

EAU

NOV 2015

PROJECT ID: 7170-00-74

COUNTY: BUFFALO

ORDER OF SHEETS

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

TOTAL SHEETS = 42



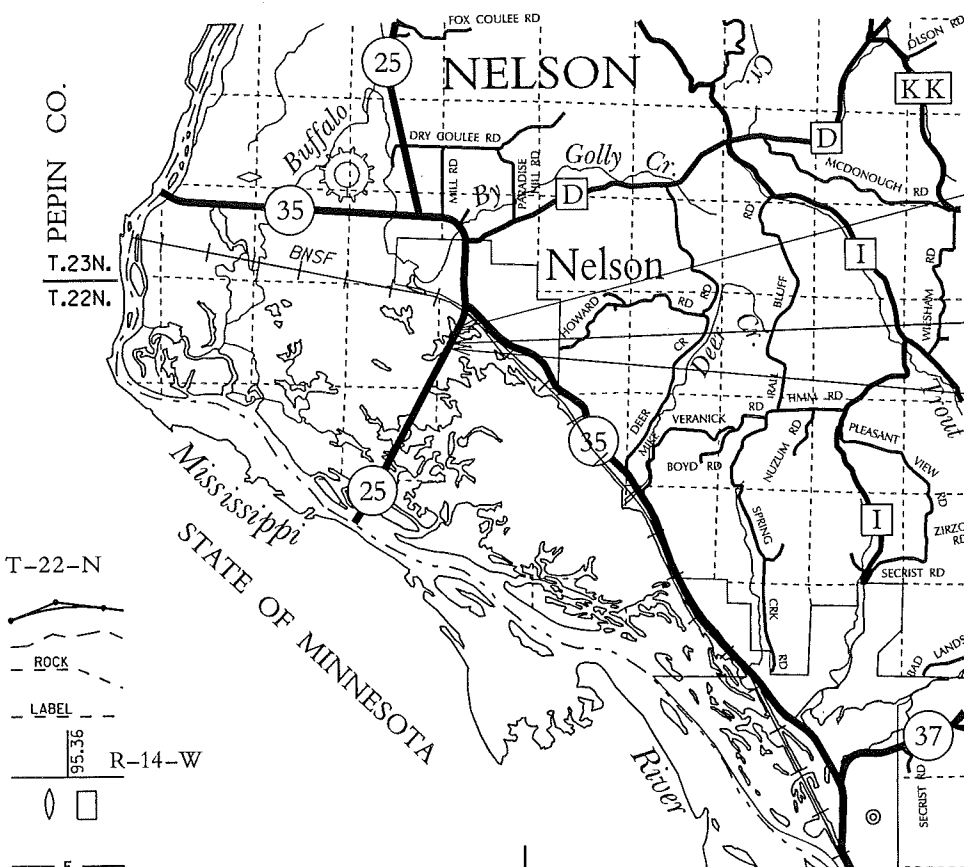
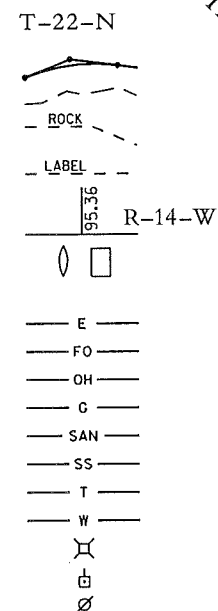
DESIGN DESIGNATION

A.A.D.T. (2009) = 5050  
A.A.D.T. (2029) = 6800  
D.H.V. = 712  
D.D. = 62/38  
T. = 10.0%  
DESIGN SPEED = 60 MPH  
ESALS = 1,591,400

CONVENTIONAL SYMBOLS

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

- PROFILE  
GRADE LINE  
ORIGINAL GROUND  
MARSH OR ROCK PROFILE (To be noted as such)  
SPECIAL DITCH  
GRADE ELEVATION  
CULVERT (Profile View)  
UTILITIES  
ELECTRIC  
FIBER OPTIC  
OVERHEAD LINES  
GAS  
SANITARY SEWER  
STORM SEWER  
TELEPHONE  
WATER  
UTILITY PEDESTAL  
POWER POLE  
TELEPHONE POLE



LAYOUT  
SCALE 0 1 MI  
TOTAL NET LENGTH OF CENTERLINE = 0.152 MI

END PROJECT 7170-00-74  
STA 80+53.75  
Y = 338,017.678  
X = 517,838.109  
  
STRUCTURE B-06-20  
STA 77+00  
  
BEGIN PROJECT 7170-00-74  
STA 73+46.25  
Y = 337,302.059  
X = 517,480.491

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION  
PLAN OF PROPOSED IMPROVEMENT  
**WABASHA - DURAND**  
MISSISSIPPI RIVER BRIDGE B-06-0020  
STH 25  
BUFFALO COUNTY

STATE PROJECT NUMBER  
**7170-00-74**

STATE PROJECT

7170-00-74

FEDERAL PROJECT

PROJECT

CONTRACT

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor CEDAR CORPORATION  
Designer AARON CHRIST  
Project Manager DAVID KOEPP  
Regional Examiner DAN OJIBWAY  
Regional Supervisor TIMOTHY MASON  
C.O. Examiner

APPROVED FOR THE DEPARTMENT

DATE: 1/30/14 *[Signature]*  
(Signature)

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

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GENERAL NOTES

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

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

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES MEMBERS OF DIGGERS HOTLINE.

THE EROSION CONTROL ITEMS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS

PAVEMENT MARKING SHALL BE EPOXY.

LOCAL - UTILITY

NO KNOWN UTILITIES WITHIN THE PROJECT LIMITS.

FEDERAL - ARMY COE

MARIE KOPKA  
C.O.E., ST PAUL  
ST PAUL, MN 55805  
(651) 290-5268

STATE - DOT/STORM WATER

DAVID LARSON  
718 WEST CLAIREMONT  
EAU CLAIRE, WI 54701  
(715) 836-2067

STATE - DOT/REC

NICK SCHAFF  
718 WEST CLAIREMONT  
EAU CLAIRE, WI 54701  
(715) 836-2068

STATE - DNR

KAREN KALVELAGE  
WISCONSIN DNR  
3550 MORMON COULEE ROAD  
LA CROSSE, WI 54601  
(608) 785-9983

STATE - DOT RAILROADS

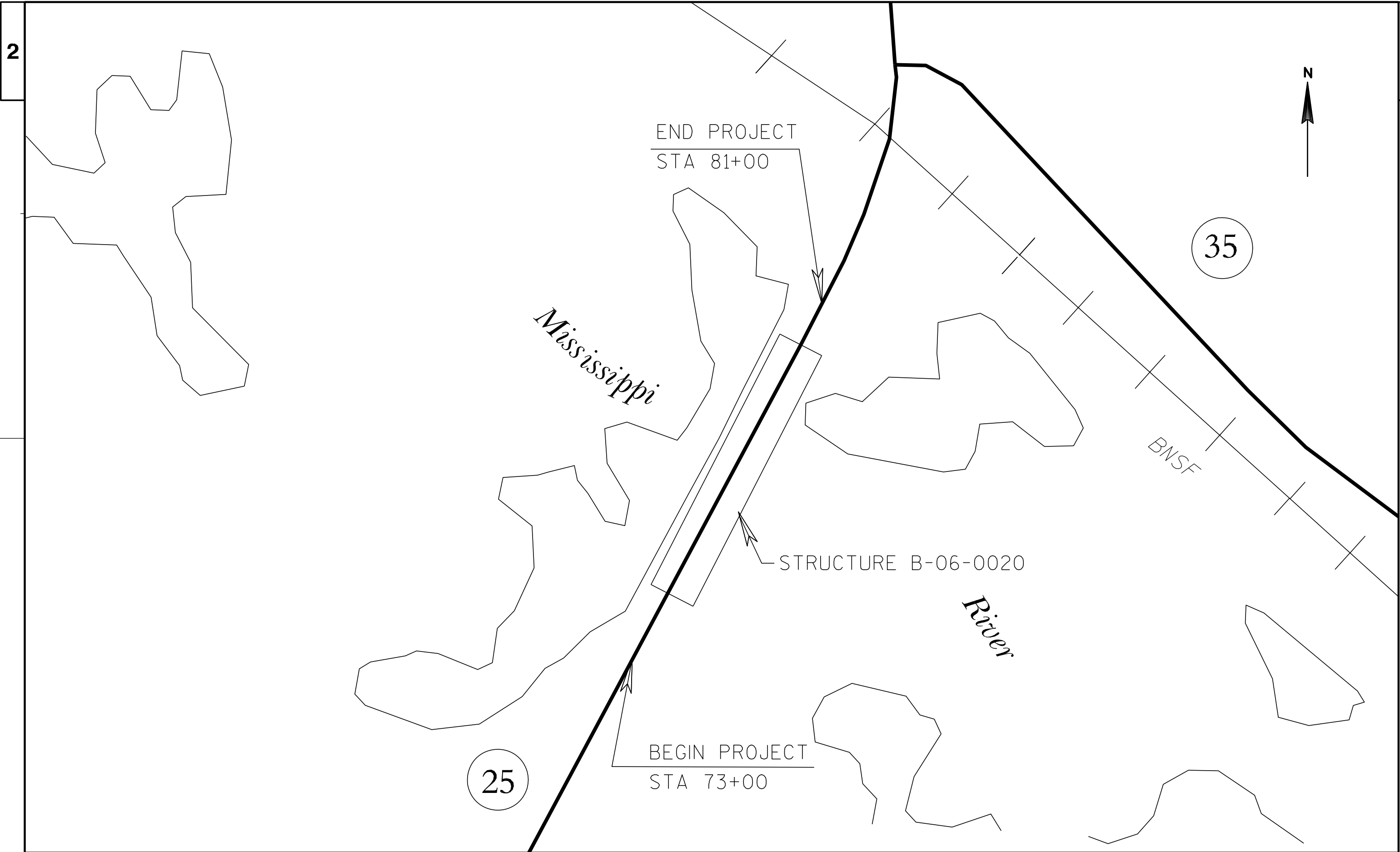
ANNA L. DAVEY  
1701 N. 4TH ST.  
SUPERIOR, WI 54880  
(715) 392-7960  
anna.davey@dot.wi.gov

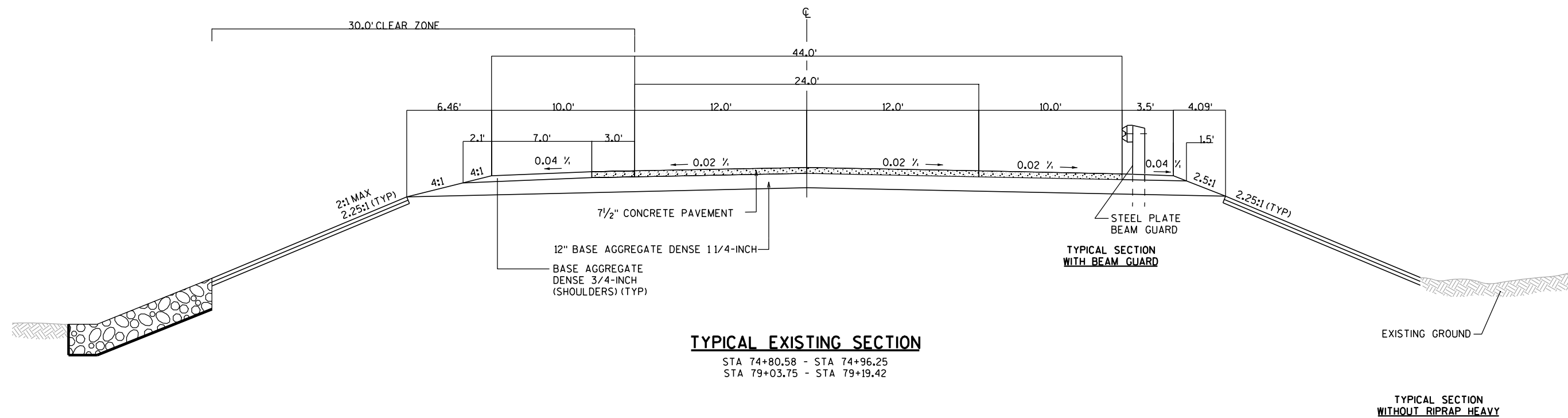
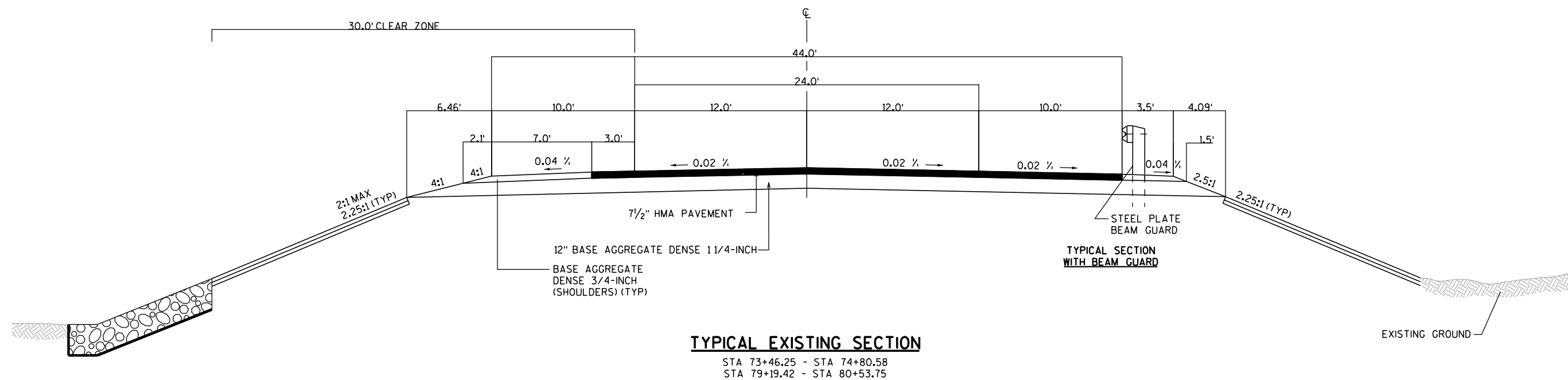
LIST OF STANDARD ABBREVIATIONS

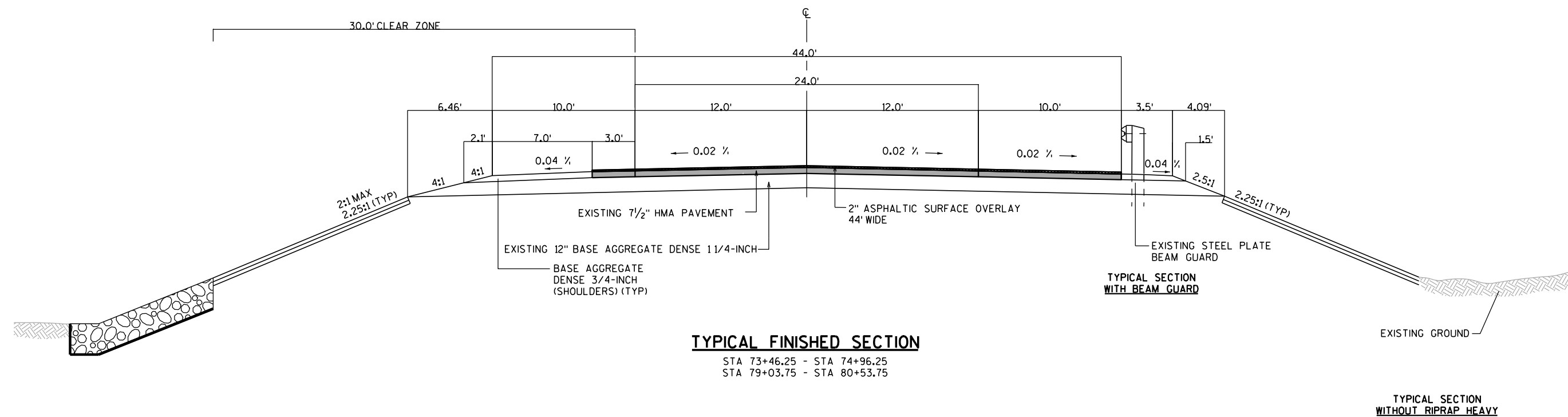
ABUT.	ABUTMENT
AGG.	AGGREGATE
AH.	AHEAD
ASPH.	ASPHALTIC
AVG	AVERAGE
A.D.T.	AVERAGE DAILY TRAFFIC
BK.	BACK
BL OR B/L	BASE LINE
B.M.	BENCH MARK
BR	BRIDGE
C/L	CENTER LINE
CC	CENTER TO CENTER
CONC.	CONCRETE
CR.	CRUSHED
C.Y. OR CU. YD.	CUBIC YARD
C&G	CURB & GUTTER
D	DEGREE OF CURVE
D.H.V.	DESIGN HOUR VOLUME
DIA.	DIAMETER
D.	DIRECTIONAL DISTRIBUTION
DIST.	DISTRICT
E	EAST
X	EAST GRID COORDINATE
EB	EASTBOUND
ELECT.	ELECTRIC
EL. OR ELEV.	ELEVATION
EMB.	EMBANKMENT
EW	ENDWALL
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EXIST.	EXISTING
EXP	EXPANSION
FF	FACE TO FACE
FERT.	FERTILIZE
FG	FINISHED GRADE
FT.	FOOT
GN	GRID NORTH
HT	HEIGHT
HES	HIGH EARLY STRENGTH
CWT.	HUNDREDWEIGHT
IN DIA	INCH DIAMETER
ID	INSIDE DIAMETER
L.H.F.	LEFT-HAND FORWARD
LIN. FT. OR LF	LINEAR FOOT
L.S.	LUMP SUM
MAINT	MAINTENANCE
ML OR M/L	MATCH LINE
MATL	MATERIAL
N	NORTH
Y	NORTH GRID COORDINATE
NB	NORTHBOUND
OBLIT	OBLITERATE
OD	OUTSIDE DIAMETER
LB.	POUND
PROJ.	PROJECT
R.	RANGE, RADIUS
RR	RAILROAD
RL OR R/L	REFERENCE LINE
REBAR	REINFORCEMENT BAR
REQ'D	REQUIRED
RW	RETAINING WALL
R/W	RIGHT OF WAY
RD.	ROAD
RDWY	ROADWAY
SALV	SALVAGED
SEC	SECTION
SHLDR	SHOULDER
SHR.	SHRINKAGE
S	SOUTH
SB	SOUTHBOUND
SPECS	SPECIFICATIONS
SF OR SQ FT	SQUARE FEET
SY OR SQ YD	SQUARE YARD
STD	STANDARD
STH	STATE TRUNK HIGHWAY
STA.	STATION
SURF.	SURFACE
TEMP	TEMPORARY
TYP	TYPICAL
UNCL.	UNCLASSIFIED
VOL	VOLUME
WB	WESTBOUND
YD	YARD



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



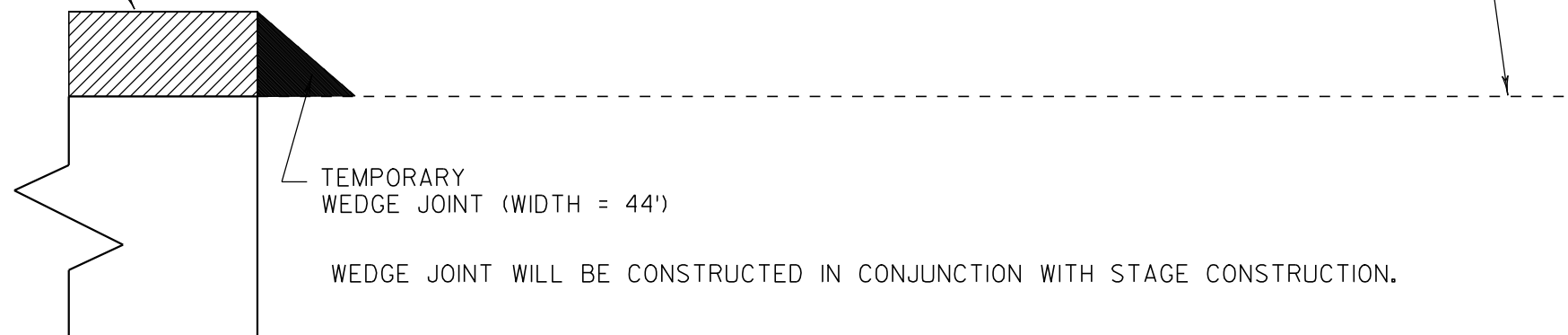




BRIDGE DECK  
WITH 2" CONCRETE OVERLAY

2' MIN.

EXISTING PROFILE



TEMPORARY  
WEDGE JOINT (WIDTH = 44')

WEDGE JOINT WILL BE CONSTRUCTED IN CONJUNCTION WITH STAGE CONSTRUCTION.

#### TEMPORARY WEDGE JOINT

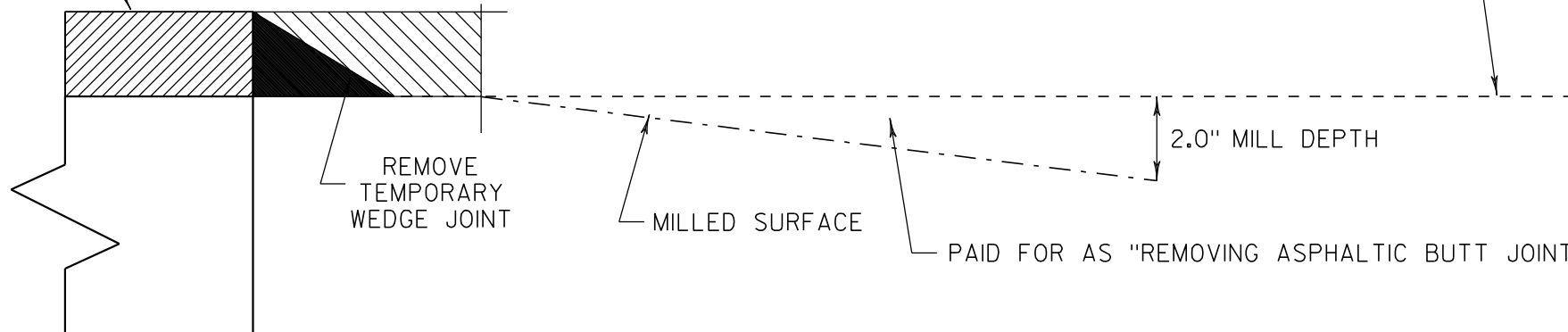
BRIDGE DECK  
WITH 2" CONCRETE OVERLAY

50' MIN.  
2.0" OVERLAY



100' MIN.  
0.0" - 2.0" MILLING TRANSITION

EXISTING PROFILE



REMOVE  
TEMPORARY  
WEDGE JOINT

2.0" MILL DEPTH

MILLED SURFACE

PAID FOR AS "REMOVING ASPHALTIC BUTT JOINT"

#### BUTT JOINT DETAIL

2.0" ASPHALT OVERLAY 50' MIN FROM END OF BRIDGE DECK

MILL AND REMOVE 0.0" TO 2.0" OF EXISTING ASPHALT SURFACE IN 100-FT TRANSITION AREA.



REQUIRED AT ENDS OF EXISTING BRIDGES.  
SEE LOCATIONS LISTED IN TABLE

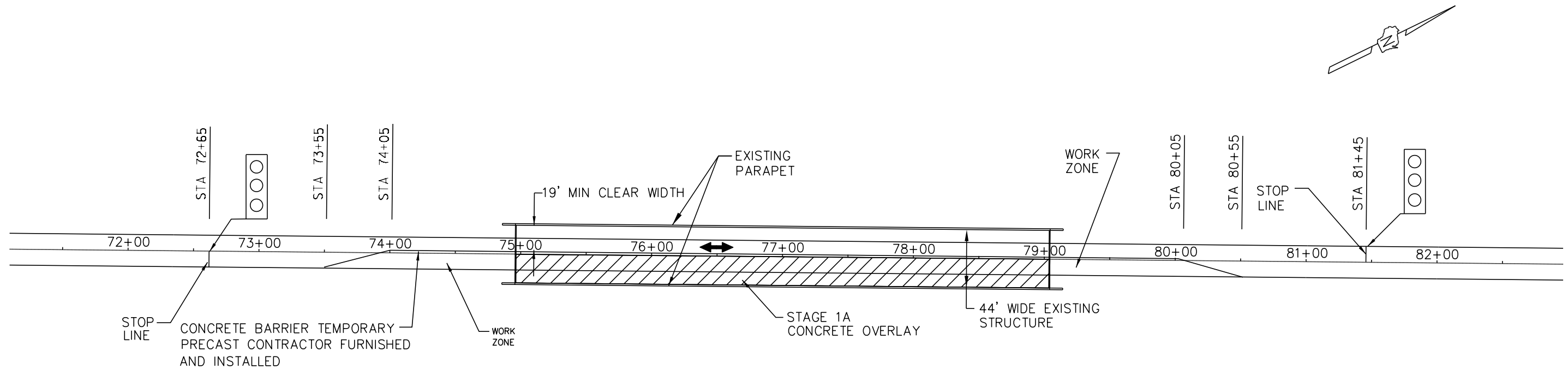
END OF BRIDGE DECK  
STATIONING

74+96.25  
79+03.75

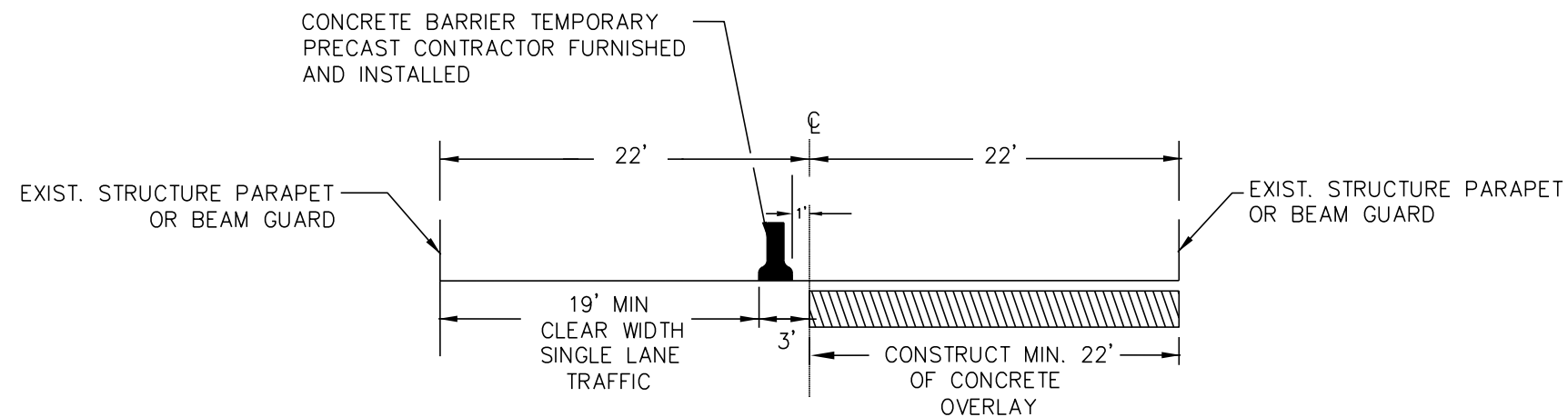
## NOTES:

SEE SDD 15D33-3 FOR SIGNS AND TEMPORARY SIGNAL LOCATIONS; MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

OVERLAY OF APPROACHES WILL BE DONE UNDER FLAGGING OPERATION.



