MAD

PROJECT ID: 3020-00-89

WITH: N/A

COUNTY: DODGE

DECEMBER 2026

ORDER OF SHEETS

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

TOTAL SHEETS = 74



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

HORICON - KEWASKUM

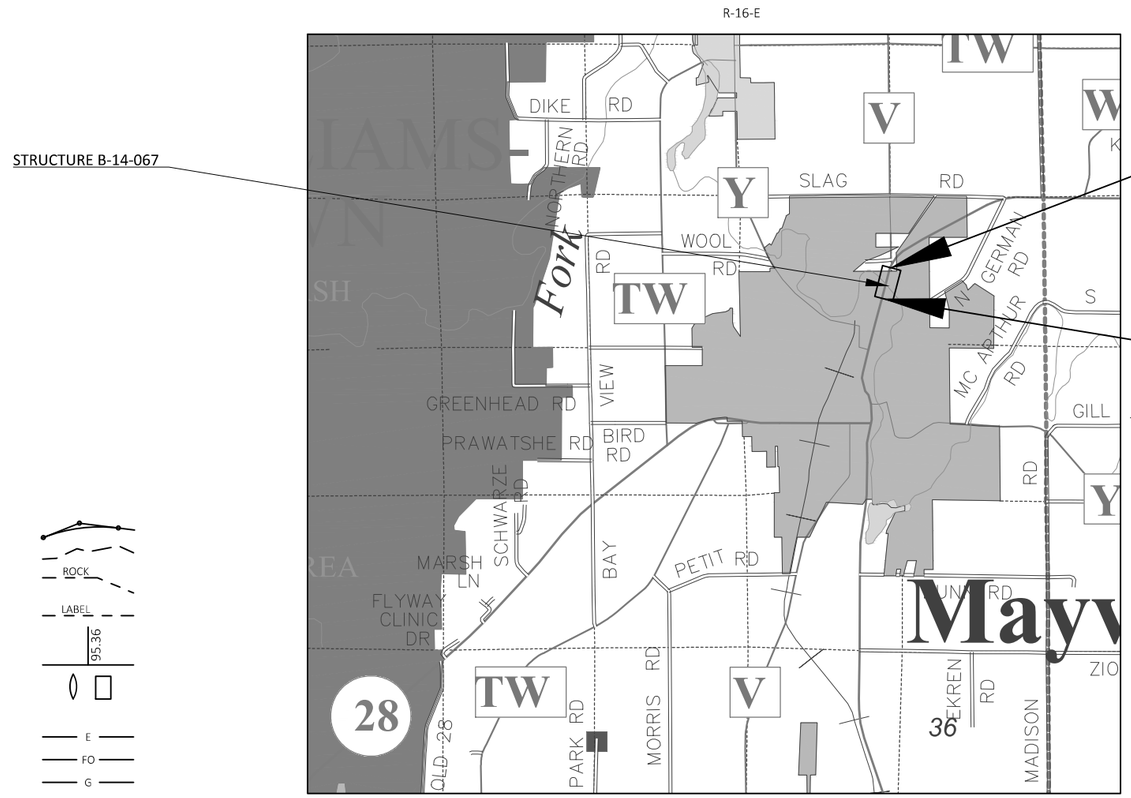
E BR ROCK R BRIDGE B-14-067

STH 28

DODGE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3020-00-89		

STATE PROJECT NUMBER
3020-00-89



LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.067 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, DODGE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

DESIGN DESIGNATION 3020-00-09

A.A.D.T.	2024	=	7,300
A.A.D.T.	2044	=	7,300
D.H.V.		=	522
D.D.		=	59/41
T.		=	16.1%
DESIGN SPEED		=	35 MPH
ESALS		=	3,100,000

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	JSD PROFESSIONAL SERVICES, INC.
Designer	ANDREW LUEDTKE
Project Manager	CRAIG HARDY, P.E.
Regional Examiner	SW REGION
Regional Supervisor	JUSTIN KUTSCHENREUTER, P.E.

APPROVED FOR THE DEPARTMENT

Craig Hardy

Digitally signed by Craig Hardy
DN: C=US, E=craig.hardy@dot.wi.gov, O=Wisconsin Department of Transportation, OU=PDS SW Region (East Unit), CN=Craig Hardy
Reason: I am approving this document
Date: 2026.10.26 14:57:07-05'00'

DATE: _____ (Signature)

E

2

UTILITIES CONTACTS

AT&T WISCONSIN
COMMUNICATION LINE
CHARLES BARTELT
70 E DIVISION ST
FOND DU LAC, WI 54935
PHONE: 920-410-5104
EMAIL: CB1461@ATT.COM

ALLIANT ENERGY
ELECTRICITY
NATE ROLLIN
120 E MAPLE AVE
BEAVER DAM, WI 53916
PHONE: 608-671-0413
EMAIL: NATHANIELROLLIN@ALLIANTENERGY.COM

ALLIANT ENERGY
GAS/PETROLEUM
NATE ROLLIN
120 E MAPLE AVE
BEAVER DAM, WI 53916
PHONE: 608-671-0413
EMAIL: NATHANIELROLLIN@ALLIANTENERGY.COM

CITY OF MAYVILLE
SEWER
COURTNEY STEGER
400 KEKOSKEE STREET
MAYVILLE, WI 53050
PHONE: 920-387-7906
EMAIL: CSTEGER@MAYVILLECITY.COM

CITY OF MAYVILLE
WATER
COURTNEY STEGER
400 KEKOSKEE STREET
MAYVILLE, WI 53050
PHONE: 920-387-7906
EMAIL: CSTEGER@MAYVILLECITY.COM

SPECTRUM
COMMUNICATION LINE
COREY LEWIS
JUNEAU, WI 53039
PHONE: 920-404-0575
EMAIL: COREY.LEWIS@CHARTER.COM

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
PLAN DETAILS
EROSION CONTROL
PAVEMENT MARKING
DETOUR
ALIGNMENT DETAILS

DODGE COUNTY CONTACT

BRIAN FIELD
HIGHWAY COMMISSIONER
211 E. CENTER ST.
JUNEAU, WI 53039
PHONE: 920-386-3650
EMAIL: DCHIGHWAY@CO.DODGE.WI.US

CITY OF MAYVILLE CONTACT

CHRISTINE COULTER
INTERIM CITY CLERK/DEPUTY CLERK
15 S. SCHOOL ST.
MAYVILLE, WI 53050
PHONE: 920-387-7900 EXT. 1202
EMAIL: PAYROLL.HR@MAYVILLECITY.COM

VILLAGE OF KEKOSKEE CONTACT

MELISSA MARINI
VILLAGE CLERK
W3275 COUNTY RD TW
MAYVILLE, WI 53050
PHONE: 920-387-2450
EMAIL: CLERK@KEKOSKEE.GOV

WISCONSIN DNR LIAISON

SHELLEY NELSON
SW REGION
3911 FISH HATCHERY RD.
FITCHBURG, WI 53711-5367
PHONE: 608-444-2835
EMAIL: SHELLEY.NELSON@WISCONSIN.GOV

DESIGN PROJECT LEADER

ANDY LUEDTKE
WISDOT SW REGION
2101 WRIGHT ST
MADISON, WI 53704
PHONE: 608-246-3269
EMAIL: ANDREW.LUEDTKE@DOT.WI.GOV

DESIGN PROJECT MANAGER

CRAIG HARDY, P.E.
WISDOT SW REGION
2101 WRIGHT ST
MADISON, WI 53704
PHONE: 608-246-5406
EMAIL: CRAIG.HARDY@DOT.WI.GOV

GENERAL NOTES

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.

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY OPERATIONS, OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

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

RIGHT OF WAY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE.

THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH THE APPROVAL OF THE ENGINEER.

WHEN THE QUANTITY OF THE ITEMS OF BASE AGGREGATE, SUBBASE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYERS SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER. MAINTAIN EROSION CONTROL MEASURES UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

RADIUS DIMENSIONS FOR THE CURB AND GUTTER ARE TO THE FLANGE LINE UNLESS OTHERWISE NOTED. PAVEMENT REMOVAL WILL BE TO THE NEAREST JOINT OR A SAWED EDGE WILL BE REQUIRED AS DIRECTED BY THE ENGINEER.

SAWCUTS, AS SHOWN ON THE PLANS, ARE SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.

CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES EXCEPT WHEN PAVING OR PIPE LAYING OPERATIONS REQUIRE THE DRIVEWAY TO BE CLOSED. ACCESS TO DRIVEWAYS SHALL BE RE-ESTABLISHED IMMEDIATELY AFTER OPERATIONS ARE COMPLETED. ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. BEARINGS SHOWN ON THE PLAN ARE TRUE BEARINGS.

DO NOT DRIVE OR STORE EQUIPMENT, OR STORE CONSTRUCTION MATERIALS IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS OR WATERWAYS

STANDARD ABBREVIATIONS

ABUT	ABUTMENT
AGG	AGGREGATE
AADT	ANNUAL AVERAGE DAILY TRAFFIC
ASPH	ASPHALTIC
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
CL OR C/L	CENTER LINE
CE	COMMERCIAL ENTRANCE
CONC	CONCRETE
CONST	CONSTRUCTION
CP	CONTROL POINT
CO	COUNTY
CTH	COUNTY TRUCK HIGHWAY
CY	CUBIC YARD
C & G	CURB AND GUTTER
DIA	DIAMETER
EA	EACH
EB	EASTBOUND
EL OR ELEV	ELEVATION
EAT	ENERGY ABSORBING TERMINAL
EXC	EXCAVATION
EXIST	EXISTING
FERT	FERTILIZER
FE	FIELD ENTRANCE
FL OR F/L	FLOW LINE
FT	FOOT
HES	HIGH EARLY STRENGTH
CWT	HUNDRED WEIGHT
INL	INLET
IH	INTERSTATE HIGHWAY
JT	JOINT
LT	LEFT
LF	LINEAR FOOT
LS	LUMP SUM
MGAL	ONE THOUSAND GALLONS
ML OR M/L	MATCH LINE
NC	NORMAL CROWN
NB	NORTHBOUND
NO	NUMBER
PAVT	PAVEMENT
PCC	PORTLAND CEMENT CONCRETE
LB	POUND
PE	PRIVATE ENTRANCE
PL	PROPERTY LINE
RL OR R/L	REFERENCE LINE
REQD	REQUIRED
RT	RIGHT
R/W	RIGHT OF WAY
RD	ROAD
SHLDR	SHOULDER
SB	SOUTHBOUND
SF	SQUARE FEET
SY	SQUARE YARD
SDD	STANDARD DETAIL DRAWINGS
STH	STATE TRUNK HIGHWAY
STA	STATION
SL OR S/L	SURVEY LINE
TEMP	TEMPORARY
TYP	TYPICAL
USH	UNITED STATES HIGHWAY
VAR	VARIABLE
WB	WESTBOUND

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

EMERGENCY CONTACT NUMBERS

ELECTRIC 24 HOUR EMERGENCY SERVICE: ELECTRIC - (800) 255-4268

GAS 24 HOUR EMERGENCY SERVICE: GAS - (800) 255-4268

2

2

N

ROCK RIVER EAST BRANCH

KANNARD PROPERTIES

R/W

SUPERWASH
OF MAYVILLE

SAPUTO CHEESE USA

R/W

BEGIN PROJECT
STA. 390+19.49
Y = 741510.99
X = 925777.16

END PROJECT
STA. 393+72.01
Y = 741852.16
X = 925865.90

389+00 390+00 391+00 392+00 393+00 394+00 395+00

STH 28/N. Main Street

DAVID HANNA

B-14-067

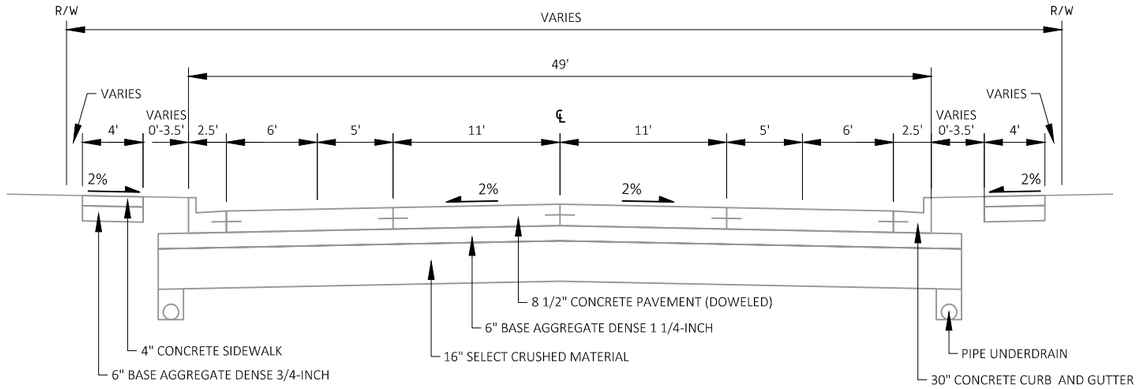
HISTORICAL MARKER #193
WISCONSIN'S FIRST IRON SMELTER

R/W

WILLIAM THOMAS

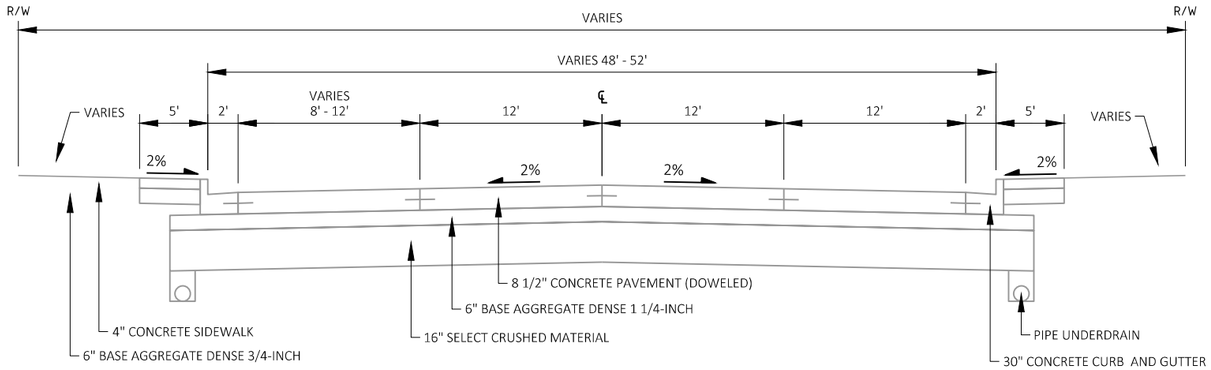
PROJECT NO: 3020-00-89	HWY: STH 28	COUNTY: DODGE	PROJECT OVERVIEW	SHEET 3	E

2



EXISTING TYPICAL SECTION

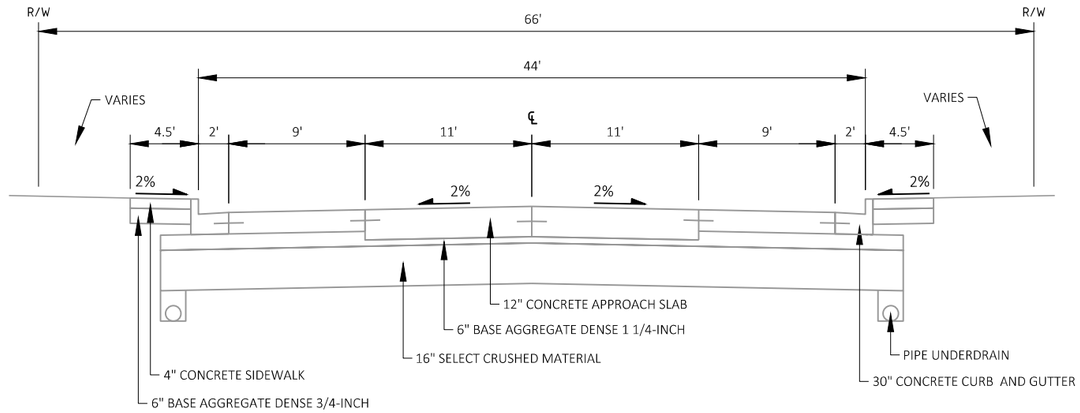
STA. 390+20.82 - STA. 390+95.82



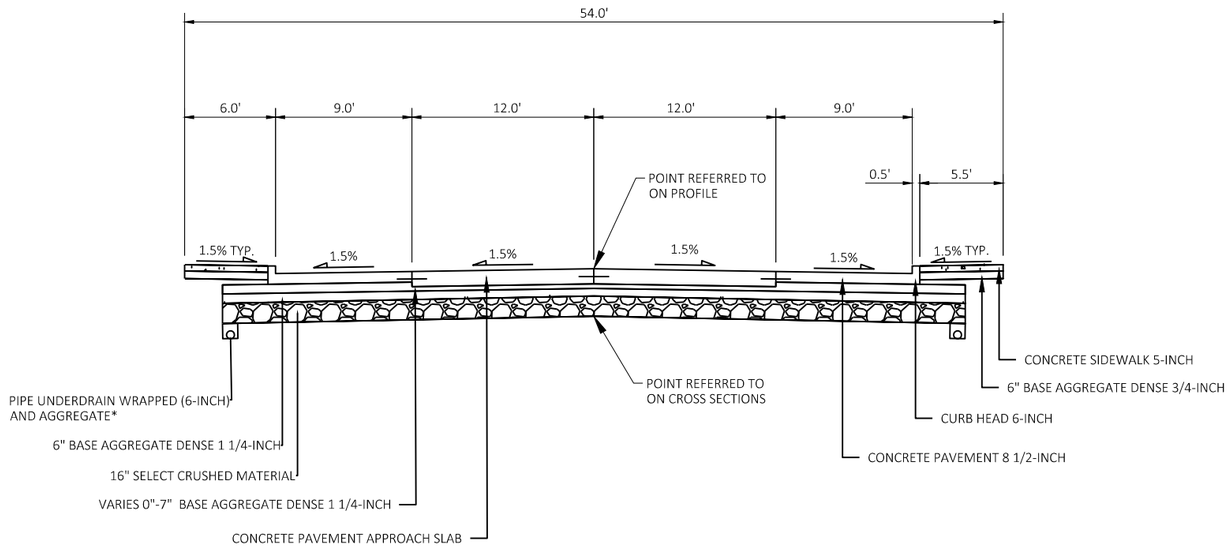
EXISTING TYPICAL SECTION

STA. 393+36.18 - STA. 393+66.18

2

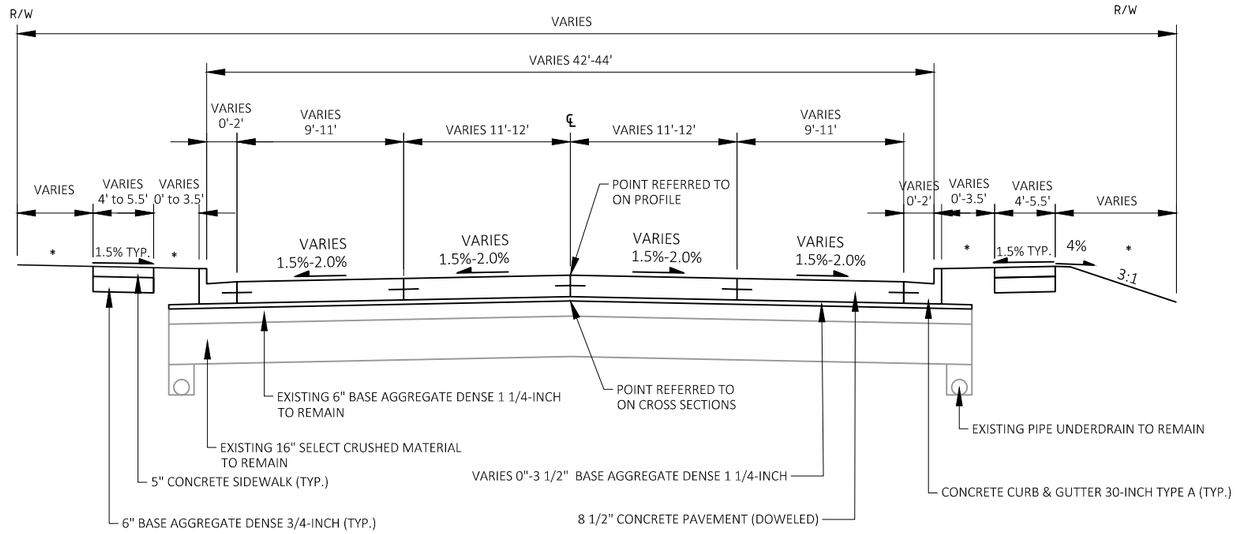


EXISTING TYPICAL SECTION - CONCRETE APPROACH SLAB
STA. 390+95.82 - STA. 391+23.56
STA. 393+08.44 - STA. 393+36.18



*CONNECT TO EXISTING PIPE UNDERDRAIN

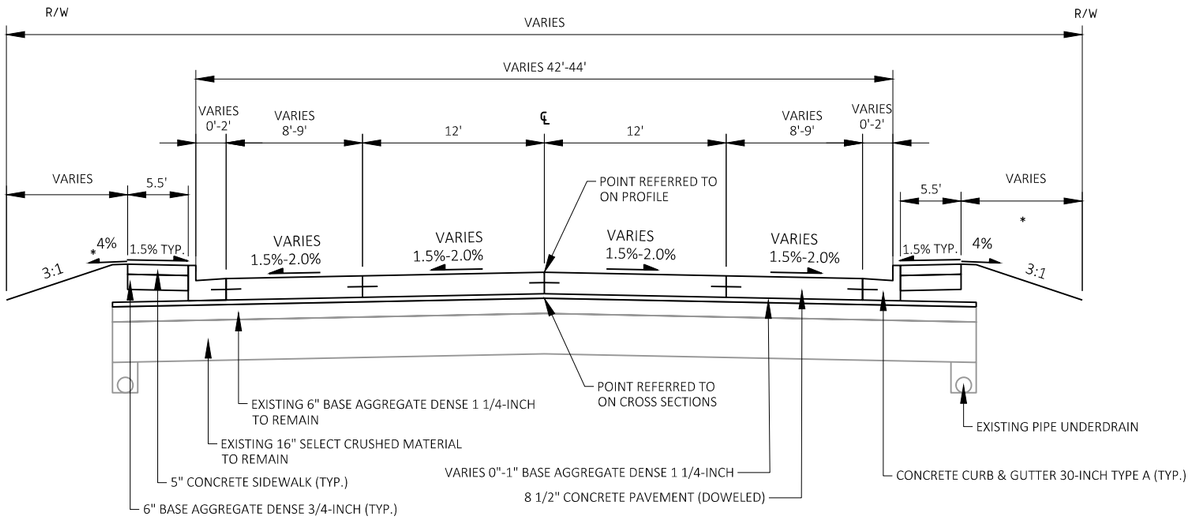
FINISHED TYPICAL SECTION -CONCRETE APPROACH SLAB
STA. 390+98.78 - STA. 391+23.56
STA. 393+08.44 - STA. 393+33.22



* SALVAGED TOPSOIL, SEED, FERTILIZE, EMAT

FINISHED TYPICAL SECTION

STA. 390+20.82 - STA. 391+01.28

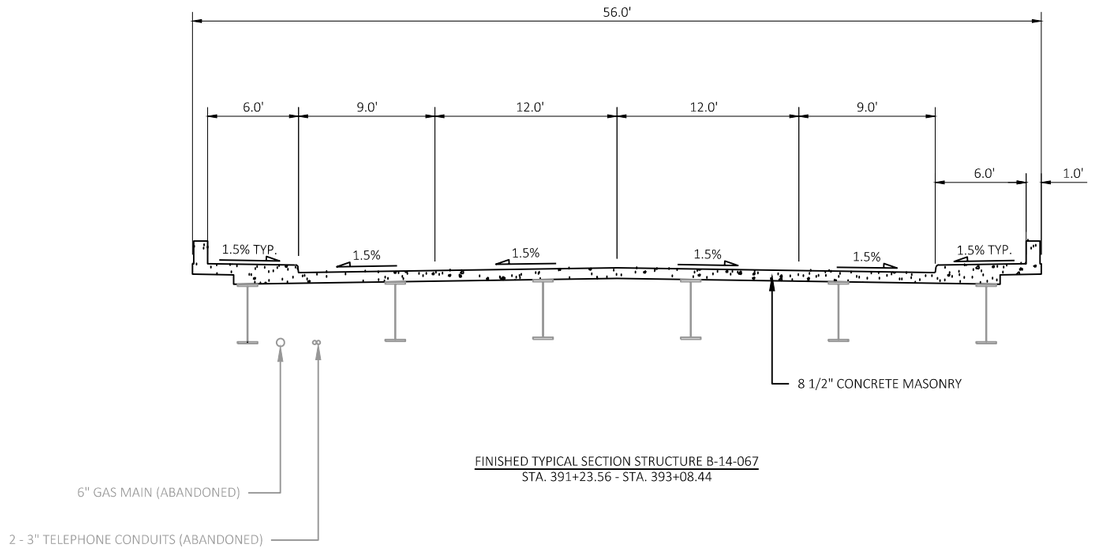


* SALVAGED TOPSOIL, SEED, FERTILIZE, EMAT

FINISHED TYPICAL SECTION

STA. 393+30.72 - STA. 393+72.01

2



FINISHED TYPICAL SECTION STRUCTURE B-14-067
STA. 391+23.56 - STA. 393+08.44

PROJECT NO: 3020-00-89	HWY: STH 28	COUNTY: DODGE	PLAN: TYPICAL SECTIONS	SHEET 7	E

FILE NAME : N:\PDS\C3D\30200009\SHEETSPLAN\020301-TS - TYPICAL SECTIONS\020301_TS.DWG
LAYOUT NAME - 020304_ts
PLOT DATE : 10/26/2026 1:22 PM PLOT BY : LUEDTKE, ANDREW W PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

N

ROCK RIVER

TRANSITION SIDEWALK CROSS SLOPE TO MATCH EXISTING 3.1%

SALVAGE AND REPLACE LANDSCAPING STONE

STA 390+94.12, -27.00' LT

STA 390+64.30, -30.00' LT

SLOPE INTERCEPT

STA 390+28.21, -32.00' LT

CAUTION

D/W

BEGIN PROJECT
STA 390+19.49
MATCH EXISTING
SAW CUT REQ'D
Y = 741510.99
X = 925777.16

GTST

SAN

STH 28

390+00

391+00

392+00

15' 11' 14' 15' 15' 15' 12' 15' 9' 9'

11' 11' 11' 12' 15' 9' 17' 31°14'47"

9' 6' 4' 3.5' 3.5' 4' 6'

GAS HANGERS ATTACHED TO DECK

2 - 3" TELEPHONE CONDUIT, ABANDONED

USE S.D.D. CONCRETE PAVEMENT APPROACH SLAB

PLACE RIP RAP ALONG THE RIVER BANK IN FRONT OF THE ABUTMENT WALLS

STRUCTURE B-14-067
REPLACE BRIDGE DECK AND ABUTMENT BACKWALL

STA 390+63.92, 26.00' RT

STA 390+64.30, 30.00' RT

STA 390+94.12, 27.00' RT

SAFETY FENCE

STA. 390+90, 35' RT
HISTORICAL MARKER #193
WISCONSIN'S FIRST IRON SMELTER

R/W

STA 390+19.49, 32.00' RT

LEGEND	
YYYYYYYYYYYYYY	SAWING CONCRETE
— · — · —	CONCRETE PAVEMENT JOINT
- - - - - - -	SLOPE INTERCEPT

UTILITY LEGEND			
1	AT&T	3	SPECTRUM
2	ALLIANT ENERGY	4	CITY OF MAYVILLE

PROJECT NO: 3020-00-89	HWY: STH 28	COUNTY: DODGE	PLAN DETAILS	SHEET 8	E

FILE NAME : N:\PDS\C3D\30200009\SHEETSPLAN\021201-PD - PLAN DETAILS\021201-PD.DWG
LAYOUT NAME - 01

PLOT DATE : 10/26/2026 1:23 PM PLOT BY : LUEDTKE, ANDREW W PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

2

ROCK RIVER

CAUTION

STA 393+43.90, -27.00' LT

STA 393+72.01, -28.00' LT

END PROJECT
STA 393+72.01
MATCH EXISTING
SAW CUT REQ'D
Y=741852.16
X=925865.90

2 GAS HANGERS ATTACHED TO DECK

1 2 - 3" TELEPHONE CONDUIT, ABANDONED

2 1 - 6" GAS MAIN STUBOUT THROUGH ABUTMENT

PLACE RIP RAP ALONG THE RIVER BANK IN FRONT OF THE ABUTMENT WALLS

USE S.D.D. CONCRETE PAVEMENT APPROACH SLAB

STA 393+43.90, 27.00' RT

STRUCTURE B-14-067
REPLACE BRIDGE DECK AND ABUTMENT BACKWALL

SLOPE INTERCEPT

STA 393+72.01, 28.00' RT

392+00 393+00 394+00

6' 9' 12' 12' 9' 6'

15' 13' 14' 14' 12' 8' 5.5'

15' 9' 12' 8' 5.5'

STH 28

D/W

LEGEND	
YYYYYYYYYYYYYY	SAWING CONCRETE
— · — · — · —	CONCRETE PAVEMENT JOINT
– – – – – – –	SLOPE INTERCEPT

UTILITY LEGEND			
1	AT&T	3	SPECTRUM
2	ALLIANT ENERGY	4	CITY OF MAYVILLE

PROJECT NO: 3020-00-89	HWY: STH 28	COUNTY: DODGE	PLAN DETAILS	SHEET 9	E

FILE NAME : N:\PDS\C3D\30200009\SHEETSPLAN\021201-PD - PLAN DETAILS\021201-PD.DWG
LAYOUT NAME - 02

PLOT DATE : 10/26/2026 1:23 PM PLOT BY : LUEDTKE, ANDREW W PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

2

ROCK RIVER

N

SALVAGE AND REPLACE LANDSCAPING STONE

R

389+00 390+00 391+00 392+00 393+00 394+00 395+00

ROCK RIVER

LEGEND

EROSION MAT URBAN CLASS I TYPE A, SEEDING MIXTURE NO. 40, FERTILIZER TYPE A

INLET PROTECTION TYPE D

TURBIDITY BARRIER

SILT FENCE

SLOPE INTERCEPT

SURFACE WATER FLOW

ROCK BAGS

PROJECT NO: 3020-00-89	HWY: STH 28	COUNTY: DODGE	EROSION CONTROL	SHEET 10	E

FILE NAME : N:\PDS\C3D\30200009\SHEETSPLAN\022001-EC - EROSION CONTROL\022001-EC.DWG
LAYOUT NAME - 01

PLOT DATE : 10/26/2026 1:24 PM PLOT BY : LUEDTKE, ANDREW W PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

KANNARD PROPERTIES

SAPUTO CHEESE USA

SUPERWASH
OF MAYVILLE

MARKING LINE EPOXY 6-INCH

390+93.82

390+63.82

BEGIN PROJECT
STA 390+19.49

END PROJECT
STA 393+72.01

389+00 390+00 392+00 393+00 394+00 395+00

STH 28

11' 11' 9' 12' 9' 8'

11' 11' 12' 12' 12' 12'

11' 11' 9' 9' 8'

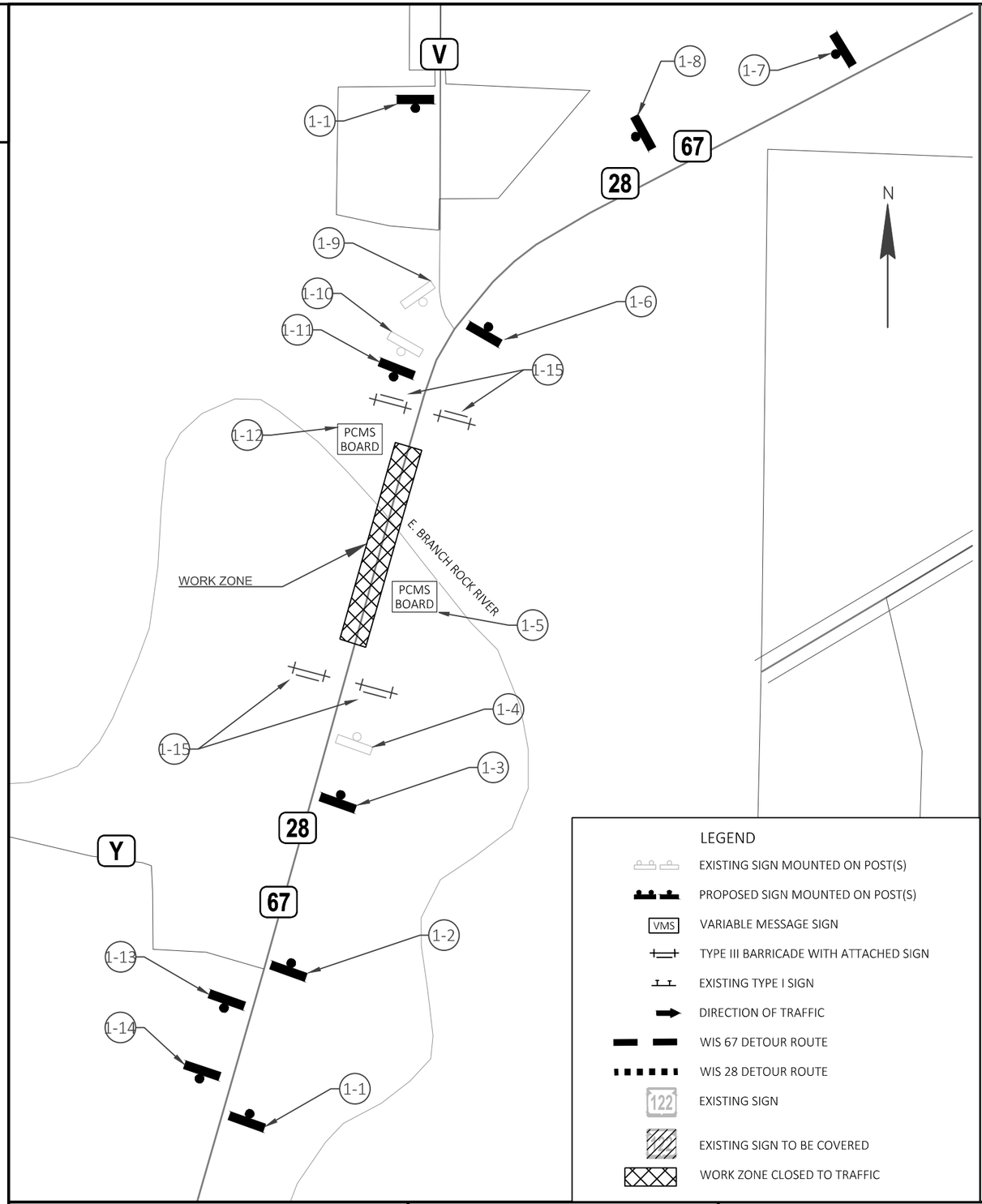
Station=393+44.01

DAVID HANNA

HISTORICAL MARKER #193
WISCONSIN'S FIRST IRON SMELTER

WILLIAM THOMAS

PROJECT NO: 3020-00-89	HWY: STH 28	COUNTY: DODGE	PAVEMENT MARKING	SHEET 11	E



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- VMS — VARIABLE MESSAGE SIGN
- TYPE III BARRICADE WITH ATTACHED SIGN
- EXISTING TYPE I SIGN
- DIRECTION OF TRAFFIC
- WIS 67 DETOUR ROUTE
- WIS 28 DETOUR ROUTE
- 122 — EXISTING SIGN
- EXISTING SIGN TO BE COVERED
- WORK ZONE CLOSED TO TRAFFIC

NOTE

DETOUR ROUTE TO UTILIZE STH 67, STH 33, IH-41, AND STH 28

PROJECT 3020-00-89 WORK WILL USE THIS SHEET

ALL OTHER DETOUR WORK TO BE DONE BY PROJECT 3364-02-63

TRAFFIC CONTROL AND DETOUR GENERAL NOTES

1. DRAWINGS SHOW TRAFFIC CONTROL DETOUR FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON SITE CONDITIONS AS DIRECTED BY THE ENGINEER. ALL CHANGES TO THE TRAFFIC CONTROL DETOUR PLAN SHALL BE REVIEWED WITH THE PROJECT ENGINEER.
2. CONSIDER GEOMETRICS WHEN LOCATING TRAFFIC CONTROL SIGNS PCMS SO TRAFFIC HAS A CLEAR VIEW OF THE BOARD FOR A MINIMUM OF 1000 FEET IN FRONT OF MESSAGE BOARD.
3. PLACE TRAFFIC CONTROL SIGNS PCMS AND DISPLAY THE "PRIOR TO CONSTRUCTION" MESSAGE 7 DAYS PRIOR TO THE EXPECTED START OF THE PROPOSED WORK THAT WILL REQUIRE BRIDGE CLOSURE, ADJUST THE MESSAGE DATE ACCORDINGLY.
4. ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
5. LOCATION AND SPACING OF SIGNS MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE FIELD ENGINEER.
6. "MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.
7. COVER, REMOVE, OR ALTER ANY EXISTING SIGNS THAT DISPLAY A CONFLICTING MESSAGE WITH THE PROPOSED DETOUR ROUTE.

