LAX

JULY 2017

ORDER OF SHEETS

TOTAL SHEETS = 122

PROJECT ID: WITH: N/A

6131-00-61

COUNTY: SAUK & COLUMBIA

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6131-00-61		

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY REHABILITATION-MAINTENANCE PROJECT

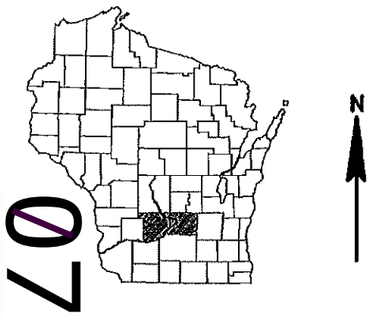
C WISCONSIN DELLS, BROADWAY STREET

STRUCTURE B-11-001 & B-11-104

STH 13

SAUK AND COLUMBIA COUNTIES

STATE PROJECT NUMBER
6131-00-61



DESIGN DESIGNATION

A.A.D.T.	2017	= 19,600
A.A.D.T.	2037	= 22,700
D.H.V.		= 1,447
D.D.		= 59/41
T.		= 6.4%
DESIGN SPEED		= <25 MPH
ESALS		= N/A

CONVENTIONAL SYMBOLS

PLAN

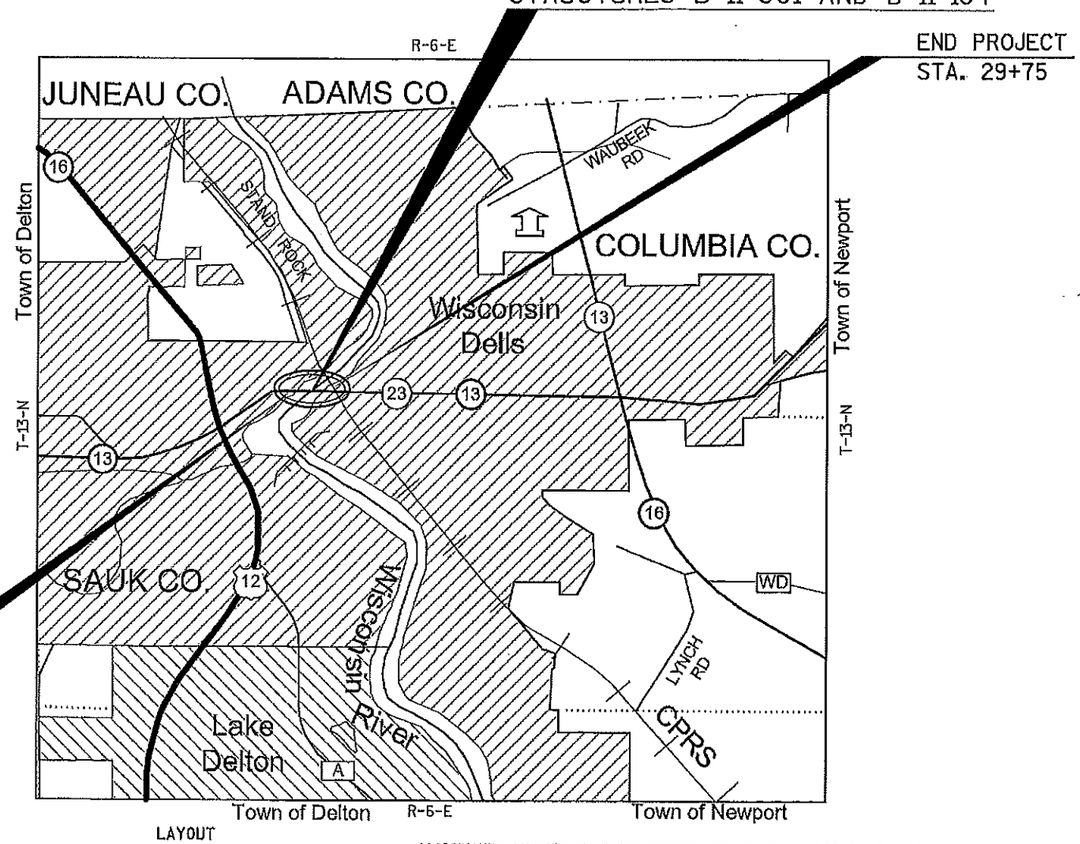
CORPORATE LIMITS

REFERENCE LINE

COMBUSTIBLE FLUIDS (CAUTION)

UTILITIES

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



LAYOUT

SCALE 0 1/2 MI.

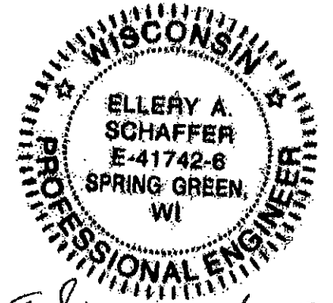
TOTAL NET LENGTH OF CENTERLINE = 0.163 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), SAUK COUNTY.

ELEVATIONS ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

ORIGINAL PLANS PREPARED BY

JEWELL
associates engineers, inc.
Engineers - Architects - Surveyors



1/31/2017

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor JEWELL ASSOCIATES ENGINEERS, INC.
Designer JEWELL ASSOCIATES ENGINEERS, INC.
Project Manager ELLERY SCHAFFER, P.E.
Regional Examiner JOHN BAINTER, P.E.
Regional Supervisor OSCAR IAN WINGER, P.E.
C.O. Examiner

APPROVED FOR THE DEPARTMENT

DATE: 31 January 2017
Signature

E

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\TITLE SHEET.DWG
LAYOUT : TITLE SHEET 1 IN EQ 1 MI

PLOT DATE : 1/31/2017
PLOT TIME : 8:39:33 AM

PLOT BY : STRINE, THERESA

PLOT SCALE : 1" = 1'

WISDOT/CADDS SHEET 10

LIST OF STANDARD ABBREVIATIONS

ABUT	Abutment
ADT	Average Daily Traffic
AADT	Average Annual Daily Traffic
BAD	Base Aggregate Dense
BK	Back
BF	Back Face
BM	Bench Mark
C	Chord Length
C/L	Center Line
CC	Center to Center
CTH	County Trunk Highway
CY	Cubic Yard
CP	Culvert Pipe
C & G	Curb and Gutter
△	Delta
DA	Degree of Arc
DD	Directional Distribution
DHV	Design Hourly Volume
DIA	Diameter
E	East
X	East Grid Coordinate
EL or ELEV	Elevation
ESALS	Equivalent Single Axle Loads
EBS	Excavation Below Subgrade
FF	Face to Face
FE	Field Entrance
FG	Finished Grade
FT	Foot
GN	Grid North
CWT	Hundredweight
HYD	Hydrant
INL	Inlet
ID	Inside Diameter
INV	Invert
IP	Iron Pipe or Pin
IRS	Iron Rod Set
JCT	Junction
LHF	Left-Hand Forward
L	Length of Curve
LF	Linear Foot
MH	Manhole
MB	Mailbox
ML or M/L	Match Line
N	North
Y	North Grid Coordinate
PLE	Permanent Limited Easement
PT	Point
PC	Point of Curvature
PI	Point of Intersection
PRC	Point of Reverse Curvature
PT	Point of Tangency
POC	Point On Curve
POT	Point on Tangent
PVC	Polyvinyl Chloride
PCC	Portland Cement Concrete
LB	Pound
PSI	Pounds Per Square Inch
PE	Private Entrance
R	Radius
RR	Railroad
R	Range
R/L	Reference Line
RP	Reference Point
RCCP	Reinforced Concrete Culvert Pipe
REQD	Required
RES	Residence or Residential
RT	Right
RHF	Right-Hand Forward
R/W	Right-of-Way
RD	Road
SAN S	Salvaged Sanitary Sewer
SEC	Section
SHLDR	Shoulder
SW	Sidewalk
S	South
SF or SQ FT	Square Feet
SY or SQ YD	Square Yard
STD	Standard
SDD	Standard Detail Drawings
STH	State Trunk Highways
STA	Station
SS	Storm Sewer
SG	Subgrade
SE	Superelevation
TEL	Telephone
TEMP	Temporary
TI	Temporary Interest
TLE	Temporary Limited Easement
T	Tangent Length
T or TN	Town
TRANS	Transition
TL or T/L	Transit Line
T	Trucks (percent of)
TYP	Typical
UG	Underground Cable
USH	United States Highway
VAR	Variable
V	Velocity or Design Speed
VERT	Vertical
VC	Vertical Curve
WM	Water Main
WV	Water Valve
W	West
WB	Westbound

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

TOTAL PROJECT AREA= 2.28 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.66 ACRES

CONTACTS

WISDOT
WISCONSIN DEPARTMENT OF TRANSPORTATION
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
ATTN: JOHN BAINTER, P.E.,
PH: (608) 785-9729
E-MAIL: John.Bainter@dot.wi.gov

DESIGN CONSULTANT:
JEWELL ASSOCIATES ENGINEERS, INC.
560 SUNRISE DR.
SPRING GREEN, WI 53588
ATTN: ELLERY SCHAFFER, P.E.
PH: (608) 588-7484
FAX: (608) 588-9322
E-MAIL: ellery.schaffer@jewellassoc.com

DNR LIAISON:
STATE OF WISCONSIN
DNR SOUTH CENTRAL REGION HQ
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
ATTN: ANDY BARTA
PH: (608) 275-3308
E-MAIL: Andrew.Barta@wisconsin.gov

GENERAL NOTES

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

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE FIRST BEEN DESIGNATED FOR REMOVAL BY THE ENGINEER IN THE FIELD.

WHEN THE QUANTITY OF THE ITEM OF BASE AGGREGATE DENSE OR ASPHALTIC SURFACE IS MEASURED FOR PAYMENT BY THE TON, THE THICKNESS SHOWN ON THE PLAN IS APPROXIMATE. THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER IN THE FIELD.

REMOVAL OF CONCRETE OR ASPHALTIC SURFACES WHERE AN ABUTTING CONCRETE OR ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A SAWCUT MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS EXCAVATION COMMON. EXACT LOCATIONS OF EBS WILL BE DETERMINED BY THE ENGINEER.

SILT FENCE SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER IN THE FIELD. SILT FENCE SHALL BE PLACED PRIOR TO CONSTRUCTION.

THE LOCATION OF ALL PERMANENT SIGNING SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD PRIOR TO PLACEMENT.

EXTEND LIMITS OF CONCRETE PAVEMENT APPROACH SLAB TO NEAREST TRANSVERSE JOINT AS DIRECTED BY ENGINEER IN FIELD.

TRANSVERSE JOINTS IN CONCRETE SIDEWALK SHALL BE CONSTRUCTED AT INTERVALS EQUAL TO THE WIDTH OF THE CONCRETE SIDEWALK, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

DISTURBED AREAS SHOWN WITHIN THE RIGHT OF WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE FERTILIZED (TYPE B), SEEDED (USE SEED MIX NO. 40), SEEDING TEMPORARY AND EROSION MATTED, AS DIRECTED BY THE ENGINEER IN THE FIELD.

EROSION CONTROL ITEMS SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER IN THE FIELD. SILT FENCE SHALL BE PLACED PRIOR TO CONSTRUCTION.

CURB AND GUTTER ELEVATIONS ARE GIVEN TO THE FLOW LINE, UNLESS OTHERWISE NOTED.

ALL RADII DIMENSIONS ON THE PLAN FOR CURB AND GUTTER ARE TO THE FLANGE OF THE CURB AND GUTTER. ALL RADII DIMENSIONS ON THE PLAN FOR CURB ARE TO THE FACE OF THE CURB.

EXPANSION JOINTS SHALL BE CONSTRUCTED AT ALL RADII POINTS OF THE CURB AND CURB AND GUTTER.

UTILITIES

ELECTRIC:
ALLIANT ENERGY
ATTN: JASON HOGAN
4902 N. BILTMORE LANE
SUITE 1000
MADISON, WI 53718-2148
PH: (608) 458-4871
CELL: (608) 395-7395
E-MAIL: jasonhogan@alliantenergy.com

ELECTRIC:
ATC MANAGEMENT, INC.
ATTN: DOUG VOSBERG
5303 FEN OAK DRIVE
MADISON, WI 53718
PH: (608) 877-7650
CELL: (608) 438-7650
E-MAIL: dvosberg@atcllc.com

SEWER:
CITY OF WISCONSIN DELLS
ATTN: THORE GREGERSON
1680 BROADWAY
WISCONSIN DELLS, WI 53965
PH: (608) 254-2560
CELL: (608) 393-1359
E-MAIL: dpwshop@dellscitygov.com

WATER:
CITY OF WISCONSIN DELLS
ATTN: SCOTT HOLZEM
51 ILLINOIS AVENUE
WISCONSIN DELLS, WI 53965
PH: (608) 254-2408
CELL: (608) 432-1364
E-MAIL: sholzem@dellsutility.com

COMMUNICATION LINE:
FRONTIER COMMUNICATIONS OF WI, LLC.
ATTN: JERRY MOORE
2222 WEST WISCONSIN STREET
PORTAGE, WI 53901
PH: (608) 742-9507
E-MAIL: jerald.moore@ftr.com

GAS/PETROLEUM:
ALLIANT ENERGY
ATTN: JASON HOGAN
4902 N. BILTMORE LANE
SUITE 1000
MADISON, WI 53718-2148
PH: (608) 458-4871
CELL: (608) 395-7395
E-MAIL: jasonhogan@alliantenergy.com

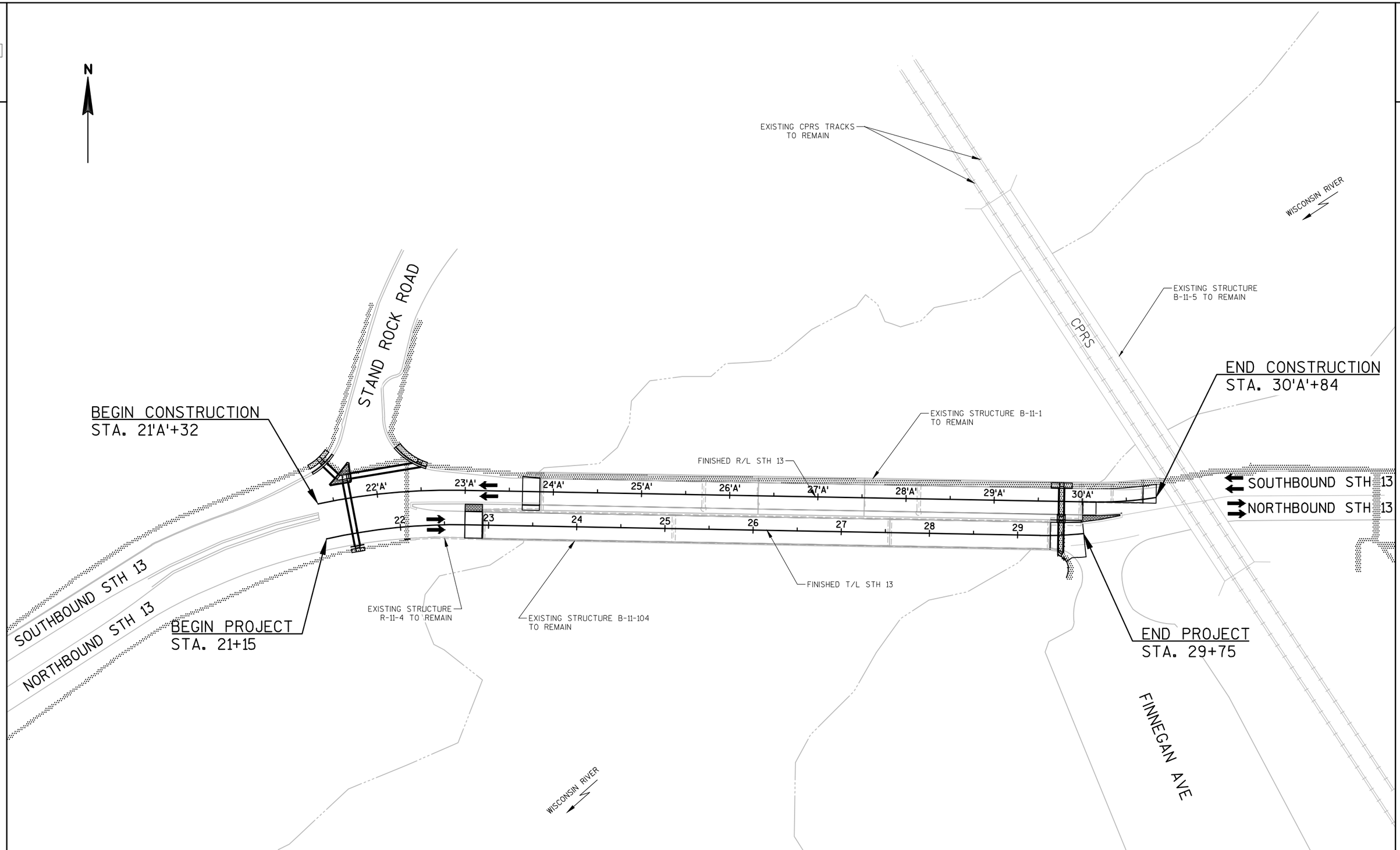
ELECTRIC:
WISCONSIN DELLS MUNICIPAL ELECTRIC UTILITY
ATTN: TOM ANEN
300 LA CROSSE ST.
WISCONSIN DELLS, WI 53965
PH: (608) 254-2408
CELL: (608) 432-1363
E-MAIL: tanen@dellsutility.com

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

* DENOTES UTILITY IS NOT A MEMBER OF DIGGERS HOTLINE

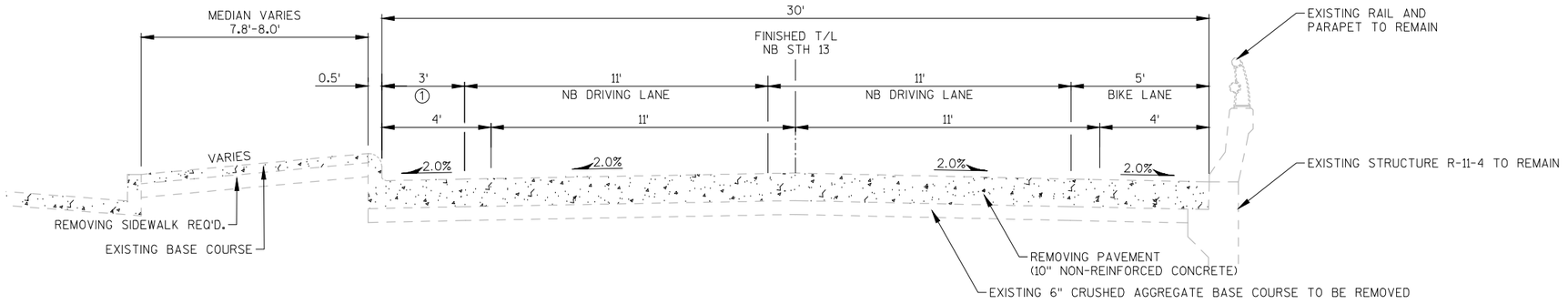
ORDER OF SECTION 2 SHEETS

- WRITTEN MATERIAL
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PAVEMENT MARKING AND PERMANENT SIGNING
- TRAFFIC SIGNALS
- TRAFFIC CONTROL AND CONSTRUCTION STAGING
- CONTROL POINT TIES



PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK & COLUMBIA	PROJECT OVERVIEW	SHEET 3

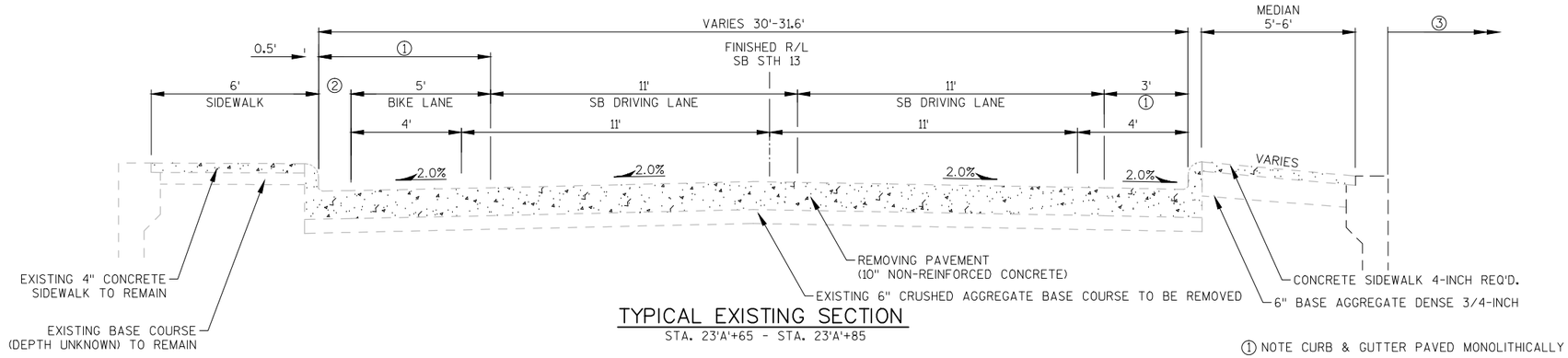
FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\PLAN & PROFILE SHEETS\W11540_PROJECT OVERVIEW.DWG
LAYOUT : LAYOUT1
PLOT DATE :
PLOT TIME :
PLOT BY : JULIA ZEHNER
PLOT SCALE : 1" = 1'



TYPICAL EXISTING SECTION

STA. 22+73 - STA. 22+93

① NOTE CURB & GUTTER PAVED MONOLITHICALLY



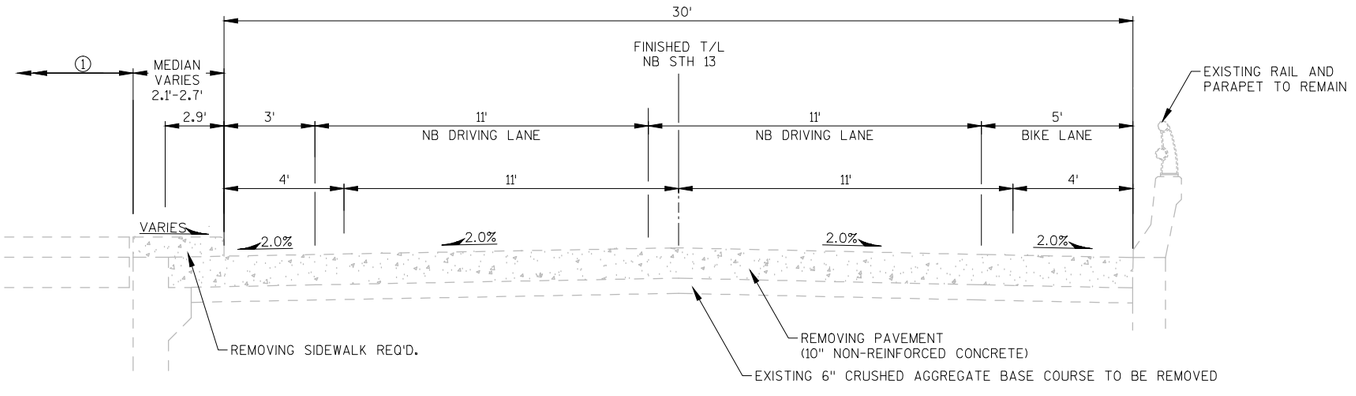
TYPICAL EXISTING SECTION

STA. 23'A'+65 - STA. 23'A'+85

① NOTE CURB & GUTTER PAVED MONOLITHICALLY

② VARIES 0'-1.6'

③ LIMITS OF EXISTING STRUCTURE B-11-104



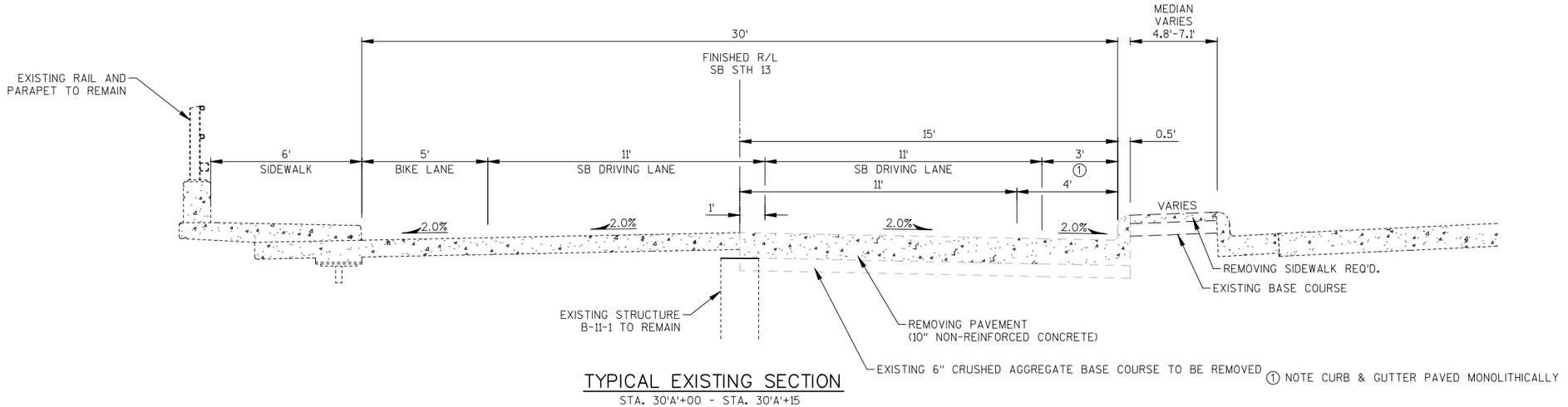
TYPICAL EXISTING SECTION

STA. 29+37 - STA. 29+75

① LIMITS OF EXISTING STRUCTURE B-11-1

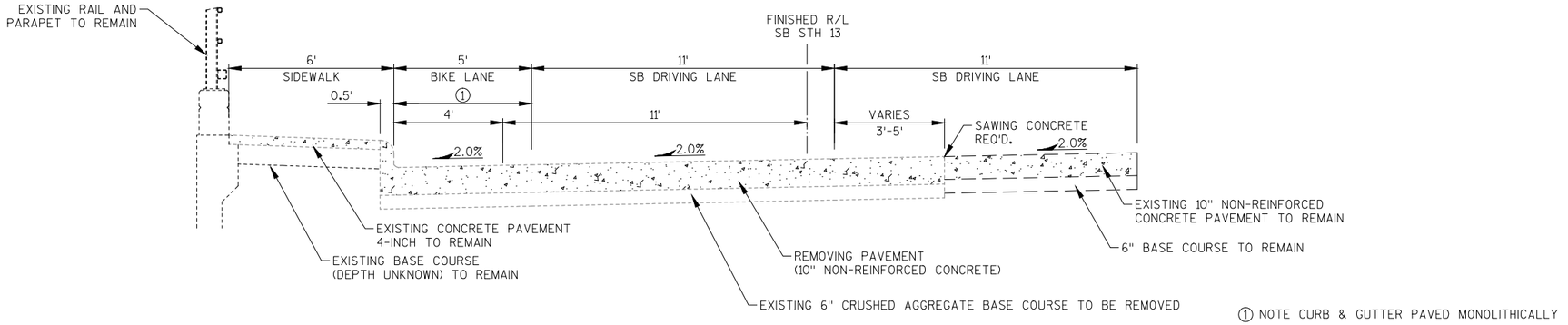
PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK & COLUMBIA	TYPICAL EXISTING SECTIONS	SHEET 4

FILE NAME : S:\PROJECTS\W1154O STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\DETAILS\CONSTRUCTION DETAILS
LAYOUT : EXISTING LAYOUTS.DWG
PLOT DATE : 11/7/2016
PLOT TIME : 2:01:00 PM
PLOT BY : JULIA ZEHNER
PLOT SCALE : 1" = 1'



TYPICAL EXISTING SECTION

STA. 30'A'+00 - STA. 30'A'+15

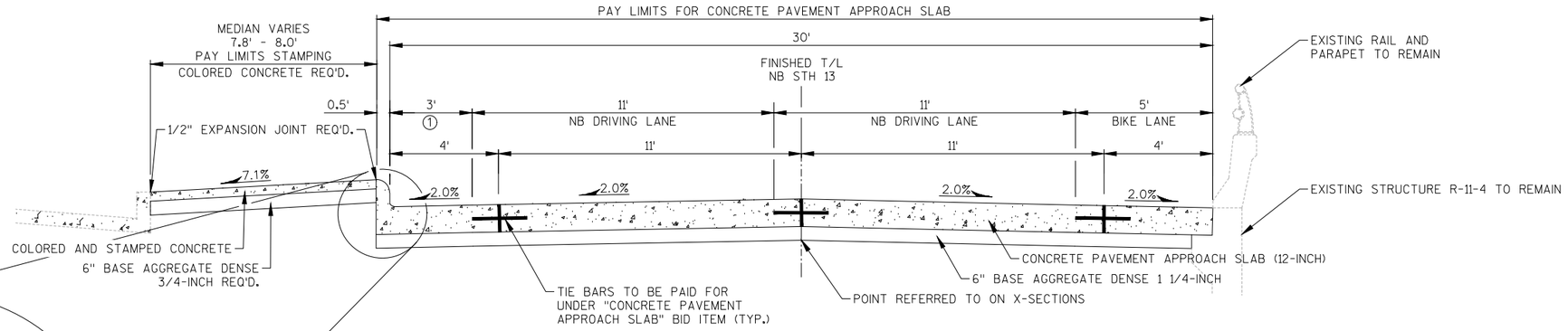


TYPICAL EXISTING SECTION

STA. 30'A'+69 - STA. 30'A'+84

PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK & COLUMBIA	TYPICAL EXISTING SECTIONS	SHEET 5

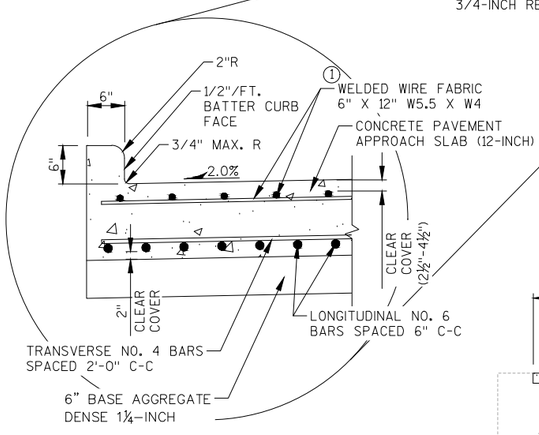
FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\DETAILS\CONSTRUCTION DETAILS
LAYOUT : EXISTING LAYOUTS.DWG
PLOT DATE : 11/3/2016
PLOT TIME : 7:48:31 AM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1" = 1'



TYPICAL FINISHED SECTION

STA. 22+73 - STA. 22+93

① NOTE CURB & GUTTER TO BE PAVED MONOLITHICALLY

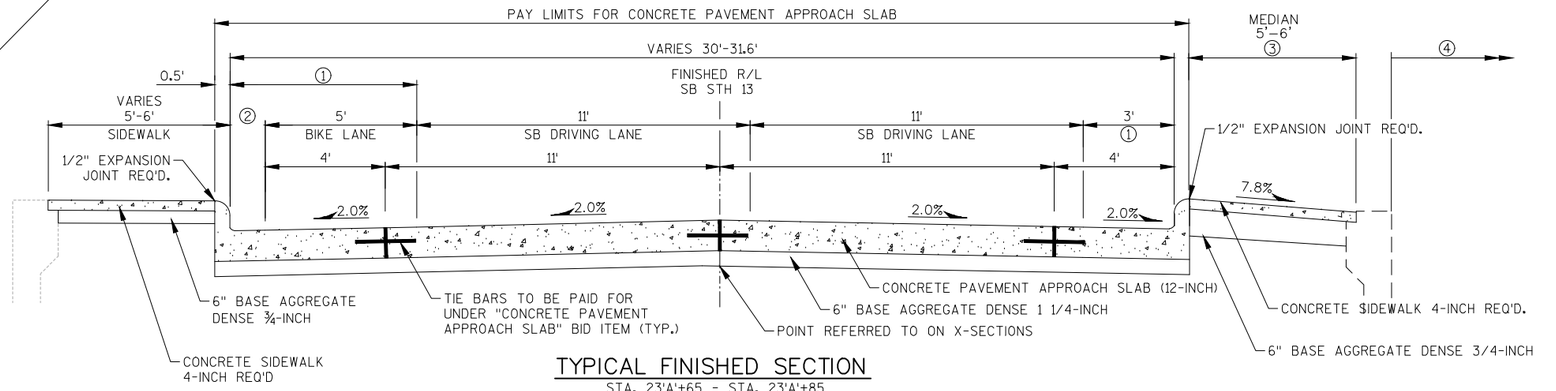


① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

NOTE: SEE STANDARD DETAIL DRAWING "CONCRETE PAVEMENT APPROACH SLAB FOR ALL OTHER DETAILS AND WORKMANSHIP.

CONCRETE CURB & GUTTER DETAIL

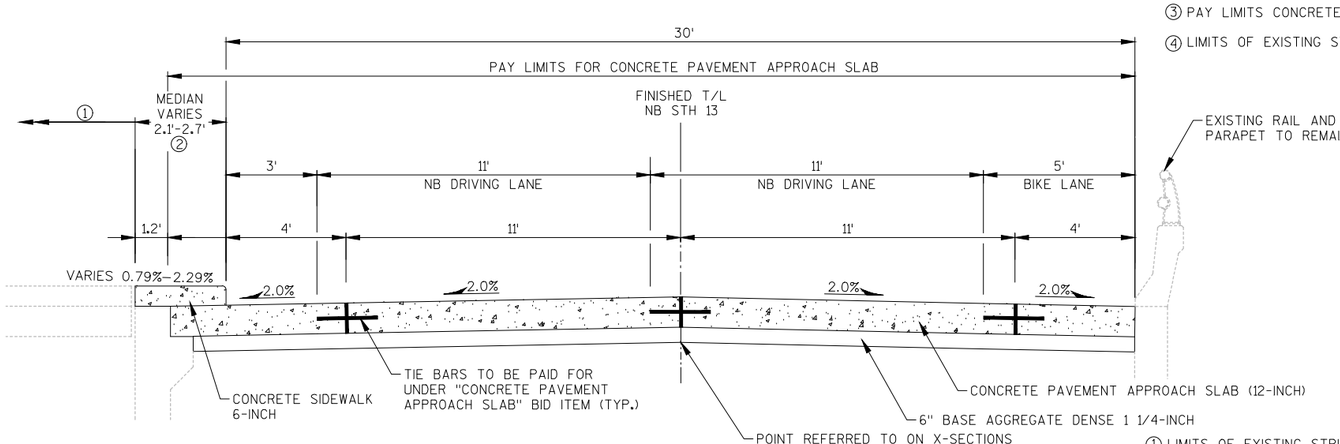
(PAID FOR AS CONCRETE PAVEMENT APPROACH SLAB)



TYPICAL FINISHED SECTION

STA. 23'A'+65 - STA. 23'A'+85

① NOTE CURB & GUTTER TO BE PAVED MONOLITHICALLY
② VARIES 0'-1.6'
③ PAY LIMITS CONCRETE SIDEWALK 4-INCH
④ LIMITS OF EXISTING STRUCTURE B-11-104



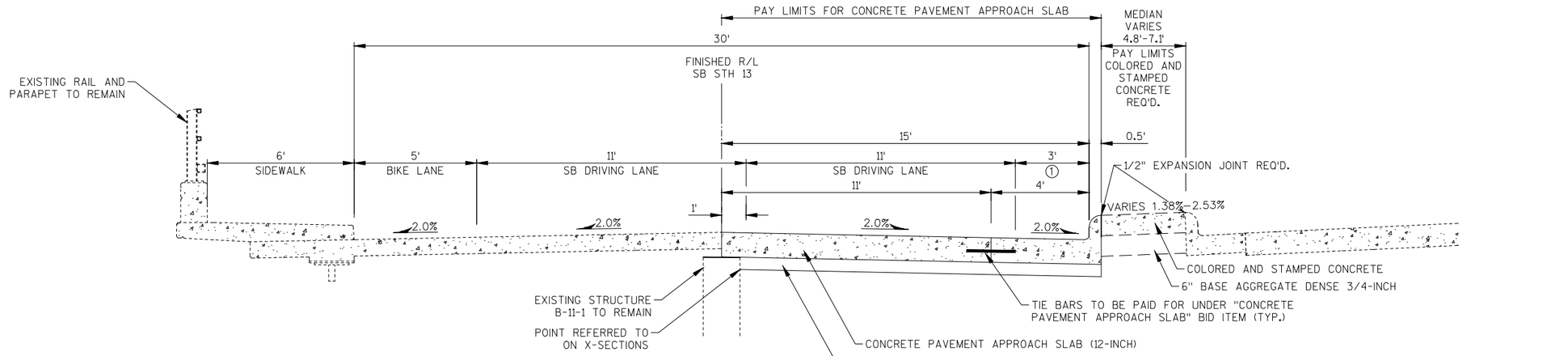
TYPICAL FINISHED SECTION

STA. 29+37 - STA. 29+75

① LIMITS OF EXISTING STRUCTURE B-11-1
② PAY LIMITS FOR CONCRETE SIDEWALK 6-INCH

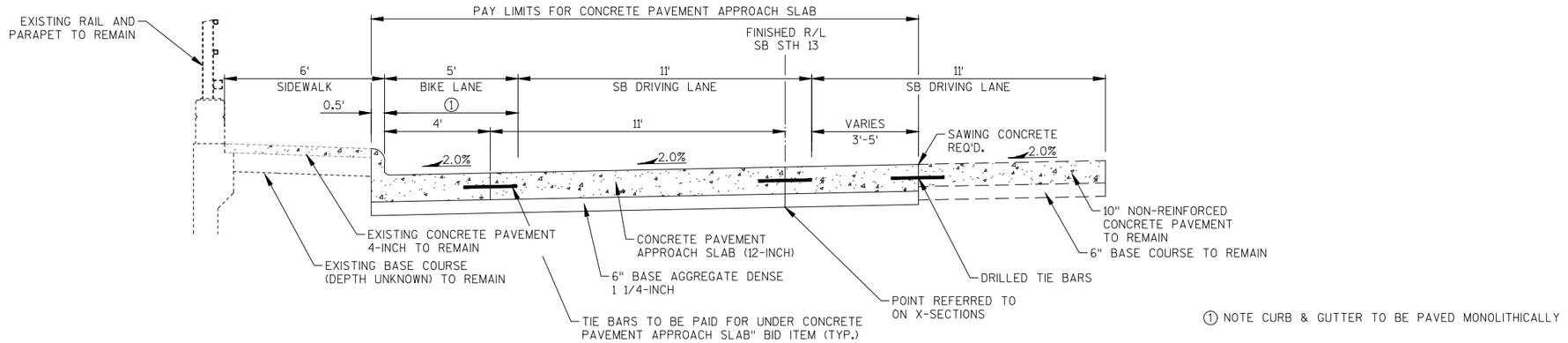
PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK & COLUMBIA	TYPICAL FINISHED SECTIONS	SHEET 6

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\DETAILS\CONSTRUCTION DETAILS
LAYOUT : TYPICALSLDWGUT1
PLOT DATE : 1/23/2017
PLOT TIME : 7:51:12 AM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1" = 1'



TYPICAL FINISHED SECTION

STA. 30'A'+01 - STA. 30'A'+15

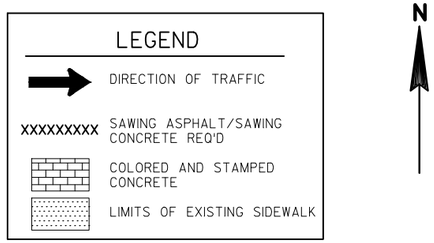


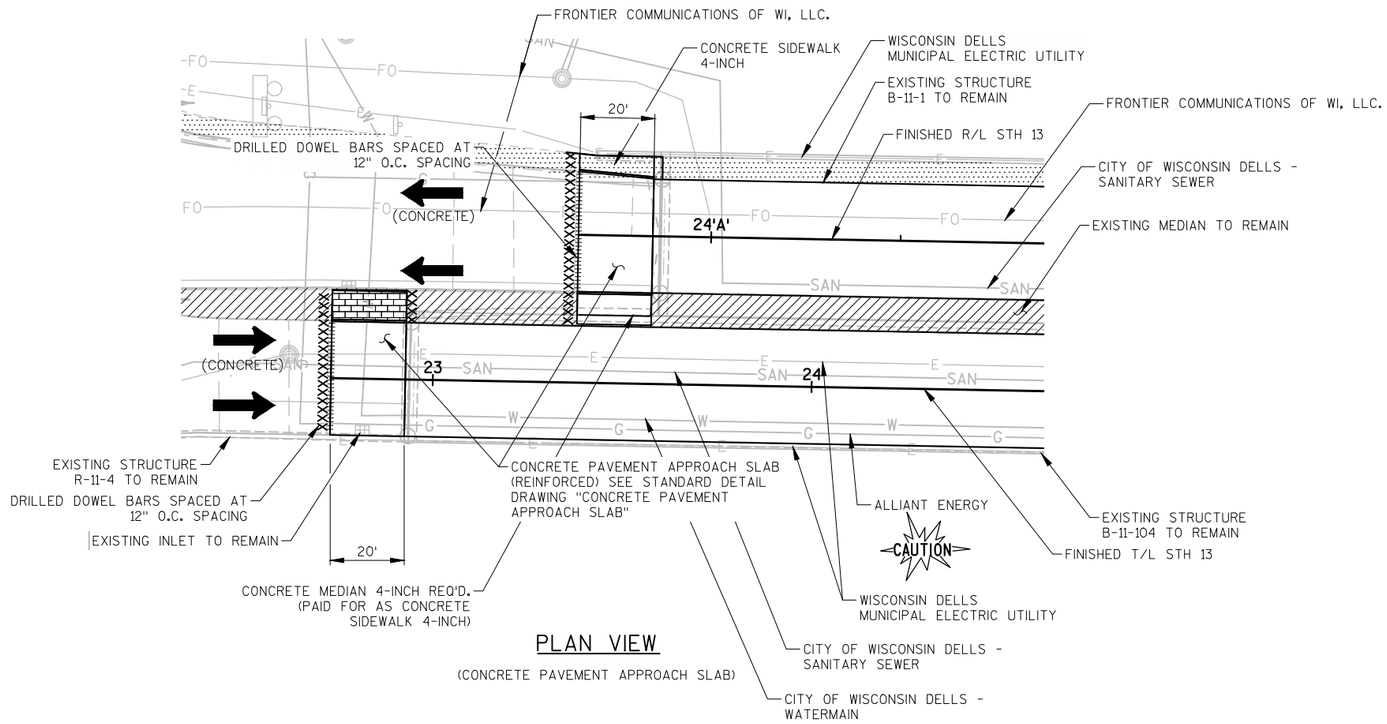
TYPICAL FINISHED SECTION

STA. 30'A'+69 - STA. 30'A'+84

PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK & COLUMBIA	TYPICAL FINISHED SECTIONS	SHEET 7

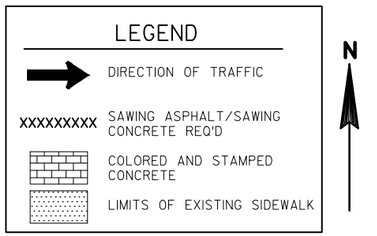
FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\DETAILS\CONSTRUCTION DETAILS
LAYOUT : TYPICALSLAYOUT2
PLOT DATE : 1/20/2017
PLOT TIME : 9:15:11 AM
PLOT BY : GABBEY, MICHAELIS
PLOT SCALE : 1" = 1'





PLAN VIEW

(CONCRETE PAVEMENT APPROACH SLAB)



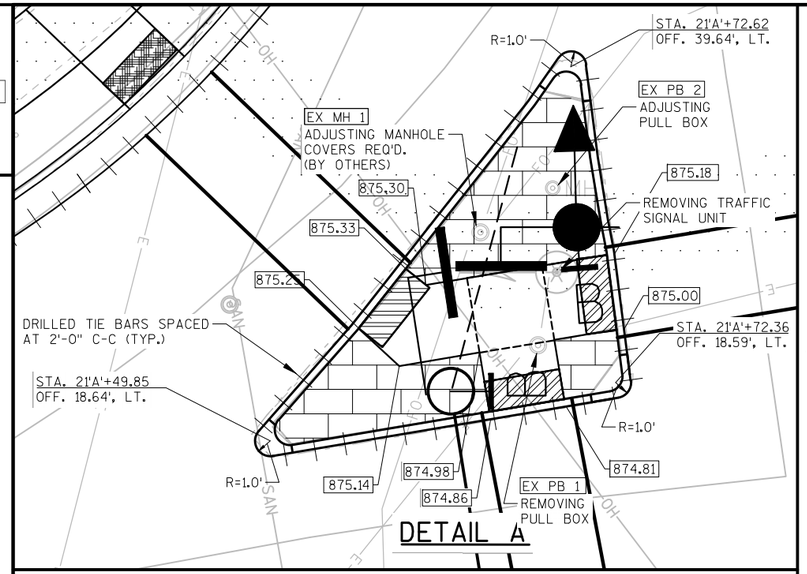
PLAN VIEW

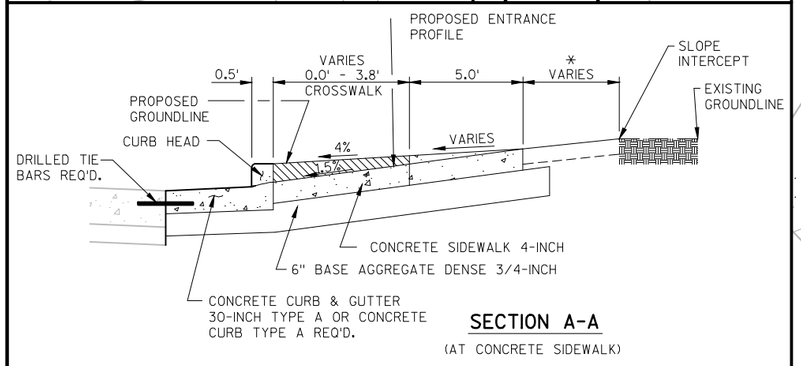
(CONCRETE PAVEMENT APPROACH SLAB)

SECTION A–A

PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK & COLUMBIA	CONSTRUCTION DETAILS	SHEET 8

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\DETAILS\CONSTRUCTION DETAILS PLAN VIEWS.DWG
LAYOUT : PLAN VIEWS
PLOT DATE : 1/27/2017
PLOT TIME : 8:51:26 AM
PLOT BY : JULIA ZEHNER
PLOT SCALE : 1" = 1'

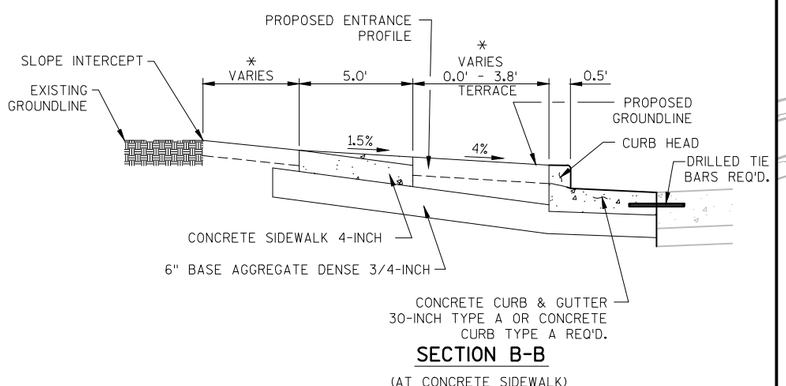




SECTION A-A

(AT CONCRETE SIDEWALK)

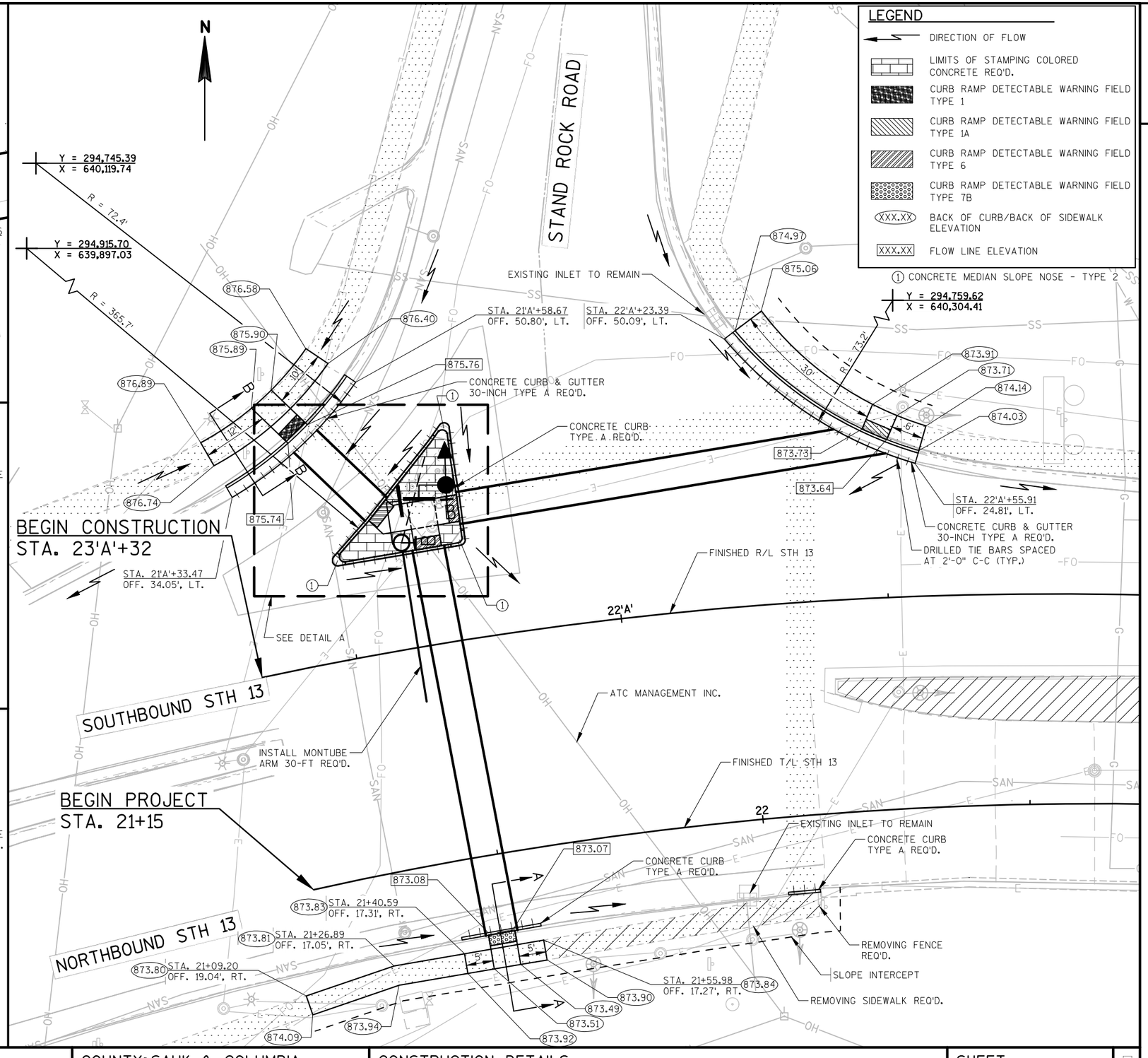
* LIMITS OF SEEDING MIXTURE NO. 40, SEEDING TEMPORARY, EROSION MAT URBAN CLASS I TYPE A, FERTILIZER TYPE B, AND TOPSOIL (AS DIRECTED BY ENGINEER)



SECTION B-B

(AT CONCRETE SIDEWALK)

* LIMITS OF SEEDING MIXTURE NO. 40, SEEDING TEMPORARY, EROSION MAT URBAN CLASS I TYPE A, FERTILIZER TYPE B, AND TOPSOIL (AS DIRECTED BY ENGINEER)



PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK & COLUMBIA	CONSTRUCTION DETAILS	SHEET 9

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\DETAILS\CONSTRUCTION DETAILS CROSSWALKS (WEST).DWG
LAYOUT NAME - ****
PLOT DATE : 1/27/2017 9:05 AM
PLOT BY : JULIA ZEHNER
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

END CONSTRUCTION
STA. 30'A'+84

SEE B-11-1 STRUCTURE PLANS FOR DETAIL

870.47 | 869.89 | 869.87 | 870.45

9.33' | 5' | 9.33'

869.75 | 869.77 | 869.75 | 869.72

FINISHED R/L STH 13

29'A' | 30'A'

SOUTHBOUND STH 13

EXISTING MEDIAN

869.90 | 869.88

869.76 | 5' | 869.74

FINISHED T/L STH 13

869.62 | 869.60

28 | 29

NORTHBOUND STH 13

869.47

CONCRETE CURB & GUTTER TYPE A

869.22

INLET COVERS TYPE B-A REQ'D.

CONCRETE CURB & GUTTER 30-INCH TYPE A REQ'D.

869.62

869.62 | 869.81

870.20 | 870.01

FENCE CHAIN LINK 4-FT.

FINNEGAN AVE.

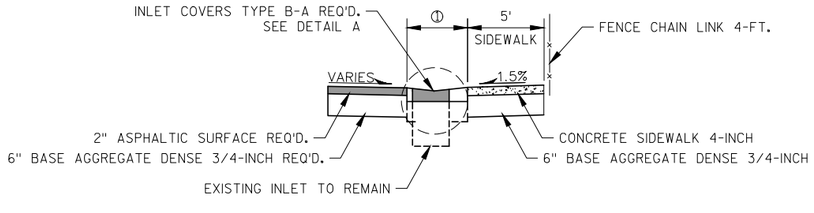
END PROJECT
STA. 29+75

* TRANSITION FROM DETAIL A CONCRETE CURB AND GUTTER 30-NCH TYPE A TO EXISTING

N

LEGEND

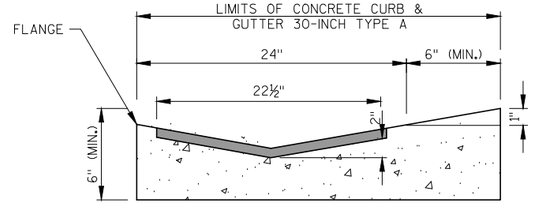
- XXXXXXX SAWING CONCRETE/SAWING ASPHALT
- DIRECTION OF FLOW
- LIMITS OF EXISTING SIDEWALK/CROSSWALK
- CURB RAMP DETECTABLE WARNING FIELD TYPE 1A
- CURB RAMP DETECTABLE WARNING FIELD TYPE 5
- CURB RAMP DETECTABLE WARNING FIELD TYPE 7A
- FENCE CHAIN LINK 4-INCH
- (XXX.XX) BACK OF CURB/BACK OF SIDEWALK ELEVATION
- [XXX.XX] FLOW LINE ELEVATION



SECTION A-A

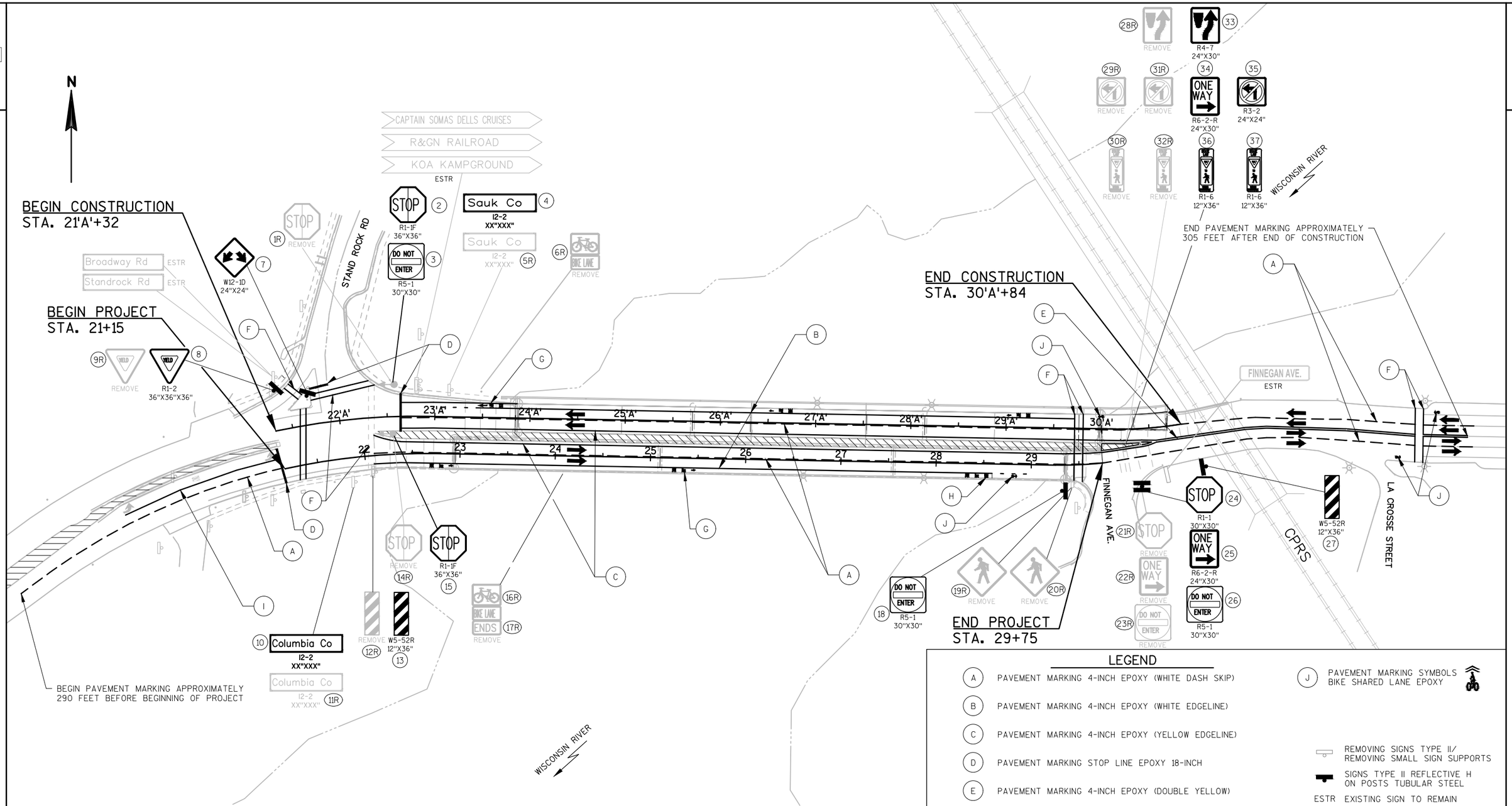
① LIMITS OF CONCRETE CURB & GUTTER 30-INCH TYPE A

② [I—1] INVERT = 869.16



DETAIL A

PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK & COLUMBIA	CONSTRUCTION DETAILS	SHEET 10



LEGEND

- (A) PAVEMENT MARKING 4-INCH EPOXY (WHITE DASH SKIP)
- (B) PAVEMENT MARKING 4-INCH EPOXY (WHITE EDGELINE)
- (C) PAVEMENT MARKING 4-INCH EPOXY (YELLOW EDGELINE)
- (D) PAVEMENT MARKING STOP LINE EPOXY 18-INCH
- (E) PAVEMENT MARKING 4-INCH EPOXY (DOUBLE YELLOW)
- (F) PAVEMENT MARKING 6-INCH EPOXY (WHITE CROSSWALK)
- (G) PAID FOR AS "PAVEMENT MARKING ARROWS BIKE LANE EPOXY" AND "PAVEMENT MARKING WORDS BIKE LANE EPOXY" SEE MISCELLANEOUS QUANTITIES SHEET
- (H) PAID FOR AS "PAVEMENT MARKING WORDS BIKE LANE EPOXY"
- (I) PAVEMENT MARKING EPOXY 8-INCH (WHITE EDGELINE)
- (J) PAVEMENT MARKING SYMBOLS BIKE SHARED LANE EPOXY

REMOVING SIGNS TYPE II/ REMOVING SMALL SIGN SUPPORTS

SIGNS TYPE II REFLECTIVE H ON POSTS TUBULAR STEEL

ESTR EXISTING SIGN TO REMAIN

EXISTING STREET SIGN

EXISTING TRAFFIC SIGNAL

PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK	PAVEMENT MARKING & PERMANENT SIGNING	SHEET 11

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\DETAILS\PAVEMENT MARKING DETAILS.DWG
LAYOUT : PAVEMENT MARKING DETAIL
PLOT DATE : 1/20/2017
PLOT TIME : 8:54:21 AM
PLOT BY : GABBEY, MICHAELIS
PLOT SCALE : 1" = 1'

LEGEND

- SERVICE POLE
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- PULL BOX, 24" X 36"
- PULL BOX, 18" X 24"
- PULL BOX, 12" X 24"
- PULL BOX, 24" X 42"
- PULL BOX, 24" X 48"
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

N

EXISTING PB4
SB2
EXISTING SB1
EXISTING PB7
SB1
EXISTING PB3
EXISTING PB6
SB3
EXISTING PB2
EXISTING PB1
EXISTING SC1
EXISTING PB5
P22
P41
P42
41
21
22
30'
PT: 22+93.68
PT: 22+75.46
SL-1
SL-3
21+00
22+00
23+00

TRAFFIC CONTROL SIGNAL
STH 13/16/23 & STAND ROCK RD
CITY OF WISCONSIN DELLS
SAUK COUNTY
CABINET TYPE: TS1
SIGNAL NO. 56-0469 CONTROLLER TYPE: ECONOLITE

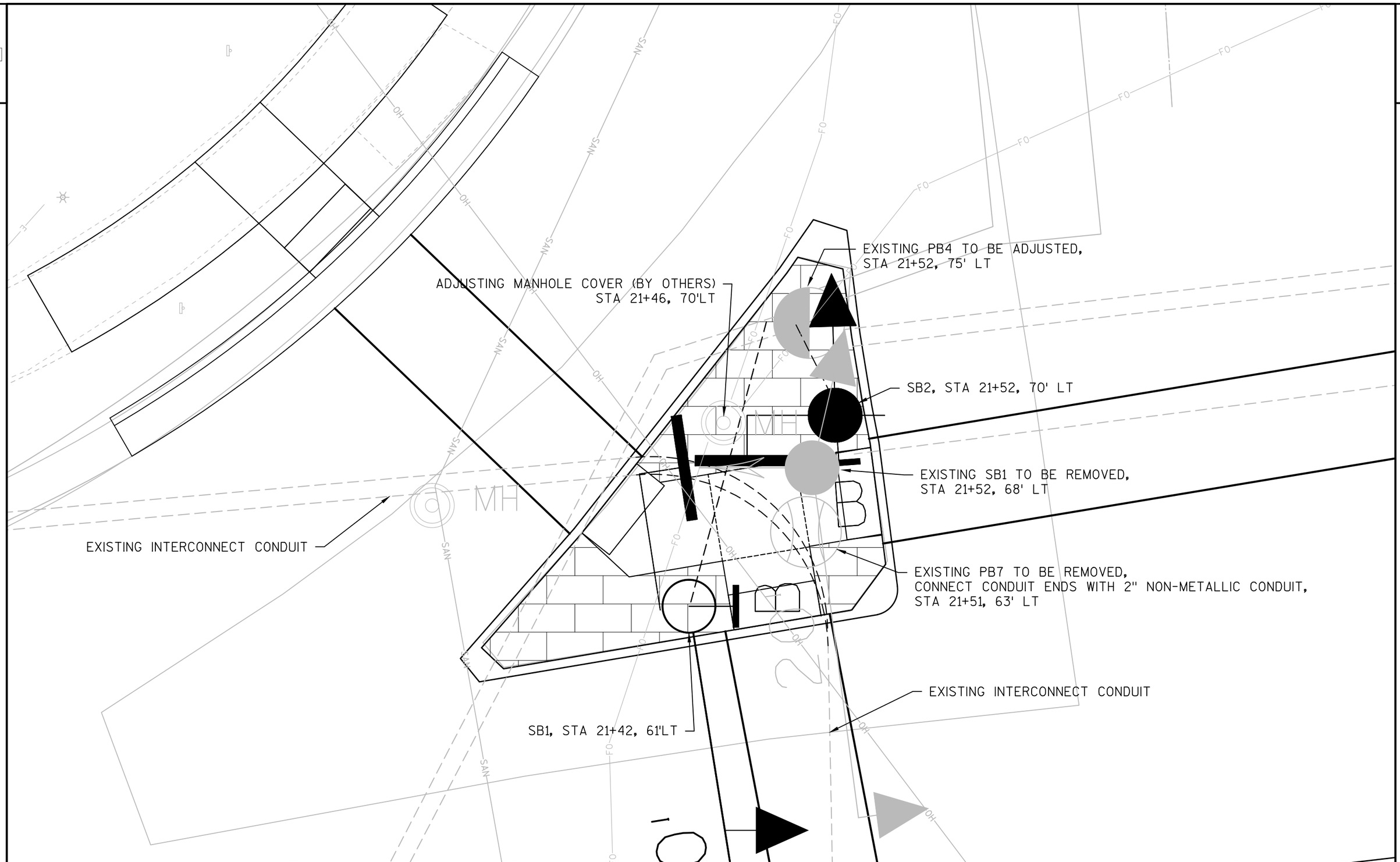
WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVAL RECOMMENDED
DATE _____ REGION TRAFFIC ENGINEER
APPROVED
DATE _____ STATE TRAFFIC ENGINEER

REGION CONTACT:
DESIGNED BY:
REVISED BY:
PAGE

PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK	TRAFFIC SIGNAL PLAN	SHEET 12

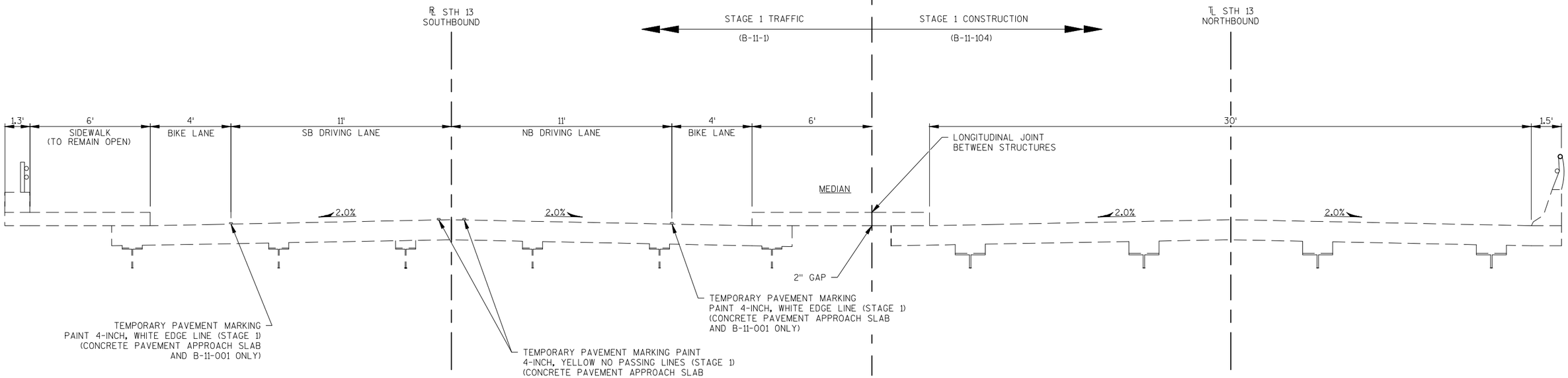
FILE NAME : \\LAXRTOPFLPPI01\N3PUBLIC\SPO\TRAFFIC\SIGNALS_SAUK\0469 - STH 13-16-23 & STAND ROCK ROAD, DELLS\CADD 469\2017\SIGNAL DESIGN.DWG
LAYOUT NAME - ****
PLOTTED DATE : 1/23/2017 1:06 PM PLOT BY : WEBB, COLLIN J PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42



PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK	TRAFFIC SIGNAL PLAN	SHEET 13

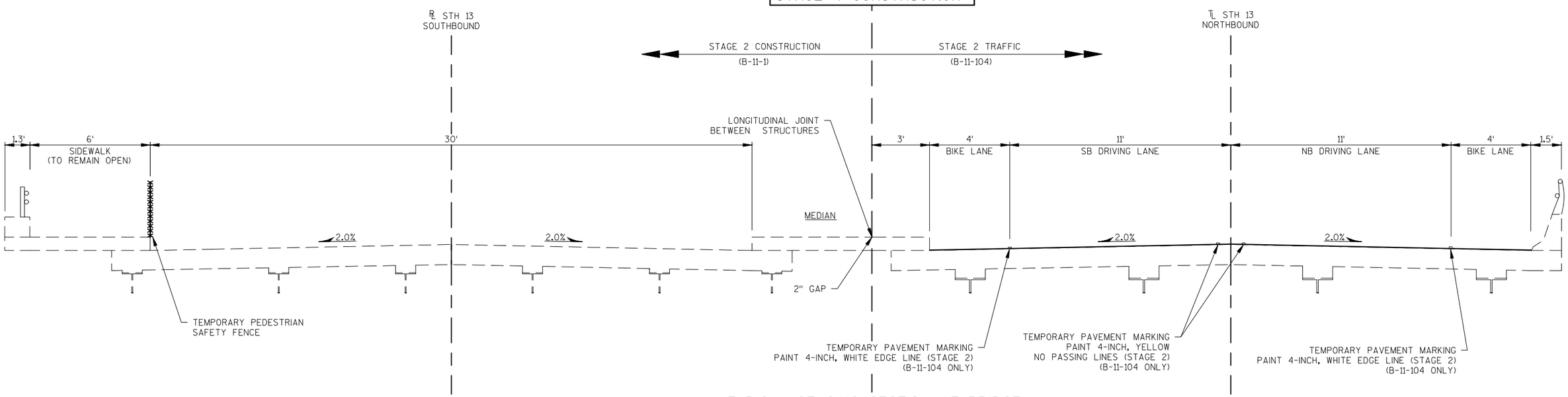
STAGE 1 CONSTRUCTION/ STAGE 3 CONSTRUCTION



TYPICAL STAGING SECTION AT BRIDGE

(STAGE 1 LOOKING EAST)
(STAGE 3 LOOKING EAST)

STAGE 2 CONSTRUCTION/ STAGE 4 CONSTRUCTION

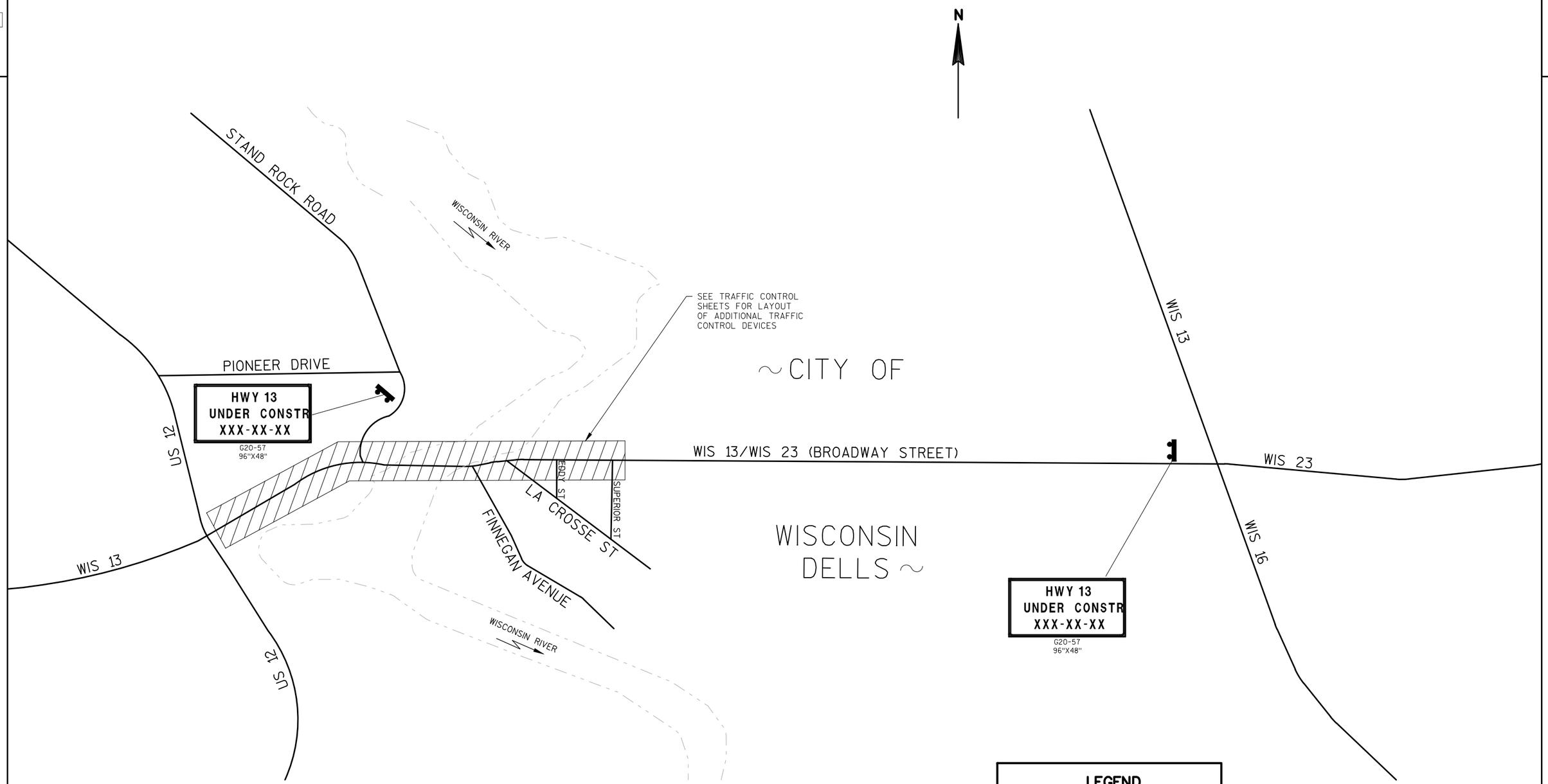


TYPICAL STAGING SECTION AT BRIDGE

(STAGE 2 LOOKING EAST)
(STAGE 4 LOOKING EAST)

PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK	TRAFFIC CONTROL DETAIL	SHEET 14

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\TYPICALS\TRAFFIC CONTROL.DWG
LAYOUT : CONTROL
PLOT DATE : 1/26/2017
PLOT TIME : 11:49:12 AM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1" = 1'



PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK & COLUMBIA	TRAFFIC CONTROL - ADVANCED SIGNING	SHEET 15

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\DETAILS\ADVANCED SIGNING.DWG
LAYOUT : ADVANCED SIGNING

PLOT DATE : 1/23/2017
PLOT TIME : 8:17:16 AM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1" = 1'

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND WITH TRAFFIC CONTROL LIGHTS TYPE A
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- FLASHING ARROWBOARD
- WORK AREA
- XXXXXXX REMOVING PAVEMENT MARKING (STAGE 1)
- SIGN ON TEMPORARY SUPPORT
- EXISTING PAVEMENT MARKING SYMBOL/WORDS TO REMAIN
- PEDESTRIAN ACCESS DURING STAGE 1/STAGE 3

GENERAL NOTES FOR TRAFFIC CONTROL

MAINTAIN PEDESTRIAN ACCESS ACROSS EXISTING STRUCTURE B-11-1 AND AT THE STAND ROCK ROAD INTERSECTION THROUGHOUT CONSTRUCTION OPERATIONS.

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

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

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

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

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

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

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

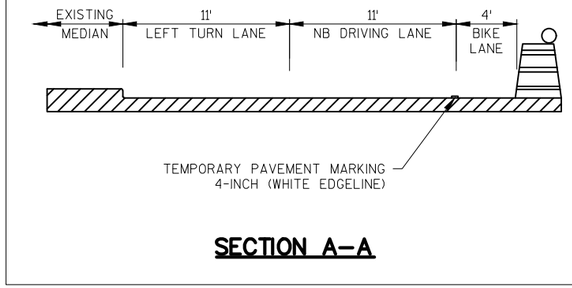
W20-1, G20-1, AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO LOCATE THE ARROWBOARD AS SHOWN, PLACE THE ARROWBOARD IN THE LANE CLOSURE TAPER AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE TAPER.

