTH TRUCK ONLY

EB EXIT RAMP

ONLY ONLY ONLY

IH 94/USH 12/STH 35 EB

N

MATCH LINE STA 98+50'CR'

MATCH LINE STA 106+00'CR'

CARMICHAEL RD SB

CARMICHAEL RD NB

100'CR'

102'CR'

104'CR'

106

101+41.0
45.3'LT

101+41.7
11.3'LT

101+60.1
30.5'RT

99+03.0
51.7'RT

99+62.0
50.5'RT

25'
(TYP)

R=57'

102+03.4
45.1'RT

101+86.1
62.8'RT

102+29.2
42.7'RT

102+95.8
46.0'RT

103+22.1
46.0'RT

103+99.0
42.2'RT

104+23.7
37.8'RT

104+95.4
31.0'RT

12'
12'

10'
10'

RETRACE EXISTING LANE LINE

LANE CLOSED
R11-2L

LANE CLOSED
R11-2L

LANE CLOSED
R11-2L

WO24-1AL

25 M.P.H.
WO13-1
36"X36"

SPEED LIMIT 35
(NOTE, TO REMAIN IN PLACE FOR ALL STAGES)

WO5-52R
12"X36"
BARRIER MOUNT REQUIRED

NOTE, INSTALL CONCRETE PAVEMENT AT END OF STAGE 1B.

EB ENTRANCE RAMP

KEYNOTE LEGEND: PAVEMENT MARKING

R1	MARKING REMOVAL LINE 4-INCH
R2	MARKING REMOVAL LINE 8-INCH
R3	MARKING REMOVAL SPECIAL MARKING

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - STAGE 1B	SHEET 26	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\025000-TC STG 1B SHTS (TRAF CNTRL STAGE 1B).DWG PLOT DATE : 11/1/2021 9:59 AM PLOT BY : SEH LAYOUT NAME : 02 PLOT SCALE : 1.0 IN = 50.0 FT

WISDOT/CADDS SHEET 42

2

KEYNOTE LEGEND: PAVEMENT MARKING

R1	MARKING REMOVAL LINE 4-INCH
R2	MARKING REMOVAL LINE 8-INCH
R3	MARKING REMOVAL SPECIAL MARKING

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC

WORK SPACE

TEMPORARY PAVEMENT

N

IH 94/USH 12/STH 35 WB

WB ENTRANCE RAMP

COULEE RD

SPEED LIMIT 35

(NOTE, TO REMAIN IN PLACE FOR ALL STAGES)

SPEED LIMIT 35

(NOTE, TO REMAIN IN PLACE FOR ALL STAGES)

MATCH LINE STA 106+00'CR'

CR'

25' (TYP)

107+94.7
11.0'LT

107+55.2
9.0'RT

108'CR'

108+29.5
1.0'LT

R=70'

108+54.7
25.0'RT

107+59.4
31.0'RT

107+95.2
34.9'RT

108+62.5
48.2'RT
R=93'

108+63.9
72.6'RT

10.0' SPACING (TYP)

NOTE, SEE TEMPORARY TRAFFIC SIGNAL PLAN .

T1 BEGIN

T1 END

110'CR'

112'CR'

CARMICHAEL RD SB

CARMICHAEL RD NB

109+85.6
30.9'RT

25' (TYP)

BEGIN LEFT TURN LANE

R3-20L
24"X36"

ONLY

WB EXIT RAMP

IH 94/USH 12/STH 35 EB

IH 94/USH 12/STH 35 WB

COVER OR REMOVE FOR STAGE 1B

ADVANCED SIGNING TO REMAIN IN PLACE FROM PREVIOUS STAGE

ADVANCED SIGNING TO REMAIN IN PLACE FROM PREVIOUS STAGE (LANE CLOSURE SIGN TO REMAIN COVERED)

KEYNOTE LEGEND: PAVEMENT MARKING

T1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
T2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
T3	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
T4	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
T5	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (3.0 FT LINE 9.0 FT SKIP)
T6	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) (2.0 FT LINE 8.0 FT SKIP)
M1	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
M2	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - STAGE 1B	SHEET 27	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\025000-TC STG 1B SHTS (TRAF CNTRL STAGE 1B).DWG PLOT DATE : 11/1/2021 9:59 AM PLOT BY : SEH LAYOUT NAME : 03 PLOT SCALE : 1.0 IN = 50.0 FT

WISDOT/CADDS SHEET 42

2

TRAFFIC CONTROL LEGEND

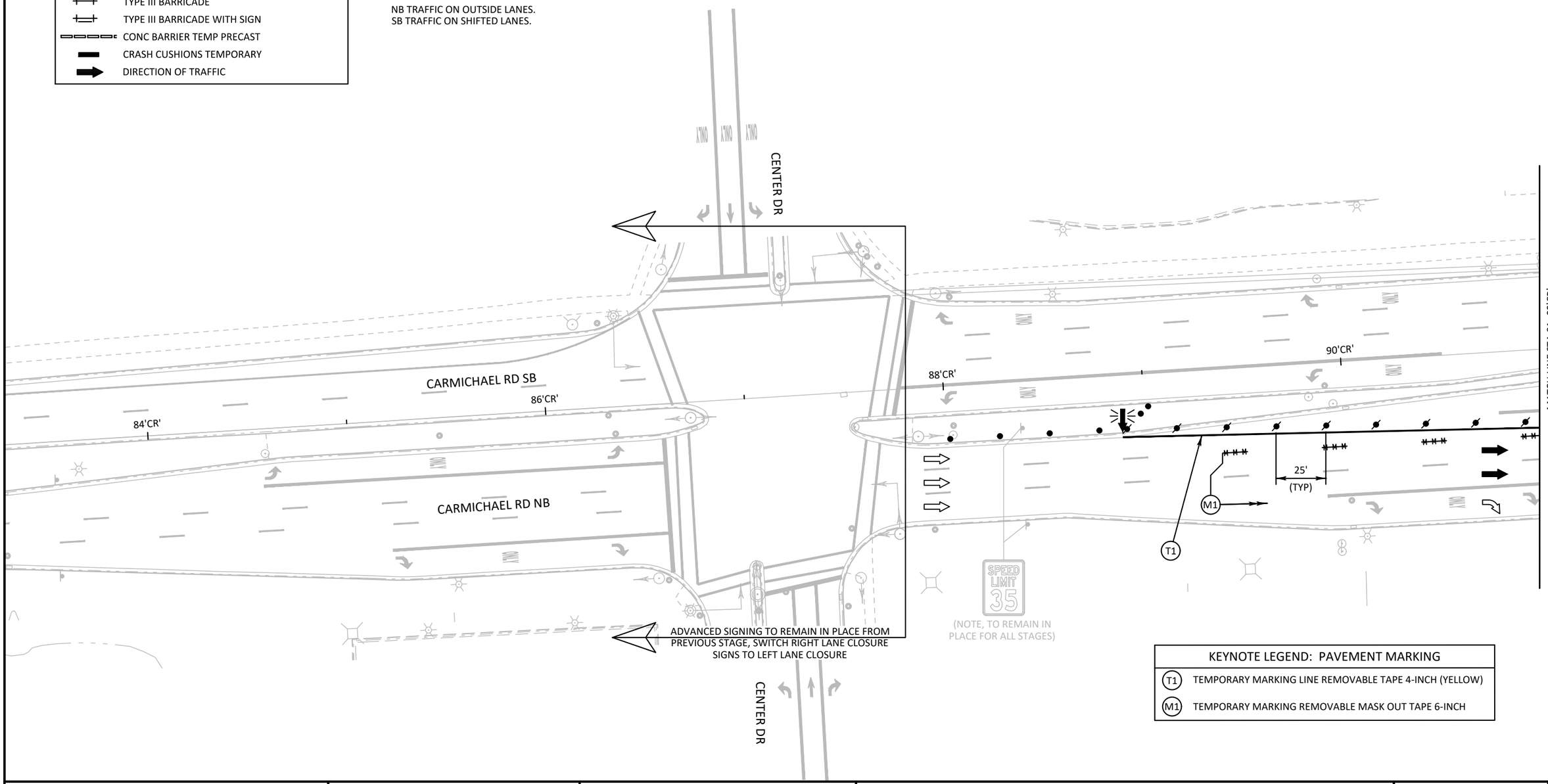
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC
- WORK SPACE
- TEMPORARY PAVEMENT

STAGE 2A CONSTRUCTION SUMMARY

SB OUTSIDE WORK.

MAINTENANCE OF TRAFFIC

NB TRAFFIC ON OUTSIDE LANES.
SB TRAFFIC ON SHIFTED LANES.



KEYNOTE LEGEND: PAVEMENT MARKING

- (T1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (M1) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - STAGE 2A	SHEET 28	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\025000-TC STG 2A SHTS (TRAF CNTRL STAGE 2A).DWG PLOT DATE : 11/1/2021 10:01 AM PLOT BY : SEH LAYOUT NAME : 01 PLOT SCALE : 1.0 IN = 50.0 FT

2

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC
- WORK SPACE
- TEMPORARY PAVEMENT

N

CREST VIEW DR

CREST VIEW DRIVE TURN LANE CLOSURE TO REMAIN IN PLACE FROM PREVIOUS STAGE

CARMICHAEL RD SB

CARMICHAEL RD NB

MATCH LINE STA 91+00'CR'

92'CR'

94'CR'

96'CR'

98'CR'

MATCH LINE STA 98+50'CR'

RETRACE EXISTING LANE LINE

15'

12'

25' (TYP)

96+74.7
13.8'RT

96+71.2
27.2'RT

R=13'

96+81.5
36.4'RT

R=453'

97+62.7
42.4'RT

97+22.0
41.2'RT

10.0' SPACING (TYP)

T1 T2 T3 M1 M2

BEGIN LEFT TURN LANE

R3-20L
24"X36"

WO1-6
48"X24"

SPEED LIMIT 35

(NOTE, TO REMAIN IN PLACE FOR ALL STAGES)

STAGELINE RD

ADVANCED SIGNING TO REMAIN IN PLACE FROM PREVIOUS STAGE

KEYNOTE LEGEND: PAVEMENT MARKING

T1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
T2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
T3	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
T4	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
T5	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (3.0 FT LINE 9.0 FT SKIP)
T6	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) (2.0 FT LINE 8.0 FT SKIP)
M1	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
M2	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - STAGE 2A	SHEET 29	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\025000-TC STG 2A SHTS (TRAF CNTRL STAGE 2A).DWG PLOT DATE : 11/1/2021 10:01 AM PLOT BY : SEH LAYOUT NAME : 02 PLOT SCALE : 1.0 IN = 50.0 FT

WISDOT/CADDS SHEET 42

2

(NOTE, IN PLACE FROM PREVIOUS STAGE)

NORTH
TRUCKS USE LEFT LANE

ADVANCED SIGNING TO REMAIN IN PLACE FROM PREVIOUS STAGE

NORTH
TRUCK
ONLY

EB EXIT RAMP

ONLY ONLY ONLY

IH 94/USH 12/STH 35 EB

N

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC
- WORK SPACE
- TEMPORARY PAVEMENT

MATCH LINE STA 98+50'CR'

CARMICHAEL RD SB

100'CR'

RETRACE EXISTING LANE LINE

25' (TYP)

12'

101+13.0
34.8'RT

101+28.2
22.8'RT

101+22.6
31.3'RT

101+74.4
43.8'RT

101+91.3
48.6'RT

102+08.8
50.0'RT

R=16'

R=58'

R=91'

R=120'

101+39.4
42.1'LT

101+39.6
6.5'LT

101+49.8
23.6'RT

102'CR'

102+02.6
22.3'RT

102+25.5
31.2'RT

102+49.7
35.3'RT

10.0' SPACING (TYP)

CARMICHAEL RD NB

103+34.0
37.0'RT

103+12.0
50.0'RT

103+77.7
37.0'RT

104'CR'

104+30.3
16.0'LT

102+56.9
23.6'LT

102+39.4
10.9'LT

104+42.9
15.7'RT

(TYP)10'

104+17.0
27.7'RT

104+43.5
27.7'RT

105+03.6
23.5'RT

10' (TYP)

25' (TYP)

11'

106

MATCH LINE STA 106+00'CR'

R1 NOTE, REMOVE BOTH SB LANE LINES

T1 T2 T3 T4 T5 T6

LANE CLOSED
R11-2L

WO1-6
48"X24"

BEGIN LEFT TURN LANE
R3-20L
24"X36"

SIGN

SPEED LIMIT 35
(NOTE, TO REMAIN IN PLACE FOR ALL STAGES)

EB ENTRANCE RAMP

KEYNOTE LEGEND: PAVEMENT MARKING

T1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
T2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
T3	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
T4	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
T5	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (3.0 FT LINE 9.0 FT SKIP)
T6	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) (2.0 FT LINE 8.0 FT SKIP)
M1	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
M2	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH

KEYNOTE LEGEND: PAVEMENT MARKING

R1	MARKING REMOVAL LINE 4-INCH
R2	MARKING REMOVAL LINE 8-INCH
R3	MARKING REMOVAL SPECIAL MARKING

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - STAGE 2A	SHEET 30	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\025000-TC STG 2A SHTS (TRAF CNTRL STAGE 2A).DWG PLOT DATE : 11/1/2021 10:01 AM PLOT BY : SEH LAYOUT NAME : 03 PLOT SCALE : 1.0 IN = 50.0 FT

WISDOT/CADDS SHEET 42

2

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC
- WORK SPACE
- TEMPORARY PAVEMENT

IH 94/USH 12/STH 35 WB

WB ENTRANCE RAMP

WO12-1D

WO1-4R

SPEED LIMIT 35

(NOTE, TO REMAIN IN PLACE FOR ALL STAGES)

WO5-52R 12"X36" BARRIER MOUNT REQUIRED

LANE CLOSED

R11-2L

LANE CLOSED

R11-2L

WO6-1(MOD)

SPEED LIMIT 35

(NOTE, TO REMAIN IN PLACE FOR ALL STAGES)

M3-2 EAST 94

M1-1

RO3-54L USE LEFT LANE

J3-1 24"X57"

COULEE RD

N

NOTE, REMOVE BOTH SB LANE LINES

R1

MATCH LINE STA 106+00'CR'

107+98.3
18.0'LT

107+75.0
16.0'LT

108'CR'

107+95.9
1.8'LT

107+86.8
22.0'RT

107+78.6
23.5'RT

108+27.3
35.7'RT

108+50.0
72.1'RT

108+63.8
69.7'RT

108+72.1
14.7'RT

108+43.0
23.6'RT

R=81'

R=64'

25'
(TYP)

12'

10.0' SPACING (TYP)

108+90.5
17.1'LT

108+90.5
5.1'LT

110'CR'

110+25.8
12.0'LT

111+23.1
24.0'LT

10'

CARMICHAEL RD SB

112'CR'

CARMICHAEL RD NB

T1 T2 T3 T4 T6 T7 M1

WO24-1L

25 M.P.H.

WO13-1 36"X36"

UNCOVER AND REMOVE R4-5-L, REPLACE WITH R4-5

SOUTH TRUCKS USE RIGHT LANE

R4-5 24"X30"

ONLY 360'

WB EXIT RAMP

NOTE, SEE TEMPORARY TRAFFIC SIGNAL PLAN .

ADVANCED SIGNING TO REMAIN IN PLACE FROM PREVIOUS STAGE

ADVANCED SIGNING TO REMAIN IN PLACE FROM PREVIOUS STAGE, RIGHT LANE CLOSURE SIGNS UNCOVERED

FRONTAGE RD

IH 94/USH 12/STH 35 EB

IH 94/USH 12/STH 35 WB

KEYNOTE LEGEND: PAVEMENT MARKING

T1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
T2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
T3	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
T4	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
T5	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (3.0 FT LINE 9.0 FT SKIP)
T6	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) (2.0 FT LINE 8.0 FT SKIP)
T7	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (YELLOW) (2.0 FT LINE 8.0 FT SKIP)
M1	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
M2	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - STAGE 2A	SHEET 31	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\025000-TC STG 2A SHTS (TRAF CNTRL STAGE 2A).DWG PLOT DATE : 11/1/2021 10:01 AM PLOT BY : SEH LAYOUT NAME : 04 PLOT SCALE : 1.0 IN = 50.0 FT

WISDOT/CADDS SHEET 42

2

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC

WORK SPACE

TEMPORARY PAVEMENT

STAGE 2B CONSTRUCTION SUMMARY

SB SIDEWALK WORK.

MAINTENANCE OF TRAFFIC

NB TRAFFIC ON OUTSIDE LANES.
SB TRAFFIC ON SHIFTED LANES.
PEDESTRIAN TRAFFIC DETOURED ACROSS BRIDGE.

N

IH 94/USH 12/STH 35 EB

EB EXIT RAMP

ONLY ONLY ONLY

SIDEWALK CLOSED

R9-9
24"X12"

"TEMPORARY PEDESTRIAN BARRICADE," SEE SDD *TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION (SDD 15D30)* (TYP)

"TEMPORARY CURB RAMP PERPENDICULAR TO CURB", SEE SDD *TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION (SDD 15D30)*

T2

SOUTHBOUND TRAFFIC CONTROLS TO REMAIN IN PLACE FROM PREVIOUS STAGE

CARMICHAEL RD SB

100'CR' 102'CR' 104'CR' 106

104+47.6
20.0'LT

6"

MATCH LINE STA 106+00'CR'

CARMICHAEL RD NB

NORTHBOUND TRAFFIC CONTROLS TO REMAIN IN PLACE FROM PREVIOUS STAGE

EB ENTRANCE RAMP

KEYNOTE LEGEND: PAVEMENT MARKING

T1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
T2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
T3	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
T4	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
T5	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (3.0 FT LINE 9.0 FT SKIP)
T6	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) (2.0 FT LINE 8.0 FT SKIP)
M1	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
M2	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - STAGE 2B	SHEET 32	E

2

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC

WORK SPACE

TEMPORARY PAVEMENT

N

IH 94/USH 12/STH 35 WB

WB ENTRANCE RAMP

COULEE RD

SIDEWALK CLOSED

R9-9
24"X12"

WO5-52R
12"X36"
BARRIER MOUNT REQUIRED

"TEMPORARY PEDESTRIAN BARRICADE," SEE SDD *TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION (SDD 15D30)* (TYP)

SOUTHBOUND TRAFFIC CONTROLS TO REMAIN IN PLACE FROM PREVIOUS STAGE

T2

6"

108+17.7
35.8'LT

107+86.0
20.0'LT

MATCH LINE STA 106+00'CR'

'CR'

108'CR'

110'CR'

112'CR'

CARMICHAEL RD SB

CARMICHAEL RD NB

NORTHBOUND TRAFFIC CONTROLS TO REMAIN IN PLACE FROM PREVIOUS STAGE

NOTE, SEE TEMPORARY TRAFFIC SIGNAL PLAN .

ONLY

WB EXIT RAMP

IH 94/USH 12/STH 35 EB

IH 94/USH 12/STH 35 WB

KEYNOTE LEGEND: PAVEMENT MARKING

T1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
T2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
T3	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
T4	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
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T7	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (YELLOW) (2.0 FT LINE 8.0 FT SKIP)
M1	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
M2	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - STAGE 2B	SHEET 33	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\025000-TC STG 2B SHTS (TRAF CNTRL STAGE 2B).DWG PLOT DATE : 11/1/2021 10:04 AM PLOT BY : SEH LAYOUT NAME : 04 PLOT SCALE : 1.0 IN = 50.0 FT

2

TRAFFIC CONTROL LEGEND

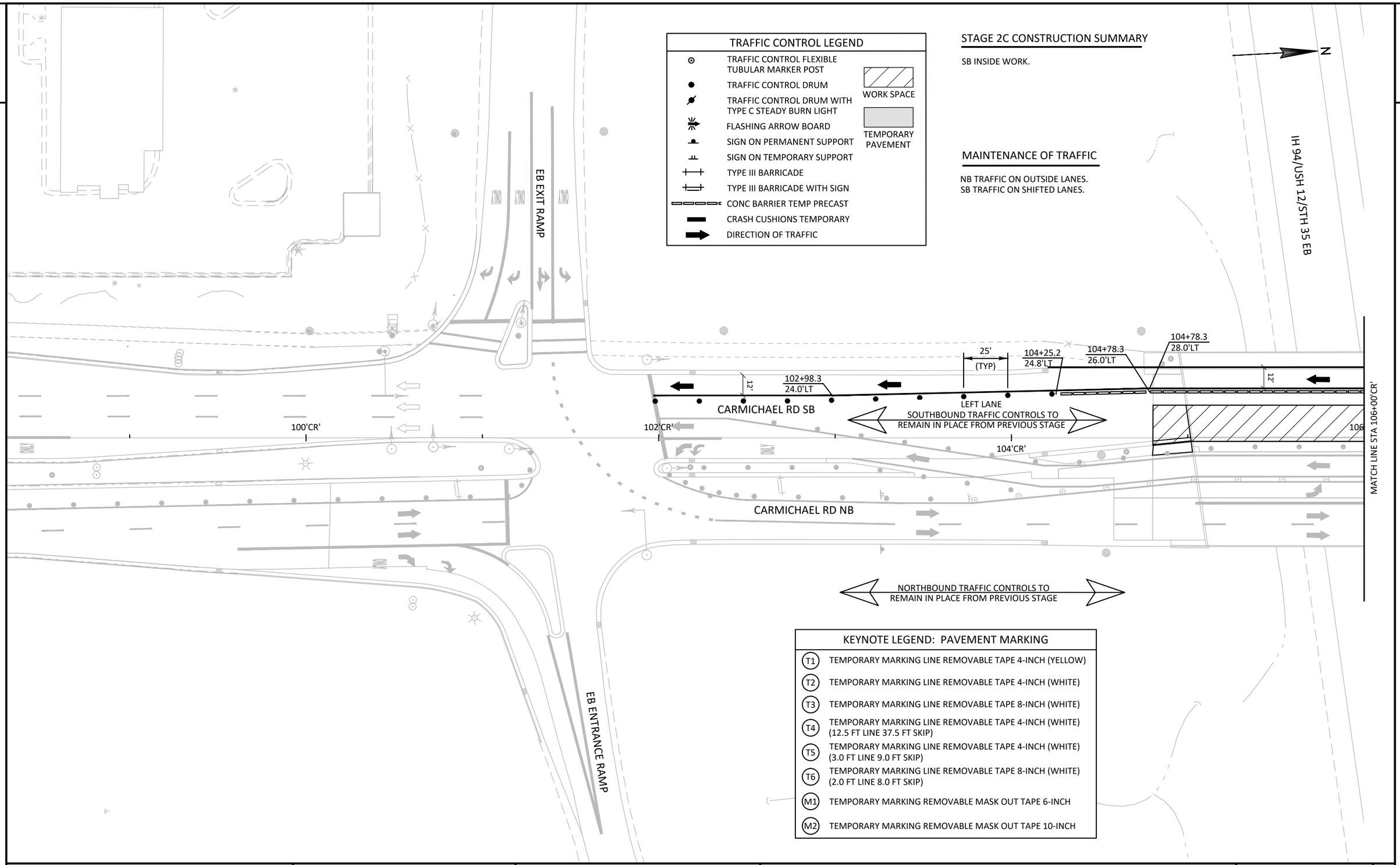
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC
- WORK SPACE
- TEMPORARY PAVEMENT

STAGE 2C CONSTRUCTION SUMMARY

SB INSIDE WORK.

MAINTENANCE OF TRAFFIC

NB TRAFFIC ON OUTSIDE LANES.
SB TRAFFIC ON SHIFTED LANES.

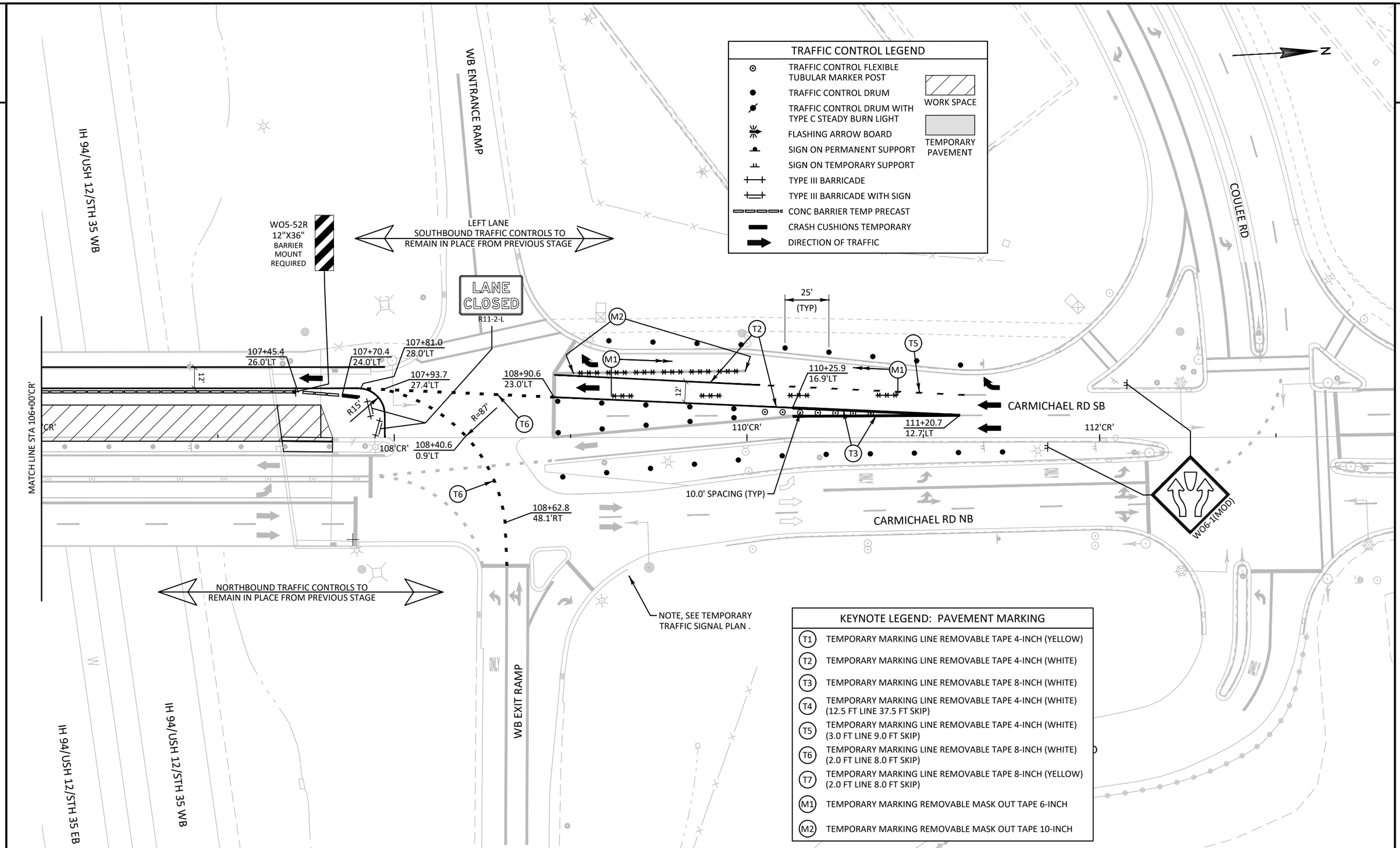


KEYNOTE LEGEND: PAVEMENT MARKING

T1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
T2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
T3	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
T4	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
T5	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (3.0 FT LINE 9.0 FT SKIP)
T6	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) (2.0 FT LINE 8.0 FT SKIP)
M1	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
M2	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - STAGE 2C	SHEET 34	E

2



PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - STAGE 2C	SHEET 35	E

2

TRAFFIC CONTROL LEGEND

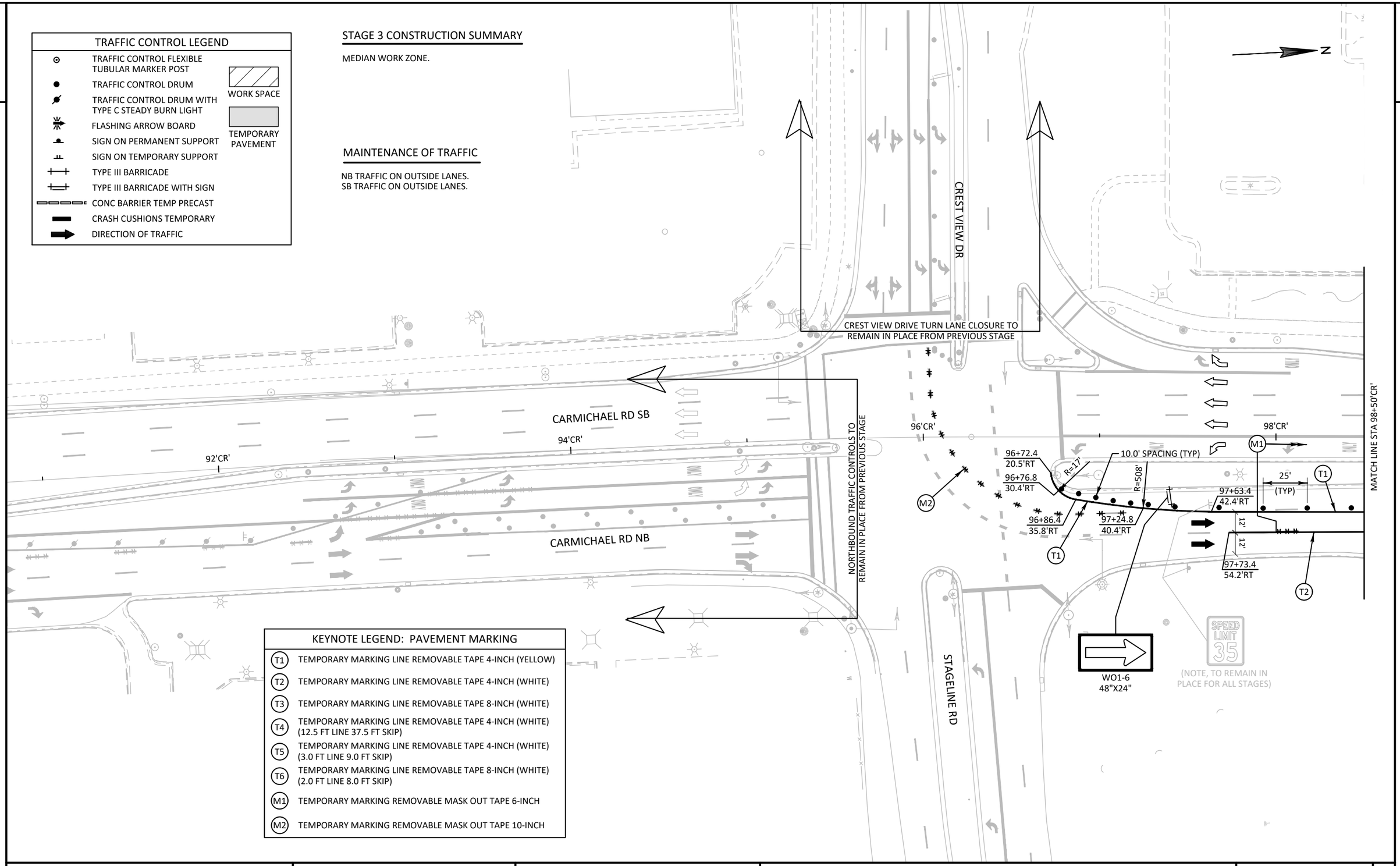
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC
- WORK SPACE
- TEMPORARY PAVEMENT

STAGE 3 CONSTRUCTION SUMMARY

MEDIAN WORK ZONE.

MAINTENANCE OF TRAFFIC

NB TRAFFIC ON OUTSIDE LANES.
SB TRAFFIC ON OUTSIDE LANES.



KEYNOTE LEGEND: PAVEMENT MARKING

- (T1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (T2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (T3) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (T4) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (T5) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (3.0 FT LINE 9.0 FT SKIP)
- (T6) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) (2.0 FT LINE 8.0 FT SKIP)
- (M1) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- (M2) TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - STAGE 3	SHEET 36	E

2

ADVANCED SIGNING TO REMAIN
IN PLACE FROM PREVIOUS STAGE

EB EXIT RAMP

ONLY ONLY ONLY

IH 94/USH 12/STH 35 EB

N

MATCH LINE STA 98+50'CR'

MATCH LINE STA 106+00'CR'

100'CR'

102'CR'

104'CR'

CARMICHAEL RD SB

CARMICHAEL RD NB

101+40.4
42.1'LT

101+40.8
10.9'LT

101+32.9
16.9'RT

100+43.4
42.9'RT

101+26.6
33.8'RT

101+09.9
41.6'RT

99+61.4
63.3'RT

100+43.7
62.9'RT

101+61.5
32.5'RT

102+00.2
21.8'RT

102+06.6
49.1'RT

10.0' SPACING (TYP)

102+36.6
32.0'RT

102+74.1
36.0'RT

102+46.9
50.0'RT

102+66.7
50.0'RT

103+05.7
59.9'RT

103+35.1
38.6'RT

103+73.6
12.4'LT

104+97.8
12.0'LT

104+76.1
40.1'RT

105+37.6
34.1'RT

R=24'

R=64'

R=223'

25'
(TYP)

12'

10'

T1 T2 T3 T4 T5 T6 M1 M2 R1 R2 R3

LANE
CLOSED
R11-2L

BEGIN
LEFT
TURN
LANE
R3-20L
24"X36"

NOTE, SALVAGED
INLET REQ'D

WO5-52R
12"X36"
BARRIER
MOUNT
REQUIRED

SPEED
LIMIT
35
(NOTE, TO REMAIN IN
PLACE FOR ALL STAGES)

WO1-6
48"X24"

EB ENTRANCE RAMP

TRAFFIC CONTROL LEGEND	
TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST	WORK SPACE
TRAFFIC CONTROL DRUM	
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	TEMPORARY PAVEMENT
FLASHING ARROW BOARD	
SIGN ON PERMANENT SUPPORT	
SIGN ON TEMPORARY SUPPORT	
TYPE III BARRICADE	
TYPE III BARRICADE WITH SIGN	
CONC BARRIER TEMP PRECAST	
CRASH CUSHIONS TEMPORARY	
DIRECTION OF TRAFFIC	

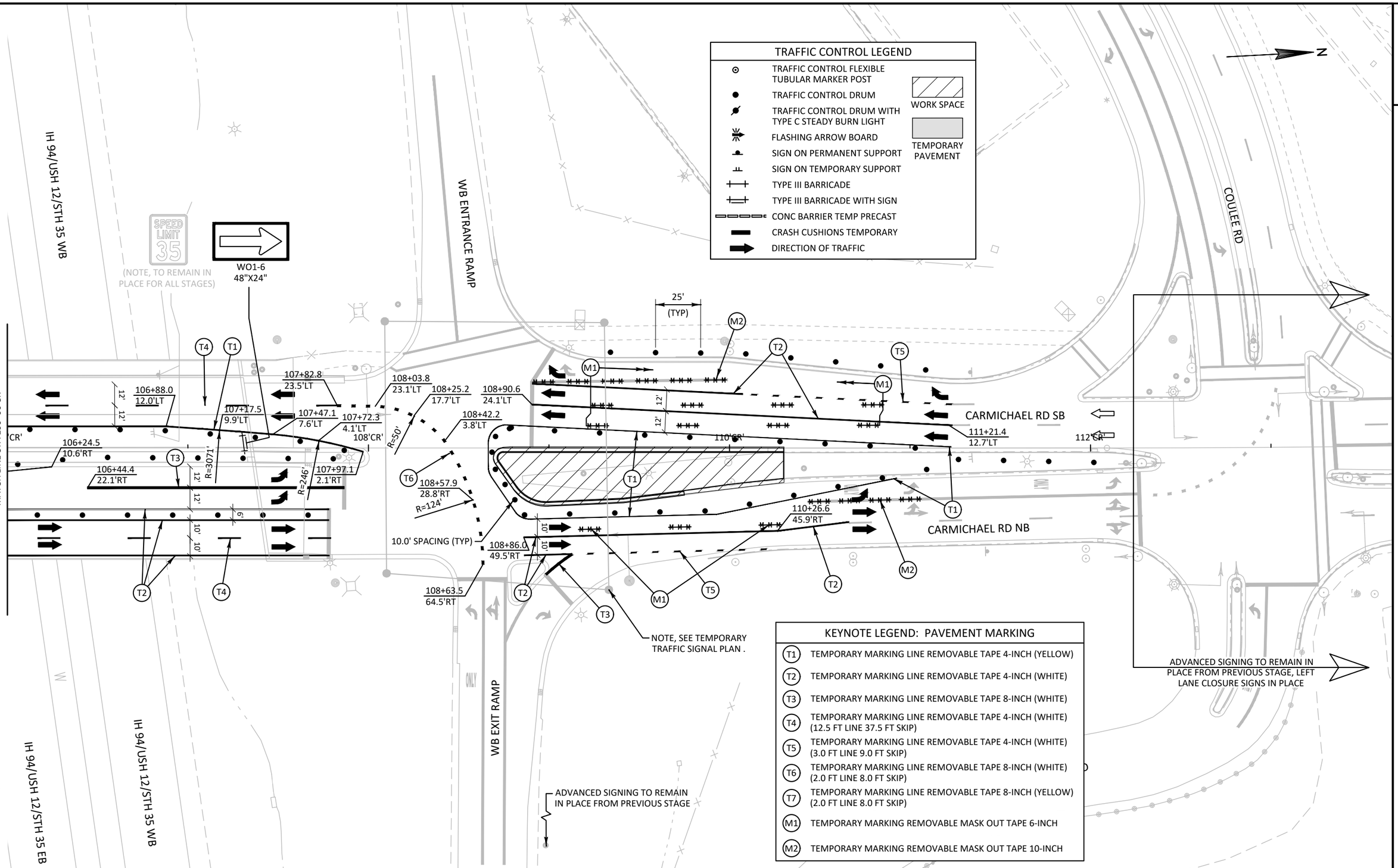
KEYNOTE LEGEND: PAVEMENT MARKING	
T1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
T2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
T3	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
T4	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
T5	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (3.0 FT LINE 9.0 FT SKIP)
T6	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) (2.0 FT LINE 8.0 FT SKIP)
M1	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
M2	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH

KEYNOTE LEGEND: PAVEMENT MARKING	
R1	MARKING REMOVAL LINE 4-INCH
R2	MARKING REMOVAL LINE 8-INCH
R3	MARKING REMOVAL SPECIAL MARKING

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - STAGE 3	SHEET 37	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\025000-TC STG 3 SHTS (TRAF CNTRL STAGE 3).DWG PLOT DATE : 11/1/2021 10:07 AM PLOT BY : SEH LAYOUT NAME : 03 PLOT SCALE : 1.0 IN = 50.0 FT
WISDOT/CADDS SHEET 42

2



KEYNOTE LEGEND: PAVEMENT MARKING

T1	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
T2	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
T3	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
T4	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
T5	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (3.0 FT LINE 9.0 FT SKIP)
T6	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) (2.0 FT LINE 8.0 FT SKIP)
T7	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (YELLOW) (2.0 FT LINE 8.0 FT SKIP)
M1	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
M2	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	TRAFFIC CONTROL - STAGE 3	SHEET 38	E

2

2

KEYNOTE LEGEND: PAVEMENT MARKING	
3	MARKING LINE EPOXY 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
5	MARKING LINE EPOXY 8-INCH (WHITE)
6	MARKING LINE EPOXY 8-INCH (WHITE) (2.0 FT LINE 8.0 FT SKIP)
8	MARKING STOP LINE EPOXY 18-INCH (WHITE)
9	MARKING ARROW EPOXY (WHITE)
10	MARKING WORD EPOXY (WHITE)
21	MARKING ISLAND NOSE EPOXY (YELLOW)

N

EB EXIT RAMP

ONLY ONLY ONLY

SIGN

SIGN

CARMICHAEL RD SB

CARMICHAEL RD NB

RETRACE EXISTING STOP LINE

101+40.4
42.1'LT

101+41.6
13.7'LT

101+51.9
13.2'RT

101+74.2
31.5'RT

101+98.6
40.4'RT

102+23.4
45.5'RT

R=56.2'

R=175.6'

99'CR' 100'CR' 101'CR' 102'CR' 103'CR' 104'CR'

12' 12' 12' 12'

+27 +52 +79 +39 +33

SIGN

SIGN

SIGN

EB ENTRANCE RAMP

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	PAVEMENT MARKING	SHEET 39	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\024500_PM (PAVEMENT MARKING).DWG PLOT DATE : 11/1/2021 10:09 AM PLOT BY : SEH LAYOUT NAME : 01 PLOT SCALE : 1.0 IN = 40.0 FT

KEYNOTE LEGEND: PAVEMENT MARKING	
3	MARKING LINE EPOXY 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
5	MARKING LINE EPOXY 8-INCH (WHITE)
6	MARKING LINE EPOXY 8-INCH (WHITE) (2.0 FT LINE 8.0 FT SKIP)
8	MARKING STOP LINE EPOXY 18-INCH (WHITE)
9	MARKING ARROW EPOXY (WHITE)
10	MARKING WORD EPOXY (WHITE)
21	MARKING ISLAND NOSE EPOXY (YELLOW)

2

2

N

IH 94/USH 12/STH 35 EB

IH 94/USH 12/STH 35 WB

WB ENTRANCE RAMP

SIGN

SIGN

SIGN

CARMICHAEL RD SB

105'CR'

106'CR'

107'CR'

108'CR'

109'CR'

110'CR'

+84

+80

+28

+15

+55

12'

12'

12'

ONLY

ONLY

3

5

9

10

9

21

8

21

8

RETRACE EXISTING STOP LINE

CARMICHAEL RD NB

SIGN

SIGN

N

IH 94/USH 12/STH 35 EB

IH 94/USH 12/STH 35 WB

ONLY

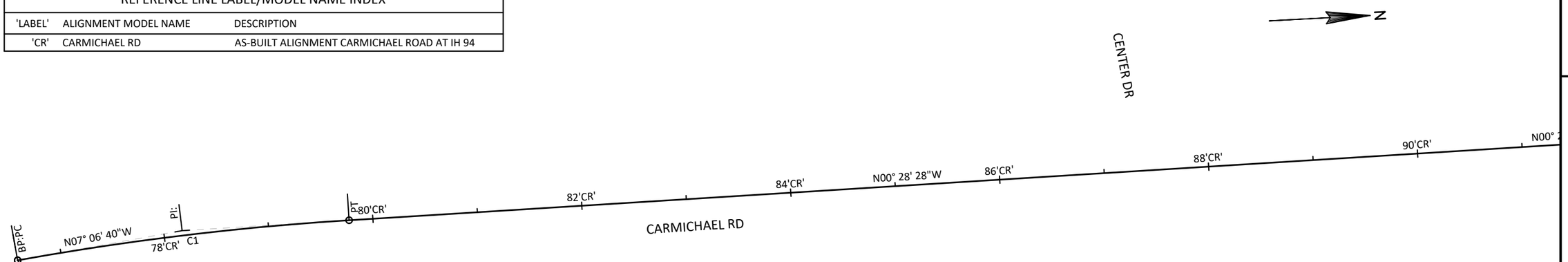
WB EXIT RAMP

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	PAVEMENT MARKING	SHEET 40	E

FILE NAME : X:\UZ\W\WITNW\161683\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\C3D\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\024500_PM (PAVEMENT MARKING).DWG PLOT DATE : 11/1/2021 10:09 AM PLOT BY : SEH LAYOUT NAME : 02 PLOT SCALE : 1.0 IN = 40.0 FT

WISDOT/CADDS SHEET 42

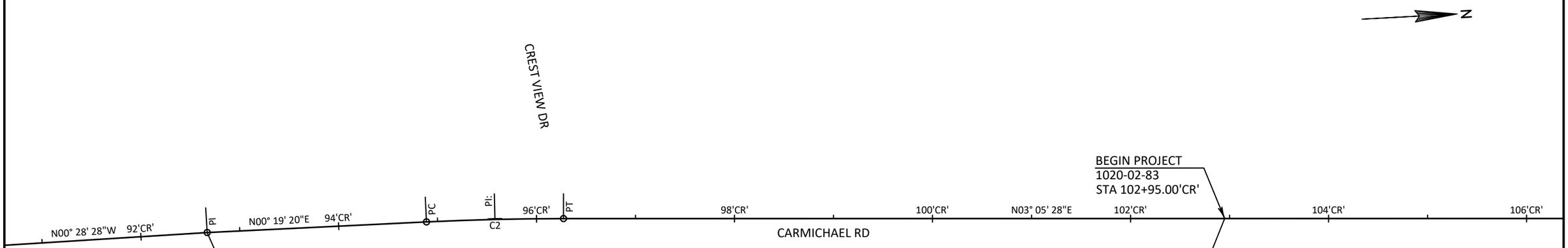
REFERENCE LINE LABEL/MODEL NAME INDEX		
'LABEL'	ALIGNMENT MODEL NAME	DESCRIPTION
'CR'	CARMICHAEL RD	AS-BUILT ALIGNMENT CARMICHAEL ROAD AT IH 94



STA 76+58.06'CR' POT:
Y=335,167.7901
X=520,201.4157

C1

PI STA =	78+17.79'CR'
Y =	335,326.2975
X =	520,181.6417
Δ =	6°38'12"
D =	2°04'47"
T =	159.74'
L =	319.11'
R =	2,755.00'
PC STA =	76+58.06'CR'
PT STA =	79+77.17'CR'



STA 92+67.04'CR' PI:
Y=336,775.8513
X=520,169.6405

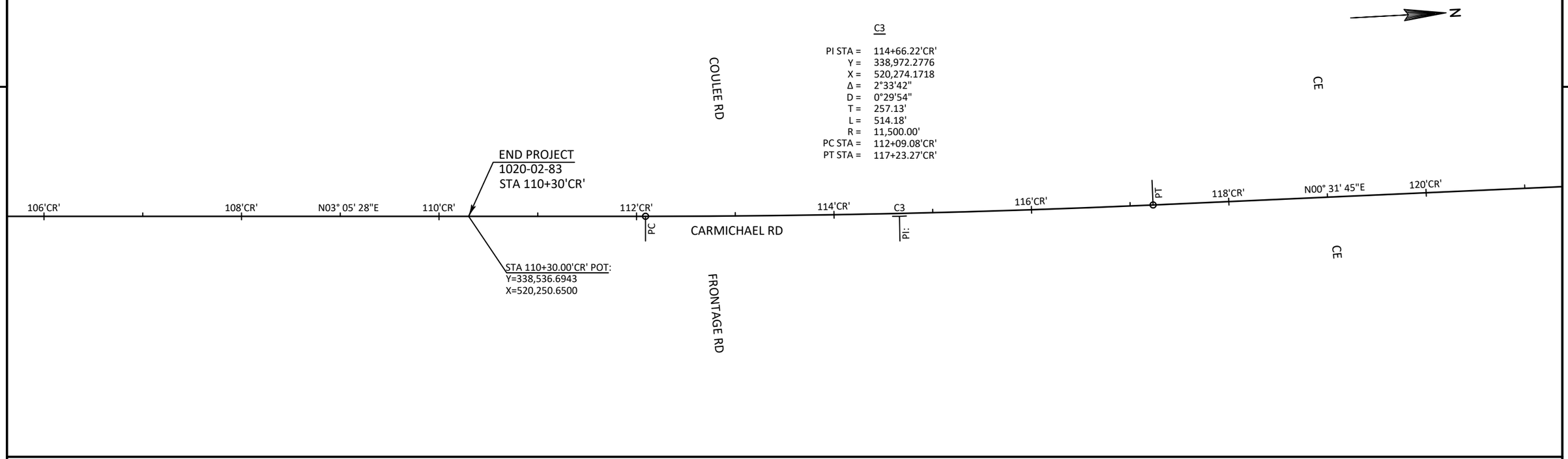
STA 102+95.00'CR' POT:
Y=337,802.7637
X=520,211.0170

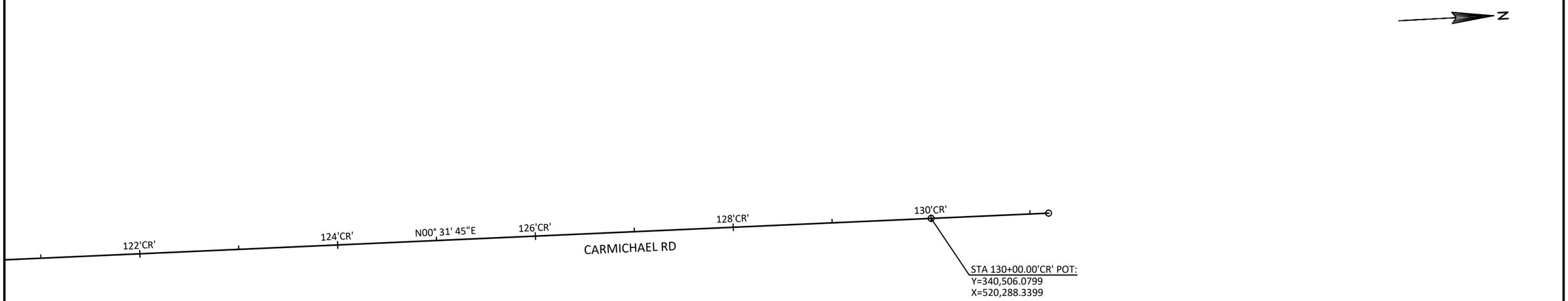
C2

PI STA =	95+58.05'CR'
Y =	337,066.8549
X =	520,171.2773
Δ =	2°46'08"
D =	1°59'59"
T =	69.24'
L =	138.45'
R =	2,865.00'
PC STA =	94+88.81'CR'
PT STA =	96+27.26'CR'

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	ALIGNMENT PLAN	SHEET 41	E

2





PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	ALIGNMENT PLAN	SHEET 42	E

Estimate Of Quantities

1020-02-83

Line	Item	Item Description	Unit	Total	Qty
0002	204.0100	Removing Concrete Pavement	SY	610.000	610.000
0004	204.0110	Removing Asphaltic Surface	SY	360.000	360.000
0006	204.0150	Removing Curb & Gutter	LF	466.000	466.000
0008	204.0155	Removing Concrete Sidewalk	SY	535.000	535.000
0010	204.0157	Removing Concrete Barrier	LF	108.000	108.000
0012	204.0195	Removing Concrete Bases	EACH	3.000	3.000
0014	205.0100	Excavation Common	CY	240.000	240.000
0016	211.0200	Prepare Foundation for Concrete Pavement (project) 01. 1020-02-83	LS	1.000	1.000
0018	213.0100	Finishing Roadway (project) 01. 1020-02-83	EACH	1.000	1.000
0020	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	496.000	496.000
0022	415.1080	Concrete Pavement HES 8-Inch	SY	141.000	141.000
0024	415.1410	Concrete Pavement Approach Slab HES	SY	436.000	436.000
0026	416.0610	Drilled Tie Bars	EACH	259.000	259.000
0028	416.0620	Drilled Dowel Bars	EACH	138.000	138.000
0030	465.0125	Asphaltic Surface Temporary	TON	101.000	101.000
0032	502.2000	Compression Joint Sealer Preformed Elastomeric (width) 01. 2-Inch	LF	232.000	232.000
0034	502.3101	Expansion Device 01. B-55-118	LF	222.000	222.000
0036	502.3200	Protective Surface Treatment	SY	292.000	292.000
0038	502.3210	Pigmented Surface Sealer	SY	267.000	267.000
0040	502.4205	Adhesive Anchors No. 5 Bar	EACH	228.000	228.000
0042	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	6,150.000	6,150.000
0044	505.0904	Bar Couplers No. 4	EACH	8.000	8.000
0046	505.0905	Bar Couplers No. 5	EACH	78.000	78.000
0048	505.0906	Bar Couplers No. 6	EACH	24.000	24.000
0050	509.0301	Preparation Decks Type 1	SY	1.000	1.000
0052	509.0302	Preparation Decks Type 2	SY	1.000	1.000
0054	509.0310.S	Sawing Pavement Deck Preparation Areas	LF	10.000	10.000
0056	509.1000	Joint Repair	SY	107.000	107.000
0058	509.1500	Concrete Surface Repair	SF	35.000	35.000
0060	509.2100.S	Concrete Masonry Deck Repair	CY	41.000	41.000
0062	509.5100.S	Polymer Overlay	SY	2,631.000	2,631.000
0064	509.9050.S	Cleaning Parapets	LF	1,017.000	1,017.000
0066	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	607.000	607.000
0068	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	30.000	30.000
0070	602.0410	Concrete Sidewalk 5-Inch	SF	4,890.000	4,890.000
0072	603.0105	Concrete Barrier Single-Faced 32-Inch	LF	108.000	108.000
0074	603.8000	Concrete Barrier Temporary Precast Delivered	LF	913.000	913.000
0076	603.8125	Concrete Barrier Temporary Precast Installed	LF	1,658.000	1,658.000
0078	611.0651	Inlet Covers Type S	EACH	1.000	1.000
0080	611.8115	Adjusting Inlet Covers	EACH	2.000	2.000
0082	611.9710	Salvaged Inlet Covers	EACH	1.000	1.000
0084	614.0905	Crash Cushions Temporary	EACH	4.000	4.000
0086	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1020-02-83	EACH	1.000	1.000
0088	619.1000	Mobilization	EACH	1.000	1.000
0090	624.0100	Water	MGAL	5.000	5.000
0092	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0094	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0096	628.7015	Inlet Protection Type C	EACH	25.000	25.000
0098	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	2.000	2.000

1020-02-83

Line	Item	Item Description	Unit	Total	Qty
0100	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	3.000	3.000
0102	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	5.000	5.000
0104	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	6.000	6.000
0106	634.0622	Posts Wood 4x6-Inch X 22-FT	EACH	4.000	4.000
0108	637.2210	Signs Type II Reflective H	SF	623.840	623.840
0110	637.2230	Signs Type II Reflective F	SF	12.500	12.500
0112	638.2102	Moving Signs Type II	EACH	5.000	5.000
0114	638.2602	Removing Signs Type II	EACH	74.000	74.000
0116	638.3000	Removing Small Sign Supports	EACH	18.000	18.000
0118	642.5001	Field Office Type B	EACH	1.000	1.000
0120	643.0300	Traffic Control Drums	DAY	10,380.000	10,380.000
0122	643.0410	Traffic Control Barricades Type II	DAY	28.000	28.000
0124	643.0420	Traffic Control Barricades Type III	DAY	402.000	402.000
0126	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	37.000	37.000
0128	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	37.000	37.000
0130	643.0705	Traffic Control Warning Lights Type A	DAY	860.000	860.000
0132	643.0715	Traffic Control Warning Lights Type C	DAY	986.000	986.000
0134	643.0800	Traffic Control Arrow Boards	DAY	65.000	65.000
0136	643.0900	Traffic Control Signs	DAY	3,281.000	3,281.000
0138	643.0920	Traffic Control Covering Signs Type II	EACH	1.000	1.000
0140	643.1050	Traffic Control Signs PCMS	DAY	130.000	130.000
0142	643.5000	Traffic Control	EACH	1.000	1.000
0144	644.1601	Temporary Pedestrian Curb Ramp	DAY	15.000	15.000
0146	644.1810	Temporary Pedestrian Barricade	LF	1,240.000	1,240.000
0148	646.1020	Marking Line Epoxy 4-Inch	LF	512.000	512.000
0150	646.3020	Marking Line Epoxy 8-Inch	LF	757.000	757.000
0152	646.5020	Marking Arrow Epoxy	EACH	6.000	6.000
0154	646.5120	Marking Word Epoxy	EACH	3.000	3.000
0156	646.6120	Marking Stop Line Epoxy 18-Inch	LF	100.000	100.000
0158	646.8120	Marking Curb Epoxy	LF	56.000	56.000
0160	646.8220	Marking Island Nose Epoxy	EACH	2.000	2.000
0162	646.9000	Marking Removal Line 4-Inch	LF	731.000	731.000
0164	646.9100	Marking Removal Line 8-Inch	LF	481.000	481.000
0166	646.9300	Marking Removal Special Marking	EACH	8.000	8.000
0168	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	17,100.000	17,100.000
0170	649.0250	Temporary Marking Line Removable Tape 8-Inch	LF	2,250.000	2,250.000
0172	649.0960	Temporary Marking Removable Mask Out Tape 6-Inch	LF	778.000	778.000
0174	649.0970	Temporary Marking Removable Mask Out Tape 10-Inch	LF	660.000	660.000
0176	650.7000	Construction Staking Concrete Pavement	LF	463.000	463.000
0178	650.8500	Construction Staking Electrical Installations (project) 01. 1020-02-83	LS	1.000	1.000
0180	650.9910	Construction Staking Supplemental Control (project) 01. 1020-02-83	LS	1.000	1.000
0182	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	79.000	79.000
0184	652.0700.S	Install Conduit into Existing Item	EACH	1.000	1.000
0186	652.0800	Conduit Loop Detector	LF	255.000	255.000
0188	653.0135	Pull Boxes Steel 24x36-Inch	EACH	1.000	1.000
0190	653.0900	Adjusting Pull Boxes	EACH	7.000	7.000
0192	654.0101	Concrete Bases Type 1	EACH	1.000	1.000
0194	654.0102	Concrete Bases Type 2	EACH	2.000	2.000
0196	655.0800	Loop Detector Wire	LF	940.000	940.000

Estimate Of Quantities

1020-02-83

Line	Item	Item Description	Unit	Total	Qty
0198	661.0200	Temporary Traffic Signals for Intersections (location) 01. IH 94 WB Ramps & Carmichael Road	LS	1.000	1.000
0200	661.0300	Generators	DAY	2.000	2.000
0202	690.0150	Sawing Asphalt	LF	60.000	60.000
0204	690.0250	Sawing Concrete	LF	1,288.000	1,288.000
0206	715.0603	Incentive Strength Concrete Barrier	DOL	54.000	54.000
0208	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0210	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	300.000	300.000
0212	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000
0214	SPV.0060	Special 01. Temporary Vehicle Detection	EACH	1.000	1.000
0216	SPV.0060	Special 02. Temporary EVP System	EACH	1.000	1.000
0218	SPV.0060	Special 03. Remove, Salvage, and Reinstall Traffic Signal Equipment	EACH	3.000	3.000
0220	SPV.0060	Special 04. Replumb Existing Pole	EACH	2.000	2.000
0222	SPV.0165	Special 01. Fiber Wrap Reinforcing Non-Structural	SF	120.000	120.000
0224	SPV.0180	Special 01. Abutment Seat Cleaning and Sealing	SY	57.000	57.000

3

REMOVALS

CATEGORY	STAGE	STATION	LOCATION	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY	204.0157 REMOVING CONCRETE BARRIER LF	205.0100 EXCAVATION COMMON CY	COMMENTS
0010	1A	102+95'CR' - 105+06'CR'	RT	158		176	102		50	COMMON FOR TEMP PAVEMENT INSTALL
		107+35'CR' - 107+65'CR'	RT	74			17			
		108+69'CR' - 110+30'CR	RT			283	371		190	COMMON FOR TEMP PAVEMENT INSTALL
		STAGE 1A SUBTOTALS		232	0	459	490	0	240	
	1B	104+58'CR' - 105+10'CR'	RT	133				22		
		107+38'CR' - 107+80'CR'	RT	57				36		
		STAGE 1B SUBTOTALS		190	0	0	0	58	0	
	2A	104+80'CR' - 105+02'CR'	LT	34						
		107+31'CR' - 107+58'CR'	LT	51						
		STAGE 2A SUBTOTALS		85	0	0	0	0	0	
	2B	104+75'CR' - 104+97'CR'	LT				18	21		
		107+29'CR' - 107+86'CR'	LT				27	29		
		STAGE 2B SUBTOTALS		0	0	0	45	50	0	
	2C	104+80'CR' - 105+00'CR'	LT/RT	49						
		107+34'CR' - 107+65'CR'	LT/RT	54		7				
		STAGE 2C SUBTOTALS		103	0	7	0	0	0	
	3	102+95'CR' - 104+42'CR'	RT		125					
		108+69'CR' - 110+30'CR	RT		235					
		STAGE 3 SUBTOTALS		0	360	0	0	0	0	
		PROJECT TOTALS		610	360	466	535	108	240	

BASE AGGREGATE DENSE

CATEGORY	STAGE	STATION	LOCATION	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL	COMMENTS
0010	1A	102+95'CR' - 104+42'CR'	RT	67	0.7	TEMP PAVEMENTS
		104+22'CR' - 105+16'CR'	RT	41	0.4	CONCRETE PAVEMENTS
		107+37'CR' - 107+65'CR'	RT	27	0.3	CONCRETE PAVEMENTS
		108+69'CR' - 110+21'CR'	RT	130	1.3	TEMP PAVEMENTS
		STAGE 1 SUBTOTALS		265	2.7	
	1B	104+58'CR' - 105+10'CR'	RT	45	0.5	CONCRETE PAVEMENTS
		107+38'CR' - 107+80'CR'	RT	20	0.2	CONCRETE PAVEMENTS
		STAGE 1B SUBTOTALS		65	0.7	
	2A	104+80'CR' - 105+02'CR'	LT	12	0.1	CONCRETE PAVEMENTS
		107+31'CR' - 107+58'CR'	LT	18	0.2	CONCRETE PAVEMENTS
		STAGE 2A SUBTOTALS		30	0.3	
	2B	104+75'CR' - 104+97'CR'	LT	6	0.1	CONCRETE SIDEWALK
		107+29'CR' - 107+86'CR'	LT	9	0.1	CONCRETE SIDEWALK
		STAGE 2B SUBTOTALS		15	0.2	
	2C	104+80'CR' - 105+00'CR'	LT/RT	16	0.2	CONCRETE PAVEMENTS
		107+34'CR' - 107+65'CR'	LT/RT	18	0.2	CONCRETE PAVEMENTS
		STAGE 2C SUBTOTALS		34	0.3	
	3	102+95'CR' - 104+42'CR'	RT	42	0.4	CONCRETE PAVEMENTS
		108+69'CR' - 110+30'CR	RT	45	0.5	CONCRETE PAVEMENTS
		STAGE 3 SUBTOTALS		87	0.9	
		PROJECT TOTALS		496	5.0	

CONCRETE BASE REMOVALS

EXISTING BASE NUMBER	204.0195 REMOVING CONCRETE BASES EACH
IH 94 WB RAMPS & CARMICHAEL ROAD	
SB1	1
SB2	1
SB3	1
ITEM TOTALS	3

CONCRETE ITEMS

CATEGORY	STAGE	STATION	LOCATION	415.1080 CONCRETE PAVEMENT HES 8-INCH SY	415.1410 CONCRETE PAVEMENT APPROACH SLAB HES SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	602.0410 CONCRETE SIDEWALK 5-INCH SF	603.0105 CONCRETE BARRIER SINGLE-FACED 32-INCH LF	COMMENTS
0010	1A	104+22'CR' - 105+16'CR'	RT	74	62	13	10	23				
		107+37'CR' - 107+65'CR'	RT		66		16	27				
		STAGE 1A SUBTOTALS		74	128	13	26	50	0	0	0	
	1B	104+58'CR' - 105+10'CR'	RT	59	75	32	16				22	
		107+38'CR' - 107+80'CR'	RT		57		24				36	
		STAGE 1B SUBTOTALS		59	132	32	40	0	0	0	58	
	2A	104+80'CR' - 105+02'CR'	LT		34		16					
		107+31'CR' - 107+58'CR'	LT		51		16					
		STAGE 2A SUBTOTALS		0	85	0	32	0	0	0	0	
	2B	104+75'CR' - 104+97'CR'	LT					8		163	21	
		107+29'CR' - 107+86'CR'	LT					12		244	29	
		STAGE 2B SUBTOTALS		0	0	0	0	20	0	407	50	
	2C	104+80'CR' - 105+00'CR'	LT/RT		43	8	18	22		126		
		107+34'CR' - 107+65'CR'	LT/RT		48	12	16	29		158		
		STAGE 2C SUBTOTALS		0	91	20	34	51	0	284	0	
	3	102+95'CR' - 104+42'CR'	RT	8		93	6	233		807		
		108+69'CR' - 110+30'CR	RT			101		253	30	3392		
		STAGE 3 SUBTOTALS		8	0	194	6	486	30	4199	0	
		PROJECT TOTALS		141	436	259	138	607	30	4890	108	

ASPHALTIC SURFACE TEMPORARY

CATEGORY	STAGE	STATION	465.0125 TON	COMMENTS
0010	1A	102+95'CR' - 104+42'CR'	35	
		108+69'CR' - 110+21'CR'	66	
		STAGE 1 SUBTOTALS	101	
		PROJECT TOTALS	101	

3

CONCRETE BARRIER TEMPORARY PRECAST

CATEGORY	STAGE	STATION	LOCATION	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	614.0905 CRASH CUSHIONS TEMPORARY EACH	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
0010	1A	102+77'CR' - 107+79'CR'	RT	500	500	1	2	OM-3L	TL-3	UNIDIRECTIONAL	RT	TEMPORARY CONCRETE BARRIER
		STAGE 1A SUBTOTALS		500	500	1						
	1B	104+00'CR' - 107+95'CR'	RT		395	1	2	OM-3R	TL-3	UNIDIRECTIONAL	LT	TEMPORARY CONCRETE BARRIER
		STAGE 1B SUBTOTALS		0	395	1						
	2A	104+30'CR' - 107+98'CR'	LT	375	375	1	2	OM-3R	TL-3	UNIDIRECTIONAL	LT	TEMPORARY CONCRETE BARRIER
		STAGE 2A SUBTOTALS		375	375	1						
	2B	107+86'CR' - 108+18'CR'	LT	38	38							
		STAGE 2B SUBTOTALS		38	38	0						
	2C	104+25'CR' - 107+70'CR'			350	1	2	OM-3L	TL-3	UNIDIRECTIONAL	RT	TEMPORARY CONCRETE BARRIER
		STAGE 2C SUBTOTALS		0	350	1						
		PROJECT TOTALS		913	1658	4						

MAINTENANCE AND REPAIR OF HAUL ROADS

CATEGORY	PROJECT	618.0100 EACH
0010	1020-02-83	1
	PROJECT TOTAL	1

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EROSION CONTROL ITEMS

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBLIZATIONS EMERGENCY EROSION CONTROL EACH	628.7015 INLET PROTECTION TYPE C EACH
0010	PROJECT	6	4	20
	UNDISTRIBUTED (25%)			5
	PROJECT TOTALS	6	4	25

DRAINAGE ITEMS

CATEGORY	STAGE	STATION	LOCATION	611.0651 INLET COVERS TYPE S EACH	611.8115 ADJUSTING INLET COVERS EACH	611.9710 SALVAGED INLET COVERS EACH	COMMENTS
0010	1A	104+20'CR'	RT	1			
		STAGE 1A SUBTOTALS		1	0	0	
	1B	107+66'CR'	RT		1		
		STAGE 1B SUBTOTALS		0	1	0	
	2B	107+66'CR'	LT		1		
		STAGE 2B SUBTOTALS		0	1	0	
	3	104+20'CR'	RT			1	
		STAGE 3 SUBTOTALS		0	0	1	
		PROJECT TOTALS		1	2	1	

REMOVING & MOVING SIGN TYPE II ITEMS

CATEGORY	STAGE	SIGN #	SIGN CODE	SIGN MESSAGE	LOCATION	* 638.2102 MOVING SIGNS TYPE II (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	COMMENTS
0010		M02 01		HOSPITAL/ARROW	MEDIAN	2			RESET ON EXISTING SUPPORT
		R02 01		ROUTE ASSEMBLY	MEDIAN		7	1	
		R02 02		NO LEFT TURN			1		
		R02 03		FOLDING STOP			1		
		R02 04		ROUTE ASSEMBLY	CARMICHAEL RD NB		3		
		R02 05		DOUBLE DIAGONAL ARROW	EB ENTRANCE RAMP		1	1	
		R02 06		FOLDING STOP	EB ENTRANCE RAMP		1		BANDED TO SIGNAL BASE
		R02 07		ONE WAY	EB ENTRANCE RAMP		1		BANDED TO SIGNAL BASE
		R02-08		STAY RIGHT	MEDIAN		1		BANDED TO SIGNAL BASE
		R02-09		NO U TURN	MEDIAN		1		BANDED TO SIGNAL BASE
		R02-10		LEFT TURN SIGNAL	MEDIAN		1		BANDED TO SIGNAL BASE
		R02-11		FOLDING STOP	MEDIAN		1		BANDED TO SIGNAL BASE
		R02-12		RIGHT ONLY	S-55-0029		1		OVERHEAD
		R02-13		RIGHT ONLY	S-55-0029		1		OVERHEAD
		R02-14		STRAIGHT ONLY	S-55-0029		1		OVERHEAD
		R02-15		STRAIGHT ONLY	S-55-0029		1		OVERHEAD
		R02-16		ARROW/ST PAUL	S-55-0029		1		BANDED TO BASE
		R02-17		WRONG WAY	CARMICHAEL RD SB		1	1	
		R02-18		NO RIGHT TURN	CARMICHAEL RD SB		1		
		R02-19		DO NOT ENTER	CARMICHAEL RD SB		1	1	
		R02-20		ROUTE ASSEMBLY	MEDIAN		7	2	
		R02-21		FOLDING STOP	CARMICHAEL RD SB		1		BANDED TO SIGNAL BASE
		R02-22		DO NOT ENTER	EB EXIT RAMP		1		
		R02-23		J SERIES	EB EXIT RAMP		1	1	
		R02-24		FOLDING STOP	EB EXIT RAMP		1		BANDED TO SIGNAL BASE
		R02-25		DIVIDED HIGHWAY	EB EXIT RAMP		1		BANDED TO SIGNAL BASE
		R02-26		FOLDING STOP	EB EXIT RAMP		1		BANDED TO SIGNAL BASE
		R02-27		LEFT TURN SIGNAL	MEDIAN		1		BANDED TO SIGNAL BASE
		R02-28		NO U TURN	MEDIAN		1		BANDED TO SIGNAL BASE
		R02-29		ONE WAY	MEDIAN		1		BANDED TO SIGNAL BASE
		R03-01		LEFT TURN SIGNAL	MEDIAN		1		BANDED TO SIGNAL BASE
		R03-02		FOLDING STOP	MEDIAN		1		BANDED TO SIGNAL BASE
		R03-03		NO RIGHT TURN	CARMICHAEL RD NB		1		BANDED TO SIGNAL BASE
		R03-04		FOLDING STOP	CARMICHAEL RD NB		1		BANDED TO SIGNAL BASE
		R03-05		STAY RIGHT	MEDIAN		1		BANDED TO SIGNAL BASE
		R03-06		NO U TURN	MEDIAN		1		BANDED TO SIGNAL BASE
		R03-07		DO NOT ENTER	WB EXIT RAMP		1	1	
		R03 08		CTH F/ARROW	WB EXIT RAMP		2		
		R03 09		FOLDING STOP	WB EXIT RAMP		1		BANDED TO SIGNAL BASE
		R03 10		DIVIDED HIGHWAY	WB EXIT RAMP		1		BANDED TO SIGNAL BASE
		R03 11		DOUBLE DIAGONAL ARROW	WB EXIT RAMP		1	1	
		R03 12		FOLDING STOP	WB EXIT RAMP		1		BANDED TO SIGNAL BASE
		R03 13		FOLDING STOP	WB EXIT RAMP		1		BANDED TO SIGNAL BASE
		R03 14		DO NOT ENTER	WB EXIT RAMP		1		BANDED TO SIGNAL BASE
		R03 15		DO NOT ENTER	WB EXIT RAMP		1		BANDED TO SIGNAL BASE
		R03 16		ONE WAY	WB EXIT RAMP		1		BANDED TO SIGNAL BASE
		R03 17		HOSPITAL/ALT 94	MEDIAN		1		BANDED TO SIGNAL BASE
		R03-18		ONE WAY	MEDIAN		1		BANDED TO SIGNAL BASE
		R03-19		ROUTE ASSEMBLY	CARMICHAEL RD SB		1	2	
		R03-20		ROUTE ASSEMBLY	MEDIAN		2	2	
		R03-21		FOLDING STOP	WB ENTRANCE RAMP		1		BANDED TO SIGNAL BASE
		R03-22		ONE WAY	WB ENTRANCE RAMP		1		BANDED TO SIGNAL BASE
		R03-23		ONE WAY	WB ENTRANCE RAMP		1		BANDED TO SIGNAL BASE
		R03-24		FOLDING STOP	MEDIAN		1		BANDED TO SIGNAL BASE
		R03-25		NO LEFT TURN	MEDIAN		1		BANDED TO SIGNAL BASE
		R03-26		NO U TURN	MEDIAN		1		BANDED TO SIGNAL BASE
		R03-27		CRESTVIEW DR/EAU CLAIRE/RIVER FALLS	CARMICHAEL RD SB		1	3	
		R03-28		ROUTE ASSEMBLY	MEDIAN		2	2	
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE					PROJECT TOTALS	2	74	18	

PERMANENT SIGNING TYPE II

CATEGORY	SIGN #	SIGN CODE	SIZE (INCH)	X	(INCH)	LOCATION	637.2210 SIGNS TYPE II REFLECTIVE H (SF)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)	634.0612 POSTS WOOD 4X6-INCH X 12 FT (EACH)	634.0614 POSTS WOOD 4X6-INCH X 14 FT (EACH)	634.0616 POSTS WOOD 4X6-INCH X 16 FT (EACH)	634.0618 POSTS WOOD 4X6-INCH X 18 FT (EACH)	634.0622 POSTS WOOD 4X6-INCH X 22 FT (EACH)	REMARKS
0010	01-01	J1-1	36	X	57	CARMICHAEL RD NB	14.25				1			J SERIES
	01-02	D1-72	108	X	60	CARMICHAEL RD NB	45.00					2		W/E 94
	02-01	R3-1	24	X	24	MEDIAN	4.00							NO LEFT TURN
	02-02	R1-1F	30	X	30	MEDIAN	5.18							FOLDING STOP
	02-03	D1-71	102	X	96	CARMICHAEL RD NB	68.00						2	W/E 94
	02-04	W12-1D	30	X	30	EB ENTRANCE RAMP		6.25	1					DOUBLE DIAGONAL ARROW
	02-05	R1-1F	30	X	30	EB ENTRANCE RAMP	5.18							FOLDING STOP; BAND TO SIGNAL BASE
	02-06	R6-2L	30	X	36	EB ENTRANCE RAMP	7.50							ONE WAY; BAND TO SIGNAL BASE
	02-07	R4-7	24	X	30	MEDIAN	5.00							STAY RIGHT; BAND TO SIGNAL BASE
	02-08	R3-4	24	X	30	MEDIAN	5.00							NO U-TURN; BAND TO SIGNAL BASE
	02-09	R10-10L	24	X	30	MEDIAN	5.00							LEFT TURN SIGNAL; BAND TO SIGNAL BASE
	02-10	R1-1F	30	X	30	MEDIAN	5.18							FOLDING STOP; BAND TO SIGNAL BASE
	02-11	J2-1	24	X	57	MEDIAN	9.50				1			J SERIES
	02-12	R3-5I	42	X	48	S-55-0029	14.00							LEFT TURN ONLY
	02-13	R3-5L	42	X	48	S-55-0029	14.00							LEFT TURN ONLY
	02-14	R3-5A	42	X	48	S-55-0029	14.00							STRAIGHT ONLY
	02-15	R3-5A	42	X	48	S-55-0029	14.00							STRAIGHT ONLY
	02-16	R5-1A	42	X	30	CARMICHAEL RD SB	8.75			1				WRONG WAY
	02-17	R3-1	36	X	36	CARMICHAEL RD SB	9.00							NO RIGHT TURN
	02-18	R5-1	36	X	36	CARMICHAEL RD SB	9.00			1				DO NOT ENTER
	02-19	D1-70	102	X	48	MEDIAN	34.00					2		94 E EAU CLAIRE
	02-20	R1-1F	30	X	30	CARMICHAEL RD SB	5.18							FOLDING STOP; BAND TO SIGNAL BASE
	02-21	R5-1	36	X	36	EB EXIT RAMP	9.00							DO NOT ENTER
	02-22	J2-2	48	X	57	EB EXIT RAMP	19.00				1			J SERIES
	02-23	R1-1F	30	X	30	EB EXIT RAMP	5.18							FOLDING STOP; BAND TO SIGNAL BASE
	02-24	R6-3	30	X	24	EB EXIT RAMP	5.00							DIVIDED HIGHWAY; BAND TO SIGNAL BASE
	02-25	R1-1F	30	X	30	EB EXIT RAMP	5.18							FOLDING STOP; BAND TO SIGNAL BASE
	02-26	R10-10L	24	X	30	MEDIAN	5.00							LEFT TURN SIGNAL; BAND TO SIGNAL BASE
	02-27	R3-4	24	X	24	MEDIAN	4.00							NO U-TURN; BAND TO SIGNAL BASE
	02-28	R6-2R	24	X	30	MEDIAN	5.00							ONE WAY; BAND TO SIGNAL BASE
	03-01	R10-10I	24	X	30	MEDIAN	5.00							LEFT TURN SIGNAL; BAND TO SIGNAL BASE
	03-02	R1-1F	30	X	30	MEDIAN	5.18							FOLDING STOP; BAND TO SIGNAL BASE
	03-03	R3-1	24	X	24	CARMICHAEL RD NB	4.00							NO RIGHT TURN; BAND TO SIGNAL BASE
	03-04	R1-1F	30	X	30	CARMICHAEL RD NB	5.18							FOLDING STOP; BAND TO SIGNAL BASE
	03-05	R4-7	24	X	30	MEDIAN	5.00							STAY RIGHT; BAND TO SIGNAL BASE
	03-06	R3-4	24	X	24	MEDIAN	4.00							NO U-TURN; BAND TO SIGNAL BASE
	03-07	R5-1	30	X	30	WB EXIT RAMP	6.25			1				DO NOT ENTER
	03-08	J13-1	24	X	45	WB EXIT RAMP	7.50							J SERIES
	03-09	R1-1F	30	X	30	WB EXIT RAMP	5.18							FOLDING STOP; BAND TO SIGNAL BASE
	03-10	R6-3	30	X	24	WB EXIT RAMP	5.00							DIVIDED HIGHWAY; BAND TO SIGNAL BASE
	03-11	W12-1D	30	X	30	WB EXIT RAMP		6.25	1					DOUBLE DIAGONAL ARROW
	03-12	R1-1F	30	X	30	WB EXIT RAMP	5.18							FOLDING STOP; BAND TO SIGNAL BASE
	03-13	R1-1F	30	X	30	WB EXIT RAMP	5.18							FOLDING STOP; BAND TO SIGNAL BASE
	03-14	R5-1	30	X	30	WB EXIT RAMP	6.25							DO NOT ENTER; BAND TO SIGNAL BASE
	03-15	R5-1	30	X	30	WB EXIT RAMP	6.25							DO NOT ENTER; BAND TO SIGNAL BASE
	03-16	R6-2L	30	X	36	WB EXIT RAMP	7.50							ONE WAY; BAND TO SIGNAL BASE
	03-17	J3-2	48	X	57	MEDIAN	19.00							J SERIES; BAND TO SIGNAL BASE
	03-18	R6-2R	24	X	30	MEDIAN	5.00							ONE WAY; BAND TO SIGNAL BASE
	03-19	R1-1F	30	X	30	WB ENTRANCE RAMP	5.18							FOLDING STOP; BAND TO SIGNAL BASE
	03-20	R6-2L	30	X	36	WB ENTRANCE RAMP	7.50							ONE WAY; BAND TO SIGNAL BASE
	03-21	R6-2L	30	X	36	WB ENTRANCE RAMP	7.50							ONE WAY; BAND TO SIGNAL BASE
	03-22	R1-1F	30	X	30	MEDIAN	5.18							FOLDING STOP; BAND TO SIGNAL BASE
	03-23	R3-2	24	X	24	MEDIAN	4.00							NO LEFT TURN; BAND TO SIGNAL BASE
	03-24	R3-4	24	X	24	MEDIAN	4.00							NO U-TURN; BAND TO SIGNAL BASE
	03-25	D1-70	102	X	48	MEDIAN	34.00					2		94 W; ST PAUL
	03-26	J2-1	24	X	57	MEDIAN	9.50				1			J SERIES
	04-01	J1-1	36	X	57	CARMICHAEL RD SB	14.25				1			J SERIES
	04-02	D1-71	102	X	96	CARMICHAEL RD SB	68.00						2	W/E 94
						PROJECT TOTALS	623.84	12.50	2	3	5	6	4	