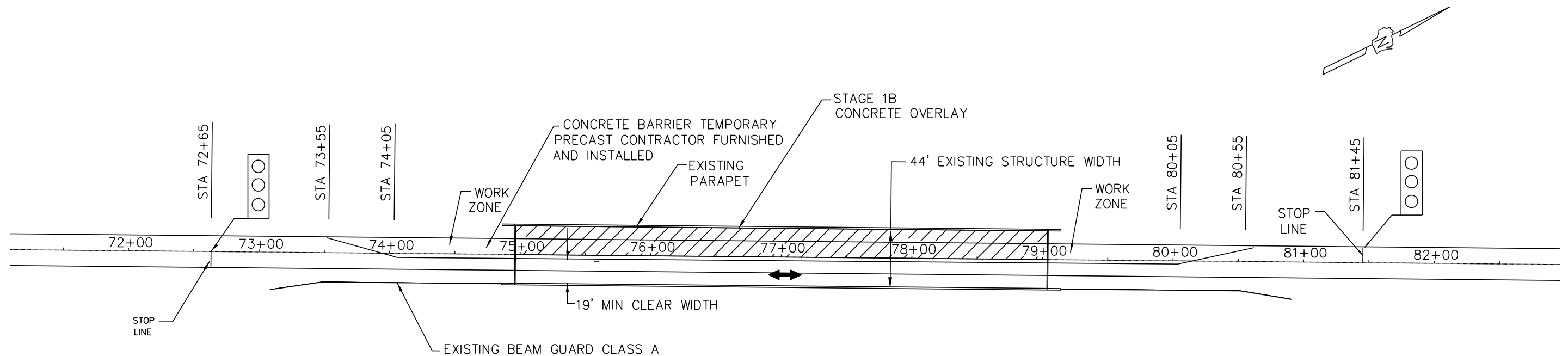
PLAN - STAGE 1A



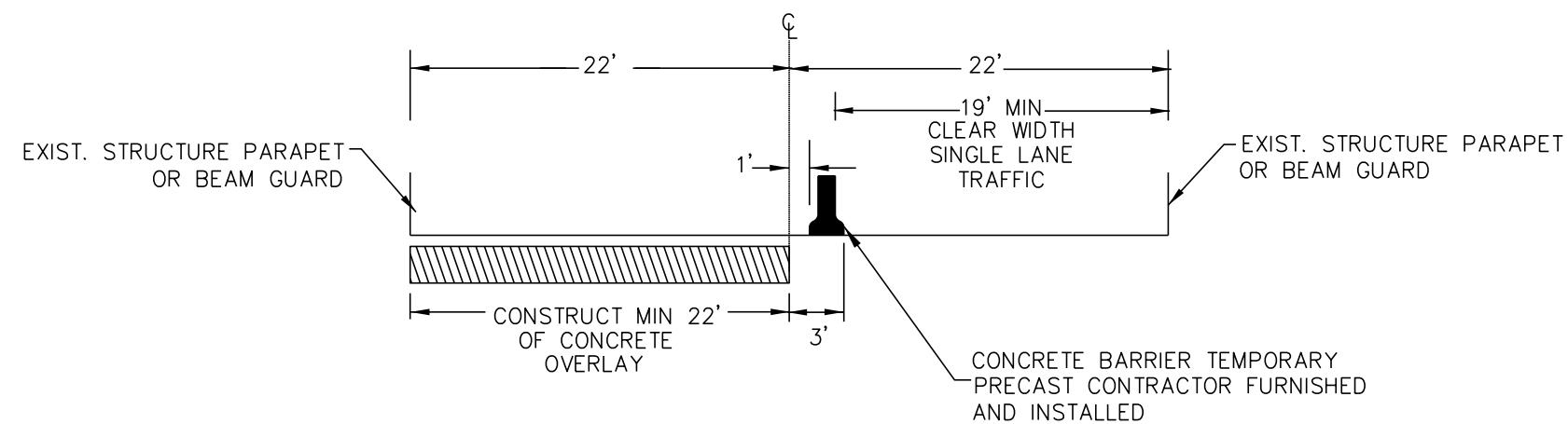
TYPICAL SECTION - STRUCTURE

## NOTES:

SEE SDD 15D33-3 FOR SIGNS AND TEMPORARY SIGNAL LOCATIONS.  
OVERLAY OF APPROACHES WILL BE DONE UNDER FLAGGING OPERATION.



PLAN



TYPICAL SECTION - STRUCTURE



DATE 18AUG15		E S T I M A T E O F Q U A N T I T I E S			
LINE					7170-00-74
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	489.000	489.000
0020	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 7170-00-74	LS	1.000	1.000
0030	213.0100	Finishing Roadway (project) 01. 7170-00-74	EACH	1.000	1.000
0040	305.0110	Base Aggregate Dense 3/4-Inch	TON	12.000	12.000
0050	455.0605	Tack Coat	GAL	22.000	22.000
0060	465.0105	Asphaltic Surface	TON	94.000	94.000
0070	502.0100	Concrete Masonry Bridges	CY	76.000	76.000
0080	502.3100	Expansion Device (structure) 01. B-06-0020	LS	1.000	1.000
0090	502.3200	Protective Surface Treatment	SY	2,335.000	2,335.000
0100	502.5005	Masonry Anchors Type L No. 5 Bars	EACH	106.000	106.000
0110	505.0605	Bar Steel Reinforcement HS Coated Bridges	LB	11,960.000	11,960.000
0120	505.0904	Bar Couplers No. 4	EACH	24.000	24.000
0130	505.0905	Bar Couplers No. 5	EACH	84.000	84.000
0140	509.0301	Preparation Decks Type 1	SY	200.000	200.000
0150	509.0302	Preparation Decks Type 2	SY	100.000	100.000
0160	509.0500	Cleaning Decks	SY	1,993.000	1,993.000
0170	509.1000	Joint Repair	SY	145.000	145.000
0180	509.1500	Concrete Surface Repair	SF	20.000	20.000
0190	509.2000	Full-Depth Deck Repair	SY	1.000	1.000
0200	509.2500	Concrete Masonry Overlay Decks	CY	111.000	111.000
0210	603.8000	Concrete Barrier Temporary Precast Delivered	LF	700.000	700.000
0220	603.8125	Concrete Barrier Temporary Precast Installed	LF	1,400.000	1,400.000
0230	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7170-00-74	EACH	1.000	1.000
0240	619.1000	Mobilization	EACH	1.000	1.000
0250	642.5001	Field Office Type B	EACH	1.000	1.000
0260	643.0100	Traffic Control (project) 01. 7170-00-74	EACH	1.000	1.000
0270	643.0300	Traffic Control Drums	DAY	1,200.000	1,200.000
0280	643.0715	Traffic Control Warning Lights Type C	DAY	600.000	600.000
0290	643.0900	Traffic Control Signs	DAY	450.000	450.000
0300	646.0106	Pavement Marking Epoxy 4-Inch	LF	1,760.000	1,760.000
0310	646.0406	Pavement Marking Same Day Epoxy 4-Inch	LF	225.000	225.000
0320	646.0600	Removing Pavement Markings	LF	812.000	812.000
0330	648.0100	Locating No-Passing Zones	MI	0.030	0.030
0340	649.0100	Temporary Pavement Marking 4-Inch	LF	4,676.000	4,676.000
0350	649.1400	Temporary Pavement Marking Stop Line Removable Tape 24-Inch	LF	24.000	24.000
0360	650.6500	Construction Staking Structure Layout (structure) 01. B-06-0020	LS	1.000	1.000
0370	650.8000	Construction Staking Resurfacing Reference	LF	708.000	708.000
0380	650.9910	Construction Staking Supplemental Control (project) 01. 7170-00-74	LS	1.000	1.000
0390	661.0100	Temporary Traffic Signals for Bridges (structure) 01. B-06-0020	LS	1.000	1.000
0400	661.0300	Generators	DAY	14.000	14.000
0410	715.0502	Incentive Strength Concrete Structures	DOL	500.000	500.000

REMOVING ASPHALTIC SURFACE BUTT JOINTS

CATEGORY	STATION	LOCATION	204.0115 SY
0010	73+46.25		244
0010	80+53.75		244
TOTAL 0010			488

BASE AGGREGATE DENSE 3/4-INCH

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 TON
0010	73+46	-	74+96		6
0010	79+04	-	80+54		6
TOTAL 0010					12

ASPHALTIC SURFACE

CATEGORY	STATION	TO	STATION	LOCATION	465.0105 TON
0010	73+46	-	74+96		47
0010	79+04	-	80+54		47
TOTAL 0010					94

FINISHING ROADWAY (7170-00-74)

CATEGORY	STATION	TO	STATION	LOCATION	213.0100 EACH
0010	73+46	-	80+54		1
TOTAL 0010					1

TACK COAT

CATEGORY	STATION	TO	STATION	LOCATION	455.0605 GAL
0010	73+46	-	74+96	STH 25	11
0010	79+04	-	80+54	STH 25	11
TOTAL 0010					22

CONCRETE BARRIER TEMPORARY PRECAST DELIVERED

CATEGORY	STATION	TO	STATION	LOCATION	603.8000 LF
0010	73+55	-	80+55		700
TOTAL 0010					700

CONCRETE BARRIER TEMPORARY PRECAST INSTALLED

CATEGORY	STATION	TO	STATION	LOCATION	603.8125 LF	REMARKS
0010	73+55	-	80+55		700	STAGE 1A
0010	73+55	-	80+55		700	STAGE 1B
TOTAL 0010					1400	

MAINTENANCE AND REPAIR OF HAUL ROADS (7170-00-74)

CATEGORY	STATION	TO	STATION	LOCATION	618.0100 EACH
0010	73+46	-	80+54	PROJECT 7170-00-74	1
TOTAL 0010					1

MOBILIZATION

CATEGORY	STATION	TO	STATION	LOCATION	619.1000 EACH
0010	73+46	-	80+54		0.5
TOTAL 0010					0.5
0020	73+46	-	80+54		0.5
TOTAL 0020					0.5

FIELD OFFICE TYPE B

CATEGORY	LOCATION	642. 5001 EACH
0010	PROJECT	1
TOTAL 0010		1

TRAFFIC CONTROL DRUMS

CATEGORY	STATION	TO	STATION	LOCATION	643. 0300 DAYS	REMARKS
0010	72+90	-	81+10		600	STAGE 1A
0010	72+90	-	81+10		600	STAGE 1B
TOTAL 0010					1200	

TRAFFIC CONTROL (7170-00-74)

CATEGORY	STATION	TO	STATION	LOCATION	643. 0100 EACH
0010	73+46	-	80+54	PROJECT 7170-00-74	1
TOTAL 0010					1

TRAFFIC CONTROL WARNING LIGHTS TYPE C

CATEGORY	STATION	TO	STATION	LOCATION	643. 0715 DAYS	REMARKS
0010	72+90	-	81+10		300	STAGE 1A
0010	72+90	-	81+10		300	STAGE 1B
TOTAL 0010					600	

TRAFFIC CONTROL SIGNS

CATEGORY	STATION	TO	STATION	LOCATION	643. 0900 DAYS	REMARKS
0010	73+46	-	80+54		450	ADVANCED WARNING
TOTAL 0010					450	

PAVEMENT MARKING EPOXY 4-INCH

CATEGORY	STATION	TO	STATION	LOCATION	646. 0106 LF	REMARKS
0010	72+65	-	81+45		880	EDGE LINE (WHI TE)
0010	72+65	-	81+45		880	EDGE LINE (WHI TE)
TOTAL 0010					1760	

PAVEMENT MARKING SAME DAY EPOXY 4-INCH

CATEGORY	STATION	TO	STATION	LOCATION	646. 0406 LF	REMARKS
0010	72+65	-	81+45		225	CENTERLINE (YELLOW) - DASHES
TOTAL 0010					225	

REMOVING PAVEMENT MARKINGS

CATEGORY	STATION	TO	STATION	LOCATION	646. 0600 LF	REMARKS
0010	73+55	-	80+55		812	WHI TE (EDGE LINE) - STAGE 1A
TOTAL 0010					812	

LOCATING NO-PASSING ZONES

CATEGORY	STATION	TO	STATION	LOCATION	648. 0100 MI
0010	73+46	-	80+54		0. 03
TOTAL 0010					0. 03

TEMPORARY PAVEMENT MARKING 4-INCH

CATEGORY	STATION	TO	STATION	LOCATION	649. 0100 LF	REMARKS
0010	65+65	-	72+65	STAGE 1A	700	SOLID (YELLOW)
0010	81+45	-	88+45	STAGE 1A	700	SOLID (YELLOW)
0010	81+45	-	88+45	STAGE 1A	56	DASH (YELLOW)
0010	73+55	-	80+55	STAGE 1A	882	EDGE LINE (WHITE)
0010	65+65	-	72+65	STAGE 1B	700	SOLID (YELLOW)
0010						
0010	81+45	-	88+45	STAGE 1B	700	SOLID (YELLOW)
0010	81+45	-	88+45	STAGE 1B	56	DASH (YELLOW)
0010	73+55	-	80+55	STAGE 1B	882	EDGE LINE (WHITE)
TOTAL 0010					4676	

TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 24-INCH

CATEGORY	STATION	LOCATION	649. 1400 LF	REMARKS
0010	72+65	LT	12	STAGE 1A
0010	81+45	RT	12	STAGE 1A
TOTAL 0010			24	

CONSTRUCTION STAKING RESURFACING REFERENCE

CATEGORY	STATION	TO	STATION	LOCATION	650. 8000 LF
0010	73+46	-	80+54		708
TOTAL 0010					708

TEMPORARY TRAFFIC SIGNALS FOR BRIDGES (B-06-0020)

CATEGORY	STATION	TO	STATION	LOCATION	661. 0100 LS
0010	72+65	-	81+45		1
TOTAL 0010					1

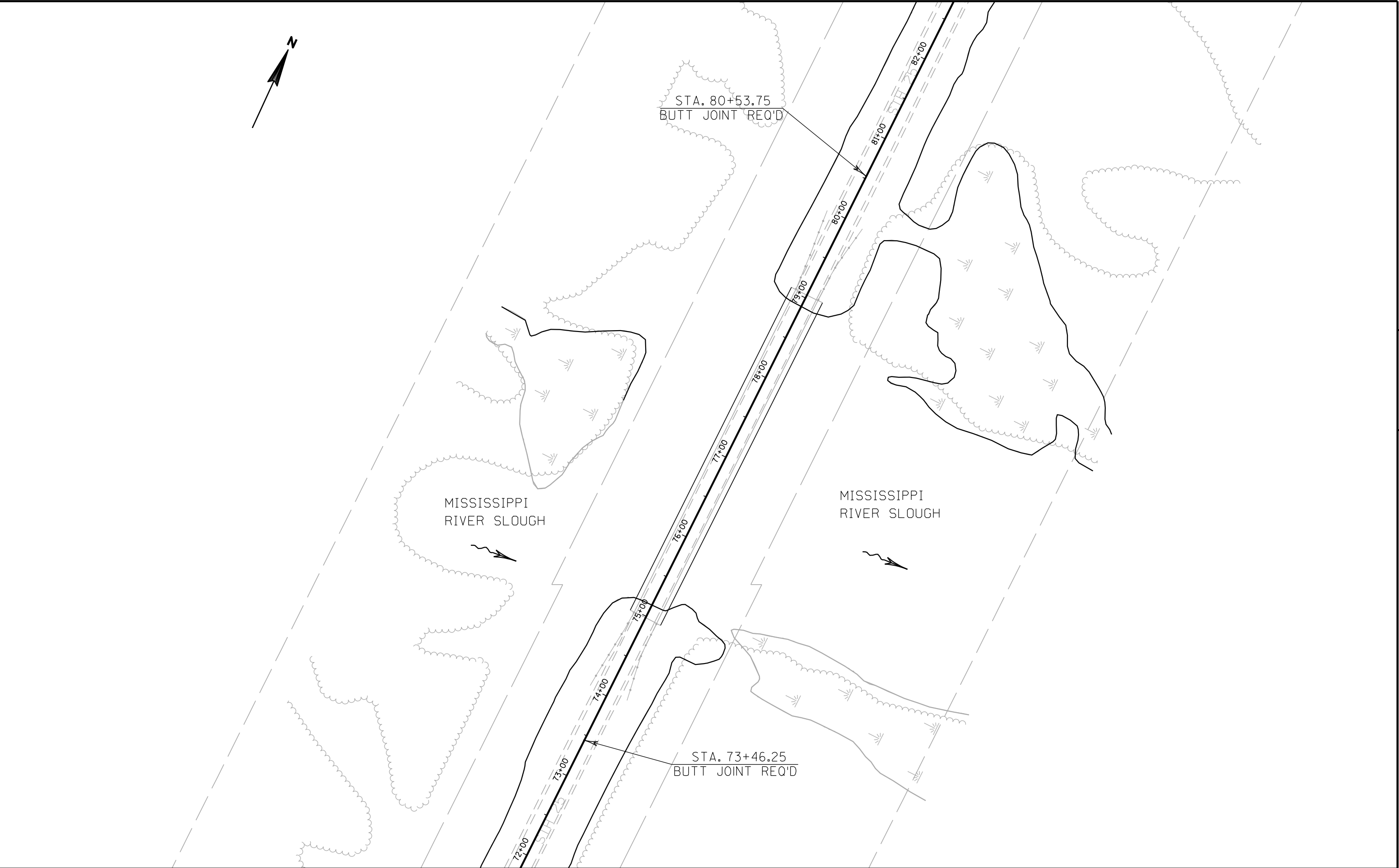
GENERATORS

CATEGORY	STATION	TO	STATION	LOCATION	661. 0300 DAY
0010	72+00	-	82+00		14
TOTAL 0010					14



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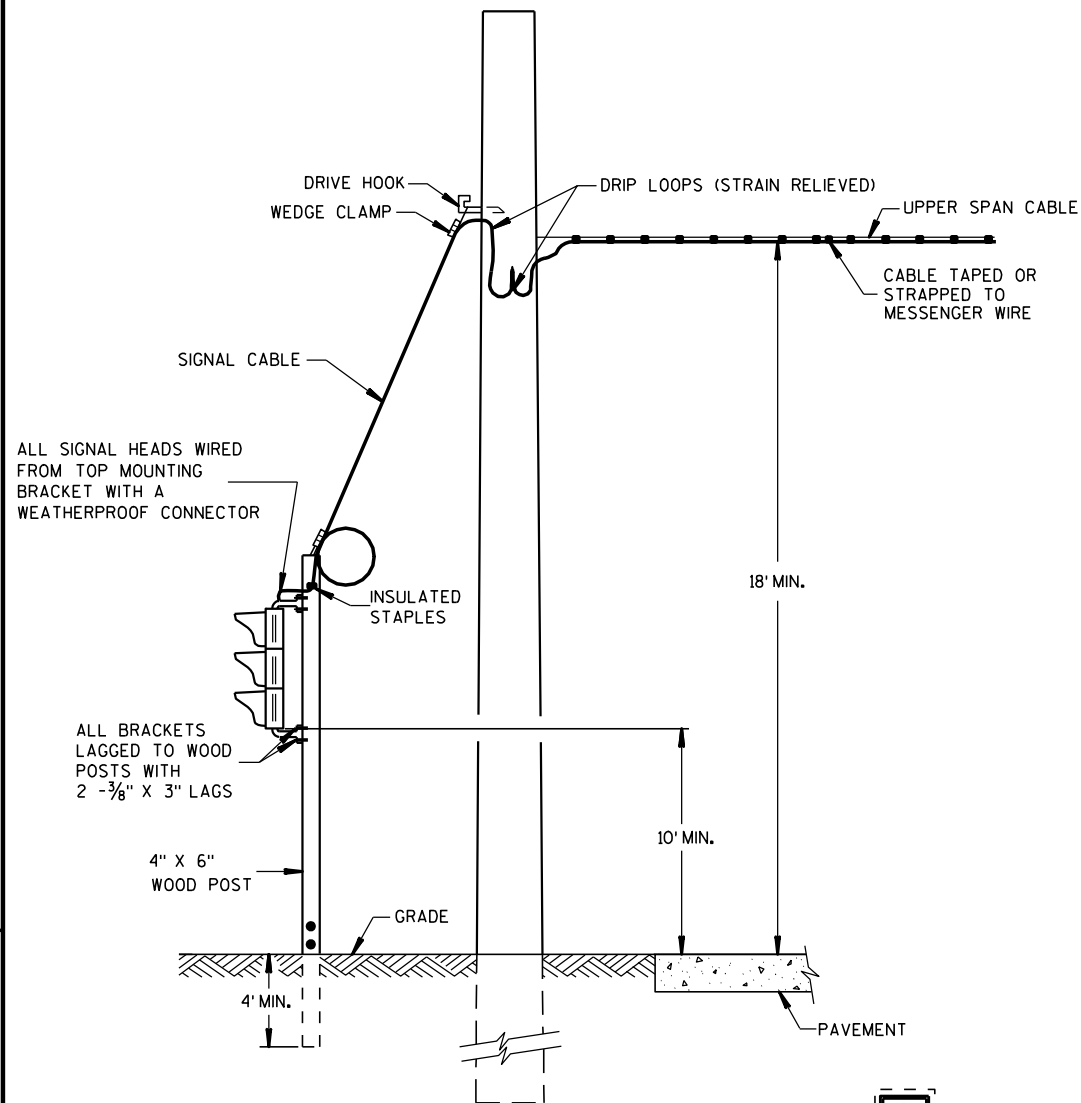


PROJECT NO: 7170-00-74	HWY: STH 25	COUNTY: BUFFALO	PLAN	SHEET	E
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Standard Detail Drawing List

09G02-03A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-03B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-03C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
15C06-07	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15D33-03	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS



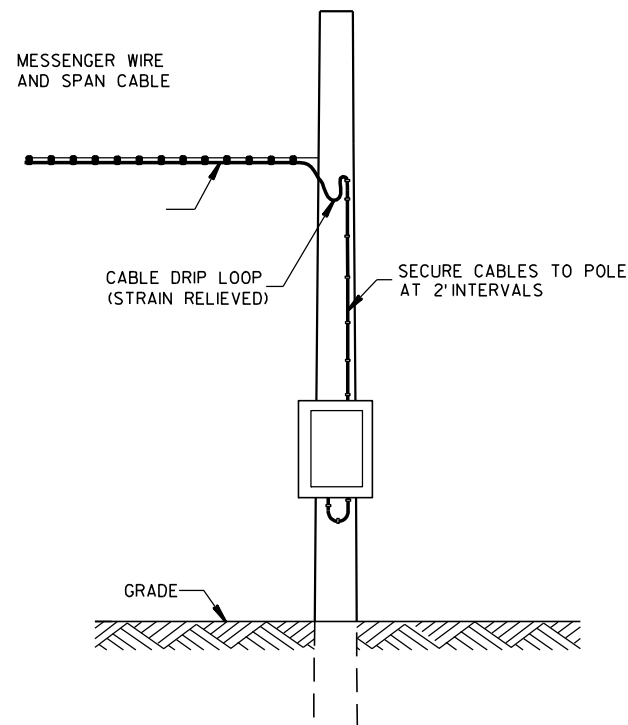


**TYPICAL DROP  
TO TRAFFIC SIGNAL FACE**

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

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

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



**POLE MOUNT  
CABINET INSTALLATION**

## GENERAL NOTES

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

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

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

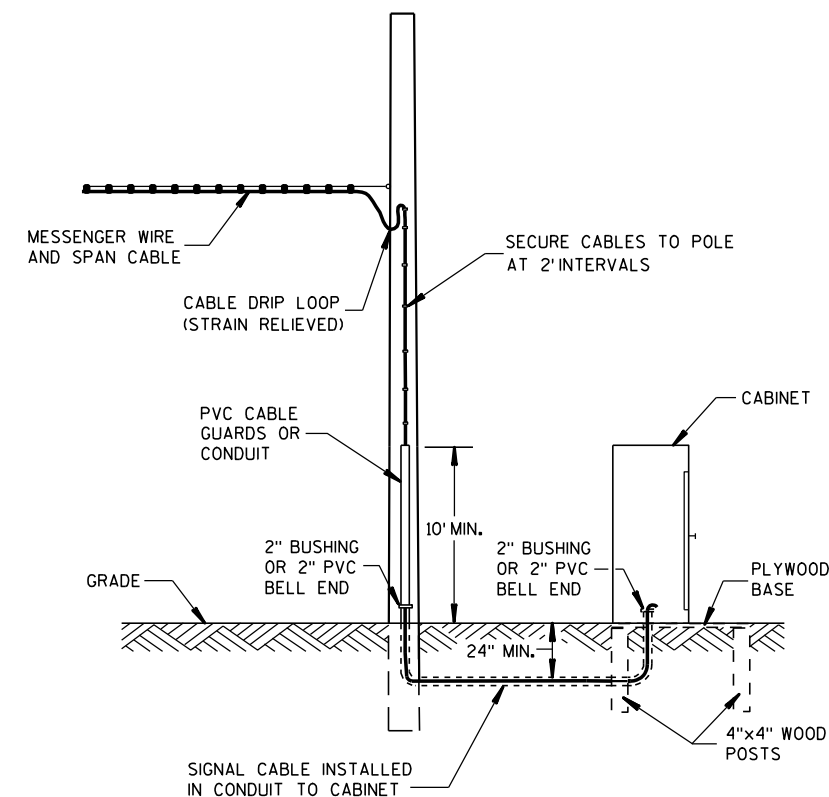
WOOD POLES (NONBREAKAWAY) SHALL BE NO CLOSER TO EDGE OF PAVEMENT THAN OFFSET DISTANCE CHART ALLOWS OR 4 FEET BEHIND PROTECTIVE BARRIER (BEAMGUARD, ETC.).

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

VERTICAL CLEARANCE ETC. PER NEC.

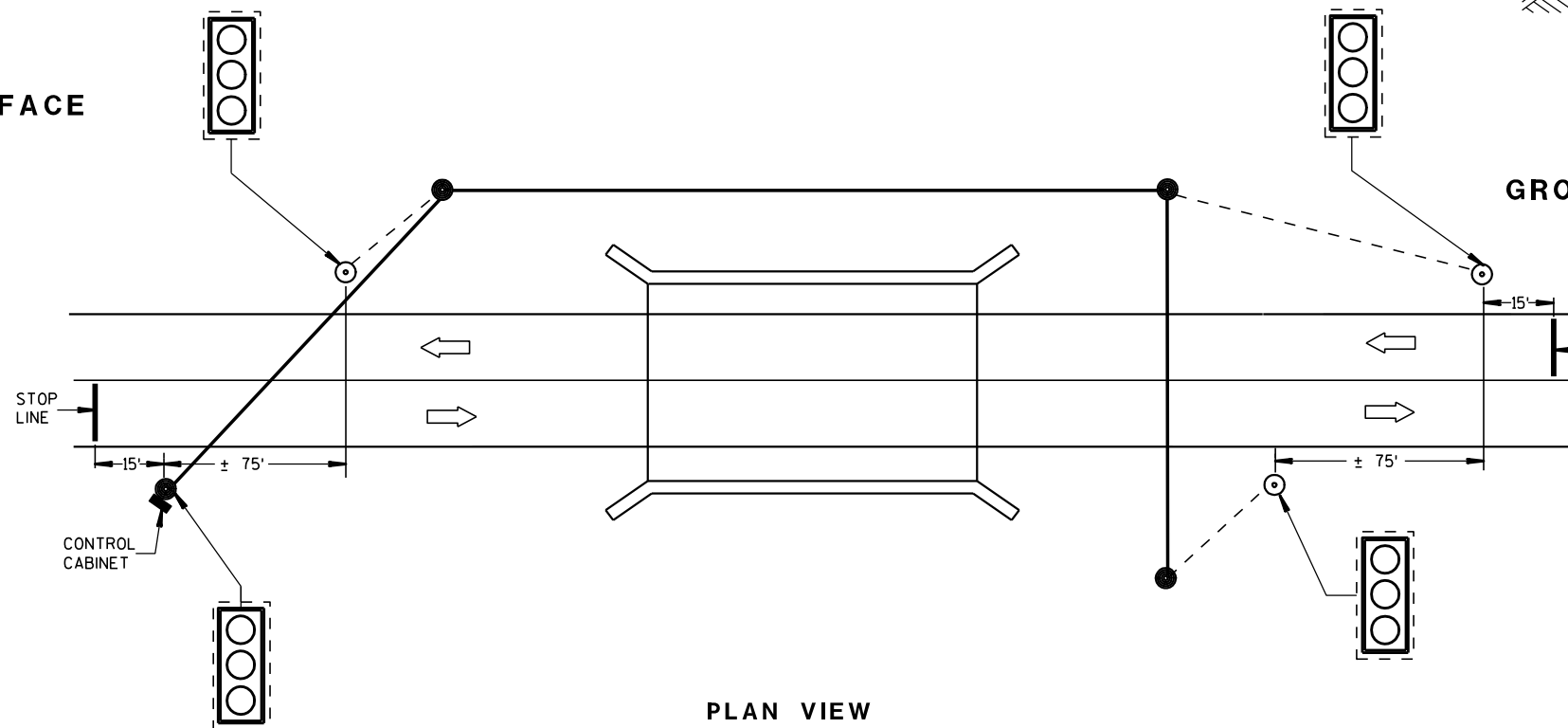
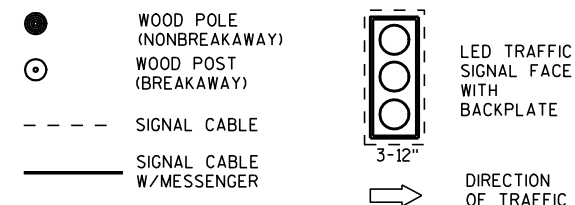
TRAFFIC SIGNAL FACES SHALL BE TYPICALLY PLACED 12 FEET FROM EDGE OF PAVEMENT.