1-1
ROAD CLOSED AHEAD
W20-3A

1-2
ROAD CLOSED 1000 FT
W20-3C

1-3
ROAD CLOSED 500 FT
W20-3D

1-4
EAST
28
NORTH
67

1-5
PCMS MESSAGES
FRAME 1: ROAD CLOSED BEGINS
FRAME 2: 'DAY' XX/XX
7 DAY PREWARN

1-6
M4-8 24"X12" | DETOUR | DETOUR | M4-8 24"X12"
M3-4 24"X12" | WEST | SOUTH | M3-3 24"X12"
M1-6 24"X24" | 28 | 67 | M1-6 24"X24"

1-7
ROAD CLOSED AHEAD
W20-3A

1-8
ROAD CLOSED 1000 FT
W20-3C

1-9
28 67
MO6-1 21"X21" MO6-1 21"X21"

1-10
WEST SOUTH
28 67

1-11
ROAD CLOSED 500 FT
W20-3D

1-12
PCMS MESSAGES
FRAME 1: ROAD CLOSED BEGINS
FRAME 2: 'DAY' XX/XX
7 DAY PREWARN

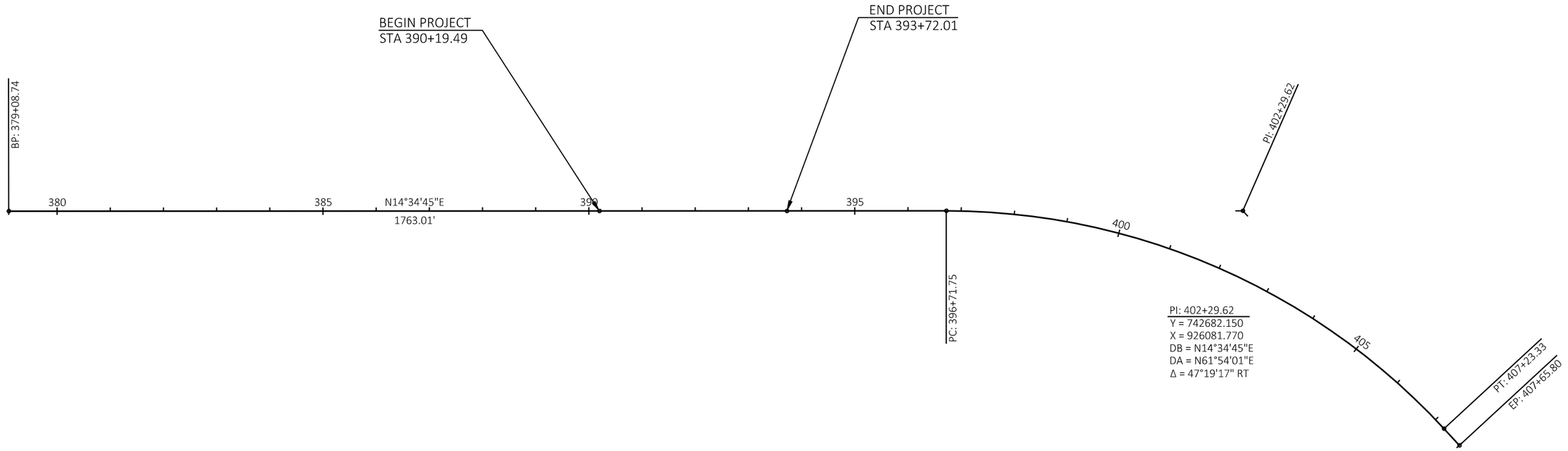
1-13
M4-8 24"X12" | DETOUR | DETOUR | M4-8 24"X12"
M3-2 24"X12" | EAST | NORTH | M3-1 24"X12"
M1-6 24"X24" | 28 | 67 | M1-6 24"X24"

1-14
DETOUR NEXT 25 MILES
G20-51
60"X24"

1-15
SIDEWALK CLOSED
R9-9
24"X12"

PROJECT NO: 3020-00-89	HWY: STH 28	COUNTY: DODGE	DETOUR SHEET 1	SHEET 12	E

2



PROJECT NO: 3020-00-89	HWY: STH 28	COUNTY: DODGE	ALIGNMENT DETAILS	SHEET 13	E

Estimate Of Quantities

3020-00-89

Line	Item	Item Description	Unit	Total	Qty
0002	201.0210	Grubbing	SY	82.000	82.000
0004	203.0211.S	Abatement of Asbestos Containing Material (structure) 01. B-14-67	EACH	1.000	1.000
0006	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. B-14-67	EACH	1.000	1.000
0008	204.0100	Removing Concrete Pavement	SY	887.000	887.000
0010	204.0155	Removing Concrete Sidewalk	SY	157.000	157.000
0012	205.0100	Excavation Common	CY	23.000	23.000
0014	206.1001	Excavation for Structures Bridges (structure) 01. B-14-67	EACH	1.000	1.000
0016	210.1500	Backfill Structure Type A	TON	104.000	104.000
0018	213.0100	Finishing Roadway (project) 01. 3020-00-89	EACH	1.000	1.000
0020	305.0110	Base Aggregate Dense 3/4-Inch	TON	53.000	53.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	104.000	104.000
0024	312.0110	Select Crushed Material	TON	236.000	236.000
0026	415.0085	Concrete Pavement 8 1/2-Inch	SY	646.000	646.000
0028	415.0410	Concrete Pavement Approach Slab	SY	148.000	148.000
0030	416.0610	Drilled Tie Bars	EACH	2.000	2.000
0032	416.0620	Drilled Dowel Bars	EACH	58.000	58.000
0034	502.0100	Concrete Masonry Bridges	CY	401.000	401.000
0036	502.3101	Expansion Device	LF	126.000	126.000
0038	502.3200	Protective Surface Treatment	SY	1,157.000	1,157.000
0040	502.3210	Pigmented Surface Sealer	SY	165.000	165.000
0042	502.4106	Adhesive Anchors 3/4-Inch	EACH	12.000	12.000
0044	502.4204	Adhesive Anchors No. 4 Bar	EACH	12.000	12.000
0046	502.4205	Adhesive Anchors No. 5 Bar	EACH	276.000	276.000
0048	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	88,510.000	88,510.000
0050	506.0105	Structural Steel Carbon	LB	1,982.000	1,982.000
0052	509.1500	Concrete Surface Repair	SF	3.000	3.000
0054	513.4056	Railing Tubular Type H	LF	405.000	405.000
0056	516.0500	Rubberized Membrane Waterproofing	SY	14.000	14.000
0058	517.0901.S	Preparation and Coating of Top Flanges (structure) 01. B-14-67	EACH	1.000	1.000
0060	517.3001.S	Structure Overcoating Cleaning and Priming (structure) 01. B-14-67	EACH	1.000	1.000
0062	517.4001.S	Containment and Collection of Waste Materials (structure) 01. B-14-67	EACH	1.000	1.000
0064	517.6001.S	Portable Decontamination Facility	EACH	1.000	1.000
0066	601.0150	Concrete Curb Integral Type D	LF	132.000	132.000
0068	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	212.000	212.000
0070	602.0410	Concrete Sidewalk 5-Inch	SF	1,677.000	1,677.000
0072	606.0300	Riprap Heavy	CY	187.000	187.000
0074	611.8110	Adjusting Manhole Covers	EACH	2.000	2.000
0076	611.8115	Adjusting Inlet Covers	EACH	2.000	2.000
0078	612.0106	Pipe Underdrain 6-Inch	LF	76.000	76.000
0080	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	196.000	196.000
0082	616.0700.S	Fence Safety	LF	23.000	23.000
0084	618.0100	Maintenance and Repair of Haul Roads (project) 01. 3020-00-89	EACH	1.000	1.000
0086	619.1000	Mobilization	EACH	1.000	1.000
0088	625.0500	Salvaged Topsoil	SY	160.000	160.000
0090	628.1504	Silt Fence	LF	368.000	368.000
0092	628.1520	Silt Fence Maintenance	LF	368.000	368.000
0094	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0096	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0098	628.2002	Erosion Mat Class I Type A	SY	160.000	160.000

3020-00-89

Line	Item	Item Description	Unit	Total	Qty
0100	628.6005	Turbidity Barriers	SY	286.000	286.000
0102	628.7020	Inlet Protection Type D	EACH	6.000	6.000
0104	628.7570	Rock Bags	EACH	2.000	2.000
0106	629.0205	Fertilizer Type A	CWT	1.000	1.000
0108	630.0140	Seeding Mixture No. 40	LB	3.000	3.000
0110	630.0500	Seed Water	MGAL	1.000	1.000
0112	634.0612	Posts Wood 4x6-Inch x 12-FT	EACH	1.000	1.000
0114	638.2102	Moving Signs Type II	EACH	1.000	1.000
0116	642.5001	Field Office Type B	EACH	1.000	1.000
0118	643.0300	Traffic Control Drums	DAY	850.000	850.000
0120	643.0420	Traffic Control Barricades Type III	DAY	1,020.000	1,020.000
0122	643.0705	Traffic Control Warning Lights Type A	DAY	340.000	340.000
0124	643.0715	Traffic Control Warning Lights Type C	DAY	425.000	425.000
0126	643.0900	Traffic Control Signs	DAY	2,210.000	2,210.000
0128	643.0920	Traffic Control Covering Signs Type II	EACH	2.000	2.000
0130	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000
0132	643.5000	Traffic Control	EACH	1.000	1.000
0134	645.0111	Geotextile Type DF Schedule A	SY	140.000	140.000
0136	646.2020	Marking Line Epoxy 6-Inch	LF	1,420.000	1,420.000
0138	650.6501	Construction Staking Structure Layout (structure) 01. B-14-67	EACH	1.000	1.000
0140	650.7000	Construction Staking Concrete Pavement	LF	122.000	122.000
0142	650.9500	Construction Staking Sidewalk (project) 01. 3020-00-89	EACH	1.000	1.000
0144	650.9911	Construction Staking Supplemental Control (project) 01. 3020-00-89	EACH	1.000	1.000
0146	650.9920	Construction Staking Slope Stakes	LF	359.000	359.000
0148	690.0250	Sawing Concrete	LF	141.000	141.000
0150	715.0502	Incentive Strength Concrete Structures	DOL	1,998.000	1,998.000
0152	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0154	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. 392+15	EACH	1.000	1.000
0156	SPV.0060	Special 01. Foam Void Filling B-14-67	EACH	1.000	1.000
0158	SPV.0060	Special 02. Cleaning and Painting Bearings	EACH	12.000	12.000
0160	SPV.0060	Special 03. Top of Girder Survey B-14-67	EACH	1.000	1.000
0162	SPV.0180	Special 01. Salvage and Replace Landscaping Stone	SY	67.000	67.000

3

3

TRAFFIC CONTROL

CATEGORY	LOCATION	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0900 TRAFFIC CONTROL SIGNS DAY	S # SIGNS	# CYCLES	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	643.5000 TRAFFIC CONTROL EACH	REMARKS
0010	UNDISTRIBUTED	850	850	-	425	-			-	-	1	
0010	SHEET 1	-	170	340	-	2,210	26	1	2	28	-	
	TOTAL 0010	850	1,020	340	425	2,210			2	28	1	

REMOVALS

CATEGORY	STATION	TO	STATION	LOCATION	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0155 REMOVING CONCRETE SIDEWALK SY	REMARKS
0010	390+19	-	391+22	WEST/SOUTH OF BRIDGE	561	92	
0010	393+07	-	393+72	EAST/NORTH OF BRIDGE	326	65	
				TOTAL 0010	887	157	

EARTHWORK

CATEGORY	STATION	TO	STATION	LOCATION	201.0210 GRUBBING SY	205.0100 EXCAVATION COMMON CY	SPV.0180.01 SPECIAL (SALVAGE AND REPLACE LANDSCAPING STONE) SY	REMARKS
0010	390+23	-	391+90		-	-	67	
0010	390+13	-	391+22		-	12	-	
0010	393+07	-	393+72		82	11	-	
				TOTAL 0010	82	23	67	

STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.6501.01 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) (B-14-67) LS	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	650.9511.01 CONSTRUCTION STAKING SIDEWALK (PROJECT) (01. 3020-00-89) EACH	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 3020-00-89) LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	REMARKS
0010	390+13	-	391+22	WEST/SOUTH OF BRIDGE	-	80	-	-	-	
0010	393+07	-	393+72	EAST/NORTH OF BRIDGE	-	42	-	-	-	
0010	390+13	-	393+72	PROJECT LIMITS	1	-	1	1	359	
				TOTAL 0010	1	122	1	1	359	

3

SAW CUTS

CATEGORY	STATION	TO	STATION	LOCATION	690.0250 SAWING CONCRETE LF	REMARKS
0010	390+13	-	391+23	WEST/SOUTH OF BRIDGE	85	
0010	393+08	-	393+72	EAST/NORTH OF BRIDGE	56	
				TOTAL 0010	141	

TIE BARS AND DOWEL BARS

CATEGORY	STATION	TO	STATION	LOCATION	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	REMARKS
0010	390+13	-	390+19	DRIVEWAY ENTRANCE	2	-	
0010	390+19			BOP	-	32	
0010	393+72			EOP	-	26	
				TOTAL 0010	2	58	

BASE MATERIALS

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	REMARKS
0010	390+19	-	391+22	WEST/SOUTH OF BRIDGE	34	99	118	
0010	393+07	-	393+72	EAST/NORTH OF BRIDGE	19	5	118	
				TOTAL 0010	53	104	236	

PAVEMENT

CATEGORY	STATION	TO	STATION	LOCATION	415.0085 CONCRETE PAVEMENT 8 1/2-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	REMARKS
0010	390+19	-	391+36	WEST/SOUTH OF BRIDGE	426	74	
0010	392+96	-	393+72	EAST/NORTH OF BRIDGE	220	74	
				TOTAL 0010	646	148	

CURB AND GUTTER AND SIDEWALK

CATEGORY	STATION	TO	STATION	LOCATION	601.0150 CONCRETE CURB INTEGRAL TYPE D LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	602.0410 CONCRETE SIDEWALK 5-INCH SF	REMARKS
0010	390+13	-	391+36	SW OF BRIDGE, LT	-	81	551	
0010	390+19	-	391+10	SW OF BRIDGE, RT	-	75	425	
0010	390+94	-	391+36	SW OF BRIDGE, LT	43	-	-	
0010	390+94	-	391+10	SW OF BRIDGE, RT	17	-	-	
0010	393+22	-	393+44	NE OF BRIDGE, LT	23	-	-	
0010	392+95	-	393+44	NE of BRIDGE, RT	49	-	-	
0010	393+22	-	393+72	NE OF BRIDGE, LT	-	28	270	
0010	392+95	-	393+72	NE of BRIDGE, RT	-	28	431	
				TOTAL 0010	132	212	1,677	

ADJUSTING COVERS

CATEGORY	STATION	LOCATION	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH	REMARKS
0010	390+22	23' RT	-	1	
0010	390+29	10' RT	1	-	
0010	390+47	23' LT	-	1	
0010	390+69	27' LT	1	-	
		TOTAL 0010	2	2	

EROSION AND RESTORATION

CATEGORY	STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2002 EROSION MAT CLASS I TYPE A SY	628.6005 TURBIDITY BARRIERS SY	628.7020 INLET PROTECTION TYPE D EACH	628.7570 ROCK BAGS EACH	629.0205 FERTILIZER TYPE A CWT	630.0140 SEEDING MIXTURE NO. 40 LB	630.0500 SEED WATER MGAL	REMARKS
0010	BOP		EOP		-	-	-	5	3	-	286	-	-	1	3	1	
0010	390+19	-	391+75	LT	53	17	17	-	-	53	-	1	2	-	-	-	
0010	390+19	-	391+40	RT	26	104	104	-	-	26	-	1	-	-	-	-	
0010	393+10	-	393+72	LT	29	111	111	-	-	29	-	-	-	-	-	-	
0010	392+95	-	393+72	RT	52	136	136	-	-	52	-	-	-	-	-	-	
0010	394+50	-	394+75	LT	-	-	-	-	-	-	-	2	-	-	-	-	
0010	394+50	-	394+75	RT	-	-	-	-	-	-	-	2	-	-	-	-	
				TOTAL 0010	160	368	368	5	3	160	286	6	2	1	3	1	

PAVEMENT MARKING

CATEGORY	STATION	TO	STATION	LOCATION	646.2020 MARKING LINE EPOXY 6-INCH LF	REMARKS
0010	390+19	-	393+72	CENTERLINE	710	6" DOUBLE YELLOW
0010	390+19	-	393+72	EDGELINE	710	6" WHITE (BOTH DIRECTIONS)
				TOTAL 0010	1,420	

FENCE SAFETY

CATEGORY	STATION	TO	STATION	LOCATION	616.0700.S FENCE SAFETY LF	REMARKS
0010	390+88 34' RT	-	390+97 36' RT	HISTORICAL MARKER	23	
				TOTAL 0010	23	

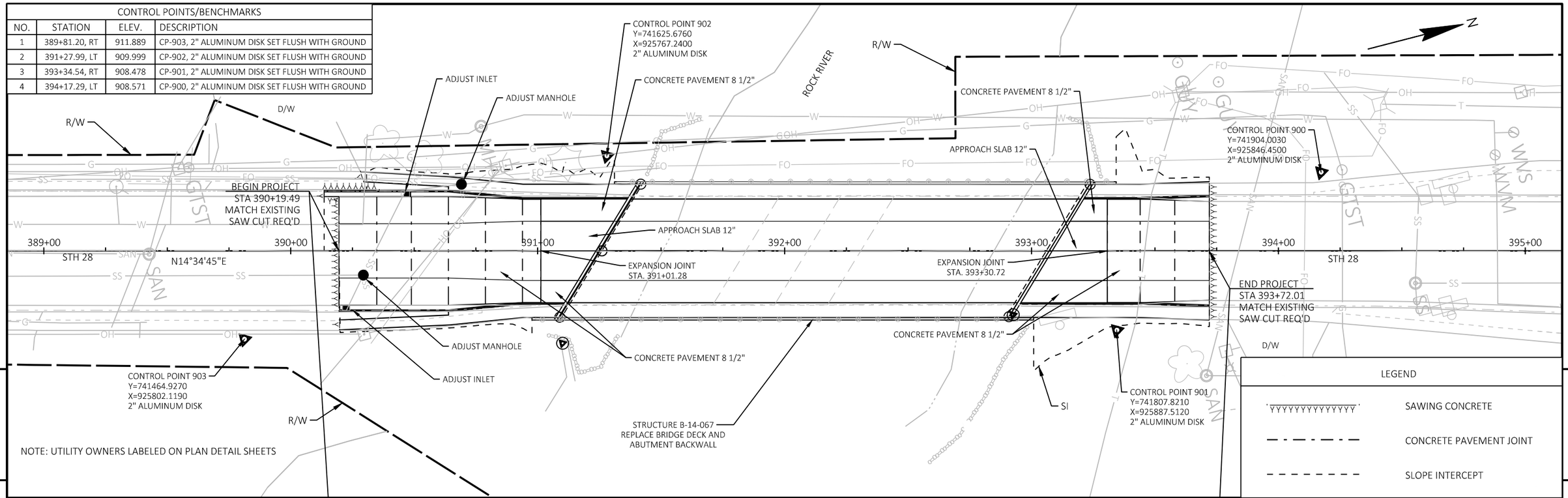
UNDERDRAIN

CATEGORY	STATION	TO	STATION	LOCATION	612.0106 PIPE UNDERDRAIN 6-INCH LF	REMARKS
0010	391+01	-	391+11	LT	28	
0010	391+01	-	391+36	RT	10	
0010	393+21	-	393+33	LT	28	
0010	392+95	-	393+33	RT	10	
				TOTAL 0000	76	

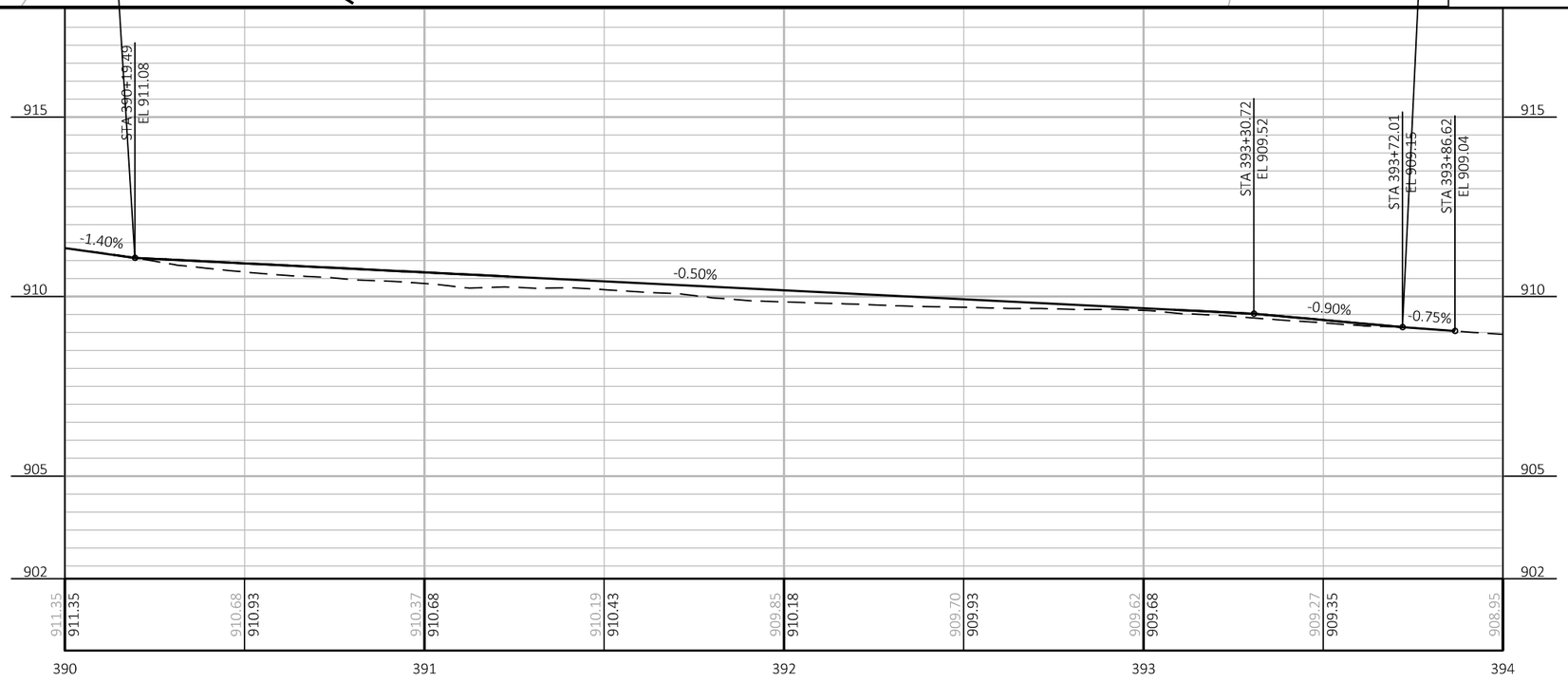
MOVING SIGNS

CATEGORY	STATION	LOCATION	634.0612 POSTS WOOD 4X6-INCH X 12-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	REMARKS
0010	393+11	30 ' RT	-	1	
0010	393+11	30 ' RT	1	-	
		TOTAL 0010	1	1	

CONTROL POINTS/BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
1	389+81.20, RT	911.889	CP-903, 2" ALUMINUM DISK SET FLUSH WITH GROUND
2	391+27.99, LT	909.999	CP-902, 2" ALUMINUM DISK SET FLUSH WITH GROUND
3	393+34.54, RT	908.478	CP-901, 2" ALUMINUM DISK SET FLUSH WITH GROUND
4	394+17.29, LT	908.571	CP-900, 2" ALUMINUM DISK SET FLUSH WITH GROUND



NOTE: UTILITY OWNERS LABELED ON PLAN DETAIL SHEETS

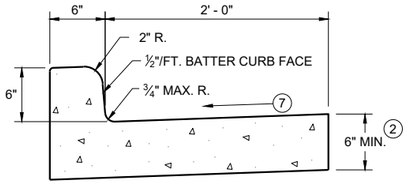


PROJECT NO: 3020-00-89	HWY: STH 28	COUNTY: DODGE	PLAN AND PROFILE	SHEET 19	E

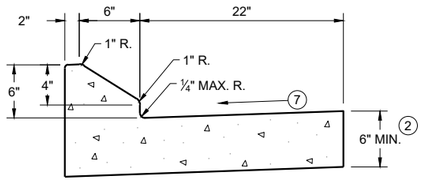
Standard Detail Drawing List

08D01-24A	CONCRETE CURB AND GUTTER
08D01-24B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPES A, B, C AND D
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
13A03-07	CONCRETE PAVEMENT SHOULDERS
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-11	URBAN DOWELED CONCRETE PAVEMENT
13C18-08C	CONCRETE PAVEMENT JOINT TYPES
13C18-08D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
15A04-08D	CHANNELIZING DEVICES, PERMANENT FLEXIBLE TUBULAR MARKER POST
15C02-10A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-10B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-10C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-10H	MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS

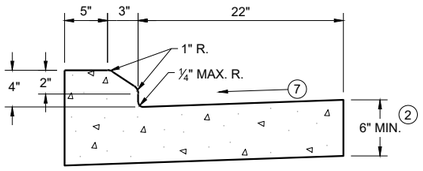
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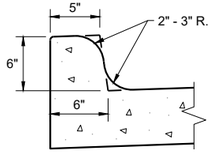
TYPES A (1) & D



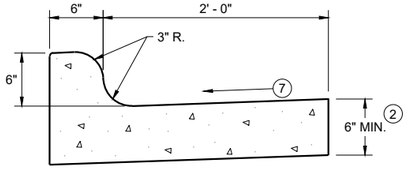
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

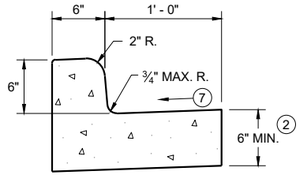


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



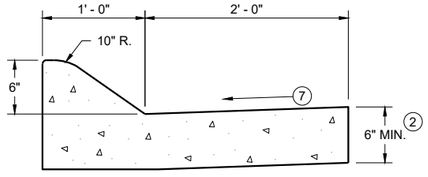
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

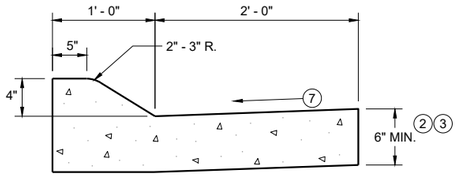


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

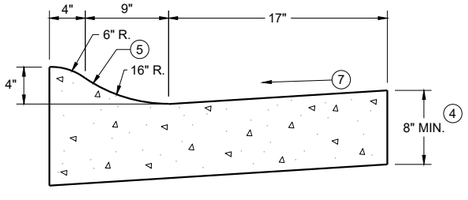


6" SLOPED CURB TYPES A (1) & D



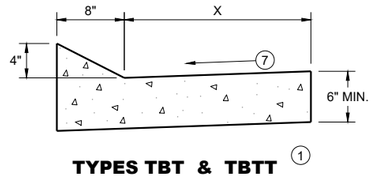
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T
CONCRETE CURB AND GUTTER 30"

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

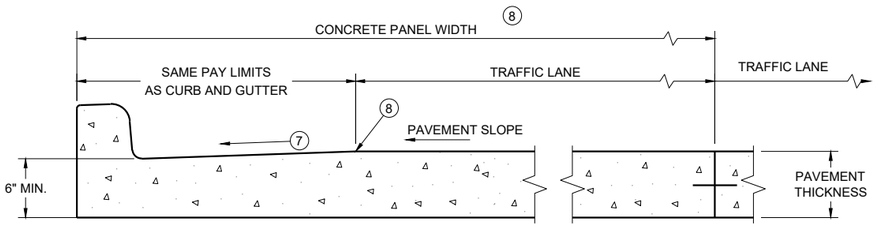


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

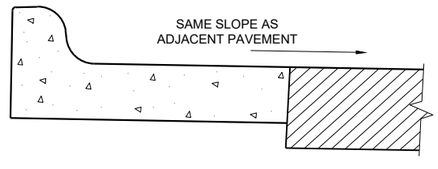
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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.

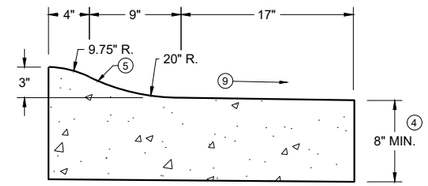
(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(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.

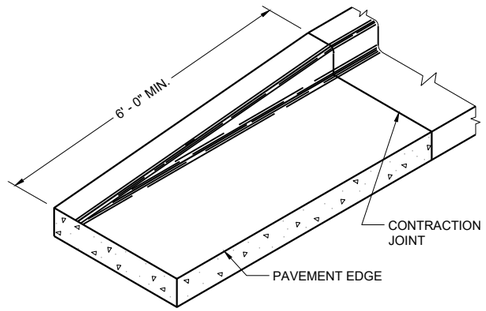
(9) SLOPE TO BE REVERSE SLOPE MATCHING THE SLOPE OF THE PAVEMENT AND THE CIRCULATORY ROADWAY



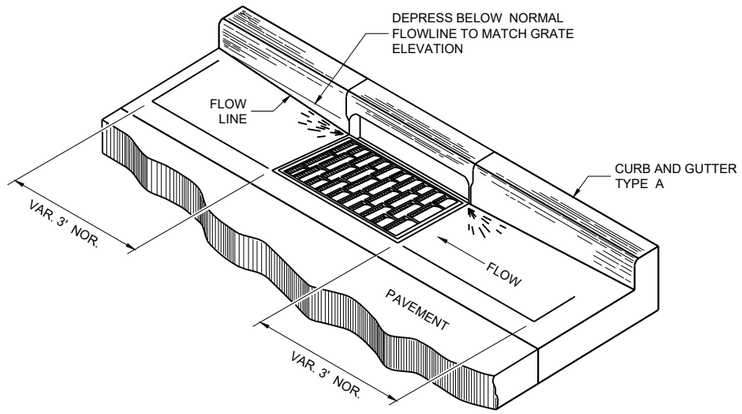
3" SLOPED CURB TYPES R (1) & T

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



END SECTION CURB 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.

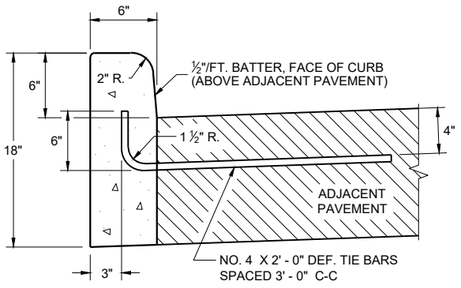
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

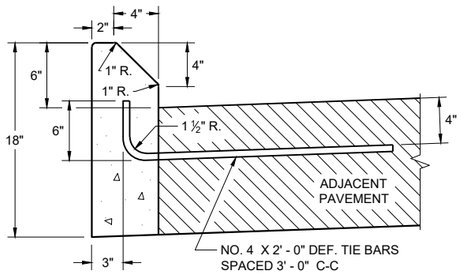
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

(11) PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.

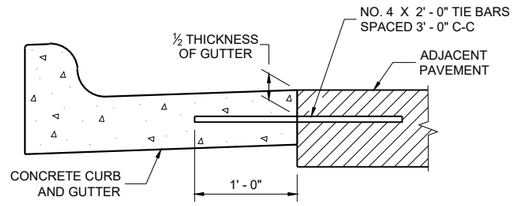


TYPES A (1) & D

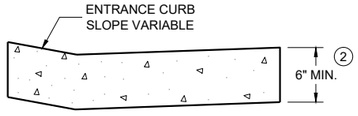


TYPES G (1) & J

CONCRETE CURB

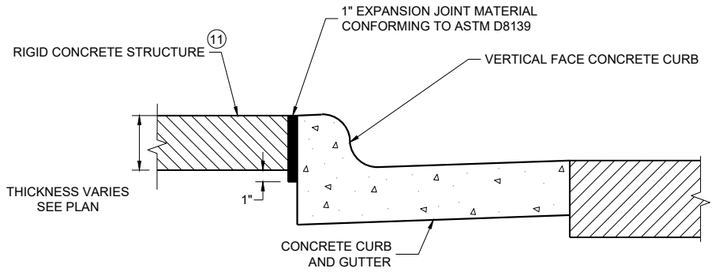


TYPICAL TIE BAR LOCATION (1)

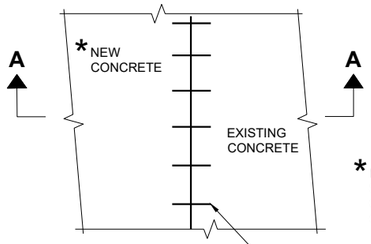


DRIVEWAY ENTRANCE CURB (10)

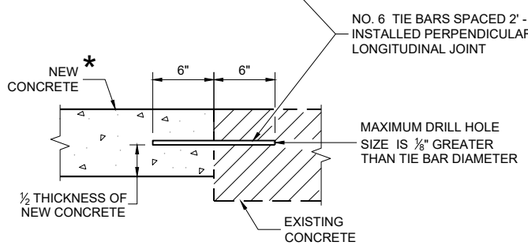
(WHEN DIRECTED BY THE ENGINEER)



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

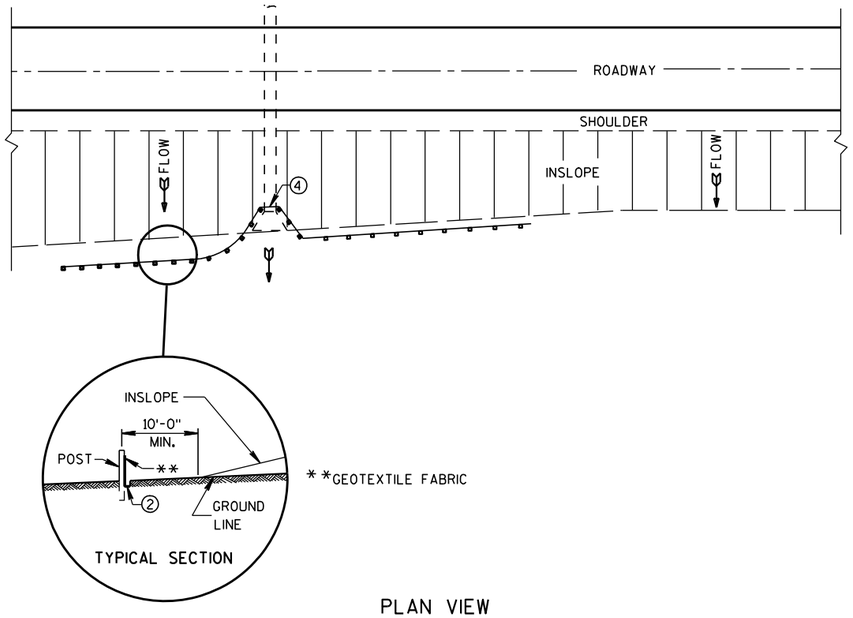
FHWA

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SDD 08D01-24b

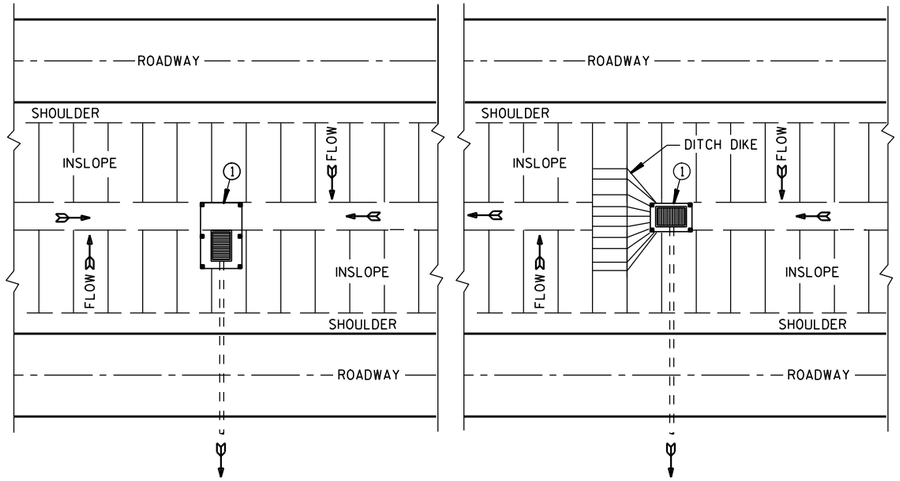
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SDD 08D01-24b



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

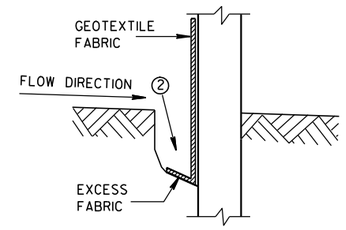
(1) HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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

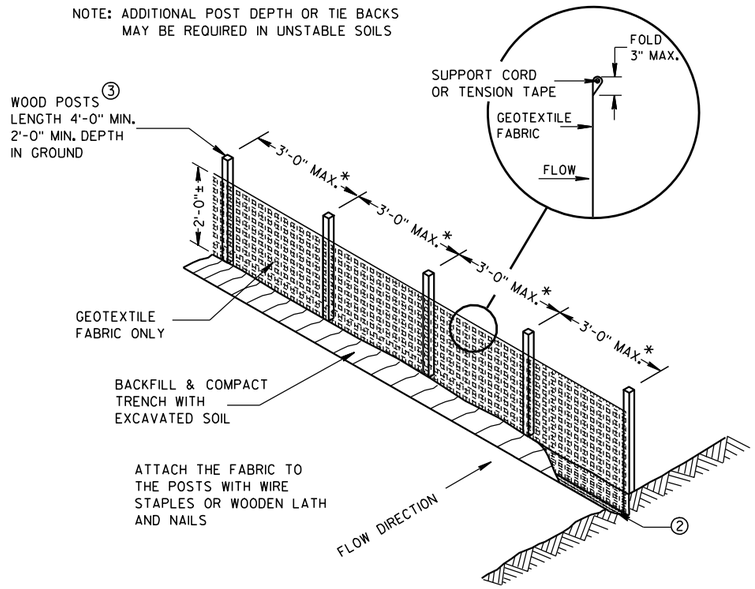
(3) WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

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

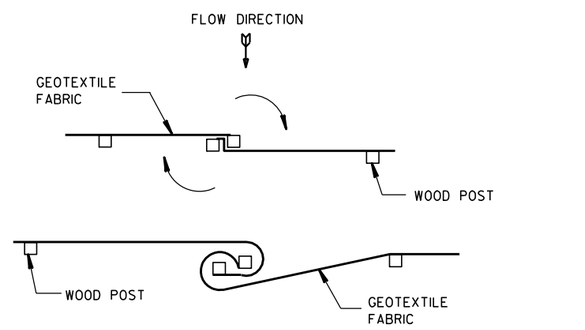


TRENCH DETAIL

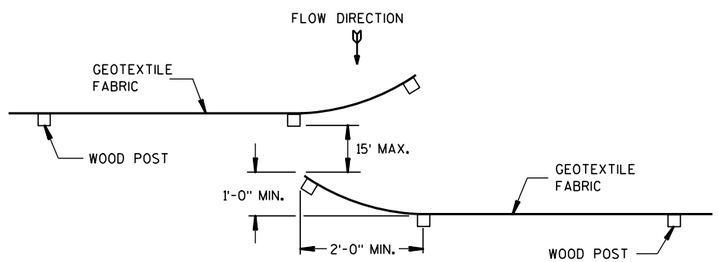


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

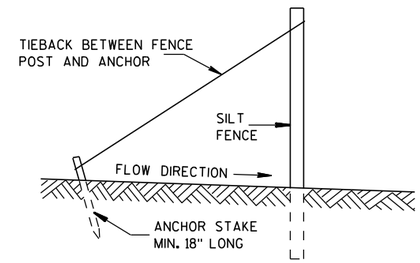


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

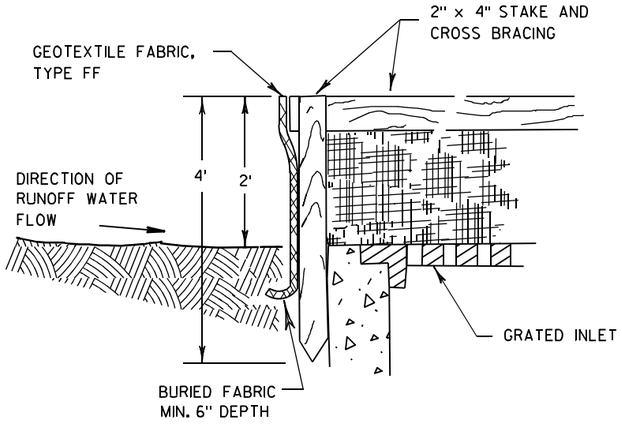
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

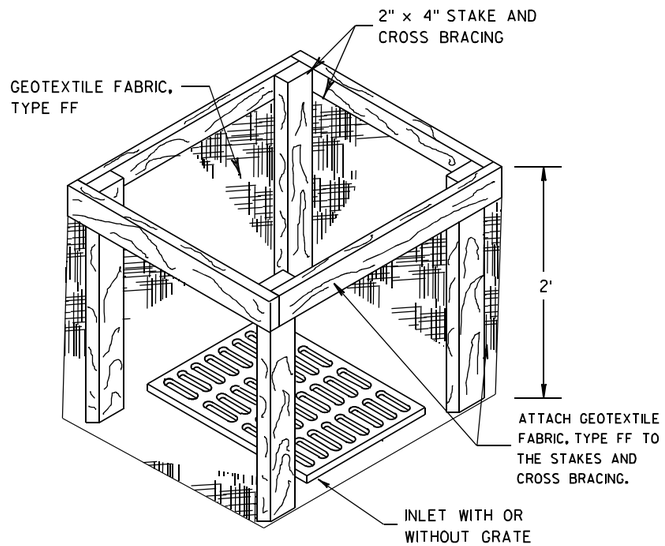
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S.D.D. 8 E 9-6

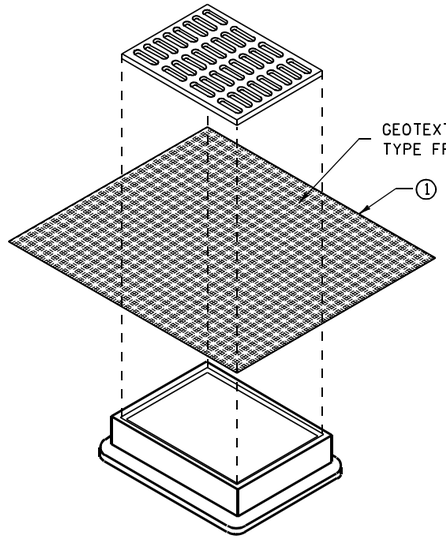
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S.D.D. 8 E 9-6