TRAFFIC CONTROL

CATEGORY	STAGE	PROJECT LOCATION	APPROX. SERVICE PERIOD DAYS	643.0300 TRAFFIC CONTROL DRUMS QTY.	643.0300 DAYS	643.0410 TRAFFIC CONTROL BARRICADES TYPE II QTY.	643.0410 DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III QTY.	643.0420 DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A QTY.	643.0705 DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C QTY.	643.0715 DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS QTY.	643.0800 DAYS	643.0900 TRAFFIC CONTROL SIGNS QTY.	643.0900 DAYS	643.1050 TRAFFIC CONTROL SIGNS PCMS QTY.	643.1050 DAYS
0010	1A	PROJECT	12	165	1980		0	7	84	14	168	22	264	1	12	53	636	2	24
		STAGE 1A SUBTOTALS			1980		0		84		168		264		12		636		24
	1B	PROJECT	12	115	1380		0	6	72	12	144	14	168	1	12	45	540	2	24
		STAGE 1B SUBTOTALS			1380		0		72		144		168		12		540		24
	2A	PROJECT	11	165	1815		0	6	66	12	132	14	154	1	11	52	572	2	22
		STAGE 2A SUBTOTALS			1815		0		66		132		154		11		572		22
	2B	PROJECT	9	165	1485	2	18	6	54	16	144	14	126	1	9	54	486	2	18
		STAGE 2B SUBTOTALS			1485		18		54		144		126		9		486		18
	2C	PROJECT	11	170	1870		0	6	66	12	132	14	154	1	11	52	572	2	22
		STAGE 2C SUBTOTALS			1870		0		66		132		154		11		572		22
	3	PROJECT	5	170	850		0	6	30	12	60	12	60	1	5	45	225	2	10
		STAGE 3 SUBTOTALS			850		0		30		60		60		5		225		10
	4	PROJECT	5	200	1000	2	10	6	30	16	80	12	60	1	5	50	250	2	10
		STAGE 4 SUBTOTALS			1000		10		30		80		60		5		250		10
		PROJECT TOTALS			10380		28		402		860		986		65		3281		130

TRAFFIC CONTROL COVERING SIGNS

PROJECT NUMBER	NUMBER OF CYCLES	NUMBER OF SIGNS	643.0920 TYPE II (EACH)	COMMENTS
1020-02-83	1	1	1	STAGE 1B; WB EXIT RAMP
			1	

TEMPORARY MOVING SIGNS

CATEGORY	STAGE	LOCATION	* 638.2102 MOVING SIGNS TYPE II EACH	COMMENTS
0010	1-3	CREST VIEW DR	3	OVERHEAD SIGN STRUCTURE
		STAGE SUBTOTALS	3	
		PROJECT TOTALS	3	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER ITEMS

CATEGORY	STAGE	STATION	LOCATION	643.0500 POSTS EACH	643.0600 BASES EACH	COMMENTS
0010	2A	103+78'CR'- 107+78'CR'	RT	23	23	
		108+91'CR' - 109+51'CR'	LT	7	7	
		STAGE 2A SUBTOTALS		30	30	
	2C	110+10'CR' - 110+70'CR'	LT	7	7	
		STAGE 2C SUBTOTALS		7	7	
		PROJECT TOTALS		37	37	

TEMPORARY PEDESTRIAN ITEMS

CATEGORY	STAGE	STATION	LOCATION	644.1601 CURB RAMP DAY	611.1810 BARRICADE LF	COMMENTS
0010	2B	104+50 - 108+25	LT	14	440	
		STAGE 2B SUBTOTALS		14	440	
	4	104+50 - 108+25	LT	1	800	
		STAGE 2B SUBTOTALS		1	800	
		PROJECT TOTALS		15	1240	

3

PERMANENT MARKINGS

CATEGORY	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH WHITE LF	646.5020 MARKING ARROW EPOXY WHITE EACH	646.5120 MARKING WORD EPOXY WHITE EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH WHITE LF	646.8120 MARKING CURB EPOXY YELLOW LF	646.8220 MARKING ISLAND NOSE EPOXY YELLOW EACH	COMMENTS
0010	CARMICHAEL RD NB	218	586	4	2	51	56	2	INCLUDES MEDIAN
	CARMICHAEL RD SB	294	171	2	1	49			
	PROJECT TOTALS	512	757	6	3	100	56	2	

TEMPORARY MARKING ITEMS

CATEGORY	STAGE	LOCATION	649.0150 LINE REMOVABLE TAPE 4-INCH (YELLOW) LF	649.0150 LINE REMOVABLE TAPE 4-INCH (WHITE) LF	649.0250 LINE REMOVABLE TAPE 8-INCH (YELLOW) LF	649.0250 LINE REMOVABLE TAPE 8-INCH (WHITE) LF	649.0960 REMOVABLE MASK OUT TAPE 6-INCH LF	649.0970 REMOVABLE MASK OUT TAPE 10-INCH LF	646.9000 MARKING REMOVAL LINE 4-INCH LF	646.9100 MARKING REMOVAL LINE 8-INCH LF	646.9300 MARKING REMOVAL SPECIAL MARKING EACH	COMMENTS
0010	1A	PROJECT	2210	1869		100	301	150	126	251		
		STAGE 1A SUBTOTALS	2210	1869	0	100	301	150	126	251	0	
			4079		100							
	1B	PROJECT	590	1700		357	100	29	305	230	4	ARROW TYPE 2 / ONLY
		STAGE 1B SUBTOTALS	590	1700	0	357	100	29	305	230	4	
			2290		357							
	2A	PROJECT	2045	2099	40	1032	151	65	300		2	ARROW TYPE 2 / ONLY
		STAGE 2A SUBTOTALS	2045	2099	40	1032	151	65	300	0	2	
			4144		1072							
	2B	PROJECT		800								
		STAGE 2B SUBTOTALS	0	800	0	0	0	0	0	0	0	
			800		0							
	2C	PROJECT		1270		240	50	95				
		STAGE 2C SUBTOTALS	0	1270	0	240	50	95	0	0	0	
			1270		240							
	3	PROJECT	1945	2572		481	176	321			2	ARROW TYPE 2 / ONLY
		STAGE 3 SUBTOTALS	1945	2572	0	481	176	321	0	0	2	
			4517		481							
		PROJECT TOTALS	6790	10310	40	2210	778	660	731	481	8	
			17100		2250							

CONSTRUCTION STAKING CONCRETE PAVEMENT

CATEGORY	STAGE	STATION	LOCATION	650.7000 LF	COMMENTS
0010	1A	104+22'CR' - 105+16'CR'	RT	94	CONCRETE PAVEMENTS
		107+37'CR' - 107+65'CR'	RT	28	CONCRETE PAVEMENTS
		STAGE 1 SUBTOTALS		122	
	1B	104+58'CR' - 105+10'CR'	RT	52	CONCRETE PAVEMENTS
		107+38'CR' - 107+80'CR'	RT	42	CONCRETE PAVEMENTS
		STAGE 1B SUBTOTALS		94	
	2A	104+80'CR' - 105+02'CR'	LT	22	CONCRETE PAVEMENTS
		107+31'CR' - 107+58'CR'	LT	27	CONCRETE PAVEMENTS
		STAGE 2A SUBTOTALS		49	
	2C	104+80'CR' - 105+00'CR'	LT/RT	20	CONCRETE PAVEMENTS
		107+34'CR' - 107+65'CR'	LT/RT	31	CONCRETE PAVEMENTS
		STAGE 2C SUBTOTALS		51	
	3	102+95'CR' - 104+42'CR'	RT	147	CONCRETE PAVEMENTS
		STAGE 3 SUBTOTALS		147	
		PROJECT TOTALS		463	

CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS

CATEGORY	PROJECT	650.8500 LS
0010	1020-02-83	1
	PROJECT TOTAL	1

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

CATEGORY	PROJECT	650.9910 LS
0010	1020-02-83	1
	PROJECT TOTAL	1

3

CONDUIT

FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF
IH 94 WB RAMPS & CARMICHAEL ROAD		
PB1	SB1	14
PB1	SB2	25
PB1	SB3	40
	ITEM TOTALS	79

INSTALL INTO EXISTING ITEM

PULL BOX NUMBER	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH
IH 94 WB RAMPS & CAMICHAEL ROAD	
PB1	1
ITEM TOTALS	1

PULL BOXES

PULL BOX NUMBER	STATION	LOCATION	653.0135 PULL BOXES STEEL 24X36-INCH EACH	653.0900 ADJUSTING PULL BOXES EACH
IH 94 WB RAMPS & CARMICHAEL ROAD				
PB1		EXISTING	-	1
PB2		EXISTING	-	1
PB3		EXISTING	-	1
PB4		EXISTING	-	1
PB5		EXISTING	-	1
PB6		EXISTING	-	1
PB7		EXISTING	-	1
INTERSECTION TOTAL			0	7
IH 94 EB RAMPS & CARMICHAEL ROAD				
PB8	103+66.3 CR'	18.3', RT	1	-
INTERSECTION TOTAL			1	0
ITEM TOTAL			1	7

LOOP DETECTOR SCHEDULE

LOOP NUMBER	HOME RUN PB	STATION	LOCATION	SIZE (FT)X(FT)	NO. OF TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR LF	655.0800 LOOP DETECTOR WIRE LF
IH 94 WB RAMPS & CARMICHAEL ROAD									
51	PB8	EXISTING		EXISTING	EXISTING	EXISTNG	EXISTING	5	-
61	PB7	104+71.2 CR'	24.2', RT	6X15	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	60	180
62	PB7	104+71.2 CR'	40.3', RT	6X6	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	82	328
63	PB7	104+71.2 CR'	52.6', RT	6X6	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	108	432
							ITEM TOTALS	255	940

3

CONCRETE BASES

BASE NUMBER	STATION	LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH
IH 94 WB RAMPS & CARMICHAEL ROAD				
SB1	109+26.9 CR'	25.8', RT	--	1
SB2	108+97.6 CR'	26.5', RT	--	1
SB3	108+78.8 CR'	6.3', RT	1	--
	ITEM TOTALS		1	2

TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS

LOCATION	661.0200.01 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS LS	661.0300 GENERATORS DAY
IH 94 WB RAMPS & CARMICHAEL ROAD	1	2
	1	2

TEMPORARY VEHICLE DETECTION

LOCATION	SPV.0060.01 TEMPORARY VEHICLE DETECTION EACH
IH 94 WB RAMPS & CARMICHAEL ROAD	1
	1

TEMPORARY EVP SYSTEM

LOCATION	SPV.0060.02 TEMPORARY EVP SYSTEM EACH
IH 94 WB RAMPS & CARMICHAEL ROAD	1
	1

SAWING ITEMS

CATEGORY	STAGE	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	COMMENTS
0010	1A	102+95'CR' - 105+06'CR'	RT		372	
		107+41'CR' - 107+65'CR'	RT		56	
		108+69'CR' - 110+30'CR'	RT	30	328	
		STAGE 1A SUBTOTALS		30	756	
	1B	104+58'CR' - 105+10'CR'	RT		108	
		107+38'CR' - 107+80'CR'	RT		67	
		STAGE 1B SUBTOTALS		0	175	
	2A	104+80'CR' - 105+02'CR'	LT		52	
		107+31'CR' - 107+58'CR'	LT		70	
		STAGE 2A SUBTOTALS		0	122	
	2B	104+75'CR' - 104+97'CR'	LT		46	
		107+29'CR' - 107+86'CR'	LT		84	
		STAGE 2B SUBTOTALS		0	130	
	2C	104+80'CR' - 105+00'CR'	LT/RT		47	
		107+34'CR' - 107+65'CR'	LT/RT		58	
		STAGE 2C SUBTOTALS		0	105	
	3	110+00'CR' - 110+30	RT	30		
		STAGE 3 SUBTOTALS		30	0	
		PROJECT TOTALS		60	1288	

REMOVE, SALVAGE, AND REINTALL TRAFFIC SIGNAL EQUIPMENT

SIGNAL BASE NUMBER	SPV.0060.03 REMOVE, SALVAGE, AND REINSTALL TRAFFIC SIGNAL EQUIPMENT EACH
IH 94 WB RAMPS & CARMICHAEL ROAD	
SB1	1
SB2	1
SB3	1
ITEM TOTALS	3

3

KEYNOTE LEGEND: PLAN	
CB02	CONCRETE BARRIER SINGLE-FACED 32-INCH
CG06	CONCRETE CURB & GUTTER 30-INCH TYPE A
CP08	CONCRETE PAVEMENT HES 8-INCH
CS05	CONCRETE SIDEWALK 5-INCH
PV01	CONCRETE PAVEMENT APPROACH SLAB HES
SI01	SALVAGED INLET COVERS
SW02	SAWING CONCRETE

EROSION CONTROL LEGEND
- SURFACE WATER FLOW
- INLET PROTECTION TYPE C

N

EXISTING R/W (TYP)

EB EXIT RAMP

IH 94/USH 12/STH 35 EB

BEGIN PROJECT 1020-02-83
STA 102+95'CR'
Y=337,802.7637
X=520,211.0170

XCEL ENERGY - ELEC
SOMERSET TEL CO - TEL

INLET PROTECTION TYPE C
(TYPICAL, 8 LOCATIONS THIS SHEET)

CARMICHAEL RD SB

MATCH EXISTING
PAVEMENT EDGE (TYP)

WISDOT

WISDOT,
MNDOT,
CITY OF HUDSON

104+75.10'CR'
48.19'LT

104+75.16'CR'
40.09'LT

104+94.80'CR'
48.15'LT

104+95.85'CR'
40.16'LT

104+96.45'CR'
36.00'LT

104+75.34'CR'
36.00'LT

104+80.38'CR'
36.00'LT

104+80.23'CR'
1.84'RT

103+75.79'CR'
11.97'RT

104+10.00'CR'
8.86'RT

104+41.00'CR'
8.27'RT

102+95.00'CR'
11.71'RT

105+01.60'CR'
0.26'LT

105+03.01'CR'
10.48'RT

102+95.00'CR'
19.69'RT

103+45.00'CR'
22.45'RT

104+11.28'CR'
19.23'RT

104+41.78'CR'
16.21'RT

104+58.15'CR'
22.80'RT

104+80.19'CR'
12.39'RT

103+98.49'CR'
22.45'RT

104+11.49'CR'
23.19'RT

105+09.72'CR'
58.00'RT

104+58.02'CR'
58.00'RT

104+80.02'CR'
58.00'RT

104+90.45'CR'
58.00'RT

BM2

CARMICHAEL RD NB

EXISTING SIGN STRUCTURE
S-55-0029 TO REMAIN
SEE STRUCTURE PLANS

EXISTING STRUCTURE
B-55-118 TO REMAIN
SEE STRUCTURE PLAN

EB ENTRANCE RAMP

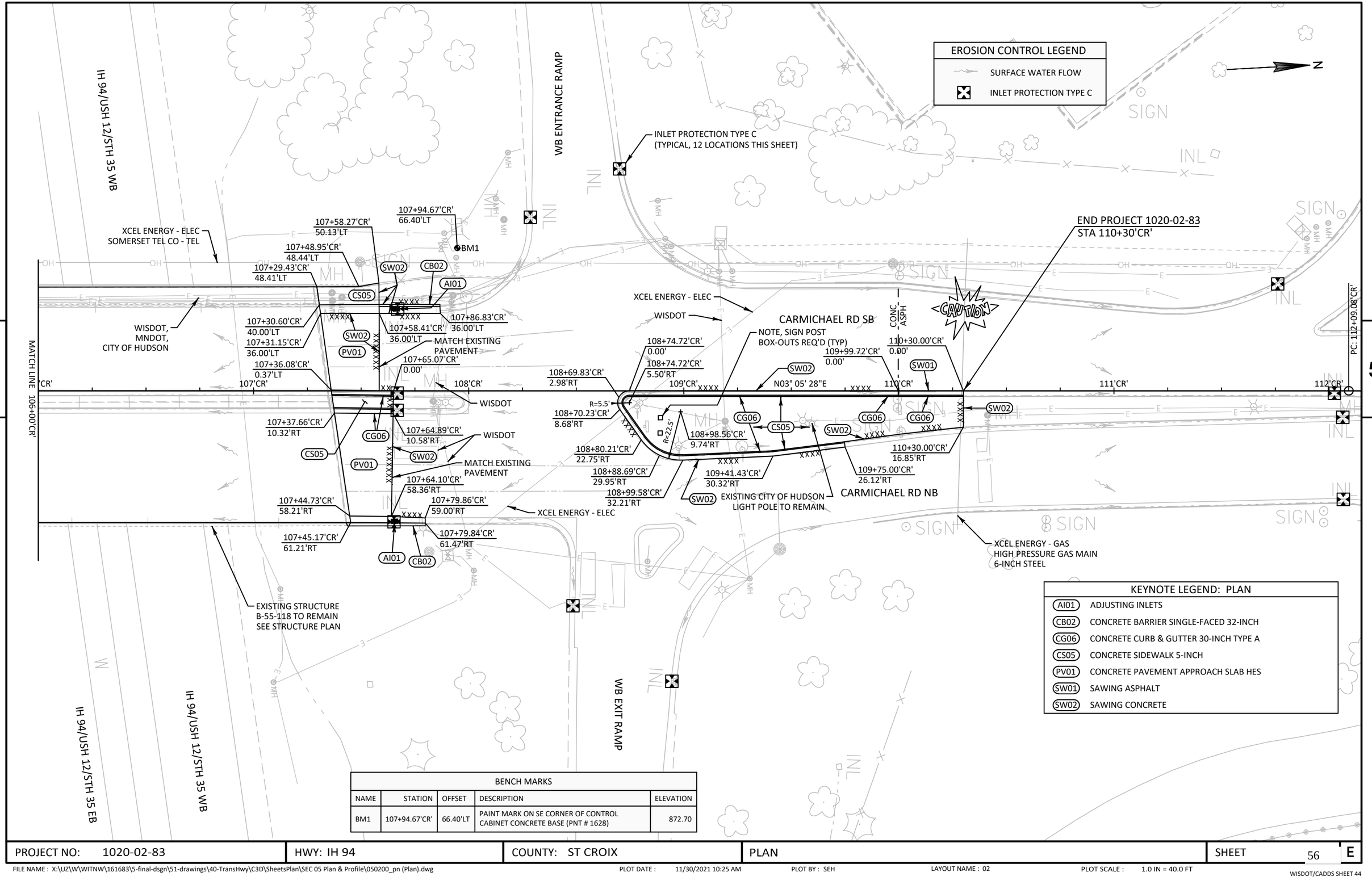
IH 94/USH 12/STH 35 EB

MATCH LINE 106+00'CR'

100'CR' 101'CR' N03° 05' 28"E 102'CR' 103'CR' 104'CR' 105'CR' 106

BENCH MARKS				
NAME	STATION	OFFSET	DESCRIPTION	ELEVATION
BM2	104+54.72'CR'	64.59'RT	PAINT MARK ON NW CORNER OF CONCRETE SIGN BASE, S-55-29 (PNT # 1629)	870.52

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	PLAN	SHEET 55 E



5

5

KEYNOTE LEGEND: PLAN	
AI01	ADJUSTING INLETS
CB02	CONCRETE BARRIER SINGLE-FACED 32-INCH
CG06	CONCRETE CURB & GUTTER 30-INCH TYPE A
CS05	CONCRETE SIDEWALK 5-INCH
PV01	CONCRETE PAVEMENT APPROACH SLAB HES
SW01	SAWING ASPHALT
SW02	SAWING CONCRETE

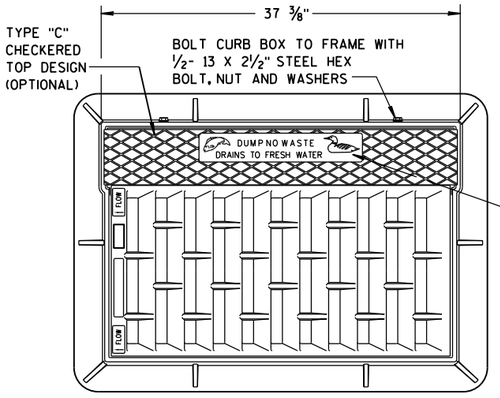
BENCH MARKS				
NAME	STATION	OFFSET	DESCRIPTION	ELEVATION
BM1	107+94.67'CR'	66.40'LT	PAINT MARK ON SE CORNER OF CONTROL CABINET CONCRETE BASE (PNT # 1628)	872.70

PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	PLAN	SHEET 56 E

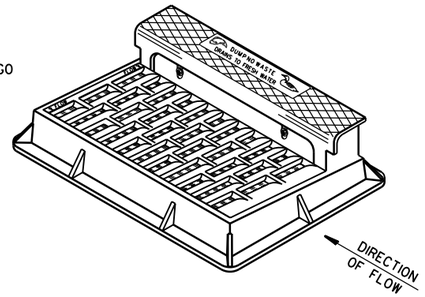
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09B02-10	CONDUIT
09B04-11	PULL BOX
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09E01-15A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09F01-04	DETAILS FOR THE INSTALLATION OF TEMPORARY TRAFFIC SIGNAL LOOP DETECTOR WIRES IN ANY EXISTING PAVEMENT
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-09	URBAN DOWELED CONCRETE PAVEMENT
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B22-06A	CONCRETE BARRIER, SINGLE-FACED (WITH ANCHORAGE)
14B22-06B	CONCRETE BARRIER, SINGLE-FACED (WITH ANCHORAGE)
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20B	PAVEMENT MARKING (TURN LANES)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15D20-05A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D20-05B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D20-05C	TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D30-06A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-06B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-06C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

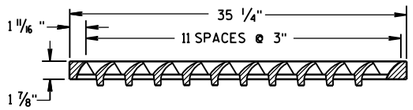
6

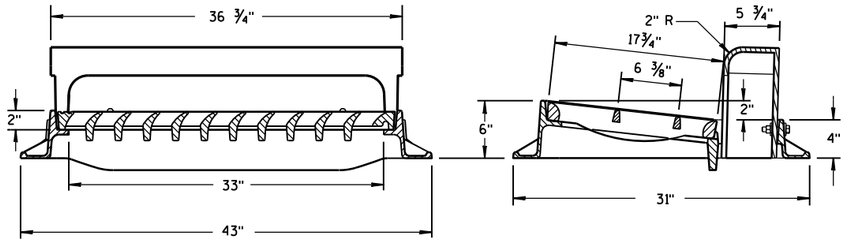


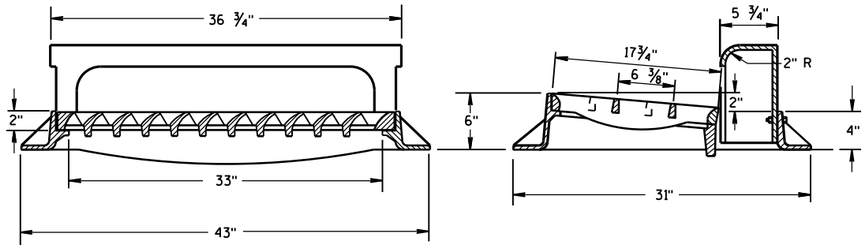
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

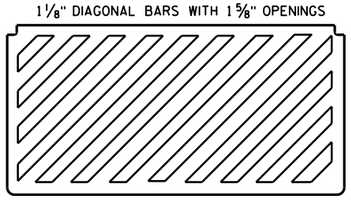






TYPE "H"

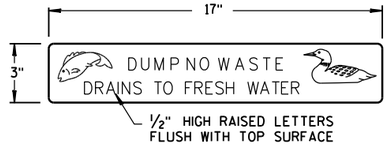
NOTE: EITHER CASTING IS ACCEPTABLE



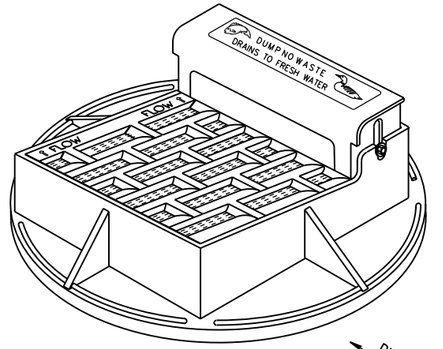
SPECIAL GRATE FOR TYPE "H" COVER

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

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

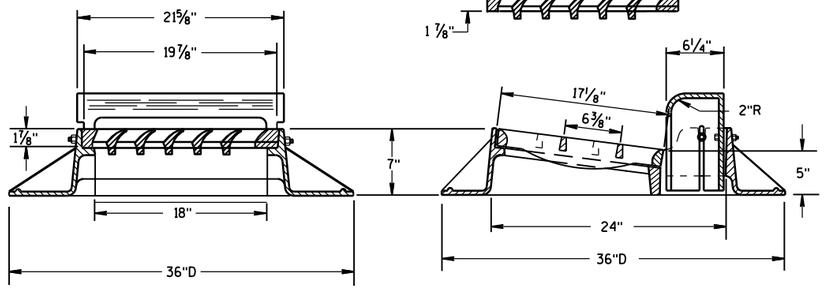


LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.



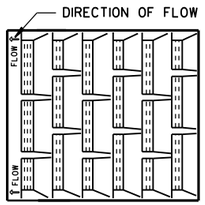
TYPE "A"

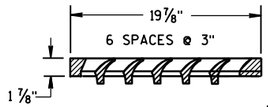
GENERAL NOTES

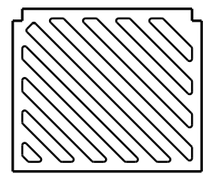
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

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



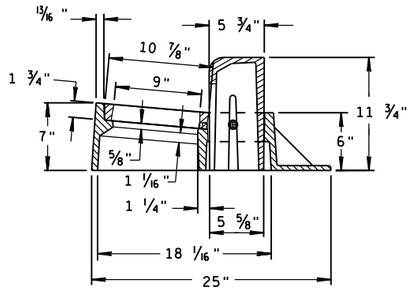


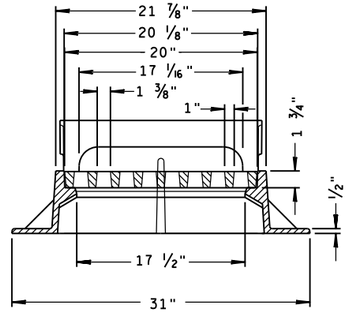


SPECIAL GRATE FOR TYPE "A" COVER

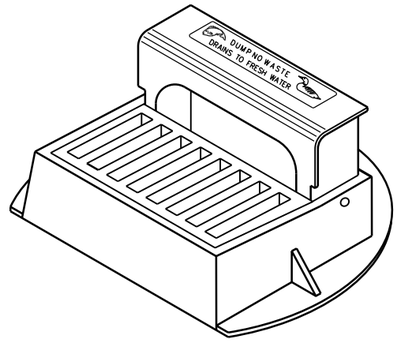
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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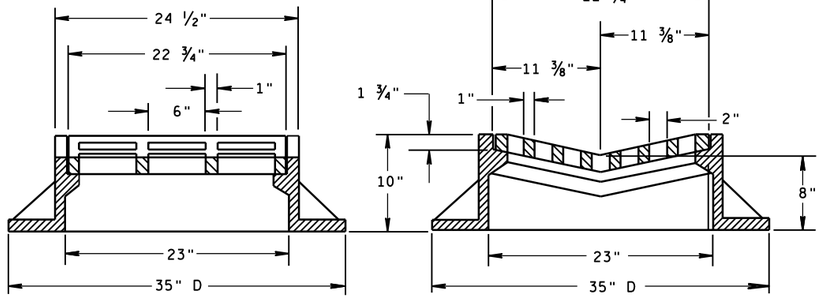
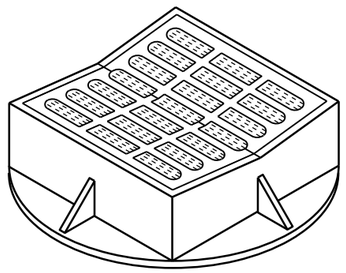
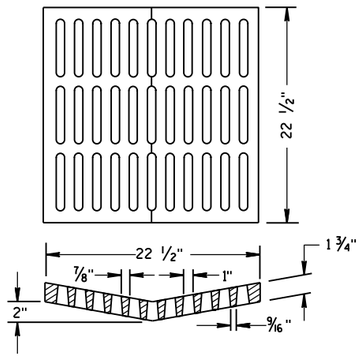
S.D.D. 8 A 5-19a



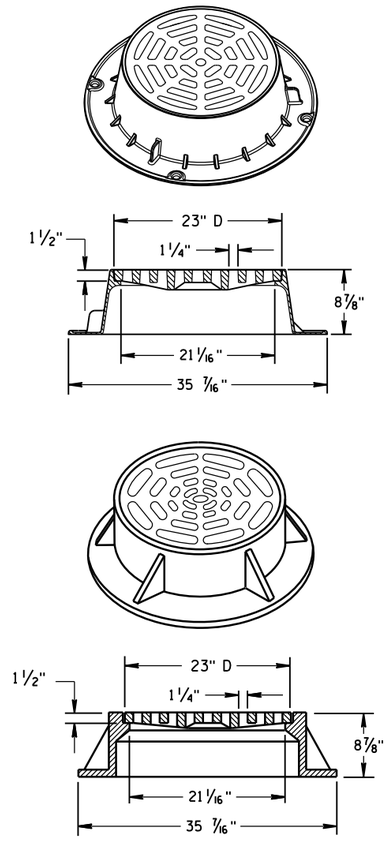


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

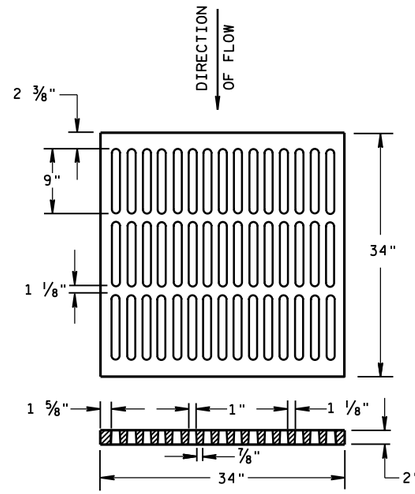
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

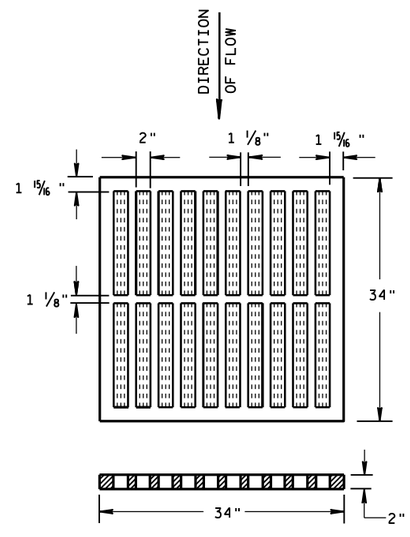
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



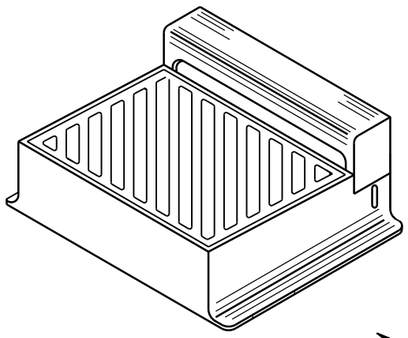
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

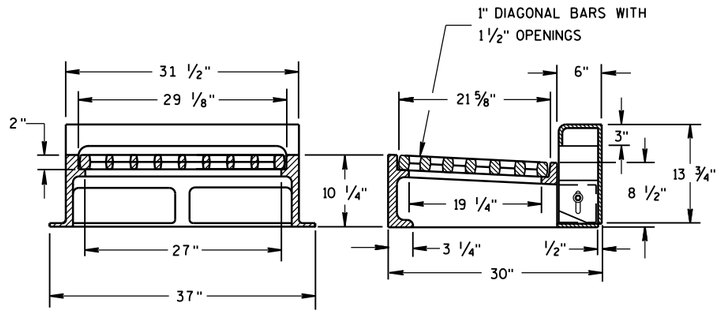


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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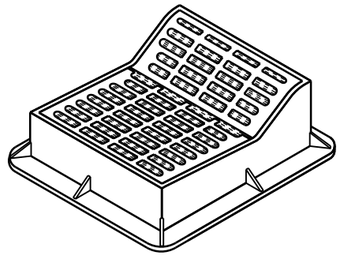
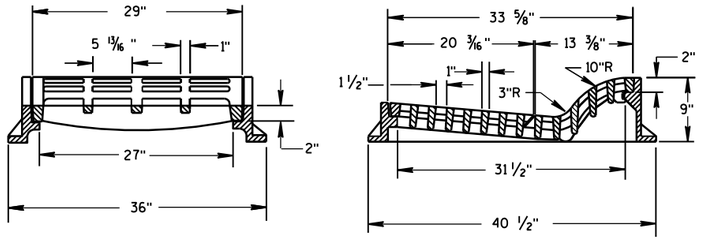
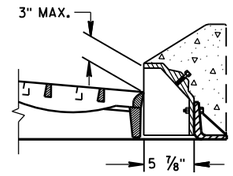
S.D.D. 8 A 5-19b





TYPE "F"

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



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

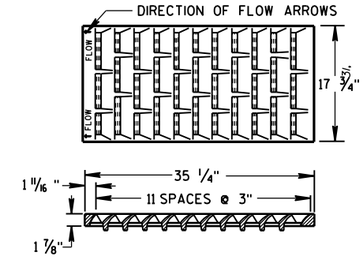
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

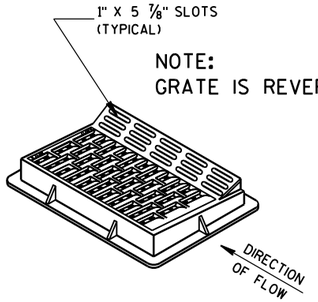
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

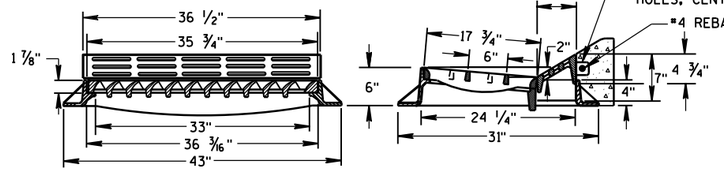
GENERAL NOTES

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

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



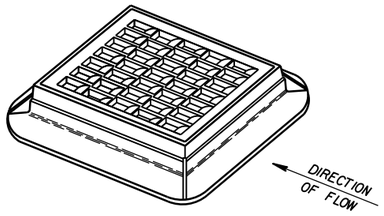


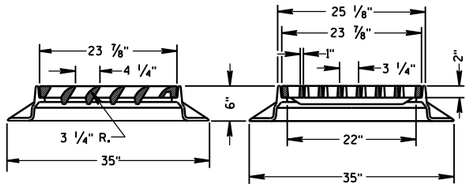


TYPE "HM"

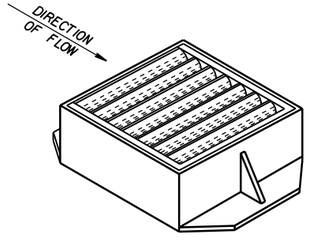
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

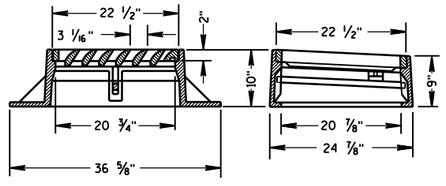
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



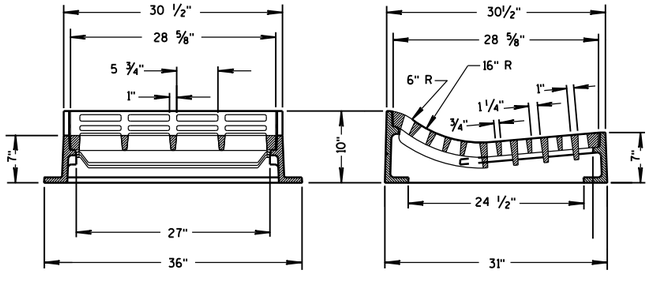


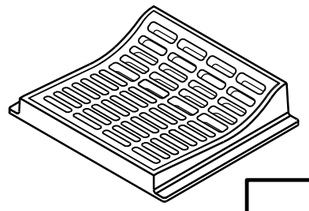
TYPE "S"





TYPE "V"





TYPE "T"

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

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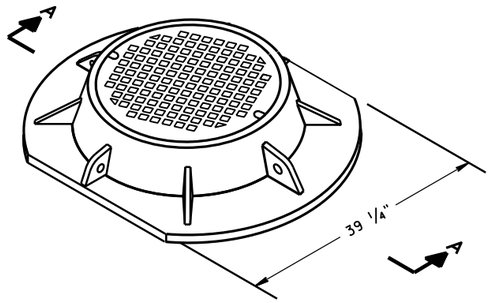
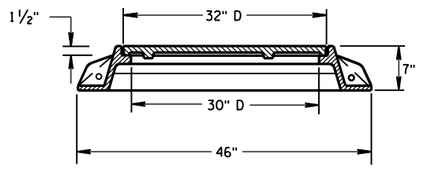
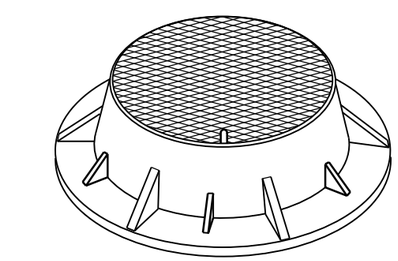
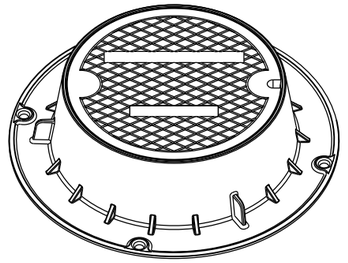
S.D.D. 8 A 5-19c

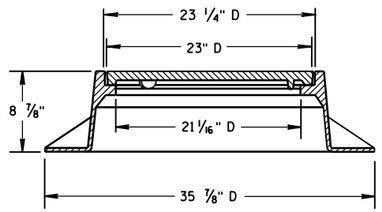


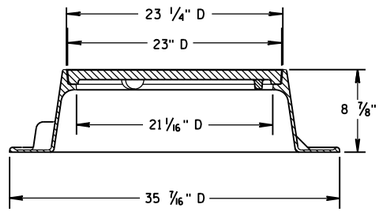


SECTION A-A
TYPE "K"









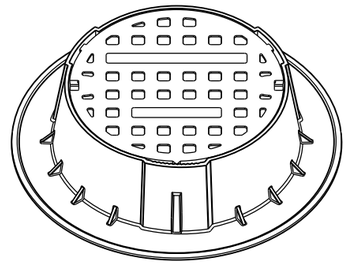
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

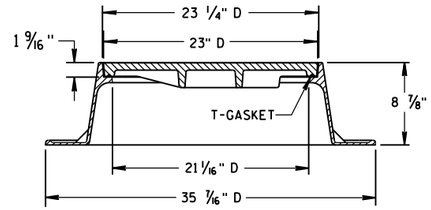
GENERAL NOTES

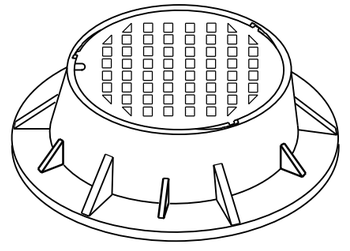
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

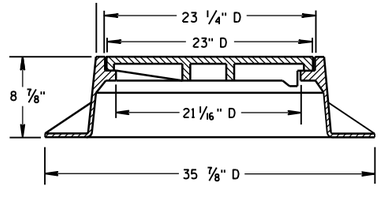
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

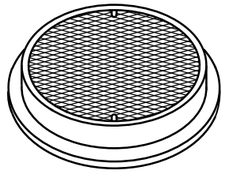


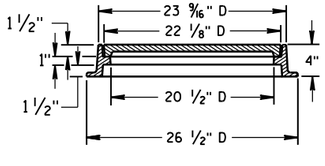




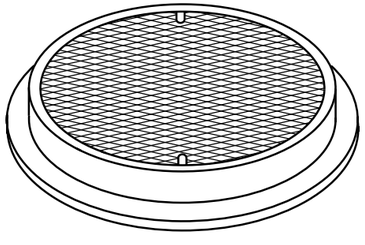


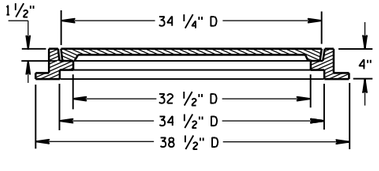
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



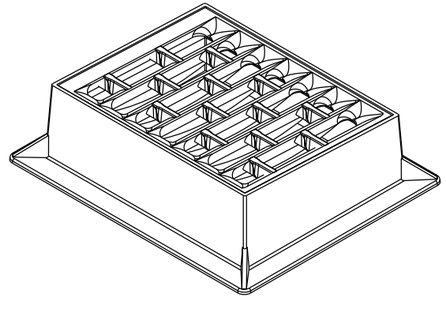


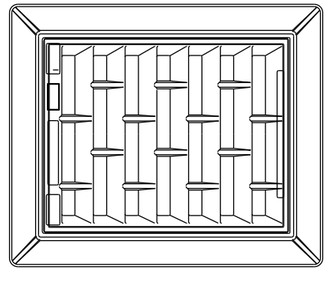
TYPE "L"

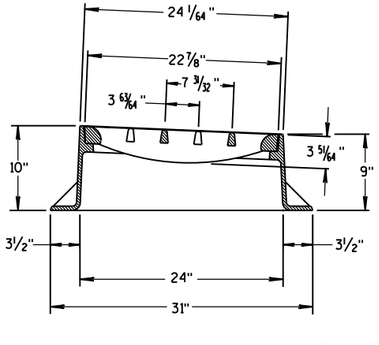


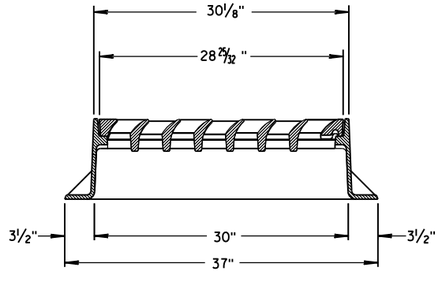


TYPE "M"









INLET COVER TYPE "BW"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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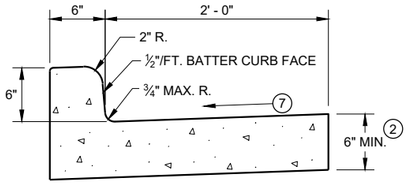
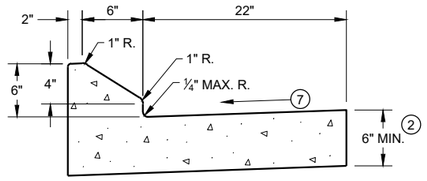
S.D.D. 8 A 5-19d

6

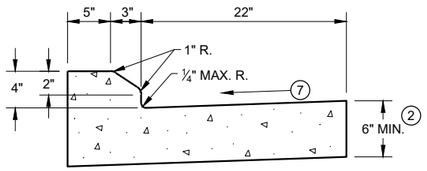
S.D.D. 8 A 5-19d



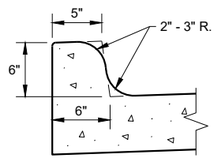
TYPES A (1) & D



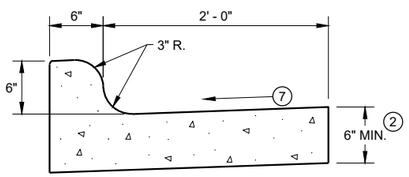
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

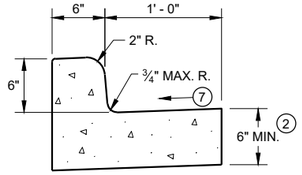


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



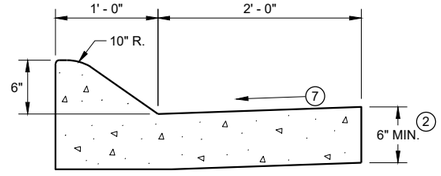
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

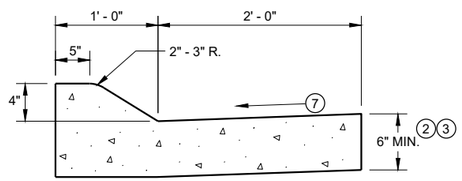


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

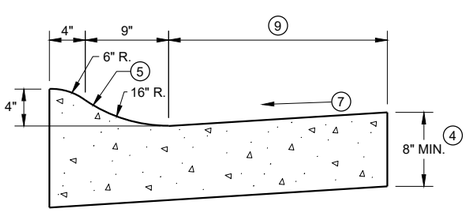


6" SLOPED CURB TYPES A (1) & D



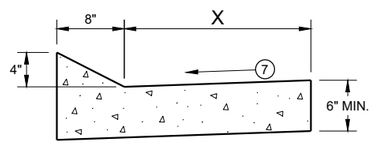
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

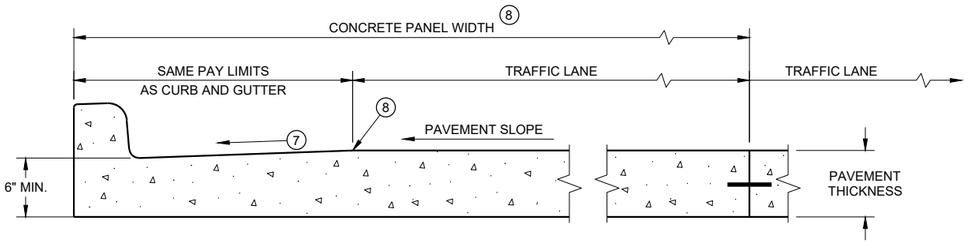


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

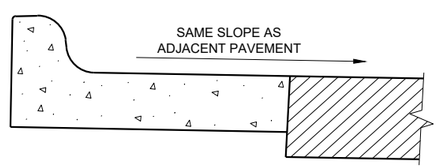
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

DETAILS OF CONSTRUCTION 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 AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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 GUTTERS 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) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

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

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

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

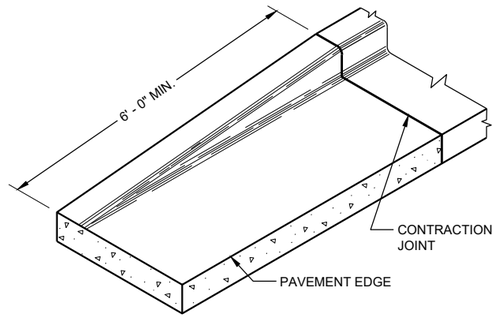
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

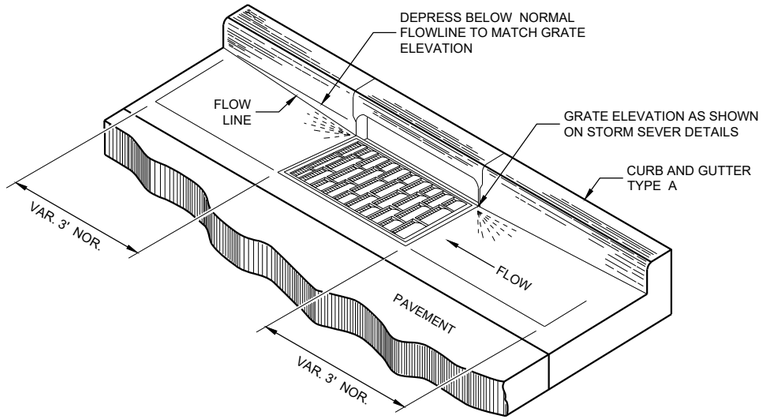
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D01 - 22a



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

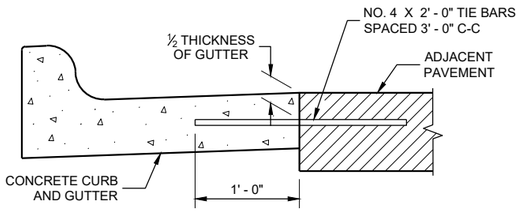
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

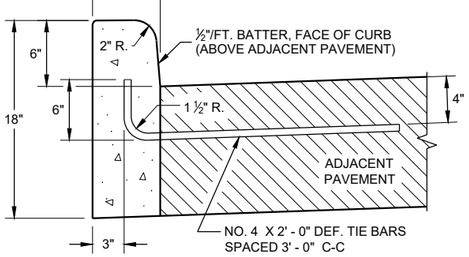
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

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

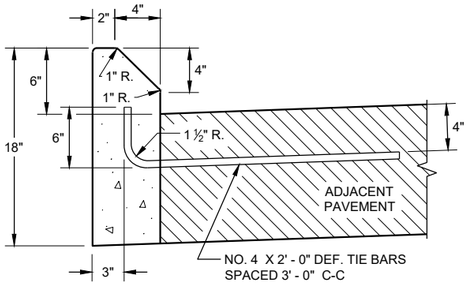
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

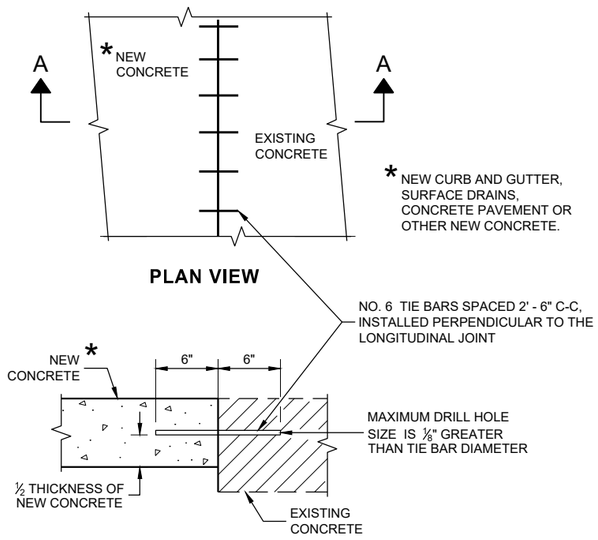


TYPES A (1) & D



TYPES G (1) & J

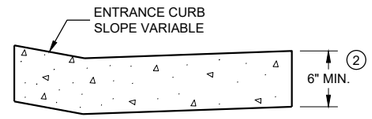
CONCRETE CURB



PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

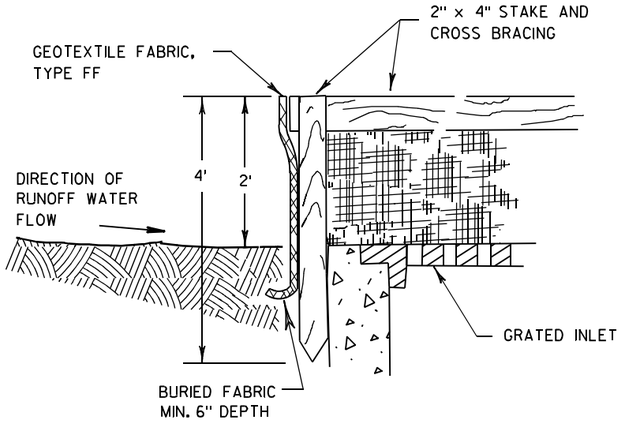
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

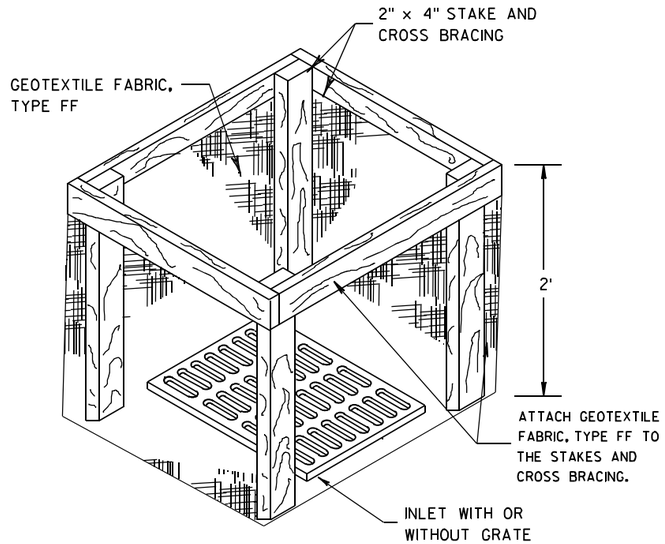
APPROVED
February 2021 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

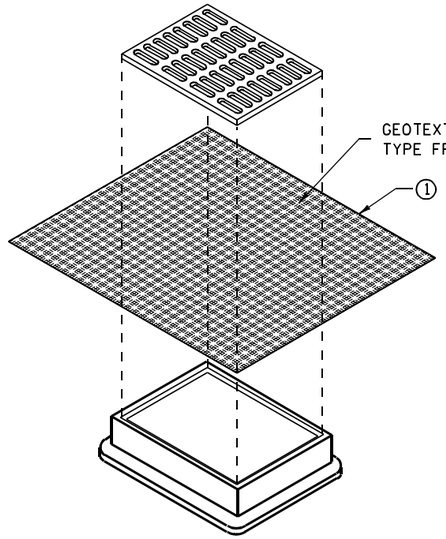
6

SDD08D01 - 22b
SDD08D01 - 22b



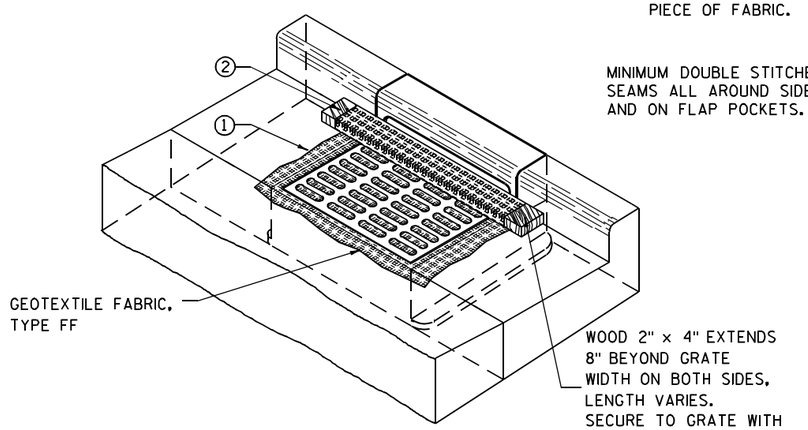


INLET PROTECTION, TYPE A

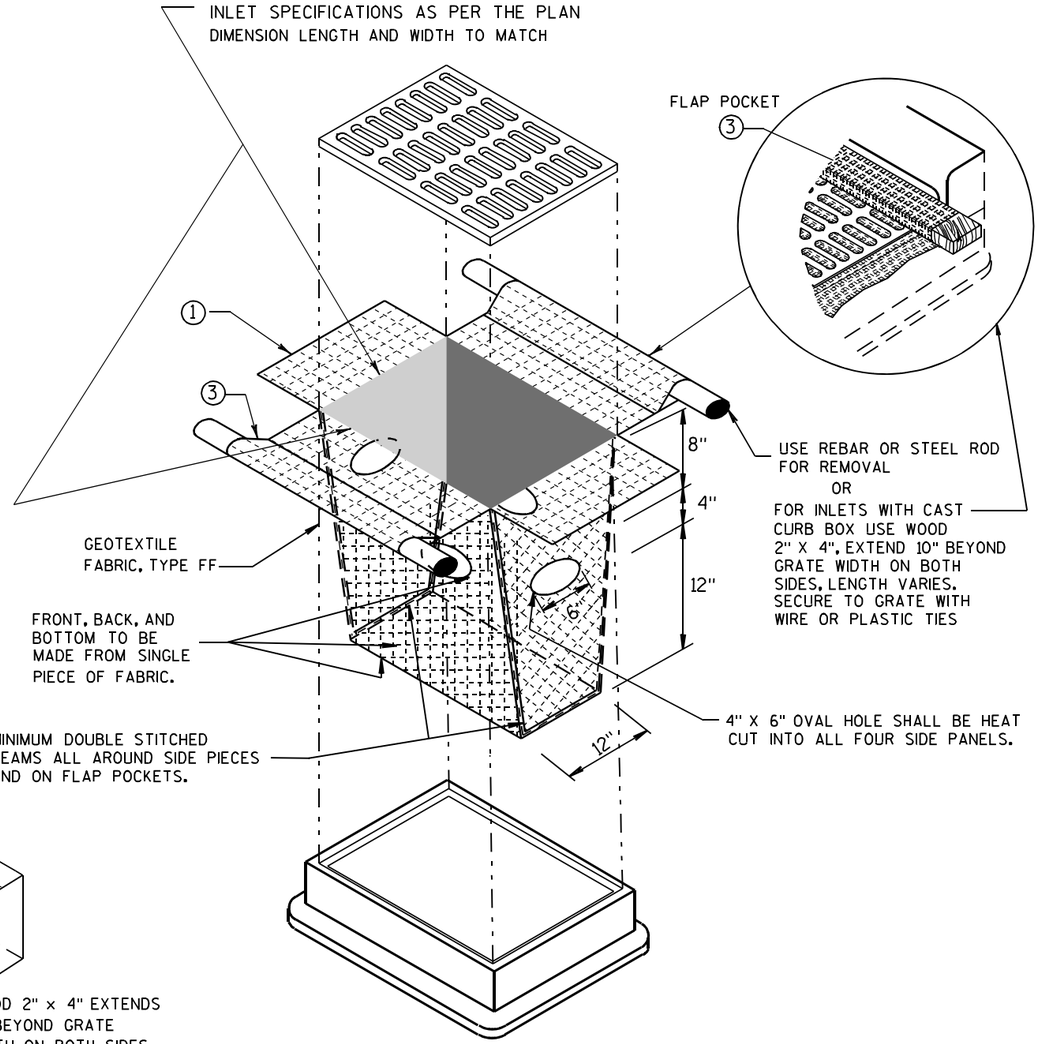


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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

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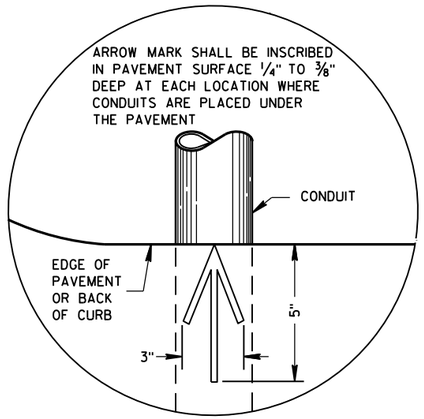
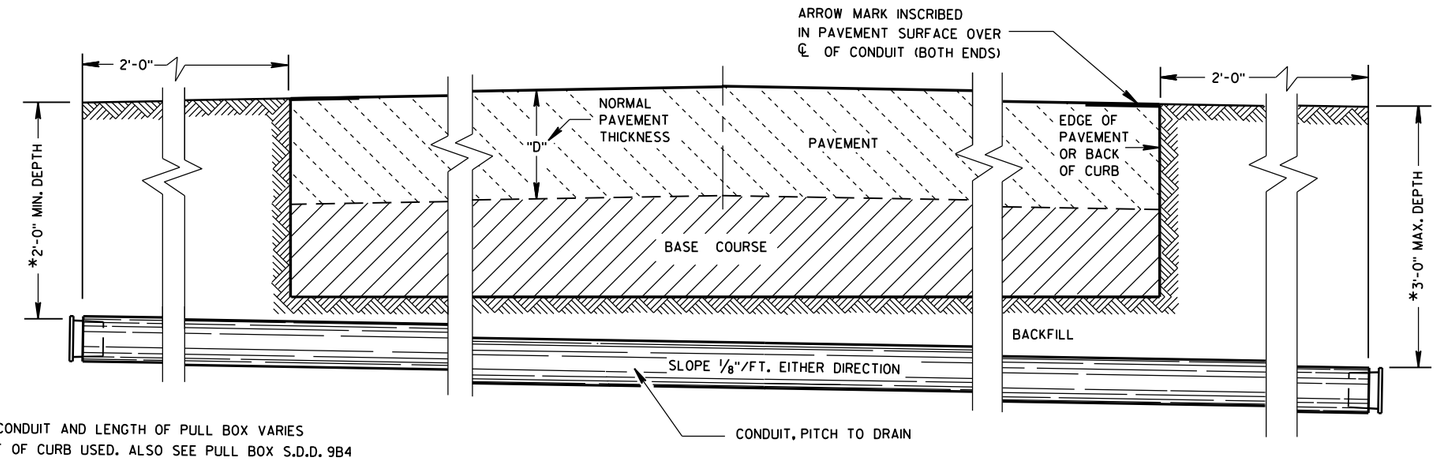
S.D.D. 8 E 10-2



PLAN VIEW

ARROW MARK



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

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

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

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

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

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

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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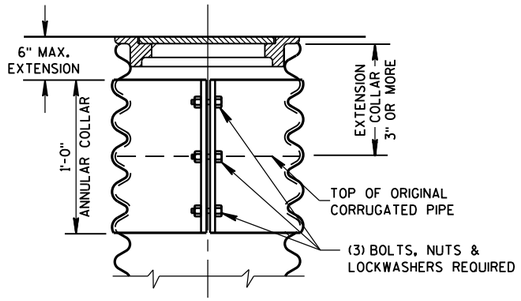
S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

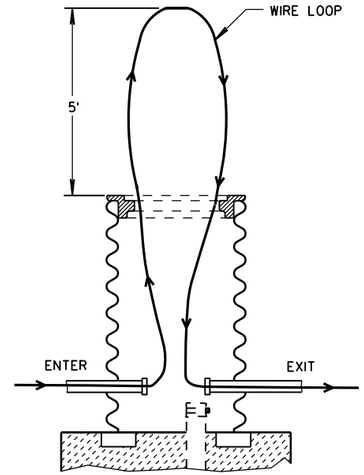
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2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

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

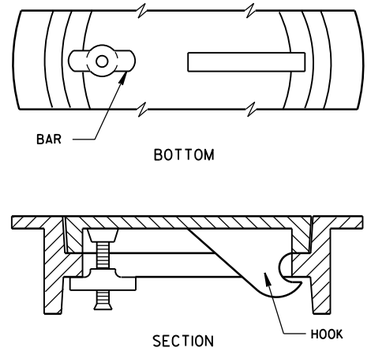
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

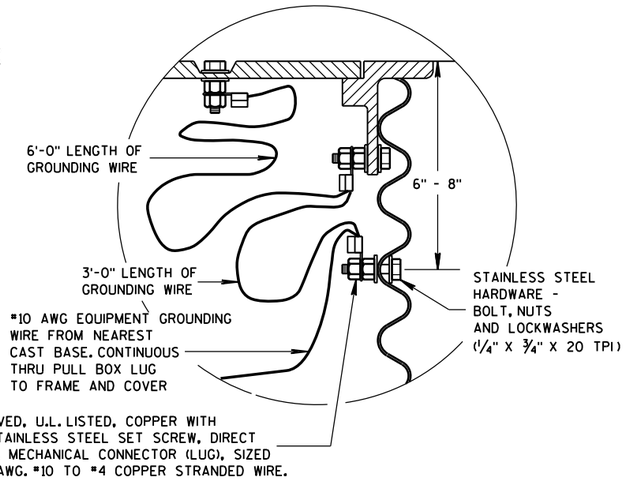


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

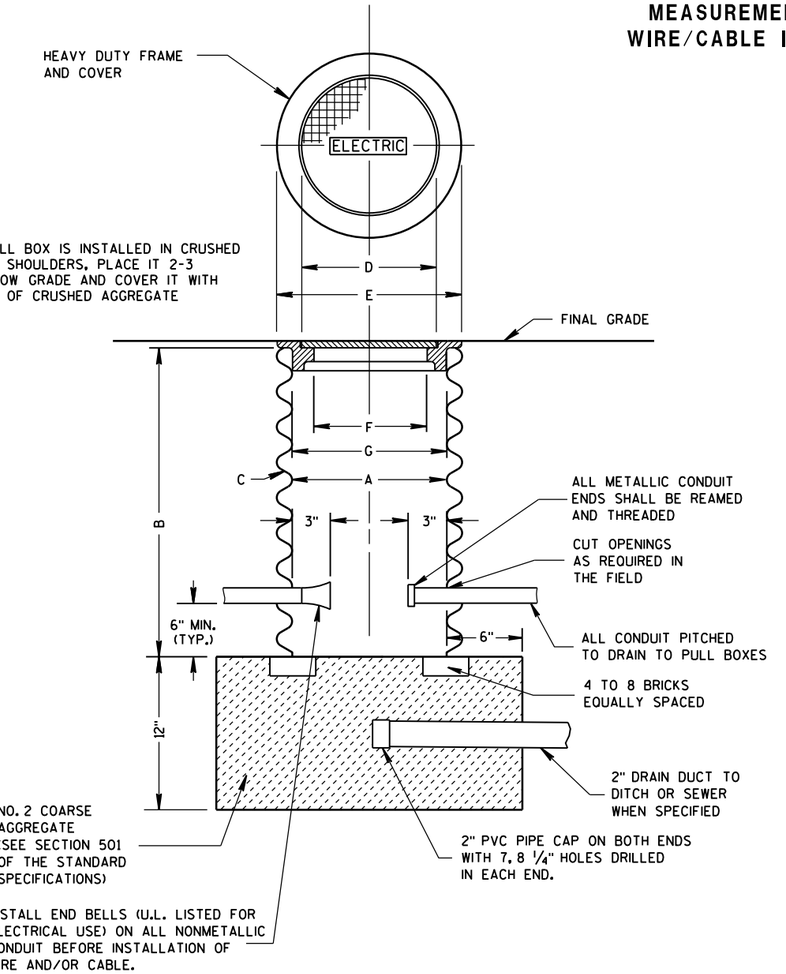


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

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

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

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

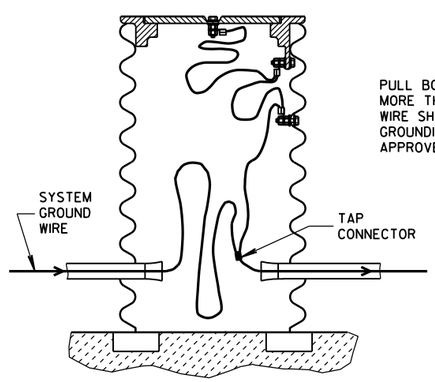
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

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

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

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

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



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

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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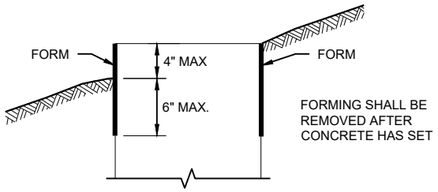
S.D.D. 9 B 4-11

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



FORMING DETAIL

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

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

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

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

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

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

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

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

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

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

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

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

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

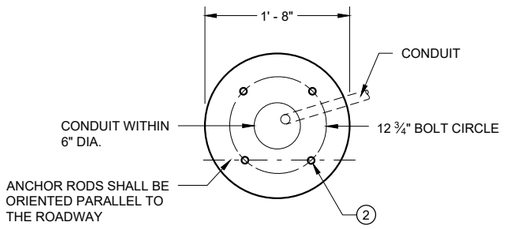
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

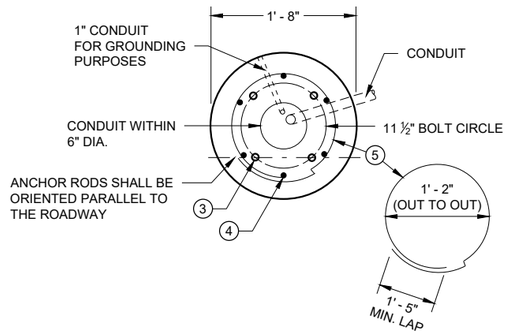
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

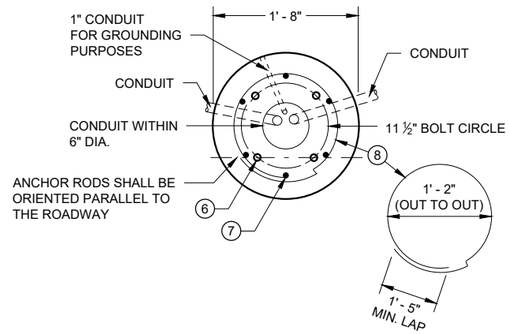
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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

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







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

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

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

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

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

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

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

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

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

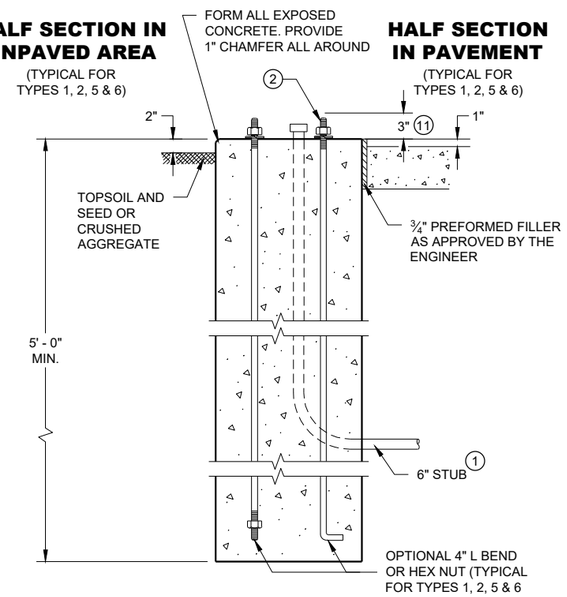
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

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

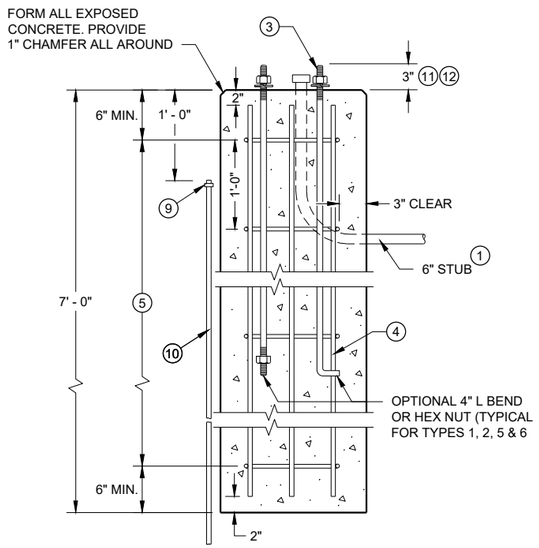
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

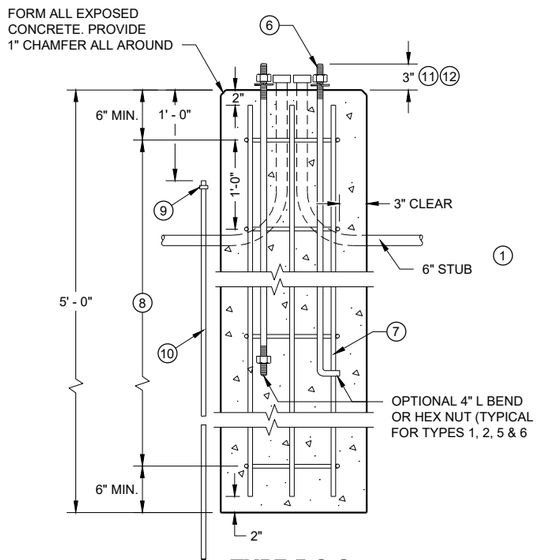
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 67

FHWA

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 531.2.2 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.

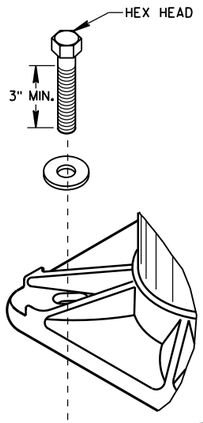
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

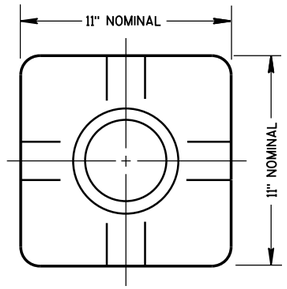
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

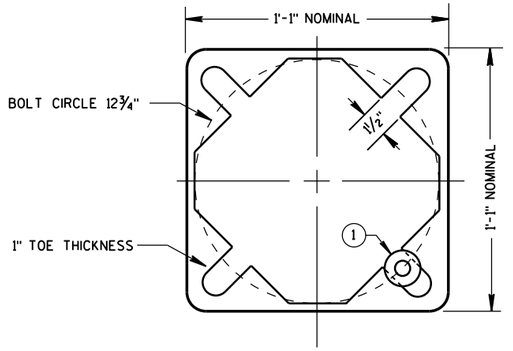
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

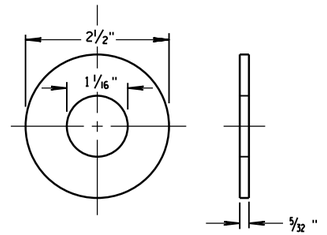




TOP VIEW
(PEDESTAL BASE)

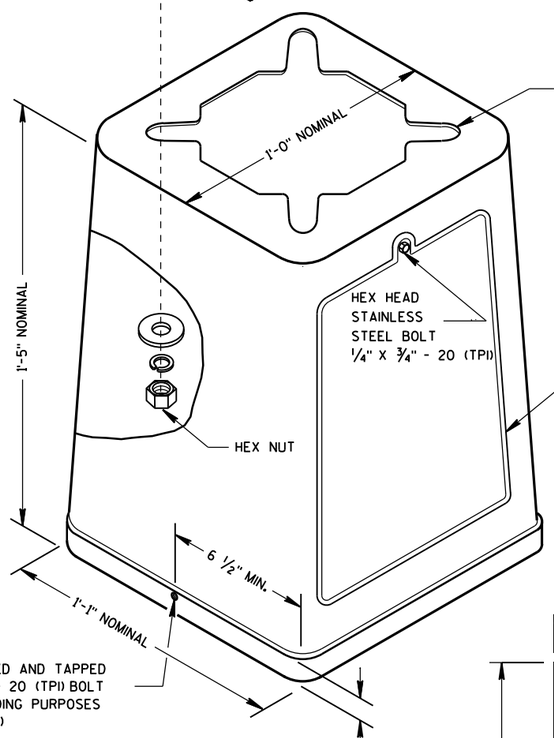


BOTTOM VIEW
(PEDESTAL BASE)

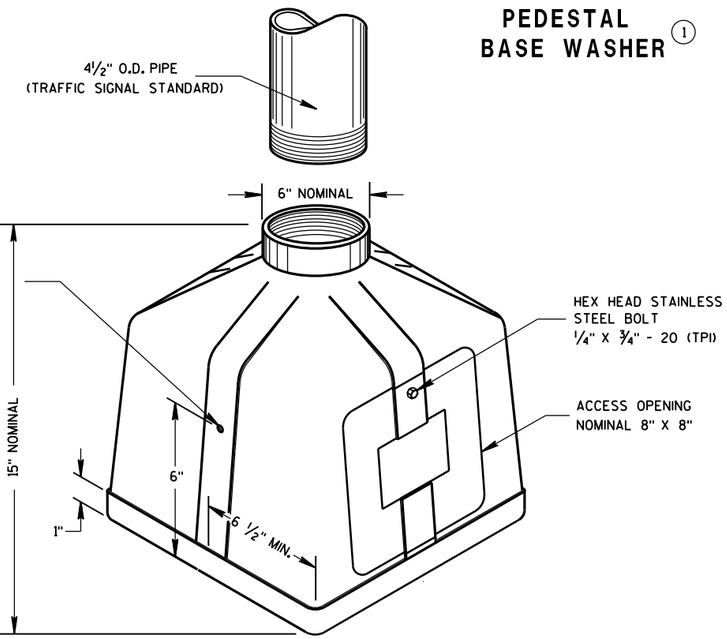


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

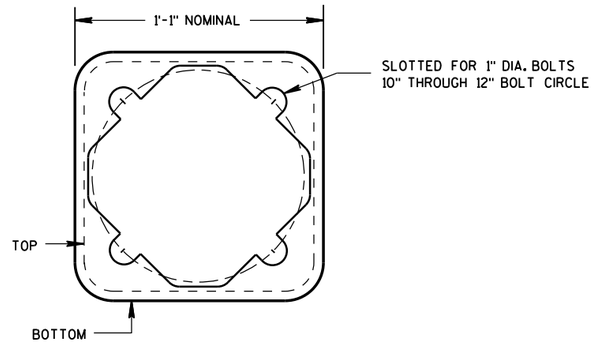


ISOMETRIC VIEW

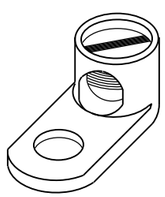


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

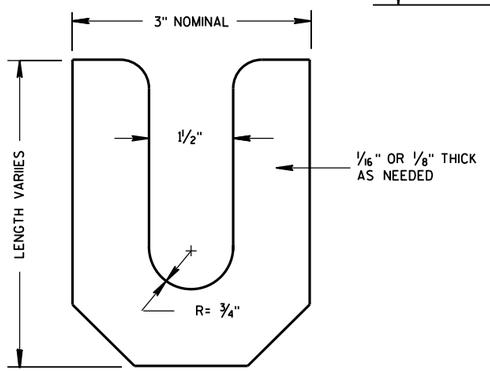


TYPICAL MECHANICAL CONNECTOR LUG

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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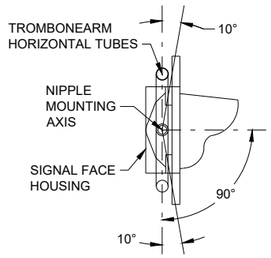
S.D.D. 9 C 3-4

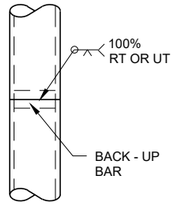


SECTION A-A

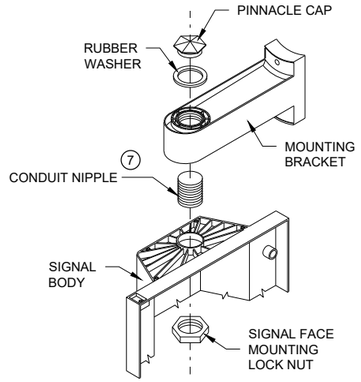
(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)

FOR MANUFACTURERS USE ONLY

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



POLE SPLICE DETAIL



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

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

POLES SHALL BE EITHER ALUMINUM OR GALVANIZED STEEL AS CALLED FOR IN THE CONTRACT.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING,PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) ASREQUIRED, TO PLUMB THE SIGNAL FACES.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

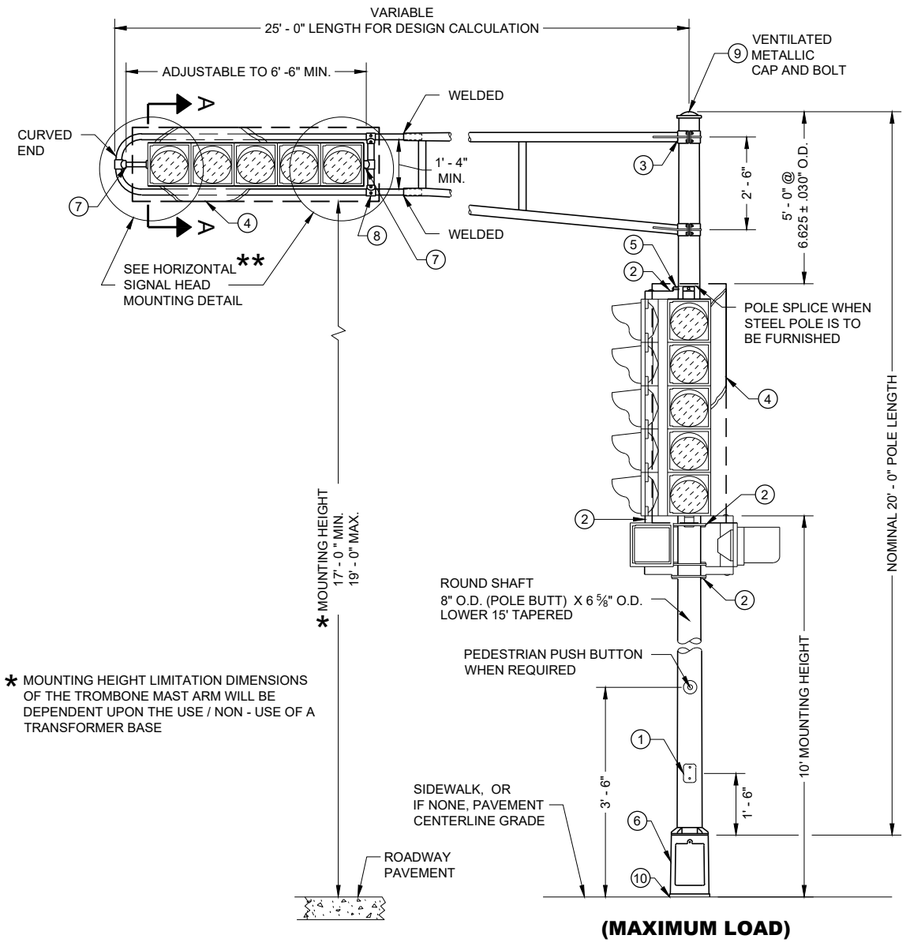
(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOTINTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUTIS THE SLIDING TYPE.