EACH TRAFFIC SIGNAL FACE SHALL HAVE A BACKPLATE.



**GROUND MOUNT CABINET INSTALLATION**

## LEGEND



**PLAN VIEW  
TYPICAL BRIDGE TEMPORARY TRAFFIC SIGNAL LOCATION**

## BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

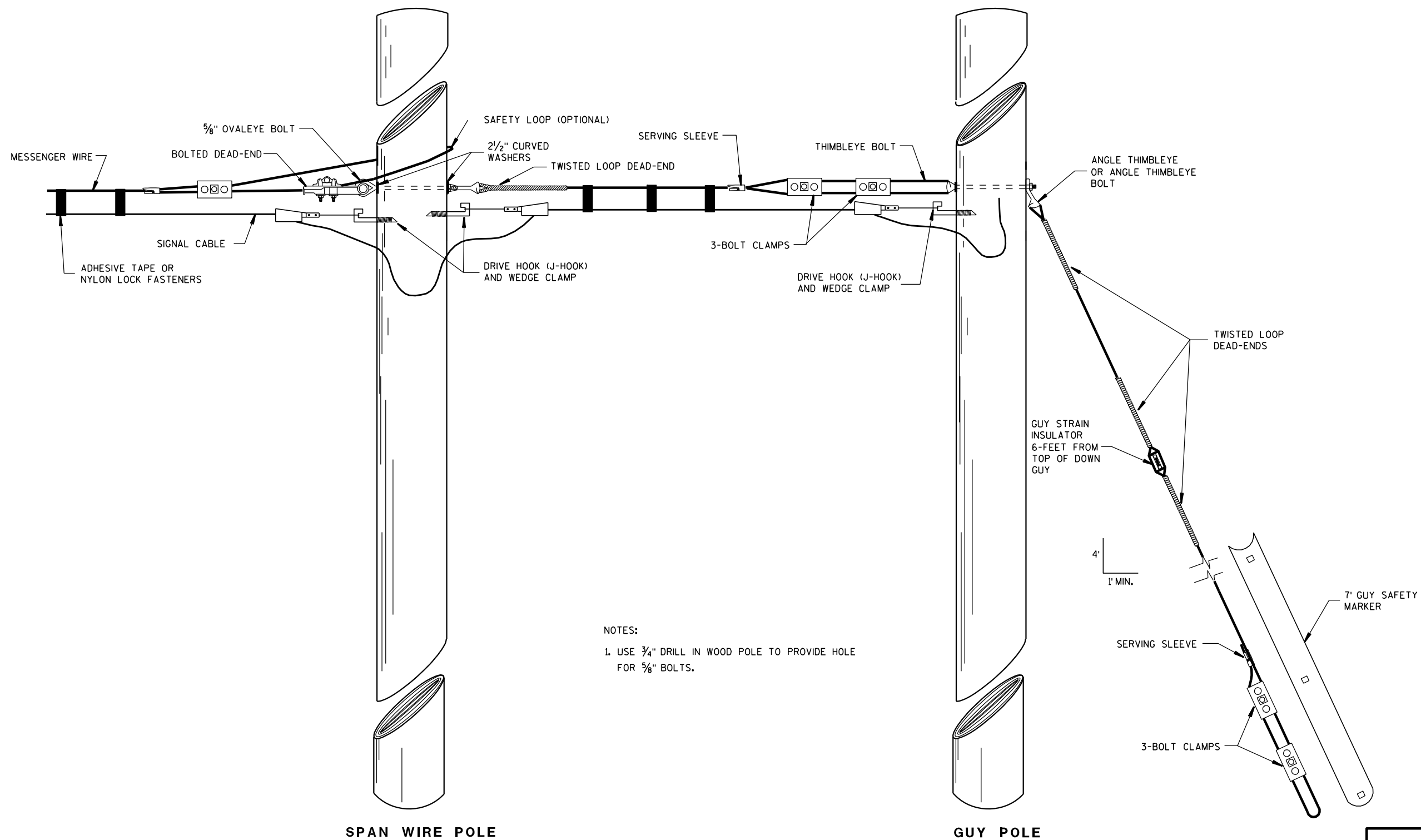
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011  
DATE

/S/ Thomas J. Goring  
STATE ELECTRICAL ENGINEER FOR HWYS

FHWA



## NOTES:

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

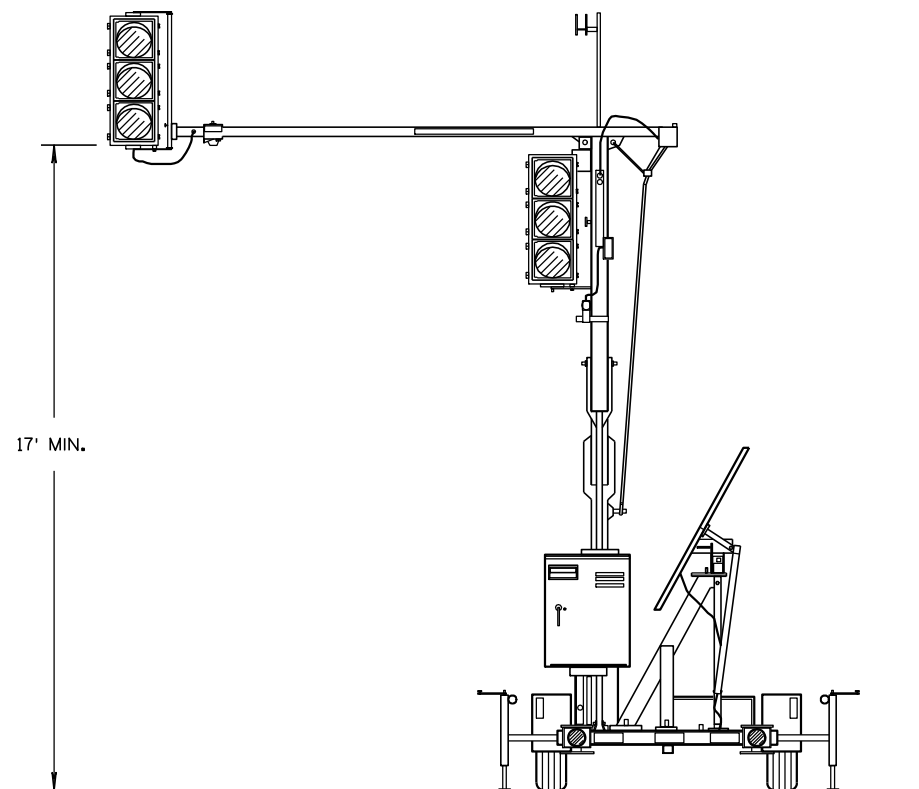
## TYPICAL DEAD-ENDINGS OR GUYING

BRIDGE TEMPORARY  
TRAFFIC SIGNAL INSTALLATIONSTATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011  
DATE/S/ Thomas J. Goring  
STATE ELECTRICAL ENGINEER FOR HWYS

FHWA

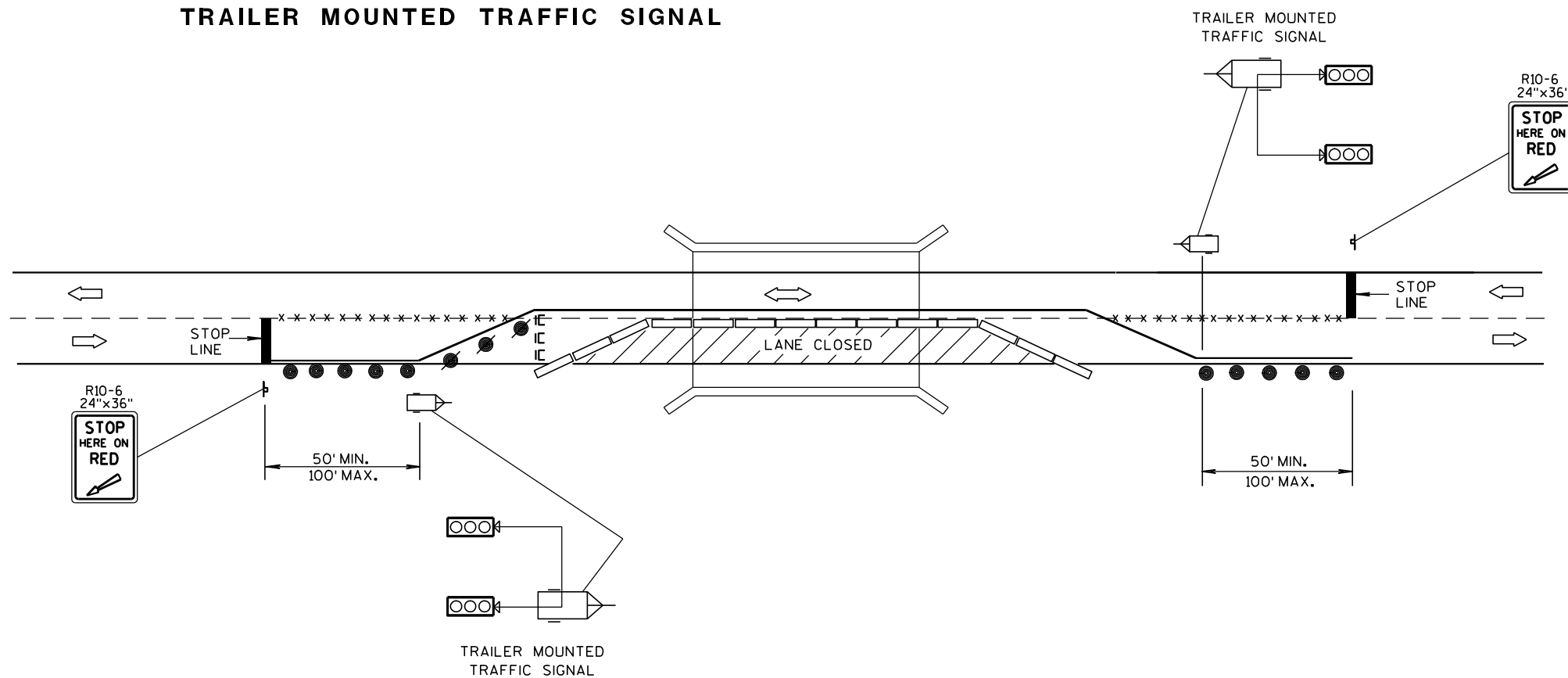


TRAILER MOUNTED TRAFFIC SIGNAL

## GENERAL NOTES

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

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



TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

## LEGEND

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

BRIDGE TEMPORARY  
TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

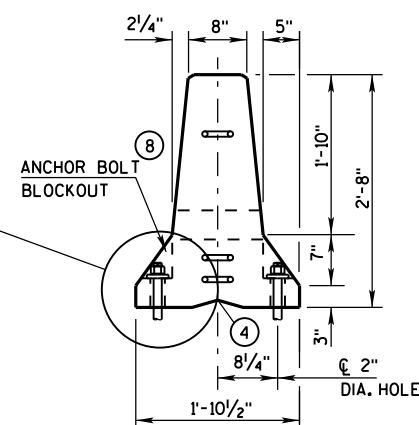
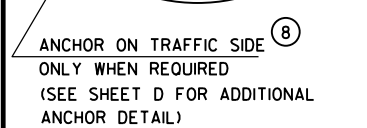
APPROVED

3/2/2011

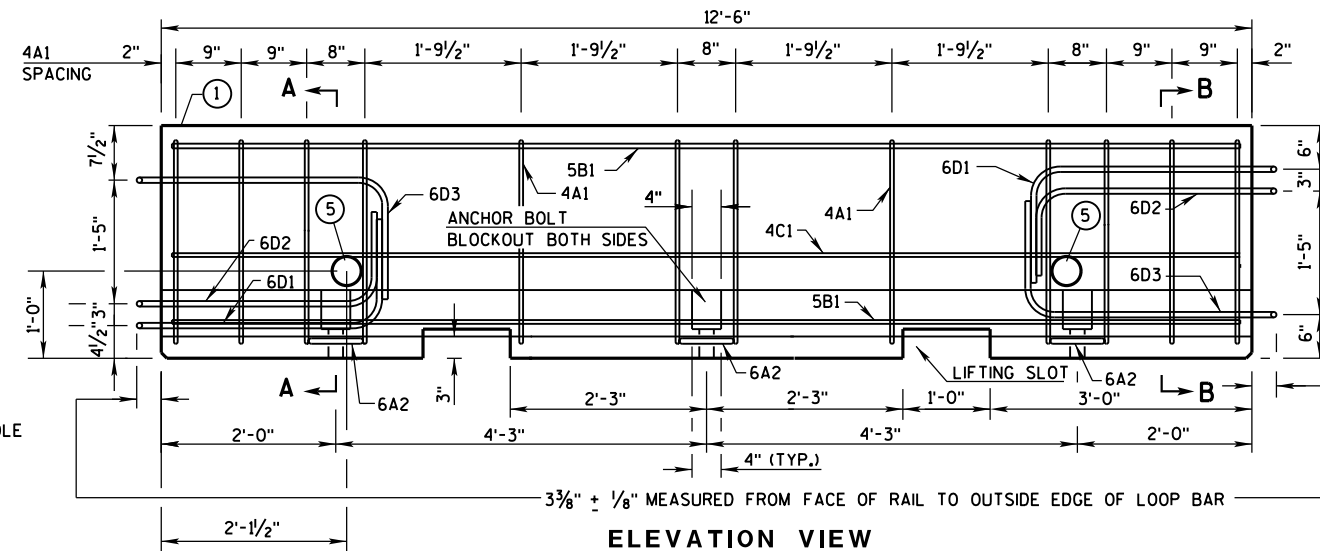
DATE

FHWA

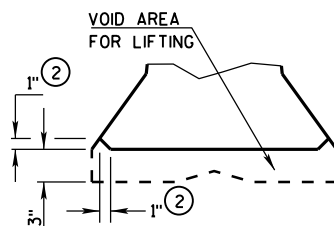
/S/ Thomas J. Goring  
STATE ELECTRICAL ENGINEER FOR HWYS



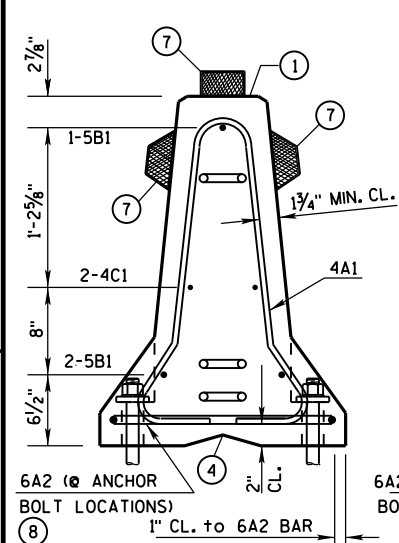
**END VIEW**



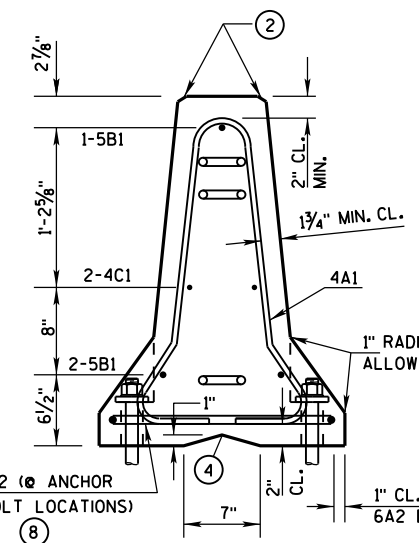
**ELEVATION VIEW**



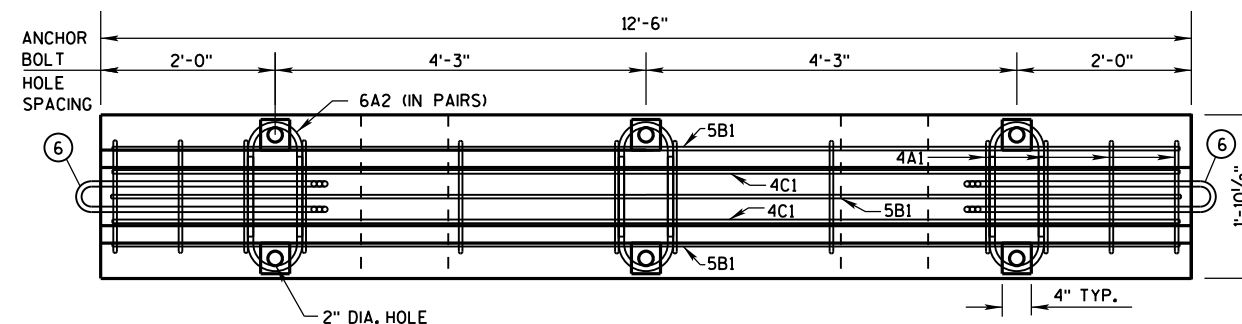
**DETAIL "B"**  
**LIFTING SLOT DETAIL**



**SECTION A-A**  
(STIRRUP PLACEMENT)

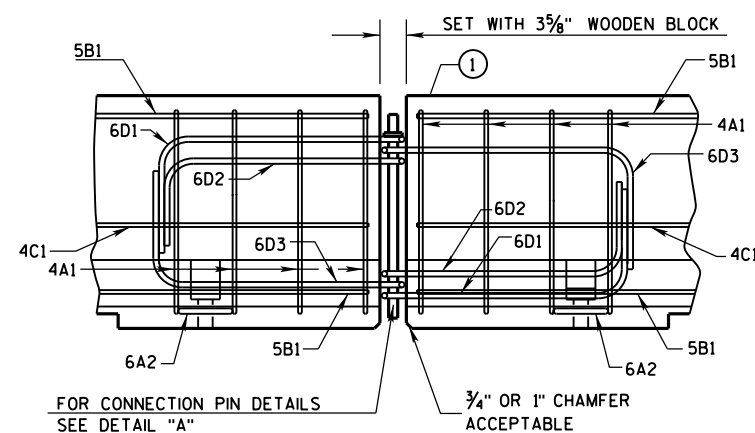


**SECTION B-B**  
(STIRRUP PLACEMENT)

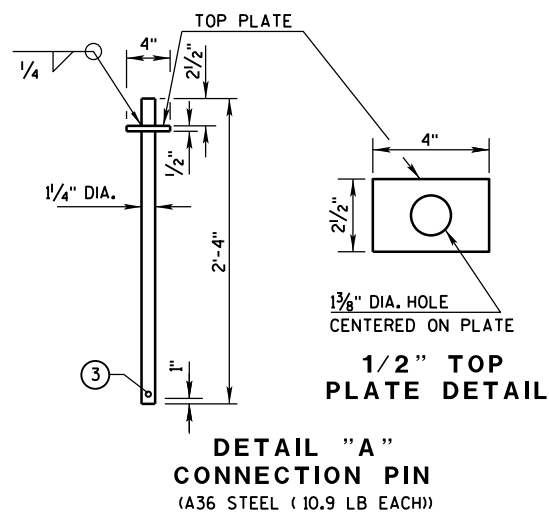


### PLAN VIEW

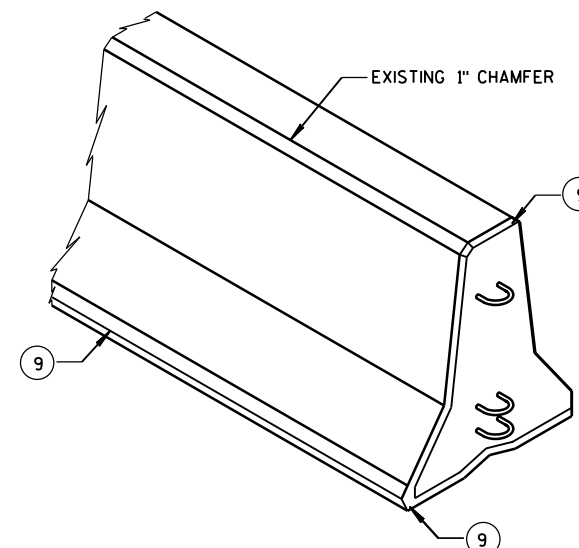
### DETAILS OF BARRIER SECTION



## DETAILS OF BARRIER CONNECTION



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



## GENERAL NOTES

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

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

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

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE  $\frac{3}{4}$ " SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3- $\frac{1}{2}$ " PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN  $\frac{1}{8}$ " OF THE PLAN DIMENSION.

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

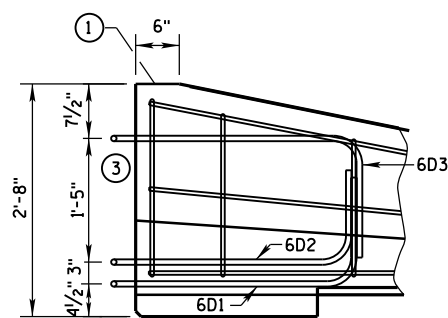
PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

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

- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
  - a. TYPE: WICBTP
  - b. MANUFACTURER
  - c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ A  $\frac{3}{8}$ " HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..
- ④ "V" NOTCH IS OPTIONAL.
- ⑤ THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).
- ⑥ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.
- ⑦ USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.
- ⑧ SEE SHEET D FOR ANCHORING CRITERIA.
- ⑨ 1" CHAMFER OPTIONAL.

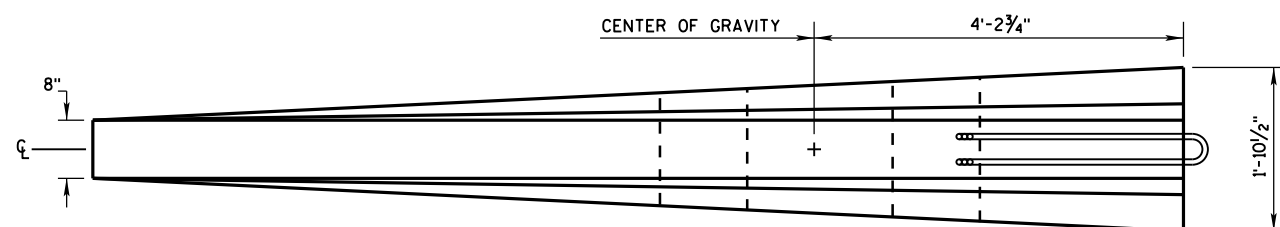
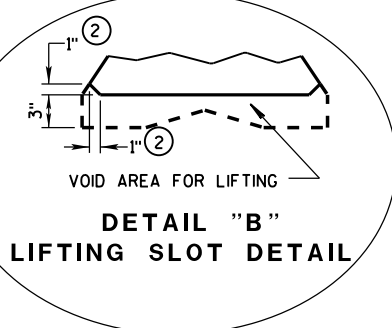
CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



LOOP BAR ASSEMBLY INVERTED  
FOR OPPOSITE END.  
(FOR CONNECTION TO RIGHT END OF BARRIER)

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



**CHAMFER  
DETAIL**

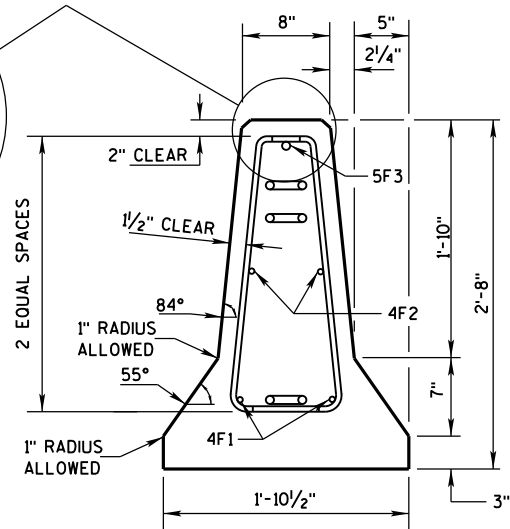


Diagram illustrating the barrier on a curve. The barrier is shown as a series of segments. The offset from the centerline is labeled as  $10'' \pm$  OFFSET. The maximum offset is labeled as  $5'' \pm$  MAX. The segments are labeled with lengths of  $12'-6''$ . The diagram is titled **BARRIER ON CURVE**. The end section is labeled **END SECTION**.