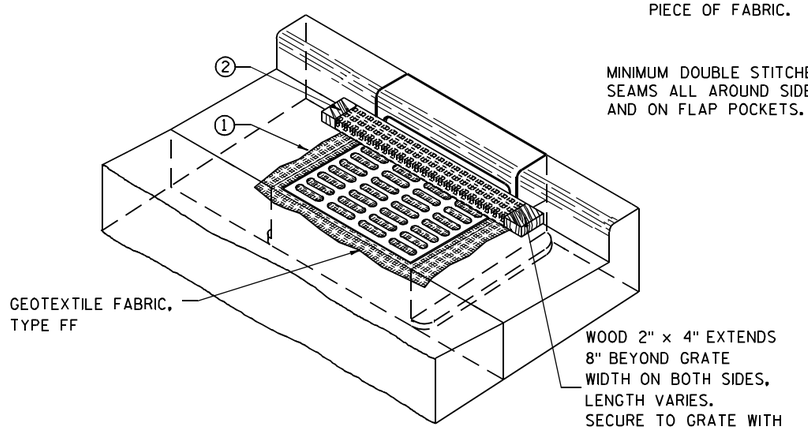


INLET PROTECTION, TYPE A

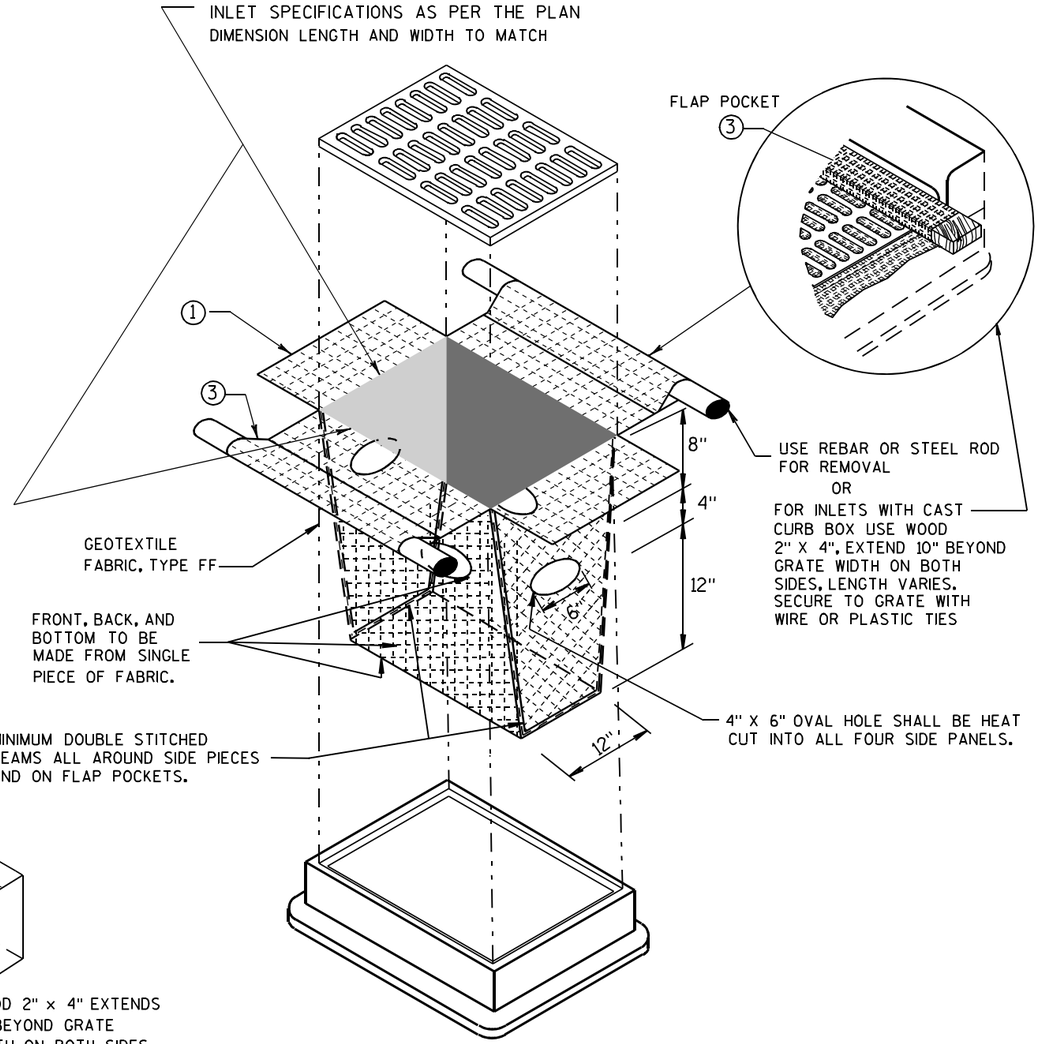


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

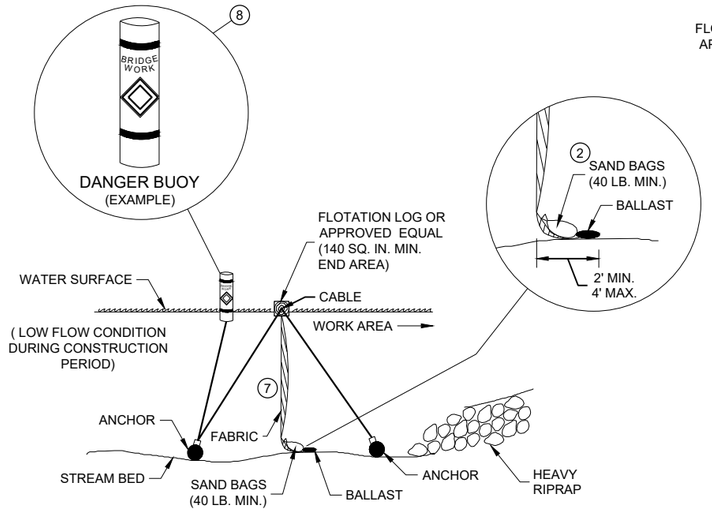
10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

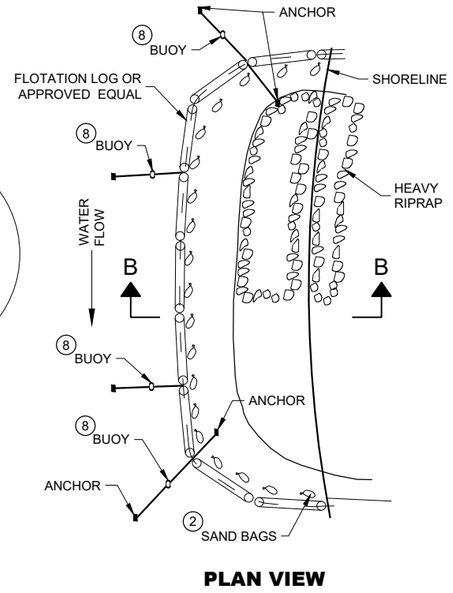
FHWA

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S.D.D. 8 E 10-2

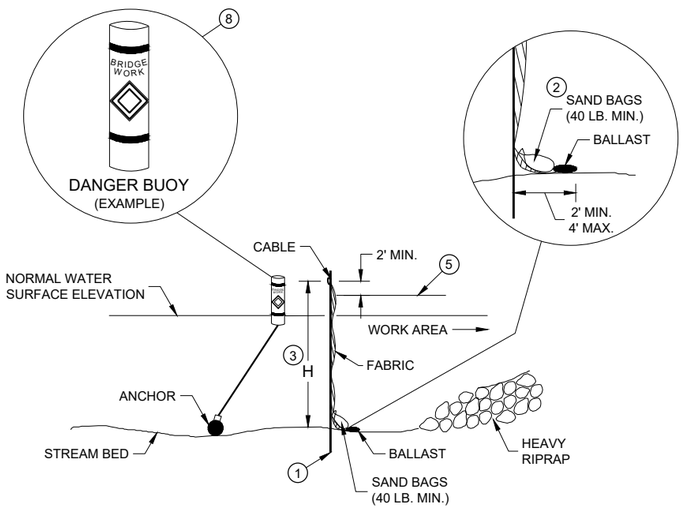


SECTION B - B

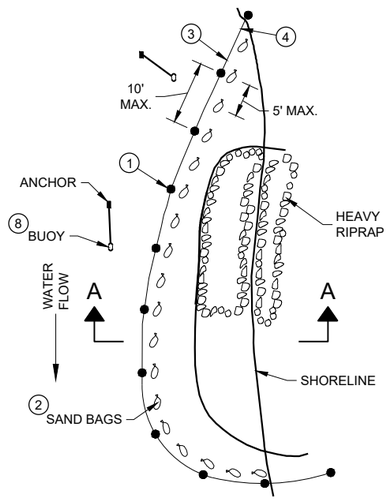


PLAN VIEW

TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A - A



PLAN VIEW

TURBIDITY BARRIER - STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

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.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

(1) DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

(2) SAND BAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

(3) WHEN BARRIER HEIGHT "H" EXCEEDS 8 FEET, POST SPACING MAY NEED TO BE DECREASED.

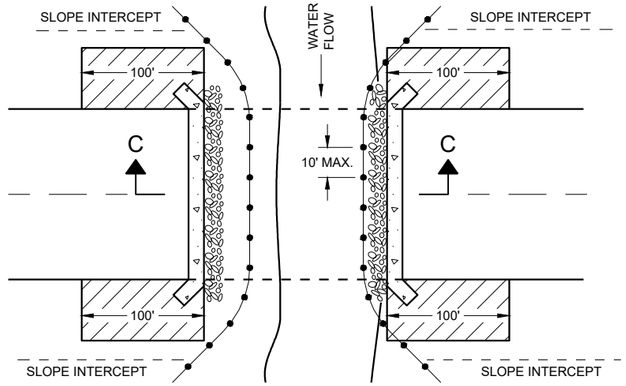
(4) IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

(5) ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.

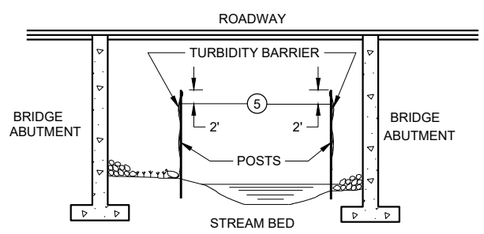
(6) FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.

(7) ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

(8) USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C - C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

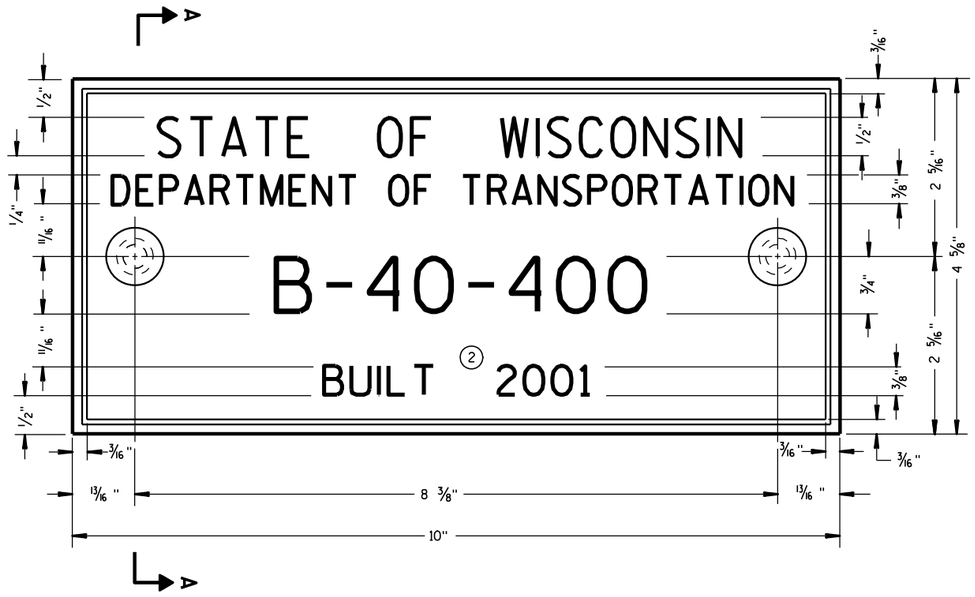
TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/4/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOI
ENGINEER

FHWA

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SDD 08E11 - 02



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

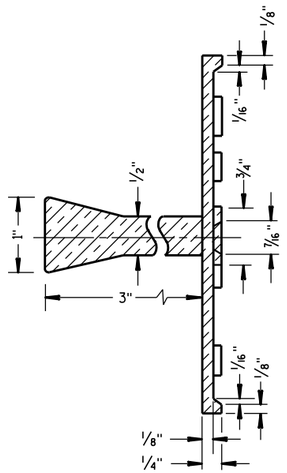
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

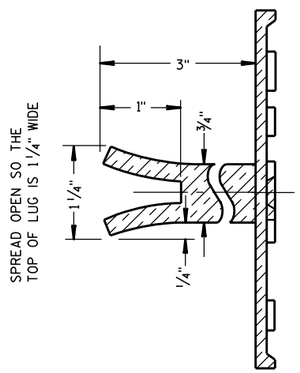
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

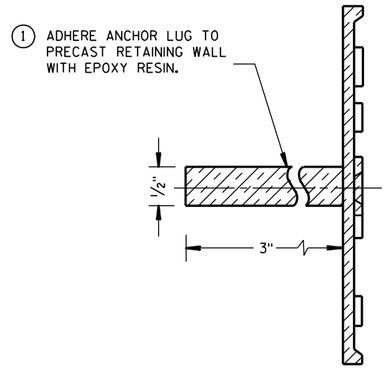
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER

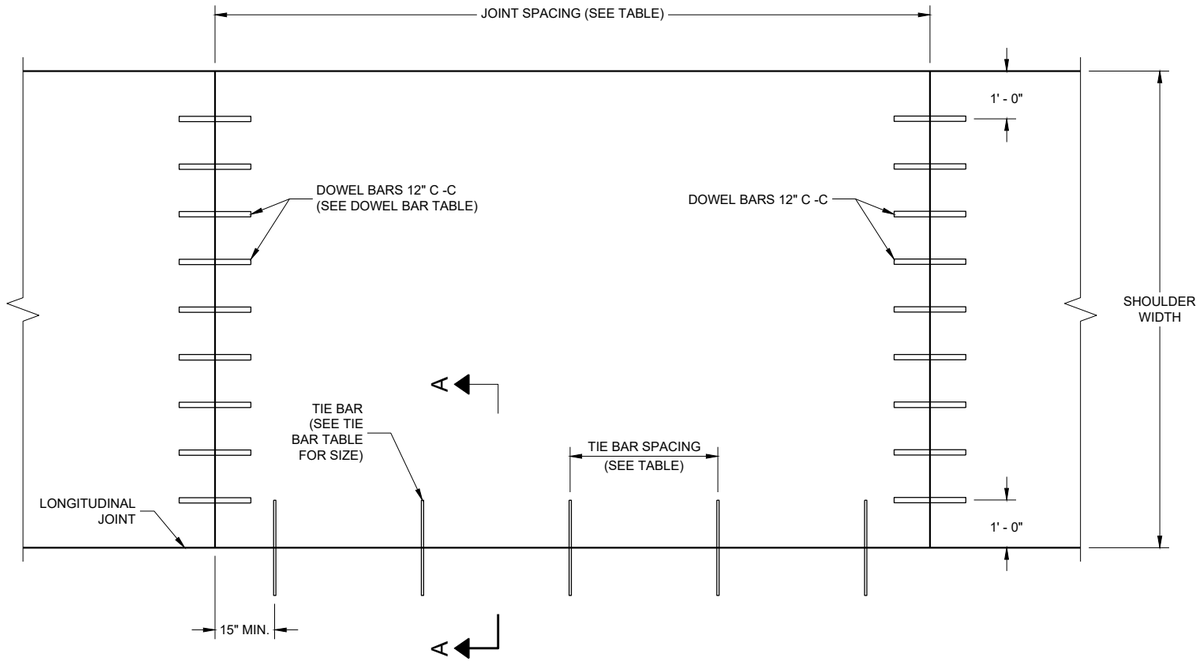
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S.D.D. 12 A 3-10

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S.D.D. 12 A 3-10



PLAN VIEW

CONCRETE PAVEMENT SHOULDER

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
<10 ½"	NO. 4	30"	36"
>10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

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

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

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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

*** FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FRO THE AVERAGE THICKNESS OF THE CROSS SECTION.

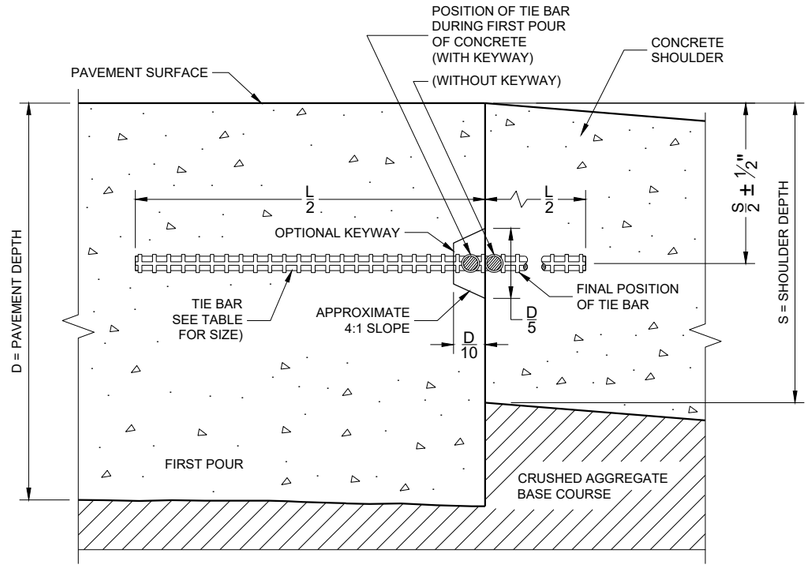
GENERAL NOTES

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

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A - A

LONGITUDINAL CONSTRUCTION JOINT

CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

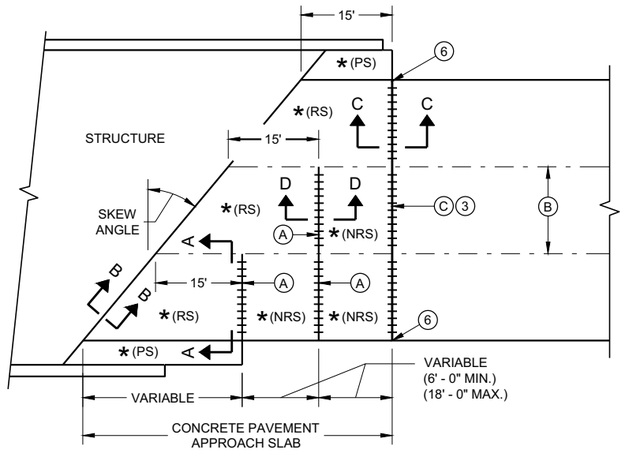
APPROVED
November 2022
DATE

/S/ Peter Kemp
PAVEMENT SUPERVIS

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SDD 13A03 - 07



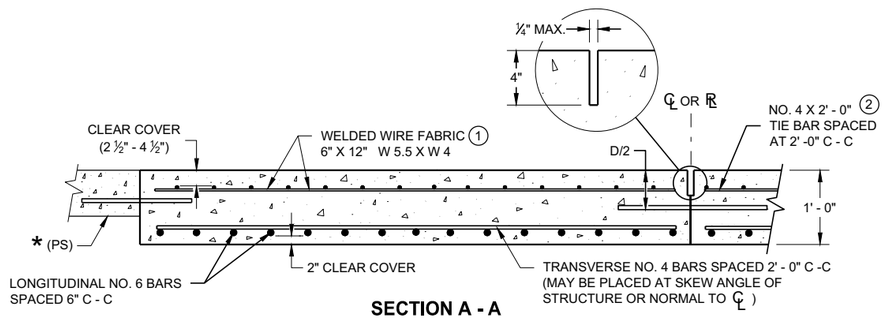
SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)

* (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

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.

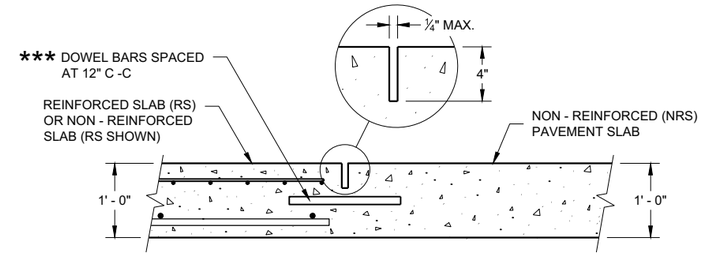
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

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

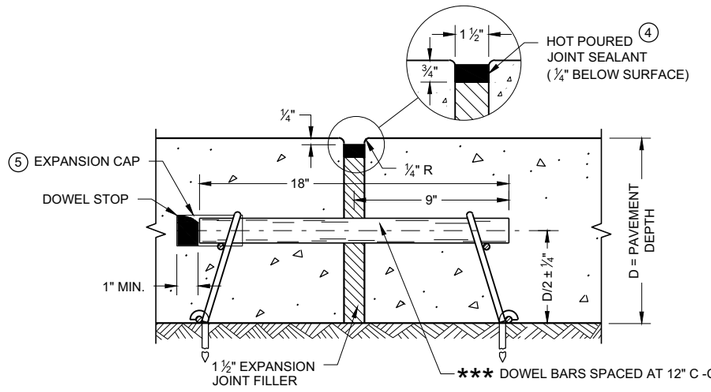
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

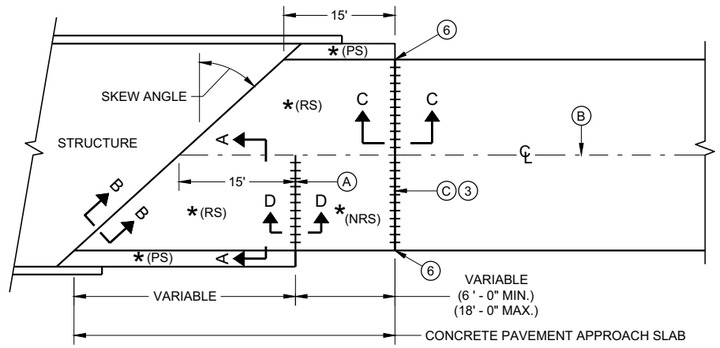
(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞ .



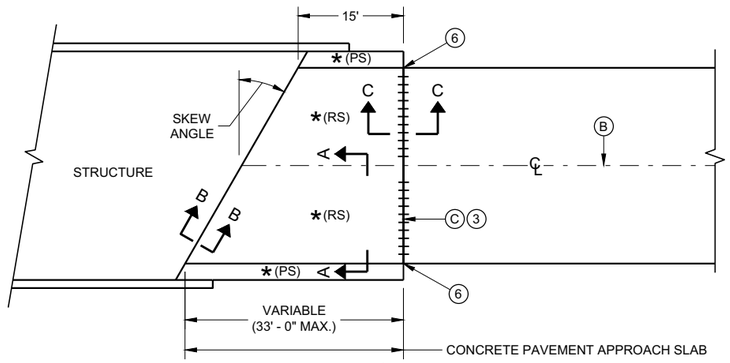
SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

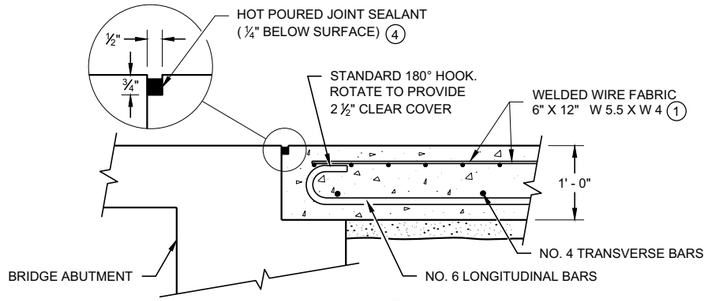


SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')

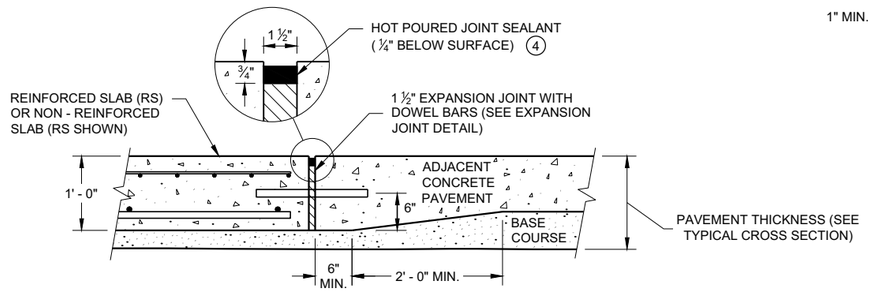


SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

APPROACH SLAB AND ADJACENT PAVEMENT



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

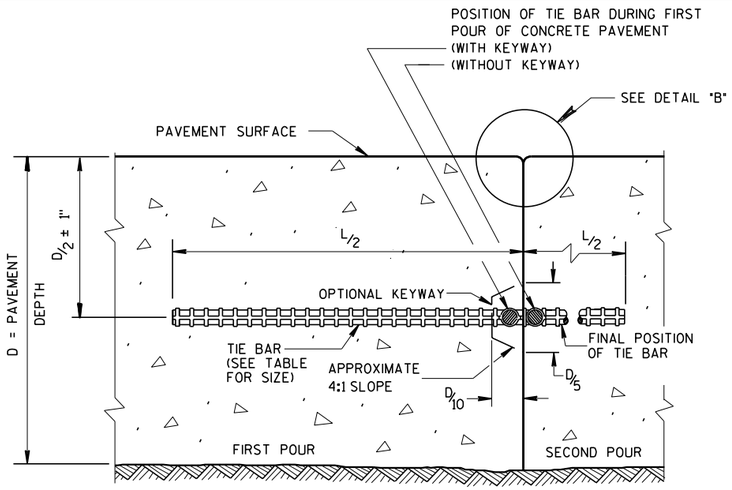
APPROVED
November 2018
DATE

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

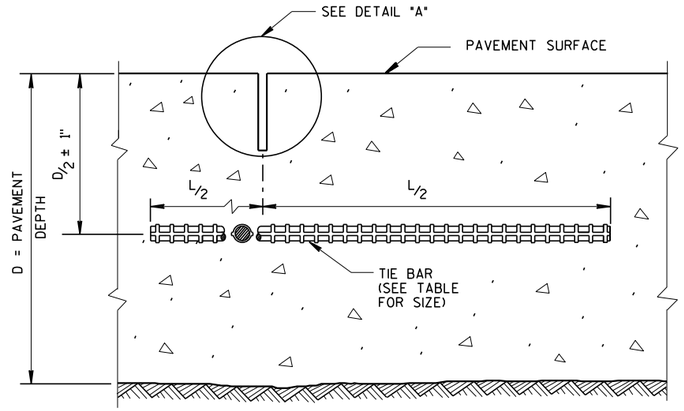
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SDD 13B02 - 09a



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.

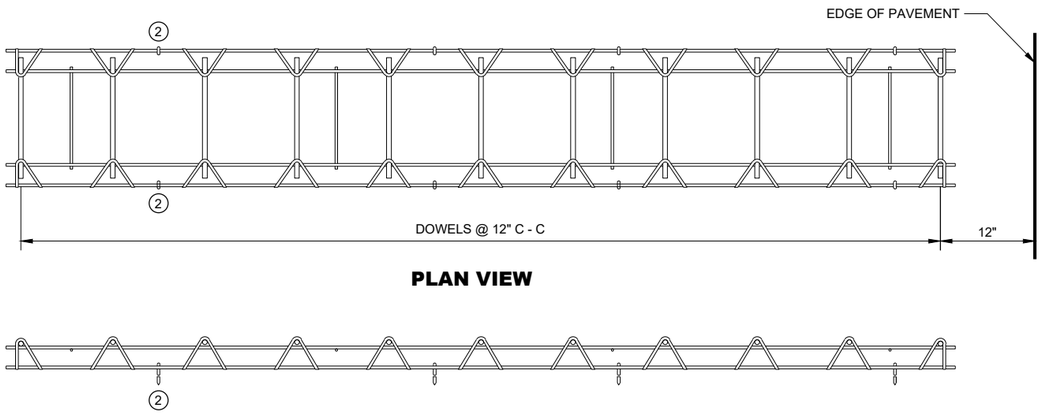
PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

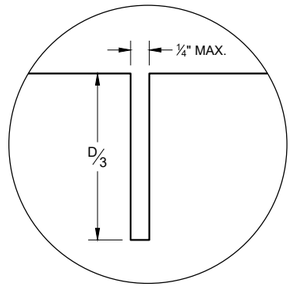
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S.D.D. 13 C 1-19



PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY (1)



JOINT DETAIL

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 FROM AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

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

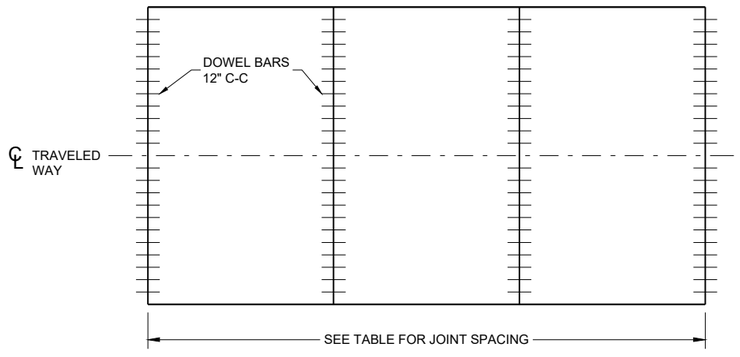
(3) FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼" RADIUS AT FORMED JOINTS.

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

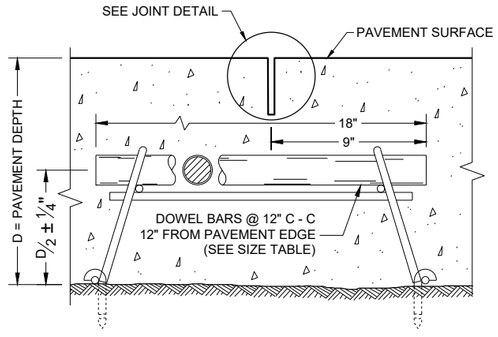
(5) INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C - C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO THE "DRILLED 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 AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛" GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



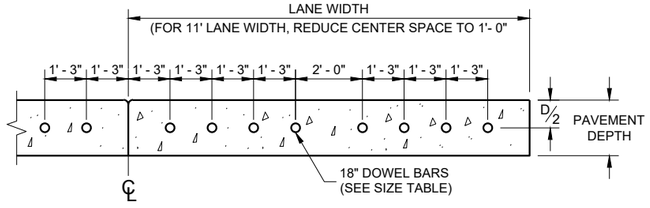
CONTRACTION JOINT LOCATIONS



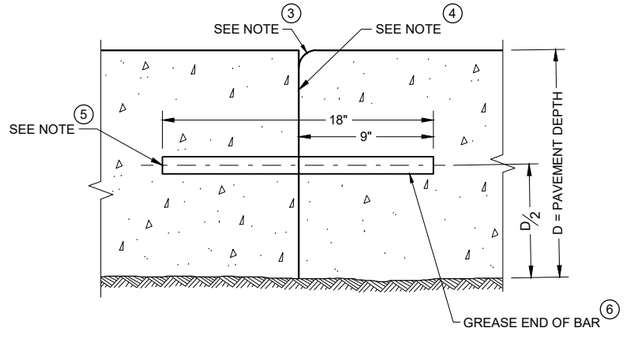
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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



DRILLED DOWEL BAR CONSTRUCTION JOINT (7)



TRANSVERSE CONSTRUCTION JOINT

URBAN DOWELED CONCRETE PAVEMENT

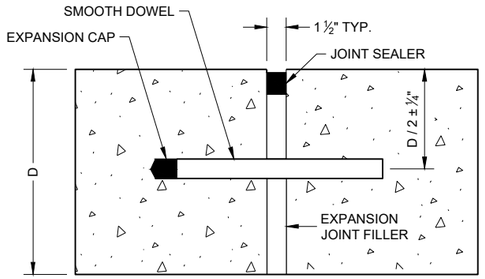
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

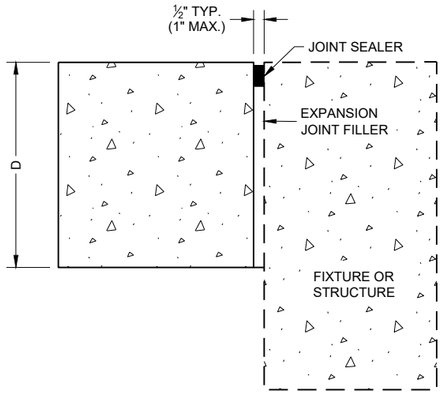
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

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SDD 13C13 - 11



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

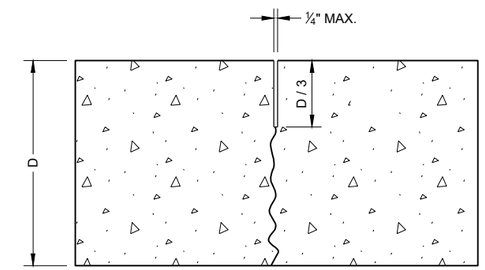
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

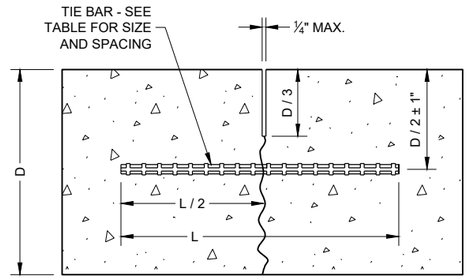
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

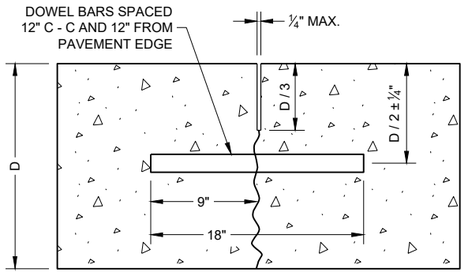
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



UNDOWELED TRANSVERSE

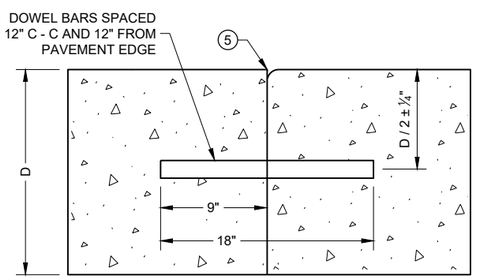


TIED LONGITUDINAL

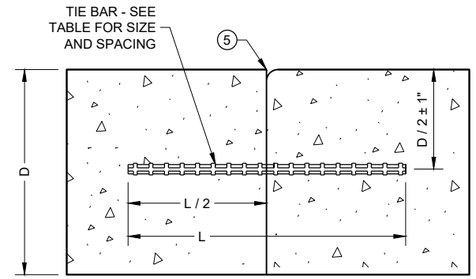


DOWELED TRANSVERSE

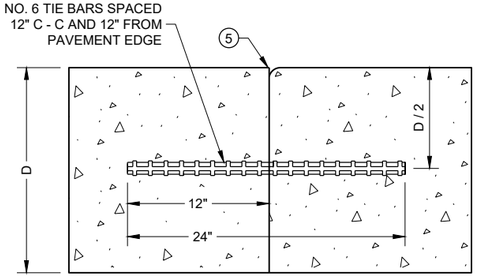
CONTRACTION JOINTS (2)



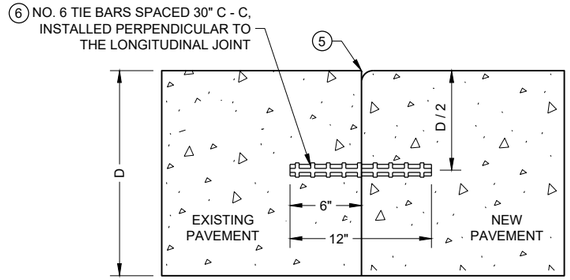
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



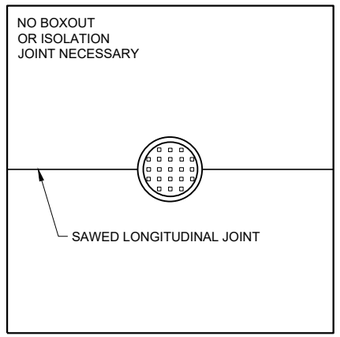
TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



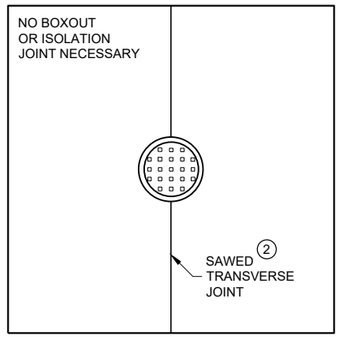
TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS (4)

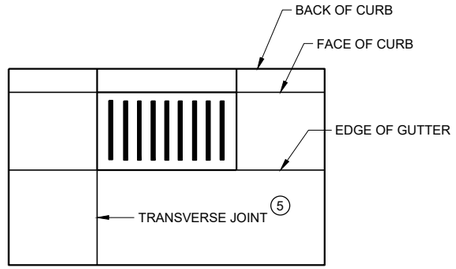
CONCRETE PAVEMENT JOINT TYPES



MANHOLE WITH LONGITUDINAL JOINT



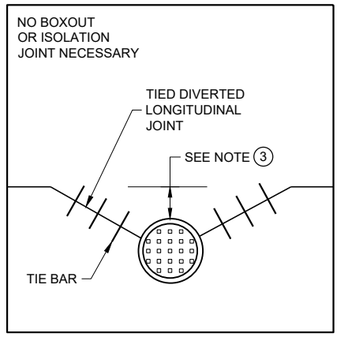
MANHOLE WITH TRANSVERSE JOINT



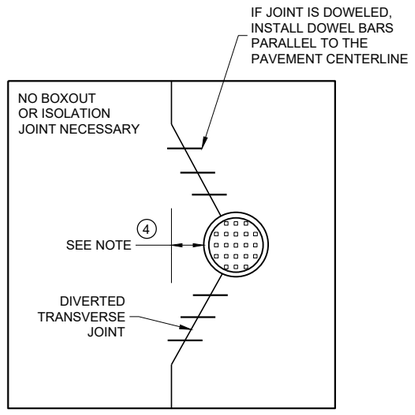
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

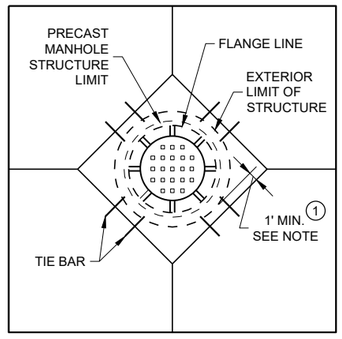
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

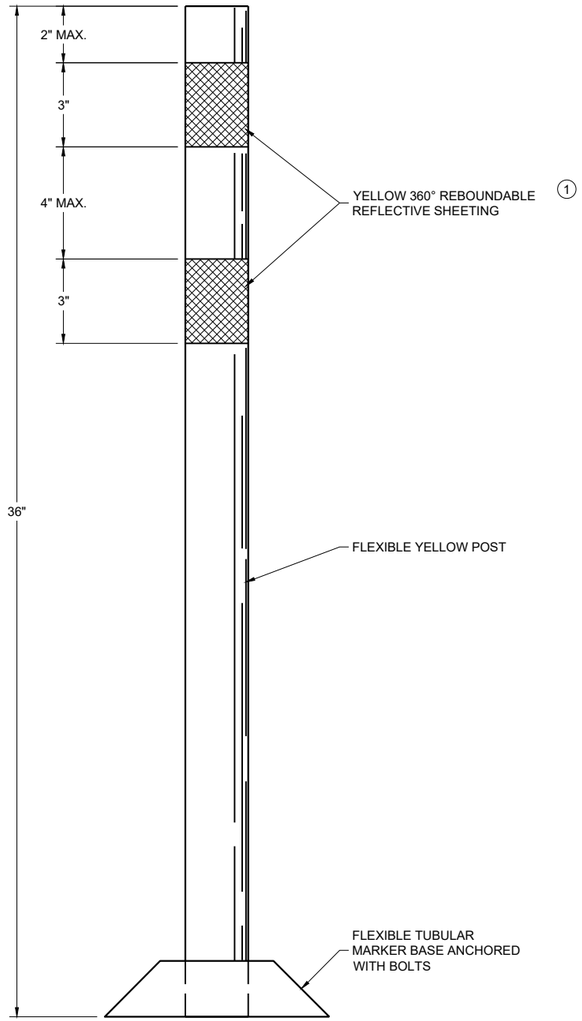
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