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

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



SECTION A-A

DETAIL A
REMOVING PAVEMENT MARKINGS – STAGE 1

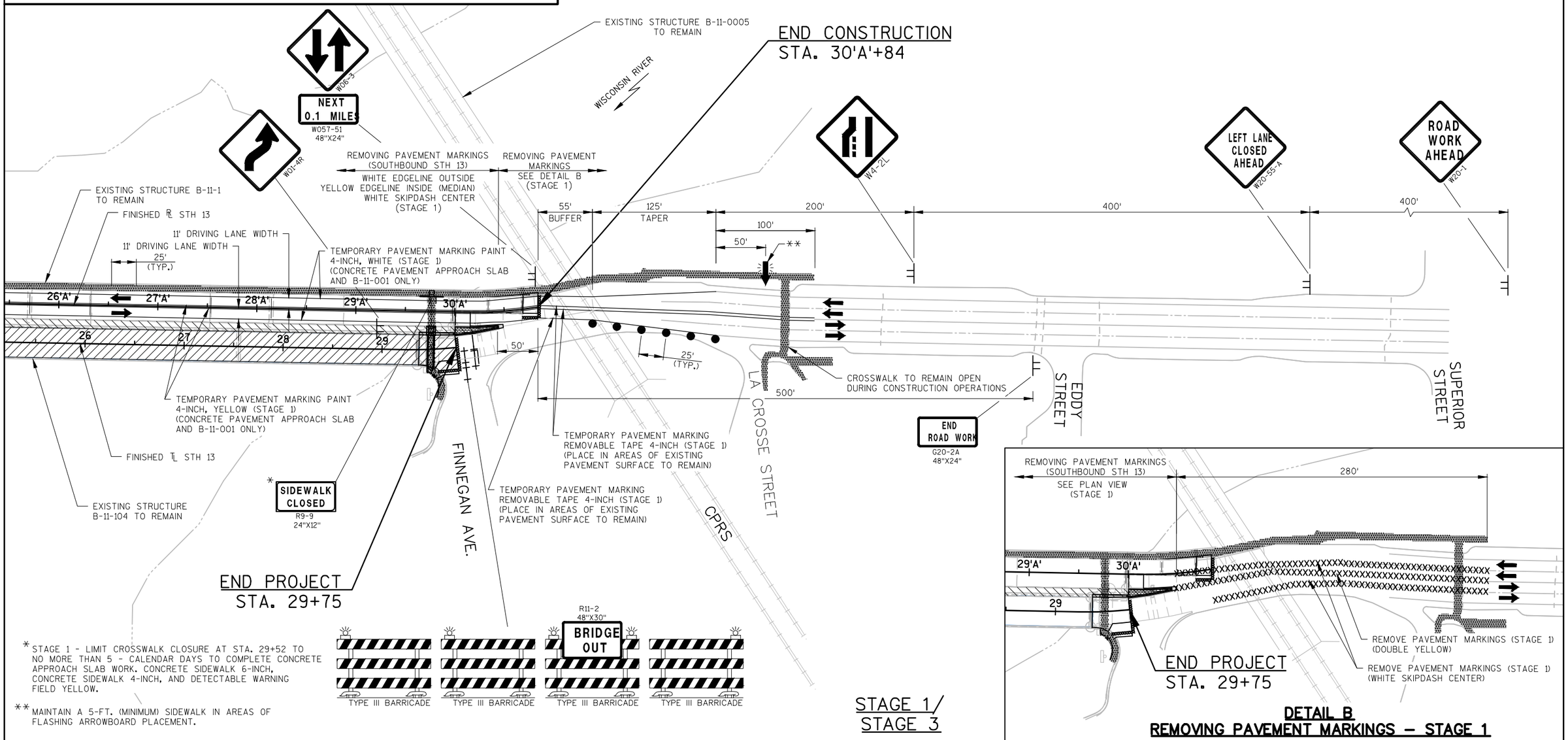
PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK	TRAFFIC CONTROL/PEDESTRIAN STAGING PLAN - STAGE 1 / STAGE 3	SHEET 16

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\DETAILS\TRAFFIC CONTROL STAGE 1-3 (PED).DWG
LAYOUT :
PLOT DATE : 1/26/2017
PLOT TIME : 9:15:48 AM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1" = 1'

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND WITH TRAFFIC CONTROL LIGHTS TYPE A
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- FLASHING ARROWBOARD
- WORK AREA
- XXXXXXX REMOVING PAVEMENT MARKING (STAGE 1)
- SIGN ON TEMPORARY SUPPORT
- PEDESTRIAN ACCESS DURING STAGE 1/STAGE 3

N



* STAGE 1 - LIMIT CROSSWALK CLOSURE AT STA. 29+52 TO NO MORE THAN 5 - CALENDAR DAYS TO COMPLETE CONCRETE APPROACH SLAB WORK. CONCRETE SIDEWALK 6-INCH, CONCRETE SIDEWALK 4-INCH, AND DETECTABLE WARNING FIELD YELLOW.

** MAINTAIN A 5-FT. (MINIMUM) SIDEWALK IN AREAS OF FLASHING ARROWBOARD PLACEMENT.

DETAIL B
REMOVING PAVEMENT MARKINGS – STAGE 1

PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK	TRAFFIC CONTROL/PEDESTRIAN STAGING PLAN - STAGE 1 / STAGE 3	SHEET 17

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\DETAILS\TRAFFIC CONTROL STAGE 1-3 (PED).DWG
LAYOUT : STAGE 1-3 (PED)

PLOT DATE : 1/26/2017
PLOT TIME : 9:53:51 AM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1" = 1'

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND WITH TRAFFIC CONTROL LIGHTS TYPE A
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- FLASHING ARROWBOARD
- WORK AREA
- XXXXXXX REMOVING PAVEMENT MARKING (STAGE 2A/2B)
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY PEDESTRIAN SAFETY FENCE
- PEDESTRIAN ACCESS DURING STAGE 2A/STAGE 4

GENERAL NOTES FOR TRAFFIC CONTROL

MAINTAIN PEDESTRIAN ACCESS ACROSS EXISTING STRUCTURE B-11-1 AND AT THE STAND ROCK ROAD INTERSECTION THROUGHOUT CONSTRUCTION OPERATIONS.

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

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

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

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

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

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

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

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

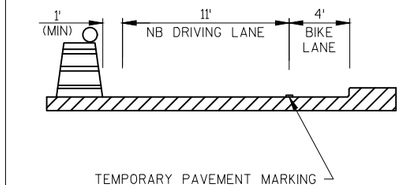
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO LOCATE THE ARROWBOARD AS SHOWN, PLACE THE ARROWBOARD IN THE LANE CLOSURE TAPER AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE TAPER.

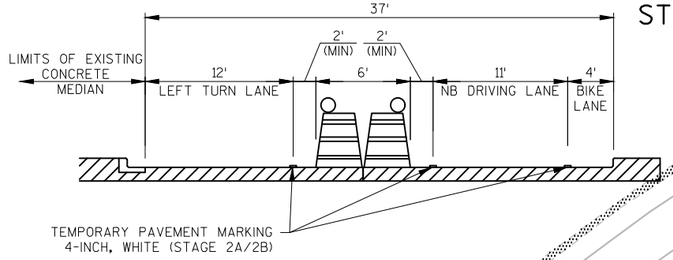
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

N



SECTION A-A



SECTION B-B

STAGE 2A/ STAGE 4

DETAIL C
REMOVING PAVEMENT MARKINGS - STAGE 2A/2B)

PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK	TRAFFIC CONTROL/PEDESTRIAN STAGING PLAN - STAGE 2A / STAGE 4	SHEET 18

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\DETAILS\TRAFFIC CONTROL LAYOUT : **STAGE 2-4(PED).DWG**

PLOT DATE : 1/26/2017 PLOT TIME : 1:59:51 PM PLOT BY : STRINE, THERESA PLOT SCALE : 1" = 1'

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN AND WITH TRAFFIC CONTROL LIGHTS TYPE A
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- FLASHING ARROWBOARD
- WORK AREA
- XXXXXXX REMOVING PAVEMENT MARKING (STAGE 2A/2B)
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY PEDESTRIAN SAFETY FENCE
- PEDESTRIAN ACCESS DURING STAGE 2A/STAGE 4

N

R11-2 48"X30" BRIDGE OUT — TYPE III BARRICADE — TYPE III BARRICADE

R11-2 48"X30" BRIDGE OUT — TYPE III BARRICADE — TYPE III BARRICADE

WISCONSIN RIVER

W01-4L

W04-2R

RIGHT LANE CLOSED AHEAD W20-5-A

ROAD WORK AHEAD W20-1-A

EXISTING STRUCTURE B-11-0005 TO REMAIN

EXISTING STRUCTURE B-11-0001 TO REMAIN

END CONSTRUCTION STA. 30'A'+84

SEE DETAIL D

FINISHED ℄ STH 13

* SIDEWALK CLOSED R9-9 24"X12"

TEMPORARY PAVEMENT MARKING 4-INCH, WHITE (STAGE 2A/2B)

TEMPORARY PEDESTRIAN SAFETY FENCE

50' TAPER — 125' TAPER — 200' — 400' — 400'

100'

25' (TYP.)

**

26A 27A 28A 29A 30A

26 27 28 29

11' DRIVING LANE WIDTH

11' DRIVING LANE WIDTH

TEMPORARY PAVEMENT MARKING PAINT 4-INCH, YELLOW (STAGE 2A/2B) (B-11-104 ONLY)

FINISHED ℄ STH 13

EXISTING STRUCTURE B-11-0104 TO REMAIN

W01-4L

W06-3

NEXT 0.1 MILE W057-51 48"X24"

END PROJECT STA. 29+75

FINNEGAN AVE.

CPRS

LA CROSSE STREET

CROSS WALK TO REMAIN OPEN DURING CONSTRUCTION OPERATIONS

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE (STAGE 2A/2B) (PLACE IN AREAS OF EXISTING PAVEMENT SURFACE TO REMAIN AND CONCRETE PAVEMENT APPROACH SLAB)

EDDY STREET

SUPERIOR STREET

END ROAD WORK G20-2A 48"X24"

TEMPORARY PAVEMENT MARKING PAINT 4-INCH, YELLOW (STAGE 2A/2B) (PLACE IN AREAS OF EXISTING PAVEMENT SURFACE TO REMAIN AND CONCRETE PAVEMENT APPROACH SLAB)

REMOVING PAVEMENT MARKINGS (NORTHBOUND STH 13) WHITE EDGELINE OUTSIDE YELLOW EDGELINE INSIDE (MEDIAN) WHITE SKIPDASH CENTER (STAGE 2A/2B)

REMOVING PAVEMENT MARKINGS SEE DETAIL E (STAGE 2A/2B)

* STAGE 2A - LIMIT CLOSURE OF CROSSWALK AT STA. 29+52 TO NO MORE THAN 5 - CALENDAR DAYS TO COMPLETE WORK IN AREA OF CROSSWALK INCLUDING EXPANSION DEVICE, JOINT REPAIR, PREPERATION DECKS TYPE 1 AND 2, CURB REPAIR, CONCRETE SURFACE REPAIR, FULL-DEPTH DECK REPAIR, CONCRETE MASONRY DECK PATCHING AND DETECTABLE WARNING FIELD YELLOW.

** MAINTAIN A 5-FT. (MINIMUM) SIDEWALK IN AREAS OF FLASHING ARROWBOARD PLACEMENT.

STAGE 2A/ STAGE 4

DETAIL D
CROSSWALK ACCESS – STA. 29+52

12' — EXISTING STRUCTURE B-11-0001 TO REMAIN — TEMPORARY PEDESTRIAN SAFETY FENCE — FINISHED ℄ STH 13 — 30'A' — EXISTING MEDIAN

DETAIL E
REMOVING PAVEMENT MARKINGS (STAGE 2A/2B)

REMOVING PAVEMENT MARKINGS (NORTHBOUND STH 13) SEE PLAN VIEW (STAGE 2A/2B) — 215' — 30'A' — END CONSTRUCTION STA. 30'A'+84 — REMOVING PAVEMENT MARKINGS (WHITE SKIPDASH CENTER) (STAGE 2A/2B)

PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK	TRAFFIC CONTROL/PEDESTRIAN STAGING PLAN - STAGE 2A / STAGE 4	SHEET 19

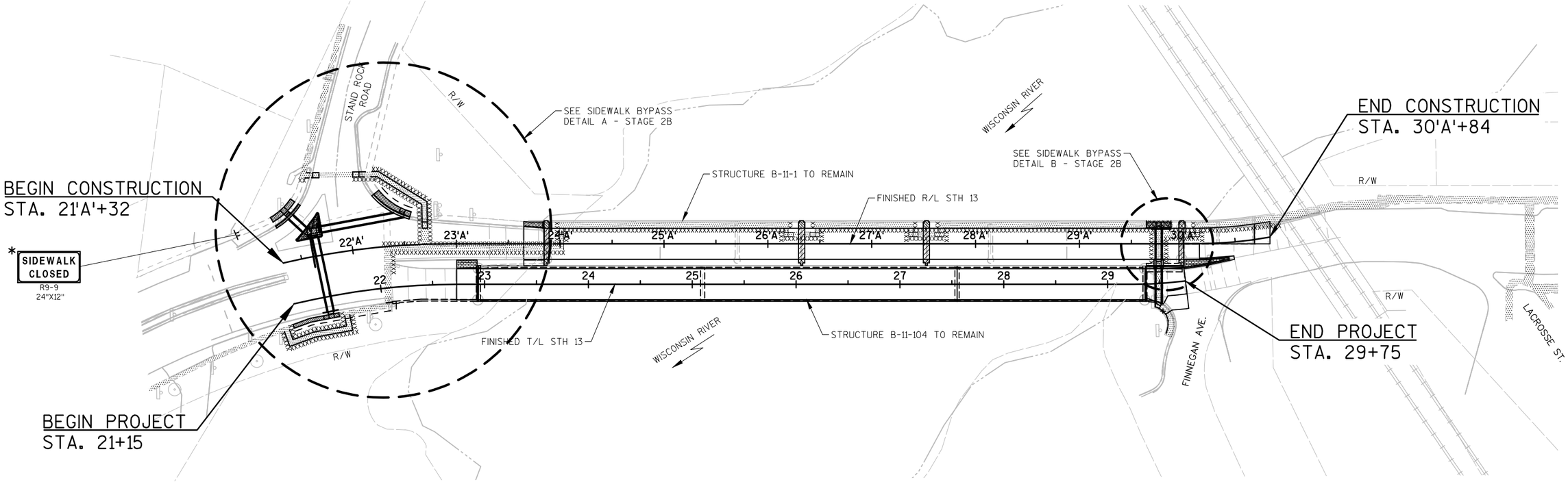
FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\DETAILS\TRAFFIC CONTROL STAGE 2-4(PED).DWG
LAYOUT : STAGE2-4(PED).DWG
PLOT DATE : 1/26/2017
PLOT TIME : 1:17:37 PM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1" = 1'

REFERENCE TRAFFIC CONTROL/PEDESTRIAN STAGING PLAN - STAGE 2A / STAGE 4 FOR LAYOUT OF TRAFFIC CONTROL DEVICES.

LEGEND

xxxxxxxx	TEMPORARY PEDESTRIAN SAFETY FENCE	F	SIGN ON TEMPORARY SUPPORT
	PEDESTRIAN ACCESS		REMOVAL LIMITS: SLAB, DIAPHRAGMS, PARAPET, SIDEWALK, MEDIAN (SEE STRUCTURE DETAILS)
	REMOVAL LIMITS: SLAB & DIAPHRAGMS (SEE STRUCTURE DETAILS)		WORK AREA

N



STAGE 2B
PEDESTRIAN TRAFFIC CONTROL OVERVIEW

PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK	PEDESTRIAN STAGING PLAN - STAGE 2B	SHEET 20

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\DETAILS\TRAFFIC CONTROL STAGE 2B(PED).DWG
LAYOUT :
PLOT DATE : 1/26/2017
PLOT TIME : 2:01:42 PM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1" = 1'

REFERENCE TRAFFIC CONTROL/PEDESTRIAN STAGING PLAN - STAGE 2A / STAGE 4 FOR LAYOUT OF TRAFFIC CONTROL DEVICES.

N

R/W

STA. 22'A'+31.08
72.86', LT.

STA. 22'A'+72.86
41.07', LT.

STA. 22'A'+72.73
28.85', LT.

LEGEND

- WORK AREA
- XXXXXXXX TEMPORARY PEDESTRIAN SAFETY FENCE
- TEMPORARY CURB RAMP
- PEDESTRIAN ACCESS
- TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- SIGN ON TEMPORARY SUPPORT
- REMOVAL LIMITS: SLAB, DIAPHRAGMS, PARAPET, SIDEWALK, MEDIAN (SEE STRUCTURE DETAILS)
- REMOVAL LIMITS: SLAB & DIAPHRAGMS (SEE STRUCTURE DETAILS)

BEGIN CONSTRUCTION
STA. 21'A'+32

22'A'

23'A'

24'A'

FINISHED R/L STH 13

FINISHED T/L STH 13

BEGIN PROJECT
STA. 21+15

22

23

5'

5'

STA. 21+66.35
20.91', RT.

STA. 21+66.67
36.09', RT.

STA. 20+99.29
23.72', RT.

STA. 21+27.66
30.78', RT.

STA. 21+27.90
35.79', RT.

STA. 21+00.70
38.66', RT.

R/W

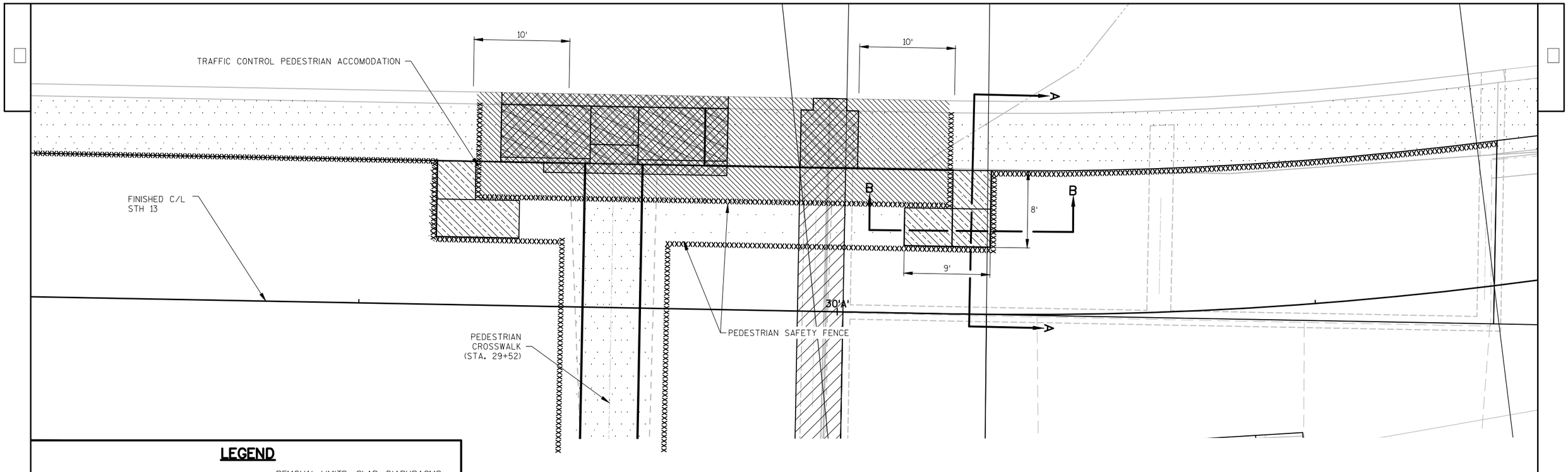
SIDEWALK BYPASS DETAIL A - STAGE 2B

NOTE: ALL OTHER TRAFFIC CONTROL LAYOUT TO MATCH TRAFFIC CONTROL STAGE 2A LAYOUT DETAILS

PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK	PEDESTRIAN STAGING PLAN - STAGE 2B	SHEET 21

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\DETAILS\TRAFFIC CONTROL STAGE 2B(PED).DWG
LAYOUT :

PLOT DATE : 1/26/2017
PLOT TIME : 2:32:54 PM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1" = 1'

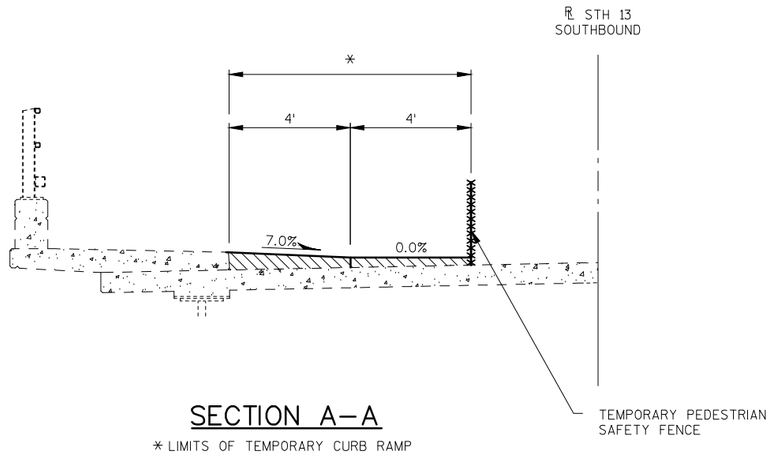


LEGEND

- WORK AREA
- XXXXXXXX TEMPORARY PEDESTRIAN SAFETY FENCE
- TEMPORARY CURB RAMP
- REMOVAL LIMITS: SLAB, DIAPHRAGMS, PARAPET, SIDEWALK, MEDIAN (SEE STRUCTURE DETAILS)
- REMOVAL LIMITS: SLAB & DIAPHRAGMS (SEE STRUCTURE DETAILS)

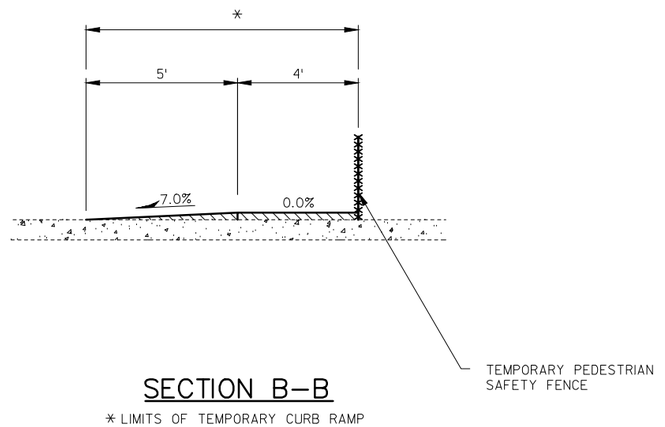
SIDEWALK BYPASS DETAIL B – STAGE 2B

NOTE: ALL OTHER TRAFFIC CONTROL LAYOUT TO MATCH TRAFFIC CONTROL STAGE 2A LAYOUT DETAILS. SIMILAR STAGING LAYOUT REQUIRED IN EXPANSION DEVICE LOCATIONS (SIDEWALK LIMITS).



SECTION A–A

* LIMITS OF TEMPORARY CURB RAMP

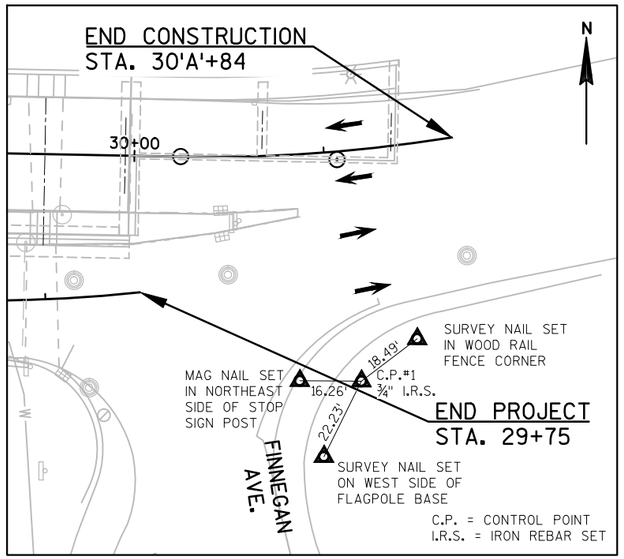


SECTION B–B

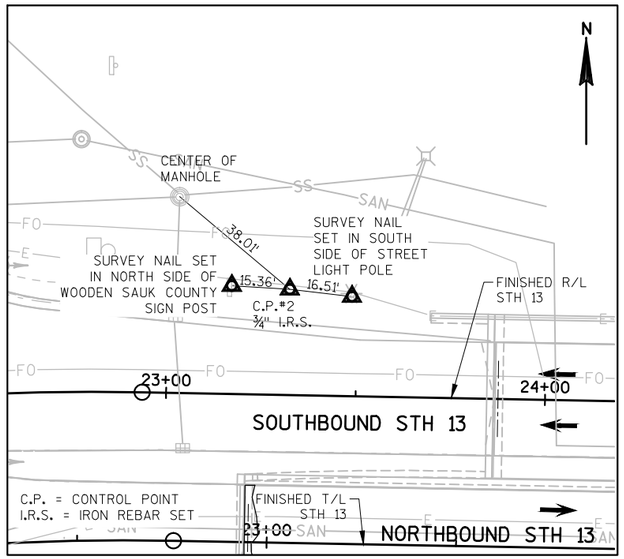
* LIMITS OF TEMPORARY CURB RAMP

PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK	PEDESTRIAN STAGING PLAN - STAGE 2B	SHEET 22

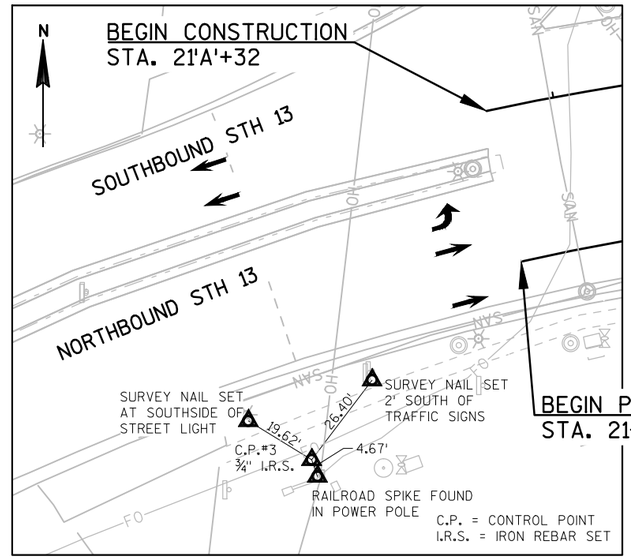
FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\DETAILS\TRAFFIC CONTROL STAGE 2B(PED).DWG
LAYOUT : STAGE 2B(PED).DWG
PLOT DATE : 1/26/2017
PLOT TIME : 2:11:53 PM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1" = 1'



TIES TO CP#1
STA. 30+27, 33.1' RT
Y=294,592.31
X=641,088.68



TIES TO CP#2
STA. 23+05, 66.9' LT
Y=294,692.00
X=640,361.57



TIES TO CP#3
STA. 20+45, 35.7' RT
Y=294,557.30
X=640,115.90

STH 13 (T/L) NORTHBOUND STATION LAYOUT

STATION	Y	X	COMMENTS
22+73	294,625.71	640,328.45	BEGIN PROJECT
22+92.75	294,625.35	640,348.19	END OF DECK
23+00	294,625.22	640,355.44	–
23+50	294,624.29	640,405.43	–
24+00	294,623.37	640,455.42	–
24+50	294,622.44	640,505.42	–
25+00	294,621.51	640,555.41	–
25+50	294,620.59	640,605.40	–
26+00	294,619.66	640,655.39	–
26+50	294,618.74	640,705.38	–
27+00	294,617.81	640,755.37	–
27+50	294,616.89	640,805.37	–
28+00	294,615.96	640,855.36	–
28+50	294,615.03	640,905.35	–
29+00	294,614.11	640,955.34	–
29+37.25	294,613.59	640,992.58	END OF DECK
29+50	294,613.93	641,005.33	–
29+75	294,615.78	641,030.26	END PROJECT

STH 13 (R/L) SOUTHBOUND STATION LAYOUT

STATION	Y	X	COMMENTS
23'A'+65	294,663.51	640,393.91	BEGIN CONSTRUCTION
23'A'+84.60	294,663.15	640,413.51	END OF DECK
24'A'+00	294,662.86	640,428.91	–
24'A'+50	294,661.94	640,478.90	–
25'A'+00	294,661.01	640,528.89	–
25'A'+50	294,660.09	640,578.88	–
26'A'+00	294,659.16	640,628.87	–
26'A'+50	294,658.24	640,678.86	–
27'A'+00	294,657.31	640,728.86	–
27'A'+50	294,656.38	640,778.85	–
28'A'+00	294,655.46	640,828.84	–
28'A'+50	294,654.53	640,878.83	–
29'A'+00	294,653.61	640,928.82	–
29'A'+50	294,652.68	640,978.81	–
30'A'+00	294,651.76	641,028.81	–
30'A'+00.60	294,651.74	641,029.40	END OF DECK (S. LANE)
30'A'+50	294,652.61	641,078.77	–
30'A'+68.79	294,654.47	641,097.47	END OF DECK (N. LANE)
30'A'+84	294,656.62	641,112.53	END CONSTRUCTION

▲ CONTROL POINTS

NO.	STA.	DESCRIPTION	Y	X
1	30+27	¾" IRON ROD SET, 33.1' RT.	294,592.31	641,088.68
2	23+05	¾" IRON ROD SET, 66.9' LT.	294,692.00	640,361.57
3	20+45	¾" IRON ROD SET, 35.7' RT.	294,557.30	640,115.90

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\DETAILS\CONTROL POINTS.DWG
LAYOUT : LAYOUT1
PLOT DATE : 10/27/2016
PLOT TIME : 4:26:20 PM
PLOT BY : JULIA ZEHNER
PLOT SCALE : 1" = 1'

Estimate Of Quantities

6131-00-61

Line	Item	Item Description	Unit	Total	Qty
0010	203.0210.S	Abatement of Asbestos Containing Material (structure) 01. B-11-0001	LS	1.000	1.000
0020	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 26A+93	LS	1.000	1.000
0030	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 02. 26+15	LS	1.000	1.000
0040	204.0100	Removing Pavement	SY	325.000	325.000
0050	204.0130	Removing Curb	LF	120.000	120.000
0060	204.0150	Removing Curb & Gutter	LF	160.000	160.000
0070	204.0155	Removing Concrete Sidewalk	SY	200.000	200.000
0080	204.0170	Removing Fence	LF	45.000	45.000
0090	204.9060.S	Removing (item description) 01. Inlet Covers	EACH	1.000	1.000
0100	205.0100	Excavation Common	CY	115.000	115.000
0110	210.1500	Backfill Structure Type A	TON	160.000	160.000
0120	213.0100	Finishing Roadway (project) 01. 6131-00-61	EACH	1.000	1.000
0130	305.0110	Base Aggregate Dense 3/4-Inch	TON	70.000	70.000
0140	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	135.000	135.000
0150	405.1000	Stamping Colored Concrete	CY	430.000	430.000
0160	415.0410	Concrete Pavement Approach Slab	SY	325.000	325.000
0170	416.0610	Drilled Tie Bars	EACH	130.000	130.000
0180	416.0620	Drilled Dowel Bars	EACH	116.000	116.000
0190	465.0105	Asphaltic Surface	TON	5.000	5.000
0200	502.0100	Concrete Masonry Bridges	CY	15.000	15.000
0210	502.0717.S	Crack Sealing Epoxy	LF	110.000	110.000
0220	502.3100	Expansion Device (structure) 01. B-11-0001	LS	1.000	1.000
0230	502.3100	Expansion Device (structure) 02. B-11-0104	LS	1.000	1.000
0240	502.3200	Protective Surface Treatment	SY	60.000	60.000
0250	502.3210	Pigmented Surface Sealer	SY	15.000	15.000
0260	502.4205	Adhesive Anchors No. 5 Bar	EACH	70.000	70.000
0270	502.4206	Adhesive Anchors No. 6 Bar	EACH	10.000	10.000
0280	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	11,100.000	11,100.000
0290	509.0301	Preparation Decks Type 1	SY	145.000	145.000
0300	509.0302	Preparation Decks Type 2	SY	63.000	63.000
0310	509.1000	Joint Repair	SY	140.000	140.000
0320	509.1200	Curb Repair	LF	20.000	20.000
0330	509.1500	Concrete Surface Repair	SF	20.000	20.000
0340	509.2000	Full-Depth Deck Repair	SY	2.000	2.000
0350	509.5100.S	Polymer Overlay	SY	4,330.000	4,330.000
0360	513.9005.S	Removing and Resetting Tubular Railing (structure) 01. B-11-0001	LS	1.000	1.000
0370	513.9005.S	Removing and Resetting Tubular Railing (structure) 02.	LS	1.000	1.000

6131-00-61

Line	Item	Item Description	Unit	Total	Qty
		B-11-0104			
0380	516.0500	Rubberized Membrane Waterproofing	SY	5.000	5.000
0390	601.0105	Concrete Curb Type A	LF	110.000	110.000
0400	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	75.000	75.000
0410	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	85.000	85.000
0420	602.0405	Concrete Sidewalk 4-Inch	SF	940.000	940.000
0430	602.0415	Concrete Sidewalk 6-Inch	SF	70.000	70.000
0440	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	100.000	100.000
0450	611.0609	Inlet Covers Type B-A	EACH	1.000	1.000
0460	611.8115	Adjusting Inlet Covers	EACH	2.000	2.000
0470	616.0204	Fence Chain Link 4-FT	LF	35.000	35.000
0480	618.0100	Maintenance And Repair of Haul Roads (project) 01. 6131-00-61	EACH	1.000	1.000
0490	619.1000	Mobilization	EACH	1.000	1.000
0500	620.0300	Concrete Median Sloped Nose	SF	35.000	35.000
0510	624.0100	Water	MGAL	2.000	2.000
0520	625.0100	Topsoil	SY	160.000	160.000
0530	625.0500	Salvaged Topsoil	SY	110.000	110.000
0540	628.1504	Silt Fence	LF	320.000	320.000
0550	628.1520	Silt Fence Maintenance	LF	320.000	320.000
0560	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0570	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0580	628.2006	Erosion Mat Urban Class I Type A	SY	270.000	270.000
0590	628.7005	Inlet Protection Type A	EACH	4.000	4.000
0600	628.7015	Inlet Protection Type C	EACH	10.000	10.000
0610	628.7570	Rock Bags	EACH	50.000	50.000
0620	629.0210	Fertilizer Type B	CWT	1.000	1.000
0630	630.0140	Seeding Mixture No. 40	LB	10.000	10.000
0640	630.0200	Seeding Temporary	LB	7.000	7.000
0650	634.0810	Posts Tubular Steel 2x2-Inch X 10-FT	EACH	1.000	1.000
0660	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	5.000	5.000
0670	634.0816	Posts Tubular Steel 2x2-Inch X 16-FT	EACH	4.000	4.000
0680	637.2210	Signs Type II Reflective H	SF	59.340	59.340
0690	637.2215	Signs Type II Reflective H Folding	SF	14.920	14.920
0700	637.2230	Signs Type II Reflective F	SF	16.000	16.000
0710	638.2602	Removing Signs Type II	EACH	19.000	19.000
0720	638.3000	Removing Small Sign Supports	EACH	7.000	7.000
0730	642.5001	Field Office Type B	EACH	1.000	1.000
0740	643.0100	Traffic Control (project) 01. 6131-00-61	EACH	1.000	1.000
0750	643.0300	Traffic Control Drums	DAY	2,404.000	2,404.000

6131-00-61

Line	Item	Item Description	Unit	Total	Qty
0760	643.0420	Traffic Control Barricades Type III	DAY	704.000	704.000
0770	643.0705	Traffic Control Warning Lights Type A	DAY	968.000	968.000
0780	643.0715	Traffic Control Warning Lights Type C	DAY	1,809.000	1,809.000
0790	643.0800	Traffic Control Arrow Boards	DAY	176.000	176.000
0800	643.0900	Traffic Control Signs	DAY	2,486.000	2,486.000
0810	644.1420.S	Temporary Pedestrian Surface Plywood	SF	800.000	800.000
0820	644.1601.S	Temporary Curb Ramp	EACH	10.000	10.000
0830	644.1616.S	Temporary Pedestrian Safety Fence	LF	4,000.000	4,000.000
0840	646.0106	Pavement Marking Epoxy 4-Inch	LF	6,900.000	6,900.000
0850	646.0126	Pavement Marking Epoxy 8-Inch	LF	170.000	170.000
0860	646.0600	Removing Pavement Markings	LF	7,420.000	7,420.000
0870	647.0206	Pavement Marking Arrows Bike Lane Epoxy	EACH	8.000	8.000
0880	647.0336	Pavement Marking Symbols Bike Shared Lane Epoxy	EACH	6.000	6.000
0890	647.0406	Pavement Marking Words Bike Lane Epoxy	EACH	23.000	23.000
0900	647.0456	Pavement Marking Curb Epoxy	LF	75.000	75.000
0910	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	80.000	80.000
0920	647.0606	Pavement Marking Island Nose Epoxy	EACH	1.000	1.000
0930	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	650.000	650.000
0940	647.0955	Removing Pavement Markings Arrows	EACH	1.000	1.000
0950	647.0960	Removing Pavement Markings Symbols	EACH	1.000	1.000
0960	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	4,440.000	4,440.000
0970	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	5,460.000	5,460.000
0980	649.1200	Temporary Pavement Marking Stop Line Removable Tape 18-Inch	LF	15.000	15.000
0990	650.4500	Construction Staking Subgrade	LF	110.000	110.000
1000	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	270.000	270.000
1010	650.7000	Construction Staking Concrete Pavement	LF	110.000	110.000
1020	650.8000	Construction Staking Resurfacing Reference	LF	1,810.000	1,810.000
1030	650.8500	Construction Staking Electrical Installations (project) 01. 6131-00-61	LS	1.000	1.000
1040	650.9910	Construction Staking Supplemental Control (project) 01. 6131-00-61	LS	1.000	1.000
1050	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	35.000	35.000
1060	653.0900	Adjusting Pull Boxes	EACH	1.000	1.000
1070	653.0905	Removing Pull Boxes	EACH	1.000	1.000
1080	654.0101	Concrete Bases Type 1	EACH	2.000	2.000
1090	654.0110	Concrete Bases Type 10	EACH	1.000	1.000
1100	655.0210	Cable Traffic Signal 3-14 AWG	LF	45.000	45.000
1110	655.0230	Cable Traffic Signal 5-14 AWG	LF	124.000	124.000
1120	655.0240	Cable Traffic Signal 7-14 AWG	LF	40.000	40.000

6131-00-61

Line	Item	Item Description	Unit	Total	Qty
1130	655.0250	Cable Traffic Signal 9-14 AWG	LF	416.000	416.000
1140	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	384.000	384.000
1150	657.0100	Pedestal Bases	EACH	2.000	2.000
1160	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	1.000	1.000
1170	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	1.000	1.000
1180	657.1345	Install Poles Type 9	EACH	1.000	1.000
1190	657.1530	Install Monotube Arms 30-FT	EACH	1.000	1.000
1200	658.0110	Traffic Signal Face 3-12 Inch Vertical	EACH	3.000	3.000
1210	658.0215	Backplates Signal Face 3 Section 12-Inch	EACH	3.000	3.000
1220	658.0416	Pedestrian Signal Face 16-Inch	EACH	3.000	3.000
1230	658.0500	Pedestrian Push Buttons	EACH	3.000	3.000
1240	658.0600	Led Modules 12-Inch Red Ball	EACH	3.000	3.000
1250	658.0605	Led Modules 12-Inch Yellow Ball	EACH	3.000	3.000
1260	658.0610	Led Modules 12-Inch Green Ball	EACH	3.000	3.000
1270	658.0635	Led Modules Pedestrian Countdown Timer 16-Inch	EACH	3.000	3.000
1280	658.5069	Signal Mounting Hardware (location) 01. STA. 21+30 Rt	LS	1.000	1.000
1290	690.0150	Sawing Asphalt	LF	30.000	30.000
1300	690.0250	Sawing Concrete	LF	405.000	405.000
1310	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
1320	715.0502	Incentive Strength Concrete Structures	DOL	270.000	270.000
1330	SPV.0035	Special 01. Concrete Masonry Deck Patching	CY	46.000	46.000
1340	SPV.0060	Special 01. Removing Traffic Signal Units	EACH	1.000	1.000
1350	SPV.0060	Special 02. Construction Staking Curb Ramp	EACH	10.000	10.000
1360	SPV.0090	Special 01. Sawing Concrete Deck Preparation Areas	LF	1,450.000	1,450.000
1370	SPV.0090	Special 02. Construction Staking Sidewalk	LF	120.000	120.000

ALL BID ITEMS ARE CATEGORY 010 UNLESS OTHERWISE NOTED

3

REMOVING PAVEMENT

STATION - STATION	LOCATION	204.0100 (SY)
22+73 - 22+93	STH 13 NB	67
23+'A'65 - 23'A'+85	STH 13 SB	70
29+37 - 29+75	STH 13 NB	127
30'A'+01 - 30'A'+16	STH 13 SB	26
30'A'+69 - 30'A'+84	STH 13 SB	35
	TOTAL	325

REMOVING CURB AND CURB & GUTTER

STATION	LOCATION	204.0130 REMOVING CURB (LF)	204.0150 REMOVING CURB & GUTTER (LF)	COMMENTS
21'A'+32 - 21'A'+58	STH 13 SB, LT.	--	31	
21+40 - 21+56	STH 13 NB, RT.	17	--	
21'A'+49 - 21'A'+73	STH 13 SB, LT.	79	--	PORK CHOP ISLAND
22+03 - 22+09	STH 13 NB, RT.	6	--	
22'A'+23 - 22'A'+57	STH 13 SB, LT.	--	44	
29+37 - 29+52	STH 13 NB, RT.	18	--	
29+52 - 29+60	STH 13 NB, RT.	--	10	
30'A'+16 - 30'A'+43	STH 13 SB, RT.	--	30	
29+75 - 30+21	STH 13 NB, LT.	--	45	
	TOTALS	120	160	

REMOVING CONCRETE SIDEWALK

STATION - STATION	LOCATION	204.0155 REMOVING CONCRETE SIDEWALK (SY)	REMARKS
21'A'+30 - 21'A'+55	STH 13 SB, LT.	18	
21+09 - 22+10	STH 13 NB, RT.	47	
21'A'+50 - 21'A'+73	STH 13 SB, LT.	30	PORK CHOP ISLAND
22'A'+25 - 22'A'+58	STH 13 SB, LT.	24	
22+73 - 22+93	STH 13 NB, LT.	17	MEDIAN
23'A'+65 - 23'A'+85	STH 13 SB, RT.	18	MEDIAN
23'A'+65 - 23'A'+85	STH 13 SB, LT.	10	
29+38 - 29+74	STH 13 NB, LT.	8	MEDIAN
29+45 - 29+57	STH 13 NB, RT.	8	
29+74 - 30+20	STH 13 NB, LT.	20	MEDIAN
	TOTALS =	200	

3

EARTHWORK SUMMARY

CATEGORY	FROM/TO STA	LOCATION	(1) 205.0100 COMMON EXCAVATION CUT (2) (CY)	205.0100 COMMON EXCAVATION EBS (3) (CY)	SALVAGED/ UNUSABLE PAVEMENT MATERIAL (CY) (4)	AVAILABLE MATERIAL (CY) (5)	205.0400 MARSH EXCAVATION (CY) (6)	205.0200 ROCK EXCAVATION (CY) (7)	REDUCED MARSH IN FILL (CY) FACTOR 0.6 (8)	REDUCED EBS IN FILL (CY) FACTOR 0.8 (9)	EXPANDED MARSH BACKFILL (CY) FACTOR 1.5 (10)	EXPANDED EBS BACKFILL (CY) FACTOR 1.5 (11)	EXPANDED ROCK (CY) FACTOR 1.1 (12)	UNEXPANDED FILL (CY)	EXPANDED FILL (CY) FACTOR 1.3 (13)	MASS ORDINATE +/- (CY) (14)	WASTE (CY)	208.1000 BORROW (CY)
010	23'A'+65 - 23'A'+85	STH 13 SB	20	-	-	20	-	-	-	-	-	-	-	-	-	20	20	-
	30'A'+69 - 30'A'+84	STH 13 SB	8	-	-	8	-	-	-	-	-	-	-	-	-	8	8	-
	22+73 - 22+93	STH 13 NB	19	-	-	19	-	-	-	-	-	-	-	-	-	19	19	-
	30'A'+01 - 30'A'+41	STH 13 SB	11	-	-	11	-	-	-	-	-	-	-	-	-	11	11	-
	29+37 - 29+75	STH 13 NB	39	-	-	39	-	-	-	-	-	-	-	-	-	39	39	-
	--	SIDEWALK, CURB/CURB & GUTTER, PORK CHOP ISLAND	18	-	-	18	-	-	-	-	-	-	-	-	-	18	18	-
		TOTALS=	115		0	115	0	0	0	0	0	0	0	0	0	115	115	0

NOTES:
1.) COMMON EXCAVATION IS THE SUM OF THE CUT EXCAVATION COLUMN. ITEM NUMBER 205.0100
2.) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT
3.) EBS EXCAVATION TO BE BACKFILLED WITH SELECT CRUSHED MATERIAL
4.) SALVAGED/UNUSABLE PAVEMENT MATERIAL
5.) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
6.) MARSH EXCAVATION - TO BE BACKFILLED WITH SELECT CRUSHED MATERIAL, ITEM 205.0400
7.) ROCK EXCAVATION. ITEM NUMBER 205.0200
8.) REDUCED MARSH IN FILL - EXCAVATED MARSH MATERIAL IS USABLE IN FILLS OUTSIDE THE 1:1 SLOPE. MARSH IN FILL REDUCTION FACTOR = 0.6
9.) REDUCED EBS IN FILL - EXCAVATED EBS MATERIAL IS USEABLE IN FILLS OUTSIDE 1:1 SLOPE. EBS IN FILL REDUCTION FACTOR = 0.8
10) EXPANDED MARSH BACKFILL - THIS IS TO BE FILLED WITH SELECT CRUSHED MATERIAL. MARSH BACKFILL FACTOR = 1.5. ITEM NUMBER 312.0110
11.)EXPANDED EBS BACKFILL - THIS IS TO BE FILLED WITH SELECT CRUSHED MATERIAL. EBS BACKFILL FACTOR = 1.3. ITEM NUMBER 312.0115
12.) EXPANDED ROCK FACTOR = 1.1
13.) EXPANDED FILL FACTOR 1.25: EXPANDED FILL = (UNEXPANDED FILL - REDUCED MARSH IN FILL)*1.25
14.) THE MASS ORDINATE+ OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE CATEGORY. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE CATEGORY.

EXCAVATION COMMON REQ'D FOR PLACEMENT OF TEMPORARY PEDESTRIAN SURFACE PLYWOOD IS TO BE PAID FOR UNDER THE BID ITEM TEMPORARY PEDESTRIAN SURFACE PLYWOOD.

CONCRETE PAVEMENT APPROACH SLAB

STATION - STATION	LOCATION	415.0410 (SY)
22+73 - 22+93	STH 13 NB	67
23+'A'65 - 23'A'+85	STH 13 SB	70
29+37 - 29+75	STH 13 NB	127
30'A'+01 - 30'A'+16	STH 13 SB	26
30'A'+69 - 30'A'+84	STH 13 SB	35
	TOTAL	325

ASPHALTIC SURFACE

STATION - STATION	LOCATION	465.0105 ASPHALTIC SURFACE (TON)
29+54 - 29+75	STH 13 NB, RT.	4
-	UNDISTRIBUTED	1
	TOTAL	5

DRILLED TIE/DOWEL BARS

STATION	LOCATION	416.0610 DRILLED TIE BARS (EACH)	416.0620 DRILLED DOWEL BARS (EACH)	COMMENTS
21'A'+32 - 21'A'+58	STH 13 SB, LT.	16	--	
21+40 - 21+56	STH 13 NB, RT.	8	--	
21'A'+49 - 21'A'+73	STH 13 SB, LT.	39	--	PROK CHOP ISLAND
22+03 - 22+09	STH 13 NB, RT.	3	--	
22'A'+28 - 22'A'+57	STH 13 SB, LT.	17	--	
22+73	STH 13 NB	--	29	APPROACH SLAB
23'A'+65	STH 13 SB	--	31	APPROACH SLAB
29+75	STH 13 NB	--	23	APPROACH SLAB
30'A'+16	STH 13 SB	--	13	APPROACH SLAB
30+69 - 30+84	STH 13 NB	7	20	APPROACH SLAB
30'A'+16 - 30'A'+48	STH 13 SB, RT.	16	--	
29+75 - 30+26	STH 13 NB, LT.	24	--	
		130	116	

ALL BID ITEMS ARE CATEGORY 010 UNLESS OTHERWISE NOTED

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BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON)	COMMENTS
20+99 - 21+67	STH 13 nB, RT.	-	10	TEMPORARY PEDESTRIAN SURFACE PLYWOOD
21'A'+30 - 21'A'+55	STH 13 SB, LT.	7	--	CONCRETE SIDEWALK 4-INCH
21+09 - 21+56	STH 13 NB, RT.	8	--	CONCRETE SIDEWALK 4-INCH
21'A'+50 - 21'A'+73	STH 13 SB, LT.	8	--	STAMPING COLORED CONCRETE
21'A'+63 - 21'A'+80	STH 13 SB, LT.	-	1	TEMPORARY PEDESTRIAN SURFACE PLYWOOD
22'A'+08 - 22'A'+73	STH 13 SB, LT.	-	9	TEMPORARY PEDESTRIAN SURFACE PLYWOOD
22'A'+30 - 22'A'+58	STH 13 SB, LT.	7	--	CONCRETE SIDEWALK 4-INCH
22+73 - 22+93	STH 13 NB, LT.	4	--	STAMPING COLORED CONCRETE
22+73 - 22+93	STH 13 NB	--	24	APPROACH SLAB
23+'A'65 - 23'A'+85	STH 13 SB	--	25	APPROACH SLAB
23'A'+65 - 23'A'+85	STH 13 SB, RT.	6	--	CONCRETE SIDEWALK 4-INCH
23'A'+65 - 23'A'+85	STH 13 SB, LT.	5	--	CONCRETE SIDEWALK 4-INCH
29+37 - 29+75	STH 13 NB	--	45	APPROACH SLAB
30'A'+01 - 30'A'+16	STH 13 SB	--	9	APPROACH SLAB
30'A'+69 - 30'A'+84	STH 13 SB	--	12	APPROACH SLAB
29+38 - 29+74	STH 13 NB, LT.	3	--	CONCRETE SIDEWALK 6-INCH
29+45 - 29+57	STH 13 NB, RT.	3	--	CONCRETE SIDEWALK 4-INCH
29+54 - 29+75	STH 13 NB, RT.	11	--	FINNEGAN AVE
29+74 - 30+21	STH 13 NB, LT.	4	--	STAMPING COLORED CONCRETE
--	UNDISTRIBUTED	4	10	
	TOTAL	70	135	

CONCRETE CURB & GUTTER

STATION	LOCATION	601.0105 CONCRETE CURB TYPE A (LF)	601.0405 CONCRETE CURB & GUTTER 18-INCH TYPE A (LF)	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A (LF)	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER (LF)	COMMENTS
21'A'+32 - 21'A'+58	STH 13 SB, LT.	--	--	31	31	
21+40 - 21+56	STH 13 NB, RT.	17	--	--	17	
21'A'+49 - 21'A'+73	STH 13 SB, LT.	69	--	--	69	PORK CHOP ISLAND
22+03 - 22+09	STH 13 NB, RT.	6	--	--	6	
22'A'+23 - 22'A'+57	STH 13 SB, LT.	--	--	44	44	
29+37 - 29+52	STH 13 NB, RT.	18	--	--	18	
29+52 - 29+60	STH 13 NB, RT.	--	--	10	10	
29+75 - 30+21	STH 13 NB , LT.	--	45	--	45	
30'A'+16 - 30'A'+43	STH 13 SB , RT.	--	30	--	30	
	TOTALS	110	75	85	270	

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CONCRETE SIDEWALK

STATION - STATION	LOCATION	405.1000 COLORED AND STAMPED CONCRETE (SF)	602.0405 CONCRETE SIDEWALK 4-INCH (SF)	602.0415 CONCRETE SIDEWALK 6-INCH (SF)	REMARKS
21'A'+30 - 21'A'+55	STH 13 SB, LT.	--	170	--	
21+09 - 21+56	STH 13 NB, RT.	--	183	--	
21'A'+50 - 21'A'+73	STH 13 SB, LT.	100	100	--	PORK CHOP ISLAND
22'A'+25 - 22'A'+58	STH 13 SB, LT.	--	216	--	
22+73 - 22+93	STH 13 NB, LT.	155	--	--	MEDIAN
23'A'+65 - 23'A'+85	STH 13 SB, RT.	--	113	--	MEDIAN
23'A'+65 - 23'A'+85	STH 13 SB, LT.	--	90	--	
29+38 - 29+74	STH 13 NB, LT.	--	--	70	MEDIAN
29+45 - 29+57	STH 13 NB, RT.	--	68	--	
29+74 - 30+20	STH 13 NB, LT.	175	--	--	MEDIAN
	TOTALS =	430	940	70	

CURB RAMP DETECTABLE WARNING FIELD YELLOW

STATION	LOCATION	602.0505 (SF)	REMARKS
21'A'+46	STH 13 SB, LT	10	TYPE 1
21+48	STH 13 NB, RT	10	TYPE 7B
21'A'+59	STH 13 SB, LT	10	TYPE 6
21'A'+67	STH 13 SB, LT	10	TYPE 6
21'A'+73	STH 13 SB, LT	10	TYPE 6
22'A'+49	STH 13 SB, LT	10	TYPE 1A
29+49	STH 13 NB, RT	10	TYPE 1A
29+50	STH 13 NB, LT	10	TYPE 5
*29'A'+76	STH 13 SB, RT	10	TYPE 5
*29'A'+76	STH 13 SB, LT	10	TYPE 7A
	TOTALS =	100	

*CATEGORY 020

INLET PROTECTION

STATION	LOCATION	628.7005 TYPE A (EACH)	628.7015 TYPE C (EACH)
21+96	STH 13 NB, RT.	-	1
22'A'+21	STH 13 SB, LT.	-	1
22+82	STH 13 NB, RT.	1	1
23'A'+02	STH 13 SB, LT.	-	1
23'A'+04	STH 13 SB, RT.	-	1
29+54	STH 13 NB, RT.	1	1
29+99	STH 13 NB, LT.	1	1
30+12	STH 13 NB, RT.	-	1
30+20	STH 13 NB, RT.	-	1
30'A'+23	STH 13 SB, RT.	1	1
	TOTALS =	4	10

INLET COVERS B-A

STATION	LOCATION	611.0609 (EACH)
29+54	STH 13 NB, RT.	1
	TOTAL	1

ADJUSTING INLET COVERS

STATION - STATION	LOCATION	611.8115 (EACH)
30'A'+22	STH 13 SB, RT.	1
29+99	STH 13 NB, LT.	1
	TOTALS =	2

CONCRETE MEDIAN SLOPED NOSE

STATION - STATION	LOCATION	620.0300 (SF)	REMARKS
30+21 - 30+26	STH 13 NB, LT.	20	TYPE 1
21'A'+49 - 21'A'+51	STH 13 SB, LT.	4	TYPE 2
21'A'+70 - 21'A'+74	STH 13 SB, LT.	6	TYPE 2
21'A'+71 - 21'A'+73	STH 13 SB, LT.	5	TYPE 2
	TOTALS =	35	

SILT FENCE

STATION - STATION	LOCATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)
21'A'+30 - 21'A'+55	STH 13 SB, LT.	37	37
21+40 - 22+10	STH 13 NB, RT.	125	125
22'A'+30 - 22'A'+58	STH 13 SB, LT.	40	40
23'A'+50 - 23'A'+80	STH 13, SB, LT.	40	40
29+45 - 29+57	STH 13 NB, RT.	23	23
--	UNDISTRIBUTED	55	55
	TOTALS =	320	320

FINISHING ITEMS

STATION - STATION	LOCATION	625.0100 TOPSOIL (SY)	625.0500 SALVAGED TOPSOIL (SY)	628.2006 EROSION MAT URBAN CLASS I TYPE A (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0140 SEEDING MIXTURE NO. 40 (LB)	630.0200 SEEDING TEMPORARY (LB)
20+99 - 21+67	STH 13 NB, RT.	-	47	47	0.1	1	1
21'A'+30 - 21'A'+55	STH 13 SB, LT.	30	-	30	0.1	1	-
21+40 - 22+10	STH 13 NB, RT.	75	-	75	0.2	2	-
21'A'+63 - 21'A'+80	STH 13 SB, LT.	-	3	3	0.1	1	-
22'A'+08 - 22'A'+73	STH 13 SB, LT.	-	41	41	0.1	1	1
22'A'+30 - 22'A'+58	STH 13 SB, LT.	18	-	18	0.2	1	-
29+45 - 29+57	STH 13 NB, RT.	7	-	7	0.1	1	-
--	UNDISTRIBUTED	30	19	49	0.1	2	5
	TOTALS =	160	110	270	1.0	10	7

WATER

PROJECT	624.0100 (MGAL)
6131-00-61	2
	2

MOBILIZATION EROSION CONTROL

PROJECT	628.1905 MOBILIZATION EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
6131-00-61	3	2
TOTALS	3	2

ROCK BAGS

LOCATION	628.7570 (EACH)
UNDISTRIBUTED	50
TOTAL	50

ALL BID ITEMS ARE CATEGORY 010 UNLESS OTHERWISE NOTED

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FENCE CHAIN LINK 4-FT

STATION - STATION	LOCATION	204.0170 REMOVING FENCE (LF)	616.0204 FENCE CHAIN LINK 4 FT (LF)
29+44 - 29+55	STH 13 NB, RT.	35	35
22+10	STH 13 NB, RT.	10	--
	TOTALS =	45	35

TEMPORARY PAVEMENT MARKING

STATION - STATION	LOCATION	DESCRIPTION	*646.0600 REMOVING MARKINGS (LF)	649.0400 REMOVABLE TAPE 4-INCH (LF)		TEMPORARY PAVEMENT MARKING 649.0402 PAINT 4-INCH (LF)		649.1200 REMOVABLE TAPE 18-INCH (LF)
			STAGE 2	STAGE 1	STAGE 2	STAGE 1	STAGE 2	STAGE 2
16+65 - 31+75	STH 13 NB	WHITE EDGELINE	645	--	853	--	645	--
18'A'+25 - 32'A'+64	STH 13 SB	WHITE EDGELINE	--	691	--	719	--	--
19+45 - 21+15	STH 13 NB	WHITE EDGELINE	1290	--	340	--	--	--
21+15 - 32+30	STH 13 NB	DOUBLE YELLOW	--	--	917	--	1290	--
21'A'+32 - 33'A'+64	STH 13 SB	DOUBLE YELLOW	645	1006	--	1442	--	--
22+20 - 32+30	STH 13 NB	WHITE EDGELINE	--	--	362	--	645	--
22+20	STH 13 SB	STOP BAR	--	--	--	--	--	15
22'A'+65 - 32'A'+64	STH 13 SB	WHITE EDGELINE	--	271	--	719	--	--
		SUBTOTALS	2580	1,968	2,472	2,880	2,580	15
		TOTALS	2580	4,440		5,460		15

*MORE LISTED ELSEWHERE

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PERMANENT SIGNING

SIGN NUMBER	APPROX. STATION	LOCATION	POSITION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE IN X IN	637.2210 SIGNS TYPE II REFLECTIVE H (SF)	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING (SF)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)	634.0810 POSTS TUBULAR STEEL 2X2-INCH X 10FT (EACH)	634.0814 POSTS TUBULAR STEEL 2X2-INCH X 14FT (EACH)	634.0816 POSTS TUBULAR STEEL 2X2-INCH X 16FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	SIGN MOUNTED ON SAME POST AS
1R	22'A'+58	STH 13 SB	LEFT	R1-1F	STOP (FOLDING)		36X36	--	--	--	--	--	--	1	--	TRAFFIC SIGNAL POLE
2	22'A'+58	STH 13 SB	LEFT	R1-1F	STOP (FOLDING)		36X36	--	7.46	--	--	--	--	--	--	TRAFFIC SIGNAL POLE
3	22'A'+58	STH 13 SB	LEFT	R5-1	DO NOT ENTER		30X30	6.26	--	--	--	--	--	--	--	TRAFFIC SIGNAL POLE
4	23'A'+17	STH 13 SB	LEFT	I2-2	COUNTY NAME	SAUK CO		5.00	--	--	--	1	--	--	--	
5R	23'A'+17	STH 13 SB	LEFT	I2-2	COUNTY NAME	SAUK CO		--	--	--	--	--	--	1	1	
6R	23'A'+48	STH 13 SB	LEFT	D11-1A	BIKE SYMBOL /BIKE LANE		24X30	--	--	--	--	--	--	1	--	LIGHT POLE
7	21'A'+72	STH 13 SB	LEFT	W12-1D	DIAGONAL ARROW		24X24	--	--	4.00	1	--	--	--	--	
8	21'A'+37	STH 13 SB	LEFT	R1-2	YIELD		36X36X36	3.88	--	--	--	1	--	--	--	
9R	21'A'+37	STH 13 SB	LEFT	R1-2	YIELD		36X36X36	--	--	--	--	--	--	1	1	
10	21+88	STH 13 NB	RIGHT	I2-2	COUNTY NAME	COLUMBIA CO		7.50	--	--	--	2	--	--	--	
11R	21+88	STH 13 NB	RIGHT	I2-2	COUNTY NAME	COLUMBIA CO		--	--	--	--	--	--	1	1	
12R	22+10	STH 13 NB	RIGHT	W5-52R	BRIDGE HASH MARKS		12X36	--	--	--	--	--	--	1	1	
13	22+10	STH 13 NB	RIGHT	W5-52R	BRIDGE HASH MARKS		12X36	--	--	3.00	--	--	1	--	--	
14R	22+30	STH 13 NB	LEFT	R1-1F	STOP (FOLDING)		36X36	--	--	--	--	--	--	1	--	TRAFFIC SIGNAL POLE
15	22+30	STH 13 NB	LEFT	R1-1F	STOP (FOLDING)		36X36	--	7.46	--	--	--	--	--	--	TRAFFIC SIGNAL POLE
16R	24+09	STH 13 NB	RIGHT	D11-1A	BIKE SYMBOL /BIKE LANE		24X30	--	--	--	--	--	--	1	--	LIGHT POLE
17R	24+09	STH 13 NB	RIGHT	--	ENDS		12X24	--	--	--	--	--	--	1	--	LIGHT POLE
18	29+42	STH 13 NB	RIGHT	R5-1	DO NOT ENTER		30X30	6.26	--	--	--	1	--	--	--	
19R	29+42	STH 13 NB	RIGHT	W11-2	PEDESTRIAN CROSSING		30X30	--	--	--	--	--	--	1	1	
20R	29+42	STH 13 NB	RIGHT	W11-2	PEDESTRIAN CROSSING		30X30	--	--	--	--	--	--	1	--	SIGN 19R
21R	30+15	STH 13 NB	RIGHT	R1-1	STOP		30X30	--	--	--	--	--	--	1	1	
22R	30+15	STH 13 NB	RIGHT	R6-2R	ONE WAY (ARROW RIGHT)		24X30	--	--	--	--	--	--	1	--	SIGN 21R
23R	30+15	STH 13 NB	RIGHT	R5-1	DO NOT ENTER		30X30	--	--	--	--	--	--	1	--	SIGN 21R
24	30+15	STH 13 NB	RIGHT	R1-1	STOP		30X30	5.18	--	--	--	--	1	--	--	
25	30+15	STH 13 NB	RIGHT	R6-2R	ONE WAY (ARROW RIGHT)		24X30	5.00	--	--	--	--	--	--	--	SIGN 24
26	30+15	STH 13 NB	RIGHT	R5-1	DO NOT ENTER		30X30	6.26	--	--	--	--	--	--	--	SIGN 24
27	30+79	STH 13 NB	RIGHT	W5-52R	BRIDGE HASH MARKS		12X36	--	--	3.00	--	--	1	--	--	
28R	29+97	STH 13 NB	LEFT	R4-7	KEEP RIGHT SYMBOL		24X30	--	--	--	--	--	--	1	1	
29R	29+97	STH 13 NB	LEFT	R6-2R	ONE WAY (ARROW RIGHT)		24X30	--	--	--	--	--	--	1	--	SIGN 28R
30R	29+97	STH 13 NB	LEFT	R1-6	YIELD TO PEDESTRIAN		12X36	--	--	--	--	--	--	1	--	SIGN 28R
31R	29+97	STH 13 NB	LEFT	R3-2	NO LEFT TURN SYMBOL		24X24	--	--	--	--	--	--	1	--	SIGN 28R
32R	29+97	STH 13 NB	LEFT	R1-6	YIELD TO PEDESTRIAN		12X36	--	--	--	--	--	--	1	--	SIGN 28R
33	29+97	STH 13 NB	LEFT	R4-7	KEEP RIGHT SYMBOL		24X30	5.00	--	--	--	--	1	--	--	
34	29+97	STH 13 NB	LEFT	R6-2R	ONE WAY (ARROW RIGHT)		24X30	5.00	--	--	--	--	--	--	--	SIGN 33
35	29+97	STH 13 NB	LEFT	R1-6	YIELD TO PEDESTRIAN		12X36	--	--	3.00	--	--	--	--	--	SIGN 33
36	29+97	STH 13 NB	LEFT	R3-2	NO LEFT TURN SYMBOL		24X24	4.00	--	--	--	--	--	--	--	SIGN 33
37	29+97	STH 13 NB	LEFT	R1-6	YIELD TO PEDESTRIAN		12X36	--	--	3.00	--	--	--	--	--	SIGN 33
							TOTAL	59.34	14.92	16.00	1	5	4	19	7	

ALL BID ITEMS ARE CATEGORY 010 UNLESS OTHERWISE NOTED

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PAVEMENT MARKING

STATION - STATION	LOCATION	TYPE	PAVEMENT MARKING 646.0106 EPOXY 4-INCH (LF) STAGE 2	STAGE 3	STAGE 4	646.0126 EPOXY 8-INCH (LF) STAGE 2	647.0206 ARROWS BIKE LANE EPOXY (EACH) STAGE 2	STAGE 3	STAGE 4	✳ 647.0336 SYMBOLS BIKE SHARED LANE EPOXY (EACH) STAGE 2	STAGE 4	647.0406 WORDS BIKE LANE EPOXY (EACH) STAGE 2	STAGE 3	STAGE 4	647.0456 CURB EPOXY (LF) STAGE 1	STAGE 2	647.0566 STOP LINE EPOXY 18-INCH (LF) STAGE 2	647.0606 ISLAND EPOXY NOSE (EACH) STAGE 2	647.0766 CROSSWALK EPOXY 6-INCH (LF) STAGE 2	STAGE 4
18+25 - 21+15	STH 13 NB	WHITE SKIP DASH	73	–	--	–	–	--	--	--	–	–	--	–	..	..	–	..	--	..
19+45 - 21+15	STH 13 NB	LEFT TURN LANE (WHITE EDGELINE)	--	–	--	170	–	--	--	--	–	–	--	–	..	..	–	..	--	..
21+15	STH 13 NB	STOP BAR	--	–	--	–	–	--	--	--	–	–	--	–	..	..	30	..	--	..
21'A'+45 - 21'A'+60	STH 13 SB	CROSSWALK	--	–	--	–	–	--	--	--	–	–	--	–	..	..	..	..	38	..
21'A'+64 - 21'A'+70	STH 13 SB	CROSSWALK	--	–	--	–	–	--	--	--	–	–	--	–	..	..	..	..	147	..
21'A'+74 - 22'A'+50	STH 13 SB	CROSSWALK	--	--	--	--	--	--	--	--	--	--	--	--	..	..	..	..	152	..
–	STAND ROCK RD	STOP BAR	--	–	--	–	–	--	--	--	–	–	--	–	..	..	15	..	--	..
22'A'+65	STH 13 SB	STOP BAR	--	–	--	–	–	--	--	--	–	–	--	–	..	..	35	..	--	..
22+12 - 30+20	STH 13 NB	YELLOW EDGELINE INSIDE (MEDIAN)	803	645	--	–	–	--	--	--	–	–	--	–			–			
22+12 - 30+20	STH 13 NB	WHITE SKIPDASH CENTER	201	162	--	--	--	--	--	--	--	--	--	--	..	..	--	..	..	..
22+12 - 30+20	STH 13 NB	WHITE EDGELINE OUTSIDE	741	645	--	–	–	--	--	--	–	–	--	–	..	..	–	..	..	..
22'A'+65 - 30'A'+50	STH 13 SB	YELLOW EDGELINE INSIDE (MEDIAN)	780	–	614	–	–	--	--	--	–	–	--	–	..	..	–	..	..	..
22'A'+65 - 29'A'+71	STH 13 SB	WHITE SKIPDASH CENTER	177	–	171	–	–	--	--	--	–	–	--	–			–			
22'A'+65 - 29'A'+71	STH 13 SB	WHITE EDGELINE OUTSIDE	644	--	684	--	--	--	--	--	--	--	--	--	..	..	--	..	..	..
22+70	STH 13 NB	"BIKE" LANE WORDS	--	–	--	–	–	--	--	--	–	1	--	–	..	..	–	..	..	..
22+80	STH 13 NB	BIKE "LANE" WORDS	--	–	--	–	–	--	--	--	–	1	--	–	..	..	–	..	..	..
22+91	STH 13 NB	BIKE LANE ARROW	--	–	--	–	1	1	--	--	–	–	--	–			–			
23'A'+47	STH 13 SB	BIKE LANE "ENDS"	--	–	--	–	–	--	--	--	–	1	--	–	..	..	–	..	..	..
23'A'+57	STH 13 SB	BIKE "LANE" ENDS	--	–	--	–	–	--	--	--	–	1	--	–	..	..	–	..	..	..
23'A'+67	STH 13 SB	"BIKE" LANE ENDS	--	–	--	–	–	--	--	--	–	1	--	–	..	..	–	..	..	..
25+23	STH 13 NB	"BIKE" LANE WORDS	--	--	--	--	--	--	--	--	--	1	1	--			--			
25+33	STH 13 NB	BIKE "LANE" WORDS	--	–	--	–	–	--	--	--	–	1	1	–	..	..	–	..	..	..
25+44	STH 13 NB	BIKE LANE ARROW	--	–	--	–	1	1	--	--	–	–	--	–	..	..	–	..	..	..
26'A'+52	STH 13 SB	BIKE LANE ARROW	--	–	--	–	1	--	1	--	–	–	--	–	..	..	–	..	..	..
26'A'+63	STH 13 SB	BIKE "LANE" WORDS	--	--	--	--	--	--	--	--	--	1	--	1	..	..	--	..	..	..
26'A'+73	STH 13 SB	"BIKE" LANE WORDS	--	–	--	–	–	--	--	--	–	1	--	1	..	..	–	..	..	..
28+30	STH 13 NB	"BIKE" LANE ENDS	--	–	--	–	–	--	--	--	–	1	1	–	..	..	–	..	..	..
28+40	STH 13 NB	BIKE "LANE" ENDS	--	–	--	–	–	--	--	--	–	1	1	–	..	..	–	..	..	..
28+51	STH 13 NB	BIKE LANE "ENDS"	--	--	--	--	--	--	--	--	--	1	1	--	..	..	--	..	..	..
28+80	STH 13 NB	BIKE SYMBOL FOR SHARED LANE	--	–	--	–	–	--	--	1	1	–	--	–	–	--	–	–	--	–
29'A'+02	STH 13 SB	BIKE LANE ARROW	--	–	--	–	1	--	1	--	–	–	--	–	..	..	–	..	..	..
29'A'+13	STH 13 SB	BIKE "LANE" WORDS	--	–	--	–	–	--	--	--	–	1	--	1	..	..	–	..	..	..
29'A'+23	STH 13 SB	"BIKE" LANE WORDS	--	–	--	–	–	--	--	--	–	1	--	1	..	..	–	..	..	..
29+52	STH 13 NB	CROSSWALK	--	–	--	–	–	--	--	--	–	–	--	–	–	--	..	–	143	60
29+75 - 30+21	STH 13 NB, LT.	-	--	--	--	--	--	--	--	--	--	--	--	--	45	--	--	--	--	--
29'A'+77 - 33'A'+30	STH SB	WHITE SKIPDASH CENTER	87	–	--	–	–	--	--	--	–	–	--	–	..	..	..	..	--	..
30'A'+00	STH 13 SB	BIKE SYMBOL FOR SHARED LANE	--	–	--	–	–	--	--	1	1	–	--	–	–	--	–	–	--	–
30'A'+16 - 30'A'+43	STH 13 SB, RT.	--	--	–	--	–	–	--	--	--	–	–	--	–	–	30	–	–	--	–
30+20 - 32+30	STH NB	DOUBLE YELLOW CENTERLINE	420	--	--	--	--	--	--	--	--	--	--	--	..	..	..	..	--	..
30+20 - 32+30	STH 13 NB	WHITE SKIPDASH CENTER	53	–	--	–	–	--	--	--	–	–	--	–	..	..	..	..	--	..
30+21 - 30+26	STH 13, NB, LT.	--	--	–	--	–	–	--	--	--	–	–	--	–	–	--	–	1	--	–
31+77 - 31+83	STH 13 NB	CROSSWALK	--	–	--	–	–	--	--	--	–	–	--	–					110	
32+85	STH 13 NB	BIKE SYMBOL FOR SHARED LANE	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--
33'A'+50	STH 13 SB	BIKE SYMBOL FOR SHARED LANE	--	–	--	–	–	--	--	1	–	–	--	–	..	..	..	..	110	..
		SUBTOTALS =	3979	1452	1469	170	4	2	2	4	2	14	5	4	45	30	80	1	700	60
		TOTALS =		6900		170		8		6			23			75		1		760

APPLY PAVEMENT MARKINGS FOR STAGE 3 (B-11-104) AND STAGE 4 (B-11-1) IN LOCATIONS OF POLYMER OVERLAY APPLICATION

✳ FINAL LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD

ALL BID ITEMS ARE CATEGORY 010 UNLESS OTHERWISE NOTED

3

REMOVING PAVEMENT MARKING

STATION - STATION	LOCATION	TYPE	**646.0600 REMOVING MARKINGS (LF) STAGE 1	**646.0600 REMOVING MARKINGS (LF) STAGE 2	647.0955 REMOVING PAVEMENT MARKING ARROWS (EACH) STAGE 1	647.0960 REMOVING PAVEMENT MARKING SYMBOLS (EACH) STAGE 1
18+25 - 21+15	STH 13 NB	WHITE SKIP DASH	75	--	--	--
19+45 - 21+15	STH 13 NB	WHITE LEFT TURN LANE	--	170	--	--
21'A'+42 - 21'A'+62	STH 13 SB	CROSSWALK	--	*36		
21'A'+62 - 21'A'+68	STH 13 SB	CROSSWALK	--	*110		
21'A'+72 - 21'A'+38	STH 13 SB	CROSSWALK	--	*186		
22+11 - 29+75	STH 13 NB	WHITE EDGELINE OUTSIDE	--	741	--	--
22+11 - 29+75	STH 13 NB	WHITE SKIPDASH CENTER	--	192	--	--
22+11 - 29+75	STH 13 NB	YELLOW EDGELINE INSIDE (MEDIAN)	--	750	--	--
22'A'+65 - 30'A'+50	STH 13 SB	YELLOW EDGELINE INSIDE (MEDIAN)	785	--	--	--
22'A'+65 - 30'A'+50	STH 13 SB	WHITE SKIPDASH CENTER	197	--	--	--
22'A'+65 - 30'A'+50	STH 13 SB	WHITE EDGELINE OUTSIDE	785	--	--	--
22'A'+65	STH 13 SB	STOP BAR	15	--	--	--
23'A'+85	STH 13 SB	BIKE LANE ARROW	--	--	1	--
24'A'+00	STH 13 SB	BIKE LANE ARROW	--	--	--	1
29+75 - 32+30	STH 13 NB	WHITE SKIPDASH CENTER	--	65	--	--
30'A'+50 - 33'A'+30	STH 13 SB	WHITE SKIPDASH CENTER	70	--	--	--
30'A'+50 - 33'A'+30	STH 13 SB	DOUBLE YELLOW CENTERLINE	600	--	--	--
30'A'+50 - 33'A'+30	STH 13 SB	WHITE SKIPDASH CENTER	63	--	--	--
					--	--
		SUBTOTALS	2590	2250	1	1
		TOTALS	4840		1	1

*REMOVE AFTER STAGE 2B CONCRETE SIDEWALK 4-INCH AND DETECTABLE WARNING FIELD YELLOW IS COMPLETE.