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

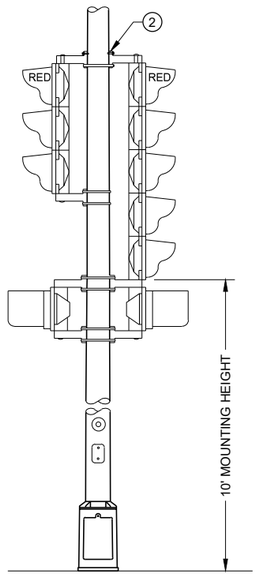
(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

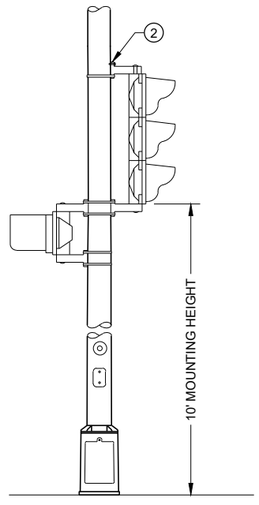


* MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE / NON - USE OF A TRANSFORMER BASE

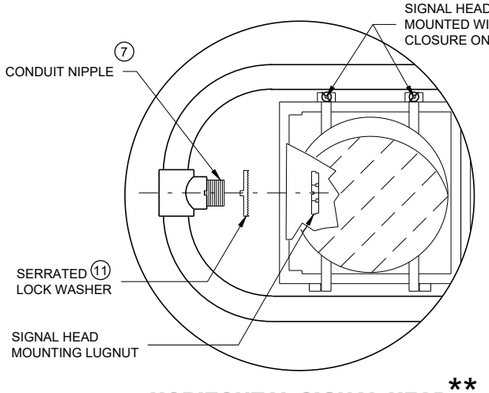
(MAXIMUM LOAD)



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



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

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

TYPE 2 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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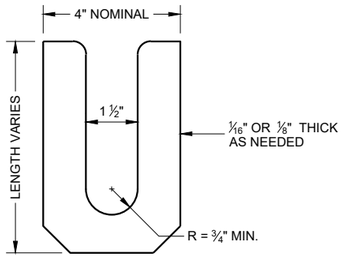
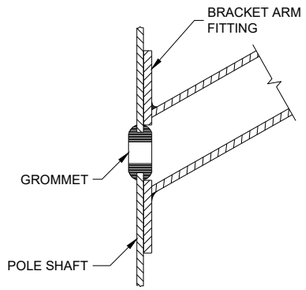
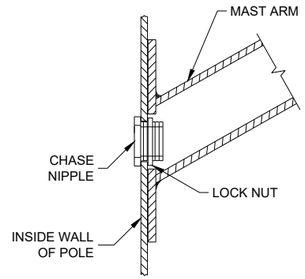
SDD 09E01 - 15a



LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

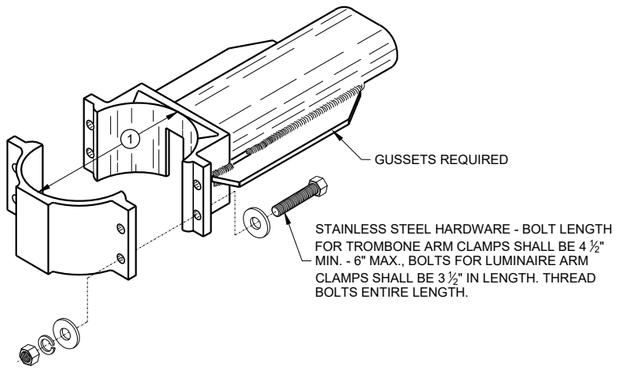
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

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

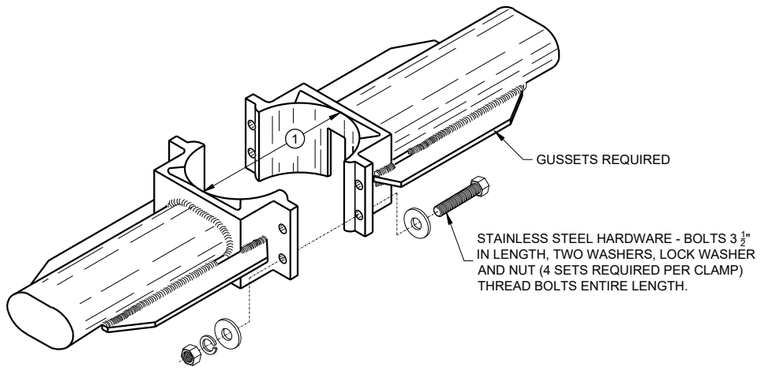
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

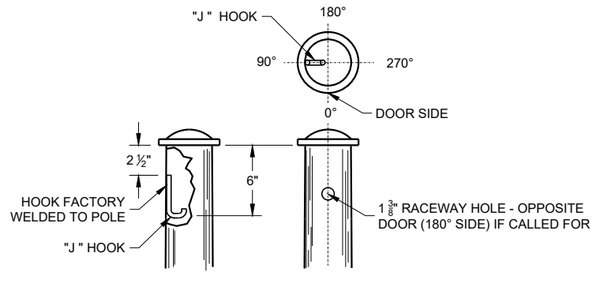
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



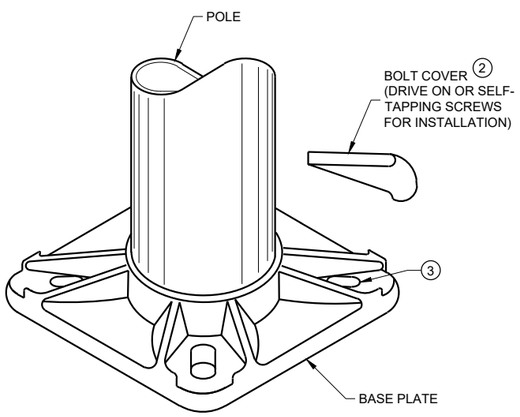
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



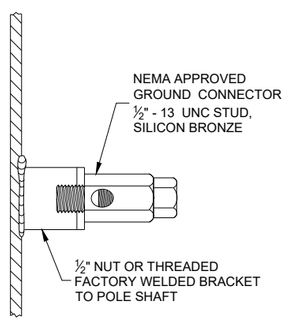
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

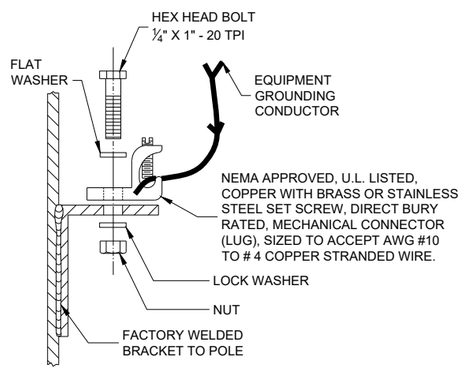


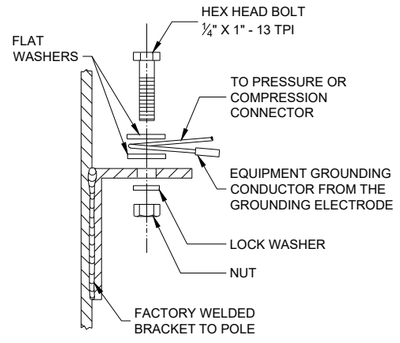
TYPICAL "J" HOOK LOCATION



BASE PLATE







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

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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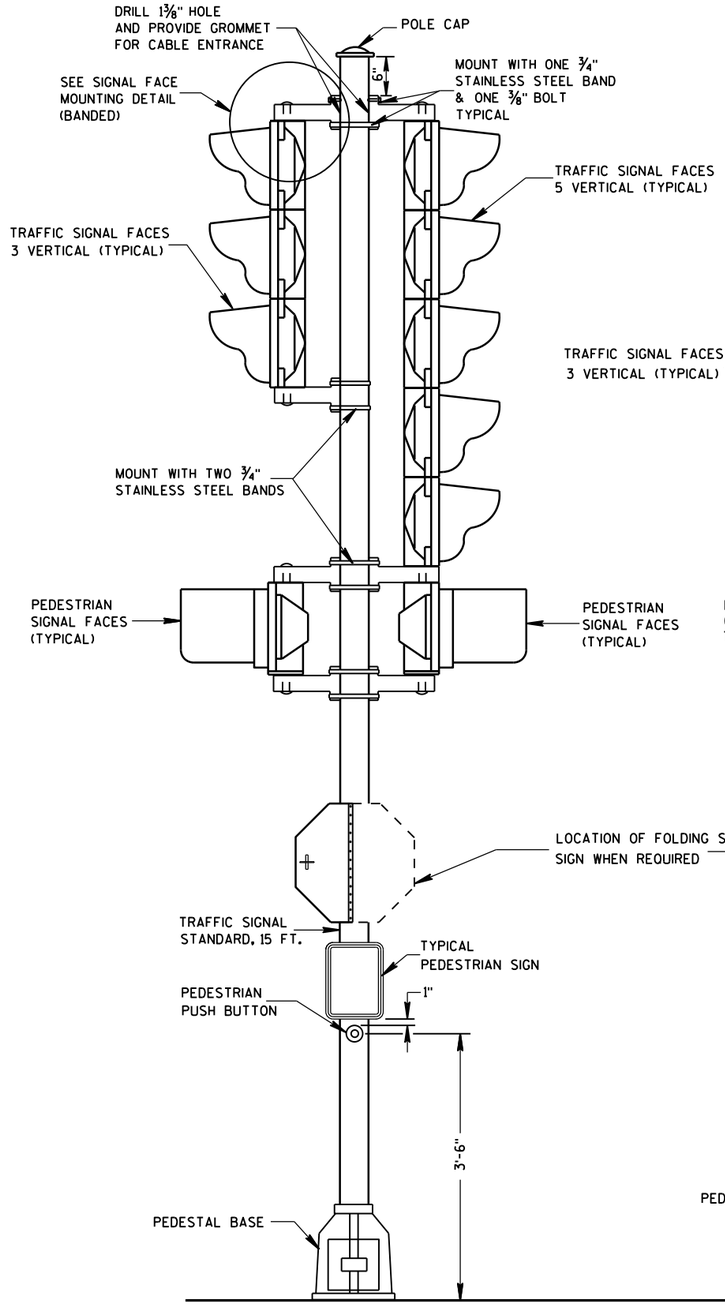
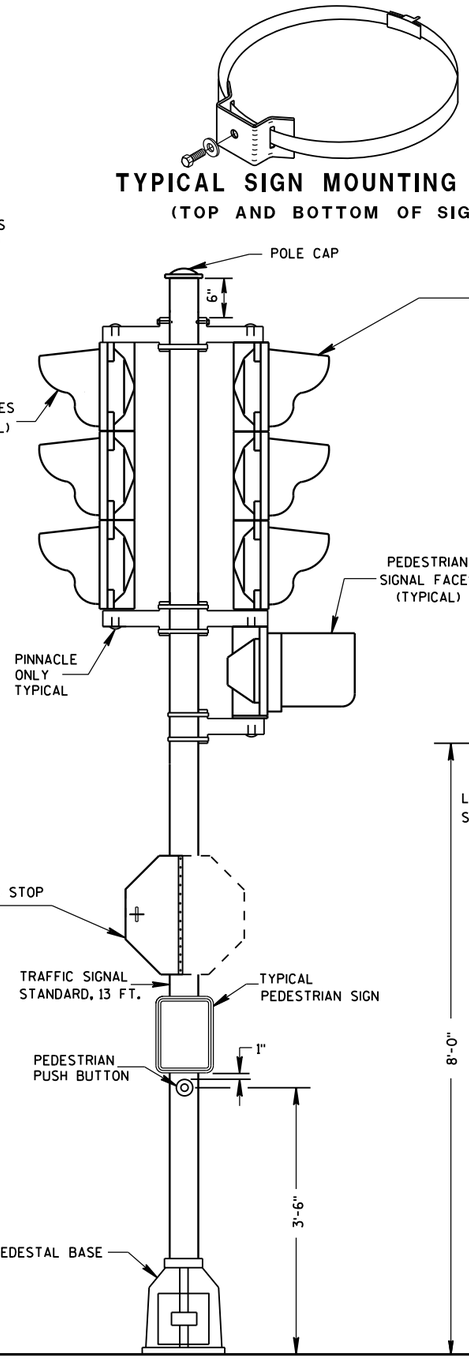
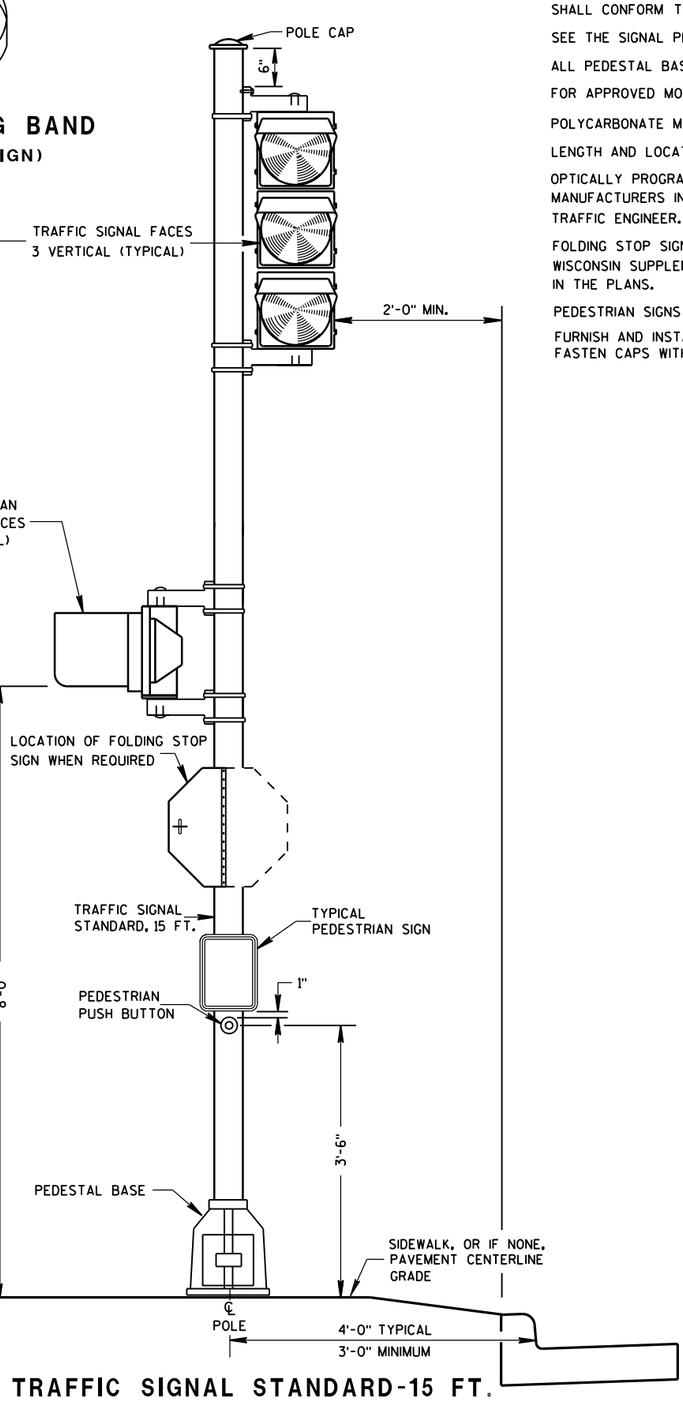


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

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

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

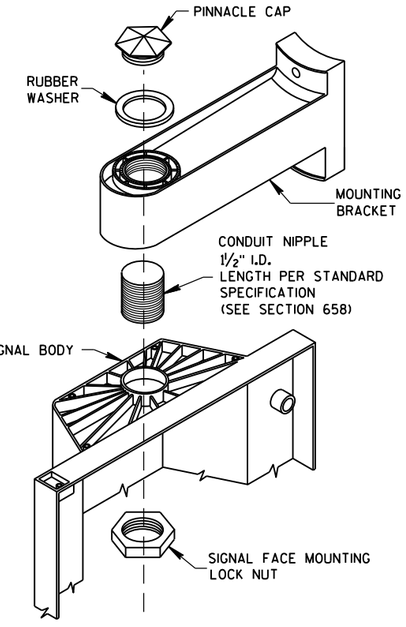
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

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



SIGNAL FACE MOUNTING DETAIL
(BANDED)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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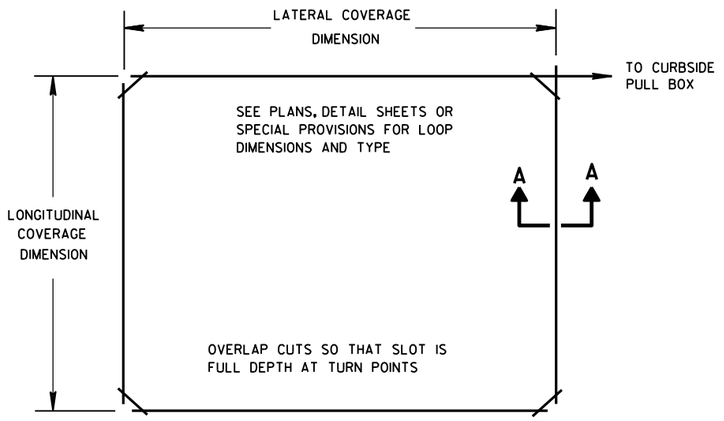
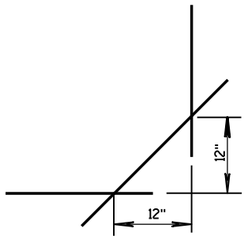
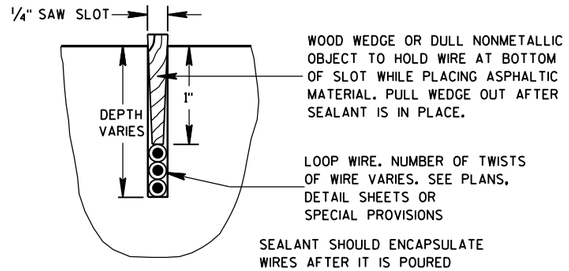


LOOP WIRE SLOT CONSTRUCTION

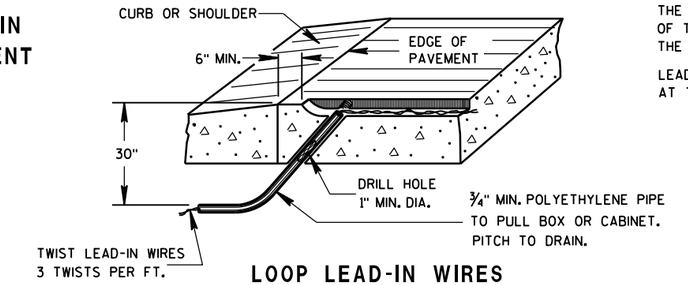


EXPANDED VIEW
SAW CUT CORNERS



SECTION A-A

LOOP AND LEAD-IN
WIRES IN PAVEMENT



LOOP LEAD-IN WIRES
THROUGH PAVEMENT

GENERAL NOTES

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

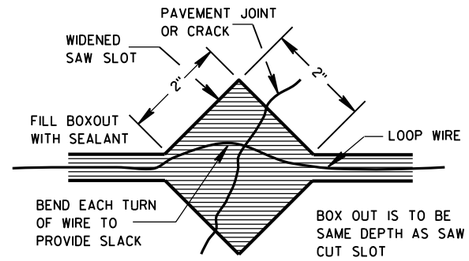
THE SLOTS IN THE PAVEMENT SHALL BE CUT TO DIMENSION WITH A SAW. THE SLOTS SHALL BE CLEANED FREE OF DIRT, DUST, MOISTURE AND DEBRIS PRIOR TO INSTALLATION OF THE WIRE.

AFTER PLACING THE WIRE IN THE SLOT, FILL THE SLOT WITH AN ASPHALTIC MATERIAL IN ACCORDANCE WITH THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D6690".

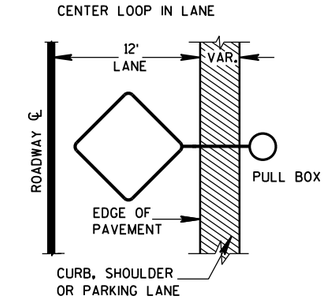
IN THE EVENT ASPHALTIC MATERIAL IS UNAVAILABLE, A FLEXIBLE TYPE EPOXY MAY BE USED AS A LOOP SLOT FILLER. THE LOOP SLOT SHALL BE CLEAN AND DRY BEFORE EPOXY IS INSTALLED. EPOXY USE SHALL BE APPROVED BY THE DISTRICT TRAFFIC ENGINEER AND THE FURNISHED EPOXY SHALL BE INSTALLED ONLY AFTER WRITTEN APPROVAL BY THE BY THE PROJECT ENGINEER.

THE TWO SINGLE CONDUCTOR LOOP WIRES SHALL BE TWISTED TOGETHER AT A RATE OF THREE TWISTS PER FOOT FROM THE PAVEMENT EDGE TO THE SPLICE CONNECTION WITH THE LOOP LEAD-IN CABLE.

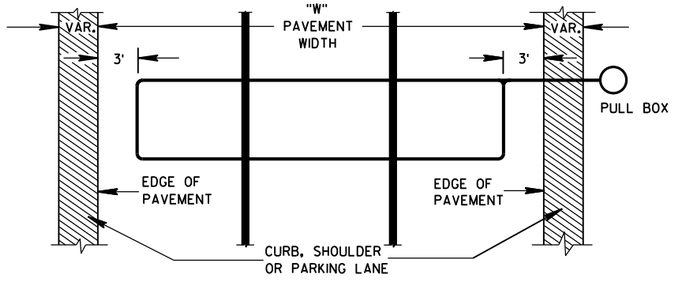
LEAD-IN CABLES AND LOOP LEAD-IN WIRES SHALL BOTH BE CUT TO 6 FEET IN LENGTH AT THE SPLICING PULL BOX.



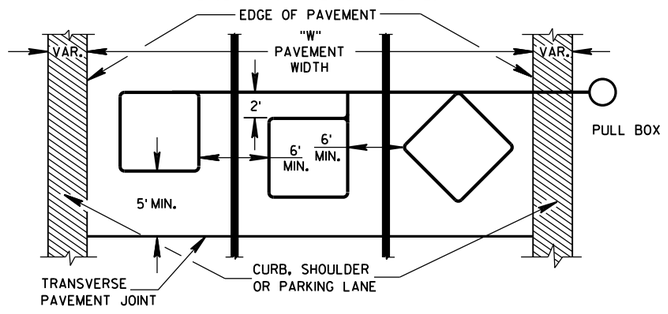
PLAN VIEW



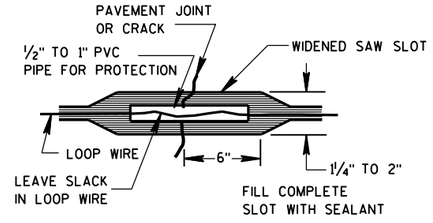
LOOP WIRE SLOT PLAN



LOOP WIRE SLOT PLAN

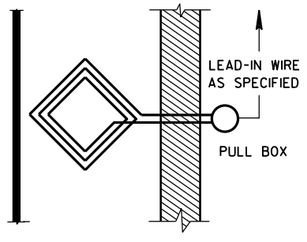


LOOP WIRE SLOT PLAN



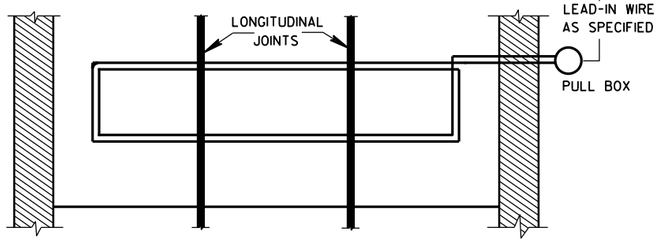
FRONT VIEW

LOOP WIRE INSTALLATION ACROSS
PAVEMENT JOINT OR CRACK



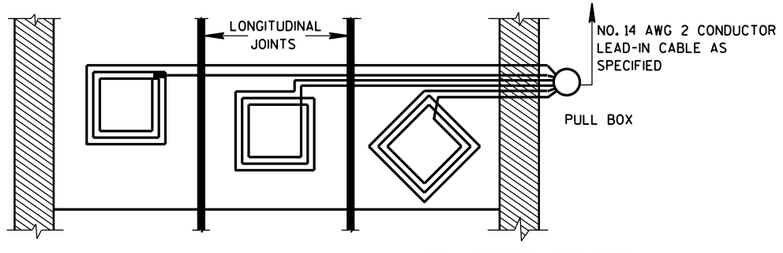
LOOP WIRE LAY
CONSTRUCTION DETAILS

SINGLE LANE LOOP DETECTION



LOOP WIRE LAY
CONSTRUCTION DETAILS

MULTIPLE LANE MASS LOOP DETECTION



LOOP WIRE LAY
CONSTRUCTION DETAILS

MULTIPLE LANE DETECTION BY
INDIVIDUAL LANES, TYPICAL TYPE LOOPS

DETAILS FOR THE INSTALLATION OF TEMPORARY TRAFFIC SIGNAL LOOP DETECTOR WIRES IN ANY EXISTING PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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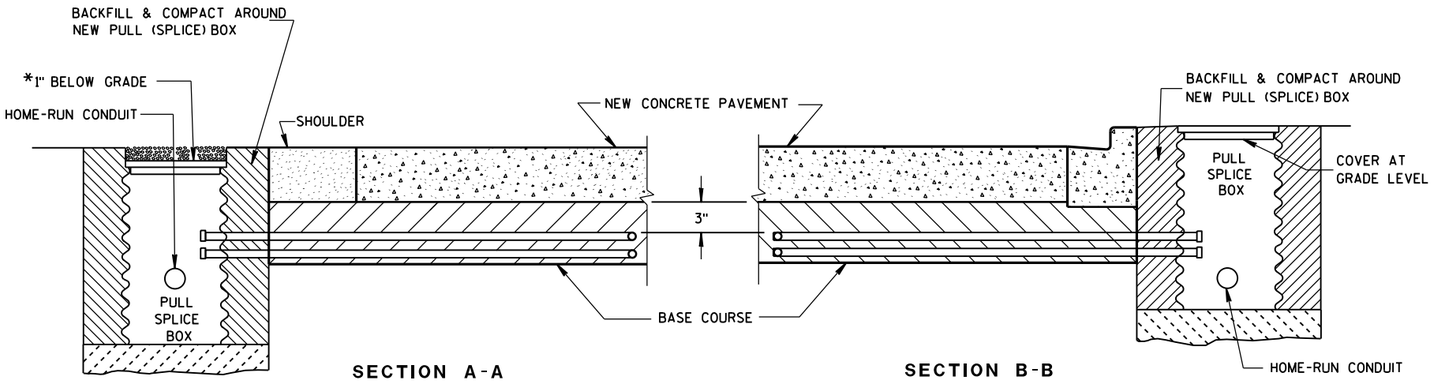


SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

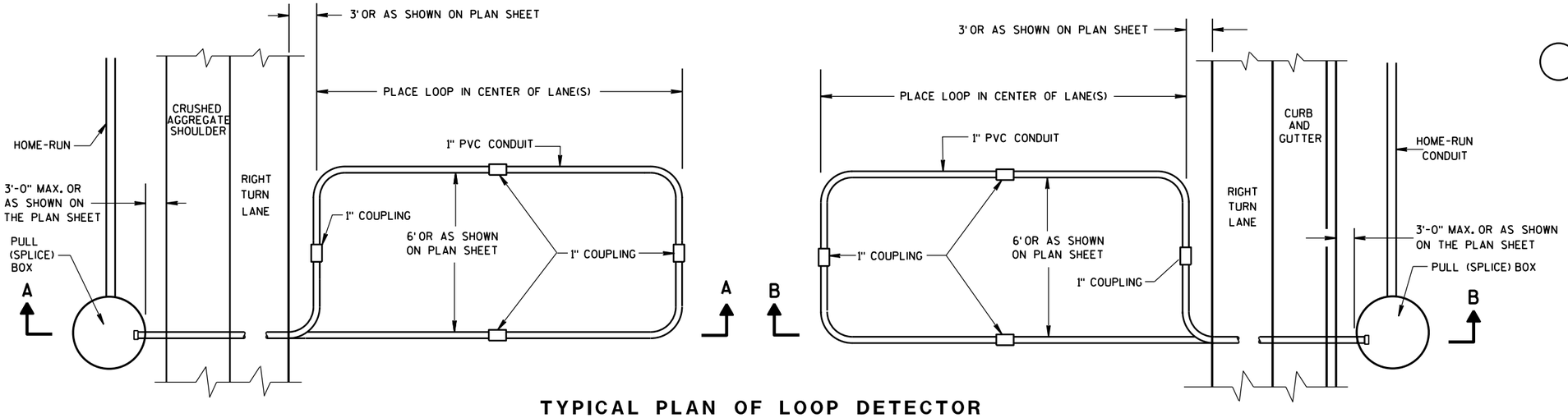
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

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

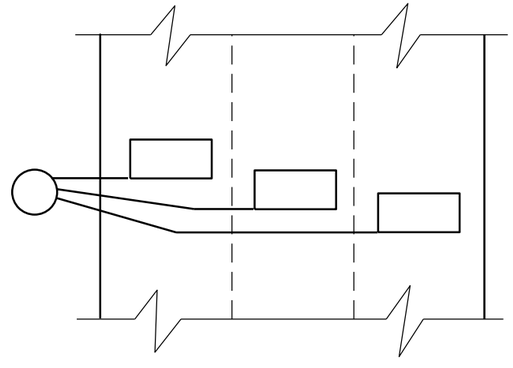
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



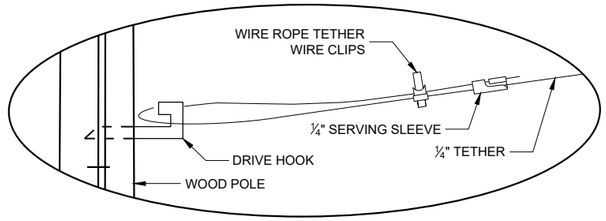
TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED Sept. 2014 — DATE /S/ Ahmet Demirbilek — STATE ELECTRICAL FHWA

MINIMUM POLE LENGTHS	POLE BURIAL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

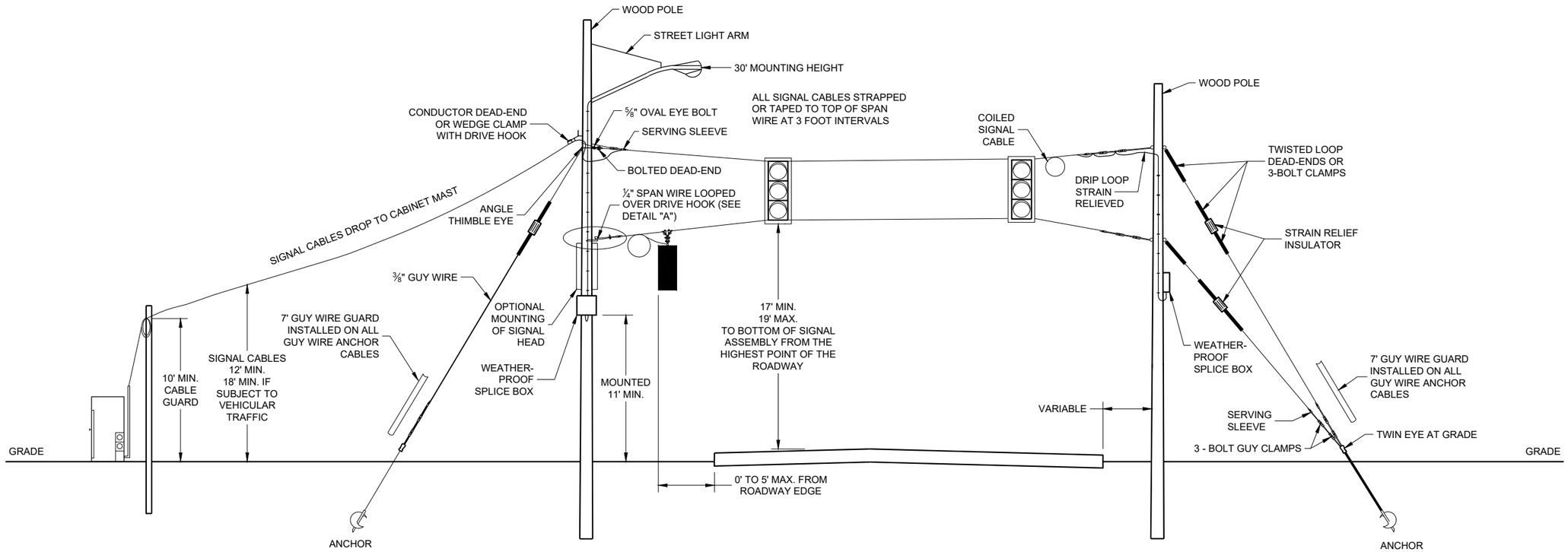


DETAIL "A"

GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE
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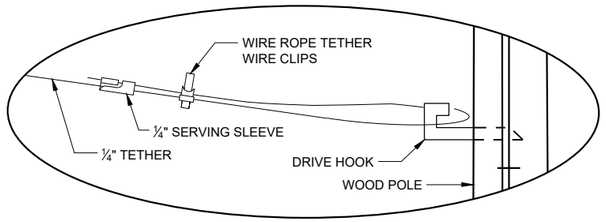
MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'



DETAIL "A"

GENERAL NOTES

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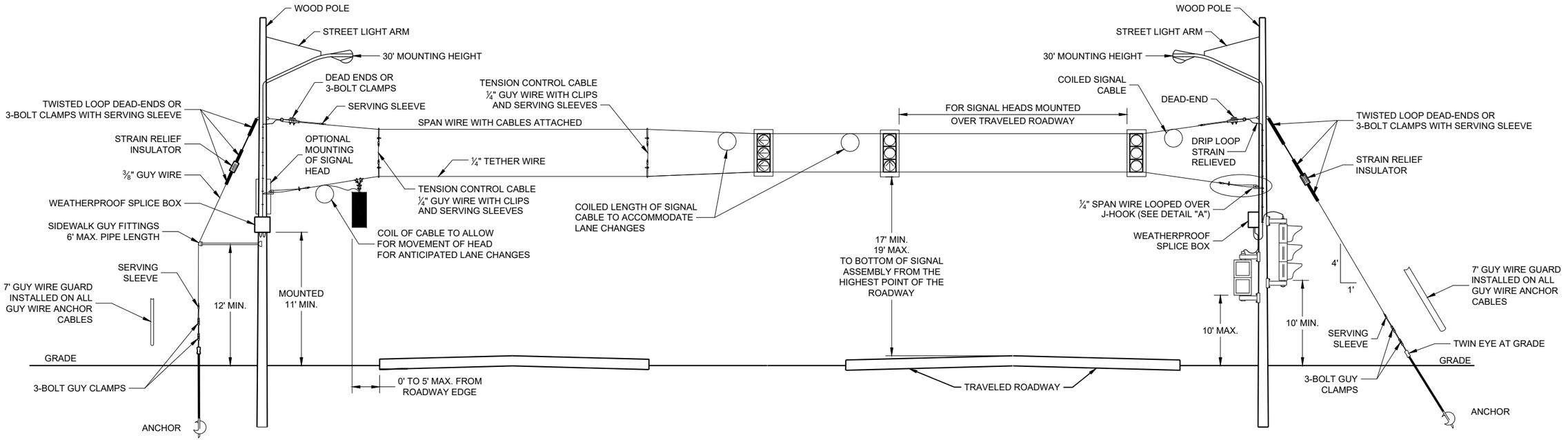
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE
/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI 75
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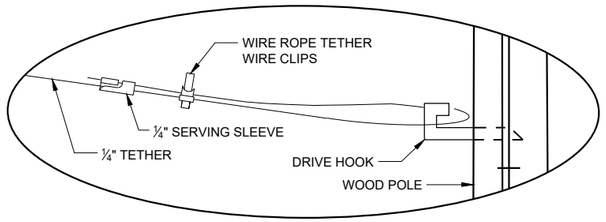
MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'



DETAIL "A"

GENERAL NOTES

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

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   - D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   - E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
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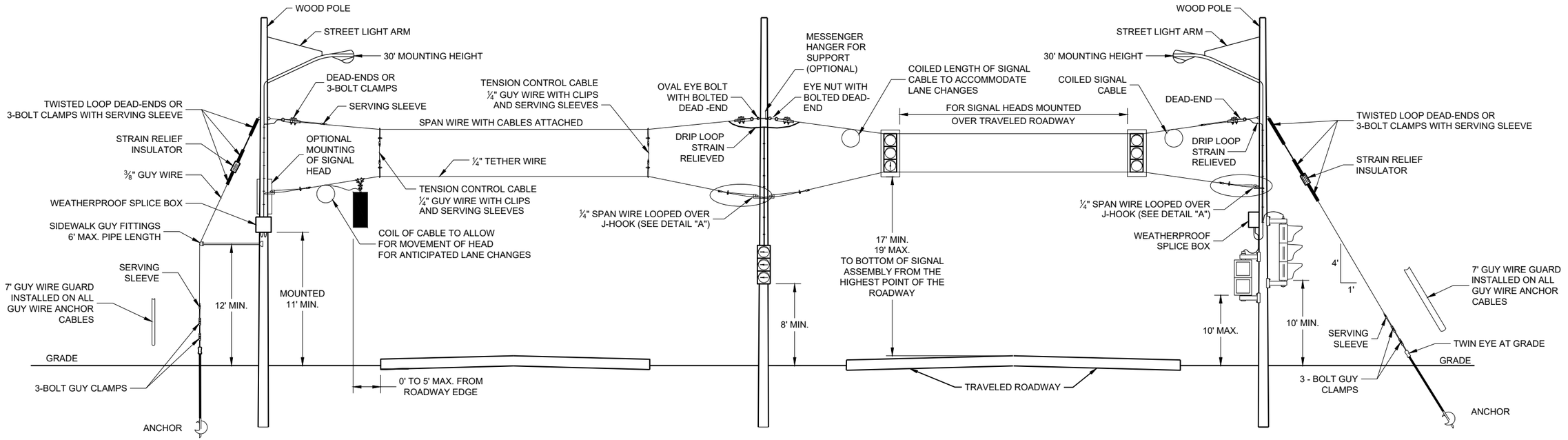

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE

/S/ Ahmet Demerbilek
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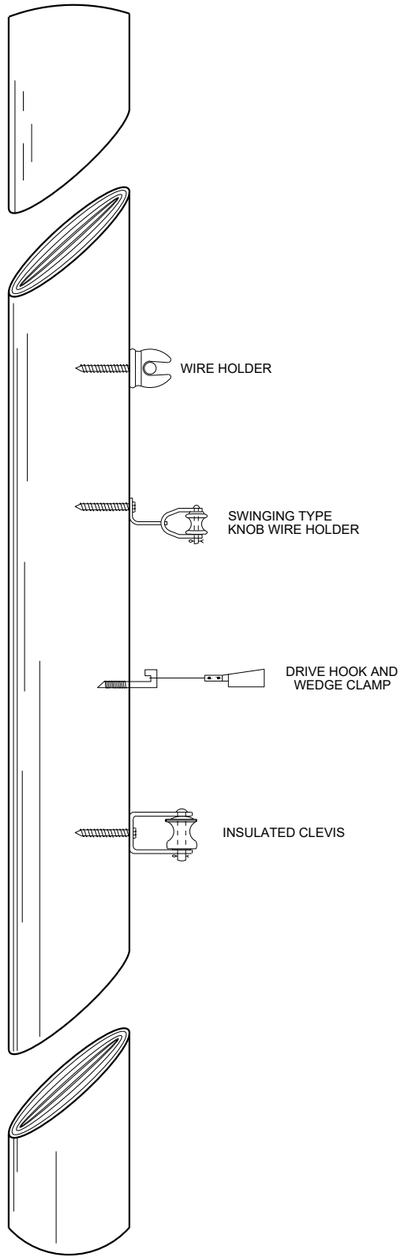

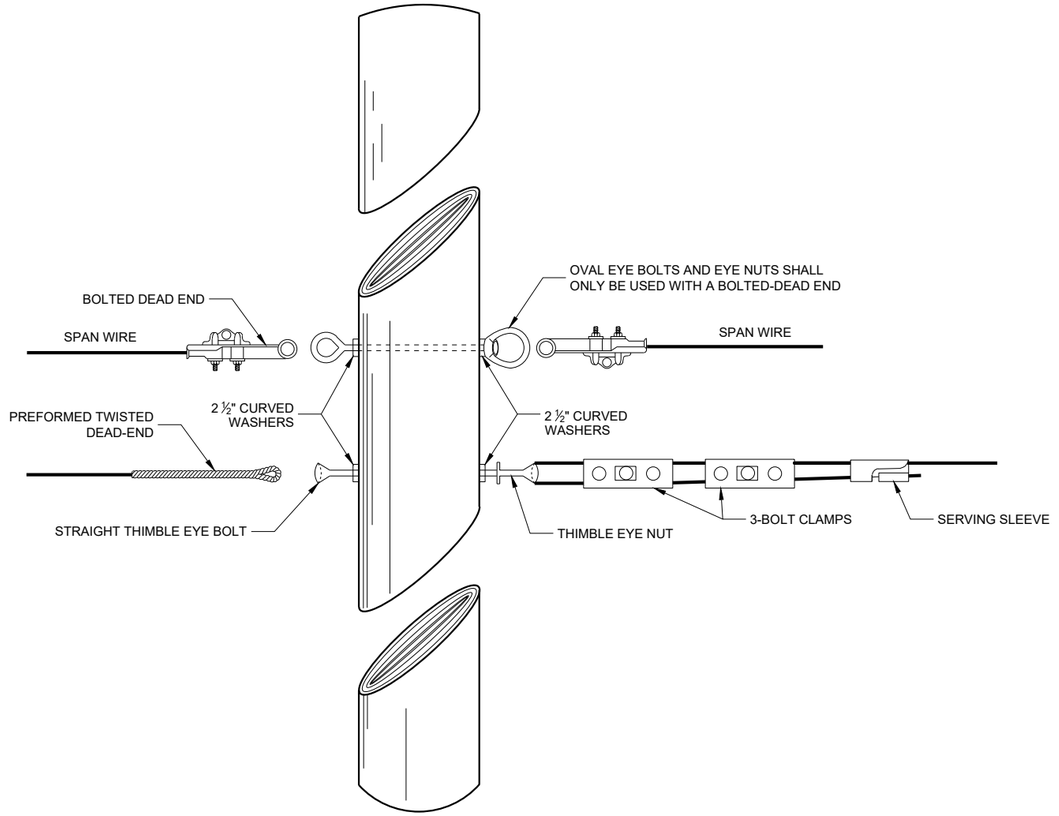

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SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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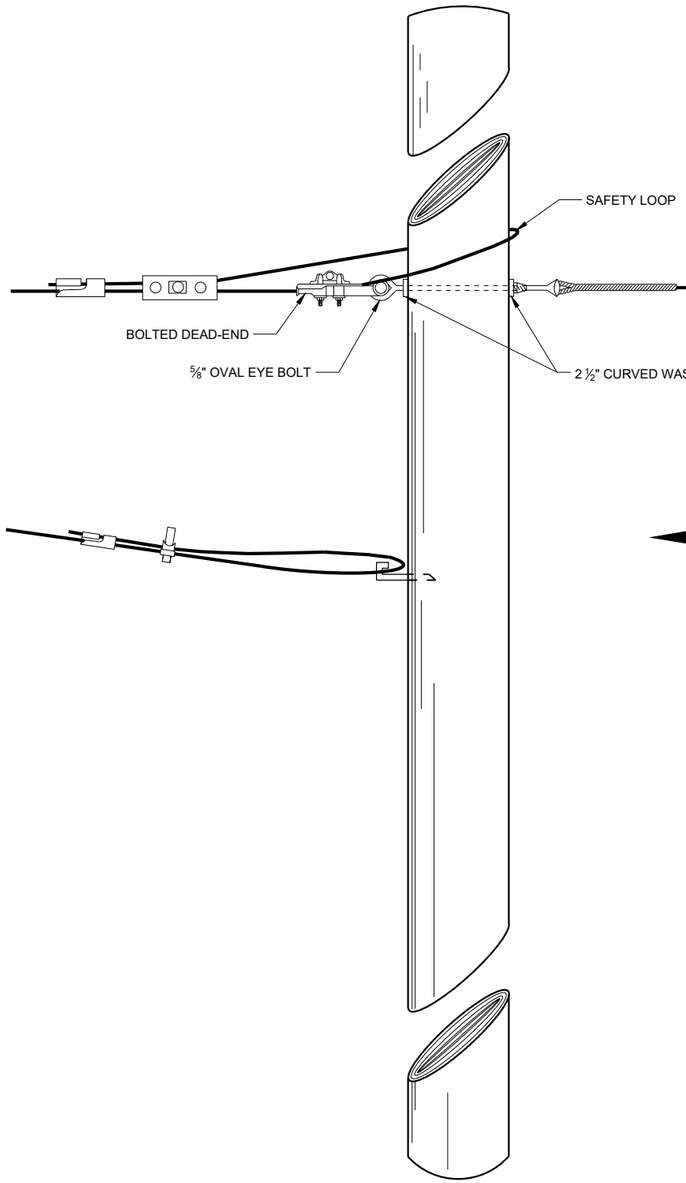
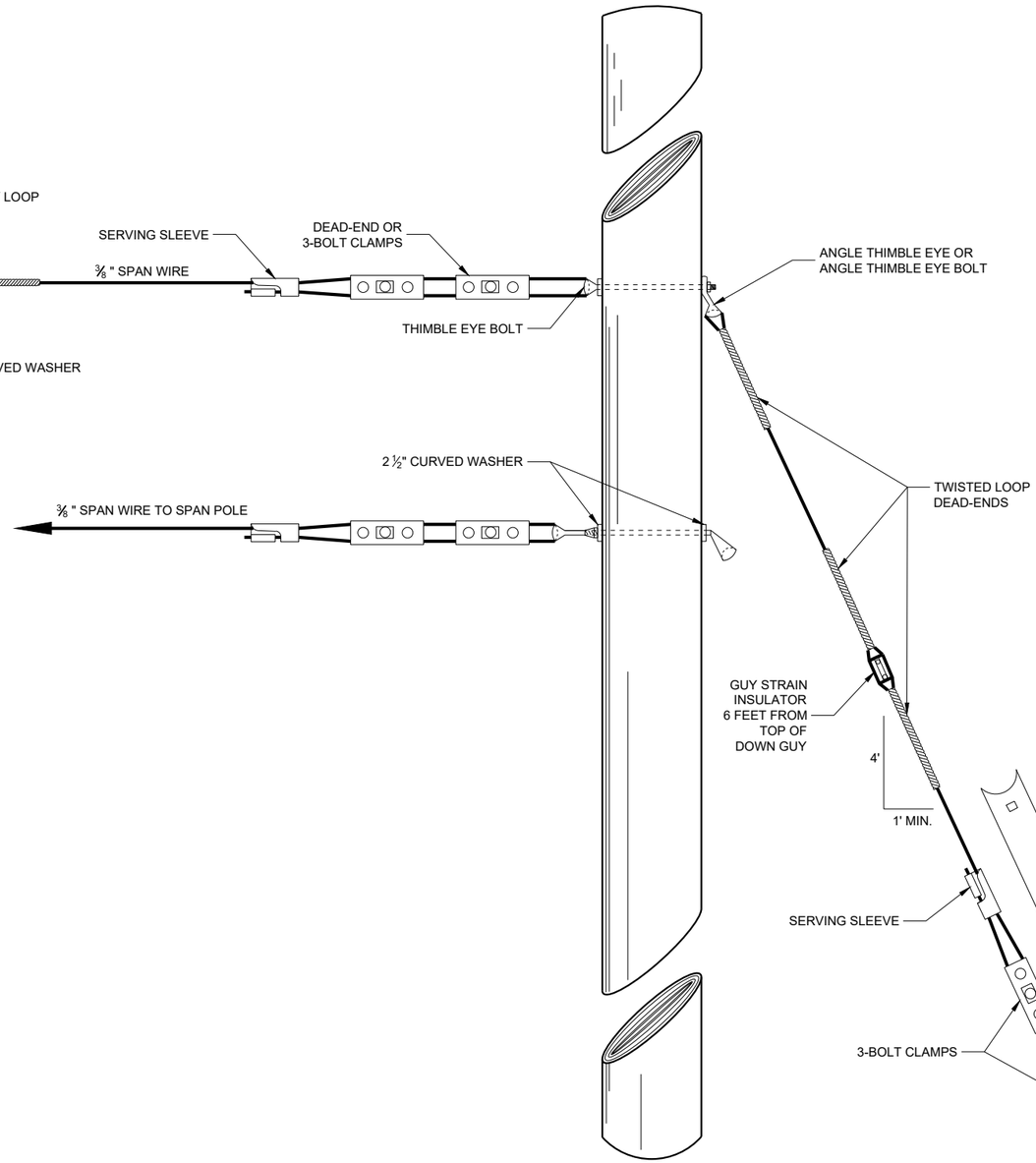
SDD 09G01 - 4d

GENERAL NOTES

1. USE ¾" DRILL IN WOOD POLE TO PROVIDE FOR ⅝" BOLTS.
2. SAFETY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE



GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015 — DATE
/S/ Ahmet Demerbilek — ROADWAY STANDARDS DEVE ENGINEER
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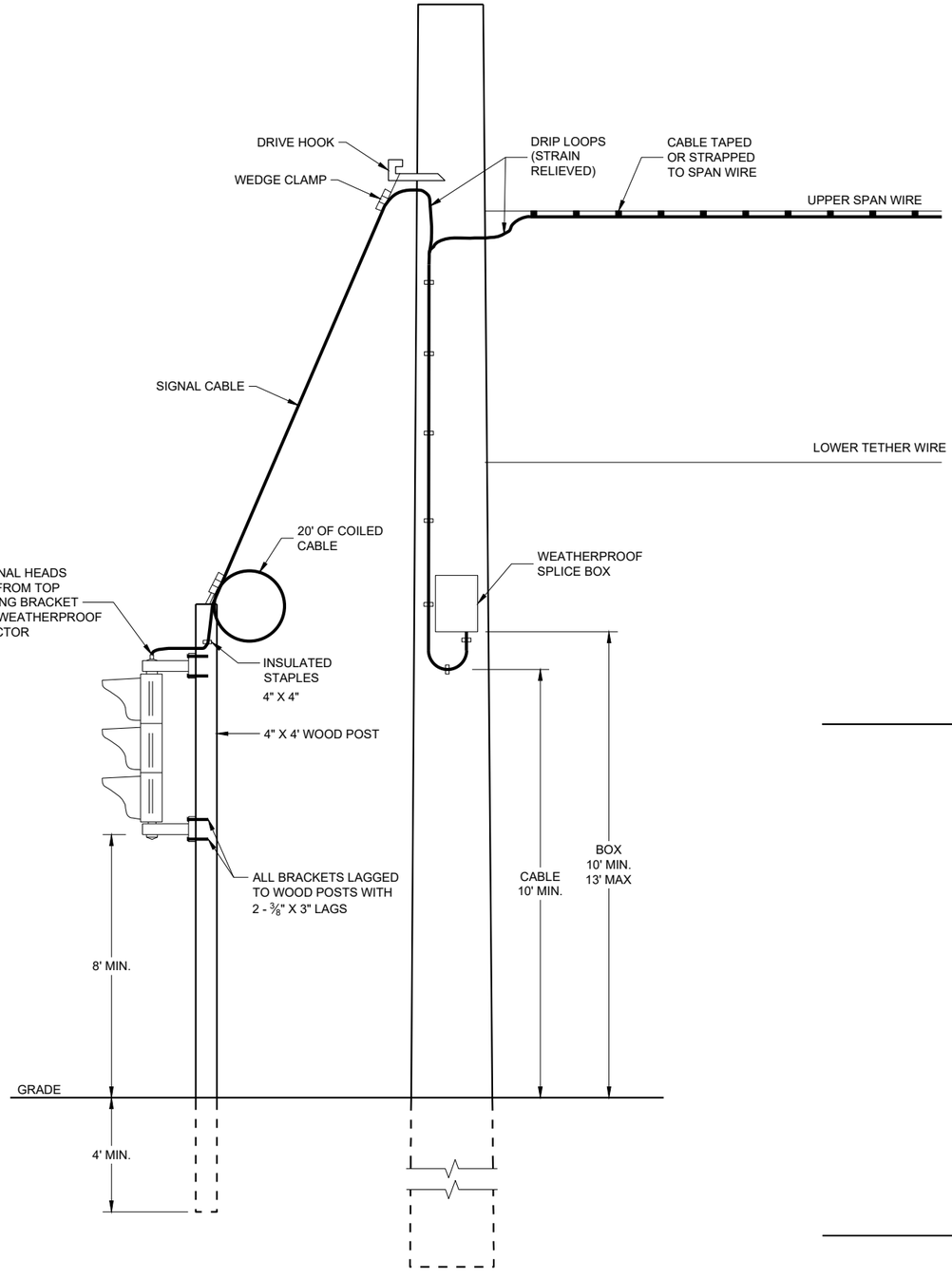
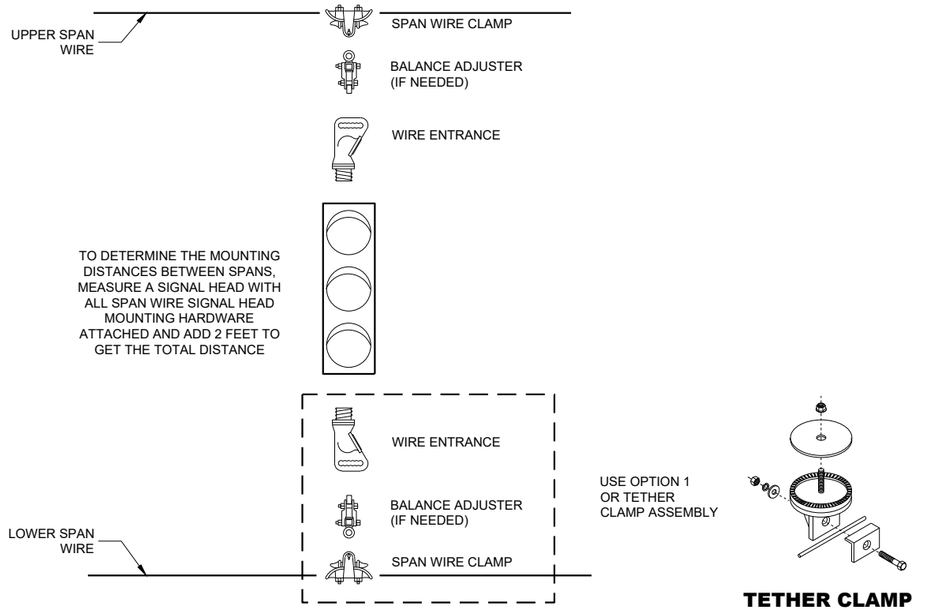
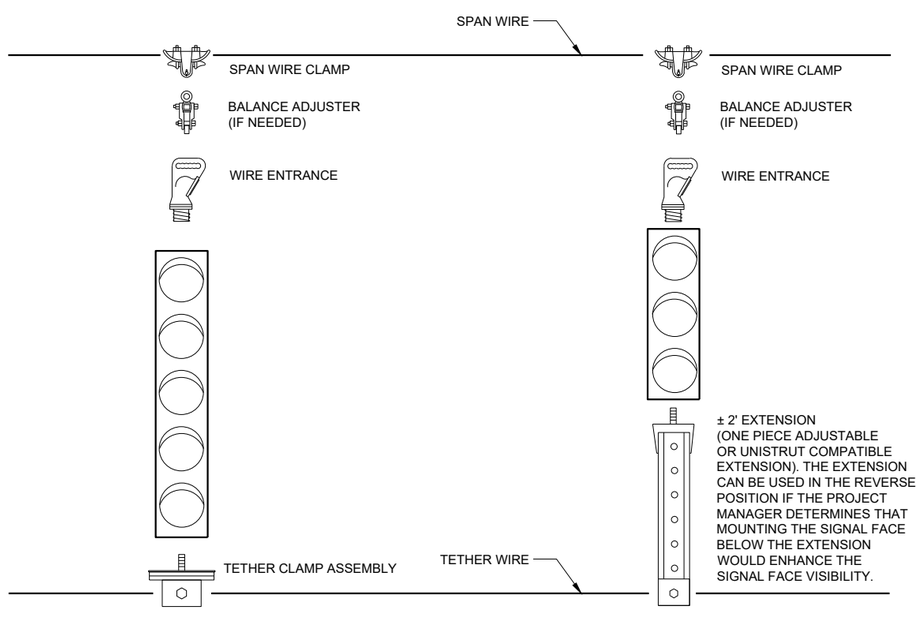


TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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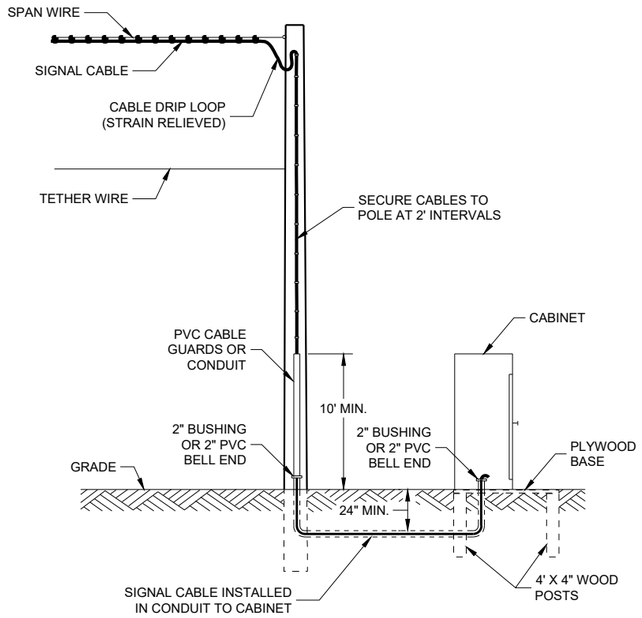
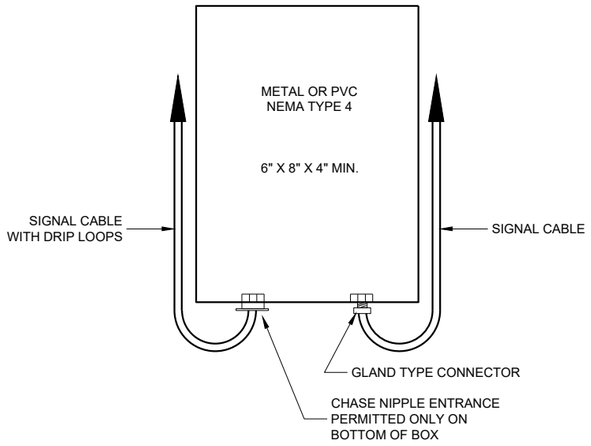
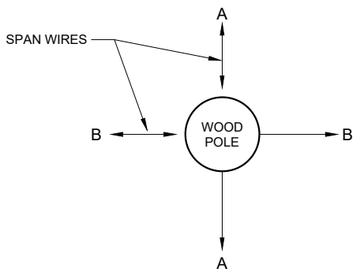




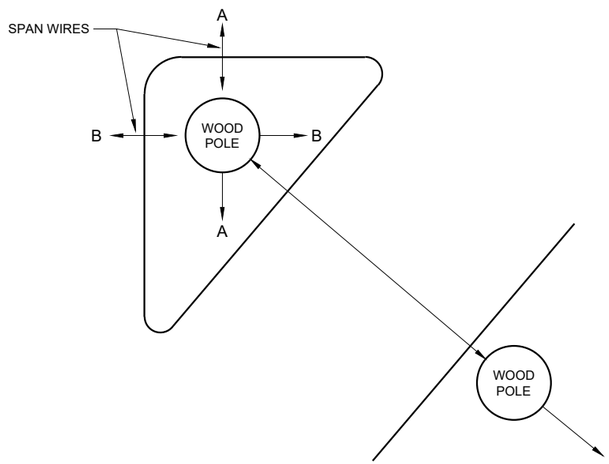
SPLICE BOX

TYPICAL SKID TYPE TEMPORARY

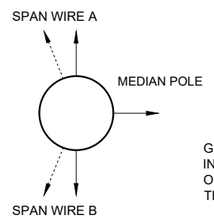


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



GUY AWAY FROM
INTERSECTION OR IN
OPPOSITE DIRECTION OF
THE SPAN LOADING

MEDIAN POLES

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June 2015
DATE

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ROADWAY STANDARDS DEVE
ENGINEER

FHWA

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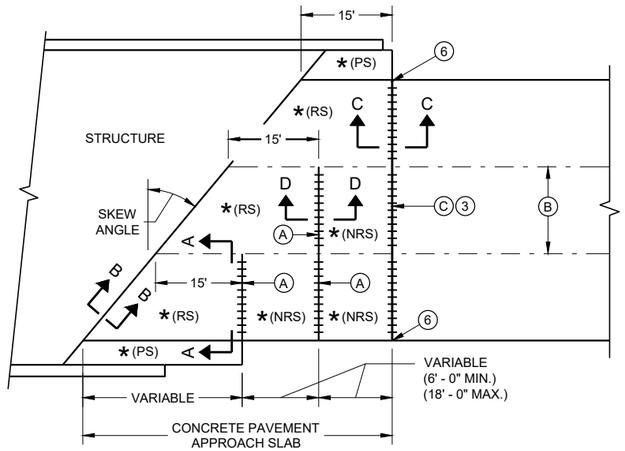
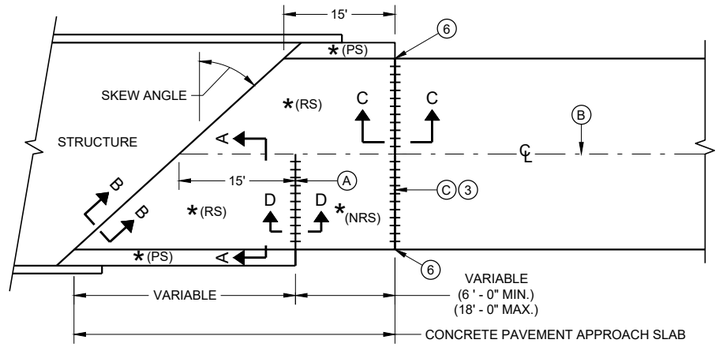
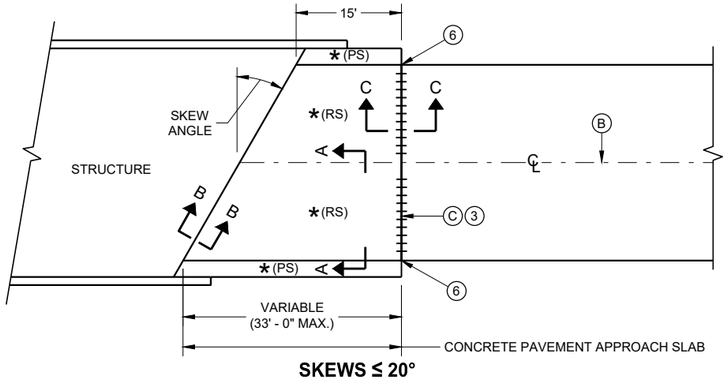


SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

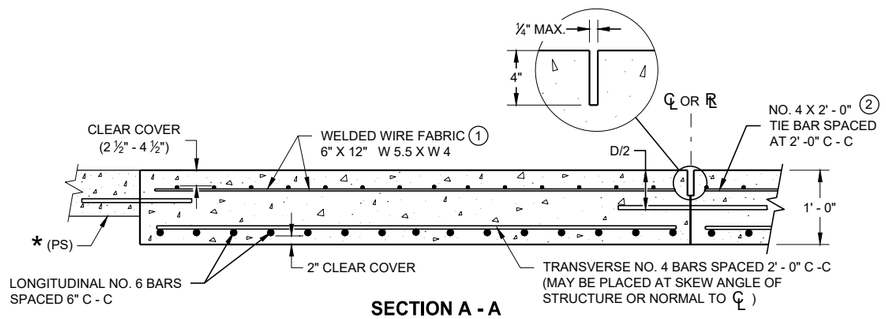
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

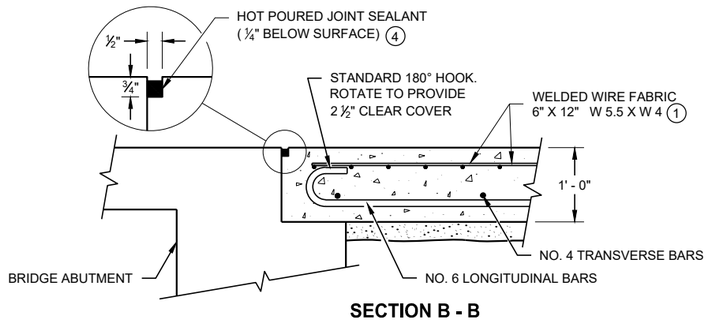
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

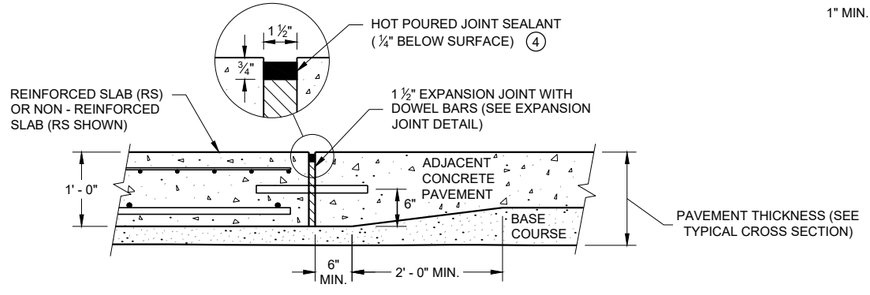
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

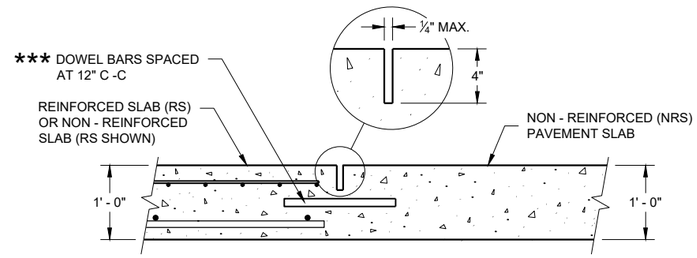
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

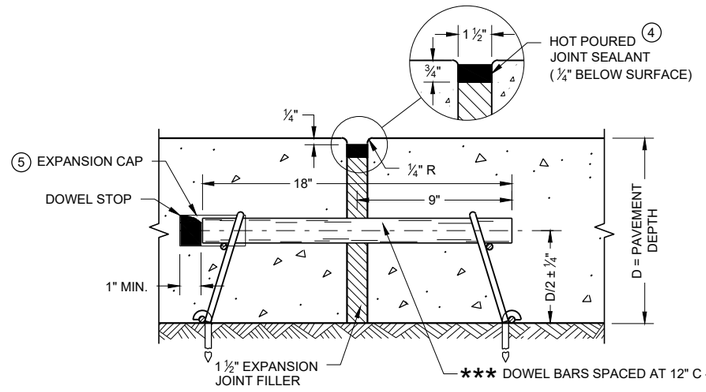
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞ .



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPERVISO

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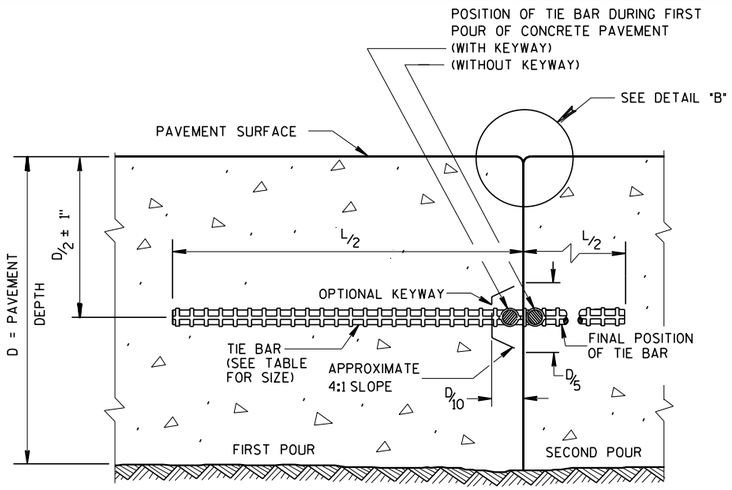
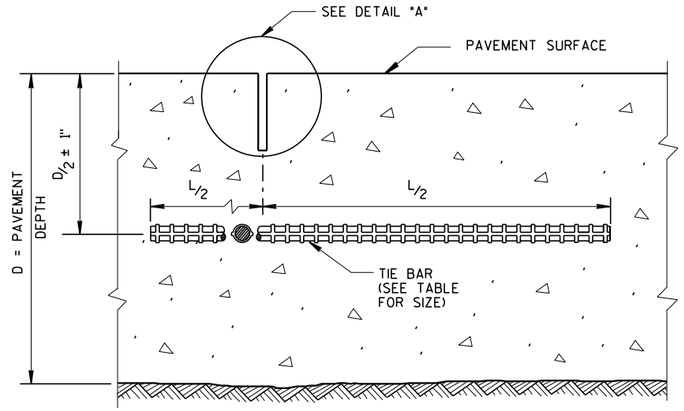
SDD 13B02 - 09a



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

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

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPE
FHWA

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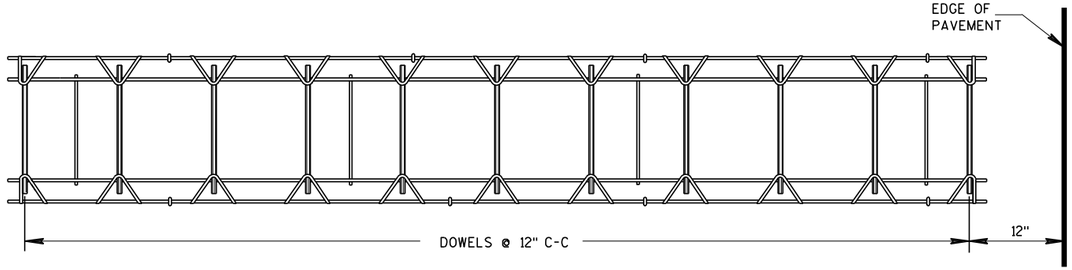


PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

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

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

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

① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

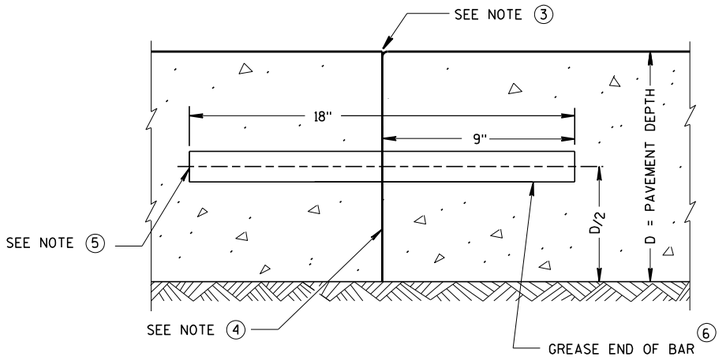
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

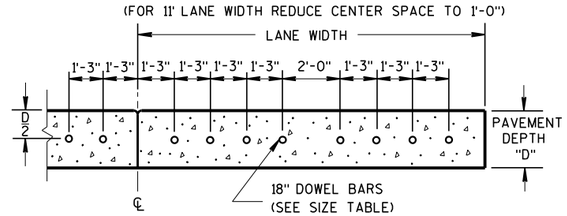
⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

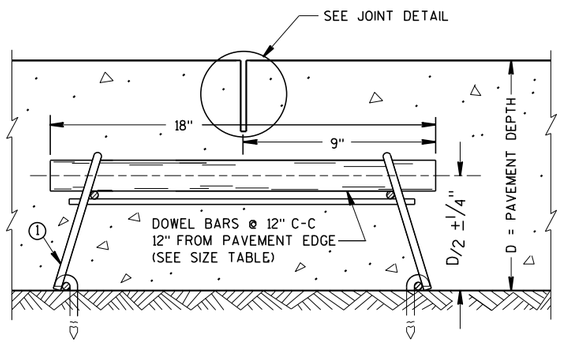
⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



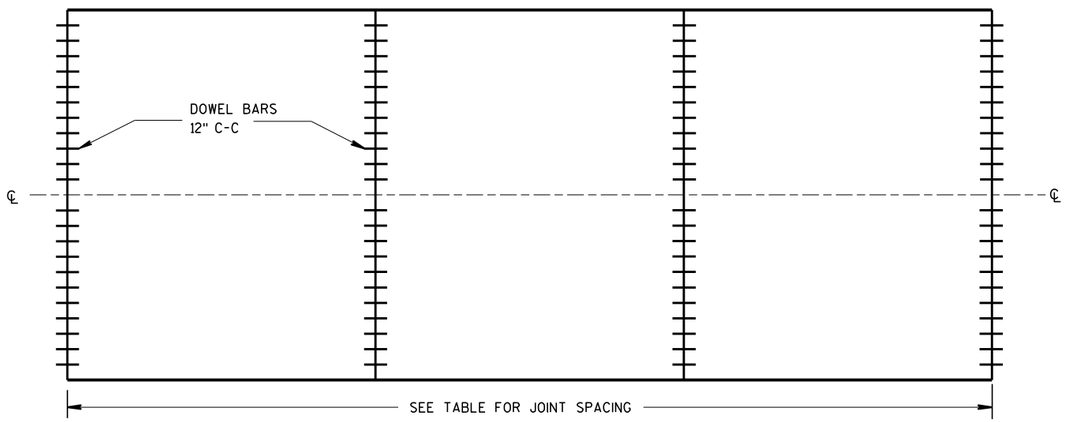
TRANSVERSE CONSTRUCTION JOINT



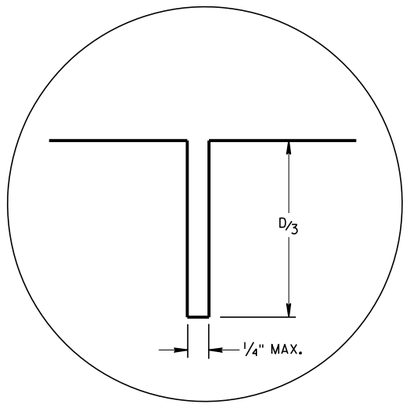
DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



DOWELED CONTRACTION JOINT



CONTRACTION JOINT LOCATIONS



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Peter Kemp P.E.
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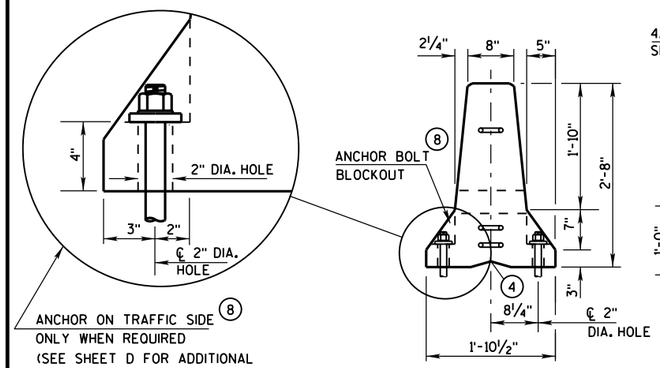
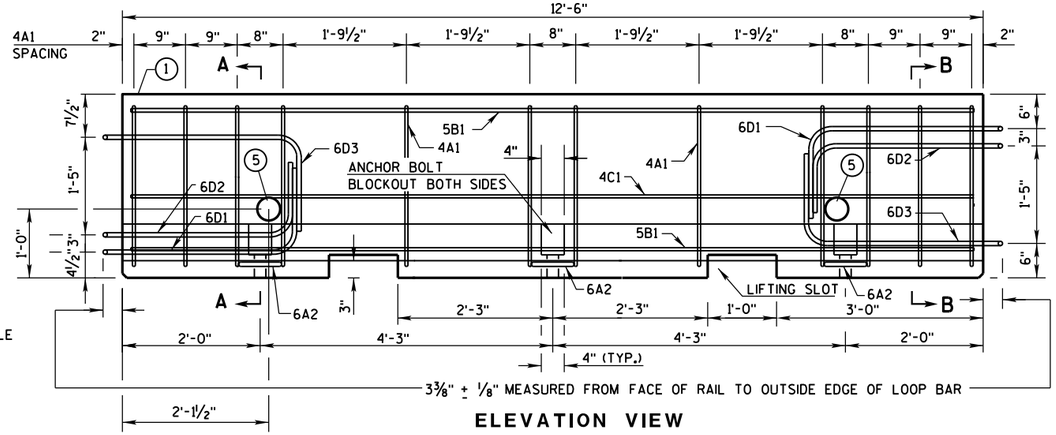
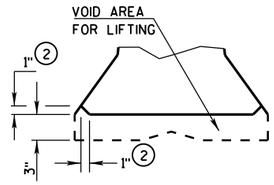


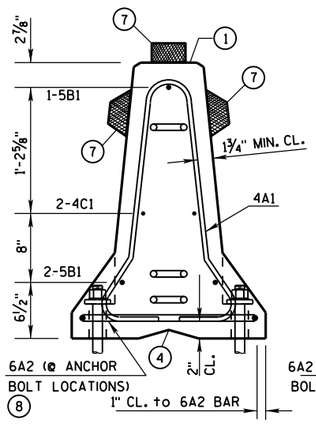
END VIEW



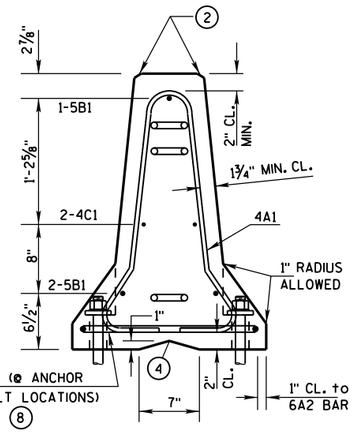
ELEVATION VIEW



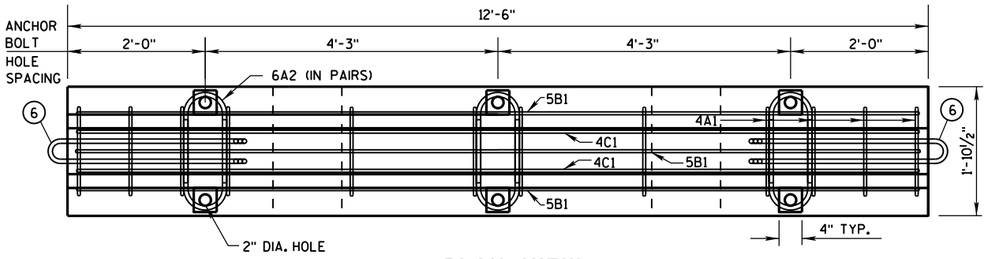
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

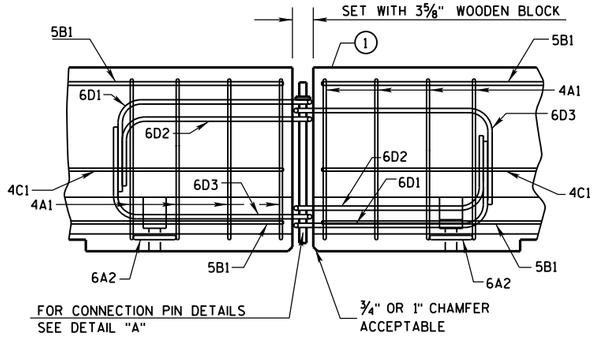


SECTION B-B
(STIRRUP PLACEMENT)

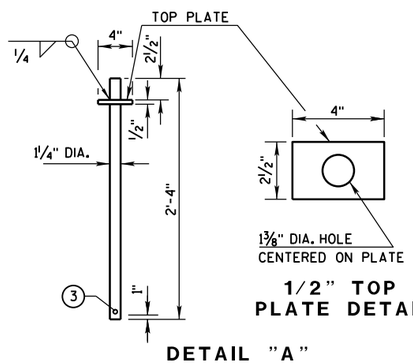


PLAN VIEW

DETAILS OF BARRIER SECTION

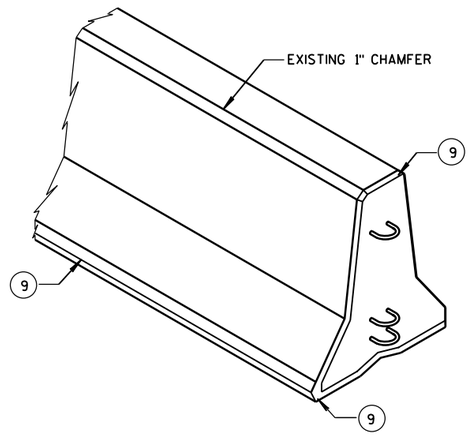


DETAILS OF BARRIER CONNECTION



1/2" TOP
PLATE DETAIL

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



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(a) THRU 14B7-15(i).