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SDD13C18 - 08d

SDD13C18 - 08d



PERMANENT FLEXIBLE TUBULAR MARKER POST

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

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

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SDD 15A04-08d

CHANNELIZING DEVICES
PERMANENT FLEXIBLE
TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

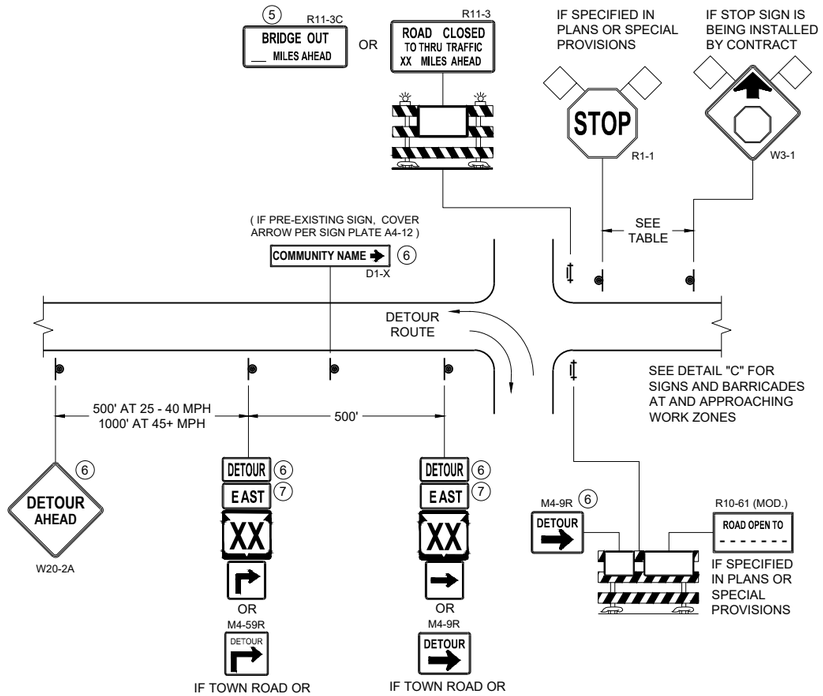
APPROVED
March 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

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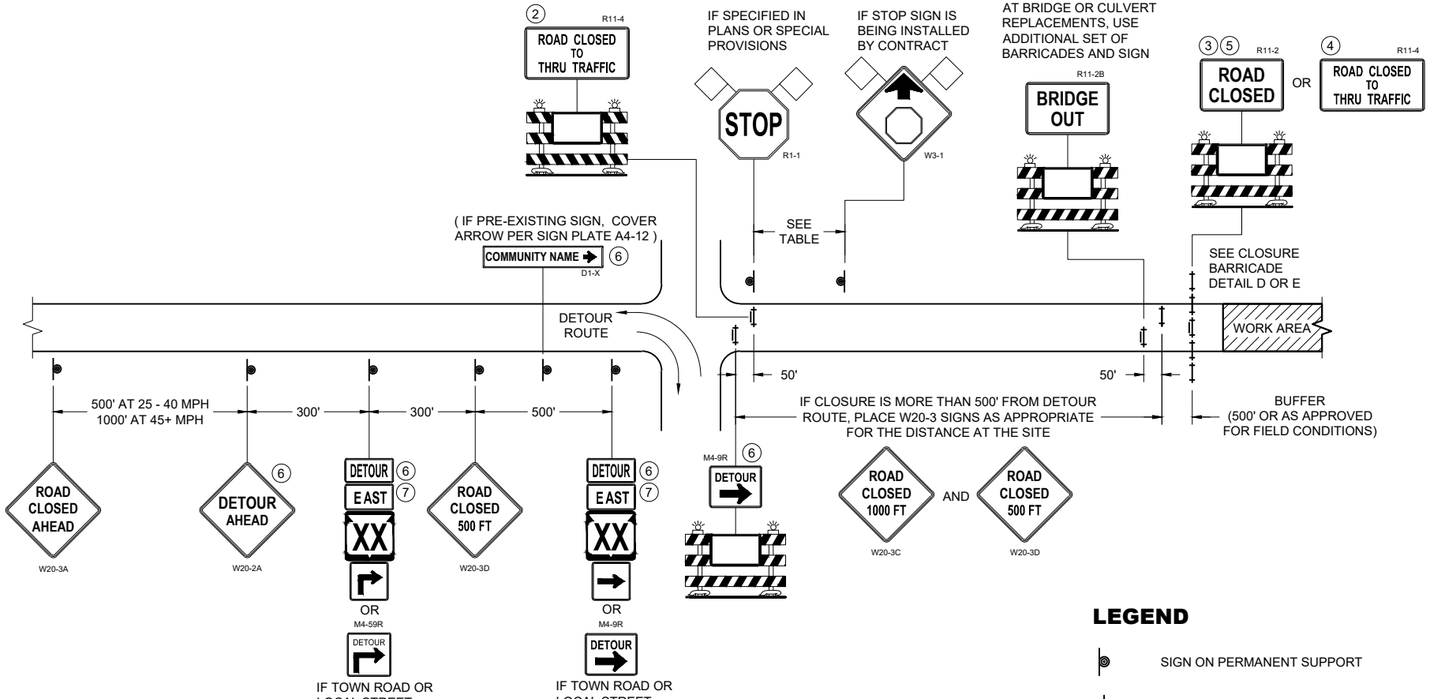
SDD 15A04-08d



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

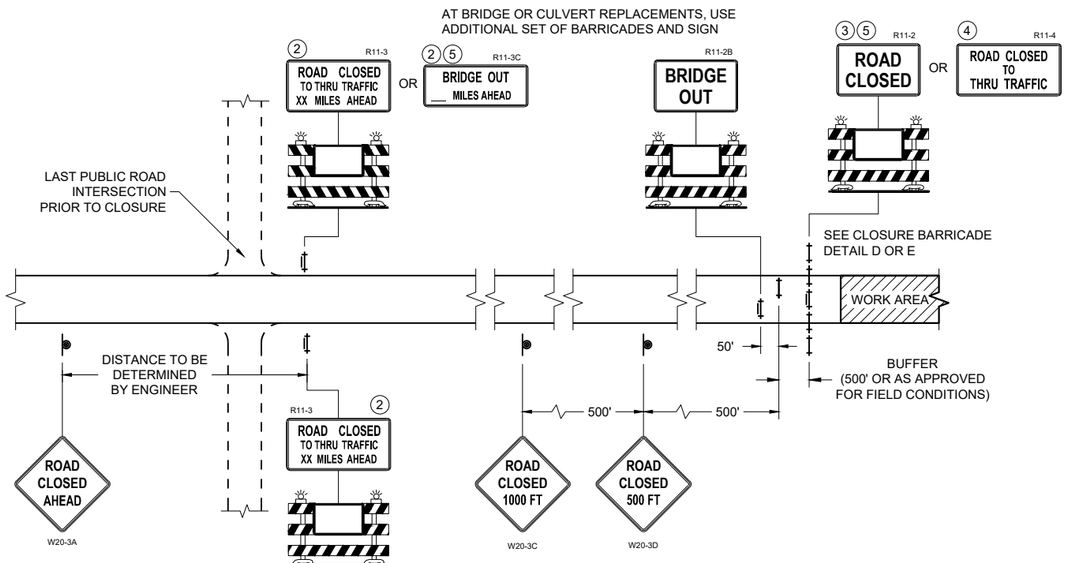
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES (1) THROUGH (7)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

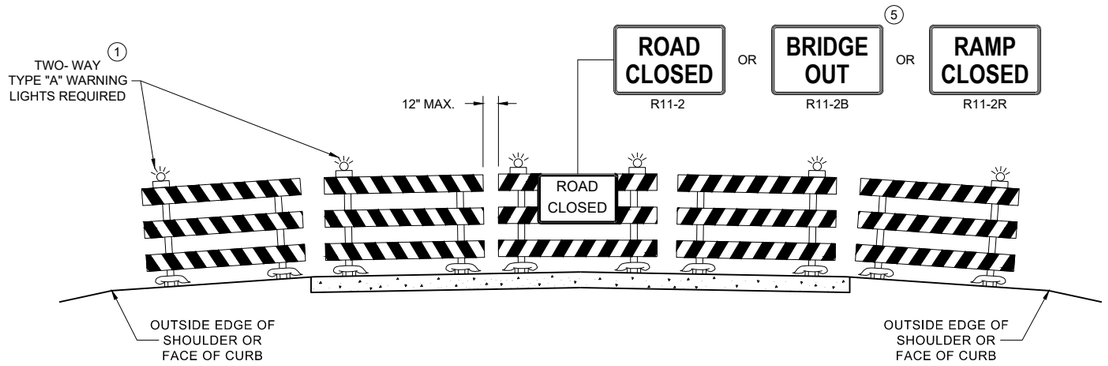
DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

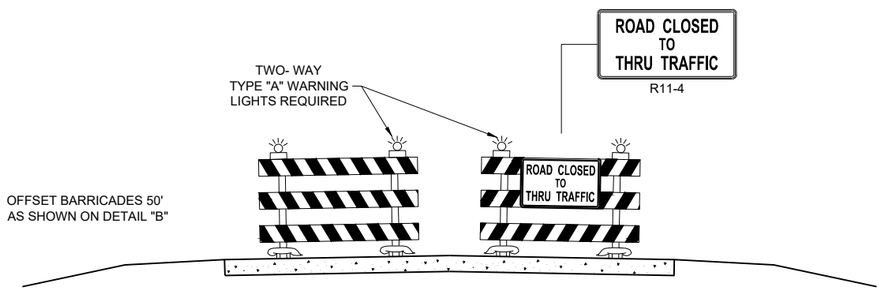
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SDD 15C02-10a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

PARTIAL NUMBERS ON SIGNS SHALL BE DISPLAYED AS A WHOLE NUMBER(AS NEEDED) FOLLOWED BY A FRACTION. SIGNS SHALL NOT DISPLAY NUMBERS IN DECIMAL FORM.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

SIGNS PLACED ON TYPE III BARRICADES THAT ARE SIZES OTHER THAN 48"X30" SHALL HAVE A CORRUGATED POLYPROPYLENE OR POLYETHYLENE PLASTIC SIGN BASE.

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

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SDD 15C02-10b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
- M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

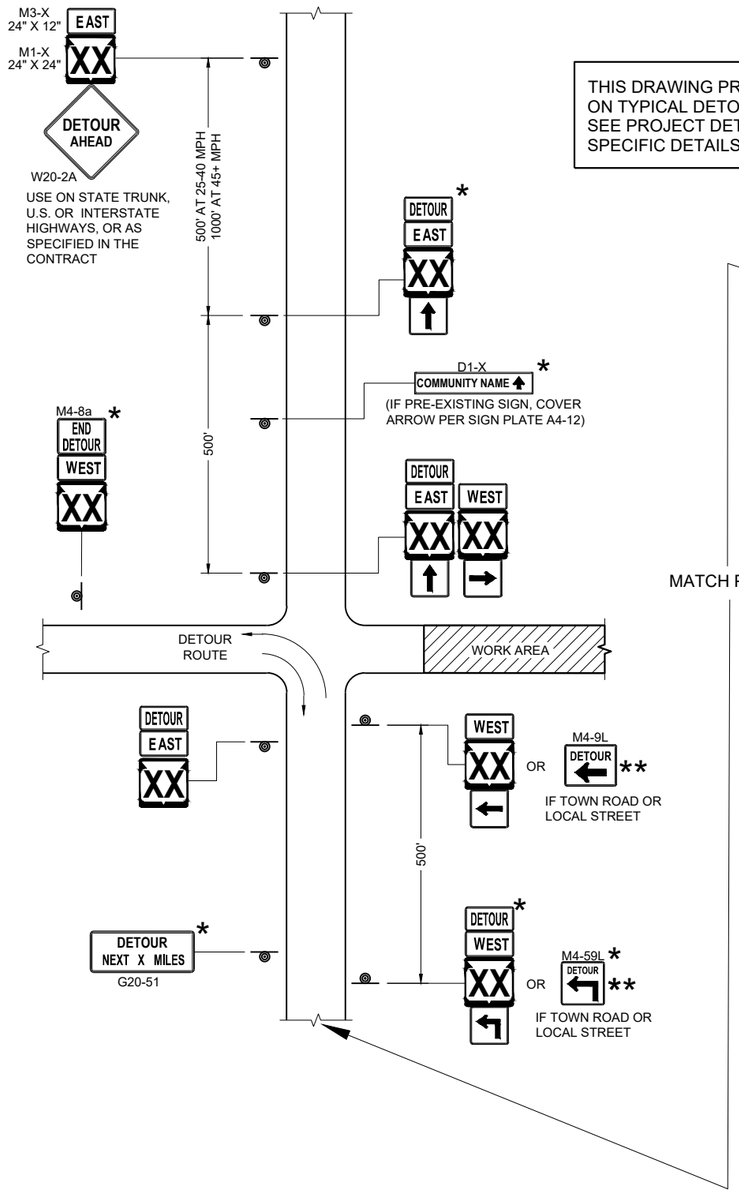
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

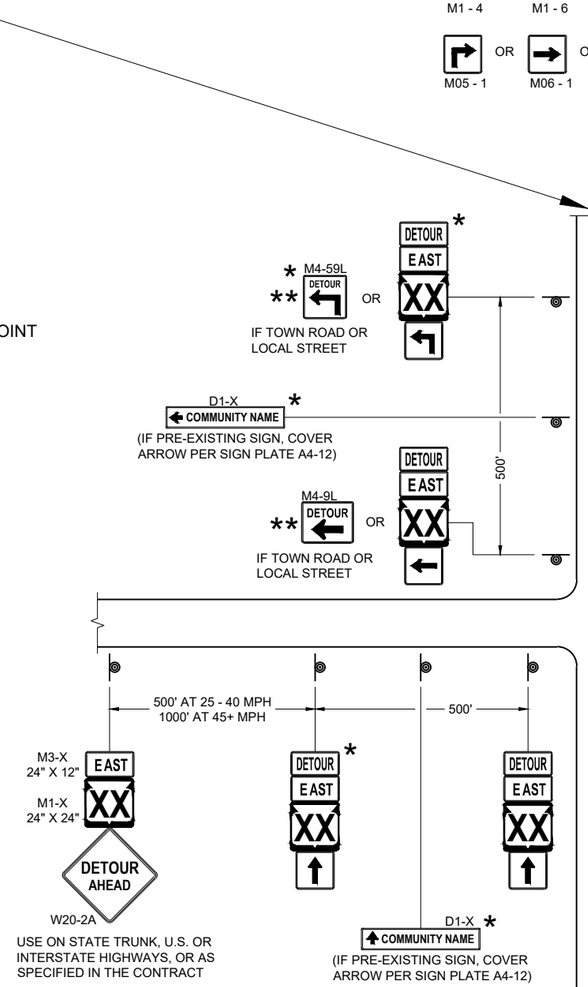
SIGN SIZES SHALL BE AS FOLLOWS:

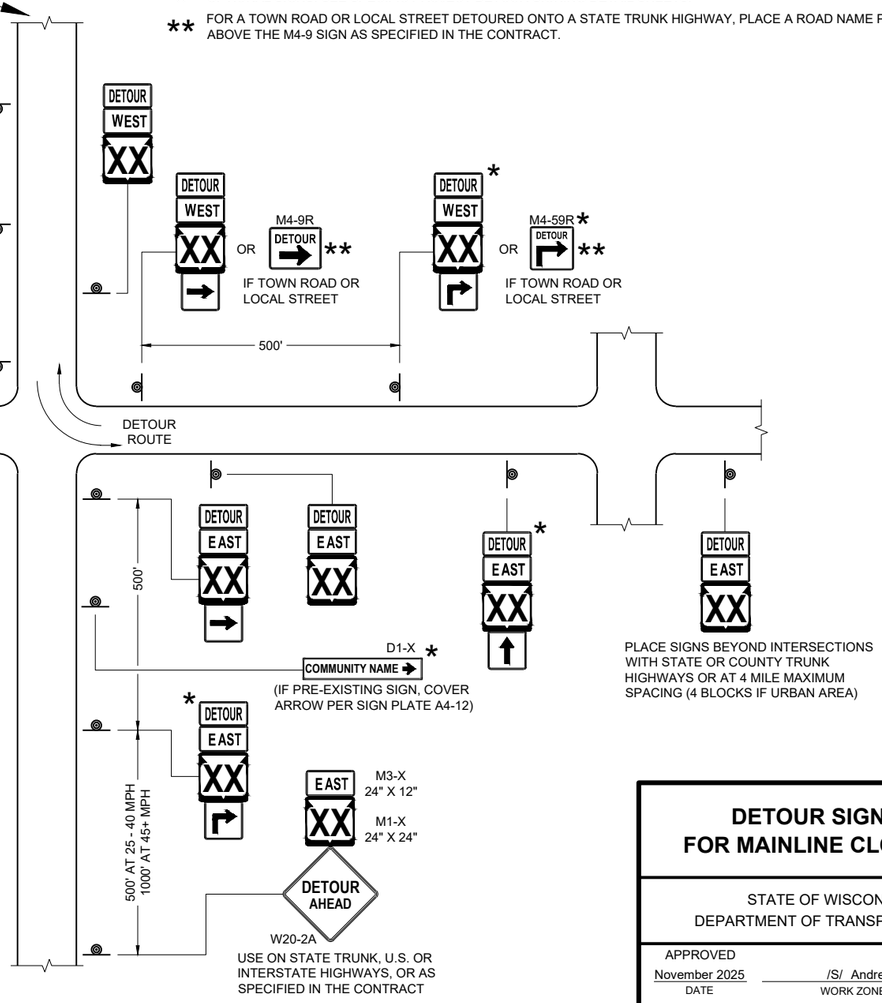
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.







SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

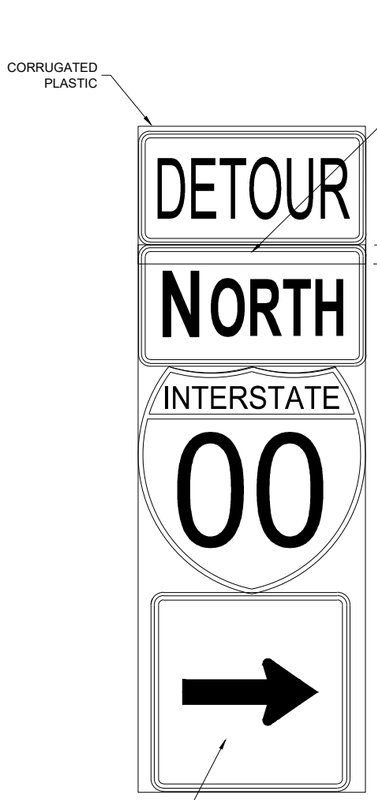
APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

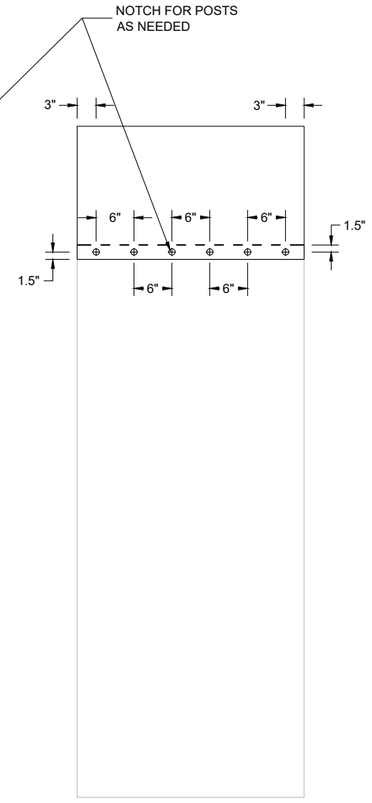
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SDD 15C02-10c

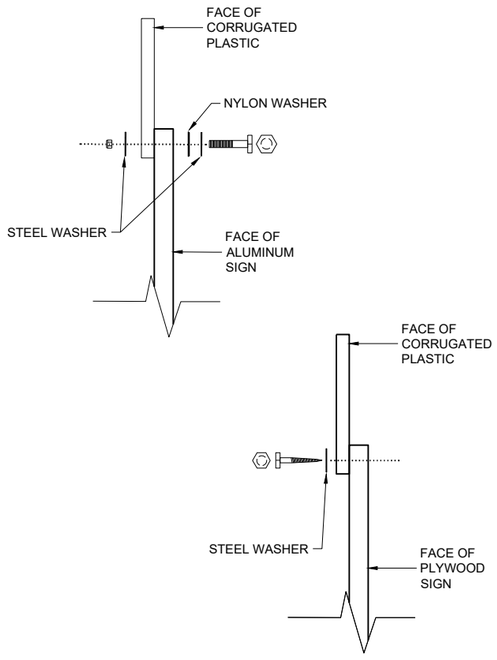
FRONT SIDE



BACK SIDE



SIDE VIEW



GENERAL NOTES

CELLS OF CORRUGATED PLASTIC SHALL BE VERTICALLY ORIENTED.

PROVIDE A 0.4-INCH THICK BASE CORRUGATED PLASTIC WITH A 0.035-INCH WALL THICKNESS AND 0.4-INCH CELL SIZE.

FOR 36" WIDE SIGNS: USE 6 FASTENERS AS SHOWN.

FOR 24" WIDE SIGNS: USE 4 FASTENERS WITH EDGE SPACING AS SHOWN AND 6" SPACING BETWEEN FASTENERS.

METAL WASHERS, NUTS, BOLTS AND LAGS 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, SC3

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.

PLYWOOD SIGNS:
LAG SCREWS - 5/16" x 1"
ALUMINUM SIGNS:
MACHINE BOLTS - 5/16" x 1-1/4" LENGTH W/NUTS
WASHERS:
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

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

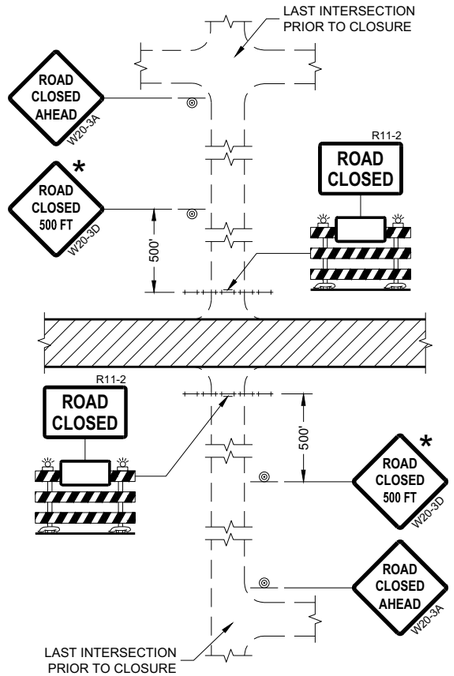
APPROVED
November 2025
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

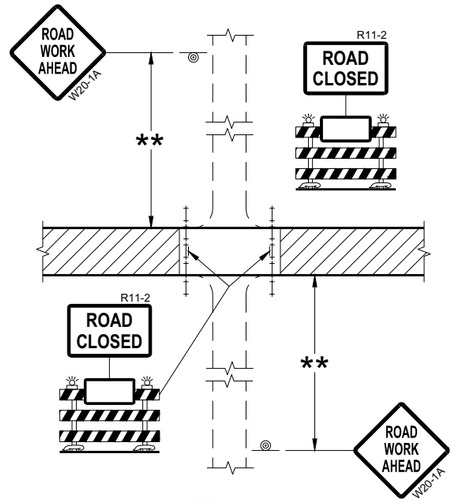
FHWA

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SDD 15C02-10h



DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

BARRICADES 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.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

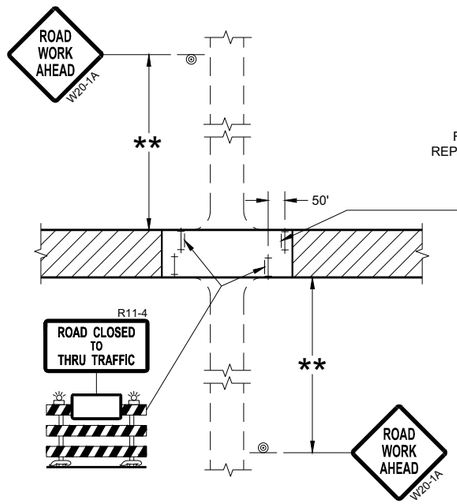
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

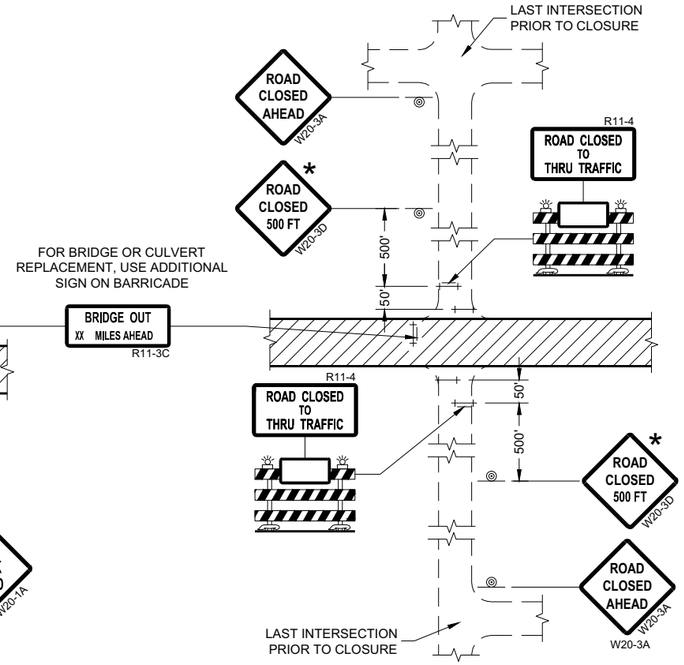
THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.





DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C03 - 05

6

SDD 15C03 - 05

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.

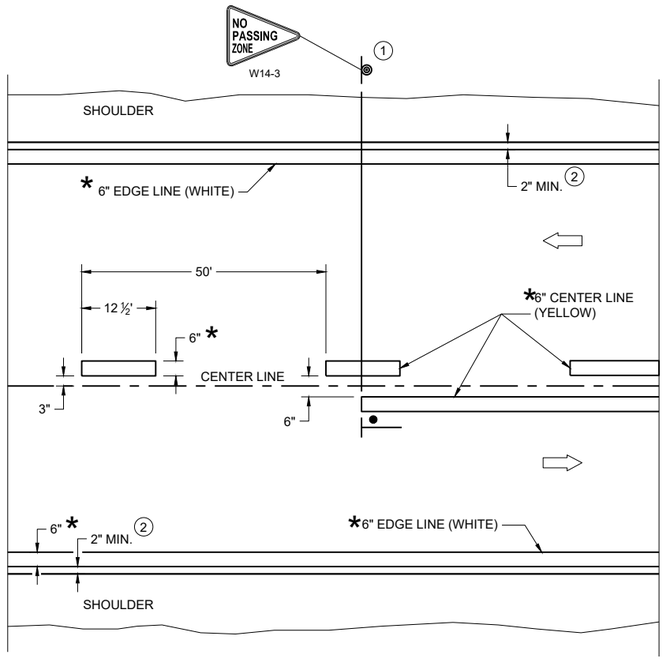
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

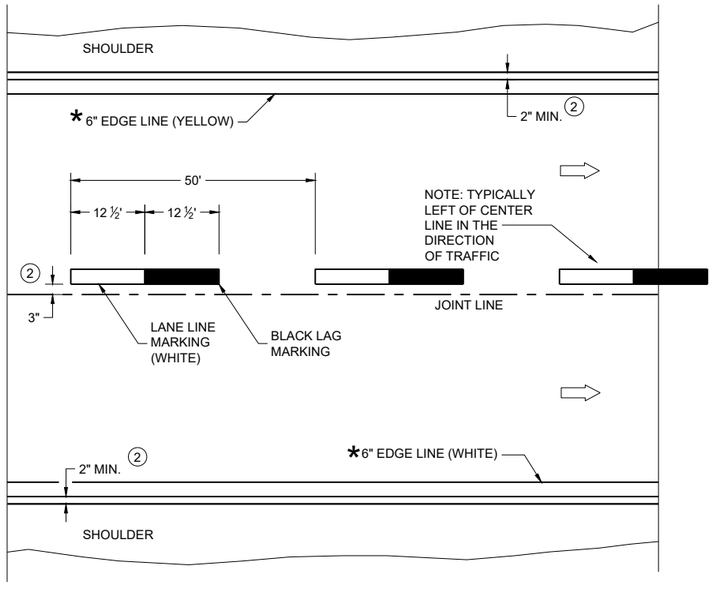
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024
DATE

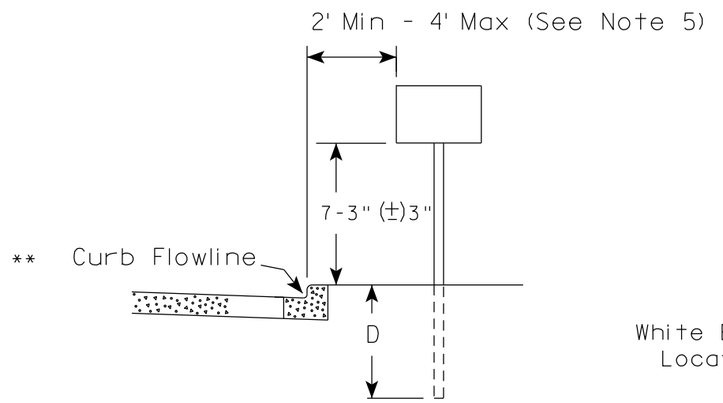
/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

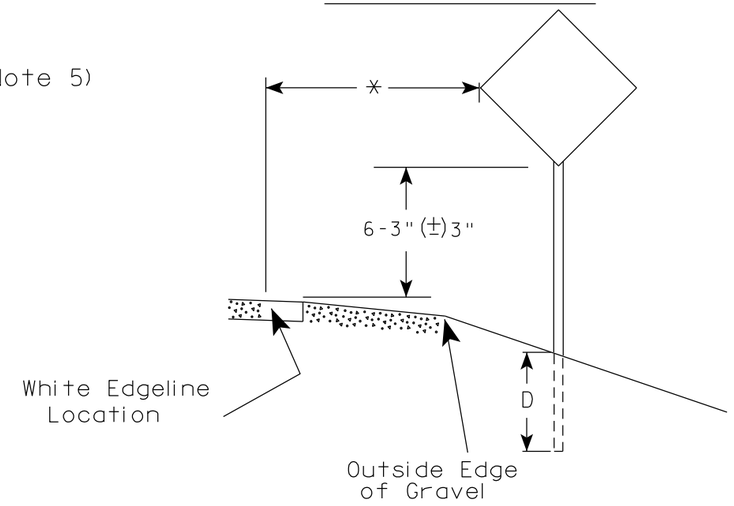
SDD 15C08-24a

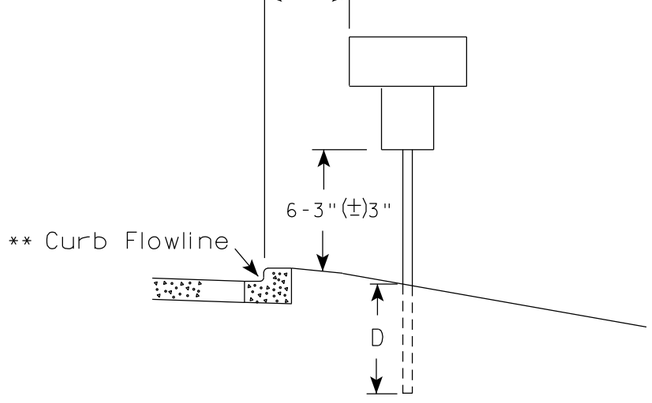
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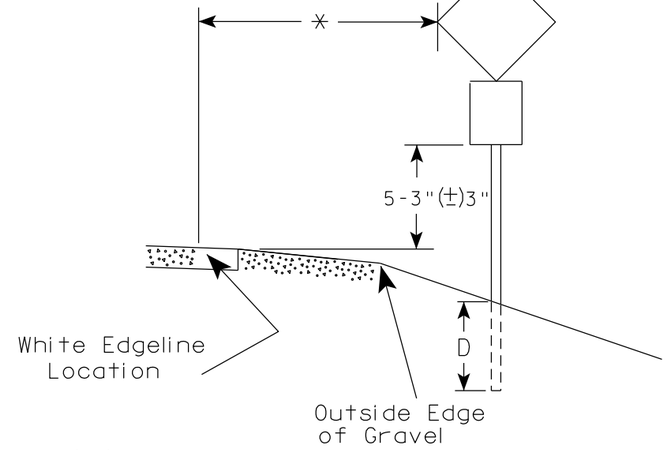
URBAN AREA



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" (±) 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".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directd by the Engineer.

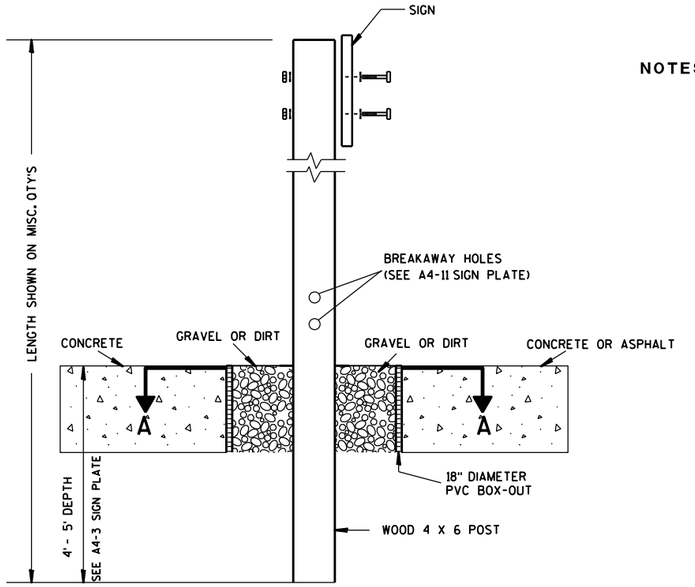
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

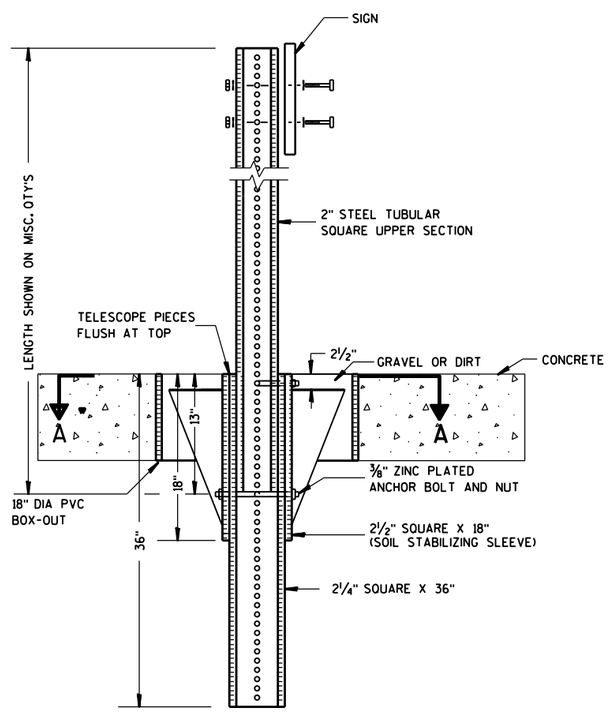
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 40	E



ELEVATION VIEW

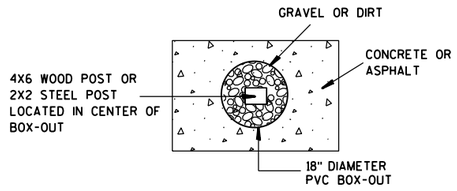
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

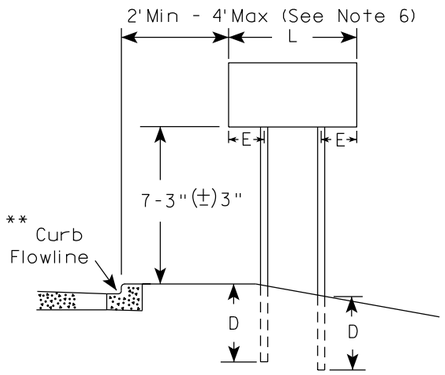
APPROVED Matthew R Rauch
for State Traffic Engineer

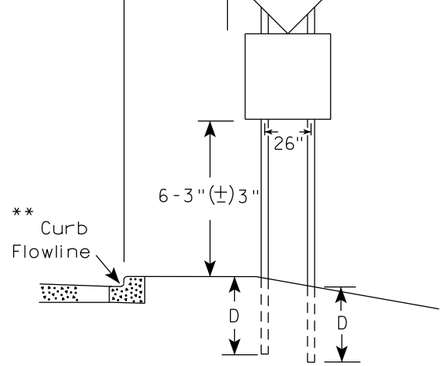
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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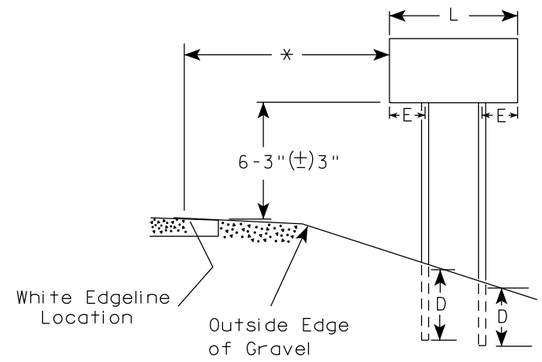
URBAN AREA

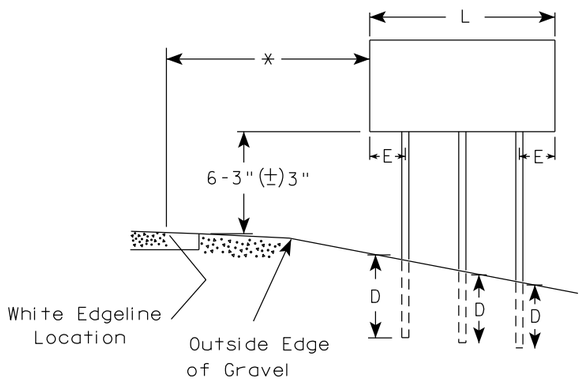


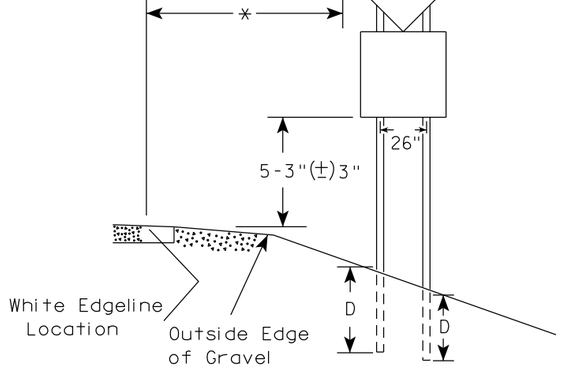


48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)







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" (±) 3" or 6'-3" (±) 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" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 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" (±) 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'