## FLARE AT BARRIER END

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

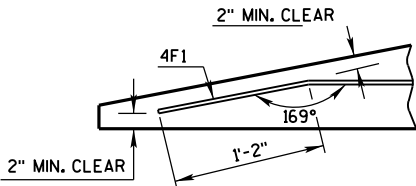
CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

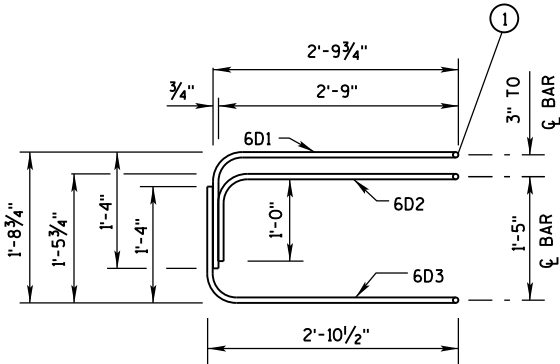
BARRIER TAPER SECTION  
BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

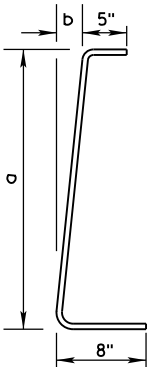
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



DETAIL "C"  
BENT BAR DETAIL



ELEVATION  
LOOP BAR ASSEMBLY



4V BARS  
2 AT EACH SIZE REQUIRED  
FOR STIRRUP ASSEMBLY

BAR	a	b
V1	10"	1"
V2	1'-1"	1 1/4"
V3	1'-5"	1 5/8"
V4	1'-8"	1 7/8"
V5	2'-0 1/2"	2 3/8"
V6	2'-3"	2 3/4"

TAPER BARRIER SECTION

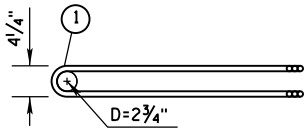
GENERAL NOTES

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

BARRIER SECTION  
BILL OF MATERIALS

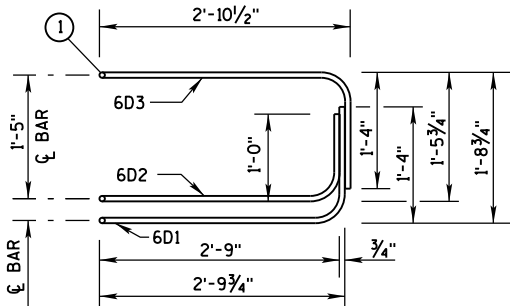
(PER 12'-6" BARRIER SECTION)

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

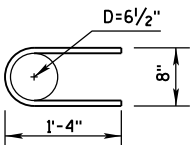


PLAN VIEW  
LOOP BAR ASSEMBLY

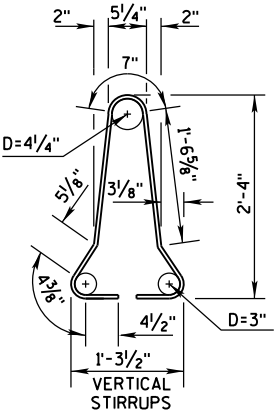
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2

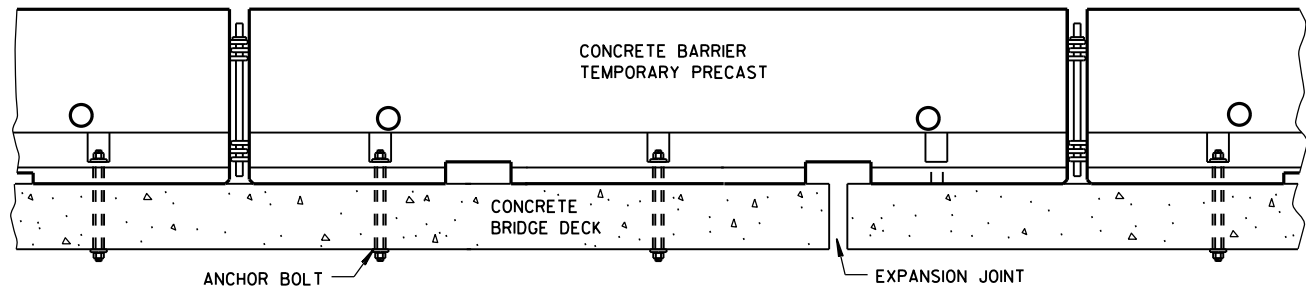
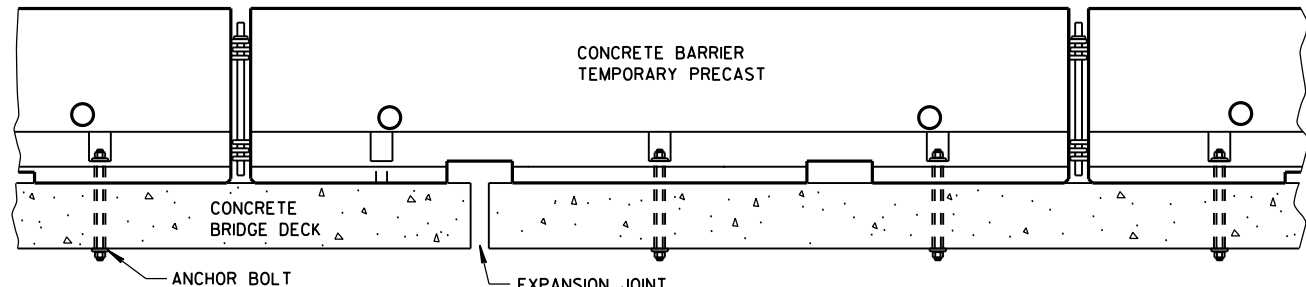


4A1

BARRIER SECTION

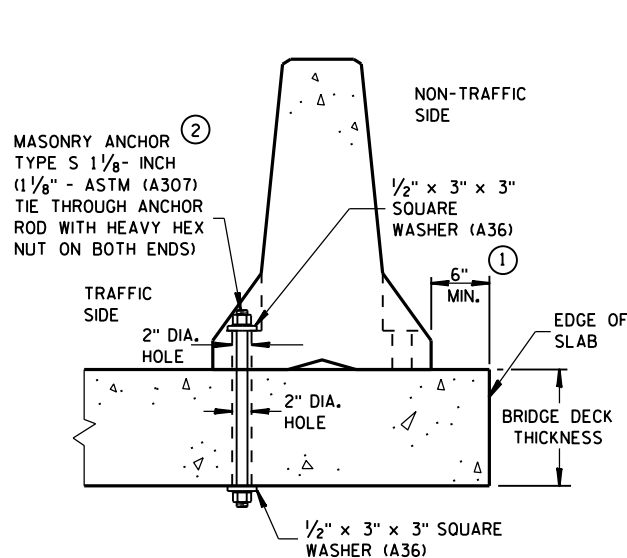
CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



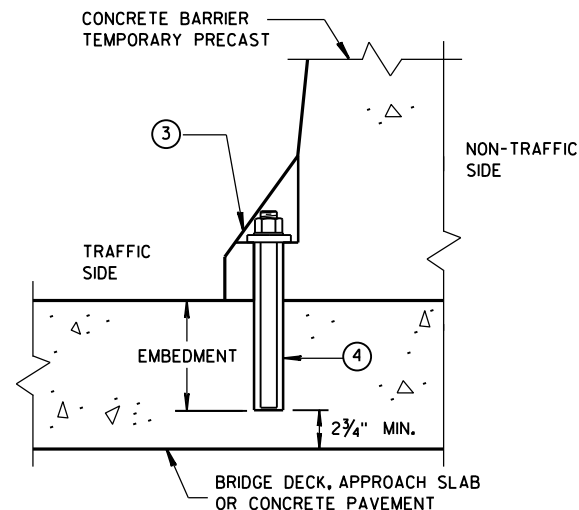
### TREATMENT AT BRIDGE DECK EXPANSION JOINTS

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



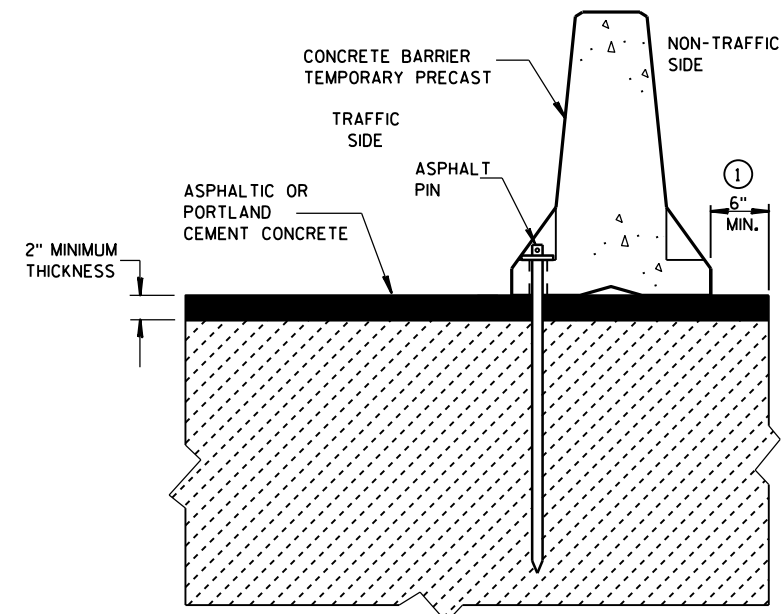
### THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



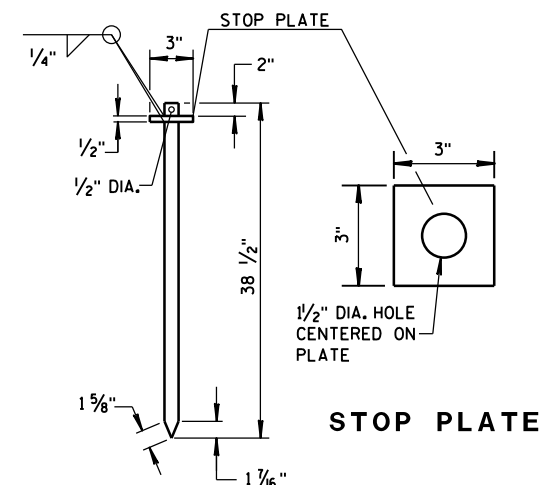
### REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

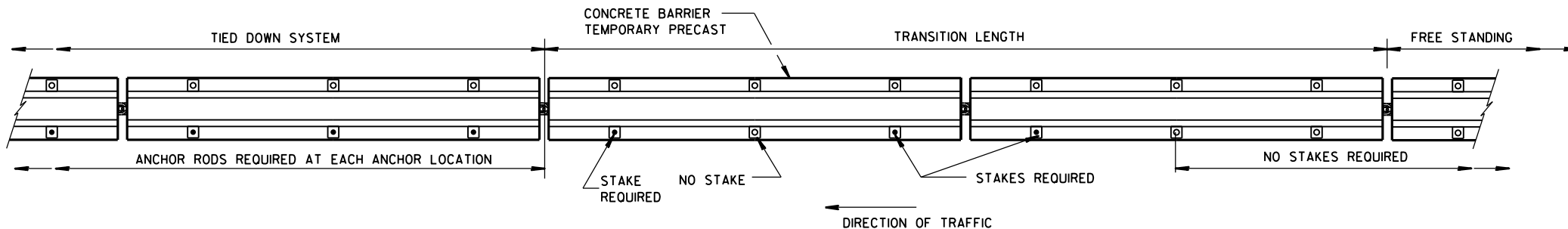


### STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



ASPHALT PIN  
(ASTM A36 STEEL)



PLAN VIEW

### FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

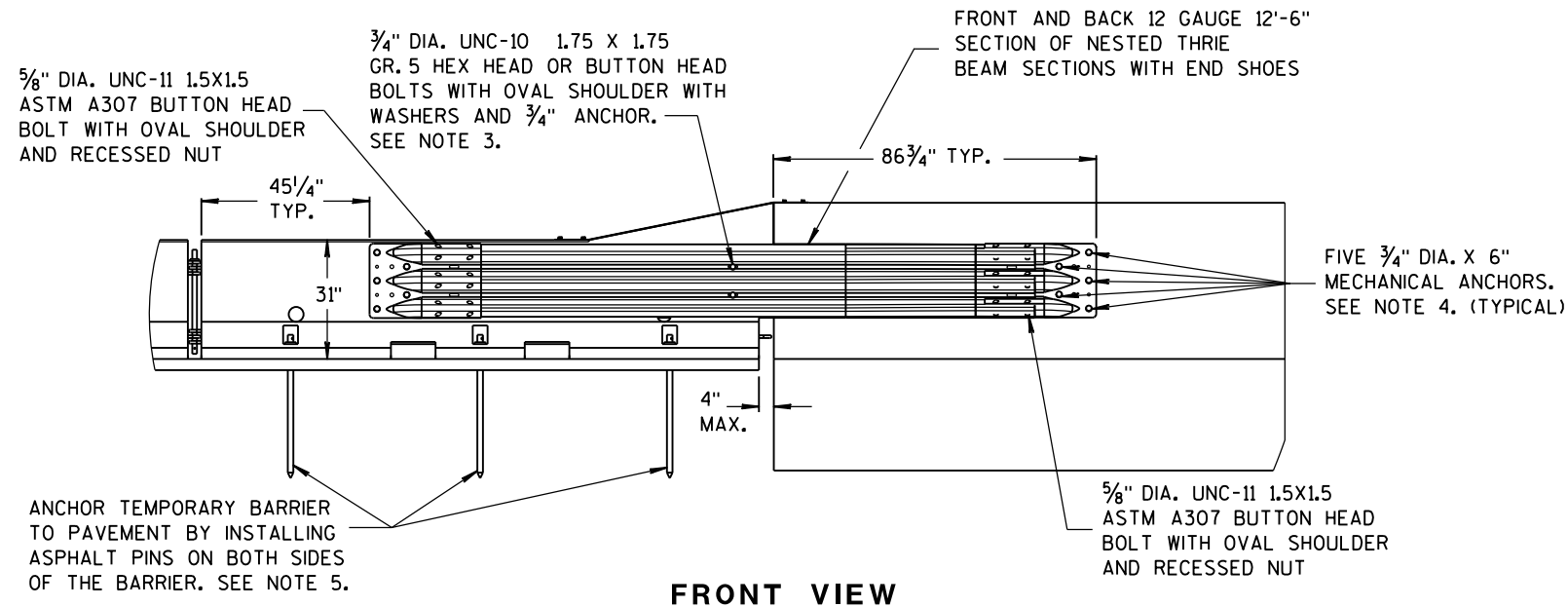
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

### GENERAL NOTES

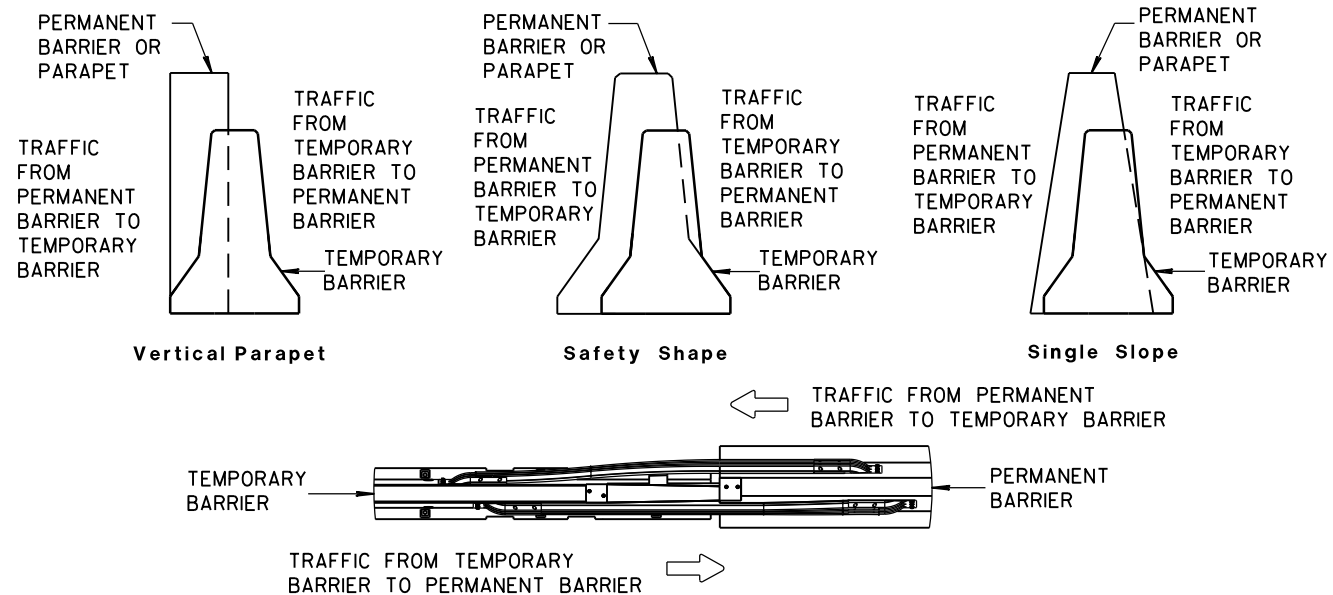
- ① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:  
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V,  
FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT,  
IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF  
AND THE POSTED SPEED IS 45 MPH OR GREATER, OR  
  
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V,  
FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT,  
IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF  
AND THE POSTED SPEED IS 40 MPH OR LESS.
- ② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.  
  
WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED ANCHOR BOLT  
INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE  
BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE  
S 1 1/8"-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE  
ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.  
  
UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY  
FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CON-  
CRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERCIAL GROUT OR MATERIAL  
IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.
- ③ 1/8" DIAMETER A307 THREADED ROD, 1/2" x 3" x 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL,  
ASTM A563A HEAVY HEX NUT.
- ④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5/4" EMBEDMENT. SEE 603.2  
AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



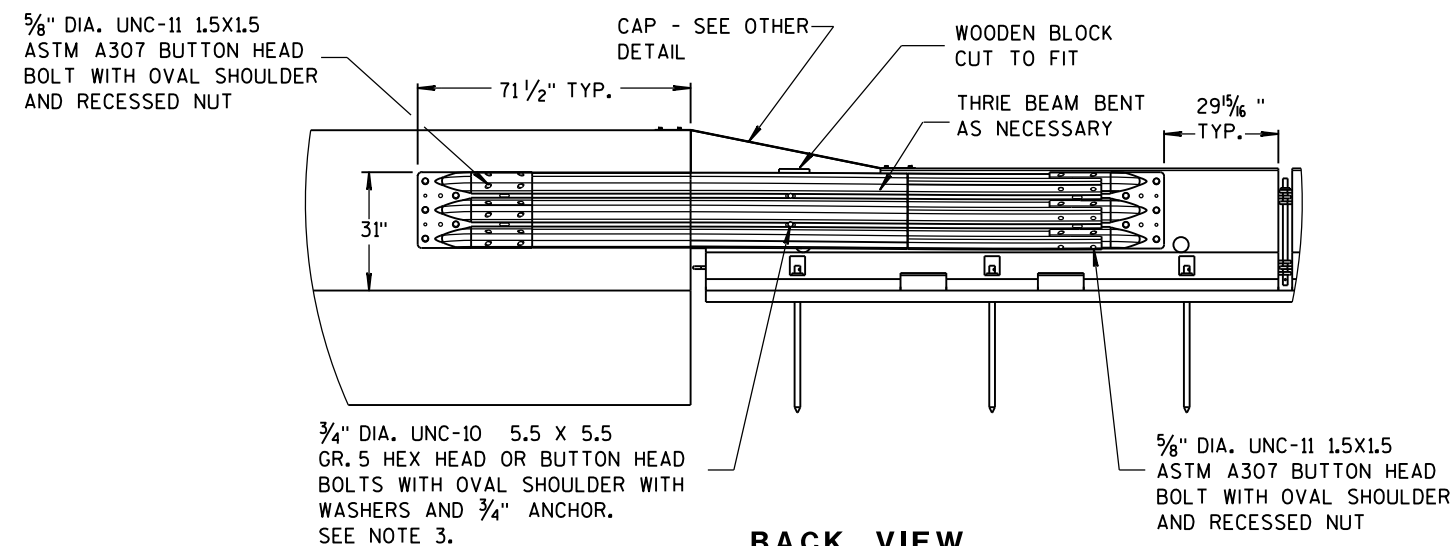
FRONT VIEW



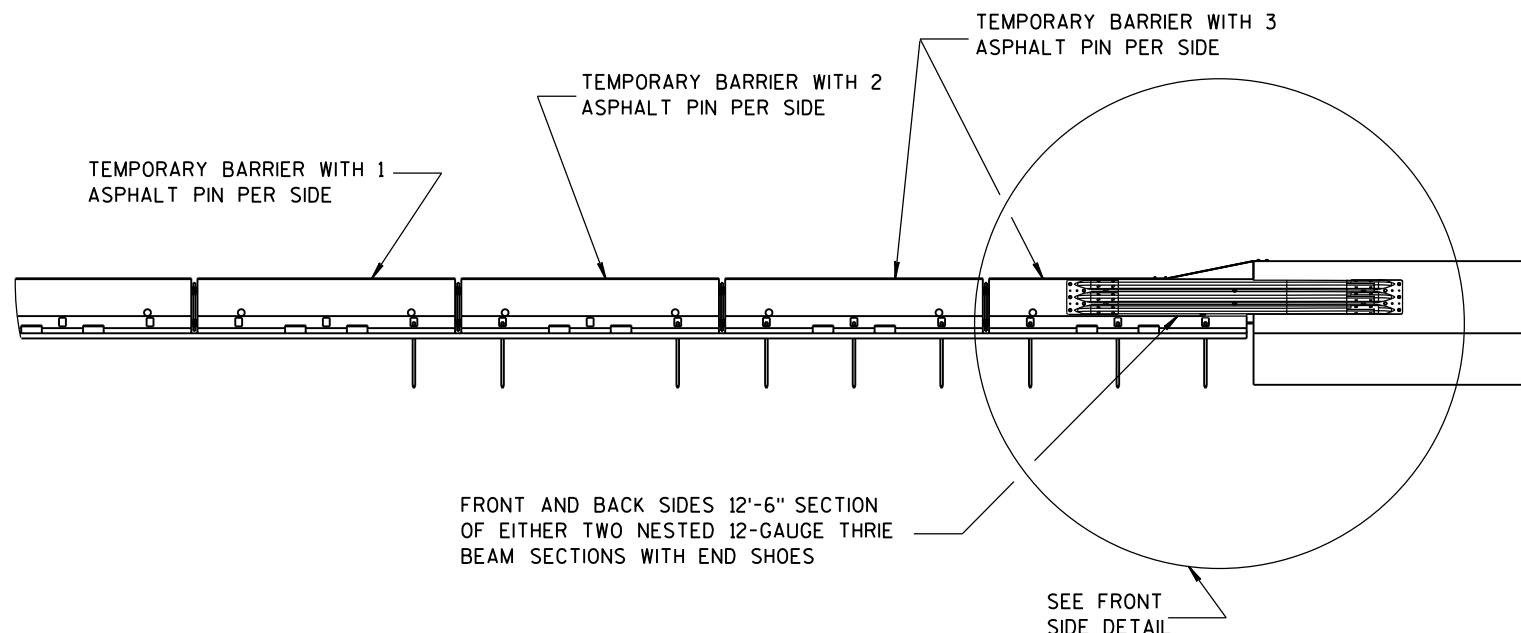
TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

# NOTES

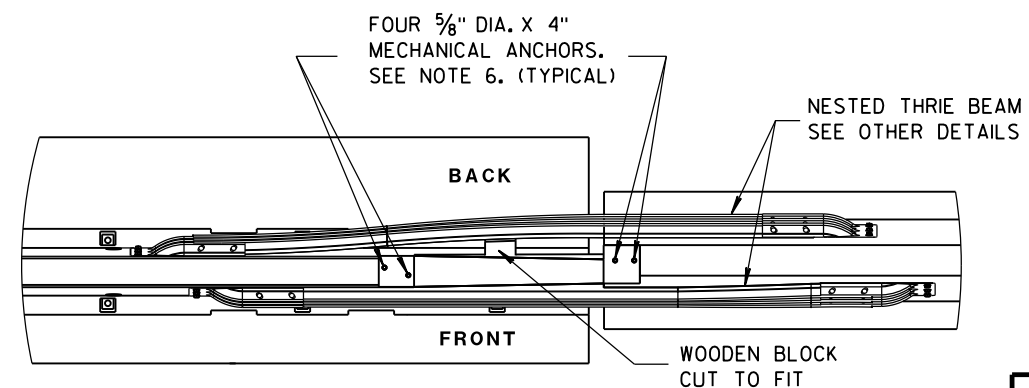
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD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



BACK VIEW



FRONT VIEW



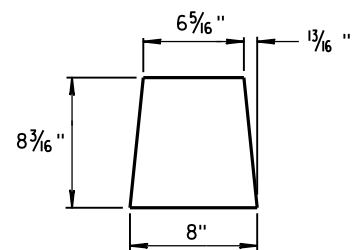
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

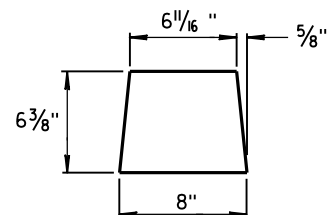
CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

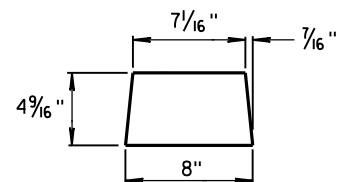




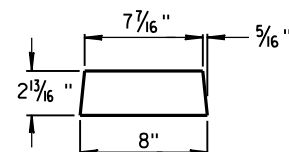
**GUSSET 1**



**GUSSET 2**

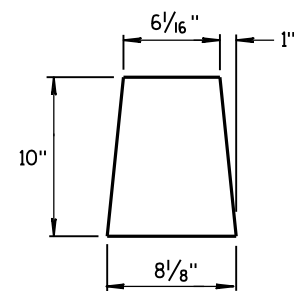


**GUSSET 3**

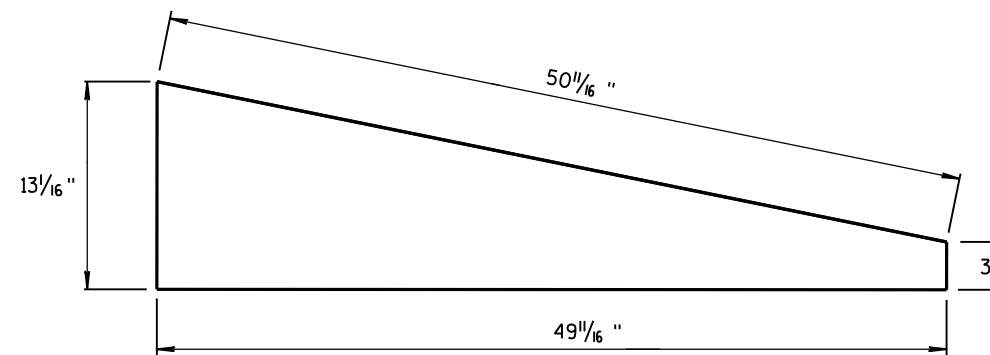


**GUSSET 4**

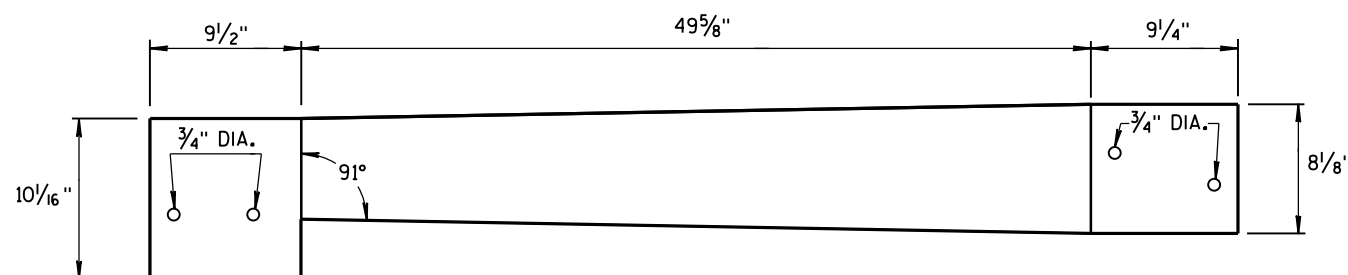
**GUSSETS**



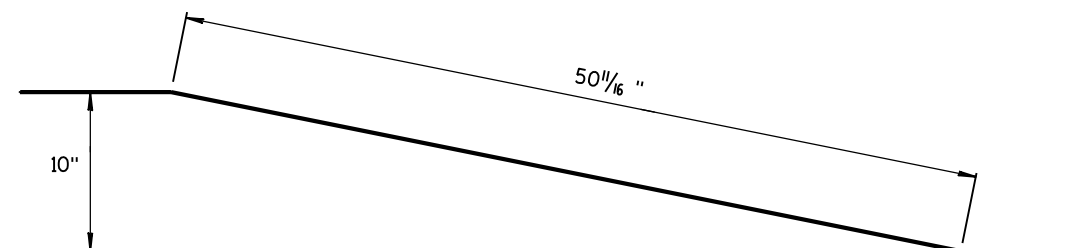
**END PLATE**



**SIDE PLATE**

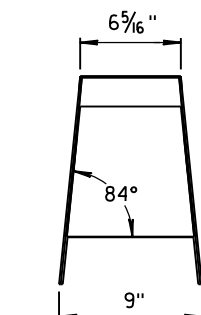
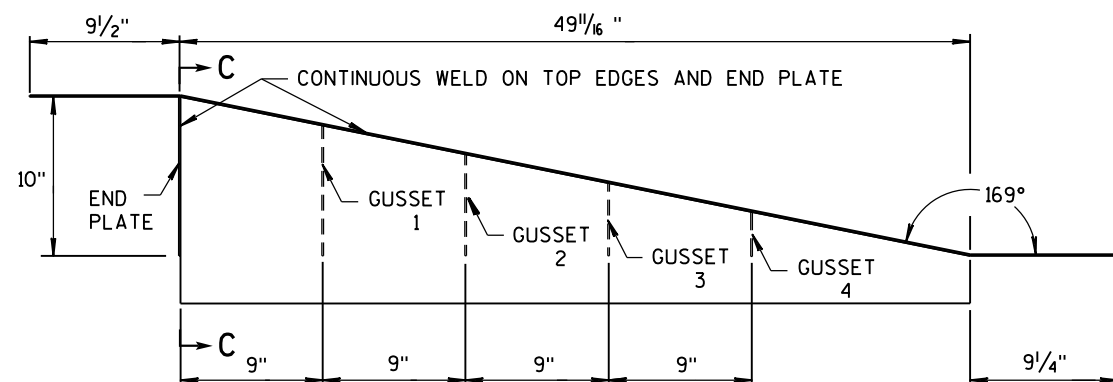
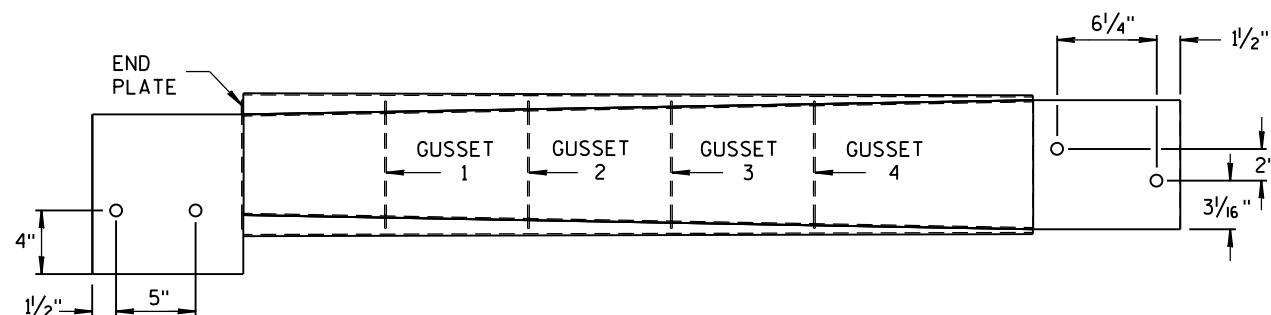