**MORE LISTED ELSEWHERE

TEMPORARY PEDESTRIAN SURFACE

STATION - STATION	LOCATION	644.1420.S TEMPORARY PEDESTRIAN SURFACE PLYWOOD (SF)	644.1601.S TEMPORARY CURB RAMP (EACH)	644.1616.S SAFETY FENCE (LF)	COMMENT
20+99-21+67	STH 13-T/L	416	-	175	STAGE 2B
21'A'+63-21'A'+80	STH 13-R/L	20	1	5	STAGE 2B
22'A'+08-22'A'+73	STH 13-R/L	364	2	750	STAGE 2B
22'A'+30 - 30'A'+94	STH 13 - R/L, LT.	-	-	1210	STAGE 2B
23'A'+15 - 31'A'+34	STH 13 - R/L	-	-	870	STAGE 2A
23'A'+15 - 31'A'+34	STH 13 - R/L	-	-	870	STAGE 4
24'A'+00	STH 13 - R/L	-	1	-	STAGE 2B
26'A'+32	STH 13 - R/L	-	2	-	STAGE 2B
27'A'+54	STH 13 - R/L	-	2	-	STAGE 2B
29+52	STH 13 - T/L	-	-	60	STAGE 1
29+52	STH 13 - T/L	-	-	60	STAGE 3
29'A'+98	STH 13 - R/L	-	2	-	STAGE 2B
	TOTALS	800	10	4000	

3

TRAFFIC CONTROL

LOCATION	STA - STA	643.0300 DRUMS (DAYS) STAGE 1	STAGE 2A	STAGE 2B	STAGE 3	STAGE 4	643.0420 BARRICADES TYPE III (DAYS) STAGE 1	STAGE 2A	STAGE 2B	STAGE 3	STAGE 4	643.0705 WARNING LIGHTS TYPE A (DAYS) STAGE 1	STAGE 2A	STAGE 2B	STAGE 3	STAGE 4	643.0715 WARNING LIGHTS TYPE C (DAYS) STAGE 1	STAGE 2A	STAGE 2B	STAGE 3	STAGE 4	643.0800 ARROW BOARDS (DAYS) STAGE 1	STAGE 2A	STAGE 2B	STAGE 3	STAGE 4
STH 13 NB	16+65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	21	34	--	6
STH 13 NB	16+65 - 18+90	--	210	340	--	60	--	--	--	--	--	--	--	--	--	--	--	126	204	--	36	--	--	--	--	--
STH 13 NB	18+25 - 21+15	273	--	--	78	--	--	--	--	--	--	--	--	--	--	--	126	--	--	36	--	--	--	--	--	--
STH 13 NB	19+45 - 21+15	--	273	442	--	78	--	--	--	--	--	--	--	--	--	--	--	273	442	--	78	--	--	--	--	--
STH 13 NB	18+25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	21	--	--	6	--
STH 13 NB	22+15	--	--	--	--	--	84	--	--	24	--	126	--	--	36	--	--	--	--	--	--	--	--	--	--	--
STH 13 NB	22+25	--	--	--	--	--	--	84	136	--	24	--	105	170	--	30	--	--	--	--	--	--	--	--	--	--
STH 13 SB	29+75	--	--	--	--	--	--	42	68	--	12	--	63	102	--	18	--	--	--	--	--	--	--	--	--	--
STH 13 SB	29+85	--	--	--	--	--	84	--	--	24	--	105	--	--	30	--	--	--	--	--	--	--	--	--	--	--
STH 13 SB	30+60	--	--	--	--	--	--	42	68	--	12	--	63	102	--	18	--	--	--	--	--	--	--	--	--	--
STH 13 SB	30+60 - 32+35	--	168	272	--	48	--	--	--	--	--	--	--	--	--	--	--	168	272	--	48	--	--	--	--	--
STH 13 NB	31+15 - 32+40	126	--	--	36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
STH 13 SB	32+35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	21	34	--	6
STH 13 SB	32+90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	21	--	--	6	--
	COLUMN TOTALS	399	651	1054	114	186	168	168	272	48	48	231	231	374	66	66	126	567	918	36	162	42	42	68	12	12
				2404					704					968					1809					176		

ALL BID ITEMS ARE CATEGORY 010 UNLESS OTHERWISE NOTED

TRAFFIC CONTROL SIGNS

LOCATION	STATION	643.0900 SIGNS (DAYS) STAGE 1	STAGE 2A	STAGE 2B	STAGE 3	STAGE 4	COMMENT
STAND ROCK ROAD	--	21	21	34	6	6	(1) G20-57
STH 13 NB	--	84	84	136	24	24	(2) W12-52; (2) W07-52
STH 13 NB	--	21	21	34	6	6	(1) G20-57
STH 13 NB	--	42	42	68	12	12	(2) W20-5
STH 13 NB	--	42	--	--	12	--	(2) W04-2R
STH 13 NB	--	--	42	68	--	12	(2) W04-2L
STH 13 SB	--	42	42	68	12	12	(2) G20-2A
STH 13 NB	21+15	21	--	--	6	--	(1) W01-4L
STH 13 NB	22+15	42	--	--	12	--	(1) W01-6; (1) R11-2
STH 13 SB	21'A'+23	-	-	5	-	-	R9-9
STH 13 NB	22+05	--	--	34	--	--	(1) R11-2
STH 13 NB	22+25	--	21	34	--	6	(1) R11-2
STH 13 NB	22+30	--	42	68	--	12	(1) W06-3; (1) W057-51
STAND ROCK ROAD	--	21	21	34	6	6	(1) W20-1
STH 13 SB	24+00	--	21	34	--	6	(1) W01-4R
STH 13 NB	22+45	42	--	--	12	--	(1) W06-3; (1) W057-51
STH 13 NB	29+00	21	--	--	6	--	(1) W01-4R
STH 13 NB	29+35	--	21	34	--	6	(1) W01-4L
STH 13 NB	29+52	5	5	--	--	--	(1) R9-9
STH 13 SB	29+65	--	42	68	--	12	(1) W06-3; (1) W057-51
STH 13 SB	29+75	--	21	34	--	6	(1) R11-2
STH 13 SB	29+85	21	--	--	6	--	(1) R11-2
STH 13 SB	30+60	42	--	--	12	--	(1) W06-3; (1) W057-51
STH 13 SB	30+60	--	21	34	--	6	(1) R11-2
STH 13 SB	--	21	21	34	6	6	(1) W4-2L
STH 13 SB	--	--	21	34	--	6	(1) W04-2R
STH 13 NB	--	21	21	34	6	6	(1) G20-2A
STH 13 SB	--	21	21	34	6	6	(1) W20-5
STH 13 SB	--	21	21	34	6	6	(1)W 20-1
STH 13 SB	--	21	21	34	6	6	(1) G20-57
SUBTOTALS=		572	593	991	162	168	
TOTAL=				2486			

CONSTRUCTION STAKING

STATION - STATION	LOCATION	650.4500 SUBGRADE (LF)	650.7000 CONCRETE PAVEMENT (LF)	650.8000 RESURFACING REFERENCE (LF)	650.9910 SUPPLEMENTAL CONTROL (6131-00-61) (LS)	SPV.0060.02 CURB RAMP (EACH)	SPV.0090.02 SIDEWALK (LF)
21+15 - 29+75	STH 13 NB	-	-	860	-	-	
21'A'+30 - 21'A'+55	STH 13 SB, LT.	-	-	-	-	-	30
21'A'+32 - 30'A'+84	STH 13 SB	-	-	950	-	-	
21+40 - 22+10	STH 13 NB, RT.	-	-	-	-	-	15
21'A'+46	STH 13 SB, LT	-	-	-	-	1	-
21+48	STH 13 NB, RT	-	-	-	-	1	-
21'A'+56 - 21'A'+73	STH 13 SB, LT	-	-	-	-	-	22
21'A'+59	STH 13 SB, LT	-	-	-	-	1	-
21'A'+67	STH 13 SB, LT	-	-	-	-	1	-
21'A'+73	STH 13 SB, LT	-	-	-	-	1	-
22'A'+30 - 22'A'+58	STH 13 SB, LT.	-	-	-	-	-	33
22'A'+49	STH 13 SB, LT	-	-	-	-	1	-
22+73 - 22+93	STH 13 NB	20	20	-	-	-	-
23+'A'65 - 23'A'+85	STH 13 SB	20	20	-	-	-	-
29+37 - 29+75	STH 13 NB	40	40	-	-	-	-
29+45 - 29+57	STH 13 NB, RT.	-	-	-	-	-	20
29+49	STH 13 NB, RT	-	-	-	-	1	-
29+50	STH 13 NB, LT	-	-	-	-	1	-
*29'A'+76	STH 13 SB, RT	-	-	-	-	1	-
*29'A'+76	STH 13 SB, LT	-	-	-	-	1	-
30'A'+01 - 30'A'+16	STH 13 SB	15	15	-	-	-	-
30'A'+69 - 30'A'+84	STH 13 SB	15	15	-	-	-	-
-	PROJECT	-	-	-	1	-	-
	TOTAL	110	110	1810	1	10	120

SAWING ASPHALT/SAWING CONCRETE

STATION - STATION	LOCATION	690.0150 SAWING ASPHALT (LF)	690.0250 SAWING CONCRETE (LF)	REMARKS
21'A'+30 - 21'A'+55	STH 13 SB, LT	-	15	
21'A'+49 - 21'A'+73	STH 13 SB, LT	-	78	
21+09 - 21+55	STH 13 NB, RT	-	24	
22+04 - 22+10	STH 13 NB, RT	-	7	
22+73	STH 13 NB	-	39	
22+93	STH 13 NB		9	
23'A'+65	STH 13 SB, LT.	-	5	
23'A'+65	STH 13 SB	-	33	
23'A'+65 - 23'A'+85	STH 13 SB	-	20	STAGE 2A WINGWALL REPAIR
29+54 - 29+60	STH 13 NB	-	8	
29+60 - 29+75	STH 13 NB	30	-	
29+75	STH 13 NB	-	25	
29+75 - 30+21	STH 13 NB, LT.	-	51	
30'A'+16	STH 13 SB	-	16	
30'A'+16 - 30'A'+43	STH 13 SB, RT.	-	39	
30'A'+69 - 30'A'+84	STH 13 SB	-	36	
	TOTALS =	30	405	

REMOVING INLET COVERS

STATION	LOCATION	204.9060.S.01 (EACH)
29+54	STH 13 NB, RT.	1
	TOTAL	1

3

Electrical Conduit

Category	Station	to	Station	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch LF	Description
0010	21 EB + 35	to	21 EB + 43	13	Existing PB5 to SB3
0010	21 EB + 52	to	21 EB + 43	17	Existing PB4 to SB1
0010	21 EB + 52	to	21 EB + 52	5	Existing PB4 to SB2
			Total	**35**	

Signal Bases

Category	Station	Dir	Location	654.0101 Concrete Bases Type 1 EACH	654.0110 Concrete Bases Type 10 EACH	Description
0010	21 EB + 43	LEFT	61		1	SB1
0010	21 EB + 52	LEFT	70	1		SB2
0010	21 EB + 43	RIGHT	16	1		SB3
			Total	**2**	**1**	

Electrical items

Category	Station	Dir	Location	650.8500 Construction Staking Electrical Installations 6131-00-61 LS	658.5069 Signal Mounting Hardware LS	Description
0010	21 + 30	RIGHT	27	1	1	Project
			Total	**1**	**1**	

Removals

Category	Station	Dir	Location	653.0900 Adjusting Pull Box EACH	653.0905 Removing Pull Box EACH	SPV.0060.01 Removing Traffic Signal Units EACH	Description
0010	21 EB + 52	LEFT	75	1			Existing PB4
0010	21 EB + 51	LEFT	63		1		Existing PB7
0000	21 EB + 52	LEFT	68			1	Existing SB1
			Total	**1**	**1**	**1**	

Signal Head Items

Category	Station	Dir	Location	658.0110 Traffic Signal Face 3-12 Inch Vertical EACH	658.0215 Backplates Signal Face 3 section 12-inch EACH	658.0416 Pedestrian Signal Face 16-Inch EACH	658.0500 Pedestrian Push Buttons EACH	658.0600 LED Modules 12-Inch Red Ball EACH	658.0605 LED Modules 12-Inch Yellow Ball EACH	658.0610 LED Modules 12-Inch Green Ball EACH	658.0635 LED Modules Pedestrian Countdown Timer 16-inch EACH	Desc
0010	21 EB + 43	LEFT	61	2	2	1	1	2	2	2	1	SB1
0010	21 EB + 52	LEFT	70	1	1	1	1	1	1	1	1	SB2
0010	21 EB + 43	RIGHT	16			1	1				1	SB3
			Total	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	

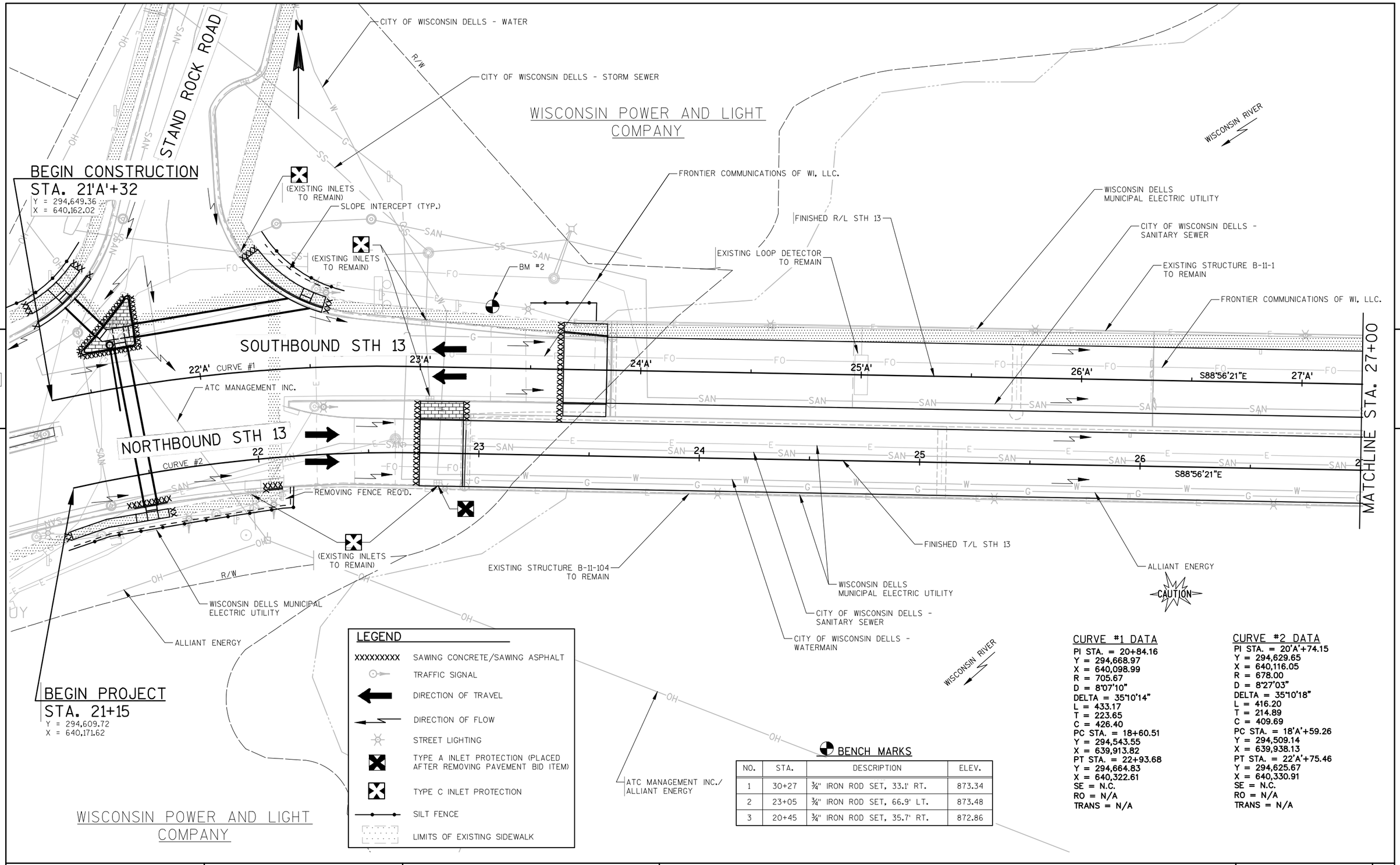
3

Poles, Arms & Equipment

Category	Station	Dir	Location	657.1345 Install Poles Type 9 EACH	657.1530 Install Monotube Arms 30-FT EACH	657.0100 Pedestal Bases EACH	657.0425 Traffic Signal Standard Aluminum 15-FT EACH	657.0430 Traffic Signal Standard Aluminum 10-FT EACH	Desc
0010	21 EB + 43	LEFT	61	1	1				SB1
0010	21 EB + 52	LEFT	70			1	1		SB2
0010	21 EB + 43	RIGHT	16			1		1	SB3
			Total	**1**	**1**	**2**	**1**	**1**	

Signal Wire

Category	Station	to Station	655.0210 Cable Traffic Signal 3-14 AWG LF	655.0230 Cable Traffic Signal 5-14 AWG LF	655.0240 Cable Traffic Signal 7-14 AWG LF	655.0250 Cable Traffic Signal 9-14 AWG LF	655.0515 Electrical Wire Traffic Signals 10 AWG LF	Description
0010	21 EB + 43		15	104				SB1 - Up Pole
0010	21 EB + 52		15	20				SB2 - Up Pole
0010	21 EB + 43		15					SB3 - Up Pole
0010	021 EB + 30	to 021 EB + 43				214		Existing SC1 to SB1
0010	021 EB + 30	to 021 EB + 52				202		Existing SC1 to SB2
0010	021 EB + 30	to 021 EB + 43			40			Existing SC1 to SB3
0010	021 EB + 30	to 021 EB + 43					214	Existing SC1 to SB1 Grounding Conductor
0010	021 EB + 30	to 021 EB + 52					130	Existing SC1 to SB2 Grounding Conductor
0010	021 EB + 30	to 021 EB + 43					40	Existing SC1 to SB3 Grounding Conductor
		Total	**45**	**124**	**40**	**416**	**384**	



BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	30+27	¾" IRON ROD SET, 33.1' RT.	873.34
2	23+05	¾" IRON ROD SET, 66.9' LT.	873.48
3	20+45	¾" IRON ROD SET, 35.7' RT.	872.86

CURVE #1 DATA

PI STA. = 20+84.16
Y = 294,668.97
X = 640,098.99
R = 705.67
D = 8°07'10"
DELTA = 35°10'14"
L = 433.17
T = 223.65
C = 426.40
PC STA. = 18+60.51
Y = 294,543.55
X = 639,913.82
PT STA. = 22+93.68
Y = 294,664.83
X = 640,322.61
SE = N.C.
RO = N/A
TRANS = N/A

CURVE #2 DATA

PI STA. = 20'A'+74.15
Y = 294,629.65
X = 640,116.05
R = 678.00
D = 8°27'03"
DELTA = 35°10'18"
L = 416.20
T = 214.89
C = 409.69
PC STA. = 18'A'+59.26
Y = 294,509.14
X = 639,938.13
PT STA. = 22'A'+75.46
Y = 294,625.67
X = 640,330.91
SE = N.C.
RO = N/A
TRANS = N/A

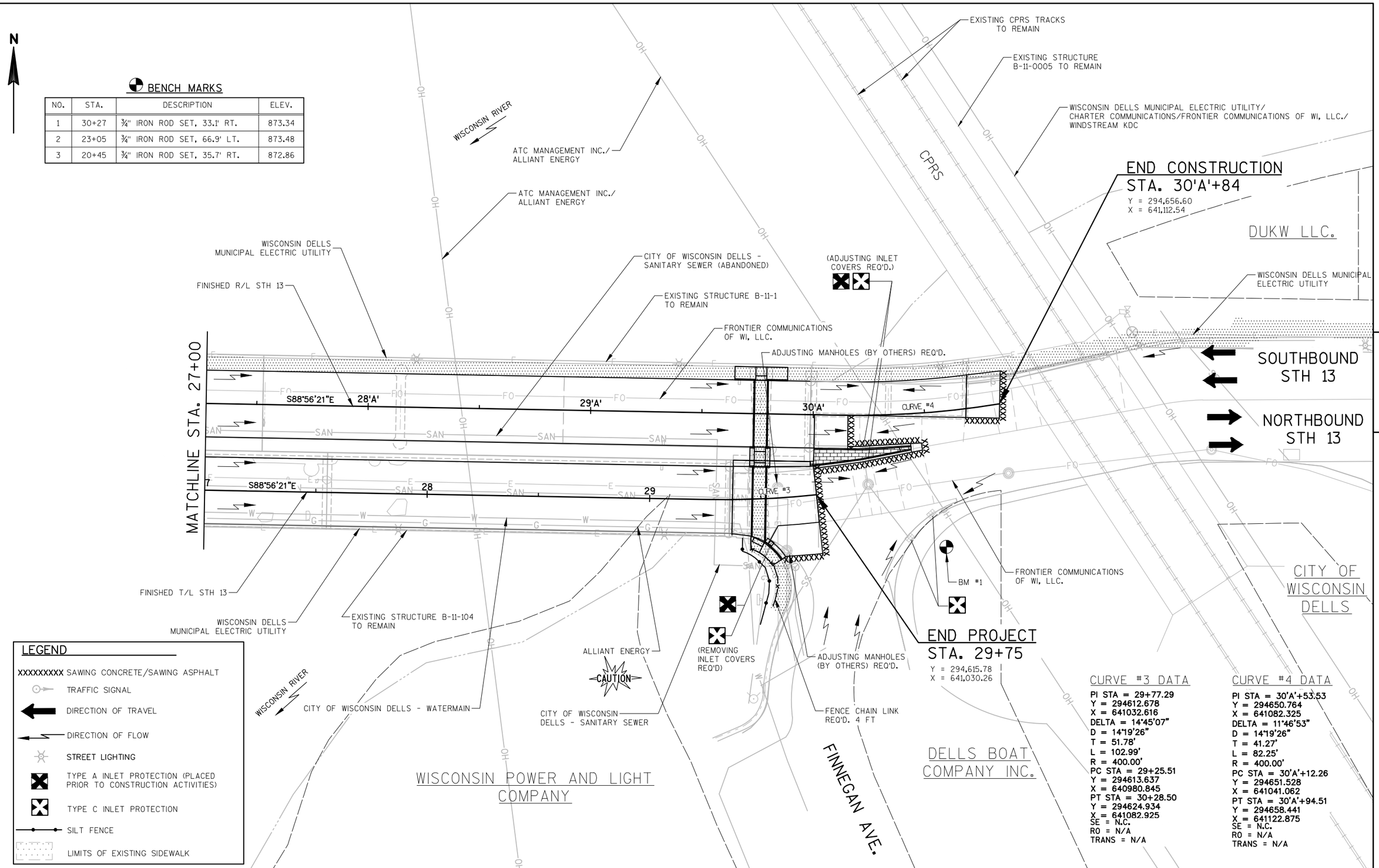
PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK & COLUMBIA	PLAN: DETAILS	SHEET 35

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\SHEETSPLAN\PLAN & PROFILE SHEETS\W11540_PLAN DETAIL_RECOVER.DWG
LAYOUT : LAYOUT1
PLOT DATE :
PLOT TIME :
PLOT BY : JULIA ZEHNER
PLOT SCALE : 1" = 1'

N

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	30+27	¾" IRON ROD SET, 33.1' RT.	873.34
2	23+05	¾" IRON ROD SET, 66.9' LT.	873.48
3	20+45	¾" IRON ROD SET, 35.7' RT.	872.86



LEGEND

- XXXXXXXXX SAWING CONCRETE/SAWING ASPHALT
- TRAFFIC SIGNAL
- DIRECTION OF TRAVEL
- DIRECTION OF FLOW
- STREET LIGHTING
- TYPE A INLET PROTECTION (PLACED PRIOR TO CONSTRUCTION ACTIVITIES)
- TYPE C INLET PROTECTION
- SILT FENCE
- LIMITS OF EXISTING SIDEWALK

CURVE #3 DATA

PI STA = 29+77.29
Y = 294612.678
X = 641032.616
DELTA = 14°45'07"
D = 14°19'26"
T = 51.78'
L = 102.99'
R = 400.00'
PC STA = 29+25.51
Y = 294613.637
X = 640980.845
PT STA = 30+28.50
Y = 294624.934
X = 641082.925
SE = N.C.
RO = N/A
TRANS = N/A

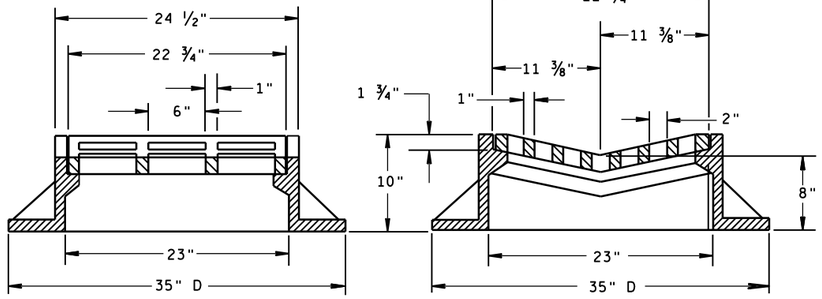
CURVE #4 DATA

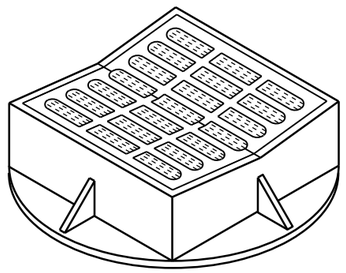
PI STA = 30'A'+53.53
Y = 294650.764
X = 641082.325
DELTA = 11°46'53"
D = 14°19'26"
T = 41.27'
L = 82.25'
R = 400.00'
PC STA = 30'A'+12.26
Y = 294651.528
X = 641041.062
PT STA = 30'A'+94.51
Y = 294658.441
X = 641122.875
SE = N.C.
RO = N/A
TRANS = N/A

PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK & COLUMBIA	PLAN: DETAILS	SHEET 36

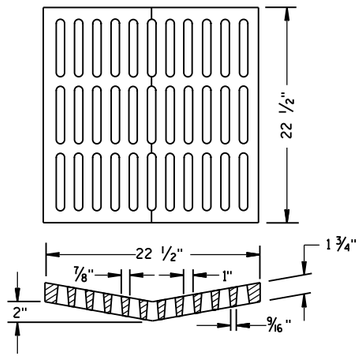
Standard Detail Drawing List

08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08D01-19	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-18A	CURB RAMPS TYPES 1 AND 1-A
08D05-18B	CURB RAMPS TYPES 2 AND 3
08D05-18C	CURB RAMPS TYPES 4A AND 4A1
08D05-18D	CURB RAMPS TYPE 4B AND 4B1
08D05-18E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09B02-09	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C11-09	CONCRETE BASE TYPE 10
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E08-08A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-08E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
11B02-02	CONCRETE MEDIAN NOSE
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
13B02-08B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C07-13E	PAVEMENT MARKING FOR BIKE LANES
15C08-17A	LONGITUDINAL MARKING (MAINLINE)
15C08-17B	PAVEMENT MARKING (TURN LANES)
15C08-17C	PAVEMENT MARKING (ISLANDS)
15C29-04A	BICYCLE LANE MARKING
15C33-02	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D30-03A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-03B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-03C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION



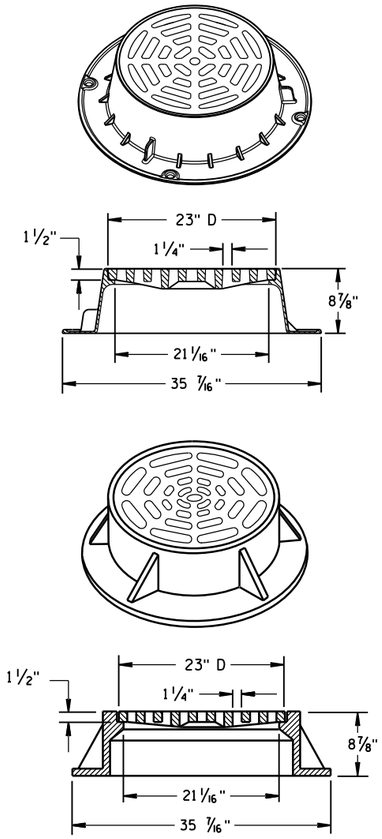


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

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



TYPE "C"

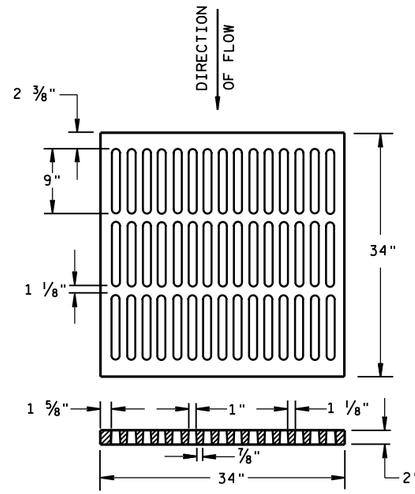
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

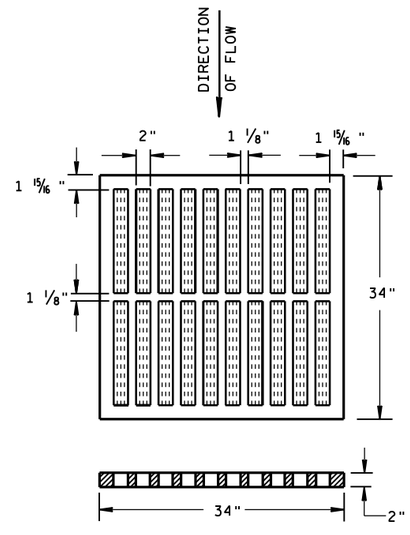
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



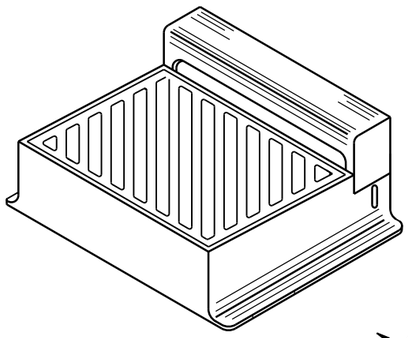
ALTERNATIVE TYPE "MS"

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

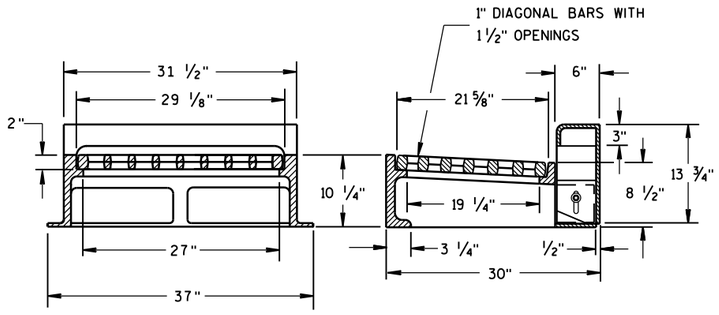


TYPE "MS"

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



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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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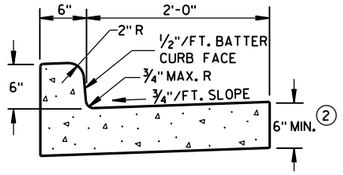
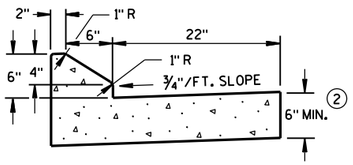
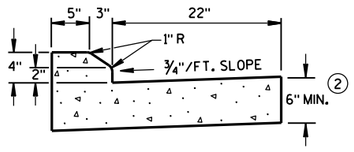
S.D.D. 8 A 5-19b



TYPES A & D ①

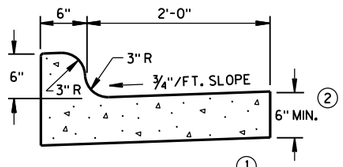


6" SLOPED CURB TYPES G & J ①

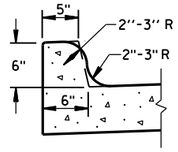


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

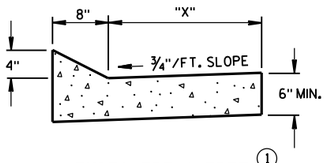


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

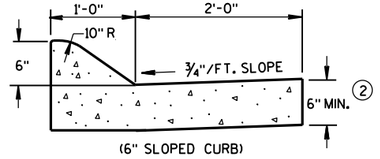
CONCRETE CURB & GUTTER 30"



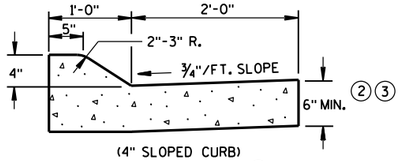
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

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

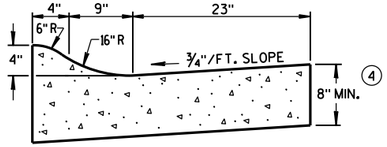


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ①⑤

CONCRETE CURB & GUTTER 36"

GENERAL NOTES

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

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

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

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

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

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

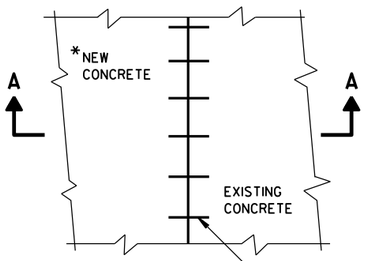
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

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

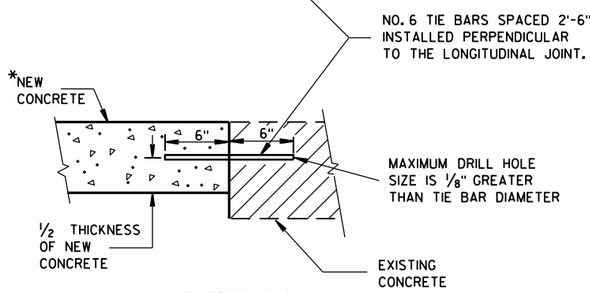
⑤ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

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



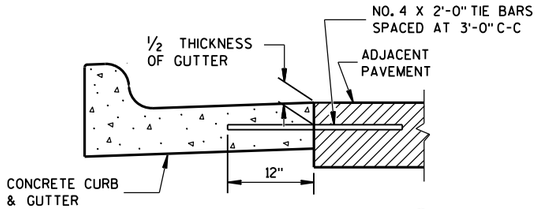
PLAN VIEW

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

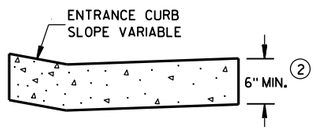


SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT

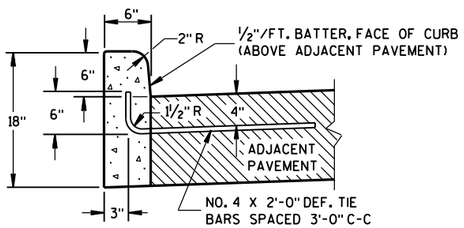


TYPICAL TIE BAR LOCATION ①

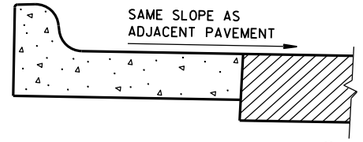


DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)

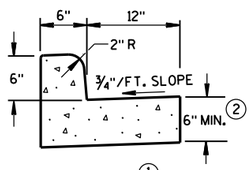


① TYPES A & D



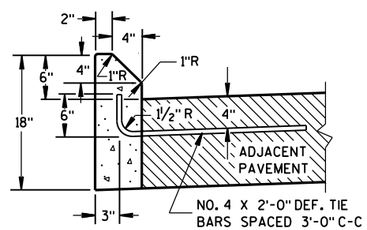
⑥ REVERSE SLOPE GUTTER

(TYPICAL FOR ALL CURB & GUTTER TYPES)



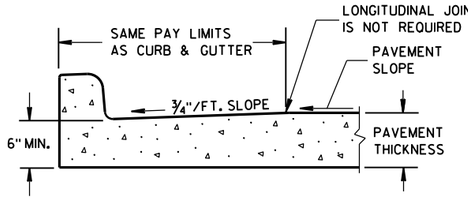
① TYPES A & D

CONCRETE CURB & GUTTER 18"

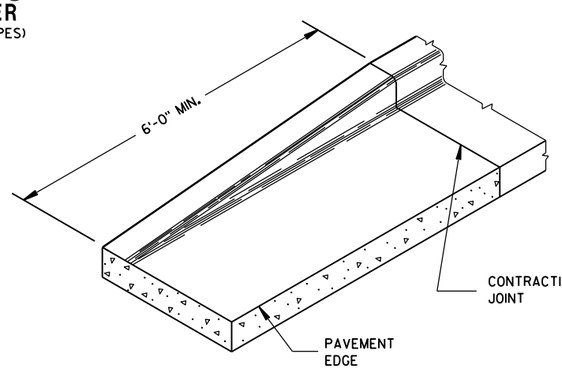


① TYPES G & J

CONCRETE CURB



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June, 2016 — DATE

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

FHWA

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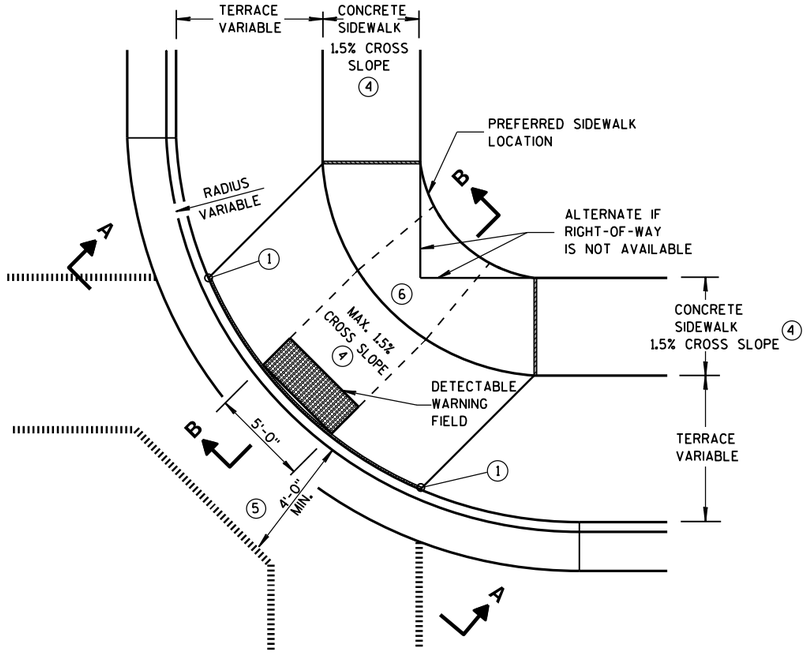
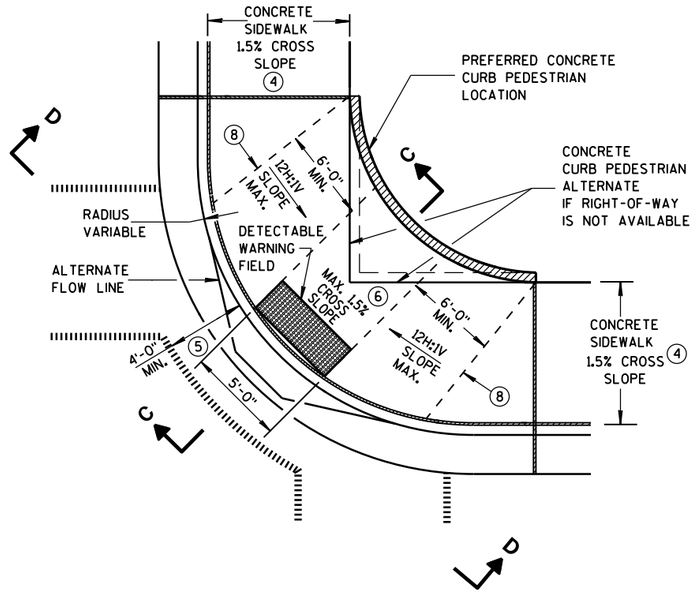
S.D.D. 8 D 1-19



PLAN VIEW

TYPE 1 RAMP

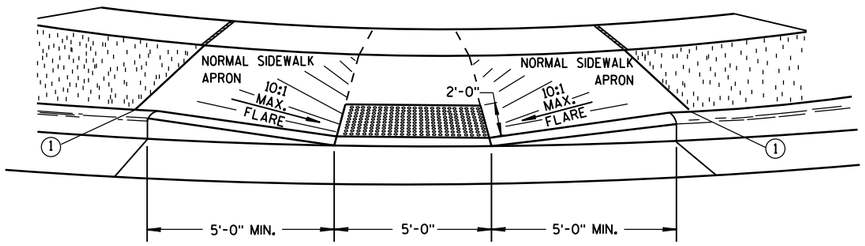
(CENTER OF CORNER RADIUS)



PLAN VIEW

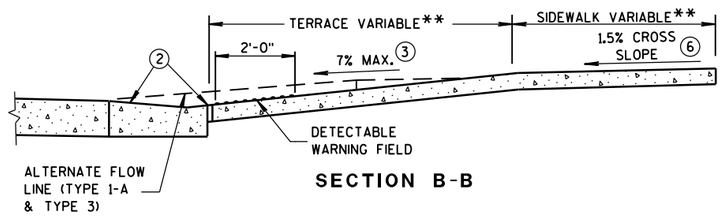
TYPE 1-A RAMP

(NO TERRACE)

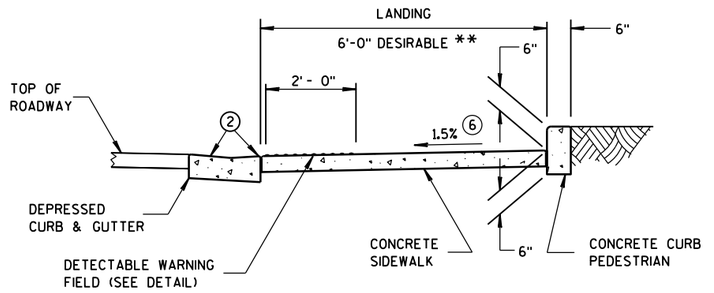


VIEW A-A

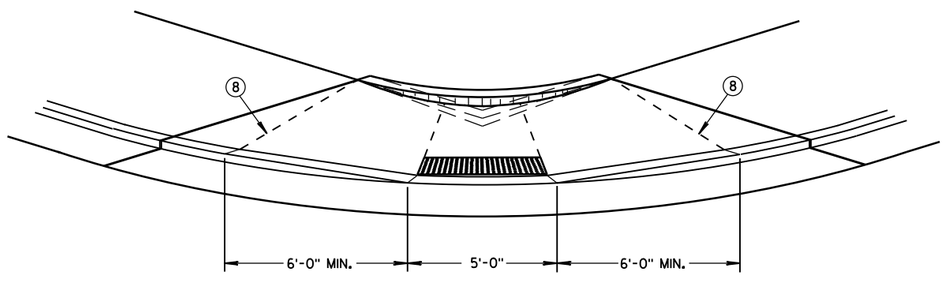
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



SECTION C-C



VIEW D-D

GENERAL NOTES

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

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

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

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

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

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

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

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

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

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

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

LEGEND

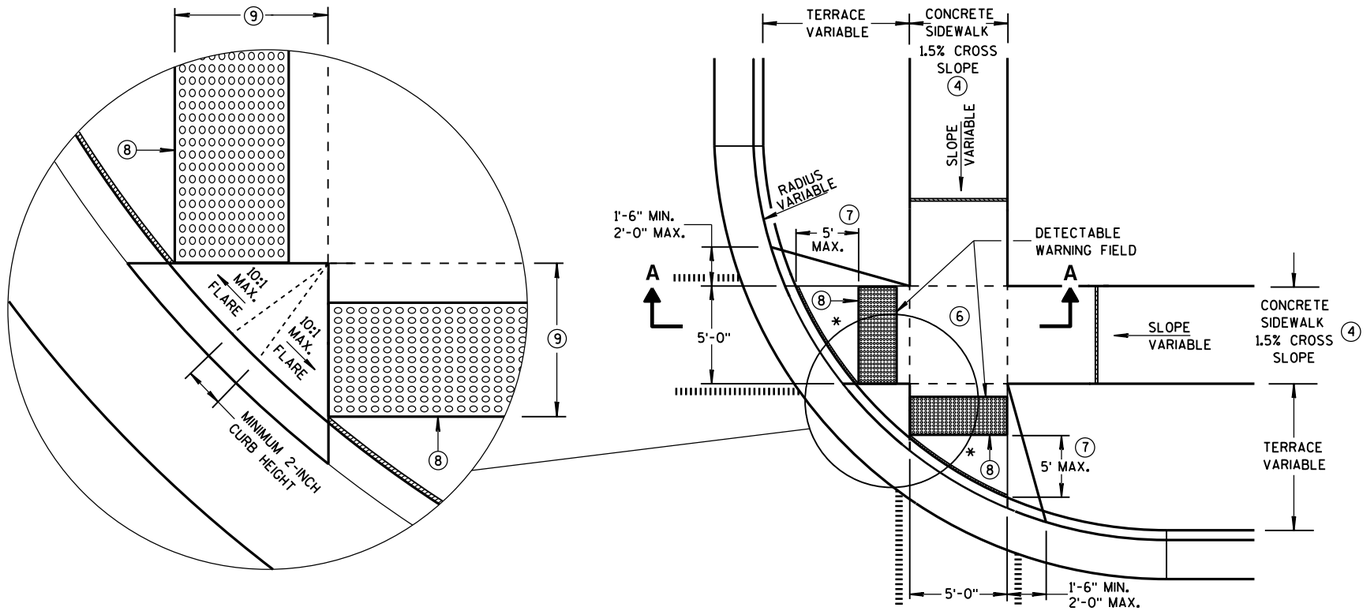
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 8 D 5-18a

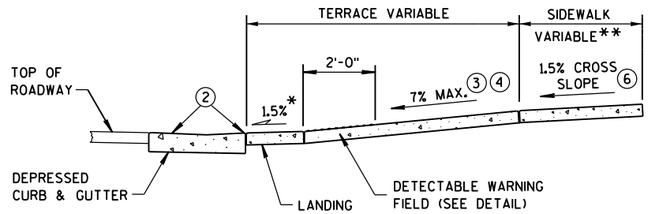


PLAN VIEW

TYPE 2 RAMP

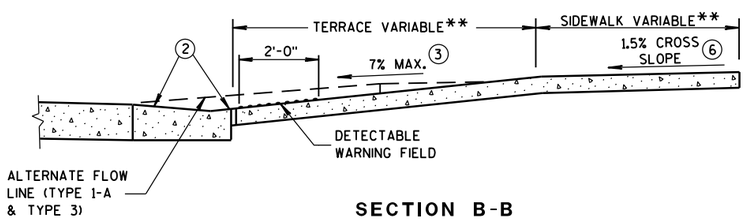
(ON LINE WITH SIDEWALK)

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

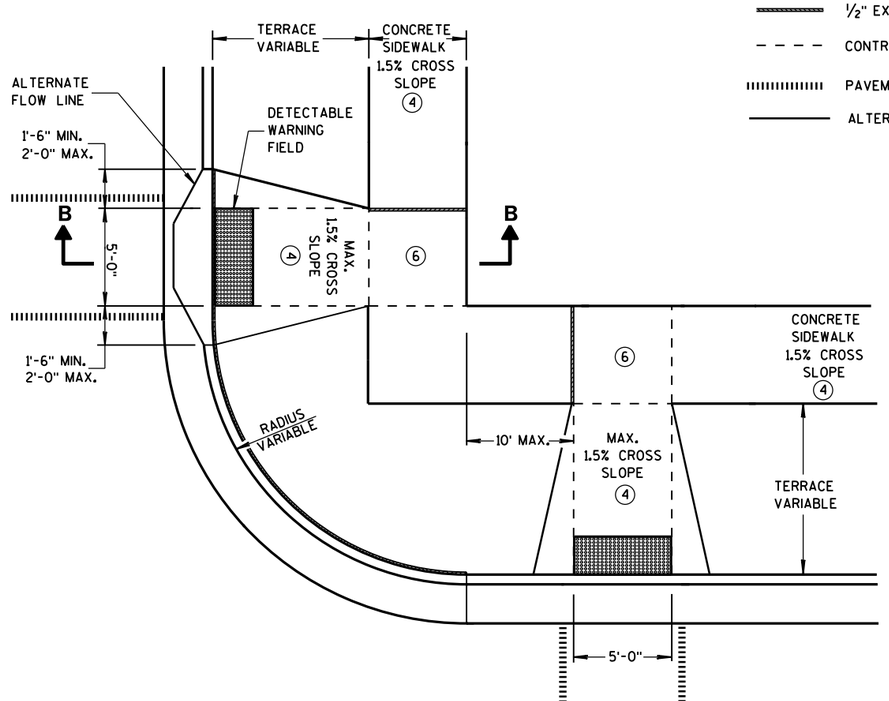


SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



PLAN VIEW

TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)

GENERAL NOTES

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

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

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

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

(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. USE EQUAL-SIZE PANELS TO DEVELOP OVERLAPPING, STAGGERED ROWS. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

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

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

LEGEND

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

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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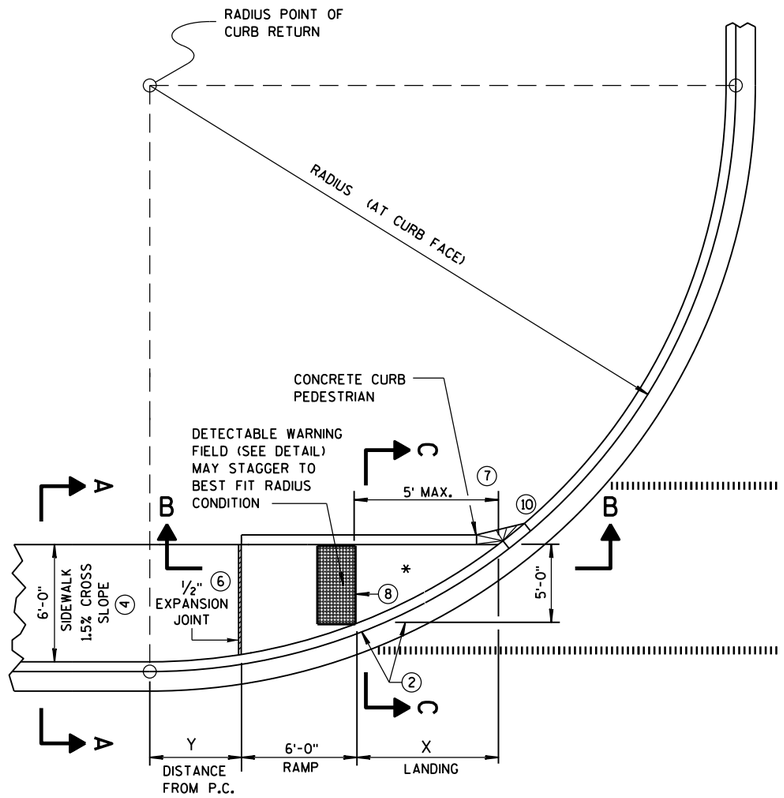
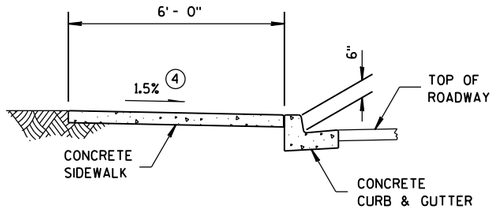
S.D.D. 8 D 5-18b



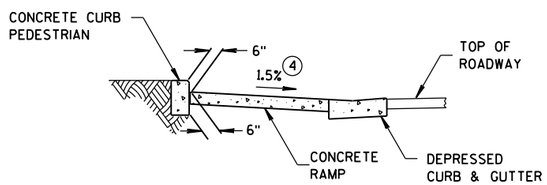
CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X	Y
20 FEET	7'-11"	0'-2"
30 FEET	10'-2¾"	1'-7½"
40 FEET	12'-1¼"	2'-10"
50 FEET	13'-8¾"	3'-10¾"
60 FEET	15'-2"	4'-10¼"

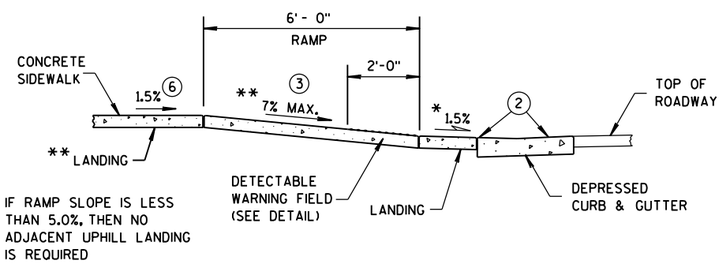
INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A



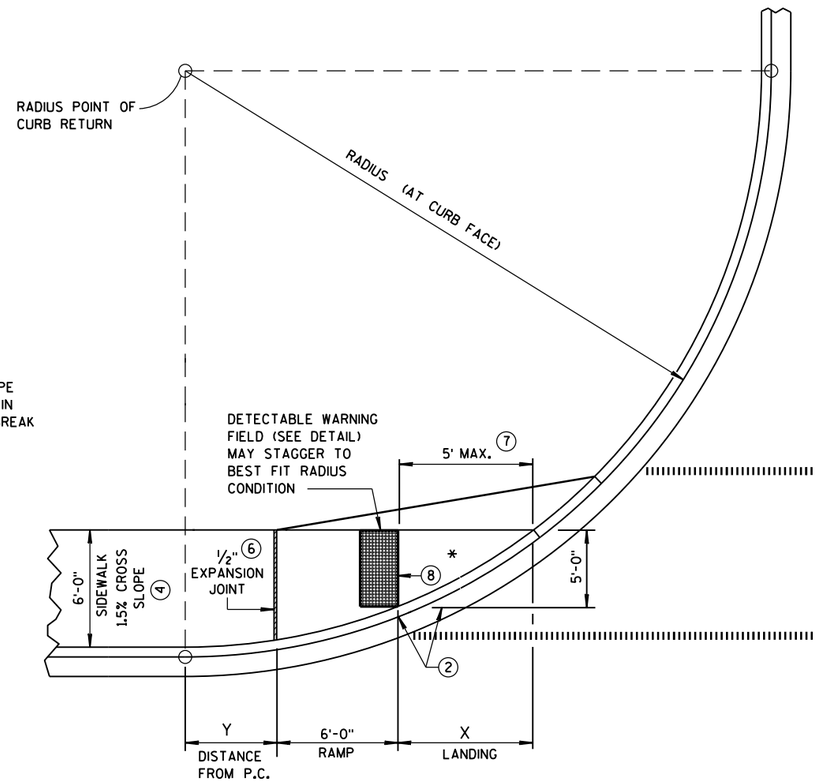
SECTION C-C FOR TYPE 4A



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

SECTION B-B FOR TYPE 4A

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



CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

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

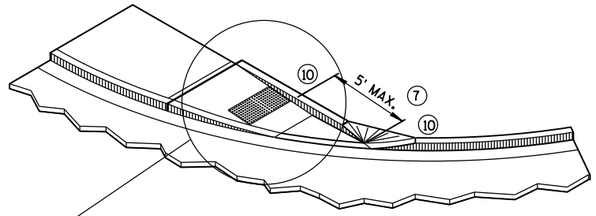
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

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

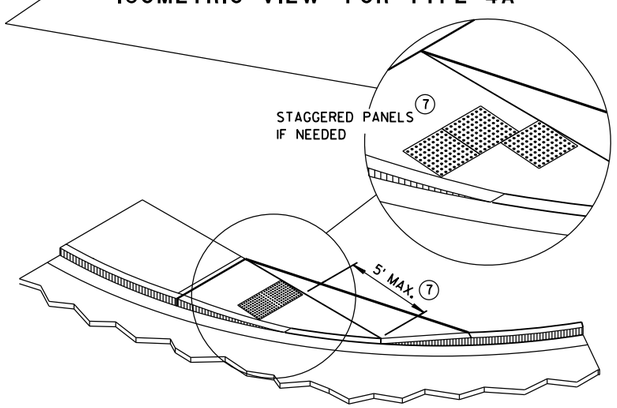
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. USE EQUAL-SIZE PANELS TO DEVELOP OVERLAPPING, STAGGERED ROWS. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

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

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



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

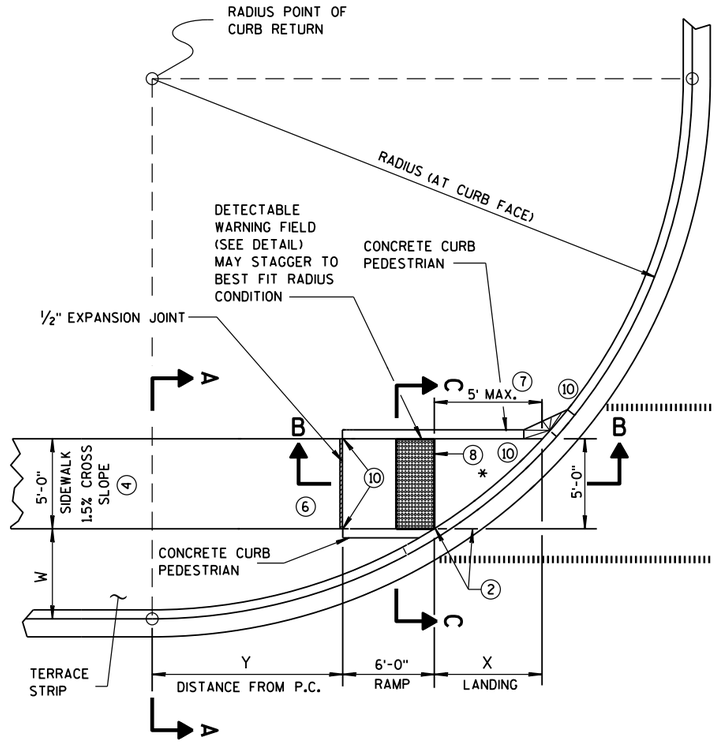
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

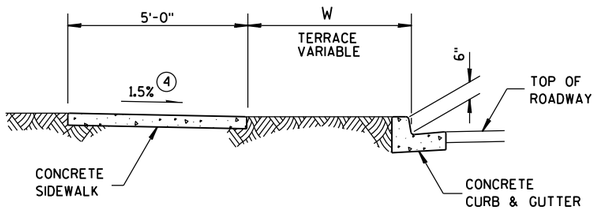
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

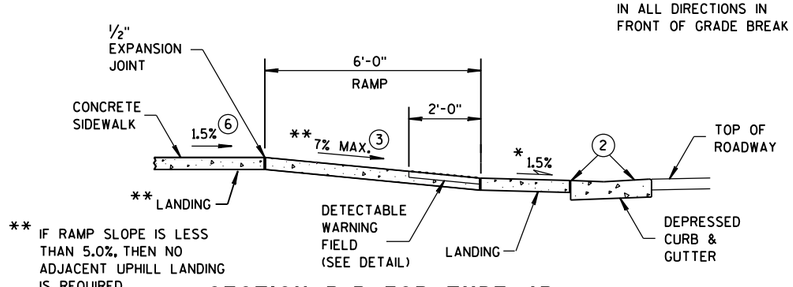
S.D.D. 8 D 5-18c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



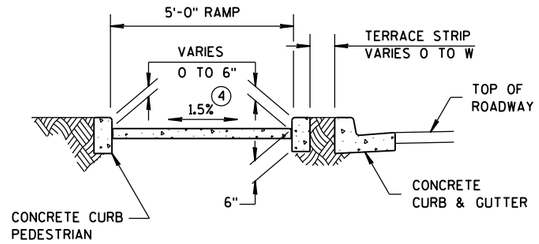
SECTION B-B FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C-C FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-9¾"	3'-6½"	4'-11½"	5'-1¾"	4'-3¼"	6'-5½"	3'-8¾"	7'-6¾"	3'-3"	8'-6¼"
30 FEET	7'-9¼"	5'-10½"	6'-9½"	7'-11¼"	6'-0¼"	9'-8"	5'-5"	11'-1¾"	4'-10¾"	12'-5¾"
40 FEET	9'-4"	7'-10"	8'-2¾"	10'-3"	7'-4¾"	12'-3¾"	6'-8½"	14'-1¼"	6'-1¾"	15'-8½"
50 FEET	10'-8"	9'-6½"	9'-5½"	12'-3¼"	8'-6½"	14'-7½"	7'-9¾"	16'-8¼"	7'-2½"	18'-6¼"
60 FEET	11'-10¼"	11'-0¾"	10'-6½"	14'-1¼"	9'-6½"	16'-8½"	8'-9¼"	18'-11¾"	8'-1½"	21'-0½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

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

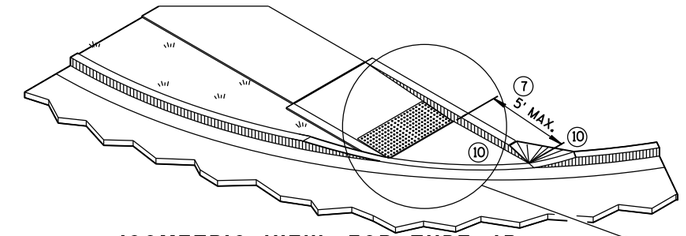
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

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

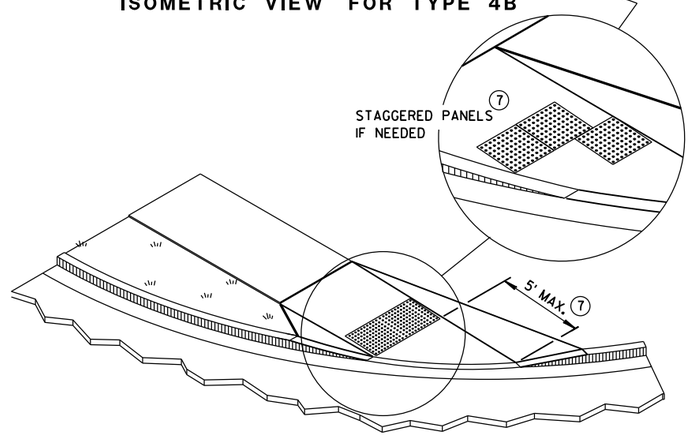
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. USE EQUAL-SIZE PANELS TO DEVELOP OVERLAPPING, STAGGERED ROWS. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

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

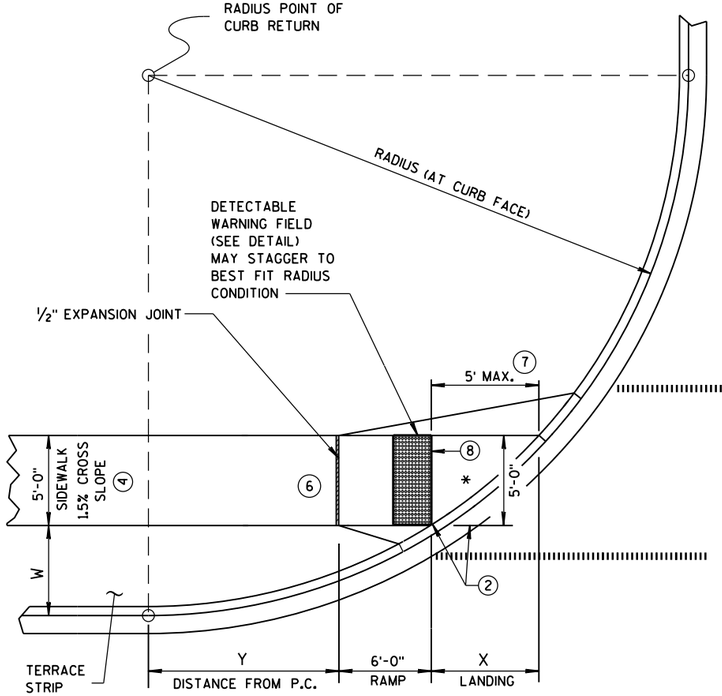
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1



CURB RAMP TYPE 4B1
PLAN VIEW

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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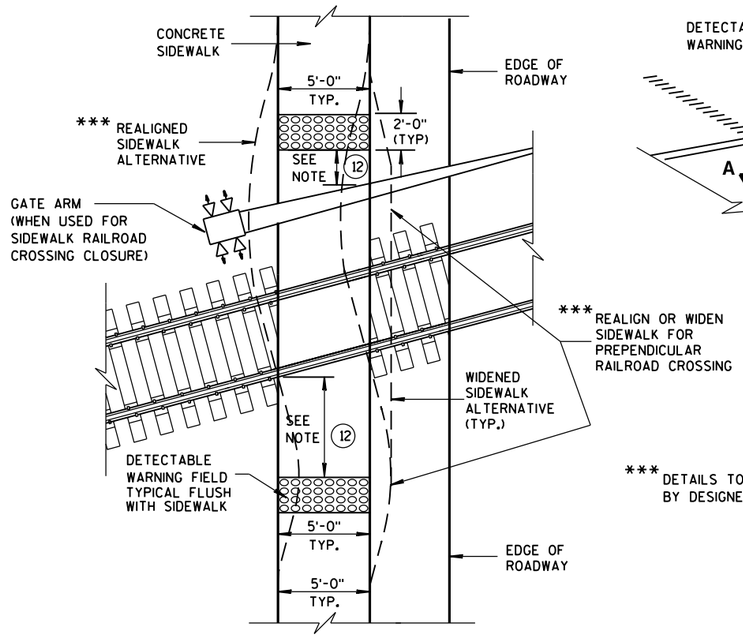
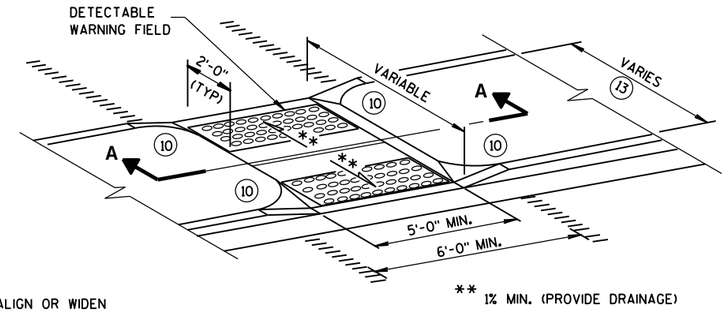
S.D.D. 8 D 5-18d



*** DETAILS TO BE DETERMINED BY DESIGNER

TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

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

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

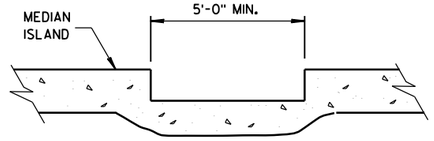
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

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

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

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

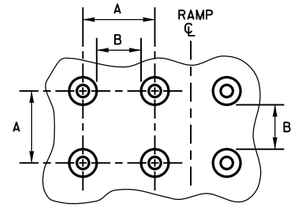
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



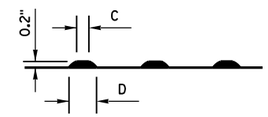
SECTION A-A

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

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

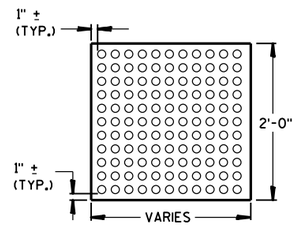


PLAN VIEW

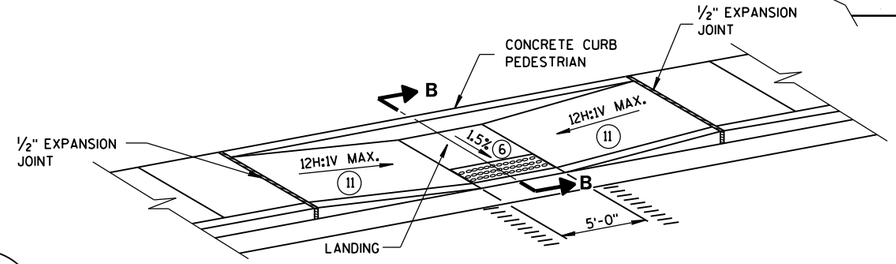


ELEVATION VIEW

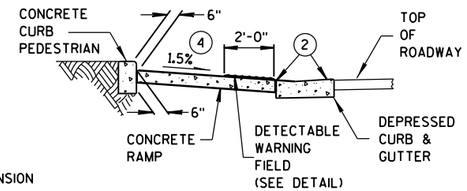
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



PLAN VIEW
DETECTABLE WARNING FIELD (TYPICAL)

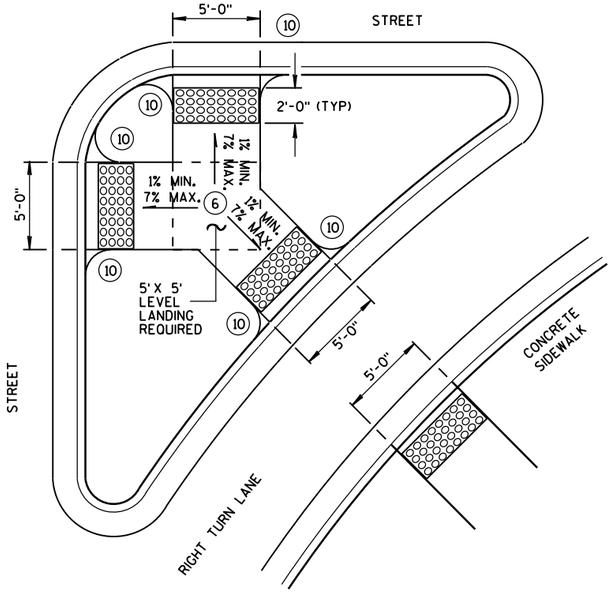


MID-BLOCK CROSSING
TYPE 7A

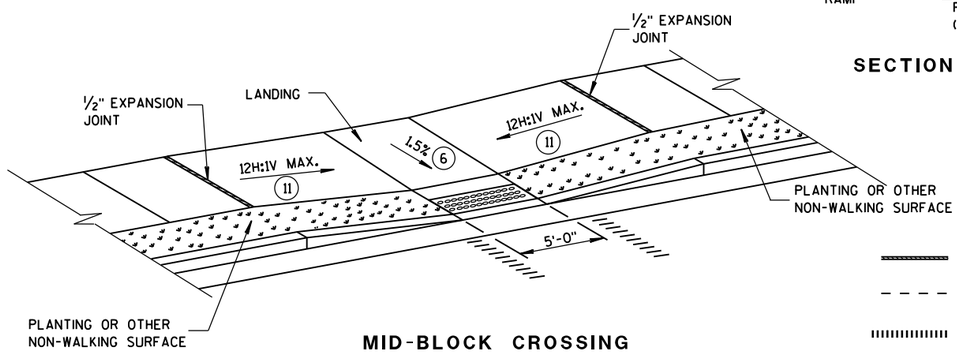


SECTION B-B

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



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

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

LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV

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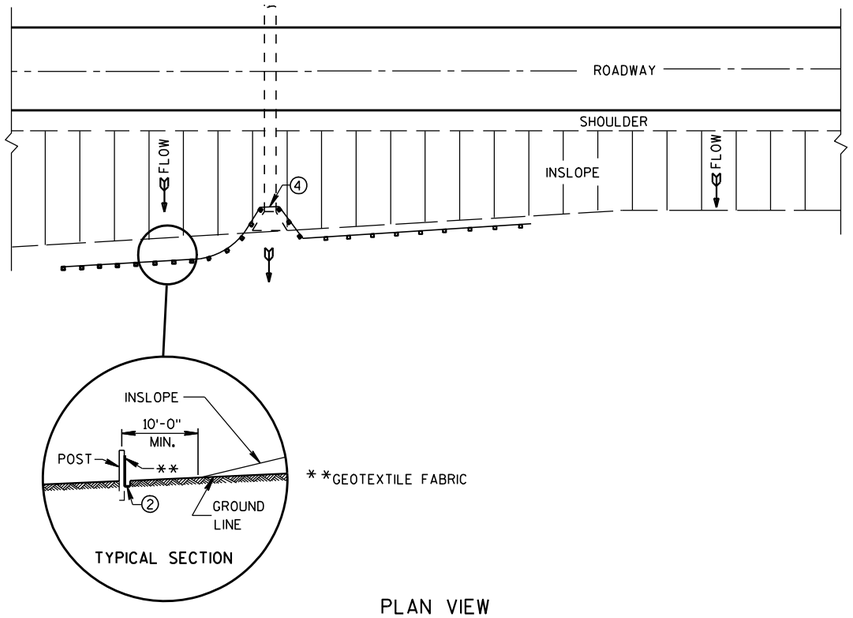
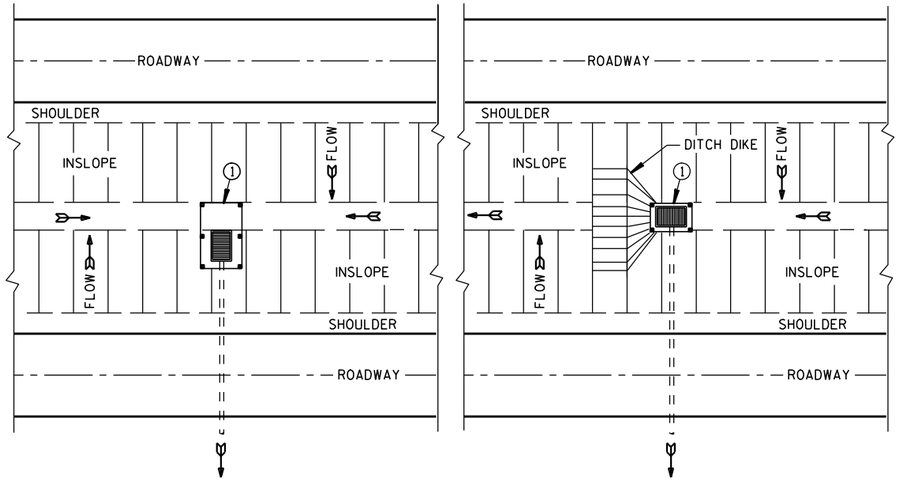
S.D.D. 8 D 5-18e



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

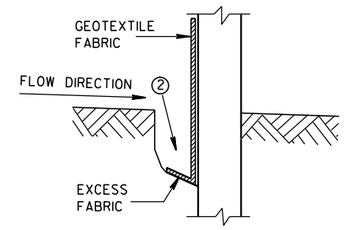
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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

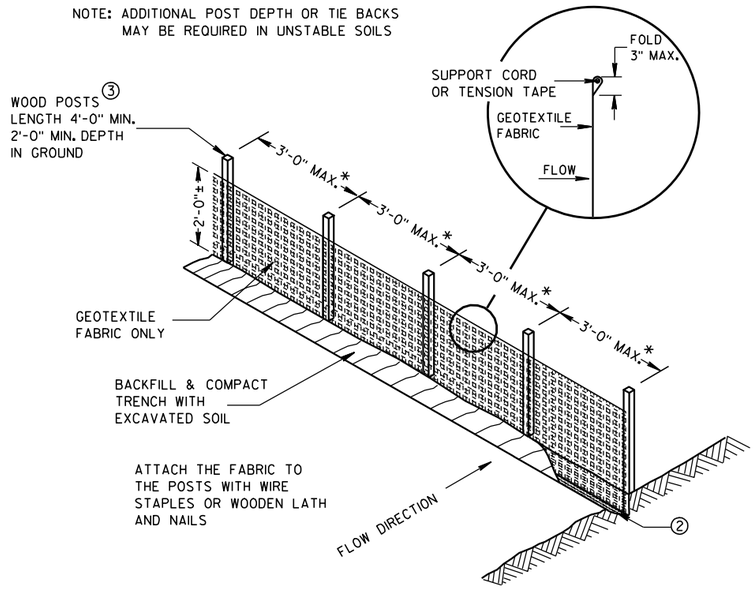
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

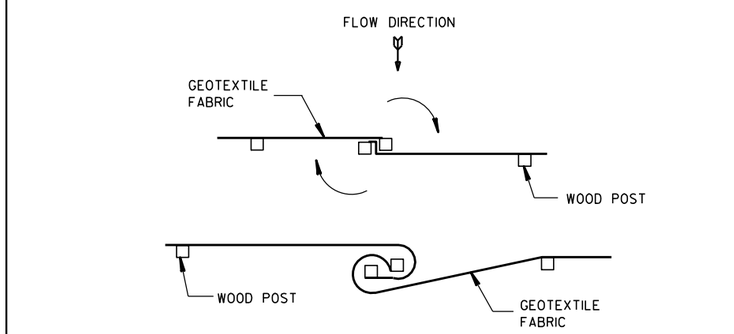
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



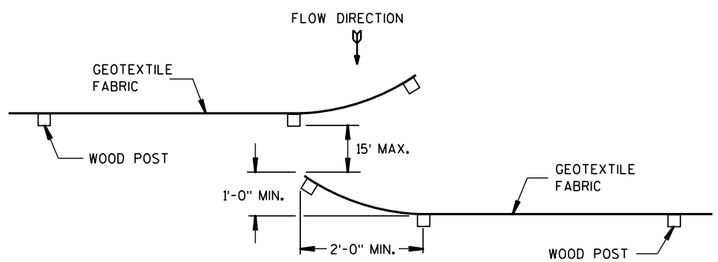
TRENCH DETAIL



SILT FENCE

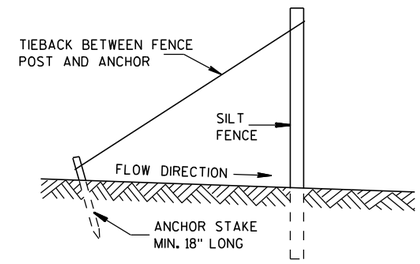


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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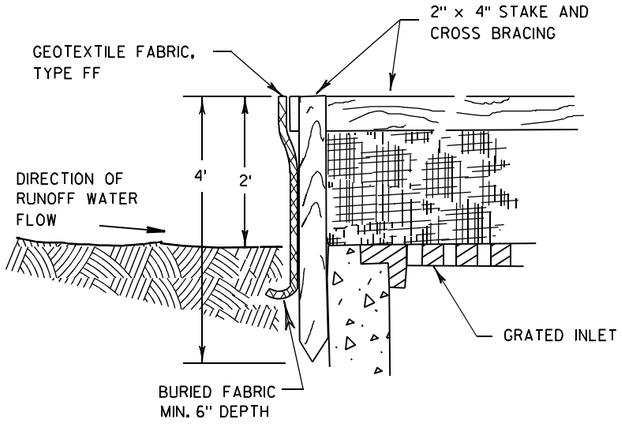
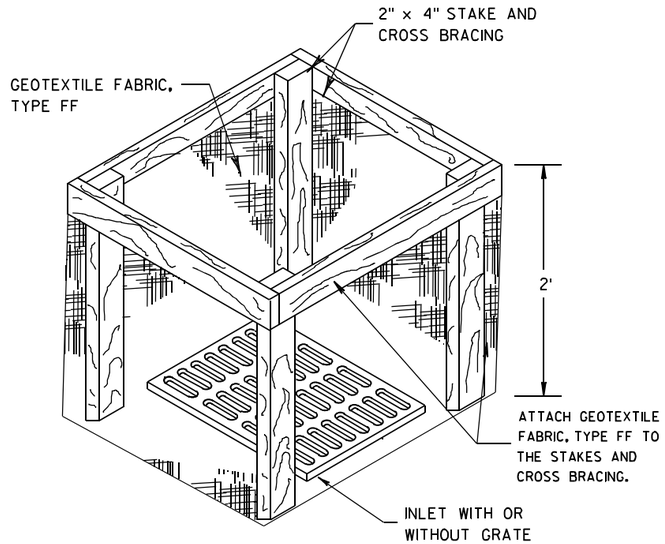
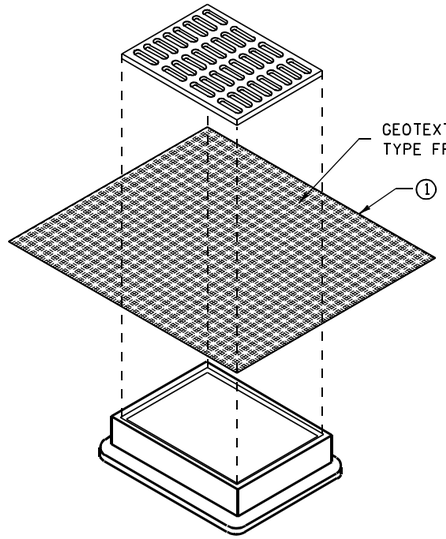
S.D.D. 8 E 9-6