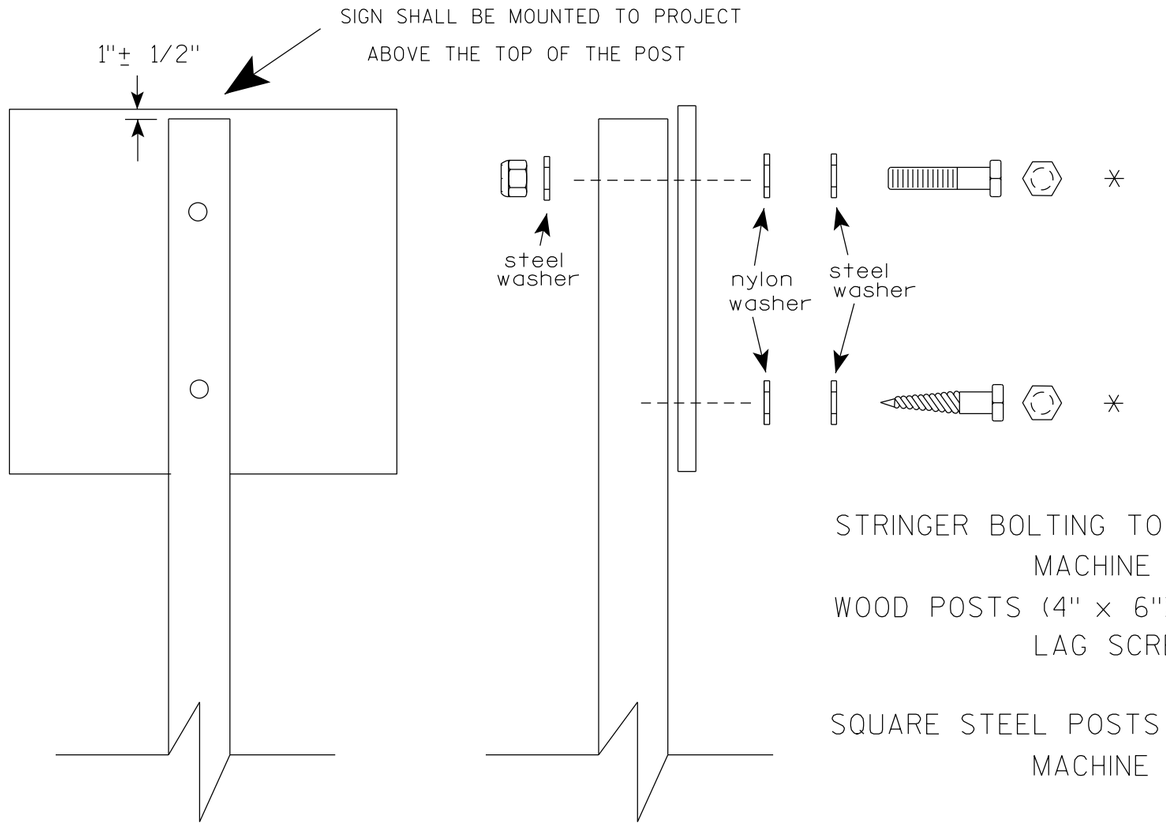
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 42	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

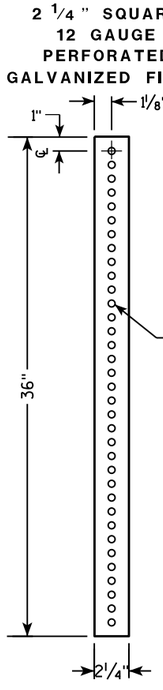
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

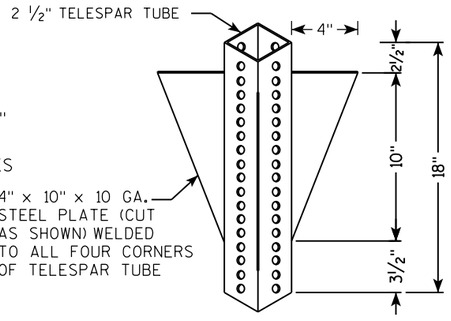
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

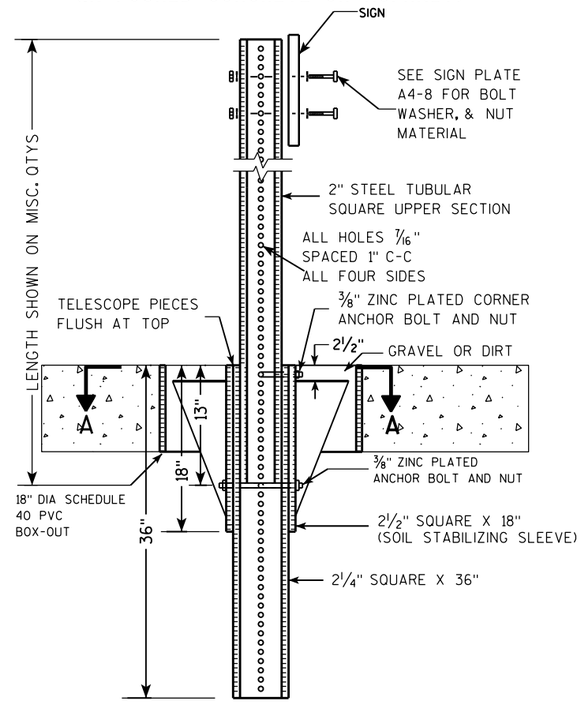
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



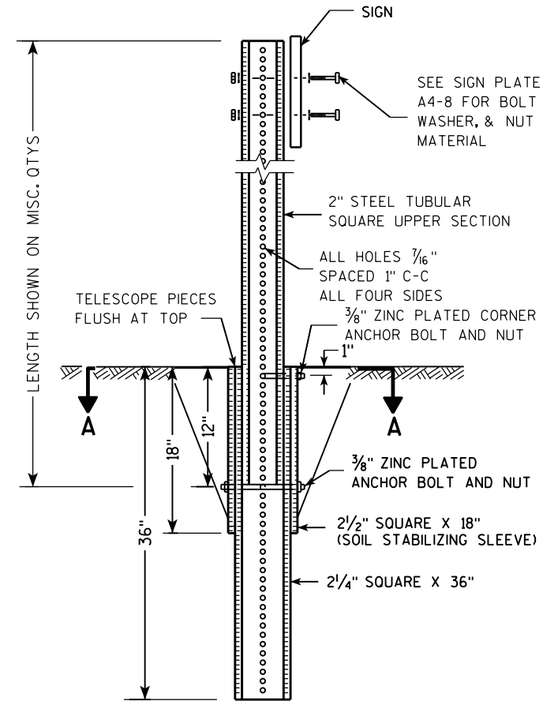
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

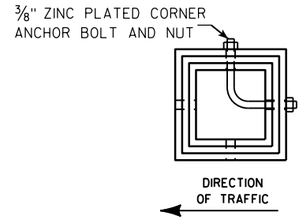


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

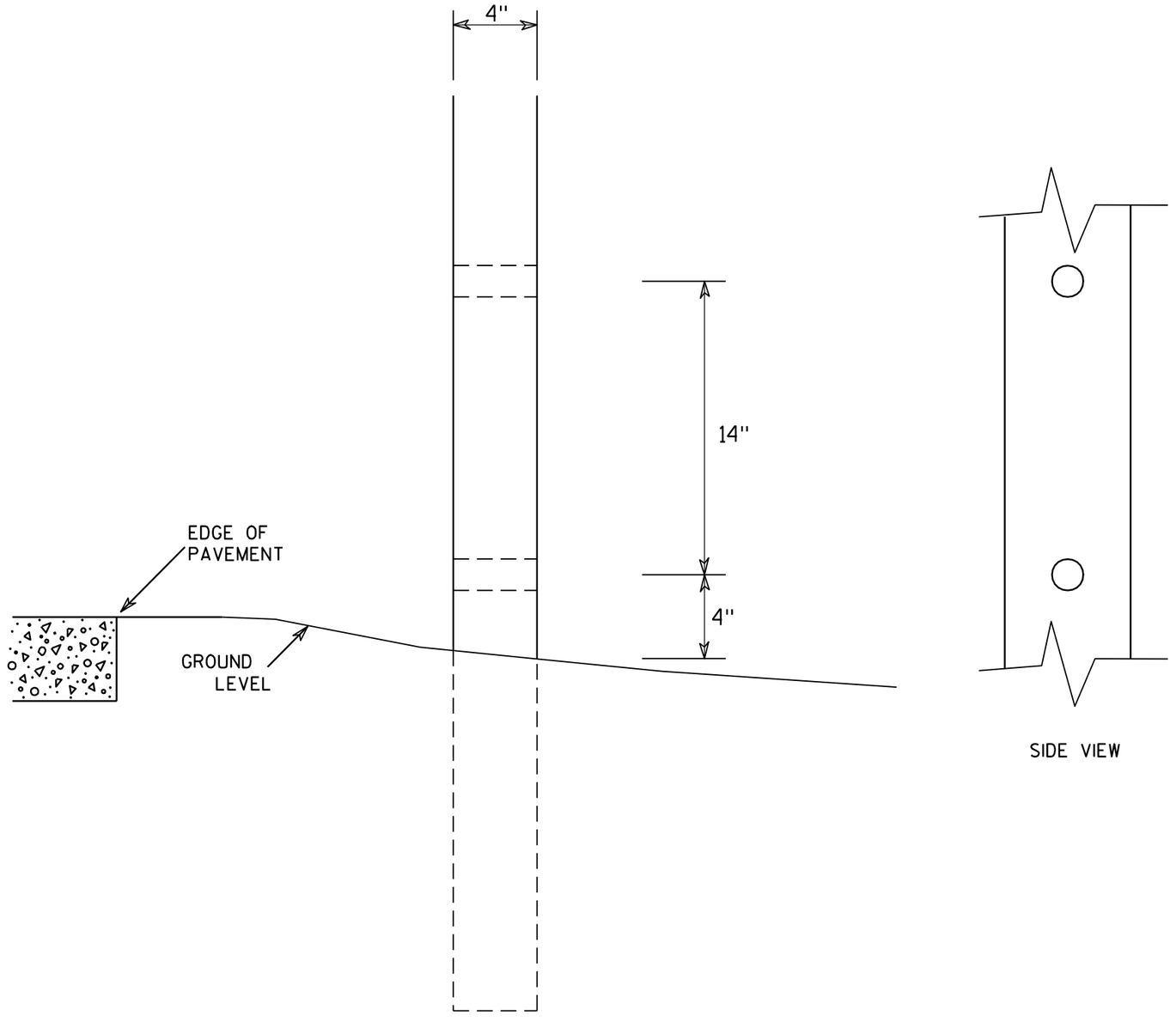
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 44 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



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

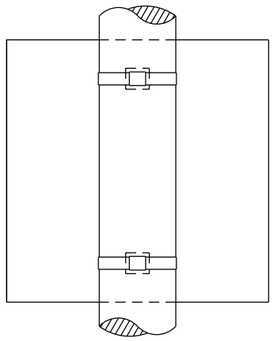
APPROVED Chester J Spang for State Traffic Engineer

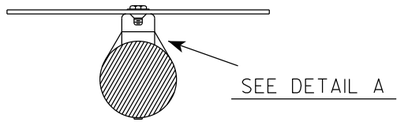
DATE 3/27/97 PLATE NO. A4-11.2

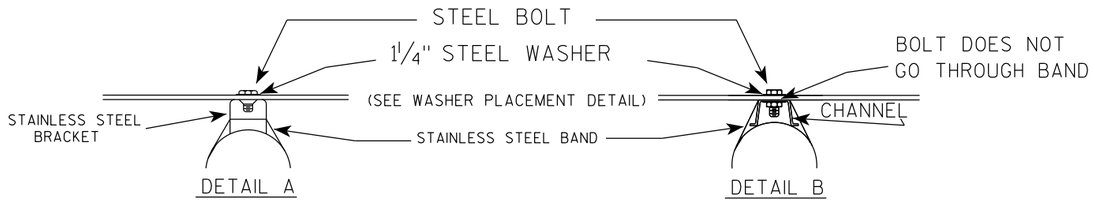
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 45	E

BANDING

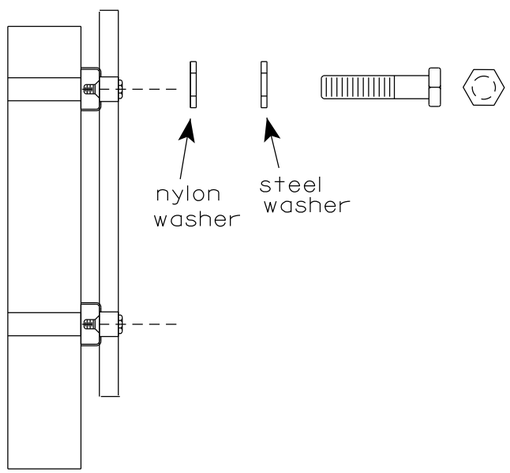
SINGLE SIGN







WASHER PLACEMENT

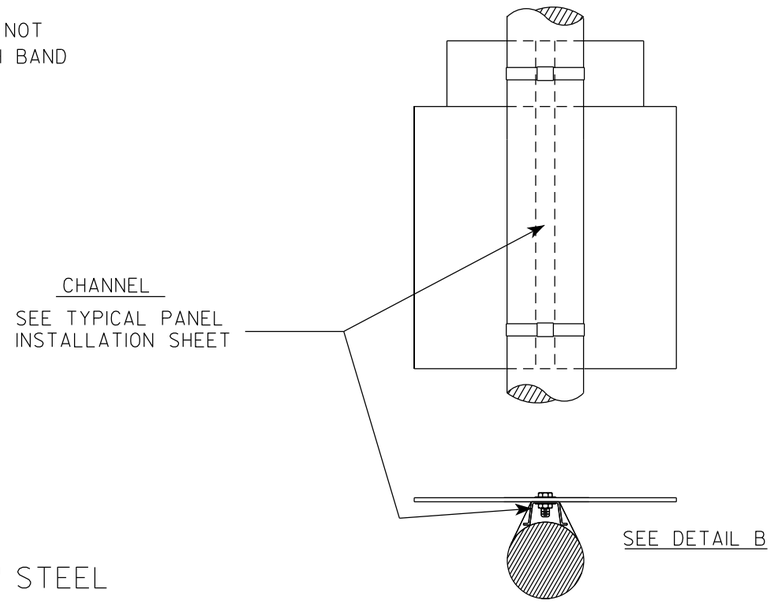


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
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



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

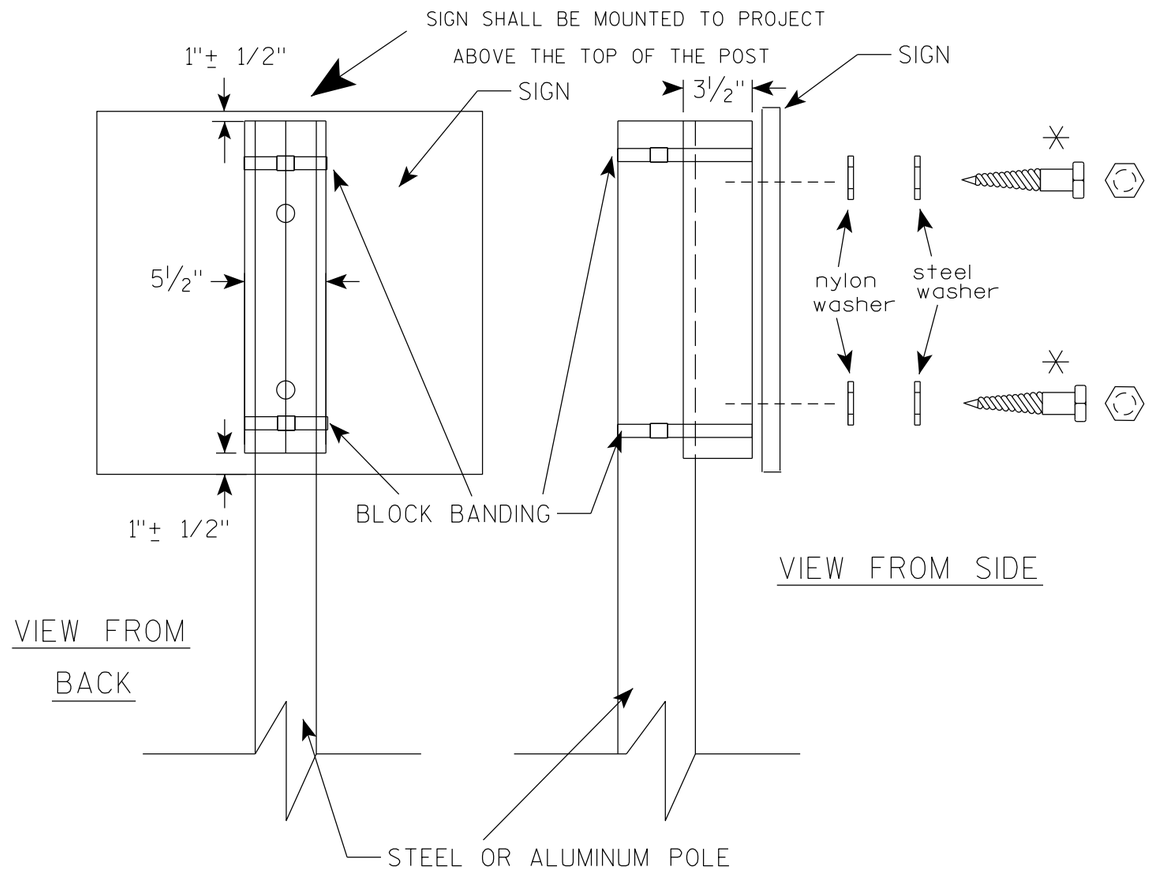
DATE 6/10/19 PLATE NO. A5-9.4

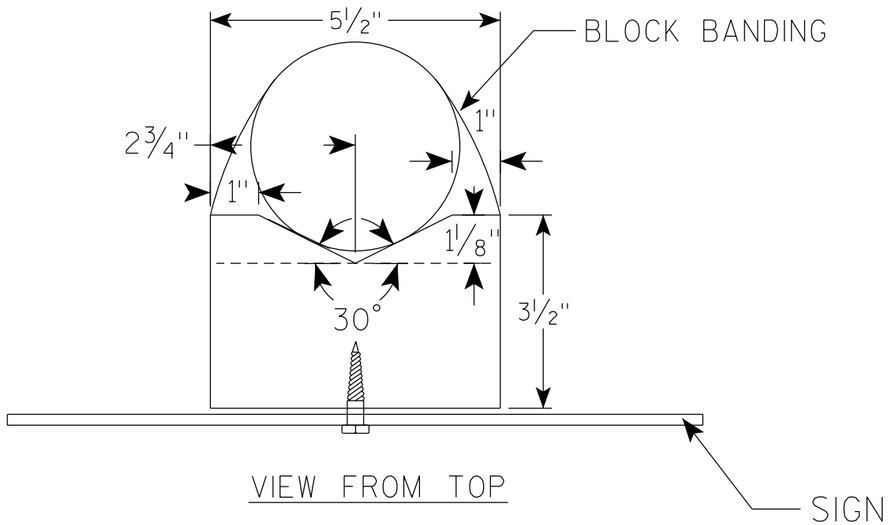
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 46	E

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7

7





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)

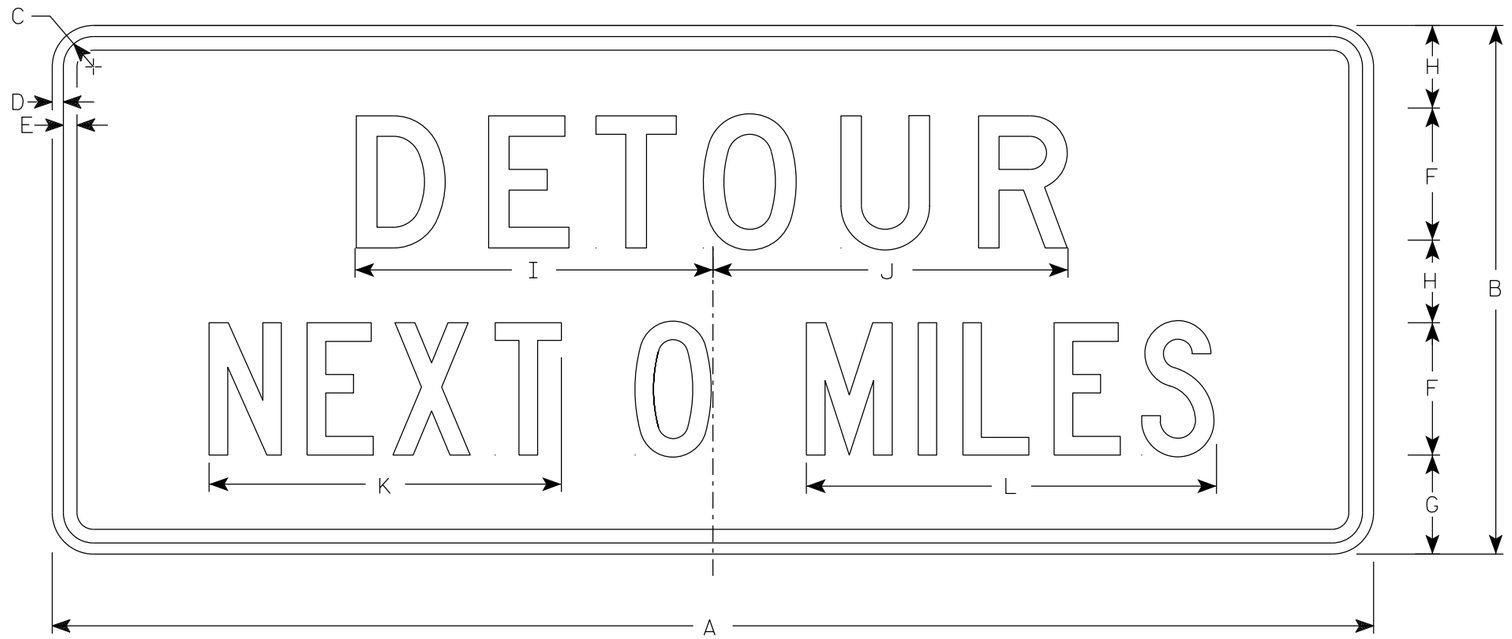
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 47 E



G20-51

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - Line 1 is D and Line 2 is 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. Round distance to nearest whole Mile and 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																											
2	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
2M	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
3	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
4	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
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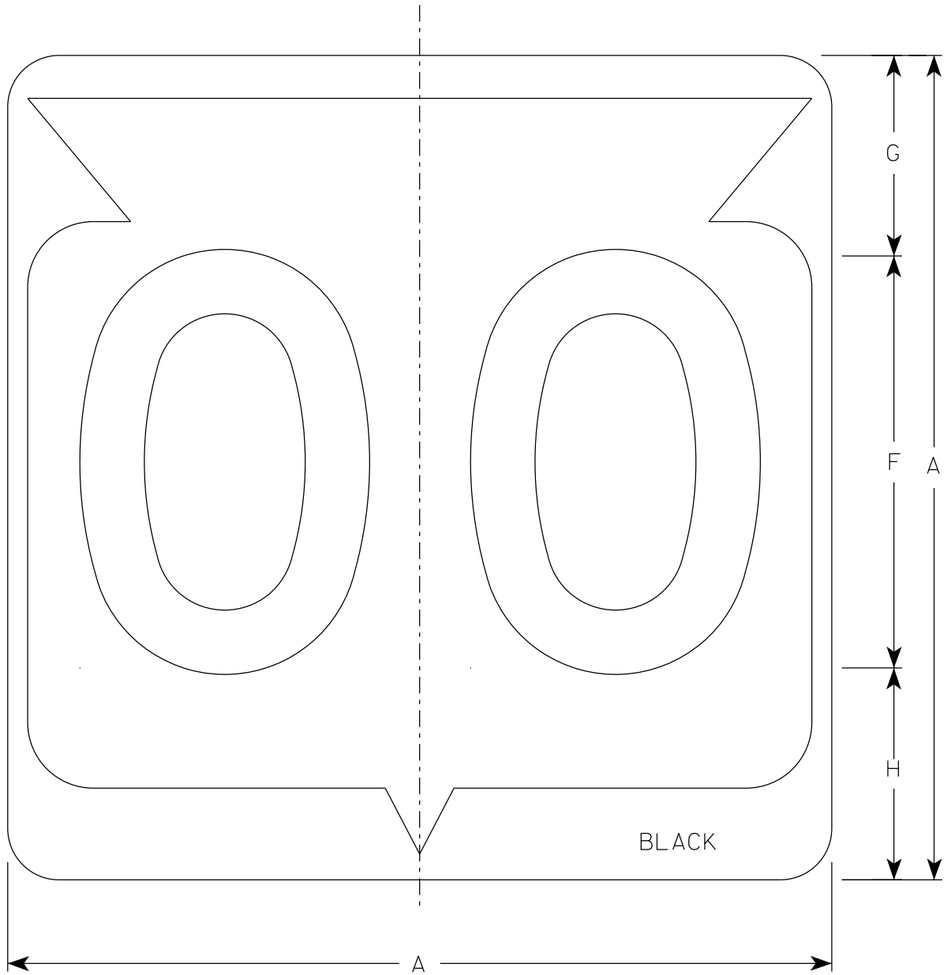
STANDARD SIGN
G20-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-51.3

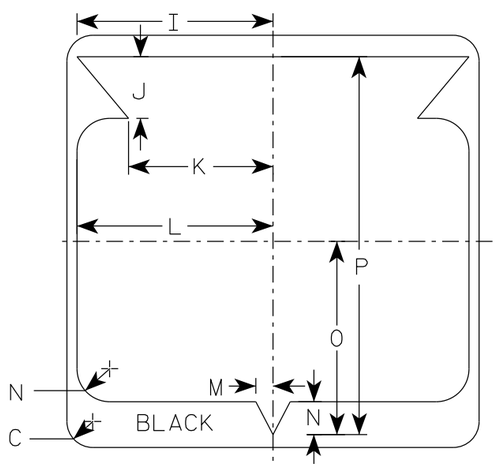
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 48	E



M1-6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C



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 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
2M	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

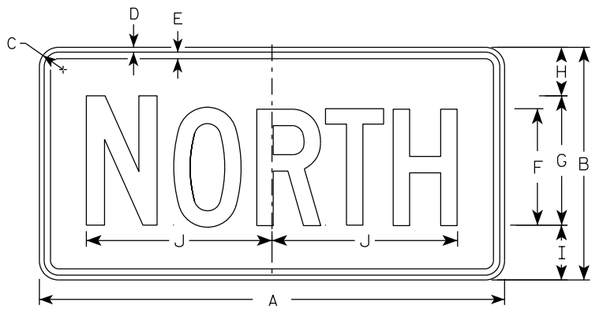
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

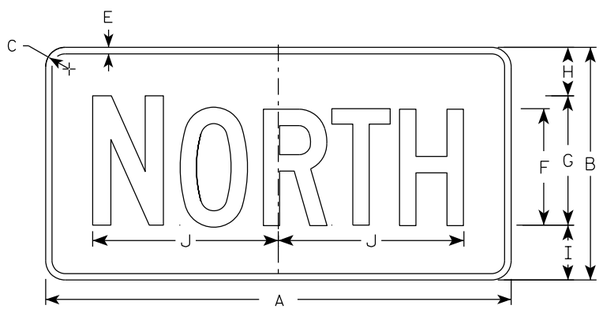
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-6.11

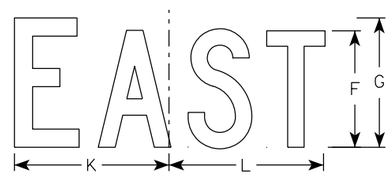
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 49	E



M3-1
MM3-1
MP3-1



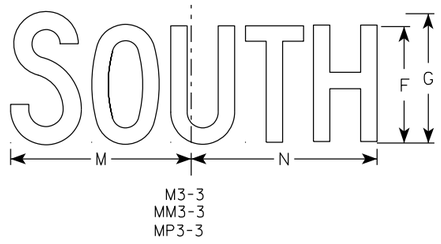
MB3-1
MK3-1
MN3-1



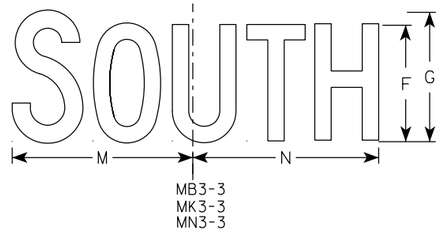
M3-2
MM3-2
MP3-2



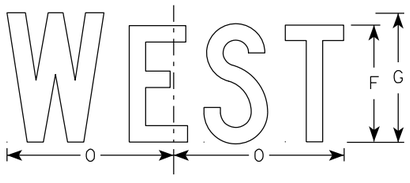
MB3-2
MK3-2
MN3-2



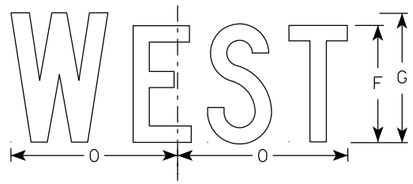
M3-3
MM3-3
MP3-3



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 Reflective
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																											
2S	24	12	1 1/2	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												2.00
2M	24	12	1 1/2	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												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5

STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

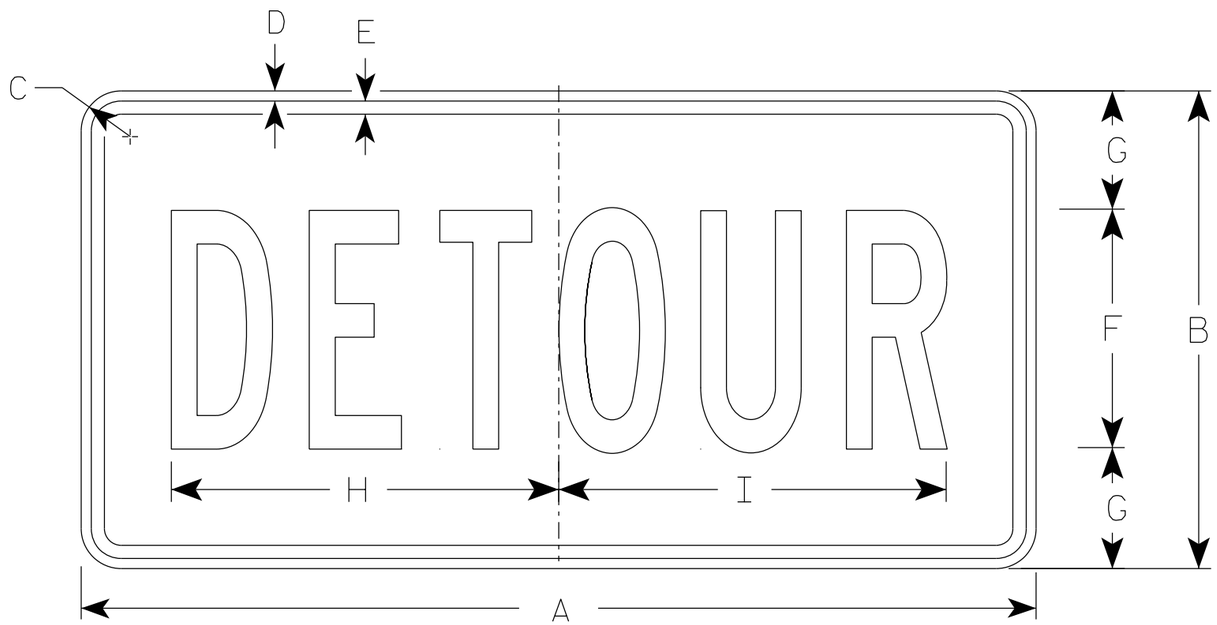
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/8/2023 PLATE NO. M3-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 50 | E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



M4-8

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	3	10	10 1/4																		2.0
2M	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5

STANDARD SIGN
M4-8

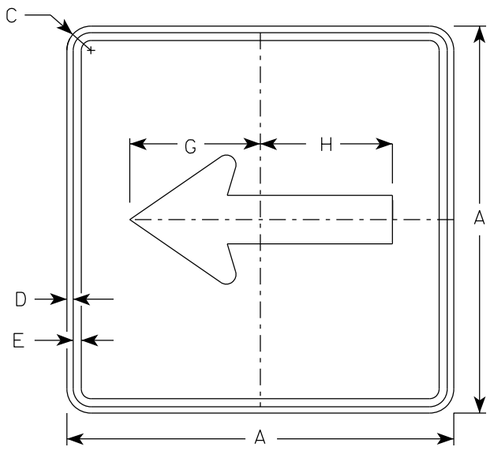
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

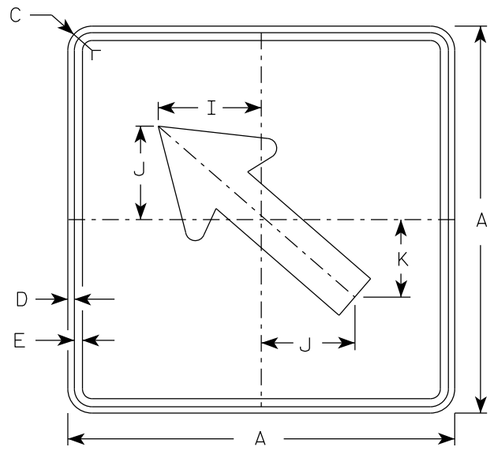
DATE 2/9/2023 PLATE NO. M4-8.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

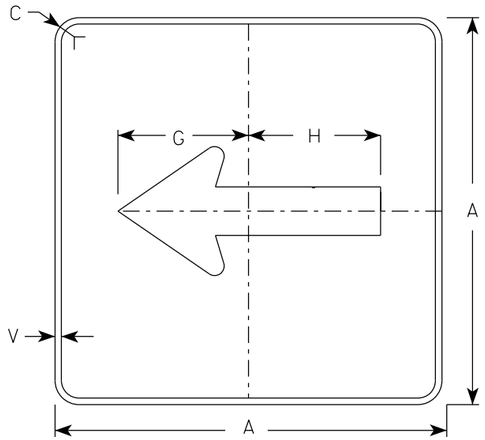
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M48.dgn PLOT DATE : 9-FEB 2023 7:38 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



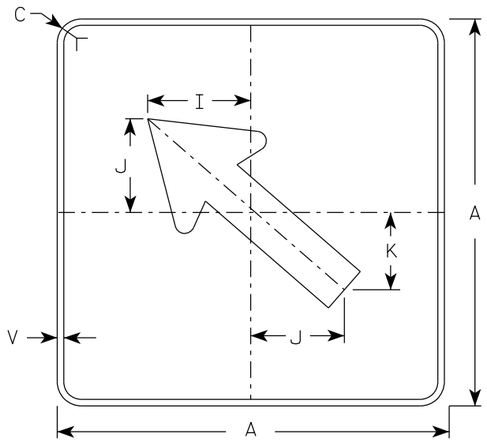
M6-1
MM6-1
MO6-1
MP6-1



M6-2
MM6-2
MO6-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1

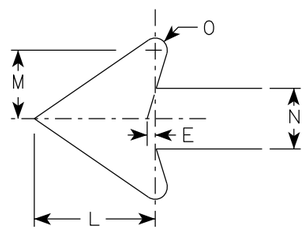


MB6-2
MK6-2
MN6-2
MR6-2

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. 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

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	21		1 1/2	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							1/2					3.06
2M	21		1 1/2	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							1/2					3.06
3	30		1 7/8	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							1/2					6.25
4	30		1 7/8	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							1/2					6.25
5	30		1 7/8	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							1/2					6.25

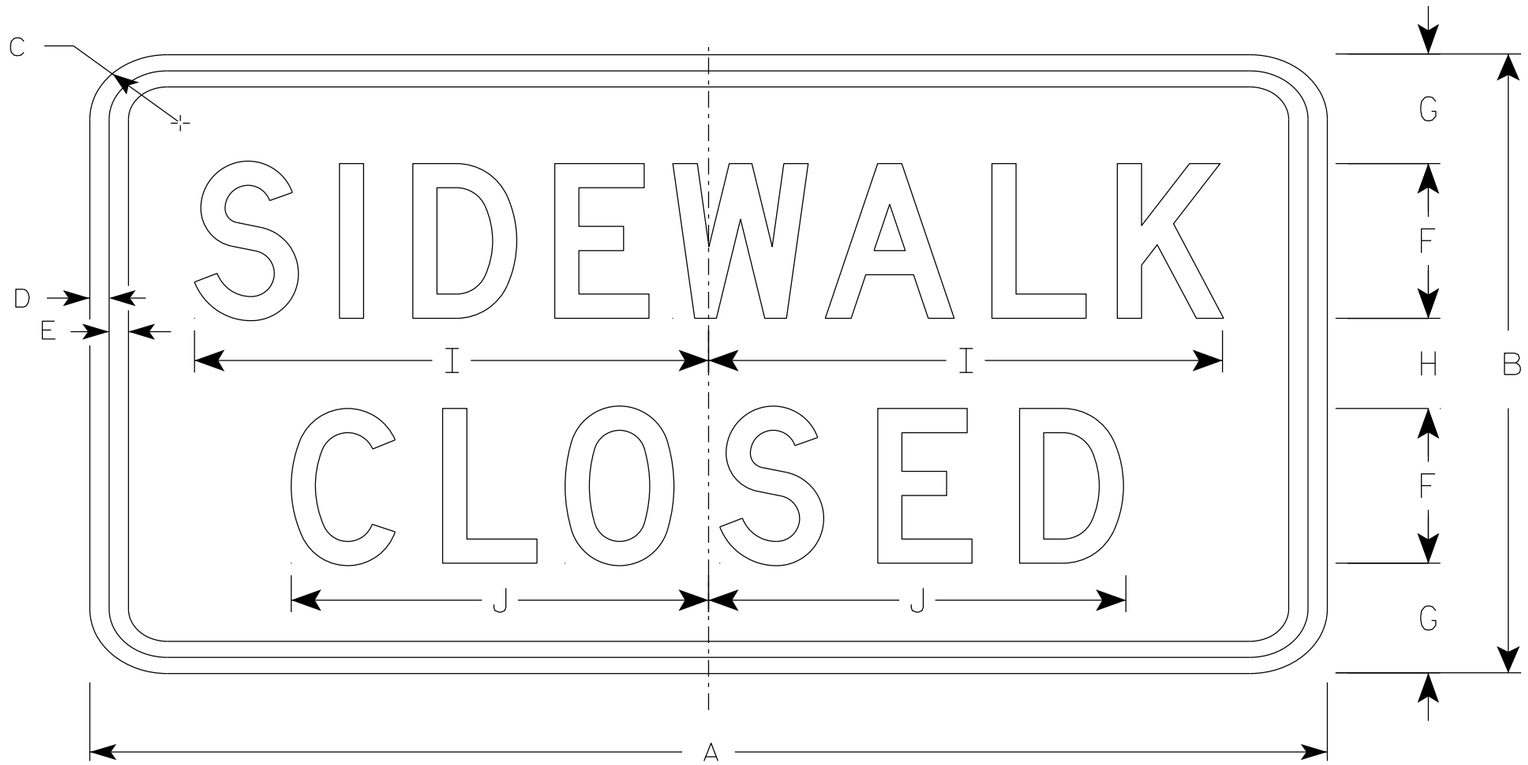
STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 52 | E



R9-9

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. 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 ½	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
2M	24	12	1 ½	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
3	30	18	1 ½	½	½	4	3 ½	3	12 ½	10 ¼																	3.75
4																											
5																											

STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-9.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 53 | E

STATE PROJECT NUMBER

3020-00-89

INDICATES WING NUMBER

SEE GENERAL NOTE ON 'CROSS SECTION & QUANTITIES' SHEET

☆ TURBIDITY BARRIER AT BOTH ABUTMENTS FOR RIPRAP PLACEMENT. SEE ROADWAY PLANS FOR DETAILS.