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

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

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

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

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

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

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

(2) 1" CHAMFER TO PREVENT SPALLING.

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

(4) "V" NOTCH IS OPTIONAL.

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

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

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

(8) SEE SHEET D FOR HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.

(9) 1" CHAMFER OPTIONAL.

f'c = 4,000 psi

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
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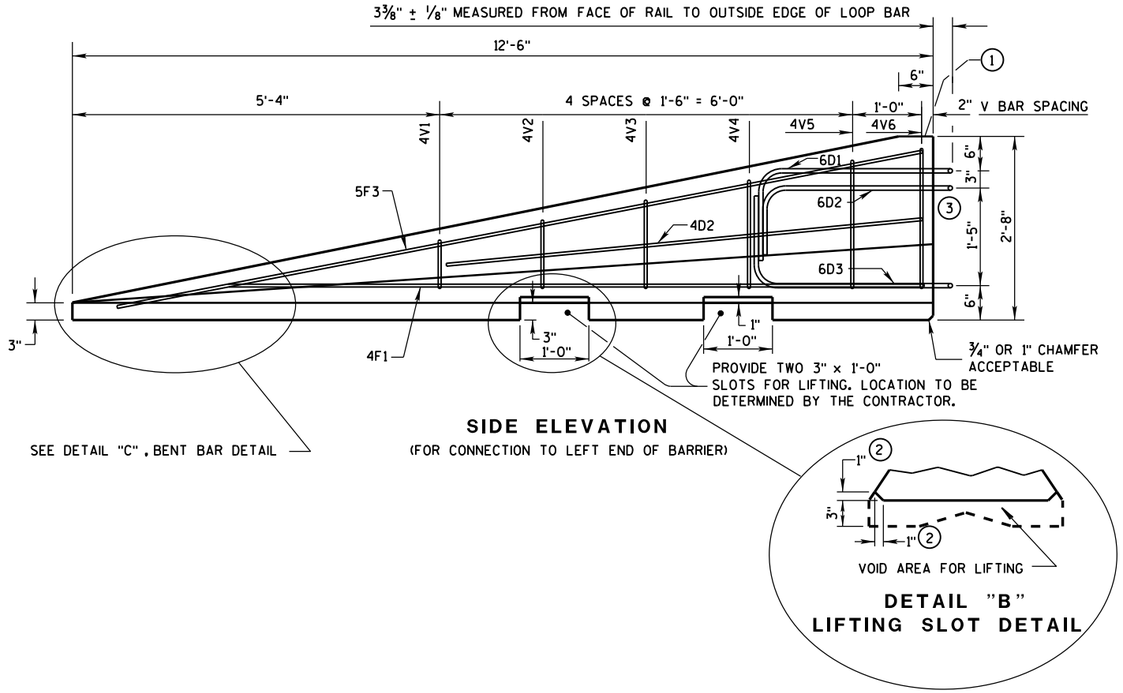
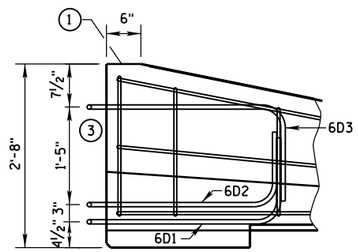
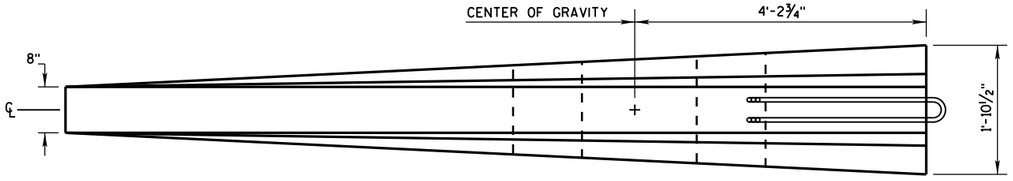
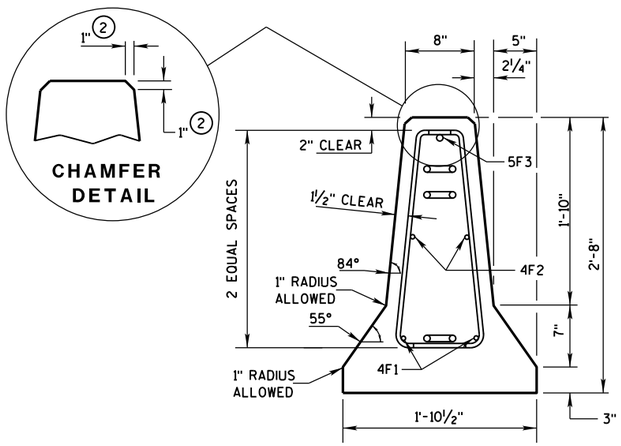


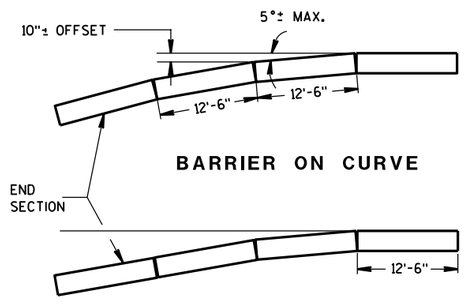


GENERAL NOTES

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 TRANSPOR

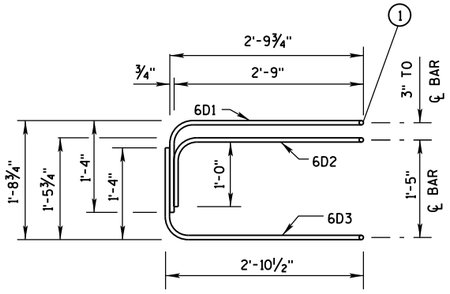
6

S.D.D. 14 B 7-15b

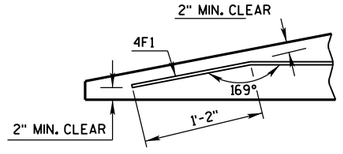
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

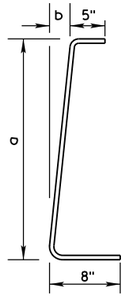
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



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

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

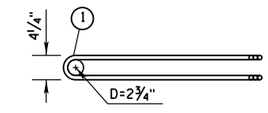
GENERAL NOTES

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

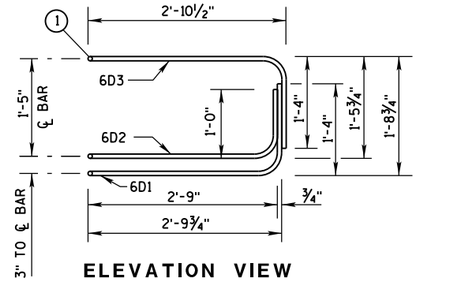
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

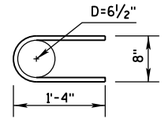
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



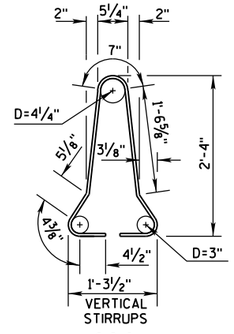
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2



4A1

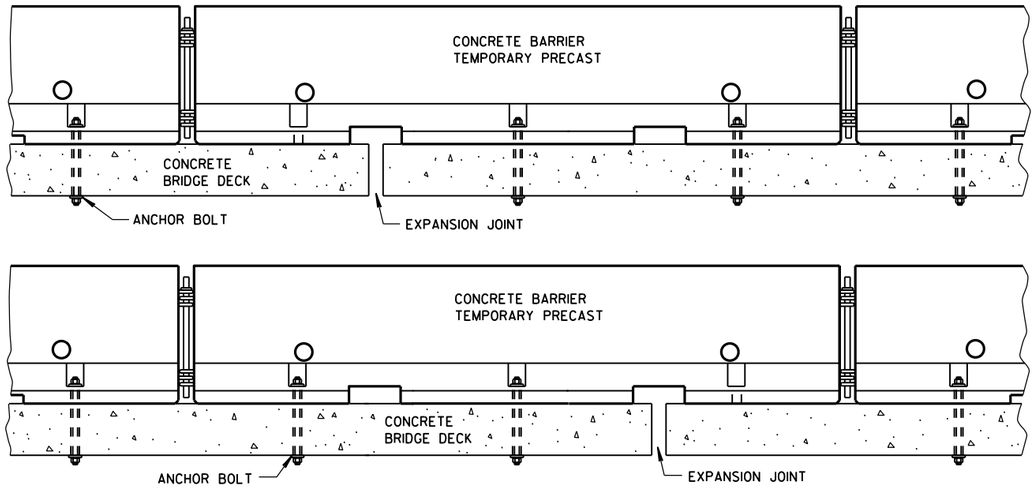
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 7-15c



TREATMENT AT BRIDGE DECK EXPANSION JOINTS

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

GENERAL NOTES

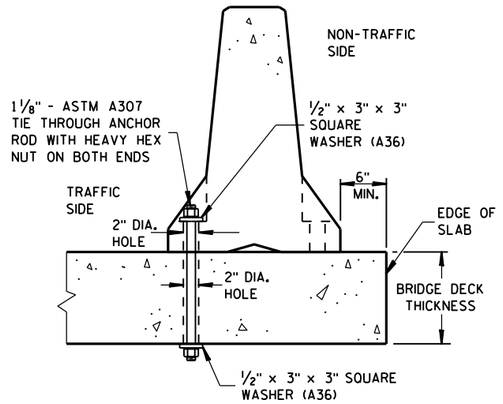
SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERICAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(1) 1⅛" DIAMENTER A307 THREADED ROD. ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL. ASTM A563A HEAVY HEX NUT.

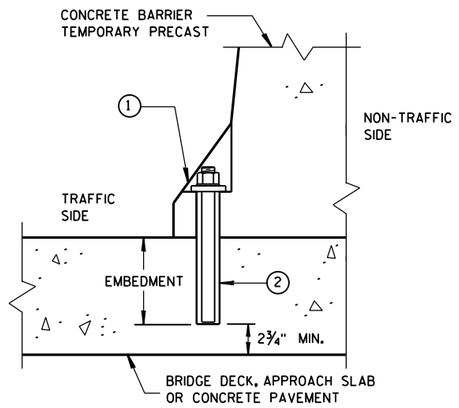
(2) ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

(3) ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THAN DRIVE ASPHALT ANCHOR PIN.



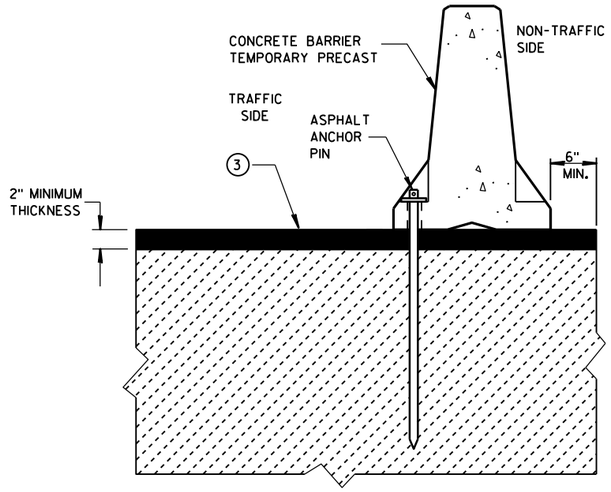
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)

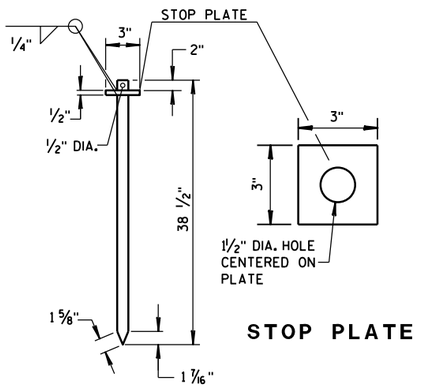


REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



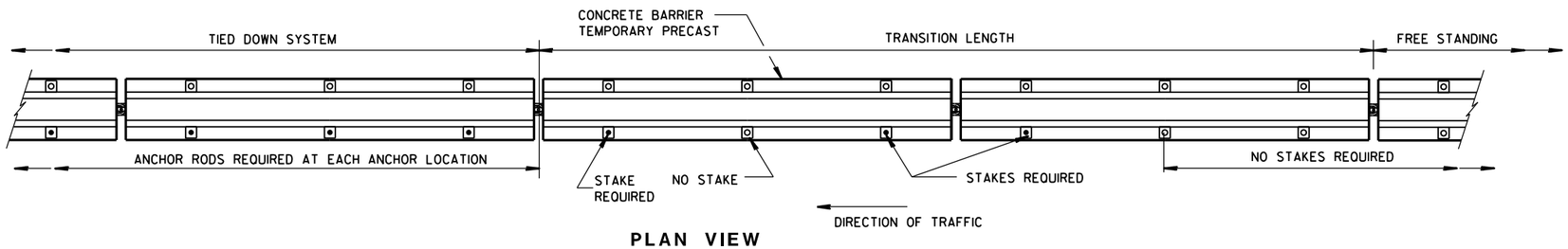
STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE



STOP PLATE

ASPHALT ANCHOR PIN

(ASTM A36 STEEL)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

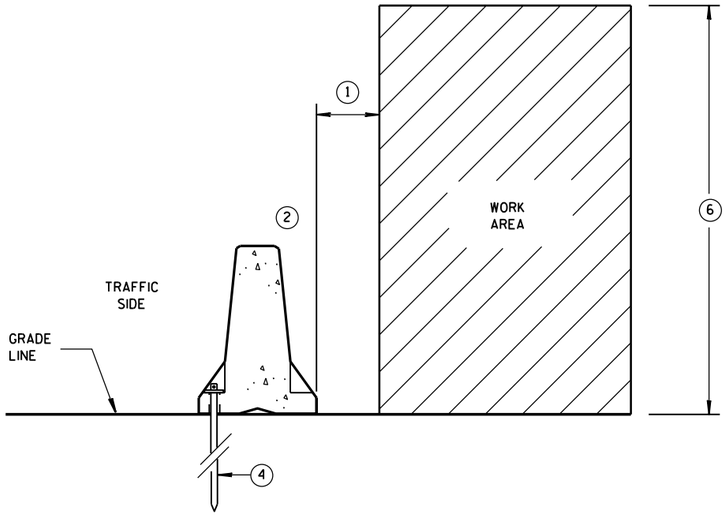
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

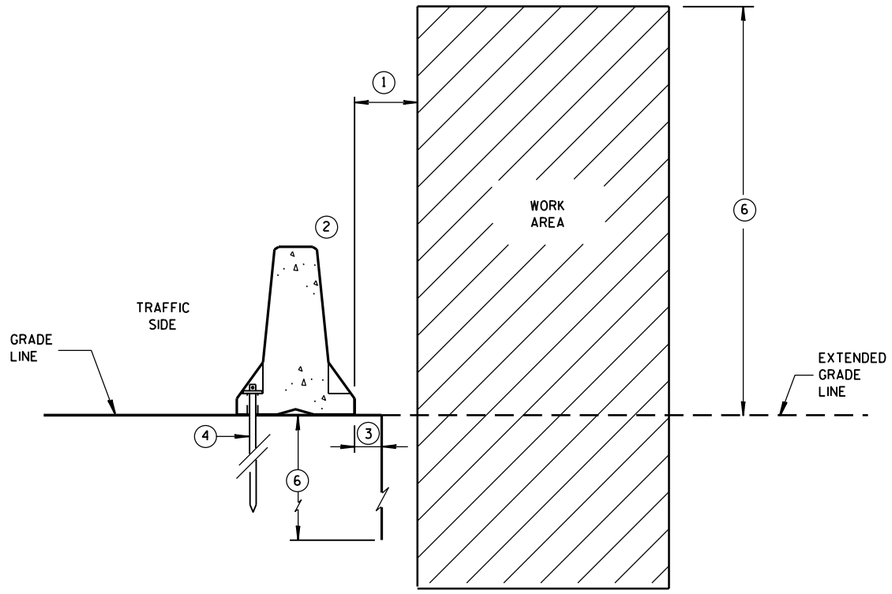
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 7-15d



ANCHORED BARRIER SPACE REQUIREMENTS FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

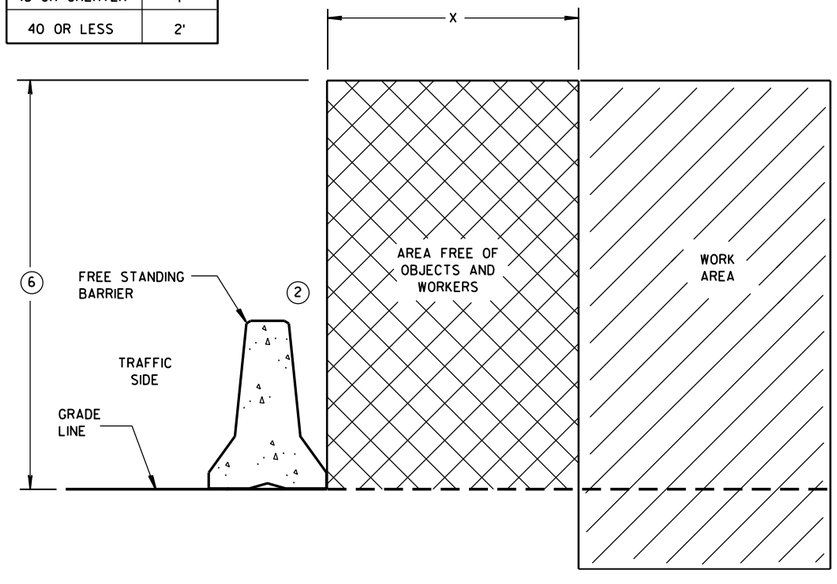


ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS

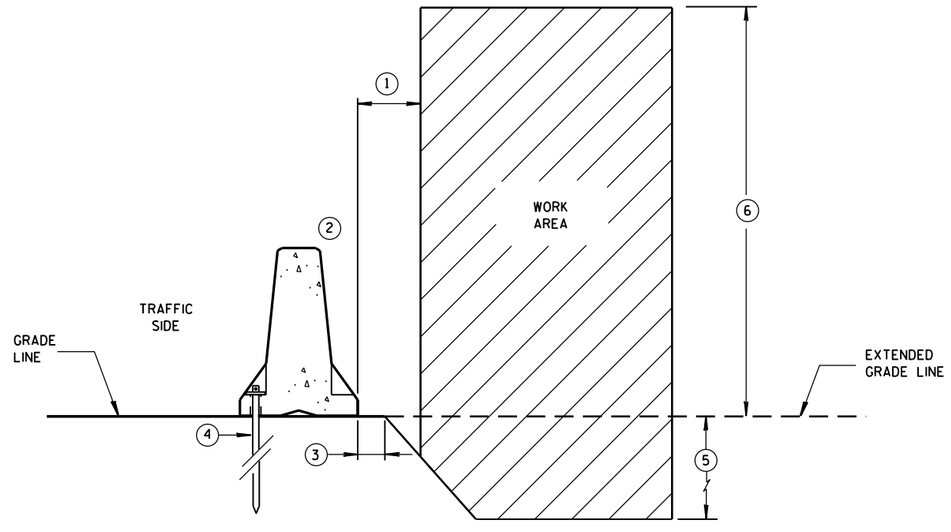
GENERAL NOTES

1. WHEN OBJECTS EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT. SEE OTHER DETAILS FOR FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR VERTICAL DROPS.
2. OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR LEANED AGAINST THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.
3. SEE OTHER DETAIL ON SHEET "D" FOR SPACE REQUIREMENTS.
4. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR A STAKE DOWN FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.
5. DEPTH OF 3 FEET OR MORE.
6. Y = 6'-6".

POSTED SPEED MPH	X
45 OR GREATER	4'
40 OR LESS	2'



FREE STANDING BARRIER SPACE REQUIREMENTS



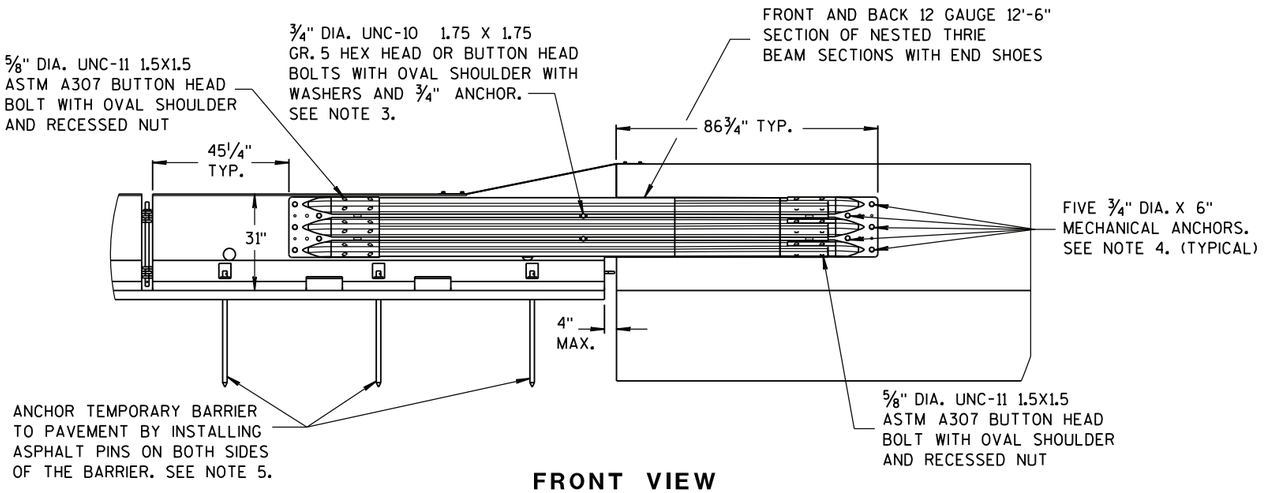
ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

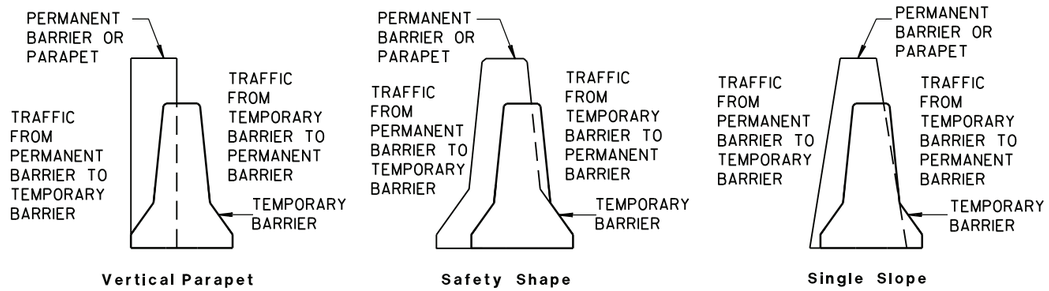
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 7-15e



FRONT VIEW

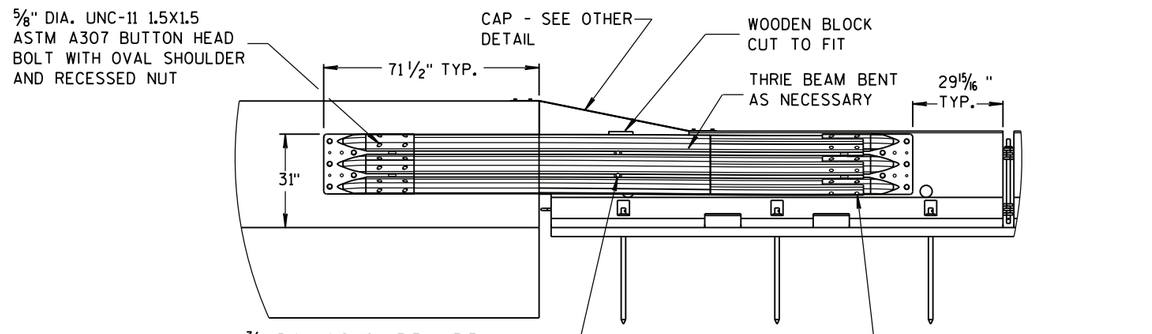


TEMPORARY BARRIER PLACEMENT FOR TRANSITION TO TIED DOWN SYSTEM

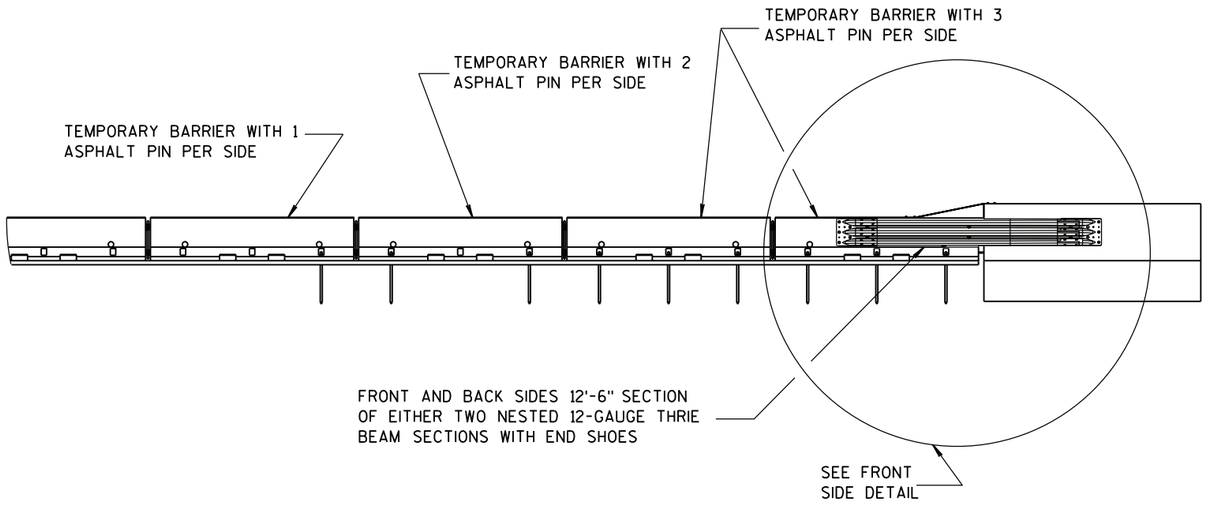
NOTES

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

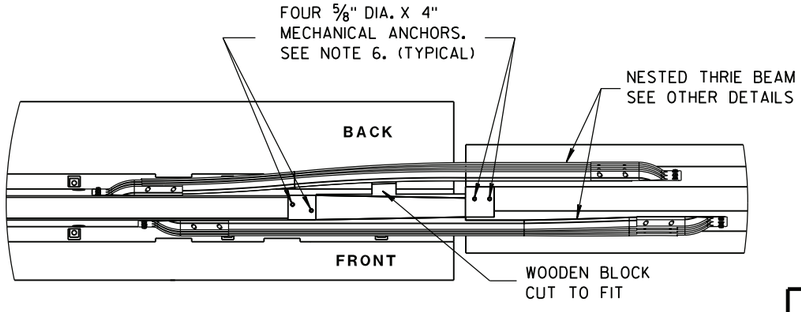
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD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



BACK VIEW



FRONT VIEW



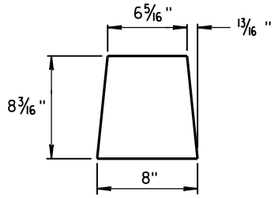
PLAN VIEW

TRANSITION TO TIED DOWN SYSTEM

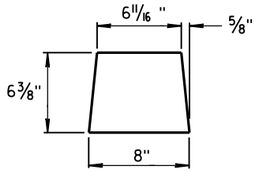
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

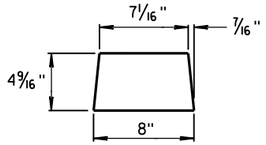
6
S.D.D. 14 B 7-15f



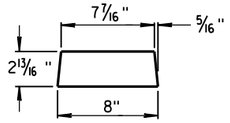
GUSSET 1



GUSSET 2

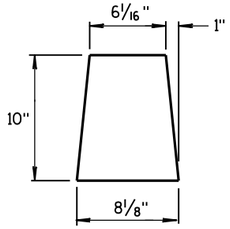


GUSSET 3

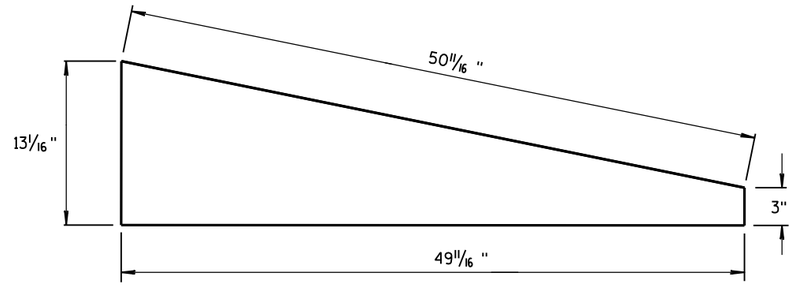


GUSSET 4

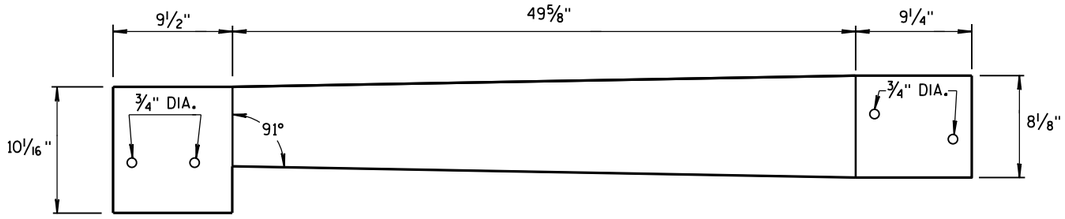
GUSSETS

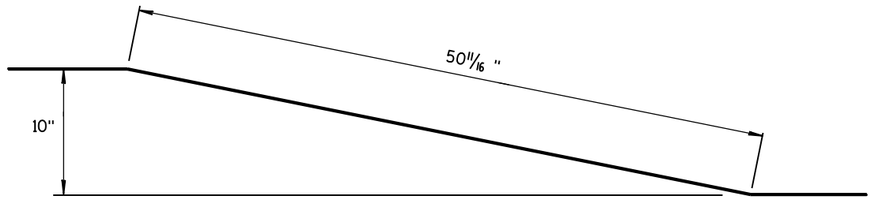


END PLATE



SIDE PLATE

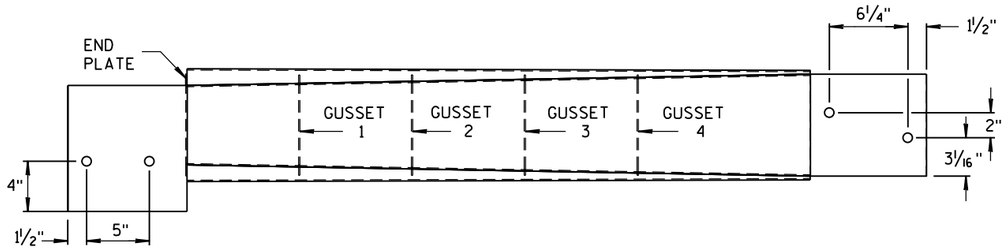


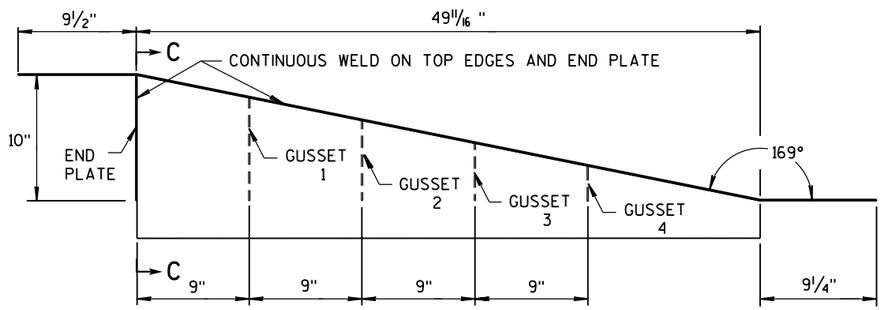


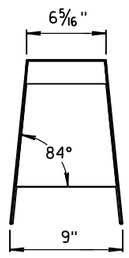
TOP PLATE

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

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







SECTION C-C

NOTES

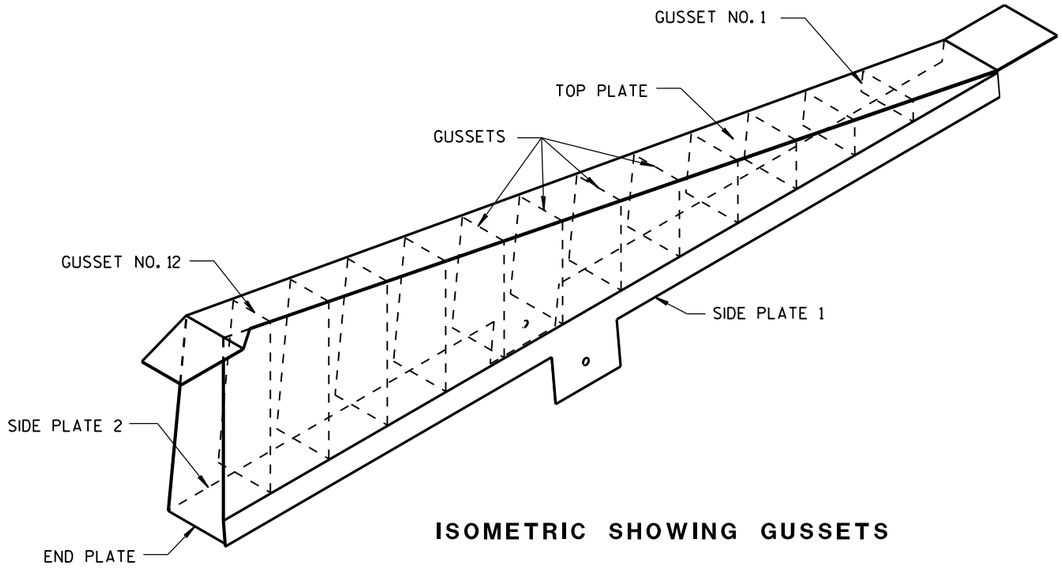
1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

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

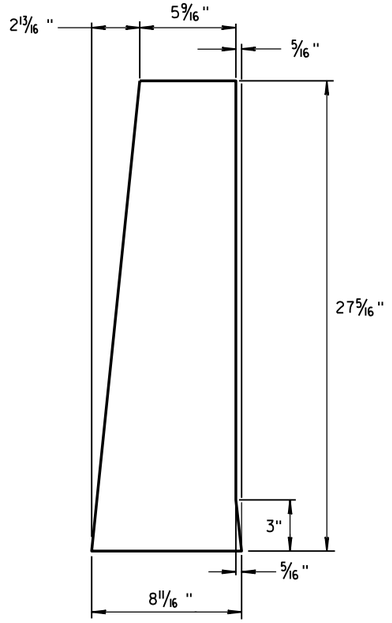
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-15g

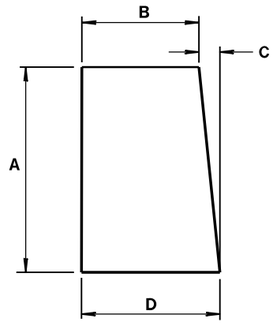


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



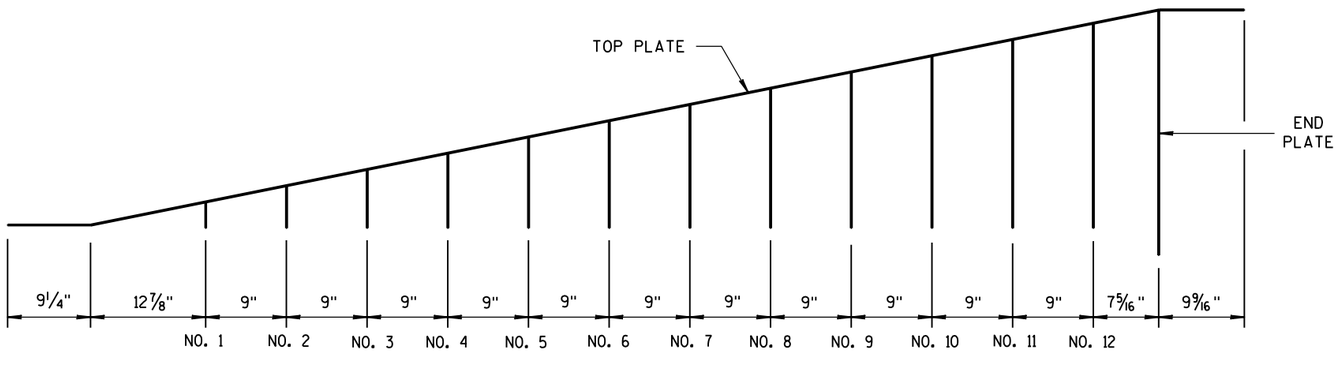
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

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

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

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



GUSSET LOCATION

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

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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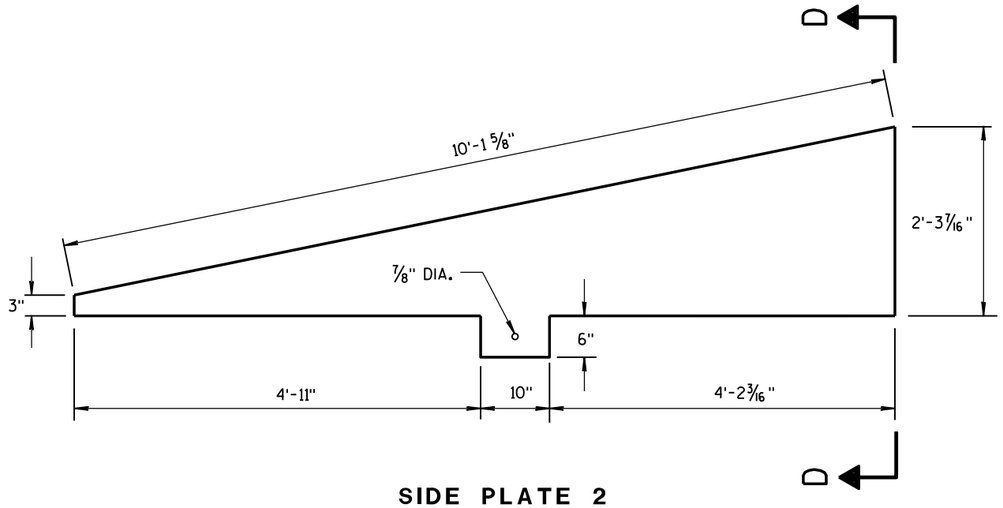
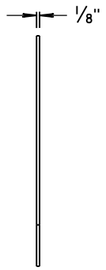
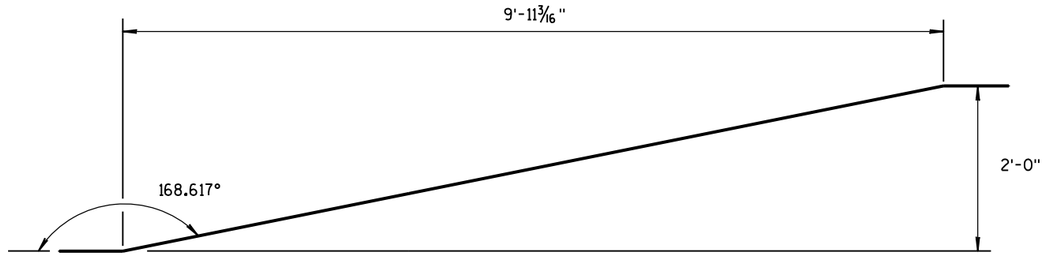
S.D.D. 14 B 7-15h



SIDE PLATE 2

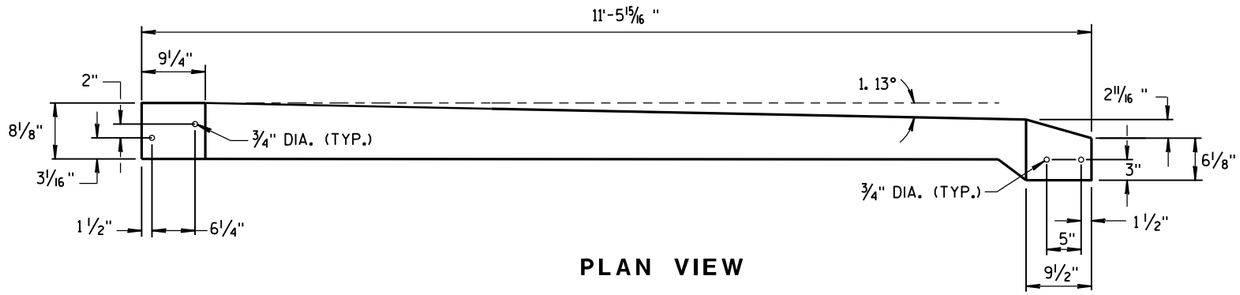


END VIEW



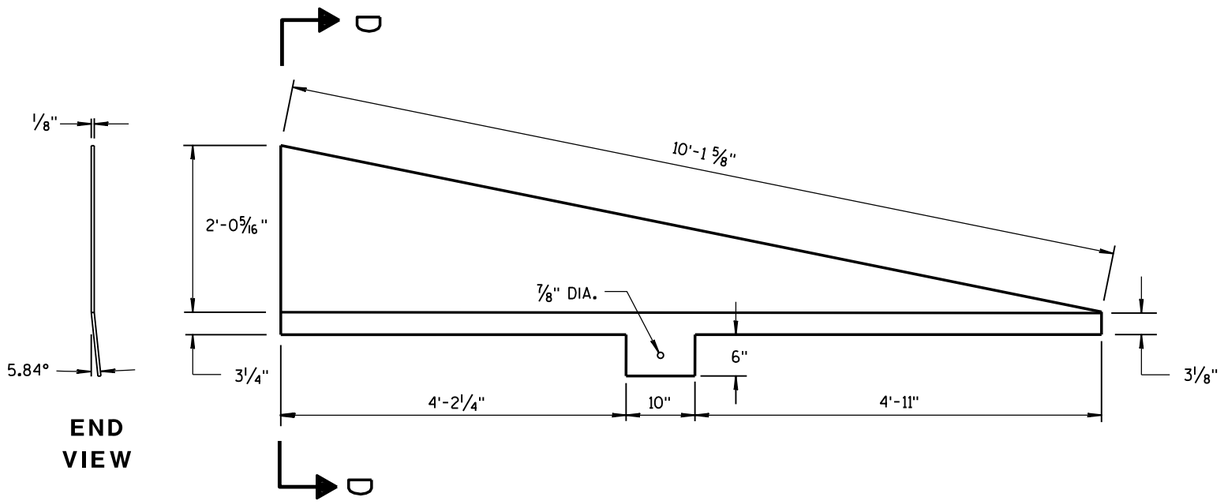
SIDE VIEW

TOP PLATE



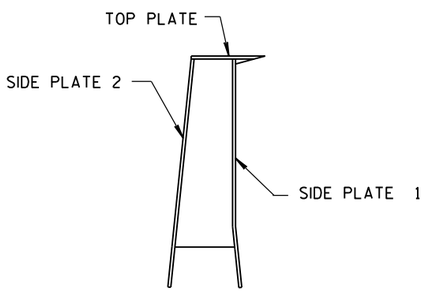
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

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

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV
92
ENT
FHWA

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S.D.D. 14 B 7-15i

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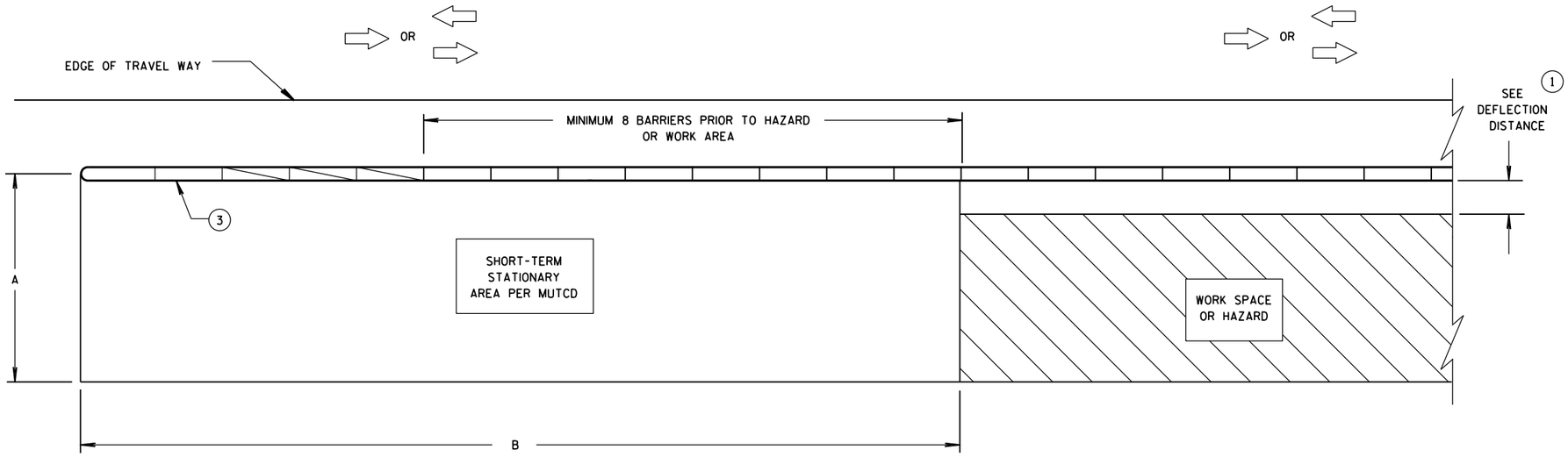
S.D.D. 14 B 7-15i



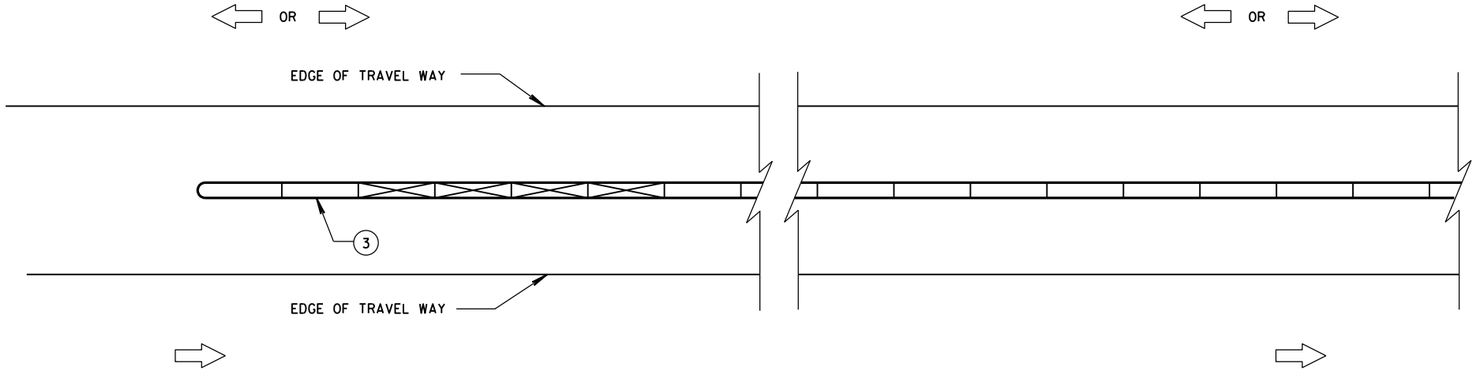
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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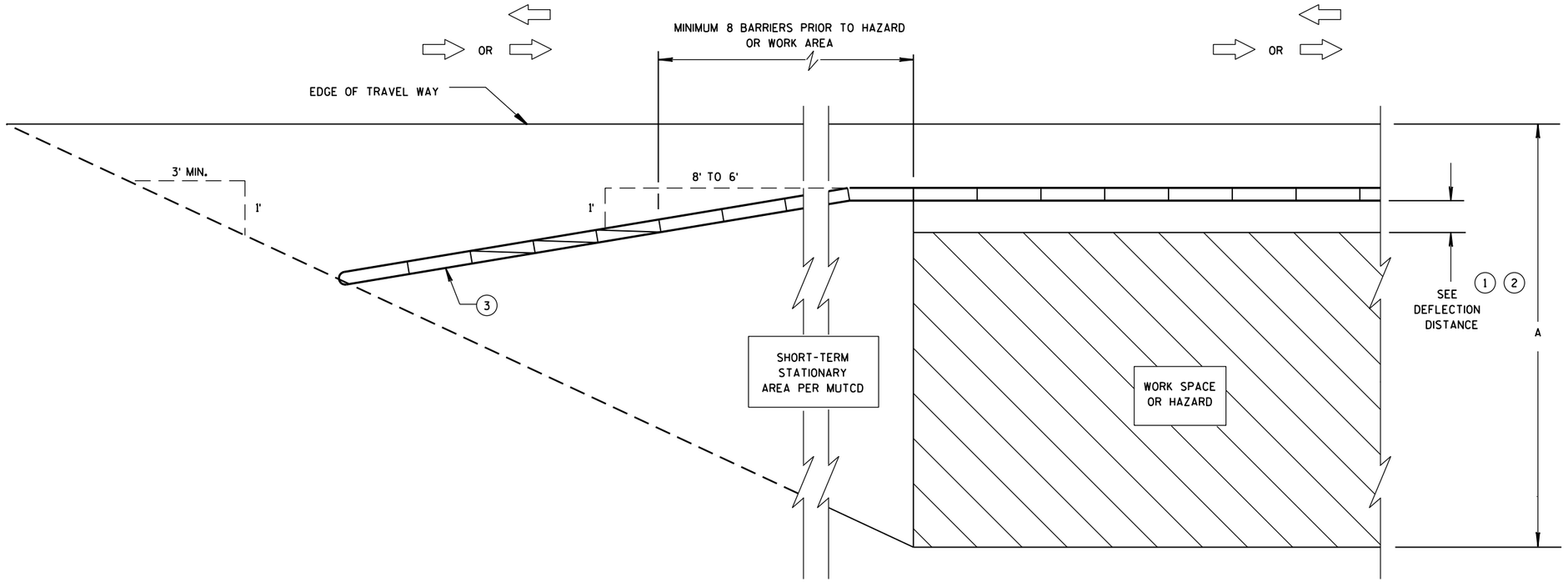
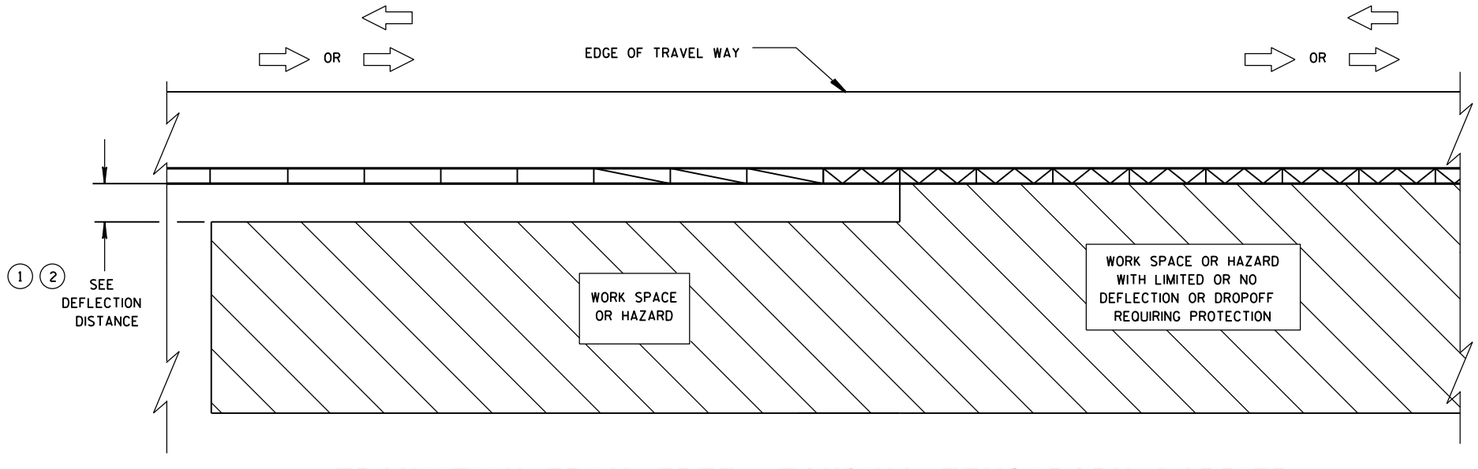
S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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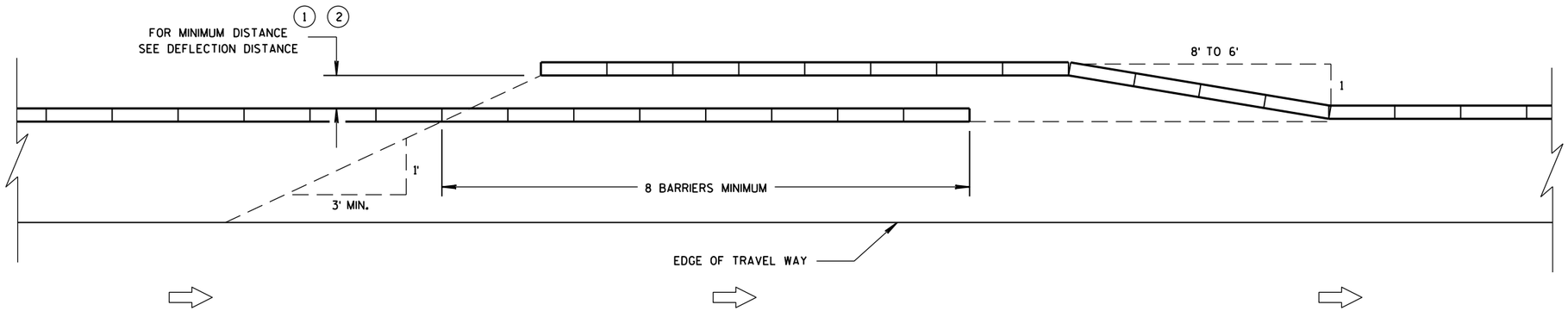
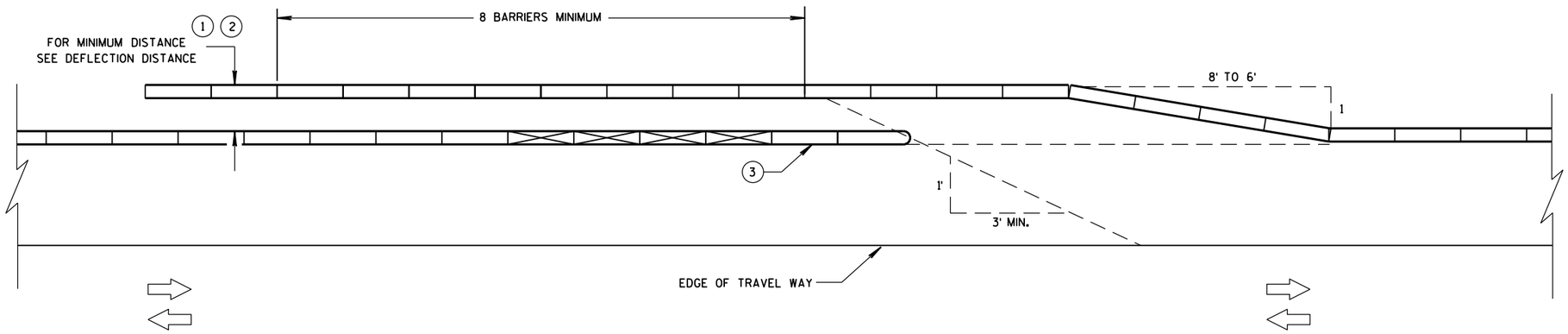
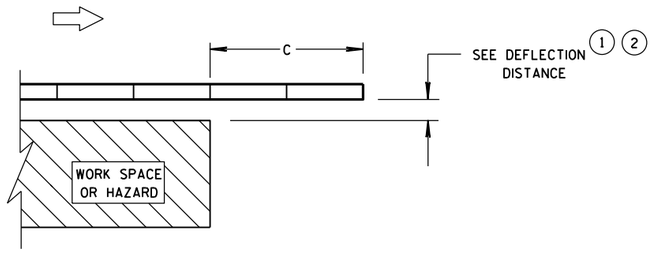
S.D.D. 14 B 8-2b



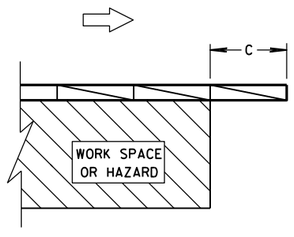
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

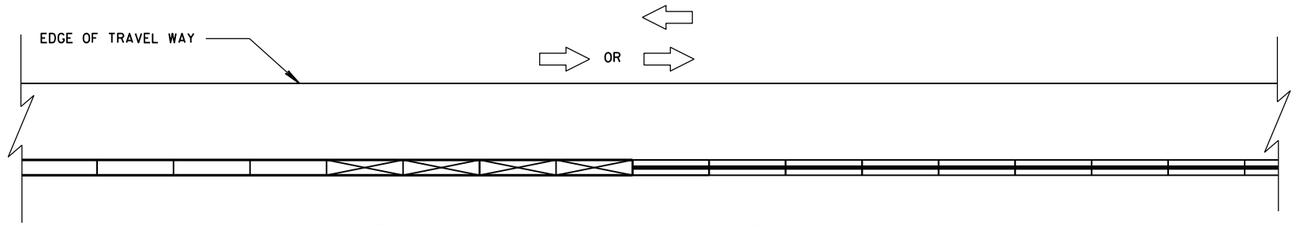
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

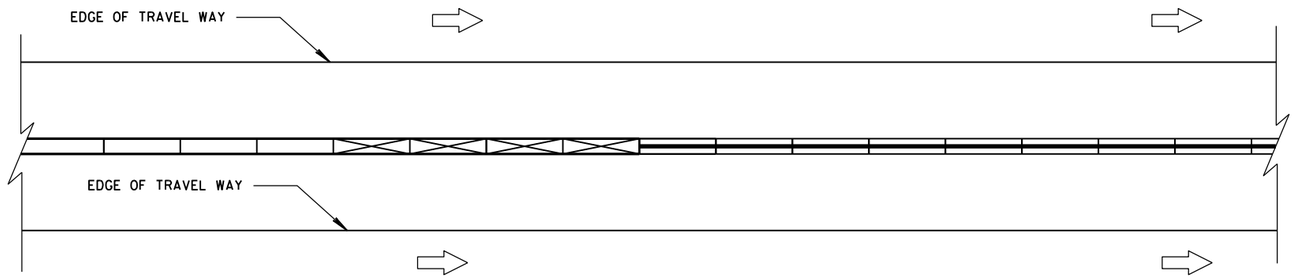
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

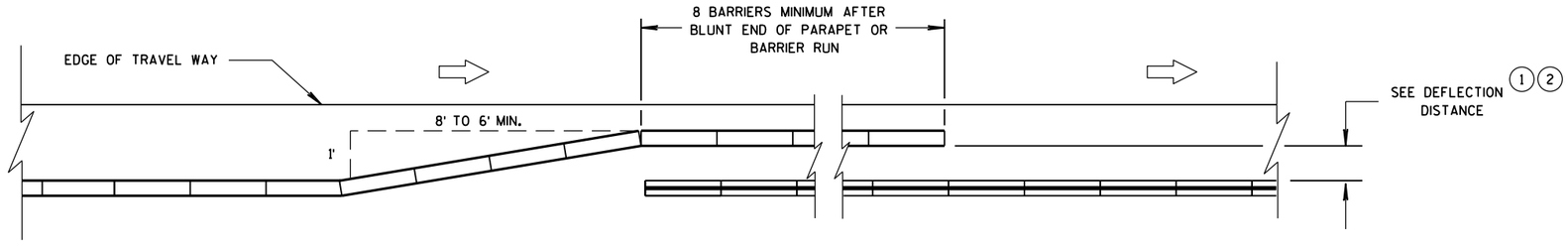
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

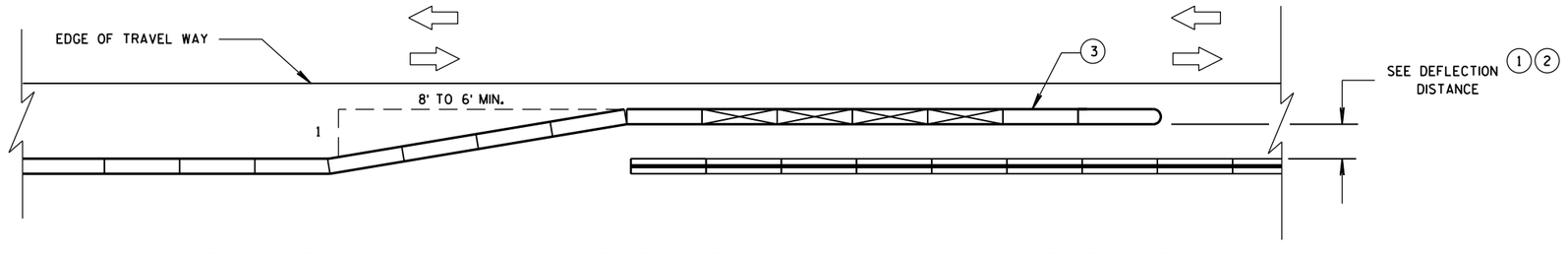
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

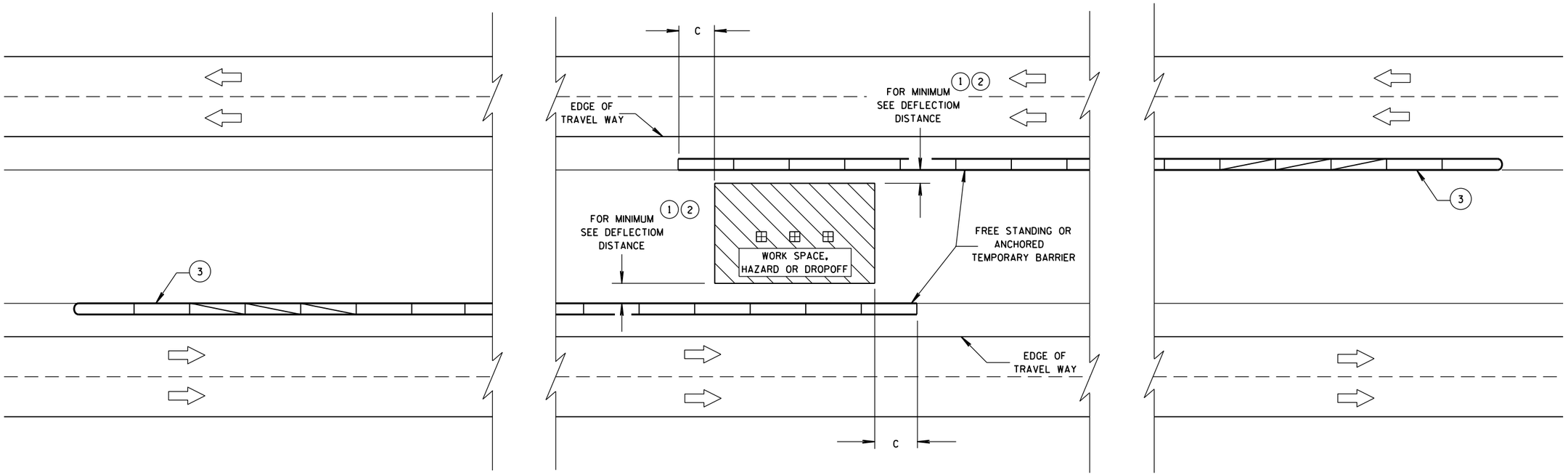
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER
97
ENT
FHWA

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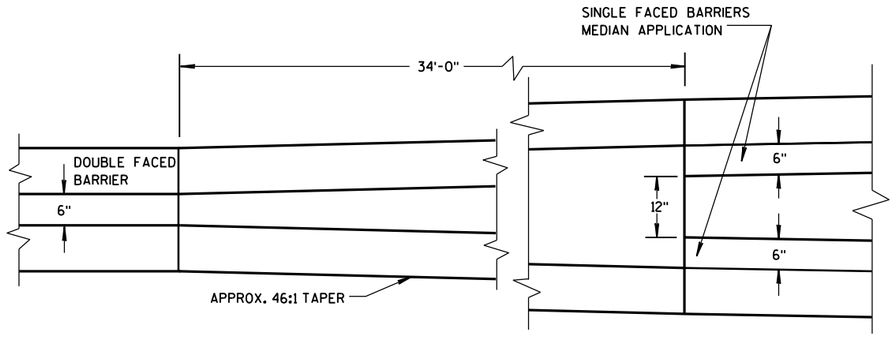
S.D.D. 14 B 8-2e



PLAN VIEW

TRANSITION DETAILS OF DOUBLE FACED TO SINGLE FACED CONCRETE MEDIAN BARRIER

(FOOTINGS ARE NOT SHOWN)

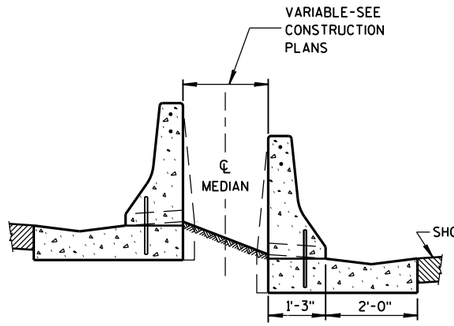
GENERAL NOTES

SPLICES OF LONGITUDINAL BARS SHALL BE MADE WITH BARS LAPPED AT LEAST 18-INCHES AND FIRMLY TIED OR FASTENED TOGETHER.

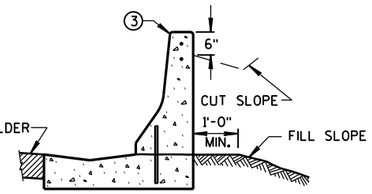
ALL BAR STEEL REINFORCEMENT SHALL CONFORM TO REQUIREMENTS OF AASHTO M31, GRADE 60.

1. BARRIER SHALL BE INSTALLED ON A CONCRETE SHOULDER INSTEAD OF THE CONCRETE FOOTING WHEN SPECIFIED OR SHOWN ELSEWHERE IN CONTRACT.
2. OPENINGS FOR DRAINAGE SHALL BE PLACED AT LOW POINTS OF VERTICAL CURVES OR WHERE DIRECTED BY THE ENGINEER.
3. 3/4-INCH BEVEL OR 1-INCH RADIUS (TYPICAL).
4. NO. 4 BARS SHALL BE CONTINUED THROUGH CONSTRUCTION JOINTS.
5. EXPANSION JOINTS SHALL BE PLACED AT EXISTING EXPANSION JOINTS IN THE PAVEMENT AND AT STRUCTURES. SEE REINFORCEMENT AT BARRIER END DETAIL.
6. SAWED CONTRACTION JOINTS SHALL BE PROVIDED ACROSS THE FULL WIDTH OF THE BARRIER FOOTING, AND IN FRONT, TOP AND BACK FACE OF THE BARRIER AT EXISTING PAVEMENT JOINTS AND AT UNIFORM INTERVALS BETWEEN WITH A MAXIMUM SPACING OF 25 FEET.

HIGH SIDE
CONCRETE BARRIER DETAIL

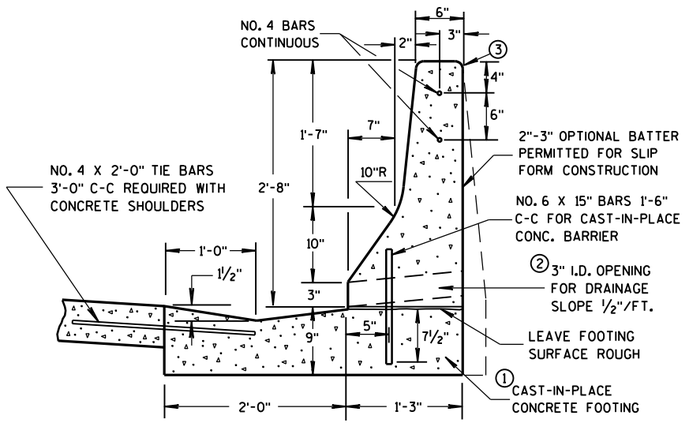


MEDIAN

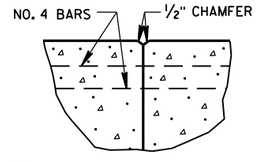


SHOULDER

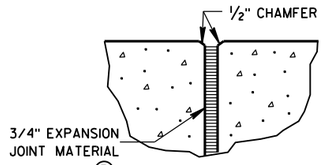
TYPICAL APPLICATIONS



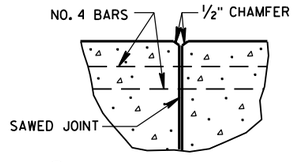
SECTION VIEW



4 CONSTRUCTION JOINT



5 EXPANSION JOINT



6 CONTRACTION JOINT

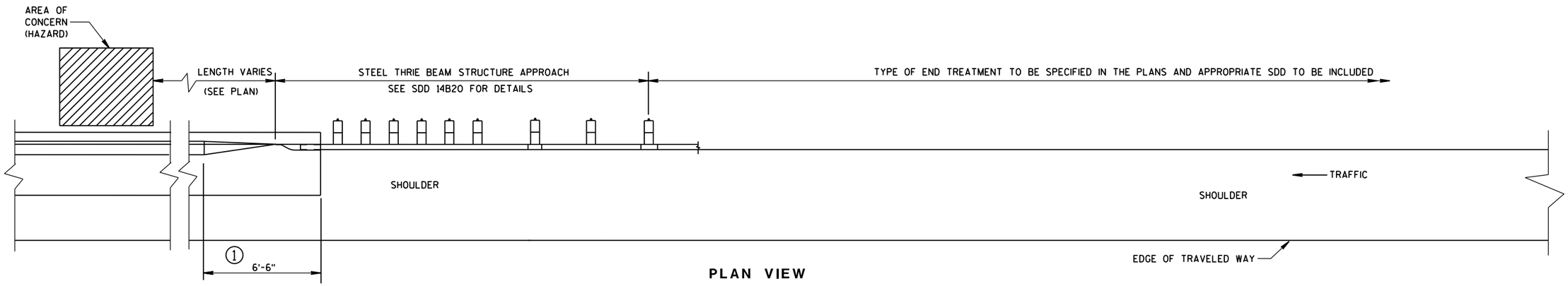
JOINT DETAILS

CONCRETE BARRIER,
SINGLE-FACED
(WITH ANCHORAGE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

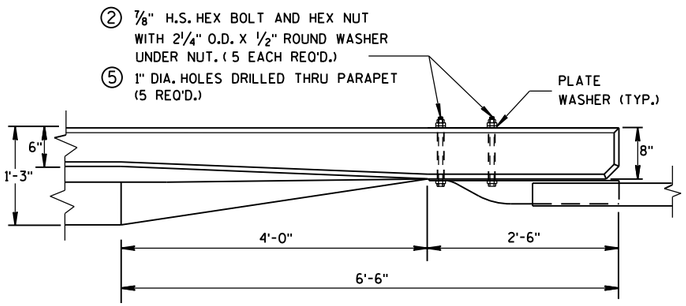
6

S.D.D. 14 B 22-6a



PLAN VIEW

TRANSITION TO STEEL PLATE BEAM GUARD AND END TERMINAL



PLAN VIEW

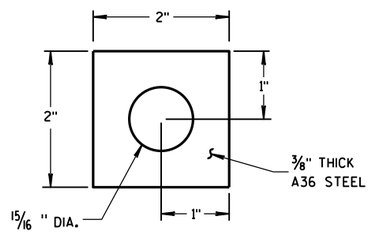
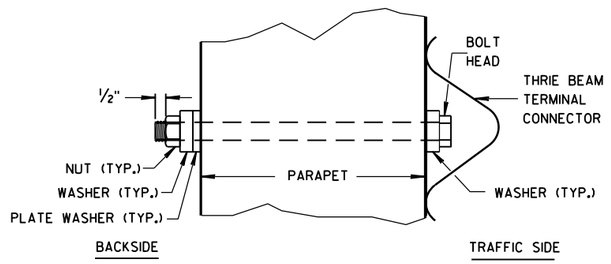


PLATE WASHER DETAIL

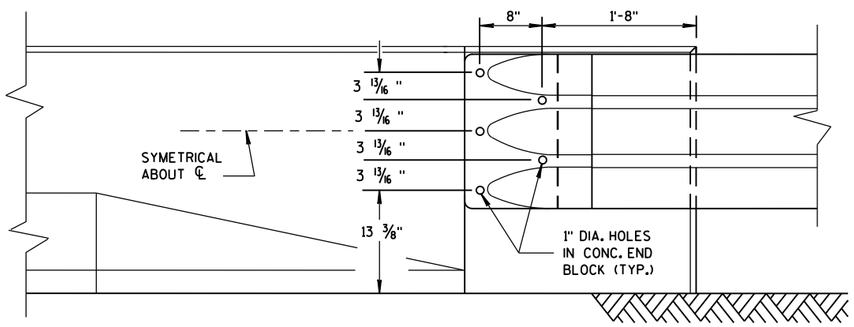


THRIE BEAM BOLT DETAIL

GENERAL NOTES

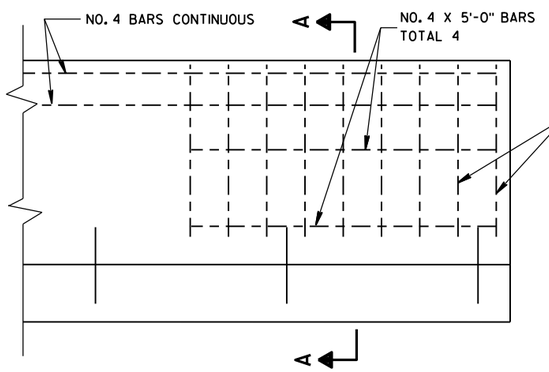
1. A SPECIAL END IS REQUIRED ON THE CONCRETE BARRIER TO TRANSITION TO A CONNECTION WITH THE STEEL THRIE BEAM STRUCTURE APPROACH. SEE THE DETAILS ON THIS SHEET.
2. BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE 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. REINFORCEMENT REQUIRED AT EXPANSION JOINTS AND WHERE CONCRETE BARRIER IS TERMINATED.
4. PLACE REINFORCEMENT SUCH THAT IT WILL NOT CONFLICT WITH THE BOLT HOLES IN THE THRIE BEAM TERMINAL CONNECTOR.
5. INCLUDE THE PAYMENT FOR DRILLING BOLT HOLES THROUGH THE PARAPET, AND ALL BOLTS, NUTS AND WASHERS IN THE ITEM "STEEL THRIE BEAM STRUCTURAL APPROACH".

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.