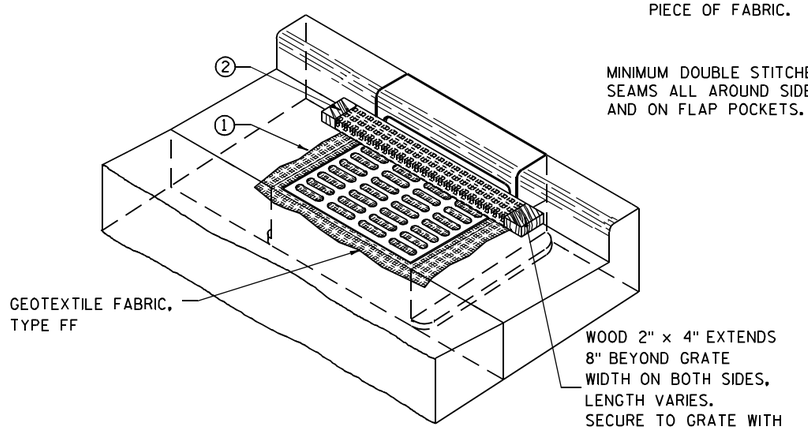


INLET PROTECTION, TYPE A

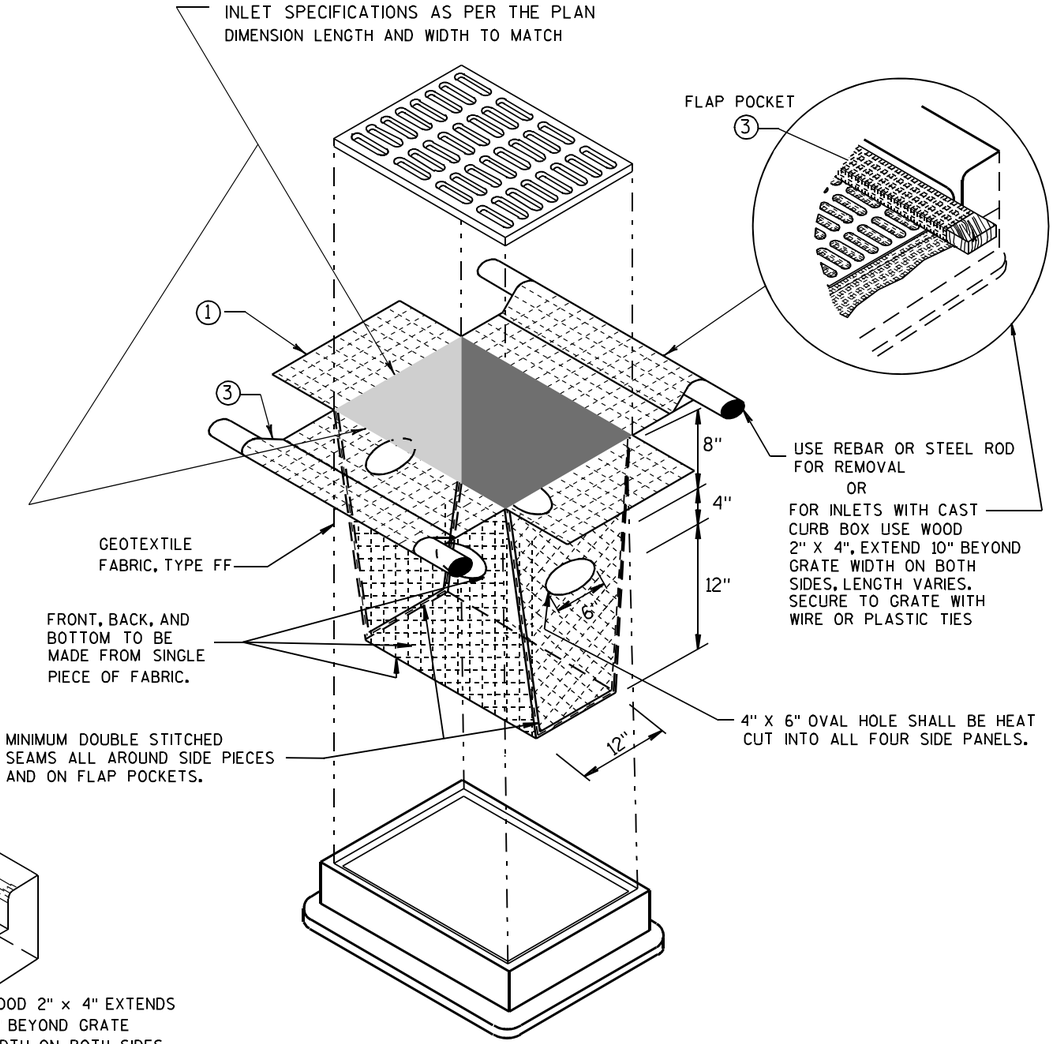


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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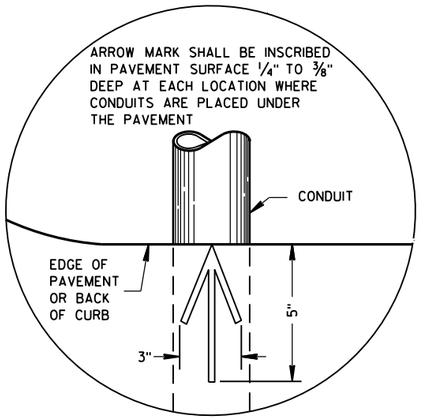
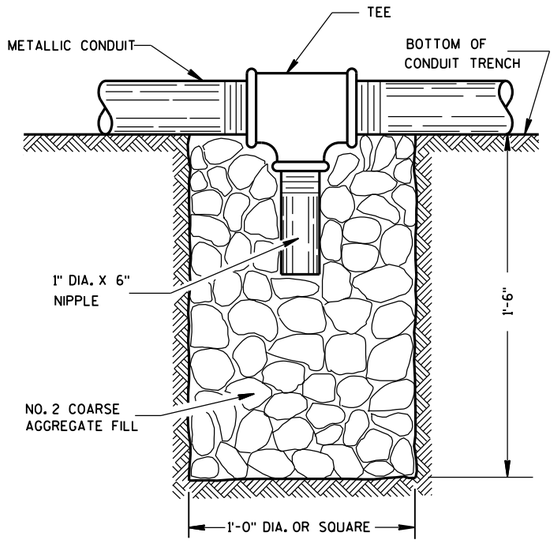
S.D.D. 8 E 10-2



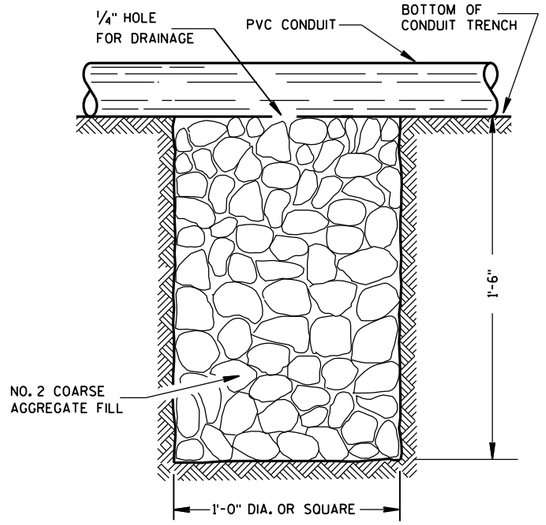
PLAN VIEW

ARROW MARK



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

DRAIN SUMP FOR METALLIC CONDUIT



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

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

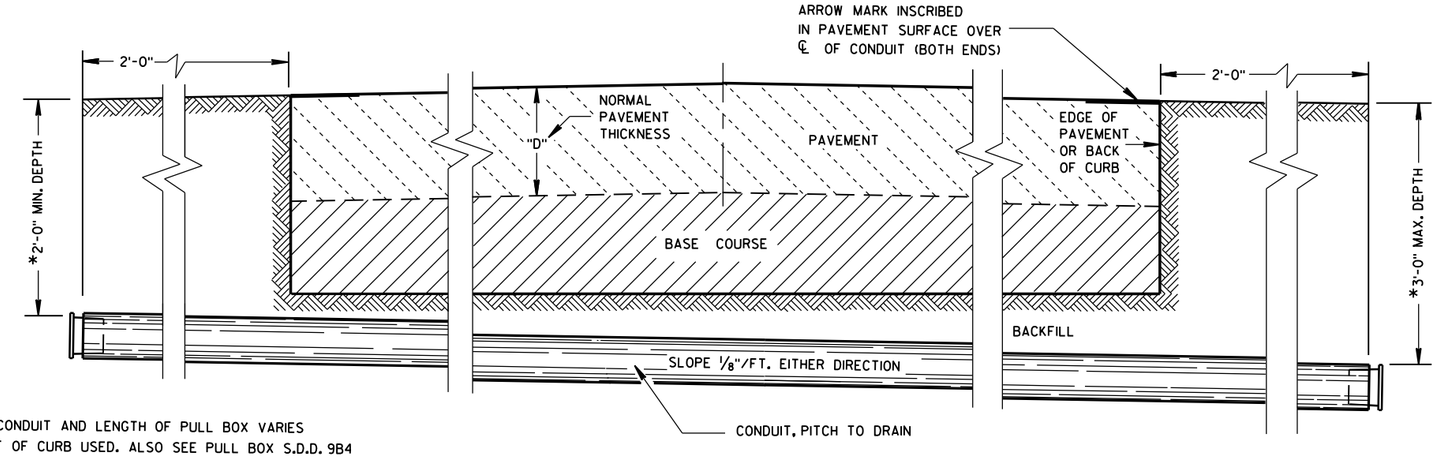
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

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

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

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



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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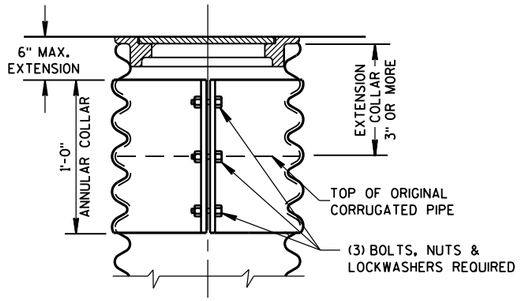
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

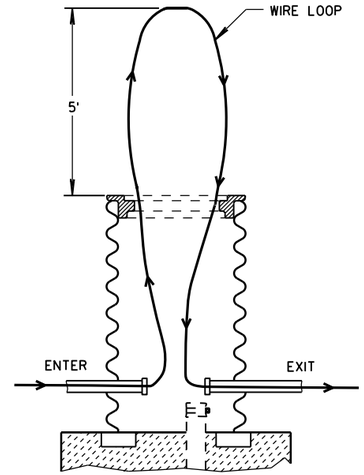
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2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

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

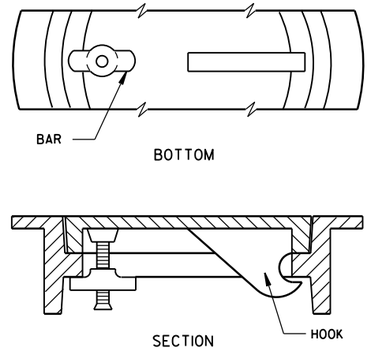
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

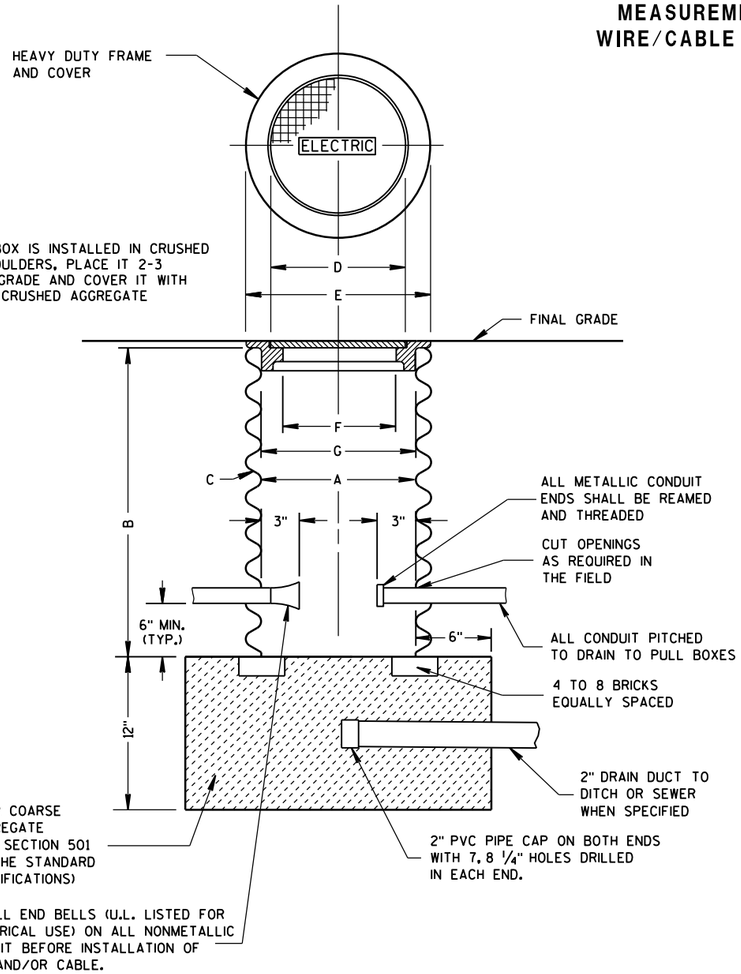


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



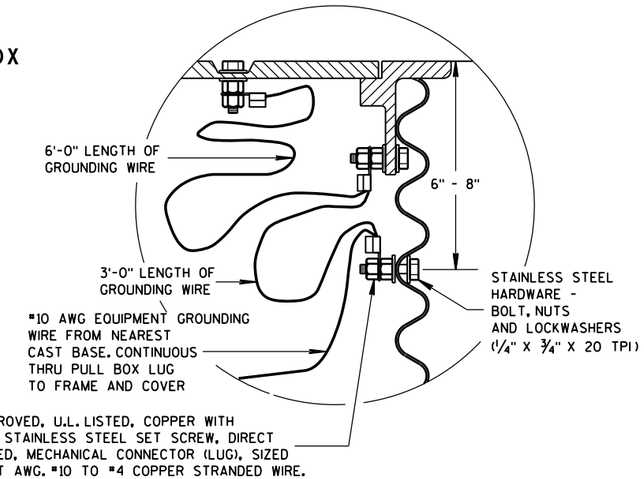
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

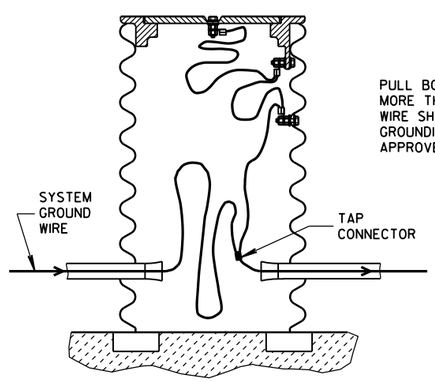


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



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

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

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

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

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

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

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

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

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

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

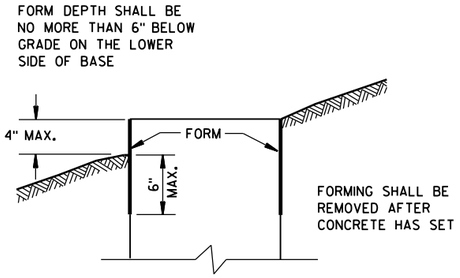
PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 9 B 4-11



FORMING DETAIL

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

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

GENERAL NOTES (CONTINUED)

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

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

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

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

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

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

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

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

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

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

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

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

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

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

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

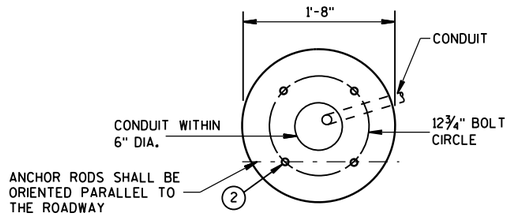
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

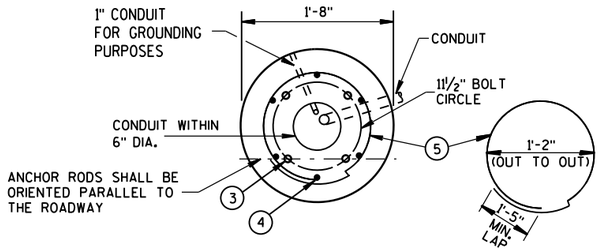
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

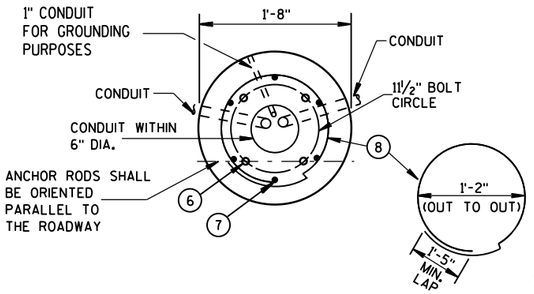
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

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

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

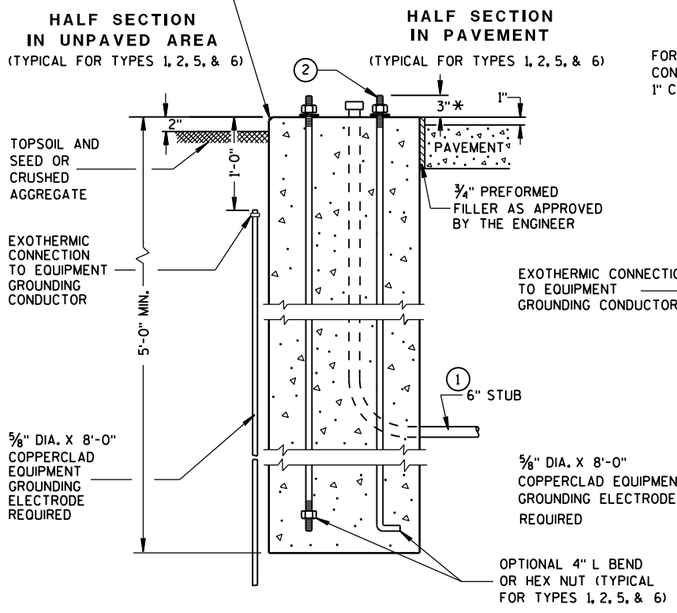


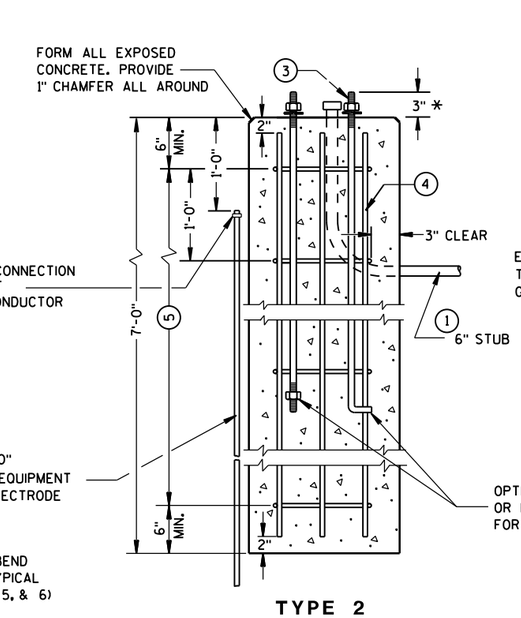




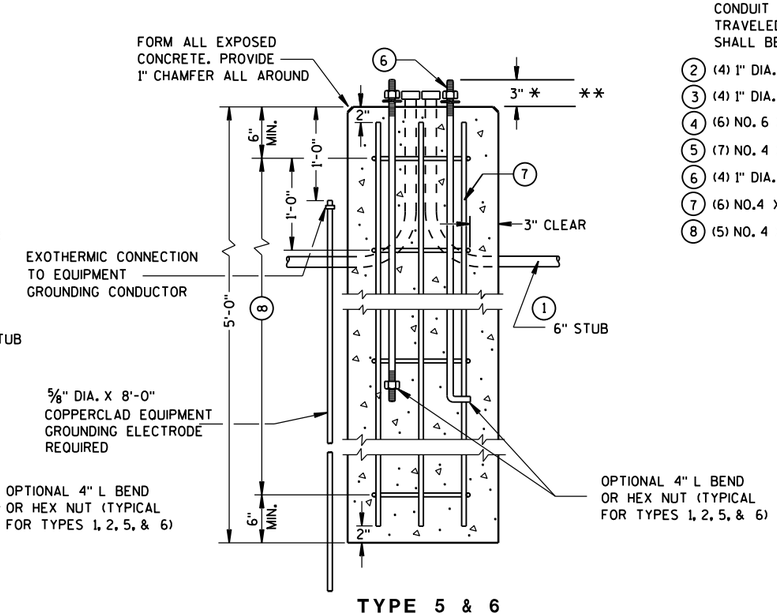
HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5, & 6)

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





TYPE 2



TYPE 5 & 6

CONCRETE BASES

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

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 9 C 2-7

GENERAL NOTES

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

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

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

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

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

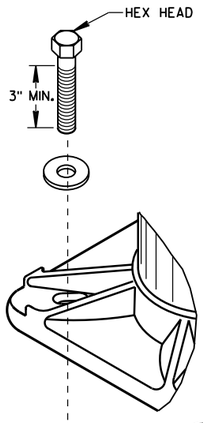
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

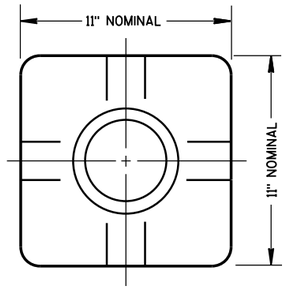
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

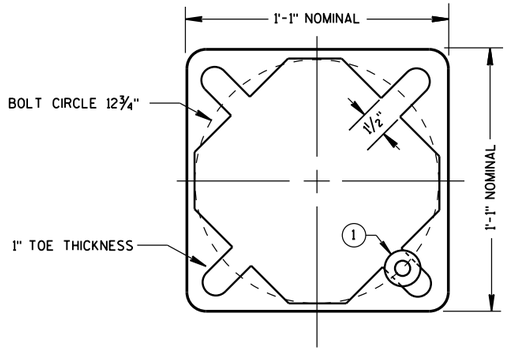
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

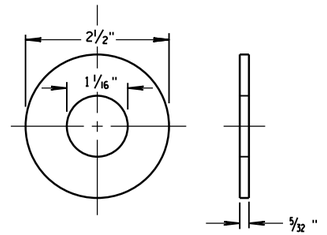




TOP VIEW
(PEDESTAL BASE)

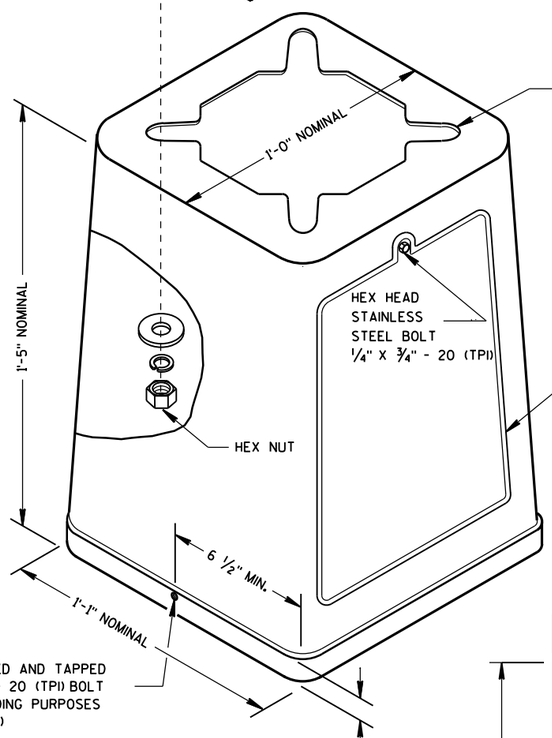


BOTTOM VIEW
(PEDESTAL BASE)

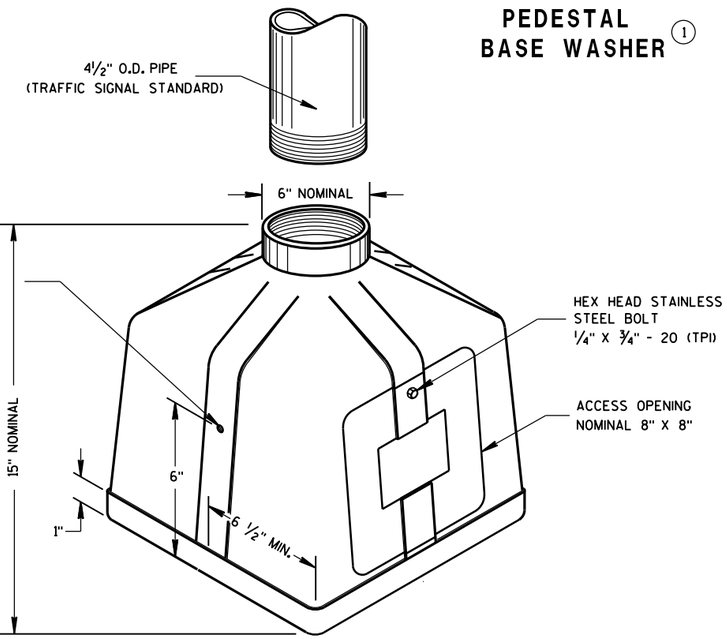


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

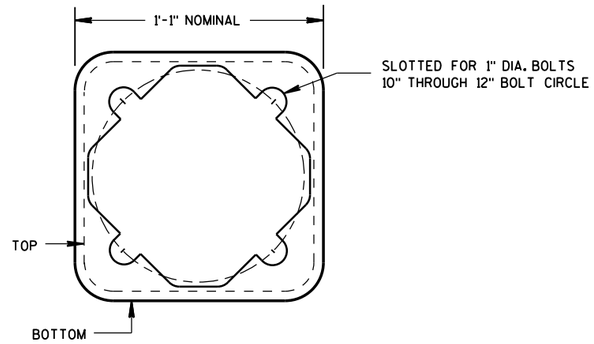


ISOMETRIC VIEW

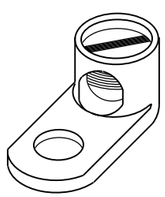


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

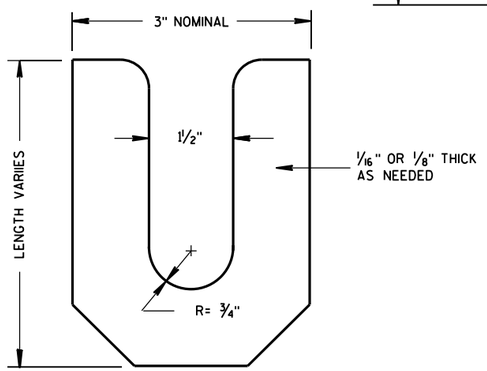


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

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



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 9 C 3-4

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S.D.D. 9 C 3-4

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

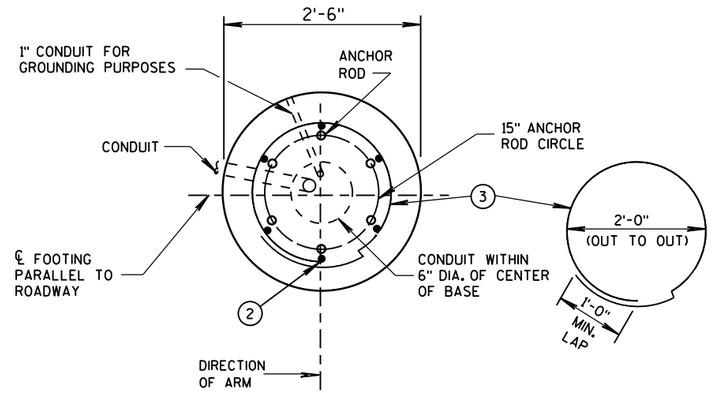
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

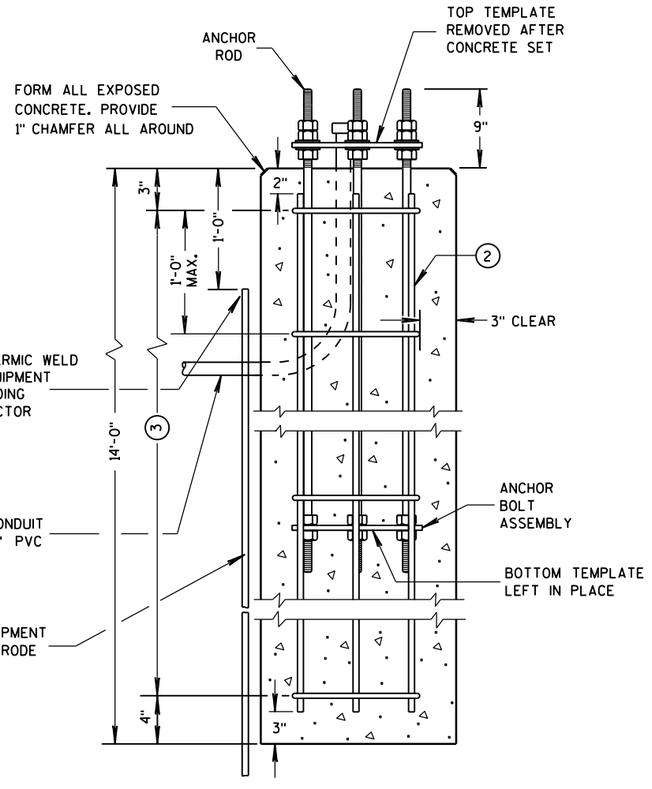
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN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

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

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

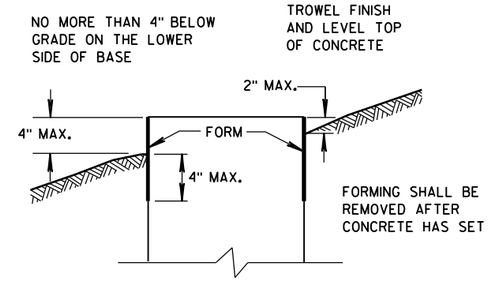
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



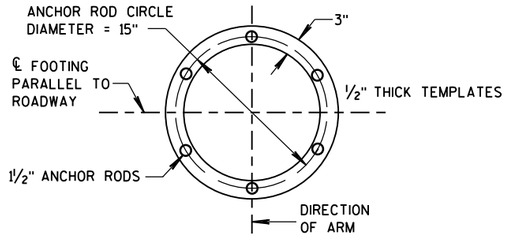


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

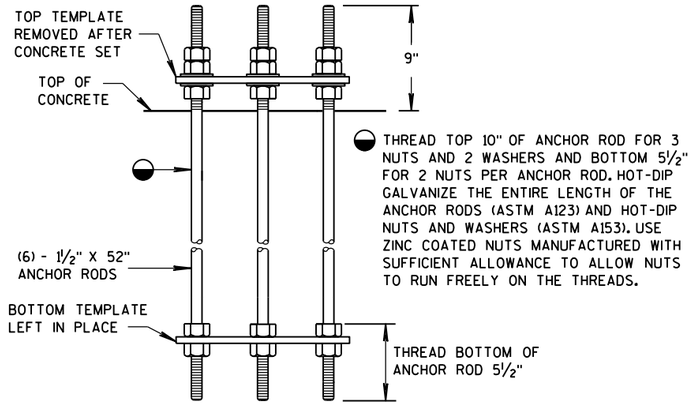
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10
ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	69
LBS. OF VERTICAL BAR STEEL	122

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
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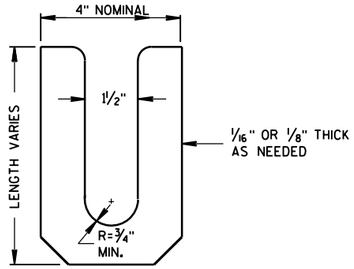
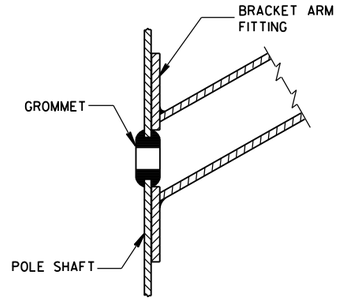
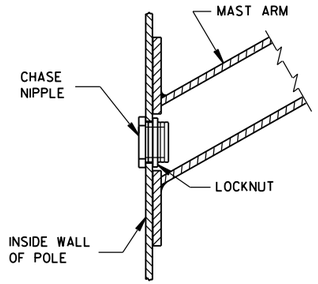


LEVELING SHIM (13)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

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

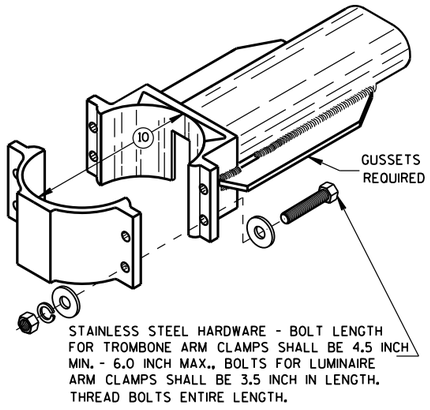
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

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

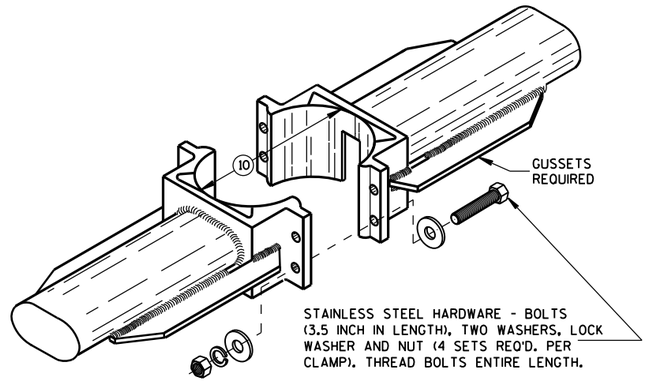
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

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

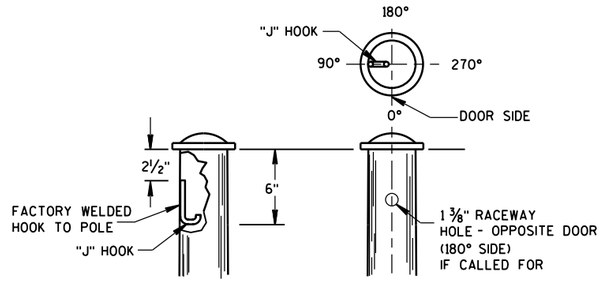
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



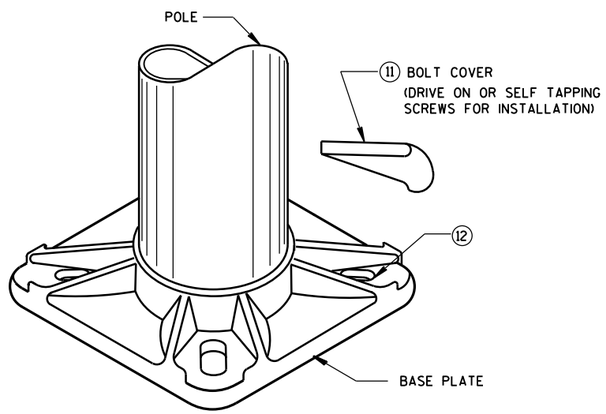
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



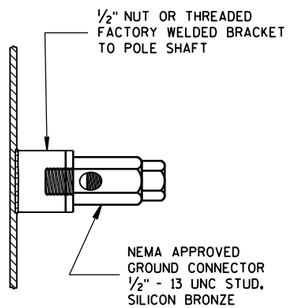
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

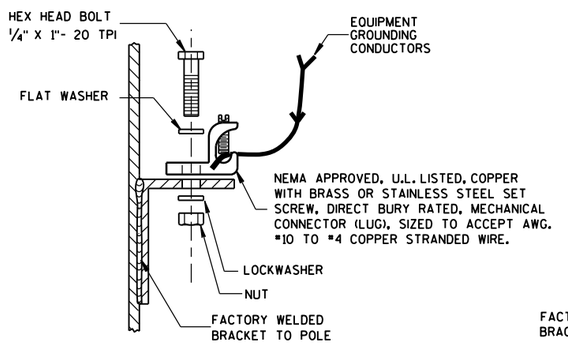


TYPICAL "J" HOOK LOCATION



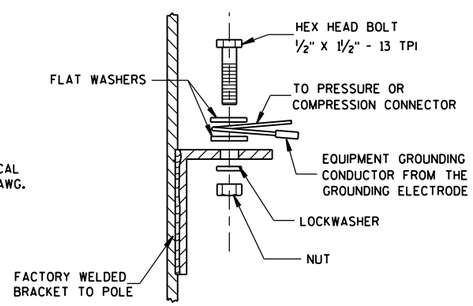
BASE PLATE





TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

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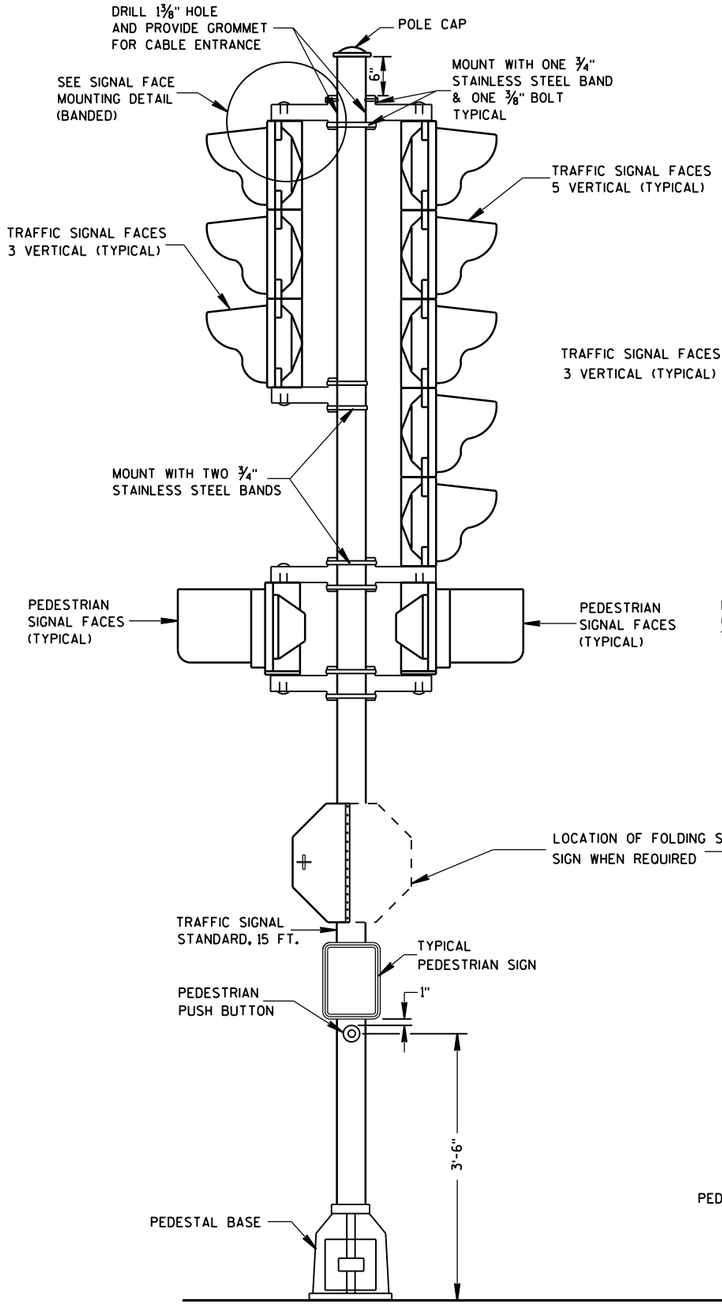
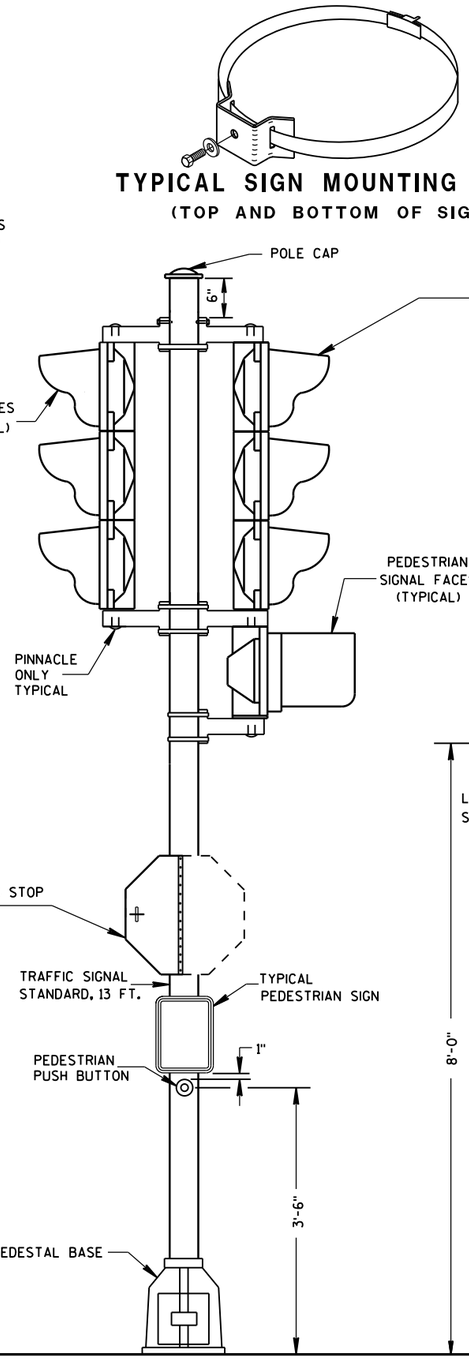
S.D.D. 9 E 1-14g

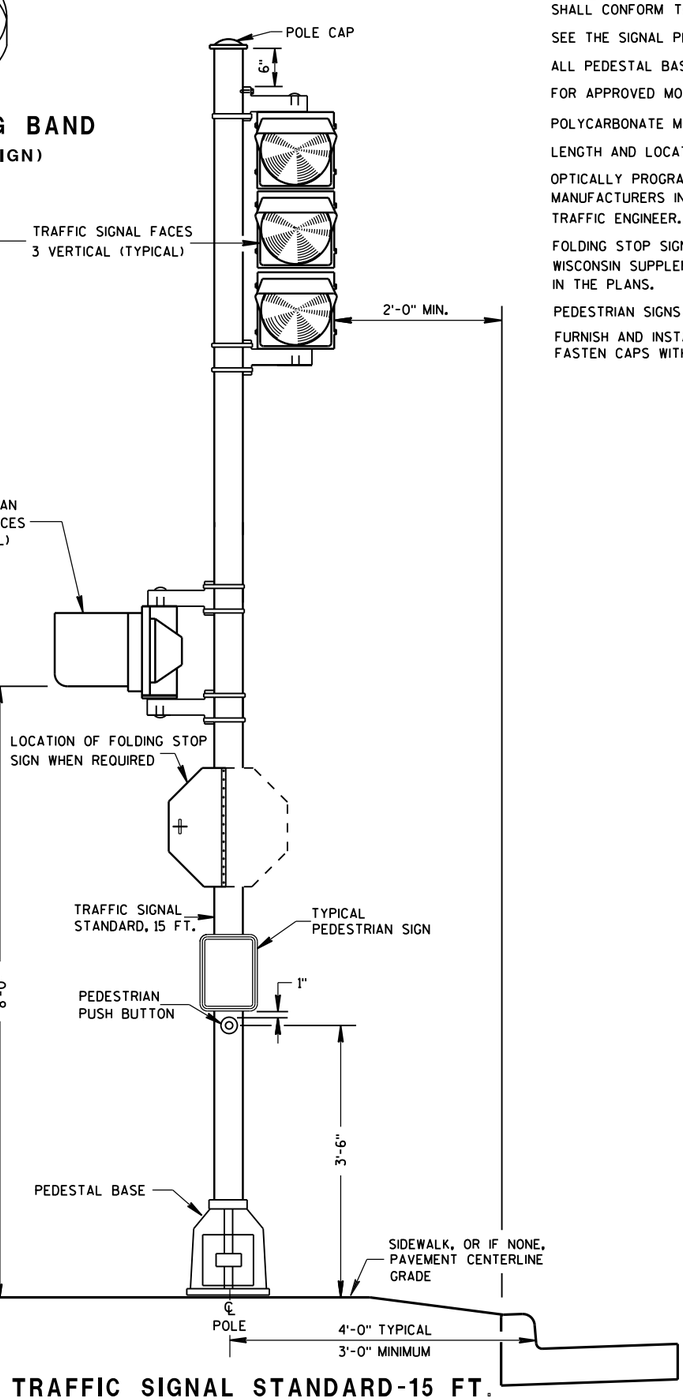


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



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

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

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

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

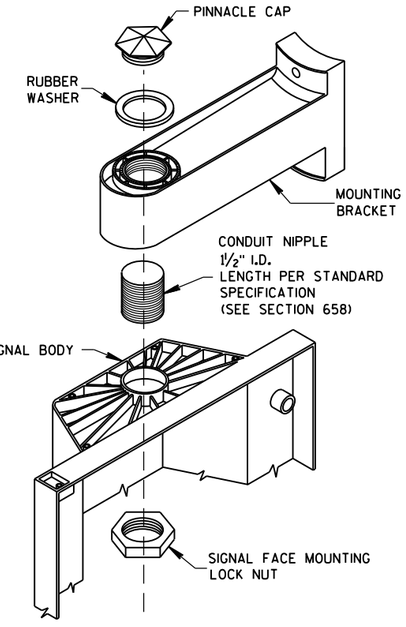
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

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

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

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

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



SIGNAL FACE MOUNTING DETAIL
(BANDED)

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

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2/28/2013
DATE
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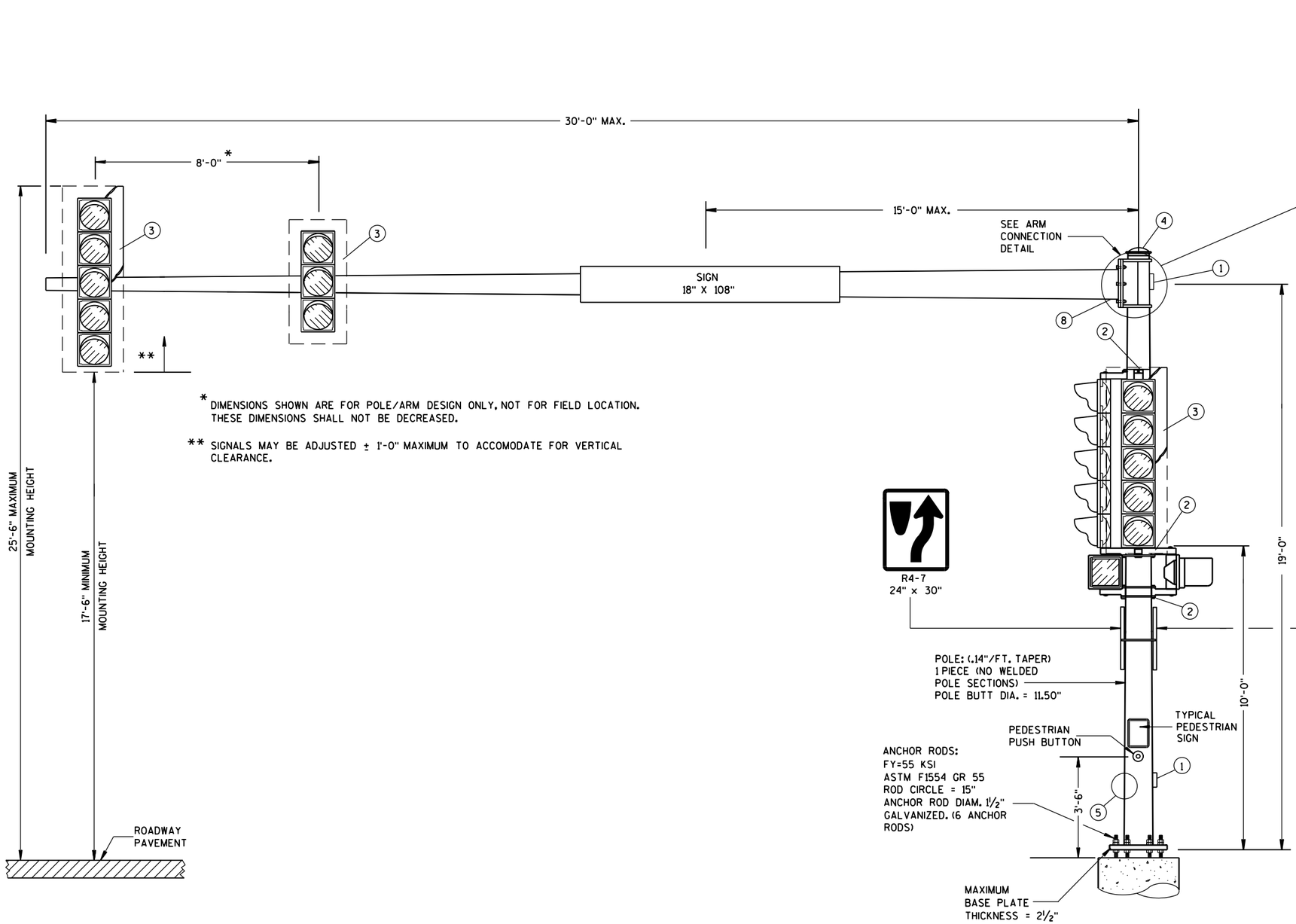
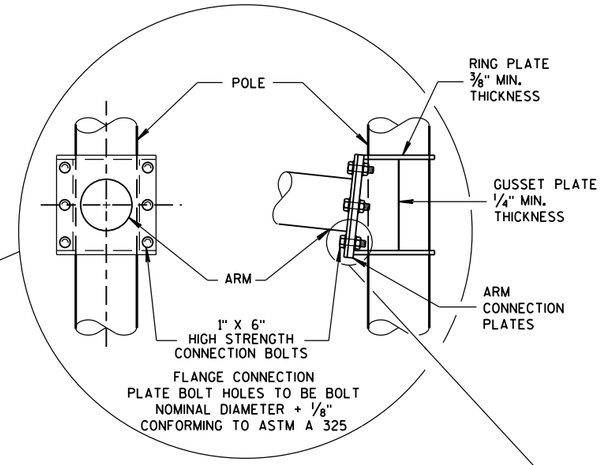
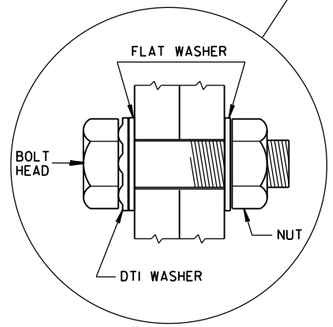


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

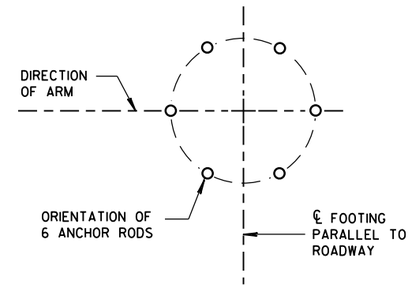
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

TYPE 9 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May, 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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GENERAL NOTES

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

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

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

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO 2013 6TH EDITION AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

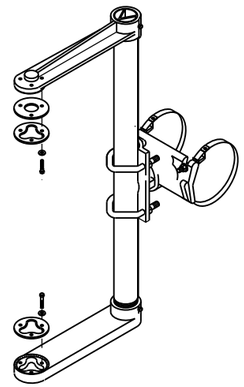
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

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

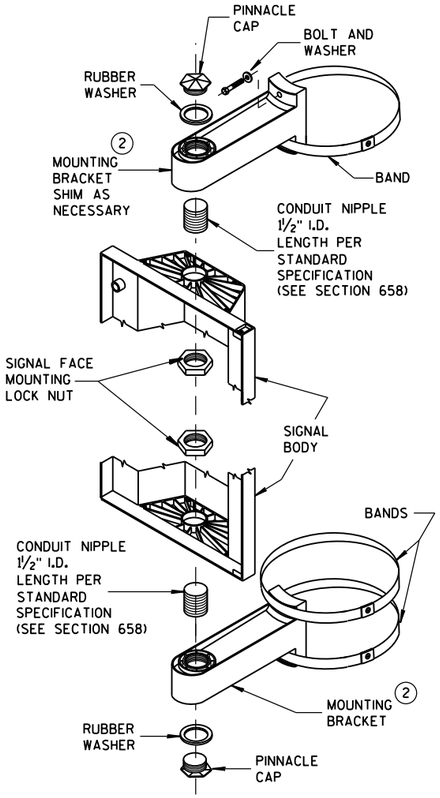
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

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

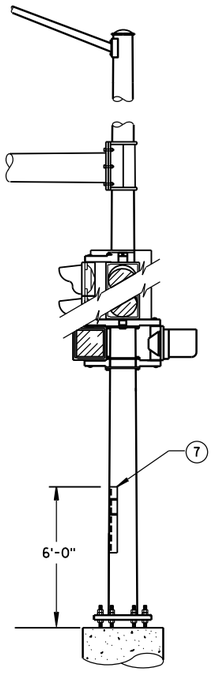


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

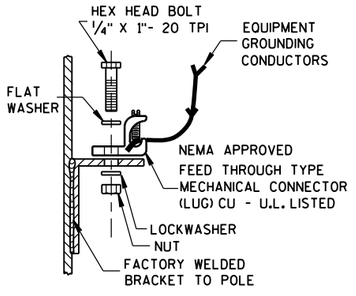
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE
VERTICAL MOUNTING DETAIL

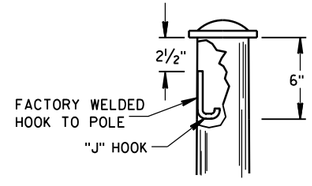


STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL
BE STAINLESS STEEL



"J" HOOK WIRE SUPPORT (6)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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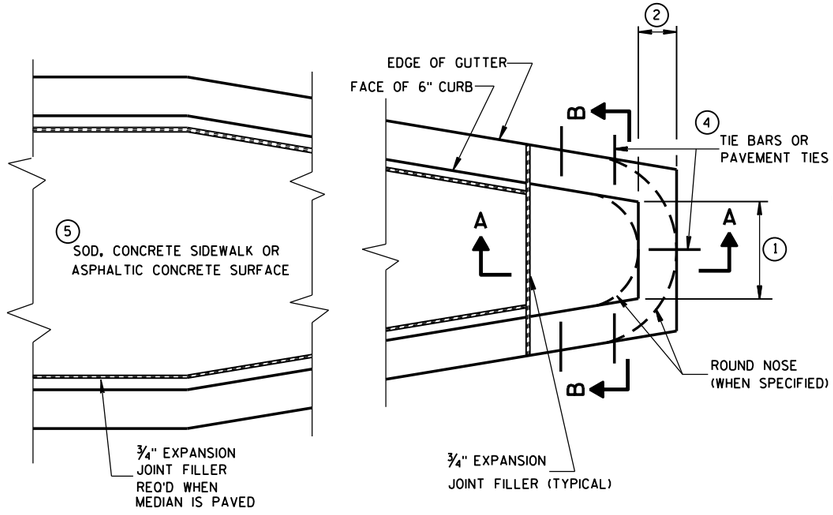
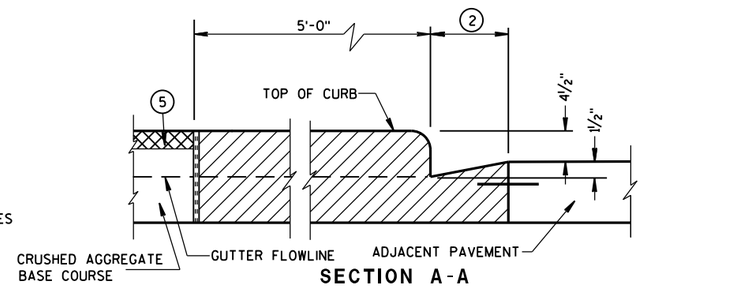




CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

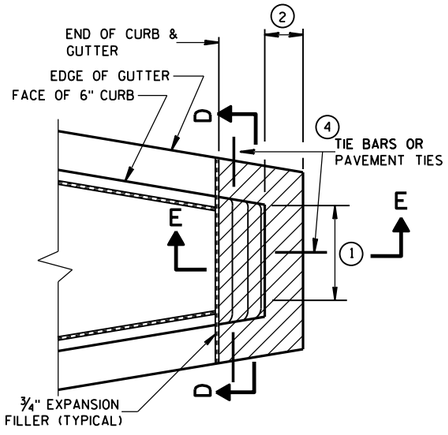
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

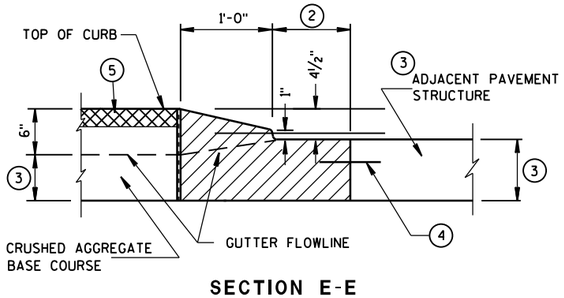
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

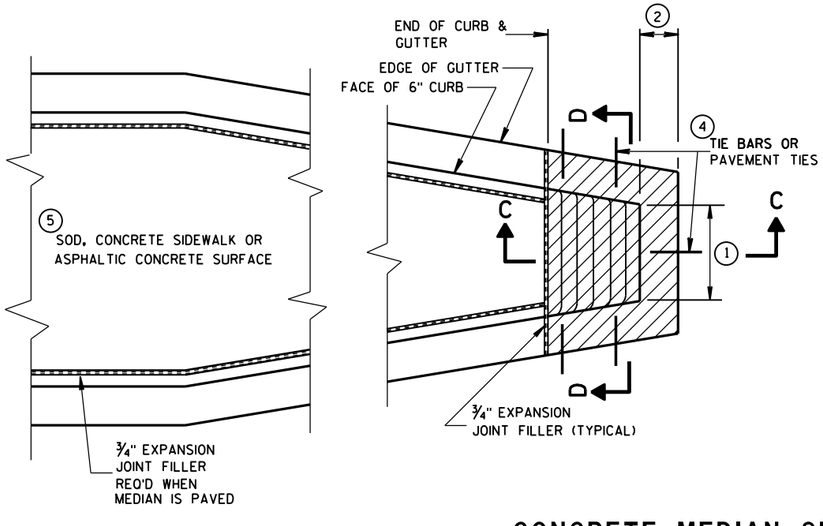
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

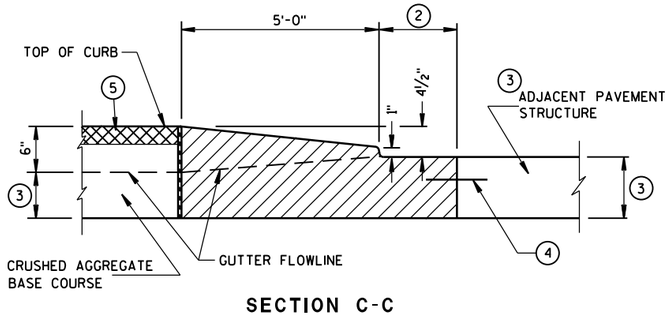




SECTION E-E

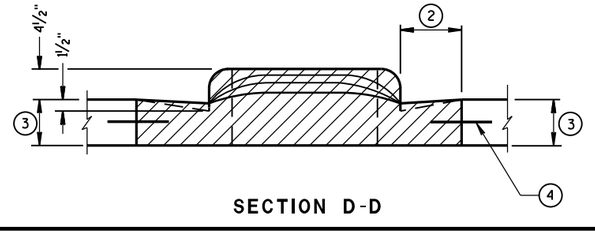
CONCRETE MEDIAN SLOPED NOSE TYPE 2





SECTION C-C

CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006
DATE
/S/ Jerry H. Zoga
ROADWAY STANDARDS DEVELOPMENT ENGINEER
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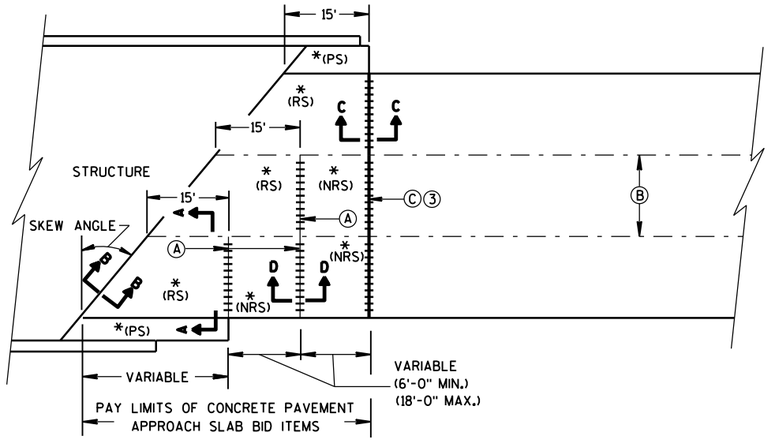
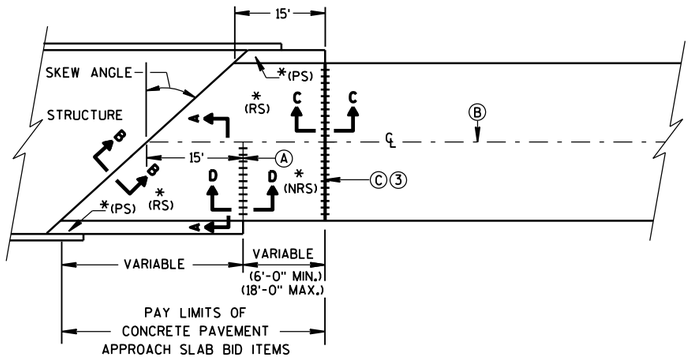
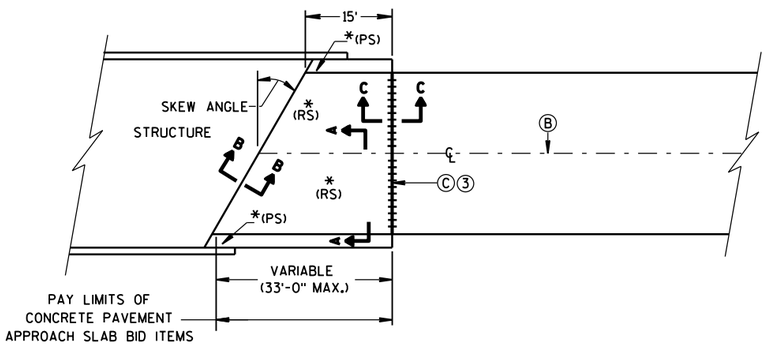


SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



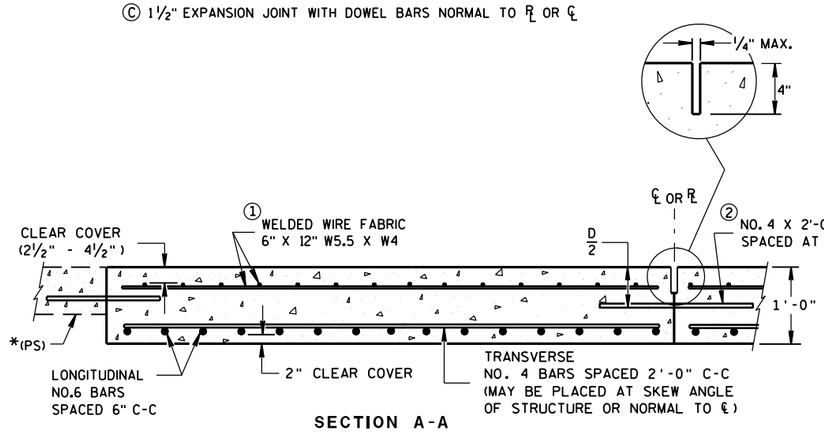
SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

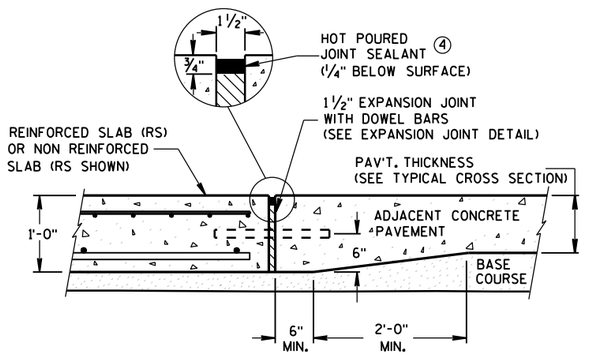
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

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

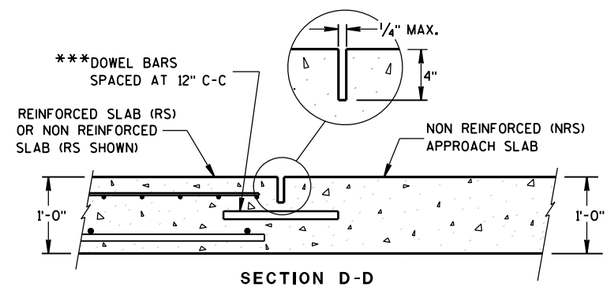
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

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.

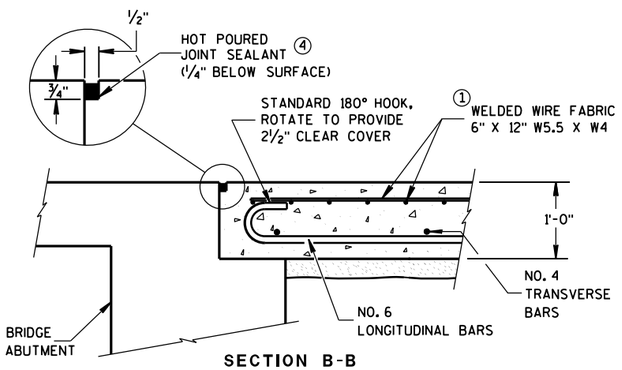
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

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

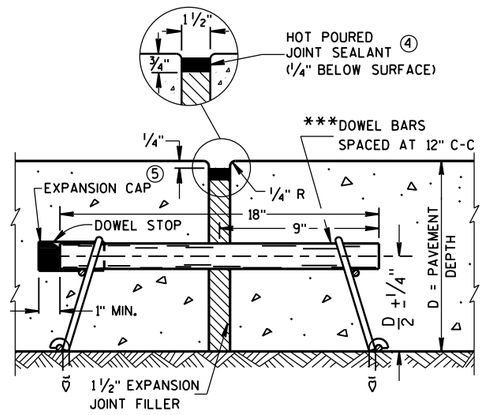
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

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



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPE
FHWA

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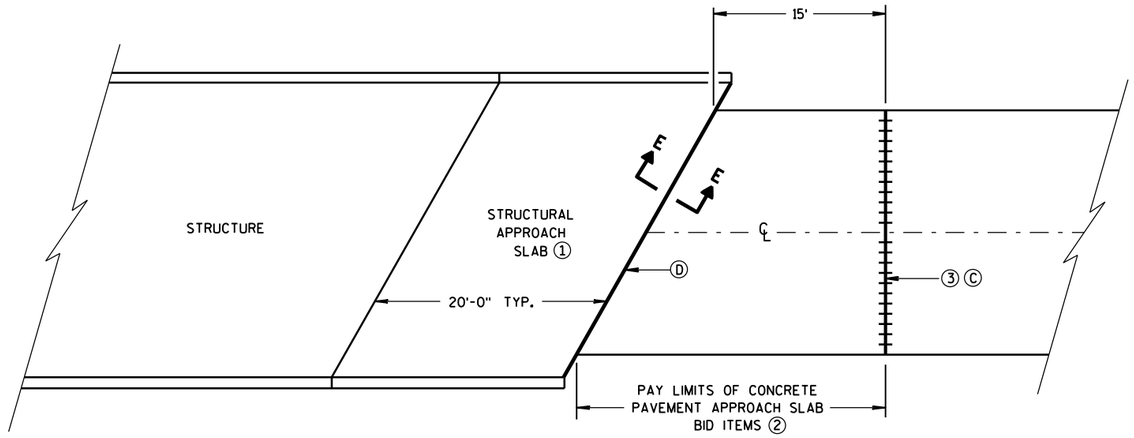
S.D.D. 13 B 2-8a

BRIDGE APPROACHES



GENERAL NOTES

ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE PAVEMENT APPROACH SLAB.

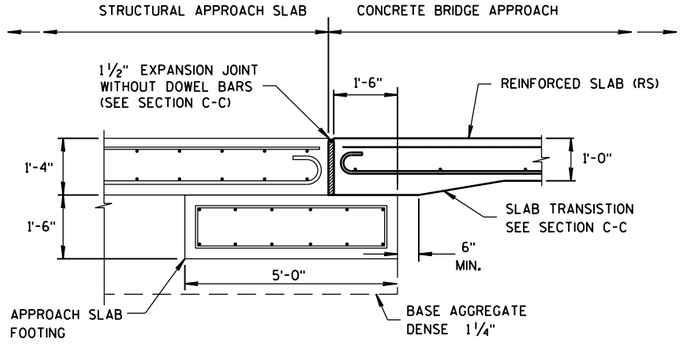
① SEE BRIDGE PLAN.

② CONFORM TO SHEET 13 B 2(A) FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS.