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS20
INVENTORY RATING: HS = 19
OPERATING RATING: HS = 32
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 230 (KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY:
SUPERSTRUCTURE —— f'_c = 4,000 PSI
ALL OTHER —— f'_c = 3,500 PSI

BAR STEEL REINFORCEMENT
GRADE 60 —— f_y = 60,000 PSI

STRUCTURAL ANGLES
GRADE 36 (ASTM A709) —— f_y = 36,000 PSI

STRUCTURAL FASTENERS
GRADE A325 (ASTM F3125) —— f_u = 120,000 PSI

SCOPE OF WORK

- SPOT PAINTING (GIRDER ENDS & ABUT. BEARINGS)
- REPLACING EXP. DEVICES
- DECK REPLACEMENT
- CONCRETE INFILL UTILITY VOIDS
- CONCRETE SURFACE REPAIR
- FILLING VOIDS UNDER ABUTMENTS
- ADDITIONAL RIPRAP AT ABUTMENT SLOPES

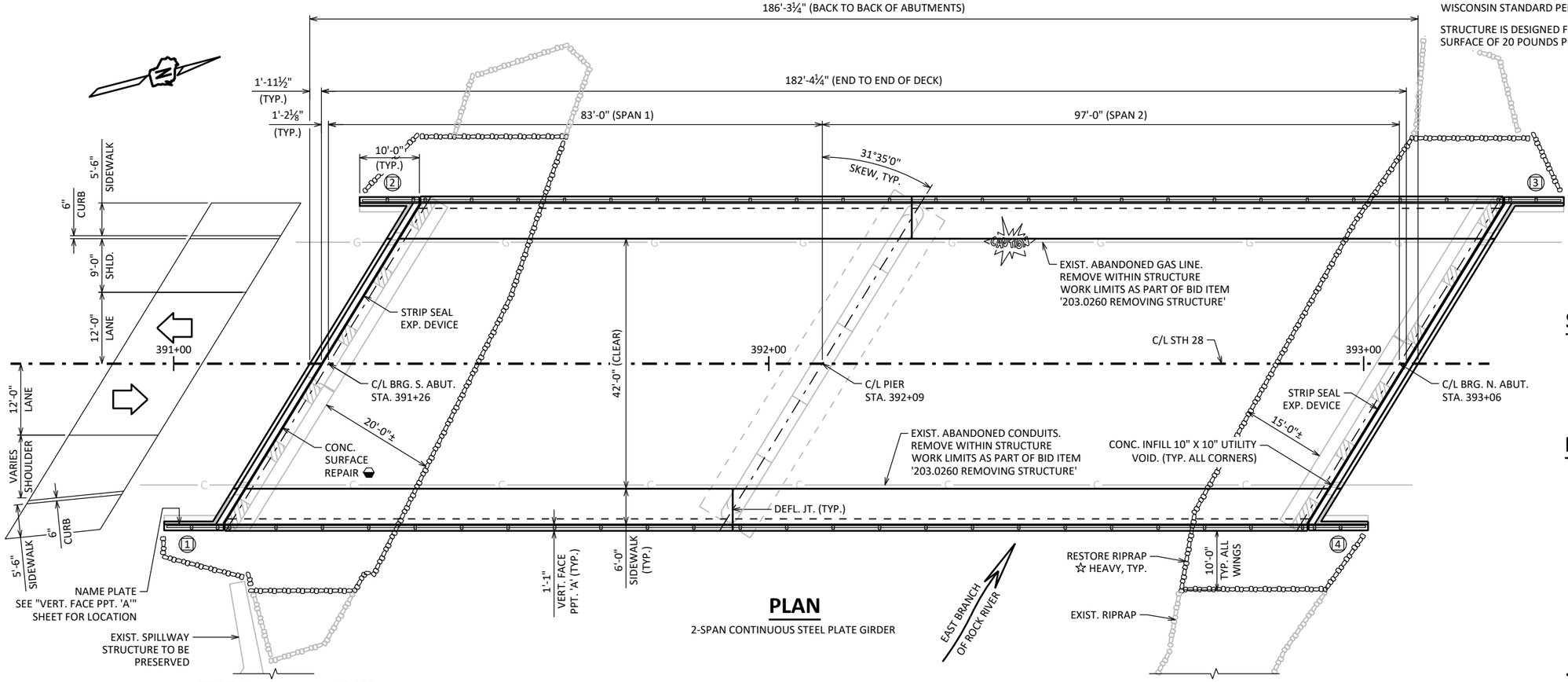
LIST OF DRAWINGS

1. DECK REPLACEMENT
2. CROSS SECTION & QUANTITIES
3. REMOVAL PLAN & BACKWALL REPAIRS
4. SOUTH ABUTMENT
5. NORTH ABUTMENT
6. EXTERIOR GIRDER 1
7. INTERIOR GIRDERS 2 THRU 5
8. EXTERIOR GIRDER 6
9. DECK POUR SEQUENCE
10. SUPERSTRUCTURE ELEVATIONS
11. SUPERSTRUCTURE PLAN
12. SUPERSTRUCTURE DETAILS
13. STRIP SEAL EXPANSION DEVICE
14. SIDEWALK COVER PLATE DETAILS
15. VERTICAL FACE PARAPET "A"
16. TUBULAR RAILING TYPE 'H' (ALUM.)

TRAFFIC DATA

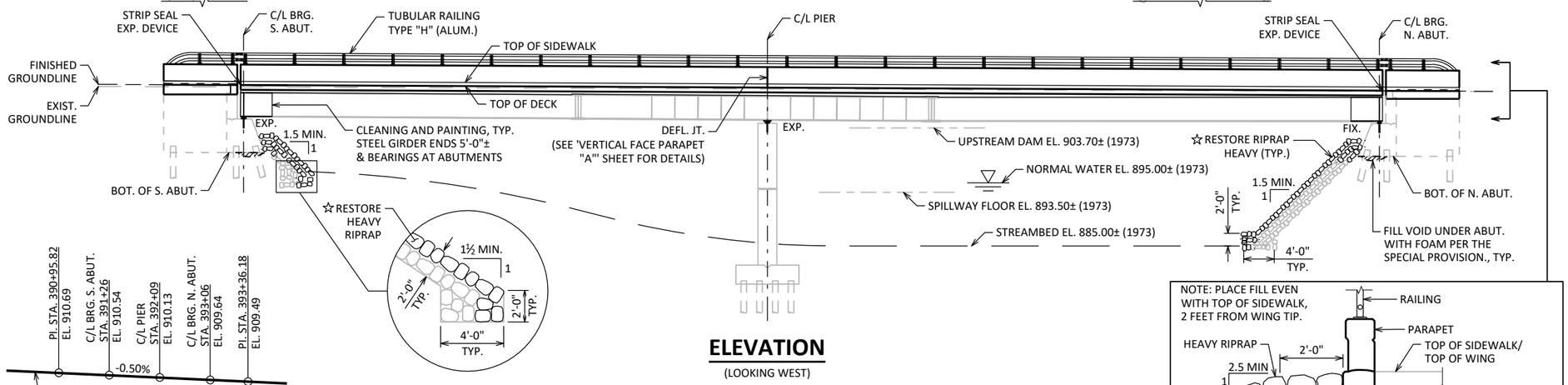
STH 28
ADT = 7,320 (2027)
R.D.S. = 35 MPH

STRUCTURE DESIGN CONTACTS:
RYAN HARRIS 608-266-2963
KYLE BUSCH 608-267-0465



PLAN

2-SPAN CONTINUOUS STEEL PLATE GIRDER



ELEVATION

(LOOKING WEST)

PROFILE GRADE LINE - STH 28

TYPICAL FILL SECTION AT WING TIPS

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED KHB 10/22/26
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-14-67

STH 28 OVER EAST BRANCH OF ROCK RIVER

COUNTY: DODGE | CITY: MAYVILLE
DESIGN SPEC.: REHABILITAION N/A
DESIGNED BY: RRH | DESIGN CK'D: ARC | DRAWN BY: RRH | PLANS CK'D: ARC

DECK REPLACEMENT

SHEET 1 OF 16
54

I.D. 3020-00-09A DATE: OCT. 2026

8 8

STATE PROJECT NUMBER

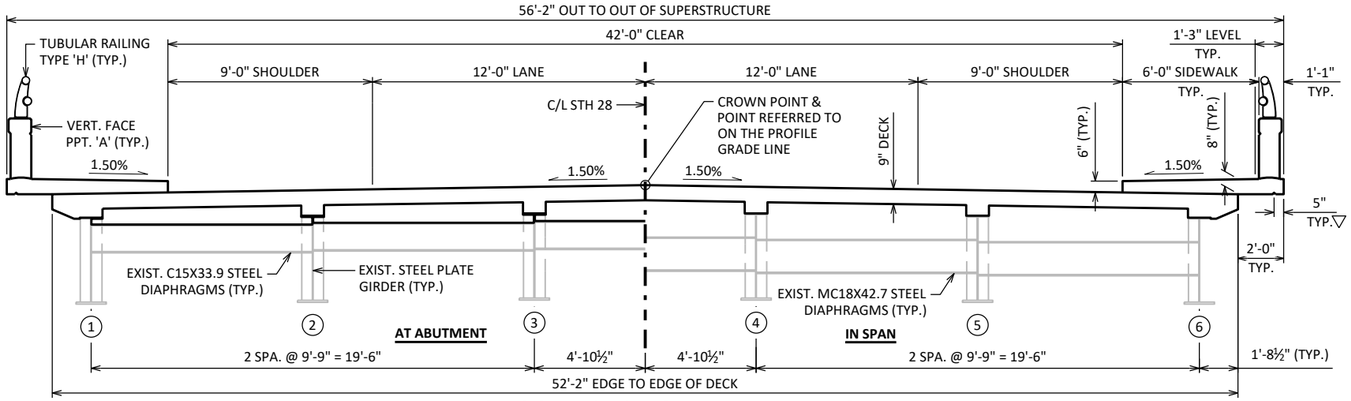
3020-00-89

LEGEND

(#) INDICATES GIRDER NUMBER

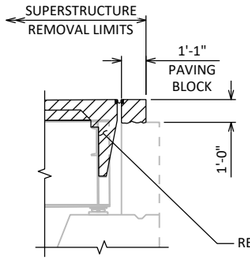
▽ ¾" V-GROOVE REQ'D. EXTEND 2'-0" FROM F.F. OF ABUTMENT BODY.

ALL REMOVAL SHOWN IS INCLUDED IN BID ITEM 'REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS B-14-67'



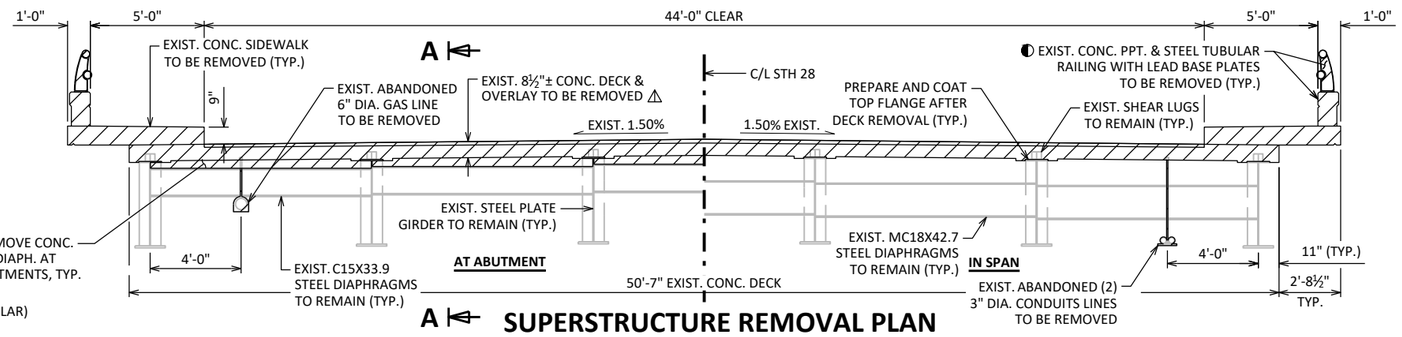
PROPOSED SECTION THRU BRIDGE

NOTE: SEE 'ABUTMENT' SHEETS FOR EXIST. REINFORCEMENT TO REMAIN AT PAVING BLOCK, BACKWALL, AND WINGS



SECTION A-A

(SOUTH ABUTMENT SHOWN. NORTH ABUT. SIMILAR)



SUPERSTRUCTURE REMOVAL PLAN

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER	SOUTH ABUT.	NORTH ABUT.	TOTALS
◐ 203.0211.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-14-67	EACH	---	---	---	1
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS B-14-67	EACH	---	---	---	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-14-67	EACH	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	---	52	52	104
502.0100	CONCRETE MASONRY BRIDGES	CY	385.1	8.2	7.3	401
502.3101	EXPANSION DEVICE	LF	---	63	63	126
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1115	22	20	1157
502.3210	PIGMENTED SURFACE SEALER	SY	149	8	8	165
502.4106	ADHESIVE ANCHORS 3/4-INCH	EACH	---	6	6	12
502.4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	---	6	6	12
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	---	138	138	276
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	85,410	1590	1510	88,510
506.0105	STRUCTURAL STEEL CARBON	LB	1982	---	---	1982
509.1500	CONCRETE SURFACE REPAIR	SF	---	2	1	3
513.4056	RAILING TUBULAR TYPE H	LF	365	20	20	405
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	---	7	7	14
517.0901.S	PREPARATION AND COATING OF TOP FLANGES B-14-67	EACH	---	---	---	1
517.3001.S	STRUCTURE OVERCOATING CLEANING AND PRIMING B-14-67	EACH	---	---	---	1
517.4001.S	CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-14-67	EACH	---	---	---	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	---	---	---	1
606.0300	RIPRAP HEAVY	CY	---	101	86	187
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	---	98	98	196
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	--	70	70	140
SPV.0060	FOAM VOID FILLING B-14-67	EACH	---	---	---	1
SPV.0060	CLEANING AND PAINTING BEARINGS	EACH	---	6	6	12
SPV.0060	TOP OF GIRDER SURVEY B-14-67	EACH	---	---	---	1
	NON-BID ITEMS					
	FILLER	SIZE	---	---	---	½", ¾"
	BRIDGE SEAT PROTECTION					

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS AND STATIONING 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 ¾" UNLESS OTHERWISE NOTED.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK, EXPOSED SIDEWALK, AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT BACKWALLS & WINGS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS, INCLUDING PARAPETS ON WINGS.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF ALL ABUTMENTS BELOW EXPANSION DEVICES.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE "SUPERSTRUCTURE ELEVATIONS" SHEET.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 1970.

DEFINE ALL AREAS OF CONCRETE REMOVAL WITH A ½" SAWCUT UNLESS OTHERWISE NOTED.

◐ ASBESTOS IS PRESENT UNDER THE RAILING ATTACHMENT PLATE. REMOVAL IS INCLUDED IN THE BID ITEM "ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-14-67"

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP TO THE EXTENT SHOWN ON SHEET 1. ADDITIONAL RIPRAP MAY BE REQUIRED DURING CONSTRUCTION AND SHOULD BE PLACED AS DIRECTED BY THE FIELD ENGINEER.

⚠ CARE SHALL BE TAKEN NOT TO DAMAGE THE SHEAR LUGS, TOP FLANGES, AND STIFFENERS OF EXISTING STEEL GIRDERS DURING DECK REMOVAL. THE ENGINEER SHALL INSPECT THE GIRDERS PRIOR TO PLACING THE NEW DECK. REPAIR OF ANY DAMAGED LUGS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, AS ACCEPTED BY THE ENGINEER. COST FOR REPAIR OR REPLACEMENT OF DAMAGED SHEAR LUGS IS INCIDENTAL TO "REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS B-14-67".

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL JOINTS AT THE BACK FACE OF WINGS AND ABUTMENTS WITH RUBBERIZED MEMBRANE WATERPROOFING.

THE COLOR OF THE FINISH TOP COAT SHALL BE GRAY, AMS STANDARD COLOR #26293, FOR THE SUPERSTRUCTURE AND BEARINGS.

PAINTING THE GIRDER ENDS (5'-0"±) AND BEARINGS AT ABUTMENTS AS DIRECTED BY THE FIELD ENGINEER. TOTAL ESTIMATED AREA IS 526 SF. FIELD ENGINEER SHALL VERIFY AREAS OF CLEANING AND PAINTING PRIOR TO ANY WORK BEING PERFORMED.

VARIATIONS TO THE NEW GRADE LINE OF ¼" OR GREATER MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE STRUCTURES DESIGN SECTION FOR REVIEW.

◒ CONCRETE SURFACE REPAIR REQUIRED AT FRONT FACE OF SOUTH ABUTMENT BODY AND BACKWALL, AT FRONT FACE OF NORTH ABUTMENT BACKWALL; AND AT THE WINGS. LOCATIONS NOTED MAY NOT BE ALL INCLUSIVE, AND QUANTITIES SHOWN ON SHEET ARE APPROXIMATE. ADDITIONAL CONCRETE SURFACE REPAIR MAY BE REQUIRED DURING CONSTRUCTION AND SHOULD BE PERFORMED AS DIRECTED BY THE FIELD ENGINEER.

AT THE BACK FACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TYPE A.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES B-14-67" SHALL BE THE EXISTING GROUNDLINE.

ALL THE FIELD CONNECTIONS SHALL BE MADE WITH ¾" DIAMETER ASTM F3125 GRADE A325 HIGH STRENGTH BOLTS UNLESS OTHERWISE SHOWN OR NOTED.

"506.0105 STRUCTURAL STEEL CARBON" IS PAYMENT FOR STRUCTURAL ANGLES AND HIGH STRENGTH BOLT ASSEMBLIES

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-14-67

DRAWN BY RRH | PLANS CK'D ARC

CROSS SECTION & QUANTITIES

SHEET 2
55

8

8

STATE PROJECT NUMBER
3020-00-89

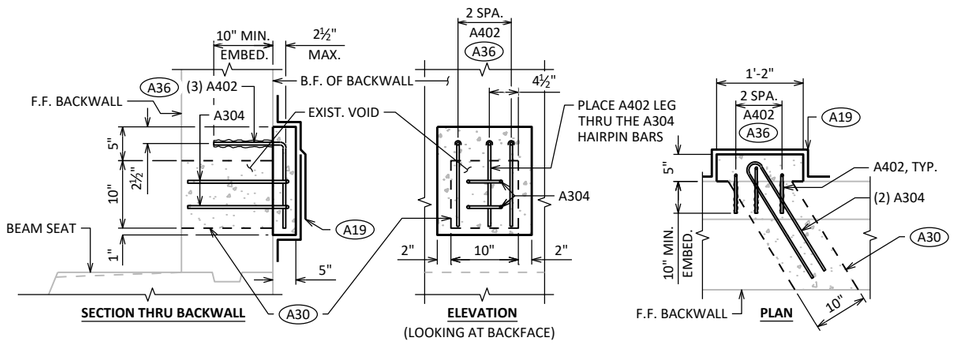
(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(A36) ADHESIVE ANCHORS NO. 4 BAR. EMBED 10" IN CONCRETE.

(A29) LINE OF REMOVAL. POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED. PLACE UNDERDRAIN SLOPED TO DISCHARGE A MINIMUM OF 1'-0" ABOVE NORMAL WATER.

(A30) CLEAN THE SURFACE RECEIVING THE NEW CONCRETE BY MECHANICALLY DISLODGING CONTAMINATION OR DEBRIS AND REMOVING LOOSE PARTICLES AND DUST WITH HIGH-PRESSURE WATER OR AIR. ENSURE THAT NO FREE-STANDING WATER REMAINS BEFORE PLACING GROUT AND THAT CLEANING WATER CONFORMS TO 501.2.6. WORK IS INCIDENTAL TO 'CONCRETE MASONRY BRIDGES'.



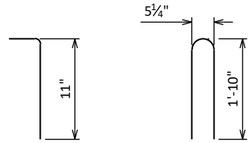
CONCRETE INFILL 10" X 10" UTILITY VOIDS

(TYP. AT ALL CORNERS)

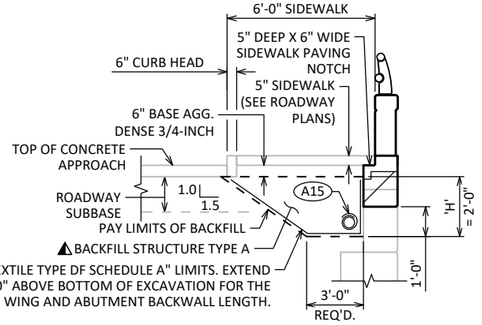
BILL OF BARS

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
A402	X	12	1'-11"	X		BACKWALL - DOWELS - B.F.
A304	X	8	3'-11"	X		BACKWALL - LONGITUDINAL



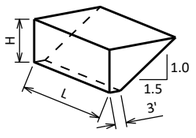
A402 **A304**



TYPICAL SECTION THRU WINGS

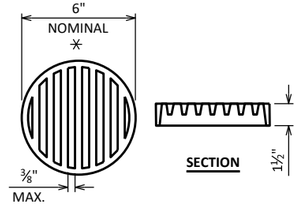
SEE DETAIL BELOW FOR EXCAVATION LIMITS

⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.



BACKFILL DIAGRAM AT ABUTMENT BACKWALL

L = LENGTH OF BACKWALL AND WINGS (FT)
H = AVERAGE FILL HEIGHT (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H)
V_{CY} = V_{CF}(EF)/27
V_{TON} = V_{CY}(2.0)

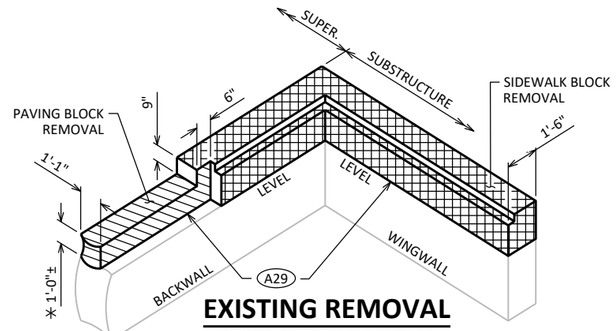


RODENT SHIELD DETAIL

✳ DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

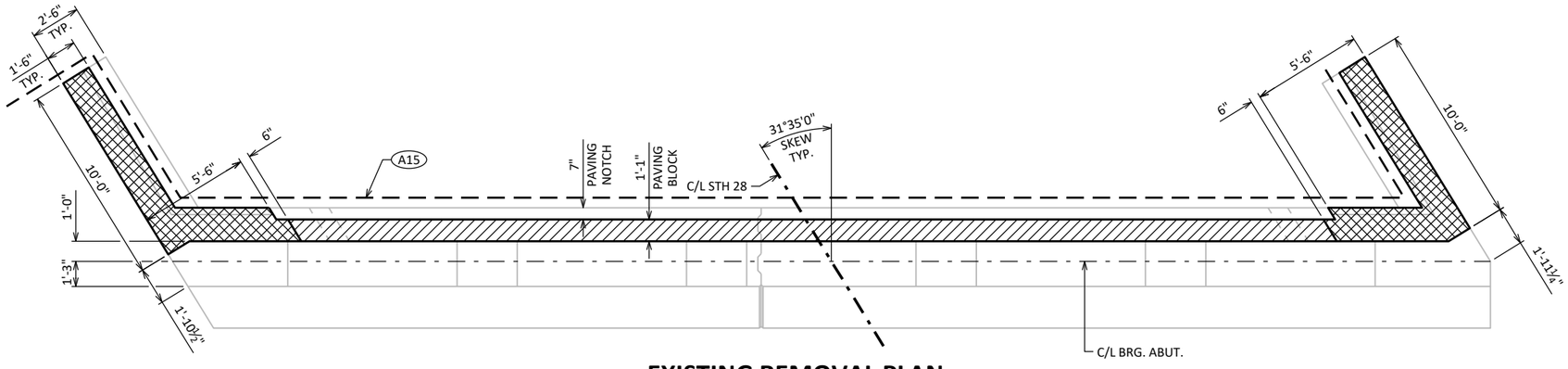
THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



EXISTING REMOVAL ISOMETRIC VIEW

(SKEW NOT SHOWN FOR CLARITY)
✳ EXIST. PAVING BLOCK HEIGHT SHOWN DOES NOT INCLUDE EXIST. OVERLAY THICKNESS



EXISTING REMOVAL PLAN

REMOVE EXISTING PAVING BLOCK AND BURN OFF EXIST. NO. 5 VERTICALS FLUSH WITH LINE OF REMOVAL

REMOVE EXISTING SIDEWALK BLOCK AND PRESERVE EXIST. NO. 5 VERTICALS. CUT REINFORCEMENT AS NEEDED TO MAINTAIN CLEAR COVER REQUIREMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-14-67

DRAWN BY RRH | PLANS CK'D ARC

REMOVAL PLAN & BACKWALL REPAIRS

SHEET 3
56

8

8

(A02) CONSTRUCTION JOINT: STRIKE OFF AND LEAVE ROUGH.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

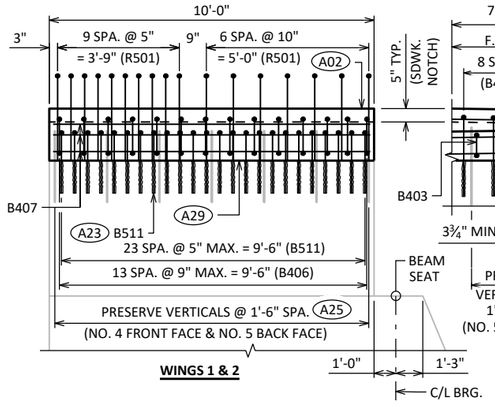
(A23) ADHESIVE ANCHORS NO. 5 BAR. EMBED 12" MIN. IN CONCRETE.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK. FURNISH EQUIVALENT ADHESIVE ANCHOR NO. 5 AT NO ADDITIONAL COST IF REINFORCEMENT IS DAMAGED.

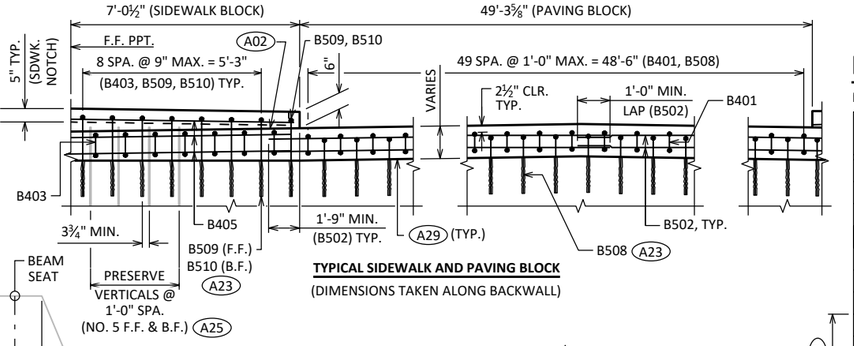
(A29) LINE OF REMOVAL. POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE.

▲ SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

(#) INDICATES GIRDER NUMBER.



ELEVATION



TYPICAL SIDEWALK AND PAVING BLOCK

(DIMENSIONS TAKEN ALONG BACKWALL)

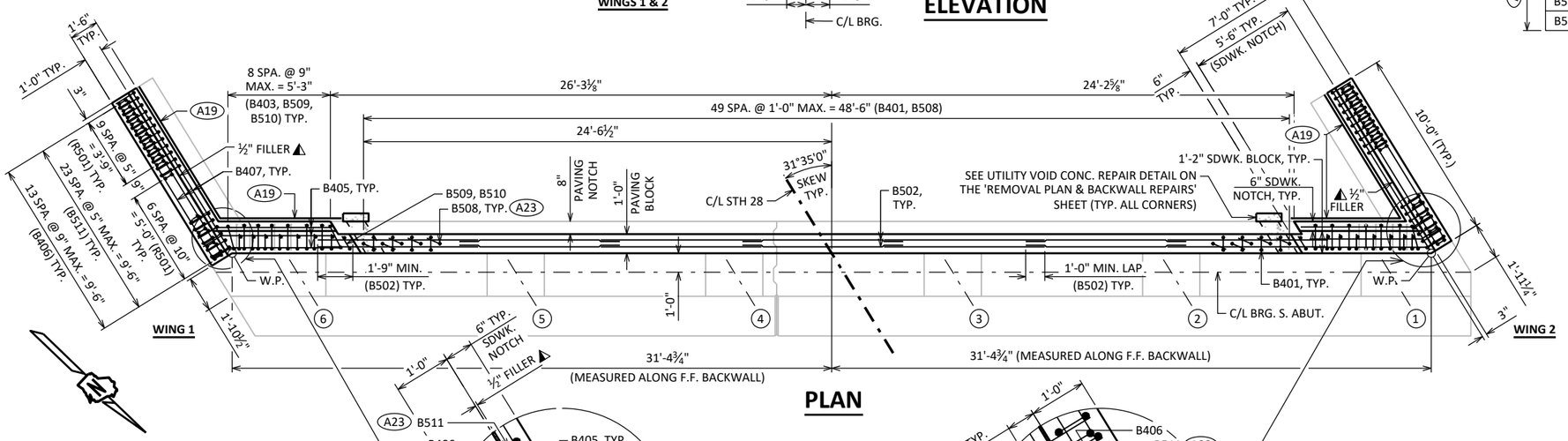
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

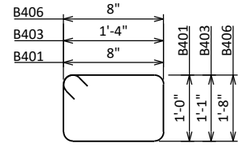
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B401	X	50	3'-10"	X		PAVING BLOCK - STIRRUPS
B502	X	21	8'-5"			PAVING BLOCK - LONGITUDINAL
B403	X	18	5'-4"	X		SDWK. BLOCK - STIRRUPS
B405	X	12	6'-10"	X		SDWK. BLOCK - LONGITUDINAL
B406	X	28	5'-2"	X		WINGWALL - STIRRUPS
B407	X	12	9'-8"			WINGWALL - LONGITUDINAL
B508	X	50	2'-9"	X		PAVING BLOCK - DOWELS
B509	X	20	2'-10"			SDWK. BLOCK - DOWELS - F.F.
B510	X	20	3'-6"	X		SDWK. BLOCK - DOWELS - B.F.
B511	X	48	3'-4"	X		WINGWALL - DOWELS

STATE PROJECT NUMBER

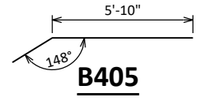
3020-00-89



PLAN



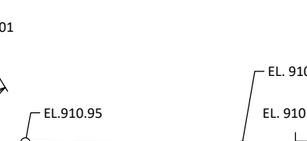
B401, B403, B406



B405

B508

B510, B511



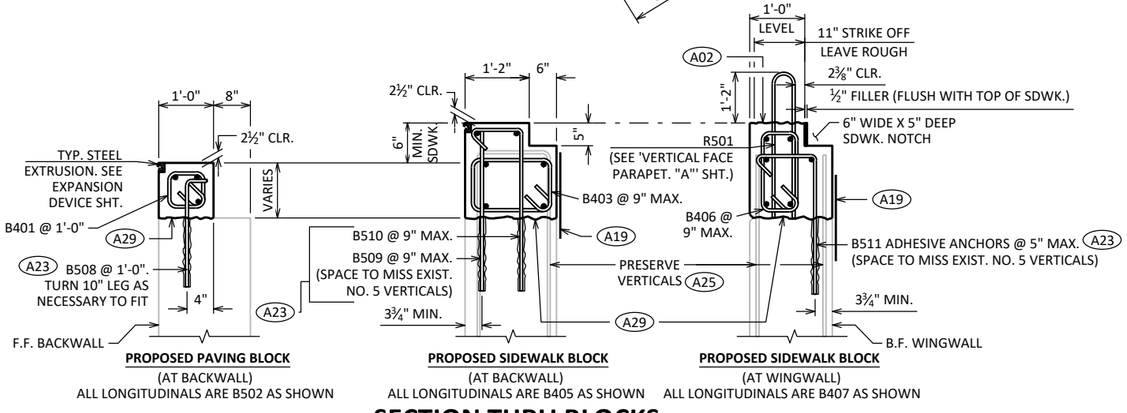
PAVING BLOCK

(TAKEN ALONG F.F. BACKWALL)

WING 1

ELEVATIONS

WING 2



SECTION THRU BLOCKS

(DIMENSIONS TAKEN NORMAL TO C/L ABUTMENT)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-14-67

DRAWN BY RRH | PLANS CK'D ARC

SOUTH ABUTMENT

SHEET 4
57

8

8

STATE PROJECT NUMBER
3020-00-89

(A02) CONSTRUCTION JOINT: STRIKE OFF AND LEAVE ROUGH.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

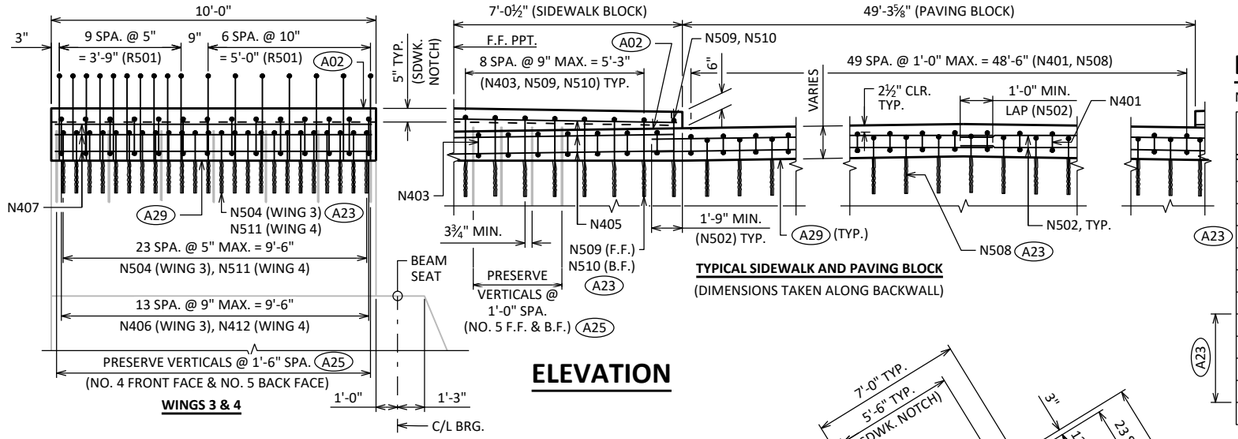
(A23) ADHESIVE ANCHORS NO. 5 BAR. EMBED 12" MIN. IN CONCRETE.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK. FURNISH EQUIVALENT ADHESIVE ANCHOR NO. 5 AT NO ADDITIONAL COST IF REINFORCEMENT IS DAMAGED.

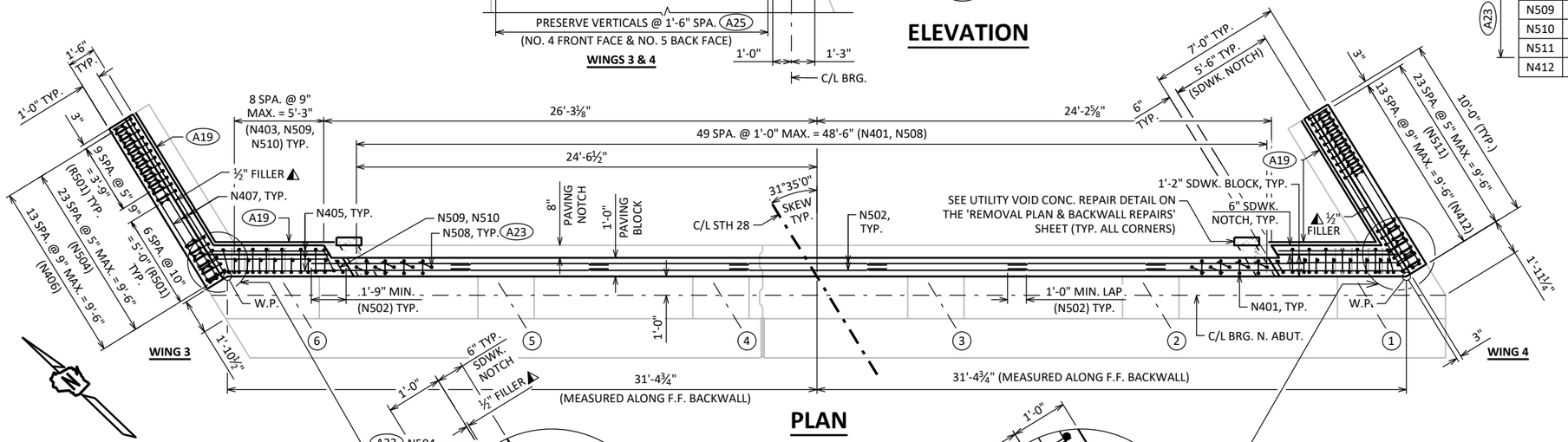
(A29) LINE OF REMOVAL. POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE.

▲ SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

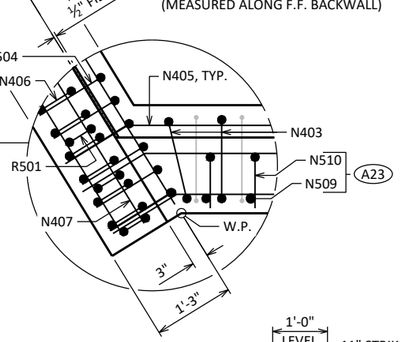
(#) INDICATES GIRDER NUMBER.

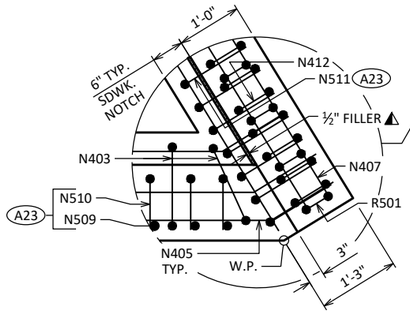


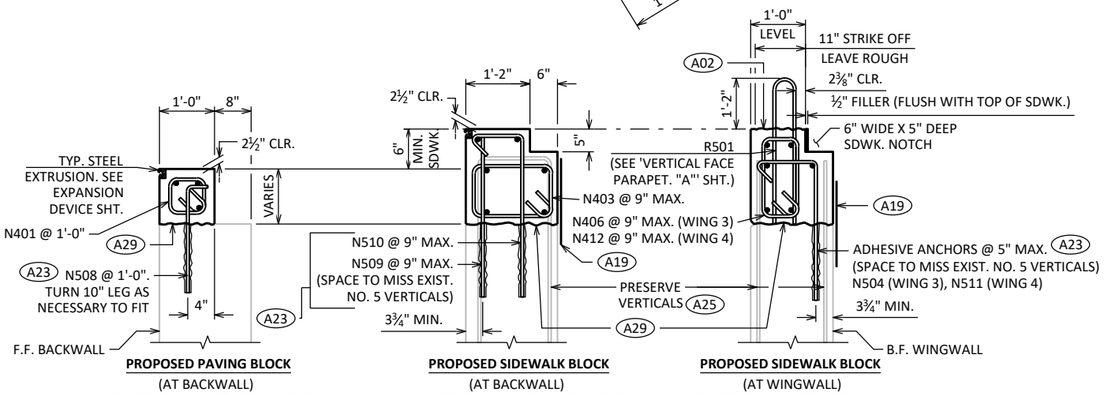
ELEVATION



PLAN







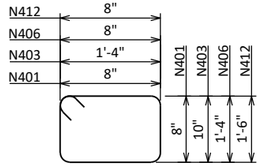
SECTION THRU BLOCKS

(DIMENSIONS TAKEN NORMAL TO C/L ABUTMENT)

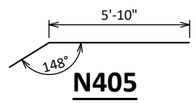
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

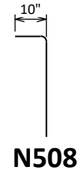
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
N401	X	50	3'-2"	X		PAVING BLOCK - STIRRUPS
N502	X	21	8'-5"			PAVING BLOCK - LONGITUDINAL
N403	X	18	4'-10"	X		SDWK. BLOCK - STIRRUPS
N504	X	24	3'-0"	X		WING 3 - DOWELS
N405	X	12	6'-10"	X		SDWK. BLOCK - LONGITUDINAL
N406	X	14	4'-6"	X		WING 3 - STIRRUPS
N407	X	12	9'-8"			WINGWALL - LONGITUDINAL
N508	X	50	2'-6"	X		PAVING BLOCK - DOWELS
N509	X	20	2'-6"			SDWK. BLOCK - DOWELS - F.F.
N510	X	20	3'-2"	X		SDWK. BLOCK - DOWELS - B.F.
N511	X	24	3'-2"	X		WING 4 - DOWELS
N412	X	14	4'-10"	X		WING 4 - STIRRUPS



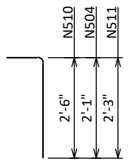
N401, N403, N406, N412



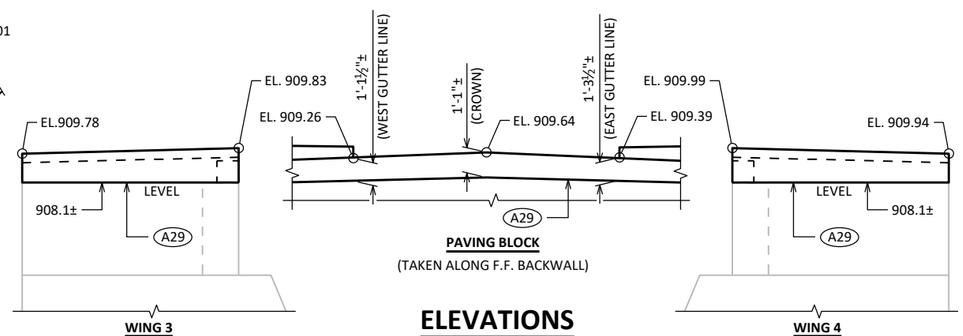
N405



N508



N510, N504, N511



ELEVATIONS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-14-67

DRAWN BY RRH | PLANS CK'D ARC

NORTH ABUTMENT

SHEET 5
58

8

8

NOTE: TAKE SPECIAL CARE NOT TO DAMAGE SHEAR LUGS AND GIRDER FLANGES DURING DECK REMOVAL. ENGINEER WILL INSPECT GIRDERS PRIOR TO DECK PLACEMENT.