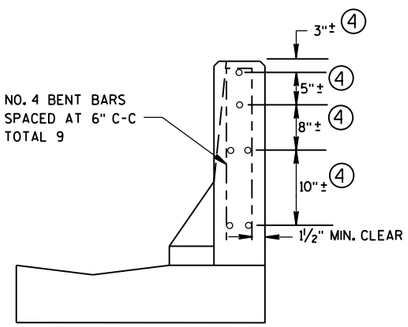


FRONT VIEW

CONCRETE BARRIER TRANSITION TO THRIE BEAM

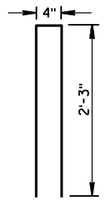


FRONT VIEW



SECTION A-A

3 REINFORCEMENT AT BARRIER END



BENT BAR DETAIL

CONCRETE BARRIER, SINGLE-FACED (WITH ANCHORAGE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

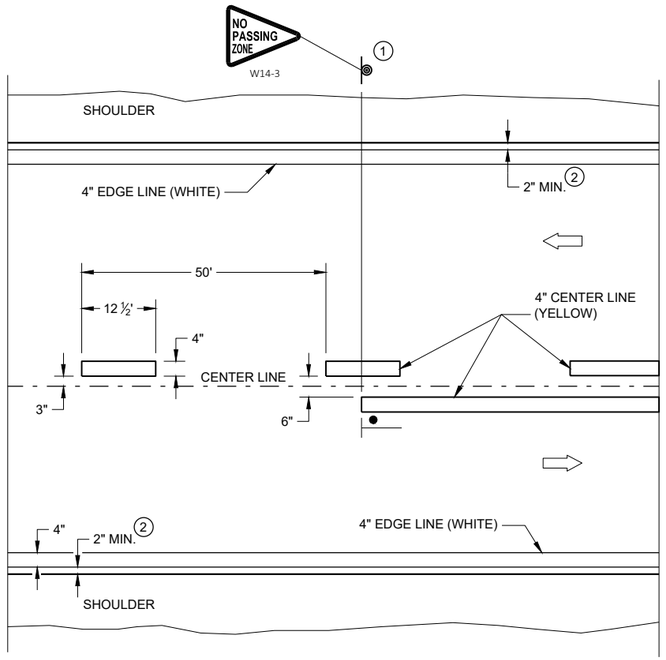
APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

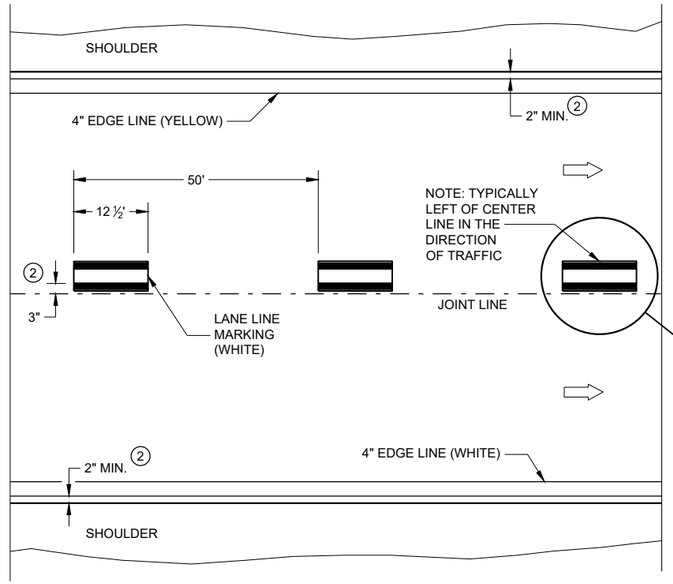
S.D.D. 14 B 22-6b

6

S.D.D. 14 B 22-6b



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

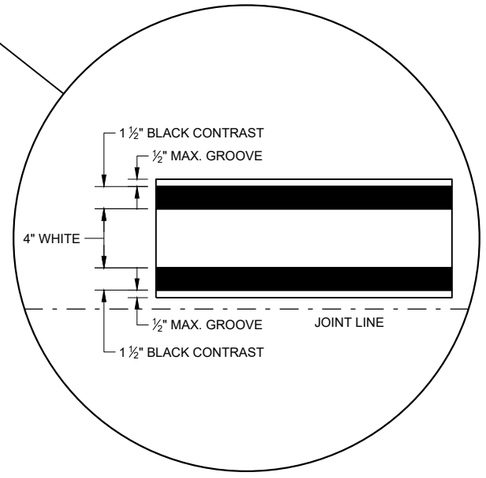
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

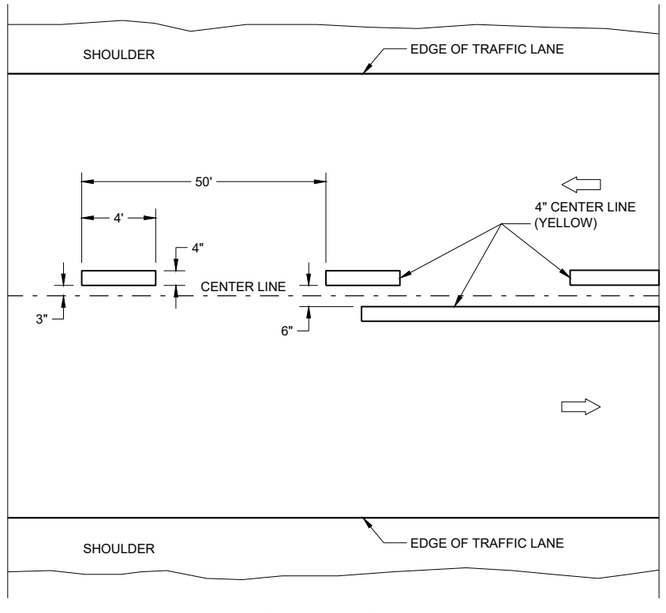
LEGEND

"T" MARKING

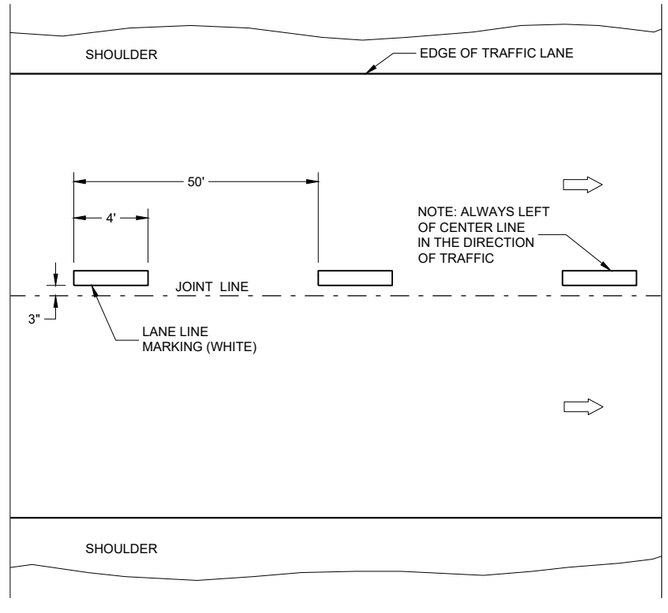
SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC





TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 15C08 - 20a

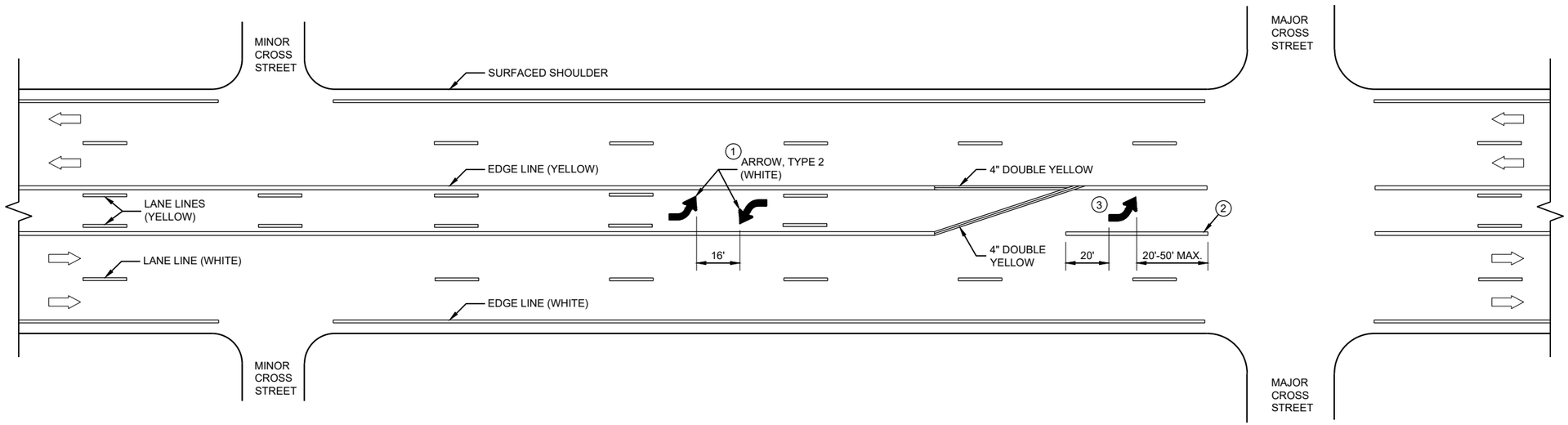
6

SDD 15C08 - 20a

GENERAL NOTES

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

DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

6

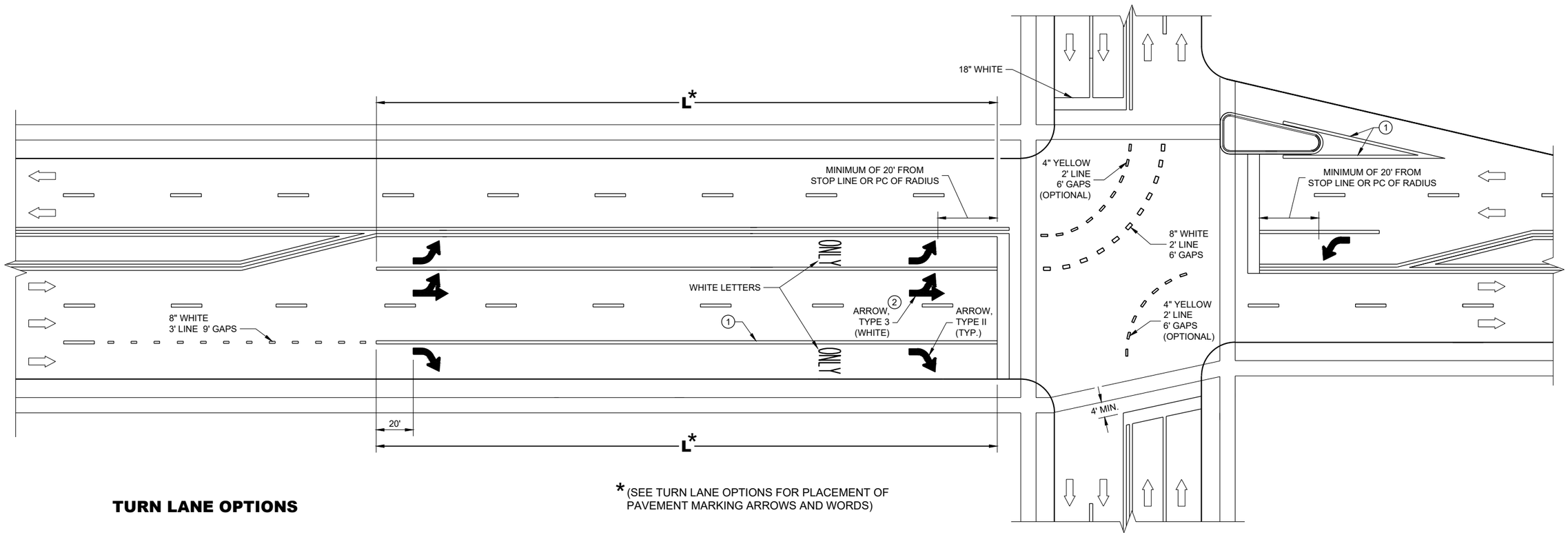
6

SDD 15C08 - 20b

SDD 15C08 - 20b

PAVEMENT MARKING (TURN LANES)

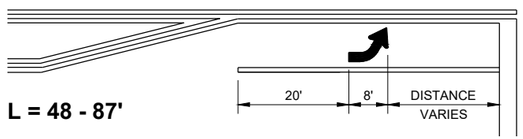
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA



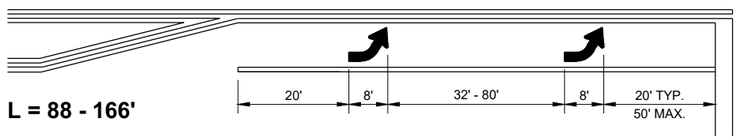
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

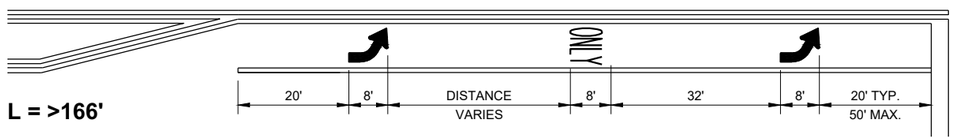
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

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

DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C08 - 20c

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

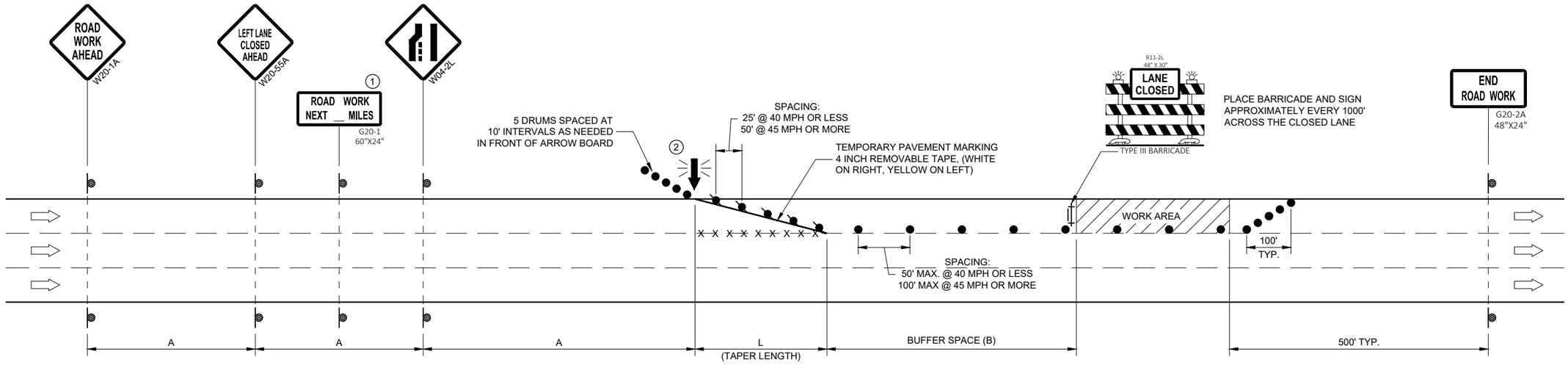
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 — DATE
/S/ Andrew Heidtke — STATEWIDE WORK ZONE T SAFETY ENGINEER
FHWA

6

SDD15D20 - 05a

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

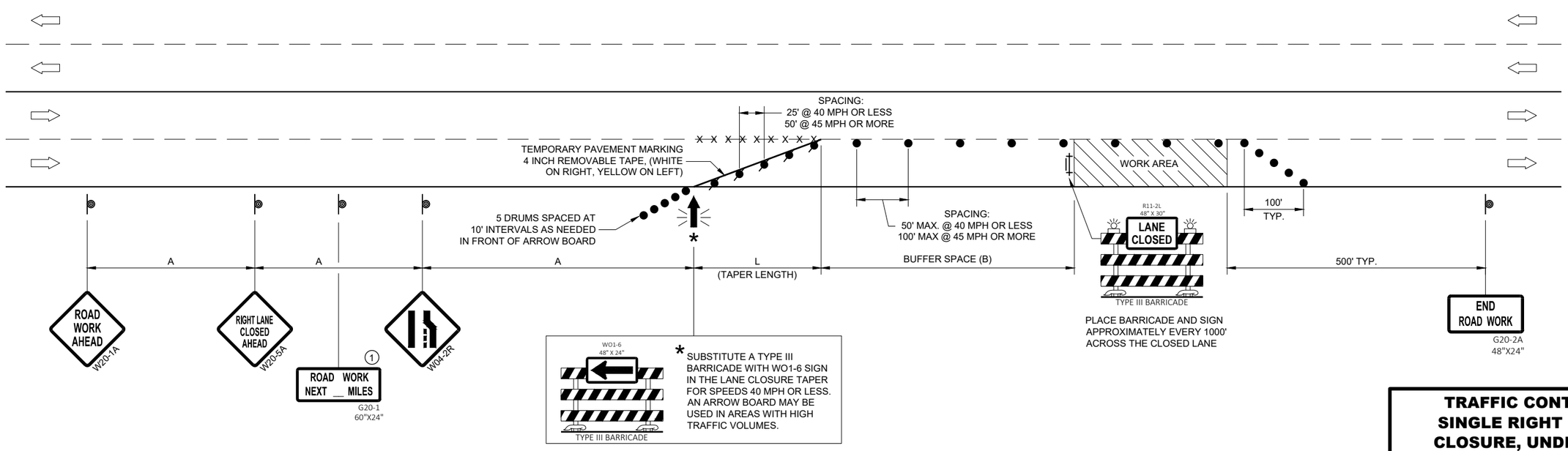
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'



TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 — DATE
/S/ Andrew Heidtke — STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

SDD 15D20 - 05b

SDD 15D20 - 05b

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

DUE TO LACK OF SHOULDER/MEDIAN, ARROW BOARD IS PLACED AT THE THE END OF THE TAPER.

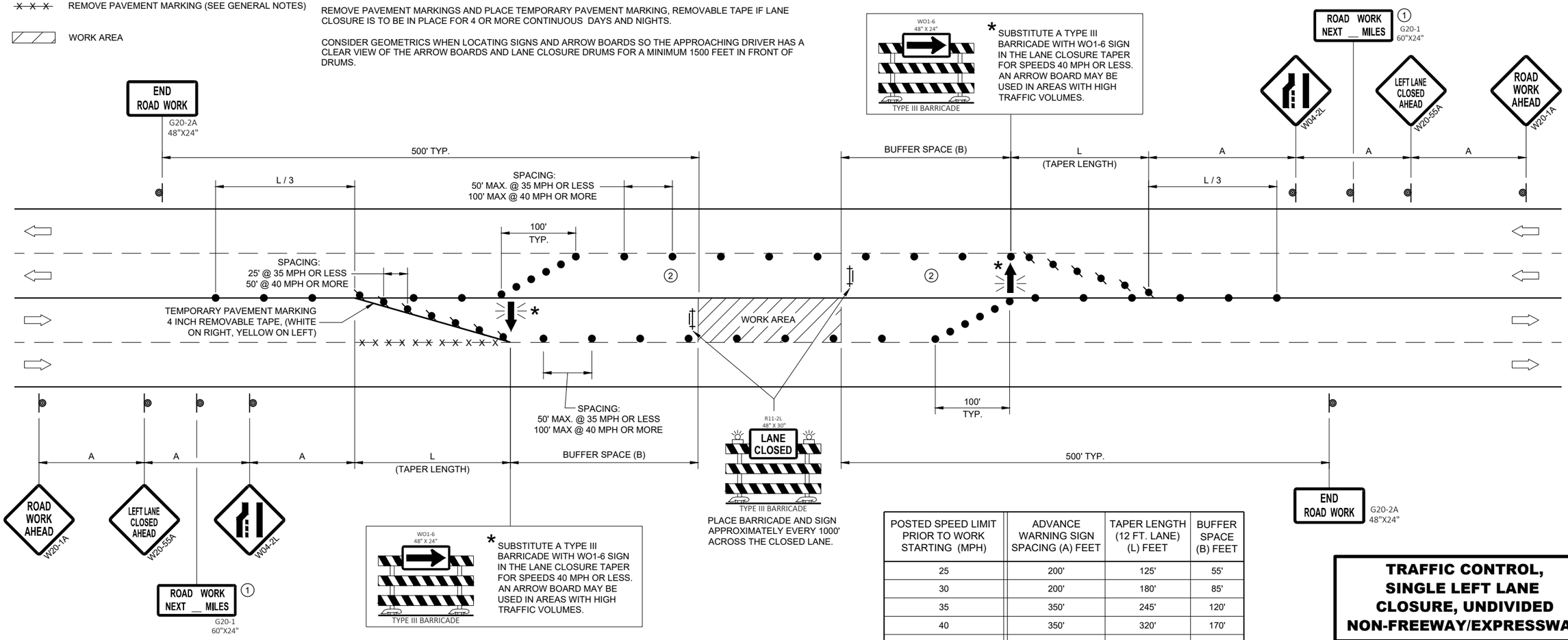
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) LANE MAY BE OPENED WHEN WORKERS ARE NOT PRESENT IN THE WORK AREA.



* SUBSTITUTE A TYPE III BARRICADE WITH WO1-6 SIGN IN THE LANE CLOSURE TAPER FOR SPEEDS 40 MPH OR LESS. AN ARROW BOARD MAY BE USED IN AREAS WITH HIGH TRAFFIC VOLUMES.

* SUBSTITUTE A TYPE III BARRICADE WITH WO1-6 SIGN IN THE LANE CLOSURE TAPER FOR SPEEDS 40 MPH OR LESS. AN ARROW BOARD MAY BE USED IN AREAS WITH HIGH TRAFFIC VOLUMES.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'

TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

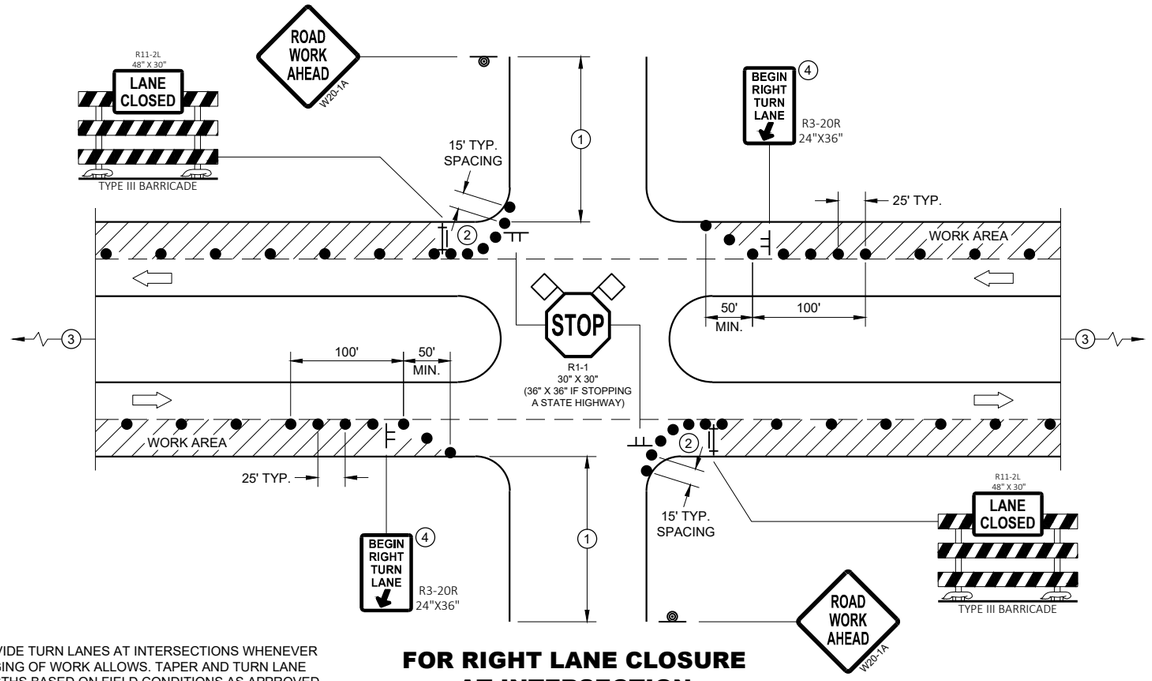
APPROVED
May 2020 — DATE
/S/ Andrew Heidtke — STATEWIDE WORK ZONE T SAFETY ENGINEER
FHWA

6

SDD 15D20 - 05c

6

SDD 15D20 - 05c



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

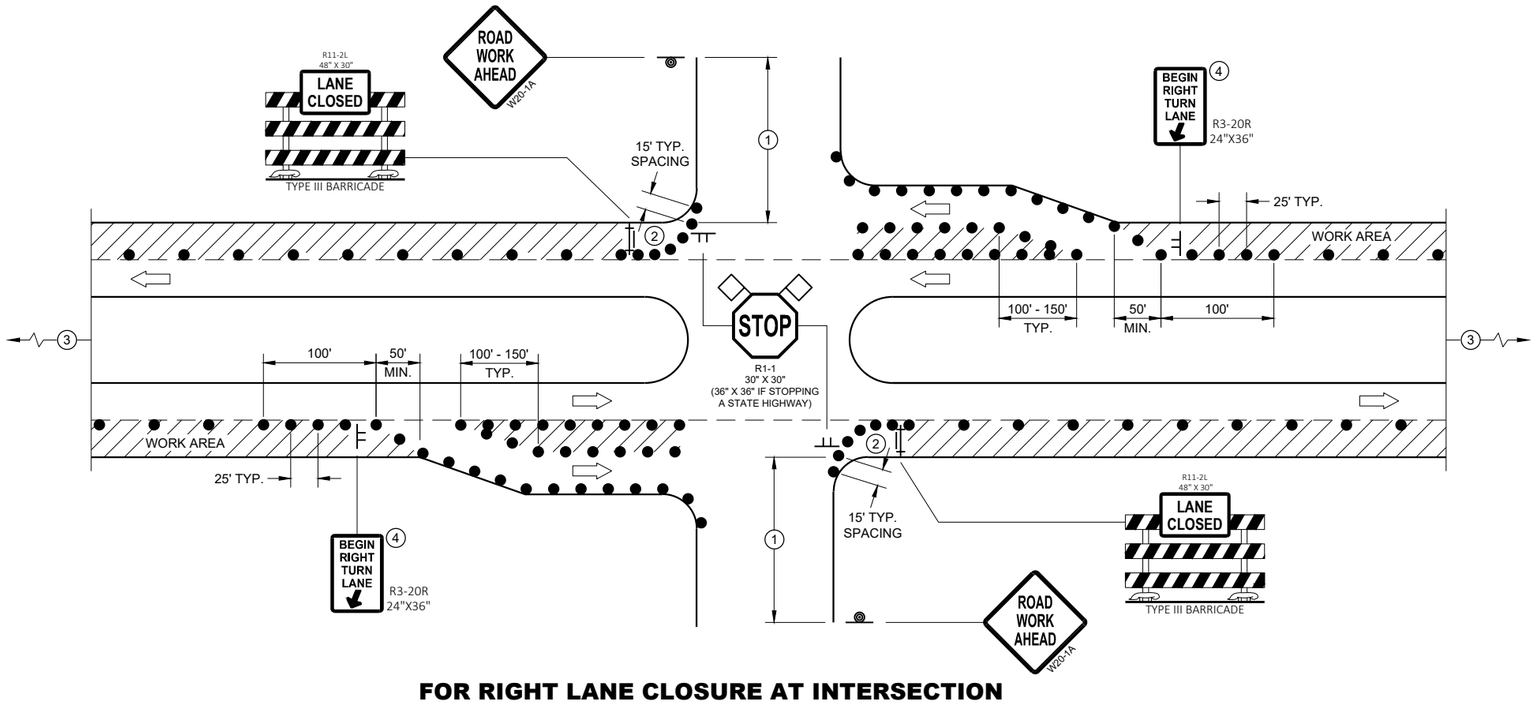
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

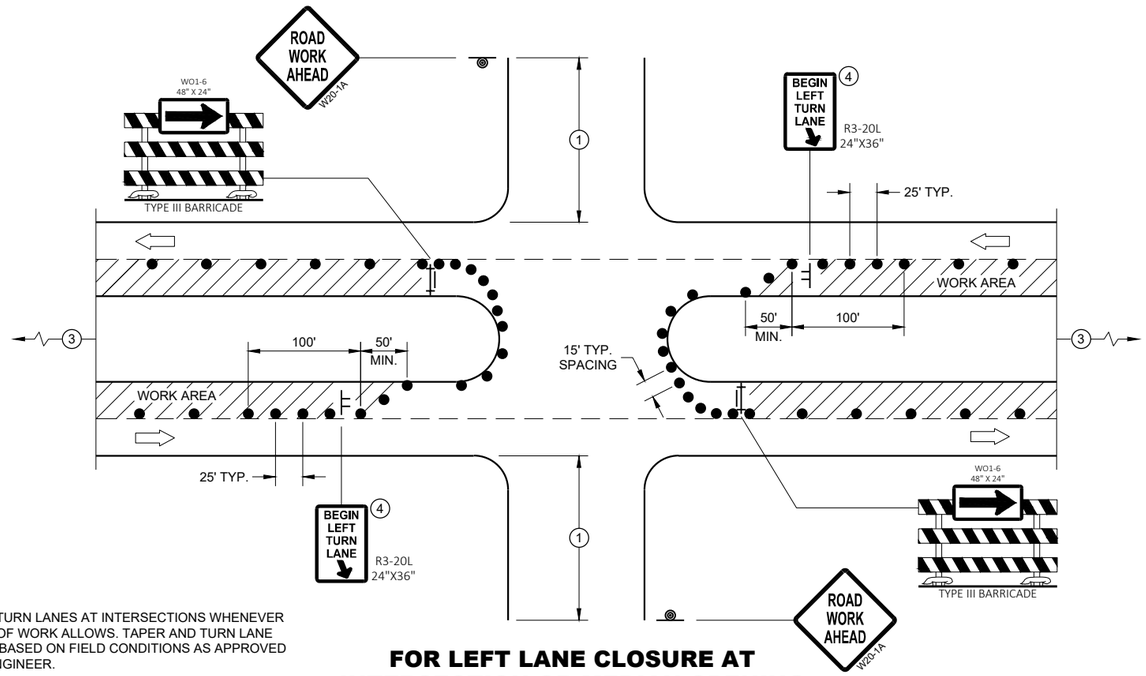
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D21 - 07a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

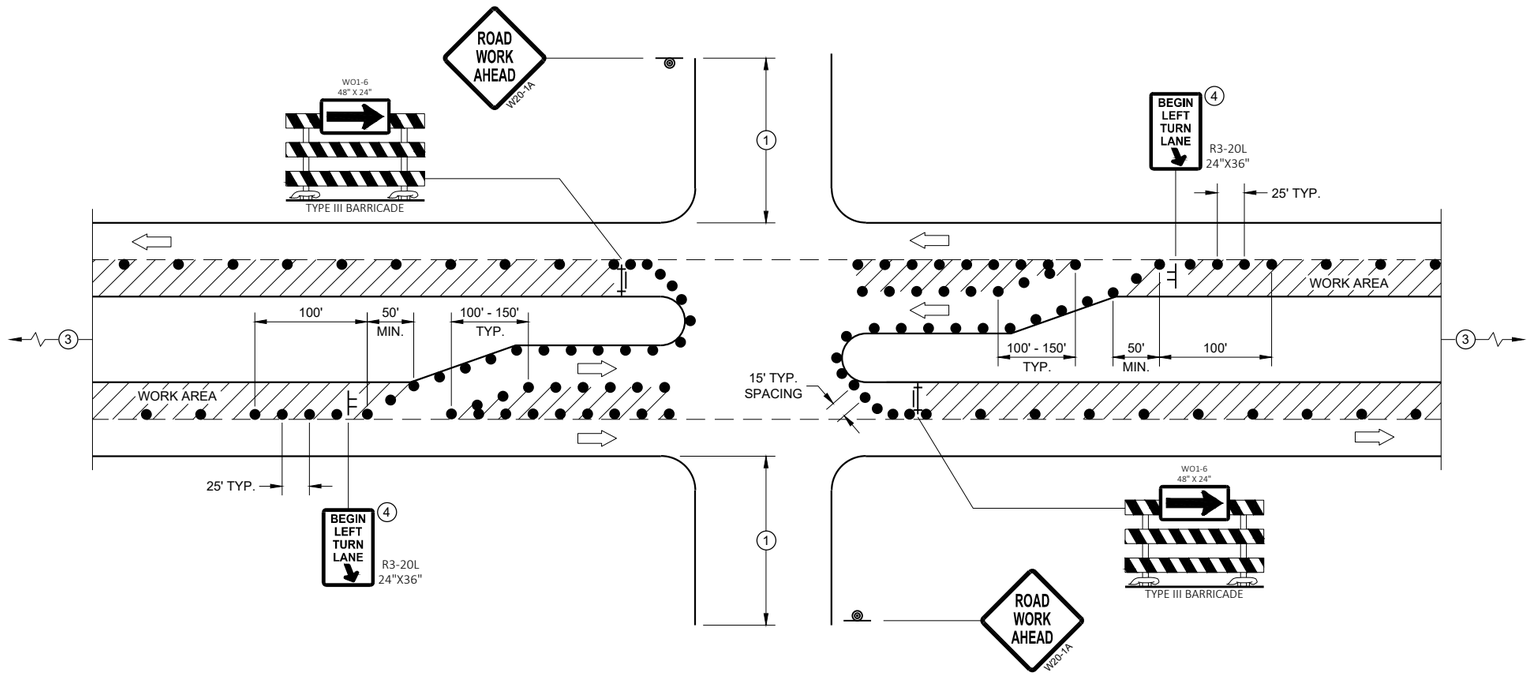
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

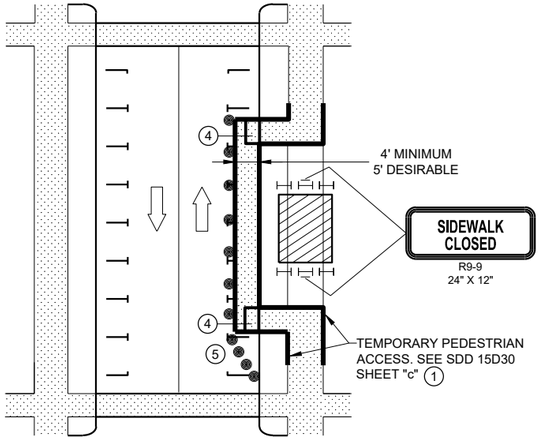
6

SDD 15D21 - 07b

6

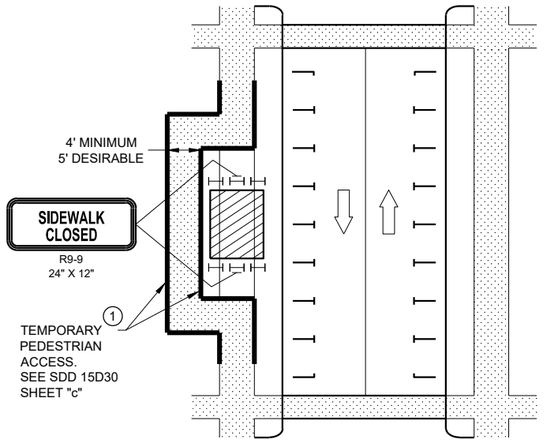
SDD 15D21 - 07b

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

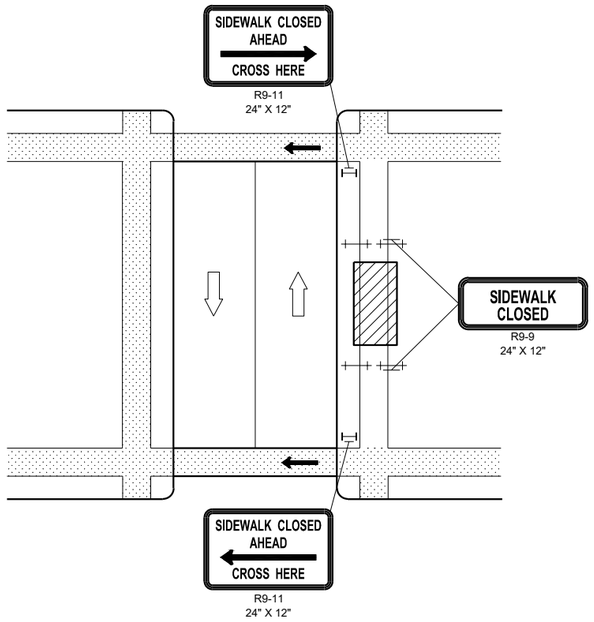


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

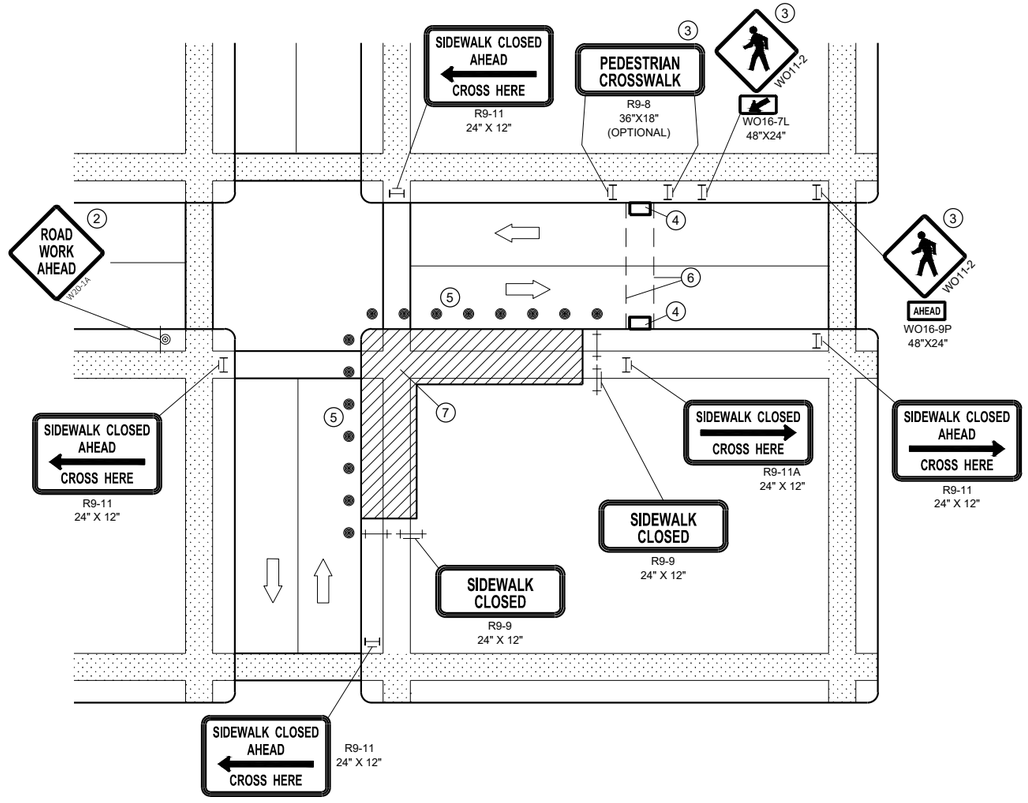
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEK LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE

(2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b'.

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

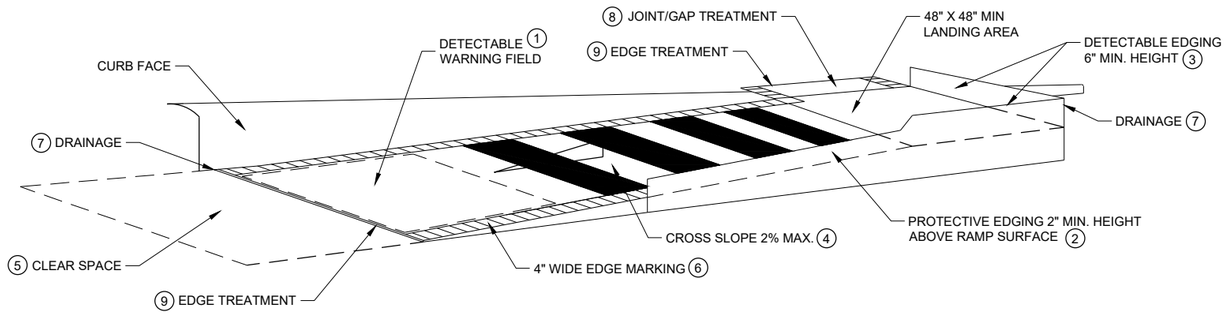
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

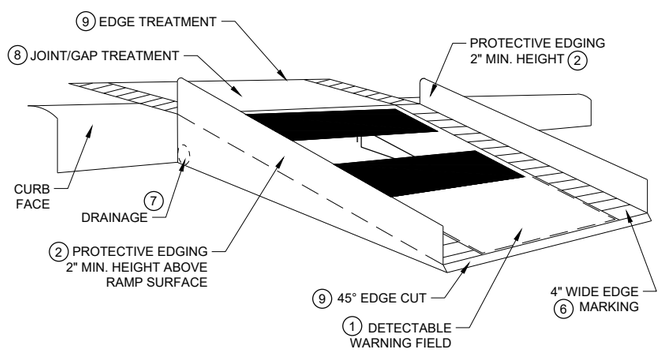
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

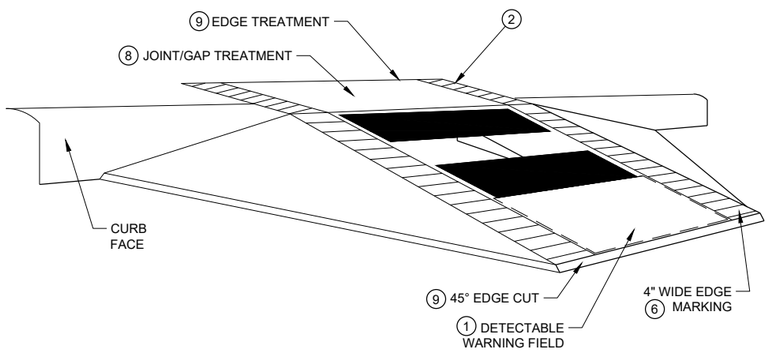
SDD 15D30 - 06a
SDD15D30 - 06a



TEMPORARY CURB RAMP PARALLEL TO CURB



WITH PROTECTIVE EDGE



WITH SIDE APRON

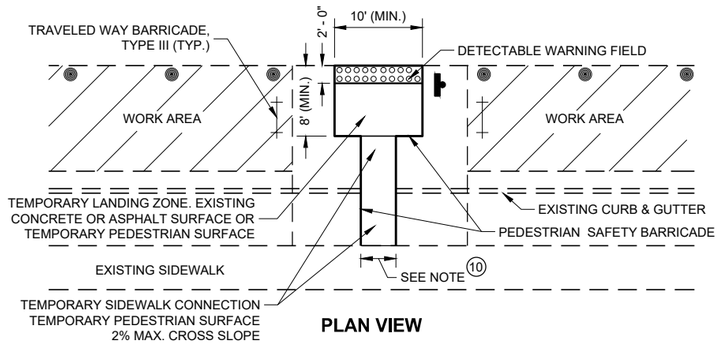
TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

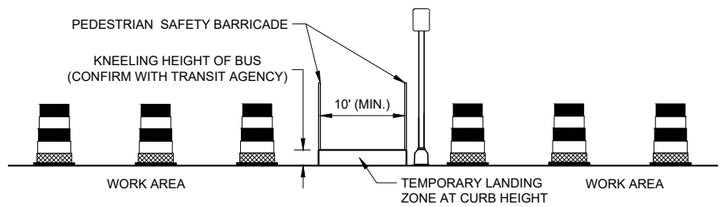
NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

1. CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "e".
2. PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
5. CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
6. THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
7. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES SHALL BE VERTICAL UP TO ¼" HIGH AND BEVELED AT 1:2 BETWEEN ¼" AND ½".
10. 5" WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.



PLAN VIEW



PROFILE VIEW

TEMPORARY BUS STOP PAD

LEGEND

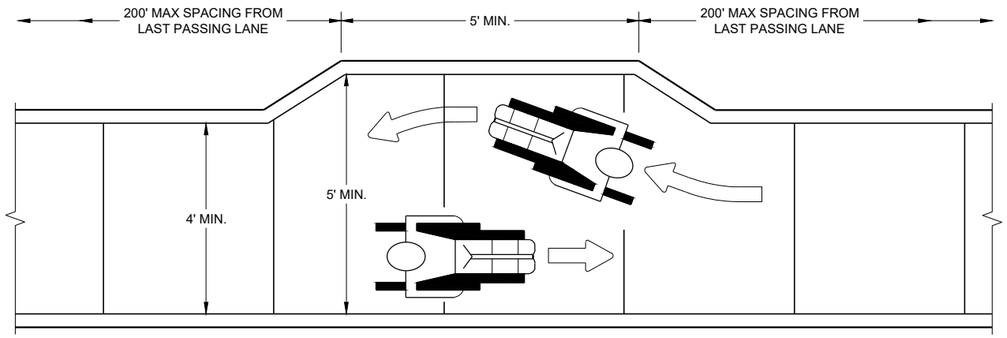
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- WORK AREA

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

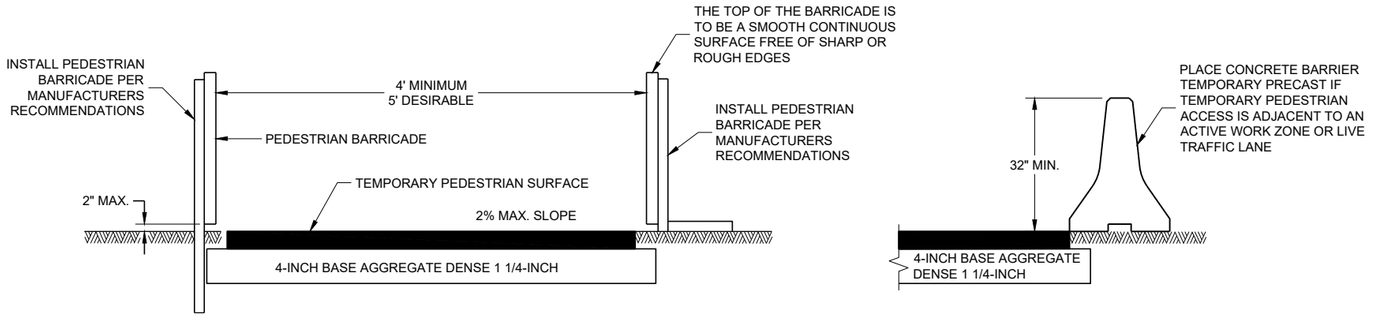
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

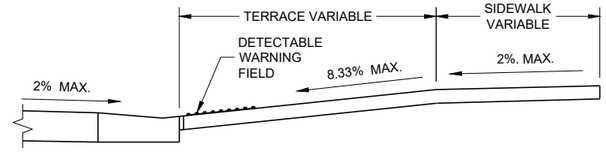
SDD 15D30 - 06b



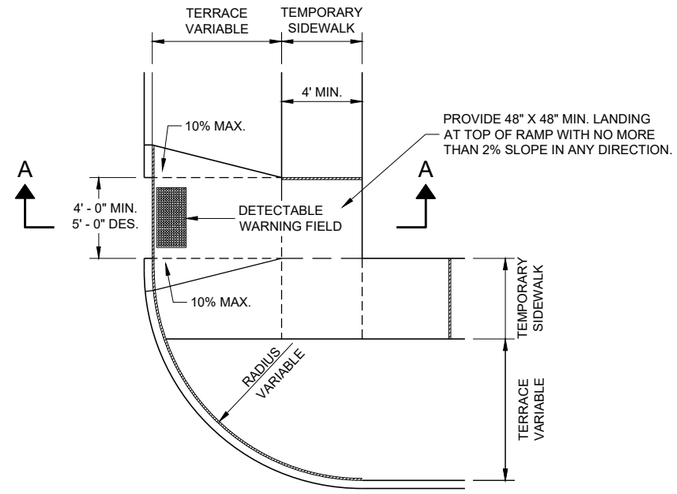
NARROW SIDEWALK PASSING DETAIL



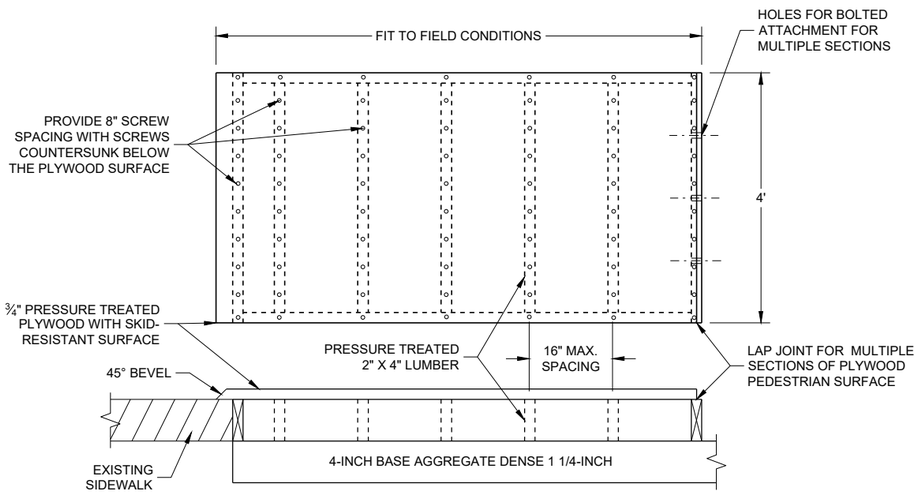
TEMPORARY PEDESTRIAN ACCESS



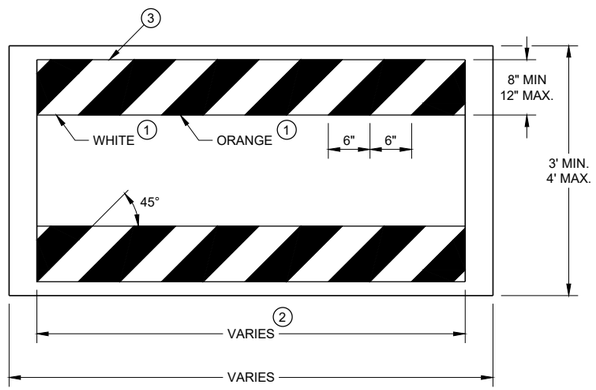
SECTION A - A



PLAN VIEW
TEMPORARY TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



TEMPORARY PEDESTRIAN BARRICADE *

GENERAL NOTES

BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

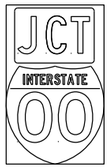
FHWA

SDD 15D30 - 06c

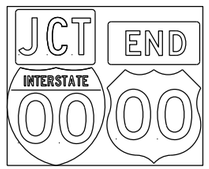
6

SDD 15D30 - 06c

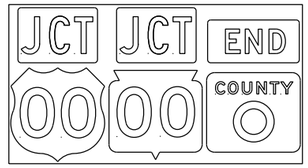
TYPICAL ASSEMBLIES



J1-1



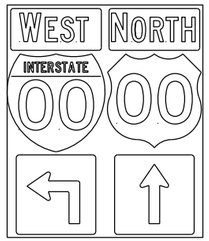
J1-2



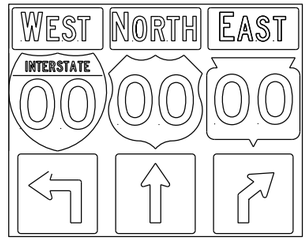
J1-3

JR1-1

J2-1

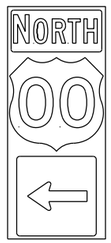


J2-2

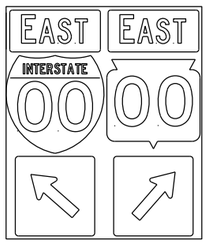


J2-3

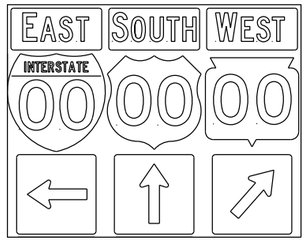
JV
(Typical Vertical J-Assembly
See Note 10 and 11)



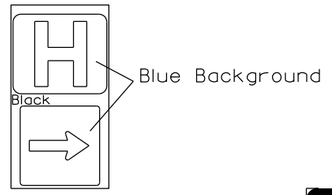
J3-1



J3-2

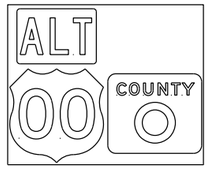


J3-3

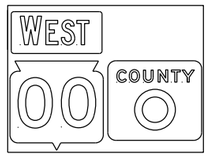


JH-1

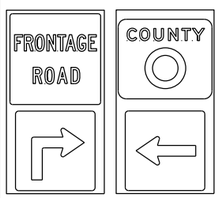
J4-1



J4-2



J4-2



J12-1

J13-1

J32-1

J33-1

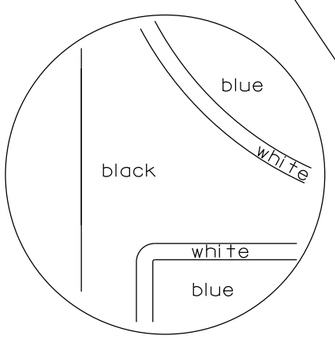
J22-1

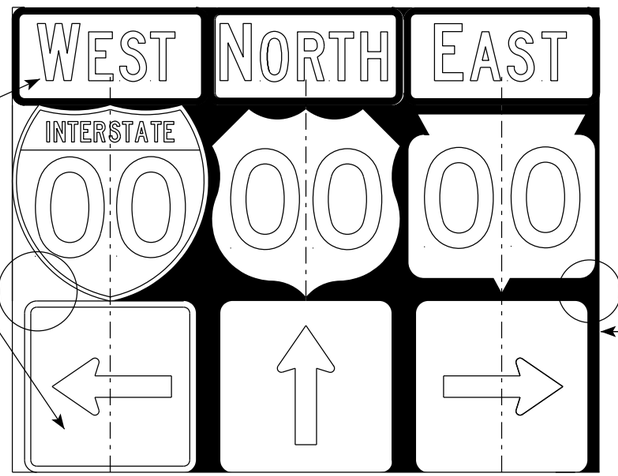
J23-1

JR13-1

JR23-1

JR99-1





NOTES

1. Signs are Type II - Type H Reflective
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 3/18/21 PLATE NO. A2-1S.9

PROJECT NO:

SHEET NO: 111 E

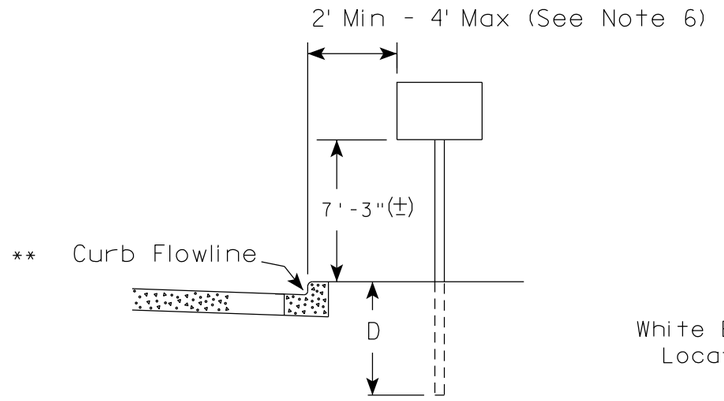
FILE NAME : C:\CAEfiles\Projects\tr_stdplate_A21S.dgn PLOT DATE : 18-MAR 2021 1:37 PLOT BY : mscj9h PLOT NAME :

WISDOT/CADDS SHEET 42

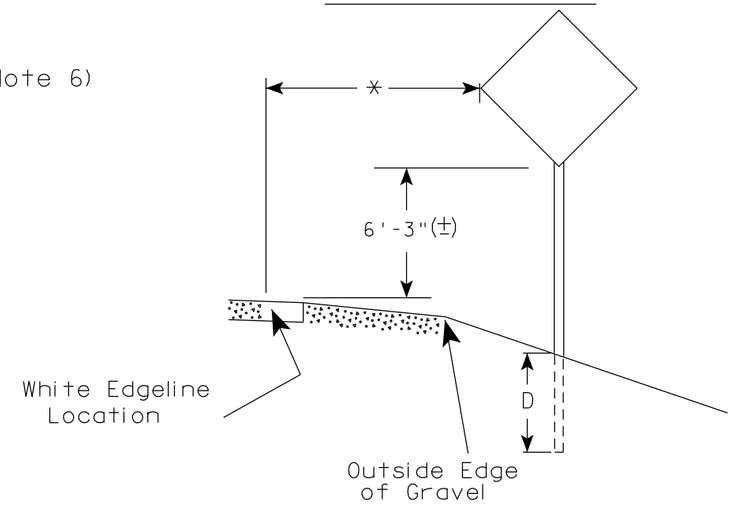
7

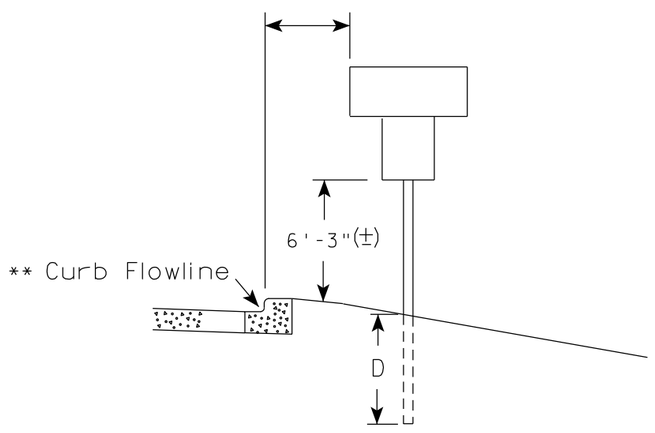
7

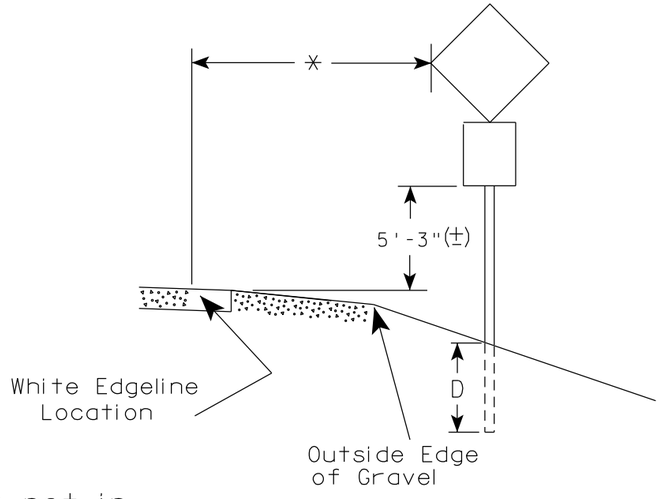
URBAN AREA



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 or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) 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" (±).
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 signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

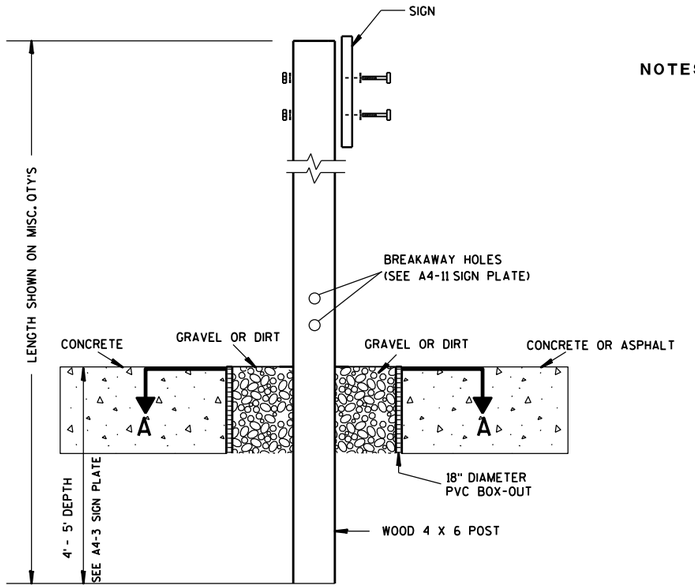
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

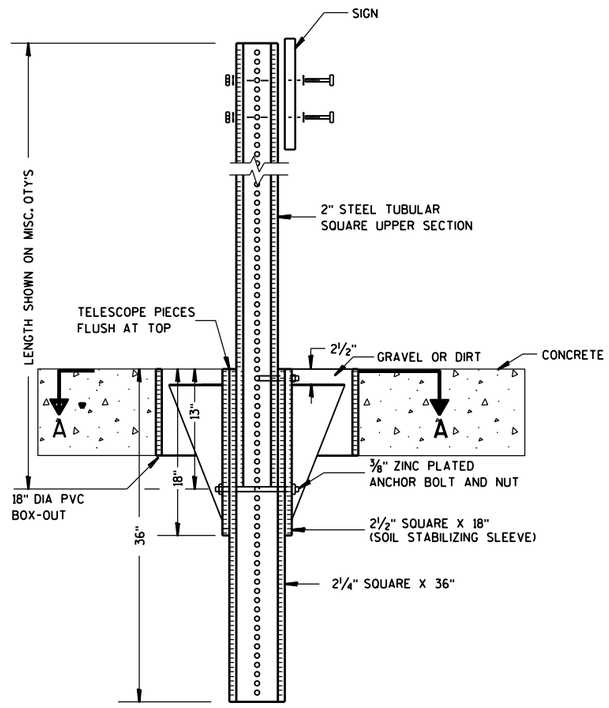
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 112	E



ELEVATION VIEW

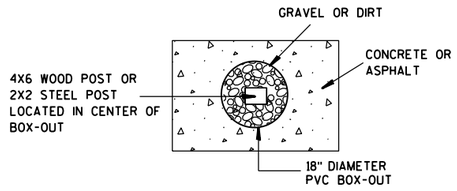
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

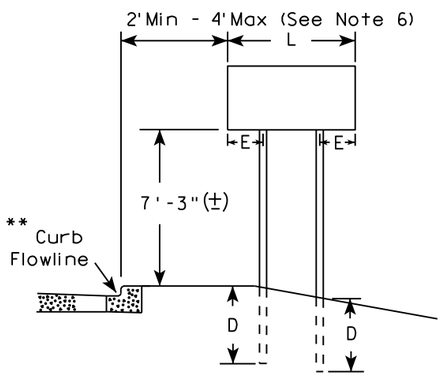
APPROVED Matthew R Rauch
for State Traffic Engineer

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

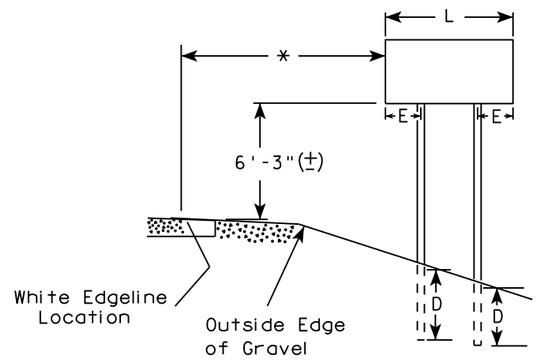
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

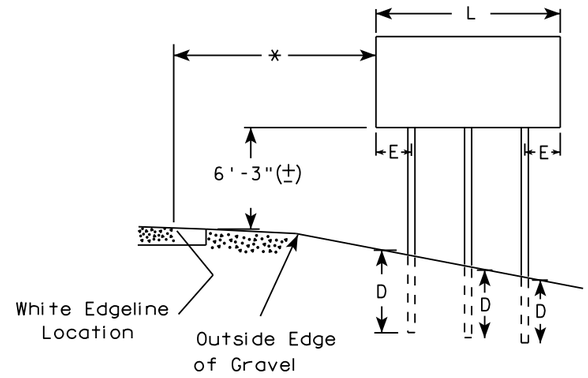
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

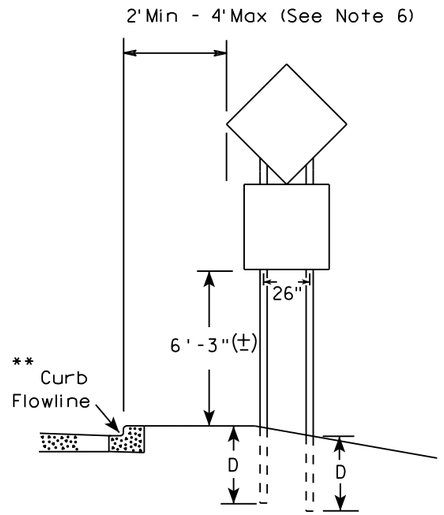
URBAN AREA



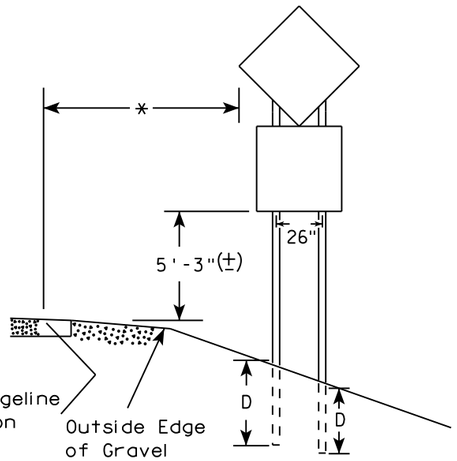
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

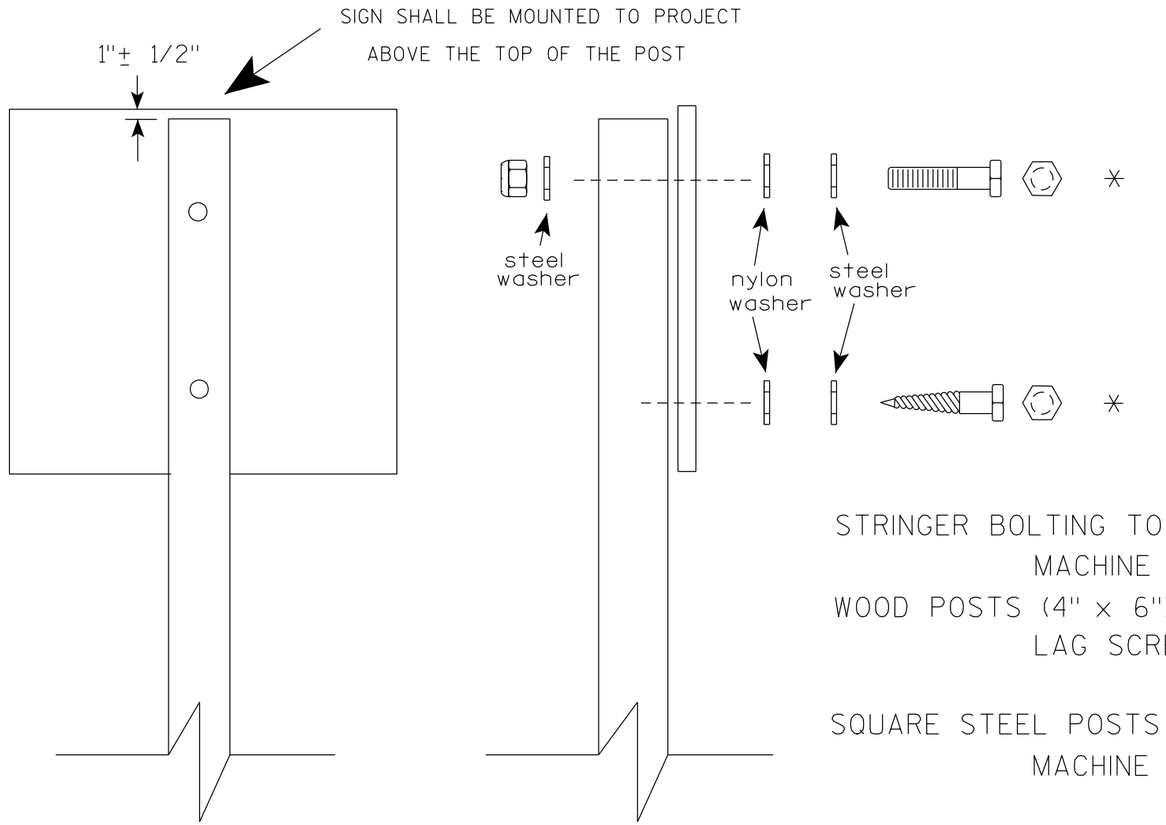
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 114	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

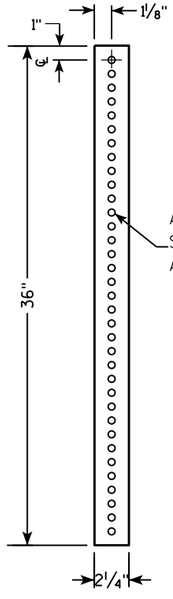
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

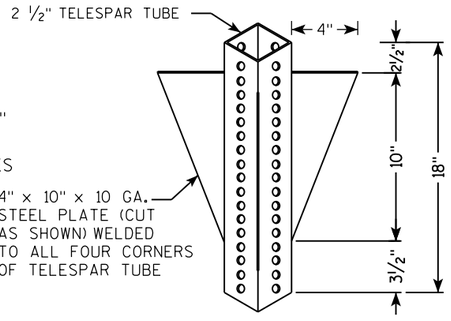
SHEET NO: 115 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

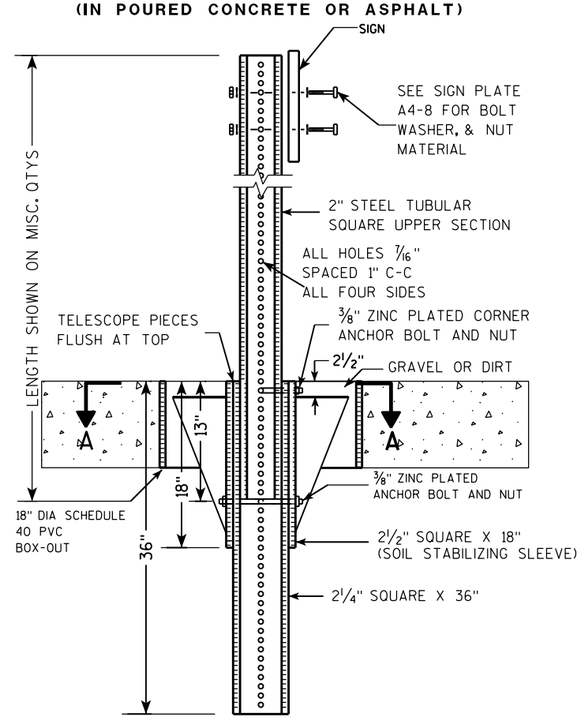
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



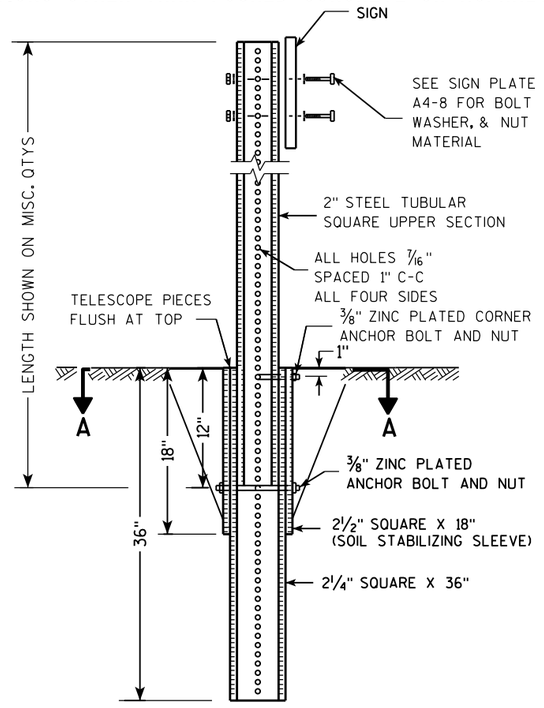
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

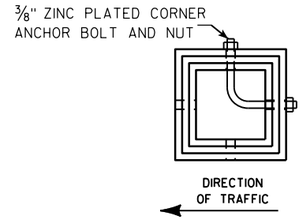


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

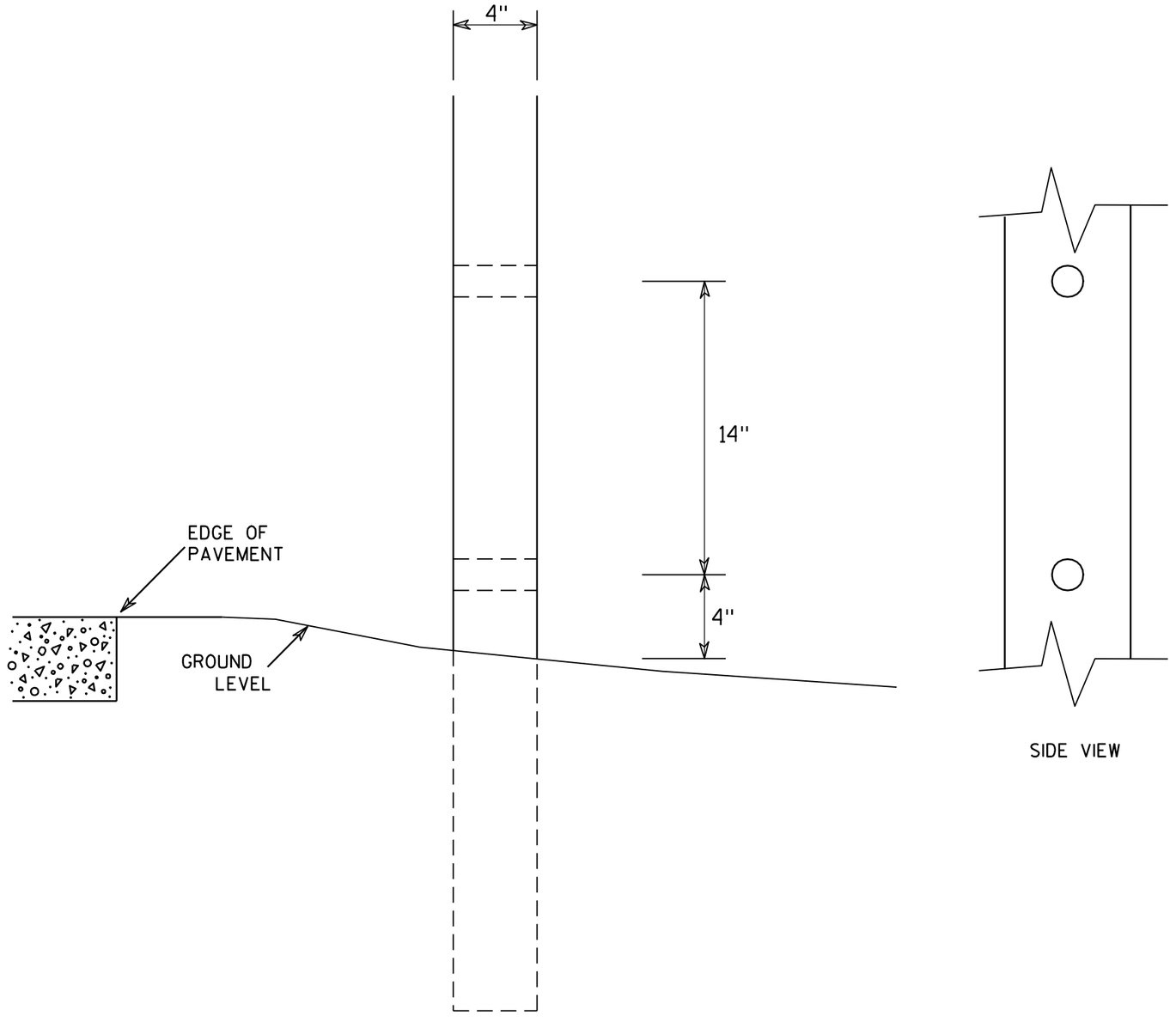
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

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

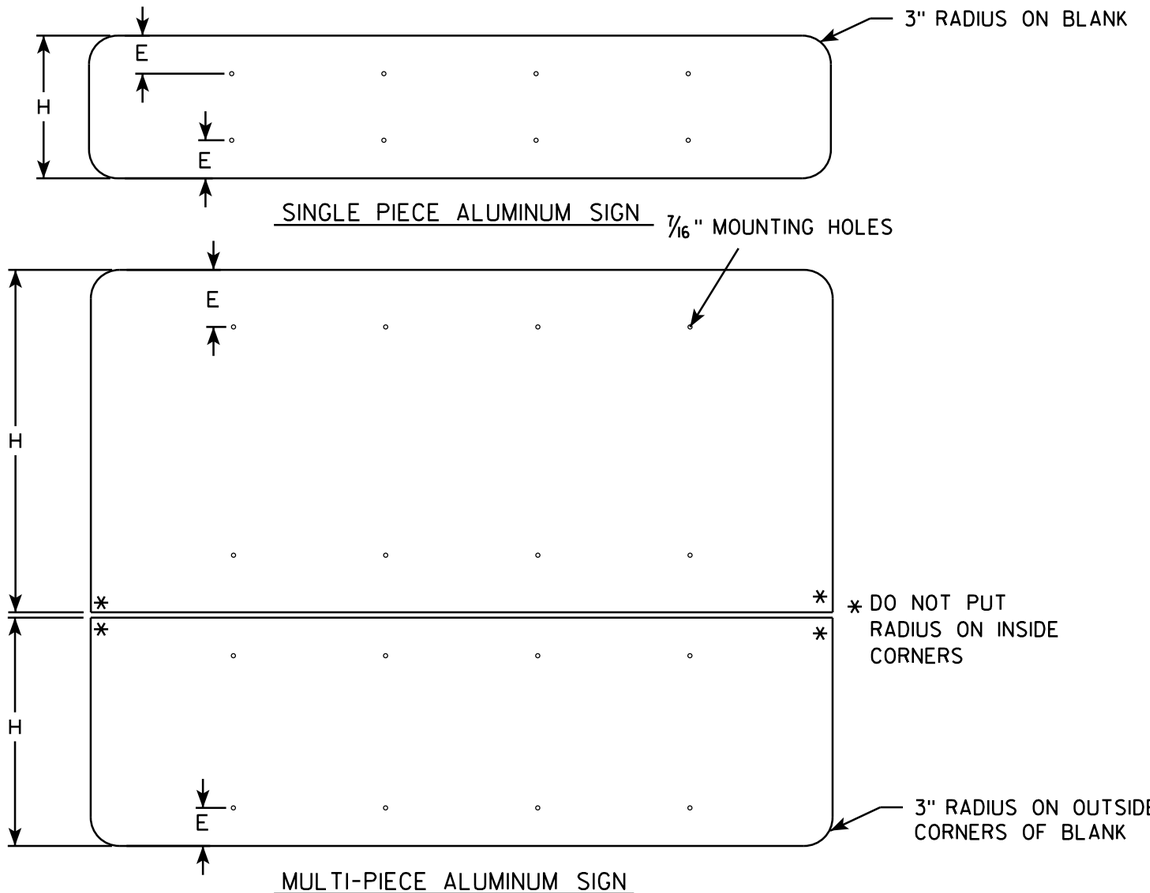
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

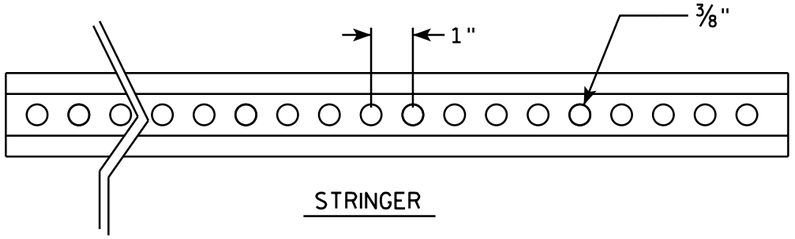
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 117	E