**TOP PLATE**



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

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



**SECTION C-C**

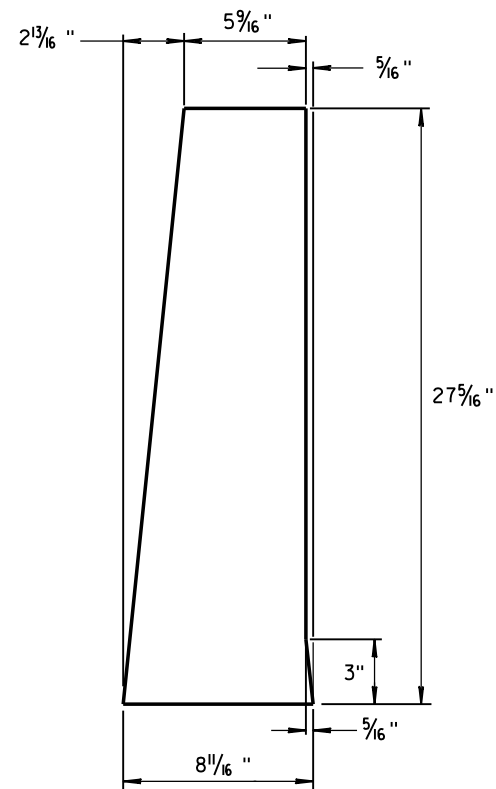
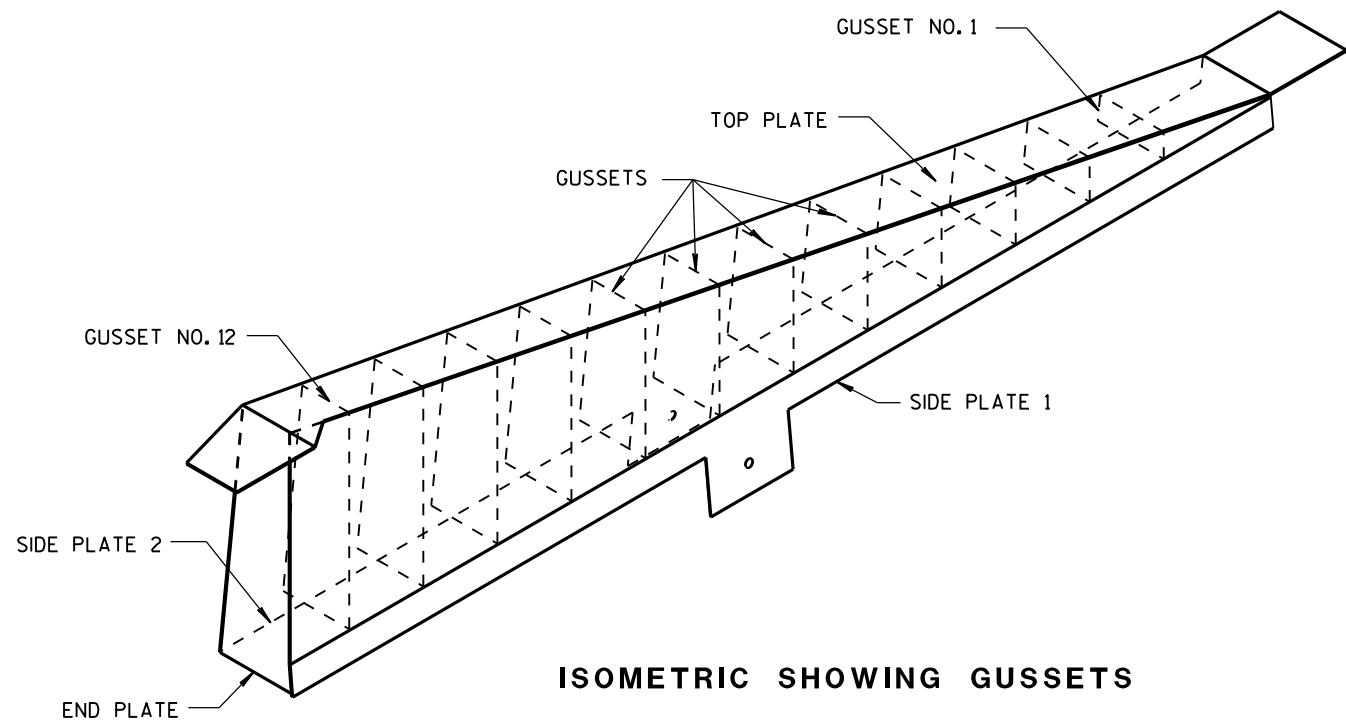
**NOTES**

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

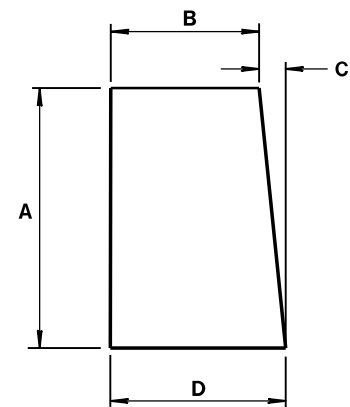
**CAP DETAILS FOR TEMPORARY CONCRETE  
BARRIER TO 42" PERMANENT CONCRETE BARRIER**

**CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



1/8" STEEL PLATE

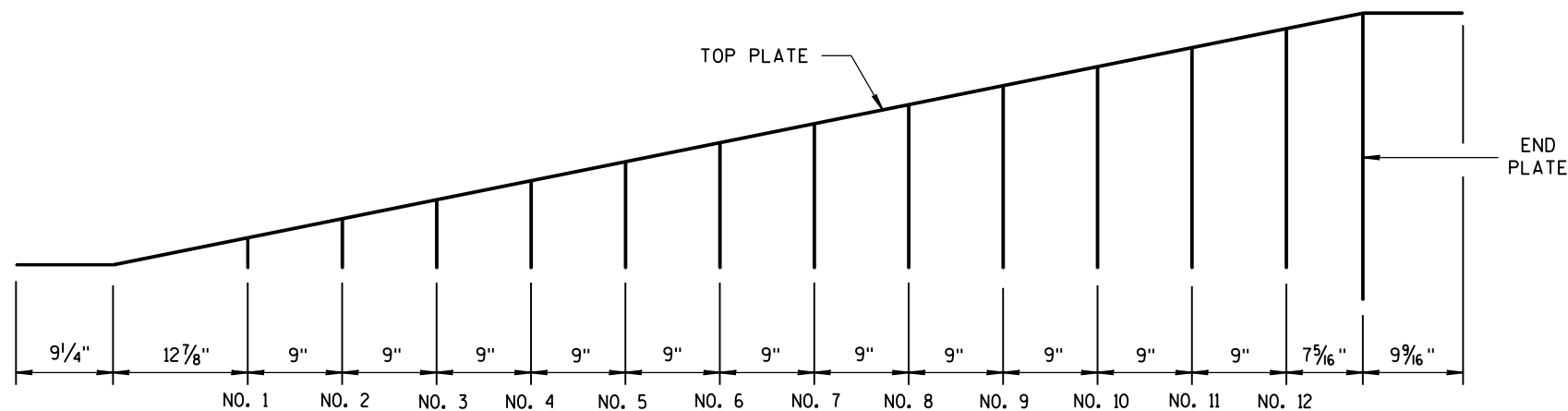


ALL GUSSETS 1/8" STEEL PLATE

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

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

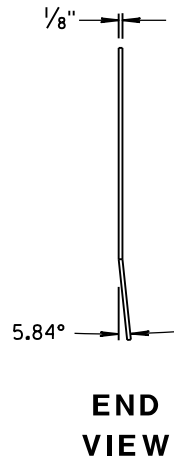
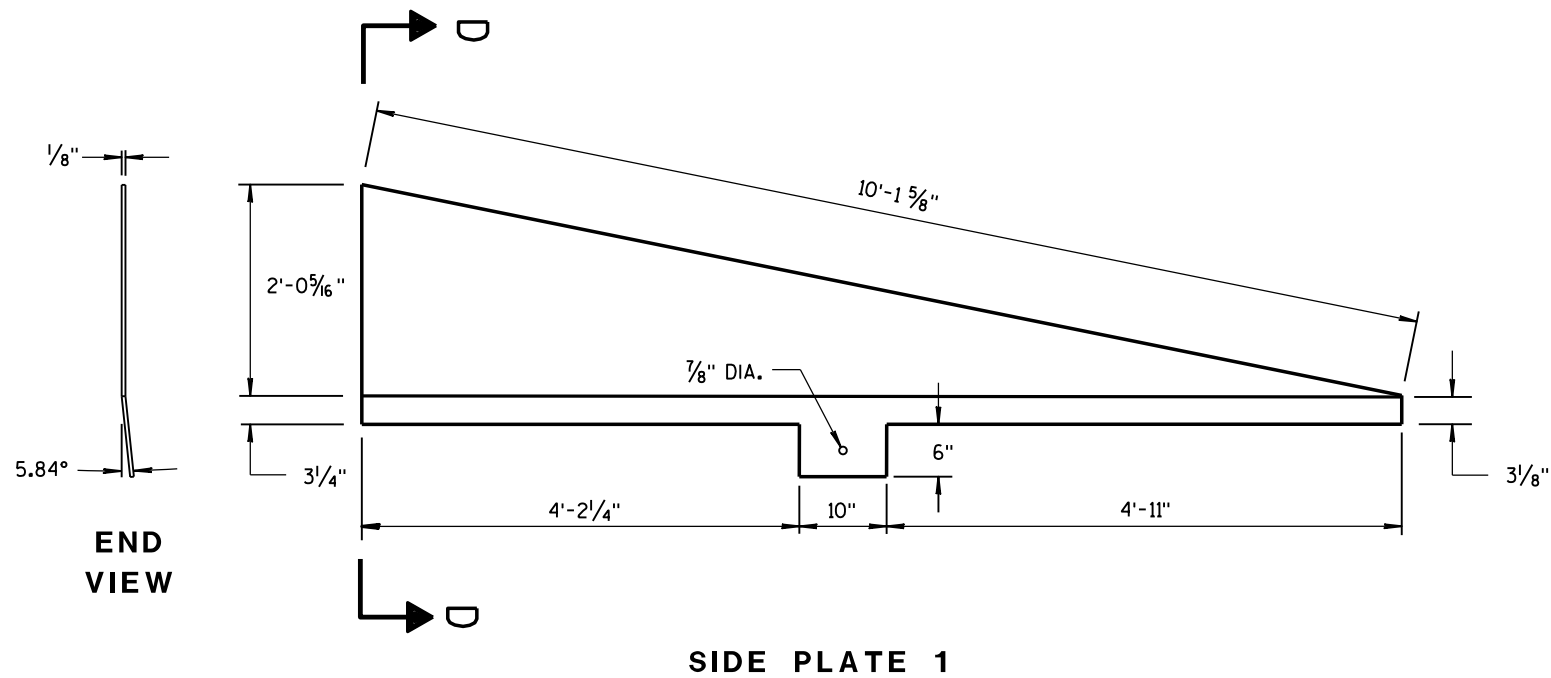
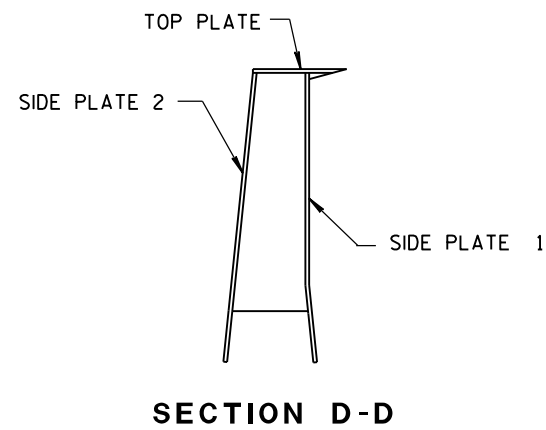
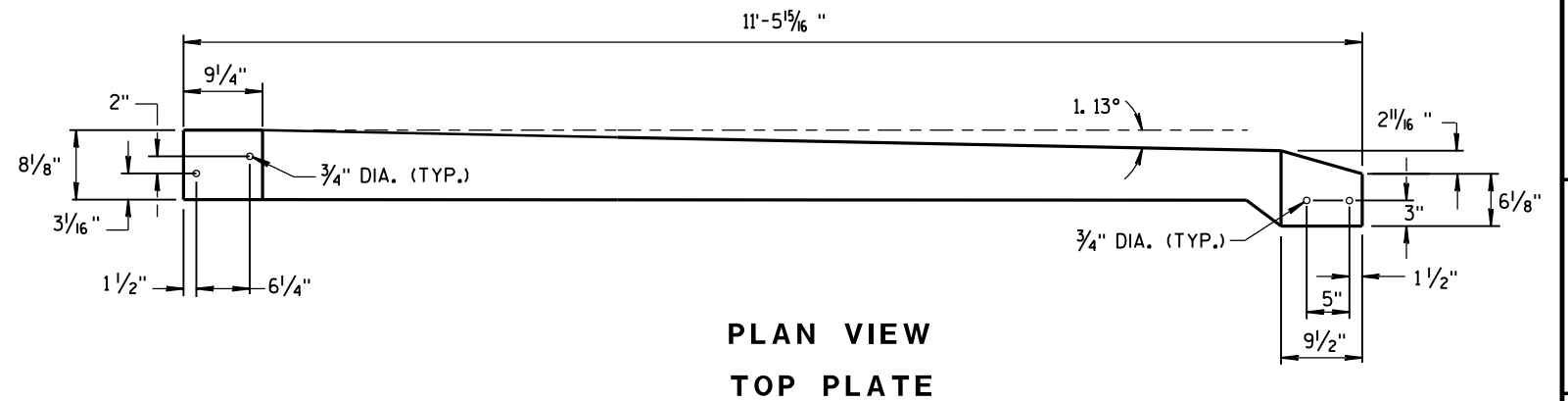
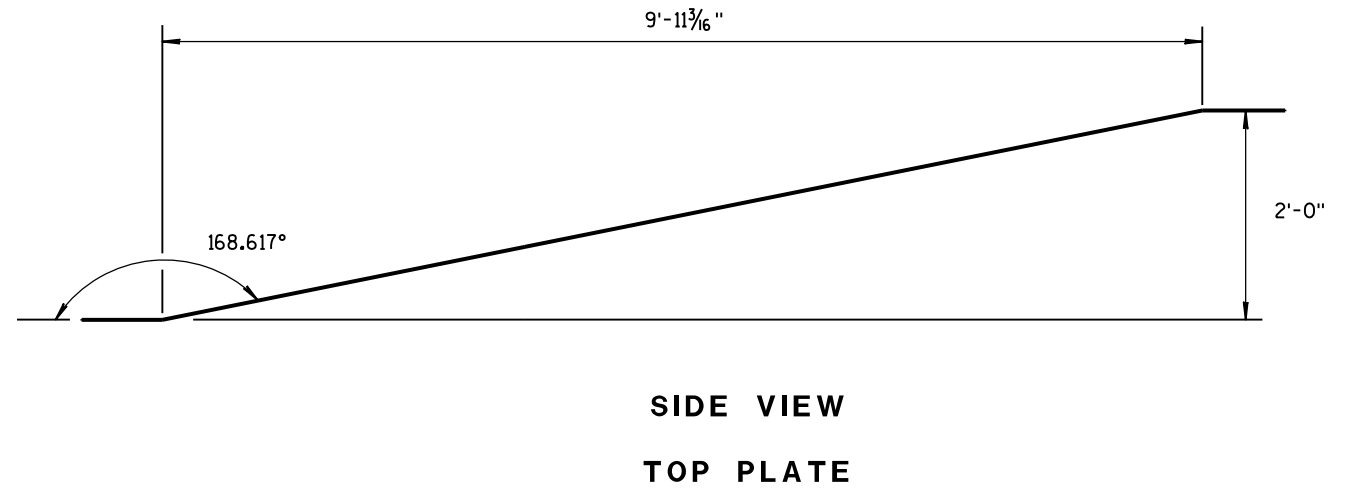
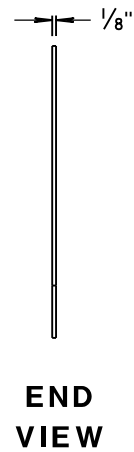
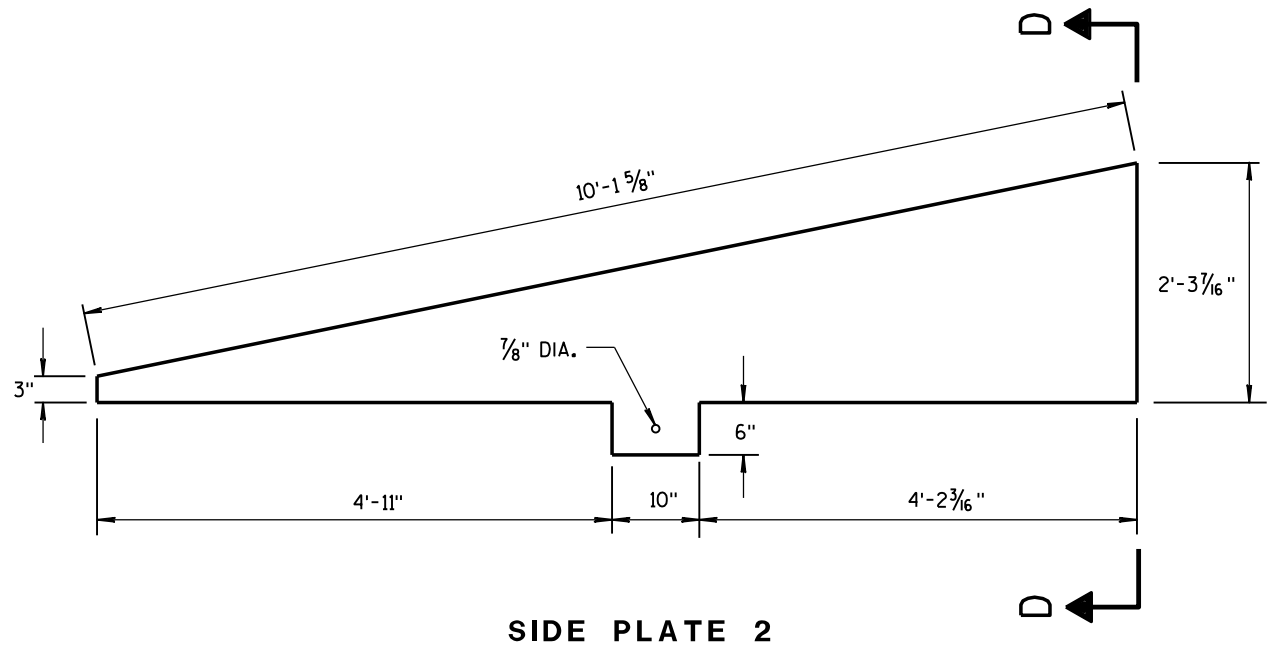
GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



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

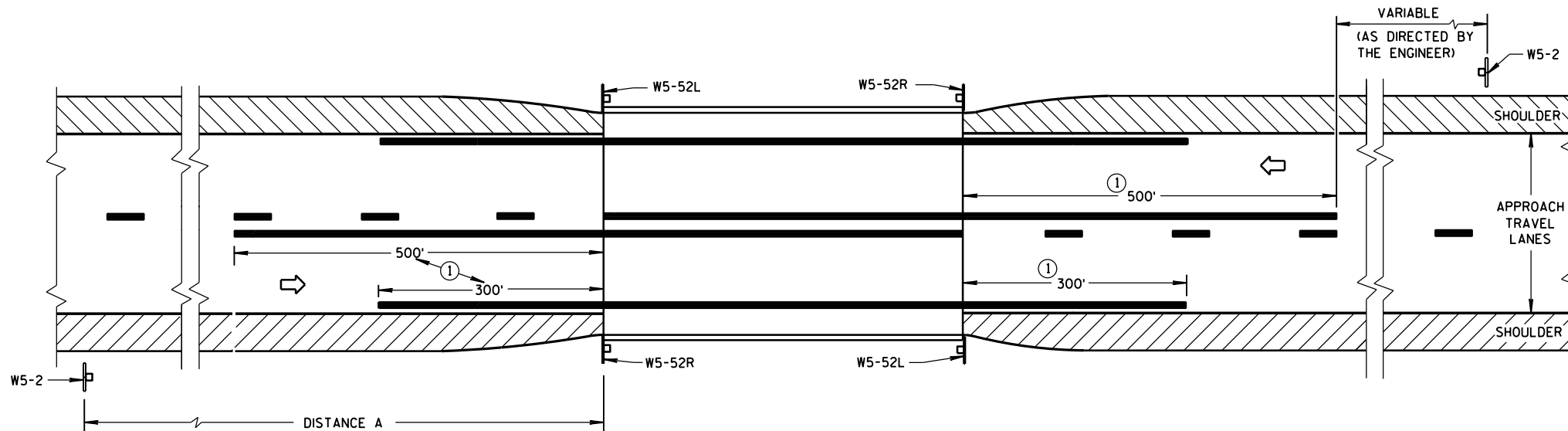
CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



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

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2014 DATE	/S/ Jerry H. Zogg ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA	



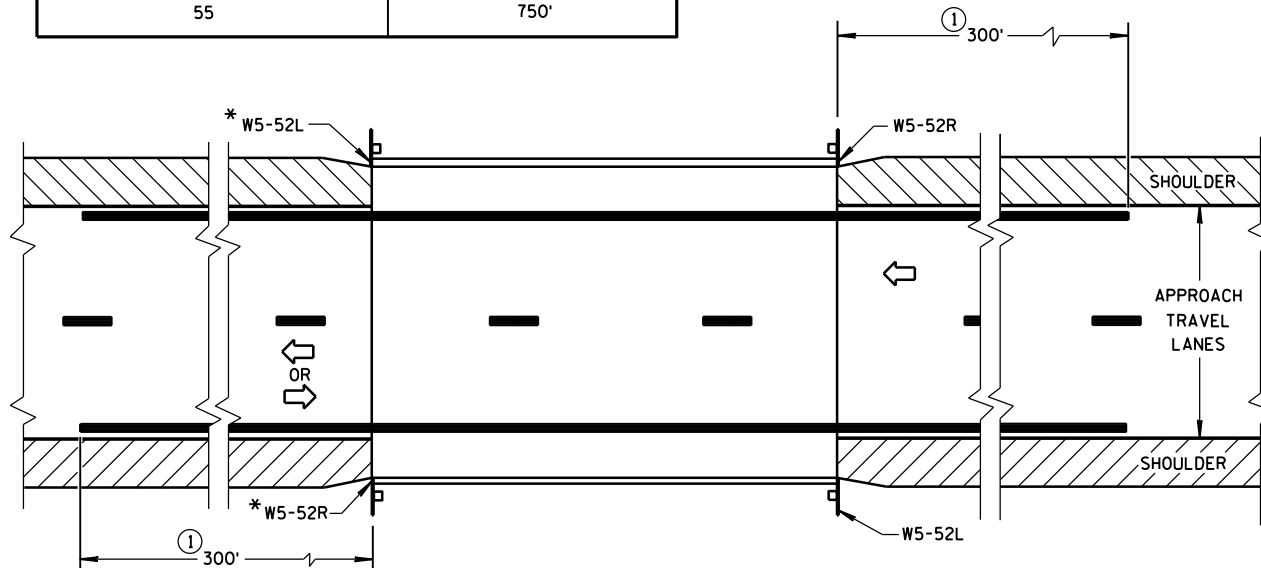
### SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET

#### DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

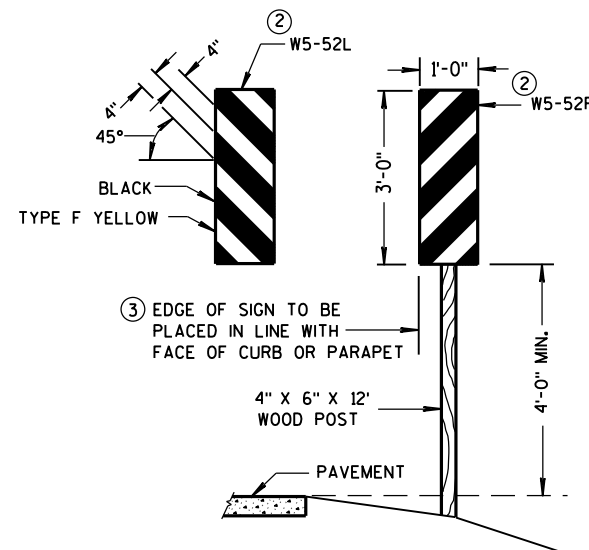


\*OMIT ON ONE-WAY TRAVELLED WAYS

### SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE IS LESS THAN 6 FEET WIDER (ON EACH SIDE) THAN APPROACH TRAVEL LANES.