COST FOR REPAIR OR REPLACEMENT OF DAMAGED SHEAR LUGS IS INCIDENTAL TO "REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS B-14-67". SEE 'SHEAR LUG REPAIR' DETAIL THIS SHEET.

CONTRACTOR IS RESPONSIBLE FOR GIRDER STABILITY AFTER REMOVAL OF EXISTING DECK AND DURING PLACEMENT OF NEW DECK AS DEFINED IN 502.3.2.3. BRACE AND TIE THE EXTERIOR GIRDERS SUPPORTING BRIDGE DECKS TO THE INTERIOR GIRDERS AS NECESSARY TO PRECLUDE ROTATION OF THE EXTERIOR GIRDERS.

★ DIMENSIONS ARE TAKEN ABOUT THE CENTROID AXIS OF THE ANGLE. SEE STIFFENER DETAIL SECTIONS ON THIS SHEET.

DURING CONSTRUCTION, HOLES MAY BE DRILLED IN THE TOP FLANGES IN THE COMPRESSION ZONE TO FACILITATE ANCHORAGE OF POSTS FOR SAFETY LINES. THE MAXIMUM HOLE SIZE IS 3/4" DIAMETER, AND PRIOR TO POURING THE CONCRETE DECK, A BOLT MUST BE PLACED IN EACH HOLE TO THE ACCEPTANCE OF THE ENGINEER.

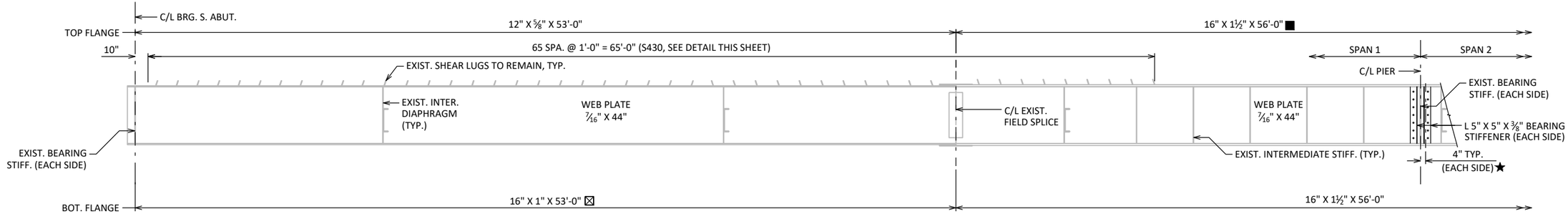
STAY-IN-PLACE FORMWORK IS NOT PERMITTED.

■ TOP FLANGE TENSION ZONE. FIELD WELDING PROHIBITED IN TOP FLANGE TENSION ZONE AREAS.

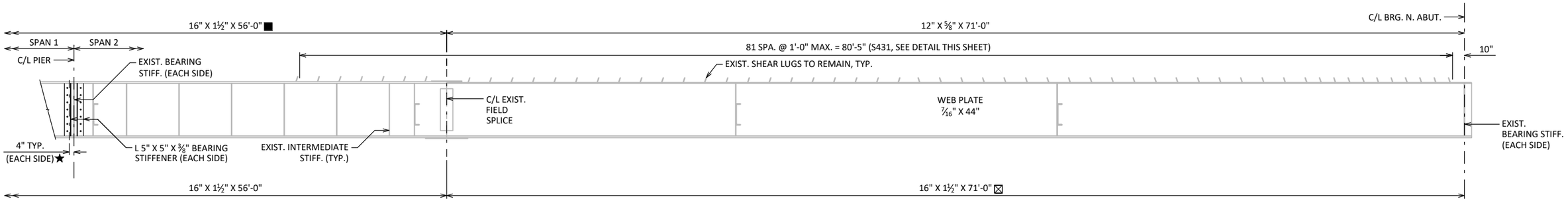
☒ BOTTOM FLANGE TENSION ZONE. FIELD WELDING PROHIBITED IN BOTTOM FLANGE TENSION ZONE AREAS.

STATE PROJECT NUMBER

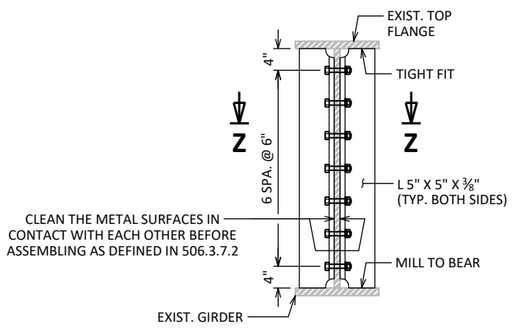
3020-00-89



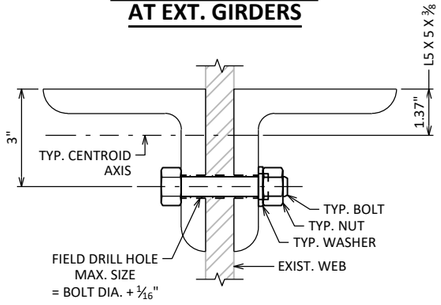
GIRDER 1 - ELEVATION



GIRDER 1 - ELEVATION

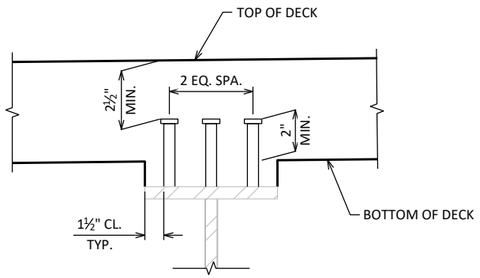


BEARING STIFFENER AT EXT. GIRDERS



SECTION Z-Z

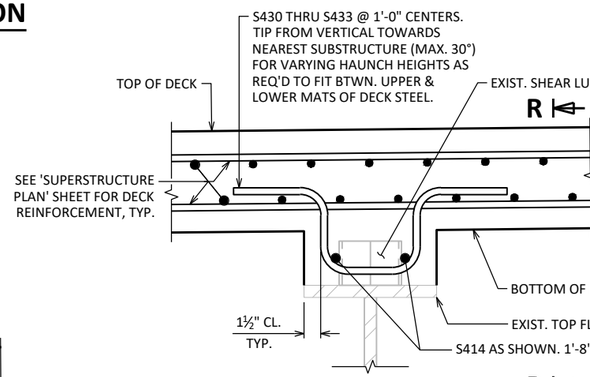
NOTE: ALL BOLTED CONNECTIONS SHALL BE ¾" DIA. HIGH STRENGTH BOLTS WITH NUTS & WASHERS.



SHEAR LUG REPAIR

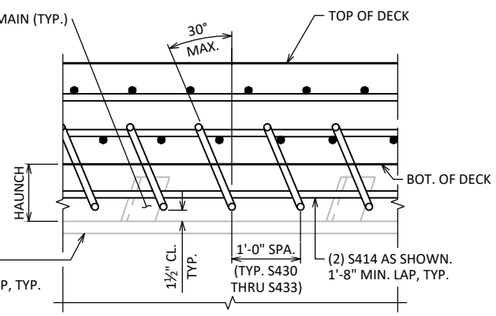
NOTE: USE THREE FIELD WELDED ⅞" DIA. X 5" LONG ✳ STUDS EQUALLY SPACED WITH A MIN. OF 1½" CL. FROM THE FLANGE EDGE. STUDS SHALL NOT BE PLACED OVER FIELD SPLICE PLATES.

✳ USE DIFFERENT LENGTH STUDS IF 2½" MIN. CLEARANCE OR 2" EXTENSION CRITERIA IS VIOLATED.



HAT BAR DETAIL

(TYP. ALL GIRDERS)
(INTERIOR GIRDER SHOWN, EXTERIOR GIRDER SIMILAR)



SECTION R-R

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-14-67

DRAWN BY RRH | PLANS CK'D ARC

EXTERIOR GIRDER 1

SHEET 6
59

8

8

SEE DETAILS AND NOTES ON 'EXTERIOR GIRDER 1' SHEET.

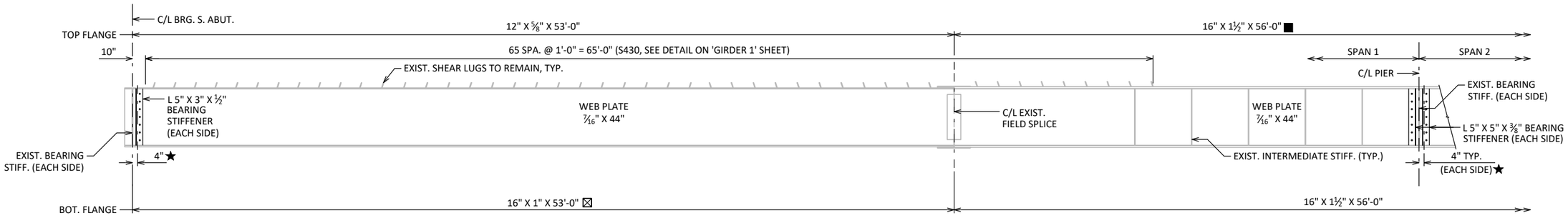
★ DIMENSIONS ARE TAKEN ABOUT THE CENTROID AXIS OF THE ANGLE. SEE STIFFENER DETAIL SECTIONS ON 'EXTERIOR GIRDER 1' SHEET.

■ TOP FLANGE TENSION ZONE. FIELD WELDING PROHIBITED IN TOP FLANGE TENSION ZONE AREAS.

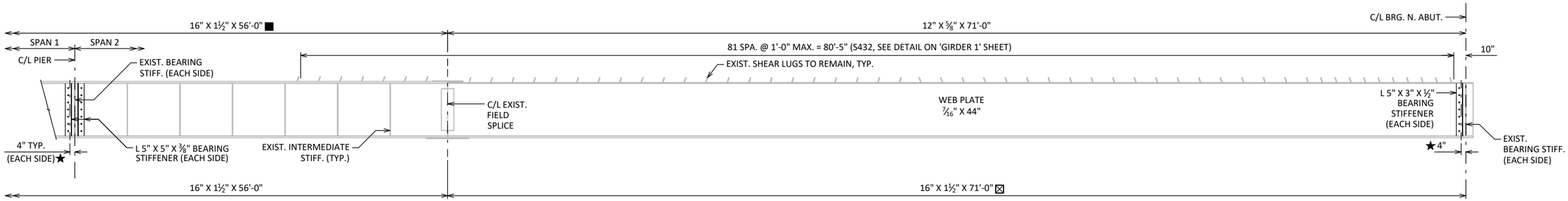
☒ BOTTOM FLANGE TENSION ZONE. FIELD WELDING PROHIBITED IN BOTTOM FLANGE TENSION ZONE AREAS.

STATE PROJECT NUMBER

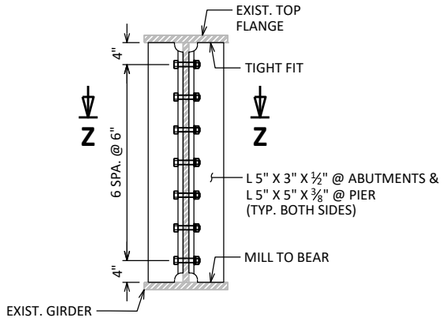
3020-00-89



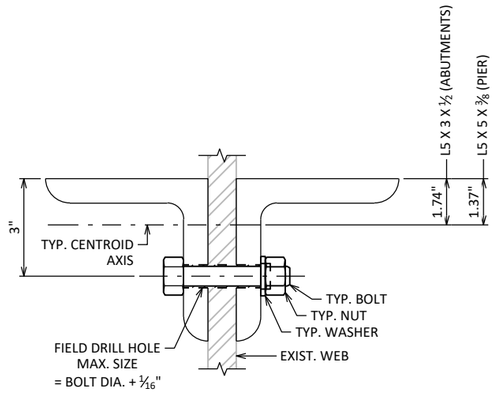
GIRDER 2 THRU 5 - ELEVATION



GIRDER 2 THRU 5 - ELEVATION



BEARING STIFFENER TYPICAL AT INT. GIRDERS



SECTION Z-Z

NOTE: ALL BOLTED CONNECTIONS SHALL BE ¾" DIA. HIGH STRENGTH BOLTS WITH NUTS & WASHERS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-14-67

DRAWN BY RRH | PLANS CK'D ARC

INTERIOR GIRDERS 2 THRU 5

SHEET 7
60

8

8

SEE DETAILS AND NOTES ON 'EXTERIOR GIRDER 1' SHEET.

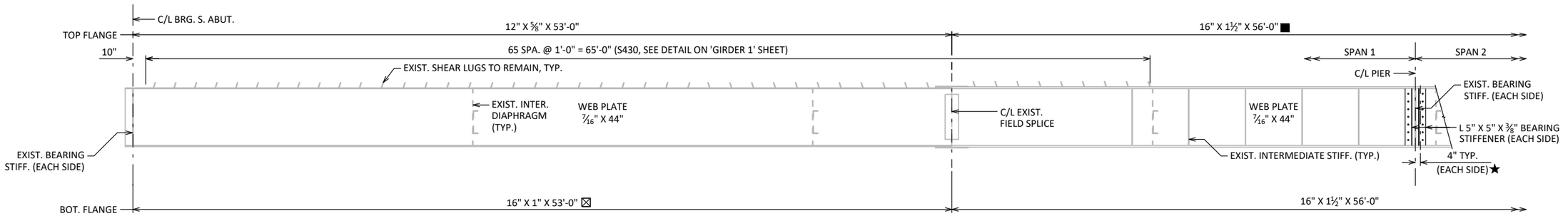
★ DIMENSIONS ARE TAKEN ABOUT THE CENTROID AXIS OF THE ANGLE. SEE STIFFENER DETAIL SECTIONS ON 'EXTERIOR GIRDER 1' SHEET.

■ TOP FLANGE TENSION ZONE. FIELD WELDING PROHIBITED IN TOP FLANGE TENSION ZONE AREAS.

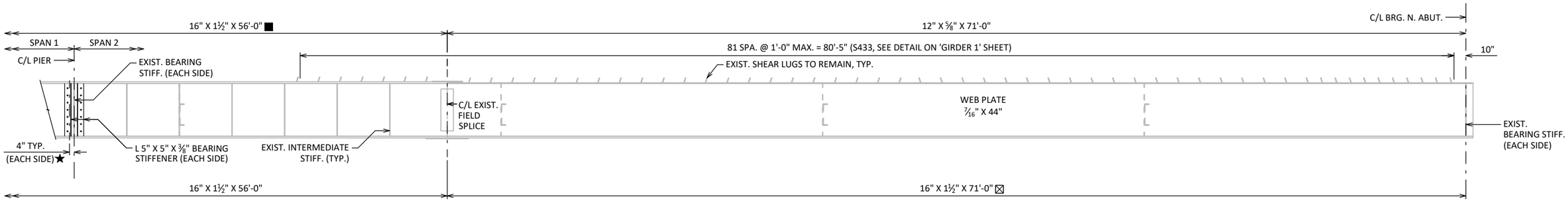
☒ BOTTOM FLANGE TENSION ZONE. FIELD WELDING PROHIBITED IN BOTTOM FLANGE TENSION ZONE AREAS.

STATE PROJECT NUMBER

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GIRDER 6 - ELEVATION



GIRDER 6 - ELEVATION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-14-67

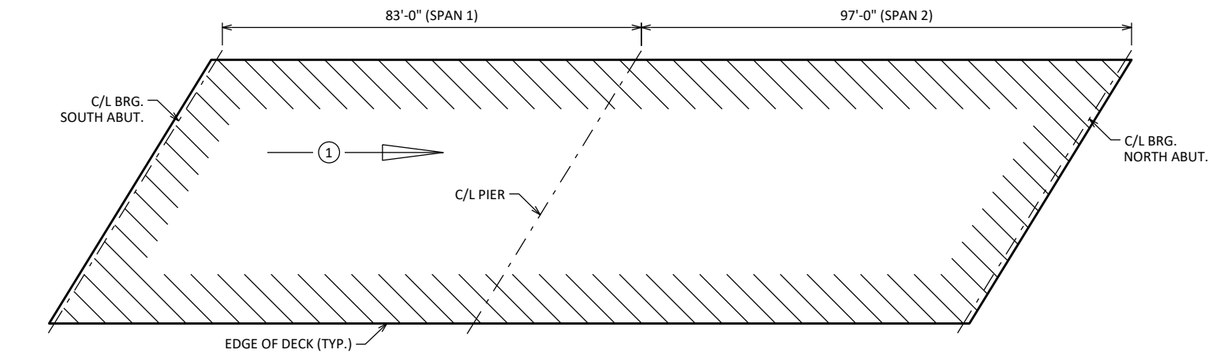
DRAWN BY RRH | PLANS CK'D ARC

EXTERIOR GIRDER 6

SHEET 8
61

STATE PROJECT NUMBER

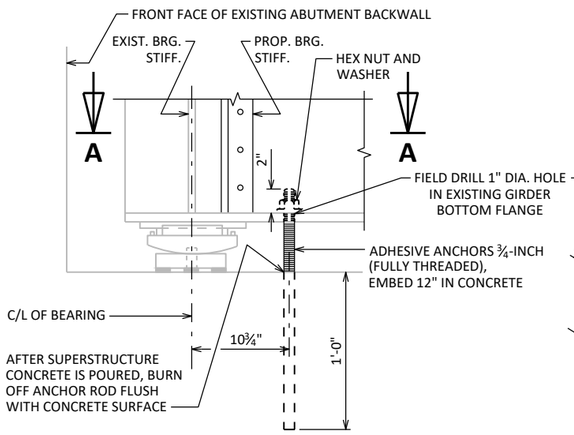
3020-00-89



DECK POUR DIAGRAM

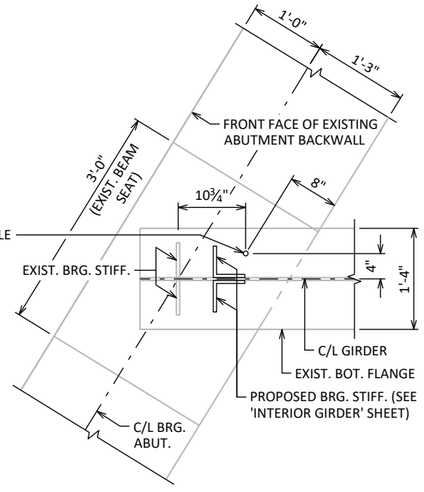
NOTE: ORIENT CONCRETE PAVING MACHINE ALONG THE SKEW

THE RATE OF PLACING CONCRETE SHALL EQUAL OR EXCEED ½ SPAN LENGTH PER HOUR BUT NEED NOT EXCEED 100 CU. YDS. PER HOUR.



TEMPORARY HOLD DOWN DEVICE

PLACE ONE ANCHOR ROD PER GIRDER AT ABUTMENTS WHERE SLAB POUR TERMINATES. LOCATE 4" (NORMAL) OFF C/L OF GIRDER. ANCHOR ROD, NUT, WASHER, AND DRILLED HOLE IN GIRDER FLANGE SHALL BE PAID FOR AS "ADHESIVE ANCHORS ¾-INCH".



SECTION A-A

(EXIST. BEARINGS AND TOP PLATE NOT SHOWN FOR CLARITY)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-14-67

DRAWN BY RRH | PLANS CK'D ARC

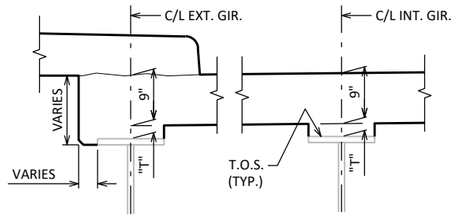
DECK POUR SEQUENCE

SHEET 9
62

SCALE = 2.00

STATE PROJECT NUMBER

3020-00-89



CONCRETE HAUNCH DETAILS

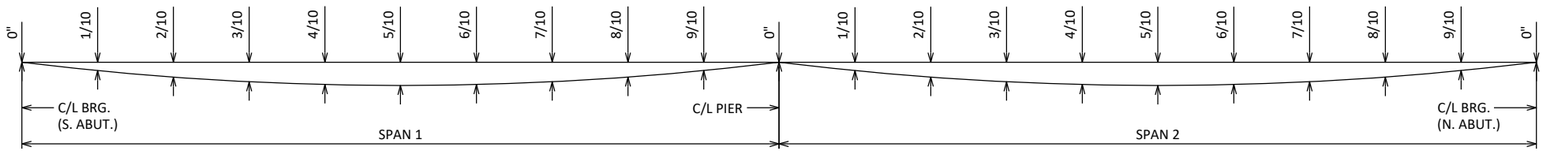
TO DETERMINE 'T': AFTER ALL DECK REMOVAL, ELEVATIONS OF THE TOP FLANGES, TOP OF SPLICE PLATES, OR TOP OF COVER PLATES, WHICHEVER APPLIES, SHALL BE TAKEN AT CENTERLINE OF BEARINGS, CENTERLINE OF FIELD SPLICES, AND AT 0.1 POINTS.

TOP OF DECK ELEVATION AT FINAL GRADE
\- TOP OF STEEL ELEVATION AFTER DECK REMOVAL
\+ CONC. ONLY DEFLECTION; DOWNWARD DEFLECTION IS ADDED, UPWARD DEFLECTION IS SUBTRACTED

\- SLAB THICKNESS 9"

= 'T' VALUE FOR SETTING HAUNCH

NOTE: AN AVERAGE HAUNCH ('T') OF 5¼" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEFLECTION DIAGRAM

		SPAN 1									SPAN 2								
	LOADING	**1/10 PT.**	**2/10 PT.**	**3/10 PT.**	**4/10 PT.**	**5/10 PT.**	**6/10 PT.**	**7/10 PT.**	**8/10 PT.**	**9/10 PT.**	**1/10 PT.**	**2/10 PT.**	**3/10 PT.**	**4/10 PT.**	**5/10 PT.**	**6/10 PT.**	**7/10 PT.**	**8/10 PT.**	**9/10 PT.**
EXTERIOR GIRDER 1	CONC. ONLY	0.3	0.5	0.6	0.7	0.6	0.4	0.2	0.1	0.00	0.2	0.6	1.1	1.5	1.8	1.8	1.6	1.3	0.7
	TOTAL DEFL.	0.3	0.6	0.8	0.8	0.7	0.5	0.3	0.1	0.00	0.3	0.8	1.3	1.8	2.1	2.1	1.9	1.5	0.8
INTERIOR GIRDER	CONC. ONLY	0.4	0.7	0.8	0.9	0.8	0.6	0.3	0.1	0.00	0.3	0.8	1.4	2.0	2.3	2.4	2.2	1.6	0.9
	TOTAL DEFL.	0.4	0.7	0.9	1.0	0.9	0.6	0.4	0.1	0.00	0.4	1.0	1.6	2.2	2.5	2.6	2.4	1.8	1.0
EXTERIOR GIRDER 6	CONC. ONLY	0.3	0.6	0.7	0.8	0.7	0.5	0.3	0.1	0.00	0.3	0.7	1.2	1.7	2.0	2.0	1.9	1.4	0.8
	TOTAL DEFL.	0.4	0.7	0.9	0.9	0.8	0.6	0.3	0.1	0.00	0.3	0.8	1.4	1.9	2.2	2.3	2.1	1.6	0.9

SHOWING DEADLOAD DEFLECTION ONLY. INCREMENTAL POURING EFFECTS NOT REFLECTED IN THIS TABLE.
DEFLECTIONS ARE GIVEN TO THE NEAREST 0.10 INCH.
NEGATIVE VALUE INDICATES UPWARD DEFLECTION.
1/10 POINTS ARE ALONG C/L OF THE GIRDER.

TOP OF DECK ELEVATIONS

LOCATION	**C/L S. ABUT.**	**1/10 PT.**	**2/10 PT.**	**3/10 PT.**	**4/10 PT.**	**5/10 PT.**	**6/10 PT.**	**C/L SPLICE**	**7/10 PT.**	**8/10 PT.**	**9/10 PT.**	**C/L PIER**	**1/10 PT.**	**2/10 PT.**	**C/L SPLICE**	**3/10 PT.**	**4/10 PT.**	**5/10 PT.**	**6/10 PT.**	**7/10 PT.**	**8/10 PT.**	**9/10 PT.**	**C/L N. ABUT.**
W. EDGE OF DECK	910.07	910.03	909.99	909.95	909.91	909.86	909.82		909.78	909.74	909.70	909.66	909.61	909.56		909.51	909.46	909.41	909.37	909.32	909.27	909.22	909.17
GIRDER 1	910.10	910.06	910.02	909.98	909.94	909.90	909.85	909.84	909.81	909.77	909.73	909.69	909.64	909.59	909.56	909.54	909.49	909.45	909.40	909.35	909.30	909.25	909.20
W. GUTTERLINE	910.16	910.12	910.08	910.04	910.00	909.96	909.91		909.87	909.83	909.79	909.75	909.70	909.65		909.60	909.56	909.51	909.46	909.41	909.36	909.31	909.26
GIRDER 2	910.28	910.24	910.20	910.15	910.11	910.07	910.03	910.01	909.99	909.95	909.91	909.86	909.82	909.77	909.73	909.72	909.67	909.62	909.57	909.53	909.48	909.43	909.38
GIRDER 3	910.45	910.41	910.37	910.33	910.29	910.25	910.21	910.19	910.16	910.12	910.08	910.04	909.99	909.94	909.91	909.89	909.85	909.80	909.75	909.70	909.65	909.60	909.56
R/L & CROWN	910.54	910.50	910.46	910.42	910.38	910.34	910.29		910.25	910.21	910.17	910.13	910.08	910.03		909.98	909.93	909.89	909.84	909.79	909.74	909.69	909.64
GIRDER 4	910.48	910.44	910.40	910.36	910.32	910.28	910.24	910.22	910.19	910.15	910.11	910.07	910.02	909.97	909.94	909.92	909.88	909.83	909.78	909.73	909.68	909.63	909.59
GIRDER 5	910.37	910.33	910.29	910.24	910.20	910.16	910.12	910.10	910.08	910.04	910.00	909.95	909.91	909.86	909.82	909.81	909.76	909.71	909.66	909.61	909.57	909.52	909.47
E. GUTTERLINE	910.29	910.25	910.21	910.17	910.13	910.08	910.04		910.00	909.96	909.92	909.88	909.83	909.78		909.73	909.68	909.64	909.59	909.54	909.49	909.44	909.39
GIRDER 6	910.25	910.21	910.17	910.13	910.09	910.04	910.00	909.99	909.96	909.92	909.88	909.84	909.79	909.74	909.71	909.69	909.64	909.60	909.55	909.50	909.45	909.40	909.35
E. EDGE OF DECK	910.23	910.19	910.15	910.11	910.07	910.02	909.98		909.94	909.90	909.86	909.82	909.77	909.72		909.67	909.62	909.57	909.53	909.48	909.43	909.38	909.33

TOP OF STEEL ELEVATIONS

A. FIELD SURVEY BEFORE DECK REMOVAL
B. FIELD SURVEY AFTER DECK REMOVAL
C. ASSUMED IN DESIGN AFTER DECK REMOVAL

LOCATION	ITEM	**C/L S. ABUT.**	**1/10 PT.**	**2/10 PT.**	**3/10 PT.**	**4/10 PT.**	**5/10 PT.**	**6/10 PT.**	**C/L SPLICE**	**7/10 PT.**	**8/10 PT.**	**9/10 PT.**	**C/L PIER**	**1/10 PT.**	**2/10 PT.**	**C/L SPLICE**	**3/10 PT.**	**4/10 PT.**	**5/10 PT.**	**6/10 PT.**	**7/10 PT.**	**8/10 PT.**	**9/10 PT.**	**C/L N. ABUT.**
GIRDER 1	A																							
	B																							
	C	908.90	908.86	908.83	908.79	908.76	908.72	908.69	908.75	908.69	908.62	908.58	908.55	908.56	908.59	908.63	908.57	908.58	908.58	908.57	908.54	908.49	908.43	908.35
GIRDER 2	A																							
	B																							
	C	909.04	908.99	908.95	908.90	908.85	908.80	908.75	908.81	908.76	908.70	908.65	908.63	908.63	908.65	908.68	908.62	908.64	908.64	908.62	908.59	908.55	908.49	908.41
GIRDER 3	A																							
	B																							
	C	909.19	909.14	909.09	909.04	908.99	908.94	908.90	908.95	908.88	908.80	908.74	908.71	908.71	908.75	908.80	908.74	908.75	908.75	908.74	908.71	908.66	908.60	908.52
GIRDER 4	A																							
	B																							
	C	909.26	909.21	909.16	909.11	909.06	909.01	908.96	909.01	908.93	908.83	908.76	908.72	908.73	908.78	908.84	908.77	908.79	908.79	908.78	908.74	908.70	908.64	908.56
GIRDER 5	A																							
	B																							
	C	909.17	909.12	909.08	909.03	908.98	908.94	908.89	908.94	908.87	908.77	908.70	908.67	908.66	908.70	908.75	908.69	908.70	908.70	908.69	908.65	908.61	908.54	908.46
GIRDER 6	A																							
	B																							
	C	909.07	909.01	908.95	908.89	908.83	908.77	908.71	908.76	908.71	908.64	908.59	908.56	908.54	908.54	908.55	908.49	908.50	908.49	908.48	908.44	908.39	908.33	908.24

ASSUMED DESIGN ELEVATIONS IN TABLE PROVIDED FOR INFORMATION ONLY. FILL IN THE TABLE ON AS-BUILT PLANS. CONTRACTOR SHALL SURVEY TOP OF STEEL ELEVATIONS BEFORE AND AFTER EXISTING DECK REMOVAL. COST INCLUDED IN SPV.0060 ITEM 'TOP OF GIRDER SURVEY B-14-67'. VARIATIONS EXCEEDING 1/4" BETWEEN ITEMS 'B' AND 'C' SHALL BE SUBMITTED TO THE STRUCTURES DESIGN SECTION FOR REVIEW.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

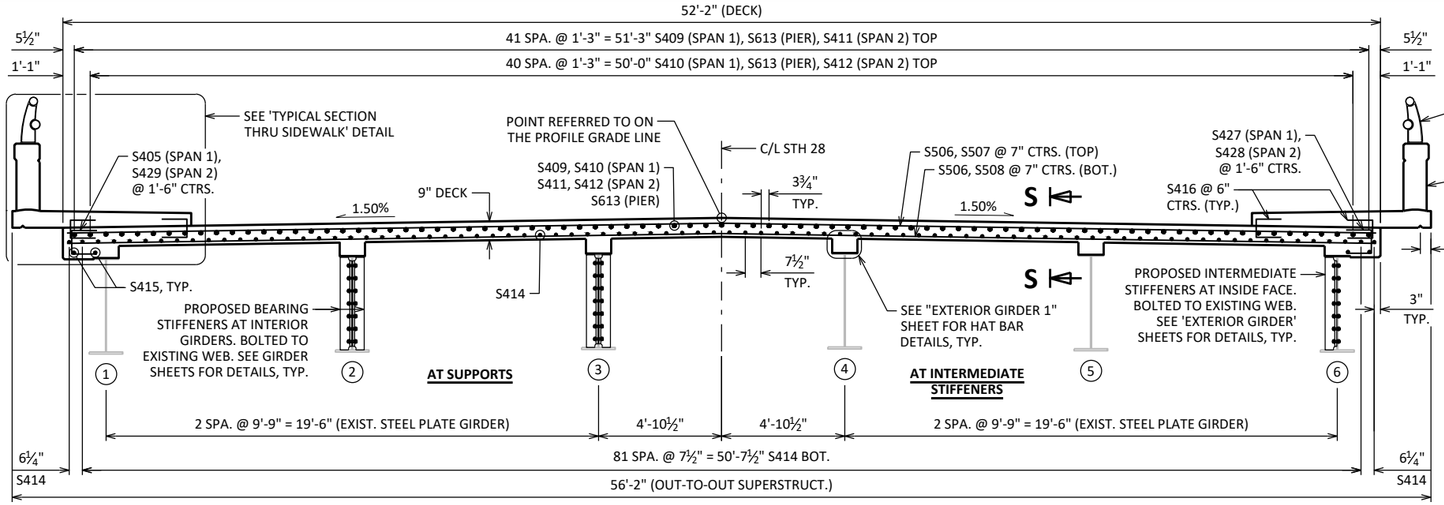
STRUCTURE B-14-67

DRAWN BY RRH | PLANS CK'D ARC

SUPERSTRUCTURE ELEVATIONS

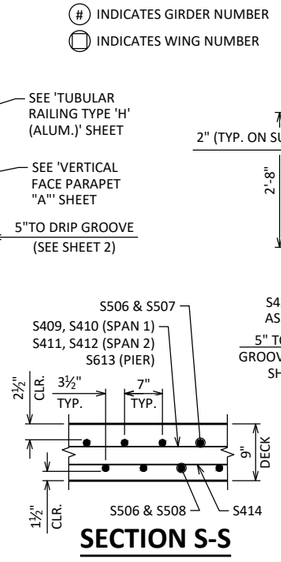
SHEET 10
63

SCALE = 2.00



CROSS SECTION THRU SUPERSTRUCTURE

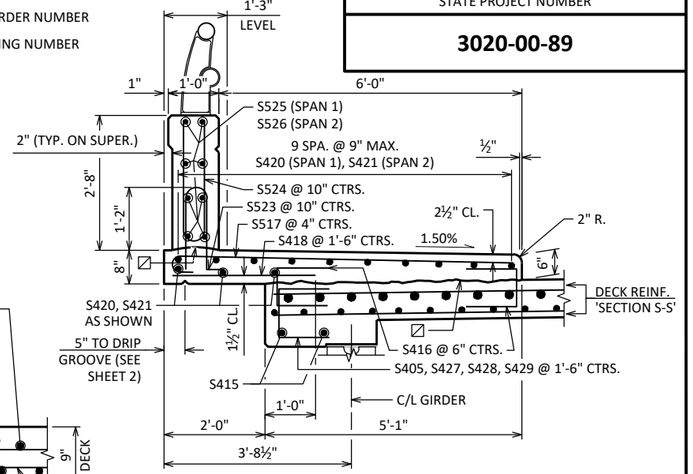
(LOOKING NORTH)



SECTION S-S

(#) INDICATES GIRDER NUMBER

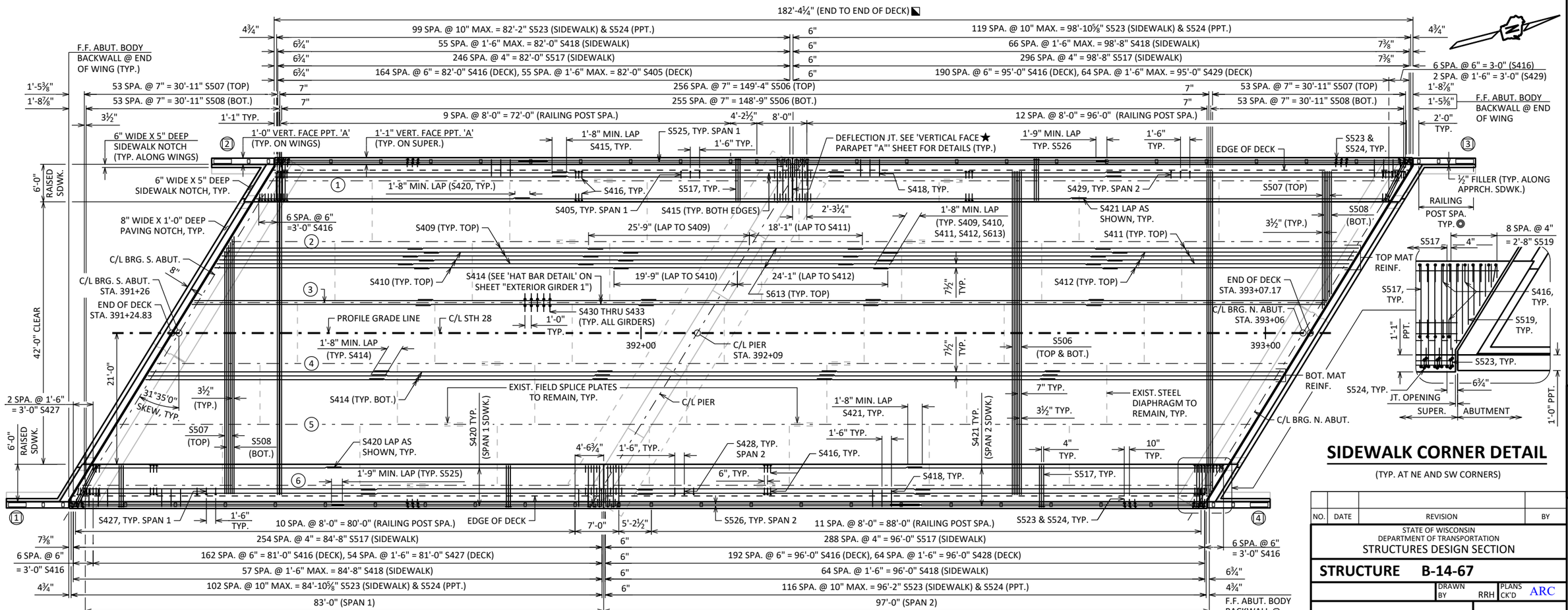
⬭ INDICATES WING NUMBER



TYPICAL SECTION THRU SIDEWALK

(SEE DETAILS BELOW FOR PLACEMENT OF S519 AT CORNERS)

⧄ CONST. JOINT-STRIKE OFF AS SHOWN AND LEAVE ROUGH. FOR DECK POUR, MATCH BRIDGE X-SLOPE.



PLAN

(DIMENSIONS TAKEN ALONG OR NORMAL TO ALIGNMENT)

★ SIDEWALK AND PARAPET BARS DO NOT RUN THRU DEFLECTION JOINT

◎ SEE 'VERTICAL FACE PARAPET "A"' SHT.

◥ LENGTH INCLUDES THE EXPANSION JOINT OPENINGS

SIDEWALK CORNER DETAIL

(TYP. AT NE AND SW CORNERS)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-14-67

DRAWN BY RRH | PLANS CK'D ARC

SUPERSTRUCTURE PLAN

SHEET 11
64

STATE PROJECT NUMBER

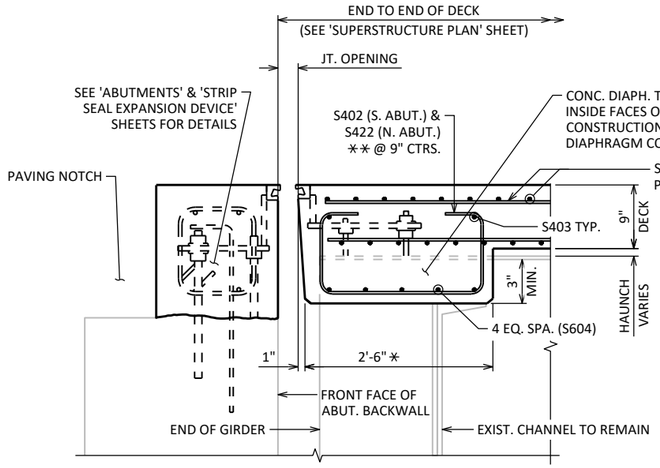
3020-00-89

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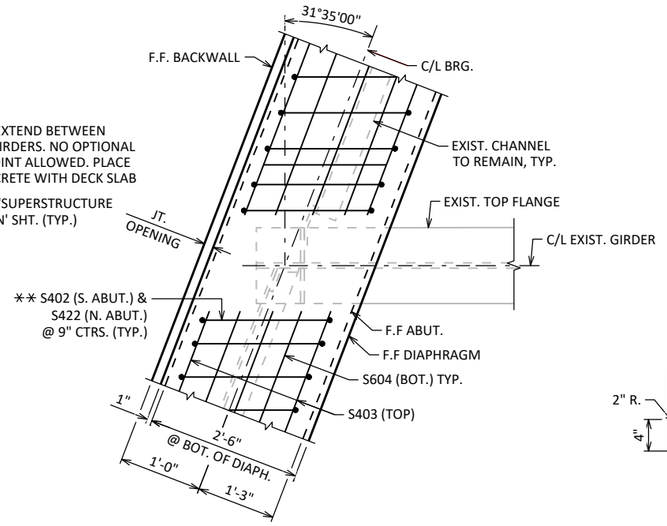
8

⁎ DIMENSION IS TAKEN NORMAL TO C/L ABUTMENTS.