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

Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄

Ⓓ 1½" EXPANSION JOINT (NO DOWELS)



SECTION E-E

FOOTING DETAIL

STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June, 2015 — DATE

/S/ Peter Kemp, P.E. — PAVEMENT SUPERV

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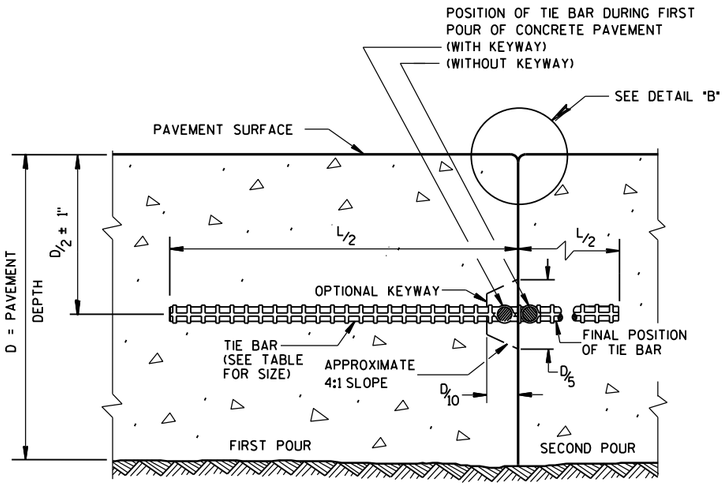
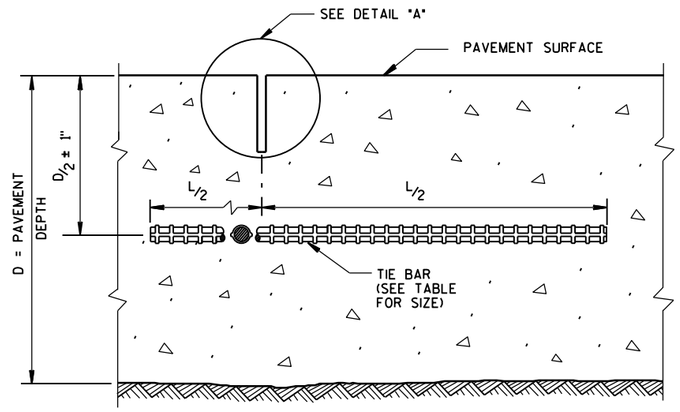


CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

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

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

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

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

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

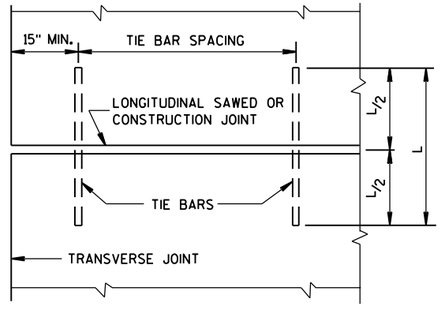
DETAIL "C"

TIE BAR TABLE

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

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

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



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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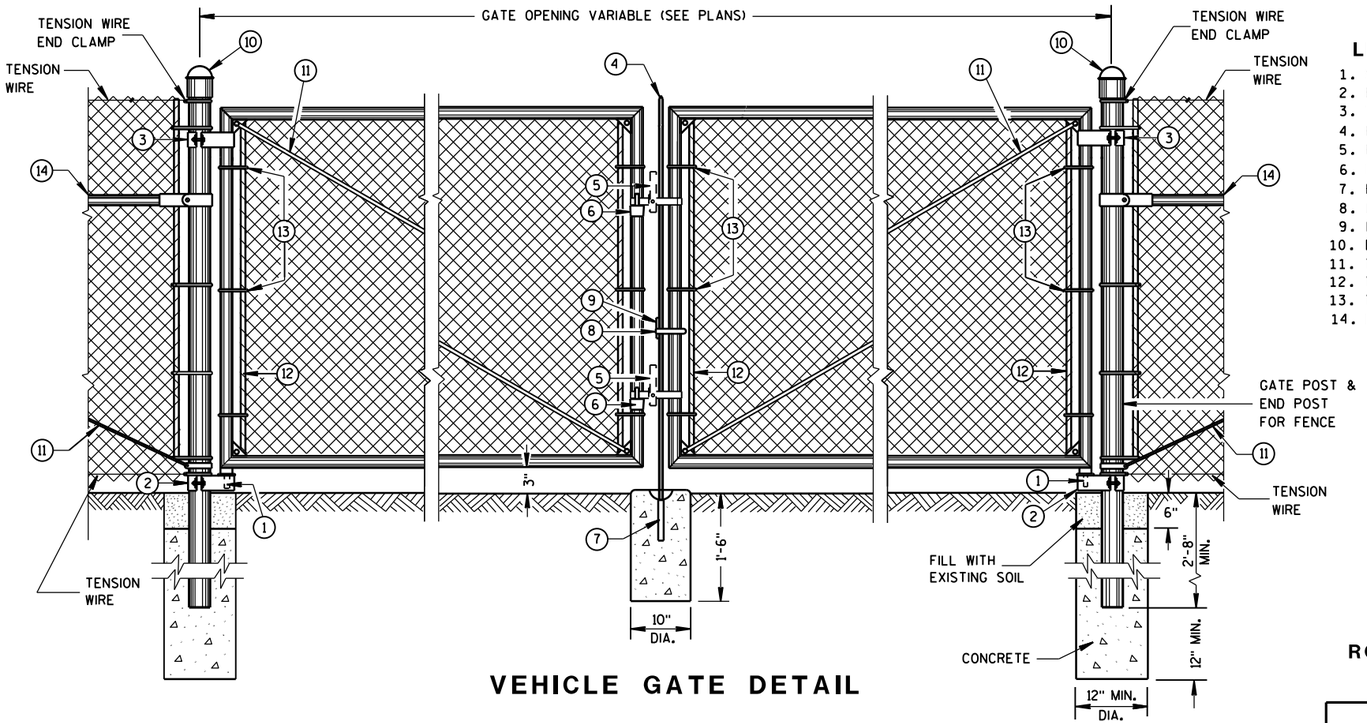
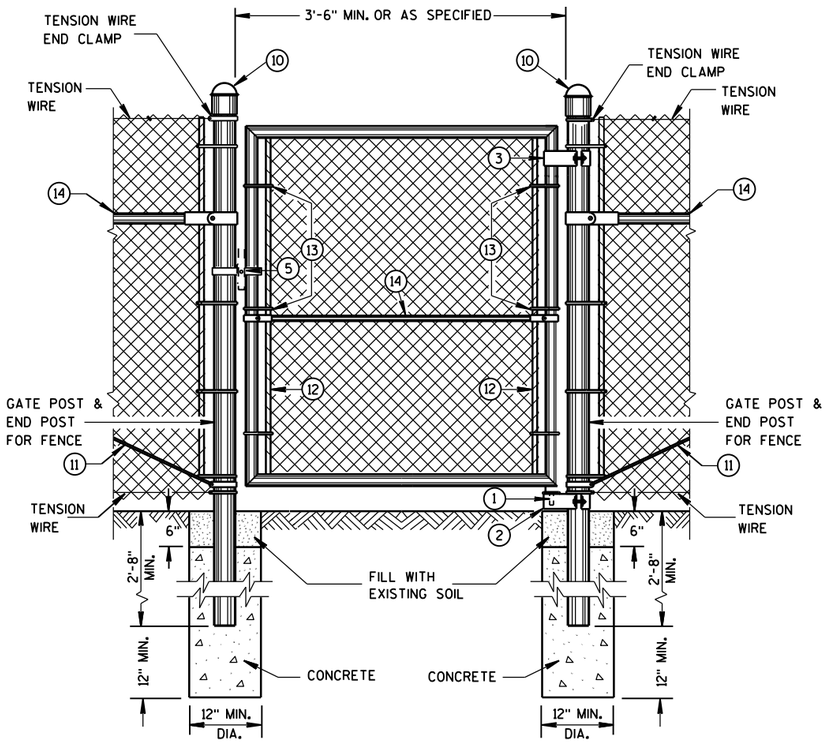
S.D.D. 13 C 1-18



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

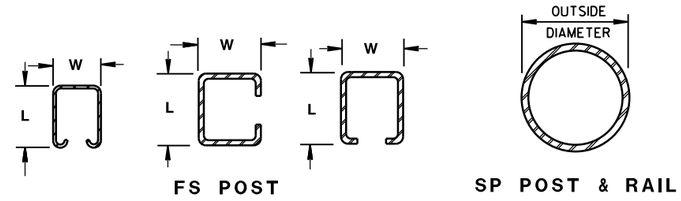
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



FS POST — SP POST & RAIL

CROSS SECTIONS OF POSTS AND RAILS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

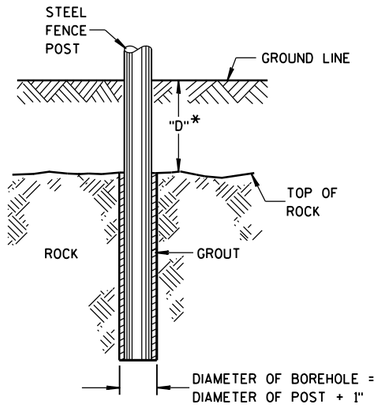
** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

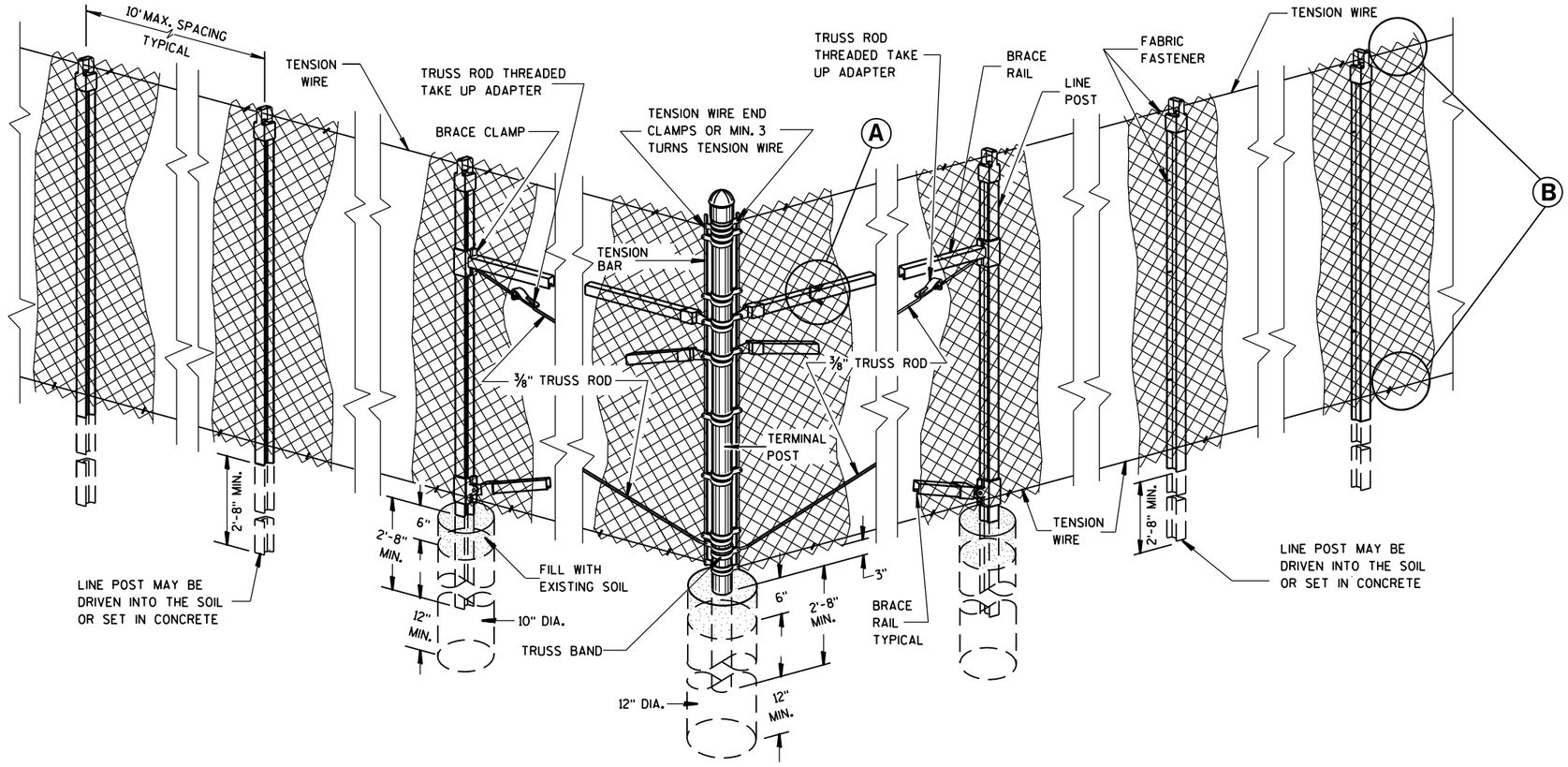
6

S.D.D. 15 B 3-15a

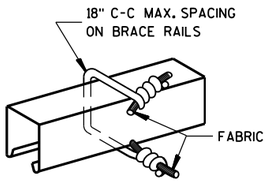


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



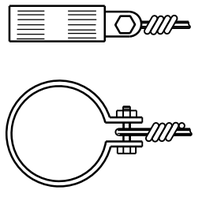
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



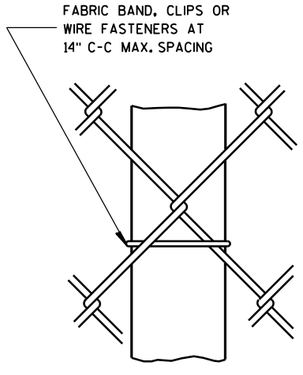
BRACE RAIL

FABRIC FASTENER

Ⓐ



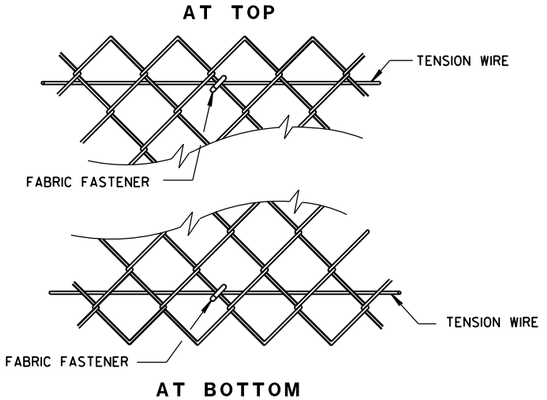
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

Ⓑ

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

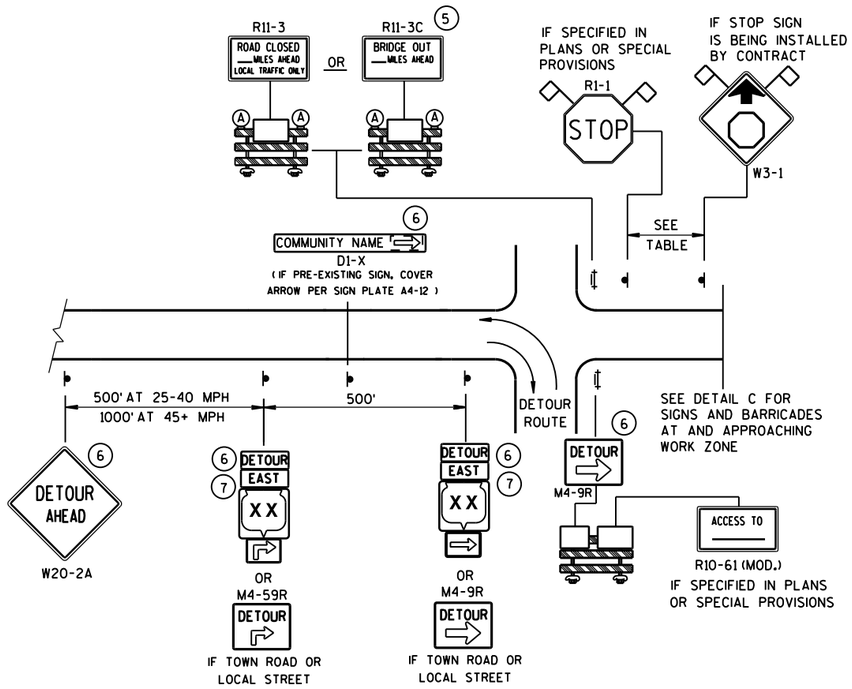
APPROVED
FEB. 2015 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 15 B 3-15b

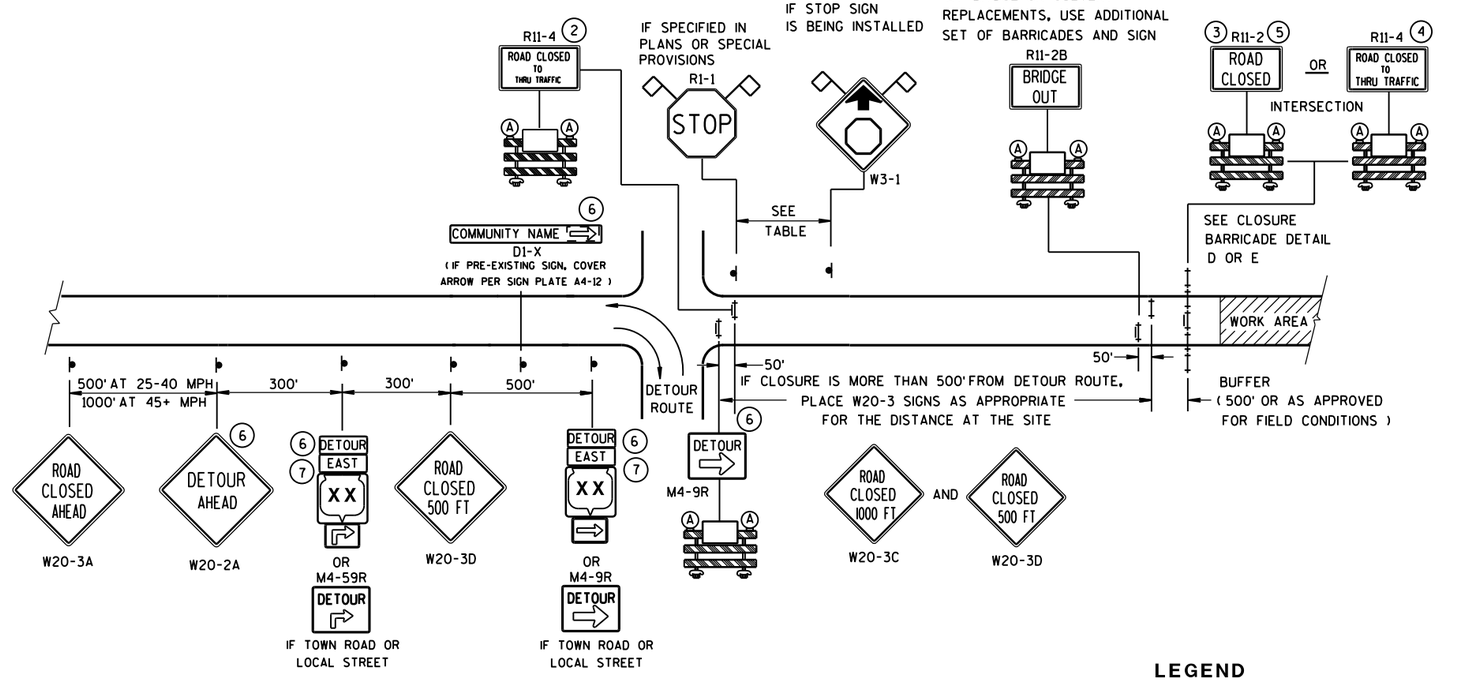
6

S.D.D. 15 B 3-15b



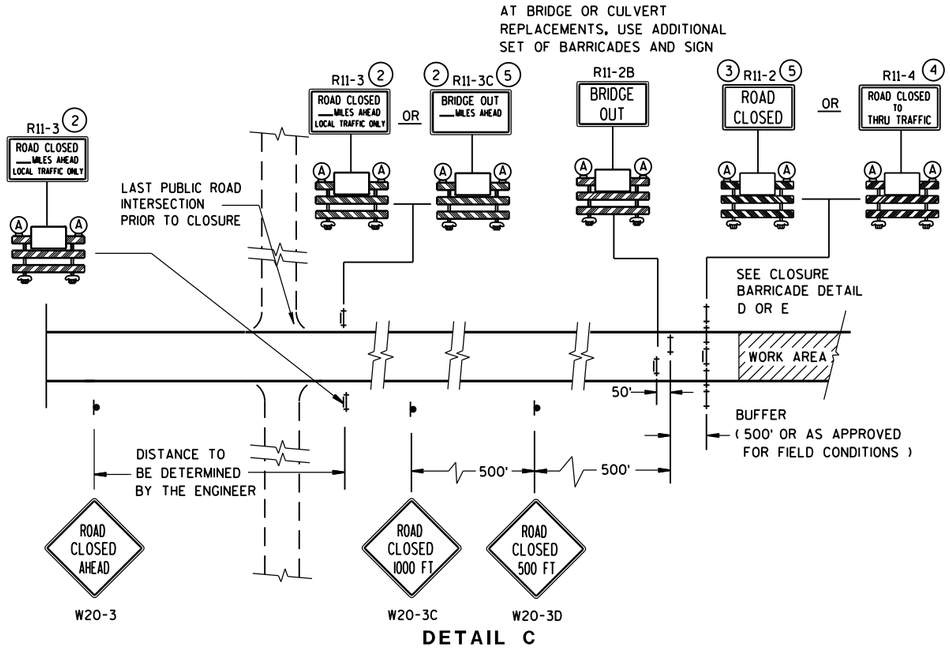
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN 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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

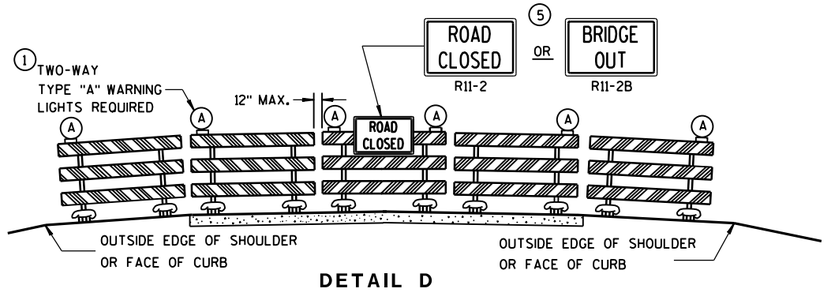
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

S.D.D. 15 C 2-6a

6

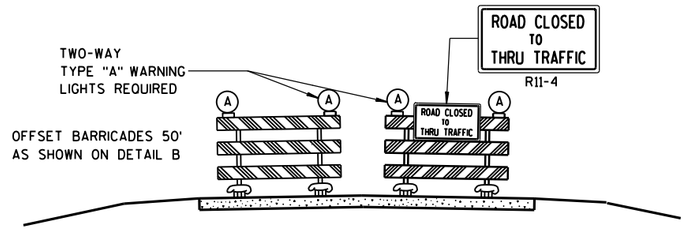
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO... SAFETY ENGI... — FHWA — FIC

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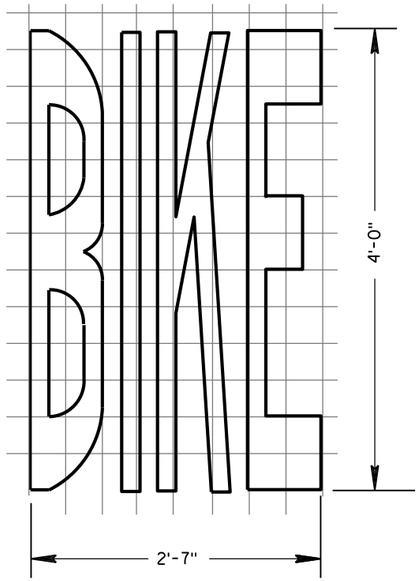
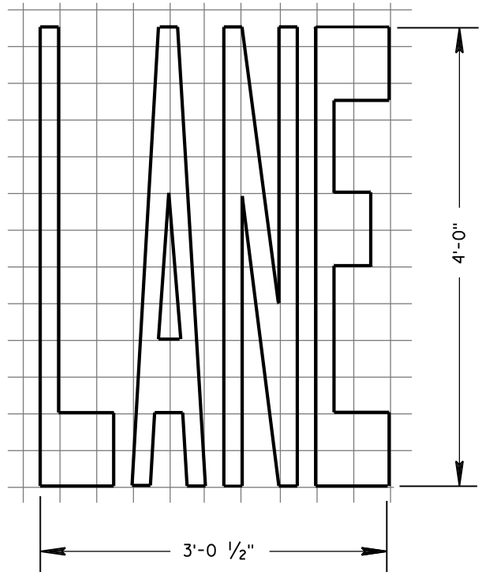
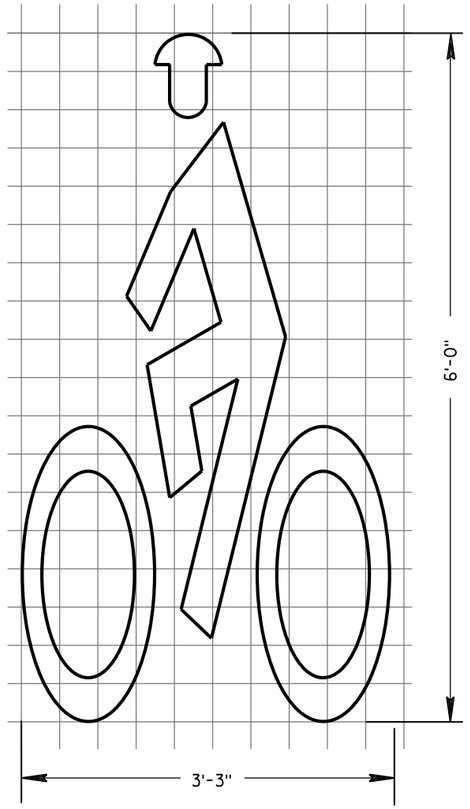
S.D.D. 15 C 2-6b

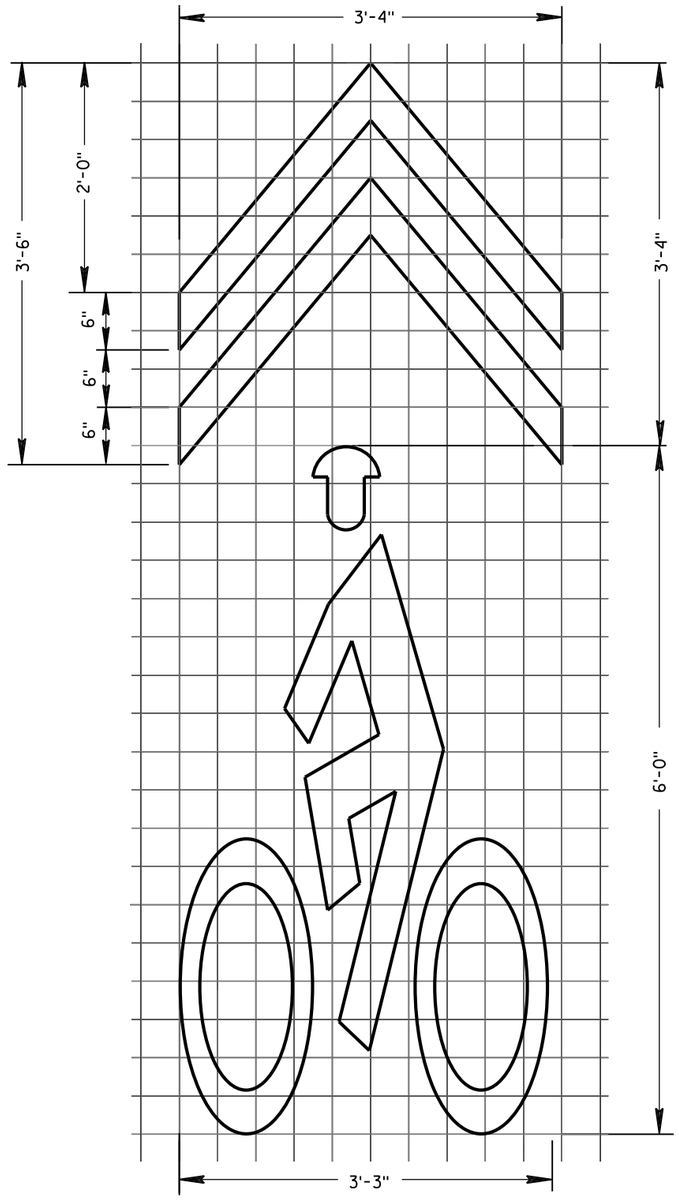




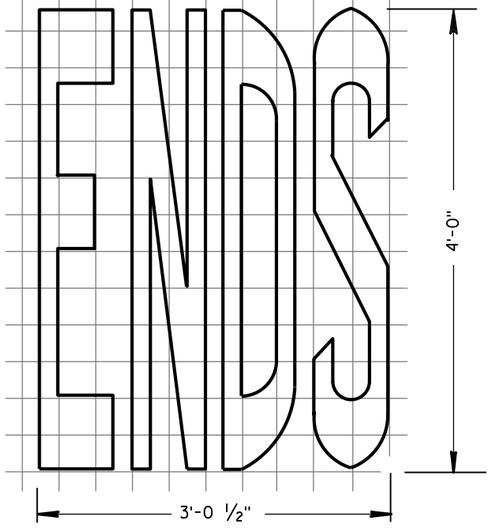
BIKE LANE WORDS



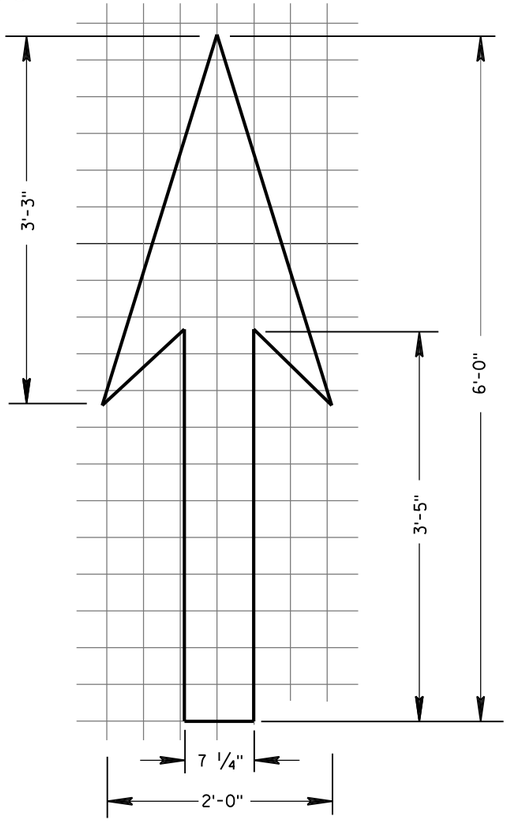
BIKE LANE SYMBOL



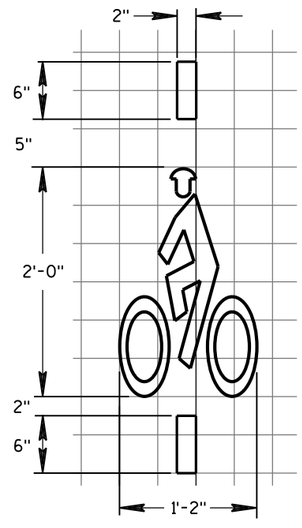
BIKE SYMBOL FOR SHARED LANE



BIKE LANE WORDS



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

GENERAL NOTES

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

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARK ENGINEER

FHWA

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S.D.D. 15 C 7-13e

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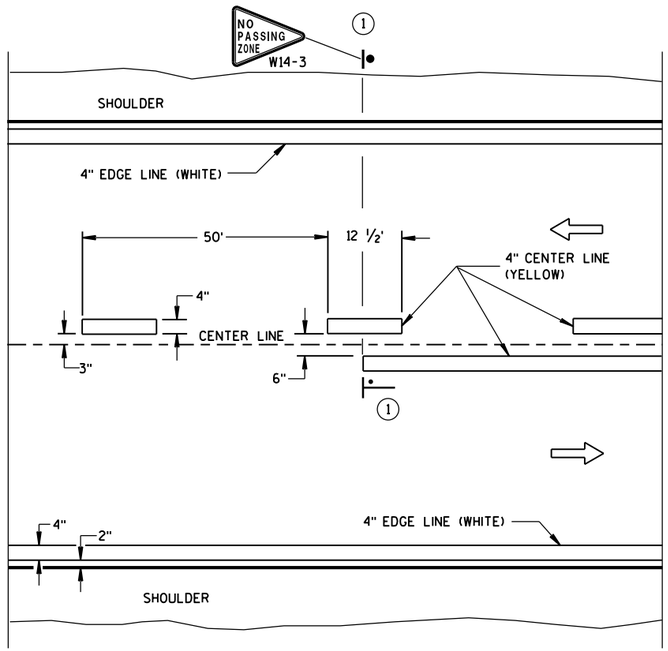
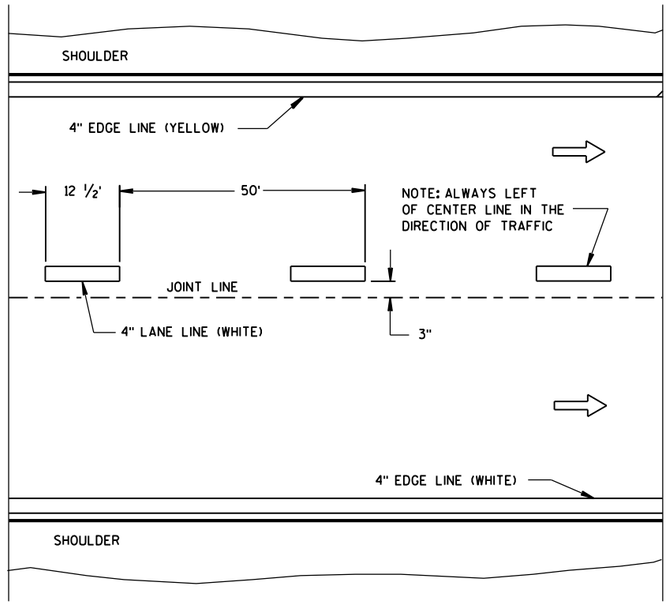
S.D.D. 15 C 7-13e



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

(1) NO PASSING ZONE W14-3 SIGN SHALL BE LOCATED WITHIN 50 FEET OF THE "T" MARKING.

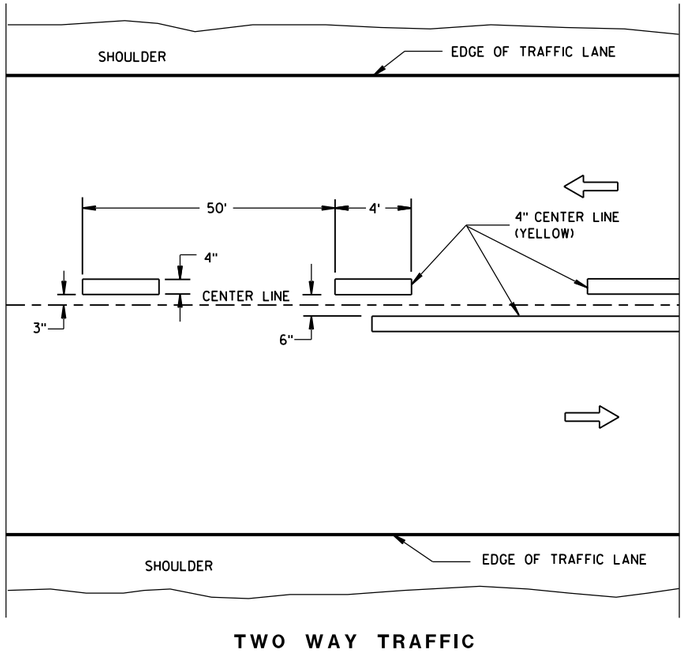
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

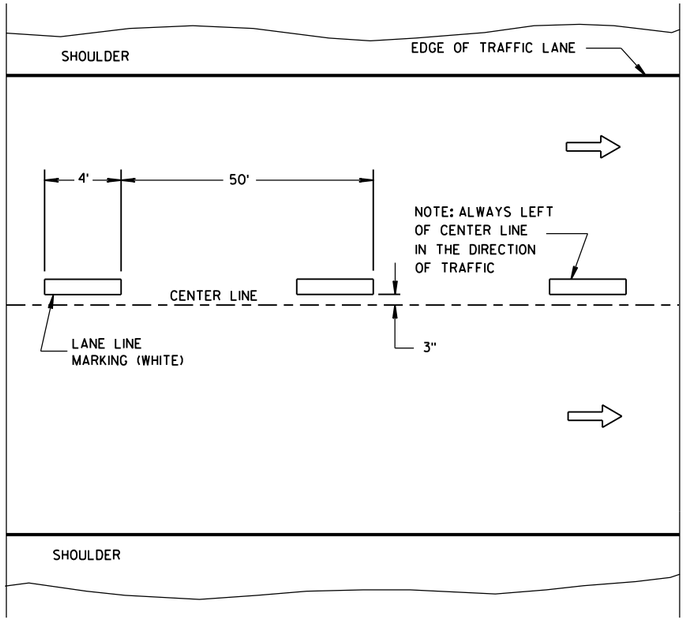
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

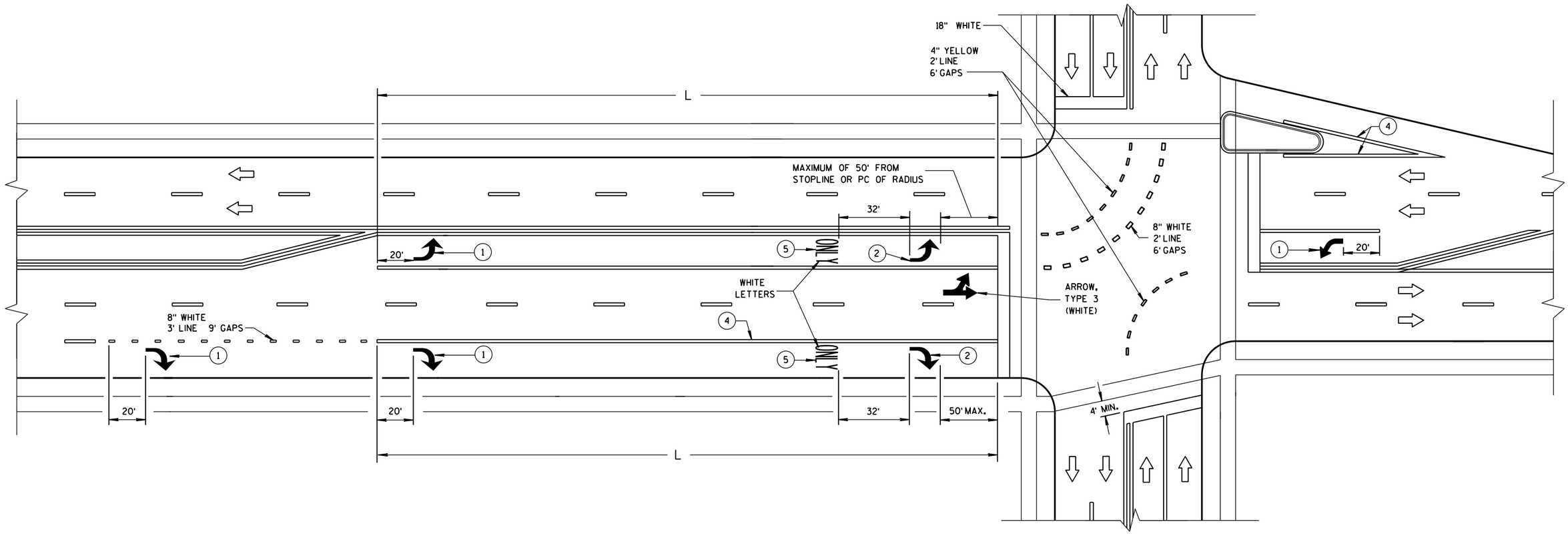
LONGITUDINAL MARKING (MAINLINE)

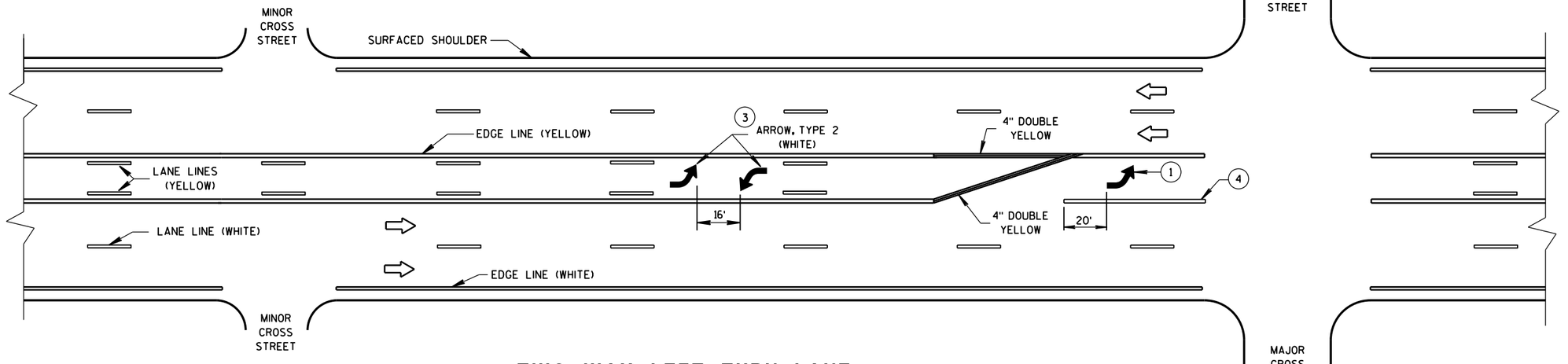
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]INEER
FHWA

S.D.D. 15 C 8-17a

S.D.D. 15 C 8-17a





GENERAL NOTES

(1) REQUIRED ARROW, TYPE 2 (WHITE).

(2) REQUIRED ARROW, TYPE 2 (WHITE) WHEN L IS GREATER THAN 78 FEET AND LESS THAN OR EQUAL TO 166 FEET.

(3) A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.

(4) 8" WHITE

(5) REQUIRED WORD ONLY WHEN L IS GREATER THAN 166 FEET.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL

L = LENGTH OF TURN BAY

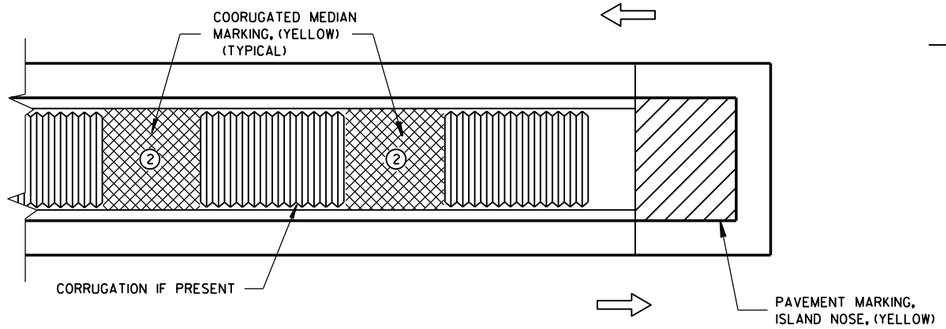
TWO WAY LEFT TURN LANE

PAVEMENT MARKING
(TURN LANES)

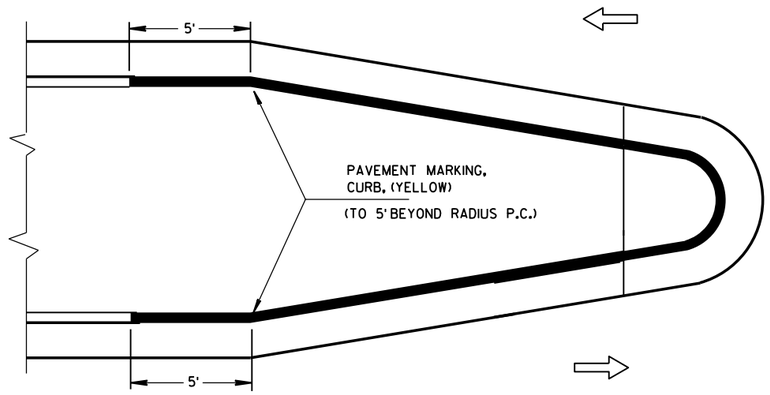
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

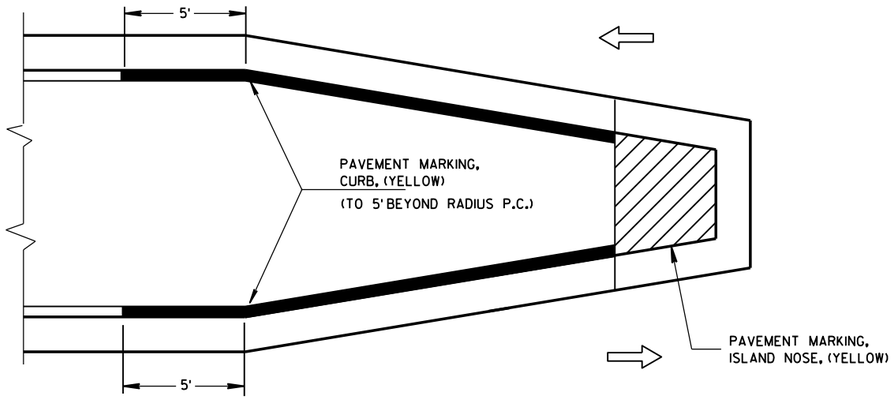
S.D.D. 15 C 8-17b



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

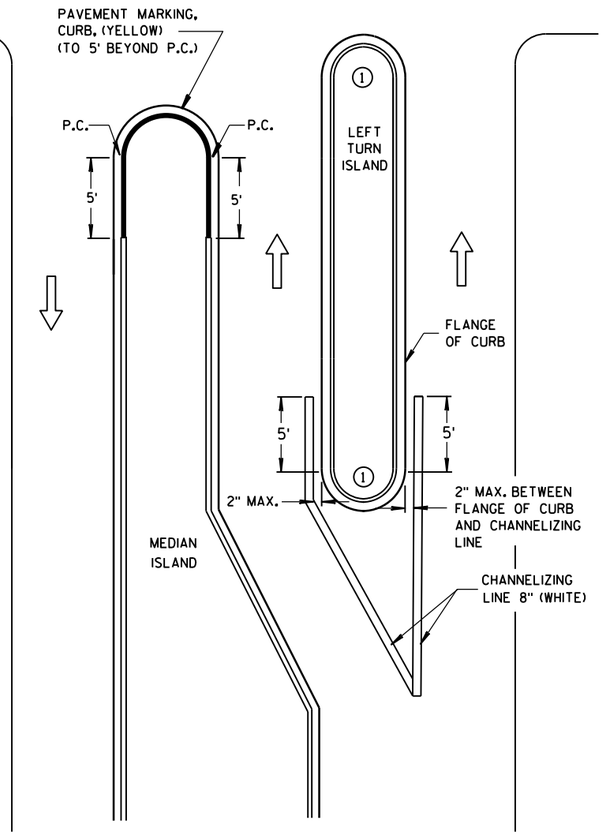


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

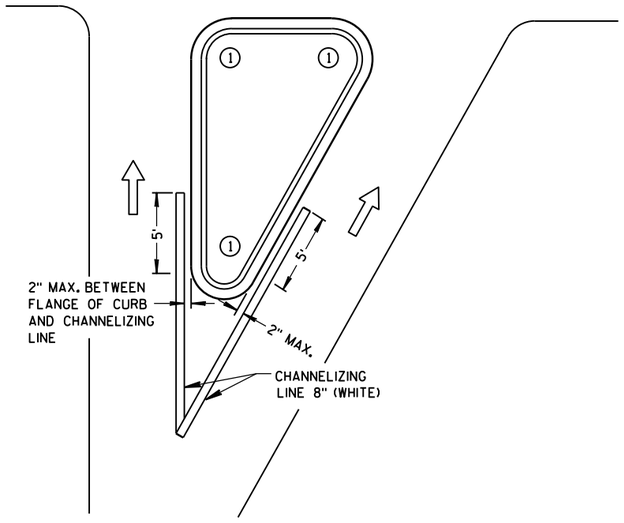


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

2. WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

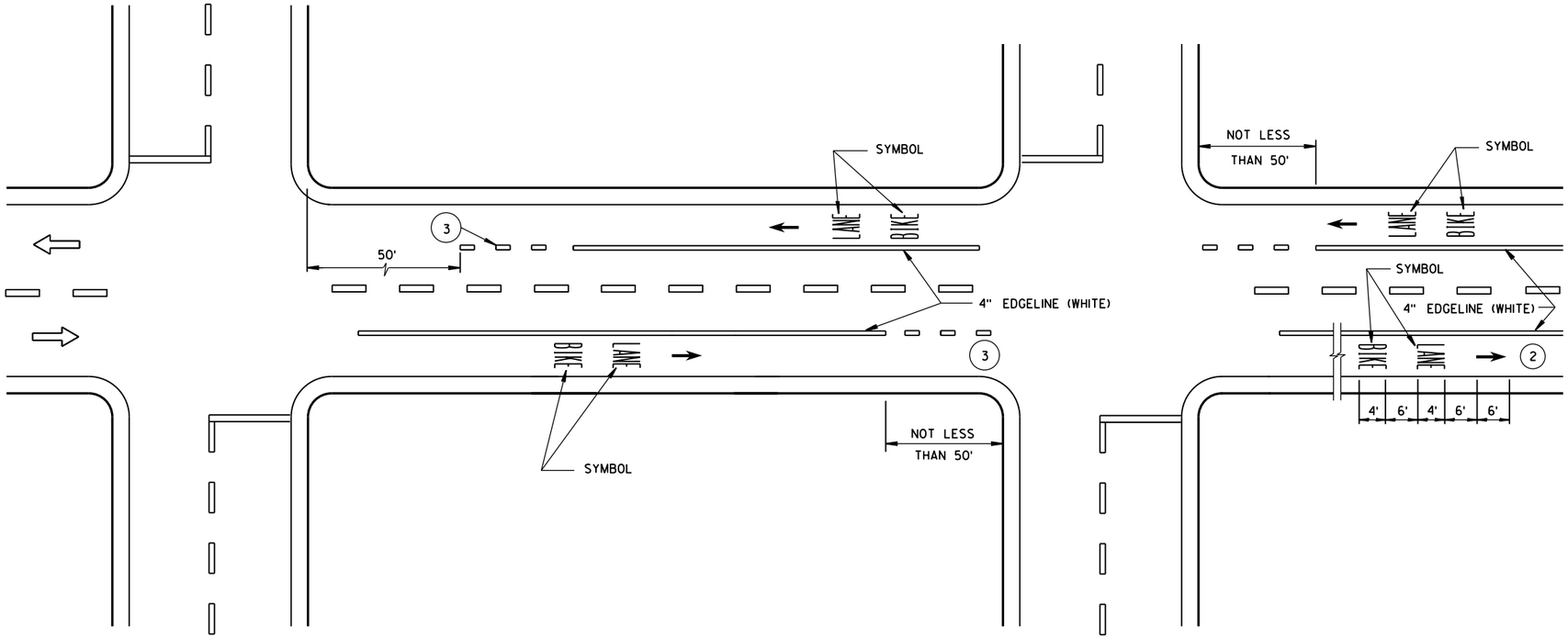
- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-17c

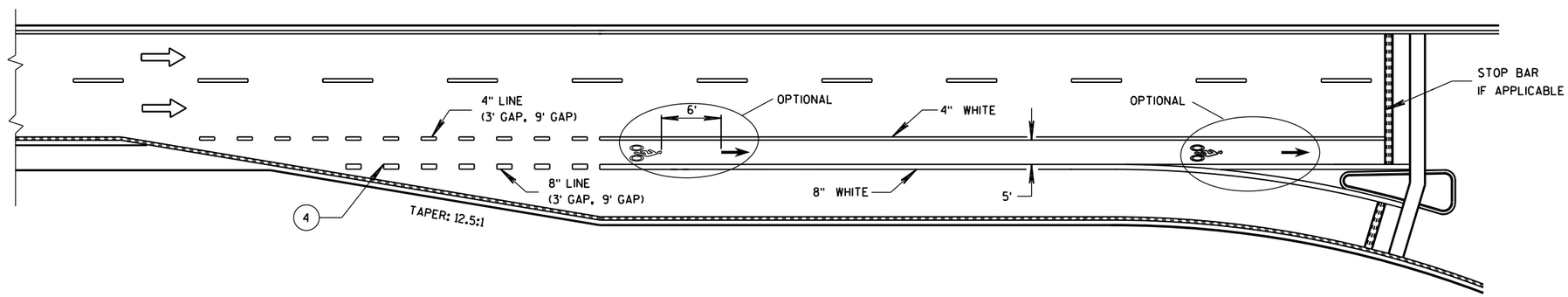


GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3'LINE, 9'GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.

DIRECTION OF TRAVEL

DESIGNATED BICYCLE LANE
NO PARKING



BIKE LANE - 4-LANE DIVIDED WITH RIGHT TURN LANE

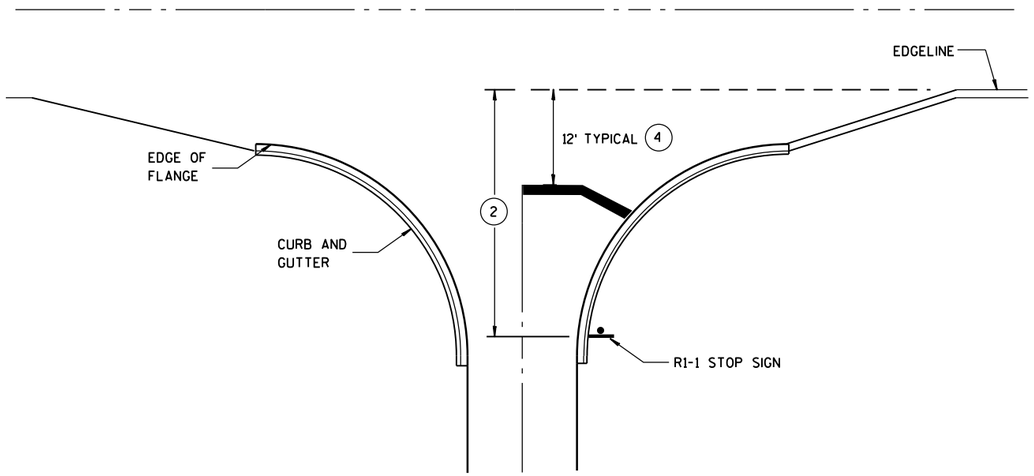
BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

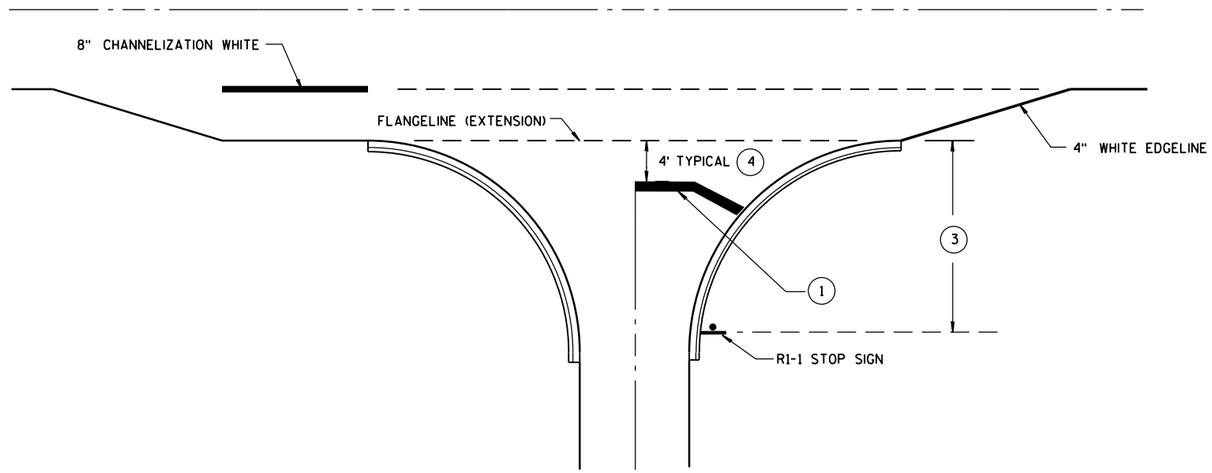
APPROVED
4-18-2016 DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAF NEER
FHWA

6

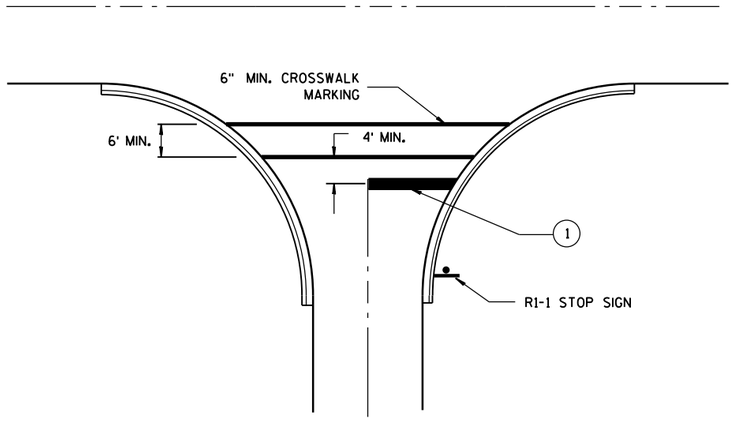
S.D.D. 15 C 29-4a



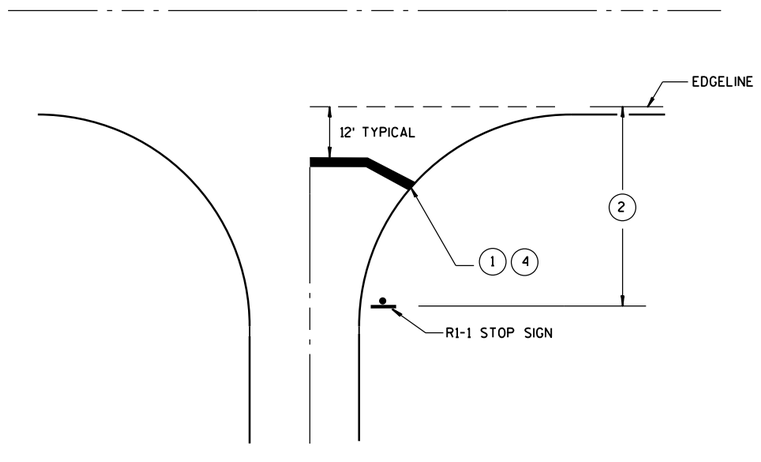
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

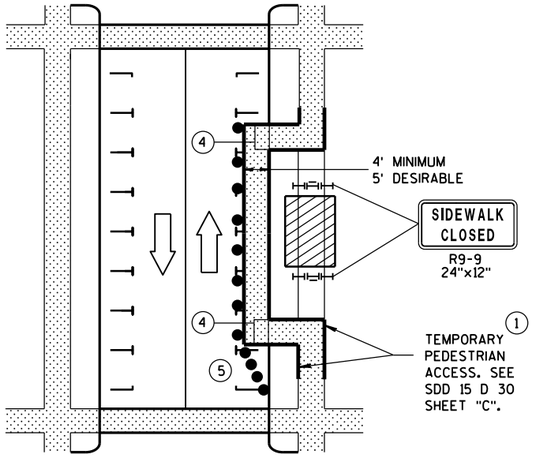
4-18-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR 69 NEER

FHWA

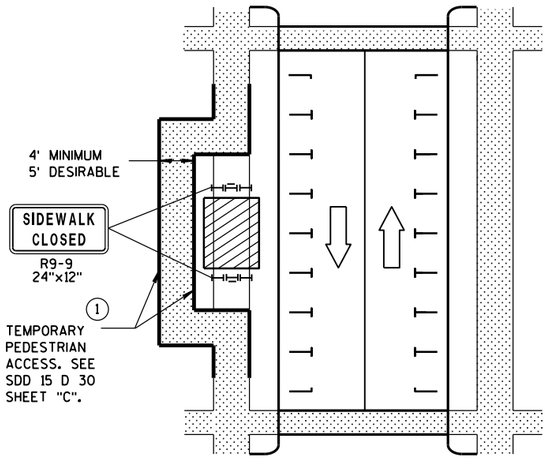
6
S.D.D. 15 C 33-2

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

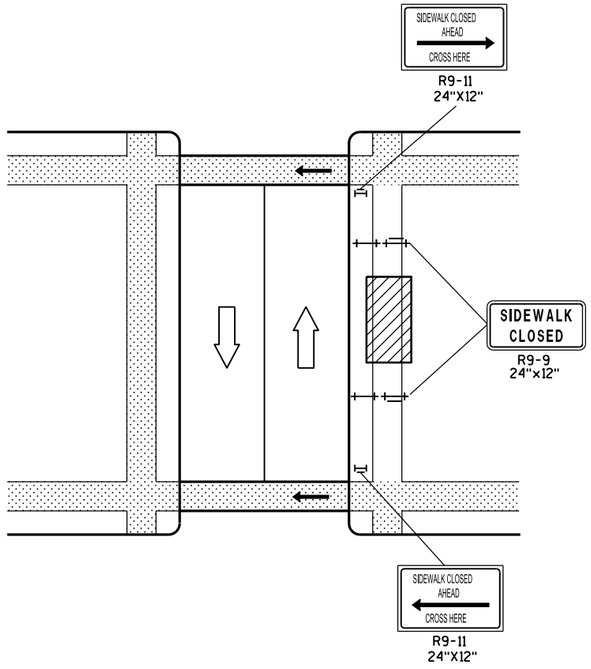


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

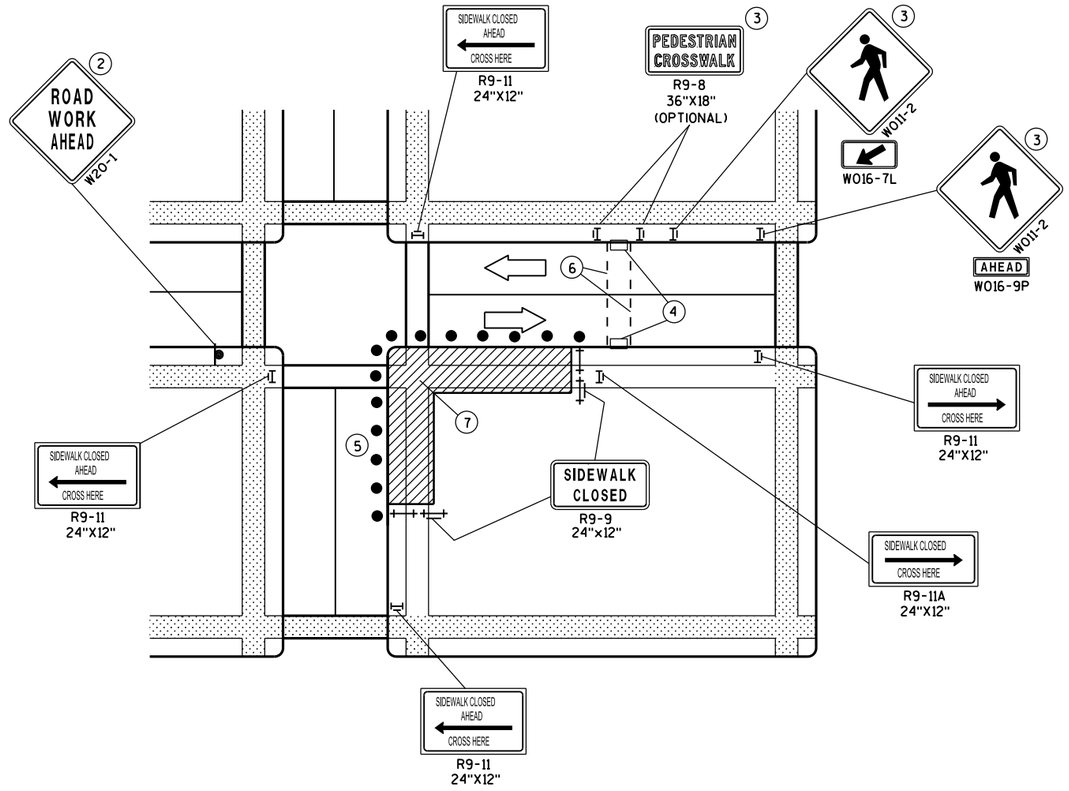
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

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

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

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

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

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

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

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

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

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

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".

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

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

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

LEGEND

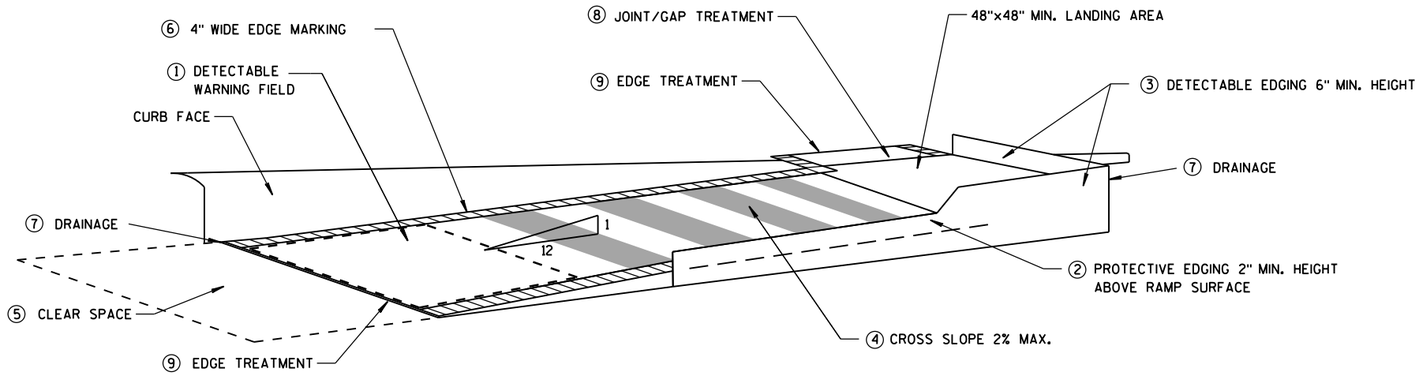
- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)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

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 30-3a



TEMPORARY CURB RAMP PARALLEL TO CURB

GENERAL NOTES

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

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

① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".

② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

④ CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

⑤ CLEAR SPACE OF 48"X48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

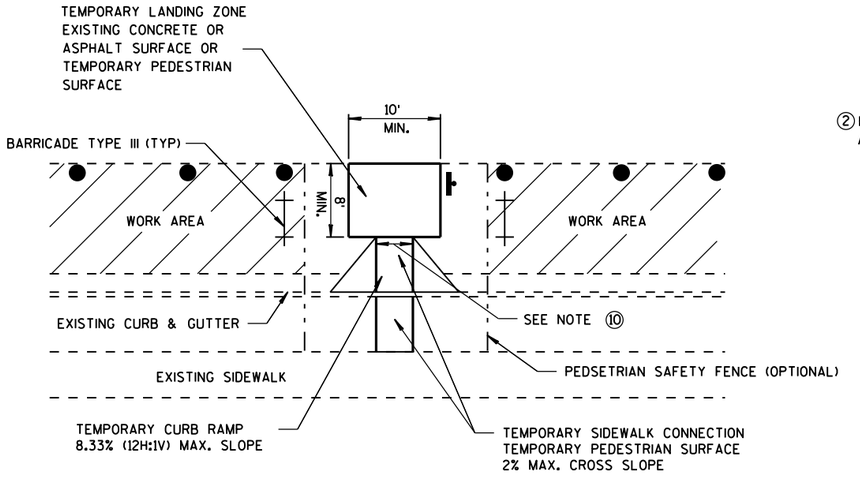
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

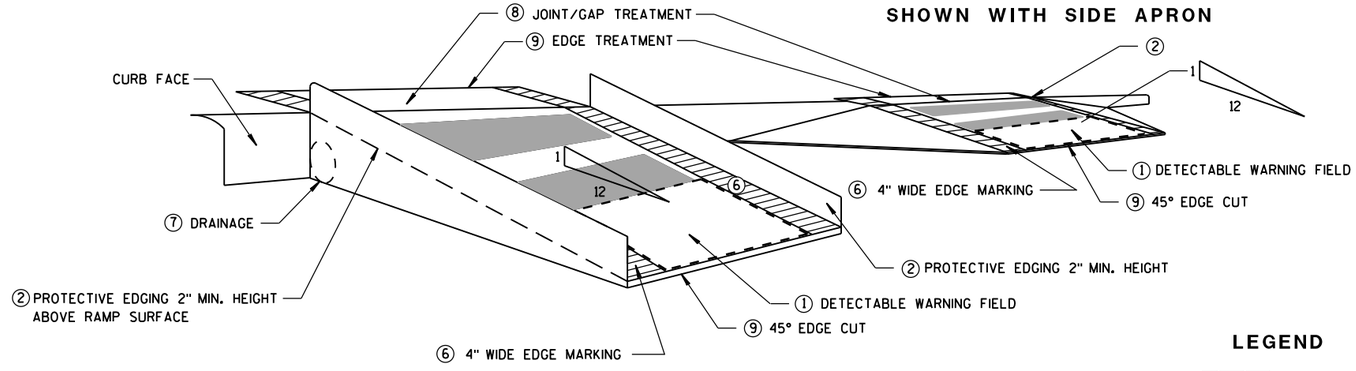
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

⑨ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

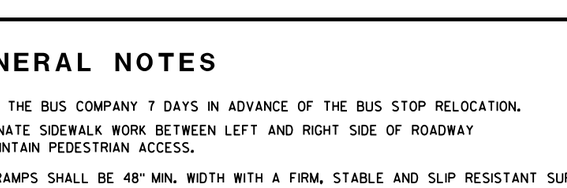
⑩ 5' WIDE MIN. WITH PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



TEMPORARY BUS STOP PAD



SHOWN WITH PROTECTIVE EDGE



TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

WORK AREA

TYPE III BARRICADE

TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

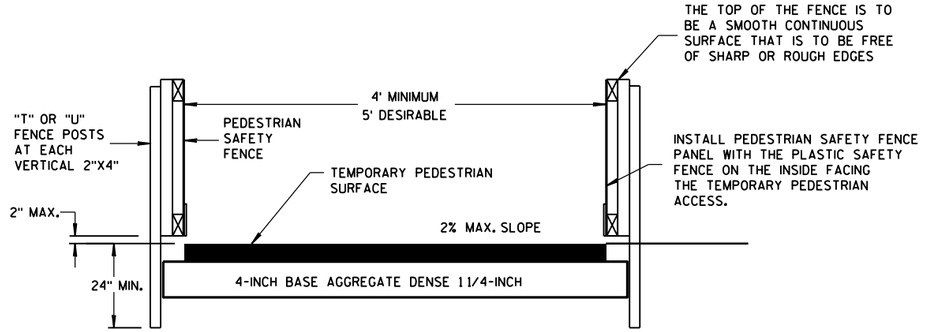
June 2016 — DATE

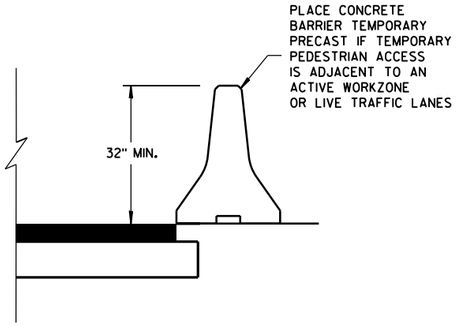
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER

FHWA

6

S.D.D. 15 D 30-3b

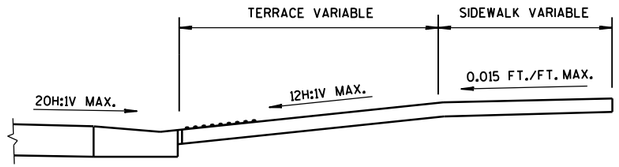




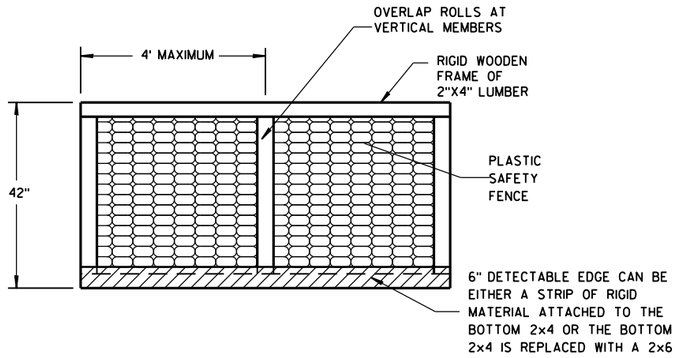
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

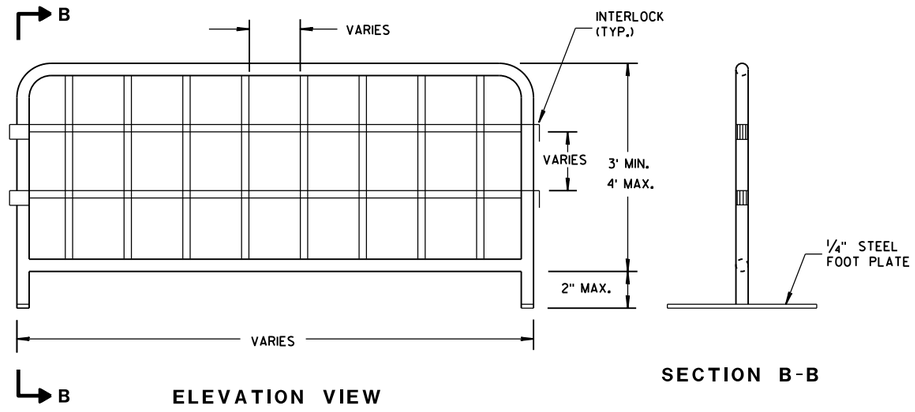
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



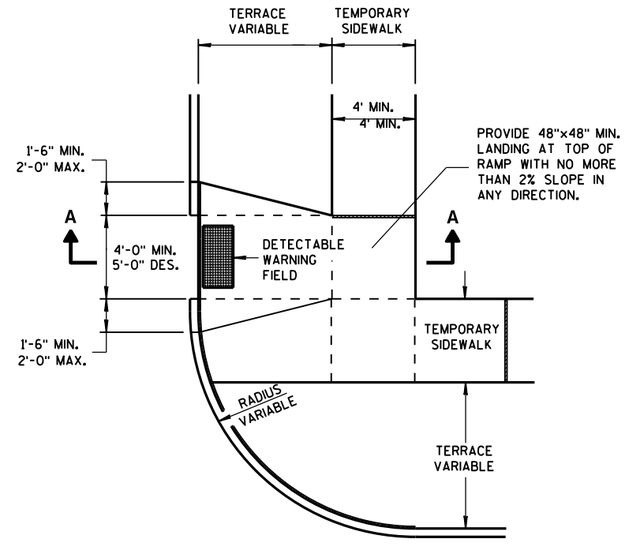
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

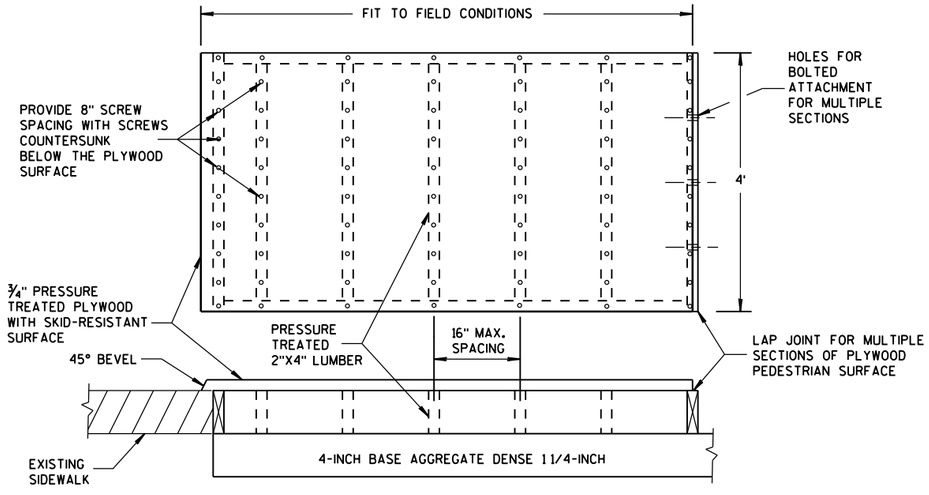
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



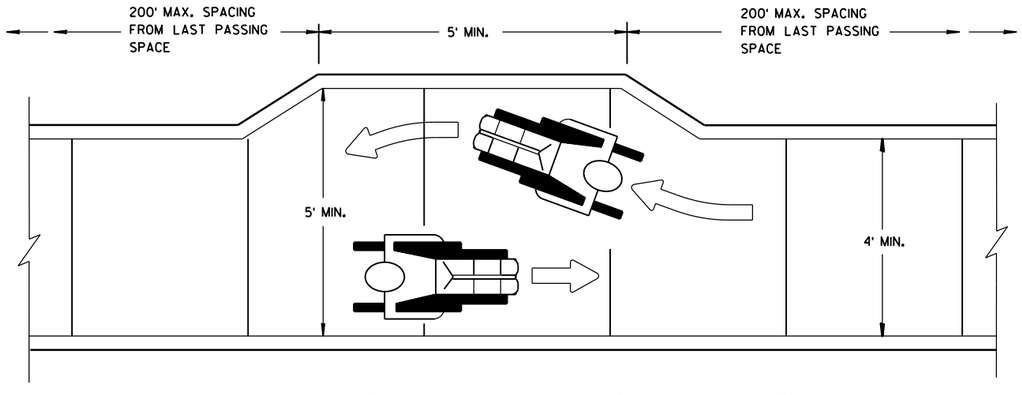
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



NARROW SIDEWALK PASSING DETAIL

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016
DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON SAFETY ENGIN IC
FHWA

6

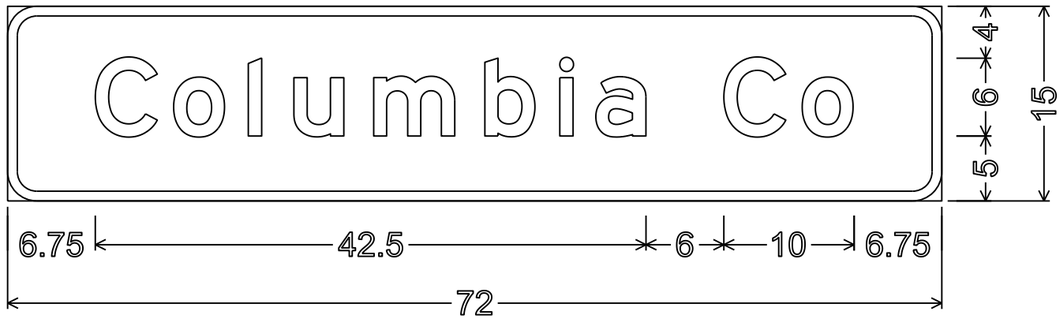
S.D.D. 15 D 30-3c

6

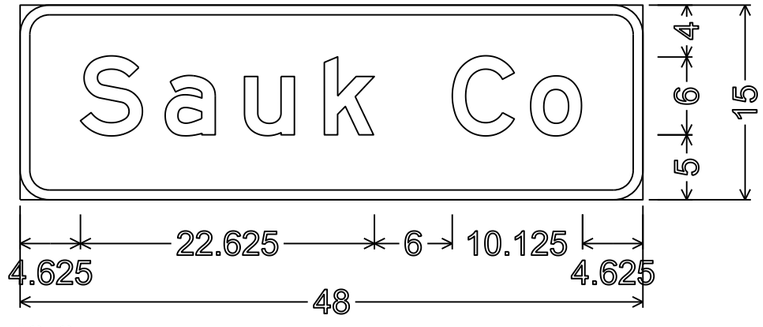
S.D.D. 15 D 30-3c

NOTES

1. All Signs Type II - Type H Reflective
2. Color:
   Background - GREEN
   Message - WHITE
3. Message Series - E



I2-2; 2.250" Radius, 0.750" Border

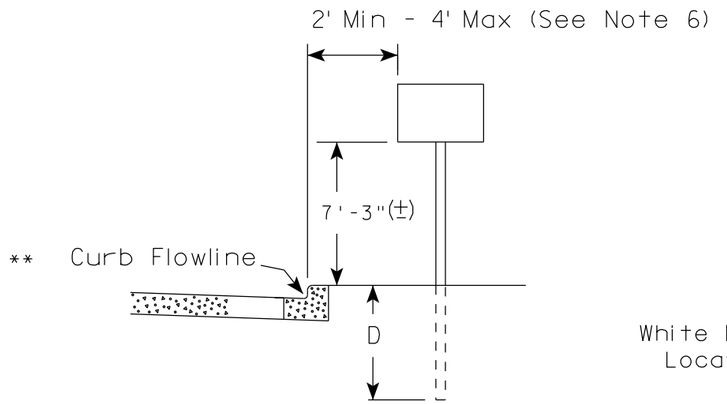


I2-2;
2.250" Radius, 0.750" Border,

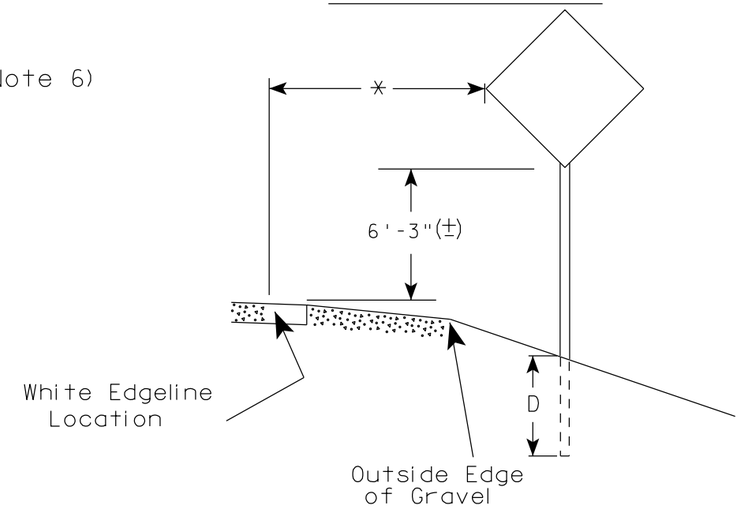
PROJECT NO: 6131-00-31	HWY: STH 13	COUNTY: SAUK	PERMENANT SIGNING	SHEET NO:	E

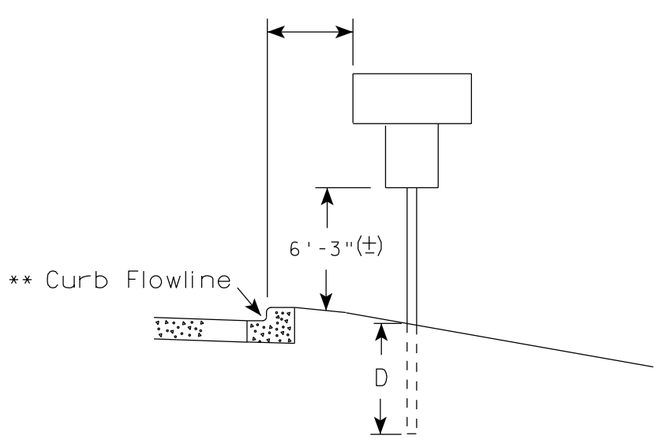
FILE NAME : C:\CAEfiles\Projects\tr_d1\1562gp16.dgn PLOT DATE : 10-NOV-2016 17:06 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000