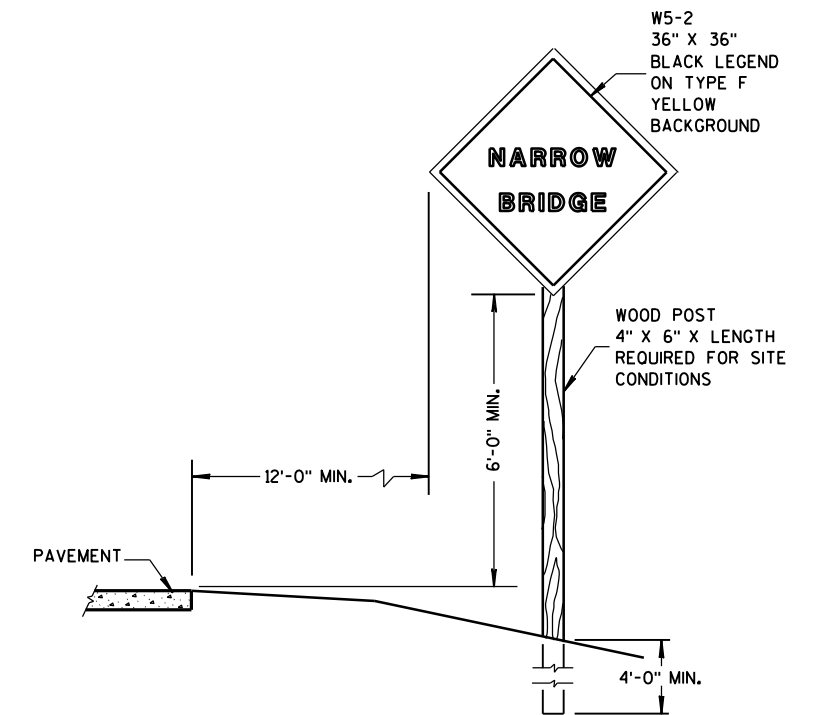
### OBJECT MARKER PLACEMENT

### GENERAL NOTES

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

PAVEMENT MARKING SHOWN ON THIS DRAWING IS NOT REQUIRED UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. WHEN SPECIFIED, PAVEMENT MARKING SHALL CONFORM TO THIS DRAWING AND OTHER CONTRACT REQUIREMENTS.

- ① MINIMUM DISTANCE UNLESS OTHERWISE SHOWN ON THE PLAN.
- ② FACE OF OBJECT MARKERS W5-52R, AND W5-52L SHALL BE COVERED WITH TYPE F REFLECTIVE SHEETING.
- ③ LOCATE OBJECT MARKER POST(S) BEHIND GUARDRAIL WHEN PRESENT.



### SIGN PLACEMENT

#### SIGNING & MARKING FOR TWO LANE BRIDGES

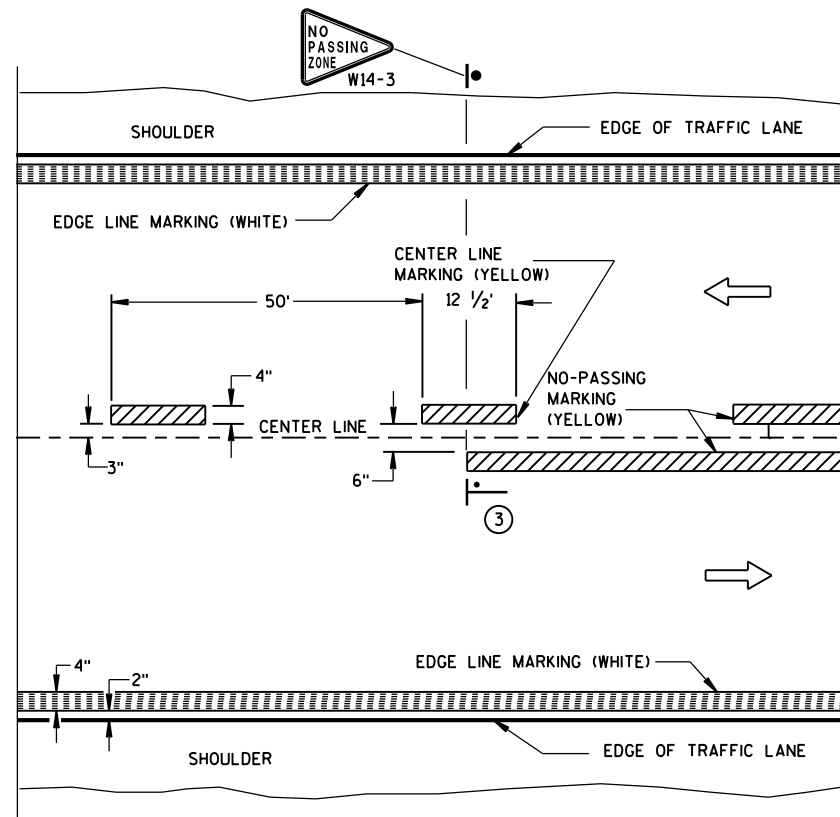
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

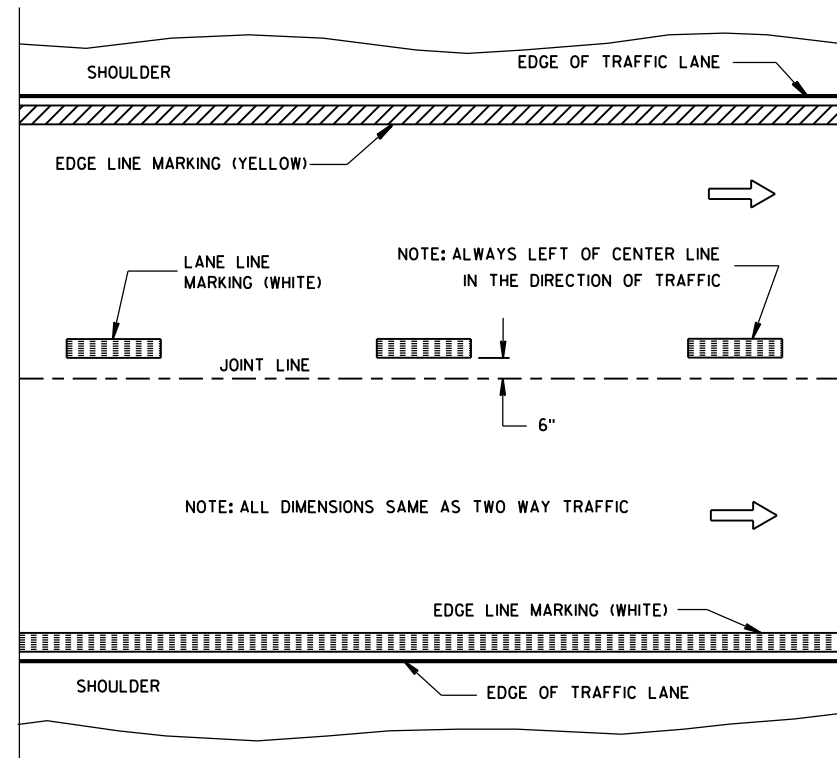
3-2014  
DATE

FHWA

/S/ Travis Fettes  
STATE TRAFFIC ENGINEER OF DESIGN

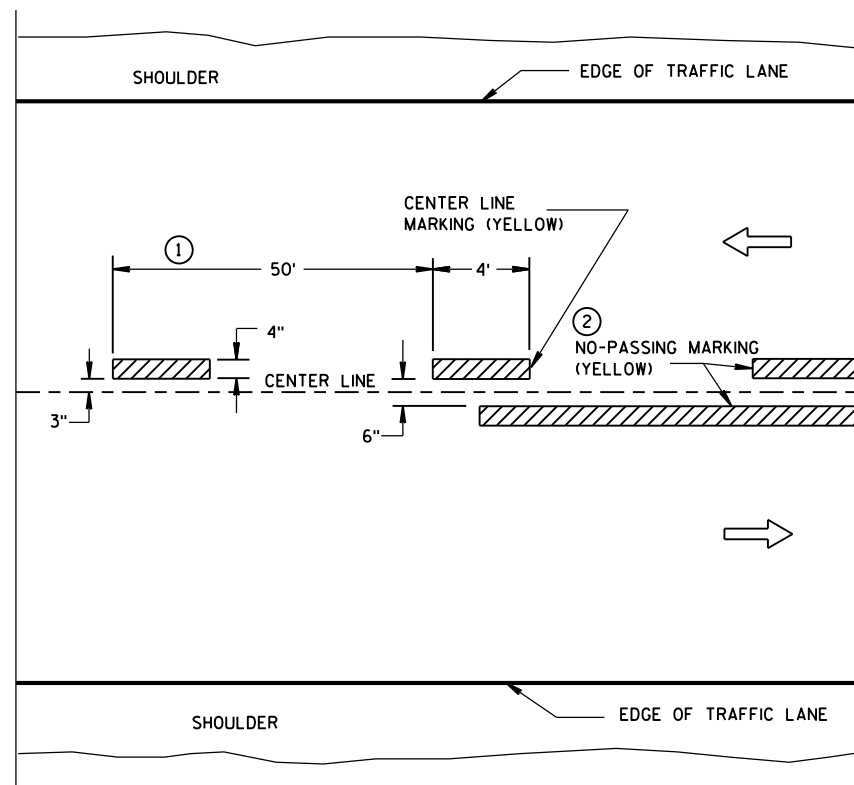


TWO WAY TRAFFIC

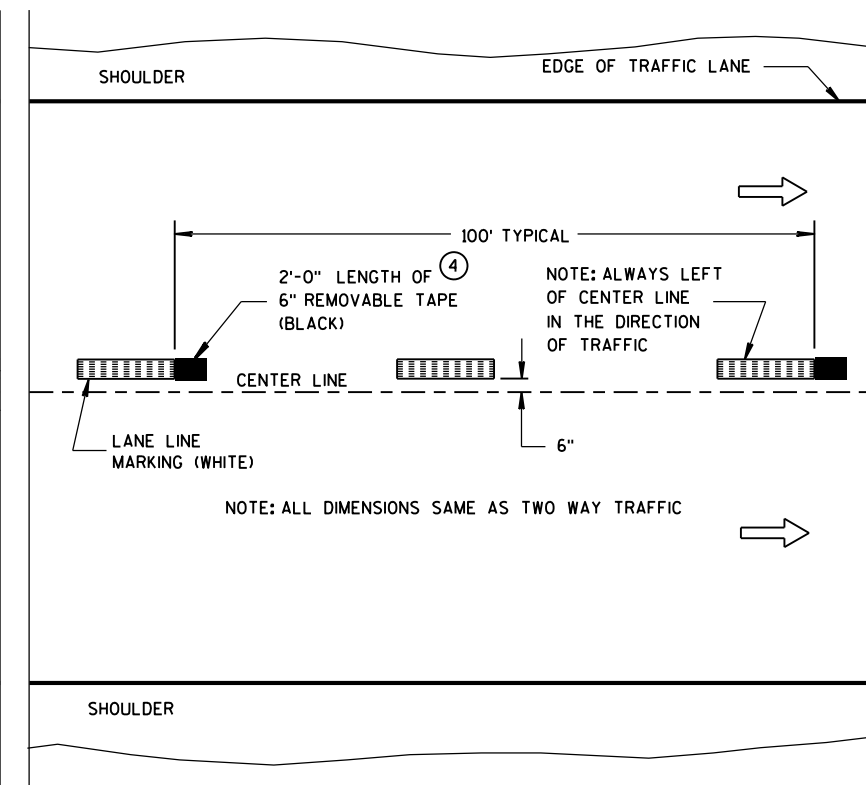


ONE WAY TRAFFIC

## PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING  
(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

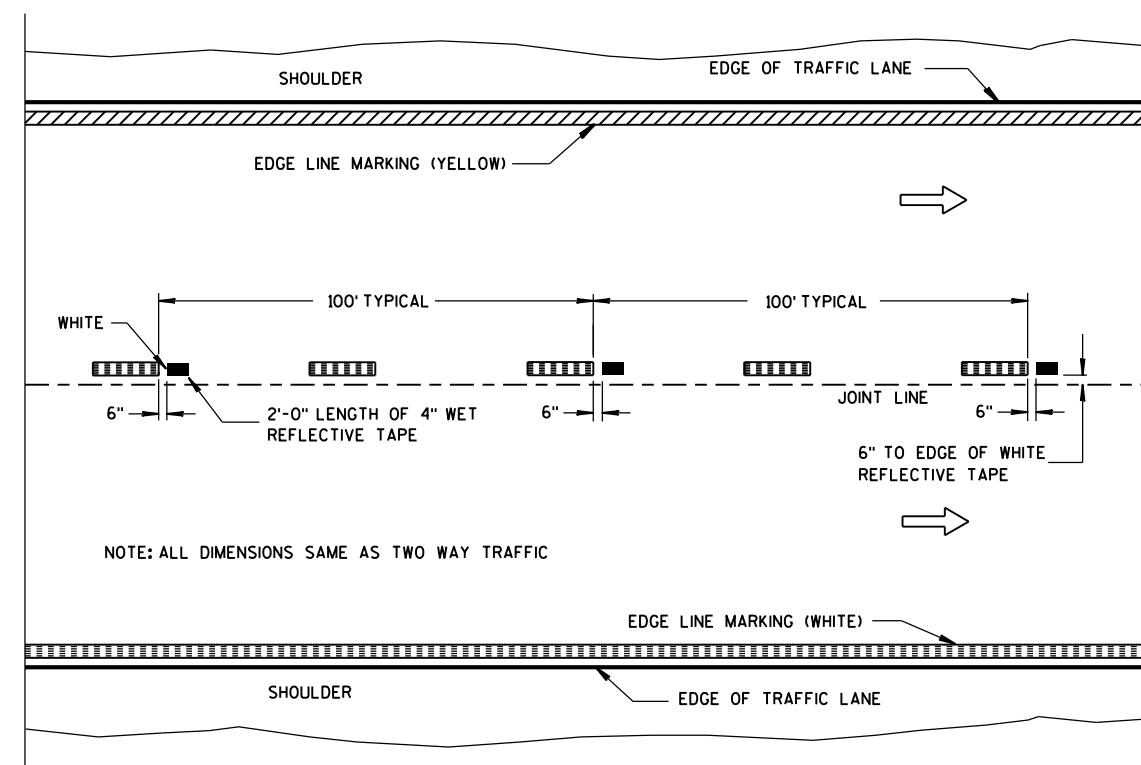
## GENERAL NOTES

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

- ① HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- ② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
- ③ NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
- ④ CONCRETE ONLY.

## NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO  
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

## LEGEND

- "T" MARKING
- POST MOUNTED SIGN





PAVEMENT MARKING  
(MAINLINE)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
5-13-2013  
DATE  
FHWA

/S/ Travis Feltes  
STATE TRAFFIC ENGINEER

LEGEND

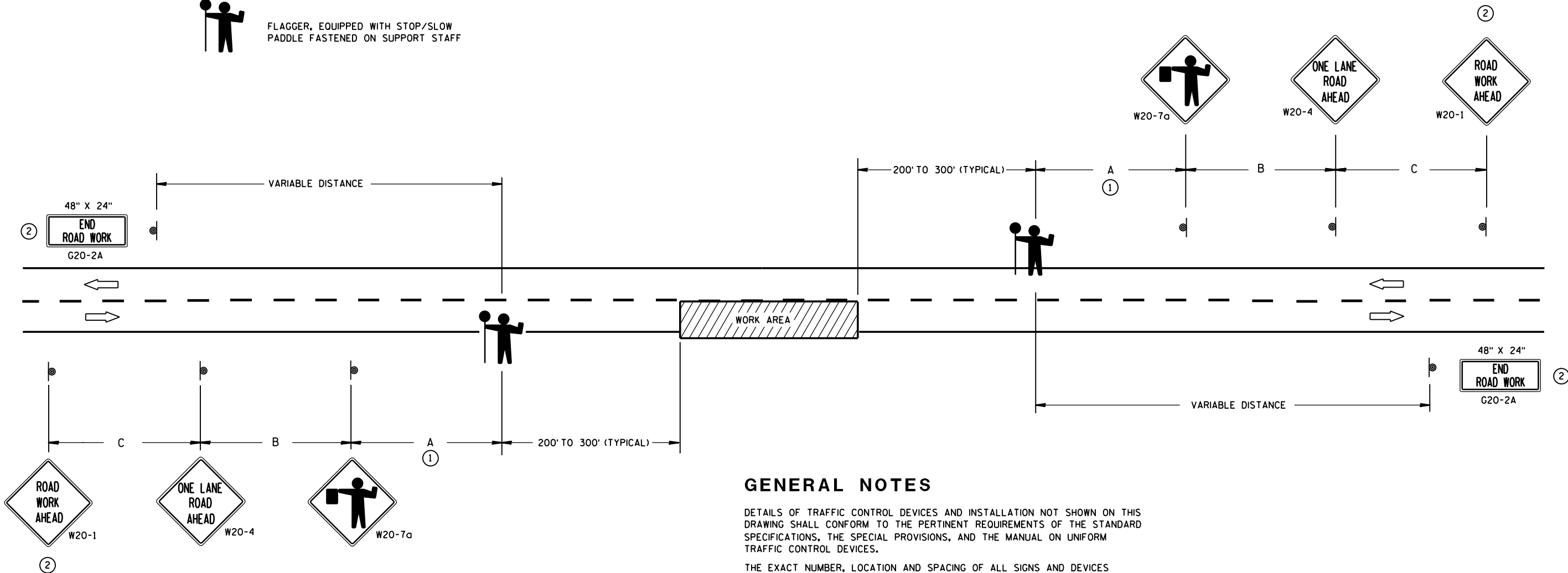
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



GENERAL NOTES

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

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

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

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

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

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
8/2013 /S/ Travis Feltes  
DATE STATE TRAFFIC ENGINEER OF DESIGN  
FHWA

LEGEND

- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH ATTACHED SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- FLAGS, 16" x 16" MIN., (ORANGE)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- ASPHALTIC PAVEMENT WIDENING
- DIRECTION OF TRAFFIC
- 4" X 6" WOOD POST
- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES ON BREAKAWAY POLE

INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1-FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET.)

GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

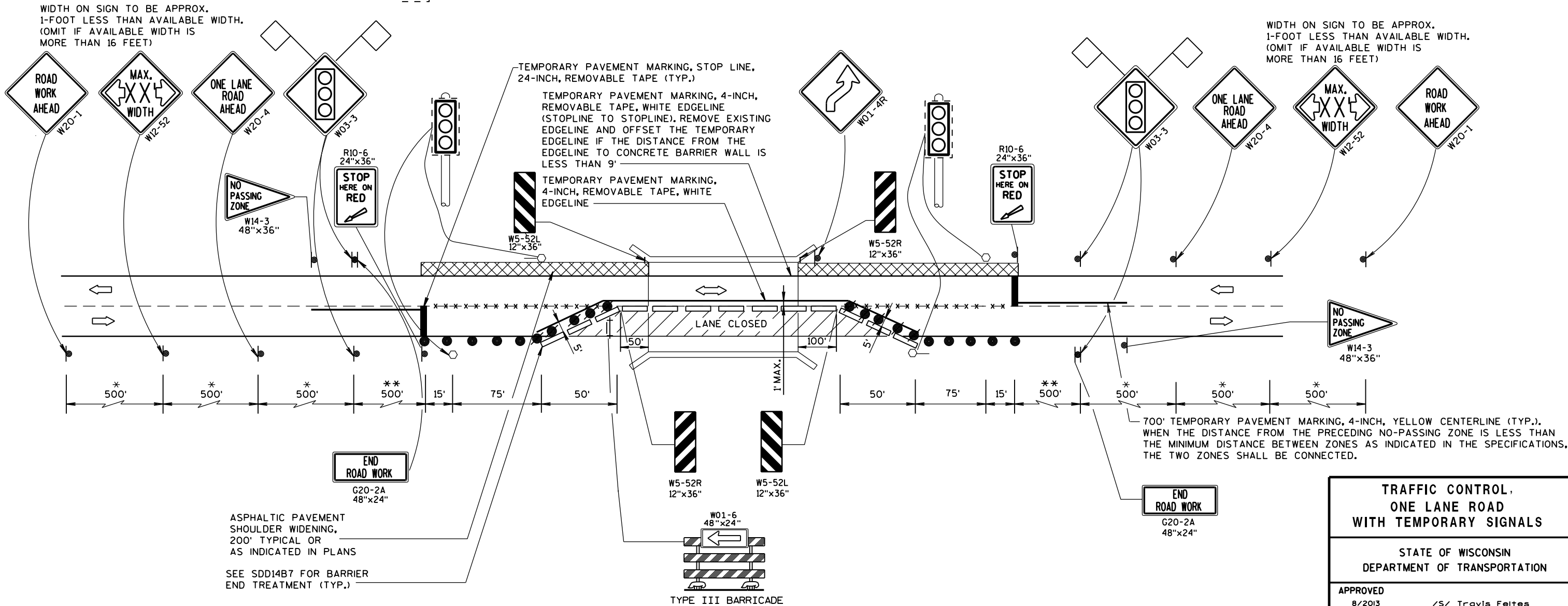
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

PLACE TEMPORARY PAVEMENT MARKING EDGELINE AND CENTERLINE, AND REMOVE EXISTING PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS OR AS NOTED ON DETAIL.

\* 500-FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350-FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200-FOOT TYPICAL SPACING.

\*\* USE 300' SPACING IF PRE-CONSTRUCTION REGULATORY SPEED LIMIT IS 35 MPH OR LESS.

6



6

TRAFFIC CONTROL,  
ONE LANE ROAD  
WITH TEMPORARY SIGNALS


STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
8/2013  
DATE  
/S/ Travis Feltes  
STATE TRAFFIC ENGINEER OF DESIGN  
FHWA



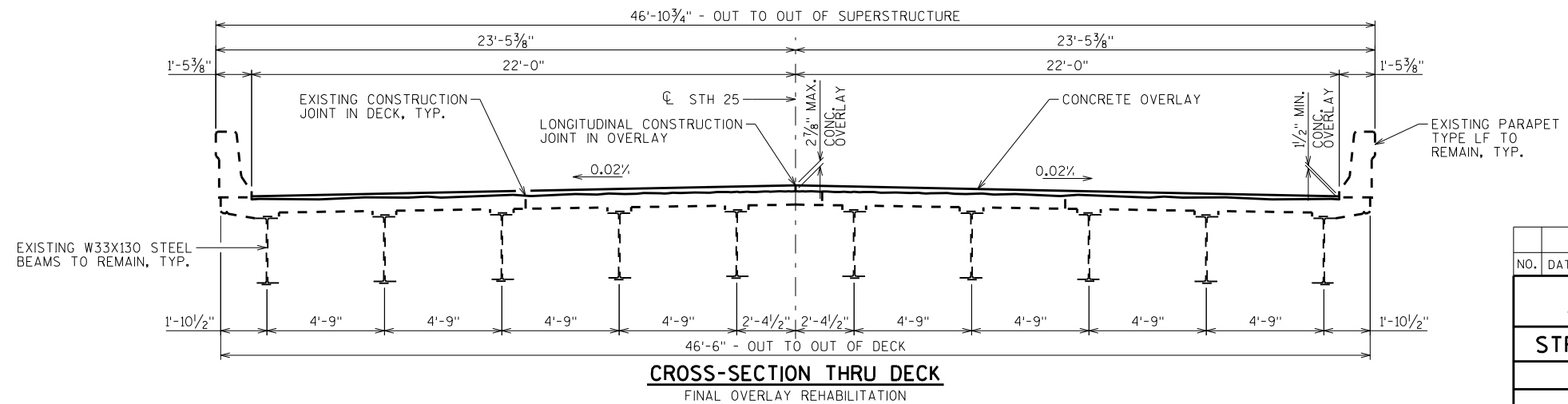
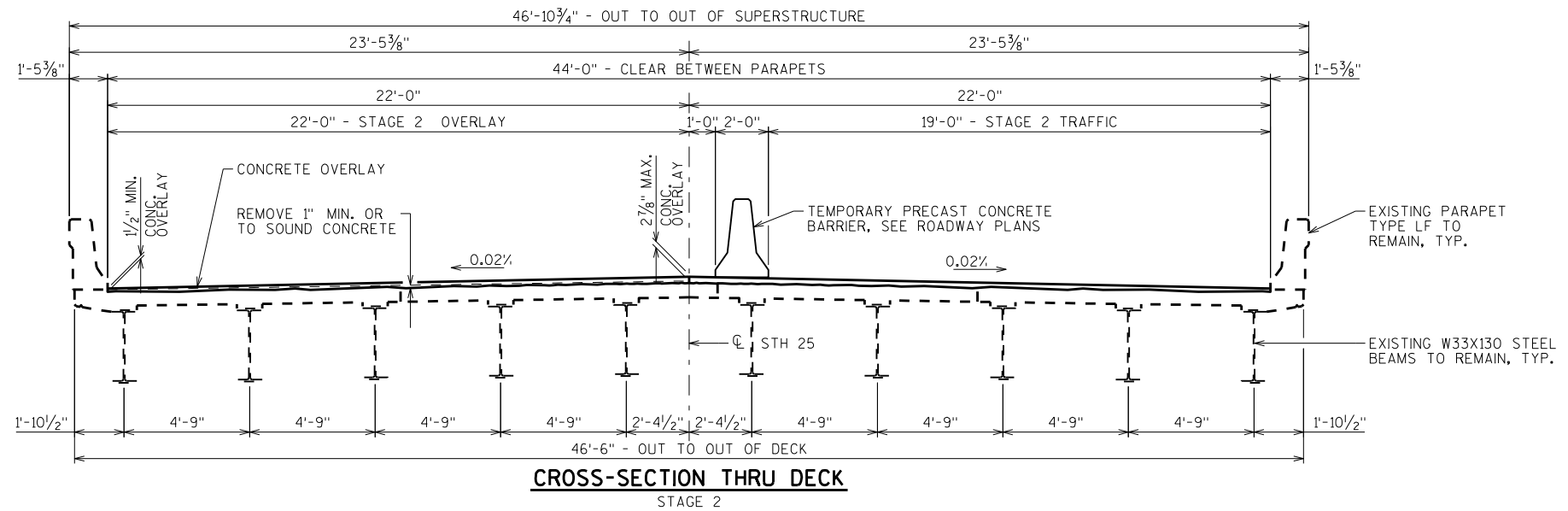
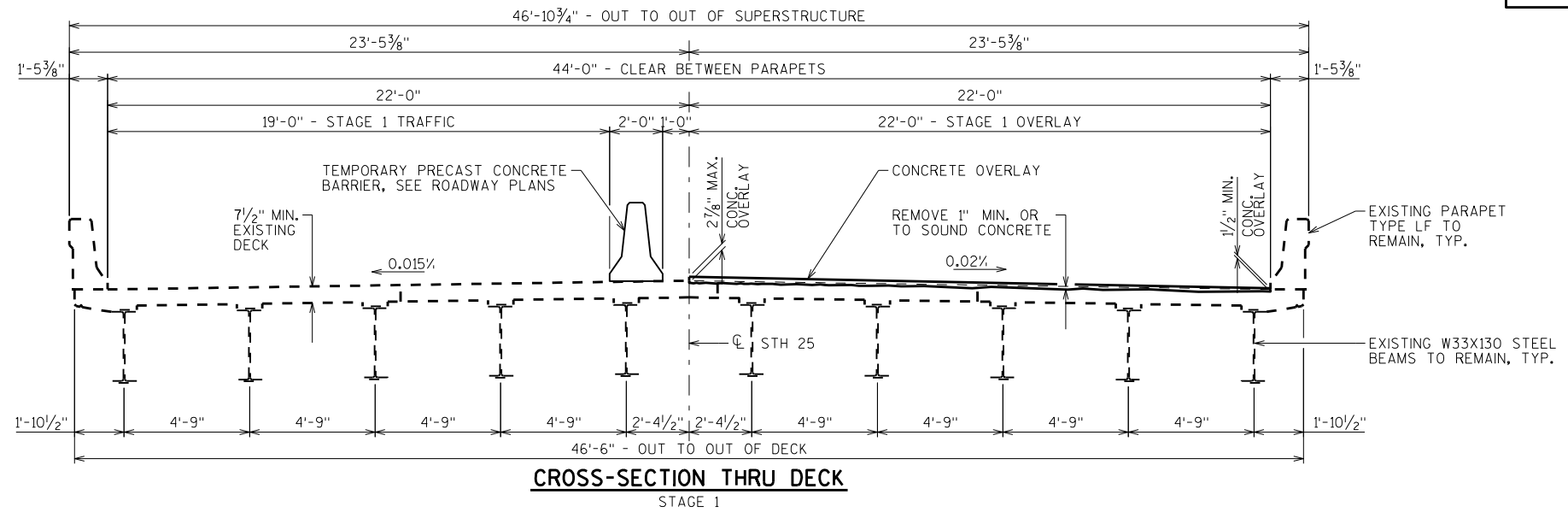
NO.	STATION	DESCRIPTION	ELEV.
	74+97 RT	DOT MONUMENT - TOP OF SE WING	680.84

■ BID ITEM INCLUDES THE CONCRETE QUANTITY FOR EACH JOINT REPAIR.  
 ☆ BID ITEM INCLUDES CONCRETE FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, FULL-DEPTH DECK REPAIR, AND OVERLAY  
 ▲ BID ITEM INCLUDES AN AVERAGE CONCRETE OVERLAY THICKNESS OF 2 1/4".