GENERAL NOTES

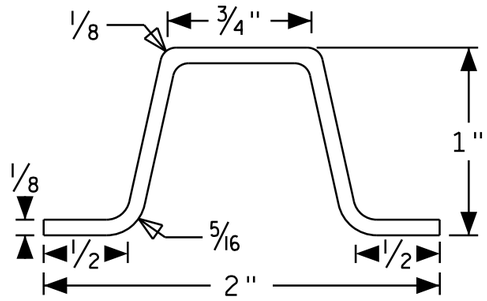
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"

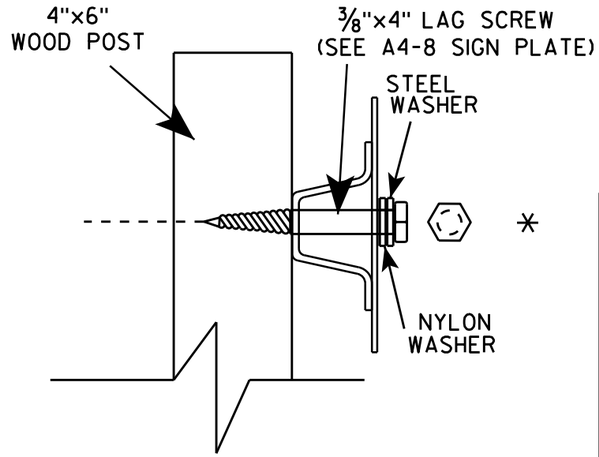


STRINGER

CROSS SECTION VIEW OF CHANNEL



POST MOUNTING



SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

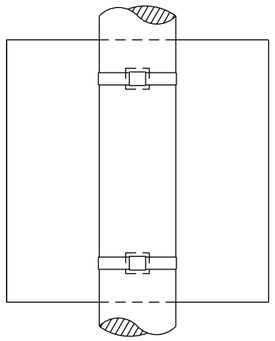
DATE 4/26/16 PLATE NO A4-18.1

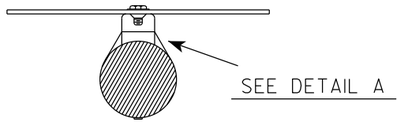
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

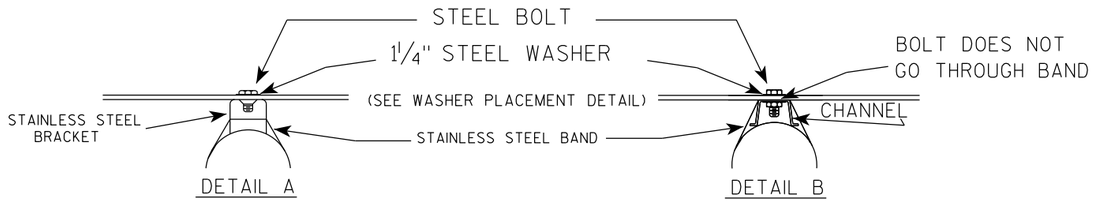
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

BANDING

SINGLE SIGN



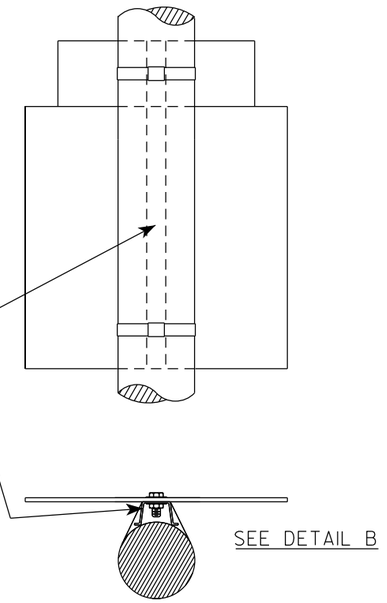




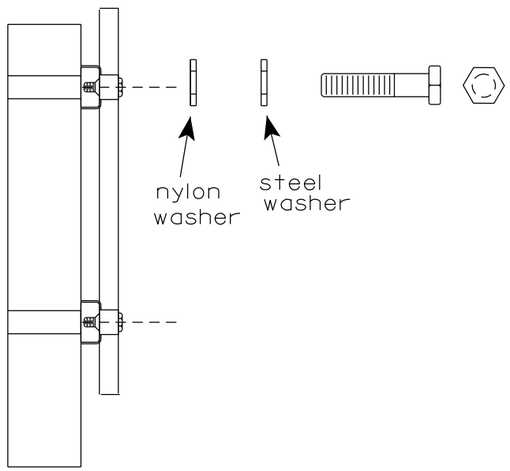
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

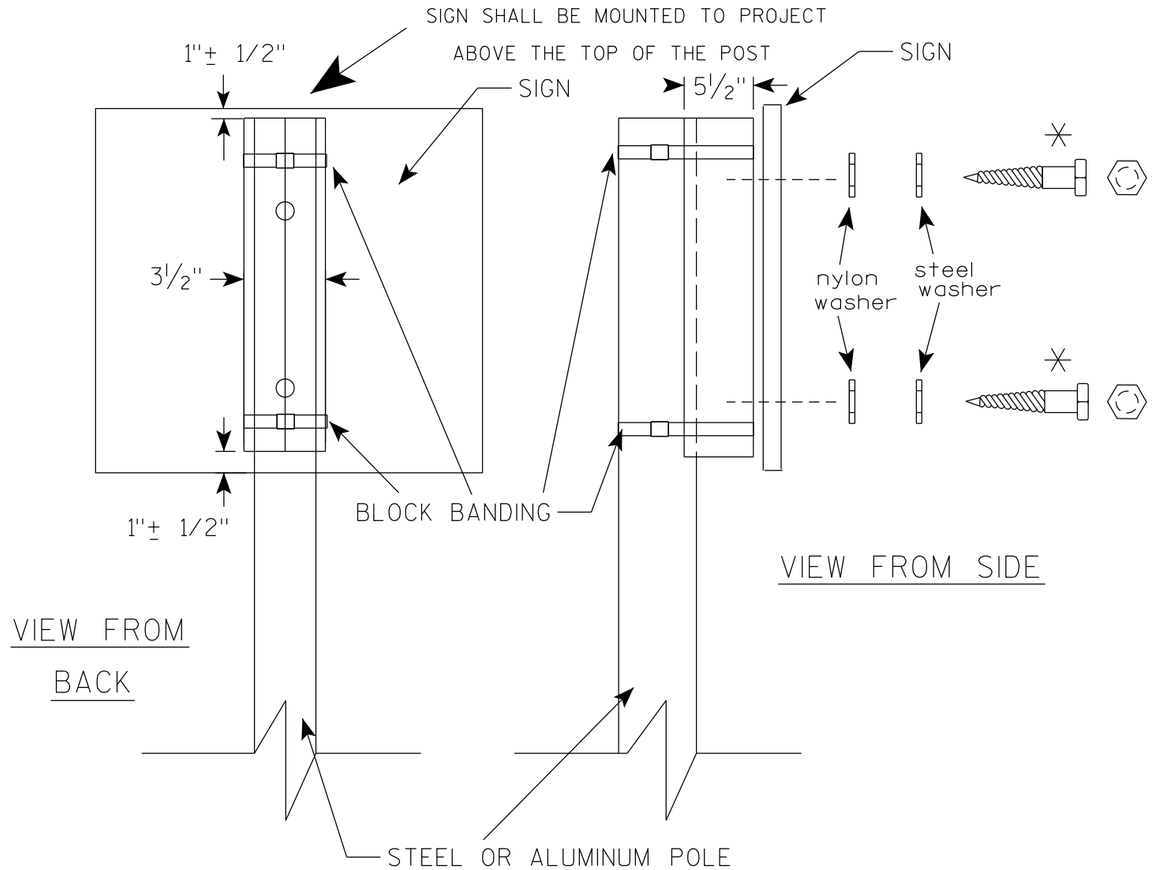
WISCONSIN DEPT OF TRANSPORTATION

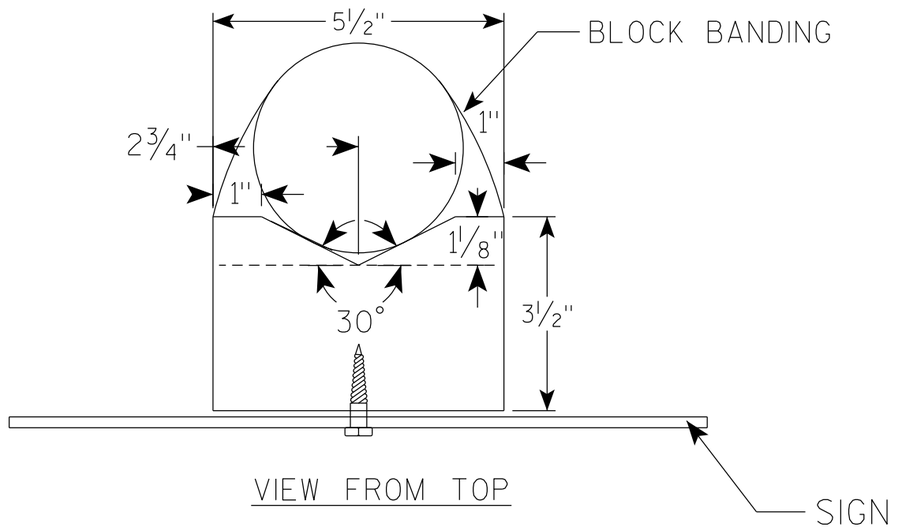
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 119	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42





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
   b. 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"

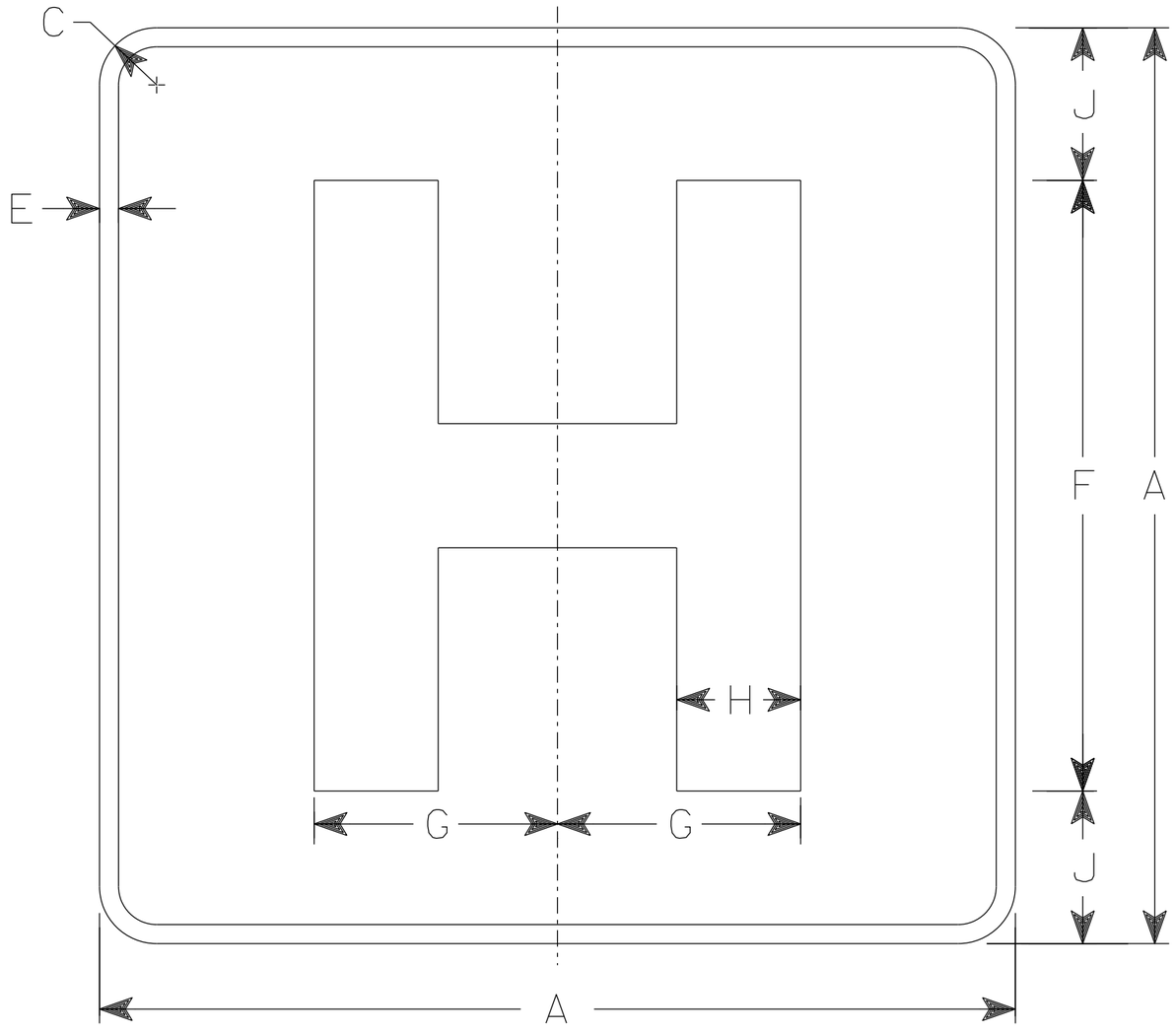
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO:				SHEET NO: 120	E



D9-2

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Blue
   Message - White
3. Message Series - E Modified
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	18		1 1/8		1/2	12	4 3/4	2 3/8		3																	2.25
2S	24		1 1/2		1/2	16	6 3/8	3 1/4		4																	4.0
2M	24		1 1/2		1/2	16	6 3/8	3 1/4		4																	4.0
3	36		2 1/4		3/4	24	9 1/2	4 7/8		6																	9.0
4																											
5																											

STANDARD SIGN
D9-2

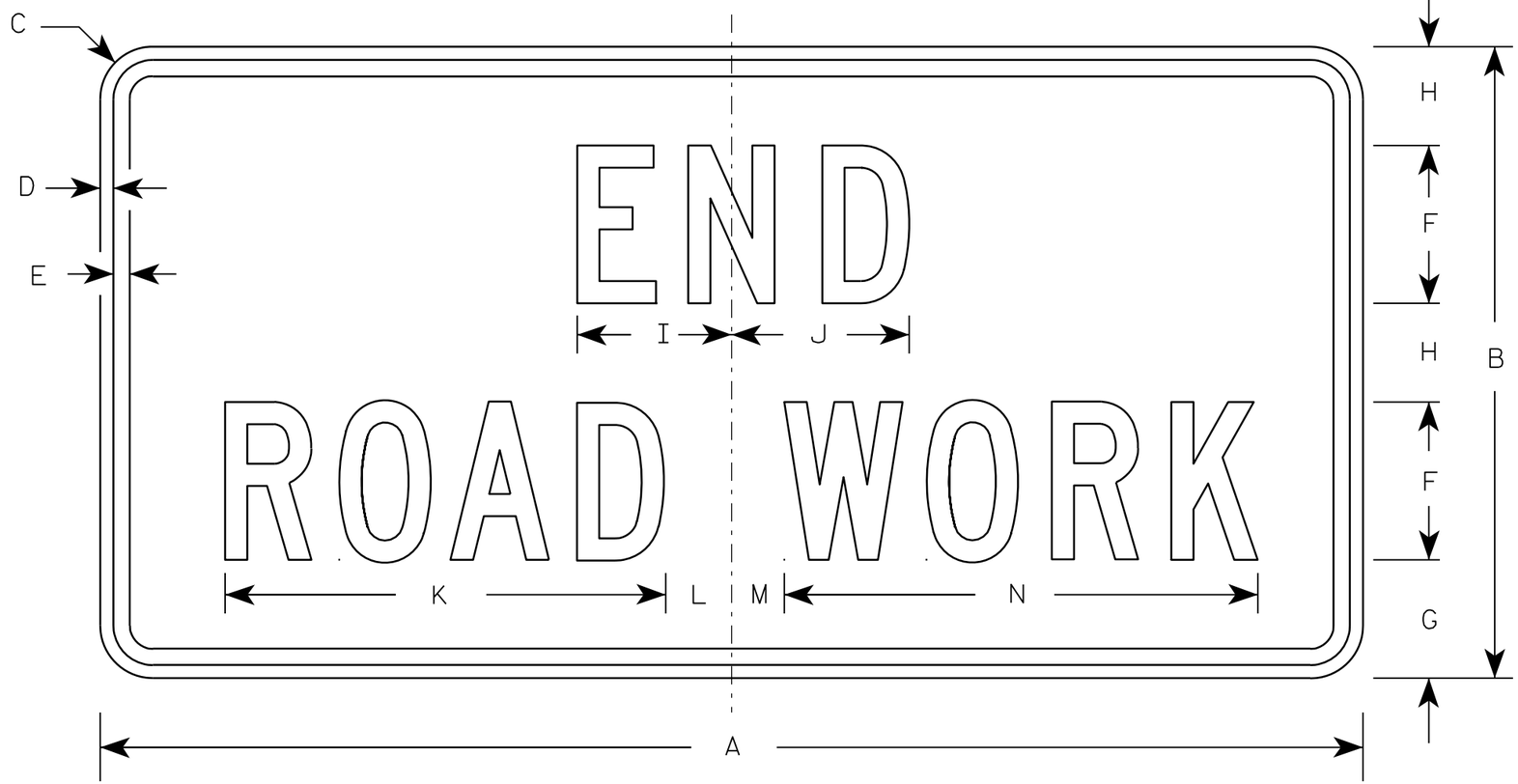
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/28/21 PLATE NO. D9-2.5

PROJECT NO:

SHEET NO: 121 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

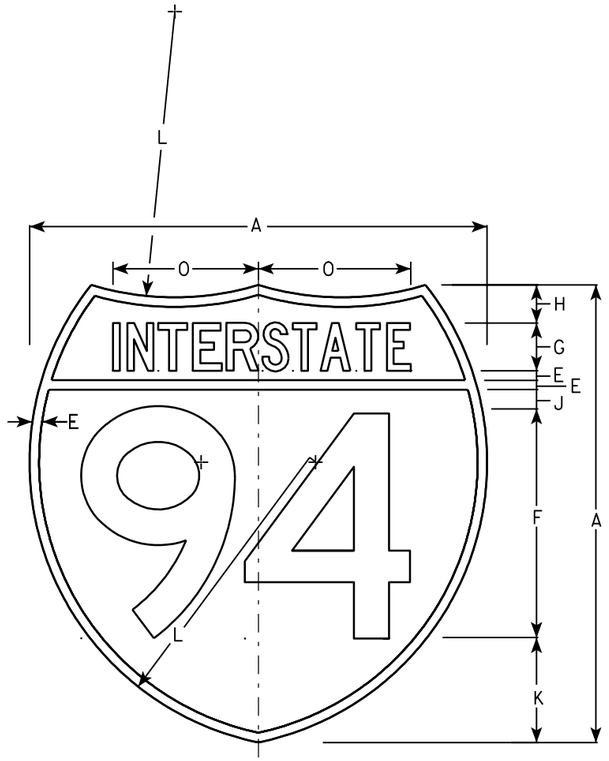
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

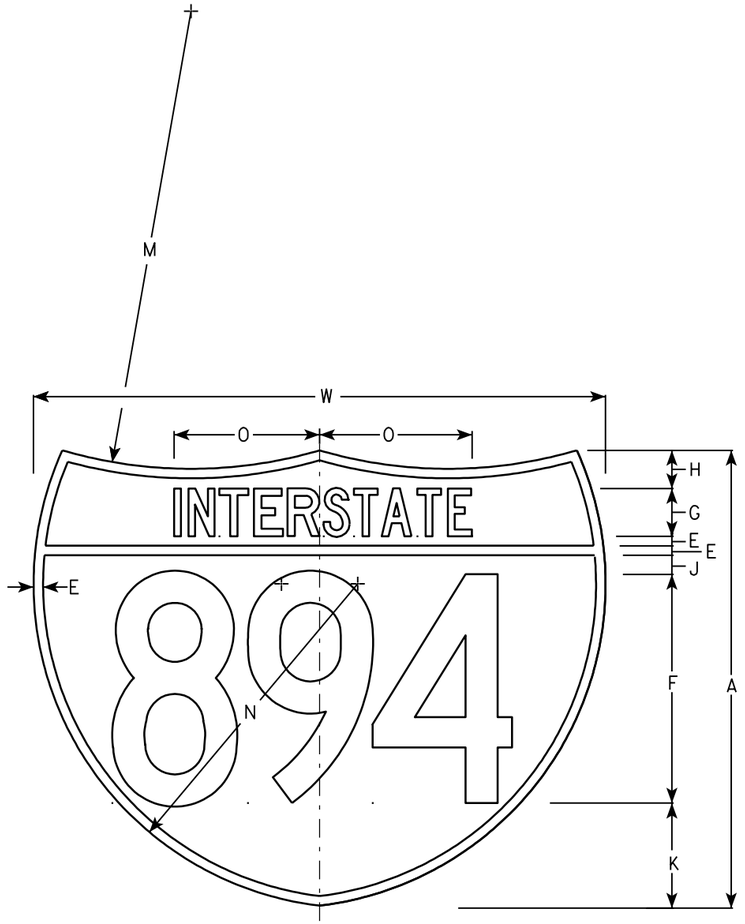
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 122	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

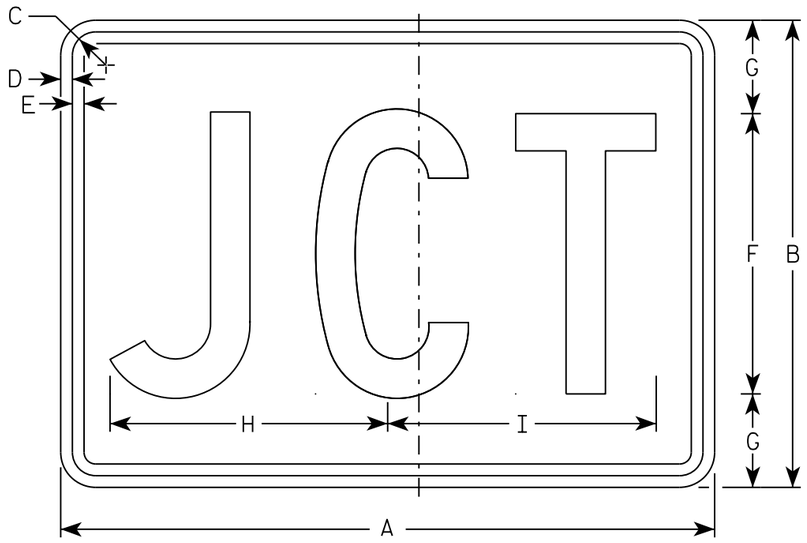
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

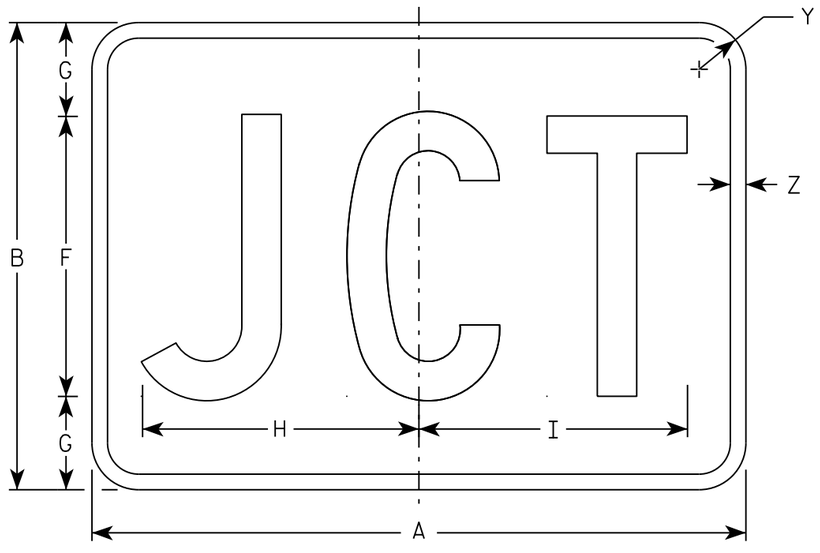
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 123	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

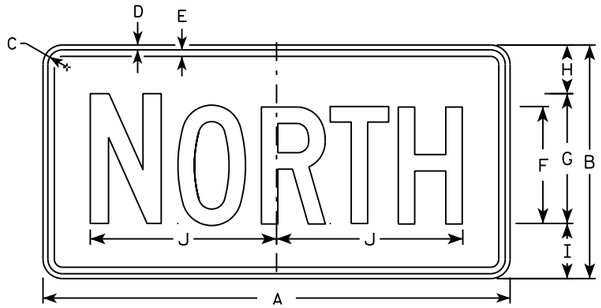
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

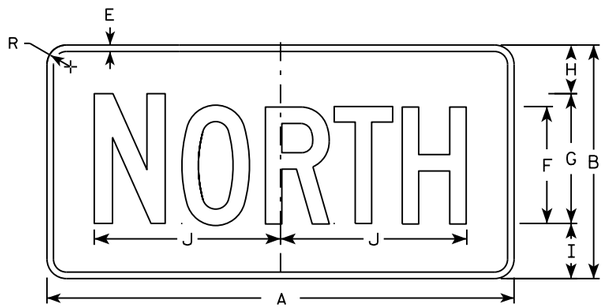
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 124 12-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



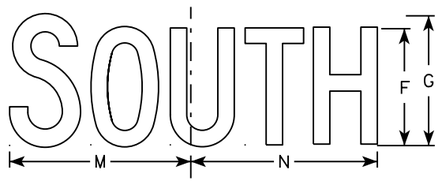
M3-1
MM3-1
MP3-1



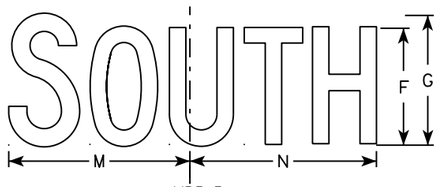
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

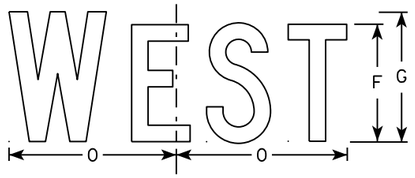
MB3-2
MK3-2
MN3-2



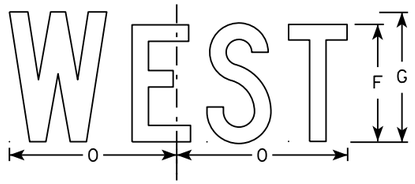
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

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

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

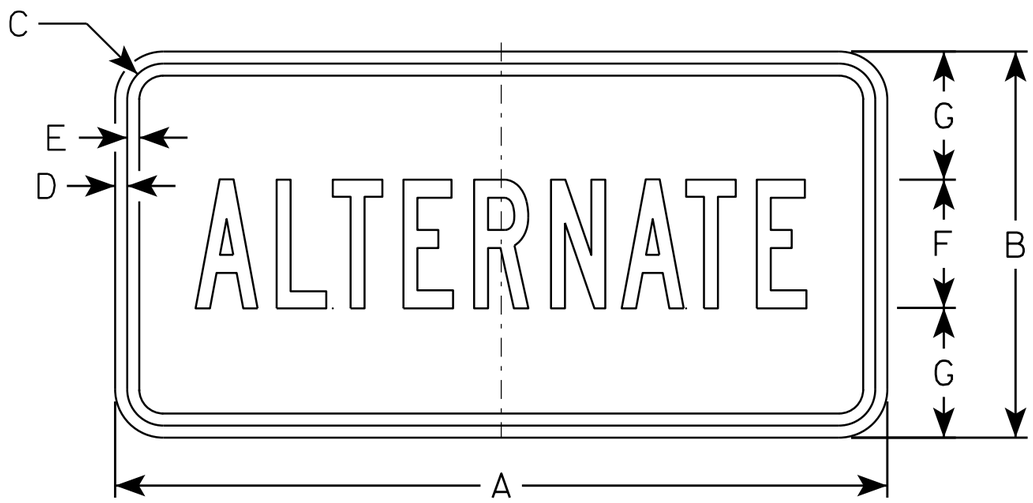
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

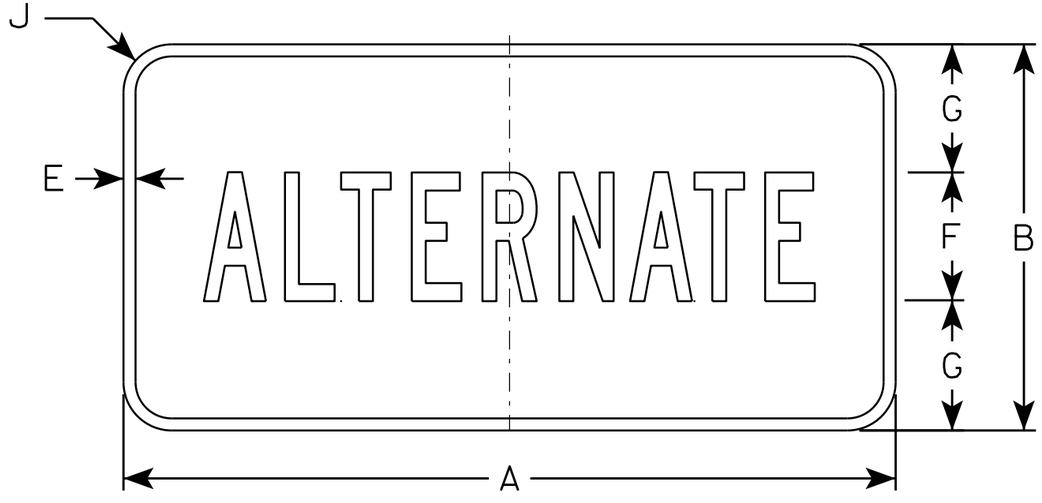
APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

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



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

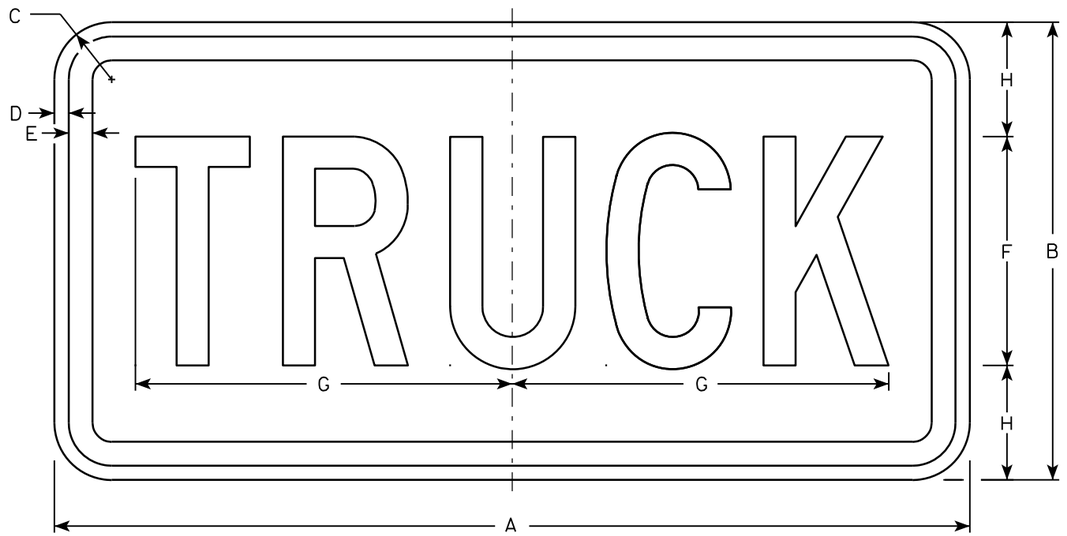
WISCONSIN DEPT OF TRANSPORTATION

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



M4-4

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White - See Note 5
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Permanent Signs
   Background - Type H Reflective
   Temporary or other temporary Signs
   Background - Reflective

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 1/2	3/8	3/8	6	9 7/8	3																			2.0
3	36	18	1 1/2	3/8	1/2	9	15 5/8	4 1/2																			4.5
4																											
5																											

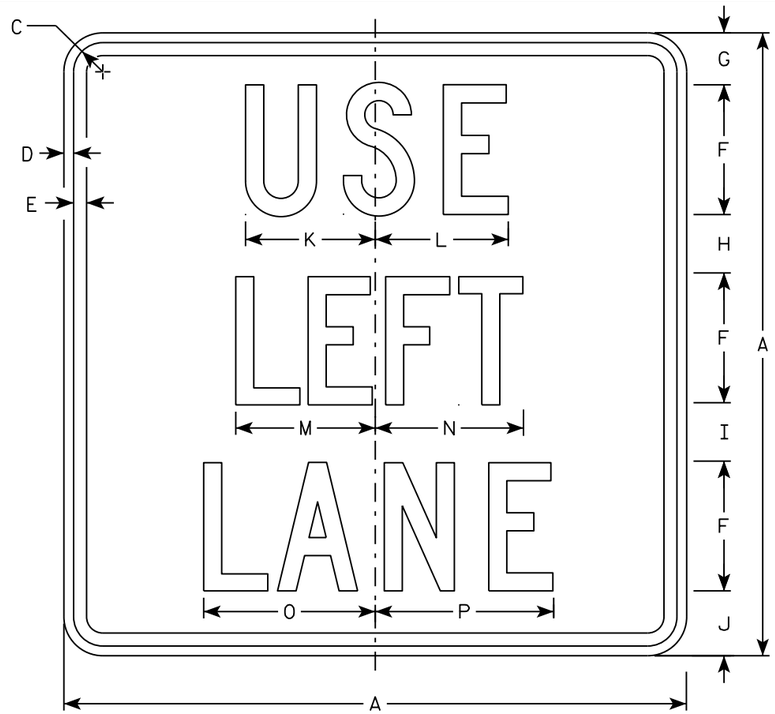
STANDARD SIGN
M4-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-4.3

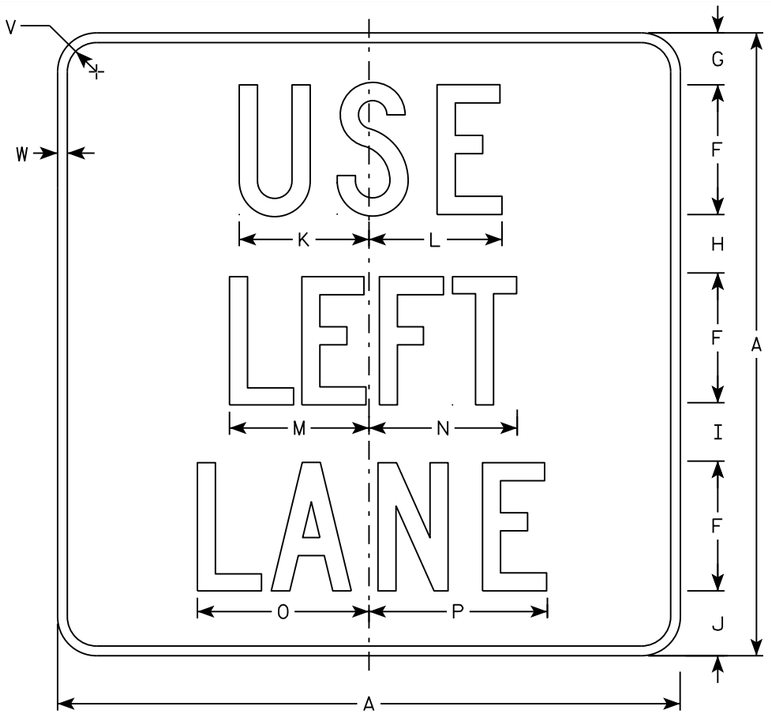
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 127 | E



M4-20L

A

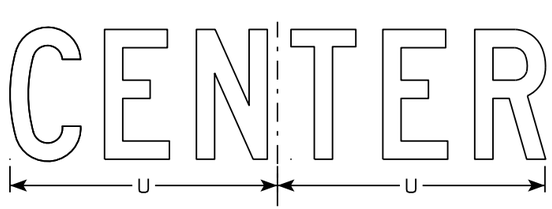
M4-20L
MM4-20L
M04-20L
MP4-20L



MB4-20L

A

MB4-20L
MK4-20L
MN4-20L
MR4-20L



M4-20C
MB4-20C
MK4-20C
MM4-20C
MN4-20C
M04-20C
MP4-20C
MR4-20C

M4-20R
MB4-20R
MK4-20R
MM4-20R
MN4-20R
M04-20R
MP4-20R
MR4-20R

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-20 Background - White
   Message - Black
   MB4-20 Background - Blue
   Message - White
   MK4-20 Background - Green
   Message - White
   MM4-20 Background - White
   Message - Green
   MN4-20 Background - Brown
   Message - White
   M04-20 Background - Orange - Type F Reflective
   Message - Black
   MP4-20 Background - White
   Message - Blue
   MR4-20 Background - Brown
   Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/8	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	5 3/8	5 3/4	6 5/8	6 7/8			7	7 5/8	10 1/4	1 1/2	1/2				4.0
3	36		1 5/8	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4	8	8 5/8	9 7/8	10 1/4			10 3/8	11 3/8	14 3/8	1 7/8	1/2				9.0
4																											
5																											

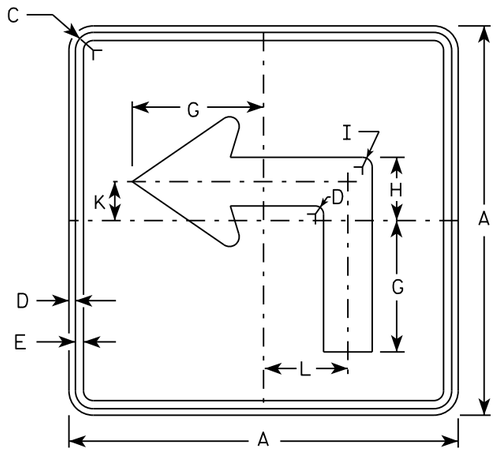
STANDARD SIGN
M4-20

WISCONSIN DEPT OF TRANSPORTATION

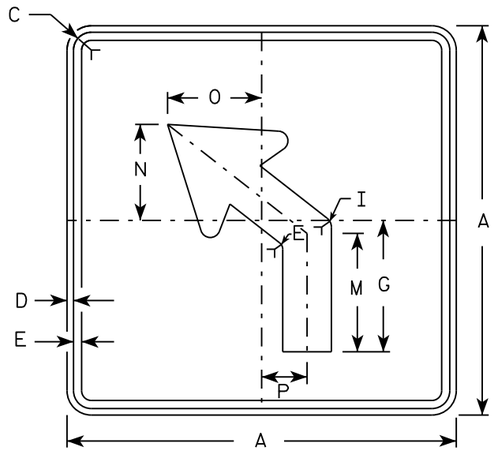
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 10/15/15 PLATE NO M4-20.5

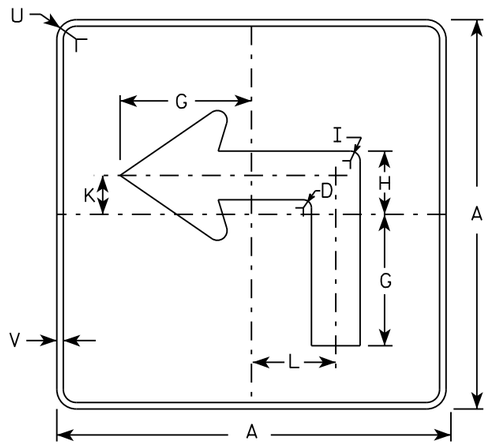
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



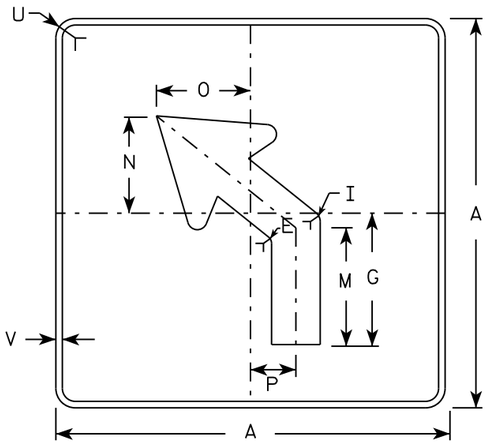
M5-1L
MM5-1L
MO5-1L
MP5-1L



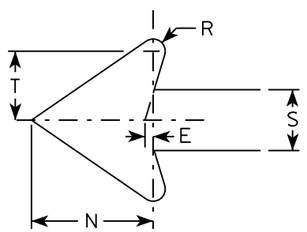
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

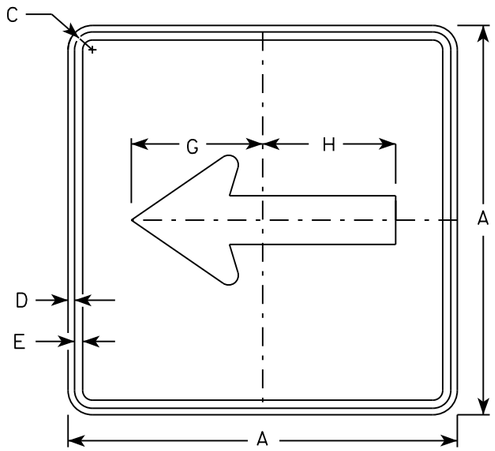
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

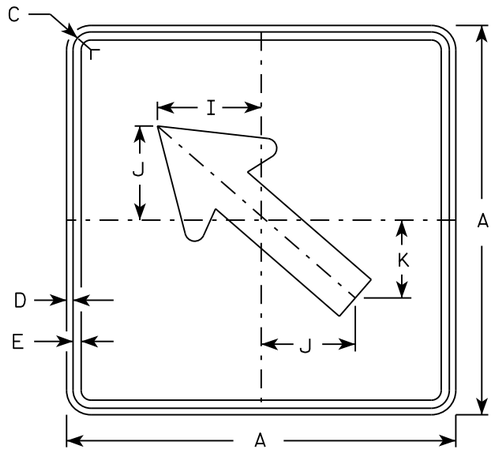
DATE 10/15/15 PLATE NO. M5-1.13

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



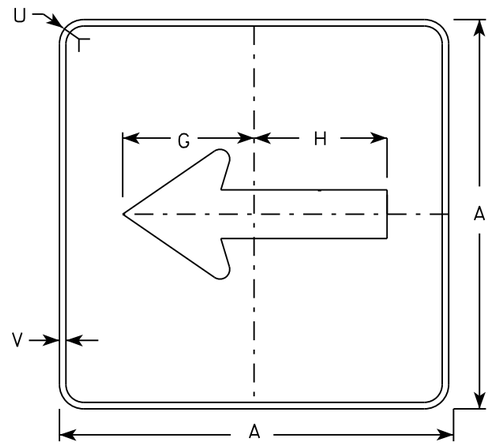
M6-1
MM6-1
MO6-1
MP6-1



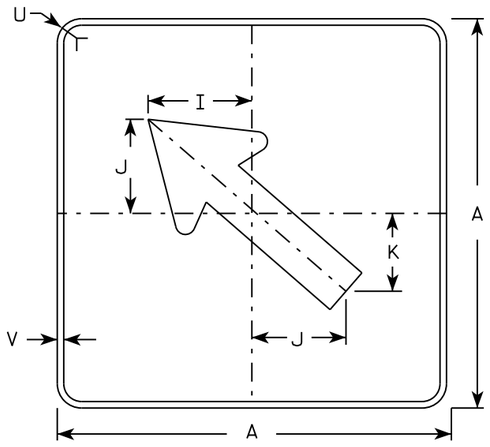
M6-2
MM6-2
MO6-2
MP6-2

NOTES

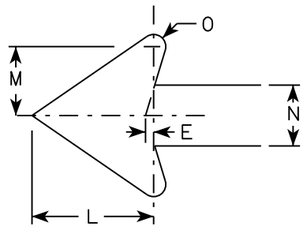
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

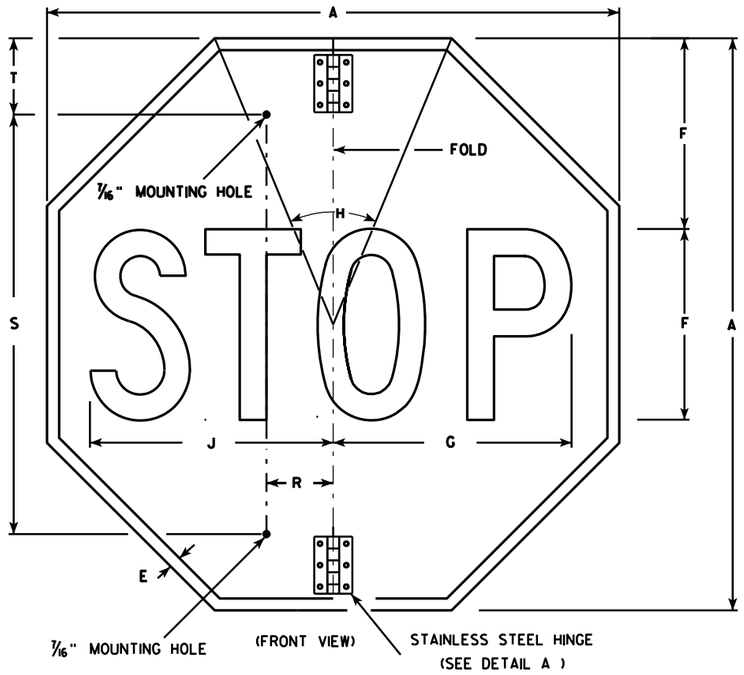
STANDARD SIGN
M6-1 & M6-2
SERIES

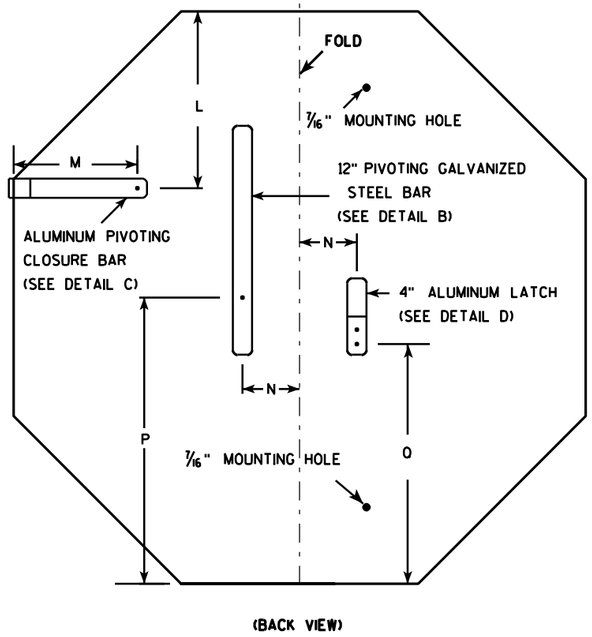
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 130 M6-1.15

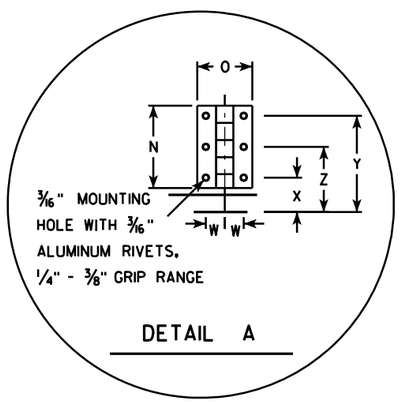
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



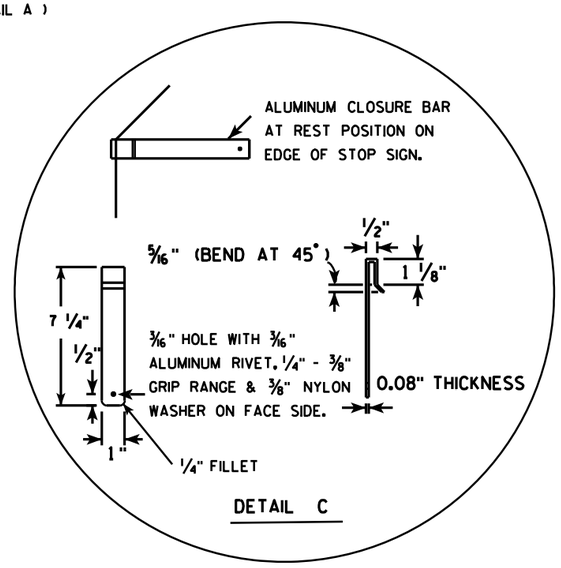


NOTES

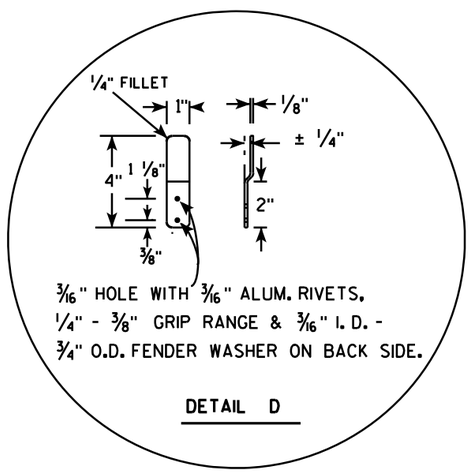
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



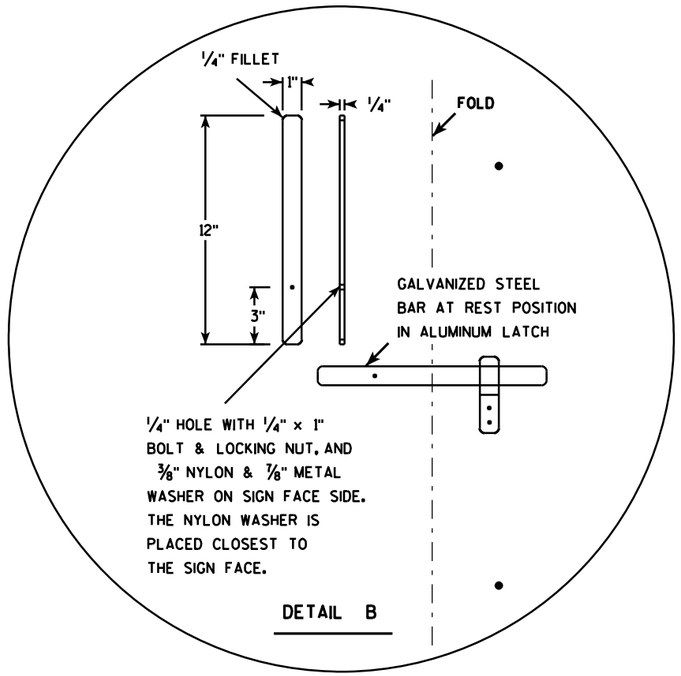
DETAIL A



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																											

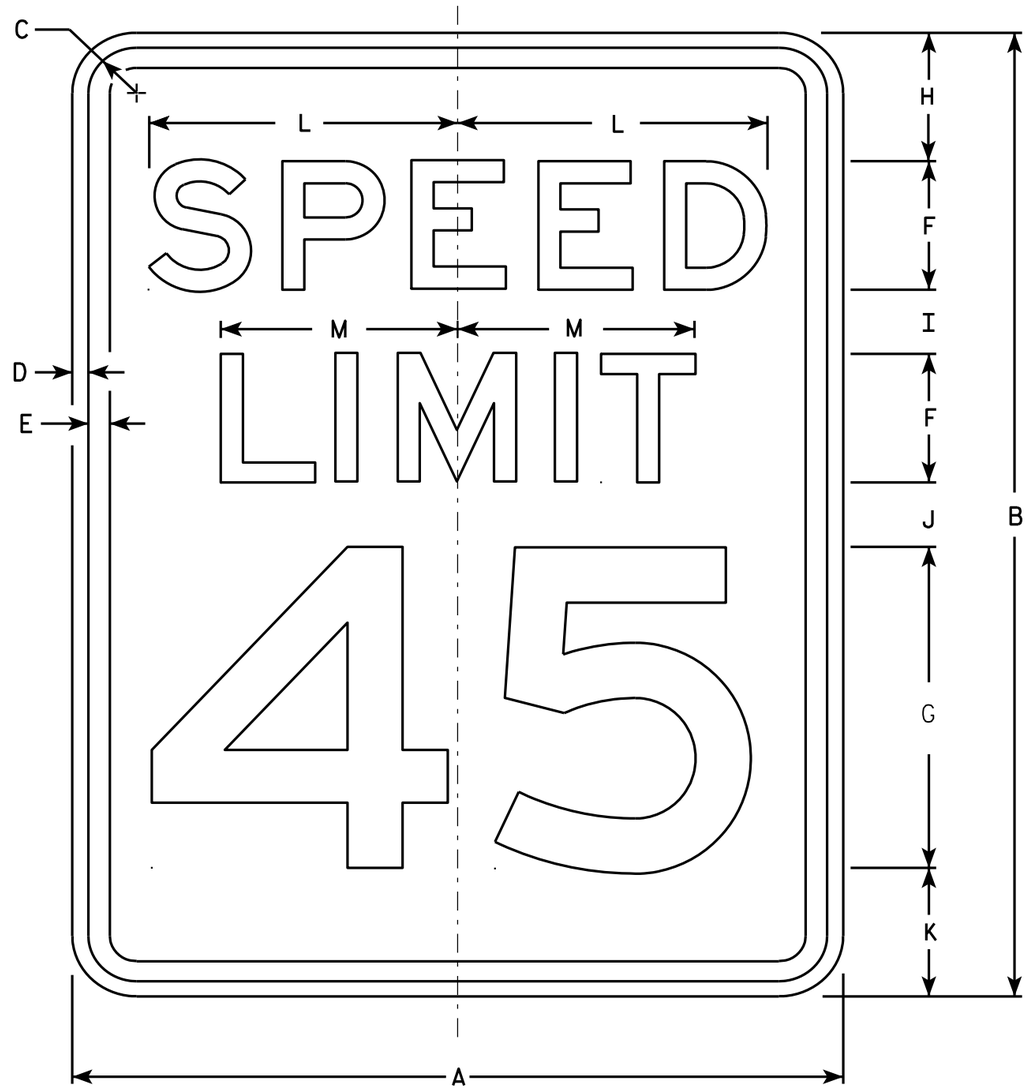
STANDARD SIGN
R1-1F

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: 131	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

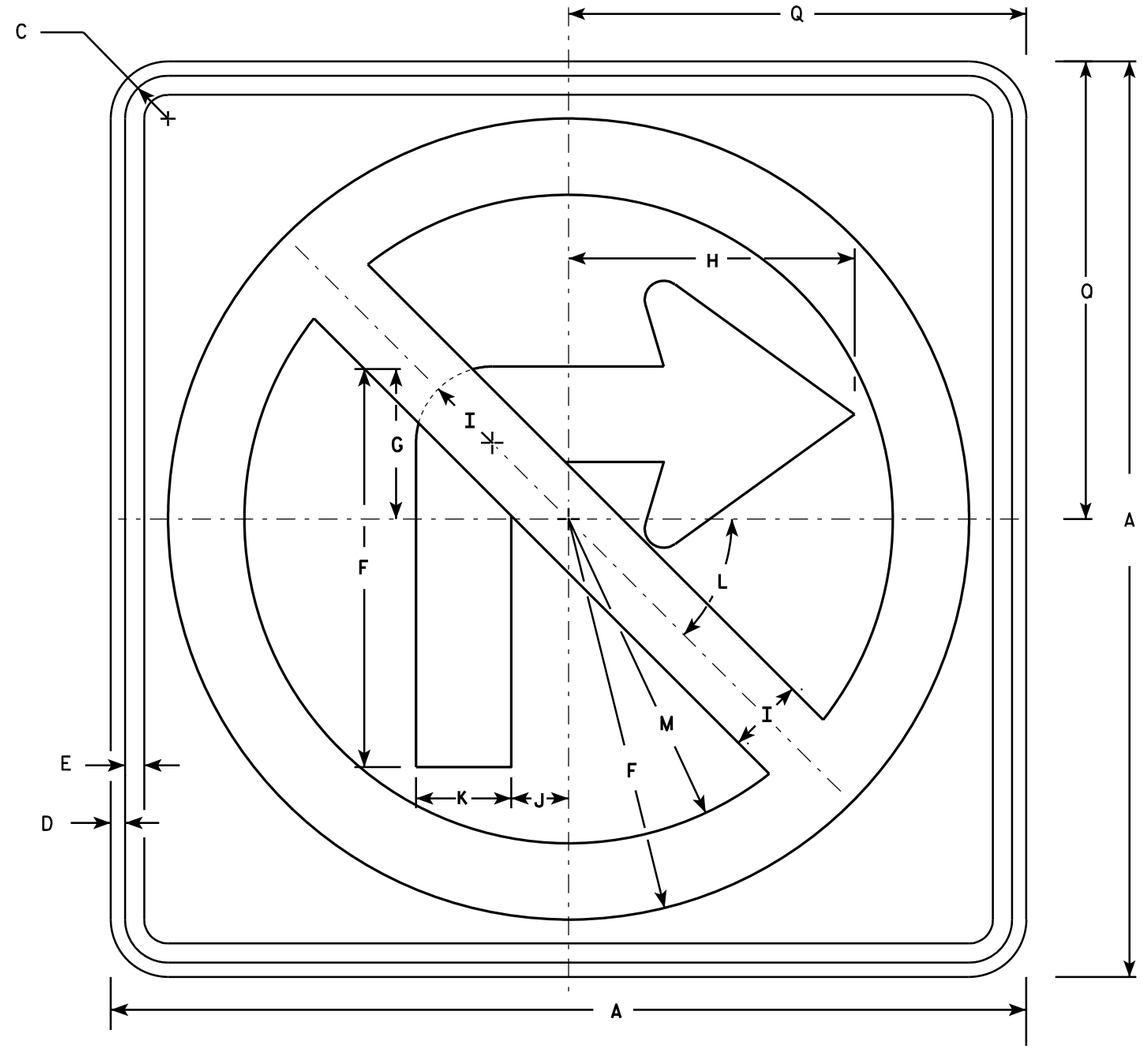
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

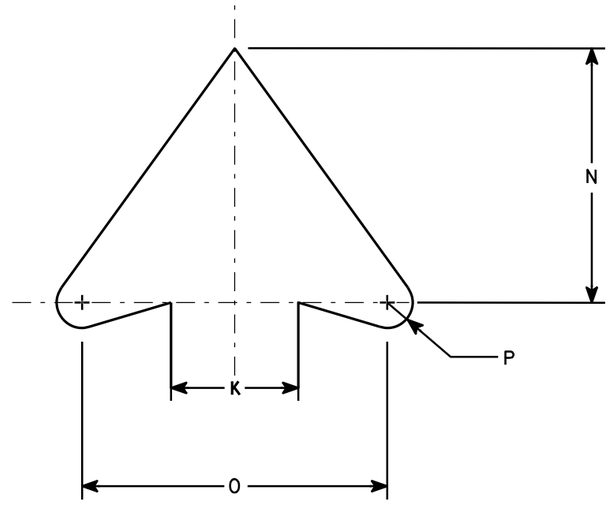
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 132	E



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

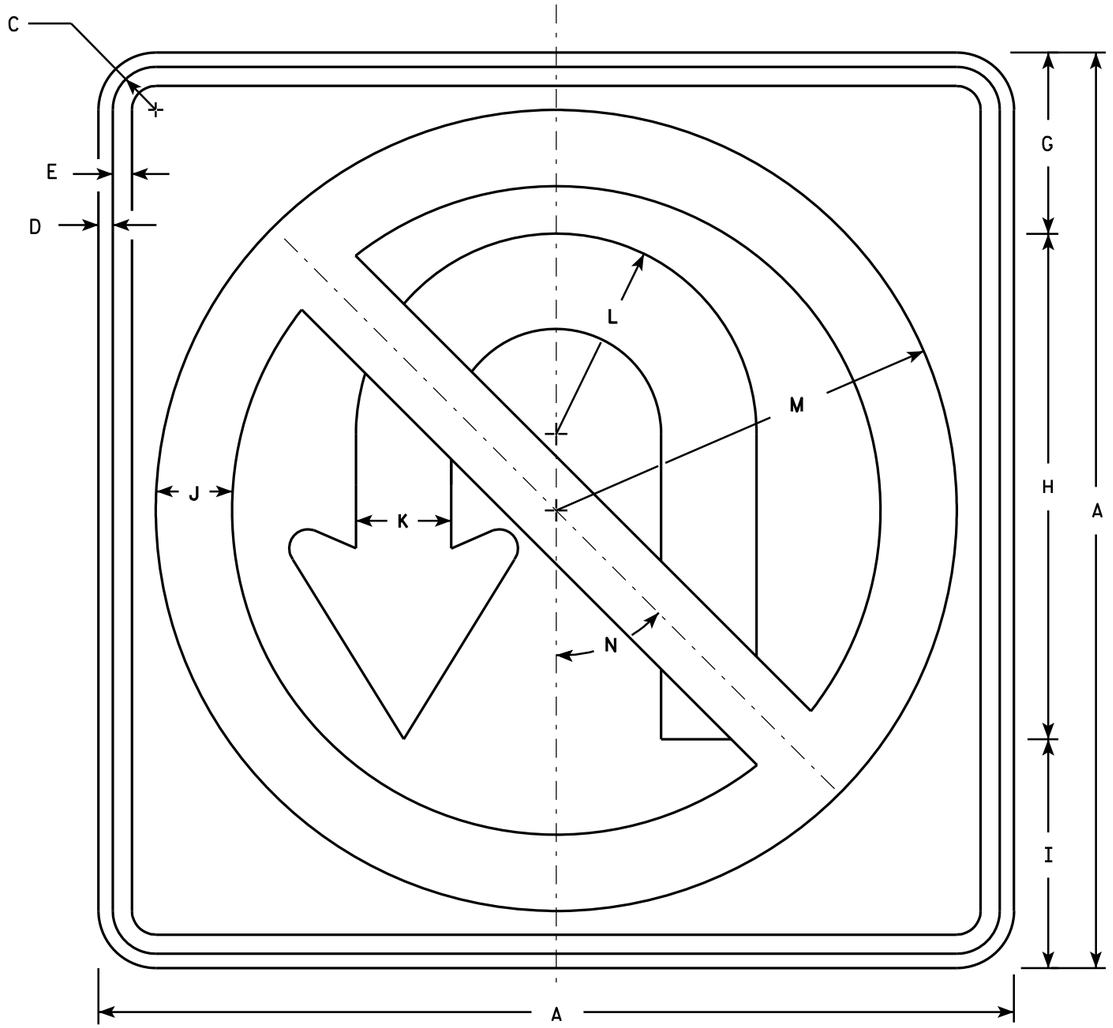
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

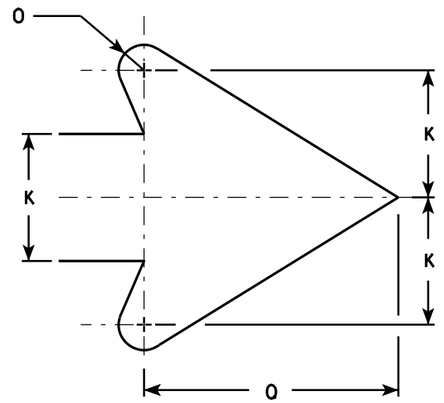
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 133	E



R3-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

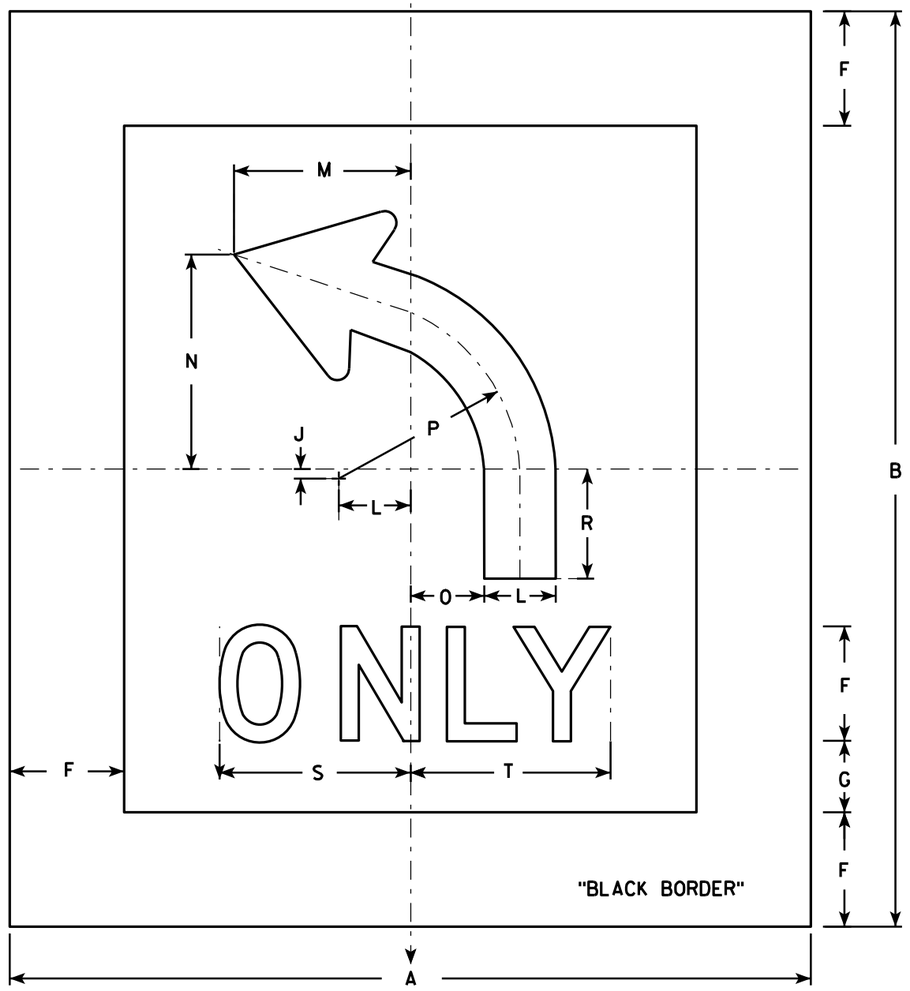
STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

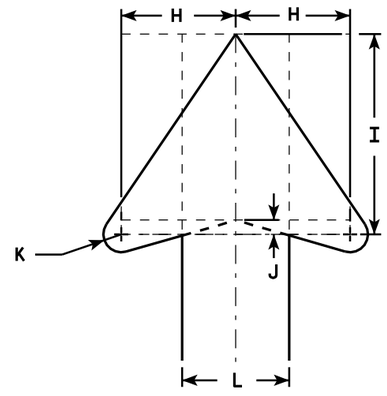
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 134	E



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																											

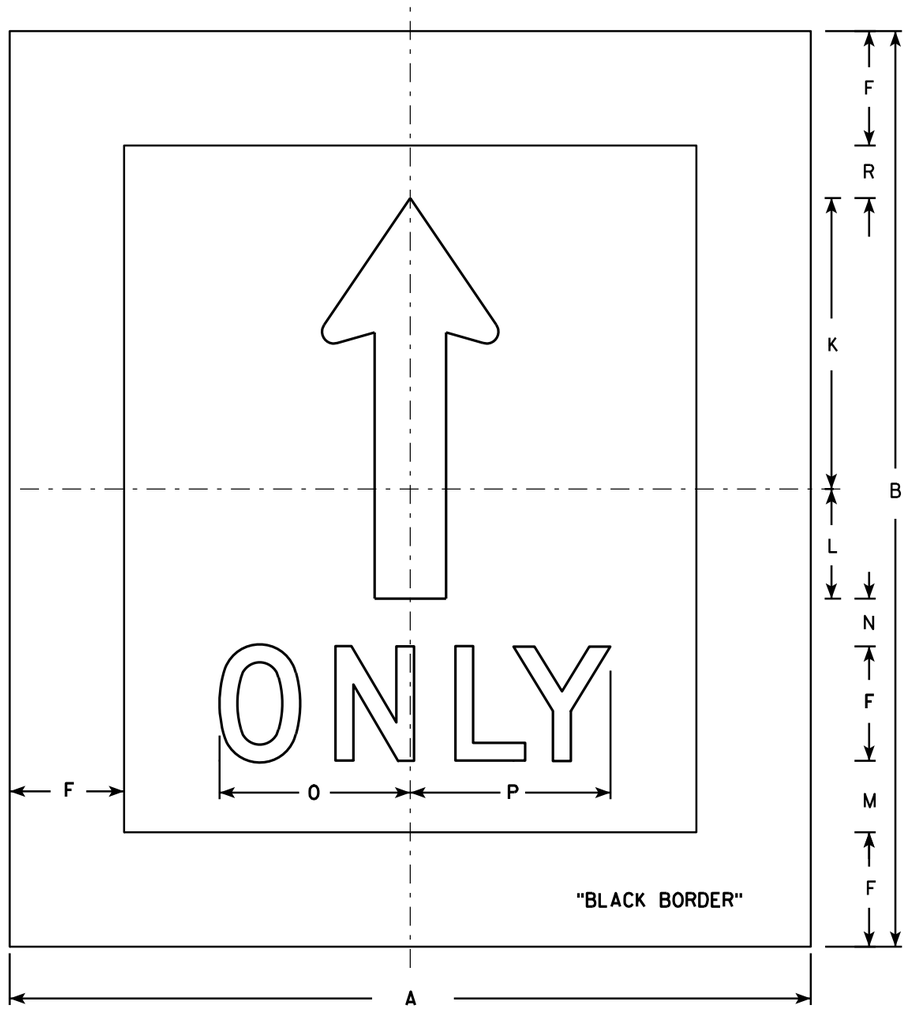
STANDARD SIGN
R3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5.6

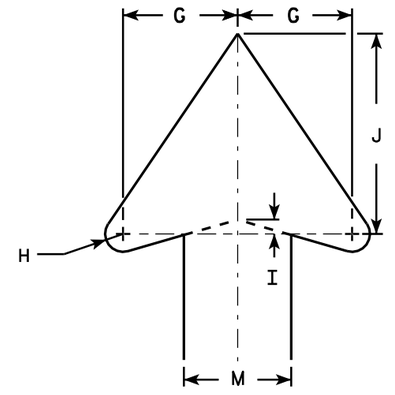
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 135 | E



R3-5A

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. 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	4	5/8	1/2	7	15 1/4	5 3/4	3 3/4	2 1/2	10	10 1/2		2 3/4									1.26
2M	42	48				6	4	5/8	1/2	7	15 1/4	5 3/4	3 3/4	2 1/2	10	10 1/2		2 3/4									1.26
3																											
4																											
5																											

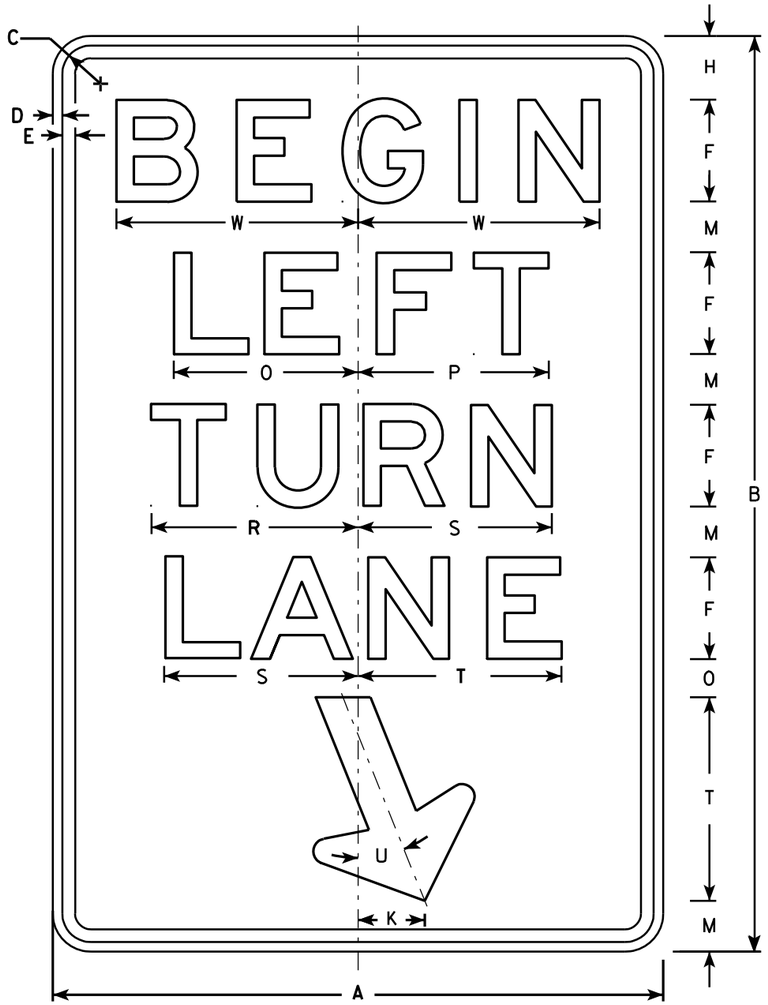
STANDARD SIGN
R3-5A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5A.5

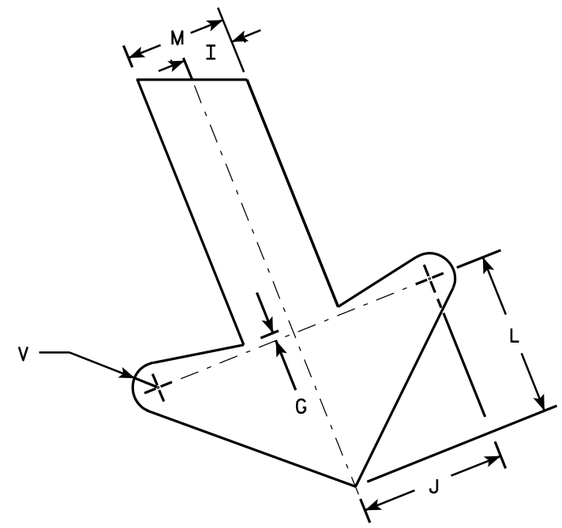
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 136	E



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																											

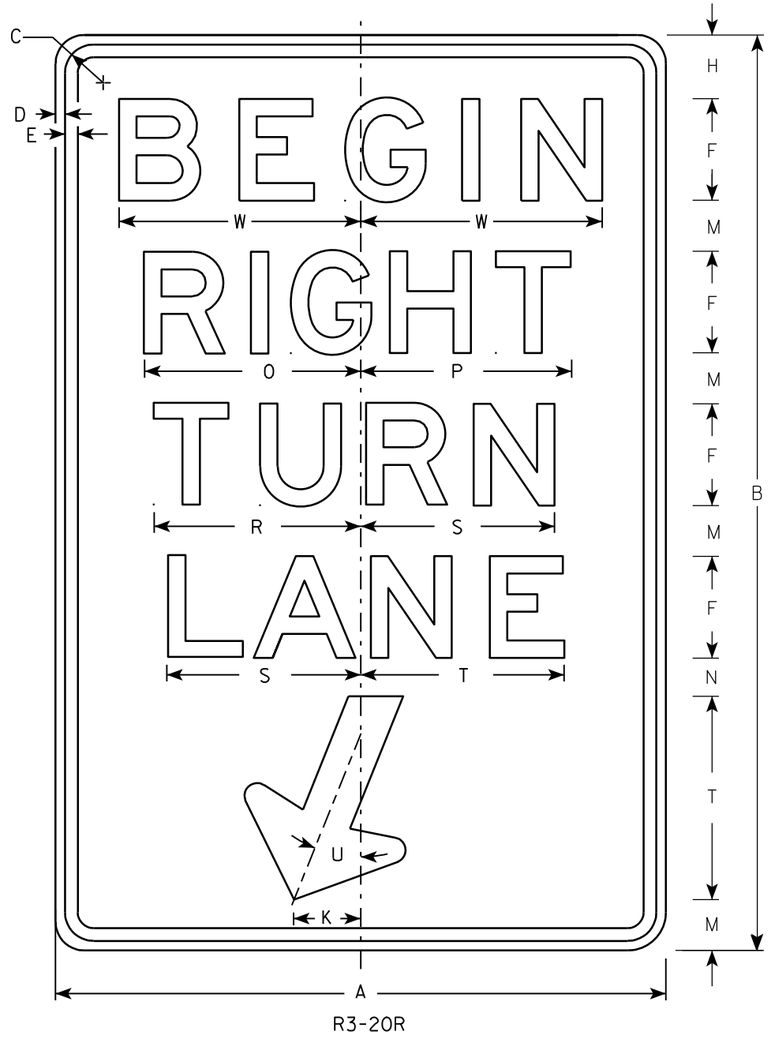
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

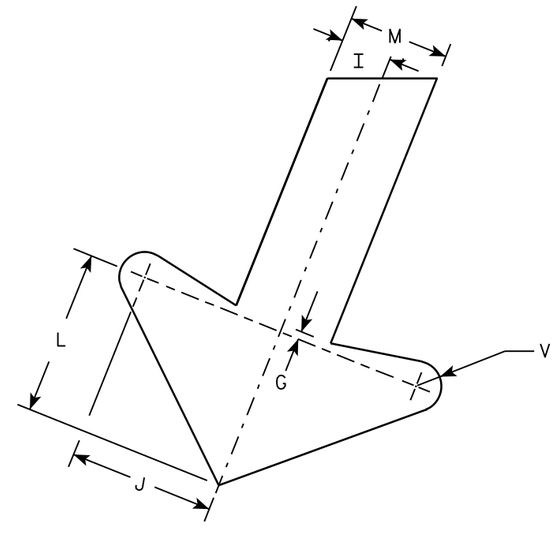
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 137 | E



R3-20R

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	8 1/2	8 1/4		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	8 1/2	8 1/4		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	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

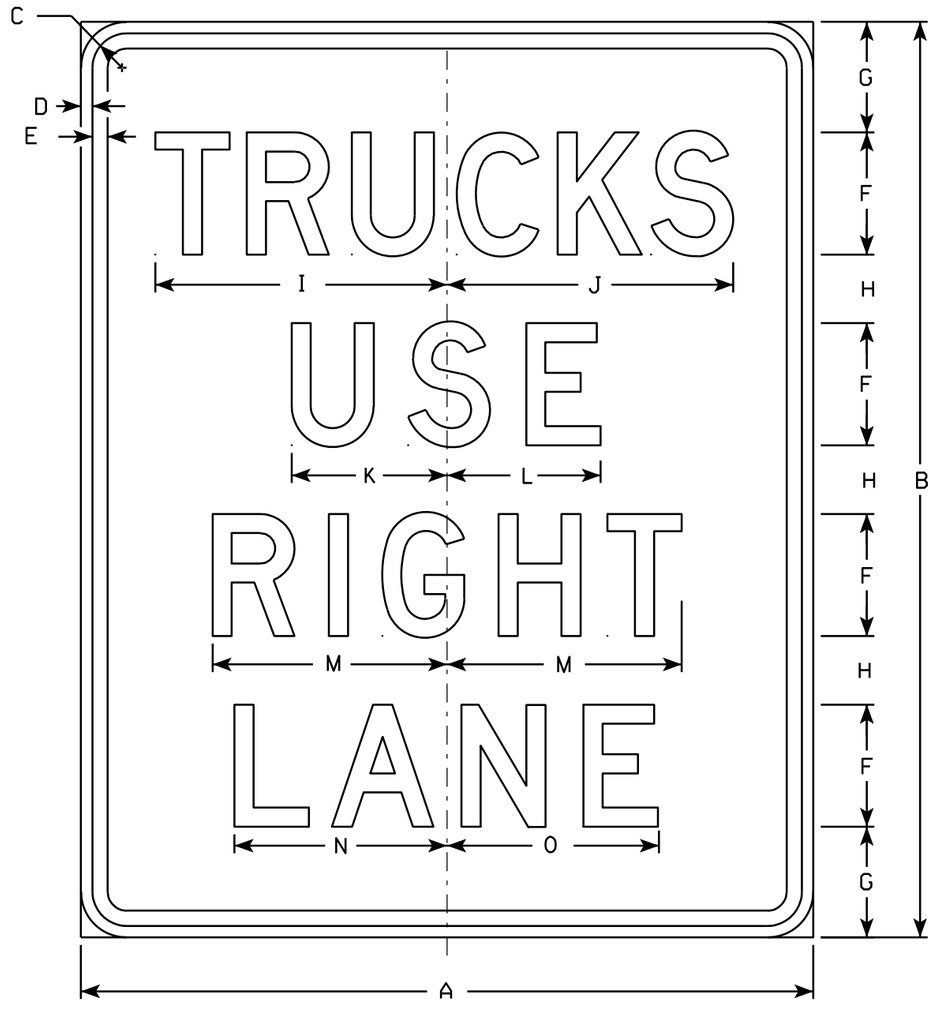
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 138 | E

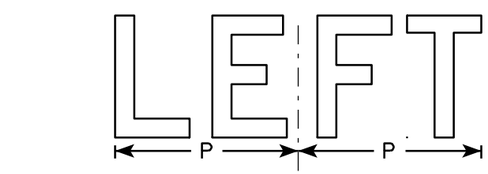


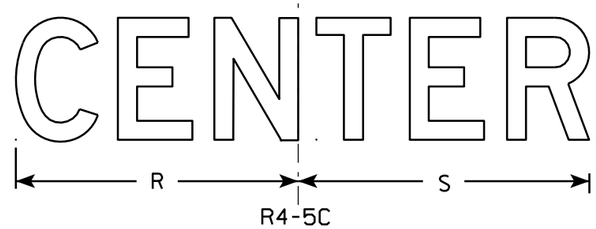
R4-5

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. R4-5L & R4-5C are the same as R4-5 except LEFT or CENTER replaces RIGHT as order by code.