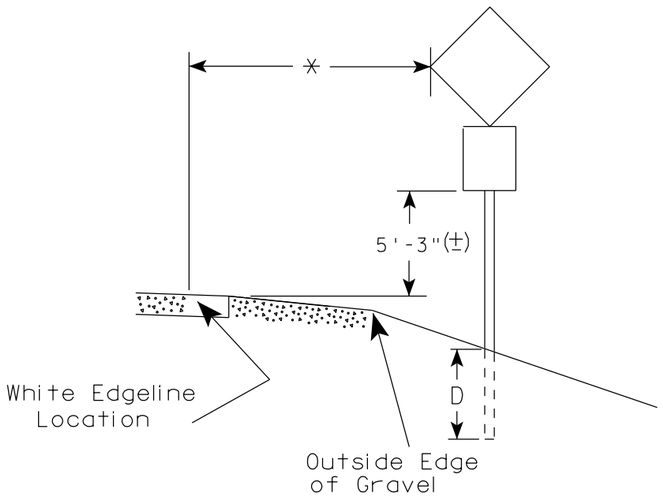
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

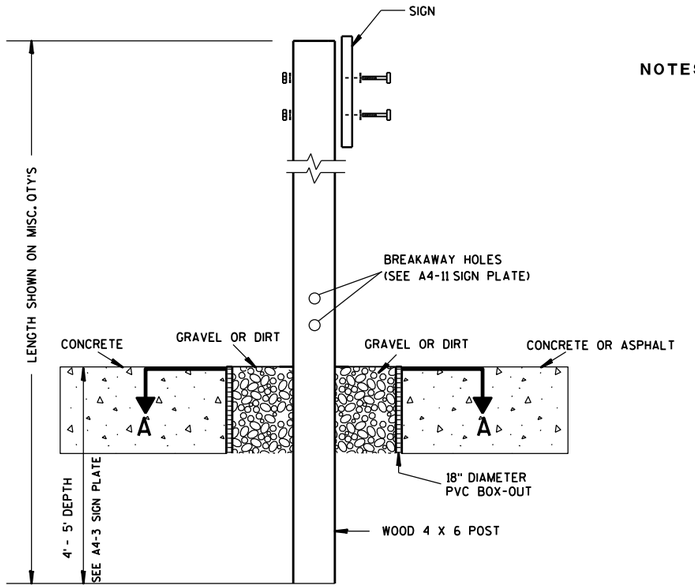
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

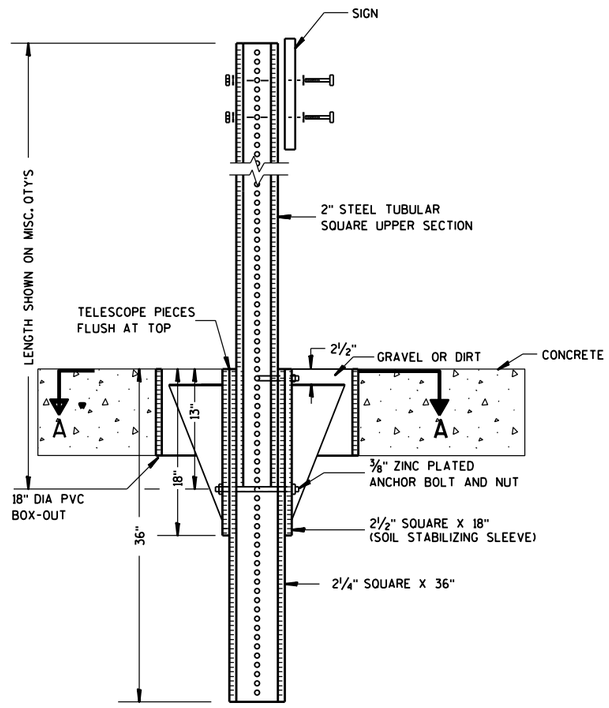
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

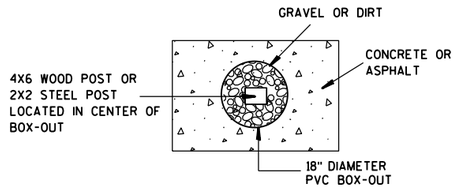
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

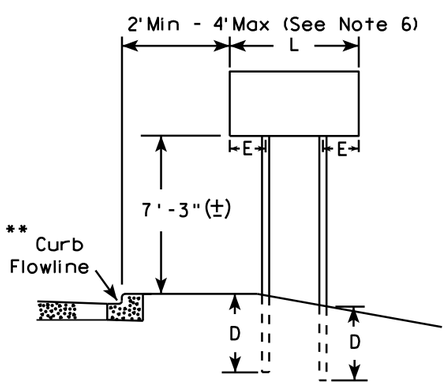
APPROVED Matthew R Rauch
for State Traffic Engineer

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

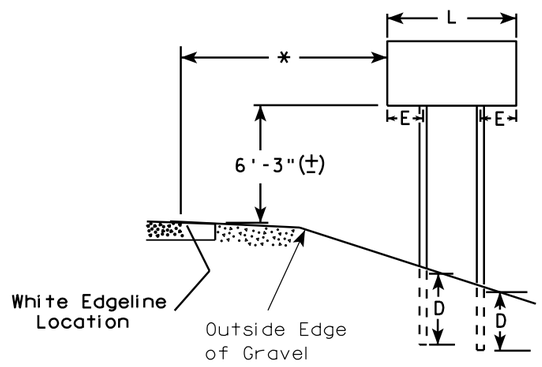
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

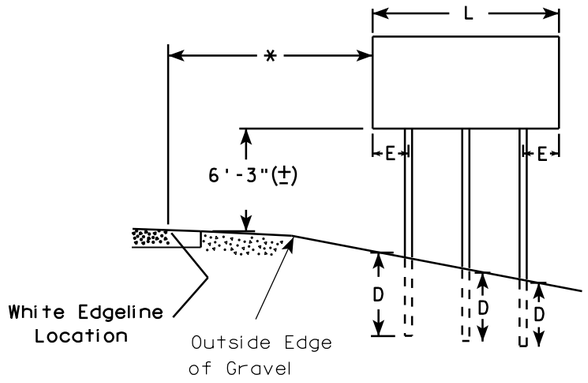
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

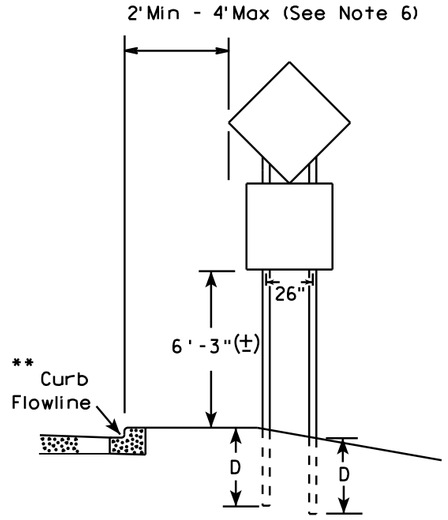
URBAN AREA



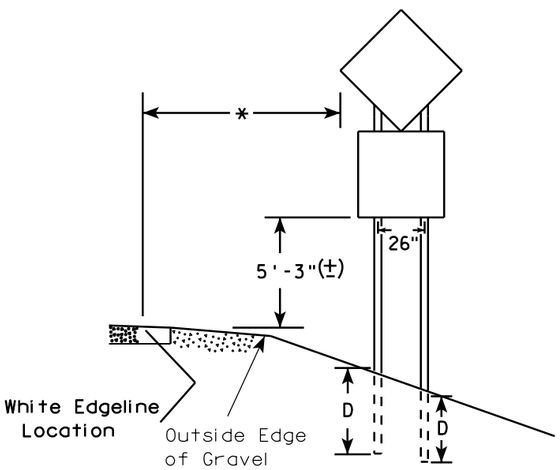
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

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

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

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

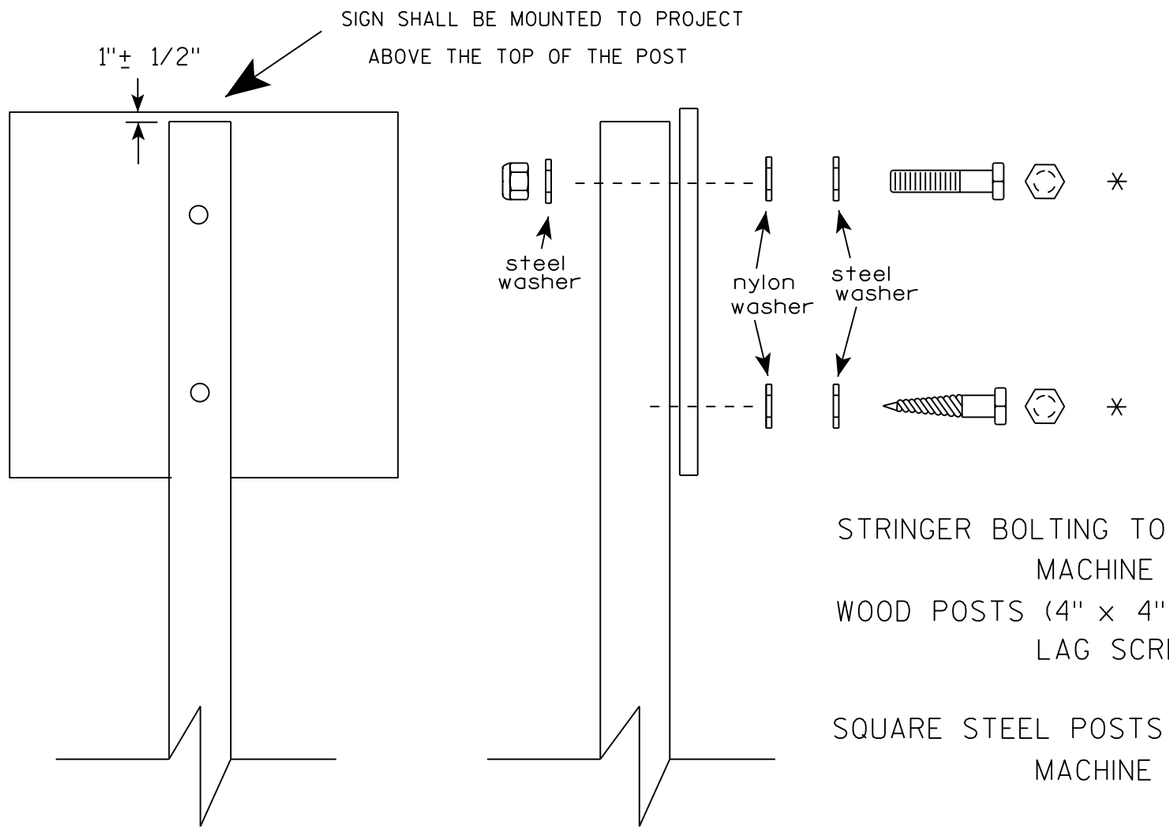
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

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

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

WOOD POSTS (4" x 4" or 4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

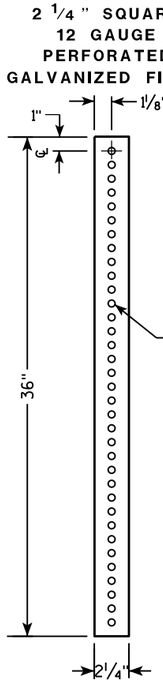
7

PROJECT NO:

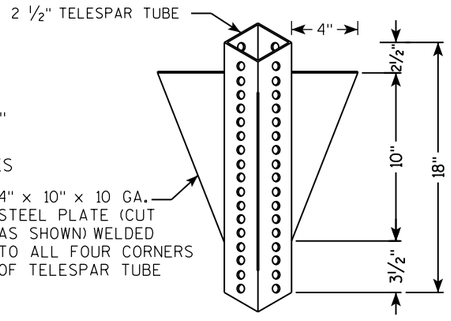
SHEET NO: E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

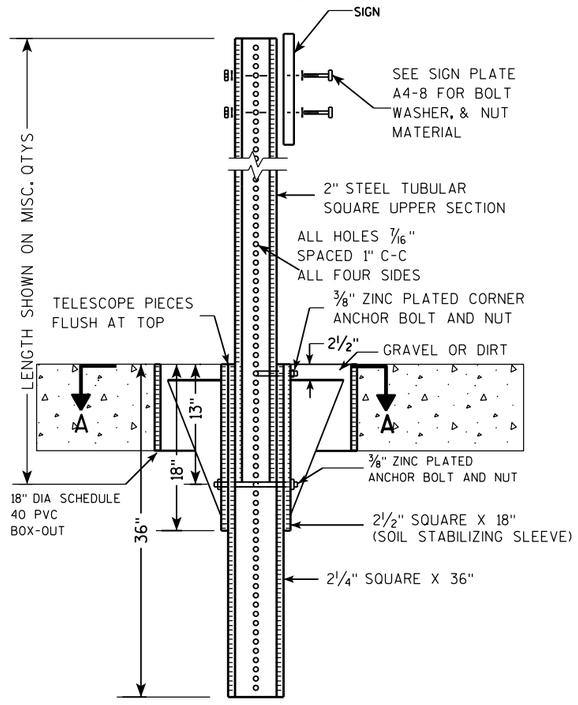
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



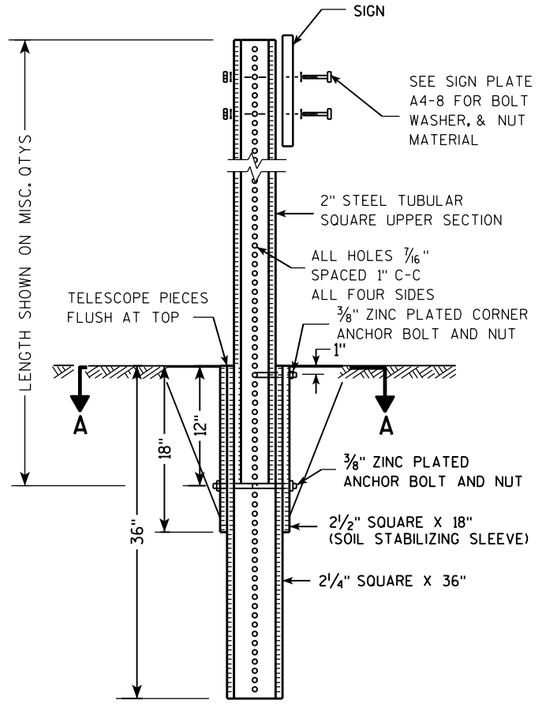
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

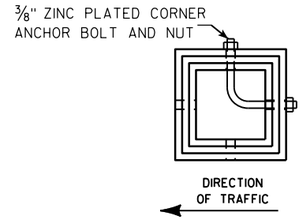


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

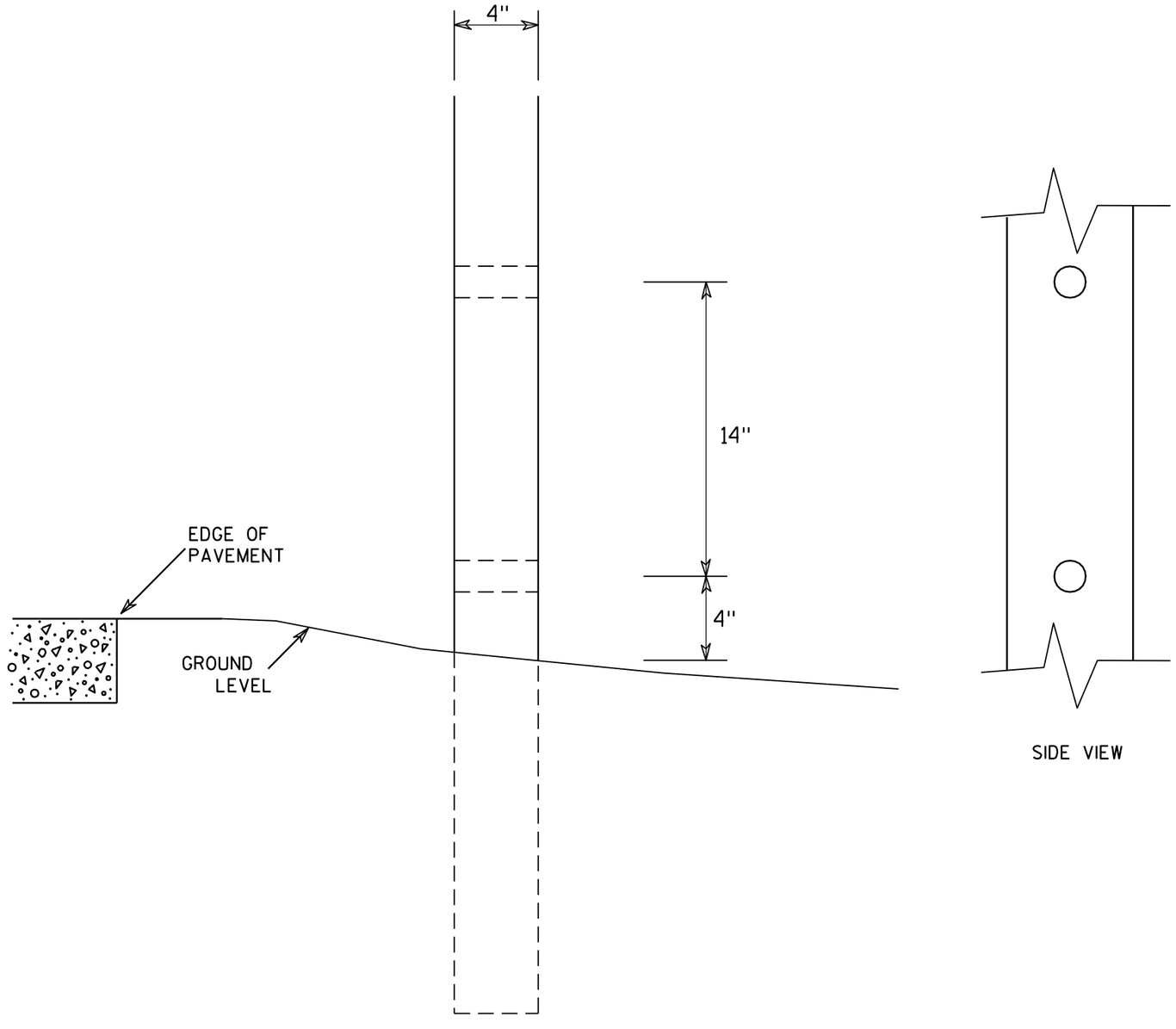
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 78 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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

WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

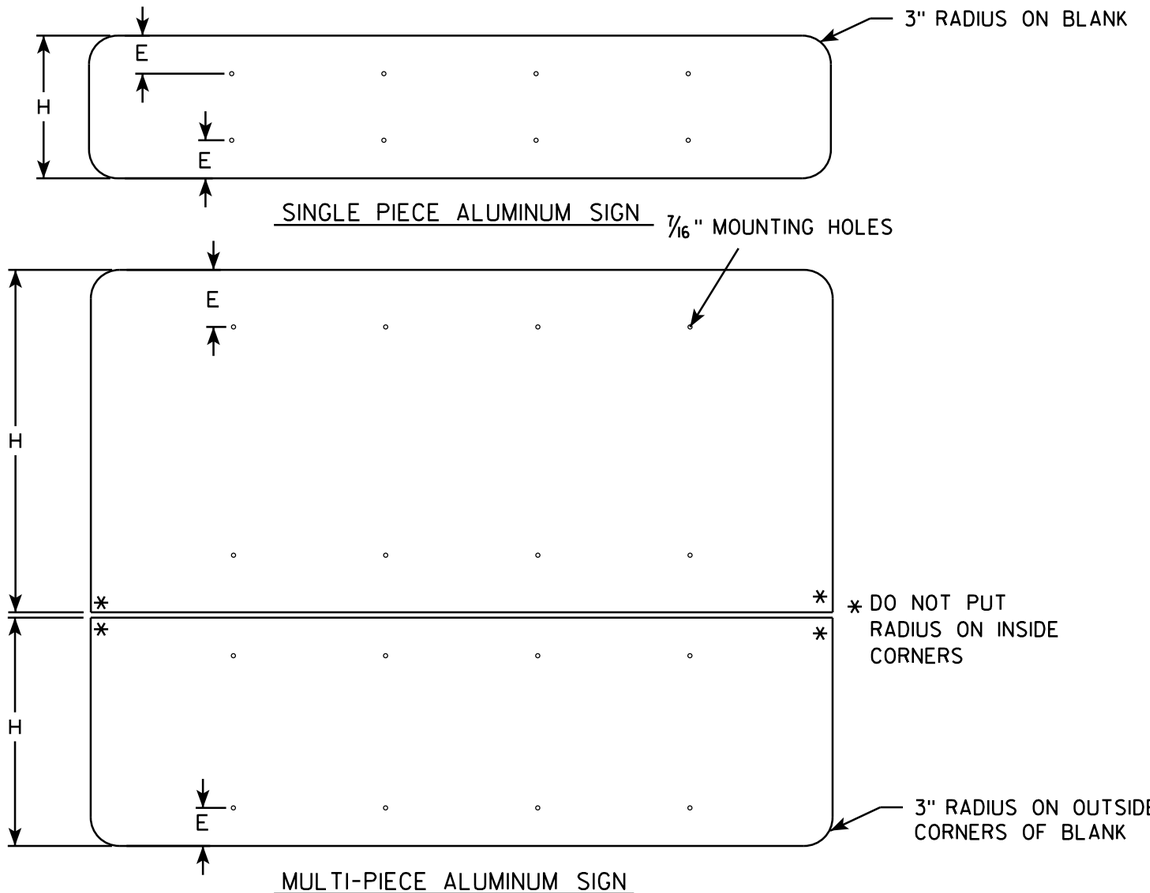
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

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

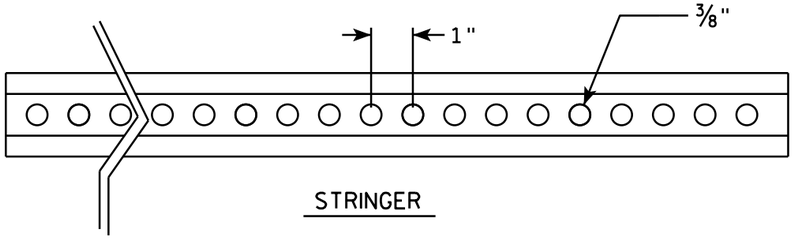
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 79	E



GENERAL NOTES

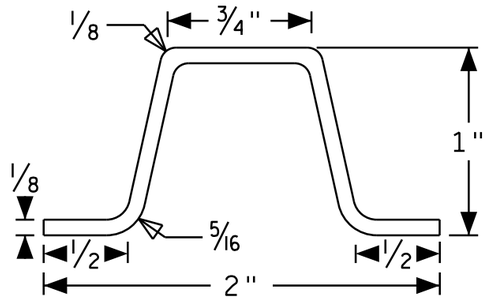
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"

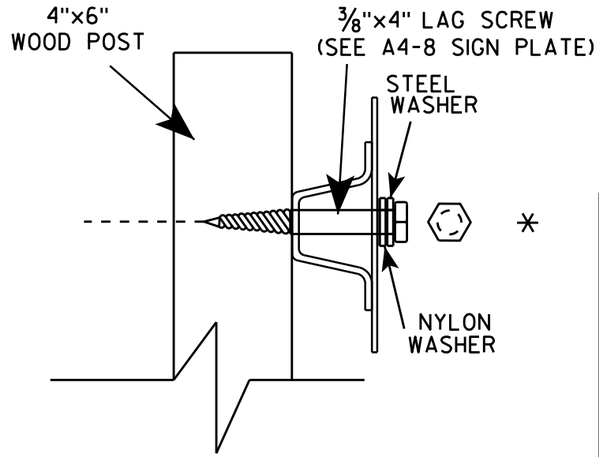


STRINGER

CROSS SECTION VIEW OF CHANNEL



POST MOUNTING



SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

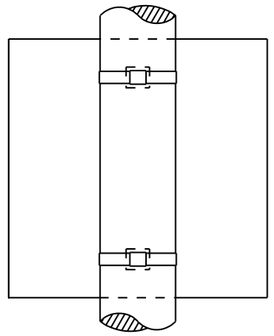
DATE 4/26/16 PLATE NO A4-18.1

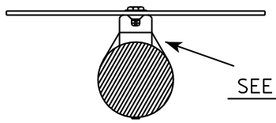
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

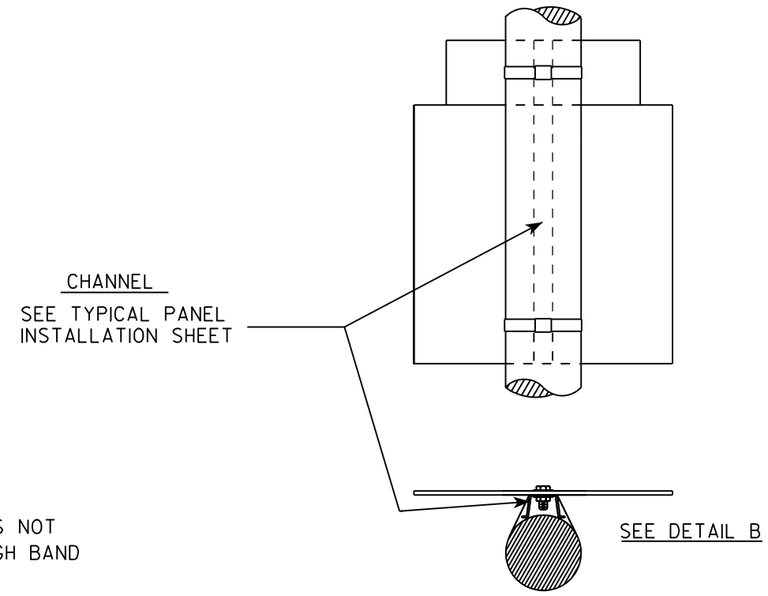
BANDING

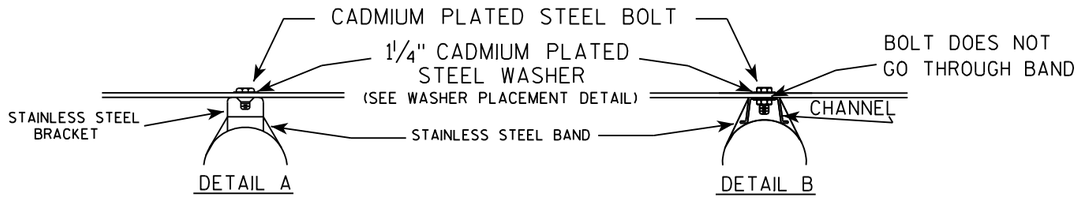
SINGLE SIGN



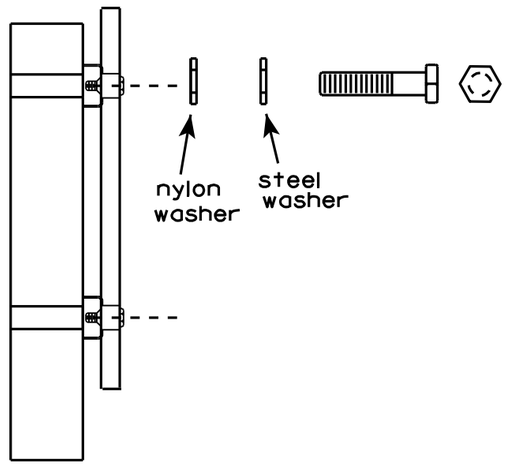


"J" ASSEMBLY





WASHER PLACEMENT



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

GENERAL NOTES

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

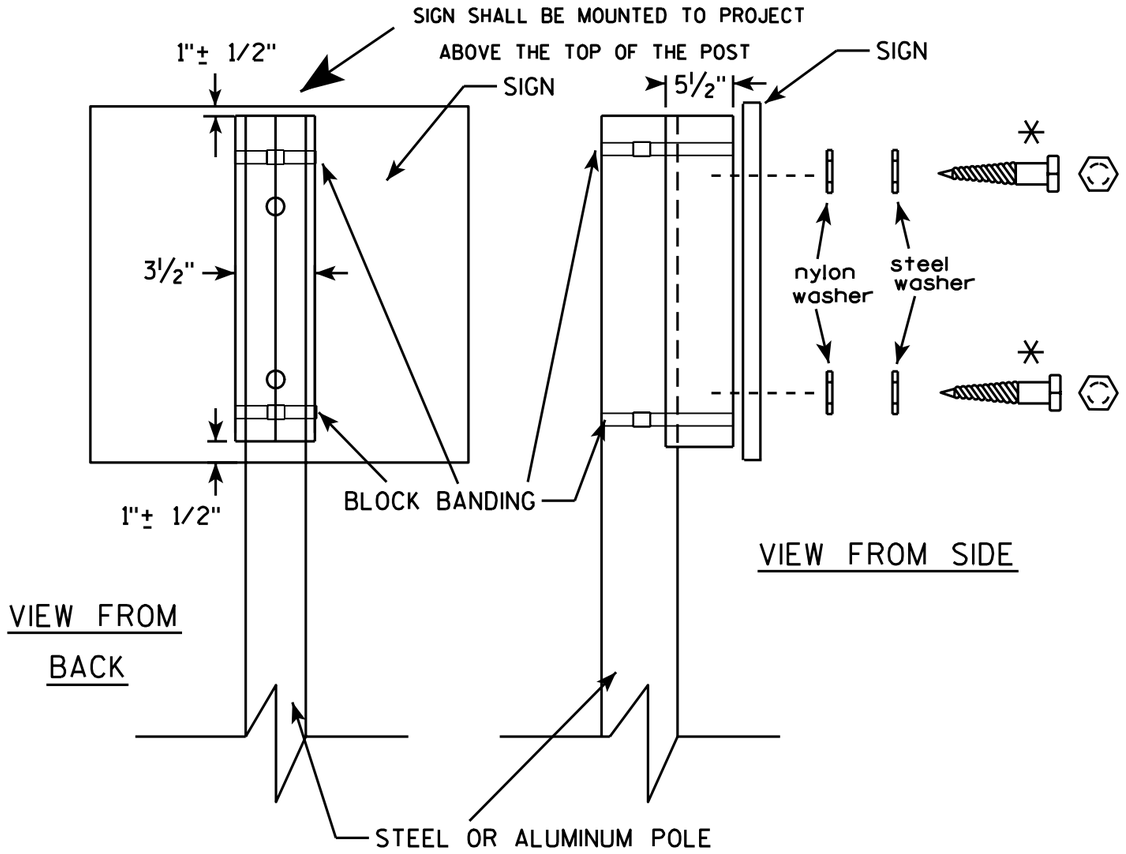
STANDARD SIGN
SIGN BANDING DETAILS

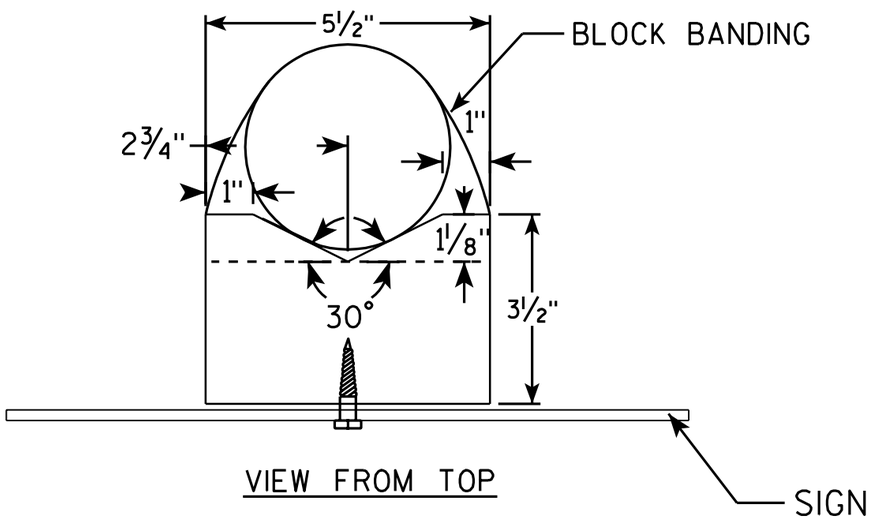
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 81	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

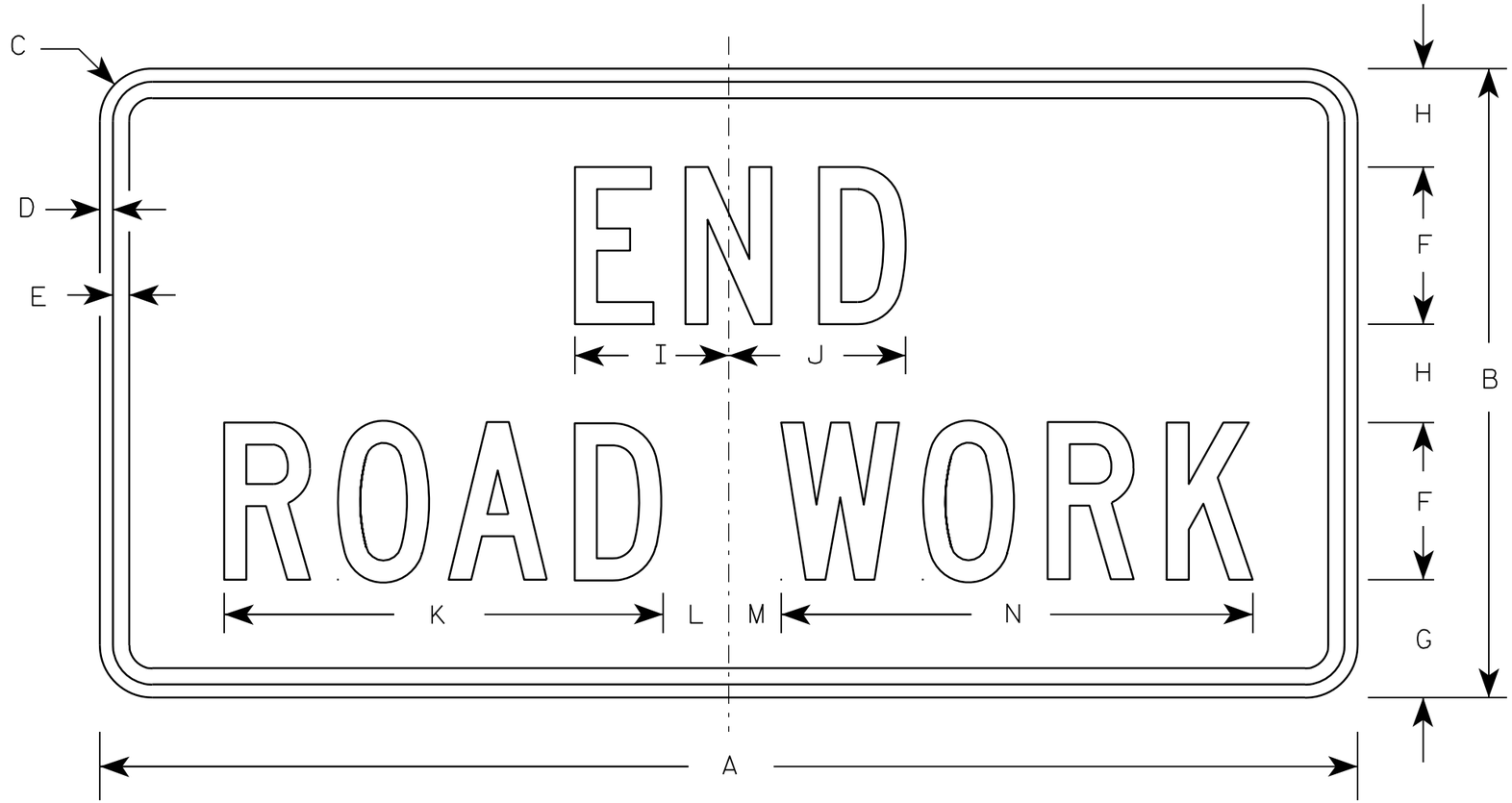
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 82 E

FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

WISDOT/CADDS SHEET 42



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

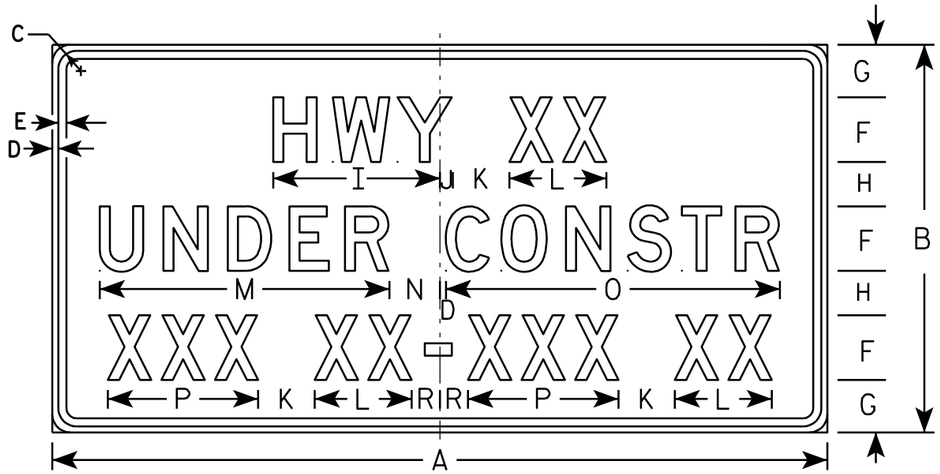
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 83	E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.



G20-57

7

Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	2400 mm X 1200 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2																												
3																												
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	1 5/8	7	12	35 7/8	6 1/4	41 3/8	18 5/8		3 1/2									32.0	2.88
5																												

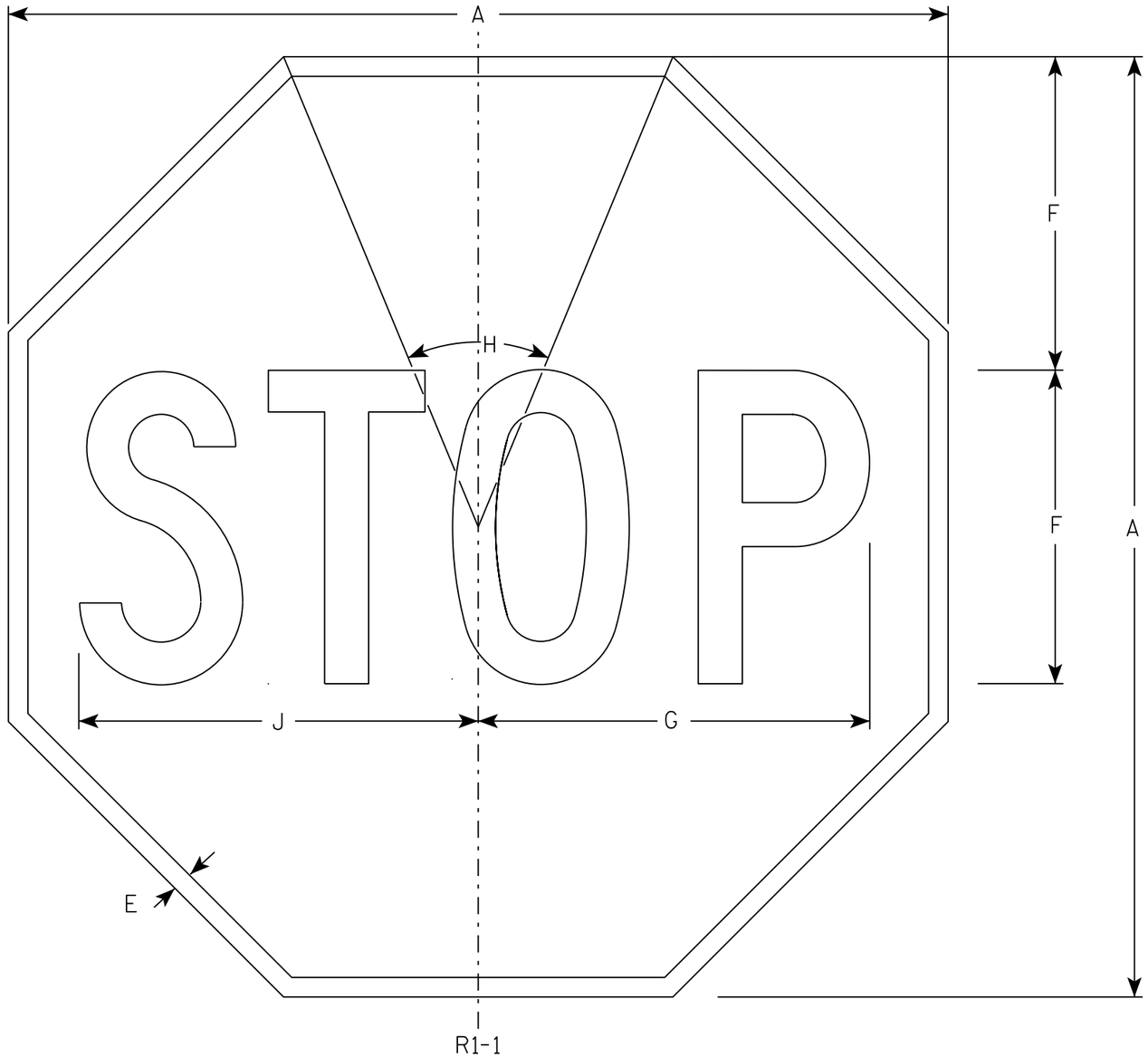
STANDARD SIGN
G20-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/13/09 PLATE NO. G20-57.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 84	E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1-1

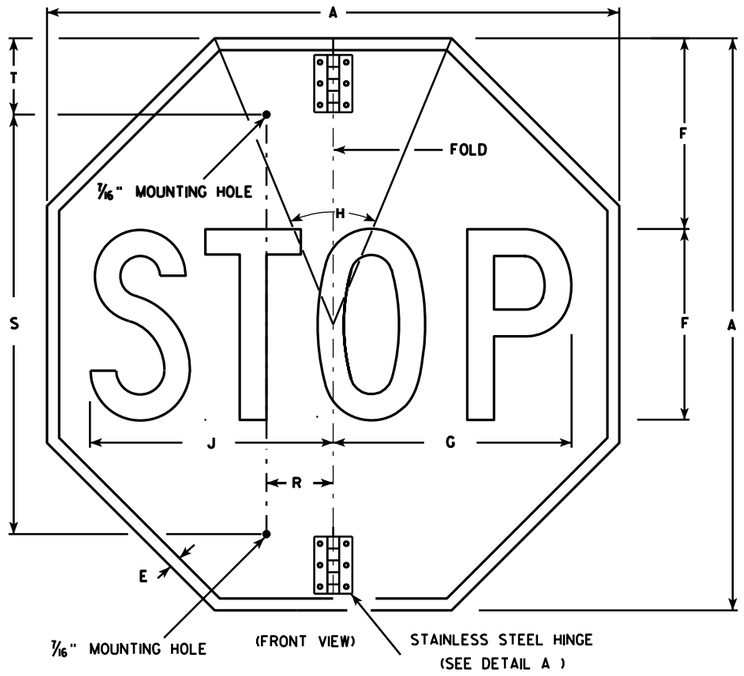
WISCONSIN DEPT OF TRANSPORTATION

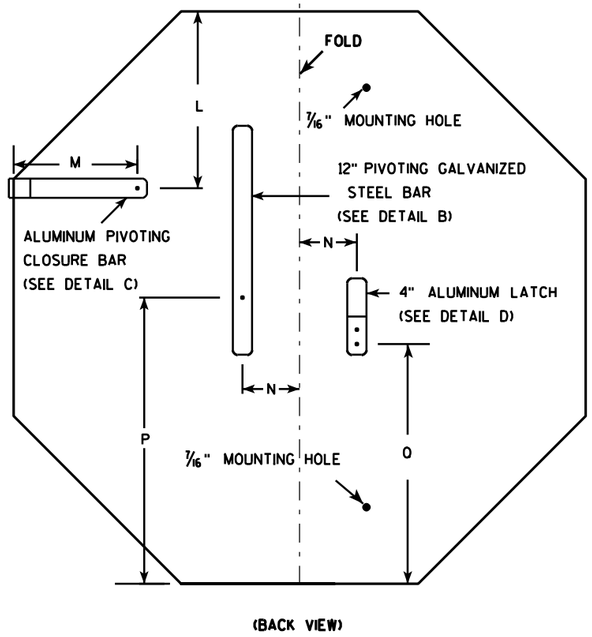
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE 85 R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

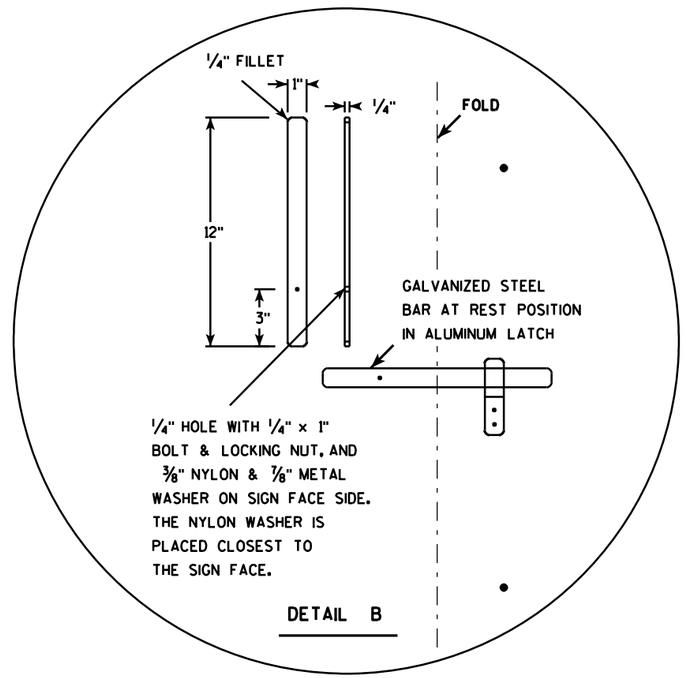
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R11.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.378143:1.000000



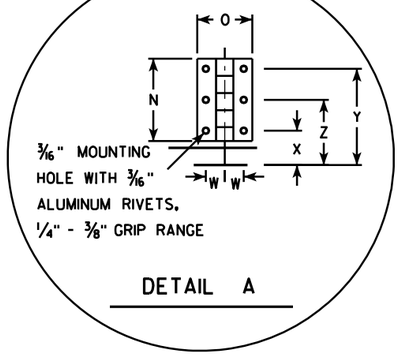


NOTES

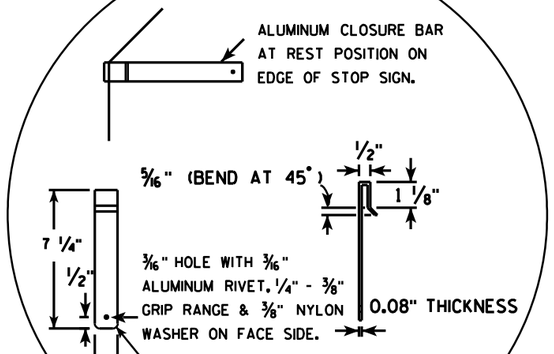
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



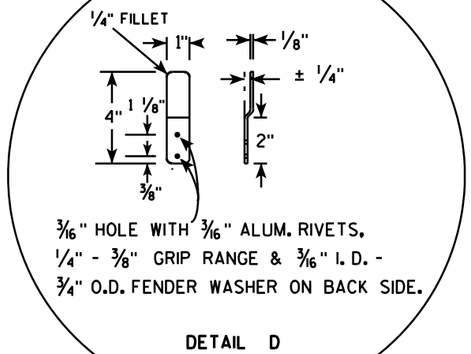
DETAIL B



DETAIL A



DETAIL C



DETAIL D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

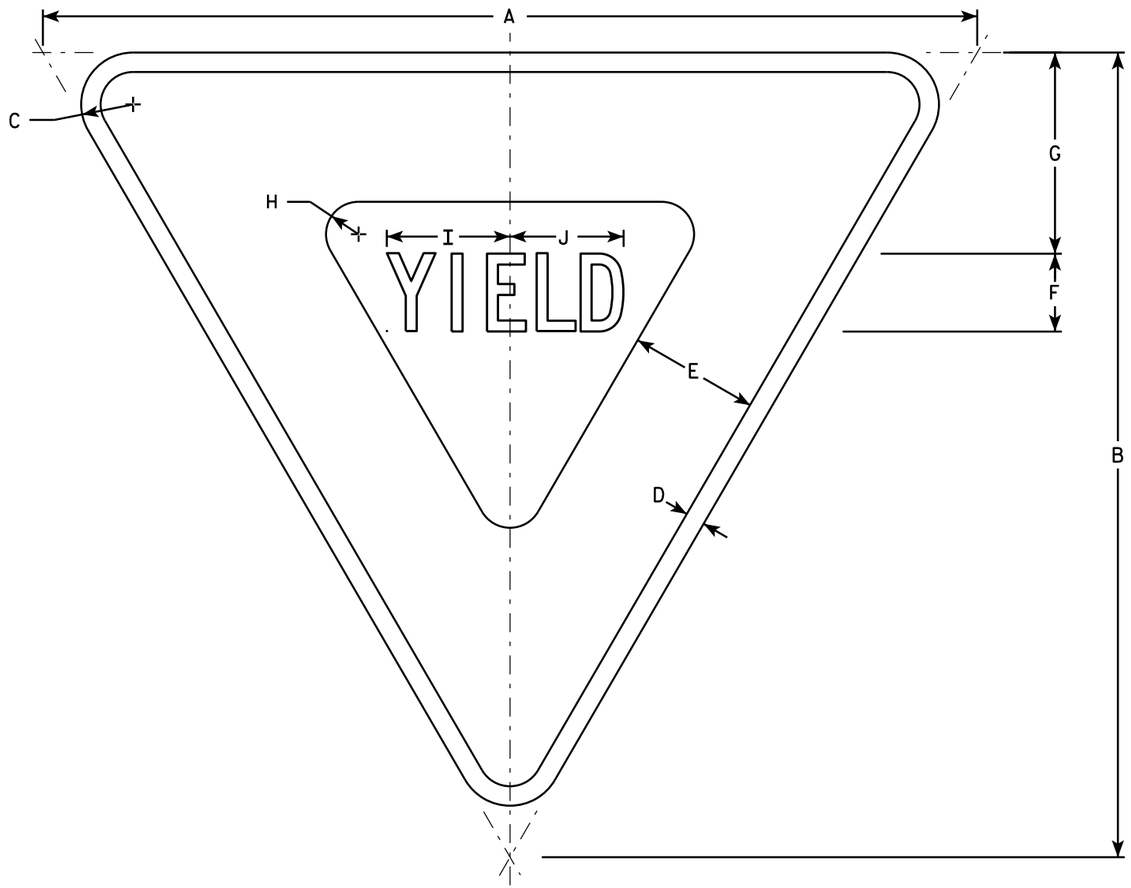
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 86 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R11F.DGN PLOT DATE : 02-DEC-2010 15:26 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 7.945391:1.000000

WISDOT/CADDS SHEET 42



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

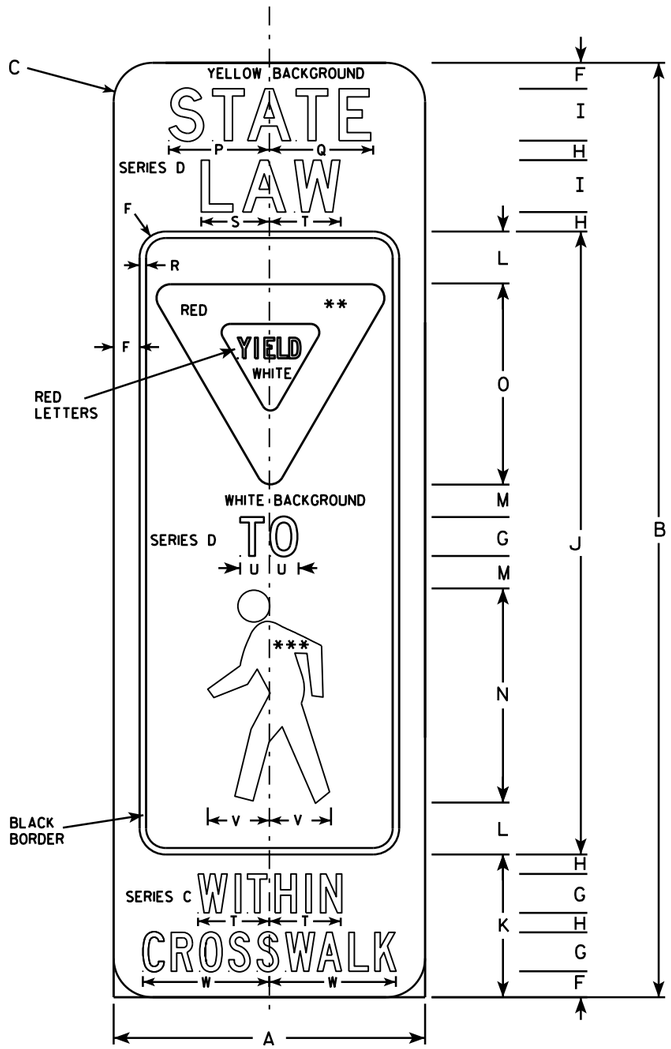
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE P1-2.12

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



R1-6

** INSERT R1-2 AND SIZE TO FIT

*** INSERT W11-2 AND SIZE TO FIT

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - YELLOW
   Message - BLACK
   YIELD SYMBOL - RED ON WHITE
   PED SYMBOL - BLACK ON WHITE
3. Message Series - AS SHOWN AND IN TABLE
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36	1 ½			1	1 ½C	¾	2 D	24	5 ½	2	1 ¼	8 ¼	7 ¾	3 ⅞	4	¼	2 ⅝	2 ¾	1 ⅛	2 ⅜	4 ⅞				3.0
2M	12	36	1 ½			1	1 ½C	¾	2 D	24	5 ½	2	1 ¼	8 ¼	7 ¾	3 ⅞	4	¼	2 ⅝	2 ¾	1 ⅛	2 ⅜	4 ⅞				3.0
3																											
4																											
5																											

STANDARD SIGN
R1-6

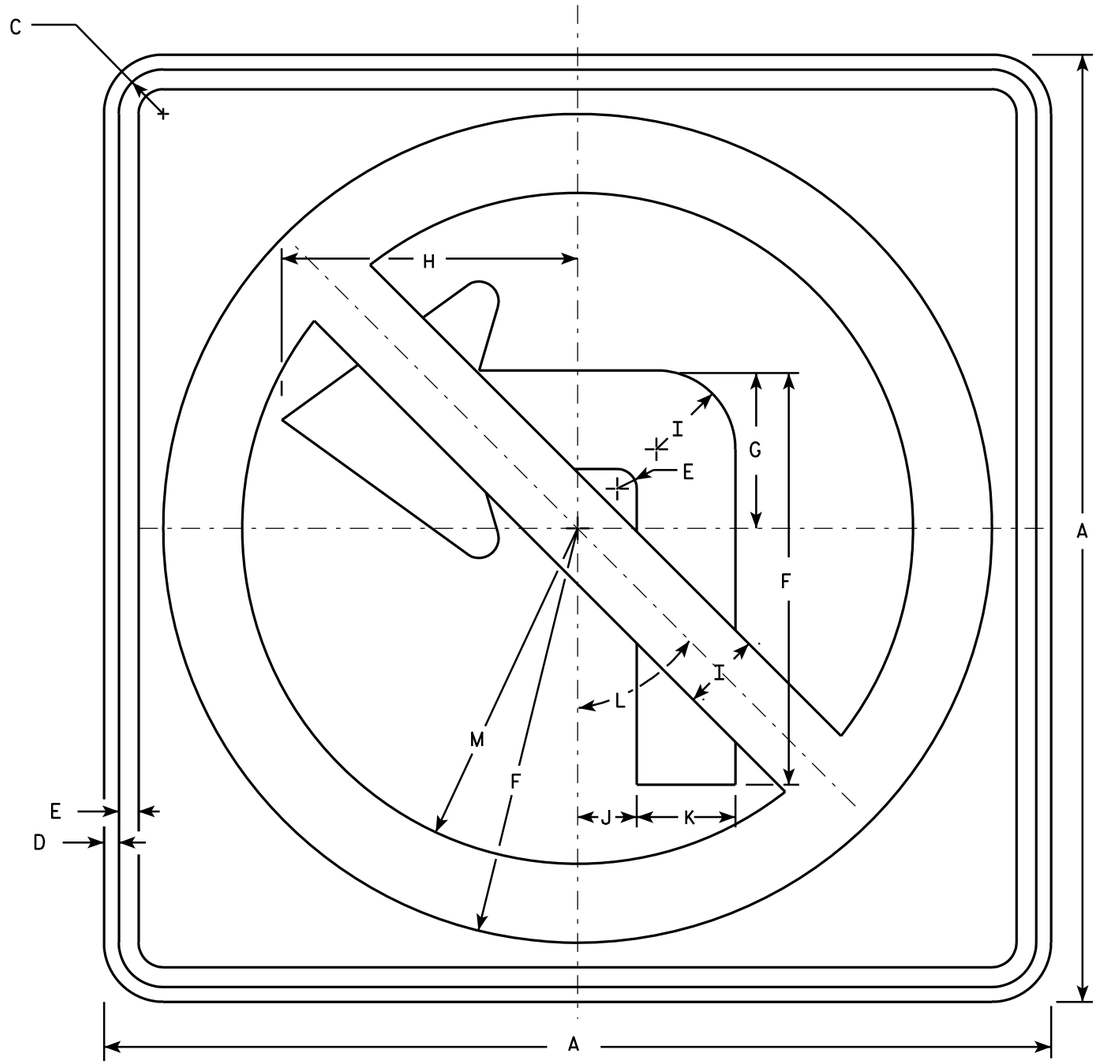
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/29/14 PLATE NO. R1-6.3

PROJECT NO:

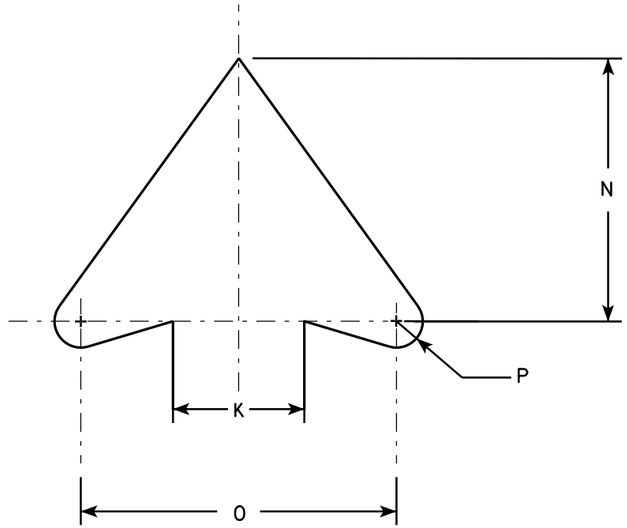
SHEET NO: E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

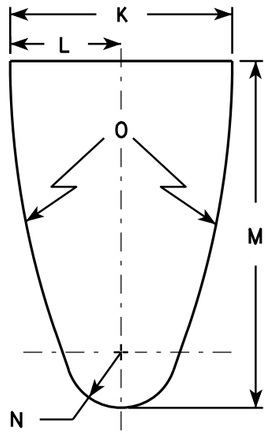
STANDARD SIGN
R3-2

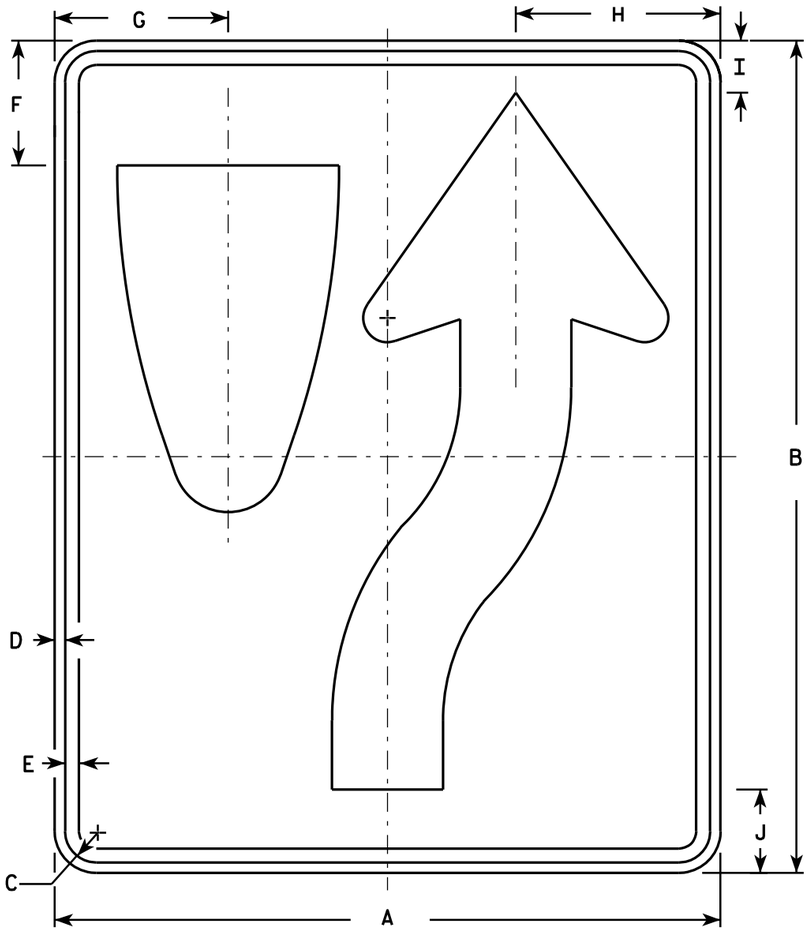
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 89	E

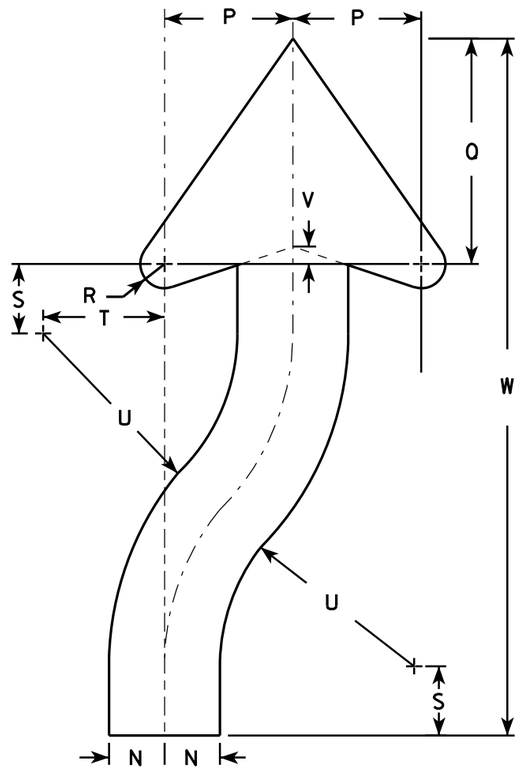




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

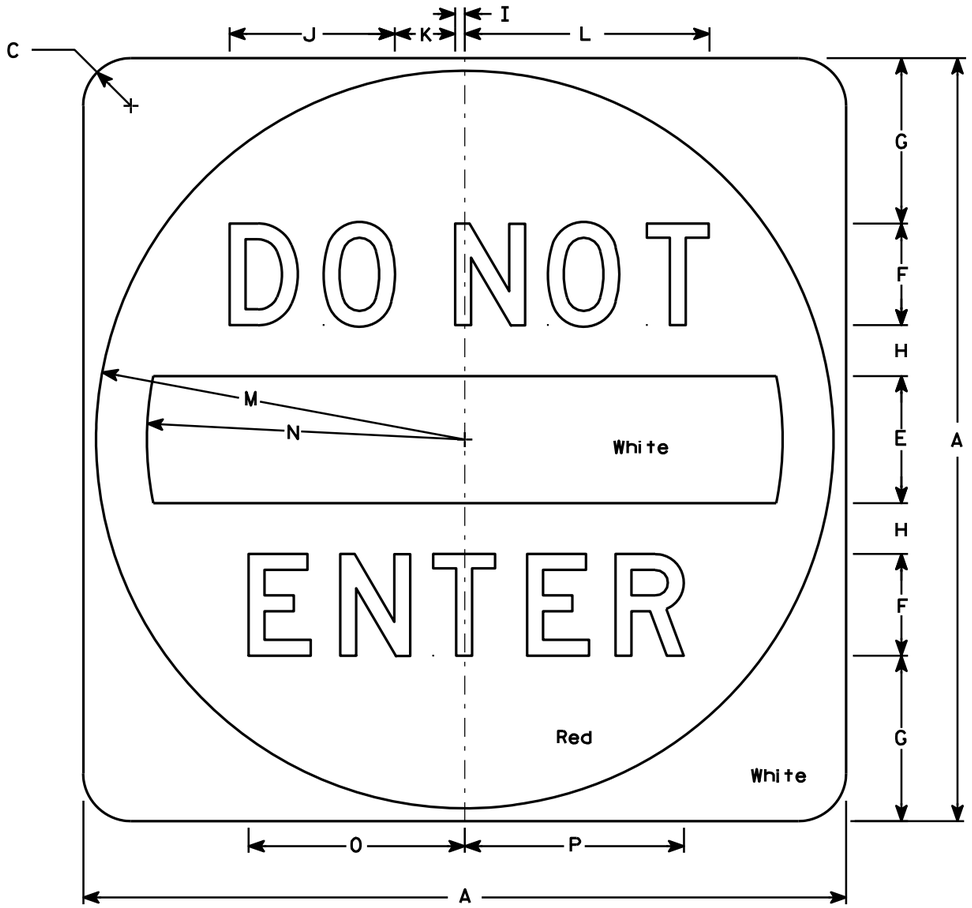
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 90	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See detail
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the cornors shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.26
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

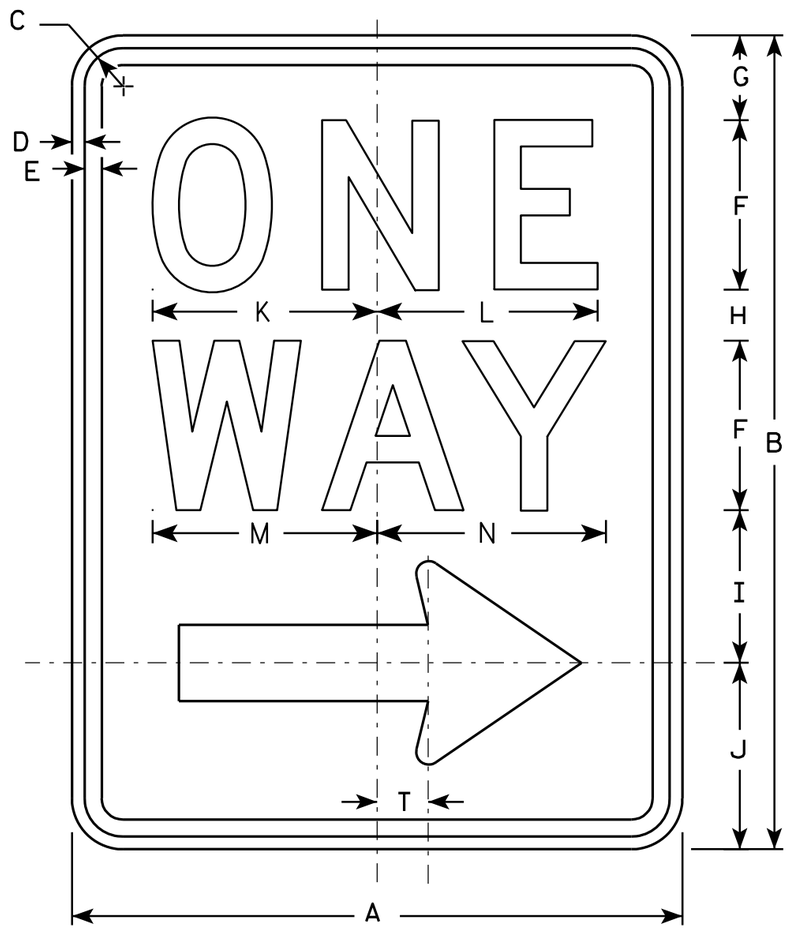
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

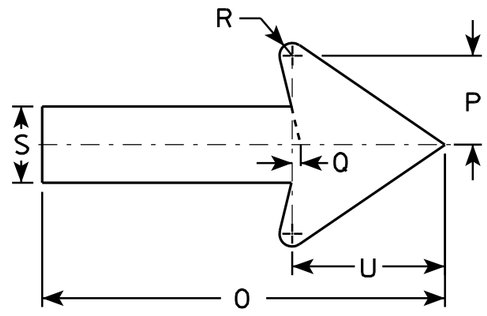
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 91 | E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

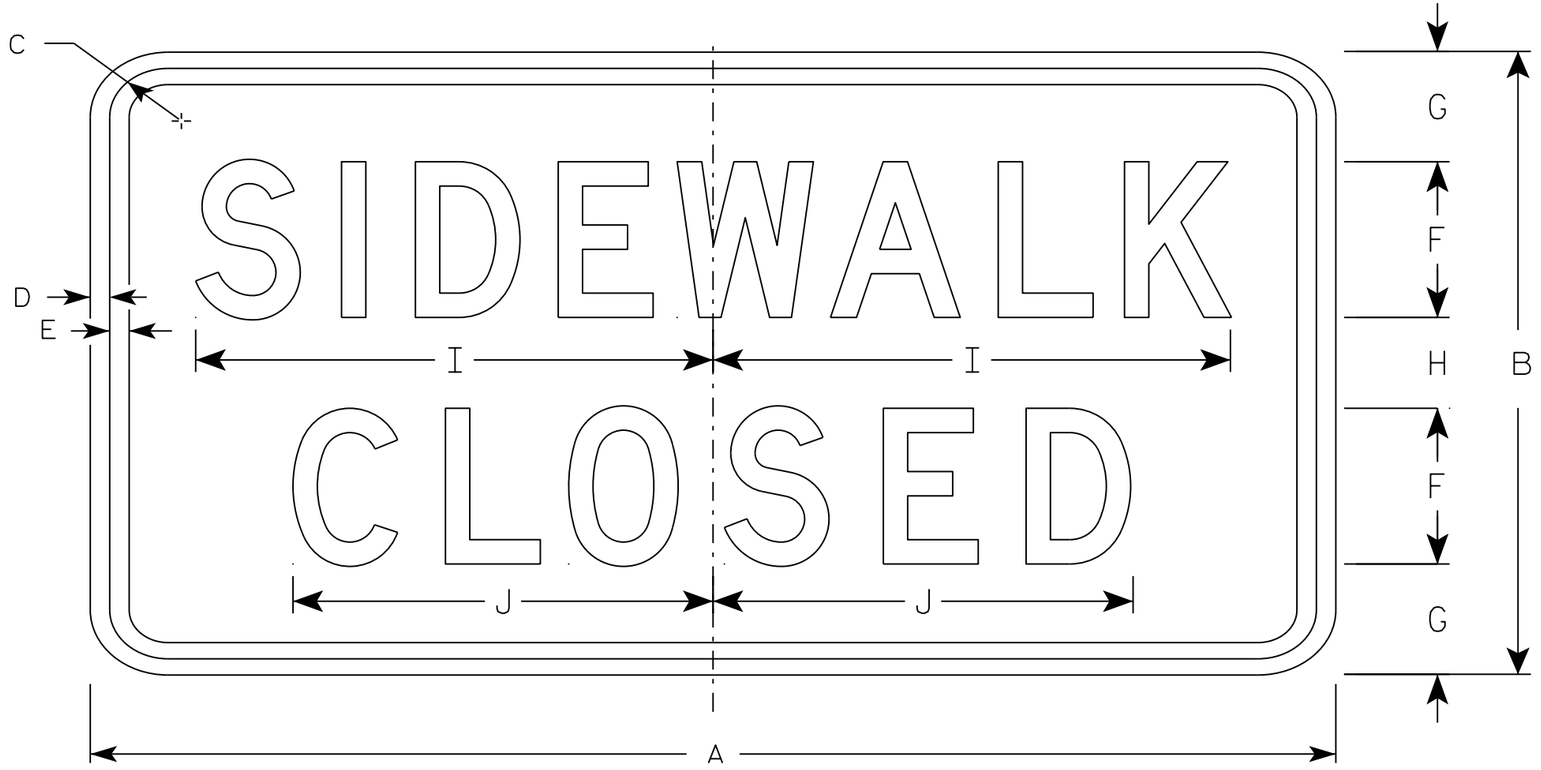
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 92	E



R9-9

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

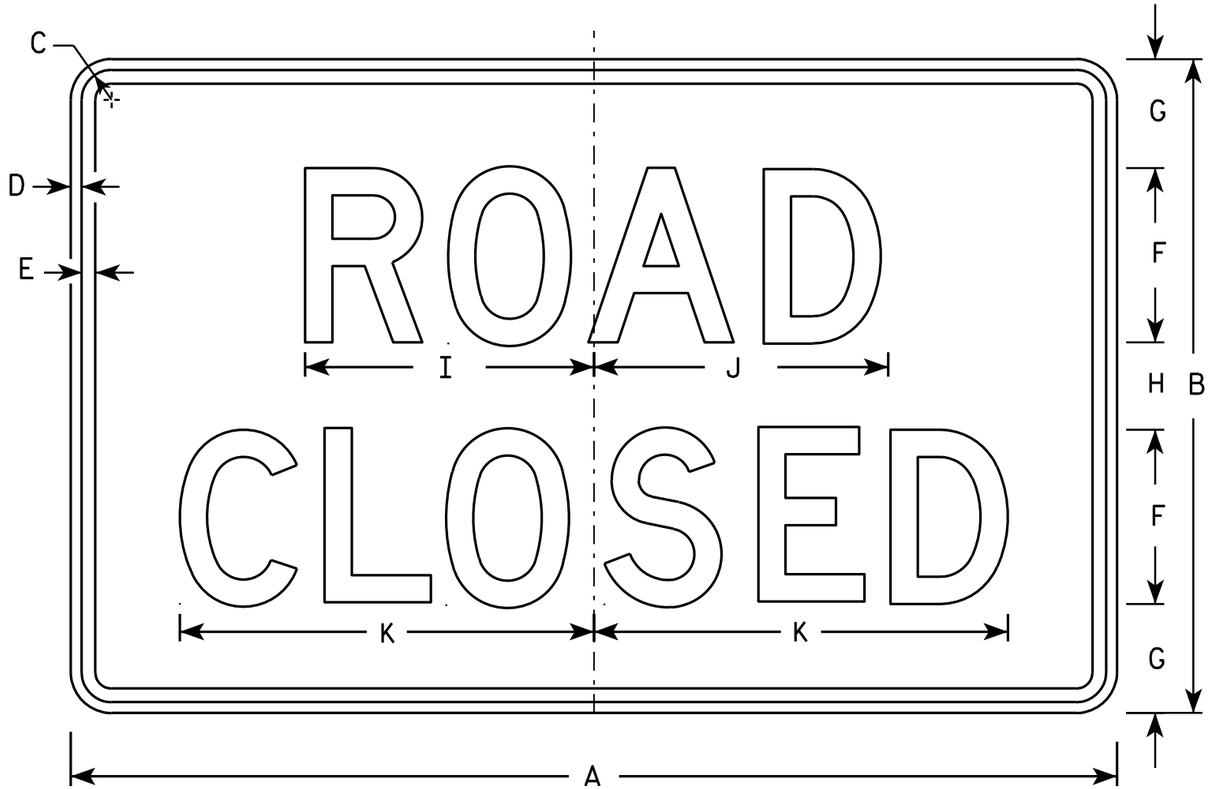
STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 93 R9-9.6

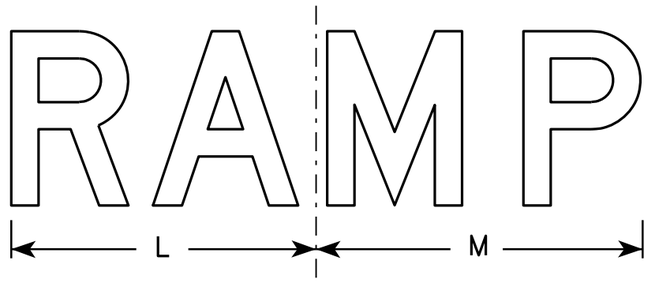
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



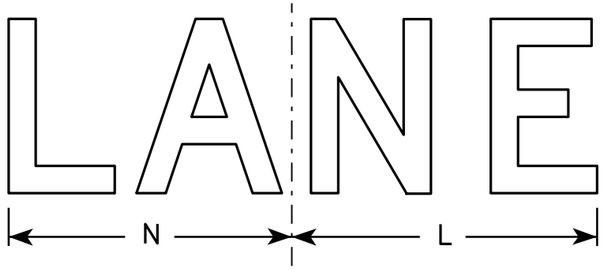
R11-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