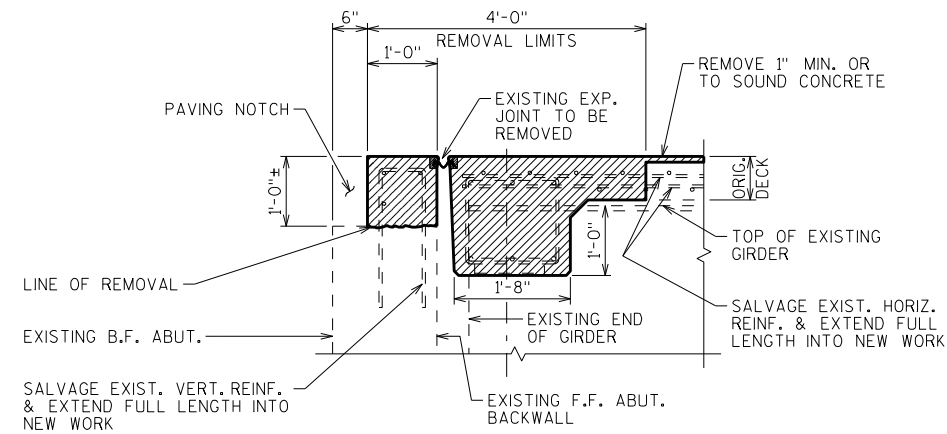
NO.	DATE	REVISION	BY
 <div style="display: inline-block; vertical-align: middle;"> <p>Plans Prepared By</p> <p><b>WISDOT</b></p> <p><b>BUREAU OF STRUCTURES</b></p> </div> <div style="display: inline-block; vertical-align: middle; font-size: 48px; font-weight: bold; margin-left: 10px;">8</div>			
ACCEPTED	<i>William C. Dehn</i> <small>DIR.</small> CHIEF STRUCTURES DESIGN ENGINEER		5/2/13 DATE
<h2>STRUCTURE B-06-20</h2>			
STH 517 OVER MISSISSIPPI RIVER SLOUGH			
COUNTY		TOWN/CITY/VILLAGE	
BUFFALO		NELSON	
DESIGN SPEC.			
REHABILITATION N/A			
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
AMB	EMK	AMB	EMK
<h1>CONCRETE OVERLAY</h1>		SHEET 1 OF 9	

SCALE = 18'-0"

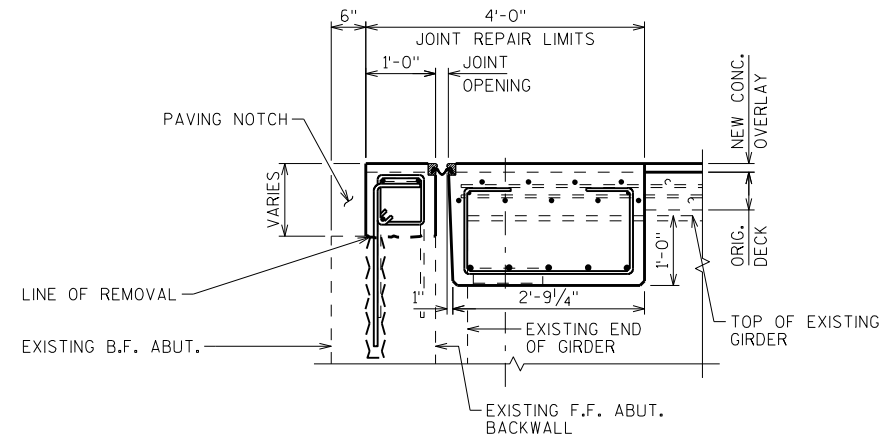




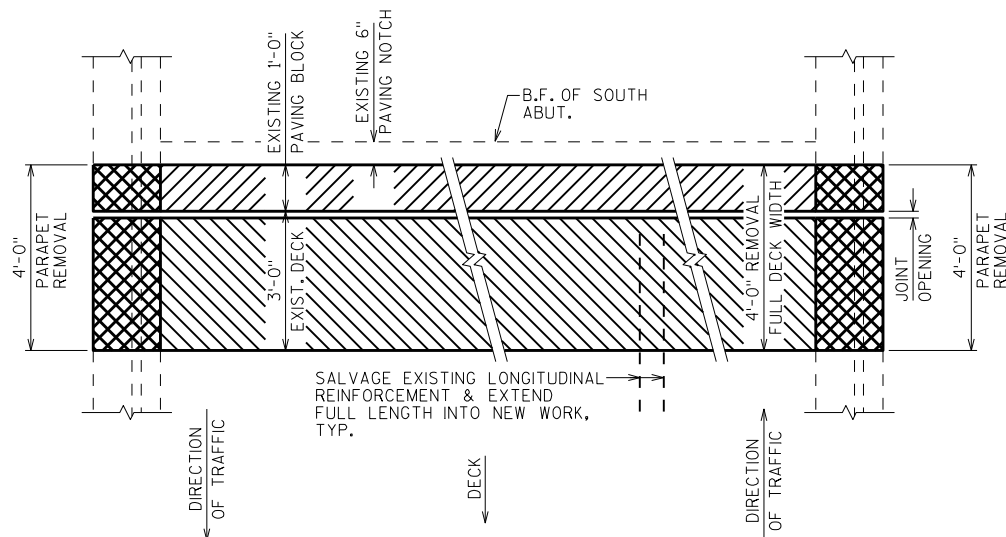
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-06-20			
DRAWN BY		AMB	PLANS CK'D. <b>EMK</b>
STAGING DETAILS		SHEET 2	

**EXISTING SECTION @ ABUTS.**

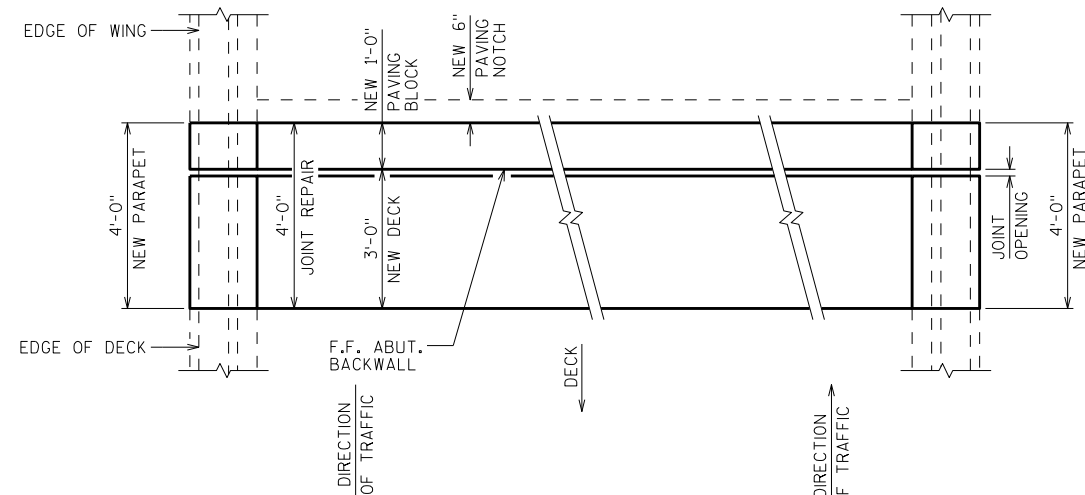
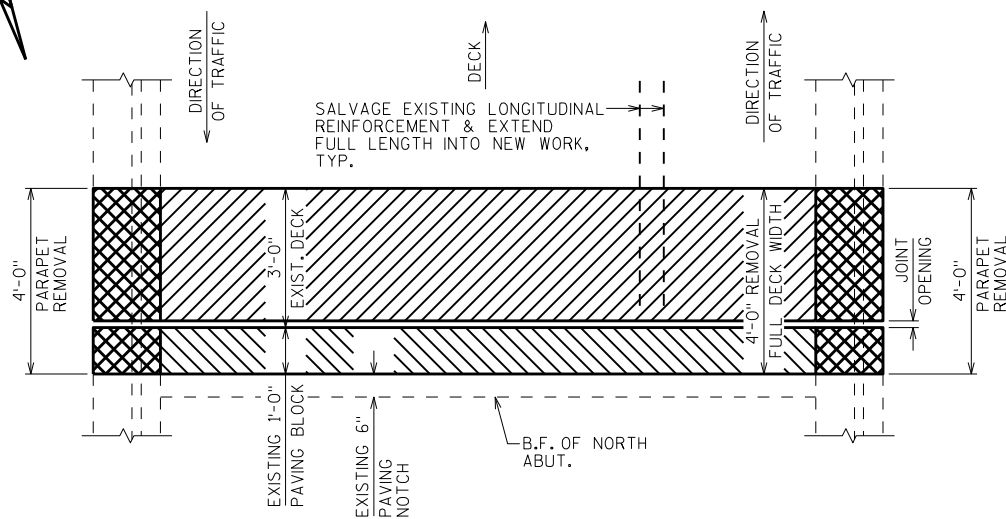
SHOWING REMOVAL (TYP. BOTH ABUTMENTS)

**PROPOSED SECTION @ ABUTS.**

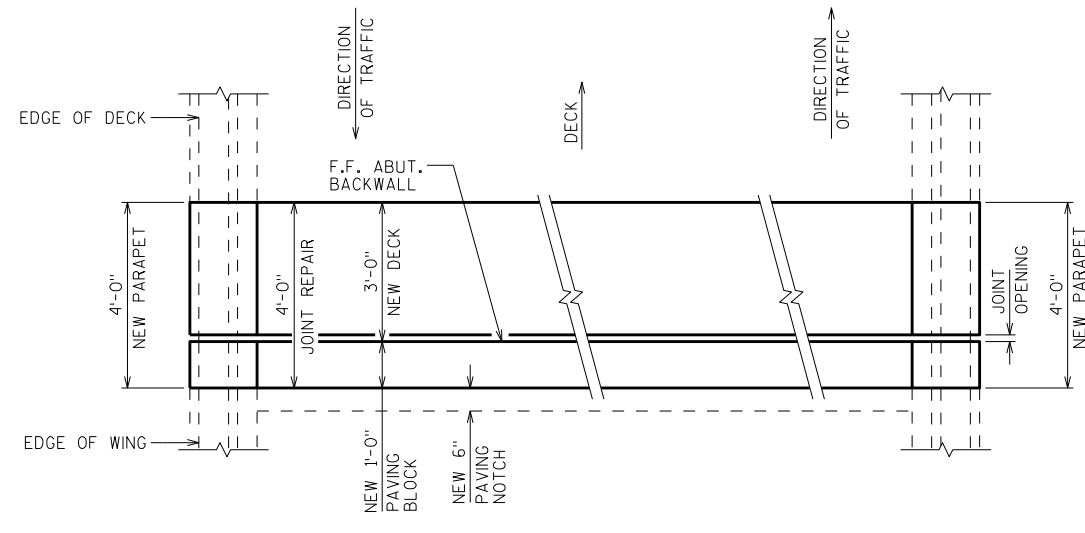
(TYP. BOTH ABUTMENTS)

**PLAN - SOUTH ABUTMENT**

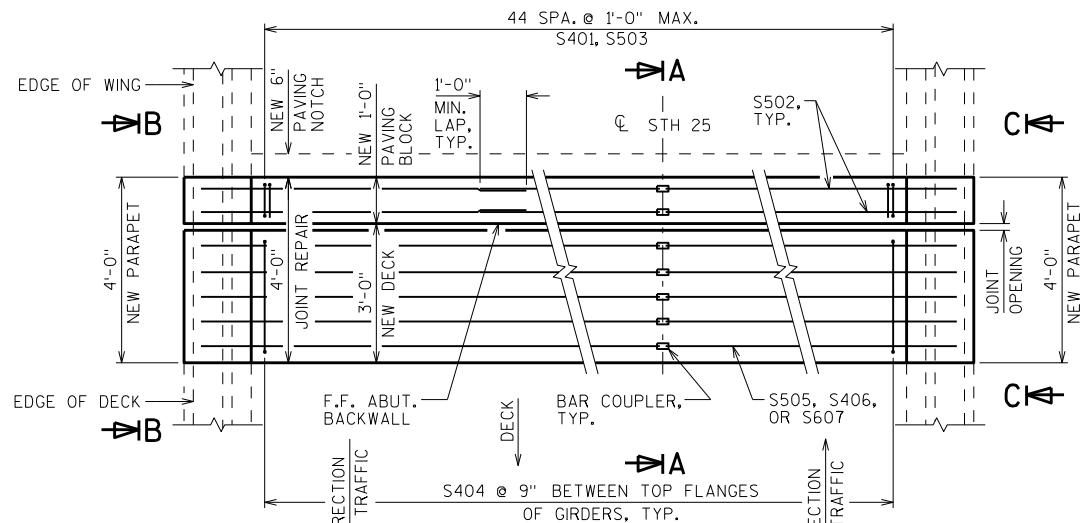
SHOWING REMOVAL

**PLAN - SOUTH ABUTMENT****PLAN - NORTH ABUTMENT**

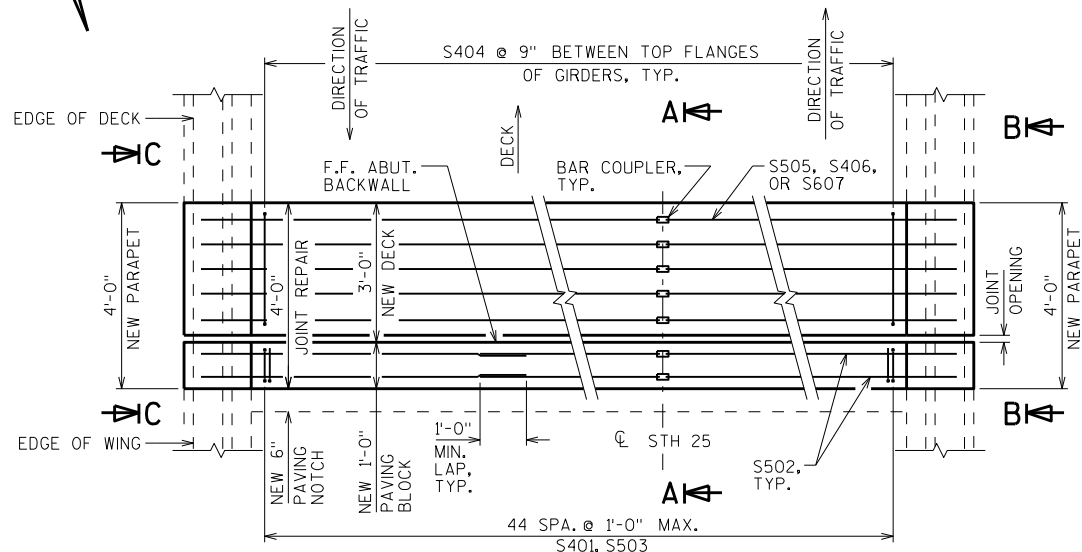
SHOWING REMOVAL

**PLAN - NORTH ABUTMENT**

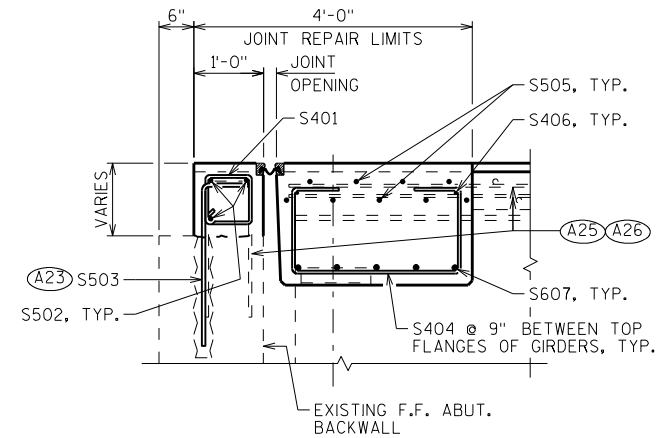
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-06-20			
DRAWN BY		AMB	PLANS CK'D. <b>EMK</b>
ABUTMENT DETAILS		SHEET 3	



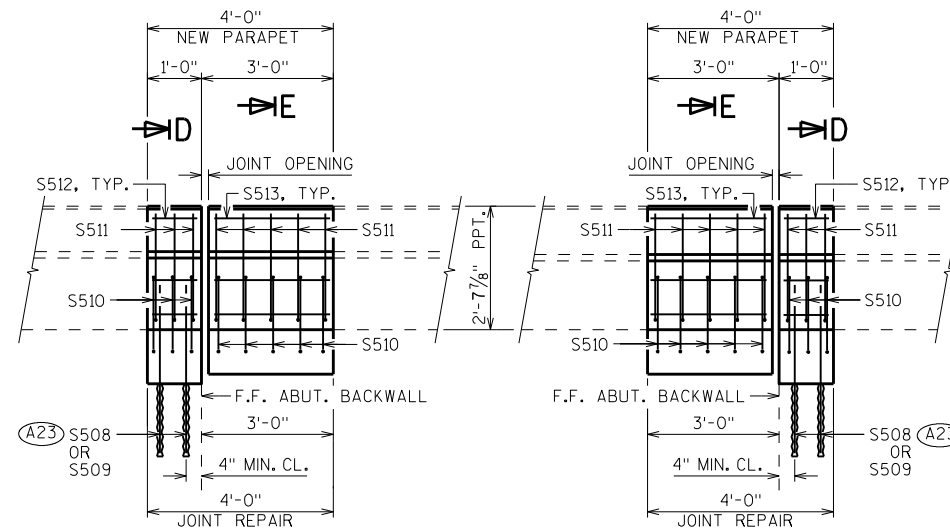
PLAN - SOUTH ABUTMENT



PLAN - NORTH ABUTMENT



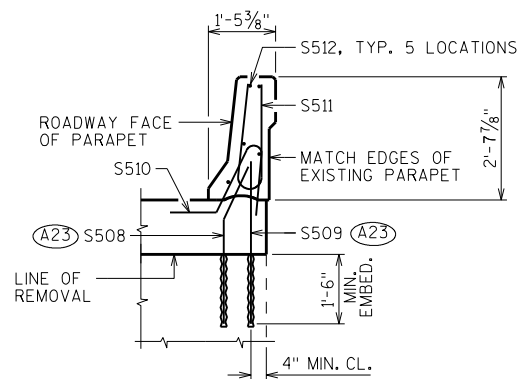
SECTION A-A



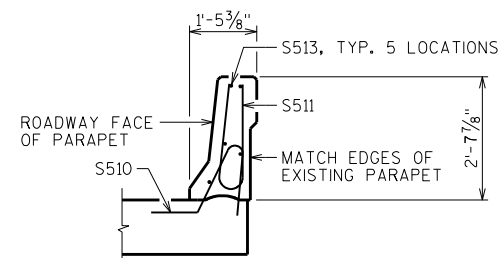
SECTION B-B

SE WING (LOOKING WEST)  
NW WING (LOOKING EAST)

SECTION C-C

SW WING (LOOKING EAST)  
NE WING (LOOKING WEST)

SECTION D-D



SECTION E-E

NOTE:  
SALVAGE ALL EXISTING HORIZONTAL  
PARAPET REINFORCEMENT AND EXTEND  
FULL LENGTH INTO NEW WORK.

NOTE: SEE SHEET 5 FOR BILL OF  
BARS AND BAR DETAILS.

(A23) MASONRY ANCHORS TYPE L NO. 5 BARS,  
EMBED 1'-6" INTO EXIST. CONCRETE.  
EPOXY ANCHORED.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL  
LENGTH INTO NEW WORK.

(A26) IF EXISTING BARS ARE SEVERELY CORRODED  
OR DAMAGED DURING CONCRETE REMOVAL,  
REPLACE WITH EPOXY ANCHORED NO. 5 L-  
SHAPED BARS WITH A 10" HORIZ. LEG. EMBED  
7". WORK TO BE PAID UNDER BID ITEM  
"JOINT REPAIR".

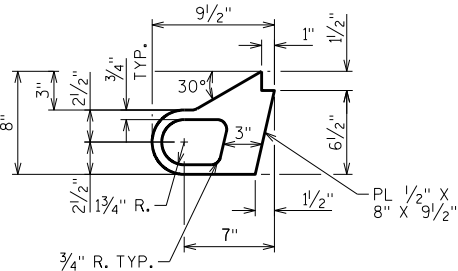
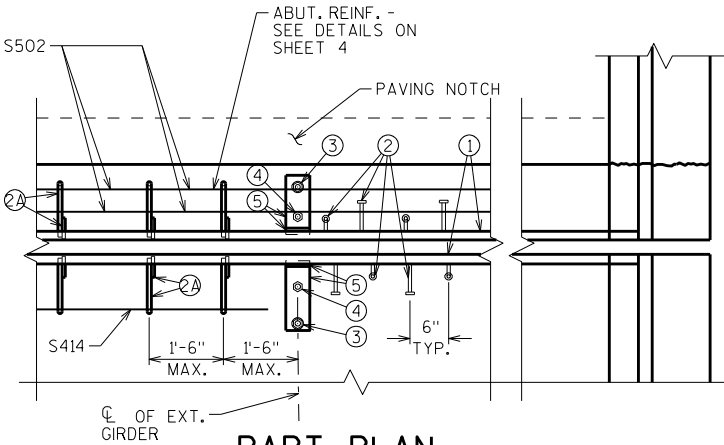
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-06-20			
DRAWN BY		AMB	PLANS CK'D. EMK
ABUTMENT DETAILS		SHEET 4	

BILL OF BARS

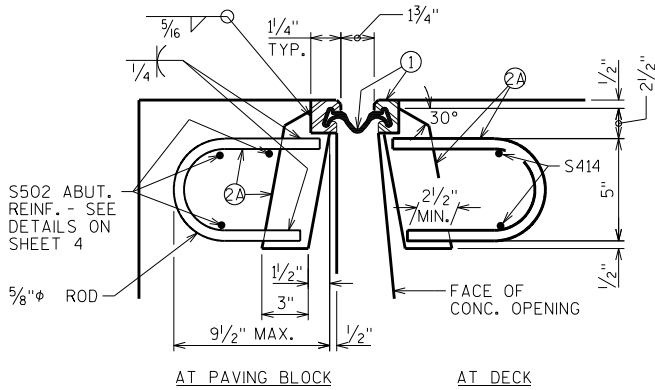
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	SERIES	LOCATION
S401	X	90	3'-3"	X		PAVING BLOCK - VERT.
S502	X	48	6'-9"			PAVING BLOCK - HORIZ.
S503	X	90	2'-9"	X		PAVING BLOCK ANCHORS - VERT.
S404	X	90	5'-9"	X		ABUT. JOINT REPAIR - VERT.
S505	X	36	23'-1"			ABUT. JOINT REPAIR - HORIZ.
S406	X	8	23'-1"			ABUT. JOINT REPAIR - HORIZ.
S607	X	90	4'-5"			ABUT. JOINT REPAIR - HORIZ.
S508	X	8	3'-6"	X		CONC. MASONRY ANCHORS - VERT.
S509	X	8	4'-0"			CONC. MASONRY ANCHORS - VERT.
S510	X	32	4'-2"	X		PPT. JOINT REPAIR - VERT.
S511	X	32	4'-10"	X		PPT. JOINT REPAIR - VERT.
S512	X	20	0'-8"			PPT. JOINT REPAIR - HORIZ.
S513	X	20	2'-6"			PPT. JOINT REPAIR - HORIZ.
S414	X	36	3'-9"			EXPANSION DEVICE - BETWEEN GIRDERS

NOTE:  
SALVAGE ALL EXISTING HORIZONTAL PARAPET REINFORCEMENT AND  
EXTEND FULL LENGTH INTO NEW WORK.

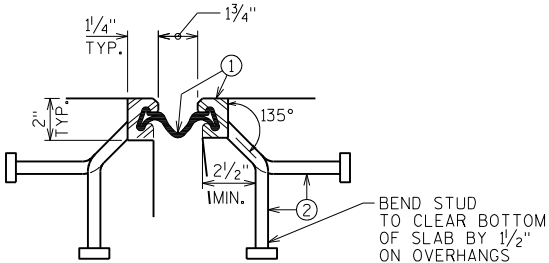


ALTERNATE STRIP  
SEAL ANCHORS



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS  
(INFORMATION SYM. ABOUT JOINT UNLESS  
OTHERWISE SHOWN OR NOTED)



SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK & AT PARAPETS

GENERAL NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS  
MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING,  
OR GALVANIZING REQUIREMENTS. 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.

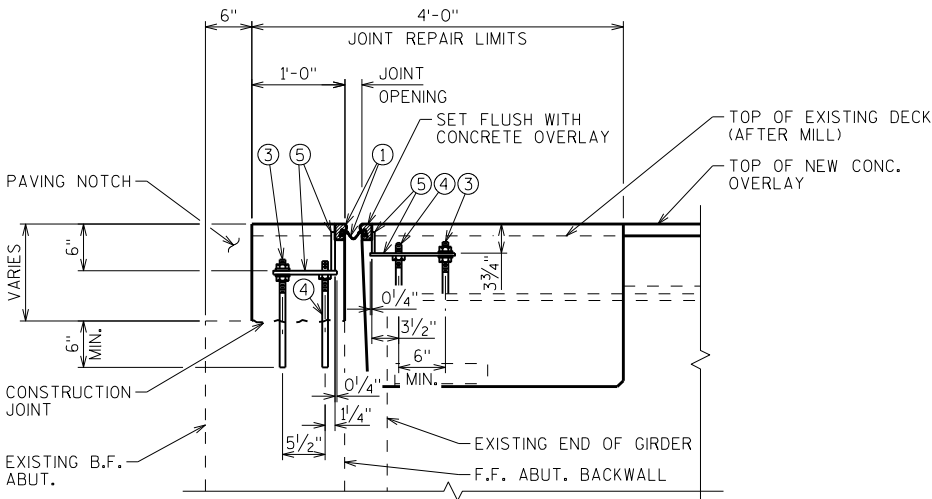
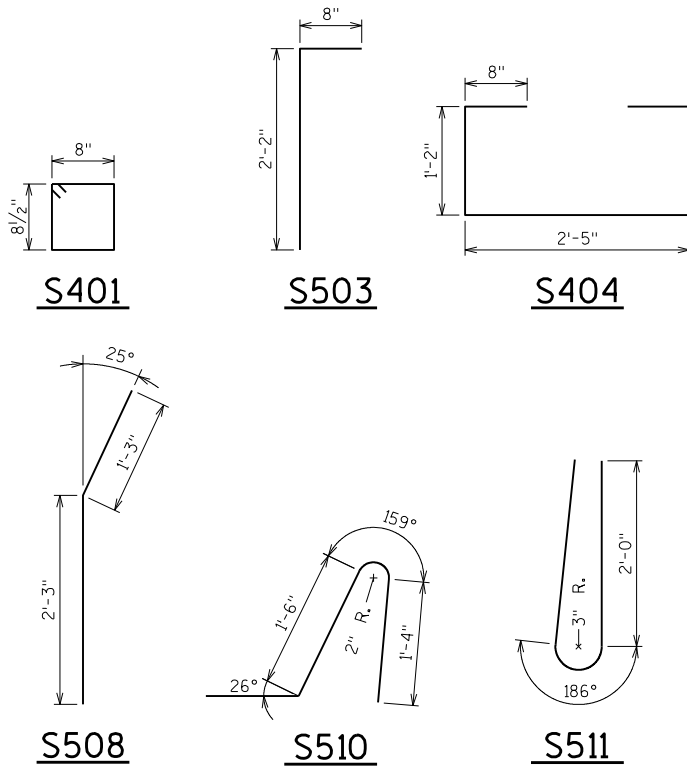
FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED  
EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO  
APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

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

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS &  
HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR  
"EXPANSION DEVICE B-06-20".