R4-5L





R4-5C

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	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 5/8	9 3/8	5 1/8	5 1/8	7 3/4	7 1/4	7	6		9 1/4	9 1/2								5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 5/8	9 3/8	5 1/8	5 1/8	7 3/4	7 1/4	7	6		9 1/4	9 1/2								5.0
3																											
4	36	48	2 1/4	5/8	3/4	6	6	4	14 3/8	14 1/8	7 7/8	7 7/8	12 1/4	10 3/4	10 1/2	9 5/8		13 7/8	14 1/4								12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/8	18 3/4	10 1/4	10 1/8	15 3/8	14	13 7/8	12		18 1/2	19 1/8								20.0

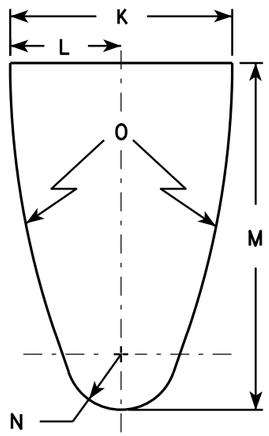
STANDARD SIGN
R4-5

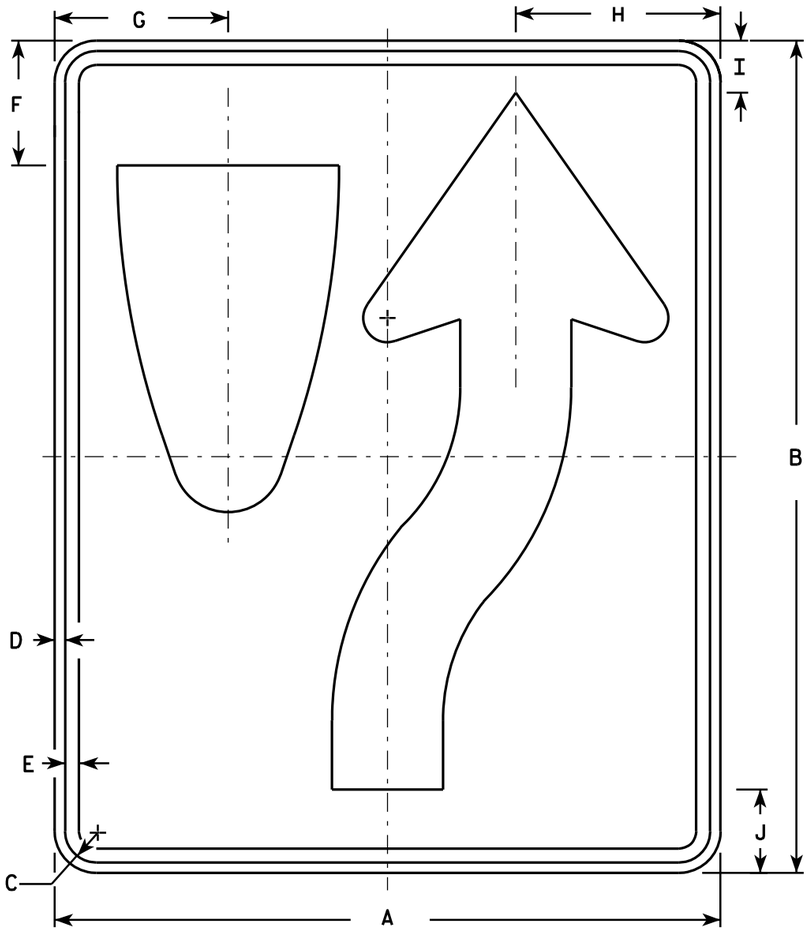
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-5.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 139 | E

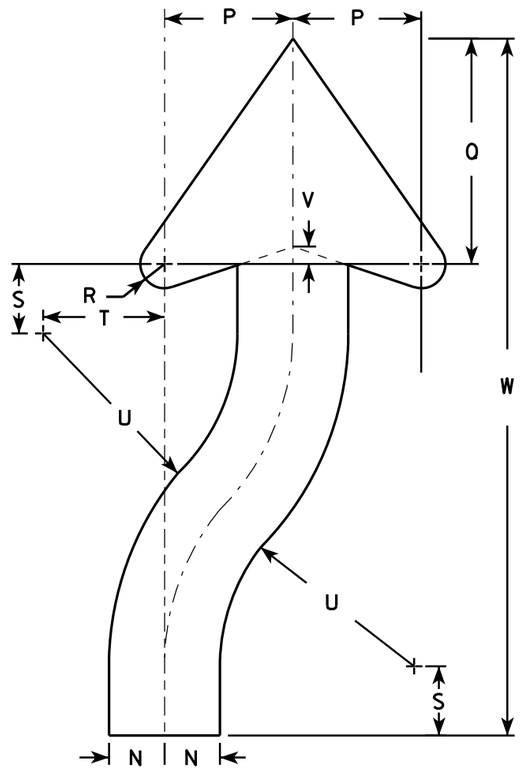




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

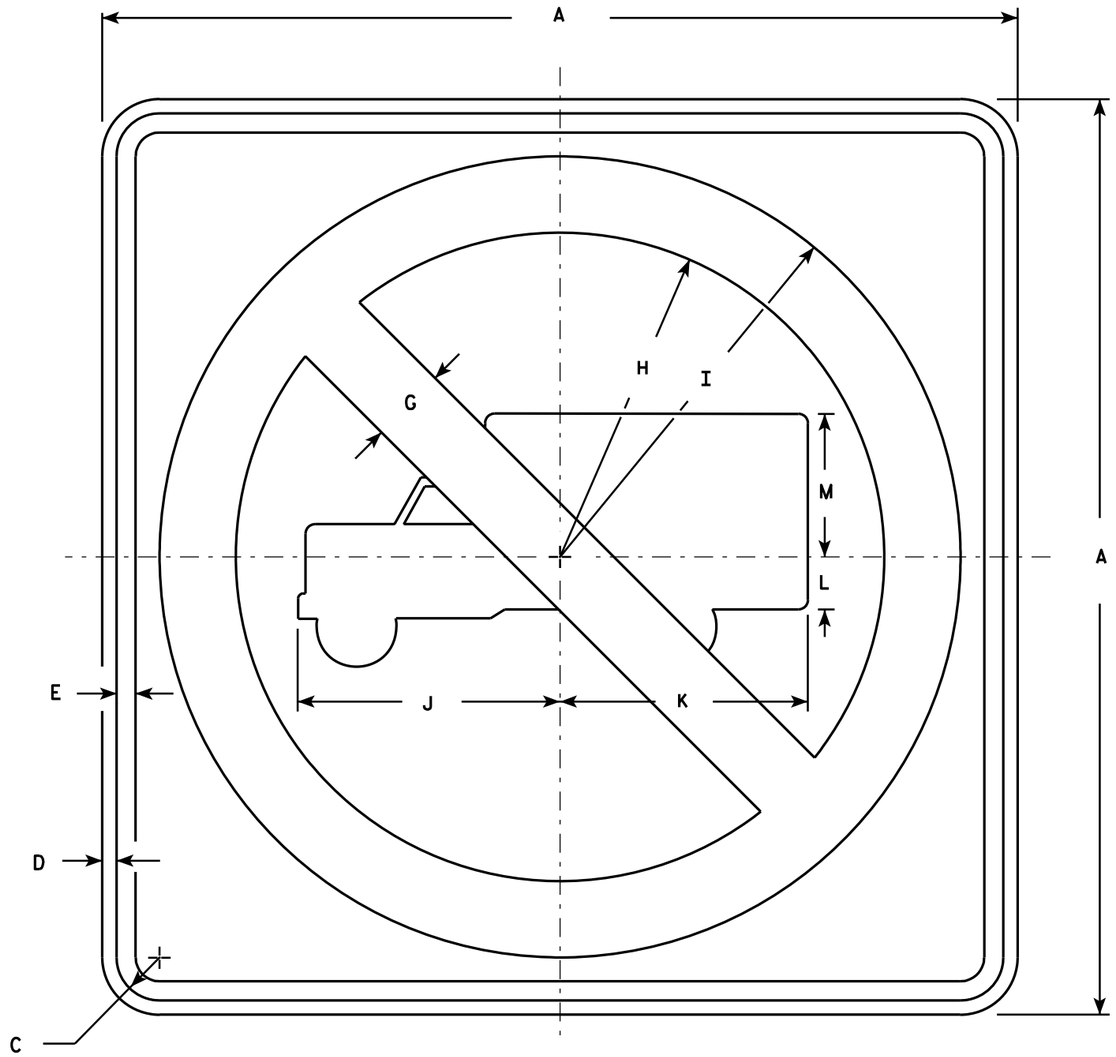
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 140	E



R5-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Circle & Diagonal - Reflective red.
   Truck Symbol & Border - Non-reflective 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																											
2S	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
2M	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
3	30		1 3/8	1/2	5/8		2 1/2	10 5/8	13 1/8	8 1/2	8 1/8	1 5/8	4 3/4														6.25
4	36		1 5/8	5/8	3/4		3	12 3/4	15 3/4	10 1/4	9 3/4	2	5 3/4														9.0
5	48		2 1/4	3/4	1		4	17	21	13 5/8	13	2 5/8	7 5/8														16.0

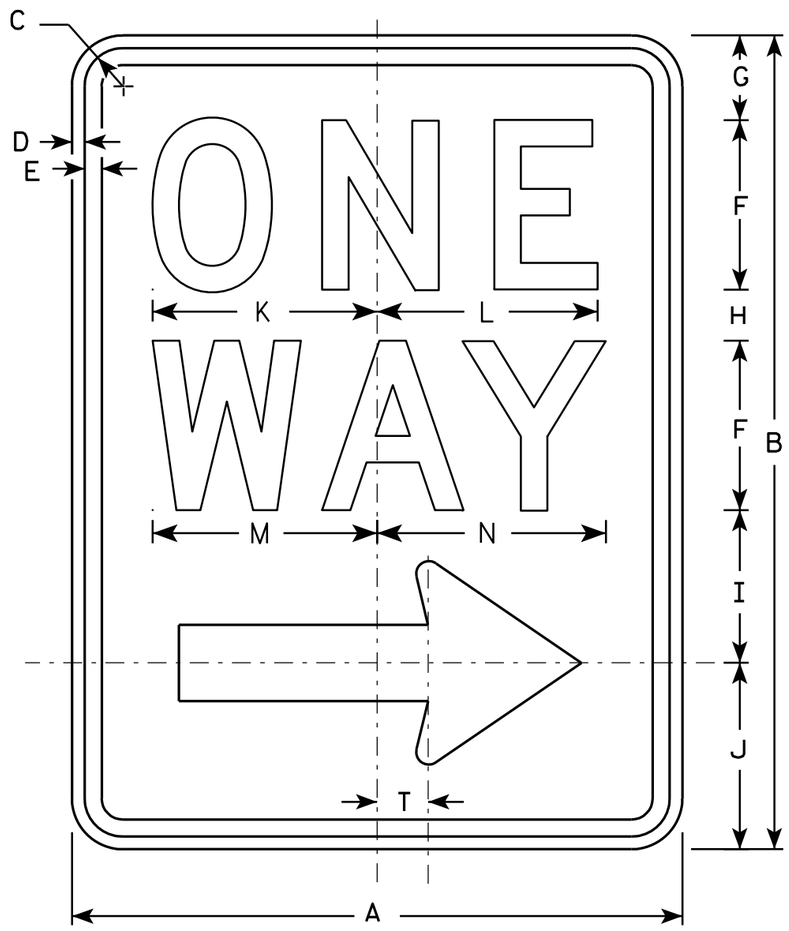
STANDARD SIGN
R5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-2.6

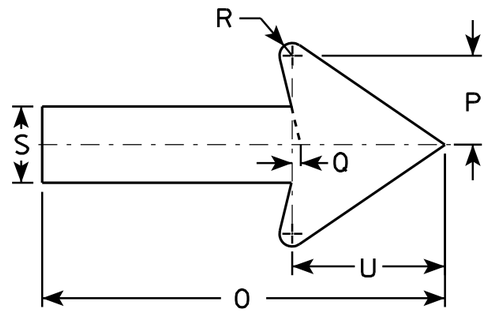
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 141	E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

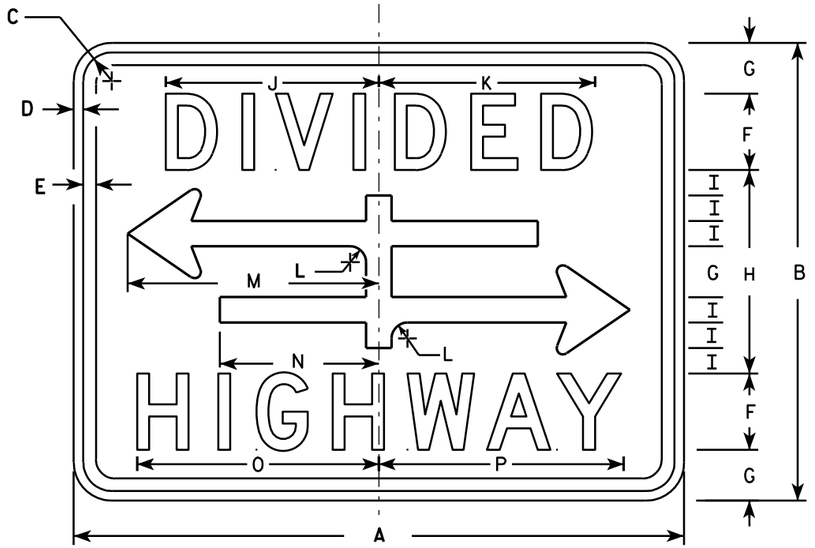
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

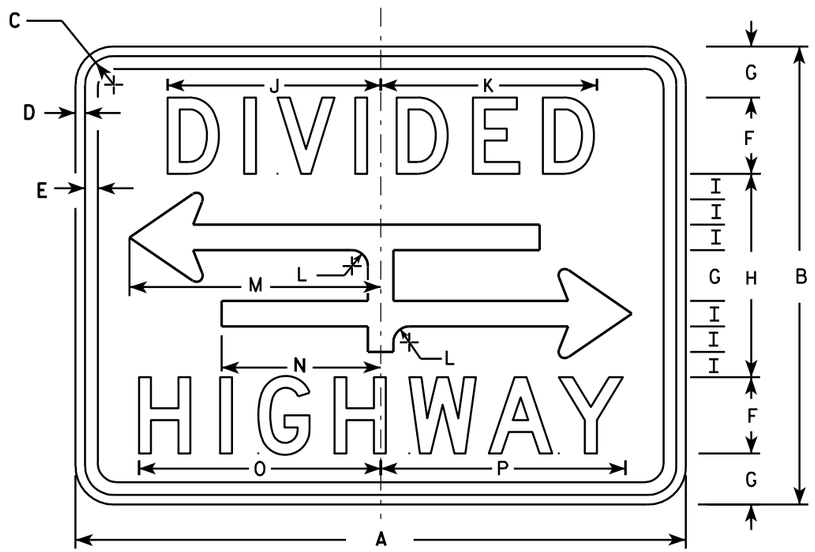
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 142 | E



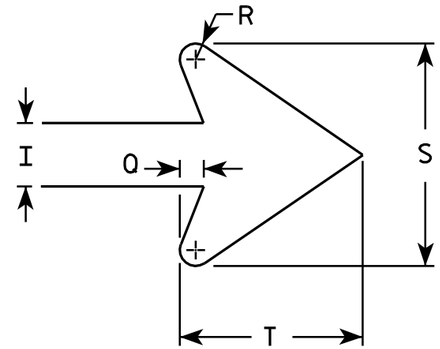
R6-3

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

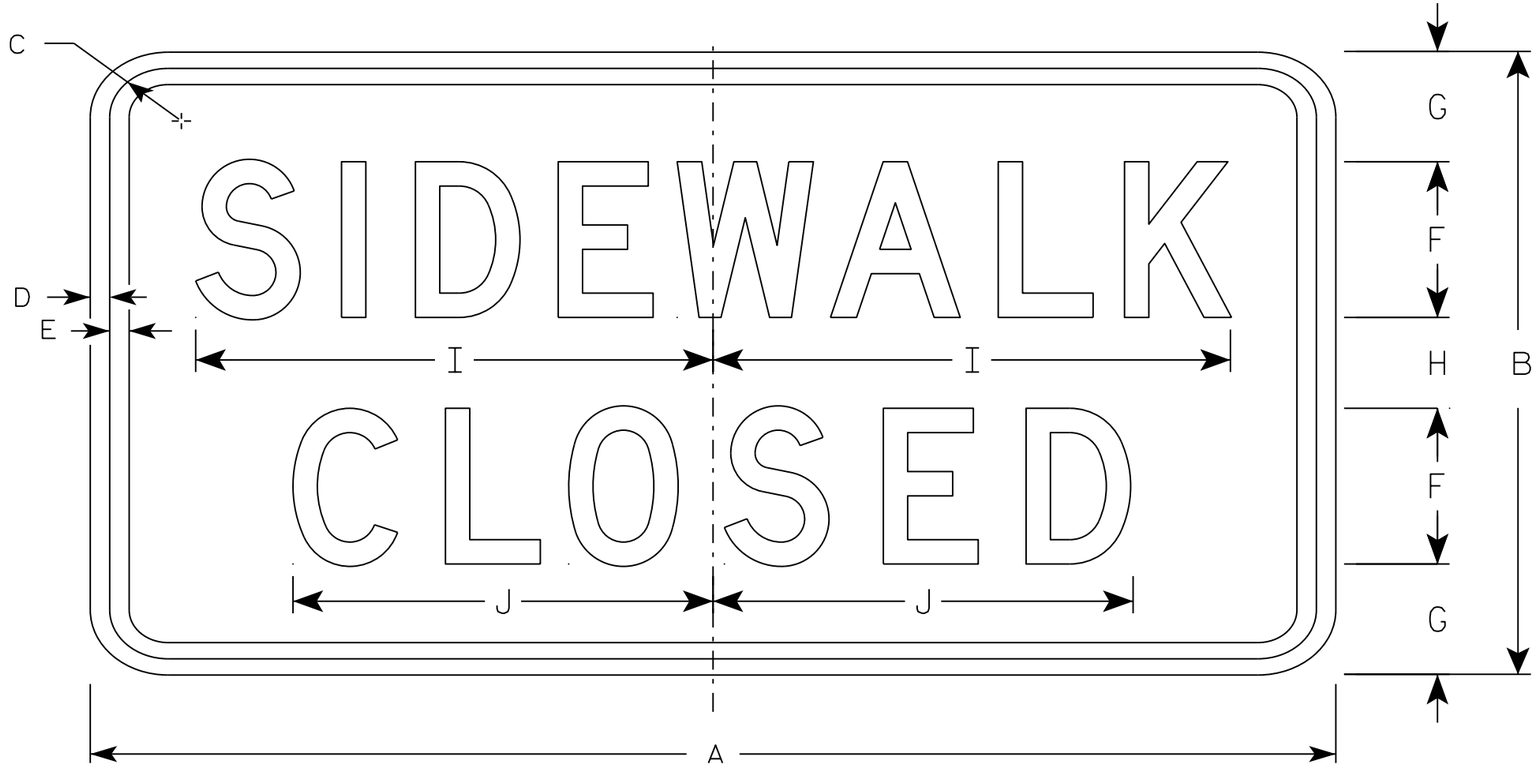
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

SHEET NO: 143 E



R9-9

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

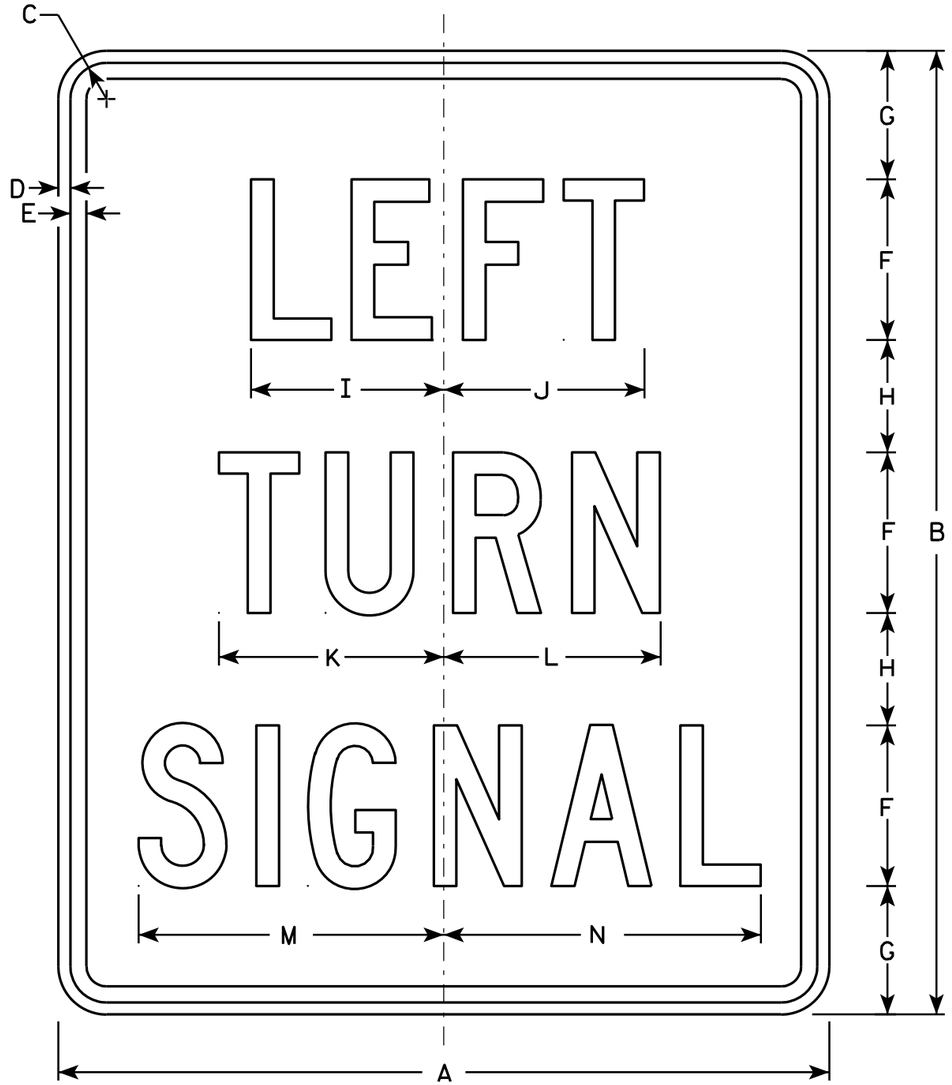
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 144 R9-9.6

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

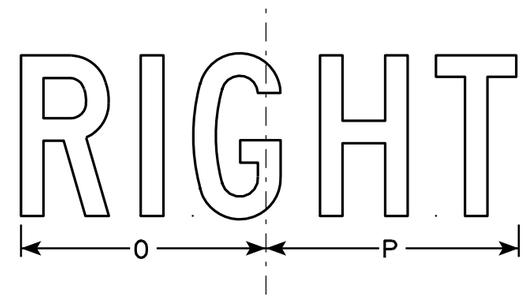
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



R10-10L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R10-10R is identical to R10-10L except RIGHT replaces LEFT.



R10-10R

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	30	1 1/8	3/8	1/2	5	4	3 1/2	6	6 1/4	7	6 3/4	9 1/2	9 7/8	7 5/8	7 7/8											5.0
2M	24	30	1 1/8	3/8	1/2	5	4	3 1/2	6	6 1/4	7	6 3/4	9 1/2	9 7/8	7 5/8	7 7/8											5.0
3																											
4																											
5																											

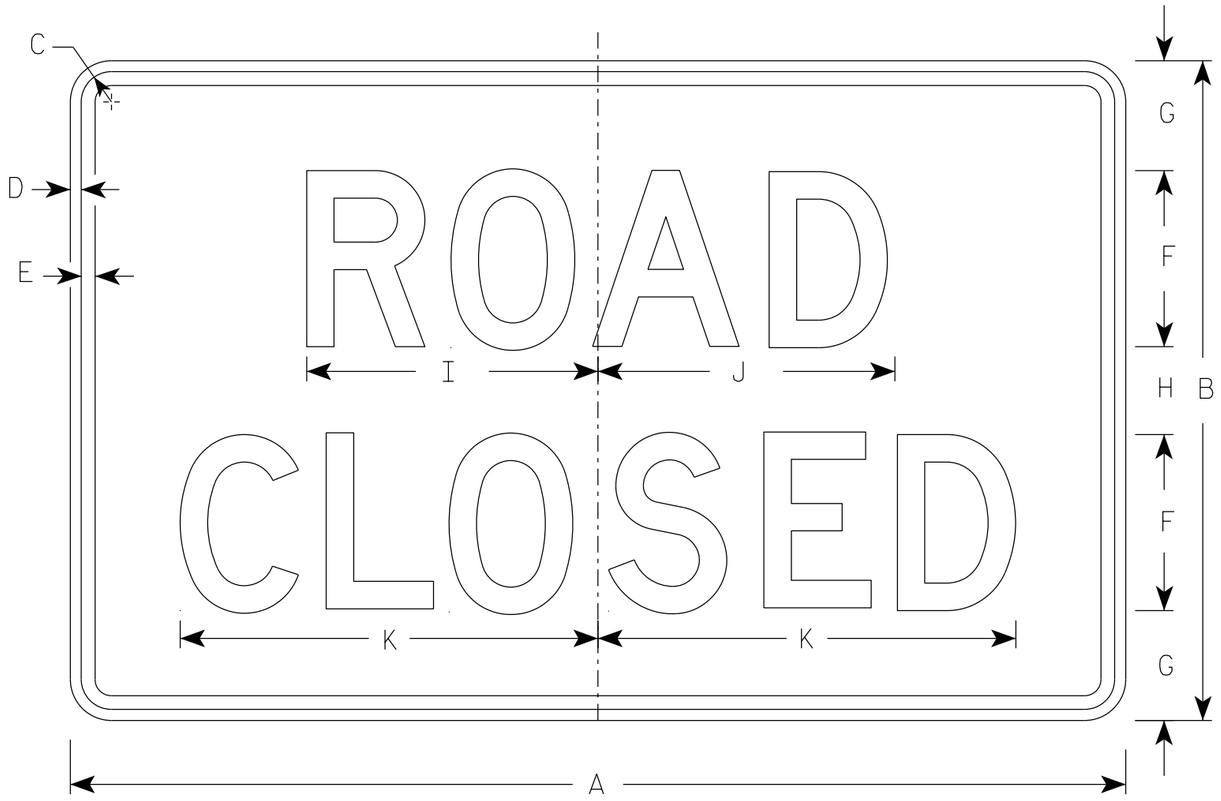
STANDARD SIGN
R10-10

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-10.6

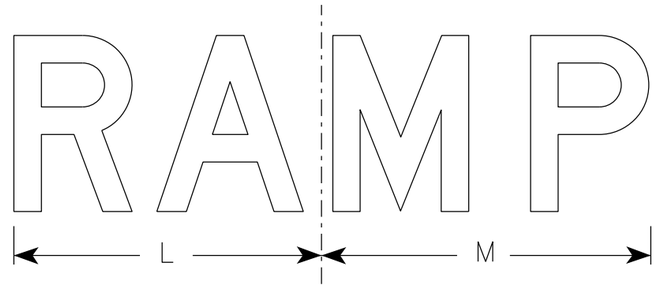
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 145	E



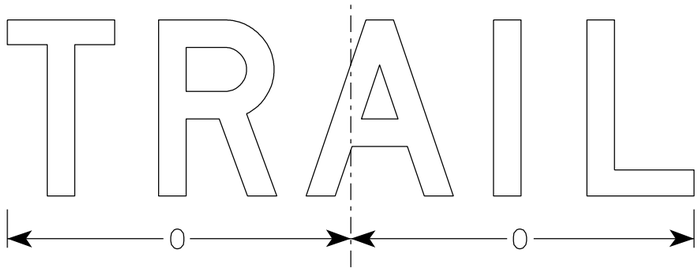
R11-2

NOTES

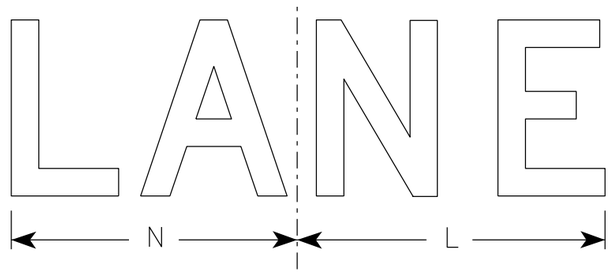
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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



R11-2R



R11-2T



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	15 5/8												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	15 5/8												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	15 5/8												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	15 5/8												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	15 5/8												10.0

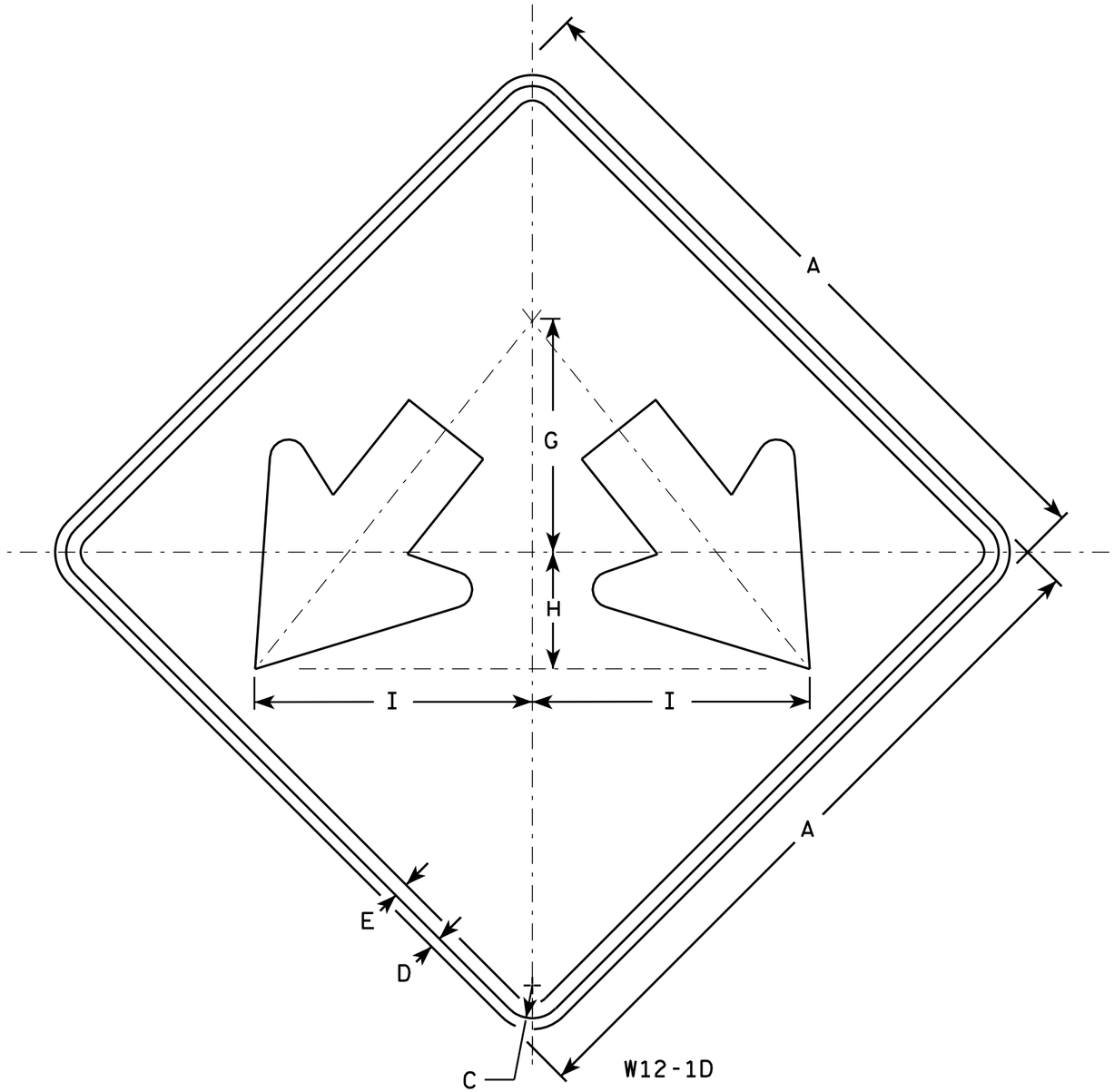
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

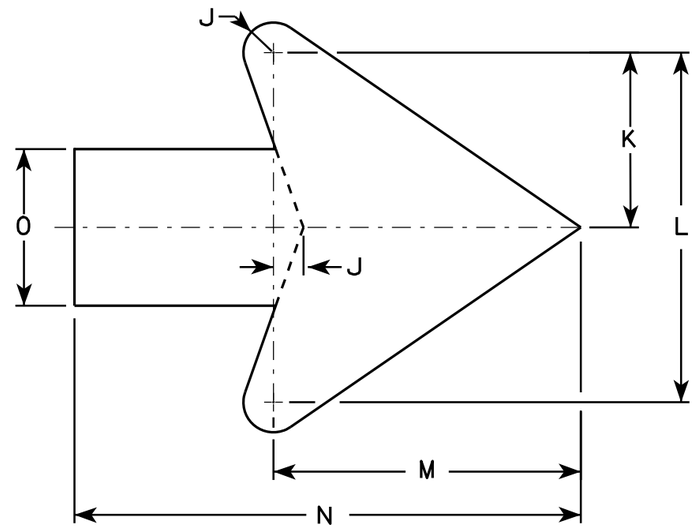
DATE 3/29/2021 PLATE NO. R11-2.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 146	E



NOTES

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



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

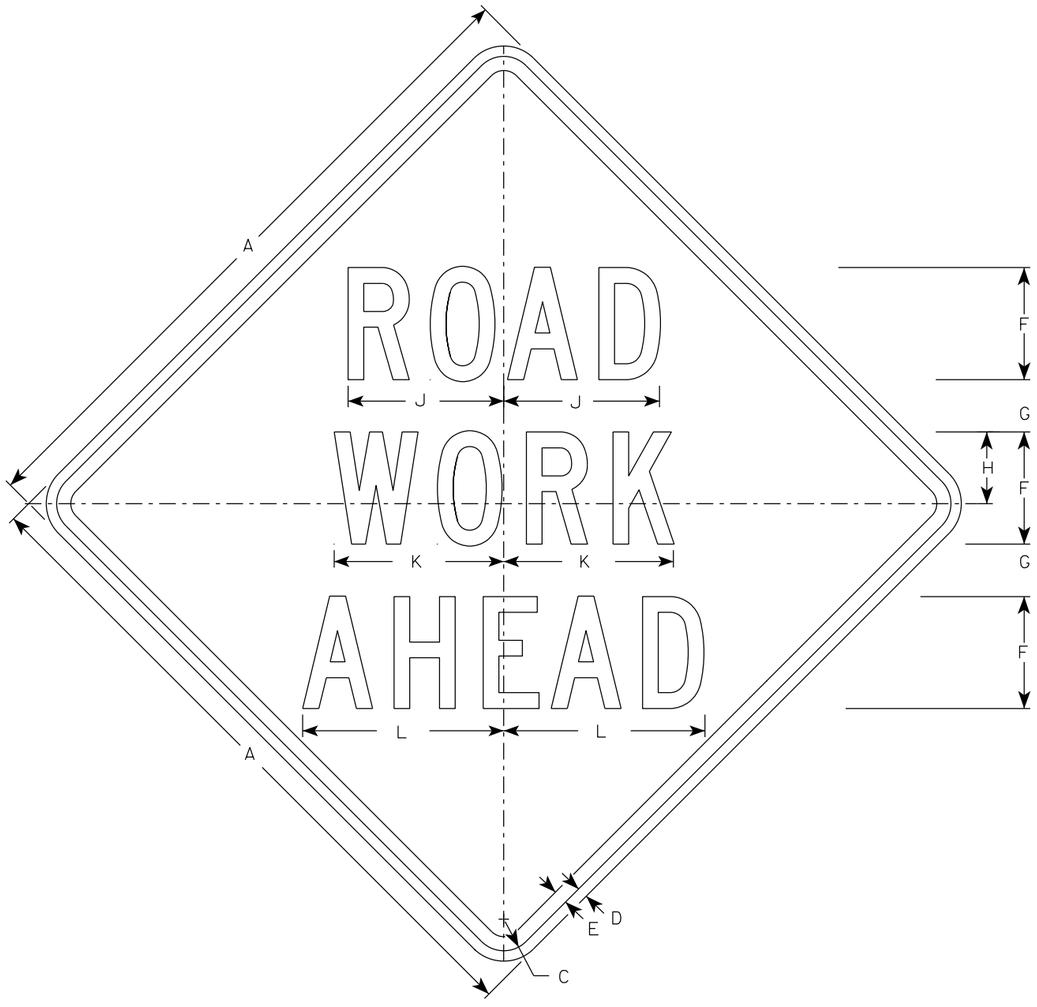
STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

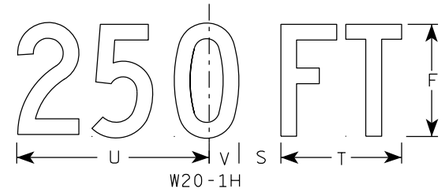
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

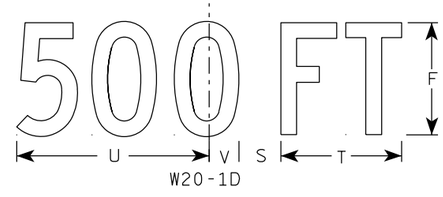
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 147	E



W20-1A

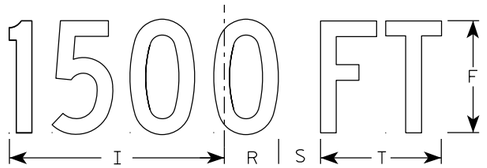


W20-1H



W20-1D

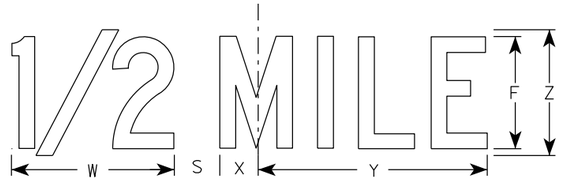
W20-1C



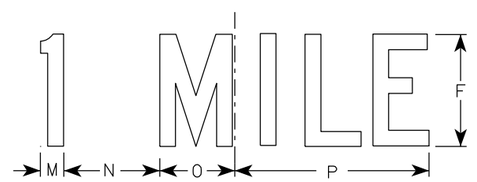
W20-1B

NOTES

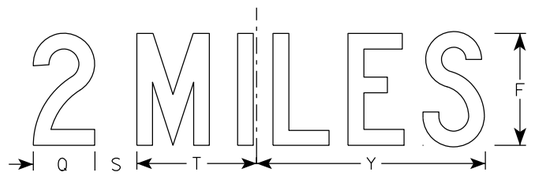
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

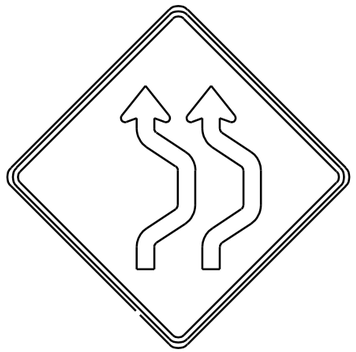
PROJECT NO:

SHEET NO: E

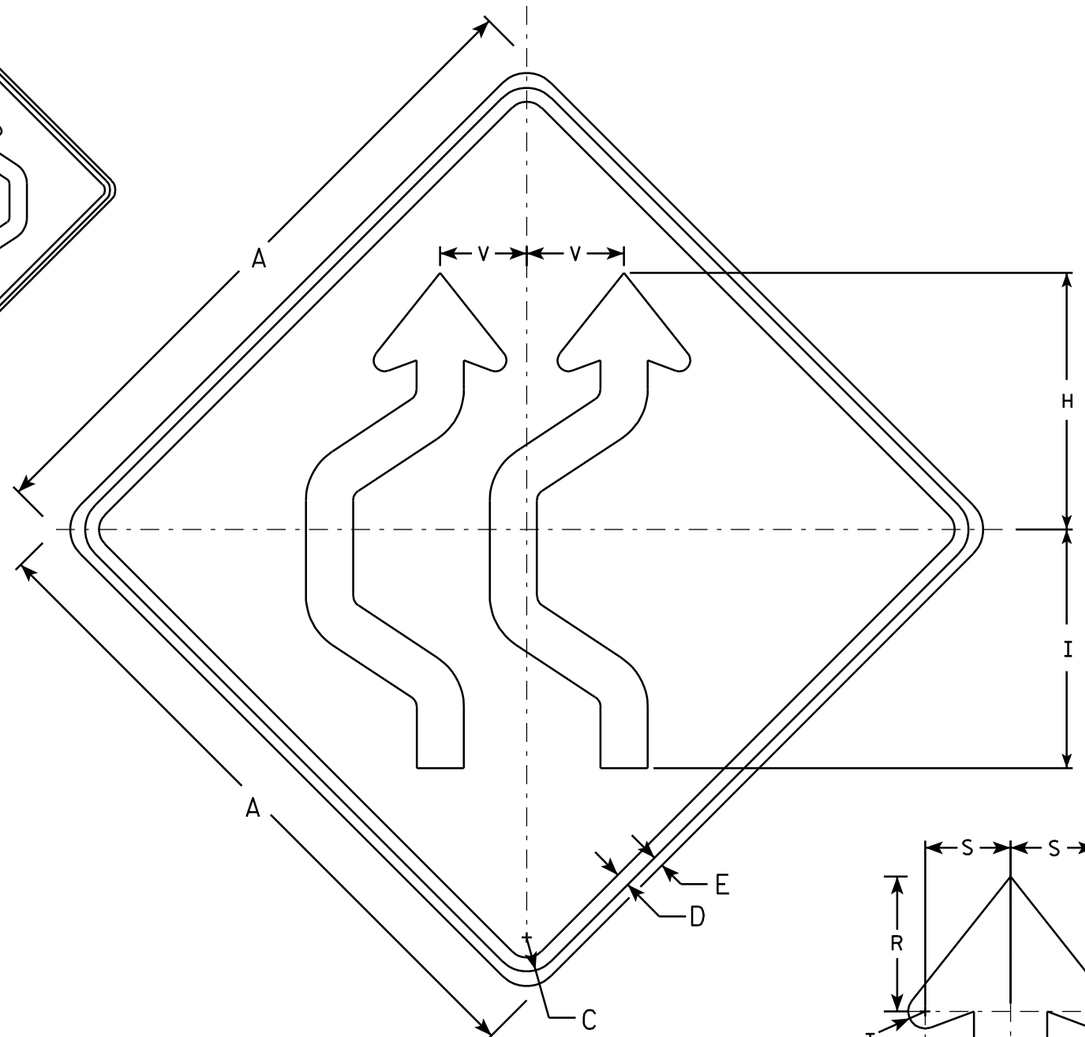
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

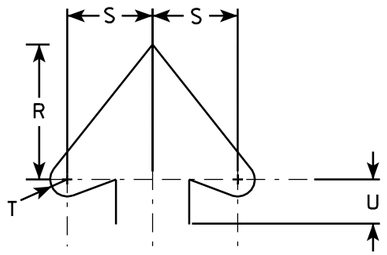
7



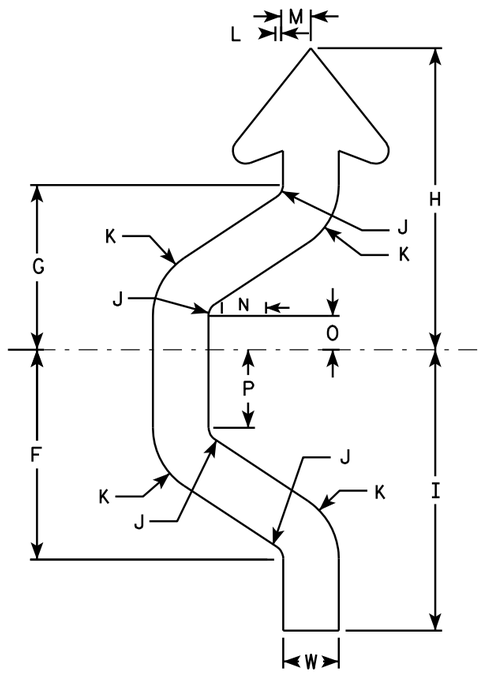
W24-1AR



W24-1AL



Arrowhead Detail



Arrow Detail

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W24-1R is the same as W24-1L except reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	5/8	1/2	9 1/2	7 1/2	13 3/4	12 3/4	5/8	3 1/8	3/8	1 5/8	2 3/8	1 1/2	3 1/2		4 5/8	3	5/8	1 1/2	4 3/4	2 1/2				9
2S	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16
2M	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16
3	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16
4	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16
5	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16

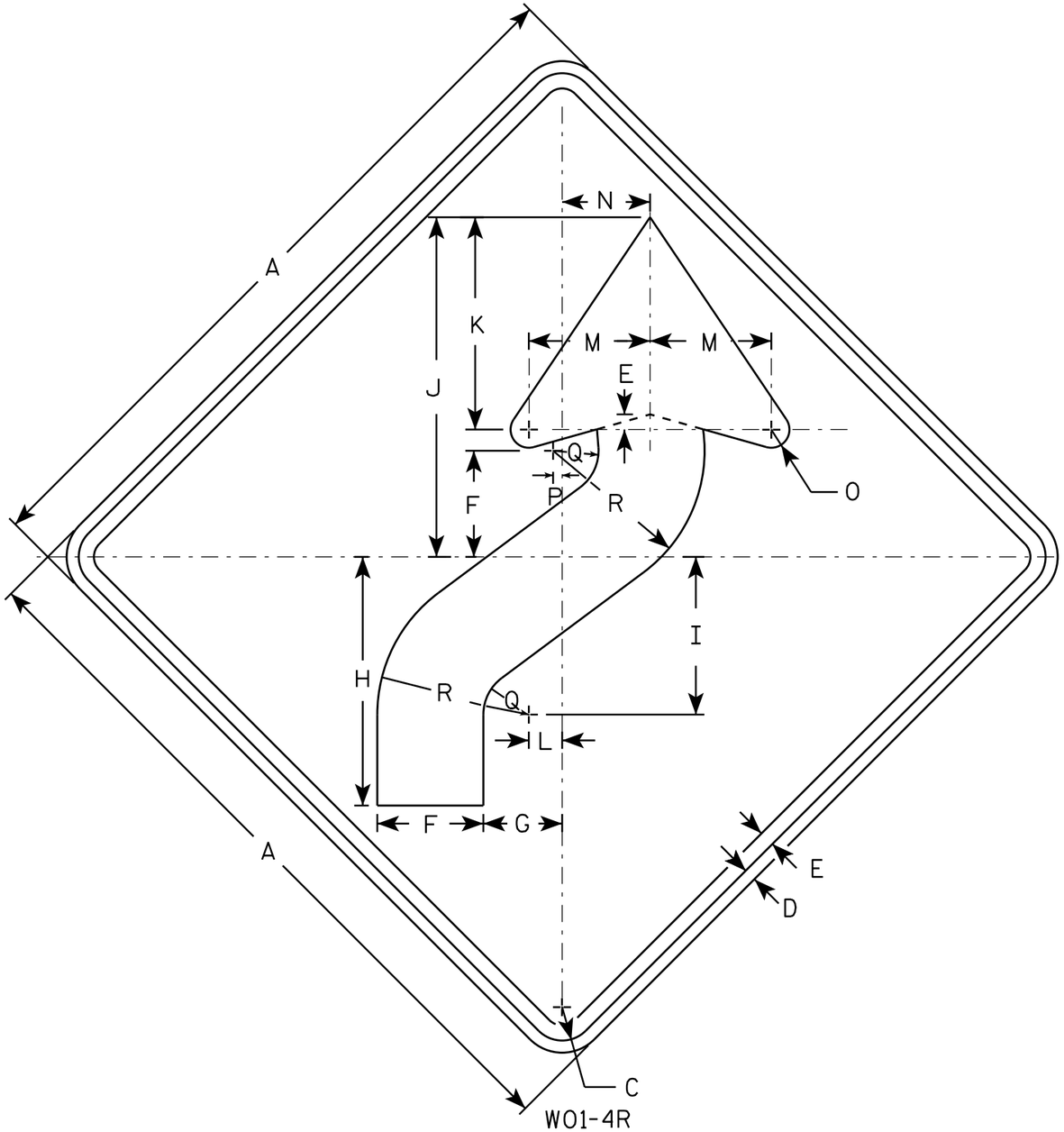
STANDARD SIGN
W24-1AL

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W24-1AL.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 149 | E



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

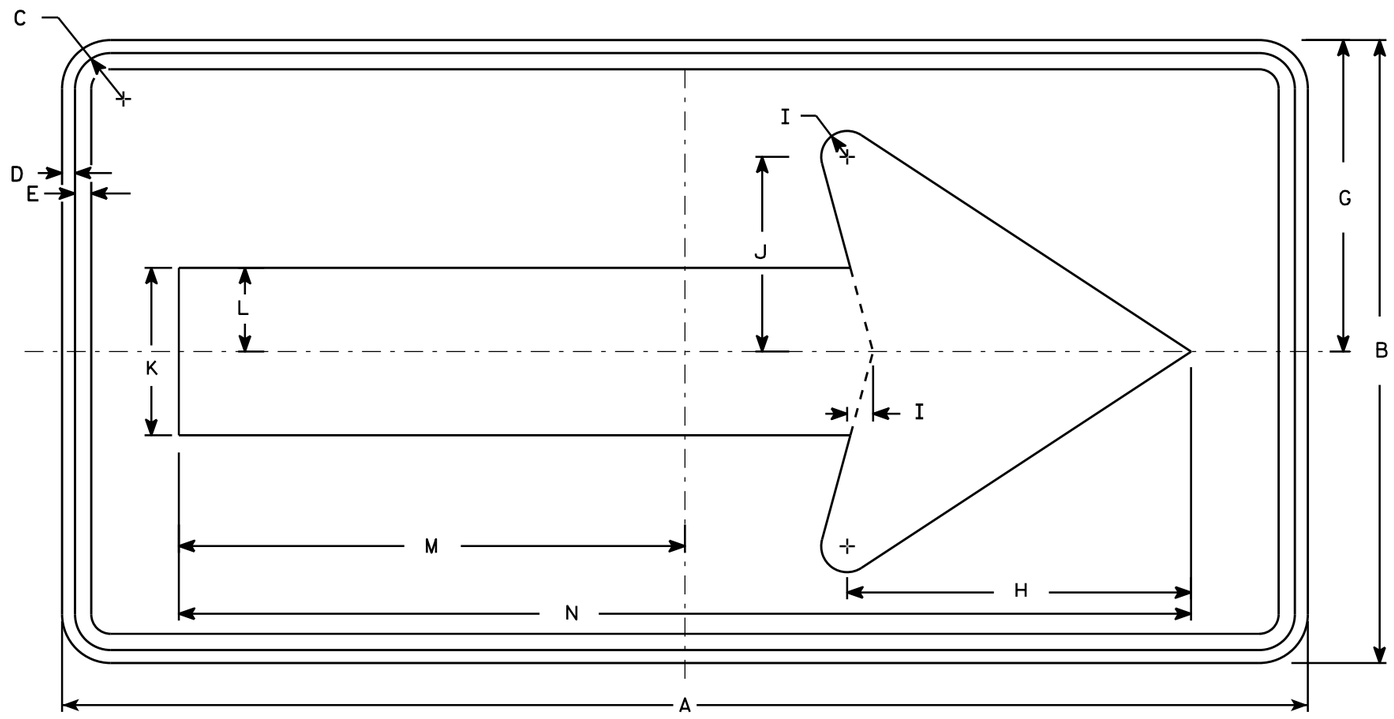
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000 WISDOT/CADDS SHEET 42



W01-6

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

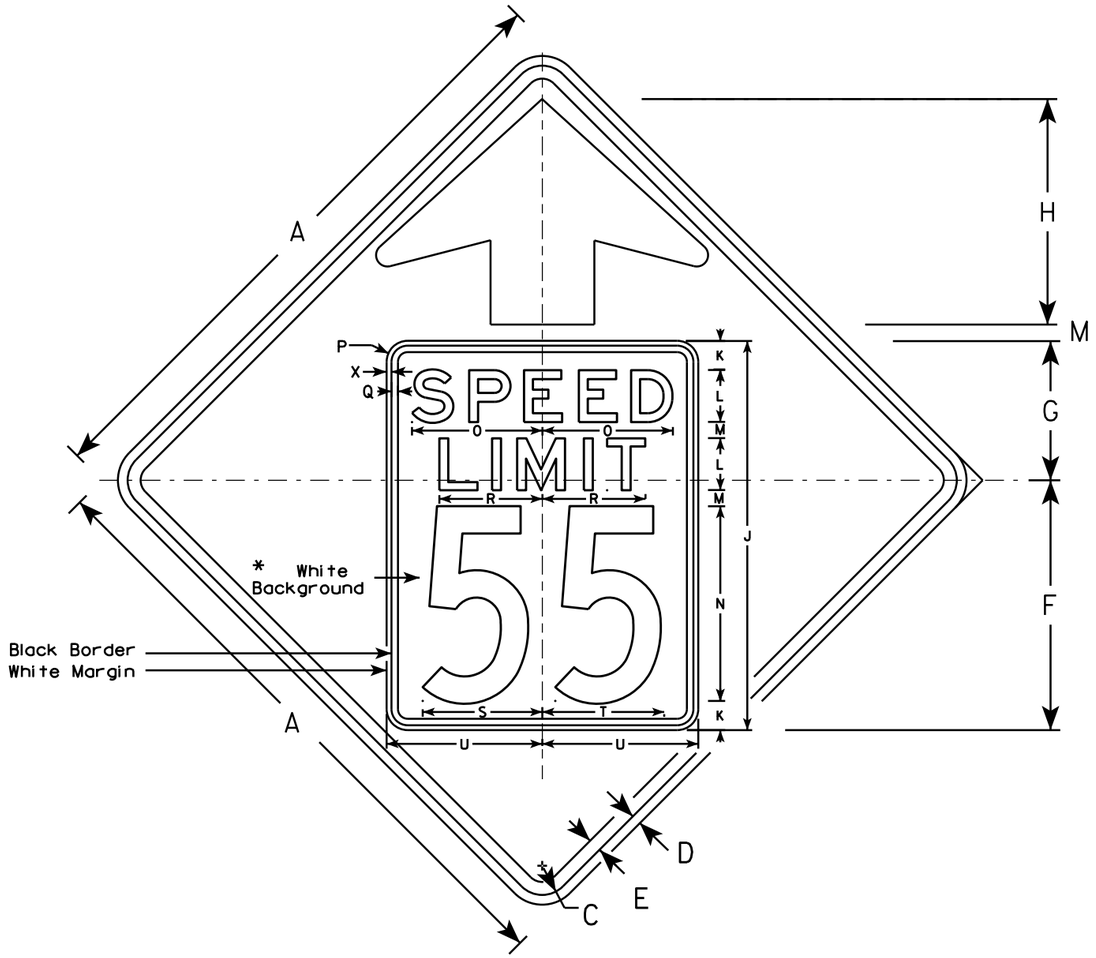
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42

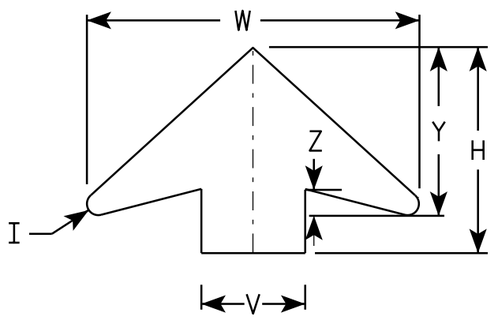


W03-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - ORANGE*
   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	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
2S	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
2M	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
3	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
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
W03-5

WISCONSIN DEPT OF TRANSPORTATION

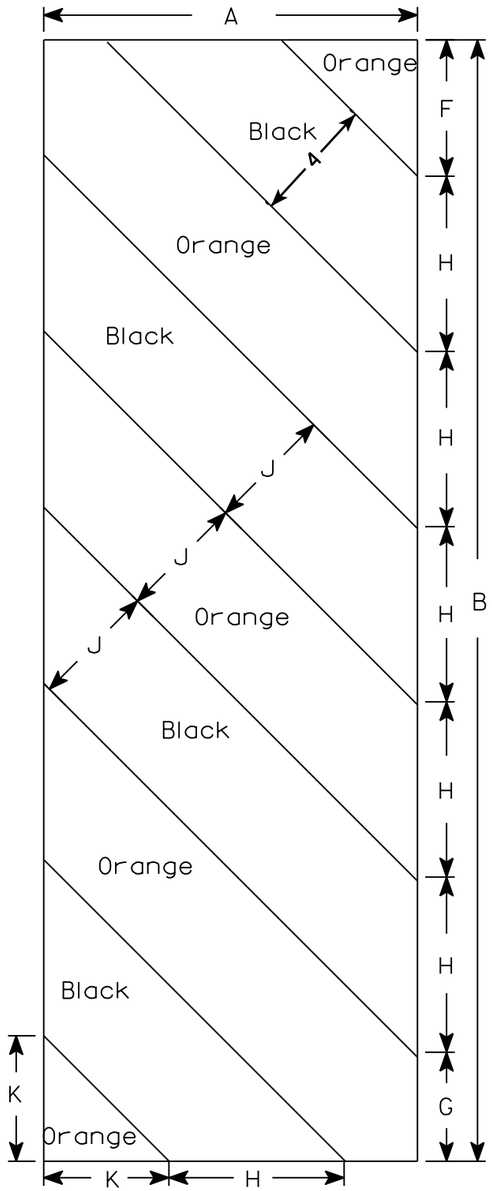
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-5.1

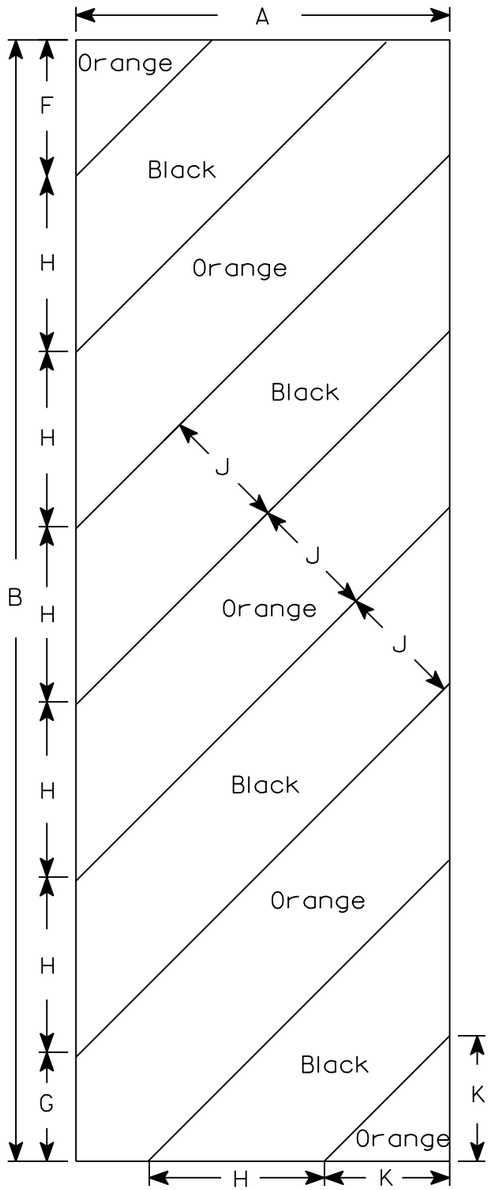
PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W035.DGN PLOT DATE : 20-NOV-2013 11:32 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



W05-52L



W05-52R

NOTES

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

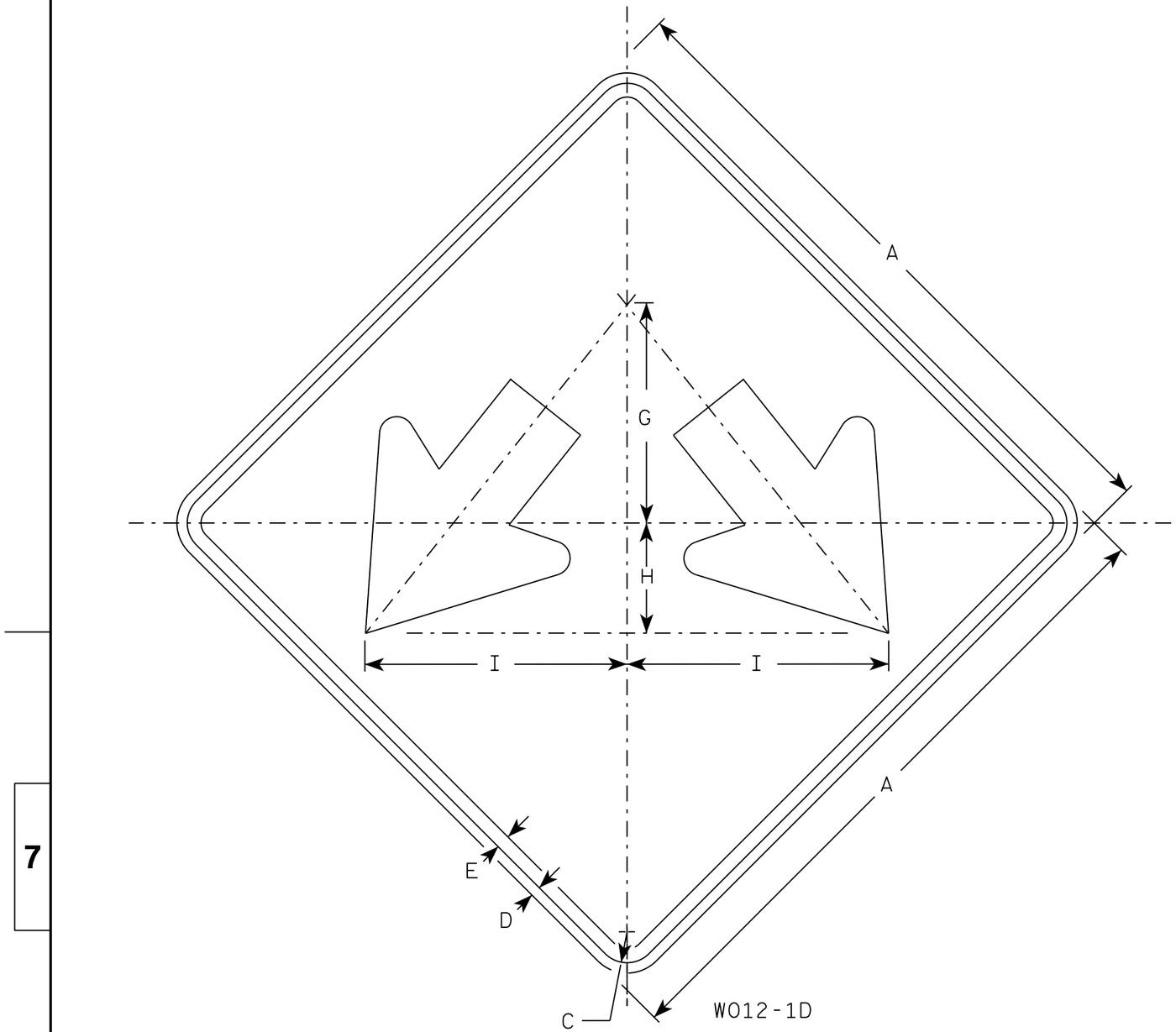
W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE No. W05-52.1

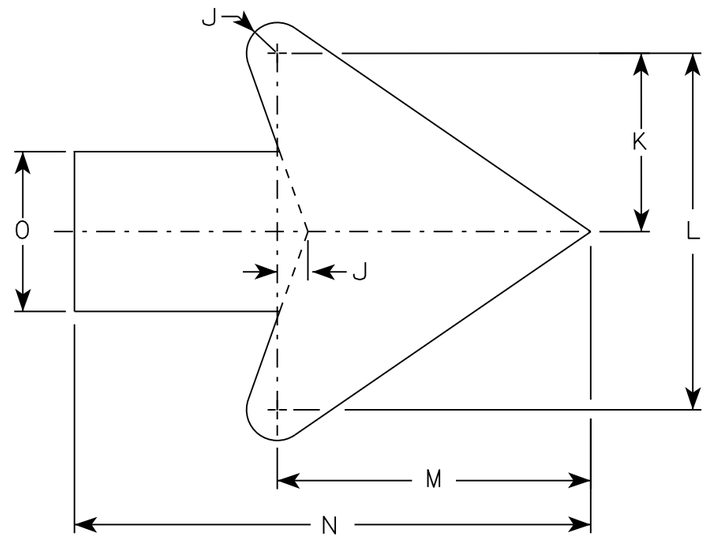
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W012-1D

NOTES

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



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0

STANDARD SIGN
W012-1D

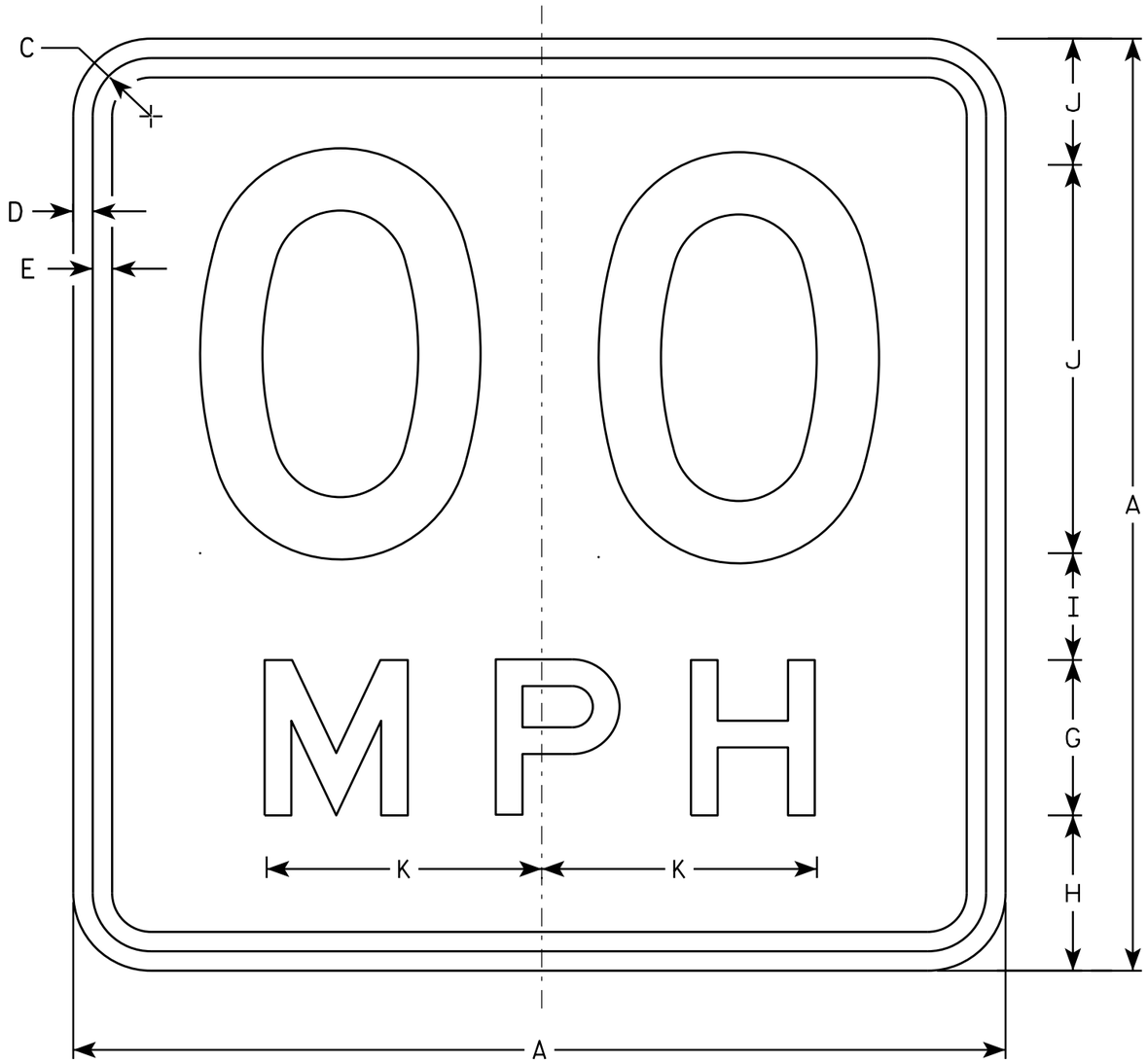
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/28/16 PLATE NO W012-1D.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CADfiles\Projects\tr_stdplate\W0121D.DGN PLOT DATE : 11-AUG-2016 11:28 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.621375:1.000000



W013-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 6
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 space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	7 1/8																4.00
2S	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
2M	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
3	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN
W013-1

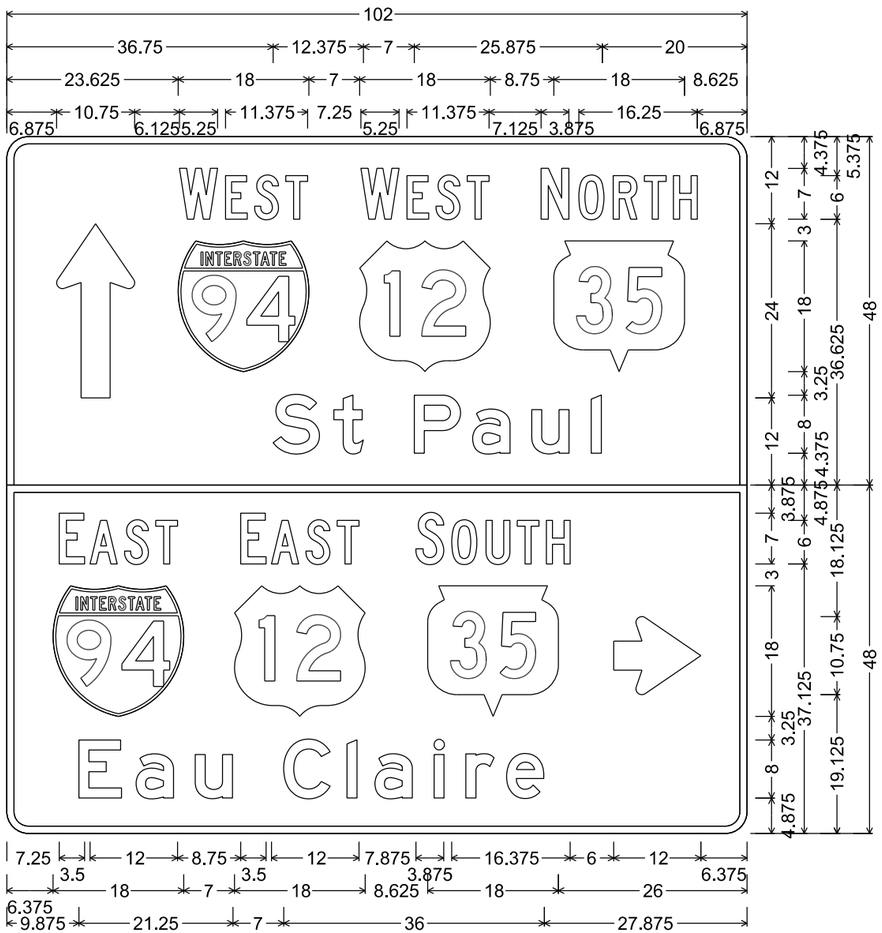
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/13 PLATE 155 W013-1.1

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

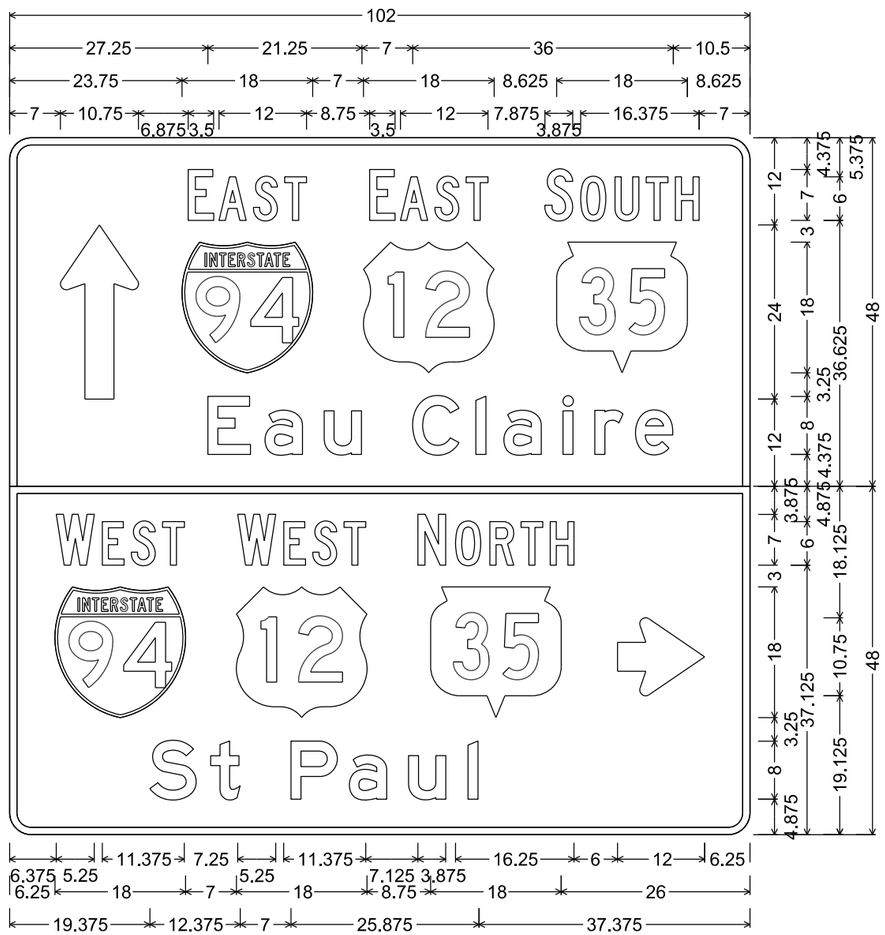
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W0131.DGN PLOT DATE : 02-DEC-2013 13:55 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.794391:1.000000
WISDOT/CADDS SHEET 42



D1-71; 3.000" Radius, 1.000" Border,
"WEST", C; "WEST", C; "NORTH", C; "EAST", C; "EAST", C; "SOUTH", C

NOTES

1. Signs are Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted

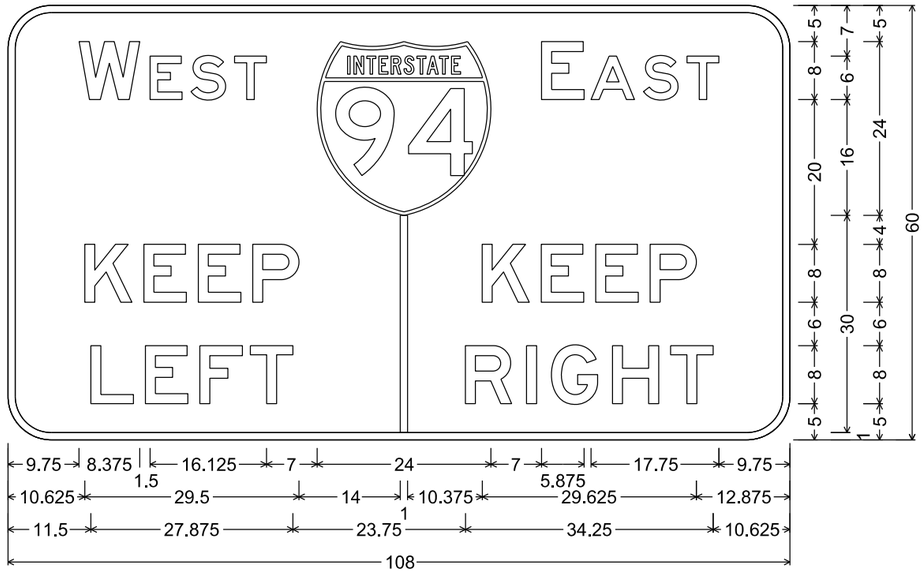


D1-71; 3.000" Radius, 1.000" Border,
"EAST", C; "EAST", C; "SOUTH", C; "WEST", C; "WEST", C "NORTH", C;

7

7

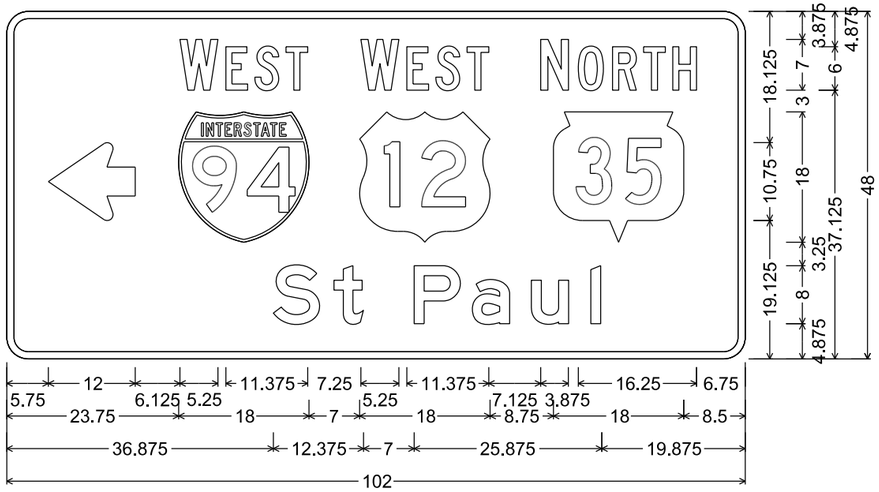
PROJECT NO: 1020-02-83	HWY: IH 94	COUNTY: ST CROIX	PERMANENT SIGNING	SHEET NO: 156	E



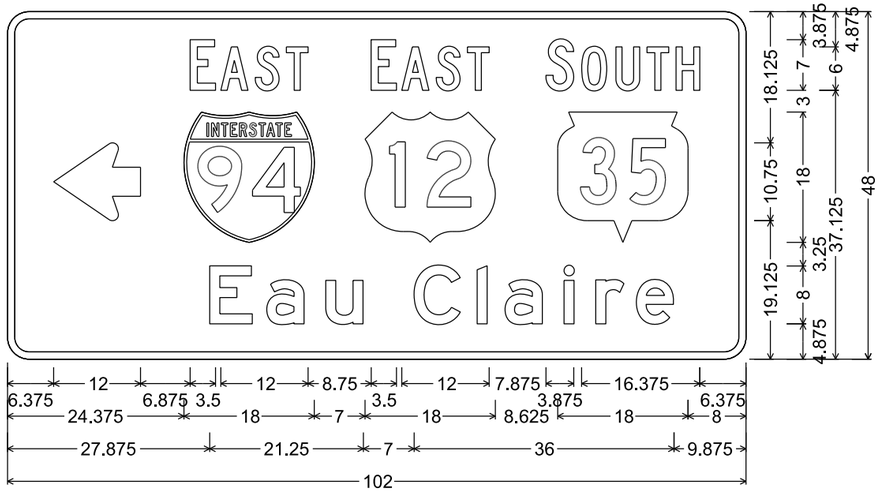
D1-72; 6.000" Radius, 1.000" Border

NOTES

1. Signs are Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted



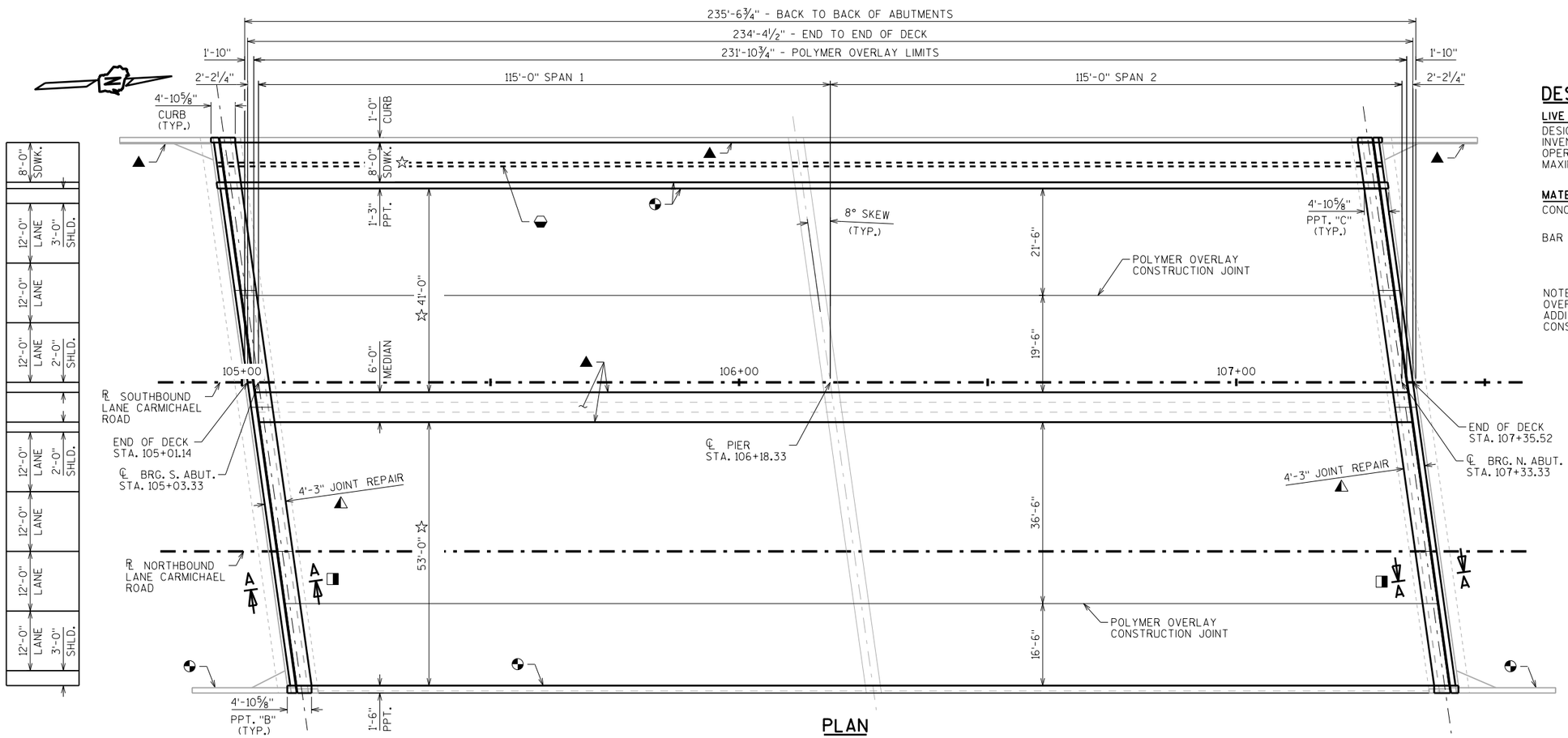
D1-70; 3.000" Radius, 1.000" Border,
"WEST", C; "WEST", C; "NORTH", C



D1-70; 3.000" Radius, 1.000" Border, White on Green;
"EAST", C; "EAST", C; "SOUTH", C

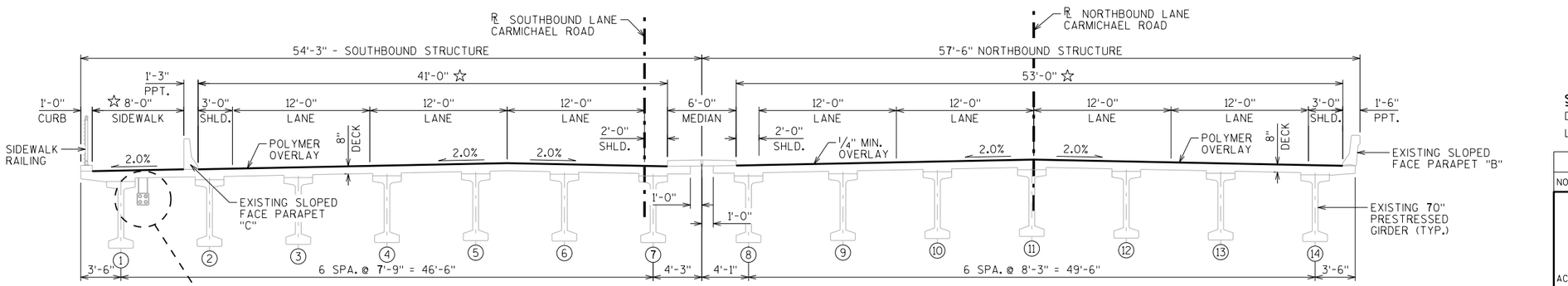
STATE PROJECT NUMBER

1020-02-83



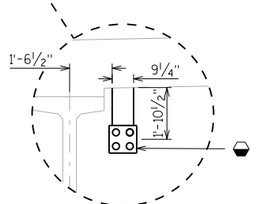
PLAN

2-SPAN PRESTRESSED GIRDER



CROSS SECTION THRU ROADWAY

LOOKING NORTH



☆ POLYMER OVERLAY LIMITS

▲ DIMENSION GIVEN NORMAL TO ℄ SUBSTRUCTURE

◨ SEE DETAIL ON 'GENERAL NOTES & QUANTITIES' SHEET

◓ EXISTING UTILITIES (3-INCH NON-METALLIC CONDUIT) TO REMAIN. 1'-0" X 1'-0" BLOCKOUT EXISTS THRU ABUT. BACKWALLS & PIER/SPAN DIAPHRAGMS. CONTRACTOR TO TAKE CARE DURING REMOVAL AND REPLACEMENT OF ABUTMENT DIAPHRAGMS TO PREVENT DAMAGE TO HANGERS OR CONDUIT. REPLACEMENT OF DAMAGED HANGERS TO BE PAID FOR UNDER "JOINT REPAIR" BID ITEM.