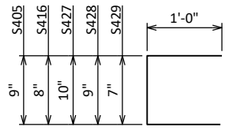
⁎⁎ BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO C/L GIRDERS.



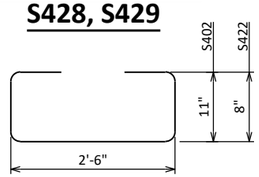
TYPICAL SECTION THRU DIAPHRAGM OVER ABUTMENTS



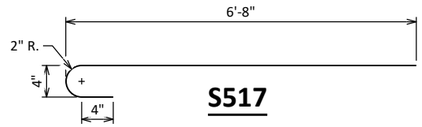
TOP VIEW OF DIAPHRAGM



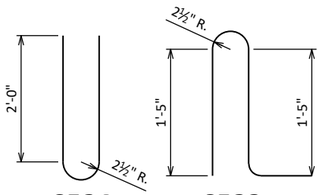
S405, S416, S427, S428, S429



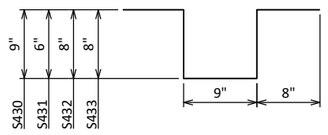
S402, S422



S517

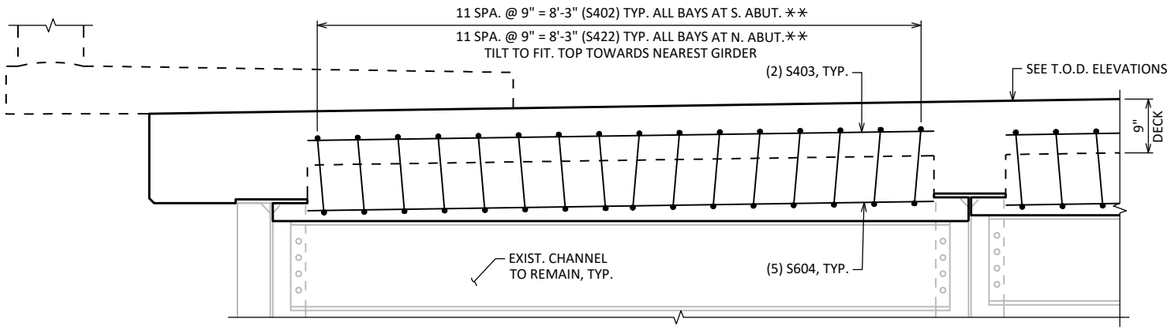


S524 S523



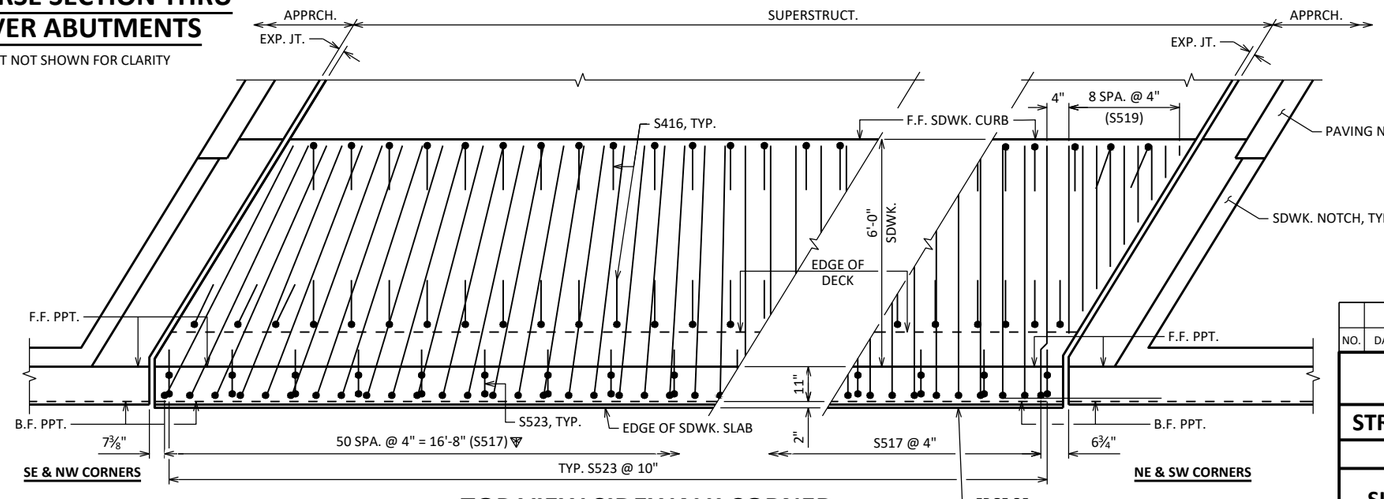
S430, S431, S432, S433

NOTE: (2) S401 REQ'D. SEE 'STRIP SEAL EXPANSION DEVICE' SHEETS FOR DETAILS



TYPICAL TRANSVERSE SECTION THRU DIAPHRAGM OVER ABUTMENTS

SIDEWALK REINFORCEMENT NOT SHOWN FOR CLARITY



TOP VIEW SIDEWALK CORNER

SIDEWALK LONGIT. REINFORCEMENT NOT SHOWN FOR CLARITY

▽ FAN S517 AT CORNERS WHILE MAINTAINING 2¼" MIN. CLEARANCE BETWEEN BARS

STATE PROJECT NUMBER

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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
S401	X	20	11'-0"			DECK DIAPH. - TRANSV. - AT SUPPORTS - BTWN. GIRS.
S402	X	60	5'-4"	X		DECK DIAPH. - VERT. STIRRUP - SOUTH ABUTMENT
S403	X	20	9'-10"			DECK DIAPH. - HORIZ. - TOP
S604	X	50	9'-10"			DECK DIAPH. - HORIZ. - BOT.
S405	X	56	2'-7"	X		WEST EDGE OF DECK - TIE - SPAN 1
S506	X	513	51'-10"			DECK - TRANSV. - TOP & BOT.
S507	X	108	25'-10"		⚠	DECK - TRANSV. - TOP
S508	X	108	26'-4"		⚠	DECK - TRANSV. - BOT.
S409	X	84	30'-8"			DECK - LONGIT. - TOP - SPAN 1
S410	X	82	33'-8"			DECK - LONGIT. - TOP - SPAN 1
S411	X	84	41'-6"			DECK - LONGIT. - TOP - SPAN 2
S412	X	82	38'-6"			DECK - LONGIT. - TOP - SPAN 2
S613	X	83	43'-10"			DECK - LONGIT. - TOP - PIER
S414	X	480	37'-8"			DECK & HAUNCH - LONGIT. - BOT. - SPAN 1 & 2
S415	X	20	37'-8"			EDGE OF DECK - LONGIT. - BOT.
S416	X	1,448	2'-6"	X		DECK - SDWK. - VERT. DOWEL
S517	X	1,088	7'-6"	X		SDWK. - HORIZ. - TRANSV. - TOP
S418	X	246	2'-10"			SDWK. - HORIZ. - TRANSV. - BOT.
S519	X	18	2'-9"		⚠	SDWK. SW & NE CORNERS - HORIZ. - TRANSV. - TOP
S420	X	52	43'-8"			SDWK. - LONGIT. - SPAN 1
S421	X	78	34'-4"			SDWK. - LONGIT. - SPAN 2
S422	X	60	4'-10"	X		DECK DIAPH. - VERT. STIRRUP - NORTH ABUTMENT
S523	X	440	4'-4"	X		PARAPET VERT. DOWEL
S524	X	440	4'-9"	X		PARAPET VERT.
S525	X	32	43'-6"			PARAPET HORIZ. - SPAN 1
S526	X	32	50'-6"			PARAPET HORIZ. - SPAN 2
S427	X	57	2'-8"	X		EAST EDGE OF DECK - TIE - SPAN 1
S428	X	65	2'-7"	X		EAST EDGE OF DECK - TIE - SPAN 2
S429	X	67	2'-5"	X		WEST EDGE OF DECK - TIE - SPAN 2
S430	X	396	3'-3"	X		DECK - VERT. HAT BAR - SPAN 1
S431	X	82	2'-9"	X		DECK - VERT. HAT BAR - SPAN 2 - GIRDER 1
S432	X	328	3'-1"	X		DECK - VERT. HAT BAR - SPAN 2 - GIRDERS 2 THRU 5
S433	X	82	3'-1"	X		DECK - VERT. HAT BAR - SPAN 2 - GIRDER 6

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.			LENGTH		
S507	2	SERIES OF	54	0'-8"	TO	50'-11"
S508	2	SERIES OF	54	1'-2"	TO	51'-5"
S519	2	SERIES OF	9	0'-7"	TO	4'-11"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-14-67

DRAWN BY RRH | PLANS CK'D ARC

SUPERSTRUCTURE DETAILS

SHEET 12
65

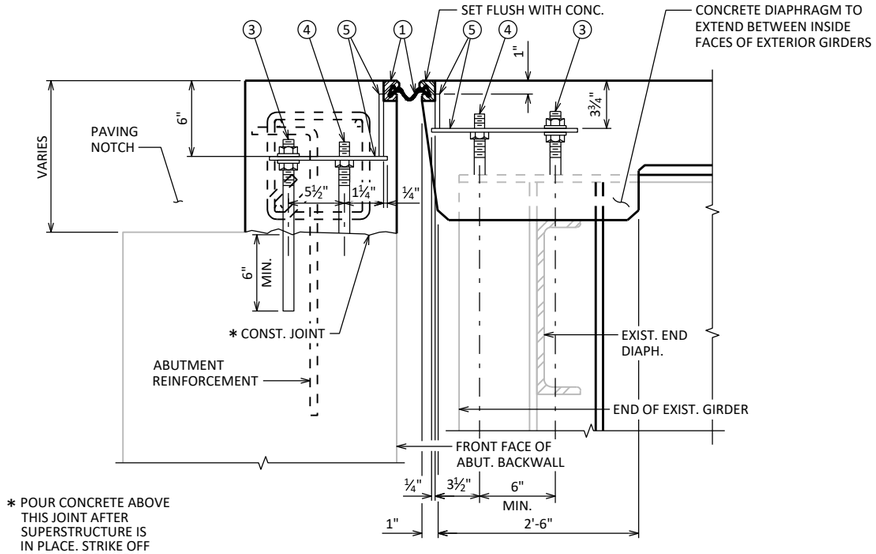
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8

STATE PROJECT NUMBER

3020-00-89



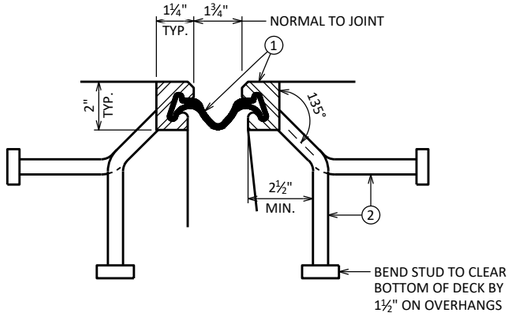
∗ POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH

SECTION THRU JOINT AT ABUTMENT

NORMAL TO C/L SUBSTRUCTURE

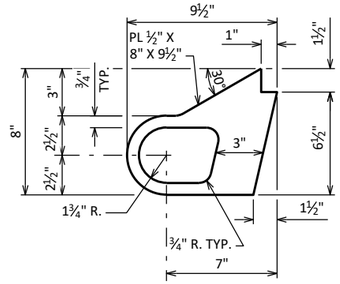
LEGEND

1. NEOPRENE STRIP SEAL (4-INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝" DIA. X 6¾" 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. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. 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.
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 2'-0" X LIMITS SHOWN. BEND DOWN FACE OF SIDEWALK WITH HOLES FOR NO. 7. GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.

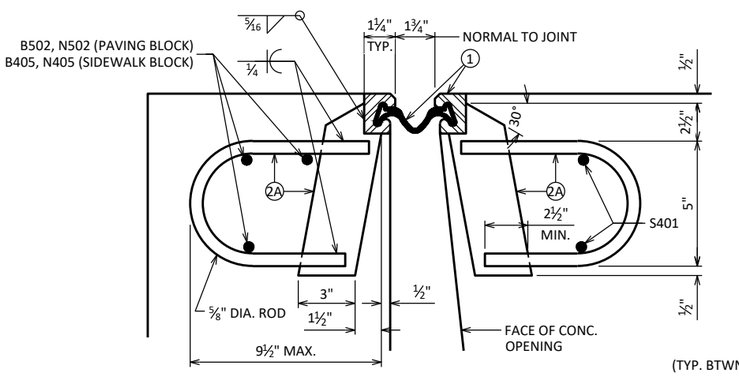


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS AND SIDEWALKS

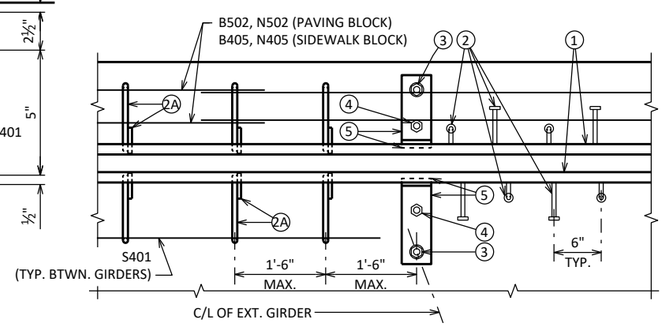


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS



PART PLAN

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, 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 AND 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".

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-14-67

DRAWN BY RRH | PLANS CK'D ARC

STRIP SEAL EXPANSION DEVICE

SHEET 13
66

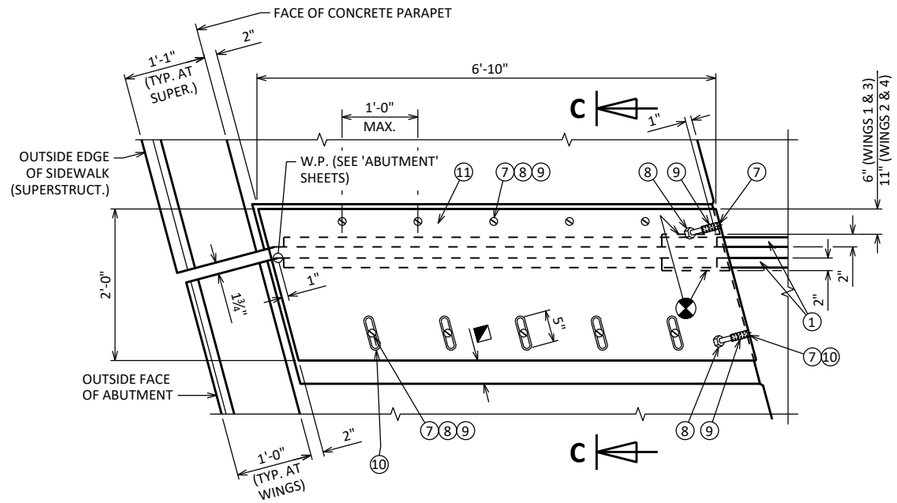
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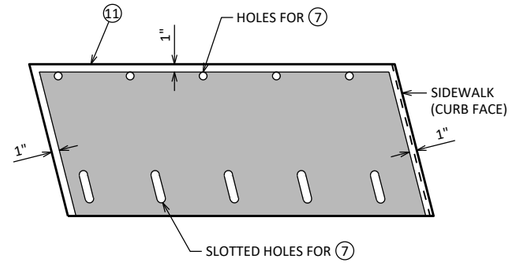
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STATE PROJECT NUMBER

3020-00-89



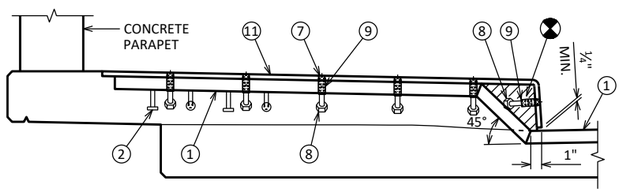
PLAN AT SIDEWALK



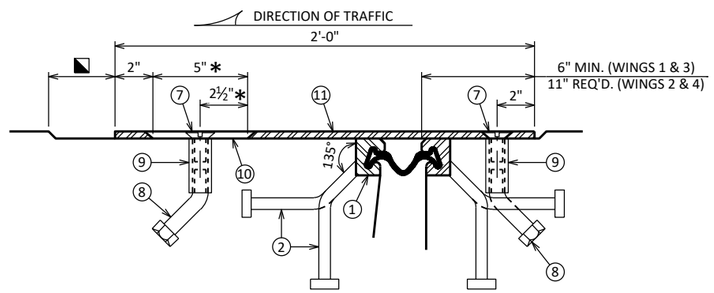
PLAN OF SIDEWALK COVER PLATE WITH SLIP-RESISTANT SURFACE

PLACE SLIP-RESISTANT SURFACE ON TOP
WALKING SURFACE IN SHADED AREA ONLY (NOT ON CURB FACE).

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



SECTION AT SIDEWALK



SECTION C-C

✱ DIMENSION ALONG DIRECTION OF MOVEMENT

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS ½".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-14-67

DRAWN BY RRH | PLANS CK'D ARC

SIDEWALK COVER PLATE DETAILS

SHEET 14
67

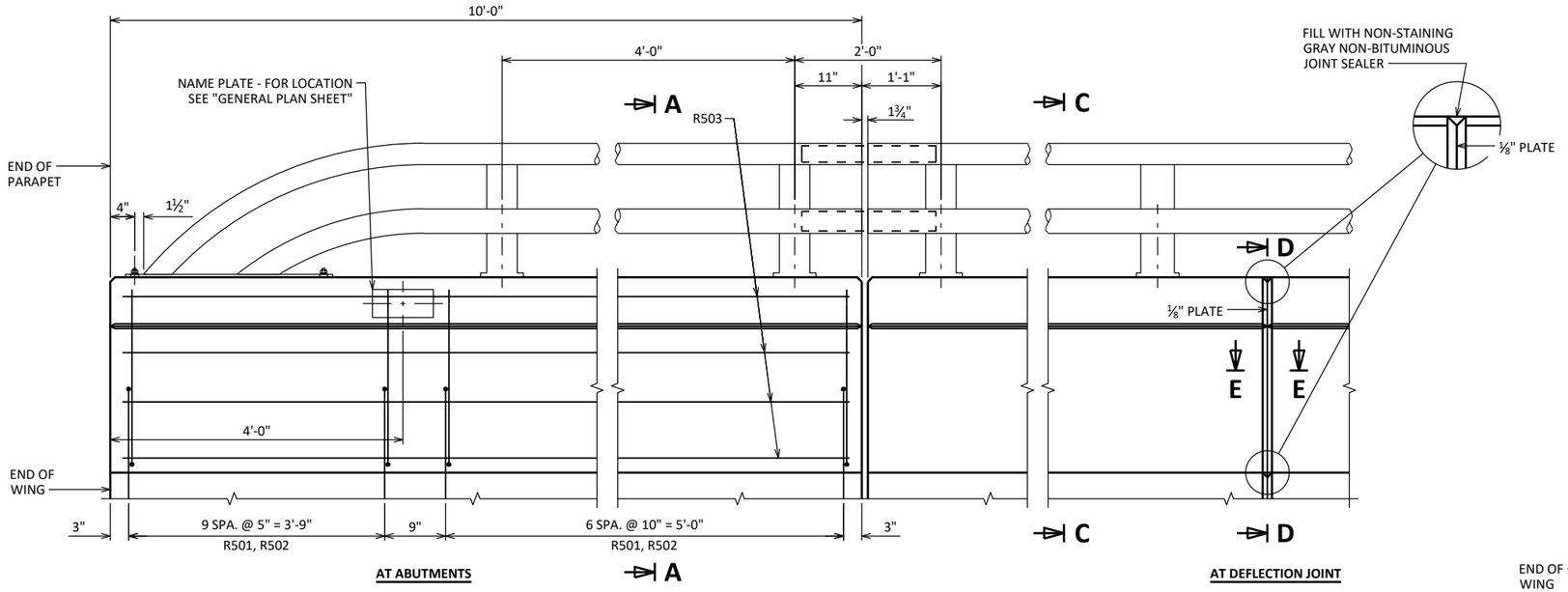
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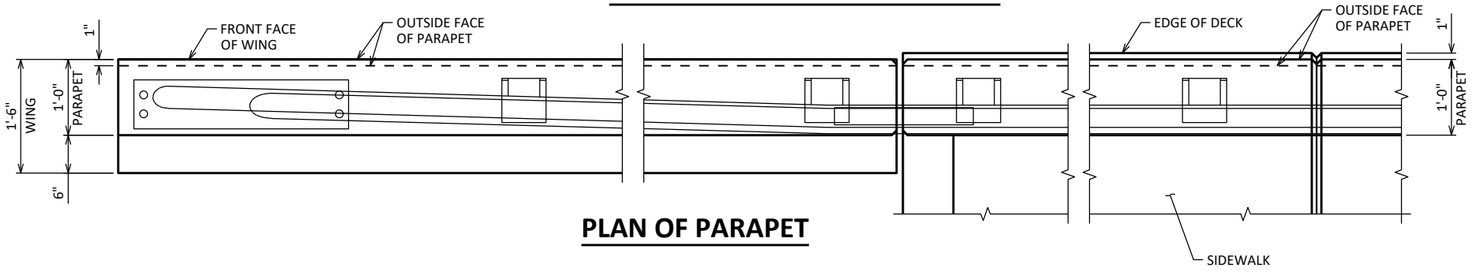
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STATE PROJECT NUMBER

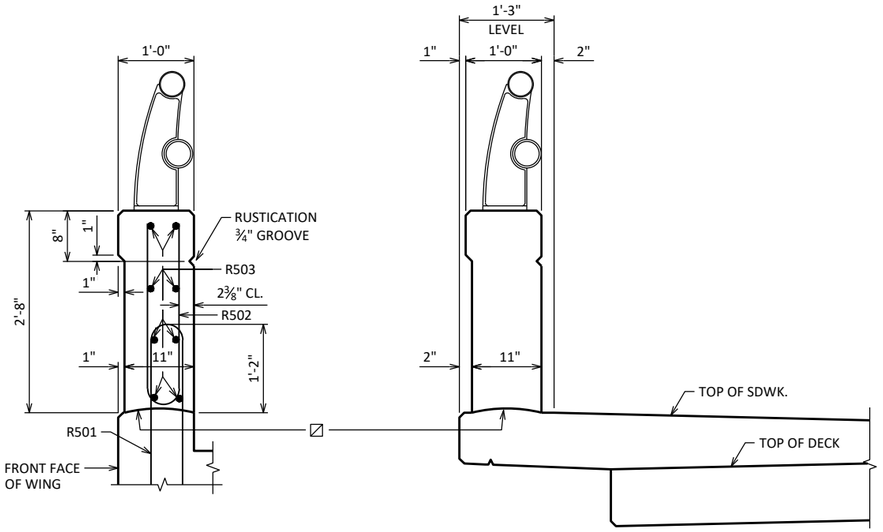
3020-00-89



INSIDE ELEVATION OF PARAPET



PLAN OF PARAPET

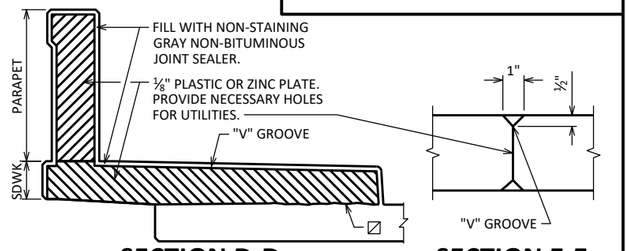


SECTION A-A

SECTION C-C

☒ CONST. JOINT-STRIKE OFF AS SHOWN AND LEAVE ROUGH.

(SEE 'SUPERSTRUCTURE PLAN' SHEET FOR SUPERSTRUCTURE REINFORCEMENT)

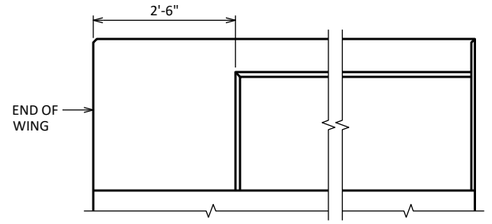


SECTION D-D

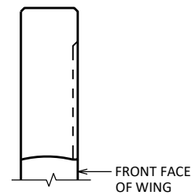
SECTION E-E

(SHOWING DEFLECTION JOINT IN PARAPET AND SIDEWALK.)

WHEN PARAPETS ARE POURED CONTINUOUSLY FROM END TO END, THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF ⅛" ZINC OR PLASTIC PLATE CUT AS SHOWN IN SECTION D-D BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS ARE USED AT THE DEFLECTION JOINTS, ONE SIDE OF JOINT SHALL BE COATED WITH AN APPROVED LIQUID BOND BREAKER AND PLATE SEPARATORS MAY BE OMITTED.



OUTSIDE FACE OF PARAPET

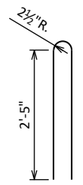


END VIEW

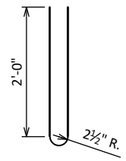
BILL OF BARS

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
R501	X	68	5'-7"	X		PARAPET VERT.
R502	X	68	4'-9"	X		PARAPET VERT.
R503	X	32	9'-8"			PARAPET HORIZ.



R501



R502

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-14-67

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VERTICAL FACE PARAPET "A"

SHEET 15
68

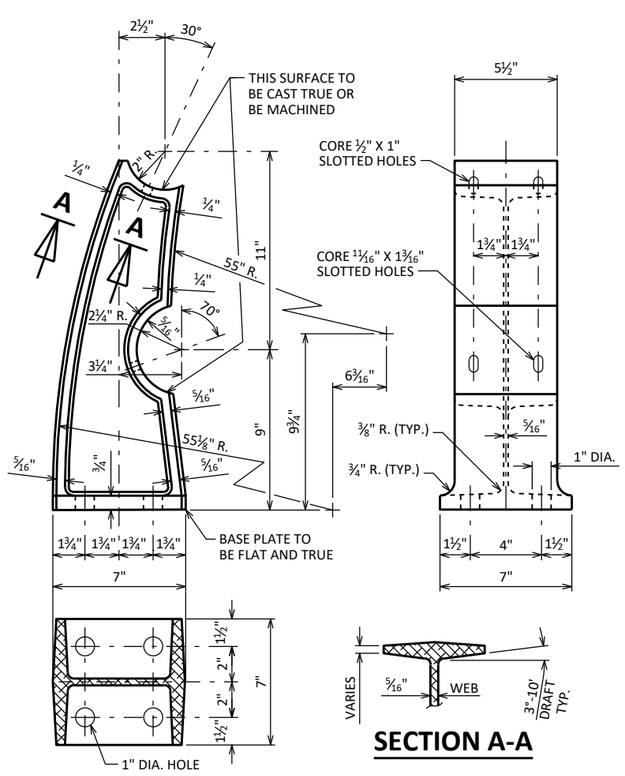
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8

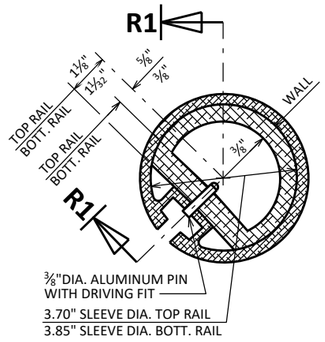
STATE PROJECT NUMBER

3020-00-89

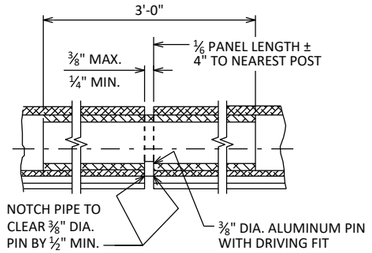


ALUMINUM POST CASTING

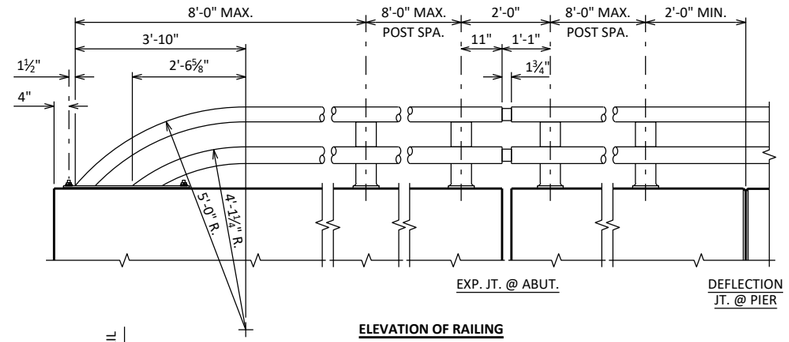
SECTION A-A



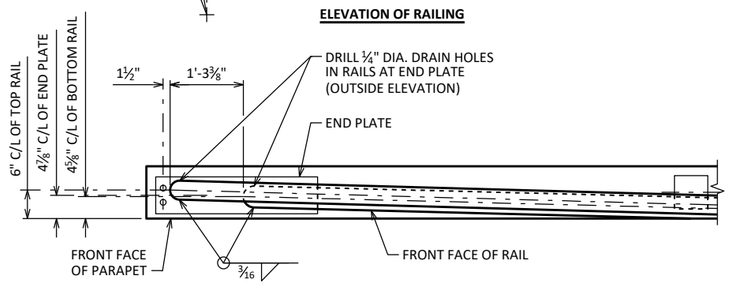
RAIL SPLICE DETAIL



SECTION R1



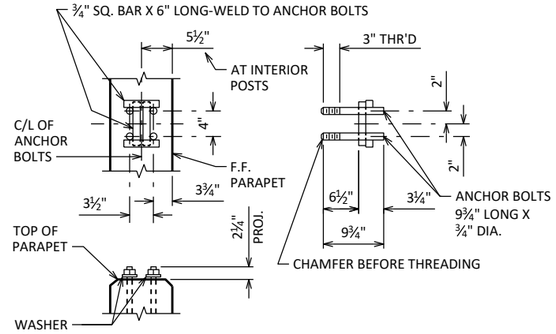
ELEVATION OF RAILING



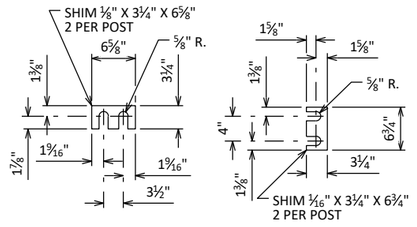
PLAN

VERTICAL FACE PARAPET 'A'

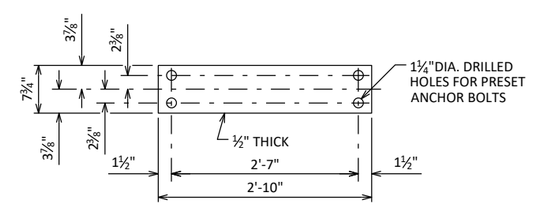
DETAIL OF RAIL BEND AT ABUTMENTS



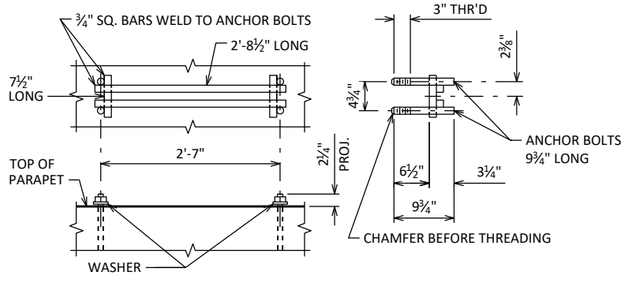
ANCHOR BOLTS AT POSTS



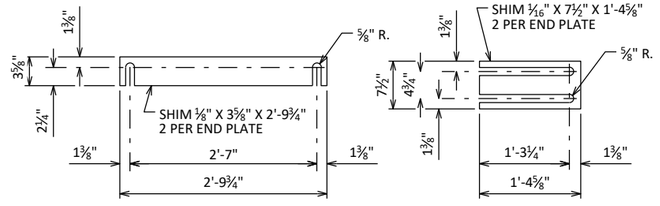
POST SHIM DETAILS



END PLATE



ANCHOR BOLTS AT END PLATE



END PLATE SHIM DETAILS

NOTES

BID ITEM SHALL BE "RAILING TUBULAR TYPE H" WHICH INCLUDES ALL ITEMS SHOWN.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.

SHIMS SHALL CONFORM TO SAME MATERIAL AS POSTS.

RAILINGS SHALL BE FABRICATED IN 2 AND 3 PANEL LENGTHS.

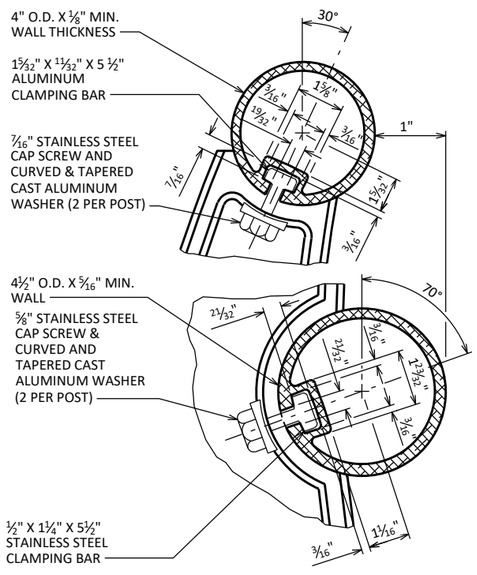
RAILING POSTS SHALL BE SET NORMAL TO GRADE LINE.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG CENTERLINE OF THE POST BASE.

SHIMS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQ'D FOR ALIGNMENT.

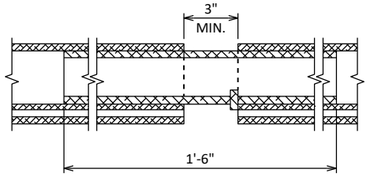
FILL ALL EXPOSED OPENINGS BETWEEN SHIMS AND POST ANCHOR BOLT HOLES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

RAILS SHALL BE BUILT STRAIGHT AND SPRUNG INTO PLACE FOR STRUCTURES CURVED UP TO 3°. FOR STRUCTURES CURVED GREATER THAN 3°, RAILS SHALL BE CURVED TO FIT.

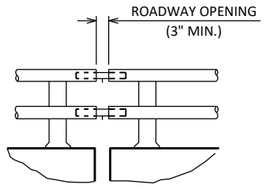


DETAIL OF RAIL ATTACHMENT TO POST

NOTE: MAX. REDUCTION IN DIAMETER OF BENT SECTION SHALL BE 3%. WALL THICKNESS OF TUBING SHOWN ABOVE SHALL BE MIN. NOMINAL AVERAGE WALL THICKNESS. MAX. REDUCTION IN SLOT WIDTH IN BENT TUBING SHALL BE 3⁄16".

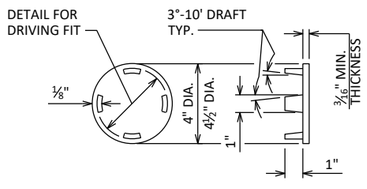


SLEEVE DETAIL AT ABUTMENT



DETAIL AT RAIL OPENINGS

ALL SLEEVE DETAILS SAME AS "RAIL SPLICE DETAIL" UNLESS SHOWN OTHERWISE



RAIL CLOSURE CAP DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-14-67

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TUBULAR RAILING TYPE 'H' (ALUM.)

SHEET 16
69

SCALE = 0.18

8

8

391+00

390+94

390+50

390+35

390+20

10 FT

10 FT

9

9

PROJECT NO: 3020-00-89	HWY: STH 28	COUNTY: DODGE	CROSS SECTIONS: CROSS SECTIONS	SHEET 70	E

FILE NAME : N:\PDS\C3D\30200009\SHEETSPLAN\090201-XS - CROSS SECTIONS\090201-XS.DWG
LAYOUT NAME - 01

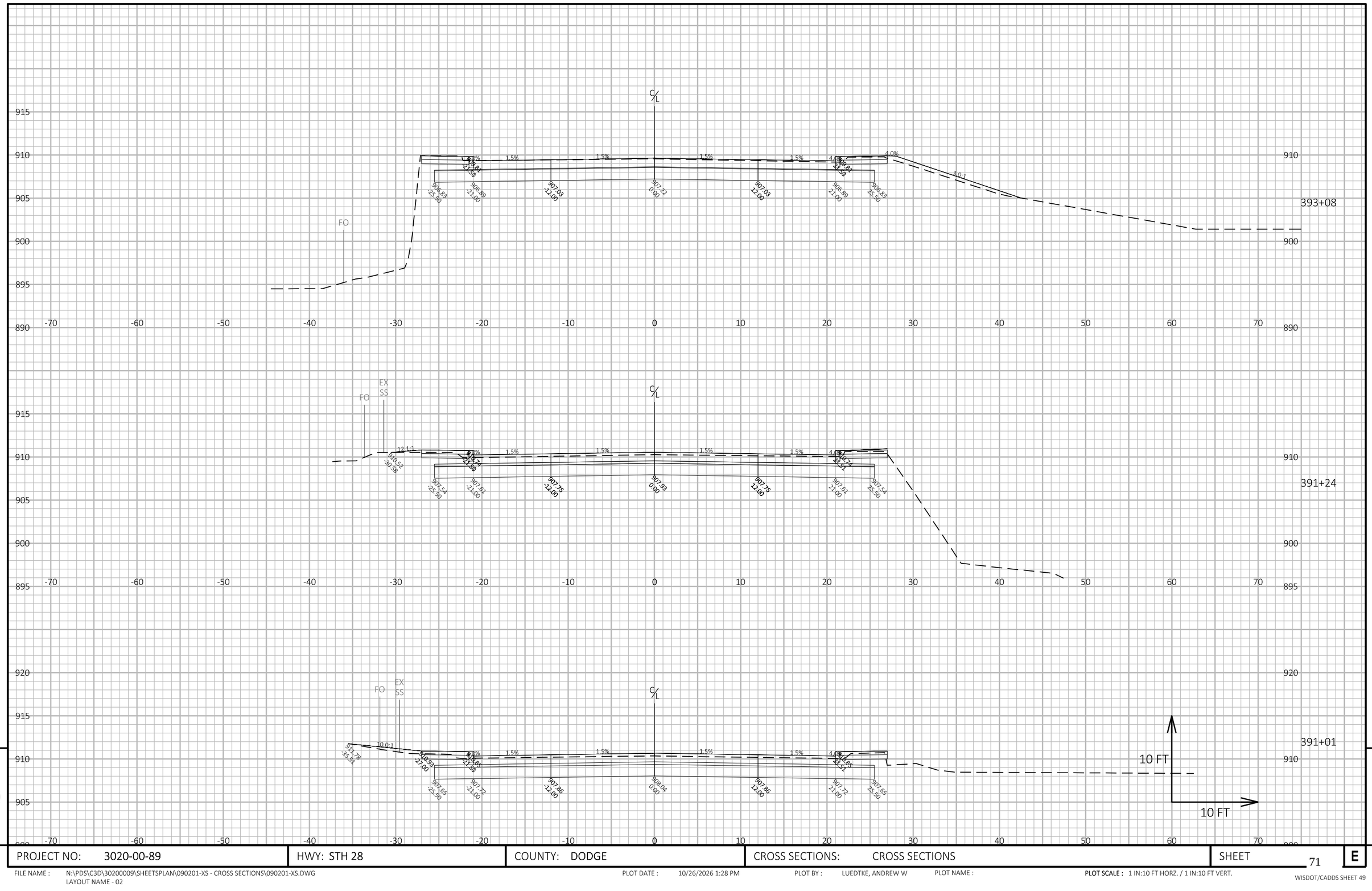
PLOT DATE : 10/26/2026 1:28 PM

PLOT BY : LUEDTKE, ANDREW W

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 3020-00-89	HWY: STH 28	COUNTY: DODGE	CROSS SECTIONS: CROSS SECTIONS	SHEET 71	E

FILE NAME : N:\PDS\C3D\30200009\SHEETSPLAN\090201-XS - CROSS SECTIONS\090201-XS.DWG
LAYOUT NAME - 02
PLOT DATE : 10/26/2026 1:28 PM
PLOT BY : LUEDTKE, ANDREW W
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

9

9

PROJECT NO: 3020-00-89	HWY: STH 28	COUNTY: DODGE	CROSS SECTIONS: CROSS SECTIONS	SHEET 72	E

FILE NAME : N:\PDS\C3D\30200009\SHEETSPLAN\090201-XS - CROSS SECTIONS\090201-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 10/26/2026 1:28 PM PLOT BY : LUEDTKE, ANDREW W PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

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