LEGEND

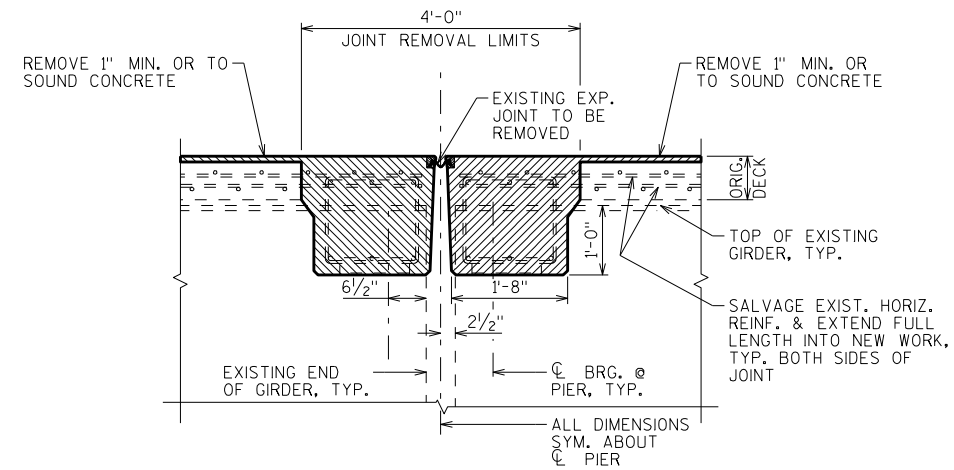
- NEOPRENE STRIP SEAL (4- INCH) & STEEL EXTRUSIONS.
- STUDS 5/8"φ X 6 3/8" LONG AT 6" ALTERNATE CENTERS.  
WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
- 1/2" THICK ANCHOR PLATE WITH 5/8"φ ROD (OR ALTERNATE  
STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD  
ANCHOR PLATE TO NO.1 AT 1'-6" CENTERS BETWEEN GIRDERS.
- 3/4"φ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD  
THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU  
FLANGE. ON ABUTMENT SIDE, GROUT THREADED ROD INTO FIELD  
DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
- 3/4"φ THREADED ROD WITH NUT. TACK WELD NUT TO NO.5.
- FABRICATE SUPPORT FROM 3" X 1/2" BAR AS SHOWN OR  
EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO  
NO.1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-  
COATING MATERIAL. PROVIDE 1/2"φ HOLE FOR NO.3 & 1"φ HOLE  
FOR NO.4.



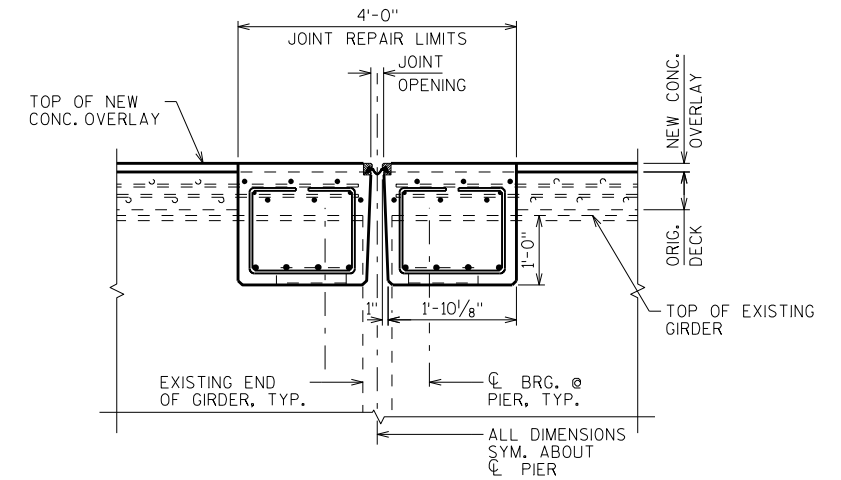
SECTION THRU JOINT AT ABUTMENT

NORMAL TO CL SUBSTRUCTURE

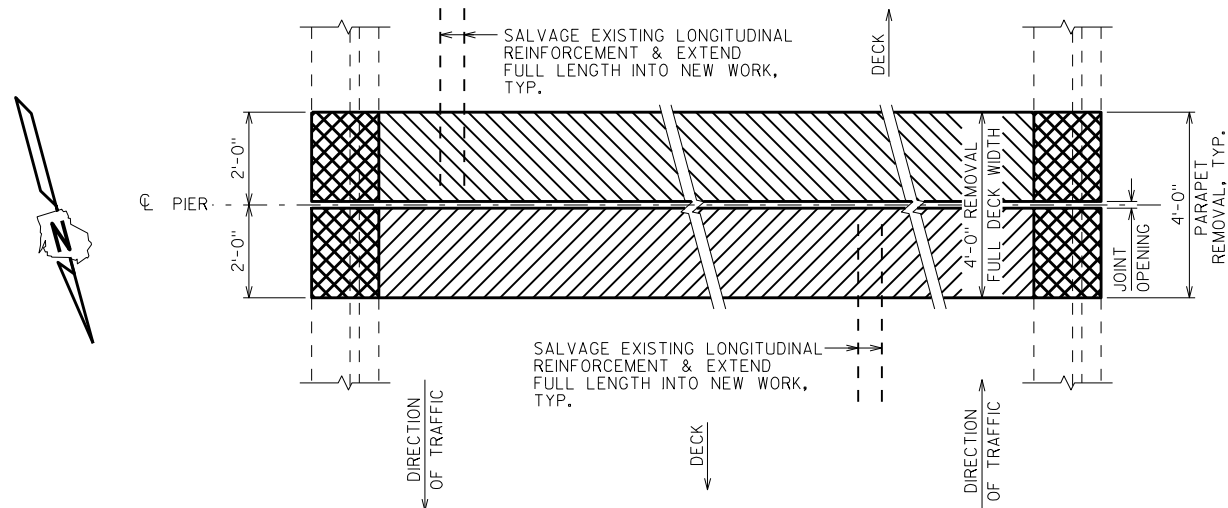
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-06-20			
DRAWN BY		AMB	PLANS CK'D. EMK
ABUT. EXPANSION JOINT DETAILS		SHEET 5	

**EXISTING SECTION @ PIERS**

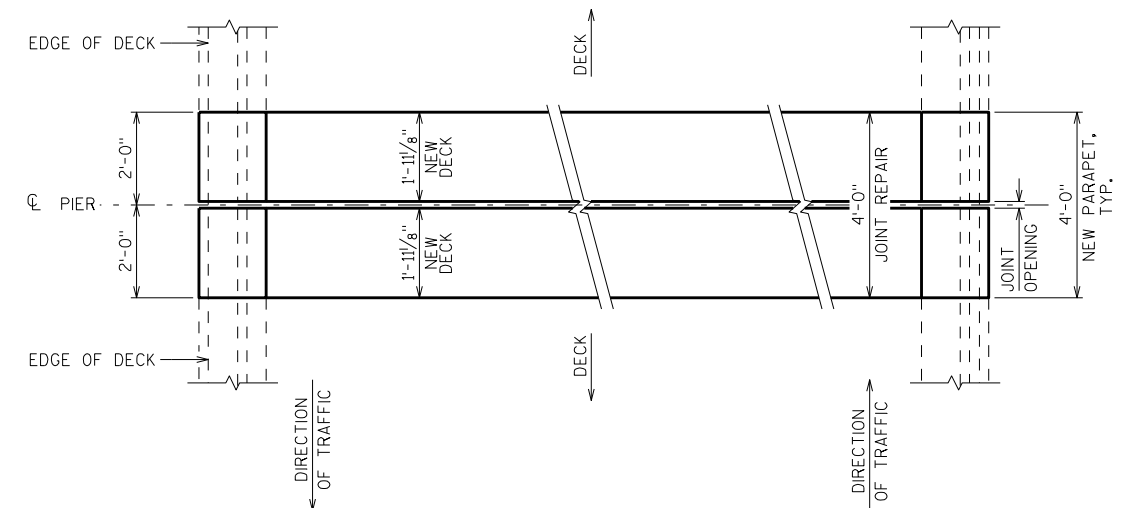
SHOWING REMOVAL (TYP. ALL PIERS)

**PROPOSED SECTION @ PIERS**

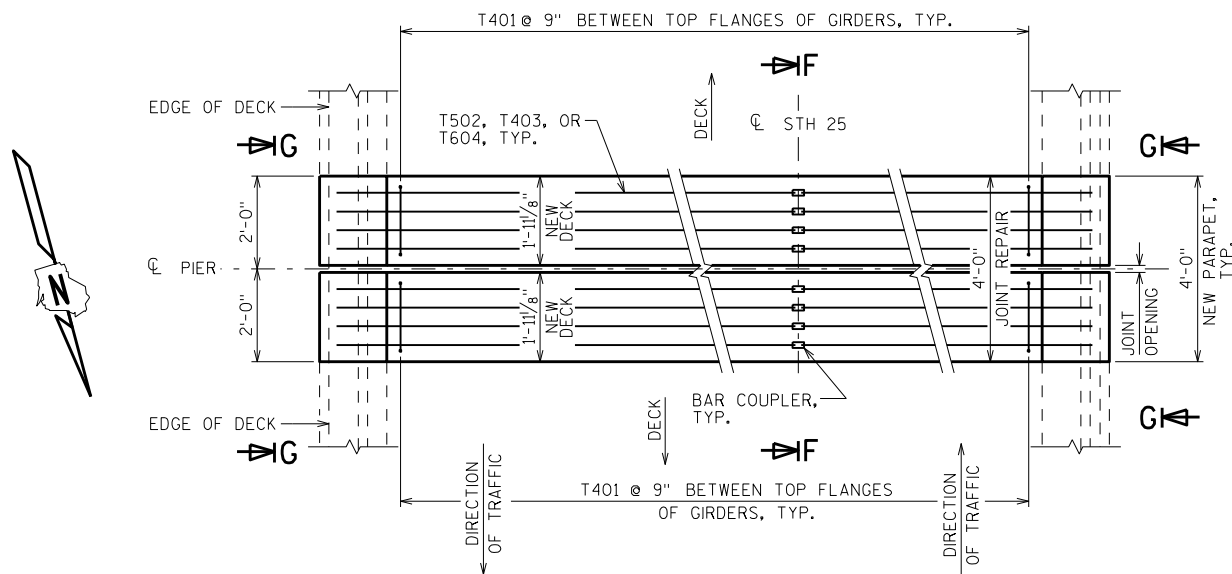
(TYP. ALL PIERS)

**PLAN - PIERS 1-5**

SHOWING REMOVAL

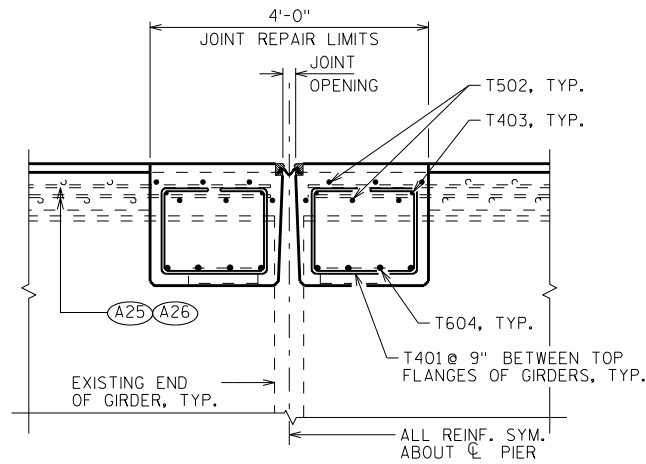
**PLAN - PIERS 1-5**

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-06-20			
DRAWN BY		AMB	PLANS CK'D. <b>EMK</b>
PIER DETAILS		SHEET 6	



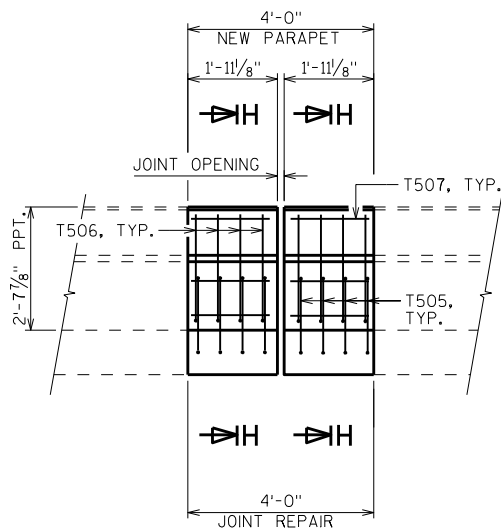
PLAN - PIERS 1-5

(TYP. ALL PIERS)

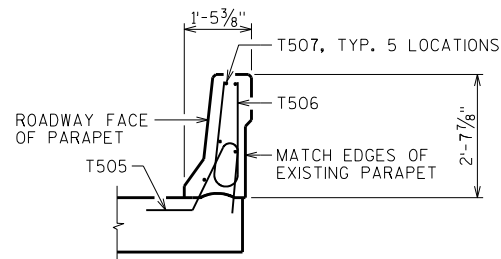


SECTION F-F

(TYP. ALL PIERS)



SECTION G-G

WEST PPT. (LOOKING EAST)  
EAST PPT. (LOOKING WEST)

SECTION H-H

NOTE:  
SALVAGE ALL EXISTING HORIZONTAL  
PARAPET REINFORCEMENT AND EXTEND  
FULL LENGTH INTO NEW WORK.

NOTE: SEE SHEET 8 FOR BILL OF  
BARS AND BAR DETAILS.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL  
LENGTH INTO NEW WORK.

(A26) IF EXISTING BARS ARE SEVERELY CORRODED  
OR DAMAGED DURING CONCRETE REMOVAL,  
REPLACE WITH EPOXY ANCHORED NO. 5 L-  
SHAPED BARS WITH A 10" HORIZ. LEG. EMBED  
7". WORK TO BE PAID UNDER BID ITEM  
"JOINT REPAIR".

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-06-20			
DRAWN BY		AMB	PLANS CK'D. <b>EMK</b>
PIER DETAILS		SHEET 7	

[illegible]

## BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	SERIES	LOCATION
T401	X	450	4'-10"	X		PIER JOINT REPAIR - VERT.
T502	X	120	23'-1"			PIER JOINT REPAIR - HORIZ.
T403	X	40	23'-1"			PIER JOINT REPAIR - HORIZ.
T604	X	360	4'-5"			PIER JOINT REPAIR - HORIZ.
T505	X	80	4'-2"	X		PPT. JOINT REPAIR - VERT.
T506	X	80	4'-10"	X		PPT. JOINT REPAIR - VERT.
T507	X	100	1'- 7"			PPT. JOINT REPAIR - HORIZ.
T408	X	180	3'-9"			EXPANSION DEVICE - BETWEEN GIRDERS

NOTE:  
SALVAGE ALL EXISTING HORIZONTAL PARAPET REINFORCEMENT AND  
EXTEND FULL LENGTH INTO NEW WORK.

Technical drawing showing two views of a T408 rod end fitting.

**Left View (Side Profile):**

- Hole Diameter:  $\frac{5}{16}$ "
- Offset:  $\frac{1}{4}$ "
- Typical Length:  $1\frac{1}{4}$ " TYP.
- Total Length:  $1\frac{3}{4}$ "
- Height:  $1\frac{1}{2}$ "
- Maximum Width:  $9\frac{1}{2}$ " MAX.
- Base Width:  $3"$
- Rod Diameter:  $\frac{1}{2}"$

**Right View (Top-Down Perspective of Concave Opening):**

- Angle:  $30^\circ$
- Minimum Radius:  $2\frac{1}{2}"$  MIN.
- Depth:  $5"$
- Height:  $1\frac{1}{2}"$
- Width:  $2\frac{1}{2}"$
- Label: FACE OF CONC. OPENING

Labels include: T408, ROD, AT DECK.

SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS  
(INFORMATION SYM. ABOUT JOINT UNLESS  
OTHERWISE SHOWN OR NOTED)

SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK & AT PARAPETS

## GENERAL NOTES

ONE FIELD SPlice PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING, OR GALVANIZING REQUIREMENTS. 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, SUPPORTS & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS &  
HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR  
"EXPANSION DEVICE B-06-20".

## LEGEND

- ① NEOPRENE STRIP SEAL (4- INCH) & STEEL EXTRUSIONS.
- ② STUDS  $\frac{3}{8}" \phi \times 6\frac{3}{4}"$  LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
- ②A  $\frac{1}{2}"$  THICK ANCHOR PLATE WITH  $\frac{3}{8}" \phi$  ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO.1 AT 1'-6" CENTERS BETWEEN GIRDS.
- ③  $\frac{3}{4}" \phi$  THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE.
- ④  $\frac{3}{4}" \phi$  THREADED ROD WITH NUT. TACK WELD NUT TO NO.5.
- ⑤ FABRICATE SUPPORT FROM 3" X  $\frac{1}{2}"$  BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO.1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE  $\frac{1}{2}" \phi$  HOLE FOR NO.3 & 1" HOLE FOR NO.4.

4'-0"

JOINT REPAIR LIMITS

SET FLUSH WITH CONCRETE OVERLAY

TOP OF EXISTING DECK (AFTER MILL)

TOP OF NEW CONC. OVERLAY

1

2

3

4

5

0 1/4"

3 1/2"

6" MIN.

3 3/4"

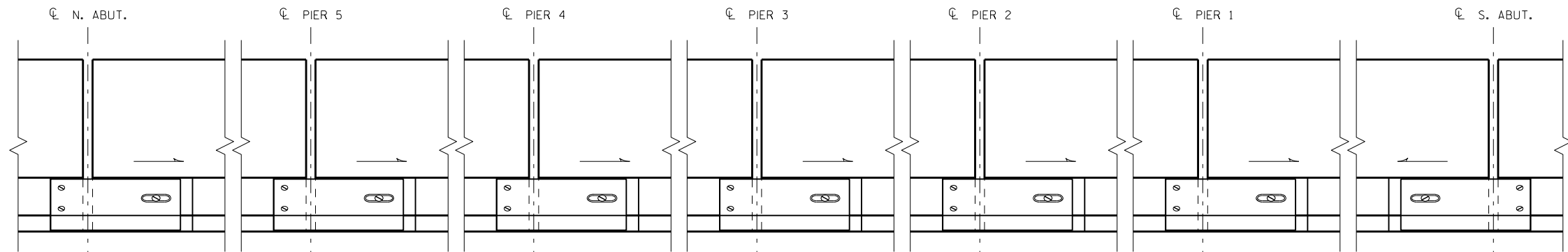
NEW DIAPHRAGM, SEE SHEET 7 FOR REINF. DETAILS

EXISTING END OF GIRDER

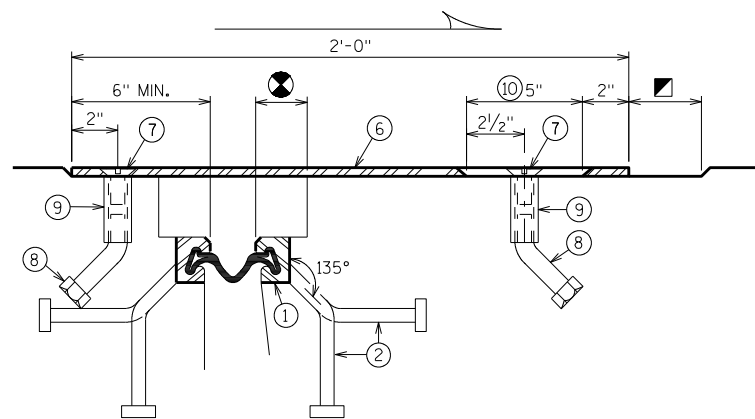
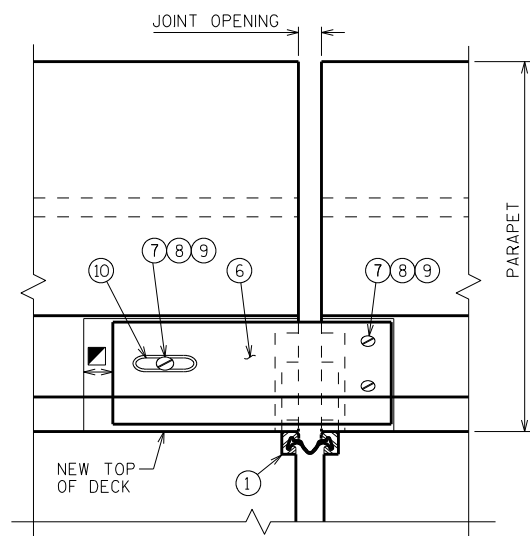
SECTION THRU JOINT AT PIER

NORMAL TO  $\mathbb{Q}$  SUBSTRUCTURE

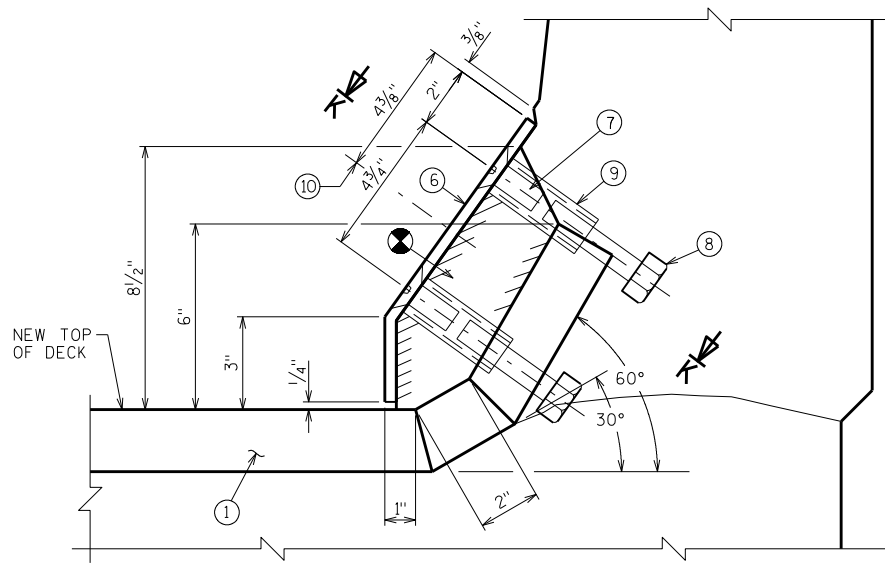
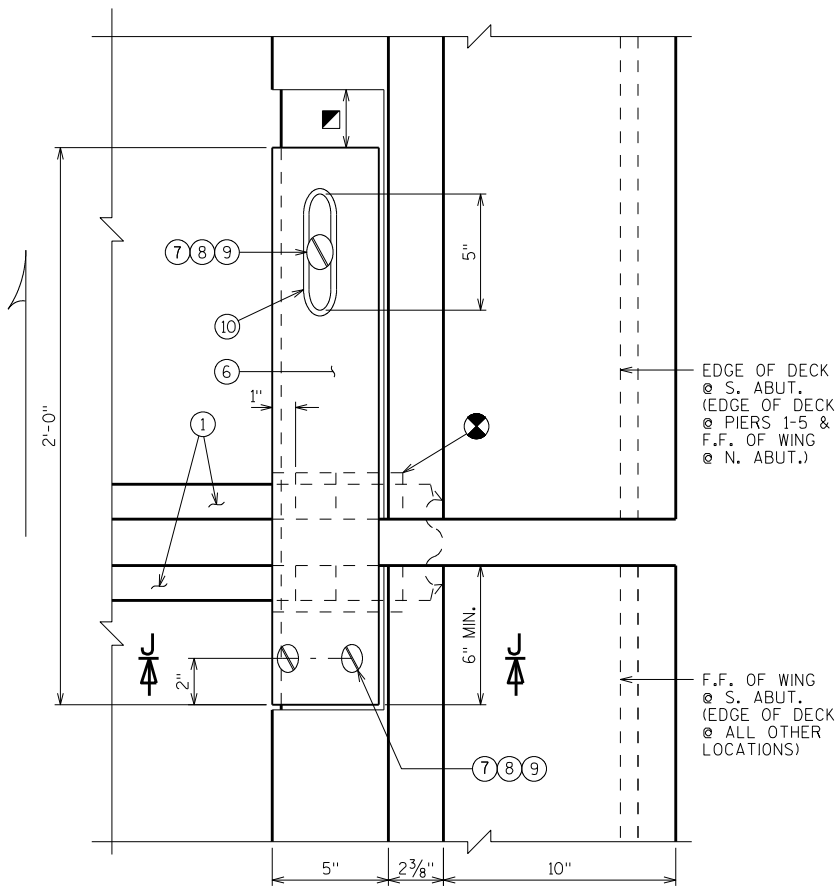


**ELEVATION**

EAST PARAPET SHOWN FROM ROADWAY.  
WEST PARAPET TO BE MIRRORED.

**SECTION K-K****VIEW OF PARAPET PLATE  
FROM ROADWAY**

SOUTHEAST ABUTMENT LOCATION  
SHOWN. SEE PARAPET ELEVATION  
FOR OTHER LOCATIONS (DETAILS SIM.)

**SECTION J-J****PLAN**

SOUTHEAST ABUTMENT LOCATION  
SHOWN. SEE PARAPET ELEVATION  
FOR OTHER LOCATIONS (DETAILS SIM.)

**LEGEND**

- ① NEOPRENE STRIP SEAL (4- INCH) & STEEL EXTRUSIONS.
- ② STUDS  $\frac{5}{8}$ "  $\phi$  X  $6\frac{3}{8}$ " LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
- ⑥ GALVANIZED PLATE  $\frac{3}{8}$ " X LIMITS SHOWN IN DETAILS WITH HOLES FOR NO. 7, BEND AS SHOWN.
- ⑦  $\frac{3}{4}$ "  $\phi$  X  $1\frac{1}{2}$ " STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS  $\frac{1}{16}$ " BELOW PLATE SURFACE.
- ⑧  $\frac{3}{4}$ "  $\phi$  X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
- ⑨  $\frac{3}{4}$ "  $\phi$  X  $2\frac{1}{4}$ " GALVANIZED THREADED COUPLING.
- ⑩ 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

**GENERAL NOTES**

ONE FIELD SPICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING, OR GALVANIZING REQUIREMENTS. 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, SUPPORTS & 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 NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-06-20".

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

▣ JOINT OPENING DIM. ALONG SKEW PLUS  $\frac{1}{2}$ ".

NO.	DATE	REVISION	BY
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STRUCTURE B-06-20			
DRAWN BY		AMB	PLANS CK'D. <b>EMK</b>
COVER PLATE DETAILS		SHEET 9	



## Notes



## ***Wisconsin Department of Transportation***

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