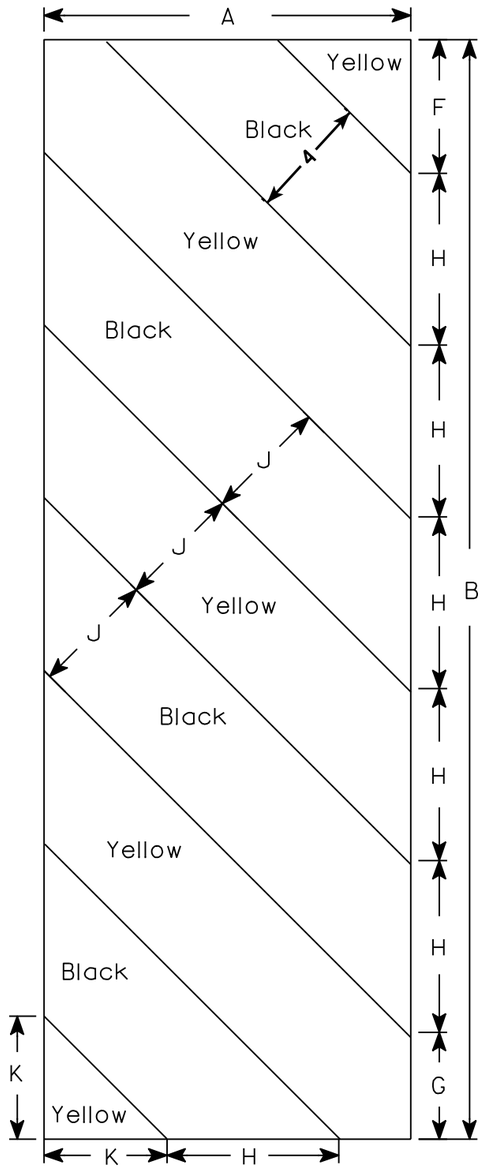
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

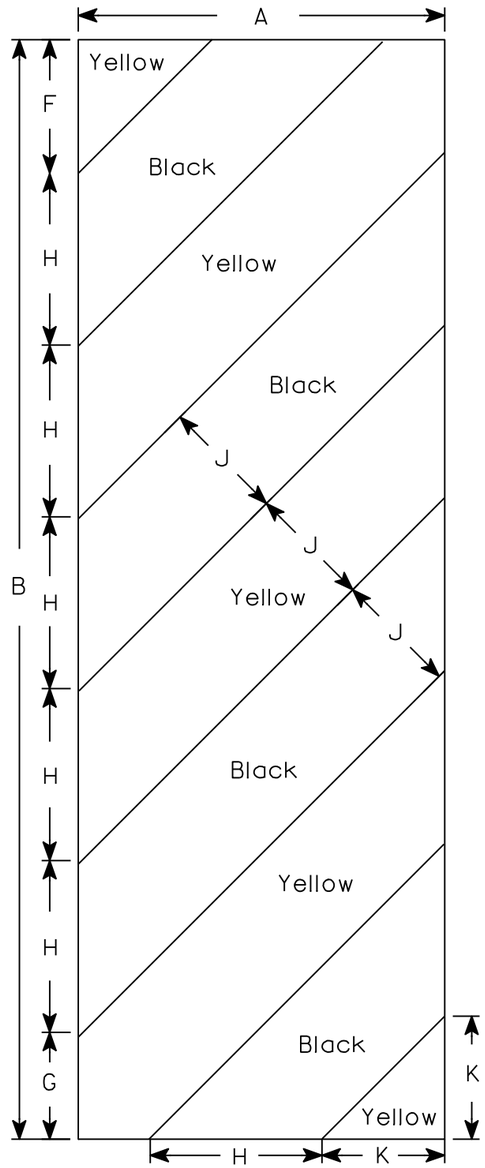
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 94	E



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

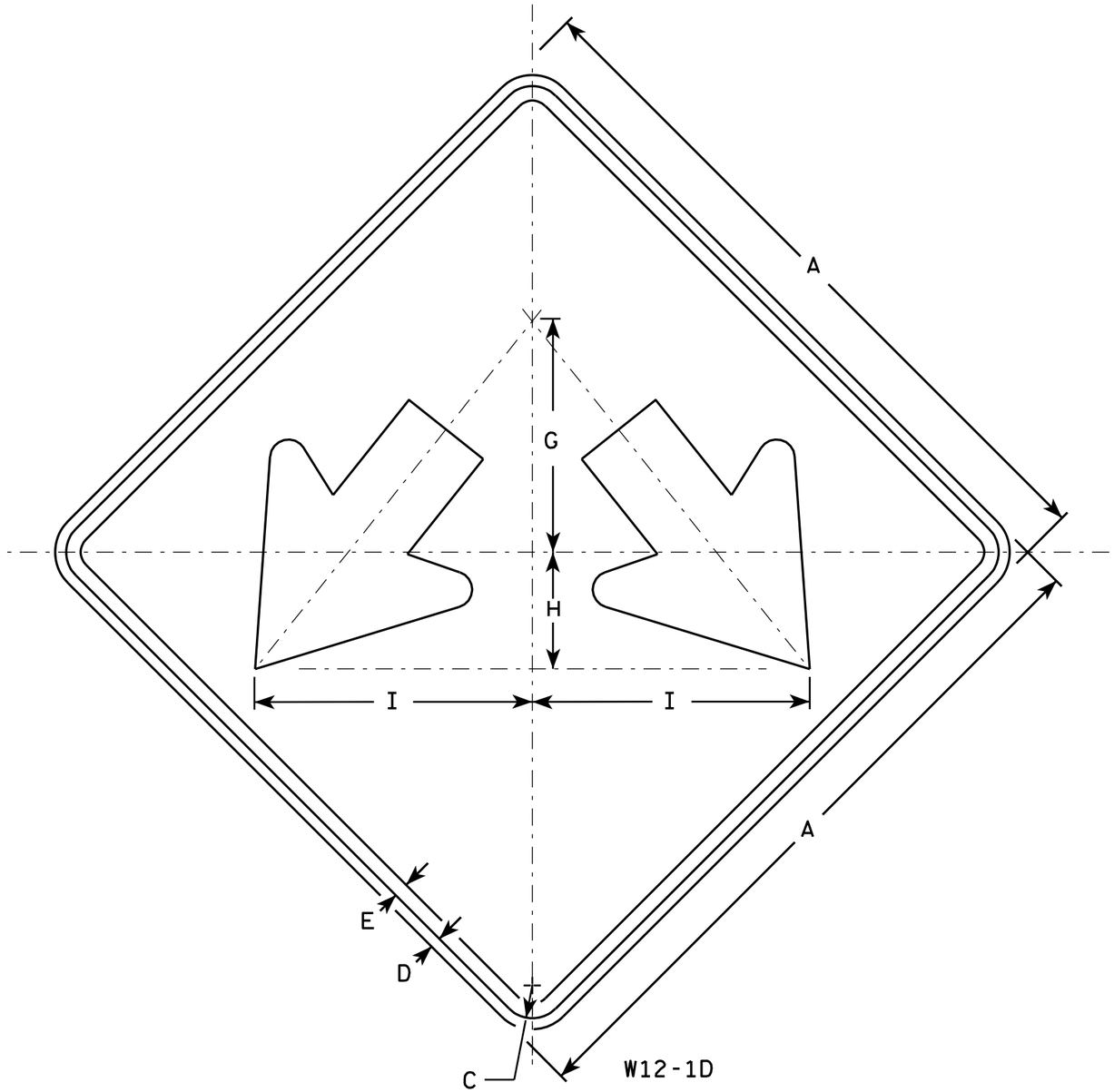
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 95	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W552.DGN PLOT DATE : 29-MAY-2012 13:03 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.961899:1.000000

WISDOT/CADDS SHEET 42

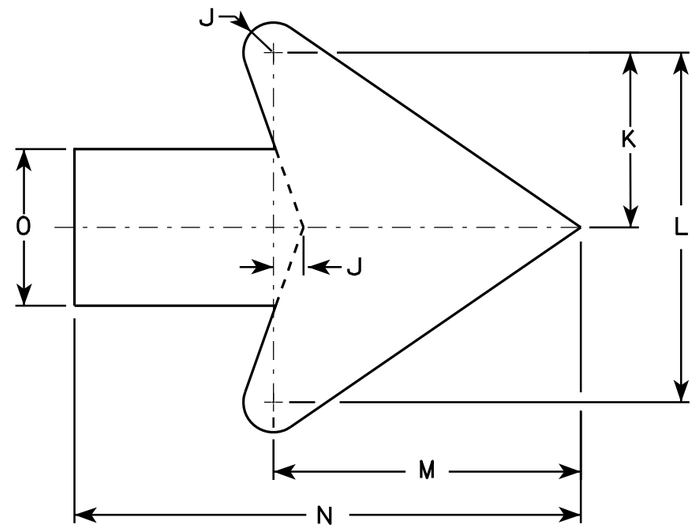
7

7



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

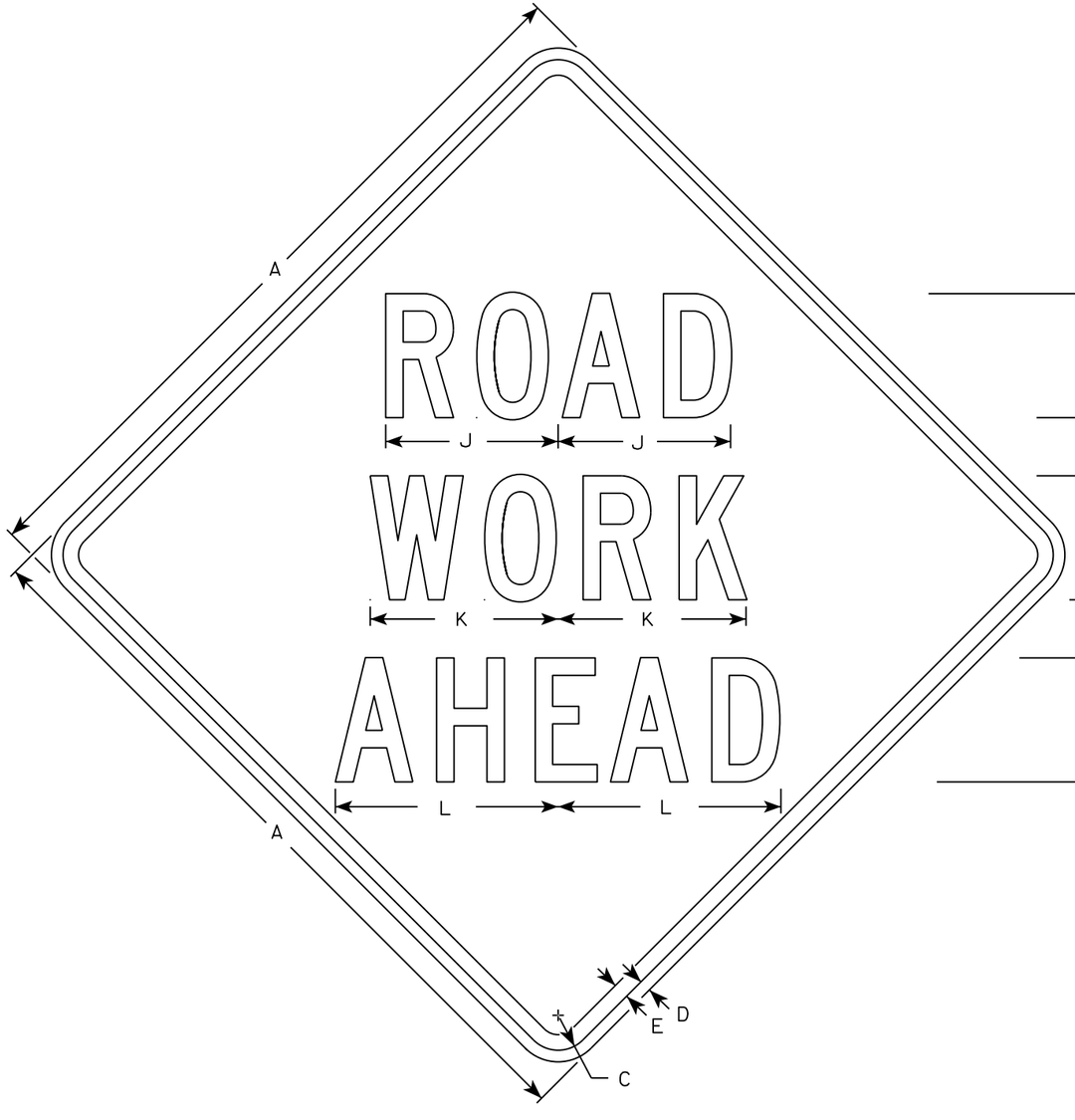
STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

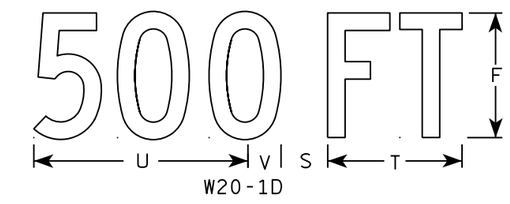
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

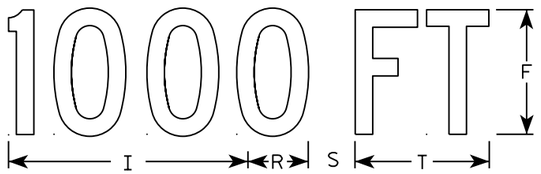
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 96	E



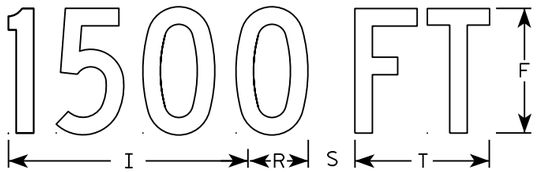
W20-1A



W20-1D

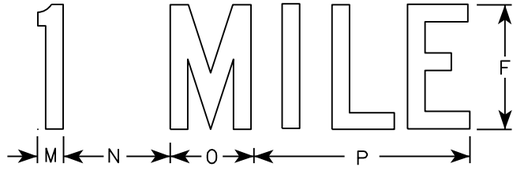


W20-1C

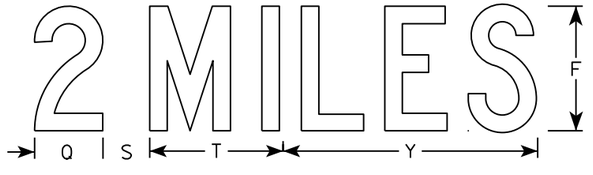


W20-1B

W20-1G



W20-1F



W20-1E

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

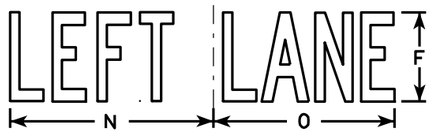
DATE 5/07/15 PLATE NO. W20-1.10

PROJECT NO:

SHEET NO: E

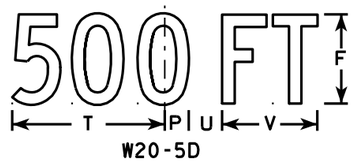
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$

W20-56A

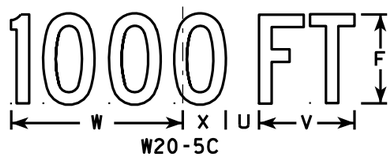


W20-55A

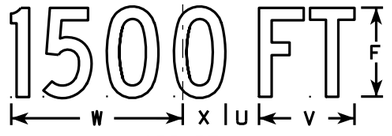
W20-5A



W20-5D



W20-5C



W20-5B

W20-5G

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

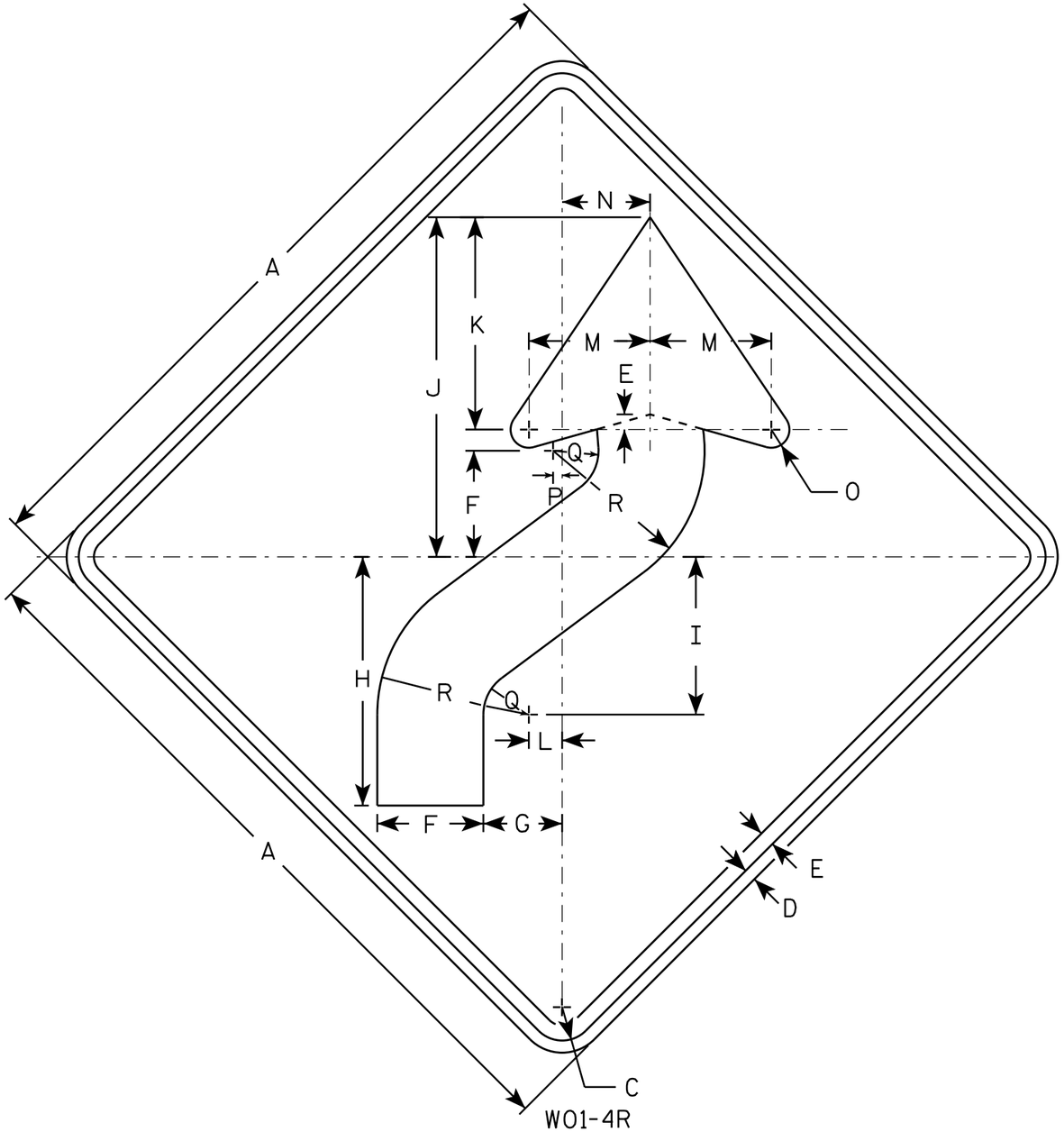
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 98 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

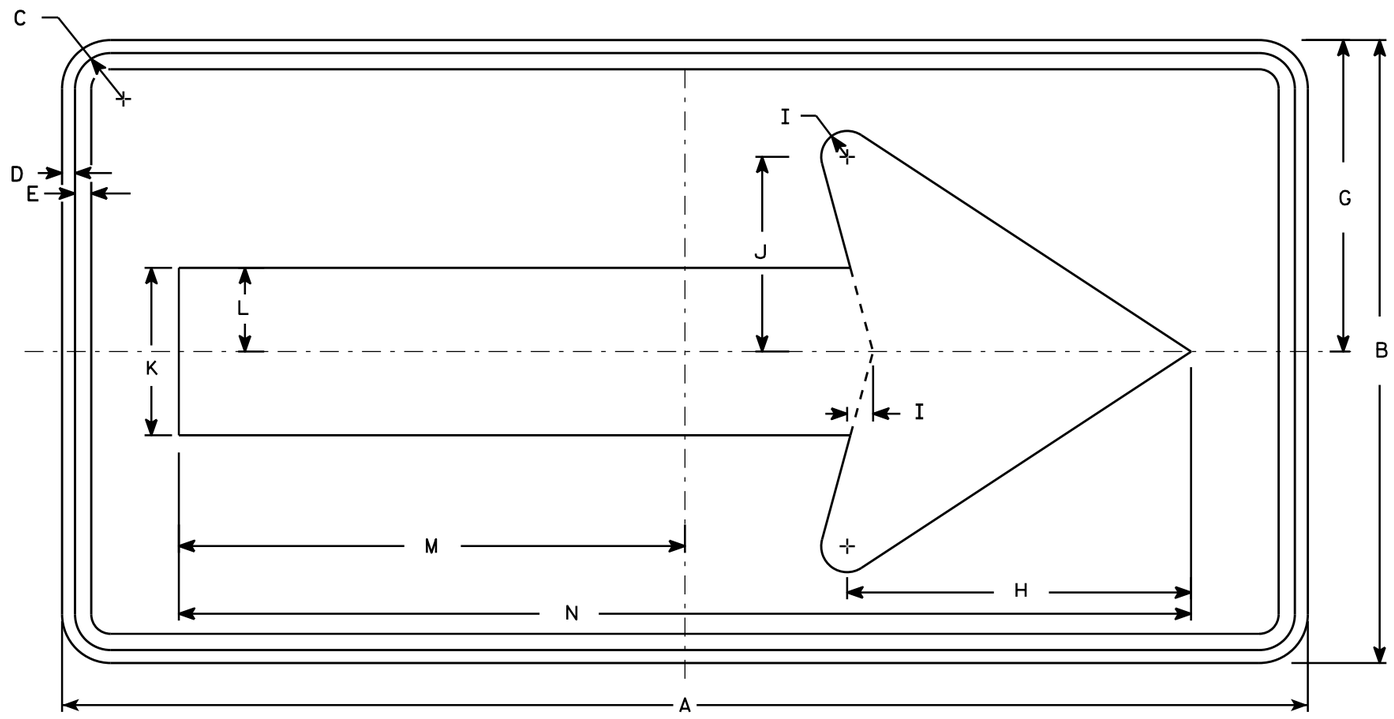
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000
WISDOT/CADDS SHEET 42



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

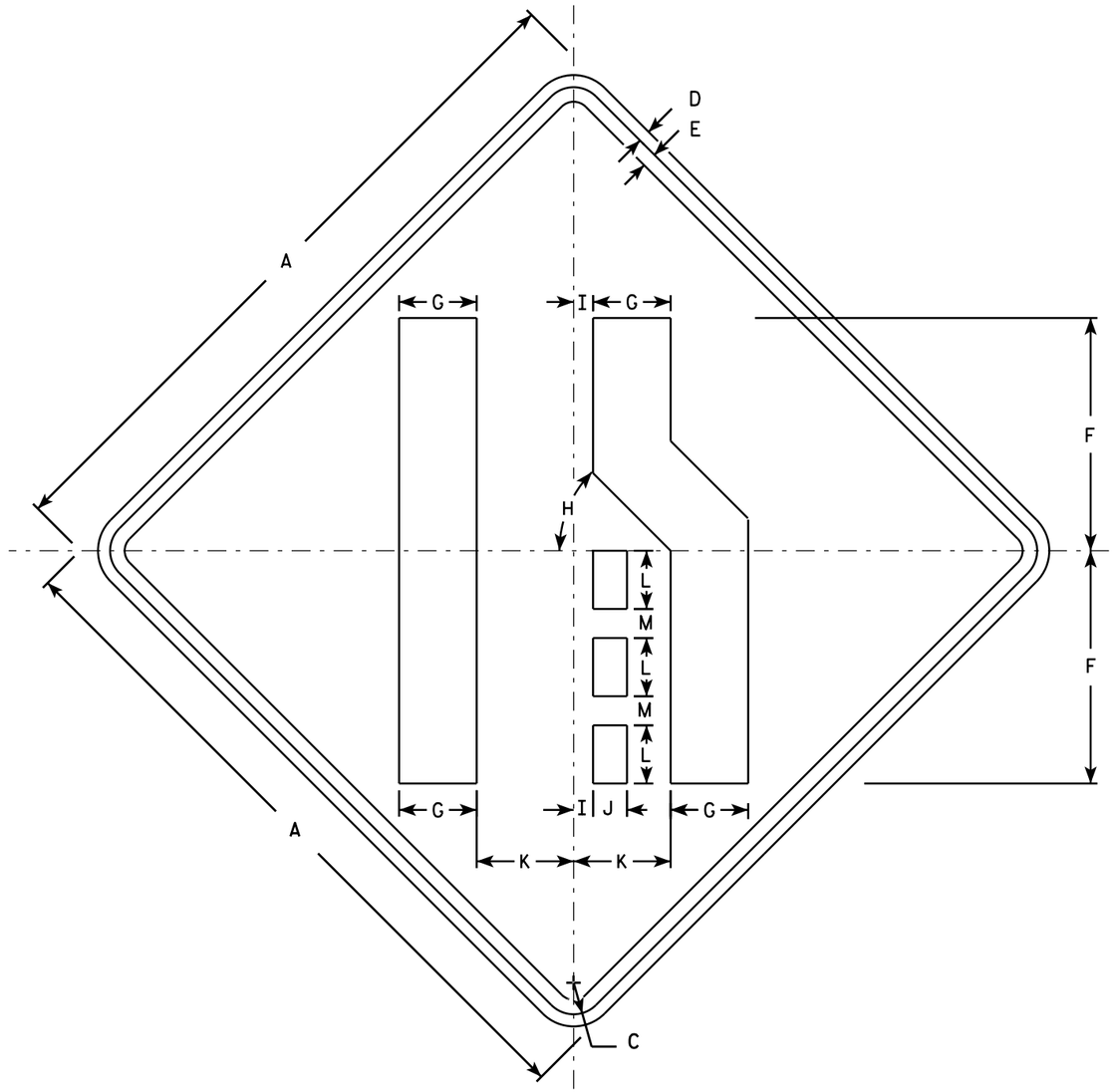
STANDARD SIGN
W01-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE W01-6.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

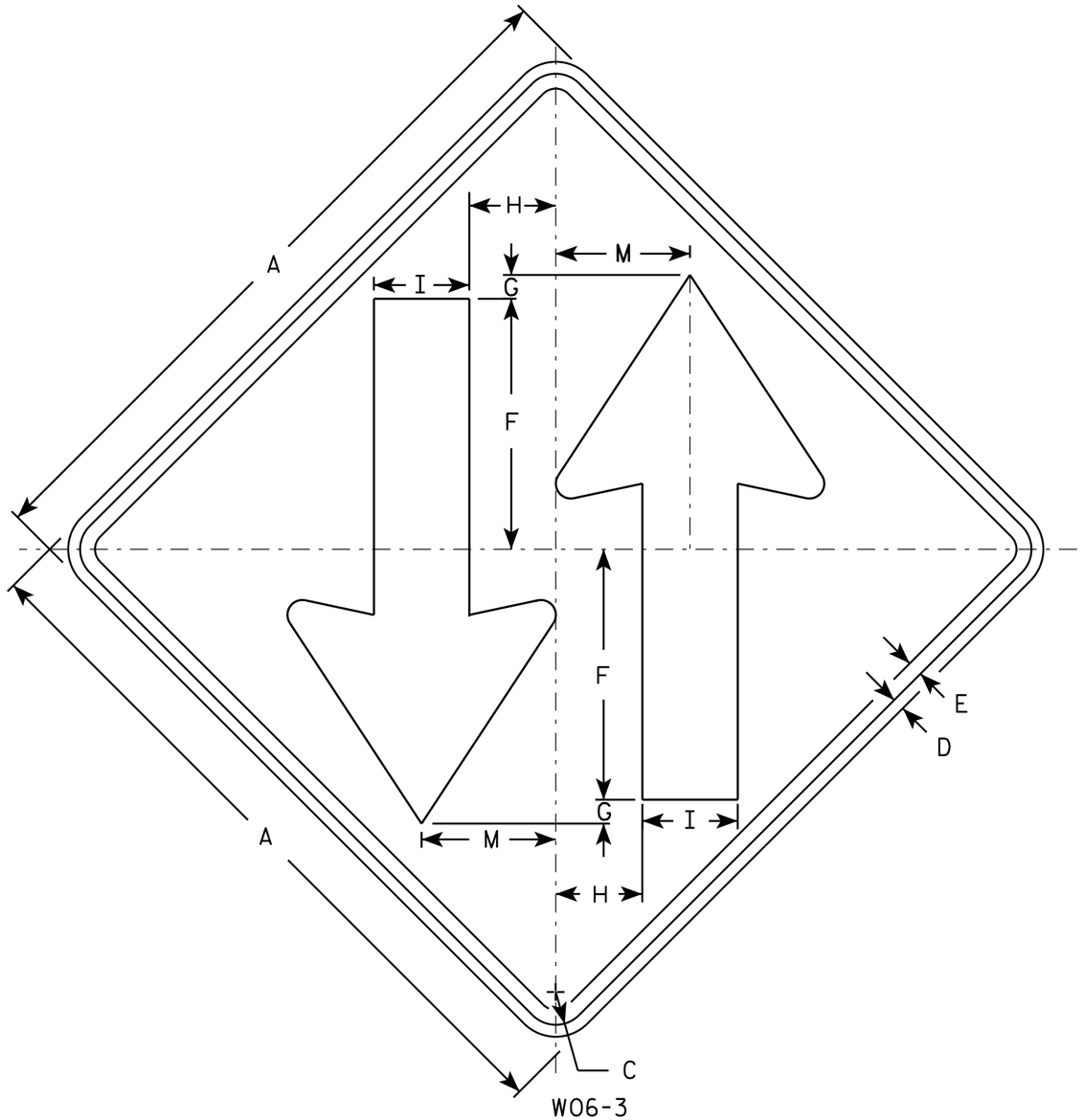
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 101 W04-2.1

PROJECT NO: | SHEET NO: E

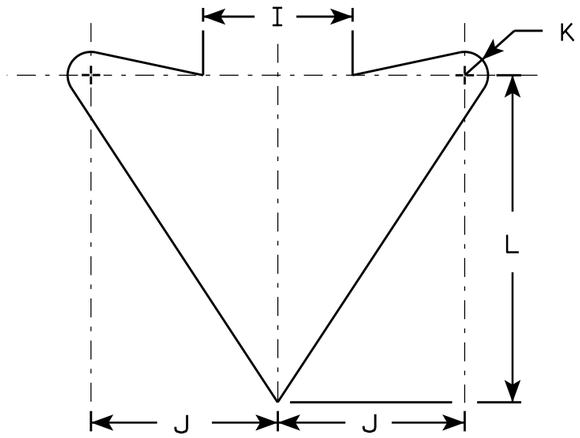
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W042.DGN PLOT DATE : 20-NOV-2013 11:43 PLOT BY : mscsja



W06-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
2S	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
2M	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
3	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
4	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
5	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0

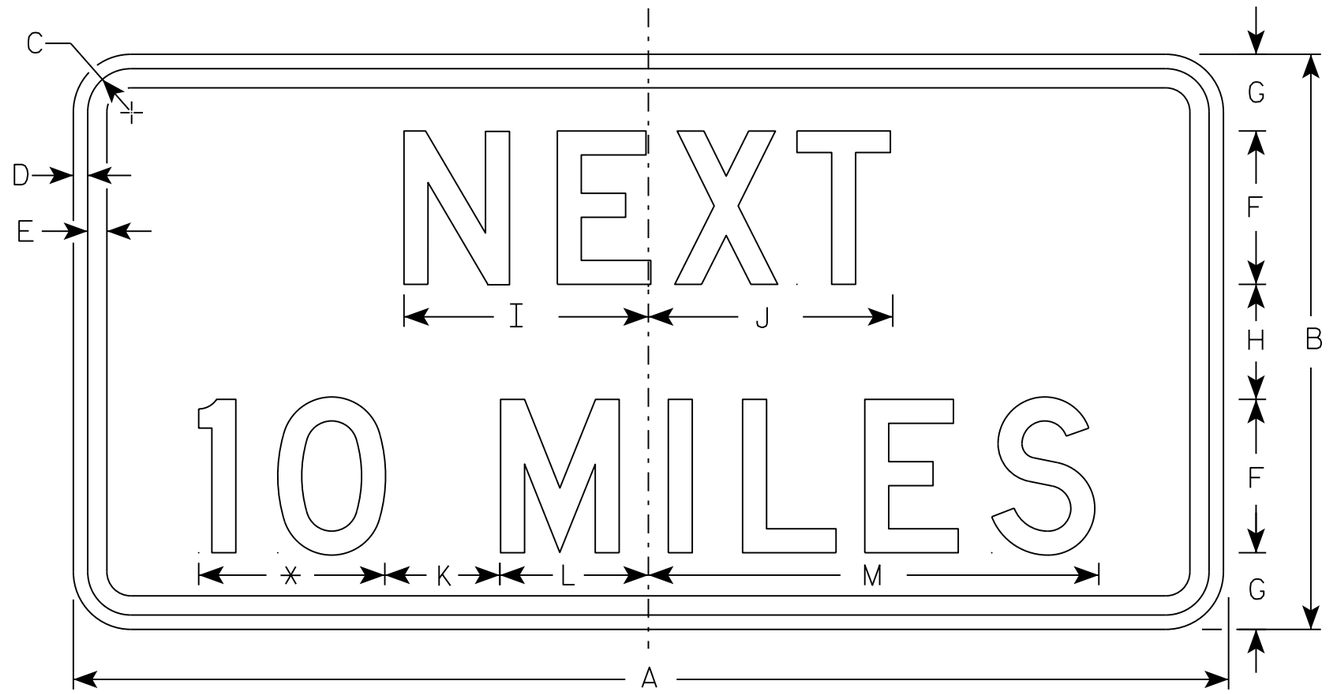
STANDARD SIGN
W06-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 102 W06-3.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W057-51

* See note 5

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Round distance to the 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	36	18	1 1/8	3/8	1/2	5	2 5/8	2 3/4	7 7/8	8	5	4 1/8	15 3/8														4.5
2S	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0
2M	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0
3	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0
4	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0
5	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0

STANDARD SIGN
W057-51

WISCONSIN DEPT OF TRANSPORTATION

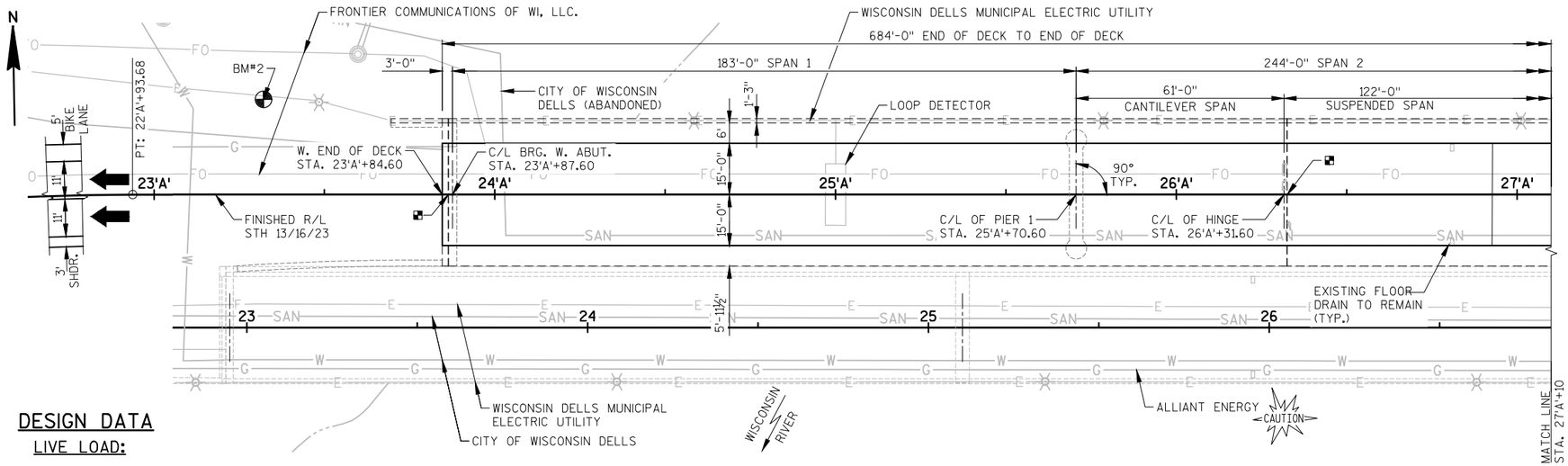
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/14/17 PLATE NO. W057-51.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 103	E

STATE PROJECT NUMBER

6131-00-61



LEGEND

■ JOINT REPAIR AND STRIP SEAL EXPANSION JOINT REQUIRED - SEE SHEET 4 FOR DETAILS.

CURVE 1 DATA

PI STA. = 30'A'+53.53
Y = 294,650.76
X = 641,082.33
R = 400.00
D = 14°19'26"
DELTA = 11°46'53"
L = 82.25
T = 41.27
C = 82.10
PC STA. = 30'A'+12.26
Y = 294,651.53
X = 641,041.06
PT STA. = 30'A'+94.51
Y = 294,658.44
X = 641,122.87

WISCONSIN
THOMAS J. ROMENESKO
E-26318
MADISON
WI
PROFESSIONAL ENGINEER
5/3/2017

DESIGN DATA

LIVE LOAD:

DESIGN LOADING	HS20
INVENTORY RATING	HS19
OPERATING RATING	HS33
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV)	250 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY - DECK PATCHING	f'c = 4,000 P.S.I.
HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy = 60,000 P.S.I.

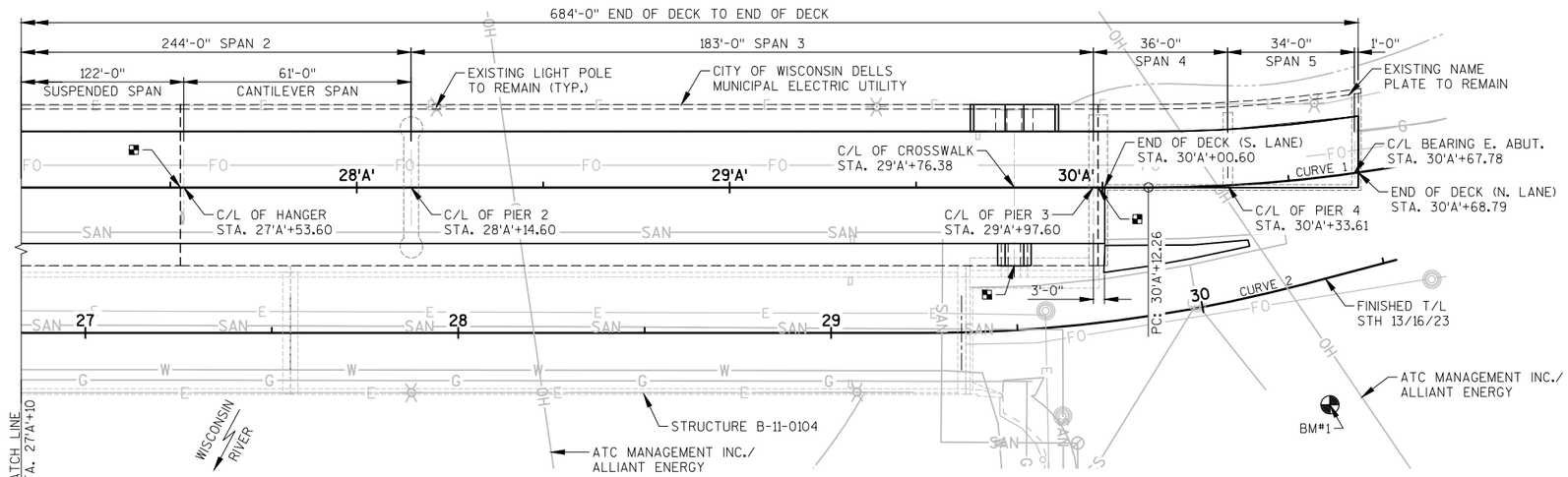
LIST OF DRAWINGS

TRAFFIC DATA

A.D.T. (2017)	19,600
A.D.T. (2037)	22,700
DESIGN SPEED	<25 M.P.H.

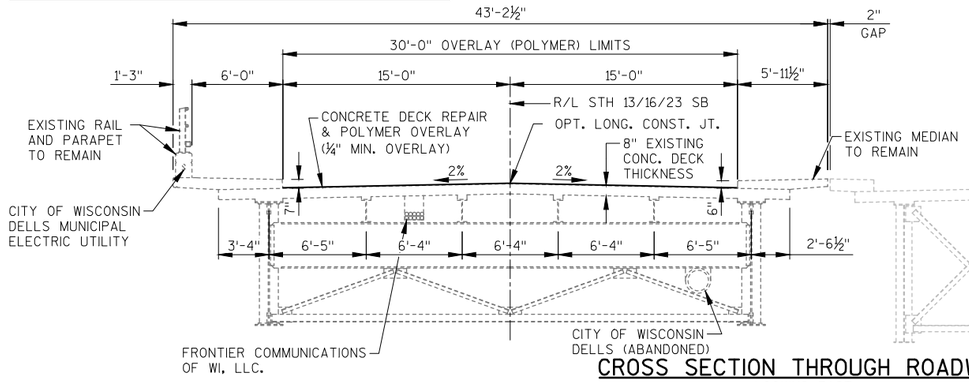
BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	30+27	¾" IRON ROD SET, 33.1' RT.	873.34
2	23+05	¾" IRON ROD SET, 66.9' LT.	873.48
3	20+45	¾" IRON ROD SET, 35.7' RT.	872.86



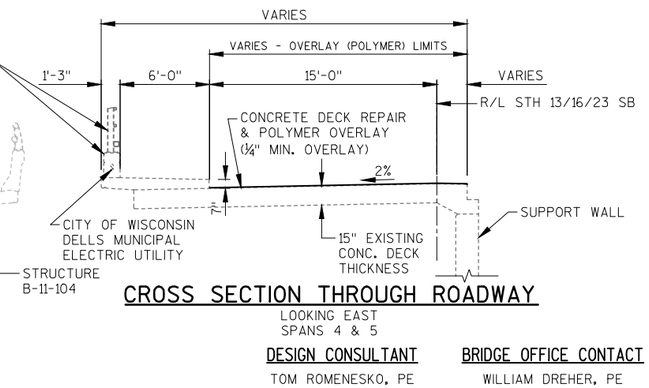
PLAN B-11-1

FIVE SPAN CONTINUOUS STEEL GIRDER/FLAT CONCRETE HAUNCHED SLAB STRUCTURE



CROSS SECTION THROUGH ROADWAY

LOOKING EAST
SPANS 1 - 3



CROSS SECTION THROUGH ROADWAY

LOOKING EAST
SPANS 4 & 5

NO.	DATE	REVISION	BY

JEWELL associates engineers, inc.
Engineers - Surveyors - Architects

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 05/04/17
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-11-1

SB STH 13/16/23 OVER WISCONSIN RIVER

COUNTY	SAUK & COLUMBIA
~~TOWN~~/CITY/~~VILLAGE~~	WISCONSN DELLS
DESIGN SPEC.	REHABILITATION N/A

DESIGNED BY	TJR	DESIGN CK'D.	PTB	DRAWN BY	DJT	PLANS CK'D.	PTB

GENERAL PLAN

SHEET 1 OF 8

104

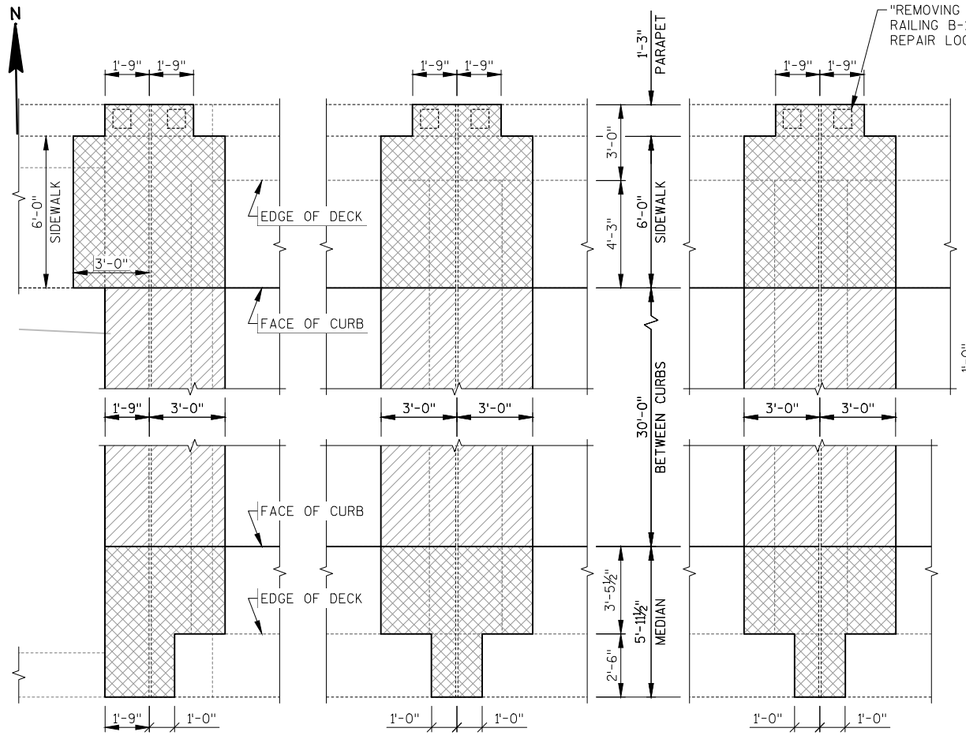
DESIGN CONSULTANT
TOM ROMENESKO, PE
(608) 588-7484

BRIDGE OFFICE CONTACT
WILLIAM DREHER, PE
(608) 266-8489

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\STRUCTURE\CAD FILES\FINALS\B-11-0001 (NORTH)\01 GENERAL PLAN.DWG
LAYOUT : GENERAL PLAN
PLOT DATE : 6/24/2015
PLOT TIME : 11:29:23 AM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

STATE PROJECT NUMBER

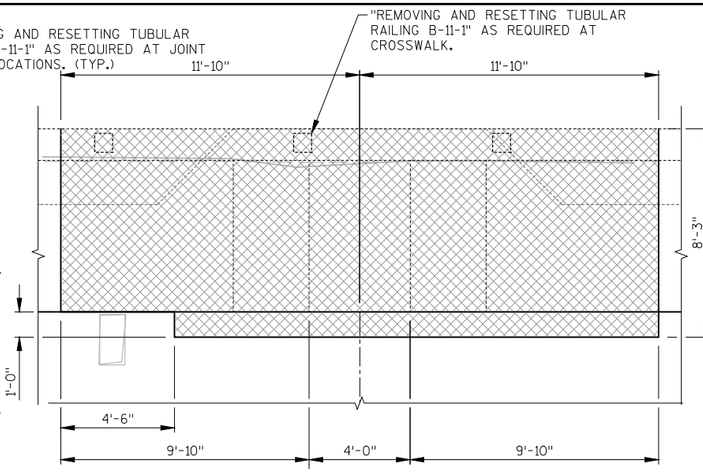
6131-00-61

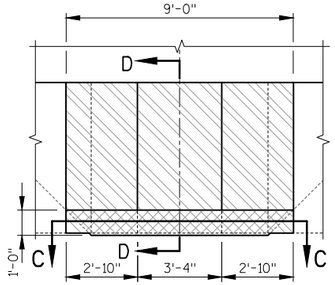


WEST ABUTMENT

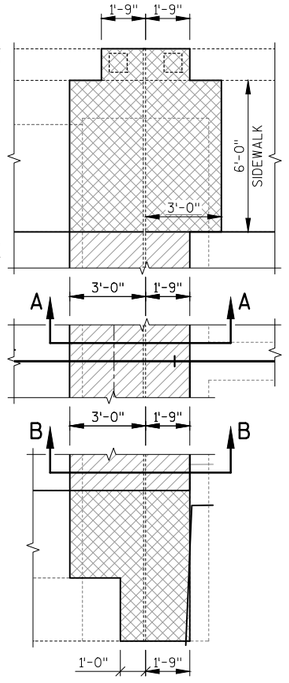
HINGE LOCATION

HANGER LOCATION



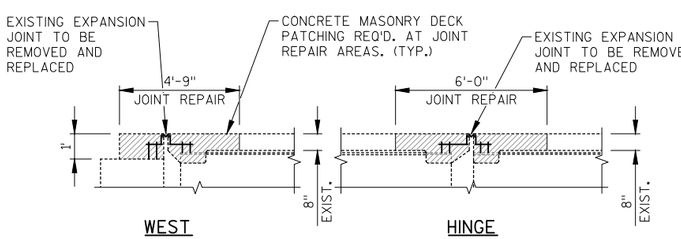


CROSSWALK LOCATION

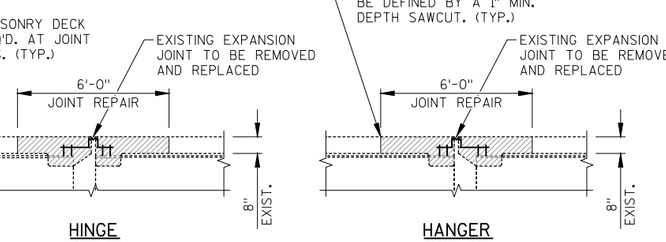


PIER 3

PARTIAL PLAN

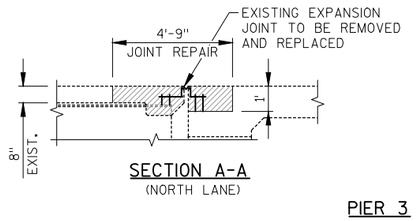


WEST ABUTMENT

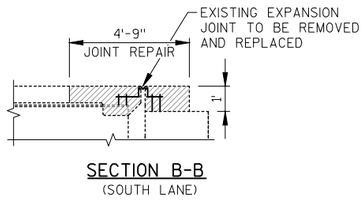


HINGE LOCATION

HANGER LOCATION



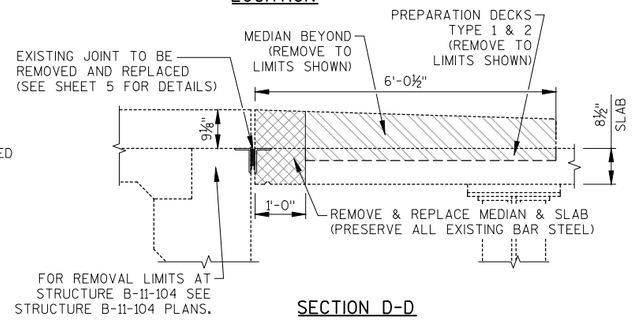
SECTION A-A
(NORTH LANE)



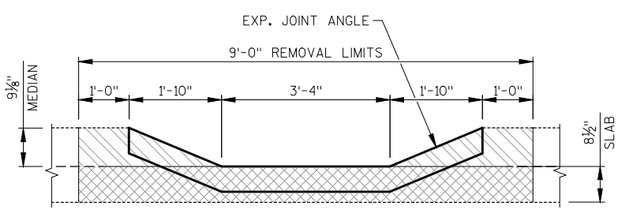
SECTION B-B
(SOUTH LANE)

PIER 3

PARTIAL LONGITUDINAL SECTION THROUGH DECK



SECTION D-D



SECTION C-C

PARTIAL LONGITUDINAL SECTION THROUGH DECK

SECTION THROUGH CROSSWALK

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED. BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS, INSPECTION REPORTS AND FIELD SURVEY.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" DEEP SAWCUT.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

AT "CURB REPAIR" EXPOSE EXISTING REINFORCEMENT A MINIMUM OF 1½" CLEAR.

EXISTING FLOOR DRAINS TO REMAIN IN PLACE.

EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID FOR IN THE LUMP SUM PRICE BID AS "EXPANSION DEVICE B-11-1".

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES".

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, FULL-DEPTH DECK REPAIR, AND JOINT REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION, FULL-DEPTH DECK REPAIRS, AND JOINT REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY DECK PATCHING".

CLEAN AND FILL EXISTING LONGITUDINAL AND TRANSVERSE CRACKS WITH PENETRATING EPOXY AS DIRECTED BY THE FIELD ENGINEER.

REPAIRS USING CONCRETE REQUIRE A MINIMUM CURE TIME OF 28 DAYS BEFORE PLACING OVERLAY.

PORTIONS OF EXISTING STRUCTURE (INCLUDING PARAPET) SHALL BE PROTECTED DURING BRIDGE REPAIR. DAMAGED CONDUIT SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE TOP OF DECK, SIDEWALKS, AND MEDIAN FOR NEW CONCRETE AREAS. PIGMENTED SURFACE SEALER IS TO BE APPLIED TO THE TOP AND INSIDE SURFACE OF THE PARAPET FOR NEW CONCRETE AREAS.

LEGEND

- REMOVAL LIMITS: SLAB & DIAPHRAGMS
- REMOVAL LIMITS: SLAB, DIAPHRAGMS, PARAPET, SIDEWALK, MEDIAN
- REMOVAL LIMITS: MEDIAN, PREPARATION DECKS TYPE 1 & 2

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-11-1

DRAWN BY DJT | PLANS CK'D. PTB

REMOVAL DETAILS & NOTES

SHEET 2 OF 8

8

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\STRUCTURE\CAD FILES\FINALS\B-11-0001 (NORTH)\02 REMOVAL DETAILS.DWG
LAYOUT : REMOVAL DETAILS & NOTES

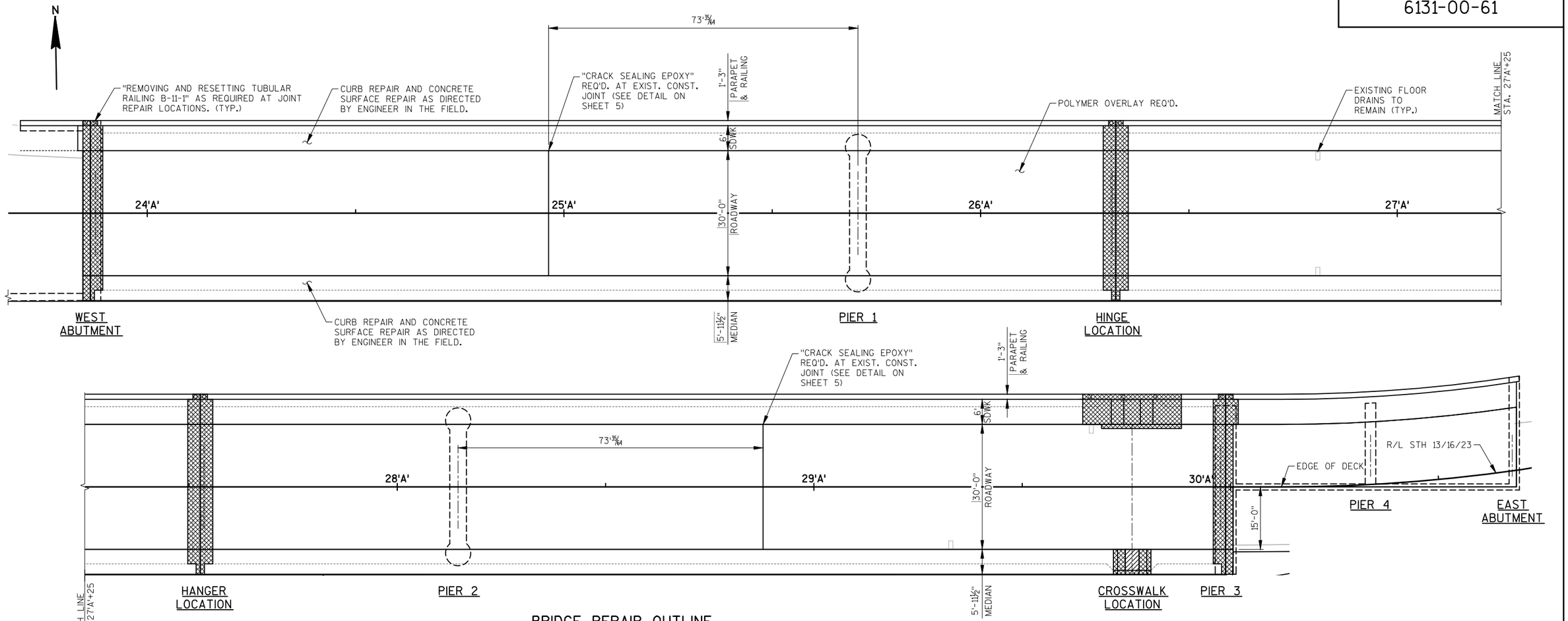
PLOT DATE : 6/24/2015
PLOT TIME : 11:29:23 AM

PLOT BY : TOM ROMENESKO

PLOT SCALE : 1" = 1'

STATE PROJECT NUMBER

6131-00-61



BRIDGE REPAIR OUTLINE

PROPOSED REPAIR AREAS

FIELD OBSERVATION SUMMARY	STRUCTURE NO. B-11-1		
ITEM	UNIT	QUANTITY	%
TOTAL AREA	SY	2,172	100
DELAMINATED AREA	SY	0	0.0
PREPARATION DECKS TYPE 1	SY	3	0.0
PREPARATION DECKS TYPE 2	SY	3	0.0

LEGEND

- DECK PREPARATION AREA
- DECK RECONSTRUCTION AREA

NOTES:

DECK PREPARATION AREAS WITHIN THE JOINT REPAIR LIMITS ARE COVERED UNDER JOINT REPAIR. ENGINEER TO VERIFY REPAIR AREAS. DECK REPAIRS SHALL BE MADE ONLY AS DIRECTED BY ENGINEER IN THE FIELD.

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	TOTALS
203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-11-1	LS	1
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 26'A'+93	LS	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	160
502.0100	CONCRETE MASONRY BRIDGES	CY	15
502.0717.S	CRACK SEALING EPOXY	LF	60
502.3100	EXPANSION DEVICE B-11-1	LS	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	55
502.3210	PIGMENTED SURFACE SEALER	SY	15
502.4205	ADHESIVE ANCHORS NO. 5 BARS	EACH	52
502.4206	ADHESIVE ANCHORS NO. 6 BARS	EACH	10
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	9250
509.0301	PREPARATION DECKS TYPE 1	SY	3
509.0302	PREPARATION DECKS TYPE 2	SY	3
509.1000	JOINT REPAIR	SY	110
509.1200	CURB REPAIR	LF	10
509.1500	CONCRETE SURFACE REPAIR	SF	10
509.2000	FULL-DEPTH DECK REPAIR	SY	1
509.5100.S	POLYMER OVERLAY	SY	2180
513.9005.S	REMOVING AND RESETTING TUBULAR RAILING B-11-1	LS	1
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	5
602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	20
SPV.0035.01	CONCRETE MASONRY DECK PATCHING	CY	38
SPV.0090.01	SAWING PAVEMENT DECK PREPARATION AREAS	LF	30

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-11-1

DRAWN BY DJT | PLANS CK'D. PTB

REPAIR OUTLINE & QUANTITIES

SHEET 3 OF 8

106

8

8

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\STRUCTURE\CAD FILES\FINALS\B-11-0001 (NORTH)\02 REMOVAL DETAILS.DWG
LAYOUT : REPAIR OUTLINE & QUANTITIES

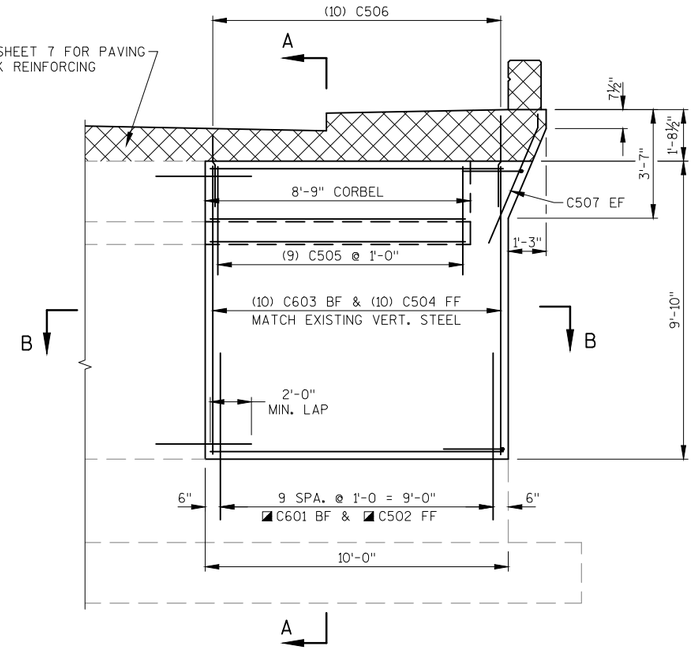
PLOT DATE : 6/24/2015
PLOT TIME : 11:29:23 AM

PLOT BY : TOM ROMENESKO

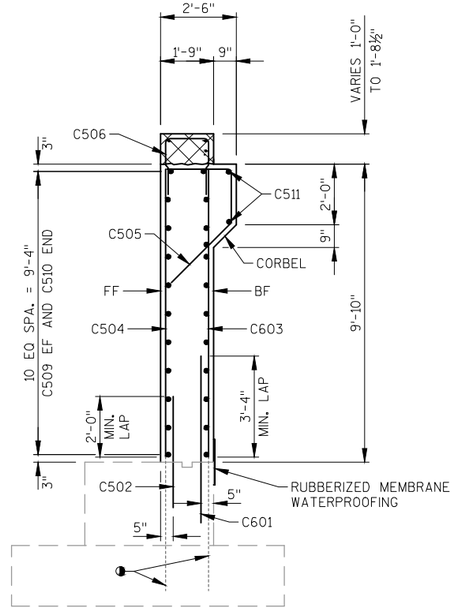
PLOT SCALE : 1" = 1'

STATE PROJECT NUMBER

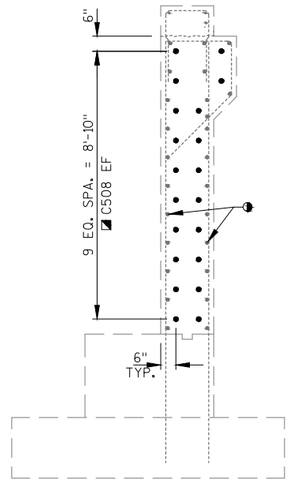
6131-00-61



ABUTMENT BACKWALL ELEVATION



SECTION A–A



SECTION AT REMOVAL LINE

LEGEND

◑ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE 2'–0" OF BARS INTO NEW WORK WHEREVER POSSIBLE.

◪ ADHESIVE ANCHORS NO. 6 BARS (EMBED 1'–10" INTO CONCRETE) AND NO. 5 BARS (EMBED 1'–6" INTO CONCRETE). SPACE AS SHOWN.

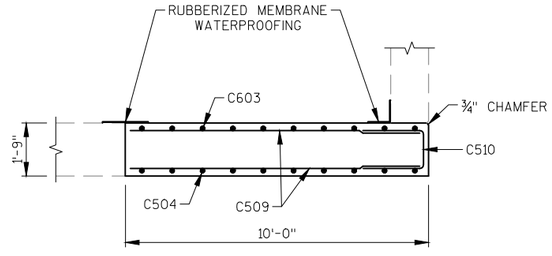
PAVING BLOCK LIMITS. SEE SHEET 7 FOR REINFORCING STEEL DETAILS.

BILL OF BARS — 870 LB (COATED)

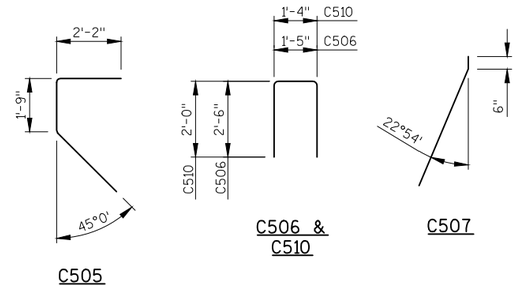
	BAR MARK	NO. REQ'D.	LENGTH	BENT	LOCATION
◪	C601	10	5-4		BACKWALL - VERT. - BF
◪	C502	10	3-8		BACKWALL - VERT. - FF
	C603	10	9-6		BACKWALL - VERT. - BF
	C504	10	9-6		BACKWALL - VERT. - FF
	C505	9	6-5	X	BACKWALL - VERT. - CORBEL
	C506	10	6-2	X	BACKWALL - VERT. - TOP
	C507	2	4-8	X	BACKWALL - VERT. END - EF
◪	C508	20	3-8		BACKWALL - HORIZ. - EF
	C509	22	9-8		BACKWALL - HORIZ. - EF
	C510	11	5-1	X	BACKWALL - HORIZ. - EF
	C511	2	8-5		BACKWALL - HORIZ. - CORBEL

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



SECTION B–B



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-11-1

DRAWN BY DJT | PLANS CK'D. PTB

ABUTMENT REPAIR

SHEET 4 OF 8

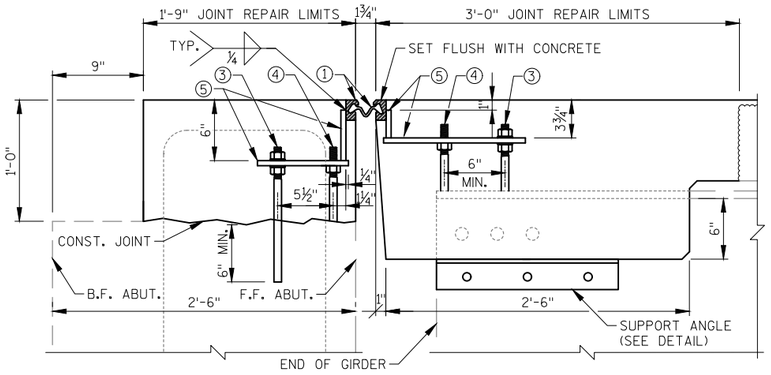
8

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\STRUCTURE\CAD FILES\FINALS\B-11-0001 (NORTH)\02 REMOVAL DETAILS.DWG
LAYOUT : ABUTMENT REPAIR

PLOT DATE : 6/24/2015
PLOT TIME : 11:29:23 AM

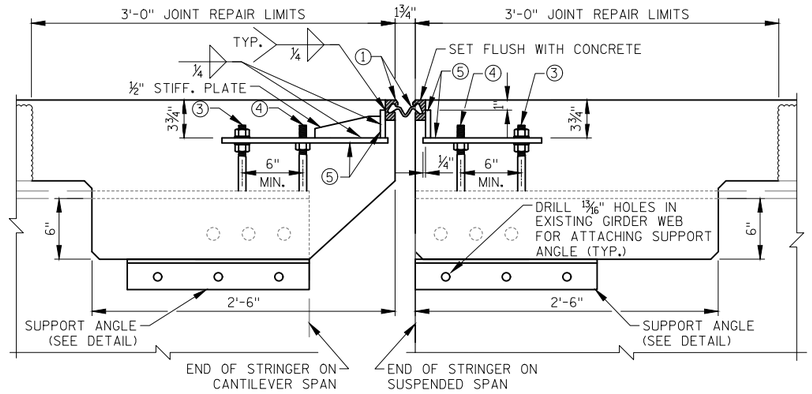
PLOT BY : BOLAND, PATRICK

PLOT SCALE : 1" = 1'



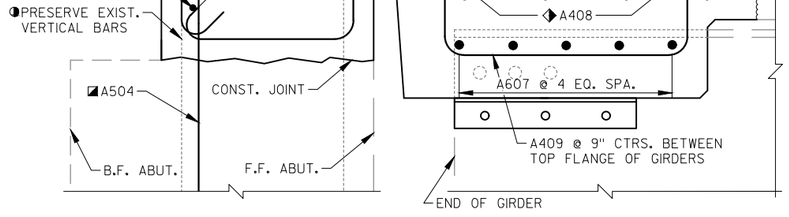
TYPICAL SECTION THRU JOINT AT WEST ABUT.

(WEST ABUT. JOINT SHOWN, PIER 3 JOINT SIMILAR)
(EXPANSION JOINT ASSEMBLY SHOWN)



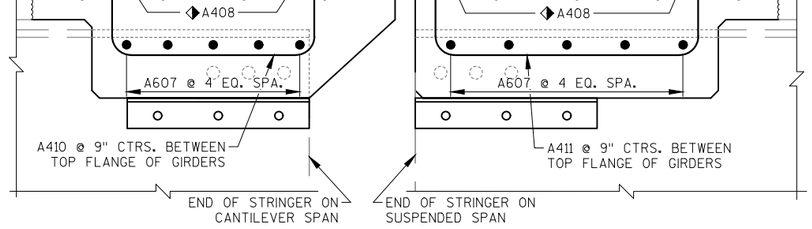
TYPICAL SECTION THRU JOINT AT HINGE & HANGER

(EXPANSION JOINT ASSEMBLY SHOWN)



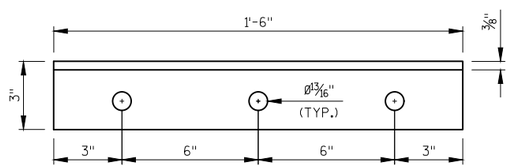
TYPICAL SECTION THRU JOINT AT WEST ABUT.

(WEST ABUT. JOINT SHOWN, PIER 3 JOINT SIMILAR)
(BAR STEEL REINFORCEMENT SHOWN)

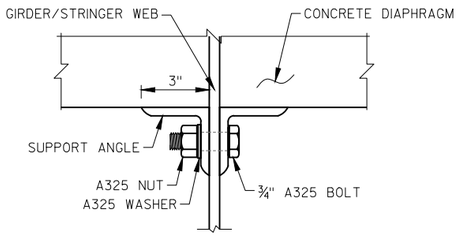


TYPICAL SECTION THRU JOINT AT HINGE & HANGER

(BAR STEEL REINFORCEMENT SHOWN)



SUPPORT ANGLE DETAIL



SUPPORT ANGLE ASSEMBLY

STATE PROJECT NUMBER

6131-00-61

LEGEND

① NEOPRENE STRIP SEAL (4–INCH) & STEEL EXTRUSIONS. SET JOINT OPENING AT 1¾".

③ ¾" DIA. THREADED ROD WITH 2 NUTS AND WASHERS. FOR STEEL GIRDERS, 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. FIELD OR SHOP WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY–COATING MATERIAL. PROVIDE 1½" HOLE FOR NO. 3 & 1" DIA. HOLE FOR NO. 4.

◑ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY ◪

◪ ADHESIVE ANCHORS NO. 5 BARS. EMBED 1'–6" INTO CONCRETE. SPACE AT 1'–0". TURN 10" LEG AS NECESSARY TO FIT. ESTIMATED AT 25% REPLACEMENT RATE.

◆ SET BARS SAME LENGTH AS HORIZONTAL DIAPHRAGM BARS AT BOTTOM OF DIAPHRAGM.

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. IF USED, 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 & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING THE PLATES & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM #8 & #9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B–11–0001".

DIAPHRAGM SUPPORT ANGLES SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A 325 TYPE 1.

ALL SUPPORT ANGLES SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

ALL DIAPHRAGM SUPPORT HARDWARE SHALL BE INCIDENTAL TO "CONCRETE MASONRY BRIDGES".

USE A 2'-7" MIN. LAP FOR ALL TRANSVERSE STEEL (A505).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-11-1

DRAWN BY DJT | PLANS CK'D. PTB

EXPANSION JOINT DETAILS

SHEET 5 OF 8

8

8

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\STRUCTURE\CAD FILES\FINALS\B-11-0001 (NORTH)\05 JOINT DETALS.DWG
LAYOUT : EXPANSION JOINT DETAILS

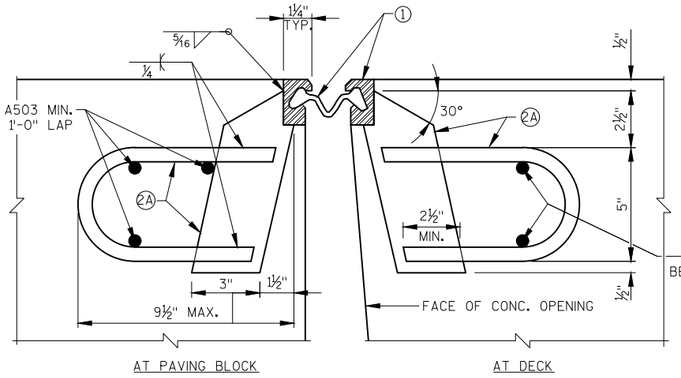
PLOT DATE : 1/23/2017
PLOT TIME : 1:33:04 PM

PLOT BY : BOLAND, PATRICK

PLOT SCALE : 1" = 1'

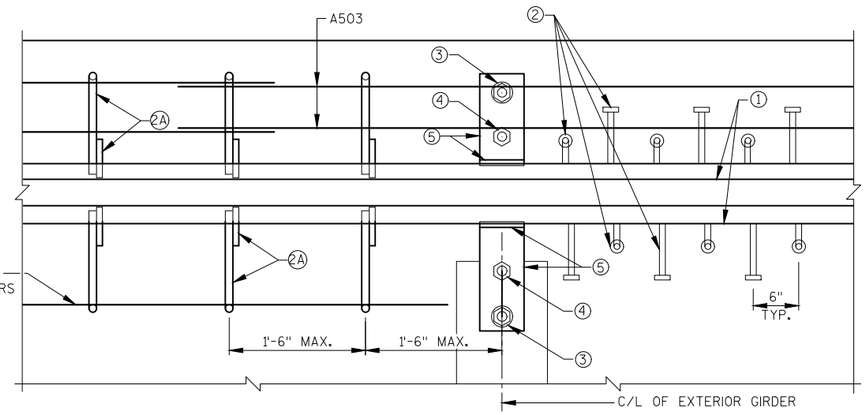
STATE PROJECT NUMBER

6131-00-61

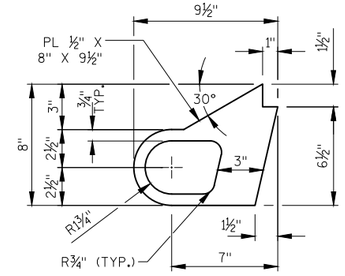


SECTION THRU JOINT

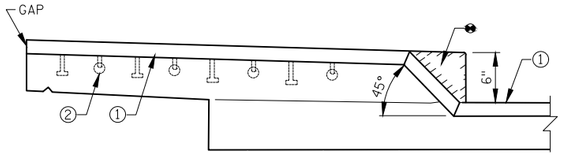
ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS



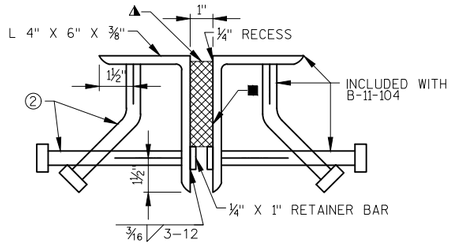
PART PLAN



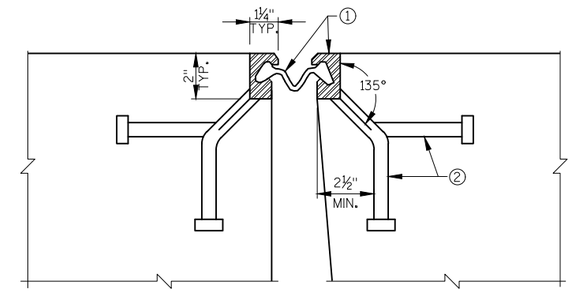
ALTERNATE STRIP SEAL ANCHOR



SECTION AT MEDIAN

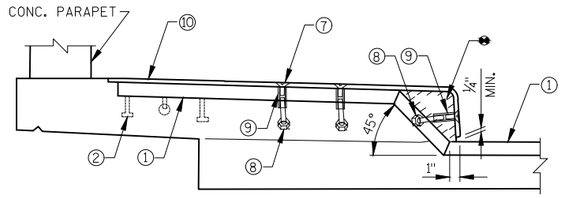


EXPANSION JOINT DETAIL AT CROSSWALK

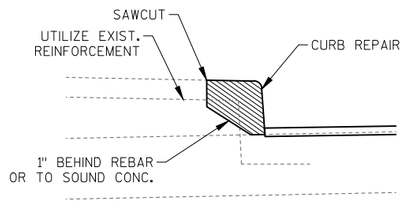


SECTION THRU JOINT

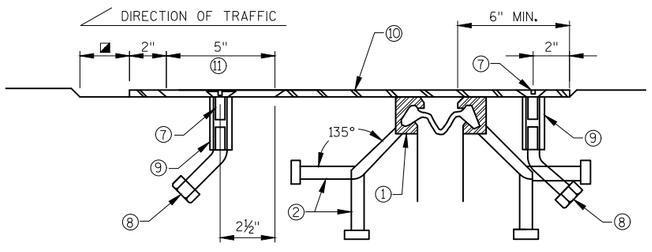
EXTERIOR GIRDER TO EDGE OF DECK, AND AT PARAPETS, MEDIANS, AND SIDEWALKS



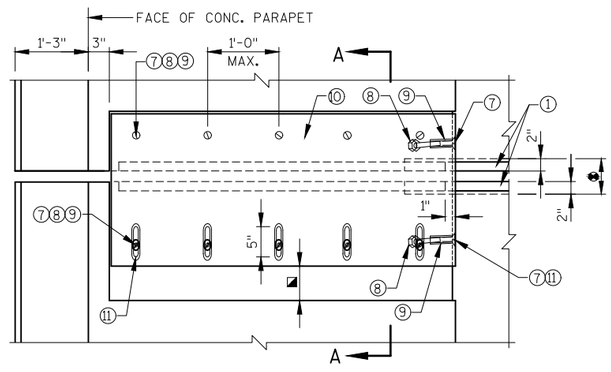
SECTION AT SIDEWALK



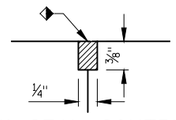
CURB REPAIR DETAIL



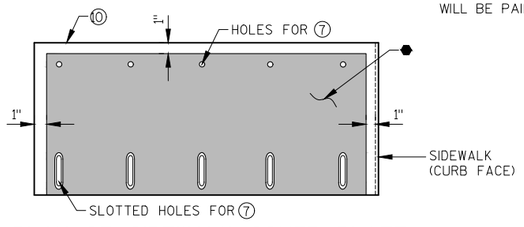
SECTION A-A



PLAN AT SIDEWALK



CRACK SEAL CONTRUCTION JOINT DETAIL



PLAN OF SIDEWALK COVER PLATE WITH SLIP-RESISTANT SURFACE

LEGEND

① NEOPRENE STRIP SEAL (4–INCH) & STEEL EXTRUSIONS. SET JOINT OPENING AT 1¾".