◓ CLEANING & PIGMENTED SURFACE SEALER

▲ CLEANING & PROTECTIVE SURFACE TREATMENT

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS-20
INVENTORY RATING: HS-22
OPERATIONAL RATING: HS-41
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 250(KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY:
DECK REPAIR ——— f'c = 4,000 P.S.I.

BAR STEEL REINFORCEMENT:
GRADE 60 ——— fy = 60,000 P.S.I.

NOTE: SEE JOINT REPLACEMENT AND OVERLAY STAGING SHEETS FOR ADDITIONAL STAGING DETAILS AND CONSTRUCTION JOINT LOCATIONS.

TRAFFIC VOLUME

CARMICHAEL RD.
ADT = 41,100 (2027)
R.D.S. = 45 M.P.H.

FEATURE UNDER
ADT = WB 82,500 (2027)
EB 93,500 (2027)
R.D.S. = 65 M.P.H.

STRUCTURE DESIGN CONTACTS:

DAN MONROE (608) 266-8490
LAURA SHADEWALD (608) 267-9592

LIST OF DRAWINGS

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED LLS 12/9/21
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-55-118

CARMICHAEL RD OVER IH 94

COUNTY: ST. CROIX | TOWN/CITY/VILLAGE: HUDSON

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY DLM | DESIGNED CK'D. ARC | DRAWN BY DLM | PLANS CK'D. ARC

GENERAL PLAN

SHEET 1 OF 13

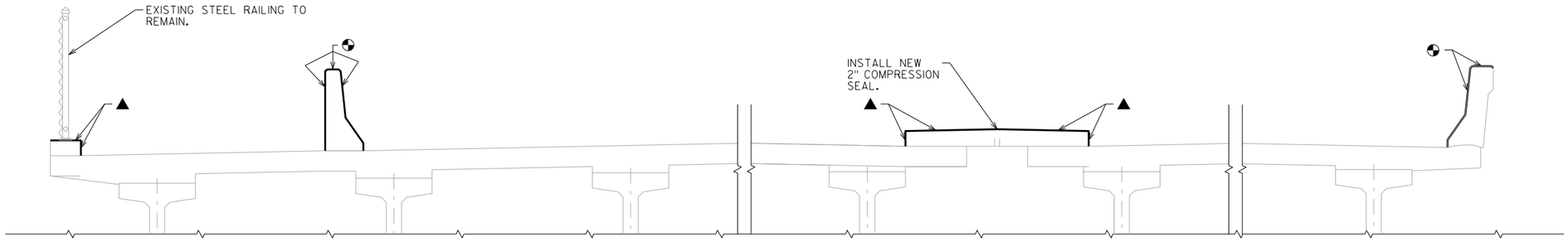
158

I.D. 1020-02-13A DATE: DEC. 2021

SCALE = 12.00

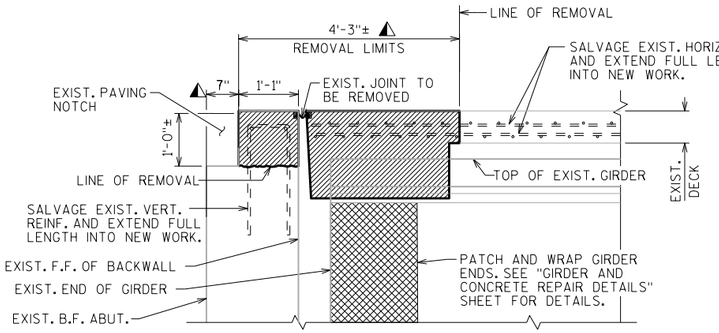
STATE PROJECT NUMBER

1020-02-83



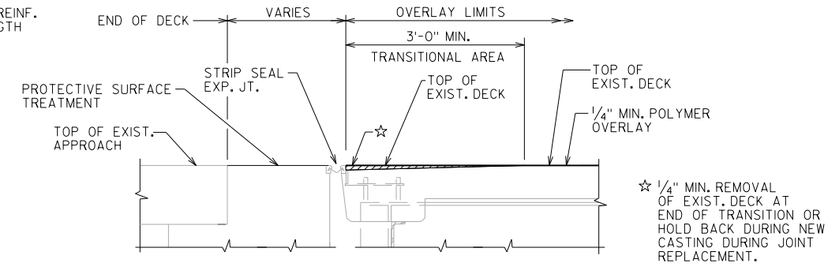
TYPCIAL SECTION THRU DECK

SHOWING PROTECTIVE SURFACE TREATMENT, AND PIGMENTED SURFACE SEALER LIMITS



EXISTING SECTION A-A

SHOWING REMOVAL
TYP. BOTH ABUTMENTS



SECTION THRU ABUTMENT TRANSITIONAL AREA ON DECK AT EXPANSION JOINT

(REMOVAL AND OVERLAY THICKNESS NOT TO SCALE)

⚠ DIMENSION GIVEN NORMAL TO ℄ SUBSTRUCTURE.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS	
502.2000	COMPRESSION JOINT SEALER PREFORMED ELASTOMERIC (2-INCH)	LF	232	
502.3101	EXPANSION DEVICE B-55-118	LF	222	⬗
502.3200	PROTECTIVE SURFACE TREATMENT	SY	292	
502.3210	PIGMENTED SURFACE SEALER	SY	267	
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	228	
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	6,150	
505.0904	BAR COUPLERS NO. 4	EACH	8	
505.0905	BAR COUPLERS NO. 5	EACH	78	
505.0906	BAR COUPLERS NO. 6	EACH	24	
509.0301	PREPARATION DECKS TYPE 1	SY	1	
509.0302	PREPARATION DECKS TYPE 2	SY	1	
509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF	10	
509.1000	JOINT REPAIR	SY	107	
509.1500	CONCRETE SURFACE REPAIR	SF	35	
509.2100.S	CONCRETE MASONRY DECK REPAIR	CY	41	
509.5100.S	POLYMER OVERLAY	SY	2,631	
509.9050.S	CLEANING PARAPETS	LF	1,017	*
SPV.0165	FIBER WRAP REINFORCING NON-STRUCTURAL	SF	120	
SPV.0180	ABUTMENT SEAT CLEANING AND SEALING	SY	57	
	NON-BID ITEMS			
	FILLER	SIZE	1/2"	

EXISTING 3/4" PLATES AT F.F. ABUTMENT, SUPPORTING ASPALTIC FILL AT EXISTING JOINTS. REMOVE DURING JOINT REPAIR. 2 @ NORTH ABUTMENT, 1 @ SOUTH ABUTMENT. INCIDENTAL TO "JOINT REPAIR" BID ITEM.

⬗ NOTE: PAYMENT BASED ON LENGTH BETWEEN INSIDE FACES OF EXTERIOR CURBS

◔ EXTENTS OF CLEANING AND PIGMENTED SURFACE SEALER

▲ EXTENTS OF CLEANING AND PROTECTIVE SURFACE TREATMENT.

* QUANTITY INCLUDES VERTICAL AND HORIZONTAL FACES OF MEDIAN AND CURB.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

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.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

CLEANING OF MEDIAN, CURB, AND PARAPETS INCLUDED IN BID ITEM "CLEANING PARAPETS", MEASURED ALONG ENTIRE BRIDGE LENGTH, INCLUDING PPT. & CURB ON ABUT. WINGS.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED AS SHOWN ON THE DETAIL ON THIS PAGE, MEASURED ALONG ENTIRE BRIDGE LENGTH, INCLUDING CURB ON ABUT. WINGS, AS WELL AS ON TOP OF PAVING BLOCK AND VERTICAL AND HORIZONTAL SURFACES AT BOTH PAVING NOTCHES.

PIGMENTED SURFACE SEALER TO BE APPLIED AS SHOWN ON THE DETAIL ON THIS PAGE, MEASURED ALONG ENTIRE BRIDGE LENGTH, INCLUDING PPT. ON ABUT. WINGS.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, FULL-DEPTH DECK REPAIR, AND CONCRETE SURFACE REPAIR AREAS ARE TO BE DETERMINED BY THE FIELD ENGINEER. DECK PREPARATION AREAS SHALL BE FILLED WITH "CONCRETE MASONRY DECK REPAIR".

ANY EXCAVATION NECESSARY TO COMPLETE JOINT REPAIR AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "JOINT REPAIR".

ALL LINES OF REMOVAL SHALL BE DEFINED BY A MIN. 1" DEEP SAW CUT.

ALL CONCRETE WORK AND QUANTITIES FOR MASK WALL REPLACEMENT AT NE AND SE CORNERS INCLUDED IN BID ITEM "CONCRETE MASONRY DECK REPAIR".

CONCRETE SURFACE REPAIRS ARE ANTICIPATED AT SE AND NE ABUTMENT CORNERS. LOCATIONS AND EXTENTS SHALL BE DETERMINED BY THE FIELD ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-118

DRAWN BY DLM | PLANS CK'D. ARC

GENERAL NOTES & QUANTITIES

SHEET 2

159

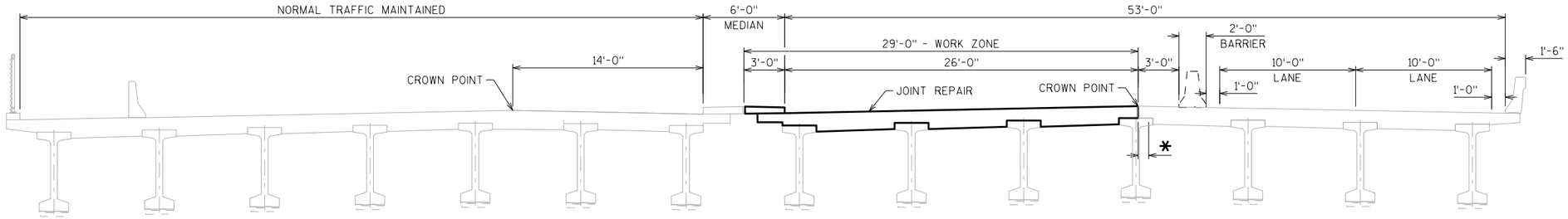
8

8

SCALE = 1.00

STATE PROJECT NUMBER

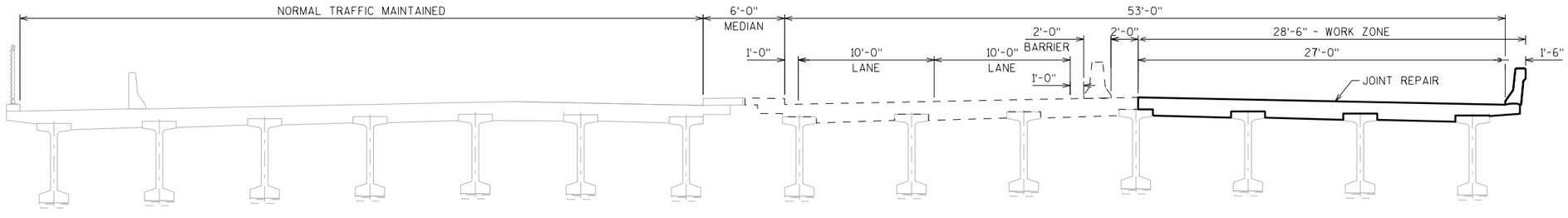
1020-02-83



STAGE 1A REMOVAL AND CONSTRUCTION

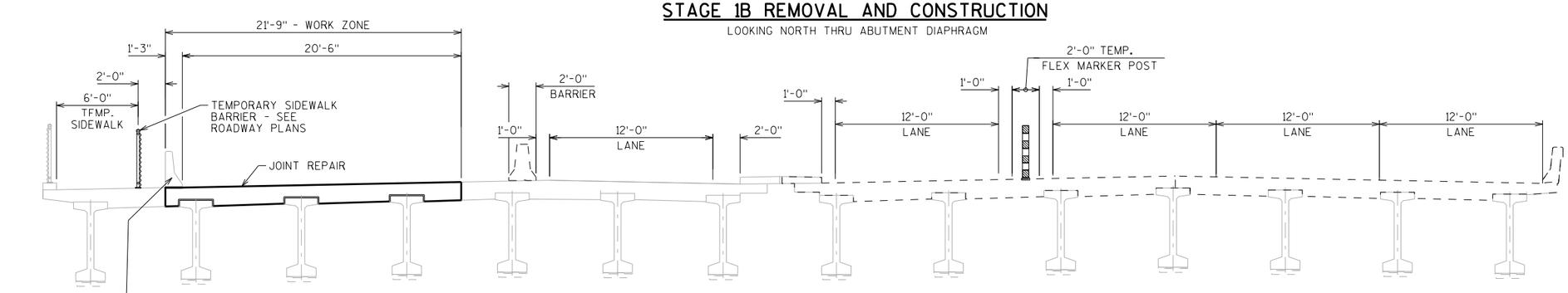
LOOKING NORTH THRU ABUTMENT DIAPHRAGM

* LINE OF REMOVAL TO EXTEND 9"± PAST CROWN TO ALLOW INSTALLATION OF NEW EXPASION DEVICE.



STAGE 1B REMOVAL AND CONSTRUCTION

LOOKING NORTH THRU ABUTMENT DIAPHRAGM



STAGE 2A REMOVAL AND CONSTRUCTION

LOOKING NORTH THRU ABUTMENT DIAPHRAGM

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-118

DRAWN BY DLM | PLANS CK'D. ARC

JOINT REPLACEMENT STAGING DETAILS 1

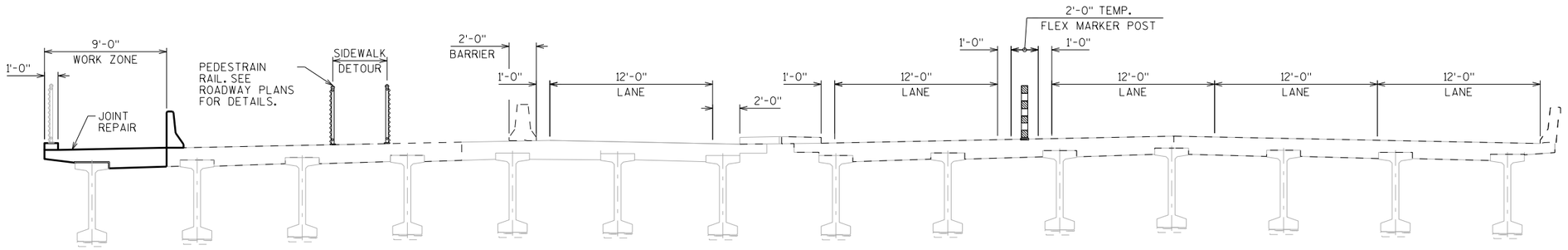
SHEET 3

160

SCALE = 4.50

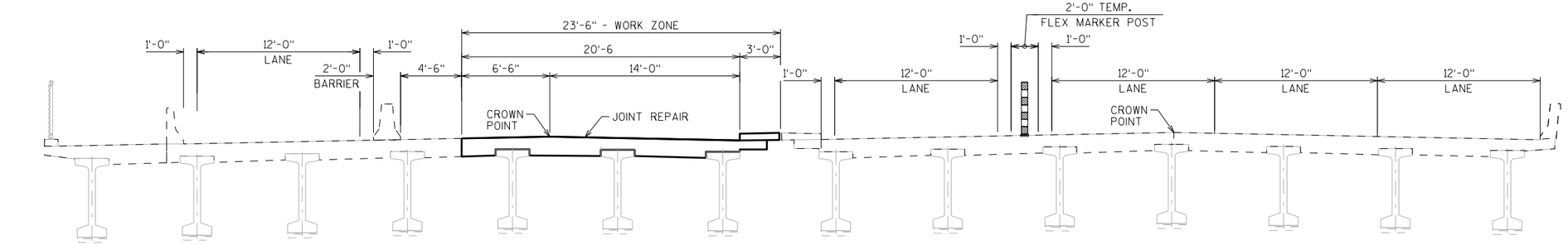
STATE PROJECT NUMBER

1020-02-83



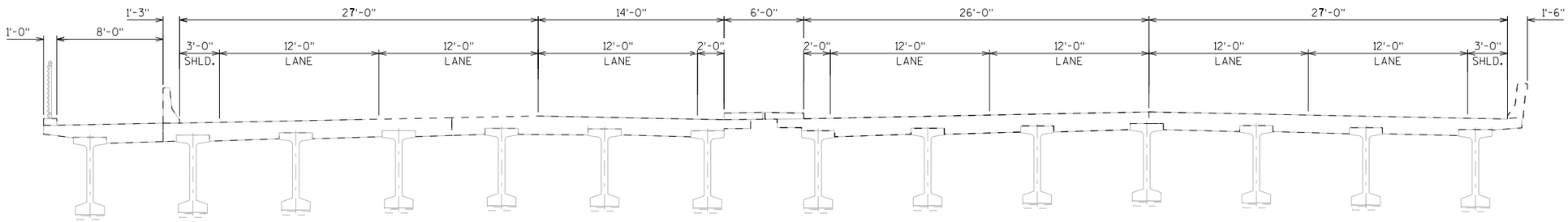
STAGE 2B REMOVAL AND CONSTRUCTION

LOOKING NORTH THRU ABUTMENT DIAPHRAGM



STAGE 2C REMOVAL AND CONSTRUCTION

LOOKING NORTH THRU ABUTMENT DIAPHRAGM



FINAL CROSS SECTION

LOOKING NORTH THRU ABUTMENT DIAPHRAGM

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-118

DRAWN BY DLM | PLANS CK'D. ARC

JOINT REPLACEMENT STAGING DETAILS 2

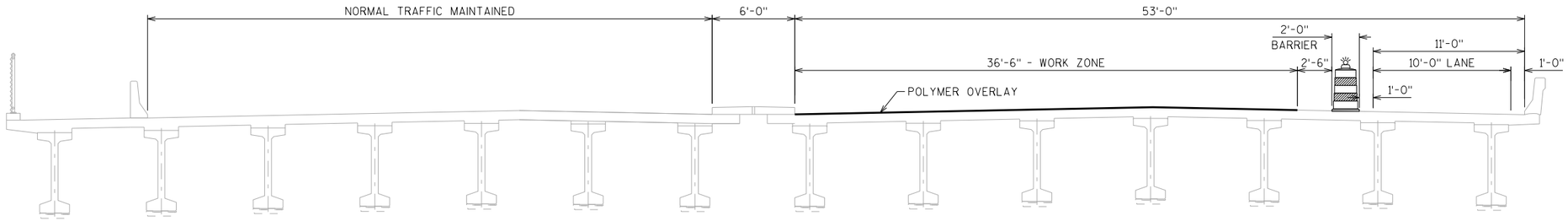
SHEET 4

161

SCALE = 4.50

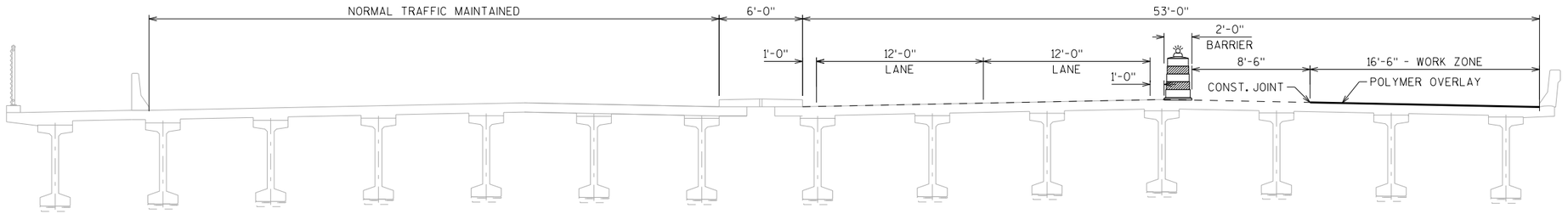
STATE PROJECT NUMBER

1020-02-83



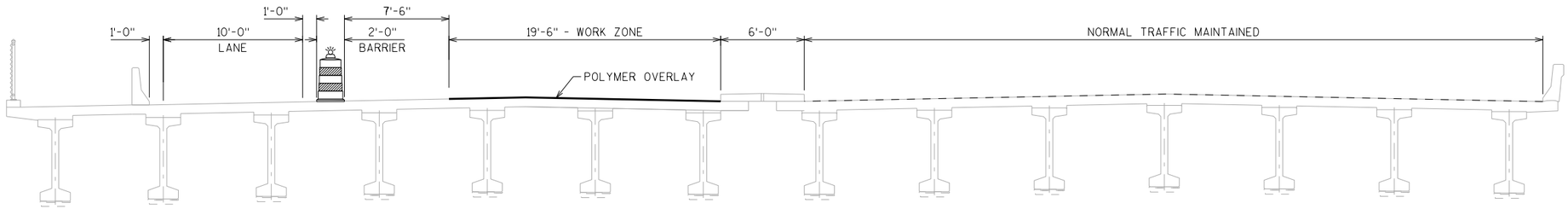
STAGE 'A' CONSTRUCTION

LOOKING NORTH THRU SPAN



STAGE 'B' CONSTRUCTION

LOOKING NORTH THRU SPAN



STAGE 'C' CONSTRUCTION

LOOKING NORTH THRU SPAN

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-118

DRAWN BY DLM | PLANS CK'D. ARC

OVERLAY STAGING DETAILS 1

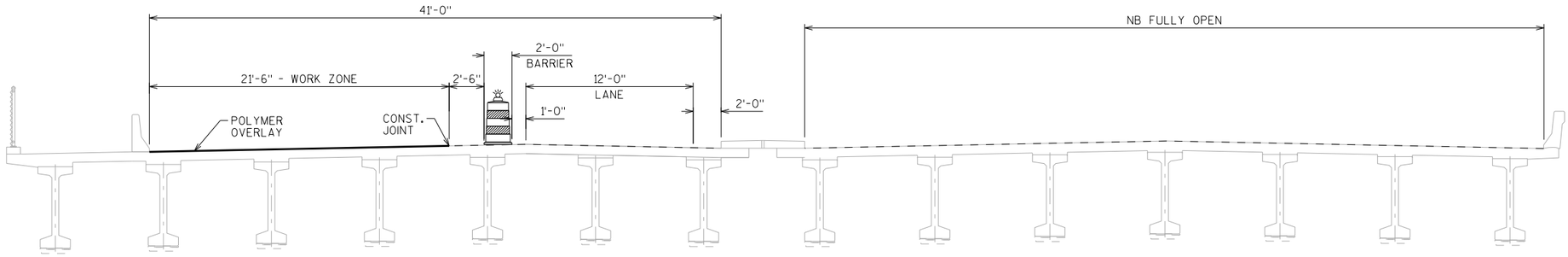
SHEET 5

162

SCALE = 4.50

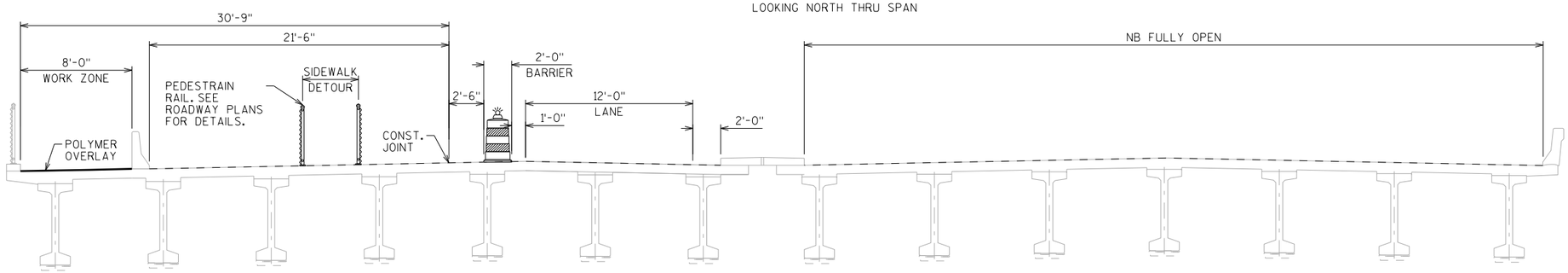
STATE PROJECT NUMBER

1020-02-83



STAGE 'D' CONSTRUCTION

LOOKING NORTH THRU SPAN



STAGE 'E' CONSTRUCTION

LOOKING NORTH THRU SPAN

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-118

DRAWN BY DLM | PLANS CK'D. ARC

OVERLAY STAGING DETAILS 2

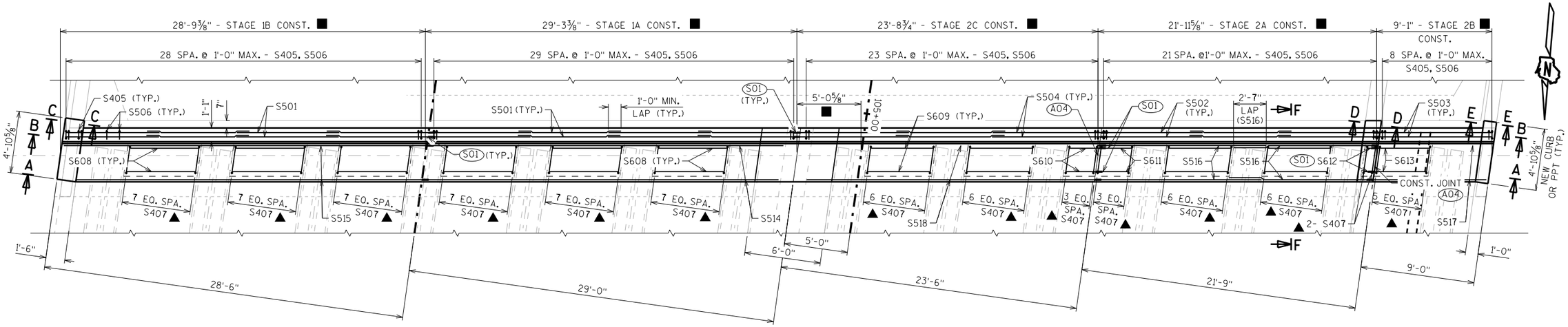
SHEET 6

163

SCALE = 4.50

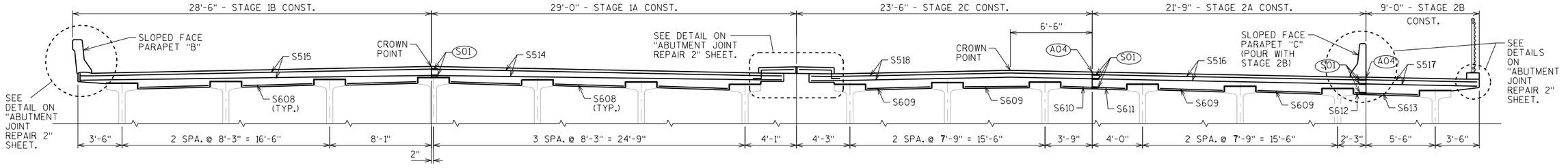
STATE PROJECT NUMBER

1020-02-83



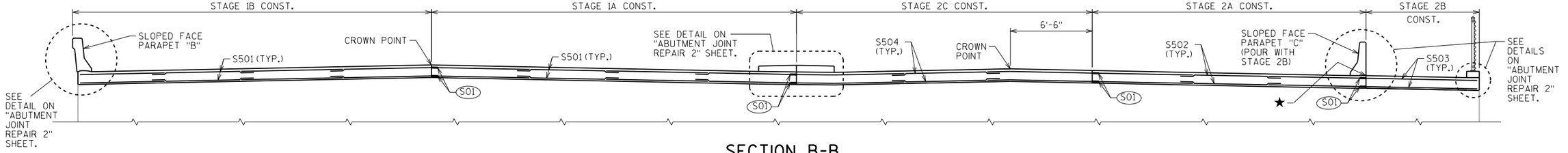
EXPANSION JOINT REPAIR PLAN

LOOKING AT F.F. OF SOUTH ABUT.
NORTH ABUTMENT SIMILAR



SECTION A-A

LOOKING SOUTH (DOWNSTATION)
(DIMS. GIVEN NORMAL TO ℄ GIRDERS)
NORTH ABUTMENT SIMILAR



SECTION B-B

LOOKING SOUTH (DOWNSTATION)
NORTH ABUTMENT SIMILAR

(A04) VERT. CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 x 6.

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO CL OF LONGIT. JOINT & SHALL BE MODIFIED IF REQ'D. TO THE BAR COUPLER MANUFACTURER RECOMMENDATIONS. PAY BASED ON BARS AS DETAILED.

★ BLOCK OUT FOR EXTRUSION DURING STAGE 2A DECK CONSTRUCTION. SYMBOL NOTED ON THIS SHEET IS INCLUDED IN SECTION A-A DETAILS ON " ABUTMENT JOINT REPAIR 2" SHEET.

▲ BARS SPACED @ 9" MAX.

■ DISTANCE ALONG ℄ OF BEARING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-118

DRAWN BY DLM | PLANS CK'D. ARC

ABUTMENT JOINT REPAIR 1

SHEET 7

164

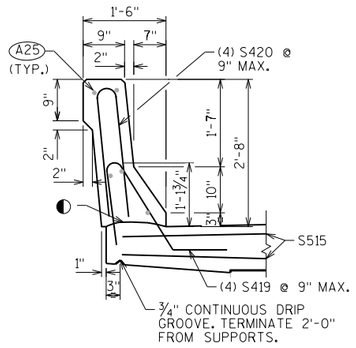
8

8

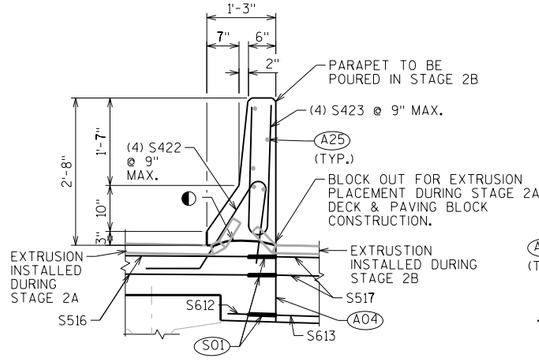
SCALE = 4.00

STATE PROJECT NUMBER

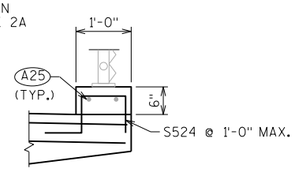
1020-02-83



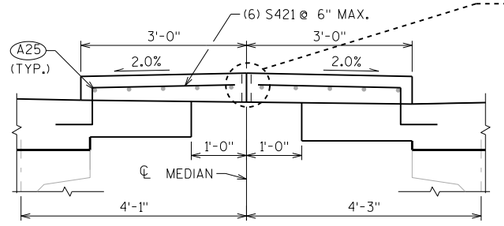
SECTION THRU SLOPED FACE PARAPET "B"



SECTION THRU SLOPED FACE PARAPET "C"

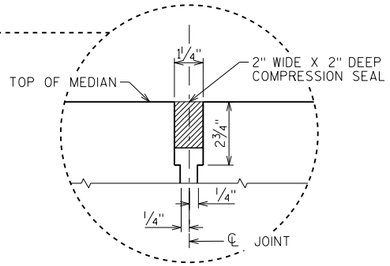


SECTION THRU CURB



SECTION THRU MEDIAN IN SPAN

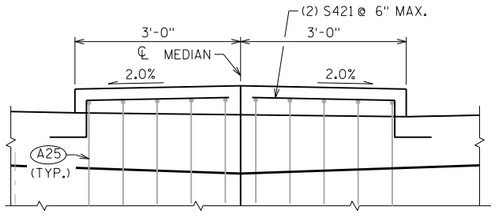
EXTRUSION AND REINF. IN DECK NOT SHOWN FOR CLARITY. IN SPAN SHOWN.
LOOKING SOUTH



JOINT DETAIL

IN SPAN ONLY

NOTE: COMPRESSION SEAL TO EXTEND BETWEEN EXTRUSIONS OF EXPANSION JOINT DEVICE. SEAL ENDS.



SECTION THRU MEDIAN AT ABUTMENT

EXTRUSION AND REINF. IN DECK NOT SHOWN FOR CLARITY
AT ABUTMENT SHOWN
LOOKING SOUTH

SECTION A-A THRU DECK

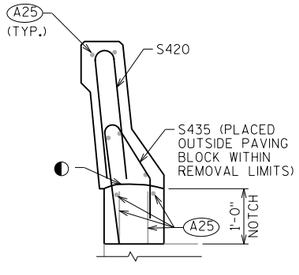
SECTION THRU SLOPED FACE PARAPET "B"

SECTION THRU SLOPED FACE PARAPET "C"
(S430 & S432 NOT SHOWN FOR CLARITY)

SECTION THRU CURB

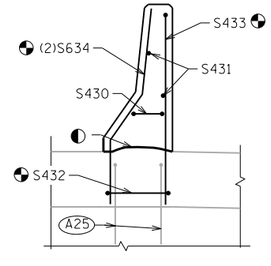
SECTION B-B THRU ABUTMENT

PRESERVE EXISTING VERTICAL PAVING BLOCK TO ABUTMENT BACKWALL REINFORCEMENT NOT SHOWN.



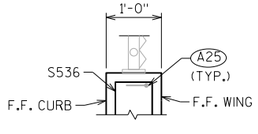
SECTION C-C

AT SLOPED FACE PARAPET "B"



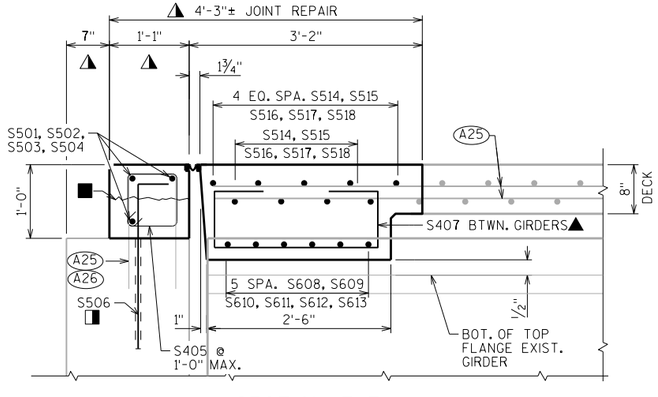
SECTION D-D

AT SLOPED FACE PARAPET "C"



SECTION E-E

AT CURB



SECTION F-F

- BARS TO BE INCLUDED IN STAGE 2A POUR
- MEASURED NORMAL TO ℄ SUBSTRUCTURE
- CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ GIRDERS @ 9" MAX. SPA.
- OPT. CONST. JOINT 1" MIN. BELOW EXIST. REINF.
- ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-0" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

(A04) VERT. CONST. JOINT: KEYWAY FORMED BY A BEVELED 2X6

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

(A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH EPOXY ANCHORED S506 BARS WITH A 10" HORIZ. LEG. EMBED 7". ANCHORS PAID FOR UNDER "ADHESIVE ANCHORS NO. 5 BAR".

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO CL OF LONGIT. JOINT & SHALL BE MODIFIED IF REQ'D. TO THE BAR COUPLER MANUFACTURER RECOMMENDATIONS. PAY BASED ON BARS AS DETAILED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-118

DRAWN BY DLM | PLANS CK'D. ARC

ABUTMENT
JOINT REPAIR 2

SHEET 8

165

SCALE = 4.00

8

8

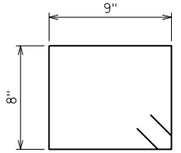
STATE PROJECT NUMBER

1020-02-83

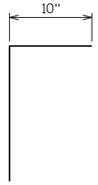
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION	COUPLERS REQUIRED	SIZE
S01	S501	X	48	8'-1"			PAVING BLOCK - TRANSVERSE - STAGE 1A, 1B	12	#5
S01	S502	X	18	8'-0"			PAVING BLOCK - TRANSVERSE - STAGE 2A	12	#5
S01	S503	X	6	8'-11"			PAVING BLOCK - TRANSVERSE - STAGE 2B	0	#5
S01	S504	X	18	8'-7"			PAVING BLOCK - TRANSVERSE - STAGE 2C	0	#5
◨	S405	X	228	3'-4"	X		PAVING BLOCK - STIRRUPS - VERTICAL		
◨	S506	X	228	2'-5"	X		PAVING BLOCK - VERTICAL		
	S407	X	184	4'-4"	X		DIAPHRAGM - VERTICAL		
	S608	X	72	5'-5"			DIAPHRAGM - TRANSVERSE - STAGE 1A, 1B		
	S609	X	48	4'-11"			DIAPHRAGM - TRANSVERSE - STAGE 2A, 2C		
S01	S610	X	12	2'-4"			DIAPHRAGM - TRANSVERSE - STAGE 2A TO 2C	0	#6
S01	S611	X	12	2'-7"			DIAPHRAGM - TRANSVERSE - STAGE 2A TO 2C	12	#6
S01	S612	X	12	0'-10"			DIAPHRAGM - TRANSVERSE - STAGE 2A TO 2B	12	#6
S01	S613	X	12	4'-1"			DIAPHRAGM - TRANSVERSE - STAGE 2A TO 2B	0	#6
S01	S514	X	18	28'-1"			SUPERSTRUCTURE - TRANSVERSE - STAGE 1A	18	#5
S01	S515	X	18	28'-2"			SUPERSTRUCTURE - TRANSVERSE - STAGE 1B	0	#5
S01	S516	X	36	12'-4"			SUPERSTRUCTURE - TRANSVERSE - STAGE 2A	36	#5
S01	S517	X	18	8'-11"			SUPERSTRUCTURE - TRANSVERSE - STAGE 2B	0	#5
S01	S518	X	18	22'-6"			SUPERSTRUCTURE - TRANSVERSE - STAGE 2C	0	#5
	S419	X	12	4'-3"	X		SLAB TO PARAPET "B"		
	S420	X	14	4'-10"	X		PARAPET "B" - VERTICAL		
	S421	X	32	3'-10"	X		MEDIAN - VERTICAL		
	S422	X	8	4'-0"	X		SLAB TO PARAPET "C"		
	S423	X	8	5'-0"	X		PARAPET "C" - VERTICAL		
	S524	X	12	2'-5"	X		CURB - VERTICAL		
*	S425	X	24	7'-9"			EXTRUSTION - HORIZ. - STAGE 1A, 1B		
*	S426	X	16	7'-3"			EXTRUSTION - HORIZ. - STAGE 2A, 2C		
*	S427	X	8	3'-6"			EXTRUSTION - HORIZ. - STAGE 2A TO 2C	4	#4
S01 *	S428	X	4	2'-0"			EXTRUSTION - HORIZ. - STAGE 2A TO 2B (2A SIDE)	4	#4
S01 *	S429	X	4	5'-3"			EXTRUSTION - HORIZ. - STAGE 2A TO 2B (2B SIDE)	0	#4
	S430	X	2	3'-5"	X		PARAPET "C" - HORIZ.		
	S431	X	4	0'-9"			PARAPET "C" - HORIZ.		
	S432	X	2	4'-0"	X		PARAPET "C" - HORIZ.		
	S433	X	2	7'-7"	X		PARAPET "C" - VERT.		
	S634	X	4	3'-6"	X		PARAPET "C" - VERT.		
	S435	X	2	4'-7"	X		PARAPET "B" - VERT.		
	S536	X	2	1'-9"	X		CURB - VERTICAL		



S405



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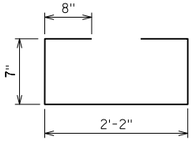

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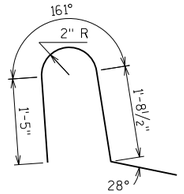

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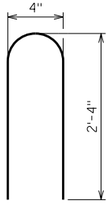

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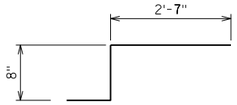

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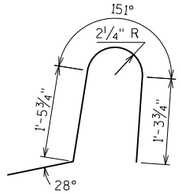

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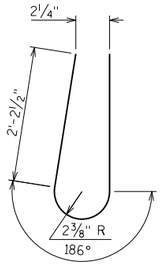

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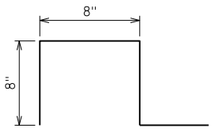

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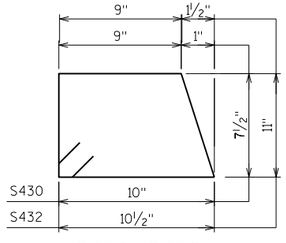
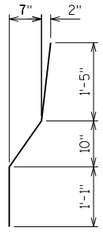


S430, S432

S433



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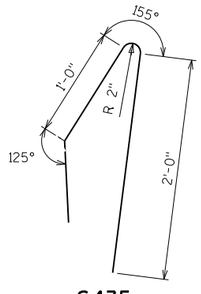

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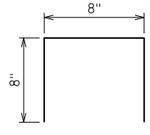


S536

◨ ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-0" IN CONCRETE. SPACE AT 1'-0" MAX. TURN 10" LEG AS NECESSARY TO FIT.

* FOR LOCATION SEE DETAIL ON "EXPANSION DEVICE" SHEET.

S01 BAR COUPLERS USED. BAR LENGTH COMPUTED TO CL OF LONGIT. JOINT & SHALL BE MODIFIED IF REQ'D. TO THE BAR COUPLER MANUFACTURER RECOMMENDATIONS. PAY BASED ON BARS AS DETAILED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-118

DRAWN BY DLM | PLANS CK'D. ARC

ABUTMENT
JOINT REPAIR 3

SHEET 9

166

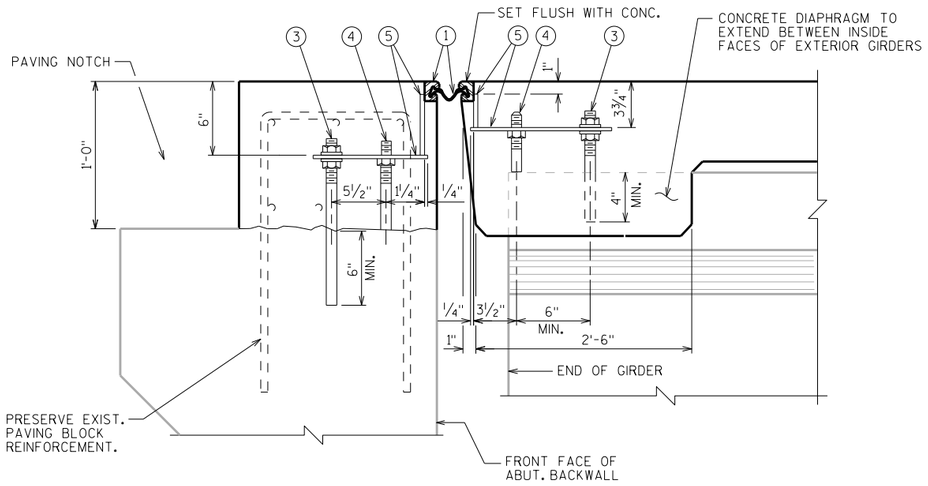
SCALE = 4.00

8

8

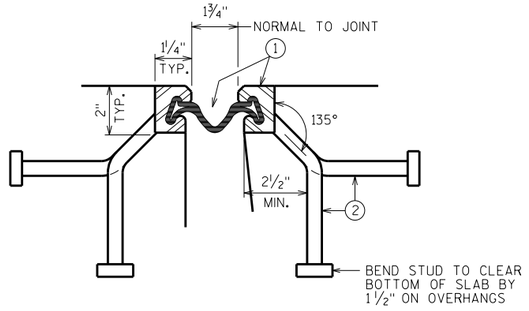
STATE PROJECT NUMBER

1020-02-83



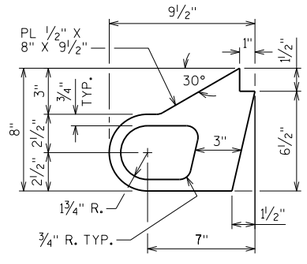
SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

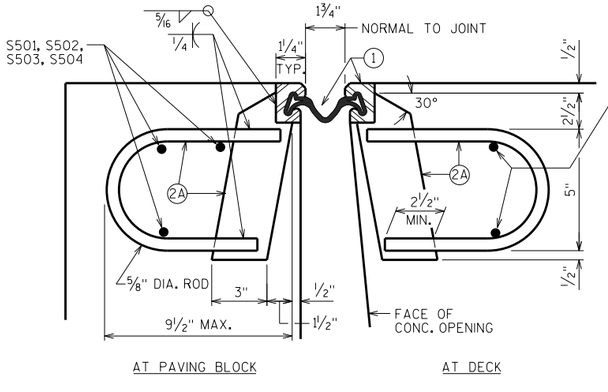


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS

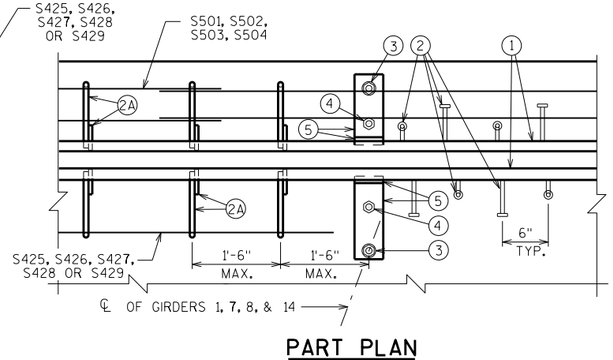


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN GIRDERS 1 THRU 7 & 8 THRU 14



PART PLAN

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.

(2) STUDS ⅝" DIA. X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(2A) ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) ¾"DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 AND 1" DIA. HOLE FOR NO. 4.

(6) GALVANIZED PLATE ⅜" X 1'-2" X 1'-9" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

(7) ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) ¾" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) ¾" DIA. X 2¼" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

(11) SIDEWALK COVER PLATE ⅜" X 1'-9" X LIMITS SHOWN WITH HOLES FOR NO. 7. GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.

(12) GALVANIZED PLATE ⅜" X 10" X 1'-9" LONG WITH HOLES FOR NO. 7.

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, ANCHOR PLATES SHALL BE PROVIDED 3" FROM EACH SIDE OF THE FIELD SPLICE. DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED. SLIP-RESISTANT SURFACE IS APPLIED TO SIDEWALK COVER PLATES BY THE MANUFACTURER AND THEN HOT DIPPED GALVANIZED TO THEIR RECOMMENDATIONS TO MAINTAIN THE INTEGRITY OF THIS SURFACE.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

ALL MATERIAL IN THE EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID AT THE UNIT PRICE BID FOR "EXPANSION DEVICE B-55-118", LF.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-118

DRAWN BY DLM | PLANS CK'D. ARC

EXPANSION DEVICE

SHEET 10

167

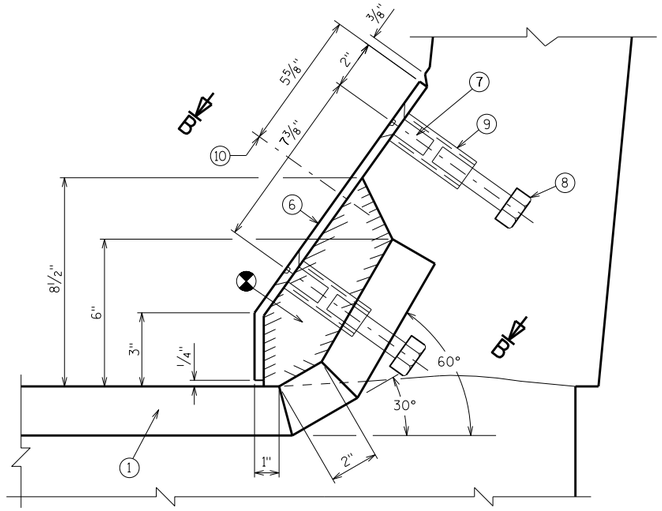
8

8

SCALE = 1.00

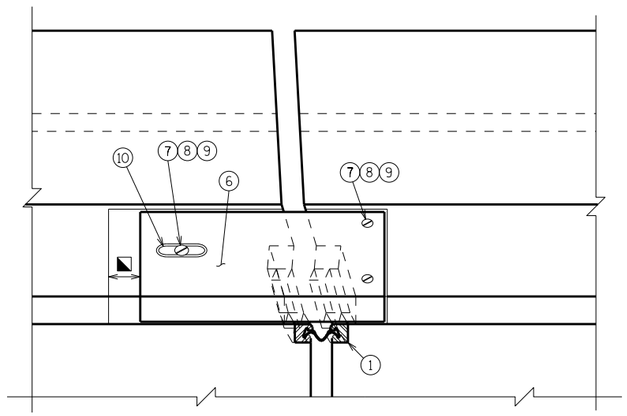
STATE PROJECT NUMBER

1020-02-83

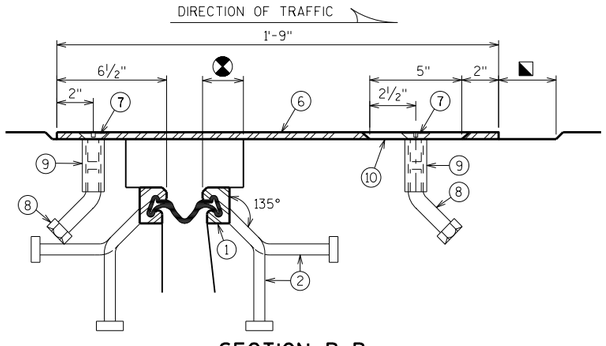


SECTION A-A

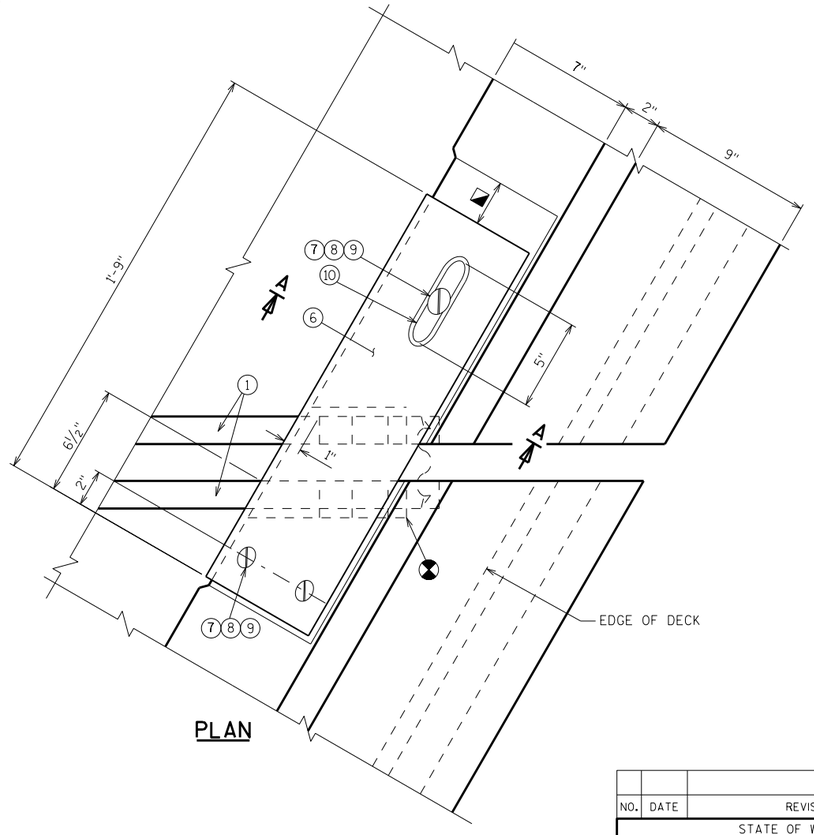
SLOPED FACE PARAPET 'B' SHOWN



VIEW OF PARAPET PLATE FROM ROADWAY



SECTION B-B



PLAN

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-118

DRAWN BY DLM | PLANS CK'D. ARC

COVER PLATE DETAILS 1

SHEET 11

168

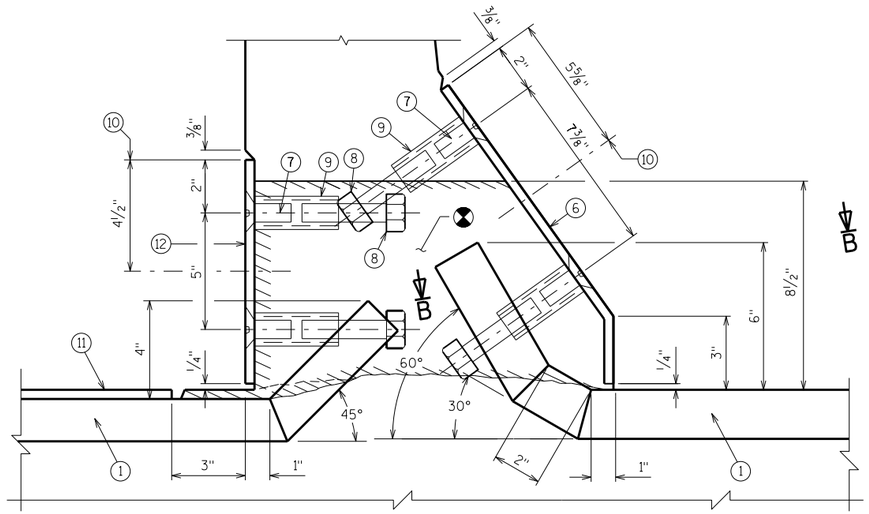
SCALE = 1.00

8

8

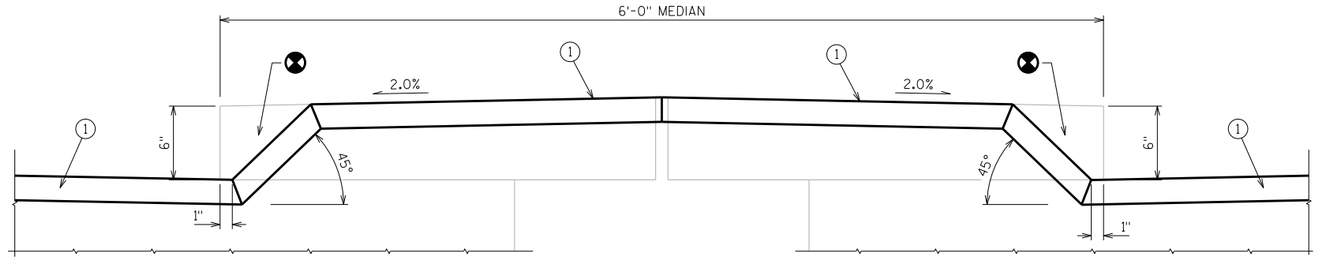
STATE PROJECT NUMBER

1020-02-83

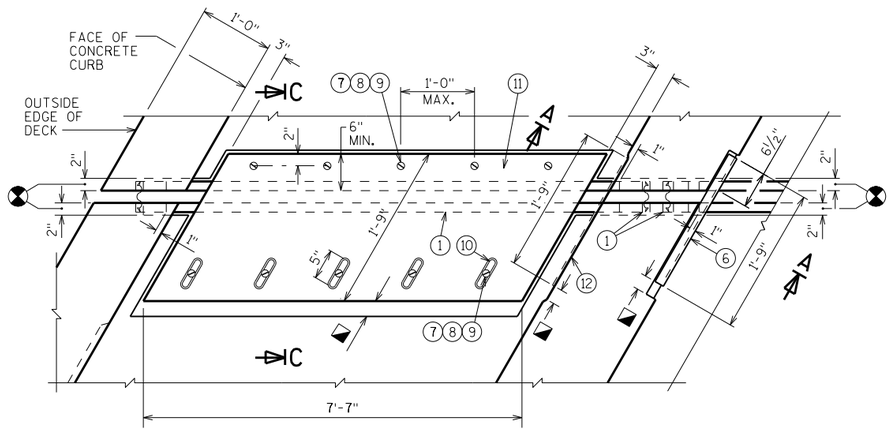


SECTION A-A

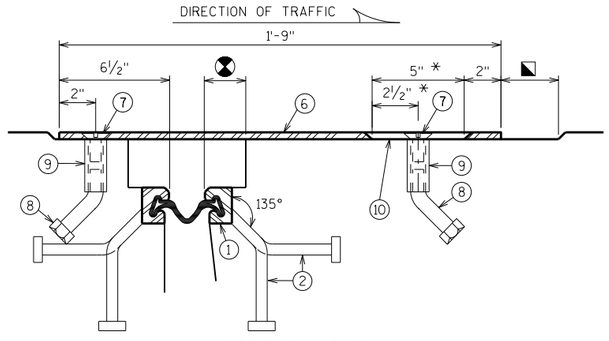
PARAPET "C"



AT MEDIAN

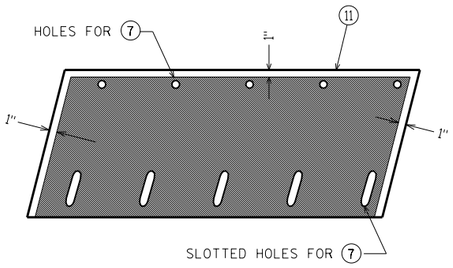


PLAN AT SIDEWALK



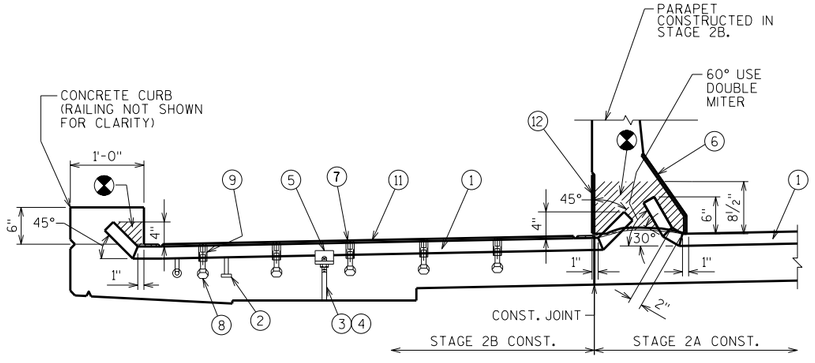
SECTION B-B

* DIMENSION ALONG DIRECTION OF MOVEMENT

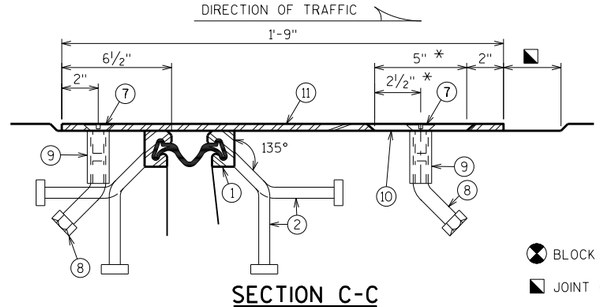


PLAN OF SIDEWALK COVER PLATE WITH SLIP-RESISTANT SURFACE

PLACE SLIP-RESISTANT SURFACE ON TOP WALKING SURFACE IN SHADED AREA ONLY.



SECTION AT SIDEWALK



SECTION C-C

APPROVED SLIP-RESISTANT APPLIED SURFACES FOR STEEL PLATES		
PRODUCT	MANUFACTURER	CONTACT AT
SLIPNOT GRADE 2, STEEL	W. S. MOLNAR COMPANY	1-800-SLIPNOT
ALGRIP, STEEL	ROSS TECHNOLOGY CORP.	1-800-345-8170

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-118

DRAWN BY DLM | PLANS CK'D. ARC

COVER PLATE DETAILS 2

SHEET 12

169

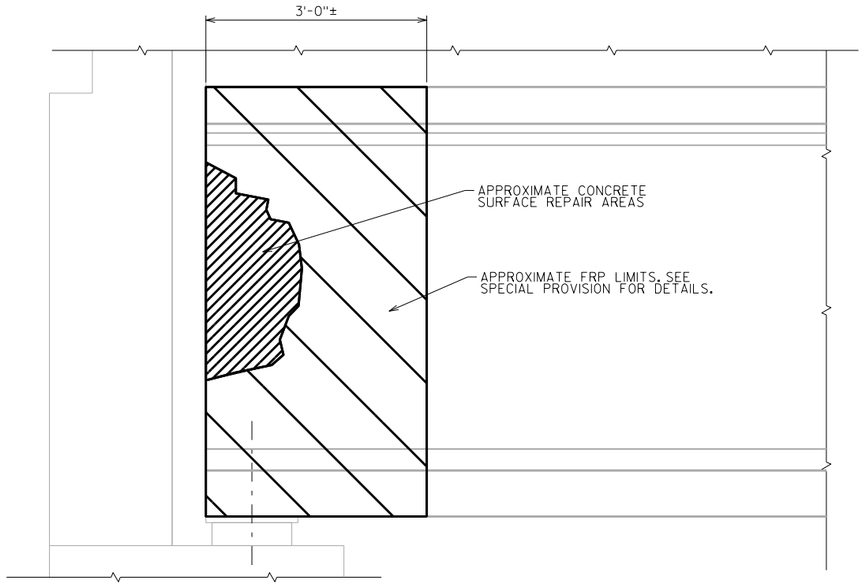
SCALE = 1.00

8

8

STATE PROJECT NUMBER

1020-02-83



END VIEW

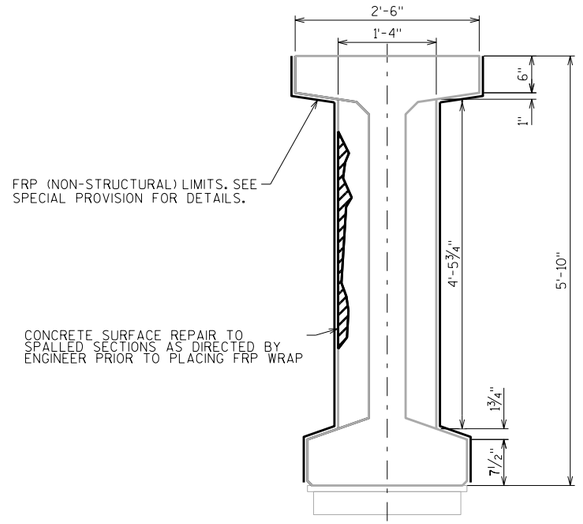
GIRDER 7 AT SOUTH ABUTMENT SHOWN.

ANTICIPATED REPAIR LOCATIONS INCLUDE:

1FT X 1FT SPALL ON TOP FLANGE OF GIRDER 14 (S ABUT).

2FT X 1FT SPALL IN WEB OF GIRDER 7 (S ABUT) AND 6IN SPALL AT NORTH END.

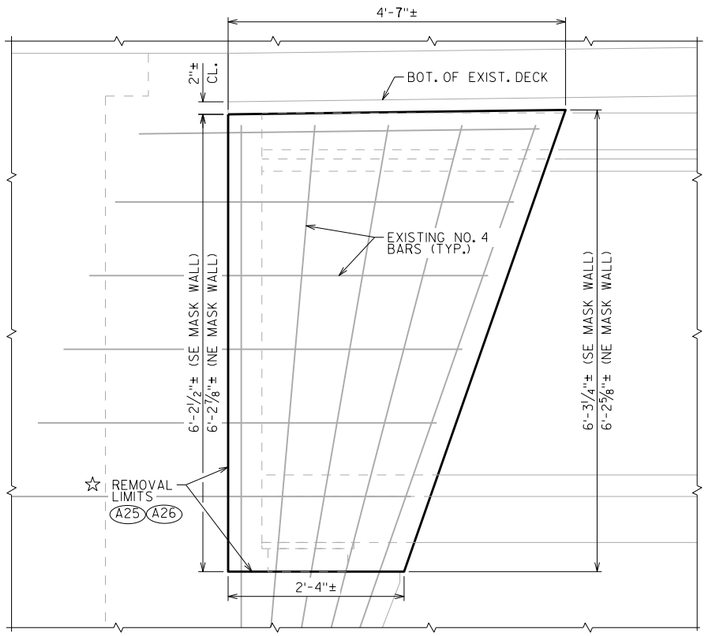
EXTENTS AND LOCATIONS SHALL BE DETERMINED BY FIELD ENGINEER.

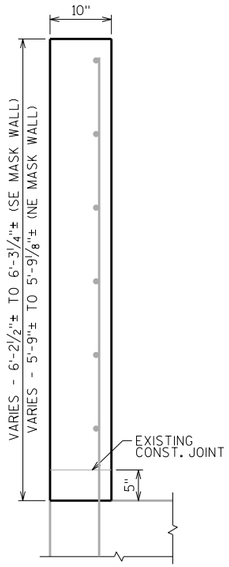


SECTION THRU GIRDER

GIRDER 7 AT SOUTH ABUTMENT SHOWN.
GIRDER 14 SIMILAR REPAIR EXTENTS

GIRDER END REPAIR DETAIL





MASK WALL REMOVAL

SE CORNER SHOWN, NE ABUTMENT SIMILAR

NOTE: USE GRADE C CONCRETE AT NE AND SE MASK WALLS.

☆ LINES OF REMOVAL SHALL BE DEFINED BY A SAWCUT. ALL CONCRETE WORK AND QUANTITIES FOR MASK WALL REPLACEMENT INCLUDED IN BID ITEM "CONCRETE MASONRY DECK REPAIR".

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

(A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH EPOXY ANCHORED NO. 4 BARS. WORK TO BE PAID UNDER ITEM "CONCRETE MASONRY DECK REPAIR".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-118

DRAWN BY DLM | PLANS CK'D. ARC

GIRDER AND CONCRETE REPAIR DETAILS

SHEET 13

170

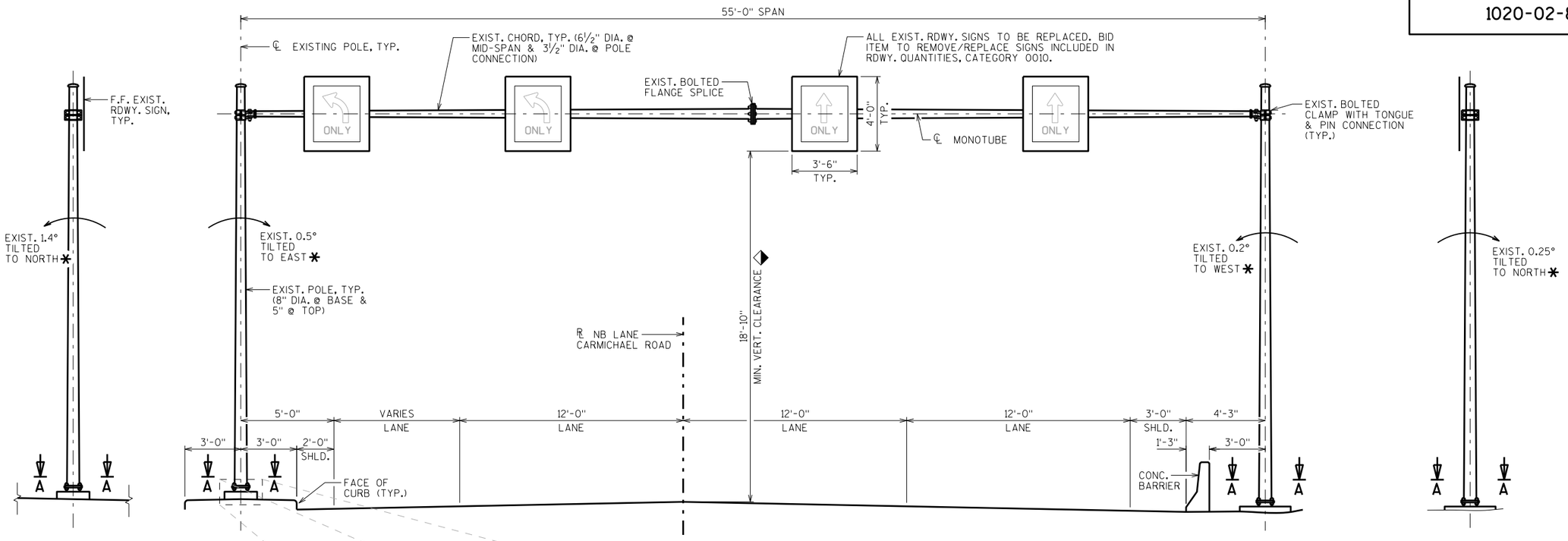
8

8

SCALE = 1.00

STATE PROJECT NUMBER

1020-02-83



END VIEW

LOOKING EAST

CROSS SECTION THRU ROADWAY

LOOKING NORTH

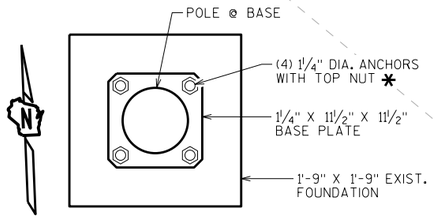
END VIEW

LOOKING WEST

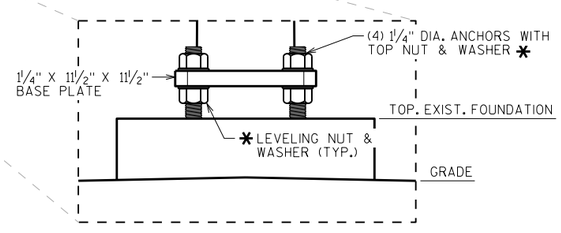
LEGEND

◆ VERTICAL CLEARANCE RECORDED 6/20/2018

* ADJUST LEVELING NUTS AND TENSION ANCHOR RODS TO REMOVE EXIST. POLE TILT (SHOWN) & RETURN TO PLUMB. SEE SPECIAL PROVISION FOR DETAILS.



SECTION A-A

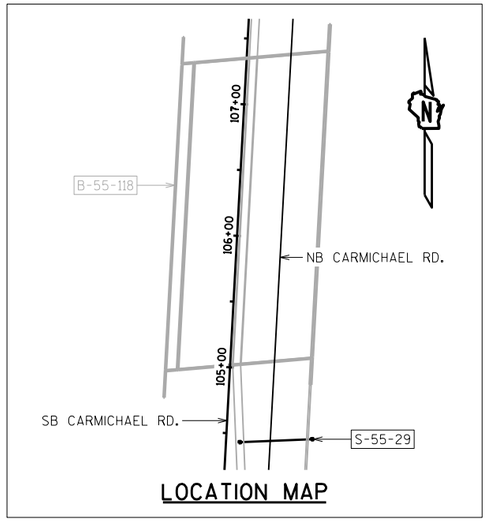


PART. ELEVATION BASE PLATE

TYP. BOTH EXIST. POLES

TRAFFIC VOLUME

A.D.T. (2027) = 41,100
R.D.S. = 45 MPH



LOCATION MAP

STRUCTURE DESIGN CONTACTS:

ALEX CRABTREE (608) 266-3686
LAURA SHADEWALD (608) 267-9592

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

MATERIAL PROPERTIES

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

LIST OF DRAWINGS

1. GENERAL NOTES & LAYOUT

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	TOTAL
SPV.0060	PLUMB EXISTING POLE	EACH	2

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION — BUREAU OF STRUCTURES

ACCEPTED LLS 12/8/21
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE S-55-29

FULL SPAN MONOTUBE OVER NB CARMICHAEL RD

COUNTY	TOWN/CITY/VILLAGE
ST. CROIX	HUDSON

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
ARC	N/A	ARC	DLM

GENERAL NOTES & LAYOUT

SHEET 1 OF 1

171

I.D. 1020-02-13B DATE: OCT. 2021

SCALE = 3.00

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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