② STUDS ⅝" DIA. X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.

2A ½" THICK STRIP SEAL ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO #1 AT 1'–6" CENTERS BETWEEN GIRDERS.

③ ¾" DIA. THREADED ROD WITH 2 NUTS AND WASHERS. FOR STEEL GIRDERS, 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. FIELD OR SHOP WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY–COATING MATERIAL. PROVIDE 1½" HOLE FOR NO. 3 & 1" DIA. HOLE FOR NO. 4.

⑦ ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI–SEIZE LUBRICANT. 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 SIDEWALK COVER PLATE ⅜" X 2'–0" WIDE X LIMITS SHOWN. BEND DOWN FACE OF SIDEWALK WITH HOLES FOR NO. 7. GALVANIZE PLATE AFTER SLIP–RESISTANT SURFACE IS APPLIED.

⑪ 1" X 5" SLOTTED CSK. HOLE FOR NO. 7. SLOT PARALLEL TO DIRECTION OF MOVEMENT.

◆ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◪ JOINT OPENING DIM. PLUS ½".

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

◭ DEPARTMENT APPROVED PREFORMED NEOPRENE SEAL. INCLUDED WITH B–11–104.

■ AFTER BLAST CLEANING AND PRIOR TO SHOP PAINTING, COAT THIS AREA WITH A PLASTIC OR OTHER APPROVED COATING. REMOVE PLASTIC AND INSTALL SEAL AGAINST CLEAN BARE METAL.

◆ ROUTE OUT ¼" X ⅜" DEEP AT JOINT. FILL IN WITH LOW VISCOSITY CRACK SEALER PER THE APPROVED PRODUCTS LIST

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. IF USED, 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 & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING THE PLATES & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM #8 & #9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B–11–1".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-11-1

DRAWN BY DJT | PLANS CK'D. PTB

CONSTRUCTION DETAILS

SHEET 6 OF 8

8

8

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\STRUCTURE\CAD FILES\FINALS\B-11-0001 (NORTH)\05 JOINT DETALS.DWG
LAYOUT : CONSTRUCTION DETAILS

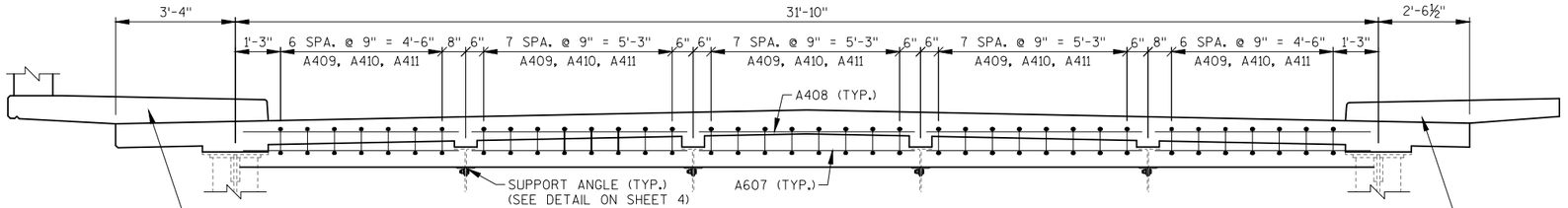
PLOT DATE : 1/23/2017
PLOT TIME : 1:33:13 PM

PLOT BY : BOLAND, PATRICK

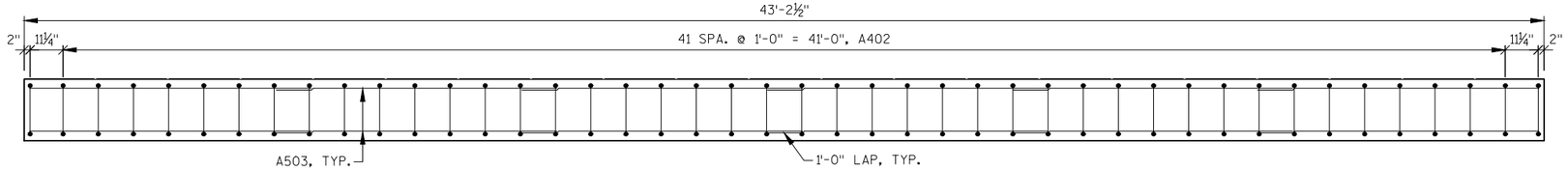
PLOT SCALE : 1" = 1'

STATE PROJECT NUMBER

6131-00-61

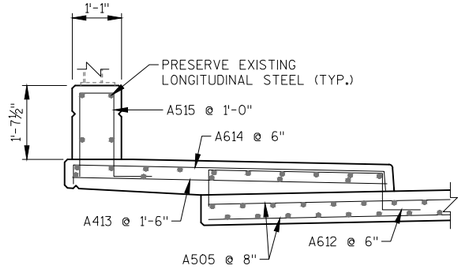


TYPICAL SECTION OF DIAPHRAGM

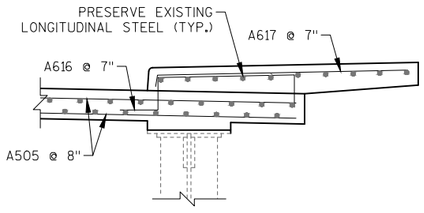


PLAN OF PAVING BLOCK

(WEST ABUTMENT SHOWN, PIER 3 SIMILAR)



TYPICAL SECTION THRU SIDEWALK & PARAPET



TYPICAL SECTION THRU MEDIAN

✳ NOTE: ACTUAL NUMBER OF BARS REQUIRED TO BE DETERMINED BY ENGINEER IN THE FIELD. MINIMUM BARS USED BELOW:

- AT SIDEWALK & PARAPET: USE SIX A612 & A614 BARS PER REMOVAL AREA, TWO A413 BARS PER REMOVAL AREA, AND TWO A515 BARS PER REMOVAL AREA.

- AT MEDIAN: USE THREE A616 & A617 BARS AT EACH ABUTMENT REMOVAL AREA, SIX A616 BARS AT THE DECK REMOVAL AREAS, AND TWO & A617 BARS AT THE DECK REMOVAL AREAS.

NOTES

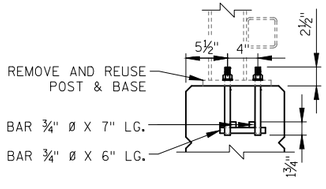
ANCHOR BOLTS, HEX NUTS AND WASHERS SHALL BE A.S.T.M. A307. PLACE ANCHOR BOLTS NORMAL TO BASE PLATE.

THE SHANK AND ROOT OF THREAD DIAMETER FOR ANCHOR BOLTS SHALL BE A MINIMUM OF 0.62 INCHES.

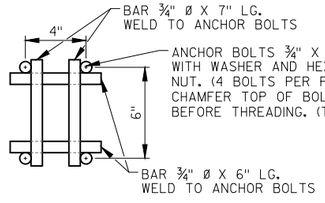
ALL MEMBERS INCLUDING THE UPPER 3½" OF ANCHOR BOLTS SHALL BE GALVANIZED AFTER FABRICATION.

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

ANCHOR BOLTS ARE INCLUSIVE OF BID ITEM "REMOVING AND RESETTING TUBULAR RAILING B-11-1."



SECTION THRU RAILING



ANCHOR BOLT DETAIL

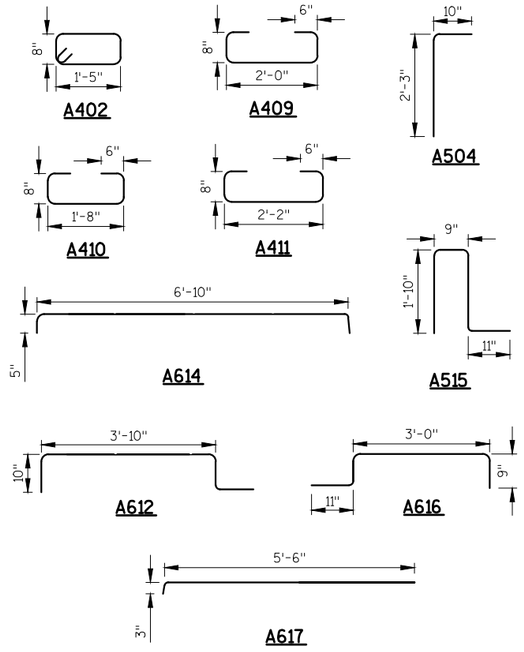
RAILING DETAILS

BILL OF BARS — 6,750 LB (COATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	LOCATION
				NO 01 BAR MARK USED
A402	88	4-8	X	PAVING BLOCK - STIRRUP
A503	36	8-0		PAVING BLOCK - ANCHOR REINF.
A504	22	3-0	X	PAVING BLOCK - REPL. ANCHOR
A505	108	20-0		SLAB - TRANSVERSE STEEL
A406	60	5-4		SLAB - ANCHOR REINF.
A607	150	6-0		DIAPHRAGM - HORIZ. - BOTTOM
A408	60	6-0		DIAPHRAGM - HORIZ. - TOP
A409	76	4-0	X	WEST & EAST GIRDER - STIRRUP
A410	76	3-10	X	CANTILEVER SPAN - STIRRUP
A411	76	4-2	X	SUSPENDED SPAN - STIRRUP
A612	48	6-5	X	SLAB @ SIDEWALK
A413	16	6-11		SIDEWALK
A614	48	7-4	X	SIDEWALK
A515	16	3-2	X	SIDEWALK @ PARAPET
A616	36	4-0	X	SLAB @ MEDIAN
A617	12	5-9	X	MEDIAN

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-11-1

DRAWN BY DJT PLANS CK'D. PTB

BAR LAYOUT DETAILS & BILL OF BARS

SHEET 7 OF 8

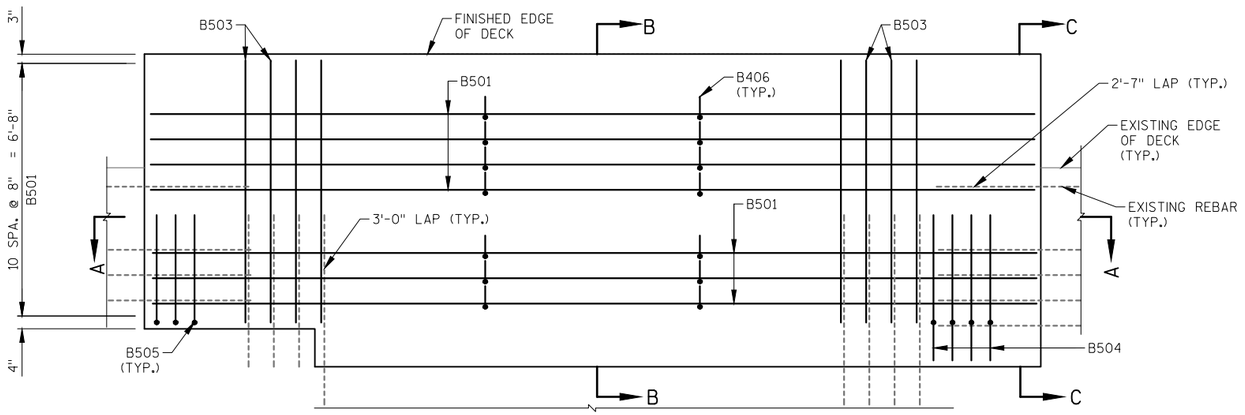
8

8

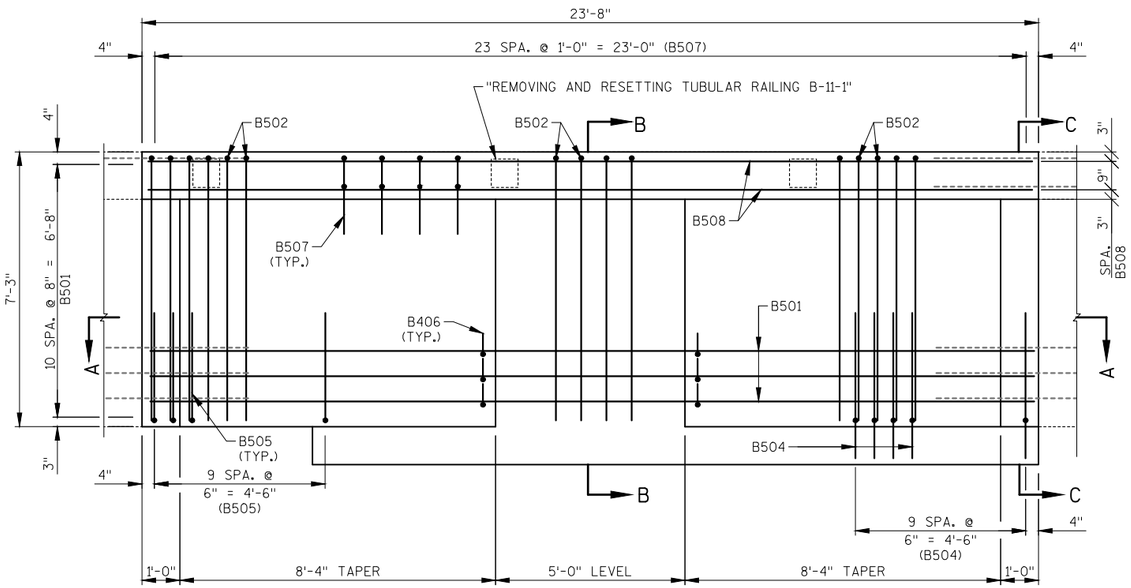
FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\STRUCTURE\CAD FILES\FINALS\B-11-0001 (NORTH)\05 JOINT DETALS.DWG
LAYOUT : BAR LAYOUT DETAILS & BILL OF BARS
PLOT DATE : 1/23/2017
PLOT TIME : 1:33:24 PM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

STATE PROJECT NUMBER

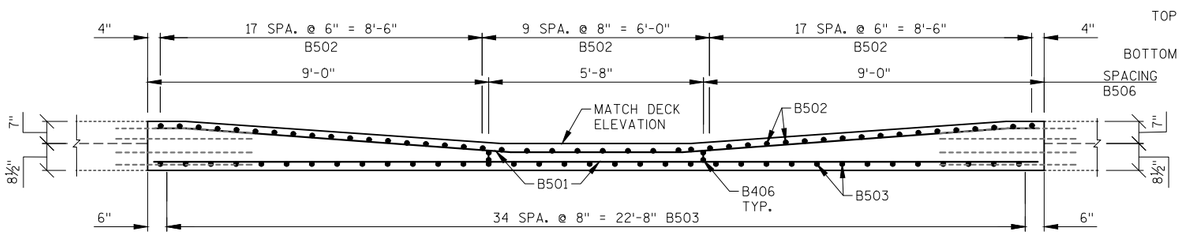
6131-00-61



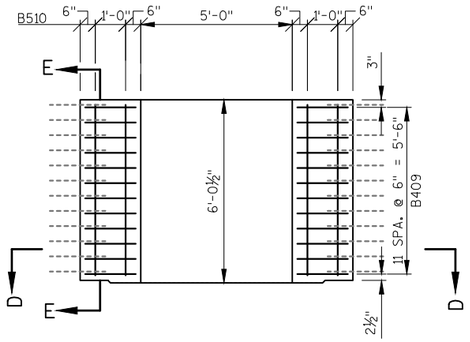
PLAN VIEW - CROSS WALK (BOTTOM STEEL)



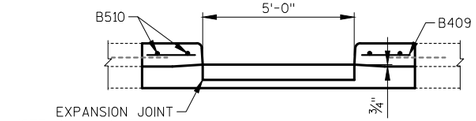
PLAN VIEW - CROSS WALK (TOP STEEL)



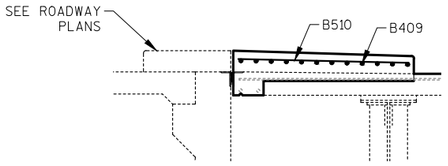
SECTION A-A



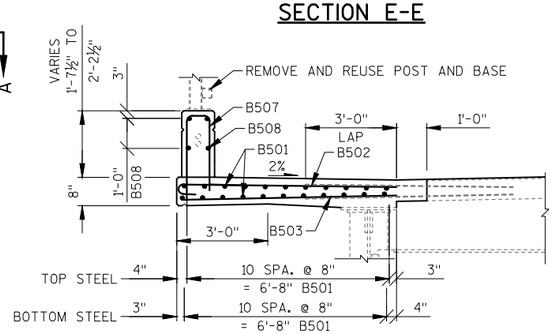
PLAN VIEW - MEDIAN CROSS WALK



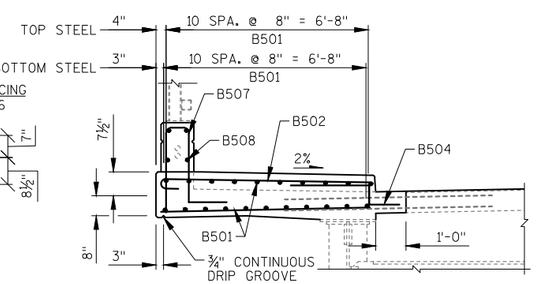
SECTION D-D



SECTION E-E



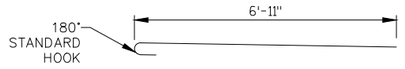
SECTION B-B



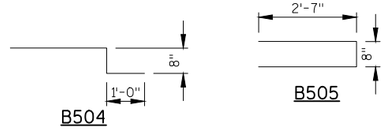
SECTION C-C

NOTES

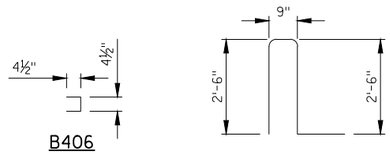
SEE ROAD PLANS FOR DETECTABLE WARNING FIELD PLACEMENT.
SEE RAILING ANCHOR DETAIL ON SHEET 6.



B502



B504 B505



B406 B507

BILL OF BARS
CROSSWALK

1,570 LB (COATED))

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	BAR SERIES	LOCATION
B501	22	23-4		X		CROSSWALK - TOP & BOTTOM - LONGIT.
B502	44	7-6	X	X		CROSSWALK - TOP - TRANSVERSE
B503	35	6-11		X		CROSSWALK - BOTTOM - TRANSVERSE
B504	10	4-2	X	X		CROSSWALK - TOP/BOTTOM
B505	10	5-10	X	X		" " "
B406	22	1-2	X	X		" " "
B507	24	6-10	X	X		PARAPET - TRANSVERSE
B508	4	23-4		X		PARAPET - LONGITUDINAL
B409	24	1-8		X		MEDIAN - LONGITUDINAL
B510	4	5-3		X		MEDIAN - TRANSVERSE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-11-1

DRAWN BY RBH | PLANS CK'D. PTB

CROSS WALK DETAILS

SHEET 8 OF 8

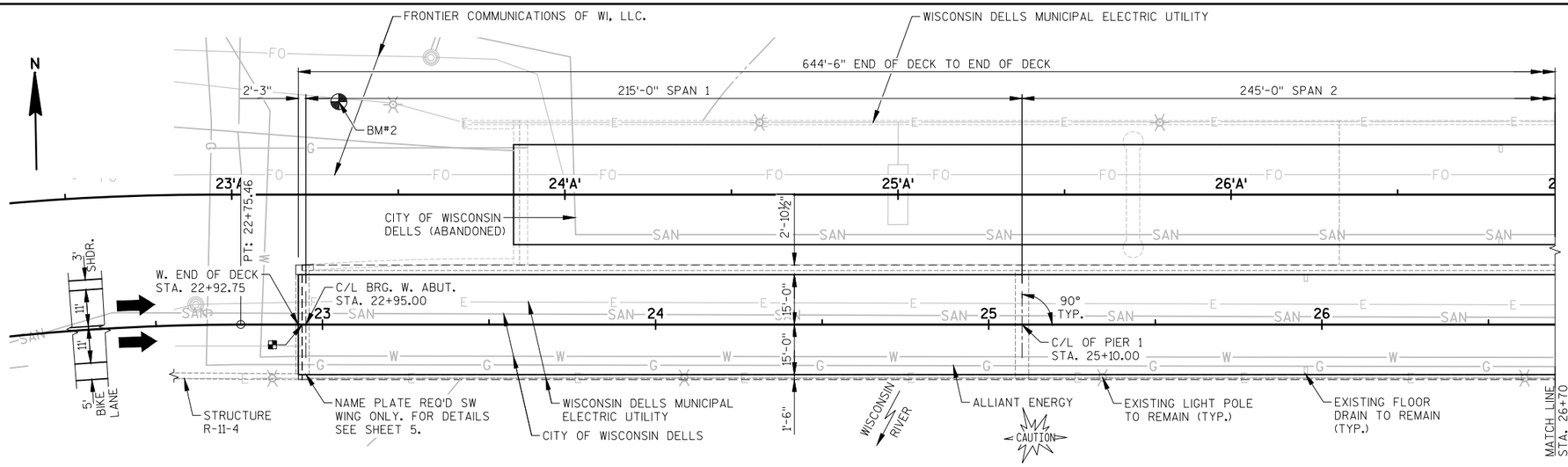
111

8

8

STATE PROJECT NUMBER

6131-00-61



LEGEND

■ JOINT REPAIR AND STRIP SEAL EXPANSION JOINT REQUIRED - SEE SHEET 4 FOR DETAILS.

WISCONSIN
THOMAS J. ROMENESKO
E-26318
MADISON
WI
PROFESSIONAL ENGINEER

5/3/2017

DESIGN DATA

LIVE LOAD:

DESIGN LOADING	HS20
INVENTORY RATING FACTOR	HS23
OPERATING RATING FACTOR	HS38
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV)	250 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY - DECK PATCHING	f'c = 4,000 P.S.I.
HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy = 60,000 P.S.I.

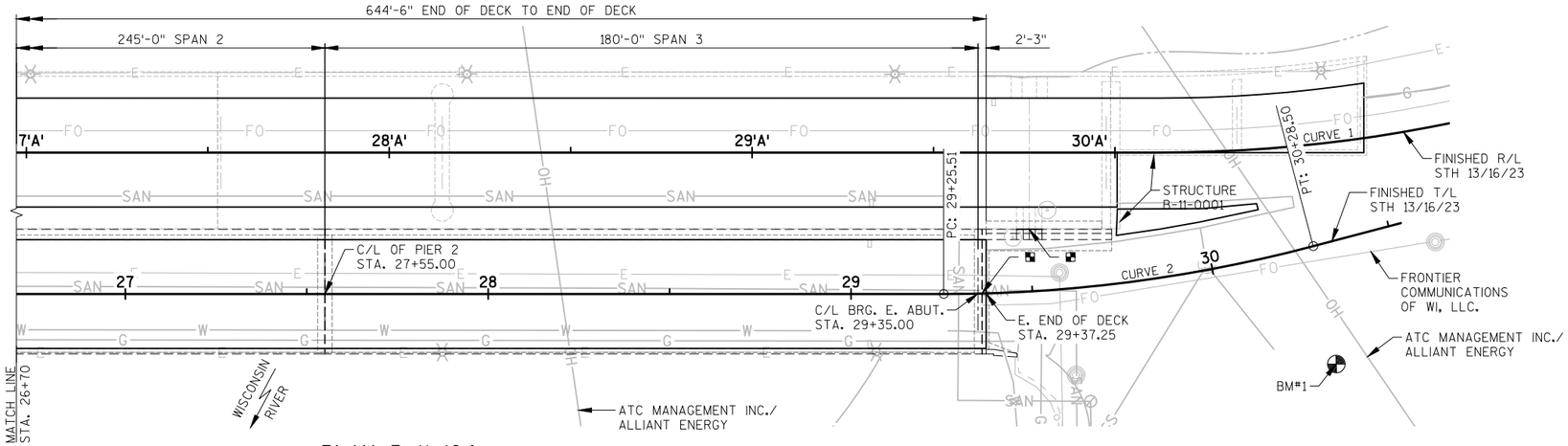
LIST OF DRAWINGS

TRAFFIC DATA

A.D.T. (2017)	19,600
A.D.T. (2037)	22,700
DESIGN SPEED	<25 M.P.H.

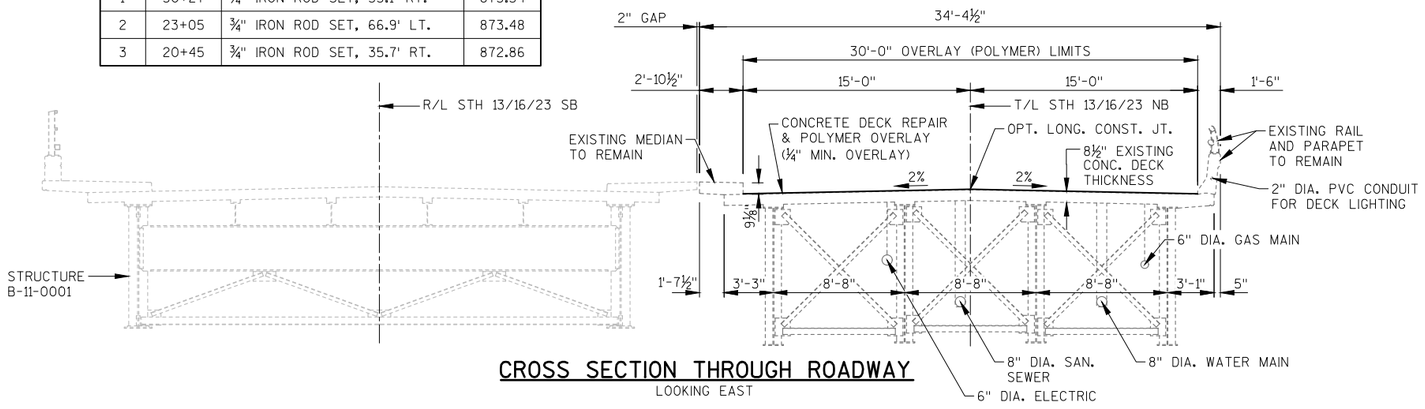
BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	30+27	¾" IRON ROD SET, 33.1' RT.	873.34
2	23+05	¾" IRON ROD SET, 66.9' LT.	873.48
3	20+45	¾" IRON ROD SET, 35.7' RT.	872.86



PLAN B-11-104

THREE SPAN CONTINUOUS STEEL DECK GIRDER STRUCTURE



CROSS SECTION THROUGH ROADWAY

LOOKING EAST

CURVE 2 DATA

PI STA. = 29+77.29
Y = 294,612.68
X = 641,032.62
R = 400.00
D = 14°19'26"
DELTA = 14°45'07"
L = 102.99
T = 51.78
C = 102.70
PC STA. = 29+25.51
Y = 294,613.64
X = 640,980.84
PT STA. = 30+28.50
Y = 294,624.93
X = 641,082.92

NO.	DATE	REVISION	BY

JEWELL associates engineers, inc.
Engineers - Surveyors - Architects

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 05/04/17
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-11-104

NB STH 13/16/23 OVER WISCONSIN RIVER

COUNTY	SAUK & COLUMBIA
~~TOWN~~/CITY/~~VILLAGE~~	WISCONSN DELLS
DESIGN SPEC.	REHABILITATION N/A

DESIGNED BY	DJT	DESIGN CK'D.	PTB	DRAWN BY	DJT	PLANS CK'D.	PTB

GENERAL PLAN

SHEET 1 OF 5

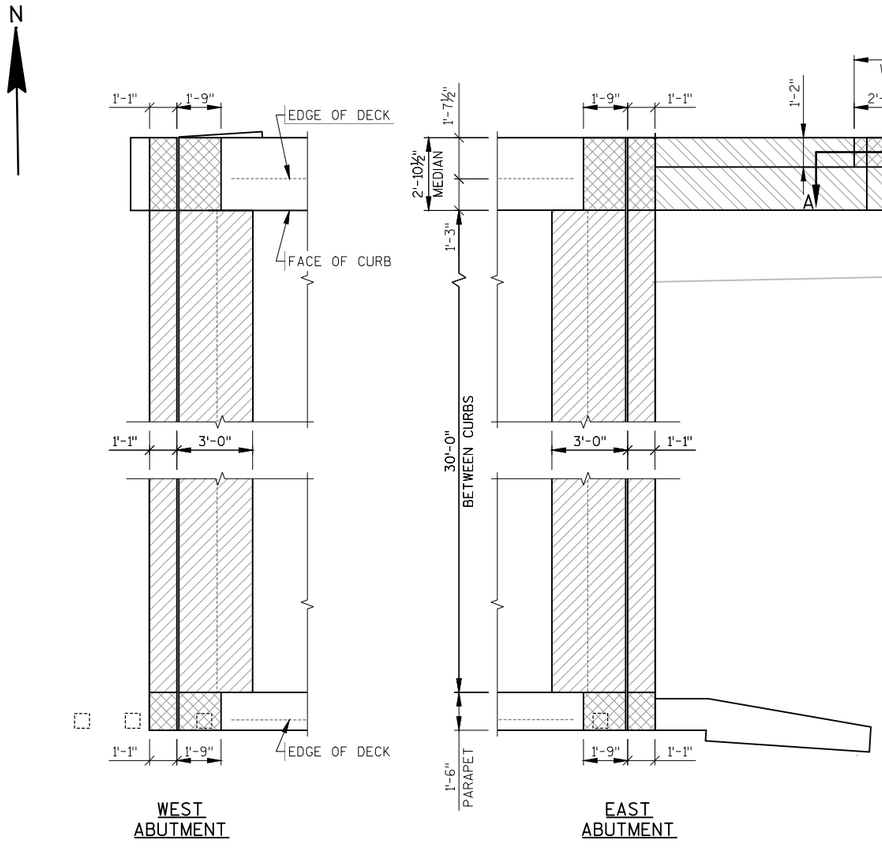
DESIGN CONSULTANT
PATRICK BOLAND, PE
(608) 588-7484

BRIDGE OFFICE CONTACT
WILLIAM DREHER, PE
(608) 266-8489

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\STRUCTURE\CAD FILES\FINALS\B-11-0104 (SOUTH)\01 GENERAL PLAN.DWG
LAYOUT : LAYOUT1
PLOT DATE : 6/24/2015
PLOT TIME : 11:29:23 AM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

STATE PROJECT NUMBER

6131-00-61



PARTIAL PLAN

LEGEND

- REMOVAL LIMITS: SLAB & DIAPHRAGMS
- REMOVAL LIMITS: SLAB, DIAPHRAGMS, PARAPET, SIDEWALK, MEDIAN
- MEDIAN TO BE REMOVED & REPLACED AS PART OF APPROACH SLAB. (SEE ROADWAY PLANS)

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 26+15	LS	1
502.0717.S	CRACK SEALING EPOXY	LF	50
502.3100	EXPANSION DEVICE B-11-104	LS	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	5
502.4205	ADHESIVE ANCHORS NO. 5 BARS	EACH	18
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,850
509.0301	PREPARATION DECKS TYPE 1	SY	142
509.0302	PREPARATION DECKS TYPE 2	SY	60
509.1000	JOINT REPAIR	SY	30
509.1200	CURB REPAIR	LF	10
509.1500	CONCRETE SURFACE REPAIR	SF	10
509.2000	FULL-DEPTH DECK REPAIR	SY	1
509.5100.S	POLYMER OVERLAY	SY	2,150
513.9005.S	REMOVING AND RESETTING TUBULAR RAILING B-11-104	LS	1
SPV.0035.01	CONCRETE MASONRY DECK PATCHING	CY	21
SPV.0090.01	SAWING PAVEMENT DECK PREPARATION AREAS	LF	1,420

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED. BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS, INSPECTION REPORTS AND FIELD SURVEY.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" DEEP SAWCUT.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

AT "CURB REPAIR" EXPOSE EXISTING REINFORCEMENT A MINIMUM OF 1½" CLEAR.

EXISTING FLOOR DRAINS TO REMAIN IN PLACE.

EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID FOR IN THE LUMP SUM PRICE BID AS "EXPANSION DEVICE B-11-104".

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. (1991)

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY DECK PATCHING".

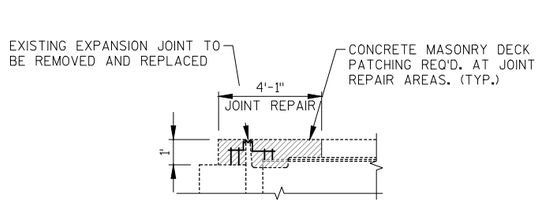
DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, FULL-DEPTH DECK REPAIR, AND JOINT REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION, FULL-DEPTH DECK REPAIRS, AND JOINT REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY DECK PATCHING".

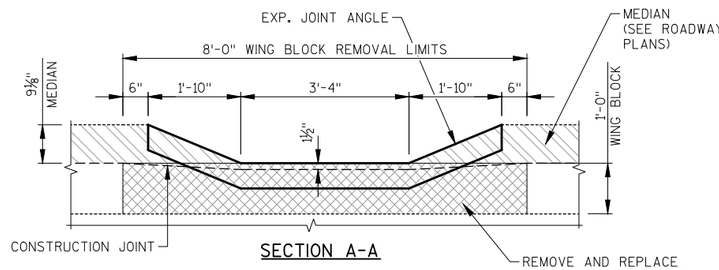
CLEAN AND FILL EXISTING LONGITUDINAL AND TRANSVERSE CRACKS WITH PENETRATING EPOXY AS DIRECTED BY THE FIELD ENGINEER.

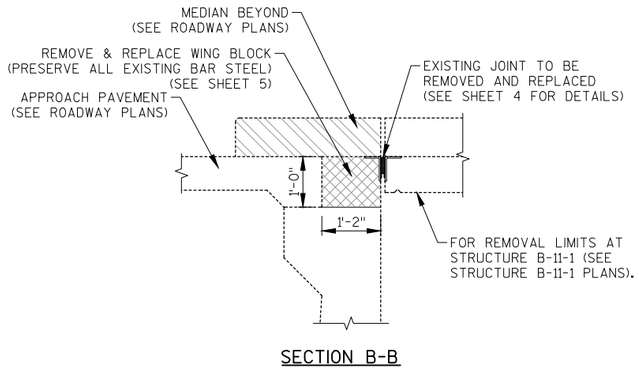
REPAIRS USING CONCRETE REQUIRE A MINIMUM CURE TIME OF 28 DAYS BEFORE PLACING OVERLAY.

PORTIONS OF THE EXISTING STRUCTURE (INCLUDING THE PARAPET) SHALL BE PROTECTED DURING BRIDGE REPAIR. DAMAGED CONDUIT SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.



PARTIAL LONGITUDINAL SECTION THROUGH DECK





SECTION THROUGH CROSSWALK

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-11-104

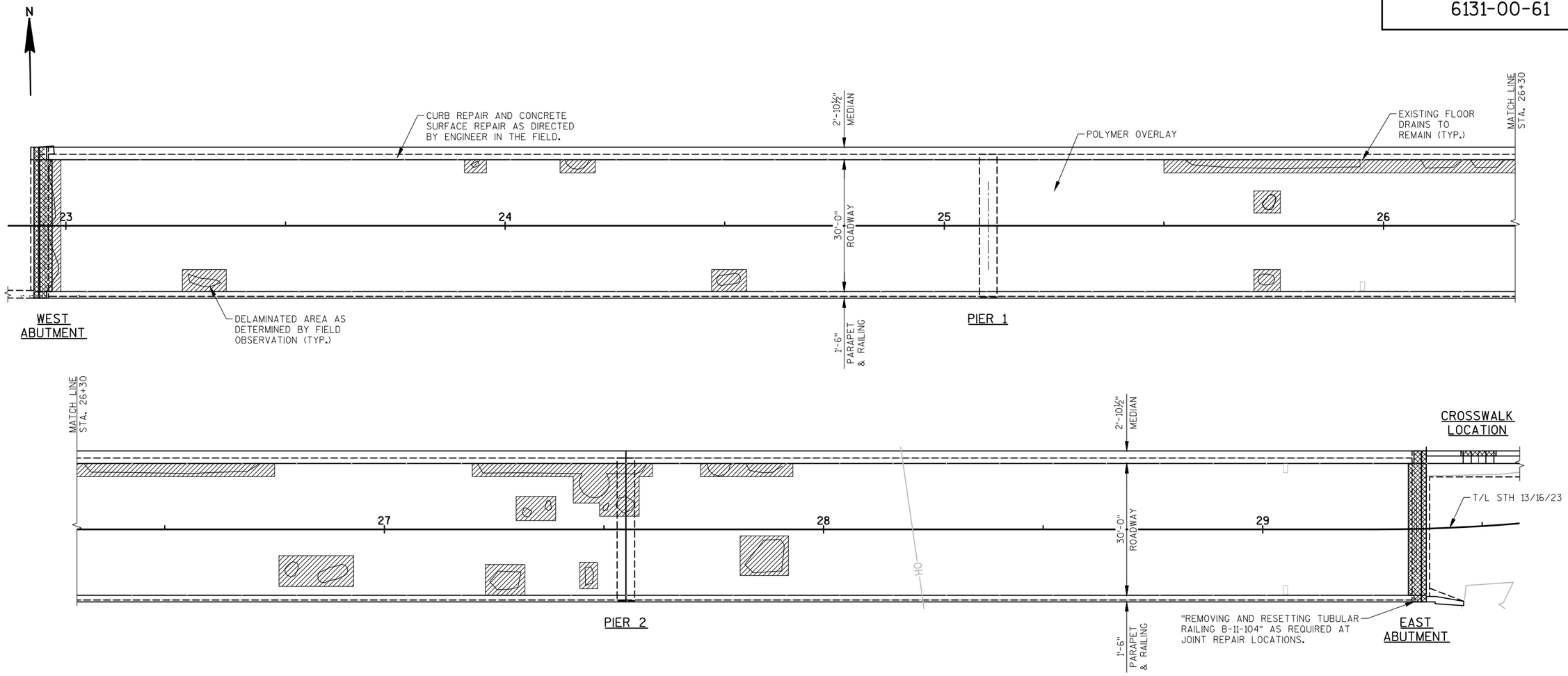
DRAWN BY DJT | PLANS CK'D. PTB

REMOVAL DETAILS & QUANTITIES

SHEET 2 OF 5

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\STRUCTURE\CAD FILES\FINALS\B-11-0104 (SOUTH)\02 REMOVAL DETAILS.DWG
LAYOUT : LAYOUT1
PLOT DATE : 6/24/2015
PLOT TIME : 11:29:23 AM
PLOT BY : TOM ROMENESKO
PLOT SCALE : 1" = 1'

STATE PROJECT NUMBER
6131-00-61



BRIDGE REPAIR OUTLINE

PROPOSED REPAIR AREAS

FIELD OBSERVATION SUMMARY	STRUCTURE NO. B-11-104		
ITEM	UNIT	QUANTITY	%
TOTAL AREA	SY	2,148	100
DELAMINATED AREA	SY	63	2.92
PREPARATION DECKS TYPE 1	SY	142	6.26
PREPARATION DECKS TYPE 2	SY	57	1.25

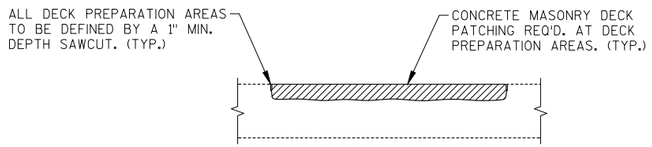
LEGEND
- DECK PREPARATION AREA
- DECK RECONSTRUCTION AREA

NOTES:

AREAS OF DECK PREPARATION TYPE 2 ARE ESTIMATED.

DECK PREPARATION AREAS WITHIN THE JOINT REPAIR LIMITS ARE COVERED UNDER JOINT REPAIR.

DECK DELAMINATION AREAS AND DECK PREPARATION AREAS SHOWN ARE FOR REFERENCE ONLY. ENGINEER TO VERIFY REPAIR AREAS. DECK REPAIRS SHALL BE MADE ONLY AS DIRECTED BY ENGINEER IN THE FIELD.



SECTION AT TYPICAL DECK PREPARATION AREA

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-11-104

DRAWN BY: DJT | PLANS CK'D.: PTB

REPAIR OUTLINE

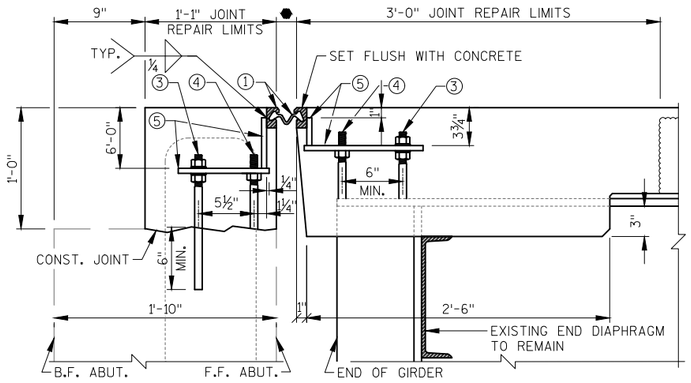
SHEET 3 OF 5

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\STRUCTURE\CAD FILES\FINALS\B-11-0104 (SOUTH)\02 REMOVAL DETAILS.DWG
LAYOUT : PREP AREAS

PLOT DATE : 6/24/2015
PLOT TIME : 11:29:23 AM

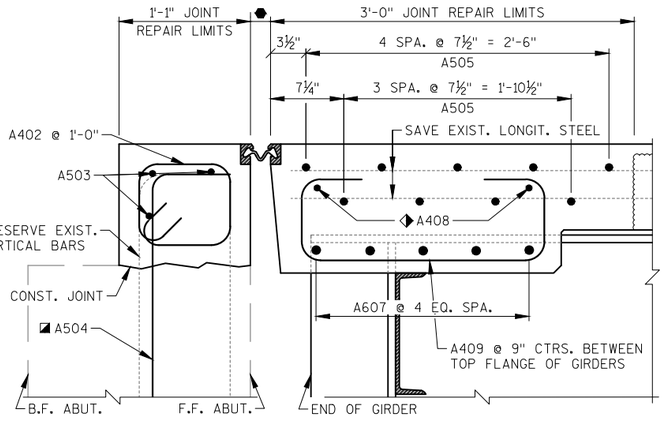
PLOT BY : BOLAND, PATRICK

PLOT SCALE : 1" = 1'



TYPICAL SECTION THRU JOINT AT ABUTMENT

(WEST ABUT. JOINT SHOWN, EAST ABUT. JOINT SIMILAR)
(EXPANSION JOINT ASSEMBLY SHOWN)



TYPICAL SECTION THRU JOINT AT ABUTMENT

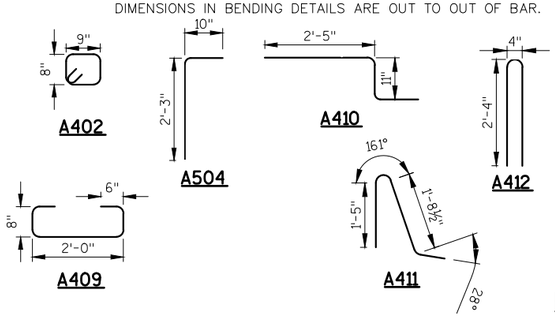
(WEST ABUT. JOINT SHOWN, EAST ABUT. JOINT SIMILAR)
(BAR STEEL REINFORCEMENT SHOWN)

BILL OF BARS — 1,850 LB (COATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	LOCATION
				NO 01 BAR MARK USED.
A402	70	3-4	X	PAVING BLOCK - STIRRUP
A503	30	7-9		PAVING BLOCK - ANCHOR REINF.
A504	18	3-0	X	PAVING BLOCK - REPL. ANCHOR
A505	36	17-4		SLAB - TRANSVERSE STEEL
A406	12	7-0		SLAB - ANCHOR REINF.
A607	30	8-4		DIAPHRAGM - HORIZ. - BOTTOM
A408	12	8-4		DIAPHRAGM - HORIZ. - TOP
A409	60	4-0	X	DIAPHRAGM - STIRRUP
A410	12	4-2	X	SLAB @ MEDIAN
A411	8	4-3	X	SLAB @ PARAPET
A412	8	4-10	X	PARAPET

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

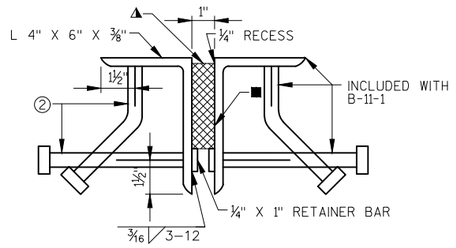
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



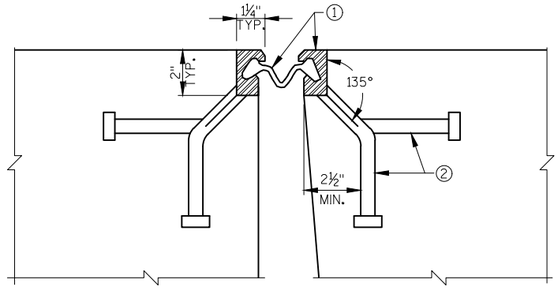
TEMP.	WEST ABUT.	EAST ABUT.
85°	1½"	1¼"
75°	1⅜"	1⅛"
65°	1⅛"	2"
55°	2"	2¼"
45°	2¼""	2⅝"
35°	2⅜"	2⅞"
25°	2½"	3⅛"
15°	2⅝"	3½"
5°	2¾"	3¾"

✳ A SMALL JOINT OPENING DUE TO A HIGH TEMPERATURE AT TIME OF CONSTRUCTION MAY REQUIRE NEOPRINE STRIP SEAL INSTALLATION INTO STEEL EXTRUSIONS PRIOR TO SETTING THE EXPANSION JOINT

TEMPERATURE TABLE

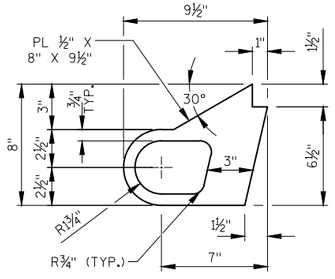


EXPANSION JOINT DETAIL AT CROSSWALK

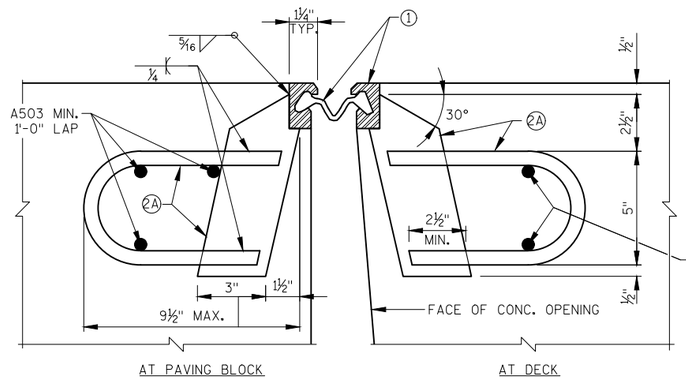


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK, AND AT PARAPETS, MEDIANS, AND SIDEWALKS



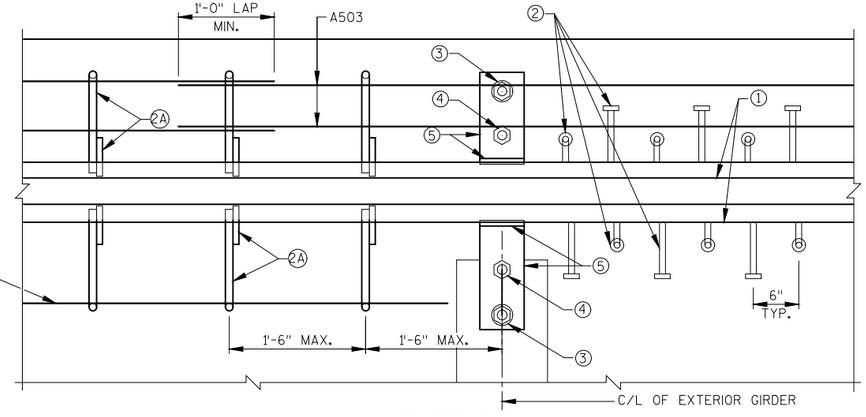
ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS

A406 PLACED BETWEEN GIRDERS



PART PLAN

LEGEND

① NEOPRENE STRIP SEAL (4–INCH) & STEEL EXTRUSIONS. SET JOINT OPENING AT 1¾".

② STUDS ⅝" DIA. X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.

2A ½" THICK STRIP SEAL ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO #1 AT 1'–6" CENTERS BETWEEN GIRDERS.

③ ¾" DIA. THREADED ROD WITH 2 NUTS AND WASHERS. FOR STEEL GIRDERS, 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. FIELD OR SHOP WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY–COATING MATERIAL. PROVIDE 1½" HOLE FOR NO. 3 & 1" DIA. HOLE FOR NO. 4.

◑ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY ◪.

◪ ADHESIVE ANCHORS NO. 5 BARS. EMBED 1'–6" INTO CONCRETE. SPACE AT 1'–0". TURN 10" LEG AS NECESSARY TO FIT. ESTIMATED AT 25% REPLACEMENT RATE.

◆ SET BARS SAME LENGTH AS HORIZONTAL DIAPHRAGM BARS AT BOTTOM OF DIAPHRAGM.

■ AFTER BLAST CLEANING AND PRIOR TO SHOP PAINTING, COAT THIS AREA WITH A PLASTIC OR OTHER APPROVED COATING. REMOVE PLASTIC AND INSTALL SEAL AGAINST CLEAN BARE METAL.

⬣ SEE TEMPERATURE TABLE FOR OPENING DIMENSION.

▲ DEPARTMENT APPROVED PREFORMED NEOPRENE SEAL.

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. IF USED, 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 & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING THE PLATES & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM #8 & #9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B–11–104".

USE A 2'-7" MIN. LAP FOR ALL TRANSVERSE STEEL (A505).

STATE PROJECT NUMBER

6131-00-61

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-11-104

DRAWN BY DJT PLANS CK'D. PTB

EXPANSION JOINT DETAILS & BILL OF BARS

SHEET 4 OF 5

115

8

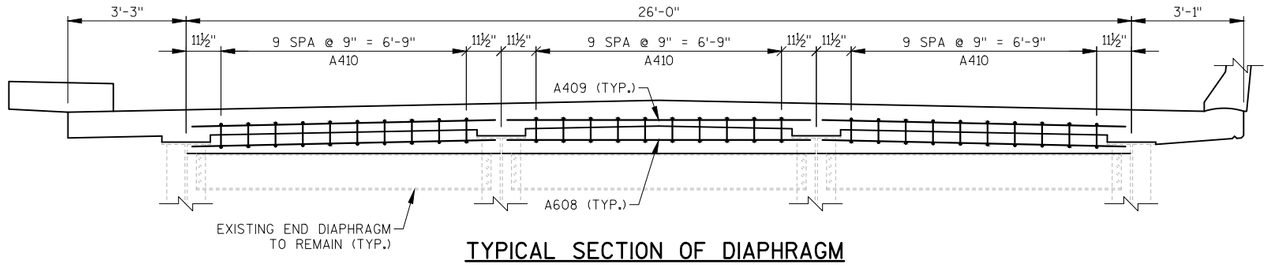
8

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\STRUCTURE\CAD FILES\FINALS\B-11-0104 (SOUTH)\04 JOINT DETAILS.DWG
LAYOUT : EXPANSION JT.

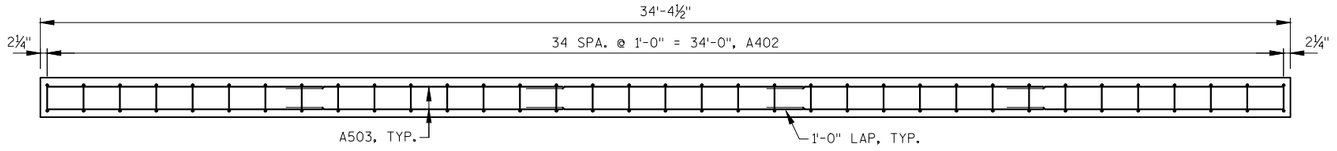
PLOT DATE : 1/23/2017
PLOT TIME : 2:52:36 PM

PLOT BY : BOLAND, PATRICK

PLOT SCALE : 1" = 1'

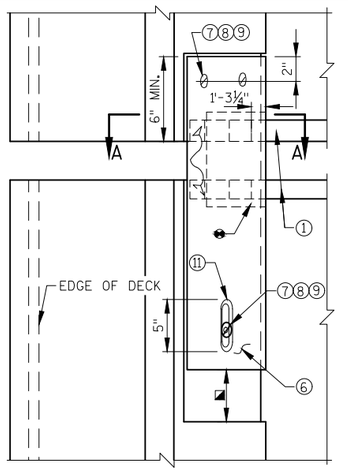


TYPICAL SECTION OF DIAPHRAGM



PLAN OF PAVING BLOCK

(WEST ABUTMENT SHOWN, EAST ABUTMENT SIMILAR)



PLAN AT PARAPET

STATE PROJECT NUMBER

6131-00-61

LEGEND

① NEOPRENE STRIP SEAL (4–INCH) & STEEL EXTRUSIONS. SET JOINT OPENING AT 1¾".

② STUDS ⅝" DIA. X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS OR ANGLES & BEND AS SHOWN AFTER WELDING.

⑥ GALVANIZED PLATE ⅜" X 10" X 2'–2" WITH HOLES FOR NO. 7

⑦ ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI–SEIZE LUBRICANT. 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.

⑪ 1" X 5" SLOTTED CSK. HOLE FOR NO. 7. SLOT PARALLEL TO DIRECTION OF MOVEMENT.

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIM. PLUS ½".

ROUTE OUT ¼" X ⅜" DEEP AT JOINT. FILL IN WITH LOW VISCOSITY CRACK SEALER PER THE APPROVED PRODUCTS LIST. (INCIDENTAL TO "CONCRETE MASONRY DECK PATCHING")

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. IF USED, 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 & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING THE PLATES & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM #8 & #9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

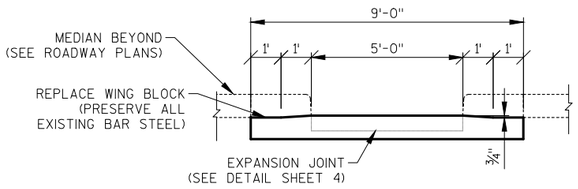
STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B–11–104".

ANCHOR BOLTS, HEX NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR A.S.T.M. A307. IF A307 IS USED, ELECTRO–GALVANIZE NUTS, WASHERS & TOP 3½" OF ANCHOR BOLTS.

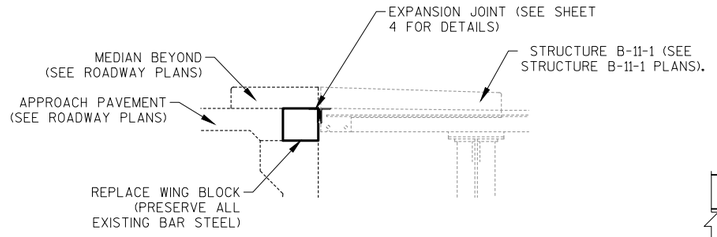
THE SHANK AND ROOT OF THREAD DIAMETER FOR ANCHOR BOLTS SHALL BE A MINIMUM OF 0.62 INCHES.

FILL ALL EXPOSED OPENINGS BETWEEN SHIMS, AND ANCHOR BOLT HOLES WITH NON–STAINING GRAY NON–BITUMINUS JOINT SEALER.

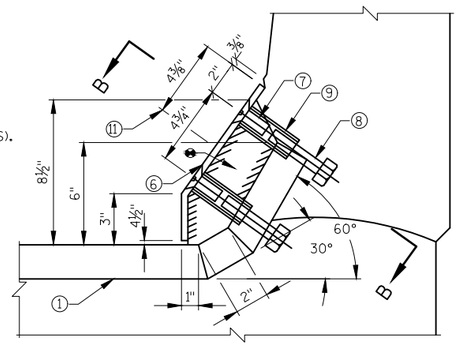
ANCHOR BOLTS ARE INCLUSIVE OF BID ITEM "REMOVING AND RESETTING TUBULAR RAILING B–11–104."



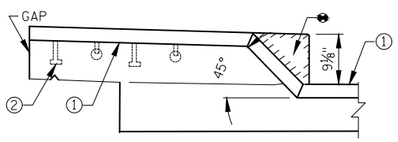
WING BLOCK CROSS SECTION (AT CROSSWALK)



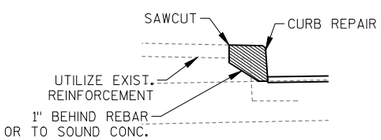
WING BLOCK CROSS SECTION (AT CROSSWALK)



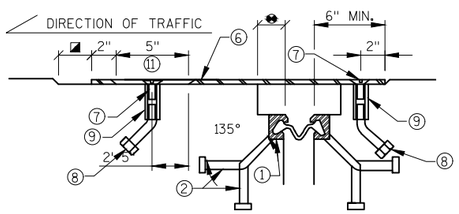
SECTION A-A



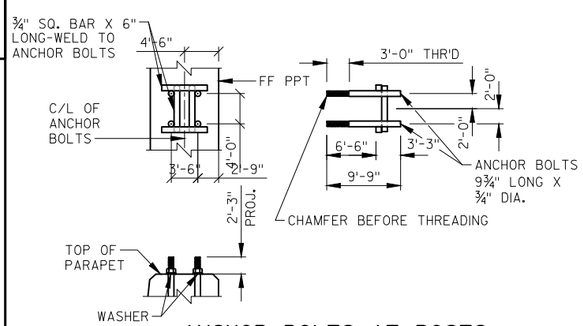
SECTION AT MEDIAN



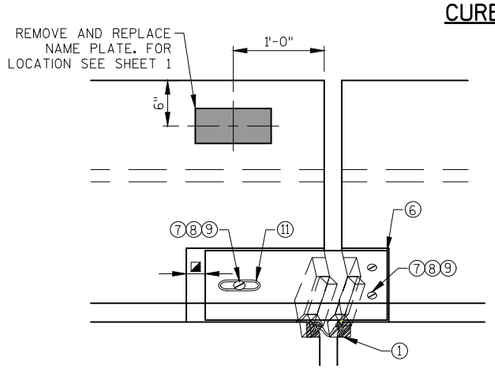
CURB REPAIR DETAIL



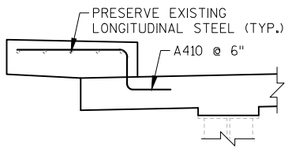
SECTION B-B



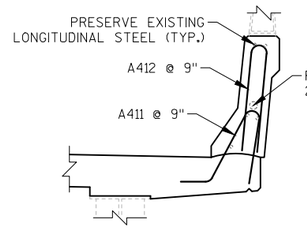
ANCHOR BOLTS AT POSTS



VIEW OF PARAPET PLATES & NAME PLATE FROM ROADWAY

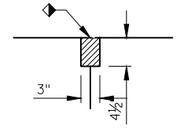


TYPICAL SECTION THRU MEDIAN



TYPICAL SECTION THRU PARAPET

✳ NOTE: ACTUAL NUMBER OF BARS REQUIRED TO BE DETERMINED BY ENGINEER IN THE FIELD. TWO BARS WERE ASSUMED FOR EACH REMOVAL AREA AT THE PARAPET, AND THREE BARS ASSUMED AT EACH REMOVAL AREA FOR MEDIAN.



CRACK SEAL CONTRUCTION JOINT DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-11-104

DRAWN BY DJT | PLANS CK'D. PTB

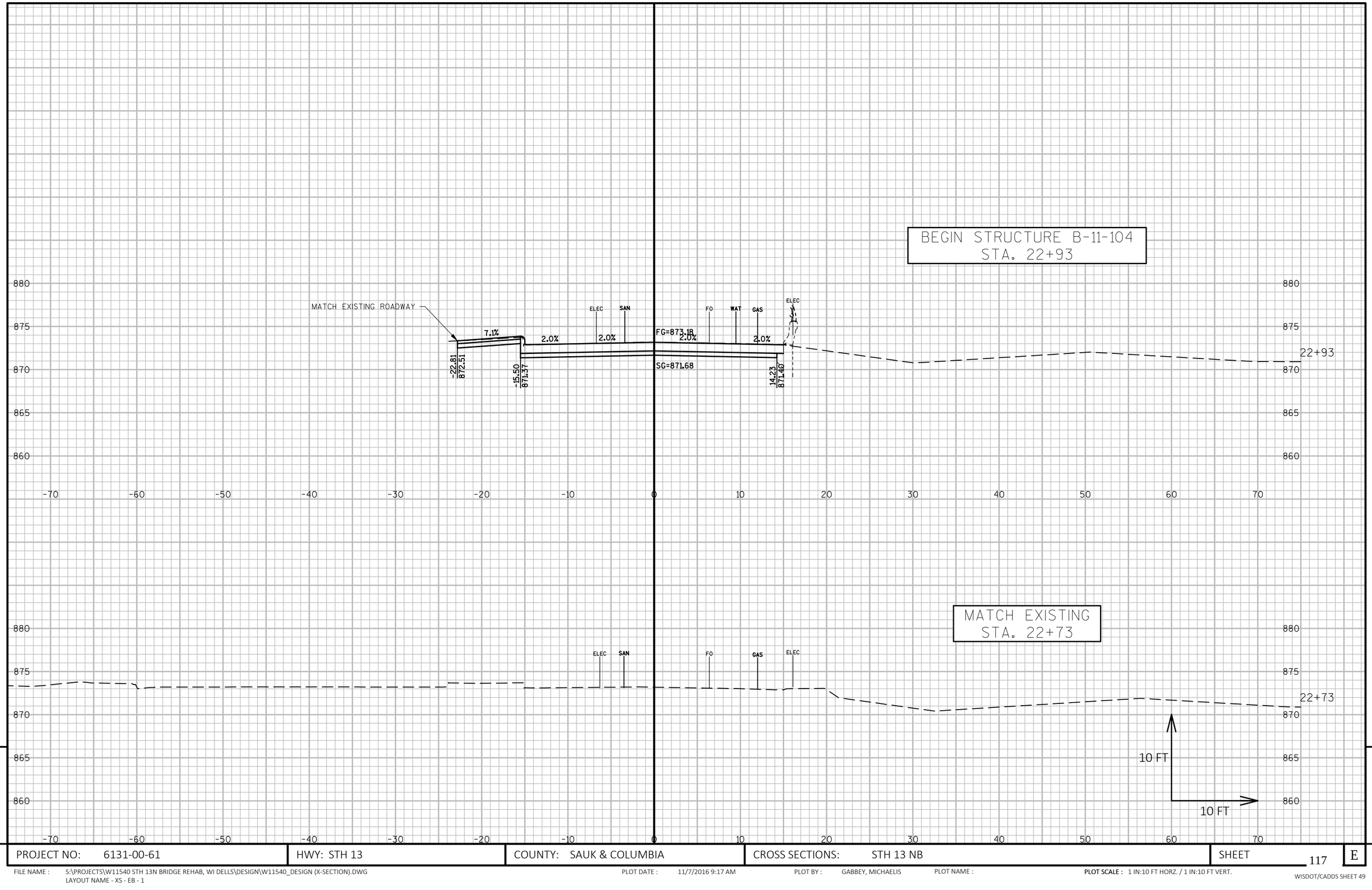
CONSTRUCTION DETAILS

SHEET 5 OF 5

8

8

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\STRUCTURE\CAD FILES\FINALS\B-11-0104 (SOUTH)\04 JOINT DETAILS.DWG
LAYOUT : CONST. DETAILS
PLOT DATE : 1/23/2017
PLOT TIME : 2:52:44 PM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'



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9

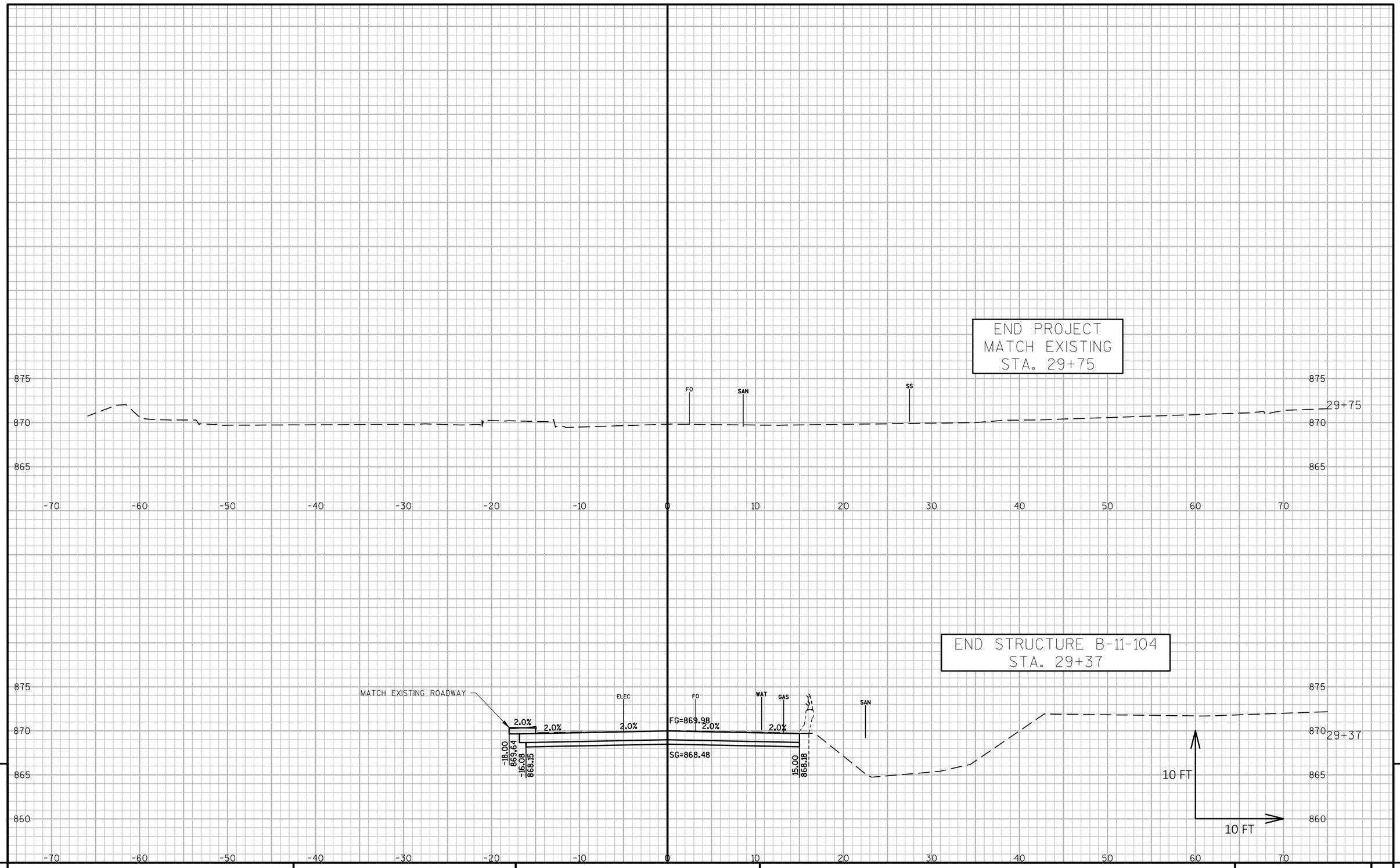
PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK & COLUMBIA	CROSS SECTIONS: STH 13 NB	SHEET 117	E

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\DESIGN\W11540_DESIGN (X-SECTION).DWG
LAYOUT NAME - XS - EB - 1

PLOT DATE : 11/7/2016 9:17 AM PLOT BY : GABBEY, MICHAELIS PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

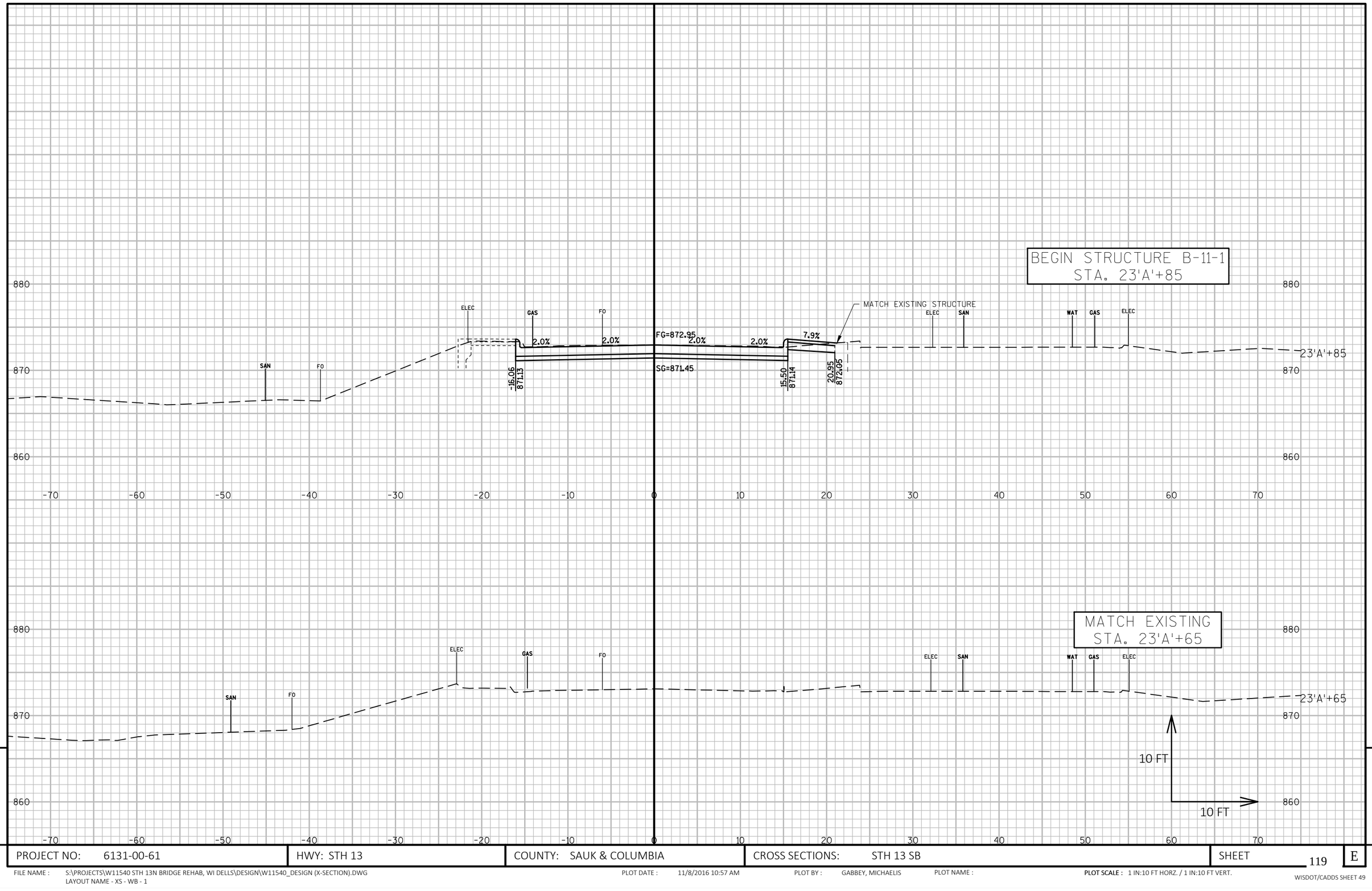
PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK & COLUMBIA	CROSS SECTIONS: STH 13 NB	SHEET 118	E

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\DESIGN\W11540_DESIGN (X-SECTION).DWG
LAYOUT NAME - XS - EB - 2

PLOT DATE : 11/7/2016 9:18 AM PLOT BY : GABBEY, MICHAELIS PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

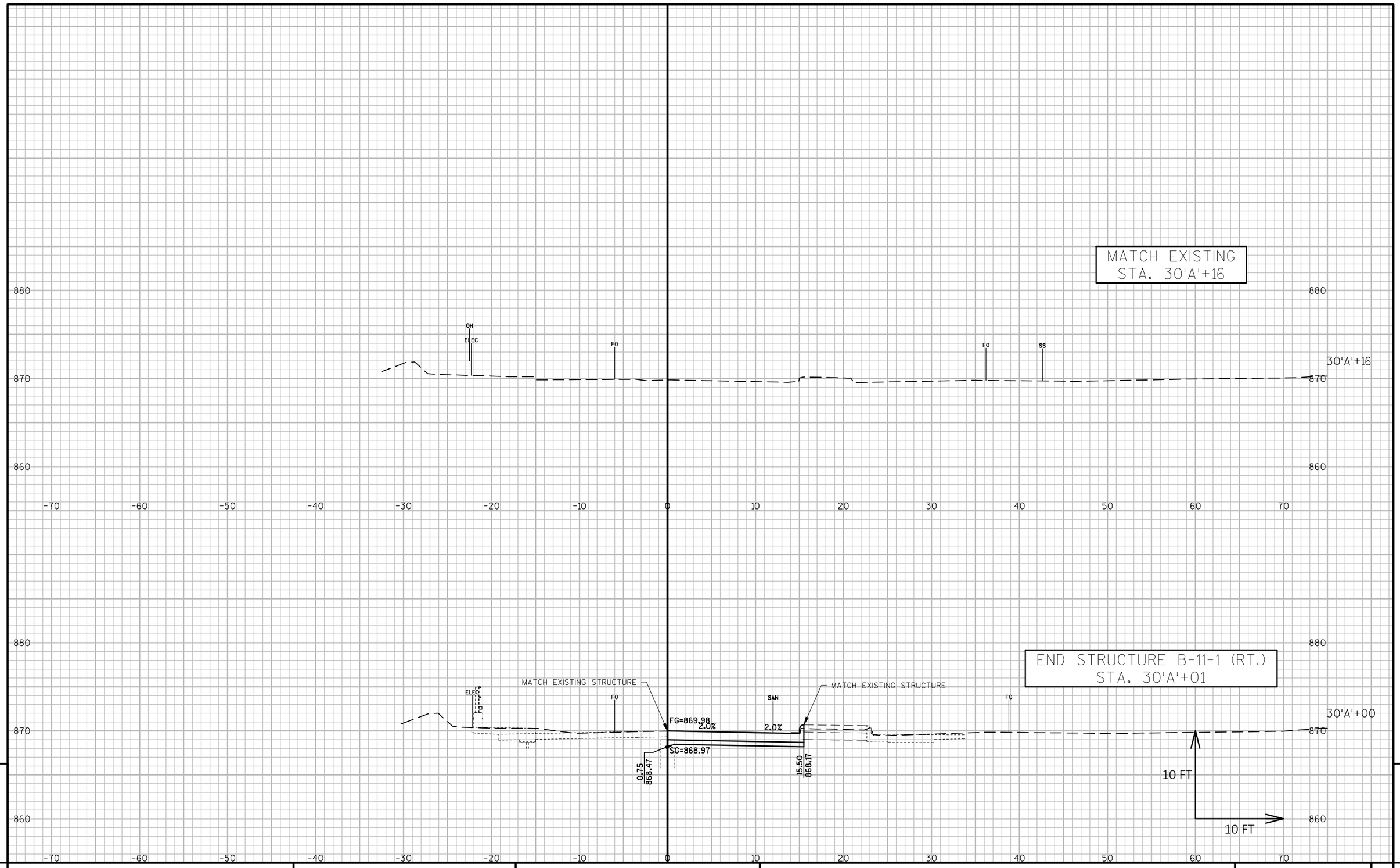
9

PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK & COLUMBIA	CROSS SECTIONS: STH 13 SB	SHEET 119	E

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\DESIGN\W11540_DESIGN (X-SECTION).DWG
LAYOUT NAME - XS - WB - 1

PLOT DATE : 11/8/2016 10:57 AM PLOT BY : GABBEY, MICHAELIS PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK & COLUMBIA	CROSS SECTIONS: STH 13 SB	SHEET 120	E

9

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\DESIGN\W11540_DESIGN (X-SECTION).DWG
LAYOUT NAME - XS - WB - 2

PLOT DATE : 11/7/2016 9:15 AM PLOT BY : GABBEY, MICHAELIS PLOT NAME :

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

WISDOT/CADDS SHEET 49

END CONSTRUCTION
MATCH EXISTING
STA. 30'A'+84

880

30'A'+84

ELEC
GAS
FO
FO

870

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

880

END STRUCTURE B-11-1 (LT.)
STA. 30'A'+69

MATCH EXISTING ROADWAY
ELEC
FO
2.0%
2.0%
FG=870.14
MATCH EXISTING ROADWAY
FO
SG=868.64
15.50
868.33

30'A'+69

870

10 FT
10 FT

860

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

9

9

PROJECT NO: 6131-00-61	HWY: STH 13	COUNTY: SAUK & COLUMBIA	CROSS SECTIONS: STH 13 SB	SHEET 121	E

FILE NAME : S:\PROJECTS\W11540 STH 13N BRIDGE REHAB, WI DELLS\DESIGN\W11540_DESIGN (X-SECTION).DWG
LAYOUT NAME - XS - WB - 3

PLOT DATE : 11/7/2016 9:16 AM PLOT BY : GABBEY, MICHAELIS PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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